

**Lincoln County
Forestry, Land and Parks Committee
Monday, January 6, 2020 at 9:00 a.m.
801 N. Sales Street, Conference Room 107**

AGENDA

1. Call meeting to order.
2. Approve minutes of December 17, 2019 meeting.
3. Review year to date budget report.
4. Comments from members of the public or invited guests.
5. Open and award land sale bids.
6. Open timber sale bids.
7. 2019 Timber Sale Revenue.
8. Review and approve draft chapters 700 and 800 of 15-year plan.
9. WDNR Report – Bill Groth.
10. Review Administrator’s written report.
11. Close timber sales.
12. Set next meeting date.
13. Adjourn meeting.

DISTRIBUTION:

Forestry, Land and Parks Committee
Members - William Bialecki (E), Kevin Koth (E), Corey Nowak (E), Frank Saal, Jr., Timothy Panfil

Administration Coordinator
Other County Board Supervisors
Department Heads

News Media - Notified on _____ at _____ m. by _____

Bulletin Boards:
Service Center - Posted on _____ at _____ m. by _____

**There may be a quorum of other Lincoln County committees present at this meeting.
Requests for reasonable accommodations for disabilities or limitations should be made prior to the date of this meeting. You may contact the County Clerk at 715-539-1019. Please do so as early as possible so that proper arrangements can be made. Requests are kept confidential.**

GENERAL REQUIREMENTS:

1. Must be held in a location which is reasonably accessible to the public.
2. Must be open to all members of the public unless the law specifically provides otherwise.

NOTICE REQUIREMENTS:

1. In addition to any requirements set forth below, notice must also be in compliance with any other specific statute.
2. Chief presiding officer or his/her designee must give notice to the official newspaper and to any members of the news media likely to give notice to the public.

MANNER OF NOTICE:

Date, time, place, and subject matter, including subject matter to be considered in a closed session, must be provided in a manner and form reasonably likely to give notice to the public.

TIME FOR NOTICE:

1. Normally, a minimum of 24 hours prior to the commencement of the meeting.
2. No less than 2 hours prior to the meeting if the presiding officer establishes there is a good cause that such notice is impossible or impractical.

EXEMPTIONS FOR COMMITTEES AND SUB-UNITS:

Legally constituted sub-units of a parent governmental body may conduct a meeting during the recess or immediately after the lawful meeting to act or deliberate upon a subject which was the subject of the meeting, provided the presiding officer publicly announces the time, place, and subject matter of the sub-unit meeting in advance of the meeting of the parent governmental body.

PROCEDURE FOR GOING INTO CLOSED SESSION:

1. Motion must be made, seconded, and carried by roll call majority vote and recorded in the minutes.
2. If motion is carried, chief presiding officer must advise those attending the meeting of the nature of the business to be conducted in the closed session, and the specific statutory exemption under which the closed session is authorized.

STATUTORY EXEMPTIONS UNDER WHICH CLOSED SESSIONS ARE PERMITTED:

1. Deliberation of judicial or quasi-judicial matters. Sec. 19.85(1)(a)
2. Considering dismissal, demotion, or discipline of any public employee or the investigation of charges against such person and the taking of formal action on any such matter; provided that the person is given actual notice of any evidentiary hearing which may be held prior to final action being taken and of any meeting at which final action is taken. The person under consideration must be advised of his/her right that the evidentiary hearing be held in open session and the notice of the meeting must state the same. Sec. 19.85(1)(b).
3. Considering employment, promotion, compensation, or performance evaluation data of any public employee. Sec. 19.85(1)(c).
4. Considering strategy for crime detection or prevention. Sec. 19.85(1)(d).
5. Deliberating or negotiating the purchase of public properties, the investing of public funds, or conducting other specified public business whenever competitive or bargaining reasons require a closed session. Sec. 19.85(1)(c).
6. Considering financial, medical, social, or personal histories or disciplinary data of specific persons, preliminary consideration of specific personnel problems or the investigation of specific charges, which, if discussed in public would likely have an adverse effect on the reputation of the person referred to in such data. Sec. 19.85(1)(f).
7. Conferring with legal counsel concerning strategy to be adopted by the governmental body with respect to litigation in which it is or is likely to become involved. Sec. 19.85(1)(g).
8. Considering a request for advice from any applicable ethics board. Sec. 19.85(1)(h).

CLOSED SESSION RESTRICTIONS:

1. Must convene in open session before going into closed session.
2. May not convene in open session, then convene in closed session and thereafter reconvene in open session within twelve (12) hours unless proper notice of this sequence was given at the same time and in the same manner as the original open meeting.
3. Final approval or ratification of a collective bargaining agreement may not be given in closed session.

BALLOTS, VOTES, AND RECORDS:

1. Secret ballot is not permitted except for the election of officers of the body or unless otherwise permitted by specific statutes.
2. Except as permitted above, any member may require that the vote of each member be ascertained and recorded.
3. Motions and roll call votes must be preserved in the record and be available for public inspection.

USE OF RECORDING EQUIPMENT:

The meeting may be recorded, filmed, or photographed, provided that it does not interfere with the conduct of the meeting or the rights of the participants.

LEGAL INTERPRETATION:

1. The Wisconsin Attorney General will give advice concerning the applicability or clarification of the Open Meeting Law upon request.
2. The municipal attorney will give advice concerning the applicability or clarification of the Open Meeting Law upon request.
PENALTY: Upon conviction, any member of a governmental body who knowingly attends a meeting held in violation of Subchapter IV, Chapter 19, Wisconsin Statutes, or who otherwise violates the said law shall be subject to forfeiture of not less than \$25.00 nor more than \$300.00 for each.

Lincoln County Forestry, Land and Parks Committee
Minutes of
Tuesday, December 17, 2019 @ 9:00 A.M.
Lincoln County Service Center, Conference Room 107
801 N. Sales St., Suite 106, Merrill, WI 54452 **715-539-1034**

Members Present: William Bialecki, Timothy Panfil, Frank Saal, Corey Nowak, Kevin Koth

Members Absent:

Members Excused:

Visitors: Kevin Kleinschmidt, Bill Groth, Amy Krueger, Dean Bowe, Jason Hake

1. Call meeting to order. The Lincoln County Forestry, Land and Parks Committee met on Tuesday, December 17, 2019, in Conference Room 107, Lincoln County Service Center. The meeting was called to order by Chair, Saal at 9:00 a.m.
2. Approve minutes of November 11, 2019. Motion by Bialecki, second by Panfil to approve the minutes of November 11, 2019 meeting as printed. All ayes. Motion carried.
3. Review year to date budget report. The Committee reviewed year to date budget report and placed on file.
4. Comments from members of the public or invited guests. None.
5. Open and award land sale bids. No land bids received.
6. Open timber sale bids. No timber sale bids received.
7. Website promotion of County recreational facilities. Kevin reported that this is a continuation from last month's discussion. Kevin met with IT to look at how recreational information could be more easily accessible on the county website. A Recreation tab was placed on the on the home page of the County website which now takes to you directly to recreational information managed by the Forestry, Land and Parks Dept. A Fishing Tab was also developed to provide information for the lakes in Lincoln County.
8. Free Underdown trail use weekend. This item was placed on the agenda at the request of Nowak, suggesting that we have a free user weekend at the Underdown, similar to the free fishing weekend that the DNR does every year. This could help promote the Underdown and bring additional users to this facility. Discussion followed. Motion by Panfil to approve a free winter user weekend, date to be determined by Kevin, second by Nowak. All ayes. Motion carried.
9. Review approve draft chapters 500 and 600 of 15-year plan. Kevin indicated that Chapter 500 discusses land management and use and Chapter 600 covers protection such as fire control, insect control and invasive species. Each chapter was discussed. Motion by Saal, second by Bialecki to approve draft chapters 500 and 600 of the 15-Year Plan. All ayes. Motion carried.

10. WDNR Report – Bill Groth. Bill reported that Wildlife Biologist, Janet Brehm, was promoted to Area Wildlife Supervisor in the Peshtigo area, so her position in Merrill is vacant. Bill also said they are working on Forest inventory but it has been slow with all the snow.

11. Review Administrator’s written report. Kevin reported that supplemental maintenance payments for last year’s snowmobile grant was funded at 100% after the state audit, and a payout for \$46,220 was sent to the clubs to cover state-funded trail expenses from the 2018-19 season. All contracts and bonds have been received for timber sales sold in November. Summer ATV trails closed December 1st. Underdown cross-country ski trails opened this past weekend. Snowmobile clubs are currently working on getting trail’s ready to open. Fieldwork is done and paperwork is being completed for the spring 2020-timber sales. Kevin thanked Bill Groth for coordinating and completing the marking of 300 acres of hardwood for our upcoming spring timber sale.
The Administrator’s report was reviewed and placed on file. Kevin distributed the Recreation Officer’s report.

12. Close timber sales. No timber sales to close.

13. Set next meeting date. The next Forestry, Land & Parks Committee Meeting is set as follows:
Monday, January 6, 2020 at 9:00 a.m., LCSC Conference Room 107
Monday, February 10, 2020 at 9:00 a.m., LCSC Conference Room 107

14. Closed Session. Convene into closed session pursuant to §19.85 (1) (c). Review job performance of the County Forest Administrator. Motion by Saal, second by Nowak to convene into closed session authorizing Kevin Kleinschmidt and Jason Hake to remain for closed session. Roll call vote taken. Saal-aye, Bialecki-aye, Koth-aye, Panfil-aye, Nowak-aye. Motion carried.

Motion by Bialecki, second by Nowak to reconvene into open session. Roll call vote taken. Saal-aye, Bialecki-aye, Koth-aye, Panfil-aye, Nowak-aye. Motion carried.

15. Open Session. Take any necessary action on items discussed during closed session. Motion by Nowak, second by Koth to approve an outstanding performance evaluation of Kevin Kleinschmidt, Forestry Administrator. All ayes. Motion carried.

16. Adjourn meeting. Motion by Koth, second by Nowak to adjourn meeting at 9:40 a.m. All ayes. Motion carried.

FOR 2019 13

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
00 BLANK FUNCTION							
0000 DIVISION							
62000000 511000 UNDISTRIBUTED SAL	0	0	34,663.34	.00	.00	-34,663.34	100.0%*
62000000 520000 UNDISTRIBUTED FRIN	0	0	21,916.70	.00	.00	-21,916.70	100.0%*
TOTAL DIVISION	0	0	56,580.04	.00	.00	-56,580.04	100.0%
0100 FORESTRY STATE AID							
62010000 511000 10100 STATE AID SAL	35,000	35,000	.00	.00	.00	35,000.00	.0%
62010000 520000 10100 STATE AID FRI	15,000	15,000	.00	.00	.00	15,000.00	.0%
TOTAL FORESTRY STATE AID	50,000	50,000	.00	.00	.00	50,000.00	.0%
0101 WILDLIFE HABITAT							
62010100 511000 10101 WILDLIFE HABI	650	650	.00	.00	.00	650.00	.0%
62010100 520000 10101 WILDLIFE HABI	200	200	.00	.00	.00	200.00	.0%
62010100 571000 10101 WILDLIFE HABI	4,040	4,040	2,295.98	.00	.00	1,744.02	56.8%
62010100 596001 10101 WILDLIFE HABI	150	150	.00	.00	.00	150.00	.0%
TOTAL WILDLIFE HABITAT	5,040	5,040	2,295.98	.00	.00	2,744.02	45.6%
0102 CCF							
62010200 511000 10102 CCF SALARIES	1,957	1,957	423.03	.00	.00	1,533.97	21.6%
62010200 520000 10102 CCF FRINGE	734	734	244.70	.00	.00	489.30	33.3%
62010200 571000 10102 CCF MISCELLAN	1,223	1,223	3,849.00	.00	.00	-2,626.00	314.7%*
62010200 596001 10102 CCF EQUIPMENT	978	978	757.95	.00	.00	220.05	77.5%
TOTAL CCF	4,892	4,892	5,274.68	.00	.00	-382.68	107.8%
0103 SNOWMOBILE STATE AID							
62010300 511000 10103 SNOWMOBILE SA	0	0	672.16	.00	.00	-672.16	100.0%*

12/23/2019 13:56
Samantha.Fenske

LINCOLN COUNTY
FORESTRY

P 2
glytdbud

FOR 2019 13

			ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED	
62010300	520000	10103	SNOWMOBILE FR	0	0	245.66	.00	.00	-245.66	100.0%*
62010300	571000	10103	SNOWMOBILE MI	0	14,131	7,381.85	.00	.00	6,749.15	52.2%
62010300	595000	10103	SNOWMOBILE CL	78,350	78,350	133,340.96	.00	.00	-54,990.96	170.2%*
62010300	596001	10103	SNOWMOBILE EQ	0	0	197.80	.00	.00	-197.80	100.0%*
TOTAL SNOWMOBILE STATE AID			78,350	92,481	141,838.43	.00	.00	-49,357.43	153.4%	
0104 ATV STATE AID										
62010400	511000	10104	ATV SALARIES	9,584	9,584	14,680.68	.00	.00	-5,096.68	153.2%*
62010400	520000	10104	ATV FRINGE	3,195	3,195	8,421.46	.00	.00	-5,226.46	263.6%*
62010400	571000	10104	ATV MISCELLAN	1,598	53,115	1,192.43	.00	.00	51,922.57	2.2%
62010400	595000	10104	ATV CLUB EXPE	23,565	23,565	25,521.50	.00	.00	-1,956.50	108.3%*
62010400	596001	10104	ATV EQUIPMENT	1,598	1,598	17,979.34	.00	.00	-16,381.34	1125.1%*
TOTAL ATV STATE AID			39,540	91,057	67,795.41	.00	.00	23,261.59	74.5%	
0105 TURKEY STAMP										
62010500	531320	10500	TURKEY CONTRA	0	0	15,800.00	.00	.00	-15,800.00	100.0%*
TOTAL TURKEY STAMP			0	0	15,800.00	.00	.00	-15,800.00	100.0%	
0106 FOREST ROAD AID										
62010600	511000	10106	FOREST ROAD S	4,120	4,120	5,195.44	.00	.00	-1,075.44	126.1%*
62010600	520000	10106	FOREST ROAD F	1,648	1,648	2,918.57	.00	.00	-1,270.57	177.1%*
62010600	571000	10106	FOREST ROAD M	824	824	3,073.81	.00	.00	-2,249.81	373.0%*
62010600	596000	10106	FOREST ROAD E	1,648	1,648	9,734.23	.00	.00	-8,086.23	590.7%*
TOTAL FOREST ROAD AID			8,240	8,240	20,922.05	.00	.00	-12,682.05	253.9%	
0108 COUNTY FORESTRY										
62010800	511000	CO	FORESTRY SAL AN	294,067	294,067	279,933.25	.00	.00	14,133.75	95.2%
62010800	511001	CO	FORESTRY PER DI	1,500	1,500	3,366.08	.00	.00	-1,866.08	224.4%*

12/23/2019 13:56
Samantha.Fenske

LINCOLN COUNTY
FORESTRY

P 3
glytdbud

FOR 2019 13

			ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
62010800	520000	CO FORESTRY FRINGE	143,472	143,472	119,581.63	.00	.00	23,890.37	83.3%
62010800	531010	CO FORESTRY AUDITI	1,700	1,700	1,567.06	.00	.00	132.94	92.2%
62010800	531320	CONTRACTED SERVICE	5,000	5,000	.00	.00	.00	5,000.00	.0%
62010800	551000	CO FORESTRY INSURA	10,000	10,000	11,054.84	.00	.00	-1,054.84	110.5%*
62010800	552001	CO FORESTRY TELEPH	1,500	1,500	468.79	.00	.00	1,031.21	31.3%
62010800	554001	PRINTING ALLOCATIO	800	800	761.92	.00	.00	38.08	95.2%
62010800	555000	CO FORESTRY TRAVEL	5,000	5,000	1,088.85	.00	.00	3,911.15	21.8%
62010800	560000	CO FORESTRY OFFICE	1,500	1,500	882.54	.00	.00	617.46	58.8%
62010800	571000	CO FORESTRY MISCEL	25,000	25,000	34,211.45	.00	.00	-9,211.45	136.8%*
62010800	591000	CO FORESTRY DEPREC	90,000	90,000	.00	.00	.00	90,000.00	.0%
62010800	596001	CO FORESTRY EQUIPM	35,000	35,000	25,709.11	.00	.00	9,290.89	73.5%
62010800	596002	CO FORESTRY BUILDI	11,250	11,250	.00	.00	.00	11,250.00	.0%
62010800	596005	ROAD AIDS ALLOCATI	25,000	25,000	.00	.00	.00	25,000.00	.0%
TOTAL COUNTY FORESTRY			650,789	650,789	478,625.52	.00	.00	172,163.48	73.5%
0109 PARKS									
62010900	511000	PARKS SALARIES AND	72,203	72,203	101,012.80	.00	.00	-28,809.80	139.9%*
62010900	511001	PARKS PER DIEM	1,500	1,500	.00	.00	.00	1,500.00	.0%
62010900	520000	PARKS FRINGE	32,551	32,551	38,159.85	.00	.00	-5,608.85	117.2%*
62010900	531320	CONTRACTED SERVICE	50,000	50,000	.00	.00	.00	50,000.00	.0%
62010900	551000	PARKS INSURANCE	3,300	3,300	.00	.00	.00	3,300.00	.0%
62010900	552001	PARKS TELEPHONE	800	800	210.79	.00	.00	589.21	26.3%
62010900	554001	PRINTING ALLOCATIO	700	700	592.60	.00	.00	107.40	84.7%
62010900	555000	PARKS TRAVEL TRAIN	400	400	.00	.00	.00	400.00	.0%
62010900	560000	PARKS OFFICE SUPPL	1,500	1,500	302.85	.00	.00	1,197.15	20.2%
62010900	570000	PARKS RECREATIONAL	15,000	15,000	.00	.00	.00	15,000.00	.0%
62010900	571000	PARKS MISCELLANEOU	8,000	8,000	6,960.68	.00	.00	1,039.32	87.0%
62010900	596001	PARKS EQUIPMENT AL	20,000	20,000	26,134.17	.00	.00	-6,134.17	130.7%*
62010900	596002	PARKS BUILDING ALL	8,750	8,750	.00	.00	.00	8,750.00	.0%
TOTAL PARKS			214,704	214,704	173,373.74	.00	.00	41,330.26	80.8%
0110 FORESTRY BUILDING									
62011000	511000	FORESTRY BUILDING	0	0	2,185.01	.00	.00	-2,185.01	100.0%*
62011000	520000	FORESTRY BUILDING	0	0	820.12	.00	.00	-820.12	100.0%*
62011000	571000	FORESTRY BUILDING	0	0	10,737.62	.00	.00	-10,737.62	100.0%*
62011000	596001	FORESTRY BUILDING	0	0	1,644.43	.00	.00	-1,644.43	100.0%*

12/23/2019 13:56
Samantha.Fenske

LINCOLN COUNTY
FORESTRY

P 4
glytdbud

FOR 2019 13

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
TOTAL FORESTRY BUILDING	0	0	15,387.18	.00	.00	-15,387.18	100.0%
0112 LAND AGENT							
62011200 511000 LAND AGENT SALARIE	8,047	8,047	9,085.52	.00	.00	-1,038.52	112.9%*
62011200 511001 LAND AGENT PER DIE	2,000	2,000	.00	.00	.00	2,000.00	.0%
62011200 520000 LAND AGENT FRINGE	4,377	4,377	3,445.27	.00	.00	931.73	78.7%
62011200 552001 LAND AGENT TELEPHO	500	500	120.44	.00	.00	379.56	24.1%
62011200 554001 PRINTING ALLOCATIO	400	400	338.62	.00	.00	61.38	84.7%
62011200 555000 LAND AGENT TRAVEL	200	200	.00	.00	.00	200.00	.0%
62011200 560000 LAND OFFICE SUPPLI	800	800	173.06	.00	.00	626.94	21.6%
62011200 571000 LAND AGENT MISCELL	700	700	.00	.00	.00	700.00	.0%
62011200 596001 LAND AGENT EQUIPME	1,600	1,600	.00	.00	.00	1,600.00	.0%
62011200 596002 LAND AGENT BUILDIN	5,000	5,000	.00	.00	.00	5,000.00	.0%
TOTAL LAND AGENT	23,624	23,624	13,162.91	.00	.00	10,461.09	55.7%
0113 BEAVER							
62011300 511000 SALARIES AND WAGES	0	0	13.44	.00	.00	-13.44	100.0%*
62011300 520000 EMPLOYEE BENEFITS	0	0	7.38	.00	.00	-7.38	100.0%*
62011300 532000 BEAVER EXPENDITURE	5,000	5,017	3,001.00	.00	.00	2,016.00	59.8%
TOTAL BEAVER	5,000	5,017	3,021.82	.00	.00	1,995.18	60.2%
0114 FORESTRY EQUIPMENT							
62011400 511000 EQUIPMENT SALARIES	0	0	7,877.14	.00	.00	-7,877.14	100.0%*
62011400 520000 EQUIPMENT FRINGE	0	0	3,760.38	.00	.00	-3,760.38	100.0%*
62011400 543000 EQUIPMENT REPAIR A	0	0	14,946.03	.00	.00	-14,946.03	100.0%*
62011400 562001 EQUIPMENT FUEL	0	0	18,595.37	.00	.00	-18,595.37	100.0%*
62011400 571000 EQUIPMENT MISCELLA	0	0	217.79	.00	.00	-217.79	100.0%*
62011400 596001 EQUIPMENT EQUIPMEN	0	0	-82,223.11	.00	.00	82,223.11	100.0%
TOTAL FORESTRY EQUIPMENT	0	0	-36,826.40	.00	.00	36,826.40	100.0%
0115 PHOTO							
62011500 561410 PHOTO EXPENDITURE	10,626	10,626	.00	.00	.00	10,626.00	.0%

