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News Release

September 21 2006

BILLION DOLLAR DAMS ARE NOT THE ANSWER: CRITICAL REPORT RELEASED FOR WORLD RIVERS DAY

Saskatoon, SK—The Saskatchewan Environmental Society (SES) today released a critique of Agrivision Corporation's proposal to submerge the North and South Saskatchewan Rivers under a chain of dams and reservoirs. SES released its critique of *Water Wealth: A Fifty Year Water Development Plan for Saskatchewan* in preparation for World Rivers Day, September 24.

The Agrivision report advocates a very indirect development push: build dams to hold back water; hope this leads to increased irrigation and food production; hope increased food production attracts private-sector food processors and, thus, creates jobs.

Agrivision's plan would cost tens-of-billions of dollars, with most of that money coming from taxpayers, notes the SES critique. SES Water Issues Coordinator Darrin Qualman called the Agrivision plan "expensive, 1970s mega-project thinking." "With a total cost approaching \$100,000 per Saskatchewan family, this is wildly unaffordable," he said.

Not only are the proposed dams costly, they're unnecessary. "We don't need new dams in order to expand irrigation or food production. From the water in Lake Diefenbaker alone, we could look at irrigating hundreds-of-thousands of additional acres. The limiting factor for irrigation is not a lack of dams or water, it's farmers' reluctance to invest because of poor returns," said Qualman.

Agrivision's report advocates privatization of the province's water infrastructure and, by extension, its water. It urges transfer of vital water supply infrastructure to private corporations, in effect transferring control and ownership of the water. Qualman said: "Most Saskatchewan citizens view access to water as a human right and our rivers as public trusts. The Agrivision report would have us recast our water and rivers as private property, commodities, and resources."

The Agrivision report completely fails to deal with the environmental effects of its plan to re-plumb western Canada. "Though it asks us to support dams so numerous that our rivers could disappear under chains of reservoirs, the report does not examine the river ecology changes that dams bring," said Qualman.

SES's critique goes beyond fault-finding: it presents alternatives that are affordable, sustainable, and that provide larger and more rapidly attainable benefits. Alternatives include direct, co-operative investment in food processing; expanded irrigation from existing water supplies; electricity production from wind and other renewable sources; safeguarding urban water supplies through conservation and, where appropriate, small dams or off-stream impoundments.

For more information on the SES's critique, please see the attached Executive Summary, or visit the SES's website to access the full (32-page) report www.environmentalsociety.ca/issues/water/critique.html. World Rivers Day, celebrated each year on the last Sunday in September, is part of the United Nation's "Water for Life" decade (2005-2015).

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A Critical Analysis of Agrivision's Report *Water Wealth: A Fifty Year Water Development Plan for Saskatchewan*

Prepared by the Saskatchewan Environmental Society
September 21, 2006

Executive Summary

To safeguard the watershed, managers must identify and understand the necessary 'green infrastructure' first, and then look at what activities can take place around the essential green infrastructure. Then we need to look at human needs, and think of ways to meet them that are consistent with maintaining ecosystem integrity. This is the context of ecological governance.

—Oliver Brandes et al., *At a Watershed*

[A water ethic] would make us stop asking how we can further manipulate rivers, lakes, and streams to meet our insatiable demand, and instead ask how we can best satisfy human needs while accommodating the ecological requirements of healthy water systems.

—Sandra Postel, *Last Oasis*

Water is the oil of the 21st Century!!

—Agrivision, *Water Wealth: A Fifty Year Water Development Plan for Saskatchewan*

Saskatchewan Agrivision Corporation's report *Water Wealth: A Fifty Year Water Development Plan for Saskatchewan* attempts to draft a blueprint for economic growth—one that encourages Saskatchewan policy-makers and citizens to invest billions into building dams and diverting rivers. The report's implicit hope is that these engineering works and increased water availability will, in turn, trigger increased irrigation and food production which will, in turn, lure corporations to build food-processing facilities which will, in turn, result in both the creation of jobs and doubling of the province's rural population. As this critique will detail, it is extremely unlikely that the Agrivision plan will succeed: investing massively in dams will not lead to the economic development or job creation the Agrivision report suggests. Further, this critique will demonstrate that many of the proposals central to the Agrivision plan would trigger unacceptable environmental and social costs.

The Agrivision report uses powerful rhetoric to fuel excitement over water-intensive industry as a driver for economic growth. In addition to treating water as analogous to oil, the report

uses language such as “**water-based wealth creation,**” “**water development corporations,**” “**water-based industry,**” “**water-based value added investment,**” “**creating wealth from water resources,**” the “**water-based economy,**” and “**water intensive development opportunities**” (pages 212, 182, 204, 204, 19, 212, and 135, respectively). The Agrivision report says: “**Today the opportunities for water based wealth creation remain greater than ever before. It is time to drought proof the province, protect and sustain the natural environment and build a new rural economy for the next generation of children in the province based on developing the Saskatchewan’s underutilized water resources**” (p. ix). [Quotes from the Agrivision report are reprinted without corrections.]

