2018 PARTNERS MEETING
HABITATS BREAKOUT GROUP NOTES

A. SHORT PRESENTATIONS -- WETLANDS WORK IN 6 ORGANIZATIONS

Each participant briefly explained the wetlands work that her or his organization is doing in the state.

U.S. Forest Service: Martina Keil, Bridger-Teton National Forest. They are using USFS's Groundwater Dependent Ecosystem methods to answer different questions. Data from these projects, and many others, is available on a national web site (approval must be obtained first).

Bureau of Land Management: Chris Keefe, Wyoming State Office. Projects statewide are focused on soils and riparian condition. In the Upper Green River Basin, have study of salinity and sedimentation. BLM has contract out updated NWI & LLWW mapping. And the BLM is securing new NAPP Imagery for Wyoming.

Ducks Unlimited/Wyoming Game and Fish Department: Noelle Smith, Wetland Specialist. Working on management areas such as Table Mountain on improved climate/vulnerability/resilience studies. Ian Tator (WGFD) added that the Department is working to secure water rights to better assure resilience of wetlands on the habitat units.

Natural Resource Conservation Service: Brian Jensen, State Wildlife Biologist. NRCS needs to better distinguish between historic wetlands and man-made wetlands, and they want to conduct minimum-effects analyses on their wetlands projects. They plan to have LiDAR flights flown in 7 counties. Interested in how to better determine historic vs manmade wetlands and minimum effects analysis on activities.

The Nature Conservancy of Wyoming: Lindsey Washkoviak, WYNDD wetland ecologist representing. Holly Copeland with TNC recently developed the WyoWET decision support tool which allows users to view wetland polygons and interact with associated data important to management including wetland type, wetland location, wetland biological and hydrologic functions, surrounding land use, landownership, hydrologic alteration, resilience and vulnerability for wetlands in the Little Snake River and Popo Agie watersheds. Keep an eye on TNC's web site for WyoWET.

Wyoming Natural Diversity Database: George Jones, Vegetation ecologist. WYNDD has conducted wetlands work over the years that can be grouped into three types of projects: wetland plant projects, habitat-focused projects, and wetland profile projects. See Appendix A for a list of the projects of each type.

B. GROUP CONVERSATION POINTS

Sharing costs for new state-wide digital data. At present, different organization are collecting or preparing to collect digital data; e.g., LiDAR data by the NRCS, and updated NWI/LLWW maps and NAPP photos by the BLM. Are there opportunities for agencies and organizations to share the costs for products like these that all could use?

Wetland data collection. Beyond the production of new digital data, coordination of all types of wetland data would be helpful.

Directory to people involved in wetlands work. Question: Can WYNDD create a webpage or list with key wetland personnel within the state? Answer: WYNDD is just starting a project to put wetlands information on its web site, and a directory would be an easy thing to add.

Resilience mapping. Corinna Riginos (Nature Conservancy of Wyoming) reports that TNC is about to start a project to map the resilience of ecosystems of all types (not just wetlands) to disturbances and changes in climate.

WYNDD WETLAND PROJECTS

INFORMATION ABOUT WETLAND PROJECTS CONDUCTED BY WYNDD SCIENTISTS.

WYNDD PARTNERS MEETING,
NOVEMBER 29TH, 2018

TYPES OF PROJECTS

- *Wetland Plant Projects* are focused on providing information primarily about rare wetland plants at specific locations, but most contain descriptions of habitat and environmental features at sampled locations.

