

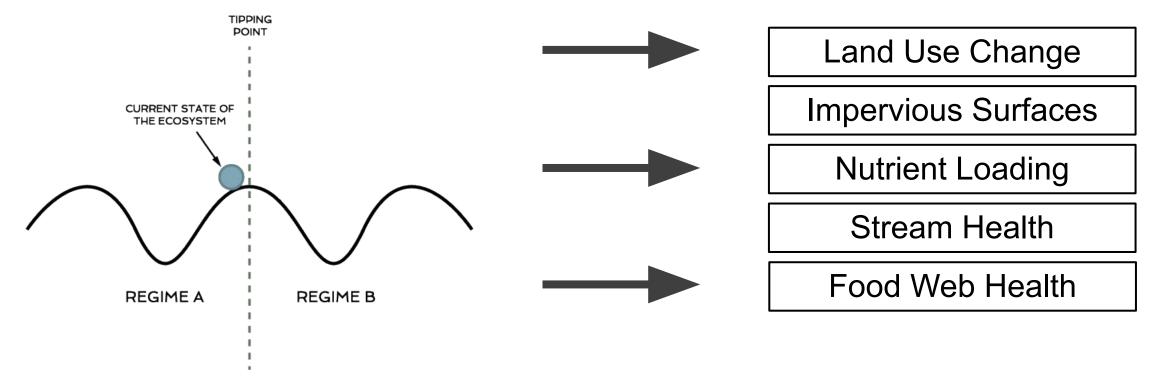
TippingPointPlanner.org

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What is a tipping point?

Challenges





Decision Support System Topics

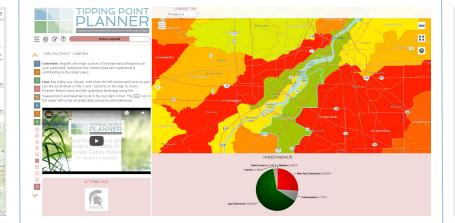
Stream Health	Nutrient Loading	Green Infrastructure	
Determine how close your watershed is to an ecological tipping point now and in the future by examining indicators such as urban land use or agricultural land use within a 150m buffer.	Explore present and future modeled loading of phosphorus and nitrogen, and identify the major sources of nutrients in your watershed.	Discover the type and location for optimal green infrastructure investment in your watershed.	
Food Webs	Land Use Change	Coastal Wetland Health	
Explore how phosphorus loading from the watershed will affect the biomass of various organisms within the food web.	Through land use modeling, discover what your community may look like under future land use scenarios and how each impacts the health of your watershed.	Determine how close your watershed is to an ecological tipping point by examining the health of the organisms living in coastal wetlands.	



Planning Scales

Regional

Watershed



County

Tipping Point Planner Co	unty Planning Dashboard - Land	Use	Select State None 👳 Select County None 👳 🗮
Current and	4 1of653 þ	₫ 1of653 þ	4 10/653 p
Future Land Use	Developed	Barren	Adams County, IL
The Land Transformation Model in the Tipping Point Planmer decision support system projects fourel land use based on historical observations in several Michaest locations. These observations were made coughly between 1970 and 2000. Over this particit, the greatest change in land use ways from agricultural to urban. Because	41,423.15 ac Projected change: 2.411%	388.53 ac Projected change: -0.011%	Hore Area Area Area Area Area Area Area Ar
counties have finite area, an increase in one type of land use means a decrease in another.	4 10f653 þ	d 10/653 þ	
Based on studies of land use and census data, researchers observed that urbanization was advancing much faster	Water	Wetland	and the second s
than population was increasing, and that the amounce's urbanized land could not be contributed to population growth alone (Pijanowski and Robinson, 2011), in this may, we save content(2016) fund use and projected land use meetics to the year 2009. The model uses base-ware 2006 data	10,489.45 ac Projected change: 0%	15,073.98 ac Projected change: -0.015%	and the second sec
to make projections based on the historical observations mentioned above. Most often, this is observed as a transition from apricultural to urban.	4 1of653 þ	d 10/653 þ	
Avferences: Planowid, S.C. & Robinson, K.D. (2011) Rates and patterns of land use change in	Forest	Shrub	
he Upper Grast Lakes States, USA: A formwork for spatial temporal analysis. Landscape and Urban Planning, 102 (2), 102-116. doi: 10.1016/j.landarbplan.2011.03.014	116,641.38 ac Projected change: -0.465%	568.23 ac Projected change: -0.004%	
NLCD Land Cover Classification Legend	₫ 1of6S3 þ	₫ 1of653 þ	
11 Open Water 12 Perennial Ice/ Stow	Crop	Pasture/Hay	的話題語時代類
21 Developed, Open Space 22 Developed, Low Intensity 23 Developed, Medium Intensity 24 Developed, High Intensity	297,263.62 ac Projected change: -1.229%	75,912.56 ac Projected change: -0.687%	

Regional Planning Dashboards

Decision Support System Modules

County Planning Dashboards

tippingpointplanner.org/resources/regional-planning



Decision Support System



LAND USE, RUNOFF, AND WATER QUALITY

Overview: Discover how future land use changes will affect stormwater runoff and, ultimately, water quality.

