



## **NOTICE OF PUBLIC MEETING**

The Lewis and Clark County Commissioners Public Meeting will be held on Tuesday, March 18, 2025, at 9:00 AM in Commission Chambers, Room 330.

It is the policy of the Board of County Commissioners to render a decision at a later date after they have had ample time to consider all oral and written public testimony. The BoCC may render a final decision on the same date if substantial new information is not received. Public comment must be limited to matters under the jurisdiction of the Commission.

1. **Pledge of Allegiance**
2. **Consent Action Items**
3. **Bid Opening. 2025 Crack Seal. (Audra Zacherl)**  
The Commissioners will consider opening the bids.
4. **Bid Award. 2025 Paint Striping. (Dan Karlin)**  
The Commissioners will consider awarding the bid.
5. **Approval of Noxious Weed Management Plan. (Christian Lehnert)**  
The Commissioners will consider accepting the updated Noxious Weed Management Plan.
6. **Public comment on any public matter within the jurisdiction of the Commission that is not on the agenda above.**
7. **Adjourn**

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### **ADA NOTICE**

Lewis and Clark County is committed to providing access to persons with disabilities for its meetings, in compliance with Title II of the Americans with Disabilities Act and the Montana Human Rights Act. The County will not exclude persons with disabilities from participation at its meetings or otherwise deny them County's services, programs, or activities. Persons with disabilities requiring accommodations to participate in the County's meetings, services, programs, or activities should contact Keni Grose, as soon as possible to allow sufficient time to arrange for the requested accommodation, at any of the following:

- (406)-447-8316
- kgrose@lccountymt.gov
- TTY Relay Service 1-800-253-4091 or 711
- 316 N Park, Room 303



Bid Opening. 2025 Crack Seal. (Audra Zacherl)

Presented By:

Summary:

The Commissioners will consider opening the bids.

Legal Review Required:

**ATTACHMENTS:**

Description	Type
 Legal Ad - Crack seal	Attachment

## INVITATION TO BID

Notice is hereby given that the Board of County Commissioners of Lewis and Clark County, Montana are soliciting competitive bids from interested parties for the construction of the 2025 Crack Seal. The project generally consists of Routing cracks that are ¼" wide or wider; cleaning all routable cracks and non-routable cracks (including vegetation sterilization, if present); and sealing all cracks in the asphalt pavement on various county roads, county bridges, and in various rural improvement districts (RIDs) as defined in Appendix A and B of the Project Manual, in Lewis and Clark County.

All Bids must be in accordance with the contract documents. The complete solicitation is available online at <https://www.lccountymt.gov/Government/Grants-and-Purchasing/Bids-and-Proposals-Current>. Questions related to this solicitation must be directed only to the designated point of contact for this solicitation: Jade Wills, Administrative Assistant II, [jwills@lccountymt.gov](mailto:jwills@lccountymt.gov), in accordance with Article 2.01 of Instructions to Bidders. A cone of silence is established for this solicitation which prohibits any bidder, or entity with financial interest in the bid award, from communicating regarding the solicitation with any Lewis and Clark County elected official, employee, or agent other than the designated point of contact. Contractors are encouraged to check for any addenda issued prior to submitting a bid.

There will be a pre-bid conference on Wednesday, March 5, 2025, at 10:00 a.m. in the Public Works Noxious Weed District Conference Room, located at 3402 Cooney Drive, Helena, MT. Interested bidders are encouraged to attend.

The deadline for bids to be delivered to the Lewis and Clark County Commissioner's Office, located at the City-County Administrative Building, 316 North Park Avenue, Room 345, Helena, MT is on or before 4:00 PM local time on March 17, 2025. The sealed envelope containing the bid must be labeled, "2025 Crack Seal, Bid Enclosed." Bids received by this deadline will be unsealed publicly on March 18, 2025 beginning at 9:00 AM local time in Room 330 of the City-County Administrative Building. Late bids are not accepted.

All bids must be accompanied by a bid bond or other form of security as specified in Montana Code Annotated 18-1-203, payable to Lewis & Clark County, in an amount not less than ten percent (10%) of the total amount of the bid. Successful Bidders shall furnish an approved Performance Bond and a Labor and Materials Payment Bond, each in the amount of one hundred percent (100%) of the contract amount. Insurance, as required, shall be provided by the successful Bidder(s) and a certificate(s) of that insurance shall be provided.

Contractor and any of the Contractor's Subcontractors bidding or doing work on this project will be required to be registered with the Montana Department of Labor and Industry (DLI). Forms for registration are available from the Department of Labor and Industry, PO Box 8011, 1805 Prospect, Helena MT 59604-8011. Information on registration can be obtained by calling (406) 444-7734. All laborers and mechanics employed by Contractor or Subcontractors in performance of the construction work shall be paid wages at rates as required by Montana Prevailing Wage Rates for Highway Construction Services 2025. The Contractor must ensure that employees and applicants for employment are not discriminated against because of their race, color, religion, sex or national origin.

Bids may only be withdrawn as provided in Section 16.02 of the Instructions to Bidders after the scheduled time for the public opening of bids. The right is reserved to reject any or all bids received, to waive informalities, to postpone the solicitation for a period not to exceed sixty (60) days, and to accept the lowest responsive and responsible bid that is in the best interest of the Owner.

This solicitation is being offered in accordance with federal and state statutes and county regulations governing procurement. Bids become the property of Lewis and Clark County. The County is not responsible for costs associated with preparing a bid.

Lewis & Clark County is an Equal Opportunity Employer.

Publication Dates:

- Saturday, February 22, 2025
- Saturday, March 1, 2025



Bid Award. 2025 Paint Striping. (Dan Karlin)

Presented By:

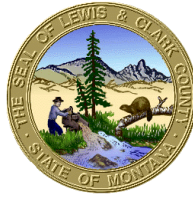
Summary:

The Commissioners will consider awarding the bid.

Legal Review Required:

**ATTACHMENTS:**

Description		Type
<input type="checkbox"/>	Memo	Staff Report
<input type="checkbox"/>	Notice of Award	Contract
<input type="checkbox"/>	Contract Cover Sheet	Contract



# LEWIS AND CLARK COUNTY

## Public Works Department

DATE: March 18, 2025

TO: Board of County Commissioners

FROM: Daniel Karlin, County Engineer

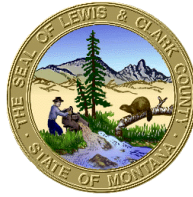
RE: 2025 Paint Striping Notice of Award

On March 4, 2025, two bids were opened for the 2025 Paint Striping Project. The project generally consists of paint striping of various county roads, including the City of East Helena Roads in Lewis and Clark County, and one road in Jefferson County, Montana.

Two bids were received, and one was disqualified from consideration because the bid envelope was not properly addressed and the bidder did not acknowledge receipt of addendum 1, rendering the bid nonresponsive. Funding for this project is from the road infrastructure budget.

**After review of bids, staff recommends awarding the contract to the low bidder Solo Marking, LLC, of Billings, Montana, for a unit price base bid total amount of One Hundred Twenty-five Thousand Six Hundred Sixty-four Dollars and Zero Cents (\$125,664.00) and authorize the Chair to sign all applicable contract documents.**

Daniel Karlin, PE  
County Engineer  
(406) 447-8034 Desk  
(406) 447-8368



3402 Cooney Drive  
Helena, MT 59602

[dkarlin@lccountymt.gov](mailto:dkarlin@lccountymt.gov)

# LEWIS AND CLARK COUNTY

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## Public Works Department

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## NOTICE OF AWARD

Date of Issuance:

Owner:	Lewis and Clark County	Owner's Contract No.:	N/A
Engineer:	Daniel Karlin, PE	Engineer's Project No.:	N/A
Project:	2025 Paint Striping	Contract Name:	2025 Paint Striping
Bidder:	Solo Marking, LLC		
Bidder's Address:	5326 Green Teal Dr. Billings, MT 59106		

### TO BIDDER:

You are notified that Owner has accepted your Bid dated **March 3, 2025**, for the above Contract, and that you are the Successful Bidder and are awarded a Contract for the Unit Price Bid.

