



Agriculture Water Management

Finding the Balance

Saskatchewan's Agricultural
Water Stewardship Policy

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Acknowledgements

The Agricultural Water Stewardship Policy is a made in Saskatchewan approach to balancing wetland retention and development. This policy was made for Saskatchewan people by Saskatchewan people and would not have been possible without the contribution of dozens of committed and passionate stakeholders. The Water Security Agency would like to thank the many producers, industry groups, researchers, conservation groups, First Nations, Métis locals and other organizations that have given their time and knowledge to the development of this policy.

Stewardship Policy Overview

Saskatchewan is known for providing food to the world and for having an extremely diverse landscape with abundant forests, lakes, rivers and wetlands. Wetlands are both important and beneficial since they retain water, reduce erosion and downstream flooding, improve water quality and provide habitat for wildlife.

The Saskatchewan Agricultural Water Stewardship Policy is a unique approach to wetland management that recognizes that wetlands and drainage management can exist together on the agricultural landscape. This approach is possible because producers are caretakers of over 4.6 million acres of wetlands, of which, 86 per cent remain undrained. The agriculture industry can manage water to improve farm efficiency and soil health, reduce farm inputs, increase food production, all while still practising wetland stewardship.

The goal of the policy is to achieve the following outcomes:

- **Water Quantity:** Agricultural water management supports a landscape that has capacity to be resilient against both flooding and drought.
- **Water Quality:** Agricultural water management supports water quality for human uses, agricultural production, industry, healthy aquatic populations and biodiversity.
- **Biodiversity and Habitat:** Agricultural water management supports habitat quantity and quality for biologically diverse and resilient fish and wildlife populations (aquatic and terrestrial).
- **Agricultural Economy:** Agricultural water management promotes productive and profitable farms to support a resilient, sustainable, and growing agricultural sector.

- **Agricultural Stewardship:** Agricultural water management promotes efficient and sustainable farms by focusing on healthy soils and adopting beneficial management practices.
- **Saskatchewan Communities:** Agricultural water management supports collaborative and local solutions and builds public trust in the agricultural sector.

The key elements of the stewardship policy are:

- Wetland retention goals are established for watersheds on a regional basis;
- Drainage approvals will require wetland retention as a condition of the approval;
- Flexible options are available for landowners to achieve wetland retention requirements and policy outcomes; and
- Monitoring and investment in research to continuously refine the policy to ensure outcomes are achieved.

1. Introduction

Saskatchewan's producers are caretakers of more than 40 per cent of Canada's farmland, as well as 4.6 million acres of wetlands. This is a big responsibility, and they continue to demonstrate their commitment to be good stewards of these vital resources.

The Water Security Agency (WSA) has developed the Agricultural Water Stewardship Policy (stewardship policy) to ensure the continued stewardship of Saskatchewan's wetlands into the future. The policy will guide how many wetlands on agricultural land can be drained and how many need to be retained, supporting effective management of the province's water and agri-environmental priorities, including water quantity, water quality, wildlife habitat and soil health.

Maintaining wetlands is an important stewardship practice, contributing to the resilience of the agricultural industry, as well as the province's landscape. With 86 per cent of wetlands (by area) in Saskatchewan's agricultural zone undrained, it is clear producers value wetlands. This policy aims to preserve wetlands, while still allowing producers to use drainage as a tool to improve farm efficiency and productivity and manage soil health.

Ensuring the stewardship policy not only makes sense on paper but is also practical for those it impacts is critical. The policy was informed by extensive engagement with stakeholders and Indigenous communities from July 2022 to December 2024, as well as a series of demonstration, research and pilot projects on Saskatchewan farms. WSA remains committed to ongoing research and monitoring to ensure the policy's long-term effectiveness.

The stewardship policy is unlike anything else in Canada. It was made for Saskatchewan people, by Saskatchewan people and strikes a balance between economic growth and landscape resilience.



2. Policy Context

WSA launched its Agriculture Water Management Program in 2016 to ensure responsible drainage in resilient watersheds. As a part of the program, all drainage works in Saskatchewan require approval to validate that projects are designed and operating in a way that manages impacts to downstream infrastructure, flooding, water quality and local wildlife habitats.

