

## Full Sun, Wetlands



### Emergent Seed Mix (dry seeded)

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This emergent seed mix can be planted as dried seed on dry soil before the wetland comes to normal water level.

A grass, sedge, rush & forb seed mix for shorelines & emergent mud flats, with gradual slopes down from the spring high water level. This mix works only when water levels drop seasonally. Do not plant below normal water level unless basin has a stoplog for dewatering, or you are wasting seed. Very little germination will occur under water. Dormant seed & net.

Seedlings must be 18" tall before flooding, possibly taking two growing seasons! If there is a perpetual never lowering, normal waterlevel, use emergent & shoreline plugs. Expect zonation to develop in this community. This mix is intended to supplement a plug planting, you cheap \_\_\_\_.

Species	Common Name	lb/ac
<i>Acorus americanus</i>	Sweet Flag	0.250
<i>Alisma subcordatum</i>	Water Plantain	0.250
<i>Bolboschoenus fluviatilis</i> { <i>Scirpus</i> f}	River Bulrush	0.125
<i>Carex comosa</i>	Bottlebrush Sedge	0.375
<i>Cephalanthus occidentalis</i>	Button Bush	0.125
<i>Echinochloa crusgalli</i>	Barnyard Grass	2.000
<i>Eleocharis acicularis</i>	Needle Spikerush	0.031
<i>Eleocharis erythropoda</i> { <i>E calva</i> }	Redrooted Spikerush	0.031
<i>Eleocharis palustris</i> major	Marsh Spikerush	0.031
<i>Glyceria grandis</i>	Reed Manna Grass	0.125
<i>Hibiscus laevis</i> { <i>H militaris</i> }	Halberdleaf Rose Mallow	0.063
<i>Iris virginica shrevei</i>	Blue Flag Iris	0.250
<i>Juncus effusus</i>	Soft Rush	0.125
<i>Juncus torreyi</i>	Torreys Rush	0.188
<i>Leersia oryzoides</i>	Rice Cut Grass	0.500
<i>Pontederia cordata</i>	Pickereelweed	0.063
<i>Sagittaria latifolia</i>	Common Arrowhead	0.500
<i>Schoenoplectus acutus</i> { <i>Scirpus a</i> }	Hardstem Bulrush	0.063
<i>Schoenoplectus pungens</i> { <i>Scirpus p</i> }	Chairmakers Rush	0.125
<i>Schoenoplectus tabernaemontani</i> { <i>Scirpus validus</i> }	Great Bulrush	0.250
<i>Sparganium eurycarpum</i>	Bur Reed	0.100
<i>Spartina pectinata</i>	Cord Grass	0.375
v120712		*
total		5.945

total native matrix

5.820

All items subject to availability. Mix composition may vary seasonally.

**Emergent Seed Mix (wet seeded)**

This mix contains perishable & physically fragile seeds. It must be kept moist & refrigerated until sown. It cannot be drilled. It must be sown into shallow water or sown on mud & immediately flooded. It is not available for other than spring planting. Advance orders only to insure availability.

A grass, sedge, rush & forb seed mix for shorelines & emergent mud flats, with gradual slopes down from the spring high water level. This mix works only when water levels drop seasonally. Do not plant below normal water level unless basin has a stoplog for dewatering, or you are wasting seed. Very little germination will occur under water. Dormant seed & net.

Seedlings must be 18" tall before flooding, possibly taking two growing seasons! If there is a perpetual never lowering, normal waterlevel, use emergent & shoreline plugs. *Some species will not survive water level fluctuations during any growing season.* Expect zonation to develop in this community. This mix is intended to supplement a plug planting, you cheap \_\_\_\_.

Species	Common Name	lb/ac
<i>Acorus americanus</i>	Sweet Flag	0.250
<i>Alisma subcordatum</i>	Common Water Plantain	0.094
<i>Bolboschoenus fluviatilis</i> { <i>Scirpus f</i> }	River Bulrush	0.125
<i>Carex comosa</i>	Bottlebrush Sedge	0.375
<i>Cephalanthus occidentalis</i>	Button Bush	0.125
<i>Echinochloa crusgalli</i>	Barnyard Grass	2.000
<i>Eleocharis erythropoda</i> { <i>E calva</i> }	Redrooted Spikerush	0.063
<i>Eleocharis palustris</i>	Marsh Spikerush	0.063
<i>Glyceria grandis</i>	Reed Manna Grass	0.031
<i>Hibiscus laevis</i> { <i>H militaris</i> }	Halberdleaf Rose Mallow	0.063
<i>Iris virginica shrevei</i>	Blue Flag Iris	0.250
<i>Juncus effusus</i>	Soft Rush	0.094
<i>Juncus torreyi</i>	Torreys Rush	0.094
<i>Leersia oryzoides</i>	Rice Cut Grass	0.500
<i>Peltandra virginica</i>	Arrow Arum	1.000
<i>Pontederia cordata</i>	Pickereelweed	0.063
<i>Sagittaria latifolia</i>	Common Arrowhead	0.500
<i>Schoenoplectus acutus</i> { <i>Scirpus a</i> }	Hardstem Bulrush	0.063
<i>Schoenoplectus pungens</i> { <i>Scirpus p</i> }	Chairmakers Rush	0.125
<i>Schoenoplectus tabernaemontani</i> { <i>Scirpus validus</i> }	Great Bulrush	0.250
<i>Sparganium eurycarpum</i>	Bur Reed	1.000
<i>Zizania aquatica</i>	Wild Rice	1.000
v120712		*
total		8.128
total native matrix		8.003

All items subject to availability. Mix composition may vary seasonally.

