SPECIES: Scientific [common]	*Potamogeton strictifolius* [Strict-leaved pondweed]
Forest:	Bridger-Teton National Forest
Forest Reviewer:	**Daniel Lay/Rose Lehman; K. Clause, Trevor Bloom**
Date of Review:	**1/28/2020; 03/25/2025**
Forest concurrence (or recommendation if new) for inclusion of species on list of potential SCC: (Enter Yes or No)	**No**

FOREST REVIEW RESULTS:

1. The Forest concurs or recommends the species for inclusion on the list of potential SCC:
   Yes___ No_X__

2. Rationale for not concurring is based on (check all that apply):
   Species is not native to the plan area _____
   Species is not known to occur in the plan area _____
   Species persistence in the plan area is not of substantial concern ___X____

FOREST REVIEW INFORMATION:

1. Is the Species Native to the Plan Area? Yes_X__ No___

   If no, provide explanation and stop assessment.

2. Is the Species Known to Occur within the Planning Area? Yes_X__ No___
   If no, stop assessment.

Table 1. All Known Occurrences, Years, and Frequency within the Planning Area

Year Observed	Number of Individuals	Location of Observations (USFS District, Town, River, Road Intersection, HUC etc.)	Habitat Description	Source of Information[1]
7/28/1964	N/A	Northern end Wind River Range: at the Green River Lakes.	In 2 ft of water at Green River Lake.	Collector: C.L. Porter #9635(Rocky Mountain Herbarium, accessed 2020). SEINet, 2020) WNDD, 2019.

[1]The Consortium of Pacific Northwest Herbaria (Consortium of Pacific Northwest Herbaria 2019) and the Rocky Mountain Herbarium (RMH, 2020) were also searched, and no additional occurrences on the Bridger-Teton National Forest were found.

a. Are all Species Occurrences Only Accidental or Transient?

Yes___ No_X__

If yes, document source for determination and stop assessment.

b. For species with known occurrences on the Forest since 1990, based on the number of observations and/or year of last observation, can the species be presumed to be established or becoming established in the plan area? N/A

Yes___ No__

If no, provide explanation and stop assessment

No occurrences since 1990.

c. For species with known occurrences on the Forest predating 1990, does the weight of evidence suggest the species still occurs in the plan area?

