



Blue Mountain Horticultural Society Annual Meeting

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Walla Walla Basin Pesticide Monitoring: 2005-2006 Results

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Pesticide Stewardship Partnerships

- Voluntary, collaborative approach to improving water quality
- Monitor streams in basin and use data to focus implementation of best management practices (BMPs)
- Partners include: DEQ, watershed councils, SWCDs, OSU Extension, grower groups
- Walla Walla one of 6 basins where Stewardship Partnerships exist
- Hood River story → broad participation & decreasing concentrations over time



Walla Walla Pesticide Stewardship Partnership

ROLES OF PARTNER ORGANIZATIONS

- Sample Collection
 - *Walla Walla Basin Watershed Council*
- Laboratory & Data Analysis
 - *Oregon DEQ*
- BMP implementation, outreach and technical assistance
 - *Blue Mountain Horticultural Society*
 - *OSU Extension*
 - *SWCD*
 - *Others?*



Pesticide Monitoring Overview

- What are we sampling for?
 - Organophosphate insecticides and triazine herbicides
- Why sample for these?
 - Current use products
 - OP pesticides very toxic to aquatic life

Ethoprop (prophos)	Chlorpyrifos oxon
Dimethoate	Phosmet Oxygen Analog
Simazine	Guthion (azinphos-methyl)
Atrazine	Azinphos-methyl Oxygen Analog
Methylparathion	Diazinon
Malathion	Imidan
Malathion Oxygen Analog	Pyriproxyfen
Chlorpyrifos	Fenvalerate + Esfenvalerate



Where and When Did Monitoring Occur?

TIMING OF SAMPLE COLLECTION

Sampling designed to coincide with spray applications

<i>Time Period</i>	<i>Average Sampling Frequency</i>
Mid-March to Mid-April	1-2 times per week
Mid-April to Mid-May	Infrequent monitoring
Mid-May to Early June	1-2 times per week



Where and When Did Monitoring Occur?