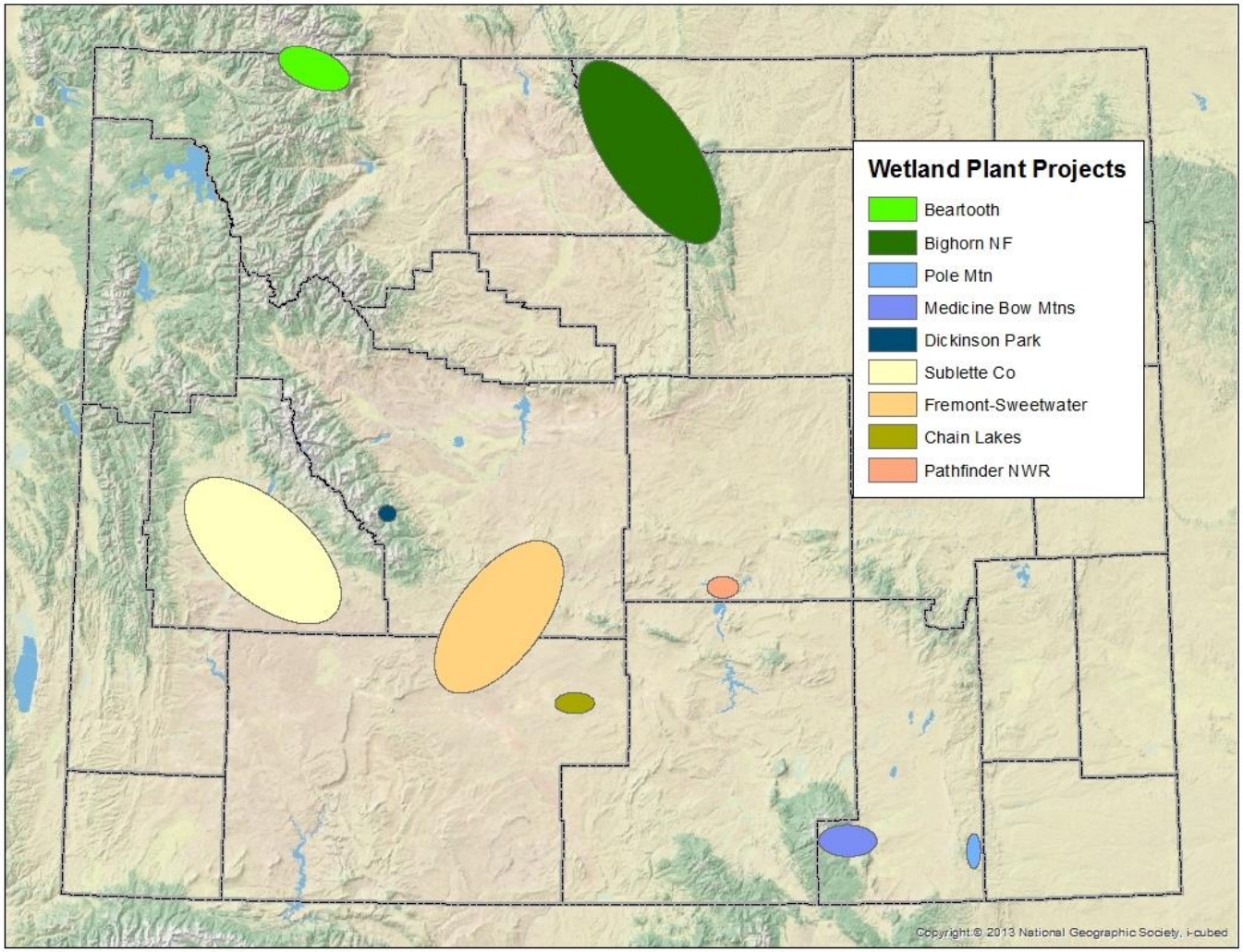
- *Habitat-Focused Projects* describe the physical and biotic features of wetlands in the study area. The biotic features include the vegetation, but little information is presented about individual species. These reports usually summarize the information collected at individual sampling sites. GDE projects are conducted using the USDA Forest Service's Groundwater-Dependent Ecosystem protocols.