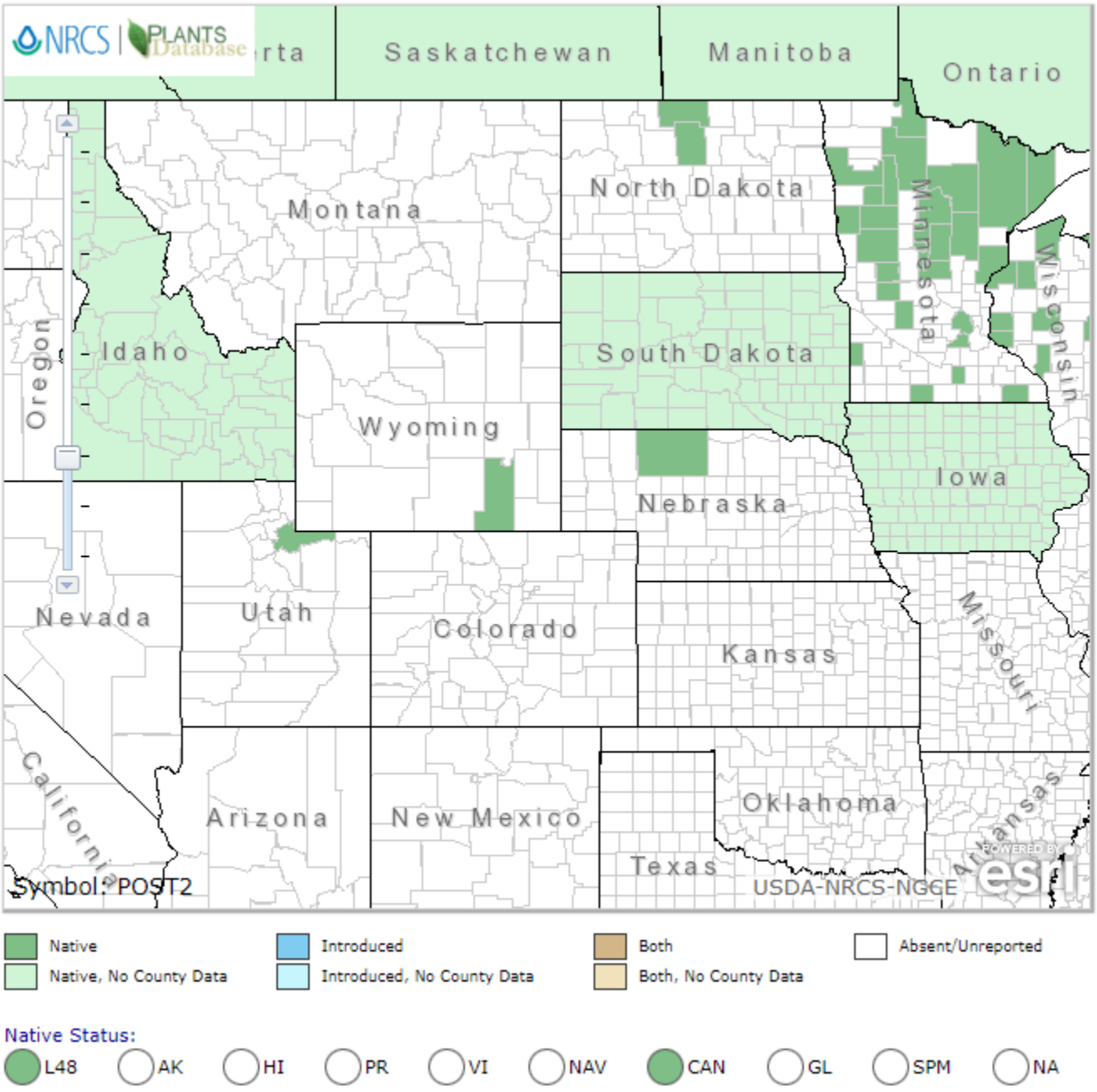
Yes_X__ No___

Provide explanation for determination

Habitat since the 1950's has been relatively stable and there is no reason to believe it does not sill exist.

If determination is no, stop assessment

Map 1, *Potamogeton strictifolius* range in Wyoming and surrounding states (NRCS 2020). Currently not showing the occurrence in Sublette County, WY.