SAMPLING LOCATIONS IN WALLA WALLA BASIN

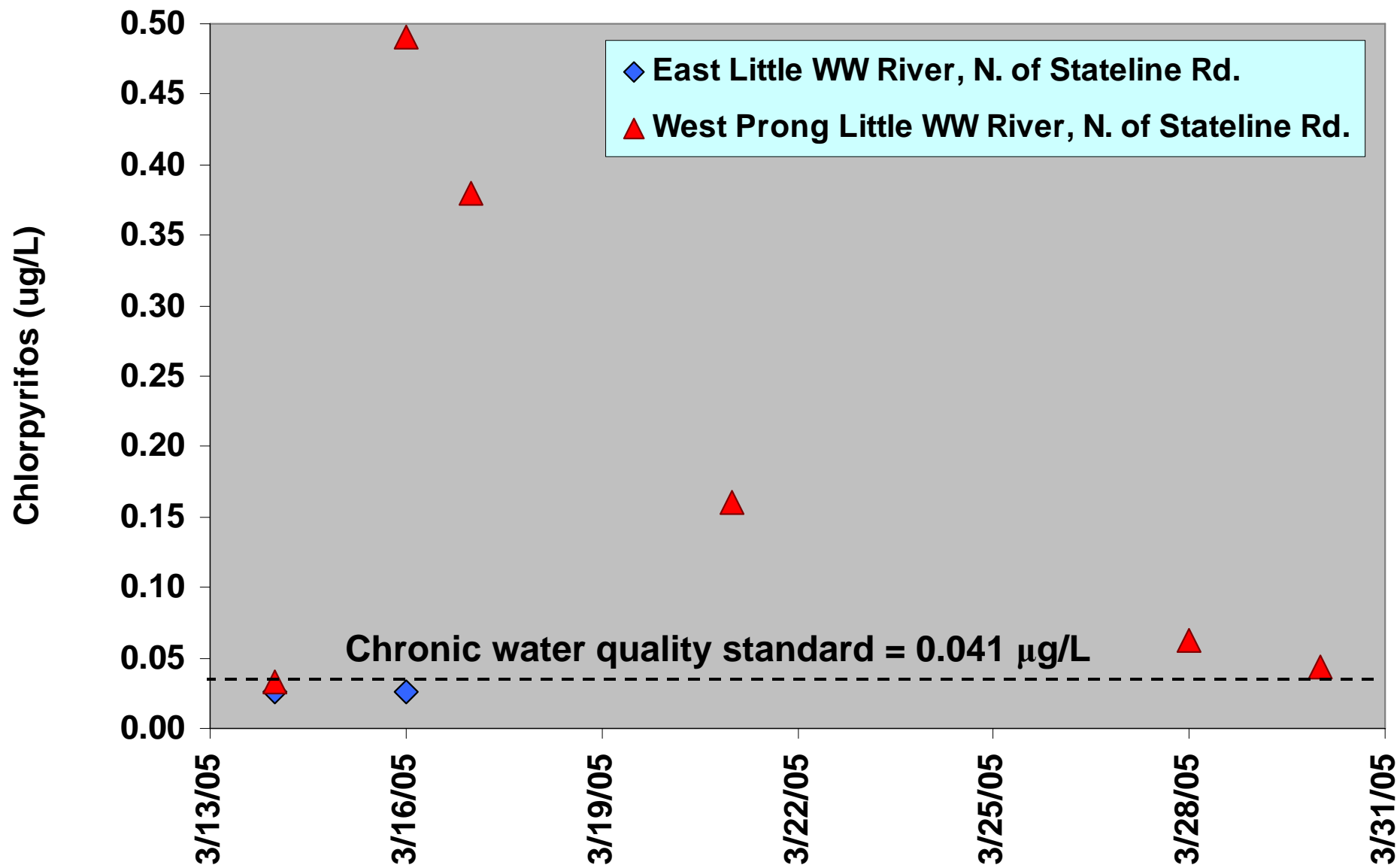
- **Sites sampled in 2005 and 2006**
 - *WW River at Grove School Bridge*
 - *WW River at Pepper's Bridge*
 - *S. Fork WW River at Harris Park*
 - *WW River at Day Road South*
 - *Little WW River at The Frog (in M-F)*
 - *East Little WW River, N. of Stateline Road*
 - *West Prong Little WW River, N. of Stateline Road*
- **New sites sampled only in 2006**
 - *West Branch/Crocket Little WW River*
 - *Midwest Prong Little WW River*



