1505

APPLICATION CHECK LIST

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*INDICATES FORM PROVIDED

I.

1505

Arizona Water Protection Fund
Application Cover Page
FY 2015

Title of Project: Pjhase 2 Gila River Corridor Invasive Weed Control

Type of Project:
- [x] Capital or Other
- [ ] Water Conservation
- [ ] Research

Stream Type:
- [x] Perennial
- [ ] Intermittent
- [ ] Ephemeral

Your level of commitment to maintenance of project benefits and capital improvements:
- [ ] < 5 years
- [ ] 5-10 years
- [ ] 11-15 years
- [x] 16-20 years

Applicant Information:

Name/Organization:	Coronado Resource Conservation & Development Area
Address 1:	450 S. Haskell Ave.
Address 2:	
City:	Willcox
State:	Arizona
ZIP Code:	85643
Phone:	520-766-3607
Fax:	520-384-3681
Tax ID No.:	[redacted]

Inside an AMA: Yes [ ] No [x]

If yes, which AMA:
- [ ] Phoenix
- [ ] Tucson
- [ ] Prescott
- [ ] Pinal
- [ ] Santa Cruz

Type of Application:
- [ ] New
- [x] Continuation

Contact Person:

Name:	Linda Searle
Title:	Program Manager
Phone:	520-766-3607
Fax:	520-384-3681
e-mail:	coronadorcd1@gmail.com

Any Previous AWPF Grants:
- [x] Yes
- [ ] No

If yes, please provide Grant #(s): 00-103; 03-116, 08-151, 09-164, 11-173

Arizona Water Protection Fund Grant Amount Requested:

$ 133,338.42

If the application is funded, will the Grantee intend to request an advance:
- [x] **Yes**
- [ ] **No**

Matching Funds Obtained and Secured:

Applicant/Agency/Organization:	Amount ($):
1. Applicant	
2.	
3.	
Total:	

Has your legal counsel or contracting authority reviewed and accepted the Grant Award Contract General Provisions?
- [x] Yes
- [ ] No
- [ ] N/A

Signature of the undersigned certifies understanding and compliance with all terms, conditions and specifications in the attached application. Additionally, signature certifies that all information provided by the applicant is true and accurate. The undersigned acknowledges that intentional presentation of any false or fraudulent information, or knowingly concealing a material fact regarding this application is subject to criminal penalties as provided in A.R.S. Title 13. The Arizona Water Protection Fund Commission may approve Grant Awards with modifications to scope items, methodology, schedule, final products and/or budget.

Richard Searle	President	520-766-3607
Typed Name of Applicant or Applicant's Authorized Representative	**Title and Telephone Number**	
Richard Searle	5.11.15	
Signature	**Date Signed**	

II. EXECUTIVE SUMMARY

The Gila River is a 649-mile tributary of the Colorado River, entering Arizona from New Mexico just west of Virden. Farming in the Duncan Valley basin, including Virden, became organized under the direction of the Franklin Irrigation District (District) in 1922. The District encompasses several thousand acres of agricultural farmland in the Gila River corridor, extending up through the hamlet of York, which is included in the 54 miles of the project area within Arizona. The Gila River corridor in Arizona is also recognized as an important riparian and riverine habitat for many wildlife and fish species, including the federally protected Southwestern Willow flycatcher (SWWF). One of the four Critical Habitat segments in the Upper Gila Recovery Unit encompasses about 41 miles of the Gila River corridor beginning near Red Rock Box in New Mexico and extending into Arizona, ending just north of the Town of Duncan. In 2010, the Coronado Resource Conservation and Development Board proposed a grant with the Arizona Department of Water Resources, Arizona Water Protection Fund Commission (WPF) for expanding invasive weed inventory and control in the Gila River corridor in Greenlee County. WPF funded the Invasive Weed Control Gila River Corridor, Greenlee County grant 11-173WPF for four years starting in 2011. The purpose of the grant was to fund a comprehensive approach to identifying and addressing barriers to treatment of invasive, noxious weeds in the Gila River corridor in Greenlee County and to aid in restoration of the native riparian corridor. The project area of focus was a ½ mile wide portion of the river corridor along the 30 mile stretch of the Gila River from the New Mexico State line to the Graham-Greenlee County line. Inventory of private land parcels for noxious weed presence was initiated in the spring, 2012, followed with treatment of targeted noxious weeds (Russian knapweed, White top (Hoary Cress), Malta and Yellow starthistle) by a few participating land owners. Riparian tree cover class and composition transects were established adjacent to parcels where infestations were documented. Monitoring, inventory, and mapping of noxious weed infestations continued through the field seasons of 2013 and 2014.

Arizona Water Protection Fund (AWPF) funding is being requested for a three year continuation project that will continue to use a comprehensive, aggressive approach to address barriers to treatment and reach the project goal of restoring the native riparian area by controlling invasive weeds from the thirty mile river corridor in Greenlee County. The project area will be increased from a ½ mile to 1 mile corridor, covering approximately 34,560 acres. Current data shows 792 acres in the project area have been treated for invasive weeds. These plants are prolific reproducers from seed and vegetively. Controlling the invasives from this entire area is the key to the success in the continuation of this project. In the valley areas, the adjacent flood plain is farmed, with fields and irrigation ditches draining into the river. It is critical to address these areas to eliminate the seed sources there.

III. PROJECT OVERVIEW *Capital Project*

A. BACKGROUND

The University of Arizona Cooperative Extension, Natural Resources Conservation Service (NRCS) and the Southeastern Arizona Weed Management Area initially gathered preliminary data on infestations of weeds along the Gila River in Greenlee County. The data noted the type of weed and where it was located but did not provide the complete data needed for a treatment plan such as extent of infestation in acres, site conditions, and density of infestation. From that preliminary data, it was estimated that there were approximately 1400 acres of invasive weeds in the Gila River Corridor of Greenlee County.

Estimates indicated 800 acres of Russian knapweed in the Duncan Valley, 18 acres of White top and the remainder a combination of Yellow and Malta starthistle and Bull thistle that needed to be mapped. These invasives were found in the riparian area, adjacent floodplain and in irrigation ditches in flood irrigation systems that drain back into the river. Data collected during 11-173WPF provided riparian cover transects at 29 sites, 18 in Southwestern Willow Flycatcher (SWWFC) Critical Habitat, and 11 in non-critical habitat. A total of 1,524 acres, involving 104 parcels of land, were inventoried including rangeland, farmland, residential, and utility uses. Of these, 27 parcels were clean of noxious weeds and 77 had infestations of one or several targeted species. Russian knapweed was found to occupy 501 acres of lands within the inventoried area, White top on 241 acres, and Malta and Yellow starthistle on 50 acres. Most of the acreage occupied by White top was within the protected riparian flood plain, making management and control challenging. Thirty land owners participated in the direct control herbicide program offered through 11-173WPF, treating 118 acres of Russian knapweed, 52 acres of Whitetop, and 40 acres of Malta and Yellow starthistle.

Funding will be utilized to hire a part time project coordinator to lead work plan development, develop and deliver the information and education program, and obtain all access and working agreements with landowners and partners. A Weed Management Technician will be hired to survey and map the area, create the data base and shape files to track progress and assist with safety and application training. In addition, a GIS Technician will be hired to create maps from shape files to track progress of treatment each year. Funds will be used to purchase herbicide for the project and provide it to landowners in the project area at no cost to them. Landowner contribution to the project will donate labor and equipment use hours for the application on mapped areas of their property and agree to monitor the infestation over the next five years. The digital data base will enable us to utilize follow up monitoring and mapping to track trend progress as well as adjust critical habitat areas as indicated. Early Detection will be key to long term control through identification, tracking and trending of invasives in order to proactively respond and eradicate any further outbreaks.

B. GOAL

Goal: Continue use of an integrated Weed Management Program to protect the integrity of the Gila River by controlling invasive weeds from the fifty-four mile river corridor through Greenlee County and Safford Valley in Graham County.

C. OBJECTIVES

1. Quantify the extent of the infestation by mapping and maintaining the data base.

2. Treat invasive weeds with appropriate integrated weed management to restore infested lands and waters to a healthy and resilient condition.

3. Educate the public and landowners along the mile river corridor on the economic and biological impacts of invasive weeds, creating a community-based partnership that will focus on early detection and rapid response to maintain the benefits of this project over the long term.

4. Work with county and community to look into long term sustainability of the program.

D. STATEMENT OF PROBLEM

Five different species of invasive weeds have been identified in the Gila River corridor through Greenlee County. In areas where these plants have been found, they have rapidly created a monoculture, destroying the natural riparian ecology of the river. They pose a danger to the immediate areas they infest and to lands downstream as they are carried by the river flow. Infestations are relatively small in relation to other western states which are still cost effective to control. Left alone, the environmental consequences will be devastating. Problem species identified in Greenlee County to be addressed by this project: Russian knapweed, Yellow and Malta starthistle, White top, and Bull thistle.

E. STATEMENT OF SOLUTIONS

The development of a community-based partnership and the application of Integrated Weed Management practices have proven key to the long term control of invasive weeds in the Gila River Basin of Greenlee County. An Integrated Weed Management approach is considered the best approach based upon the work initiated with 11-173WPF, and research in Arizona over the past 15 years. This approach will help in reducing ecological, economic, and social impacts of noxious weeds on the area's human and natural resources. It also supports priorities and strategies of federal, state, and local agencies to halt or slow the spread of noxious weeds across the area.

Integrated Weed management strategies typically involve (1) prevention, (2) early detection and rapid response, (3) survey and mapping, (4) control, (5) monitoring, (6) restoration, (7) education.

This project will continue a comprehensive mapping effort along the 54 mile Gila River Corridor through Greenlee County and the Safford Valley in Graham County. This will allow the Applicant in conjunction with University of Arizona Cooperative Extension to obtain a complete data base of type of invasive weed, density of stand, and acreage of stand. This information will be used to work with landowners, educate them on the concerns of the plant, and provide them with free herbicide to treat the infestation on their property. The key to eradication of invasive in the area is to continue to monitor, through landowners and community that have the ability to implement controls while infestations are small and easy to control.

Left unchecked, the invasive weeds have been identified in the River Corridor have the ability to destroy the riparian habitat through this entire reach of the River and beyond.

F. STATEMENT OF PROJECT YEARS OF BENEFIT

This project will benefit the Gila River for 20 years and beyond. This three year project will continue the use of an Integrated Weed Management Approach to eliminate invasive weed competition in the riparian areas of the Gila River Corridor through Greenlee County and part of Graham County.

IV. Project Location & Environmental Contaminant Information FY 2015

Project Location Information

1. County: Greenlee + Graham	2. Section: See attached	3. Township: See attached	4. Range: See attached

5. Watershed: Upper Gila-Mangas
6. 8 or 10 Digit Hydrologic Unit Code (HUC): 15040002
7. Name of USGS Topographic Map where project area is located: York, Guthrie, Sheldon, Duncan, Safford
8. State Legislative District: 14

(Information available at: http://azredistricting.org/districtlocator/)

9. Land ownership of project area: private, federal, state
10. Current land use of project area: agriculture
11. Size of project area (in acres): DIRECT 34,560
12. Stream Name: Gila River
13. Length of stream through project area: 54 miles
14. Miles of stream benefited: 54 miles
15. Acres of riparian habitat: 2,500 acres will be:

- ☐ Enhanced
- ☐ Maintained
- ☒ Restored
- ☐ Created

16. General description and/or delineation for the area of impact of the project within the watershed.
One mile swath following the Gila River from New Mexico state line to Safford.

17. Provide directions to the project site from the nearest city or town. List any special access requirements:
The majority of the work will be done in the Duncan River Valley. The Gila River and US HWY 70 run through the area. Sites to be mapped and treated are on private or state land and will require access agreements for the project.

Environmental Contaminant Location Information

1. Does your project site contain known environmental contaminants? ☐ **YES** ☒ **NO** If yes, please identify the contaminant(s) and enclose data about the location and levels of contaminants:

2. Are there known environmental contaminants in the project vicinity? ☐ **YES** ☒ **NO** If yes, please identify the contaminant(s) and enclose data about the location and levels of contaminants:

3. Are you asking for Arizona Water Protection Fund monies to identify whether or not environmental contaminants are present? ☐ **YES** ☒ **NO**

PROJECT LOCATION

Gila River Quad Information

Quad Name	Township	Range	Section (s)
York Quad	6S	31E	7, 18, 29, 30
	6S	30E	1, 2
Guthrie Quad	6S	30E	3, 4
	5S	30E	30, 31, 32, 33
	5S	30E	25, 26, 27, 28
Duncan Quad	8S	32E	13, 18, 19, 20, 28, 29, 33, 24
Sheldon Quad	8S	32E	2, 3, 11
	7S	32E	5, 8, 9, 16, 21, 27, 28, 33
	6S	32E	32
Gila Quad	5S.	29E.	31
	5S.	28E.	36
	6S.	29E.	6, 7
	6S.	28E.	1, 2, 10, 11, 12, 14, 15, 21, 22, 23, 27, 28, 29
San Quad	6S.	28E.	31
	6S.	27E.	34, 35, 36
	7S.	27E.	1, 2, 3, 4, 7, 8, 9, 10, 16, 17, 18
Safford Quad	6S.	25E.	36
	7S.	25E.	1
	7S.	26E.	4, 5, 6, 8, 9, 10, 11, 12, 13
	7S.	27E.	18

V. SCOPE OF WORK

This project will be a second phase to 11-173WPF and will continue to use a comprehensive approach to invasive weed control on the 54 mile stretch of the Gila River that flows through Greenlee County, and part of Graham County in Arizona. The project area will extend from the New Mexico state line between Virden, NM, and Duncan, AZ, to Safford, Arizona. It will address the Gila River, riparian corridor and adjacent flood plain through this reach. Efforts will continue to focus on the River but extending the 1/2 mile corridor area of the river to a 1 mile corridor area of the river to include infested areas adjacent to river parcels. These areas will be mapped with the goal of treating them with an integrated weed management approach. There may be an additional need to obtain additional funding from programs such as the NRCS Environmental Quality Incentives Program (EQIP) for treatment outside the scope of this project.

The first step will be continuing with mapping of the infestations in the project area. The previous project, 11-173WPF, had been working with 30 landowners in the area for treatment of invasive weeds. These landowners have participated in informational workshops in Duncan, with Access Agreements and SHPO forms on file. Access Agreements and SHPO documents will be updated to reflect the needs of the project. In addition, a complete public information program on the project will be used to gain additional access agreements to continue the comprehensive mapping program.

The mapping program will make use of existing data and polygons of known infestations and also survey the entire area for invasive weeds. Mapping will be conducted by a Weed Management Technician hired through the grant.

Cooperative Extension has been using Geospatial Tool Kits to map invasive weeds for the past several years. The toolkit includes a GPS receiver connected to a GPS receiver connected to a Personal Digital Assistant with modified Geographic Information System software. The software allows the user to map invasive weeds and saves the files a shape files that can easily be transferred to a desk top and maps can be made without file conversions. The user can also develop templates with drop down menus to select species whole mapping and other meta data that may be needed. We propose to continue using this system to collect invasive weed data and develop maps to help prioritize weed management in the state. Cooperative Extension currently has this equipment in many of the county offices, and the units are available for check-out through the Geospatial Program on campus. Invasive weed infestations can be looked at over time and by treatment from mapping information. Infestations are mapped prior to treatment and again a year following treatment. Differences in acreage (from shape files) can be quantified to show a reduction in acres infested.

The second step will be the actual treatment of the invasive weed infestation areas for the purpose of control. Treatment will take place in each year of the project after mapping is in place. University of Arizona test plot herbicide trials and other research have led to the identification of herbicides that are capable of killing the targeted species in our arid ecosystem. Labels of herbicides that will be used for each of the specific weeds targeted in this project are attached. Application will be completed by the land owner with the project providing the herbicide. Each landowner will sign a release of liability agreement (see sample attached). Application will be made using a hand application system of a back pack sprayer with wand or in open areas a quad equipped with a sprayer. All landowners participating in this project

will be required to attend half day training on weed identification and physiology, herbicide calibration and application and safety. The majority of farmers in the area hold a pesticide applicators license.

DESCRIPTION OF TASKS:

Task #1: Permits, clearances, authorizations and agreements

The applicant shall obtain all permits, clearances, authorizations and agreements necessary to conduct work described in this Scope of Work. The Applicant shall also include written permission from each landowner and/or land manager to access all sites for monitoring purposes and for the duration of time that is needed for data collection.

Task #1 deliverables shall include, but shall not be limited to:

- Access agreements for each site that will be mapped and monitored during the course of this project.
- Sub-contractor agreements for project monitoring and/or analysis and outreach.
- Agreements necessary to obtain and use previously collected data for analyses, if necessary.

Task Purpose: To comply with all local, state, and federal permit requirements, and environmental laws and demonstration of legal access to the project area.
Deliverable description: Copies of all necessary permits, authorization, clearances, and environmental laws and demonstration of legal access to the project area.
Deliverable due date: Prior to initiation of field data collection.
Reimbursable cost: $0.00

Task #2: Develop Project Work Plans

The applicant shall submit the following details:

a) **Outreach Plan** – that will outline the target audiences, methods to be used with each and materials that will be developed.
b) **Monitoring Plan** – a detailed description of the field sampling methodology for the following: (1) preliminary infestation mapping that will include type of invasive weed, location, density, and creation of shape files from that information to be used in a data base, (2) riparian vegetation types and condition in areas with invasive weed infestation, (3) annual monitoring after treatment, (4) monitoring for previously treated and untreated known infestations

The monitoring site locations shall be noted on a map, identifying the current landowner and/or land manager by parcel number. The sampling protocol shall include parameters to be measured, methodologies, frequency and timing of measurements and format for data collection, recording and maintenance of the database. The Applicant will describe the baseline data and data sources that will be obtained for review and final analyses, including but not limited to vegetation and site condition. In addition, the monitoring plan will include how data will be summarized and analyzed and how it will be compared to other available data and how patterns of change in the vegetation will be evaluated.

c) **Treatment Plan** – will identify type of invasive weeds in the project area, method of treatment to be used, how landowners will be trained, and alternate methods for absentee landowners. Each type of invasive weed will have a separate treatment plan.

Task Purpose: To update project work plans to describe the methodologies of project implementation and analyses that will be used to evaluate the measurable parameters that can be used for treatment and management decisions.
Deliverable description: Project Work Plans
Deliverable due date: Prior to initiation of field data collection
Reimbursable cost: $1,356.39

Task #3: Implementation: Mapping of Invasive Weed Infestations

The Coronado RC&D will subcontract an individual to serve as Weed Management Technician. This person will be a certified weed technician who can identify invasive weeds targeted in this project and others potential to the area, and utilize existing point data and GPS technology to map the infestations and establish photo points. Mapping will be conducted during the early spring as pants are emerging and easily identified, with technical staff doing the mapping prior to the Willow Flycatcher breeding season.

Task Purpose: To obtain accurate maps of infestations that includes the following: location, type of weed, density of infestation, and acres to be treated.
Deliverable description: Invoices, shape files, copies of mapping data obtained including photos.
Deliverable due date: December 31, 2016, December 31, 2017, December 31, 2018
Reimbursable cost: $40,538.07

Task #4: Fieldwork Implementation: Treatment of Invasive Weeds with herbicide

Mapped areas will have treatment recommendations made by a certified pest control advisor. The herbicides expected to be used in this project are "Milestone", "Escort" , and "Habitiat" all non-restricted use, with extremely low toxicity to other than broad leaf weeds. Herbicide will be purchased as part of this project and provided to land owners who will then implement the treatment on their own acreage. In cases where the land owner is unable to apply the herbicide to their own property, the Applicant will sub contract with a licensed applicator to do the treatment. The University of Arizona Cooperative Extension will store all the herbicide in a locked storage facility on their property in Duncan. There is currently a "check-out" system in place that was developed with 11-173WPF funding.
Task purpose: To aggressively treat infestations of invasive weeds to allow for reestablishment of the riparian area and prevent further destruction of the riparian corridor downstream.
Deliverable description: Invoices, map and photos of treatment areas, liability release, certification of safety training, records of treatment, for all locations.
Deliverable due date: Annually beginning December 31, 2016
Reimbursable cost: $38,435.46

Task #5: Fieldwork Implementation: Vegetation and Treatment Monitoring

Data will be collected **annually,** at each of the monitoring sites beginning the first year and for the duration of the three year project. All monitoring will be conducted in accordance with a monitoring plan approved under Task #2.

Monitoring data collection at each site will include (1) monitoring infestation, density and impact of treatment, (2) remapping of infestation, (3) photos, and (4) qualitative analysis of riparian species recovery. All vegetation monitoring data will be collected using a template in GIS-based software with a hand held computer. The GIS-based software creates .shp files that will be used to map infestations and calculate associated acreage. Maps will be downloaded from the hand helds and can be opened as Excel spreadsheets.

Task Purpose: To collect information on the vegetation structure and composition on key riparian habitat sites related to the removal of invasive species and to document short- and long-term indicators of change.
Deliverable description: Description and documentation of fieldwork to be provided in Progress Report.
Deliverable due date: July 30, 2016, July 30, 2017, July 30 2018
Reimbursable cost: $9,035.46

Task #6: Data Entry

All vegetation monitoring data will be recorded and entered onto data sheets and compiled into Microsoft Excel spreadsheets. Mapping data will be recorded with shape files developed to track progress from a spatial perspective. The data base will be maintained by the U of A Cooperative Extension. Subsequent mapping will allow a comparison analysis to determine reduction of infestation.

Task Purpose: To allow for data analyses to be completed from the fieldwork data collection associated with Task #5.
Deliverable description: Excel spreadsheets and shape files.
Deliverable due date: December 31, 2016, December 31, 2017, December 31, 2018
Reimbursable cost: $8,138.34

Task #7: Implementation of Outreach Plan

The Applicant and partners will implement one outreach activity each year as outlined in approved outreach plan Task #2, to train landowners and the public, highlight the project and share information with the interested public. Outreach activities will include but not be limited to: workshops, field days, fact sheets, news articles, presentations to professional associations and landholder and watershed groups.

Task Purpose: To educate landholders, agency personnel and the public on the impacts and influences of invasive weeds on riparian areas and provide evaluation tools for protection and preservation of these areas.

Deliverable description: Summary report of dates, locations and attendance at each activity/event and copies of all materials developed.
Deliverable due date: December 31, 2016, December 31, 2017, December 31, 2018
Reimbursable cost: $20,844.69

Task #8: Progress Report

Semiannual written reports will be submitted on the activities implemented under all tasks # 1-7. A detailed progress report shall include a narrative of all work completed at each monitoring site, photos and analysis of data and a summary of outreach activities for the reporting period.

Task Purpose: To report on the progress of practice implementation, fieldwork implementation for invasive weed mapping, treatment, and riparian vegetation recovery and any outreach activities.
Deliverable description: A detailed written progress report on all activities accomplished on the project during the reporting period.
Deliverable due date: July 30, 2016, December 31, 2016; July 30, 2017, December 31, 2017; July 30, 2018, December 31, 2018
Reimbursable cost: $9,870.84

Task #9: Data Analyses and Final Report

A comprehensive final report will be submitted that includes a summary of all methodologies used, outcomes of all Tasks, analysis of all project data, suggestions for any changes or future actions, and an evaluation of the success of meeting project objectives. In addition, the final report analyses will be in accordance with the Monitoring Plan (Task #2). A copy of all data generated during this project will be submitted with the final report.

Task Purpose: To provide a comprehensive analyses and final report for public distribution that gives a detailed description of the project and showcases its benefits to the State of Arizona.
Deliverable description: Final report
Deliverable due date: January 30, 2019
Fixed cost: $5,119.17

Matched Funds

a) RC&D Equipment – The Coronado RC&D will provide the following equipment to landowners to check out as part of this project for the duration of the project. It is expected that the 4 year term of the project will be equal to expected life span of this equipment. The RC&D will provide any needed replacements, parts and maintenance during this project term.

Two 25 gal ATC Sprayer-boomless	$ 793.84
Solo 428, 5 gallon back pack sprayers 5 @ $58.50 each	$ 292.50
Total Value =	*$1,086.34*

b) U of A Cooperative Extension Equipment. The U of A Cooperative Extension has agreed to provide the following equipment and personnel to the project for the duration of the project and provide training to project staff on the use of it.

HPiPAQ PDA	$ 299.00
Garmin eTrex GPS	$ 150.00
Cables	$ 20.00
HGIS software	$ 700.00
Storage Shed for Herbicide	$ 1,500.00
Salary: Cooperative Extension Agent oversight 120 hours per year @ $50/hr	$18,000.00
Travel:	$ 1,881.00
Total Value=	*$22,550.00*

c) Negotiations currently are in place with Greenlee County for potential matching of funds for this project.