FOR 2019 13

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
TOTAL PHOTO	10,626	10,626	.00	.00	.00	10,626.00	.0%
<u>0116 PD GRT AND PARKS IMPROVEMENTS</u>							
62011600 571000 PARKS IMPROVE -MIS	112,929	112,929	.00	.00	.00	112,929.00	.0%
TOTAL PD GRT AND PARKS IMPROVEMEN	112,929	112,929	.00	.00	.00	112,929.00	.0%
<u>0117 MISC DAM</u>							
62011700 571000 MISC DAM MISCELLAN	6,469	6,469	.00	.00	.00	6,469.00	.0%
TOTAL MISC DAM	6,469	6,469	.00	.00	.00	6,469.00	.0%
<u>0185 FOREST ACCESS PLAN</u>							
62018500 571000 FOREST ACCESS MISC	49,060	49,060	.00	.00	.00	49,060.00	.0%
TOTAL FOREST ACCESS PLAN	49,060	49,060	.00	.00	.00	49,060.00	.0%
<u>0241 CCF- MISCELLANEOUS</u>							
62024100 571000 CCF- MISCELLANEOUS	3,219	3,219	.00	.00	.00	3,219.00	.0%
TOTAL CCF- MISCELLANEOUS	3,219	3,219	.00	.00	.00	3,219.00	.0%
<u>0245 RUFF GROUSE</u>							
62024500 571000 RUFF GROUSE MISCEL	5,577	5,577	.00	.00	.00	5,577.00	.0%
TOTAL RUFF GROUSE	5,577	5,577	.00	.00	.00	5,577.00	.0%
<u>0261 UNDERDOWN IMPROVEMENTS - HORSE</u>							
62026100 571000 10083 MISCELLANEOUS	6,545	6,545	.00	.00	.00	6,545.00	.0%

FOR 2019 13

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
TOTAL UNDERDOWN IMPROVEMENTS - HO	6,545	6,545	.00	.00	.00	6,545.00	.0%
0262 RECREATIONAL TRAILS ACCOUNT							
62026200 511000 10164 SALARIES AND	0	0	1,320.42	.00	.00	-1,320.42	100.0%*
62026200 520000 10164 EMPLOYEE BENE	0	0	1,807.75	.00	.00	-1,807.75	100.0%*
TOTAL RECREATIONAL TRAILS ACCOUNT	0	0	3,128.17	.00	.00	-3,128.17	100.0%
TOTAL BLANK FUNCTION	1,274,604	1,340,269	960,379.53	.00	.00	379,889.47	71.7%
TOTAL EXPENSES	1,274,604	1,340,269	960,379.53	.00	.00	379,889.47	
59 OTHER FINANCING USES							
0000 DIVISION							
62000059 598000 TRANSFER OUT	0	0	1,206,934.00	.00	.00	-1,206,934.00	100.0%*
TOTAL DIVISION	0	0	1,206,934.00	.00	.00	-1,206,934.00	100.0%
0265 RECREATION OFFICER - GRANT							
62026559 598000 10090 TRANSFER OUT	75,389	75,389	.00	.00	.00	75,389.00	.0%
TOTAL RECREATION OFFICER - GRANT	75,389	75,389	.00	.00	.00	75,389.00	.0%
TOTAL OTHER FINANCING USES	75,389	75,389	1,206,934.00	.00	.00	-1,131,545.00	1600.9%
TOTAL EXPENSES	75,389	75,389	1,206,934.00	.00	.00	-1,131,545.00	
GRAND TOTAL	1,349,993	1,415,658	2,167,313.53	.00	.00	-751,655.53	153.1%

** END OF REPORT - Generated by Samantha Fenske **

COUNTY FOREST COMPREHENSIVE LAND USE PLAN

TABLE OF CONTENTS

CHAPTER 700

ROADS AND ACCESS

<u>Section</u>	<u>Subject</u>	<u>Page</u>
700	ACCESS CONTROL & HISTORY	2
705	CHAPTER OBJECTIVES	3
710	ROADS.....	4
710.1	PERMANENT PRIMARY ROADS	4
710.2	PERMANENT SECONDARY ROADS.....	6
710.3	TEMPORARY ROADS	6
710.4	STATE, COUNTY, TOWN DRIVEWAY PERMITS	7
710.4.1	State Highways.....	7
710.4.2	County Highways.....	7
710.4.3	Town Roads.....	7
710.5	UTILITIES.....	7
710.6	CULVERTS.....	7
715	RESTRICTED ACCESS AREAS	8
720	ROAD CONSTRUCTION BEST MANAGEMENT PRACTICES FOR WATER QUALITY	8
725	SIGNS.....	9
725.1	SIGNING STANDARDS.....	9
730	ACCESS PLAN	9

700 ACCESS CONTROL AND HISTORY

Resource management, protection activities, recreational uses, and other public uses on the Lincoln County Forest require several different types of access. Since the Forest is large and diverse, a broad network of access opportunities have developed over the years. A combination of geography, soils, vegetation, surface waters, seasons of the year, presence/absence of roads or trails, ownership of adjoining lands, and public regulations interact to control access to any part of the Forest.

Many of the existing roads and trails were originally developed as logging roads, forest fire protection lanes, or trails used to reach popular hunting and fishing areas. The locations and standards for these earlier roads were not routinely established by county personnel, nor were they maintained on a regular basis.

Over the years, the road density and frequency of vehicle use on the Forest has increased in response to an expanding number of motorized recreational vehicles and to provide access for harvesting timber. Often times, different uses have occurred on the same trails with minimal conflicts. But the diverse demands for, and uses of, the County Forest have reached the point where integrated access management planning is needed.

Lincoln County, along with a Citizen's Advisory Group developed an Access Plan for the Lincoln County Forest which involved much public participation. The intention of the Citizens Advisory Group was to promote awareness of conflicts and reduce and resolve those conflicts. Ongoing cooperation and respect for other users, along with ongoing public involvement has made this Access Plan a useful working document. The Access Plan is a tool that has been used by the Committee and Forestry Department personnel to implement procedures that will enhance and protect the use of the Forest and its resources for current and future generations alike.

List of problem areas and reasons for access planning.

User conflict between groups: e.g., snowmobiling versus cross-country skiing; hunting on foot versus use of vehicles for access to game populations.

Safety: e.g., pleasure riding of horses on the same trail with ATV vehicle traffic, or hiking.

Erosion: soils eroding due to use, or over-use by vehicles without routine maintenance.

Damage to access: rutted or impassable roads requiring costly repair by the county or other specific user groups (e.g., snowmobile/atv/utv club, loggers).

Law Enforcement: protection of the public and the County's natural resources.

Litter: depositing garbage and waste on the Forest.

Over-utilization of a resource; e.g. reduced availability of trophy-sized deer, excessive harvest of ruffed grouse along trails, site damage from too many uses.

Crowding: e.g. complaints from hunters about intensified competition for traditional hunting areas as a result of better access.

Fires: e.g. increased exposure of the resource to forest fire occurrence.

Endangered species management: e.g. high road densities conflict with timber wolf recovery, eagle and osprey nest disturbance.

Invasive species: e.g. introduction of invasive exotic species along travel routes.

Developmental trends: e.g. preservation of the County Forest solitude by limiting access versus development of high intensity use by additional roads and unlimited access.

Road placement: e.g. some roads should be closed for improper location and evaluated for replacement.

Providing a clear and concise policy for the public.

705 CHAPTER OBJECTIVES

1. Provide direction to the committee and resource managers in order to maintain a network of roads and trails on the County Forest. This will meet the needs for resource management and protection activities, as well as provide public access for recreation opportunities.

2. Identify the distribution, density, and types of roads and uses of roads and trails needed to establish a safe and efficient transportation and recreation system that complements the economic, environmental, and social interest in the County Forest.
3. Identify the existing and future County Forest roads eligible for transportation aids under s.86.315(1), Wis. Stats.
4. Identify areas on the County Forest where the access is limited or restricted.
5. Identify the provisions and criteria that will be policy when addressing management issues on the County Forest.

710 ROADS

Lincoln County Forest staff will oversee the construction and maintenance of all roads within the County Forest. The specifications for road construction and maintenance will vary with the frequency, duration, and planned use of each road. Three major types of roads occur on the Forest: permanent primary roads; permanent secondary roads, and temporary roads.

New road establishment should consider information identifying areas with sensitive soils or severe slopes that have the potential for adverse water quality impacts from land management practices. County staff can work with local DNR forest hydrologists to develop site-specific measures where appropriate and to follow all required permitting processes when applicable

The forest should have enough roads to provide sufficient access, without degrading water resources, while still maintaining a quality recreational experience. Program evaluation of road infrastructure will continuously occur.

710.1 PERMANENT PRIMARY FOREST ROADS (County Forest Roads)

These roads are the primary roads accessing the County Forest. They are designed, constructed, and maintained for year-round use. These roads serve as essential access corridors for multiple use management. Some of these roads are graveled and routinely graded. Vehicle use may be restricted at various times of the year to minimize physical damage to the road or for safety reasons or to accommodate a groomed snowmobile or ski trail.

Forest roads in this category qualify for the County Forest Road Aids program. Qualifying roads in this program must meet minimum design standards set by WI Statute Section 86.315 (4) (a) and 86.315 (3) and administered by WI DOT. A yearly aid payment is used to maintain and improve these certified public roads. The following table lists the roads currently certified under s. 86.31(1), Wis. Stats. Also included are roads proposed for addition once improvements meet statute requirements.

LINCOLN COUNTY CURRENT WDOT CERTIFIED

ROAD NAME	LENGTH (MI)	TOWNSHIP
HORN LAKE ROAD	3.70	BIRCH/MERRILL/SCHLEY
CAMP AVE.	6.60	HARDING/TOMAHAWK
SWAMP ROAD	2.69	HARDING/TOMAHAWK
CINDER ROAD	2.70	HARRISON
WILDWOOD AVE.	4.55	TOMAHAWK
POPLAR ROAD	2.66	TOMAHAWK
ARMSTRONG CREEK ROAD	3.54	TOMAHAWK
AMENT LAKE ROAD	0.71	HARRISON
HIGH LAKE ROAD	0.10	HARRISON
TOTAL	27.25	

These permanent primary roads will be maintained and remain open to public use. These roads must be designated as a snowmobile or ATV route to be open for snowmobile or ATV use.

710.2 PERMANENT SECONDARY ROADS

These roads often serve a variety of uses including forest management, fire protection, and recreation. These roads are maintained as part of a permanent road system but are often narrower than permanent primary roads and are built and maintained to lower standards. Some of these roads are designed for use only when the ground is frozen or firm.

Some roads in this category are located in areas on the Forest where motor vehicle use is limited or restricted. In these instances, the roads will be blocked and/or signed as restricted.

In instances where motorized traffic is restricted, vehicle access will only be authorized for planned management activities, fire protection, and in cases where motorized handicapped access has been approved. Foot traffic is allowed on all roads.

710.3 TEMPORARY ROADS

Many of the roads on the Forest fall into this classification. These roads are designed and constructed for short-term use for a specific project; often for timber harvest access. These roads are used only for a short duration and when the activity is done, the temporary road is closed. These roads are naturally or artificially revegetated and often closed by use of earthen berms/bunkers or other physical barriers. In some cases, roads are completely closed with slash and debris to prevent future use and to encourage natural regeneration of trees.

Temporary roads on existing and past sales will be considered for closure. Reasons will include protection of perpetually wet soils, human safety, and prevention of illegal dumping.

The need for new temporary roads will be evaluated on a case-by-case basis. Road locations will be included in designing timber harvests. Consideration will be given to the objectives within each County Forest unit, existing road density, potential use, and soil type.

Road abandonment considerations: Road abandonment will be considered as needed with full consideration given for access along with protection of the resource.

710.4 STATE, COUNTY, TOWN DRIVEWAY PERMITS

710.4.1 State Highways

Wisconsin DOT generally requires permits for permanent and temporary driveways on state highways. The County should track and retain permit records and work with local DOT officials for access.

710.4.2 County Highways

A driveway permit must be obtained for any new or existing driveway before construction or replacement is done. There is a fee for this permit which may be mailed or dropped off at the Merrill or Tomahawk Highway Shop. See Lincoln County Highway Driveway Policy at <https://co.lincoln.wi.us/highway/page/permits>

710.4.3 Town Roads

The County will consult with local officials when access is required off a town road in order to comply with local town road regulations.

710.5 UTILITIES

Access of the County Forest for Utility purposes is covered in Chapter 520.5.

710.6 CULVERTS

In many cases culverts are needed in all three classifications of roads that are on the County Forest when dealing with drainages, wetlands and stream crossings. Some of these are temporarily placed culverts that are used during a specific project then removed, while others are permanent structures.

In all instances, culverts should be placed according to required DNR permitting procedures and should follow BMP's for culverts that can be found in chapters 4 and 5 of the WI

BMP's for Water Quality PUB FR-093 2010.

Routine maintenance of these structures should also be completed to make sure structures are adequately working. Lincoln County maintains a GIS database of culvert locations on the Lincoln County Forest. A record of culvert size, type, replacement date, and other information is maintained for each culvert.

715 RESTRICTED ACCESS AREAS

In addition to providing trails for motorized vehicle use, the Forest may also provide and designate areas where motorized equipment is not permitted unless authorized by the Committee. The principal intent of these areas is to prevent environmental damage to sensitive areas, protect historical or archeological sites, protect endangered and threatened species, provide for human safety and provide areas for quiet, secluded recreation. The following areas have been designated as limited motorized access areas on the Lincoln County Forest (See Lincoln County Forest Access Plan-Section 730):

Mail Route Block

Wildwood Block

Underdown Block-Core Area

Harrison Block Wirth Property and approved surrounding area.

720 ROAD CONSTRUCTION BEST MANAGEMENT PRACTICES FOR WATER QUALITY

The layout and construction of any new road or trail situated on the County Forest shall adhere to *Wisconsin's Best Management Practices for Water Quality* (PUB-FR-093-2010). This access management plan addresses the need and diversity level of forest roads and trails within the County Forest. The BMP Manual provides guidelines for road construction. Soil disturbance activities in highly erodible soil areas may require mitigating measures in excess of those currently listed in the Best Management Practices manual PUB-FR-093-2010. Wider buffers, sediment control structures and water diversion techniques will be used as appropriate in these sensitive areas.

725 SIGNS

Signs on the County Forest will be used discreetly to perform and function with minimal disruption to the multiple uses of the Forest. Private signs promoting personal, commercial or political objectives will not be permitted without authorization from Lincoln County. Signs erected by the county for management purposes or by non-profit recreational trail groups will be as follows:

1. Informational Type Signs
 - A. Interpretive Signs - to educate the general public about forest management practices.
 - B. Public Land Signs - to identify the land as Lincoln County Forest property.
 - C. Trail Markers - to provide direction and safety to trail users.
 - D. Scientific, Historical or Geological Markers - to identify points of interest.
 - E. Recreational Facility Markers - to identify park entrances, etc.
 - F. Directional Markers.
2. Regulatory Type Signs - to regulate the use of the Forest in specific areas.

725.1 SIGNING STANDARDS

To assure that signs will serve a purpose without damaging aesthetics, signage standards set forth in the Lincoln County Access Plan will be maintained (see Signage Chapter of Lincoln County Forest Access Plan- Section 730):

730 ACCESS PLAN

INTRODUCTION CHAPTER

1. PROLOGUE

The Lincoln County Forest was founded in 1935 and presently consists of 100,843 acres. In the 1930's much of these lands had been cut over, burned and left tax delinquent. Access and the desire for access was very limited at that time, but over the years timber

harvesting and recreational use of these lands has increased the number of roads and access points to the County Forest. With this increased use, problems have developed which resource managers and citizens must address. The problem areas that have been identified are user conflict, resource degradation, litter, law enforcement, endangered resources, crowding, invasive plants, etc. This Access Plan was developed to address these problems along with the changing and increasing uses of the Lincoln County Forest.

The Access Plan was developed by a 10 member Citizen Advisory Group and a Lincoln County Forestry, Land and Parks Committee member. The representatives of this group were made up of the main users of the county forest and were elected by their peers. This group was assisted, for technical information, by a support team comprised of DNR and County staff.

In the process of developing the Access Plan, Lincoln County was divided into eight (8) blocks as follows: Harrison Block, Highway 8 Block, Highway T Block, Mail Route Block, New Wood Block, Pine Tree Lane Block, Underdown Block and Wildwood Block.

2. MISSION STATEMENT

The mission of the Access Plan is to provide direction to the present and future Forestry Committees and resource managers working on the County Forest. The Plan provides balanced access to a wide variety of groups while still protecting the natural resource. The responsibility to protect those natural resources is a shared duty between Lincoln County and the public who use this forest.

To accomplish this mission, scientific, economic and social values along with addressing the safety and education of the public users of this forest were considered. A final element addressed was to formulate a method to enforce the conditions set forth in this Plan.

With the appropriate implementation of these issues, proper management will occur. The benefactors of proper implementation of conditions set forth in the Access Plan will be the environment as well as the people who use the Lincoln County Forest.

3. HISTORY OF ROADS AND ACCESS ON THE LINCOLN COUNTY FOREST

A. TIMBER HARVEST BEGINNING

From approximately 1860 to 1920 much of the timber in the County was logged, providing raw materials for a thriving timber industry and a growing country. The slash left behind from the logging left ideal conditions for wildfires to occur, and from 1920 to 1940 many fires burned throughout the county. After the timber was cut and the fires went through, land that was not suitable for agriculture was left barren and tax delinquent. During 1934, the Lincoln County Board of Supervisors began discussing the possibility of a forest reserve. It was felt that thousands of acres of tax delinquent lands would best be utilized by

keeping them in timber production. In December of 1934, 60,000 acres were qualified for the state's forest crop program and were included in the Forestry and Recreation District.

On May 7, 1935 the County Forest Reserve was established with these and other pending lands. By November 13, 1935 Lincoln County had 74,247 acres included in the Forest Reserve. By comparison, today, the Lincoln County Forest has a land area of about 100,843 acres, which makes up approximately 17.5% of the County's land surface.

On May 6, 1936 the County Forest Ordinance was drafted. This ordinance established the Lincoln County Forest and outlined its uses and regulations. (§28.11 Administration of County Forests)

While in the process of harvesting and transporting forest products to the mills over the years, timber producers have built the majority of miles that make up the County Forest trail system. Rarely did staff from the County Forest or the Department of Natural Resources design, locate or set standards for these trails.

The demand and need for the harvesting of forest products has increased. Even as more timber has been removed, the forestry staff has decreased the size of sale areas to help improve diversity of age class, and improve the management of timber types. This has led to increases in the need for roads to access the timber resource. Since the early 1980's, the forest harvest contracts have specified that the Forestry Department will approve the location of logging roads.

It is understood that vehicles used in the management of the County Forest by staff, timber sale contractors, or other approved uses (handicapped, firewood, boughs, etc.) are exempt from certain regulations as specified in their respective written agreements with Lincoln County.

B. OTHER MOTORIZED VEHICLES

The Lincoln County Forest has experienced a large increase in recreational vehicle users. An increase in snowmobile use was noted in the 1970's and 1980's, and more recent increases have been seen in ATV/UTV use. ATV/UTV use is presently noted on all blocks of the forest. Use ranges from casual riders on primary and secondary roads to legal travel on open roads and trails in the most isolated areas by trappers and hunters. During the mid-1980's, development of an ATV trail was considered on the New Wood block of the County Forest. Several problems were encountered that would not allow this ambition to become a reality. These included numerous wetland crossings that would have to be negotiated, town roads that wouldn't be opened for ATV use, and this area was included in the eastern timber wolf range. As a result, a 15-mile ATV trail was developed in the Harrison Hills block instead. This state funded trail has been expanded to nearly 50 miles and is open from the time the trail opens in May to December 1. In addition, many county

and town roads have been opened to ATV/UTV use in order to provide for connectivity within the county and beyond.

