

**Lake Diefenbaker Operating Plan Consultation Meetings
Industrial Sector
July 19, 2012 @ 10:00 a.m.
Outlook Civic Centre
Outlook, Saskatchewan**

Facilitator: Dazawray Landrie-Parker

Recorders: Heather Davies, Robin Tod

Participants:

Name	Organization
Barb Bagshaw	Luck Lake Irrigation District
Sandra Bathgate	Saskatchewan Irrigation Projects Association (S.I.P.A.), Grainland Irrigation District
Craig Douglas	Saskatchewan Cattlemen's Association
Dale Ewen	Riverhurst Irrigation District
Brad Farquhar	Assiniboia Capital Corporation
Mark Gravelle	Riverhurst Irrigation District (Board)
Duane Harding	South Saskatchewan River Irrigation District (Manager)
Murray Kasper	South Saskatchewan River Irrigation District (Trustee)
Kathleen Kelk	Sansamente Ranch Ltd., Lakeview Ranch Ltd.
Gordon Kent	Riverhurst Irrigation District
Ryan Miner	Riverhurst Irrigation District (Board)
Rob Oldhaver	S.I.P.A.
Grant Pederson	South Saskatchewan River Irrigation District (Trustee)
Roger Pederson	S.I.P.A.
Hollyce Siemens	Home owner
Carl Siemens	Home owner
Blaine White	Qu'Appelle South Irrigation Project

Meeting Notes

Dazawray Landrie-Parker started the meeting at 10:05 a.m. Dazawray reviewed the PowerPoint on the reservoir operating plan process. Participants were asked to introduce themselves.

Challenges

Water Quality

- Water quality is an issue for the participants – participants are concerned with both the water quality of the lake, as well as the water quality of the water entering the lake that originated in Alberta. Concerns over gaps in water quality monitoring were also raised.

The University of Saskatchewan is doing a water quality monitoring project in conjunction with the South Saskatchewan River Watershed Stewards.

- Swimmers are getting leeches from areas in the lake where previously they did not occur; the thought is it may be related to the warm water temperature. Are leeches the natural process in the aging of the lake?
- A participant commented that they are mystified as to why there is not more historic water quality information from Lake Diefenbaker. Do we know the quality of water that is coming into the lake? We need to know more about water quality and water quality needs to be upfront in the management plan.
- Concerns were raised about cattle watering directly from Lake Diefenbaker and the possible impacts on Lake Diefenbaker. There was some discussion about cattle watering and if it has caused water pollution problems in the lake.
- Concerns were raised about raw human sewage possibly being released into the lake.
- A participant expressed some concern about the development of oil pipelines around Lake Diefenbaker. The participant commented that is important to remember the impact of the pipelines and possible oil spills into the lake.
- A comment was made that there is a need to improve water quality monitoring of the Lake Diefenbaker system so that, at a minimum, base level water quality information is known. Such monitoring will provide public assurance of appropriate water management by proactively assessing the state of water quality, changes in water quality and identification of data gaps requiring further study.

Economy

- It is important to attract sustainable industry for the Lake Diefenbaker area. Recreation and tourism often have more of an influence than other industries.
- Development will always have conflicts; however, we need development and we cannot impair development. The drainage structures and pipelines need to be built to get to development. There needs to be some compromise between development and the environment.

Environment

- High water levels are eroding shorelines that support native grasslands.

Irrigation

- For private irrigators, low water levels in the spring may limit the water supply for irrigation and high water levels result in shoreline erosion and increased sedimentation/siltation in the pump intakes.
- During times of high water levels, the pumps are threatened by the water even though they are designed to deal with the full supply level (FSL). The same situation occurs for the Grainland project in their irrigation pump station.

- Grainlands Irrigation District water intake was installed in 1979 but there are still problems with the lake levels.

Recreation

- Road and boat access to Lake Diefenbaker is an issue due to the fluctuations and variance in the water levels of the lake.
- Tourists have challenges when water levels are high, as there are no beaches and they have no boat launches. For cottage owners at Hitchcock Bay, the beach is only a foot or two wide during full supply level.
- Participants discussed the take line, safe building elevation and reservoir development areas. Take line – is the elevation below which you are not allowed to develop. Further discussion about take line, safe building elevation and reservoir development areas.

Sedimentation and Siltation

- Is SWA doing anything about the siltation that is happening where Lake Diefenbaker originates. Is it being monitored? Concerns were raised about sedimentation on the originating end of the lake. The sediments are several metres deep at this time. Participants would like to see SWA do a study on the effects of siltation and sedimentation on Lake Diefenbaker.
- Another participant was concerned that Buffalo Pound Lake is getting filled in by sediment and it is always full of algae because it is too shallow.

Piping Plover

- Comments were raised that SWA changes the management of the lake in June to accommodate the Piping Plover. The Authority keeps water below 555 metres about sea level in the spring.
- A comment was made that the Piping Plover did not naturally occur in this area, and that they began to use this area after the dam was built when large tracts of cobble beaches became available for nesting. The public needs to remember that the dam was built for people, not birds. Discussion of the protection of the Piping Plovers and why this bird species is a priority for the lake.

