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SAWTOOTH
ENVIRONMENTAL
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Memo

To: Doug Fowler - Camp Rainbow Gold

Cc: Buffalo Rixon – Ruscitto / Latham / Blanton
John Gaeddert – Corporation for Land Planning & Engineering

From: Trent Stumph – Sawtooth Environmental Consulting, LLC

Date: September 16, 2016

Re: Tax Lot 7995 – Preliminary Jurisdictional Determination Wetland Evaluation

August 2016 Sawtooth Environmental Consulting, LLC (SEC), conducted a preliminary jurisdictional determination wetland evaluation for Tax Lot 7995, located 708 East Fork Road, within Sections 29, 30 and 32, Township 4 North, Range 19 East, B.M., Blaine County, Idaho. The area of the subject parcel is approximately 275.4 +/- acres and is undergoing preliminary planning tasks for future development potential.

The purpose of the preliminary jurisdictional determination wetland evaluation was to identify areas that would be considered 'Waters of the United States' including potential jurisdictional wetlands, which are given federal protection under Section 404 of the federal Clean Water Act (CWA). Section 404 of the CWA, provides the regulatory authority of the U.S. Army Corps of Engineers (USACE) over activities that involve the discharge of dredge/fill material into waters of the U.S. The USACE has the authority to approve all jurisdictional determinations and issue relevant permits for activities that involve the discharge of dredge/fill material into waters of the United States. Other Federal, State and local regulations may also have bearing on such activities.

Waters of the United States includes most perennial and intermittent streams, wetlands, natural and man-made lakes and ponds, as well as irrigation and drainage canals and ditches which flow year-round or have continuous flow at least seasonally (e.g. typically three months) and are connected to jurisdictional waters. East Fork of the Big Wood River, its tributaries and associated wetlands are designated as jurisdictional resources under Section 404 of the Clean Water Act.

The scope and intent of this preliminary jurisdictional determination wetland evaluation is to describe the findings of the investigation and present a map illustrating the occurrence and distribution of identified jurisdictional resources, including potential jurisdictional

wetlands within the subject property. This preliminary jurisdictional determination may be used to assist in the planning and design of future development applications that may occur on the property and help ensure that impacts to jurisdictional resources are avoided and/or minimized.

Site Description

The subject parcel is located approximately 13.0 miles southeast of Ketchum Idaho and is within the Columbia/Snake River Plateau (LLR B) sub-region of the Arid West Region (Wetlands Regulatory Assistance Program, U.S. Army Corps of Engineers, December 2006).

The climate is considered to be semi-arid with average annual precipitation ranging from 12 to 16 inches, average annual air temperatures around 42 degrees F and a frost-free period of about 75 days (Web Soil Survey, NRCS 2010). The area experiences dry summers with natural vegetation across much of the area being dominated by sagebrush and bunch grasses in the drier upland areas, while willows, sedges, rushes and other typical riparian wetland plant species are predominate in the wetter areas.

The East Fork of the Big Wood River and associated floodplain bisects the southern portion of the parcel as it flows toward the confluence of the Big Wood River to the west. Stream flows associated with the East Fork and its tributaries are generated by snowmelt runoff and spring seeps, and provide for a perennial connection to the Big Wood River.

Current and past land-use applications on the property divert surface waters from the East Fork of the Big Wood River for irrigation via ditches and overland flows. These practices likely created and maintained wetland resources on the property that are now trending towards drier conditions due to landscape alterations and changes in land-use and irrigation practices.

Dominant land cover types associated with the parcel include: sage steppe, aspen woodland, coniferous forest, forested riparian, open meadow, shrub riparian, emergent riparian and open water, with wetland resources occurring within portions of the riparian habitats adjacent to open water resources and within portions of the open meadow grassland habitats.

Vegetation within the riparian habitats primarily consists of a Black cottonwood (*Populus trichocarpa*) and Quaking aspen (*Populus tremuloides*) upper tree canopy. With a woody shrub component predominately consisting of native willows (*Salix spp.*), red osier dogwood (*Cornus stolonifera*), woods rose (*Rosa woodsii*), currants (*Ribes spp.*), choke cherry (*Prunus virginiana*) and Mountain alder (*Alnus incana*) shrub species, with a diverse ground cover including Red-top bentgrass (*Agrostis stolonifera*), Creeping foxtail (*Alopecurus arundinaceus*), bluegrass (*Poa spp.*), Smooth brome (*Bromus inermis*) and various broadleaf forbs. Scrub-shrub communities consist of native willows (*Salix spp.*), Red-osier dogwood (*Cornus stolonifera*) and currant shrubs with a diverse mix of grasses and forbs comprising the herbaceous ground cover.