There are also many miles of snowmobile and winter ATV trails available to use both on and off the County Forest. Additional development of snowmobile trails is possible and relocation of snowmobile trails may be necessary due to private easement changes or environmental conditions. Environmental damage has also occurred as a result of four-wheel drive highway licensed vehicles in certain sensitive areas. This has resulted in the closure of roads that have the potential to be damaged by such traffic. Regulations to protect the county's resources will ensure that future generations enjoy the same uses and enjoyment of our county forest that we enjoy today.

C. NON-MOTORIZED USE

Non-motorized users of the existing road network have also increased dramatically. Cross-country skiing, snowshoeing, mountain biking, fat tire biking and hiking show the most noteworthy increase in visitor days in the established trail category. The Underdown Recreational Area has a three-loop cross-country ski trail system as well as a three-loop mountain bike tract. The County also maintains the 6.6-mile Hiawatha Trail that goes north from Tomahawk to the County line and is only open to hiking and biking in the summer. In addition, the Grandfather Falls, Harrison Hills, and Underdown segments of the Ice Age trail all traverse through County Forest property. Use has expanded more recently to snowshoe and fat bike trails in the winter. A summer use single track bike trail has also been developed from the Underdown to the Merrill Memorial Forest property along with a separate return trail.

D. HORSEBACK RIDING

Horseback riding was only an occasional use in the 1970's. A marked increase has been shown Countywide in private riding stables offering rides at a fee. Use of trails is quite common on the County Forest. The established "Bridle Trail" in the Underdown Recreational Area is being used by local clubs and organized groups for riding events. An 11-site horse trailer camping facility is also available for use at Horseman's Park in the Underdown, although this facility is not exclusive to the horseback riding public.

E. FISHING AND ACCESS TO WATER

Fishing on the Lincoln County Forest has been a traditional use and is likely to continue in the future. Boat accesses have been developed to accommodate fishermen, as well as other recreational water users, and are covered under the Lincoln County Parks and Recreation Ordinance because of their location on County Forest or other County owned land. There are many undeveloped access points to lakes on the County Forest, which are covered under this ordinance as well.

The County Forest has historically been careful not to build excessive water access points to lakes and rivers. Overuse of small lakes and waterways is possible based on County observations. Large watercraft and personal watercraft can be especially damaging to fragile aquatic ecosystems. Future generations of fishermen, waterfowl hunters, and canoers will benefit from a careful analysis of these sites before any further water access points are developed.

F. HUNTING ACCESS

Another major category of users of the forest is hunters. Whitetail deer, ruffed grouse, bear and turkey hunters make up the majority of hunters. The intensity of habitat management for these species has affected timber sale design and road density and design. In the mid 1990's, 4 areas were identified on the County Forest for intensive grouse habitat management. As of 2019, three of these units have been completed, and when use determines the need, the fourth unit may be developed.

Historically there has been motorized use by deer hunters, bear hunters and grouse hunters, as well as dog trainers on existing trails. With an increase in road construction came an expansion in the territory or area available to hunt by vehicle. This expansion of vehicle hunting area has increased conflicts between the motorized and non-motorized hunter.

G. ACCESS PROBLEMS AND AN ORDINANCE

As more roads were built and the growth of recreation use became apparent, the conflicts began to increase. In 1959 a "County Forest Ordinance" was adopted which, in part, helped regulate the use of County Forest roads and firelanes. In 1980 a "Forest and Parks Ordinance" was established. A portion of the ordinance allows penalties in the form of forfeiture for misuse of forest roads or recreational trails that are regulated in some form by the Forestry Department or Committee.

Gates, berms or rocks and professionally manufactured signs have been erected on trails that are most susceptible to road damage. Water bars were constructed on erodible soils with steep slopes. These areas had suffered annual damage to the roadbeds by rutting and in some cases erosion. Users recognized immediate improvements to the safety and quality of their trails after gates and water bars protected these routes.

With the decision to close local landfills came another use of forest roads, an access to a secluded area to dump household refuse. Many more dumping incidents take place than are caught and fined. Illegal dumping may continue to occur as long as it is cheaper to do so than to pay for removal of refuse from the home or business.

The Forestry Office allows for gathering firewood, by permit, from recent cut areas if appropriate. Roads are stabilized and closed off to public road travel as needed to protect the resource.

The two ordinances mentioned above were effective as a Countywide policy to a point, but damage to the forest continued to be a problem in certain, especially in sensitive areas. The ability of the forestry personnel to enforce road regulations for the protection of the County Forest and its users was a problem because staff time could not be assigned to these issues on a full time basis. The Recreation Officer Position was created in 2008 and has been very successful in providing focused law enforcement on these resource related issues.

H. COUNTY FOREST ROAD DEVELOPMENT

In the 1970's the state funded a "County Forest Road" system at \$100/mile (per §86.315 (4)(a)). The County manages a limited number of miles in this system primarily for timber management, fire control and recreational use.

When the state withdrew funding through the Department of Transportation for this system, the County Forest Road system suffered. The Wisconsin County Forest Association (WCFA) began to work for the re-establishment of funds and succeeded in restoring the County Forest Road Aids program in 1988 at the rate of \$200/mile.

In 1999, funds were raised to approximately \$335 per mile, although most years this amount is prorated. The 2019 County Forest Road mileage is 27.25 miles. Additional mileage will be added as deemed necessary.

I. COUNTY AND TOWNSHIP ACCESS

County

All timber sales requiring new road access onto County Highways will require joint approval by the County Forest Administrator and the County Highway Commissioner. A temporary easement permit is required from the County Highway Commissioner.

Townships

All timber sales with new access onto Town Highways will require joint approval by the County Forest Administrator and the appropriate Town Officials.

J. SUMMARY

The history of access on the County Forest has moved from limited access to increased access by logging roads, to the overuse and destruction of certain logging roads and sensitive areas by recreational users being in the wrong location.

Access to the Forest became necessary to reach timber sales and remove forest products. Today, the road system and the use of these roads for other motorized and non-motorized uses have grown.

The soils of Lincoln County are principally the result of weathering of glacial deposits. Considerable variation occurs in soil types within short distances. Soil types, steepness, length and shape of slopes, and the general pattern of drainage must be considered when designing access routes and trails as well as the use, amount of traffic, type of traffic etc. It is possible to design and maintain roads on erodible soils with steeper slopes but more care must be taken in the development process of these access points and more maintenance costs can be expected.

The resulting problems with increased access became very evident in the 1990's and led to development of this policy attempting to deal with these situations. Regulating access in some blocks has helped to provide a clear and concise direction for planning within the block.

Timber sales, snowmobile trails, ATV/UTV trails, no vehicle areas, primary County Forest roads, fire lanes, cross-country ski trails, trapping, horseback riding, hiking, mountain/fat-tire biking, snowshoeing, hunting, fishing, and others are all legitimate uses of public land affected by roads and access.

The preparation of this plan is hoped to change the management of access from the 1980 and 1990's user-conflict management to a "Balanced Use Management" of access to the Forest, which is also environmentally friendly. Many cooperators such as the Lincoln County Snowmobile Council, Lincoln County Sportsman's Club, Ruffed Grouse Society, ATV Clubs, Logging Contractors, Cross-Country Ski Clubs, Mountain Bikers, Snowshoe enthusiasts, Horseback riders and Ice Age Trail organizations have worked with the forestry staff in the past to attempt this multiple use balance on the County Forest. This list of cooperators will no doubt grow in the future with increased use of the Forest.

The benefactors of proper management will be the environment as well as the people who use the Forest. The fieldwork may be the simple part of the management process. Education of the public users as well enforcement of laws and ordinances will be difficult tasks to ensure that everyone's ability to enjoy the Forest is protected for the future.

DEFINITION CHAPTER

All -Terrain Vehicle (ATV)- As defined in §340.01 (2g), Wis. Stats.

All -Terrain Vehicle (ATV) Route- A highway or sidewalk designated for use by all-terrain vehicle operators by the governmental agency having jurisdiction as authorized by §23.33, Wis. Stats.

All-Terrain Vehicle (ATV) Trail- A marked corridor on public property or on private lands subject to public easement or lease, designated for use by all-terrain vehicle operators by the governmental agency having jurisdiction, but excluding roadways of highways except those roadways which are not seasonally maintained for motor vehicle traffic or are designated as ATV routes.

County Forest- Those lands owned by Lincoln County and entered under the County Forest Law §28.11, Wis. Stats., either as Forest Lands or as Special Use Designated Lands.

Closed Road or Trail- A road or trail will be considered closed to motorized vehicles when designated by the presence of gates, signs, rocks, earthen berms, or any other device placed by the County for the purpose of blocking a road.

Cross Country Travel- Any travel through the County Forest that is not on primary or secondary roads.

Damage- Any occurrence on the landscape that is detrimental or could have a potentially detrimental effect on the natural resources of the County Forest as determined by the Lincoln County Forestry Department.

Designated Trail- A trail signed for a specific recreational activity that has been approved for that use by the Lincoln County Forestry, Land and Parks Committee.

Highway Licensed Vehicle- Any motorized vehicle which is licensed for use on public highways or is intended to be licensed for such use. These vehicles are allowed on primary roads, secondary roads that are opened to their use, and parking areas except when such facilities are closed.

Hunter Walking Trail- A closed road or trail that is managed to provide access for traditional, non-motorized hunting. Management may include seeding or mowing of roads and trails, planning cutting schemes to diversify timber age classes and designing loop-type trail systems.

Motorized Vehicle-Any vehicle, including a combination of 2 or more vehicles or an articulated vehicle, which is self-propelled, except a vehicle operated exclusively on a rail.

Non-motorized- Use of a motor powered vehicle is prohibited other than when engaged in management activities or contract operations authorized by the Forestry Department.

Off-Road Vehicle- Any motorized vehicle designed or capable of cross-country travel on or immediately over land, sand, snow, ice, marsh, swampland, or other terrain, which would include, but not be limited to, such vehicles as four-wheel drive units, dune buggies, all-terrain vehicles, motorcycles, motorbikes, snowmobiles, amphibious vehicles, air-cushioned

vehicles, air boats, and golf carts. (Motorbikes which are not highway licensed are not allowed on the County Forest).

Official Snowmobile and Winter All-Terrain Vehicle Trail Closing- That date and time selected and announced by the County Snowmobile Coordinator designating that the approved trails are closed for snowmobile and/or winter all-terrain vehicle use. Trails may not remain open later than March 31.

Official Snowmobile and Winter All-Terrain Vehicle Trail Opening- That date and time selected and announced by the County Snowmobile Coordinator designating that the approved trails are opened for snowmobile and/or winter all-terrain vehicle use. Winter ATV trails may be opened for use one week after the official opening of the state-funded snowmobile trail system and close when the temperature on the trail at a point four feet above the trail surface is 28 degrees Fahrenheit or higher. Trails may not be opened earlier than Dec. 1.

Official Summer All-Terrain Vehicle Trail Closing- Summer all-terrain vehicle trails are closed from Dec. 1 to May 1 or when posted closed. Closed periods may be extended due to conditions that could cause damage or present a safety hazard.

Primary Roads- Roads which are constructed and maintained according to County Forest road standards and are eligible for County Forest road aid payments. These roads must be designated as a snowmobile or ATV route to be open for snowmobile or ATV use.

Quiet Area- An area that is managed for minimal motorized travel.

Secondary Roads- Roads or woods trails which have been approved by the Lincoln County Forestry, Land and Parks Department; are not eligible for county forest road aid payments; have been developed primarily for use in the management and protection of the forest or for recreational use and receive maintenance or improvements periodically by the County Forestry staff or its agents.

Snowmobile- As defined in §340.01 (58a), Wis. Stats.

Snowmobile or All-Terrain Vehicle Coordinator- The County Forest Administrator, his/her assistant or assistants and such other individuals designated by the Forestry, Land and Parks Committee.

Snowmobile Route- A highway or sidewalk designated for use by snowmobile operators by the governmental agency having jurisdiction as authorized by §350.04, Wis. Stats.

Snowmobile Trail- A marked corridor on public property or on private lands subject to public easement or lease, designated for use by operators of snowmobiles by the County Snowmobile Coordinator, but excluding highways, except those highways on which the

roadway is not normally maintained for other vehicular traffic by the removal of snow or are designated as snowmobile routes.

Utility Terrain Vehicle- As defined in §23.33 (1) (ng), Wis. Stats.

SIGNAGE CHAPTER

This chapter is to provide guidance to the Lincoln County Forestry Department and to user groups of the County Forest, as to how signing shall take place on recreational trails so that a safe and uniform policy is in effect between all user groups throughout the Forest. When possible, the Lincoln County Forestry Department and user groups may reroute recreational trails off County timber sales when active harvesting or trucking of forest products is occurring. The DNR Handbook for signing, and each individual user groups' formal agreement with Lincoln County shall be consulted for trail signing guidelines. All trails on the Lincoln County Forest shall conform to State Statute requirements.

GENERAL GUIDELINES

1. Except for informational and guide signs, all trail signs should be fully reflectorized if trail use is possible at night.
2. No trail sign should be placed more than 6 feet from the edge of the trail.
3. Place signs and posts carefully with regard to anticipated speed, brush line, trail curves, and line of sight.
4. Place trail signs to the right of the trail, when possible, to conform with the users familiarity with the placement of highway signs.
5. If 2 signs are placed on one post, place the sign with the more important message on top. Stop signs always convey the most important message.
6. For seasonal trails or special events, when practical erect signs as close to the trail opening date or day of the event as possible and remove promptly at the end of the season or event. This reduces vandalism, reduces potential trespass and conserves sign life by reducing exposure to the elements.
7. Use adequately sized wood or metal sign posts to provide stability and deter vandalism.
8. Posts will be used for proper placement of regulatory, caution and stop signs.
9. Trail signing should be done by a small group of people familiar with trail signing guidelines to retain as much uniformity as possible.
10. Avoid overuse of signs. Only trail signs meeting standards for shape, color, size and reflectorization are allowed on trails. This avoids clutter and confusion.
11. If the Lincoln County Forestry Department and the respective user group allows, informational signs may be placed on the trail by trailside businesses, but these signs must conform to the standards for erection, color and shape (brown with white letters).
12. Extra signs should be carried with the grooming and maintenance equipment and trail patrols so that missing or vandalized signs can be quickly replaced.
13. Professional, positive signing techniques should be used.

14. Establish GPS points for emergency situations.
15. Trail etiquette user signs shall be appropriate for all user groups.
16. Signs placed on snowmobile/ATV trails must conform to state standards and be approved by the committee.
17. All authorized signs shall be protected by ordinance from being damaged, defaced, obstructed, removed, or possessed by unauthorized persons.
18. All unauthorized signs will be removed by the Forestry staff. No compensation will be afforded for loss or damage to signs during removal. Individuals erecting unauthorized signs may be prosecuted under s. 943.13(3), Wis. Stats.

EDUCATION CHAPTER

OBJECTIVES

The objectives of this chapter are to inform the public where the Lincoln County Forest Access Plan can be found for study or review and where supporting material from the plan can be found. It will also inform the public in regard to educational opportunities offered by different organizations and the Lincoln County Forestry Department.

Education will play a significant part in making the Lincoln County Access plan a success, with the ultimate goal of protecting the resource and reducing user conflict. The Lincoln County Forestry Department along with other organizations such as the ATV/UTV Clubs, Sportsman's Club, Snowmobile Clubs, Mountain Bike Club, Cross-Country Ski Groups, and the Equestrian Club recognize that it is necessary to educate and inform not only the general public, but their own members as well about the value and importance of our County Forest. It is also important that these organizations help promote the different educational courses that are available such as ATV/UTV safety courses, boat safety courses, snowmobile safety courses, and hunters education. These courses not only teach students about the safety issues involved in their particular activities but also teach them about land ethics and the responsible use of the resources.

The Lincoln County Forestry Department may also set up educational workshops or attend user club meetings to provide information pertaining to forest management, recreational use, invasive species and other topics of interest. The Forestry Department feels this would be an excellent opportunity to involve the public in forestry activities. This will enable a better understanding of what is necessary to manage a forest properly and the planning processes that are involved.

Along with the published information about the Access Plan within this chapter, the Lincoln County Forestry Department and Club members will use professional signing techniques to help inform individuals of trail uses, potential hazards, and topics of interest. Public Service announcements along with the Lincoln County web site may be used to inform the public of trail openings and closings.

Public notification of events occurring on County Forestland will be the responsibility of the Club hosting the event. The Lincoln County Forestry Department must be made aware of all events, and will be able to give interested parties the appropriate contact to obtain information regarding the event.

LAW ENFORCEMENT CHAPTER

A. OBJECTIVES

1. Protect the public, employees, natural resources, and property under the jurisdiction of the Lincoln County Forestry Department.
2. Investigate and enforce applicable laws and regulations which affect the Lincoln County Forest.
3. Prevent criminal violations through informing and educating visitors and users of applicable laws and regulations.

This chapter covers some of the key aspects for law enforcement on the County Forest. These include citizen involvement, the role of a Recreation Officer, Forestry Staff, Sheriff's Department and Warden's role in law enforcement on the County Forest, and the use of surveillance cameras.

B. CITIZEN INVOLVEMENT

Citizens can independently report violations directly to the Forestry Department at 715-539-1034, the Sheriff's Office at 715-536-6272 or anonymously through Crime Stoppers of Lincoln County at 715-536-3726.

The ATV Trail Ambassador Program

- A Trail Ambassador is a volunteer trail patroller. This person is trained through The Ride Smart Program under NOVICE™, a nonprofit organization, to help ATV/UTV's while riding on the trail. Trail Ambassadors are trained to act as role models for other ATV/UTV's to follow, distribute regulations & information, assist stranded ATV/UTV's and report violations if problems cannot be addressed through on-site education. The Trail Ambassador is a "police yourself" tool that is widely used in other community projects.

The volunteers have no law enforcement authority. Although Trail Ambassadors will wear identification that makes them highly visible, the identifying vests are used as a visible deterrence and for recognition only.

Crime Stoppers

- Crime Stoppers is a program which involves the public, the media and the police in a fight against crime. It offers anonymity and cash rewards to persons who furnish information leading to the arrest and conviction of persons who may or are about to commit a crime. Lincoln County Crime Stoppers is a nonprofit organization which was founded in 1997 and is funded through the public and through fundraising efforts. It is one of many Crime Stoppers programs throughout Wisconsin and nationally. The Board of Directors is comprised of concerned citizens who oversee the operation of the program. Their responsibility included establishing policy, raising funds and controlling the amount of reward payments.

Other Efforts

- Other user groups could develop similar programs to help deter illegal activities and educate the public if they are interested. Two well-known examples of this type of volunteer effort are the Neighborhood Watch and Wisconsin's Sturgeon Patrol. Other "citizen watch" programs have shown significant increases in compliance and reductions in complaints and localized problems.

C. RECREATION OFFICER

The recreation officer position is a full time, certified Sheriff's Deputy that was established in 2008 and is dedicated to the enforcement of resource related laws and ordinances on the county forest. This position is able to work odd hours and weekends to address illegal activities and vandalism that occur to help alleviate these problems. This position has made Lincoln County a more desirable place to recreate and has helped preserve our valuable resources so future generations can enjoy the same opportunities that we have today.

Purpose of Position

Persons in this classification protect life and property enforces Federal, State laws, county laws and ordinances specifically related to use of county lands and waterways, as well as those duties normally assigned a Deputy Sheriff. The work is performed under the direction of an assigned Patrol Lieutenant and in cooperation with the Forestry Department Administrator, and the general supervision of the Lincoln County Sheriff and Chief Deputy.

General Duties

A person in this position enforces all Federal, State and local laws regarding criminal, Lincoln County Forest and Recreational Trail ordinances, Parks and Recreational ordinances, snowmobile, ATV and boating regulations and traffic incidents. This person is also responsible for the investigation and management of crime scenes related to this assignment. This is a law enforcement position with full arrest powers. Work is performed in accordance with prescribed regulations, Sheriff's Office policies and procedures and Civil Service Rules. His/her work is reviewed by a supervisor through conferences, reports and performance reviews. When the Recreational Officer is off duty, calls and complaints

related to this position will be initially taken by regular Patrol Deputies and then turned over to the Recreation Officer for follow up action.

This position description should not be interpreted as all-inclusive. It is intended to identify the major responsibilities and requirements of this job. The Recreational Officer/Deputy Sheriff may be requested to perform job-related responsibilities and tasks other than those stated in this description.

D. THE SHERIFF'S DEPARTMENT AND DNR CONSERVATION WARDEN'S ROLE

The DNR Conservation Warden is primarily responsible for enforcing State regulations. They do not have jurisdiction to enforce County Ordinances. Often times they will work closely together with the Sheriff's Department to report violations of County Ordinances when enforcing State Statutes.

