

SOLANO COUNTY

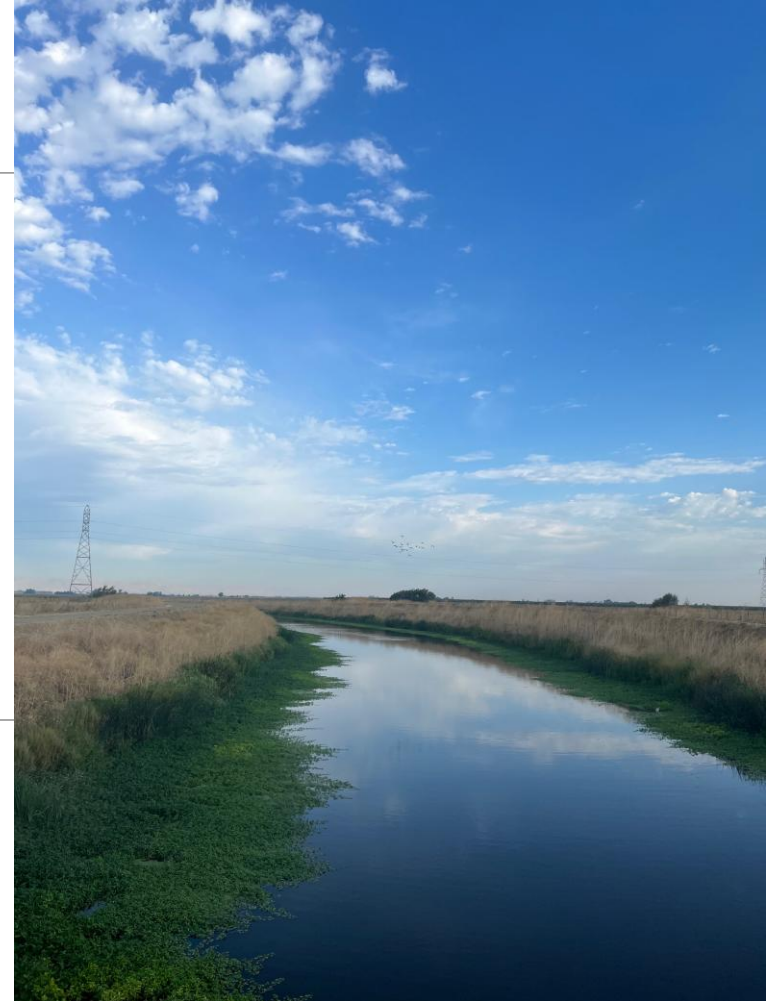
SPRAY SAFE - FEBRUARY 25, 2026

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# Water Quality and Pesticides

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Martha McKeen, Dixon Resource Conservation District



*Ulatis Creek*

# Water Quality: An overview of a management plan (MP) for pyrethroids

# Monitoring for the six pyrethroid pesticides

# Trade Names for the Pyrethroids

## • Why the MP?

- ✓ Caused by an exceedance of the water quality objectives set by the CV Regional Water Quality Board.
- ✓ An exceedance of pyrethroids poses environmental and health risks

## • An MP increases program costs, add additional requirements, such as:

- ✓ More water quality monitoring
- ✓ More farm reporting for pyrethroid users
- ✓ Additional training for pyrethroid users
- ✓ Possibility for more restrictions of certain chemicals.

## Starting with the most toxic:

- Bifenthrin\*
- Lambda-Cyhalothrin\*
- Cypermethrin
- Cyfluthrin
- Esfenvalerate
- Permethrin

\*Bifenthrin and Lambda-Cyhalothrin pyrethroids triggered the management plan at Ulatis Creek monitoring site.