The Contract Price of the awarded Contract subject to the following unit prices for a total estimated contract amount of \$ 125,664.00:

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	EXTENDED PRICE
1	Waterborne Paint Striping – White (County Wide)	1,447	Gallon	\$ 38.50	\$ 55,709.50
2	Waterborne Paint Striping – Yellow (County Wide)	1,499	Gallon	\$ 38.50	\$ 57,711.50
3	Waterborne Paint Striping – White (East Helena)	125	Gallon	\$ 38.50	\$ 4,812.50
4	Waterborne Paint Striping – Yellow (East Helena)	125	Gallon	\$ 38.50	\$ 4,812.50
5	Waterborne Paint Striping – White (Jefferson County)	34	Gallon	\$ 38.50	\$ 1,309.00
6	Waterborne Paint Striping – Yellow (Jefferson County)	34	Gallon	\$ 38.50	\$ 1,309.00

3 unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents can be made available to Bidder electronically.

☐ a set of the Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of this Notice of Award:

1. Deliver to Owner 3 counterparts of the Agreement, fully executed by Bidder.
2. Deliver with the executed Agreement(s) the Contract security [*e.g., performance and payment bonds*] and insurance documentation as specified in the Instructions to Bidders and General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any):
  - i. Nondiscrimination against Firearms Entities/Trade Assoc. Verification

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

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Owner:

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Authorized Signature

By: Candace Payne

Title: Chair, Board of County Commissioners

Copy: Engineer



# CONTRACT COVER SHEET

*This form is required for all procured contracts and must be completed before the contract is transmitted to the contractor/consultant. This form does not apply to grant awards, grant contracts, sub-awards, or intergovernmental agreements. Include this completed form as a standalone attachment in Novus when submitting the contract for approval.*

- Project Name/Novus Title:
- Standard Lewis and Clark County contract template used: **YES**      **NO**
  - Legal has completed review of agreement: **YES**      **NO**
- Procurement method: **NOT APPLICABLE** (Explain in comment box)
  - For methods other than Small Purchase, attach documentation of procurement method used (e.g., limited solicitation summary form or copy of formal solicitation).
- Purchase is an exception from standard procurement procedures, per county policy: **YES**      **NO**
  - If YES, provide exception request form.
- Budget Authority: **YES**      **NO**      **NOT APPLICABLE**
- Is this a public works contract subject to prevailing wage requirements? "Public works contract" means a contract for construction services or for non-construction services [as defined in 18-2-401(9)(a-l), MCA] in which the total cost of the contract is in excess of \$25,000? **YES**      **NO**
  - If YES, is project subject to performance and payment bonds per 18-2-201, MCA? **YES**      **NO**
- Is project subject to 1% Contractor's Gross Receipts Tax\* (CGR)? **YES**      **NO**
  - If YES, submit CGR form to Finance Department.
- Is this contract funded through a grant? **YES**      **NO**      **IF YES, COMPLETE NEXT PAGE.**

Additional comments:

Signatures:

\_\_\_\_\_  
Elected Official/Department Director

\_\_\_\_\_  
Date

\_\_\_\_\_  
Purchasing Officer or Designee

\_\_\_\_\_  
Date

\_\_\_\_\_  
Finance Officer or Designee

\_\_\_\_\_  
Date



# CONTRACT COVER SHEET

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## **CONTRACTS FUNDED WITH GRANTS:**

If a contract is funded in part or whole by a grant, this form must be completed and routed to Ann McCauley (or designee) for review and approval prior to finalizing the contract with the vendor.

**Include a copy of the grant/contract funding the contract.**

- Grant funding source and grant award/contract number:
- Have all pass-through requirements from the grant funding source been incorporated into the Contract? **YES**      **NO**
  - If YES, Contract section(s) with grant requirements included:
- Are there state or federal Davis-Bacon requirement for the project? **YES**      **NO**
  - If YES, have these requirements been incorporated into the contract? **YES**      **NO**

## **For Contracts Funded with Federal Grants:**

All contracts funded with federal grants require that a debarment and suspension check for the contractor is completed and passed (2 CFR Part 180). Debarment/suspension checks are done in the System for Award Management (SAM; [www.sam.gov](http://www.sam.gov)), which requires a login to access. Grant staff will perform the debarment/suspension check in SAM and email the department a copy of the record; retain this record in the procurement file. If available, provide the contractor's Unique Entity Identifier (UEI) below; debarment/suspension checks are most easily completed with UEIs.

## **Contractor's UEI:**

Send completed form with a copy of the grant award/contract funding the contract to: Ann McCauley, [amccauley@lccountymt.gov](mailto:amccauley@lccountymt.gov), 406-447-8383, City-County Building, Room 225

Signature:

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Grants Administrator or Designee

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Date

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## **Administrative Use Only**

Date of debarment/suspension check in SAM

Passed: YES      NO

FFATA Reporting Needed? YES      NO

Reporting Period:



Approval of Noxious Weed Management Plan. (Christian Lehnert)

Presented By:

Summary:

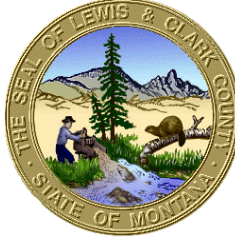
The Commissioners will consider accepting the updated Noxious Weed Management Plan.

Legal Review Required:

**ATTACHMENTS:**

Description	Type
☐ Memo	Contract
☐ Noxious Weed Management Plan	Attachment

Christian Lehnert  
Noxious Weed & Mosquito Supervisor  
clehnert@lccountymt.gov



Ph: (406) 447-8072  
3402 Cooney Drive  
Helena, MT 59602

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## **Lewis and Clark County Noxious Weed & Mosquito Division**

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DATE March 18, 2025  
TO: Board of County Commissioners  
FROM: Christian Lehnert, Noxious Weed & Mosquito Division Supervisor  
SUBJECT: Lewis and Clark County Noxious Weed Management Plan 2025-2026

Before you this morning is the updated Lewis and Clark County Noxious Weed Management Plan for January 2025 – December 2026. This is a required biannual update for the Montana Department of Agriculture.

The purpose of this plan is to strengthen, support, and coordinate noxious weed management efforts in the County, as well as promote the implementation of integrated noxious weed management efforts. The plan fulfills the statutory requirements of Montana Code Annotated 7-22-2121, and allows the Lewis and Clark County Noxious Weed Board to pursue Noxious Weed Trust Fund Grant dollars through the state. On January 8, 2025, this plan was presented, reviewed, and approved by the Noxious Weed Board for your consideration.

If the plan is approved by the Commission, the plan will be submitted to the Montana Department of Agriculture for their review.

Staff recommend approval of the presented Noxious Weed Management Plan.

# LEWIS AND CLARK COUNTY



## NOXIOUS WEED MANAGEMENT PLAN AND ENVIRONMENTAL INFORMATION ANALYSIS

JANUARY 2025-DECEMBER 2026  
Lewis and Clark County Noxious Weed Control Division

Lewis and Clark County  
Noxious Weed Control Division  
3402 Cooney Drive  
Helena, MT 59602

2025 Weed Board:

Judith Ann Vincent – Birdseye Area  
Rob McDonough - Wolf Creek Area  
Mike Cobb - Augusta Area  
Stacey Baertsch - Canyon Creek/Marysville Area  
Neil Snow – Member at Large  
Shellie Haaland - East Helena Valley Area  
Peter Christensen – Member at Large  
Dave Burch – West Helena Valley  
Monte Miles – Lincoln Area

Tom Rolfe - Board of County Commissioners  
Christian Lehnert – Division Supervisor

Prepared by: Christian Lehnert, Lewis and Clark County Noxious Weed Division Supervisor  
Jade Wills, Noxious Weed Division Administrative Assistant II

Reviewed by: Christian Lehnert, Lewis and Clark County Noxious Weed Division Supervisor  
Jenny Chambers, Lewis and Clark County Public Works Director



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## **PREFACE STATEMENT**

This Noxious Weed Management Plan (Management Plan) is developed for the Lewis and Clark County Noxious Weed Division for the purpose of creating oversight and operational direction of noxious weed management. The document may not supersede the Montana County Weed Control Act or Lewis and Clark County policy. The Management Plan is a basis for everyday operations and maintenance and to meet minimum requirements for environmental issues and concerns.

The materials included within are operation management guides for the use of Lewis and Clark County Noxious Weed Control Board members and for the employees of the Lewis and Clark County Noxious Weed Control Division. The data in this Management Plan has been collected from Lewis and Clark County informational services, local County, State, and federal agencies, and is based upon County and State law. Section 4 lists all references used in the development of this Management Plan.

The Management Plan must be reviewed and updated on an as needed basis or at a minimum of every two years.

## **DEFINITIONS AND ACROYMNS**

BLM = Used in the reference to Bureau of Land Management.

