

Ayres Depth and Core Sampling

Winter 2015 - 2016

Presentation Outline

- Brief hydraulic dredging overview
- Bays selected for core and depth analysis
- Questions

Hydraulic Dredging - Pumping



Minnesota Pollution Control Agency

Ayres Depth
and Core Sampling

Geo-Fabric Bags Filter Sediment



Minnesota Pollution Control Agency

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Filtered Water Flows Back Into Lake



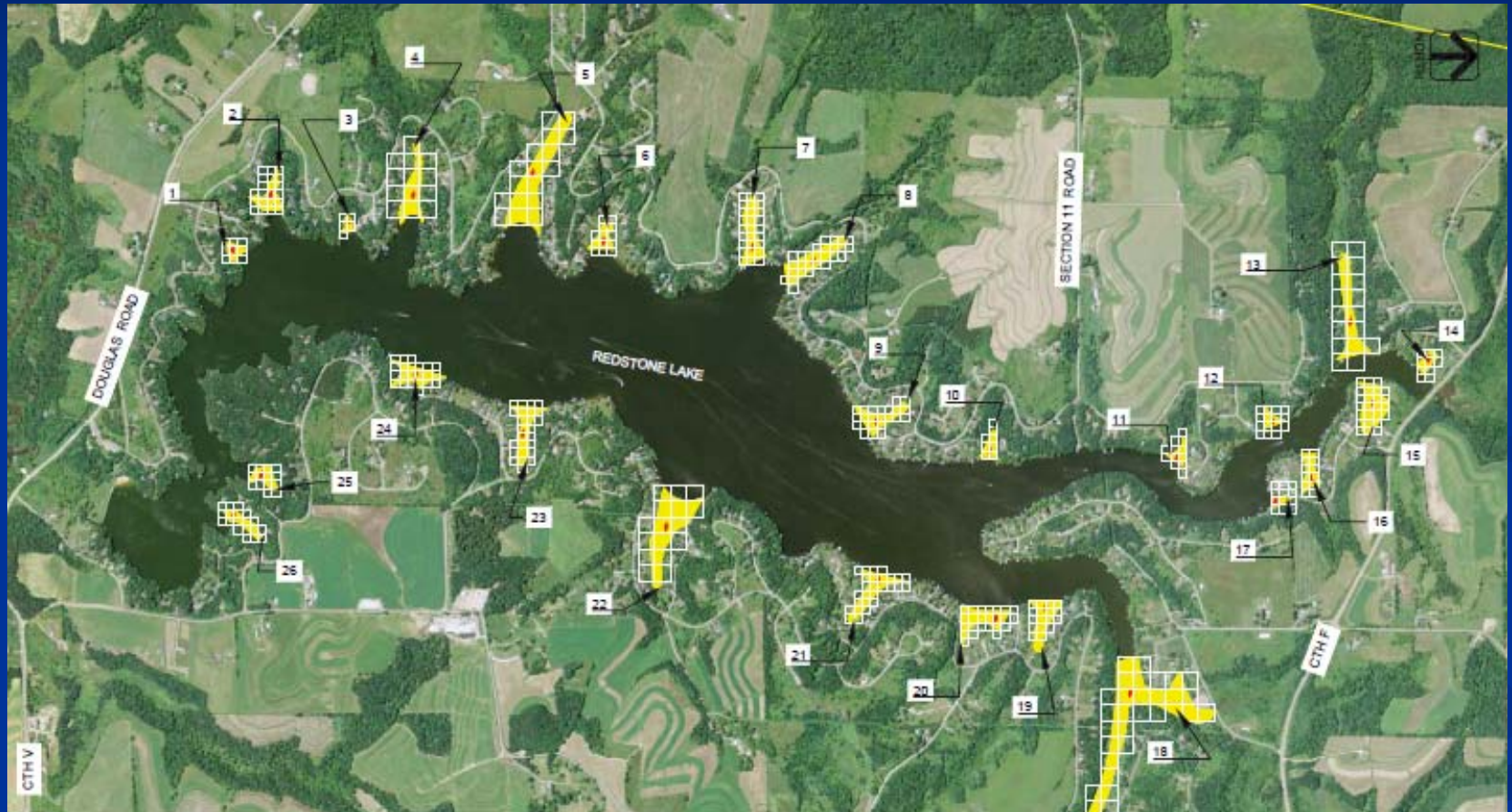
Minnesota Pollution Control Agency

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2007 Sales Presentation to Board

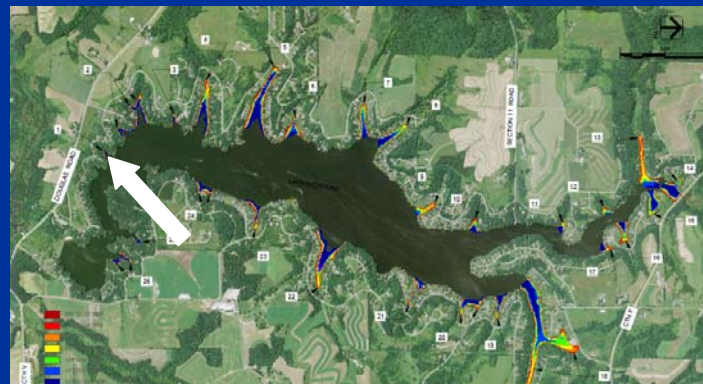
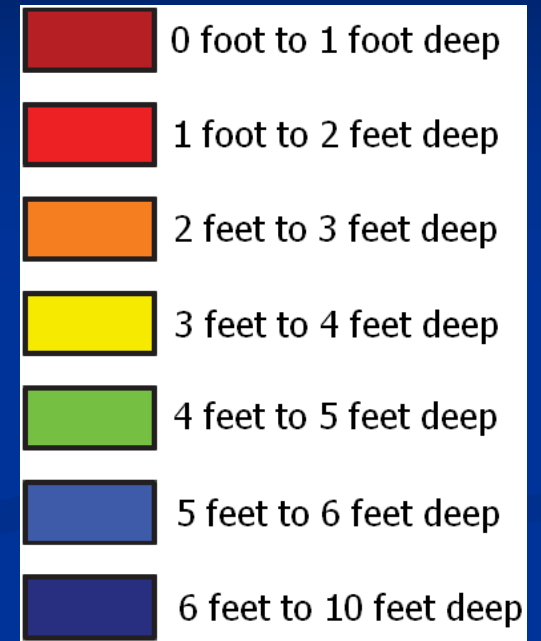
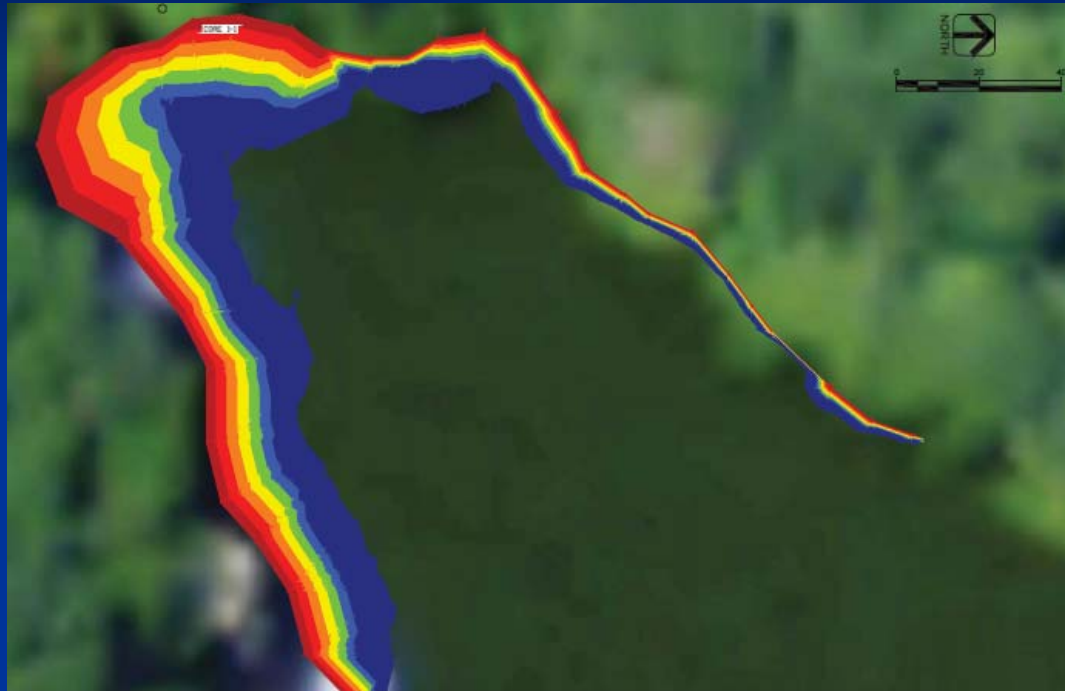
- Can pump 3 miles
- 100 foot lift isn't a big deal
- Usually done in October
- Pipe floats on barrels
 - Can be submerged in areas to allow boat traffic

26 Bays Measured



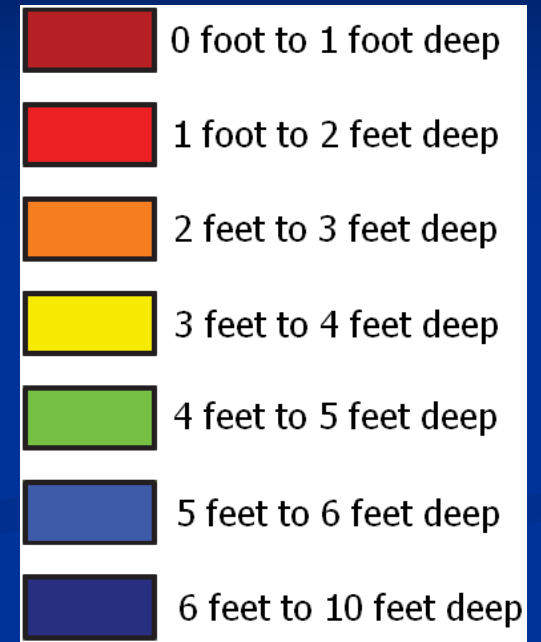
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Bluebird 32-38



