



National Agriculture Imagery Program

NSGIC Mid Year Meeting
February 25, 2014

Kent Williams
Deputy Director FSA Aerial Photo Field Office

NAIP

Program Objectives

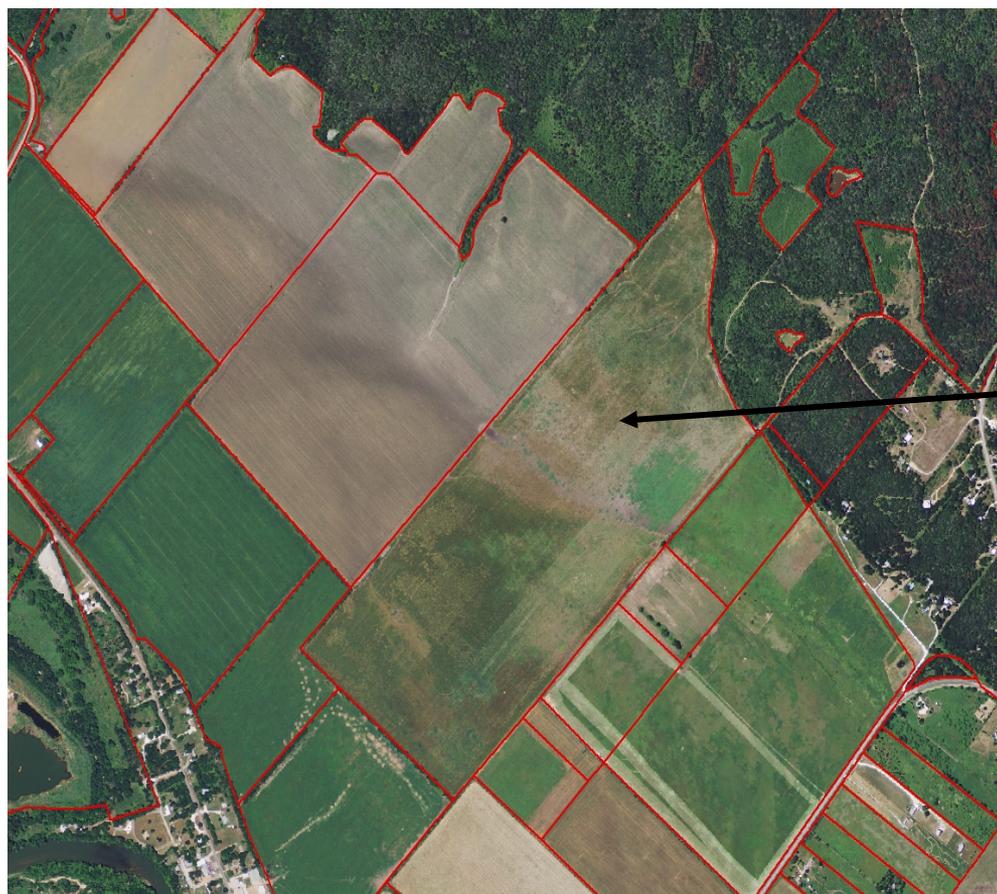
- Meet FSA Requirements for Imagery
 - Managed and Funded Primarily by FSA
 - Maximize Value/Minimize Costs
- Avoid Duplication of Effort
 - Cost Share from Federal Partners
 - NAIP Platform Leveraged for Value Added Products
 - Buy Ups
 - Support Secondary Contracts
 - Coordination
 - NDOP, etc.
- Maintain Open Data Policy
 - Share Data between FSA and Producers
 - Image Data Openly Available
 - No Restrictions on 3rd Party Use



NAIP Imagery Uses

FSA - Keeping Farm Records Current

Current Ortho Image with CLU Boundaries



Visual Interpretation of Land Use Features



Tabular Farm Records

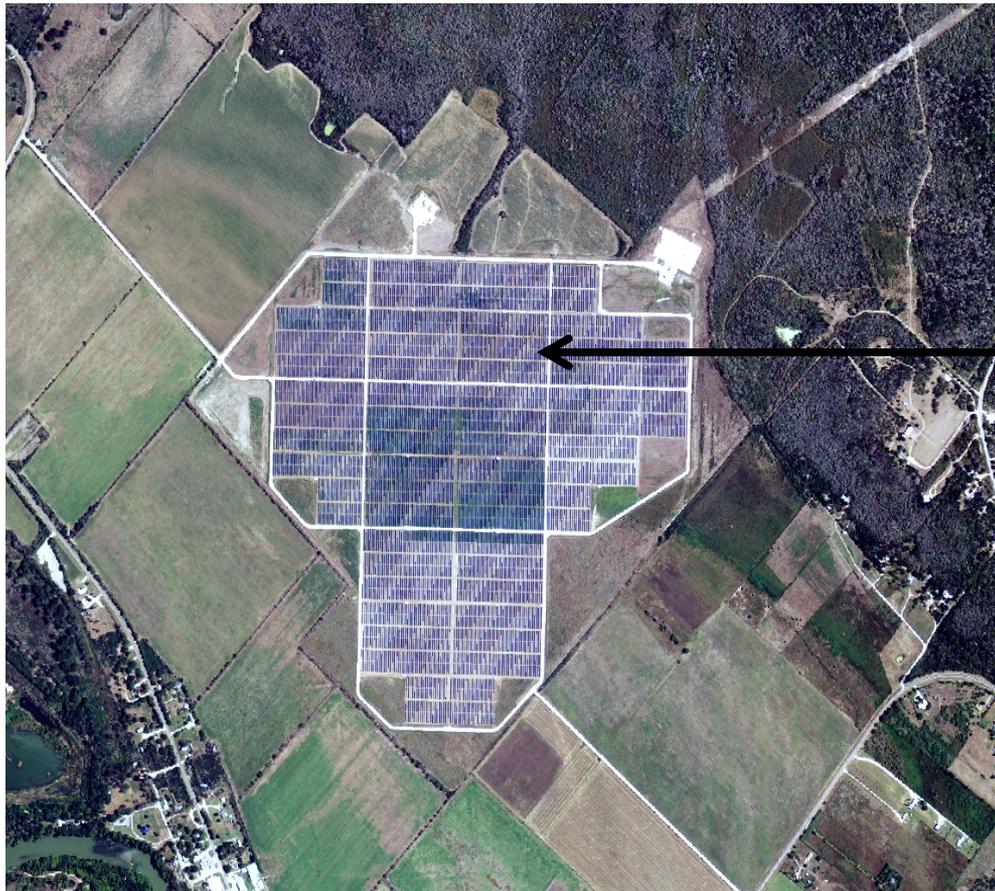
- Ownership
- Land use
- Acreage
- Crop History