Large areas of open grassland, meadow habitat do occur within the bottomland zone, with both upland and wetland vegetation types. Primary species included Smooth brome, Kentucky bluegrass (*Poa pratensis*), Basin wildrye (*Elymus cinereus*), Cheat grass (*Bromus tectorum*), Canada goldenrod (*Solidago Canadensis*), Canada thistle (*Cirsium arvense*) and common mullein (*Verbascum thapsus*) in the drier habitats, while rushes (*Juncus* spp.), sedges (*Carex* spp.), Creeping foxtail, Bluejoint reedgrass (*Calamagrostis Canadensis*), Reed canarygrass (*Phalaris arundinacea*) and facultative grasses and forbs dominate the wetter zones.

Dominant vegetation communities outside of the riparian habitats primarily consist of sage steppe, aspen woodland and coniferous forest. Sage steppe upland areas consist of extensive sagebrush communities intermixed with various upland grasses and assorted forbs. Dominant species included Mountain Big Sagebrush (*Artemisia tridentata*), rubber rabbitbrush (*Ericameria nauseosa*), Idaho fescue (*Festuca idahoensis*), Great Basin Wildrye (*Elymus cinereus*), Cheatgrass (*Bromus tectorum*) and common yarrow (*Achillea millefolium*). Aspen woodland communities consisted of an aspen tree (*Populus tremuloides*) upper canopy, a woody shrub mid-canopy consisting of serviceberry (*Amerlanchier sp.*), rose (*Rosa sp.*), chokecherry and snowberry, with a ground cover mix of various grasses and forbs. The coniferous forest mountainside habitats are comprised of a mixed evergreen canopy dominated by Douglas-fir (*Pseudotsuga macrocarpa*) with a diverse understory of native shrubs and herbaceous plant species indicative to forested mid-elevation habitats.

Wetland Definition

Wetlands are “those areas that are inundated or saturated with surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3[b]). Jurisdictional wetlands are “wetlands which are within the extent of the Corps of Engineers regulatory overview” (33 CFR 328.1 and 2). To be determined as a jurisdictional wetland, an area must exhibit positive indicators of wetland hydrology, wetland vegetation and hydric soils. Those areas that do not meet the three-wetland parameters are either uplands or non-jurisdictional wetlands (Environmental Laboratory 1987).

The *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) describes technical criteria for determining hydrophytic vegetation, hydric soils and wetland hydrology and, therefore, the occurrence of jurisdictional wetlands. Hydrophytic plants are those species that either require or tolerate wet or saturated soil conditions. In order for vegetation on a given area to be hydrophytic, more than fifty percent (50%) of the dominant vegetation must have a wetland indicator status of facultative (FAC), facultative-wet (FACW), or obligate (OBL).

Hydric soils, soils that are either included on the national list of hydric soils or exhibit specific characteristics indicative of saturated and anaerobic conditions i.e. reduced oxygen levels. Hydric soil characteristics may include surface horizons with low matrix

chroma colors (i.e. very dark brown or black); organic staining and streaking; gleying (blueish, greenish or grayish colors) or contrasting mottles near the soil surface (i.e. within the upper 10 to 18 inches).

Wetland hydrology includes permanent or periodic inundation or saturation to the soil surface for a significant period during the growing season on a regular basis. Wetland hydrology may be supplied by surface water, groundwater, and/or direct precipitation. Soil saturation must generally occur with a minimum frequency interval of 5 years out of 10 (50 percent or higher probability). Saturation must occur for at least 5 percent of the growing season (Environmental Laboratory 1987).

Methods

Summer 2016, a reconnaissance level field investigation was performed to characterize the site and identify jurisdictional resources, including potential jurisdictional wetlands. The investigation involved on the ground surveys throughout the complete parcel to determine the range of conditions present. Site conditions were adequate for a preliminary analysis and sampling of the topography, soils, dominant vegetation types and hydrology elements associated with the parcel.

The Routine On-site Method, as referenced in the 1987 Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987), including protocol methods outlined in the Army Corps Interim Regional Supplement for Western Mountains, Valleys, and Coast Region, were used to investigate the occurrence and distribution of 'Waters of the United States' within the parcel. All relevant environmental information was utilized to further the jurisdictional determination wetland analysis. Information included topographical maps and aerial images from the United States Geological Services (USGS), Blaine County GIS Map Services, the National List of Wetland Plant Species, the National Wetland Inventory Map (NWI) and an aerial map exhibit for a portion of the property from a previous wetland study, prepared by Sawtooth Environmental and Gordon Williams (12/11/10).