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**Emergent Shoreline / Wet Meadow Grasses Mix**

**PLS where applicable**

A grass seed mix for shorelines & mudflats, with gradual slopes up from the shoreline, but not for steep sided basins. This mix works when water levels drop seasonally. Do not plant below normal water level unless basin has a stoplog for prolonged dewatering. Will not germinate under water. Seedlings will not tolerate prolonged inundation. Seedlings must be 18" tall before flooding. Best dormant seeded.

Species	Common Name	lb/ac
<i>Agrostis stolonifera</i> { <i>A alba palustris</i> }	Bent Grass	1.000
<i>Carex Bebbii</i>	Bebbs Sedge	0.750
<i>Carex comosa</i>	Bottlebrush Sedge	0.375
<i>Carex hystericina</i>	Porcupine Sedge	0.188
<i>Carex scoparia</i>	Pointed Broom Sedge	0.250
<i>Echinochloa crusgalli</i>	Barnyard Grass	2.000
<i>Eleocharis erythropoda</i> { <i>E calva</i> }	Redrooted Spikerush	0.046
<i>Eleocharis obtusa</i>	Blunt Spikerush	0.046
<i>Eleocharis palustris</i>	Marsh Spikerush	0.046
<i>Elymus canadensis</i>	Canada Rye	1.000
<i>Elymus virginicus</i>	Virginia Rye	1.000
<i>Glyceria grandis</i>	Reed Manna Grass	0.031
<i>Glyceria striata</i>	Fowl Manna Grass	0.125
<i>Juncus effusus</i>	Soft Rush	0.063
<i>Juncus torreyi</i>	Torreys Rush	0.063
<i>Leersia oryzoides</i>	Rice Cut Grass	0.500
<i>Schoenoplectus acutus</i> { <i>Scirpus a</i> }	Hardstem Bulrush	0.063
<i>Schoenoplectus pungens</i> { <i>Scirpus p</i> }	Chairmakers Rush	0.125
<i>Schoenoplectus tabernaemontani</i> { <i>Scirpus validus</i> }	Great Bulrush	0.250
<i>Scirpus atrovirens</i>	Dark Green Rush	0.500
<i>Scirpus cyperinus</i>	Wool Grass	0.125
<i>Sparganium eurycarpum</i>	Bur Reed	1.000
<i>Spartina pectinata</i>	Cord Grass	0.375
v120712		*
total		9.921
total native matrix		8.921

All items subject to availability. Mix composition may vary seasonally.

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**Emergent Shoreline / Wet Meadow with Flowers Mix**

**PLS where applicable**

A grass, rush, sedge, & forb seed mix for shorelines & mudflats, with gradual slopes up from the shoreline, grading into wetlands, but not for steep sided basins. This mix requires water levels to drop seasonally. Do not plant below normal water level unless basin has a stoplog for prolonged dewatering. Most species will not germinate under water. Seedlings will not tolerate prolonged inundation until 18" tall. Best dormant seeded & netted.

Species	Common Name	lb/ac
<i>Acorus americanus</i>	Sweet Flag	0.063
<i>Agrostis stolonifera</i> { <i>A alba palustris</i> }	Bent Grass	1.000

<i>Alisma subcordatum</i>	Common Water Plantain	0.063
<i>Asclepias incarnata</i>	Swamp Milkweed	0.125
<i>Bidens cernua</i>	Nodding Burmarigold	0.250
<i>Boltonia asteroides</i>	False Asterwort	0.094
<i>Carex Bebbii</i>	Bebbs Sedge	0.500
<i>Carex comosa</i>	Bottlebrush Sedge	0.188
<i>Carex hystericina</i>	Porcupine Sedge	0.125
<i>Carex scoparia</i>	Pointed Broom Sedge	0.500
<i>Cephalanthus occidentalis</i>	Button Bush	0.125
<i>Echinochloa crusgalli</i>	Barnyard Grass	2.000
<i>Eleocharis erythropoda</i> { <i>E calva</i> }	Redrooted Spikerush	0.031
<i>Eleocharis palustris</i>	Marsh Spikerush	0.031
<i>Elymus canadensis</i>	Canada Rye	1.000
<i>Elymus virginicus</i>	Virginia Rye	1.000
<i>Eupatorium perfoliatum</i>	Thoroughwort	0.031
<i>Eutrochium maculatum</i> { <i>Eupatorium m</i> }	Spotted Joeypyeweed	0.031
<i>Glyceria grandis</i>	Reed Manna Grass	0.031
<i>Glyceria striata</i>	Fowl Manna Grass	0.125
<i>Helenium autumnale</i>	Sneezeweed	0.125
<i>Hibiscus laevis</i> { <i>H militaris</i> }	Halberd Leaf Rose Mallow	0.063
<i>Iris virginica shrevei</i>	Blue Flag Iris	0.250
<i>Juncus balticus littoralis</i> { <i>J arcticus balticus</i> }	Lake Shore Rush	0.046
<i>Juncus effusus</i>	Soft Rush	0.046
<i>Juncus torreyi</i>	Torreys Rush	0.046
<i>Leersia oryzoides</i>	Rice Cut Grass	0.500
<i>Sagittaria latifolia</i>	Common Arrowhead	0.250
<i>Schoenoplectus acutus</i> { <i>Scirpus a</i> }	Hardstem Bulrush	0.063
<i>Schoenoplectus pungens</i> { <i>Scirpus p</i> }	Chairmakers Rush	0.125
<i>Schoenoplectus tabernaemontani</i> { <i>Scirpus validus</i> }	Great Bulrush	0.250
<i>Scirpus atrovirens</i>	Dark Green Rush	0.500
<i>Scirpus cyperinus</i>	Wool Grass	0.063
<i>Silphium perfoliatum</i>	Cup Plant	0.125
<i>Solidago gigantea</i>	Late Goldenrod	0.063
<i>Sparganium eurycarpum</i>	Bur Reed	0.250
<i>Spartina pectinata</i>	Cord Grass	0.375
<i>Symphotrichum lanceolatum</i> { <i>Aster simplex</i> }	Panicled Aster	0.125
<i>Symphotrichum puniceum</i> { <i>Aster p</i> }	Swamp Aster	0.125
<i>Verbena hastata</i>	Blue Vervain	0.500
v012313		*
total		11.203
total native matrix		10.203

