

Whooping Crane Roost Site Selection Update

First Increment Big Question Status

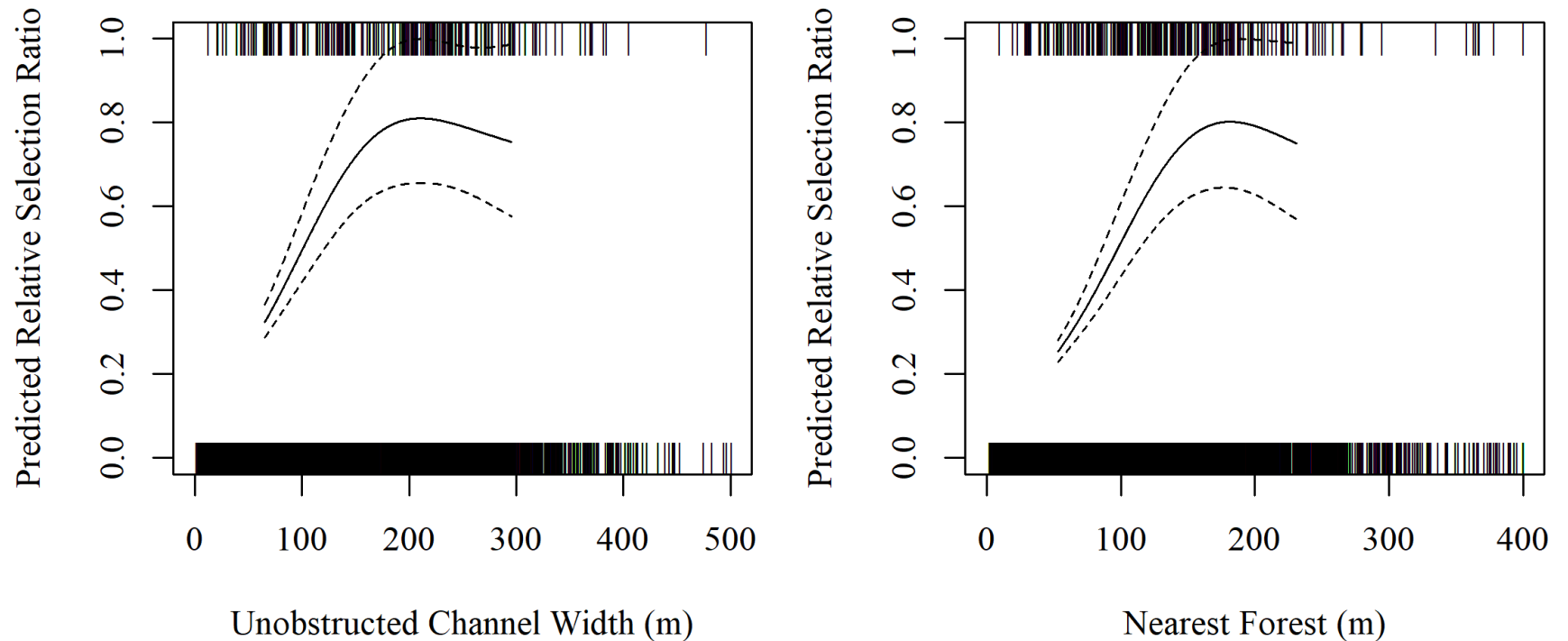
PRRIP Big Question	2019 Assessment	Check In Activities*
Implementation – Program Management Actions and Habitat		
1. Will implementation of SDHF produce suitable tern and plover riverine nesting habitat on an annual or near-annual basis?	👎👎	On-channel monitoring to detect nesting on natural sandbar habitat following peak flow event(s)
2. Will implementation of SDHF produce and/or maintain suitable whooping crane riverine roosting habitat on an annual or near-annual basis?	👎👎	Relationship between flow and whooping crane habitat is an Extension focus – will be addressed directly.
3. Is sediment augmentation necessary for the creation and/or maintenance of suitable riverine tern, plover, and whooping crane habitat?	👍	Big Question carried forward into Extension – will be addressed directly.
4. Are mechanical channel alterations (channel widening and flow consolidation) necessary for the creation and/or maintenance of suitable riverine tern, plover, and whooping crane habitat?	👍👍	Relationship between mechanical management actions and whooping crane habitat is an Extension focus – will be addressed directly.
Effectiveness – Habitat and Target Species Response		
5. Do whooping cranes select suitable riverine roosting habitat in proportions equal to its availability?	👎👎	System-scale whooping crane monitoring. Whooping crane habitat selection analysis will be rerun on a five-year interval to identify changes in selection.