NAIP Imagery Uses

FSA - Keeping Farm Records Current



Current Ortho Image with CLU Boundaries

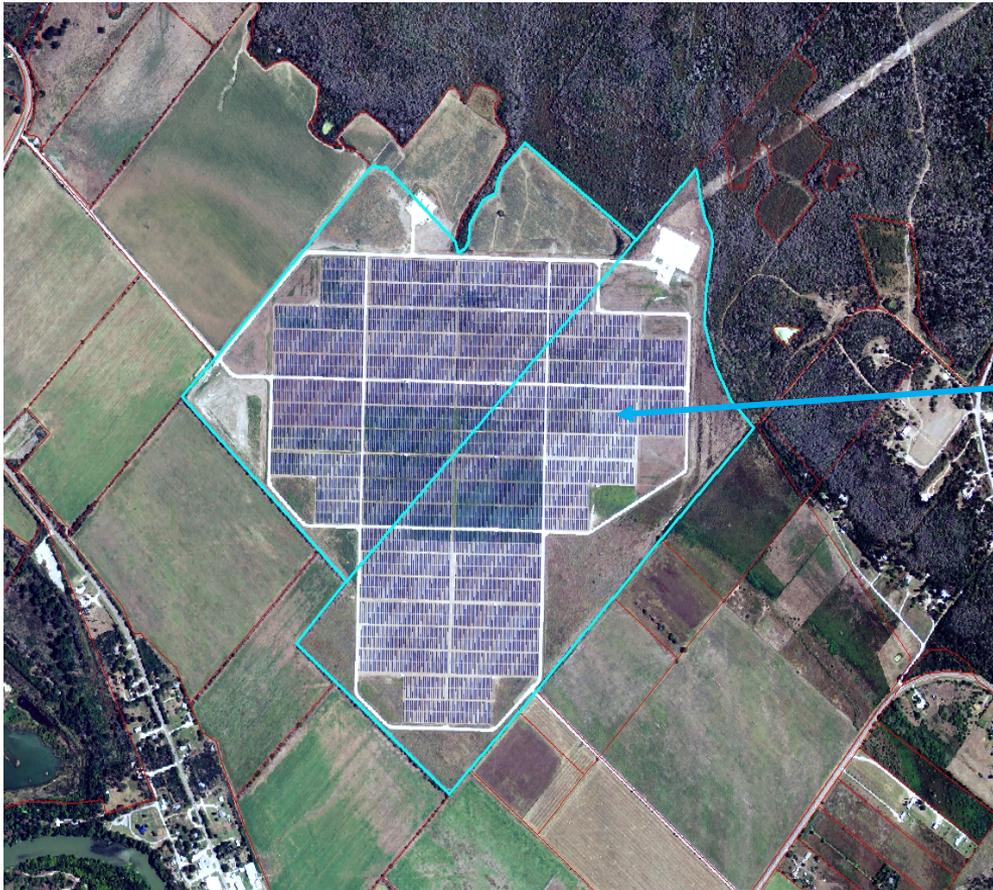


Land Use Change
Solar Farm

NAIP Imagery Uses

FSA - Keeping Farm Records Current

Current Ortho Image with CLU Boundaries



CLU and Farm Record Edits



Tabular Farm Records

- Ownership
- Land use
- Acreage
- Crop History

NAIP Imagery Uses

FSA – Disaster Assessment



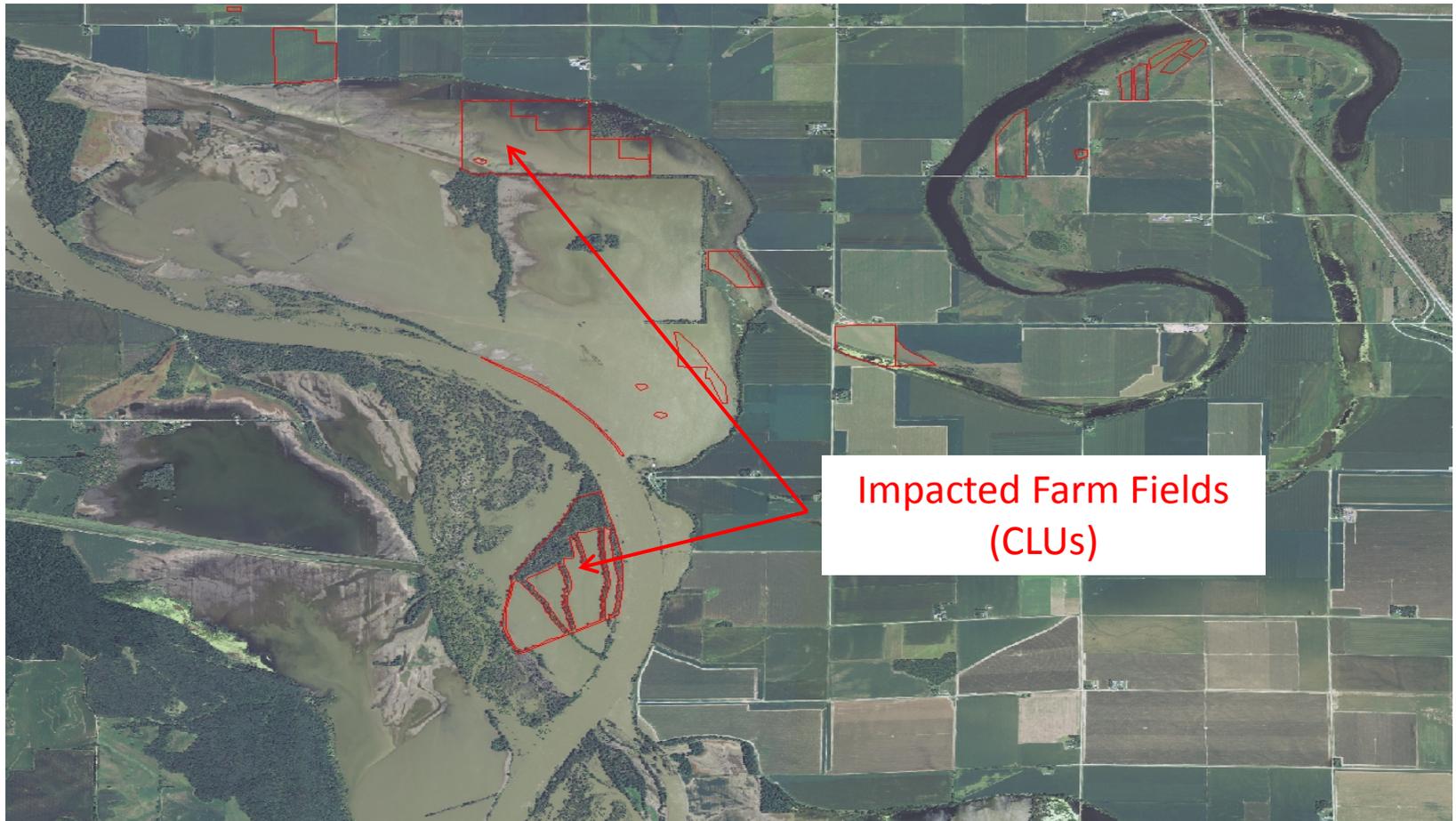
Missouri River Flooding
2/25/2014
Pre-Event Image

