

Florida Department of Environmental Protection



Division of Environmental Assessment
and Restoration

Estimated Nitrogen Loading to the Upper Floridan Aquifer:

Nitrogen Source Inventory and Loading Tool for
The Magnolia-Aripeka Springs Group

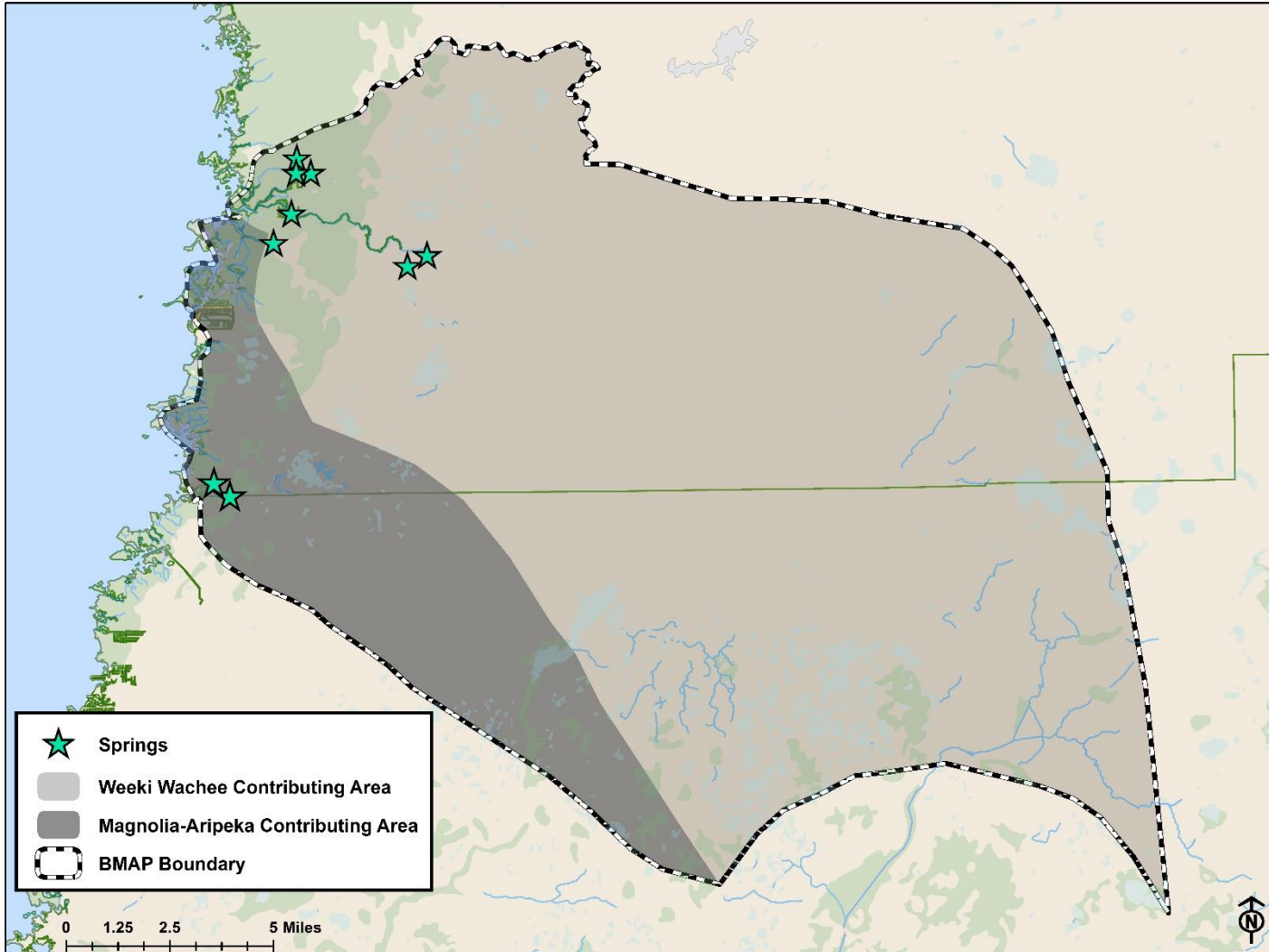
Celeste Lyon and Brian Katz
Ground Water Management Section