The following is an explanation from Curt Butler, Conservation Warden for Lincoln County, on his role in working with the Sheriff's Department on County law enforcement issues:

"Conservation Wardens have statutory authority to enforce State laws relating to hunting, fishing, snowmobile, ATV/UTV, boating, and environmental protection on all properties within the State. For recreational vehicles, I can enforce such things as helmet laws, registration, age restrictions, equipment violations, intoxicated use, reckless operation, and trespass to private land. I cannot enforce local ordinances such as speed ordinances or trespass onto County land. This enforcement authority does not apply to such things as go-karts, because they are not regulated by the DNR.

Wardens may also act on specific requests from local law enforcement, if we see a crime in our presence, or for any violation on State owned lands. If I saw someone traveling off the trail in a restricted area in violation of the County Ordinance, I could notify the Sheriff's Office and they could request me to take action. If I saw someone intentionally damaging property, I could take action as that is a crime.

The Sheriff's Department can enforce all of the same laws that I do, as well as locally adopted ordinances. The Sheriff's Office would be the enforcement agency for any ordinance violations on County lands.

Wardens often work together with local law enforcement on related issues. If I see a violation of a County Ordinance or violation for which I do not have direct enforcement authority, I can take down information and refer it to a deputy for follow-up. Likewise, the Sheriff's Office can and does refer things to me.

In the event of organized recreational patrol by the Sheriff's Department, I could and would assist and participate."

E. FORESTRY, LAND & PARKS STAFF

The role of the Forestry, Land & Parks staff is to assist and support all aspects of enforcement on the County Forest. In many cases, staff may be in the position to identify enforcement issues and take necessary steps to correct these problems. If a violation of a County Ordinance is observed, pertinent information is recorded and reported to the Recreation Officer. If a private citizen observes and reports a violation, staff will assist with or forward a complaint to Recreation Officer for enforcement. Staff and Rec. Officer will follow through with tips provided by citizens that may result in the issuance of a citation for violations of County Ordinances.

F. SURVEILLANCE CAMERAS

The use of surveillance cameras on the County Forest has been successful in reducing both timber theft and vandalism. Cameras can be set up in problem areas and then checked periodically. Some of the limitations of the cameras are their ability to work at night and damage or theft of the camera itself if it is discovered.

FUNDING CHAPTER

This chapter contains important information in regard to maintaining and enhancing access, wildlife habitat, timber harvest, resource protection, and recreation on the Lincoln County Forest. Many sources of revenue are potentially available to Lincoln County and the citizens who use the County Forest. Major funding sources that have been identified are donations from clubs and users, user fees, State and Federal aids and grants, patrol programs, tax levy, and revenue from the sale of timber from the County Forest. It may also be possible to use funds raised from other sources to maintain and establish new trails and facilities. Raising these funds would give diverse groups an opportunity to work together and foster mutual respect and understanding with one another. Additional fundraising opportunities could include items such as raffles, sales of memberships, etc.

This, as all parts of this plan, is evolving. As new issues arise and new funding sources become available, they can be added to our list of funding possibilities. It is recommended that whenever possible, multiple grant sources should be used to stretch the dollars and not deplete one source in favor of another.

REVIEW PROCESS CHAPTER

The objective of this Chapter is to provide a road map for periodic review of access and resource issues that have an impact on the Lincoln County Forest. It is recognized that these issues are not static, and as new ideas and concerns arise, it is prudent to study the

outcome they may have on our County Forest. From this study, we can recommend procedures that will enhance the Forest resources that we all depend on for material and recreational use.

I. APPROVAL OF LINCOLN COUNTY FOREST ACCESS PLAN

The Lincoln County Forest Access Plan was approved by the Lincoln County Board of Supervisors on May 18, 2004 per Resolution 2004-03-11. Review of this plan is done periodically as new 5-Year Outdoor Recreation Plans and 15 Year County Forest Comprehensive Land Use Plans are adopted, and as otherwise needed.

II. ONGOING PUBLIC INVOLVEMENT

Lincoln County, along with the Citizen's Advisory Group, used a great deal of public input in the process of developing an Access Plan for the Lincoln County Forest. The intention of the Citizen's Advisory Group was to promote awareness of conflicts and reduce and resolve these conflicts. Ongoing cooperation, respect for other users, along with public involvement is essential in making the Access Plan a good working document.

Various User Groups of the forest may meet periodically if necessary to address conflicts that occur, and review the plan's success. The Forest Administrator is available when issues need to be resolved, and Forestry Committee meetings are open to the public. Additional public comment and updates on access issues are taken into account during subsequent Five Year Outdoor Recreational Plans and Fifteen Year County Forest Plan updates as well.

III. BEST MANAGEMENT PRACTICES AND INTEGRATED RESOURCE MANAGEMENT

All User Groups desire access to the County Forest while protecting the natural resource. Wisconsin's Forestry Best Management Practices (BMP's) for Water Quality and Invasive Species are designed to help loggers, landowners, land managers, and land users to be good stewards of the County Forest. The Citizen's Advisory Group incorporated BMP's into the planning process of the Access Policy. Forestry, water, soils, wildlife and recreation are all considerations in forest management. The Forestry Department and the Department of Natural Resources will work together to provide an environmental analysis to evaluate probable environmental effects that various uses may have on the resources of the Lincoln County Forest.

IV. ORGANIZED USER GROUPS LAND USE AGREEMENTS

Each organized User Group with a designated trail designed for their use may complete a formal Land Use Agreement or Contract. These Land Use Agreements or Contracts are subject to change. For organized events, proof of insurance must be provided to the Lincoln County Forestry Department.

LINCOLN COUNTY FOREST BLOCK NARRATIVES AND GOALS
BLOCK MAPS ARE COMPILED IN CHAPTER 3000.

HARRISON BLOCK NARRATIVE

This block consists of approximately 26,360 acres of county forestland and includes 319 acres of special use county land referred to as the Wirth property. Mixed hardwood-white birch-oak stands (51%) make up the majority of this unit, followed by aspen (24%), black spruce/tamarack (7%), swamp hardwood (2%), tag alder (2%), and red pine (1%). The remaining 3% of this tract is primarily composed of lowland marsh, grass, upland brush, and fir-spruce types. Timber harvesting is a significant commercial activity. The primary management objectives for this property are to expand the aspen cover type for diversity and wildlife habitat enhancement and to develop high quality hardwood stands for timber production. Other primary considerations when managing timber on this block are BMP's and protecting water quality, controlling invasive species, preventing erosion on steep slopes, and aesthetics.

The topography in this block ranges from nearly level to very steep. This unit is comprised primarily of the Saronia-Keweenaw-Goodman soil association, which consists of well-drained loamy and silty soils on terminal and recessional end moraines. The end moraines have the highest elevations and some of the roughest terrain in the county. In most areas the swells, hills, and ridges are interspersed with many small kettles and lake basins and a few narrow drainage valleys. Many of the kettles and lake basins contain lakes, ponds, bogs or swamps. Slopes are mostly short and complex. A minor secondary type in the northeast part of this block is the Pence-Padus-Antigo soil association. This type consists mostly of soils in outwash areas that are made up of knolls, swells, hills and ridges and are characterized by undulating to hilly topography. The landscape includes some small, nearly level, rather flat outwash plains that are pitted with kettles. The terrain also contains basins and drainageways. Many of the depressional areas contain lakes, streams, ponds, bogs or swamps. Slopes range from nearly level and smooth to very steep and complex.

The main concern for managing access on this block is the potential for erosion on steep slopes. Forest roads and recreational trails must be located to follow natural contours and to minimize cuts and fills. Drainage structures such as pipe culverts or water bars may be necessary to prevent erosion and protect water quality, especially on long steep grades. Soil stabilization methods such as seeding or installing sediment control structures may be needed on newly constructed roads or trails and existing routes must be well maintained or water quality protection structures may quickly degrade. Inactive roads could be closed to help protect the road surface and the water quality protection structures.

The Big Pine Creek, Little Pine Creek, Green Meadow Creek and Pepper Creek are present on this block. Many small pothole lakes are also scattered across the landscape in this unit.

Fifteen geographic sections of this block are named as having the general location of a threatened, rare or endangered aquatic and/or terrestrial species or natural community. These were identified in the Wisconsin DNR Natural Heritage Inventory (NHI) generated by the Bureau of Endangered Resources, 8/29/2019.

This unit encounters a wide range of recreational use throughout the year. Among these uses are hunting; sightseers; funded and non-funded snowmobile and winter ATV trails (corridor 15, 16, trail J and Otter Lake trail); the counties only summer-use ATV trail; Harrison ice age trail; and the Otter Lake park, campground and nature trail. In addition, the county maintains 21 formal boat landings to give access to the water resources for fishing or other recreational uses. Many informal access points to water also exist. An expansion of 3.4 miles of summer-use ATV/UTV trail was completed in this unit in 2017. Motorized travel, hunting or trapping is not allowed north of Bear Trail Road on the special –use Wirth property.

HARRISON BLOCK GOALS

- *Develop a hiking trail around Roothouse Lake on the Wirth Property.
- *Maintain quiet area on Wirth Property and surrounding area.
- *Expand the Turtle Lake Road ATV parking Lot.
- *Possible larger turnaround on north end of Town Hall Road.
- *Rough campground by CTH B South ATV parking lot.
- *Open Cinder Road to ATV traffic from Hwy 17 to Parish Road.
- *Camping shelter on the Ice Age Trail in Harrison Hills, possibly at Bus Lake.
- *Backcountry trail system around the lakes of Beaver Trail Road and Ski Hill Road for biking, hiking, paddle portage, snowshoe and backcountry ski.

HIGHWAY 8 BLOCK NARRATIVE

This block consists of approximately 6940 acres of county forestland. Aspen stands (37%) make up the majority of this unit, followed by Mixed hardwood-White Birch-Hemlock and Hardwood (18%), tag alder (11%), tamarack/black spruce (17%), pine (6%), and swamp hardwood (2%). The remaining 9% of this tract is primarily composed of lowland marsh, grass and fir-spruce types. Timber harvesting is a significant commercial activity. The primary management objectives for this property are to establish more of the pine cover type and to perpetuate the white birch cover type since this is a diminishing species on the landscape.

The topography in this unit has little local relief and few areas of surface water, except for several small streams. The terrain features are generally linear and orientated from northwest to southeast. The elongated or oval drumlins and moraines are separated by long, shallow drainage valleys that contain swamps and bogs which are only slightly lower in elevation than the crests of

the moraines and drumlins. The upland ridges have broad crests and gentle slopes. This unit is comprised primarily of the Croswood-Lupton-Augwood soil association, which consists of moderately well drained, very poorly drained and somewhat poorly drained, nearly level and gently sloping, sandy and mucky soils on outwash-veneered moraines and drumlins. A minor secondary type in this block is the Sarwet-Moodig-Lupton association. This type consists of moderately well drained, somewhat poorly drained, and very poorly drained, nearly level and gently sloping, loamy and mucky soils on moraines and drumlins.

The main concern for managing access on this block is the potential for rutting on unimproved roads. Many of the logging roads can be rutted by heavy vehicles because of wetness. During dry periods, loose sand can interfere with the traction of wheeled equipment on some soils. Most public roads require graveling and maintenance in order to make them accessible to passenger vehicle traffic during rainy periods.

The Johnson Creek and Hay Creek are present on this block.

Four geographic sections of this block are named as having the general location of a threatened, rare or endangered aquatic and/or terrestrial species or natural community. These were identified in the Wisconsin DNR Natural Heritage Inventory (NHI) generated by the Bureau of Endangered Resources, 8/29/2019.

The major recreational use in this area consists of large and small game hunting which includes ruffed grouse, whitetail deer and black bear. Late summer and fall are when this unit encounters its greatest use. In addition, a non-funded snowmobile trail (trail 8) travels through the north end of this block.

HIGHWAY 8 BLOCK GOALS

*Where appropriate, secondary roads should be improved to a suitable point off primary roads with parking areas and then opened to motorized use. Beyond these points, it will be non-motorized thus creating a quiet area.

HIGHWAY T BLOCK NARRATIVE

This block consists of approximately 14,320 acres of county forestland. Aspen stands (53%) make up the majority of this block, followed by tag alder (18%), black spruce/tamarack (17%), northern hardwoods (5%), keg-lowland marsh (2%), and pine types (1%). The remaining 4% of this tract is primarily composed of swamp hardwood, upland brush, fir-spruce and grass. Timber harvesting is a significant commercial activity. The primary management objective for this property is to maintain the aspen cover type for timber production and wildlife habitat enhancement. Another major consideration when managing timber on this block is to perpetuate green cover for wildlife and to sustain the many wetlands which are present in this area.

The topography on this block is nearly level and gently sloping. The western portion of this unit is comprised primarily of the Magnor-Lupton-Capitola soil association and the eastern section is predominantly made up of the Sarwet-Moodig-Lupton soil association. The Ossmer-Minocqua-Sconsin and the Croswood-Lupton-Augwood soil associations are also minor soil associations in this block. These types are moderately well drained, somewhat poorly drained and very poorly drained loamy and mucky soils on moraines, drumlins and outwash plains. They are mainly characterized by low recessional moraines and drumlins intermingled with swamps and bogs. The landscape has little local relief and few areas of surface water, except for small streams in the valleys. The swamps and bogs are only slightly lower in elevation than the crests of the moraines and drumlins. The landscape features are linear in the drumlin areas and are oriented from northwest to southeast. The drumlins have broad crests and gentle slopes. Many of the upland areas have a thin surface veneer of glacial outwash deposits. These glacial meltwater deposits are thicker on the foot slopes that border the swamps and bogs. Slopes are mostly long and smooth.

The main concern for managing access on this block is the potential of rutting on unimproved roads because of low soil strength and wetness. Erosion can also be a concern in areas where the slope is more than 2%. During dry periods, loose sand can interfere with the traction of wheeled equipment or be subject to blowing on certain soil types. Public roads may require graveling and maintenance in order to make them accessible to passenger vehicle traffic during wet periods.

The Landwehr Creek, Squaw Creek, Papoose Creek and the Flanigan Creek are present on this block.

Twelve geographic sections of this block are named as having the general location of a threatened, rare or endangered aquatic and/or terrestrial species or natural community. These were identified in the Wisconsin DNR Natural Heritage Inventory (NHI) generated by the Bureau of Endangered Resources, 8/29/2019.

The major recreational use in this area consists of large and small game hunting which includes ruffed grouse, whitetail deer and black bear. Late summer and fall are when this unit encounters its greatest use. In addition, two state-funded snowmobile trails (corridor 19 and trail 86) travel through this block.

HIGHWAY T BLOCK GOALS

- *Work with Spirit Valley Riders ATV Club to create an ATV trail to Tripoli gas station.
- *Work with Somo Area ATV/UTV Club to develop loop type trail south of Pine Tree Lane and west of Wilson School Road.

MAIL ROUTE BLOCK NARRATIVE

This block consists of approximately 4,430 acres of county forestland that includes 120 acres of non-foresterop property being utilized by the county as a gravel pit. Aspen stands (40%) make

up the majority of this unit, followed by mixed hardwood-oak-white birch (22%), black spruce/tamarack (8%), keg-lowland marsh (5%), tag alder (2%) and red pine-white pine (2%). The remaining 21% of this tract are primarily composed of upland brush, grass and swamp hardwood. Timber harvesting is a significant commercial activity. The primary management objective for this property is to expand the aspen cover type for wildlife habitat enhancement and timber production. A secondary objective is to maintain an intermingling of quality hardwood stands throughout this tract for timber production and cover-type diversity. The western portion of this block has been developed into one of the county's ruffed grouse management units. The topography in this block ranges from nearly level to very steep. The western portion of this unit is comprised primarily of the Vilas-Sayner-Keweenaw soil association, which consists of excessively drained and well-drained sandy and loamy soils on outwash plains and moraines. This association is composed mostly of soils that formed in ridges of glacial drift deposited along the edge of a glacier that was retreating downslope to the northwest. The ridges of drift are fronted by areas of outwash and contain knolls, hills, and ridges of glacial outwash interspersed with morainic uplands. The outwash was most likely deposited by meltwater flowing southwest along the margin of the glacial ice. Areas of this association have a rough, complex topography and contain many small kettles, basins, and narrow drainageways. Many of the depressional areas have no drainage outlet. Slopes are short and complex. During dry periods, loose sand can interfere with the traction of wheeled vehicles on some types of soil in this association. The eastern portion of this block consists exclusively of the Pence-Padus-Antigo soil association, which are well-drained loamy and silty soils on outwash plains. This association consists mostly of soils in outwash areas that are made up of knolls, swells, hills, and ridges and are characterized by undulating to hilly topography. The landscape includes some small, nearly level, rather flat outwash plains that are pitted with kettles. The terrain also contains basins and drainageways. Many of the depressional areas contain lakes, streams, ponds, bogs, or swamps. Slopes range from nearly level and smooth to very steep and complex.

The main concern for managing access on this block is the potential for erosion on steep slopes. Sandy soils are especially prone to this risk. Forest roads and recreational trails must be located to follow natural contours and to minimize cuts and fills. Drainage structures such as pipe culverts or water bars may be necessary in some of the more poorly drained soils to prevent erosion and protect water quality. Soil stabilization methods such as seeding or installing sediment control structures may also be needed on newly constructed roads or trails and existing routes must be well maintained or water quality protection structures may quickly degrade. Inactive roads could be closed to help protect the road surface and the water quality protection structures. Plans currently exist on this block to provide for motorized access on a few designated secondary roads to give access to water or into the interior of this unit, and close the remaining roads to motorized travel and maintain these routes as hunter walking trails.

The Harrison Flowage and several branches of the Pine Creek are present on this block. A number of small lakes are also scattered across the landscape in this unit.

There are no geographic sections of this block as being named as having the general location of a threatened, rare or endangered aquatic and/or terrestrial species or natural community. These

were identified in the Wisconsin DNR Natural Heritage Inventory (NHI) generated by the Bureau of Endangered Resources, 8/29/2019.

The major recreational use in this area consists of large and small game hunting, especially ruffed grouse. Late summer and fall are when this unit encounters its greatest use. The county maintains one formal boat landing to give access to the Harrison Flowage for fishing or other recreational uses. A second access point is being planned for this unit in the near future.

MAIL ROUTE BLOCK GOALS

- *Maintain ruffed grouse hunter walking trails on the western portion of this block.
- *A quiet area will be maintained in this block, as only limited motorized use will be allowed.
- *Explore the potential to develop an ATV intensive use area in Theis Pit that connects to the Harrison Hills ATV trail system after this area no longer functions as an active gravel pit.

NEW WOOD BLOCK NARRATIVE

This block consists of approximately 30,690 acres of county forestland. Aspen stands (51%) make up the majority of this block, followed by mixed hardwood-oak-white birch (17%), tag alder (15%), and swamp conifer types (11%). The remaining 6% of this tract is primarily composed of swamp hardwood, fir-spruce, white pine, upland brush, grass, and lowland marsh types. Timber harvesting is a significant commercial activity. The primary management objective for this property is to maintain large blocks of the aspen cover type for timber production and wildlife habitat management. A secondary objective is to develop an intermingling of quality hardwood stands throughout this tract for timber production and cover-type diversity. Another major consideration when managing timber in this block is to perpetuate green cover for wildlife habitat enhancement. The southwest and northwest portion of this region contains two of the counties four ruffed grouse management areas (8600 acres). These areas are still in the planning stage and are currently not completely closed to public motorized travel.

The topography in this unit is mostly flat, except for a few morainic mounds that protrude slightly higher than the level of the plain. Depressional areas, such as drainageways and basins, are common throughout the outwash plain. Streams, lakes, swamps, bogs, and marshes make up these lower features. This unit is comprised primarily of the Magnor-Lupton-Capitola soil association, which consists of somewhat poorly drained and very poorly drained, nearly level and gently sloping, silty and mucky soils on moraines and drumlins.

The main concern for managing access on this block is the potential for rutting on unimproved roads. Many of the logging trails can be rutted by heavy vehicles because of wetness. Public roads require graveling and maintenance in order to make them accessible to passenger vehicle traffic during rainy periods.

The Averill Creek, Newood River, Kelly Creek, Woodrow Creek, Camp Twenty-six Creek, Alery Creek, Armstrong Creek, Coffee Creek, and the Spirit River are present on this block. In addition, the Coffee Creek, Camp Twenty-six Creek and Morrison Lake Flowages are maintained for waterfowl habitat.

Twenty-two geographic sections of this block are named as having the general location of a threatened, rare or endangered aquatic and/or terrestrial species or natural community. These were identified in the Wisconsin DNR Natural Heritage Inventory (NHI) generated by the Bureau of Endangered Resources, 8/29/2019.

