



Irrigation Water Workshop Summary Report

Water Security Agency
Agriculture Services and
Economic Development

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Workshop Overview

The Water Security Agency (WSA), in collaboration with Irrigation Saskatchewan and the Ministry of Agriculture (MoA), hosted an Irrigation Water Workshop on December 2, 2024, as part of the Irrigation Saskatchewan Conference in Saskatoon. This workshop aimed to facilitate collaboration among irrigators, producers interested in irrigation, industry representatives, the public and government officials. It provided a platform to share updates and gather feedback on key topics including:

- Irrigation and Public Trust
- MoA Irrigation Legislative Requirements Guide for Producers
- Flexible Allocation, Water Monitoring and Reporting
- WSA Approach to Managing 2024 Water Supply Shortage in the Big Stick Basin

A total of 90 participants attended the Irrigation Water Workshop, representing a diverse group, including government employees, producers, consultants, non-profit organizations and industry representatives. The producers in attendance, and who responded to the survey, represented approximately 25,000 acres of irrigated land in Saskatchewan.

The workshop was structured with presentations on each topic, followed by discussion sessions to gather participant feedback. Table facilitators were assigned to collect input from attendees, and a survey was conducted at the end of the workshop to gather additional feedback on the event.

The following report summarizes key stakeholder feedback on each of the topics discussed during the workshop. The feedback gathered will help inform initiatives to address evolving needs and foster public confidence in water resource management.

Irrigation and Public Trust

Participants engaged in a discussion about the importance of irrigation and its relationship to public trust, addressing current issues and exploring the gaps between the two topics. Throughout this dialogue, examples were presented to stakeholders to show areas where public trust requires attention, such as the water supply in Lake Diefenbaker, the announcement of the Westside Rehabilitation Project and others.

Participants were informed about the knowledge gaps in irrigation and the importance of building public trust through awareness and education. Some of the main takeaways from this discussion included:

Producer Perspectives:

- Concerns about water allocation fairness, procedural transparency and timely communication.
- Need for regular updates on allocation decisions, better co-ordination between agencies to reduce delays and improved public messaging.
- Economic feasibility concerns, including high irrigation development costs and infrastructure impacts on rural municipalities.
- Desire for more education on water usage, and agricultural benefits, and to address the negative perception of media sources on irrigation expansion.

Industry Perspectives:

- Industry should take a stronger role in advocacy, public education and correcting misinformation.
- Collaboration with stakeholders, including environmental groups, to share positive messages about irrigation.
- Need for improved government-industry co-operation such as collaborating at trade shows.
- Desire for new irrigation monitoring programs.
- Request for industry to be part of the planning and development process.

Public Concerns:

- Transparency in water allocation and its environmental impact, particularly on wetlands and recreational water bodies.
- Perceived misinformation regarding the scale and impact of irrigation expansion
- A need for clearer communication about irrigation benefits, including its role in food production and economic development.
- Desire for increased support for government-led educational initiatives, including continued workshops, irrigation education in schools, and WSA presence at urban tradeshows like the Sports and Leisure Show to reach a broader audience about agriculture and irrigation.

Irrigation Legislative Guide for Producers

A presentation was given by MoA on the Irrigation Legislation Guide for producers and it outlined why and how the document was created, what the participants could expect to find within the document, and how the feedback session would unfold. The participants were asked to answer questions using the document to see if the guide would be applied as developers had intended.

Twelve tables participated, made up of 15 producers, 18 industry representatives, and one member of the public.

Summary of Results:

Approximately 75 per cent of the time participants noted that the information to answer the questions was “easy to find” with 20 per cent indicating that the “information was found with some searching”. Overwhelmingly, the document was seen to be “helpful” to both new and existing irrigators. Of note, as the participants became familiar with the document the “easy to find” responses increased.

Items noted as requested amendments:

- The glossary should be moved to immediately after the Table of Contents.
- Table of Contents should be moved after the Introduction.
- Any abbreviations in the document should be spelled out and consistent throughout i.e., ICDC/Irrigation Saskatchewan.
- Highlight the note to the Appendices to make it clear that this information is found within the document.
- Irrigation Certification should have a note as follows; Irrigation Certification (Soil analysis) and it should be mentioned that soils work can be completed privately.
- Carry forward the headers from each page to the next so that the user can understand what section they are in; i.e., pg. 6, 7, 8 are all Ministry of Agriculture; however, only noted on pg. 6.
- Add as many links/email information as possible to each of the itemized groups.
- AHPP should mention Crown land administered by the Ministry of Environment.
- Double check all of the reference page numbers once amendments have been made.
- Heritage should be mentioned in the document, rather than just the ministry as it provides clarity to that section.
- Electronically, could the PDF have hyperlinks from the checklist and/or table of contents to the appropriate section.

The feedback received on the Irrigation Legislative Guide will be used to further refine the guide to better meet producers’ needs.

Flexible Allocation, Water Monitoring and Reporting

Participants were updated on flexible allocation, water monitoring and reporting. During the presentation, they gained insights into what flexible allocation entails and were provided examples of pilot projects currently testing this approach. Additionally, participants learned about WSA's water use monitoring and reporting initiatives. These included WSA's trial use of electromagnetic flow meters, satellite irrigation monitoring and the Water Monitoring and Reporting Initiative.

