

# Reclamation Manual

## Directives and Standards

---

<b>Subject:</b>	Integrated Pest Management and Invasive Species Program
<b>Purpose:</b>	To provide directives and standards (D&S) for the Bureau of Reclamation personnel involved with the implementation of a combined Integrated Pest and Invasive Species Management Program. The benefit of this D&S is to protect Reclamation from the harmful effects of pests and invasive species for the benefit of the American Public.
<b>Authority:</b>	Reclamation Act of 1902, as amended; Fish and Wildlife Coordination Act of 1934, as amended; Federal Insecticide Fungicide and Rodenticide Act (FIFRA) of 1947, as amended; Carlson-Foley Act of 1968, as amended; Executive Order (EO) 13112, EO 13751, 517 Departmental Manual (DM)1, 524 DM1, Reclamation Manual (RM) Delegations of Authority, Paragraph 4.F.(5).
<b>Approving Official:</b>	Director, Policy and Programs (P&P)
<b>Contact:</b>	Environmental Compliance Division (84-53000)

---

1. **Introduction.** The FIFRA directs all Federal agencies to use an Integrated Pest Management (IPM) approach to manage pests. The goal of IPM is to manage pests and invasive species, with consideration to the environment to balance cost, benefits, public health, and environmental quality.
  - A. IPM is a science-based, decision making process that incorporates management goals, consensus building, pest biology, monitoring, environmental factors, and a selection of the best available technology to achieve desired outcomes, while minimizing effects to non-targeted species and the environment and preventing unacceptable levels of pest and invasive species damage.
  - B. Reclamation is responsible for water and power management and project operations. The hazards to critical infrastructure caused by pests and invasive species cannot be underestimated. IPM ensures Reclamation projects function as they are designed by examining all aspects of potential pest and invasive species impacts and planning to ensure the most efficient or cost-effective measure is undertaken.
  - C. This D&S explains the organization and responsibilities of Reclamation's IPM and Invasive Species Program. This document also provides the scope, content, and review process for IPM Plans, Pesticide Discharge Management Plans, and Pesticide Use Proposals (PUPs).
2. **Applicability.** This D&S applies to all Reclamation personnel who work on IPM and invasive species issues. Additionally, this D&S applies to procurement activities, contracts, use authorizations, and agreements to ensure compliance by parties conducting IPM and invasive species activities on Reclamation's behalf.

# Reclamation Manual

## Directives and Standards

---

3. **Principles of Reclamation's IPM and Invasive Species Program.**
- A. Always give full consideration to the safety and protection of humans and other non-target organisms and resources.
  - B. Establish site management objectives and then choose the lowest risk, most effective approach that is feasible for each pest management and invasive species project.
    - (1) The management methods can include, but are not limited to, one or more of the following: no action, prevention activities, cultural, physical, biological, and chemical management.
    - (2) While the costs associated with management are important, they are not the primary deciding factor in selecting a management approach. At times, it may be appropriate to select a more expensive management approach if that method is effective and reduces risks to Reclamation, humans, and other non-target resources.
  - C. Conserve and promote beneficial organisms and natural processes that would inherently suppress potential pest and invasive species populations.
  - D. Design and maintain the stability of structures, developed landscapes, and natural areas to prevent and reduce conditions conducive to pests and invasive species.
  - E. Utilize and promote pest management and invasive species research, methods, education, and technical and financial assistance programs to develop, support, and implement IPM and invasive species management strategies.
  - F. Be an engaged partner and consider the invasive species priorities of state, tribal, and local governments and other appropriate stakeholders.
4. **Requirements of Reclamation's IPM and Invasive Species Program.** Reclamation's IPM and Invasive Species Program provides the framework for Reclamation-wide coordination and identifies responsibilities to ensure that regions and area offices have tools and resources (i.e., personnel, budget, and equipment) to manage pests and invasive species and work collaboratively across Reclamation and with partners as appropriate.
- A. Reclamation's IPM and Invasive Species Program is responsible for the following:
    - (1) complying with applicable Federal/tribal/state and local pest management regulations and IPM activities and management strategies will be evaluated, implemented, and monitored for compliance with the applicable authorities;
    - (2) incorporating IPM methods into short- and long-term planning documents to establish methods for implementing low risk, effective pest and invasive species management practices at the regional and area office level;

# Reclamation Manual

## Directives and Standards

---

- (3) conducting applicable pest and invasive species detection, surveillance, and monitoring before, during, and after any management activity to determine whether management goals are achieved and whether the activity caused any significant unanticipated effects;
- (4) ensuring that persons applying pesticides, releasing biological control agents, or conducting other IPM activities have the training and equipment necessary to ensure their health and safety in accordance with applicable rules and laws including a job hazard analysis for participating personnel;
- (5) ensuring that IPM principles are put into procurement activities, contracts, use authorizations, and other agreements with managing partners to ensure compliance by parties conducting IPM or invasive species activities on behalf of Reclamation;
- (6) completing the necessary environmental documentation, prior to any pest or invasive species action;
- (7) using IPM Plans as a tool to manage pests and invasive species;
- (8) determining the size and complexity of management units for IPM Plans at the regional or area office level; and
- (9) considering appropriate stakeholder input when crafting IPM Plans.

