SPECIES: Scientific [common]	*Microtus richardsoni* [North American Water Vole]
Forest:	Bridger-Teton National Forest
Forest Reviewer:	Randall Griebel, James Wilder
Date of Review:	08/10/2018; reviewed 4/24/25
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	Source of Information
2003	1	Blackrock Ranger District; Weasel Creek	Wyoming Natural Diversity database (January 2018)
2009	1	Pinedale Ranger District; Island lake	

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?

Yes___ No_X__

If determination is no, stop assessment. Provide explanation for determination.

North American water vole range includes northwestern Wyoming, overlapping with most of the Bridger-Teton National Forest (Map 1). Water vole occupancy is largely discontinuous and as with other semi-aquatic mammals, population segments occur in small patches of suitable habitat along stream networks (WGFD 2017). The water vole occupies alpine and sub-alpine riparian meadows of the Bighorn Mountains, Beartooth Mountains, and Absoroka Mountains of Wyoming. Preferred water vole habitat is clear, low-gradient, gravel-bottomed streams (and occasionally ponds and marshes) bordered by alpine tundra or subalpine meadow (WGFD 2017). Thick herbaceous cover with a willow overstory appears to be important factor in optimal water vole habitat. Much of the BTNF is within the distribution of this species (Map 2) and alpine or sub-alpine riparian stream meadow habitat is available. However, it is unknown to what extent optimal water vole habitat is present on the Forest.

There has been two incidental water vole observations on the BTNF (Table 1), suggesting that either there are currently no established populations on the Forest, or population and habitat dynamics are largely unknown. Water vole populations have been identified within the mountain ranges north and east of the BTNF, where similar habitat conditions to that of the BTNF exists. This suggests that 1) suitable habitat components are lacking on the BTNF and the Forest does not support water vole populations as with nearby mountain ranges or 2) suitable habitat is present on the BTNF and water vole occupancy on the Forest is currently unknown due to a lack of survey efforts, and occupancy records do not reflect current populations.

Wyoming Game and Fish Department. 2017. State Wildlife Action Plan. Water Vole (*Microtus richardsoni*).

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?