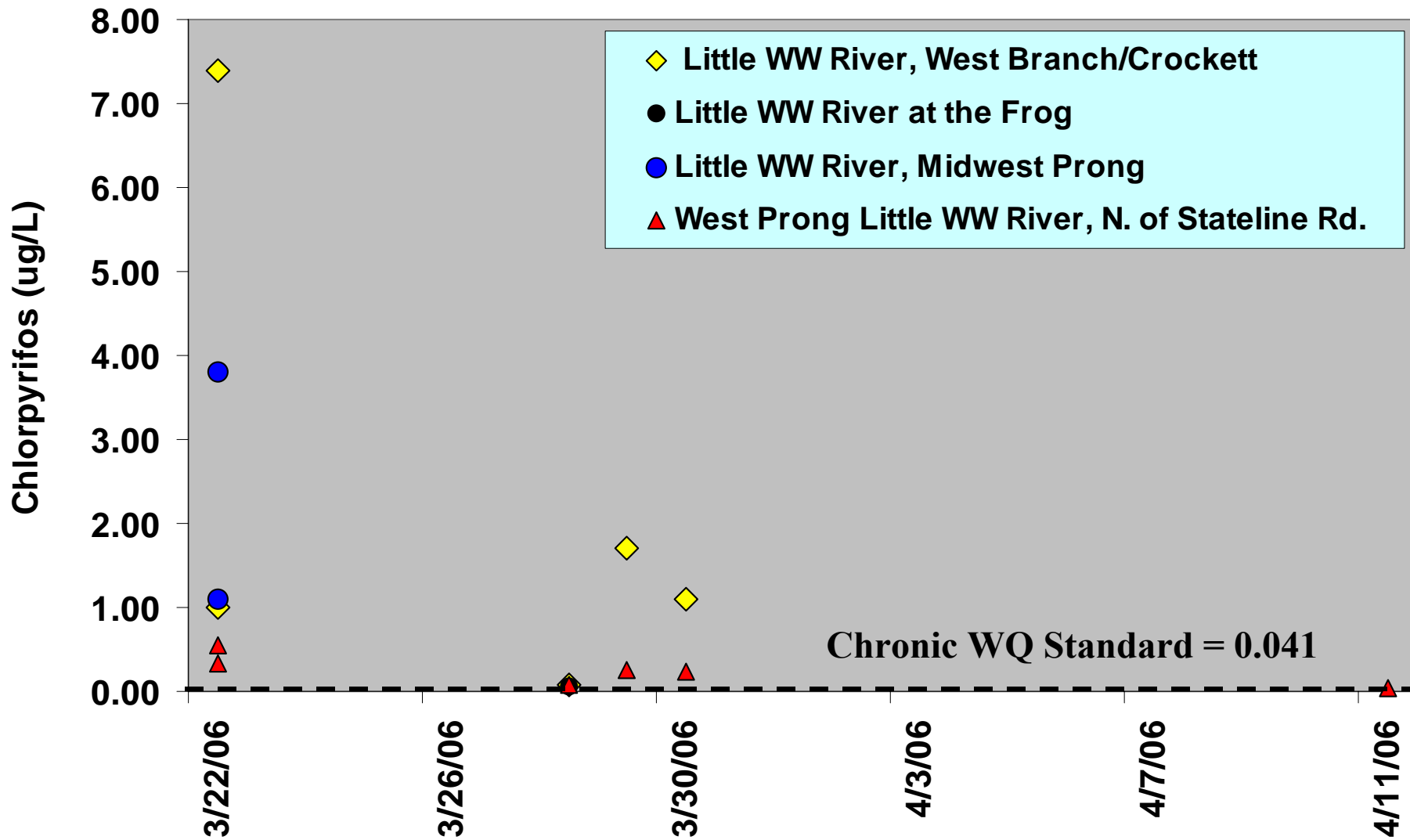
Where Were Pesticide Detections Found?

<u>No</u> Pesticide Detections	<ul style="list-style-type: none">• <i>WW River at Grove School Bridge</i>• <i>WW River at Pepper's Bridge</i>• <i>S. Fork WW River at Harris Park</i>• <i>WW River at Day Road South</i>
<u>Minimal</u> Number of Pesticide Detections	<ul style="list-style-type: none">• <i>Little WW River at The Frog (1 in 2006)</i>• <i>East Little WW River, N. of Stateline Road (2 in 2005)</i>
<u>Multiple</u> Number of Pesticide Detections	<ul style="list-style-type: none">• <i>W. Prong Little WW Rv., N. of Stateline Rd.</i>• <i>West Branch/Crocket Little WW River</i>• <i>Midwest Prong Little WW River</i>

