

PRESCRIBED BURNING UNIT PLAN

For The Kirtland's Warbler Management Area

A. Purpose of Burn:

Prescribed burning will be undertaken within the management units of the Kirtland's Warbler Management Area. This prescribed burn is necessary to achieve the objectives set forth in the Management Plan (Ref: 2650) for this area - that of extensive, homogeneous areas of young jack pine interspersed with small openings. Under natural conditions, the habitat of the Kirtland's Warbler is produced only by forest fires. This bird is, therefore, unusual among living creatures in being dependent upon fire. A hot burn will be required to produce the desired results.

The prescribed burn has also been set up as a training exercise to train district and S.O. overhead personnel in fire characteristics, planning and control. Personnel from the supervisor's office will act in their capacity as assigned in the "S.O. Overhead Fire Team". District rangers will train their personnel as outlined in our memorandum of May 1, 1961 - "Fire Qualifications and Training Needs". A thorough review of the R-9 Fire Overhead Notebook is recommended. FSH2 5125.4 will be used.

B. Area To Be Burned:

1. Section 3, T 25 N - R 3 E. Estimated acreage - 500
2. Timber Type - Jack pine, mixed with scattered oak trees. Burning to follow cutting operations as outlined in the Management Plan. Jack pine slash to be spread to obtain optimum burning conditions on the area. Selected seed trees (15-17 per acre) to be reserved from cutting to provide seed source. Combination backing and head fire to be used to obtain a hot burn, with high temperatures necessary to open the cones of the seed trees. Existing timber type shown in Appendix B of the Management Plan; and on page 31.
3. Topography - level. Road conditions good in area. Sandy soils.

C. Timing Of The Burn: Considerations:

1. Silviculturally a spring burn would give seeds the best chance of survival. Summer burns have been very successful in getting regenerations established also.

2. Kirtland's Warbler arrives on area about May 20 to nest. Desirable to burn before they arrive, or in the late summer.
3. The prime consideration for a successful burn is to have the optimum conditions for burning. When these conditions are right, we must move promptly to accomplish the objective. For our purpose either a spring or summer burn will do the job. A summer burn would be easier and safer to manage.

D. Conditions For Burning:

- Spring: 5-7 days without rain (on B.I. Meter).
 35% humidity (+ or minus 5 points).
 Gentle wind not to exceed 10 M.P.H.
- Summer: 7-8 days without rain (on B.I. Meter).
 40% humidity (+ or minus 5 points).
 Wind not to exceed 15 M.P.H.

If the humidity is lower than indicated it may be safe to burn provided the wind is calm or very gentle.

Humidities lower than specified and higher winds than allowed makes conditions critical and burning should not be attempted.

E. Coordination W/Research:

These plans have been reviewed by the Research Branch in Cadillac and are approved. The Research Center has been contacted and we will make full use of their experience in conducting the burn.

The State Research Center at Roscommon will work with the sandcaster on the area to test its capabilities and safeguard the area.

F. General:

The prevailing wind in the summer is from the southwest. This plan is based on this concept. However, the plan is flexible in that it will work whichever direction the wind blows. Fire camp headquarters will be set up on the windward side.

G. Training and Manpower Needs:

For fire training purposes, the fire will be managed as a 3 division fire.

Line

- 3 Division Bosses
- 6 Sector Bosses
- 1 Firing Boss
- 4 Crew Bosses for individual firing crews. (4 man teams)

Headquarters Staff

Intelligence Officer for patrol and scouting.
 Information and public relations.
 Maps and records.
 Service Chief.
 Plans Chief.
 Finance Chief.
 Safety Officer.
 Photographer.
 Supply Officer.
 Equipment Officer.
 Communications Officer.
 Air Operations Officer.
 Time keepers.
 Obligations and Claims Officer

These positions will be filled prior to the fire. Michigan Department of Conservation personnel and equipment will be invited to participate in the training exercise. Definite assignments will be made prior to the fire. (Much will depend upon the availability of men and equipment at the time.)

