

# NH Statewide High Resolution Aerial Photography: Community Forum

September 3, 2009  
NH DOT

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Glenn Davison, GIS Project Manager, NHDOT  
Lin Neifert, USGS Liaison to NH/VT  
Fay Rubin, GRANIT Project Director, UNH

# Agenda

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- Introductions
- Project background
- Draft specifications
- Cost estimates
- Current funding status
- Expected timeframe
- Questions/discussion

# Project Background

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- Currently available aerial photography includes:
  - 1998 DOQQ's (1 meter, panchromatic)
  - NAIP (2003, 2008, 2009 (in process) – 1 meter, color)
  - DOT spring 2005/2006 flights (1 ft., color, CIR)
  - Assorted imagery for smaller areas/project-specific
- Planning for spring, 2010 statewide flight
- Needs assessment ongoing

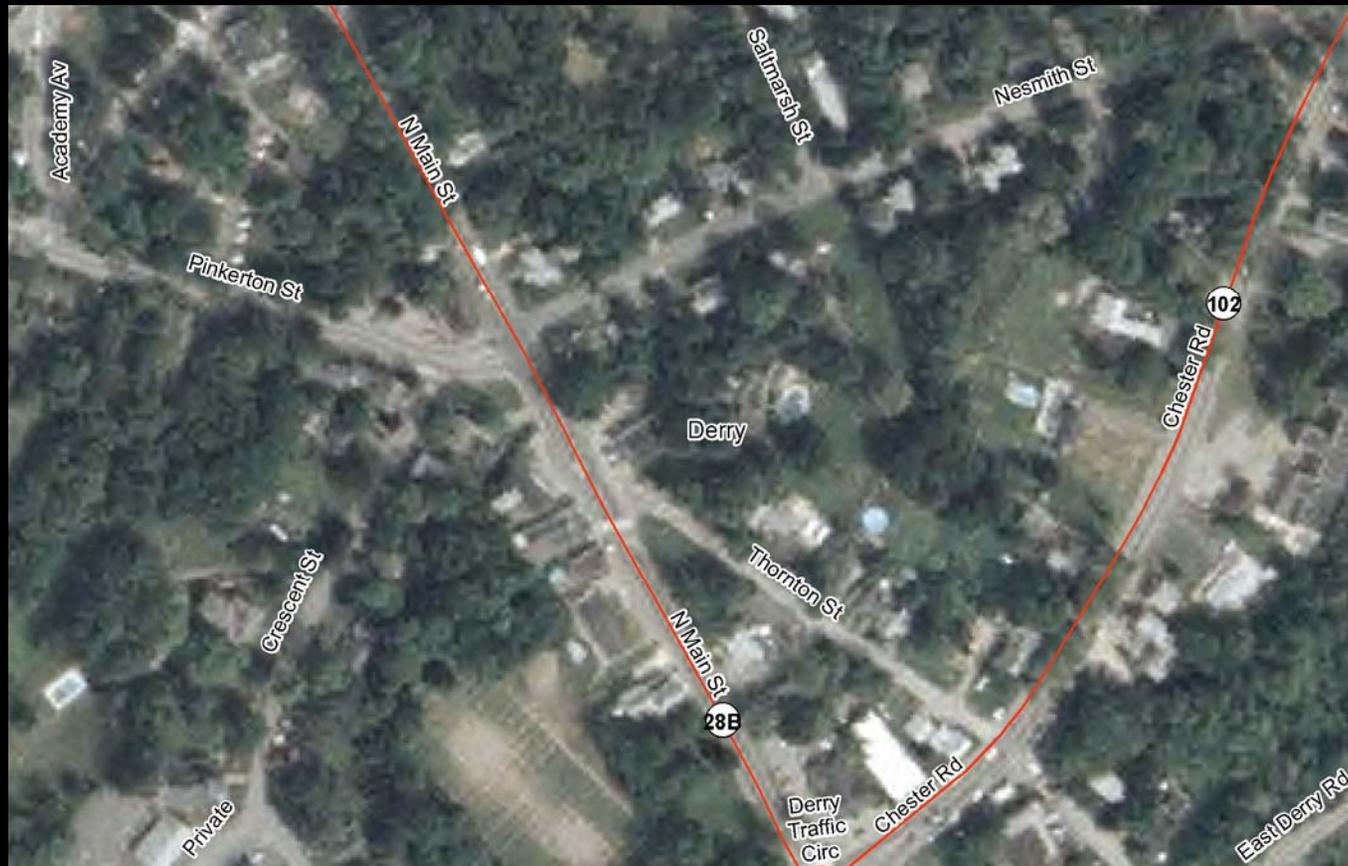
# 1998 Digital Orthophoto Quarterquads (DOQQs)