Whooping crane use of riverine stopover sites

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At five-year mark with 10 more migrations seasons,

- (1) Are UOCW and NF still important in-channel variables to explain riverine selection?*
- (2) Similar predicted relationships?*
- (3) Does off-channel landcover influence roost site selection?*

Hand Delineated vs. Remotely Sensed Product



Outside Historical
Floodplain

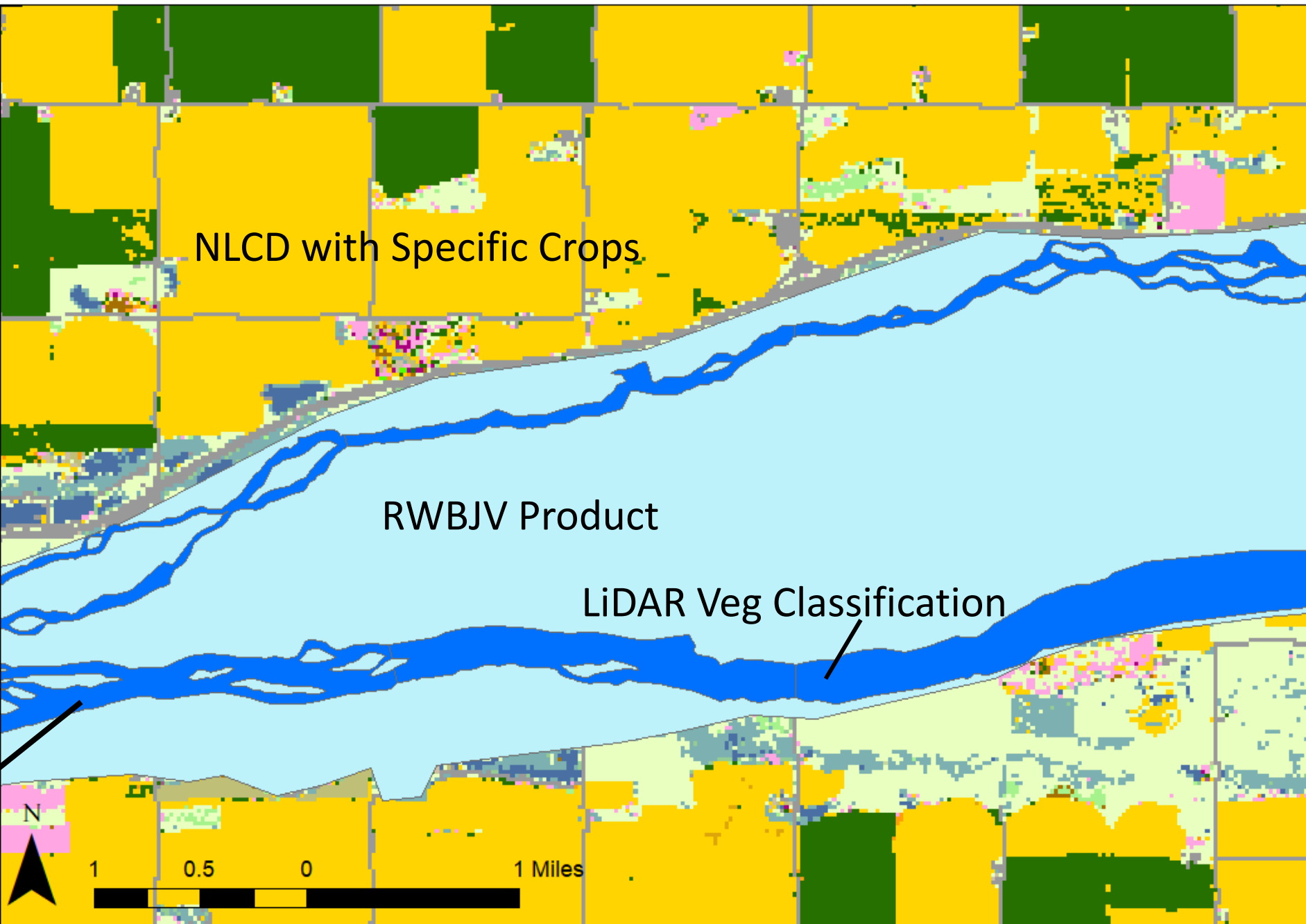
Historical
Floodplain

Active
Channel

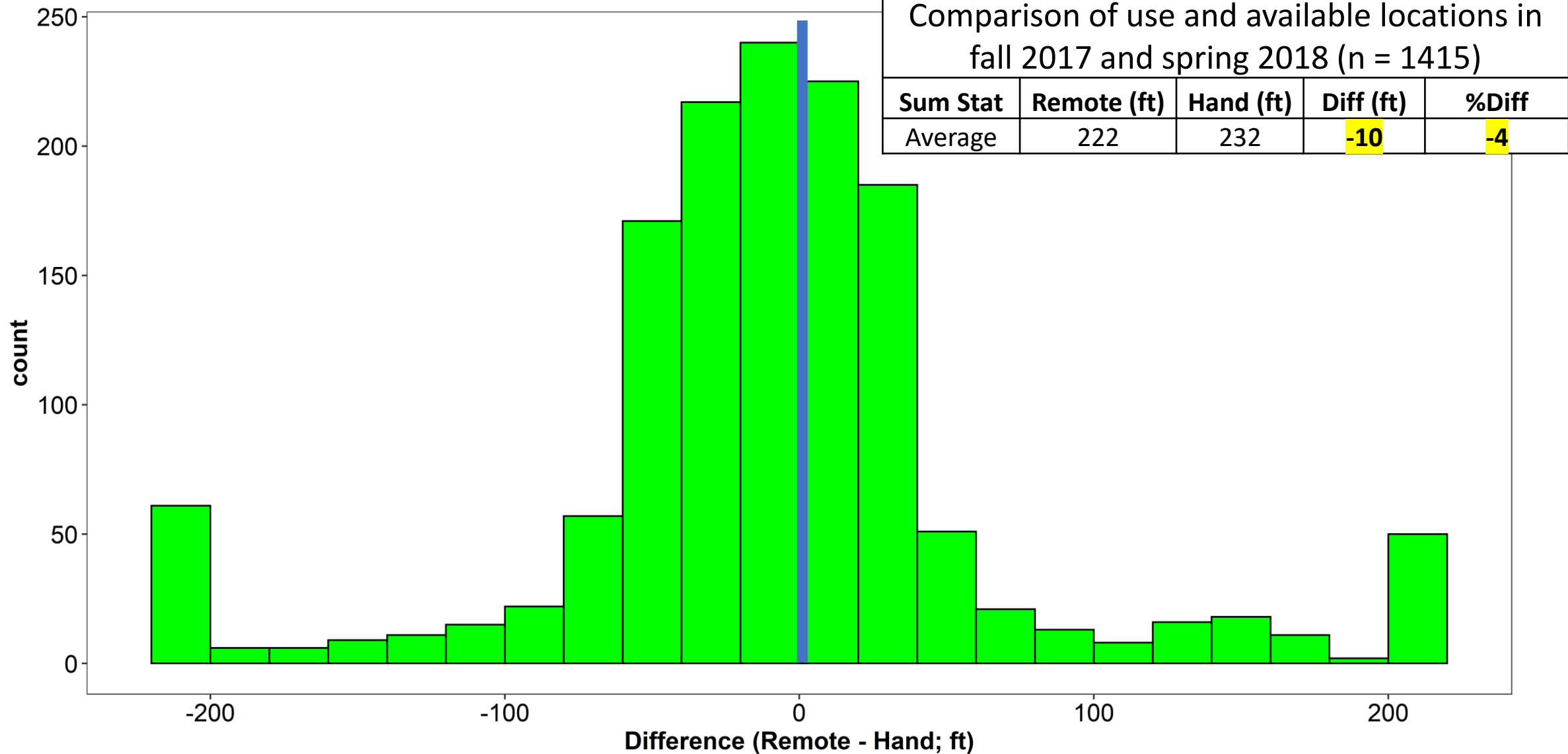
NLCD with Specific Crops

