

Bee Abundance Web Tool

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What is this web tool?

- A map-based guide to show blueberry growers the predicted wild bee abundance around wild blueberry fields
 - Predicted wild bee abundance: estimate of how many wild bees are in a given space

GIS-Browser - SingleField

Info and Tools

Object identification: Topmost hit

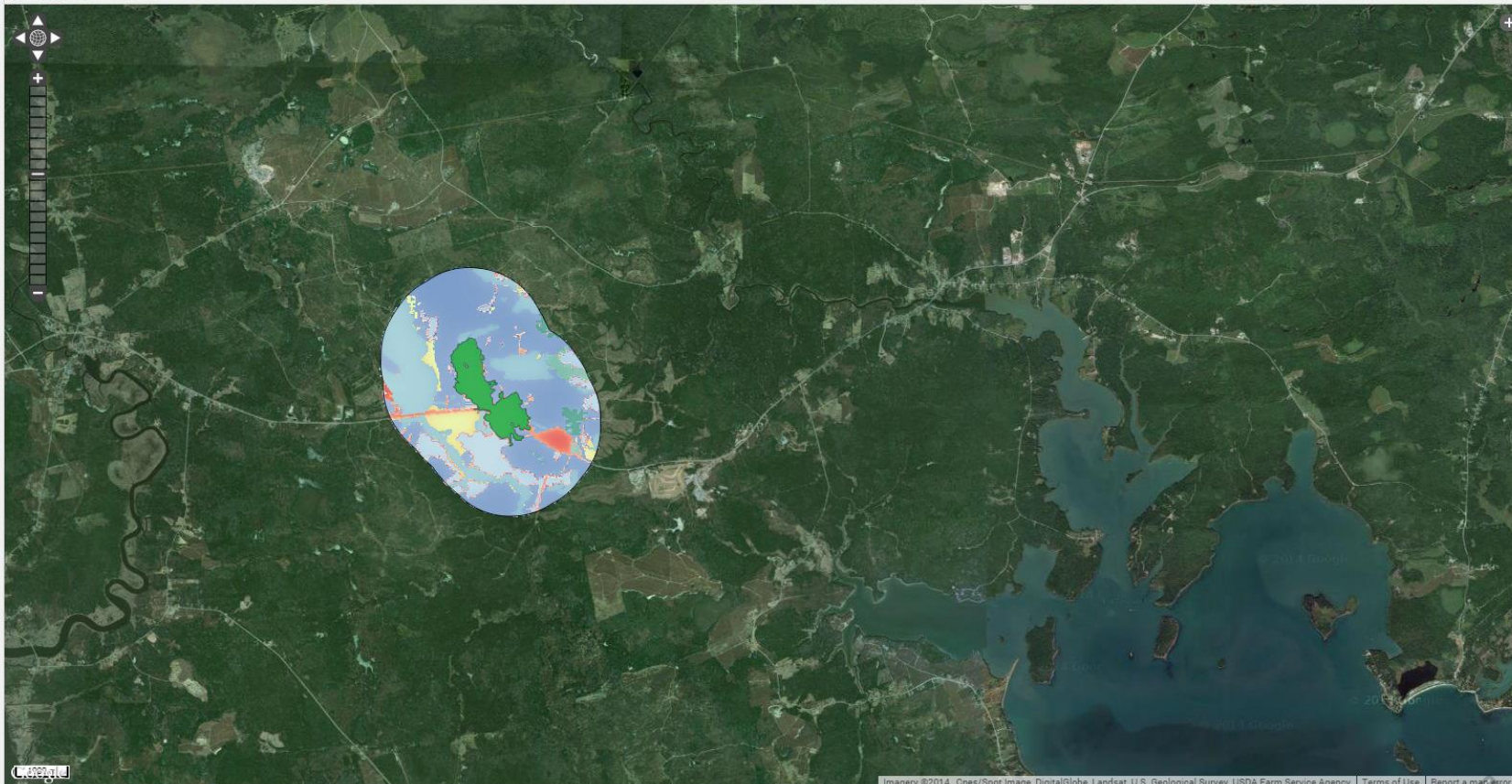
Map themes

Search

Map

Map Layers

- SingleField
 - 1000m Buffer
 - Example Field
 - 1Km Buffer Abundance
 - Landcover Coast
 - Buffer Landcover
 - Landcover Raster
- Background Layers
 - Google Satellite
 - Google Map



Layer order

Mode: navigation. Shift/rectangle or mouse wheel for zooming.

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- Inform choices on pollinator conservation practices:
 - Where to put pollinator plantings

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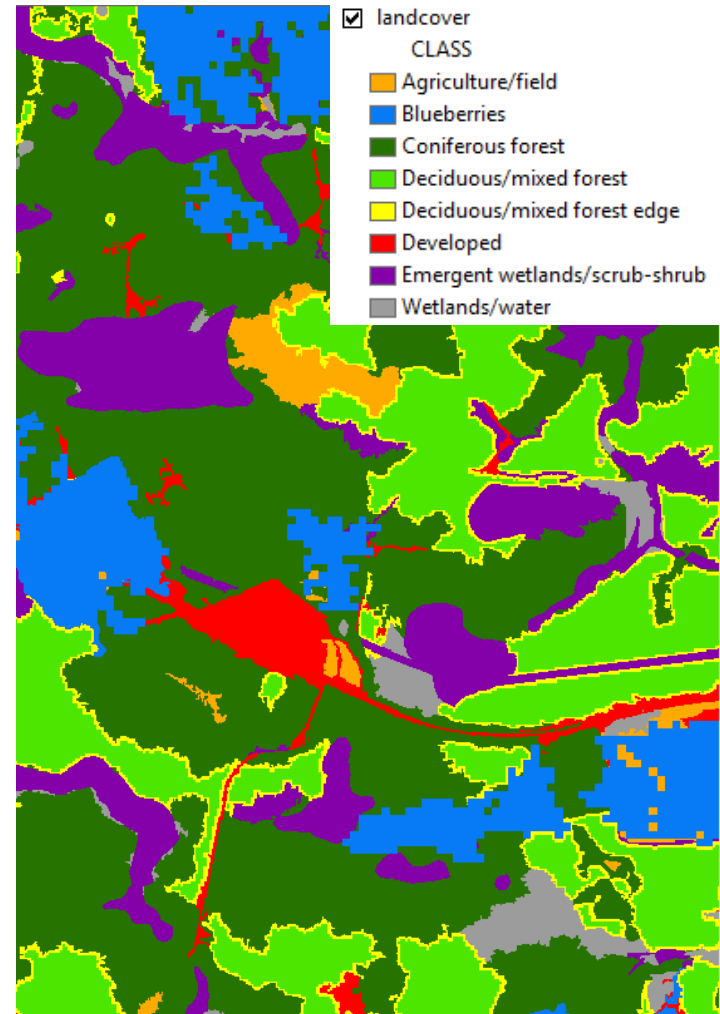
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- Look at landscape around your fields
- Connect bee abundance to landscape
 - Land cover map → Bee abundance map
- Inform choices on pollinator conservation practices:
 - Where to put pollinator plantings
 - Where to place rented honey bee hives
- It's cool!
 - There's nothing like this out there, anywhere!

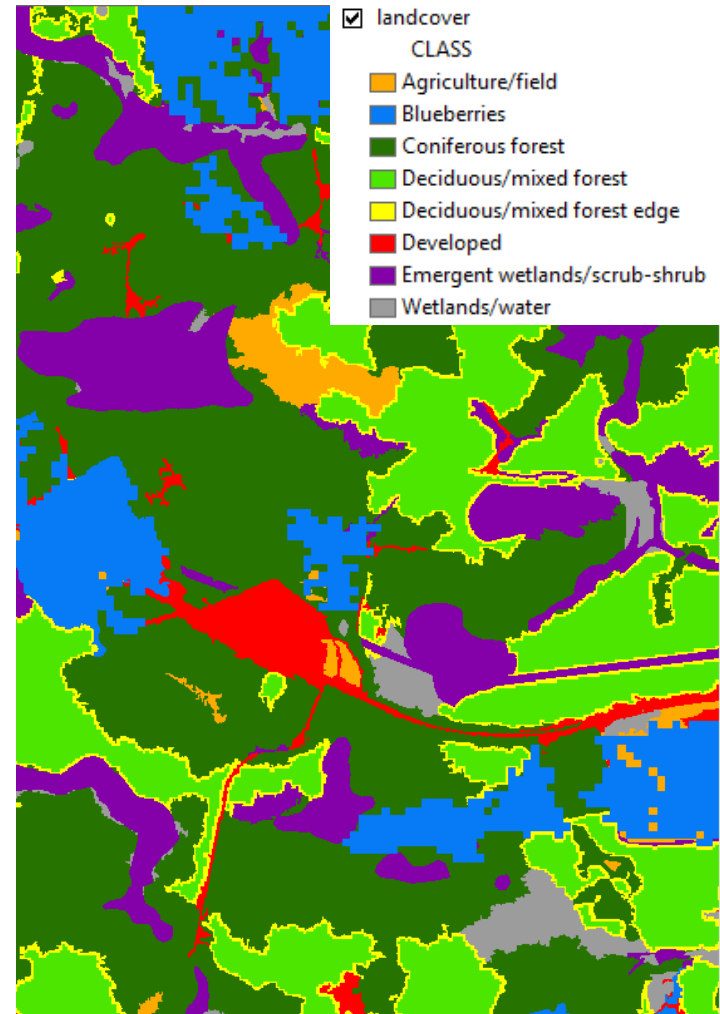
What can I see in the web tool?