All items subject to availability. Mix composition may vary seasonally.

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## Lo Pro Emergent Shoreline / Wet Meadow Grasses Mix

### PLS where applicable

A shorter grass, sedge, & rush mix for shorelines & mudflats, with gradual slopes up from the shoreline, grading into wetlands, not with dry, sloping banks. This mix works when water levels drop occasionally. Do not plant below normal water level unless basin has a stoplog for prolonged dewatering. Will not germinate under water & will not tolerate inundation immediately after germination! Dormant seed when possible & net.

Species	Common Name	lb/ac
<i>Acorus americanus</i>	Sweet Flag	0.063
<i>Agrostis gigantea</i> {A alba}	Red Top Grass	1.000
<i>Agrostis stolonifera</i> {A alba palustris}	Bent Grass	1.000
<i>Carex Bebbii</i>	Bebbs Sedge	0.500
<i>Carex comosa</i>	Bottlebrush Sedge	0.250
<i>Carex hystericina</i>	Porcupine Sedge	0.250
<i>Carex scoparia</i>	Pointed Broom Sedge	0.750
<i>Carex vulpinoidea</i>	Fox Sedge	1.000
<i>Echinochloa crusgalli</i>	Barnyard Grass	0.500
<i>Eleocharis obtusa</i>	Blunt Spikerush	0.063
<i>Eleocharis palustris</i>	Marsh Spikerush	0.125
<i>Elymus canadensis</i>	Canada Rye	1.000
<i>Elymus virginicus</i>	Virginia Rye	1.000
<i>Glyceria striata</i>	Fowl Manna Grass	1.000
<i>Juncus effusus</i>	Soft Rush	0.125
<i>Juncus tenuis</i>	Path Rush	0.125
<i>Juncus torreyi</i>	Torreys Rush	0.125
<i>Leersia oryzoides</i>	Rice Cut Grass	0.500
<i>Muhlenbergia mexicana</i>	Leafy Satin Grass	0.015
<i>Schoenoplectus acutus</i> {Scirpus a}	Hardstem Bulrush	0.063
<i>Spartina pectinata</i>	Cord Grass	0.125
v012313		*
total		9.579
total native matrix		7.579

All items subject to availability. Mix composition may vary seasonally.

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## Lo Pro Emergent Shoreline /Wet Meadow with Flowers Mix

### PLS where applicable

A shorter mix of grasses, sedges, rushes, & forbs for shorelines & mudflats, with gradual slopes up from the shoreline, grading into wetlands. This mix works only when water levels drop occasionally. Do not plant below normal water level unless basin has a stoplog for dewatering. Will not germinate under water.

Species	Common Name	lb/ac
<i>Acorus americanus</i>	Sweet Flag	0.063
<i>Agrostis stolonifera</i> {A alba palustris}	Bent Grass	1.000
<i>Alisma subcordatum</i>	Common Water Plantain	0.250
<i>Ammannia robusta</i>	Scarlet Loosestrife	0.031
<i>Asclepias incarnata</i>	Swamp Milkweed	0.125
<i>Bidens cernua</i>	Nodding Burmarigold	0.063