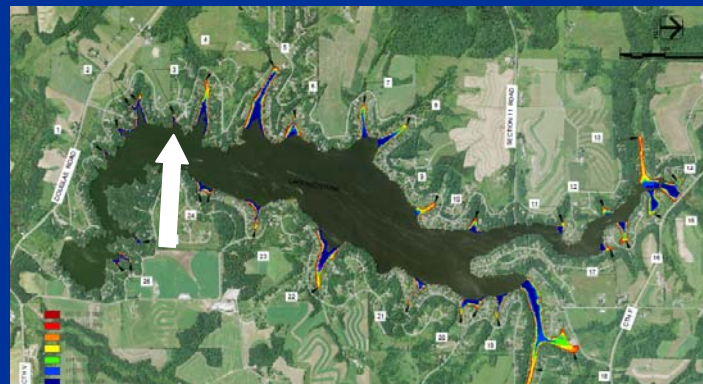
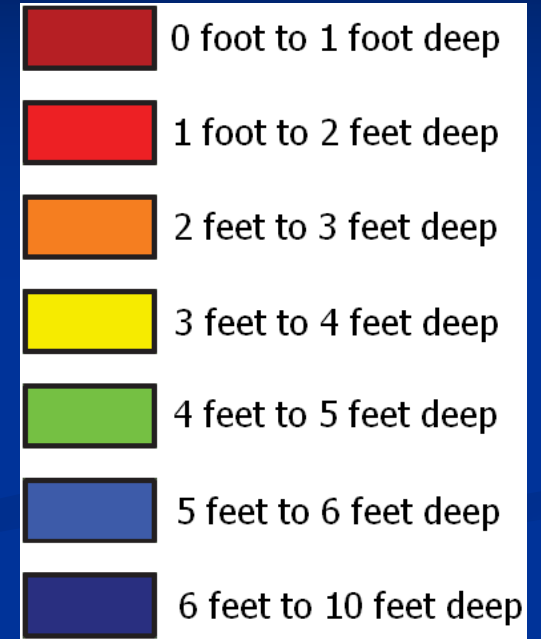
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Canary 2-40



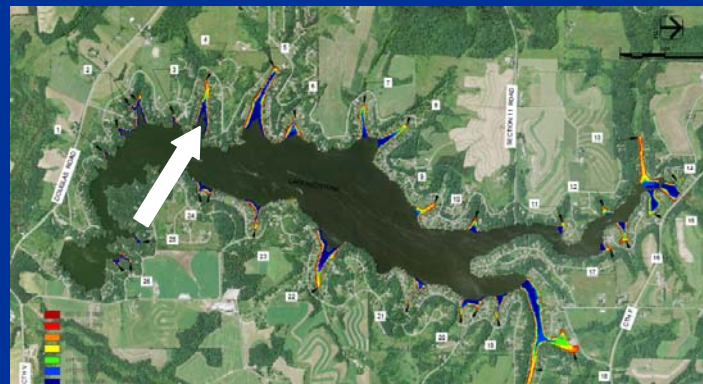
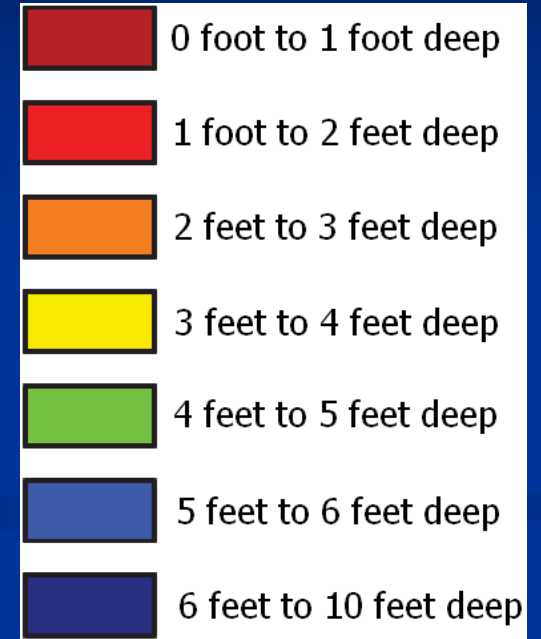
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Canary 45-52



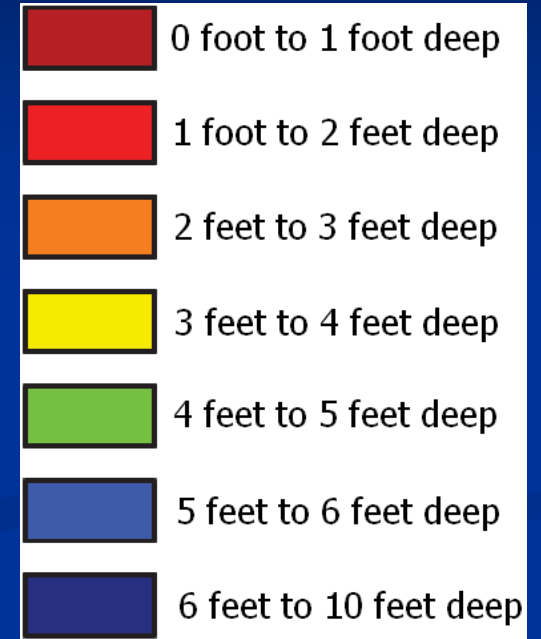
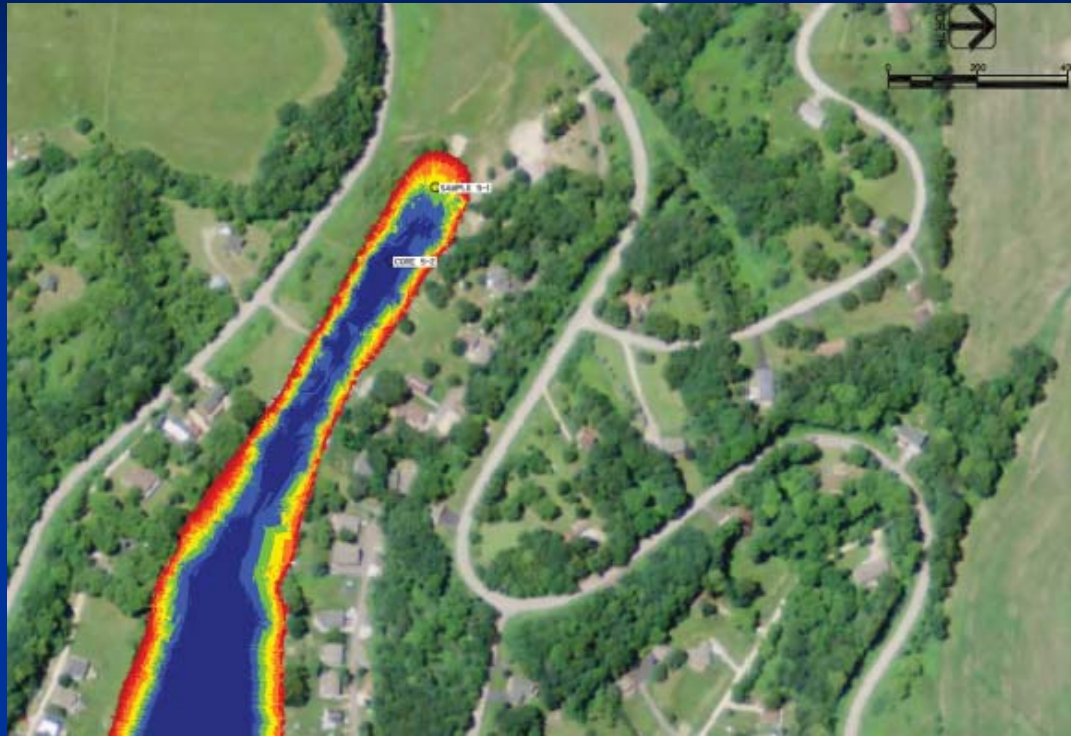
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Canary 61-69, Oriole 1-11



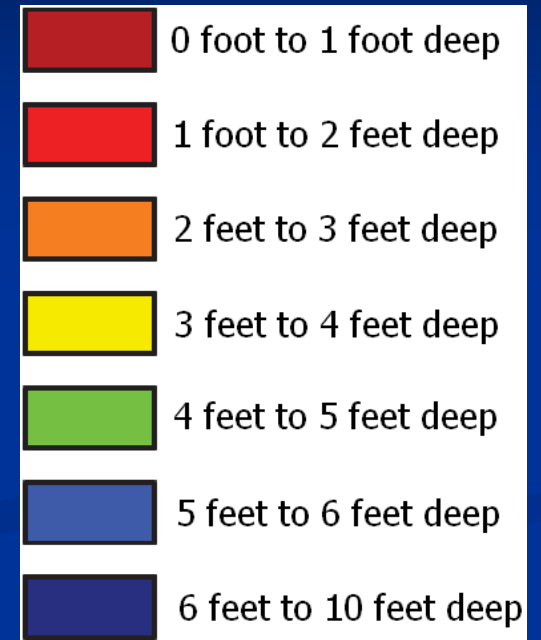
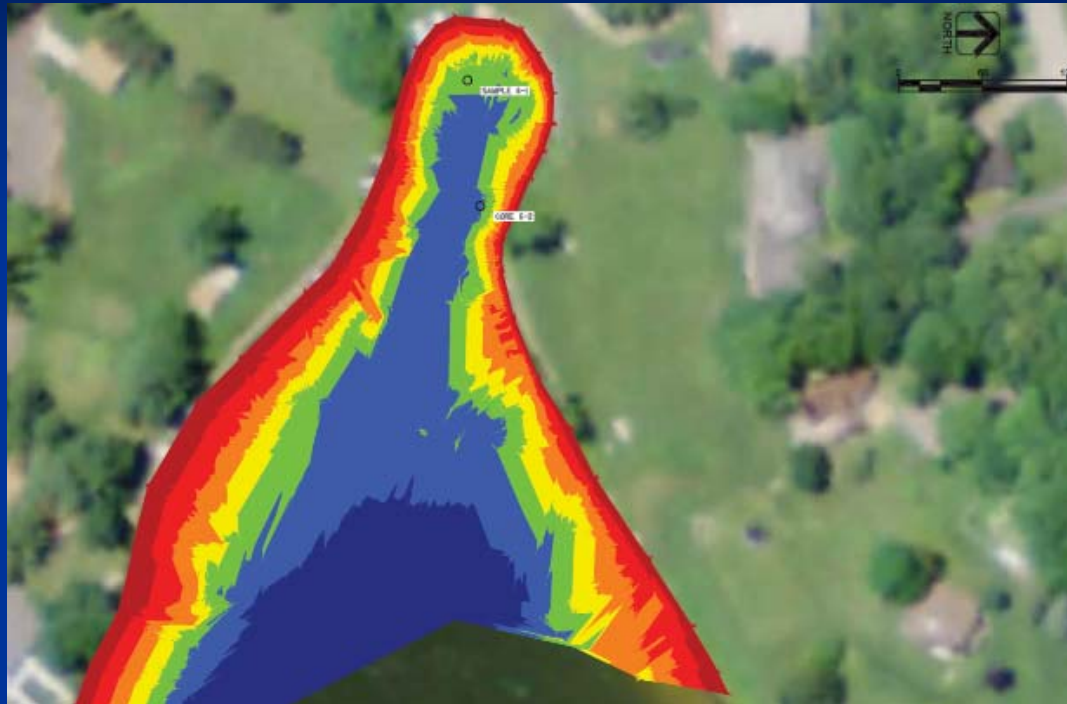
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Oriole 39-44, Mourning Dove 1-26