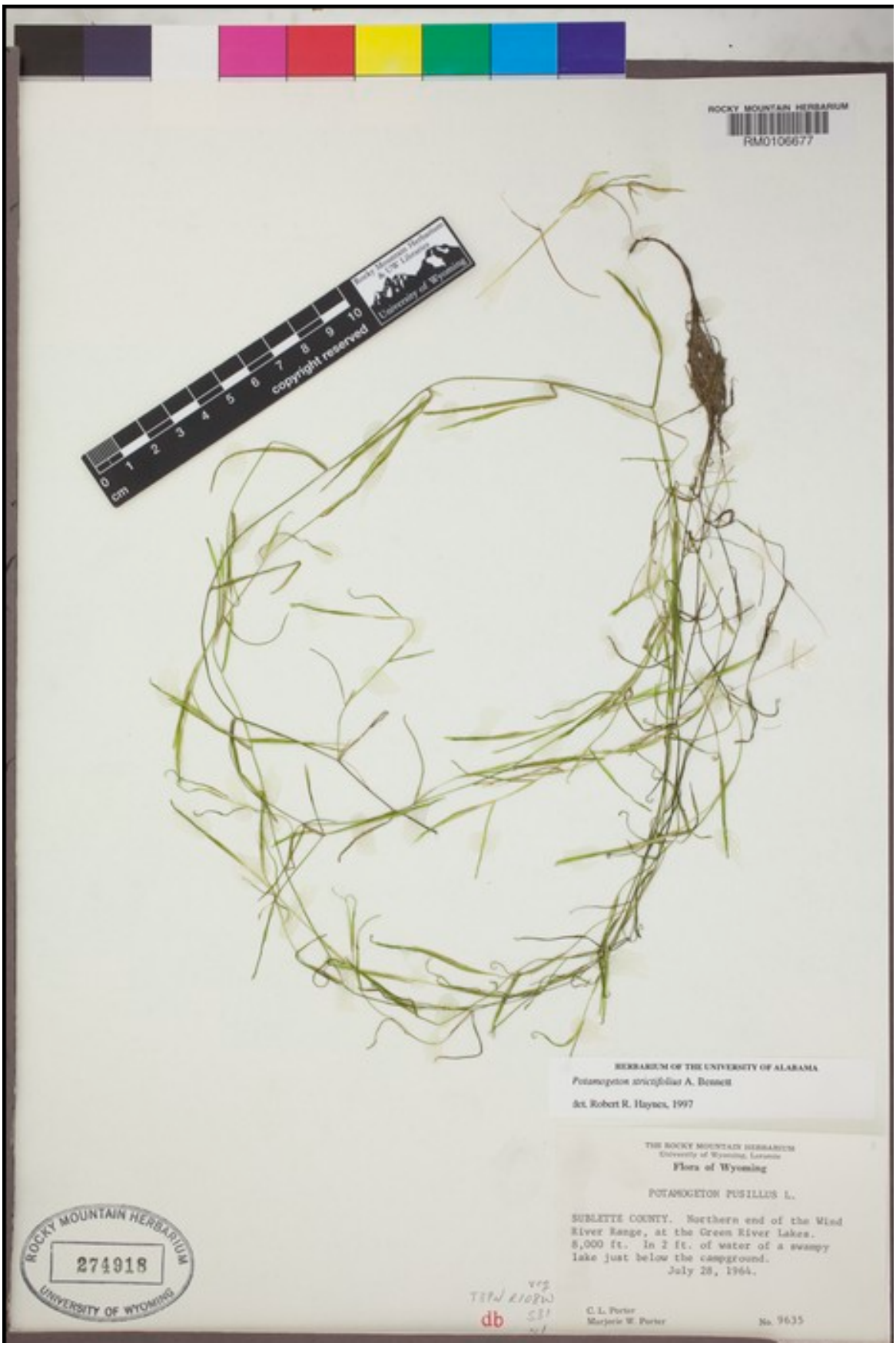


Figure 1: Confirmed herbarium record to *Potamogeton strictifolius* (narrowleaf pondweed).

3. Is There Substantial Concern for the Species' Capability to persist Over the Long-term in the Plan Area Based on Best Available Scientific Information?

