

Wetland Studies

Why?

There are not strong linkages:

1. SAV to Surface Mats
2. SAV to Water Quality
3. Macroinvertebrates to Beneficial Uses
4. Avian Beneficial Use and Support

Objectives

1. Bird use: What do they eat?
 1. Adults
 2. Juveniles
 3. Body condition?

2. Sediment water interactions
source of :
 1. Nutrients
 2. Metals
 3. Ammonia
 4. sulfides

Summary of Multiple Lines of Evidence Developed as MMI for Water Chemistry, Vegetation (SAV and Surface Mats), and Benthic Macroinvertebrates for the Impounded Wetlands of Great Salt Lake

Site	Lines of Evidence				Average of All MMIs
	Water Chemistry MMI	SAV MMI	Surface Mat MMI	Benthic Macroinvert. MMI	
Farmington Wetlands Ambassador W 1	58	47	40	82	57
Farmington Wetlands Ambassador 100	86	60	100	100	87
Farmington Wetlands Ambassador W 2	91	87	100	96	93
Farmington Wetlands Ambassador W 5	88	100	80	89	89
Farmington Wetlands South B Pond	83	100	100	.	94
Farmington Wetlands West A Pond	61	33	100	.	65
IMPC Conservation Easement	68	100	100	.	89
Farmington Wetlands FBWMA Unit 2 Outfall	74	87	40	78	69

Farmington Wetlands FBWMA Unit 2 Outfall	74	87	40	78	69
Farmington Wetlands FBWMA Unit 1 Outfall	98	33	80	87	74
GSL Wetlands Public Shooting Ground Widgeon Lake 01 Outfall	84	100	80	91	89

Objectives, Con't

3. Macroinvertebrate response
 - a. to habitat
 - b. to water quality
 1. Nutrients or?
 2. Sediment NH_4 or HS^-
 3. Nutrient limitation
 4. Toxic metals
 5. Biomass
4. SAV to Sediment Quality
 - a. sulfides
 - b. metals
5. SAV to surface mats
6. Surface mats to water quality
 - sediment flux of nutrients?
 - alternatively, to JR

Approach

- Simultaneous Measurement
 - Bird Use, diet, preferred vs ambient
 - Development of SAV
 - Development of Surface Mats
 - Aquatic Invertebrates
 - Sediment chemistry/flux