### **B. Organization of Reclamation's IPM and Invasive Species Program.**

#### **(1) Reclamation-wide.**

- (a) P&P, through Reclamation's IPM/Invasive Species Coordinator, will coordinate the IPM/Invasive Species Program for all of Reclamation through the development of policies, D&S, and associated guidance on IPM and invasive species issues, and related activities.
- (b) As part of the Reclamation-wide program Reclamation's IPM/Invasive Species Coordinator is required to:
  - (i) conduct reviews and updates to the RM documents as needed;
  - (ii) facilitate the implementation of Reclamation's invasive species early detection and rapid response strategies;
  - (iii) coordinate Reclamation's Invasive Species and IPM working group(s);
  - (iv) review, as requested and in a timely manner, IPM Plans, PUPs, the release of biological control agents, and other applicable actions for utilization of IPM principles;

# Reclamation Manual

## Directives and Standards

---

- (v) act as a resource for pesticide applicators and the regional and area offices regarding the release of biological control agents and as they conduct other IPM and invasive species activities;
- (vi) coordinate across Reclamation to provide a Reclamation-wide response and perspective to Department of the Interior data calls and initiatives.

### (2) **Regional Level.**

- (a) Implementation of Reclamation's IPM and Invasive Species Program occurs primarily at the regional and area office level. To ensure adequate coordination and implementation of IPM principles across each region, Regional directors will designate a specific individual or individuals to act as the regional IPM/invasive species coordinator and ensure funding is available for IPM and Invasive Species Program activities.
- (b) Regional IPM/invasive species coordinator(s) are responsible for the following aspects of their program:
  - (i) represent their region and coordinating with Reclamation's IPM/Invasive Species Coordinator;
  - (ii) represent their respective region and coordinate with regional and area office staff on the progress and activities of Reclamation's IPM/Invasive Species Program;
  - (iii) participate in meetings with Reclamation's IPM/Invasive Species Coordinator and contribute toward the goals and successes of Reclamation's IPM/Invasive Species Program through active involvement;
  - (iv) identify regional training needs for personnel;
  - (v) ensure their regional programs have the tools and resources (budget and equipment) to manage pests and invasive species;
  - (vi) provide responses to data collection requests and report on implementation activities as they come up throughout the calendar year to Reclamation's IPM/Invasive Species Coordinator;
  - (vii) assist with budget implementation (examples: spend plans, contracting, activity plans etc.);
  - (viii) assist with reviews of area/regional IPM/Invasive Species Programs;

# Reclamation Manual

## Directives and Standards

---

- (ix) assess and coordinate records consistent with RM RCD 05-01 and the Information Management Handbook (IMH) to ensure the success of their program (records may include but are not limited to: pest inventories, monitoring records, IPM strategies, and decisions);
- (x) coordinate and review IPM Plans for their area offices, as appropriate, and maintain proper records management, consistent with RM RCD 05-01 and the IMH, of IPM Plans for their respective region.

### (3) Area Office Level.

- (a) The on-the-ground implementation of IPM and the management of invasive species across Reclamation's IPM and Invasive Species Program occurs at the area/field/power office level.
- (b) Area office managers or their designee are responsible for the following as part of the IPM and Invasive Species Program:
  - (i) ensure their programs have tools, education, and resources (budget, personnel, and equipment) to manage pests and invasive species within their respective management area;
  - (ii) coordinate within their respective management area with associated partners;
  - (iii) coordinate with their regional IPM/invasive species coordinator(s) for the creation of IPM Plans and responses to data calls;
  - (iv) provide support for Reclamation-wide reviews of IPM activities and associated Policies and D&S when requested.

5. **IPM Plans.** Reclamation uses IPM Plans to assist IPM practitioners and managers in the diagnosis and treatment of pests and invasive species through implementation of an IPM process. IPM Plans provide general and specific guidance on how to handle different pest types and invasive species using the principles of IPM.