- Land cover
 - Land cover: type of land at a location (forest, wetlands, developed, etc.)



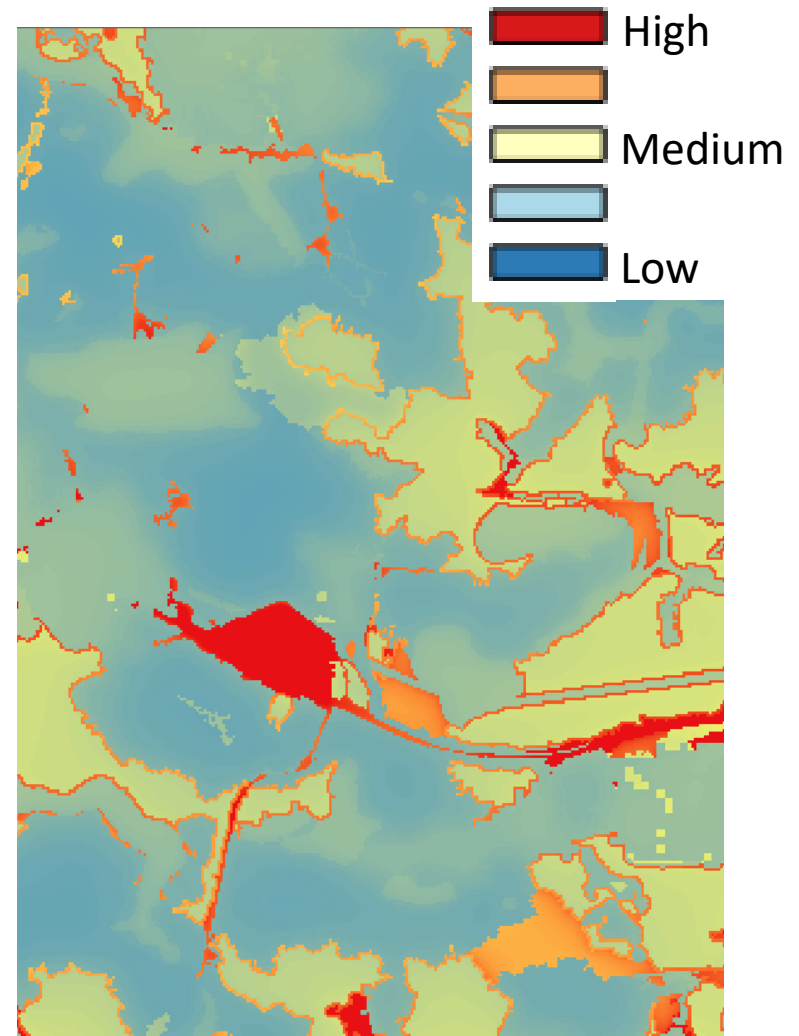
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- Q: Is there another term I could use?



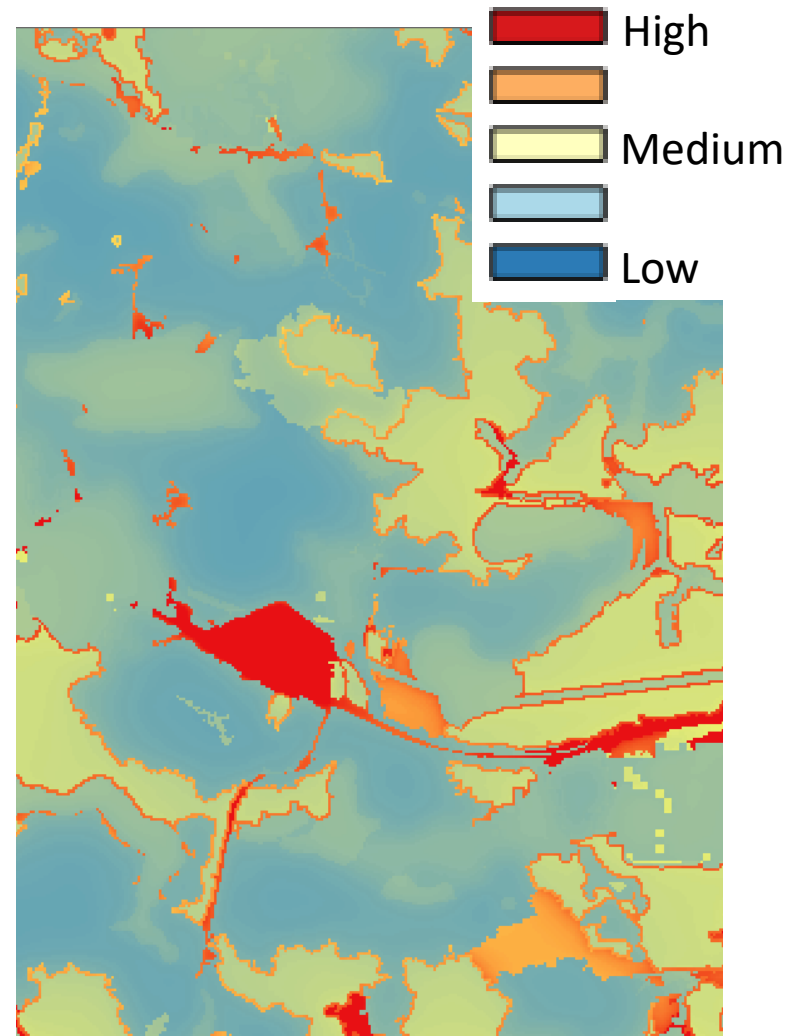
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- Predicted bee abundance
 - Bee abundance is related to land cover!



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- These data aren't perfect



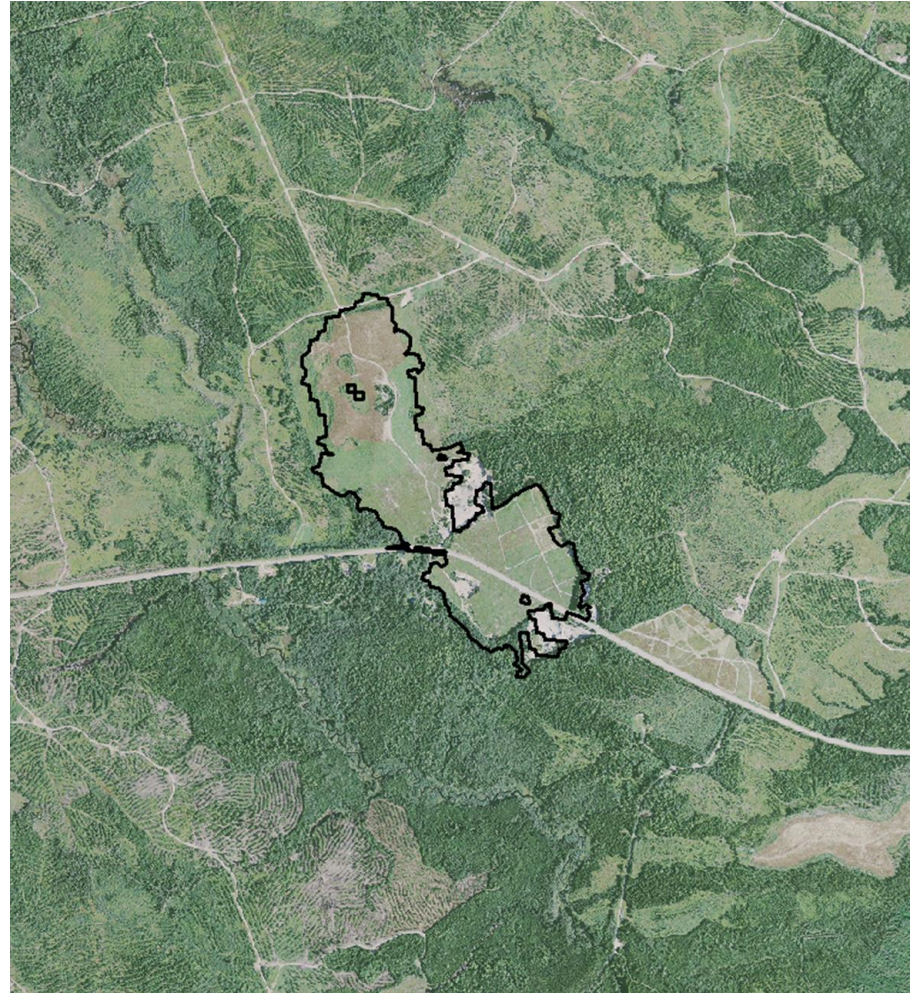
How does the web tool work?