VI. DETAILED BUDGET BREAKDOWN

Task 1: Permit, Agreements

Task 1 Budget	BUDGET	2016	2017	2018	2019	BALANCE
Direct Labor Costs						
Other Direct Costs						
Outside Services						
Capital Outlay						
Administrative Costs @ 5%						
TOTAL	**$0.00**					

Task 2: Plans

Task 2 Budget	BUDGET	2016	2017	2018	2019	BALANCE
Direct Labor Costs						
Project Coordinator 40 hrs @$30.00/hr	**$1,200.00**	$1,200.00				**$1,200.00**
FICA @ 7.65%	**$91.80**	$91.80				**$91.80**
Outside Services						
Capital Outlay						
Administrative Costs @ 5%	**$64.59**	$64.59				**$64.59**
						$0.00

TOTAL	**$1,356.39**	**$1,356.39**	**$0.00**	**$0.00**	**$0.00**	**$1,356.39**

Task 3: Mapping

Task 3 Budget	**BUDGET**	**2016**	**2017**	**2018**	**2019**	**BALANCE**
Direct Labor Costs						
Project Coordinator 20 hrs./yr. @ $30	**$1,800.00**	$600.00	$600.00	$600.00		$1,800.00
FICA @ 7.65%	**$137.70**	$45.90	$45.90	$45.90		$137.70
Outside Services						
Weed Management Technician 400 hrs/yr. @ $25/hr. per year	**$30,000.00**	$10,000.00	$10,000.00	$10,000.00		$30,000.00
GIS Technician 40 hrs/yr @ 25.00/hr	**$3,000.00**	$1,000.00	$1,000.00	$1,000.00		$3,000.00
Other Direct Costs						
External Hard drive for data storage	**$100.00**	$100.00				$100.00
Printing Costs	**$300.00**	$100.00	$100.00	$100.00		$300.00
Field Supplies (shovels, gloves, flagging, rubber boots, first aid)	**$600.00**	$200.00	$200.00	$200.00		$600.00
Travel 2000 mi/yr @ .445	**$2,670.00**	$890.00	$890.00	$890.00		$2,670.00
Administrative Costs @ 5%	**$1,930.38**	**$646.79**	**$641.79**	**$641.79**		**$1,930.37**
TOTAL	**$40,538.08**	**$13,582.69**	**$13,477.69**	**$13,477.69**	**$0.00**	**$40,538.07**

Task 4: Field Work and Invasive Weed Treatment

	BUDGET	2016	2017	2018	2019	BALANCE
Direct Labor Costs						
Project Coordinator 20 hrs/yr @ $30/hr	**$1,800.00**	$600.00	$600.00	$600.00		**$1,800.00**
FICA @ 7.65%	**$137.70**	$45.90	$45.90	$45.90		**$137.70**
Other Direct Costs						**$0.00**
Travel 500 mi @ .445	**$667.50**	$222.50	$222.50	$222.50		**$667.50**
Herbacide + activtor + marking dye 608 acres @ $38.50/AC	*200AC Yr 1* *300AC Yr 2* *200 AC Yr 3*					**$0.00**
	$26,950.00	$7,700.00	$11,550.00	$7,700.00		**$26,950.00**
Disposable supplies - measuring supplies, gloves, goggles	**$300.00**	$100.00	$100.00	$100.00		**$300.00**
ADEQ Permit $250 yr.	**$750.00**	$250.00	$250.00	$250.00		**$750.00**
Outside Services						**$0.00**
Weed Technician for absentee or unable to apply, landowners @ $25 hr.	**$3,000.00**	$1,000.00	$1,000.00	$1,000.00		**$3,000.00**
GIS Technician 40 hrs/yr @ $25	**$3,000.00**	$1,000.00	$1,000.00	$1,000.00		**$3,000.00**
Administrative Costs @ 5%	$1,830.26	$545.92	$738.42	$545.92		$1,830.26
TOTAL	**$38,435.46**	**$11,464.32**	**$15,506.82**	**$11,464.32**	**$0.00**	**$38,435.46**

Task 5: Monitoring

	BUDGET	2016	2017	2018	2019	BALANCE
Direct Labor Costs						
Project Coordinator 20 hrs./yr @ $30/hr	**$1,800.00**	$600.00	$600.00	$600.00		**$1,800.00**
FICA @ 7.65%	**$137.70**	$45.90	$45.90	$45.90		**$137.70**
Outside Services						
Weed Management Technicican 80 hrs/yr @ $25/hr	**$6,000.00**	$2,000.00	$2,000.00	$2,000.00		**$6,000.00**
Other Direct Costs						
Travel 500 mi/yr. @ .445	**$667.50**	$222.50	$222.50	$222.50		**$667.50**
Administrative Costs @ 5%	**$430.26**	$143.42	$143.42	$143.42		**$430.26**
TOTAL	**$9,035.46**	**$3,011.82**	**$3,011.82**	**$3,011.82**	**$0.00**	**$9,035.46**

Task 6: Data Entry

	BUDGET	2016	2017	2018	2019	BALANCE
Direct Labor Costs						
Project Coordinator 80 hr/yr @ $30/hr	**$7,200.00**	$2,400.00	$2,400.00	$2,400.00		**$7,200.00**
FICA @ 7.65%	**$550.80**	$183.60	$183.60	$183.60		**$550.80**
Travel Reimbursement						**$0.00**
Outside Services						**$0.00**
Capital Outlay						**$0.00**
Administrative Costs @ 5%	**$387.54**	$129.18	$129.18	$129.18		**$387.54**
TOTAL	**$8,138.34**	**$2,712.78**	**$2,712.78**	**$2,712.78**	**$0.00**	**$8,138.34**

Task 7: Implementation of Outreach Plan

	BUDGET	2016	2017	2018	2019	BALANCE
Direct Labor Costs						
Project Coordinator 160 hr/yr @ $30/ hr	**$14,400.00**	$4,800.00	$4,800.00	$4,800.00		**$14,400.00**
FICA @7.65%	**$1,101.60**	$367.20	$367.20	$367.20		**$1,101.60**
Other Direct Costs						
Travel Yr 2 & 3 include presentations at professional mtgs.	**$1,500.00**	$500.00	$500.00	$500.00		**$1,500.00**
Travel Reimbursement 900 miles @ .445 mi.	**$400.50**	$133.50	$133.50	$133.50		**$400.50**
Supplies (booths, brochures, handouts)	**$2,150.00**	$2,150.00				**$2,150.00**
Outside Services						
Weed Technician 12 hrs. @ $25.00 hr.	**$300.00**	$100.00	$100.00	$100.00		**$300.00**
Capital Outlay						
Administrative Costs @ 5%	**$992.60**	$402.53	$295.03	$295.03		**$992.59**
TOTAL	**$20,844.70**	**$8,453.23**	**$6,195.73**	**$6,195.73**	**$0.00**	**$20,844.69**

Task 8: Progress Reports

	BUDGET	2016	2017	2018	2019	BALANCE
Direct Labor Costs						
Project Coordinator 80 hrs/ yr. @ $30/hr	**$7,200.00**	$2,400.00	$2,400.00	$2,400.00		**$7,200.00**
FICA @ 7.65%	**$550.80**	$183.60	$183.60	$183.60		**$550.80**
Other Direct Costs						
Supplies/copies	**$150.00**	$50.00	$50.00	$50.00		**$150.00**
Outside Services						

GIS Technician 20hrs/yr. @ $25/hr	**$1,500.00**	$500.00	$500.00	$500.00		**$1,500.00**
Capital Outlay						
Administrative Costs @ 5%	**$470.04**	$156.68	$156.68	$156.68		**$470.04**
TOTAL	**$9,870.84**	**$3,290.28**	**$3,290.28**	**$3,290.28**	**$0.00**	**$9,870.84**

Task 9: Data Analysis and Final Report

	BUDGET	2016	2017	2018	2019	BALANCE
Direct Labor Costs						
Project Coordinator 120 hrs. @ $30/hr	**$3,600.00**				$3,600.00	**$3,600.00**
FICA @ 15%	**$275.40**				$275.40	**$275.40**
Other Direct Costs						
Supplies/copies	**$250.00**				$250.00	**$250.00**
Outside Services						
GIS Technician 30 hrs @ $25/hr	**$750.00**				$750.00	**$750.00**
Capital Outlay						
Administrative Costs @ 5%	**$243.77**				$243.77	**$243.77**
TOTAL	**$5,119.17**	**$0.00**	**$0.00**	**$0.00**	**$5,119.17**	**$5,119.17**
TOTAL EXPENDITURES	**$133,338.44**	**$43,871.51**	**$44,195.12**	**$40,152.62**	**$5,119.17**	**$133,338.42**

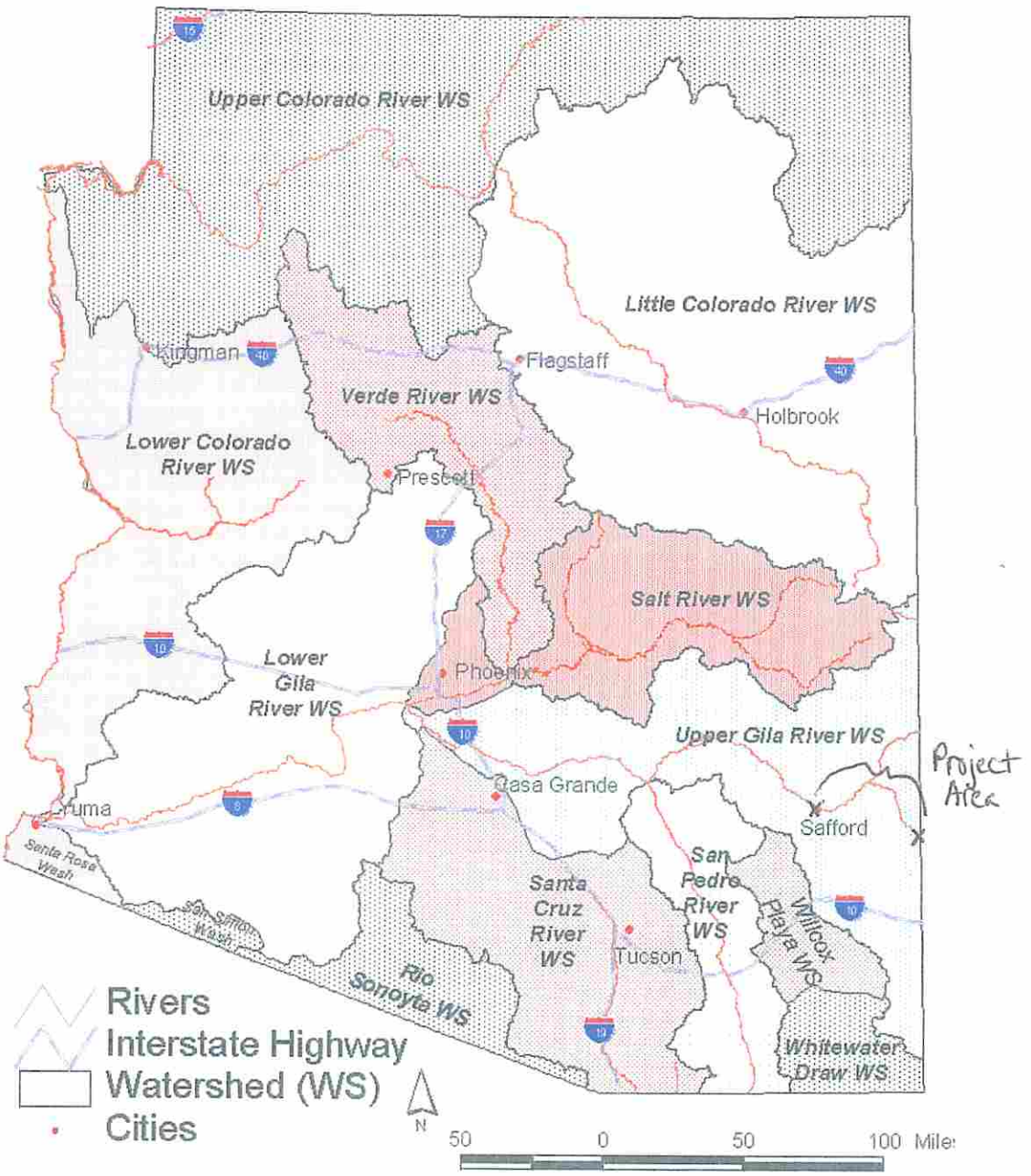
VII. DETAILED MATCHING FUNDS BREAKDOWN

Budget	YR 1	YR 2	Yr 3	Total
Direct Labor Costs	--			--
Cooperative Extension Oversight	$6,000.00	$6,000.00	$6,000.00	$18,000.00
Cooperative Extension Travel	$627.00	$627.00	$627.00	$1,881.00
Other Direct Costs				
Storage for Herbicide, Cooperative Extension	$500.00	$500.00	$500.00	$1,500.00
Outside Services	--			--
Capital Outlay	--			--
a) RC&D Equipment, 2	$1,086.34			$1,086.34

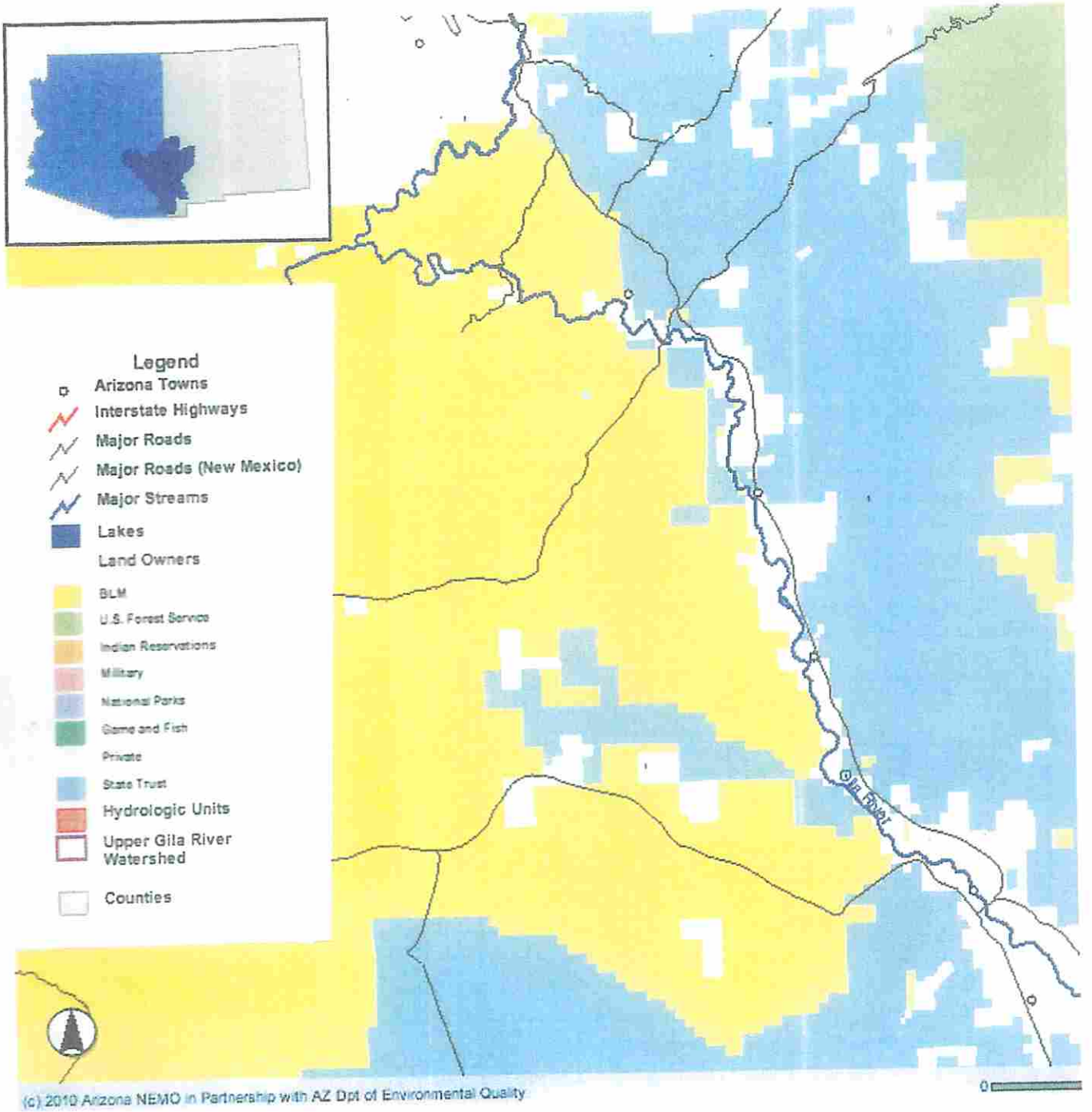
Quad sprayers, 5 backpack sprayers				
b) Cooperative Extension Equipment – computer, data logger, software	$1,169.00			$1,169.00
Administrative Costs	--			--
Total	$9,382.34	$7,127.00	$7,127.00	$23,636.34

VIII.

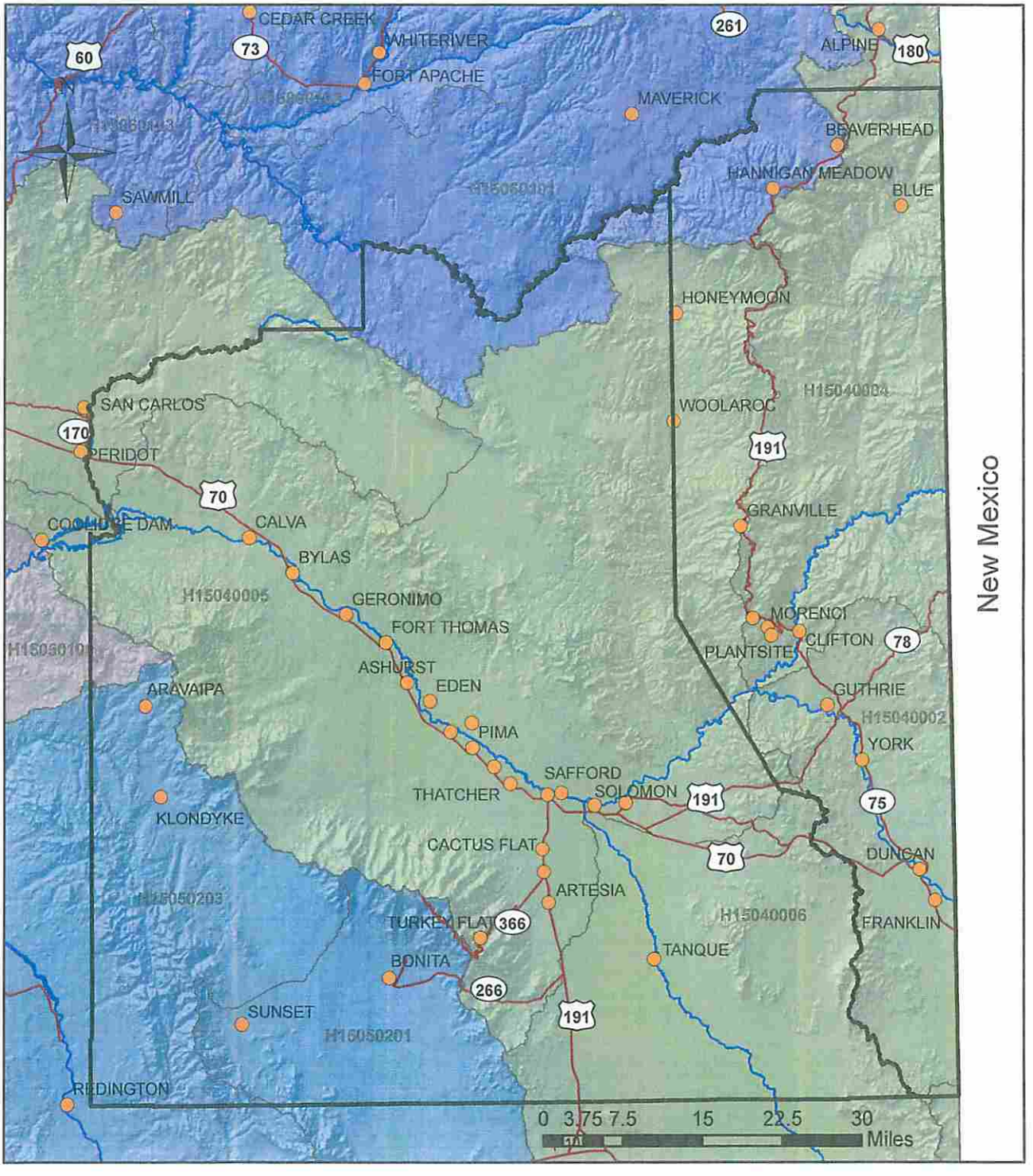
Arizona Watershed Map FY 2015



Title of Project: _____


Legend
Arizona Towns
Interstate Highways
Major Roads
Major Roads (New Mexico)
Major Streams
Lakes
Land Owners
BLM
U.S. Forest Service
Indian Reservations
Military
National Parks
Game and Fish
Private
State Trust
Hydrologic Units
Upper Gila River Watershed
Counties
Gila River
(c) 2010 Arizona NEMO in Partnership with AZ Dpt of Environmental Quality
0

Graham and Greenlee Watersheds



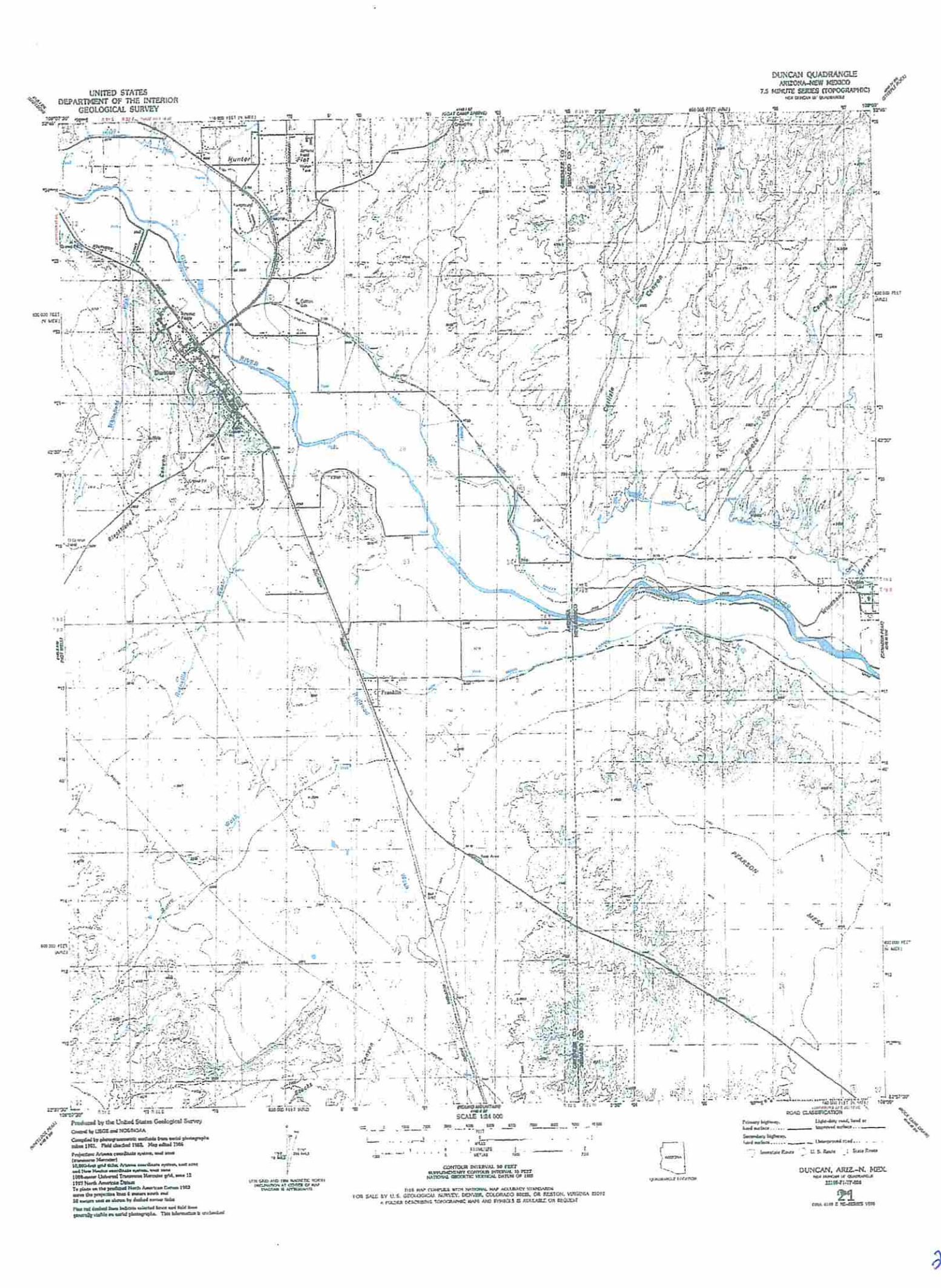
Legend

- Major Highways
- Major Streams
- Towns
- County Boundaries
- H-15 8-digit HUC

6 - digit HUC Names

- Middle Gila River (Local Drainage)
- Salt River
- San Pedro River
- Upper Gila River

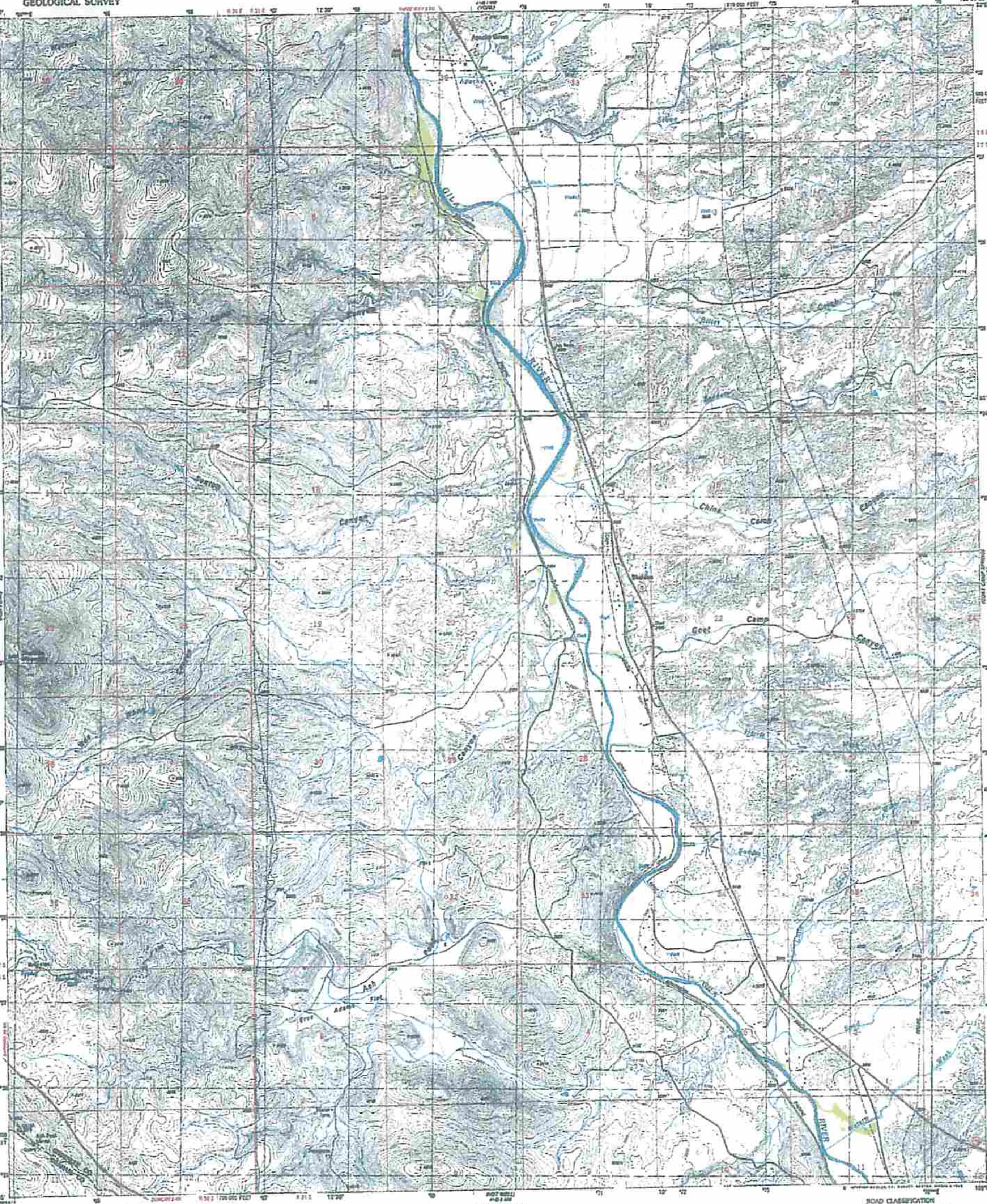
NEMO - University of Arizona Cooperative Extension in partnership with the Arizona Department of Environmental Quality, Water Quality Division Data Sources: ALRIS, Arizona Department of Environmental Quality, United States Geological Survey Projection: Universal Transverse Mercator Projection and Coordinate System, Zone 12, North American Datum 1983, Horizontal Units Meters Cartographic Composition by Elisabeth vanderLeeuw, Advanced Resource Technology Group, The University of Arizona, December 19, 2005 [G_G_Co_HUC.mxd]


UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
DUNCAN QUADRANGLE
ARIZONA–NEW MEXICO
7.5 MINUTE SERIES (TOPOGRAPHIC)
Hunter
Duncan
Franklin
PEARSON
MESA
SCALE 1:24 000
CONTOUR INTERVAL 20 FEET
SUPPLEMENTARY CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
ROAD CLASSIFICATION
DUNCAN, ARIZ.–N. MEX.
1968

21

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SHELDON QUADRANGLE
ARIZONA
7.5 MINUTE SERIES (TOPOGRAPHIC)



Produced by the United States Geological Survey

Control by USGS and NOS/NOAA

Compiled by photogrammetric methods from aerial photographs taken 1981. Field checked 1982. Map edited 1986

Projection and 10,000-foot grid ticks: Arizona coordinate system, east zone (transverse Mercator)
1000-meter Universal Transverse Mercator grid, zone 12
1927 North American Datum
To place on the predicted North American Datum 1983 move the projection lines 6 meters south and 58 meters east as shown by dashed corner ticks

Fine red dashed lines indicate selected fence and field lines generally visible on aerial photographs. This information is unchecked