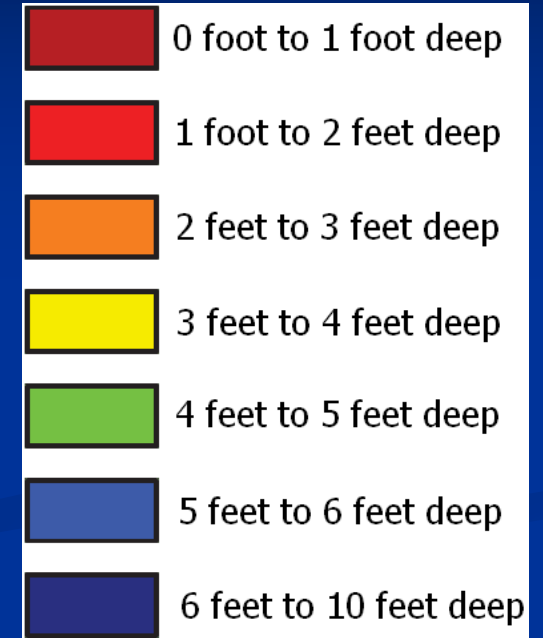
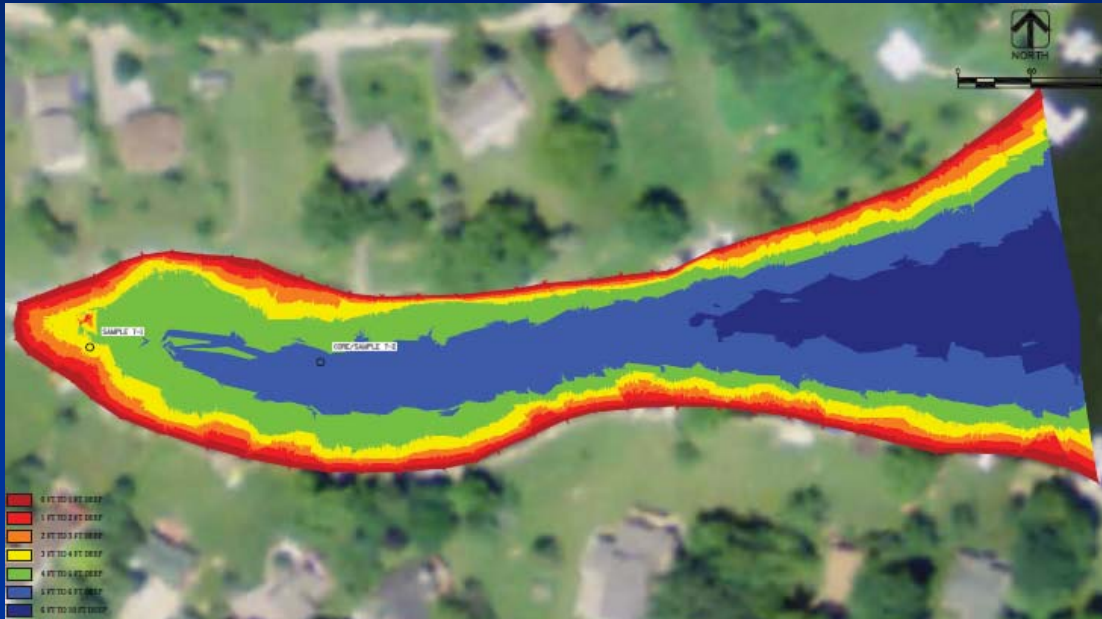
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Mourning Dove 40-65



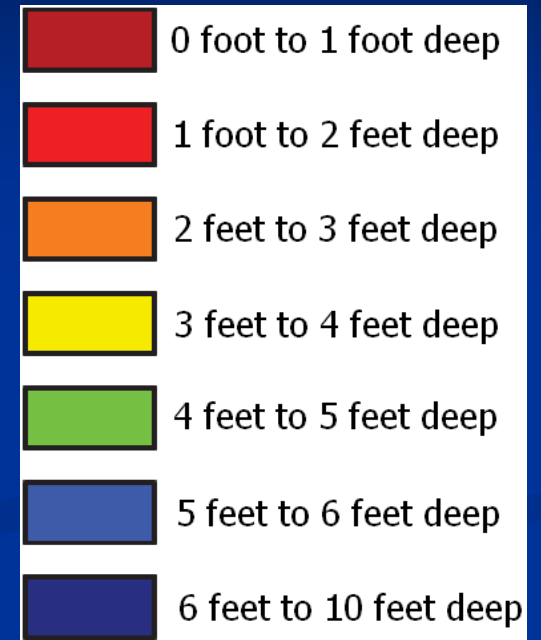
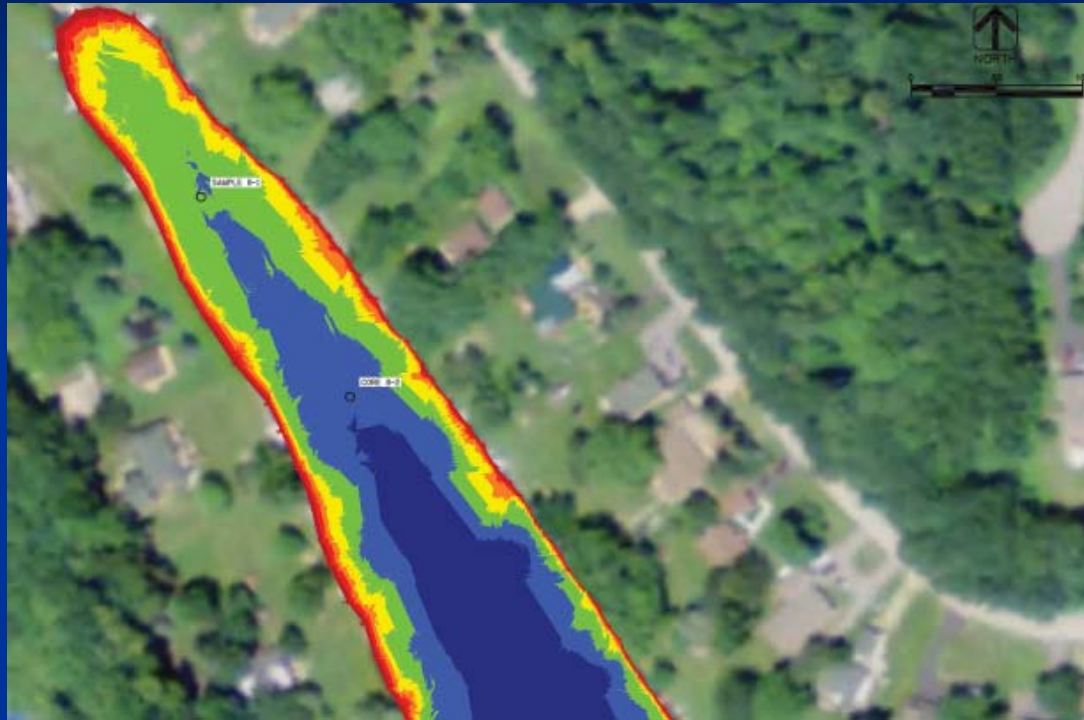
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South Chickadee Bay



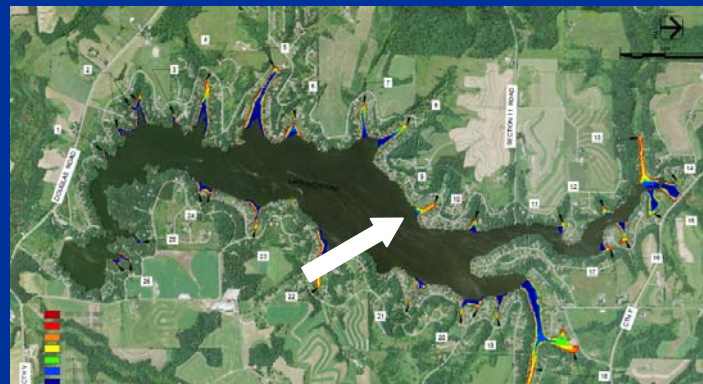
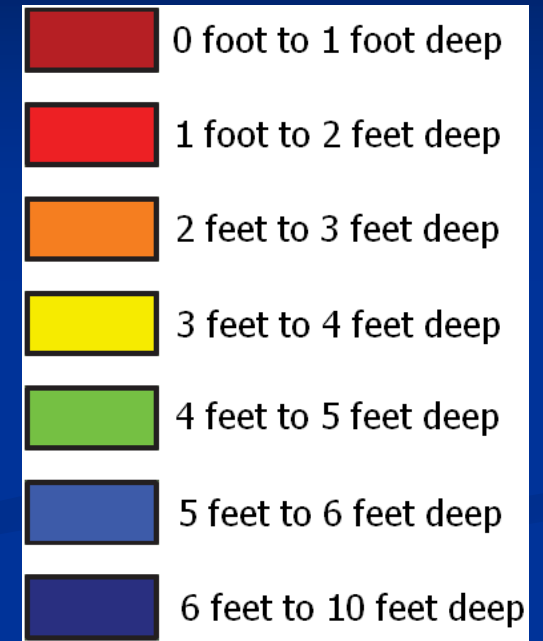
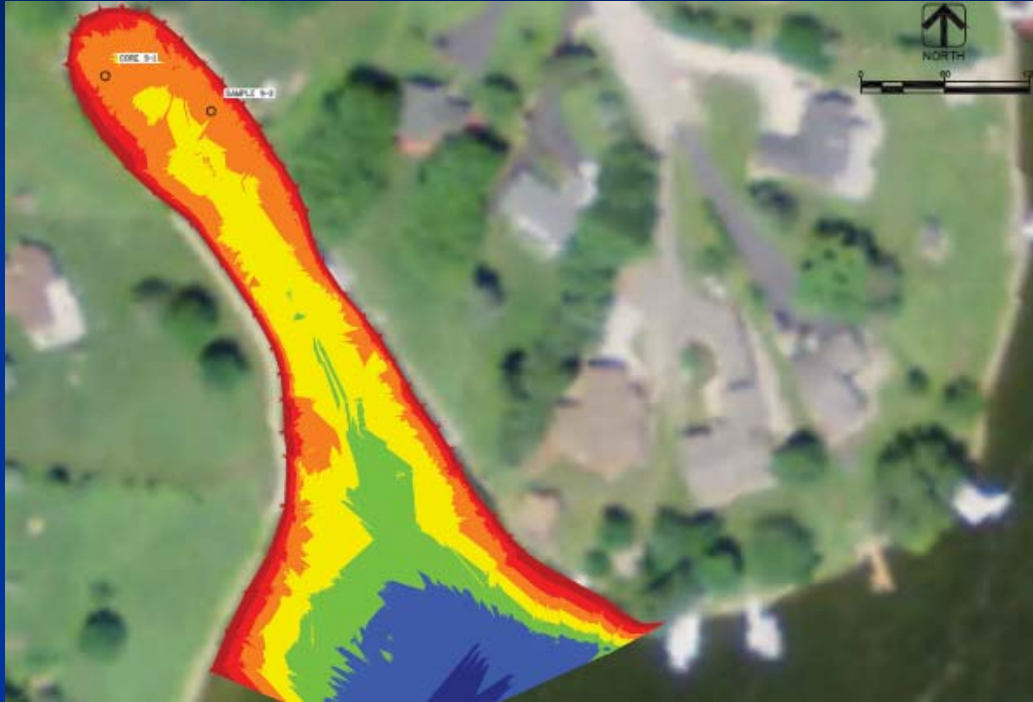
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North Chickadee Bay



