

USFWS 2006 Spring Photo Usage

Scott Ralston

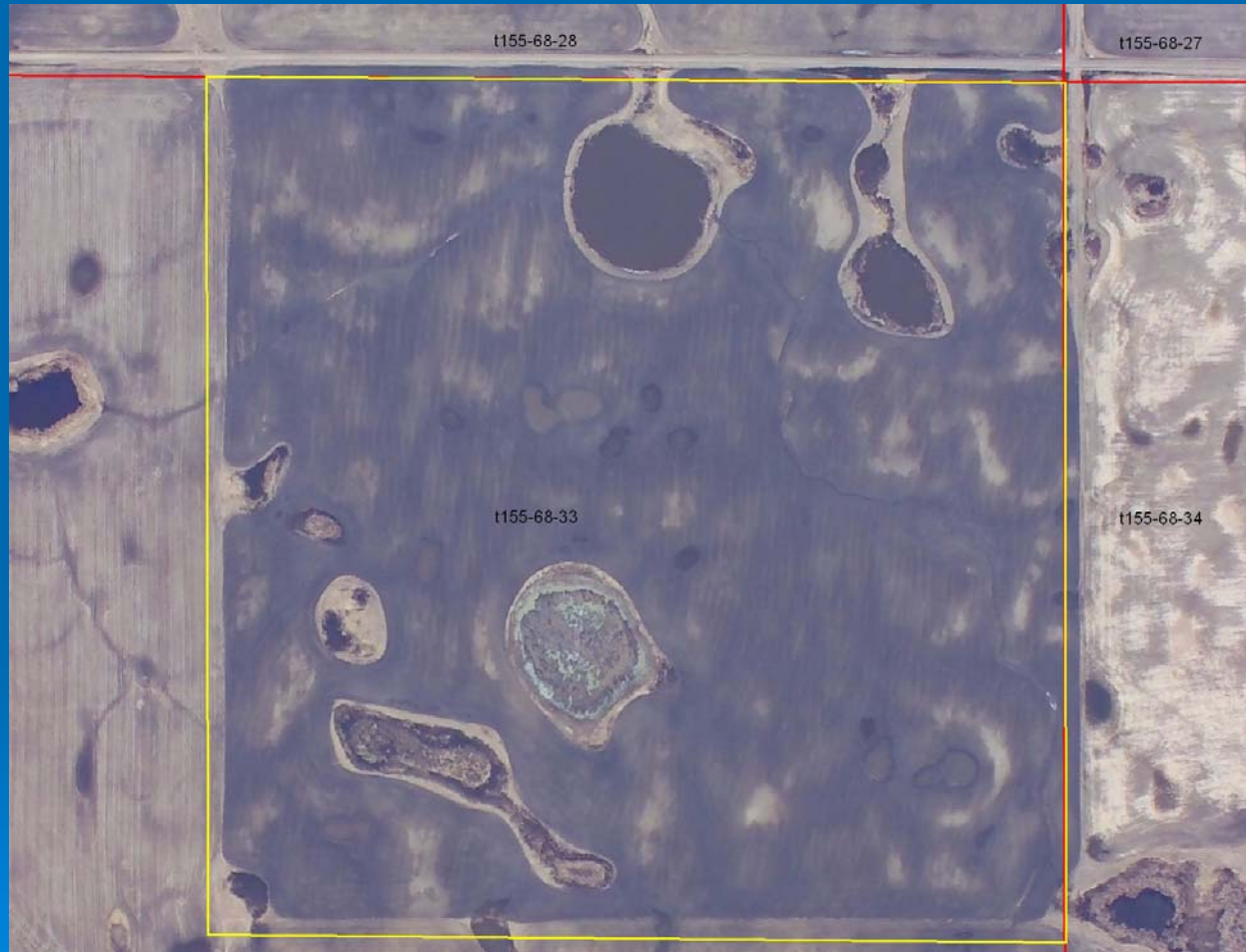


Goal

- Map wetlands on USFWS easements using all available tools.
- Better maps = better protection
- If wetlands are not included on official map then they can not be protected from drainage or filling.