- Accessible through the internet



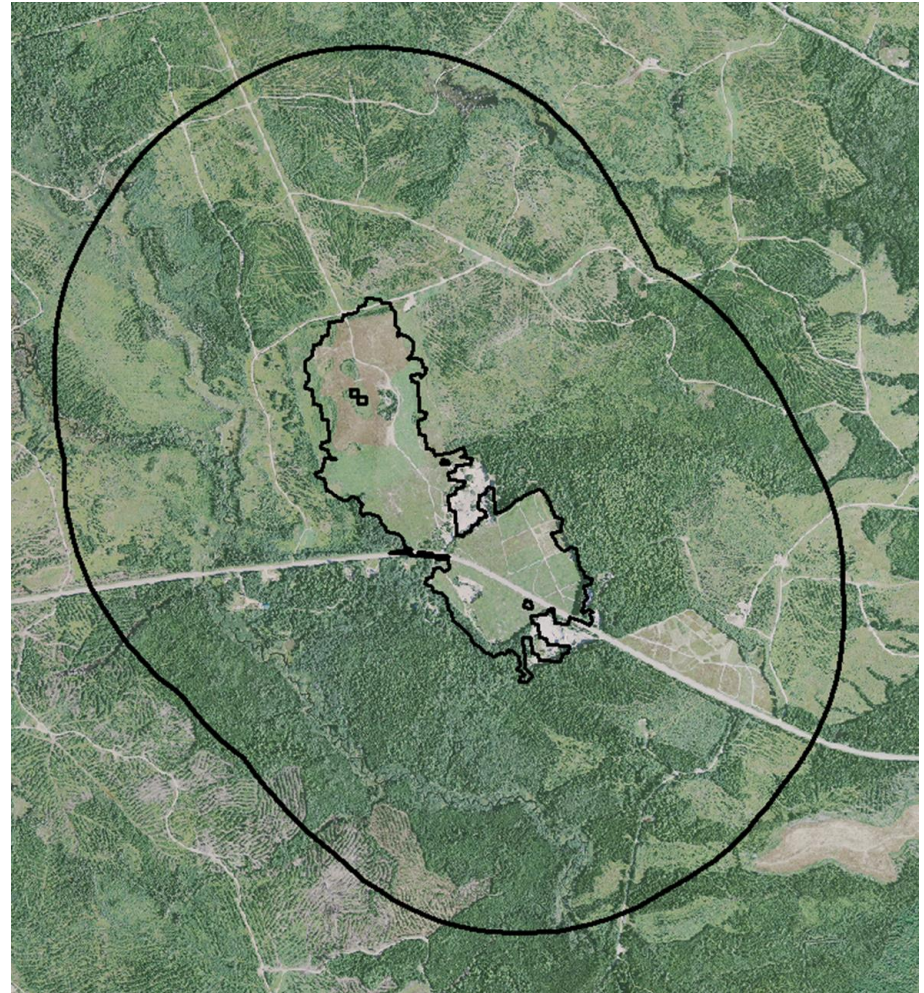
How does the web tool work?

- Accessible through the internet
- Find your field



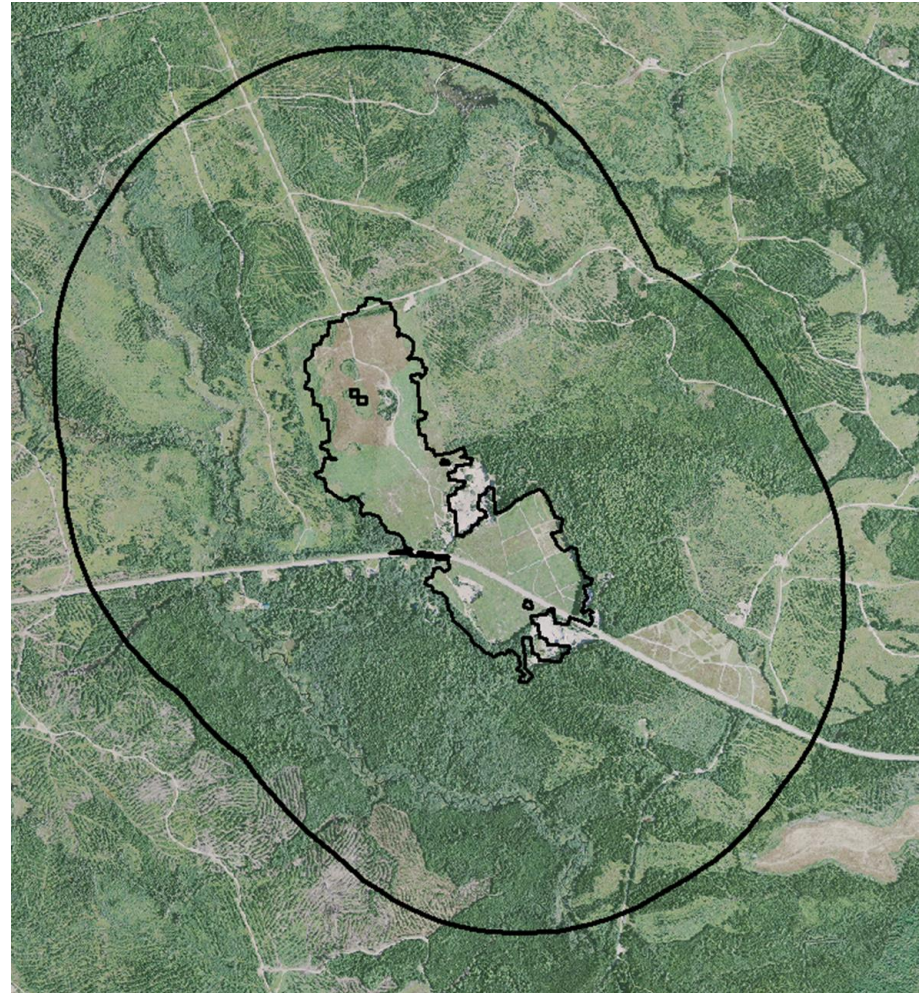
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- Accessible through the internet
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 - Display buffers around field
 - Buffer: distance around a field
 - Represents distance a bee can fly