Board= Refers to the Lewis and Clark County Noxious Weed Board.

Commission = Refers to the Lewis and Clark County Board of Commissioners

County = Refers to Lewis and Clark County and/or its properties and the jurisdiction of the Noxious Weed Control Division and Board.

Division= Refers to the Lewis and Clark County Noxious Weed Control Division.

DNRC = Used in the reference to Department of Natural Resources and Conservation.

IWM = Integrated Weed Management.

MCA = Montana Code Annotated.

MSU = Used in the reference to Montana State University Extension.

Noxious Weed = Noxious weeds are those in state and county categories of plants considered to have or could have economic impacts on agriculture or general public. A Noxious Weed is defined by Montana Law (MCA 7-22-2101) as, “an exotic plant species established that may be introduced in the state that may render land unfit for agriculture, forestry, livestock, wildlife, or other beneficial uses or that may harm native plant communities.”

NWTF = Used to reference the Noxious Weed Trust Fund Grant Program, which is funded by the Montana Legislature through the Montana Department of Agriculture.

SHPO = Used to reference the State Historical Preservation Office.

USDA = Used to reference the United States Department of Agriculture

USFS =Used to reference the United States Forest Service.

Weed Act = Refers to the Montana County Weed Act, administered by the Montana Department of Agriculture

Weed Control = The process of containing and/or limiting weed infestations and the spread of noxious weeds.

Weed Eradication = The process of completely eliminating all live plant parts and propagational bodies of the targeted noxious weed species in a given area.

Weed Prevention = The process of forestalling the contamination of an area by a noxious weed species. It includes measures taken to slow or hinder the introduction and establishment of a noxious weed species in an area. Such an area may be local, community, county, or larger in scope.

## **SUMMARY OF GENERAL AREAS OF RESPONSIBILITY**

The following is a summary of the areas of responsibility currently assigned to the various entities involved in noxious weed control efforts in Lewis and Clark County:

### **Montana State Legislature:**

- Make laws in the interest of the people of the State of Montana and Lewis and Clark County.

### **Lewis and Clark County Board of Commissioners (Commission):**

- Establish and administer the Noxious Weed Management Division (Division) for the County.
- Create a Noxious Weed Management Fund and provide sufficient funds for the Lewis and Clark County Noxious Weed Board (Board) to fulfill its duties.
- Appoint Board members that reside in the County and are encouraged but not limited to represent certain districts in the county, see Lewis and Clark County Resolution 2021-74.
- Designate a Commission representative as an ex-officio member of the Board.
- Conduct administrative hearings for persons adversely affected by actions of the Board.
- Approve and countersign all warrants on the Noxious Weed Management Fund drawn by the Board.
- May establish a cost-share program for the control of noxious weeds upon recommendation of the Board.
- Assess tax liability for payment of noxious weed control expenses related to violations.

### **Lewis and Clark County Public Works Department (Department):**

- Provide administration and staff for the Division.
- Provide budget support for the Division and the Noxious Weed Management Fund.
- Provide support to process and manage financial claims.
- Staff positions for the Division include the Division Supervisor, part time Administrative Assistant II, seasonal Weed Management Planner, as well as eight seasonal sprayer positions.

**Lewis and Clark County Noxious Weed Board (Board):**

The Lewis and Clark County Noxious Weed Board (Board) is comprised of nine members representing the following areas in the County: Augusta, East Helena Valley, West Helena Valley, Canyon Creek/Marysville, Birdseye, Wolf Creek, Lincoln, and two members-at-large. In addition, the Board will include the following ex officio members: one County Commissioner, the Division Supervisor, the Division Administrative Assistant, and a Public Works Administration representative. Ex officio members shall not have a vote but will serve in an advisory capacity.

The Board shall:

1. Establish by-laws to govern the Board and effectuate the Management Plan.
2. Establish operation, improvement, maintenance, and administration of the Division as allowed by law.
3. Oversee budgeting and accounting by the Division in conformance to all requirements imposed by law or by Lewis and Clark County policies.

The Board may provide recommendations to the Commission and the Division Supervisor:

1. Provide input on employment of Division Supervisor, and other employees as necessary, provide for their compensation within the guidelines of the Lewis and Clark County Personnel Policy and as administered by the Lewis and Clark County Public Works Department (Department).
2. Purchase herbicide, materials, and equipment, and pay other operational costs necessary for implementing an effective noxious weed management program. All costs must be paid from the noxious weed fund.
3. Create cost share programs and determine what herbicide, materials, or equipment may be made available (by the County) to persons controlling weeds on private land. The cost for the herbicide, materials, or equipment must be paid by the person and collected (by the County) as provided by law.
4. Enter into agreements with the Montana Department of Agriculture for the control and/or eradication of any new exotic plant species not previously established in the state that may render land unfit for agriculture, forestry, livestock, wildlife, or other beneficial use if the plant species spreads or threatens to spread into the state.
5. Enter into agreements with commercial applicators, as defined in MCA 80-8-102, for the control of noxious weeds.
6. Request legal advice and services from the County attorney, and perform other activities authorized by law relating to noxious weed management.

In addition to any powers or duties established in Lewis and Clark County Resolution 2021-74, creating the By-Laws of the Lewis and Clark County Noxious Weed Board (MCA 7-22-2103), the Board shall provide recommendations to the Commission and the Division Supervisor for the following:

1. Administer the Management Plan and Montana County Weed Act.
2. Implement management standards for noxious weeds as designated by the Montana Department of Agriculture and the Division.
3. Review the Management Plan as necessary and receive approval by the Board and Commission at a minimum of every two years.
4. Establish management criteria for noxious weeds on all land within Lewis and Clark County, review all appropriate opportunities presented to the Board in the form of grants, agreements, and/or projects.
5. Serve the people of Lewis and Clark County, be open to a public process, and encourage public participation in monthly meetings and in activities both County and statewide.

6. Provide recommendations to perform other activities authorized by law and endorsed by and/or proposed by others for planning efforts relating to noxious weed management, strategy, and operation.
7. Review the By-Laws of the Board annually, or as necessary by a vote of a quorum of Board members.

Board Member General Information:

The Commission appoints citizens of Lewis and Clark County to serve as members of the Board, considering the following criteria:

1. The Board represents all areas of the County.
2. Each appointed board member is interested in serving on the board and has an understanding of noxious weeds in Lewis and Clark County and possesses environmental interests.
3. The Board shall ask representatives from all state and federal land management entities, including but not limited to, the Department of Natural Resources (DNRC), the Montana Department of Fish, Wildlife and Parks (FWP), the Bureau of Land Management (BLM), the United States Forest Service (USFS), the Montana Department of Transportation (MDOT), City of Helena, and the Montana State University Extension (MSU) to serve as ex officio members to the Board.
4. The Board members shall be public officers.
5. The terms of Board members shall comply with county policy, which provides for two, three-year terms. No member shall be reappointed for more than two full, consecutive terms according to County policy unless the appointment is at the discretion of the Commission to serve at the pleasure until the seat is fulfilled.
6. If any member of the Board knows of a person who is interested in serving on the Board, the member should encourage that person to apply as per the Commission guidelines at <https://lcchelenamt.seamlessdocs.com/f/bocboardapp>. The application will be on file when a vacancy occurs.
7. The Board shall organize by voting on a chairman, and vice-chairman at the annual meeting in January.
8. This operational policy is in effect until such time as determined inadequate to serve the intent of the Board or Division.

Board Policies:

1. Division will manage invasive species according to MCA.
2. Supervisor will be licensed as a government applicator/dealer through the Montana Department of Agriculture.
3. Division will cooperate and coordinate awareness and management with private and public landowners to manage noxious weeds.
4. Division will manage noxious weeds listed on the Montana list of invasive species and other noxious weeds approved by the Commission on County road right of ways and public and private lands.
5. Division will use an integrated program to manage noxious weeds.
6. Division will not sell herbicides to private and/or public landowners.
7. Division will rent equipment to the public. The Division has the right to deny future access or use of County equipment if the person(s) uses the rental and/or community equipment, including but not limited to back packs, slide-ins, and/or pull trailers, for uses other than noxious weed and insect management.
8. Division will run the non-compliance program as agents for the Board and will not take anonymous non-compliance.

# **SECTION 1. PURPOSE AND NEED FOR ACTION**

## **1.1 INTRODUCTION**

This document is the Noxious Weed Management Plan (Management Plan) and Environmental Information Analysis (EIA) for weed management techniques in Lewis and Clark County. It describes the need for an analysis of the Lewis and Clark County Noxious Weed Division (Division).

