

Washington County Water Consortium

September 4, 2024

2 to 3:30 pm

Remote meeting - Zoom

(If you are not on the Consortium listserv, please email

Adriana.Atcheson@co.washington.mn.us for the Zoom link and access code)

Agenda

2:00 - 2:05

Welcome

Introductions, Announcements

2:05 - 2:35

3M Settlement: Update on Implementation and Funding

Topic: Update from the State on projects and evaluating impacts to project costs within the Settlement such as inflation and new/updated state and federal drinking water values.

Presenter: Rebecca Place, 3M Settlement Coordinator, MPCA

2:35 - 2:45

Questions

2:45 - 3:15

Shaping the future of prescribed fire in Minnesota with the MN Prescribed Fire Council

Topic: History/goals of MN Prescribed Fire Council, work being done to set up local burn associations/group in MN, helping landowners interested in using prescribed burns. MN Fire Needs Assessment. Update on strategic meeting in July; Council's priorities, strategies, and action items over the coming years including ways the Consortium members can be involved.

Presenter: Lane Johnson, Vice Chair, Minnesota Prescribed Fire Council

3:15 - 3:25

Questions/Adjourn

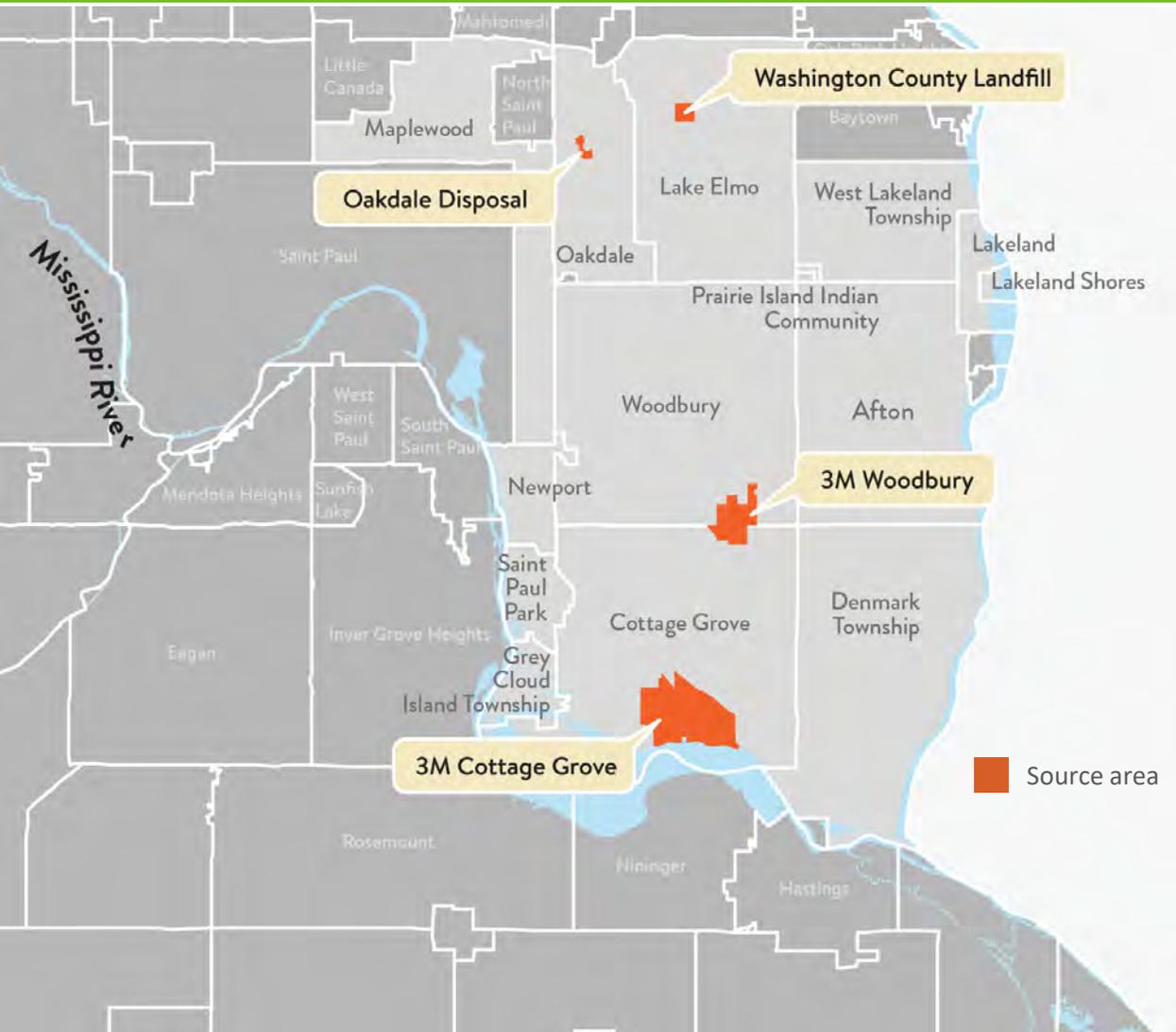


3M Settlement: update on implementation and funding

Rebecca Place | 3M Settlement Coordinator

September 4, 2024

PFAS in the East Metro - history



- **Early 2000s:** PFAS found in East Metro region of the Twin Cities, including drinking water supply
- Groundwater contamination covers over 150 square miles, affecting the drinking water supplies of over 174,000 residents
- **2007:** Consent Order with 3M for investigation and remediation at its disposal sites
- **2018:** State and 3M reached \$850 million Natural Resource Damage Assessment (NRDA) settlement regarding PFAS releases in East Metro
- **2021:** Conceptual Drinking Water Supply Plan (Conceptual Plan) released