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Celeste.Lyon@dep.state.fl.us
Brian.Katz@dep.state.fl.us
Richard.W.Hicks@dep.state.fl.us



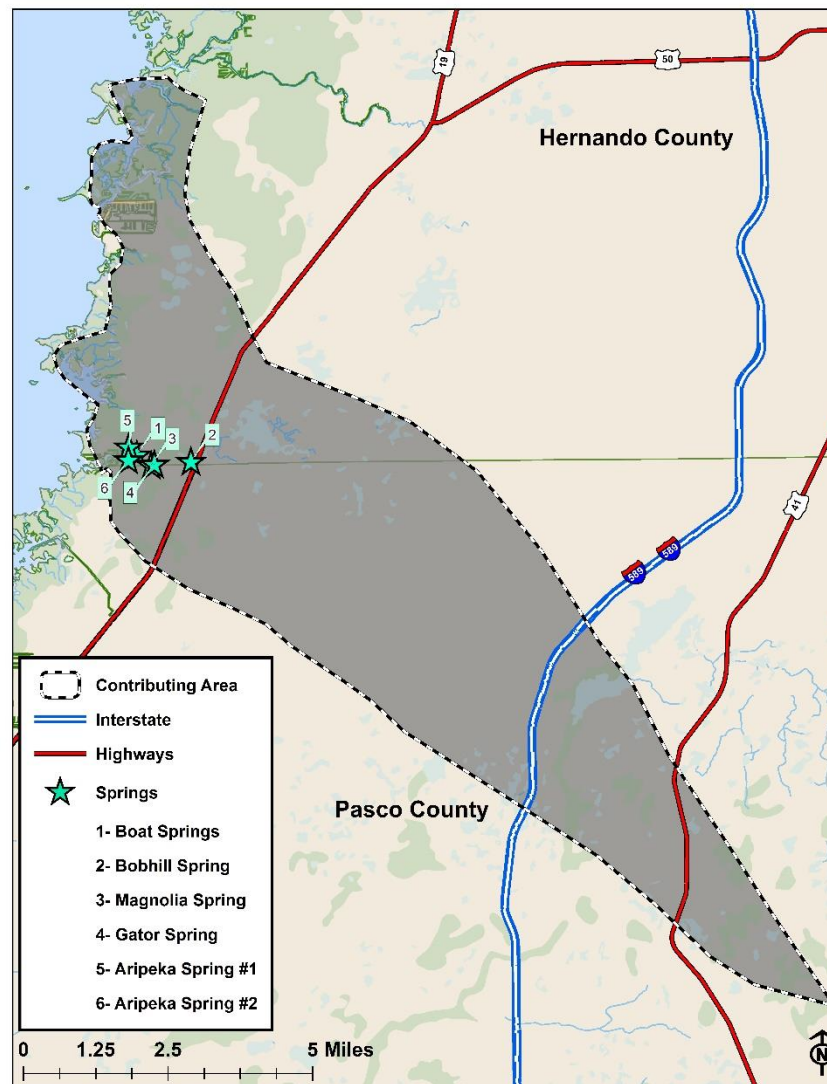
BMAP Boundary



This map was prepared on 09/22/16 by FDEP Groundwater Management Section. For display purposes only. For more information: C. Lyon (850) 245-8683