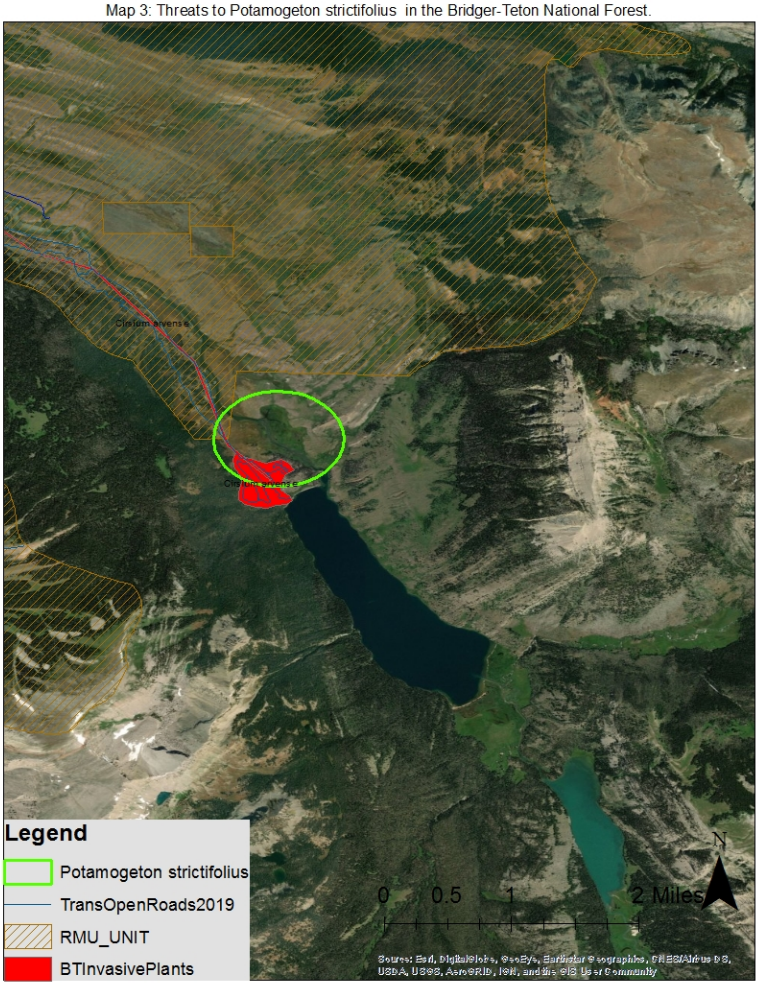
Table 2. Status summary based on existing conservation assessments

Entity	Status/Rank (include definition)
NatureServe Global Status	**G5— Apparently Secure** *At very low risk of extinction or elimination due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.*
NatureServe State Status	**S1?—Critically Imperiled (uncertain)** *At a very high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.*
WYNDD	**Plant Species of Concern** **G5/S1** *Species vulnerable to extirpation at the global or state level due to:* *a. their rarity (e.g., restricted distribution, small population size, low population density)* *b. inherent vulnerability (e.g., specialized habitat requirements, restrictive life history)* *c. threats (e.g., significant loss of habitat, sensitivity to disturbances)* (Wyoming Natural Diversity Database - Species of Concern)
USDA Forest Service	Not listed
USDOI FWS	Not listed
USDOI BLM	Not listed

Sources: WYNDD 2019; Heidel 2018; USDA Forest Service Regions 2 and 4 Sensitive Species Lists; NatureServe 2020.

Table 3. Status summary based on best available scientific information.

Criteria	Rationale
Distribution on the Bridger-Teton National Forest	Table 1 and Map 2 detail *Potamogeton strictifolius* occurrences in the Bridger-Teton National Forest. There is one occurrence growing on the margin of Green River Lake on the Bridger-Teton NF. This plant is a wetland obligate to Green River Lake.
Distribution outside the Bridger-Teton National Forest	Ranging across Canada and the northeastern United States, south to Virginia, Illinois, Nebraska, Wyoming, and Idaho, with an outlying population in northern Utah. In Wyoming, it is historically known from the Yellowstone Plateau of Yellowstone National Park, the northwest Wind River Range of Sublette County, and Laramie Basin of Albany County.
Abundance on the Bridger-Teton National Forest	No abundance data was collected for the only visit in 1964. Although the entirety of Bridger-Teton National Forest has not been floristically inventoried, some areas within and adjacent to Bridger-Teton National Forest have been surveyed over the years. This species was not documented during these survey efforts: • Sensitive plant surveys and status of rare plant species on Bridger-Teton National Forest, 1997-1998 (Fertig 1999) • A Floristic Inventory of Grand Teton National Park, Pinyon Peak Highlands, and Vicinity, Wyoming U.S.A (Kesonie and Hartman 2011) • Sensitive and rare plant species inventory in the Salt River and Wyoming Ranges, Bridger-Teton National Forest (Heidel 2012). • Rare Species and Riparian Vegetation of the Snake River Basin in Wyoming (Jones et al. 2002)
Population Trend on the Bridger-Teton National Forest	Data on population trends for this species have not been collected. No other sources provide additional population or multi-year trend monitoring data on the BTNF.
Habitat Trend on the Bridger-Teton National Forest	Habitat trend fluctuates with annual snowpack and precipitation. Most mid-elevation riparian communities are moderately vulnerable to the effects of climate change. Vegetation dominance may shift to species that are more tolerant of seasonal droughts. Some species may be able to persist or migrate to suitable habitat. (Halofsky et al., 2018).
Threats to the Species and its Habitat on the Bridger-Teton National Forest	Wetland/riparian habitat may be threatened by climate change affects and disturbance or loss of habitat. A decline in winter snowpack is expected to become an increasing trend, which will result in less stored water, and decreased stream flows that provide habitat for *P. strictifolius*. Changes in flow regimes can impact the amount, season, and timing of flows, this can substantially alter associated wetland/riparian species because of their dependence on fluvial geomorphic process, surface water, and groundwater. This occurrence is considered a mid-elevation riparian area and is at a moderate risk for adverse effects from climate change. These mid-elevation communities have are