In its report and elsewhere, Agrivision proposes building between four and twenty-one large dams in Saskatchewan. The total cost of four dams and attendant infrastructure (including irrigation canals and pipelines and pivot sprinklers systems in farmers’ fields) could be as high as \$20 billion to \$30 billion. Despite Agrivision’s water privatization proposals designed to lure private corporations to build dams and infrastructure (more on this below), it is almost certain that the vast majority of the money would come from taxpayers. That amount of money—\$20 billion to \$30 billion—is equal to roughly \$100,000 per Saskatchewan family; with that amount, the province could, for example, build large houses for one-quarter to one-third of the families in the province and potentially have enough money left over to pay those families’ utility bills for a generation.

Not only are Agrivision’s proposed dams and diversions costly; they’re unnecessary. Saskatchewan does not need new dams in order to increase irrigation and food production and, thus, to attempt to attract corporations to set up food-processing plants. Today, from the water in Lake Diefenbaker alone, we could supply hundreds of thousands of additional irrigated acres. While studies will have to be undertaken to assess how increased irrigation withdrawals will affect ecosystems and other users, it is probable that Lake Diefenbaker could irrigate at least two-and-a-half times more land than it currently supplies. The limiting factor on irrigated food production in Saskatchewan is not a lack of dams or water; it is the reluctance of farmers to invest in irrigation because of the poor returns.

The slow expansion of irrigation around Gardiner Dam and Lake Diefenbaker should alert us to a risk embedded within the Agrivision plan: additional dams and water supplies may not (or may not for decades) lead to increased irrigation, food production, processor relocation, or jobs. Spending billions on dams may not get us the food-processing plants we want.

There is an alternative; a superior, faster, and more affordable one: take a fraction of the billions Agrivision proposes spending on dams, and build processing plants. Farmers could repay these taxpayer expenditures through a small levy on the crops and livestock processed in such plants, thus gaining direct, minimally-subsidized ownership. The province of Manitoba has recently set up a fund and a program to partner with farmers to build beef-processing plants. Pursuing this direct, co-operative investment alternative in this province would have overwhelming advantages: getting us the processing plants we want quickly, saving billions, and ensuring that farmers own the plants—by far the highest-profit links in the dam-irrigation-processing chain. Thus, the choice need not be between Agrivision’s unaffordable plan and economic stagnation: the real choice pivots on how best to spend public money in order to create secure communities and sustainable livelihoods. *At the very least*, any rational irrigation and food-processing expansion plan should postpone costly new

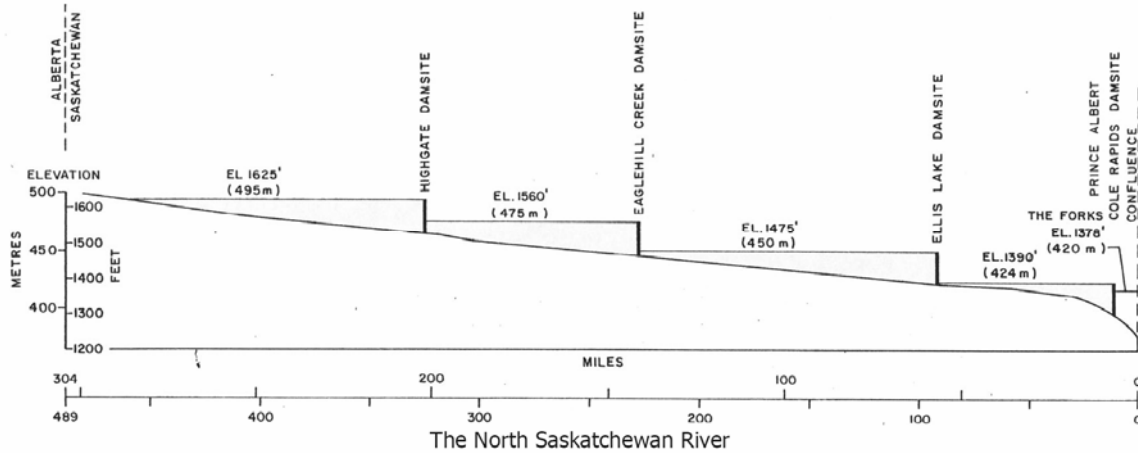
dam construction until we've found a way to help would-be irrigators make full use of all existing infrastructure and water supplies, around Lake Diefenbaker and elsewhere, and at least until after we've fully explored water use efficiency and conservation as ways to secure additional water supplies for agriculture, processing, and other economic activities. To do otherwise would waste water and squander existing public investments.