This document outlines the Agricultural Water Stewardship Policy, which is an important part of the Agriculture Water Management Program. It establishes a wetland retention approach that will be used to further mitigate the impacts of drainage, along with other mitigation tools that are already being applied in drainage projects.

The stewardship policy complements *The Water Security Agency Act* (the Act) and *The Water Security Agency Regulations* (the regulations), both of which contain key provisions for drainage in Saskatchewan. Under section 13 of the regulations, WSA is required to consider the current and future impact, including predicted future cumulative impact, of drainage works on the property of others, hydrology or water quality, fish or wildlife habitat, and any other factor the agency (i.e., WSA) considers relevant. Section 15 of the regulations empowers the agency to include mitigation conditions on drainage approvals to reduce these impacts.

The stewardship policy intends to support Saskatchewan's Growth Plan and the use of water as an economic driver, while ensuring our landscape's long-term resiliency in alignment with *Prairie Resilience: Saskatchewan's Climate Change Strategy*.

This policy is one part of wetland management in Saskatchewan. The Ministry of Environment and Ministry of Energy and Resources also regulate activities related to wetland management. The approaches across ministries complement each other and allow the most appropriate and relevant action to be taken. Together, these regulations, policies and approaches form a framework for wetland management in Saskatchewan.



3. Policy Scope

The stewardship policy will apply to drainage works as defined in the regulations:

“Drainage works” means any action taken or contrivance used or intended for the removal of any water from land. It 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.

The Stewardship Policy applies to all wetlands that may be impacted by agricultural water management activities throughout Saskatchewan, excluding Federal Lands and Reserve Lands governed by the *Indian Act* and *The First Nations Land Management Act*.

The following are addressed by this policy:

- All agricultural drainage works regardless of when they were built.
- Natural wetlands in Saskatchewan including peatlands, pothole wetlands, as well as those associated creeks, rivers and lakes.
- All wetland sizes and permanence classes in the Province of Saskatchewan. This includes areas where water may only occur for a short portion of the year, e.g., a few days after the spring snowmelt.



4. Wetlands in Saskatchewan

Saskatchewan is home to more than 16.3 million acres of wetlands and more than 4.6 million acres of these wetlands can be found on agricultural land. In the pothole wetland regions, over 10 per cent of Saskatchewan's agricultural land is covered by wetlands.

WSA has adopted the Canadian Wetland Classification System definition for wetlands for this policy, as defined by the National Wetland Working Group 1997:

"A wetland is a land that is 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." This includes river, lake, pothole, and peatlands, as well as wetlands that typically dry up during the growing season.

For the purposes of identifying and mapping pothole wetlands for drainage regulations and this policy, WSA utilizes Stewart and Kantrud's 1971 System of Wetland Classification, which is the accepted classification system for prairie pothole type wetlands. All classes of wetlands are covered by this policy.

In recent years, WSA and partners have developed a wetland inventory, with a larger data set than has ever been available before, covering 47 million acres in Saskatchewan's agricultural zone. The inventory coverage includes most of the pothole regions of the province, where wetlands are prominent landscape features. Wetlands mapped cover the full range of system types listed in the Canadian Wetland Classification System including lacustrine (lake types), riverine (flowing water type) and palustrine (marsh, pothole type) wetlands. Mapping also includes farmed through wetlands. These wetlands play an important role on our landscape because they retain water on the landscape during runoff events, protecting downstream infrastructure and water quality.

Around 86 per cent of wetlands (by area) are undrained in Saskatchewan's agricultural zone. This doesn't include the vast area covered by wetlands in the northern, non-agricultural part of the province. Given the abundance of undrained wetlands, this policy allows for continued development, while still retaining wetlands.



5. Saskatchewan's Approach to Drainage Management

Drainage is an important tool for producers to manage water on their land. It can improve farm efficiency and productivity, as well as soil health. However, it must be done responsibly to prevent downstream flooding and impacts to water quality and habitat.