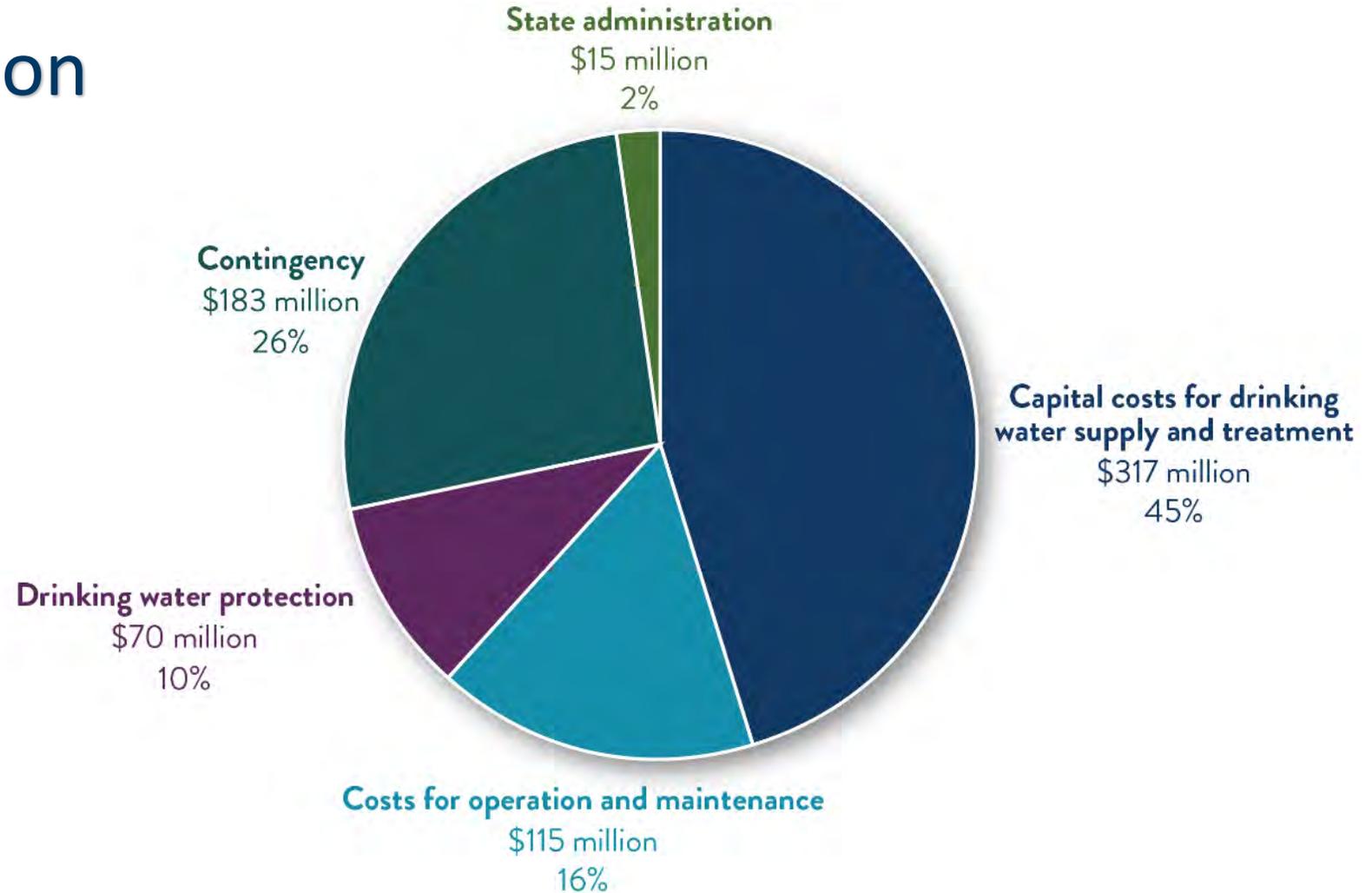
2018 Settlement overview

3M agreed to \$850 million grant to the State to be used for long-term drinking water solutions in the East Metropolitan Area.

- **First and highest priority:** *Enhance the quality, quantity and sustainability of the drinking water in the East Metropolitan Area.*
- Second priority: Enhance natural resources. Per the Settlement Agreement, \$20 million is dedicated for this priority.

Conceptual Drinking Water Supply Plan funding

Total = \$700 Million

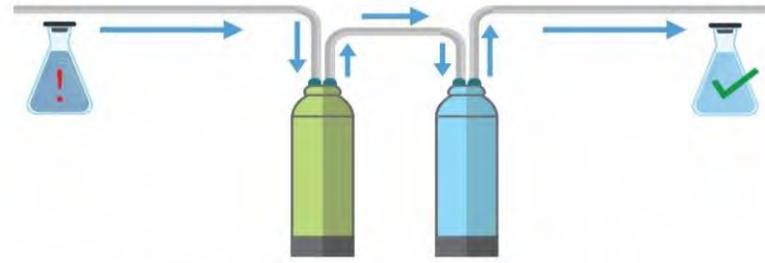


Plan priorities



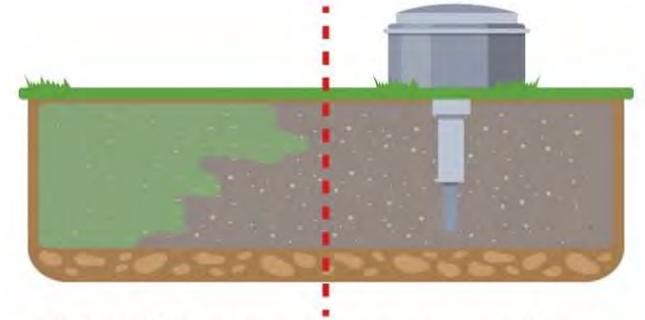
Capital infrastructure

- Whole home treatment systems/Point of Entry Treatment Systems (POETSS)
- Individual or neighborhood connections to existing municipal systems
- Treatment systems
- New wells
- Interconnects



Operation & maintenance

- Ensures the systems being built can be operated into the future
- Municipal wells
- Private wells



Drinking water protection

- Addresses the source of the problem (groundwater contamination)
- Provides protection for those areas impacted at low levels or not impacted at all; prevention is preferred over treatment when possible

View how the Communities have been implementing the Conceptual Drinking Water Supply Plan on tableau public server.

- <https://public.tableau.com/app/profile/mpca.data.services/viz/3MSettlementSpending/Overview>
- Data through December 31, 2023 reported on the workbook

Changing PFAS Health Values for Drinking Water

- In January 2024, Minnesota Department of Health (MDH) released new Health Based Values (HBVs) for PFOA and PFOS.
- On April 10, 2024, the U.S. Environmental Protection Agency (EPA) announced final National Primary Drinking Water Regulations for six PFAS chemicals.
- [Reducing Exposures: Per- and Polyfluoroalkyl substances \(PFAS\)](#)

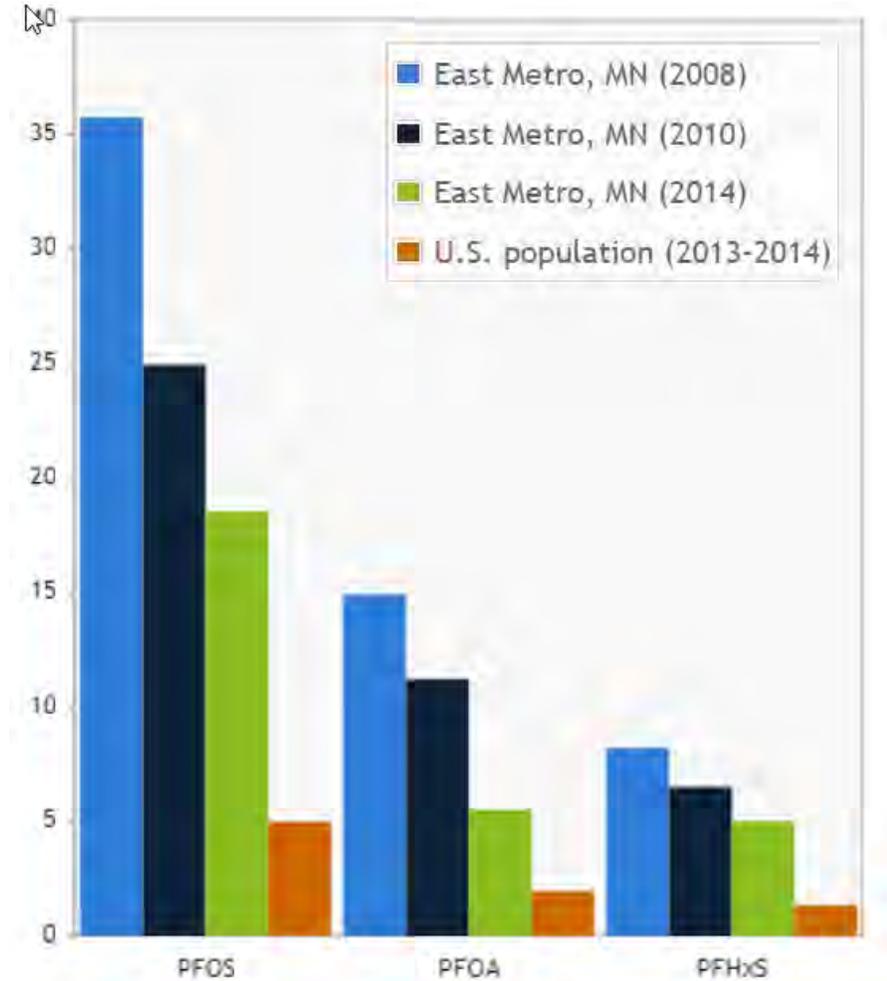
Why MDH Water Guidance Values Have Decreased