A. **IPM Plan Content.** IPM Plans will contain the following types of information (additional guidance can be found in the IPM Manual at [www.usbr.gov/mussels](http://www.usbr.gov/mussels)).

- (1) **Project Area.** Regional and area offices are to use their own discretion in choosing size and complexity of management units. One management unit may include their complete jurisdiction, or units may be split up based upon pest type or invasive species control problems; e.g., one canal section, a complete canal, complete reservoir area, or the entire project area.

# Reclamation Manual

## Directives and Standards

---

- (2) **Data Collection.**
  - (a) Document the current ecosystem components (biotic and abiotic), as well as existing and potential pest species and life history. Provide information on special status species or critical habitats known to exist within the project area.
  - (b) Provide an overview of the infrastructure and operations within the project or reference them.
  - (c) Consider that additional surveys or assessments may be needed as part of a baseline assessment; regional and area offices will consider consulting with various technical experts as needed.
- (3) **Target Pests.** List all known and problematic pests.
- (4) **Partnerships, Roles, and Responsibilities.** All individuals or parties participating in or with authority over any aspect of an IPM program will be identified in the IPM plan, including brief description of their roles and contact information.
- (5) **Goals and Objectives.** Develop and understand your site management objectives and establish short and long-term priorities.
- (6) **Management Strategies.**
  - (a) Describe the overall pest management strategy with as much detail as possible. Include discussion of coordination of pest and environmental information with available pest control methods to prevent unacceptable levels of pest damage by the most economical means and with the least possible hazard to people, property, and the environment. At a minimum, the management strategy descriptions will cover action thresholds, specific management targets, applicable control techniques and timing, and any potential non-target impacts.
  - (b) Identify pesticide types and application methods. Pesticide products allowed for use are limited to only those products listed in approved IPM Plans.
  - (c) The application of pest controls not included in the IPM plan will only be authorized with appropriate supplemental approval and documentation. See Paragraph 7 below for the amendment of an IPM plan by a PUP.
- (7) **Action Thresholds.** Define the level of pest infestation that will be tolerated, when control will be triggered, and any exceptions or justifications.

# Reclamation Manual

## Directives and Standards

---

- (8) **Safety and Emergency Response.** Safety issues and protocols will be evaluated and discussed in the IPM plan, addressing IPM program personnel, the public, wildlife or environmentally sensitive areas, or other potential concerns. Additionally, safety data sheets for associated chemical compounds and pesticides will be included in the IPM plan.
- (9) **Permits and Authorizations.** All pertinent laws and regulations will be stated or referenced in the IPM plan, including Federal, state, county, or other local regulations and permitting requirements. Copies of approved permits will be maintained within the IPM plan.
- (10) **Monitoring.** The IPM plan will include a description of monitoring protocols, documentation requirements, and data summaries and interpretations.
- (11) **Documentation and Record Keeping.** Documentation, reporting, and record-keeping protocols necessary for the specific IPM actions will adhere to the requirements of RM RCD 05-01 and the IMH and be described in the IPM plan.

### B. IPM Plan Review and Approval.

- (1) All IPM Plans will be reviewed by the regional IPM/invasive species coordinator prior to approval.
- (2) At their sole discretion, regional IPM/invasive species coordinators can share IPM plans with appropriate stakeholders to obtain comments prior to approval.
- (3) IPM Plans are approved by the regional director or the appropriate delegated signatory per Paragraph 4.F.(5) of the RM Delegations of Authority.
- (4) IPM Plans are to be approved for periods of 3-5 years (specific length determined during IPM Plan development). Selection of approval time periods will be based on the complexity of the IPM Plan and the potential for pest and invasive species management alternatives to change.
- (5) A significant change in pests or invasive species to be managed or methods of management require review and potential revision to the IPM Plan when such changes occur regardless of approval period.

### C. Implementation.

- (1) IPM Plans will be completed for all Reclamation-managed facilities and transferred works facilities.
- (2) When transferred works facilities contracts are renewed, provisions will be added to include a requirement to have an IPM Plan. The standard article for this addition can be found in RM PEC 10-29.

# Reclamation Manual

## Directives and Standards

---

- (3) IPM Plans will be created for individual facilities or regional or area offices with review and assistance from the regional IPM/invasive species coordinator.