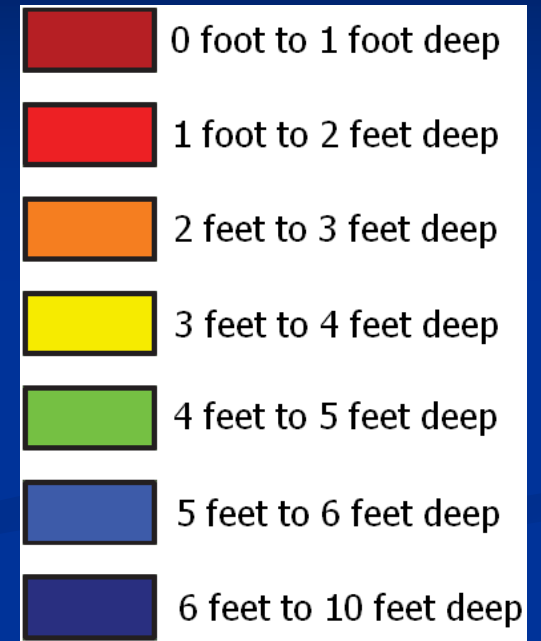
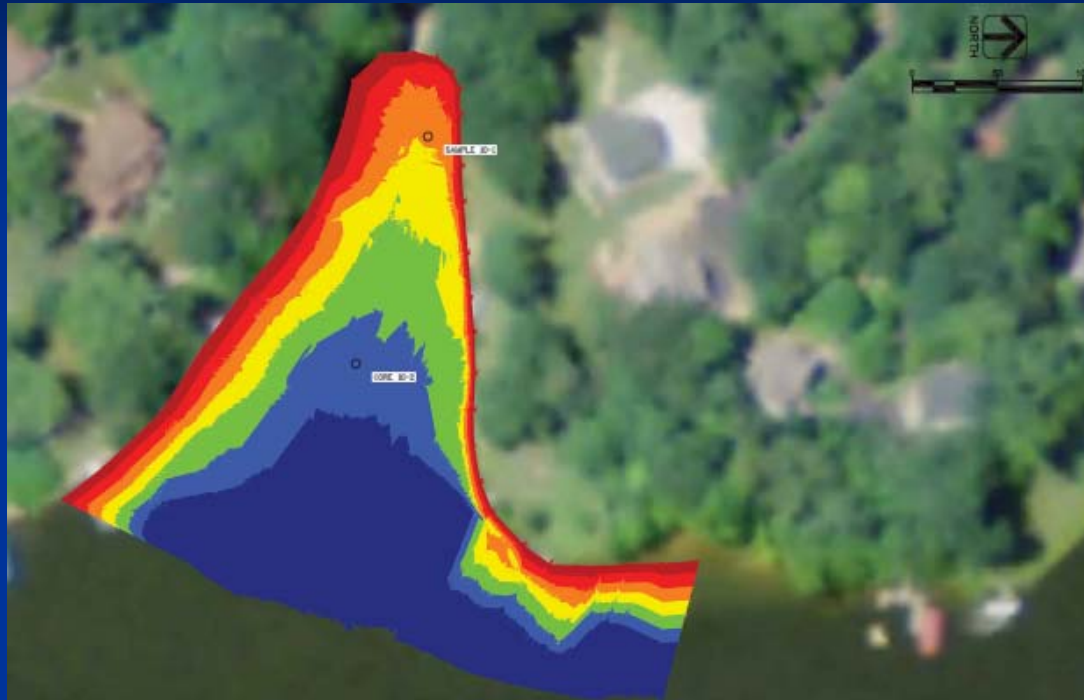
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Goldfinch 1-11



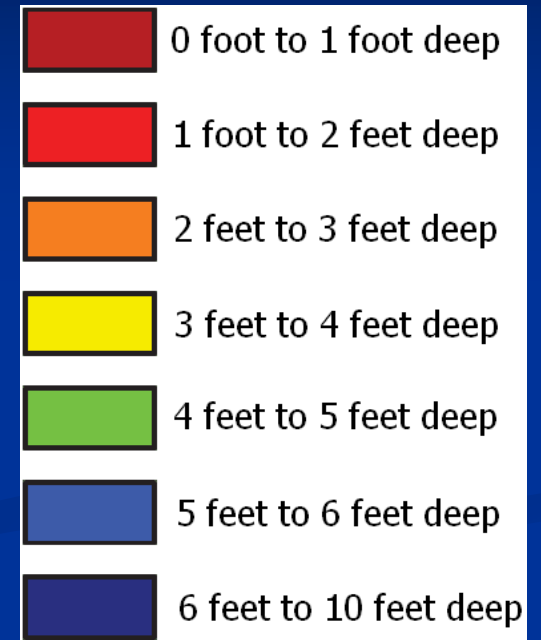
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Goldfinch 25-40



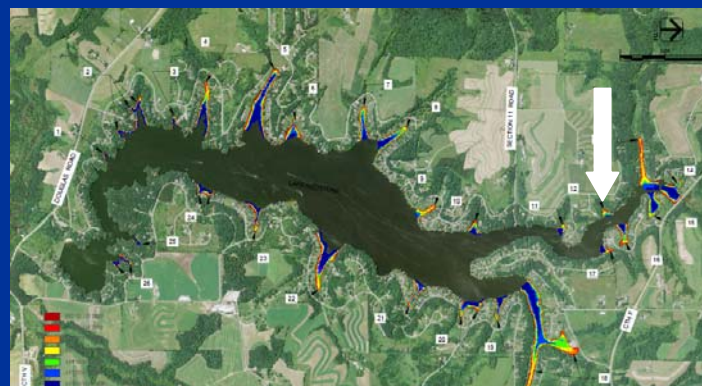
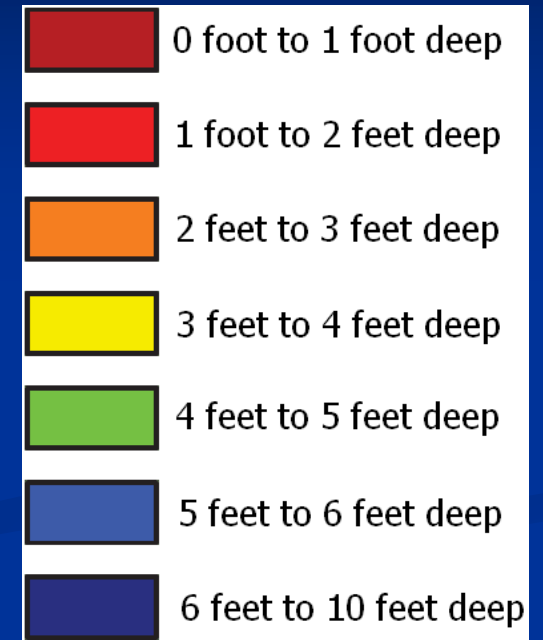
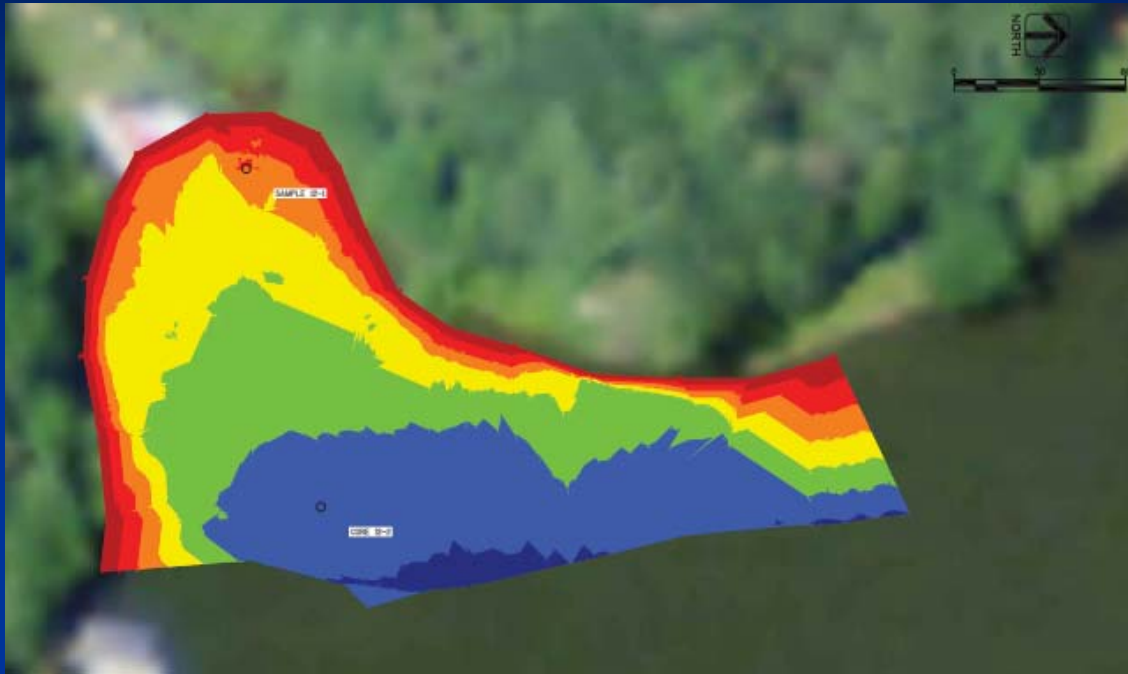
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Robin 11-13



