

Regulatory Oversight of Pesticides in Wisconsin

Wisconsin Neonics Forum
October 30, 2024



• Clean Wisconsin's Water & Agriculture Goals



Ensure every Wisconsinite has access to clean, safe drinking water



Protect Wisconsin's surface water and groundwater from contamination

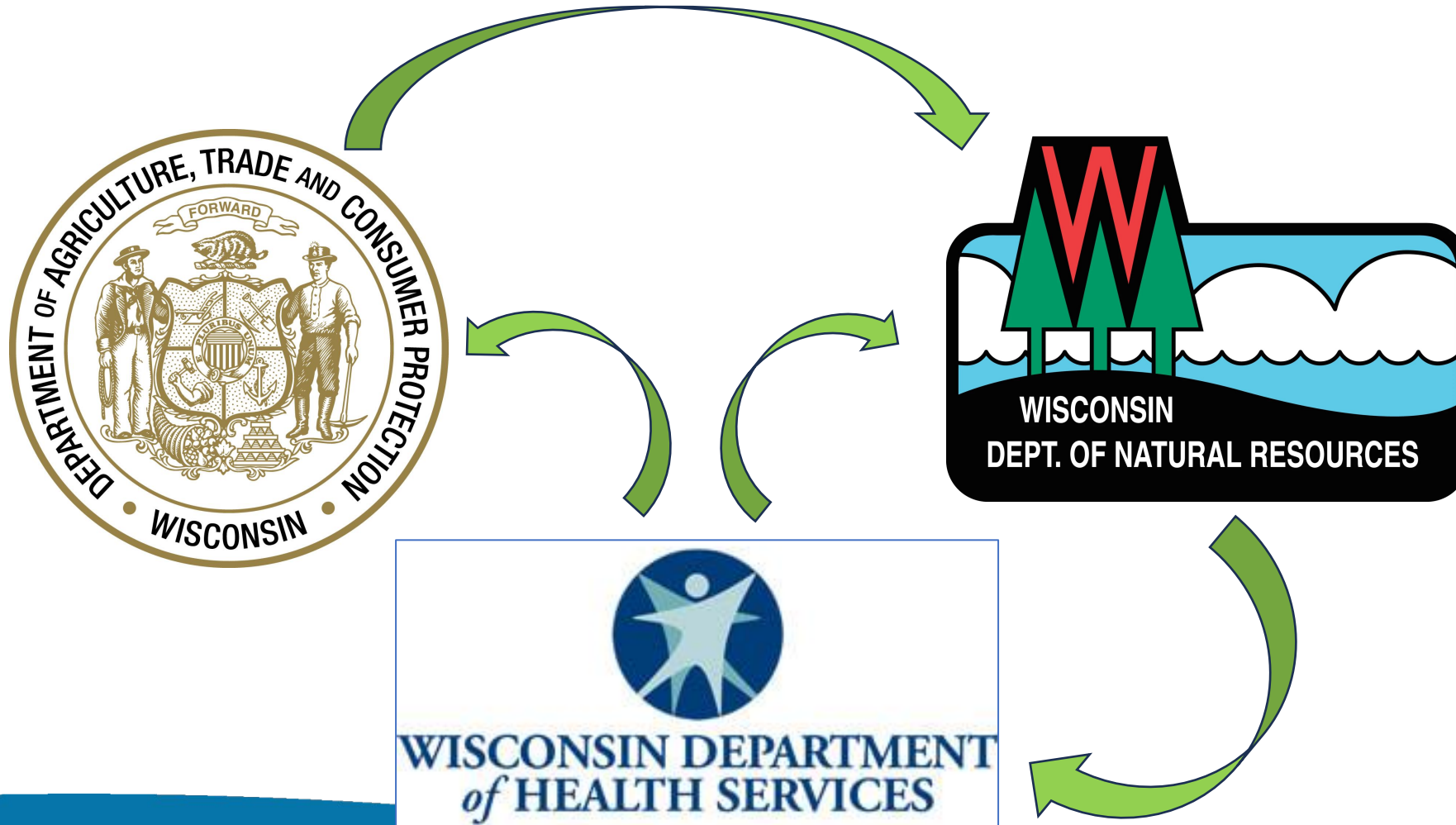


Reduce greenhouse gas emissions from agriculture



Build the movement for community-led climate adaptation and water quality remediation

