State Water Plan Outreach Presentation Transcript

Slide 1 – Introduction

Illinois is physically and economically defined by its waters. Lake Michigan and large rivers bound and crisscross the state, providing drinking water, irrigation, abundant fisheries, aquatic and riparian habitat, commercial transportation, recreation, and natural beauty to the people of Illinois. People who rely on the water resources of Illinois to live, work, and play.

This presentation will highlight how the Illinois State Water Plan Task Force is moving forward to update the Illinois State Water Plan in collaboration with interested stakeholders and engaged citizens statewide. Thirteen key water topics have been provisionally selected as the principle focus of the updated plan and are explained further in this presentation.

Through this public outreach effort, the State Water Plan Task Force seeks public confirmation and/or insights to the key water topics selected for the updated plan. Thank you for your participation in this effort.

Slide 2 – History

The state of Illinois was a pioneer in the development of a State Water Plan with the first plan dating back to 1967. Since that time many other states in the union have similarly developed state water plans of their own.

Governor Thompson created the State Water Plan Task Force of state agencies in 1980 and charged those agencies to develop a plan intended to provide policy and program guidance in water resource management. The Task Force delivered such a plan in 1984 and has worked on implementing recommendations of the plan since but did not update the plan, until now.

Slide 3 - Mission & Goals

Like most plans, the State Water Plan has a mission and goals for addressing the water issues facing the state, but more importantly, the updated State Water Plan provides OPPORTUNITY. Opportunity for unified voices to spotlight key water issues in the state, including social and environmental justice issues inextricably linked to water and woven into the plan, and to recommend necessary changes and new ideas to elected officials and key leaders in the state of Illinois.

While the individual water related state agencies in Illinois are very broad in their authorities and responsibilities, this update to the state water plan seeks to provide a unified 5-year focus on key water topics in the state to help guide the state's water programs, expenditures, and activities in an equitable manner in these areas.

Slide 4 - Modern Plan

Like previous plans, the updated State Water Plan will be compiled into a written report and provided to the Governor and elected officials in Illinois for consideration.

Unlike the previous plans, this update to the State Water Plan will also:

- Be easily accessible to the public on the internet;
- Include GIS based data and mapping where appropriate;

- Be dynamic in nature to include regular updates on recommended actions, policies, programs and activities; and
- Identify evolving topics and issues in Illinois water resources.

Slide 5 – Process

The State Water Plan Task Force, currently chaired by the Department of Natural Resources, has divided the plan update process into 3 steps shown here.

This first of 3 planned outreach efforts, shares the work of the Task Force in step 1 to identify, prioritize, select, and assign lead agencies to key water issues/topics in the state and to gain reactions and insights to the selected issues as the update process begins to move into step 2.

Step 2 includes creating specific work groups for each key topic to identify and develop recommended policy and program enhancements or new ideas and their benefits to the citizens of Illinois. The second of 3 outreach efforts will be scheduled near the completion of this step to again gain reactions and insights to the draft recommendations developed in this step.

Step 3 includes combining and publishing a draft State Water Plan report and interactive website for consideration and discussion related to next steps for plan implementation and action.

Slide 6 - Issues Considered

As the State Water Plan Task Force members began the Research and Outreach phase of updating the State Water Plan, the task force members compiled a list of all potential issues to address within the plan. This list included all the items listed in the 1984 plan, new ideas from Task Force members and input obtained from stakeholder group. The compiled list is shown as the first column of the table.

These issues were then evaluated by the task force members on a scale of 1 to 10 on their importance with 10 being the most important. These evaluations were averaged, and the results are shown in the second column. It was decided that instead of having 29 topics, that many of these topics could be combined. The final column in the tables shows which of the provisional 13 topics that these original topics were combined into. The number in this column corresponds to the number in the first column of the table on the following slide.

Slide 7 - 13 Topics

Once the 13 topics were identified, the State Water Plan Task Force determined the lead for each topic. This agency would designate an individual responsible for developing this topic, including establishing a committee, researching previous efforts, identifying issues, developing recommendations, and developing the text for the report. While all work may not be completed by this individual, they are the point of contact for this topic and they will ensure all tasks are completed for it.

In addition to lead agencies, supporting agencies were also determined. Supporting agencies are interested in the topic and likely serve on the topic committee. Anyone serving on the committee can undertake tasks for that topic. Once leads were established, they were directed to move forward. At this point in the process, these committees have identified the preliminary topic issues to address in the report.

Slide 8 - Schedule

From now until January 15th, we will be accepting public comments on these 13 topics and their identified issues. Then attention will be directed to developing recommendations followed by another public outreach effort to share that information in May followed by a public comment period ending in June. A final public outreach will be held in November sharing the draft report with an anticipated publishing date of the end of the calendar year. Due to several uncertainties including, but not limited to, comments requiring major changes and impacts due to the pandemic, these dates are subject to change. Please visit the State Water Plan Task Force website for the most up to date schedules and information.

