

APPENDIX E.3.4
***TECHNICAL MEMORANDUM
FOR SPECIAL STATUS PLANT STUDY***

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1.0 Introduction

Special-status Plant Study

Purpose of Study

To identify any special-status plant species within the Project boundaries

2.0 Study Methods

1. Floristic surveys were made of all special-status plant species. All of the undeveloped land comprising the Enloe Dam project area was surveyed by a two-person team of biologists in July 2006.
2. Based on flowering periods and phenology of the special status species potentially present in the project area, one special-status plant survey was conducted in July 2006. The entire Enloe Dam project area was surveyed, except for areas that are unsafe to access. Areas unsafe for access included steep cliffs, unstable slopes, and areas bounded by impassable stream conditions. Such areas were inspected with binoculars.
3. With the exceptions stipulated above, the entire area will be walked or, in the case of access roads, possibly driven at a walking speed.
4. All species observed were identified to the extent necessary to determine whether or not they are special-status species.
5. The locations of all special-status plant species observed within the Enloe Dam project area were to be mapped on prints of aerial images or topographic maps or recorded with a GPS unit. To the extent possible, photographs showing diagnostic floral characteristics were to be taken of any special-status plant species observed within the study area. Voucher specimens of special-status plants were to be collected in accordance with government collecting regulations.

3.0 Results

Based on the literature review and discussions with resource agencies, one special-status plant species was identified as potentially occurring in the vicinity of the Project. This plant is Ute ladies'-tresses (*Spiranthes diluvialis*).

This species is a perennial terrestrial orchid that flowers from mid-July through August in Washington (WNHP 2005). It is found in early to mid-seral vegetation in wet meadows, stream or river banks, irrigated hay meadows, and wetlands associated with wet meadows, springs, streams, lakes, irrigation ditches, and reclaimed gravel and peat mines (Fertig 2005).

No individuals of Ute ladies'-tresses or any other species of *Spiranthes* were observed during botanical surveys in 2006. No other special-status plant species were observed during the surveys.

4.0 Conclusion

No federally or state-listed plant species or other special-status plant species have been found within the Project boundaries.

Table 1: Plant Species Observed Within the Project Area

Scientific Name	Common Name
<i>Acer glabrum</i>	Rocky Mountain maple
<i>Acer</i> spp.	maple
<i>Achillea millefolium</i>	yarrow
<i>Agropyron spicatum</i>	bluebunch wheatgrass
<i>Alnus incana</i>	mountain alder
<i>Amelanchier</i> spp.	serviceberry
<i>Artemisia tridentata</i>	big sagebrush
<i>Artemisia tripartita</i>	threetip sagebrush
<i>Asclepias</i> spp.	milkweed
<i>Balsamorhiza sagittata</i>	arrowleaf balsamroot
<i>Berberis</i> spp.	Oregon-grape
<i>Betula occidentalis</i>	water birch
<i>Betula papyrifera</i>	paper birch
<i>Bromus tectorum</i>	cheatgrass
<i>Calochortus</i> spp.	mariposa lily
<i>Carex</i> spp.	sedge
<i>Ceanothus</i> spp.	ceanothus
<i>Centaurea</i> spp.	knapweed
<i>Chenopodium</i> spp.	goosefoot
<i>Chrysothamnus nauseosus</i>	gray rabbitbrush
<i>Cirsium</i> spp.	thistle
<i>Clematis</i> spp.	clematis
<i>Convolvulus arvensis</i>	field bindweed
<i>Cornus sericea</i>	red-osier dogwood
<i>Crataegus douglasii</i>	black hawthorn
<i>Eleocharis</i> spp.	spikerush
<i>Equisetum</i> spp.	horsetail
<i>Eriogonum</i> spp.	buckwheat
<i>Erodium</i> spp.	filaree
<i>Euthamia occidentalis</i>	western goldtop
<i>Festuca idahoensis</i>	Idaho fescue
<i>Grindelia</i> spp.	gumplant
<i>Gypsophila paniculata</i>	baby's breath
<i>Hypericum</i> spp.	St. John'swort
<i>Iris</i> spp.	iris (cultivated)
<i>Juncus</i> spp.	rush
<i>Juniperus</i> spp.	juniper
<i>Lactuca serriola</i>	wild lettuce
<i>Linaria dalmatica</i>	Dalmatian toadflax
<i>Lupinus</i> spp.	lupine
<i>Medicago sativa</i>	alfalfa
<i>Melilotus alba</i>	white sweetclover
<i>Opuntia</i> spp.	prickly pear
<i>Orthocarpus</i> spp.	owl's clover
<i>Phacelia</i> spp.	scorpionweed

<i>Phalaris arundinacea</i>	reed canarygrass
<i>Pinus ponderosa</i>	ponderosa pine
<i>Plantago major</i>	big plantain
<i>Plantago patagonica</i>	Patagonia plantain
<i>Poa sandbergii</i>	Sandberg's bluegrass
<i>Poa</i> spp.	bluegrass
<i>Populus balsamifera</i> ssp. <i>trichocarpa</i>	black cottonwood
<i>Populus tremuloides</i>	quaking aspen
<i>Prunus virginiana</i>	western chokecherry
<i>Pseudotsuga menziesii</i>	Douglas-fir
<i>Purshia</i> spp.	bitterbrush
<i>Purshia tridentata</i>	antelope bitterbrush
<i>Rhus glabra</i>	smooth sumac
<i>Rhus radicans</i>	poison ivy
<i>Ribes</i> spp.	gooseberry
<i>Rosa woodsii</i>	Wood's rose
<i>Salix bebbiana</i>	Bebb's willow
<i>Salix rigida</i>	yellow willow
<i>Salix</i> spp.	willow
<i>Sambucus</i> spp.	elderberry
<i>Sisymbrium</i> spp.	tumblemustard
<i>Solidago</i> spp.	goldenrod
<i>Stephanomeria</i> spp.	wirelettuce
<i>Symphoricarpos</i> spp.	snowberry
<i>Tanacetum vulgare</i>	tansy
<i>Tragopogon dubius</i>	yellow salsify
<i>Tribulus terrestris</i>	puncturevine
<i>Typha</i> spp.	cattail
<i>Verbascum thapsus</i>	common mullein
<i>Xanthium strumarium</i>	cocklebur

5.0 References

Fertig, W., R, Black, and P. Wolken. 2005. *Rangewide status review of Ute ladies'-tresses (Spiranthes diluvialis)*. Prepared for the US Fish and Wildlife Service and Central Utah Water Conservancy District. 30 September 2005.

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