UTM GRID AND 1986 MAGNETIC NORTH DECLINATION AT CENTER OF MAP

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

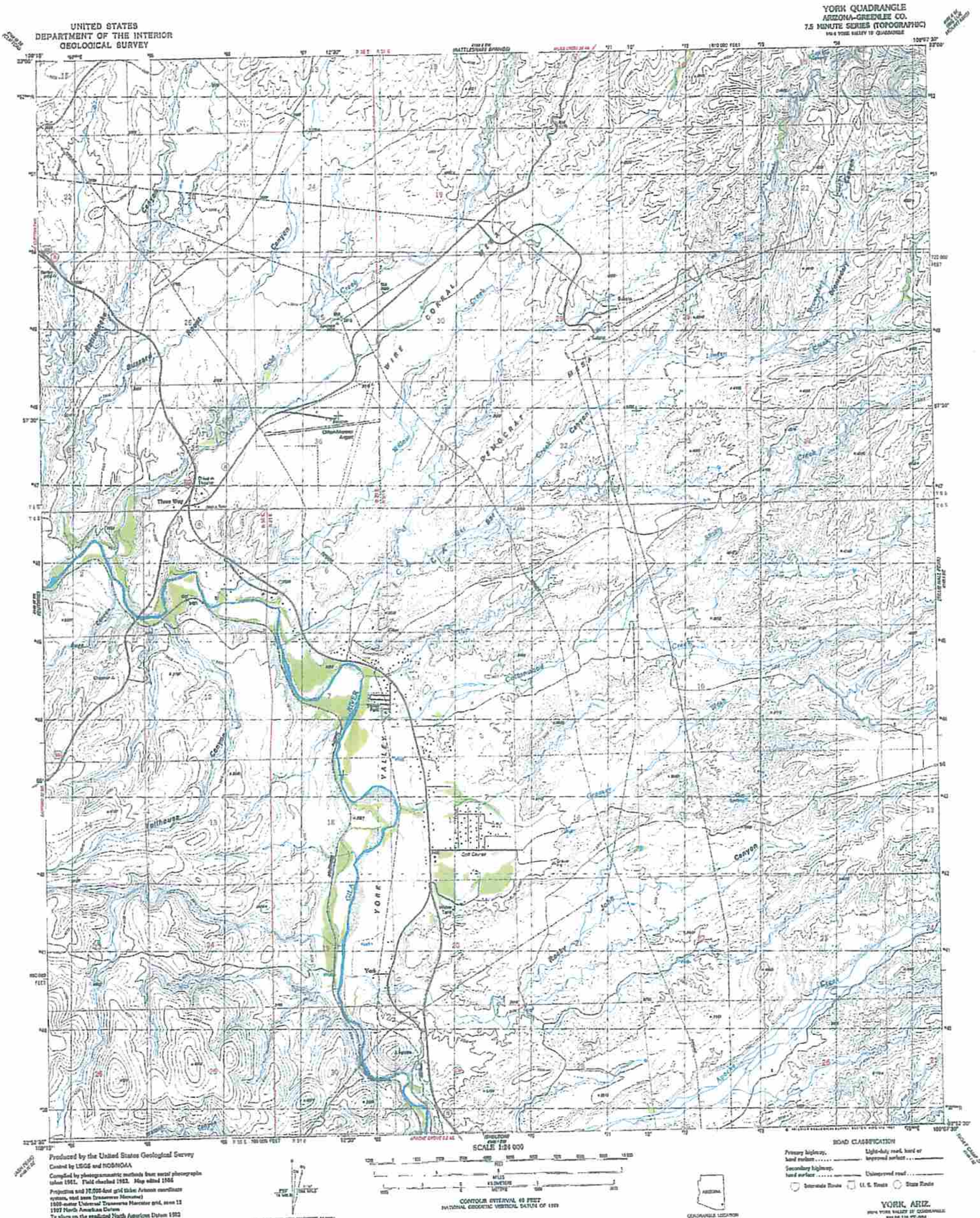
QUADRANGLE LOCATION

ROAD CLASSIFICATION

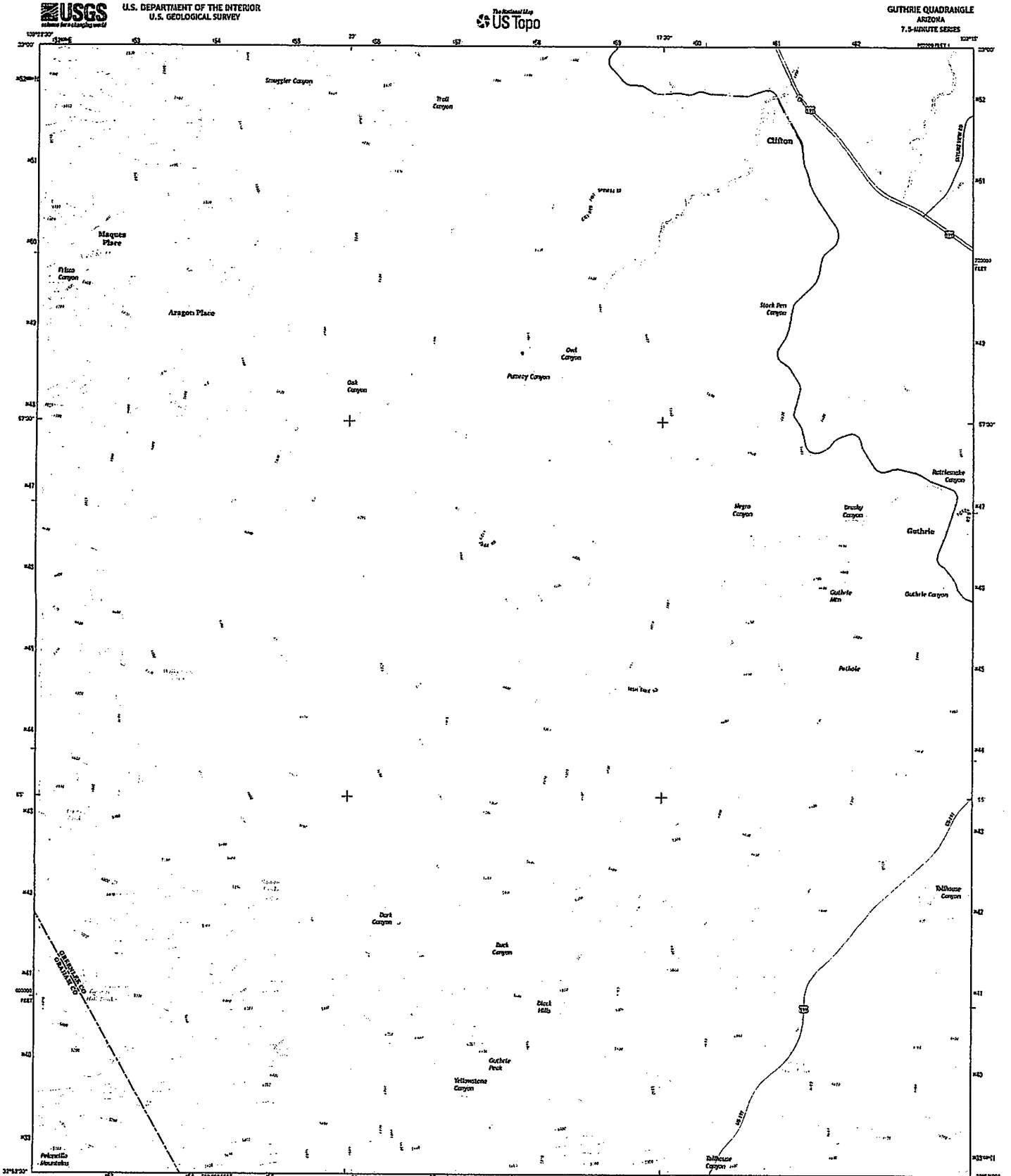
Primary highway, hard surface
Light-duty road, hard or improved surface
Secondary highway, hard surface
Unimproved road
Interstate Route
U. S. Route
State Route

SHELDON, ARIZ.

1986



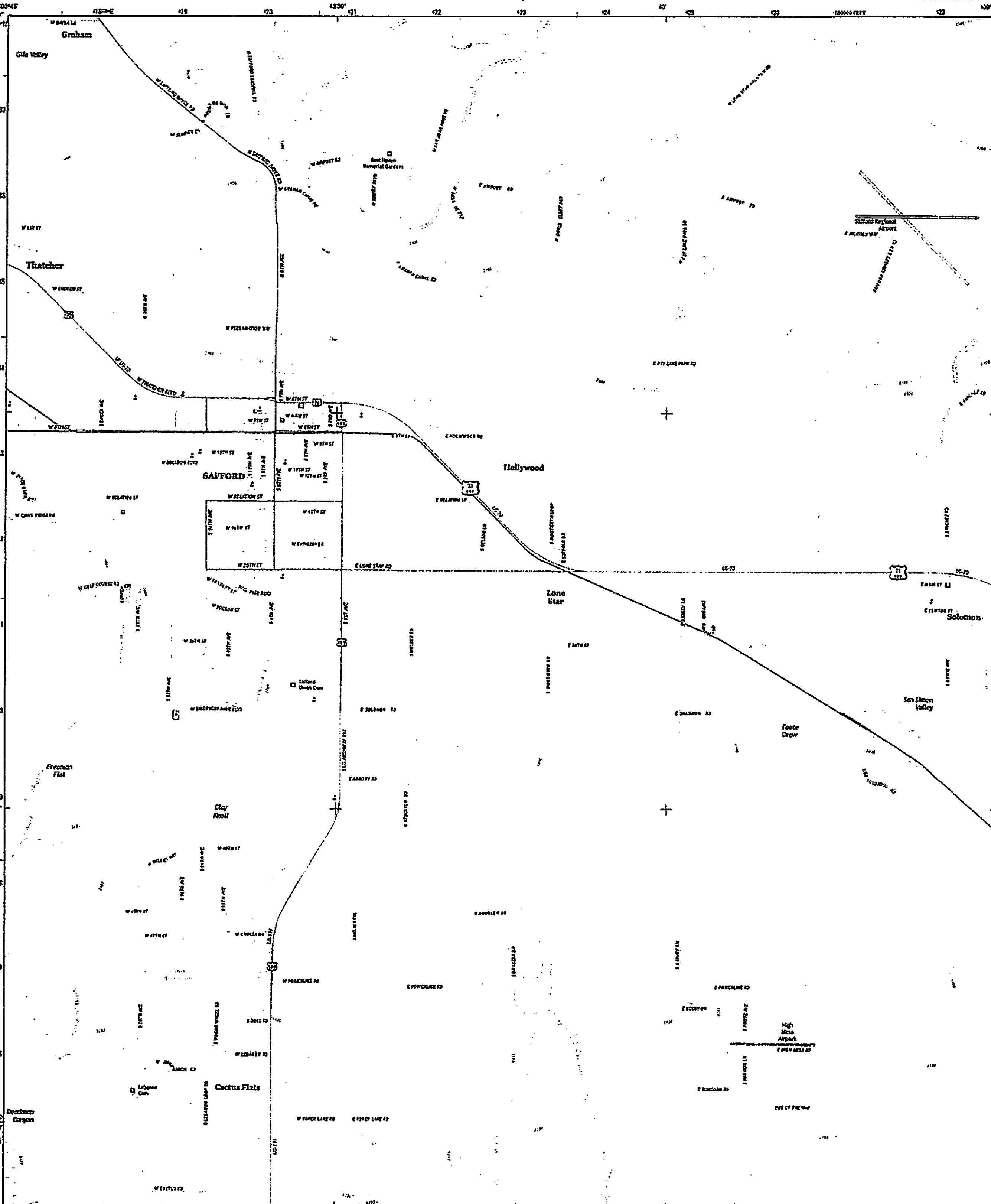
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
YORK QUADRANGLE
ARIZONA-GREENLEE CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
WIRE CORRAL MESA
DEMOCRAT MESA
YORK VALLEY
Golf Course
York
Three Way
SCALE 1:24 000
CONTOUR INTERVAL 40 FEET
ROAD CLASSIFICATION
Produced by the United States Geological Survey
YORK, ARIZ.


U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY
USGS
science for a changing world
The National Map
US Topo
GUTHRIE QUADRANGLE
ARIZONA
7.5-MINUTE SERIES
Clifton
Blaques Place
Aragon Place
Stock Pen Canyon
Owl Canyon
Pumicy Canyon
Oak Canyon
Trail Canyon
Smuggler Canyon
Rattlesnake Canyon
Negro Canyon
Smoky Canyon
Guthrie
Guthrie Mtn
Guthrie Canyon
Pelhole
Tollhouse Canyon
Dark Canyon
Buck Canyon
Black Hills
Guthrie Peak
Yellowstone Canyon
Peloncillo Mountains
GREENLEE CO
GRAHAM CO
SCALE 1:24 000
CONTOUR INTERVAL 40 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
ROAD CLASSIFICATION
GUTHRIE, AZ
2014

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

US Topo

SAFFORD QUADRANGLE
ARIZONA-GRAHAM CO.
7.5-MINUTE SERIES



Produced by the United States Geological Survey

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

ROAD CLASSIFICATION

SAFFORD, AZ 25
2014

IX. SUPPLEMENTAL INFORMATION

A. State Historic Preservation Office (SHPO)

B. Key Personnel

C. Project Site Photographs

D. Description of Monitoring /Sampling Plans

E. Description of Revegetation /Restoration Plans

F. Existing Plans, Reports, Information Relevant to Project

G. Letters of Community Support

H. Evidence of control and Tenure of Land

I. Evidence of Physical and Legal Availability of Water

B. KEY PERSONNEL

Kim McReynolds, Area Extension Agent, Natural Resources will coordinate technical resources for the project, assist with development of work plans and quality control of monitoring and play a lead role in the information education program.

Kim is an area agent in Cochise, Graham and Greenlee counties. Her program in noxious weeds includes teaching at workshops and trainings, developing and conducting research trials in the field, and evaluating program effectiveness. Kim also acts as a local resource in plant identification and is ofrten called on to confirm the presence or absence of noxious weeds. She is active in the Southeastern Arizona Weed Management Area and was instrumental in joining efforts with the Southwestern New Mexico Cooperative Weed Management Area. Kim secured funding from the Western Integrated Pest Management Center for several years to support the coordination between the two WMA areas.

Amy Herbert, has worked for the Gila Valley NRCD since Nov 1995 as an administrative assistant. During this time she has worked with the Coronado RC&D and Cooperative Extension on various grant projects (Resin Bush Eradication, Invasive Weeds, Roads Project, etc). She has also written and administered several grants for conservation and weed management projects in Graham and Greenlee Counties. Since 1999 she has worked as a Technical Service Provider through a contribution agreement with the USDA-NRCS. Through this agreement, she received ESRI Arcmap-GIS training and experience. In addition to the nearly 15 years ArcMap experience with NRCS, she has worked with the AZNRCD providing GIS spreadsheets, data, and Maps for the BLM Healthy Lands Project and CCPI Project for the past 2 years. Amy assisted Frank Hayes with the maps for the 11-173WPF Final Report in 2014, and provided GIS assistance to Frank Hayes on several Burn Management Plans for rangeland in New Mexico in 2013 & 2014.

Linda Searle, Coronado RC&D Program Manager will serve as a liaison between the project team, Arizona Water Protection Fund and other partners in the project.

Linda has served as the RC&D Program Manager in southeast Arizona for the past four years; working with multiple partners on grant funded projects, and managed several noxious weed management grants. She holds a degree in education from the University of Wisconsin – Madison and a master's degree in curriculum and instruction with New Mexico State University – Las Cruces. She has worked closely with Kim Mc Reynolds related to noxious weeds workshops and has extensive experience giving presentations from her work as a consultant with a publishing company. She has been involved with the implementation of one Arizona Water Protection Fund funded project during her employment with Coronado RC&D.

Kim McReynolds
The University of Arizona
Cochise County Cooperative Extension
450 S. Haskell, Willcox, Arizona 85643
(520) 384-3594
kimm@cals.arizona.edu

EDUCATION

M.S. (1985) & B.S. (1982) Environmental Resources in Agriculture, Arizona State University
Emphasis: Rangeland Management

CURRENT POSITION

Area Extension Agent, Natural Resources, The University of Arizona Cooperative Extension, Willcox, Arizona. 2001-present.

Regional Specialist, Natural Resources, School of Natural Resources and the Environment, The University of Arizona. 2005-present.

County Extension Director, Greenlee County, The University of Arizona, Duncan, Arizona. 2010-present.

PAST POSITIONS

Associate Area Extension Agent, Natural Resources, The University of Arizona Cooperative Extension, Willcox, Arizona. 1995-2001.

Range Conservationist, San Simon Resource Area, Safford District, Bureau of Land Management, Safford, Arizona. 1986-1995.

Range Technician/Range Conservationist, Verde Ranger District, Prescott National Forest, Camp Verde, Arizona. 1981-1986.

MAJOR PROGRAMS IN EXTENSION

I provide leadership in the development and implementation of research-based educational programs in natural resource management. As an Area Agent, my program responsibilities cover Cochise, Graham and Greenlee counties. Ten percent of my time is spent in youth programming. Major educational program areas include:

- Rangeland management
- Noxious weeds
- Watershed management
- Rural land use
- Science and Technology

As a Regional Specialist, my responsibilities include: participate and cooperate in appropriate research and extension activities, participate in the teaching of courses and seminars, serve on various faculty committees within the School, and other duties as requested by the Director of the School.

SELECTED HONORS AND AWARDS

- National Rangeland Research and Development Award, US Forest Service, 2013
- Dedication and Outstanding Service to Cochise-Graham Cattle Growers' Association, Cochise-Graham Cattle Growers', 2012
- Outstanding Assistance in Research, Upper Eagle Creek Watershed Association, 2011
- Outstanding Contribution to the Onionweed Program in Arizona, USDA Animal and Plant Health Inspection Service, 2010
- Outstanding Service, Arizona Section Society for Range Management, 2008
- Outstanding Contribution to the Arizona State Land Department, 2006
- Outstanding Service, Arizona Section Society for Range Management, 2006
- Silver Award - DVD, Discovering Hydrology at Kartchner Caverns State Park, Association of Natural Resource Extension Professionals, 2006
- Agricultural Research Service/Cooperative Extension Fellowship, 2005
- Certified Professional in Range Management

SELECTED PROFESSIONAL SERVICE

- Nominations Committee, 2010-2013. *Rangelands* Editorial Board, Society for Range Management, 2003-2010 (Chair, 2006-2007; Youth Editor, 2008-present).
- Natural Resource Conservation Workshop for Arizona Youth, Arizona Section Society for Range Management, 1982-present (Director, 1994-present).
- Arizona Agriculture Extension Association, Constitution Committee (2004-present, Chair 2008-present), Website and Listserv Manager (2000-present).

SELECTED PUBLICATIONS

- M.H. Nichols, K. McReynolds and C. Reed. 2012. Short-term soil moisture response to low-tech erosion control structures in a semiarid rangeland. Catena 98 (2012) 104-109.
- McReynolds, K. and C. Dolan. 2010. Invasive Plants on Small Acreage Properties in Arizona. Arizona Cooperative Extension #AZ1510. 2 pp.
- McReynolds, K. 2009. Arizona Native Plant Law. Arizona Cooperative Extension #AZ 1506. 2 pp.
- McReynolds, K. 2009. Cooperative Weed Management Areas. In Backyards and Beyond: Rural Living in Arizona. The University of Arizona Cooperative Extension, 3 (4): 5.
- McReynolds, K. 2008. Invasive Plants: Sweet Resinbush. In Backyards and Beyond: Rural Living in Arizona. The University of Arizona Cooperative Extension, 2 (3): 9.

- S. Pater, K. McReynolds, G. Woodard (project planning and administration), et. al. 2006. Discovering Hydrology at Kartchner Caverns State Park. Arizona Cooperative Extension and SAHRA. DVD.
- McReynolds, Kim. 2005. Natural Resources Conservation Workshop for Arizona Youth. Rangelands 27 (4): 10-11.
- Pater, S., K. McReynolds and K. Uhlman. 2005. Geology, Geomorphology & Soils: Part I Geologic Processes. In Arizona Watershed Stewardship Guide. Arizona Cooperative Extension #AZ1378. 9 pp.
- Pater, S., and K. McReynolds. 2005. Geology, Geomorphology & Soils: Part III Watershed Soils. In Arizona Watershed Stewardship Guide. Arizona Cooperative Extension #AZ1378. 16 pp.
- McReynolds, K., S. Pater and K. Uhlman. 2005. Watershed Basics: Part I Water Resources. In Arizona Watershed Stewardship Guide. Arizona Cooperative Extension #AZ1378d. 6 pp.
- Pater, S., K. McReynolds and R. Emanuel. 2005. Watershed Basics: Part II Hydrology & Watersheds . In Arizona Watershed Stewardship Guide. Arizona Cooperative Extension #AZ1378d. 9 pp.

C. PROJECT SITE PHOTOGRAPHS

Russian knapweed Gila River Riparian area near Duncan, Arizona

U of A Cooperative Extension photo Kim McReynolds

Whitetop Gila Riparian area near Duncan, Arizona

Frank Hayes photo 2014

In the riparian area of the Gila River the understory is threatening to become a monoculture of Russian knapweed and Whitetop. Known infestations of Russian knapweed are estimated to cover 800 acres in the Duncan Valley. Below, floodwaters of the Gila have the potential to spread invasive weeds across the area and upstream.

Russian knapweed in irrigation ditch, Duncan Valley, Arizona

Russian knapweed in alfalfa irrigated field near Duncan, Arizona. Russian knapweed is the silver colored weed intermixed with alfalfa.

The majority of cropland in the Duncan Valley is flood irrigated utilizing a combination of Gila River water and pumped ground water that is carried to fields through concrete lined irrigation ditches. Russian knapweed is a versatile and hardy plant that can live almost anywhere. If this plant is allowed to produce seed during early June, it will send seeds down the irrigation ditch to fields where they can germinate. Excess water or "tail water" not used by the crop is allowed to flow off of the fields and is carried by runoff ditches back to the Gila River. This process insures that invasive weed seeds produced in cropland adjacent to the river and riparian area have the opportunity to reach the river and reseed.

Russian knapweed is invading the river bank and riparian area, outcompeting grasses and shrubs that are more effective at stabilizing the banks and controlling erosion.

D. DESCRIPTION OF MONITORING /SAMPLING PLANS

Monitoring to gather initial data on type, size and density of infestation of invasive weeds will begin the first season after the contract with the Arizona Water Protection Fund is completed. The University of Arizona Cooperative Extension and Natural Resources Conservation Service have point data of weed infestations which will provide high priority locations for initial mapping. Optimum time for mapping of invasive weeds is in the late spring early March – late April. Mapping will be timed (March to mid-May) to accommodate considerations necessary for the Southwestern Willow Flycatcher nesting. The project team will work with US Fish & Wildlife Service in this area and will request a survey to determine nesting pairs in the area to insure that the monitoring plan tasks minimize impact to wildlife in the area.

A detailed Monitoring Plan will be updated by the project team as part of this project. It will include a detailed description of the field sampling methodology for the following:

(1) Preliminary infestation mapping that will include type of invasive weed, location, density, and creation of shape files from that information to be used in a data base.
(2) Riparian channel corridor assessment,
(3) Monitoring sites and sampling attributes,
(4) Annual monitoring

Monitoring will employ a variety of techniques and resources over a four year period to gather initial data on the type, size, density, and extent of infestation of invasive weeds in relation to both occurrences on farmlands and pastures and the direct association and/or occurrence within the Gila River riparian corridor (green line to green line).

With the use of Greenlee County records, GIS personnel will map numbered parcels of private or state lands within a ½ mile corridor on either side of the main channel of the Gila River.

Through workshops and correspondence, land owner access agreements will be in place prior to initiation of surveying or mapping of invasive weed infestations.

Stratified field sampling will be conducted to note the presence/absence of invasive weeds based on land owner authorization and previous known infestations. All vegetation monitoring data will be collected with a hand held computer. The GIS software to creates .shp files that will be used to map infestations and calculate associated acreage. This will allow for the creation of maps to track project progress from a spatial perspective. Meta files that can be opened as Excel spreadsheets will be downloaded from the hand held units.

E. DESCRIPTION OF REVEGATATON /RESTORATION PLANS

Revegetation will be left to natural succession as competition from invasive weeds is eliminated in the area. We will be dealing with a well-watered riparian and floodplain area that has an adequate available natural seed source that should accommodate natural revegetation to native species. This aspect will included in the monitoring plan and addressed annually.

F. EXISITNG PLANS, REPORTS, INFORMATION RELEVENT TO PROJECT

1) Existing Plans and Reports

The following are existing plans and reports used as references in the development of this project:

Arizona Water Atlas, Volume 3, Southeastern Arizona Planning Area, ADWR, June 2009

A Natural History Summary and Survey Protocol for the Southeastern Willow Flycatcher, Chapter 10, Section A, Biological Science Book 2, Collection of Environmental Data, USGS, 2010

NEMO Watershed Based Plan, Upper Gila Watershed of Arizona, University of Arizona, 2005

Duncan Area Russian knapweed Treatment Environmental Assessment, AZ-G010-2009-0065, Bureau of Land Management, Safford Field Office

Russian knapweed Management in Abandoned Fields, Pastures and Range, McCloskey, McReynolds, Foster and Munda, Research Report 2009

2) Other Relevant Information

a. Herbicide labels attached

b. Herbicide "check out form" sample attached

c. "Inventory", "Monitoring" and "Treatment" form samples attached

d. Notice of Intent (NOI) Permit with ADEQ is already approved and was used in 11-173WPF. Attached

e. "Landowner Access Agreement" included in document

f. "Landowner Liability Release" form attached

The following is a brief description of the four invasive weeds that will be targeted during this project:

Russian knapweed flower; note smooth papery bracts that lack any spines.

Russian knapweed

Russian knapweed is a creeping perennial that reproduces from seed and vegetative root buds.

- Russian knapweed emerges in early spring, bolts in May to June, and flowers through the summer into fall.
- Russian knapweed is toxic to horses.
- The key to Russian knapweed control is to stress the weed and cause it to expend nutrient stores in its root system.
- The best management plan includes chemical controls combined with cultural control techniques.

Damage: The weed forms dense, single species stands over time due to competition and allelopathy (biochemical it produces that inhibit the growth of other plants). Russian knapweed covers an estimated 800 acres in Greenlee County according to the University of Arizona and NRCS preliminary mapping. It is toxic to horses which can have a huge economic impact on that industry in Greenlee County.

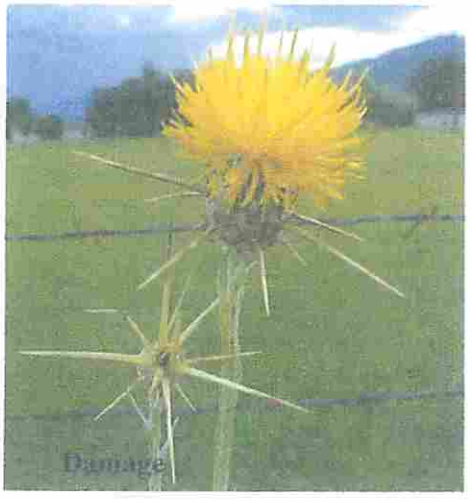
Russian knapweed emerges in early spring, bolts in May to June (elevation dependent) and flowers through the summer into fall. It produces seeds sparingly, approximately 50 to 500 per shoot. Seeds are viable for two to three years in soil. Its primary method of reproduction is from vegetative propagation, with seed of secondary importance. Roots from a recently established plant expand rapidly and may cover up to 12 square yards in two growing seasons. It is a versatile plant, able to grow on a variety of soils and can occur in bottomlands, river banks, irrigation ditches, pastures, agronomic crops, roadsides, waste places and rangeland. Stands may survive 75 years longer.

White top (Hoary cress)

A newly discovered invader in Duncan, AZ. U of A Extension Photo

- White top has white flowers and blue green leaves which clasp the stem. It reproduces by root segments and seed.
- It was introduced from Europe in contaminated seed and is a rapidly spreading plant that grows well in cultivated fields and meadows.
- For small infestations, digging within 10 days after plant emerges for 2-4 years can be effective.
- Long-term reductions must include planting with competitive grasses to occupy ground once infested by the weed.
- Due to its creeping rootstock nature, it out competes native vegetation.

Yellow Starthistle



- Yellow starthistle, *Centaurea solstitialis,* is a pubescent winter annual, germinating in the fall and overwintering as a rosette.
- In general, the plants mature during early to late summer, and by September and October, the plants dry out, lose leaves, and turn to silvery-grey skeletons with white cottony terminal heads.
- In some places and under certain conditions, Yellow starthistle survives over the winter, regrows in the spring, and dries out by early summer (June).

Yellow starthistle poses a serious potential threat to nearly all semi-arid rangeland in the western U.S. due to its ability to colonize and spread rapidly on disturbed soils. In some cases it is palatable to livestock and is an important forage plant until it produces sharp spines on the flower head that deter grazing animals, causing poor pasture utilization. It also forms smothering infestations and reduces the pasture production of other forage species through competition. Extensive roots grow much faster and deeper than annual grasses, forming dense monotypic infestations of Yellow starthistle.

Yellow starthistle has been known to cause problems in virtually every type of land use in California. An infestation of this invasive plant has the potential to reduce land values, reduce access to recreational areas and destroy wildlife habitat by out competing native plants.

When ingested by horses, Yellow starthistle causes a neurological disorder of the brain called nigropallidal encephalomalacia or "chewing disease". This interferes with the horse's ability to chew food and results in death from starvation or dehydration because there is no cure.