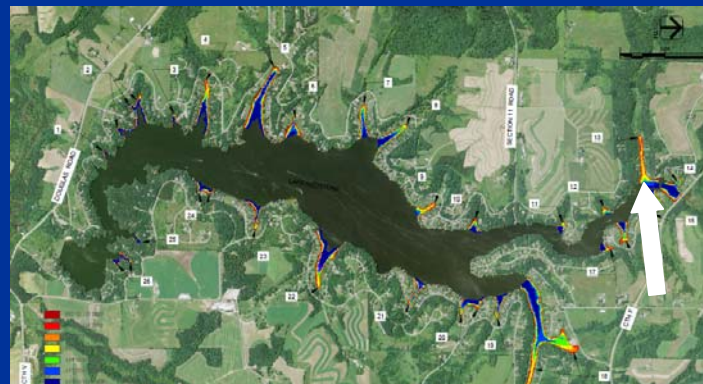
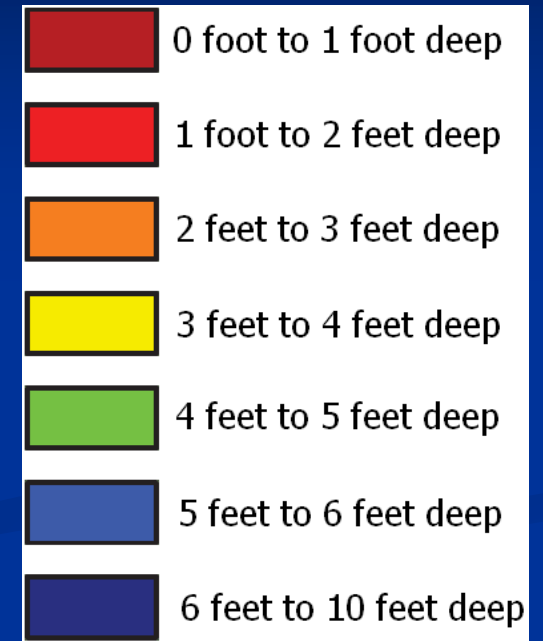
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and Core Sampling

Robin 30-34



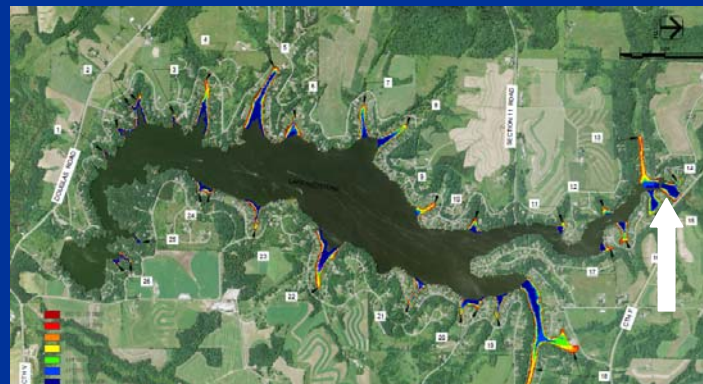
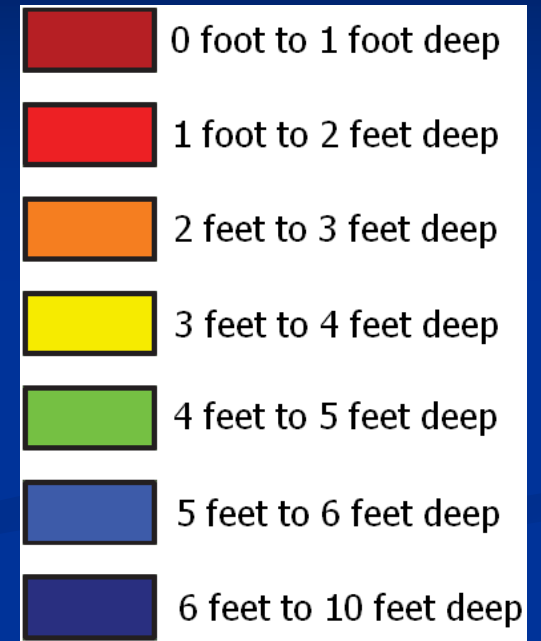
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Martin – Meadowlark Bay



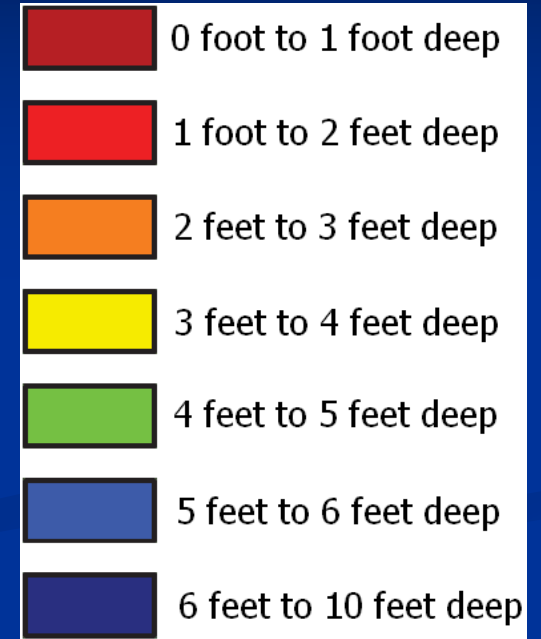
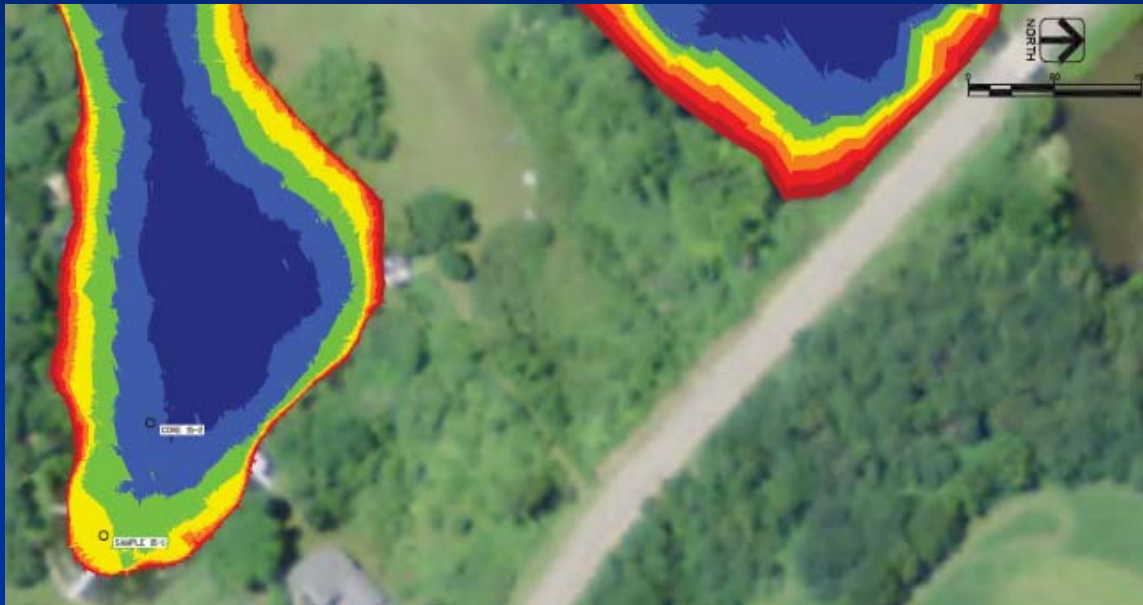
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County F Area



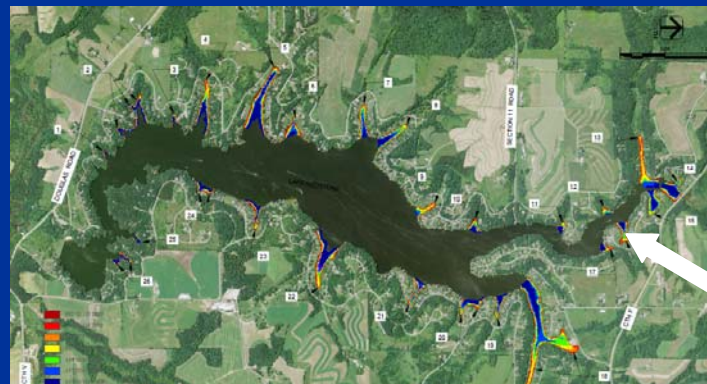
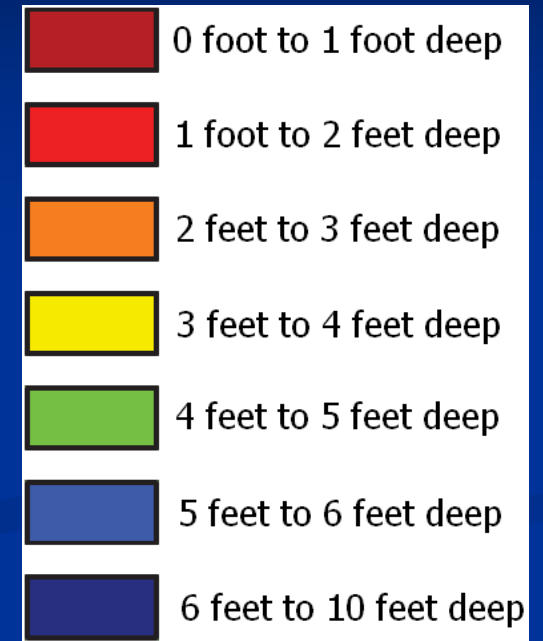
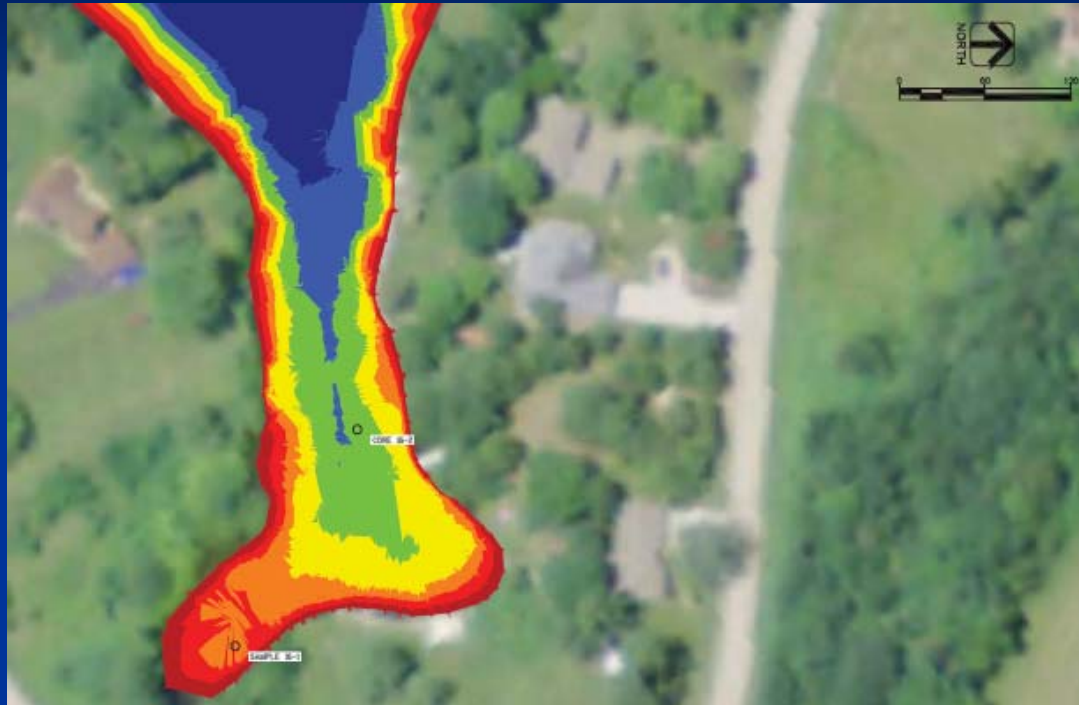
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Warbler Court Bay