NSGIC 2014 Mid Year

Iowa NAIP Image
9/14/2010

NAIP Imagery Uses

FSA – Disaster Assessment



**Impacted Farm Fields
(CLUs)**

NAIP Imagery Uses

FSA – Disaster Assessment



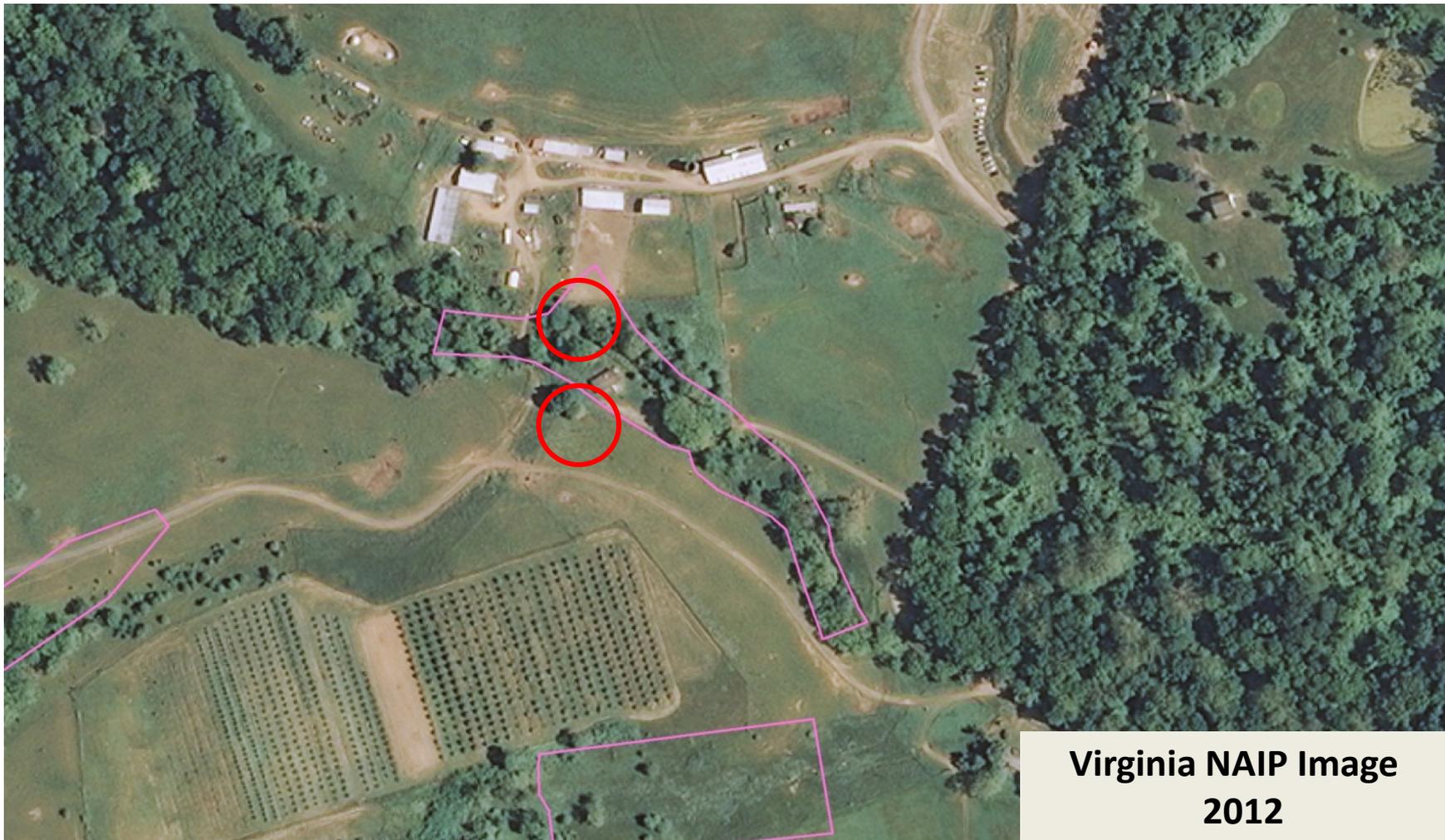
Missouri River Flooding

2/25/2014

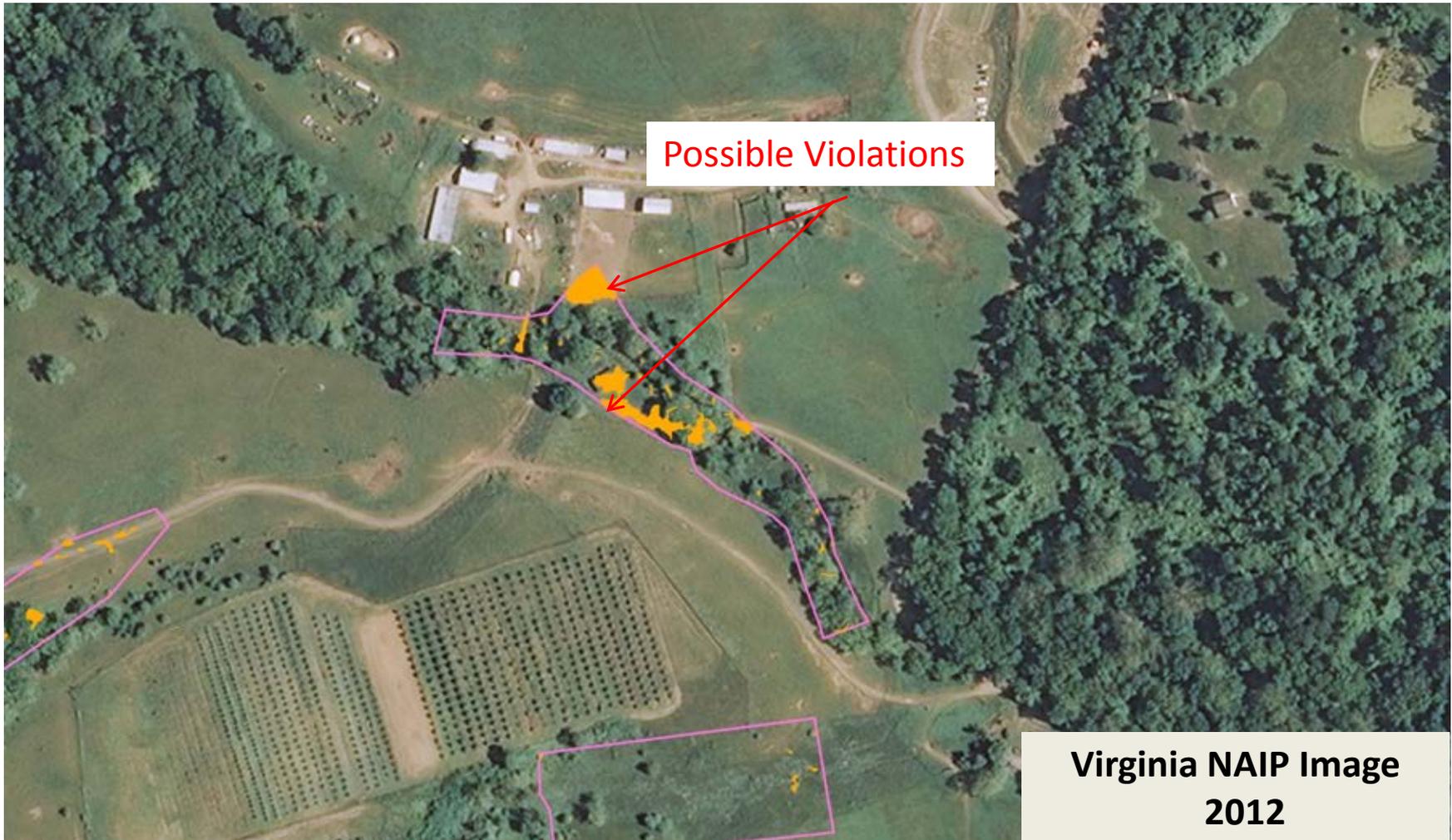
NSGIC 2014 Mid Year

Iowa NAIP
August 24, 2011

NAIP Imagery Uses *FSA – Program Compliance*



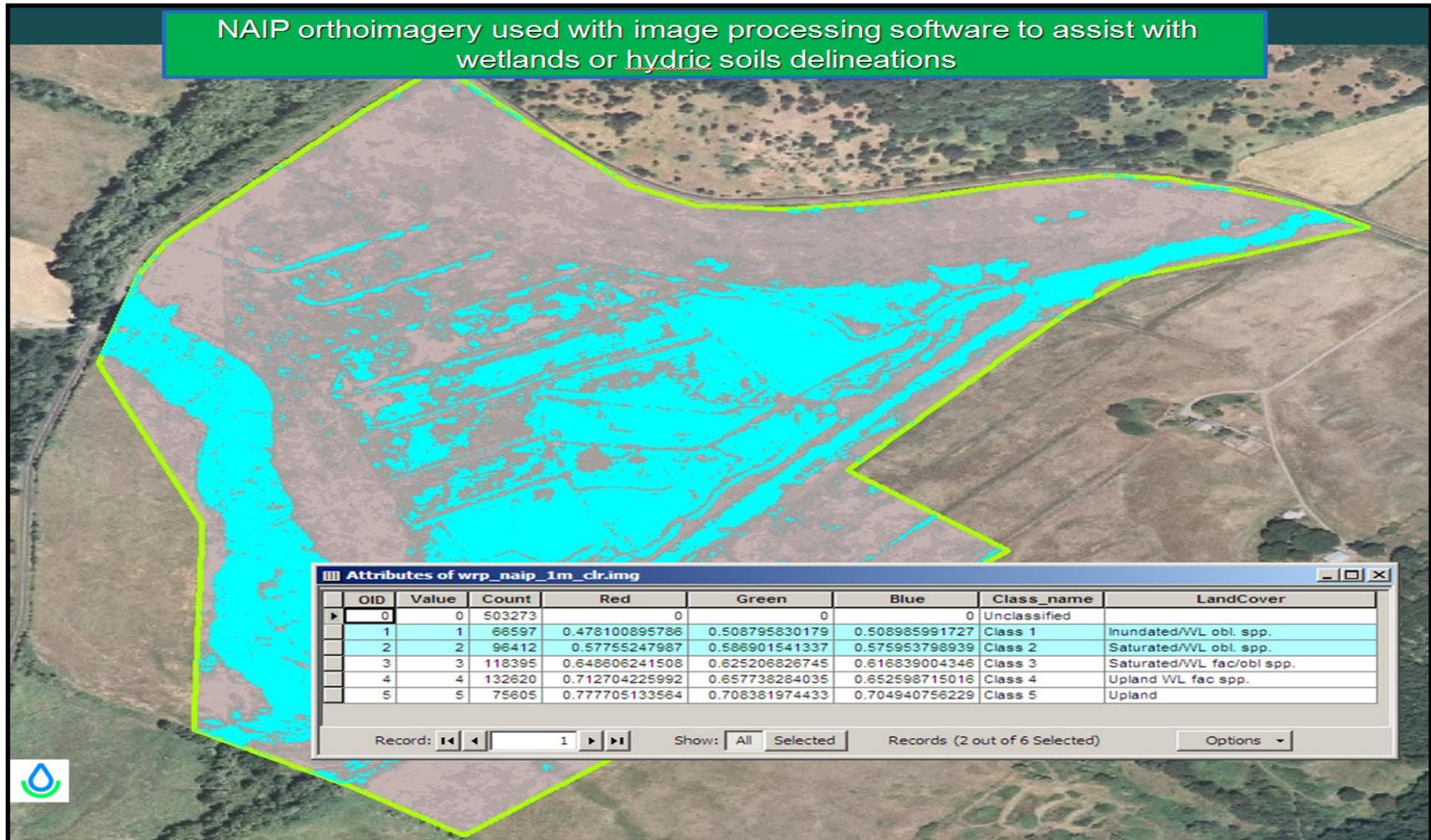
NAIP Imagery Uses *FSA – Program Compliance*



