Using MnRAM 3.4 Access Database

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Contents of this slideshow

- Database information
 - Downloading MnRAM software
 - Getting started entering data
 - Overview of reports

Downloading MnRAM 3.4



Opening MnRAM 3.4

- When you first open the database, there is a Security Alert. This is a Microsoft feature that cannot be removed.
- Click "Enable this content" to continue.



Opening the Database





Using the Wetland ID Search

nnesota Routine Assessment Metho	d for Evaluating Wetlar	nd Functions Version 3	.3		
ch for Wetland: Vanimeuf shore Vanimeuf ft basin Habitat (35 - 4 Vanimeuf shore eneral Informatic Vanimeuf slope pond	Active Wet Gro Jial Features	and: Vantneufshore undwater (58 · 63) Vegetation (1 · 6)	Questions in red sho Additional Information (64 - 72) Hydrology and Soils (7 - 22)	uld be answered prior to site visit Summary Buffer and Shore (23 - 34)	Minnesota Board of Water & Soil Resources
Project Name Shoreline Test Proj	ects	County 39 shed Lake of the V	LAKE OF THE WOODS		Data Manage
2nd City Township Site Location		shed # 80 • B and Zone	ank Service Area 2		Add New Wetl
Enter Wetland Size Data		GPS			Copy Wetlan
Estimated Current Wetland Size Estimated Original Wetland Size Estimated Restorable Wetland	25.00 acres 24.99 acres	Easting			Import/Export I
Percentage Area Drained\Altered	0.99	GPS File Name			Import GIS D

Pick your site from this list to start adding data.



Project Name



Wetland Size

Existing wetland area.

Estimated original size of the total wetland if effectively drained or filled areas were restored (not including any

buffer area).

Restorable area and % drained/altered is calculated automatically in the database.



Successful creation projects will show negative restorable acreage, upon completion.

Adding a New Wetland ID Using <Copy Wetland >





Cre

Copy Wetland: Two Options

FROM

- If you are entering an additional wetland "on the fly," use "Copy to New Wetland" to name the new wetland now.
- If you entered all your wetland names ahead of time, use the simple "Copy Wetland" option.

opy A Record		
Copy A Wetland Asse Source Wetland ID [27-133-28-06-001-A	Destination Wetland ID [27-133-28-06-001-B [27-133-28-06-001-A [27-133-28-06-001-A	other Record Done Copy Record
	27-133-28-06-001-5 27-138-28-06-001-A 27-138-28-06-001-B	
		11

Vantdie









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From this window you add, view, or delete photos. Choose the "open folder" icon to browse to a folder with photo files (set up ahead of time).



Wetland photos, cont.



Import/Export data

- Use this feature to
 - Import data from a previous version of MnRAM
 - Export data to an excel file for custom sorting
 - Compile data from different users into a single copy of the database.



Import/Export data, cont.

Only records that are checked "complete" on the Summary tab will be exported.



- Importing will overwrite existing wetlands with new data if their Wetland IDs match.
- To import without overwriting, use the <Upgrade from 3.2> option.

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Import GIS data

- Set up in comma-delimited format.
- Comprehensive Guidance has detailed instructions.
- Imported data will overwrite existing data with same Wetland ID.

Import Dialog	Township	▼ + Mai	ior Watershed # 0 eland Zone		Add/Edit Photos
Import GIS		Done Process the File	GPS Notthing Easting Elevation		Import GIS Data Run Symmary Report
filename and file extension): Select a file to import:	ේ Update GIS Fields ේ Update Wetland Areas ේ Up	Eind	GPS File Name		Update Functional Summary
Please note: Importing GIS Data wo Wetland ID. Please so number of fields. Rep	rks for all wetlands that have a Location ID that match elect the GIS summary textfile for importing GIS data in eat import processing is okay.	nes the GIS nto the select		^	,
					18