Water Supply

- A suggestion was made by a participant that the province should review the concept of the Meridian dam on the North Saskatchewan River. A reservoir on the North Saskatchewan River would allow the province of Saskatchewan to maintain a consistent flow for the other reservoirs in the province and help keep water levels more stable.
- Currently we are experiencing excess water levels; however, there will be years when we will have droughts. A suggestion was made that the province should look at multiple reservoirs in the Saskatchewan River system.

Water Management

- High lake levels with high winds result in lake elevations above full supply level in some areas of the lake.
- A comment was made that SWA should strive to achieve a happy medium with water levels that are not too hot high and not too low for management of the reservoir. One participant thought that the water level for June 28, 2012 was considered to be a perfect water level.
- A question was raised on how keeping the lake at FSL is adequate for flood protection. It was suggested by one participant that it would be better to have FSL three feet (1 metre) lower to provide for some flood protection.
- Back in the 1980's, water levels of Lake Diefenbaker were much lower and there was a lot more beach. Now the water levels are too high in the summer and it seems like spring water levels are lower and they are maintaining more water than they did before.
- A question was asked of whether the full supply level has been raised in the past several decades. Discussion of whether the level is lower during the winter. General comments were made that it seems that the operation of the Lake Diefenbaker has changed in recent years.
- One homeowner indicated that they are happy with the lake at FSL.
- A comment was made that it takes approximately 100 years for a reservoir to fully develop.
- One participant commented that the management of Lake Diefenbaker seems to always be in crisis management. Water comes in from the mountains and lake management seems to be haphazard.
- Participants would like to know more about the water that is coming into the lake. Drainage plans for the South Saskatchewan River should be reviewed.

Infrastructure

- A recommendation was made to have planning and infrastructure ready for future development on Lake Diefenbaker.
- Participants commented that they would like information as to why more water is not currently being pumped down the Qu'Appelle conveyance channel. A comment was made that the Qu'Appelle water conveyance channel is essentially non-functioning and that problems have been observed by adjacent landowners. Comments were made about the erosion problems and significant releases from the Qu'Appelle Dam in the past which have caused damage along the Qu'Appelle water conveyance channel.

General

- A comment was made that there are lots of issues around the table, some which are significant and some which are less significant. Participants were wondering how do we move forward when we have so many different small issues? A recommendation was

made that there should be a prioritization of the issues around management of Lake Diefenbaker.

- This meeting seems similar to other meetings that others have attended. There is some skepticism that the responses from these meetings will influence change in how the reservoir is managed.
- Discussion ensued about the consultation/engagement process and why representatives of SWA and SaskPower are not included in these sessions. Comments that Rescan Environmental has been asked to chair the facilitation. The Authority chose to do sector group consultations, as it is difficult to facilitate a large number of interests in one location and at one meeting in an efficient and effective manner. The Authority do not have staff involved in the response sessions, as they did not wish participants to be influenced or intimidated by the SWA officials.

Issues Matrix

Issue	Reservoir value/ service	Frequency	Seasonality	Severity	Trend	Competing values	Comments
Erosion	High water	Only happens when lake is at or close to FSL.	Occurs when water level is close to FSL. Later in the year, when it hits FSL then it starts to really erode.	Big issue which is very costly for replacing pumps, lines. There is also safety issues and concern about losing infrastructure .	Getting worse over the last 10 years; getting worse because there have been a lot more rain events in Alberta.	SaskPower and money	Bonus is that there are cheaper pumping costs at control stations. There is a need to maintain river flows downstream for the city's infrastructure
Consistency of water flow	High water/ low water	Downstream always needs minimum and maximum water levels.		Pike Lake flooding is a concern. Comment that construction of new bridge is impacting outflow levels from lake.	Getting worse		Low water level can be a concern in spring or it may also be a concern in the summer if the lake is drawn down and no new water is coming in.
Cannot irrigate/pump	Low water	Need to know minimum and maximum.			Getting worse		Need to be more informed and educated on how the lake is being operated
Accurate updated info and data	Monitoring						SWA's website is outdated by ~2 weeks off for flows; lake levels seem to be a bit better on being updated. Inconsistency as to who to contact regarding various issues such as Fisheries and Oceans Canada.

Issue	Reservoir value/ service	Frequency	Seasonality	Severity	Trend	Competing values	Comments
Regulatory/ policy	Economic development					Different agendas and issues below and above the "line".	Problems associated with that do you go to and how do you get this done. Too many organizations to talk to with inconsistencies as to who to talk to. Development needs a streamlined process. Issues with development as RMs lack capacity to deal with this. Concern over if RM takes control of the Reservoir Development Areas about the inconsistencies between RMs. Restricted building zone regulations have no teeth.
Infrastructure - roads, pipelines, capital, power	Industrial development	Ongoing					This needs to be included in the plan.
Drainage	Monitoring						

Discussion

Some participants felt that the City of Saskatoon has a major influence on how the water levels are managed. It is the participants view that when the City of Saskatoon needs a change in flows for construction or consistent flows for events and recreation the reservoir is managed to accommodate their requests.