Original image received from PWA



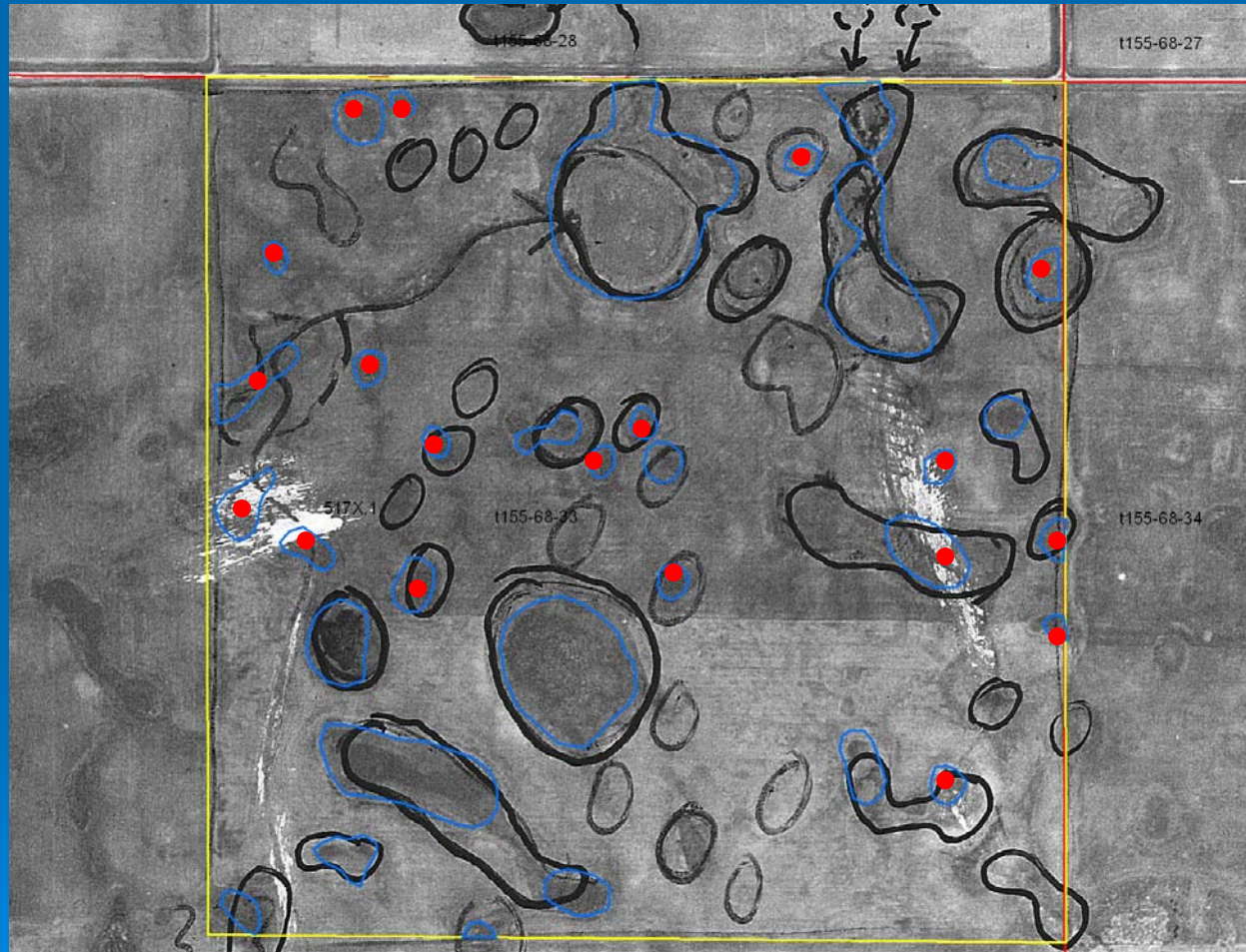
Digital Enhancement to remove haze and brighten image



Mapping Wetlands

- The following is an easement mapped using current available photography
- Wetlands marked with a red dot are those that were not visible in that particular image. This will show limitations of the available imagery and why we need multiple tools to get an accurate picture of what is really on the ground.