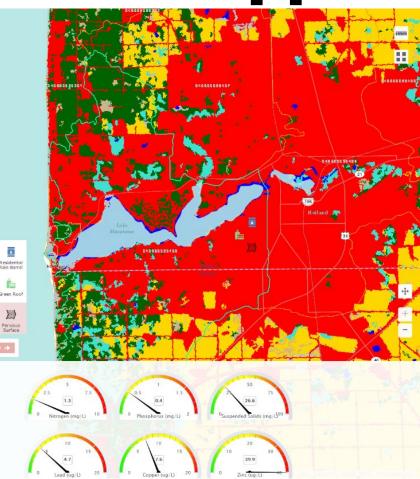
How To: Scroll down and click on the desired land use paint button to turn your cursor into a paint brush. Draw on the map to see how expanding the chosen land use cover in specific areas will affect nutrient, sediment, and metal pollution. Click the paint button again to turn your paintbrush back into a cursor.



LAND USE PLANNING TOOLS DOCUMENT

The land use planning document will display to the right. Review the content by either scroling through the screen or selecting "Open PDF" below. Go back to steps as needed to edit and save. After you review your PDF, select "Publish and Continue" to save your work and continue to module S. Action Planning.





Community Information Overview







Community Engagement

Enable <u>diverse stakeholder participation</u> in land use decisions and natural resources management strategies to plan and maintain projects.

Target audience examples

- Plan commissioners
- Government office staff
- Parks board members
- Watershed managers
- Consulting groups
- Nonprofit organizations
- Elected officials





Project examples

- Watershed management plans
- Comprehensive plan updates



Action Planning Process



Format follows community development and facilitation best practices for strategic planning and community engagement Meeting sessions include the assembly of a steering committee, community visioning workshops, and working group meetings

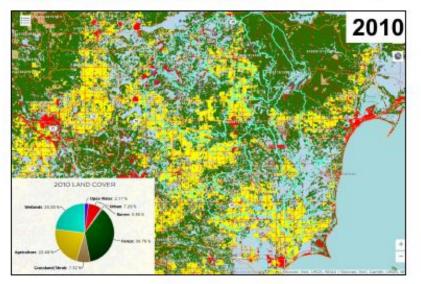


Action Plans

Technical Maps and Data Ses	sion

Current Land Use

The following map displays the land use and land cover during 2010 using the National Land Cover Dataset (NLCD) published in that year. These watersheds are comprised of mainly rural and forested cover types; these cover types make up 60 percent of the land use in this area. As of 2010, just 7.2 percent of the watershed was classified as urban, and 22 percent is comprised of agricultural land uses.



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		:	Schedule			
Strategy	Action Item	2018- 2019	2020- 2023	2024- 2029	Responsible Party	Notes
Comprehensive Plan	Collaborate on municipal planning efforts (stormwater assessment)	~			City of Au Gres, Huron Pines	
	Expand or highlight best practices and education efforts				City of Au Gres, Huron Pines, Others	
Watershed Plan	Rain garden project on Au Gres-Sims campus	~	10		Au Gres-Sims Schools, NGOs	 319 may not be best fit for two HUC 10 watersheds (not high priority for funding) DEQ can review the plan to make sure to meet nine element criteria EPA focuses on impaired water bodies; Au Gres and E. Branch Au Gres River are focused on protection Receiving investment from number of sources to prioritize projects Focus on implementation project – high quality watershed
	 Watershed inventory Road-stream crossing index Desktop inventory of agriculture (sent mailing in 2014) Build relationships with Ag community (create outreach strategy) 	1	×		Huron Pines, Au Gres-Sims, SWCDs, Others	
	Clean Marina practices	~	~		MI Sea Grant, City of Au Gres, Michigan DNR	
	Identify key areas for protection (forest, wetlands, open space, erosion areas, recreation, etc.)	~				
	 Funding next steps: 319 implementation plans (is plan development best approach due to time & resources?) Better to work on actionable projects in logical order? Other funding: GLRI, GLPF, Saginaw WIN, Great Lakes Commission, CZM program 	~	~			

Tipping Point Planner: Community Workshop Report

Coming August 31, 2020 TIPPING POINT PLANNER

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