RWBJV Product

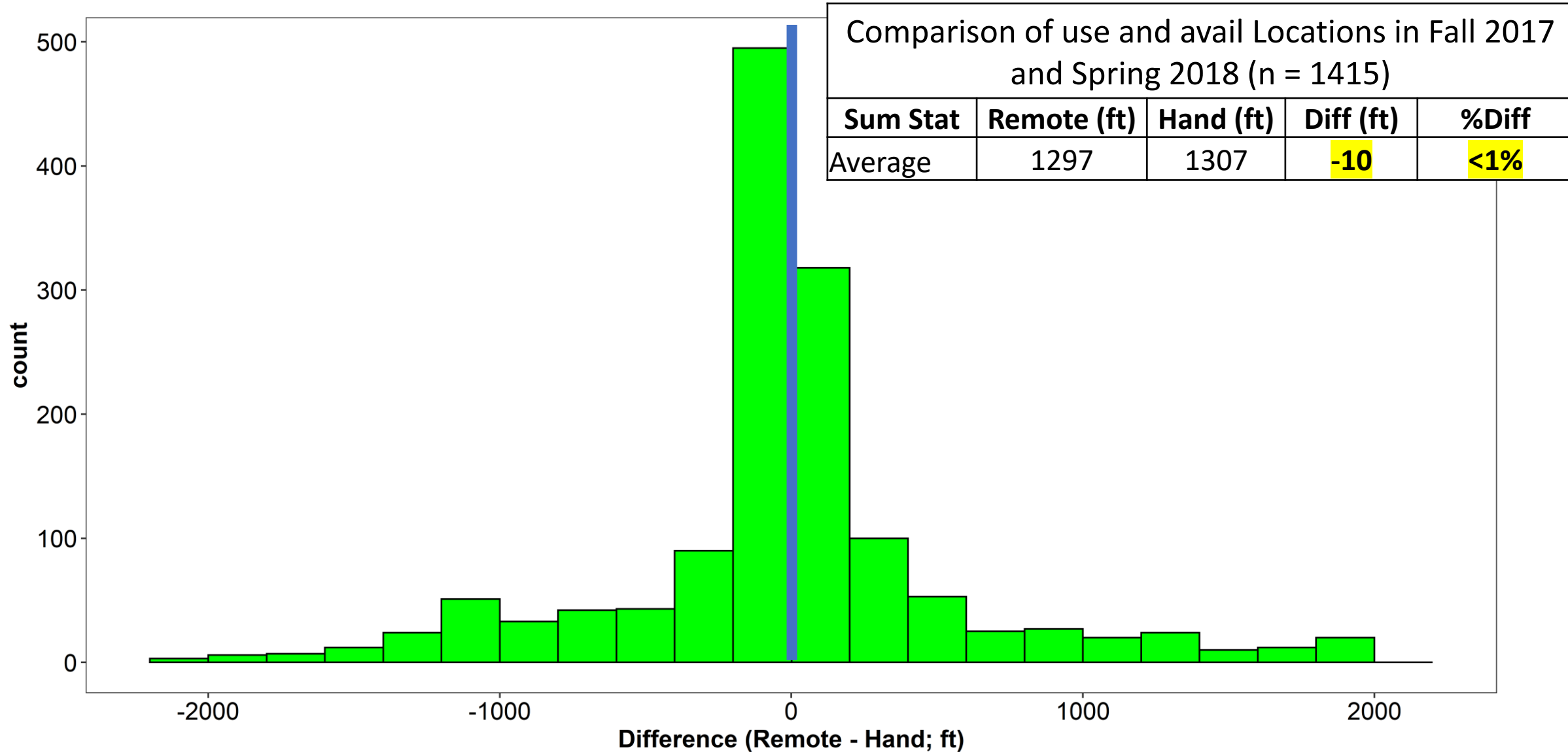
LiDAR Veg Classification



Nearest Forest



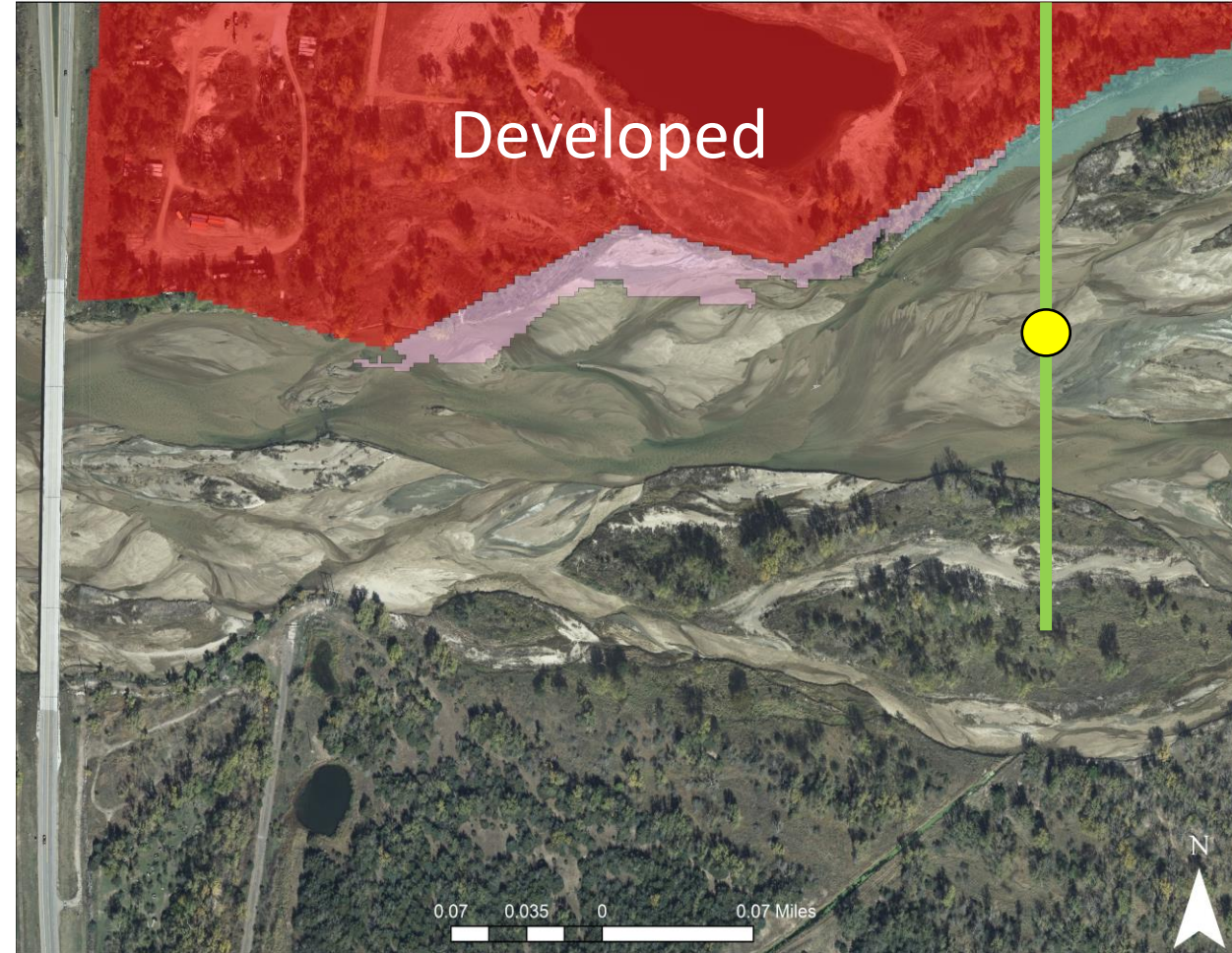
Unforested Corridor Width



Measurement angle to flow