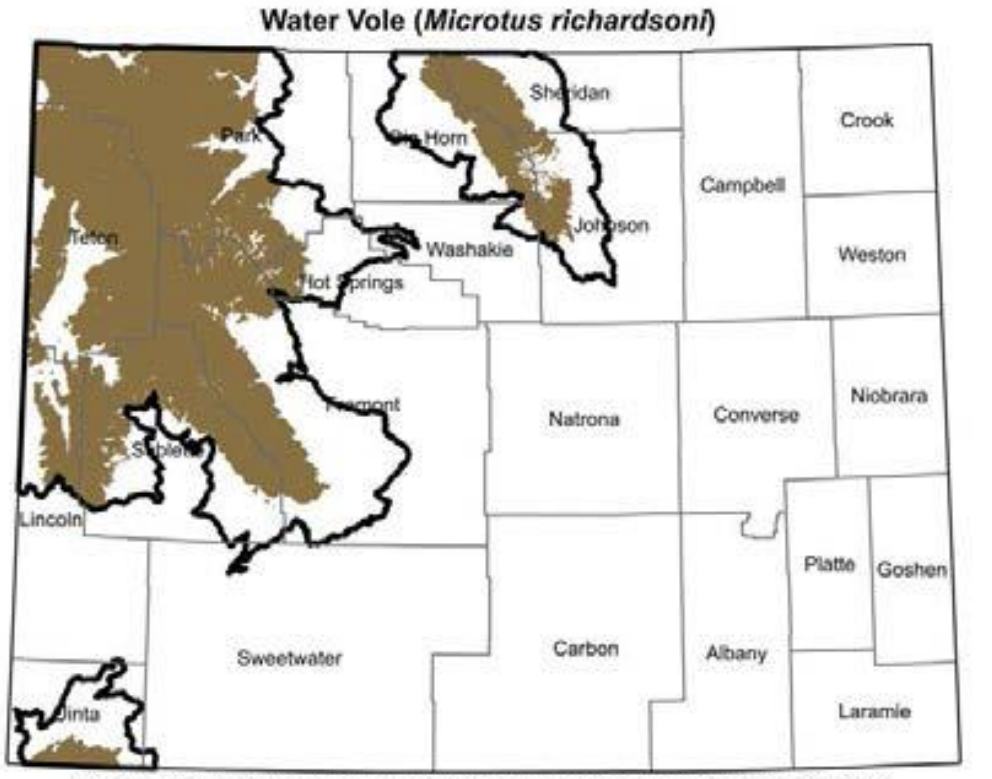
Yes___ No___

If determination is no, stop assessment. Provide explanation for determination.

d. **Map 1**, Water vole range map of North America.

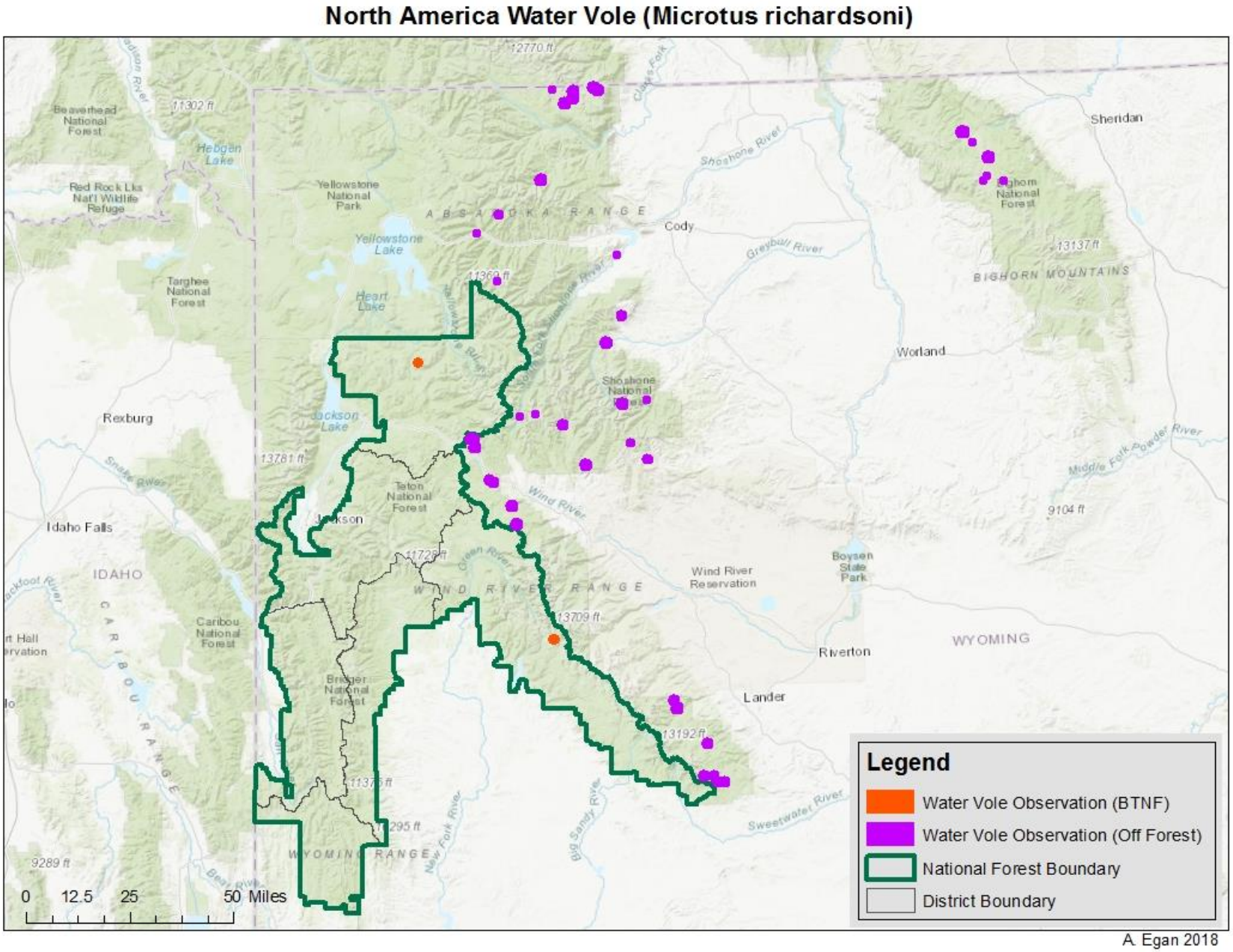
Wyoming Game and Fish Department. 2017. State Wildlife Action Plan. Water Vole (*Microtus richardsoni*).