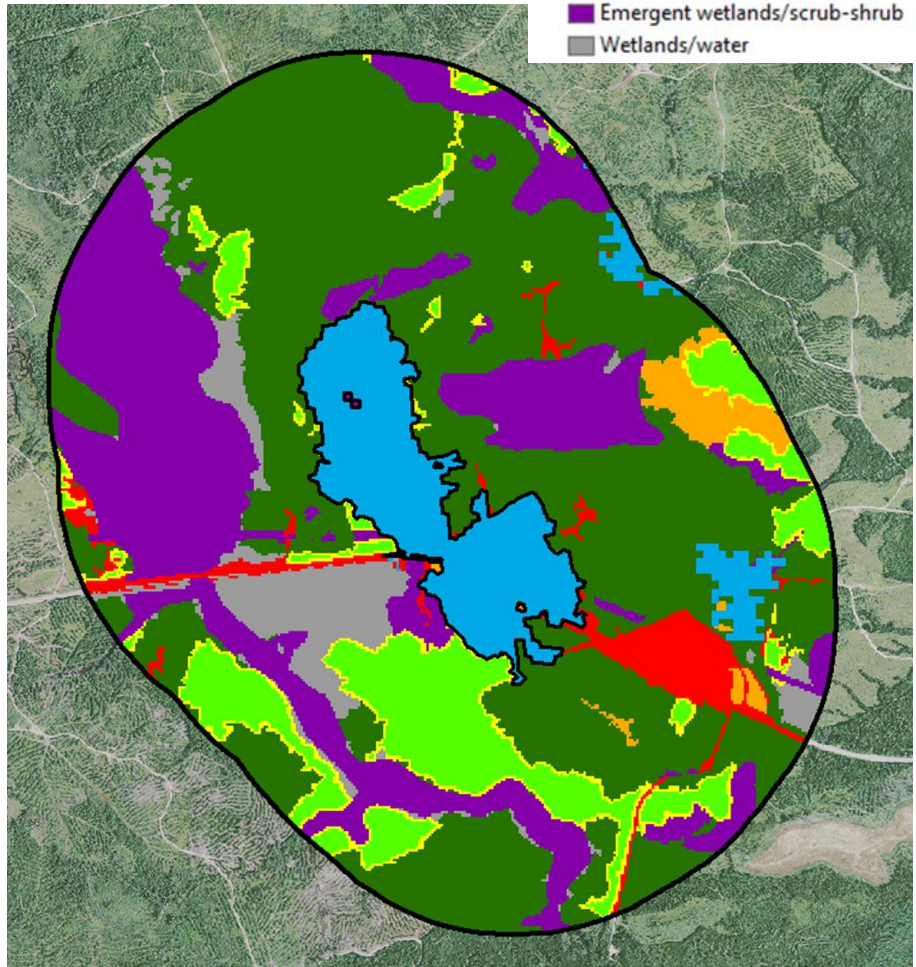
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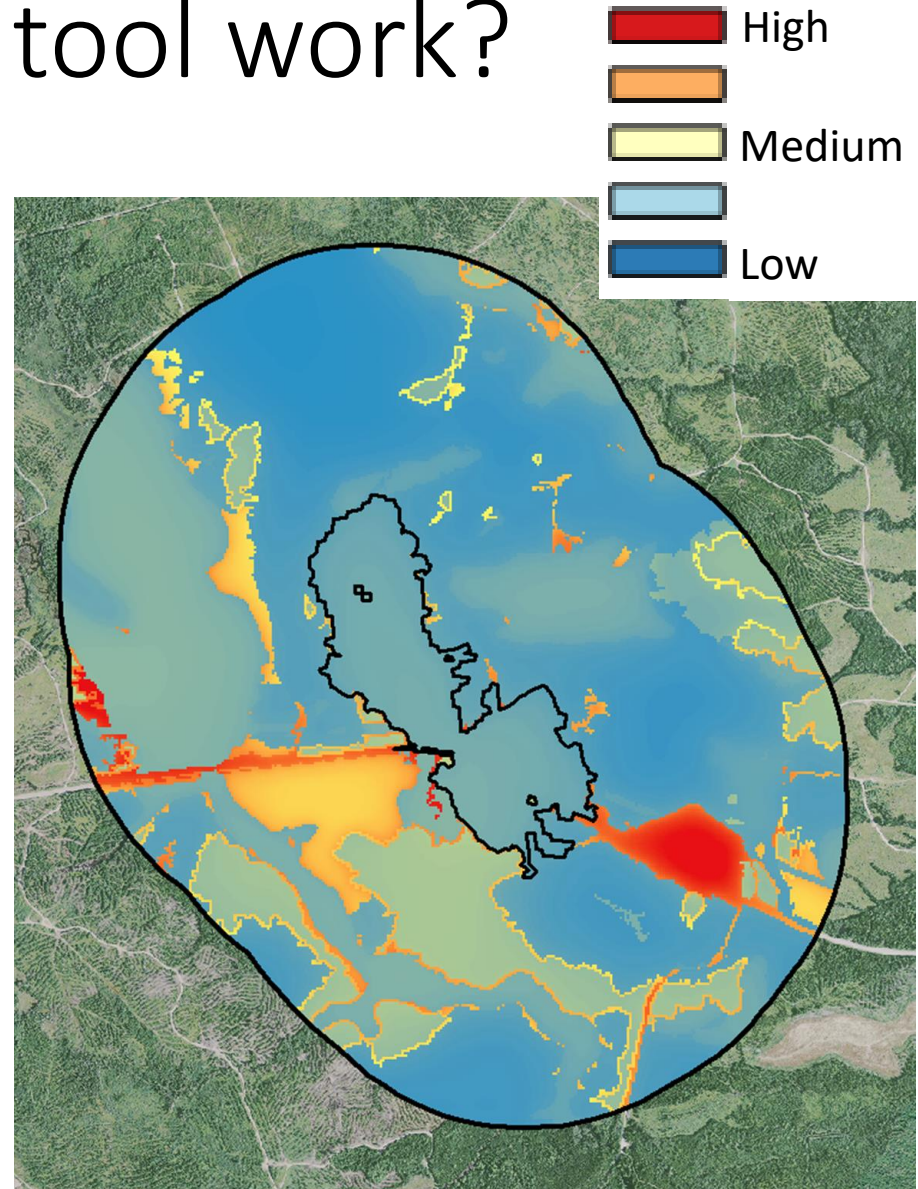
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- Find your field:
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 - Q: Is there a better term I can use?
- Look at land cover within buffer
- Look at predicted bee abundance within buffer

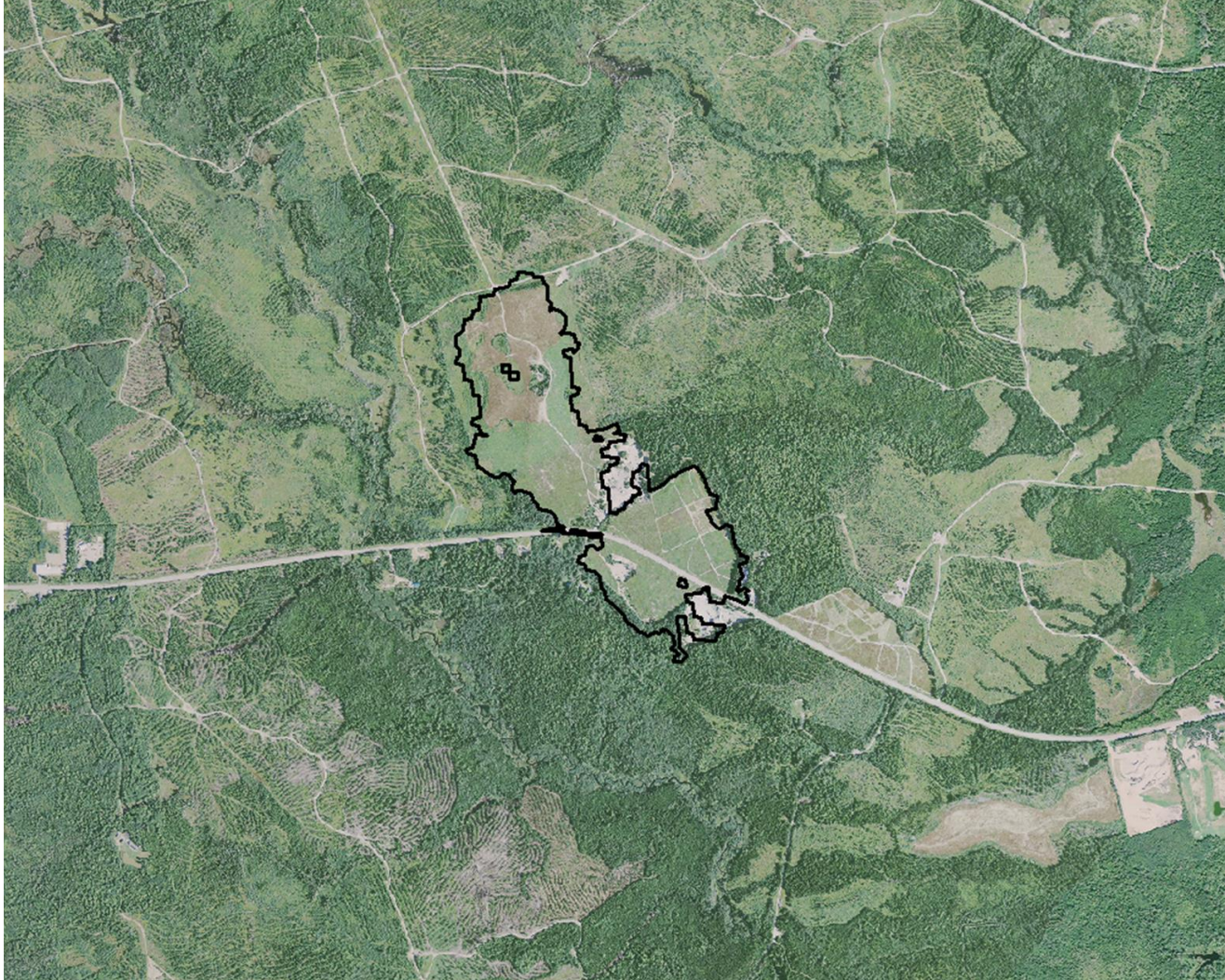


Q: Can growers navigate to their fields using aerial photography?

Q: Would additional visual navigational aids help?