NAIP Imagery Uses

NRCS – Soils and Wetland Mapping

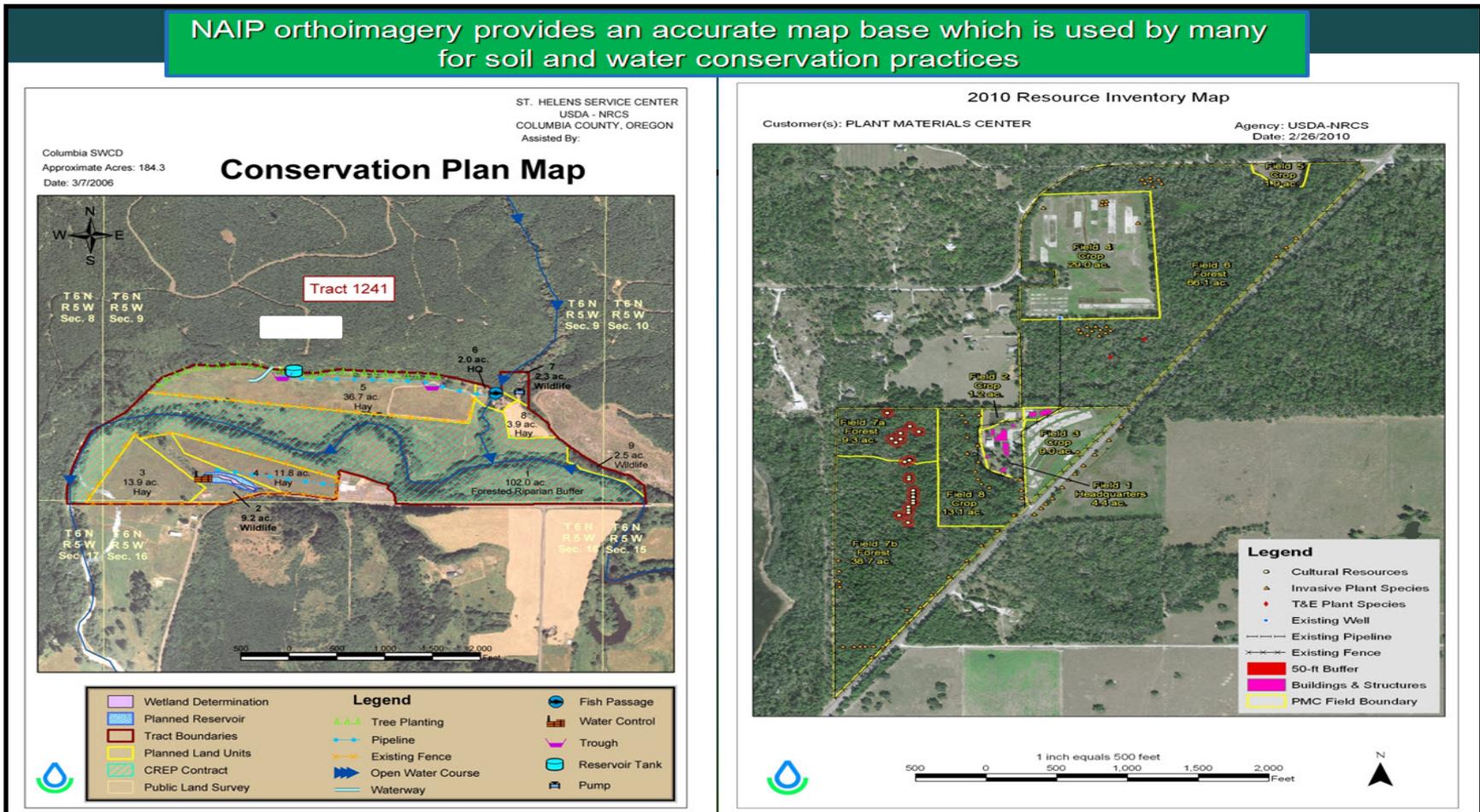
NAIP orthoimagery used with image processing software to assist with wetlands or hydric soils delineations



NAIP Imagery Uses

NRCS – Accurate Base for Mapping

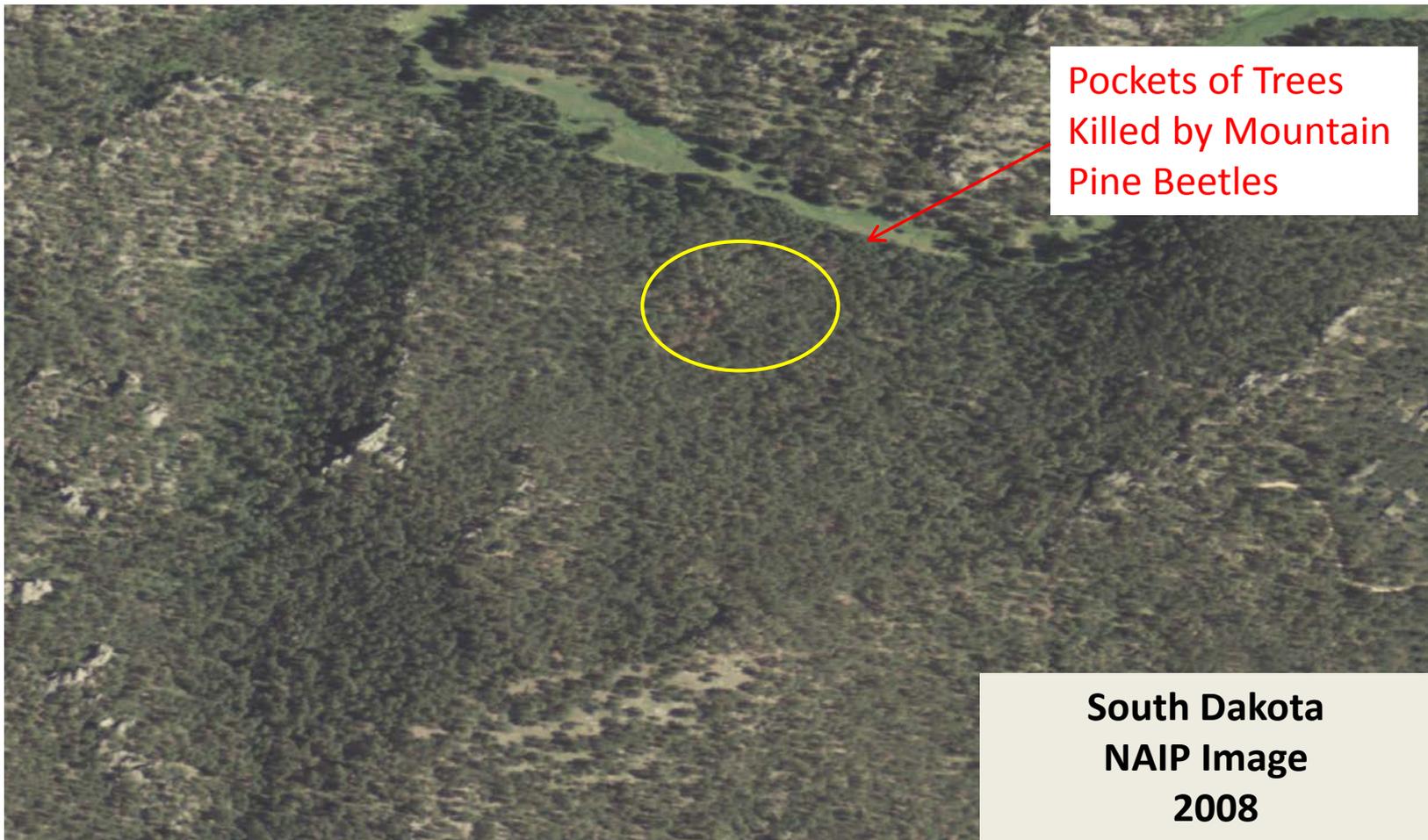
NAIP orthoimagery provides an accurate map base which is used by many for soil and water conservation practices





NAIP Imagery Uses

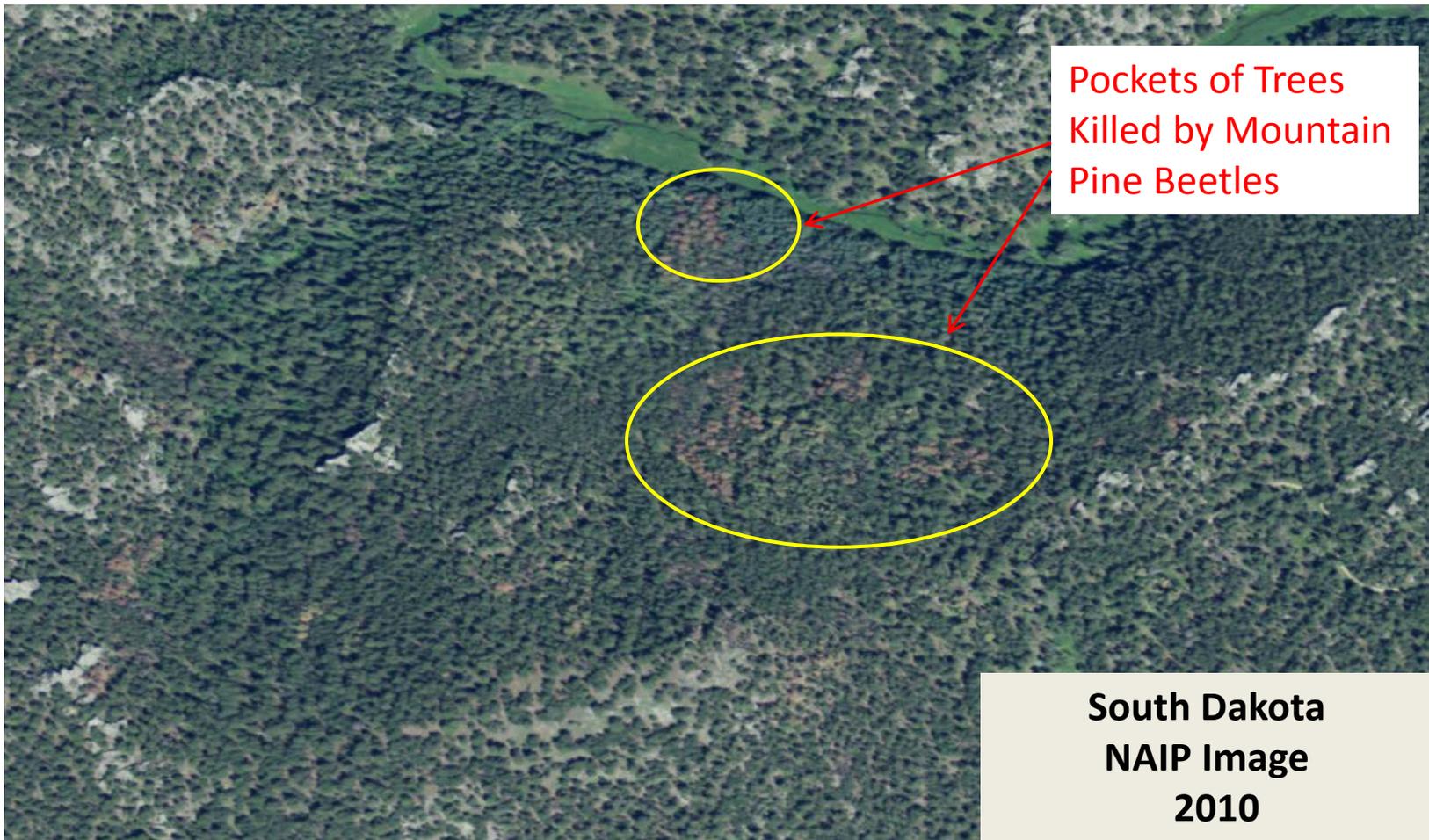
USFS – Time Series for Forest Management