## Lambda-Cyhalothrin Trade Names\*

Besiege  
Endigo ZC  
Grizzly Too  
Kaiso  
Karate  
Kendo  
Lambda-Cy  
Lambdastar  
Lamcap  
Paradigm  
Province  
Silencer  
Voliam Xpress  
Warrior

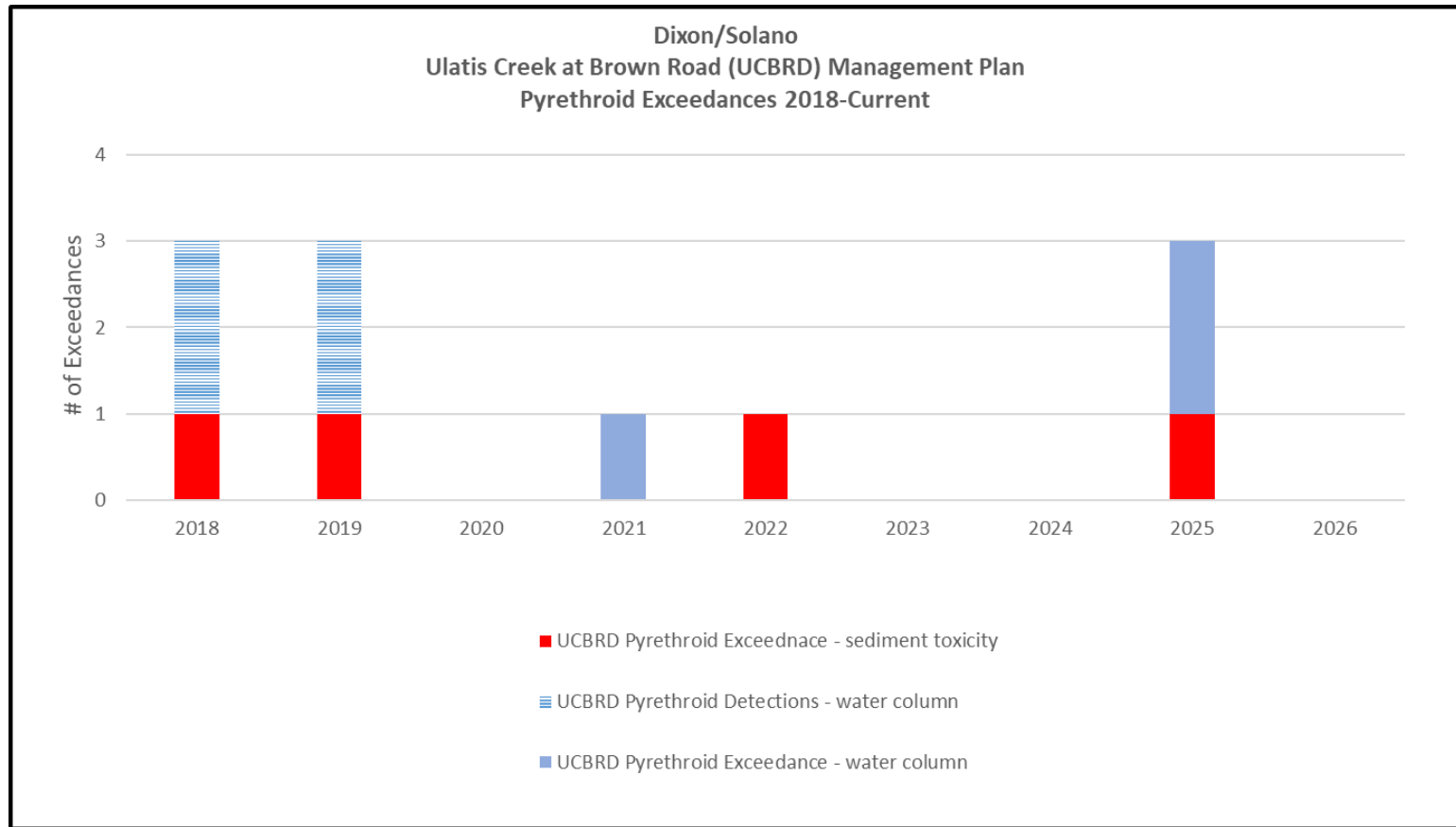
## Bifenthrin Trade Names\*

Aceto Bifenthrin 2EC  
Athena  
Bifen 2 Ag Gold  
Bifenture  
Brigade  
Brigadier  
Capture  
Fanfare  
Hero  
Sniper

