

Planning for Urban Sustainability:

COMPARING THE IMPACTS OF
RESIDENTIAL DESIGN ALTERNATIVES

Planning Decisions Build-in Resource Demands and Environmental Impacts

Existing housing shows clear variations in energy and water consumption.

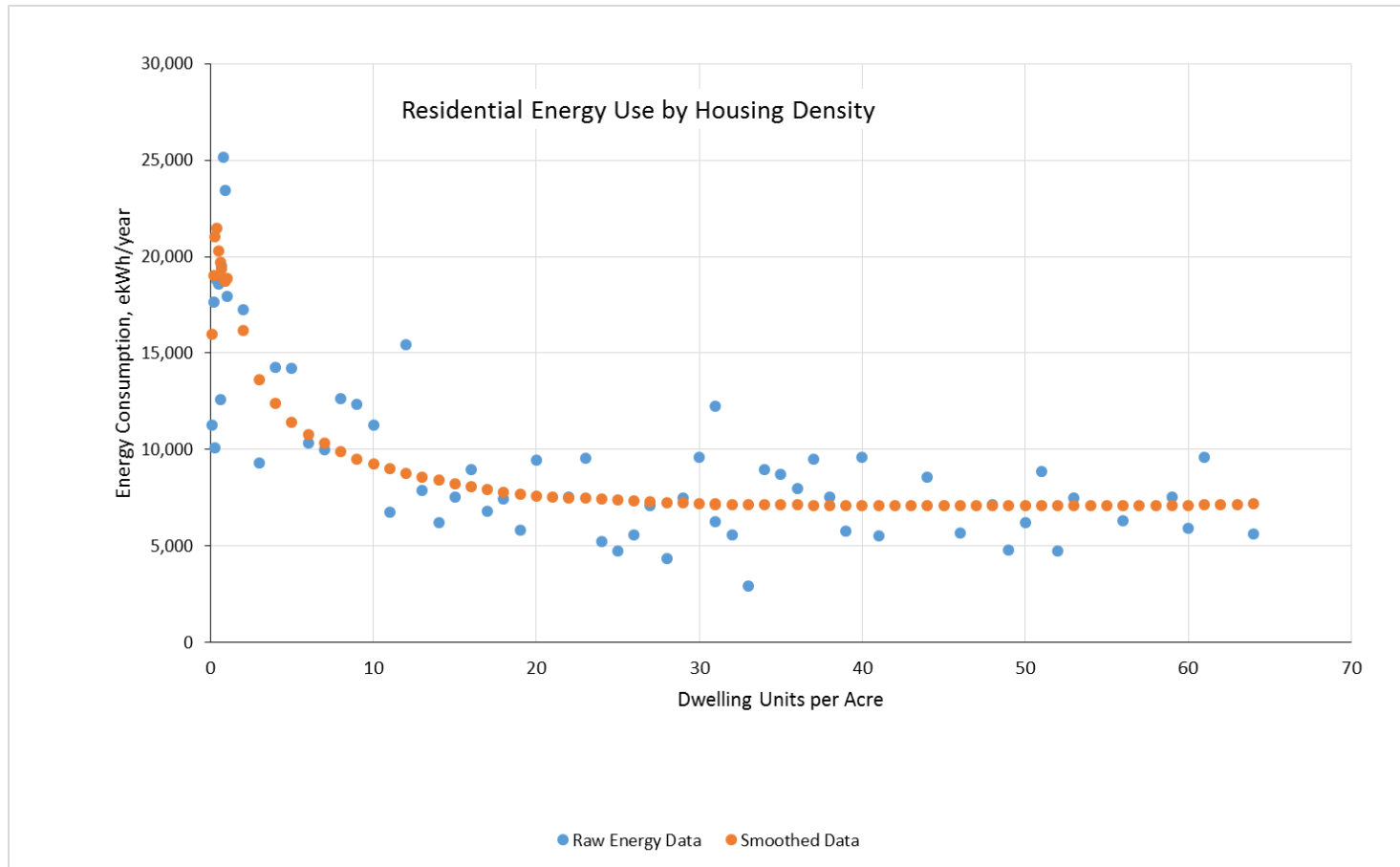
Average consumption can be predicted by density and housing type.

Residential housing types and lot sizes determined during the planning stage effectively lock-in an average level of resource consumption.

