

SIPA

PRESENTATION TO SWA LAKE DIEFENBAKER OPERATING PLAN

OUTLOOK MAY 30 2012



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TIME TO IRRIGATE

Volume II



The Economic, Social and Environmental
Benefits of Expanding Irrigation in
Saskatchewan

Prepared for the Saskatchewan Irrigation Projects Association
By Clifford Assmann Ltd. of Regina, Saskatchewan
October 2008

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The Economic, Social and Environmental
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Saskatchewan

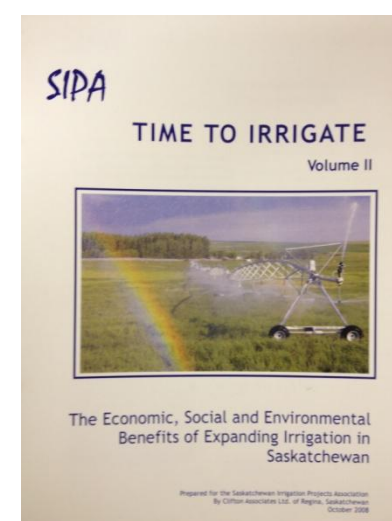
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Irrigation makes Saskatchewan grow!



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KEEPING THE PROMISE

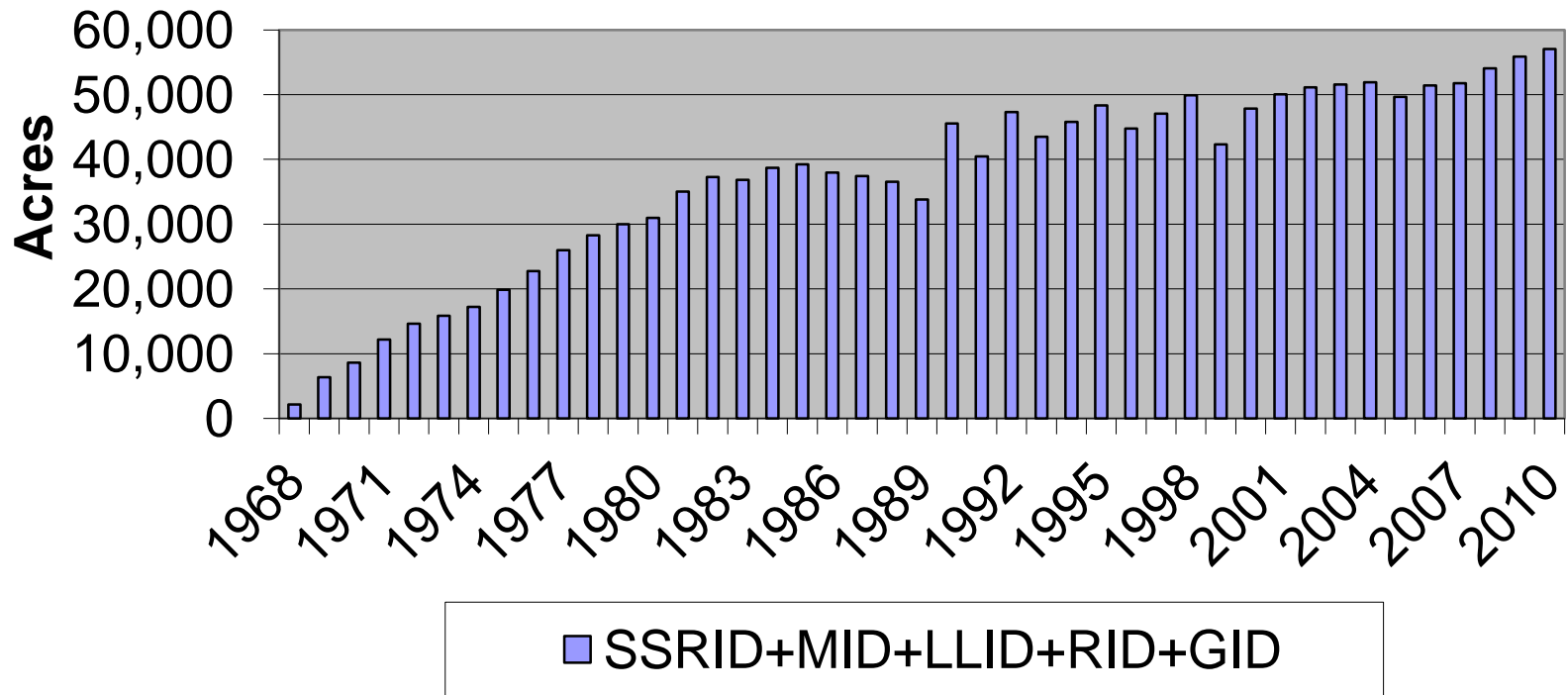
- **Preparation of a Saskatchewan Irrigation Development Strategy**
- **The Saskatchewan Irrigation Development Corporation**
- **A Canada-Saskatchewan Irrigation Planning Agreement**
- **A long-term On-farm Irrigation Capital Funding Program**
- **A Canada-Saskatchewan Irrigation Capital Funding Agreement**