Viable noxious weed management programs are essential to the protection of lands not infested by noxious weeds and containment or control of existing infestations. The Board and the Division will be proactive to ensure the continuation of these programs by addressing potential impacts from weeds and management methods.

The Board promotes an Integrated Weed Management (IWM) approach to meet the Division's overall goals and objectives. IWM is a robust effort focused on employing practices in a prudent manner to meet Environmental Information Awareness by:

- analyzing site conditions,
- providing public education, outreach, and community engagement, and
- focusing on prevention, cultural, mechanical/manual, biological, and chemical weed management efforts.

A weed is defined as any plant that interferes with management objectives for a given area of land (or body of water) at a given point in time. Once a plant has been classified by the Division as a weed, it attains a "noxious" status through rules described in the Montana County Weed Act (Weed Act). The Weed Act defines a "noxious weed" as any invasive plant species established, or that may be introduced, in the state which may render land unsuitable for agriculture, forestry, livestock, wildlife, or other beneficial uses, and is further designated as either a statewide or countywide noxious weed. In addition to those noxious weeds identified in the Weed Act, the County Noxious Weed list also includes musk thistle, common mullein, common burdock, black henbane, and garlic mustard, as added through the adoption of County Resolution, 2023-01, by the Commission.

The impact of noxious weeds on biological communities, ecosystem processes, and the agricultural economy is well documented in Montana. Weeds can replace or displace native vegetation, increase surface runoff and soil erosion, influence water quality of streams and rivers, reduce forage, modify habitat structures, threaten rare and sensitive plants, and cost Montana's economy substantially.

The Weed Act specifies that landowners are responsible for controlling noxious weeds on their property. The Board is mandated by law to enforce the Weed Act. Weed treatments proposed in this document support and strengthen the Montana Noxious Weed Management Plan, and environmental analysis needs which apply directly to private and public lands.

## **1.2 ACTION OUTLINE**

Division staff will provide information, guidance and perform weed management activities within the County. The Division will assist private and public landowners in forming cooperative weed management groups to organize and implement plans. This includes the Noxious Weed Trust Fund (NWTF) applications to the and producer projects as Division resources allow.

Through cooperative agreements with state, federal, county, and city/town agencies, the Division will manage weeds along federal and state roadways and manage noxious weeds on some federal lands. County roads, open cut mines, compounds, and parks are managed by the Division. Emphasis is targeted toward maintaining and expanding the coordination among private landowners, local, state, and federal agencies with land holdings in the County.

## **SECTION 2. MANAGEMENT POLICY AND PLAN**

### **2.1 COUNTY LAND AND WATER OVERVIEW**

Lewis and Clark County encompasses approximately 2,218,240 acres of land. The County contains roughly 1400 miles of County roads, 290 miles of state highway, 75 miles of interstate highway, and 80 miles of railroad right-of-way. It encompasses six major watersheds, which include: Upper Missouri, Blackfoot, Upper Missouri - Dearborn, Sun, Upper Clark Fork, and South Fork Flathead.

The Board was established under Montana law and is currently operating pursuant to County Resolution 2021-74, as well as MCA, 7-22-2101 through 7-22-2153.

### **2.2 MANAGEMENT OVERVIEW**

Under the Weed Act, noxious weeds and the seed of any noxious weed are declared a common nuisance. It is unlawful for any person to permit any noxious weed to propagate or go to seed on their land. Additionally, under the Weed Act, the Board and Division must develop and operate under a Noxious Weed Management Plan (Management Plan), which is a coordinated program for the containment, suppression, and where possible, eradication of noxious weeds. The Management Plan must establish the goals and set priorities for the Division, as well as consider noxious weed distributions. The Management Plan must also estimate the costs for personnel and equipment. Within the Management Plan, the Division shall establish management criteria for all noxious weeds on all lands within the County. It shall take particular precautions while managing noxious weeds to preserve beneficial vegetation and wildlife habitat. An integrated weed management approach will be developed with methods that include cultural, chemical and biological approaches. The Division may also develop special management zones within the County where the management criteria are more or less stringent than the general management criteria for the rest of the County.

The Board and Division shall also provide for the management of noxious weeds on land or right-of-way owned or controlled by the County or provide education and assistance for a municipality within the confines of the County. The Board and Division shall make reasonable efforts to develop and implement a noxious weed program covering all land within the County that is owned or administered by a federal agency. It shall enter into a written agreement with any state agency controlling land in the County, specifying the mutual responsibilities for noxious weed management on state-owned or controlled lands within the county. The Division shall require that reasonable integrated noxious weed management plans be implemented prior to the approval of subdivisions, soil disturbance projects, and timber harvests. The Division shall also require that beneficial vegetation be established on areas disturbed during construction or development. Additionally, the Division shall require the use of noxious weed seed free soil, gravel, seeds, forage, mulch, etc. during construction, development and/or reclamation projects.

The Division will continue to work with the MSU, and other local agencies to provide producers an opportunity to manage, sell, and transport certified noxious weed seed free forage. The Montana Department of Agriculture and MSU office are the primary agencies supporting the noxious weed seed free forage program.



## 2.3 MANAGEMENT GOALS AND OBJECTIVES

The Board and Division have set the following goals in their order of priority:

1. Prevent the development of infestations of invasive species in State Priority 1A (4.5.206 Administrative Rules of Montana).
2. Prevent the spread of noxious weeds already located within the County to new areas not currently infested.
3. Eradicate noxious weed infestations that are small and localized in nature whenever possible.
4. Reduce the amount of established noxious weed infestations wherever possible.
5. Promote new site locations for early eradication of noxious weeds.
6. Cooperate with state and federal agencies on new infestations of noxious weed area locations.

The following objectives can and should be modified to meet the changing needs of the County and the Division:

1. Survey and map the entire County for the occurrence and concentrations of all noxious weeds. Develop a systematic monitoring approach with annual updates.
2. Promote a Public Relations/Education Program for the County, including government and non-government interagency cooperation.
3. Build a chemical loading, disposal, and storage facility to provide safe handling of herbicides with spill containment capabilities.
4. Build a permanent equipment washing facility.
5. Develop effective noxious weed management agreements with neighboring county weed programs.
6. Utilize biological agents, whenever possible, i.e. riparian habitats, for the control of noxious weeds.
7. Develop a database to evaluate noxious weed management control practices within the County.
8. Monitor and evaluate established biological sites, collect and distribute biological agents from County locations and local insectaries to areas infested with noxious weeds.

## 2.4 MONTANA AND LEWIS AND CLARK COUNTY NOXIOUS WEEDS

Noxious weed management criteria include limiting the intentional sale of the following species and implementation of research, education, prevention, and control programs where appropriate.

The County manages and monitors a total of 46 weeds, comprising of 41 weeds on the Montana Noxious Weed list, plus five additional weeds the County has added through resolution.

**Priority 1A:** Noxious weeds that are either not present or only minor infestations are found in Montana. Management criteria require eradication if detected, education and prevention.

- Yellow starthistle (*Centaurea solstitialis*)
- Dyer's woad (*Isatis tinctoria*)
- Common reed (*Phragmites australis ssp. australis*)
- Medusahead (*Taeniatherum caput-medusae*)

**Priority 1B:** Noxious weeds with limited presence in Montana. Management criteria will require eradication or containment, and education.

- Knotweed complex (*Polygonum cuspidatum*, *P. sachalinense*, *P. × bohemicum*, *Fallopia japonica*, *F. sachalinensis*, *F. × bohémica*, *Reynoutria japonica*, *R. sachalinensis*, and

*R. × bohemica*)

- Purple loosestrife (*Lythrum spp.*)
- Rush skeletonweed (*Chondrilla juncea*)
- Scotch broom (*Cytisus scoparius*)
- Blueweed (*Echium vulgare*)

**Priority 2A:** Noxious weeds that are common in isolated areas in Montana. Management criteria will require eradication or containment where less abundant. Management shall be prioritized by the Division.

- Tansy ragwort (*Senecio jacobaea*)
- Meadow hawkweed complex (*Hieracium spp.*)
- Orange hawkweed (*Hieracium aurantiacum*)
- Tall buttercup (*Ranunculus acris*)
- Perennial pepperweed (*Lepidium latifolium*)
- Yellowflag iris (*Iris pseudacorus*)
- Eurasian watermilfoil (*Myriophyllum spicatum*, *Myriophyllum spicatum x Myriophyllum sibiricum*)
- Flowering rush (*Butomus umbellatus*)
- Common buckthorn (*Rhamnus cathartica L.*)
- Ventenata (*Ventenata dubia*)

**Priority 2B:** Noxious weeds which are abundant in Montana and widespread in many counties. Management criteria will require eradication or containment where less abundant. Management shall be prioritized by the Division.