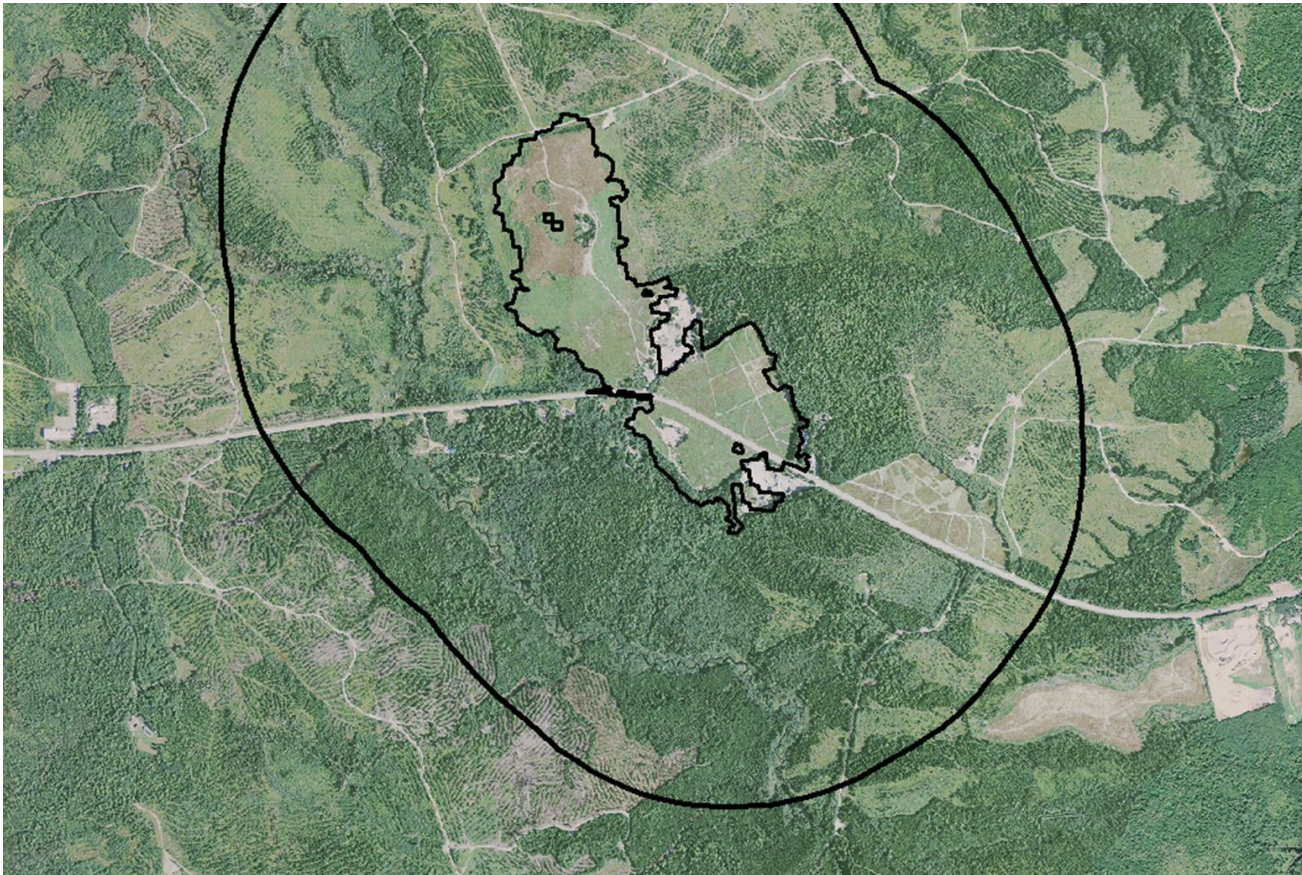


Q: Would growers prefer to use an address locator (street address, lat/long coordinates) to find their fields?

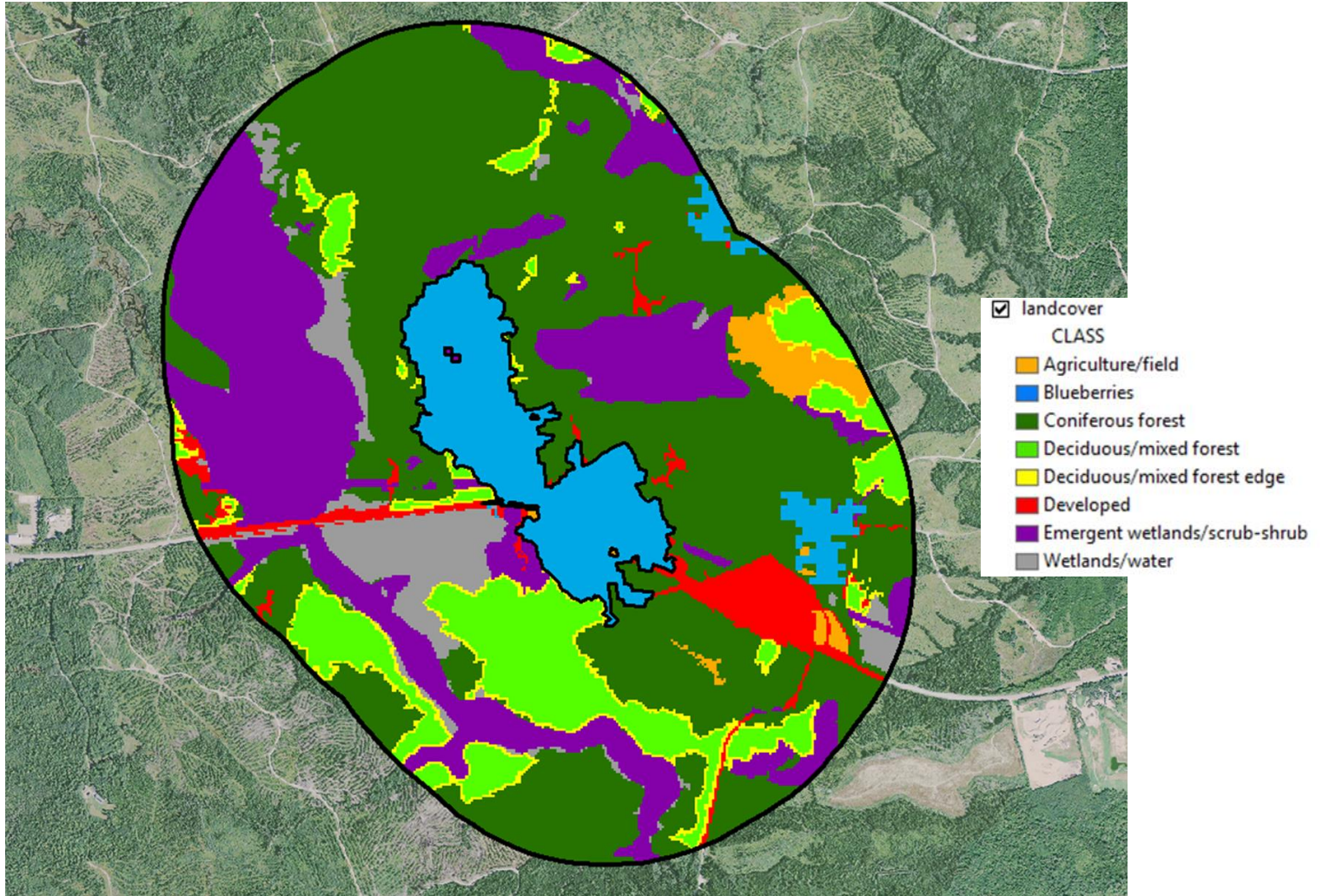


Q: How should I represent the landscapes of smaller bee species?

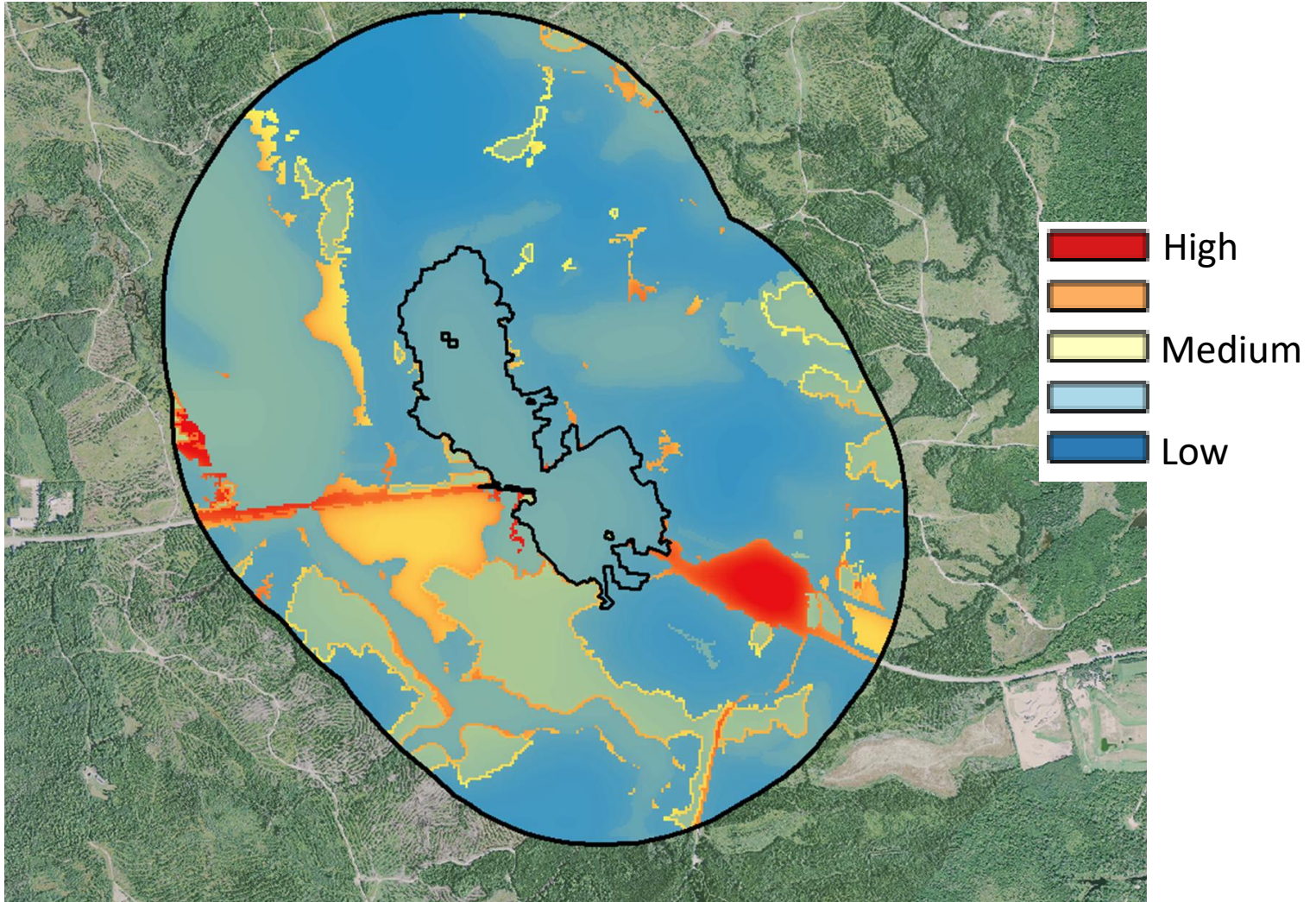
Q: How should I provide clarifying information about these buffers?