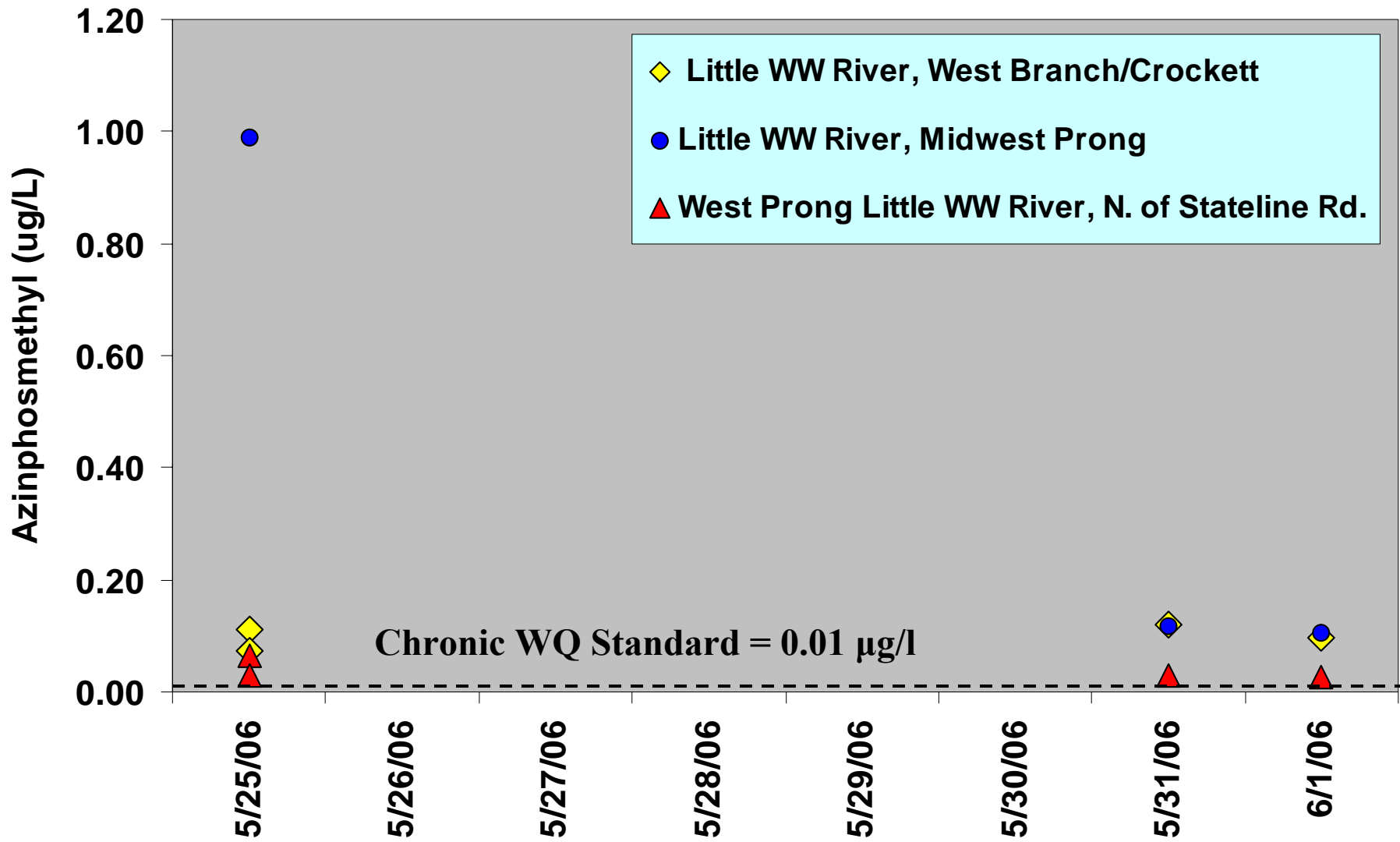
Chlorpyrifos 2005



