Federal Agriculture Discussion

1/19/2017

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

Pros and cons for operations and schedule only

Option 1 – No Federal Ag

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

Pros and cons for operations and schedule only

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

Pros and cons for operations and schedule only

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

Pros and cons for operations and schedule only

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

Pros and cons for operations and schedule only

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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