<i>Bidens frondosa</i>	Common Beggarstick	0.063
<i>Boltonia asteroides</i>	False Asterwort	0.125
<i>Carex Bebbii</i>	Bebbs Sedge	1.000
<i>Carex comosa</i>	Bottlebrush Sedge	0.250
<i>Carex hystericina</i>	Porcupine Sedge	0.250
<i>Carex scoparia</i>	Pointed Broom Sedge	1.000
<i>Echinochloa crusgalli</i>	Barnyard Grass	0.500
<i>Eleocharis obtusa</i>	Blunt Spikerush	0.125
<i>Eleocharis palustris</i>	Marsh Spikerush	0.063
<i>Elymus canadensis</i>	Canada Rye	1.000
<i>Elymus virginicus</i>	Virginia Rye	1.000
<i>Epilobium coloratum</i>	Cinnamon Willowherb	0.015
<i>Eupatorium perfoliatum</i>	Thoroughwort	0.031
<i>Glyceria grandis</i>	Reed Manna Grass	0.031
<i>Glyceria striata</i>	Fowl Manna Grass	0.250
<i>Iris virginica shrevei</i>	Blue Flag Iris	0.250
<i>Juncus balticus littoralis</i> { <i>J arcticus balticus</i> }	Lake Shore Rush	0.125
<i>Juncus effusus</i>	Soft Rush	0.125
<i>Juncus torreyi</i>	Torreys Rush	0.125
<i>Leersia oryzoides</i>	Rice Cut Grass	1.000
<i>Muhlenbergia mexicana</i>	Leafy Satin Grass	0.031
<i>Penthorum sedoides</i>	Ditch Stonecrop	0.031
<i>Sagittaria latifolia</i>	Common Arrowhead	0.250
<i>Schoenoplectus acutus</i> { <i>Scirpus a</i> }	Hardstem Bulrush	0.063
<i>Schoenoplectus pungens</i> { <i>Scirpus p</i> }	Chairmakers Rush	0.125
<i>Solidago gigantea</i>	Late Goldenrod	0.125
<i>Spartina pectinata</i>	Cord Grass	0.375
<i>Symphyotrichum lanceolatum</i> { <i>Aster simplex</i> }	Panicled Aster	0.125
<i>Symphyotrichum puniceum</i> { <i>Aster p</i> }	Swamp Aster	0.125
<i>Verbena hastata</i>	Blue Vervain	0.375
v012313		*
total		10.485
total native matrix		9.485

All items subject to availability. Mix composition may vary seasonally.

**Shoreline Wet Edge Mix**

**PLS where applicable**

A grass, sedge, rush, & forb seed mix for muddy pond & lake shorelines, muddy ditches. A mix meant for areas where there is an abrupt change from the waterline to a steep, drier slope. Do not plant below normal water level unless basin has a stop log for prolonged dewatering to maintain mudflat conditions (and there is a mudflat!), or you have money to burn. These will not germinate under water. Only a few of the hundreds of species we offer will germinate under water. The performance of all shoreline & emergent seed mixes are compromised by basins with a “normal” water level, & no seasonal low water level.

Species	Common Name	lb/ac
<i>Agrostis gigantea</i> { <i>A alba</i> }	Red Top Grass	1.000
<i>Agrostis stolonifera</i> { <i>A alba palustris</i> }	Bent Grass	1.000
<i>Alisma subcordatum</i>	Common Water Plantain	0.375
<i>Asclepias incarnata</i>	Swamp Milkweed	0.125
<i>Bidens cernua</i>	Nodding Burmarigold	0.125
<i>Bidens frondosa</i>	Common Beggarstick	0.125
<i>Carex Bebbii</i>	Bebbs Sedge	0.250
<i>Carex comosa</i>	Bottlebrush Sedge	0.125
<i>Carex cristatella</i>	Crested Sedge	0.125
<i>Carex scoparia</i>	Pointed Broom Sedge	0.250
<i>Carex stipata</i>	Awlfruted Sedge	0.125
<i>Carex vulpinoidea</i>	Fox Sedge	0.500
<i>Cyperus erythrorhizos</i>	Redrooted Nutsedge	0.188
<i>Cyperus esculentus</i>	Field Nutsedge	0.188
<i>Eleocharis acicularis</i>	Needle Spikerush	0.125
<i>Eleocharis obtusa</i>	Spikerush	0.125
<i>Eleocharis palustris</i>	Marsh Spikerush	0.125
<i>Elymus canadensis</i>	Canada Rye	1.000
<i>Elymus virginicus</i>	Virginia Rye	1.000
<i>Eupatorium perfoliatum</i>	Thoroughwort	0.125
<i>Glyceria striata</i>	Fowl Manna Grass	0.125
<i>Juncus balticus littoralis</i> { <i>J arcticus balticus</i> }	Lake Shore Rush	0.015
<i>Juncus torreyi</i>	Torreys Rush	0.015
<i>Leersia oryzoides</i>	Rice Cut Grass	1.000
<i>Mimulus ringens</i>	Monkey Flower	0.031
<i>Penthorum sedoides</i>	Ditch Stonecrop	0.015
<i>Sagittaria latifolia</i>	Duck Potato	0.125
<i>Schoenoplectus tabernaemontani</i> { <i>Scirpus validus</i> }	Great Bulrush	0.063
<i>Scirpus atrovirens</i>	Dark Green Rush	0.500
<i>Scirpus pendulus</i>	Red Bulrush	0.063
<i>Sparganium eurycarpum</i>	Bur Reed	0.500
<i>Symphotrichum lanceolatum</i> { <i>Aster simplex</i> }	Panicled Aster	0.031
<i>Verbena hastata</i>	Blue Vervain	0.125
v123112		*
total		9.610

total native matrix

7.610

All items subject to availability. Mix composition may vary seasonally.

A toilet bowl mix, for those areas around detention/retention basins, that are steeply sloping, ceramic-hard clay soils, & alternately wet & dry. Instead of gentle, gradual slopes, more green open space, we crowd in more parking or another duplex or condo. These slopes are about as natural as & as easy to vegetate as the sides of a toilet bowl. Look close, there goes the Tidy-Bowl© man.