The process of identifying jurisdictional resources initially involved an on the ground survey throughout the complete parcel to determine the range of conditions present. During the survey, the location of "potential jurisdictional wetlands" and other waters of the U.S. were noted and mapped. Field studies were then conducted in areas where topographic and hydrologic conditions could support the establishment of wetlands and "potential jurisdictional wetlands".

Findings

Boundaries for the identified jurisdictional areas, Waters of the United States including potential jurisdictional wetlands identified within the parcel are illustrated on the Preliminary Wetland Evaluation Site Map, Figure 1. Based on the USACE criteria for the delineation of jurisdictional waters of the United States and the information gathered

during the on-site investigation the following resources have been identified as jurisdictional waters of the United States:

Open Water Permanently Flooded. Represented by the presence of bed, bank and scour elements and the associated riparian habitats, including tree, shrub and herbaceous plant species, this habitat cover type occupies the identified perennial stream channels and associated beaver impoundments as well as irrigation and diversion developments that are connected to the East fork of the Big Wood River.

Forested Riparian Wetland. Represented by the presence of a dominant riparian cottonwood and/or aspen forest, riparian shrubs and herbaceous plant species, this habitat cover type occupies small pockets of undisturbed ground adjacent to the identified waterways where hydrologic inputs are sufficient enough to support wetland characteristics.

Scrub Shrub Wetland. Represented by the presence of a dominant riparian wetland shrub community comprised primarily of native willows, this habitat cover type occupies a significant portion of the riparian bottomlands adjacent to the identified waterways in areas where hydrologic inputs are sufficient to support wetland characteristics.

Emergent Wetland. Represented by the presence of a dominant wetland herbaceous plant community comprised primarily of sedges, rushes, as well as other facultative grasses and forbs, this habitat cover type occupies portions of the riparian bottomlands adjacent to the identified waterways, the old homestead location within the western most portion of the parcel, and significant portions of the open meadow grassland within the eastern portion of the property, in areas where natural hydrologic inputs are sufficient to support wetland characteristics.

Wetlands

Based on the information gathered during the onsite investigation and best professional assessment of the investigator, support the findings that jurisdictional Waters of the United States including jurisdictional wetlands and potential jurisdictional wetlands do exist within the subject parcel, located in Sections 29, 30 & 32 Township 4 North, Range 19 East, B.M., Blaine County, Idaho. The identified wetland areas occupy lowland topographic features throughout the subject parcel where hydrologic inputs are sufficient enough to support wetland characteristics, while non-wetlands and/or uplands occupy the drier and topographically higher areas.

On-site sampling within the identified wetland areas revealed the positive occurrence of hydric soils, wetland hydrology and wetland vegetation. The wetland boundary was recognized and selected in the field along a distinctive transitional zone between vegetation types, topographic features, soil characteristics and hydrologic conditions.

Site characteristics observed during the 2016 field investigation would suggest natural conditions associated with the site are becoming drier in certain areas. Natural hydrologic

inputs appear to be reduced and vegetation communities are trending towards non-wetland xeric cover types. What needs to be determined is if the potential jurisdictional wetland resources identified on-site have a continuing hydrologic regime and that the wetland vegetation and hydric soils associated with the identified potential wetland area are not relicts of a past hydrologic regime and/or fully supported by seasonal irrigation land-use applications. Future hydrologic monitoring may be required to confirm if the timing, duration and frequency (5 years in 10, 50 percent or higher probability) of the hydrologic inputs are in fact sufficient enough to meet United States Army Corps of Engineers criteria for jurisdictional wetlands.

Should future development applications occur within or directly adjacent to the identified jurisdictional resources and "potential jurisdictional wetland areas", it is recommended that the applicant conduct a further jurisdictional evaluation for the defined project area specific to proposed site development applications. Wetland boundaries should be confirmed and marked in the field with the locations surveyed to provide site specific information relevant to regulatory requirements.

Future site development applications should work to avoid and/or minimize impacts to jurisdictional resources and the identified wetland areas. If discharge of dredge and/or fill material into jurisdictional waters of the United States is anticipated, an approved Section 404 permit must be obtained from the Army Corps of Engineers prior to the start of such activities. Other Federal, state and local regulations may also have bearing on such activities. This may include, but not limited to State of Idaho Water Quality Certification, as well as Blaine County's Floodplain and Riparian Setback Districts and Wetland Overlay District (9-19-1).

If the applicant plans to engage in activities involving the modifications within or adjacent to floodplain, riparian and wetland areas they should contact the appropriate Federal, State and local agencies for advice concerning specific agency regulatory requirements and proprietary jurisdictions that may affect the planned development applications prior to any site alterations.

Please don't hesitate to call me if you have any questions or if I can be of any further assistance.

Trent Stumph
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