Getting Data Out: Reports



Run Summary Report



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Minnehaha Creek Watershed District										
Wetland ID	Subwatershed	Wetland Size (acres)	Wetlan Cowardin	d Type Grcular39	Plant Community	Hydrologic Setting	Topographic Setting			
D-117-23-03-044 Lake Minnetonka		33.916	PEMB, PFO1A	Туре 2, Туре 7	Fresh (V/et) Meadow, Floodplain Forest	Floodplain	Flowthrough			
D-118-23-33-002	Long Lake Creek	8.038	PEMC	Type 3	Deep Marsh	Depressional	Flowthrough			
D-118-23-34-008	Long Lake Creek	0.696	PEMC, PFO1A	Type 3, Type 1	Shallow Marsh, Floodplain Forest	Depressional	Tributary			
D-118-23-34-009	Long Lake Creek	0.509	PUBF, PEMC	Type 4, Type 3	Deep Marsh, Shallow Marsh	Depressional	Tributary			
D-118-23-34-012	Lake Minnetonka	3.969	pfob, PEMB	Type 7, Type 2	Hardwood Swamp, Fresh (Wet) Meadow	Depressional	Flowthrough			
D-118-23-34-015	Lake Minnetonka	1.392	PFO1A, PUBG	Type 1, Type 4	Floodplain Forest, Fresh (/Vet) Meadow	Depressional	Tributary			
D-118-23-34-016	Long Lake Creek	0.563	PEMC	Type 3	ShallowMarsh	Depressional	Tributary			
D-118-23-34-017	Long Lake Creek	1.46	PEMC	Type 3	ShallowMarsh	Depressional	Tributary			
D-118-23-34-018	Long Lake Creek	0.485	PUBH, PEMC	Type 5, Type 3	Shallow, Open Water Communities, Shallow Marsh	Depressional	Tributary			
D-118-23-34-019	Long Lake Creek	1.554	PUBH, PEMC	Type 5, Type 3	Shallow, Open Water Communities, Shallow Marsh	Depressional	Flowthrough			
D-118-23-34-020	Long Lake Creek	1.186	PEMC	Type 3	ShallowMarsh	Lacustrine Fringe	Isolated			
D-118-23-35-002	Long Lake Creek	0	PEMC, PFO1C	Type 2, Type 7	Fresh (Wet) Meadow	Lacustrine Fringe	Shoreland			
D-118-23-35-006	Long Lake Creek	0.484	PUBH	Type 5	Shallow, Open Water Communities	Depressional	Isolated			

Individual Site Response Summary



Site Summary Report





Data Collection Procedures





Collect background documentation:

- Site survey, hydrology, topography, aerial photos, soils data
- Comprehensive Guidance covers procedures for an inventory, map notation, GIS labeling, managing incoming field data, etc.
- Enter all Wetland IDs
- Answer certain marked questions:
 - Database red highlighted
 - Excel fieldsheet *italicized*
 - Text version "~" in left margin

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Entering Data: Getting Started

- Start on the General Information tab.
- Project name and Watershed.
- Some location data is optional.
- Record special notes and purpose of assessment.

(See next slide for screen view and animated highlights)

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Entering Data: General Information

General Information Introdu	tion Special Features Vegetation (1 - 6) Hydrology and Soils (7 - 22)
Project Name Shoreline To	est Projects 29 LAKE OF THE WOODS
City 2nd City Township Site Location	Watershed Lake of the Woods Subwatershed * Watershed * * Watershed * * * * * * * * * * * * * *
Enter Wetland Size Data Estimated Current Wetland Si Estimated Driginal Wetland Si Estimated Restorable Wetlan Percentage Area Drained Valu	te 0.00 acres te 25.00 acres te 24.93 acres tered 0.39 GPS File Name
Note unusual climatic conditions e existing hydrologic and climatologi	xperienced during this assessment due to seasonal considerations and/or unusual c conditions:
Describe the purpose of this asse	sment Field Photo ID Evaluator Date Evaluated Photo

Drop-down lists

- Some drop-down lists can be edited.
- Most are restricted, to limit confusing duplicates.
- Report missing choices to the MnRAM
 coordinator.

Short-beaked arrowhead

Downy arrowwood

Entering area data

arrowhead, short-beaked

arrowwood, downy

- Formula calculations **require** area data.
- If the current size is zero, enter 0.0001.



Sagittaria rigida Sagittaria brevirostra Viburnum rafinesquianum var. affine Viburnum rafinesquianum var. rafine:

urnum rafineso

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Introduction tab

- Background history and purpose of wetland assessment and ranking structure.
- No data entry on this page.



Special Features tab

- Check all that apply.
- Use scroll bar to see lower portion of page:

Minnesota Routine Assessment Method for Evaluating Wetland Functions Version 3.3 Search for Wetland: 2009 Monison-Anderson site Active Wetland: 2009 Monison-Anderson Questions in red sho	uld be answered prior to site visit.
Habitat (35 · 47) Value (48 · 57) Groundwater (58 · 63) Additional Information (64 · 72)	Summary
General Information Introduction Special Features Vegetation (1 - 6) Hydrology and Soils (7 - 22)	Buffer and Shore (23 - 34)
Special Features Is the wetland part of, or directly adjacent to, an area of special natural resource interest? Check those that apply: 	
Some special features "bump" a wetland into an Exceptional rating. Others are for record-keeping.	
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Special Features, a-f