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### Ground Water Wetland Mix (fens, seeps, & sedge meadows)

#### PLS where applicable

A mix for seeps, fens, & springy hillsides. A mix for cool, clean, ground water wetlands, with *in situ* soils. With minor modifications, this mix will work in the elusive “restored sedge meadow”. Let us custom tailor your seed mix. Not for use in surface water wetlands. Must dormant seed. Advance order only.

Species	Common Name	lb/ac
<i>Andropogon gerardii</i>	Big Bluestem	2.000
<i>Angelica atropurpurea</i>	Angelica	0.750
<i>Asclepias incarnata</i>	Swamp Milkweed	0.250
<i>Bromus ciliatus</i>	Downy Brome	0.125
<i>Bromus kalmii</i>	Kalms Brome	0.125
<i>Arnoglossum plantagineum</i> { <i>Cacalia p</i> }	Prairie Indian Plantain	0.031
<i>Calamagrostis canadensis</i>	Blue Joint Grass	0.125
<i>Calamagrostis inexpansa</i>	Bog Reed Grass	0.015
<i>Caltha palustris</i> (dormant seedings only)	Marsh Marigold	0.031
<i>Carex Bebbii</i>	Bebbs Sedge	0.250
<i>Carex Buxbaumii</i>	Andes Mint Sedge	0.063
<i>Carex granularis</i>	Meadow Sedge	0.063
<i>Carex hystericina</i>	Porcupine Sedge	0.188
<i>Carex scoparia</i>	Pointed Broom Sedge	0.250
<i>Chelone glabra</i>	Turtlehead	0.031
<i>Doellingeria umbellata</i> { <i>Aster u.</i> }	Flattopped Aster	0.031
<i>Echinochloa crusgalli</i>	Barnyard Grass	0.500
<i>Echinochloa walteri</i>	Walters Millet	0.125
<i>Eupatorium perfoliatum</i>	Thoroughwort	0.063
<i>Eutrochium maculatum</i> { <i>Eupatorium m</i> }	Spotted Joeypyeweed	0.063
<i>Hasteola suaveolens</i> { <i>Cacalia s</i> }	Sweet Indian Plantain	0.063
<i>Helenium autumnale</i>	Sneezeweed	0.063
<i>Iris virginica shrevei</i>	Blue Flag Iris	0.188
<i>Liatris spicata</i>	Spiked Gayfeather	0.125
<i>Lycopus americanus</i>	Common Water Horehound	0.063
<i>Lysimachia hybrida</i>	River Loosestrife	0.031
<i>Lysimachia quadriflora</i>	Narrowleaf Loosestrife	0.031
<i>Mentha arvensis</i>	Wild Mint	0.015
<i>Oligoneuron ohioensis</i> { <i>Solidago o.</i> }	Ohio Goldenrod	0.031
<i>Oligoneuron riddellii</i> { <i>Solidago r</i> }	Riddells Goldenrod	0.125
<i>Onoclea sensibilis</i>	Sensitive Fern (spore cases dormant seedings only)	0.031



<i>Pedicularis lanceolata</i>	Swamp Betony	0.015
<i>Pycnanthemum virginianum</i>	Common Mt Mint	0.125
<i>Rosa palustris</i>	Swamp Rose	0.063
<i>Rumex orbiculatus</i>	Great Water Dock	0.188
<i>Scirpus acutus</i> { <i>Schoenoplectus a</i> }	Hardstem Bulrush	0.250
<i>Silphium perfoliatum</i>	Cup Plant	0.188
<i>Solidago gigantea</i>	Late Goldenrod	0.063
<i>Solidago patula</i>	Swamp Goldenrod	0.031
<i>Sorghastrum nutans</i>	Indian Grass	4.000
<i>Symphyotrichum lateriflorum</i> { <i>Aster l</i> }	Calico Aster	0.063
<i>Symphyotrichum novae-angliae</i> { <i>Aster n</i> }	New England Aster	0.125
<i>Symphyotrichum puniceum</i> { <i>Aster p</i> }	Swamp Aster	0.063
<i>Zizia aurea</i>	Golden Alexander	0.125
v123112		*
total		11.144
total native matrix		11.081

All items subject to availability. Mix composition may vary seasonally.

This mix has seeds & spores that are short lived or recalcitrant, & can only be used in the appropriate season!

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### Urban Sedge Meadow Mix

#### PLS where applicable

A caespitose sedge dominated mix with grasses, rushes, & forbs for restored wetlands with good hydric soils & hydrology better than typical detention basins. Our bunch type sedges come easier from seed than rhizomatous sedges, & are more affordable, & realistically available throughout the growing season. The sedge dominated meadow without the rare expensive & usually misused conservative ground water sedges with more relatively conservative forbs. Not for dirty water. Dormant seed.