Malta starthistle

- Malta starthistle was introduced to the southwestern U.S. from Europe as a seed contaminant.
- It is very similar to Yellow starthistle in appearance, with leaves that extend down the stems, giving the stem a winged appearance.
- A major difference between the two starthistles is length of spines on the flower bracts: those of Yellow starthistle are usually approximately an inch in length, while Malta starthistle spines are normally less than ½ inch long.
- Unlike Yellow starthistle, Malta starthistle seeds appear appear to have longer longevity in the soil with seeds remaining viable for over 3 years, making it potentially more difficult to eradicate.

Recent projects in Southeastern Arizona that Coronado RC&D and U of A Cooperative Extension have been involved in have shown Malta starthistle in a variety of areas, along highways, in urban settings along roadways and in increasing amounts in the Duncan area.

Bull thistle will be mapped as part of this project and treated.

PROJECT CONSIDERATIONS

Multiple Agency Coordination

Invasive weeds are an issue that has come to the forefront for the land management agencies that work in Greenlee and Graham Counties. These agencies have come together to form the Southeastern Arizona Weed Management Area for the purpose of addressing the multiple devastation consequences of these weeds. The following are working in partnership with private landowners in the Weed Management Area for the purpose of addressing the multiple devastating consequences of these weeds and developing projects that take a positive approach to protecting our landscape from invasive weeds.

Project Partners:

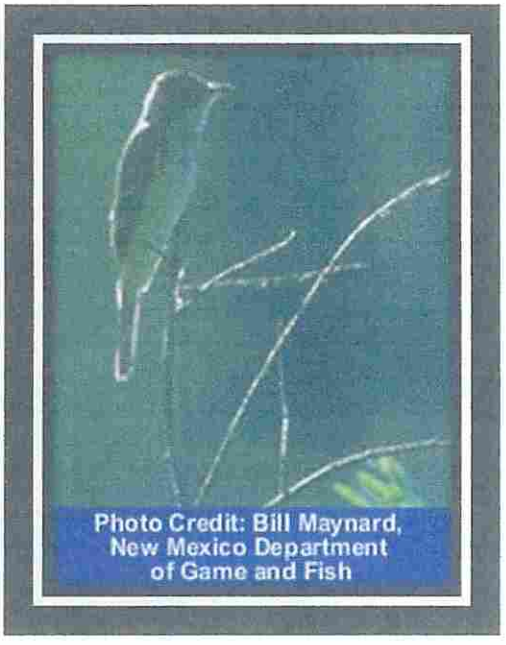
Coronado Resource Conservation & Development Area
University of Arizona Cooperative Extension
Southeastern Arizona Weed Management Area
Greenlee County
Graham County
US Fish & Wildlife Service
USDA Natural Resources Conservation Service
Gila Valley Natural Resource Conservation District
Town of Duncan
City of Safford
Franklin Irrigation District
Private Landowners

Landownership

Ownership in the project area is a mixture of private, local, state and federal. To continue this project successfully, it will require access to the various lands for the purpose of mapping the invasive weeds and a cooperative working agreement to implement treatment. The University of Arizona Cooperative Extension, Natural Resources Conservation Service, Greenlee County, Gila Valley Natural Resource Conservation District and Coronado RC&D have been working with over 30 landowners in the area on weed control projects in the past project, developing a cooperative approach. Access agreements for this project will be developed before any actions are implemented. Due to current working relationships, it is expected that access agreements will be able to be obtained. In the event that access to private property cannot be obtained for any particular parcel, mapping will be conducted from the river channel or adjacent parcels with access and estimates will be used. Existing point data and landowners currently working with weed management indicates that this will not be a significant issue.

HABITAT CONSIDERATIONS:

Wildlife



The Gila River provides valuable habitat for the Southwestern Willow Flycatcher. Invasive weeds threaten the quality of that habitat. This project will continue to work in conjunction with the US Fish & Wildlife Service to insure that the project has a positive rather than a negative impact on the species. The project timeline will be based upon guidance referring to nesting and breeding in the publication "*A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher",* Chapter 10 of Section A, Biological Science, Book 2, Collection of Environmental Data, Techniques and Methods 2A-10, page 11, published by the US Department of Interior, US Geological Survey prepared in cooperation with the Bureau of Reclamation and the US Fish and Wildlife Service. According to this publication, Southwestern Willow Flycatchers begin arriving at their nesting areas in late April and early May. We will plan to do project work within those areas after they depart in mid-September and before the birds arrive for their breeding season.

This project will cause a minimum amount of disturbance to all wildlife species. Mapping will be conducted on the ground by a Weed Management Technician skilled and efficient at the process. We currently have point data that pinpoints locations where invasive weeds have been identified. This project will follow up on those points and map the extent of the infestations by identifying the perimeters. GPS units will be used to record those areas, information will be downloaded to ArcGIS to create shape files and calculate acres.

The following spring, before late April, the shape files will be used to identify the areas identified as infested. Ground applications recommended herbicide will then be used to treat the areas before the nesting season begins. This time period is also the ideal time to treat the targeted invasives as they are actively growing which allows for maximum uptake of the herbicide.

Plants

This project will target mapping and treatment of the following invasives that have been identified within the project area: Yellow and Malta starthistle, Russian knapweed, and Whitetop (Hoary cress). If other invasives are identified during the mapping and treatment process, they will be included in the mapping data base and will be treated as funding allows. A key part of this project is the ongoing monitoring assisted by landowners who have previously been trained and have treated invasive weeds on their private lands. This will insure that areas along the river will be monitored at least annually in the spring for any weed infestations and treated immediately. The goal is to improve the riparian condition and habitat by treating invasive weeds and allowing the native vegetation, understory to reestablish. Ideally, this will be grasses, sedges and wetland forbs and shrubs.

G. LETTERS OF COMMUNITY SUPPORT (attached)

H. EVIDENCE OF CONTROL AND TENURE OF THE LAND

This project will work with individual landowners through access agreements and liability waivers developed between Coronado Resource Conservation & Development Area and individual landowners. Each agreement will include a clause upon with the Arizona Water Protection Fund that will hold them harmless in all project activities.

A sample access agreement below:

Coronado Resource Conservation & Development Area, Inc.
450 S. Haskell Ave., Willcox, AZ 85643
AGREEMENT TO PROVIDE ACCESS

Purpose of Agreement: The Coronado Resource Conservation & Development Area, Inc (RC&D) and the University of Arizona Cooperative Extension, Greenlee County, and Graham County have received grant funding from the Arizona Water Protection Fund for the purpose of controlling invasive weeds in the Gila River and its riparian areas and adjacent flood plains through Greenlee County and Graham County.

Should the above referenced project be funded, for the purpose of identifying and mapping invasive weeds in the targeted area:

Under this agreement, I _____ with the authority to represent _____, grant access to consultants and/or employees if the Coronado RC&D for the purpose of conducting an on the ground survey and mapping of the type and extent of invasive weeds on the river, riparian area and flood plains on my property.

The treatment of any invasive weeds found on my property will be dealt with under a separate access agreement that is in compliance with the funder's requirements and in accordance with a voluntary plan developed by myself with the technical assistance from the U of A Cooperative Extension and or the Natural Resources Conservation Service.

Any access in addition to that outlined in the contract will be discussed on a case by case basis and granted upon discretion of the landowner/manager.

_____ _____

Landowner/Manager Date Phone number

I. EVIDENCE OF PHYSICAL AND LEGAL AVAILABILITY OF WATER

This project will not require the use of water resources from the river or large amount of ground water. The only water required will be a minimal amount from private wells for tank mixing of herbicides.

DEBORAH K. GALE
County Administrator
(928) 865-2310

YVONNE PEARSON
Clerk of the Board
(928) 865-2072

FACSIMILE (928) 865-9332

BOARD OF SUPERVISORS
P.O. BOX 908
253 5TH STREET
CLIFTON, AZ 85533

DAVID GOMEZ
District 1

RON CAMPBELL
District 2

ROBERT CORBELL
District 3

April 14, 2015

Arizona Water Protection Fund Commission
Arizona Department of Water Resources
3550 North Central Avenue
Phoenix, AZ 85012

RE: Letter of Support for Invasive Weed Grant

Dear Sir:

On behalf of the Greenlee County Board of Supervisors, please accept this letter of support for the proposed grant submitted by the Coronado RC&D in partnership with the Greenlee County Cooperative Extension program for funding to map and treat invasive weeds along the Gila River in Greenlee County.

Funding from the Arizona Water Protection Fund grant program would allow work to be done in conjunction with landowners in Greenlee County to map and then treat the invasive weeds in the river, riparian area, and adjacent flood plain. Treatment of the invasive Russian Knapweed, Malta, and Yellow Starthistle and Whitetop in the Greenlee County section of the river will greatly reduce the opportunity for seeds to travel down the river channel and destroy riparian area, agricultural and recreation land downstream.

Greenlee County is very supportive of this project and certainly hope that it will receive the approval so that we can begin a program that can be nothing but successful. Please feel free to contact me should you have any questions.

Sincerely,

Deborah K. Gale

Deborah K. Gale
Greenlee County Administrator

Graham County Board of Supervisors
921 Thatcher Blvd ◦ Safford, AZ 85546
Phone: (928) 428-3250 ◦ Fax: (928) 428-5951

Danny Smith, Chairman
James A. Palmer, Vice Chairman
Drew John, Member

Terry Cooper, County Manager/Clerk

March 30, 2015

Arizona Water Protection Fund Commission
Arizona Department of Water Resources
3550 N. Central Avenue
Phoenix, AZ 85012

RE: Control of Invasive weeds along the Gila River Corridor Phase II

Dear Sir/Madam:

Please consider this correspondence a show of support for the application being submitted by the Coronado RC&D and Greenlee County Cooperative Extension. The Graham County Board of Supervisors is certainly in support of their fight against invasive weeds along the Gila River and its riparian areas, flood plains, ect. through not only Greenlee County but Graham County as well. The Gila River is very important to the economy of Eastern Arizona as not only is it used for irrigation, but provides natural beauty to the area.

We understand that should the above referenced entities be successful with this application that invasive weeds along the river will be treated. Several of the species that will be treated are the Russian Knapweed, Malta and Yellow Starthistle and Whitetop. This will reduce the opportunity for these infested areas to travel down the Gila River and become an issue for Graham County as well.

We thank you for your positive consideration to this application and should you have any questions or if we could be of further service please contact us at 1-928-428-3250.

Sincerely,

Danny Smith, Chairman
Graham County Board of Supervisors

cc: Coronado RC&D
450 S. Haskell Ave.
Willcox, AZ 85643

U.S. Fish and Wildlife Service
Arizona Partners for Fish and Wildlife
Arizona Ecological Services Field Office
2321 W. Royal Palm Road, Suite 103
Phoenix, Arizona 85021-4951
602-242-0210 602-242-2513 Fax

May 12, 2015

Arizona Water Protection Fund
3550 North Central Avenue
Phoenix, Arizona 85012

RE: FY 2015 Grant Application

Dear Grant Review Committee,

The US Fish and Wildlife Service's (USFWS) Partners for Fish and Wildlife Program appreciates the opportunity to provide this letter in support of the project proposal submitted to the Arizona Water Protection Fund by the Coronado Resource Conservation & Development Area. This project involves continuing treatment to manage invasive weed species such as Russian knapweed, Yellow and Malta starthistle, and hoary cress in the riparian area along the Gila River.

The riparian area along this stretch of the Gila River in Greenlee County contains several species of migratory birds including the southwestern willow flycatcher, yellow-billed cuckoo, and common black hawk. It is anticipated that this project will benefit several wildlife species by reducing the risk of fire and enhancing native vegetation.

The USFWS supports the Coronado Resource Conservation & Development Area's proposed application. We appreciate efforts such as these to maintain and enhance Arizona's important riparian areas.

Please contact me at 602-242-0210 x. 250 if you would like any additional comments.

Sincerely,

Kris Randall

State Coordinator, Partners for Fish & Wildlife, USFWS

April 17, 2015

Arizona Water Protection Fund Commission
Arizona Department of Water Resources
3550 North Central Avenue
Phoenix, AZ 85012

Dear Commissioners,

Our community's economy is dependent from agriculture and tourism. Therefore, conserving and protecting our natural resources is a priority.

Over the past ten years, invasive weeds have become a resource concern for our community. Invasive weeds destroy wildlife and agriculture crops which could have a devastating effect on our economy. The proposed second phase of this project will continue to assist the residents of Greenlee County to conserve our natural resources which will protect our community's economy and the livelihood of our residents.

I am in full support of this project and encourage your consideration for funding.

Sincerely,

James F. & Kameron DuBois
Greenlee County Landowner/Farmer
989 Fairgrounds Road
Duncan, AZ

DEBORAH K. GALE
County Administrator
(928) 865-2310

YVONNE PEARSON
Clerk of the Board
(928) 865-2072

FACSIMILE (928) 865-9332

DAVID GOMEZ
District 1

RON CAMPBELL
District 2

ROBERT CORBELL
District 3

BOARD OF SUPERVISORS
P.O. BOX 908
253 5TH STREET
CLIFTON, AZ 85533

April 14, 2015

Arizona Water Protection Fund Commission
Arizona Department of Water Resources
3550 North Central Avenue
Phoenix, AZ 85012

RE: Letter of Support for Invasive Weed Grant

Dear Sir:

On behalf of the Greenlee County Board of Supervisors, please accept this letter of support for the proposed grant submitted by the Coronado RC&D in partnership with the Greenlee County Cooperative Extension program for funding to map and treat invasive weeds along the Gila River in Greenlee County.

Funding from the Arizona Water Protection Fund grant program would allow work to be done in conjunction with landowners in Greenlee County to map and then treat the invasive weeds in the river, riparian area, and adjacent flood plain. Treatment of the invasive Russian Knapweed, Malta, and Yellow Starthistle and Whitetop in the Greenlee County section of the river will greatly reduce the opportunity for seeds to travel down the river channel and destroy riparian area, agricultural and recreation land downstream.

Greenlee County is very supportive of this project and certainly hope that it will receive the approval so that we can begin a program that can be nothing but successful. Please feel free to contact me should you have any questions.

Sincerely,

Deborah K. Gale

Deborah K. Gale
Greenlee County Administrator

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Safford Field Office
711 S. 14th Avenue
Safford, AZ 85546
928-348-4400
www.blm.gov/az/

May 7th, 2015

Arizona Department of Water Resources
Arizona Water Protection Fund Commission
3550 N. Central Ave.
Phoenix, AZ 85012

Dear Commission:

The Safford Field Office of the Bureau of Land Management (BLM) has partnered with the Coronado RC&D, Arizona Department of Transportation, University of Arizona, and the U.S. Forest Service in the control of noxious and invasive weeds. The BLM has contributed funding in the past and will continue to contribute funds for the control of noxious and invasive weeds within the Safford Field Office especially along the Gila River corridor.

BLM continues its involvement in control and removal of noxious weeds along the Gila River and is especially concerned with the potential of these weeds of continuing downstream into the Gila Box National Riparian Area.

BLM management is committed to the control and prevention of noxious weeds in adjacent lands to the Gila River which may include State or Private lands. The continued cooperation with the Coronado RC&D and the University of Arizona is crucial to the labor to control noxious weeds within the Safford Field Office. I fully support the proposal to continue the work that the Coronado RC&D is doing in the mapping and treatment of noxious weeds within the Gila River corridor.

Sincerely,

Jason S. Martin
Rangeland Management Specialist

THE UNIVERSITY OF ARIZONA
COLLEGE OF AGRICULTURE AND LIFE SCIENCES
COOPERATIVE EXTENSION
Greenlee County

1684 Fairgrounds Road, Duncan AZ 85534 • 928-359-2261 • Fax: 928-359-2079 • extension.arizona.edu/greenlee

Arizona Water Protection Fund Commission
Arizona Department of Water Resources
3550 North Central Avenue
Phoenix, Arizona 85012

May 4, 2015

Dear Commission,

I am writing this letter of support for the proposal to control noxious, invasive weeds in and adjacent to riparian areas along the Gila River in Greenlee and Graham counties. I have been working with noxious weeds in both counties since 1998. In partnership with several federal, state, and county governments, we provide public outreach awareness workshops, identification and control trainings for state and county road maintenance workers, and are actively working with private landowners and farmers to control noxious weeds on their land.

We have spent time mapping, conducting field trials, and assisting with treatment of Russian knapweed, whitetop, Malta starthistle and yellow starthistle. Some of these infestations occur in the river bottom and floodplain in Greenlee County. Downstream surveys for these plants in Graham County has not occurred. As we continue our survey work, we are finding more infestations, particularly of whitetop along the river following flooding events.

Cooperative Extension has one storage shed at the Duncan office that is dedicated to storing herbicide and spray equipment for landowners to check out in support of the noxious weed program. Funds from previous grants have helped build a base for this program, but there is still much work to be done. These weeds will take many years of continuous work to control.

The Gila River is an important resource to the people of Greenlee and Graham counties. They rely on it not only for recreation and wildlife values, but many depend on it for their livelihoods. The threat to the river and associated riparian values from noxious, invasive weeds is very real. This grant proposal will prevent further damage to the river and provide for restoration of infested areas.

Sincerely,

Kim McReynolds

Kim McReynolds
Extension Director, Greenlee County
Area Extension Agent, Natural Resources

GILA VALLEY NATURAL
RESOURCE CONSERVATION DISTRICT
267 N. 8th Ave; Suite B- Safford, AZ 85546
Ph: (928) 428-5537 Ext 111
Fax: (928) 428-4284
amy.herbert@az.nacdnet.net

April 7, 2015

Arizona Water Protection Fund Commission
Arizona Dept. of Water Resources
3550 N. Central Avenue
Phoenix, AZ 85012

Dear Commissioners,

The Gila River is an important resource in Southeastern Arizona, supporting our economy through diverse natural resources that support recreation, tourism and agriculture. The Gila Valley Natural Resource Conservation District is actively involved in conserving and enhancing this resource, and supports the Coronado RC&D's proposal to map and treat invasive weeds in the Gila River Corridor through Greenlee County.

Invasive weeds are a serious ecological and economic threat. The Gila River flows directly through Greenlee County which provides an ideal method for transporting invasive weeds. Invasive weed control and eradication efforts are crucial in order to prevent wide spread infestations.

We support this project and encourage your consideration for funding.

Sincerely,

Dean Lunt, Chairman
Gila Valley NRCD

Town of Duncan

TOWN HALL
506 SE Old West Highway
Duncan, AZ 85534
(928) 359-2791

ARIZONA RELAY SERVICE
TTY/ASCII
1 (800) 367-8939

ADMINISTRATION
506 SE Old West Highway
(928) 359-2791
FAX (928) 359-9146

WATER DEPARTMENT
216 East Avenue
Duncan, AZ 85534

STREET DEPARTMENT
505 4th Street
(928) 359-1471

SWIMMING POOL
106 Skyline Drive
(928) 359-9018

April 27, 2015

Arizona Water Protection Fund Commission
353 North Central Ave.

Dear Arizona Water Protection Fund Commission:

This letter is being written to express the Town of Duncan's support for the Coronado Resource Conservation & Development Area project titled "Invasive Weed Control in the Gila River Corridor through Greenlee County". The Gila River run through the Town of Duncan and is an important part of our heritage, natural resources and economy. This project will reverse the destruction of the riparian areas and croplands that are so important to the Town of Duncan and our rural area. The Town of Duncan was able to take advantage of this program in the past. We would like to continue this program in our area.

We urge you to fund this grant proposal. It will help our efforts to improve the health of our river.

Thank you for your consideration.

Sincerely,

Billy E Waters

Billy Waters
Mayor
Town of Duncan

City of Safford
A great place to live, work, and visit

Office of the City Manager

808 S. 8th Avenue
P.O. Box 272
Safford, AZ 85548
Phone: (928) 432-4012
Fax: (928)348-8515
Website: www:cityofsafford.us

April 6, 2015

Arizona Water Protection Fund Commission
Arizona Department of Water Resources
3550 North Central Avenue
Phoenix, Arizona 85012

Dear Sir/Madam,

The City of Safford continues to support the efforts of the Coronado RC & D in its attempt to eradicate invasive weeds along the Gila River corridor in Greenlee County and into Graham County.

In 2011 the Arizona Water Protection Fund (AWPF) awarded the RC & D a grant to help control invasive weeds that are a real threat to the riparian areas of the Gila River. While progress was made, there still remain untreated areas within the Gila River corridor which poses a risk for invasive weeds to travel down the river into riparian areas of Graham County. The Gila River is a vital source of water for agriculture, wildlife and recreation. For this reason, continuing the treatment of invasive weeds is necessary to prevent further outbreaks.

The City of Safford strongly urges your support in the second phase of this project to continue for an addition four (4) years that will extend the corridor to include Safford.

Sincerely,

Horatio Skeete, City Manager
City of Safford

/gll

Southeastern Arizona Weed Management Area

Cochise, Graham & Greenlee Counties

Arizona Water Protection Fund Commission
Arizona Department of Water Resources
3550 North Central Avenue
Phoenix, AZ 85012

May 4, 2015

Dear AWPF Commission,

The Southeastern Arizona Weed Management Area (WMA) was formed in 1998 to work on controlling noxious weeds in Greenlee, Graham and northern Cochise counties. WMA members represent a variety of government agencies, municipalities, agricultural producers and interested citizens. Since 2007, there has been a major push by members of the WMA to control noxious weeds in Greenlee County because of the possibility of weeds moving to new areas via the Gila River. For this reason, we strongly support the proposal to work with landowners in Greenlee County to map and treat noxious, invasive weeds in the river, riparian area and adjacent flood plain.

The following noxious weeds are found in Greenlee County and are of concern in relation to the river and riparian area: Russian knapweed, Malta starthistle, yellow starthistle, bull thistle, and most recently, hoary cress (whitetop). Funding from the AWPF would be helpful in controlling these weeds. The WMA has been providing leadership to noxious weed work in southeastern Arizona through educational workshops, developing a management plan, and applying for and receiving outside funds to implement on-the-ground projects. The WMA uses an Integrated Weed Management approach which involves prevention and early detection as the first line of defense against these weeds. We also have used biological controls, fire, and hand removal in addition to herbicides depending on the species and extent of infestation. Cultural control methods are also used as necessary.

The Southeastern Arizona Weed Management Area is in full support of the proposal to map and treat noxious weeds along the Gila River in Greenlee County and survey work downstream to Safford, Graham County for early detection efforts.

Sincerely,

Scott Stratton
Rangeland Management Specialist
Natural Resource Conservation Service, Safford Field Office

April 17, 2015

Arizona Water Protection Fund Commission
Arizona Department of Water Resources
3550 North Central Avenue
Phoenix, AZ 85012

Dear Commissioners,

Our community's economy is dependent from agriculture and tourism. Therefore, conserving and protecting our natural resources is a priority.

Over the past ten years, invasive weeds have become a resource concern for our community. Invasive weeds destroy wildlife and agriculture crops which could have a devastating effect on our economy. The proposed second phase of this project will continue to assist the residents of Greenlee County to conserve our natural resources which will protect our community's economy and the livelihood of our residents.

I am in full support of this project and encourage your consideration for funding.

Sincerely, Leon J. Reynolds

Greenlee County Landowner/Farmer

April 17, 2015

Arizona Water Protection Fund Commission
Arizona Department of Water Resources
3550 North Central Avenue
Phoenix, AZ 85012

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Sincerely,

Greenlee County Landowner/Farmer

April 17, 2015

Arizona Water Protection Fund Commission
Arizona Department of Water Resources
3550 North Central Avenue
Phoenix, AZ 85012

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I am in full support of this project and encourage your consideration for funding.

Sincerely,

James B. McBride

Greenlee County Landowner/Farmer

April 17, 2015

Arizona Water Protection Fund Commission
Arizona Department of Water Resources
3550 North Central Avenue
Phoenix, AZ 85012

Dear Commissioners,

Our community's economy is dependent from agriculture and tourism. Therefore, conserving and protecting our natural resources is a priority.

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I am in full support of this project and encourage your consideration for funding.

Sincerely,

Greenlee County Landowner/Farmer

Attachments

Gmail by Google

Linda Searle <coronadorcd1@gmail.com>

SHPO documents for grant application

Kris Dobschuetz <kdobschuetz@azstateparks.gov>
To: Coronado RC&D <coronadorcd1@gmail.com>

Wed, Apr 1, 2015 at 7:36 AM

Hi Linda:

Is the grant proposal similar to what was being done on the other ones - spraying for invasive weeds with no ground disturbance. If so, then using the same forms as last time would be sufficient. If not, please call me and we can figure out how to proceed.

Cheers,

Kris Dobschuetz, RPA
Compliance Specialist / Archaeology
State Historic Preservation Office

Phone: (602) 542-7141
Email: kdobschuetz@azstateparks.gov
Web: http://AZStateParks.com

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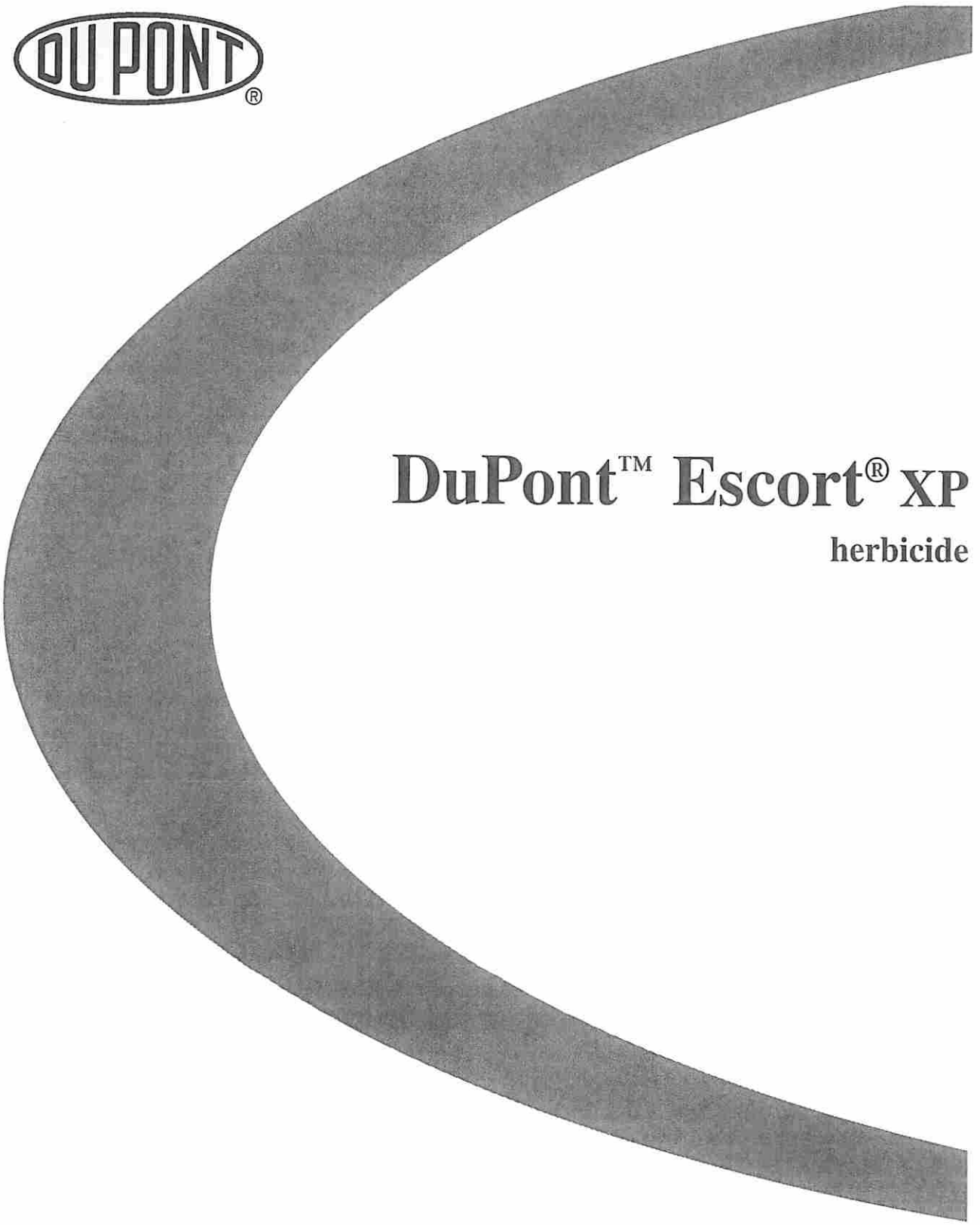

DuPont™ Escort® XP

herbicide

GROUP	2	HERBICIDE

DuPont™ Escort® XP

herbicide

Dry Flowable

Active Ingredient	*By Weight*
Metsulfuron methyl Methyl 2-[[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]-carbonyl]amino]sulfonyl]benzoate	60%
Other Ingredients	40%
TOTAL	100%

EPA Reg. No. 352-439 EPA Est. No. _____

Nonrefillable Container
Net: _____

OR

Refillable Container
Net: _____

KEEP OUT OF REACH OF CHILDREN

CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

FIRST AID

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for emergency medical treatment information.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION! Causes eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing dust or spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

Long-sleeved shirt and long pants.

Shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

This herbicide is injurious to plants at extremely low concentrations. Nontarget plants may be adversely effected from drift and run-off.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

DuPont™ ESCORT® XP must be used only in accordance with instructions on this label or in separately published DuPont instructions.

DuPont will not be responsible for losses or damages resulting from the use of this product in any manner not specified on this label. User assumes all risks associated with such non-specified use.

Do not apply more than 4 ounces of ESCORT® XP per acre per year.

Do not use on food or feed crops except as specified by this label or supplemental labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency in your State responsible for pesticide regulation.

PRODUCT INFORMATION

ESCORT® XP herbicide is a dispersible granule that is mixed in water and applied as a spray by ground or aerial application.

ESCORT® XP is registered for the control of annual and perennial weeds and unwanted woody plants on private, public and military lands, on rights-of-way, industrial sites, non-crop areas, ditchbanks of dry drainage ditches, certain types of unimproved turf grass, and conifer and hardwood plantations, including grazed areas on these sites. Do not use on irrigation ditches.

ESCORT® XP controls weeds and woody plants primarily by postemergent activity. Although ESCORT® XP has preemergence activity, best results are generally obtained when ESCORT® XP is applied to foliage after emergence or dormancy break. Generally, for the control of annual weeds, ESCORT® XP provides the best results when applied to young, actively growing weeds. For the control of perennial weeds, applications made at the bud/bloom stage or while the target weeds are in the fall rosette stage may provide the best results. The use rate depends upon the weed species and size at the time of application.

The degree and duration of control may depend on the following:

- weed spectrum and infestation intensity
- weed size at application
- environmental conditions at and following treatment
- soil pH, soil moisture, and soil organic matter.

ESCORT® XP may be applied on conifer and hardwood plantations, and non-crop sites that contain areas of temporary surface water caused by the collection of water between planting beds, in equipment ruts, or in other depressions created by management activities. It is permissible to treat intermittently flooded low lying sites, seasonally dry flood plains and transitional areas between upland and lowland sites when no water is present. It is also permissible to treat marshes, swamps and bogs after water has receded as well as seasonally dry flood deltas. DO NOT make applications to natural or man-made bodies of water such as lakes, reservoirs, ponds, streams and canals.

BIOLOGICAL ACTIVITY

ESCORT® XP is absorbed primarily through the foliage of plants, and by the roots to a lesser degree. Plant cell division is generally inhibited in sensitive plants within a few hours following uptake. Two to 4 weeks after application, leaf growth slows followed by discoloration and tissue death. The final affects on annual weeds are evident about 4 to 6 weeks after application. The ultimate affect on perennial weeds and woody plants occurs in the growing season following application.

Warm, moist conditions following treatment promote the activity of ESCORT® XP, while cold, dry conditions may reduce or delay activity. Weeds and brush hardened off by cold weather or drought stress may not be controlled. Weed and brush control may be reduced if rainfall occurs soon after application.

ADJUVANTS

The use of a surfactant is recommended to enhance the control of susceptible plants, except where noted. Apply at a minimum rate (concentration) of 1/4% volume/volume (1 quart per 100 gallons of spray solution), or at the manufacturer's recommended rate. Use only EPA approved surfactants containing at least 80% active ingredient. Certain types of surfactants, such as those incorporating acetic acid (i.e. LI- 700), may not be compatible with ESCORT® XP and may result in decreased performance. Certain surfactants may not be suitable for use on desirable plants, such as turf and conifers, listed on this label. Consult the surfactant manufacturer's label for appropriate uses.

INVASIVE SPECIES MANAGEMENT

This product may be considered for use on public, private, and tribal lands to treat certain weed species infestations that have been determined to be invasive, consistent with the Federal Interagency Committee for the Management of Noxious and Exotic Weeds (FICMNEW) National Early Detection and Rapid Response (EDRR) System for invasive plants.

Effective EDRR systems address invasions by eradicating the invader where possible, and controlling them when the invasive species is too established to be feasibly eradicated. Once an EDRR assessment has been completed and action is recommended, a Rapid Response needs to be taken to quickly contain, deny reproduction, and if possible eliminate the invader. Consult your appropriate state extension service, forest service, or regional multidisciplinary invasive species management coordination team to determine the appropriate Rapid Response.

RESISTANCE

DuPont™ ESCORT® XP which contains the active ingredient metsulfuron methyl is a Group 2 herbicide based on the mode of action classification system of the Weed Science Society of America.

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. Adequate control of these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

To better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistant weed biotypes, it may be necessary to change cultural practices within and between crop seasons such as using a combination of tillage, retreatment, tank-mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide recommendations available in your area.

INTEGRATED PEST MANAGEMENT

This product may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

PREPARING FOR USE - Site Specific Considerations

Understanding the risks associated with the application of ESCORT® XP is essential to aid in preventing off-site injury to desirable vegetation and agricultural crops. The risk of off-site movement both during and after application may be affected by a number of site specific factors such as the nature, texture and stability of the soil, the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, drainage patterns, and other local physical and environmental conditions. A careful evaluation of the potential for off-site movement from the intended application site, including movement of treated soil by wind or water erosion, must be made prior to using ESCORT® XP. This evaluation is particularly critical where desirable vegetation or crops are grown on neighboring land for which the use of ESCORT® XP is not labeled. If prevailing local conditions may be expected to result in off-site movement and cause damage to neighboring desirable vegetation or agricultural crops, do not apply ESCORT® XP.

Before applying ESCORT® XP the user must read and understand all label directions, precautions and restrictions completely, including these requirements for a site specific evaluation. If you do not understand any of the instructions or precautions on the label, or are unable to make a site specific evaluation yourself, consult your local agricultural dealer, cooperative extension service, land managers, professional consultants, or other qualified authorities familiar with the area to be treated. If you still have questions regarding the need for site specific considerations, please call 1-888-6-DUPONT.

TANK MIXES

ESCORT® XP may be tank mixed with other herbicides registered for the use sites described in this label. Use only those tank mix partners which are labeled for the appropriate use site. When tank mixing, use the most restrictive label limitations for each of the products being used in the tank mix.

AGRICULTURAL USES

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours. PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Shoes plus socks

CONIFER PLANTATIONS

Application Information

DuPont™ ESCORT® XP is registered for the control of many species of weeds and deciduous trees on sites where conifers are growing or are to be planted. Apply by ground equipment or by air (helicopter only). Refer to the "Weeds Controlled" and "Brush Species Controlled" for a listing of susceptible species.

Application Timing

Apply ESCORT® XP after weeds have emerged or after undesirable hardwoods have broken winter dormancy and have reached the point of full leaf expansion.

Conifer Site Preparation

--Application Before Transplanting

After consulting the "Weeds Controlled" and "Brush Species Controlled" tables, apply the rates of ESCORT® XP specified for the most difficult to control species on the site.

Southeast—Apply up to 4 ounces per acre for loblolly and slash pines. Transplant the following planting season.

Northeast and Lake States—Apply up to 2 ounces per acre for red pine. Transplant the following planting season. Apply up to 2 ounces per acre for black, white and Norway spruce. Transplant the following spring.

West—Apply up to 2 ounces per acre prior to planting Douglas Fir, Sitka Spruce, Western Red Cedar, Western Hemlock, Ponderosa Pine, and Grand Fir in the Coast Rangeland and western slope of the Cascades in Oregon and Washington. These conifer species listed can be planted anytime after application. Other conifer species can be planted providing the user has prior experience indicating acceptable tolerance to ESCORT® XP soil residues.

Without prior experience, it is recommended that other species be planted on a small scale to determine selectivity before large-scale plantings are made as unacceptable injury may occur. DuPont will not assume responsibility for injury to any conifer species not listed on this label.

Tank Mix Combinations—

For broader spectrum control, the following products may be used in combination with ESCORT® XP.

Glyphosate (4 pound active per gallon)

Tank mix 1 to 2 ounces of ESCORT® XP with 2 to 10 quarts of glyphosate per acre. Refer to the product container for a list of species controlled.

Imazapyr (4 pound active per gallon)

Tank mix 1 to 2 ounces of ESCORT® XP with 10 to 24 fluid ounces of imazapyr per acre. Loblolly and slash pines may be transplanted the planting season following application. This combination controls ash, black gum, cherry, hawthorn, honeysuckle, hophornbeam, persimmon, oaks (red, white and water), sassafras, sweetgum, Vaccinium species, and suppresses blackberry, dogwood, elms, myrtle dahoon, hickories, and red maple.

Glyphosate (4 pound active per gallon) + Imazapyr (4 pound active per gallon)

Tank mix 1/2 to 1 ounce of ESCORT® XP with 16 to 64 fluid ounces of glyphosate and 10 to 12 fluid ounces of imazapyr per acre. Slash and loblolly pines may be transplanted the planting season following application. This combination controls cherry, dogwood, elms, oaks (red and water), persimmon, sassafras, sweetgum and suppresses hickory.

DuPont™ VELPAR® L or VELPAR® DF

Tank mix 1 to 2 ounces of DuPont™ ESCORT® XP per acre with VELPAR® L or VELPAR® DF at the rates specified on the container for various soil textures. Loblolly and slash pines may be transplanted the planting season following application. Refer to the product container for a list of species controlled.

DuPont™ OUST® EXTRA

Tank mix 1/2 to 1 1/2 ounces of ESCORT® XP with 2 to 3 ounces of OUST® EXTRA per acre for herbaceous weed control. Refer to the product container and the "Weeds Controlled" section of this label for a listing of the weeds controlled. Loblolly and slash pines may be transplanted the planting season following application. Tank mix 2 ounces of ESCORT® XP with 3 ounces of OUST® EXTRA per acre for herbaceous weed control and early spring suppression of bull thistle and Canada thistle in the Coast Rangeland and western slope of the Cascade Mountains. Douglas fir may be transplanted at least 90 days following application.

Release--Hardwood Control and Suppression

ESCORT® XP may be used for application over the top of established slash and loblolly pine to control the species listed in "Weeds Controlled" and "Brush Species Controlled" section of this label. Apply 1 to 4 ounces per acre to control the species indicated, including kudzu.

Tank Mix Combinations—

For broader spectrum control the following products may be used in combination with ESCORT® XP.

Imazapyr (4 pound active per gallon)

Tank mix 1 to 2 ounces of ESCORT® XP with 8 to 16 fluid ounces of imazapyr per acre for application to loblolly pine. Refer to the imazapyr label regarding the use of surfactants and the appropriate application timing with respect to the age and development stage of the pines. This combination controls ash, black gum, cherry, hawthorn, honeysuckle, hophornbeam, oaks (red, white and water), sassafras, sweetgum, Vaccinium species, and suppresses blackberry, dogwood, elms, myrtle dahoon, hickories, persimmon, and red maple.

VELPAR® L or VELPAR® DF

Tank mix 1 to 2 ounces of ESCORT® XP with VELPAR® L or VELPAR® DF at the rates specified on the container for various soil textures. This combination may be applied to loblolly and slash pines.

Release--Herbaceous Weed Control

ESCORT® XP may be applied to transplanted loblolly and slash pine for the control of herbaceous competition. Consult the "Weeds Controlled" for a listing of the susceptible species and application rates. Best results are obtained when ESCORT® XP is applied just before weed emergence until shortly after weed emergence.

Tank Mix Combinations—

For broader spectrum control the following products may be used in combination with ESCORT® XP.

Imazapyr (4 pound active per gallon)

Tank mix 1/2 to 1 ounce of ESCORT® XP with 4 fluid ounces of imazapyr per acre. The tank mix may be used on loblolly pine.

VELPAR® L or VELPAR® DF

Tank mix 1/2 to 1 ounce of ESCORT® XP with VELPAR® L or VELPAR® DF at the rates specified on the container for various soil textures. This combination may be applied to loblolly and slash pines.

Release - Directed Spray in Conifers

Western US

To release conifers from competing brush species, such as, blackberry, salmonberry, snowberry, thimbleberry and wild roses, mix 2 to 4 ounces of ESCORT® XP per 100 gallons of spray solution. Direct spray onto the foliage of competing brush species using a knapsack or backpack sprayer. For best results, apply any time after the brush species have reached full leaf stage but before autumn coloration. For best results at application, the majority of the brush must be less than six feet in height to help ensure adequate spray coverage. Thorough coverage of the target foliage is necessary to optimize results. Care must be taken to direct the ESCORT® XP spray solution away from the conifer foliage.

NOTE:

ESCORT® XP may cause temporary yellowing and or growth suppression when the spray solution contacts conifer foliage. The use of a surfactant with ESCORT® XP may improve brush control results. When using a surfactant with ESCORT® XP, extra precaution must be taken to avoid contact with conifer foliage. Excessive drift onto conifers may result in severe injury.

IMPORTANT PRECAUTIONS—CONIFER PLANTATIONS ONLY

- Applications of DuPont™ ESCORT® XP made to conifers that are suffering from loss of vigor caused by insects, diseases, drought, winter damage, animal damage, excessive soil moisture, planting shock, or other stresses may injure or kill the trees.
- Applications of ESCORT® XP made for herbaceous release must only be made after adequate rainfall has closed the planting slit and settled the soil around the roots following transplanting.
- Do not apply ESCORT® XP to conifers grown as ornamentals.
- ESCORT® XP applications may result in damage and mortality to other species of conifers when they are present on sites with those listed in the preceding specifications for conifer plantations.

HARDWOOD PLANTATIONS

Application Information

ESCORT® XP may be used at rates of up to 2 ounces per acre for the control of many weed species on sites where yellow poplar is growing or is to be planted, and on sites where red alder is to be planted. Apply by ground equipment or by air (helicopter only). Refer to the "Weeds Controlled" sections of this label for a listing of susceptible species.

Application Timing

ESCORT® XP may be applied as a site preparation treatment prior to planting red alder or yellow poplar. As a prior to planting site preparation treatment for red alder, ESCORT® XP may be tank mixed with other herbicides labeled for this use.

ESCORT® XP may also be applied over-the-top of planted yellow poplar seedlings after the soil has settled around the root system, but before the seedlings have broken dormancy (prior to bud break).

Release--Herbaceous Weed Control

ESCORT® XP may be applied to yellow poplar for the control of herbaceous competition. Consult the "Weeds Controlled" for a listing of the susceptible species and specified application rates. Best results are obtained when ESCORT® XP is applied just before weed emergence until shortly after weed emergence.

Tank Mix Combinations—

Tank mix 1/2 ounce of ESCORT® XP with 4 to 6 pints of DuPont™ VELPAR® L as directed on the package label for "RELEASE--HERBACEOUS WEED CONTROL" in pine plantations in the eastern U.S. Follow the VELPAR® L label directions regarding altering the application rate by soil texture.

IMPORTANT PRECAUTIONS—HARDWOOD PLANTATIONS ONLY

- Application of VELPAR® L and ESCORT® XP made to yellow poplar that are suffering from loss of vigor caused by insects, disease, drought, winter damage, animal damage, excessive soil moisture, planting shock or other stresses may injure or kill the seedlings.
- Applications of ESCORT® XP made for release must only be made after adequate rainfall has closed the planting slit and settled the soil around the roots following transplanting.
- The use of surfactant is not recommended for applications made over the tops of trees.
- Careful consideration must be given by an experienced and knowledgeable forester to match the requirements of yellow poplar and/or red alder to the conditions of the site. Treatment of yellow poplar and/or red alder planted on a site inadequate to meet its requirements may injure or kill the seedlings.

NON-AGRICULTURAL USES

NON-AGRICULTURAL USE REQUIREMENTS
The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.
Do not enter or allow others to enter the treated area until sprays have dried.
Non-crop industrial weed control and selective weed control in turf (industrial, unimproved only) are not within the scope of the Worker Protection Standard.

NON-CROP SITES

Application Information

ESCORT® XP is registered for weed control on private, public and military lands as follows: Uncultivated nonagricultural areas (including airports, highway, railroad and utility rights-of-way, sewage disposal areas); uncultivated agricultural areas - non-crop producing (including farmyards, fuel storage areas, fence rows, soil bank land and barrier strips); industrial sites - outdoor (including lumberyards, pipeline and tank farms) including grazed areas on these sites. It may also be used for the control of certain noxious and troublesome weeds.

Consult the "Weeds Controlled" and "Brush Species Controlled" tables to determine the appropriate application rate.

DuPont™ ESCORT® XP may be applied in tank mixture with other herbicides labeled for use on non-crop sites. Fully read the labels and follow all directions and restrictions on each label.

Applications may be made by ground or air. Use a sufficient volume of water to ensure thorough coverage of the target vegetation with the application equipment being used.

NATIVE GRASSES

ESCORT® XP is registered for weed control and suppression in the establishment and maintenance of native grasses. It may be used where blue grama, bluestems (big, little, plains, sand, ww spar) bromegrasses (meadow), buffalograss, green sprangletop, indiangrass, kleingrass, lovegrasses (atherstone, sand, weeping, wilman), orchardgrass, sideoats grama, switchgrass (blackwell), wheatgrass (bluebunch, intermediate, pubescent, Siberian, slender, streamband, tall, thickspike, western), and Russian wildrye are established. It may also be applied over these species in the seedling stage, except for orchardgrass and Russian wildrye.

When used as directed, there are no grazing or haying restrictions for use rates of 1 2/3 ounce per acre or less. At use rates greater than 1 2/3 ounce per acre and up to 3 1/3 ounce per acre, forage grasses may be cut for hay, fodder or green forage and fed to livestock, including lactating animals, 3 days after treatment.

Rotation Intervals for Overseeding and Renovation

Location	Crop or Grass Species	Maximum ESCORT® XP Rate (oz per A)	Minimum Rotation Interval (months)
AL, AR, FL, GA, KY, LA, MS, NC, OK, SC, TN, TX, VA, WV	Alfalfa, red clover, white clover, sweet clover, bermudagrass, bluegrass, ryegrass, tall fescue	1/10 to 3/10	4
	Wheat (except durum)	1/10 to 3/10	1
	Durum, barley, oat	1/10 to 3/10	10
ALL STATES NOT INCLUDED ABOVE	Red clover, white clover, and sweet clover	1/10 to 2/10	12
	Bermudagrass, bluegrass, ryegrass	1/10 to 2/10	6
	Tall Fescue	1/10 to 2/10	18
	Wheat (except durum)	1/10 to 2/10	1
	Durum, barley, oat	1/10 to 2/10	10
ALL AREAS WITH SOIL PH OF 7.5 OR LESS	Russian wildrye	1/10 to 1/2	1
	Green needlegrass, switchgrass, sheep fescue	1/10 to 1	1
	Meadow brome, smooth brome, alta fescue, red fescue, meadow foxtail, orchardgrass, Russian wildrye, timothy	1/10 to 1	2
ALL AREAS WITH SOIL PH OF 7.9 OR LESS	Alkali sacoton, mountain brome, blue grama thickspike wheatgrass	1/10 to 1	1
	Sideoats grama, switchgrass	1/10 to 1/2	2
	Western wheatgrass	1/10 to 1	2
	Sideoats grama, switchgrass, big bluestem	1/10 to 1	3

Application Information

Apply DuPont™ ESCORT® XP at the rate of 1/10 ounce per acre for the control and suppression* of bur buttercup (testiculate), common purslane, common sunflower*, cutleaf eveningprimrose*, flixweed*, lambsquarters* (common and slimleaf), marestail*, pigweed (redroot and tumble), snow speedwell, tansymustard* and tumble mustard (Jim Hill mustard).

* Suppression is a visual reduction in weed competition (reduced population or vigor) as compared to untreated areas. Degree of suppression will vary with the size of weed and environmental conditions following treatment.

Application Timing

For established grasses, apply when weeds are in the seedling stage.

For grasses in the seedling stage, apply preplant or preemergence where the soil (seed bed) has been cultivated.

IMPORTANT PRECAUTIONS—NATIVE GRASSES

- Grass species or varieties may differ in their response to various herbicides. If no information is available, limit the initial use of ESCORT® XP to a small area. Components in a grass seed mixture will vary in tolerance to ESCORT® XP, so the final stand may not reflect the seed ratio.
- Under certain conditions such as heavy rainfall, high pH, prolonged cold weather, or wide fluctuations in day/night temperatures prior to or soon after ESCORT® XP application, temporary discoloration and/or grass injury may occur. Injury may result when ESCORT® XP is applied to grass that is stressed by severe weather conditions, drought, low fertility, water-saturated soils, disease, or insect damage. Severe winter stress, drought, disease, or insect damage before or following application also may result in grass injury.

GRASS REPLANT INTERVALS

Following an application of ESCORT® XP to non-crop areas, the treated sites may be replanted with various species of grasses at the intervals listed below.

For soils with a pH of 7.5 or less, observe the following replant intervals:

Species	Rate (ounces per acre)	Replant Interval (months)
Brome, Meadow	1/2—1	2
	1—2	3
Brome, Smooth	1/2—1	2
	1—2	4
Fescue, Alta	1/2—1	2
	1—2	4
Fescue, Red	1/2—1	2
	1—2	4
Fescue, Sheep	1/2—1	1
	1—2	4
Foxtail, Meadow	1/2—1	2
	1—2	4
Green Needlegrass	1/2—2	1
Orchardgrass	1/2—1	2
	1—2	4
Russian wildrye	1/2—1	1
	1	2
	2	3
Switchgrass	1/2—1	1
	1—2	3
Timothy	1/2—1	2
	1—2	4
Wheatgrass, Western	1/2—1	2
	1—2	3

For soils with a pH of 7.5 or greater observe the following replant intervals:

Species	Rate (ounces per acre)	Replant Interval (months)
Alkali Sacaton	1/2—1	1
	1—2	3
Bluestem, Big	1/2—2	3
Brome, Mountain	1/2—1	1
	1—2	2
Grama, Blue	1/2—2	1
Grama, Sideoats	1/2	2
	>1/2	>3
Switchgrass	1/2	2
	>1/2	>3
Wheatgrass, Thickspike	1/2—2	1
Wheatgrass, Western	1—2	2
	1/2—1	3

The specified intervals are for applications made in the Spring to early Summer. Because DuPont™ ESCORT® XP degradation is slowed by cold or frozen soils, applications made in the late Summer or Fall should consider the intervals as beginning in the Spring following treatment.

Testing has indicated that there is considerable variation in response among the species of grasses when seeded into areas treated with ESCORT® XP. If species other than those listed above are to be planted into areas treated with ESCORT® XP, a field bioassay must be performed, or previous experience may be used, to determine the feasibility of replanting treated sites.

ADDITIONAL GRASS INFORMATION

APPLICATION INFORMATION FOR GRASS ESTABLISHMENT

ESCORT® XP may be used for the control or suppression of broadleaf weeds to aid in the establishment of the following perennial native or improved grasses:

Blue Grama
Bluestems –
big
little
plains
sand
WW spar
Buffalograss
Green sprangletop
Kleingrass
Lovegrassess –
atherstone
sand
weeping
wilman
Orchardgrass
Sideoats grama
Switchgrass –
blackwell
Wheatgrasses –
bluebunch
crested
intermediate
pubescent
Siberian
slender
steambank
tall
thickspike
Western
Wildrye grass –
Russian

Maximize potential for grass establishment by consulting with the Natural Resource and Conservation Service of other government agencies or local experts concerning planting techniques and other cultural practices.

Performance from ESCORT® XP may not always be satisfactory due to the inability of newly planted grass stands to sufficiently compete with weeds, and the severity of weed pressure in new grass stands.

An additional herbicide application or mowing may be needed.

Use Rates and Application Timing for Grass Establishment Preplant (prior to planting) or Preemergence (after planting but before grass emergence)

Do not use more than 1/10 ounce per acre of ESCORT® XP for grass establishment.

Apply ESCORT® XP at 1/10 ounce per acre on all labeled grasses except orchardgrass and Russian wildrye grass. Do not apply ESCORT® XP preplant or preemergence to orchardgrass and Russian wildrye grass as severe crop injury may result.

Early postemergence to new plantings

Apply ESCORT® XP at 1/10 ounce per acre, plus a non-ionic surfactant at the rate of 2 to 4 pints per 100 gallons of spray solution on all labeled grasses anytime after grass emergence.

Do not use a spray adjuvant other than non-ionic surfactant.

Because grass species differ in time of emergence, apply only after the majority of grasses are in the 3 to 4 leaf stage.

Postemergence to stands with 1 – 5 leaf grasses planted the previous season

Apply DuPont™ ESCORT® XP at 1/10 ounce per acre plus a non-ionic surfactant at the rate of 2 to 4 pints per 100 gallons of spray solution, on all labeled grasses when the majority of the grasses have one or more leaves.

Do not use a spray adjuvant other than non-ionic surfactant.

APPLICATION INFORMATION FOR ESTABLISHED GRASSES

Use Rates for Established Grasses

Apply up to 1 ounce ESCORT® XP per acre as a broadcast application to established grasses. For spot applications, use 1 ounce per 100 gallons of water. Do not apply more than 1 2/3 ounces of ESCORT® XP per acre per year.

Refer to the Weeds Controlled section of this label for a listing of the weeds controlled by ESCORT® XP and the appropriate use rate to obtain control.

Application Timing – Established Grasses

ESCORT® XP may be applied to established native grasses such as bluestems and grama, and on other established grasses such as bermudagrass, bluegrass, orchardgrass, bromegrass, fescue and timothy that were planted the previous growing season (or earlier) and are fully tillered, unless otherwise directed on this label. Specific application timing information on several of these grass species follows:

Grass	Minimum time from Grass establishment ESCORT® XP application
Bermudagrass	2 months
Bluegrass, bromegrass, Orchardgrass	6 months
Timothy	12 months
Fescue	24 months

Fescue and Timothy Precautions

When used on fescue and timothy grasses, ESCORT® XP may cause reduced first cutting yields due to temporary stunting, leaf yellowing, or seed head suppression. To help minimize these symptoms, follow the information below:

- Use the lowest labeled rate for the target weeds
- Tank mix 2,4-D with ESCORT® XP applications
- Apply ESCORT® XP at no more than 4/10 ounce per acre
- Make applications when the grasses are 5 to 6 inches tall in late summer or fall
- Use only a non-ionic surfactant at 1/2 pint per 100 gallons of spray solution
- When liquid nitrogen is the spray carrier, do not include the surfactant

Other Grasses:

Application of ESCORT® XP to Pensacola bahiagrass, ryegrass (Italian or perennial) and Garrison's creeping foxtail may cause severe injury to and/or loss of forage.

Varieties and species of forage grasses differ in their tolerance to herbicides. When using ESCORT® XP on a particular grass for the first time, limit use to a small area. In no injury occurs throughout the season, larger acreage may be treated the following season.

Broadleaf forage species, such as alfalfa and clover, are highly sensitive to ESCORT® XP and will be severely stunted or injured by ESCORT® XP.

CROP ROTATION

Before using ESCORT® XP, carefully consider your crop rotation plans and options.

Minimum Rotational Intervals

Minimum rotation intervals* are determined by the rate of breakdown of ESCORT® XP applied. ESCORT® XP breakdown in the soil is affected by soil pH, presence of soil microorganisms, soil temperature, and soil moisture. Low soil pH, high soil temperature, and high soil moisture increase ESCORT® XP breakdown in soil, while high soil pH, low soil temperature, and low soil moisture slow ESCORT® XP breakdown.

Of these 3 factors, only soil pH remains relatively constant. Soil temperature, and to a greater extent, soil moisture, can vary significantly from year to year and from area to area. For this reason, monitor soil temperature and soil moisture on a regular basis when considering any crop rotations.

* The minimum rotation interval represents the period of time from the last application to the anticipated date of the next planting.

Soil pH Limitations

ESCORT® XP must not be used on soils having a pH above 7.9, as extended soil residual activity could extend crop rotation intervals beyond normal. Under certain conditions, ESCORT® XP could remain in the soil for 34 months or more, injuring wheat and barley. In addition, other crops planted in high-pH soils can be extremely sensitive to low concentrations of ESCORT® XP.

