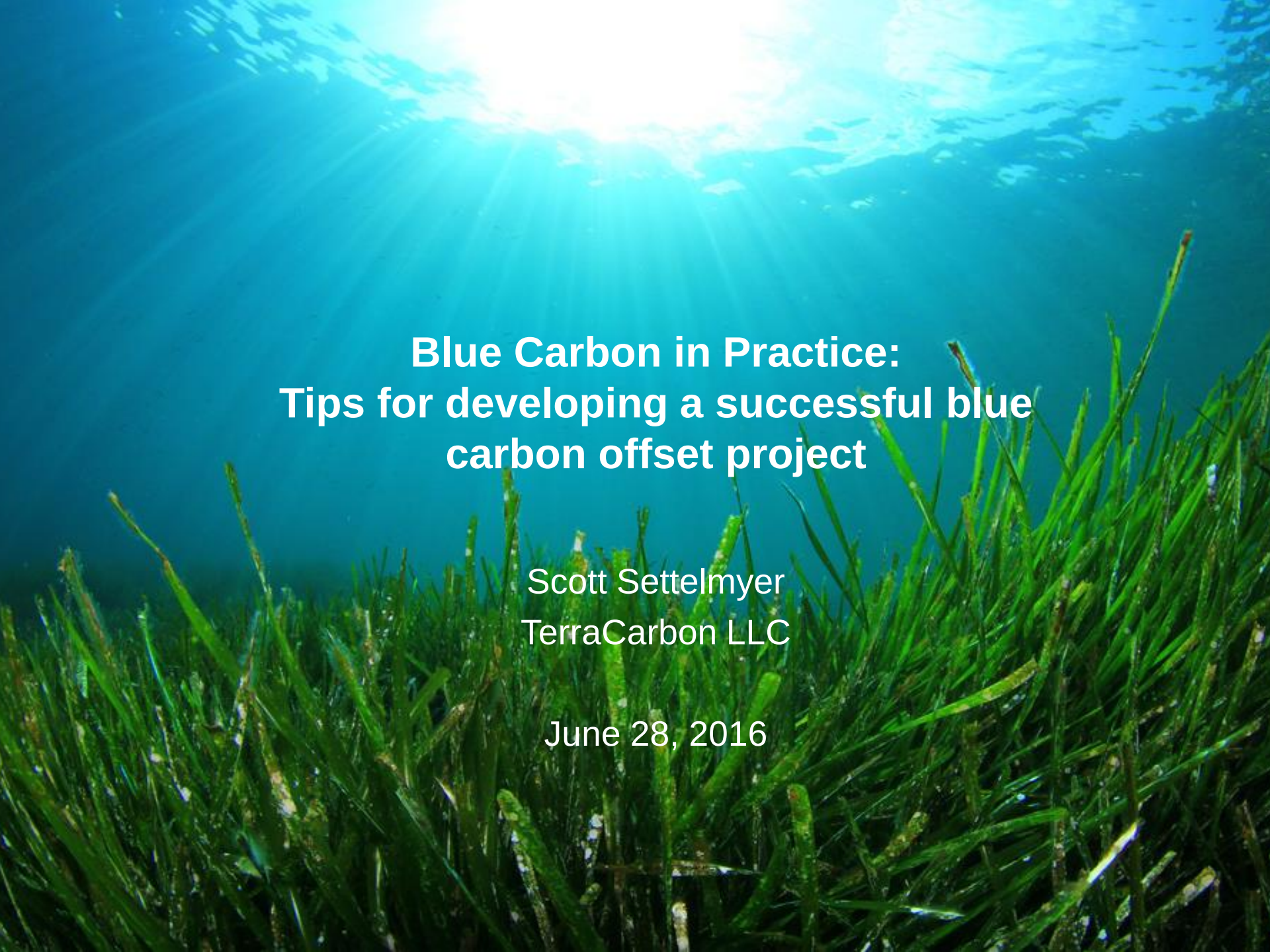

Blue Carbon in Practice: Tips for developing a successful blue carbon offset project