Species	Common Name	lb / acre
<i>Agrostis hyemalis</i>	Hairgrass	0.031
<i>Angelica atropurpurea</i>	Angelica	0.125
<i>Bidens cernua</i>	Nodding Burmarigold	0.031
<i>Hasteola suaveolens</i> { <i>Cacalia s</i> }	Sweet Indian Plantain	0.031
<i>Calamagrostis canadensis</i>	Blue Joint Grass	0.031
<i>Carex annectens xanthocarpa</i>	Yellow-fruited Sedge	0.125
<i>Carex Bebbii</i>	Bebbs Sedge	0.250
<i>Carex comosa</i>	Bottlebrush Sedge	0.188
<i>Carex granularis</i>	Meadow Sedge	0.031
<i>Carex hystericina</i>	Porcupine Sedge	0.250
<i>Carex lupuliformis</i>	Knobbed Hop Sedge	0.125
<i>Carex projecta</i>	Necklace Sedge	0.125
<i>Carex scoparia</i>	Pointed Broom Sedge	0.250
<i>Carex vulpinoidea</i>	Fox Sedge	0.500
<i>Echinochloa walteri</i>	Walters Millet	0.063
<i>Eleocharis erythropoda</i> { <i>E calva</i> }	Redrooted Spikerush	0.063
<i>Eleocharis palustris major</i> { <i>E smalli</i> }	Marsh Spikerush	0.063

<i>Elymus canadensis</i>	Canada Rye	1.000
<i>Elymus virginicus</i>	Virginia Rye	2.000
<i>Epilobium coloratum</i>	Cinnamon Willowherb	0.015
<i>Eupatorium perfoliatum</i>	Thoroughwort	0.031
<i>Eutrochium maculatum</i> { <i>Eupatorium m</i> }	Spotted Joeypyeweed	0.063
<i>Gentiana andrewsii</i>	Bottle Gentian	0.125
<i>Geum allepicum</i>	Yellow Avens	0.031
<i>Helenium autumnale</i>	Sneezeweed	0.125
<i>Juncus dudleyi</i>	Dudleys Rush	0.031
<i>Juncus effusus</i>	Soft Rush	0.031
<i>Juncus torreyi</i>	Torreys Rush	0.031
<i>Leersia oryzoides</i>	Rice Cut Grass	0.125
<i>Liatris spicata</i>	Spiked Gayfeather	0.125
<i>Lycopus americanus</i>	Common Water Horehound	0.063
<i>Lysimachia hybrida</i>	River Loosestrife	0.031
<i>Lythrum alatum</i>	Winged Loosestrife	0.015
<i>Mimulus ringens</i>	Monkey Flower	0.015
<i>Monarda fistulosa</i>	Bergamont	0.125
<i>Napaea dioica</i>	Glade Mallow	0.125
<i>Oligoneuron ohioensis</i> { <i>Solidago o</i> }	Ohio Goldenrod	0.015
<i>Oligoneuron riddellii</i> { <i>Solidago r</i> }	Riddells Goldenrod	0.125
<i>Penstemon digitalis</i>	Foxglove Beardtongue	0.125
<i>Penthorum sedoides</i>	Ditch Stonecrop	0.031
<i>Physostegia virginiana</i>	False Dragonhead	0.063
<i>Poa palustris</i>	Marsh Bluegrass	0.375
<i>Pycnanthemum tenuifolium</i>	Slender Mt Mint	0.063
<i>Pycnanthemum virginianum</i>	Common Mt Mint	0.125
<i>Rosa palustris</i>	Swamp Rose	0.015
<i>Rudbeckia subtomentosa</i>	Sweet Coneflower	0.188
<i>Scirpus atrovirens</i>	Dark Green Rush	0.375
<i>Scirpus cyperinus</i>	Wool Grass	0.063
<i>Solidago gigantea</i>	Late Goldenrod	0.063
<i>Spartina pectinata</i>	Cord Grass	0.500
<i>Symphotrichum novae-angliae</i> { <i>Aster n</i> }	New England Aster	0.125
<i>Symphotrichum puniceum</i> { <i>Aster p</i> }	Swamp Aster	0.031
<i>Thalictrum dasycarpum</i>	Purple Meadow Rue	0.125
<i>Verbena hastata</i>	Blue Vervain	0.500
<i>Vernonia fasciculata</i>	Common Ironweed	0.125
<i>Zizia aurea</i>	Golden Alexander	0.063
v123212		*
total		9.484
total native matrix		9.484

All items subject to availability. Mix composition may vary seasonally.

This seed mix is intended for living, *in situ* soils, not constructed soils at building sites. Never for primary detention!

