

PARLBY CREEK-BUFFALO LAKE

WATER MANAGEMENT PROJECT

PUBLIC HEARING

SUBMISSIONS

May 1991

Bashaw and District Chamber of Commerce

Box 645
Bashaw, Alberta
T0B 0H0

May 1, 1991

Review Board,
Box 15400,
LACOMBE, Alta
T0C 1S0

Dear Sirs,


The Bashaw and District Chamber of Commerce at its regular monthly meeting on April 23, 1991 unanimously approved the following resolution:

That the Chamber supports to Stabilization of Buffalo Lake as being of great benefit to business in the Town of Bashaw.

The resolution was passed based on the following criteria:

- 1) That the stabilization would create additional tourism.*
- 2) That our member(s) who provide camping facilities would see an increase in utilization of their grounds.*
- 3) That the stabilization would provide additional wet lands for game birds thereby attracting more hunters.*
- 4) There would be increased construction of cabins and homes along the lake which would benefit building suppliers, contractors and sub trades.*

Regards.



FRED CALKINS
President
Chamber of Commerce

FC/ms



MANNCLAN LTD.

BOX 633 RED DEER, AB., CAN. T4N 5G6 PH. (403)340-8212 (403) 342-6266

PARLBY CREEK- BUFFALO LAKE WATER MANAGEMENT PROJECT

DEAR SIR/MADAM:

WE TOTALLY OBJECT TO THIS (YET ANOTHER) UNNECESSARY AND UNWARRENTED EXPENSE FOR ABSOLUTELY NO ECOLOGICAL GAIN WHEN THESE ALLOCATED FUNDS COULD BE DIVERTED TO THE MEDICAL FACILITIES FOR WHICH WE PAY TO MAINTAIN.

WE ALSO OBJECT TO GETTY'S STATEMENT THAT THIS PROJECT WILL GO AHEAD IN SPITE OF WHAT THE DEPT. OF ENVIROMENT FINDS.

FLOYD & MARGARET MANN

Recd. 16/04/91

Alberta Foundry Ltd.

Custom Founders

P.O. BOX 88
MIRROR, ALBERTA
T0B 3C0

PH: (403) 788-2200
FAX: (403) 749-2080

May 13th. 1991

Parlby Creek - Buffalo Lake
Water Management Project
Review Board
P.O.Box 15400
Lacombe, Alberta
T0C 1S0

Dear Committee Members:

As the owner of an independant business and a resident in the town of Mirror I wish to make the following submission in favour of the project.

My town, business and family both need and deserve a reliable water supply, which I believe they will not have if the project does not go ahead.

I have made a significant investment in the town of Mirror. Which I had fully intended on increasing, by branching out from my present business; these plans though are contingent on having a reliable water supply. I would deem it foolish to invest in excess of Two million dollars into a town which cannot guarantee me a reliable water supply.

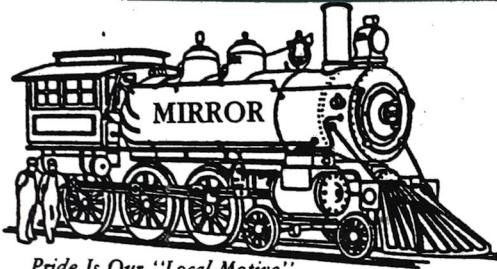
It does appear to have been a misuse of public funds, to have spent countless dollars over the last years upgrading Parlby Creek, and other projects towards the Buffalo Lake program only to stop now.

I once again urge you to recommend continuation of the program. Which I am sure will significantly help in the revitalization of the Mirror area.

Yours Truly



Edward Kingston



Village of Mirror

Box 130, MIRROR, ALBERTA T0B 3C0

10 May 91

Pride Is Our "Local Motive"

Parlby Creek - Buffalo Lake
Water Management
Project Review Board
P.O. Box 15400
Lacombe, Alberta
T0C 1S0

Dear Sirs:

Council of the Village of Mirror has reviewed the March 1991, Environmental Impact Assessment of the Parlby Creek - Buffalo Lake Development Project with great interest. While agreeing with the points made in most instances, we do disagree with the document on three fronts. Of primary interest to our Village is, of course, our water supply, but we are also anxious to see wildlife and fisheries flourish. Most important of all is diversification of our economy.

Our area has been suffering economically for years. We have two railways and three major highways running through the region. Power and natural gas is readily available. Land is attainable and extremely affordable. We have people to supply and consume. Our location is central in the Province. All the ingredients for success are present but the area remains economically depressed. A consistent water supply is the missing ingredient to complete the formula for economic growth. Millions of dollars will flow into our area from all over. The Cost/Benefit portion of the E.I.A. does not address or compute the dollar benefits of that economic spin off.

Village Council is anxious to address remarks made by some regarding the entire stabilization project. Those parties have intimated the stabilization of Buffalo Lake is a fairly new project to benefit a few. That is just not the case! The E.I.A., Volume 1, page 5, confirms that the first study into the feasibility of stabilizing lake levels was initiated in 1978. The possible stabilization of Buffalo Lake had been an ongoing cause for discussion for many years prior to 1978. One of the E.I.A. respondents suggested that the project had been discussed for 40 years.

Because water can be found for X numbers of dollars on average, does not mean water is available in this area for that much money. Mirror installed water and sewer in 1976. One water well was to supply the Village. That water well delivered 35 gpm, and was of high sodium and extremely high iron content. Iron bacteria was a constant problem in plugging the screen on the well pump. During the hot summer weeks, Village crews would shut all service lines off about 11:00 p.m., and route all water to our water tower, in an effort to fill that tower. At 5:00 a.m., The Village residents received water service again when the valves were re-opened. Even with this action, it was usual to be out of water by 4:00 p.m.

In the fall of 1980, a search for other ground water was launched. The Village drilled 20 test wells in and around the Village, looking for adequate, acceptable water, and were as far from the Village as 4.5 miles. A source was identified finally, and the well was pump tested in March 1981, with hopes that it would deliver the 100 gpm thought necessary.

The well proved capable of the 100 gpm, but testing showed that three neighboring wells being monitored during the test were drawn down, and a license would only be issued to withdraw water at the rate of 50 gpm. The cost of pipelining made it economically foolish to bring an insufficient supply of water to the Village.

The cost to the taxpayer thus far had been \$179,450.00, and still no water source had been identified. A choice had to be made to either proceed west to the Tees area, or to construct off stream storage on Parlbay Creek. After many meetings with, and urging by, Alberta Environment, a decision to build off stream storage on Parlbay Creek was made. Construction commenced in 1983, and was finally complete in 1985, at a total cost of \$1,455,087.75.

The E.I.A. does not recognize or address the fact Minron has two choices for an alternate water supply. One being to try drilling more water wells further west than done in 1980 and pipeline back to Minron; there being no guarantees that water will be found. Under that scenario, the water treatment plant would also have to be changed. Secondly, Minron could pipeline to the Red Deer themselves. Neither objective could be achieved with \$1,000,000.00.

Another issue addressed by the E.I.A. which leaves an incorrect impression with the reader, is the reason Minron needs an alternate water source. We do not deserve just "better" or "more" water. We must be assured of a flow of water to fill our reservoir. Your examination of our previous two submissions will show you how tenuous our current water source is. As additional information, we were unable to fill our reservoir in the fall of 1990, due to there being little or no water in the creek to withdraw. This spring, we anxiously awaited break up so that pumping could commence early (permission would have to have been sought from Alberta Environment). However, there was not enough water to cover our intake structure until 22 April 1991.

The E.I.A. indicates that there is adequate water available in the Red Deer River to satisfy our needs. We do not fear the discharges to the Red Deer River after all, the Town of Stettler is withdrawing below the City of Red Deer already. We have every confidence that Alberta Environment controls those situations adequately.

The issue of the value to recreation and tourism if Buffalo Lake were stabilized must be addressed. The E.I.A. indicates that existing recreation facilities are located above the proposed stabilization level. The assurance of adequate levels in Buffalo Lake can only cause expansion of recreation opportunities. Village Council does not agree with the criticism made by the media and in the Legislature that stabilization would benefit only cottage owners. That group will surely benefit, but all Albertans would benefit.

East Central Alberta needs to diversify its economy. What better way than through tourism? Stabilization would be a golden opportunity for the private sector to establish recreation and tourism endeavors at Buffalo Lake.

A specific opportunity comes to mind in that Highway 50 through Minnron can be extended all the way to the water's edge. The original surveyed road allowance is still in force and could be quite easily developed.

The E.I.A. makes reference to camping at provincial parks declining and camping at private parks increasing due to marketing strategies. We submit that if marketing is in fact the reason for private success, then let the Provincial authorities take some instruction from those operators. Why does the E.I.A. continually offer promotion in a negative light? That promotion keeps businesses viable and brings tourists to our area. Village Council, however, feels that the private successes are attributable to better facilities and services.

The entire recreation analysis is built on the information in two studies done in 1981. That is ten years ago. Village Council maintains that better facilities and a stabilized lake level will bring all kinds of users to our area. As laid out in other Village of Minnron submissions and confirmed in the E.I.A., Sylvan Lake is overused; Buffalo Lake could be a holiday destination point to ease that overuse.

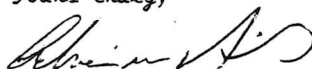
Much has been said, on both sides of the issue, as to whether or not lake stabilization would be beneficial to fisheries and wildlife.

Village Council feels that fish habitat would be enhanced. A permanent water body of 350-400 acres would be secured. Habitat under stabilization would be better than presently exists in the channels. Some of the old creek bed is being preserved for wildlife also. Water would be consistently available and not subject to weather conditions. The creek channelization combined with clean, reliable water must be a plus for fish, birds and other wildlife.

When we look at the successes being seen with goose and duck nesting programs, Council is sure any loss of nesting habitat can be looked after by man but are equally sure Mother Nature would do the job. Waters have been rising and receding from the start of time. Stabilization of Gull Lake has had a tremendous positive impact on fishing there. The fact that the duck population has had outbreaks of botulism in the past is evidence that the shallow dirty water is a major threat. Deer would suffer no ill effects from higher water levels.

In closing, Village Council recognizes the high cost of this project but feels that once the benefits are recalculated, it will become evident to all that the project should be completed.

Yours truly,



Adrian van Nieuwenkerk
Mayor



LACOMBE CHAMBER OF COMMERCE

BOX 1026
LACOMBE, ALBERTA
T0C 1S0

Dear: *Don*

Re: Buffalo Lake Stabilization

The Chamber of Commerce supports the concept of stabilization for the following reasons:

1. Without claims on the Red Deer River supply most of it will be lost from the area as future demands exceed the available supply.
2. Fresh water (non-saline) could enhance the area of Buffalo Lake for fishing. Some areas of the lake support few fish because of the PH factor.
3. Stabilizing will enhance the area for tourism.
4. Additional fresh water will help as a dilution factor any sewage effluent from both Alix and Mirror.

The Chamber wishes to emphasize the importance of balanced budgets as it pertains to priorities and timing of this project.

In addition we think farm people along Parlbey Creek area and other farmers in flow areas should continue to practice good environmental standards to minimize pollution of the lake. The lake is there for everyone to enjoy and shore boundaries especially should be protected against total private ownership.

Sincerely,

Jack Cookson
President

JC/ss

cc: LA Times

Lacombe Globe



TOWN OF LACOMBE

May 17, 1991

P.O. Box 310, Lacombe, AB T0C 1S0

5034 - 52nd Street

Telephone: 782-6666

Fax: 782-5655

Don Thorne, Chairman
Parlby Creek - Buffalo Lake Management
Project Review Board
Box 15,400
Lacombe, Alberta
T0C 1S0

Dear sir:

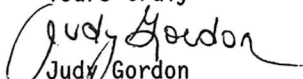
On behalf of the Council of the Town of Lacombe, I wish to convey to you our support for the proposed Parlby Creek - Buffalo Lake Development Project. We recognize that the project will help to stabilize the water level of Buffalo Lake thereby enhancing the recreational role that this lake has in Central Alberta and we believe this to be a valid regional objective. The project however is more than that, having significant benefits to the smaller urban centers of Alix and Mirror and to land owners along Parlby Creek.

To remain an attractive and economically viable community for its present and future residents, an urban municipality must be able to supply adequate quantities of water for domestic and in some cases industrial uses. The reliability of ground water sources for such uses in terms of quality and quantity are becoming less secure and municipalities must increasingly look toward surface water sources. It is our understanding that this project will assist Alix and Mirror in meeting their future water requirements and for that reason has our support.

The past improvements to Parlby Creek have had the effect of controlling seasonal flooding and safeguarding very productive farmland. The Town of Lacombe itself has benefitted directly from drainage and flood control measures along Wolfe Creek which have been funded and supported by the provincial government, the most recent of which was completed in the early 1980's. A continuation of this type of improvement is warranted in our view.

We thank you for the opportunity to present our position.

Yours truly


Judy Gordon
Mayor
Town of Lacombe



County of Camrose No. 22

5402-48 A Avenue * Camrose, Alberta T4V 0L3 * Telephone 672-4446 * Fax 1-(403)-672-1008

Office of:
COUNTY ADMINISTRATOR

May 3, 1991

Parlby Creek
Buffalo Lake Water Management
Project Review Board
P.O. Box 15400
Lacombe, Alberta
TOC 1S0

Dear Sirs:

RE: Buffalo Lake Parlby Creek Water Management
"Buffalo Lake Stabilization"

At a meeting of the Pelican Point Park Management Committee on March 29, 1991, we discussed the Buffalo Lake Stabilization proposal. We reviewed your proposal only on the merits of how it may affect the future operation and enjoyment of Pelican Point Park which is located on the north shore of Buffalo Lake in South 1/2 of 16-41-20-W4.

We have not taken into consideration implications beyond Pelican Point Park. Accordingly, our observations are on behalf of the Park Management Committee and are not on behalf of the County of Camrose No. 22.

Pelican Point Park is a public campground with approximately 90 camp stalls. During the May long weekend, the months of July, August and the September long weekend, our campground is normally full and serves approximately 300 people per night during these periods. In addition to the campers, we have approximately 80 cottages which surround the park. Twelve (12) of these 80 are used on a year round basis. Both the campers and cottage users have experienced considerable frustration trying to get boats into the lake because of the low water levels over the past several years. Similarly, the Marina adjacent the park which serves approximately 50 boats has been continuously plagued with operational problems due to the shallow water. Some boats are actually unable to use the boat launches because of these conditions.

Our park is in a low lying area of shore land so we are cognizant of the need to ensure that a water stabilization program will protect our shore line camp sites from flooding.

... /2

Page 2
Parlby Creek
Buffalo Lake Water Management Project Review Board

However, based upon a stabilization program protecting our shore line camping from flooding, we strongly encourage and support a stabilization program (water management project) that would appropriately raise and stabilize the water level of Buffalo Lake.

Yours truly,

A handwritten signature in black ink, appearing to read 'T. A. Matson', with a long horizontal flourish extending to the right.

T. A. Matson
Recording Secretary
Pelican Point Park Management Committee

TAM/jlz

cc: J. Lyle
S. Backen
J. Page
L. Weins
W. R. Gartner



Administration
(403) 742-8305

Recreation Department
(403) 742-4411

P.O. Box 280

Stettler, Alberta, Canada T0C 2L0

FAX (403) 742-1404

May 10, 1991

Parlby Creek - Buffalo Lake
Water Management
Project Review Board
P.O. Box 15400
5004 - 47A St.
Lacombe, AB
T0C 1S0

Dear Sir;

The Stettler Economic Development Board supports the stabilization of Buffalo Lake for the following reasons:

- (1) increased economic value to the region;
- (2) the fresh water intake would enhance both fishing and boating;
- (3) increased tourism potential to the area.

We hope that our support for the project will be addressed at the Review Board Hearings.

Yours truly,

ORIGINAL SIGNED BY

Wm. (Bill) Muhlbach
Chairman
SEDB

/la —

Stettler Economic Development Board

P.O. Box 280, Stettler, Alberta, Canada
T0C 2L0

Phone (403) 742-8305
FAX (403) 742-1404



May 10, 1991

Parlby Creek - Buffalo Lake
Water Management
Project Review Board
P.O. Box 15400
5004 - 47A St.
Lacombe, AB
T0C 1S0

Dear Sir;

The Stettler Economic Development Board supports the stabilization of Buffalo Lake for the following reasons:

- (1) increased economic value to the region;
- (2) the fresh water intake would enhance both fishing and boating;
- (3) increased tourism potential to the area.

We hope that our support for the project will be addressed at the Review Board Hearings.

Yours truly,

Wm. (Bill) Muhlbach
Chairman
SEDB

/la



STETTLER & District chamber of COMMERCE

Box 58 STETTLER, Alberta, Canada T0C 2L0
Phone 742-3181

May 21, 1991

Parlby Creek - Buffalo Lake
Water Management Project Review Board
P.O. Box 15400
5004 - 47 A Street
Lacombe, Alberta
T0C ISO

Dear Review Board:

RE: Buffalo Lake Stabilization

The Stettler & District Chamber of Commerce send this letter in support of the proposed Buffalo Lake Stabilization Project.

With the increase in tourism, in Alberta, we feel that East Central Alberta can not afford to lose Buffalo Lake.

This proposed project will improve the water quality and in turn will increase the summer recreation in our area. The Stettler Community will also see an increase in economic development and therefore more employment.

Thank you for the opportunity to submit this letter of support.

Yours truly,

Tracy Matts
President
Stettler & District Chamber of Commerce

copy file



Come to Stettler and rub elbows with Cattlemen, Oilmen,
Farmers, and a lot of friendly folks.





Home of Alix-Gator

Village of Alix

Box 87, Alix, Alberta T0C 0B0

Phone: 747-2495

April 26, 1991

Alberta Environment Review Board,
Box 15400,
LACOMBE, Alberta
T0C 1S0

Dear Sir:

The Village of Alix would like to make a presentation during the public hearings to be held in Alix on May 21 and May 22. Mayor Campbell will be giving a verbal submission with copies available for the review board.

Please confirm the date and time that Mayor Campbell will be able to present the Village of Alix submission.

Yours truly,

Richard Kutt, L.G.A.
Municipal Administrator

RK/geh



Home of Alix-Gator

Village of Alix

Box 87, Alix, Alberta T0C 0B0 Phone: 747-2495

The Village of Alix strongly supports the Parlby Creek - Buffalo Lake Development Project for a number of reasons. Not only because Alix will benefit but people all over Alberta and a number of communities in East Central Alberta will also benefit. These benefits to everyone will not be just economic dollars but also an assured source of water, better water quality and fish habitat and wild fowl habitat, recreational facilities to name a few.

In Alix specifically, the reports have identified the problems with Alix Lake quite well. These include water quality, quantity and pumping costs. As well the reports state that with the flow of Red Deer River water through Alix Lake the water quality would improve, Alix Lake would be stabilized and the pumping costs incurred by the Village would be eliminated. This would make Alix Lake much more attractive and many new people would be coming in to use the upgraded Campground, Day Use Area and Nature Trail. This influx of people means more exposure and more economic benefits for Alix and Alix businesses. Also, more people may be attracted to Alix's residential subdivision which overlooks the Lake.

These problems and benefits are similar, though on a larger scale, with Buffalo Lake. By proceeding with this Project Buffalo Lake will attract more people and the economic benefits and economic spin offs will effect a large part of East Central Alberta including Alix.

It is impossible to determine an exact figure from the economic or spin off benefits that the additional tourism would bring. However, this is not emphasized enough in the reports for Alix or any of the surrounding small rural municipalities. In fact, the EIA states that the economic spin offs

would be relatively small and we disagree with this statement. Relatively small to Calgary perhaps but relatively large to Alix.

The EIA also addresses agriculture and notes that there would be improvements in both production and quality of hay crops. As agriculture improves so does the service sector and Alix and the surrounding communities would benefit.

Another benefit from this Project would be an assured source of water for municipal use. The reports do cover the critical water situation in Mirror. In Alix the reports state that the additional water is an alternative for future expansion because of quality. There is another area with great potential that has not been covered by the reports and that is industrial use.

The industrial capabilities are enormous with an assured source of raw water introduced to the Parlbay Creek basin. Large quantities of raw water are difficult to obtain and only large centers can now provide it. Recently, the Village of Alix attracted a large industry and had to develop an adequate amount of raw water at an estimated cost of \$1.5 million for this industry.

With the implementation of the project there would be an assured source of raw water and the potential to attract long term industrial development. The additional economic benefits related to this type of development and potential could be addressed in the report.

In conclusion, the Village of Alix is only one of a great number of communities in East Central Alberta that will profit from this project. The immediate and potential benefits are great in number and will continue for many years. Therefore, our Village would encourage the Review Board to make a positive and convincing recommendation to the Minister of Environment to proceed with the Parlbay Creek - Buffalo Lake Development Project as soon as possible.

Thank you.




Gladys Campbell
Mayor
Village of Alix

Lucinda Gold Resources Ltd.

ALTERNATE PROPOSAL BUFFALO LAKE STABILIZATION

MAY 15, 1991

*This was not
duplicated*



PRESENTED BY:

Mr. D.B. Grant, C.E.T.
Landman's Licence #3131
Ph: 342-6629 or
Car Phone: 1-551-9813

Copywrite Material. Do Not Duplicate Or Reproduce In Any Form

PARLBY CREEK - BUFFALO LAKE DEVELOPMENT PROJECT

COMMENTS AND QUESTIONS

BY

RED DEER REGIONAL PLANNING COMMISSION

MAY 1991

INTRODUCTION:

The Red Deer Regional Planning Commission resolved at its April 22, 1991 meeting to form an Ad Hoc Committee to develop a statement of concerns regarding the Parby Creek - Buffalo Lake Development Project. This Committee met on May 10, 1991 in the Village of Alix and developed the following list of comments and questions they felt should be addressed by the Parby Creek-Buffalo Lake Development Project Review Board. The order of appearance does not reflect the relative importance of the concerns listed.

WATER DEMANDS

1. There is a concern regarding the availability of water from the Red Deer River. Are there implications for up stream users in terms of future development, for example:

- Mountain View Regional Water Line
- City of Red Deer Municipal water supplies
- Industrial and agricultural users?

Similarly current downstream users are dependent upon an adequate quantity and quality of water in the Red Deer River, for example

- Stettler - Botha municipal water supply
- Industrial and agricultural users

2. Will the Buffalo Lake Stabilization Project have any negative repercussions on the development of the Special Areas Water Supply Project? The Special Areas Water Supply Project (SAWSP) is recognized by the Commission as an essential component to the future of agriculture in the Sounding and Berry Creek watershed area. The RDRPC feels that SAWSP deserves preference over stabilization of Buffalo Lake in planning, funding, timing and allocation of available river water.

ECONOMIC CONCERNS

3. The Village of Mirror clearly requires an assured municipal water supply. There is some question as to whether the project as currently proposed would satisfy this requirement. During years of heavy rainfall and runoff it is likely that no pumping would be required for Buffalo Lake. If no pumping is required for Buffalo Lake, will the natural regime of Parby Creek be satisfactory with respect to water quality and quantity to serve the municipal needs in Mirror? If not then yearly pumping will be required. If yearly pumping is required who will absorb the associated costs. If additional small pumps are installed to provide the small volumes of water required by Mirror during these periods, who will be responsible for the cost and operation of these?
4. Has the issue of flooded farmland, resulting from the stabilization of Buffalo Lake at 781 m above sea level been addressed? Are owners of farmland inundated as a result of this project to be compensated for the loss of this agricultural resource? There is no reference to this in the project cost breakdown presented in the E.I.A. document.

5. There is a concern regarding other perceived omissions from the Benefit/Cost Analysis.

The following should be clearly addressed:

- Benefits to the area from the multiplier effect of tourism visitations and expenditures have not been incorporated in the Benefit/Cost analysis. Only the direct benefit of payment for the camping/day use privilege has been included.
 - Costs and benefits associated with the implementation of mitigation measures to counteract high water problems on nesting islands or camping areas are omitted.
 - Cost associated with compensating agricultural users for land areas lost to permanent inundation has not been incorporated into the analysis.
6. The EIA mentions the implementation of possible measures to mitigate the effects of high water on shore and colonial bird nesting habitat. However, these measures are not costed out as part of the project. What are the costs and what benefits will occur from these actions? What changes will this bring to the Cost/Benefit Analysis?
7. Municipalities have experienced various cut-backs in grants from the Province in recent years and some programs previously funded by the Province are being transferred to the local municipalities. In the case of Parby Creek channelization, Buffalo Lake stabilization and municipal water supply facilities for Alix and Mirror, the affected municipalities want assurance that the operating costs and maintenance for these will not be unloaded onto the local authorities.

ENVIRONMENTAL CONCERNS

8. The North American Waterfowl Management Plan is committed to an expenditure of up to \$10 million on waterfowl habitat enhancement in and around Buffalo Lake. What are the implications of the Buffalo Lake Stabilization project on this project? Are the two projects complementary or do they compromise each other? This question is raised in the Environmental Impact Assessment but is not answered.
9. Bird watching has become one of the fastest growing recreational pastimes in North America. The EIA does not identify any economic benefit from this activity. The potential for bird watching around Buffalo Lake has not been evaluated as part of the EIA. The economic potential of this sector of tourism activity should not be ignored. The RDRPC feels that the necessary actions and expenditures required to enhance this activity as an economic benefit should be encouraged.

10. Buffalo Lake is identified in the County of Lacombe and County of Stettler Environmentally Significant Area studies as a provincially significant resource area. This rating is based upon the value of the lake and shorelands as a key nesting, staging, production and moulting area, for waterfowl and other marsh birds, and it is a nesting area for Piping Plover, an endangered species in Canada. The RDRPC has systematically proceeded with inventories of ESA's in all of its rural municipalities so their location and value would be recognized and appropriately considered in all subsequent land use and resource management decisions. Care should be taken to ensure provincial government department, local authority commitments and programs are not compromised by this project.
11. The report notes that, as the Parby Creek-Buffero Lake project is developed and operated, there will be occurrences of erosion, loss of native vegetation and habitat loss. While the report goes on to infer that certain measures should (and supposedly would) be taken to mitigate these effects, those actions are stated in quite vague terms and costs are not provided.

COMPETING MANAGEMENT OPTIONS

12. Concerns have been raised, but not fully addressed, in the EIA document regarding the optimum management program for the back flood areas along Parby Creek. This includes agricultural production, waterfowl habitat (specifically brood areas), and fish habitat. The timing of the drawdown of flood waters is central to the success of all three sectors. What securities will be in place to guarantee that management decisions are not biased unfavourably. Every effort should be made to achieve an acceptable balance among the interested parties.
13. There appears to be some areas of policy contradiction with regard to natural resource management in the Buffalo Lake area. Different objectives are being pursued for different purposes by different agencies around a common or shared natural resource. The RDRPC feels there should be more emphasis on harmonious management and consistent resource objectives among agencies disbursing public funds.
14. The Provincial Government has, in the past, followed a policy of 25% public land ownership of shoreline on lakes where stabilization works are implemented. Gull Lake is an example of this. What plans are in place to satisfy this policy requirement on Buffalo Lake? Also, plans for the expenditure of public funds should strive to guarantee a complementary increase in public recreational benefits, for example, lake access, day use areas, nature appreciation sites and interpretive programs, wildlife habitat areas and viewing trails.

SUMMARY:

The Red Deer Regional Planning Commission does not oppose the Parby Creek-Buffero Lake Development Project but, is bringing forward these comments and questions with the recommendation that the Review Board address them and have them resolved.

Written Submission

to

PARLBY CREEK - BUFFALO LAKE
WATER MANAGEMENT PROJECT
REVIEW BOARD

Garvin Anderson
Kay Anderson

Box 2
Erskine, Alberta
T0C 1G0

We, the undersigned, wish to register our opposition to the Buffalo Lake Stabilization Project. We are in complete agreement with the findings of the socio-economic impact assessment in the EIA Summary Report which clearly demonstrates that the cost of this project will far exceed its benefits. The report concludes that stabilization will have little or no effect on tourism in the area since "camping activities at all provincial park facilities have shown a steady decline since 1982" (p. 32). It will, however, have a detrimental effect on wildlife in the area and on the recently completed \$2 million improvements to Rochon Sands Provincial Park. There will also be an adverse effect on agriculture due to the loss of pasture along the lakeshore.

One of the main goals of this project can be attained without spending the \$13 million it is estimated it will cost to stabilize Buffalo Lake. That is, to attract more tourists to the three provincial park facilities in the area, simply lower the camping fees. We assert, as does the EIA Summary Report, that "increased camping fees have been a major factor" in the declining numbers of campers (p. 32). The fees at the provincial parks on Buffalo Lake have increased more than three-fold since 1986, due largely to the well organized and vocal lobby of private campground owners. These increases have effectively put camping out of reach of low and average income families who simply cannot afford the \$10 per night camping fee. These people are being denied a formerly affordable recreational activity which they could enjoy with their families. Stabilizing Buffalo Lake, with its \$13 million price tag, will likely lead to further increases in these camping fees.

We are also concerned that the full effects of stabilization have not been assessed. It is our belief that when one interferes with the balance of nature, one can create serious problems. As long-term residents of the Buffalo Lake area, we have witnessed fluctuations in its water levels over many seasons. During that time, this lake has demonstrated over and over again that it is capable of sustaining itself without artificial intervention. For example, in 1968-69 the water level was lower than it is today, and one season of heavy snowfall in 1974 increased the water level to a point well beyond the maximum level proposed by the stabilization. We believe that the lake should continue to maintain its water level naturally as it has done for hundreds of years.

Further reinforcing our belief that the full effects of lake stabilization have not been assessed is the fact that the findings of three different studies, which were conducted in 1982, 1984, and 1987 have been disregarded during the current review process. These studies predicted excessive aquatic plant growth due to water chemistry changes with the introduction of Red Deer River water into the lake. It is perplexing to find that one study, conducted in 1989, can overturn the results of these three detailed and rigorous scientific studies. Is the review board certain that the conclusions of the 1989 study, and not those of the three previous studies are absolutely accurate? If the slightest doubt exists regarding the findings of the 1989 study, we

urge the board to conduct further studies, rather than risk the serious consequences which could result from stabilization.

As the owners of property on Buffalo Lake, we are very disturbed about the reduction in shorebird nesting and foraging habitat, the impact on the breeding waterfowl of Buffalo Lake, and the loss of rare plant species in the area. We are committed to the conservation of these areas to ensure the survival of these species for the enjoyment of future generations.

Along with the loss of birdlife and rare plant species, stabilization will also significantly reduce the acreage of our pasture due to the flooding of crown lands along the lakeshore. In addition, the benefit outlined on page 35 of the report, which states that stabilizing the lake levels would enable permanent fencing to be erected is incorrect. Water levels in the lake have no effect on whether or not fencing remains in place. It is the ice which piles up along the shore during spring break-up each year which pushes the fences down. Having a constant water level in the lake will have no effect on this natural occurrence.

Our final objection to this project is based on the conclusion of the socio-economic impact assessment which found that those who will benefit from stabilization are cottage owners, developers with lots for sale, and private campground owners. As taxpayers and property owners, we are inexorably opposed to the use of public funds to finance a plan

which would benefit so few. It is not the responsibility of the taxpayers of Alberta to improve the marketability of cottage lots on Buffalo Lake. We also deplore the significant decrease in the amount of beach area at Rochon Sands Provincial Park and the flooding of the nine hole golf course in the Village of Rochon Sands which will result if lake levels are raised. Both of these facilities were built with generous infusions of public funds. We are outraged at the thought of them being obliterated through another massive expenditure of tax dollars.

We strongly urge the review board to recommend that the Buffalo Lake Stabilization Project be turned down. Pursuing this frivolous scheme during a period of layoffs, cutbacks in essential services, and economic uncertainty would be a complete reversal of the Conservative Government's promise to exercise fiscal restraint.

Garvin Anderson

Garvin D. Anderson

Kay Anderson

Kay Anderson

PARLBY CREEK - BUFFALO LAKE

WATER MANAGEMENT PROJECT

VILLAGE OF MIRROR SUBMISSION

SERV-ALTA ENGINEERING LTD.

CONSULTING ENGINEERS

PHONE 342-5081
4730 ROSS STREET
RED DEER, ALBERTA
T4N 1X2

PHONE 672-2468
5018-52 STREET
CAMROSE, ALBERTA
T4V 1V7

0007-9100
May 20, 1991

Village of Mirror
P.O. Box 130
Mirror, Alberta
T0B 3C0

Attention: Mrs. Linda Shultz
Administrator

Dear Mrs. Shultz:

Re: Parlby Creek - Buffalo Lake Water
Management Project


At the Village Councils request we have reviewed the three volume - Environmental Impact Assessment Report, prepared by Environmental Management Associates of Calgary, Alberta, in regards to the above noted project.

Our review has focused on the impacts related to your need for a high quality and reliable water source, for your municipal water system.

The findings of our review have been prepared in report form for submission to the Review Board, at the upcoming public hearing.

Should you have any questions in regards to our report, please give me a call.

Yours truly,



Randy Block, P. Eng.
Serv-Alta Engineering Ltd.

RMB/mas
Encl.

1. INTRODUCTION

In 1981 the Village of Mirror commenced work on identifying a new water source for their municipal water system. The existing ground water supply was of poor quality and insufficient quantity to adequately supply the needs of the Village. A test drilling program was conducted (19 wells), within a five (5) mile radius of the Village, in an attempt to identify a new ground water source. No adequate ground water sources were identified during this drilling program.

Parlby Creek was then assessed for potential development as a municipal source. The water quality and quantity proved to be more favorable as a supply. In 1983 the Village obtained a licence allowing annual withdrawal of 87 acre-feet of water from Parlby Creek and proceeded with the construction of withdrawal works and a related water treatment facility.

2. WATER QUANTITY AND STORAGE REQUIREMENTS

The Village withdrawal works, consist of a raw water intake structure constructed in the Parlby Creek Channel, in the NW27-40-22-W4, and a raw storage impoundment. Total net storage capacity of the impoundment is approximately 28 million gallons (127,000 cu.m.). With annual consumption of approximately 20,000,000 gallons (91,000 cu.m.), this represents approximately 1.4 years of storage or approximately 71% of available storage. At this level of storage it is critical that the Village have adequate volumes of raw water available in Parlby Creek for withdrawal.

During a dry period, it is questionable whether Parlby Creek could provide adequate volumes of water. Presently the Village is pumping from Parlby Creek twice per year when possible. Once in the spring during periods of highest run-off to refill the reservoir, as a result of winter domestic consumption, and in the fall to top-up the reservoir for the winter months. During the winter, approximately 15-20% of the storage capacity is locked-up as ice. In the fall of 1990, there was insufficient flow in Parlby Creek to top-up the reservoir. Based on annual consumption rates and the amount of storage lock-up as ice, one must assume that available storage was at near critical level, by the time spring thaw occurred.

Pumping water from the Red Deer River would serve to stabilize flows in Parlby Creek, in dry periods, thereby ensuring adequate volumes of water were available to the Village of Mirror for their water supply requirements. During periods of low flow in Parlby Creek, water could be pumped from the Red Deer River even when there is not a requirement to raise Buffalo Lake Level's, to ensure the Village obtains adequate volumes of water. As the Environmental Impact Assessment Report suggests, a smaller diversion pump could be added to the system to make this pumping senario more cost effective.

3. WATER QUALITY

The Environmental Impact Assessment Report notes that the general water quality in Parlby Creek and the Red Deer River are similar, consequently no major impact should occur as a result of the water quality. Most impacts on the water quality in the Village Water System will tend to be positive.

The PH of Red Deer River water is slightly lower, which could result in a slight reduction in the volume of chemical flocculants used at the Village water treatment plant, resulting in a small operational cost saving. The total dissolved solids are three (3) times lower in the river water than in the creek water, which should show marked improvement in the aesthetic quality of the water. Iron concentration in Parlby Creek will increase slightly during pumping, but is not likely to increase in the Village treated water, as it is likely to be oxidized in the raw water impoundment, during aeration of the impoundment.

Most significant of the positive benefits could be a reduction of dissolved organic substances (generally humic acids). These organic substances form chlorinated-organic complexes (Trihalomethane and related substances), when in contact with chlorine. This concern relates to the fact that these substances are suspected to be carcinogenic. With the flows in Parlby Creek stabilized, water withdrawal can be carried out in the later spring and summer, when the level of dissolved organic substances are at their lowest. Hence trihalomethane levels will be minimized.

The "Environmental Impact Assessment - Main Report, Volume II" suggests that the existing mean flow data for Parlby Creek support staggering withdrawal of water through the summer months, to avoid diverting low-quality run-off water during the spring. This scenario presents a few problems and risks for the Village of Mirror. The flow records for this recording station are for far too short a period to be reliable (8 years of records). No allowance has been made for the minimum depth of channel flow that is required for operation of the Village intake structure.

3. WATER QUALITY (Cont'd)

Village officials have indicated that in most periods the Carlyle Backflood must be operated to obtain sufficient channel flow depths to operate their water intake structure. The Village must rely on the good will of the owners of the Carlyle Backflood. Most importantly, no consideration has been given to the concern for ensuring that the reservoir be top-up when adequate flows are available. The Village of Mirror cannot risk missing the peak spring run-off season, by waiting for better quality water in later months. They cannot be certain that adequate stream flows will be available to top-up the reservoir in later months.

4. BENEFIT COST ANALYSIS

The problem of securing an assured water supply of reasonable quality is a serious concern for the Village of Mirror. Increasing the flow in Parlbey Creek by pumping from the Red Deer River would certainly improve this situation.

Cost associated with development of an alternative water source are significant. If the Village of Mirror were to withdraw water from the Red Deer River directly and pump to their storage facilities, the capital construction cost would be approximately, \$1,940,000.00. There is some likelihood a suitable groundwater source might be found in an area south of Tee's (approximately 12 miles south-west). The capital construction cost is estimated to be around \$2,185,000.00 and would include approximately \$300,000.00 to upgrade the Village water treatment plant, to treat a significantly different quality of water. These costs are approximately double the costs outlined as benefit costs, in the Environment Impact Assessment Report.

5. DIVERSION OPERATION AND MANAGEMENT

The facilities will be managed by the Project Management Branch, Development and Operations Division of Alberta Environment. This group should liason directly with the Village of Mirror to ensure the Village interests are being served. In the event of a chemical spill or a deleterious effluent discharge to the Red Deer, where diversion is continued, the Village should be notified so that they can make a decision whether they will continue to divert during that period. An effective revegetation program should be maintain on the Parlby Creek Channel to ensure soil erosion does not cause turbidity problems for the Village. It would be well advised to have a member of the Village work directly with operating authority.