Summer 1959

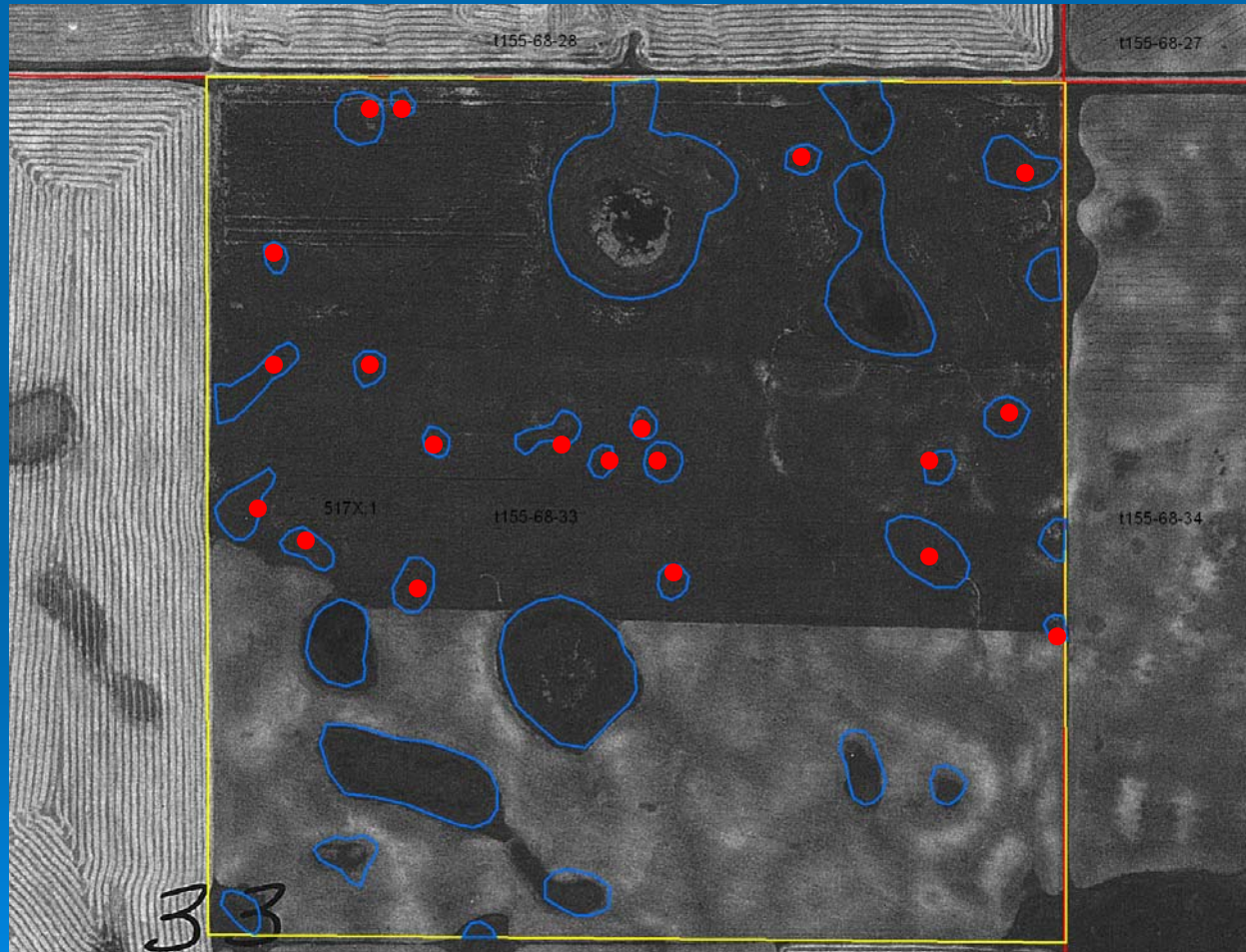


Past individuals drew on the photo with permanent ink
Before it was scanned creating some visibility problems

