PARLBY CREEK-BUFFALO LAKE WATER MANAGEMENT PROJECT

# **NEWSLETTER**

November 1992

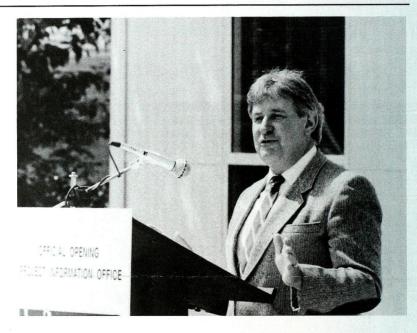
### Project Information Office Opens

On Saturday, July 11, 1992 the Buffalo Lake Management Team held an Open House in Alix. Alberta to officially open the project office, introduce the new project office staff person, Margaret Dewald, and provide the opportunity for the local public to meet and discuss details of the project with members of the management team and government officials.

Well over 100 people were in attendance, many from the local area but some as far away as Edmonton, Calgary, and Okotoks. Visiting dignitaries included the Honourable Ralph P. Klein, Minister of Alberta Environment, and Mr. Peter Melnychuk, Assistant Deputy Minister, Water Resources Management Services, Alberta Environment, as well as several elected officials from the villages, towns, and counties of Stettler, Camrose, and Lacombe.

A short program was provided as part of the open house which included a presentation from Mr. Karl Grollmuss. a member of the Buffalo Lake Management Team. Greetings were also provided by Minister Ralph Klein, and Gladys Campbell, Mayor of Alix. At the conclusion of the program, Mr. Klein and Mr. Angus Braseth, Chairman of the Buffalo Lake Management Team, cut the ribbon to officially open the project office.

Special thanks were given to the Village of Alix, the Alix volunteer Fire



ALBERTA ENVIRONMENT MINISTER RALPH KLEIN CONGRATULATED MANAGEMENT TEAM MEMBERS AND LOCAL RESIDENTS FOR THEIR EFFORTS

Department, and the St. Pancras Anglican Church Women for their helpful assistance at the opening.

Over the summer, the project office has been staffed every Friday by Margaret Dewald, who is there to provide information and ensure that your questions are answered about the project.

Should you require any information or if you need to talk to members of the Team please feel free to call the project office at 747-3311 (fax: 747-3911) or reach one of the members listed at the back of the newsletter.

# A Brief History

The first known record of water management problems in this area goes back to 1883 with the concern that Buffalo Lake was so low that it became hard to find water for livestock. However, by the early 1900s, there were reports that Spotted Lake water levels climbed so high that very little hay could be cut in the vicinity of the lake

Local history is plagued with fluctuating water levels that have had a negative effect on agriculture, recreation, fish, water fowl, shoreline development and water quality.

Since formal monitoring began in 1956, levels have fluctuated by almost 6 feet over a period of less than 10 years. However, this is only a short time in the lifespan of a lake. Hydrologic studies have shown that water levels have likely fluctuated by almost 12 feet since 1914.

People have tried many times to solve water problems in the area. In 1908, in response to a petition by farmers and ranchers, the government sent a steam-powered dredge to Lamerton Creek [Parlby Creek] which is the outlet from Spotted Lake. In the following summer, a crew of 27 men were sent in to ditch by hand and to clear and straighten Parlby Creek.

For the first half of the century, local residents have witnessed extensive beaver dam removals, petitions, feasibility studies, ditch constructions, and numerous attempts to adjust the water levels. Various governments have investigated proposals and plans for everything from irrigation

alternatives to drainage systems.

In 1977, the government of Alberta made a commitment to investigate stabilization of water levels in response to public concern. In 1980, the federally-operated Prairie Farm Rehabilitation Administration printed a report recommending that Buffalo Lake be stabilized by pumping water from the Red Deer River via Pariby Creek.

Through the early '80s, landowners continued to petition for stabilization and the Buffalo Lake Action Committee was formed. Phase I of Parlby Creek Channel Improvements was initiated in 1985. The project design was overseen by the local Spotted Lake Implementation Committee.

The Alberta Government requested an independent Environmental Impact Assessment for the fifth and final phase of the Parlby Creek - Buffalo Lake Water Management Project, which was completed in 1990. In Spring 1991, a Review Board held public hearings which led to approval of the remainder of the project and the establishment of the Buffalo Lake Management Team. The Team, made up of local residents, will oversee project management and mitigation activities, as well as ensure the multi-use nature of the project.

The record of fluctuating water levels in the Parlby Creek- Buffalo Lake area goes back to early settlement in central Alberta. Finding a water management solution for this area has meant many dedicated hours of work since that first steam-powered dredge worked its way through Parlby Creek 84 years ago.

# APPROVALS FOR BUFFALO LAKE PROJECT

Alberta Environment was granted approvals by the federal and provincial agencies to proceed with construction of the Parlby Creek-Buffalo Lake Water Management Project - the Red Deer River to Alix Lake Component.