Checking Soil pH

Before using DuPont™ ESCORT® XP, determine the soil pH of the areas of intended use. To obtain a representative pH value for the test area, take several 0" to 4" samples from different areas of the field and analyze them separately. Consult local extension publications for additional information on recommended soil sampling procedures.

BIOASSAY

A field bioassay must be completed before rotating to any crop or grass species/variety not listed in the Rotation Intervals Table, or if the soil pH is not in the specified range, or if the use rate applied is not specified in the table.

To conduct a field bioassay, grow test strips of the crop(s) orgrass(es) you plan to grow the following year in fields previously treated with ESCORT® XP. Crop or grass response to the bioassay will indicate whether or not to rotate to the crop(s) or grass(es) grown in the test strips.

If a field bioassay is planned, check with your local Agricultural dealer or DuPont representative for information detailing the field bioassay procedure.

IMPORTANT PRECAUTIONS

- Grass species or varieties may differ in their response to various herbicides. If no information is available, limit the initial use of ESCORT® XP to a small area.
- Components in a grass seed mixture will vary in tolerance to ESCORT® XP so the final stand may not reflect the seed ratio.
- Under certain conditions such as heavy rainfall, high pH, prolonged cold weather, or wide fluctuations in day/night temperatures prior to or soon after ESCORT® XP application, temporary discoloration and/or grass injury may occur. ESCORT® XP applied to grass that is stressed by severe weather conditions, drought, low fertility, water-saturated soils, disease, or insect damage can result in grass injury. Severe winter stress, drought, disease, or insect damage before or following application also may result in grass injury.
- Applications of ESCORT® XP to lands undersown with legumes may cause injury to the legumes. Legumes in a seeding mixture may be severely injured or killed following an application of ESCORT® XP.
- The control of weeds in wheel track areas may be reduced if ground applications are made when dry, dusty field conditions exist. The addition of 2,4-D or MCPA may improve weed control under these conditions.

WEEDS CONTROLLED

1/3 to 1/2 ounce per acre

Annual sowthistle
Aster
Bahiagrass
Beebalm
Bittercress
Bitter sneezeweed
Blackeyed-susan
Blue mustard
Bur buttercup
Chicory
Clover
Cocklebur
Common chickweed
Common groundsel
Common purslane
Common yarrow
Conical catchfly
Corn cockle
Cow cockle
Crown vetch
Dandelion
Dogfennel
False chamomile
Fiddleneck tarweed
Field pennycress
Flixweed
Goldenrod
Lambsquarters
Marestail/horseweed****
Maximillion sunflower
Miners lettuce
Pennsylvania smartweed
Plains coreopsis
Plantain
Redroot pigweed
Redstem filaree
Rough fleabane
Shepherd's purse
Silky crazyweed (locoweed)
Smallseed falseflax
Smooth pigweed
Sweet clover
Tansymustard
Treacle mustard
Tumble mustard
Wild carrot
Wild garlic
Wild lettuce
Wild mustard
Wooly croton
Wood sorrel
Yankeweed

1/2 to 1 ounce per acre

Blackberry
Black henbane
Broom snakeweed*
Buckhorn plantain
Bull thistle
Common crupina
Common sunflower
Curly dock
Dewberry
Dyer's woad
Garlic mustard
Gorse
Halogeton
Henbit
Honeysuckle
Multiflora rose and other wild roses
Musk thistle***
Oxeye daisy
Plumeless thistle
Prostrate knotweed
Rosering gaillardia
Seaside arrowgrass
Sericea lespedeza
Tansy ragwort
Teasel
Wild caraway

1 to 2 ounces per acre

Common mullein
Common tansy
Field bindweed**
Greasewood
Gumweed
Houndstongue
Lupine
Old world climbing fern (Lygodium)
Perennial pepperweed
Poison hemlock
Purple loosestrife
Purple scabious
Scotch thistle
Scouringrush
Salsify
Snowberry
St. Johnswort
Sulphur cinquefoil
Western salsify
Whitetop (hoary cress)
Wild Iris

1 1/2 to 2 ounces per acre

Canada thistle**
Dalmation toadflax**
Duncecap larkspur
Russian knapweed**
Tall larkspur
Wild parsnip
Yellow toadflax**

2 ounces per acre

Onionweed

3 to 4 ounces per acre

Kudzu

* Apply fall through spring.

** Suppression, which is a visual reduction in weed competition (reduced population or vigor) as compared to untreated areas. Apply as a full coverage spray for best performance.

*** Certain biotypes of musk thistle are more sensitive to DuPont™ ESCORT® XP and may be controlled with rates of 1/4 to 1/2 ounce per acre. Treatments of ESCORT® XP may be applied from rosette through bloom stages of development.

****Certain biotypes of marestail/horsetail are less sensitive to ESCORT® XP and may be controlled by tank mixes with herbicides with a different mode of action.

Problem Weed Control

For broader spectrum control and for use on certain biotypes of broadleaf weeds which may be resistant to ESCORT® XP and herbicides with the same mode of action, the following tank mixes may be used.

Dicamba + 2,4-D

Weed	Rate of ESCORT® XP	Rate of dicamba (fluid ounces/acre)	Rate of 2,4-D (fluid ounces/acre)
Kochia control	1/2	8	16
Spotted knapweed control	1/2	8	16
Rush skeletonweed suppression	1	8	16

INDUSTRIAL TURFGRASS UNIMPROVED ONLY

Application Information

ESCORT® XP is registered for selective weed control in unimproved industrial turfgrass where certain grasses are well established and desired as ground cover. ESCORT® XP may also be used for the control of certain noxious and troublesome weeds in turfgrass.

In addition to conventional spray equipment, ESCORT® XP may also be applied with invert emulsion equipment. When using an invert emulsion, mix the prescribed rate of ESCORT® XP in the water phase.

Consult the "Weeds Controlled" table to determine which weeds will be controlled by the following application rates:

Turfgrass Type	Rate of DuPont™ ESCORT® XP (ounces/acre)
Fescue and Bluegrass	1/4 to 1/2
Crested Wheatgrass and Smooth Brome	1/4 to 1
Bermudagrass	1/4 to 2

Application Timing

Applications may be made at anytime of the year, except when the soil is frozen.

When a spring application is made on fescue or bluegrass, a second application may be made during the summer after full seedhead maturation.

Growth Suppression and Seedhead Inhibition

(Chemical Mowing)

Application Information

ESCORT® XP may be used for growth suppression and seedhead inhibition in well established fescue and bluegrass turfgrass at the use rate of 1/4 to 1/2 ounce per acre.

Tank Mix Combination

ESCORT® XP may be tank mixed with "Embark" for improved performance in the regulation of growth and seedhead suppression. Tank mix 1/4 to 1/2 ounce of ESCORT® XP with 1/8 to 1/4 pint of "Embark".

Application Timing

Application may be made after at least 2 to 3 inches of new growth has emerged until the appearance of the seed stalk.

IMPORTANT PRECAUTIONS —INDUSTRIAL TURFGRASS ONLY

- An application of ESCORT® XP may cause temporary discoloration (chlorosis) or stunting of the turfgrasses. Use the lower specified rates for minimum discoloration or stunting.
- With fescue and bluegrass, sequential applications made during the same or consecutive growth periods (i.e. spring and fall) may result in excessive injury to turfgrass.
- Excessive injury may result when ESCORT® XP is applied to turfgrass that is under stress from drought, insects, disease, cold temperatures (winter injury) or poor fertility.
- ESCORT® XP is not recommended for use on bahiagrass.

BRUSH CONTROL

Application Information

ESCORT® XP is registered for the control of undesirable brush growing in non-crop areas including grazed areas on these sites. Applications may be made by air, high volume ground application, low volume ground application and ultra-low volume ground application. Except as noted for multiflora rose, ESCORT® XP must be applied as a spray to the foliage.

The application volume required will vary with the height and density of the brush and the application equipment used. Generally, aerial applications will require 15 to 25 gallons of water per acre; high volume ground application will require 100 to 400 gallons of water per acre; low volume ground application will require 20 to 50 gallons of water per acre; and ultra-low volume ground application will require 10 to 20 gallons of water per acre.

Regardless of the application volume and equipment used, thorough coverage of the foliage, particularly the terminal growing points, is necessary to optimize results.

BRUSH SPECIES CONTROLLED

Species	High Volume Rate (ounces/100 gallon)	Broadcast Rate (ounces/acre)
Ash	1—2	1—3
Aspen	1—2	1—3
Black locust	1—2	1—3
Blackberry	1—2	1—3
Camelthorn	1—2	1—3
Cherry	1—2	1—3
Cottonwood	1—2	2—3
Eastern red cedar	1—2	2—3
Elder	1—2	2—3
Elm	1—2	1—3
Firs	3	1—2
Hawthorn	1—2	1—3
Honeysuckle	1—2	1/2—1
Mulberry	1—2	2—3
Multiflora rose	1—2	1—3
Muscadine (wild grape)	1—2	2—3
Oaks	1—2	1—3
Ocean spray (*Holodiscus*)	1—2	2—3
Osage orange	1—2	2—3
Red maple	1—2	2—3
Salmonberry	1/2—1	1—3
Snowberry	1/2—1	1—3
Spruce (black and white)	3	2—3
Thimbleberry	1/2—1	1—3
Tree of heaven (*Ailanthus*)	1—2	1—2
Wild roses	1/2—1	1—3
Willow	1/2—1	1—3
Yellow poplar	1/2—1	1—3

For low volume and ultra-low volume ground applications, mix 4 to 8 ounces of DuPont™ ESCORT® XP per 100 gallons of spray solution.

Application Timing

Make a foliar application of the specified rate of ESCORT® XP during the period from full leaf expansion in the spring until the development of full fall coloration on deciduous species to be controlled. Coniferous species may be treated at anytime during the growing season.

Spot Treatment

ESCORT® XP may be used for the control of many species of weeds including noxious/invasive weeds in certain established grasses growing on non-crop areas.

Refer to the "Weeds Controlled" section for a listing of susceptible weed species and the application rate per acre per the target weed.

Or, mix one gram of ESCORT® XP per one gallon of water along with a surfactant. Spray to the point of wetting the entire surface of the target weeds, approximately 40 gallons of solution per acre.

Tank Mix Combinations—

ESCORT® XP may be tank mixed with any product labeled for non-crop brush control at the application rates specified on the companion product's label for the pests specified on the product's companion label. Read and follow the label instructions of both products when tank mixing. Follow the most restrictive limitations of any of the product labels being tank mixed.

Low Rate Applications

Imazapyr (2 pound active per gallon)

Combine 1 to 2 ounces of ESCORT® XP with 1 to 4 pints of imazapyr herbicide per acre and apply as a broadcast spray. For aerial applications use a minimum of 15 gallons per acre spray volume. In addition to species listed above controlled by ESCORT® XP, this combination controls black gum, hophornbeam, sassafras, sweetgum, Vaccinium species, dogwood, myrtle dahoon, hickories, and persimmon.

Picloram (2 pound active per gallon) + Imazapyr (2 pound active per gallon)

Combine 1 to 1 1/2 ounce of ESCORT® XP with 2 to 8 fluid ounces of imazapyr and 1 to 2 pints of picloram per 100 gallons of water. Apply as a high volume spray. This tank mix controls cherry, elms, box elder, maples, hackberry, redbud, ash, oaks (including shingle oak), black locust and sassafras.

*Picloram is a restricted use pesticide.

Spotgun Basal Soil Treatment

For control of multiflora rose, prepare a spray suspension of DuPont™ ESCORT® XP by mixing 1 ounce per gallon of water. Mix vigorously until the ESCORT® XP is dispersed and agitate periodically while applying the spray suspension.

Apply the spray preparation with an exact delivery handgun applicator. Apply at the rate of 4 milliliters for each 2 feet of rose canopy diameter. Direct the treatment to the soil within 2 feet of the stem union. When treating large plants and more than one delivery is required, make applications on opposite sides of the plant.

For best results, make applications from early spring to summer.

IMPORTANT PRECAUTIONS —NON-CROP BRUSH ONLY

- When using tank mixtures of ESCORT® XP with companion herbicides, read and follow all use instructions, application rates, warnings and precautions appearing on the labels. Follow the most restrictive label instructions for each of the herbicides used.

SPRAY EQUIPMENT

Low rates of ESCORT® XP can kill or severely injure most crops. Following an ESCORT® XP application, the use of spray equipment to apply other pesticides to crops on which ESCORT® XP is not registered may result in their damage. The most effective way to reduce this crop damage potential is to use dedicated mixing and application equipment.

MIXING INSTRUCTIONS

1. Fill the tank 1/4 to 1/3 full of water.
2. While agitating, add the required amount of ESCORT® XP.
3. Continue agitation until the ESCORT® XP is fully dispersed, at least 5 minutes.
4. Once the ESCORT® XP is fully dispersed, maintain agitation and continue filling tank with water. ESCORT® XP must be thoroughly mixed with water before adding any other material.
5. As the tank is filling, add tank mix partners (if desired) then add the necessary volume of nonionic surfactant. Always add surfactant last.
6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
7. ESCORT® XP spray preparations are stable if they are pH neutral or alkaline and stored at or below 100° F.
8. If ESCORT® XP and a tank mix partner are to be applied in multiple loads, pre-slurry the ESCORT® XP in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of the ESCORT® XP.

PRODUCT PRECAUTIONS

- When used as directed, there is no grazing or haying restriction for use rates of 1 2/3 ounce per acre or less. At use rates greater than 1 2/3 ounce per acre and up to 3 1/3 ounce per acre, forage grasses may be cut for hay, fodder or green forage and fed to livestock, including lactating animals, 3 days after treatment.
- Injury to or loss of desirable trees or other plants may result if spray equipment is drained or flushed on or near these trees or plants, or on areas where their roots may extend, or in locations where the product may be washed or moved into contact with their roots.
- Treatment of powdery, dry soil or light, sandy soil when there is little likelihood of rainfall soon after treatment may result in off target movement and possible damage to susceptible crops when soil particles are moved by wind or water. Injury to crops may result if treated soil is washed, blown, or moved onto land used to produce crops. Exposure to ESCORT® XP may injure or kill most crops. Injury may be more severe when the crops are irrigated. Do not apply ESCORT® XP when these conditions are identified and powdery, dry soil or light or sandy soils are known to be prevalent in the area being treated.
- Applications made where runoff water flows onto agricultural land may injure crops. Applications made during periods of intense rainfall, to soils saturated with water, to surfaces paved with materials such as asphalt or concrete, or to soils through which rainfall will not readily penetrate may result in runoff and movement of ESCORT® XP.
- Do not treat frozen or snow covered soil.
- Leave treated soil undisturbed to reduce the potential for ESCORT® XP movement by soil erosion due to wind or water.

PRODUCT RESTRICTIONS

- Do not use on lawns, walks, driveways, tennis courts or similar areas.
- Do not apply through any type of irrigation system.
- Do not use this product in the following counties of Colorado: Saguache, Rio Grande, Alamosa, Costilla and Conejos.
- Do not use this product in California.

SPRAYER CLEANUP

Spray equipment must be cleaned before DuPont™ ESCORT® XP is sprayed. Follow the cleanup procedures specified on the labels of previously applied products. If no directions are provided, follow the six steps outlined below.

When multiple loads of ESCORT® XP herbicide are applied, it is recommended that at the end of each day of spraying, the interior of the tank be rinsed with fresh water and then partially filled, and the boom and hoses flushed. This will prevent the buildup of dried pesticide deposits that can accumulate in the application equipment.

1. Drain tank; thoroughly rinse spray tanks, boom, and hoses with clean water. Loosen and physically remove any visible deposits.
2. Fill the tank with clean water and 1 gallon of ammonia (contains 3% active minimum) for every 100 gallons of water. Flush the hoses, boom, and nozzles with the cleaning solution. Then add more water to completely fill the tank. Circulate the cleaning solution through the tank and hoses for at least 15 minutes. Flush the hoses, boom, and nozzles again with the cleaning solution, and then drain the tank.
3. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
4. Repeat step 2.
5. Rinse the tank, boom, and hoses with clean water.
6. Dispose of the rinsate on a labeled site or at an approved waste disposal facility. If a commercial cleaner is used follow the commercial cleaner directions for rinsate disposal.

Notes:

1. Mixing chlorine bleach with ammonia can cause dangerous gases to form. Clean spray equipment outdoors.
2. Use steam cleaning or other commercial cleaners to facilitate the removal of any caked pesticide deposits.
3. When ESCORT® XP is tank mixed with other pesticides, all cleanout procedures for each product must be examined and the most rigorous procedure must be followed.
4. In addition to this cleanout procedure, all pre-cleanout guidelines on subsequently applied products must be followed as per the individual product labels.

SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions. Avoiding spray drift is the responsibility of the applicator.

IMPORTANCE OF DROPLET SIZE

The most effective drift management strategy is to apply the largest droplets which are consistent with pest control objectives. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly or under unfavorable environmental conditions.

A droplet size classification system describes the range of droplet sizes produced by spray nozzles. The American Society of Agricultural and Biological Engineers (ASABE) provide a Standard that describes droplet size spectrum categories defined by a number of reference nozzles (fine, coarse, etc.). Droplet spectra resulting from the use of a specific nozzle may also be described in terms of volume mean diameter (VMD). Coarser droplet size spectra have larger VMD's and lower drift potential.

Controlling Droplet Size - General Techniques

- Nozzle Type - Select a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. The use of low-drift nozzles will reduce drift potential.
- Pressure - The lowest spray pressures recommended for the nozzle produce the largest droplets. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, using a higher-capacity nozzle instead of increasing pressure results in the coarsest droplet spectrum.
- Flow Rate/Orifice Size - Using the highest flow rate nozzles (largest orifice) that are consistent with pest control objectives reduces the potential for spray drift. Nozzles with higher rated flows produce coarser droplet spectra.

Controlling Droplet Size - Aircraft

- Nozzle Type - Solid stream, or other low drift nozzles produce the coarsest droplet spectra.
- Number of Nozzles - Using the minimum number of nozzles with the highest flow rate that provide uniform coverage will produce a coarser droplet spectrum
- Nozzle Orientation - Orienting nozzles in a manner that minimizes the effects of air shear will produce the coarsest droplet spectra. For some nozzles such as solid stream, pointing the nozzles straight back parallel to the airstream will produce a coarser droplet spectrum than other orientations.
- Pressure – Selecting the pressure that produces the coarsest droplet spectrum for a particular nozzle and airspeed reduces spray drift potential. For some nozzle types such as solid streams, lower pressures can produce finer droplet spectra and increase drift potential

BOOM LENGTH (AIRCRAFT), AND APPLICATION HEIGHT

- Boom Length (aircraft) - Using shorter booms decreases drift potential. Boom lengths are expressed as a percentage of an aircraft's wingspan or a helicopter's rotor blade diameter. Shorter boom length and proper positioning can minimize drift caused by wingtip or rotor vortices.
- Application Height (aircraft) - Applications made at the lowest height that are consistent with pest control objectives and the safe operation of the aircraft will reduce the potential for spray drift.
- Application Height (ground) - Applications made at the lowest height consistent with pest control objectives, and that allow the applicator to keep the boom level with the application site and minimize bounce, will reduce the exposure of spray droplets to evaporation and wind, and reduce spray drift potential.

WIND

Drift potential is lowest when applications are made in light to gentle sustained winds (2-10 mph), which are blowing in a constant direction. Many factors, including droplet size and equipment type also determine drift potential at any given wind speed. AVOID GUSTY OR WINDLESS CONDITIONS.

Local terrain can also influence wind patterns. Every applicator is expected to be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

Setting up equipment to produce larger droplets to compensate for droplet evaporation can reduce spray drift potential. Droplet evaporation is most severe when conditions are both hot and dry.

SURFACE TEMPERATURE INVERSIONS

Drift potential is high during a surface temperature inversion. Surface inversions restrict vertical air mixing, which may cause small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Surface inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Mist or fog may indicate the presence of an inversion in humid areas. Inversions may also be identified by producing smoke and observing its behavior. Smoke that remains close to the ground, or moves laterally in a concentrated cloud under low wind conditions indicates a surface inversion. Smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are minimizing drift potential, and not interfering with uniform deposition of the product.

AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, that it is configured properly, and that drift potential has been minimized.

Note: Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Read the specific crop use and application equipment instructions to determine if an air assisted field crop sprayer can be used.

SENSITIVE AREAS

Making applications when there is a sustained wind moving away from adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is an effective way to minimize the effect of spray drift.

DRIFT CONTROL ADDITIVIES

Using product compatible drift control additives can reduce drift potential. When a drift control additive is used, read and carefully observe cautionary statements and all other information on the additive's label. If using an additive that increases viscosity, ensure that the nozzles and other application equipment will function properly with a viscous spray solution. Preferred drift control additives have been certified by the Chemical Producers and Distributors Association (CPDA).

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store product in original container only. Store in a cool, dry place.

Pesticide Disposal: Waste resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling:

Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation.

Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC) or Fiber Drums With Liners: Nonrefillable container. Do not reuse or refill this container. Completely empty paper or plastic bag, fiber sack or drum liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer for recycling if available or dispose of empty paper or plastic bag, fiber sack or fiber drum and liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Refillable Fiber Drums With Liners: Refillable container (fiber drum only). Refilling Fiber Drum: Refill this fiber drum with DuPont™ ESCORT® XP containing metsulfuron methyl only. Do not reuse this fiber drum for any other purpose. Cleaning before refilling is the responsibility of the refiller. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Disposing of Fiber Drum and/or Liner: Do not reuse this fiber drum for any other purpose other than refilling (see preceding). Cleaning the container (liner and/or fiber drum) before final disposal is the responsibility of the person disposing of the container. Offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. To clean the fiber drum before final disposal, completely empty the fiber drum by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the fiber drum for recycling if available or dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

All Other Refillable Containers: Refillable container. Refilling Container: Refill this container with DuPont™ ESCORT® XP containing metsulfuron methyl only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. If damage is found, do not use the container, contact DuPont at the number below for instructions. Check for leaks after refilling and before transporting. If leaks are found, do not reuse or transport container, contact DuPont at the number below for instructions. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Outer Foil Pouches of Water Soluble Packets (WSP): Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or, dispose of the empty outer foil pouch in the trash as long as WSP is unbroken. If the outer pouch contacts the formulated product in any way, the pouch must be triple rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer pouch as described previously.

Do not transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact DuPont at 1-800-441-3637, day or night.

NOTICE TO BUYER: Purchase of this material does not confer any rights under patents of countries outside of the United States.

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LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read this Limitation of Warranty and Liability Before Buying or Using This Product. If the Terms Are Not Acceptable, Return the Product at Once, Unopened, and the Purchase Price Will Be Refunded.

It is impossible to eliminate all risks associated with the use of this product. Such risks arise from weather conditions, soil factors, off target movement, unconventional farming techniques, presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of DuPont. These risks can cause: ineffectiveness of the product, crop injury, or injury to non-target crops or plants. WHEN YOU BUY OR USE THIS PRODUCT, YOU AGREE TO ACCEPT THESE RISKS.

DuPont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purpose stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, DUPONT MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL DUPONT OR SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. BUYER'S OR USER'S BARGAINED-FOR EXPECTATION IS CROP PROTECTION. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER AND THE EXCLUSIVE LIABILITY OF DUPONT OR SELLER, FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, TORT OR STRICT LIABILITY), WHETHER FROM FAILURE TO PERFORM OR INJURY TO CROPS OR OTHER PLANTS, AND RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT, OR AT THE ELECTION OF DUPONT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

To the extent consistent with applicable law that allows such requirement, DuPont or its Ag Retailer must have prompt notice of any claim so that an immediate inspection of buyer's or user's growing crops can be made. Buyer and all users shall promptly notify DuPont or a DuPont Ag Retailer of any claims, whether based on contract, negligence, strict liability, other tort or otherwise, or be barred from any remedy.

This Limitation of Warranty and Liability may not be amended by any oral or written agreement.

For product information call: 1-888-6-DUPONT [1-888-638-7668]
Internet address: http://cropprotection.dupont.com/

Specimen Label

Dow AgroSciences

Milestone®

Specialty Herbicide

®Trademark of Dow AgroSciences LLC

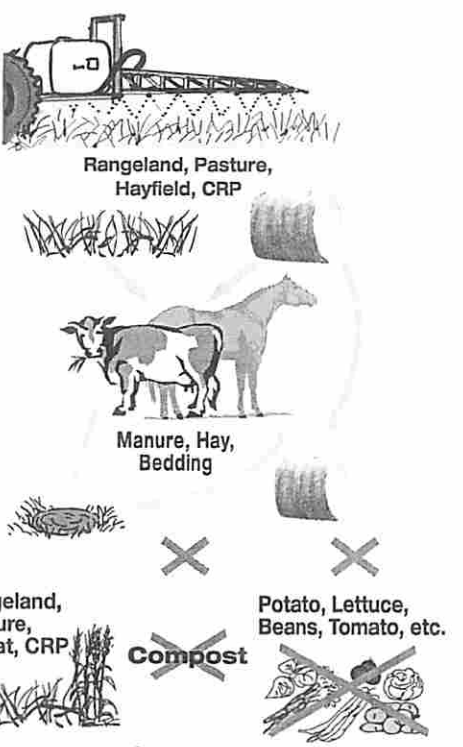
- **For control of susceptible weeds and certain woody plants, including invasive and noxious weeds, on rangeland, permanent grass pastures (including grasses grown for hay*), Conservation Reserve Program (CRP) acres, non-cropland areas including industrial sites, rights-of-way (such as roadsides, electric utility and communication transmission lines, pipelines, and railroads), non-irrigation ditch banks, natural areas (such as wildlife management areas, wildlife openings, wildlife habitats, recreation areas, campgrounds, trailheads and trails), and grazed areas in and around these sites.**

***Hay from grass treated with Milestone within the preceding 18-months can only be used on the farm or ranch where the product is applied unless allowed by supplemental labeling**

IMPORTANT USE PRECAUTIONS AND RESTRICTIONS TO PREVENT INJURY TO DESIRABLE PLANTS

- Carefully read the section ***"Restrictions in Hay or Manure Use ."***
- It is mandatory to follow the ***"Use Precautions and Restrictions"*** section of this label.
- Manure and urine from animals consuming grass or hay treated with this product may contain enough aminopyralid to cause injury to sensitive broadleaf plants.
- Hay can only be used on the farm or ranch where product is applied unless allowed by supplemental labeling.
- Consult with a Dow AgroSciences representative if you do not understand the "Use Precautions and Restrictions". **Call [1-(800) 263-1196] Customer Information Group.**

Forage and Manure Management



Not For Sale, Distribution, or Use in New York State.

GROUP	4	HERBICIDE

Active Ingredient:

Triisopropanolammonium salt of 2-pyridine carboxylic acid, 4-amino-3,6-dichloro-	40.6%
Other Ingredients	59.4%
Total	100.0%

Acid Equivalent: aminopyralid (2-pyridine carboxylic acid, 4-amino-3, 6-dichloro-) - 21.1% - 2 lb/gal

Container Use Directions

1 - Tip

Tilt container to angle as shown and fill head to desired amount – use vertical scale for measuring. Container should be closed.

2 - Level

Hold container up-right and check the amount for accuracy. Add or subtract as needed, using pour-back scale as guide.

3 - Dispense

Remove cap on head and pour into sprayer or other devices. No fluid will pour from the main container. Replace cap for storage in sealed condition.

Precautionary Statements

Hazards to Humans and Domestic Animals

EPA Reg. No. 62719-519

CAUTION

Causes Moderate Eye Irritation

Avoid contact with eyes or clothing.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

First Aid

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Environmental Hazards

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Directions for Use

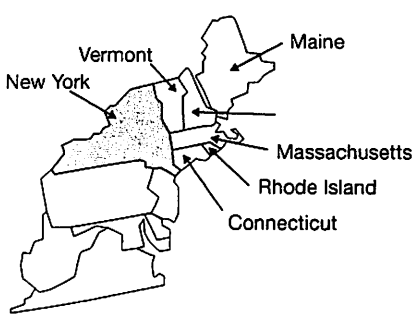
It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Not For Sale, Distribution, or Use in New York State.

Not for use on pastures in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. All other labeled uses are permitted in these states including grazed areas in and around these sites.



Light grey = states where use in pastures is not permitted
Dark grey = NY where the product is not registered

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material as polyethylene or polyvinyl chloride
- Shoes plus socks
- Protective eyewear

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for Agricultural Pesticides (40 CFR Part 170). The WPS does not pertain to non-agricultural use on sites, such as, rangeland, permanent grass pastures, or non-cropland. See the Agricultural Use Requirements section below for information where the WPS applies.