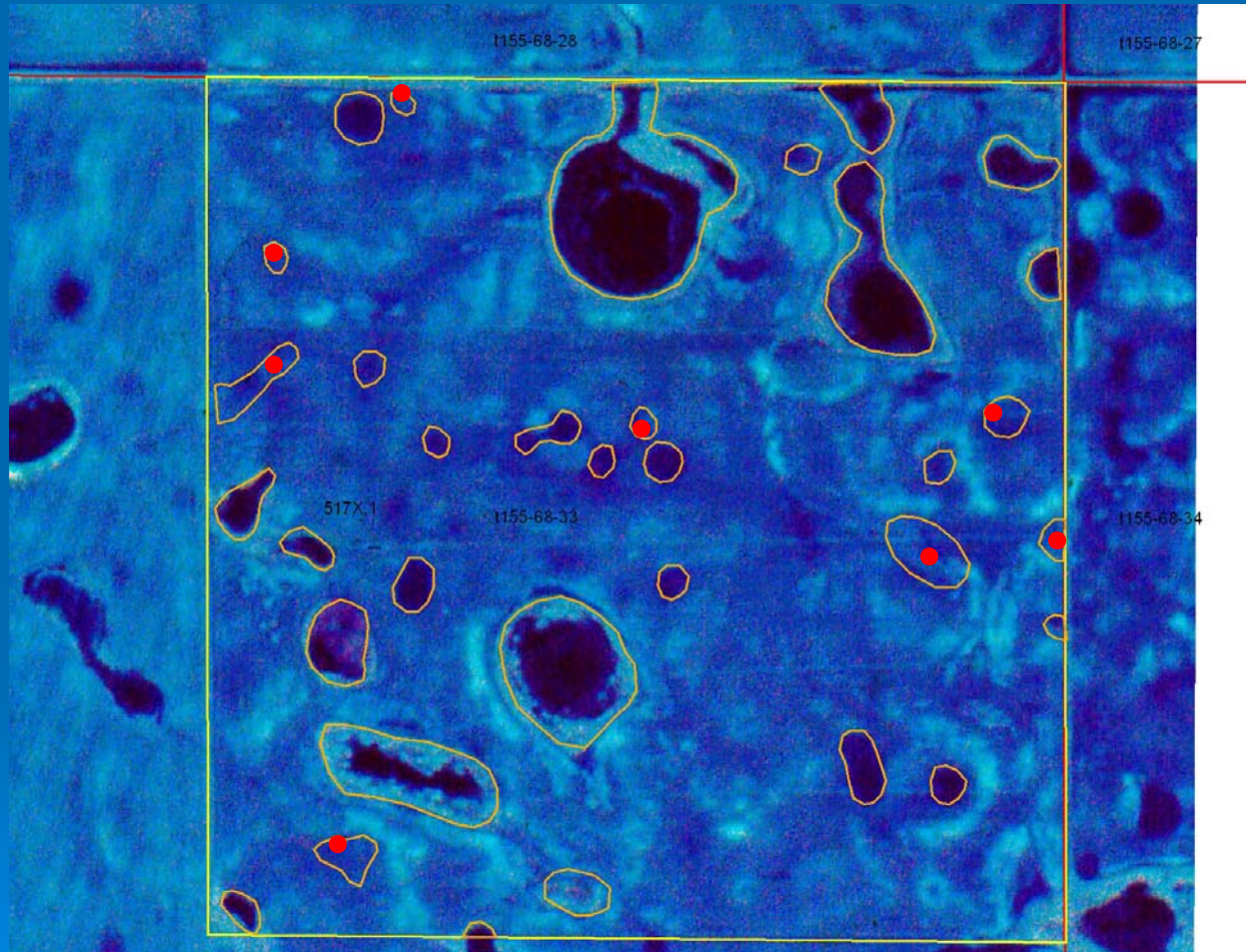
Summer 1967



Summer 1978

