

Overview of Best Practices:

Latest trends incorporating water into land use planning

*Danielle Gallet
Metropolitan Planning Council
Drinking Water 1-2-3 Academy Event #4*

Thursday, September 12, 2019

Why Coordinate Water + Land Use Planning?



Land use determines water demand, and directly impacts water quantity and quality.

Water Planning

- Water Utility Master Plan
- Water Supply Master Plan
- Sustainable Water Master Plan
- Water Supply Plan
- Water Efficiency Plan
- Sustainable Water Plan

A Water Utility Master Plan is a comprehensive study of the water source(s), storage, treatment, and delivery system for a community. The plan supports the water system by providing a framework to identify key challenges, issues, and considerations in order to set goals and implement effective solutions over time to ensure safe and sustainable service.

Land Use Planning

- Comprehensive Plan
- Community Comprehensive Plan
- Community Land Use Plan
- Comprehensive Land Use Plan
- Land Use Plan
- General Plan
- Master Plan

Land use plans are designed to guide the future actions of a community. It presents a vision for the future, with long-range goals and objectives for all activities that affect the local government including public and private land development, expenditure of public funds, future zoning and community needs as well as community engagement efforts. Generally written to provide direction for future activities over a 10- to 20-year period.

Why Focus on Integrating Water Needs/Goals Into Comprehensive Plans?

- Foundational to other land use efforts
- Improved coordination between plans + departments
- Elevated public engagement
- Improved quality of life!





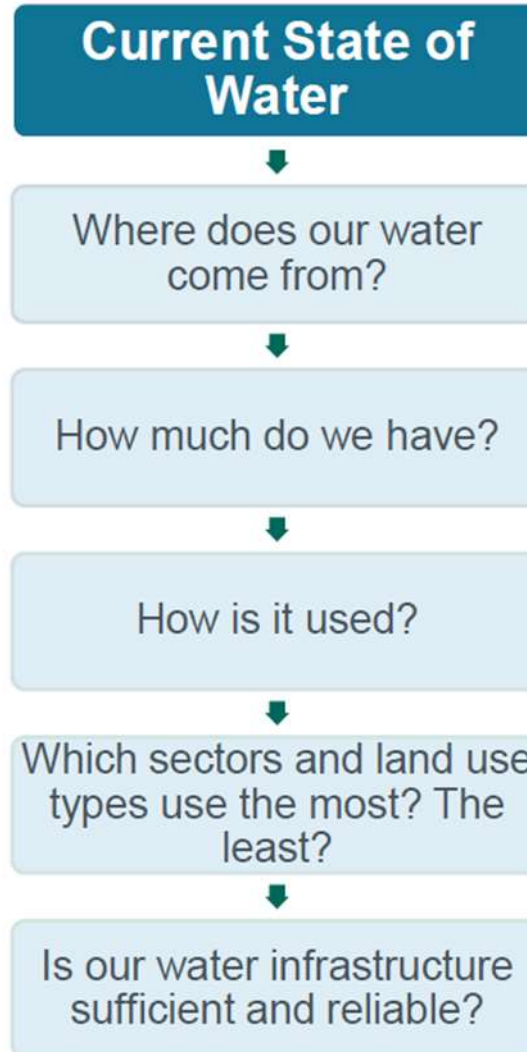
BABBITT CENTER
FOR LAND AND WATER POLICY

A Center of the Lincoln Institute of Land Policy

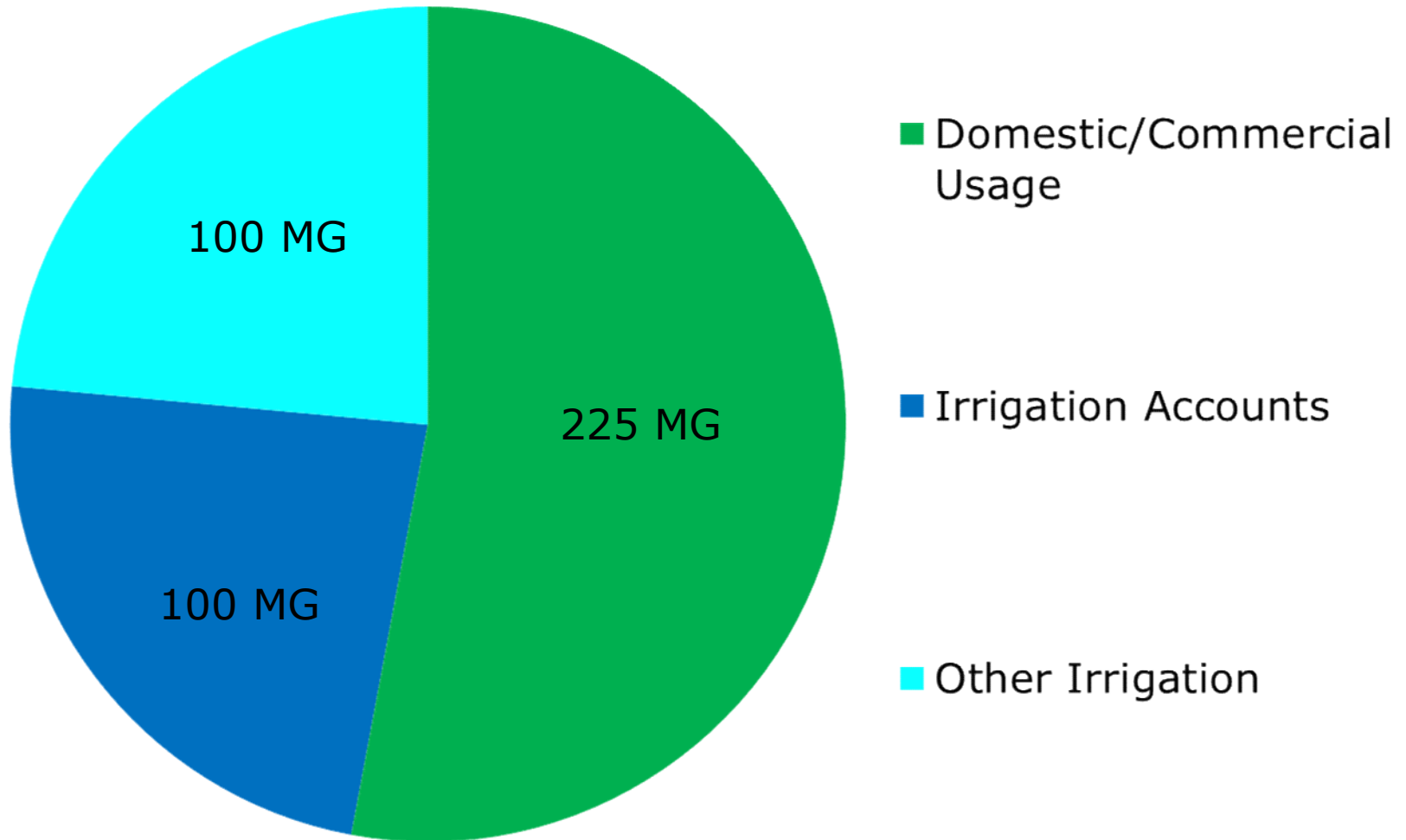
<https://www.lincolninst.edu/incorporating-water-community-planning>