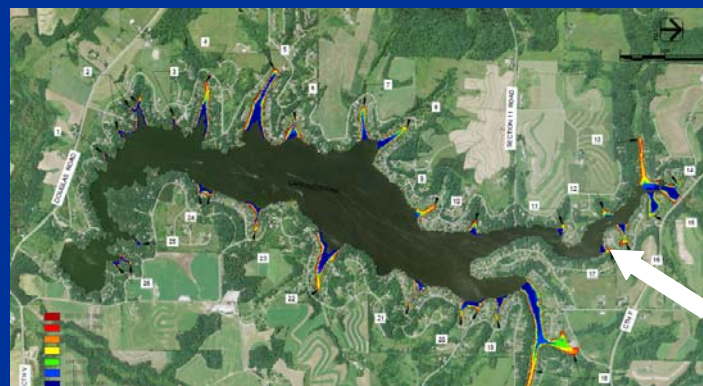
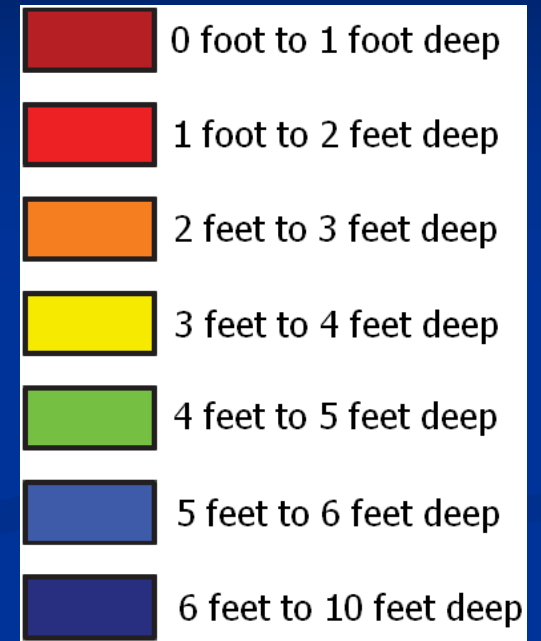
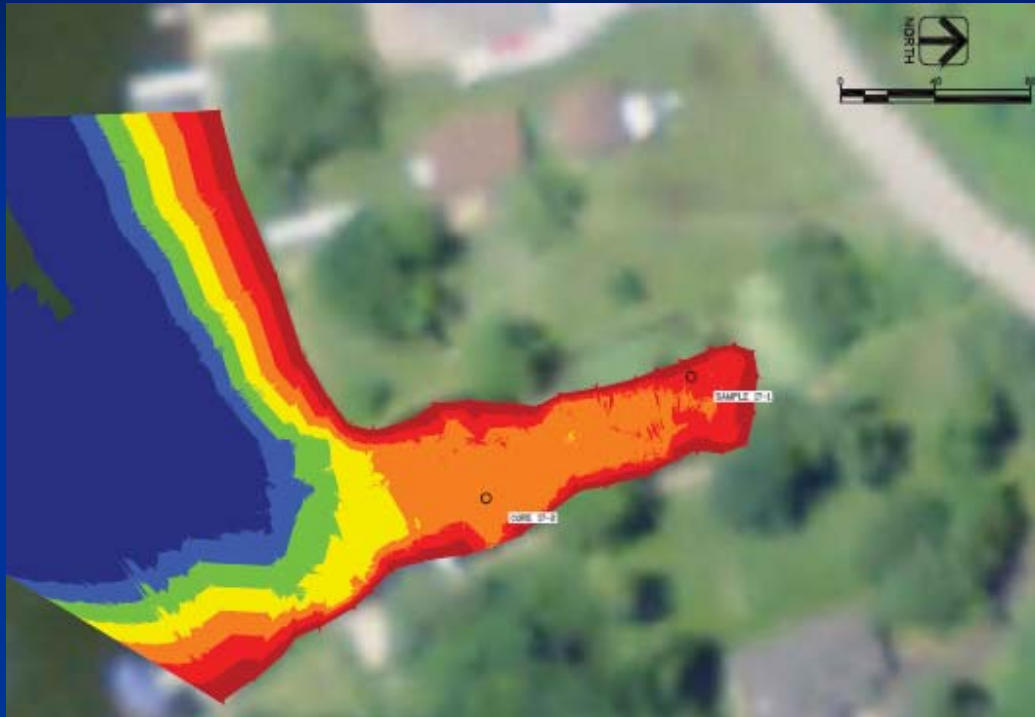
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Gull 8-10, Warbler 1-3



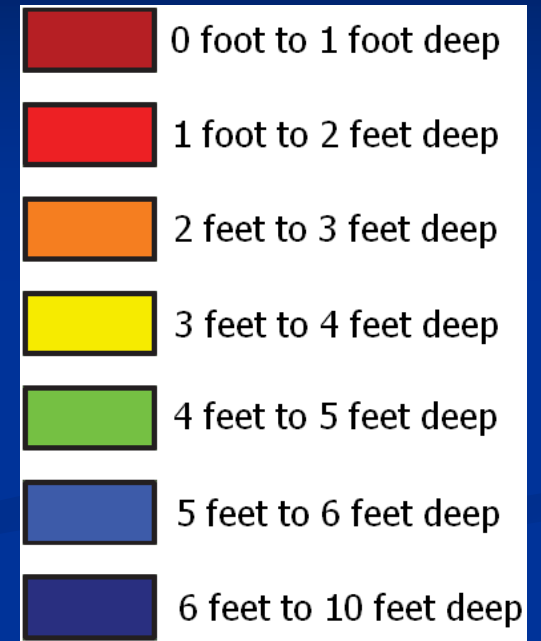
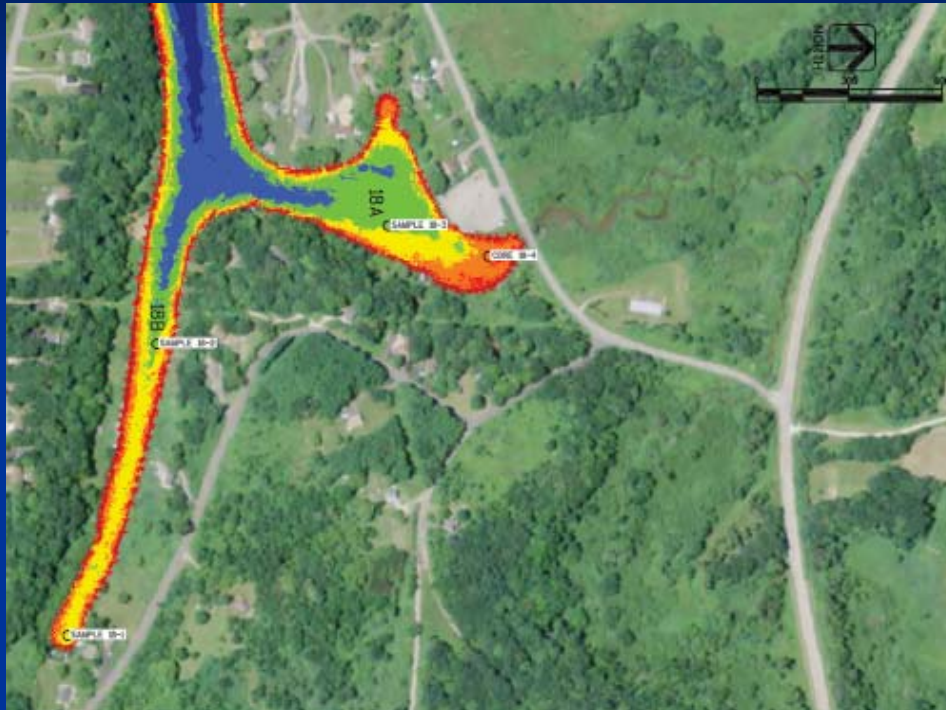
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Gull 1



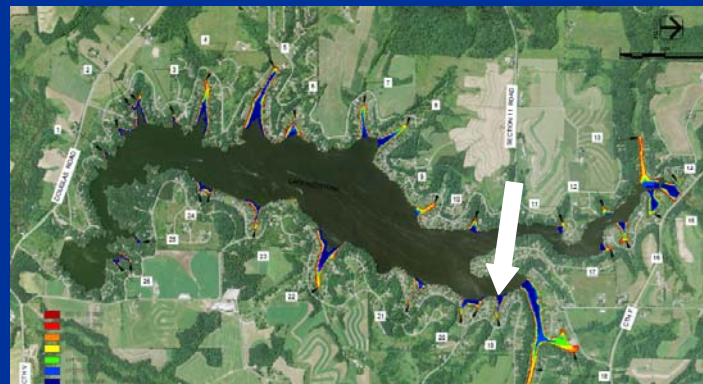
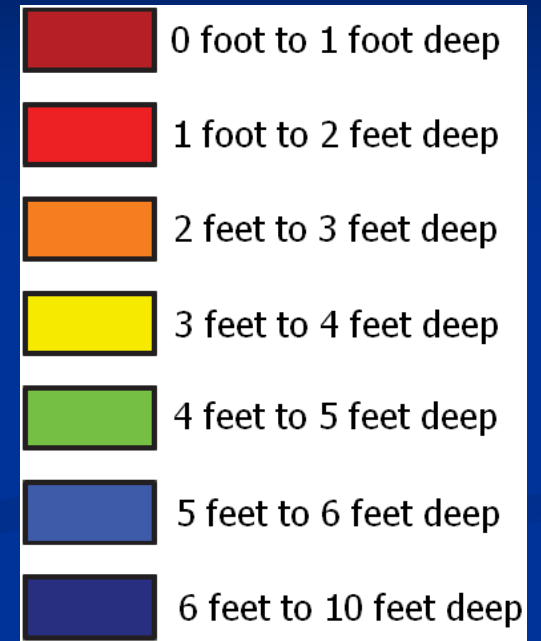
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County Boat Landing, Swallow Bay