6. SUMMARY AND RECOMMENDATIONS

Diversion of water from the Red Deer River to Parlby Creek would provide significant benefit to the Village of Mirror. This diversion would provide reliable quantity of quality raw water for the Village water system. No detrimental water quality effects are aniticipated.

It is recommended that the diversion project proceed at the earliest of possible dates. Should diversion proceed, a small capacity diversion pump should be incorporated in the design, to facilitate pumping for Village of Mirror water supply needs, when no diversion is required into the Buffalo Lake.

Mirror Chamber Of Commerce

Intervention

In Support of

THE PARLEY CREEK -
BUFFALO LAKE
WATER MANAGEMENT PROJECT

May 1991

May 10, 1991

Parlby Creek - Buffalo Lake
Water Management Project
Review Board
P.O. Box 15400
LACOMBE, Alberta
T0C 1S0

Dear Committee Members:

Re: Buffalo Lake Water Management

On behalf of Mirror Chamber of Commerce and the businesses in the Village of Mirror and surrounding area, please accept the enclosed intervention as our submission to be presented at public hearing to be held on May 21 and 22nd in Alix.

Respectfully submitted



Ed Kingston, President
Mirror Chamber of Commerce

The businesses in the Village of Mirror and surrounding area and the Mirror Chamber of Commerce would like to establish the position that:

"We support the Parlby Creek - Buffalo Lake Water Management Project and encourage the Review Board to recommend approval of this worthwhile project to the Minister of Environment".

The Chambers support for this project is based on three factors that were covered in the Environmental Impact Assessment report but we feel have been underestimated.

1. Mirror Water Supply
2. Economic Spin-off

Mirror Water Supply

The Village of Mirror is dependent on Parlby Creek for its water supply. As the Environmental Impact Assessment report has identified, this water supply is not the best. However, the basis for arriving at a \$1 million cost to secure an alternative source for Mirror is questionable. The example used in the report, Fairview and Hanna, are not suitable comparisons for arriving at a cost for Mirror. The only guaranteed source for Mirror is a pipeline to the Red Deer River. The cost of this source, as shown in the Village of Mirror submission will be substantially greater than the \$1 million estimate presented in the Environmental Impact Assessment.

The establishment of a guaranteed water source in the Village of Mirror is also very important for the attraction of industry. To date, the efforts of the Chamber to attract industrial development into the Village have been hampered in part, by the inadequate water supply.

Economic Spin-off

The Environmental Impact Assessment fails to adequately assess the economic spin-off that will result in the communities surrounding the lake as a result of the increased camping, cottage, hunting, fishing and bird watching activities. With the stabilization of the lake these visitors to our area will require services and supplies that can be provided by the businesses surrounding the lake. In the Village of Mirror, the gas stations, restaurants, hotel, grocery store, craft shop and lumber yard, are bound to experience an increase in business.

The Chamber of Commerce strongly urges the Review Committee to support the Parlby Creek - Buffalo Lake Water Management project. We feel that this project will be of great benefit to the people of Mirror and area and to the businesses in our Village.

**THE BENEFICIAL EFFECTS OF
AGRICULTURALLY ENHANCED
PARLBY CREEK WATER
ON BUFFALO LAKE**

**An Agricultural View for
Presentation to the
Parlby Creek - Buffalo Lake
Development Project Hearings
May 1991**

**Prepared by
Neil Miller, P.Ag.
Lacombe, AB**

An Agricultural View

Biological water purification is a desired environmental process that is already taking place on Parlby Creek and is providing purer water for Buffalo Lake. Wetland plants have the ability to remove and utilize nutrients from the water, purifying the water in the process. Marsh plants have been called nature's cleansers. In recent years they have been used to scrub municipal and industrial effluent providing cost efficient water purification, and often wildlife habitat at the same time. An example of this is Frank Lake in Southern Alberta that gives the final purification of waste water from a large meat processing plant plus the town of High River.

Here at Parlby Creek agriculture has been helping improve the water quality for the last one hundred years. Natural backfloods took place along the creek, the sedges and other water loving plants grew, and the farmers harvested them as a high quality hay. If these same plants are harvested too late in the season they become poor quality "slough hay." As the farmers took the hay off the flats to feed their cattle, they took off the nutrients that would otherwise have flowed into Buffalo Lake. The good natural backflood and haying conditions of the early years deteriorated as beaver problems and silting clogged up the channels. For many years hay production was unsure. Good quality hay depends on the farmers being able to harvest it in early July. Some years the land was too wet until much later.

Spring backfloods followed by controlled drainage offers the best use of the 5400 acres of flats along Parlby Creek. The water is held by a backflood structure in the early spring until the plants have had a chance to grow and the fish have had a chance to spawn. Fish ladders are incorporated into the control structures. Fish prefer to spawn on the lands that have been hayed. After spawning the water is slowly drawn down until it is within the channel; the fish are then able to return to Buffalo Lake, and the land is ready to hay by early July.

Don Carlyle has operated a successful backflood irrigation on Parlby Creek for many years. In recent years Alberta Environment started on improvements to Parlby Creek. This has included channelization and water control structures to permit backflooding. Work is complete from Buffalo Lake to Highway 50, and is now proceeding to Alix. The section from Alix to Chain Lakes still remains to be done.

For many years agriculture has improved the quality of water flowing into Buffalo Lake from Parlby Creek. This has gone largely unrecognized by the public. Some backflood land along the creek has been hayed regularly for nearly 100 years without the use of any additional fertilizer. All of the nutrients taken off in the hay came from the soil and the water. The yield and quality of hay has not decreased on these lands.

The following is an estimate of the wetland acreage along Parlby Creek that can benefit from a backflood and hay situation. In this scenario we have included 15% unhayed as a wildlife habitat area.

**Backflood Irrigation Potential
Parlby Creek
Chain Lakes to Buffalo Lake**

Potential backflood area	5400 acres
Less wildlife habitat area	<u>800 acres</u>
Area available for	
* hay production)	
* fish spawning)	4600 acres
* water quality improvement)	
Hay production per year @ 3 tons/acre	13800 tons
Value of hay @ \$50/ton	\$690,000
Winter cattle feed @ 2½ tons/cow	5500 cows
This land will produce enough feed to winter 5500 cows.	

**Annual Water Nutrient Removal by
Potential Hay Production**

Hay Area	4600 acres
Yield	3 tons/acre
Protein	9%

Nutrient	Nutrient Removed				
	In Feed %	Per Ton lb.	Per Acre lb.	Per 4600 Acres	
				lb.	tons
Nitrogen	1.44	28.8	86.4	397440	199
Calcium	0.29	5.8	17.4	80040	40
Phosphorus	0.09	1.8	5.4	24840	12

Soil conservation is another benefit of a native wetland backflood irrigation system. The land is not permanently drained and since no cultivation takes place, erosion is eliminated along the channel.

Development of an improved channel and subsequent backflooding along Parlby Creek should greatly reduce the costly beaver control program. This stretch of creek is presently costing \$10,000 per year in beaver control.

Agriculture is important to the Parlby Creek-Buffalo Lake area. Local farmers and merchants have known this for years. Construction of the new malt plant at Alix adds credibility to the stability of this agricultural economy. When completed, the backflood irrigation component of Parlby Creek development will add further stability to the farm economy by providing winter feed for a much larger cow herd without the need and cost of additional fertilizer. Other non-farm uses may not have the same effect locally.

All we ask agriculturally is the use of the water for a short while in the spring to remove many of the plant nutrients from the water. The purified water can then flow into Buffalo Lake where its enhanced quality would be welcome. Agriculture should be an important consideration in Parlby Creek-Buffalo Lake development.

SUMMER VILLAGE OF WHITE SANDS

SUBMISSION

ON BUFFALO LAKE STABILIZATION

May 21, Alix, Alberta

BUFFALO LAKE STABILIZATION

In the province of Alberta, Buffalo Lake is the largest lake from the 53rd latitude to the 49th parallel, (the American border), and it is the 9th largest lake in Alberta as listed in the "Atlas of Alberta Lakes."

It is an important recreational resource because of its size and location in the province. Buffalo Lake should be stabilized and preserved for future generations.

In the "Atlas of Alberta Lakes" 1990, of the 100 lakes that are listed 22 now have weirs to control the level. Several are also supported by water diversion and pumping schemes.

It has been a policy of this province to control lake levels and Buffalo Lake is another lake that needs stabilization.

Alberta Environment has on file 29 separate studies (appendix #1) on the stabilization of Buffalo Lake. These studies began in 1978 and with the present study done by Environmental Management Associate this is thirty studies.

If the money that was spent for all of these studies was spent on the stabilization, wouldn't the project have been completed?

In 1988 the Saddle Dome was built at a cost of 100 million dollars. The Coliseum in Edmonton was built ten years earlier for 10 million dollars.

If the stabilization of Buffalo Lake was done in 1978 when the studies were started, what would it have cost? If we study it for another ten years how much will the stabilization cost then? Isn't it time for action?

In the Province of Alberta we have funded many fine facilities that have benefitted and still benefit hundreds of thousands of Albertans. If they would have done an economic impact assessment of the two Jubilee Auditoriums, would they have been built?

In the spring of 1989 the Summer Village of White Sands contacted Alberta Environment for help in correcting the deterioration of the beach in the village. After study by the department the summer village received the letter of July 24, 1989 (appendix #2). In this letter the department specialists indicated that the problem of a rocky beach and sandbars were caused by the low water level. One of the suggestions that was made in the letter would cost \$1000 per linear meter of beach. At a cost of a million dollars, the village decided that this type of action was not practical. We believe that the shoreline problem would be eliminated or reduced to an easily managed level by raising and stabilizing the water level.

In the Environmental Impact Assessment section 3.4.3. it is stated that at a water elevation of 781.0 one Piping Plover nest site would be inundated and therefore lost. But levels above 781.0, which occurred in the spring of 1975, would destroy this nesting grounds plus others. If the lake level continues to drop, what will be the affect of these nesting areas?

Considerable negative connotations seem to have been attached to the comment in the E.M.A. report that the main benefits from lake stabilization will accrue to the cottage owners. These owners have chosen to provide their own recreational facility and to operate and maintain this facility at their own cost rather than use provincial parks and campgrounds provided, operated, and maintained at considerable cost to the taxpayers of the province. The usefulness of the facilities which these people have provided depends upon the quality and quantity of water in the lake.

In the Summer Village of White Sands we have 210 properties. This does not represent a recreational property and lake access for only 210 families. On weekends and during the summer these lots and the streets are crowded with vehicles and every imaginable type of sleeping facility.

The Province of Alberta has shown a great concern for the family, spending millions on programs and even creating a Family Day. Buffalo Lake presents a place where families and friends can meet and families take their children to so they can get away from the city for the summer.

The stabilization of Buffalo Lake would not be of benefit to just residents of the Stettler constituency. In the graphs in Appendix #3 the properties in the Summer Village of White Sands, Summer Village of Rochon Sands, and Bolin subdivision are owned 28.3% by residents of Edmonton and Calgary, and 28.7% by people from other areas such as Red Deer, Lacombe, etc.

Buffalo Lake also supports six public and private camp grounds. The E.M.A. report concludes that camping is on the down swing, however does not provide any back up information or authority for this conclusion. One suspects that this may be an uninformed personal opinion of a non camper. The lack of availability of stalls at most campgrounds on a summer weekend seems to contradict the opinion ventured.

In conclusion we believe Buffalo Lake is an important provincial recreational, tourism, and environmental resource and is worthy of the funds required to stabilize its level in order to maximize its contribution to the quality of life in Alberta.

- 1) Buffalo Lake Environmental Overview and Review of Management Alternatives, Alberta Environment, August 1978 .
- 2) Buffalo Lake Water Quality Review - Reid Crowther, 1979.
- 3) Buffalo Lake Regulation Phase I - Pre-Planning Study, Acres International Limited, March 1979.
- 4) Buffalo Lake Regulation Study Phase I - Regulation Alternatives, prepared by Alberta Environment, Planning Division, April 30, 1979.
- 5) Review of the Potential for Multi-Purpose Use of a Pump Diversion from the Red Deer River to Buffalo Lake, Alberta Environment, January 1980.
- 6) Buffalo Lake Water Levels - Hydrology Report #98, Prairie Farm Rehabilitation Administration, January 1981.
- 7) Wildlife Investigation Related to a Proposed Diversion of Water from the Red Deer River to Buffalo Lake via Parlby Creek. Environmental Management Associates, October 1981.
- 8) Preliminary Multi-Use Proposal for the Parlby Creek/Buffalo Lake Area, Ducks Unlimited, November 1981.
- 9) Buffalo Lake Macrophyte and Littoral Sediment Survey, CGL, December 1981.
- 10) Response of Aquatic Plants to Stabilization of Buffalo Lake by the Addition of Water from the Red Deer River, Bird, 1982.
- 11) Economic Reports on Buffalo Lake Stabilization, Alberta Environment, 1982.
- 12) Buffalo Lake Regulation Study Phase II - Engineering Feasibility Study, prepared by Alberta Environment, Red Deer, Alberta, February 1982.

- 13) Historical Resource Impact Assessment - Buffalo Lake Stabilization Project, Lifeways, March 1982.
- 14) Groundwater Study, Buffalo Lake Stabilization Phase II, prepared by Alberta Environment, Environmental Protection Services, Earth Science Division, April 1982.
- 15) An Economic Analysis of Buffalo Lake Stabilization, HLA, April 1982.
- 16) Final Report, Buffalo Lake Regulation Study Phase II - Modes of Operation, prepared by Acres Consulting Services Ltd., Calgary Alberta, May 1982.
- 17) Buffalo Lake Action Committee Re: Buffalo Lake Stabilization, Phase II, Buffalo Lake Action Committee, May 1982.
- 18) Buffalo Lake Stabilization Project, prepared by Hardy Associates (1978) Ltd., July 1982.
- 19) Environmental Summary Report Buffalo Lake Stabilization Project, Hardy, July 1982.
- 20) Buffalo Lake Regulation Study Phase II, prepared by Alberta Environment, Planning Division, August 1982.
- 21) Report on Flooding Problems on Upper Parlbly Creek and on Regulation of the Water Level of Buffalo Lake, UMA Engineering Ltd., June 1983.
- 22) Buffalo Lake Regulation Study; Parlbly Creek Flood Control, Acres International Limited, September 1983.

- 23) Buffalo Lake Conductivity Testing, fall 1982 and winter 1982/83, prepared by Alberta Environment, Environmental Engineering Support Services, January 1984.
- 24) Buffalo Lake Regulation, Potential Effects on Phytoplankton in Buffalo Lake, Draft Report, prepared by Alberta Environment, Environment Engineering Support Services, February 1984.
- 25) Buffalo Lake Mass Balance Study, prepared by Alberta Environment, Environmental Engineering Support Services, May 1984.
- 26) Buffalo Lake Regulation Phase III Studies - Water Quality Main Report, prepared by Alberta Environment, June 1984.
- 27) Buffalo Lake Regulation Studies: Water Quality - Main Report, Alberta Environment, June 1984.
- 28) Buffalo Lake Water Quality Modelling Study Volume 1, prepared by Norecol Environmental Consultants Ltd., August 1984.
- 29) Studies into the Effects of Proposed Buffalo Lake Stabilization on Algae Growth, prepared by Alberta Environment, Environmental Assessment Section, Planning Services Branch, Planning Division, 1987.



ENVIRONMENT
Water Resources
Management Services
Water Resources
Administration Division

4920 - 51 Street, Provincial Building, Red Deer, Alberta, Canada T4N 6K8 403/340-5310

July 24, 1989

Summer Village of White Sands
P.O. Box 460
Stettler, Alberta
T0C 2L0

Attention: R. J. Krejci
Secretary-Treasurer

Dear Mr. Krejci:

RE: WHITE SANDS BEACH ENHANCEMENT

This office has inspected and investigated the village's concern and request regarding the above topic. We asked our department specialists to examine the problem and provide us with some very basic ideas and costs for possible solutions. Their comments are as follows:

It appears that the major concern is the amount of rocks that have been exposed along the shoreline. Based on approximately 24 years of record the lake is presently at a historically low level (see attached figure). Because of the low water level and wave action along the shoreline some underlying rocks or stones have been exposed and affect the beach aesthetics.

One other concern is that long shore bars are developing in the lake. We believe that there may be some additional sand from the shoreline being deposited further into the lake, but this probably isn't a significant amount. Attached is a hydrographic plan of Buffalo Lake which was surveyed when the lake level was approximately 2.5 ft (0.7 m) higher than present. Examination of the plan reveals that at this location the lake is shallow and very gradually sloping. Therefore, because of the lower water level, shore bars may appear to be more obvious.

Permanent shoreline protection techniques would require a design for fluctuating water levels and tend to be very expensive. Also attached are some typical drawings of shoreline protection works. Very roughly the costs can range from \$1,000 per linear meter for the sheet piling to approximately \$150 per linear meter for the fence-type structure.

It was indicated that the Summer Village of White Sands was considering dredging sand from the lake and depositing it on the shoreline. This also would be expensive, at approximately \$2.50 per cubic meter, and would not be a permanent solution. We believe that the best solution would be a shoreline maintenance program that may not always be required depending on the lake water levels.

A mechanical stone or rock picker with tractor and operator could be contracted for probably less than \$100 per hour and in one day could clean up the rocks on the beach. We investigated the specifications for one model of rock picker and found that it should remove rocks from 4 inches to 36 inches in size. Although specifications weren't available for another model, the tine spacing was approximately 5 cm, and we conclude that small stones could be picked up. The U.F.A. Co-op in Edmonton rents rock pickers at \$225 per day, but a tractor and operator would still be required.

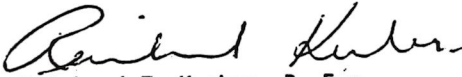
Please note, that the above analysis is only very preliminary and for your general information.

We have provided funds to local authorities for similar problems under the Alberta Water Management and Erosion Control Program. The projects funded were permanent shoreline protection works that resolved the problems over the long term. Works that only solve the problems over a short term would not appear to be eligible for assistance under this program and would appear to be routine maintenance.

If the Summer Village would like to proceed with some type of permanent works, we would be available to help develop a terms of reference for a feasibility report under the Alberta Water Management and Erosion Control Program. If you plan to do only short term remedial (maintenance) work, we would request you to submit plans and a short letter outlining the proposed works and an application for permit to our office. This information would be required to obtain an authorization under the Water Resources Act. An application for permit is attached. Please note that you may also require approval from the Public Lands Division in Red Deer (340-5451).

I hope this information is useful to the summer village and if you have any questions, please contact Gordon Ludtke or myself at 340-5310.

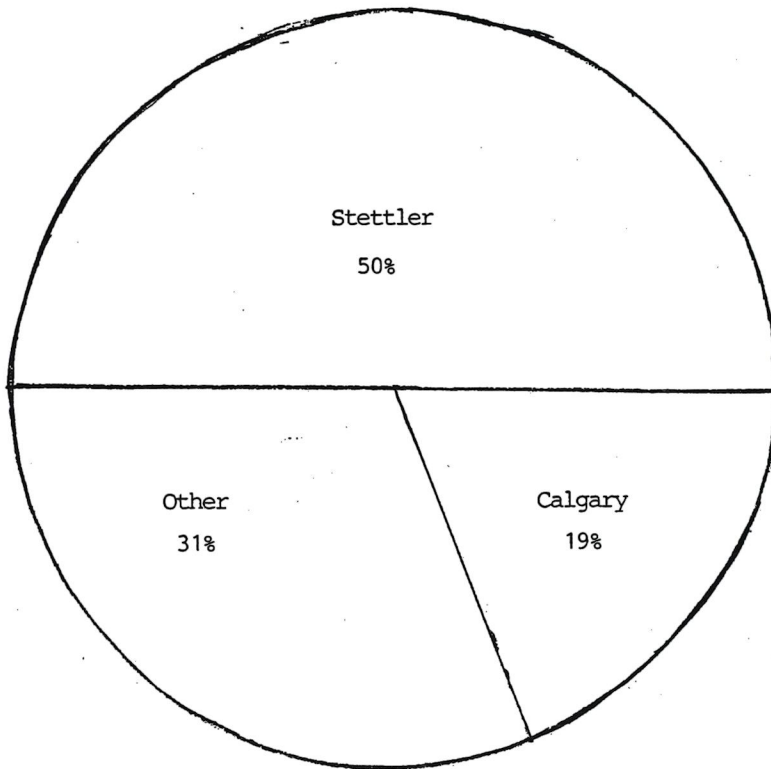
Yours truly,
DEPARTMENT OF THE ENVIRONMENT


Reinhard E. Kerber, P. Eng.
Regional Administrator

GL/sw

Attach.

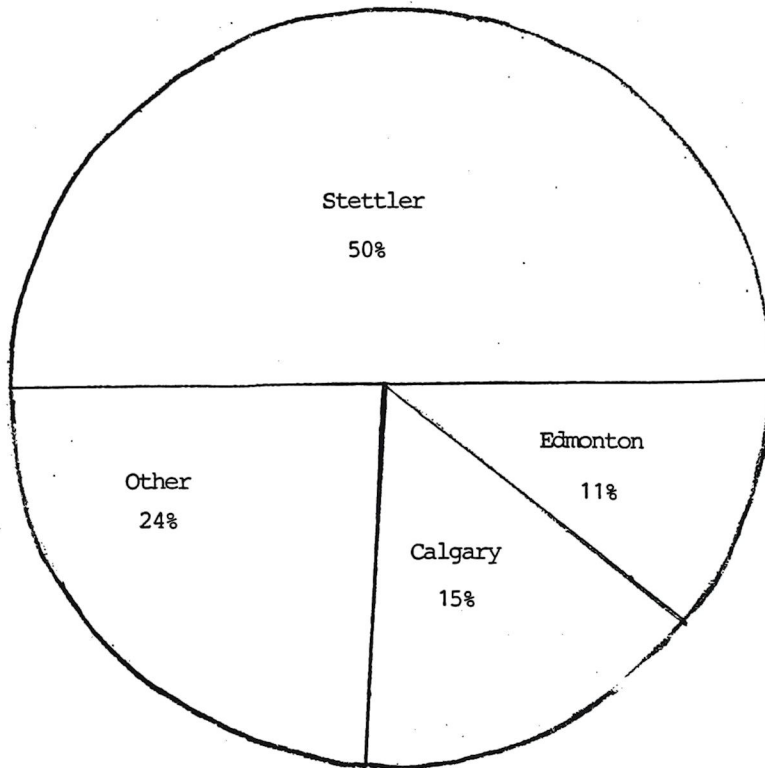
OWNER'S ADDRESSES



Bolin Subdivision - County of Stettler

16 properties

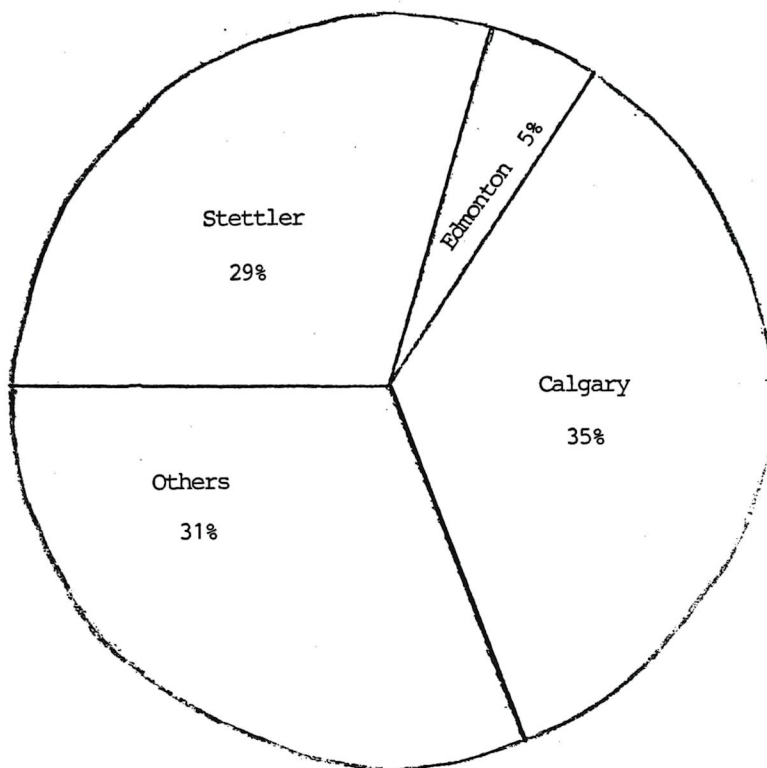
OWNER'S ADDRESSES



Summer Village of Rochon Sands

146 properties

OWNER'S ADDRESSES



Summer Village of White Sands

210 properties

The Areas of Alberta's Lakes

<u>Name of Lake</u>	<u>Area km</u>	<u>Drainage Basin</u>
1. Lake Athabasca	7,770	Athabasca
2. Lesser Slave Lake	1,160	Athabasca
3. Cold Lake	373	Beaver
4. Utikuma Lake	288	Peace
5. Lac La Biche	234	Athabasca
6. Beaver Hill Lake	139	North Saskatchewan
7. Calling Lake	138	Athabasca
8. Pigeon Lake	96.7	Battle
9. Buffalo Lake	93.5	Red Deer
10. Peerless Lake	82.6	Peace
11. Wabamum Lake	81.8	North Saskatchewan
12. Gull Lake	80.6	Red Deer
13. Lake Newell	66.4	Bow
14. Muriel Lake	64.1	Beaver
15. Lac Ste. Anne	54.5	North Saskatchewan
16. McGregor Lake	51.4	Oldman

SUBMISSION

of

THE PELICAN POINT COMMUNITY ASSOCIATION

to

THE PARLBY CREEK - BUFFALO LAKE

WATER MANAGEMENT

REVIEW BOARD

MAY, 1991

PELICAN POINT COMMUNITY ASSOCIATION

SUBMISSION

The Pelican Point Community Association represents cottage owners and residents in Pelican Point. We hereby intervene in support of the Parlb Creek - Buffalo Lake Water Management Project.

The Community Association is comprised of cottagers and retirees who chose to build near the lake for the quality of life it offers. It was the central and determining factor in our choice and we have watched, with dismay, the deterioration of the lake and the resulting impacts on our lifestyles. While we realize it is difficult to assign a dollar value to this loss, it is very real, and we ask the Review Panel to give it great weight in its deliberation.

The main point of the Pelican Point Community Association submission is that the Cost-Benefit Analysis submitted as Part 7 of Volume Two of the Study on which this hearing is based, is positive, using the same values as are used in that Cost-Benefit Analysis. Table 7.3.3 shows the number of developed cottages with and without stabilization. However, in calculating the benefits of stabilization, the table assumes that the full value of \$76,500 per cottage is spent when the lots come on stream. We submit that \$60,000 or the value of the cottage is spent when the cottage is developed. Only \$16,500 value should be attributed when the lot is subdivided. Therefore, although table 7.3.3 shows there is no benefit in 1991 if 10 cottages are built as a result of stabilization, it should show that $10 \times \$60,000$ or \$600,000 is the benefit, because this is in fact what happens. Attached to this submission is our Economist's Report showing that the benefit should be recognized in the year it occurs, and if so the project renders a net benefit.

The Community Association takes issue with the statement at the top of page 380 of the report wherein it is suggested that of the total land development benefits, \$1.2 million accrues to the owners of the current 784 lots and \$8.4 million accrues to people who built cottages on new subdivisions. We agree that roughly 1.2 million accrues to the benefit of the owners of the present 784 lots, and we believe an additional \$655,000 (at 5% real discount rate) will accrue to the owners of lots which are yet to be subdivided. But the remaining value accrues to the province. The statement assumes the full value of \$76,500 per cottage accrues to the owner. However, without stabilization our cottages would still have a value of \$75,000 and therefore only \$1,500 per lot (or less than 2% on an investment which is usually held for a lifetime) accrues to cottage owners as a result of stabilization. To suggest cottagers are making a windfall profit is ridiculous. The actual benefit of early development resulting from stabilization, is to the community. This statement that the major benefit is for landowners has been quoted and used at great length by opposition politicians and the media and we submit it is important it be corrected.

How do they figure this value accrues to the province?

The Economic Report shows the benefit of stabilization is greater than the cost. However we submit there are additional monetary factors which have not been included in the cost-benefit analysis and which would further increase the benefit. These include:

- TAXES AND SERVICES - The increased rate of development results in an increase in the tax base and increased taxes are paid sooner to the municipality. The same rationale applies to electric and gas service - increased expenditures because these services come on earlier with stabilization. This is quantifiable and should be included in the analysis.
- BC VS ALBERTA - The report indicates that for day use and camping activities, it is assumed that if people do not go to Buffalo Lake they will go elsewhere in the Province and therefore there is no net benefit to the Province. We suggest this is not completely accurate. In the two newest subdivisions,

over 85% of the lots sold at market value were sold to people from Calgary and Southern Alberta. Alternative water recreation for that portion of the Province is B.C. - not Alberta, as developable lakes in Alberta are too far away. Further one has guests at the cottage, usually from Calgary, and with the decline in water quality there are fewer people visiting for a week-end at the beach.

• COTTAGE USAGE -

Without stabilization the usage of cottages will decline which, even if one goes to the cottage 3 or 4 fewer times per year, for Calgary residents, results in \$200 less per cottage per year being spent on gas and does not take into account amounts not spent on food and entertainment.

• VACATIONS -

Summer vacations will not be spent at the cottage if water facilities are not available. Some cottagers will spend time in B.C.

• GROWTH RATE -

To suggest that development would continue to occur at the rate of 4% per year, regardless of the cost of the lot, if the lake continues to decline is ludicrous. The main, if not the sole, purpose of lake cottage subdivisions is so that people may use the lake. The present recreational value of the lake is impaired. If the lake even stays as it is, let alone if it declines further, instead of development you will likely find cottages falling into disrepair.

• LOT VALUES -

The Analysis assumes that without stabilization the lot value remains constant in real terms and with stabilization increases by \$1500. In the Feltham SubDivision, which was developed approximately 10 years ago, a lot that sold for \$15,000 in 1980 should be worth \$25,000 in 1990 dollars if Friedenberg's assumption is correct. It is not. A lot worth \$15,000 in 1980 is only worth \$15,000 (or less) today and there has

therefore been a \$10,000 loss. We attribute much of this to the low water levels of recent years. Most purchasers during the past 10 years have been from Calgary and they came to Buffalo Lake because it is one of the few developable lakes within a reasonable driving distance. If water recreation potential continues to diminish or if the chance for stabilization is eliminated, this value of the lot may disappear.

What about economics?

• OTHER FACILITIES -

The marina at Pelican Point is an attraction for many cottagers and campers. In 1984, 65 full season boats were berthed at the marina. In 1990 only a dozen were berthed for the season and those were owned by cottagers and local residents. That is substantially fewer than cottagers and local residents berthed in other years. The main reason is that many people did not put their boats in the water due to damage caused by rocks from the lower lake level. In 1984 over 5,000 gallons of gas were sold. Last year that number was 500, or less than 10%, and we submit this is directly attributable to the water level. Even if one assumes that some of the boats which were not berthed at Pelican Point were berthed at other Alberta Lakes, not all of them and specifically not boats belonging to cottagers and local residents were. Less money has been spent and it is not factored into the Cost Benefit analysis nor is the possibility that the marina will be closed. The General Store is also being negatively impacted.

• MULTIPLIER EFFECT -

No weight has been given to the fact that the cost of a cottage is stated to be \$60,000 and much of that money will be spent in the local area which will result in increased employment. The artisans who build the cottages will in turn have additional money to spend. Unless there is full

employment in the area this is another benefit which should be addressed.

• SOCIAL BENEFIT-

Cottagers buy food, eat in restaurants, shop, golf and have their cars repaired locally when they are at the cottage. If the water quality declines, they will stay at home. If, on a provincial basis, one assumes they will do the same things while at home, there is no added benefit. However, there may be a social advantage in spending this money in a rural, rather than urban setting.

The Community Association was originally concerned about negative environmental impacts which might occur from stabilization. The Environmental Impact Assessment has alleviated those concerns. We recognize that both positive and negative impacts would occur, but are satisfied that the negative are either minor or mitigable. We also believe that many of the negative impacts identified would occur even without stabilization, if we were to experience a series of wet years.


We submit it is important to recognize that the stabilization proposal does not seek to create a new lake nor even raise the water beyond historical levels. Rather, the stabilization project seeks to enhance the recreational and economic benefit of Buffalo Lake by eliminating nature's extremes.

To conclude we submit that using the numbers shown in the report, and a methodology which reflects the benefit in the year it occurs, results in a positive net benefit.

If one includes the additional items which were not included in the report, the stabilization of Buffalo Lake becomes an even better investment for the province.

All of which is respectfully submitted.

PELICAN POINT COMMUNITY ASSOCIATION



C.J.C. PAGE
VICE PRESIDENT
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Economic Report

Submission by

**Georgette Habib
on behalf of
Pelican Point Community Association**

In the Matter of

Buffalo Lake Stabilization

The objective of this submission is to report our findings after reviewing the data, methodology, and assumptions used in Section 7 entitled Benefit-Cost analysis. There is no doubt that the general benefit-cost approach of assessing the merit of a project involving public investment is important to achieve efficient allocation of resources. Cost-benefit analysis is a tool to identify as well as assess the factors that need to be considered in making rational economic choices. However, caution should be exercised, so as not to abuse cost-benefit analysis. It is not a "science" that is capable of rendering undisputed cost-benefit ratio. It is rather an art where much of the important input assumptions are based to a great extent on judgement and intuition of the analyst.

I am not here, after this long introduction, to dispute the assumptions used by Brent Friedenbergr. However, I am disputing the methodology used in calculating one element of the benefit component, and that is "the incremental value of development", depicted on Table 7.3.3. My objection is not based on intuition, but rather on sound economic principles whereby the stream of benefits should be compared with the stream of costs as such benefits and costs actually occur.

I have re-calculated the benefits based on exactly the assumptions outlined in Section 7.3.2, in other words, adopting the schedule of "number of developed cottages" with and without stabilization, and the "number of new subdivided lots" under either scenario as was described in 7.3.2 and Table 7.3.3. The results show that what is labelled as "Cottage Development Benefits" should amount to M\$12,131 rather than M\$9622, thus showing a net benefit of the project a positive M\$446 and the benefit cost ratio is 1.034 and not .84 as summarized on Table 7.5.1.

I'll explain to you first my understanding of the numbers presented in Table 7.3.3 and then go on describing how I would have performed the analysis and leave it up to the panel to judge on it.

The analysis as presented accounts for the increase in the value of the current subdivided lots by approximately MM\$1.2 (784 existing subdivided lots @ \$1500). I agree with that, assuming that the \$1500 is a reasonable increment in the value of a lot. However, in the calculation of what is labelled as "Value of Development", the incremental benefit of stabilization is calculated as the difference in the value of development under both scenarios whereby the value of development is calculated as the product of 130 (which is the number of lots in a new subdivision) by the value of the developed lot which is \$75,000 without stabilization and \$76,500 with stabilization (the difference between these two numbers is \$1500, which is the increase in lot value as a result of stabilization and thus keeping the value of building under both scenarios constant). While I accept that building value may not change in real terms and only lot value will increase, I do not agree that as a new subdivision comes on stream, the total 130 lots will be developed within twelve months. This clashes with the schedule of cottage development with or without stabilization as described in Table 7.3.3. According to Friedenbergs own assumptions as per Section 7.3.2 (and more precisely the 2nd paragraph), and I quote "it is forecast that with stabilization the number of developed lots will increase by 6% per year and without stabilization, by 4% per year". His cost-benefit analysis does not incorporate this forecast pace of development.

I submit that the methodology used in calculating the value of development is incorrect and does not reflect the very assumptions of the analysis.

Allow me now to proceed describing how to incorporate the forecast pace of development into the cost-benefit analysis. The incremental benefit to land value and cottage development as a result of water level stabilization, should be equal to the increase in the value of currently subdivided lots plus the difference in future value of development under the two alternatives (stabilization versus no stabilization). The difference between my analysis and that of Mr. Friedenberg lies in the calculation of the latter. The value of development without stabilization should be equal to the annual increase in the number of cottages developed multiplied by their average value which was assumed to stay constant at \$60,000, plus the value of new subdivided lots in the years where it is applicable (according to Table 7.3.3 this occurs in years 2000, 2004, 2008, 2011, 2013, 2016, 2018). Similarly, the value of development with stabilization should be equal to the annual increase in the number of cottages developed multiplied by their average value, again assumed to stay constant at \$60,000, plus the value of any new subdivided lots in the years where it is applicable (i.e. years 1997, 2000, 2002, 2004, 2006, 2008 and 2009).

I have revised Table 7.3.3 (see attached tables) and included the numbers that should correctly represent the value of development with and without stabilization. It is evident that the incremental value of land development is now M\$10,955 rather than M\$8,446, and thus the total increase in value of land development is M\$12,131. Table 7.5.1 was then revised with the correct "Cottage Development Benefits". It is easy for you now to see that benefits do exceed costs by approximately \$446,000, and that benefit to cost ratio is 1.034.

My analysis, just as the Base Case presented in Section 7, also assumes a 5% real discount rate to represent a social discount rate. I do agree that a rate of 5% is a reasonable representation of social discount rate. A social discount rate exceeding 0% indicates that society is not indifferent between

benefits of a public project which are realized immediately and benefits which are realized in some future years. The latter benefits are not as valuable since they are not available for immediate consumption or reinvestment. It is because of this preference for benefits generated earlier rather than later in a project life, i.e. cottages being built earlier with water stabilization, which constituted the major benefit of this project. This benefit is essentially the incremental economic activity occurring in the province which may not have taken place had the water level not been stabilized.

I take a strong exception to what the Report says on page 380, where the incremental Value of Land Development (\$8.4 million, which I hope by now you agree is \$10.95 million) is described as being monies accruing to people who built cottages on new subdivisions. I submit that neither Friedenberg's analysis nor mine assume any increase in value of building, only lot values are to increase by \$1500 a piece. So it is wrong to give the impression that the \$8.4 million or the \$10.95 million is benefit going into the pockets of cottage owners. This benefit is to the province as a result of these cottage owners contributing to the local economy earlier rather than later into the future. The only benefit to the cottage owners themselves is in the form of higher value of their lots by \$1500 per lot, just the same as to lot owners who choose not to build cottages.

It is obvious from this analysis presented to you, that benefits do exceed the costs and that the majority of this benefit accrues to the province as a result of additional economic activity undertaken by cottage owners that may not have taken place had the water level not been stabilized.