The major recreational use in this area consists of large and small game hunting which include ruffed grouse, whitetail deer and black bear. Late summer and fall are when this unit encounters its greatest use. In addition, a major north-south snowmobile and winter ATV trail (corridor 19) travels through this block.

NEW WOOD BLOCK CONDITIONS

- *Conduct trail rehabilitation and gate Snowmobile trail Trail west of Swamp Road to enhance snowmobile and winter ATV use on Corridor 19.
- *Maintain ruffed grouse hunter walking trails on this block.
- *Snowmobile trail from CTH E to Swamp Road developed and opened for ATV use (gated on ends) from May 1 to December 1 unless posted closed.

PINE TREE BLOCK NARRATIVE

This block consists of approximately 5130 acres of county forestland. Aspen stands (35%) make up the majority of this block, followed by pine (30%), tag alder (15%), black spruce/tamarack (5%), keg (4%) and swamp hardwood (3%). The remaining 8% of this tract is primarily composed of grass, upland brush, fir-spruce and cedar. Timber harvesting is a significant commercial activity. The primary management objective for this block is to maintain the aspen and pine cover types for timber production and wildlife habitat enhancement. Another major consideration when managing timber on this block is to sustain the many wetlands which are present in this area.

The topography on this block is nearly level and gently sloping. This unit is comprised primarily of the Vilas-Croswell-Markey soil association. It is excessively drained, moderately-well drained, and very poorly drained, nearly level to sloping, sandy and mucky soils on outwash plains. This association consists of soils on outwash plains that have little local relief. The topography is relatively flat, except for a few morainic mounds that protrude upward, slightly higher than the level of the plain and a long, prominent esker that extends from northwest to southeast along the Somo River. Depressional areas, such as drainageways and basins, are common throughout the outwash plain. Streams, lakes, swamps, bogs, and marshes are in these lower areas. This association contains much of the surface water in the county. Slopes are mostly long and smooth, except for the short slopes adjacent to depressional areas. The Sarwet-Moodig-Lupton and the Croswood-Lupton-Augwood soil associations are also minor soil

associations in this block. These types are moderately well drained, somewhat poorly drained and very poorly drained sandy, loamy and mucky soils on moraines, drumlins and outwash plains. They are mainly characterized by low recessional moraines and drumlins intermingled with swamps and bogs. The landscape has little local relief and few areas of surface water, except for small streams in the valleys. The swamps and bogs are only slightly lower in elevation than the crests of the moraines and drumlins. The landscape features are linear in the drumlin areas and are oriented from northwest to southeast. The drumlins have broad crests and gentle slopes. Many of the upland areas have a thin surface veneer of glacial outwash deposits. These glacial meltwater deposits are thicker on the foot slopes that border the swamps and bogs. Slopes are mostly long and smooth.

The main concern for managing access on this block is the potential of rutting on unimproved roads in areas which are poorly drained because of low soil strength and wetness. During dry periods, loose sand can interfere with the traction of wheeled equipment or be subject to blowing on certain soil types. Public roads may require graveling and maintenance in order to make them accessible to passenger vehicle traffic during wet periods.

The Somo River, Landwehr Creek and Somo Lake are present on this block.

Three geographic sections of this block are named as having the general location of a threatened, rare or endangered aquatic and/or terrestrial species or natural community. These were identified in the Wisconsin DNR Natural Heritage Inventory (NHI) generated by the Bureau of Endangered Resources, 8/29/2019.

The major recreational use in this area consists of large and small game hunting which includes ruffed grouse, whitetail deer and black bear. Late summer and fall are when this unit encounters its greatest use.

PINE TREE LANE BLOCK GOALS

*Work with Somo Area ATV/UTV Club to develop trails to:

- Posey Rapids
- Pine Tree Lane to Posey Rapids Road.
- Short Cut Lane to Posey Rapids Road.

UNDERDOWN BLOCK NARRATIVE

This block consists of approximately 8,200 acres of county forestland. Mixed hardwood-white birch stands (42%) make up the majority of this unit, followed by aspen (25%), keg-lowland marsh (16%), tamarack/black spruce (4%), red pine-white pine (2%), fir/white spruce (2%), swamp hardwood (1%) and tag alder (1%). The remaining 7% of this tract are primarily composed of upland brush and grass. Timber harvesting is a significant commercial activity. The primary management objectives for this property are to develop high quality hardwood stands for timber production and to maintain/expand the current aspen cover type for diversity and wildlife habitat enhancement. Other primary considerations when managing timber on this

block are BMP's and protecting water quality, preventing erosion on steep slopes, recreational trails and aesthetics.

The topography in this block ranges from nearly level to very steep. This unit is comprised primarily of the Saron-Keweenaw-Goodman soil association, which consists of well-drained loamy and silty soils on terminal and recessional end moraines. The end moraines have the highest elevations and some of the roughest terrain in the county. In most areas the swells, hills, and ridges are interspersed with many small kettles and lake basins and a few narrow drainage valleys. Many of the kettles and lake basins contain lakes, ponds, bogs or swamps. Slopes are mostly short and complex. A minor secondary type in the northern part of this block is the Lupton-Padwet-Minocqua soil association, which consists of very poorly drained and moderately well drained, mucky and loamy soils on outwash plains. This type consists mostly of soils in flow channels created by glacial meltwater. It encompasses some of the lowest positions on the landscape and includes small swells, hills, ridges, and flat remnants of outwash plains. Many of the flats border the valley slopes of adjacent uplands. The association also includes some isolated morainic knolls and swells and many streams. The channel floors of the streams are frequently ponded during wet periods. Slopes are generally long and smooth.

The main concern for managing access on this block is the potential for erosion on steep slopes and of overuse from the wide variety of trails present on this block. Forest roads and recreational trails must be located to follow natural contours and to minimize cuts and fills. Drainage structures such as pipe culverts or water bars may be necessary to prevent erosion and protect water quality, especially on long steep grades. Soil stabilization methods such as seeding or installing sediment control structures may be needed on newly constructed roads or trails and existing routes must be well maintained or water quality protection structures may quickly degrade. Inactive roads could be closed to help protect the road surface and the water quality protection structures.

A tributary to the Prairie River is present on this block in addition to many small pothole lakes and kegs.

One geographic section of this block is named as having the general location of a threatened, rare or endangered aquatic and/or terrestrial species or natural community. These were identified in the Wisconsin DNR Natural Heritage Inventory (NHI) generated by the Bureau of Endangered Resources, 8/29/2019.

This unit encounters year-round recreational use. It has the widest range and experiences the most recreational use of any other part of the county forest. Among these uses are hunting; sightseers; funded snowmobile and winter ATV trails (trail 51); cross-country ski trails; snowshoe trails; Fat-Tire Bike trails; Underdown ice age trail; equestrian trails and mountain/single track bike trails and an ATV route. In addition, the county maintains 8 formal boat landings to give access to the water resources for fishing or other recreational uses. Many informal access points to water also exist. This entire unit is also managed as a ruffed grouse management area.

UNDERDOWN BLOCK GOALS

- *Maintain ruffed grouse hunter walking trails on this block.
- *A core area be managed to accommodate future growth in non-motorized recreational activities.
- *A quiet area will be maintained in this block, as only limited motorized use will be allowed.
- *Downhill style bike park in the hills surrounding Anderson Lake.
- *Widening of ski trail to and from Loop Road so that skate ski grooming could be viable and dependable.
- *Bridge from Prairie Dells County Park across the river to existing trails.
- *Prairie Dells trail shelter (Work with City of Merrill to accomplish this on City property).

WILDWOOD BLOCK NARRATIVE

This block consists of approximately 4770 acres of county forestland. Mixed hardwood-white birch and hemlock-hardwood stands (37%) make up the majority of this unit, followed by aspen (25%), swamp hardwoods (11%), tag alder (10%) and tamarack/black spruce (8%). The remaining 9% of this tract are primarily composed of white pine, lowland marsh and grass types. Timber harvesting is a significant commercial activity. The primary management objective for this property is to maintain a balance between the hardwood and aspen cover types for timber production and wildlife habitat enhancement. Other primary considerations when managing timber on this block is to perpetuate green cover for wildlife habitat improvement, preserve the swamp hardwood type where possible and propagate low, wet hardwood swales.

The topography in this unit is mostly flat, except for a few morainic mounds that protrude slightly higher than the level of the plain. Depressional features such as drainageways and basins are common throughout the outwash plain and most soils have a high watertable. Streams, lakes, swamps, bogs and marshes make up the lower areas. The drainageways are frequently ponded during wet periods. This unit is comprised primarily of the Magnor-Lupton-Capitola soil association, which consists of somewhat poorly drained and very poorly drained, nearly level and gently sloping, silty and mucky soils on moraines and drumlins. The terrain has little local relief and few areas of surface water except for small streams in the valleys. A major secondary type in this block is the Ossmer-Minocqua-Sconsin soil association. This type consists of somewhat poorly drained, very poorly drained and moderately well drained, nearly level and gently sloping, silty and mucky soils on outwash plains. The outwash plains are in major river valleys that meander through morainic plains. Many streams are in areas of this association.

The main concern for managing access on this block is the potential for rutting on unimproved roads. Many of the logging trails can be rutted by heavy vehicles because of wetness. Public roads require graveling and maintenance in order to make them accessible to passenger vehicle traffic during rainy periods

The Spirit River, New Wood River, Ritchie Creek, and Marheime Creek are present on this block.

There are no geographic sections of this block as being named as having the general location of a threatened, rare or endangered aquatic and/or terrestrial species or natural community. These were identified in the Wisconsin DNR Natural Heritage Inventory (NHI) generated by the Bureau of Endangered Resources, 8/29/2019.

The major recreational use in this area consists of large and small game hunting which includes ruffed grouse, whitetail deer and black bear. Late summer and fall are when this unit encounters its greatest use. In addition, a snowmobile/winter ATV trail (trail 86) travels through this block on Wildwood Avenue as well as a connector trail to Taylor County that is maintained by a Taylor County Snowmobile Club.

WILDWOOD BLOCK GOALS

- *Secondary Wildwood Loop developed and open to ATV's from May 1 to March 15, and open to snowmobiles during winter season unless posted closed.
- *A quiet area will be maintained in this block, as only limited motorized use will be allowed.

POTENTIAL GOALS FOR ALL BLOCKS

- *Many of the lakes on the county forest are small and fall under the size allowed for outboard motorized use. Therefore, roads and turnarounds should be no larger than needed to provide for lightweight boats on small trailers. This refers to small lakes only and is not meant to limit legitimate use of trailers and motors where their use is valid.
- *Where appropriate, secondary roads should be improved to a suitable point off primary roads with parking areas and then opened to motorized use. Beyond these points, it will be non-motorized thus creating a quiet area.
- *Continue Recreational Officer position.
- *Develop designated walk in campsites.
- *Create a County trail steward position for non-motorized uses.
- *Provide for a balance of legitimate recreational opportunities to a wide variety of diverse groups and reduce user conflict by keeping incompatible uses separate from one another while still protecting the natural resources of the county in a sustainable manner.
- *Protect and preserve the environmental integrity of the natural resources in Lincoln County so future generations will have use and enjoyment of our public lands.
- *Improve and protect access to water.
- *Continue planning and developing recreational facilities to accommodate the elderly and handicapped.

COUNTY FOREST COMPREHENSIVE LAND USE PLAN

TABLE OF CONTENTS

CHAPTER 800

INTEGRATED RESOURCE MANAGEMENT

<u>Section</u>	<u>Subject</u>	<u>Page</u>
800	CHAPTER OBJECTIVES.....	5
805	INTEGRATED RESOURCE MANAGEMENT APPROACH.....	5
810	SUSTAINABLE FORESTRY.....	5
810.1	TOOLS IN INTEGRATED RESOURCE MANAGEMENT.....	6
810.1.1	Compartment Recon.....	6
810.1.2	Forest Habitat Classification System.....	6
810.1.3	Soil Surveys.....	6
810.1.4	Ecological Landscapes of Wisconsin.....	6
810.1.5	Integrated Pest Management... ..	7
810.1.6	Best Management Practices for Water Quality.....	7
810.1.7	Fire Management.....	7
810.1.7.1	Prescribed Fire.....	7
810.1.8	Outside Expertise, Studies and Survey.....	8
810.1.9	Local Silvicultural Field Trials.....	8
815	MANAGEMENT CONSIDERATIONS TO REDUCE LOSS	9
815.1	RISK FACTORS.....	9
815.1.1	Wind.....	9
815.1.2	Flooding.....	9
815.1.3	Climate Change.....	10
815.1.4	Timber Markets.....	10
820	PLANT COMMUNITIES MANAGEMENT.....	10
820.1	SILVICULTURAL PRACTICES/TREATMENTS.....	11
820.1.1	Natural Regeneration.....	11
820.1.1.1	Clearcutting/Coppice.....	11
820.1.1.2	Shelterwood / Seed Tree.....	11

<u>Section</u>	<u>Subject</u>	<u>Page</u>
	820.1.1.3 All Aged Regeneration Harvests.....	12
	820.1.1.4 Prescribed Burning.....	12
	820.1.1.5 Soil Scarification.....	12
	820.1.1.6 Other.....	12
820.1.2	Artificial Regeneration.....	12
	820.1.2.1 Mechanical Site Preparation.....	13
	820.1.2.2 Chemical Site Preparation.....	13
	820.1.2.3 Prescribed Burning.....	13
	820.1.2.4 Tree Planting / Seeding.....	13
820.1.3	Intermediate Treatments.....	13
	820.1.3.1 Mechanical Release.....	14
	820.1.3.2 Chemical Release.....	14
	820.1.3.3 Non-Commercial Thinning (TSI).....	14
	820.1.3.4 Thinning / Intermediate Cuts.....	14
	820.1.3.5 Pruning.....	14
820.2	SILVICULTURAL PRESCRIPTIONS.....	15
820.2.1	Even-Aged Management.....	15
	820.2.1.1 Aspen.....	15
	820.2.1.2 Jack Pine.....	16
	820.2.1.3 Black Spruce/Tamarack.....	16
	820.2.1.4 Oak.....	16
	820.2.1.5 Red Maple.....	17
	820.2.1.6 White Birch.....	17
	820.2.1.7 Red Pine.....	18
820.2.2	Uneven-Aged Management.....	18
	820.2.2.1 Northern Hardwood.....	18
820.3	LOCALLY UNCOMMON TREES / FOREST TYPES.....	19
	820.3.1 American Elm.....	19
	820.3.2 Butternut.....	19
	820.3.3 Eastern Hemlock.....	19
	820.3.4 White Cedar.....	19
820.4	FOREST TYPES REQUIRING INTENSIVE EFFORT TO REGENERATE	
	820.4.1 White Birch.....	19

<u>Section</u>	<u>Subject</u>	<u>Page</u>
	820.4.2 Northern Red Oak.....	19
820.5	INVASIVE PLANT SPECIES OF CONCERN.....	20
	820.6 LEGALLY PROTECTED- SPECIAL CONCERN PLANT SPECIES.....	20
	820.7 TREE RETENTION GUIDELINES.....	21
	820.8 BIOMASS HARVESTING GUIDELINES.....	27
825	ANIMAL SPECIES MANAGEMENT.....	28
	825.1 TECHNICAL PLANNING.....	28
	825.2 GUIDELINES.....	28
	825.3 INVENTORY.....	28
	825.4 RESOURCE MANAGEMENT CONSIDERATIONS FOR WILDLIFE.....	29
	825.5 IMPORTANCE OF HABITATS.....	29
	825.5.1 Non-forested Wetlands.....	29
	825.5.2 Aquatic Habitats.....	30
	825.5.3 Riparian and Other Non-managed Areas.....	30
	825.5.4 Early Successional Forests.....	30
	825.5.5 Conifers.....	30
	825.5.6 Oak Management.....	30
	825.5.7 Uneven/All-aged Management.....	31
	825.5.8 Large Forest Blocks.....	31
	825.5.9 Grasslands, Openings, Upland Brush.....	31
825.6	INTENSIVE WILDLIFE MANAGEMENT PROJECTS.....	31
	825.6.1 Wisconsin Wildlife Action Plan / SGCN.....	31
825.7	FISH AND WATERS MANAGEMENT.....	32
	825.7.1 Technical Planning and Surveys.....	32
	825.7.2 Special Projects.....	32
	825.7.3 Shoreland Zoning.....	32
	825.7.4 Access and Development.....	33
830	EXCEPTIONAL RESOURCES, UNIQUE AREAS	33
	830.1 HCVPs FOR FSC AND DUAL-CERTIFIED COUNTIES.....	33

<u>Section</u>	<u>Subject</u>	<u>Page</u>
	830.2 AREAS RECOGNIZED BY STATE OR FEDERAL GOVERNMENT.....	35
	830.2.1 State Natural Areas.....	35
	830.2.3 Endangered Species Habitats.....	35
830.3	AREAS RECOGNIZED BY COUNTY OR LOCALLY.....	36
	830.3.1 Forests with Old Growth Characteristics.....	36
	830.3.2 Wildlife Sites.....	36
	830.3.3 Geological Features of Significance.....	37
	830.3.4 Unique Lakes.....	37
	830.3.5 Unique Forest Types.....	38
	830.3.6 Endangered or Threatened Species Habitat.....	38
830.4	CULTURALLY SIGNIFICANT SITES.....	39
	830.4.1 Cemeteries.....	39
	830.4.2 Logging Camps.....	39
835	AESTHETICS.....	39
	835.1 AESTHETIC MANAGEMENT.....	39
	835.2 AESTHETIC MANAGEMENT ZONES.....	39
	835.2.1 Aesthetic Management Zone Examples.....	39
	835.2.2 Aesthetic Management Prescriptions/Options.....	39
840	LANDSCAPE MANAGEMENT.....	40
	840.1 CONSERVATION OF BIOLOGICAL DIVERSITY.....	40
	840.2 HABITAT FRAGMENTATION.....	40
845	INTEGRATED RESOURCE MANAGEMENT UNITS.....	40
	845.1 OBJECTIVES.....	40
	845.2 BLOCK MAPS AND NARRATIVES.....	41

Carly
Lofin
HCLF

800 CHAPTER OBJECTIVES

1. To introduce and communicate to the public, the County Board of Supervisors, and to the Wisconsin DNR, the integrated resource approach that forestry, wildlife and other natural resource staff will use on the Lincoln County Forest during this planning period.
2. To provide "Resource Management Blocks" that will identify and summarize the natural resources, social and physical management potential and opportunities for each unit. These blocks are identified in the Lincoln County Access Plan found in Chapter 3000.

805 INTEGRATED RESOURCE MANAGEMENT APPROACH

Integrated Resource Management is defined as: "the simultaneous consideration of ecological, physical, economic, and social aspects of lands, waters and resources in developing and implementing multiple-use, sustained yield management" (Helms, 1998). This balance of ecological, economic, and social factors is the framework within which the Lincoln County Forest is managed.

The working definition of Integrated Resource Management means, in large part, keeping natural communities of plants and animals and their environments healthy and productive so people can enjoy and benefit from them now and in the future.

The remainder of this chapter is written to help communicate how the Forest is managed on an integrated resource approach.

810 SUSTAINABLE FORESTRY

"the practice of managing dynamic forest ecosystems to provide ecological, economic, social and cultural benefits for present and future generations" NR 44.03(12) Wis. Adm. Code and s.28.04(1)(e), Wis. Stats.

For the purpose of this chapter, sustainable forestry will be interpreted as the management of the Forest to meet the needs of the present without knowingly compromising the ability of future generations to meet their own needs (economic, social, and ecological) by practicing a land stewardship ethic which integrates the

growing, nurturing, and harvesting of trees for useful products with the conservation of soil, air and water quality, and wildlife and fish habitat. This process is dynamic, and changes as we learn from past management.

810.1 TOOLS IN INTEGRATED RESOURCE MANAGEMENT

810.1.1 Compartment Recon

The County will support and utilize the compartment reconnaissance procedures as set forth by the DNR Public Forest Lands Handbook 2460.5. WisFIRS serves as the database for housing recon information.

810.1.2 Forest Habitat Classification System

The Forest Habitat Classification System (*A Guide to Forest Communities and Habitat Types of Northern Wisconsin Second Edition; Kotar, et al.*) is a natural classification system for forest communities and the sites on which they develop. It utilizes systematic interpretation of natural vegetation with emphasis on understory species.

Forest Habitat Classification Types are discussed in greater detail in the "Integrated Resource Management Units" (Section 880) section of this chapter.

810.1.3 Soil Surveys

Forestry staff's knowledge of forest ecology and their experience across the landscape can assist in associating forest habitat types and site indices with soil type information. These associations can be beneficial in determining management prescriptions for specific sites. WisFIRS contains soil survey data, and this information can also be found on the NRCS website-based soil survey.