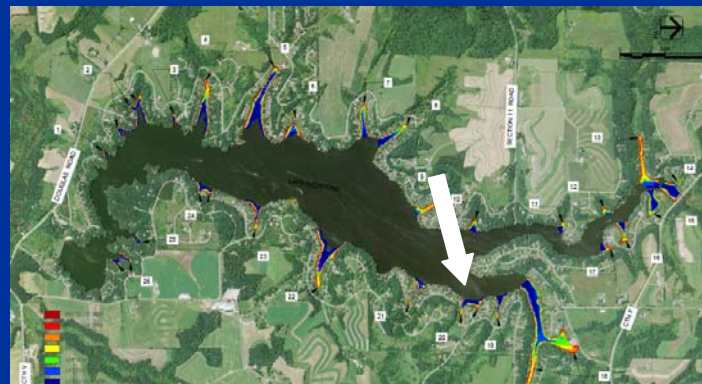
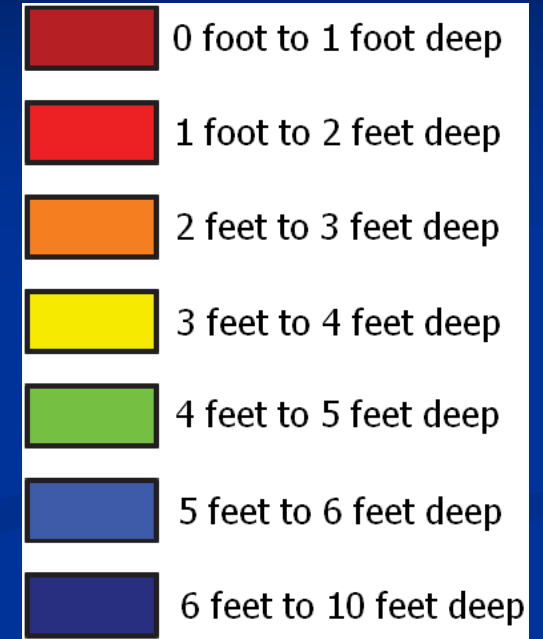
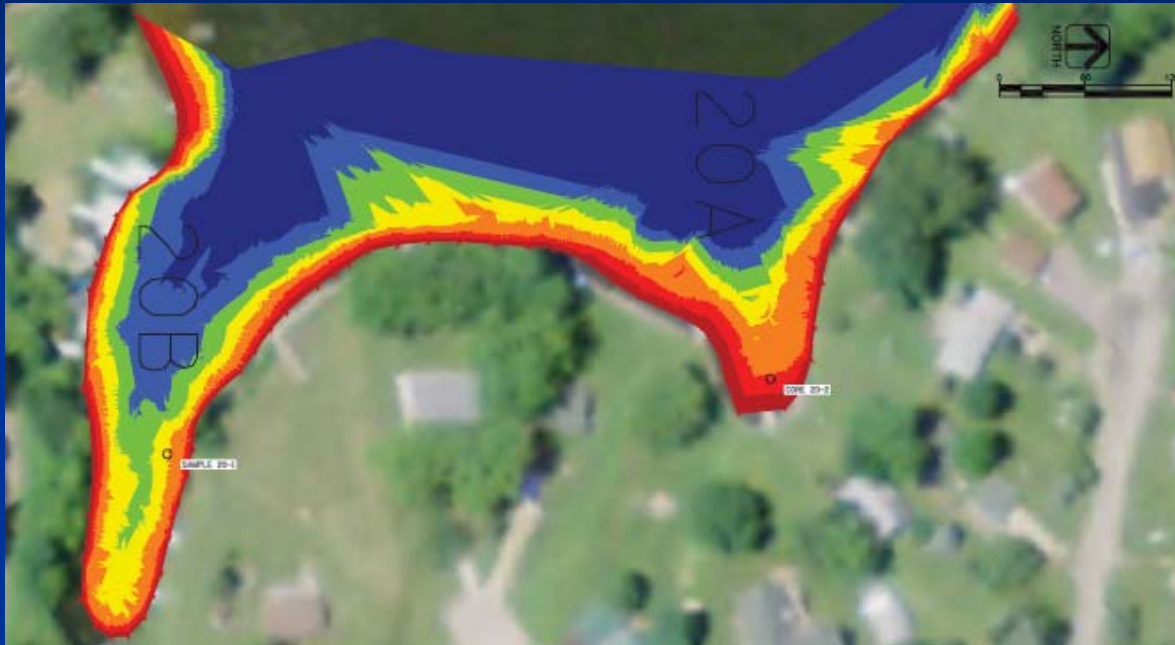
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Tanager 17-24



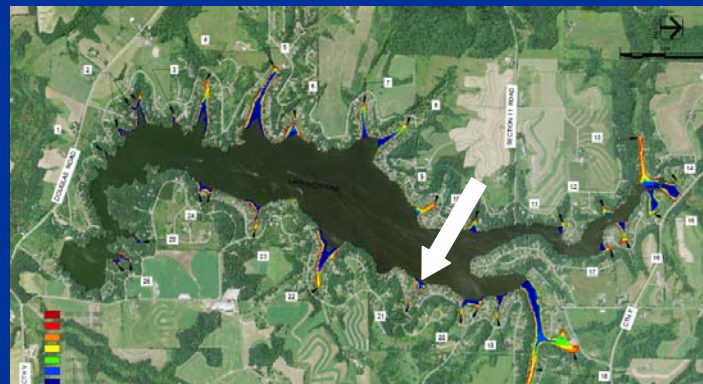
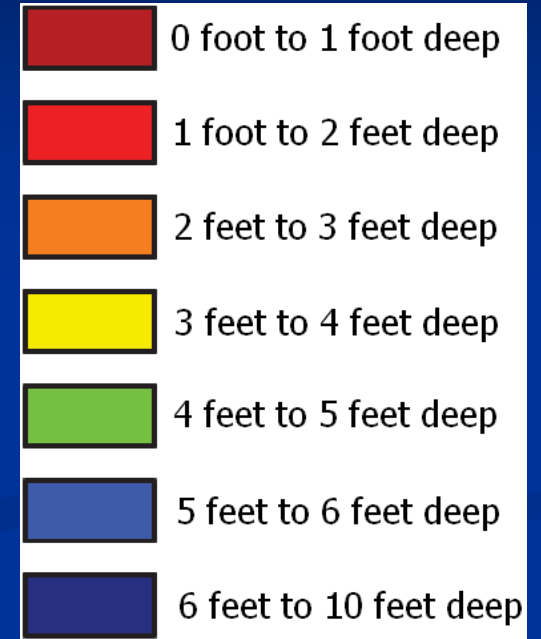
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Tanager 1-12



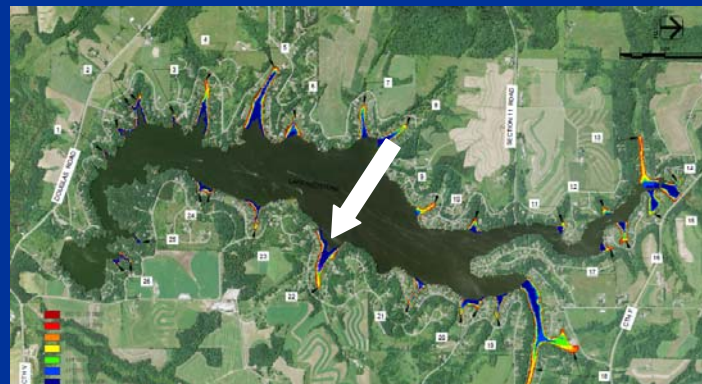
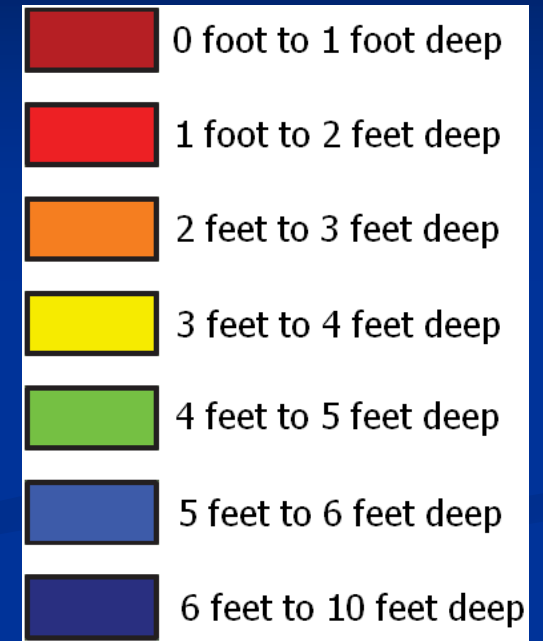
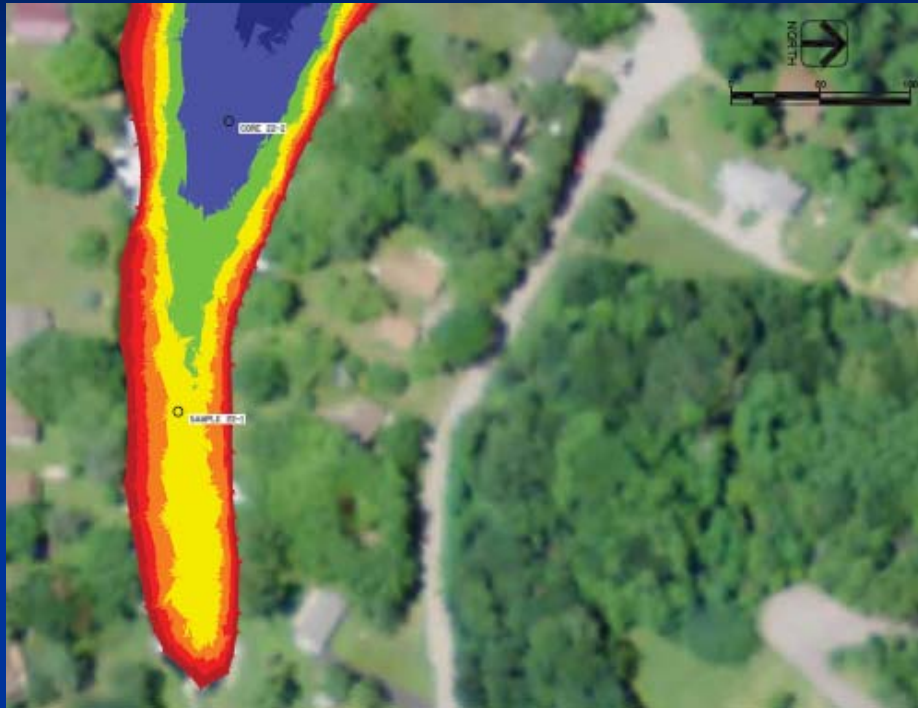
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Kingfisher 40-55