- Canada thistle (*Cirsium arvense*)
- Field bindweed (*Convolvulus arvensis*)
- Leafy spurge (*Euphorbia esula*)
- Whitetop (*Cardaria draba*)
- Russian knapweed (*Centaurea repens*)
- Spotted knapweed (*Centaurea stoebe* or *maculosa*)
- Diffuse knapweed (*Centaurea diffusa*)
- Dalmation toadflax (*Linaria dalmatica*)
- St. Johnswort (*Hypericum perforatum*)
- Sulfur cinquefoil (*Potentilla recta*)
- Common tansy (*Tanacetum vulgare*)
- Oxeye daisy (*Chrysanthemum leucanthemum* or *Leucanthemum vulgare*)
- Houndstongue (*Cynoglossum officinale*)
- Yellow toadflax (*Linaria vulgaris*)
- Saltcedar (*Tamarix spp.*)
- Curlyleaf pondweed (*Potamogeton crispus*)
- Hoary alyssum (*Berteroa incana*)

**Priority 3:** Plants not on the Montana Noxious Weed list. These are regulated plants that have a potential to have significant negative impacts. The plant may not be intentionally spread or sold other than as containment in agricultural products. The state recommends research, education and prevention to minimize the spread of the regulated plants.

- Cheatgrass (*Bromus tectorum*)
- Hydrilla (*Hydrilla verticillata*)

- Russian olive (*Elaeagnus angustifolia*)
- Brazilian waterweed (*Egeria densa*)
- Parrot feather watermilfoil (*Myriophyllum aquaticum* or *M. brasiliense*)

**Lewis and Clark County additional Noxious Weeds by Resolution\*:**

- Black henbane (*Hyoscyamus niger*)
- Common burdock (*Arctium spp.*)
- Common mullein (*Verbascum thapsus*)
- Musk thistle (*Carduus nutans*)
- Garlic mustard (*Alliaria petiolate*)

*\*This Noxious Weed List is subject to change.*

## **2.5 WEED MANAGEMENT STRATEGIES**

The County has four types of general management strategies for each state and County category of noxious weeds. A management strategy has been applied to each designated noxious weed species after considering the extent of infestation in the county, the availability of proven control techniques, the environmental consequences of control or no control, and the economics of management. The specific management techniques that will be promoted for each category, species or situation are as follows below.

The strategy and priority level of weed species and control methods will be considered before taking a particular action. In general; however, high priority weeds will be controlled even in low priority areas. Likewise, low priority weeds will be controlled in high priority areas.

Environmentally sensitive areas such as riparian zones will be considered individually according to the problem present and the means of weed management that may be effective in the area without causing harm. Before embarking on aquatic weed control programs, the Division will file a plan with the Montana Department of Agriculture and will notify the Montana Department of Fish, Wildlife and Parks.

### **STRATEGY 1: PREVENTION OF NOXIOUS WEED INVASIONS**

**Reason:** There are many noxious weed species that have not been found in Lewis and Clark County, but the potential for infestation is present. It is more economical and aligns with the principles of the Integrated Weed Management (IWM) program to initiate awareness and education programs before new noxious weed species invade and become established in the County.

**Priority:** Level I

**Emphasis:** Awareness, Education, and Prevention

**Definition:** Noxious weeds that are not found in the County, but which have potential for imminent infestation.

#### **Priority 1A and 1B Noxious Weeds:**

Components of this strategy include, but are not limited to:

1. Operate a continuing education and awareness program to facilitate early recognition of weed species.
2. Prepare and provide displays of weed species.
3. Operate a monitoring program to identify weeds while infestations are small.

4. Take immediate eradication measures as soon as a new invader species is identified in the County.
5. Identify and treat causes of weed infestation to prevent the infestation or re-infestation of new noxious weeds in the County.
6. Once a weed in this group has been identified in the County, it is placed in Strategy 2, and appropriate action will be taken.

## **STRATEGY 2: ERADICATION AND EXCLUSION OF INFESTATIONS**

**Reason:** All weeds on the noxious weed list were originally small infestations which could have been treated effectively before the infestations spread and became established. Unfortunately, and all too often, weed management efforts have been concentrated on noxious weeds which have already spread to the extent that eradication is no longer possible (Canada thistle, field bindweed, etc.). Consequently, new invaders which were not yet causing concern or economic loss were ignored until they became established, making eradication impossible.

**Priority:** Level II

**Emphasis:** Eradicating the noxious weeds where they are found, and stopping the spread of noxious weeds to other areas.

**Definition:** Noxious weeds in Lewis and Clark County with distribution limited to a small total area. It is important to note each noxious weed situation is unique. Sites differ in soil type, terrain, moisture availability, land management practices, background species composition, and a host of other variables which can directly or indirectly influence an attempt at eradication. Consequently, it is impossible to define an exact acreage figure where eradication (total elimination of a plant species) is possible or economically feasible. Therefore, eradication feasibility will be determined on a case-by-case situation with each specific site and weed species.

### **Priority 2A Noxious Weeds:**

Components of this strategy include, but are not limited to:

1. Operate a continuing education and awareness program to increase recognition of weeds in the County.
2. Prepare and show displays of weed species.
3. Operate monitoring program to identify weeds while infestations are small.
4. Take immediate eradication measures as soon as a new invader species is identified in the County.
5. Identify and treat causes of weed infestation to prevent the infestation or re-infestation of noxious weeds in the County.
6. Maintain an extensive survey in the immediate area(s) of new infestations to ensure that all infestations are mapped and controlled.

## **STRATEGY 3: CONTAINMENT OF INFESTATIONS**

**Reason:** Established noxious weeds cannot be eradicated; therefore, managing the infestation and containing the spread of established noxious weed species is a realistic goal. Fortunately, it has been recognized that where successful biological agents have been established, effective control has resulted. There are no "magic bugs"; however, and establishment of successful biological control programs take time. Containment programs by a land manager take more time to establish than other measures, including biological agents.

**Priority:** Level III

**Emphasis:** Noxious weed species in this group have become so established and have spread to

the extent that eradication in the County is no longer possible. Therefore, emphasis is placed on containment and prevention of the spread of these species to adjacent and other uninfested areas, and on establishing effective biological or other control measures where possible.

Definition: Noxious weeds whose distribution in the County is limited to generally one or two geographic locations, with occasional spots scattered throughout the County.

#### **Priority 2B Noxious Weeds:**

Components of Strategy 3 include, but are not limited to:

1. Maintain a strong prevention program to contain noxious weeds in their present geographic locations.
2. Give highest management priority to infestations that are away from the containment zone or along travel rights-of-way.
3. Use biological control agents, when available, on the main areas of infestation.
4. Use other methods of control to assist in reducing the area of main infestation where feasible.

#### **STRATEGY 4: MAINTENANCE AND CONTROL MEASURES**

Reason: As with Strategy 3 species, Strategy 4 weeds have spread to the extent that eradication may no longer be possible. Because of the extent of infestation, the only reasonable approach to control is to develop land management practices preventive in nature, while establishing biological or other controls. Noxious weeds are opportunists and invade exposed sites. Once established, they are difficult to control and can seriously affect the establishment of beneficial vegetation. They provide a source of seeds for the infestation of adjacent lands. It is assumed that Strategy 3 and 4 noxious weeds will invade disturbed areas such as construction sites. Designing mitigation measures (permanent ground covers, nurse crops, etc.) into land disruptive projects will help to prevent the encroachment of noxious weeds. Revegetation is one component; however, until a stable plant community is established, monitoring and selective treatments of invasive noxious weeds must be ongoing.

Priority: Level IV

Emphasis: Education, Maintenance, and Control

Definition: Those noxious weed species that are present throughout the County.

#### **Priority 2B Noxious Weeds:**

Components of Strategy 4 include, but are not limited to:

1. Use of biological control agents when available.
2. Use of other control methods to contain and reduce infestations where possible.
3. Develop land management practices which will limit the development and perpetuation of noxious weed invasions.