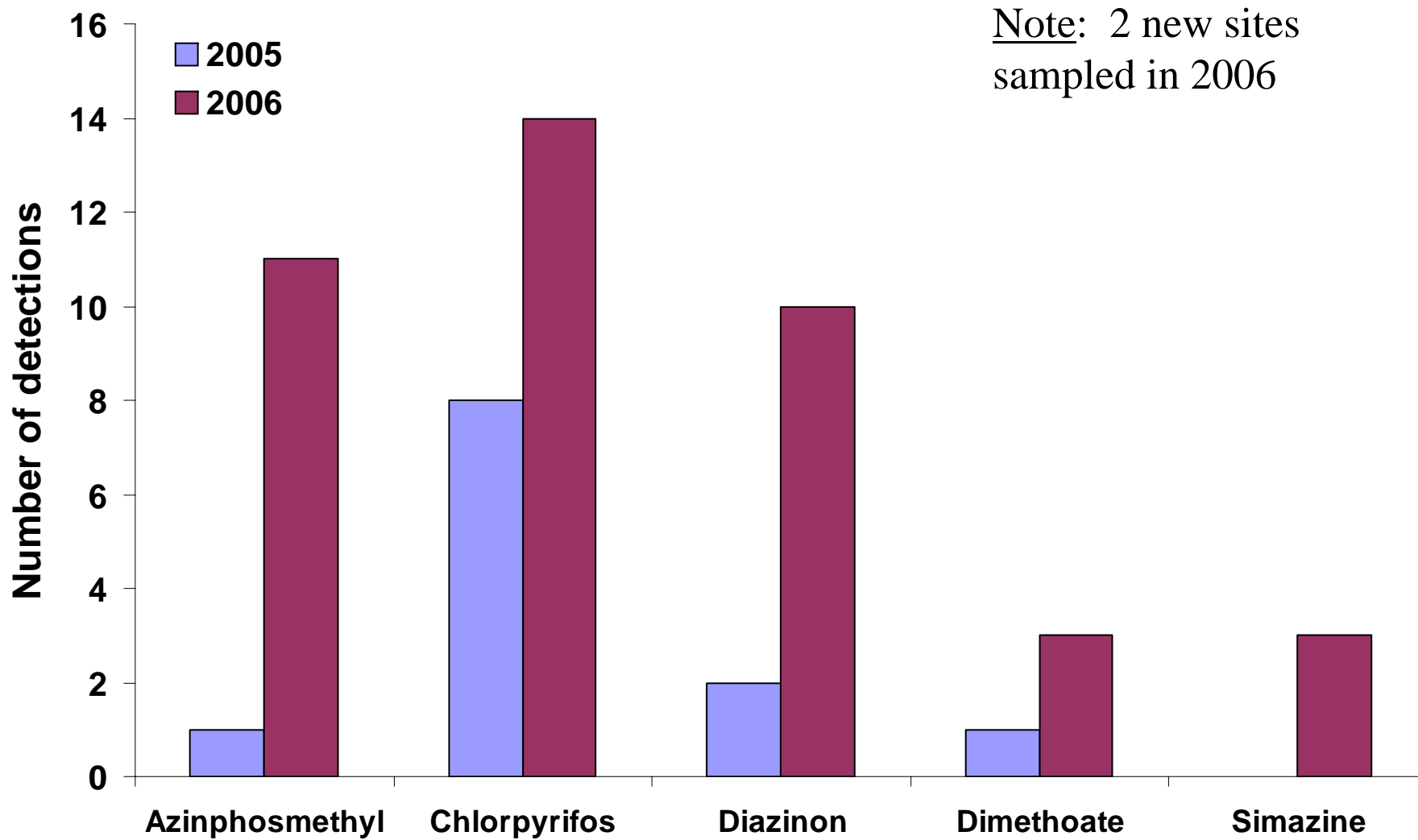
Chlorpyrifos 2006