Approximate  
Map Scale  
1:3,000

Resolution  
1 meter

# National Agricultural Imagery Program (NAIP) – 2003/2008/2009



Approximate  
Map Scale  
1:3,000

Resolution  
1 meter

# DOT Spring 2005/2006 flights



Approximate  
Map Scale  
1:500

Resolution  
1 foot

# Town of Derry flight

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Approximate  
Map Scale  
1:500

Resolution  
.5 ft.

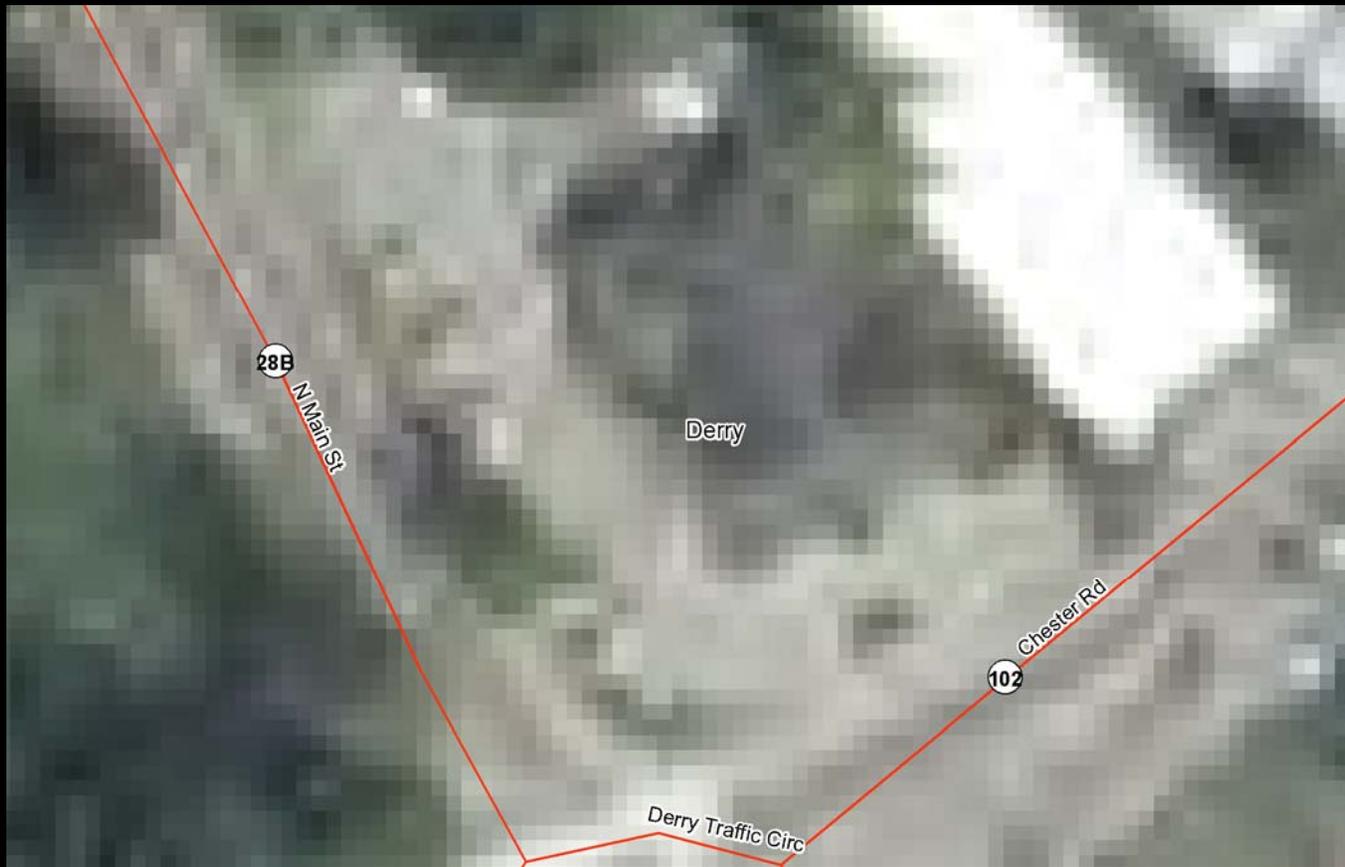
# 1998 Digital Orthophoto Quarterquads (DOQQs)