I would also like to add that there could be spin off benefits that are not accounted for in this analysis and the one described in the Report, such as employing local people for cottage construction and buying materials needed locally, etc. This is what an economist would describe as secondary benefits,

not because it is not important in overall project evaluation, but because it only could be counted as benefit if some resources such as labour are unemployed within the provincial economy and whether that is expected to persist throughout the forecast years. To sum it up, as long as there are unemployed labour who could benefit from the incremental cottage building activity, there is a positive spin off benefit that has not been accounted for in this analysis, and would enhance further the cost-benefit ratio.

Finally, I would just like to point out that the travel cost method that equates benefits to the cost of travelling to and from the recreation area is, by Mr. Friedenberg's admission, on the low side; so is the assumption, in my opinion, that day use benefits would equal half of what they would otherwise be if public use infrastructure were not a constraint; there is no evidence that constraints would occur. The camping benefit of \$1.7 million was not used on the assumption that facilities will have to be added to the campgrounds at Buffalo Lake. If such facilities were added, at a cost of \$1.23 million as stated in the Report, then the benefits will further increase by an additional \$400,000 rendering a benefit to cost ratio of 1.064. In other words, total benefit will exceed total cost by approximately \$850,000, and if no day use facilities constraint prevail, then benefits could exceed costs by \$1.2 million, and the benefit to cost ratio would be 1.09.

In conclusion, given a base case scenario with the assumptions as described in the Report, I have shown and proved to you that benefits do exceed costs by approximately \$450,000, and have also demonstrated a potential where this benefit would indeed even be higher than under the base case considered.

Thank you. This concludes my intervention.

TABLE 7.5.1

BASE CASE NET BENEFITS
 (1990 \$, P.V. 5% real discount rate)

Benefits	
1) Camping Benefits	\$64 470
2) Day-Use Benefits	\$347 390
3) Cottage Development Benefits	\$12 131 000
4) Saving in Water Costs for Alix	\$64 500
5) Water Supply Benefits for Mirror	\$1 000 000
Total Present Value Benefits:	\$13 607 360
Costs	
1) Project Capital and Operating Costs	\$13 160 000
Net Benefits @ 5%	\$447 360
Benefit-Cost Ratio:	1.034

TABLE 7.3.3

BENEFITS TO COTTAGE DEVELOPMENT

PAGE 1 OF 2

Number of Developed Cottages			Without Stabilization				With Stabilization			
Year	Without Stabilization	With Stabilization	Number of Subdivided Lots	Capacity	Number of New Subdivided Lots	Value of Development (M\$1990)	Number of Subdivided Lots	Capacity	Number of New Subdivided Lots	Value of Development (M\$1990)
1989	478	478	784	706	0	\$0	784	706	0	\$0
1990	478	478	784	706	0	\$0	784	706	0	\$0
1991	497	507	784	706	0	\$1140	784	706	0	\$1740
1992	517	537	784	706	0	\$1200	784	706	0	\$1800
1993	538	569	784	706	0	\$1260	784	706	0	\$1920
1994	559	603	784	706	0	\$1260	784	706	0	\$2040
1995	582	640	784	706	0	\$1380	784	706	0	\$2220
1996	605	678	784	706	0	\$1380	784	706	0	\$2280
1997	629	719	784	706	0	\$1440	914	823	130	\$4605
1998	654	762	784	706	0	\$1500	914	823	0	\$2580
1999	680	808	784	706	0	\$1560	914	823	0	\$2760
2000	708	856	914	823	130	\$3630	1044	940	130	\$5025
2001	736	907	914	823	0	\$1680	1044	940	0	\$3060
2002	765	962	914	823	0	\$1740	1174	1057	130	\$5445
2003	796	1020	914	823	0	\$1860	1174	1017	0	\$3480
2004	828	1081	1044	940	130	\$3870	1304	1174	130	\$5805
2005	861	1146	1044	940	0	\$1980	1304	1174	0	\$3900
2006	895	1214	1044	940	0	\$2040	1434	1291	130	\$6225

BENEFITS TO COTTAGE DEVELOPMENT

PAGE 2 OF 2

Number of Developed Cottages				Without Stabilization				With Stabilization			
Year	Without Stabilization	With Stabilization	Number of Subdivided Lots	Capacity	Number of New Subdivided Lots	Value of Development (M\$1990)	Number of Subdivided Lots	Capacity	Number of New Subdivided Lots	Value of Development (M\$1990)	Value of Development (M\$1990)
2007	931	1287	1044	940	0	\$2160	1434	1291	0	\$4380	\$4380
2008	968	1364	1174	1057	130	\$4170	1564	1408	130	\$6765	\$6765
2009	1007	1446	1174	1047	0	\$2340	1600	1440	36	\$5514	\$5514
2010	1047	1533	1174	1057	0	\$2400	1600	1440	0	\$5220	\$5220
2011	1089	1600	1304	1174	130	\$4470	1600	1440	0	\$4020	\$4020
2012	1133	1600	1304	1174	0	\$2640	1600	1440	0	\$0	\$0
2013	1178	1600	1434	1291	130	\$4650	1600	1440	0	\$0	\$0
2014	1225	1600	1434	1291	0	\$2820	1600	1440	0	\$0	\$0
2015	1274	1600	1434	1291	0	\$2940	1600	1440	0	\$0	\$0
2016	1325	1600	1564	1408	130	\$5010	1600	1440	0	\$0	\$0
2017	1378	1600	1564	1408	0	\$3180	1600	1440	0	\$0	\$0
2018	1433	1600	1600	1440	36	\$3840	1600	1440	0	\$0	\$0
2019	1491	1600	1600	1440	0	\$3480	1600	1440	0	\$0	\$0
2020	1550	1600	1600	1440	0	\$3540	1600	1440	0	\$0	\$0
			Present Value @		5%	\$33 636	Present Value @		5%	\$44 591	\$44 591

Incremental Value of Land Development: \$10 954.97
 Increase in Value to Existing Properties: \$ 1 176.00
 Total Increase in Value of Land Development: \$12 130.97

Note: It is assumed that new subdivision are developed when developed lots account for 90 percent of total lots. Thus lot capacity is equal to 90 percent of the number of subdivided lots. At the present time there are an average of 130 lots contained in a subdivision.

BUFFALO LAKE WATER INJECTION PROPOSAL

A Presentation to the EIA Hearings by Michael O'Brien of Red Deer
at Alix on May 22nd, 1991

The Buffalo Lake stabilization plan is similar in outlook and effect to many others proposed by the Alberta Government: a large, important, age-old and efficiently functioning natural system, which is also being utilized for the pleasure of man, has been and almost certainly will continue to be compromised through short sighted and financially irresponsible and destructive environmental tinkering by a group of engineers whose major job assignment appears to be the exploitation of living systems for the profit or pleasure of a few friends of the government, and at a very large expense to the general taxpaying public and to the legitimate rights of future generations. The bitter irony of this is that this often repeated scenario is conducted in our province under the direction of a group masquerading under the title of an Environment Ministry, and who occasionally bother to hold hearings such as this one. The results of these hearings are traditionally ignored, unless isolated portions of them can be extracted to enhance the political agenda of the government or the pocket books of some of their cronies.

What, I ask you, is the justification of the expense of hearings like this one, anyway. The cost/benefits analysis done on this project should have alone precluded any further consideration of this outrageous vote buying scheme. However, apparently to try and duck the financial irresponsibility of the project, the smoke screen of an environmental hearing is foisted on the public to try and deflect an examination of the financial and ecological reality of this outlandish scheme. Where the environmental stakes are really massive, this government doesn't like to risk hearings at all - or if it does, and those on the Board of inquiry have the integrity to respect the evidence, it claims that environmental questions won't be considered or more usually appoints a more compliant board; which sort of Board is this?

In a radio interview this Monday, which prompted me to appear at these hearings, Minister Ken Kowalski stated that a dam on the Elbow River could not proceed immediately because there was a great deal of opposition to it. However, he assured the interviewer, his government was committed to the dam, so it definitely would proceed, though it might take a bit longer to get started because the public was opposed to it. This blatant disregard for informed public opinion on matters of the environment appears typical of that Minister's attitude towards the province's environment, and it clearly reveals, I suggest, who really is still in charge of the Alberta Environment agenda. The present Environment Minister, Mr. Kline, seems often to be kept as much in the dark as to the activities, plans, and documents of this department as is the general public. And if he should happen to take the side of the

public on any issue, he is promptly and publicly humiliated by his colleagues from the cabinet.

WHAT WILL STABILIZATION MEAN TO BUFFALO LAKE?

Let us remember a few simple ecological facts about the nature of Buffalo Lake and then perhaps the notion of stabilizing it can be seen for the absurdity it is. Lakes in the eastern region of the Province are not "stable"; their water levels fluctuate greatly over long time scales. The grasses and sedges essential to the ecology of the lake and have adapted to these fluctuations in water level. Indeed, many can not reproduce without a period of drought and low or no water levels. It is these sedges and grasses that form the base of the food pyramid of these lakes. Insects, amphibians, Canadian Toads and to a lesser degree other anuran species spawn and depend upon these sedges for habitat.

Stabilization, by limiting the extent of drought tolerant vegetation and variations in water levels, effectively limits all the other wildlife which depends upon it, up to and including the many varieties of water fowl which use this vegetation for nesting sites.

It is painfully obvious that only the ecologically illiterate could speak of "stabilizing" Buffalo Lake. The whole notion of "stability" is an outdated Edwardian vintage vision of nature as "eternal and unchanging". The reality of this area is one of vast and profound cycles of change over long time frames. The evidence of this is the perfect adaptation of the grasses, sedges and wildlife to these cyclical changes. "Stabilization" will not merely use a great deal of money at a time when the government is demanding restraint and pull backs from everyone else, but stabilization will essentially destroy the character and nature of Buffalo Lake forever.

JUST ANOTHER DRAINAGE DITCH?

We are told in the EIA report that one must not count the dollar cost of the first four development stages of this particular lake stabilization project when measuring the cost/benefit ratio of the stabilization proposal. This is patently absurd. The systematic destruction of the environment of Parly Creek has always been clearly linked to raising the water level in Buffalo Lake. The Parly engineering project has surreptitiously been going on for several years to prepare for the raising of the water level in Buffalo Lake for the advantage of a few motor boat owners and lake shore property owners.

The stabilization project would be rejected on any rational financial grounds, but it is also a project which, because it will be managed by Alberta Environment, will almost certainly have any real environmental concerns first placed at the bottom of the agenda and then quietly

ignored as the flashy and profitable engineering work and earth moving proceeds.

The typical attitude of environmental indifference which guides Alberta Environment is really too bad as far as the Buffalo Lake proposal is concerned. This project might actually have been made into an environmentally defensible project. The creeks which are to provide an inlet and outlet to the lake could have been used in such a way as to enhance the environment along them. An increased flow could have created additional wetlands and greenery along their banks and meanders and could have restored wildlife habitat lost to earlier drainage attempts. Tax incentives could have alleviated any financial pain that landowners might have felt who might have lost a little hay production in wet years - wet years which may or may not come again.

Attention to the spawning needs of the lake's fish that have depended on the creeks for longer than our knowledge of this land, might have been attempted, instead of some engineer's fanciful idea of how fish biology works. Plants, trees and shrubs compatible with the feed and nesting requirements of our native birds could have turned the creeks into one long ribbon of life amidst the farmlands which are gradually becoming so thoroughly destructive to wildlife of most kinds because of the economic pressures faced by the landowners.

A natural creek feeds Buffalo Lake, and probably has for thousands of years. It could have been used to carry water pumped and piped from the Red Deer to enhance the flow of water through the natural creek channel and into the Lake. But creeks are an anathema to engineers. They don't travel in straight lines. They have irregular bottoms and widths and so their flow is difficult to measure and quantify and graph. Sometimes they get the surrounding land of potential political supporters wet when they spill their banks. Worse, their natural banks provide anchoring sites that can be used by their competition - beavers - to construct dams.

Worse still, other wild things live in and around creeks, things engineers don't study about, don't know about, and obviously don't care about.

Over the years, and to facilitate the eventual deepening of Buffalo Lake, Parly Creek has been turned into a storm sewer. This ditch, which would be greatly extended by the proposal before you has certainly contributed to the immense provincial debt which we in the wealthiest of provinces have somehow magically accumulated; a debt that this department has helped to create by its many land draining, and other anti-environment schemes. Various excuses have been given for the relentless construction of this drainage ditch but, as this Government has learned, if you deny anything is happening, if you prevent environmental hearings from being conducted on the early stages of the project, if you ignore the results of the impact studies that you have instituted, if you stonewall or

ignore or lie to the public long enough then you can claim, once again, that the project is far too near to completion to stop or change now. Sounds familiar, doesn't it. I expect you followed the Oldman Dam building process.

Following this tried and true formula, the rich living biology of Parlby creek has been pretty well destroyed by Alberta Environment. Woe betide a creature whose instincts guide it to this creek for a drink, or to try to cross it. The evenly engineered and slippery slopes of the deep ditch will soon see to the slithering descent of wild creatures into the raceway below. Escape from the ditch is akin to scaling the fabled glass mountain on horseback.

Restoring the damage done by Alberta Environment to the Parlby Creek would be a much more worthy expenditure of public money than throwing good money after bad by further damaging Buffalo Lake by "stabilizing" it.

In the creek, organisms that used to live in or beside the water, deprived of overhangs, of backwaters, of channel meanders, of beaver dams, of protecting and oxygen creating deadfalls, of ground with varying degrees of moisture, of flooded back channels, most of these organisms - whether microscopic, furred, feathered, or plant life - conveniently disappear. They disappear, not because they have gone somewhere else. They disappear because they cease to exist, as do the creatures which feed on them and in turn become part of a food chain that is essential to any living water system, and to the food chain of the lake, and eventually even of the ocean at its end.

"Great things, these drainage ditches", claim the engineers hired by Alberta Environment. They drain all the sloughs and a few farmers get a few extra tons of hay at public expense - of course now they have to buy fertilizer since the seasonal flooding doesn't enrich the meadows any longer. The fish that used to use the creek and the adjacent meadows and sloughs to spawn in haven't seemed to figure out how to utilize the extra silt generated by the accelerated water flow of the ditch. Nor have they figured out how to climb the neat galvanized fish ladders, but since they obviously learned how to use the old creek, they shouldn't have any trouble learning to use the new improve one, now should they - thinks (sic) the engineer.

HOW ABOUT A SECOND DRAINAGE DITCH, BOYS

Tail Creek drains Buffalo Lake, as the explorer David Thompson discovered in the late 1700's. But others had discovered it long before him. Encampments rivalling the population of Stettler had gathered on its banks and at its junction with the Red Deer River to hunt the then abundant Buffalo and other animals of the region. Having Tail Creek utilized as the outflow for the overflowing lake would have some

advantages if the water level in the creek were somewhat more abundant and regular. However, as the study explains, the engineers want to replace the creek with a ditch to a point where it is convenient to place a dam, thus destroying the habitat created by the present creek. Below their dam they will continue to destroy the creek with more ditch, not believing that a creek can transport water.

Then, where the creek enters the river, they want to destroy the remaining bit of this once vibrant and abundant natural system by building more ditch. In the process, they will destroy the abundant archeological sites that could have proven a real and lasting tourist draw for the district, sites that are probably only surpassed by the ones drowned by the construction of the Oldman Dam.

They would love to channelize this creek too, that is - turn it into another sterile ditch, just in case they actually want to release some water in a particularly wet spring. They don't really expect this to happen, but building ditches keeps them employed, it's their life work.

Well, they won't have any difficulty turning Tail Creek into another ditch; they've had lots of practice doing that with Parlbey Creek and any other moving, living, naturally abundant body of water they can get their hands on.

I guess I've said enough about creeks and ditches, and I apologize for appearing so angry about this, but it is infuriating to have an agency that the public thinks is supposed to be there to protect the environment, but which has no mandate or history of trying to do this. The objective of the department is the old fashioned one of trying to figure out how to help land owners and industry make money from exploiting the environment by ignoring the mistakes of the past and by forgetting about the future.

There is another and brief thing I noticed in reading the EIA report that I would just like to comment on in passing. It was rather amusing to me, but might give rise to some questions from the folks in Mirror.

It seems that the river water to be brought in to raise Alix Lake must not be considered suitable for drinking by the townspeople, because it isn't as good as their current well water. The report suggests though that the ditch water will be just fine for drinking needs of Mirror residents. I guess Mirror residents are thought to have glass lined stomachs.

This reminded me of the claims of Alberta Environment when the Dickson Dam on the Red Deer River was being sold to the people of Red Deer. We were told that the dam would improve our water supply and solve our sewage disposal problems all in one great flush. However, even before the dam was completed, Red Deer had to double its water treatment capacity and also double its sewage treatment plant. The Department of

Environment's dam didn't bring taxes down in Red Deer, it brought them up.

The other thing in the report that I would like to mention is the illusion that this project will enhance the lake and creek fishery. Note that one is told not to eat the fish caught in the Red Deer River because they are contaminated with mercury. Pumping Red Deer River water into the lake will also pump the mercury contamination into it. The exact source of the mercury isn't known, but it seems, according to the chemists I know, that it can't be from natural sources as Alberta Environment claims, it's more likely from the Regional Hospital and perhaps other industrial sources.

So remember, warn your grandchildren not to eat the fish. Just throw them away to rot as we must along the Red Deer.

I hope, that as the vegetation and food chain of Buffalo Lake dissapears, as the birds and animals and insects and plants along the Parlbby and Tail Creeks continue to die and dissapear, as people wonder why the people of this region allowed the destruction of some of the last Piping Plover habitat of the prairies, as the number of fish continue to decline because of the collapse of the food chain and because they no longer have places t spawn, as the lake silts up and the water level continues to be raised to accommodate the motor boats which swamp the nesting sites of any remaining water birds, that you won't blame the sewage from the people of Red Deer for your troubles. Remember also your friends from the Alberta Department of the Environment.

Thank you.

Just to inform your committee Mr. Thorne why I feel that I qualify to give you my input on this very important project. Firstly I have been a resident of this area for seventy-three years. I first started going to Buffalo Lake with my Father when I was about twelve years old. I have enjoyed many years of recreation which can be directly attributed to this beautiful body of water. I also ran a G.M. Dealership in Stettler and enjoyed the profits of people from other areas coming into Stettler and doing business with me.

Buffalo Lake is a key recreation, environmental and economic part of East Central Alberta. It is the only lake of its size from here to the Saskatchewan border.

The Environmental Impact Assessment Report has proven that the current high alkalinity and P H levels do not promote a suitable habitat or production level for the Northern Pike in the lake. Further the low level of Buffalo Lake does not allow natural spawning of the fish in Parlbay Creek. Back flooding through Spotted Lakes would allow this spawning.

A stabilized lake shore would improve an important breeding and nesting area for the many waterfowl this area has enjoyed through the years. According to the E I A report the North American Waterfowl Management Plan includes Buffalo Lake and the surrounding area for potential expenditures of 10 million dollars.

Also Buffalo Lake provides a key wintering habitat for many fur bearing animals including Deer, Beaver and Muskrat to mention just a few.

One of the most important parts of the E I A study Proves that groundwater is going into the lake instead of out so if the lake is stabilized there will be no loss of water into the surrounding formations.

This then supports the need for stabilization as the Villages of Alix and Mirror need a more substantial supply of water.

Lake water is currently being used as offstream storage for irrigation.

There has already been substantial amount of money spent on this project and other projects to enhance Buffalo Lake. The Government will have spent four million dollars with the completion of phase four of this project. The upgrading of Rochon Sands Provincial Park, enhancement of Village of Rochon Sands, development of MacDonalds Campsite represents a substantial investment. The time has come for this project to be completed to enhance our third largest industry in Alberta, Tourism.

This Central Alberta lake serviced by two major highways namely # 12 and # 21 provides a recreational area for people whose only other recourse would be to use the already overcrowded areas of Sylvan, Gull and Pigeon Lakes.

I have heard people who don't even use this lake criticize this project on the grounds that we would lose our three par golf course. Let me assure you that we have considered this and can either adjust our course or relocate if without to much difficulty.

Economically, how do you put a figure on the spin off to communities of Lacombe, Alix, Mirror, Bashaw, Donalds, and Stettler. What about places like Torrington which many people from Calgary pass through on there way to the lake. This lake provides recreation for people from here to the Saskatchewan Border, not to mention a large number of people from Edmonton, Calgary, and Red Deer. How may I ask you do you put a dollar value on this effect on the small businesses mentioned in the Towns and Villages mentioned above.

The benefits of stabilizing Buffalo lake cannot be measured in what it costs as to what is gained as you cannot put a figure on the environment and what an effect it has had on my life, my childrens life, my grandchildrens lives and there children. We want this lake for the Northern Pike, the Waterfowl, the Deer, Beaver, and Muskrats. We want this lake to supply water to communities

this lake in order to enjoy ourselves and our families and to promote Tourism in
our fantastic Province.

I fully support the Parlby Creek - Buffalo Lake Development Project and we have
waited long enough. LETS GET ON WITH IT !!!!

Thank you for giving me this opportunity to present my views.

George A McTaggart
Stettler, Alberta.

PARLBY CREEK - BUFFALO LAKE DEVELOPMENT PROJECT

First of all let me begin by stating that the name of this project is a misnomer. It has been said by many people in the area that it should have been called the "Mirror - Alix Domestic Water Supply Project". The level of the lake is only a spin-off of addressing the serious water supply problems of Alix and Mirror. This is a very different project from the days when original plans were to pump water from the Red Deer River directly into the lake. I do not believe that the benefit-cost analysis conducted on this project adequately reflects the importance of securing a domestic water supply for Mirror and Alix in that it is of immeasurable importance to the people who live in the area as well as for future businesses that may wish to locate to that area. Lets not forget about the importance to the farmers and the positive impact for fish and wildlife. Should we be using a Present Value Cost in this analysis or is more appropriate to use a different system to assess the intangible benefits derived from securing the water supply for this region? How can we put a price on fish and wildlife habitat preservation, security of water supply and improved agricultural potential?

Let me address each of the objectives listed under "PROJECT DESCRIPTION" in the summary report and their benefit-cost relationship. These objectives include agricultural flood control, fish and wildlife habitat enhancement, municipal water supply and

stabilization of water levels in Buffalo Lake for recreational purposes. I will focus on the economic benefits of the project rather than the environmental impact as the study is very positive in this area.

Buffalo Lake

I want to address the latter objective first because this is what I term the spin-off of the "Real Project". As there is a steady decline in the snow-pack in the mountains and a decline in the levels of lakes throughout the Province, and not just cyclical trends but real declines overall, what is the true figure used in the benefit-cost analysis for keeping a lake stable that will benefit future generations? Is it \$100,000, \$1 million, \$10 million, or \$100 million? If we don't act now and follow through with this project, what will the cost of losing a beautiful lake like this one be to my children, my grand-children, and their children? What about the benefit to those people in central Alberta who in the future want a recreation property but Chestermere Lake is overcrowded, Sylvan Lake is overcrowded, and Pigeon Lake is overcrowded? Buffalo Lake is a very viable and natural alternative as it is one of the most central lakes to Calgary, Edmonton, and Red Deer. It is also one of the most beautiful lakes in this Province!

Let's preserve this lake for present and future generations! To reiterate, the lake stabilization is just the spin-off of this important project but it is a very important part of this project.

Fish and Wildlife Habitat Enhancement

I understand that the fish population in Buffalo Lake has decreased in the past few years due largely to the fact that the water level is too low for the fish to make it upstream to the spawning areas in Parlby Creek. (This was reported by Alberta Environment.) Again, how do you arrive at a benefit figure in the analysis on fish and wildlife that represents the importance of this for present and future generations? Where is the figure in the benefit-cost analysis in the summary report?

Every year ducks, geese, and birds of all kinds build their nests in safe places along the lake shores. Due to the rapid decline in the lake level each year after the ice has melted and as summer approaches, a small drop of a few inches in the water level can make a drop of several feet on the shoreline leaving these hundreds of nests open to predators. Even though the lake level fluctuates from year to year, there is a period after the ice melts and when the warm weather comes that the lake drops several inches. I have witnessed this happening almost every year and I would think that with a stable shoreline these nests would be better safeguarded.

The project provides a permanent 350 to 400 acre body of water on the Parlby Creek flood plain between Alix and Mirror. Couple this with water that will be retained in parts of the old creek bed, and the result will provide waterfowl habitat far in excess to that which nature presently provides for the area. Enhancement of fish

habitat in Spotted Lake will provide fish spawning grounds which will greatly exceed the present situation.

The report points out the loss of a Plover's nest if the lake level is raised. I understand that the Department of Environment has plans to deal with this problem.

I don't see a benefit figure for fish and wildlife in Table 3 of Volume 1 of the Summary Report. There is a major flaw in this study in that there is no benefit figure for this project's contribution to the welfare of fish and wildlife. With the importance that society places on its fish, wildlife, and environment there should be a large intangible benefit to society. What about the importance for the North American Waterfowl Management Plan, "the potential for expenditures of over \$10 million in the area"?

Agricultural Flood Control

As stated in the report, the stabilization of water levels would make farming operations more predictable with flooding conditions and pasture boundaries more controlled. Crop production and quality is expected to improve through backflooding the Study states. More emphasis is needed in the area of agriculture in the study and some benefit figures should be included in the benefit-cost analysis? Surely for years to come this will be a huge benefit to farmers and farm business in the area.

Municipal Water Supply

There is no argument that Mirror will benefit from this project, but I disagree with the findings in the report that Alix will not benefit in the same manner as Mirror. Did Mirror not rely on groundwater and now where are they? Surely there must be a benefit to Alix in that a future water supply is virtually guaranteed with this project going ahead. What if their groundwater supply runs out? With the project approved and running, the future water supply for the people of Alix and the businesses of Alix will be assured. It would also increase the likelihood of new businesses investing in the community.

I should underline that the Alix/Mirror area is serviced by two railways (CNR-CPR), and serviced by two major highways (¹²#2 east-west and #21 north-south). There are low land costs and there is the long-term availability of natural gas and coal reserves as well as electric services. More importantly it has a central location geographically between the major centres of the province. Yet, with everything that this area has going for it, it remains a depressed area economically. The main reason is unstable water supply. This can only be corrected with the assured water supply that the project will provide. The economic growth that could result could be enormous.

Having stated the above, I argue that the benefit figures assigned to the Alix and Mirror water supply are grossly undervalued. This project can make these communities viable and stable for the future.

Summary

I feel very strongly that this EIA study has spent too much time on the Buffalo Lake phase of the project. A greater emphasis should have been placed on the other benefits of the project. I believe that this would change the benefit-cost ratio with a far greater number for Total Present Value Benefits. There are so many intangible benefits that are derived from this project that should be taken into account and benefit values should be attributed to those areas.

I fully support the Parlby Creek-Buffalo Lake Development Project, or "the Mirror-Alix Domestic Water Supply Project", and I am confident that it would be a gross error to let this project slip through our hands as there are too many present benefits, not to mention the benefits for future generations. Lets continue to be dynamic in this Province and plan for the future.

Thank you for giving me this opportunity to present my views.



Kathie Hankins

Parlby Creek - Buffalo Lake Development Project

My name is Richard Kutt and I live in Alix adjacent to Alix Lake. There are a number of people who also live adjacent to Alix and would be immediately effected by the implementation of this project. They have signed a form attached to this submission in support of the project.

Our properties extend to the Lake shore. They have been landscaped to that point as well as decks and docks have been built.

I have lived at this location for four years. In 1989 I put in a dock and in 1990, which was a wet year, it disappeared. But the neighbors dock floated over to my property so I was not that bad off. This is one effect of varying Lake levels.

A few properties are really low and in very wet years there has been some water damage to garages and basements.

This is one of the major concerns is the variations in the Lake level and with the implementation of this project it would be more constant.

The flow through of water will have many benefits. Combined with the higher level Alix Lake will be better for the fish that are put in each Spring. Deeper water with more oxygen could see more fish living through the Winter rather than being netted out or dying because of the lack of oxygen in the Lake water.

A flow through of water would also mean a better quality of water and this is stated in thereports.

A stagnant body of water, such as Alix Lake, relies on the wind and power boats to move the water around and put some oxygen into it. The first part of April this year the weather was very hot and calm and the smell was unreal. There were hummocks of dead and rotting vegetation along the shoreline. I may have been one of the few to be glad to windy and cold weather for the rest of April.

A flow through of water may not totally eliminate this problem but it would help.

A separte project to provide a flow through of water for Alix Lake and all the advantages associated with it is very impractical, However, when this is incorporated with the Parlby Creek - Buffalo Lake Development Project it becomes one more benefit in a long list of benefits and another reason why the Parlby Creek - Buffalo Lake Project should be implemented. We strongly urge the Review Bosrd to make a favorable recommendation in this regard to the Minister of Environment.

PARLBY CREEK - BUFFALO LAKE WATER MANAGEMENT PROJECT

We, the undersigned residents of Alix living adjacent to Alix Lake, feel that this project will be of great benefit to Alix Lake by improving water quality and stabilizing the Lake level. We strongly urge the Review Board to make a favorable recommendation to the Minister of Environment for the immediate implementation of the Parlby Creek - Buffalo Lake Water Management Project.

NAME

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CIVIC ADDRESS

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Marion Price	Box 636 Alix Alta	4862-53 St
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C. Fisk	Box 674 Alix	4904 53 St
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Dot Hanley	Box 451 "	4948 53 St
J. Anderson	Box 454 "	4850-53-2A
Jean Anderson	Box 454 "	4850-53 St.
Hope Johnston	Box 321 Alix	4848-53 St
Harold Johnston	Box 321 Alix	4848-53 St.
Nancy Harrison	Box 160 Alix	4808-Lake Street
Betty Ward	Box 159 Alix	4812 Lake St.
G. L. Linn	Box 332 Alix	4624 Lake St.
M. Linn	Box 332 Alix	4624 Lake St.
R. L. Nowlin	Box 446 Alix	4608 Lake St.

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NAME

MAILING ADDRESS

CIVIC ADDRESS

Lloyd Dale BOX 516, ALIX
Effie Butterwick 4708 Lake Street, ALIX
Albert Carlson " " " "
Coralie Bond 4706 Lake Street, ALIX

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NAME

MAILING ADDRESS

CIVIC ADDRESS

<i>[Signature]</i>	Box 446 Alix	4688 Lake St.
BERT WARD	Box 159 ALIX,	ALBERTA - 4612 LAKE ST.
<i>Norm Ward</i>	Box 159	" "

THE BUFFALO LAKE DIVERSION

There is good reason to doubt that 'lake level stabilization' is the true motive behind the proposed diversion of the Red Deer River through Buffalo Lake (or 'Cow Lake' as it is, I believe, properly translated from the Cree - 'Mustus'?). Far more likely is this proposed diversion the first step in a watershed diversion via Buffalo/Cow Lake from the Red Deer River (South Saskatchewan system) to the Battle River (North Saskatchewan system). Please see adapted P.R.I.M.E. and NAWAPA maps taken from TO THE LAST DROP (Macmillan 1986) by Michael Keating.

Note also a report Sunday evening 20 May 1991 on CBC-TV's 'The Journal' about the 5-year drought in California. The report closed with the information that the government of that state, more populous than Canada, "would be interested in water" from this country, "if the price were right".

Public hearings (still a relative rarity in Alberta) on this particular project are probably being held to avoid embarrassment to Premier Don Getty, who as a new local resident, might otherwise be seen as abusing his position to benefit himself and his rural constituents. But this is probably a red herring since a larger project would not be for the benefit of any Stettler constituency residents. If, on the other hand, the present Water Management Review Board does not broaden its scope to carefully examine all possible contexts for the present proposed diversion, its efforts may be largely wasted.

The larger watershed diversion project would include the present proposed diversion of the Red Deer River through Alix to Buffalo/Cow Lake, a second diversion from Buffalo/Cow Lake to the Battle River, a dam at Ardley (the 'Ardley Dam') and a second dam on the Battle River (the 'Kelsey Dam'). Normal Red Deer River flow would be 100% restricted for a short distance (roughly Ardley to Nevis), and significantly restricted to at least Drumheller. The normal flow of the Battle River would be regulated, to say the least, below the hypothesized 'Kelsey Dam'.

More seriously, in the larger plan, the Red Deer River would be backed up from Ardley to the City of Red Deer to form a reservoir. Similarly, the Battle would be backed up from the 'Kelsey Dam' to Hobbema.* This community is located close to the Battle River, with sacred burial

grounds in particular, I am told, close to the river's edge. What effect would the larger diversion plan have on the Native communities around Hobbema? These are just some of the local 'water management' issues involved in a 4-step, as opposed to a one-step, diversion scheme.

REASONS WHY LAKE LEVEL STABILIZATION IS NOT THE REAL AGENDA

In the case of Buffalo/Cow Lake, we now have an Alpac-like dilemma: two government reports. The first says 'stop'; the second says 'go'! Which are we to believe? What are we to believe?

The first report, commissioned by Alberta Environment some time ago, concluded that algae growth, triggered by the influx of nutrient-rich Red Deer River water, would cancel any benefits of the present proposed diversion, and I don't believe this original, likely more disinterested report has been essentially contradicted. Algae growth could be mitigated to some extent with algicides, but what would the overall effect on fish, bird habitat and the Buffalo/Cow Lake ecosystem as whole be? And, on the farming districts and communities downstream? The fact that an economic study has recently identified a shortfall of \$2 Million in benefits (\$11.1 M vs. \$13 M constuction costs) would seem to make the project an open-and-shut case for rejection, and the present hearings hardly necessary, if not quite unwise.

With the 90's likely to establish new records in global warming, and reservoirs drying up already in many parts of the continent (Buffalo/Cow Lake would to some extent become a reservoir for the lower Red Deer), I wonder how realistic is the goal of lake-level stabilization in the first place. A wise government, other things being equal, would take a low-risk approach. But I am afraid our present provincial government will do the opposite - primarily because it would seem to have a larger agenda, precisely involving drought in other parts of the continent.

REASONS WHY LARGE-SCALE RIVER DIVERSION IS THE PROBABLE AGENDA

In the final analysis, large-scale river diversions (including interbasin transfers) are probably unrealistic too. Depleted aquifers in the U.S. likely cannot be rplenished with freshwater from Canada in any evnt. Ultimate solutions for all water-management problems must address the root causes:

- (1) global warming

- (2) inappropriate uses, or waste, of water resources, and
- (3) deforestation.

With regard to the local problem - the perceived need to regulate lake-levels in Buffalo/Cow Lake - Alberta remains a major contributor to global warming, it insists on diverting more and more water (even ultimately from the North) in a probable losing struggle to keep the arid Palliser Triangle irrigated, and it is doing nothing to control deforestation in northern Alberta and along the Rockies. On the contrary, the Sundre area - near the headwaters of the Red Deer River - is slated to become part of a large FMA to be administered by Sunpine. No EIA, let alone public hearings, is even being considered for the Sunpine FMA!

Vis a vis the continent, the U.S. seeks Canadian water (likely a hidden motive in the Free Trade Deal) so that it can continue to grow crops to export to Canada, contributing to global warming in the distribution process, and undermining local food production/distribution back in Canada. Also, a great deal of water is wasted (as in Alberta) to keep desert golf courses green for vacationers and recreationalists like the Premier himself.

Alberta has been one of the most consistent backers of 'Free Trade'. Premier Bourassa of Quebec is also interested in exporting water. Moreover, portions of the dissavowed P.R.I.M.E. plan of the 1960's are currently being put in place, piece by piece: the Dickson Dam on the Red Deer is already built, the Oldman and Rafferty-Alameda Dams are under construction and there is talk of the 'Meridian Dam'. Excluding diversion channels (Red Deer to Bow, Bow to Oldman R.) the system appears to be proceeding south-to-north. Northern sections of the original P.R.I.M.E. plan might have to be abandoned because of polluting pulpmill development on the Peace and Athabasca systems. On the other hand, more emphasis might then be placed on the more southerly rivers like the Red Deer and Battle to transfer fresh water, ultimately from the Rocky Mountain trench to the Great Lakes (where they would meet water from James Bay flowing south), and also directly south via the Milk River.

Suffice it here to say that, like all 'Free Trade' items, if they are not specifically excluded, they can be assumed to be included - in any agenda. But wouldn't a large-scale diversion be the subject of another review, if the present, seemingly limited proposed diversion is the subject of public hearings in its own right?

The opposite has proven to be the case. Public reviews of the Oldman and Rafferty-Alameda Dams have been vigorously opposed by pro-

vincial governments. The whole subject of water exports has been officially declared a non-issue. Even the possibility of power generation at the Oldman Dam has been denied, presumably to avoid ERCB hearings before its completion. In a parallel case, the issue of toxic waste imports has been excluded from the Swan Hills public review, just announced at the last moment.

So, phases 2,3 and 4 of a Red Deer to Battle R. diversion could conceivably be pushed through without further review. The same has been done in a few cases already in Alberta and Saskatchewan. Most recently, the Hay and Peace River systems have been quietly connected, in principle, through the Hatch Lake Dam. That lake has now been diverted south, purportedly to increase the water supply for High Level.

Hearings on a limited diversion are, as mentioned above, probably accidental - owing to Mr. Getty's defeat the last election in Whitemud etc, etc. But, having said that, the Review Board in my opinion would be remiss if it merely (unlike most Albertans) took government statements at face value, and did not examine, at least in principle, the present proposed diversion from all points of view.

AN OPPORTUNITY TO STUDY WATER DIVERSION IN PRINCIPLE

While the current Review Board's expertise, mandate and choice of a hearing site are limiting factors, public hearings into a small part of a possibly much larger diversion plan, allow a unique opportunity to examine and comment on the probable larger agenda. What I would recommend to the Board would be to reject, the revised EIA notwithstanding, the present proposal on immediate environmental and economic grounds, and also to recommend strongly that if other reasons for a diversion are put forward and/or if any other conceivably related diversions and/or dams are proposed, that a much fuller set of public hearings be held in a much more extensive area of the Red Deer and Battle R. watersheds, as well as Red Deer City itself, Hobbema, Edmonton and Calgary. Experience has shown, again re. Alpac, that if the recommendations are the least bit equivocal, they will be ignored or even contradicted.

Given a proper forum, there would be plenty of experts, both locally and nationally, who could address the issue of major water diversions/exports. But the issue must be defined as such in the review board's terms of reference, and intervenor funding provided.

5.
LARGER ISSUES

Government credibility is a major issue in the present review, whether it is concluded that it is probably holding back a larger agenda, or whether our provincial government is contradicting itself by issuing once again reports with different conclusions. In addition, Alberta has an announced policy against inter-basin transfers, and while the present proposal is same-basin, it points towards inter-basin.