NAIP Imagery Uses

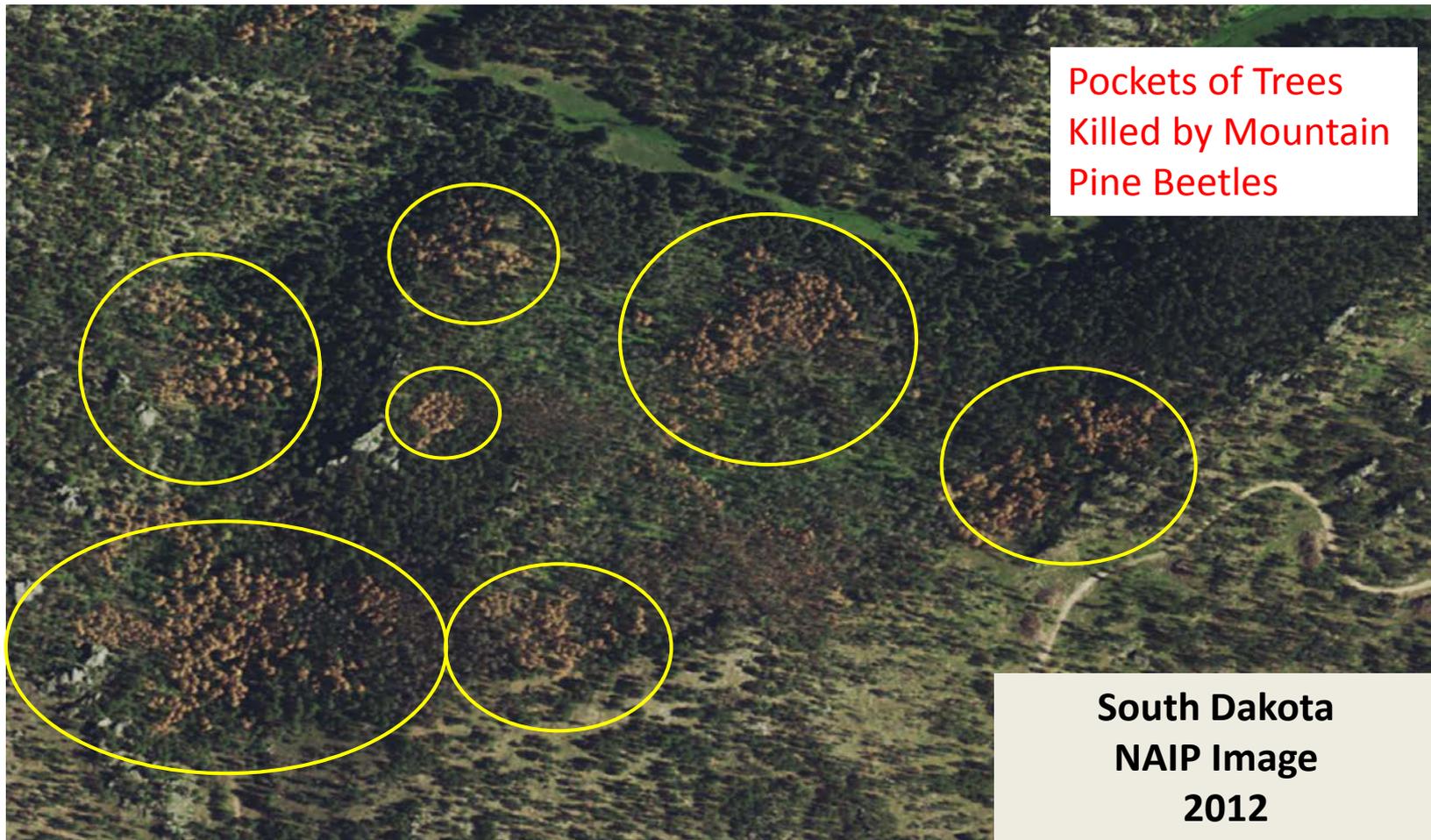
USFS – Time Series for Forest Management





NAIP Imagery Uses

USFS – Time Series for Forest Management



Pockets of Trees
Killed by Mountain
Pine Beetles

South Dakota
NAIP Image
2012

Meeting FSA Requirements *Coverage*

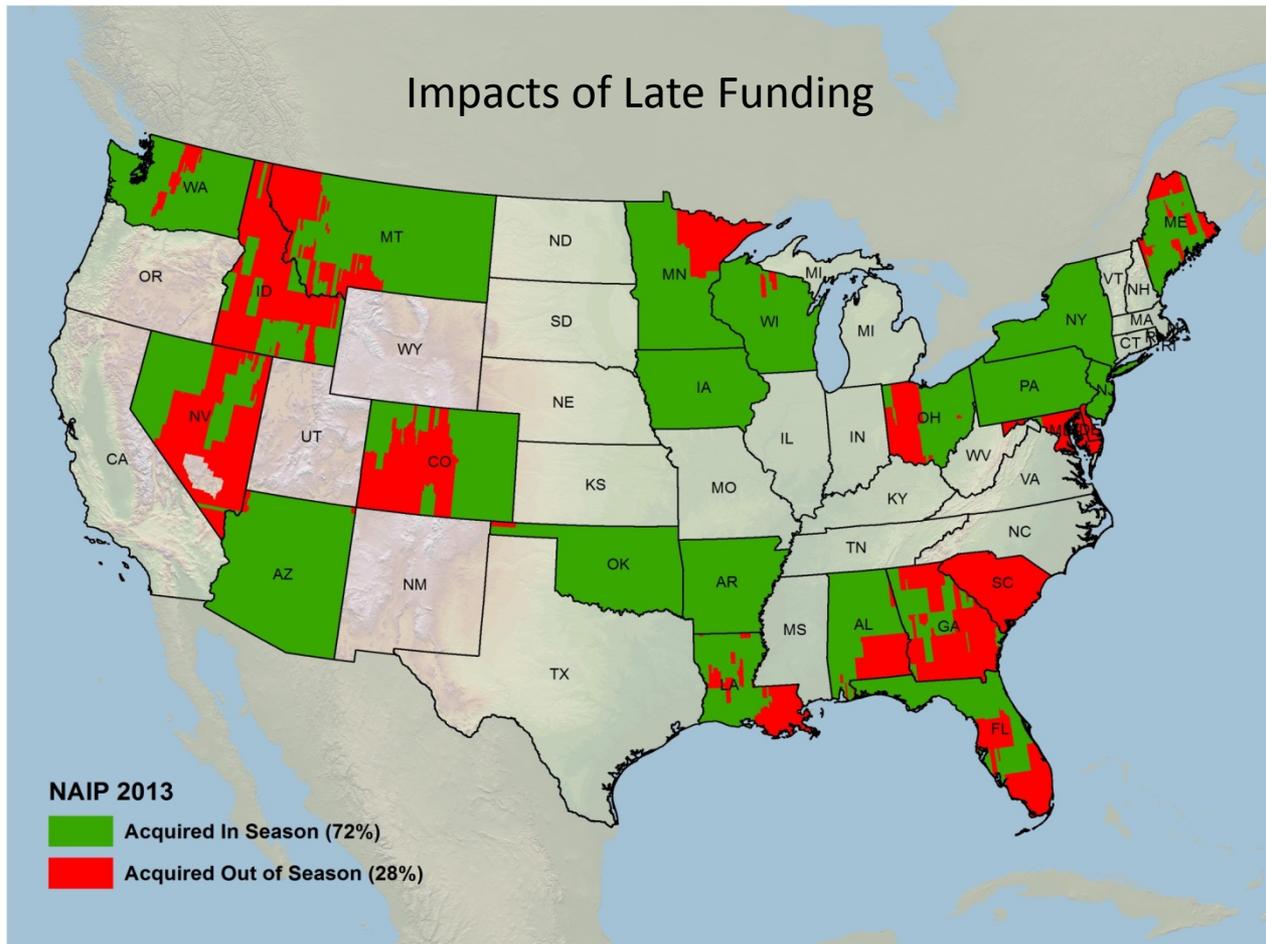


FSA Requirements		NAIP Spec	Actual	Improvements
Support Farm Programs	Coverage	Supports Annual Coverage	2 to 2.5 year cycle	
		Full State		
		Acquired within Crop Growing Season	75% to 97%	