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CURRENT IRRIGATED ACRES

LAKE DIEFENBAKER IRRIGATION DISTRICT ACRES



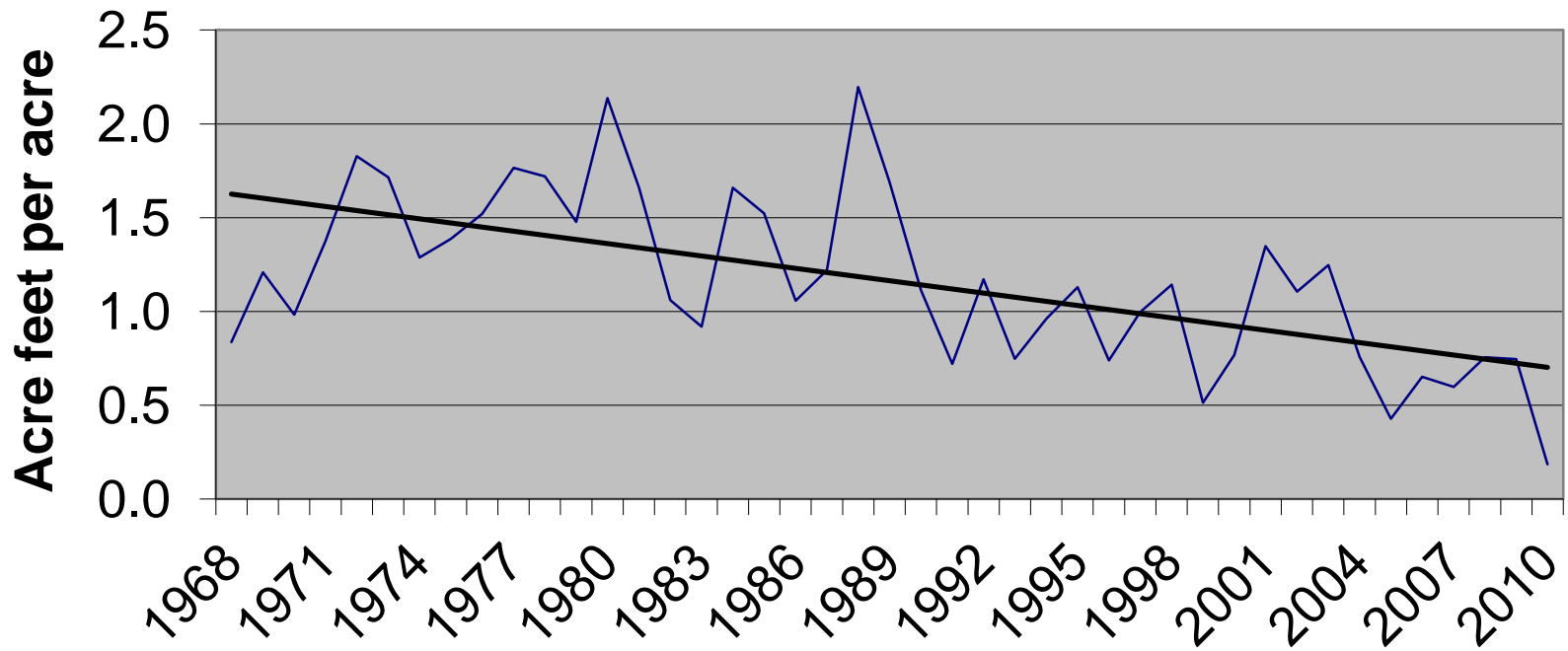
Source: Ministry of Agriculture

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IRRIGATION WATER USE

Lake Diefenbaker Irrigation Districts Water Use



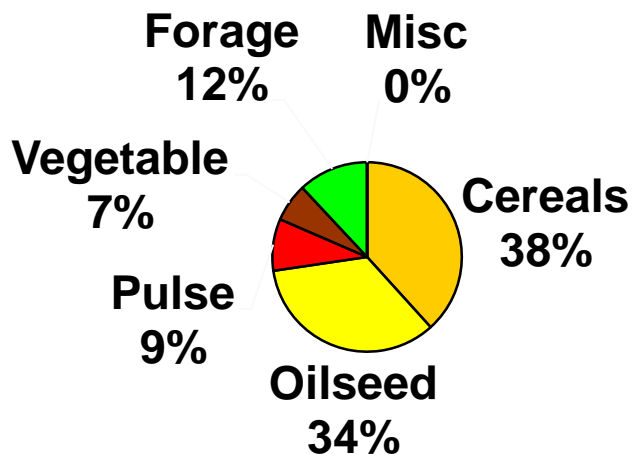
Source: Ministry of Agriculture

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LAKE DIEFENBAKER IRRIGATION CROP MIX 2011



Source: Ministry of Agriculture

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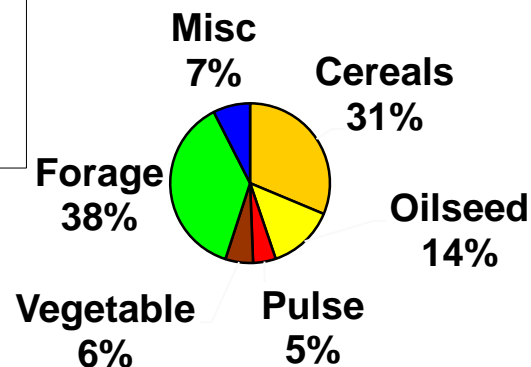