Even if Premier Getty is essentially disinterested in the limited project now under review, he is almost certainly interested in water diversion in general, so special care needs to be taken. As mentioned previously, logging in the headwaters upstream, and desertification downstream need to be considered even in a limited context, as root causes of lake level instability - now and possibly in the future.

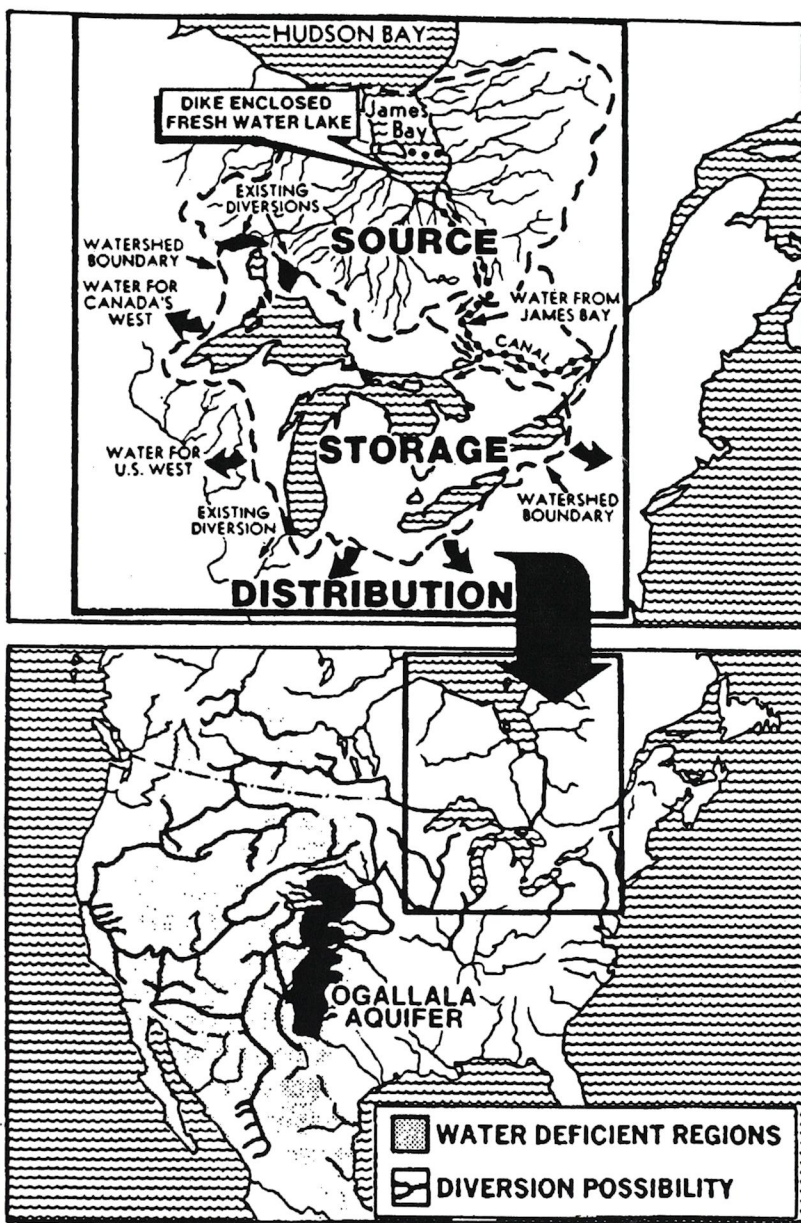
Certain recreational benefits have been touted for 'lake-level stabilization' (raising?), but these do not even outweigh the costs to taxpayers of the diversion. Better to give local residents a harmless make-work project, and leave the environment alone. The most important principle that should be observed here (and everywhere) is: do not even consider tampering with Mother Nature unless there is a very strong prima facie case, a virtual necessity, for doing so. Keep the Red Deer River in the Red Deer River!

* Other hypothesized diversions would link the upper Athabasca, Pembina and upper North Saskatchewan Rivers to the upper Battle (see map).



Randy Lawrence

11436 77 Ave. Edmonton T6G 0L8



This proposal called the Grand Canal, would dike James Bay and pump some of the fresh water flowing into it from tributary rivers uphill then south and west to the Great Lakes. From there water would be pumped and sent by canal to the Prairies and to the dry western U.S., according to engineer Thomas Kierans. (BERNARD BENNELL)

PARLBY CREEK - BUFFALO LAKE DEVELOPMENT PROJECT.

**A SUBMISSION PRESENTED BY WESTCAN MALTING LTD.
TO THE REVIEW BOARD AT THE ALIX PUBLIC HEARING**

MAY 21ST 1991.

Mr Chairman, Members of the Review Board,

My name is Neil Gilliat and I am appearing on behalf of Westcan Malting Ltd. a company with offices located at Suite 305. 10835 - 120 th street Edmonton. T5H 3P9. I am an officer of the Alberta registered company.

Westcan Malting Ltd is at this moment constructing the foundation for a world scale malting facility to the south of the Village of Alix, within a mile of this meeting room.

The eventual investment in this project will be \$50,000,000. It will provide steady employment for people of this rural community for many years in the future. It will add value to the barley crops of the farmers of the region and create much needed markets for their produce. By-products from the plant will provide a source of cheap highly nutritious animal feed. The effluent from the plant will be utilized in an irrigation project which will bring further opportunities to the area. The process is a natural one using no chemical or foreign additives. It is environmentally friendly other than it uses a large amount of water.

While looking for a location for the plant, the people at Westcan spent a lot of time researching the data available on many alternative sites around Alberta. We required access to both major railways. We required a good ground transportation system to bring the product to the plant. We required the plant to be central to an area that produced our raw materials. Westcan believed that ag-

processing should, where ever possible, be located in a rural area. We required a competitive energy source. We required the infrastructure to service the plant, this generally translates in ag-processing, into large quantities of water and a satisfactory disposal system for non toxic effluent. These were probably the main factors but there is one factor, Mr Chairman, that cannot be easily overlooked. We asked the people of the region if we would be welcome in their community. If they had a full understanding of, not just the benefits we would bring, but also the social, economic and environmental costs that would impact on their way of life and that of their community. Development comes at a price and each community should ask itself a few simple questions. "Do we have to have development and for what reasons? Can we afford it, and the changes it will bring to our daily lives?, Can we do with out it?". If there is a consensus that the developments benefits will outweigh the costs then probably we should proceed and the community should be prepared to accept the changes.

If for a moment we could look at the opportunities for economic development in rural areas of the Prairies. Farmers in Alberta have historically shipped their raw products to the world market. It is a market fraught with politics, unrivalled subsidies and unfair competition that no longer gives a consistent and honest return to the farmers labour or to the farmers investment. Hundreds of farmers are experiencing financial difficulties that can bring an end not just to their livelihood, but an end to a way of life as we know it in rural Alberta. These conditions reflect on the rural community centers of the Prairies. One by one, once vibrant communities have disappeared from the map. Each generation others are disappearing, victims of the adverse and changing economic times prevailing on the Western Prairies. The rural way of life is becoming a thing of the past as our youth migrates to the urban areas. They are forced there by the lack of opportunity in the rural communities and the need to find employment. The key word is "changing economic times", for

whether we like it or not, things are going to change, on that we can depend. Change can be for the better, or for the worse. The choice can be ours to make if we only believe in our selves. The answer is clear, we have to upgrade our agricultural produce so as to capture the more lucrative markets provided by processed and value added goods. Where ever possible the processing plants should be located in rural Alberta.

We at Westcan believe that there is an enormous number of opportunities in the agricultural industrial and processing sectors of the Western economy. In this region you will find all the ingredient necessary for sound, sane and controlled development. There is good land, cheap and abundant energy, good transportation both within the region and to seaboard. But the richest resource of all is the rural people of these communities. They deserve the type of development that is being proposed for the area. Surely sound management of a resource is the key to acceptance of development by all factions. The Parlbey Creek - Buffalo Lake Water Management Project fits in this category.

Mr Chairman, Westcan Malting Ltd. has, in cooperation with the Village of Alix, received a licence to remove water from a large underground aquifer six miles to the west of the village. It is a large and prolific aquifer. This is all the more reason why any water withdrawn from it should be scientifically monitored, managed and protected. By so doing at the slightest sign of a pending problem remedial action can be taken. There is also every reason why we should use this resource as long as it is within the framework of a wise and carefully managed program. Westcan has no problem with these precautions and has pledged its full cooperation in a day by day monitoring of the water source. This, we feel, is an illustration of sound responsible management of a resource for the benefit of the community. There were those who advocated that absolutely no water should be withdrawn and others of the opposite extreme suggested that the aquifer is so large that we can take all the water we desire and never hurt the flow. Surely, Resource Management is

what this is all about and sensible evaluation and use of a resource is where we should throw our support and get rid of the theatrics.

We have pointed out that future rural development will require the infrastructure to support new industries. One of our most precious resources is water. Vast schemes and projects appear around the world in remote and rural areas to collect and divert water for the support of the cities and the urban life. It follows that industry is very often forced into the cities to obtain the required infrastructure because it is not obtainable in the rural areas. Clean Ag-processing industries that could bring stability to rural centers rarely have a choice but to set up in the city. Proposals such as the Parlyby Creek - Buffalo Lake project are unfortunately rare for they could bring a renewed and acceptable form of development, prosperity and financial stability to many rural centers. The water diversion proposed may be an alternate supply of water for future agricultural processing industries that can be attracted into this area.

Unfortunately in today's world we seem to favour the adoption of the extreme view. We have camps of proponents that would see neither change or progress in the world. On the other end of the spectrum there are those who could often be accused of proposing change for change's sake. Which ever way we chart our course remember, there will be forecasters of inevitable disaster, be it economical, environmental, social, you name it. They would lead one to believe that irreparable disaster lays waiting at the end of every road.

Mr Chairman my point is this, we must be aware of the dangers that are real and present along any road. At the same time all we have to do is look at the plight of our small rural communities. Anyone can see that economic development is essential to preserve even the slightest vestige of life, as we have known it, in rural Alberta. If we have any care for people, any sensitivities at all for the future we must support this type of rural development. Not unequivocally, but with sensible common sense, a commodity, Mr Chairman, that if used more widely would see less strife, more cooperation and intelligent progress.

In conclusion we believe that this project is an example of water management that should be repeated more often in rural areas. We believe that it has the potential to attract other development. We believe that it is well thought out and tested.

Finally we would like to record our full support for the project and we hope it can get under way at the earliest opportunity.

Thank you Mr. Chairman for this opportunity to address the review committee.

PARLBY CREEK BUFFALO LAKE

WATER MANAGEMENT PROJECT REVIEW BOARD

Presentation by Martha Kostuch

May 22, 1991

Terms of Reference

The Terms of Reference for this review board does not include consideration of the need for the project or the alternatives to the project. Nor do the Terms of Reference include a review of the overall economics of the project.

There are serious information deficiencies which make a thorough review of the environmental impacts of this project impossible at this time.

The environmental impact assessment is incomplete because it does not include detailed plans to mitigate the impacts of the project, to monitor the predicted impacts or to respond to unpredicted negative impacts.

The Department of the Environment is in a conflict of interest position.

Federal Government Involvement

It is clear from the Environmental Impact Assessment Document that this project will have impacts on at least two areas of federal decision making responsibility, navigable waters and fisheries, and on at least two other areas of federal responsibility, migratory birds and endangered species.

This proposal must therefore be subjected to the Federal Environmental Assessment Review Process and approvals must be obtained under the Navigable Waters Protection Act and the Federal Fisheries Act.

Need for the Project

The need for the project has not been established.

The benefits for recreational activities and for cottage owners are questionable.

The project makes no economic sense.

The project may negatively impact other communities in central Alberta.

Inter-basin Transfer

The real reason for this project is to serve as part of the government's plan for inter-basin transfer of water.

The Saskatchewan-Nelson Basin Study details plans to divert water from the Red Deer River to Buffalo Lake, to dam the lake at Tail Creek and eventually to divert water from the Battle River into Buffalo Lake.

Environmental Effects

It is difficult to assess the impacts of the project on rare plants, fisheries and wildlife because of the missing information.

The mitigation program for fisheries for the first four phases of channelization of Parlby Creek have failed. The proposed operating plan would exclude spawning in dry years when pumping would not be done.

The project would have negative impacts on the endangered Piping Plover.

Recommendations:

The Government of Alberta should drop its proposal to divert water from the Red Deer River to Buffalo Lake.

If the government does not drop the proposal then the following should occur:

1. The Department of the Environment should withdraw as project proponent.
2. The people within the Department of the Environment who proposed this project should be fired or at least transferred to another department.
3. The Terms of Reference for the Review Board should be expanded to include the need for the project, the alternatives to the project and the overall socio-economic impacts of the project.
4. This review should be put on hold until the missing information has been supplied. In addition, the proponent should supply their detailed plans to mitigate the impacts, their plans to monitor the impacts and their contingency plan to respond to unpredicted impacts.
5. This review should be put on hold until the Government of Alberta has successfully mitigated the impacts of the first four phases of the Parlby Creek Channelizaion.
6. In order to avoid unnecessary duplication, the Government of Alberta should consider co-operating with the Federal Government in a joint review of the proposal.

Buffalo Lake Stabilization

The spending of 13 million dollars for raising the level of Buffalo Lake can certainly be questioned. The only apparent advantage of the project is to cover much of the wide beach that exists around the lake. At present it creates a long walk to the water for cottage owners and visitors. It would also reduce the saline deposits occurring in places.

This appears to be an excessively large amount to be spent on a rather unnecessary improvement for a comparatively small group of summer lake residents. The proposal comes at a time when severe cuts have been made by the government for much needed health, education and agriculture services.

Agriculture has been our basic industry in Alberta, and has profitted greatly from money spent on research by federal and provincial governments. Unfortunately recent governments are now tending to ignore this fact and are less interested in conducting the kind of basic research which has been done in the past. The C.A.S.C.I. program, set up to combat our very serious soil erosion problem is mostly concerned with re-introducing soil conservations measures that were developed during the 1930's--- less tillage to stop pulverising the soil, leaving stubble on the surface and even some return to strip farming. Rotating cereal crops with perennial hay mixtures is possibly their best recommendation as the later keeps the surface covered all the year round.

The development of perennial cereal crops would be of tremendous value in soil erosion control. The research required for such a project would take considerable time and money, but would be of tremendous benefit in erosion control. Unfortunately our democratically elected governemnts have a serious fault-- they tend to operate chiefly on a four year basis. Money is spent quite freely on projects requested by electors which can be completed before the next election.

Our legislators are very reluctant however, to finance a much more worthwhile undertaking if it will require a longer time to complete. An excellent example of this kind of expenditure occurred recently in Red Deer, when 70 million dollars was spent by the Provincial Government an a railway diversion; done apparently to avoid two level crossings. Over passes at these points

would have cost only a fraction of that amount. Even a portion of this money, used for plant breeding projects would have been of great value to Alberta farmers.

Farm population in Canada is now little more than three percent of the total. Provincial soil scientists are predicting that in fifty years they will be producing only enough food for Canadian consumption if we continue losing our soil at the present rate. As well as loss to wind and water erosion, urban and industrial expansion is also taking large areas of our best farm land. Possibly the time has come for the 97% of the population who are not farmers, to review their priorities. They should assist those who produce their food to develop a more efficient industry. They should make less demands for the development of recreation and amusement facilities, and other unneeded projects, which frequently will be granted prior to an election. Non-farmers in their own best interests should join with farmers to use every means possible to preserve the source of their food, the soil.

As Herb Sparrow stated :

It is not unusual for a provincial or any government to be interested in the next election. But there must be someone around interested in the next generation.

May 10, 1991

Parlby Creek - Buffalo Lake
Water Management Review Board
P.O. Box 15400
LACOMBE, Alberta
TOC 150

Dear Committee Members:

Re: Parlby Creek - Buffalo Lake Water
Management Project

On behalf of the businesses within the Village of Alix and surrounding area, the Alix Chamber of Commerce would like to encourage the Review Board to recommend to the Minister of Environment that the Parlby Creek - Buffalo Lake Water Management project be approved.

We recognize that the cost expenditure to complete this project is significant (\$13.1 million), but we feel that the benefits to the area will be far more significant than the costs over the long term. In particular, the Alix Chamber of Commerce feels that the following benefits have been underestimated in the environmental impact assessment.

1. Alix Lake Stabilization
2. Economic Spin-off from Visitors and Cottage Owners

Alix Lake Stabilization

The stabilization of the water levels in Alix Lake will help to enhance the recreation potential within the Village of Alix. The Village, in cooperation with Alberta Parks and Recreation, recently invested \$75,000. to improve the facilities for campers, boaters, and swimmers on Alix Lake. The stabilization of Alix Lake will help to increase the use of these facilities.

Stabilization of Alix Lake will also help to make the Village a more attractive place to live. The Village has over 50 housing lots available for sale in a subdivision adjacent to the lake. These lots will become more marketable with the improved water levels in the lake.

Increased use of the recreation facilities on the lake and the development of new houses in Alix will also result in an increase in the expenditures made in local businesses, increasing the economic benefit resulting from the Parlby Creek - Buffalo Lake Stabilization project.

Economic Spin-off

Alix is located on the major access route Highway 12, for visitors to the campgrounds and cottages on the south side of Buffalo Lake. Many businesses in Alix (gas stations, grocery stores, liquor store, hardware store, clothing and variety stores and restaurants) have traditionally experienced an increase in activity during the spring, summer and fall when the campers, cottage owners, fishermen and hunters travel to Buffalo Lake. The stabilization of Buffalo Lake will not only ensure that this activity continues but will help to increase the economic spin-off as the use of the lake grows.

The expansion of tourism and recreation activities in and around Alix will help to ensure the economic viability of the businesses in Alix. The Parlby Creek - Buffalo Lake Stabilization project will help the Village of Alix prosper and grow. The Alix Chamber of Commerce strongly urges the Review Board to recommend to the Minister of Environment that the Parlby Creek - Buffalo Lake Stabilization project be approved.

Respectfully Submitted



Jack Reynolds, President
Alix Chamber of Commerce

#1205
80 Point McKay Cr. N.W.
Calgary, Alberta
May 14, 1991

Stalilization of Buffal6-Lake
PO BOX 15400
Lacombe, Alberta

Dear Sirs:

This is our plea and fervent hope that Alberta Government's proposal to stabilize Buffalo Lake will become a reality.

The viability and health of this lake is a concern to all of Central Alberta. Improvemnet of beaches, fishing, water sports could make it the tourist attraction it used to be when the level of the lake was higher.

It will be an Environmental improvement as it will attract more water fowl for safe nesting grounds. Also it would very much improve living conditions for cottage owners as well as permant residence of Village of Rochon Sands and Pelican point, Boss Hill Community.

Urging you to say "YES!" to stabilization on Buffalo Lake, we are,

Yours truly,

Grace E. Sproule
P. J. Sproule

Dr. Charles Durham Bird
Box 165
Mirror, Alberta
T0B 3C0

13 May 1991

Don Thorne, Chairman
Buffalo Lake Water Management Project Review Board
Box 15400
Lacombe, Alberta
T0C 1S0

Dear Sir:

The following are my comments on the 3 volume, March 1991, **Parlby Creek-Buffalo Lake Development Project** report prepared by Environmental Management Associates, Calgary. Also included are my thoughts on the advisability of going ahead with the project to stabilize Buffalo Lake by pumping water through Parlby Creek from the Red Deer River.

Background Information

I am a retired biologist and have been living, and ranching, beside Buffalo Lake since late 1975. At the University of Calgary, I taught a variety of courses dealing with plant identification and ecology, including a course on the Algae which included field trips to Buffalo Lake. I am now often called upon to provide scientific background information on the natural environment of Parlby Creek and Buffalo Lake. I have carried out a number of studies in the area [see v 3, p 406] and have also communicated my views on the stabilization of the lake [esp. in a letter of 24 Sep 1989 to Premier Getty, letters of 10 and 22 Mar 1990 to Phil Ullman as printed in v 3 of the 1991 report, and a 28 Mar 1990 letter in The Stettler Independent].

General Comments on the Report

My overall reaction to the present report is favorable and I feel that the authors have generally given an accurate and realistic picture of the key issues. I am not an expert in the area of financial justification, although I feel that in times like the present when taxpayers are being asked to "tighten their belts" that government should do likewise unless a project can be proven to merit input costs. I would question Benefit items 1, 2 and 5 of

Table 3, p 43, v 1, as I foresee little further development and doubt that stabilization would result in any major increase in the benefits in these areas. If this is the case, the Benefit-Cost Ratio would be substantially lower. I am an expert in the area of the environment and, in this regard, I have a number of major concerns.

Major Concerns

1. Water Quality

In my opinion, the very heart of the present report, and the most critical consideration to be taken into account, when deciding whether to go ahead with stabilization or not, lies in the area of water quality. Would the addition of water from the Red Deer River have a deleterious effect on Buffalo Lake or would the effect be negligible? I clearly pointed out in my letters [see above] that I felt this to be the case and that I felt that the March 1990 preliminary report was very flawed in this area as it, in essence, said that the effects would be negligible even though three major government sponsored studies (Hardy Associates 1982, Alberta Environment 1984 and Alberta Environment 1987), in all of which Dr. Jan Crosby was involved, predicted dire consequences. In my letter of 10 Mar 1990 I stated, *"A serious and detailed attempt should be made to explain these different conclusions [ie. between the Crosby Reports and the 1990 Report] and show why the current authors feel that the conclusions reached in the earlier reports are incorrect. If this is not done, a reader could draw the conclusion that the earlier reports are being ignored. It is important to remember that the three earlier studies all dealt specifically with Buffalo Lake and that the bulk of the contrary work was done in other lakes."* I further stated in my 22 Mar 1990 letter that, if the above is not done, *"it [the final report] will have serious problems down the road when it undergoes critical review from the press and the scientific community"*.

After reading the final report, I am sorry to say that I still have the same worries that I expressed after reading the 1990 preliminary report. I had asked for a critical discussion of the differing points of view and this has not been done, except in a very cursory way. The authors of the present report, and I refer here especially to Appendix II, present a long report but barely address the key issues. They scarcely mention the three earlier, dissenting reports, in fact they do not even mention the first [ie. Hardy Associates 1982] of the three. **I am afraid that I do not trust the conclusions of people who appear to brush views that differ from their own "under the rug".**

I am not saying that the present authors are wrong and that Dr. Crosby was right. What I am saying is that the present report has not proven Dr. Crosby to be wrong and that if she is right then it would be a major mistake to allow the project to go ahead. I feel that we need an independent opinion from someone who is expert in this field. I would recommend that **Dr. David Schindler**, Killam Professor of Ecology at the University of Alberta, be given all relevant reports and asked for his opinion. He is a man of such worldwide stature in this field that his opinion would be one that could be trusted.

2. Effects on the Red Deer River

As stated in my letter of 22 Mar 1990, *"The opinion [in the preliminary report] is expressed that diversion of water from the Red Deer River to Buffalo Lake would have no significant effect on the river. I feel quite strongly, and I have talked with a number of scientists that agree, that an overall and detailed study needs to be made of the Red Deer River before any such statement can be made. The quality of the water in the river has been seriously affected by sewage effluents from Red Deer and from agricultural effluents from the Blindman River. The construction of the Dixon Dam reduced the river flow and, now, reduces the spring flow so that natural [downstream] flushing does not occur as in the past. I have a definite feeling that draw-downs for Buffalo Lake and for a [proposed] canal for eastern Alberta, on top of the water already being piped to Stettler, will further deleteriously affect the water quality of the river". It is not just simply a matter of making sure that, from a legal point of view, enough water is allowed to run downstream to Saskatchewan, it is a matter of making sure that the entire Red Deer River from Red Deer to the South Saskatchewan River be kept in a healthy and attractive condition.* Opinion has been expressed by various people that we need stabilization of Buffalo Lake to add dollars to the "tourist" industry. The same reasoning can be applied, in a much larger way, to the river valley. How would people at Big Valley, Rumsey, Morrin, Drumheller and Dinosaur Provincial Park feel if the beauty and quality of their river valley was adversely affected by decreasing the water flow? How would the downstream campers, sightseers, fishermen and canoeists react?

I feel that we do not now know enough about this matter to make a value judgement on whether or not to go ahead with stabilization. The present final report really does not address the issue. The planned public hearings are unlikely to have presentations from concerned people downstream and thus an important area of input may not be heard.

The government approach to an issue is often to look only at that issue and to pay little attention to the overall effect of a project. There never has been a detailed study of the entire Red Deer basin, and I am afraid that the present report ignores a number of important concerns.

Conclusion

I am not, and never have been, against stabilization. I live beside the Buffalo Lake Narrows and would like to see a vital and healthy lake. I have, however, seen many cases where problems have occurred when one interferes with the "balance of nature" and I would therefore like meaningful answers to the concerns that I have expressed above before stabilization is allowed to go ahead. I do not feel that the present report satisfactorily answers these concerns.

Sincerely,

C.D. Bird

Dr. Charles D. Bird

Appendix

Errors noticed in the report

v 2, p 57 - The cited reference "Bird 1988" is not listed in the list of references on p 406.

v 2, p 57 and 421 - The references to "Idaho Fescue" should be deleted as per my letter of 10 Mar 1990 which is reprinted in V 3.

v 2, p 416 - The "Spalding, 1980" reference should be deleted and be replaced by the following [see my abovementioned letter of 10 Mar 1990]:

Bird, C.D. 1980. 83A-5 Buffalo Lake Narrows. Pp. 163-165, in D. Spalding (ed.), "A nature guide to Alberta". Provincial Museum of Alberta Publication 5, Hurtig Publishers, Edmonton.

v 3, Appendix II, p 74 - Polygonum not Polygonium.

v 3, Appendix II, p 77 - acutus not actus.

Lorne & Kathy Thurston
Box 1723
Stettler, Alberta
TOC 2LO

Parlby Creek Buffalo Lake Water Management
Project Review Board
Box 15400
Lacombe, Alberta
TOC 1SO

May 21, 1991

Dear Board Members,

Re: Buffalo Lake Stabilization Project

A lot of time and money has been spent on whether or not to stabilize Buffalo Lake over the last few decades. I believe that now is the time for a decision and I think that it should be a positive one.

The main reason for my support of stabilizing Buffalo Lake is the excellent recreational potential that exists there. With most families these days having both parents working outside the home, recreation is becoming a more and more important ingredient in maintaining the family unit.

The location is excellent - within easy driving distance from most major centres as well as from numerous small and medium sized communities in central and east central Alberta.

Currently, with the level of the lake constantly changing from year to year, only those who are very familiar with the lake can boat and water ski in most areas because of rocks and sand bars.

The hills surrounding the lake provide an appealing setting for recreational activities as well as potential for good beach areas.

Aspen Beach at Gull Lake (a good example of how stabilizing can greatly increase recreational usage) and Sylvan Lake Beach are already over taxed with visitors and, though they are both excellent recreational areas, are not easily accessible to a lot of the Albertans who would use Buffalo Lake.

The costs of the stabilization that have been quoted include supplying water to Alix and Bashaw so I do not know how much will actually be attributed towards recreation. I do know that a very great deal of money was spent developing Kananaskis into the beautiful recreational area it is today. I also know that though many Albertans make use of this area, there are many who live in

the central Alberta region who cannot use the Kananaskis park because of the distance and the costs of going and/or staying there. Buffalo Lake will not be used by everyone either but it will provide an easily accessible and affordable recreation spot for a good cross section of Albertans from the north, south and east.

Also those rural people arguing against the stabilization may not understand that town and city people would like to enjoy a little of the quiet beauty of nature that farm families are able to enjoy every day. They might also want to think about their children and grandchildren who, because of changing times, may not be able to remain on the farm and might one day appreciate a lake near by that they can use for boating and swimming, picnicking and camping.

I believe we have the opportunity to start something that could become a legacy to future generations of Albertans and Canadians. I thank you for your time and attention and hope that you agree that the potential at Buffalo Lake should not be wasted.

Yours truly,

A handwritten signature in dark ink, appearing to be 'J. Lee' or similar, written in a cursive style.

May 21, 1991

Parlby Creek - Buffalo Lake Water
Management Project Review Board
P.O. Box 15400
Lacombe, Alberta
T0C 1S0

Dear Sirs:

On behalf of the Town of Stettler, the writer would ask you to consider the following comments in your deliberations in this regard.

Upon a review of the Battle River Country Marketing Plan for the period of April 1, 1991 to March 31, 1992, we note that the main purpose of 50% of the visitors into Battle River Country are for meeting with friends and relatives, which is considerably higher than the provincial average of 31%.

Accordingly, the Town supports the stabilization of Buffalo Lake as it becomes clear that the people are looking for something to do and are travelling into the area for this type of use. Therefore, the stabilization of the Lake will increase the length of the stay and the number of activities possible and consequently the stabilization for the Lake will increase the dollars spent in our community by these visitors.

We further note that travel information requests have increased 15.8% over the last year and that 20% of the

trips to Battle River Country are from visitors outside our zone such as sight-seeing tourists and for attending special events.

Further, we wish to add that the recent provincial park expansion compliments the development and stabilization of Buffalo Lake.

The Town of Stettler and the County of Stettler, through a joint community tourism industry plan, have both realized the significance and importance of Buffalo Lake in the tourism industry. The Town of Stettler and the County of Stettler have funded CTAP projects at Buffalo Lake, including the following:

Rochon Sands Marina - Total Project Cost
of \$30,000.00; CTAP - \$15,500.00

Ol MacDonald's Expansion - Total Project Cost
of \$41,530.46; CTAP - \$31,147.85

Ol MacDonald's Motel Units - Total Project
Cost of \$35,620.00; CTAP - \$27,465.00

Private enterprises, through the assistance of CTAP funding, have expanded their facilities at Buffalo Lake and as a consequence, usage and attendance figures at private campgrounds have increased. Other CTAP funding also includes:

Alberta Prairie Steam Tours - Total Project
Cost of \$103,879.00; CTAP - \$69,287.30

Stettler Elks Holding Society - Total Project
Cost of \$15,000.00; CTAP - \$11,250.00

Dubois Valley Ranch - Total Project Cost of
\$48,575.00; CTAP - \$30,000.00

The area of Buffalo Lake also compliments the stabilization project and the overall tourism attraction value in this area, and in particular, Alberta Prairie Steam Tours, the Dubois Valley Ranch and the proposed development of an eighteen hole golf course, through CTAP funding will all benefit from the overall improvement of the usage of Buffalo Lake through the stabilization program. The Town of Stettler also benefits from increased commercial sales from year round residents that live around Buffalo Lake.

Page 3
May 21, 1991

The Town of Stettler supports stabilization as adding stability to existing businesses, not only in the tourism industry, but throughout the commercial sector, and also by providing a stable water source for the agricultural industry in East Central Alberta.

Further, the development of major industries, including the Alix Malt Plant and the development of the Western Canada Lottery office and other industries in our area, will create a demand that further recreational areas be developed.

Accordingly, the Town supports the stabilization program as it will mean substantial economic spin-offs in our area and would provide support to the agricultural industry in East Central Alberta.

Thank you for allowing us to provide our opinion and comments in this regard.

Yours very truly,

A handwritten signature in dark ink, appearing to read 'Wayne L. Alton', with a long horizontal flourish extending to the right.

WAYNE L. ALTON
Town Councillor

WLA/dt

PARLBY CREEK - BUFFALO LAKE
Water Management
Project Review Board

Dear Sirs:

As landowners around the portion of Buffalo Lake known as Rockling (Rockland) Bay we the undersigned wish to express our concern to the project review board with respect to the stabilization project. Rockling Bay is a natural portion of Buffalo Lake and the land surrounding it, which is predominantly rolling hills with a considerable amount of rock, is mostly suitable for pasture land. However, if the stabilization plan intends to restrict the natural water flow into this bay to conserve water in the main body of the lake or to reduce the amount of water needed to elevate the water level in the lake, the water supply for our pastures would be in jeopardy. There already exists a man made dirt dam with culverts between Rockling Bay and Buffalo Lake which causes us to consider the water supply to the bay as tentative.

Some land titles for land bordering Rockling Bay read "to the waters of Buffalo Lake" which substantiates our position that it be maintained as part of the lake and that the natural flow of water to this bay not be restricted. Because this body of water is an essential water source for our pastures, we strongly feel that we need reassurance that water flow to this bay will not be tampered with and therefore inhibit our ability to utilize the land we own and gain our livelihood from.

NAME:

SIGNATURE:

LAND LOCATION:

D PEARSON
LAYTON VALLET
Astrud Rider
Dale Rider
LINDA RIDER
RONALD RIDER

Ted Pearson
Clayton Vallet.
Astrud Rider
Dale Rider
L. Rider
Ronald Rider

NE 28-41-20 W4
NW 28-41-20 W4
NW 12-41-20 N4.
SW 13 41-20 W4
SW 13-41-20-W4.
N $\frac{1}{2}$ 14-41-20-W

A SALMON
SON'S RANCHES LTD)

Alec Salmon
J. Salmon

E $\frac{1}{2}$ -24-41-20-W4
W $\frac{1}{2}$ -19-41-19-W4

DEREK D LICKERT

Derek D Lickert
Per. H. Alec Salmon

NW $\frac{1}{4}$ -24-41-20-W4
NE $\frac{1}{4}$ -23-41-20-W4
SE $\frac{1}{4}$ -25-41-20-W4

REFERENCE RANCH LTD.
PHILIP TROUT

L. France
Per. H. Alec Salmon
P. A. Trout

SE $\frac{1}{4}$ 26-41-20-W4TH

MARGARET VALLET

M. Vallet

NE 21-41-20-W4
SE 21-41-20-W4
NW 28-41-20 W4

Bashaw, Alberta
April 16, 1991

Parlby Creek - Buffalo Lake Water
Management Project Review Board
5004 - 47A Street, Lacombe, Alberta
Box 15400
Lacombe, Alberta
TOC 150

Dear Sirs:

This is a request for intervenors under Ministerial order
No. 04191 - The Parlby Creek - Buffalo Lake Development Project.

We wish to commission a consultant familiar with the Tourism
Industry to reassess the economic impact of the project on the
area surrounding Buffalo Lake.

We believe that there are a number of factors which the
socioeconomic component either did not take into consideration or
did not take into proper perspective.

These factors include:

- a). The multiplier or spread effect of current
camping on the shores of Buffalo Lake.
- b). The potential for additional camping experiences
around Buffalo Lake.
- c). The recently announced Malt Barley plant slated
for construction near the village of Alix and its;
 - i) impact on additional village requirements
for accommodation.
 - ii) additional 'other' residential requirements.
 - iii) multiplier effect on area businesses.
 - iv) benefits of an alternate water supply for
the business for emergency and ancillary
requirements.

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DY

- d). The recently announced new Provincial camping fee structure and its effect on quality experiences.
- e). The potential lengthy escalation on cottage locations, as opposed to the one year scenario adopted by the assessment team.
- f). The recently announced Lottery building move to Stettler and its impact of some 60 families moving to the area.
- g). The potential development of a cogenerating station on the outskirts of Stettler and its impact on the area by;
 - i) the creation of 110 jobs in phase one of the operation.
 - ii) the impact of these families in the potential of accommodation requirements.
 - iii) the impact of these families on potential recreational activities.
 - iv) the impact on the area by the continued operations and expansion of the project.
- h). The economic impact on two small municipalities in this province by the assured water supply which would be offered. We believe that the situations were viewed to lightly.

We have contacted two consultant firms for quotes, and hereby request funding to hire one of them or another of choice.

Their estimate to do a proper job of this assessment is (\$10,000.00), Ten thousand dollars. They both expressed concern that a superior quality assessment is required for this such a controversial issue. Their document would be under considerable scrutiny, both by media and the public.

Time is of the essence and we as the friends of Buffalo Lake hereby submit this request for your consideration. We love our lake and want it to be looked at by the general public in a proper economic light, and believe the current assessment should be taken to task by professionals.

Thankyou for your consideration of our situation.

Yours truly

A handwritten signature in dark ink, appearing to read 'Angus Braseth', with a long horizontal flourish extending to the right.

Angus Braseth
Chairman, Friends of Buffalo Lake

May 13, 1991

Mr. Donald Thorne
Chairperson
Parlby Creek - Buffalo Lake
Water Management Project Review Board
P.O. Box 15400
5004 - 47A Street
Lacombe, Alberta
T0C 1S0

Dear Mr. Thorne

Re: Parlby Creek - Buffalo Lake Water Management Project
Review Board Review Process

Thank you for sending us notification of the public review of the environmental impact assessment for this project. We wish to convey to you our concerns and wishes regarding Buffalo Lake stabilization.

We have been cottage owners bordering Buffalo Lake since 1978, and before that time, we were frequent visitors. From 1978 until the present, we have had hopes that stabilization would sometime be a reality. We have watched Buffalo Lake overflow its normal level (1974 and 1975) and have contended with a morass which could have been likened to the Florida swamps. Since the mid-1970's, we have futilely observed Buffalo Lake shrink in water level and quality. The Lake seems to be dying.

Unless a revitalization in the form of stabilization occurs, perhaps Buffalo Lake is doomed. If the Lake is allowed to deteriorate further, many aspects of life for both the wildlife and human population will be severely curtailed.

Water and shore birds would undoubtedly suffer if the water level is not stabilized. A constant and ensured water level resulting from stabilization would provide these birds with the habitat necessary for their survival in this region. We are sure you are aware that wetlands in the east-central portion of Alberta are becoming less abundant owing to a myriad of reasons. To knowingly not intervene in the maintenance and continuance of a vast habitat that Buffalo Lake provides, would not only be short-sighted but also irresponsible.

We have reviewed Volume One - Summary Report of Environmental Impact Assessment produced by Environmental Management Associates. In particular, the section concerning Socio-Economic Impacts should be addressed. We agree that recreation and tourism would represent "the dominant economic sector" affected by Buffalo Lake stabilization. This is a very positive statement when the economy of Alberta must be diversified in order to compete nationally and internationally. What better route could be chosen in east-central Alberta to influence diversification than to stabilize and at the same time, revitalize a natural resource such as Buffalo Lake?

If stabilization occurred, economic benefits to the area surrounding Buffalo Lake would accrue. Of course, exact monetary increases for the region would be impossible to forecast, but both short-term and long-term benefits would be a direct effect of stabilization.

Short-term economic benefits would centre around the flow of capital required to stabilize Buffalo Lake. Long-term economic benefits would probably be generated by an increased public use of the Lake for recreational purposes, in other words, tourist dollars. Naturally, public use of a provincial recreational facility is dependent upon many factors - not the least of which is knowledge of the facility's existence. The private campground owners have achieved increased patronage because of advertising, perhaps public facilities would be used more if the same device was instituted.

