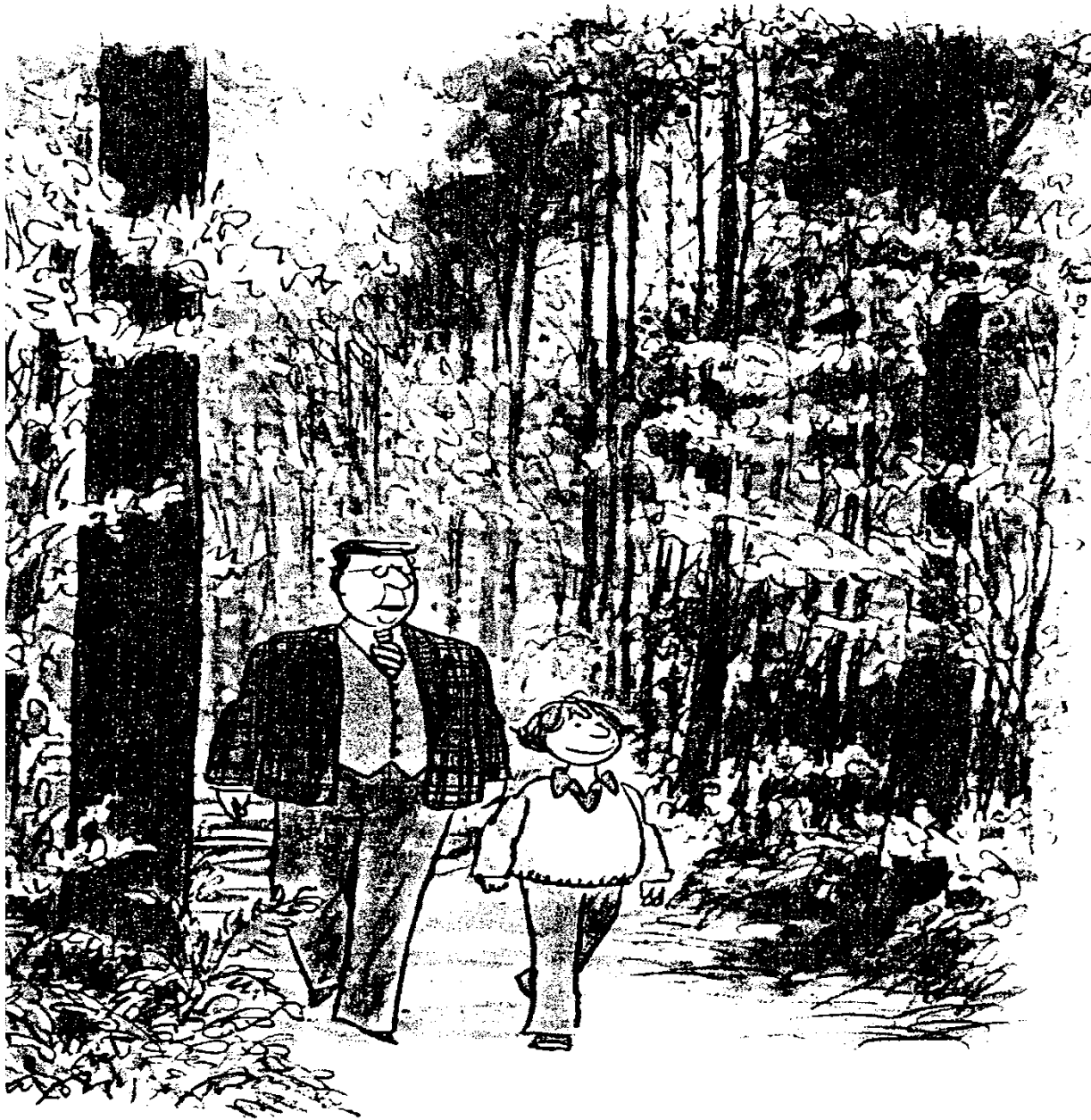




Phragmites Control on Roadsides and Rights-of-Way

Bob Batt

**Michigan Department of Transportation
University Region**

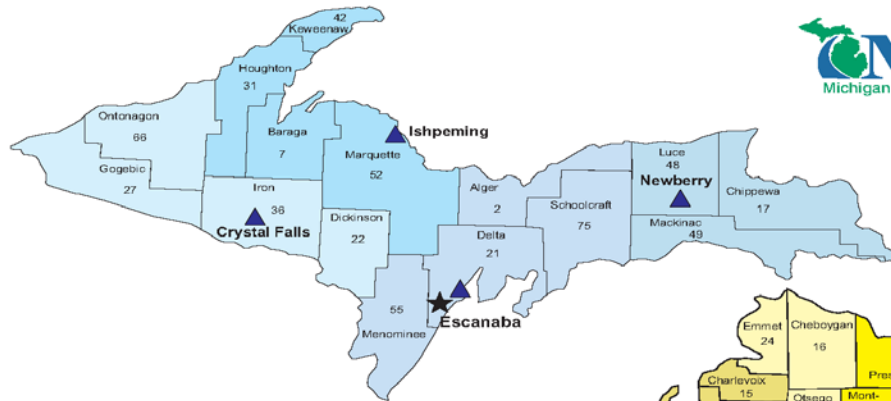


*"It's good to know about trees. Just remember nobody ever made
any big money knowing about trees."*

