
Vegetation Management

Mike Pacheco

Water Manager - IID



Objectives

- Use of Integrated Pest Management (IPM) to determine the best vegetative control methods for the District.
 - *IPM- using a combination of techniques to prevent and control pests.*
- Identify and preserve desirable/beneficial plant species.
- Identify and eliminate undesirable/noxious weeds.

Vegetation Control Methods

- Mechanical Control
 - *Physical removal of undesired weed species*
 - Mowing, pulling, grading, dredging, etc.
- Biological Control
 - *Triploid Grass Carp*



Vegetation Control Methods

- Chemical Control
 - *Use of herbicides to control undesired weed species*
 - *Pest Control Adviser (PCA) must write a recommendation*

RECOMMENDATION
 Imperial Irrigation District
 333 East Barioni Blvd.
 J-92
 Imperial, CA 92251
 (760) 339-9705

21
 Date: 12/11/2017
 Proposed: 12/12/2017
 Expires: 12/31/2017

Target Crop: DRAIN DITCHES
 Area: 122.12; Proposed: 122.12 Acres
 Apply by: Ground; Gallons / Treated Acre: 35
 Delivery Ticket #:
 Purchase Order #:
 Pesticide Permit #: 13-18-130781N

Grower: Imperial Irrigation District
 Farm: North End Drains
 333 E BARIONI BLVD, J15
 Imperial, CA 92251
 Applr: EYNON MANAGEMENT, INC.
 Fldmn: Victoria Huber 119885

Field	Site & Location / California, Imperial	Prop. Ac	Field	Site & Location / California, Imperial	Prop. Ac
Trifolium #4 Drain	P18,P 18 (map 1)	79.12	Vall #4 Drain	P18,P 18 (map 1)	43.00
Material	REG.#	RATE	/100 Gallons	Band	Mat. Req.
ALLIGARE IMAZAPYR 4 SL AI: IMAZAPYR	81927-50024-AA-00000	3.00 Pts / Treat Ac	8.57	No	45.80 Gal/M*
ALLIGARE MSO GOLD AI: METHYLATED SEED OIL	81927-50003-AA-00000	2.00 Pts / Treat Ac	5.71	No	30.53 Gal/U
POINT BLANK WM AI: DRIFT CONTROL AGENT + DEPOSITION AID	05905-50102-AA-00000	16.00 Fl Oz / 100 Gal	16.00	No	5.34 Gal/M*
	HELENA		Target Pest: Adjuvant		

SPECIAL INSTRUCTIONS
 IMAZAPYR: AERIAL APPLICATION IS RESTRICTED TO HELICOPTER ONLY.

*Apply to Vall 4 Drain only between Eddins Road and Sinclair Road (16.55 acres-3.5 miles)
 *Apply to Trifolium 4 Drain only between Walker Road and the New River (3.71 acres-0.7 mile)

PRECAUTIONS	Signal Word: WARNING	Avoid Drift, Water Contamination Plantback Restriction: NO
Non Re-entry Interval: Until Dry Feed/Graze Treated Area/Crop: No Label Restriction		
CRITERIA / ENVIRONMENTAL CHANGES		
Do not drift! Leave at least a 6-foot buffer to agricultural cultivation. Do not drift to organic agricultural sites and ensure a minimum buffer of 45-feet to organic sites. Avoid contact with foliage, green stems, exposed non-woody roots or fruit of crops, desirable plants and trees because severe injury or destruction may result. Do not apply at excessive speed or pressure. Never exceed 10 MPH! Read and follow all pesticide and product label instructions. Do not drift to bees, burrowing owls or any other wildlife. Keep people and pest off treated areas until spray solution has dried to prevent transfer of this product onto desirable vegetation. Do not apply to beneficial plant species (grasses) in drains. When making applications to banks of moving water sites, minimize spray to open water. Do not apply where runoff water may flow onto agricultural land as injury to crops may occur. Pest is present.		
<small>The execution of this recommendation certifies that alternative and mitigation measures that would substantially lessen any significant adverse impact on the environment have been considered and, if feasible, adopted.</small>		
Victoria Huber Signature: <i>Victoria Huber</i>	Grower Signature:	