Approximate  
Map Scale  
1:500

Resolution  
1 meter

# National Agricultural Imagery Program (NAIP) –2003/2008/2009



Approximate  
Map Scale  
1:500

Resolution  
1 meter

# Technical Specifications (Draft)

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## Image Content:

- Spatial resolution: 1 ft. (with option for 6" buy-up)
- Radiometric resolution: 4-band (RGB + CIR)
- Image collection season: leaf-off (spring)
- Degree of cloud cover: < 5%
- Sun angle threshold: > 30 (or 35) degrees

# Accuracy Assessment (Draft)

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## Horizontal Accuracy:

Resolution	Scale	NSSDA* Accuracy Specs	Flying Altitude
1'	1"=200', or 1:2400	5' at 95%	~10,000'
6"	1"=100', or 1:1200	2.5' at 95%	~5,000'

\*National Standard for Spatial Data Accuracy

QA/QC: 100% protocol, conducted by USGS staff. Additional in-state QA/QC by UNH possible.

# Deliverables (draft)

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- 4-Band, orthorectified tiles
- Coverage area: 500-ft. buffer around NH
- Projection: NH State Plane feet, NAD83 (also UTM, NAD83)
- Format: geotiff /.jpg2000
- Tile size/tile numbering system

Resolution	Scale	Accuracy	Tile Size	Approximate # of Tiles (Based on intersection with 500' buffer)
1'	1"=200', or 1:2400	5' at 95%	5000' x 5000'	10,741
6"	1"=100', or 1:1200	2.5' at 95%	2500' x 2500'	42,346

- Tile-level metadata

# Cost Estimates (draft)

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## Statewide flight, 1ft. resolution:

\$80/square mile – for total of \$765,000

(includes \$15K USGS assessment)

## 6" buyup option:

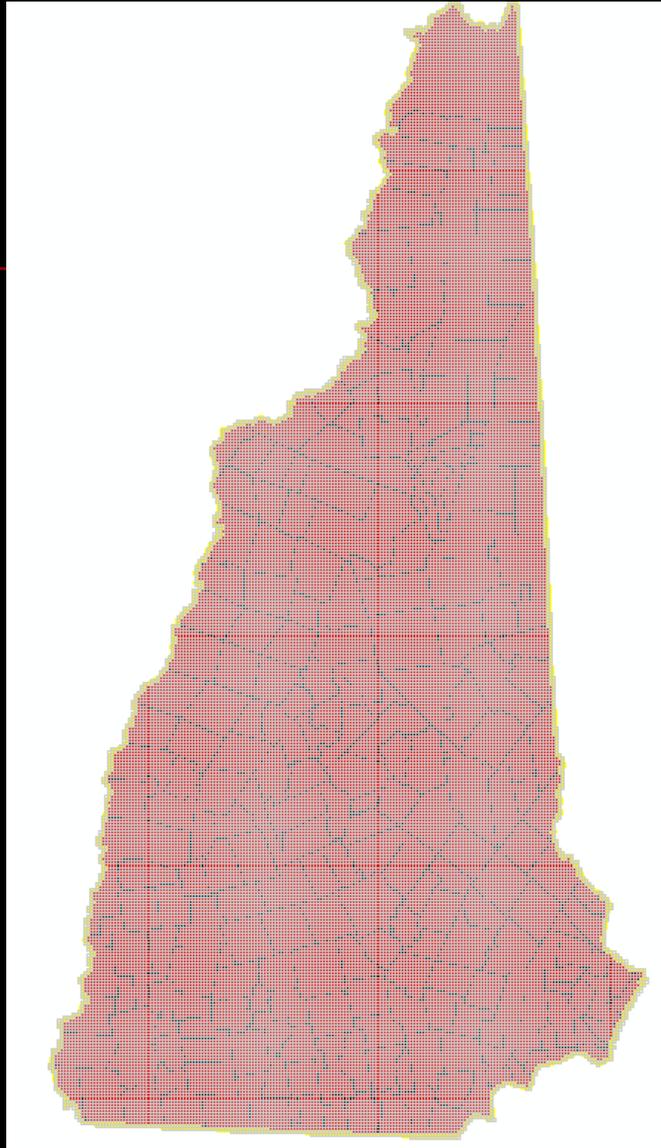
Additional \$160-\$240/square mile

(Cost varies depending on size/shape of collection area, and will likely decline as adjacent communities collaborate for larger acquisitions.)

