



U.S. Fish & Wildlife Service Land-Based Wind Energy Guidelines Distributed Wind Projects

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Presentation Goals

- Provide context of “distributed wind”
- Highlight the differences of distributed wind and utility-scale wind
- Provide insight into how the tiered approach is applied to distributed wind
- Stimulate questions

Wind Power



Background

- Wind turbines come in different sizes
- Wind turbines can be installed in different ways
- The energy from the turbine can be used locally or remotely

Utility-Scale Wind

- Wind farm
- Large project footprint
- Tall towers
- Energy is generally delivered to distant loads



Community-scale Wind

- Fewer units
- Smaller project footprint
- Shorter towers
- Energy meets a local need



Small, Distributed Wind

- Single unit
- Very small project footprint
- Shorter towers
- Energy meets an on-site need

< 100kW



Installation type



Single turbine



Small cluster



Wind Farm

Same (wind turbine) model in each of these examples

Differences in Project Siting Options and Adjacent Use



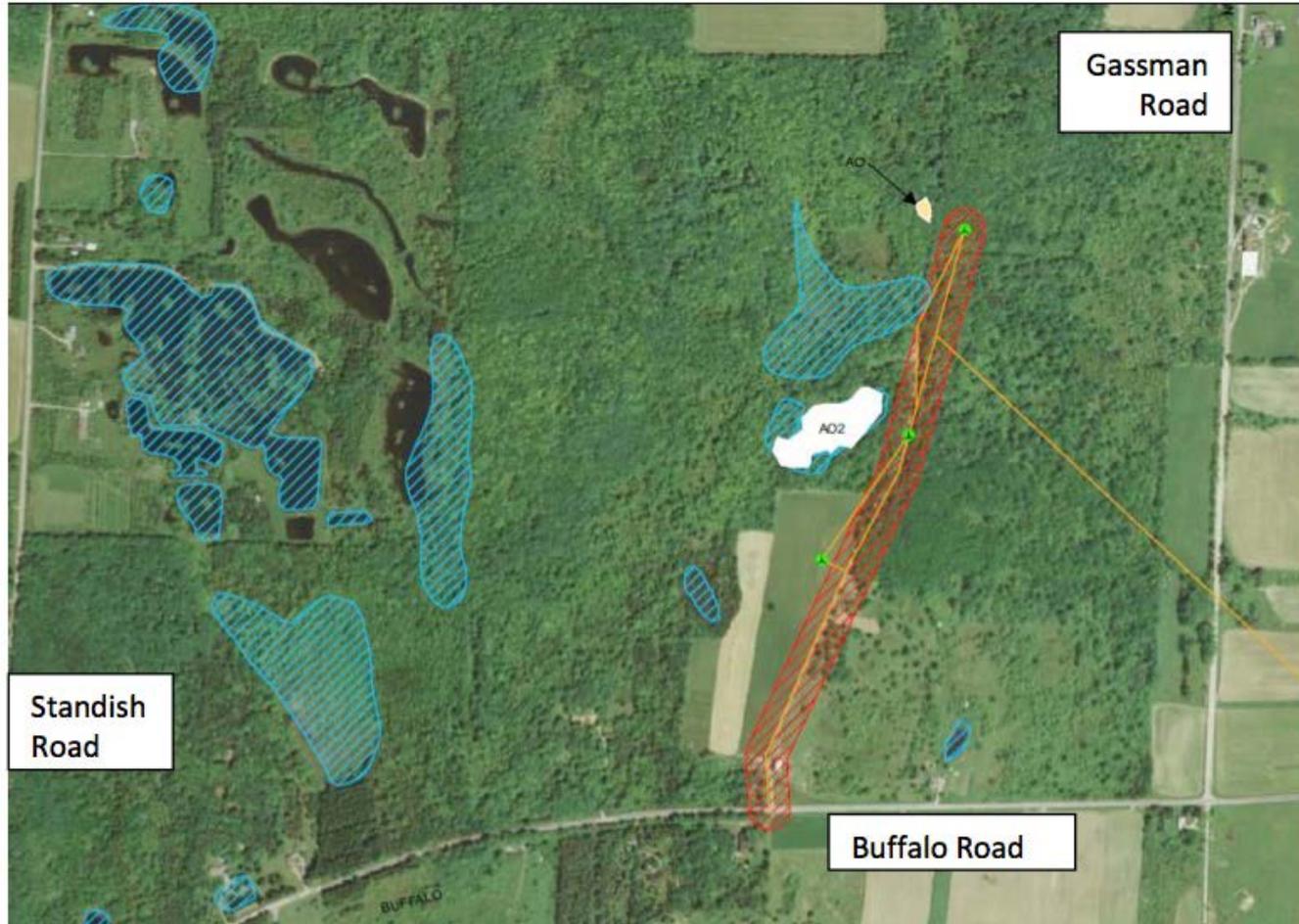
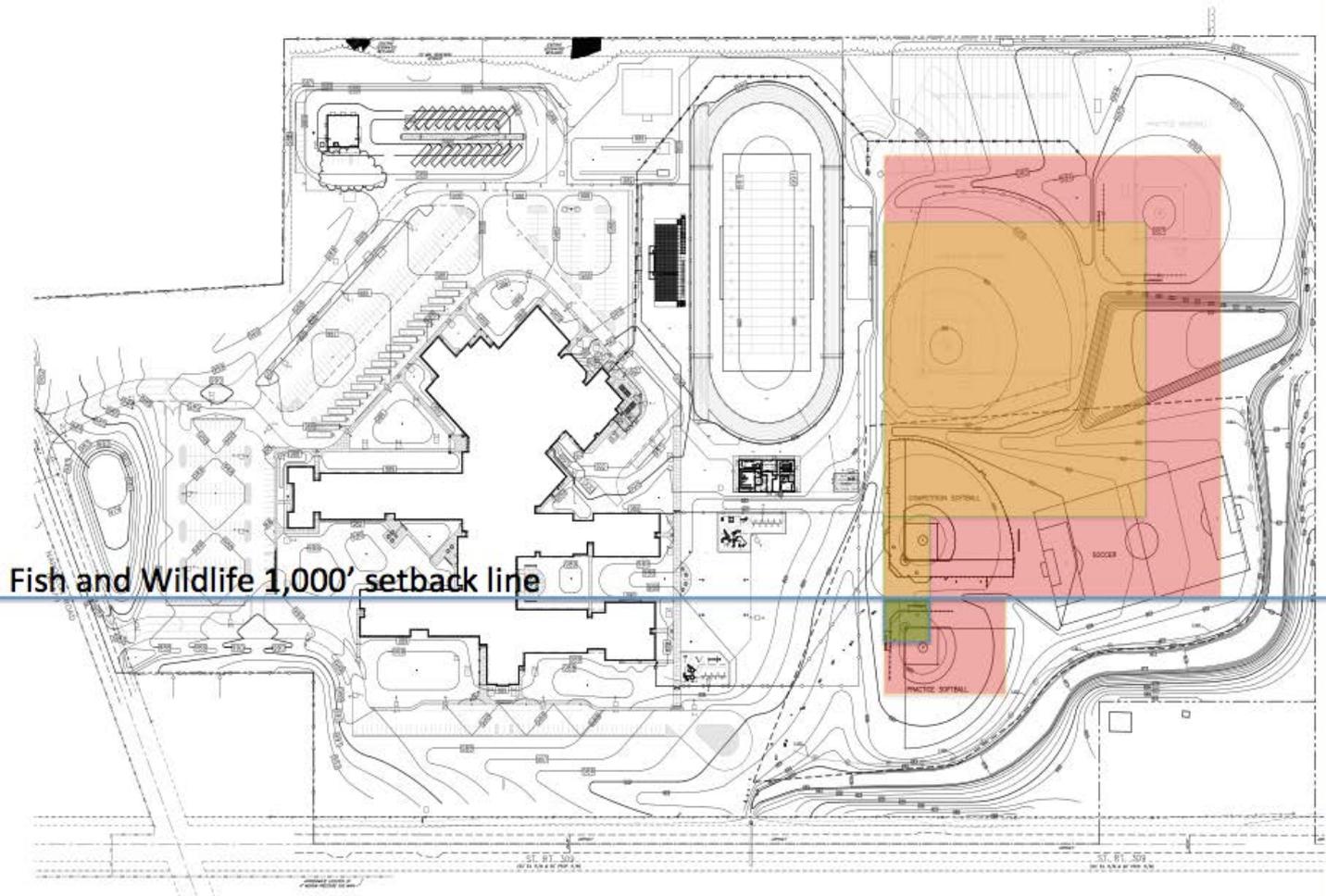


Figure 12. Jefferson Salamander Results on Cobble Hill (Shows DEIS layout)





Differences in Project Siting Options and Adjacent Use



Differences in Project Value

Utility-scale

- \$ XXX,000,000

Community-scale

- \$ X,000,000 – \$ XXX,000

Residential-scale

- \$ XX,000 - \$X,000



- FWS recognizes that appropriately sited distributed wind projects represent a very low risk to species and habitat
- Generally subject to only Tier 1 and Tier 2 reviews
- Viewed on a “sliding scale”

