

Designing and implementing a  
successful integrated project

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Overview

- What are integrated projects?
- What are the benefits of integrated projects?
- Integrated project design
- Integrated project implementation

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A paradigm shift occurred 8-10 years ago

- Before NIFA, the USDA National Research Initiative was seen as the funding source that would “move the envelope of science ahead” with almost all the emphasis on basic science.
- Over time, this model evolved to more integrated projects to address the “lack of human behavior change occurring on-the-ground”.

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### Integrated projects

- Bring together the three components of the agricultural knowledge system (research, education, and extension)
- “the components complement one another and are truly necessary for the ultimate success of the project or program”

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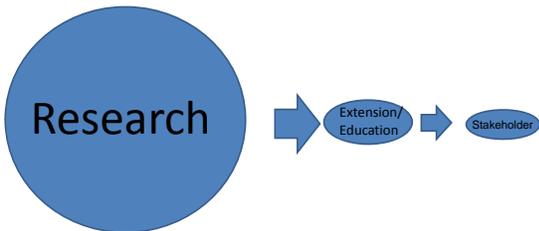
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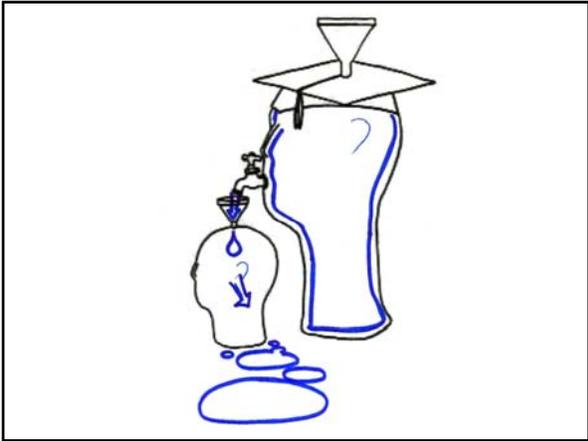
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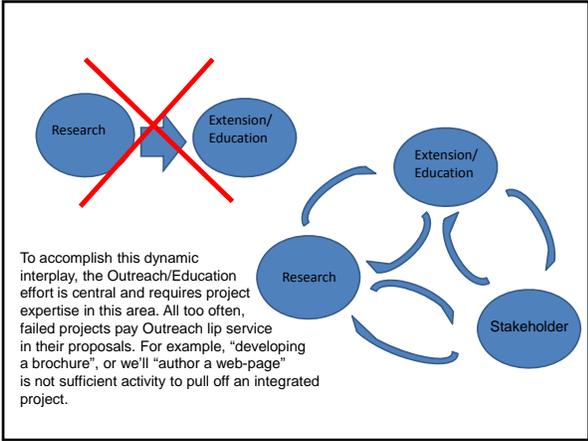
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Help the reviewer see how your proposal.....

- explicitly addresses the intent of the RFA and does so in a genuinely integrated way
- Is written by a team containing research and extension/education expertise
- how your research is linked with outreach in a way that will inform behavior change on-the-ground
- was shaped by input from your stakeholder audience (stakeholder letters of support help here)

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### Benefits of integrated proposals

- Relevance of research
- Relevance of extension/education
- Rapid dissemination of information
- Interesting and exciting

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### Improving forest road management techniques to hinder plant invasion



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### Centre for Dirt and Gravel Roads Study



- Helped us understand the civil engineering of roads
- Their primary mission is training road maintenance supervisors for the 25,000 miles of dirt and gravel road in PA
- Environmentally sensitive management practices
  - More erosion/sediment
  - Less informed biologically



An integrated project best represented the strengths of our group

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### Project Goals

Quantify the role of road management in the dispersal of forest invasives, determine how to reduce human-mediated spread and alter road management to resist invasion.

Objective 1: Quantify the movement of propagules during road management

Objective 2: Quantify the off-road fate of propagules moved along crowned versus entrenched forest roads

Objective 3: Model the spread of *Microstegium* using spatially explicit simulations

Objective 4: Change the way that roads are managed to reduce the spread of invasive species

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### Key personnel

- David Mortensen, WEL
- Emily Rauschert, WEL
- Kevin Abbey, CDGRS
- Barry Scheetz, CDGRS
- Steve Bloser, CDGRS
- Dave Sandy, WEL



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### Key research and extension activities

Movement of invasives along roads



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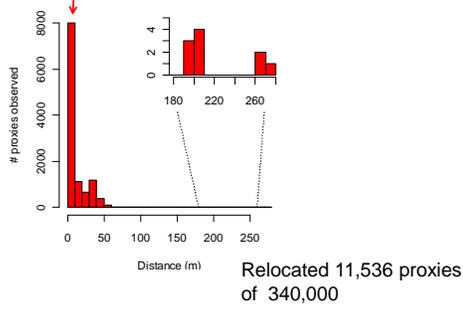
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### We've shown that road grading can move invasives



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### Key research and extension activities

Movement of invasives into forests



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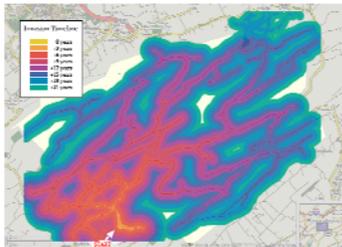
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### Key research and extension activities

Modeling spread along roads



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Key research and extension activities

Engagement with managers and stakeholders



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Key research and extension activities

ESMP training



Retraining road managers annually



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Collaborative extension success

- We (the researchers) have learned a lot from doing extension activities
  - From stakeholders
  - From extension collaborators
- We have also changed the way CDGRS personnel view the forests
- We have reached a large number of stakeholders, including a high proportion of decision-makers
- We are working on additional publications that share this information

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### Designing an integrated project

- Be prepared to hear totally different jargon
- Be prepared to spend significant amounts of time with extension/education partners
- Don't wait until the end to start extension/education
  - Expect to learn from extension and education in ways that will affect the research plans
- Work together on all parts of the project

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