Slide 9 - Topics Details Section

The second portion of our presentation will be the lead agencies providing an overview of their topic and listing the identified issues.

Slide 10 - Water Quality

1. Drinking Water Program Deficiencies - The United States Environmental Protection Agency (U.S. EPA) Program Review and Enforcement Verification identified certain drinking water program deficiencies that could be addressed with personnel resource enhancements at the Illinois Environmental Protection Agency and the Illinois Department of Public Health (IDPH). See the Annual Groundwater and Drinking Water Program Review at the following, for further detail https://www2.illinois.gov/epa/Documents/iepa/compliance-enforcement/drinking-water/2019_Groundwater_Drinking_Water_Program_Review_CY18_Report_Final.pdf

➢ The Illinois EPA and IDPH developed a Corrective Action Plan (CAP) that was approved by US EPA

- The CAP is filling vacancies, adding staff, and is addressing needed succession planning
- Resources from SRF set-a-side and match

2. The Illinois Groundwater Protection Act (IGPA) Implementation – The IGPA requires implementation to be reported on biennially to the Legislature and General Assembly by the Interagency Coordinating Committee on Groundwater ICCG) and the Groundwater Advisory Council (GAC). Illinois EPA chairs the ICCG and is liaison to the GAC. The ICCG and GAC future recommendations for the next two years included recommending the following rulemakings to the Illinois Pollution Control Board to deal with coal ash pollution from surface impoundments at Coal Fired Power plants and new contaminants found in Illinois Groundwater:

- Public Act 101-115 o Established permit and inspection funds to provide for staff and resources
- Proposed Part 845 to the Board by the statutory deadline
- Proposing Updates to Part 620, including for Per- and Polyfluoroalkyl Substances (PFAS)

See the IGPA Biennial Report at the following, for further detail: https://www2.illinois.gov/epa/topics/water-quality/groundwater/wellhead-protection/Documents/2020_01_07%20Final%20IGPA%20Report.pdf

3. New and Emerging Issues beyond the Safe Drinking Water Act (SDWA) U.S. EPA regulations –Illinois EPA has primacy for implementing the SDWA in Illinois. Illinois EPA has delegated the non-community public water supply program to IDPH and there are new and emerging issues including: PFAS; Lead and Copper issues regulations; increased occurrence of Legionnaires Disease and increasing occurrence of Harmful Algal Blooms (HABs).

4. Hypoxic Zone in the Gulf and Mexico and Illinois Contribution & Agreement Municipal Dischargers and Environmental Groups to Reduce Phosphorous – High levels of nutrients in Illinois rivers, lakes and streams. High concentrations in groundwater hot spots also potentially contaminating surface water. • Illinois Nutrient Loss Reduction Strategy

- Reduce phosphorous to 0.5 mg/L by 2025, 2030, and 2035 depending on the type of treatment employed
- Voluntary nonpoint source (NPS) nutrient reductions from primarily the agricultural but also the urban communities, and long-term Super Gage continuous monitoring and/or more frequent grab sample monitoring at certain sites so that N and P export from Illinois can be biennially derived and reported on
- Havana Real Time Groundwater Nitrate Monitoring Pilot

5. Increasing Chlorides in Northeastern Illinois – There are increasing trends in of chlorides in rivers, lakes, streams and groundwater. This is also a problem that has been documented by the USGS on a corrosion to drinking water infrastructure and drinking water quality if greater than 0.7 milligrams per liter (mg/L). It appears that this may have been a contributing factor to the lead action level exceedance at AQUA University Park utilizing source water from the Kankakee River. This finding played an important role in Joliet's evaluation of alternative sources of water due to the dewatering of the Cambrian-Ordovician Aquifer System. One of the sources that Joliet was evaluating in addition to the Kankakee River was the Illinois River that has an CSMR of 4 mg/L.

- Watershed and groundwater protection best management practices (BMPs) for de-icing agents
- Pending chloride Time-Limited Water Quality Standard (TLWQS) that is currently before the IPCB that will have all the participants in the CAWS watershed employ BMPs
- Scale analysis and pipe-loop studies before changing sources of drinking water

Slide 11 - Climate Change

Slide 12 - Integrated Water Management

Integrated Water Management is state and interstate programs, coordinating information, authorities and program resources with each other and with local and/or federal programs for unified, equitable, and improved problem resolution. Management of the state's water resources is currently provided by several state agencies. However, water resource issues are inextricably linked and often require communication, coordination, and collaboration among agencies, impacted citizens and engaged stakeholders to develop and implement meaningful solutions. Out of necessity, individual work groups such as the Silver Jackets Program group, or the River Coordinating Council, or the Illinois Marine Transportation System Task Force have formed to begin to fill this collaboration void, but they lack the ability to access common data, tools, plans, knowledge and resources in a unified approach to better address water issues and needs across the state of Illinois.