*** RECOMMENDATION CONTINUES ON NEXT PAGE ***

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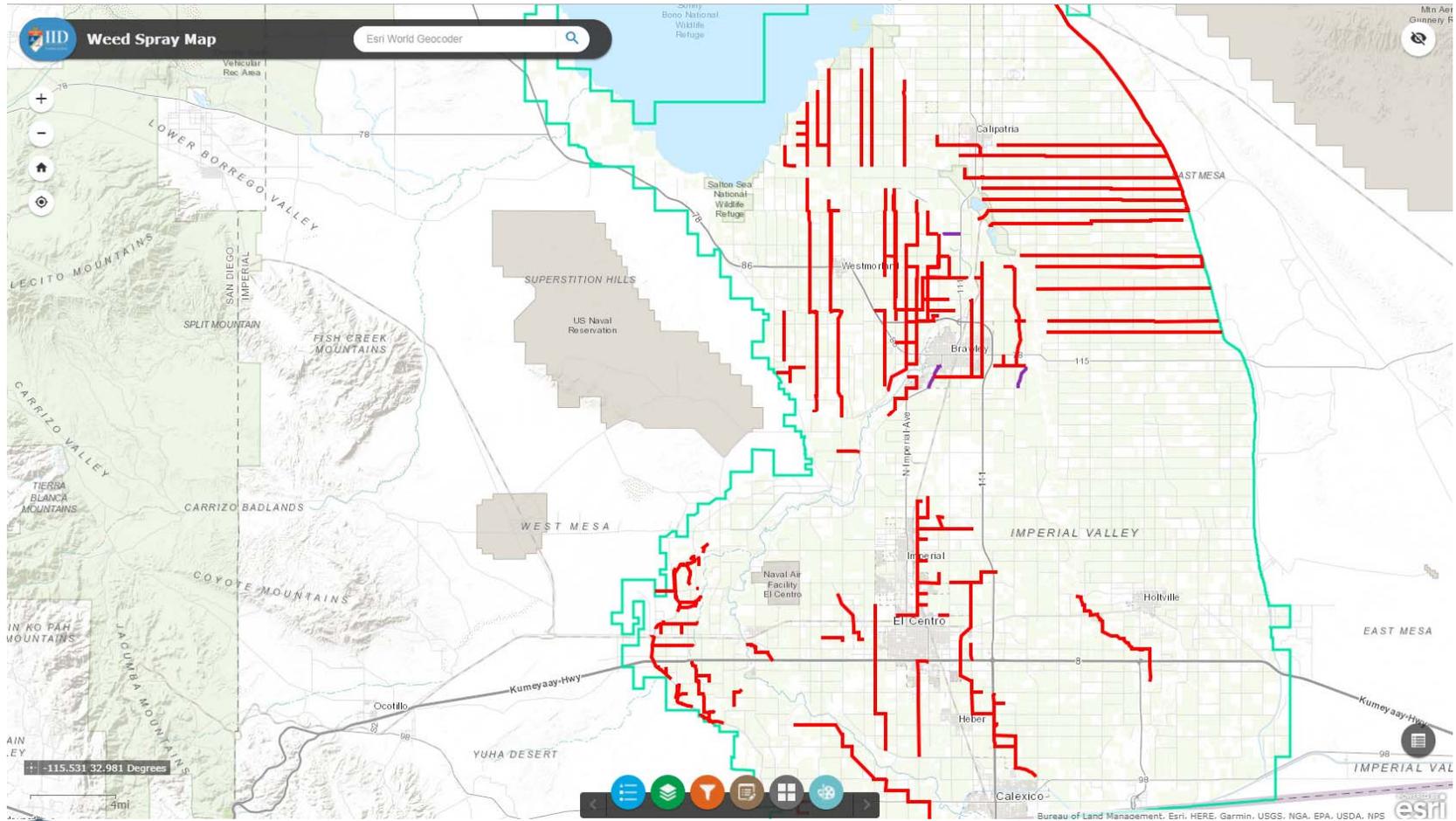
-READ THE LABEL-



Vegetation Control Procedures

- Chemical Application Process
 - *Pest Control Advisor (PCA) prepares a recommendation of chemicals to control undesirable weed species.*
 - *Recommendation forwarded to weed spray contractor.*
 - *Contractor generates schedule and returns to PCA and Division for approval.*
 - *After completion of spraying PCA inspects work and may approve or ask weed spray contractor for re-spray.*

GIS Weed Spray Map



Undesirable Species- Target Pests

Salt cedar (*Tamarix* spp)



Undesirable Species- Target Pests

Arrowweed (*Pluchea sericea*)



Undesirable Species- Target Pests

Common Reed (*Phragmites australis*)



Undesirable Species- Target Pests

Curly Dock (*Rumex crispus*)



Undesirable Species- Target Pests

Mexican Sprangletop (*Lepochloa fusca*)



Beneficial Species

Salt grass (*Distichlis spicata*)



Beneficial Species

Salt Heliotrope (*Heliotropium curassavicum*)



Beneficial Species

Bermuda Grass (*Cynodon dactylon*)



Spray Contractor

- Current contract is with Eynon Management, Inc.