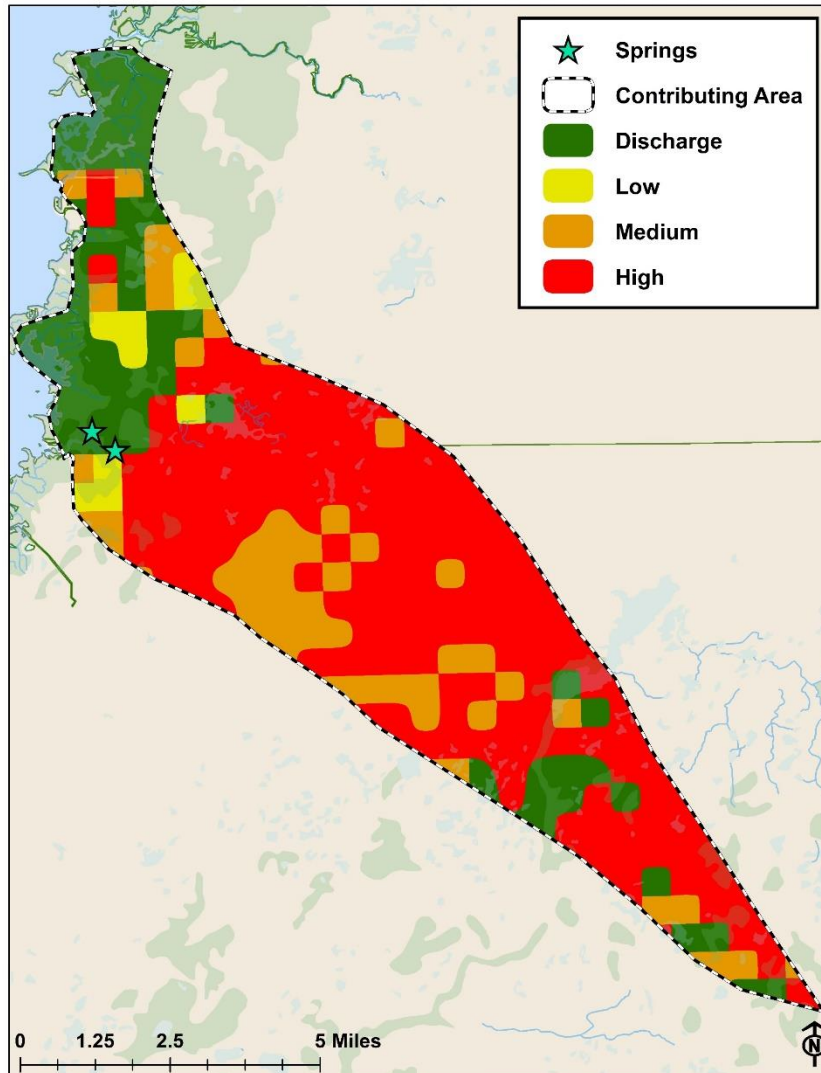
Magnolia-Aripeka Contributing Area



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Ground Water Recharge Areas

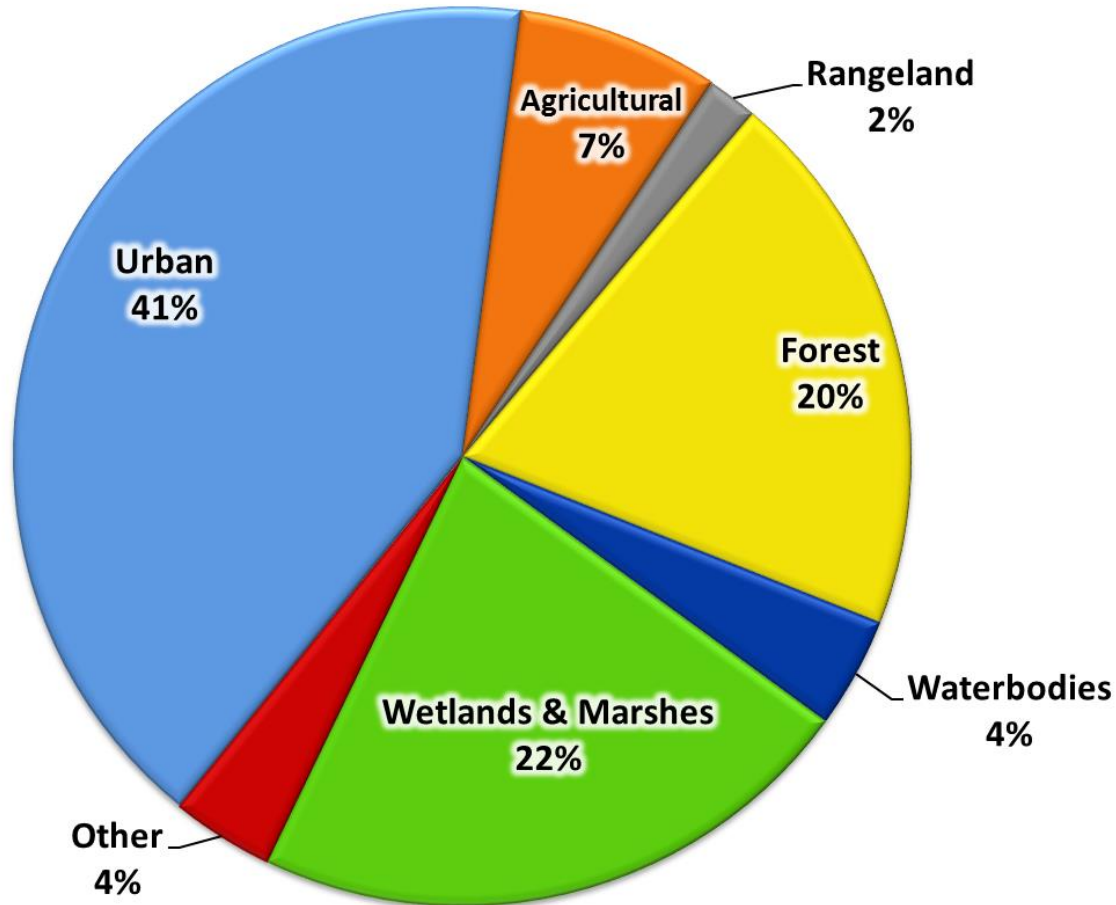


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- ◇ High Recharge: >10 in/yr
- ◇ Medium Recharge: 3-10 in/yr
