



**WESTERN  
ECOLOGICAL  
RESOURCE, INC.**

711 Walnut Street  
Boulder, Colorado 80302  
(303) 449-9009  
Fax (303) 449-9038  
mail@westerneco.com

October 4, 2011

Katie Knapp  
City of Boulder  
Planning & Development Services  
1739 Broadway, 3<sup>rd</sup> Floor  
Boulder, CO 80302

Via Mail

RE: Boulder Creek Commons (Hogan Pancost Property)

Dear Katie:

Please find enclosed a map depicting the results of our 2011 Wetland Delineation, which was reviewed by you and Mr. Alan Carpenter during a field visit on September 12, 2011 (Figure 1). We have also conducted a functional assessment of the wetlands using City of Boulder criteria. As shown on Tables 1 and 2, all of the wetlands have scores of 25 or less and hence are *Low Functioning*. Compared to the 2008 wetland study, this 2011 study shows an increase in the number and size of the wetlands on the West Parcel and a decrease in the size of the wetlands on the East Parcel. These changes are likely due to an increase of irrigation waters on the CD Bodam property to the south of the West Parcel, augmented by higher 2011 seasonal precipitation levels. On the East Parcel, the wetlands have decreased in size, likely as the result of termination of flood irrigation in the fall of 2008. We anticipate finalizing the 2011 Wetland Delineation Report at the end of October.

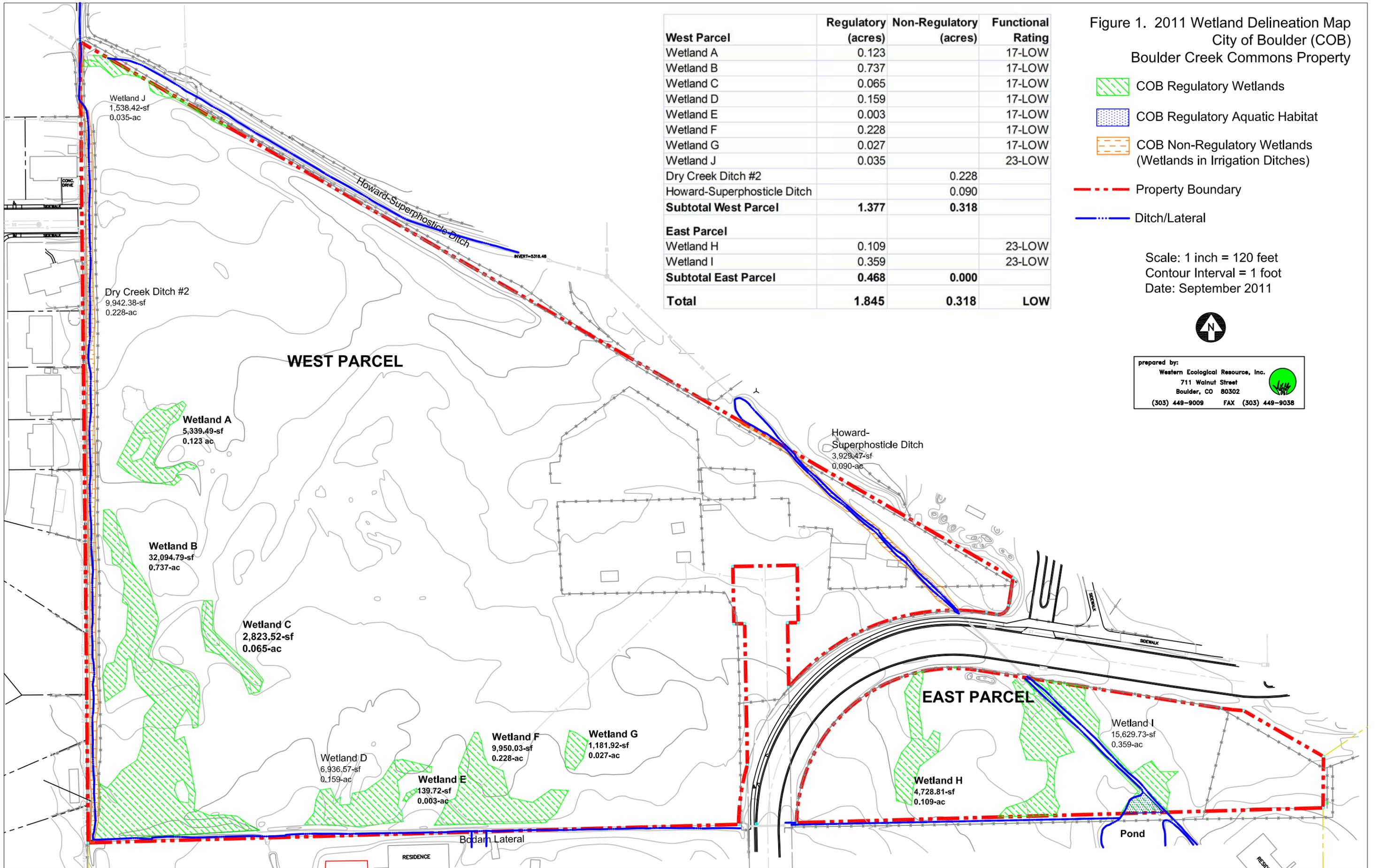
Please call if you have any questions.