WSA strives to facilitate responsible drainage in resilient watersheds and through its Agriculture Water Management Program, it seeks to mitigate the impacts of drainage. There is no single mitigation approach that can fully address all drainage impacts and so Saskatchewan's approach includes a suite of regulatory mechanisms and mitigation tools. These regulatory mechanisms integrate approaches and principles that are evidence-based and are grounded in internationally established practices.

A network approach to regulating drainage. WSA takes a co-ordinated approach to drainage through drainage networks. By working together, landowners can more efficiently obtain approvals for drainage while minimizing negative effects on the environment. This approach looks at the total water being drained and makes sure the receiving waterbody can handle the extra water, reducing local impacts. Approval for drainage networks includes conditions for mitigation measures and requires permission from downstream landowners to let water flow across their land.

Risk-based approach. As a first step in reviewing drainage applications, WSA applies a risk assessment framework to identify impacts and inform the development of mitigation measures required.

Mitigation Tools

Erosion and flow controls. 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 is reviewed by WSA's technical staff to ensure proper technical design.

Timing restrictions and setbacks for construction works. If drainage could significantly impact 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).

Addressing risk of out-of-bank flooding. WSA works to ensure that a waterbody (called the Point of Adequate Outlet) can contain the amount of water being drained, without the risk of out-of-bank flooding or erosion problems at the local scale.

Wetland retention. Retaining wetlands on the landscape, in addition to other mitigation tools, is needed to fully address the risks of downstream flooding, water quality and habitat impacts.

Avoidance, minimization, offset. WSA prioritizes avoiding impacts before moving to efforts to minimize impacts or to offset any residual impacts. If the risk assessment indicates that impacts of a drainage project cannot be mitigated or a project application does not have sufficient measures to address impacts, the approval can be denied. Minimization approaches (i.e., mitigation tools) are included as drainage approval conditions.

6. A Made in Saskatchewan Approach to Wetland Stewardship

Wetlands play an important role by protecting water quality, providing water storage and flood control, serving as habitat for wildlife, fish and plants, and sustaining biodiversity.

Wetlands also support a wide variety of human activities, including as a valued resource for First Nations and Métis people, water supply for agriculture, and for recreation (e.g., hunting and bird watching). Retaining sufficient wetlands across the landscape is needed to address the risks of downstream flooding and impacts to water quality and habitat. However, prior to implementation of the stewardship policy, wetland retention was not required as a condition of the approval process.

Producers, industry groups, researchers, conservation groups, First Nations, Métis communities and other organizations all provided knowledge and expertise which led to the finalized policy. To develop the policy, WSA invested in Saskatchewan-based research and demonstration projects to understand the unique realities of drainage and wetland management in the province. They engaged with over 80 stakeholder organizations and First Nation and Métis communities to incorporate the diverse values and interests of the people. Through this engagement, guiding principles (Appendix A) and policy outcomes were developed that provide a foundation to create the policy approach. Finally, WSA worked with producers and landowners to pilot the policy options to test if they would be practical and achieve the desired outcomes.

Because Saskatchewan currently has a large percentage of wetlands undrained, a policy approach was designed that allows for continued development, while retaining a significant amount of wetland. This approach contrasts with a no net loss approach, which is often needed in jurisdictions where the amount of wetland loss is greater.

The approach taken in this policy builds on the role producers have played as caretakers of Saskatchewan's wetlands and requires them to retain some wetlands when applying for a drainage approval.

7. Policy Goal and Outcomes

The goal of the stewardship policy is to achieve six outcomes:



Water Quantity

Agricultural water management supports a landscape that has capacity to be resilient against both flooding and drought.

- Includes upholding relevant inter-jurisdictional water quantity obligations and commitments.
- Includes building resilience against extreme flooding events.
- Includes a better understanding of the role of wetlands on groundwater recharge, especially at the local scale.



Water Quality

Agricultural water management supports water quality for human uses, agricultural production, industry, healthy aquatic populations and biodiversity.