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ALBERTA IRRIGATION CROP MIX 2010



Source: Alberta Agriculture and Rural Dev.

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<i>Rural employment 4-6 times the dryland equivalent</i>	GROSS ANNUAL OUTPUT \$/acre/year 2011	TOTAL ANNUAL OUTPUT LDDA (100,000 acres)
IRRIGATION	\$862	\$86 million
DRYLAND	\$158	\$16 million
DIFFERENCE	\$704	\$70 million

Source: Ministry of Agriculture

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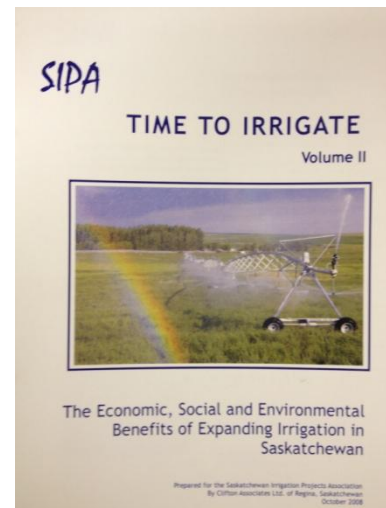
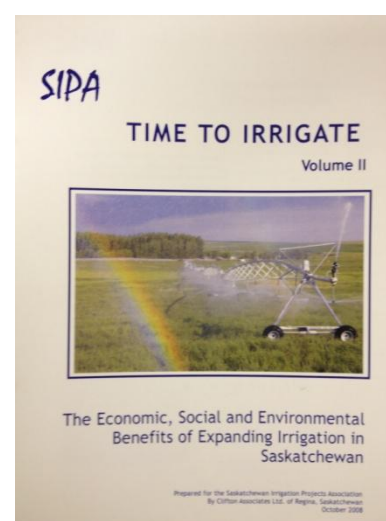
IRRIGATION DISTRICT COSTS:

- 100% Administration, Operation, Maintenance and Replacement Costs

ON-FARM COSTS 2012:

- Centre Pivot Capital Cost: \$112,000 per quarter section
- Irrigation District Rates:
 - SSRID = \$27.20/ac + on-farm pumping
 - LLID = \$62.96/ac
 - RID = \$57.42/ac
- Operating costs 3 times higher than dryland

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IRRIGATION WATER USE

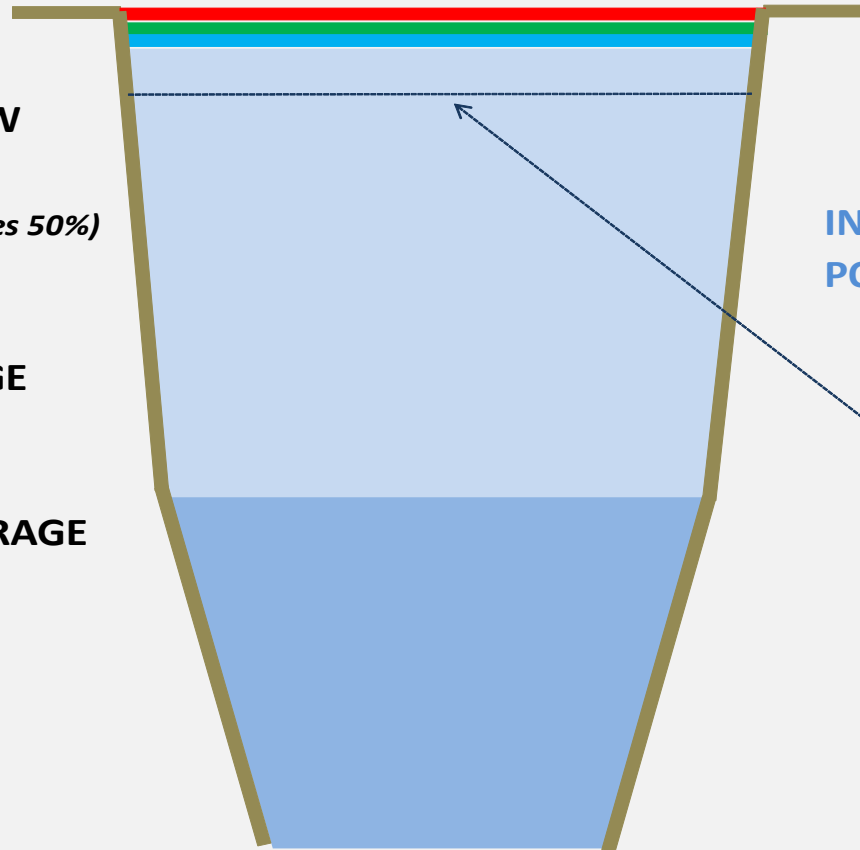
WATER SUPPLY

ANNUAL INFLOW
5.8M dams³
(Assumes Alberta uses 50%)