Slide 13 - Long-Term Funding

See slide text

Slide 14 - Water Sustainability

Hello, I am Wes Cattoor, the lead for the water sustainability topic for the State Water Plan. Water Sustainability is ensuring all water users have an adequate quantity for their needs. The committee has identified the following provisional issues that will be addressed in the plan

- First, Water Use Data & developing demand. This includes:
  - Improved efficiency in collecting and sharing water use data obtained from Illinois Water Inventory Program and

    - Developing consistent methodology for future water demands throughout the entire state.
- The second is Water Supply. This includes:
    - Identify all available water supply sources
    - Identify those sources that are being utilized at unsustainable rates
    - How to utilize and promote excess supply, and
    - Identifying alternative sources available.
- The third is Regional Water Supply Planning Program. This includes:
    - Evaluating the program including how and which stakeholders are involved
    - Determining Economic benefits to water supply
    - Identifying multiple discipline benefits and
    - Environmental Justice
- The final issue is best management practices within water supply planning.
    - This includes planning for droughts, conflicts and future shortfalls.

An example of the task is shown in the chart on the right. It shows county level demand in the blue versus supply in the gold. If demand exceeds supply, recommendations would need to be developed to address an unsustainable use of water. This can be done by increasing available supply or decreasing water demand through conservation or other measures. If supply exceeds demands, local stakeholders can develop recommendations to promote growth in their region. Thank you.

Slide 15 - Lake Michigan

Lake Michigan is a treasured Illinois resource.

Over 8 million people in Illinois rely on this great lake for their daily water use as do many businesses and manufacturing facilities in Northeastern Illinois. In addition to its natural beauty, the Lake supports large boating, fishing, and tourism economies.

The Lake Michigan topic in the state water plan potentially includes issues such as equitable water allocation, water supply infrastructure, Lake Michigan diversions, water rates, water conservation and reuse, tourism, commercial navigation, shoreline erosion, coastal resiliency, public access, vessel discharges, and offshore wind energy.

Slide 16 – Flood Damage Mitigation

Flooding is Illinois’ most prominent natural disaster. All 102 counties in Illinois have experienced flooding. The attached map indicates the costs attributed to flooding for each county. Issues for our group are related to identifying high flood risk areas and then mitigating those impacts.

First each flood hazard area needs to be identified and shared with all decision makers using current technology, updated data and realistic projections. Many areas in our state utilize decades old hydraulic and hydrology models. To add complexity, long-term climate records of precipitation show that Illinois has become wetter over the past several decades, so this new data needs to be used in our updated models. Real-time maps and tools are continuing to evolve but need to be shared with the appropriate parties during a flood event. When identifying high flood risk areas, each community’s vulnerability must be considered since vulnerable populations may experience greater and longer-term impacts from flooding.

Once high-risk areas have been identified, mitigation efforts must be completed to rectify damages and minimize future risk. Illinois experiences both riverine and urban flooding. For riverine flooding, historically levees, elevated structures and structural buyouts have been employed to minimize future flood impacts. Future mitigation efforts need to consider structural and non-structural or natural solutions. Mitigation efforts need to tie into watershed planning with adequate technical support and outreach efforts. Finally, existing stormwater infrastructure is outdated and undersized creating flooding events and damage in densely populated and urban areas. Mitigation efforts for both riverine and urban flooding issues will require dedicated funding from various sources to support.

Slide 17 – Aquatic and Riparian Habitat

The vision for aquatic and riparian habitat in Illinois is to have waters with physical, biological, hydrological, and chemical components and processes which support diverse, self-sustaining plant and animal communities in our rivers, streams, lakes, and riparian areas. This requires adequate assessment and planning so that Illinois waters can sustain both human needs and the envisioned aquatic and riparian habitat.

In Illinois, approximately 42% of assessed stream miles and 52% of lakes do not support protection and propagation of native species. Biological assemblages indicate 30-56% of assessed streams are moderately impaired and 3-4% are severely impaired, depending upon the assessed taxonomic group. Identified causes of degradation are both chemical and physical and result from landscape alteration, point-source discharges, channelization and impoundments.

Those streams with two or more high quality biotic communities are categorized as Biologically Significant. Only 122 stream segments in Illinois, or about 8% of those assessed, meet this criterion.

So, if most Illinois' waters fall short of the vision for aquatic and riparian habitat, how might conditions improve. The State Water Plan Task Force and consulting stakeholder groups have identified three problem areas and recommendations for alleviating those problems.