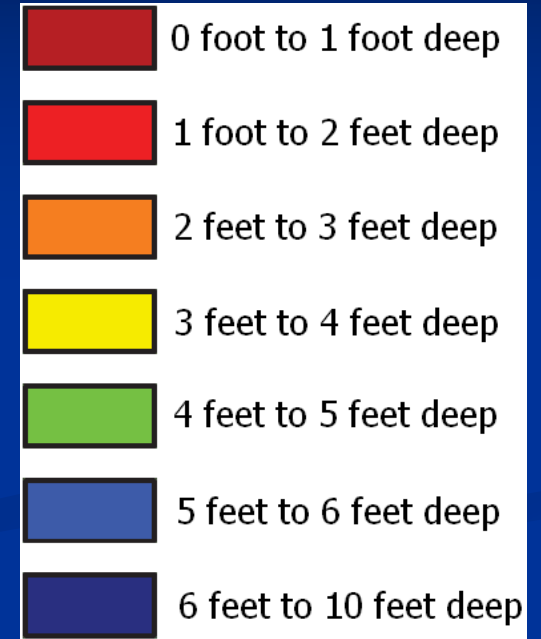
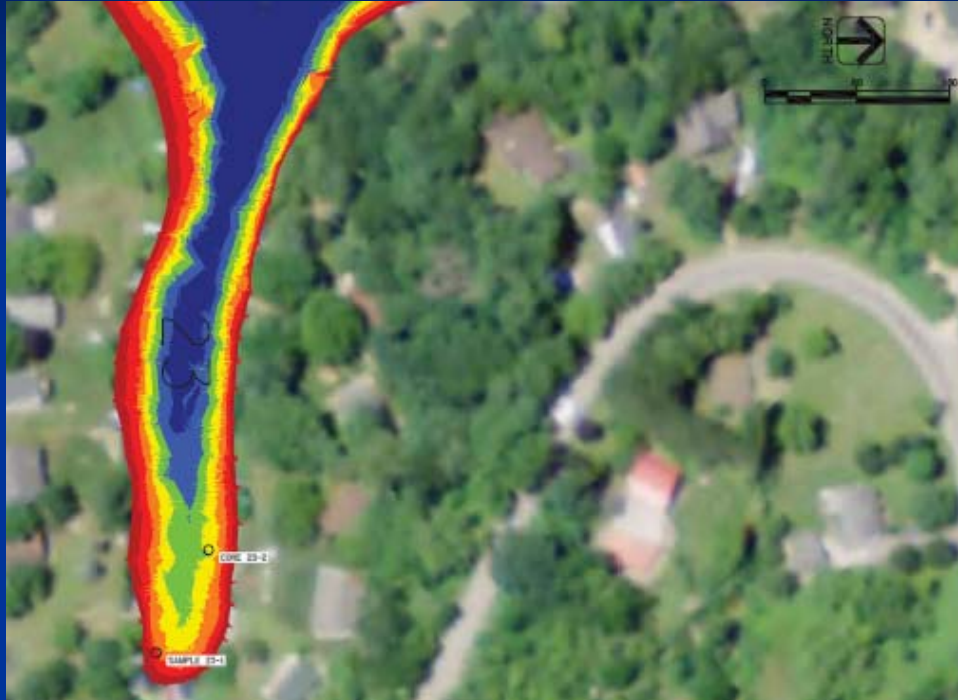
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Eagle Bay



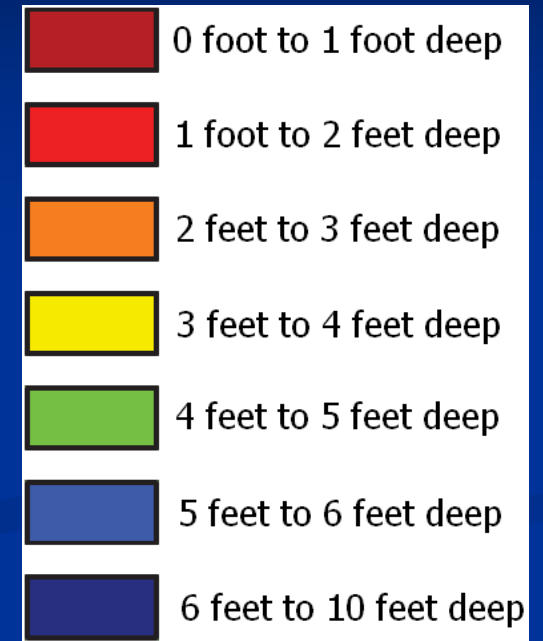
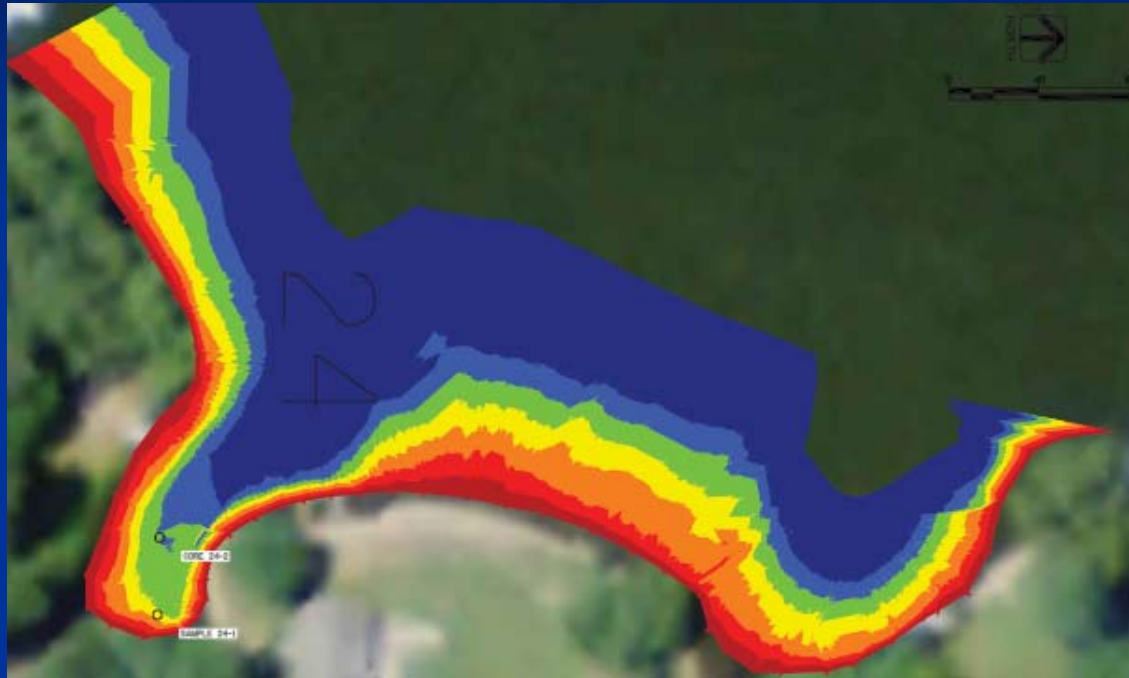
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Cardinal Bay



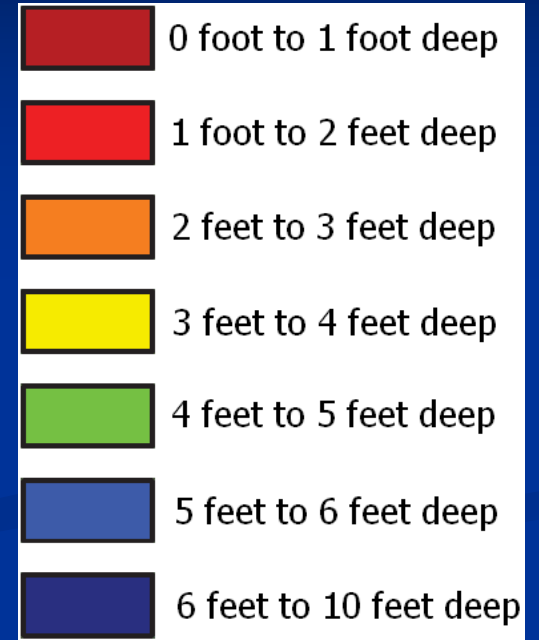
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Raven 16-20, Cardinal 1-3



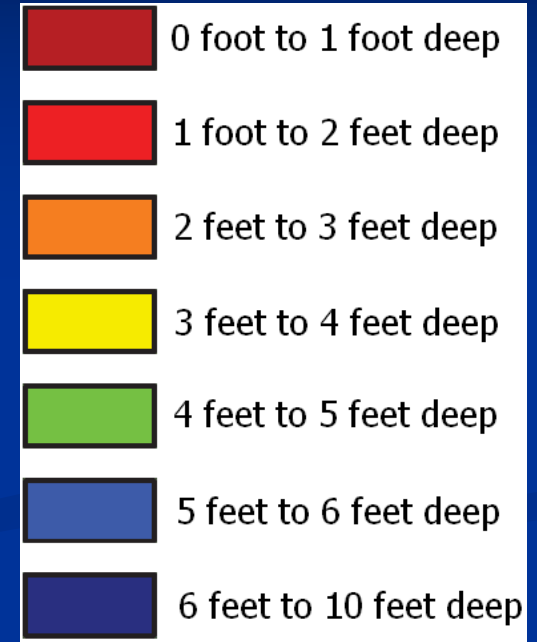
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Original 62-72



Ayres Depth
and Core Sampling

Original 41-55



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Initial Questions

- Where will the sediment bags go?
- Where to put the 20 – 100k cy sediment?
 - (This room is about 500 cy)
- Dredge an area if it is already 3 feet deep?
- Spread work over several years?
- How to pay for it?
- Should the Board proceed with dredging feasibility?