

# 2014 DRRP Cottonwood Suitability Project

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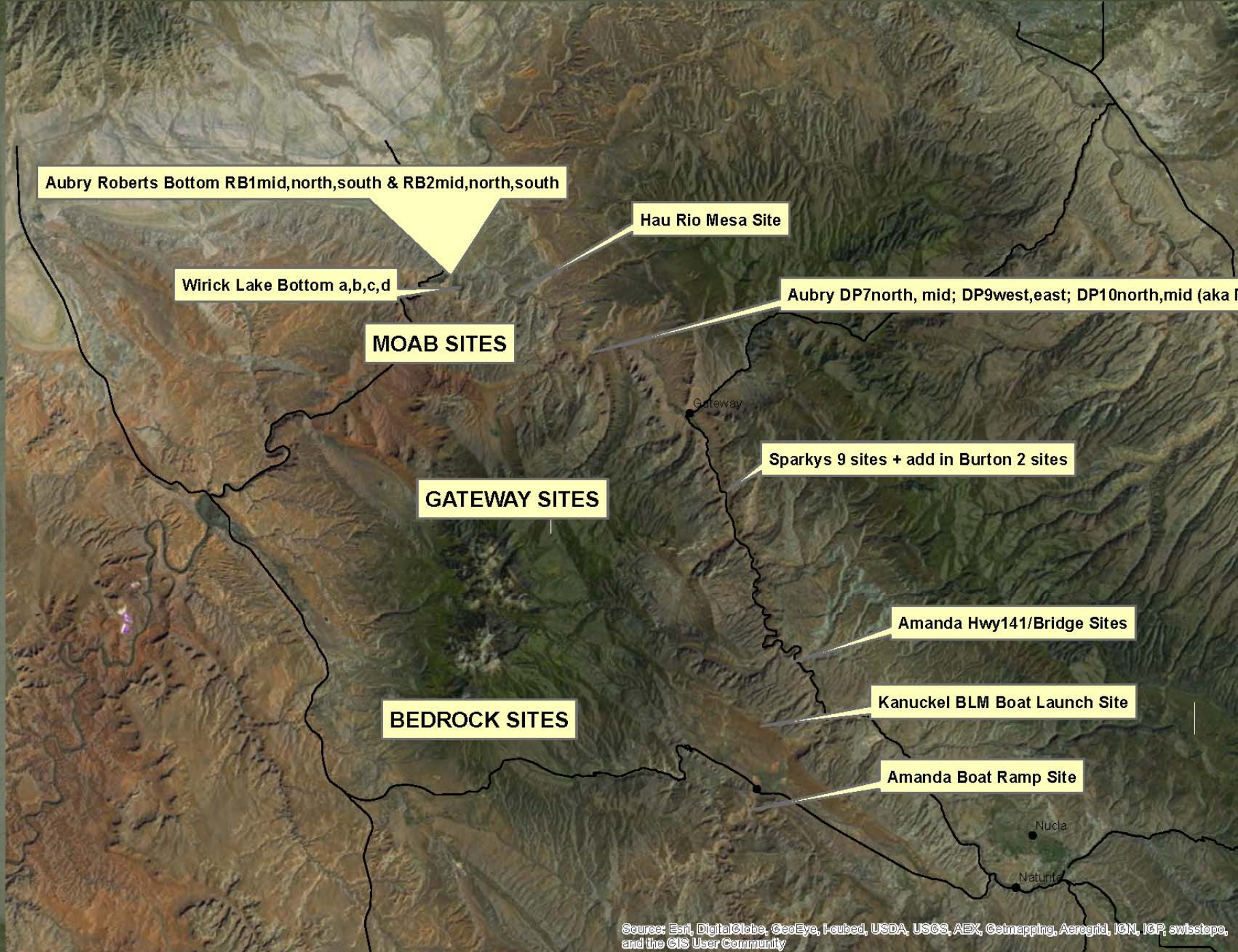
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# Overview

- BLM Field Office managers from Grand Junction, Uncompahgre, and Moab, along with several private landowners, have selected sites along Dolores River where cottonwood planting is desired but trees are unlikely to establish on their own
- Feb 3-mid March 2014, conducting planting and soil/water sampling effort and groundwater well installation
- Some sites will only conduct soil/water sampling to determine conditions for future planting, rest of sites will plant cottonwoods now if conditions appropriate
- Bringing in local expert to assist with selecting best locations *within* site for cottonwood sampling/planting
- Work to be conducted by local contractor & 2 SWCC interns





Aubry Roberts Bottom RB1mid,north,south & RB2mid,north,south

Hau Rio Mesa Site

Wirick Lake Bottom a,b,c,d

MOAB SITES

Aubry DP7north, mid; DP9west,east; DP10north,mid (aka I

GATEWAY SITES

Sparkys 9 sites + add in Burton 2 sites

Amanda Hwy141/Bridge Sites

Kanuckel BLM Boat Launch Site

Amanda Boat Ramp Site

BEDROCK SITES

Nucla

Naturita



# Sampling Effort

- Will either be drilling sampling holes using heavy machinery (deep sampling), or digging sampling holes by hand (shallow sampling)
- A lot of sampling data we COULD collect, but limited time and \$\$ so had to prioritize



# Sampling Effort – Deep

- Deep soil sampling for potential cottonwood planting
  - Key data = Determining soil salinity at surface, halfway down, and at bottom of sampling hole
  - Key data = Determining water table depth and salinity of groundwater
  - Other background data collecting
    - Soil pH and texture, groundwater pH, salinity and pH of river water at site
- Plant cottonwood in hole when:
  - All soil and water samples = salinity less than 4
  - Water table depth = if good amount of groundwater available immediately at bottom of hole will plant (typically 6-8 feet deep max)

*\*Salinity (EC) (mS/cm = mmhos/cm)*



# Sampling Effort - Shallow

- Shallow soil sampling for potential willow planting near waters edge
  - Digging 36" deep sampling holes
  - Key data = Determining soil salinity at 0-6", 6-12", and 12-36"
  - Key data = Determining salinity of river water at site
  - Other background data collecting
    - Soil pH and texture, pH of river water at site



# Groundwater Monitoring Wells

- Purpose – Install 1-2 wells per site to track fluctuations in groundwater depth
  - For sites not planted during this project = will provide good information for future planting efforts
  - For sites planted during this project = will provide valuable insight on success or failure of cottonwood plantings, and provide good information for future planting efforts





# Cottonwood pole planting

- Source = Stan Young cottonwood plantation, locally sourced cottonwoods from the Dolores
- All trees will be caged



**RELIABLE TREE PROTECTION**



# Final Products

- Each land manager will receive a report containing all data, trees planted, wells installed, and site photos
- Data sheets to use for continuing to monitor groundwater depth in wells



Questions?