Draft Tile  
Index:

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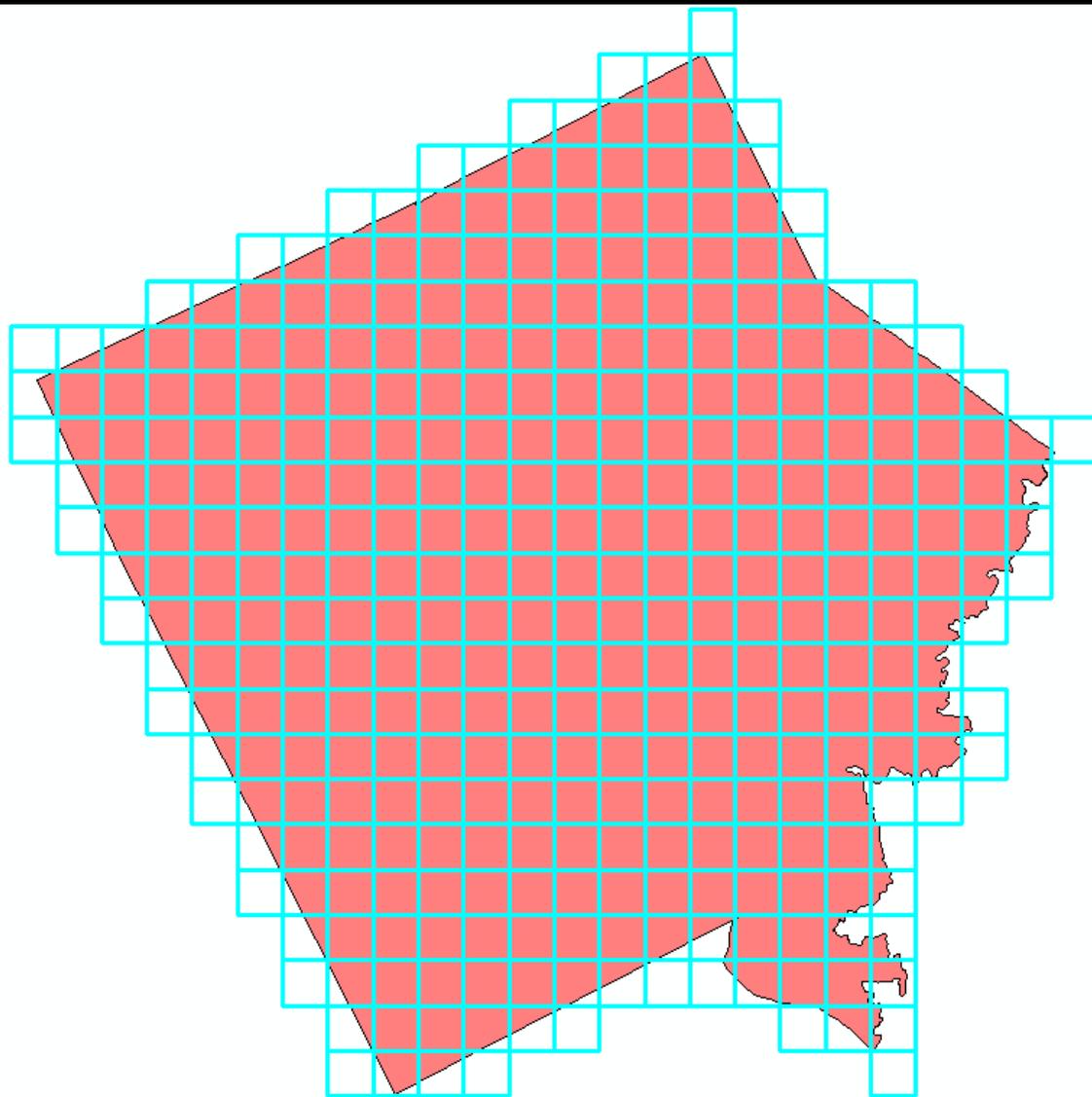
2500' tiles