First, develop strategies to enhance or protect aquatic and riparian habitat structure and processes.

- Expand existing or develop new incentive programs that promote BMPs that provide benefit to aquatic and riparian habitat. Implement those same BMPs on public lands.
- Enhance lateral and longitudinal connectivity of aquatic habitat through dam removal and levee removal or setbacks.
- Identify important groundwater resources and implement protection for those resources.

The second recommendation is to improve data coverage, resolution, and integration. This would include data directly evaluating aquatic and riparian habitat and also data on the condition of aquatic communities which can serve as a surrogate for the status of aquatic and riparian habitat.

Thirdly, the State Water Plan Task Force recommends improved prioritization of aquatic and riparian habitat in State policy and law.

- Identify waters eligible for protection programs and expand use of existing protections for Illinois waters.
- Establish ecologically-based flow standards for protected waters.
- Establish of enhance environmental review processes to identify and minimize or mitigate impacts to aquatic and riparian habitat.

These recommendations will help identify, protect, and assess Illinois aquatic and riparian habitats, and ultimately the aquatic biota within.

Slide 18 – Regulatory

Hello, my name is Steve Altman, I am the lead for the regulatory topic.

For the Illinois State Water plan. We have identified three issues with regard to regulation of waters in Illinois.

First, is the protection of stream flows. We're going to look and would ask the public to comment on if there is a need for expanded authority in this area. The second issue is clarification of authority and enforcement capabilities. What needs what is currently covered under current authorities and regulation? Who is responsible? And do we want to expand this? And third, what are shortcomings of existing statutes? Where are the current gaps? How do we close the gaps? Does language need to be changed? Does new law need to be created?

Slide 19 – Navigation

Welcome to the State of Illinois Water Plan Update – Navigation Section. You are listening to BJ Murray. I am the Illinois Department of Transportation's Section Chief of Marine Program planning.

There are 1,118 miles of commercially navigable waterways in Illinois providing access to the Gulf of Mexico. The State borders 60 miles of navigable Lake Michigan waters which helps link the Atlantic Ocean to the Gulf of Mexico.

In 2019 the Illinois Department of Transportation undertook an Illinois Marine Transportation System Plan & Economic Impact Analysis Study. The purpose of the Study is to provide the State a comprehensive understanding of the marine system from a commerce and transportation perspective. It will be completed in 2020, and the document will be on the Department of Transportation's website.

The U.S. Army Corps of Engineers has jurisdiction over a majority of the infrastructure along the IMTS; however, the State coordinates with them in a variety of roles.

Some of the greatest issues affecting the reliability of the navigation of the marine system are:

- aging infrastructure
- inadequate funding
- limitations on size of vessels due to lock size
- lock closures
- inconsistent water levels
- environmental considerations
- dredging

Modernization and maintenance are needed to help the U.S. maintain its global competitiveness. This is particularly important for Illinois corn and soybean producers

The locks were constructed from the 1930s to the 1950s at a time when tows were smaller, and there was less traffic on the waterways. The antiquated lock facilities limit the system's modern capacity.

Environmental considerations include limited floodplain access, declining aquatic plant and animal life diversity, erosion damage to shorelines, and sediment build up. Currently, plans are being developed to create passages for wildlife through locks and dams, to construct structures to prevent erosion, and to better fund dredging keeping navigational channels clear. These solutions can help maintain or even increase diversity and movement in our waterways.

Slide 20 – Erosion & Sedimentation

Slide 21 – Stream Data Management

Slide 22 - Recreation

Slide 23 – How to help

We would like your help to make the most of this opportunity.

- First, share this presentation with others that may have an interest in this undertaking.
- Make sure to complete the public survey and give us your feedback. In that, note if there were major topics or issues missed? Know that this plan is not meant to be comprehensive, but a list of top priorities that will be reevaluated over time. List if you have expertise and are willing to assist in the tasks undertaken by the committee.
- If you have further questions, please attend the live Q&A sessions
- Lastly, we as state employees ask for your support. The topic leads have volunteered from their busy schedule to help develop this plan. This was not a legislative mandate but initiated by the task force without additional resources. Be considerate and know that all members must still fulfilling their regular requirements of their positions. We thank you for this in advance.

Slide 24 - Closing

Thank you for interest in the Illinois State Water Plan. Please plan to participate in one of the virtual outreach sessions scheduled for December 1st, 2nd and 3rd or complete an outreach survey.

Information about the virtual outreach sessions and access to the outreach survey is available on the website noted on this slide.

This concludes the presentation, thank you.

Link to State Water Plan Website:
https://www2.illinois.gov/dnr/WaterResources/Pages/StateWaterPlanTaskForce.aspx