There has recently been some negative criticism by the media and by the provincial opposition parties to the proposed Buffalo Lake stabilization. This criticism is unfounded and seems to be only politically motivated. In our opinion, it is vital that stabilization of Buffalo Lake occurs without further delay.

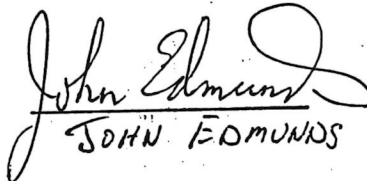
We are concerned cottage owners, but more importantly, we are concerned Albertans who sincerely believe that Buffalo Lake stabilization is now necessary and viable. Tourism in Alberta, as we know, is the third largest industry. Unfortunately, a large share of the income generated from tourism is not currently being earned in the region surrounding Buffalo Lake. This failure could in large measure be alleviated by the improvement of the Lake for the recreation and travel industry. Private entrepreneurs cannot successfully market a declining, ugly lakeshore, a lakeshore which is forever changing (mostly receding in the past decade). Private industry will not invest in the development of tourist facilities adjacent to a lake where water quality ("swimmer's itch"), stagnant conditions (the north side of the Rochon Sands Provincial Park breakwater) and boat launches made unusable because of low water levels.

We thank you for giving us this opportunity to convey our thoughts and hopes regarding the future of an important natural resource. We sincerely feel that Buffalo Lake stabilization in the near future will prove to be a wise and beneficial decision for Albertans.

Yours sincerely


Lorne Postma


Rosemary Postma


JOHN EDMUNDS

BUFFALO LAKE STABILIZATION PROJECT

AN EVALUATION OF WATERFOWL IMPACTS

DUCKS UNLIMITED CANADA
JANUARY 1990

Executive Summary:

To evaluate the effects of the Buffalo Lake Stabilization Project on waterfowl and their habitats the project was divided into six components comprising past and proposed works. The area affected by the proposal provides some excellent habitat for waterfowl production, staging and moulting. An accurate assessment of the potential impacts of the project was not possible, in some cases, due to data deficiencies. Specifically, detailed survey information for Buffalo Lake will be required to facilitate a detailed evaluation. The greatest potential for negative waterfowl impacts occur in the Parlbay Creek - Phase IV and Buffalo Lake components. Major negative impacts on waterfowl were identified as a result of the past works undertaken in Spotted Lake. Lesser negative impacts may occur on wetlands south of Alix and along Tail Creek. Potential positive impacts of the project relate to possibly improved water levels in wetland habitat south of Alix and on Buffalo Lake. Management recommendations to mitigate potential negative impacts include the provision of adequate brood salvage habitat, diversion of water to off-channel wetlands, additional water control structures, intensive management of Buffalo Lake bays and construction of waterfowl nesting structures.

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1.0 Introduction

In response to local requests for the stabilization of water levels in Buffalo Lake, Alberta Environment has commissioned an independent comprehensive Environmental Impact Assessment (E.I.A.) of the effects of the project on Buffalo Lake, Parlby Creek and Tail Creek. The proposal involves the pump-facilitated diversion of water from the Red Deer River through a conveyance system comprised of a pipeline, canal system and continuation of channel improvements to Parlby Creek (Figure 1). A water control structure is proposed to stabilize Buffalo Lake with associated improvements undertaken on Tail Creek to convey excess water from Buffalo Lake to the Red Deer River. Specific objectives of the project are the provision of an assured water supply for the towns of Alix and Mirror, the enhancement of recreational opportunities at Buffalo Lake and the improvement of agricultural benefits along Parlby Creek and Spotted Lake. As part of the E.I.A. preparation process, Ducks Unlimited Canada, was approached by the principal consultant (Environmental Management Associates) to provide an evaluation of the effects of the Buffalo Lake Stabilization Project proposal on waterfowl and their habitats. For the purpose of this evaluation the project was divided into six components comprising past and proposed works. Existing waterfowl habitat conditions, waterfowl impacts (past and potential) and proposed mitigation are presented. Data deficiencies which limit ability to assess impacts with a high degree of confidence are identified where applicable. Waterfowl production estimates for backflood irrigation components were calculated using data from the Ribstone Creek Irrigation System (Nelson and Clay, 1984).

The project area is located within the Aspen Parkland ecoregion of central Alberta. Lying primarily within the Buffalo Lake Moraine, adjacent topography is described as rolling to undulating. The area has significant value as waterfowl production, moulting and staging habitat containing two "Wetlands for Tomorrow" sites (Buffalo/Spotted Lakes). The Buffalo Lake Moraine was chosen as the site of Alberta's "First Step" Project of the Prairie Habitat Joint Venture, a component of the North American Waterfowl Management Plan. The project area is almost exclusively designated as C.L.I. Class I waterfowl production habitat (Jakimchuk, 1970). Surrounding uplands are primarily cultivated, hayed and pastured reflecting agricultural intensification.

2.0 Spotted Lake

2.1 Project Overview:

Spotted Lake is located in the aspen Parkland ecoregion of central Alberta, approximately 2.0 km north-west of the town of Mirror. The lake is located at the western edge of the Buffalo Lake moraine. Surrounding topography is described as undulating to rolling. Spotted Lake drains eastward into Buffalo Lake 6 km downstream via Parly Creek.

Spotted Lake was once a productive wetland encompassing approximately 1377 ha. However, drainage and eutrophication has reduced the wetland's size and productivity. Today the lake consists of approximately 959.6 ha of hay meadow and only minimal permanent water (12.3 ha). The lake is overgrown with sedge and cattail.

Historically, Spotted Lake was important not only for waterfowl, shore birds, and aquatic furbearers but as a spawning ground for northern pike from Buffalo Lake. The changes to the lake have reduced its value for wildlife.

Traditionally, area landowners have used the basin for hay production and as pasture. The majority of the basin is Crown land. Use of the Crown land is regulated by Alberta Public Lands Division through hay and grazing permits. Spotted Lake has been investigated for its waterfowl habitat development potential since the late 1960's.

In 1982, Spotted Lake was identified as a potential "Wetlands for Tomorrow" project. The lake was to be developed in conjunction with waterfowl enhancements undertaken on Buffalo Lake. Conceptual designs and management plans were developed by Ducks Unlimited Canada, Alberta Fish and Wildlife Division and Alberta Environment. These designs emphasized a multiple-use concept which would benefit wildlife, fisheries and agriculture.

The concepts proposed a system of dykes and control structures to maintain an area of permanent water to act as brood salvage habitat and to provide backflood irrigation to hay and pasture lands. The backflooded area was also to restore the spawning ground for pike.

Unfortunately, negotiations to develop a suitable compromise of the various interests failed. An agreement could not be reached on the provision of

adequate brood salvage habitat for the large backflood. In 1986, Ducks Unlimited Canada put the project on hold. In the meantime, channel improvements to Parlbay Creek and a control structure on the outlet of Spotted Lake were constructed by Alberta Environment. These works permit operation of the Lake as a complete backflood with little or no benefit to waterfowl and other wildlife.

Low water levels in recent years have resulted in the further deterioration of wetland habitat allowing agricultural activities to encroach further into the basin. In the spring of 1988, the majority of the basin vegetation was burnt.

Spotted Lake is located at the western edge of the Alberta "First Step" Project of the North American Waterfowl Management Plan. The "First Step" Project implementation began in 1989.

2.2 Waterfowl Impacts:

The current operational regime creates an extensive (959.6 ha), shallowly flooded area which is particularly attractive to breeding pairs of waterfowl during the spring breeding period. Waterfowl production arising from the Spotted Lake backflood could be substantial. A preliminary waterfowl production estimate based on the current operational regime of Spotted Lake is as follows:

Total Flooded Area @ FSL (ha)	Waterfowl / Annum	Waterfowl over 30 yr Project Life
959.6	2625	78,750

Due to the temporary nature of the Spotted Lake backflood, which is almost totally de-watered annually to accommodate local haying operations, it is essential that adequate permanent water be proximate until the birds produced reach the flight stage. Permanent water is essential to the survival of waterfowl broods which are produced on Spotted Lake. The provision of the backflood in the absence of adequate brood salvage habitat has in effect created a "waterfowl trap" resulting in substantial brood mortality. It is reasonable to assume that the survival rate of waterfowl broods produced on temporary backfloods which do not have adequate permanent water within a reasonable distance (1.0 km), may be well below 30%. (Tomasz Sankowski, per. comm.) The importance of incorporating adequate water permanency into

Spotted Lake is apparent when waterfowl production is considered.

Ducks Unlimited Canada's experience suggests that a minimum of 25% of the total spring flooded area must remain as permanent brood salvage habitat to support the breeding population and their young. Optimally a brood salvage area in excess of the 25% minimum should be made available to enhance waterfowl habitat conditions and consequently brood survival.

2.3 Management Recommendations:

In the fall of 1989 Ducks Unlimited Canada prepared and submitted a Waterfowl Habitat Management Plan for Spotted Lake to Alberta Environment, Alberta Fish and Wildlife Division and Alberta Agriculture for review. The proposal, involving backflood management and the provision of permanent brood salvage habitat, was aimed at providing partial mitigation for the deleterious impact of the Spotted Lake project on the waterfowl resource. For the purpose of this report, two management scenario's are presented. Proposal I is the above-noted management plan which would, if implemented, provide partial mitigation. Proposal II identifies brood salvage requirements (25%) to provide adequate mitigation. Proposal II is Ducks Unlimited Canada's preferred management concept providing adequate brood salvage which should have been integral to the original Spotted Lake project.

It must be stressed that the contents of these preliminary proposals are conceptual only and modifications may be necessary pending final design.

2.3.1 Backflood Management:

Recommendations for management of the Spotted Lake backflood are identical for both Management Proposals and are based on research conducted on the Ribstone Creek Irrigation Project in east-central Alberta (Nelson and Clay, 1984). This management regime is proposed to maximize duck and hay production from Spotted Lake.

1. An annual phased drawdown is proposed to be initiated May 15 to be completed by the end of June for the backflood compartment. Approximate drawdown schedule is as follows:

DATE	STAGE
May 15	Commence drawdown
June 7	"Bank Full Level"
June 30	Complete drawdown

2. Achieve the first stage of drawdown by the end of the first week of June. Maintain water levels at the "Bank Full Level" to ensure continued saturation of the substate. This results in excellent subsurface irrigation necessary for maximum forage production.

3. The full drawdown needs to be timed such that the hayed area is dry by August. The first week of August is considered optimal for haying because forage biomass is at its maximum as are the total available digestible nutrients. From a waterfowl standpoint almost all nesting is completed. To minimize the impact on nesting waterfowl, haying activities within the backflood compartment must not commence prior to July 15 annually.

4. It is important that water levels not increase after the drawdown has begun to minimize nest loss due to reflooding of exposed areas.

5. Complete haying activities early enough to ensure adequate regrowth to provide nest cover for the following year. August 21 is suggested as the latest date for cutting.

6. At the full drawdown elevation, maintain water within Parlby Creek and associated channels to provide additional brood rearing habitat and facilitate brood movement to permanent water.

2.3.2 Permanent Brood Salvage Habitat:

Ducks Unlimited Canada's Spotted Lake proposal will address the absence of brood rearing habitat through provision of a permanent salvage basin. Spotted Lake will be backflooded using the existing outlet control structure on Parlby Creek. Within the Spotted Lake basin, dyking is proposed to maintain an area as permanent brood salvage habitat. The respective proposals will have the following approximate characteristics:

	(Total Area (ha))			Percent(%)
	Backflood	Salvage	Wetland	Salvage
Proposal I	834.2	125.4	959.6	13
Proposal II	719.7	239.9	959.6	25

Proposal I

1. A dyke is proposed to create an area of brood salvage habitat within the Spotted Lake basin (Figure 2). At the proposed Summer Operating Level (S.O.L.), approximately 13% of the total

spring flooded area will remain as permanent wetland habitat providing partial mitigation.

2. A variable water control structure is proposed for the salvage compartment to facilitate intensive management as required to maximize biological productivity.

3. The maximum size and configuration of the proposed salvage compartment has been determined by the availability of currently vacant Crown lands with seasonal haying permits within the Spotted Lake basin. Ducks Unlimited Canada is currently involved in the process of making application for a miscellaneous lease on these lands to facilitate development.

Proposal II

1. Dyking is proposed to create a permanent area of brood salvage habitat within the Spotted Lake basin. At the proposed Summer Operating Level (S.O.L), approximately 25% of the total spring flooded area will remain as permanent wetland habitat providing adequate mitigation.

2. A variable water control structure is proposed for the salvage compartment to facilitate intensive management as required to maximize biological productivity.

3. Location, configuration and design of the brood salvage compartment will ultimately be dependant on management requirements, engineering feasibility, cost:benefit considerations and land disposition. Design will most likely involve construction of additional compartment(s) to that detailed in Proposal I.

2.4 Waterfowl Production:

The proposed management of Spotted Lake, if implemented, will alleviate the current "waterfowl trap" situation as well as enhance both forage and waterfowl production from the backflood. Preliminary production estimates for the two water management proposals are presented as follows:

	Broods /Annum	Waterfowl /Annum	Waterfowl over 30 yr. Proj. life
Proposal I	403	2015	60,450
Proposal II	576	2880	86,400

2.5 Engineering Considerations:

The following engineering considerations were prepared for Proposal I for inclusion in the aforementioned management plan submission. Although engineering considerations will be similar for Proposal II the major items of engineering works will reflect the larger scale development and inherent design criteria.

Proposal I:

The Spotted Lake permanent brood water proposal has been reviewed from an engineering perspective and is considered feasible, although difficult geotechnical conditions will make the project relatively expensive to construct.

There appears to be sufficient inflow to support the proposal, although detailed hydrological calculations may show that the project cannot be expected to operate at FSL in all years. Some minor reduction in production estimates may be required.

Foundation conditions are not favorable for a side borrow operation. Therefore, construction of dykes will have to utilize imported fill and strict construction techniques. Previous soil testing has indicated that the foundation contains significant deposits of marl and sand. The proposed dyke is to have a final cross section with 4:1 side slopes and a 4m top. The dyke will have to be overbuilt significantly to account for the expected large foundation settlements. As well, the dyke will have to be built in stages to prevent foundation failures that could be caused by excessive pore pressures in the foundations. Due to the sand in the foundation some leakage can be expected and although this may not be significant to water levels, this seepage water will have to be effectively drained to prevent salinization of the soils adjacent to the dyke.

Due to the large open fetch that the dyke will be exposed to, some form of erosion protection will be required. It is assumed this will be accomplished through the use of granular protection although the use of a protective berm should be considered in the final design.

The hydraulic design for this proposal is fairly straightforward. A structure will be required that will allow the permanent area to be brought

up to the same level as the backflood in the spring and then contained by the ring dyke as the backflood is drawn down. A further hydraulic consideration that has not been analyzed at this time is the effect that the establishment of the permanent water area will have on the overall hydraulics of Spotted Lake, Spotted Creek and Parlby Creek. The routing effects of Spotted Lake will be diminished and the effects of this on other existing and proposed works will have to be considered.

Proposal I would consist of the following major items of engineering works:

- 180,000 m³ of Borrow Material for Dykes
- 7,200 m³ of Granular Material for Erosion Protection
- 20 ha of Reclamation
- 2650 lin. m of Toe Drains
- 2 Double 1200 CSP Box Control Structures

The estimated cost for these works is \$700,000.

3.0 Parlby Creek --- Phase I, II, III

3.1 Project Overview:

Channelization of Parlby Creek was implemented in 1985 by Alberta Environment to alleviate associated flooding problems and to provide backflood opportunities for agricultural enhancement within Spotted Lake. The construction, to date, of Phase I, II and III of Parlby Creek channelization between the town of Mirror and Buffalo Lake has been completed at a total cost of \$2,358,508.00. Development to date is summarized as follows:

Phase I - constructed in 1986 between Buffalo Lake and Highway No. 21 at a cost of \$777,801.00.

Phase II - constructed in 1987 between Highway No. 21 and Spotted Lake at a cost of \$922,311.00.

Phase III - constructed in 1988 between Spotted Lake and Highway No. 50 near Mirror for a cost of \$688,396.00.

The topographic conditions are variable along the reaches of Parlby Creek where channelization has been completed. The reach between Highway No. 50 to, and including Spotted Lake is characterized by a poorly defined channel and an associated flat and very wide flood plain. In the reach from

Spotted Lake to Buffalo Lake the gradient steepens and adjacent woody vegetation is more prevalent. Surrounding landuse is exclusively agricultural devoted primarily to hayland, pasture and cereal grain production.

The lands involved in Phase I, II, and III are rated exclusively as C.L.I. Class I Land Capability for waterfowl. Lands in this Class have no significant limitations to the production of waterfowl. Capability on these lands is very high. They provide a wide variety and abundance of important habitat elements. Rolling topography is well suited to the formation of wetlands.

Surveys of broods and post-breeding waterfowl were conducted along the length of Parlby Creek, including flooded wetlands, between the town of Alix and Buffalo Lake on July 16, 17, 30, 31, 1981 (Young, 1981). A total of 62 broods were observed with mallard (39%) and blue-winged teal (27%), the predominant species encountered. The majority of the broods were observed on Parlby Creek (68%), with the balance encountered on the channelized portion of Spotted Lake. A total of 206 post-breeding adult ducks were observed on two surveys of Parlby Creek between Alix and Buffalo Lake. The majority of the birds were utilizing Parlby Creek with relatively few birds observed on the channelized portion of Spotted Lake.

3.2 Waterfowl Impacts:

The waterfowl impacts directly attributable to the development of Spotted Lake have been addressed in the preceding section. The construction of Parlby Creek - Phase I, II, and III involved the channelization of approximately 4.7 km of existing creek channel beginning approximately 1.0 km upstream of Highway No. 21 and continuing downstream to Buffalo Lake. This channelization has ultimately resulted in a loss in natural riparian habitat, and consequently, some unquantifiable loss of waterfowl habitat along this reach of Parlby Creek. The impact on waterfowl of these works would be dependent, to some extent, on the availability of permanent water maintained within the natural creek channel prior to construction. Permanent water areas were undoubtedly maintained within the natural channel as a result of debris, beaver activity, etc. The natural creek channel would have provided breeding pair space (lengthy convoluted shoreline) as well as important brood salvage habitat, particularly

during low water years when other wetlands were dry.

Elsewhere, Phase I and II construction primarily involved the re-routing and excavation of new water conveyance channel leaving the natural creek channel intact and minimizing waterfowl impacts. Although the new channelization has created additional open water areas, it functions primarily as a travel corridor for waterfowl with inherent productivity limited by configuration and excessive depth. With the exception of Spotted Lake, no on-stream wetlands have been adversely impacted by the Phase I, II, and III developments. Improved drainage, resulting from Parlby Creek channelization, reduces the likelihood of uncontrolled flooding and hence minimized waterfowl nest loss on adjacent uplands.

3.3 Management Recommendations:

1. Undertake the works necessary to ensure the retention of permanent water in the remaining natural Parlby Creek channel including oxbows resulting from construction cut-offs. This may involve the incorporation of grade control structures and/or the diversion of water from the newly excavated channel as warranted.

2. The Carlyle control structure is operated by the landowner to create a spring backflood of approximately 36 ha in size adjacent to Parlby Creek (E 1/2 27-40-22-W4). Initiate landowner negotiations in an attempt to have backflood management conform to guidelines specified in Section 2.0 (Spotted Lake) and 4.0 (Parlby Creek - Phase IV). Brood salvage habitat is available in the proximate Buffalo Lake.

3. Divert water from Parlby Creek via Carlyle backflood into small (7.2 ha) wetland located NE 27-40-22-W4 to maintain wetland at a productive water level. Security and management of this wetland would augment adjacent brood salvage habitat for the Carlyle backflood as well as other non-permanent wetlands in the area.

4.0 Parlby Creek - Phase IV

4.1 Project Overview:

The proposal involves the channelization of Parlby Creek between the towns of Alix and Mirror which is scheduled for 1990. The estimated cost of Phase IV construction is \$1,500,00.

Topography adjacent to Parlby Creek is flat in this reach with the main channel meandering and poorly defined. The associated flood plain is very wide and flat existing as vast hay flats. These hay flats consist of predominantly wet meadow grass species which are typically hayed in this area. In recent years landowners have tended to rely increasingly on the hay and pasture production from the flats. However, flood related crop loss has paralleled the demand for increased hay production. The primary problem is the reflooding of hay flats during the harvest period as a result of summer storms and relatively poor drainage inhibited by siltation, aquatic weed growth, vegetative debris and lack of slope.

**4.2 Proposed
Development:**

The proposed development of Parlby Creek - Phase IV, involving channel improvements and water control structure(s), is intended to provide flood control and backflood irrigation along approximately 10,700 metres of creek channel between the town of Alix and Highway No. 50

The proposed operation of Parlby Creek - Phase IV will simulate existing spring flood conditions to provide backflood irrigation to adjacent hay meadows and subsequently provide flood control during the summer months to ensure harvest.

**4.3 Preliminary
Design Criteria:**

At present two conceptual designs are being evaluated by Alberta Environment to provide water management along this section of Parlby Creek with design criteria subject to review and approval by the project manager and the implementation committee. These conceptual designs are outlined as follows:

Design 1: Involves channel improvements to Parlby Creek with the designed discharge corresponding to the 1:20 year summer flood peak and the development of two separate backflood operations. The Mirror dyke and associated water control structure are proposed to be located approximately 50 metres south of Highway #50 to provide backflood irrigation within the natural flood plain which is contiguous to Parlby Creek. A second dyke (Tanglefoot), to be located approximately 5,800 metres upstream of the proposed Mirror dyke, will provide an additional backflood compartment located north of the town of Alix, Alberta. At the maximum backflood elevation

(Full Supply level = 786.70 m) the Mirror dyke will create a spring backflood affecting approximately 425 ha. The proposed Tanglefoot dyke will create a smaller backflood of approximately 240 ha at a maximum backflood elevation of 787.30 m.

Design 2: Involves channel improvements to Parlby Creek with the designed discharge corresponding to the 1:10 summer flood peak and the development of a single backflood operation. The Mirror dyke and associated water control device will constitute the solitary control structure creating a spring backflood affecting approximately 760 ha at a full supply level (FSL) of 787.30 m.

4.4 Waterfowl
Impacts:

Operation of the proposed backflood(s) at the proposed control level(s) will create extensive, shallowly flooded areas which will be particularly attractive to breeding pairs of waterfowl during the spring breeding period. The annual short duration flooding of lands within the proposed backflood compartment(s) will also serve to improve upland nesting cover for waterfowl as well as increase forage yields for the affected landowners. Potential waterfowl production arising from the proposed backflood operation is substantial. Preliminary waterfowl production estimates for the two conceptual water management designs are presented as follows:

Design	Total flooded Area @ FSL(ha)	Waterfowl /Annum	Waterfowl over 30 yr. Proj.life
1	665	2490	74,700
2	760	2850	85,500

Integral to the retention of aquatic wildlife habitat along Parlby Creek is the development of permanent water areas which will function as brood salvage habitat. Due to the temporary nature of the adjacent backflooded areas, which will be drawn down to accommodate local haying operations, it is essential that adequate permanent water be located nearby until the birds produced from these areas reach the flight stage. Permanent water is essential to the survival of waterfowl broods which are produced on these large backflood compartments. Without water permanency these backflood operations will function as "waterfowl traps", stranding waterfowl broods and resulting in substantial brood mortality. It is reasonable to assume that the survival rate of waterfowl broods produced on temporary backfloods which do

not have adequate permanent water within a reasonable distance (1.0 km), may be well below 30%. (Tomasz Sankowski, per. comm.) The importance of incorporating adequate water permanency into the proposed backflood schemes becomes apparent when the waterfowl production potential is considered. Ducks Unlimited Canada's experience suggests that a minimum of 25% of the total spring flooded area must remain as permanent brood salvage habitat to support the breeding population and their young. Optimally brood salvage area(s) in excess of the 25% minimum should be made available to enhance waterfowl habitat conditions and consequently brood survival.

4.5 Management Recommendations:

It is our general recommendation that if the Parlbay Creek - Phase IV proposal is to proceed as an Alberta Environment water management project that it be designed as a multi-use development for agricultural forage production and wildlife habitat enhancement. It is imperative that measures be taken to mitigate the impacts of the present proposal on the wildlife resource. Furthermore, that such measures be included as an integral component of this development.

Specific recommendations focus on backflood management and the provision of permanent brood salvage habitat. In formulating the following specific recommendations two assumptions were made:

1. Given the scope of the Buffalo Lake Stabilization Project monies will be available for land acquisition.

2. The Parlbay Creek - Phase IV development will proceed according to Design 2 (single backflood control structure establishing a Full Supply Level (FSL) of 787.30 m. Design 2 has gained wider acceptance by Alberta Environment and affected landowners (Ray Kerber, per.comm.)

It must be stressed that the contents of this preliminary proposal are conceptual only and modifications may be necessary pending final design.

4.5.1 Backflood Management:

1. An annual phased drawdown is proposed to be initiated May 15 to be completed by the end of June for the backflood compartment. Approximate drawdown schedule is as follows:

Date	Stage
May 15	Commence drawdown
June 7	"Bank Full Level"
June 30	Complete drawdown

2. Achieve the first stage of drawdown by the first week of June. Maintain water levels at the "Bank Full Level" to ensure continued saturation of the substate. This results in excellent subsurface irrigation necessary for maximum forage production.

3. The full drawdown level needs to be timed such that the hayed area is dry by August 1. The first week of August is considered optimal for haying because forage biomass is at its maximum as are the total available digestible nutrients. From a waterfowl standpoint almost all nesting is completed. To minimize the impact on nesting waterfowl, haying activities within the backflood compartment must not commence prior to July 15 annually.

4. It is important that water levels not increase after the drawdown has begun to minimize nest loss due to reflooding of exposed areas.

5. Complete haying activities early enough in the season to ensure adequate regrowth to provide good nest cover the following year. August 21 is suggested as the latest date for cutting.

6. At the full drawdown elevation, maintain water in the excavated channel to provide additional brood rearing habitat as well as a travel corridor to more permanent brood rearing habitat within the compartment.

4.5.2 Permanent Brood Salvage Habitat:

1. For the purpose of this report two separate backflood operations have been delineated (Figure 3). The southern most area is designated as the Tanglefoot Backflood and the isolated permanent water will be referred to as Compartment I. The northern floodplain will be referred to as the Mirror Backflood with Compartment II the designated permanent water or salvage area.

Tanglefoot Backflood

Dyking is proposed to create a permanent brood salvage compartment of approximately 67 ha in size. At the proposed backflood control level of 787.30 m, the brood salvage compartment will

comprise approximately 28% of the total flooded area under spring backflood. The Normal Operating Level (NOL) established for Compartment I may deviate from the 787.30 m elevation dependent on refined design and management considerations.

Mirror Backflood

Dyking is proposed to create a permanent brood salvage compartment approximately 170 ha in size. At the proposed backflood control level of 787.30 m, the brood salvage compartment will comprise approximately 33% of the total flooded area under spring backflood. The Normal Operating Level (NOL) established for Compartment II may deviate from 787.30 m elevation dependant on refined design and management considerations. An excavated channel is required to allow for management of wetland located in E 1/2 and W 1/2 section 8-40-22-W4 to maximize the area of controlled brood salvage habitat.

2. Collectively Compartment I and Compartment II would comprise 31% of the total flooded area under spring backflood within the proposed Parlbay Creek - Phase IV development.

3. Variable water control structures are proposed for the brood salvage compartments to facilitate intensive management of these areas as warranted in the future to maximize biological productivity.

4. Oxbow channels within the backflood areas will be left intact to provide additional brood salvage habitat during the summer months. Similarly, lateral ditching of low lying areas which would otherwise provide additional brood habitat within the backflood compartments is discouraged.

5. It is proposed that peripheral brood salvage habitat within 1.6 km (1 mi.) of the Mirror and Tanglefoot backfloods be secured through landowner agreements or L.O.C. as required.

4.6 Waterfowl Production:

With implementation of the proposed management, it is conservatively estimated that waterfowl production on the Tanglefoot and Mirror backfloods would be approximately 2850 waterfowl per annum or 85,500 waterfowl over a 30 year project life. A waterfowl production breakdown for the Parlbay Creek - Phase IV proposal is as follows:

	Flooded Area	Waterfowl	Waterfowl
	2-ESL---(ha)	2-Annua---	Over
Backflood			30-year-life
Tanglefoot	240	900	27,000
Mirror	520	1250	58,500
Total	760	2850	85,500

4.7 Cost:

Tanglefoot Backflood

The incremental cost to the project of the proposed works on the Tanglefoot Backflood is estimated at \$50,000.00. A cost breakdown of the proposed works is as follows:

Item	Item Cost		Total Cost
Key Trench	5780 m3 x \$4.25/m3	=	\$24,565.00
Dyke	2025 m3 x \$3.25/m3	=	6,581.00
Control	2 - 1200 diam. CSPS c/w Boxes 40 l.m. x \$450/l.m.	=	18,000.00
Seeding	1 ha x \$1,000.00	=	1,000.00
	Say:		\$50,146.00

Mirror Backflood

The incremental cost to the project of the proposed works on the Mirror Backflood is estimated at \$71,000.00. A cost breakdown of the proposed works in as follows:

Item	Item Cost		Total Cost
Key Trench	6230 m3 x \$4.25/m3	=	\$26,478.00
Dyke	6960 m3 x \$3.25/m3	=	22,620.00
Control	2-1200 diam. CSPS c/w Boxes 40 l.m. x \$450.00/l.m.=		18,000.00
Seeding	1 ha x \$1,000.00	=	1,000.00
Ditch	600 m3 x \$4.25	=	2,550.00
			\$ 70,648.00

4.8 Hydrology:

A preliminary hydrological analysis indicates that there is sufficient inflow to support the proposed management under median inflow.

5.0 Red_Deer_River_to_Alix_Lake

5.1 Project Overview:

The Buffalo Lake Stabilization Project proposes to divert water from the Red Deer River to Buffalo Lake via Parlby Creek. In order to reach Parlby Creek it is proposed to route the water through a pipeline and open channel.

The pipeline will convey the water for the first 4.2 km. (approx.) of the proposed route. Once out of the Red Deer River Valley the route crosses an area of rolling topography. The area is used for agricultural crop production and pasture. The pipeline will cross a section of Crown land (11-39-23-W4) which provides an area of native habitat. The pipeline ends at the north boundary of the Crown section.

From this point the conveyance system becomes an open channel. The water is routed through a number of wetlands, including Alix Lake, before entering Parlby Creek. The wetlands along the proposed route provide valuable waterfowl habitat in the area. The area has no significant limitations to the production of waterfowl (CLI Class 1). Young (1981) and Ducks Unlimited Canada (Unpublished reports) have completed assessments and wetland inventories of the wetlands. (Summarized in Table 1.) Ducks Unlimited Wetland Reconnaissance reports are provided in Appendix I.

Two control structures are proposed: one on Honker Lake (NW 14-39-23-W4) and the other on Alix Lake (NE 35-39-23-W4). By routing the water through Alix Lake the town of Alix is to have an assured water supply.

There are a number of potential impacts on waterfowl habitat from the proposal. Some of the negative impacts may be mitigated with appropriate measures. Detailed contour surveys of the affected basins are required to more accurately determine impacts and appropriate mitigation.

5.2 Waterfowl Impacts:

The proposed location of the pipeline section would appear to have limited impacts on waterfowl habitat. Potential negative and positive impacts are more evident within the open channel section of the proposal.

Positive Impacts:

One positive impact of the proposal was identified:

i) Assured water supply in wetlands along the proposed channel route possibly leading to enhanced waterfowl production. Depends on basin characteristics - survey data lacking.

Negative Impacts:

Potential negative impacts include the following:

i) Increased erosion and hence sedimentation within wetlands along the route leading to reduced wetland productivity. Timing of water removal from the Red Deer River may increase sediment load.

ii) Altered water chemistry of wetlands due to flushing with subsequent loss of nutrients, invertebrates and negative effects on wetland vegetation. Table 1 provides approximate flushing times of wetlands along the proposed route at various flow rates.

iii) Loss of wetland productivity due to altered water levels - too high or too low. Only one control structure is proposed for the outlet of Honker Lake.

5.3 Management Recommendations:

To address the potential negative impacts of the proposal the following recommendations are provided:

i) Divert water into off channel wetlands to provide assured water supply and manage to enhance wetland productivity. Potential wetlands include Horseshoe Lake, Scirpus Lake, 3.4.2-65, 3.4.2-66 Seg. #4 and Bog Lake (see Table 1). Will require additional control structures.

ii) Install additional control structures along proposed route to retard wetland flushing times. Potential locations include outlet of Island Lake and in SW 26-39-23-W4.

5.4 Data Deficiencies:

Survey information for the channel and wetlands along the proposed route is lacking. No information has been provided concerning proposed water levels within the controlled basins ie. Honker/Island Lakes and Alix Lakes. Without the above information an accurate assessment of potential impacts cannot be completed.

5.5 Summary:

The proposed pipeline route will have limited impact on waterfowl habitat. Between the pipeline outlet and Parlby Creek are a number of wetlands which provide valuable waterfowl habitat. The provision of additional water may enhance the value of these wetlands.

However, the extra water, may rapidly flush the wetlands reducing wetland productivity. Increased erosion and sedimentation may also occur. Altered water levels may adversely effect wetland productivity.

Possible mitigative measures include: diversion of water into off-channel wetlands and construction of additional control structures.

Detailed survey information and proposed operating levels for controlled wetlands is lacking which prevents an accurate assessment of the potential impacts.

6.0 Tail Creek

6.1 Project Overview:

Tail Creek is the historical outlet of Buffalo Lake flowing in a southwest direction approximately 14.5 km to the Red Deer River. Due to sustained low water levels, Buffalo Lake has not contributed to Tail Creek's water flow since 1929. Small tributaries and local runoff appear to contribute sufficiently to produce continuous flow especially in the lower reach of the creek. The Tail Creek channel averages approximately 20 metres in width ranging from 5 metres to 40 metres. Gradient along the creek is described as gently sloping except in proximity to the Red Deer River where the gradient steepens. The channel is generally well defined along its length with banks abrupt and characteristically steep.

Uplands adjacent to Tail Creek are relatively flat with landuse primarily devoted to cultivation and pasture. Woodland, dominated by white spruce, border the creek channel for the lower 4 km before its confluence with the Red Deer River.

Beaver activity is most prevalent along the middle reach of Tail Creek where 7 functional and 5 non-functional dams were recorded along 5.6 km of creek channel. Pools created by impoundments are confined to within the creek channel by the well defined banks. Existing pools undoubtedly function as productive waterfowl habitat, providing breeding and salvage areas. Upland nesting habitat is provided by stream bank

vegetation comprised of grasses and shrubs, particularly along the middle reach of the creek.

**6.2 Waterfowl
Impacts:**

The Preliminary Engineering Study of the Buffalo Lake Stabilization Project simply indicates that improvements will be undertaken on Tail Creek to facilitate the conveyance of excess water from Buffalo Lake to the Red Deer River. It does not describe in detail the scope of the proposed improvements. Waterfowl impacts will relate directly to the loss of natural riparian habitat and associated impoundments which provide permanent water areas within the Tail Creek channel. Tail Creek has rather limited value as waterfowl habitat and it is believed that potential impacts on other wildlife species may be more substantial pending the scope of the proposed works.

**6.3 Management
Recommendations:**

Management potential for the development of waterfowl habitat is limited along Tail Creek due to inherent physiography. It is felt that erosion of the channel, post-construction, could potentially constitute a serious impact and for this reason it is recommended that disturbance to natural vegetation be minimized. The riparian wetland and associated upland vegetation provides valuable wildlife habitat in an area primarily devoted to agricultural land use and undoubtedly also functions as a wildlife travel corridor accessing the Red Deer River Valley. If feasible, the installation of grade control structures along the creek should be considered to minimize erosion as well as maintain areas of permanent water for waterfowl and other wildlife species.

7.0 Buffalo Lake

**7.1 Project
Overview:**

Buffalo Lake is a large (9,300 ha), shallow (max. depth 6.5m) lake located in the Parkland ecoregion of central Alberta. It has been identified as a "Wetlands For Tomorrow" site and is rated as Class 1S waterfowl habitat by the Canada Land Inventory. As such it has significant value to waterfowl for production, moulting and staging. Buffalo Lake and the surrounding Buffalo Lake Moraine is the site of the First Step Project of the Prairie Habitat Joint Venture, a component of the North American Waterfowl Management Plan. *

Buffalo Lake has a history of water level fluctuations. Lake levels were low in the 1960's, high in the 1970's and have declined through the 1980's. Based on 20 years of record the lake has

mean water levels of 780.4 m in April-May and 780.29 m in August-September. Lake levels in 1989 were approximately 779.84 m - 779.95 m. (Pers. comm. Dave Cooper, WER Engineering). It is proposed to stabilize Buffalo Lake Between 780.5 m and 781.0 m. Under the preferred pumping regime pumping will start at lake elevation 780.6 m and end at 780.75 m.

Ducks Unlimited Canada has been requested to assess the impacts of the proposed stabilization on waterfowl and suggest mitigation where necessary. This is impossible with the existing information. In order for an adequate assessment to be completed a detailed contour survey (0.5 m contour interval) of the lake is required. The existing hydrographic survey (completed in 1965) is inadequate.

The following discussion of waterfowl habitat, past Ducks Unlimited habitat development proposals, potential impacts of the stabilization and suggested mitigation must be read with consideration to the lack of survey information.

7.2 Waterfowl Habitat:

7.2.1 Production:

Waterfowl production from Buffalo Lake is primarily associated with the bays and shoreline areas of the north and west shores (Figure 4). These parts of the lake are generally shallow, sheltered and contain emergent and submergent vegetation communities (as discussed in 7.4 Mitigation). Brood surveys of the lake found brood concentrations associated with areas of emergent vegetation (Anderson 1981). Waterfowl production from Buffalo Lake has been estimated at 3,000 to 5,000 ducks annually (Anderson 1981; Ducks Unlimited Canada and Alberta Fish and Wildlife no date).

A major limiting factor to waterfowl production has been identified as lack of upland nesting cover. Occasionally flooded shoreline areas which are idle provide some excellent upland nesting cover adjacent to Buffalo Lake.

7.2.2 Moulting:

Due to its location within a major waterfowl production area Buffalo Lake is an important wetland for moulting. No information is available on the number of birds which utilize the lake for this purpose or where concentrations occur. However, based on the protein requirements of moulting waterfowl it can be assumed that

concentrations will occur in areas of emergent and submergent vegetation.