- Our understanding of potential health effects has changed over time, but the toxicity of PFAS has remained the same
- Since 2002:
 - Lower detection limits for environmental samples
 - More studies increase certainty for associated health effects
 - Better risk assessment methods to calculate risk

Year	PFOA Guidance (ng/L)	PFOS Guidance (ng/L)
2002	7,000	1,000
2006	1,000	600
2007	500	300
2009	300	300
2017	35	27
2019	35	15
2024 Cancer	0.0079	7.6
2024 Noncancer	0.24	2.3

Health Risks from Long-Term Exposure to PFAS

- Most people experience long-term, low-level exposures to many PFAS from many different sources
- Risk of high cholesterol and some cancers (kidney, testicular) increases the more PFAS a person is exposed to
- Exposure reduction works!
 - Nationwide data shows average blood level decreased for PFOS after phase-out
 - East Metro blood levels decreased after treatment was added to the community water supply



EPA Maximum Contaminant Levels (MCLs) for PFAS

April 10th, 2024 – EPA announced final National Primary Drinking Water Regulation (NPDWR) for **six** PFAS chemicals

The regulation includes:

- MCLs: enforceable standards
- Maximum Contaminant Level Goals (MCLGs)
 - health-based goals
- Hazard Index (HI): accounts for additive health effects of two or more PFAS



EPA MCLs for PFAS (Cont.)

Chemical	MCL (ppt)	MCLG (ppt)
PFOA	4.0	0
PFOS	4.0	0
PFHxS	10	10
HFPO-DA (GenX)	10	10
PFNA	10	10
Hazard Index (HI)	1 (unitless)	1 (unitless)

Potential community well impacts

Community	Existing wells covered in the Conceptual Plan	Additional wells that need treatment due to MCLs	Additional wells that might need treatment due to HBVs*	Total number of wells in the community**
Cottage Grove	10	1	1	13
Cimarron Park	0	2	0	2
Eagle's Watch	0	1	0	1
Lake Elmo	0	1	2	3
Lakeland	0	0	1	2
Newport	0	2	0	2
Oakdale	5	0	2	9
Prairie Island Indian Community	1	0	0	1
St. Paul Park	3	0	0	3
Woodbury	16	2	2	19
Total	30	9	8	55

*These numbers are subject to change based on MDH's implementation of new PFOA/PFOS HBVs

**Not all wells in the total number of wells may be in use (some are/will be abandoned or taken out of service, etc.), and the sum of the first three columns may not add up to the total number of wells (fourth column)

Impacts to private well sampling

Impacts of lower health-based values on East Metro private wells:

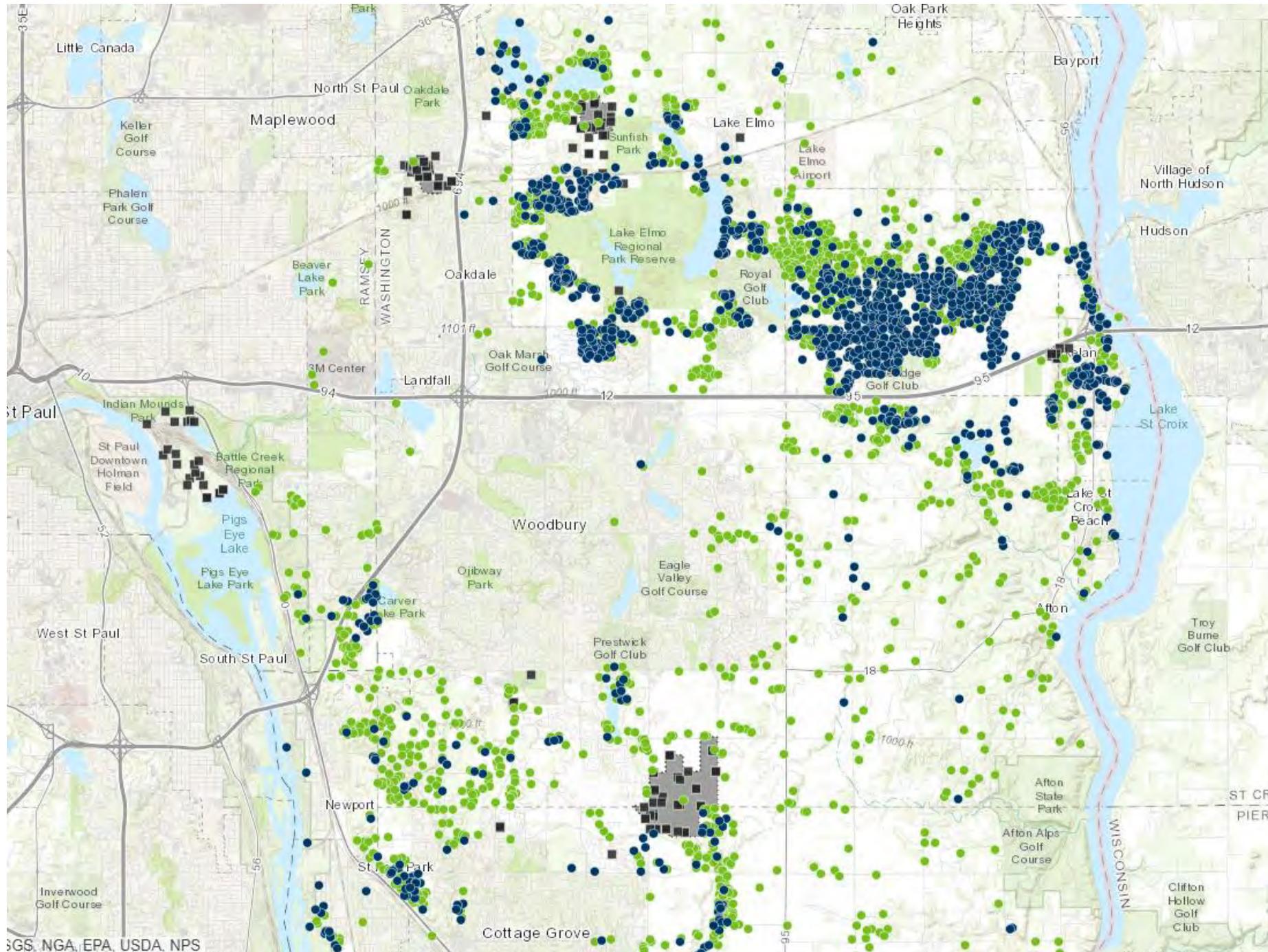
- Approximately 650 residential wells that have been sampled will need treatment that didn't previously
- At least 1,300 residential wells are being resampled using newer lab methods that have lower reporting limits