Entry Restrictions for Non-WPS Uses: For applications on rangeland and permanent grass pastures (not harvested for hay) and non-cropland areas, do not enter or allow worker entry into treated areas until sprays have dried.

Storage and Disposal

Do not contaminate water, food, feed or fertilizer by storage or disposal. Open dumping is prohibited.

Pesticide Storage: If this product is exposed to subfreezing temperatures, the active ingredient may crystallize and settle out of solution. Under these conditions the product should be warmed to at least 40°F and agitated well to dissolve any crystallized active ingredient prior to use.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Nonrefillable containers 5 gallons or less:

Container Handling: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable containers larger than 5 gallons:

Container Handling: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Storage and Disposal (Cont.)

Nonrefillable containers larger than 5 gallons:
Container Handling: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.
Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Resistance Management Guidelines

- Development of plant populations resistant to this herbicide mode of action is usually not a problem on rangeland, permanent grass pastures, Conservation Reserve Program (CRP), or non-cropland sites since these sites receive infrequent pesticide applications.
- In croplands, use an effective integrated pest management (IPM) program, integrating tillage or other mechanical methods, crop rotation or other cultural control methods into weed control programs whenever practical.
- Similar looking biotypes of a given weed species occurring in a treated area may vary in their susceptibility to a herbicide. Application of a herbicide below its labeled rate may allow more tolerant weeds to survive and a shift to more tolerant biotypes within the treated area.
- Where identified, spreading of resistant weeds to other fields may be prevented by cleaning harvesting and tillage equipment before moving to other areas and by planting weed-free seed.
- Contact your extension specialist, certified crop consultant, or Dow AgroSciences representative for the latest resistance management information.

Rangeland, Permanent Grass Pastures, CRP Acres, Non-Cropland Areas, Non-Irrigation Ditch Banks, Natural Areas, and Grazed Areas In and Around These Sites

Milestone® specialty herbicide may be applied by aerial or ground equipment to control susceptible broadleaf weeds and certain woody plants, including invasive and noxious weeds on rangeland, permanent grass pastures (including grasses grown for hay*), CRP acres, non-cropland areas including industrial sites, rights-of-way (such as roadsides, electric utility and communication transmission lines, pipelines, and railroads), non-irrigation ditch banks, natural areas (such as wildlife management areas, wildlife openings, wildlife habitats, recreation areas, campgrounds, trailheads and trails), and grazed areas in and around these sites without injury to most grasses.

***Hay from grass treated with Milestone within the preceding 18-months can only be used on the farm or ranch where the product is applied unless allowed by supplemental labeling.**

It is permissible to treat non-irrigation ditch banks, seasonally dry wetlands (such as flood plains, deltas, marshes, swamps, or bogs) and transitional areas between upland and lowland sites. Milestone can be used to the waters edge. Do not apply directly to water and take precautions to minimize spray drift onto water.

Use Precautions and Restrictions

Consult with a Dow AgroSciences representative if you do not understand the "Use Precautions and Restrictions." Call (1-800-263-1196) for more information.

Pasture and Rangeland Restrictions

- **Do not use grasses treated with Milestone in the preceding 18-months for hay intended for export outside the United States.**
- **Hay from areas treated with Milestone in the preceding 18-months CAN NOT be distributed or made available for sale off the farm or ranch where harvested unless allowed by supplemental labeling.**
- **Hay from areas treated with Milestone in the preceding 18-months CAN NOT be used for silage, haylage, baylage and green chop unless allowed by supplemental labeling.**
- **Do not move hay made from grass treated with Milestone within the preceding 18-months off farm unless allowed by supplemental labeling.**
- **Do not use hay or straw from areas treated with Milestone within the preceding 18-months or manure from animals feeding on hay treated with Milestone in compost.**
- **Do not use grasses treated with Milestone in the preceding 18-months for seed production.**

Maximum Application Rate: On all labeled use sites do not broadcast apply more than 7 fl oz per acre of Milestone per year. The total amount of Milestone applied broadcast, as a re-treatment, and/or spot treatment cannot exceed 7 fl oz per acre per year. Spot treatments may be applied at an equivalent broadcast rate of up to 0.22 lb acid equivalent (14 fl oz of Milestone) per acre per annual growing season; however, not more than 50% of an acre may be treated at that rate. Do not apply more than a total of 0.11 lb acid equivalent (7 fl oz) per acre of Milestone per annual growing season as a result of broadcast, spot or repeat applications.

- **Avoiding Injury to Non-Target Plants:** Do not aerially apply Milestone within 50 feet of a border downwind (in the direction of wind movement), or allow spray drift to come in contact with, any broadleaf crop or other desirable broadleaf plants, including, but not limited to, alfalfa, cotton, dry beans, flowers, grapes, lettuce, potatoes, radishes, soybeans, sugar beets, sunflowers, tobacco, tomatoes or other broadleaf or vegetable crop, fruit trees, ornamental plants, or soil where sensitive crops are growing or will be planted. Avoid application under conditions that may allow spray drift because very small quantities of spray may seriously injure susceptible crops. Read and consider the "Precautions for Avoiding Spray Drift and Spray Drift Advisory" at the end of this label to help minimize the potential for spray drift.
- **Milestone is highly active against many broadleaf plant species.** Do not use this product on areas where loss of broadleaf plants, including legumes, cannot be tolerated.
- **Chemigation:** Do not apply this product through any type of irrigation system.
- **Do not contaminate water intended for irrigation or domestic purposes.** Do not treat inside banks or bottoms of irrigation ditches, either dry or containing water, or other channels that carry water that may be used for irrigation or domestic purposes.
- Do not apply this product to lawns, turf, ornamental plantings, urban walkways, driveways, tennis courts, golf courses, athletic fields, commercial sod operations, or other high-maintenance, fine turfgrass areas, or similar areas.
- Trees adjacent to or in a treated area can occasionally be affected by root uptake of Milestone. Do not apply Milestone within the root zone of desirable trees unless such injury can be tolerated. Use special caution near roses, and leguminous trees such as locusts, redbud, mimosa, and caragana.
- Applications made during periods of intense rainfall, to soils saturated with water, surfaces paved with materials such as asphalt or concrete, or soils through which rainfall will not readily penetrate may result in runoff and movement of Milestone. Injury to crops may result if treated soil and/or runoff water containing Milestone is washed, or moved onto land used to produce crops. Exposure to Milestone may injure or kill susceptible crops and other plants, such as grapes, soybeans, tobacco, sensitive ornamentals. Do not treat frozen soil where runoff could damage sensitive plants.
- **Grass revegetation:**
  - Milestone can be used to control broadleaf plants in grass revegetation programs where desirable rangeland or reclamation grass species are being established in rangeland, permanent grass pastures, CRP, non-cropland, or other areas. Consult Dow AgroSciences' literature for more details about Milestone applications and grass stand establishment.
- **Application before seeding grasses**
  - Milestone can be applied in the spring through fall to control broadleaf weeds prior to grass planting. Grasses can be seeded as a dormant planting (in the late fall or early winter) in the year

of application or grasses can be seeded the following spring. The grasses should be planted when soil temperatures are low enough to ensure that the seeds will not germinate and emerge until the following spring.

- **Postemergence applications on grass:** During the season of establishment, Milestone should be applied only after perennial grasses are well established (have developed a good secondary root system and show good vigor. Most perennial grasses are tolerant to Milestone at this stage of development. Milestone may suppress certain established grasses, such as smooth bromegrass (*Bromus inermis*), especially when plants are stressed by adverse environmental conditions. Plants should recover from this transient suppression with the onset of environmental conditions favorable to grass growth and upon release from weed competition.

- Grass seed germination and seedling development can be adversely effected by many factors such as seed viability and seedling vigor, soil condition (sub-optimal soil temperatures or soil water content), weather after planting, seedbed preparation and seed placement, disease, insects, or animals. Milestone applications will help to reduce competition from weeds and improve the chance for successful grass stand establishment. Some grass species are more sensitive to Milestone; consult Dow AgroSciences' literature for more details.

- **Seeding Legumes:** Do not plant forage legumes until a soil bioassay has been conducted to determine if aminopyralid concentration remaining in the soil will adversely affect the legume establishment.
  - **Grazing and Haying Restrictions:** There are no restrictions on grazing or grass hay harvest following application of Milestone at labeled rates. Cutting hay too soon after spraying weeds will reduce weed control. Wait 14 days after herbicide application to cut grass hay to allow herbicide to work. Do not transfer grazing animals from areas treated with Milestone to areas where sensitive broadleaf crops occur without first allowing 3 days of grazing on an untreated pasture. Otherwise, urine and manure may contain enough aminopyralid to cause injury to sensitive broadleaf plants.
  - **Grazing Poisonous Plants:** Herbicide application may increase palatability of certain poisonous plants. Do not graze treated areas until poisonous plants are dry and no longer palatable to livestock.
- **Restrictions in Hay or Manure Use:**
  - ♦ Do not use treated plant residues, including hay or straw from areas treated within the preceeding 18-months, in compost, mulch or mushroom spawn.
  - ♦ Do not use manure from animals that have grazed forage or eaten hay harvested from treated areas within the previous 3 days, in compost, mulch or mushroom spawn.
  - ♦ Do not spread manure from animals that have grazed or consumed forage or eaten hay from treated areas within the previous 3 days on land used for growing susceptible broadleaf crops.
  - ♦ Manure from animals that have grazed forage or eaten hay harvested from aminopyralid-treated areas within the previous 3 days may only be used on pasture grasses, grass grown for seed, wheat and corn.
  - ♦ Do not plant a broadleaf crop (including soybeans, sunflower, tobacco, vegetables, field beans, peanuts, and potatoes) in fields treated with manure from animals that have grazed forage or eaten hay harvested from aminopyralid-treated areas until an adequately sensitive field bioassay is conducted to determine that the aminopyralid concentration in the soil is at level that is not injurious to the crop to be planted.
  - ♦ Do not plant a broadleaf crop in fields treated in the previous year with manure from animals that have grazed forage or eaten hay harvested from aminopyralid-treated areas until an adequately sensitive field bioassay is conducted to determine that the aminopyralid concentration in the soil is at level that is not injurious to the crop to be planted.
  - ♦ To promote herbicide decomposition, plant residues should be evenly incorporated in the surface soil or burned. Breakdown of aminopyralid in plant residues or manure is more rapid under warm, moist soil conditions and may be enhanced by supplemental irrigation.
- **Crop Rotation:** Do not rotate to any crop from rangeland, permanent pasture or CRP acres within one year following treatment. Cereals and corn can be planted one year after treatment. Most broadleaf crops are more sensitive and can require **at least** 2 years depending on the crop and environmental conditions. Do not plant a broadleaf crop until an adequately sensitive field bioassay shows that the level of aminopyralid present in the soil will not adversely affect that broadleaf crop.

Field Bioassay Instructions: In fields previously treated with this product, plant short test rows of the intended rotational crop across the original direction of application in a manner to sample variability in field conditions such as soil texture, soil organic matter, soil pH, rainfall pattern or drainage. The field bioassay can be initiated at any time between harvest of the treated crop and the planting of the intended rotational crop. Observe the test crop for symptoms of herbicidal activity, such as poor stand (effect on seed germination), chlorosis (yellowing), and necrosis (dead leaves or shoots), or stunting (reduced growth). If herbicidal symptoms do not occur, the test crop can be grown. If there is apparent herbicidal activity, do not plant the field to the intended rotational crop; plant only to wheat, forage grasses, native grasses or grasses grown for hay.

Sprayer Clean-Out Instructions

It is recommended to use separate spray equipment on highly sensitive crops such as tobacco, soybeans, peanuts and tomatoes. Do not use spray equipment used to apply Milestone for other applications to land planted to, or to be planted to, broadleaf plants unless it has been determined that all residues of this herbicide have been removed by thorough cleaning of equipment.

Equipment used to apply Milestone should be thoroughly cleaned before reusing to apply any other chemicals as follows:

1. Rinse and flush application equipment thoroughly after use. Dispose of rinse water in non-cropland area away from water supplies.
2. Rinse a second time, adding 1 quart of household ammonia or tank cleaning agent for every 25 gallons of water. Circulate the solution through the entire system so that all internal surfaces are contacted (15 to 20 minutes). Let the solution stand for several hours, preferably overnight.
3. Flush the solution out of the spray tank through the boom.
4. Rinse the system twice with clean water, recirculating and draining each time.
5. Spray nozzles and screens should be removed and cleaned separately.

- Do not apply this product with mist blower systems that deliver very fine spray droplets. Use of mist blower equipment can reduce control achieved with the herbicide and increase spray drift potential.

Application Methods

Apply the specified rate of Milestone as a coarse low-pressure spray. Do not apply this product with mist blower systems that deliver very fine spray droplets. Spray volume should be sufficient to uniformly cover foliage. Increase spray volume to ensure thorough and uniform coverage when target vegetation is tall and/or dense. To enhance foliage wetting and coverage, an approved non-ionic agricultural surfactant may be added to the spray mixture as specified by the surfactant label.

Ground Broadcast Application: Higher spray volumes (greater than 10 gallons per acre) generally provide better coverage and better control, particularly in dense and/or tall foliage.

Aerial Broadcast Application: Do not apply less than 2 gallons per acre total spray volume. Five gallons per acre or greater will generally provide better coverage and better control, particularly in dense and/or tall foliage.

High-Volume Foliar Application: High volume foliar treatments may be applied at rates equivalent to a maximum of 7 fl oz per acre per annual growing season. Use sufficient spray volume to thoroughly and uniformly wet foliage and stems.

Spot Application: Spot treatments may be applied at an equivalent broadcast rate of up to 0.22 lb acid equivalent (14 fl oz of Milestone) per acre per annual growing season; however, not more than 50% of an acre may be treated at that rate. Do not apply more than a total of 0.11 lb acid equivalent (7 fl oz) per acre of Milestone per annual growing season as a result of broadcast, spot or repeat applications.) Spray volume should be sufficient to thoroughly and uniformly wet weed foliage, but not to the point of runoff. Repeat treatments may be made, but the total amount of Milestone applied must not exceed 7 fl oz per acre per year. To prevent misapplication, spot treatments should be applied with a calibrated sprayer.

Note: Table 1 below shows mixes for various sprayer outputs in gallons per acre (GPA).

Table 1: Amount of Milestone **(in mL)** to mix in **1 gallon of water**

Gallons per acre	Milestone amount (in mL) to mix with various application rates		
GPA	5 fl oz/a	7 fl oz/a	14 fl oz/a
20	7.5	10.5	21.0
30	5.0	7.0	14.0
40	3.8	5.3	10.5
50	3.0	4.2	8.4
60	2.5	3.5	7.0
70	2.1	3.0	6.0
80	1.9	2.6	5.3
90	1.7	2.3	4.7
100	1.5	2.1	4.2

Use a syringe to measure cc

Conversions:
1 tsp = 5 mL 30 ml = 1 fluid ounce 1 cc = 1 mL
3 tsp = 1 Tbsp 2 Tbsp = 1 fluid ounce

Table 2: Application rates in the table below are based on treating an area of 1000 sq ft. An area of 1000 sq ft is about 10.5 by 10.5 yards in size. Mix the amount of Milestone (fl oz or milliliters) corresponding to the desired broadcast rate in 0.5 to 2.5 gallons of water, depending upon the spray volume required to treat 1000 sq ft. A delivery volume of 0.5 to 2.5 gallons per 1000 sq ft is equivalent to 22 to 109 gallons per acre.

Table 2: Amount of Milestone per 1000 sq ft to Equal Broadcast Rate

Amount of Milestone per 1000 sq ft to Equal Broadcast Rate		
Broadcast Rate (fl oz/acre)	Amount of Milestone per 1000 sq ft	
	(fl oz)	(Milliliters)
3	0.069	2
5	0.115	3.4
7	0.161	4.8

Note: 1 fluid ounce (fl oz) = 29.6 milliliters (mL) = 2 tablespoons = 6 teaspoons

To calculate the amount of Milestone for areas larger than 1000 sq ft: Multiply the table value (fl oz or milliliters) by the area to be treated in "thousands" of square feet. For example, if the area to be treated is 3500 sq ft, multiply the table value by 3.5 (3500 sq ft divided by 1000 sq ft = 3.5).

Mixing Instructions

Mixing with Water: To prepare the spray, add about half the required amount of water in the spray tank. Then, with agitation, add the specified amount of Milestone and other registered tank mix herbicides. Finally, with continued agitation, add the rest of the water and additives such as surfactants or drift control and deposition aids.

Addition of Surfactants or Adjuvants on All Labled Use Sites: The addition of a high quality non-ionic surfactant (of at least 80% active ingredient) at 0.25 to 0.5 % volume per volume (1 to 2 quarts per 100 gallons of spray) is recommended to enhance herbicide activity under adverse environmental conditions (such as, high temperature, low relative humidity, drought conditions, dusty plant surfaces) or when weeds are heavily pubescent or more mature.

Tank Mixing with Other Herbicides: Milestone at rates of up to 7 fl oz per acre may be mixed with labeled rates of other herbicides registered for application on all labeled use sites. Milestone may be applied in tank mix combination with labeled rates of other herbicides provided: (1) the tank mix product is labeled for the timing and method of application for the use site to be treated and (2) mixing is not prohibited by the label of the registered tank mixed products, and (3) that the tank mix combination is physically compatible (see tank mix compatibility testing below). When tank mixing, use only in accordance with the restrictions, precautions and limitations on the respective product labels.

- Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels.
- Do not exceed specified application rates. If products containing the same active ingredient are mixed, do not exceed the maximum allowable active ingredient use rates.
- For direct injection or other spray equipment where the product formulations will be mixed in undiluted form, special care should be taken to ensure tank mix compatibility.
- Always perform a jar test to ensure the compatibility of products to be used in tank mixture.

Tank Mix Compatibility Testing: Perform a jar test prior to mixing in a spray tank to ensure compatibility of Milestone and other pesticides or carriers. Use a clear glass jar with lid and mix ingredients in the same order and proportions as will be used in the spray tank. The mixture is compatible if the materials mix readily when the jar is inverted several times. The mixture should remain stable after standing for 1/2 hour or, if separation occurs, should readily remix if agitated. An incompatible mixture is indicated by separation into distinct layers that do not readily remix when agitated and/or the presence of flakes, precipitates, gels, or heavy oily film in the jar. Use of an appropriate compatibility aid may resolve mix incompatibility. If the mixture is incompatible do not use that tank mix partner in tank mixtures.

Mixing with Sprayable Liquid Fertilizer Solutions: Milestone is usually compatible with liquid fertilizer solutions. It is anticipated that Milestone will not require a compatibility agent for mixing with fertilizers; however, a compatibility test (jar test) should be made prior to mixing. Jar tests are particularly important when a new batch of fertilizer or pesticide is used, when water sources change, or when tank mixture ingredients or concentrations are changed. Compatibility may be determined by mixing the spray components in the desired order and proportions in a clear glass jar before large scale mixing of spray components in the spray tank.

Note: The lower the temperature of the liquid fertilizer, the greater the likelihood of mixing problems. Use of a compatibility aid may be required if Milestone is mixed with a 2,4-D-containing product and liquid fertilizer. **Mixing Milestone and 2,4-D in N-P or N-P-K liquid fertilizer solutions is more difficult than mixing with straight nitrogen fertilizer and should not be attempted without first conducting a successful compatibility jar test.** Agitation in the spray tank must be vigorous to be comparable with jar test agitation. Apply the spray mixture the same day it is prepared while maintaining continuous agitation. Rinse the spray tank thoroughly after use.

Note: Foliar-applied liquid fertilizers themselves can cause yellowing of the foliage of forage grasses and other vegetation.

Use Rates and Timing

Milestone may be applied post emergence as a broadcast spray or as a spot application to control weeds including, but not limited to, those listed on this label. When a rate range is given use the higher rate to control weeds at advanced growth stages, or under less than favorable growing conditions, or for longer residual control. Best results are obtained when spray volume is sufficient to provide uniform coverage of treated weeds. For optimum uptake and translocation of Milestone, avoid mowing, haying, shredding, burning or soil disturbance in treated areas for at least 14 days following application.

Milestone also provides preemergence control of emerging seedlings of susceptible weeds, and re-growth of certain perennial weeds following application. Preventing establishment of weeds will depend upon application rate, season of application, and environmental conditions after application.

Milestone can provide long-term control of susceptible weeds. The length of control is dependent upon the application rate, condition and growth stage of target weeds, environmental conditions at and following application, and the density and vigor of competing desirable vegetation. Long-term weed control is most effective where grass vegetation is allowed to recover from overgrazing, drought, etc., and compete with weeds.

Milestone can be an important component of integrated vegetation management programs designed to renovate or restore desired plant communities. To maximize and extend the benefits of weed control provided by Milestone, it is important that other vegetation management practices, including proper grazing management, biological control agents, replanting, fertilization, prescribed fire, etc., be used in appropriate sequences and combinations to further alleviate the adverse effects of weeds on desirable plant species and to promote development of desired plant communities. Agricultural and natural resources specialists with federal and state government agencies can provide guidance on best management practices and development of integrated vegetation management programs.

Weeds Controlled

The following weeds will be controlled with the rates of Milestone indicated below (table 3). For best results, most weeds should be treated when they are actively growing and under conditions favorable for growth. Use a higher rate in the rate range when growing conditions are less than favorable or when weed foliage is tall and dense, or when residual control is desired. Milestone also provides preemergence control of germinating seeds or seedlings of susceptible weeds following application.

Table 3: Weeds Controlled
Note: Numbers in parentheses (-) refer to specific use directions for a particular weeds species.

Common Name	Scientific Name	Rate Range (fl oz/acre)	Life Cycle	Plant Family
amaranth, spiny	*Amaranthus spinosus*	4 to 7	annual	Amaranthaceae
bedstraw	*Galium spp.*	4 to 7	perennial	Rubiaceae
beggarticks	*Bidens spp.*	4 to 7	annual	Asteracea
blackeyed-susan	*Rudbeckia hirta*	4 to 7	Annual	Asteraceae
broomweed, annual	*Amphiachyris dracunculoides*	4 to 7	annual	Asteraceae
burdock, common*, **	*Arctium minus*	4 to 7	biennial	Asteraceae
buttercup, hairy*	*Ranunculus sardous*	4 to 7	annual	Ranunculaceae
buttercup, tall*, **	*Ranunculus acris*	4 to 7	perennial	Ranunculaceae
camelthorn	*Alhagi pseudalhagi*	5 to 7	perennial	Fabaceae
cat's ear, common	*Hypochaeris radicata*	5 to 7	Perennial	Asteracea
chamomile, scentless	*Matricaria inodora*	4 to 7	annual	Asteraceae
chicory*	*Cichorium intybus*	4 to 6	perennial	Asteraceae
chickweed	*Stellaria media*	7	annual	Caryophyllaceae
cinquefoil, sulfur (1)*, **	*Potentilla recta*	4 to 7	perennial	Rosaceae
cocklebur	*Xanthium strumarium*	3 to 5	annual	Asteraceae
clover	*Trifolium spp.*	5 to 7	perennial	Fabaceae
crazyweed	*Oxytropisp*	5 to 7	perennial	Fabaceae
croton, tropic	*Croton glandulosus*	3 to 5	annual	Euphorbiaceae
crownvetch	*Securigera varia*	5 to 7	perennial	Fabaceae
cudweed, purple	*Gamochaeta purpurea*	4 to 7	annual	Asteraceae
daisy, oxeye (1)*, **	*Leucanthemum vulgare*	4 to 7	perennial	Asteraceae
dock, curly*	*Rumex crispus*	4 to 7	perennial	Polygonaceae
evening primrose, cutleaf	*Oenothera laciniata*	4 to 7	annual	Onagraceae
fiddleneck, common	*Amsinckia intermedia*	7	annual	Boraginaceae
fireweed	*Epilobium angustifolium*	5 to 7	perennial	Onagraceae
fleabane, flax-leaf	*Conyza bonariensis*	4 to 7	annual	Asteraceae
fleabane, hairy	*Conyza bonariensis*	5-7	annual/biennial	Asteraceae
hawkweed, orange (2)*, **	*Hieracium aurantiacum*	4 to 7	perennial	Asteraceae
hawkweed, yellow (2)*, **	*Hieracium caespitosum*	4 to 7	perennial	Asteraceae
henbane, black	*Hyoscyamus niger*	5 to 7	Annual/biennial	Solanaceae
henbit*	*Lamium amplexicaule*	5 to 7	annual/biennial	Lamiaceae
hogweed, giant	*Heracleum mantegazzianum*	7	perennial	Apiaceae
horsenettle, Carolina**	*Solanum carolinense*	4 to 7	perennial	Solanaceae
horseweed (marestail)	*Conyza canadensis*	4 to 7	annual	Asteraceae
ironweed, tall	*Vernonia gigantea*	5 to 7	perennial	Asteraceae
ironweed, western	*Vernonia baldwinii*	7	perennial	Asteraceae
knapweed, diffuse (3)*, **	*Centaurea diffusa*	5 to 7	biennial/perennial	Asteraceae
knapweed, Russian (4)*, **	*Acroptilon repens*	5 to 7	perennial	Asteraceae
knapweed, spotted (3)*, **	*Centaurea stoebe*	5 to 7	biennial/perennial	Asteraceae
knapweeds	*Centaurea spp.*	5 to 7	biennial/perennial	Asteraceae
knotweeds, Japanese, bohemian (11)*.**	*Reynoutria japonica*	7-14*	perennial	Polygonaceae
kudzu*, **	*Pueraria montana*	7	perennial	Fabaceae
lady's thumb*	*Polygonum persicaria*	3 to 5	annual	Polygonaceae
lambsquarters	*Chenopodium album*	5 to 7	annual	Chenopodiaceae
lespedeza, annual	*Lespedeza striata*	5 to 7	annual	Fabaceae
licorice, wild	*Glycyrrhiza lepidota*	7	perennial	Fabaceae
locoweed	*Astragalus spp.*	5 to 7	Perennial	Fabaceae
locust, black	*Robinia pseudoacacia*	7	woody perennial	Fabaceae
locust, honey	*Gleditsia triacanthos*	7	woody perennial	Fabaceae
loosestrife, purple (12)*, **	*Lythrum salicaria*	7-14*	perennial	Lythraceae
mayweed, scentless*	*Tripleurospermum perforata*	4 to 7	annual	Asteraceae

Table 3: Weeds Controlled (Cont.)
Note: Numbers in parentheses (-) refer to specific use directions for a particular weeds species.