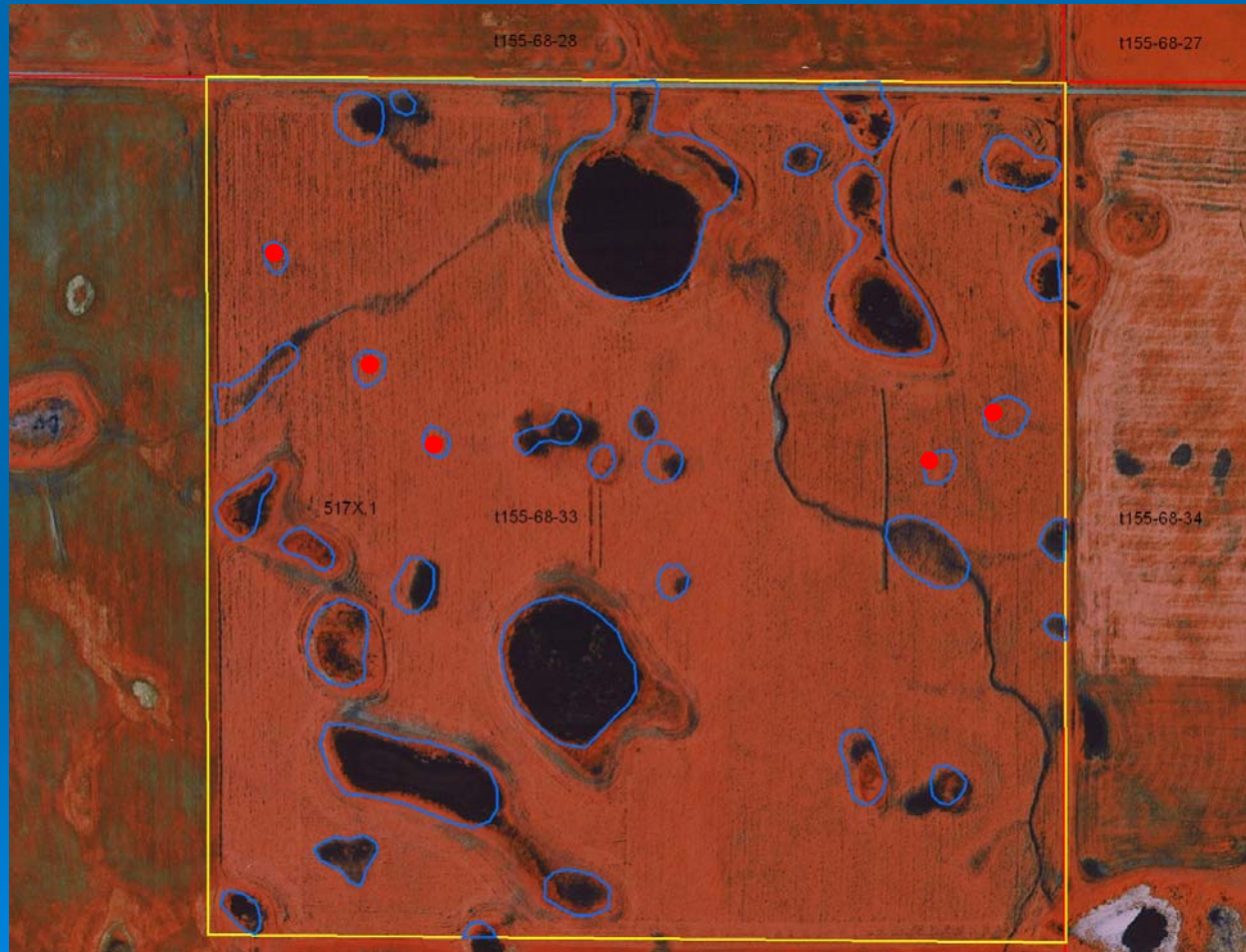


Spring 1980 CIR