Private well sampling numbers

PFAS Sampling in East Metro Area

- 2003 - The year PFAS sampling began
- 7,000-8,000 - The number of private wells in the East Metro
- 4,400 - Number of private wells sampled for PFAS
- 1,514 - Number of private well advisories issued for PFAS
- 1,167 - Point of Entry Treatment Systems (POETS) installed
- 393 – Homes connected to municipal water

Private well sampling map



☰ Legend

Wells with a well advisory



Wells sampled, no well advisory (no or low PFAS)



PFAS monitoring wells



PFAS source area



PFAS plume in the East Metro - actions

- Continued private well sampling to define edges of plume
- Continued management of disposal sites to slow or stop PFAS getting into groundwater
- Continued investigation of Project 1007
 - Project 1007 is a series of stormwater pipes, open channels, and catch basins that played a role in transporting PFAS across the East Metro
 - Identify areas of concern within the Project 1007 corridor that should be the focus of potential clean-up actions that can stop or reduce the spread of PFAS.

Update on spending

- As of June 30, 2024, the State has spent \$146,570,518 in Settlement funding and from interest earned.

Fiscal Year 2024 Expenditures

- Capital funding \$56,493,664
- O&M funding \$3,221,579
- Drinking Water protection funding \$3,476,589
- Contingency \$3,003,503
- State Administration \$1,377,890

Update on spending: capital projects

- Community projects funded July 2023, through June 30, 2024

Community	Project	Amount funded
Cottage Grove	Low Zone Water Treatment Plant	\$42,740,000
Cottage Grove	Trunk watermain construction for wells 11 and 12	\$572,000
Cottage Grove	Amendment to continue O&M of temporary treatment plant	\$3,805,000
Lake Elmo	Stillwater Trunk Water Main Construction	\$3,140,000
Lake Elmo	Treatment of Well #2 modeling	\$58,000
Lake Elmo	Administration grant	\$60,000
Woodbury	O&M on Temporary Treatment Plant	\$9,138,740
Woodbury	Pre-procurement grant for WTP equipment	\$24,501,600
Washington County	Well sealing grant	\$150,000
Newport	Planning for Interconnects with adjacent municipalities	\$20,000
Newport	Well sealing and home connections	\$25,000
	Total funded	\$84,210,340

Anticipated Awards in Fiscal Year 2025

(July 2024 through June 2025)

Projected Capital Infrastructure projects in Fiscal Year 2025		Estimated Award Amount
City of Oakdale	Modeling for Centralized Treatment System	\$56,500
City of Woodbury	WTP Construction	\$205,000,000
City of Lake Elmo	Well 2 Expedited PFAS Treatment	\$1,516,000
City of Oakdale	Comprehensive Water System Study	\$28,000
Cimarron Park	Municipal connection or WTP	\$6,900,000
City of Woodbury	Pipelines for centralized treatment system	\$136,000,000
City of Cottage Grove	Intermediate Zone WTP Construction	\$100,000,000
East Metro Area	POET Installation Costs	\$528,800
Eagles Watch	Planning grant	\$36,000
	Total	\$450,065,300

Implications of Spending on Fund Allocations

- **Capital fund allocation** will continue to fund eligible projects, including using interest earned on capital funds, until the fund is depleted
 - Anticipated capital grants awarded through Fiscal Year 2025 will exceed the amount of funding originally allocated to capital in the Conceptual Plan
- **Contingency fund allocation** will be used to fund eligible projects
 - Likely to use a portion of contingency fund allocation for capital projects in Fiscal Year 2025

Implications of Spending on Fund Allocations

- **O&M allocation** will maintain individual POETs as well as municipal water treatment plants
- **Drinking water protection allocation** will complete Project 1007 feasibility study, as required under the Settlement, and fund drinking water sampling for private wells and public systems
- **State administration allocation** will continue to fund the implementation of the Conceptual Plan

Next Steps

- The remaining Settlement funding will likely be committed within the next few years
- Need improved cost estimates and timing projections from Communities
- Co-Trustees are working on the path forward that we will discuss with the work groups
- When allocations run out of funding, drinking water activities would revert to being reimbursed by 3M under the 2007 Settlement Agreement and Consent Order (Consent Order)



Drinking water well treatment costs

Transition from Settlement to Consent Order Funding



Applies to private and public wells

Priority 2

- Priority 2 projects will be solicited via a competitive, public Request for Proposals (RFP) process. The State will select the projects that best meet Priority 2 goals
- All questions regarding Priority 2 should be sent to this email:
3MPriority2@state.mn.us
- Sign up for Priority 2 Gov Delivery:
https://public.govdelivery.com/accounts/MNDNR/subscriber/new?topic_id=MNDNR_365

Thank you!

Rebecca Place

Rebecca.Place@state.mn.us

651-757-2807

Shaping the Future of Beneficial Fire

with the MN Prescribed Fire Council



Minnesota Prescribed Fire Council

Mission: promote and expand the safe and beneficial use of prescribed fire

mnprescribedfire.org



MNPFC – Who we are

- Participants: Diverse mix of prescribed fire practitioners and allies
- Steering committee: Non-agency Rx fire users and agency supporters
 - Volunteer coalition of the willing
- Our target community: Anyone *not* represented by the Minnesota Interagency Fire Center



Lane Johnson, Research Forester
UMN Cloquet Forestry Center
>> Applied historical ecology <<