Coverage

Acquisition within Seasons

2013 season



Meeting FSA Requirements

Usability of Imagery

FSA Requirement		NAIP Spec	Actual	Improvements
Visually identify Land Use practices in Ag Land	Spatial Resolution	1 meter or better		.5 meter pilot
	Spectral Resolution	4 Band		
	Image Quality	Best Practices??		

Meeting FSA Requirements

Access to Imagery

FSA Requirement	NAIP Spec	Actual	Improvements
Access to Imagery before Land Cover Change	Delivery within 45 days of season end		"Early Access" Pilot

Early Access Web Service

2013 Pilot

- Imagery in Web Service ASAP within 5 Days of Acquisition
 - NY, OK, MN
- RGB and CIR services
- 10 meter horizontal accuracy
 - final NAIP is 6 meters
- Pilot Results
 - 3 to 5.3 days after acquisition
 - 2.9 to 4.1 meters accuracy

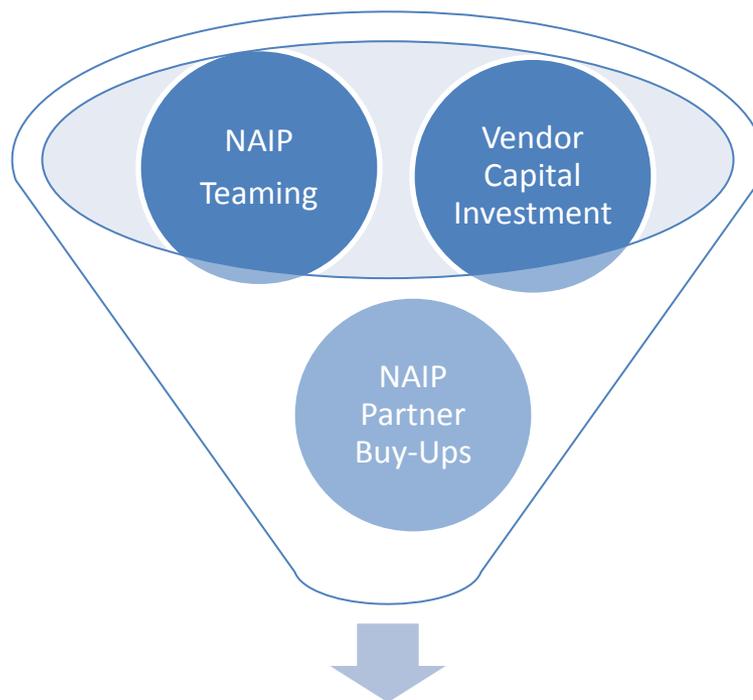
Meeting FSA Requirements

Confidence and Integrity in FSA Programs

FSA Requirement		NAIP Spec	Actual	Improvements
Confidence In USDA FSA data	Horizontal Accuracy	6 meters from true position	2-3 meters from true position	
	Image Date to the day	Image Mosaic Seam Line Metadata		

NAIP Partnerships

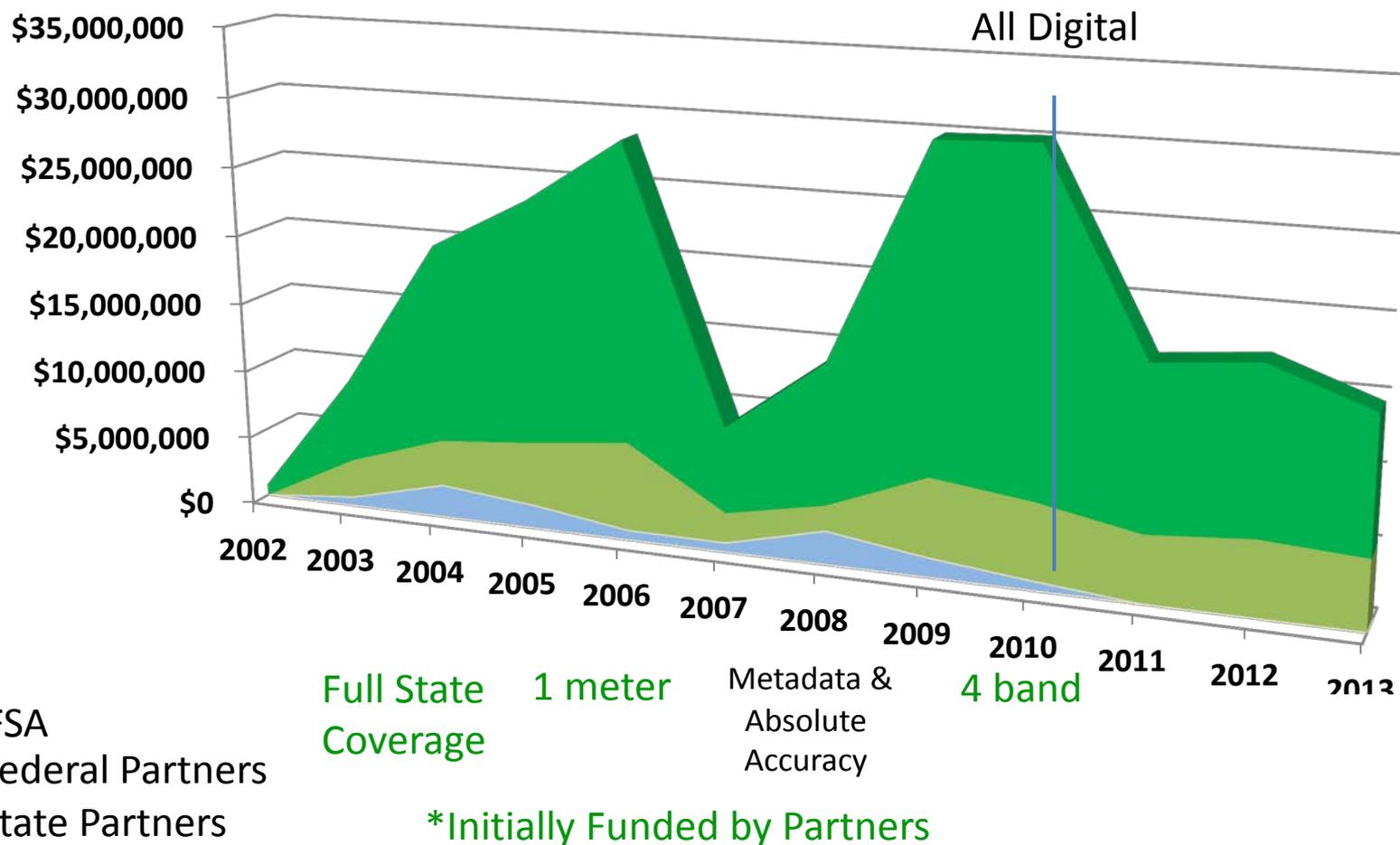
Increasing Value, Minimizing Duplication