One participant commented that the Saskatchewan Water Authority has a good website with information on lake levels. However, they felt that the information on the site is not current and SWA officials have indicated that they do not have enough hydrometric monitoring stations on the lake. One participant suggested that maybe the information is not updated due to staff being on vacation.

The meeting had a refreshment break at 12:25 a.m. The meeting reconvened at 12:35 a.m. and the meeting continued with the issue/reservoir value rating process.

Criteria Matrix

Issue	Reservoir value/service	Flow needs	Water level needs	Timing of flows	Other Criteria	Comments
Erosion	High water	Inflow is a 3	3 - control drop FSL, absolute correlation with erosion		Controlled release - inflow	Drop FSL by 3ft with more monitoring
Consistency of water flow	High water/ low water	3	3	3	Need to be controlled - needs to be more proactive to deal with high inflow	
Cannot irrigate/pump	Low water	3	3	3	Increase low level water level	Winter needs more monitoring - forecasting
Accurate updated info and data	Monitoring					Need to know what is coming in - monitoring of water quantity and quality
Drainage	Monitoring					Drainage plan and building drainage stations
Regulatory/policy	Economic development		3			Need for improved transportation and utilities to access to the lake (Infrastructure, roads, pipelines, capital, power)
Infrastructure - roads, pipelines, capital, power	Industrial development					
Consultation						Need for increased consultation and need for political stakeholders to be present.

Issue	Reservoir value/service	Flow needs	Water level needs	Timing of flows	Other Criteria	Comments
Water Quality	monitoring	3	3	3		
Communication	Power generation					Don't fully understand how reservoir is operated. Need to know how they are using hydro from the reservoir - understand it is used as a peaking station could it not be run more consistently all year round?
Tourism Pollution	Economic development					Need to provide location for garbage collection along the lake. Boaters will drop off beer cans along shore to prevent being fined if they have this on their boat.
Drainage						Need for drainage plans when large rainfall events resulting in increase in water levels causing flooding. Unsure if there is the provincial capability for drainage plans; need for qualified and timely response. Irrigation districts have gone to paying for planning and design of drainage plan but cannot get a permit. How much more provincial infrastructure is needed for approval?

Dazaway introduced the Traffic Card Voting component of the response meeting as a way of prioritizing and understanding which issues were the most important to the participating stakeholders.

Traffic Card Voting

Issue	Red	Yellow	Green	Comments
Erosion	1	5	11	
Consistency of water flow		6	11	
Cannot irrigate/pump		2	14	
Accurate updated info and data		5	12	
Drainage	1	5	10	
Regulatory/policy		2	15	
Infrastructure - roads, pipelines, capital, power			16	
Consultation			17	Need for increased consultation and need for political stakeholders to be present. Stakeholders have been consulted to death; concern that there has been too much consultation to avoid action; recognize that not everyone will be satisfied with a reservoir management decision.
Water Quality			17	Is there monitoring? How much of water quality monitoring into lake? Need to have a benchmark of water quality coming into lake.
Communication			17	
Tourism Pollution		17		
Drainage			17	

Future Goals

- Suggestion for a three foot buffer zone from the FSL. Opposition from the irrigators who prefer the level to be higher due to the costs for irrigation pumping. No consensus on this goal.
- One participant commented that it is important to utilize the reservoir for the capacities it was built for, e.g., hydropower and irrigation.
- Freeboard on the reservoir is necessary for flood control. If reservoir is at FSL, Saskatoon is at risk for flooding when rainfall and inflows from Alberta are high. A comment was made that it is better to manage the reservoir at a water level below FSL.
- A political challenge is evident as numerous interest groups and municipalities have their own interests. If people start pulling back and do not provide feedback, the capacity is lost for all to be heard. It is important to have a coordinated coherent voice
- Lake Diefenbaker has a management board but participants were not aware of who is sitting on this management board.
- One participant suggested that there is a need to have an ongoing forum/lake management board where stakeholders from all sectors have a coordinated effort on who is heard and how the lake is managed.
 - This voice (board) will connect to power and responsibility. Until the province is willing to support this partnership with money, the coordinated board would not likely happen.
 - It was noted that with the responsibility also comes capital and operational costs.
- Comment that an irrigation project can use the water from the lake to generate power.
- Important to have a one stop website location that contains current and up to date information on Lake Diefenbaker flows, water quality and water levels for the stakeholders. Stakeholders need to know who is responsible for what regarding lake management. Measurements would allow for better management as “you can’t manage what you don’t know”.
- The above suggestions will lead to better coherent management of the water resource.
- A survey is required of the stakeholders around the lake to determine their preferences for minimum and maximum water levels in managing the lake. Suggestion to make a chart with the levels that each user would like to see for their interests. It was noted that compromise will be necessary for the best management plan.
- Stakeholders would like a level playing field between all users of the lake including recreational users, irrigators, tourism and power generation. Management of the reservoir should be transparent with decisions not being swayed by public interest groups.
- It was noted that private irrigation is paid for out of the producer’s personal pockets while public irrigators receive grants and get more public money.

The participants completed their discussion and continued with lunch.

The meeting adjourned at approximately 1:30 p.m.