Outer
Ring:
1942

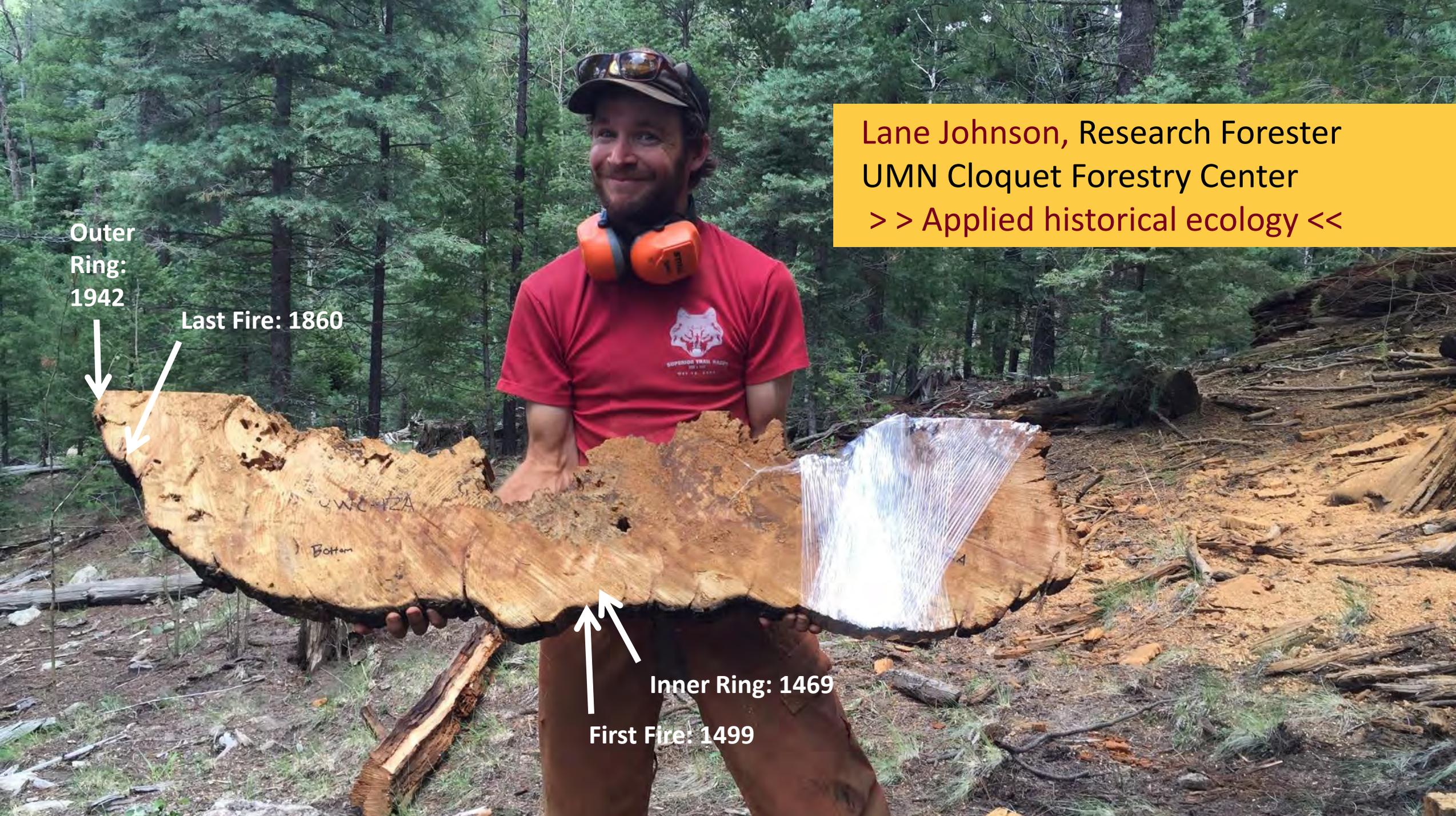
Last Fire: 1860



UWC-YZA
Bottom

Inner Ring: 1469

First Fire: 1499





Fire is the primary process that has shaped and perpetuated the ecosystems of the Upper Great Lakes for millennia



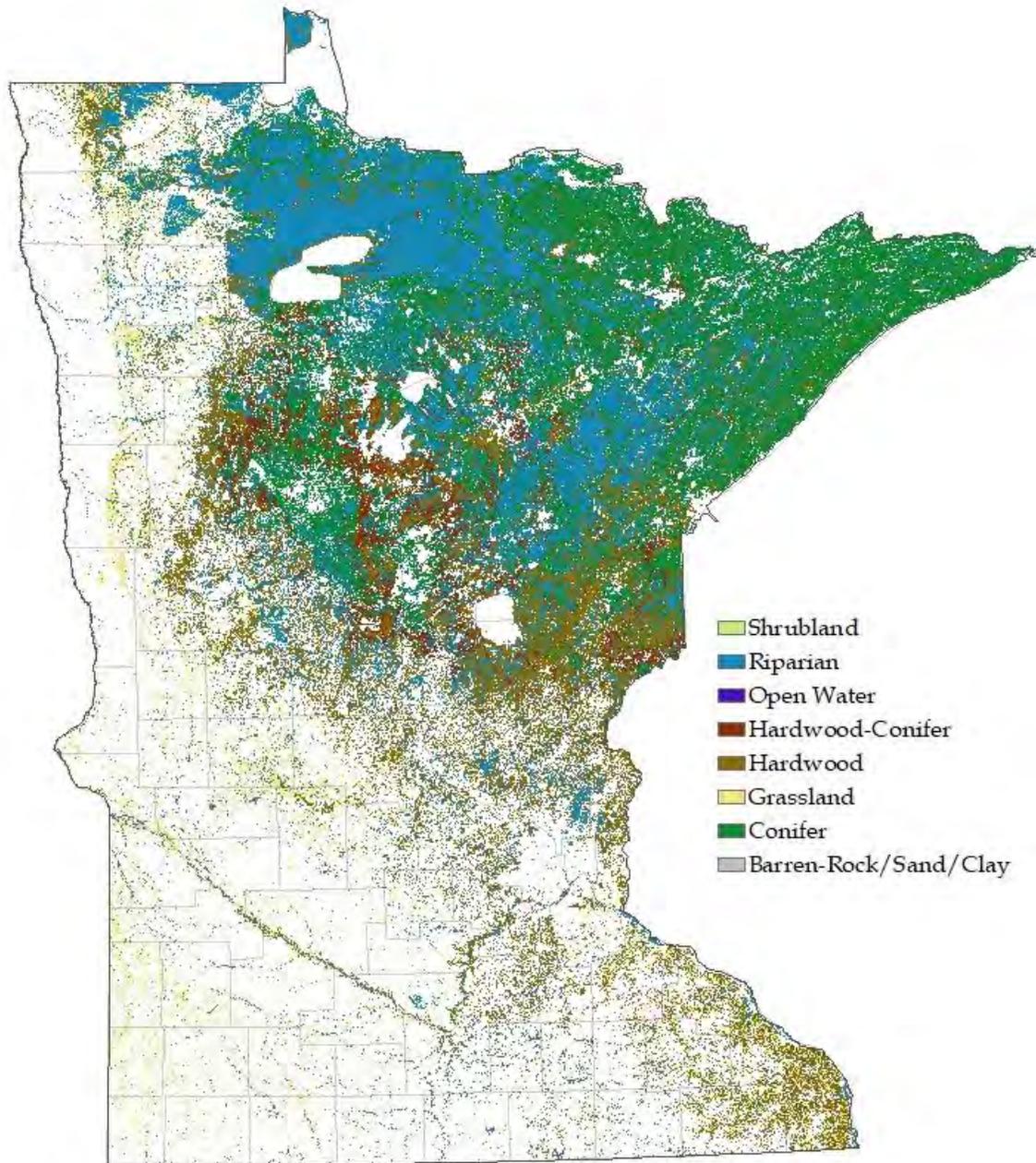
What is fire?

A dark forest at night with a small fire glowing in the distance, illuminating the trees.

Elemental
Essential
Life-giving
Cleansing
Renewing
Public Good
Ecosystem Service
Caretaking Obligation

MN Fire Needs Assessment

Adjusted Biophysical Settings



Source: LANDFIRE Biophysical Settings (adjusted)

Minnesota Fire Needs Assessment

Where is beneficial fire needed to perpetuate the native plant communities of Minnesota?

Historical Conditions

Quantify and map the grassland and forestland that historically existed across the state using LANDFIRE (www.landfire.gov) Biophysical Setting data.

