

Economic Implications of Restrictive Water Management Policy

WSA has proclaimed there are 150,000 quarter sections of land in Saskatchewan with unapproved/unpermitted drainage of water. These lands currently allow farmers to produce a more reliable and efficient crop with water management structures

Quarter sections with unapproved drainage / water management	150,000 quarter sections
Total acres with unapproved drainage / water management	24,000,000 acres
Total arable acres (assume 155 ac/quarter)	23,250,000 acres
Total habitat acres (unproductive acres incl upland and wetland habitat)	750,000 acres

Assume unrealistic / environmental policy would force closures of all unregistered water management works and structures on this property. Assume the impact to that landbase would reduce productive capacity by 35% on average due to unmanaged / excess water (resulting in anaerobic growth conditions, plant stress, salinity, reduced soil health, crop input overlap etc)

Unmanaged acres due to dysfunctional policy (arable acres x 35%)	8,137,500 acres
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These impacted acres are technically an unreliable acre or investment. Due to inability to manage water following heavy precipitation events the output of these acres is inconsistent year to year. We can also assume that many of these areas would become unseedable in spring or unharvestable in fall (although seeded in spring)

Unseeded area (40% of unmanaged acres)	3,255,000 acres
Unharvestable area (40% of unmanaged acres)	3,255,000 acres
Remaining productive acres	1,627,500 acres

Now assume remaining area would have impacts due to precipitation events limiting its full productivity to 50% for these unmanaged acres. In this case we have to assume only half those remaining acres are completely reliable.

Remaining unmanaged acres rendered unproductive	813,750 acres
Remaining unmanaged acres remaining as productive	813,750 acres

IN SUMMARY:

Total Arable acres (assume 155 ac/quarter)	23,250,000 acres
Unseeded area (40% avg of unmanaged acres)	3,255,000 acres
Unharvestable area (40% avg of unmanaged acres)	3,255,000 acres
Remaining unmanaged acres rendered unproductive	813,750 acres
Total acres impacted (yielding zero revenue)	<u>7,323,750 acres</u>

We have to remember that the area unharvested was seeded and has a significant investment by the landowner to grow a crop. All other areas that are impacted did not get seeded due to no access.

Economic assumptions to be used

Average crop input costs all in are \$350/ac	\$350 per acre
Average crop output costs would be \$400/ac	\$400 per acre
The economic impact to a dollar off a farm is AT LEAST 4Xmeaning that dollar circulates at least 4 times in the economic engine of the community, province and country we live in.	4 times
Assume tax revenue from land taxes to the municipality is \$5.00/ac	\$5 per acre
Assume tax revenue from the land taxes to the school divisions is \$1.25/ac	\$1.25 per acre

Unharvestable area (40% avg of unmanaged acres)	3,255,000 acres
Input cost of these acres	\$ 1,139,250,000 actual loss

Total acres impacted (yielding zero revenue)	7,323,750 acres
Productive acre revenue loss	\$ 2,929,500,000 potential gain if able to manage acres

Eventual tax loss impact to general revenue accounts

Total acres impacted (yielding zero revenue)	7,323,750 acres
Municipal tax revenue loss	\$ 36,618,750 LOSS
School tax revenue loss	\$ 9,154,688 LOSS

Economic impact lost in society due to lost productive acres

Productive acre revenue loss	\$ 2,929,500,000 LOSS
Opportunity lost to SK economy (4X)	\$ 11,718,000,000 LOSS