Criteria	Rationale
	moderately vulnerabile to climate change because of moderate to high sensitivity and low to moderate adaptive capacity (Halofsky et al., 2018). The *P. strictifolius* occurrence is within 1,000 feet of a large population of an invasive plant, *Cirsium arvense*, which occurs at the end of the Green River Lakes road. The likelihood of *C. arvense* impacting this occurrence is quite low, as *C. arvense* is described as a facultative upland plant, whereas the habitat for *P. strictifolius* is wetland obligate. A road does come within 1,000 feet of the *P. strictifolius* occurrence, but does not seem to have any direct impacts, there is a possibility for indirect effects via dust dispersal and resulting photosynthesis inefficiencies and water quality changes (Farmer, 1993) (see map 3). Map 3: Threats to Potamogeton strictifolius in the Bridger-Teton National Forest.  The area in which *P. strictifolius* occurs does not have any active grazing allotments that overlap, but wetland areas downstream appear to be similar in hydrological function and therefore potential habitat could be impacted by active grazing or trampling.

Criteria	Rationale
Life history and demographic characteristics of the species	*Potamogeton strictifolius* is a submersed perennial aquatic plant with slender rhizomes, that flowers July-August. Dispersal is via fragmented rhizomes or the transport of turions (Adamec, 2018). Habitat is described as the margins of slow-moving streams, ponds, and lakes at 6,800-8,000 feet (Fertig, 2000).
Date: January 28, 2020 Reviewer: D. Lay	

Summary and Recommendations
Species (Scientific and Common Name): *Potamogeton strictifolius* (Strict-leaved pondweed)
Potamogeton strictifolius is listed as S1? (critically imperiled, uncertain) and G5 (secure) globally. General habitat on the BTNF is described as submerged aquatics on the margin of Green River Lake. The main distribution for the plant is in the Great Lakes area, and all occurrences in the western United States appear to be disjunct and rare. Only one occurrence and site visit has been documented on the BTNF (1964). This occurrence has had no baseline abundance or population trend assessments conducted. Additional surveys and long-term trend monitoring need to be conducted on these occurrences to assess the trend of the populations on the BTNF. Threats to potential habitat include recreation, water quality changes, and climate change. Climate change is projected to be a long-term threat to both populations and habitat for this species and is of substantial concern as these mid to high-elevation riparian communities are expected to be at high risk of adverse effects. Aquatic Invasive plant species have not been documented in the immediate area of these lakes. Due to lack of sufficient population status and trends as well as the Bridger-Teton' low contribution to global rank and low potential threats, it is not recommended to be a Species of Conservation Concern at this time.
Evaluator: Daniel Lay Date: 1/28/2020 Reviewed: Trevor Bloom, K. Clause Date: 3/25/2025

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