Mean Fire Return Interval

Determine the Mean Fire Return Interval (MFRI, a conservative estimate of how often a system historically burned) for all systems using LANDFIRE Biophysical Setting data.

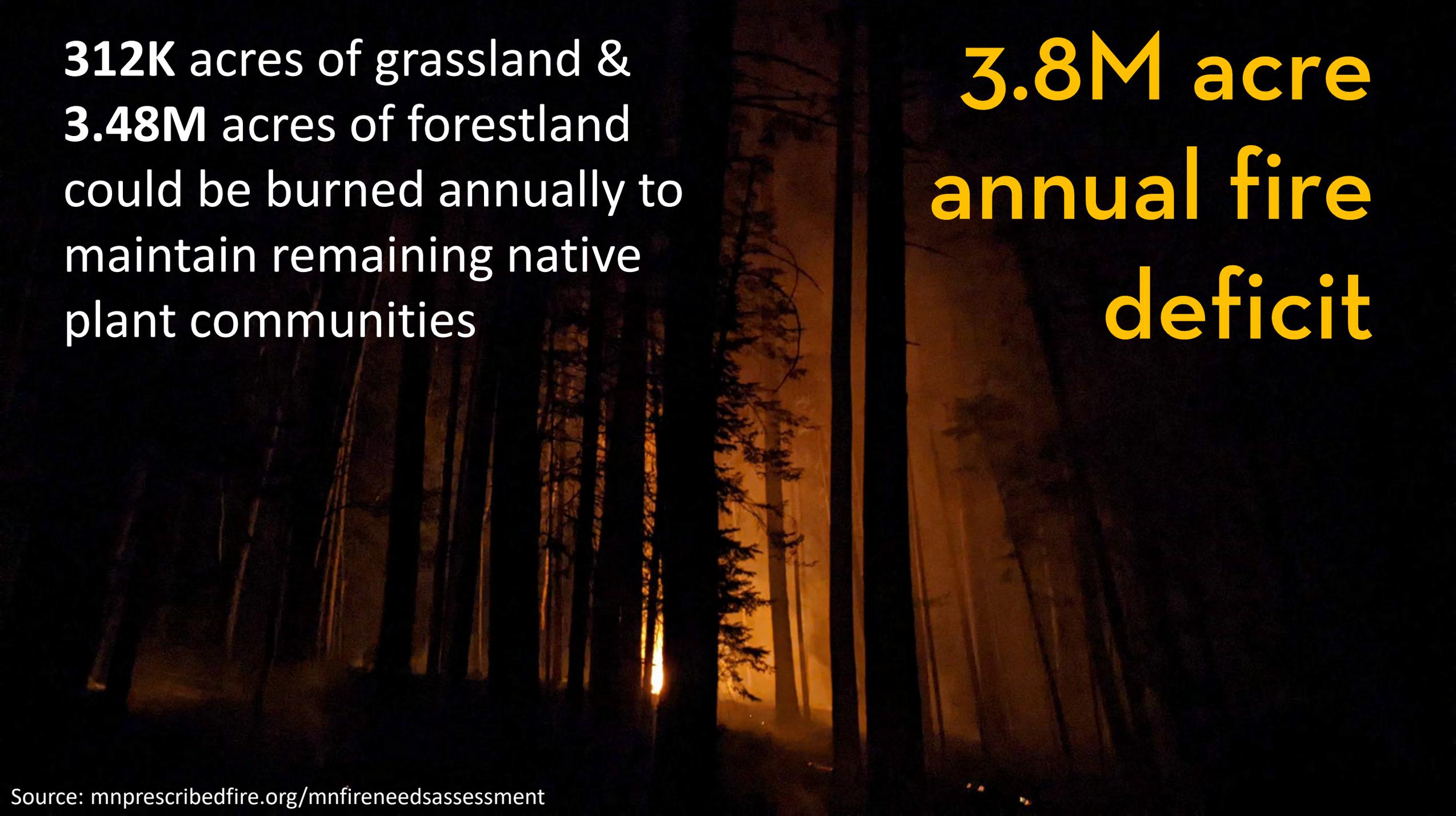
Current Conditions

Quantify and map the grassland and forestland areas that still exist across the state using LANDFIRE Existing Vegetation Type data.

Current Fire Need

Calculate the current fire requirement in acres by dividing the current acreage of each system by its Mean Fire Return Interval.

Source: mnprescribedfire.org/mnfireneedsassessment



312K acres of grassland &
3.48M acres of forestland
could be burned annually to
maintain remaining native
plant communities

3.8M acre
annual fire
deficit

County Summary

Select County **Washington**

Select Vegetation Type **Grassland**

			Historical BPS acres	Existing acres	Percent converted	Annual Fire Need	Acres in WUI	Wildfire Likelihood
Grassland	Northern Tallgrass Prairie	(4yrs)	23,652	2,321	90.2%	580	66	0.006%
	North-Central Interior Sand and Gravel Tallgrass Prairie	(3yrs)	10,667	1,448	86.4%	483	459	0.007%
	Grand Total		34,320	3,769	89.0%	1,063	525	0.007%

			Local	NGO	Private	State - DNR: Other	State - DNR: Wildlife	State - Other
Grassland	Northern Tallgrass Prairie	(4yrs)	75	116	1,880	217	33	
	North-Central Interior Sand and Gravel Tallgrass Prairie	(3yrs)	45	133	1,044	214	12	
	Grand Total		120	249	2,924	431	44	

County Summary

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		Local	NGO	Private	State - DNR: Other	State - DNR: Wildlife	State - Other
Grassland	Northern Tallgrass Prairie (4yrs)	75	116	1,880	217	33	
	North-Central Interior Sand and Gravel Tallgrass Prairie (3yrs)	45	133	1,044	214	12	
	Grand Total	120	249	2,924	431	44	

87% of grasslands in Washington Co. have no clear pathway for fire restoration

County Summary

Select County: **Washington**

Select Vegetation Type: **Hardwood**

		Historical BPS acres	Existing acres	Percent converted	Annual Fire Need	Acres in WUI	Wildfire Likelihood
Hardwood	North-Central Interior Oak Savanna (5yrs)	94,897	25,974	72.6%	5,195	8,439	0.016%
	North-Central Interior Dry-Mesic Oak Forest and Woodland (13yrs)	58,419	21,421	63.3%	1,648	8,714	0.018%
	North-Central Interior Maple-Basswood Forest (467yrs)	17,121	4,489	73.8%	10	1,755	0.015%
	North-Central Oak Barrens (5yrs)	10,592	4,209	60.3%	842	1,690	0.019%
	Laurentian-Acadian Northern Hardwoods Forest-Hemlock (2040yrs)	3,134	593	81.1%	0	296	0.018%
	Laurentian Pine-Oak Barrens (4yrs)	33	10	68.4%	3	3	0.019%
	Laurentian-Acadian Northern Pine(-Oak) Forest (11yrs)	28	3	89.1%	0		0.016%
	Gr	184,225	56,700	69.2%	7,697	20,898	0.017%

		Federal - NPS	Federal - Other	Local	NGO	Private	State - DNR: Ot..	State - DNR: Wi..	State - Other
Hardwood	North-Central Interior Oak Savanna (5yrs)	434	180	1,264	12	21,780	1,893	397	14
	North-Central Interior Dry-Mesic Oak Forest and Woodland (13yrs)	161	432	718	10	17,555	2,487	52	7
	North-Central Interior Maple-Basswood Forest (467yrs)	12	43	325		3,398	616	65	
	North-Central Oak Barrens (5yrs)	5	21	1,174		3,911	1,118	18	
	Laurentian-Acadian Northern Hardwoods Forest-Hemlock (2040yrs)			7		498	89		
	Laurentian Pine-Oak Barrens (4yrs)					10	0		
	Laurentian-Acadian Northern Pine(-Oak) Forest (11yrs)	0		1		2			
	Gra	672	716	2,537	22	46,789	5,411	532	21

87% of woodlands in Washington Co have no clear pathway for fire restoration



Image: Smithsonian

FOREST FIRES

The great annual destruction of forests by fire is an injury to agriculture and industries. The welfare of every community is dependent upon the preservation of its forests.