- ◇ Low Recharge: 0-3 in/yr
- ◇ Rates are weighted to estimate loading potential for each source category



Magnolia-Aripeka Land Use



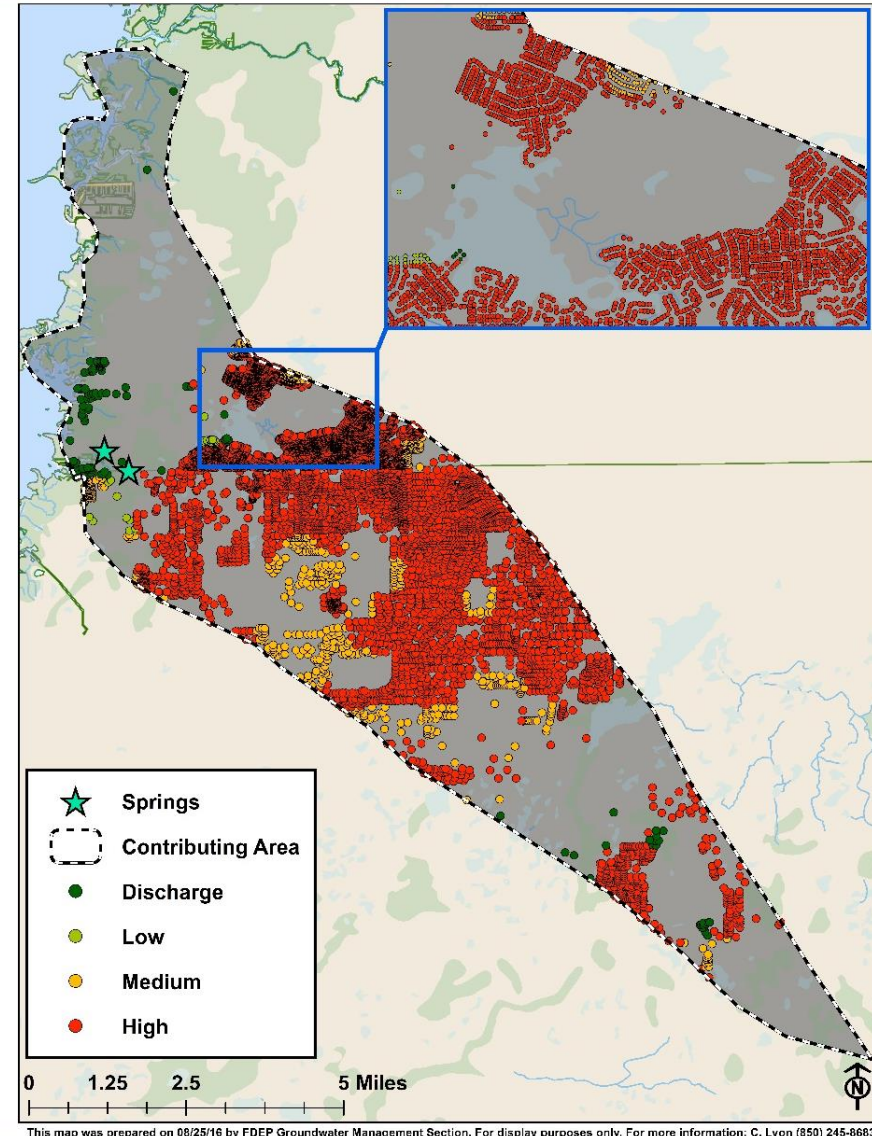
- ♦ Majority of N inputs occur within urban land areas
- ♦ These represent 41% of the land use within the Contributing Area