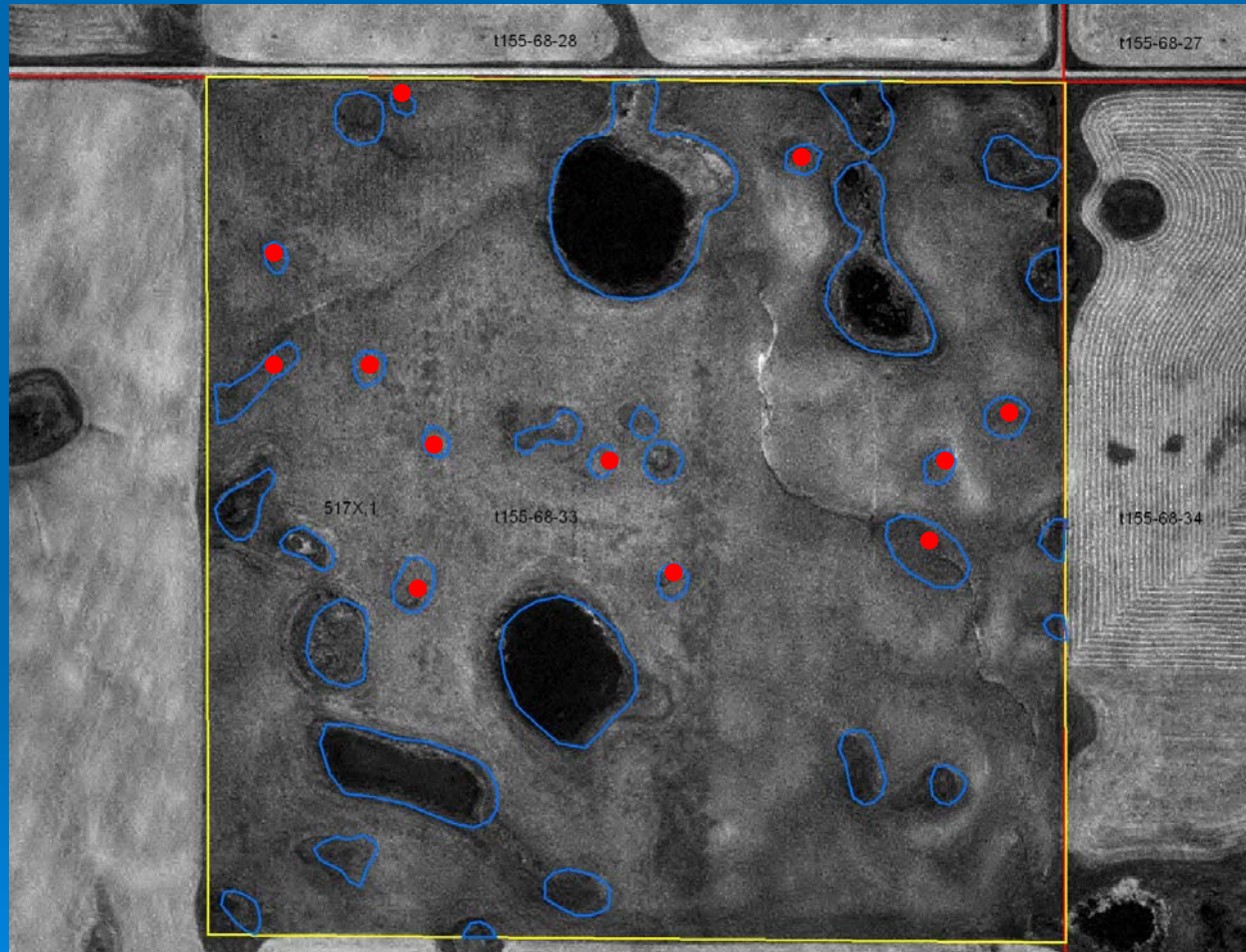
This is the only spring photography we have