7.2.3 Staging:

The Buffalo Lake Regulation Study (1982) states:

"Surveys show that only one other lake in the open parkland area - Beaverhill Lake-is rated higher for waterfowl staging than Buffalo."

Staging areas are correlated with areas of emergent vegetation (see Fig.4). It is believed over 100,000 waterfowl stage on the lake annually. Anderson (1981) summarizes data of staging counts completed on Buffalo Lake. A bait station operated by Alberta Fish and Wildlife Division east of Buffalo Lake attracted 50,000 - 55,000 ducks per day during peak periods in 1987.

7.4.2 Avian Botulism:

A major concern with water levels on Buffalo Lake relate to outbreaks of avian botulism. Outbreaks occur in Bashaw Bay and have been recorded in 1980, 1981, and 1984. The following table summarizes the severity of these outbreaks and approximate water levels at the time. The lake is annually monitored for outbreaks by Alberta Fish and Wildlife Division and/or Ducks Unlimited Canada. Water levels, weather conditions and the number of birds present affect the severity of a botulism outbreak.

Avian Botulism Outbreaks at Buffalo Lake

Year	No. of Birds Retrieved	Estimated Mortality	Approx. Lk. Level (m)
1980	1,990	3,000	780.45
1981	821	1,600	780.21
1984	40	100	780.25

Even with low water levels no botulism outbreaks have been recorded since 1984.

7.3 Waterfowl Impacts:

Potentially there may be both positive and negative impacts from the proposed stabilization plan. As already discussed these are difficult to assess due to a lack of survey information.

Positive Impacts:

Potential positive impacts on waterfowl of stabilizing Buffalo Lake include:

i) Improved water regime and possibly increased littoral zone in Bashaw and Rockland Bays leading to reduced salinity and enhanced waterfowl production capabilities.

ii) Reduced incidence and severity of avian botulism outbreaks - depends on weather, number of birds present and water level fluctuations in Bashaw Bay.

iii) Increased surface area of Buffalo Lake may enhance its value to moulting and staging waterfowl.

Negative Impacts:

Potential negative impacts of the stabilization plan on waterfowl habitat include:

i) Reduced littoral zone, reduced emergent and submergent vegetation and hence reduced value of the main body of the lake, bays and outlet area for production, moulting and staging.

ii) Reduced emergent and submergent vegetation which has adapted to the Buffalo Lake environment as a result of adding Red Deer River water into the basin.

iii) Loss of upland nesting areas adjacent to the lake due to flooding.

iv) Increased harassment of waterfowl due to increased recreational activity on the lake.

v) Removal of emergent and submergent vegetation in cottage and recreational areas.

vi) Increased predation of ducklings by northern pike due to possibly enhanced northern pike productivity.

7.4 Management Recommendations:

Mitigative measures to address the potential negative impacts of the Buffalo Lake Stabilization are directed at maintaining and enhancing the value of the lake for waterfowl. The measures are habitat development proposals previously put forward by Ducks Unlimited Canada and the First Step Project. Estimated costs are also provided where possible. Possible mitigation includes:

i) Construct dykes and variable water control structures on Bashaw Bay, North Bay, Rockland Bay

and Tail Creek Marshes to manage these areas independently of Buffalo Lake to maintain and enhance the productivity of these areas.

iii) Purchase or lease land adjacent to the lake and plant these areas to dense nest cover (DNC).

iv) Restrict recreational activity within important waterfowl habitat areas.

7.4.1 Costs:

The following costs are preliminary estimates only and were obtained from Ducks Unlimited Canada (1981) and Alberta First Step Project (no date). For costs to be refined would require indepth survey and hydrology information. Estimates do not include potential maintenance costs.

i) Dykes, dams, and variable control structures not including possible annual pumping costs from Buffalo Lake into managed areas:

Bashaw Bay	-	\$200,000	one damsite
North Bay	-	\$240,000	(1981 estimate)
Rockland Bay	-	\$ 65,000	
Tail Creek Marshes - Estimate not available - may require relocation of proposed control closer to Buffalo Lake.			

Total \$505,000 to \$535,000 plus

iii) Purchase and seeding to DNC - estimate not available but land costs average \$300/ac

iv) Restrict recreational activity - cost of signage and enforcement patrols.

7.5 Data Deficiencies:

The following data gaps have been identified:

i) Lack of detailed survey information without which an accurate assessment of the Stabilization Plan cannot be completed.

ii) No hydrological analysis of Buffalo Lake and the associated bays.

7.6 Summary:

Buffalo Lake provides significant waterfowl habitat for production, moulting and staging within central Alberta. One bay of the lake,

Bashaw Bay, experiences periodic avian botulism outbreaks. The proposed stabilization plan may improve waterfowl habitat on the lake through an improved water regime. On the other hand, there are a number of potential negative impacts which would reduce the value of the lake for waterfowl. The negative impacts may be partially mitigated through habitat enhancement projects on the bays and adjacent upland areas. The cost of these mitigative measures are estimated to be in excess of \$25,000. Detailed survey information and hydrological analysis is required before an accurate assessment can be completed.

8.0 Summary:

The proposed Buffalo Lake Stabilization Project will divert water from the Red Deer River to Parlby Creek and into Buffalo Lake. The historical outlet of Buffalo Lake, Tail Creek, will be altered to handle potential outflow. For the purpose of reviewing the potential impacts of the proposal on waterfowl the project was divided into six components. Existing waterfowl habitat conditions, potential impacts of the proposal on waterfowl and mitigation to address the negative impacts were presented.

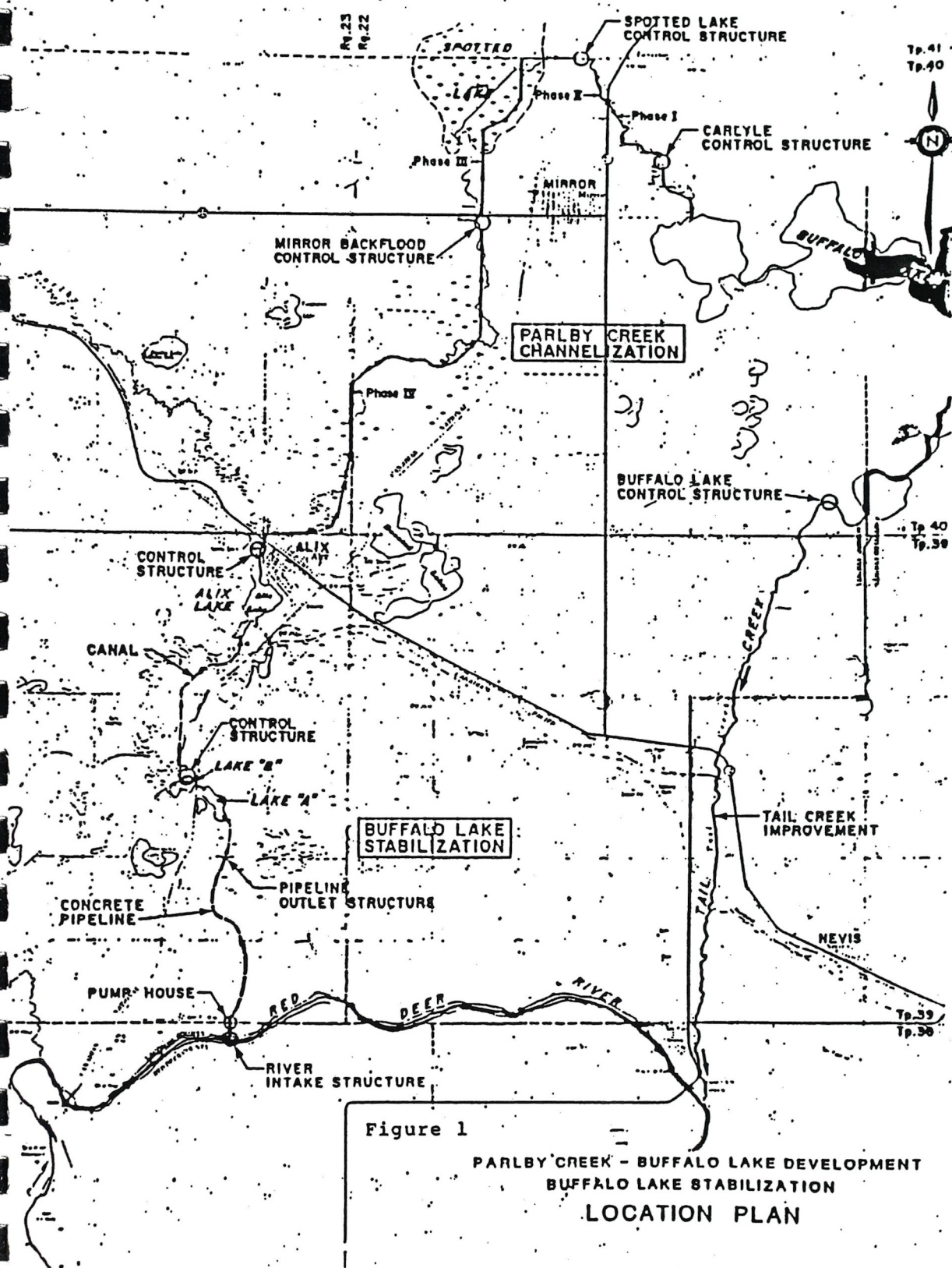
The area affected by the proposal provides some excellent habitat for waterfowl production, staging and moulting. The area has been the focus of major initiatives in waterfowl habitat conservation.

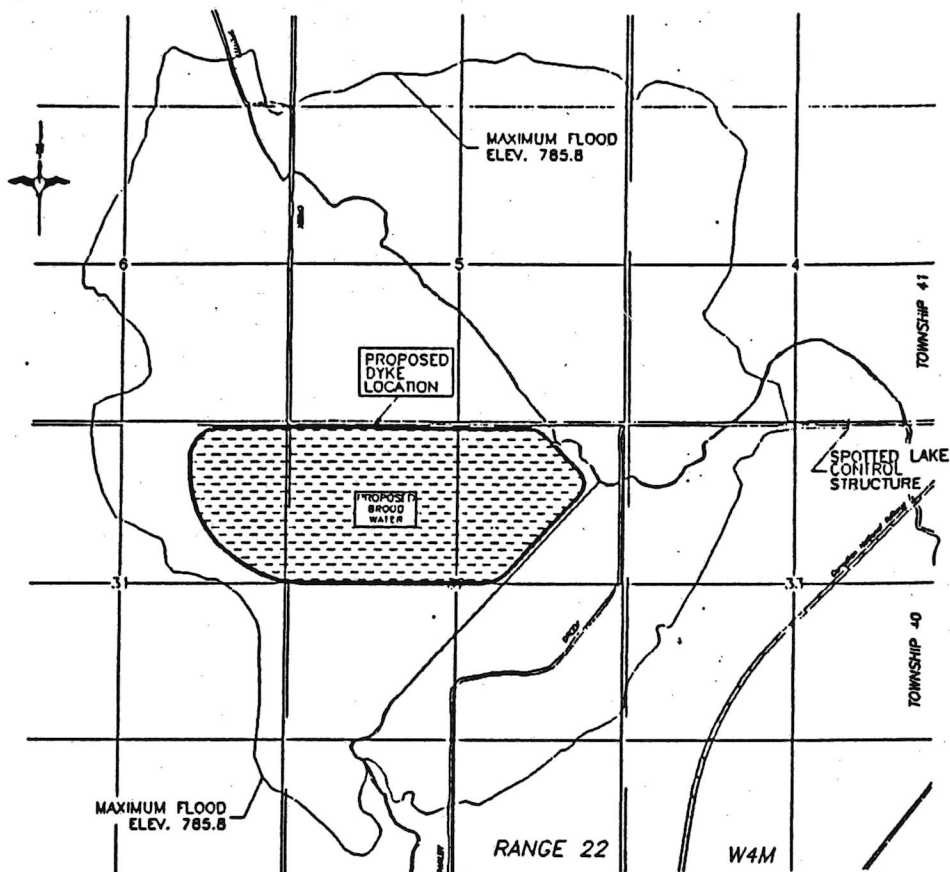
An accurate assessment of the potential impacts of the project was impossible, in some cases, due to a lack of detailed survey information and design criteria. However, the greatest potential for negative impacts on waterfowl exists in the Parlby Creek - Phase VI reach and on Buffalo Lake. Major negative impacts on waterfowl have already occurred as a result of the ditching and backflood operation of Spotted Lake without the provision of adequate brood salvage habitat. Lesser negative impacts may occur on the wetlands south of Alix and along Tail Creek. There may be positive impacts of the proposal on waterfowl in the wetlands south of Alix and on Buffalo Lake related to possibly improved water levels.

Management recommendations to mitigate potential negative impacts are provided. They include provision of adequate brood salvage habitat for proposed and existing backfloods; diversion of water to off-channel wetlands; additional water control structures; management of Buffalo Lake bays independently from the main lake; and construction of artificial waterfowl nesting structures.

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Concept only
KS 9/1/05.

FIGURE 2 : PERMANENT BROOD WATER PROPOSAL



Ducks Unlimited Canada

SKETCH PLAN

Title				F	
SPOTTED LAKE				E	
Sec. VARIES	Twp. 40&41	Ra. 22	W 4M	D	
Flooded Area 959.5 ha	Units 90 01 20			C	
Shoreline 5.8 km	File No. N/A			B	
Scale N.T.S.	Dwg. No. 377 0670 1			A	
Drawn By kCkW	Page 1 of 1	REV.	DESCRIPTION	APP'D	

R. 23

R. 22

SPOTTED

LAKE

CNR

MIRROR

PROPOSED VARIABLE
CONTROL STRUCTURE

FSL

PARLBY
CREEKMIRROR
BACKFLOODPROPOSED
CHANNELIZATIONPROPOSED
BROOD SALVAGE
COMPARTMENT IITANGLEFOOT
BACKFLOODPROPOSED
BROOD SALVAGE
COMPARTMENT IPARLBY
CREEK

ALIX

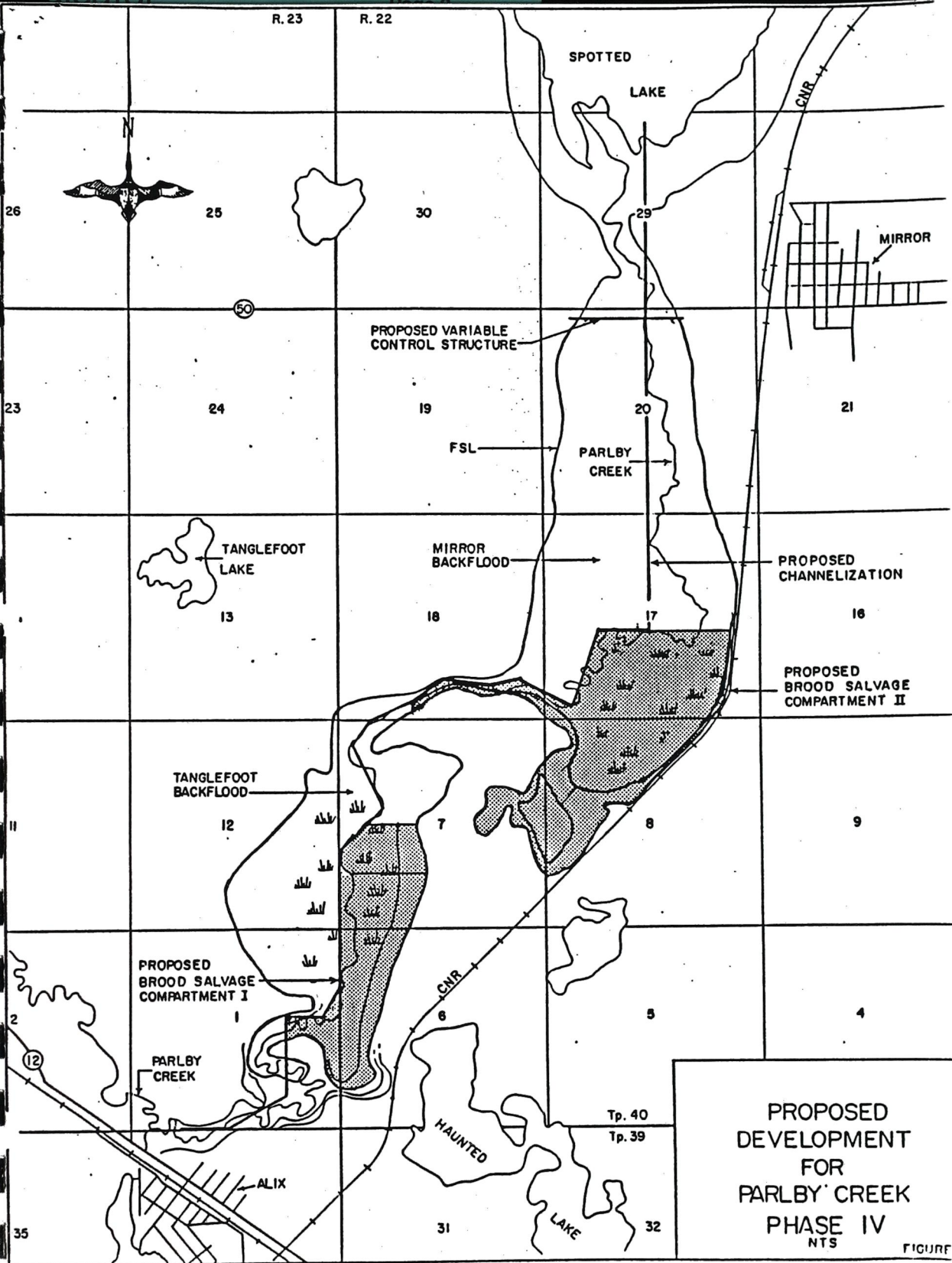
HAUNTED
LAKE

Tp. 40

Tp. 39

PROPOSED
DEVELOPMENT
FOR
PARLBY CREEK
PHASE IV
NTS

FIGURE



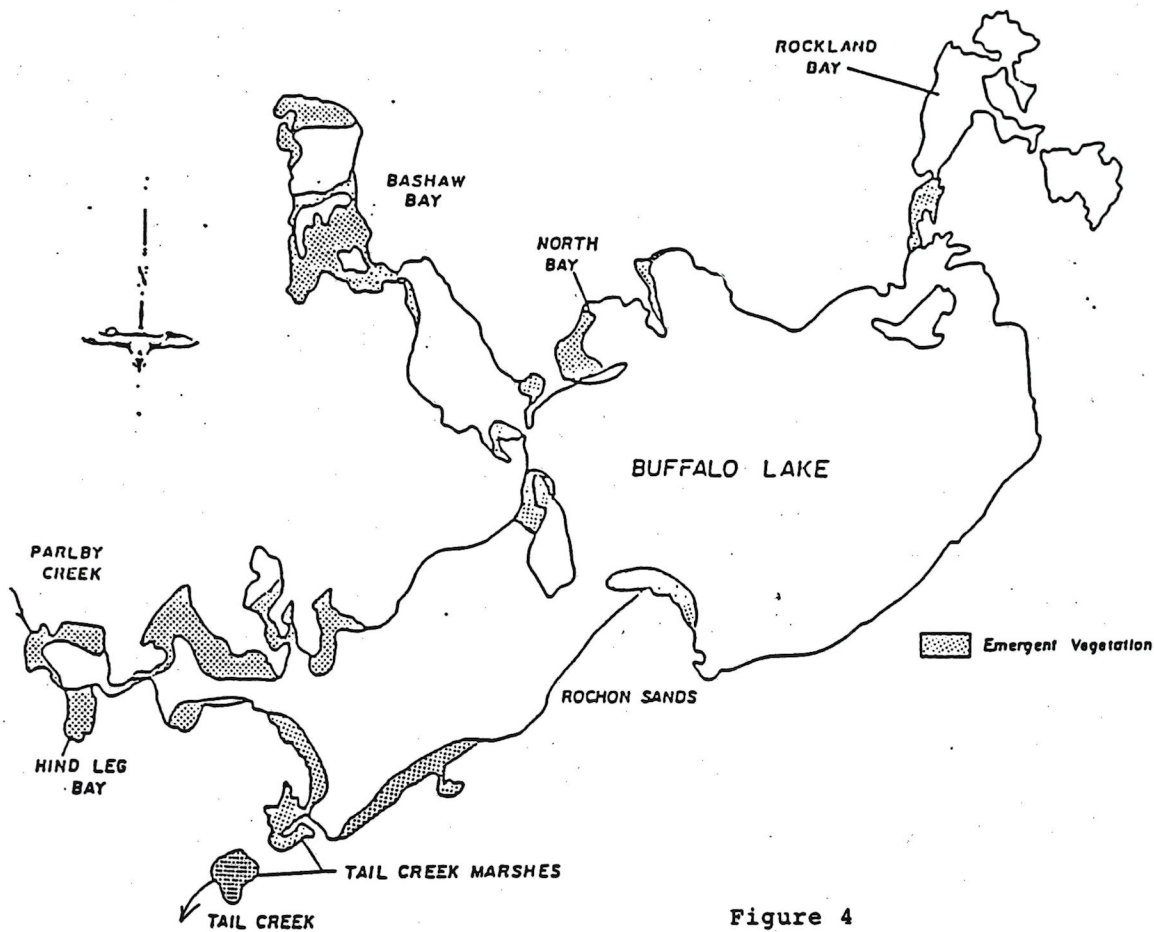


Figure 4

Buffalo Lake and Associated Bays showing areas of Emergent Vegetation (after Anderson 1981)

TABLE 1 - Basin Characteristics - Red Deer River to Alix Lake

NAME (1) RECON # (2) L.L.D.	BASIN TYPE	BASIN SIZE(ha)	DOMINANT EMERGENTS	WATERFOWL USE(Aug.81)	FLUSHING TIME	COMMENTS
Bog Lake 77-88-11 NE11,12-39-23W4	Overflow wetland	22.5	Sedge and Willow	3 Adults 0 Broods	n/a	Presently is dominated by sedge & willow & has potential for raised water levels.
Island Lake 3.4.2-66 NW14, NE15-39-23W4	Overflow wetland	16.2	Hardstem & Softstem Bulrush	300 Adults 8 Broods	1/2 m3/s=3.75 days 1 m3/s=1.88 days 2 m3/s=0.94 days	Productive wetland. Potentially negatively impacted.
Honker Lake 3.4.2-66 NW14, NE15-39-23W4	Segregated or Terminal	12.6	Bulrush & Cattail	320 Adults 1 Brood	1/2 m3/s=2.92 days 1 m3/s=1.46 days 2 m3/s=0.73 days	Productive wetland. Potentially negatively impacted.
Scirpus Lake 3.4.2-74 NE22, SW26-39-23W4	Channel Wetland	18.9	Softstem Bulrush	12 Adults 1 Brood	1/2 m3/s=4.38 days 1 m3/s=2.19 days 2 m3/s=1.10 days	Very productive wetland that could use somewhat increased water levels.
Horseshoe Lake NE10, SE15-39-23W4	Segregated Wetland	27.9	Lacks Emergents	160 Adults 2 Brood	n/a	Presently dry and appears to be somewhat saline.
Alix Lake 77-87-05 NE26-39-23W4 E1/235-39-23W4	Channel Wetland	55.8	Poor. South end only.	114 Adults 3 Broods	1/2 m3/s=25.8 days 1 m3/s=12.9 days 2 m3/s= 6.5 days	Larger lake with fish stocked annually. Also motor boats are allowed. High recreational use.
Unnamed 3.4.2-65 SW25, SE26-39-23W4	Segregated	9.0	Bulrush & Whitetop	5 Adults 2 Broods	n/a	Basin with limited productivity due to the lack of submergents and poor water quality.
Unnamed 25-39-23W4	Channel	29.0	Sedge	Unknown	n/a	Not recommended. Has potential at least as a backflood area if not a permanent basin.
Unnamed 3.4.2-66 Seg.#4 NW14-39-23W4	Segregated	6.3	Bulrush & Cattail	Unknown	n/a	Smaller scale of Island or Honker Lakes.

(1) Name as per EMA Report 1981

(2) Ducks Unlimited Wetland Reconnaissance Report Number

"managed" ponds (see Figure 11-1).

tration. This zone is often absent in ponds.

Limnetic zone:

the open-water zone to the depth of effective light penetration, called the *compensation level* which is the depth at which photosynthesis just balances respiration. In general, this level will be at the depth at which light intensity is about 1 per cent of full sunlight intensity (compare with "Secchi disk transparency" depth discussed in the previous section). The community in this zone is composed only of plankton, nekton, and sometimes neuston. This zone is absent in small, shallow ponds. The term *euphotic zone* refers to the total illuminated stratum including littoral and limnetic.

In streams two major zones are generally evident:

Rapids zone:

shallow water where velocity of current is great enough to keep the bottom clear of silt and other loose materials, thus providing a firm substrate. This zone is occupied largely by specialized benthic or periphytic organisms which become firmly attached or cling to a firm substrate, and by strong swimmers such as darters (fish).

Pool zone:

deeper water where velocity of current is reduced and silt and other loose materials tend to settle to the bottom, thus providing a soft bottom, unfavorable for surface benthos but favorable for burrowing forms, nekton, and, in some cases, plankton.

Profundal zone:

the bottom and deep-water area which is beyond the depth of effective light pene-

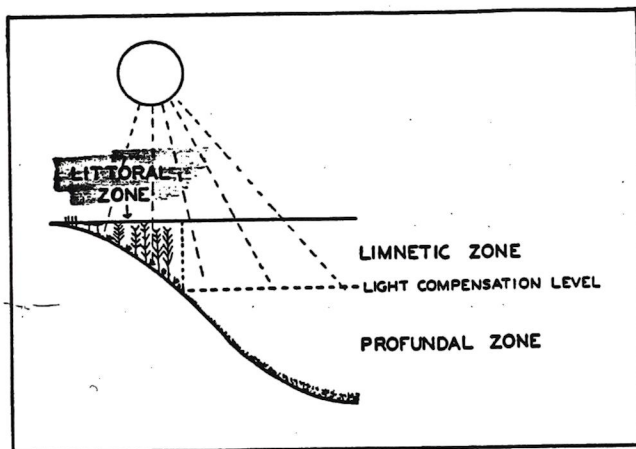


Figure 11-4. The three major zones of a lake.

Good Afternoon MR. THORN, CHAIRMAN & MEMBERS. MR. WEIR AND MR. PEILUCK
My NAME is Kim Schmitt.

I am the MANAGER OF THE SOUTH CENTRAL DISTRICT for DUCKS UNLIMITED
located in RED DEER. We are very PLEASSED to make a PRESENTATION today.

I thought I would START the presentation by SHOWING you a MAP or perhaps
better put, a "BIRDS EYE VIEW" of the AREA.

PARLBY CREEK and its RIPARIAN AREAS along with SPOTTED LAKE, BUFFALO LAKE
and the surrounding POTHOLEs make up a very ECOLOGICALLY significant
landscape UNIT.

The AREA is HOME to some of the HIGHEST DENSITIES of BREEDING Waterfowl in
NORTH AMERICA and as such was SELECTED as the landscape in which to
deliver the "FIRST STEP" project, part of NORTH AMERICAN WATERFOWL
MANAGEMENT PLAN, a MASSIVE JOINT effort between CANADA, UNITED STATES and
MEXICO. Over 2 Million dollars has been invested in this area to-date.

More SPECIFICALLY then, the PARLBY CREEK area, SPOTTED Lake and BUFFALO
Lake and the surrounding POTHOLE complex all INTERACT and Together
Function as an extremely Significant and Highly Productive landscape Unit.

Allow me to EXPLAIN how this LANDSCAPE UNIT works.

In EARLY SPRING waterfowl returning to BREED in this area utilize the
SHALLOW FLOOD water and PONDS associated with the Parlby Creek/Spotted
Lake area. Intensive FEEDING by PRE-NESTING, HENS occur in shallow flood
waters where abundant aquatic Invertebrates are available. Many PAIRS
remain along the Parlby RIPARIAN area to NEST; however, as the POTHOLE
COMPLEX and later Buffalo Lake THAWS many ducks MOVE OVER and NEST in the
adjacent uplands. Later in the SUMMER Males, Non Breeders and
Unsuccessful Hens TREK BACK to Buffalo Lake, where THOUSANDS of birds go
through a FLIGHTLESS PERIOD known as MOLT.

What I'm TRYING to EXPLAIN is that although SOMEWHAT SEPARATE, all of
these Landscape Components WORK TOGETHER as a WHOLE, FULFILLING a Complex
Set of LIFE CYCLE NEEDS.

In short, what we have is One of the Most Significant TRACT of Waterfowl Habitat in all of North America.

Needless to say, Ducks Unlimited has a SINCERE desire to see the INTEGRITY of this Area for Waterfowl & Wildlife MAINTAINED and when appropriate ENHANCED. With reference to the Parlbey Creek/Buffalo Lake project, we will provide a Number of COMMENTS & OBSERVATIONS.

Firstly, we DO NOT provide EXPERT OPINION on the ENVIRONMENTAL INTEGRITY of this project OUTSIDE of our REALM of our focus, that being WATERFOWL HABITAT and in particular WETLANDS. It is largely WITHIN this area of FOCUS that we would then like to direct comment.

We have reviewed the E.I.A. document section that deals with POTENTIAL IMPACT & MITIGATION measures regarding Waterfowl & Wetlands.

STARTING WITH BUFFALO LAKE

We acknowledge that an IMPROVED water REGIME on Buffalo Lake has the POTENTIAL to be BENEFICIAL to Waterfowl. Whether or not the project does Provide Benefits to Waterfowl depends on the Goals of the Project. We have identified Two Important Goals for Buffalo Lake Proper.

1. Maintenance of a productive SHORELINE and LITTORAL zone.
2. Management of RECREATION Activities in conjunction with Requirement of Waterfowl Shorebirds and other Waterbased Wildlife.

I will EXPAND on these TWO points.

MAINTENANCE OF A PRODUCTIVE SHORELINE/LITTORAL ZONE

CANNOT occur through Total Stabilization of Water Levels. A totally CONSTANT water level would in Fact be DETRIMENTAL. *

Alternatively, Water Level Management that did not see Significant RISE in LEVEL after SPRING RUNOFF and that was Allowed to RECEDE at least .3 - .4m (approx. 1 ft.) during the Summer would better MAINTAIN a PRODUCTIVE State, providing necessary ENVIRONMENTS for Plant, Invertebrate and Amphibian life which in turn serve as FOOD and COVER for Fish, Shorebirds and Waterfowl.

The concept of Managing BASHAW BAY and NORTH BAY as Separate Entities presented in the E.I.A. document is an attempt to optimize Waterlevel Management Creating a Productive Littoral zone. At this point planning of a Waterlevel Management is INHIBITED by Lack of Shoreline Survey (profiles) and in particular we Lack Profile and Geodetic reference in the Bay areas;

The SECOND POINT was on:

MANAGEMENT OF RECREATION ACTIVITIES IN CONJUNCTION WITH REQUIREMENTS OF WATERFOWL

As mentioned in the Introduction --- BUFFALO LAKE provides Ideal Waterfowl Habitat. Of particular Significance is the use of the Lake by Molting or Flightless Waterfowl. During this Annual LIFE CYCLE Stage, Thousands of Waterfowl withdraw to special areas. The Main Requirements of such areas are SHALLOW WATER, usually Open REED BEDS or other PLANT FORMATIONS along the Shore which furnish Cover and sufficient Food. Molting birds select areas that provide Safety and Access to Firm Land because they do not PREEN while swimming.

Although we are Aware that Buffalo Lake provides Significant Molting Habitat we Lack Survey information and Reconnaissance that describes Key Locations. This information is required to truly Integrate Sensitive Habitat and Recreational use.

The Next area I would like to discuss is the RED DEER RIVER to ALIX the PARLBY CREEK/SPOTTED LAKE and TAIL CREEK Drainage and Conveyance Routes.

The Parlby Creek/Spotted Lake area has Undergone much Modification with the Construction of Large Drainage Works. This has been to the DETRIMENT of Waterfowl and Wildlife in general. At present Spotted Lake Attracts Nesting waterfowl but is Drained without provision of Adequate Brood Water necessary for the survival of the Ducklings.

We have been advised that Parlbry Phase IV has included a Multi-use Philosophy and that Permanent Wetland areas have been Designed in Conjunction with Backflood areas. We are VERY SUPPORTIVE of this Approach.

We Strongly ENCOURAGE a Similar Approach to be Retroactively Applied to SPOTTED LAKE and that Integrated Planning be conducted with the recommendations Implemented throughout the Parlbry Creek, Red Deer to Alix stretch and Tail Creek portions of this project. It is Impossible for us to Provide Dialogue in Detail enough to do Justice to this component.

I Therefore Submit to you today a REPORT that DETAILS our Suggestions for this Component of the project.

We can only Advise that much INTEGRATION in the Spirit of MULTIPLE Use both needs to be, and can be done; and that our Desire is to See BOTH Agricultural Use and Wildlife Habitat Enhanced and Operating Cooperatively.

PAUSE

WITH SPECIFIC REFERENCE TO THE MITIGATION PROPOSALS FOR WILDLIFE MADE IN THE E.I..A. WE WOULD LIKE TO ADVISE THAT WE VIEW THESE ITEMS OR CONCEPTS AS A "MINIMUM". IF THIS PROJECT WAS TO PROCEED SIGNIFICANT ENHANCEMENT OPPORTUNITIES COULD BE INCORPORATED.

If the Members of this Board Conclude that this project is Worthy of Pursual then we Strongly Suggest the following:

That the E.I.A. Document is a FIRST STEP, and that a TEAM be established with the Goal to fully integrate multi-use components. We believe that failure to Fine Tune this project would result in an undertaking that would FALL SHORT of the Stated Objective of this project.

Although many of the Benefits of a project such as this are Difficult to Quantify, we would suggest that a Sincere, Professionally Developed Multi-use plan, would result in significantly Improved Social, Economic and Environmental benefit.

Ducks Unlimited would Welcome the Opportunity to become a Member of such an Integrated Landuse Planning and Management Team.

ALLOW ME TO SUMMARIZE TODAY'S PRESENTATION

1. The Buffalo Lake Landscape is of International Significance. Our Federal and Provincial Governments along with State and Federal U.S. Governments and Ducks Unlimited, Jointly Agreed that this be an area of Focus in an unprecedented effort to Restore North America's Waterfowl Populations. This Landscape is of great Interest and Concern to us.
2. A Supplementary Water Supply to Buffalo Lake has the Potential to be Beneficial to Waterfowl. Water Level Management Goals and PLANS need to focus on Maintenance of Littoral Zone Productivity, Not Solely Stabilization. We require Survey/Profile information. ~~XXXX~~ ~~XXXX~~.
3. Buffalo Lake Recreational use will be Encouraged and Enhanced via a Water Supply. A PLAN is required to Ensure Integration of Waterfowl and Shorebird habitats with Recreational use. With reference to waterfowl, a Survey of Molting Areas is required. SPECIFIC PLANS for Endangered Species such as Piping Plovers need to be given Priority. Mitigation Proposals in the E.I.A. directed toward Colonial Nesting Birds are Supported by Ducks Unlimited.
4. The Parlyby Creek and Spotted Lake areas have been Negatively Impacted by Past and Ongoing Drainage works. Although some multi-use works have been included in phase IV, we Strongly Recommend that the Integrity of Spotted Lake be Restored; as well as, Implementation of Habitat Improvements along Parlyby Phase I to III, and the Red Deer River to Alix and Tail Creek sections.
5. Finally, that if Members of this Board Conclude that this project is Worthy of Pursual, that an effort be made to make it the "BEST IT CAN BE" through the Establishment of an Integrated Planning Team, with the Specific Goal to Fine Tune the Proposal and Management Plans necessary for a project of this Magnitude. Only through this level of planning and management can we maximize Social, Economic and Environmental benefits.

If its Worth doing, Surely its Worth doing Right!

THANK YOU FOR THE OPPORTUNITY

Box # 15400
Lacombe, Alberta
T0C 1S0

44-375 Kingscourt Drive,
Waterloo, Ontario,
N2K 3N7

Dear Sir

I am unable to attend your hearing in Alia on May 21 and May 22. I own three cottage lots on Buffalo Lake in the Pelican area.

I remember many happy moments at the lake years ago as a teenager watching the Pike swimming through the culverts into Rockland Bay, water skiing from Pelican point, boating in the area, fishing near our cabin and watching many ducks and geese flying from the lake into Rockland Bay. I understand that the water has receded to such an extent that none of these pleasures are possible at present.

I feel that the lake still has a good potential for Albertans if a decision is made to stabilize the lake so that in times of lots of snow there is no flooding & in dry years such as the last five there would still be water. This would increase the recreational value of the lake and would encourage more Albertans to spend their tourist dollars at home rather than in another province.

In my opinion the aesthetic value of the area would be improved if we had more water rather than mud & weeds.

I trust that you will give every consideration to the completion of the Buffalo Lake Project

Yours Truly
Glenn Feltham
GLEN F'ELTHAM

Box # 15400
Lacombe, Alberta
T0C 1S0

476 Bay Laurier Place
Ottawa, Ontario.

Dear Sirs:

I am sorry that I am unable to attend your scheduled meetings for May 21 and 22, 1991 in the Village of Alix. However, I wish to make a few written comments.

I own property at Pelican Point, Buffalo Lake. I use to water ski every summer on the lake and also fish for pike. For the past five years there is limited pike fishing and spawning on the North Side of the lake and no boating or water skiing. The water is so low that a sand bar bridge almost connects the island with the main land. Therefore, today there is no boating in this area and a private marina at the head is empty.

The lack of water in the lake makes it useless as a tourist attraction or as an Alberta resort. Critics of water stabilization indicate that there may be a negative monetary impact according to present and projected use of the lake. Economic development will not take place unless the lake level is high enough to accommodate boats on the lake. Increase activity in cabin building, use of marina and trailer park will ensure increased benefit and spending in the immediate and surrounding areas.

Since Alberta has very few lakes in the south part of the province, it would be unfortunate if Buffalo Lake cannot be stabilized in order to provide southern Alberta with a reasonable alternative to vacationing in British Columbia.

I hope you will look positively on this project as it appears to have considerable merit.

Yours Truly

Glen Feltham

CARD E-111111

May 1991
To Buffalo Lake Water Management
Review Board

While I am not opposed to the project I am concerned about costs. Will the benefits exceed the costs, or vice versa, if the economy changes for the worse?