**Vegetated Drainage Swale Seed Mix**

**PLS where applicable**

species	Common Name	lb/ac
<i>Agrostis stolonifera</i> { <i>A alba palustris</i> }	Bent Grass	2.000
<i>Acorus americanus</i>	Sweet Flag	0.063
<i>Alisma subcordatum</i>	Common Water Plantain	0.188
<i>Asclepias incarnata</i>	Swamp Milkweed	0.188
<i>Bidens cernua</i>	Nodding Burmarigold	0.031
<i>Bidens frondosa</i>	Common Beggarstick	0.031
<i>Carex Bebbii</i>	Bebbs Sedge	0.500
<i>Carex cristatella</i>	Crested Sedge	0.125
<i>Carex scoparia</i>	Pointed Broom Sedge	0.188
<i>Carex stipata</i>	Awlfruted Sedge	0.125
<i>Carex vulpinoidea</i>	Fox Sedge	0.500
<i>Eleocharis erythropoda</i> { <i>E calva</i> }	Redrooted Spikerush	0.031
<i>Eleocharis obtusa</i>	Blunt Spikerush	0.031
<i>Elymus canadensis</i>	Canada Rye	1.000
<i>Elymus virginicus</i>	Virginia Rye	2.000
<i>Eutrochium maculatum</i> { <i>Eupatorium m</i> }	Spotted Joeypyweed	0.125
<i>Glyceria striata</i>	Fowl Manna Grass	0.250
<i>Helenium autumnale</i>	Sneezeweed	0.125
<i>Iris virginica shrevei</i>	Blue Flag Iris	0.063
<i>Juncus balticus littoralis</i> { <i>J arcticus balticus</i> }	Lake Shore Rush	0.063
<i>Juncus torreyi</i>	Torreys Rush	0.063
<i>Leersia oryzoides</i>	Rice Cut Grass	0.063
<i>Liatris pycnostachya</i>	Prairie Blazingstar	0.125
<i>Lobelia siphilitica</i>	Great Blue Lobelia	0.094
<i>Mimulus ringens</i>	Monkey Flower	0.031
<i>Pycnanthemum virginianum</i>	Common Mt Mint	0.125
<i>Rumex altissimus</i>	Pale Dock	0.125
<i>Scirpus atrovirens</i>	Dark Green Rush	0.250
<i>Scirpus cyperinus</i>	Wool Grass	0.125
<i>Scirpus pendulus</i>	Red Bulrush	0.015
<i>Silphium perfoliatum</i>	Cup Plant	0.125
<i>Solidago gigantea</i>	Late Goldenrod	0.063
<i>Spartina pectinata</i>	Cord Grass	0.500
<i>Verbena hastata</i>	Blue Vervain	0.250
<i>Vernonia fasciculata</i>	Common Ironweed	0.250
v120712		*
total		9.830
total native matrix		7.830

All items subject to availability. Mix composition may vary seasonally.

The term drainage swale is a relative term that denotes a topographic low in the landscape that periodically receives excess runoff precipitation. It has no connotation of long-term soil moisture or the type of vegetation that will grow in the swale. Our swale mixes are for soils that are moist most of the growing season.

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**Low Profile Vegetated Drainage Swale Seed Mix**

**PLS where applicable**

A mix of medium to low grasses, sedges, rushes, & forb seed for low areas where water collects or runs after heavy rains, & the soil is moist fall, winter & spring. An integral part of any native landscape. If drainage is from parking lots, salted roads, etc, or chemically-laden, toxic turf, use Sedge Ghetto or Urban Wetland/Floodplain. Best if dormant seeded & straw netted, but if the water will have a lot of energy, seed & net in spring. Height depends on fertility & age of stand. Low profile for those toilet trained at gun point who think plants in a hole should be short. & we aint talking bioretention here either, folks.

Species	Common Name	lb/ac
<i>Acorus americanus</i>	Sweet Flag	0.063
<i>Agrostis stolonifera</i> { <i>A alba palustris</i> }	Bent Grass	2.000
<i>Alisma subcordatum</i>	Common Water Plantain	0.500
<i>Asclepias incarnata</i>	Swamp Milkweed	0.250
<i>Bidens cernua</i>	Nodding Burmarigold	0.063
<i>Boltonia asteroides</i>	False Aster	0.125
<i>Carex Bebbii</i>	Bebbs Sedge	0.375
<i>Carex cristatella</i>	Crested Sedge	0.125
<i>Carex Frankii</i>	Fran's Sedge	0.250
<i>Carex molesta</i>	Troublesome Sedge	0.188
<i>Carex scoparia</i>	Pointed Broom Sedge	0.375
<i>Carex stipata</i>	Awlfruited Sedge	0.125
<i>Carex vulpinoidea</i>	Fox Sedge	0.500
<i>Eleocharis palustris major</i> { <i>E smalli</i> }	Marsh Spikerush	0.063
<i>Elymus canadensis</i>	Canada Rye	2.000
<i>Elymus virginicus</i>	Virginia Rye	2.000
<i>Eupatorium perfoliatum</i>	Thoroughwort	0.125
<i>Glyceria striata</i>	Fowl Manna Grass	0.500
<i>Helenium autumnale</i>	Sneezeweed	0.125
<i>Iris virginica shrevei</i>	Blue Flag Iris	0.063
<i>Juncus balticus littoralis</i> { <i>J arcticus balticus</i> }	Lake Shore Rush	0.063
<i>Juncus torreyi</i>	Torreys Rush	0.063
<i>Leersia oryzoides</i>	Rice Cut Grass	0.063
<i>Liatris spicata</i>	Spiked Gayfeather	0.375
<i>Lobelia siphilitica</i>	Great Blue Lobelia	0.094
<i>Mimulus ringens</i>	Monkey Flower	0.031
<i>Pycnanthemum virginianum</i>	Common Mt Mint	0.188
<i>Scirpus atrovirens</i>	Dark Green Rush	0.250
<i>Scirpus cyperinus</i>	Wool Grass	0.125
<i>Scirpus pendulus</i>	Red Bulrush	0.015
<i>Solidago gigantea</i>	Late Goldenrod	0.125

<i>Symphyotrichum novae-angliae</i> {Aster n}	New England Aster	0.188
<i>Symphyotrichum puniceum</i> {Aster p}	Swamp Aster	0.063
<i>Verbena hastata</i>	Blue Vervain	0.500
<i>Vernonia fasciculata</i>	Common Ironweed	0.188
v120712		*
total		12.145
total native matrix		12.082

All items subject to availability. Mix composition may vary seasonally.