USABLE STORAGE
4.0M dams³

UNUSABLE STORAGE
5.4M dams³

LAKE DIEFENBAKER



WATER USE

EVAPORATION 3%
QU'APPELLE 3%
CONSUMPTION 3%

IN-STREAM FLOW 91%
POWER GENERATION

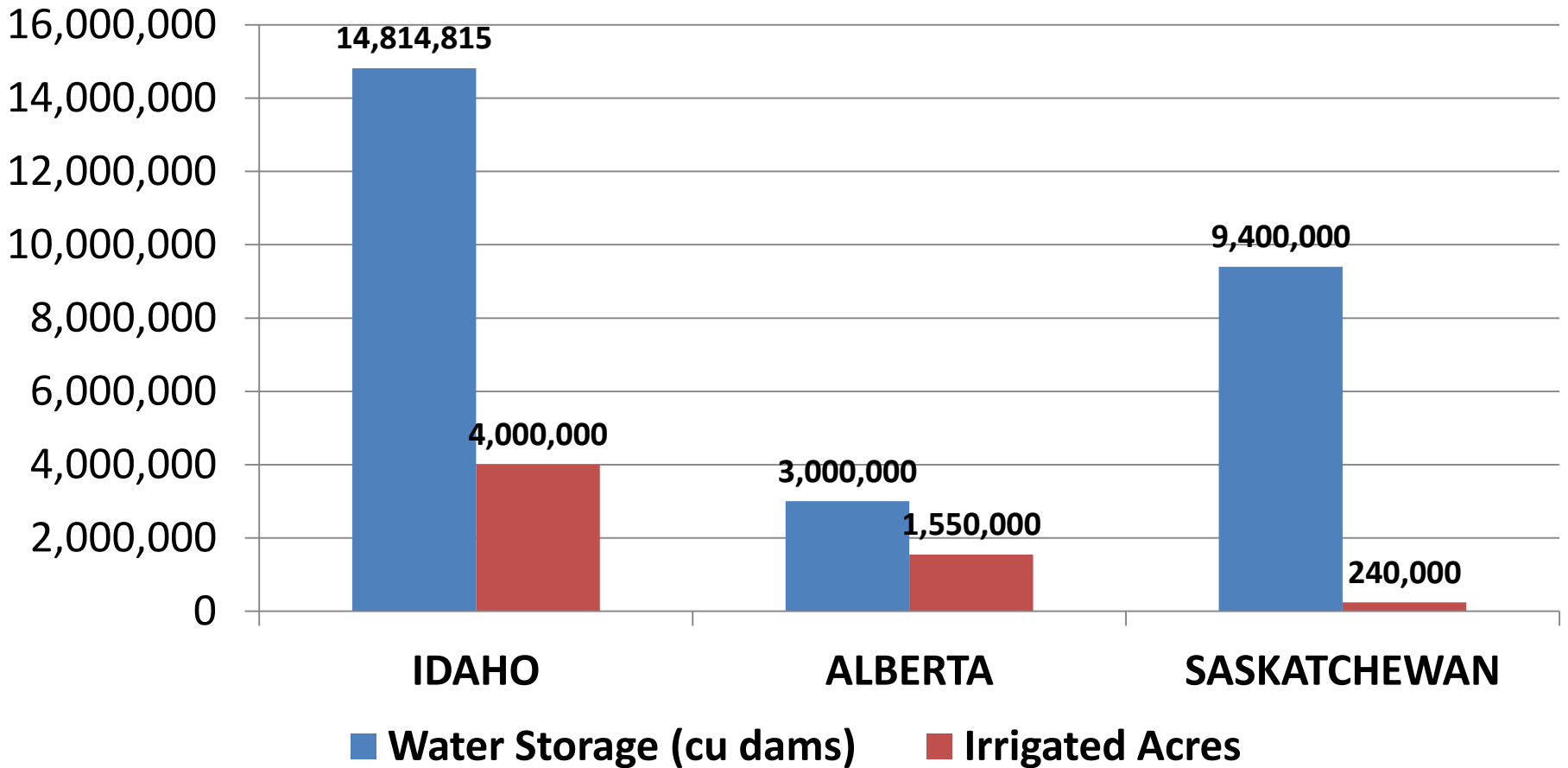
CONSUMPTION 18%
WITH 500,000 ACRES OF
IRRIGATION EXPANSION

Source: Ministry of Agriculture

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WATER STORAGE - IRRIGATED ACRES