State Agency Roles in Pesticide Oversight



State Agency Roles in Pesticide Oversight



WI Department of Agriculture, Trade and Consumer Protection (DATCP)

- Pesticide Applicator Training and Certification
- Product Registration and Business Licensing
- Agri-Chemical Storage and Spills Oversight, Inspections and Enforcement
- Clean Sweep Collection Program

Elanco

Credo™ SC
Insecticide

For effective control of darkling beetles and hide beetles in and around poultry facilities.

- ✓ Controls darkling beetle adults and larvae
- ✓ Broadcast or banded treatment
- ✓ One dose – effective, easy to use

Net Contents: 30 fl oz

ACTIVE INGREDIENT:
Imidacloprid 42.8%

OTHER INGREDIENTS: 57.2%

TOTAL 100.0%

Contains 4.38 pounds of imidacloprid per gallon, or 526 grams AI/liter.

Shake well before using.

STOP—Read the label before use.
Keep Out of Reach of Children.

CAUTION
See Back Panel for First Aid.

EPA Reg. No. 101563-217-11556
EPA Est. No. 92564-TX-1
Distributed by Elanco

DATCP's Groundwater Protection Role

- Statewide Groundwater Survey
- Exceedance Sampling Program
- Targeted Sampling Program
- Emerging Issues Program
- Field-Edge Monitoring Program
- Surface Water Sampling Program
- Interagency Coordination



2022 Targeted Sampling Program
ANNUAL REPORT



Wisconsin Department of Agriculture, Trade and Consumer Protection
Agricultural Resource Management Division
Environmental Quality Unit
Final 08/23/2023

RESPONSES OF BIOLOGICAL TOXICITY TESTS TO MIXTURES

[Home](#) / [Research](#) / Responses of biological toxicity tests to mixtures of pesticides and metabolites

SUBLETHAL EFFECTS OF CHRONIC EXPOSURE TO NEONICOTINOID CONTAMINANTS IN WISCONSIN GROUNDWATER

[Home](#) / [Research](#) / Sublethal Effects of Chronic Exposure to Neonicotinoid Contaminants in Wisconsin Groundwater

NEONICOTINOID CONTAMINANTS IN WISCONSIN GROUNDWATER: RELATIONSHIPS TO LANDSCAPE CROPPING SYSTEMS

[Home](#) / [Research](#) / Neonicotinoid contaminants in Wisconsin groundwater: relationships to landscape cropping systems

State Agency Roles in Pesticide Oversight

WI Department of Natural Resources

- Clean Water Act
- Water Quality Monitoring
- Standards for:
 - Drinking Water, Surface Water and Groundwater Quality

GROUNDWATER QUALITY

Well Construction Reports wisconsin.dnr.gov

LOOK UP GROUNDWATER AND WELL DATA

65

Well construction report: RY1273 -0.31 MILES

Well construction report: 0H1220 -0.02 MILES

GROUNDWATER COORDINATING COUNCIL (GCC)

The GCC is an interagency group directed by law to assist in the coordination and exchange of groundwater information.

GCC REPORT TO THE LEGISLATURE

The GCC prepares an annual report each year to summarize council activities and describe the state of groundwater.

GROUNDWATER RESEARCH

Wisconsin's reputation for groundwater research is largely due to the well-established joint solicitation process.

GROUNDWATER EDUCATION

Experience has shown that person-to-person outreach is the best way to engage the public in groundwater protection.