Forest classification

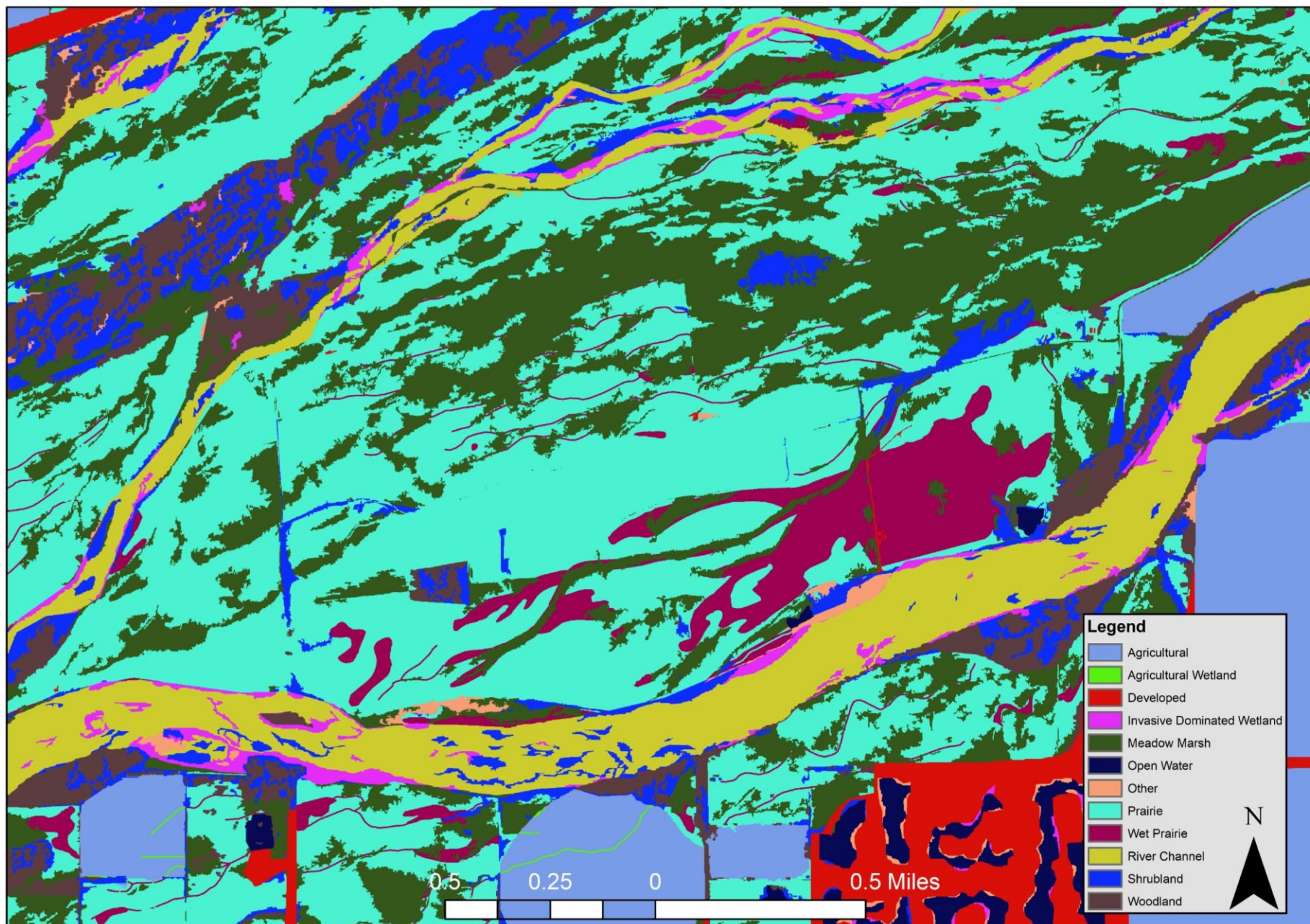


Question for TAC #1: Are metric estimates generated by hand versus remotely sensed product similar enough to:

