Results of Wetland Brainstorming Exercise

January 30, 2014

Brainstorming Output

Natural (not treatment/constructed, not

accidental)

Habitat

Obligate – plants/animals vs. opportunistic

Wildlife Wet/dry

Sedimentation Flood attenuation

Storage

Water quality and/or chemistry

Sustainable

Use – ex: ag, rec, ect...

Recharge Discharge Biota

Diversity – different wetland types & habitat

types within a wetland Connected to the landscape

Landscape position

Connectivity
Man made

Isolated vs. non-isolated

Hydric soils Vegetation Nutrient cycling

Filter

Carbon sequestration

Declining Active
Classification
Public perception

Aesthetics Alligators Variable Microbes Community

Stream flow maintenance

Recreation

Sensitive/sensitivity

Economics

Filtration – vegetation

Water source

Bird - habitat & birding activity

Breeding ground Fish nursery

Tadpoles

Duckweed (needs a home too!)

Topography Floodplain Riparian area Preservation

Degraded watersheds

Sink Buffer

Aquifer recharge Hydrology Anthropogenic Hydrodynamics

Scum Methane Slime Foreign

Preventing degradation

Exotic/invasive

Stopover – wintering grounds

Migratory birds

Fragile
Accumulative
Enhancement
Restoration

Water treatment/improvement

Management Heterogeneity Swamp

Biological/integrity

Mud bugs Ecosystem Mosquitoes Hunting grounds Agricultural

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Brainstorming output was discussed/clarified and lumped into 6 group identified categories. Some output fits in more than one category.

Group Identified Categories

- 1. Characteristics
- 2. Habitat
- 3. Hydrology
- 4. Functions
- 5. Use
- 6. Concerns

1. Characteristics

Hydric soils

Obligated plants & animals vs. opportunistic – wetland dependent flora/fauna

Soil - active microbes in the soil

Water/hydrology

Biota/organism

Heterogeneity – on the landscape and within the wetland itself

Variable – variability between wetlands and within a given wetland

Connected to landscape

Characteristics are classification tools

Ecosystem

Isolated vs. non-isolated

Man made

Swampy

2. Habitat

Habitat has 3 components – physical, biological, and chemical

Wildlife

Biota – animals and vegetation

Diversity

Birds

Breeding grounds

Fish nursery

Tadpoles

Alligators

Stop over – wintering grounds

Migratory

Birds

Mud bugs

Community

Mosquitoes

Hunting grounds – feeding predator vs prey

Scum

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Slime

Riparian area

Ecosystem

Threatened & endangered species

3. <u>Hydrology</u> (sub-group of characteristics)

Wet/dry – hydroperiod

Flood attenuation

Storage

Recharge – aquifer

Discharge

Topography

Water source

Connectivity

Hydrodynamics

Landscape position – floodplain, slope, ect..

Downstream

Stream flow maintenance

4. Functions

Water treatment (natural) water quality enhancement

Filtration

Flood attenuation

Recharge

Storage (water storage)

Habitat

Carbon sequestration

Nutrient cycling

Buffer – landscape buffers, buffer between wetland waterbody and upland area, filter, flood

buffer

Sink

Sediment retention

Stream flow maintenance

5. Use – Human uses

Recreation

Agriculture

Aesthetic

Food

Timber Harvest

Hunting

Mud bug harvesting

Cultural – cattail harvest

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Water treatment (constructed treatment wetland)

Flood retention

Restoration – watershed enhancement

6. Concerns

Sustainable

Anthropogenic impacts

Management – preservation

Wetland degradation – ecosystems and watersheds

Methane

Exotic/invasive species

Foreign objects – trash dump, soil waste disposal

Maintaining biological integrity

Public perception

Declining – losing overall wetland area and losing watershed function, cumulative decline

Cumulative impacts – landscape level

Cumulative losses – loss of wetland function

Fragile/Sensitive – cumulative impacts and cumulative stressors

Maintaining diversity

Preventing degradation

Sedimentation

Economics

Multi-Voting

- Group conducted multi-voting to prioritize output for potential input to beneficial use descriptors and further discussion.
 - ✓ <u>Multi-voting Criteria</u>: From a technical perspective, identify essential wetland characteristics.
 - Output from category 6 was not included in voting because this output does not align well with development of beneficial use descriptors. This output will likely be utilized at another stage in standards development.
 - ✓ Multi-voting had 2 Tiers.
 - Tier 1: 3 votes per person, Select top 3 group identified categories (excluding category 6, Concerns)
 - Tier 2: 5 votes per person, Select top 5 essential wetland characteristics beneath any category (excluding category 6, Concerns)

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Multi-voting Results

Tier 1

Category	Number of Votes
Uses	11
Habitat	11
Functions	9
Characteristics	9
Hydrology	8

Tier 2

<u>Category</u>	Category Characteristic	Number of Votes
Use	Recreation	7
	Agriculture	2
	Water Treatment (constructed)	1
	Restoration	2
Category total votes		12
Functions	Water treatment/enhancement (natural)	9
	Filtration	2
	Flood attenuation	7
	Habitat	7
	Stream flow maintenance	1
Category total votes		26
Hydrology	Wet/Dry Hydroperiod	8
	Hydrodynamics	1
Category total votes		9
Habitat	Biota (vegetation & animals)	12
	Birds	1
	Community	1
	Threatened & Endangered Species	1
	Diversity	1
	Wildlife	1
Category total votes		17
Characteristics	Hydric Soils	5
	Obligate plants/animals vs. opportunistic (wetland dependent flora/fauna)	2
	Water/Hydrology	5
	Biota	1
	Variable	1
	Ecosystem	2
Category total votes	·	16