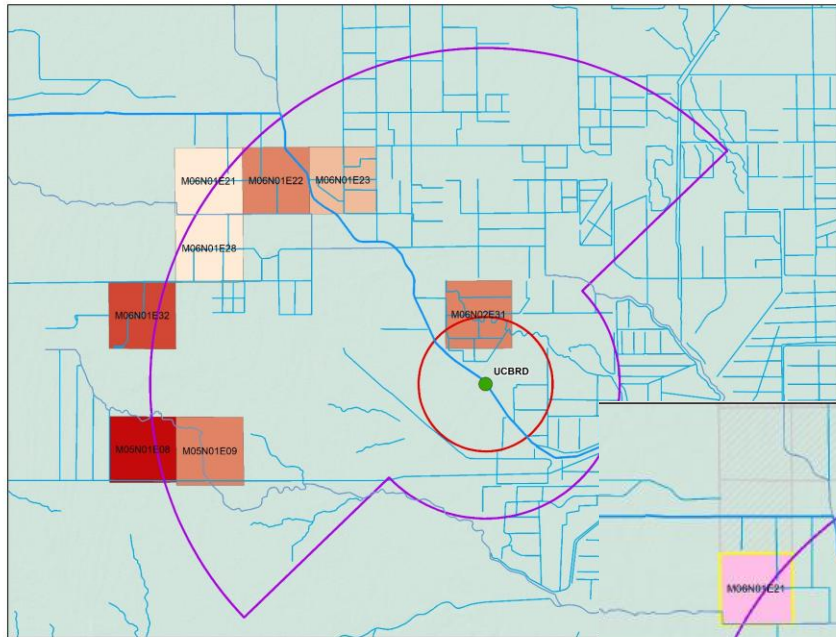
\*List of some of the most used.