810.1.4 Ecological Landscapes of Wisconsin

The Wisconsin DNR uses Ecological Landscapes of Wisconsin (WDNR Handbook 1805.1) which is an ecological land classification system based on the National Hierarchical Framework of Ecological Units (NHFEU). Ecological landscapes distinguish land areas different from one another in ecological characteristics. A combination of physical and biological factors including climate, geology, topography, soils, water, and vegetation are used to differentiate land types from one another. Characterizing land in this way provides a useful tool and insight into ecosystem management. Land areas identified and mapped in this manner are known as ecological

units. Generally accepted silvicultural systems are prescribed on a stand level scale, in recognition of the position within an ecological landscape.

810.1.5 Integrated Pest Management

“The maintenance of destructive agents, including insects, at tolerable levels, by the planned use of a variety of preventive, suppressive, or regulatory tactics and strategies that are ecologically and economically efficient and socially acceptable”

The Committee has the authority to approve and direct the use of pesticides and other reasonable alternatives in an integrated pest management program on the Forest.

Refer to Chapter 600 (610.3) for more detailed discussion and integrated pest management strategies.

810.1.6 Best Management Practices for Water Quality

The most practical and cost-effective method to assure that forestry operations do not adversely affect water quality on the Lincoln County Forest is to utilize "best management practices" (BMP's) as described in *Wisconsin's Forestry Best Management Practices for Water Quality. Publication number FR-093.*

Consistent with the aforementioned manual (page 6), Lincoln County will use BMP's on the Forest with the understanding that the application of BMP's may be modified for specific site conditions with guidance from a forester or other natural resource professional. Modifications will provide equal or greater water quality protection or have no impact on water quality. Areas with highly erodible soil types, proximity to streams or lakes, or steep slopes may require mitigating measures in excess of those outlined in the manual. All Lincoln County employees practicing forestry will receive BMP training. Additionally, Lincoln County will encourage BMP training of all logging contractors that operate on County timber sales.

810.1.7 Fire Management

Reference Chapter 600.

810.1.7.2 Prescribed Fire

Prescribed burning on the County Forest may play an important role in management. Many of the plant communities present today are the result of wild fires.

As the needs are presented to regenerate or maintain timber types or other plant communities, the Committee will examine the costs and benefits of each opportunity. Increased regulations, the county's cost of completing the burn, and the risk of breakouts and uncontrolled fires will have to be considered with any benefits of vegetation management through prescribed burning.

All prescribed burning will be done in accordance with Wisconsin State Statutes 26.12, 26.14, the DNR Prescribed Burn Handbook 4360.5 and in cooperation with the Department of Natural Resources per section 605.5 of this plan.

810.1.8 Outside Expertise, Studies and Survey

Additional data necessary to make management decisions on the County Forest will be sought from agencies or individuals, who have the best capability and technical expertise, including, but not limited to:

- Water Resources: WDNR
- Wildlife Resources: WDNR
- Soil Resources: NRCS
- Mineral Resources: WDNR
- Wetland Resources: WDNR, Army Corps of Engineers, County Zoning
- Navigable Streams: WDNR, Army Corps of Engineers, County Zoning
- Floodplains: County Zoning
- Cultural Resources: WDNR, State Historical Society
- Entomology / Pathology: WDNR
- Endangered Resources: WDNR
- Forestry: Cooperative Field Trials, see WDNR website
- Other subjects as needed

810.1.9 Local Silvicultural Field Trials

To date, numerous field trials have been completed or are ongoing on the Lincoln County Forest. These trials include:

- White Birch Regeneration
- Northern Red Oak Regeneration
- Black Spruce/Tamarack Regeneration
- Swamp Hardwood Regeneration

A compilation of silvicultural trials on State and County lands is available at <https://dnr.wi.gov/topic/forestmanagement/documents/silvicultureTrials/ABtrials.pdf>

815 MANAGEMENT CONSIDERATIONS TO REDUCE LOSS

815.1 RISK FACTORS

815.1.1 Wind

The first order of business after a wind event is to clear and open roads, trails and recreational sites such as campgrounds and parks. As those tasks are completed, efforts are then turned to cleaning up and salvaging damage done to the forest.

Storm-damaged pine stands should be top priority when deciding where to start.

Salvaging pine is much more urgent than oak or other hardwood stands because damaged pines will quickly begin to stain, and insects and disease will rapidly infest the damaged trees. As areas with pine are salvaged, the focus can turn to hardwoods and other types of timber. Stands with a high percentage of oak should follow oak harvesting guidelines if possible.

Uprooted trees, and those with completely broken tops, will die and should be salvaged. Standing trees with some broken branches are judgment calls. A general rule is to salvage the tree if more than 50% of the crown or top is broken, but there may be situations when these damaged trees could be left to help the forest recover. Trees that are leaning may have broken roots or broken stem fibers and should be considered for salvage. Hail damage associated with wind storms may not be apparent until the following spring. Dieback, and mortality associated with storms could continue for 2-3 years after the event. As a result, stands will continue to be monitored for several years, especially if additional stresses occur in the year or years after the storm damage occurred.

815.1.2 Flooding

Flooding and high water can cause mortality by reducing the amount of oxygen in the soil, depriving trees with submerged roots of the oxygen needed for growth and respiration. Along with submerged roots, trees can also die from uprooting and from subsequent insect and disease attack following flooding stress.

DNR Forest Health Specialist's may be consulted in flood-damaged stands and it may become necessary to conduct salvage harvests in flooded stands where appropriate.

Access to wet or flooded sites can be difficult and may require frozen ground conditions.

This is of greatest concern in stands where salvage harvests are needed to capture value, such as stands impacted by insects like emerald ash borer and eastern larch beetle.

815.1.3 Climate Change

Northern forests may be affected by climate change during the next century. Lincoln County recognizes that these potential changes to our climate can impact our forest and the various programs that we manage. A proactive approach will be followed with consideration being given to how changing conditions could impact forest composition, management of roads and recreational trails, wildlife habitat, watersheds, invasive species and forest pests/ diseases. Timber management may include goals such as encouraging ecosystems with a variety of species on the landscape whenever possible, and giving consideration to forest types that will be less impacted by changing climate patterns.

815.1.4 Timber markets

Generally, the number of mills utilizing raw forest products in Wisconsin has declined significantly over the last 20 years. However, this decline has been somewhat offset by an increased demand for export logs and lumber. As transportation costs continue to rise, short distance hauls to a mill become more desirable for timber producers. With a pulp/paper mill (hardwood) and an OSB mill located in Tomahawk; a pulp/paper mill (hardwood) in Rothschild and a pulp/paper mill (softwood) in Mosinee, the Lincoln County Forest is situated well for small diameter lower quality raw material markets. The Lincoln County Forest also has several markets for hardwood saw logs and saw bolts and softwood saw logs within close proximity. Considering the location of the Lincoln County Forest, demand for its forest products should remain strong into the future.

820 PLANT COMMUNITIES MANAGEMENT

Lincoln County recognizes the importance of maintaining the diversity of the forest under an ecosystem approach. The process involved in making management decisions to encourage or not encourage specific species or communities is complex. It includes an understanding of:

- Objectives of the County
- Integration of landforms, soils, climate, and vegetative factors

- Habitat classification
- Past, present and future desired condition
- Surrounding ownership patterns and general objectives
- Wildlife habitat and other values
- Social needs

820.1 SILVICULTURAL PRACTICES/TREATMENTS

Silviculture is the art and science of controlling forest composition, structure, and growth to maintain and enhance the forest's utility for any purpose. These practices are based on research and general silviculture knowledge of the species being managed. The goal is to encourage vigor within all developmental stages of forest stands, managed in an even aged or uneven aged system. The application of silviculture to a diverse forest needs a unified, systematic approach. The DNR Public Forest Lands Handbook (2460.5) and DNR Silvicultural Guidance will be used as guidelines for management practices used on the County Forest.

820.1.1 Natural Regeneration

Where feasible, natural regeneration will be encouraged through the use of silvicultural methods that promote regrowth and recruitment of the forest. In general, the particular silvicultural method chosen will depend on the biological functions of the target species or forest type.

820.1.1.1 Clearcutting/Coppice

Clearcutting and Coppice are silvicultural methods used to regenerate shade intolerant and mid shade tolerant species. Complete, or nearly complete removal of the forest canopy will stimulate the regeneration and growth of species such as aspen, jack pine and white birch. These methods are also used as a final rotation removal in species such as red oak, red pine and others. Tree retention guidelines are followed when prescribing clearcut or coppice cuts.

820.1.1.2 Shelterwood / Seed Tree

Shelterwood and Seed Tree harvest are methods used to regenerate mid-shade tolerant and shade tolerant species. Partial canopies stimulate regeneration, enhance growth and can provide a seed source. Canopies may eventually be removed. These methods are used for white birch, white pine, red oak, red maple

and northern hardwood (when managing even aged).

820.1.1.3 All Aged Regeneration Harvests

All aged regeneration harvests are used in shade tolerant and mid-tolerant species. Gaps in the forest canopy allow regeneration to occur throughout the stand. Over time, multiple entries into the stand will create multiple age class structure with the intent of creating a fully regulated stand. All aged regeneration harvests may be prescribed in the form of single tree selection, group selection or patch selection. This method is used in northern hardwood, red maple, oak and occasionally in swamp hardwoods. (when managing for all aged)

820.1.1.4 Prescribed Burning

Prescribed burning may be utilized as a tool to promote regeneration. A number of forest types in Lincoln County are ecologically tied to fire. Burning may create seeding conditions or release regeneration from competing vegetation. Prescribed fire may be used for regeneration of red oak, jack pine or white pine.

820.1.1.5 Soil Scarification

Scarification is a technique used to prepare a seedbed to encourage tree regeneration. This mechanical disturbance exposes bare mineral soil, incorporates seeds into the soil, reduces competition from unwanted vegetation, and creates conditions favorable for the regeneration of many tree species.

Scarification is generally completed in conjunction with a timber harvesting activity; either pre or post-harvest, depending on the application. Oak, white birch, pine, fir and other tree species benefit from soil scarification. Lincoln County may utilize salmon blades, root rakes, straight blade, and anchor chain for soil scarification.

820.1.1.6 Other

Other natural regeneration techniques may be considered where necessary and appropriate. New methods for natural regeneration are continually tested for effectiveness.

820.1.2 Artificial Regeneration

When natural regeneration fails, or when tree species present do not coincide with management objectives for the site, artificial means will be employed to establish a

desirable stand of trees. Artificial regeneration on a site usually requires some form of site preparation followed by seeding or planting.

820.1.2.1 Mechanical Site Preparation

Mechanical site preparation includes the use of soil disturbance equipment such as a disc, roller chopper, patch scarifier, disk trencher or V-plow prior to tree planting or seeding. These types of equipment are used to reduce logging debris to a smaller size, incorporate debris into the soil, clear brush and debris from the site, and to reduce competition from other vegetation.

820.1.2.2 Chemical Site Preparation

Herbicide application can be an effective means of controlling unwanted vegetation in order to establish seedlings or plantations. It should be used sparingly and in situations where mechanical treatment is not expected to provide the level of vegetative control needed. Chemical will be applied in strict accordance with label recommendations, requirements, and under the oversight of a certified applicator. Herbicides will normally be applied with motorized, ground based equipment, hand applications, or aurally. A written prescription for each herbicide application will be prepared and kept on file.

820.1.2.3 Prescribed Burning

Prescribed burning for site preparation can be used to reduce logging debris, clear the site, reduce competing vegetation, and to release nutrients into the soil.

820.1.2.4 Tree Planting / Seeding

Both machine and/or hand planting/seeding will be utilized to insure adequate regeneration. The selection of species will be determined according to the specific management objectives and capabilities of each site. Planting or seeding will primarily occur in areas where natural regeneration is inadequate or conflicts with the management goals of the site. Lincoln County will make all reasonable efforts to source seeds/seedlings from local genetics.

820.1.3 Intermediate Treatments

Intermediate treatments are those practices used to enhance the health and vigor of a forest stand. In general, intermediate treatments are applied to forest stands managed as even aged.

820.1.3.1 Mechanical Release

Mechanical release is the removal of competing vegetation by means other than herbicide or fire. Mechanical release may include releasing young pine, spruce, or oak from competing vegetation using chain saws or other equipment.

820.1.3.2 Chemical Release

Chemical Release is the removal of competing vegetation from desirable trees through the use of herbicides. It should be used sparingly and in situations where mechanical treatment is not expected to provide the level of vegetative control needed. Chemical will be applied in strict accordance with label recommendations, requirements and under the oversight of a certified applicator. A written prescription for each herbicide application will be prepared and kept on file.

820.1.3.3 Non-Commercial Thinning (TSI)

In general, most thinning needs are accomplished through commercial harvest operations. Non-commercial thinning may be considered if the individual site requirements, funding and/or available labor make it desirable.

820.1.3.4 Thinning / Intermediate Cuts

Management of some even aged forest types necessitates the use of commercial thinning, also known as intermediate harvests, to maintain forest health and vigor. Thinning is generally prescribed in forest types such as red pine, red oak, and in cases of even aged hardwood management. Thinning may be prescribed on other even aged types as appropriate and where feasible. Intermediate harvests include prescriptions for residual densities, marking priorities, spacing, crown closure, diameter distribution, or other measurements.

820.1.3.5 Pruning

Pruning is the removal of limbs from lower sections of trees to increase log quality. Pruning will be considered mainly for conifer species and carried out when deemed economically feasible.

820.2 SILVICULTURAL PRESCRIPTIONS

A silvicultural prescription is a planned treatment(s) designed to meet forest stand management goals and objectives. The Silvicultural prescriptions found in this section are a general summarization of practices carried out on the Lincoln County Forest and are not intended to be all encompassing. All silvicultural prescriptions performed on the Lincoln County Forest are accepted practices found within the WDNR Silviculture Handbook (3431.5), are based on other scientifically proven methods, or are part of an experimental trail.

820.2.1 Even-Aged Management

A forest stand composed of trees having relatively small differences in age. Typical cutting practices include: clearcutting, coppice, shelterwood and seed tree. Even aged management is generally required to manage shade intolerant, early successional forest types.

820.2.1.1 Aspen

These are types where aspen trees comprise of more than 50% of the stems. On the forest, aspen types may be dominated by quaking or big tooth aspen or a combination of both. Aspen stands contain a wide variety of associated hardwood and conifer species.

<u>Shade tolerance:</u>	Intolerant
<u>Habitats:</u>	ATM, AOCa, TMC, PArV, PArVAa, AVVb, ACal, ATAtOn, ArAbCo
<u>Intermediate treatments:</u>	None
<u>Mean rotation age:</u>	45
<u>Primary regeneration method:</u>	Natural
<u>Harvest method:</u>	Coppice with/without standards
<u>Habitat value:</u>	Early successional related species
<u>Economic value:</u>	Fiber production / bolts
<u>Insect disease considerations:</u>	Hypoxylon, cankers and others
<u>Trends:</u>	General declines on statewide acreage
<u>Landscape considerations:</u>	Retain/increase acreages where possible

820.2.1.2 Jack Pine

These are types where jack pine makes up more than 50% of the stems. Common associates in Lincoln County are aspen, balsam fir and red maple.

<u>Shade tolerance:</u>	Intolerant
<u>Habitats:</u>	PArV, PArVAa, HYDRI
<u>Intermediate treatments:</u>	None
<u>Mean rotation age:</u>	50
<u>Primary regeneration method:</u>	Artificial or Natural
<u>Harvest method:</u>	Clearcut or Seed Tree
<u>Habitat value:</u>	Early successional related species
<u>Economic value:</u>	Fiber production
<u>Insect disease considerations:</u>	Budworm, Diplodia and Gall Rust
<u>Trends:</u>	General decline on statewide average
<u>Landscape considerations:</u>	Retain/increase acreages where possible

820.2.1.3 Black Spruce/Tamarack

These are types where black spruce or tamarack makes up more than 50% of the stems. Common associates are balsam fir, cedar and hemlock

<u>Shade tolerance:</u>	Tolerant/intolerant
<u>Habitats:</u>	HYDRI
<u>Intermediate treatments:</u>	None
<u>Mean rotation age:</u>	100
<u>Primary regeneration method:</u>	Natural
<u>Harvest method:</u>	Strip clearcut or seed tree
<u>Habitat value:</u>	Wetland related species
<u>Economic value:</u>	Fiber production
<u>Insect disease considerations:</u>	Mistletoe/Sawfly
<u>Trends:</u>	General decline on statewide average
<u>Landscape considerations:</u>	Retain acreage

820.2.1.4 Oak

These types are where oak makes up more than 50% of the stems. Common associates are white birch, red maple, aspen and white pine.

<u>Shade tolerance:</u>	Intermediate
<u>Habitats:</u>	ATM, AOCa, AVVb, PArV
<u>Intermediate treatments:</u>	Thinning or TSI
<u>Mean rotation age:</u>	100
<u>Primary regeneration method:</u>	Natural
<u>Harvest method:</u>	Shelterwood, coppice
<u>Habitat value:</u>	Food source
<u>Economic value:</u>	High quality saw log and fiber
<u>Insect disease considerations:</u>	Gypsy moth, defoliators and oak wilt
<u>Trends:</u>	General decline on statewide average
<u>Landscape considerations:</u>	Retain acreage where possible

820.2.1.5 Red maple

These types are where red maple makes up more than 50% of the stems. Common associates are balsam fir, aspen, white birch, oak, white pine, sugar maple, and black ash.

<u>Shade tolerance:</u>	Mid-tolerant
<u>Habitats:</u>	ATM, AOCa, TMC, PArV, PArVAa, AVVb, ACal, ATAtOn, ArAbCo, HYDRI
<u>Intermediate treatments:</u>	Thinning
<u>Mean rotation age:</u>	60
<u>Primary regeneration method:</u>	Natural
<u>Harvest method:</u>	Coppice, shelterwood, strip clearcut, overstory removal
<u>Habitat value:</u>	Early successional species, browse
<u>Economic value:</u>	Fiber production, saw logs
<u>Insect disease considerations:</u>	Cankers, defoliators
<u>Trends:</u>	General increase on statewide acreage
<u>Landscape considerations:</u>	Retain acreage where feasible

820.2.1.6 White Birch

This type is where white birch makes up more than 50% of the stems. Common associates are oak, red maple, aspen, sugar maple, red pine, white pine and balsam fir. Lincoln County will allow aspen to regenerate and spread where it is a component of a white birch stand.

<u>Shade tolerance:</u>	Intolerant
<u>Habitats:</u>	PQE, PArV, PArVa, ArAbVC, TMC, ArAbCo, AVVb, AVb, ATM, ATD, AOCa, AH,
<u>Intermediate treatments:</u>	Thinning
<u>Mean rotation age:</u>	60
<u>Primary regeneration method:</u>	Natural
<u>Harvest method:</u>	Strip clear cut, seed tree
<u>Habitat value:</u>	Early successional species. Food source: browse, seeds, buds and catkins
<u>Economic Value:</u>	Fiber and saw log production, decorative
<u>Insect disease considerations:</u>	Cankers, defoliators, borers
<u>Trends:</u>	General decrease in acreage statewide
<u>Landscape considerations:</u>	Maintain acreage where feasible

820.2.1.7 Red Pine

This type is where red pine makes up 50% or more of the stems. Common associates are white pine, jack pine, aspen and oak. Most of the red pine stands on the Lincoln County Forest occur in artificially regenerated pine plantations.

<u>Shade tolerance:</u>	Intolerant
<u>Habitats:</u>	ATM, AOCa, AVVb, TMC, PArVAa, PArV
<u>Intermediate treatments:</u>	Thinning
<u>Mean rotation age:</u>	75
<u>Primary regeneration method:</u>	Artificial
<u>Harvest method:</u>	Intermediate Commercial Thinnings, Overstory removal
<u>Habitat value:</u>	Shelter, Thermal Cover, Food Source
<u>Economic value:</u>	Fiber production, Saw Logs, Utility Poles
<u>Insect disease considerations:</u>	Heterobasidion Root Disease, Bark Beetles
<u>Trends:</u>	General increase on statewide acreage
<u>Landscape considerations:</u>	Retain acreage where possible

820.2.2 Uneven-Aged Management

A forest stand composed of trees in various age and size classes. The typical cutting practice is selection cutting, where individual trees are removed from the stand. Regeneration is continually occurring after the stand is cut. Uneven-aged management is generally used to manage shade tolerant and mid shade tolerant forest types.

820.2.2.1 Northern Hardwood

These are stands dominated by shade tolerant and mid-shade tolerant species. In Lincoln County, northern hardwood stands are typically dominated by sugar maple, ash, basswood, cherry and yellow birch.