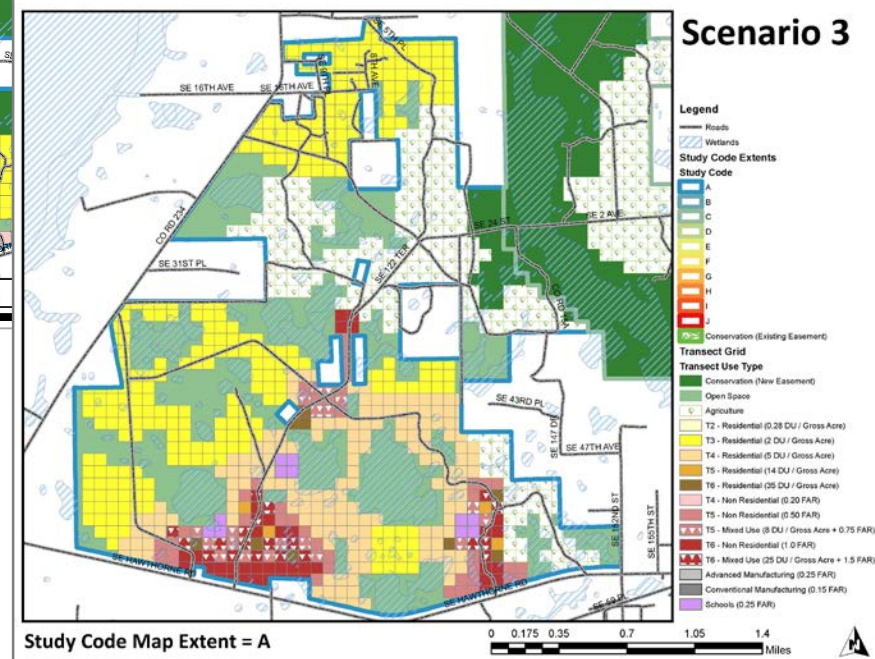
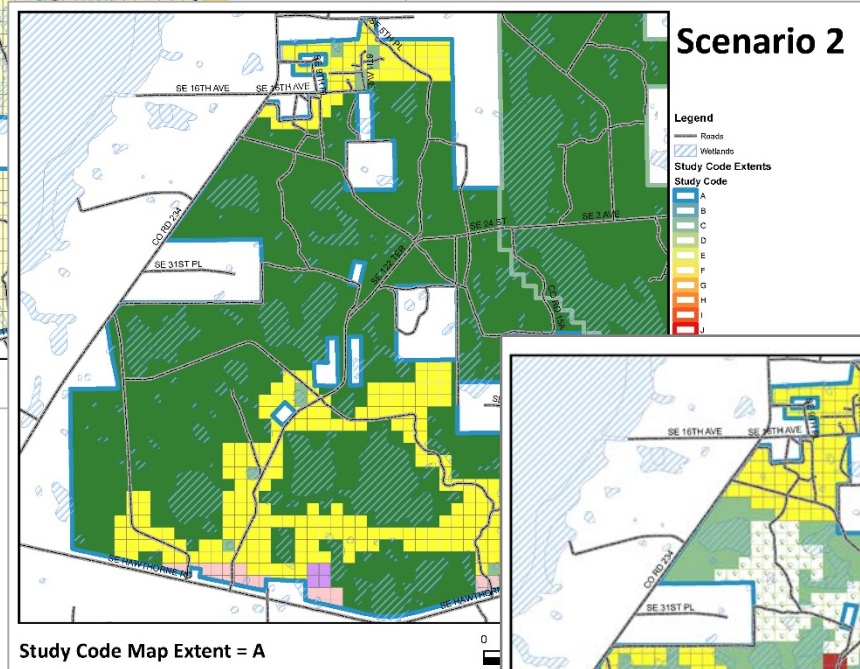
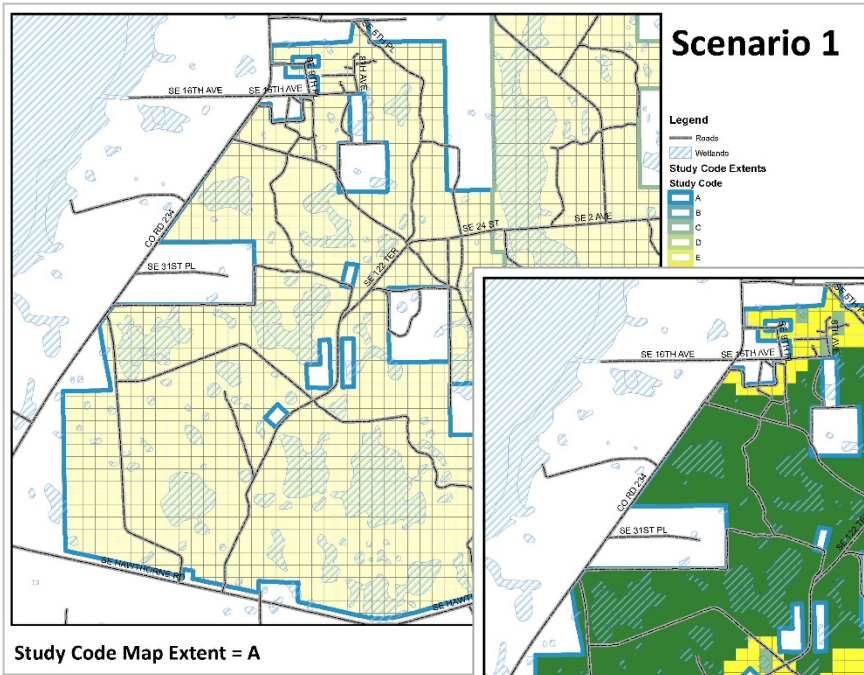
Planners need better tools to predict environmental impacts and to evaluate alternative development proposals.

ARC-GIS and CommunityViz software allow comparative analysis. 'Land use and assumptions can be quickly changed to answer 'what-if' questions during meetings. New results can often be calculated immediately.

Energy Use by Housing Type and Density: GRU Customers



Plum Creek Area A 3 Alternatives



Water Use: Total