About MDOT

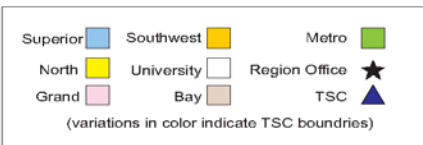
- I, US, and M Routes
- 10,000 + miles of roads
- Divided into seven Regions and 26 TSCs
- Region Resource Specialists
 - one per Region
 - provide specialized expertise in vegetation management for our Regions
 - work with specialists in our Roadside Operations area and Environmental Section
 - our role in Phragmites management

MDOT Regions and Transportation Service Centers



COUNTIES

REGION	REGION
1. ALCONANOR	43. LAKENOR
2. ALGERSUP	44. LAPEERBAY
3. ALLEGANSWR	45. LEELANAUNOR
4. ALPENANOR	46. LEWISUNIV
5. ANTRIMNOR	47. LIVINGSTONUNIV
6. ARENACBAY	48. LUCESUP
7. BARAGASUP	49. MACKINACSUP
8. BARRYSWR	50. MACOMBMETRO
9. BAYBAY	51. MANISTEENOR
10. BENZIENOR	52. MARQUETTESUP
11. BERRIENSWR	53. MASONNOR
12. BRANCHSWR	54. MECOSTAGR
13. CALHOUNSWR	55. MENOMINEESUP
14. CASSSWR	56. MIDLANDBAY
15. CHARLEVOIXNOR	57. MISSAUKEENOR
16. CHEBOYGANNOR	58. MONROEUNIV
17. CHIPPEWASUP	59. MONTCALMGR
18. CLAREBAY	60. MONTMORENCYNOR
19. CLINTONUNIV	61. MUSKEGONGR
20. CRAWFORDNOR	62. NEWAYGOGR
21. DELTASUP	63. OAKLANDMETRO
22. DICKINSONSUP	64. OCEANAGR
23. EATONUNIV	65. OGDENNOR
24. EMMETNOR	66. ONTONAGONSUP
25. GENESEEBAY	67. OCEOLANOR
26. GLADWINBAY	68. OSCODANOR
27. GOGEBICSUP	69. OTSEGONOR
28. GR. TRAVERSENOR	70. OTTAWAGR
29. GRATIOTBAY	71. PRESQUE ISLENOR
30. HILLSDALEUNIV	72. ROSCOMMONNOR
31. HOUGHTONSUP	73. SAGINAWBAY
32. HURONBAY	74. SANILACSUP
33. INGHAMUNIV	75. SCHOOLCRAFTSUP
34. IONIAGR	76. SHIAWASSEEUNIV
35. IOSCONOR	77. ST. CLAIRMETRO
36. IRONSUP	78. ST. JOSEPHSWR
37. ISABELLABAY	79. TUSCOLABAY
38. JACKSONUNIV	80. VAN BURENSWR
39. KALAMAZOOSWR	81. WASHTENAWUNIV
40. KALKASKANOR	82. WAYNEMETRO
41. KENTGR	83. WEXFORDNOR
42. KEWEENAWSUP	



How MDOT Works

- Design
- Construction
- Maintenance
 - MDOT personnel
 - county road commissions under contract
 - private contractors

MDOT's Phragmites Management Philosophy

- “Eradication”
- Each Region has a program
- Region philosophies similar
 - Eliminate small patches – “seek and destroy”
 - Dedicated efforts in targeted areas
 - larger scale infestations
 - wetlands



MDOT's Priorities



Safety

Signs



Guardrail



Clear Vision Areas





Operational

Ditches



Other Structures



Wetland Mitigation Sites



- Built to replace wetlands lost during road construction
- Regulated by USACE & DNRE
- MDOT is required to meet certain vegetation standards

Challenges

- ROW issues
 - Linear nature of ROW
 - Different types/different approaches
 - fee
 - easement
 - permitted
- Funding/staffing
- Offsite presence of Phragmites





GREEN
BAY

MDOT Control Strategies

- Primarily herbicide treatments
 - Linear ROW inappropriate for burning
 - Cannot manipulate water levels
- Herbicides used
 - Roundup Pro/Rodeo (glyphosate) with drift control agent
 - Arsenal/Habitat (imazapyr)
- Cultural methods
 - no mowing w/o prior treatment
 - notes on project plans

MDOT's Roadside Spray Program

- Six distinct categories
 - guardrail
 - weed
 - brush
 - plant growth regulator
 - pavement
 - Phragmites/invasive species