Septic Systems

- ◇ DOH inventory of septic systems statewide
- ◇ Calculate # of people relying on septic tanks
 - ◇ 6,783 tanks in Contributing Area

Recharge Area	Input to Land Surface (lb-N/yr)
Low	523
Medium	12,237
High	111,209



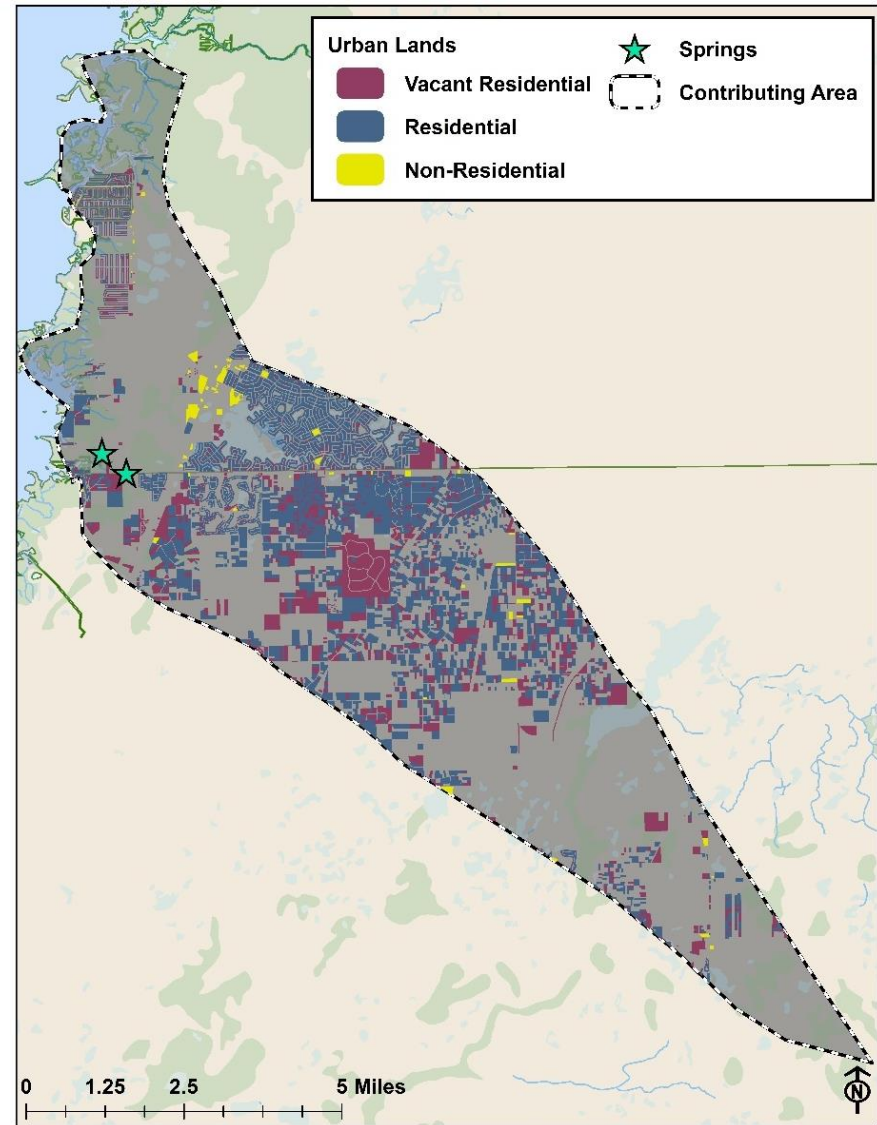
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Urban Turfgrass Fertilizers

