

PIMA COUNTY REGIONAL FLOOD CONTROL DISTRICT
WATER RESOURCES DIVISION

Invasive Plant Species Management Plan Checklist

Disturbance to native vegetation caused by the construction of linear projects, such as a railroad line, roadway or utility line, creates an ideal environment for the establishment of invasive plant species. To reduce and/or prevent the spread of invasive species, an Invasive Plant Species Management Plan (ISMP) is required. When an ISMP is required, the applicant shall provide the following documentation as part of the riparian habitat mitigation plan (RHMP) proposal:

- Survey the proposed area of disturbance within the linear project's right-of-way (ROW) for invasive species and map existing populations. Provide an exhibit that contains the following information; a recent aerial photograph, shown at a measureable scale, delineating the areal extent of invasive species within the mapped riparian habitat and contributing upland areas.
- Provide photos documenting the areas mapped on the aerial exhibit, including detailed photographs of individual invasive plant species encountered. Place photo points on the exhibit, showing the location and direction of each point.
- Provide an Invasive Plant Species Management Plan (see requirements below) that outlines management strategies and control options for invasive species. Invasive species monitoring and control will be required for a period of five years.
- Label the document "Invasive Plant Species Management Plan".

The Invasive Plant Species Management Plan (ISMP) shall include the following information:

- Assessment of existing conditions.** Present results and describe methods by which information about existing conditions (i.e., invasive plant populations and natural resources) is gathered and evaluated to (1) develop proactive prevention and early detection rapid response strategies for newly invading populations and (2) prioritize management of existing populations.
- Management strategies and control options.** Describe selected management strategies and control options for invasive plant populations/infested areas, and uninfested areas: prevention, early detection, control (eradication, suppression, and containment), restoration. In this case, restoration would consist of reseeding disturbed areas.
- Invasive plant management objectives.** Describe measurable objectives that must be met in order to reach desired conditions (i.e., target percentage of invasive plants to be removed yearly and goal for percentage of eradication at the end of five years and/or preventing the spread of invasive plants within and from areas disturbed by construction).
- Management methods.** Describe the selected methods by which objectives are to be achieved (e.g., specific treatments such as the herbicide type, rate and timing).

- **Monitoring.** Outline monitoring objectives and protocols for measuring effectiveness of management actions in achieving invasive plant management objectives.
- **Implementation.** Outline available budget, personnel, equipment, and other resources, and timeline or action plan (who will do what when).
- **Evaluation of Management plan.** Describe methods by which the management plan will be evaluated to answer questions such as: Was the plan implemented as planned? Did management directed by the plan achieve the stated objectives? If not, why? Were the objectives realistic? How can management be modified to achieve the objectives? i.e., establish an adaptive management strategy.

Example ISMP's are available upon request.

The following is a list of target invasive non-native plant species:

<i>Arundo donax</i>	Giant reed
<i>Brassica tournefortii</i>	Sahara mustard
<i>Centaurea melitensis</i>	Malta starthistle
<i>Centaurea solstitialis</i>	Yellow starthistle
<i>Cynodon dactylon</i> hybrid)	Bermuda grass (excluding sod
<i>Pennisetum ciliare</i>	Buffelgrass
<i>Pennisetum setaceum</i>	Fountain grass
<i>Rhus lancea</i>	African sumac
<i>Salsola</i> spp.	Russian thistle
<i>Tamarix</i> spp. (with exception, Athel)	Tamarisk

Annual Monitoring Requirements:

The ISMP monitoring report shall be submitted annually for a period of five years to Pima County Regional Flood Control District. The monitoring report shall address monitoring objectives outlined in the ISMP.