United States Department of Agriculture
Farm Service Agency

Verification Site Visits

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April 17, 2012

(The information and views of this presentation are those of the author/presenter and do not necessarily reflect the views of USDA or FSA.)

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Soil Conservation/Water Quality


Emergency Forest Restoration


Emergency Conservation


CRP Wildlife Benefits

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Conservation Reserve Program (CRP)

Voluntary Program

(25 Year Legacy)

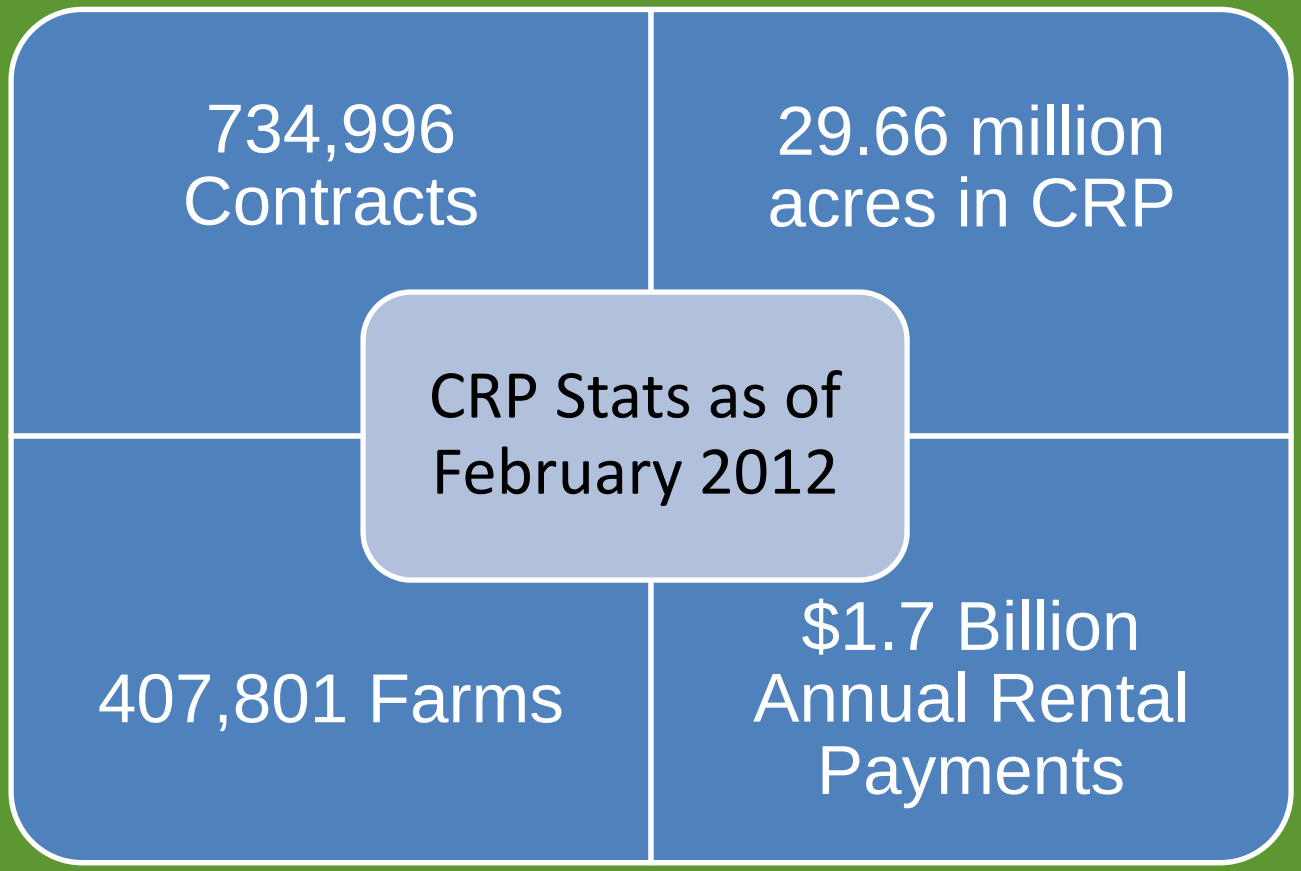
Cost-share, Incentive, and Annual Rental Payments