Improvements

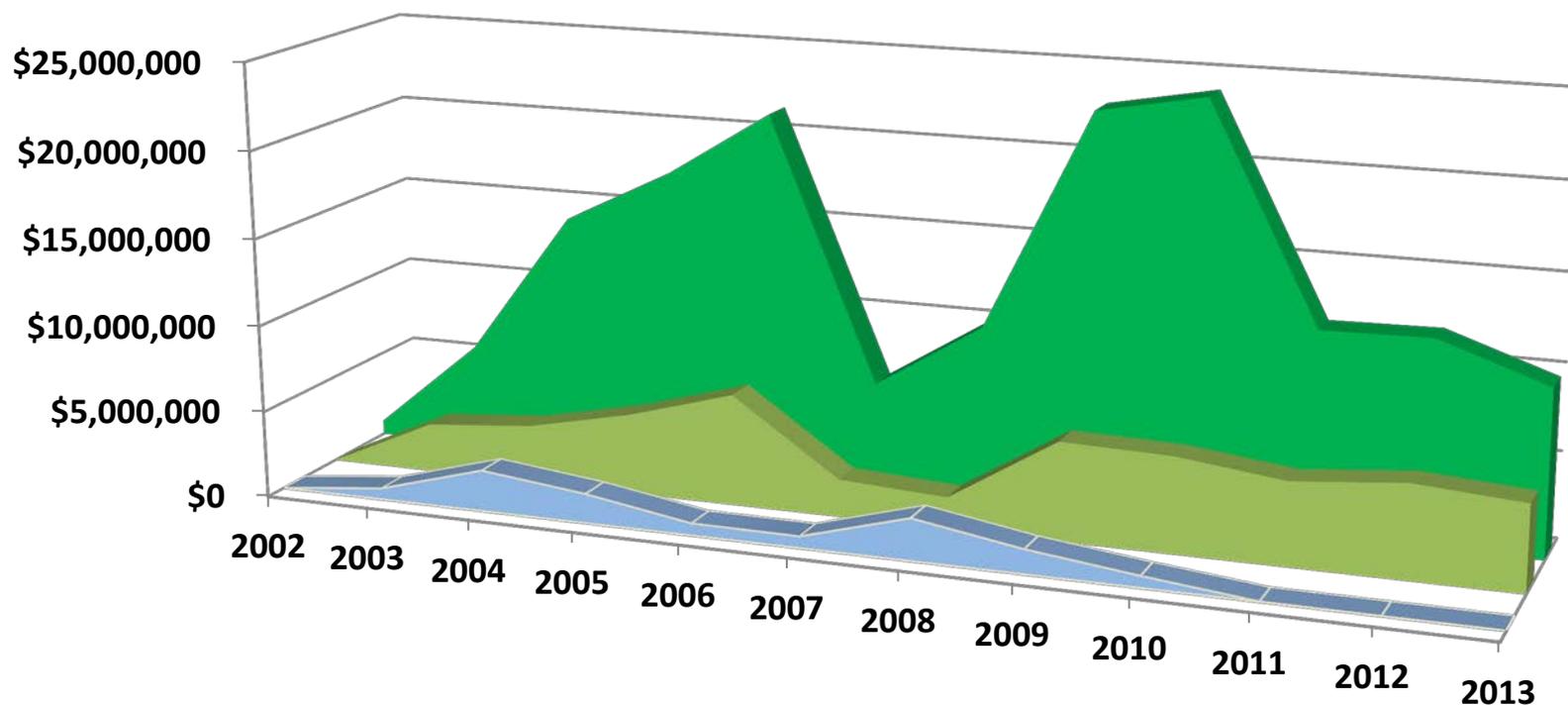
Increasing Value with Partnerships

Improvements



NAIP Funding History

Cost Share



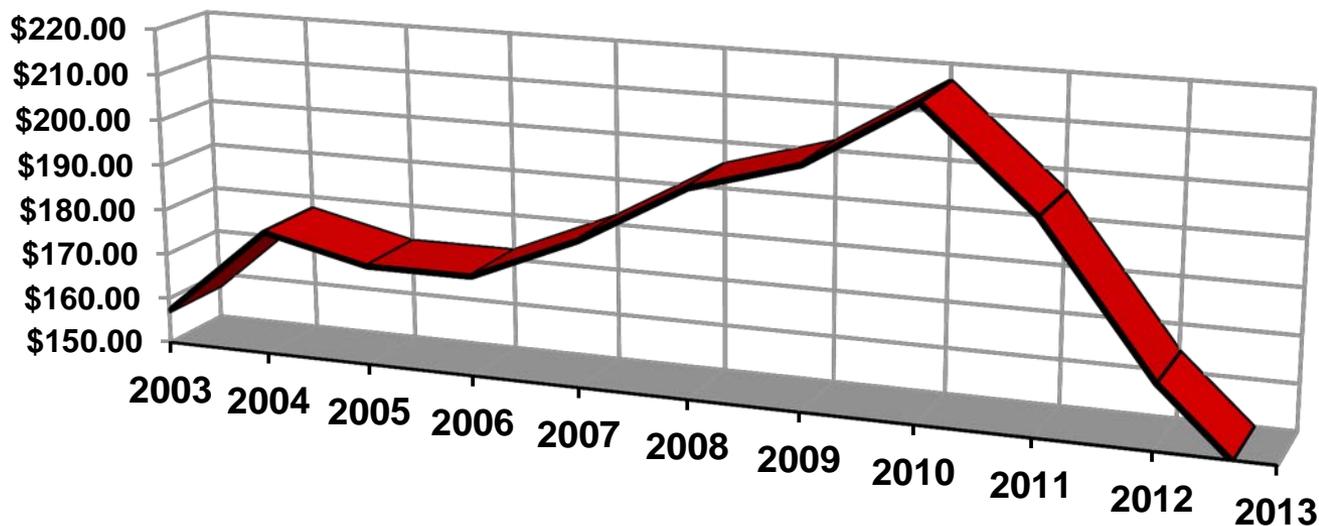
- FSA
- Federal Partners
- State Partners

- Fed Funding Stabilized on 3 year Cycle
- New Policies in USDA Fiscal Management

NAIP Cost History

Increased Value, Lower Cost

Current Year Cost/QT
 (Not Adjusted for Inflation)



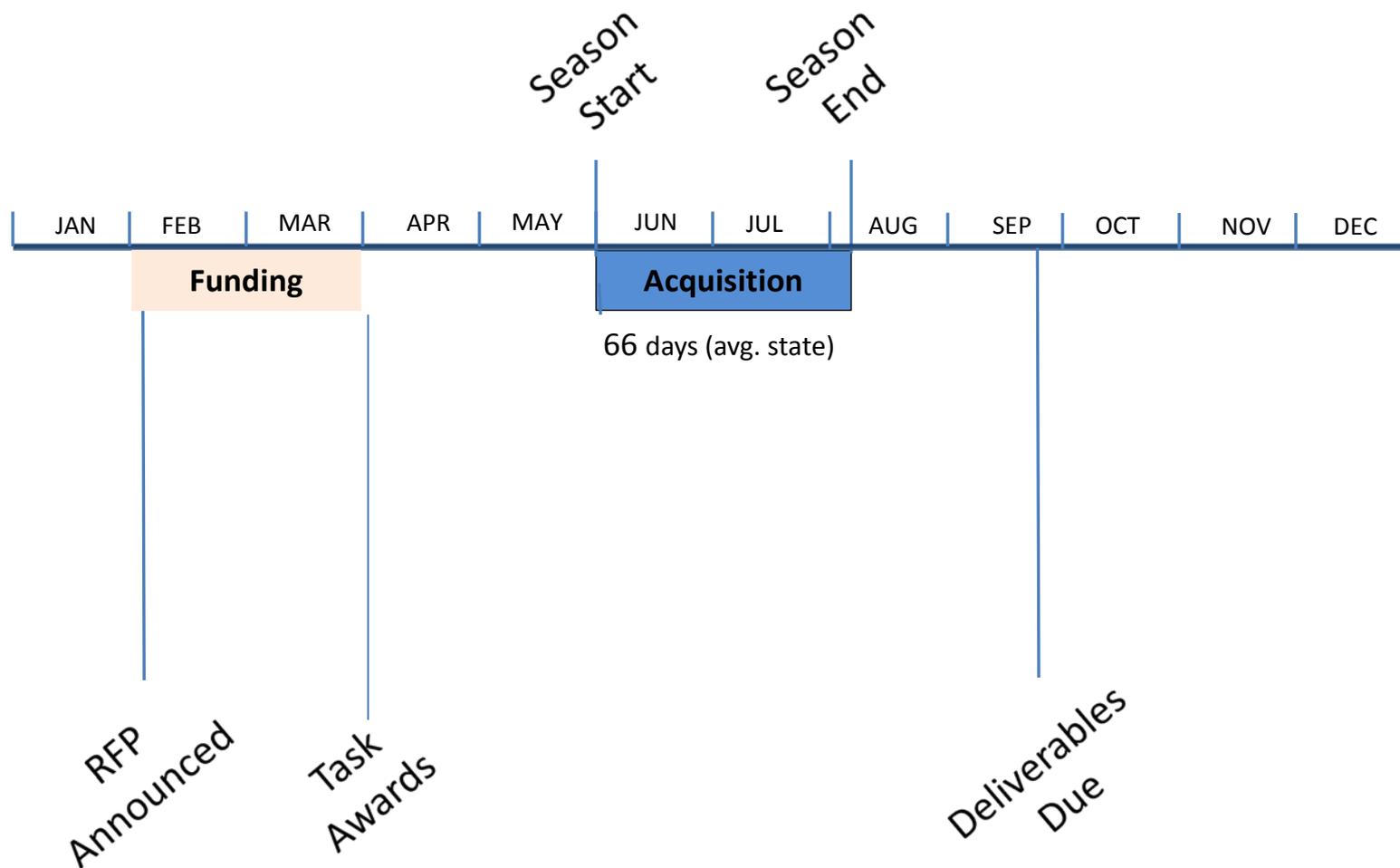
NAIP Image Acquisition

- Coverage Prioritized by:
 - Date of Imagery
 - FSA Priority
 - Work with Partners
- Available Funds
 - Funding Amount and Bid Amounts known at time of Award