Effective means of preventing floods and maintaining a regular flow of streams used for irrigation and other useful purposes.

To prevent forest fires Congress passed the law approved May 5, 1918, which—

**Forbids setting fire to the woods, and
Forbids leaving any fires unextinguished.**

This law, for offenses against which officers of the FOREST SERVICE can arrest without warrant, provides as maximum punishment—

A fine of \$5,000, or imprisonment for two years, or both, if a fire is set maliciously,

A fine of \$1,000, or imprisonment for one year, or both, if fire results from carelessness.

It also provides that the money from such fines shall be paid to the school fund of the county in which the offense is committed.

THE EXERCISE OF CARE WITH SMALL FIRES IS THE BEST PREVENTIVE OF LARGE ONES.

1. Not to build fires in leaves, rotten wood, or other places where they are likely to spread.
2. In windy weather and in dangerous places, to dig holes or clear the ground to confine camp fires.
3. To extinguish all fires completely before leaving them, even for a short absence.
4. Not to build fires against large or hollow logs, where it is difficult to extinguish them.
5. Not to build fires to clear land without informing the nearest officer of the FOREST SERVICE, so that he may assist in controlling them.

This notice is posted for your benefit and the good of every resident of the neighborhood. It is requested to cooperate in preventing its removal or defacement, which acts are prohibited by law.

JAMES WILSON,
Secretary of Agriculture

streams used for irrigation and other useful purposes.

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THE EXERCISE OF CARE WITH SMALL FIRES IS THE BEST PREVENTIVE OF LARGE ONES.

Image:: Howard Greene, courtesy of Martha Greene Phillips



MINNESOTA FORESTRY BOARD

First Annual Report
OF THE
STATE FORESTER

WM. T. COX.....State Forester
DILLON P. TIERNEY, Asst. State Forester

LIBRARY
Dept of Natural Resources
500 Lafayette Road
St. Paul, MN 55155-4021



DECEMBER 31, 1911

Sec. 22. Whoever under any circumstances sets fire, must exercise care and precaution in proportion to the danger.

Whenever a fire set by any person or corporation spreads to and destroys property belonging to another, it shall be **prima facie** evidence that the party so setting such fire is guilty of negligence in setting the same and allowing it to spread.

Prima Facie Negligence - a rebuttable assumption of guilt (refutable by the defendant but burdensome and difficult)

what are other
words for
prima facie?



at first sight,
at the first blush, clear,
apparent, seemingly, appearing,
evidential, likely





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88.03 CODIFICATION.

Sections [88.03](#) to [88.22](#) shall be deemed and construed as a codification, revision, and expansion of, and as supplementary to, and taking the place of, the laws which existed at the time of the passage of Laws 1925, chapter 407, relating to forestry and to wildfires, including Laws 1911, chapter 125, and acts amendatory thereof and supplemental thereto; Laws 1913, chapter 159; Laws 1915, chapter 325; Extra Session Laws 1919, chapters 32 and 33, but without abridging or destroying any rights, obligations, liabilities, or penalties from, or under, any of such laws prior to the taking effect of Laws 1925, chapter 407. Sections [88.03](#) to [88.22](#) shall apply to all the wildfire areas of this state.

History: ([4031-1](#)) [1925 c 407 s 1](#); [1993 c 328 s 10](#)

§ 88.75 VIOLATIONS; PENALTIES.