- Provides “general ecological context” of the proposed project
- Identifies habitat or species of concern in the project area

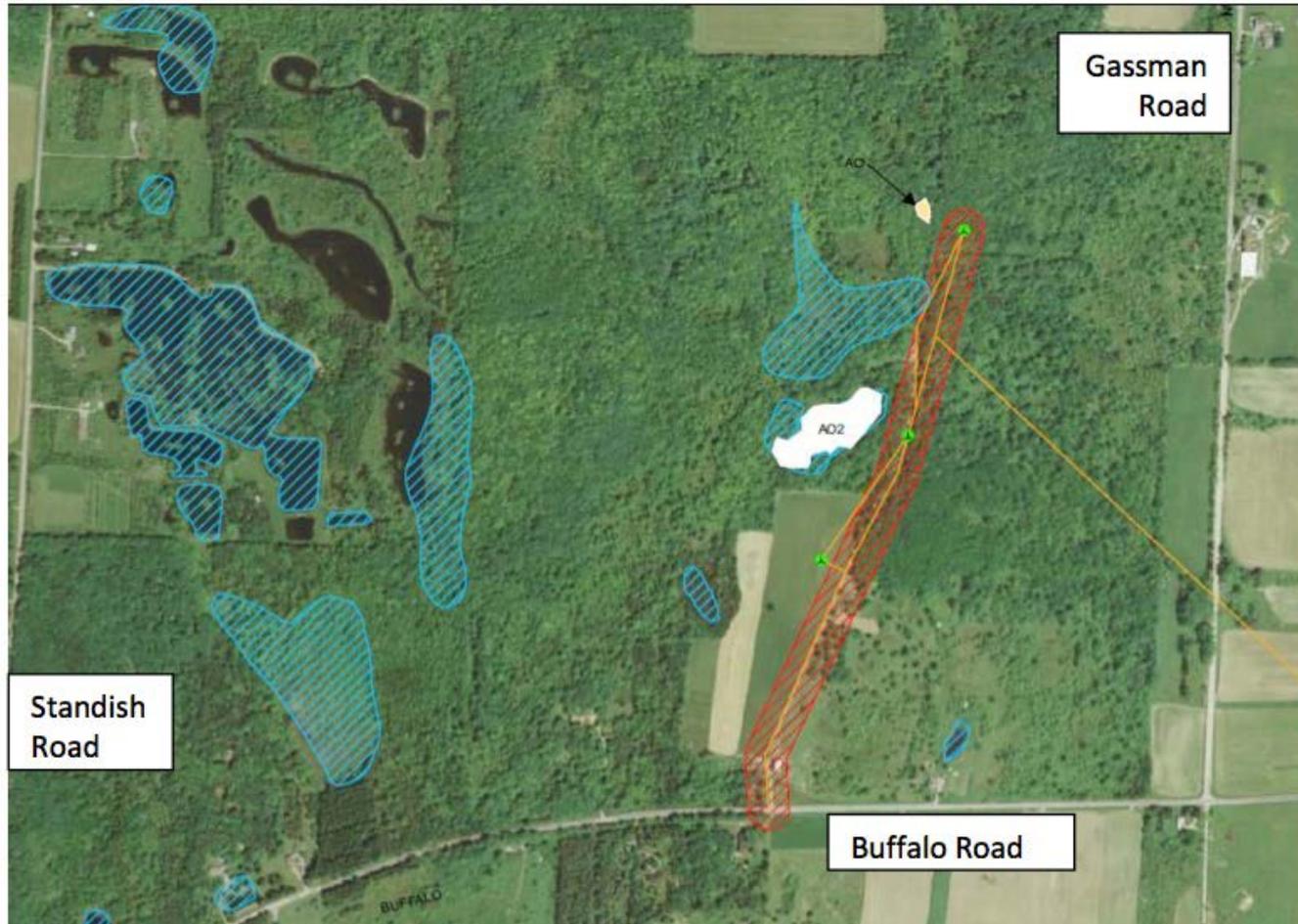


Figure 12. Jefferson Salamander Results on Cobble Hill (Shows DEIS layout)

- Characterize a potential **site** in terms of risk to species or habitat by the project
 - Developer should seek appropriate, independent review of findings
 - Sliding scale applies

Sliding Scale?



Confirmation of findings by local, high-school biology instructor

Environmental study with nationally recognized biological consultant

- FWS is committed to increasing transparency and right-sizing of the tiered approach for distributed wind projects
- The tiered approach promotes voluntary and effective communication between developers and FWS
- DWEA will continue to work with FWS to identify appropriate resources for developers as well as guidance and sample documentation

Thank you

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