The term drainage swale is a relative term that denotes a topographic low in the landscape that periodically receives excess runoff precipitation. It has no connotation of long-term soil moisture or the type of vegetation that will grow in the swale. The above mix is for soils that are moist most of the growing season. The following mix is for those mostly mesic, not-so-wet swales with no street or parking lot runoff.

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### Mesic to Wet Stormwater Swale Seed Mix

#### Illinois Permit# 3669

#### PLS where applicable

A seed mix for mesic to slightly wet, occasionally inundated ditches & drainage swales that receive clean runoff.

Species	Common Name	lb / acre
<i>Andropogon gerardii</i>	Big Bluestem	2.000
<i>Carex Bebbii</i>	Bebbs Sedge	0.500
<i>Carex molesta</i>	Troublesome Sedge	0.250
<i>Carex scoparia</i>	Pointed Broom Sedge	0.500
<i>Elymus canadensis</i>	Canada Rye	2.000
<i>Elymus virginicus</i>	Virginia Rye	2.000
<i>Eupatorium perfoliatum</i>	Thoroughwort	0.094
<i>Juncus tenuis</i>	Roadside Rush	0.125
<i>Scirpus atrovirens</i>	Dark Green Rush	0.250
<i>Silphium perfoliatum</i>	Cup Plant	0.031
<i>Solidago gigantea</i>	Late Goldenrod	0.094
<i>Sorghastrum nutans</i>	Indian Grass	3.000
<i>Symphyotrichum laeve</i> {Aster l}	Smooth Blue Aster	0.250
<i>Symphyotrichum lanceolatum</i> {Aster simplex}	Panicled Aster	0.125
<i>Symphyotrichum novae-angliae</i> {Aster n}	New England Aster	0.250
<i>Verbena hastata</i>	Blue Vervain	0.312
<i>Vernonia fasciculata</i>	Common Ironweed	0.125
<i>Zizia aurea</i>	Golden Alexander	0.125
v120712		*
total		12.031
total native matrix		12.031

All items subject to availability. Mix composition may vary seasonally.

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**Streamside Wetland Seed Mix**

**PLS where applicable**

A mix of grasses, sedges, & forbs for level areas of rich soil immediately adjacent to clean, meandering, cold-water streams in sensitive areas. This mix will not grow on stream banks, sand bars, gravel bars, detention wetlands, or urban hydrology, & should not be seeded in those situations. Tolerant of occasional, or seasonal clean high water, not the toilet bowl flushes of urban streams. The antithesis of the Urban Floodplain. Best dormant seeded.

Species	Common Ironweed	lb / acre
<i>Agrostis stolonifera</i> { <i>A alba palustris</i> }	Bent Grass	0.500
<i>Alisma subcordatum</i>	Common Water Plantain	0.250
<i>Angelica atropurpurea</i>	Angelica	0.250
<i>Asclepias incarnata</i>	Swamp Milkweed	0.063
<i>Bidens cernua</i>	Nodding Burmarigold	0.063
<i>Carex comosa</i>	Bottlebrush Sedge	0.188
<i>Carex cristatella</i>	Crested Sedge	0.188
<i>Carex scoparia</i>	Pointed Broom Sedge	0.250
<i>Carex stipata</i>	Awlfruted Sedge	0.125
<i>Carex vulpinoidea</i>	Fox Sedge	0.750
<i>Chelone glabra</i>	Turtlehead	0.031
<i>Clematis virginiana</i>	Virgins Bower	0.031
<i>Echinochloa crusgalli</i>	Barnyard Grass	1.000
<i>Eleocharis erythropoda</i> { <i>E calva</i> }	Redrooted Spikerush	0.063
<i>Eleocharis palustris major</i> { <i>E smalli</i> }	Marsh Spikerush	0.063
<i>Eupatorium perfoliatum</i>	Thoroughwort	0.015
<i>Eutrochium maculatum</i> { <i>Eupatorium m</i> }	Spotted Joepyeweed	0.063
<i>Glyceria striata</i>	Fowl Manna Grass	0.500
<i>Heracleum maximum</i>	Cow Parsnip	0.250
<i>Hibiscus moscheutos</i> { <i>H palustris</i> }	Swamp Rose Mallow	0.063
<i>Impatiens capensis</i>	Orange Jewelweed	0.063
<i>Iris virginica shrevei</i>	Blue Flag Iris	0.063
<i>Leersia oryzoides</i>	Rice Cut Grass	1.000
<i>Lobelia cardinalis</i>	Cardinal Flower	0.015
<i>Lobelia siphilitica</i>	Great Blue Lobelia	0.015
<i>Mimulus ringens</i>	Monkey Flower	0.015
<i>Poa palustris</i>	Marsh Bluegrass	0.250
<i>Sagittaria latifolia</i>	Duck Potato	0.125
<i>Sparganium eurycarpum</i>	Bur Reed	1.000
<i>Symphotrichum lanceolatum</i> { <i>Aster simplex</i> }	Panicled Aster	0.063
<i>Symphotrichum novae-angliae</i> { <i>Aster n</i> }	New England Aster	0.015
<i>Thalictrum dasycarpum</i>	Purple Meadow Rue	0.125
<i>Verbena hastata</i>	Blue Vervain	0.313
v120712		*
total		7.768
total native matrix		7.268

All items subject to availability. Mix composition may vary seasonally.