Source: Ministry of Agriculture

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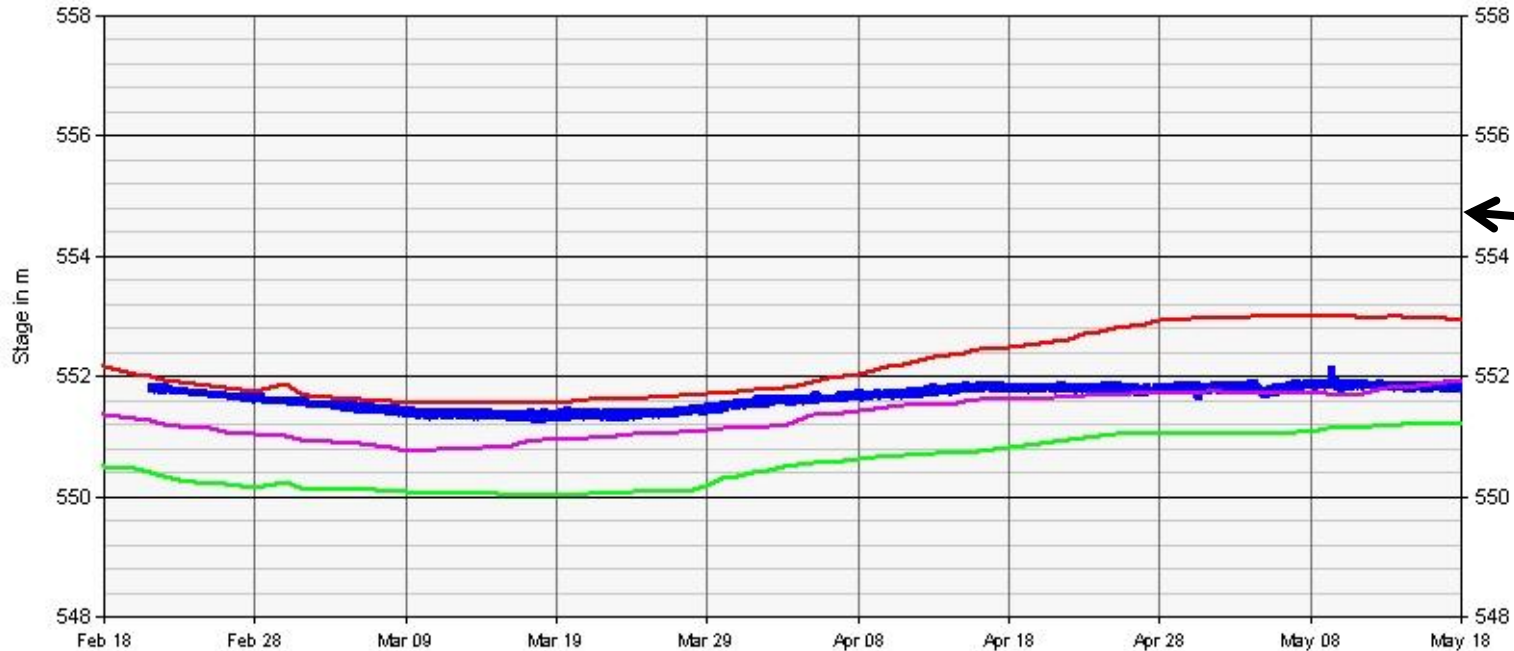
LAKE LEVELS

05HF003: LAKE DIEFENBAKER AT GARDINER DAM - 2012

Date Plotted: 18/05/2012 11:12:44 AM

- Recorded
- Lower Quartile
- Median
- Upper Quartile

(multiply x 3.281 to convert from meters to feet)