- Is the wetland part of, or directly adjacent to, an area of special natural resource interest? Check those that apply:
- a. ____ Designated trout streams or trout lakes (see MnDNR Commissioners Order 2450 Part 6262.0400 subparts 3 and 5) (*If yes, Fishery Habitat Rating is Exceptional*)
- b. ____ Calcareous fen (Special Status see MN Rule Chapter 7050) (If yes, Vegetative Diversity/Integrity functional rating is Exceptional) Consult MN DNR for regulatory purposes.
- c. _____ Designated scientific and natural area (*If yes, then Aesthetics/Recreation/Education/Cultural functional rating is Exceptional*).
- d. _____Rare natural community (refer to MnDNR County Biological Survey/Natural Heritage)(If yes, Vegetative Diversity/Integrity is Exceptional, also if question 36 is yes and Wildlife Habitat functional rating is Exceptional);
- e. _____High priority wetland, environmentally sensitive area or environmental corridor identified in a local water management plan,
- f. ____ Public park, forest, trail or recreation area.



g. State or Federal fish and wildlife refuges and fish and wildlife management areas, and waterfowl protection areas (if yes, then Wildlife and/or Fish Habitat functional rating is Exceptional).	
h. Archeological or historic site as designated by the State Historic Preservation Office; (If yes, then Aesthetics/Recreation/Education/Cultural functional rating is Exceptional)	
i Plant species: naturally occurring, persistent populations that are. ³	
Federally listed: 🗖 Endangered 🗖 Threatened	
State listed: 📃 Endangered 📃 Threatened (See Minn. Rule Ch. 8420.0548, Subp.2)	
State listed: 📃 Species of special concern	
List of Species:	
If present, then the Vegetative Diversity/Integrity functional rating is Exceptional.	
i Wildlife species in or using the wetland are: ⁴	
Federally listed: 📃 Endangered 📃 Threatened	
State listed: Endangered Threatened (See Minn. Rule Ch. 8420.0548, Subp.2)	
State listed: 🛄 Species of special concern	
List of Species:	
If present, then the Wildlife Habitat functional rating is Exceptional.	
🗖 k. Local Shoreland Management Plan area.	
📃 👢 State Coastal Zone or Shoreland Management Plan area.	
🛛 🗖 m. Shoreland area identified in a zoning ordinance (generally within 1000 feet from a water basin and 300 feet	

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#1: Identify Plant Communities

- Up to five communities may be listed.
- Each community's contribution to the whole wetland is counted as a percentage of 100%.
- Communities less than 10% are not counted*.

1	Plant Community	76	Cowardin	Circular39	3. Veg Index	_
1	Shrub Carr 🗾	60 R	UBGx -	Type 1 💌	Low 💌	
	Hardwood Swamp 🔄	20 L1	UBGx 💌	Type 1 💌	High 💌	
	Fresh (Wet) Meadow 🛛 📈	20 F É	MC 💽	Type 2 💌	Medium 💌	
*	Fresh (Wet) Meadow	15B	× .	•	*	-
2.	Shallow, Open-Water Communities Seasonally Flooded Basin Floodplain Forest Hardwood Swamp Coniferous Bog Coniferous Swamp Open Bog	16A 16B 3A 3B 4A 4B 7A				

*With one exception (see next slide)



~ Plant Communities ~ First: Identify & Rate

- Identify communities (#1).
- Cowardin and Circular 39.
- Quality rating of each community (#3).





• Identify the dominant species that make up at least 10% coverage (#2).



Click here for a drop-down Cover Category list...

~ Plant Communities ~ #2: Dominant Species drop-down list

- Look up species by common/group name or by scientific name.
- Click the Display Name Toggle to alternate.
- Don't try to list every plant.

• Use the <3% cover class only for rare or invasive species.

2. Dominant Spe	cies	% Cover	Native?	Invasive/ Noxious	
elm, American	*	>3-<10% 💌	Yes	▲	
buckthorn, com	mon 🗾	>10-25% 💌	No		l /
loosestrife, purp	e 🗾	0.3% 💌	No		
Iady's slipper, sh	iowy 💌	0.3% -	Yes	<u> </u>	
•[
ominant Species	e 🖲 Group] 🔿 Commor	i 🔿 Scier	ıtific	>
vispicy wame. Loggi					