Scott Settelmyer
TerraCarbon LLC

June 28, 2016

Agenda

- Case Study from Forestry Sector
- Lessons and Challenges for Blue Carbon
- Tips for Developing Blue Carbon Projects

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TerraCarbon background

- Established in 2006.
- Advisory firm specialized in the land use and forestry sector of the carbon market.
- Develop and sell offsets from projects that restore and protect forests and wetlands around the world.
- 27 registered projects under VCS/ACR/CCB/CDM.
- Certified B Corporation.

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Case Study

- WHAT?
  - Planting trees in former agricultural fields in the Lower Mississippi Valley
  - Reforestation of 77,000 acres since 1999
  - Over 34,000 acres registered in 4 VCS projects and 1 ACR project

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Case Study

- WHO?
  - Public-private partnership between the project developer (ESI), NGOs and state or federal land-owners and corporate funders.

THE CONSERVATION FUND

U.S. FISH & WILDLIFE SERVICE
DEPARTMENT OF THE INTERIOR

DYNEGY

THE TRUST for PUBLIC LAND

MISSISSIPPI WILDLIFE, FISHERIES & PARKS

Entergy

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Case Study

- HOW?
  - Federal or state agency provides land for restoration
  - NGO may also purchase and donate land to federal or state agency
  - Corporate funder provides cash for restoration and some portion of land acquisition; USFWS allows funder to claim credits
  - Project developer designs and implements restoration, carbon monitoring

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Case Study

- WHY?
  - Carbon sequestration and climate change mitigation
  - Restore habitat and reconnect forested landscapes
  - Protect soil resources, improve water quality and provide for natural flood storage

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Case Study

- WHERE?
  - Lower Mississippi Valley
  - Arkansas, Kentucky, Louisiana, Mississippi, and Tennessee
  - USFWS lands
  - State Lands