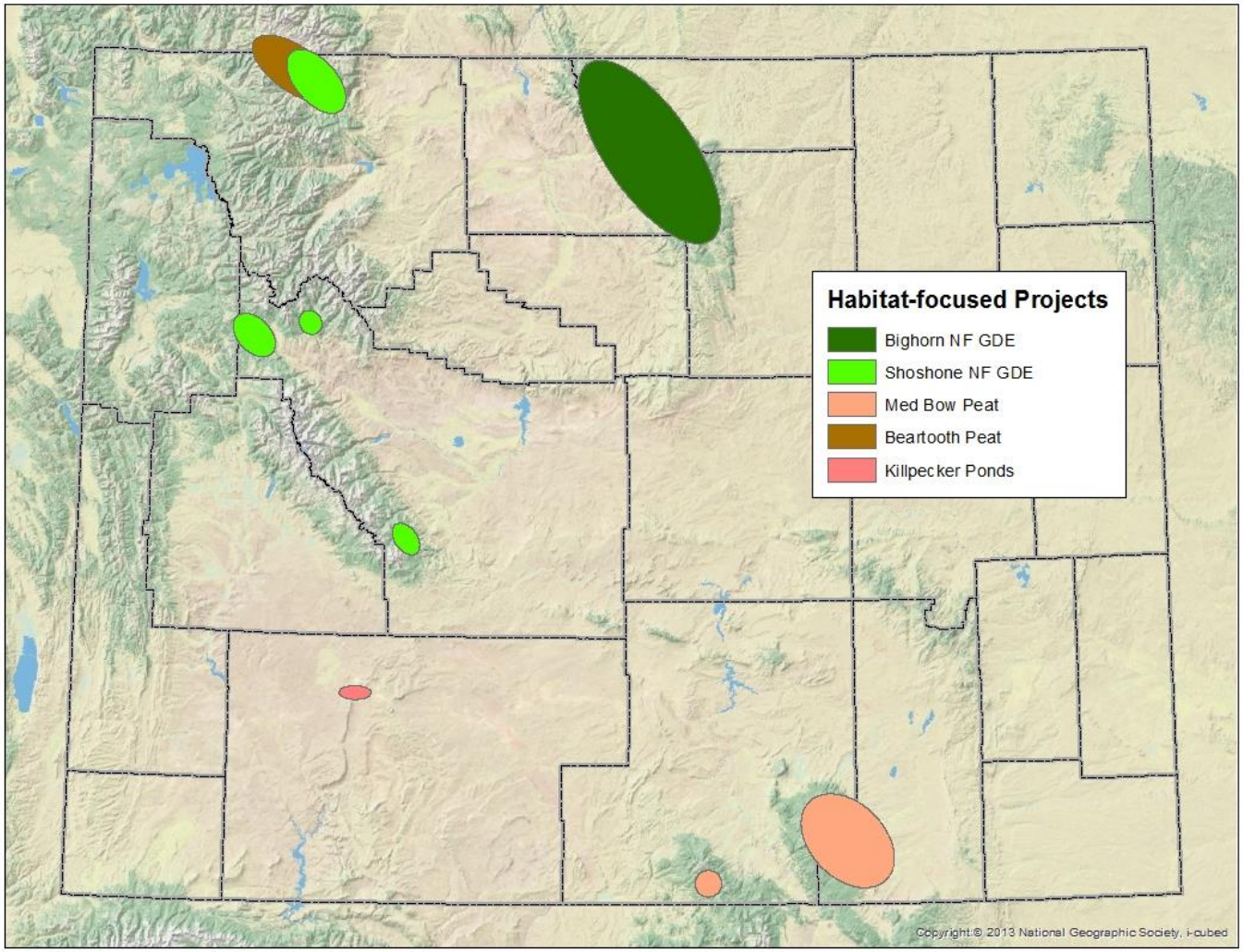
- *Wetland Profile Projects*: each describes the physical and biotic features of the types of wetlands in a geographic area, and presents information about the condition of the wetlands in the area. These reports, too, summarize the information from the individual sampling sites.

AVAILABILITY OF INFORMATION

Unless otherwise noted, each of the reports listed in the following pages is available on the WYNDD's web site, http://www.uwyo.edu/wyndd/. Reports are listed on the "Reports & Publications" page (http://www.uwyo.edu/wyndd/reports-and-publications/) in alphabetical order by the first author's last name. The reports can be downloaded from the web site.

Information and data from the individual sampling sites may be contained in the report. Information about rare plants documented in the wetland plant projects is available via data requests. For the habitat-focused projects and the wetland profile projects, the information for individual wetlands is not presently available on our web site, but it may be obtained by contacting the author of the report. We hope to have this information available on-line within the next year or two.


Wetland Plant Projects
Beartooth
Bighorn NF
Pole Mtn
Medicine Bow Mtns
Dickinson Park
Sublette Co
Fremont-Sweetwater
Chain Lakes
Pathfinder NWR
Copyright © 2013 National Geographic Society, i-cubed