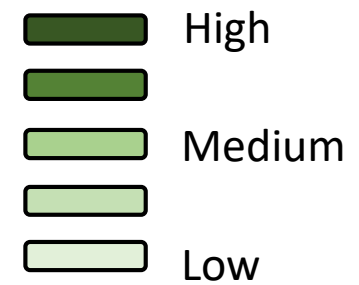
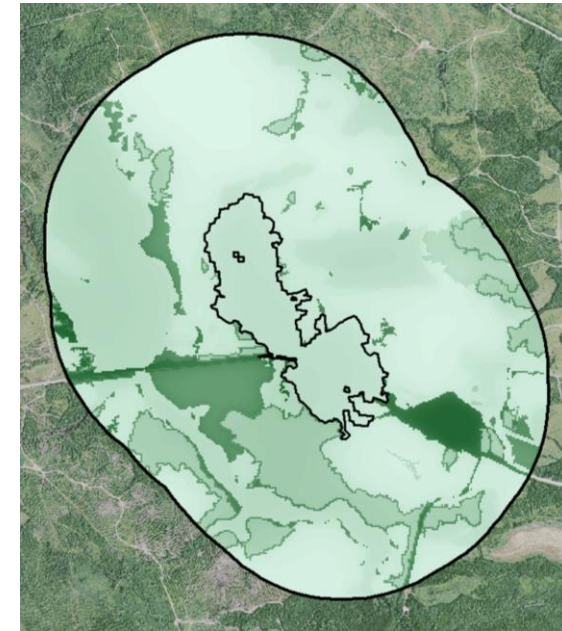
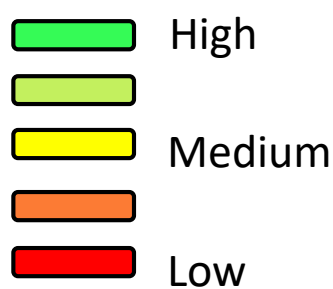
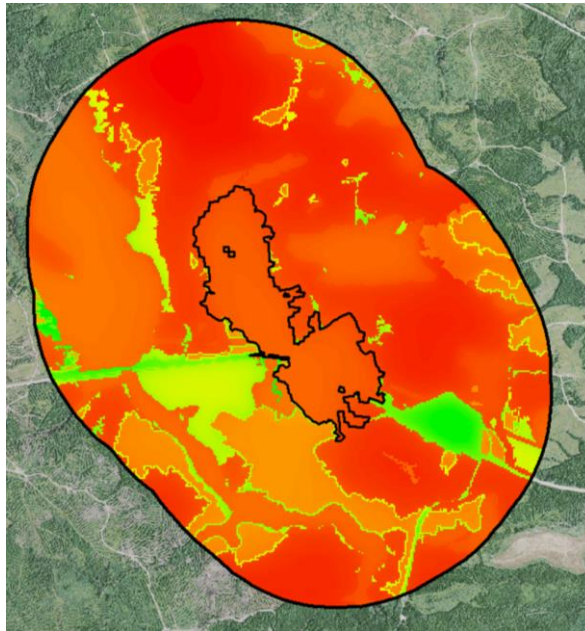
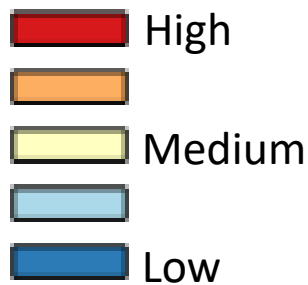
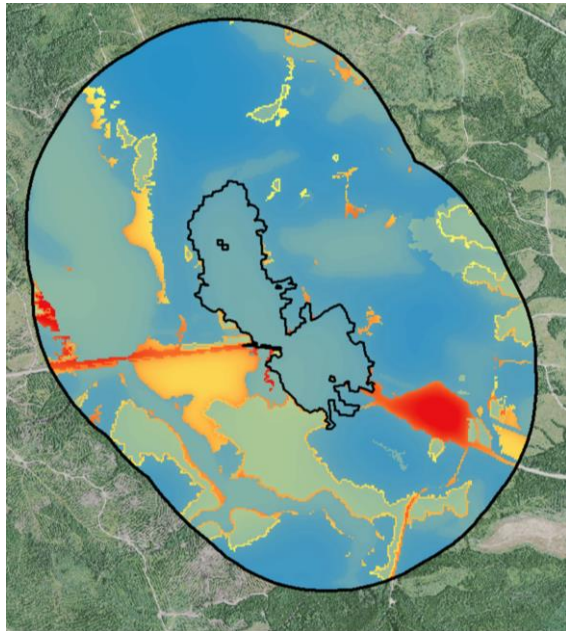
Q: How can I clearly describe land cover classes (forest, agriculture, wetlands, etc.)?



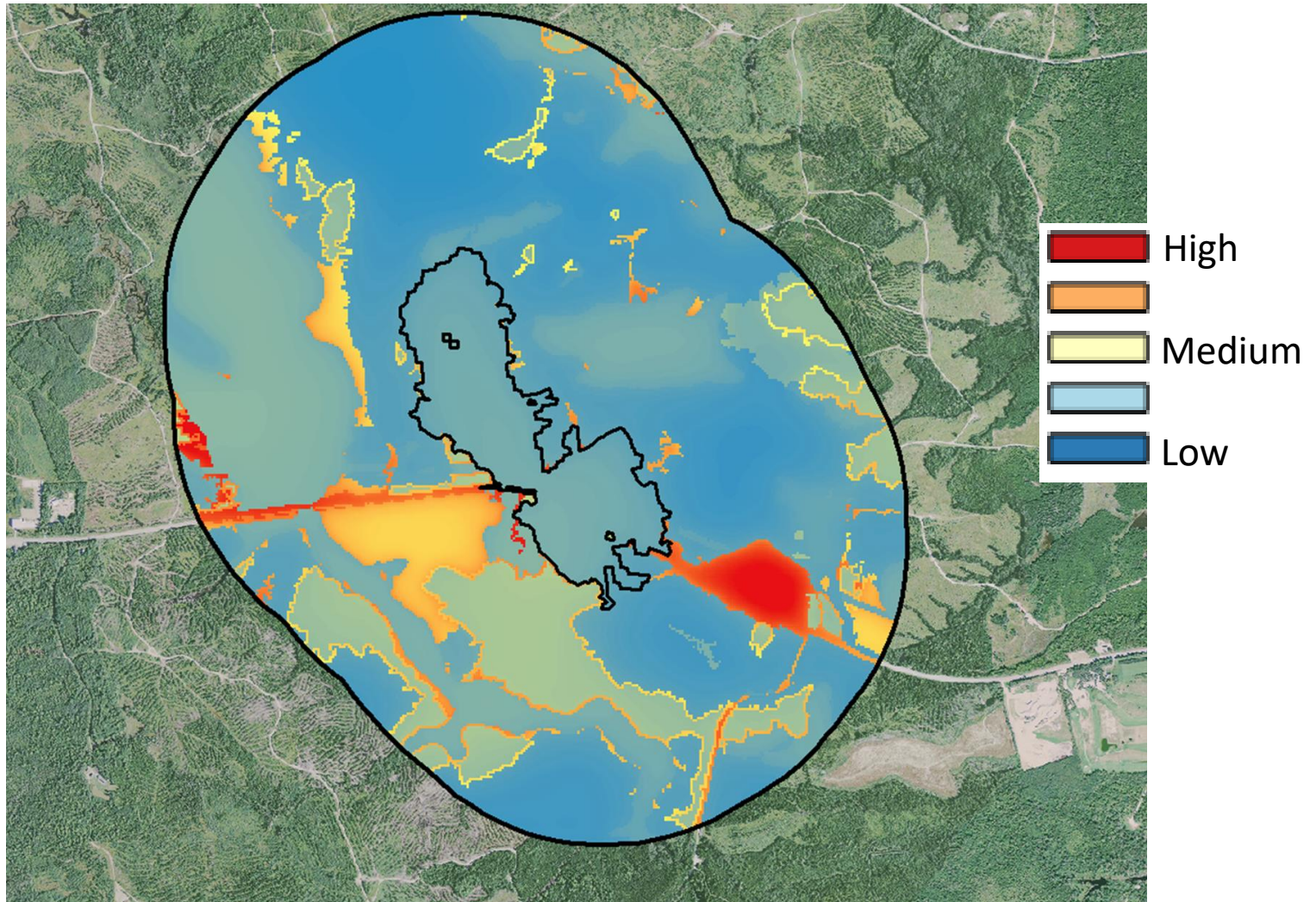
Q: How should I label the bee abundance classes? Are these classes too vague?