e. **Map 2**, Range and predicted distribution of *Microtus richardsoni* in Wyoming.



Wyoming Game and Fish Department. 2017. State Wildlife Action Plan. Water Vole (*Microtus richardsoni*).

f. **Map 3,** Water vole observations on the Bridger-Teton National Forest (Wyoming Natural Diversity Database [Accessed: January 2018]).



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 if Other)
NatureServe Global Status	**G5— Secure** *Common; widespread and abundant.*
NatureServe State Status	**S2— Imperiled** *At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.*
WGFD	**NSS3 (Bb), Tier II** *Population Status: Vulnerable - Population size or distribution is restricted or declining but extirpation is not imminent* *Limiting Factors: Severe - Limiting factors are severe and are not increasing significantly* *Tier II: Moderate priority* *[The WGFD's Species of Greater Conservation Need (SGCN) designation process is based upon its **Native Species Status (NSS)** classification system that compares population and limiting factor variables using a 16 cell matrix. As a species moves from a placement closest to the upper left corner of the matrix (Aa/NSS1) toward the lower right corner (Dd/NSS7) the species' population status in Wyoming is considered more secure. Numerical scores were assigned to each of these variables and summed to provide a total score (i.e. NSS3). SGCN were placed into one of three tiers based on their total score: Tier I – highest priority, Tier II – moderate priority, and Tier III – lowest priority.]* (WGFD - Wyoming Species of Greatest Conservation Need)
WYNDD	**Species of Concern** *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	**No Special Status**
UDI FWS	**No Special Status**
WY BLM	**No Special Status**
IUCN	**LC – Least Concern** *A taxon is Least Concern when it has been evaluated against the criteria and does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. Widespread and abundant taxa are included in this category.* (IUCN – Red List Categories and Criteria)

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

Species (Scientific and Common Name): ***Microtus richardsoni [North American Water Vole]***	
Criteria	**Rationale**
Distribution on Bridger-Teton National Forest	NA
Abundance on the Bridger-Teton National Forest	NA
Population Trend on the Bridger-Teton National Forest	NA
Habitat Trend on the Bridger-Teton National Forest	NA
Vulnerability of Habitats on the Bridger-Teton National Forest	NA
Summary and recommendations: The Bridger-Teton National Forest is almost entirely within the identified range of the North American water vole. However, water vole populations appear to be utilizing the surrounding mountain ranges, and populations are not yet established on the BTNF. It is unclear if this is due to population dynamics or habitat conditions. Additionally, it is difficult to assess whether the few occurrence records represent accurate water vole occupancy on the Forest, or if occupancy is unknown due to a lack of survey efforts. Similar habitat is present on the BTNF to that of the adjacent mountain ranges, and while the species may not utilize the Forest to the same extent, water vole habitat is expected to remain stable. For this reason, there is not a substantial concern for the species' capability to persist on the planning area at this time. Therefore, it is recommended that the North American water vole is not a Species of Conservation Concern for the Bridger-Teton National Forest. Evaluator(s): Ashley Egan, Randall Griebel Date: August 7, 2018	