What about a large over run of costs that so often occur in large ventures such as this? Have the proponents looked at more than one estimate and are they prepared to go ahead at any cost?

I would ask the Review Board to be sure and consider these points in their deliberations.

The figure of two million dollars for a control structure on Tail Creek concerns me.

I was born within three hundred yards of the creek & have lived within a mile of the lake all my life.

When my Dad came to homestead in 1902 the creek was in full flow, and water from the lake flowed down the creek to Red Deer River every year till about 1912 to 1915. This means that the lake had a high water level during this period, and that Tail Creek thru its natural channel delivered this overflow to the Red Deer River, and I have no memory of any erosion problem resulting from same. However, I am no engineer, and maybe that is why I can't help wondering about \$2,000,000 to do what nature did naturally at no cost.

Thank you

H. Z. Barritt

Enrigger

Calgary, Alberta,
April 30, 1991

Dear Sirs:

A few years ago I bought a building lot at Pelican Point, Buffalo Lake. I had many good years of boating and was saving my money to build a summer home. However, for the last five years after having damaged my boat motor (\$1000) because of shallow water, I have been taking my boat to British Columbia. The \$2500 that would have been spent at Buffalo Lake and vicinity is now being spent in another province. To emphasize my point to why no one now goes to Buffalo Lake: 12 yrs ago there were over 50 boats at the private marina, last year only 5.

I would implore you to give positive consideration to the proposal to supply water at Buffalo Lake. In a province not blessed with an over abundance of lakes of any size or description, please consider the statilization of Buffalo Lake to its former status in order to ensure that the residents of central and southern Alberta have a source of recreation with our own province.

Yours truly
Donald Stockwood
lot owner
Buffalo Lake.

No reply
No response
Reed May 07/91

5548 Dalwood Way N.W.,
Calgary, Alta. T3A 1S7.
May 8/91

Dear Mr. Thorne,

Re: Buffalo Lake Development
Project

I wish to express my support for the proposal to stabilize the water level in Buffalo Lake. I could be accused of having a vested interest in the proposal because I own a lot by the lake but I believe the issue is larger than that. At any rate, my initial plans to build a cabin are on hold because the lake at present seems headed to be a large slough.

I think we are overlooking what has been happening to the Canadian prairies for hundreds (even thousands) of years. After the last ice age much of the prairies were covered by the huge Lake Agassiz. Then came a long period of drying and the big lake shrunk till we are left with the few lakes we presently have. In all likelihood this trend will continue and our present lakes will continue to shrink except for those that are fed by the melted snows of the mountains.

I hate to think of life here without access to a beautiful

prairie lake. We owe it to our future generations to try and do something about preserving our lakes. Protecting our environment isn't just preventing industry and development - it is also doing something positive to ensure that a lake survives for the benefit of mankind and wildlife.

Respectfully submitted,
Jack MacTavish
(Jack MacTavish)

To: Parly to work - Buffalo Lake
Water Management Project Review Board
Office of the Chairman
P.O. Box 15400, 5004-47A St., Lacombe, Alta.
T.O.C. 150.

Honorable Chairman, Mr. Don Thorne, and other two members of the review board, Mr. Charles Weir, and Mr. Ronald Peibuck, ladies and gentlemen. I appreciate this opportunity to express our concerns as it relates to possible effects on lands in the flood-plain meadows that is referred to by some people who like to call it "Spotted Lake." Two creeks, one from the north and one from the south, drained into this flat area during spring run off and the main channel of Parly Creek drained it on down to Buffalo Lake as the ice melted in the creeks, allowing free passage of water.

Even now, with only two flood-gate structures there are delayed draw downs in this man-controlled backflow system. We are sometimes having problems getting the water off early enough to cut the grass at the proper stage for good quality hay. We are very involved in this multi-use project. Believe that this type of use by farmers is a good clean-up operation providing ideal spawning ground which supplies fish for Buffalo Lake. The mounds along the banks of the crown land which is in the centre are there for waterfowl nesting. Also, if these fields of tall nutritious grasses are harvested in good time, a lucious aftermath of green grass springs up and attracts many deer and geese in the fall. I think this is the best multi-use for this land. Throughout the year and especially in winter, deer hang around big round hay bales for feed and shelter and

2.
help themselves to oats which dribbles on the ground beside the grain bins. It is a familiar sight to see farmers' round hay bales placed in sloughs for waterfowl to rest on. You may rest assured farmers are great friends of wildlife. They live off our land every day. We are not exploiters. Good kinds of wildlife add much to the joys of country living.

Instead of encouraging great numbers of waterfowl to stay here all summer where there is so little suitable land for agriculture, why can't they go up north to Alaska or North West Territories or northern Alberta in those vast regions where they would have boundless space with few people to molest them?

Enough of them stay here anyway.

Furthermore, I think the public in general tend to overlook what is expected of farmers if unlimited duck population is promoted. It is only at great expense and long hours of labor nowadays that grain can be produced. You are in effect exterminating agriculture if you expect farmers to put up with having their grain eaten and tramped out on the ground and mixed with bird manure so it can't be picked up with a combine. So, grain farmers, this is their living being destroyed. How many of you would contribute to birds to the extent that you have nothing left for your own living expenses? I think farmers can make it for their own if given a fair chance. Are waterfowl more important than people?

With the construction of the proposed Parby Creek - Buffalo Lake Development Project which I

consider to be an extension of this multi-use project we are now experiencing, we may get too much water at the wrong time causing unreasonable flooding and hinder the growth or harvesting of wild hay which usually grows so dense and freely on the historic Spotted Meadows Flood Plain. There has been no problem with the early spring flood, let it come and welcome, right up to the full supply level. This is what makes this special area so productive, (extremely). Imagine fields of natural grasses, three or four feet to the acre of hay consisting of many different species and it requires no cultivation or seedling, no fertilizers or chemicals whatever - natural healthy feed, for natural healthy beef on your table. There are no bloat problems when cattle eat this type of hay or pasture.

Secondly, with the prospect of retained water upstream for water fowl and flood-drain irrigation, during times of drought, it could result in no spring flood left for Spotted Meadows. For us this would be very undesirable, possibly reducing good production to a footail patch. Lack of water normally is not a worry.

In 1989 and 1990 the drain-off was too deep, too late, and too slow. In 1990 it resulted in dense weed problems in the channel with algae floating on the surface and I presume poor water quality. Also, these weeds severely choked off the movement of water in the channel preventing proper drain off and poor fish return to Buffalo Lake. In 1989 eighty acres of private land (approximately) had extra tall grass, weak and falling over, too mature, too dry, and too frozen to be worth cutting because the ground was too

soggy earlier to bear up the weight of a tractor. We do hope the management of the flood-gates, and those still to be constructed, will be in line with good irrigation practices, flexible enough to allow for extreme moisture conditions, so that all interests concerned will get a fair chance to share the bounties of this special region. Agriculture is very compatible with most wildlife interests which inhabit this area, and it should be protected far more than it is through our Spotted Meadows Protective Association. I wish Water Resources could be placed back under the Department of Agriculture. No farm produce can be grown without water. Agriculture needs some wetlands too.

There is a limit to how much wildlife one community can be expected to support. If you get too much of any one species congregated together, sometimes an epidemic breaks out and they in effect, destroy themselves and pollute the surrounding environment with their dead bodies.

My greatest fear is that possibly other interests who have more time and practise will lobby governments so persistently, so as to influence the Department of the Environment to give in to their demands, allowing this rich and beautiful vegetation to be destroyed or damaged irreparably for all time, so that our children and grandchildren will be deprived of the privilege we have had. Few people know that this area exists. It is most impressive in early July. The bottomland along the creeks and Ton Spotted Meadows is the only place in the County

of Lacombe where this natural wild hay grows to any extent. In my dictionary plants are also included in wildlife, so why should one form of wildlife be destroyed to propagate some other form of wildlife which possibly is not so well adapted to this area?

Considers all the land that were lost for tax sale in eastern Alberta during the dry years. About the only survivors were those lucky enough to have sloughs to provide winter feed for livestock. As long as livestock are raised in this province there will always be a need for lots of hay. Winters are long and the animal rights people demand that they be well fed.

It appears to me that we are letting too much land go to other interests. Every acre they get is that much loss to the beef industry which is already decreasing according to "This Business of Farming" May 13 broadcast. This whole valley from Chain Lakes to Buffalo Lake is at risk of losing its agricultural potential to outside interests.

We see no problem at all with prestream throughflow water into Buffalo Lake as long as it is not used to flood good hay or grazing land. We feel this should be handled the same as irrigation channels in southern Alberta with a ditch rider in charge who would use enough flexibility to avoid flood damage. If this proposed project is constructed and operational I hope it is not all monopolized by other interests so farmers are the losers. After all we understood our

6.
present project to be multi-use and we
don't want it changed in that respect. Everybody
who eats food should be on the side of agriculture.
If the present trend continues, someday the bounty
will surely come to an end. One small group
can't always give while other groups, just because
they are larger and richer, do all the taking.

Thank-you for your attention!
Respectfully submitted by Martha Inions,
Box 9,
Mirror, Alberta.
T.O.B. 3 Co.

L A T E S U B M I S S I O N S

**SUBMISSION
OF THE
EAST PARKLAND COMMUNITY
FUTURE ASSOCIATION**

TO

**THE PARLBY CREEK-BUFFALO LAKE
WATER MANAGEMENT REVIEW BOARD**

Prepared by:

**New Ventures Associates Ltd.
918 - 10117 Jasper Avenue
Edmonton, Alberta, T5J 1W8**

May, 1991

1.0 INTRODUCTION

The East Parkland Community Futures Association retained the firm of New Ventures Associates Ltd. to complete an assessment of the Environmental Impact Assessment Report undertaken by Environmental Management Associates on the Parlby Creek - Buffalo Lake Development Project. This assessment was to examine the following chapters of the report:

4.0 SOCIO - ECONOMIC IMPACT ASSESSMENT

7.0 BENEFIT - COST ANALYSIS

The analysis of the Benefit - Cost Analysis is restricted to examining only the benefit portion. The cost estimates of the Parlby Creek - Buffalo Lake Development Project, as prepared by Environment Management Associates, are assumed to be reasonably accurate.

New Ventures has experience working in the Buffalo Lake area with the MAC Economic Development Team to develop an Economic Development Strategy for the Villages of Mirror, Alix and Clive and the County of Lacombe. The Parlby Creek - Buffalo Lake Development Project will have a significant impact on this strategy. Based on the experience of our Firm in the area, discussions with municipal officials, business operators and residents of the area, and the experience of our firm in economic and tourism

developments throughout rural Alberta, an analysis of the appropriate chapters of the Socio - Economic Impact Assessment is presented in this report.

1.1 Summary of Findings

The summary of the findings of the analysis of the Socio - Economic Impact Assessment can be divided into three major categories:

1. Without Stabilization

The basic premise in the SIA is: without stabilization the current economic climate of the area will be unchanged. Should the water levels in Buffalo Lake be maintained at their current level, or perhaps continue to decline, the likelihood of the recreation activity on the lake declining is very high, resulting in further decreases in the economic activity in the communities surrounding the lake.

2. With Stabilization

The SIA provides a very thorough analysis of most of the economic benefits to the area that could result from stabilization. The report does not, however, place much emphasis on the multiplier effect of the benefits identified in the report, and the report does not place sufficient emphasis on several activities, including fishing, hunting, and bird watching. The stabilization of Buffalo Lake has the potential of substantially improving the tourism potential within the study area.

3. Benefit - Cost Analysis

Several of the basic assumptions used in the Benefit -Cost Analysis should be adjusted to better reflect the actual costs

and potential development. Further, the benefit-cost analysis under-estimates the benefit that the Villages of Mirror and Alix will receive from the guaranteed municipal water source. The multiplier effect of the construction of the project, the increased activity resulting from the improved water conditions is also excluded from the analysis.

There also appears to be an error in the formula used to calculate the benefit of the cottage development. (As noted in Ms. Habib submission for Pelican Point). Incorporating this correction and adjusting for the factors noted above, the Parlbay Creek - Buffalo Lake Development Project will create a positive benefit for the Province of Alberta. A reasonable estimate of the benefits of this project to the region is \$14.57 million and based on a project cost of \$13.16 million, the net benefits of the project to the area will be \$1.41 million. and the benefit cost ratio is 1.11. With the addition of the multiplier effect resulting from these developments the benefit to the region will be even more positive.

1.2 Recommendations

The Parlbay Creek - Buffalo Lake Development Project will help to diversify the economic base of an area in rural Alberta that has traditionally been dependent on servicing the agriculture and oil sectors. The improved opportunities for recreational activities on Buffalo Lake will increase the potential of attracting more tourist dollars into the area from Edmonton and Calgary.

Based on the analysis of the SIA and on discussions with local officials, business operators, and residents; our recommendation to the

Review Committee is that they endorse the Parly Creek - Buffalo Lake Development Project and recommend to the Minister of Environment that the project be approved and that construction commence as soon as possible. This development will be of great benefit to the area surrounding Buffalo Lake and to all of Alberta.

The accompanying report provides a complete analysis of the Socio - Economic Impact Assessment and Benefit - Cost sections of the Environmental Impact Assessment Report.

2.1 Analysis of Socio - Economic Impact Assessment

This section provides an analysis of Chapter 4.0 Socio - Economic Impact Assessment. The relevant findings, assumptions and conclusions of each section are briefly summarized and analyzed. Additional variables and factors that may have been overlooked or under estimated are also presented.

2.2 Current Social and Economic Context

The Socio - Economic Impact Assessment (SIA) provides a very comprehensive summary of the current social and economic context of the

area. A complete inventory of the available recreation facilities, including camping, day use and cottaging is presented in the report. A thorough analysis of market trends and a summary of the main competition is also presented.

Several points and conclusions that are presented in the SIA are worth noting:

Camping: The consultants have noted that based on their congestion analysis(pg. 244) the provincial camping facilities at Buffalo Lake are currently under utilized while the facilities at some of the regional campsites are at capacity.

The demand for camping(pg. 253) at the Provincial facilities at Buffalo Lake has been declining fairly rapidly in comparison to regional trends which show fairly stable camping activity from year to year.

The use of private camping facilities on Buffalo Lake has increased dramatically in the last few years, which is in part due to the intensive marketing of the private operators.

Day Use: It is believed(pg.267) that potential increases in visits attributable to recent upgrading of facilities have been offset by a continued decline in lake levels and weed accumulation on beaches, and the perception of water quality problems such as swimmers itch.

Cottaging: Cottaging activities have been steadily increasing since 1981 in terms of both number of cottagers and the extent to which cottage facilities are used. Most of the increase in demand appears tied to economic growth in Calgary.

Boating: The extent of boating has increased although there are numerous reports of boats grounding in shallow areas.

Swimming: With the general decline in lake levels since 1981 and the resultant increase in weed growth, participation in swimming activities has declined.

ANALYSIS OF S.I.A.

With the exception of the conclusions regarding cottaging and boating, these conclusions are generally representative of the current situation. With respect to cottaging, in the early 1980's there was a significant increase in the cottage activity around Buffalo Lake. However, in more recent years the number of new cottages developed has declined substantially. For example, in 1990, only one new cottage was built, two cottages were rebuilt and three of the vacant lots owned by developers were sold.

With respect to boating, discussions with area residents and the operators of marinas on the lake indicate that boating activities have declined substantially. For example, during the 1990 season only 12 boats were docked at the Pelican Point marina, as compared to over 50 per year in the early 1980's.

The SIA is also lacking in that little or no mention is made of several activities that have traditionally been very significant; fishing and wild life related activities. In the mid 1970's, when the lake was higher, the amount and quality of the fishing and hunting activities in and around Buffalo Lake were substantially better than today. Discussions with residents around the lake have indicated that with declining water levels the traditional spawning areas have dried up and the number of fish in Buffalo Lake has declined substantially, resulting in a significant decrease in fishermen on the lake. The

decrease in the water levels has also resulted in a reduction in the habitat suitable for waterfowl.

2.2 Future Recreational Use Without Stabilization

The SIA concludes (pg. 267) that in the absence of lake stabilization, the trends in camping, day-use activities and cottaging observed over the last decade can generally be expected to continue. The specific conclusions relating to these activities are:

Camping: The net result is that camping activities at the provincial park facilities are expected to continue to decline. The decline in the use of provincial facilities will be offset by an increase in private facilities, providing the private operators continue to actively market their facilities.

Day-Use: It is expected that local and regional participation in day-use activities at Buffalo Lake will remain fairly constant over the next few years.

Cottaging: The SIA predicts that new cottage development is expected to continue at about a rate of 4% per year. This projection is based primarily on the projected economic activity in Calgary.

Other Activities: The report acknowledges that if the lake levels remain at current levels, opportunities for boating and other water-based activities will be limited. The SIA goes on to mention that Buffalo Lake is becoming increasingly recognized for its waterfowl resources, as it is one of the best fall staging areas in Alberta.

ANALYSIS OF S.I.A.

In general, the SIA presents a reasonably promising scenario without stabilization. However some of the assumptions on which their scenario is based are questionable. As indicated earlier in this report, cottaging activities in terms of the number of new cottages being built have declined substantially in the late 1980's. Although the economy of Calgary appears strong, the desirability of lots on Buffalo Lake without stabilization is limited and a 4% growth rate is questionable. Further, as indicated in the SIA, the most desirable lots are lake front and only 9 lake front lots are available for sale from developers on Buffalo Lake. Without stabilization it is very unlikely that any new cottage subdivisions will be developed.

The usage of private campgrounds has definitely increased over the last few years, as shown by an increase of over 20% in 1990 at the MacDonald's campground. However, this campground is fast approaching capacity and it is unlikely that further expansion of this site or the development of new private campgrounds will occur without the stabilization of Buffalo Lake.

Discussions with business operators in the communities surrounding Buffalo Lake indicate that with the decline in the water levels since the early 1980's there has been a noticeable decline in the sales they make to visitors to the lake. The tourism activities on Buffalo Lake have traditionally been very important to the economy of the region and

without stabilization will continue to decline.

2.3 Future Recreational Use With Stabilization

With regards to the various recreational activities on Buffalo Lake, the SIA makes the following conclusions regarding stabilization:

Camping: Most of the increase in camping activities will occur at the private facilities. Increased usage of provincial facilities may also occur in the short run but, in the longer term, potential flooding problems and loss of high quality beach areas will lead to little if any growth in camping activities.

Day-Use: With the provision of stable water levels, day use would increase, probably at a rate of about five percent per year.

Cottaging: With stabilization, it is expected that the marketability of cottage lots will improve, even though this may not necessarily lead to an increase in the price of lots in the short term. Further, the rate of cottage development on Buffalo Lake can be expected to rise to about six percent per year from the current four.

Other Activities: Boating and fishing activities will increase with stabilization.

ANALYSIS OF S.I.A.

In general, the conclusions regarding the impacts of stabilization on the recreational use of Buffalo Lake appear to be reasonable. However, given that the rate of development of new cottages without stabilization appears to have been over-estimated, a six percent increase with stabilization is probably high. A more realistic

assumption is one to two percent growth without stabilization and four to five percent with stabilization.

The SIA also addresses the benefit that the Village of Alix will receive from the stabilization of Alix Lake through the Parlby Creek - Buffalo Lake project. This development will be beneficial to the Village by creating a more attractive and useable lake, which in turn will help the Village to market the residential lots in the subdivision adjacent to Alix Lake.

2.4 Impacts on other Activities With Stabilization

In addition to the direct impact that the stabilization of Buffalo Lake will have on recreational activities, the SIA examines the impact the project will have on several other activities, including:

Agriculture: It is expected that agriculture will be marginally improved in the Parlby Creek area in those years when backflooding occurs. Improvements in both production and quality of hay crops can be expected.

Non-Renewable Resources: The project is not expected to impact this sector of the local economy.

Service Sector: Depending on the purchasing practices of the contractor, during the construction phase, the project may have a beneficial, short-term effect on local services and businesses.

In the long term, the project may have an effect on the service sector. As tourism increases, personal services to the tourist market will be in greater demand. Given current levels of regional development, it is expected that these economic impacts would be relatively small.

Population: The proposed project is not expected to create any significant increase in the project area.

Employment: Project Construction has the potential to create employment and increase regional incomes in two ways. First, the construction phase can provide short term job opportunities to qualified local residents. Second, the project will likely require goods and services from local businesses.

Municipal Services: Village of Alix: The Buffalo Lake Stabilization will reduce the pumping costs (\$4,000. per year) to the Village to stabilize Alix Lake. No apparent benefit is identified for municipal water supply for the Village.

Village of Mirror: One of the perceived benefits is that the Village, which currently draws water from Parly Creek will have access to a more reliable and better quality water supply.

ANALYSIS OF S.I.A.

In general, with the exception of the economic spin-off and the water supply issue, the SIA provides an accurate picture of the non-recreational benefits that result in the area as a result of the Parly Creek - Buffalo Lake Development Project.

The suggestion that the multiplier effect of the tourism dollars spent in the area is insignificant is questionable. On pages 310 and 311 the authors provide their justification for suggesting that the economic spin-off will be insignificant. An alternative justification for a larger multiplier is presented here:

1. **Local Usage:** Granted much of the current use is local, but without stabilization the local users may find alternative recreational activities which results in their dollars leaving the area.
2. **Local Businesses:** The authors suggest that most of the local businesses are located some distance from the lake and it would be inconvenient for visitors to travel even further. Discussions with local business operators have indicated that the visitors to the lake do, in fact, frequent the businesses in the local communities.
3. **Local Production:** The authors suggest that local businesses produce very little of what they sell so that only a portion of what they sell will remain inside the region; this will consist mainly of wages and salaries plus profits. Although, this is in part true, in addition to wages and profits, many local businesses do require additional supplies that are produced locally. In addition, as most of the new cottagers will be from Calgary, they will be using local contractors that will use local labour and suppliers.
4. **Provincial Impact:** In the Benefit - Cost Analysis the author indicates that the benefit of the project should be examined from the Provincial perspective and since most benefits are really shifts from one part of the Province to another, they are not significant. This approach is contrary to that of the provincial government whereby smaller tourism projects are encouraged if they redistribute benefits from larger centres to rural areas (See for example: Alberta Tourism's Community Tourism Action Plans and various programs such as Stamp Around Alberta).

The suggestion of a multiplier of 1.1 for the campers and day-use people from outside the region appears low and the multiplier effect should not be ignored in the benefit - cost analysis. A more realistic multiplier would be 1.3 to 1.5 for the campers and day-use people from outside the region. Given the distance from other suppliers and the need to use local suppliers a modest multiplier for the cottage development is 1.5, which should be applied to all new cottage development. The multiplier for the benefit resulting from the construction of the project should also be 1.5.

3.0 ANALYSIS OF BENEFIT - COST ANALYSIS

The methodology incorporated in the Benefit - Cost analysis is sound, however, some of the assumptions that have been used in the analysis should be adjusted to better reflect the benefits to the area and the Province of Alberta. The following assumptions have been incorporated into the revised Benefit - Cost analysis presented in this report.

Camping Benefits: same as EIA

Day-Use Benefits: same as EIA

Cottage Development Benefits: The same rates as in the EIA have been used, however, the development rates without stabilization could be reduced to 1 to 2 % and with stabilization to 4 to 5% growth rate. As the reduction with and without stabilization would be 1 to 2% for both, the rates used show the same relative comparison. The revised method for calculating the benefit of cottage development, as submitted in the Pelican

Point Association brief is included in this analysis.

Savings in Water Costs for Alix: same as EIA. Although, no dollar value can be assigned to the benefit at this time, it should be acknowledged that the Village of Alix will have a stable water supply should the aquifers that currently supply the Village dry up.

Water Supply Benefits for Mirror: \$1.96 million benefit, as per ServAlta Engineering Report submitted on behalf of the Village of Mirror.

Multiplier Effect: 1.3 for the benefit resulting from day-use and camping benefits

1.5 for the benefit resulting from the construction of new cottages

1.5 for the project capital and operating costs

Additional Benefits: Although no value is assigned to the benefit that could result from increased activity associated with bird watching, fishing and hunting, the potential exists that these activities could result in even greater increases in the day-use and camping activities in and around Buffalo Lake.

The inclusion of these changes in the benefit - cost analysis result in a total present value benefit of \$14.57 million. With a project cost of \$13.16 million, the net benefit to the Province of the Parly Creek - Buffalo Lake Development will be \$1.41 million, with a benefit - cost ratio of 1.11. In addition, over the 30 year life of the project the multiplier benefit will result in \$12.77 million in secondary benefit to the area, with a substantially larger benefit to the Province. These secondary benefits will result in increased employment opportunities for unemployed workers in the area, increased sales in the local shops, and additional property taxes and utility expenditures for the cottage

developments.

BENEFITS	EIA CALCULATIONS	REVISED CALCULATIONS
1. Camping Benefits	\$64,470	\$64,470
2. Day-Use Benefits	\$347,390	\$347,390
3. Cottage Development Benefits	\$9,622,000	\$12,131,000
4. Saving in Water Costs for Alix	\$64,500	\$64,500
5. Water Supply Benefits for Mirror	\$1,000,000	\$1,960,000
Total Present Value Benefits:	\$11,099,360	\$14,567,360
Costs		
1. Project Capital and Operating Costs	\$13,160,000	\$13,160,000
Net Benefits @ 5%	(\$2,060,640)	\$1,407,360
Benefit-Cost Ratio:	0.84	1.11

The benefits of this project to the Province of Alberta are greater than it's costs and more important to the region, the development of the Parlyb Creek - Buffalo Lake Development project will help to create many additional opportunities for employment and increased activity in the area. Many of these benefits are difficult to quantify, but should not be overlooked in the analysis of the project.

4.0 PROJECT SUMMARY

The development of a strong and vibrant economy in rural Alberta is essential to the long term economic prosperity of the Province of Alberta. Through the development of improved recreational opportunities in rural Alberta, the potential exists that more of the recreational and tourism dollars spent by the residents of Calgary and Edmonton will be spent in Alberta. Such initiatives will complement the Province of Alberta's commitment to the development of tourism opportunities in Alberta through programs such as the Community Tourism Action Plans that have resulted in millions of dollars worth of projects being developed throughout Alberta.

The Minister's Council on Local Development Initiatives has also recently released their report that suggests that the Province needs to help provide opportunities for the rural areas to develop their own economic potential. The Parby Creek - Buffalo Lake stabilization project will provide an opportunity for the East Parkland area to diversify and strengthen their economy through the development of recreation and tourism opportunities.

The stabilization of Buffalo Lake will also provide another good quality lake that will be suitable for additional cottage development in Alberta. The majority of the other lakes in Central Alberta; Pine, Sylvan and Gull, are already at or near their capacity for cottage development. The potential for cottage development on Buffalo Lake will help to reduce

the flow of Albertans to other Provinces for water based recreational activities.

In summary, the benefits of the Parlby Creek - Buffalo Lake Water Stabilization Project to the Province of Alberta and to the region surrounding Buffalo Lake justify the expenditures required to complete this project.

Tony's Bay Marina

Box 605, Bashaw, Alberta T0B 0H0

AT PELICAN POINT
NORTH SHORE OF
BUFFALO LAKE

Parly Creek - Buffalo Lake
Water Management Review Board

To Whom It May Concern

As owners of the marina at Pelican Point we are very concerned over the water levels fluctuation in the lake. In 1984 our facility accommodated between 85-90 Boats and at that time the Lake Level was not good, but not bad. As winter snow falls and Summer Rains have diminished substantially so has the Lake Level. In setting up our facility this year we plan on 12 Berths as the demand has dropped substantially because of rocks in shallow areas and a practically not existant fish Population. A higher lake level will definitely ~~be~~ be benificial to all area people and business as tourists are a very important resource as is an ample supply of water. Yours truly

Boat Moorage - Launch - Gas & Oil - Fishing Tackle

Bryan

May 14, 1991
Debra Ferrey
4428 Lake St.
Alia

Dear Buffalo Lake Stabilization Project,

Please let this letter stand as a vote in favour of the project. I believe the stabilization of Buffalo Lake will benefit the area and I welcome a flow of water through our little lake.

I appreciate the thoroughness of the various committees and hope the plan goes well. My vote is Yes!

Thankyou for your time.

Sincerely
Debra Ferrey

May 20th. 1991

Parlby Creek Buffalo Lake Water Management,
Box 14500,
Lacombe.
T50 1S0

Dear Committee Members;

Re Parlby Creek Buffalo Lake Water Management Project.

The Alix Wagon Wheel Museum Board passed a motion that a letter endorsing the Parlby Creek Buffalo Lake Water Management Project be submitted to your committee. The Board feels the improvements in our recreation area which will be possible with the stabilization of Alix Lake, will result in an influx of tourists and new residents in the area. This will surely result in a rejuvenation of interest in the Alix Wagon Wheel Museum.

Yours truly

Betty J. Ward -
President



EAST PARKLAND COMMUNITY FUTURES ASSOCIATION

Box 250 Mirror, Alberta T0B 3C0

Phone (403) 788-2210

Fax (403) 788-2199

May 24, 1991

Mr. Don Thorne, Chairman
Parlby Creek - Buffalo Lake
Water Management Project
Review Board
P.O. Box 15400
LACOMBE, Alberta
T0C 1S0

Dear Mr. Thorne:

Re: Parlby Creek Buffalo Lake Development Project

The Board of Directors of the East Parkland Community Futures Association supports the Parlby Creek-Buffalo Lake Water Management Project and recommends to the Project Review Board that they recommend to the Minister of Environment that the project be approved. In support of the project at the regular Board Meeting held on April 10, 1991 the following motion was passed:

Jim Sturgeon moved that the East Parkland Community Futures Association prepare a written intervention supporting the stabilization of Buffalo Lake to be submitted to the Parlby Creek-Buffalo Lake Water Management Project Review Board. Carried.

Our Association, a non-profit association funded through the Canada Employment and Immigration Commission, is devoted to promoting and supporting economic development in the region surrounding Buffalo Lake. The primary economic development initiatives in our area have traditionally been based on servicing the agricultural and oil and gas sectors. Tourism and its related developments has only recently been recognized for its potential economic development. Unfortunately our area does not have the benefit of many natural attractions, but, we do have the potential of further tourism growth with the stabilization of Buffalo Lake.

The three Counties Lacombe, Stettler and Camrose around Buffalo Lake have identified Buffalo Lake as a resource for potential tourism development in their Community Tourism Action Plan (CTAP). Some of the Counties have already provided CTAP grants to projects on the Lake.

The East Parkland Community Futures Association has identified tourism development as one of the goals within our five-year-plan. Our Association is currently working with and has helped secure financial assistance for the Steam Tour Service on the Stettler Subdivision and to help with the development of the Big Valley Country and Western Jamboree. We are prepared to assist with tourism developments on Buffalo Lake. Unfortunately, without the stabilization of the lake levels it is doubtful that any private ventures are economically viable.

To assist our Association and the Friends of Buffalo Lake, our Association retained the firm of New Ventures and Associates to complete an analysis of the Socio-Economic Impact Assessment Chapter and the Benefit-lost Analysis Chapter of the Environmental Impact Assessment Report completed by Environmental Management Associates. The enclosed report provides a comprehensive analysis of these chapters.

As our report suggests, the Environmental Impact Assessment Report underestimates the benefit that the Province of Alberta, and in particular rural Alberta will reap from the Parlbly Creek-Buffalo Lake Water Management Project. In addition, this project has the support of the vast majority of the residents, business operators and cottage owners surrounding Buffalo Lake.

Based on the information provided in the analysis and the information presented at the hearings, we feel that the Parlbly Creek-Buffalo Lake Water Management Project has the public support and should be endorsed by the Project Review Board and submitted to the Minister of Environment and Cabinet for approval.

Respectfully submitted

A handwritten signature in dark ink, appearing to read "Paul R. Brown", with a long, sweeping horizontal stroke extending to the right.

Paul Brown, Chairman

/lb
enclosure (1)
pc. A. Braseth, Friends of Buffalo Lake

HAGEN BUILDING MATERIALS LTD
BOX 490
STETTNER, ALTA
T0C 2L0

MR. DON THORNE - CHAIRMAN
BUFFALO LAKE STABILIZATION COMMISSION
BOX 15400
LACOMBE, ALTA
T0C 1F0

DEAR SIR, -

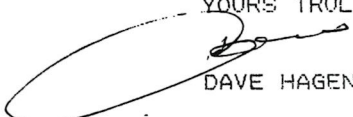
RE: BUFFALO LAKE STABILIZATION PROGRAM

WE GIVE OUR STRONG SUPPORT TO THE CAPTIONED PROGRAM AS OUR BUSINESS ALONG WITH MANY BUSINESSES IN THE TOWN OF STETTNER HAVE NOTICED A VERY STRONG DEMAND FOR THEIR INDIVIDUAL SERVICES REQUIRED BY ALL PROPERTY OWNERS OF ALL RESORTS AT BUFFALO LAKE. WE ARE VERY CONCERNED ABOUT THE CONTINUED SUPPORT BY THE RESIDENTS OF THE LAKE UNLESS YOUR PROGRAM IS IMPLICATED IN THE NEAR FUTURE. OVER THE PAST FEW YEARS WE HAVE NOTICED AS A RESULT OF OUR INCREASED BUSINESS INTO THE BUFFALO LAKE AREA, MANY PEOPLE ARE REQUIRING TEMPORARY AND PERMANENT RESIDENTS IN THIS RESORT AREA.

WE ALSO FEEL, UNLESS YOUR PROGRAM GOES AHEAD, A DECREASE IN BUSINESS WILL BE THE OUTCOME. THIS OUTCOME IS NOT GOOD FOR A SMALL RURAL TOWN AS YOUR DEPARTMENT IS WELL AWARE OF THE MAJOR PROBLEM FACING THESE RURAL ALBERTA AREAS. IT IS OUR OPINION APPROXIMATELY 20% OF OUR BUSINESS OVER THE PAST FEW YEARS HAS COME FROM THE BUFFALO LAKE AREA, AND CANNOT SEE THIS LARGE PERCENTAGE CONTINUING WITHOUT YOUR SUPPORT.

FEEL FREE TO CONTACT THE UNDERSIGNED IF YOU REQUIRE ADDITIONAL INFORMATION.

YOURS TRULY



DAVE HAGEN

FESTERY 6A, DONNA & MIKE
RR # 4 CALGARY T2M 4L

BUFFALO LAKE STABILIZATION
Box 15400
Lacombe

DEAR SIR:

I AM UNABLE TO ATTEND YOUR HEARING SCHEDULE
FOR MAY 21-22, 1991 IN ALIX DUE TO OTHER
COMMITMENTS. THEREFORE, I WISH TO MAKE A
FEW COMMENTS SUPPORTING THE BUFFALO LAKE
WATER MANAGEMENT PROJECT.

I PURCHASED TWO LOTS AT PELICAN POINT A LONG
TIME AGO. IN THIS PERIOD I HAVE SEEN THE
LAKE VERY HIGH WITH DISASTEROUS RESULTS IN
THE LOWER AREAS, AND NOW VERY LOW WITH EQUALLY
NEGATIVE CONSEQUENCES.

ECONOMIC DEVELOPMENT WILL NOT TAKE PLACE
UNLESS THE LAKE IS HIGH ENOUGH TO ATTRACT
MORE TOURISTS AND CABIN OWNERS TO SPEND THEIR
SUMMER VACATIONS. INCREASED ACTIVITY IN CABIN
BUILDING, USE OF MARINA, VARIETY STORE AND
TRAILER PARK WILL ENSURE INCREASED SPENDING
AT PELICAN POINT AND THE SURROUNDING AREAS.

IN ORDER FOR THE LAKE TO HAVE GREATER RECREATION
VALUE THE WATER LEVEL MUST BE HIGH ENOUGH
TO ACCOMMODATE POWER BOATS; SO THAT ALBERTANS
CAN SWIM, WATER SKI AND FISH WITHIN THEIR
OWN PROVINCE. TODAY'S WATER LEVEL HAS
PRACTICALLY DESTROYED ALL ASPECTS OF BOATING
AS WELL AS THE USE OF THE PRIVATE MARINA.

THE REASON PEOPLE NO LONGER GO TO BUFFALO LAKE ON WEEKENDS IS THAT THEY CANNOT ENJOY THEMSELVES ANYMORE DUE TO THE LOW LEVEL OF THE LAKE.

FISHING HAS ALSO ALMOST DISAPPEARED ON THE NORTH SIDE OF THE LAKE. NO LONGER CAN PIKE GET TO THEIR SPAWNING GROUNDS IN ROCKLAND BAY BECAUSE THE WATER HAS RECEDED OVER FIVE HUNDRED FEET FROM THE CULVERTS. THESE CULVERTS WERE $\frac{3}{4}$ FILLED ONLY A FEW YEARS AGO.

CENTRAL AND SOUTHERN ALBERTA HAVE FEW LAKE FACILITIES WHICH ATTRACT TOURISTS. OUR LAKES ARE SHALLOW AND MUDDY COMPARED TO B.C., ONT., N. ALTA, N. SASK, AND N. MAN. IF WE DO NOT ATTEMPT TO IMPROVE THE FACILITIES WE HAVE, THE RESULT WILL BE A LOSS OF RECREATIONAL DOLLARS TO OTHER PROVINCES.

IN SUMMARY, I FEEL THAT THE STABILIZATION OF WATER IN BUFFALO LAKE WILL HAVE ECONOMIC, RECREATIONAL, AESTHETIC BENEFITS FOR ALBERTA TAXPAYERS. THEREFORE, I EMPLOY YOU TO GIVE VERY CONSIDERATION TO THE BUFFALO LAKE WATER MANAGEMENT PROJECT.

SINCERELY,



Red Deer River Naturalists

P.O. BOX 785, RED DEER, ALBERTA, T4N 5H2

May 23, 1991

The Parlby Creek Buffalo Lake
Stabilization Review Committee

Dear Sirs:

The Red Deer River Naturalists have concerns with the proposed stabilization of Buffalo Lake. This present Environment Impact Assessment was done on phase five of the project. The public would have to wonder why the other four phases were not scrutinized. One also needs to question the wisdom of spending 15 million dollars to benefit a small number of cottage owners. The E.I.A. does not directly answer the question of benefits to the local communities with regard to tourism. The E.I.A. does address the water needs for the towns of Alix and Mirror, but improperly portrays these water needs as crucial for these towns. Alix has well water for its domestic consumption, and of a much superior quality than water from the Red Deer river.