Largest Private Land Carbon Sequestration Program

Contracted for 10 to 15 Years

Designated Sign-Up Periods

(Continuous for High Value Practices)


734,996 Contracts
29.66 million acres in CRP
CRP Stats as of February 2012
407,801 Farms
$1.7 Billion Annual Rental Payments

Qualifying/Ranking Factors
Environmental Benefits Index (EBI)

Environmental Ranking Factors

- N1 – Wildlife Habitat Cover Benefits
- N2 – Water Quality Benefits from Reduced Erosion, Runoff, and Leaching
- N3 – On-Farm Benefits of Reduced Erosion
- N4 – Enduring Benefits
- N5 – Air Quality Benefits

Cost Factor

- N6 - Cost

Conservation Plan

- Designed by NRCS/FS with cooperator
- Lists management decisions to meet conservation goals
- Specifies acreage and schedule for establishing practices
- Plans for maintenance and operation
- Identifies “No Disturb” dates for land (Primary Nesting)
- May allow for managed grazing or harvest of cover

Site Visits
Verification of Practices

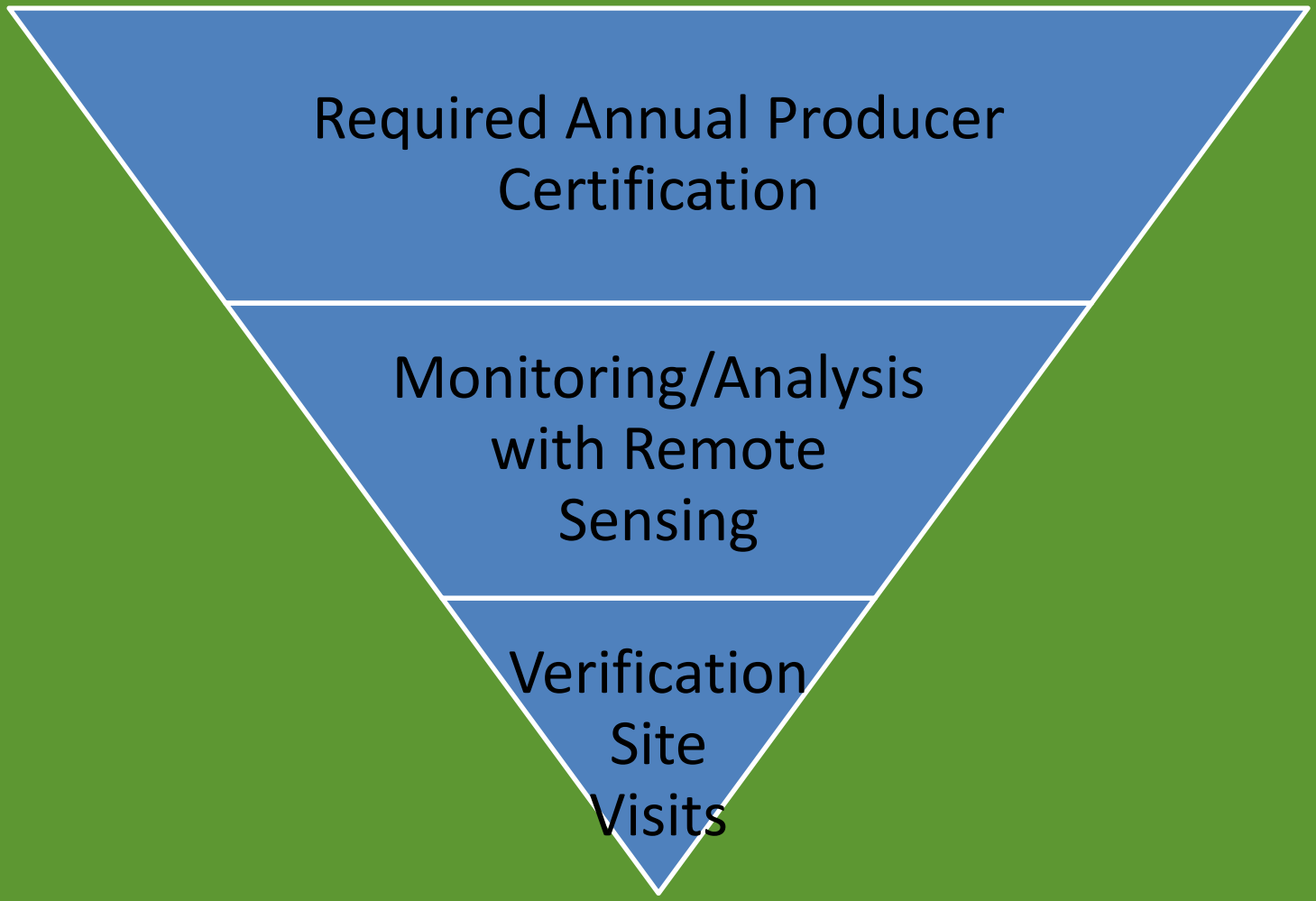
Legacy Site Visits

- Primarily based on random selection
- Minimal access to remote imagery and GIS tools
- Staffing of “field personnel”
- “Stove Piped” agency systems
- Lack of and expense of technology

“Smart” Site Visits

- Selection based on data review, liability , size
- Greatly increased availability of spatio-temporal imagery and GIS tools
- Efficient use of personnel
- “Common” data systems allow cooperative efforts
- Robust “Smart” mobile devices

Compliance/Verification



Why Not Just Use Remote Sensing/Analysis?

Imagery

- NAIP (1 meter pixel, but acquired about once every two years)
- Satellite
  - MODIS (Daily acquisition, no cost, but 250m pixel)
  - Landsat TM (30m, no cost, but Landsat5 disabled, Landsat7 has scan line corrector problem, now only one acquisition each 16 days)
  - SPOT (10-20m, does cost, but must be "tasked" to acquire)
- Low Altitude (High pixel resolution, "tasked" and may not be georeferenced)

Limitations

- Pixel resolution limits usefulness for smaller acreages
- Acquisition frequency and opportunities may not be when needed
- Analyses such as NDVI, classification, etc., provide general land cover identification, vegetative density\vigor
- Ground-truthing required

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Planning Site Visits

Selection
- Required
- Higher Risk/Liability
  - Data Mining
  - Remote Imagery
  - Anomalies
- Local Knowledge
- Measurement Service