SOURCE WATER PROTECTION

Source water protection helps prevent contaminants from entering sources of drinking water.

NR 140 GROUNDWATER STANDARDS UPDATES

The DNR periodically updates standards as part of a continuing commitment to protect public health and the environment.



SURFACE WATER QUALITY

50 YEARS OF CLEAN WATER ACT

Since 1972, this federal law has guided Wisconsin's efforts to protect and enhance our state's water resources.

WISCONSIN'S 2024 WATER QUALITY REPORT TO CONGRESS

The 2024 report was created based on water quality monitoring and restoration work done from 2021-2022.

MONITORING WISCONSIN WATERS

The DNR monitors aquatic resources to assess ecosystem health and evaluate environmental problems.

ASSESSMENTS

The Clean Water Act (CWA) requires states to assess the quality of its surface waters and report results to the public.

State Agency Roles in Pesticide Oversight – Groundwater

WI Department of Health Services



- Reviews available scientific information
- Federal numbers, state drinking water standards, acceptable intake levels from the EPA or other peer reviewed research studies



 Environment International
Volume 163, May 2022, 107201 

Review article

Human exposure to neonicotinoids and the associated health risks: A review

 International Journal of
Molecular Sciences 



► Int J Mol Sci. 2021 Sep 4;22(17):9591. doi: [10.3390/ijms22179591](https://doi.org/10.3390/ijms22179591)

**Physiological Effects of Neonicotinoid Insecticides on Non-T
Animals—An Updated Review**

[Nemi Malhotra](#)^{1,*}, [Kelvin H-C Chen](#)^{2,†}, [Jong-Chin Huang](#)², [Hong-Thih Lai](#)³, [Boontida Uapip](#)
[Jmelou M Roldan](#)⁵, [Allan Patrick G Macabeo](#)^{6,*}, [Tzong-Rong Ger](#)^{1,7,8,*}, [Chung-Der Hsiao](#)^{7,8,}