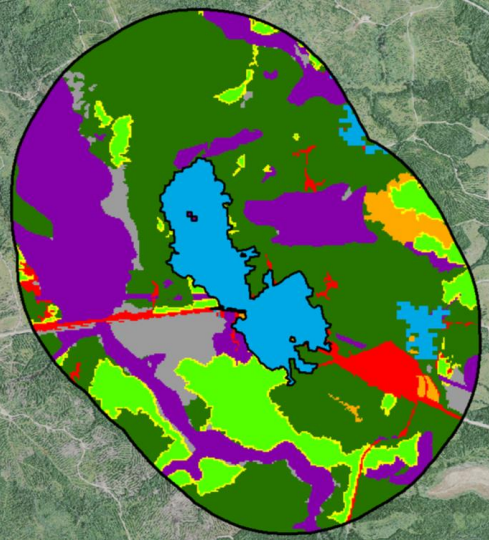


Q: What should the color scheme be for the bee abundance map?

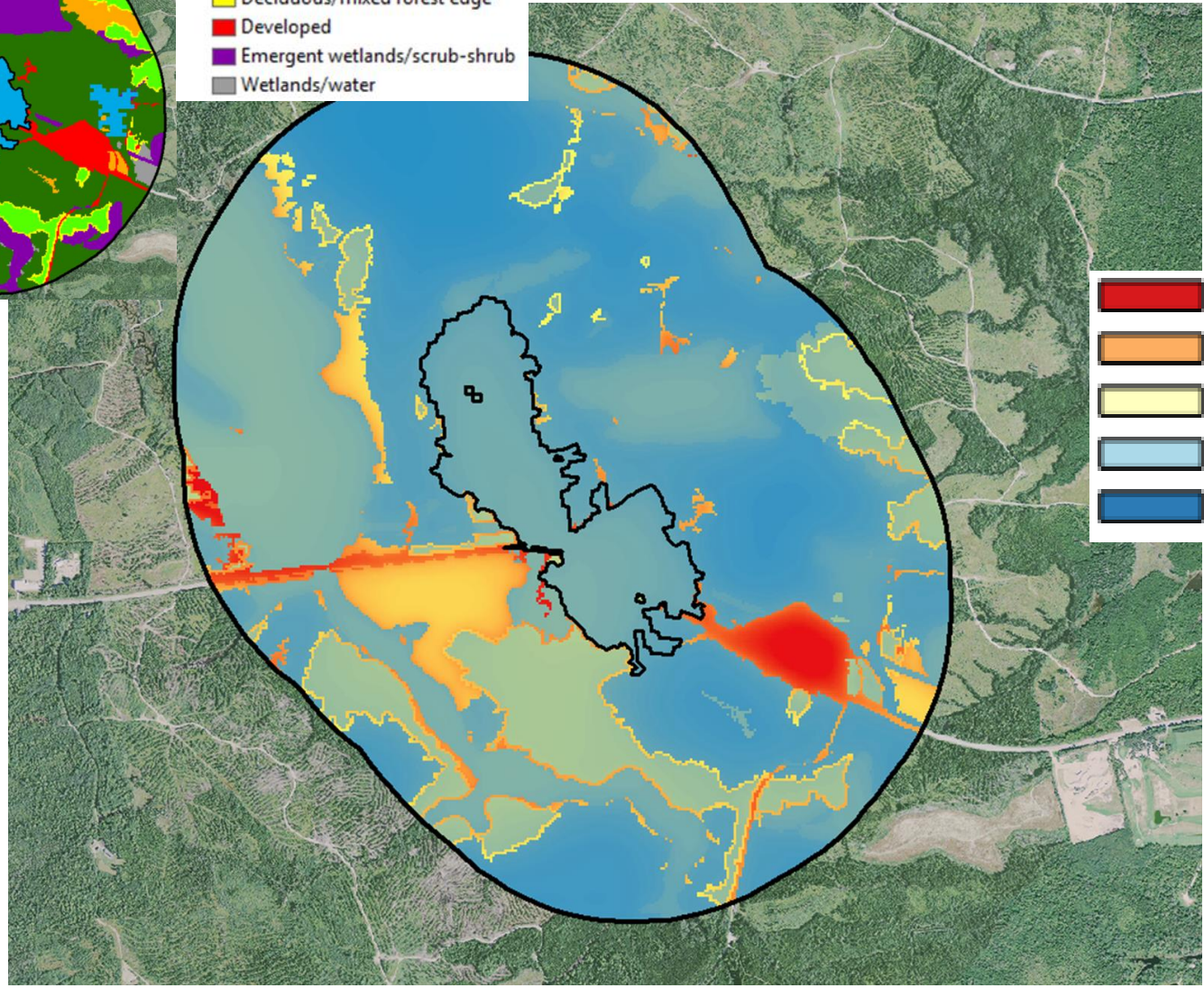


Q: Would growers be interested in the scores given to bee abundance, or are the categories sufficient?



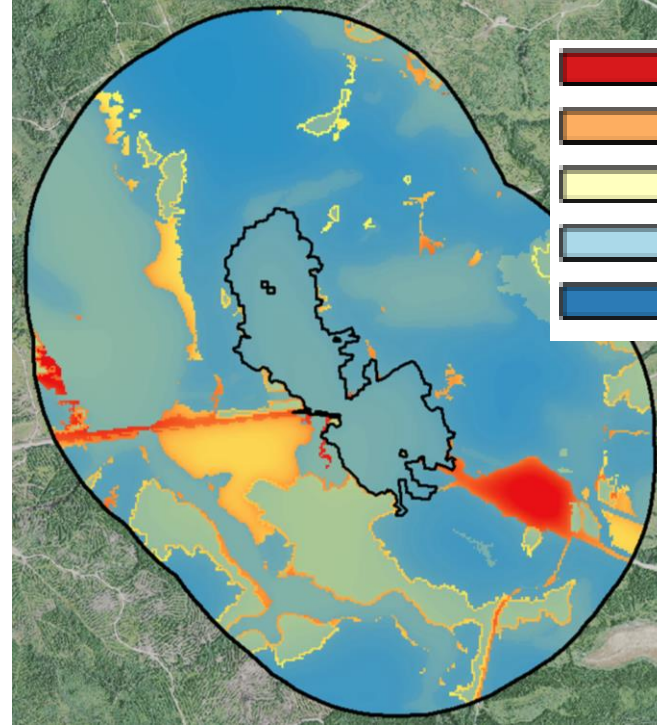
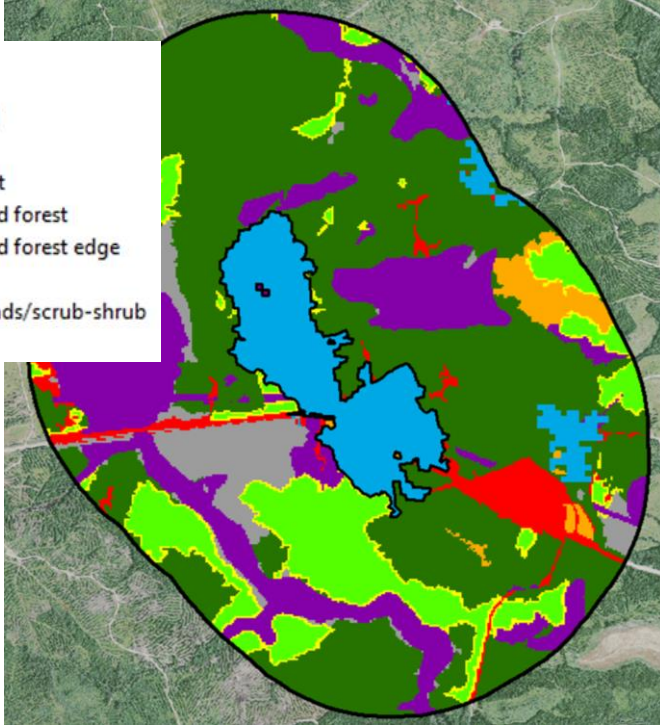


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- CLASS
- Agriculture/field
- Blueberries
- Coniferous forest
- Deciduous/mixed forest
- Deciduous/mixed forest edge
- Developed
- Emergent wetlands/scrub-shrub
- Wetlands/water