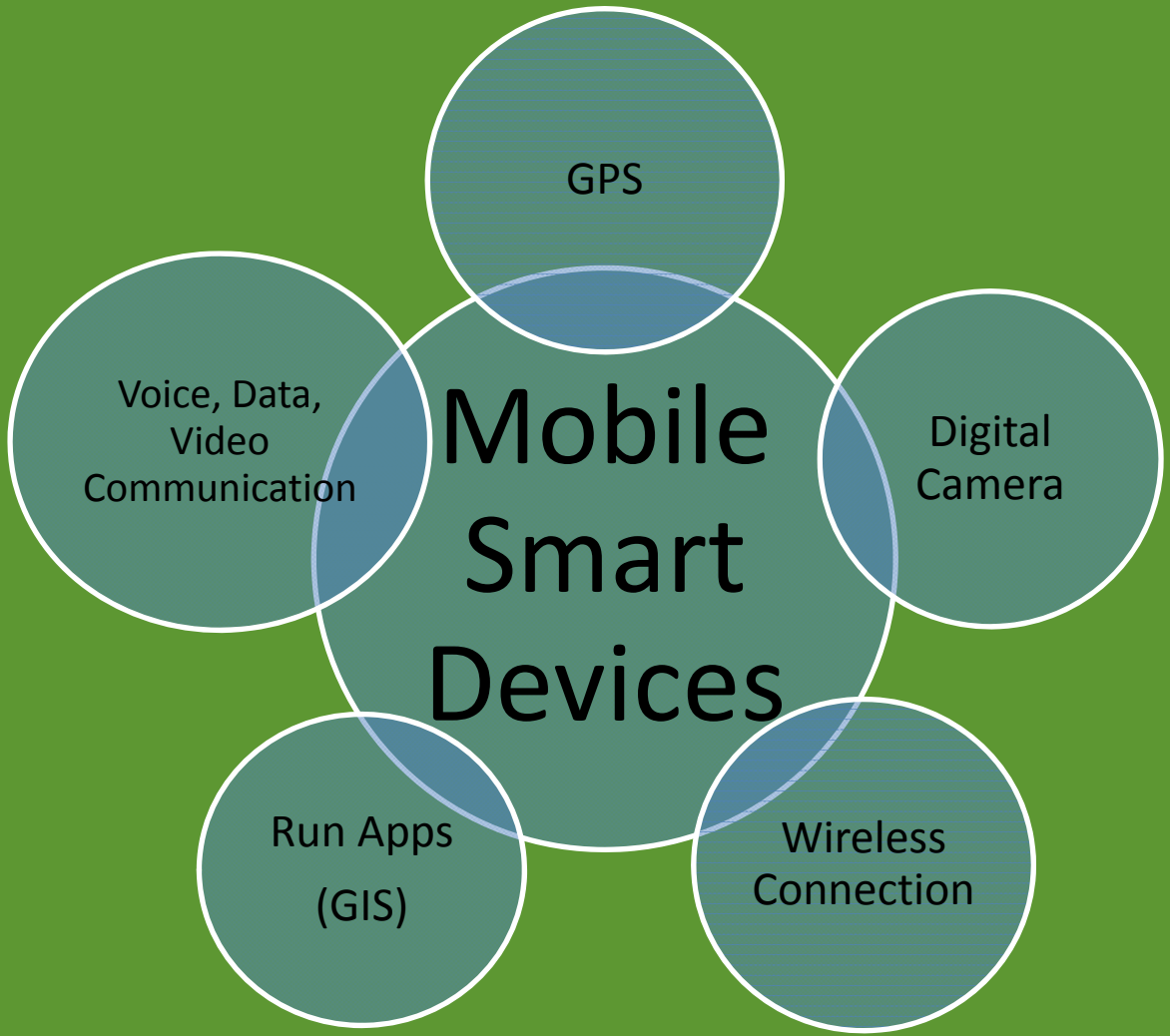
Timing
- Time Critical
- Seasonal
- Opportune

Coordination
- Within Agency
- Sister Agencies

Purpose
- Visual Verification
- Ground-Truthing
- Sampling
- Point Collection
- Acreage/Area Measurement

Route Planning
- Courtesy Notification to Owner/Operator
- Access to Land
  - Locked Gates
  - Irrigation
  - Spray Application
- Stage Data to Mobile Device(s)
  - Imagery
  - Coordinates
  - Documents

Today's Technology



What Do We Look For With Site Visit:

- Primarily a visual verification
- May include sampling, ground-truthing, point/area collection
- Ensure that agreed upon practices are properly established and maintained
- Verification that "No Disturb" dates (Primary Nesting) honored
- Verification of managed grazing or harvest of cover

Site Visits Key Points

- Make “Smart” Site Visits
- Utilize remote sensing, data mining, other sources to target site visits
- Properly plan and prepare
- Utilize “Smart Device” technology for more efficient use of time and documentation
- Use site visits to supplement and reinforce remote sensing efforts
- Cooperative efforts among agencies – coordination

Future Considerations

Owner/Operator Submissions

- Many have “Smart” devices
- Provide “App” to facilitate submission
- Images embedded with location, date, time
- Utilize submitted images with GIS

Future Considerations

Education and Outreach

- Educate/recognize on environmental benefits/impacts
- Reach out to absentee landowners
- Educate public on factors associated with cooperator's commitment to conservation
- Increase personal "Buy-In" and "Self-Policing"