Common Name	Scientific Name	Rate Range (fl oz/acre)	Life Cycle	Plant Family
mayweed, stinking*, **	*Anthemis cotula*	7	annual	Asteraceae
medic, black*	*Medicago lupulina*	4 to 7	perennial	Fabaceae
mimosa	*Albizia julibrissin*	7	woody perennial	Fabaceae
mullein (5)	*Verbascum spp.*	7	biennial	Scrophulariaceae
nightshade, silverleaf	*Solanum elaeagnifolium*	4-7	perennial	Solanaceae
oxtongue, bristly	*Picris echioides*	5 to 7	biennial	Asteraceae
pea, Swainson	*Sphaerophysa salsula*	5-7	perennial	Fabaceae
povertyweed	*Iva axillaris*	5-7	perennial	Asteraceae
ragweed, common**	*Ambrosia artemisiifolia*	3 to 5	annual	Asteraceae
ragweed, western	*Ambrosia psilostachya*	4 to 7	perennial	Asteraceae
ragwort, tansy*, **	*Senecio jacobaea*	5 to 7	perennial	Asteraceae
redbud	*Cercis Canadensis*	7	woody perennial	Fabaceae
rush skeletonweed	*Chondrilla juncea*	5 to 7	perennial	Asteraceae
sicklepod	*Cassia obtusifolia*	7	perennial	Fabaceae
smartweed, Pennsylvania	*Polygonum pensylvanicum*	3 to 5	annual	Polygonaceae
sneezeweed, bitter	*Helenium amarum*	4 to 7	annual	Asteraceae
soda apple, tropical (6)*, **	*Solanum viarum*	5 to 7	perennial	Solanaceae
sowthistle, annual	*Sonchus oleraceae*	7	annual	Asteraceae
sowthistle, perennial*, **	*Sonchus arvensis*	3 to 5	perennial	Asteraceae
spanishneedles	*Bidens bipinnata*	4 to 7	annual	Asteraceae
St. Johnswort, common	*Hypericum perforatum*	5 to 7	perennial	Clusiaceae
stiltgrass, Japanese	*Microstegium vimineum*	5-7	annual	Poaceae
star-thistle, Malta (7) *,**	*Centaurea melitensis*	3 to 5	annual	Asteraceae
starthirstle, purple (7) *.**	*Centaurea calcitrapa*	3 to 5	biennial	Asteraceae
star thistle, yellow (7)*, **	*Centaurea solstitialis*	3 to 5	annual	Asteraceae
sunflower, common	*Helianthus annuus*	4 to 7	annual	Asteraceae
teasel	*Dipsacus spp.*	4 to 7	biennial	Dipsacaceae
thistle, artichoke	*Cynara cardunculus*	5 to 7	perennial	Asteracea
thistle, blessed milk	*Silybum marianum*	4-7	biennial	Asteraceae
thistle, bull (8)*, **	*Cirsium vulgare*	3 to 5	biennial	Asteraceae
thistle, Canada (9)*, **	*Cirsium arvense*	5 to 7	perennial	Asteraceae
thistle, woolly distaff	*Carthamus lanatus*	4 to 7	annual	Asteraceae
thistle, Italian	*Carduus pycnocephalus*	7	annual	Asteraceae
thistle, musk (8)*, **	*Carduus nutans*	3 to 5	biennial	Asteraceae
thistle, plumeless (8)*, **	*Carduus acanthoides*	3 to 5	biennial	Asteraceae
thistle, Scotch*, **	*Onopordum acanthium*	5 to 7	biennial	Asteracea
thistle, Russian (preemergence)	*Salsola tragus*	7	annual	Chenopodiaceae
Tree of heaven	*Ailanthus altissima*	7	perennial	Simaroubaceae
vetch	*Vicia spp.*	3 to 7	perennial	Fabaceae
willoweed, panicle	*Epilobium brachycarpum*	5-7	annual	Onagraceae
wisteria	*Wisteria brachybotris*	7	woody perennial	Fabaceae
wormwood, absinth(10)*, **	*Artemisia absinthium*	6 to 7	perennial	Asteraceae
yarrow, common	*Achillea millefolium*	7	perennial	Asteraceae

*Invasive plants are introduced species that are indicated to be invasive in the USDA-NRCS, PLANTS Database (http://plants.usda.gov/index.html).
**Plants designated as noxious weeds in at least one state (PLANTS Database, USDA-NRCS, http://plants.usda.gov/index.html).

(1) **Sulfur cinquefoil or oxeye daisy:** Apply Milestone at 4 to 6 fl oz per acre to plants in the prebud stage of development.
(2) **Orange or yellow hawkweeds:** Apply Milestone at 4 to 7 fl oz per acre to plants in the bolting stage of development.
(3) **Diffuse and spotted knapweeds:** Apply Milestone at 5 to 7 fl oz per acre when plants are actively growing with the optimum time of application occurring from rosette to the bolting stages of development or in the fall. Plants will be controlled by mid-summer and fall applications even though plants may not show any changes in form or stature the year of application.
(4) **Russian knapweed:** Apply Milestone at 5 to 7 fl oz per acre to plants in the spring and summer to plants from early bud to flowering stage and to dormant plants in the fall.
(5) **Mullein:** Apply to the rosette stage
(6) **Tropical soda apple:** Apply Milestone at 5 to 7 fl oz per acre at any growth stage, but application by flowering will reduce seed production potential.
(7) **Malta, purple, and Yellow starthistle:** Apply Milestone at 3 to 5 fl oz per acre to plants at the rosette through bolting growth stages.
(8) **Bull, musk, and plumeless thistles:** Apply Milestone at 3 to 5 fl oz per acre in the spring and early summer to rosette or bolting plants or in the fall to seedlings and rosettes. Apply at 4 to 5 fl oz when plants are at the late bolt through early flowering growth stages. 2,4-D at 1 lb ae/acre should be tank-mixed with Milestone starting at the late bud stages
(9) **Canada thistle:** Apply Milestone at 5 to 7 fl oz per acre in the spring after all plants have fully emerged (some may be budding) until the oldest plants are in full flower stage. Use the higher rate when applying to the flower stage. Applications are also effective in the fall before a killing frost. Use higher rates for older/dense stands or for longer residual control.

(10) **Absinth wormwood:** Apply 6 to 7 fl oz per acre before wormwood is 12 inches tall. When applying by air on CRP, coverage is important and a minimum of 3 GPA is specified. Remove old duff and litter by fire or mowing for best results

(11) Invasive knotweeds: Japanese, Bohemian, giant knotweeds: Apply Milestone at 7 fl oz per acre broadcast using high volume per acre (100 gallons per acre) or apply as a spot treatment using 14 fl oz per acre. Optimum results for suppression of plant growth are obtained when applications are made to plants that are about 3 to 4 feet in height in early summer. Multiple applications/retreatments will be necessary for control of resprout; the total amount of Milestone applied broadcast, as a re-treatment, and/or spot treatment cannot exceed 7 fl oz per acre per year.

(12) Purple loosestrife: For optimum control apply Milestone at 7 fl oz per acre plus 1 pt to 1 qt of 2,4-D amine or 1 to 2 qts of Garlon 3A. Spot treatments may also be made by applying Milestone at 14 fl oz (see Spot treatment section of the label) with or without the addition of 2,4-D or Garlon 3A.

Woody Plant Control

Milestone may be applied alone or in tank-mix combinations with labeled rates of other herbicides provided: (1) the tank mix product is labeled for the timing and method of application for the use site to be treated and (2) mixing is not prohibited by the label of the registered tank mixed products. Use as directed in the Directions of Use section of the tank-mix partner. Follow Mixing Instructions under the General Mixing and Application Instructions section.

Add Milestone to tank mixes for improved brush control on species such as aspen, conifers (pine), elm, maple, cherry, poplar, oak, Scotch broom, boxelder, hackberry, Russian olive, salt cedar, and blackberry.

FOLIAR APPLICATIONS:
For broad spectrum brush control using a foliar application, Milestone may be added to tank mixes with Accord Concentrate or Accord XRT II, Arsenal Powerline, Garlon 4 Ultra, Forestry Garlon XRT, or Garlon 3A, Rodeo, Tordon K, or other products labeled for use in industrial vegetation management programs.

LOW VOLUME BASAL BARK APPLICATIONS:
To control susceptible woody plants with stems less than 6 inches in basal diameter, apply herbicide mix (see below for rates) with a backpack or knapsack sprayer using low pressure and a solid cone or flat fan nozzle. Spray the basal parts of brush and tree trunks to a height of 12 to 15 inches from the ground in a manner that thoroughly wets the lower stems but not to the point of runoff. The use of a Spraying Systems Y2 nozzle or similar nozzle is recommended, which will narrow the spray pattern to target individual stems. Herbicide concentration should vary with tree diameter, bark thickness, volume used per acre, and susceptibility of species treated. Apply anytime, including the winter months, except when snow or water prevent spraying to the ground line or when stem surfaces are saturated with water.

Milestone may be used as a low volume basal treatment alone, for sensitive woody species in the Fabaceae family (legumes), or in combination with Garlon 4 Ultra or Forestry Garlon XRT, for broader control of other sensitive woody species. Applications should not exceed the maximum use rate per acre.

Mix Milestone at 1 to 5% v/v alone, or with Garlon 4 Ultra or Forestry Garlon XRT in a commercially available basal diluent (or other oils or basal diluents as recommended by the manufacturer); the basal oil should be compatible with a water soluble herbicide such as Milestone. Make a stable tank mixture for basal bark application by first combining each product with a compatibility agent prior to final mixing in the desired ratio. Mix Milestone and Garlon 4 Ultra or Forestry Garlon XRT (if using a tank mix) thoroughly with basal oil; if the mixture stands for more than 30 minutes, reagitation may be required. Do not store the final mixture.

Cut surface

Apply Milestone in the cut surface applications listed below for control of susceptible tree species such as legumes like Albezia, mimosa, locust, etc. Mixtures of Milestone and Garlon 3A or Garlon 4 may be effective on species other than legumes such as elm, maple, oak and conifers..

Cut surface applications may be used successfully at any season except during periods of heavy sap flow of certain species - for example, maples.

Cut-Stump Treatment
Apply Milestone as a 10% dilution v/v in water, by spraying or painting the cut surfaces of freshly cut stumps and stubs as soon as possible after cutting with undiluted Milestone. The cambium area next to the bark is the most vital area to wet.

With Tree Injector Method
Apply by injecting 1 milliliter of 10% v/v Milestone in water through the bark at intervals of 3 to 4 inches between centers of the injector wound. The injections should completely surround the tree at any convenient height. Note: No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is injected directly into plants.

With Hack and Squirt Method
Make cuts around the tree trunk at a convenient height with a hatchet or similar equipment so that the cuts overlap slightly and make a continuous circle around the trunk. Spray 1 milliliter of 10% v/v Milestone in water into the pocket created between the bark and the inner stem/trunk by each cut.

With Frill or Girdle Method
Make a single girdle through the bark completely around the tree at a convenient height. The frill should allow for the herbicide to remain next to the inner stem and absorb into the plant. Wet the cut surface with 10% v/v Milestone in water.

Precautions for Avoiding Spray Drift

Avoid application under conditions that may allow spray drift because very small quantities of spray, which may not be visible, may injure susceptible crops. This product should be applied only when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, non-target crops and other plants) is minimal (e.g., when wind is blowing away from the sensitive areas. A drift control aid may be added to the spray solution to further reduce the potential for drift. If a drift control aid is used, follow the use directions and precautions on the manufacturer's label. Do not use a thickening agent with Microfoil, Thru-Valve booms, or other spray delivery systems that cannot accommodate thickened spray solutions.

Ground Equipment: With ground equipment spray drift can be lessened by keeping the spray boom as low as possible; by applying 10 gallons or more of spray per acre; by keeping the operating spray pressures at the manufacturer's specified minimum pressures for the specific nozzle type used (low pressure nozzles are available from spray equipment manufacturers); and by spraying when the wind velocity is low (follow state regulations). Avoid calm conditions which may be conducive to thermal inversions. Direct sprays no higher than the tops of target vegetation and keep spray pressures low enough to provide coarse spray droplets to minimize drift.

Aerial Application: Avoid spray drift at the application site. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. Users are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications:

1. The distance of the outer most operating nozzles on the boom must not exceed 75% of wingspan or 85% of rotor diameter.
2. Nozzles should be pointed backward parallel with the air stream or not pointed downwards more than 45 degrees.

State regulations must be followed.

The applicator should be familiar with and take into account the information covered in the following **Aerial Drift Reduction Advisory**. This information is advisory in nature and does not supersede mandatory label requirements.

Aerial Drift Reduction Advisory

Information on Droplet Size: The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size:

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's specified pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that will provide uniform coverage.
- **Nozzle Orientation** - Orient nozzles so that the spray is released parallel to the airstream to produce larger droplets than other orientations. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length: The distance of the outer most operating nozzles on the boom must not exceed 75% of wingspan or 85% of rotor diameter.

Application Height: Applications should not be made at a height greater

than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment: When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

Wind: Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **Note:** Local terrain such as valleys and ravines can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity: When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions: Applications should not occur during a local, low level temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of the smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

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If terms of the following Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. To the extent permitted by law, otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies.

Warranty Disclaimer

Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. To the extent permitted by law, Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. To the extent permitted by law, all such risks shall be assumed by buyer.

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1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

To the extent permitted by law, Dow AgroSciences shall not be liable for losses or damages resulting from handling or use of this product unless Dow AgroSciences is promptly notified of such loss or damage in writing. To the extent permitted by law, in no case shall Dow AgroSciences be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer, Inherent Risks of Use and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Dow AgroSciences or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

Produced for
Dow AgroSciences LLC
9330 Zionsville Road
Indianapolis, IN 46268

Label Code: D02-879-005
Replaces Label: D02-879-004
LOES Number: 010-02112

EPA accepted 10/12/12

Revisions:

1. Add restrictions for Northeast states.

Escort Check-Out Sheet

- ☐ Attended Safety and Calibration Training
- ☐ Copy of Escort Label
- ☐ Gloves
- ☐ Eye Protection
- ☐ Sprayer
- ☐ Calibration Sheet
- ☐ Herbicide Quantity: _____
- ☐ Treatment Monitoring Form
- ☐ Escort Use Agreement Form

Signature: _____ Date: _____

Milestone Check-Out Sheet

- ☐ Attended Safety and Calibration Training
- ☐ Copy of Milestone Label
- ☐ Gloves
- ☐ Eye Protection
- ☐ Sprayer
- ☐ Calibration Sheet
- ☐ Herbicide Quantity: _____
- ☐ Treatment Monitoring Form
- ☐ Escort Use Agreement Form

Signature: _____ Date: _____

Noxious/Invasive Weed Inventory Form

Name/ Parcel #: _____ Date: _____

General Location: _____

UTM/Long/Lat: _____

Species treated

□ Russian Knapweed □ Malta Starthistle □ Whitetop
□ Yellow Starthistle □ Onionweed □ Other _____

Property ownership or responsibility (check all that apply)

□ Private □ County □ BLM
□ ADOT □ State □ USFS
□ Other: _____

Land type (check all that apply)

□ Rangeland □ Cropland (current crop: _____)
□ Abandoned Cropland □ Roadways □ River or Stream Bottom
□ Residential □ City or Town
□ Other: _____

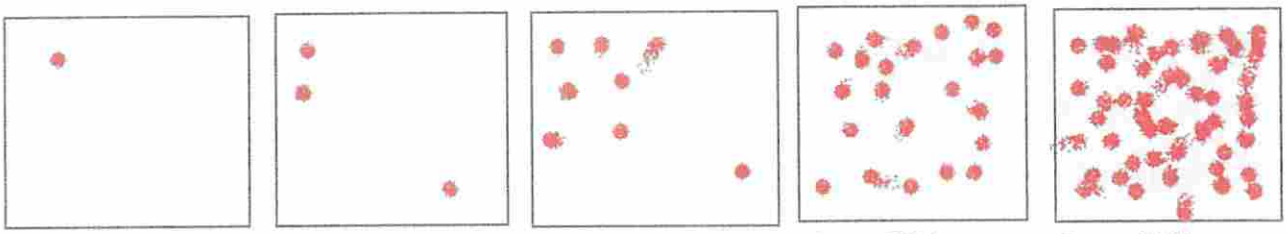
Number of acres inventoried: _____

Number of acres infested: _____

Dominance Rating General Descriptions (circle one)

Dominance Rating	Definition
1	It can be found by searching in and around other species. A dominance of "1" is not obvious.
2	It can be seen only by moving through the vegetation or by searching for it while standing in one place. A patchy pattern observed by moving through the vegetation rates a dominance of "2".
3	It is easily seen by standing in one place and glancing around, but it is not an obvious dominant. In a mixed stand, several species may fall into this category.
4	It is at least co-dominant. It shares dominance relative to cover or is considered slightly subordinate to other species, native or introduced; for example: Russian knapweed in a rangeland community or a mixture of weeds on abandoned farmland.
5	It dominates the site. It is dominant in the sense that it provides essentially total cover when viewed casually.

Rough Sketches of Dominance Categories



1 = 1 plant | 2 = few | 3 = easily seen | 4 = > 50% cover | 5 = > 90% cover

General Observations and information:

Please attach photos or email them to coronadorcd1@gmail.com

Drop this form off at your local Cooperative Extension office or mail to:
Linda Searle
Coronado RC&D Program Manager
450 S Haskell Ave
Willcox, AZ 85643

Noxious/Invasive Weed Monitoring Form

Name/ Parcel #: _____ Date: _____

General Location: _____

UTM/Long/Lat: _____

Species treated

□ Russian Knapweed □ Malta Starthistle □ Whitetop
□ Yellow Starthistle □ Onionweed □ Other _____

Number of acres infested: _____

Dominance Rating General Descriptions (circle one)

Dominance Rating	Definition
1	It can be found by searching in and around other species. A dominance of "1" is not obvious.
2	It can be seen only by moving through the vegetation or by searching for it while standing in one place. A patchy pattern observed by moving through the vegetation rates a dominance of "2".
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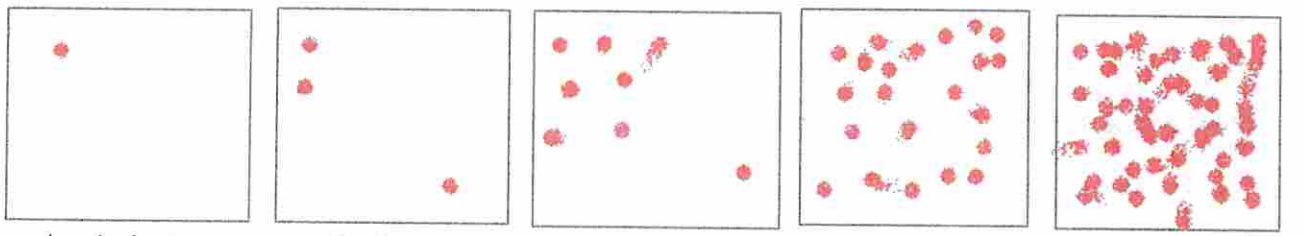

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General Observations and information:

Please attach photos or email them to coronadorcd1@gmail.com

Drop this form off at your local Cooperative Extension office or mail to:
Linda Searle
Coronado RC&D Program Manager
450 S Haskell Ave
Willcox, AZ 85643

Noxious/Invasive Weed Treatment Form

Name: _____

Location: _____

UTM/Long/Lat: _____

Species treated

□ Russian Knapweed □ Malta Starthistle □ Whitetop

□ Yellow Starthistle □ Onionweed □ Other _____

Treatment Date: _____ Number of acres treated: _____

Treatment Used (describe): _____

_____

_____

General Notes and Observations:

Drop this form off at your local Cooperative Extension office or mail to:
Linda Searle
Coronado RC&D Program Manager

450 S Haskell Ave
Willcox, AZ 85643

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street Phoenix, Arizona 85007
(602) 771-2300 www.azdeq.gov

Douglas A. Ducey
Governor

Henry R. Darwin
Director

Customer ID: 81107

CORONADO RESOURCE CONSERVATION & DEVELOPMENT, INC
450 S HASKELL AVE
WILLCOX, AZ 85643-2790

Billing Period: February 21, 2015 - March 20, 2015
Payment Due Date: April 30, 2015

ACCOUNT SUMMARY

Account ID	Fee Code	Balance Carried Forward	Current Amount	Payments / Credits	Total Amount
B2038916	WQL Water Quality	$250.00	$0.00	-$250.00	$0.00
	TOTAL:	$250.00	$0.00	-$250.00	$0.00

AGING SUMMARY

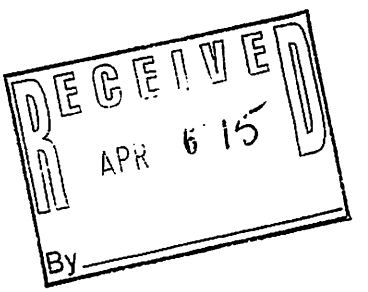
Current Charges	(1-30 days)	(31-60 days)	(61-90 days)	(91-120 days)	(Over 120 days)	Balance
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

* All payments received and not specifically allocated on the REMITTANCE ADVICE will be applied to the oldest amount due until fees are paid and then applied to interest.

Retain for your record

If you have submitted your payment after the 20th of the month and before the due date, please disregard this Bill.

To pay your bill by credit card please visit www.azdeq.gov and go to 'QuickPay'.



086747820007070301007O7

Herbicide Use Agreement Form

I, _____, by participating in the Gila River Corridor Invasive Weed treatment program, and accepting _____ herbicide, will agree and abide by the following rules and requirements:

1. Read the label completely and carefully.
2. Use the herbicide in accordance to the label. It is illegal to use an herbicide in any way inconsistent with the label.
3. Not use higher dosages, higher concentrations, or more frequent applications than recommended on the label.
4. Follow all directions for use, including directions concerning safety, mixing, dilution, storage, and disposal.
5. Wear protective gloves when using herbicide.
6. Treat only (circle all that apply) [*Russian knapweed, Whitetop, Yellow starthistle, Malta starthistle, Bull thistle]* and no other weeds.
7. Store provided chemical and equipment in a safe, secure area while I have them in my possession. I am responsible and liable for them and anything that may happen while they are in my possession.
8. Thoroughly clean all equipment and return it with any unused chemical, in the original container I received it in, as soon as I have completed my treatment.

I understand that by participating in the Gila River Corridor Invasive Weed Program, I hold myself liable for my own actions. I will not hold any individual, entity, or government agency responsible or liable for any harm that may come from my participation. Initial _____

Fill out monitoring form and return it when you return the equipment and/or unused herbicide. Provide access, with notice, to Coronado Resource Conservation and Development, and University of Arizona Cooperative Extension employees for educational and record keeping purposes.

Signed, _____ Date, _____

Witness, _____ Date, _____

Coronado Resource Conservation & Development Area, Inc.
450 S. Haskell Ave.
Willcox, Arizona 85643

Subcontractor Agreement

1. Purpose.
   The purpose of this agreement is to provide technical services to the Coronado Resource Conservation & Development Area in implementing invasive weed control projects in Greenlee County, Arizona.

2. Parties.
   The parties in this Ageement ("Agreement") are the Coronado Resource Conservation & Development Area, Inc., 450 S. Haskell Ave., Willcox, AZ 85643 ("Contractor") and _____ ("Subcontractor")

3. Notice.
   Notice, correspondence, invoices and payment forms from the Subcontractor to the Contractor shall be sent to:

   Linda Searle, Program Manager
   450 S. Haskell Ave.
   Willcox, AZ 85643

4. Subcontractor shall comply with the terms and conditions of the agreement between the Contractor and the Arizona Water Protection Fund under Agreement Number _____: Invasive Weed Control Phase 2 – Gila River Corridor, (project term 3 years ending December 31, 2018.

5. Schedule.
   Subcontractor shall perform and complete the Services according to the task due dates listed in the Scope and Services portion of this agreement. Contractor at its option may revise the schedule as necessary to effectively coordinate subcontractor services. Subcontractor shall report immediately any schedule changes or delays to the Program Manager.

6. Payment.
   Payment will be made annually on a "per task" basis outlined in the Scope of Work. Deliverables will be submitted to the Contractor along with proper invoices and documentation. Per task include all expenses for completion and submission of that deliverable. All payment invoices must be submitted annually along with reasonable documentation and/or the required deliverables. Reasonable documentation shall include a

description of work activities for that work period and receipts or invoices for any large dollar expenses. Subcontractor understands and agrees that the contractor shall provide payment to subcontractor within fifteen (15) days of receipt of payment from the Arizona Water Protection Fund.

7. Changes.
   All changes must first be authorized by the Contractor and the Grantor. Changes shall be authorized in a Change of Notice before commencement of the change. If the change results in any alteration of Subcontractor's actual costs or schedule, the parties shall mutually agree upon an adjustment of the price or schedule.

8. Performance Requirements.
   Subcontractor shall, in performing and completing the Services: (i) act as an independent contractor and not as an employee or agent to the Contractor; (ii) use its best efforts; (iii) provide and use only equipment and materials sufficient to product the quality and quantity of services required; (iv) provide suitable trained and skilled personnel and perform the services in a safe manner; (v) maintain the work area in a neat, clean, and safe condition; (vi) not subcontract any part of the services without a Contractor's prior written approval; (vii) comply with all codes, standards, rules, and regulations applicable to the tasks; (viii) comply with site regulations, if any.

9. Taxes and Liability Insurance.
   Subcontractor shall provide liability insurance.
   Unless otherwise provided herein or required by law, Subcontractor assumes exclusive liability for, and shall pay before delinquency, all taxes, charges or contributions of any kind now or hereafter imposed on, or with respect to the wages, salaries, or other remuneration paid to persons employed in connection with the performance of the Agreement. Subcontractor shall indemnify and hold Contractor and Landowners harmless from any liability and expense by reason of Subcontractor's failure to pay such taxes, charges or contributions.

10. Subcontractor's Warranties.
    Subcontractor warrants that the services shall be (i) performed in a thorough, workmanlike manner; (ii) free from defects in design, material, workmanship, and title; (iii) in conformity with this Agreement; and (iv) of the standard and quality generally recognized and accepted within its industry or profession throughout the United States.

11. Termination.
    Contractor may terminate this Agreement by written notice at any time without prior notice or waiver of any other remedies it may have, by delivering a written termination notice to Subcontractor. Upon receipt of a termination notice, Subcontractor shall (i) immediately discontinue performance of the services, unless the notice specifies otherwise and except as necessary to preserve and protect any Services begun but not completed at the time the termination notice is received ("unfinished Services"); (ii) place no additional orders or subcontracts for material, services, or supplies related to the Services; (iii) use its best efforts to obtain termination of all orders and subcontracts related to the Services, upon terms satisfactory to Contractor; and (iv) otherwise minimize costs to Contractor. Subcontractor shall immediately contact Contractor's designated representative for clarification if it is unable to determine the actions necessary to preserve and protect the unfinished Services. Subcontractor

and Contractor shall determine payment for completed and unfinished Services in a fair and reasonable manner, but Subcontractor shall have not claim and shall receive no payment for Services not yet begun or anticipated profits thereon.

12. Records and Auditing.
    Subcontractor shall maintain accurate and complete records relating to its performance under this Agreement, including accounting records in support of all billings to Contractor.

13. Laws and Regulations.
    Subcontractor and its employees, agents, and representatives shall at all times comply with all applicable federal, state, and local laws, ordinances, statutes, standards, rules, orders, and regulations.

14. Entire Agreement.
    Subcontractor has had the opportunity to review each provision of the Agreement, and understands and agrees to each provision. The Agreement is the entire agreement between the parties and supersedes and controls over all prior or extemporaneous agreements and understandings whether written or verbal that are not set forth in the Agreement. This Agreement may be amended only by written instrument signed by both Contractor and Subcontractor.

15. Contract Amount.
    Contractor shall pay subcontractor and amount not to exceed $43,305.00. Unless otherwise specified, the contract amount includes all labor, travel expenses, subsistence, materials, and supplies.

16. Scope of Work.
    Activities in this Scope of Work are those to be accomplished during the period of three (3) years. The Subcontractor shall provide a written summary that lists specific activities performed as part of this Agreement. **Deliverable due date reflects the due date for submission of all documents and records of work performed on this task.** The subcontractor shall perform the following services in accordance with the terms and conditions set forth in this Agreement:

    Task #3: Implementation of Invasive Weed Infestation Mapping
    Mapping of invasive weed species, as described in approved Monitoring Plan, will be conducted during early spring prior to Southwestern willow flycatcher breeding season.
    Task Purpose: To establish sites that will be used for the monitoring and treatment of invasive weed species.
    Deliverable description: Subcontractor will provide completed Mapping Form (attached) which must document and describe invasive weed mapping activities per parcel and any problems encountered during this phase of the Project. Documents must include copies of mapping data, shape files, and associated photographs.
    Deliverable due dates:
    June 30, 2016, and November 30, 2016
    June 30, 2017, and November 30, 2017
    June 30, 2018, and November 30, 2018
    Payment to Subcontractor: $32,670.00

Task #5: Implementation of Vegetation and Treatment Monitoring
The subcontractor will implement vegetation and post invasive weed treatment monitoring as described in the approved Monitoring Plan submitted under Task #2.
Task Purpose: To monitor conditions along the river.
Deliverable description: Complete and submit detailed Monitoring Forms (attached) to describe vegetation and post invasive weed treatment monitoring activities to date. Include any problems encountered during this phase of the Project.
Deliverable due dates:
June 30, 2016, and November 30, 2016
June 30, 2016, and November 30, 2017
June 30, 2018, and November 30, 2018
Payment to Subcontractor: $6,667.50

Task #8: Implementation of Outreach Plan
The subcontractor will attend landowner invasive weed workshops as described in the Outreach Plan submitted under Task #2.
Task Purpose: To meet landowner and assist with answering questions during workshop
Deliverable description: Attend one landowner workshop per project year.
Deliverable due dates:
Workshop 2016
Workshop 2017
Workshop 2018
Payment to Subcontractor: $300.00

Authorization:

Subcontractor:

_____ _____
Greenlee County Date

Contractor:

_____ _____
Richard Searle, Vice President
Coronado Resource Conservation &
Development Area, Inc. Date