For Wetland	🛱 Table 1: Diagnostic c	haracteristics of cattails.		
7-23-12-001	Characteristic	<i>Typha latifolia</i> (Broad leaved cattail)	<i>Typha angustilolia</i> (Narro w leaved cattail)	<i>Typha glauca</i> (White/Blue, hybrid cattail)
Juestions 24 ·	Mature Leaf width	14 - 23 mm	4 - 10 mm	10 - 14 mm
neral Informal	Leaf Cross-section shape	Flat, scarcely concave below mid.	Convex below middle	Flat to convex below middle
1 <u>•</u> 2 <u>•</u>	Spike width	25 - 34 mm	15 -22 mm	19 - 25 mm
▶ <u> </u>	Spike length		<15 cm	>15 cm
	Spike separation	Frequently contiguous but not more than 2 cm apart	Separated by at least 2 cm and usually >3 cm	Occasionally contiguous, more commonly up to 4 cm
ldentify the within the v	Spike color	Dark brown to black	Brown	Brown to bright brown
the cover c (included in	Colony density	Sparse, often large gaps	Frequently very dense	Density intermediate

ь **Й**

Formula: Vegetative Integrity/Diversity

There are four ways to report this function:

- Individual Community Scores: maintain raw data as recorded.
- Highest Quality Community: report the highestfunctioning community.
- Non-Weighted Average Quality of all Communities: straight average
- Weighted Average Quality Based on Percentage of Each Community: multiply each community rating by its percentage, then add all together.

- The italicized questions require maps or other data to be answered.
- Every other question is formatted as bold just to make it easier to read.
- If the question asks for a percentage of H-M-L, put the percentage of each under the correct heading: H M L

20%

60%

20%

41

42

#7-10: Site data

- 7. Hydrogeomorphology of the site
- Depth of standing water in the wetland (inches): _______
 Percent of wetland area inundated: ______%
- 9. Immediate drainage area in acres?_____
- 10. Wetland size. This information should have been entered on the General Information page. The number remains as a placeholder.

#11: Soils data

ddress 🙆 htt	p://websoilsurvey.nrcs.usda.go	v/app/Web9	5oilSurvey.aspx		
Coogle G-	💌 Go	o 🚸 🍏 🥯	👫 👻 🔂 Во	okm	arks 🕶 🖃 Popups okay 🛛 💞 Check 👻 🔦 AutoLink 👻 🔚 AutoFill 🔒 Send to 🕶 🏼
SDA United Stat	resources Conservation S	ervice	0		
Contact Us	Download Soils Data	Archive	ed Soil Survey	s	Preferences Logout Help
Area o	f Interest (AOI)	Soil Ma	ip So	oil D	ata Explorer Shopping Cart
					Printable Version Add t
Map Unit	Legend		8		Soil Map
			0	lend	🔍 🔍 🕅 🎯 🔝 🍋 🚽 🚺 🌆 Scale (not to scale) 🗹
Dakota C Map Unit Symbol	<mark>County, Minnesota (M</mark> Map Unit Name	NO37) Acres in AOI	Percent of AOI	Leg	
39A	Wadena loam, 0 to 🛁 2 percent slopes	36.1	18.6%		
39C	Wadena loam, 6 to 12 percent slopes	5.4	2.8%	-	
98	Colo silt loam, occasionally flooded	6.1	3.2%		
129	Cylinder loam 🚽	48.9	25.1%		
208	Kato silty clay loam	8.4	4.3%		39A 129 100
252	Marshan silty clay Ioam	59.4	30.6%		
255	Mayer silt loam	0.2	0.1%		
318	Mayer loam, swales	1.6	0.8%		

MnRAM Rating Questions

- Starting with #12, most questions are answered by filling in A-B-C.
- Each question has guidance to assist the user in interpreting the question and understanding how to answer in difficult site conditions...





Image file for diagrams

To access the images, press "Image"

37. For deep and shallow marshes or a best illustrates the interspersion of wetland (See Interspersion Diagra ? High = Cover category Low -Image Low = Cover category 38. For wetlands having more than on best fits the wetland (see Appendi ? High = Category 3 Medium + Low = Category 1 Image

Run summary report

General Information Habitat (35 - 47)	Introduction S Value (48 - 57)	pecial Features Gro	Vegetation (1 - 6) undwater (58 - 63)) Hydrolog Addit	ay and Soils (7 - 22) ional Information (64	Buffer ar	d Shore (23 - 34) Summary
Complete					Refresh	Values Print 9	Summary
Vegetative Diversity	3a. Proportion of Wetland	3b. Individual Community Scores	3c. Highest Rated Community	3d. Non- Weighted Average	3e. Weighted Average	2	
Community #1 Community #2 Community #3 Community #4 Community #6 Community #6 Community #7 Overall Wetland Vegetative Diversity Maintenance of Hydrologic Regime	This is t can see that pa	Wegddually hoft 0.10 0.50 he last individ rticular	tab in th ual ratin wetland	e datab Igs for Moderate	pase, wh each fur	ere yo	u for
Flood/Stormwater /Attenuation	0.77	High]				





Deleting an entry from #24-25-26 without entering a zero may result in a run-time error. Pressing <End> will return you to the field to correct your error.