## **2.6 INTEGRATED NOXIOUS WEED MANAGEMENT**

Integrated Weed Management (IWM) is a comprehensive approach to achieving economical noxious weed control in an environmentally acceptable manner. Components include education, mapping, surveys, prevention, and early detection; cultural, manual, and mechanical control, and pre- and post-control mapping and surveying; biological control; chemical control; and revegetation. Each of the components may be used separately or combined with other methods to produce a more effective control strategy depending on weed and site conditions.

Noxious weed management methods selected for a site are influenced by control objectives, effectiveness of the control technique on a target species, environmental factors, land use, economics, and the extent and nature of the weed infestation.

## **2.7 MANAGEMENT METHODS AND PRACTICES**

### **2.7.1 PREVENTION**

Prevention of the introduction of noxious weed seed and plant parts into non-infested sites is the most practical and cost-effective method of noxious weed control. Measures include use of noxious weed seed free hay; eradication of newly established infestations; use of clean seed; cleaning tillage and harvest equipment before moving it to a non-infested area; keeping irrigation ditches, fence rows, roadsides, and other non-crop areas free from weeds; keeping weed infested soil, straw or manure out of non-infested areas; reseeding after a disturbance; and not allowing newly established weeds to set seed.

Proper range management allows native plants to remain vigorous and competitive and is the most practical and effective weed prevention strategy on pasture and rangeland. Grazing use should be monitored to minimize the likelihood of overgrazing of native species. Livestock that have grazed in weed-infested areas should be confined for several days elsewhere before moving to weed free pastures to prevent the introduction of noxious weed seed.

Motor vehicles have been identified as a major distributor of noxious weed seeds. Restriction of off-road travel and road closures will prevent movement of weeds into non-infested areas. Tires and undercarriages of vehicles and field equipment should be cleaned regularly and kept free of noxious weed debris to avoid transportation of seeds. Weeds should be controlled in parking areas, equipment yards, stockyards, road turnouts, and other areas frequented by vehicles to prevent movement of seed to new sites. Gravel pits and other sources of construction materials should be free of noxious weeds or quarantined to avoid seed transport.

### **2.7.2 PUBLIC EDUCATION**

Early detection, treatment of noxious weeds, and an effective overall preventive weed management program is dependent on education. Public education programs, such as tours, workshops, meetings, radio and television announcements, and youth programs are useful in preventing the spread of noxious weeds. Targeted audiences for education consist of people affiliated with agriculture, special interest groups, landowners or property owners, realtors, and the general public.

Many groups, including Montana State University Extension (MSU Extension), Montana Department of Agriculture, Montana Statewide Noxious Weed Awareness and Education Campaign, ZERO SPREAD Campaign, the Montana Weed Control Association (MWCA), and local weed districts are actively involved in educating the public about noxious weeds. Informational goals include increasing the general public's awareness of noxious weeds; communicating weed research results; and providing training on weed biology, ecology, and weed management techniques. County noxious weed boards and MSU personnel are instrumental in organizing and promoting public education programs at the state and regional levels.

### **2.7.3 CULTURAL MANAGEMENT METHODS**

Cultural noxious weed management methods enhance the growth of desired vegetation and in turn slow noxious weed infestations. The use of irrigation, fertilization, plant competition, smother crops, crop rotation, and weed life cycle disruption are methods most often suited to cropland agriculture. Maintaining native or desirable vegetation in a healthy condition and minimizing soil disturbance is

beneficial for slowing the spread of noxious weeds. Since weeds have an ecological advantage on disturbed, compacted, and/or trampled sites, implementation of traffic controls may reduce weed invasion and spread. Fertilization and reseeding with competitive, adapted species may be necessary when rehabilitating a site.

Irrigation can be used to manage some species of weeds. Irrigation can be used to help establish vigorous stands of desirable plants quickly and encourage root development, thus providing increased competition against noxious weeds. Irrigation may also stimulate the growth of some noxious weed species, such as leafy spurge, so it must be used with consideration of noxious weed species- and site-specific conditions.

#### **2.7.4 MANUAL/MECHANICAL METHODS**

The use of manual methods to eliminate weeds is effective on small infestations that are not well established, or on intensively managed sites such as seeded turf. Hand pulling, hoeing, tilling, mulching, burning, and mowing are all commonly used methods. Physical and mechanical methods are labor intensive and may not be effective on deep-rooted perennial weeds. Hand pulling or hoeing is most effective in areas where there is a limited weed infestation and soil types allow for complete removal of plant material.

1. **Tilling** is normally limited to cropland or garden situations. Tilling of most noxious weeds will take repeated operations during the growing season to reduce production and keep a plant from spreading. Tilling of some plants does little good and could actually further propagate the weed. Knowledge of plant growth cycle is important when using tillage as a management tool.
2. **Mulching** can be effective against some annual and biennial weeds but are not effective against many perennials. Mulching with plant materials, landscaping fabric, and other substances can reduce weed infestations on small areas if installed and maintained properly. Mulching may also improve soil conditions such as aeration, and water and nutrient holding capacity and infiltration.
3. **Burning** may be used prior to herbicide applications to remove decadent vegetation that could interfere with herbicide uptake and translocation. Burning should be properly timed to minimize damage to non-target species. Moderate or low intensity fires do not kill noxious weed seeds and by exposing bare soil and reducing competition, it is possible that numbers of some noxious weeds may increase following a burn.
4. **Mowing** is a common tool used to improve appearances but does not eliminate the weed. Mowing reduces seed production in annual weeds that produce only one crop of seed. Timing and frequency of mowing varies with each weed species. Although mowing can reduce seed production in some perennial weeds, most species can produce seeds to a limited extent below mower height. Mowing height is an important part of weed control, as low mowing heights favor weed germination and growth by exposing the soil to more sunlight and stressing the mowed vegetation. Mowing, especially early in the season, may also harm native grasses. Where native grasses, specifically bluebunch wheatgrass, are an important component of the plant community, mowing should be delayed until native grasses mature.
5. **Steam** use is in the experimental stage for the noxious weed management program in the County but has shown promise to reduce herbicide use in and around compounds and waterways. The use of steam has proven beneficial to orchard growers and for plant stunting along roadways in eastern and western parts of the United States and Canada.

#### **2.7.5 BIOLOGICAL CONTROL**

Biological control involves the use of living organisms, such as insects, pathogens, or grazing animals, to control a weed infestation. Biological control attempts to recreate a balance of plant species with predators. Since noxious weeds are not native to the area in which they are a problem, they have few

established natural predators. Biocontrol methods generally suppress weed populations, but will not contain or eradicate them, and are most effective on dense weed infestations that occupy large acreages. The Board and Division Supervisor work cooperatively with the USDA Agricultural Research Service, USDA Animal and Plant Inspection Service, Montana Weed Control Association (MWCA), and MSU to establish biological control agents, including insects and pathogens. Biological agents used in the County come from various entities.

The Division is continuously researching the possibilities of biological weed management. Biological agents do not eradicate noxious weeds but do put a stress on the plants, reduce feed production, and make the remaining plants less competitive.

Monitoring the biological control agent populations is important. Efforts to monitor and manage county sites will be stressed in our development of the integrated noxious weed management program. Biological control is not a quick fix but should be an integral part of an IWM program. Lewis and Clark County will continue to encourage research on biological control and will participate in providing sites for insectaries, as well as assisting with collection and release of agents whenever possible.

Grazing, using sheep and goats, is an effective tool for managing leafy spurge, knapweed, and other weed species. Careful monitoring of grazing animals, target weeds, and non-target plants is required to evaluate success and prevent damage to desirable vegetation. Sheep and goat grazing can significantly reduce seed production on leafy spurge and spotted knapweed in the short term and has many of the same effects as mowing. Grazing as a weed control method is not an option on many sites because of the small size of infestations.

#### **2.7.6 CHEMICAL CONTROL**

Herbicides are a valuable tool for managing noxious weeds. It is important to understand effects and limitations of these products and the weeds they can control. Herbicides are categorized as selective or non-selective based on their ability to control certain kinds of plants. Selective herbicides will control either broadleaf or grass plants depending on the product selected. For example, 2,4-D and Tordon 22K (picloram) are selective herbicides that will control certain broadleaf plants, such as knapweed, but will not harm grasses at recommended application rates. A non-selective herbicide, such as Roundup (glyphosate), kills both grasses and broadleaf plants. Herbicides are also selective based on the rate applied. Spotted knapweed is generally controlled using a lower herbicide application rate than for leafy spurge. Rate use will also affect the potential impact on nontarget broadleaf species.