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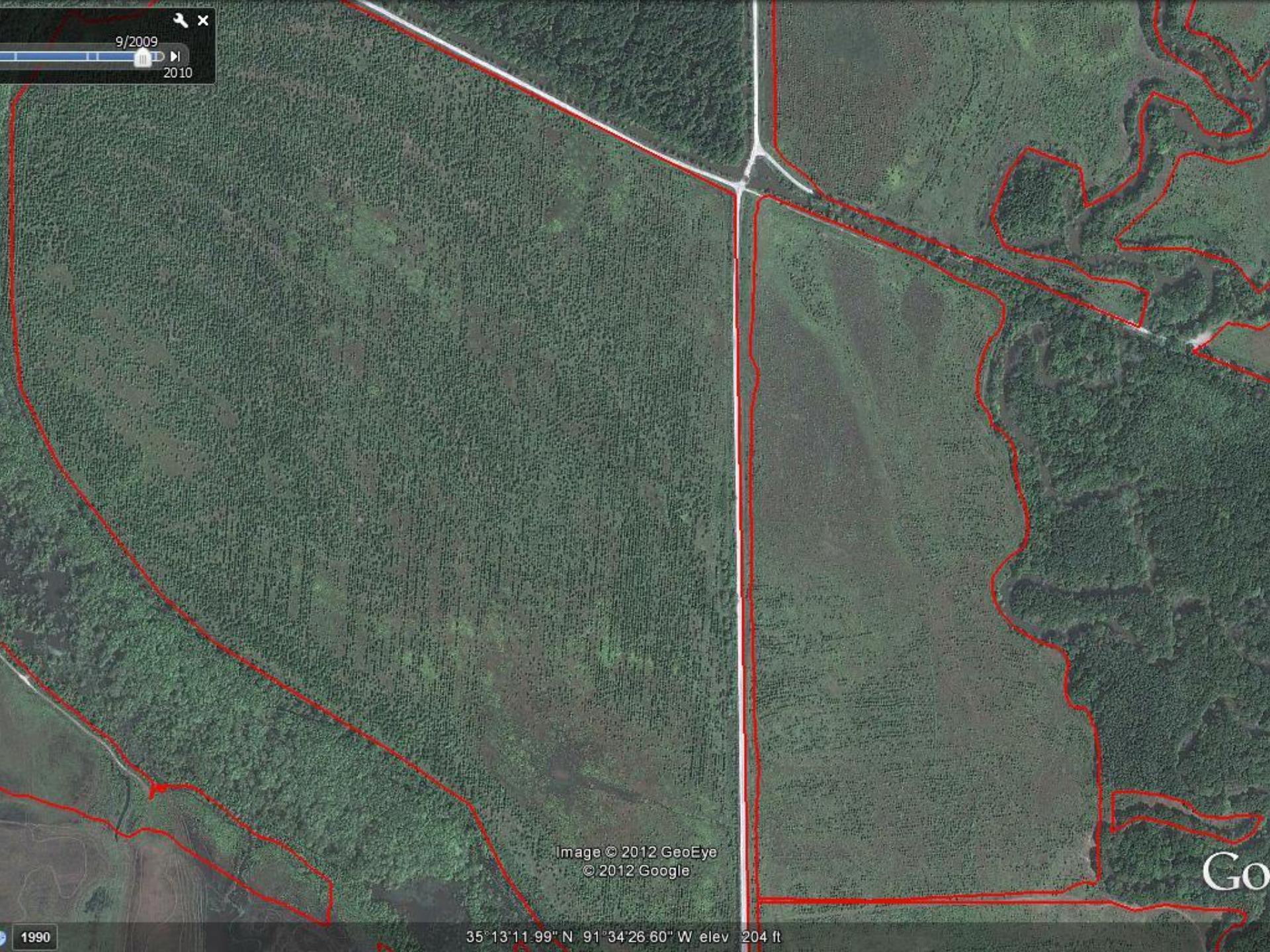
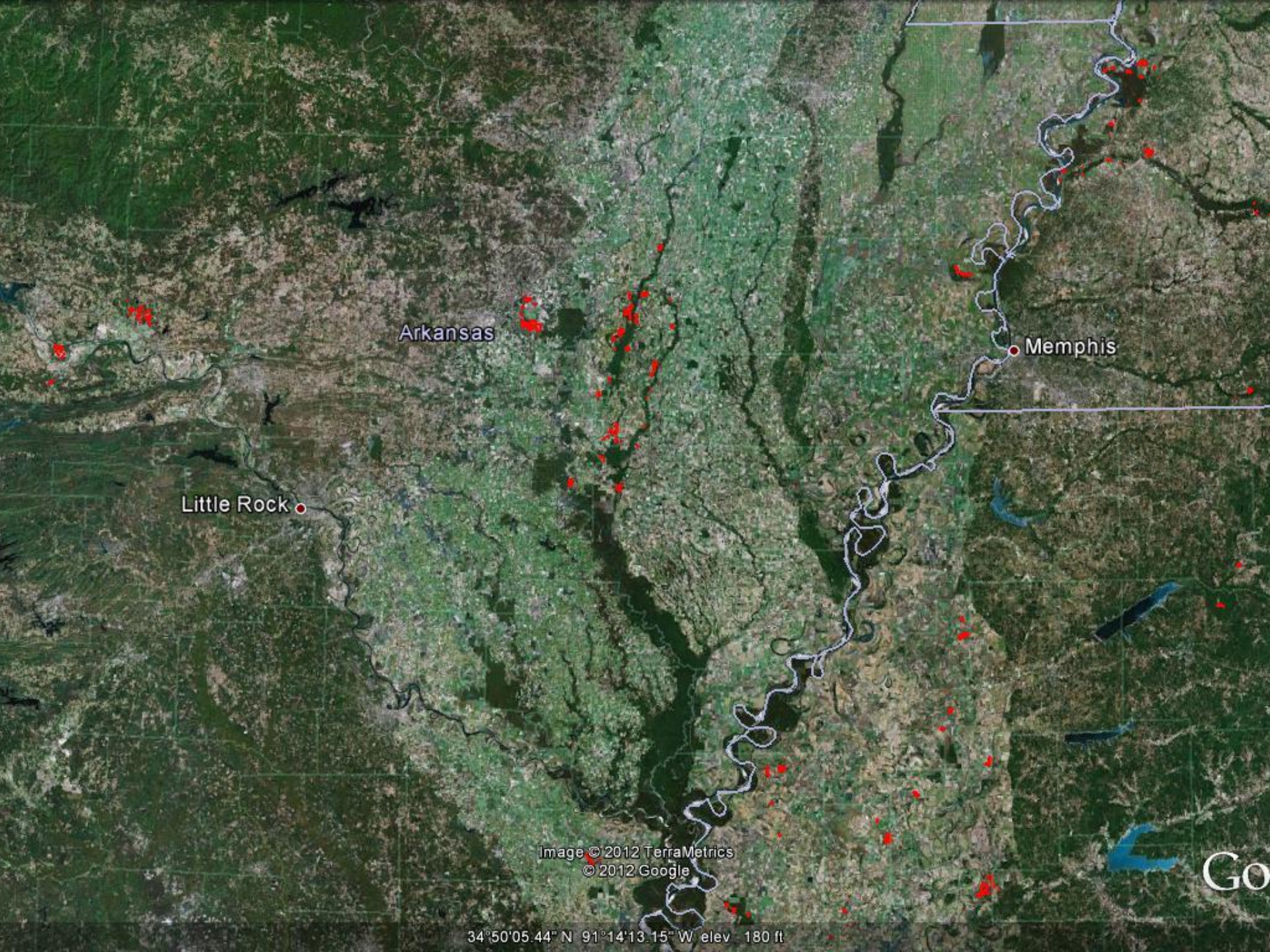
2010
© 2012 Google
Image U.S. Geological Survey
1990
35°13'11.99" N 91°34'26.60" W elev 204 ft