 Environmental Research
Volume 218, 1 February 2023, 114953 

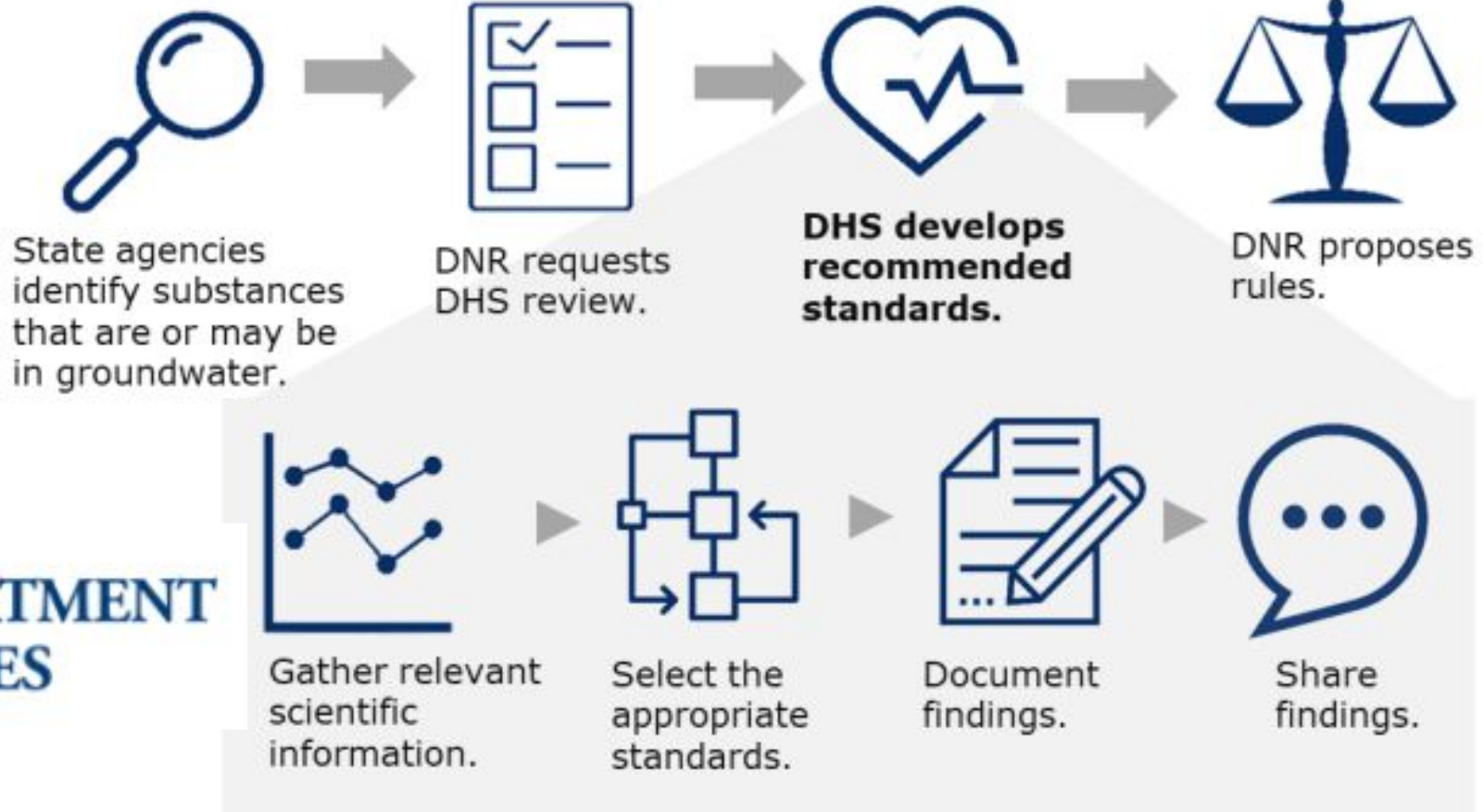
Environmental occurrence, toxicity concerns, and biodegradation of neonicotinoid insecticides

Xidong Zhang^{a,b}, Yaohua Huang^{a,b}, Wen-Juan Chen^{a,b}, Siyi Wu^{a,b}, Qiqi Lei^{a,b}, Zhe Zhou^{a,b},
Wenping Zhang^{a,b}, Sandhya Mishra^c, Pankaj Bhatt^d  , Shaohua Chen^{a,b}  

State Agency Roles in Pesticide Oversight – Groundwater



WISCONSIN DEPARTMENT
of HEALTH SERVICES



Groundwater Standards – Cycle 10



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Recommended Public Health Groundwater Quality Standards

Scientific Support Documents for Cycle 10 Substances

January 2022

DHS Pub. 02434v-2 (05/2024)

Recommended Groundwater Standards

Imidacloprid | 2022

Substance Overview

Imidacloprid is a neonicotinoid pesticide used to control a variety of indoor and outdoor insects.¹ Neonicotinoids are broad spectrum insecticides used on agricultural fields, gardens, pets, and in homes. Neonicotinoid pesticides are similar to nicotine in their structure. They are specifically designed to act on the nicotine receptors in insects, resulting in paralysis and death.

Recommendations

Wisconsin does not currently have an NR140 Groundwater Quality Public Health Enforcement Standard for imidacloprid.

DHS recommends an enforcement standard of 0.2 micrograms per liter (µg/L) for imidacloprid. The recommended enforcement standard is based on a study in 2017 that found that imidacloprid affected weight gain and glucose regulation in male mice.²

DHS recommends that the NR140 Groundwater Quality Public Health Preventive Action Limit for imidacloprid be set at 10% of the enforcement standard because recent studies have shown that imidacloprid can cause mutagenic, teratogenic, and interactive effects at high levels.^{1,3-6}