<u>Shade tolerance:</u>	tolerant to mid-tolerant
<u>Habitats:</u>	ATM, AOCa, TMC, AVVb, ACal, ATAAtOn, ArAbCo, AH
<u>Intermediate treatments:</u>	none
<u>Mean rotation age:</u>	n/a
<u>Primary regeneration method:</u>	natural – all aged regeneration
<u>Harvest method:</u>	single tree, gaps,
<u>Habitat value:</u>	snag, mast and cavity habitat components
<u>Economic value:</u>	high
<u>Insect disease considerations:</u>	emerald ash borer, others
<u>Trends:</u>	generally stable
<u>Landscape considerations:</u>	develop high quality sawlogs

820.3 LOCALLY UNCOMMON TREES / FOREST TYPES

The presence or lack of a particular tree species is dependent on land capability, climate, natural range, natural or human disturbance and many other factors. The following trees and types are considered uncommon on the Lincoln County Forest and likely across the general region. These trees may be left as reserves in even aged management prescriptions, or in thinnings and all aged regeneration harvests.

820.3.1 American Elm (*Ulmus americana*.) is scarce primarily due to Dutch elm disease. Healthy looking elm may be left uncut in hope that they may continue on the landscape as potential resistant seed sources.

820.3.2 Butternut (*Juglans cinerea*) is declining due to butternut canker. Healthy individuals that appear to be canker free will be reserved in the forest as potential resistant seed sources.

820.3.3 Eastern Hemlock (*Tsuga canadensis*) is a highly preferred deer and small mammal browse species. Regeneration is difficult and remnant stands will be retained and managed to provide seed sources for future management activities

820.3.4 White Cedar (*Thuja occidentalis*) is a highly preferred deer and snowshoe hare browse species. Regeneration is difficult and remnant stands and individual trees will be retained to provide seed source for future management activities.

820.4 FOREST TYPES REQUIRING INTENSIVE EFFORT TO REGENERATE

There are certain forest types within the County Forest that are difficult to regenerate. In many cases, this difficulty may be related to the exclusion of fire from the landscape, deer herbivory or other factors. The following list itemizes forest types with difficult regeneration and County management goals:

820.4.1 White birch

White birch is a shade intolerant species normally found in even aged stands. White birch is an early successional species adapted to colonize sites after disturbances such as fire. Where feasible, Lincoln County is committed to retain and regenerate the white birch cover type. Regeneration efforts will include seed-tree harvest with scarification.

820.4.2 Northern red oak

Northern red oak is a shade intolerant to mid tolerant species found in primarily even aged stands. Northern red oak benefits from disturbance to regenerate and herbivory can

be a limiting factor on regeneration success. Where practicable, Lincoln County is committed to retain and regenerate the northern red oak cover type. Regeneration efforts will focus on timing soil scarification with good acorn crops and shelterwood, patch selection and coppice harvests. Regeneration may require prescribed burning to release seedlings from competing vegetation.

820.5 INVASIVE PLANT SPECIES OF CONCERN

Invasive plants can cause significant damage to the forest. Invasive species can displace native plants and hinder forest regeneration efforts. Preventing them from dominating forest understories is critical to the long-term health of the forest. There are a number of invasive plant species in varying densities on the Lincoln County Forest. Some warrant immediate and continual treatment efforts while others may be allowed to remain due to extent and financial ability to control them. The County will continue to train staff and user groups in invasive species identification as well as attempt to secure funding sources to control them as much as is practical.

820.6 LEGALLY PROTECTED AND SPECIAL CONCERN PLANT SPECIES

There are plants in Wisconsin that are protected under the Federal Endangered Species Act, the State Endangered Species Law, or both. On County Forest, no one may cut, root up, sever, injure, destroy, remove, transport or carry away a listed plant without a valid endangered or threatened species permit. There is an exemption on public lands for forestry, agriculture and utility activities under state law. The County will, however, make reasonable efforts to minimize impacts to endangered or threatened plants during the course of forestry/silviculture activities (typically identified in the timber sale narrative).

The Wisconsin Department Natural Resources Bureau of Natural Heritage Conservation tracks information on legally protected species with the Natural Heritage Inventory (NHI) program. The NHI program also tracks Special Concern Species, which are those for which some problem of abundance or distribution is suspected, but not yet proven. The main purpose of this category is to focus attention on certain species before they become threatened or endangered.

The County has access to this data under a license agreement and is committed to reviewing this database for endangered resources that may occur within proposed land disturbing project areas.

820.7 LINCOLN COUNTY TREE RETENTION GUIDELINES

Reserve Trees

Reserve trees are living trees, ≥ 5 inches dbh, retained after the regeneration period under even-aged or two-aged silvicultural systems. They are retained well beyond stand rotation, and for purposes other than regeneration. They may be harvested eventually or retained to complete their natural lifespan (becoming a snag and then coarse woody debris). Reserve trees can be dispersed uniformly or irregularly, as single trees or aggregated groups or patches, or any mixture thereof. Synonyms include standards, legacy trees, and green tree retention.

The characteristics of desirable reserve trees are highly variable and depend on the intended benefits, the species present, stand condition, and site. Desired compositional and structural attributes may be present when trees are selected and stands are rotated, or additional time may be required for development.

Typical characteristics of desirable individual reserve trees (either scattered or within patches) include:

- Large size (tree height, diameter, crown dimensions) for the species and site.
 - *If large trees are lacking, then potential future large trees can be selected.
- Older trees with large size and rough bark.
- A mix of vigorous and decadent trees.
 - *Vigorous trees of long-lived species can enable long-term retention and potentially yield a variety of benefits.
 - *Decadent trees can provide current and future cavity trees, as well as future snags and down coarse woody debris.
- A mix of species, including locally uncommon species and mast trees.

The development and maintenance of large structures (vigorous trees, cavity trees, snags, down woody debris) and species diversity is typically encouraged.

Generally, poor candidates for individual reserve trees include:

- Relatively small (height, diameter, crown), suppressed to intermediate trees.
- Relatively young trees within the stand.

These smaller, younger trees are retained in reserve groups and patches along with larger, older trees.

Exceptions to these typically desirable and generally poor reserve tree characteristics will occur.

Benefits of Reserve Tree Retention

Silvicultural practices are designed to manipulate vegetation to achieve management objectives. At its foundation, silviculture is based on understanding and working with ecological processes. Silvicultural practices that more closely emulate natural disturbance and stand development processes are more likely to sustain a wide array of forest benefits. Most natural disturbance regimes and events retain compositional and structural legacies in heterogeneous patterns and create ecological complexity.

Silvicultural practices that develop and maintain reserve trees in managed stands can enable the promotion of ecological complexity – composition, structure, and pattern.

The retention of reserve trees can provide a “lifeboat” function that contributes to the conservation of biological diversity (see preceding section). These structures facilitate the perpetuation of some biota (plant and animal species and genotypes) on site. They also perpetuate habitat for re-colonization and occupation. They can improve landscape connectivity, facilitating the movement of some organisms. Reserve trees influence reorganization and recovery processes in post disturbance ecosystems; they can sustain functional roles and modify the post-disturbance environment.

The actual benefits achieved through the retention of reserve trees can be variable, depending on such factors as landscape composition and structure, stand composition and structure, site, retention design, and management objectives.

Some specific potential benefits include:

- Timber Production
 - Reserve high quality trees for future harvest
 - Perpetuation of tree species diversity
- Wildlife and Plant Habitat (Biodiversity)
 - Cover
 - Cavity (den) and nest trees
 - Display locations
 - Food (foraging, hunting)
 - Future snags and down woody debris (coarse and fine)
 - Habitat diversity
 - Protect special habitat
 - Travel corridors
- Aesthetics
 - Limit line of vision
 - Break up “clearcut” look
 - Retain visually unique trees
 - Provide diversity in future stand
- Water and Soil Quality
 - Reduce run-off
 - Reduce erosion
 - Maintain water and nutrient cycles
- Miscellaneous
 - Buffer adjacent stands
 - Protect cultural resources
 - Landmarks, such as marker trees and witness trees

Potential Costs of Reserve Tree Retention

The retention of reserve trees in actively managed stands can provide ecological benefits desired by landowners and society. However, there are also costs or trade-offs. The primary potential cost is reduced timber yield at the stand-level. Also, retention can result in less available habitat for some wildlife species, particularly those that prefer open, treeless habitat. However, impacts on long-term forest ecosystem sustainability and

productivity are uncertain; current understanding suggests that the maintenance of ecological complexity will more likely sustain long-term productivity.

Some specific potential costs include:

- Potential additional operational costs to manage reserve tree retention
- Potential for reduced timber growth rates maintained by larger, older trees
- Potential for reduced short-term stand-level timber yields by foregoing harvest of some trees
- Potential for epicormic branching
- Potential for stem and crown damage during stand harvest
- Potential for crown dieback and mortality following harvest
- Potential for windthrow, particularly on wet or shallow soils, or for shallow rooted species
- Potential damage to younger stand if reserve trees are harvested during mid-rotation
- Reduced growth rates of regeneration occurring beneath reserve trees
- Potential sites for pathogen breeding and maintenance
- Potential for reduced habitat for or increased predation of certain wildlife species

Considerations for Reserve Tree Retention

Reserve overstory trees will shade portions of a newly developing stand. Increased numbers of dispersed reserve trees and trees with larger and denser crowns will cause more shading. Furthermore, reserve tree crowns can expand over time, increasing shading effects. Shading by reserve trees potentially can reduce growth within portions of newly developing established even-aged stands. The point at which growth reductions become significant depends on a variety of factors, including: stand management objectives (for reserve trees and young trees), growth rates and potential development of reserve trees, growth rates and shade tolerance of species comprising the new stand, site quality, understory competition, and potential damaging agents. In general, to promote optimum growth of established even-aged stands of reproduction, (nearly) full sunlight is preferred. Under even-aged management systems, when objectives include the retention of reserve trees beyond the regeneration establishment phase, crown cover of <20% generally (for most species and conditions) will not significantly reduce vigor, growth, and development of most of the developing stand. If reserve trees are dispersed and expected to survive and grow, crown cover will increase over time; 15% crown cover is a generally recommended maximum for dispersed retention at final rotation. If reserve trees are aggregated, then shading impacts will be reduced; total crown cover retained could be greater, and will depend on stand management objectives.

Excessive shading may also be a concern when regenerating shade intolerant species in small stands or in narrowly linear stands, surrounded by relatively mature forest. In such cases, it may be necessary to retain fewer reserve trees. Alternatively, there may be opportunities to redesign stand boundaries creating a larger stand with increased opportunities for internal tree retention.

Reserve tree retention is a generally recommended silvicultural practice for stands ≥ 10 acres. It is encouraged in smaller stands, but operational, shading, and other biological issues may limit application.

Insect and disease issues and potential impacts on tree health should be another consideration in reserve tree selection and design. Regeneration methods are designed to foster the vigor of the regenerating stand. Although the imminent mortality of some reserve trees may be desirable or acceptable, typically some vigorous trees will be retained with the expectation of continued growth and survival (perhaps for a long time). When regenerating a stand and retaining reserve trees, potential risks to tree health should be evaluated, and methods implemented to reduce risks while achieving stand management objectives. In most cases, well designed regeneration and retention strategies can minimize risks; however, stand and site conditions may limit options in some cases. Refer to the cover type chapters in the silviculture handbook and forest pest management guidelines to appropriately consider and address insect and disease risks when selecting and designing regeneration methods and reserve tree retention for a specific stand and site.

Two examples of how insect and disease considerations can influence reserve tree selection and design:

- Red pine: Retaining red pine reserve trees when regenerating a new red pine stand may significantly increase the risk of *Sirococcus* and *Diplodia* incidence within the young stand. This risk is highly variable geographically; where experience has shown the risk to be significant, then retaining red pine reserve trees over red pine regeneration would be poor silviculture. In such cases, retain other species (e.g. oak) as reserve trees if available; if not available, then it may not be possible to retain reserve trees as generally recommended, but consider including representation of other species as part of stand regeneration to provide increased options for future managers. Red pine can be an excellent reserve tree when regenerating other species (e.g. aspen or oak).
- Jack Pine: In general, retaining jack pine reserve trees when regenerating a new jack pine stand is not recommended, because of the risk of budworm outbreaks. When regenerating jack pine, other species (e.g. oak) should be retained as reserve trees if available. Jack pine can be retained as a reserve tree when regenerating other species.

Representation of reserve trees can range from none to many. If silviculture is to simulate, to some extent, natural disturbance processes, then most actively managed stands should include some level of structural retention. To accomplish general sustainable forestry goals that include multiple stand management objectives, recommended representation could typically range from 3-15% of stand area or crown cover. In some stands, particularly intensively managed single objective stands (e.g. maximize short-term economic returns, maximize pulp production, or maximize populations of wildlife species that prefer completely open, treeless habitat), landowners may choose to not retain reserve trees. In some stands, with appropriate species and site characteristics, where the optimization of tree vigor and timber quantity and quality is a minor concern, adaptive silvicultural practices that retain 20-60% cover could be considered by the landowner. It is recommended that sound reasons and expected impacts be documented when the decision is to retain reserve trees at less than or greater than the recommended level of 3-15% of stand area or crown cover.

Distribution of reserve trees can be evenly or irregularly dispersed individuals, groups, and patches.

Retention in aggregated patches generally provides the most benefits, including:

- patches of habitat that maintain forest floor, understory plants, and vertical structure within the patch, and increase compositional and structural diversity,
- more heterogeneity across the stand,
- less damage to retained trees during harvesting operations, and
- less impact on regeneration in stand matrix.

Patch retention should consider retention of large trees, cavity trees, and snags within the patches. Reserve patches can be thinned during the even-aged rotational harvest of the matrix; however, retention of unthinned patches potentially provides the greatest benefit. Patches can be located to complement other management objectives or respond to stand conditions; for example, patches can be located in riparian management zones, to provide connectivity between stands, and to protect sensitive sites (e.g. cliff faces and vernal pools) or endangered resources. Patches should be >0.1 acres and generally <2.0 acres, but can be larger; patches, particularly large ones, should be documented as retention patches.

Retention of evenly dispersed individual trees also provides unique benefits, including:

- retention of comparatively more large trees, and
- wide distribution of structural benefits (large trees, snags, and coarse woody debris) and seed sources.

Retention of irregularly dispersed individual trees and small groups provides another strategy; this can be particularly useful to develop feathered edges to stands and reduce abrupt transitions and edge effects.

The general recommended strategy is to retain irregularly distributed patches along with scattered groups and individuals.

Patch sizes for retention and approximate dimensions (circular and square)		
Area (acres)	Diameter (feet)	Square (feet)
0.1	74	66 x 66
0.25	118	104 x 104
0.5	167	148 x 148
0.75	204	181 x 181
1.0	236	209 x 209
1.5	288	256 x 256
2.0	333	295 x 295

Stand representation and spatial distribution patterns of reserve trees can be highly variable. The goal of heterogeneity of conditions indicates a wide array of retention strategies. Retention design, including amount to retain, species, and distribution, can enable the production of increased benefits and minimize potential costs. Criteria to consider when determining desired representation and distribution include: landowner goals and stand management objectives, current and desired stand and community

condition, characteristics of current and desired plant and animal species, potential damaging agents, site, and landscape characteristics. Detailed landscape analysis and planning that clearly addresses the sustainable allocation of resources, including the production of timber and the conservation of biodiversity, can improve upon stand-based management guidelines (such as those offered herein).

Recommendations for Retention in Managed Stands: Reserve Trees, Mast Trees, Cavity Trees, and Snags

Sustainable forest management is implemented within a framework defined by landowner goals and objectives, ecosystem condition and potential, and sustainable silvicultural systems and practices. Forests are cultivated to provide a variety of socio-economic and ecological benefits. Sustainable forest management integrates multiple management goals and objectives into most silvicultural systems and the management of most stands and landscapes.

Most stands that are actively managed include timber production as a management goal (often in concert with other goals). Tree retention typically focuses on crop tree selection and regeneration methods. To satisfy multiple objectives and provide multiple benefits, retain additional trees to achieve non-timber management objectives. Integrate the following recommendations for tree and snag retention into the management of most forest stands:

- Even-aged rotations
 - Retain ≥ 3 (if available), preferably large, snags per acre.
 - Retain reserve trees and/or patches at 3-15% crown cover or stand area, including large vigorous trees, mast trees, and cavity trees. Reserve tree retention is a generally recommended silvicultural practice for stands ≥ 10 acres. It is encouraged in smaller stands, but operational, shading, and other biological issues may limit application.
 - Even-aged intermediate treatments
 - Retain ≥ 3 (if available), preferably large, snags per acre.
 - Retain ≥ 3 (if available), preferably large, cavity trees per acre.
 - Retain ≥ 3 (if available), preferably large, mast trees per acre.
 - If previously established, manage reserve trees and patches. Management may include timber harvesting or passive retention. Consider retaining ≥ 3 trees per acre to develop into large, old trees and to complete their natural lifespan. These trees may also satisfy cavity and mast tree recommendations. These trees will often become large snags and coarse woody debris.
 - Uneven-aged systems
 - Retain ≥ 3 (if available), preferably large, snags per acre.
 - Retain ≥ 3 (if available), preferably large, cavity trees per acre.
 - Retain ≥ 3 (if available), preferably large, mast trees per acre.
 - Consider retaining ≥ 3 trees per acre to develop into large, old trees and to complete their natural lifespan. These trees may also satisfy cavity and mast tree recommendations. These trees will often become large snags and coarse woody debris.
- In cases where these recommendations for retention are not applied, then sound reasons and expected impacts of deviation should be documented.

When applying retention recommendations, be sure to consider:

- Retention will occur at the “Harvest Unit” level. Harvest Unit is defined as the stands within a timber sale. RMZ or Z prefix stands occurring within or adjacent to the Harvest Unit can provide retention opportunities. Retention will be encouraged in stands 10 acres in size or less that are managed as even-aged, but will not be required.
- Individual trees can provide multiple benefits and fulfill the intent of more than one of the above recommendations. For example, three large oak trees with cavities could satisfy the mast tree and cavity tree recommendations, as well as the large, old tree consideration.
- Retention of both vigorous and decadent trees will provide an array of benefits.
- In general, species diversity is encouraged when selecting trees to retain.
- Large trees and snags are >12 inches dbh, and preferably >18 inches dbh.
- Trees retained can be scattered uniformly throughout a stand or irregularly dispersed, as single trees, groups, and patches. The general recommended strategy is to retain irregularly distributed patches along with scattered groups and individuals.
- Retention in aggregated patches generally provides the most benefits for wildlife and biodiversity. Also, patches retained can satisfy multiple benefits; for example, at stand rotation, an internal or adjacent unharvested buffer along a stream (RMZ) could provide a portion of reserve tree retention as well as satisfy BMP (water quality) recommendations. Patches should be >0.1 acres and generally <2.0 acres, but can be larger; reserve tree patches, particularly large ones, should be documented as retention patches.
- Harvesting of reserve trees may occur in the future or may be foregone to achieve other benefits. Retain reserve trees for at least one-half the minimum rotation age of the new stand (e.g. retain reserve trees at least 20-25 years if regenerating aspen). Consider retaining some trees to develop into large, old trees and to complete their natural lifespan; these trees will often become large cavity trees, snags, and coarse woody debris.
- Retain as many snags as possible. Retention of snag diversity (species and size) can potentially provide the greatest array of benefits. Snags that are determined to be a threat to human safety can be cut and retained on site as coarse woody debris.
- Clearly designate, in writing and/or by marking, which trees should be retained prior to any cutting operations.

820.8 BIOMASS HARVESTING GUIDELINES

Refer to Chapter 505.8.10 BMP’s, Roads and Landings or the publication can be found on the Council on Forestry website at:

<https://councilonforestry.wi.gov/Documents/WoodyBiomass/BHGFieldManual.pdf>

825 ANIMAL SPECIES MANAGEMENT

The Lincoln County Forest provides a wide range of wildlife habitats from open grasslands/barrens to mature forests, from bogs to forested wetlands, from spring ponds to lake shorelines. A primary goal of wildlife management on the Lincoln County Forest is to provide a diversity of healthy ecosystems necessary to sustain and enhance native wildlife populations. This forest will be managed primarily to provide habitats for a suite of species rather than focusing on a specific species, with exceptions made for Federal or State Listed Endangered or Threatened Species.

825.1 TECHNICAL PLANNING

Management of wildlife populations on the Lincoln County Forest falls under the jurisdiction of the DNR. Planning may be a cooperative effort of the County Forest staff, DNR liaison forester and wildlife manager in formulating management plans and utilizing forest and wildlife management techniques to accomplish desired forest and wildlife management goals.

825.2 GUIDELINES

DNR operational handbooks including the Public Forest Lands Handbook (2460.5), manual codes and guidance documents are important references and guidelines to utilize in fish and wildlife planning efforts.