9/2009
2010
Image © 2012 GeoEye
© 2012 Google
1990
35°13'11.99" N 91°34'26.60" W elev 204 ft


Arkansas
Memphis
Little Rock
Image © 2012 TerraMetrics
© 2012 Google
34°50'05.44" N 91°14'13.15" W elev 180 ft

Lessons Learned

- Carbon projects can serve as basis for private-public partnerships
- Scale is important to lowering (mostly fixed) project development and monitoring costs
- Restoration (and generation of CO2 benefits) takes time
- Other sources of funding needed

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Challenges for Blue Carbon

- GHG Fluxes
  - CO_2 as well as CH_4 and N_2O
  - Highly variable across site conditions and locations
  - Expensive to collect

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Challenges for Blue Carbon

- Land Ownership
  - Restoration at scale of hydrology, can affect multiple landowners, including public landowners
  - Transfer of carbon rights on public lands is still new

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Challenges for Blue Carbon

- Scale
  - Size of blue carbon projects is often smaller than forestry projects
  - Project development and monitoring costs are largely fixed

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Tips for Blue Carbon Projects

- GHG Fluxes
  - Develop partnerships with academic institutions
  - Use default values, peer reviewed models
- Land ownership
  - Educate landowners/stakeholders
  - Transfer carbon rights in exchange for public benefits
- Scale
  - Group projects in same landscape
  - Use default values, peer reviewed models

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Tips for Blue Carbon Projects

- Feasibility analysis
  - Technical (meth applicability, estimated credits),
  - Financial (estimated carbon revenues and costs),
  - Legal (landowners, credit ownership),
  - Organizational (partners, roles),
  - Market (potential buyers).

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Thank you!

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