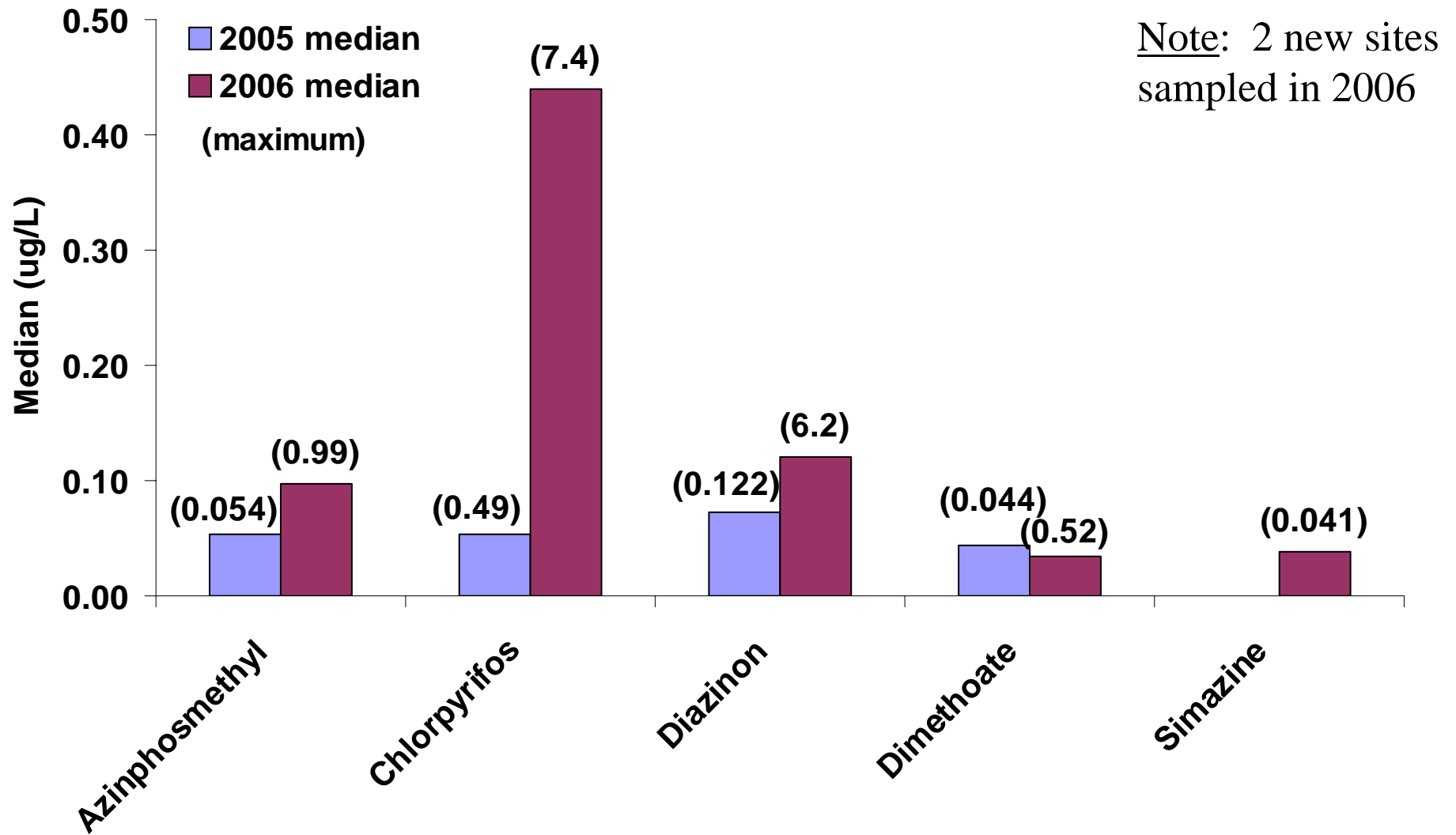
Azinphosmethyl 2006



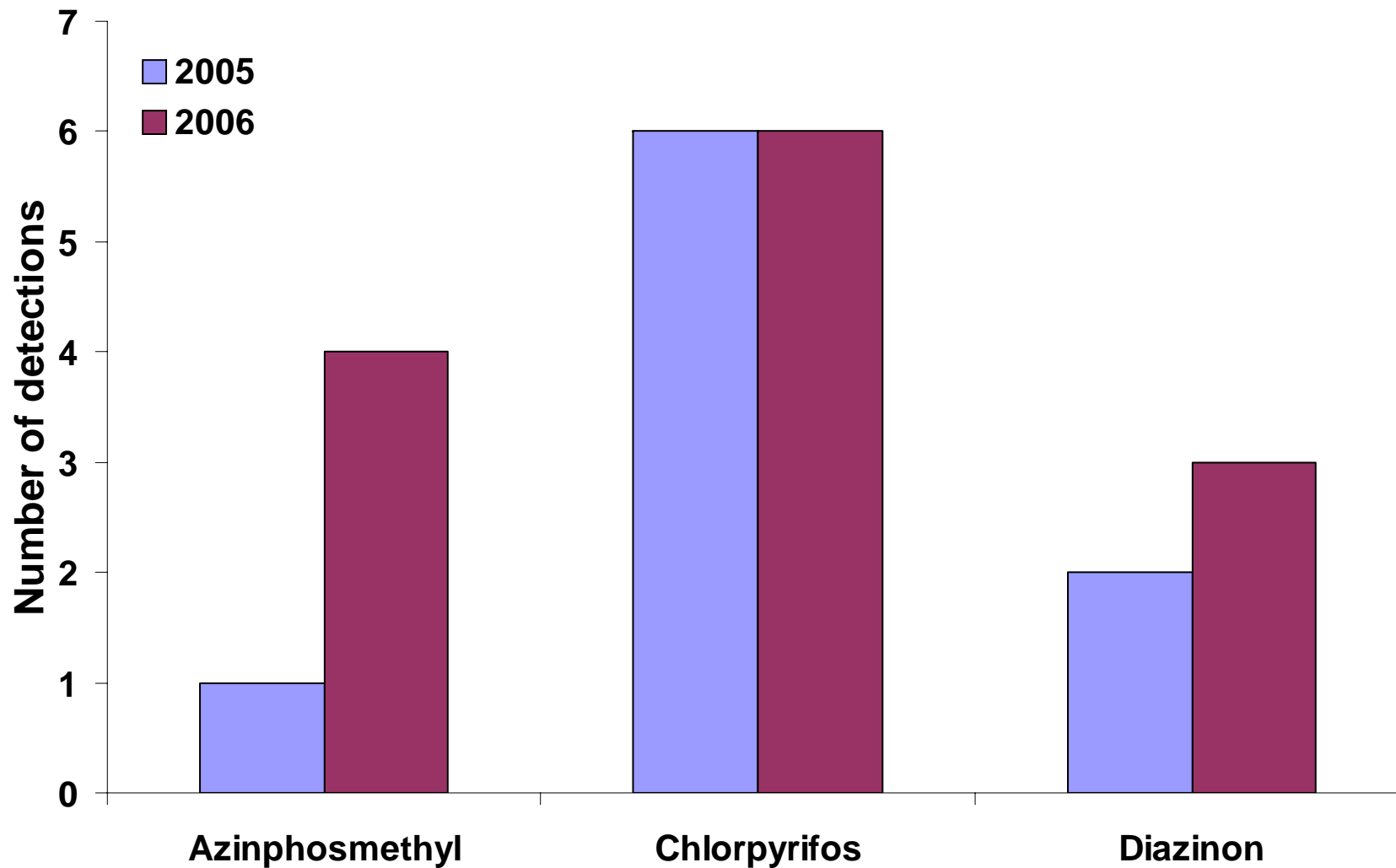
Walla Walla Basin: Number of Pesticide Detections