Properly used, herbicides are effective against most noxious weeds. Variation in effectiveness occurs due to weed biology, plant growth stage, seed purity, application rates, condition of the application equipment, and environmental conditions such as temperature, soil moisture, wind and precipitation.

Herbicide labels are an important component of herbicide use and safety. Labels are booklet format documents supplied with each container of product. The label contains detailed information to support four important goals of the regulation process for herbicide use, which are Identification, Protection of Health and the Environment, Special Practices, and Legal Requirements. Labels are on file at the Division office and in County vehicles carrying herbicide products.

#### **2.7.7 PLANT UTILIZATION**

The Division realizes that occasionally a plant on the noxious weed list may have medicinal or other production benefit to the public. Upon a request to have the plant designated as a productive species,



the Board will evaluate and monitor the area in which the use is proposed. The production of such will be based on containment, economic value, effects on native and agricultural plants, and a plan to eradicate once the plant is out of production.

## **2.8 NOXIOUS WEED MANAGEMENT AREAS BY WATERSHED**

The County is divided into six major watersheds to support and localize environmental needs, natural resources, and to enhance the facilitation development and effectiveness of each area. The Board realizes that watersheds are somewhat and sometimes too broad-based to manage effectively, but when using an integrated approach to weed management one must look at the overall effects while accomplishing goals and objectives.

### **2.8.1 UPPER MISSOURI WATERSHED**

The Upper Missouri Watershed includes the communities of Wolf Creek, Canyon Creek, Marysville, Silver City, York, Lakeside, East Helena, Helena, Rimini and the Helena Valley. Major waterways include Wolf Creek, Holter Lake, Willow Creek, Canyon Creek, Little Prickly Pear Creek, Missouri River, Beaver Creek, Trout Creek, Lake Helena, Silver Creek, Canyon Ferry Lake, Ten Mile Creek, and Prickly Pear Creek.

Predominate noxious weeds include:

- Spotted knapweed (*Centaurea stoebe*, *C.maculosa*)
- Diffuse knapweed (*Centaurea diffusa*)
- Russian knapweed (*Acroptilon repens*, *Phaponticum repens*)
- Canada thistle (*Cirsium arvense*)
- Common mullein (*Verbascum thapsus*)
- Purple loosestrife (*Lythrum salicaria*)
- Houndstongue (*Cynoglossum officinale*)
- Dalmatian toadflax (*Linaria dalmatica*) / Yellow toadflax (*Linaria vulgaris*)
- Leafy spurge (*Euphorbia esula*)
- Hoary cress or whitetop (*Cardaria draba*, *Lepidium draba*)
- Field bindweed (*Convolvulus arvensis*)
- Garlic mustard (*Alliaria petiolate*)

### **2.8.2 BLACKFOOT WATERSHED**

The Blackfoot Watershed includes the west central area of the County, centered in and around the community of Lincoln. Major waterways include Copper Creek and Blackfoot River.

Predominate noxious weeds include:

- Spotted knapweed (*Centaurea stoebe*, *C.maculosa*)
- Canada thistle (*Cirsium arvense*)
- Field bindweed (*Convolvulus arvensis*)
- Common mullein (*Verbascum thapsus*)
- Leafy spurge (*Euphorbia esula*)
- Houndstongue (*Cynoglossum officinale*)
- Yellow toadflax (*Linaria vulgaris*)
- Tansy ragwort (*Senecio jacobaea*, *Jacobaea vulgaris*)

### **2.8.3 UPPER MISSOURI-DEARBORN WATERSHED**

The Upper Missouri-Dearborn Watershed includes the central area of the County from the community of Craig northwest to the boundary of the Sun Watershed. Major waterways include Flat

Creek, Dearborn River, Middle Fork Dearborn River, South Fork Dearborn River, and Missouri River.

Predominate noxious weeds include:

- Spotted knapweed (*Centaurea stoebe*, *C. maculosa*)
- Canada thistle (*Cirsium arvense*)
- Common mullein (*Verbascum thapsus*)
- Leafy spurge (*Euphorbia esula*)
- St. Johnswort (*Hypericum perforatum*)

Watch List:

Silver cinquefoil (*Potentilla argentea*)

#### **2.8.4 SUN WATERSHED**

The Sun Watershed includes the northern area of the County in and around the community of Augusta. Major waterways include Rock Creek, Sun River, Straight Creek, Willow Creek, Smith Creek, Elk Creek, Dry Creek, and North Fork Simms Creek.

Predominate noxious weeds include:

- Spotted knapweed (*Centaurea stoebe*, *C. maculosa*)
- Field bindweed (*Convolvulus arvensis*)
- Leafy spurge (*Euphorbia esula*)
- Houndstongue (*Cynoglossum officinale*)
- Hoary cress or whitetop (*Cardaria draba*, *Lepidium draba*)
- Russian knapweed (*Acroptilon repens*, *Phaponticum repens*)

#### **2.8.5 UPPER CLARK FORK WATERSHED**

The Upper Clark Fork Watershed includes the area of the County located on the west side of the continental divide. The area is primarily on USFS land; therefore, management cannot be done without the cooperation and direction of USFS. Major waterways include Little Blackfoot River.

Predominate noxious weeds include:

- Spotted knapweed (*Centaurea stoebe*, *C. maculosa*)
- Houndstongue (*Cynoglossum officinale*)
- Canada thistle (*Cirsium arvense*)
- Common mullein (*Verbascum thapsus*)
- Tansy ragwort (*Senecio jacobaea*, *Jacobaea vulgaris*)

#### **2.8.6 SOUTH FORK FLATHEAD WATERSHED**

The South Fork Flathead Watershed includes the area within the County located on the northwest side of the Bob Marshall Wilderness. No noxious weed management will be conducted in the area by the Division. Major waterways include Dupuyer Creek.

Predominate noxious weeds include:

- No inventory taken as of date of Management Plan

## **SECTION 3. MITIGATION AND SAFETY RECOMMENDATION SUMMARY**

### **3.1 HERBICIDE APPLICATION OVERVIEW**

Herbicides proposed for use by the Division can be safely applied on many sites without posing a risk to ground water resources. Soil, vegetation, and water features will be evaluated prior to spraying to identify high-risk sites for herbicide applications.

Only aquatic labeled herbicides will be used near surface water and in areas with shallow groundwater. The use of low-persistent herbicides on steeply sloping sites adjacent to streams and rivers will further mitigate risk of contaminating surface and ground water resources through runoff. Mechanical/manual and biological management methods will be used in areas where there is a risk for herbicides to enter surface or groundwater.

### 3.2 MANAGEMENT METHODS AND RECOMMENDATIONS

<b>Management Method</b>	<b>Practice Recommendation</b>
<b>All Methods</b>	<b>All Practice Recommendations</b>
1. Consider site-specific factors	Analyze soil survey, groundwater, and other environmental factors prior to initiating a weed control project.
2. Consider effects on threatened and endangered species.	Contact MT Natural Heritage Program annually to determine if new sensitive species have been discovered. Review maps to determine the location of sensitive species.
3. Follow safety measures to protect worker safety.	Assess job hazards for each weed management method at each project location.
4. Minimize soil disturbance.	Do not use mechanical treatments adjacent to stream channels and minimize mechanical treatments on strongly sloping areas and on sandy textured soils.
<b>Chemical Methods</b>	<b>Chemical Practice Recommendations</b>
1. Analyze possible health effects of chemical.	Chemically sensitive individuals known within the County will be protected by notifying these individuals when a spray program will be utilized. Proper herbicide storage, use and disposal, and minimizing exposure of all individuals will be done by the County.
2. Protect worker health and safety.	All applicators will be licensed to apply herbicides in accordance with Montana Pesticide Act (80-8-801). Applicators will wear protective clothing, chemical/water resistant boots, gloves, and other safety clothing as required by the Division and herbicide labels. Division employees will have soap, wash water, eye wash kits, first aid equipment, and other safety equipment within vehicles when applying herbicides.
3. Prevent effects on aquatic organisms.	Herbicide application within riparian areas will be reviewed by County Weed Supervisor. Only aquatic labeled herbicides will be applied in areas where there is potential for the herbicide to contact surface or groundwater resources.
4. Protect surface water quality.	A buffer zone will be maintained adjacent to all surface water areas. Only herbicides labeled for aquatic use will be applied within the buffer zone.
5. Protect groundwater quality.	Mobile herbicides with a moderate to long half-life (i.e. picloram, clopyralid, dicamba) will not be applied to soils in a risk class of very high or high.
6. Minimize potential drift and subsequent harm to non-target species.	Use application methods that minimize drift, monitor weather conditions, including wind and temp., before and during spray operations. Herbicides will not be applied in wind speeds greater than 10 mph without drift retardant and up to 15 mph with drift retardant.