- Human uses include Indigenous cultural activities, drinking water, recreation and tourism.
- Healthy aquatic populations and biodiversity includes ecosystem structure and function.
- Includes upholding relevant inter-jurisdictional water quality obligations and commitments.



Biodiversity and Habitat

Agricultural water management supports habitat quantity and quality for biologically diverse and resilient fish and wildlife populations (aquatic and terrestrial).

- Includes upholding obligations to Indigenous rights holders, species-at-risk obligations, migratory bird convention and other national agreements.



Agricultural Economy

Agricultural water management promotes productive and profitable farms to support a resilient, sustainable and growing agricultural sector.

- Includes supporting growth in Saskatchewan's agricultural exports.



Agricultural Stewardship

Agricultural water management promotes efficient and sustainable farms by focusing on healthy soils and adopting beneficial management practices.

- Includes supporting soil health for crop productivity and greenhouse gas management.



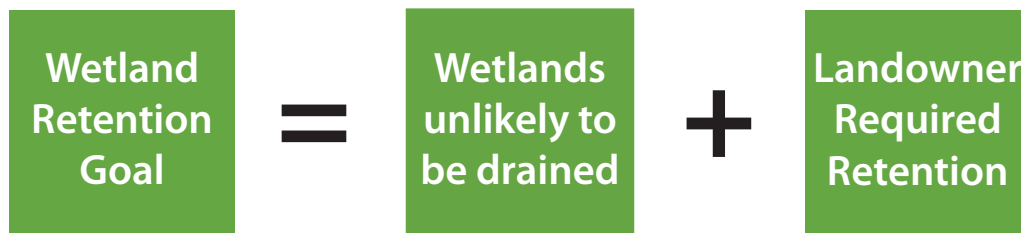
Saskatchewan Communities

Agricultural water management supports collaborative and local solutions and builds public trust in the agricultural sector.

WSA will monitor and publicly report on key indicators to assess progress in achieving these goals (Appendix B).

8. Wetland Retention Requirements

Saskatchewan's approach to wetland retention is based on a simple equation. There will be wetland retention goals in all watersheds, but these goals will not be one-size fits all. They will reflect the regional differences of our province. To achieve the goals, the approach first recognizes that there are many wetlands in our province that are unlikely to ever be drained – these wetlands are already protected or preserved and will continue to be. Then, it acknowledges producers' role as caretakers of wetlands and requires landowners to retain the difference between the retention goal and the wetlands unlikely to be drained. These concepts will be more fully explored in the following section.



Wetland Retention Goals

Baseline wetland retention goals will be established in all watersheds. For most watersheds, 40 per cent of historical wetland area will be retained to address flooding, water quality and habitat impacts.

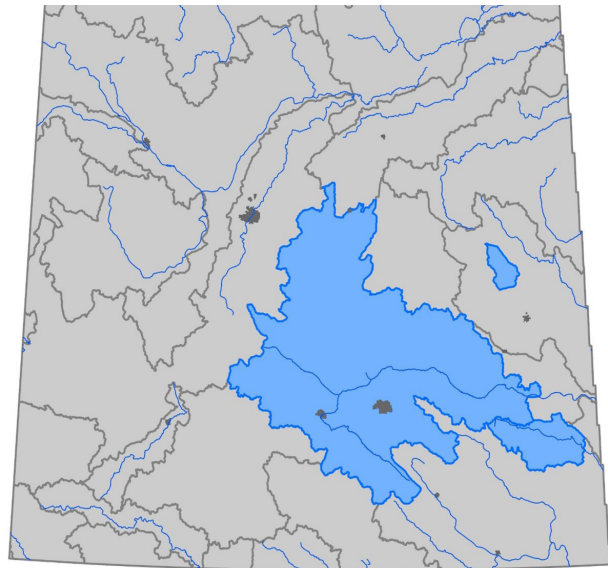
Higher retention goals will be established for water quality. A higher wetland retention goal of up to 60 per cent of historical wetland area will be established for watersheds that may be impacted by drainage following the evaluation of these two criteria: (a) multiple water uses have been identified (e.g., drinking water, recreation, aquatic life, interjurisdictional); and (b) water quality concerns are documented and likely to be influenced by agriculture (e.g., high vulnerability watersheds and areas where drainage is common). For example, the Qu'Appelle watershed has been identified as an important water source that will require a higher retention of 60 per cent.