Concord:  
355 tiles

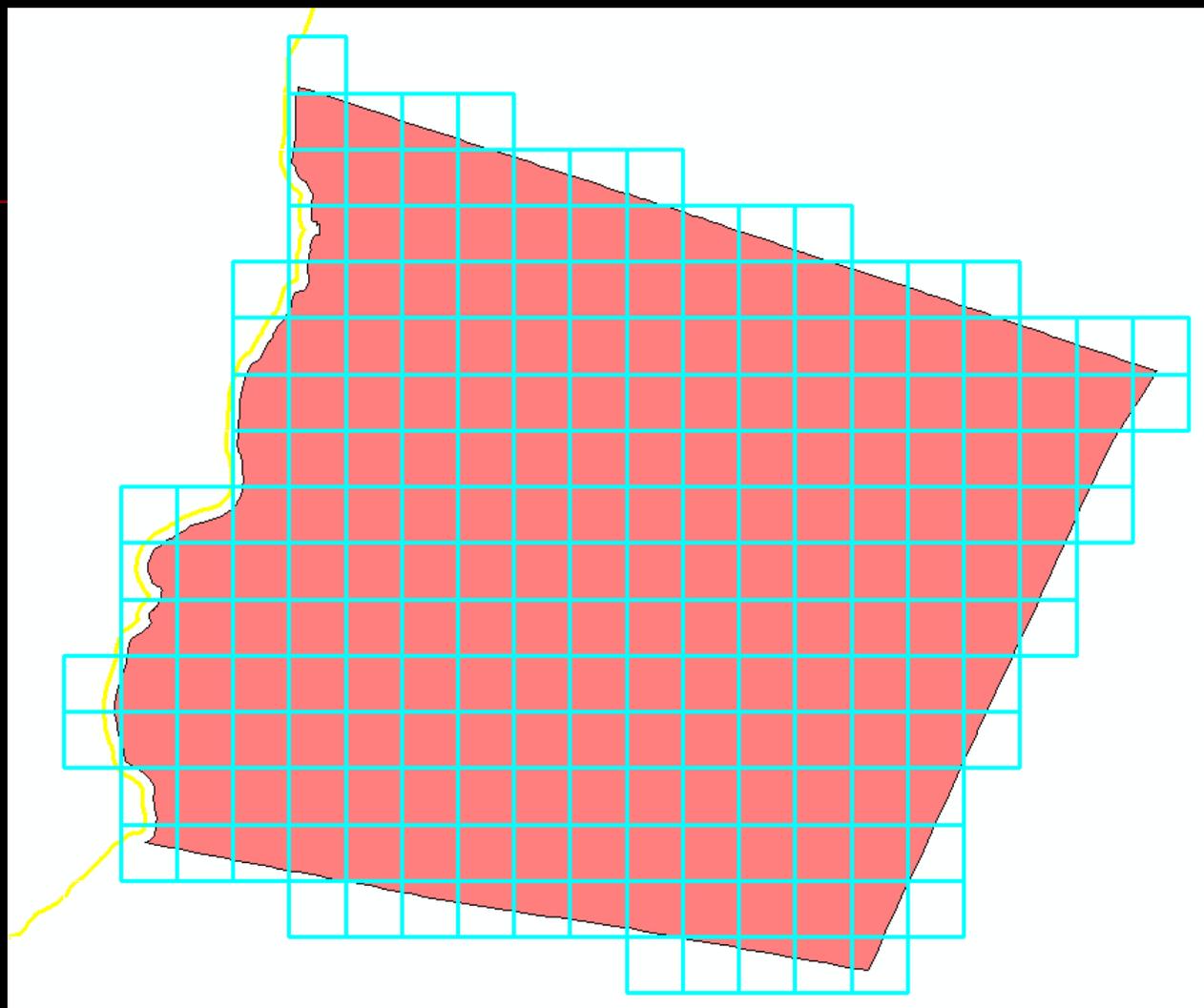
79.6 square miles

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Lebanon:  
219 tiles

49.1 square miles



# Current Funding Status

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- USGS \$300,000 (proposal anticipated)
- DOT \$300,000
- Other state/federal partners \$165,000
  
- Community buy-ups are responsibility of individual communities.

# Preliminary Schedule

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- Specifications finalized: September, 2009
- Commitment from all partners: Mid-October, 2009
- DOT to G&C for contract approval: November, 2009
- DOT executes contracts with vendor/municipalities: December, 2009
- Data collection: April, 2010
- Final deliverables: ~6 months after data collection for 1' imagery, additional period for 6" imagery depending on extent of coverage ordered

# Questions/Discussion

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