Miry Creek ID Intake 554.66

Higher Pumping Costs

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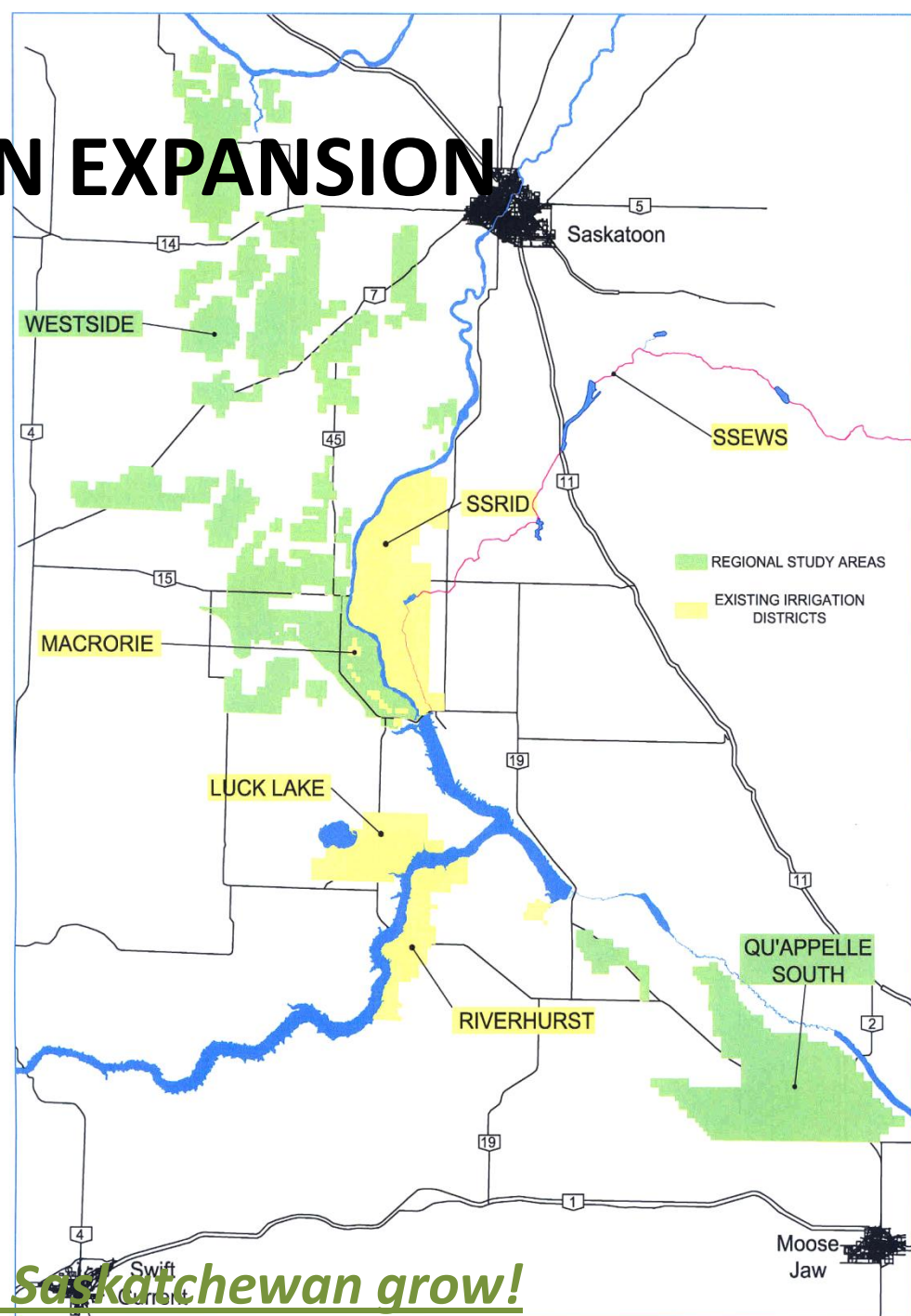
IRRIGATION EXPANSION

Potential **INFILL** is 50,000ac. within existing irrigation districts.

Potential irrigation **EXPANSION** is 500,000ac.

Water use would be 18% of the mean annual inflow into Lake Diefenbaker (3%-22%).

Source: *Time To Irrigate. SIPA 2008*



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“GREAT enterprises fail because people become tired and lose heart,

but a country is built on the DREAMS of those who will not let them die.”

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The Economic, Social and Environmental Benefits of Expanding Irrigation in Saskatchewan

Prepared for the Saskatchewan Irrigation Projects Association
By CDFM Associates Ltd. of Regina, Saskatchewan
October 2008

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