825.3 INVENTORY

Habitat needs will be determined by analysis of forest reconnaissance information as well as input from wildlife professionals. Population estimates will be conducted by WI DNR wildlife management staff, natural heritage conservation staff, and other trained cooperators. The following surveys are conducted on or adjacent to the Lincoln County Forest:

- Summer Deer Observations
- Operation Deer Watch
- Turkey and Grouse Brood Survey
- Carnivore Tracking
- Howl Surveys
- Black Bear Genetic Survey
- Woodcock Peenting Survey

- Ruffed Grouse Drumming Survey
- Waterfowl Survey
- Eagle Survey
- Biotic Inventories
- Frog and Toad Surveys
- Bat Monitoring
- Snapshot Wisconsin

825.4 RESOURCE MANAGEMENT CONSIDERATIONS FOR WILDLIFE

The following areas of focus are identified for achieving plan objects and for benefit of wildlife.

825.4.1 General Management Policies

Forest management practices may be modified to benefit wildlife and diversity. The following will be considered when planning for management activities:

- Even-aged regeneration harvests (clearcuts, coppice and shelterwood) should vary in size and shape and include retention considerations.
- A diversity of stand age, size and species.
- Mast-bearing trees and shrubs, cavity trees, and an adequate number and variety of snags.
- Cull trees (future snag or den trees) not interfering with specific high value trees.
- Timber types, habitat conditions and impacts on affected wildlife.
- Access management.
- Best management practices for water quality (BMP's).

825.5 IMPORTANCE OF HABITATS

Important habitat types are those cover types known to be of importance to certain native wildlife and whose absence would make that wildlife significantly less abundant. These shortages may be on a local or broader scale. The following habitat types can be considered important:

825.5.1 Non-forested wetlands

The Lincoln County Forest contains approx. 14,100 acres of non-forested wetland types providing a variety of habitats for common, rare and endangered species. Emergent

wetland, sedge meadow, muskeg bog and deep marsh provide habitat for species such as wood turtle, black tern, American bittern, and numerous other species.

825.5.2 Aquatic habitats

The Lincoln County Forest includes approx. 1100 acres of lakes, rivers, streams, ponds and other aquatic habitats. Open water provides habitat for species such as wood duck, boreal chorus frog, water shrew and many other species reliant on water related resources.

825.5.3 Riparian and other non-managed areas

Undisturbed shoreline and riparian areas that are present on the forest provide habitat for species such as red shouldered hawk, green frog, and woodland jumping mouse.

825.5.4 Early successional forests

Management of aspen, white birch, jack pine and other shade intolerant species creates habitat for a large suite of wildlife species that benefit from early successional forests. On the Lincoln County Forest there are currently approx. 39,600 acres of these forest types present. This is a key habitat used for recreational hunting activities providing conditions favorable for American woodcock, ruffed grouse, white-tailed deer and non-game species such as golden-winged warbler, Kirkland's warbler and black-billed cuckoo.

825.5.5 Conifers

Conifers, whether jack pine, white pine, spruce, fir or other types are important habitat for a number of wildlife species. The Lincoln County Forest currently has approx. 15,400 acres of coniferous habitat. Connecticut warbler, red crossbill, northern flying squirrel, and many others utilize conifer types. Jack pine areas can be managed to provide temporary barrens habitat providing habitat for Kirtland's warbler and other barren related species.

825.5.6 Oak management

Oak is an important mast producing food source on the forest, providing acorns for a wide variety of game and non-game species. The Lincoln County Forest has approx. 1,650 acres of oak habitat. It is considered a critical resource to retain on the landscape for both its timber and wildlife value, providing habitat for species such as scarlet tanager, wood thrush, red headed woodpecker, and black bear.

825.5.7 Uneven/all aged management

Management of uneven aged stands provides for multi-storied canopies, diverse age structure and potentially older forest characters. The Lincoln County Forest has approx. 20,240 acres being managed under an all aged management system. Species such as Canada warbler, little brown bat, black throated blue warbler and many others benefit from these forest type, In addition, numerous amphibian and reptiles utilize these forest types.

825.5.8 Large forest blocks

Large blocks of County Forest provide habitat for numerous interior species. Gray wolf, black throated blue warbler, Canada warbler and least flycatcher are a few examples of animals that rely on these large blocks.

825.5.9 Grasslands, openings, upland brush

Wildlife openings, grass rights-of-way, natural openings, upland brush and other upland open habitats provide for diversity and unique habitats. These cover types benefit pollinators and numerous species including upland plover and whip-poor-will. The Lincoln County Forest currently has approx. 880 acres identified as open grassland or upland brush habitat.

825.6 INTENSIVE WILDLIFE MANAGEMENT PROJECTS

825.6.1 Wisconsin Wildlife Action Plan / Species of Greatest Conservation Need (SGCN)

In addition to species listed as endangered, threatened or special concern within the NHI database, the Wisconsin Department of Natural Resources also maintains a statewide list of species of greatest conservation need.

This list includes species that have low or declining populations and may be in need of conservation action. The list includes birds, fish, mammals, reptiles, amphibians and insects that are:

- Already listed as threatened or endangered
- At risk due to threats
- Rare due to small or declining populations
- Showing declining trends in habitat or populations

The WWAP working list can provide information on how management activities may impact, or in many cases benefit species of greatest conservation need. More information is available on the WWAP website:

<https://dnr.wi.gov/topic/wildlifehabitat/actionplan.html> .

825.7 FISH AND WATERS MANAGEMENT

Public waters shall be managed to provide for optimum natural fish production, an opportunity for quality recreation, and a healthy balanced aquatic ecosystem. Emphasis will also be placed on land-use practices that benefit the aquatic community. Management of County Forest lands will attempt to preserve and/or improve fish habitat and water quality.

825.7.1 Technical Planning and Surveys

Management of all waters within the County Forest is the responsibility of the DNR. Technical assistance will be provided by the local fisheries biologist. Studies and management will be conducted in the manner described in DNR Fish Management Handbook 3605.9. Water and Population Surveys fall under the jurisdiction of the Department and will be conducted as needed by fisheries biologists.

825.7.2 Special Projects

Trout stream and habitat improvement work and other fish habitat projects are conducted on streams and lakes located within the boundaries of the Lincoln County Forest. Several methods of trout habitat improvement may be applied including brushing, brush bundling, large wood additions, channel shaping and spring pond dredging. Specific locations for trout habitat projects on the Lincoln County Forest may be the Prairie River, North Branch of the Prairie River, Green Meadow Creek, Big Pine Creek, Little Pine Creek, Squaw Creek, Averill Creek, Armstrong Creek and the Spirit River. These projects are done in cooperation with Department of Natural Resources Fish Management staff in order to improve fish habitat and make for higher quality recreational opportunities for users of the county forest.

825.7.3 Shoreland Zoning

Forestry activities such as harvesting of trees, and landings are exempt from regulation under the counties Chapter 21 Shoreland Zoning as long as best management practices, as prescribed by "Wisconsin's Forestry Best Management Practices for Water Quality Field

Manual", are adhered to by the landowner and logger or the practice is prescribed and supervised by a practicing forester. The full County Shoreland Zoning Ordinance can be viewed at the following link:

https://library.municode.com/wi/lincoln_county/codes/code_of_ordinances?nodeId=CO_CH21SHZOCR432-2003

825.7.4 Access and development

Access and development of County Forest waters will be limited to those activities consistent with the above water management policies. See Chapter 740 also for further information on water access.

830 EXCEPTIONAL RESOURCES, UNIQUE AREAS

830.1 HCVF FOR FSC AND DUAL CERTIFIED COUNTIES

The DNR established criteria for establishing HCVFs on state lands is found below. For the purpose of this plan, the county recognizes this criterion for identifying HCVFs on county land. This does not preclude the county from identifying other unique areas that do not meet the definition of HCVFs.

<https://dnr.wi.gov/topic/TimberSales/documents/DNRLandsHCVFSelectionCriteriaFinal.pdf>

CRITERIA FOR HIGH CONSERVATION AREAS

- Forest areas containing globally, regionally or nationally significant concentrations of biodiversity values including RTE species.
- Forest areas containing globally, regionally or nationally significant large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance.
- Forest areas that are in or contain rare, threatened or endangered ecosystems.
- Forest areas that provide basic services of nature in critical situations (e.g., watershed protection). **Wisconsin does not have known locations meeting this criterion.**
- Forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health of indigenous communities) **Wisconsin does not have known**

locations meeting this criterion.

- Forest areas critical to local communities' traditional cultural identity (e.g. areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

The HCVFs on the Lincoln County Forest are the following:

Tomahawk Bog

This 1,300-acre high conservation value forest site features a large semi open bog, northern wet forest, northern hardwood swamp, and alder thicket communities. Black spruce and tamarack dominate a significant portion of the area. In the eastern part are areas of mineral water influence that permits excellent cedar swamp, black ash swamp, and tamarack fen communities to develop. Lincoln County manages the uplands for sustainable forest products. Bird species of special concern: Black-backed Woodpecker, Gray Jay, Boreal Chickadee, Yellow-bellied Flycatcher, and Evening Grosbeak have been recorded here in good numbers. A snowmobile trail crosses the bog. This bog is one of the best large acreage bogs remaining in the state.

Budinga Bog

This is a large wetland complex dominated by open sphagnum bog and swamp conifer forest of black spruce and tamarack. Rolling glacial topography occurs on the surrounding uplands. A town road passes through the area. Heritage natural community types are open bog and northern wet forest both of which are given high quality A rank. The site is considered a High Conservation Value Forest in the County

Sparrow Bog

Open bog plants and a forest of black spruce and tamarack dominates this muskeg. One section has a significant feature termed a domed bog. This is a muskeg of stunted black spruce lying on accumulated peat that is significantly higher in the center than the edges forming a prominent domed aspect. This part

of the bog is very acidic. The bog and northern wet forest have been given A rank. The site is a High Conservation Value Forest in the County.

Bradley Swamp

Another large bog area dominated by black spruce and tamarack. The same species of birds found at Tomahawk Bog are found here. The community features, northern wet forest and open bog, are ranked A. There is a road that divides the area and it is parceled into multiple owners making bog-wide management difficult.

Highway 8 Bog

This is a B ranked wetland north of Hwy 8. Dominants are black spruce and tamarack with a dense bog shrub understory.

830.2 AREAS RECOGNIZED BY STATE OR FEDERAL GOVERNMENT

830.2.1 State Natural Areas

The State Natural Areas system represents the wealth and variety of Wisconsin's native landscape. They contain outstanding examples of native biotic communities and are often the last refuges in the state for rare and endangered plant and animal species. SNAs are unique in that they can exist as stand-alone properties or be designated within the boundaries of another property type. There are no designated State Natural Areas within the Lincoln County Forest at this time.

At a future date, if State and County personnel concur on management objectives, significant biological areas may become SNAs. If SNAs are designated in the future, Lincoln County will work cooperatively with the DNR Endangered Resources staff to coordinate educational, monitoring, and research activities.

830.2.2 Endangered species habitats

The DNR keeps track of rare, threatened and endangered animal, plants and ecosystems through their Natural Heritage Inventory system (NHI). Each timber sale will have an NHI check performed prior to sale establishment. In the event any rare, threatened or endangered species or ecosystems are located within or near the proposed sale area, protective measures will be taken to minimize or eliminate any negative impacts.

830.3 AREAS RECOGNIZED BY COUNTY OR LOCALLY

Lincoln County may contain areas that are locally considered exceptional or unique. Some are recognized by other agencies, while others are designated only within this Plan. These resources may include wild rivers, lakes, natural areas, geological features or historical/archeological sites. Lincoln County maintains a GIS layer of locally recognized areas of historic significance so these sites can be protected in the course of management of the forest.

830.3.1 Forests with Old Growth Characteristics

Eastern hemlock and white cedar stands will be maintained. Hemlock is important to the diversity of our northern hardwood stands and provides a seed source for regeneration and needed habitat for many species, including migratory songbirds. Management is currently keyed to maintaining hemlock as a component of northern hardwood stands and improving the health and vigor of individual trees and islands of trees. Regeneration is dependent on overcoming high deer populations. Silvicultural techniques in conjunction with repellents, fencing, and/or bud capping may prove useful in regenerating hemlock and enhancing its presence on the County Forest. Cedar is equally important to the diversity of our forested wetlands and provides a seed source for regeneration and needed habitat for many species, including migratory songbirds. With regard to the difficulties in regenerating white cedar, due mostly to high deer populations, these stands are currently not being harvested. Regeneration is dependent on overcoming high deer populations. Silvicultural techniques in conjunction with repellents, fencing, and/or bud capping may prove useful in regenerating white cedar and enhancing its presence on the County Forest.

830.3.2 Wildlife Sites

Wildlife sites may include such things as bat hibernacula, herp hibernacula or bird rookeries. Special considerations will be given to such areas if they are identified on the Forest.

830.3.3 Geological Features of Significance

- a. Summit Lake moraine in sections 10 and 11 of Harrison Township - This moraine is a prominent ridge up to 90 feet high and was part of the Langlade lobe that travel in a different direction than the Harrison lobe. The upper parts consist of meltwater stream sediment.
- b. Ice-walled Lake Plains are features that form in rugged moraines. Typically the only flat areas in very hilly topography, these plains were once lake bottoms. The sediment that formed at the bottom became perched when the surrounding ice blocks melted. The richer nutrients and the well-drained position at the top of hills permitted exceptional conditions for forest development.
- c. Drumlins, especially in Tomahawk, Somo, and Harding Townships are southeast trending and form the uplands between the extensive peatlands. This extensive field of drumlins is a significant geological feature.
- d. Prairie River Dells – The Dells contain a gorge, rapids and cliff side vegetation. The site contains exceptional scenic quality. The site is planned for minimal development with the construction of 3 viewing platforms in the “Prairie Dells Scenic Area.”

830.3.4 Unique Lakes

Harrison Hills Lakes

The outstanding feature of this site is a dense concentration of lakes set in a relatively natural state. Lakes exhibit differences in species composition and population densities due to depth, alkalinity, shore features, and whether the lake is drained or gets its water via seepage. A combination of features found on 15 lakes south of Harrison could form an exceptional ecological reference site. The lakes, mostly in sections 7, 11, 20, and 29 have a range of qualities that when combined would be unequaled as a reference site.

- Coppes Lake – Soft water seepage lake with clear water and muck bottom
- Lake 34 - 8 – 11(5) – Shallow hard water drained lake with associated wetlands
- Lake 34 – 8 - 11(6) – Shallow hard water drainage lake with associated wetlands
- Lake 34 – 8 – 7 (15a) – Meromictic lake 0.3 surface acres, 41 feet deep
- Pine Lake 34 – 8 - 20 – Hard water drained lake with a bog wetland

- Tahoe Lake – An exceptionally deep (54 feet) soft water seepage lake
- Lake 34 – 8 – 20 (14) A very soft water seepage lake with no wetlands
- Lake 34 – 8 – 20 (15) A small soft water bog lake
- High Lake – A deep very soft water seepage lake with abundant rosette plants
- Lake 34 – 8 – 29 (8) – Deep (38 feet) with ultra soft water
- Lake 34 – 8 – 29 (11) – Bog lakes with medium soft water
- Lake 34 – 8 – 29 (12) – Deep (40 feet) with no muck on the bottom
- Lake 34 – 8 – 29 (14) – Soft water seepage lake with some muck
- Turtle Lake – The west portion is shallow with abundant emergent plants and invertebrates
- Thompson Lake – Diverse shoreline, deep, wilderness type with diverse fish population

830.3.5 Unique Forest Types

Ruffed Grouse/Woodcock Management Area

County Forest lands contain ruffed grouse and woodcock management areas located in the Mail Route Block, New Wood Block, Underdown Block and Wildwood Block. Some areas are established in cooperation with the Ruffed Grouse Society and the Department of Natural Resources. Chapter 3000 contains maps of the Ruffed Grouse/Woodcock Management areas. Management of the vegetation in this unit will promote aspen and oak forest types. The objectives are as follows.

1. Maintain and expand the aspen and oak acreage.
2. Establish timber harvest areas of relatively small size (20 to 40 acres), and with irregular boundaries to maximize the creation of forest edge.
3. Create and maintain structural and age class diversity in the aspen and oak types.

830.3.6 Endangered or Threatened Species Habitat

Rare, threatened and endangered plant and animal species exist in the Lincoln County Forest. When habitat for these species is identified, appropriate measures will take place to protect these sites.

830.4 CULTURALLY SIGNIFICANT SITES

830.4.1 Cemeteries

There is a marked grave near an old church site. Historically, this site was located in a lumber town that has now vanished from the landscape.

830.4.2 Logging Camps

Lumber camps were scattered throughout the Lincoln County Forest. Occasionally, remnants of these camp areas can be found on the Forest

835 AESTHETICS

Public perception of forestry has changed over the last planning period and in general it appears that the public is much more accepting of the visual impact of sound forestry. In response to this, aesthetic management planning is intended to be much more simplified in this Plan.

835.1 AESTHETIC MANAGEMENT

Aesthetic management techniques may be applied in areas of high visibility or high public use. Altered management, visual screens, slash disposal, conversion to other species, no cut zones or other methods may be employed, depending on the circumstances of the specific site.

835.2 AESTHETIC MANAGEMENT ZONES

Aesthetic Management Zones include areas where there may be high levels of public presence because of scenic attraction, or some use of the area that would be enhanced by special timber management practices.

835.2.1 Aesthetic Management Zone Examples

- Park and recreation areas, including access routes
- Lakes and rivers with significant recreational use
- Roads with heavy traffic or scenic drive.

835.2.2 Aesthetic Management Prescriptions/Options

- Adjustment timing of timber harvesting
- Slash restrictions/requirements
- Staggered Harvests / Visual Screens
- Forced conversion to longer lived species
- Irregular harvest lines, interrupted sight distances

840 LANDSCAPE MANAGEMENT

Lincoln County will make efforts to evaluate surrounding landscapes while managing the County Forest. The County will strive to provide management that compliments the landscapes, but also try to provide for resources or forest types that are lacking or declining within surrounding landscapes.

840.1 CONSERVATION OF BIOLOGICAL DIVERSITY

For the purposes of this plan, biological diversity will be interpreted to reference the variety and abundance of species, their genetic composition, and the communities, ecosystems, and landscapes in which they occur. Forest management activities on the Lincoln County Forest enhance biological diversity by managing for a wide variety of habitat types, age structures and by attempting to perpetuate and protect declining forest types.

840.2 HABITAT FRAGMENTATION

For the purposes of this plan, habitat fragmentation is interpreted as conversion of forests to land uses other than forestry. Lands enrolled in the County Forest Law help protect against habitat fragmentation. A continued program of encouraging land acquisition within the forest blocking boundary is intended to decrease the conversion of forest land to other uses.

845 RESOURCE MANAGEMENT BLOCKS

845.1 OBJECTIVE

Previous chapters have outlined the planning objectives, decision guides and management considerations for administering the County Forest.

The intent of using resource management blocks is to document the differing physical characteristics of individual units on the Forest as well as any unique management and access considerations. Resource managers can use these chapters as a tool to guide management and to communicate management goals and resource needs to other foresters and resource managers.

845.2 BLOCK MAPS AND NARRATIVES

Each block chapter contains a general resource map as well as summaries of the following information:

- Resource Management Block Name
- Block acreage
- Predominant Timber Cover Types
- General description of soils and topography
- Listing of primary water resources (lakes, rivers, streams)
- Recreational/access considerations
- Protection needs

In addition, the Resource Management Block Chapters contain basic Goals and Guidelines for the unit that will guide foresters in making management decisions within the block.

Block maps are compiled in Chapter 3000 of this plan.

County Forest Administrator's Report
Department Activity December 1, 2019 – December 31, 2019

Specific Activities

12/3-Annual Performance Evaluation with Administrative Coordinator
12/4-Land Services Group Meeting
12/9-Shop Internet Meeting
12/11-WCFA Quarterly Administrators Conference Call
12/14-Underdown X-C Ski Trail Opening
12/17-Forestry, Land and Parks Committee Meeting and Performance Evaluation
12/19-Department Head Meeting
12/20-Eastern Zone 1 (Harrison) Snowmobile Trail Opening
12/23-Merrill High School Student Job Shadow

General Activities

2019 Fall Timber Sales
2020 Spring Timber Sales
2020 Budget
2019 Budget
2018-19 Snowmobile and ATV Grants
2019-20 Snowmobile and ATV Grants
2019 Park Projects
15 Year Plan Update
DNR Audit
Harrison Dam
Somo Dam
Tripoli Dam
Safety Plan
Park and Campground Issues
Hiawatha Trail Issues
Forest Certification Issues
Tax Delinquent Parcels
Our Way House
County Forest Roads
Contact with Recreational Officer on Issues
Firewood Permits
Access Permits
Handicapped Hunter Permits
Beaver Trapping Issues
Timber Sale Monitoring and Administration
Ice Age Trail Issues
Snowmobile/ATV Trail Issues
X-C Trails
Underdown Horse Club Issues
Worked with Public on Issues Brought to Office
Work with Loggers on Issues Brought to Office
Preparation of Information for Committee Meeting