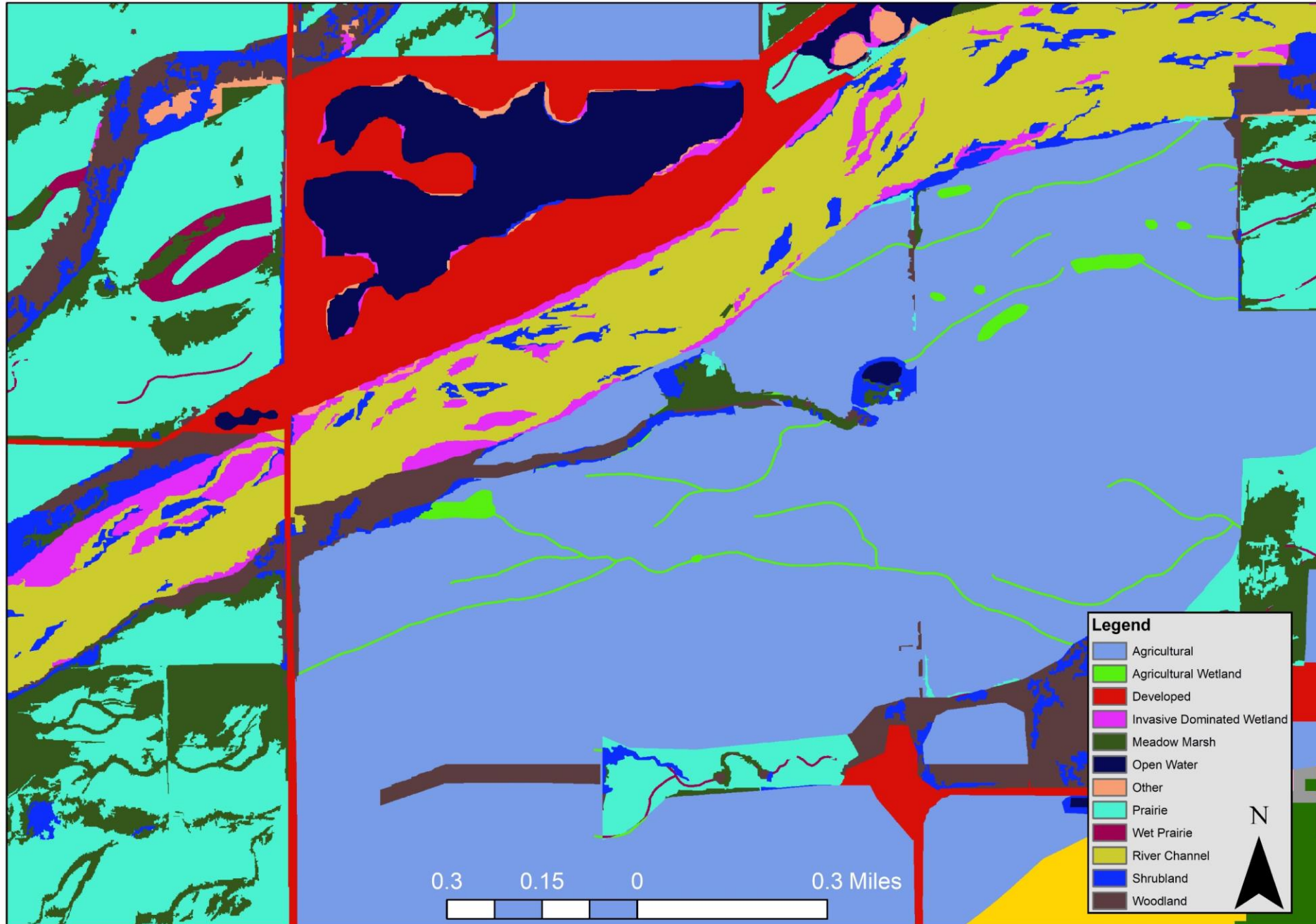
1. Use both hand-delineated (2001 – Spring 2017) and remote sensed metrics (Fall 2017 – Spring 2022) for the current long-term analysis?
2. Use remote-sensed metrics from here forward?



Off-Channel Metrics			
	2001-2013	2014-2022	2001-2022
Grassland	Rainwater Basin Joint Venture Landcover (RWBJV) Product	NLCD	RWBJV Product + NLCD + LiDAR veg classification *2001-2017: on-channel landcover/veg classification poor
Forest		NLCD + LiDAR veg classification	
Agriculture		NLCD (CropScape)	
Developed		NLCD	
Distance to Development		NLCD	
Distance to Power Lines		Dept of Energy	Dept of Energy
Length of Power Lines			



Question for TAC #2: *Should our updated riverine analyses separate grassland classes into these categories?*



Question for TAC #3: *Should our updated riverine analyses also add ag wetland as a variable?*