One final note on the political-economic aspects of Agrivision report: The report urges massive privatization—transferring ownership and control of the province's water infrastructure to the private sector, and with that infrastructure, transferring effective ownership and control of the water itself. (i.e. you won't get water any unless you agree to pay the asking price, the price dictated by the market and the needs of investors). The report describes itself as a blueprint for creating an **“attractive and competitive environment for the extraction of ... wealth from the provincial waters”** (p. 196). It stresses the need to **“create a market for the purchase and sale of water rights”** (p. v). Most Saskatchewan citizens view access to water as a human right and our rivers as public trusts. The Agrivision report would have us recast our water and rivers as commodities and resources. It appears that, with dawning awareness that government would never spend tens-of-thousands of dollars per family to build dams that may or may not ever lead to increased economic activity, Agrivision attempts to salvage its scheme by implying that the private sector will make the investment. Whether funded by governments or corporations, the end result will be the same, however: the tens-of-billions of dollars will have to be paid by the citizens of this province, one way or the other. Citizens, however, under the Agrivision plan, would lose ownership and control of that water and infrastructure, with disastrous consequences: economic, social, and environmental.

In addition to shortcomings in its economic analysis, the Agrivision report fails to take any real account of the environmental implications of its proposals. Rather than recognizing and grappling with the complexities of watersheds, ecosystems, and food webs, the Agrivision report often treats water as a lifeless industrial fluid. The report embodies and advances a particular worldview: sufficient energy and technology and engineering can be deployed to “produce” water (through dams and diversions) in whatever quantities are needed, and to deliver that water wherever and whenever it is most convenient for human economic purposes. That water then becomes a commodity, to be bought and sold, and even potentially exported. Finally, this industrially augmented water supply becomes a feedstock, to be consumed in other industrial processes: food production and processing, petroleum recovery, etc. The Agrivision report deals with water in the way that economists and engineers deal with other economically important liquids, such as oil. But in doing so, the Agrivision report overlooks the unique and critical biological and other roles that water plays in our societies and ecosystems.

The Agrivision report urges the province toward a future wherein the North and South Saskatchewan Rivers may be submerged under a nearly unbroken chain of reservoirs that stretch from the Alberta to the Manitoba border; a future in which northern rivers are diverted south as we struggle to supply proposed expansions of water-intensive food, energy, and industrial production from climate-change-depleted rivers; and a future in which, in some years and in some stretches of our rivers, extensive water allocation and extraction may make it difficult to sustain ecosystems and aquatic species.

Though the Agrivision report asks us to support dams so numerous that rivers could disappear beneath chains of reservoirs, the report does not examine the river ecology changes that dams bring. The following is a portion of a diagram that Agrivision reprints on page 168 of its report.



The diagram depicts a cross-section elevation of the North Saskatchewan River, from the Alberta border to the river's confluence with the South Saskatchewan near Prince Albert. The short vertical lines are potential dams. And the horizontal lines reaching back from the tops of those dams represent the surface levels of potential reservoirs. Note that each reservoir could be constructed such that it would back up water all the way to the base of the dam above it; the river would thus be completely submerged.

The Agrivision report includes comparable diagrams for the South Saskatchewan River and the Saskatchewan River. For those who love Prairie rivers, and for those who are dismayed by the transformative and damaging effects of large dams, such diagrams are extremely disturbing. (See section 15a of this critique for details on the effects of dams on rivers.)

The Saskatchewan Environmental Society (SES) does not believe that massively restructuring western Canadian hydrology—damming and diverting our rivers—is a legitimate strategy, either for coping with the effects of climate change or for driving economic growth. A focus on dam-building is costly, is damaging to rivers and ecosystems, and is likely to move us down a path of water use and agricultural and industrial development that has proven unsustainable around the world. But this need not mean that our towns and economies must languish as a result of water shortages. There are numerous, superior alternatives to the water-driven, mega-project blueprint Agrivision sets forth. Alternatives include direct, co-operative investment in decentralized processing; significantly increased irrigation from existing water supplies; electricity production from wind and other renewable sources; and safeguarding urban water supplies by pursuing conservation and, where appropriate, small-scale dams or off-stream impoundments.

By analyzing and critiquing the Agrivision report, SES hopes to help citizens and policy-makers move forward to create and embrace a more complete framework for understanding water and its place in nature and in our economy. Economic considerations are necessary, but they are not sufficient. Such considerations must be evaluated in the context of our

increasingly complex understanding of the interconnectedness and interdependence of human-created and natural systems. This critique of the Agrivision report will outline the shortcomings of that document and, more important, will provide guidance toward a more complete and appropriate framework within which Saskatchewan citizens and policymakers can make critical decisions about the future of our unique and precious rivers and watersheds, and about meeting water needs for cities and towns, agriculture, recreation, business, nature, and the future.

About the Saskatchewan Environmental Society

The Saskatchewan Environmental Society (SES) is a non-profit, registered charity whose mandate is to work towards a world in which all needs can be met in sustainable ways. Sustainability will require healthy ecosystems, healthy livelihoods, and healthy human communities. SES has been active in Saskatchewan since 1970. Through our volunteer committees we've worked on such issues as energy production and conservation, sustainable agriculture, mining, forests, nuclear power, and urban planning.

SES's work on water issues is supported by the generous assistance of the Walter and Duncan Gordon Foundation.