The fire boss and his overhead team will conduct an on the ground orientation on the day before the fire. The labor force will arrive at 10:00 a.m. the day of the burn for their orientation and job assignment. Headquarters on the area will have a map for this purpose.

H. Information and Education:

The size of this fire and its purpose has created much interest by various organizations. To the extent possible, news media such as newspapers, radio, and television will be notified of the event. Audubon and other like bird societies will be informed, as well as the Michigan State Department of Conservation.

We will make every effort to document pictorially this burn. Those agencies which will aid us in this endeavor will be given assistance in their work. To avoid congestion on the area, the general public will not be invited to watch the proceedings.

I. Safeguards:

A single fire plow line will be put in approximately 100 yards out from the exterior boundary of the fire. Within the fire line for the first 200 feet all white birch trees and dead snags over 6 foot tall will be filled prior to burning. The south boundary will be made accessible to tankers by constructing a travelable road across the south edge of the area. The other three sides are already accessible by existing roads.

APPENDIX F

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C. Prescription For Burning:

1. Overhead Fire Team:

	<u>Training</u>	<u>Alternate or Training Supervisor</u>
<u>FIRE BOSS:</u>	L. Battey	J. Jay
<u>FIRE COUNSELOR:</u>		R.O. Representative
<u>PLANS CHIEF:</u>	R. Radtke	E. Youngblood
INFORMATION	J. Jay's Ass't.	TM Assistant
	Bob Griffin	
MAPS & RECORDS	W. Worthington	R. Hull
	B. Beery	
PHOTOGRAPHS		E. Clifford
<u>SERVICE CHIEF:</u>	R. Porter	P. Komblevitz
(will be responsible for assigning)		(Suggested Assignments)
SUPPLY OFFICER	Parsons	Komblevitz
EQUIPMENT OFFICER	Engin. Ass't.	O. Kobs
COMMUNICATIONS	Worthington's Ass't.	Avery
AIR OPERATIONS	White Cloud	District
<u>FINANCE CHIEF:</u> (responsible for assigning):		Administrative Assistant
TIME KEEPER	J. Hilyard	Adm. Ass't.
OBLIGATIONS	F. Stephan	Adm. Ass't.
<u>SECTOR ORGANIZATION:</u>	(Line Function)	
SECTOR "A" (South Line)	District Assistant - Mio	
SECTOR "B" (North Line)	District Ranger - Tawas	
SECTOR "C" (East Line)	District Ranger - Harrisville	
SECTOR "D" (West Line)	District Ranger - Manistee	

NOTE: District Rangers should assign their district assistants the job of organization and control of their assigned sector, and act in a training capacity. A recommendation is given:

	:SECTOR BOSS :	
	:DIST. RANGER:	
	:	
	:Acting Sector Boss:	
	Dist. Ass't.	
:Flow Boss:	Tanker Pumper :	:Crew Boss:
:	Boss :	
Tractor	Plans, Supply :	:
Crew	Tanker Pump. Communications	4-6 man fire
	Crew (Command Function)	Line Crew

Form 328-R9 will be prepared for the Overhead Team.

- a. Manistee Forest - Districts from the Manistee N.F., will send two supervisory personnel from each district (District Assistant and Forestry Aid recommended) to be employed within the SECTOR organization. Total 8 men.
- b. Michigan Department of Conservation personnel and equipment will be invited to participate in the training exercise.
- c. M.D.C. - U.S.F.S. Sand Caster will be requested for stand-by, with possibilities of conducting tests with this equipment.
- d. Mop-Up Crew
 - (1) Day Crew - 8 man-days
 - 1st. Day - 4 men (2/Crew); 1PM - 10PM
 - 2nd. Day - 2 men 8 AM - 5 PM
 - (2) Night Crew - 4 man-days
 - 1st Night - 2 men; 10 PM - 8AM
 - 2nd Night - 2 men; 5 PM - 7AM

(Advance approval request for 1 1/2 hours of overtime).