Health Effects

What we know about the health effects of imidacloprid comes from studies with laboratory animals. Animals that swallowed large amounts of imidacloprid for long periods of time had thyroid, neurological, reproductive, and glucose regulation problems.^{1,2,7-11}

The EPA has classified imidacloprid as having evidence of non-carcinogenicity, meaning that it does not cause cancer in animal studies.¹ Some studies have shown that imidacloprid can cause teratogenic effects in animals.¹ Recent studies have shown that high levels of imidacloprid can cause mutagenic effects in mice and can have interactive effects with arsenic in rats.⁴⁻⁶

Current Standards	
Enforcement Standard:	N/A
Preventive Action Limit:	N/A
Year:	
Recommended Standards	
Enforcement Standard:	0.2 µg/L
Preventive Action Limit:	0.02 µg/L

1. Finding/nature of emergency (Emergency Rule)

The rule will be proposed as a permanent rule.

2. Detailed description of the objective of the proposed rule

The objective of the proposed rule is to set numerical programs to minimize the concentration of polluting substances in groundwater to meet the requirements of the Wisconsin Groundwater Protection Act (WGPA), Stats. 160.07(5), Stats.].

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Existing Groundwater Standards

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(PCE)
ne (1,2,3-TCP)
1,1-DCA)

rm
updated based on feedback received during the public comment period.

WI's Rulemaking Process

DNR PERMANENT RULE PROCESS 2023

PHASE I – Scope Statement Approval

1. Scope statement completed and approved by the Secretary.

2. Scope statement submitted to DOA.

3. Scope statement submitted to and approved by the Governor.

4. Approved scope statement submitted to LRB, JCRAR, and NRB.

5. LRB publishes the scope statement in the Register. **Scope statement 30-month expiration starts on day of publication.**

6. Yellow Sheet submitted to reserve time on the NRB agenda for approval of scope statement, conditional approval of the notice of public hearing and the notice of submittal of the proposed rule to the Legislative Council (notices), and approval of preliminary public hearing.

7. Department may be directed to hold preliminary a public hearing on scope statement. Notify NRB Liaison by email if preliminary hearing is requested. If JCRAR does not request preliminary public hearing, move onto step 12.

8. Green Sheet package submitted to request NRB authorization to hold preliminary public hearing.

9. NRB meeting to authorize preliminary public hearing.

10. Notice of preliminary public hearing published by LRB in the Register and posted on DNR external website and hearings calendar.

11. Preliminary public hearing held. Comment period closes.

12. Green Sheet package submitted to request NRB's approval of scope statement and notices.

13. NRB meeting to approve scope statement and notices.

PHASE II – Rule Preparation

14. Proposed rule language prepared in board order format.

PHASE III – Economic Impact Analysis

15. Fiscal estimate and economic impact analysis (FE/EIA) prepared.

16. Solicitation Notice prepared for comments on EIA. Solicitation Memo to NRB prepared.

16a. Program briefing on draft rule and EIA.

17. Solicitation Memo submitted to NRB for information.

18. Solicitation Notice posted on DNR website, published in the Register, and submitted to affected parties.

PHASE IV – External Reviews

19. Public hearing documents prepared and submitted to NRB for 15-day passive review.

20. Rule documents submitted to the Legislative Council.

21. Notice of public hearing published in the Register and posted on DNR external website and hearings calendar.

22. Public hearing on proposed rule held at least 10 days after publication in the Register. Public comment period closes.

23. Rule language revised based on external review.

24. Request for incorporation by reference submitted to AG if rule requires incorporation by reference.

PHASE V – Rule Approval

25. Yellow Sheet submitted to hold a place on NRB's agenda for adoption of proposed rule.

26. Green Sheet package submitted to request NRB adoption of proposed rule.

27. NRB meeting for adoption of final rule.

28. Final rule submitted to and approved by the Governor.

PHASE VI – Legislative Review

29. Report to Legislature and Notices prepared and submitted to Assembly and Senate Chief Clerks. Rule must be submitted for legislative review before the scope statement 30-month expiration date.