Habitat-focused Projects
Bighorn NF GDE
Shoshone NF GDE
Med Bow Peat
Beartooth Peat
Killpecker Ponds
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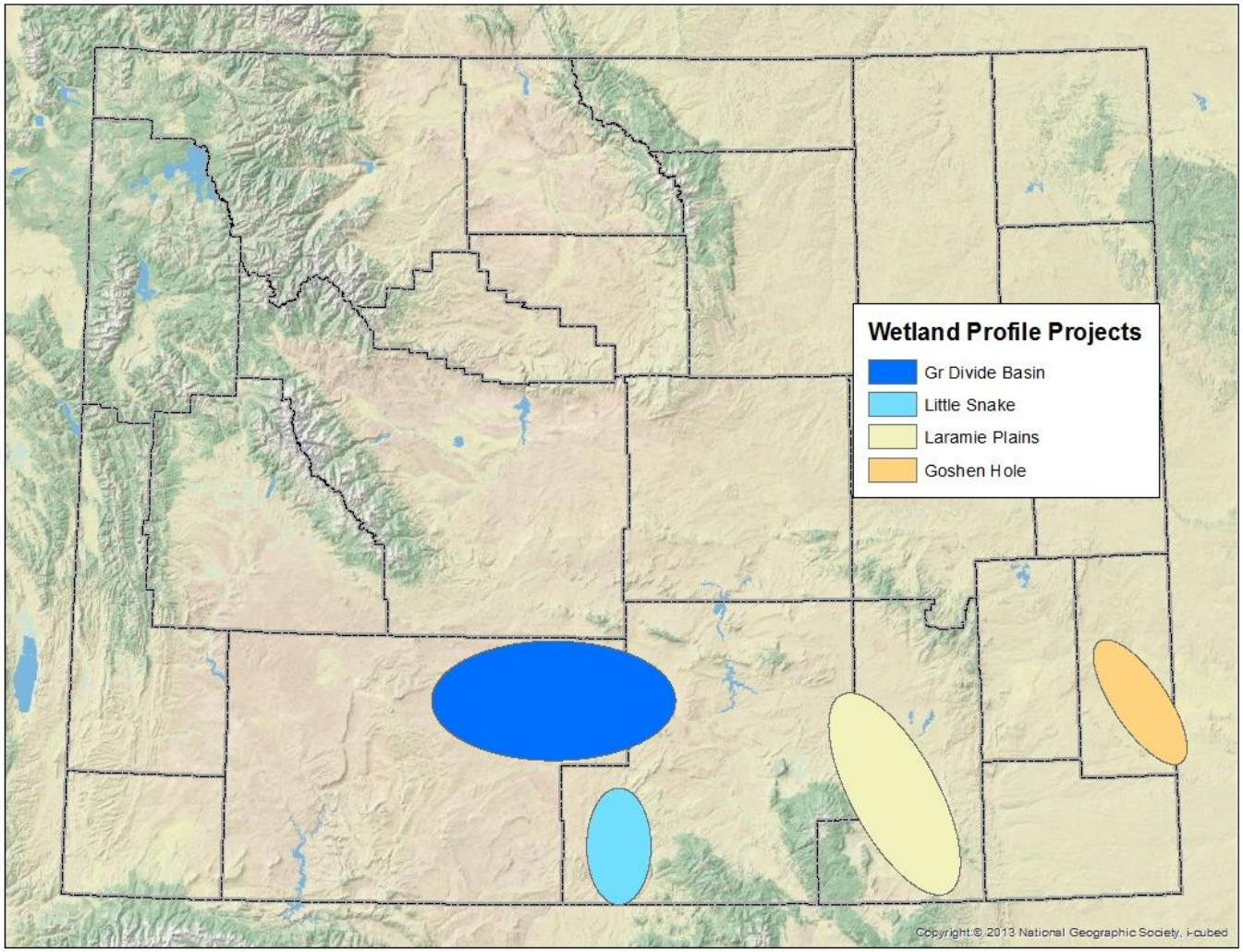
Wetland Profile Projects
Gr Divide Basin
Little Snake
Laramie Plains
Goshen Hole
Copyright © 2013 National Geographic Society, i-cubed

WETLAND PLANT PROJECTS

BEARTOOTH

Jones, G., B. Heidel, and W. Fertig. 2011. Plants and Vegetation Of the Potential Sawtooth Fen-Palsa Special Interest Area Within the Shoshone National Forest, Park County, Wyoming. Unpublished report prepared for the Shoshone National Forest by the Wyoming Natural Diversity Database, University of Wyoming. 26 pp.