Water Aspects to Address in a Comprehensive Plan



Hugo – Water Usage





Water Aspects to Address in a Comprehensive Plan

Future Resiliency



What is our population growth?



What are our development expectations?



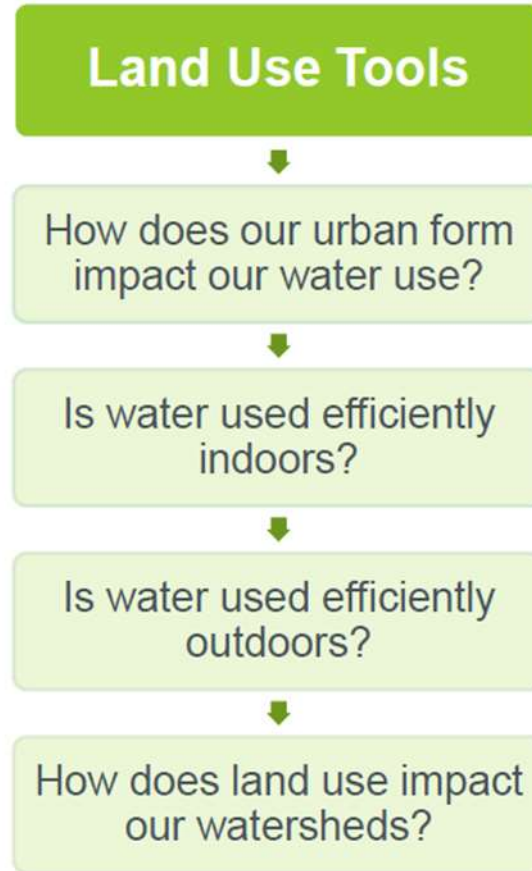
Do current water supplies line up with these projections?

Peak demand

- Water system is designed for peak usage
 - Requirement to operate system on peak day with one well off-line
 - Peak day usually occurs in July or Aug
 - Irrigation contributes to peak usage
- Stormwater use -- lowers the peak
- 2030 comp plan = 40,000 population
 - 11 wells and 4 water towers
- 2040 comp plan = 40,000 population
 - 7 wells and 3 water towers
- Capital savings!



Water Aspects to Address in a Comprehensive Plan





Land use tools available to assist water goals:

Are we collaborating on water?

- Collaboration across disciplines + plans: water master plans + comprehensive plans

Does our development process consider water?

- “Show Me the Water” Requirements
- Water involved in Development Processes + Evaluation

How does our urban form impact our water use?

- Water Efficient Urban Design + Zoning Regulations

Is water used efficiently indoors?

- Building + Plumbing Policies + Codes

Is water used efficiently outdoors?

- Landscaping/Irrigation Policies + Ordinances
- Stormwater Management

How does land use impact our watersheds?

- Water for Ecosystem Functions
- Overlay/Protection Zones



Water Aspects to Address in a Comprehensive Plan

Current State of Water

Where does our water come from?

How much do we have?

How is it used?

Which sectors and land use types use the most? The least?

Is our water infrastructure sufficient and reliable?

Future Resiliency

What is our population growth?

What are our development expectations?

Do current water supplies line up with these projections?

Land Use Tools

How does our urban form impact our water use?

Is water used efficiently indoors?

Is water used efficiently outdoors?

How does land use impact our watersheds?



Major Takeaway:

Understanding your communities water system needs is critical to creating and implementing smart land use practices to ensure a sustainable water future for your community!

<https://www.lincolnst.edu/incorporating-water-community-planning>

Small Group Brainstorming Discussions

Whether you are an elected official, municipal administrator, public works director, planner, drinking water operator, consultant in the water industry, or other:

- What are you hearing so far today that overlaps with how you can play a role in better coordinating water and land use?
- What ideas do you have for incorporating water goals/needs into comprehensive plans?
- What stakeholders and/or departments will you need to collaborate with to achieve better water and land use coordination?
- Are there water-related plans, programs or policies that currently exist in the community(s) you work in? Are other key stakeholders aware of them?

What other questions or considerations are coming up for you? Let's brainstorm!