Minnesota Wildfire Act

Societal advancement since 1894

Ford Mustang Mach-E



Minnesota's New Forestry Law of 1911

Ford Model T

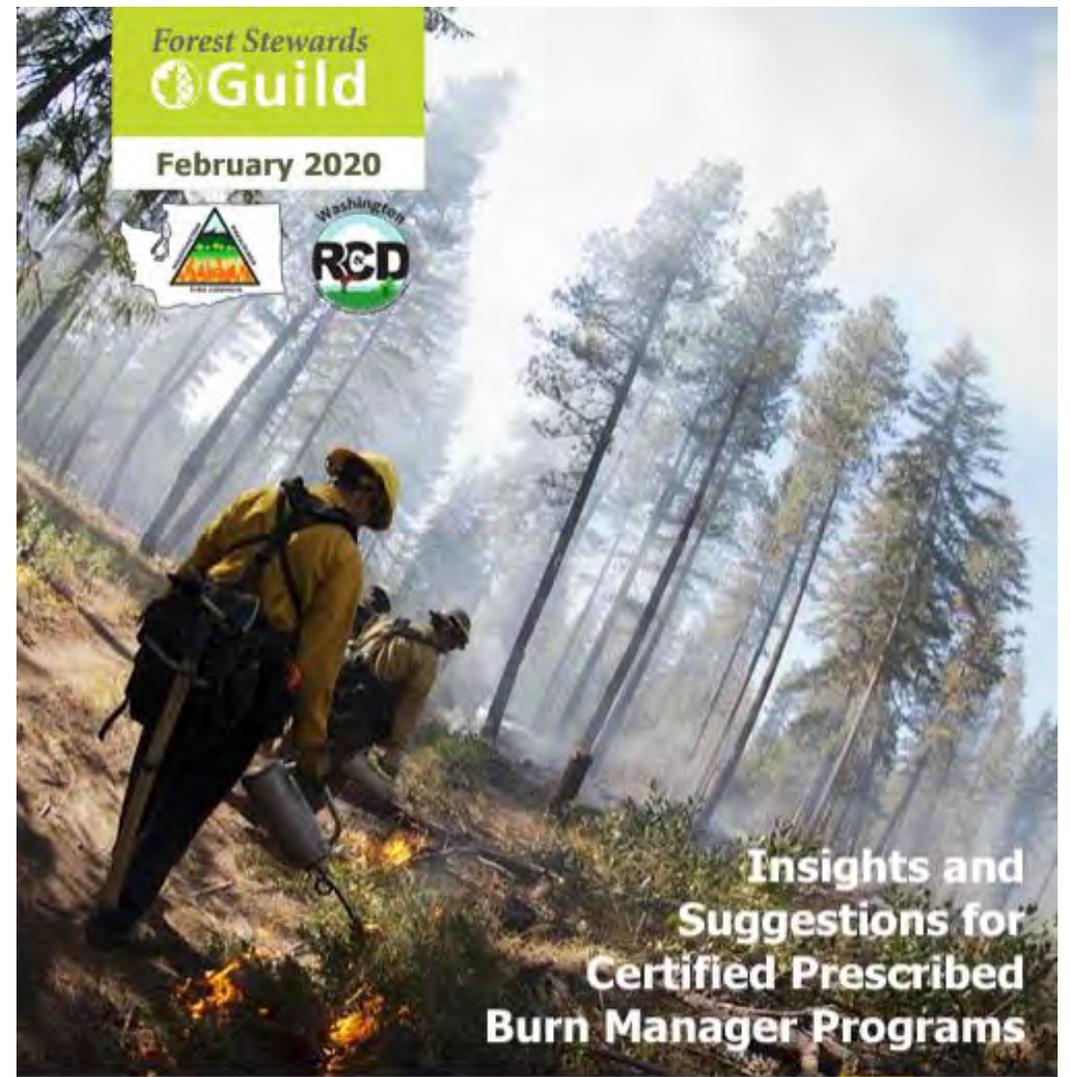


JANUARY 2023

BURN BACK BETTER

How Western States Can Encourage
Prescribed Fire on Private Lands

BY JONATHAN WOOD AND MORGAN VARNER



Forest Stewards
Guild

February 2020



Insights and
Suggestions for
Certified Prescribed
Burn Manager Programs

REPORT

Ways forward

- 1. Improve permitting systems to remove bureaucratic obstacles to prescribed burning**
- 2. Develop more flexible approaches to setting “burn days” in which different types of prescribed fire can be implemented**
- 3. Design training opportunities and other resources to educate and support, rather than regulate, landowners’ use of prescribed fire**
- 4. Clarify and improve liability regimes to reflect the public benefits of prescribed fire**



MNPFC Vision: We envision a culture where prescribed fire is valued, accessible, and applied across all fire-dependent landscapes in Minnesota, regardless of ownership or agency affiliation.



MNPFC Values:

- **Collaboration** – we accomplish more together
- **Innovation** – we approach challenges in new and creative ways; challenges should not be addressed using the same thinking that created them
- **Inclusion** – we welcome diverse knowledge, experience, and cultures
- **Community** – we grow together through the exchange of ideas, expertise, and place-based knowledge
- **Service** – we are an organization led by a volunteer coalition of the willing
- **Relationships** – we work to sustain the fire-dependent lands and communities that sustain us
- **Access** - we work to make beneficial fire available to current and future generations

Goal 1: Build a community of prescribed fire practitioners that prioritizes relationship building, the transfer of diverse knowledge, and meaningful collaboration



Example: Collaborative *ecocultural* restoration of fire on the Fond du Lac Reservation



Goal 2: Advocate for policies, legislation, and other changes that create a supportive regulatory and liability environment for beneficial fire implementation

Example: Legislative meeting with MN DNR Division of Forestry Leadership, January 2024



Example: Two-day collaborative burners gathering at Camp Ripley, Spring 2023

Goal 3: Ensure accessible training for prescribed fire



Example: MNPFC Annual Meeting, January 2024

Goal 4: Build support for beneficial fire in MN through education and outreach



Example: Private lands oak-pine underburn on private land near Pillager, MN; led by The Nature Conservancy



Example: In-house open burning with variance permit at UMN Cloquet Forestry Center

Goal 5: Support on-the-ground implementation of beneficial fire

Goal 6: Grow Minnesota Prescribed Fire Council brand and administrative capacity





Prescribed Burn Association (PBA) Trailers



- Trailers with equipment to support formation of Prescribed Burn Associations (PBA)
- “Neighbors helping neighbors”
- 3 trailers to be built for use across the state
- Each trailer to outfit 12 personnel



UTV spray unit (each trailer will have 2)



Backpack sprayers



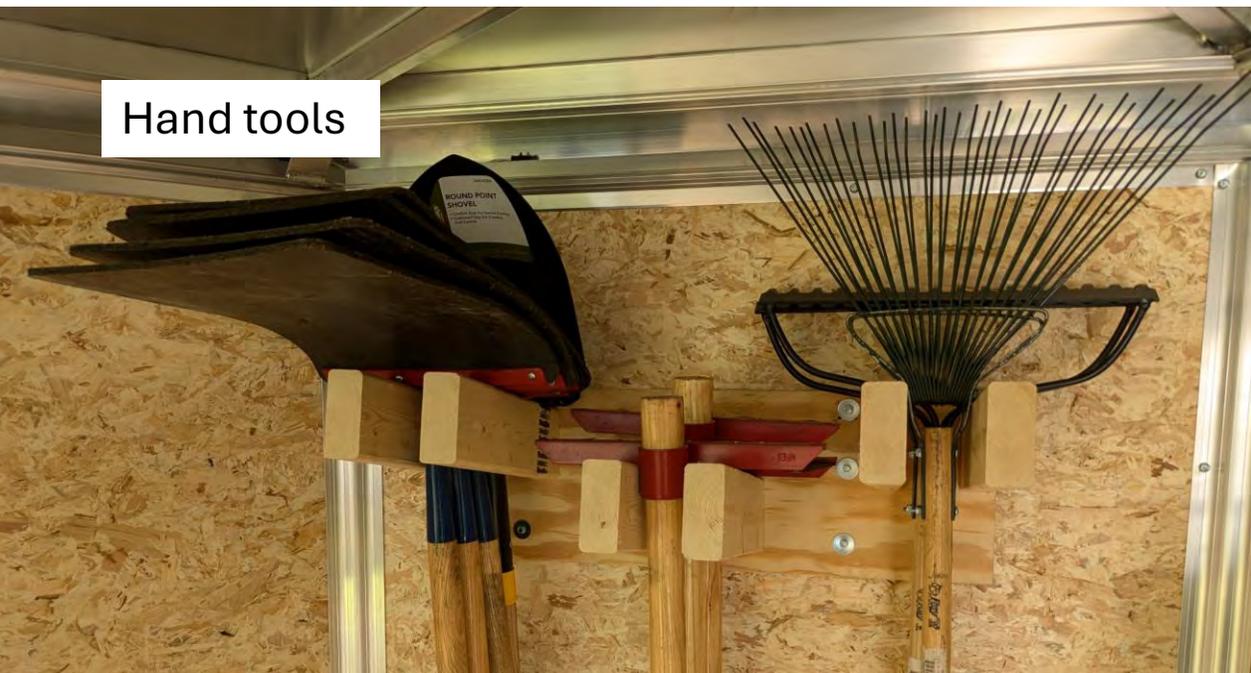
Protective clothing



Drip torches



Two-way radios



Hand tools



Road signs

Planned to be fire-ready by Spring 2025

Contact Jason Andersen, Pheasants Forever
jandersen@pheasantsforever.org

Minnesota Prescribed Fire Council

[Home](#) [About](#) [Our Leaders](#) [Annual Meeting](#) [MN Fire Needs Assessment](#) [Contact](#)



Minnesota Prescribed Fire Council

Protecting, conserving, and expanding the
safe use of prescribed fire in Minnesota



Cloquet Forestry Center

UNIVERSITY OF MINNESOTA

Driven to Discover®

Lane Johnson

Research Forester

lbj@umn.edu

218-726-6411

cfc.cfans.umn.edu



z.umn.edu/GreatLakesFire