30. Rule referred to and reviewed by Standing Committees.

31. Rule referred to and reviewed by JCRAR.

PHASE VII – Promulgation

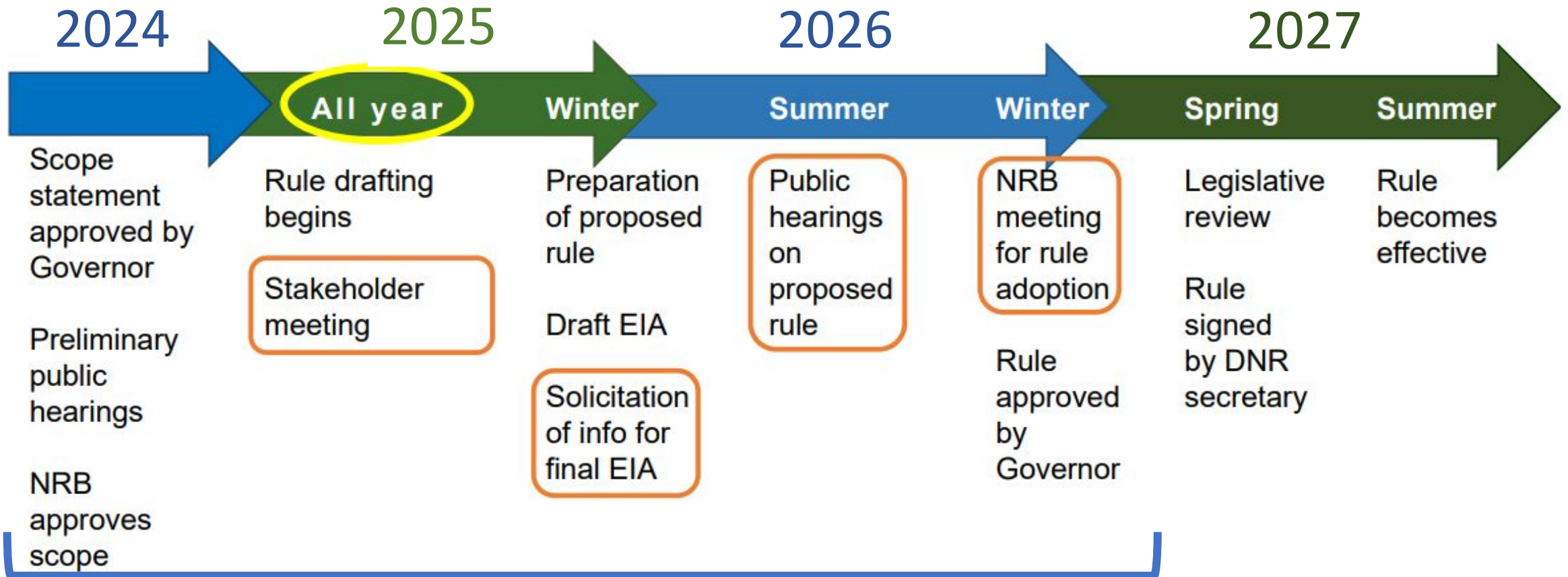
32. Final Rule signed by the Secretary.

33. Final Rule filed with LRB.

34. Rule proof received by LRB and reviewed by program.

35. Final rule published in the Register. Rule becomes effective the first day of the month following publication.

WI Rulemaking Timelines



30 months

Once Groundwater Rules are Established

- **Agencies will:**

- **Review existing rules** regulating facilities, activities, and practices that may be sources of contamination (Wis. Stats. 160.19)
- **Revise existing rules** to require site-specific actions and meet groundwater standard (Wis. Stats. 160.21-26)

- **DNR will use them to:**

- **Set design standards** for facilities, practices and activities regulated by the state
- **Take a response action** to remediate contamination (ex. Require site cleanup, apply restrictions to authorized discharges of treated liquid and solid waste, increase regulation of solid waste landfills, etc.)