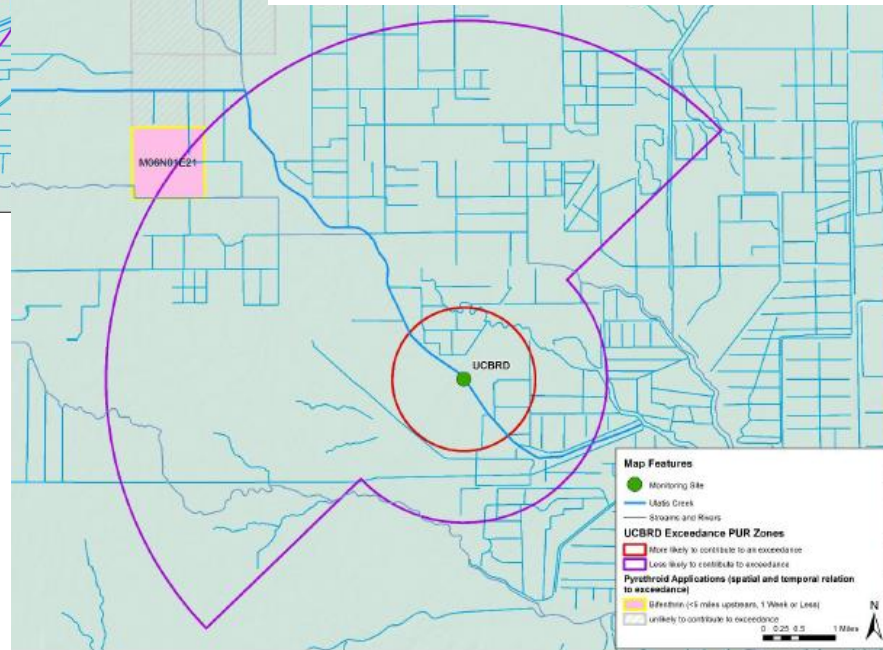
# Pyrethroid Exceedances 2018-2026



# Pyrethroid Exceedances Mapped



Bifenthrin Applications in December 2024

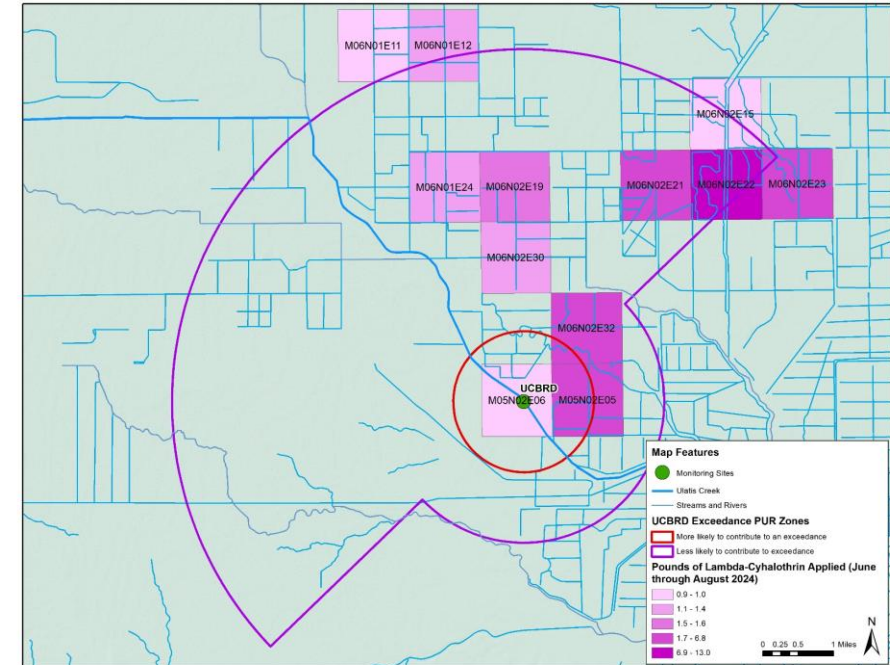


Bifenthrin Applications in May 2025

**Monitoring Year:**  
October through September

**Note:** The December 2024 exceedances count for 2025 monitoring

**Highlighted squares are enrolled in the program and used pyrethroids.**



Lambda-Cyhalothrin Applications in December 2024



# Water Quality Monitoring Schedule for Ulatis Creek

Constituents	Dec. 2025	Mar. 2026	Apr. 2026	May 2026
Field Measured Group	X	X	X	X
E. coli		X		X
Ammonia, Total as N		X		
Dissolved Organic Carbon	X			X
Total Organic Carbon	X			X
TMDL Pyrethroids	X			X
<i>Hyalella azteca</i> (water)	X			X
<i>Hyalella azteca</i> (sediment)			X	
Grain Size (sediment)			X	
Total Organic Carbon (sediment)			X	
completed monitoring	No pyrethroid exceedance in Dec. 2025			
upcoming monitoring				

TMDL - Total Maximum Daily Loads is the calculation of the maximum amount of a pollutant allowed to enter a waterbody so that the waterbody will meet and continue to meet water quality standards for that particular pollutant.

## Water Quality Monitoring Schedule for 2026

Year 2026 is a non-assessment year which means we only monitor what is specified in the Management Plan (MP) and for single exceedances observed during an assessment year therefore requiring follow-up.

### 2026 Pyrethroid Monitoring:

**December and May** - water column  
**April** - sediment toxicity.



# Pyrethroid Use BMP

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Use BMP – best management practices:

[dixonrcd.org/bmp-for-pesticides](http://dixonrcd.org/bmp-for-pesticides)

- Avoid spray prior to rain or irrigation event
- Eliminate drift, watch for wind
- Avoid near waterways
- Calibrate machinery, use the correct nozzle size
- Buffer zones
- Avoid sediment and erosion
- Use filter strips, berms, straw wattles, vegetated ditches
- Avoid spraying impervious surfaces
- Use alternate pesticides or methods [www.ipm.ucdavis.edu](http://www.ipm.ucdavis.edu)
- Remind all pesticide applicators in your operation to use extreme caution



# Contact Information

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For information about the Irrigated Lands Regulatory Program:

Martha McKeen, Program Coordinator, Dixon Resource Conservation District

[martha-mckeen@dixonrcd.org](mailto:martha-mckeen@dixonrcd.org)

707-678-1655 ext. 103

Resources:

- Scan QR code for the Dixon RCD website: [dixonrcd.org](http://dixonrcd.org)



- Dixon RCD, Best Management Practices for pesticides page: [dixonrcd.org/bmp-for-pesticides](http://dixonrcd.org/bmp-for-pesticides)
- Water Board's Irrigated Lands page: [waterboards.ca.gov/centralvalley/water\\_issues/irrigated\\_lands/](http://waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/)
- Sacramento Valley Water Quality Coalition website: [svwqc.org/](http://svwqc.org/)