### 6. Pesticide Discharge Management Plans (PDMPs).

- A. PDMPs are permitting documents that can be used to assist decision-makers in documenting what pest management measures are implemented in order to meet pesticide effluent limitations, and to assist the permitting/compliance authority in determining whether the pesticide effluent limitations are being met, as required by the Environmental Protection Agency (EPA) under the National Pollution Discharge Elimination System, Pesticide General Permit- <https://www.epa.gov/npdes/pesticide-permitting-2016-pgp>
- B. Generally, PDMPs document the following: a pesticide discharge management team; a description of the pest management area and the pest problem; a description of pest management options that were evaluated; response procedures for spill response and adverse incident response; and any eligibility considerations under other Federal laws.
- C. Developing a PDMP helps ensure steps are taken to identify the pest problems, evaluate pest management options, and select appropriate pest management measures to control pesticide discharges. A PDMP is a “living” document that requires reviews and will be continuously kept updated.
- D. See this Website for an example template of PDMP:  
[https://www3.epa.gov/npdes/pubs/pgp\\_pdmp\\_template.doc](https://www3.epa.gov/npdes/pubs/pgp_pdmp_template.doc).
- E. PDMPs can be combined with IPM Plans.
- F. PDMPs are not a requirement of Reclamation’s IPM/Invasive Species Program. When a PDMP contains the same type of information that is required in an IPM Plan, PDMP’s can be used in place of an IPM Plan for a specific project in order to reduce regulatory redundancy and assist in streamlining permitting.

### 7. PUP.

- A. **PUP Content and Use.** A PUP is a document that amends the IPM Plan or a PDMP. Regions and area offices will use the PUP form found on the Reclamation Forms Website Form No. 7-2680 (04-2020) [pdf image in Appendix A].
  - (1) Any changes to the IPM Plan as a result of a PUP will be considered carefully for the relevant environmental compliance. The regional IPM/invasive species coordinator (s) will ensure that the necessary environmental compliance documentation is appropriate prior to PUP approval.
  - (2) New pesticide products and changes in application method or scope of pesticide use (such as terrestrial to aerial) are approved through a PUP. Once these



# Reclamation Manual

## Directives and Standards

---

products or uses are approved, they will be added to the pesticides list in the IPM Plan.

- (3) A PUP cannot be used as a substitute for an IPM Plan to allow the use of a pesticide.

### B. PUP Approval and Review.

- (1) PUPs are reviewed by regional IPM/invasive species coordinator and approved by the regional director or the appropriate delegated signatory per Paragraph 4.F.(5) of the RM Delegations of Authority.
- (2) Upon request, the Reclamation IPM/Invasive Species Coordinator will review and provide comment regarding the PUP to the regional IPM/invasive species coordinator.

## 8. Definitions.

A. **Appropriate Stakeholders-** External parties determined on a case-by-case basis at the regional or area office level.

B. **Integrated Pest Management or IPM.** Is a sustainable approach to managing pests by combining prevention, biological, cultural, physical, and chemical tools in a way that minimizes economic, health, and environmental risks. Examples of tools listed in the IPM definition include, but are not limited to, the following:

- (1) prevention tools - education, using a weed barrier, planning;
- (2) biological tools - predators, parasites, and pathogens;
- (3) cultural tools - crop rotation, alterations in planting dates, and sanitation;
- (4) physical tools - barriers, traps, hand-pulling, hoeing, mowing, and tilling;
- (5) chemical tools - pesticides, such as herbicides, insecticides, or fungicides.

C. **Invasive Species.** With regard to a particular ecosystem, a non-native species whose introduction causes or is likely to cause economic or environmental harm or harm to human, animal, or plant health. Invasive species include plants, animals, pathogens, and other organisms in terrestrial and aquatic habitats.

D. **Pest.** The term 'pest' means:

- (1) any insect, rodent, nematode, fungus, weed or;
- (2) any other form of terrestrial or aquatic plant or animal life or virus, bacteria, or other microorganism (except viruses, bacteria, or other microorganisms on or in

# Reclamation Manual

## Directives and Standards

---

living man or other living animals) in which the Administrator (of the Environmental Protection Agency) declares to be a pest.

9. **Review Period.** The originating office will review this release every 3 years.

## RECLAMATION MANUAL TRANSMITTAL SHEET

Effective Date: \_\_\_\_\_

Release No. \_\_\_\_\_

Ensure all employees needing this information are provided a copy of this release.

### Reclamation Manual Release Number and Subject

### Summary of Changes

NOTE: This Reclamation Manual release applies to all Reclamation employees. When an exclusive bargaining unit exists, changes to this release may be subject to the provisions of collective bargaining agreements.

### Filing instructions

Remove Sheets

Insert Sheets

All Reclamation Manual releases are available at <http://www.usbr.gov/recman/>

Filed by: \_\_\_\_\_

Date: \_\_\_\_\_