An interim license under the Water Resources Act was issued by the Water Rights Branch August 5, 1992 authorizing the construction of the intake, pipeline and canal to Alix Lake and the diversion of water from the Red Deer River.

The Federal Fisheries Act Authorization, Section 30, for the construction and operation of the water intake, and pumphouse structure on the Red Deer River was issued July 7, 1992 by Fisheries and Oceans, Government of Canada.

On June 2, 1992, a Declaration of Exemption under the Navigable Waters Protection Act was issued to Alberta Environment for approval to construct a fish return pipeline, bank protection, trenching and pumphouse on the Red Deer River.

#### UPDATES

PHASE IV
Pariby Creek
[Highway 50 to Alix]

Ongoing construction procedures this fall include spoil pile spreading, general clean up, landscape restoration, farm crossing and related culvert installations and right-of-way fencing for those portions of the channel excavated in the winter of 1991-92. This work will continue into the winter months of early 1993.

In addition, due to budget savings for program modifications and overall lower bid prices received through the public tendering process, Phase IVB - the Mirror Control Structure, has been tendered. We have recommended to the Minister to accept the low bid tender received from Lyle Walker Construction of Red Deer. Work started in October 1992 and will be complete by June 1993.

# PHASE V A Red Deer River/Parlby Creek Diversion

A \$1.8 million contract to build the intake and the pumphouse has been awarded to an Alberta firm, Ras Dam Construction Ltd.

Detailed engineering designs and drawings for the pipeline, conduit and canal contracts are progressing on schedule.

Land for the pumphouse site has been purchased and agreements are in place for use of the private access road to the plant site.

Also, construction and right-of-way easements have been acquired for the pipeline route.

Negotiations are continuing for land and right-of-way purchase, and easements for the remaining works, including Alix Lake.

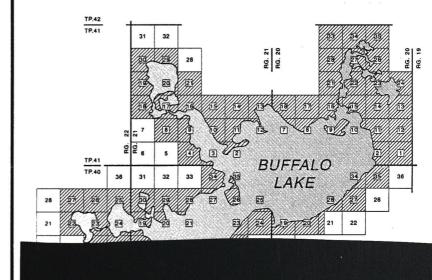
# **Mapping Information Available**

Many local residents are aware of the surveying that has been underway since last fall. If not, you may have wondered about the overhead airplanes and the steel markers around the lake.

The surveying was needed in order to prepare maps that show land contours around Buffalo Lake. The land contours are mapped at 0.5 metre intervals up to an elevation of 782.5 metres.

The cross-hatched areas on the map (shown below) tell you which sections of land have been mapped along the boundary of the lake.

If you wish to view these maps, they are available for viewing to the general public. You can contact Ray Kerber at the Alberta Environment's regional office in Red Deer (340-5310) and make an appointment. A representative will be happy to show you the contour maps which are completed to date.



# Sub-Committee Update

The Buffalo Lake Management Team established five sub-committees to address a number of issues: stabilization of water levels, recreation, water quality and quantity, fisheries, wildlife, land use, and agriculture. The sub-committees are gathering information and studying mitigation alternatives. Field surveys and studies are underway.

The sub-committees are focusing their attention on providing advice to the Buffalo Lake Management Team on the filling scenarios for Buffalo Lake, and the impact this may have on their respective areas of expertise. Operating criteria will be dependent upon a combination of the level of Buffalo Lake, flow in Parlby Creek, and the flow and quantity in the Red Deer River.

## DOLLAR BREAKDOWN

## PARLBY CREEK - BUFFALO LAKE WATER MANAGEMENT PROJECT

PARLBY CREEK CHANNEL IMPR	ROVEMENTS (PHASES I-	IV)
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Pariby Bay to Hwy. #21	Completed 1986	\$	790,000
Hwy. #21 to Spotted Lake	Completed 1987	\$	920,000
Spotted Lake to Hwy. #50	Completed 1988	\$	690,000
Channelization - Hwy. 50. to Alix Mirror Backflood - Structure & Dyke Wetland Development	Completed 1992 1992-93 1993-94	\$ \$ \$	530,000 470,000 500,000 3,900,000

### RED DEER RIVER - PARLBY CREEK DIVERSION SYSTEM (PHASE VA)

Intake and Pumphouse	1992-94	\$2,000,000*
Pipeline to Lake C	1993-94	\$3,700,000*
Condult, Canal & Alix Lake Outlet Works	1994-95	\$2,900,000*
Contain, Canal a rim Lane Canal		\$8,600,000

### BUFFALO LAKE OUTLET WORKS AND EROSION PROTECTION (PHASE VB)

Buffalo Lake Outlet Works Tail Creek Erosion Protection	1995-96 1995-96	\$1,400,000* \$ 600,000*
BUFFALO LAKE		\$2,000,000
Mapping Mitigation and Monitoring	1992-96	\$ 700,000*

<sup>\*</sup>Estimated Cost Only

#### Telephone List Buffalo Lake Management Team

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Phase I - IV