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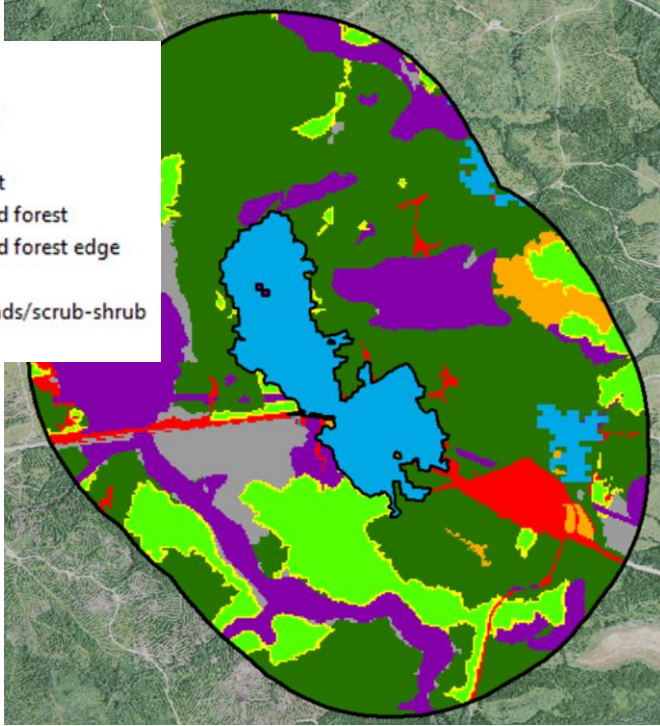





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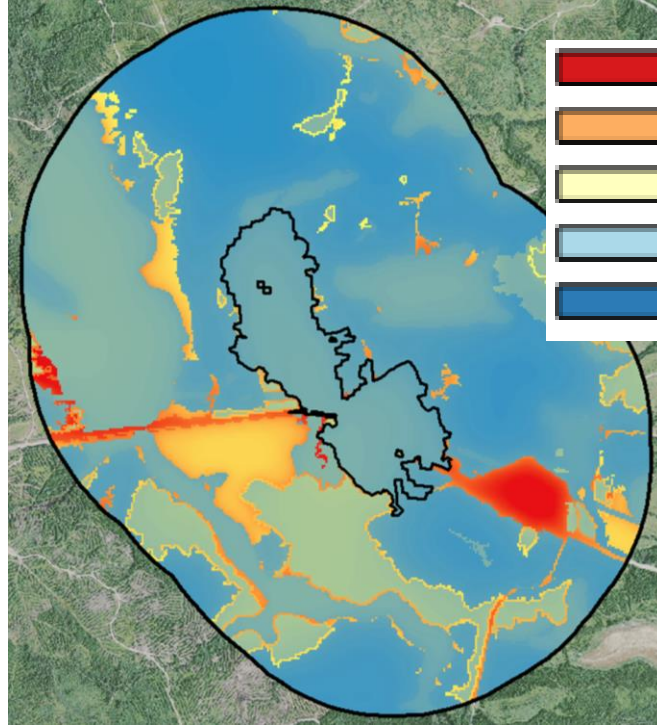
Tool use and interpretation

- Designed to help growers see how land cover affects bee abundance around their fields
 - Q: How can we improve the tool to help them make that connection?

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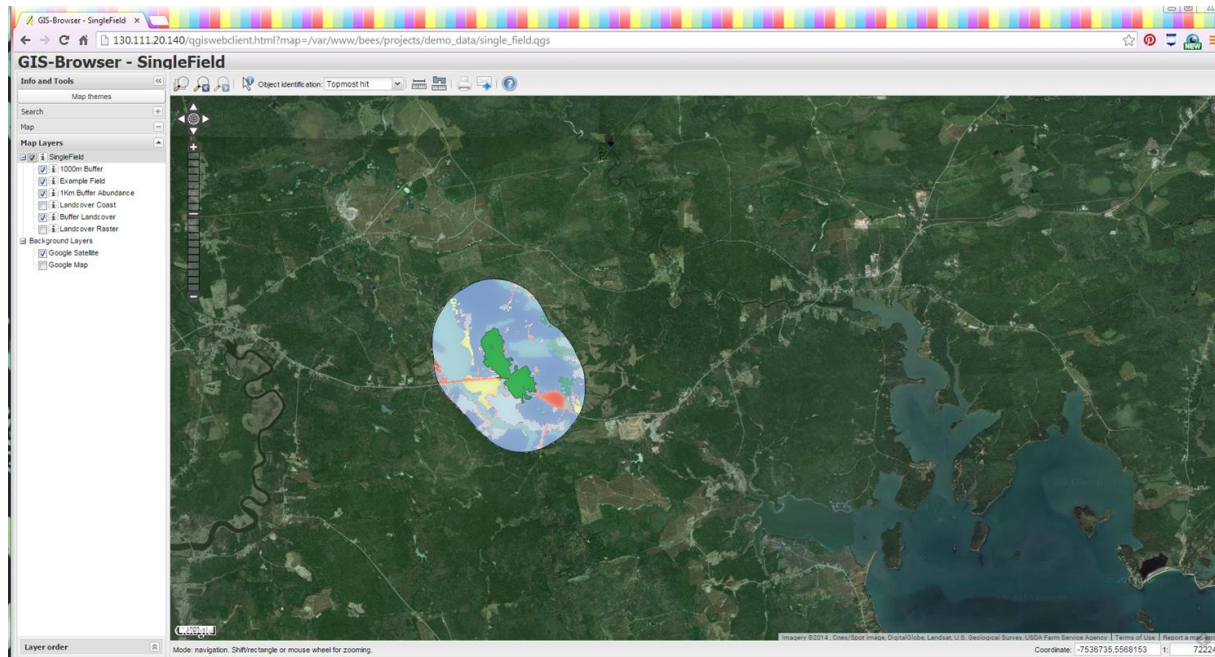


Tool use and interpretation

- Designed to help growers make decisions about landscape management
 - Q: How can we improve the tool to help them do that?

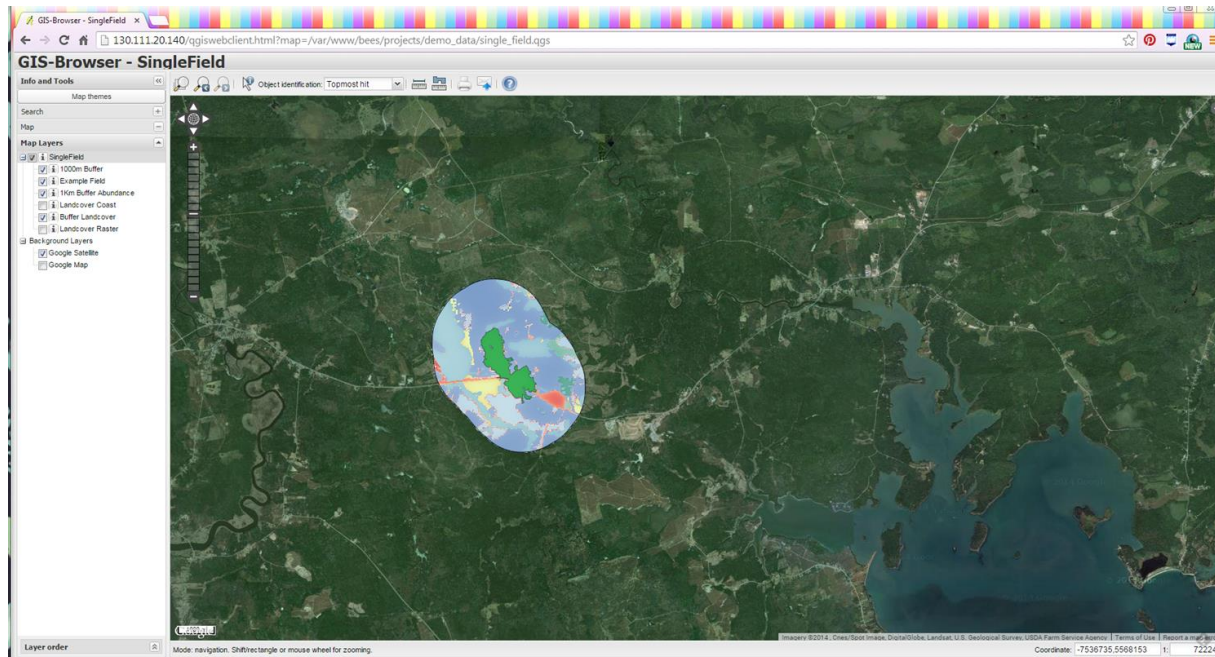
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- Q: What can we do to reach more growers?



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- Q: What can we do to reach more growers?
- Q: What is the best way to introduce the finished tool to growers?



Where does the tool go from here?

- Wider application for growers across the state, with other crops
- Additional data:
 - Time of growing season each land cover type is best
 - Flowers and nesting available to different-sized bees
- Dynamic tool—subject to change