

# Federal Agriculture Discussion

2/13/2017

# Purpose of Federal Agriculture

- Ability for the CBP Partnership to count the effect of conservation practices applied to federal or nonfederal land
- Responsibility for loads and reductions

# Federal Ag Land Use Mapping

- Decision of the Land Use WG, Fed Facilities WG, and WQGIT
- Automated Mapping
  - Patch of 1000 contiguous federal acres
  - 10% of herbaceous is Ag – pasture and crop
- Online editing can override automated mapping
  - 1100 edits made for all fed facilities
  - Unsure how much Ag
- Proportion Animals to Federal Ag

# Extent

Agency	Acres
DOD	4,792
USFS	4,338
NPS	3,225
USFWS	1,171
ARS	151
SI	68
NASA	24
NRCS	14
GSA	0
OTHER	239
Total	14,022

0.03% of the Watershed  
0.15% of the Agriculture

# Development Complications

- CAST has been prepared without federal Ag since the data set has not yet been produced
- If land uses are to be added, the need to be added to CAST and the Temporal Model
  - Tables updated
  - Code updated
  - 2-4 weeks
- If land uses added that are not identical to exiting land uses
  - Additional 1-3 months for AMS and AgWG to develop rules

# Run-time complications

- CAST Scenario calculations start with animals and ag land use acreages in a county.
- Federal Ag increases the number of agricultural land uses by a factor of 10.
- The manure and fertilizer calculations are the most computationally-intensive part of CAST.
- CAST scenario run-times would increase by a factor of 5-10.
- This is not a deal-breaker for normal CAST use, but is a problem for optimization
  - An optimization may take a week and cost \$1000

# Options

1. No Federal Ag
2. Simulate Federal Ag
  - A. Full simulation
  - B. Collapse federal agencies or land uses
3. Estimate the effect in scenarios
4. Simulate Federal Ag later

# Option 1 – No Federal Ag

- Existing setup. All Agriculture considered nonfederal
- Pros
  - no schedule or operational effects
- Cons
  - none



# Option 2A Full Simulation

- All ag land uses in all federal agencies
- Pros
  - No new rules to decide on.
- Cons
  - Delay release of Phase 6 by 30 days
  - Severe optimization effects

# Option 2B – Collapse categories

- One agency and/or Three agricultural land uses
- Pros
  - Cuts down on optimization time – implementing both will get back to normal run time
- Cons
  - Delay release of Phase 6
    - 30 days for agency collapse
    - 60-90 days for land use collapse

# Option 3 – Estimate in Scenarios

- Estimate Federal Ag in Scenarios:
  - for each progress run, run:
    - no-action
    - state implementation
    - fed implementation
    - total implementation run
  - Calculate overall effect
- Pros:
  - No effect on optimization
  - No effect on current schedule
- Cons:
  - Messy during progress runs.
  - Can't separately optimize fed and non-fed

# Option 4 – Simulate Federal Ag Later

- Add in after the calibration
- Pros
  - Can set it for fast optimization
- Cons
  - Delay final release of Phase 6 for a month or so

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