Spray Contractor

- Current contract April 2016 to September 2019
- Total contracted amount:

	North End	South End
Annual Amount	\$588,663.90	\$620,754.45
Total Amount (3.5 years)	\$2,060,323.66	\$2,172,640.60

Herbicides Used

- **Glyphosate (Roundup)**- Systemic, non-selective- controls virtually all annual and perennial weeds, but is most phytotoxic to annual grasses. *Most used.
- **Triclopyr (Amine)**- Systemic selective foliar, controls many annual broadleaf weeds as well as many tree and brush species. Does not harm grass species.
- **Imazapyr**- Non-selective, controls many annual and perennial weeds such as grasses, broadleaves, vines, brush and trees.
- **Imazamox**- Systemic aquatic herbicide that moves throughout the plant tissue and prevents plants from producing a necessary enzyme.

NPDES Permit

National Pollutant Discharge Elimination System

- The NPDES permit program, created in 1972 by the Clean Water Act helps address water pollution by regulating point sources that discharge pollutants (pesticides) to waters of the United States.
- Monitor applications of each pesticide the District uses.
- Submit monitoring data and vegetation control methods to the state annually.

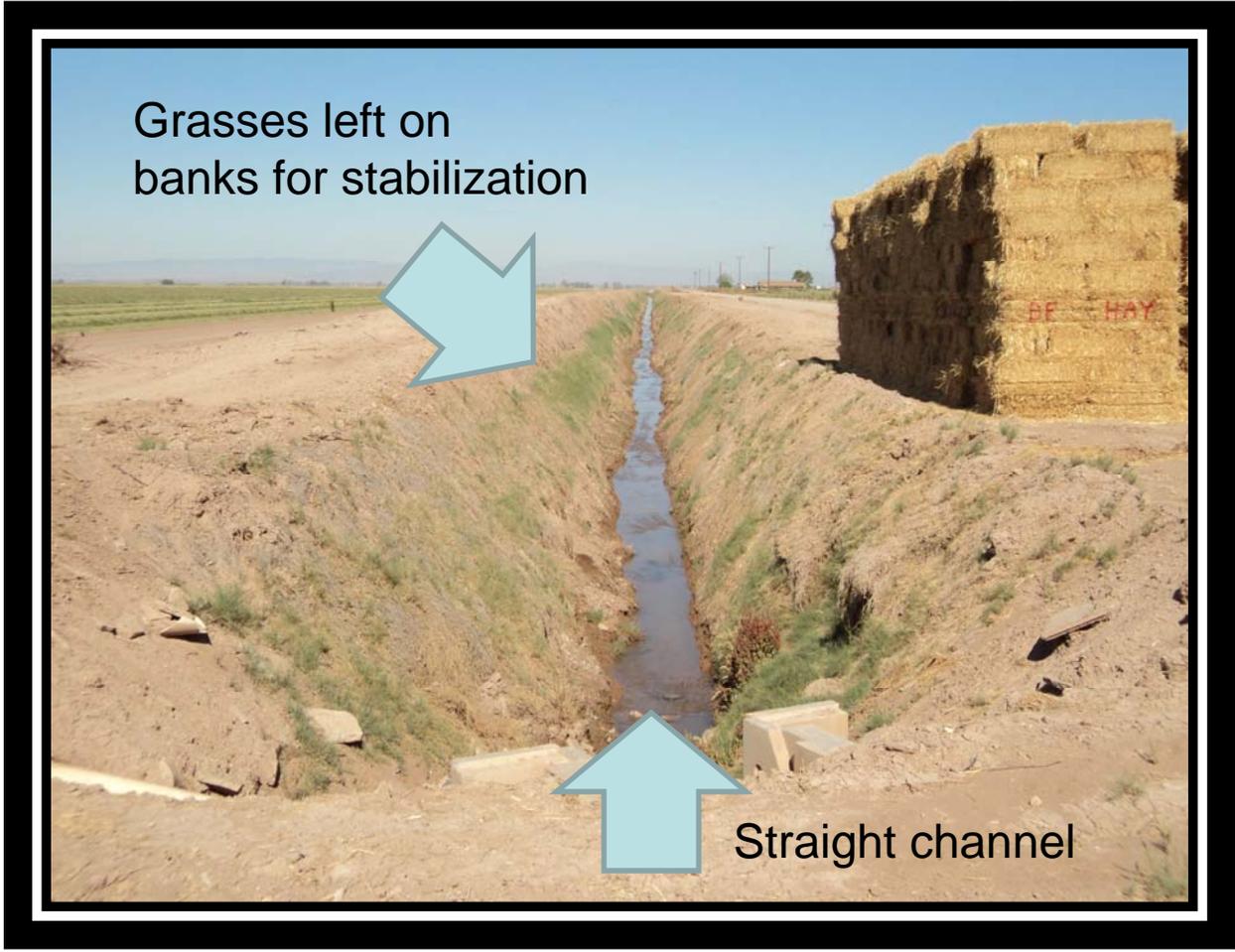


Mechanical Cleaning

Salt Cedar and Curly Dock infestation



Mechanical Cleaning



Vegetation Management

- Questions??