Sincerely,

David Johnson  
Ecologist

DJ/ro

cc: Leslie Ewy



**TABLE 1**  
**Functions & Values Assessment**  
**Wetlands A - H**  
**Boulder Creek Commons Property**

<u>Function</u>	<u>Rating</u>	<u>Confidence of Rating</u>	<u>Comments</u>
Groundwater Recharge	2	b	All wetlands are in swales allowing precipitation and surficial runoff to pond and supplement soil moisture, and may recharge groundwater levels.
Groundwater Discharge	1	a	No springs or seeps are present.
Flood Storage/Flow Alteration	2	b	None of the wetlands are located along a stream or other water course. Minor storage of on-site stormwater runoff may occur.
Shoreline Anchor/Stabilization	1	a	Not Applicable. None of the wetlands are located along a stream, pond or lake.
Sediment Trapping/Retention	1	a	Very limited input and no outlets are present.
Nutrient Retention (Long term)	1	a	Very limited input and no outlets are present.
Nutrient Retention (Short term)	1	a	Very limited input and no outlets are present.
Food Chain Support (Export)	1	a	No outlets are present.
Food Chain Support (Within basin)	1	a	No streams to produce seasonal flushing.
Fish Habitat/Aquatic Diversity	1	a	No permanent water and limited seasonal ponding occurs.
Wildlife Habitat	2	b	Low structural and habitat diversity, all in a relatively urban setting, lower the wildlife values.
Active Recreation <sup>#</sup>	1	a	No active recreation occurs on this private property.
Passive Recreation/Heritage Value <sup>#</sup>	2	a	Adjacent private property owners enjoy the aesthetics of open space and may watch wildlife & birds. No heritage resources are present.
<b>TOTAL</b>	<b>17</b>		<b>LOW FUNCTIONING</b>

# = not included in total

Rating: 5 = Very High; 4 = High; 3 = Medium; 2 = Low; 1 = None

Confidence in Rating: a = High; b = Medium; c = Low.

High Functioning: The additive value of all adopted functioning value ratings, excluding recreation, equals twenty-six or more; or at least one function, excluding recreation, is rated high or very high.

Low Functioning: The additive value of all adopted functioning value ratings, excluding recreation, equals twenty-five or below.

**TABLE 2**  
**Functions & Values Assessment**  
**Wetlands I & J**  
**Boulder Creek Commons Property**

<u>Function</u>	<u>Rating</u>	<u>Confidence of Rating</u>	<u>Comments</u>
Groundwater Recharge	3	b	Excess water from ditch, flood irrigation and surficial runoff ponds in portions of this wetland and recharges groundwater levels.
Groundwater Discharge	1	a	No springs or seeps present.
Flood Storage/Flow Alteration	2	a	Minor flooding may occur when ditch carries flood event flows.
Shoreline Anchor/Stabilization	2	b	Irrigation ditch is stable and anchored by stands of perennial herbaceous plants, however no willows with their deep binding root masses are present.
Sediment Trapping/Retention	2	b	Portions of this wetland trap and retain sediments. However, sediments are periodically removed from the irrigation ditch to facilitate the flow of water.
Nutrient Retention (Long term)	2	b	Portions of this wetland trap and retain nutrients.
Nutrient Retention (Short term)	2	b	Portions of this wetland trap and retain nutrients.
Food Chain Support (Export)	2	b	The irrigation ditch could potentially export nutrients, however there very little over-hanging vegetation overall.
Food Chain Support (Within basin)	2	b	Although herbaceous vegetative cover is high, there is little structural diversity.
Fish Habitat/Aquatic Diversity	2	b	Ditch and pond have water year round. No fish present, but macro-invertebrates are potentially present.
Wildlife Habitat	3	b	Wetlands have low structural and habitat diversity but are surrounded by stands of trees and there is water.
Active Recreation <sup>#</sup>	1	a	No active recreation occurs on this property.
Passive Recreation/Heritage Value <sup>#</sup>	2	a	Adjacent private property owners enjoy the aesthetics of open space and may watch wildlife & birds. No heritage resources are present.
<b>TOTAL</b>	<b>23</b>		<b>LOW FUNCTIONING</b>

# = not included in total

Rating: 5 = Very High; 4 = High; 3 = Medium; 2 = Low; 1 = None

Confidence in Rating: a = High; b = Medium; c = Low.

High Functioning: The additive value of all adopted functioning value ratings, excluding recreation, equals twenty-six or more; or at least one function, excluding recreation, is rated high or very high.

Low Functioning: The additive value of all adopted functioning value ratings, excluding recreation, equals twenty-five or below.