Jones, G., B. Heidel, and W. Fertig. 2011. Plants and Vegetation Of the Potential Swamp Lake Special Interest Area Within the Shoshone National Forest, Park County, Wyoming. Unpublished report prepared for the Shoshone National Forest by the Wyoming Natural Diversity Database, University of Wyoming. 40 pp.

Heidel, B. and S. Laursen. 2003. Botanical and ecological inventory of peatland sites on the Shoshone National Forest. Unpublished report prepared for the Shoshone National Forest by the Wyoming Natural Diversity Database, University of Wyoming, Laramie.

BIGHORN NF

Heidel, B. 2011. Status Report On Sensitive Plant Species Of Fen Habitats, Big Horn Mountains, North-Central Wyoming. Unpublished report prepared for the Bighorn National Forest, USDA Forest Service by the Wyoming Natural Diversity Database, University of Wyoming, Laramie.

POLE MOUNTAIN

Heidel, B., J. Handley and M. Arnett. 2013. Status Report On Sensitive Plant Species Of Pole Mountain Wetlands. Unpublished report prepared for the Medicine Bow National Forest by the Wyoming Natural Diversity Database, University of Wyoming, Laramie.

MEDICINE BOW MOUNTAINS

Heidel, Bonnie and Scott Laursen. 2003. Botanical And Ecological Inventory of Peatland Sites On the Medicine Bow National Forest. Unpublished report prepared for the Medicine Bow National Forest by the Wyoming Natural Diversity Database, University of Wyoming, Laramie.

DICKINSON PARK

Heidel, B. 2013. Sensitive Plant Survey In the Dickinson Park Area, Shoshone National Forest. Unpublished report prepared for the Shoshone National Forest by the Wyoming Natural Diversity Database, University of Wyoming, Laramie.

SUBLETTE COUNTY

Heidel, B. 2013. Status Of *Antennaria arcuata* (Meadow pussytoes) In Sublette County, Wyoming. Unpublished report prepared for the USDI Bureau of Land Management - Pinedale and Rock Springs Field Offices by the Wyoming Natural Diversity Database, University of Wyoming, Laramie.

FREMONT - SWEETWATER COUNTIES

Heidel, B. 2015. Inventory of alkaline meadows for BLM sensitive plant species: *Antennaria arcuata* (Meadow pussytoes), *Astragalus diversifolius* (Meadow milkvetch) and Many-stemmed Spiderflower (*Cleome multicaulis*), With Field-Testing Of Potential Distribution Models; Fremont and Sweetwater counties, Wyoming. Unpublished report prepared for the USDI Bureau of Land Management by the Wyoming Natural Diversity Database, University of Wyoming, Laramie.

CHAIN LAKES

Heidel, B. 2008. Chain Lakes Botanical Survey. Unpublished report prepared for the Bureau of Land Management by the Wyoming Natural Diversity Database, University of Wyoming, Laramie.

PATHFINDER NWR

Fertig, W. 2000. Status of Many-stemmed spider-flower (Cleome multicaulis) in Wyoming. Report prepared for the Bureau of Land Management Wyoming State Office by the Wyoming Natural Diversity Database, Laramie, WY.

HABITAT-FOCUSED PROJECTS

BIGHORN NF GDE

Jones, George P. 2017. Bighorn National Forest Groundwater-Dependent Ecosystem/Fen Survey, 2014 - 2015. Unpublished Final Report For U.S. Forest Service Challenge Cost-Share Agreement 13-CS-11020200-033. Wyoming Natural Diversity Database, University of Wyoming.

SHOSHONE NF GDE

Jones, G.P., B. Heidel and K. Cary. *In preparation*. Inventory Of Groundwater-Dependent Wetlands In Selected Areas Of the Shoshone National Forest. Report prepared for the USDA Forest Service-Shoshone National Forest by the Wyoming Natural Diversity Database - University of Wyoming, Laramie.

Jones, G.P. i*n preparation*. Surveys For Rare Plants In Groundwater-Dependent Ecosystems In the Lava Mountain Area On the Shoshone National Forest. Unpublished report prepared for the USDA Forest Service-Shoshone National Forest by the Wyoming Natural Diversity Database - University of Wyoming, Laramie.

