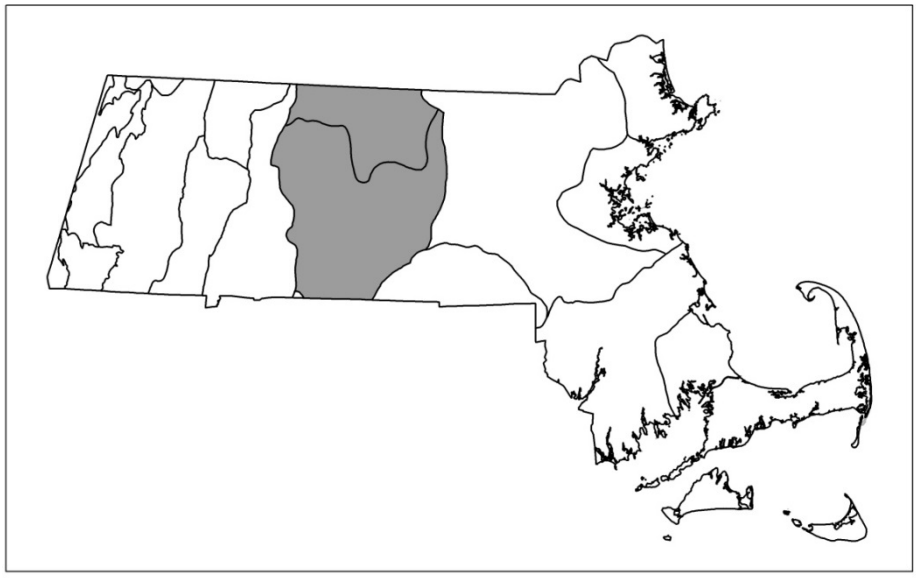
Acidic Graminoid Fen – Spillway Fen

Community Code: CP2B0B100A

State Rank: SNR



Concept: Shallow acidic peatlands with mixed graminoid /herbaceous vegetation, that develop on spillway bedrock channels associated with large dams.

Environmental Setting: Shallow peat developed on spillway channel bottoms with groundwater seepage that keeps the coarse mineral soil substrate saturated most of the time. Annual herbicide or mowing treatment to control woody plants produces small patches of high mortality of a minute proportion of the fen each year and may play an important role in the observed patch dynamics and species diversity in the community.

Vegetation Description: The plants of the Acidic Graminoid Fen - Spillway Fen community include peatland species and species more typical of disturbed areas such as river or lake shores or wet gravel pits. Species shared with Acidic Graminoid Fens include sedges (*Carex* species), Tawny Cotton-grass (*Eriophorum virginicum*), Round-leaved Sundew (*Drosera rotundifolia*), and Rose Pogonia (*Pogonia ophioglossoides*). Horsetails (*Equisetum* spp.), including Variegated Scouring Rush (*Equisetum variegatum*), may cover substantial areas of the habitat. Canadian St. John's-wort (*Hypericum canadense*) and Spreading Bulrush (*Scirpus expansus*) occur at both reported sites. Both sites included multiple members of the sedge and grass families. One site included several regionally uncommon (but not State-Listed) species including Alpine Clubsedge (*Trichophorum alpinum*), Swamp-thistle (*Cirsium muticum*), and Northeastern Willow-herb (*Epilobium strictum*), along with large populations of orchid species.

Differentiating Occurrences: Spillway Fens are restricted to the spillways of large dams. Any sphagnum-dominated areas in spillways would be considered to be a Spillway Fen, a cultural variant of Acidic Graminoid Fen.

Associated Fauna: Due to the extended periods of saturation, lack of nutrients, and high acidity and low oxygen content of the water, acidic peatlands are inhospitable to many animal species. Spillway Fens, being on spillways of large dams, are not likely to be used as habitat by many of the wide-ranging large species that are found in other acidic peatlands.

Public Access: Tully Lake Reservation (US Army Corps of Engineers), Athol; Barre Falls Project Area (US Army Corps of Engineers), Barre.

Threats:

Management Needs: The community is maintained through active management of the spillways. The spillway is critical infrastructure for the flood control project and maintenance and repairs to maintain its function are inevitable. The annual herbicide treatment to control woody plants produces small patches of high mortality (but affecting a minute proportion of the fen each year) and may play an important role in the observed patch dynamics and species diversity in the community. Avoid altering the existing disturbance regime affected by the annual vegetation treatment. Debris, including substantial rubble of rock falls from the steep rock walls of the channel, may eventually need to be removed from the spillway channel. Consider developing a management plan to help conserve the fen habitat prior to conducting major work in the spillway.

USNVC/NatureServe: