

Framework for Agricultural Water Management Policy

December 2022

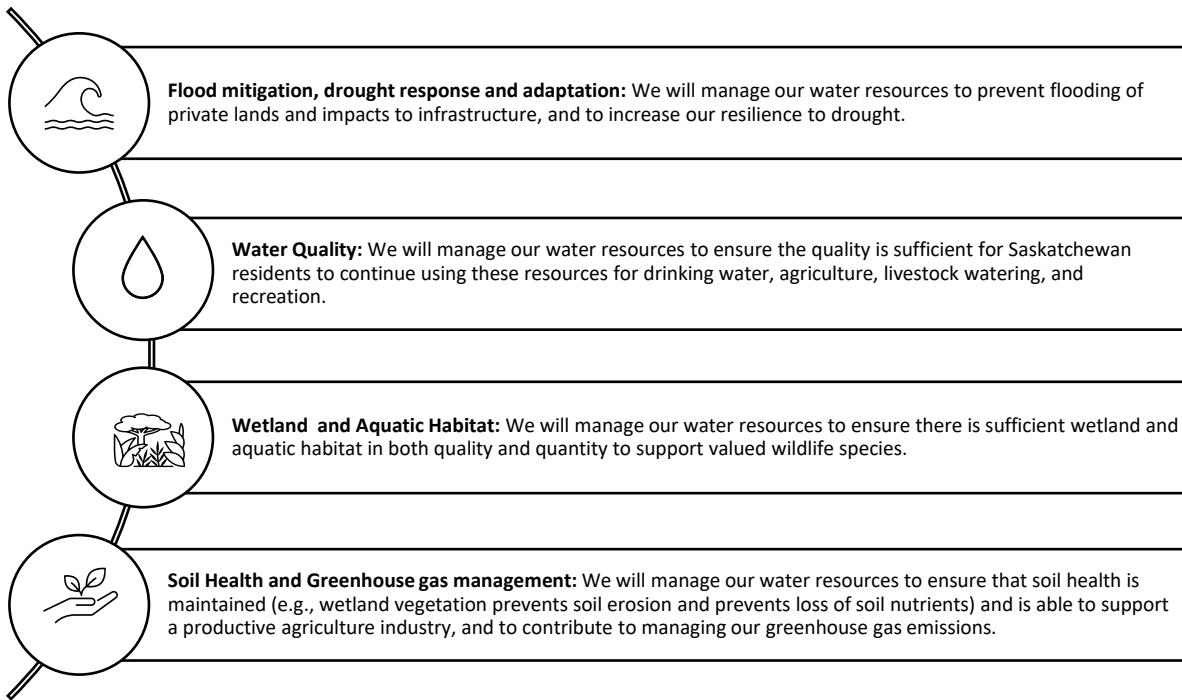
This framework will guide strategic and operational policy development related to Saskatchewan's Agricultural Water Management Policy. It describes Saskatchewan's desired policy outcomes, guiding principles, and the different components of the policy.

Introduction

Saskatchewan's Growth Plan The Next Decade of Growth 2020-2030 and *Prairie Resilience Climate Change Strategy* have set targets which will drive the sustainable and competitive growth of the agricultural sector in a way that also protects the province's vital water systems. The Water Security Agency's (WSA) Strategic Plan and Agricultural Water Management Strategy are designed to deliver on the outcomes outlined by the Government of Saskatchewan direction.

The Agricultural Water Management Strategy provides a strategic direction to guide responsible drainage activities in Saskatchewan, such that landowners can sustainably manage water and support healthy and resilient watersheds. The strategy focuses on managing key agri-environmental priorities.

Agri-environmental priorities of the Agricultural Water Management Strategy



Regulatory Authority

The *Water Security Agency Regulations 2015 s.13* requires that the Water Security Agency consider the water quantity, water quality, and habitat impacts of drainage. Section 15 of the Regulations empowers WSA to include mitigation conditions on drainage approvals to reduce these impacts.

Policy Scope

This policy and its associated policy directives and tools will apply to drainage works as defined in the Regulations.

Drainage is any action taken or intended for the removal or lessening of the amount of water from land, and includes the deepening, straightening, widening and diversion of the course of a stream, creek, or other watercourse, as well as the construction of dikes. Drainage works can take many forms such as infilling or draining wetland and moving water from one wetland to another (consolidation) or to an outlet.



What will the policy achieve?

This policy will contribute to the four AWMS agri-environmental priorities.

Through this policy, Saskatchewan’s agricultural producers will be able to maintain a healthy working landscape, where residents can live and work in a way that allows the natural ecosystem to be resilient. Landowners can retain their current drainage works through the drainage approval process, and incremental new drainage can occur if development is completed in a responsible and sustainable manner – this means that landowners are applying tools to address any potential impacts of drainage on water quality, wildlife species, soil health, and local infrastructure. In addition, wetlands will be retained across the landscape in a sufficient quantity to mitigate potential impacts of drainage and manage the agri-environmental priorities.

The desired policy outcomes will be developed as we engage with stakeholders and Indigenous communities. These outcomes will serve as goals and will inform development of the other policy components, i.e., mitigation approaches/tools, monitoring and reporting framework, and key indicators.

Desired policy outcomes	Description
IN DEVELOPMENT AND PART OF ENGAGEMENT	To be developed

“Wetlands are lands that are saturated with water long enough to promote wetland or aquatic processes as indicated by poorly drained soils, hydrophytic vegetation (plants that grow partly or completely in water), and various kinds of biological activity which are adapted to a wet environment.” Adopted from the Canadian Wetland Classification System, 1997

Guiding principles

The policy will be underpinned by fundamental values and approaches. A values-based approach will help ensure that the policy reflects the diverse needs and values of Saskatchewan people. These guiding principles will ground discussions and decision-making, from engagement to policy design and in the implementation of the policy.

A GROWING ECONOMY IN RESILIENT WATERSHEDS

- 1. A sustainable and competitive agriculture industry, thriving communities, and resilient watersheds are supported; and economic, environmental, social, and cultural values are balanced.** The policy will help build a sustainable agricultural industry while also ensuring that Saskatchewan residents continue to enjoy the province's water resources. Desired policy outcomes relating to these values will be developed as part of the policy.
- 2. Impacts of agricultural drainage (water quality, water quantity, habitat, and soil health) are addressed in ways that are practical, cost-efficient, and effective.** These impacts are considered when reviewing each drainage application and in identifying appropriate mitigation approaches. This helps ensure that Saskatchewan's agricultural producers can manage their water while practicing sound stewardship.
- 3. A proactive and systematic approach to decision-making is applied.** WSA staff follows a systematic and consistent process when reviewing drainage applications. This includes identification and assessment of possible risks that may arise from a drainage project and identifying mitigation conditions that are placed as drainage approval conditions.



INNOVATIVE AND RESPONSIVE

- 4. The best available information, science, traditional knowledge, local knowledge, and tools are incorporated.** This means that new tools and approaches will be included in the policy as new information evolve including agricultural innovation and technology, wetland science, hydrology, and agricultural science.
- 5. Flexibility and adaptability are applied appropriately.** WSA implements a flexible approach, rather than a one-size-fits-all. Effectiveness of agricultural water management approaches depends on the local context; hence drainage project conditions are project-specific and considers regional and local conditions.



COLLABORATIVE APPROACH

- 6. Stakeholders and Indigenous communities are partners in development and implementation.** WSA will work with stakeholders and Indigenous communities in each step of the policy development process. The agency will also continue to seek and support partnerships with the research community, across government and with communities, to increase our understanding, to share information and resources, and to improve our approaches and processes.
- 7. Coordinated efforts are supported (e.g., network approach to drainage).** WSA's network approach to drainage allows landowners to work together to operate a drainage project that drains into an adequate outlet. This type of coordinated approach creates efficiencies for both effectively draining land and reducing impacts. WSA also works with agricultural producers and research partners through its Demonstration and Research Projects to evaluate land and water management practices.



BALANCED, FAIR, AND REASONABLE

- 8. The impacts, risks, costs, benefits and interests of stakeholders and Indigenous communities are addressed in a fair and balanced manner.** WSA dedicates efforts to fairly evaluate the impacts, risks, costs, and benefits of drainage works. This will be applied both in the development of this policy and in assessing individual drainage projects.



TRANSPARENT AND ACCOUNTABLE

- 9. Processes are clear, transparent, and applied consistently.** WSA continues to develop/update technical procedures and communication materials. The agency will also continue to ensure that WSA staff and other individuals involved in preparing drainage projects (e.g., Qualified Persons who are trained to assist with preparing drainage applications) are properly trained to apply the process consistently.
- 10. The Water Security Agency is accountable to the public through tracking and reporting of results.** This includes regular public reporting on key performance indicators to track progress towards achieving the desired policy outcomes.



Saskatchewan's approach

There is no single mitigation approach that can fully address all drainage impacts. An approach that is tailored to Saskatchewan will include a suite of regulatory mechanisms. These regulatory mechanisms integrates approaches and principles that are evidence-based and are grounded on internationally established practices (e.g., risk-based approach and mitigation hierarchy are tools that are well-recognized and widely-applied in environmental management).

The items below are already in-place.

Drainage Network

A network approach to regulating drainage: By working together through drainage networks, producers and other landowners can effectively manage their lands, while also efficiently reducing cumulative impacts through appropriate management of the Agri-Environmental priorities.

Risk-based

Assessment of impacts to design appropriate mitigation measures: As a first step in reviewing drainage applications, anticipated impacts are assessed consistently through a risk-based approach.

Avoid

Minimize

Offset

A wetland mitigation hierarchy to limit any adverse impacts of drainage: WSA prioritizes avoiding impacts before moving to efforts to minimize impacts or to offset any residual impacts. Minimization approaches are included as drainage approval conditions.

Flexible

A flexible approach, rather than one-size-fits-all: To appropriately manage for the agri-environmental priorities, WSA will need to understand the project-specific requirements and to tailor water management approaches. Evaluation of a drainage project starts with understanding the risks (using WSA's Drainage Risk Assessment Framework) and identifying possible impacts (i.e., flooding, water quality and habitat).

Our toolbox

Not all drainage projects are the same. Project design and management approaches will vary for each project. We have a number of tools in our toolbox, in the forms of approved policy directives and technical operating procedures.

Tools in place

Wetland Consolidation

Consolidation allows drainage of several wetlands into a single large wetland. WSA reviews the technical design of wetland consolidation for structural integrity and the capacity to store water equivalent to those stored by the many small wetlands being consolidated. WSA is currently working on the technical approach to wetland consolidation. **This tool addresses risk of flooding and increases resilience to drought.**

Permission from landowners

WSA requires proof of land control, i.e., a permission from a landowner to drain from, across or onto a parcel of land owned by that landowner. This tool helps ensure that potential impacts to a downstream neighbour are managed appropriately while also providing security for the draining landowners, i.e., protects them against common law actions from neighbouring landowners.

Capacity to hold drained water

WSA's Point of Adequate Outlet Policy and associated technical procedures ensure that a creek can contain the amount of water being drained, without the risk of out-of-bank flooding or erosion problems at the local scale. **This tool helps address the risk of flooding and water quality impacts (erosion/siltation).**

Project design

Drainage proponents may be required to install and maintain erosion and flow control measures (e.g., culverts and gated structures) as conditions of their approval. The design of these structures are reviewed by WSA's technical staff to ensure proper technical design. **This tool addresses risk of flooding and water quality impacts.**

Addressing impacts of channelization

Channelization is the construction of drainage works within a natural channel. Drainage proponents are required to demonstrate the need for channelization as well as how their project will maintain natural functions of the waterway, including maintenance of intact vegetation wherever possible. **This tool addresses risk of flooding, water quality and habitat impacts.**

Timing restrictions and setback

If drainage could significantly impact wildlife habitat or federally listed Species at Risk, special conditions may be applied, including timing restrictions (e.g., avoid activities during nesting season) or setbacks (ensure the activity is far enough to not disturb nesting birds). **This tool addresses risk to protected habitats or species.**

In development

Wetland Mitigation Policy for engagement

A wetland mitigation policy that retains wetlands on the landscape is needed to address the risks of downstream flooding, water quality and habitat impacts.

New tools

The policy will be adaptive to new tools and innovation. New techniques and tools will continue to be incorporated into our toolbox, as appropriate.

Monitoring and Reporting

Compliance, Monitoring, and Auditing

(To be developed)

WSA strives for voluntary compliance through approvals by ensuring clients have access to the information, support and service they need.

The agency will develop a compliance monitoring framework that encourages stewardship, accountability and transparency.

Monitoring and auditing of drainage works is important to support compliance and continuous improvement.

A compliance monitoring framework also ensures that WSA remains accountable to the public for its compliance activities.

Monitoring and Reporting on Program Success

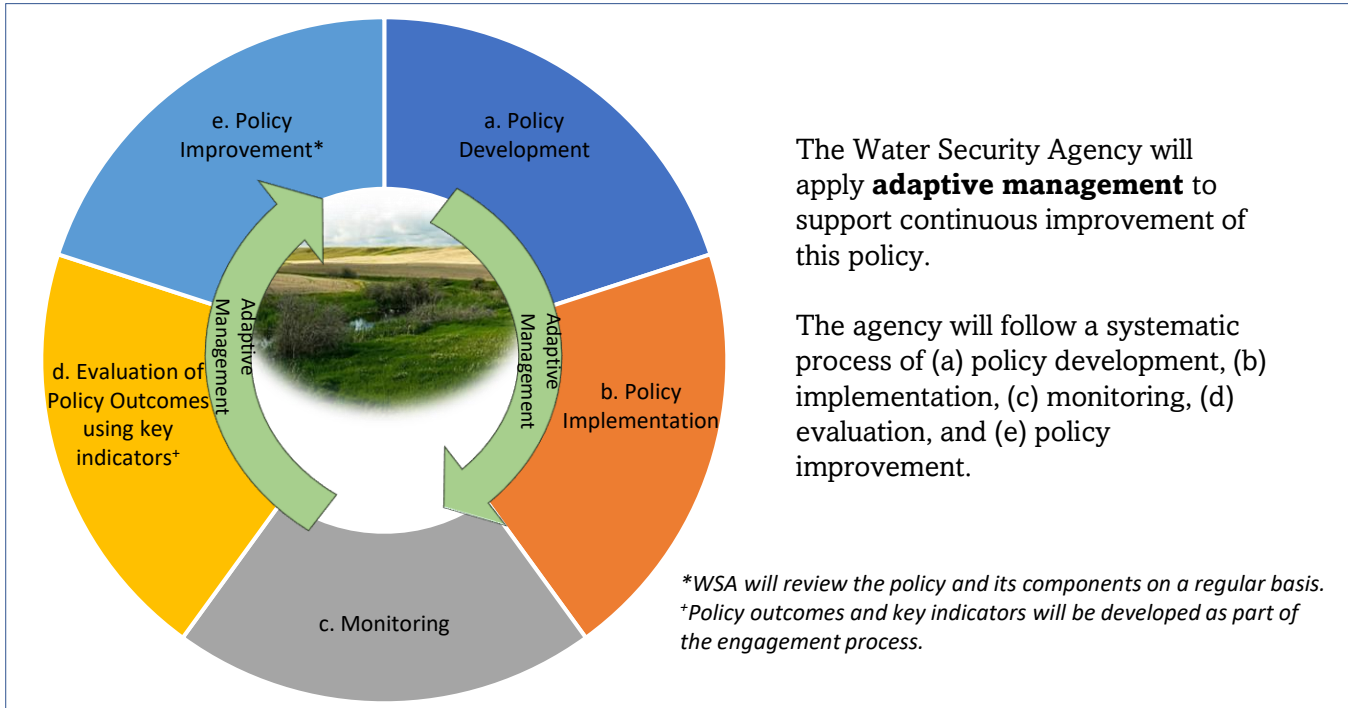
(To be developed)

WSA is accountable to the public through monitoring and regular reporting.

WSA will develop a performance measurement framework that includes a set of performance indicators and regular public reporting.

This allows WSA to regularly track and assess advancement in achieving desired policy outcomes using the performance indicators as metrics of progress.

Continuous Improvement



Policy development. As part of policy development, WSA is working with partners and is engaging with stakeholder groups and Indigenous communities to identify desired policy outcomes, mitigation approaches to achieve these outcomes, and the set of key performance indicators.

Policy implementation. To operationalize the policy, WSA will develop guidelines and technical procedures. The agency will also continue to work with Qualified Persons who are accredited by the agency to assist with the preparation of drainage applications.

Monitoring of key indicators. WSA will regularly track the status of key performance indicators. The frequency will be determined based what indicators will be established.

Evaluation. WSA will evaluate the effectiveness of the policy and associated tools and processes. This is accomplished by assessing the status of key indicators against achieving the desired policy outcomes.

Policy Improvement: WSA will review and, if necessary, adjust the policy and its components, on a regular basis. Having a regular review helps ensure that the policy is up-to-date and continues to reflect evolving social, cultural, economic and ecological environment.

Collaboration and Partnerships: WSA will continue to support collaboration and partnerships with agricultural producers, agricultural industry, Indigenous communities, conservation groups, government partners, and the research community. This includes learning adaptive farming practices from agricultural producers and Indigenous communities, partnering with agricultural industry and research community to evaluate land and water management practices, supporting environmental organizations' stewardship and conservation efforts, and working with partners to maintain a wetland inventory for the province.



*Effective agricultural water management will take concerted effort from many players.
Stakeholders and Indigenous communities are partners in developing and implementing the policy.*