- ◇ Acreage likely to receive fertilizer estimated from PA data and property values
- ◇ Annual Application Rates based on SWFWMD study
- ◇ Impervious surfaces estimated based on zoning laws

Recharge Area	Input to Land Surface (lb-N/yr)
Low	811
Medium	16,863
High	155,755

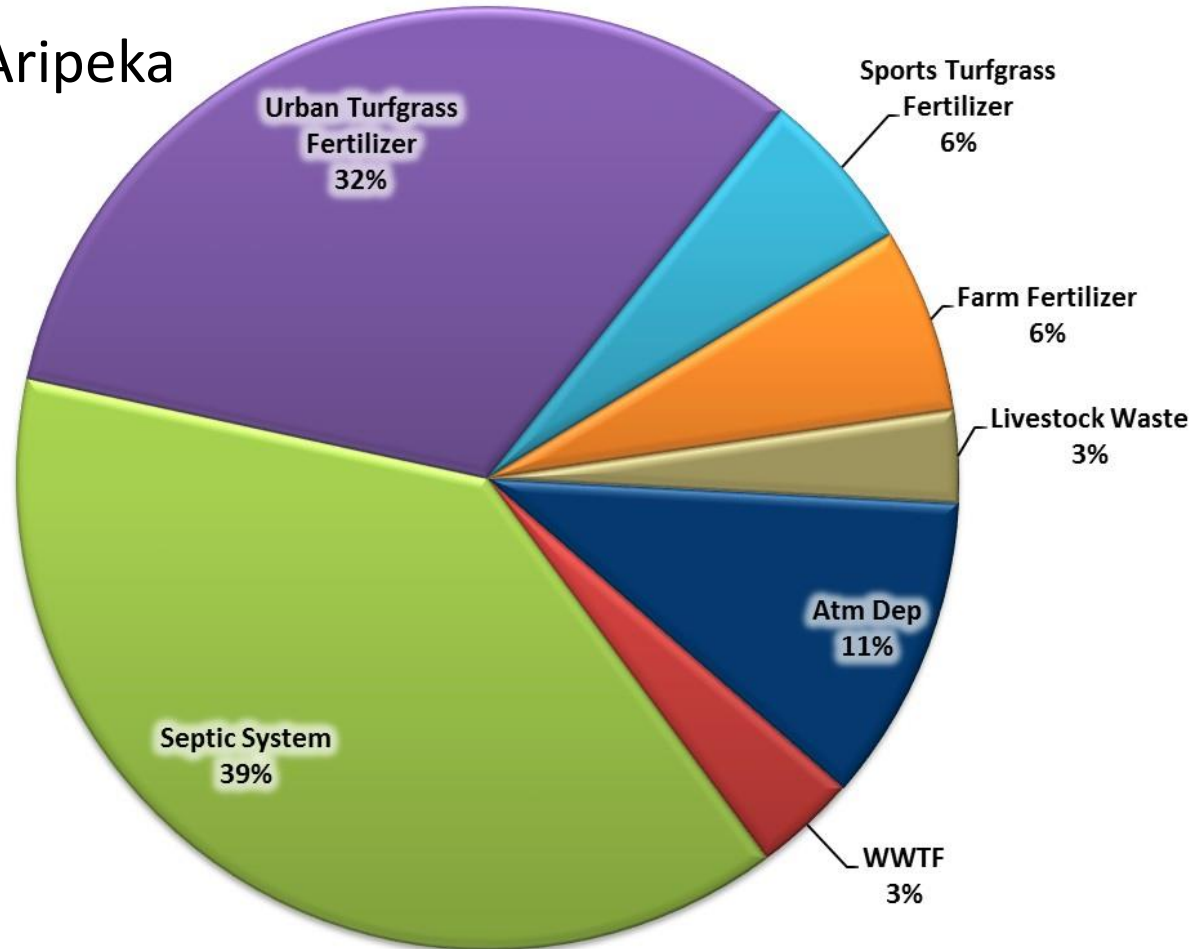


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Estimated Annual Average N Loading to Ground Water