2. Project Equipment
 - a. Two tractor-low units with two men each - 4 man-days.
 - b. Two tractor hauling units.
 - c. Two tanker-pumper units (Mio and Harrisville).
 - d. Two Tractor tanker units.
 - e. Six pickups (Mio 2; Harrisville 2; Tawas 1; Manistee 1). Additional units will be available (3) from the White Cloud, Baldwin, and Cadillac Districts; as well as vehicles from the S.O. overhead team.

- f. Emergency stand-by Spot-Fire Crew.
3. Project Funds (Estimates for one day):
- a. Two tractor-plow units w/2 men each 70.00
 - b. Project work crews 260.00
 - 2 each, 4 man crew - Mio District
 - 2 each, 4 man crew - Harrisville District
 - c. Transportation
 - (1) Work Crews - 70 miles @ 11¢/mile
 - (2) 2 each, tractor trailer - 30 miles @ 18¢/mile 10.80
 - (3) 2 each, tanker-pumper unit-50 miles @ 16¢/mi. 16.00
 - (4) 6 pick-up trucks-240 miles @ 10¢/mile 24.00
 - d. Mop Up Crew (total cost including transportaion) 230.00
 - e. Miscellaneous-oil, drip torches, fuses, etc. 25.00
 - Project Funds (based on one day) 080 Wildlife 643.80
 - f. Per Diem of Overhead-paid by District Funds-Function 913.
 - g. Overhead-base financing as set up on the Lower Michigan Training Plan Schedule-Fiscal Year 1963. Per Diem of S.O. overhead - Function 909.
 - h. Additional Fire Equipment (tractor-plow units) contracted by the Mio and Harrisville Districts will be charged to F.F., based on the increased fire risk involved with district equipment away from their official station.

4. Estimated Time Table:

The prescribed burn is scheduled to be completed in one day. An additional day is allowed in the schedule in the event weather factors, high B.I., etc., postpone the burn.

- a. 1962 - late fall. Fire line road along the south line of the proposed burn area-in conjunction with proposed timber sale.
- b. April 2-furrow 4 miles-for 1½ chain protective strip to be burned prior to main burn.
- c. April 4
FIRE BOSS to review prescribed burn area with PLANS CHIEF, SERVICE CHIEF, and FINANCE CHIEF. Final preparation on equipment and manpower assignments.

d. 4 PM-Special Weather Forecast.

April 5

0700 - FIRE BOSS and PLANS CHIEF set up operations center on site.

0800 - Arrive on site with equipment.

- (1) Communications center and dispatcher
- (2) Deployment of Sector Crews and equipment at assigned Sector locations.
- (3) First-Aid Center
- (4) Communications check, Sector check.

0900 - Burn $1\frac{1}{2}$ chain protective strips - BC, D, and A

11:00 - Complete burning strips-mop-up strip.

Alternate plan in the event there is a major break from the protective strip:

Proceed with main controlled burning plan.

Minor breaks to be controlled with tractor-plow units.

12:00 - Lunch

1:00 - Final weather check-special Weather Forecast.

1:30 - Begin prescribed burn-estimated wind direction west to east.

Reports-Maps and Records Section.

Sector C-Begin backing fire from center of Sector, working north and south. Mop-up crew deployed.

2:00 - Sector A and B - begin burning from east to west-approximately 3-5 chains ahead of main backing fire from Sector C.

2:40 - Sector D - Begin headfire from center of Sector D, working north and south. Begin when Sectors A and B reach $\frac{3}{4}$ distance along north and south lines.

Analysis continuing for Burning Appraisal Report.

Careful appraisal of the prescribed burn may indicate or suggest burning conditions which would promote optimum warbler habitat.

4:30 - Complete burn. Mop-up continuing. Equipment clean up.

10:00 PM - Night shift - mop-up crew.

- (5) April 6 - Evaluation of Burn

8:00 AM - Day shift - mop-up crew.

- (6) April 7

7:00 - Relieve mop-crew. Burn complete, unless additional mop-up is indicated.

- (7) Alternate Time-table: In the event the $1\frac{1}{2}$ chain protective strips cannot be burned, leaving sufficient time for the main burn, the time table will be adjusted. The main burn will be postponed to the following day, and will begin at 10:00 A.M.