<b>Management Method</b>	<b>Practice Recommendation</b>
7. Ensure no effect on threatened or endangered species.	No herbicide will be applied within 200 feet of a known threatened or endangered animal species to minimize disturbance. A 20-foot buffer zone will be established for ground application and a 300-foot buffer zone for aerial application for areas with threatened or endangered plant species. Exact location of plant species will be determined if a sensitive plant is identified within a weed management zone.
8. Minimize risk and impacts of accidental spills or water contamination.	Where possible, herbicides will be transported to the project site in closed containers and mixed at the application site. Mixing, loading, and equipment cleaning must be done in accordance with herbicide label and Division regulations.
9. Ensure proper disposal of chemical containers.	Dispose herbicide containers in accordance with label, County, state and federal guidelines.
10. Minimize herbicide effects on biological control agents.	Herbicide use is restricted or modified for a 5-year period at bioagent release sites unless research indicates that herbicide applications are compatible with the agent.
<b>Mechanical and Manual Methods</b>	<b>Mechanical and Manual Practice Recommendations</b>
1. Minimize soil disturbance	Restrict use of equipment on highly erodible soils or sites with moderate to steep slopes. Disturbed sites will be reclaimed as specified in the Management Plan.
2. Minimize risk of introducing weed seed	Clean weed seed from undercarriage of machinery and equipment when moving from weed infested sites.
<b>Biological Methods</b>	<b>Biological Practice Recommendations</b>
1. Minimize transport of weed seed.	Use containers that prevent release of weed seeds when transporting insect biological control agents with host weed material.
2. Maintain realistic expectations of biocontrol efforts.	Do not release biocontrol agents in small infestations that can be eradicated or effectively managed using other control methods.
3. Release biocontrol agents in sites well suited to establishment. Monitor sites for effects on noxious weed populations.	Maintain contact with biocontrol specialists in Montana to obtain current release information on biocontrol agents to help assure their success.
<b>Cultural (Grazing) Methods</b>	<b>Cultural (Grazing) Practice Recommendations</b>
1. Minimize over-utilization, and other adverse effects of grazing livestock.	Utilize proper grazing guidelines to reduce the effects of livestock on riparian areas, recreation, wildlife species, etc.
2. Minimize risk of transporting weed seed to weed-free areas.	Before rotating livestock to weed-free pastures, keep animals separate for a minimum of 5 days until weed seeds are eliminated from their system.
<b>Burning Methods</b>	<b>Burning Practice Recommendations</b>
1. Minimize adverse effects on native or recommended species.	Timing of burn is important for seed propagation and merit of method and the degree of heat to reduce propagation of plants is a factor.

### **3.3 HUMAN HEALTH PRECAUTIONS**

A definitive evaluation of health effects from herbicides is beyond the scope of this Management Plan. Discussion of health effects includes a brief discussion of toxicity, carcinogenicity (cancer), and mutagenicity (birth defects) as well as potential physical health effects from alternative management methods.

#### **3.3.1 HERBICIDE TREATMENTS**

Human health risks associated with herbicides used for noxious weed control have been documented in “TNC Weed Control Methods Handbook” (Tu et al., 2001), and “Analysis of Human Health Risks of USDA Forest Service Use of Herbicides to Control Noxious Weeds in the Northern Region” (Monnig, 1986), and in risk assessments for various herbicides located on the USDA and USFS websites. These reports indicate that even when consideration is given to mixing errors and a variety of accident scenarios (e.g. spills, leaks, etc.) the No Observable Effect Levels (NOEL) for human health are not exceeded. Health impacts to the general public are related either to direct contact with herbicides through spray drift, spills, and sprayed vegetation, or to indirect contact through consumption of contaminated water, vegetables, fish, and grazing animals. The most serious human health risk is to herbicide applicators. However, worker doses are likely to be below the Acceptable Daily Intake (ADI), if reasonable safety precautions on the herbicide label are used.

There is the possibility of idiosyncratic responses such as hypersensitivity in a small segment of the population. These persons are generally aware of their sensitivities since they are typically triggered by a variety of natural and synthetic compounds. Placing signs in high public use areas during and following herbicide applications, and not allowing chemically sensitive persons to work with herbicides will limit exposure.

#### **3.3.2 HERBICIDE TOXICITY**

Toxicity tests are used as standard reference experiments to evaluate potential harm to mammals and other organisms. Toxicity tests on mammals are segregated into acute, sub chronic, and chronic categories based on the length of exposure to the herbicide. Acute tests evaluate the effects of large dosages in a short time period. Observations are conducted over a span of days to weeks. The most often referred to indices for herbicide toxicity are the median lethal dose, or LD50, and the medial lethal concentration, or MC50. This is defined as the dose or concentration which is lethal to 50 percent of the treated population, which is expressed in milligrams of compound ingested per kilogram of body weight. Various rating systems are used to discuss relative toxicity of herbicides. The U.S. Environmental Protection Agency (EPA) has category guidelines for acute and sub chronic toxicity which are used on herbicide labels. Labels are required under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and are on file with the Division.

#### **3.3.3 CARCINOGENICITY AND MUTAGENICITY**

Chronic impact studies expose a test subject to herbicides for a majority of its life span to determine the effects of long-term, low-level exposure. The potential for mutagenicity and carcinogenicity is evaluated. These tests are very complex in relation to human biological systems and potential influences.

Current data suggest that health risks from herbicides can be significant for sensitive individuals. At the same time, it is possible to reduce herbicide risks to levels equivalent to, or well below, other common risks. This is accomplished by proper storage, use and disposal, and by minimizing exposure through the use of protective clothing as listed on the product label.

### **3.3.4 OTHER TREATMENT METHODS**

Mechanical, manual, and cultural weed treatment methods, such as fertilizing, mowing, tilling, and hand pulling subject workers to heavy machinery, skin irritants, and general hazards associated with field work. Operators of mowing machines, tillers, or other heavy machinery are at risk of injury through accidents or contact with flying debris or brush. Hand pulling or spraying can expose workers to hazards such as poisonous snakes or substances in plants that cause blisters, inflammation, or dermatitis.

County treatment methods must be considered in a cumulative manner to assess potential impacts from the total weed management program. Based on Division figures, potential cumulative impacts in the County and adjacent lands resulting from herbicide use should not be significant due to only a limited number of sites being treated each year and these will be spread over a very large geographic area, including multiple drainage basins.

Other weed management activities will be conducted by the Board, MDT, other state and federal agencies, and private landowners.

## **SECTION 4. REFERENCES**

Information from the following organizations, agencies, publications, and state laws was to prepare this Management Plan:

- Bucher, Willis & Ratliff Corporation
- Lewis and Clark Conservation District
- Lewis and Clark County Comprehensive Publication
- Lewis and Clark County Department of Public Works
- Lewis and Clark County Information Technology & Services Data
- Lewis and Clark County Noxious Weed Board By-Laws
- Lewis and Clark County Resolutions
- Montana Code Annotated; 7-22-2101 through 7-22-2153
- Montana Department of Agriculture
- Montana Department of Agriculture County Noxious Weed Control Act
- Montana Department of Agriculture Noxious Weed Seed Free Forage
- Montana Department of Agriculture Noxious Weed Trust Fund
- Montana Department of Natural Resources
- Montana Fish Wildlife & Parks
- Montana Historical Society
- Montana Nature Heritage Program
- Montana Noxious Weed Control Act
- Montana Noxious Weed Management Plan
- Montana State University Extension Office
- Montana Weed Control Association
- Powder River County Weed Division, EIS and Management Plan
- US Army Corps of Engineers
- US Environment Protection Agency

Approval of 2024/2025 Weed Management Plan

On this \_\_\_\_\_ day of \_\_\_\_\_ 2025 the Lewis and Clark County Noxious Weed Board has revised their Noxious Weed Management Plan.

\_\_\_\_\_  
Chairperson, Dave Burch

\_\_\_\_\_  
Vice-Chairperson, Judith Anne Vincent

Authorized by the Lewis and Clark Board of County Commissioners on this \_\_\_\_\_ day of \_\_\_\_\_ 2025.

\_\_\_\_\_  
Candace Payne / Chair

\_\_\_\_\_  
Tom Rolfe / Vice Chair

\_\_\_\_\_  
Andy Hunthausen / Member