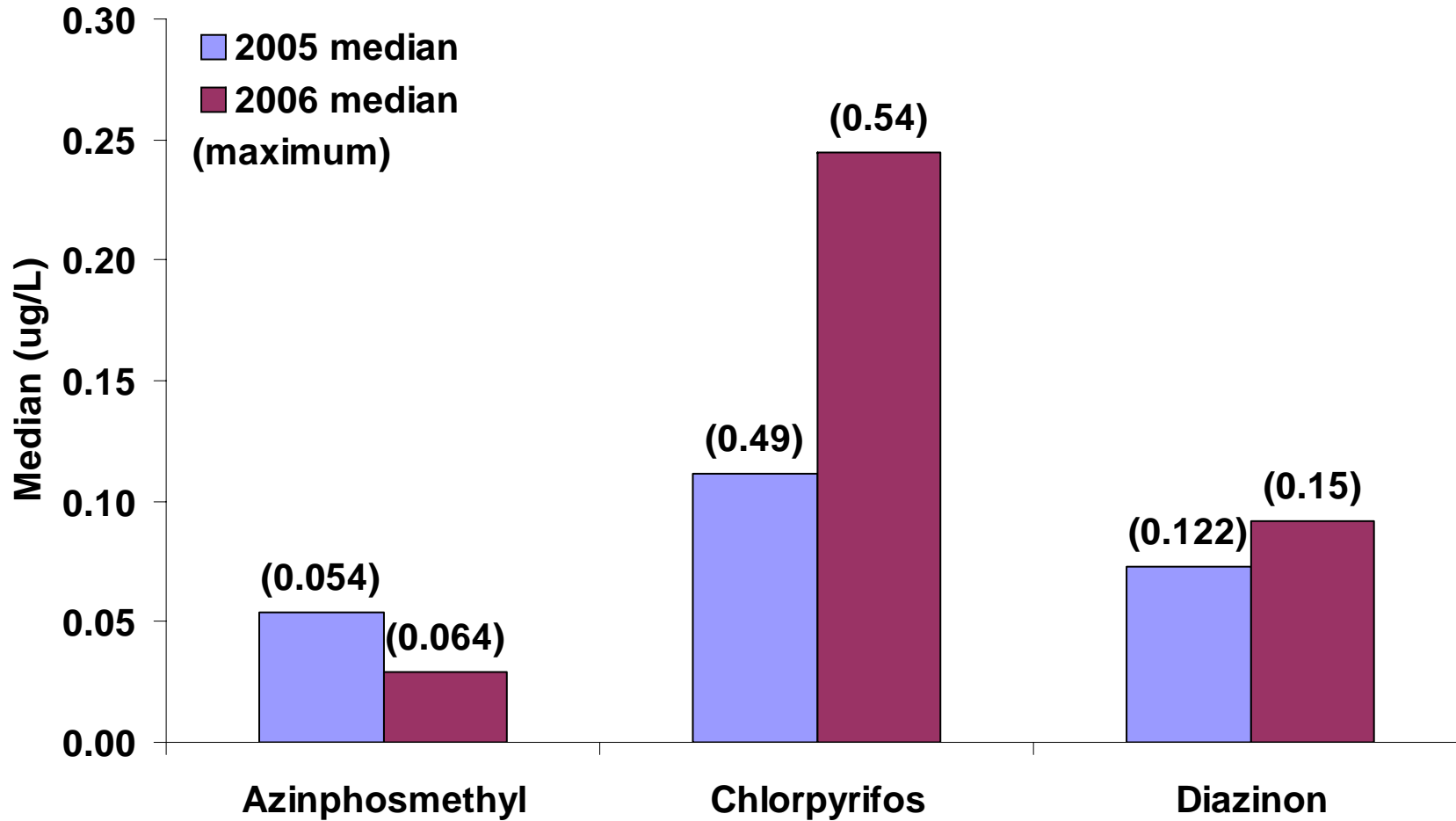
Walla Walla Basin: 2005 and 2006 Pesticide Concentrations



West Prong Little WW River, N. of Stateline Rd. Number of Pesticide Detections



West Prong Little WW River, N. Stateline Rd.





What are the “Take Home” Messages?

- No detectable concentrations of pesticides in in main stem of Walla Walla River
- A few smaller tributaries had concentrations consistently above WQ standards
- 2 years of data aren't enough to show trends
- A direct 2005 to 2006 cumulative data comparison has limited value → 2 new '06 sites with detections



What's Next?

PLANNED AND POSSIBLE ACTIVITIES

- Pesticide monitoring will continue in 2007 and 2008
- Explore BMP options and strategies
 - Distribute Hood River Manual
 - OSU Extension Workshop(s)
 - One-on-one assistance
- EPA & DEQ securing funds for pesticide waste collection event for '07 and '08