Higher retention goals could be established for localized impacts.

Higher retention goals may be established for specific areas to address localized impacts on infrastructure, habitat and wildlife priorities, and for Section 35 (the Canadian Charter of Rights and Freedoms) rights uses such as treaty hunting and fishing rights.

Wetlands Unlikely to be Drained

In Saskatchewan's agricultural zone, there are wetlands that are unlikely to be drained. These include wetlands located in areas provincially designated as protected and in areas that are not suitable for crop production (poor soils and very steep slopes). These wetlands contribute to our policy outcomes and the wetland retention goal.



Wetland retention goals for most watersheds is 40 per cent (grey areas). In some watersheds, a higher goal of 60 per cent (blue areas) is established to protect water quality of heavily used water sources.





Saskatchewan's approach recognizes that there are many wetlands that are protected or are unlikely to ever be drained.

Landowner Required Retention

Producers who apply for drainage approvals will be required to retain enough wetlands to ensure that the minimum retention goal is met. In many cases, landowners retain more than the required amount, in which case they will be offered longer approval terms as an incentive and reward.

Producers know their land and are best positioned to decide which wetlands should be retained. Wetlands can be retained that are within the project boundary, adjacent to projects or even several kilometers away. This means that a flexible 'farm level' approach to retaining wetlands can be used. Fully intact wetlands, shallow wetlands that are cropped but not drained, undrained portions of partially drained wetlands and constructed wetlands (dug-outs, reservoirs) can all contribute towards wetland retention.



Saskatchewan's approach acknowledges producers' role as caretakers of wetlands.

Once wetlands are selected for retention, a condition will be placed on the drainage approval that requires that these wetlands remain undrained. Drainage approvals will be regularly audited to ensure that wetlands remain in place and the condition will be binding on future landowners for the term of the drainage approval.

Producers may also utilize a variety of other approaches to achieve the desired outcomes of wetland retention:



For practical reasons, some drainage projects are exempt from retaining wetlands. WSA may exempt from the wetland retention requirements the following types of drainage approvals:

- Temporary drainage projects.
- Intensive irrigation projects.
- Main drains owned by conservation and development authorities, watershed associations and irrigation districts.
- Urban, municipal or industrial subdivision projects that require a drainage approval.
- Projects that only involve channelization of creeks.

9. Research and Innovation

WSA will continue to invest in research to better understand how to advance the outcomes of the stewardship policy. This will include projects related to water quality, flooding, habitat and economics. WSA will continue to work with agricultural producers, industry, First Nations and Métis peoples, conservation groups, government partners and researchers to fill knowledge gaps, and adapt the policy.



10. Monitoring and Evaluation

WSA will monitor and publicly report on its progress implementing the stewardship policy using key indicators. The Indicator Framework (Appendix B) will assess policy results against desired goals and outcomes. The framework will continue to be refined as better data sources and evaluation tools are identified.

11. Implementation

This policy is effective January 30, 2025 for all projects that have not yet entered the drainage approval process. After January 1, 2026, all projects, regardless of when they entered the application approval process, will be required to retain wetlands. Drainage works that have been previously approved will be subject to the policy upon renewal of their drainage approval.



If you have any questions about the Stewardship Policy or how it impacts your drainage approval, please reach out to our Client Service Agents at 1.866.727.5420 or client.service@wsask.ca.

Appendix A – Guiding Principles

The stewardship policy is guided by principles that ensure it reflects the diverse needs and values of Saskatchewan residents.