- **DATCP can...**

- Take measures to protect groundwater by **restricting or prohibiting chemical** discharges. This will require a change to Wis. Admin. Code § ATCP 30 and

Atrazine Prohibition Areas – A Real-Life Example

- Wis. Stats. 94.67-97.71 gives DATCP authority to restrict or prohibit pesticide use
- 1991 – Established Atrazine mgmt. area and six (6) atrazine prohibition areas
- Grew to all prohibition areas representing **1.2 million acres** across 35 counties
- Hasn't changed since 2010

Chapter ATCP 30
Appendix A
ATRAZINE PROHIBITION AREAS



What else?

Representative Snodgrass

[Meet Lee](#) [News](#) [Agenda](#) [Resources](#) [Explore Wisconsin](#)

BUZZING LEGISLATION THAT AIMS TO PROTECT AND FOSTER GROWTH FOR OUR POLLINATING FRIENDS!

Pollinator Protection Package



Agenda

- [Pollinator Protection Package](#)
- [2023-2025 Biennial Budget](#)
- [Issues](#)
- [Committees and Caucuses](#)

JUNE 2023 AS POLLINATOR AWARENESS MONTH

POLLINATOR PROTECTION PACKAGE

LRB-2939: JUNE 2023 AS POLLINATOR AWARENESS MONTH
Designates June 2025 as Pollinator Awareness Month in Wisconsin.

RUSTY PATCH BUMBLE BEE AS THE STATE NATIVE INSECT

RUSTY PATCH BUMBLE BEE AS THE STATE NATIVE INSECT

POLLINATOR PROTECTION PACKAGE

LRB-2726: RUSTY PATCHED BUMBLE BEE AS THE STATE NATIVE INSECT

Designates Rusty Patched Bumble Bee as the state native insect and requires the Wisconsin Blue Book to include information concerning that designation.

NATIVE PRAIRIE AND FORAGE PLANTS

POLLINATOR PROTECTION PACKAGE

LRB-3135: NATIVE PRAIRIE AND FORAGE PLANTS

Requires state agencies and other state governmental entities to give preference to using native prairie and forage plants to benefit pollinators. DNR is required to provide information to support this initiative upon request.

BAN DNR USE OF CERTAIN INSECTICIDES

POLLINATOR PROTECTION PACKAGE

LRB-2942: BAN DNR USE OF CERTAIN INSECTICIDES

Prohibits DNR from using any insecticide from the neonicotinoid class near any pollinator habitat locator on DNR maintained land.

LOCAL REGULATION OF PESTICIDES TO PROTECT POLLINATORS

POLLINATOR PROTECTION PACKAGE

LRB-2937: LOCAL REGULATION OF PESTICIDES TO PROTECT POLLINATORS

Allows a political subdivision to regulate pesticides for the purpose of protecting pollinators and pollinator habitats. Pollinator in the bill is defined as an insect that pollinates flowers.

LABELING PLANTS AS BENEFICIAL TO POLLINATORS

POLLINATOR PROTECTION PACKAGE

LRB-2938: LABELING PLANTS AS BENEFICIAL TO POLLINATORS

Prohibits a person that provides or sells plants at retail from labeling or advertising a plant as being beneficial to pollinators if that plant had been treated with insecticides that contain warnings about pollinator hazards on their labels.

SPECIALTY "PROTECT POLLINATORS" LICENSE PLATE

POLLINATOR PROTECTION PACKAGE

LRB-3240: SPECIALTY "PROTECT POLLINATORS" LICENSE PLATE

Requires that plates issued to members of the special group, that express support for protecting pollinators, have a design that includes words, "Protect Pollinators". Voluntary payments, issued when plates are requested, are deposited in DNR's endangered resources conservation fund.

Regulatory Oversight of Pesticides in Wisconsin

Thank you!

Sara Walling
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