To conclude the presentation, a series of questions and scenarios were posed to gather concerns, feedback and innovative ideas for improving current practices. Some of the main takeaways from this discussion include:

Flexible Allocation:

- Volume-based allocation is effective in some regions but less practical in dry areas.
- Crop type, crop rotation, economic viability and soil characteristics are major decision factors.
- Most farmers support the flexibility to manage their allocation and are willing to take advantage of the additional irrigation acres.
- Flow meters and soil moisture probes would be acceptable for this concept.
- Water distribution can be spread out, focusing on higher value crops.
- Industry can support flexible allocation by providing technology to producers (e.g., soil moisture probes), and education on variable rate irrigation (VRI) and scheduling to optimize irrigation use.
- Concerns: Risk of using more water than allocated, depleting water resources and potential that farmers might manipulate the system to their advantage, using more than their fair share of water.
- Solutions: Implementing wireless water flow meters to monitor water usage in real-time, detect leaks and ensure compliance.

Water Monitoring:

- Currently, irrigators track water usage through hour readers, manual tracking (e.g., spreadsheets), flow meters, electronic probes, rain gauges, tracking circles etc.
- Challenges include issues with calculations and calibration, components of irrigation systems, such as nozzles, affect flow meter data accuracy.
- Challenges to flow meter adoption are that they are considered costly and they need to be frequently replaced due to maintenance issues (rust, algae) causing breakage. Training and financial incentives (e.g., rebates) could encourage flow meter adoption.
- Industry has found flow meters to be the easiest system to use, with limited issues unless installed after an elbow in the pipe, which can affect water rate flow calculations.

- To build confidence with the public, participants suggested publicly posting monitoring data, make it mandatory to use water meters for irrigation and to educate the public about water use and irrigation practices.

Reporting:

- Current reporting methods include tracking water usage monthly and submitting reports annually, often by paper.
- A scenario of biweekly reporting was proposed to the group but was largely seen as impractical by most. Monthly or quarterly reporting is preferred, with some producers favouring annual reporting.
- Tools and technologies that could support producers with reporting include flow meters, which could automatically transmit data to WSA. Additionally, WSA could develop an app similar to SaskPower, where meter readings could be submitted through the app.
- There is a lack of confidence in Saskatchewan's current irrigation reporting practices with key concerns including lack of accountability, potential inaccuracies in reporting methods, and reliance on producer honesty. Producers also expressed concerns about neighbours overwatering.

WSA Approach to Managing 2024 Water Supply Shortage in the Big Stick Basin

Participants received an update on WSA's approach to managing the 2024 water supply shortages in the Big Stick Basin. The presentation covered key topics, including an overview of water shortages, the Big Stick Basin and its water supply reservoirs, water management, various water users, historical trends and a month-by-month breakdown of the 2024 water supply (February–November).

Following the presentation, stakeholders provided feedback on WSA's approach and discussed communication preferences. Key takeaways from the discussion include:

General Feedback on WSA's Approach:

- WSA's water management approach was considered reasonable and practical.
- Weekly reports and scheduling letters were appreciated for better planning.

Opportunities for Improvement:

- Increase public access to data to improve transparency and public trust.
- Implement mandatory water use reporting during drought periods.
- Develop a provincial drought plan.

Water Use Prioritization:

Most stakeholders ranked water use priority as follows:

1. Municipal (human use)
2. Domestic (farm/livestock use)
3. Industrial (e.g., oil & gas, intensive livestock operation)
4. Intensive irrigation
5. Non-intensive irrigation

Calibration Support for Irrigation Systems:

Respondents generally agreed that WSA could assist with calibration, but some preferred third-party involvement to encourage producer co-operation.

Communication Preferences:

Effective communication with irrigators was viewed as critical for successful water management. Stakeholders preferred a mix of communication methods, emphasizing the importance of early communication. Preferred communication methods are:

- **Email:** Best for reaching large groups with detailed information, though some emails may get lost.
- **Text Messages:** Ideal for quick updates, with links to more information.
- **Phone Calls:** Effective for urgent matters, especially for older generations.
- **Social Media:** Facebook and WhatsApp were favored for quick updates, while traditional mail and fax were least preferred.
- **Group Chats:** A text group chat with WSA and irrigators was seen as effective for communication.

Additional suggestions included developing a WSA app for updates and reminders, posting information on municipal websites, and using a combination of email and text for urgent messages.

Timing of Communication:

- Early communication on water availability is essential.
- Weekly updates were preferred during the growing season, with monthly or quarterly updates at other times.

Information Needs for Irrigators:

Irrigators requested more detailed, localized information to better plan their operations. Key information needs included:

- Historical data for water predictions.
- Snowpack and runoff predictions.
- Water quality updates during the season.
- Information on spring seeding and reservoir predictions.

Conclusion

The Irrigation Water Workshop brought together producers, industry representatives, government officials and the public to discuss key irrigation and water management challenges. Discussions focused on the importance of the irrigation sector, the need for transparent water allocation, and the role of technology in sustainable water use. Participants emphasized the value of education, improved communication, and innovative tools like flow meters to enhance efficiency and build public trust.

The workshop highlighted the desire to adopt flexible water allocation, timely reporting and collaboration among stakeholders. Insights from the workshop will guide future efforts to strengthen the irrigation sector, ensuring sustainable irrigation growth in Saskatchewan.

The Water Security Agency, Ministry of Agriculture, and Irrigation Saskatchewan would like to thank all participants at this workshop. The feedback received is valuable and will help inform government decisions on implementing new policies and programs. For additional information on the topics covered during this workshop, please reach out to the Water Security Agency at irrigation.development@wsask.ca.

To learn more about the 2023 Irrigation Water Workshop, WSA's Irrigation Initiatives and Pilot Projects, visit [Irrigation Initiatives and Pilot Projects | Water Security Agency](#).