Early summer 1997 CIR

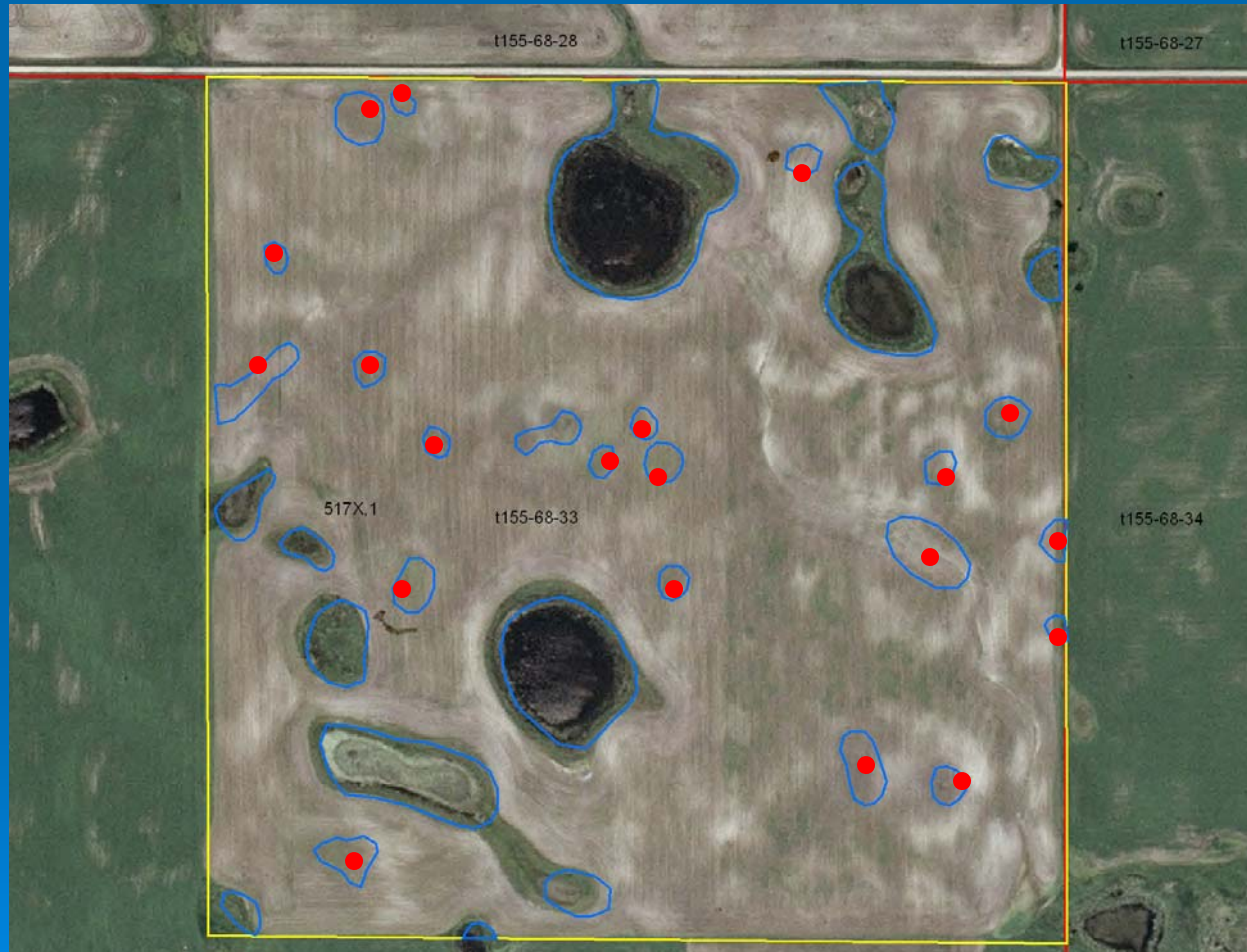


This imager is fairly good but is only available for a small part of our area

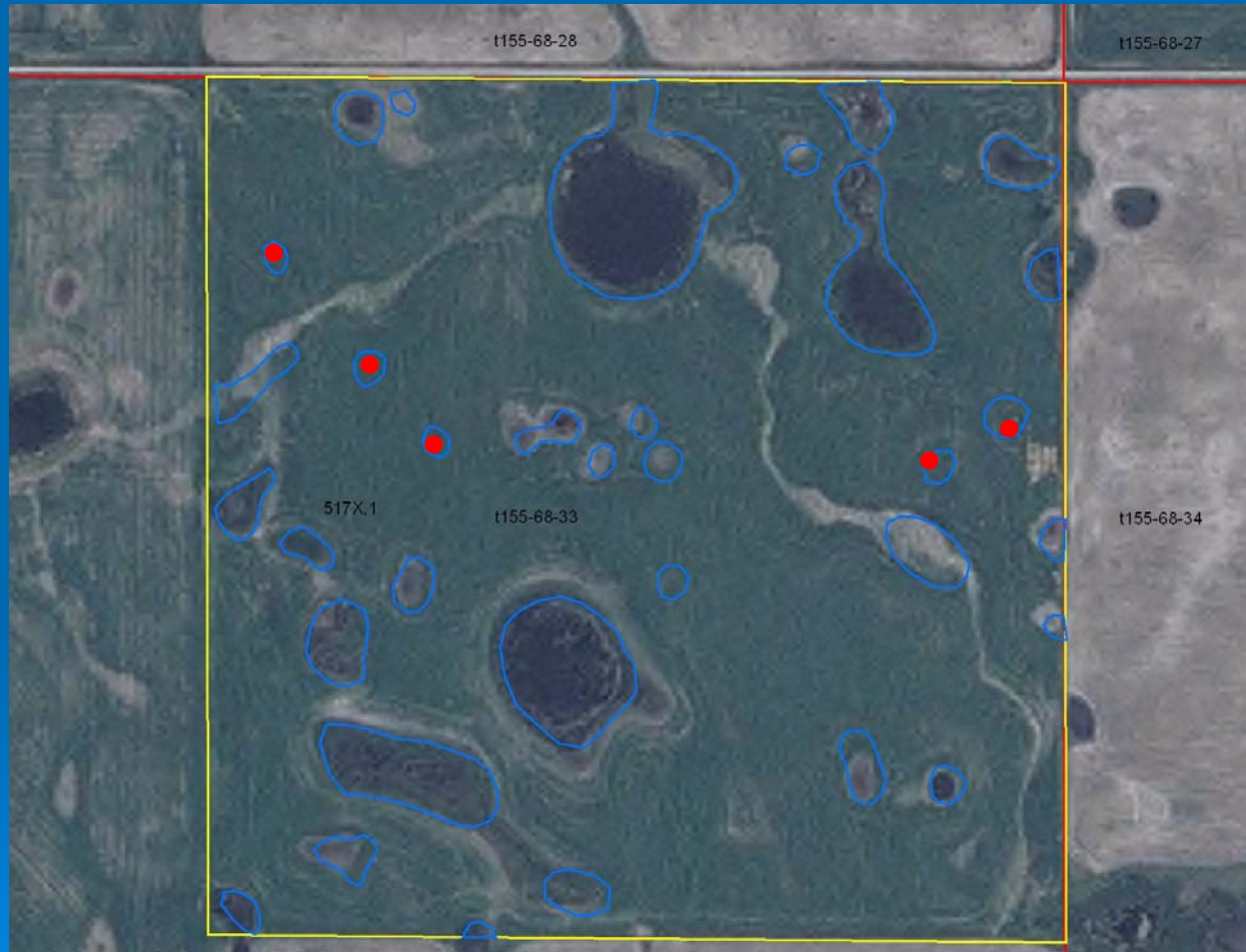
Summer 1997 FSA



Summer 2003 FSA



Summer 2004 FSA



Summer 2005 FSA



Verification

- Spring 2006 photography is needed to verify questionable features, especially those that only show up in 1 or 2 images.
- Also good spring photography should show any temporary wetlands missed.
- Temporary wetlands have great importance to spring waterfowl for food sources (invertebrates) and are the location of pair formation for breeding.

Spring 2006 imagery



- Wetlands not seen in other images
- Questionable in other images, verified as wet spots but probably not "Wetlands"