Cost Share

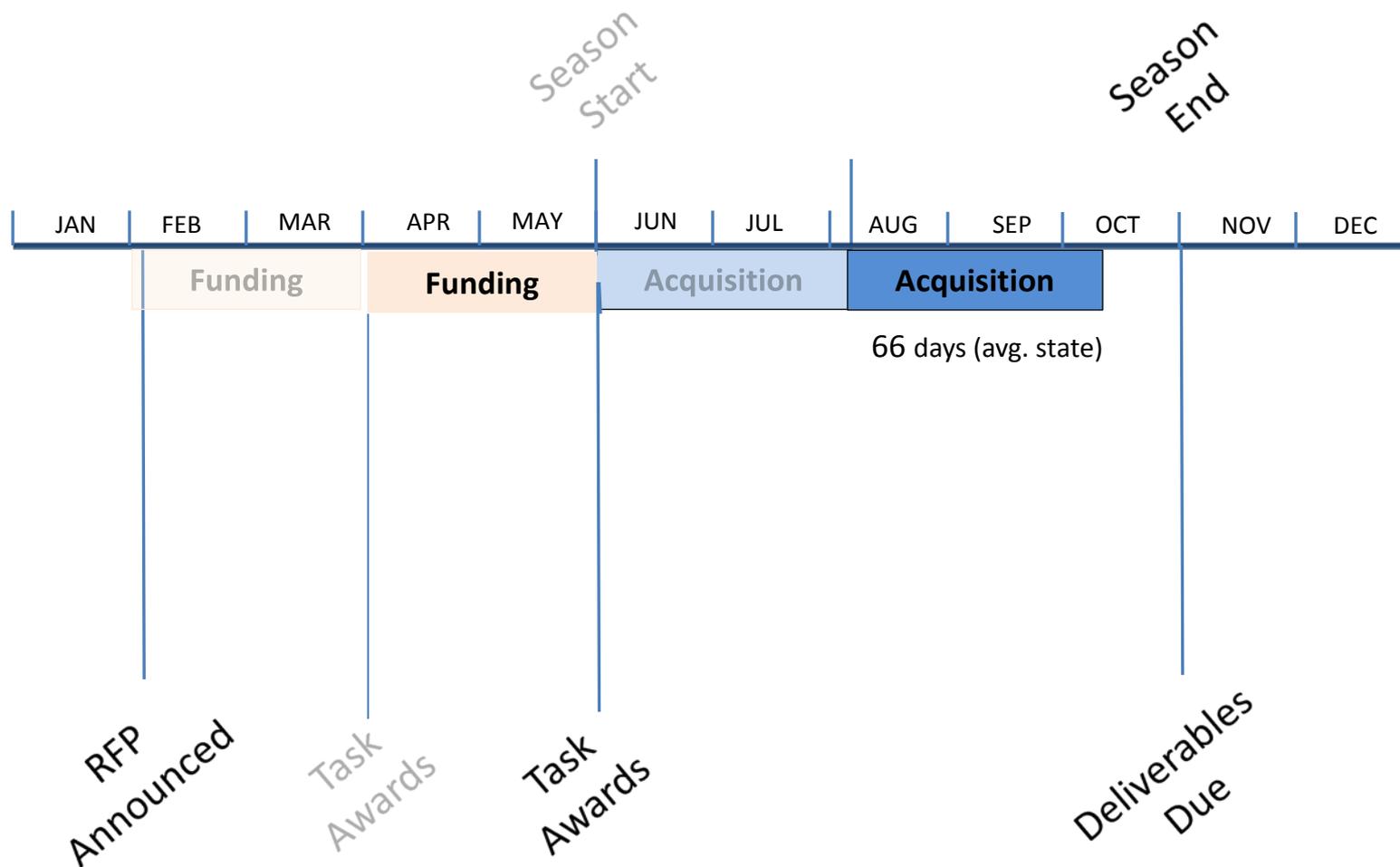
“Idealized” NAIP Annual Project Timeline





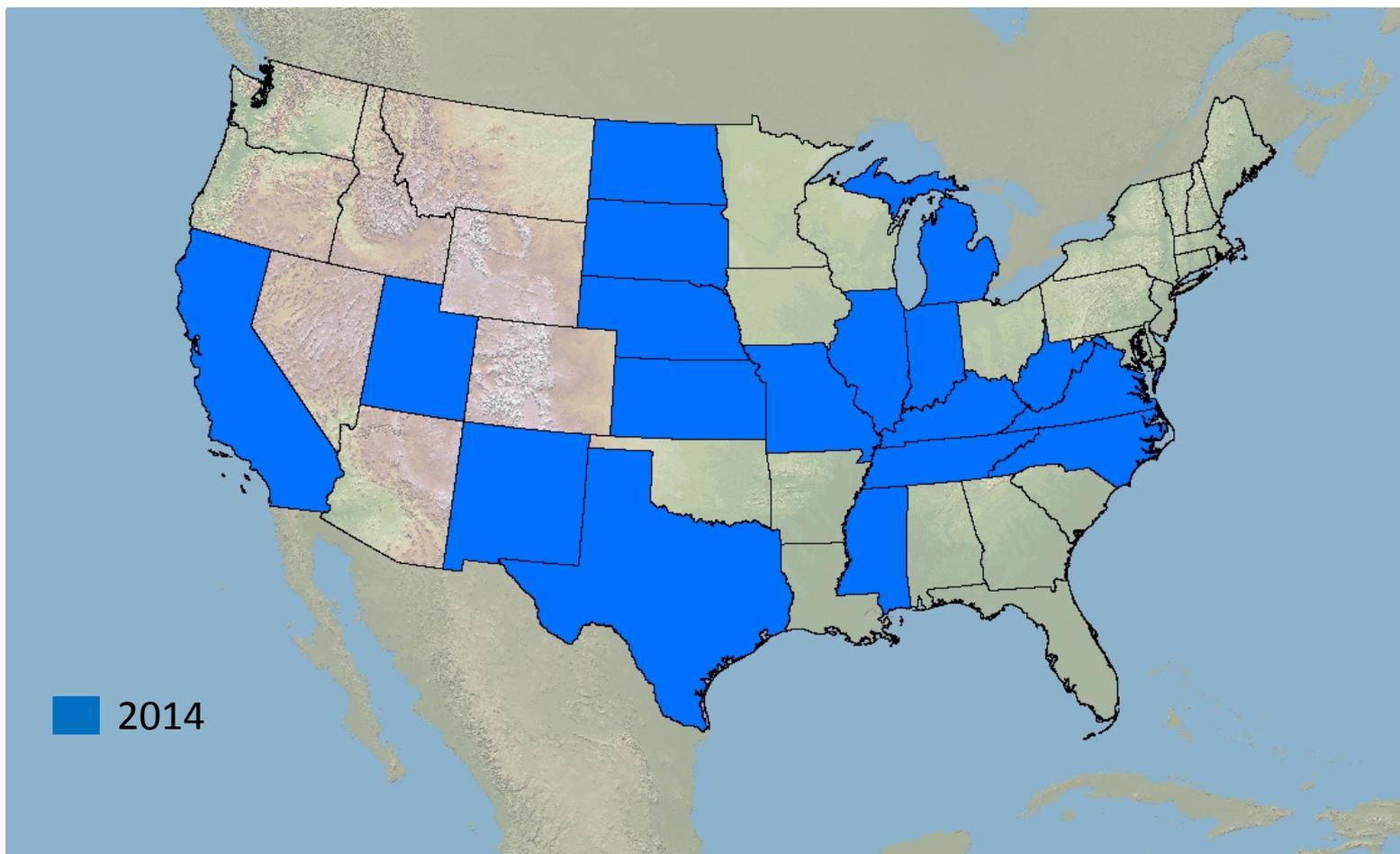
Cost Share

“Actual” NAIP Annual Project Timeline



NAIP

2014 Planned Acquisition



NAIP Buy Ups

How They Work

- Buy-Ups
 - Half Meter Resolution
 - Out of Cycle
 - Need to be Pre-Paid before RFP Release
 - Deadline: January 30 in year of acquisition

NAIP Buy Ups

Why should States Buy-Up?

- Helps Prioritize Acquisition of State
 - In the event of fed budget shortfall
- Half Meter NAIP Imagery in Public Domain
 - Available to Other Partners and Public
- Alternative to Managing your own Contract
 - Contract Administration
 - Quality Assurance

“Secondary” NAIP Contracts

- Between State and NAIP Contractors
- NAIP Contract Supports with Conditions:
 - **Can’t Compromise Collection and Delivery Schedule of Primary Products to FSA**
 - **Can’t drive up cost for primary products**

Contacts

- **Programmatic**
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- **Contract Information**
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- **Partnership Information**
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