OTHER SHOSHONE NATIONAL FOREST (NOT SHOWN ON MAP)

Walford, G., G. Jones, W. Fertig, S. Mellman-Brown, and K.E. Houston. 2001. Riparian And Wetland Plant Community Types Of the Shoshone National Forest. USDA Forest Service General Technical Report RMRS-GTR-85. Rocky Mountain Research Station, Odgen UT. 122 pp

MED BOW PEAT

Heidel, B. and R. Thurston. 2004. Extensive Inventory Of Peatland Sites On the Medicine Bow National Forest. Unpublished report prepared for the Medicine Bow-Routt National Forest by the Wyoming Natural Diversity Database, University of Wyoming, Laramie.

Heidel, B. and G.P. Jones. 2006. Botanical And Ecological Characteristics Of Fens In the Medicine Bow Mountains, Medicine Bow National Forest, Albany and Carbon counties, Wyoming. Unpublished report prepared for the Medicine Bow National Forest by the Wyoming Natural Diversity Database, University of Wyoming, Laramie.

BEARTOOTH PEAT

Heidel, B. and E. Rodemaker. 2008. Inventory Of Peatland Systems In the Beartooth Mountains, Shoshone National Forest, Park County, Wyoming. Unpublished report prepared for the U.S. Environmental Protection Agency by the Wyoming Natural Diversity Database, University of Wyoming, Laramie.

Heidel, B. 2009. Water Chemistry Of Fens In the Beartooth Mountains. Unpublished report prepared for the Shoshone National Forest by the Wyoming Natural Diversity Database, University of Wyoming, Laramie.

KILLPECKER PONDS

Jones, G.P. 2006. Grazed And Ungrazed Vegetation Around Ponds In the Southwestern Killpecker Sand Dunes, Sweetwater County, Wyoming. Unpublished report prepared for the Bureau of Land Management's Rock Springs (Wyoming) Field Office by the Wyoming Natural Diversity Database, University of Wyoming, Laramie.

BEARTOOTH PLATEAU - CLARK'S FORK VALLEY (NOT SHOWN ON MAP)

Heidel, Bonnie; Fertig, Walter; Mellmann-Brown, Sabine; Houston, Kent E.; Dwire, Kathleen A. 2017. Fens And Their Rare Plants In the Beartooth Mountains, Shoshone National Forest, Wyoming. Gen. Tech. Rep. RMRS-GTR-369. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 110 p.

STATE-WIDE (NOT SHOWN ON MAP)

Jones, G.P. and G.M. Walford. 1995. Major Riparian Vegetation Types Of Eastern Wyoming. Unpublished report prepared for the Wyoming Department of Environmental Quality, Water Quality Division by the Wyoming Natural Diversity Database, University of Wyoming, Laramie.

Walford, Gillian M. 1996. Statewide classification of riparian and wetland dominance types and plant communities - Bighorn Basin segment. Unpublished report submitted to the Wyoming Department of Environmental Quality, Water Quality Division. Cooperative Agreement #WET04, Grant #CD998066-01-0. Wyoming Natural Diversity Database, Laramie WY. 185 pp

WETLAND PROFILE PROJECTS

GREAT DIVIDE BASIN

Washkoviak, L., T.M. Tibbets and G.P. Jones. 2018. Wetland profile and condition assessment of the Great Divide Basin, Wyoming. Report prepared for the U.S. Environmental Protection Agency (Wetland Development Program) by the Wyoming Natural Diversity Database - University of Wyoming, Laramie, Wyoming.

LITTLE SNAKE

Washkoviak, L., G.P. Jones and T.M. Tibbets. 2018. Wetland profile and condition assessment of the Little Snake River, Wyoming. Report prepared for the U.S. Environmental Protection Agency (Wetland Development Program) by the Wyoming Natural Diversity Database - University of Wyoming, Laramie, Wyoming.

LARAMIE PLAINS

Tibbets, T. M., L. Washkoviak, S.A. Tessmann, G. Jones and H.E. Copeland. 2015. Wetland Profile and Condition Assessment of the Laramie Plains Wetland Complex, Wyoming. Report to the U.S. Environmental Protection Agency. The Nature Conservancy – Wyoming Chapter, Lander, Wyoming.

GOSHEN HOLE

Tibbets, T. M., L. Washkoviak, S.A. Tessmann, G. Jones and H.E. Copeland. 2015. Wetland Profile and Condition Assessment of the Goshen Hole Wetland Complex, Wyoming. Report to the U.S. Environmental Protection Agency. The Nature Conservancy – Wyoming Chapter, Lander, Wyoming.