

Prescribed Fire Complexity Worksheet

Burn Unit Name: Christiana 31 Prairie Bank

| Element | Sub Element | Rating Value (L-M-H) | | Rationale |
|--------------------------------------|------------------------|-------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Potential for Escape | Risk | Preliminary | L | Little potential for escape. Spot fires would comprise of small areas that are readily detected, accessed and controlled by modest holding forces on the burn. No ladder fuels or concentrations near critical holding points. There is no residual fire expected beyond the day of ignition. |
| | | Final | L | No change. |
| | Potential Consequences | Preliminary | L | An escape into the nearby fuels and properties is not expected; a 15 ft mowed firebreak protects buildings. An escape would cause few social concerns or monetary damage. |
| | | Final | L | No change. |
| | Technical Difficulty | Preliminary | L | The burn unit is easily accessible to the holding resources identified in the plan. A 15 ft mowed firebreak protects against an escape. |
| | | Final | L | No change. |
| 2. Number & Dependency of Activities | Risk | Preliminary | L | Activities are generally independent or only loosely dependent on other activities. |
| | | Final | L | No change. |
| | Potential Consequences | Preliminary | L | Coordination problems do not threaten the completion of the project or the ability to meet project objectives. |
| | | Final | L | No change. |
| | Technical Difficulty | Preliminary | L | Minimal difficulty on coordinating the required activities. |
| | | Final | L | No change. |
| 3. Off-Site Values | Risk | Preliminary | L | Burn unit is on a Prairie Bank easement. Most land adjacent to the burn unit is the same ownership as the easement. Would have to cross a 15ft mowed line to escape to the north or east. Minimal risk to private or agency land. |
| | | Final | L | No change. |
| | Potential Consequences | Preliminary | L | The vegetation affected has rapid recovery rate with minimal or no damage to off-site values. |
| | | Final | L | No change. |
| | Technical Difficulty | Preliminary | L | Protection of the off-site values requires no special management , equipment or skills. |
| | | Final | L | No change. |
| 4. On-Site Values | Risk | Preliminary | L | The nearby building site will require special consideration. The risks are considered to be minimal since a mowed firebreak protects the site. Within the burn unit there are no wooden power poles or utility boxes needing protection. |

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| | | Final | L | No change. |
| | Potential Consequences | Preliminary | L | Implementation problems will not result in a reduction to on-site resource values. |
| | | Final | L | No change. |
| | Technical Difficulty | Preliminary | L | The building site is easily protected. Fuels immediately around nearby buildings is either mowed or heavily grazed. |
| | | Final | L | No change. |
| 5. Fire Behavior | Risk | Preliminary | L | Fuels are uniform, fire behavior is predictable, and terrain is mostly flat to rolling. Fuels are characterized by using fuel model 3. |
| | | Final | L | No change. |
| | Potential Consequences | Preliminary | M | Fire behavior outside of the primary unit boundary would be primarily less or the same as the fire behavior within the unit. Land use outside of the unit boundary is tilled crop land and fuel model 3. |
| | | Final | M | No change. |
| | Technical Difficulty | Preliminary | L | Standard fire safety precautions are adequate to ensure personnel safety. Spot fires would not require any additional suppression resources. |
| | | Final | L | No change. |
| 6. Management Organization | Risk | Preliminary | L | A single person may fill several positions and a single level of supervision is all that is needed. Six qualified people are needed to implement the prescribed fire. |
| | | Final | L | No change. |
| | Potential Consequences | Preliminary | L | Problems related to supervision would be minimal due to the size of the burn (33 acres). |
| | | Final | L | No change. |
| | Technical Difficulty | Preliminary | L | Qualified contractors are required to be familiar with local factors affecting project implementation. |
| | | Final | L | No change. |
| 7. Public & Political Interest | Risk | Preliminary | L | The prescribed fire is in an isolated area and small in size (33 acres). Little or no public or political controversy related to the project. |
| | | Final | L | No change. |
| | Potential Consequences | Preliminary | L | Unexpected events would attract little public or media attention. Rural area. Low public use. |
| | | Final | L | No change. |
| | Technical Difficulty | Preliminary | L | Qualified contractor required to inform landowners around the burn unit about the rxburn prior to ignition. |
| | | Final | L | No change. |
| 8. Fire Treatment Objectives | Risk | Preliminary | L | Objectives are to reduce fuel loading and to increase native prairie plant diversity. Stimulate native grass and forb species. |