- 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 healthy water resources in the province.
- 2. Impacts of agricultural drainage (water quality, water quantity, habitat and soil health) are addressed in ways that are practical, cost-efficient and effective.** Impacts are considered when reviewing drainage applications and in identifying mitigation approaches. This helps ensure that agricultural producers can manage water, while practising 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.
- 4. The best available information, science, traditional knowledge, local knowledge and tools are incorporated.** New tools and approaches will be included in the policy as new information evolves including agricultural innovation, wetland science, hydrology and agricultural science.
- 5. Flexibility and adaptability are applied appropriately. WSA implements a flexible approach, rather than one-size-fits-all.** The effectiveness of agricultural water management approaches depends on the local context; hence drainage project conditions are project-specific and consider regional and local conditions.
- 6. Stakeholders and First Nations and Métis communities are partners in policy development and implementation.** WSA has engaged with stakeholders and First Nation and Métis communities in the policy development process. The agency will continue to seek and support partnerships with the research community, across government and with communities, to increase understanding, to share information and resources, and to improve approaches and processes.
- 7. Co-ordinated 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 co-ordinated approach creates efficiencies for both effectively draining land and reducing impacts.

- 8. The impacts, risks, costs, benefits and interests of stakeholders and First Nations and Métis communities are addressed in a fair and balanced manner.** WSA dedicates efforts to fairly evaluate the impacts, risks, costs and benefits of drainage works.
- 9. Processes are clear, transparent, and applied consistently.** WSA continues to develop technical procedures and communication materials. The agency will continue to ensure that staff and others involved in preparing drainage projects (e.g., Qualified Persons who are trained to assist with preparing drainage applications) are properly trained to consistently apply processes.
- 10. The Water Security Agency is accountable to the public through tracking and reporting results.** This includes regular public reporting on key indicators to track progress and effectiveness of the policy.



Appendix B – Indicator Framework

OVERALL Are there enough wetlands on the landscape?	Total area of wetlands retained through the stewardship policy. This measures the total area of wetlands that is maintained by agricultural producers as a condition on their drainage approvals. Status of wetlands retained through the stewardship policy (intact, farmed through but not drained, constructed): The total area of wetlands will be reported by status. Total area and count of wetlands that are undrained in Saskatchewan’s agricultural zone: This measures the total area and total number of individual wetlands that are undrained in the entire agricultural zone (currently at 86 per cent wetland area). There are multiple factors contributing to this, including the stewardship policy. Status of all wetlands in Saskatchewan’s agricultural zone: Status will be broken down into intact, farmed through but not drained, partially drained, completely drained and constructed.
WATER QUANTITY Are we resilient to flooding and drought?	This goal is addressed by the overall indicators which track the percentage of undrained wetlands and beneficial management practice indicator which reports the use of flow controls.
WATER QUALITY Are we supporting water quality in our rivers and lakes?	In development - Water quality in waterbodies: WSA is working to develop an indicator for tracking water quality in Saskatchewan rivers and in small streams located in the province’s agricultural area.

BIODIVERSITY AND HABITAT Are we maintaining wetlands for wildlife?	This goal is addressed by the overall indicators that track the percentage of undrained wetlands. Permanence class/size distribution of wetlands in Saskatchewan's agricultural zone: Less permanent wetlands are important for habitat and for groundwater recharge. Monitoring the distribution of these wetlands helps ensure that there is a diversity of wetlands (e.g., temporary and permanent wetlands). In development - Indicator related to wetland associated wildlife: WSA is working with the Ministry of Environment to develop an indicator related to wetland-associated wildlife.
AGRICULTURAL ECONOMY Are we supporting the profitability of farms and growth of the agricultural sector?	Number of quarters with approved drainage: Drainage can increase field efficiency (reduced input overlap, reduced time to drive around wetlands, reduced soil compaction) and increase the area for food production. This indicator serves as a measure of field efficiency, improved soil health and food production capacity.
AGRICULTURAL STEWARDSHIP Are we supporting farm efficiency and sustainability?	Per cent of new drainage approvals in compliance with wetland retention requirements: This measures compliance rate to the wetland retention requirement. Status of this indicator will inform compliance and extension work of the Agricultural Water Management Program. Number of approved drainage projects that adopt beneficial management practices (e.g., flow controls, erosion controls, conditions for species at risk) and compliance rate: This indicator measures other mitigation tools that are already in place and producers are applying, on top of wetland retention.