Magnolia-Aripeka

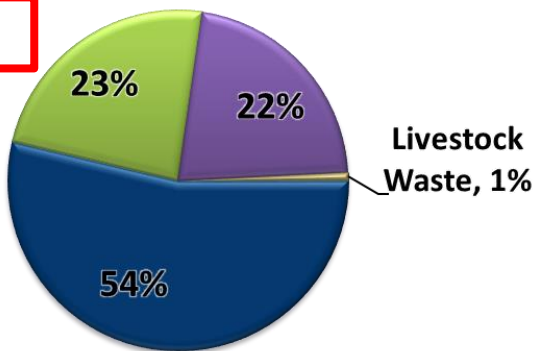


137,929 lb-N/yr



Estimated Annual Average N Loading to Ground Water

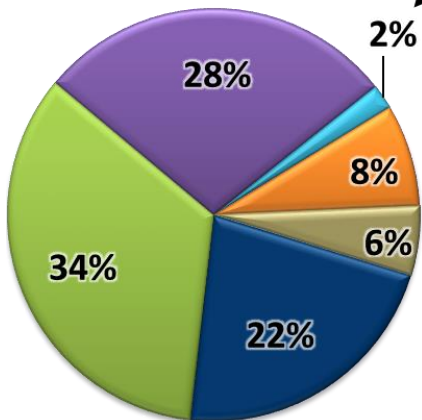
111 lb-N/yr



Low Recharge
0.1%

Medium Recharge
7%

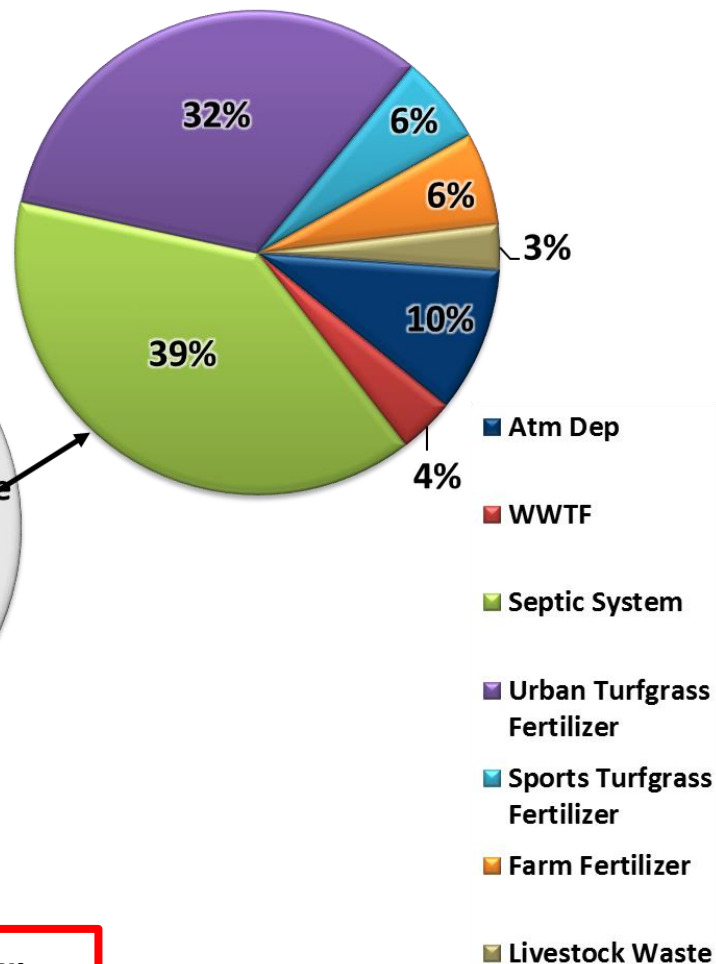
8,941 lb-N/yr



High Recharge
93%

137,929 lb-N/yr

128,877 lb-N/yr





QUESTIONS??



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