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| | Potential Consequences | Final | L | No change. | |
| | | Preliminary | L | A wide burn window exists to achieve the burn objectives. Failure to reach these objectives would have few adverse impacts on the natural resources. | |
| | Technical Difficulty | Final | L | No change. | |
| | | Preliminary | L | The measures used to reach the objectives are easy to complete and there are few restrictions on technique. | |
| | 9. Constraints | Risk | Final | L | No change. |
| | | | Preliminary | L | No constraints related to access or fire lines exist for this burn. The State of Minnesota (MNDNR) having purchased administrative rights via an easement mitigates any private land issues. |
| Potential Consequences | | Final | L | No change. | |
| | | Preliminary | L | The project can be implemented whenever in prescription. | |
| Technical Difficulty | | Final | L | No change. | |
| | | Preliminary | L | Constraints do not increase the difficulty of the project. | |
| 10. Safety | Risk | Final | L | No change. | |
| | | Preliminary | L | Potential hazards will be addressed in briefings. (Nearby building site, fuels to the north and east, stream inside unit). Fatigue and exposure to safety risks are limited. Activities are high frequency/low risk. | |
| | Potential Consequences | Final | L | No change. | |
| | | Preliminary | L | The potential for serious accidents or injuries to the firefighters and the public is minimal. Few hazards. | |
| | Technical Difficulty | Final | L | No change. | |
| | | Preliminary | L | Safety concerns will be addressed in the briefing. (Nearby building site, fuels to the north and east, stream inside unit). | |
| 11. Ignition Procedures Methods | Risk | Final | L | No change. | |
| | | Preliminary | L | The majority of the project area is visible to the burn boss. | |
| | Potential Consequences | Final | L | No change. | |
| | | Preliminary | L | Firing methods do not pose a safety concern to personnel. | |
| | Technical Difficulty | Final | L | No change. | |
| | | Preliminary | L | Firing procedures are simple using one type of ignition device (drip torch). The ignition requires minimal supervision. | |
| 12. Interagency Coordination | Risk | Final | M | No change. | |
| | | Preliminary | M | Project involves other agencies/contractor, but concerns and interests are easily addressed. | |
| | Potential Consequences | Final | L | No change. | |
| | | Preliminary | L | Project will be completed as planned. | |

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| | Technical Difficulty | Preliminary | M | Project may require simple agreement(s) between agencies and contractor. Qualified contractor will implement Rx burn adhering to MNDNR burn policies and prescriptions. |
| | | Final | M | No change. |
| 13. Project Logistics | Risk | Preliminary | L | The project duration is expected to be <1 day. No special equipment is needed. |
| | | Final | L | No change. |
| | Potential Consequences | Preliminary | L | Logistical problems will not affect the completion of the project or increase concerns of escape or safety. |
| | | Final | L | No change. |
| | Technical Difficulty | Preliminary | L | No logistical support issues. Contractor will be responsible for procuring supplies and personnel meeting NWCG standards. |
| | | Final | L | No change. |
| 14. Smoke Management | Risk | Preliminary | L | The smoke concerns are few and can be easily mitigated. |
| | | Final | L | No change. |
| | Potential Consequences | Preliminary | L | Minor impacts to isolated residences or remote roads are expected. Personnel may be exposed to smoke for short periods. |
| | | Final | L | No change. |
| | Technical Difficulty | Preliminary | L | Wind direction and speed are limitations within the plan. |
| | | Final | L | No change. |

SUMMARY COMPLEXITY RATING

RISK OVERALL RATING: **Moderate**

POTENTIAL CONSEQUENCES OVERALL RATING: **LOW**

TECHNICAL DIFFICULTY OVERALL RATING: **Moderate**

SUMMARY COMPLEXITY RATING: Moderate

RATIONALE: The Rx burn complexity rating is considered moderate due to the following reasons. The burn unit is located in a rural area away from communities. The community of Windom (pop. 4283) is located 6 miles to the northwest. The chance of an escaped fire is minimal due to the fact that mowed firebreaks and tilled crop fields surround the burn unit. A crew of six personnel is needed to complete the burn safely with no need for special equipment. The only area of concern is are nearby and occupied building sites. These areas will not be included in the burn unit and is protected by mowed firebreaks. Within the burn unit there are no structures (power poles, buildings, telephone boxes...) that need to be protected. This burn is considered to be of small burn unit size (33 acres). Smoke may impact county road 17 a ¼ mile to the west for a short period if an unexpected climatic conditions occur. If smoke problems exist, ignition will cease, smoke sensitive area such as building sites and roads will be monitored and the appropriate actions will be taken. Traffic may be slowed at a minimum or stopped until conditions improve. All smoke dispersion categories except POOR may be used to safely conduct this Rx burn for fuel model 3. Moderate ratings where given to 'interagency coordination' because implementation will involve a contractor.