MDOT's Roadside Spray Program

- Spraying done by Maintenance
 - each Region has crews who spray
 - limited private contractors
- All applicators are MDA certified
- Annual training

MDOT's Roadside Spray Program

- 2009 Figures

- Almost \$1.7 million statewide

- 2010 Figures

- Sprayed 22,814 acres total all categories
 - 2,280 acres of Phragmites
 - Total herbicide purchase amount \$835,156
 - Phragmites program - \$200,000+ in labor, equipment and chemical

Equipment



- ¾ ton 4x4 pickup
- 300 gallon tank
- 5 hp Briggs w/pump
- Hand Sprayer
- 30' hose/reel
- Spill Kit
- Washing station/tank
- Lock box for chemicals



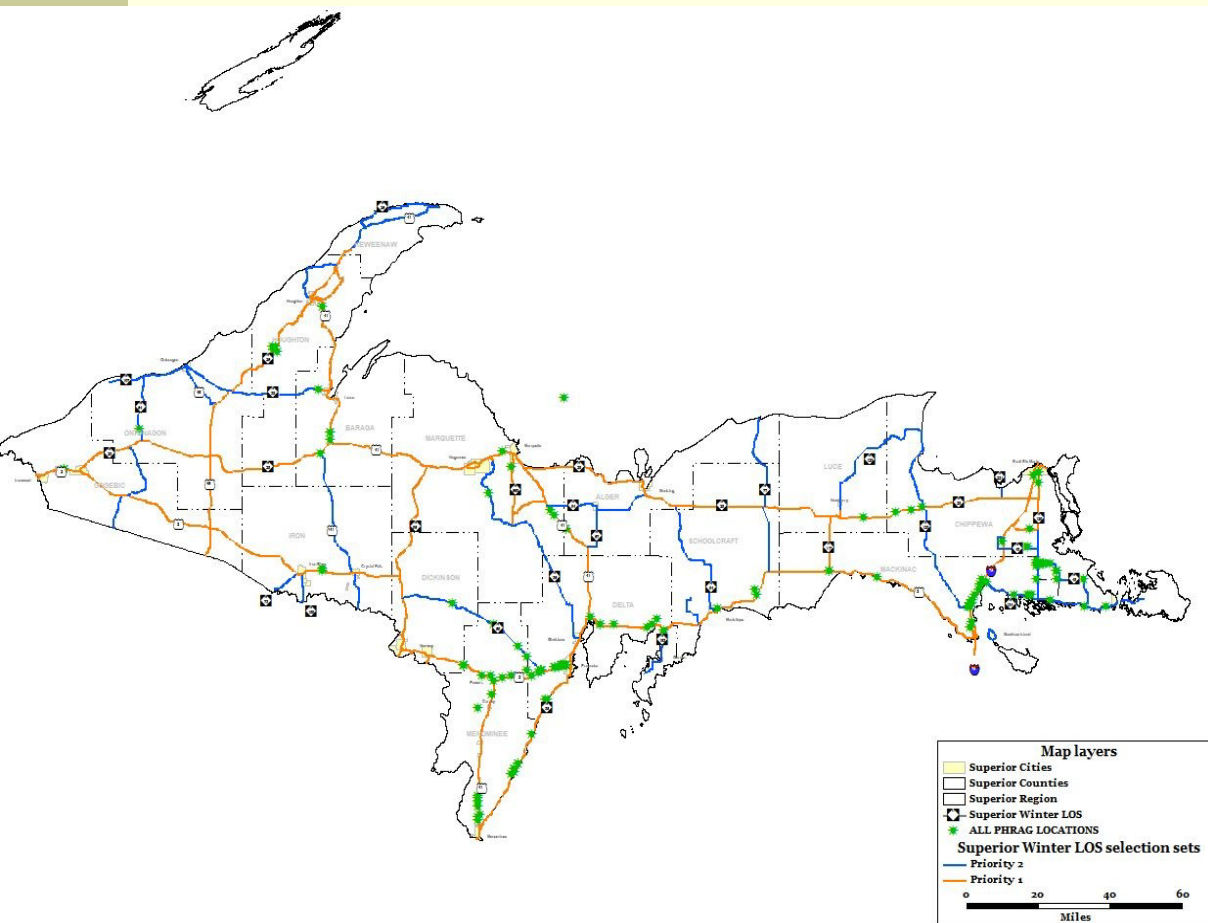








Program Improvements



- MDOT more intentional with our program
 - planning
 - record keeping
- GIS/GPS
- Pavement Management System

Working Together

- Partnering with other agencies and states
- Permitting treatment by others on ROW
- Coordinating treatment of problem areas



Permits

- Permit approval in 5 - 45 days from TSC
- Applicant is responsible for environmental clearances that may be needed
- Signage and traffic control will be required
- <http://www.michigan.gov/mdot>
 - Scroll down to Favorite Links
 - Click on Permits
 - Click on Right-of-Way Construction Permits

Region Resource Specialists