The Red Deer River Naturalists conclude that the E.I.A. for Parlby Creek -Buffalo Lake is a frivolous waste of taxpayers money. Our Naturalist society wonders if the real motive behind the project is not the government's unpublicized plan for the inter basin transfer of water. The E.I.A. does not specifically address how the Environment Department will protect and preserve the nesting sites of the Piping Plover population. The culvert between Buffalo Lake and Rockland Bay would need to be maintained and upgraded to assure sufficient nesting habitat for this species. The project should not proceed until a proper and complete inventory of nesting sites of the Piping Plover can be completed. This inventory should be coupled with ways to protect their nesting habitats and ensure their survival if this project proceeds.



Red Deer River Naturalists

P.O. BOX 785, RED DEER, ALBERTA, T4N 5H2

The Red Deer River Naturalists conclude that a more thorough and independent study needs to be completed at the Federal government level. The aspects of the diversion and stabilization that affect fisheries, migratory birds and endangered species warrants this Federal review. The Red Deer River Naturalist Society that has a membership of 250 individuals and families opposes the present Parlyb Creek-Buffalo Lake stabilization. The importance of maintaining the Piping Plover nesting sites on Buffalo lake and the adjoining areas outweighs the stabilization project.



Michael McNaughton
President, Red Deer River Naturalists



FRIENDS OF BUFFALO LAKE continued

PLEASE PRINT NAME	ADDRESS	PHONE #	SIGNATURE
DAVID STANWART	Box 501 Dean	987-3642	[Signature]
Bill + June Hughes	Wetaskiwin	352-4549	[Signature]
Vivian SPARROW	Box 73 Sedgewick	384-3666	
MARY ABBOTT	"	384-3559	
ROSE LACOBSEN	SEDEGWICK	384-2400	
Yvonne Brown	Edseld	667-2651	
Frank current	Edseld	663-3872	
Earl Fjelhus	Viking AB	336-4996	
W. R. MAJOR	MAYOR OF VIKING	336-3466	[Signature]
MAKINE LITKE	FORESTBURG	582-3934	[Signature]
LLOYD LITKE	FORESTBURG	582-3934	[Signature]
W. F. (Bill) Fowler	" Grand Park Crescent	TAV 2 K3	[Signature]
DIANA TROUPIN	Shirwood Park	464-0801	[Signature]
Myriam Longhead	Alberta		[Signature]
Oliver Prince	Longhead		[Signature]
Gillian Mies	1326 - 29th St. SE Lethbridge, Alta.	320-5604	[Signature]
JACK BROWN	Box 31 DELBURNE		[Signature]
C. G. MACDONALD	RED DEER 442 EDMUND PARK		[Signature]
MELODY SWAREN	Donalda, AB Box 144, T0A-1H0	883-2585	[Signature]
SANDRA STEINHOEF	Box 100 Donalda	883-2405	[Signature]
DARRELL TURNER	Box 150 LORDS AB		[Signature]

FRIENDS OF BUFFALO LAKE

continued

PLEASE PRINT NAME ADDRESS PHONE # SIGNATURE

Cindy Turner Box 1581, Olds, AB 556-7386 *Cindy Turner*

Jean Naciuk 35 Ellenwood Dr, Red Deer 340-2642 *Jean Naciuk*

Alan Taylor 6109 35 Ave Stettler 742-1474 *Alan Taylor*

ROSS WALKER Box 971 Stettler 742-2281 *Ross Walker*

Patty Bickelried Box 2203, Stettler 742-5994 *Patty Bickelried*

John F. Felt " " " "

Jim Frew ERSKINE, P.O. Box 161 - 876-2743

ROSEANNE HALDANE 108 Greig Drive, Red Deer, AB 343-6529 *R. Haldane*

FRIENDS OF BUFFALO LAKE
continued

PLEASE PRINT NAME	ADDRESS	PHONE #	SIGNATURE
ALVIN KUEFLER	STETTLER	742-2414	[Signature]
Harold Geddes JR.	Stettler	742-5285	[Signature]
DALE KAMISHKE	STETTLER	742-3752	[Signature]
Bill Turville	Stettler	742-1726	[Signature]
MURRAY ANDERSON	ERSKINE	742-6230	[Signature]
MURRAY BEER			
DARCY STEVENS	ERSKINE	742-0558	[Signature]
Don Byrnes	Edmonton	440-1844	[Signature]
Dean Hewitt	Stettler	742-6185	[Signature]
LORENCE POCHYLKO	STETTLER	742-5045	[Signature]
RICK WRIGHT	STETTLER	742-0307	[Signature]
Theo Thirsk	Kelsey	375-2418	[Signature]

P PETITION TO STABILIZE WATER LEVEL in Buffalo Lake

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alin Lake, and then allowing the water to flow through Parlyby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlyby Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

1	Brenda Turville	Box 188, Stettler	B. Turville
2	Colin Norman	Box 1566 HANNA	C. Norman
3	Damen Anderson	Box 293 Erskine	Damen Anderson
4	David B. Smith	Box 2425 Stettler	David B. Smith
5	Dolly Stevens	Box 74 Erskine	Dolly Stevens
6	Bill Turville	Box 188 Stettler	Bill Turville
7	Jim Gilbert	Box 963 Stettler	Jim Gilbert
8	Ken Graham	Box 546 Stettler	Ken Graham
9	Pete Muhlback	Box 88 Becca	Pete Muhlback
10	HARLEN TURVILLE	4120 11th St.	Harlen Turville
11	Lois Innocent	Box 60 Big Valley	Lois Innocent
12	Ryan Orris	Box 60 Big Valley	Ryan Orris
13	Darren Sutton	Box 273 Big Valley	Darren Sutton
14	Bryan Gitzel	Box 460 Stettler	STI BARRY D GITZEL
15	Stephen R. Larose	Box 1965 Stettler	STEPHEN R. LAROSE
16	Brian Agar	Box 2061 Stettler	Brian Agar
17	Kelly L. Anderson	Box 109 Erskine	K. Anderson
18	Donna Moxham	Box 688 Stettler	Donna Moxham

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

STETTLER MARINE & POWER PRODUCTS
a division of 335740 Alberta Ltd.
Box 169, STETTLER, ALBERTA
T0C 2L0
742-1121

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NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

Cindy Nelson

Box 1256 Stettler

C. Nelson

Ernie Russell

Box 1809 Drumheller

Ernie Russell

Scott Gordon

Box 2574 Stettler

Scott Gordon

H. HEWRY HOUSEW

Box 92 GARBOY

Henry Housew

Randy Housew

Box 97 Both

Randy Housew

Don Byrnes

61. RIVERVIEW DR

Don Byrnes

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

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The Department of Agriculture has since completed the channelization of Parlyby Creek and

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NAME (PLEASE PRINT)	ADDRESS	SIGNATURE
MURRAY MARSON	Box 129 Port Hope	[Signature]
TERRILL GAUTHIER	Box 1311 Stettin	[Signature]
Mr. [unclear]	Box 1383 STETTLER	Mr. [unclear]
BETTY JAMESON	Box 1445 STETTLER	[Signature]
DAVID NELSON	Box 1256, STETTLER	[Signature]
Earl E. Hornum	Box 224 Esthline Alta	Earl E. Hornum
Reg. Hayo	Box 424 Stettin Alta	[Signature]
[unclear]	Box 965 Stettin Alta	[Signature]
Donald Giddes	5900 42 AVE Stettin AB	[Signature]
Kathy Kello	Box 1144 Stettin	[Signature]
Tracy Lantry	Box 301	[Signature]
TERRY FISHER	STETTLER	[Signature]
Ray Hudson	Stettin	[Signature]
Don Smith	STETTLER	[Signature]
CRATE BECKE	WINDY WHITEHAWK	[Signature]
Gary Howell	STETTLER	[Signature]
Albert Thompson	STETTLER	[Signature]
M. Clarke	Calgary Alta	[Signature]

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Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parlyby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlyby Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

James T. Sturgeon	Box 73, Munn	James T. Sturgeon
Rodney C. Nelson	Box 1501 Camrose	Rodney C. Nelson
Mary T. Tien	Camrose	Mary Tien
W. B. Inions	1241 DAVENPORT RD Camrose	W. B. Inions
Martha Inions	Box 9 Mirror	Martha Inions
E. M. Jarvis	Box 9 Mirror	E. M. Jarvis
R. M. Jarvis	RR 4 RED DEER	R. M. Jarvis
Arnold Malone	Box 1687 Camrose	Arnold Malone
Suzanne Malone	Box 1687 Camrose	Suzanne Malone
Tony Hill	Stettler	Tony Hill
Reggie Chen	Stettler	Reggie Chen
Patricia Gibson	Drayton Valley	Patricia Gibson
Lance Gibson	Drayton Valley	Lance Gibson
Charles Gibson	Alix Lake (Box 97)	Charles Gibson
Robert Sparrow	Edmonton	Robert Sparrow
Scott Redford	Edmonton	Scott Redford

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major tourist destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1987, by installing a pipeline 6 miles from the Red Deer River into Altz Lake, and then allowing the water to flow through Parly Creek into Buffalo Lake.

The Department of Agriculture has since completed the construction of Parly Creek and

WE THE UNDERSIGNED THEREFORE DEMAND PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE FRANK 111 STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

[Signature]

12211-1417 AVE Edm.

PAT RENNICK

DWAYNE FOSKE

70554 REDWATER Ave

[Signature]

HANK BOER

3801-6555 STETTLER

[Signature]

LORI FRANK

Box 238 (ERSKINE)

[Signature]

LLOYD DERRY

Box 1291 Hanna

[Signature]

KIRK AGAR

Box 2001 STETTLER

[Signature]

BRAD FRANK

Box 2355 Erskine

[Signature]

MILK JENSEN

#2 Circle Dr. Sherwood Pl.

[Signature]

~~JOHN DYCK~~

A-2427 Stokke Ave

[Signature]

CHARLES CLARKE

1236 LAKELAND VILL Sherwood Pls

[Signature]

JAN MAANDAG

Box 801 STETTLER

[Signature]

J. Smith

75 Beedlingway

[Signature]

BOB BAGSHAW

Calgary ALTA

[Signature]

Gerald Wiebe

Line ALTA

Gerald Wiebe

TIMOTHY S. SHERRAW

THREE HILLS, ALTA

[Signature]

Shirley Bagshaw

Calgary ALTA

[Signature]

THERESA SHERRAW

THREE HILLS AB

[Signature]

DALC KOMISTKE

St. Albans ALTA

Dalc Komistke

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parly Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parly Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)	ADDRESS	SIGNATURE
CHARLIE FIX	5508-43 ST. STEVEN	Charlie Fix
WAYNE ELLIS	205, 52246 Ry Rd 232 Sherwood Park, Alta	Wayne Ellis
GEORGE PATAIL	3206-145 ST EDMONTON	George Patail
S. Joseph Smith	Box 577 Stettin, Alta	S. Joseph Smith
PAT SMITH	Box 578 STETTIN, Alta	Pat Smith
ADA HALLIES	Stettin, X. In. S.W. S. STETTIN, Alta	Ada Hallies
ELAINE WILLIAMS	5736-40 AVE, Stettin, AB	Elaine Williams
BRIAN WILLIAMS	5736-40 AVE, Stettin, AB	Brian Williams
Osamu Ogasawara	Hekinan, Japan	Osamu Ogasawara
DAVID PRATT	17 BERRYMORE DR. ST. ALBERT	David Pratt
ELAINE PRATT	17 BERRYMORE DR. ST. ALBERT	Elaine Pratt
ALVINA FRANK	24 WALDEN PK ST. ALBERT	Alvina Frank
RON FRANK	24 WALDEN PK. ST. ALBERT	Ron Frank
ALAN R. WILLIS	Box 1793 Stettin, Alta	Alan R. Willis
GEORGE P. HUBERT	Box 1001 Stettin	George P. Hubert
KAY HUBERT	Box 1001 Stettin	Kay Hubert
ALICE SUNDBET	Box 1001 Stettin	Alice Sundbet
WEST SUNDBET	Box 1001 Stettin	West Sundbet
with White	Box 56 Digby, N.S.	with White

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parlyb Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlyb Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)	ADDRESS	SIGNATURE
CHESTER BIGNELL	STETTLER	Chester Bignell
SUANN STRANDQUIST	STETTLER	Suann Strandquist
HALLEY STRANDQUIST	STETTLER	Halley Strandquist
WAYNE HARRISON	RED WILLOW	Wayne Harrison
JIM JACOBS	STETTLER	Jim Jacobs
Don Spruce	Stettler	Don Spruce
John Spruce	CHIVE,	John Spruce
ERIK NYBOE	STETTLER	Erik Nyboe
Don Andrew	ERIKENE	Don Andrew
Cindy Dychoscher	Stettler	Cindy Dychoscher
Louise Turnbull	Stettler	Louise Turnbull
Wendy Currier	Mirror	Wendy Currier
Dawn Byers	Stettler	Dawn Byers
Lyndy Strickland		
GARY STRANDQUIST	STETTLER	Gary Strandquist
STAN JACKSON	GADSOY	Stan Jackson
WENDY AIKEY	STETTLER	Wendy Aikey
Joan Browne	Stettler	Joan Browne

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parly Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parly Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)	ADDRESS	SIGNATURE
RUSSELL WATTS	BIG VALLEY	Russell Watts
<i>[Signature]</i>	STETTIN	<i>[Signature]</i>
BRUCE HENNEL	STETTIN	<i>[Signature]</i>
GORDON ADAMS	MORRIS	<i>[Signature]</i>
MEL HILLER	STETTIN	<i>[Signature]</i>
AL & SHEILA DUNN	#36 Whitesands (Summer) CRYECKVILLE	<i>[Signature]</i>
Melvin Annas	Box 133 MIRROR AB	<i>[Signature]</i>
EUGENE H. HARVEY	Box 1889 STETTIN	<i>[Signature]</i>
MERLE GORPON	Box 49 Gadsby	<i>[Signature]</i>
GREG STANDING	Box 1635 NARMA	<i>[Signature]</i>
Bill Chapman	Box 838	<i>[Signature]</i>
<i>[Signature]</i>	RED DEER	<i>[Signature]</i>
Chris Moorby	Stettin	<i>[Signature]</i>
TIM CAMPBELL	ALIX	<i>[Signature]</i>
John MacFarlane	Rumsey	<i>[Signature]</i>
John Sterling	Castor	<i>[Signature]</i>
Al Innocent	Stettin	<i>[Signature]</i>
<i>[Signature]</i>	Stettin	<i>[Signature]</i>
BRIAN JOLLY	Stettin	<i>[Signature]</i>

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Aix Lake, and then allowing the water to flow through Paribby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Paribby Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

L. Brown

Donalds

L. BRIDGES

BOB KIRK

ROCKON SANDS

Rockon Sands

Shelia Kirk

Rockon Sands

Shelia Kirk

Loene Smith

Gadsby Alta.

Loene Smith

Judi Smith

Gadsby Alta.

Judi Smith

MAE HALLETT

STETTLER

WILLIE HALL

Stettler

RU RUMBERGER

✓

Rumberger

BOB PAULUSYN

✓

Bob Paulusyn

Eric Bellinger

Erskine

Eric Bellinger

ELL BRIDGES

Stettler

ELL BRIDGES

RENE LAMOURCEN

Stettler

Rene Lamourcen

EUGENE DERR

Stettler

EUGENE DERR

JIM WILSON

Delburne Alta.

Jim Wilson

SUSAN GEDUL

Utteran

Susan Gedul

NORMAN CRICKET

Erskine

Norman Cricket

Brian Abram

Stettler

Brian Abram

E. J. & D. E. HELM

Alx

E. J. & D. E. HELM

PETITION TO STABILIZE WATER LEVEL in Buffalo Lake

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourist Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1962, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parby Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO APPOINT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

1	Russ McKinney	STETTLER	Russ McKinney
2	BERNIE MCKINNEY	STETTLER	Bernie McKinney
3	JUDITH PRATT	Box 238 ERSKINE BOCHON SANDS	Judith Pratt
4	Albert Duncan	Stettler	Albert Duncan
5	DJ Fowler	Stettler -	DJ Fowler
6	Robert Giesse	Stettler	Robert Giesse
7	G. ROGER NICHOLS	ERSKINE	G. Roger Nichols
8	Wade G. Jamieson	Stettler	Wade G. Jamieson
9	DALE YOUSSEF	CARSTAIRS	Dale Youssef
10	Bob Hailes	Edmonton	Bob Hailes
11	Lavonne Hakes	EDMONTON	Lavonne Hakes
12	ALLAN JOHNSON	CALGARY	Allan Johnson
13	John Fowles	Calgary	John Fowles
14	BARB GROLLMUS	CALGARY	Barb Grollmuss
15	Georgie Edmunds	Calgary	Georgie Edmunds
16	Ray Williams	Calgary	Ray Williams
17	Aaron Chapman	Stettler	Aaron Chapman

P PETITION TO STABILIZE WATER LEVEL in Buffalo Lake

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourist Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1962, by installing a pipeline 6 miles from the Red Deer River into Alin Lake, and then allowing the water to flow through Parly Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parly Creek and

WE THE UNDERSIGNED THEREFORE DEMAND PETITION THE PROVINCIAL GOVERNMENT TO IMMEDIATELY THE STABILIZATION OF BUFFALO LAKE IN THE 1969 - 1970 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

GARY JOHNSON

Stettler AB

G. Johnson

Ray Johnson

Stettler AB

Ray Johnson

Sheldon Grollmass

Calgary

Sheldon Grollmass

Brian Postma

Calgary

Brian Postma

JOHN EDMUNDS

CALGARY

John Edmunds

Joan McClymont

Stettler AB

Joan McClymont

David A. Sharpe

STETTLE (ROCKY MOUNTAIN SANDS)

David A. Sharpe

Ken & Jan Paul

CALGARY

Ken & Jan Paul

JOHN POKOTAY

CALGARY

John Pokotay

B. LEONARD

Fox Creek

B. LEONARD

B. GIBSON

BOYHA

Blaine Gibson

N. Christensen

Stettler

N. Christensen

Pam. Robinson

Coatsby

P. Robinson

LOREN C. WATTS

Big Valley

Loren C. Watts

Ross Duncan

Coatsby

Ross Duncan

Philip Paul

Coatsby

Philip Paul

Jim Bice

Nanton

Jim Bice

TIM HARTY

NAANTON

Tim Harty

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourist Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parly Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parly Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

1	DERICK SMITH	RED DEER	<i>Derrick Smith</i>
2	Rodger Buckland	Red Deer	<i>Rodger Buckland</i>
3	Bruce Ball	Botha	<i>Bruce Ball</i>
4	Maureen Ball	Botha	<i>Maureen Ball</i>
5	Daphne Apparey	Stettler	<i>Daphne Apparey</i>
6	James McKay	Erskine	<i>James McKay</i>
7	Lesley Reichenfeld	Calgary	<i>Lesley Reichenfeld</i>
8	Don Huston	Wellburn	<i>Don Huston</i>
9	Betty Huston	Wellburn	<i>Betty Huston</i>
10	Roxanne Harland	Red Deer	<i>Roxanne Harland</i>
11	Murray MacDonald	Erskine	<i>Murray MacDonald</i>
12	LESTER STEBLYK	BITTERN LAKE	<i>Lester Steblyk</i>
13	SHARON STEBLYK	Bittern Lk, Alta	<i>Sharon Steblyk</i>
14	Ruth Steblyk	Stettler	<i>Ruth Steblyk</i>
15	Brook Hobbs	Edmonton	<i>Brook Hobbs</i>
16	Hoyd Morrison	ERSKINE	<i>Hoyd Morrison</i>
	RW STANICH	CALGARY	<i>RW Stanich</i>

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Aliz Lake, and then allowing the water to flow through Pariby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Pariby Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

L. Mulloy

312 Sunderland Ave Calgary, ALTA.

ROBERT STOKES

STETTNER

MARIAN BUCKLAND

RED DEER

Sheryl Rairden

Stettner

DOUG YOUSPH

CARSTAIRS

MORRIS FISCHER

CARSTAIRS

Angela Nymberg

ALIX

John Peterson

Alix

Sally Ritterfeld

Stettner

Robert Ferguson

Leduc

Anne Huser

Leduc

Michael

alif

JOSEF Schlumpf

Canmore, ALTA.

Doris Zumbach

canmore, ALTA.

HUMBER KAPIN

CANMORE, ALTA.

Dora Lusk

Stettner ALTA.

Lola Stewart

Erskine

Lola Stewart

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major tourism destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 5 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Paribby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Paribby Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

1	JEAN MACDONALD	ERSKINE	Jean MacDonald
2	HUGH L. HEAVEN	STETTLE	Hugh L. Heaven
3	KAREN HEAVEN	STETTLE	Karen Heaven
4	ERWIN BOLEY	EDMONTON	Erwin Boley
5	SANDRA STEINHOFF	Donalda	Sandra Steinhoff
6	MAUREEN WALTON	ERSKINE	Maureen Walton
7	Linda Gendre	Stettler	Linda Gendre
8	Louis Gendre	Stettler	Louis Gendre
9	Pandace Smith	Edmonton	Pandace Smith
10	Ann Smith	Edmonton	Ann Smith
11	Charlene Davis	Drumheller	Charlene Davis
12	Craig Casley	COGNATION	Craig Casley
13	HEATHER CASELEY	" "	Heather Casley
14	Bark Stark	Calgary	Bark Stark
15	GARNET STARK	CALGARY	Garnet Stark
16	Judy Wooden	Stettler	Judy Wooden
17	Larry Gendre	Stettler	Larry Gendre

P PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alis Lake, and then allowing the water to flow through Parthby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parthby Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

Arleen Fooley	Edmonton AB	Arleen Fooley
Calvin Maltby	Stettler	Calvin Maltby
Bruce Mappin	Erskine	Bruce Mappin
KEVIN MACDONALD	ERSKINE	Kevin MacDonald
Doreen Haney	STETTLER	Doreen Haney
Connie Thompson	CROSSFIELD	Connie Thompson
Dave Thompson	CROSSFIELD	Dave Thompson
Tommy Norris	Alliance	Tommy Norris
RALPH UNGER	SOUTH COOKING LAKE	Ralph Unger
Betty Unger	South Cooking Lake	Betty Unger
E.F. Price	Veteran	E.F. Price
RUTH PRICE	VETERAN	Ruth Price
Clark Hoskins	STETTLER	Clark Hoskins
Nick Hougard	Stettler	Nick Hougard
VERN FOOLEY	Edm. A.B.	Vern Fooley
SHARON MAYER	STETTLER	Sharon Mayer
HARRY D FREDRICKSON	NEW NORWAY	Harry D Fredrickson
Holly Craig	Alis	Holly Craig

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Aliz Lake, and then allowing the water to flow through Parlyb Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlyb Creek and WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

MELODY SWAREN

Donalda, AB

Melody Swaren

JACK SPENCE

Stettin

Jack Spence

LEONARD SJOSTROM

Donalda

Leonard Sjostrom

LOUIS BELL

Donalda

Louis B Bell

Vera Fredrickson

New Norway

V. Fredrickson

CAROL KEICHINGER

ALLIANCE, AB

Carol Keichinger

PAUL HURST

CALGARY

Paul Hurst

Doreen Hilkey

Drumheller

Doreen Hilkey

DOUG GILROY

Drumheller

Doug Gilroy

BRENT ROSIECHUR

STETTER, ALTA

Brent Rosiechur

TERRY KOKESCH

STETTER, ALTA.

Terry Kokesch

FAY EBERTZ

ECKVILLE

Fay Ebertz

John Ebertz

ECKVILLE

John Ebertz

Wendy Ebertz

Calgary

Wendy Ebertz

J. ELLIS

Sylvan Lake

J. Ellis Tim Ellis

DAN PRICE

VETERAN

Dan Price

John Ellery, JOHN ELLERY ROD DICKER

ROD DICKER

John Ellery

MIKE TASCHUK

GLENDON ALTA

Mike Taschuk

P PETITION TO STABILIZE WATER LEVEL IN Buffalo Lake

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourist Destination area.
However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.
Stabilization of the water level was deemed feasible in 1987, by installing a pipeline 6 miles from the Red Deer River into Alia Lake, and then allowing the water to flow through Parley Creek into Buffalo Lake.
The Department of Agriculture has since completed the channelization of Parley Creek and
WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMMEDIATELY
THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH
THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)	ADDRESS	SIGNATURE
Rick Lepp	26 Glendale Way ^{Cochrane}	Rick Lepp
BRIAN ANDERSON	STRATHMORE AB	Brian Anderson
Ben Ellerby	Vetikan AB	Ben Ellerby
MARY TASCHUK	GLENDON, AB	Mary Tafchuk
Zeev Ellerby	Calgary, AB	Zeev Ellerby
Cheryl Anderson	Box 1231 Strathmore AB	Cheryl Anderson
Melody Ellerby	R.R.#1 Site 7 Sylvan	Melody Ellerby
Mike Bykowski	Box 44 Heister Alta	Mike Bykowski
Linda Bykowski	Box 44 Heister Alta	Linda Bykowski
Ken Smith	259 Lee Ridgerd	Ken Smith
Scott Smith	Scott Smith	Scott Smith
Janie Bykowski	Box 44 Heister Alta	Janie Bykowski
Brent Taylor	860 Queensland Drive ^{Calgary}	Brent Taylor
Sue Taylor	860 Queensland Drive ^{Calgary}	Sue Taylor
Nick Silburnagel	Box 291 DELBURN	Nick Silburnagel
DEB SILBURNAGEL	Box 291 DELBURN	DEB Silburnagel
GLEN MORIK	Box 400 DELBURN	Glen Morik
Tracy Peters	Box 441 Delburne	Tracy Peters
Alan Partridge	RR#2 Delburne	Alan Partridge

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourist Destination area. However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive. Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Allen Lake, and then allowing the water to flow through Parlyb Creek into Buffalo Lake. The Department of Agriculture has since completed the channelization of Parlyb Creek and the undersigned therefore hereby petition the Provincial Government to implement the stabilization of Buffalo Lake in the 1989 - 1990 fiscal year by proceeding with the pipeline as proposed in the Phase III Study.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

1 Allan Gongaware	Delburne	<i>[Signature]</i>
2 JERRILYN MARSH	Delburne	<i>[Signature]</i>
3 JANINE MARSH	DELBUANE	Janine Marsh
4 Lisa Partridge	Delburne	Lisa Partridge
5 Janet Gongaware	Delburne	Janet Gongaware
6 Jim MARSH	Delburne	Jim Marsh
7 SASH MUNDORF	STETTLEN	<i>[Signature]</i>
8 Jerry Bignell	Stettler	JERRY BIGNELL
9 CLIFF KARR	Edi.	<i>[Signature]</i>
10 Bill McEwen	Stettler	Bill McEwen
11 Jackie McEwen	Stettler	Jackie McEwen
12 <i>[Signature]</i>	STETTLEN	BRIAN KARR
13 LYNN KLEFF	<i>[Signature]</i>	<i>[Signature]</i>
14 Naug Moller	Stettler	<i>[Signature]</i>
15 A. BIGNELL	Stettler.	<i>[Signature]</i>
16 H. ROMPER	STETTLEN	<i>[Signature]</i>
17 Daphne Pody	EDMONTON	Daphne Pody
18 Gary Rushton	STETTLEN	GARY RUSHTON

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alice Lake, and then allowing the water to flow through Parley Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parley Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)	ADDRESS	SIGNATURE
JANEY RUSHWORTH	Box 2378, Stettin	J. Rushworth
London Mayr	Box 2491 Stettin	L. Mayr
Alou Stewart	Box 487 Stettin	Alou Stewart
Robert Reichmiller	Box 255 Allamakee	Robt. Reichmiller
Yvonne P. Stewart	Box 447 Stettin	Y. Stewart
CAROL HODGSON	RR3, Racine	Carol Hodgson
Don Hodgson	RR3 Racine	D. Hodgson
Mecky Throck	Box 768 Castor	M. Throck
Bill Throck	Box 768 Castor	B. Throck
Fern Decaire	Box 214 Minn.	FERN DECAIRE
Shirline Williams	Box 189 "	GERALDINE Williams
JOE WILLIAMS	Box - 341 Stettin	J. Williams
Alou Stewart		
Alou Stewart	Box 100 Denville	ALAN STEINHOFF
Edna Handgards	Stettin	Edna Handgards
MILLIE HANDGARDS	Stettin	Millie Handgards
INA SCHIFFNER	Stettin	Ina Schiffner
Pauline Speck	Racine Lake	P. Speck
JACK SPIECK	✓	J. Speck

P PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourist Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parby Creek and we are undersigned therefore hereby petition the Provincial Government to implement the stabilization of Buffalo Lake in the 1989 - 1990 fiscal year by proceeding with the pipeline as proposed in the Phase III Study.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

1 WILLIAM REMMOR	LOT 64 SCENIC SANDS	William Remmor
2 Jim Skow	STETTLER	Jim Skow
3 Young Lee	STETTLER	Young Lee
4 Brad Bazin	Stettler	Brad Bazin
5 John Swaren	Donalda	John Swaren
6 KAREN CRAIG	ALIX	Ms. Karen Craig
7 DARREN SEDERITSCH	STETTLER	Darren Sederitsch
8 Bernice Neufeld	ALLIANCE	Bernice Neufeld
9 Don Cote	DELBURNE	Don Cote
10 LORNA COTE	DELBURNE	Lorna Cote
11 LARRY NEIS	ST. ALBERT	Larry Neis
12 Bill McNamara	Edmonton	Bill McNamara
13 Leile McNamara	Edm.	Leile McNamara
14 BOB MERCHANT	LOT 6 SCENIC SANDS	Bob Merchant
15 PAULINE MCMMASTER	EDMONTON	Pauline McMaster
16 PATRICK MCMMASTER	"	Patrick McMaster
17 Dave Schaefer	Calgary	Dave Schaefer
18 Kurt Schaefer	CALGARY	Kurt Schaefer

P PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alta Lake, and then allowing the water to flow through Parby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parby Creek and we are undersigned therefore hereby petition the provincial government to implement the stabilization of Buffalo Lake in the 1989 - 1990 fiscal year by proceeding with the pipeline as proposed in the Phase III study.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

1	TIM HUGHES	35 STRANRAH PL SW CALGARY	<i>Tim Hughes</i>
2	LINDSEY MEROVJ	152 GOSFORTH CRES. NW. CALGARY	<i>L. Mero</i>
3	GREG SODALL	11 HILLGROVE CR SW, CALGARY	<i>Greg Sodall</i>
4	GARRY FUNK	5707 BUCKTHORN RD NW CALGARY	<i>Garry Funk</i>
5	GARRY NANNINGA	271 Point McKay Terr. NW	<i>Garry Nanninga</i>
6	DOUG CHUTKOC	BOX 344 BRATHLEY	<i>Doug Chutkoc</i>
7	KEVIN MORRISON	104 SUNHAVEN CL SE	<i>K. Morrison</i>
8	KATH W. HERN	157 EDGEMOOD DR NW.	<i>K. W. Hern</i>
9	JOHN ELMES	2 ALICE ST. APT #5 RT. 101	<i>John Elmes</i>
10	WALTER DOLLY	#13-3301 ED. 101 ST. 10	<i>Walter Dolly</i>
11	Brad Steinhoff	DONALDIA	<i>Brad Steinhoff</i>
12	LARRY SERR	MEDICINE HAT 28 ROBINSON RD	<i>Larry Serr</i>
13	GARTH MASHINTEN	40 ROBINSON DR SE MED. HAT. ALTA	<i>Garth Mashinten</i>
14	Doreen Bidauy	"	<i>Doreen Bidauy</i>
15	Jackie Strain	208 Mill Bank Dr. S.W.	<i>Jackie Strain</i>
16	PAT SIMPSON	BOX 104 ERSKINE	<i>Pat Simpson</i>
17	Earl Oshen	38 A. Oshen	<i>Earl Oshen</i>
18	Mike Grogg	335 Woodfield Ed. SW	<i>Mike Grogg</i>

PETITION TO STABILIZE WATER LEVEL in Buffalo Lake

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parly Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parly Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROVIDED IN THE PAGE 111 STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

1
2
3
4
5
6
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8
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11
12
13
14
15
16
17

G. E. Donalds	Brookline	E. E. Reynolds
L. J. WALL	Nevis	L. J. WALL
Paul M. Belley	High River	P. M. Belley
Marlon Ellerby	Killam	M. Ellerby
Carman Meger	Bashaw	Carman Meger
Trent Meger	Bashaw	Trent Meger
C. F. MEGER	BASHAW	Cliff Meger
VALERIE MEGER	BASHAW	Valerie Meger
H. GORDON CARDELL	Box 2414 STETTLER	H. G. Cardell
M. H. PARCELS	Box 760 ✓	M. H. Parcels
J. H. CARDELL	Box 2414 ✓	J. H. Cardell
V. J. PARCELS	Box 760 ✓	V. J. Parcels
R. G. Cardell	Calgary	R. G. Cardell
Nancy Parcels	Regina	N. Parcels
Debbie Loo PARCELS	Edmonton	Debbie Parcels
Delmer Twocit	Stettin	Delmer Twocit
WALTER HREZUCH	Edmonton	Walter Hrezech
JOE WYNNYK	Edmonton	Joe Wynnnyk

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major tourism destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1987, by installing a pipeline 6 miles from the Red Deer River into Aika Lake, and then allowing the water to flow through Parlyb Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlyb Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY RECOVERING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

Catherine Bodin

3236 ^{Calgary} DAVENCLIFF RD

CATHERINE BODIN

GASTON BODIN

-

G. Bodin

CACARICO

STETTLER

Stettler

Greg Faith

Stettler

David Hensrud

Edmonton

Doug Hensrud

Stettler

Doug Hensrud

McKinnon

Stettler

McKinnon

John Hecht

Bashaw

KNUTSON

Margaret Hecht

Bashaw

Lawrence Huggins

Bashaw

LAWRENCE SINCLAIR

Bashaw

L. Sinclair

Betty Sinclair

Bashaw

DEWE & RON SUTLEY

Murder

Dewey Suttley

El Muttley

Murder

El Muttley

Judy Kepply

Red Deer

JUDY KEPPLY

Maureen Wough

Stettler

Doreen Wough

Erskine

P PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourist Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Atlix Lake, and then allowing the water to flow through Parby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parby Creek and

WE THE UNDERSIGNED THEREFORE REQUEST PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

1	Colin Bowick	Gen. Del. N. Cooking Lake	Colin Bowick
2	Ken Dillman	5518-20 th AVE. Edm.	Ken Dillman
3	R.A. BRAUTIGAN	1 SPRUCE BANK C.R. SW.	R.A. Brautigan
4	Carolyn Schuler	Box 118 Stettin	Carolyn Schuler
5	JACK SCHULZE	Box 118 STETTIN	Jack Schuler
6	PAT BEITEN	Box 1935 STETTIN	Pat Beiten
7	DAVE (FIELD)	6204-38 th AVE STETT.	Dave Field
8	Larry & Clark	Box 92	Gadsby A.H. Gadsby
9	GARY MEYER	4107-65 ST. SIMON	Gary Meyer
10	E. Marguardt	Edmund Heller	Alta
11	J.D. Barnes	Edmund	Alta
12	Marguardt	Huronville	Alta
13	D. Gibson	R.R.#2	D.L. GIBSON
14	Lila Gibson	R.R.#2	LILA GIBSON
15	Don Ball	Box 26 Muriar	DON BALL
16	John DAVIDSON	PO Box 2214 Whitman	John Davidson
17	Maureen H. Lee	Box 2530 Olds	Maureen H. Lee
18	Robert G. Lee	Box 2530 Olds	Robert G. Lee

P PETITION TO STABILIZE WATER LEVEL in BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parlyby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlyby Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

1	C. H. BEDFORD	Box 548 BASHAW, AB	CH Bedford
2	L. E. Shoemaker	Bashaw, AB	L. E. SHOEMAKER
3	A. W. Bedford	Box 548 Bashaw Alta.	A. W. Bedford
4	J. D. MacLellan	Box 1497 Marm	J. D. MacLellan
5	Dorche Annable	Box 459 Alix	Dorche Annable
6	Darlene Nemeth	5922 Spruce Plk Cres	Darlene Nemeth
7	Gary Knie	Enns Knie	Gary Knie
8	B. K. Skene	B. K. SKENE	B. K. Skene
9	Murray Warpley	ALIX	MURRAY WARPLEY
10	Ray Ross	Stettin	Ray Ross
11	John Ross	Stettin	John Ross
12	Robert Funk	Red Deer	Robert Funk
13	Robert Funk	Red Deer	Robert Funk
14	Dan W. Rouse	Stettin	Dan W. Rouse
15	Mavis Tait	Mavis	Mavis Tait
16	Louise Tait	Mavis	Louise Tait
17	Thelma Strome	Esmt. Alta	Thelma Strome
18	Chris Schmitt	Alix Alta	Chris Schmitt

(RAISE)

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parlyby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlyby Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

1	Pat Greiner	Box 1297 Stettler	Pat Greiner
2	Gary Bergquist	Box 454 Trochu	Gary Bergquist
3	Pat Annett	Box 34 Caston	
4	Barb Annett	Box 34 Caston	
5	Steven Shelby	Box 34 Caston	
6	Wally	Box 928 Stettler	
7	Andrew Tivadar	Box 1244 Hanna	Andrew Tivadar
8	Barbara Beck	Box 2052 Exton AB	Barbara Beck
9	Anders Fredrikson	Box 1146 Stettler	
10	Marvin Marshall	Box 796 Blackfalds	Marvin Marshall
11	Jean Knight	Box 58 Alix	
12	TOM KNIGHT	ALIX	
13	Kay Chick	Stettler	
14	Carl Egnell	Bashaw	
15	Monna Sweet	4302 Rundlehorn Dr N.E.	M. Sweet
16	F. Puygme	Calgary	F. Puygme
17	D. Boyer	Stettler	D. Boyer
18	Alan Stettler	Stettler	

P PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourist Destination area. However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive. Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parlyb Creek into Buffalo Lake. The Department of Agriculture has since completed the channelization of Parlyb Creek and WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1982 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE CHASE 111 STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

1	Helen Simpson	Rocky Sands	
2	Alan Harrison	Alix	[Signature]
3	Connie Hewitt	Acornation	
4	B ROWLEY	REDHOLD, ALTA.	B. Rowley
5	D CRAWSHAW	SHERWOOD PARK (WHITE SANDS)	[Signature]
6	BONNY MACKENZIE	MILK RIVER	Bonny Mackenzie
7	Tom K	MILK RIVER	MAURICE KOTYK
8	DALE GALENZA	Camrose	DALE GALENZA
9	Gordon Durand	Camrose	Gordon Durand
10	Douglas Lyle	Erskine	Douglas Lyle
11	Maurice J. Lyle	STETTIN	[Signature]
12	LEO LOEPPEY	ALMA	[Signature]
13	W. R. Macombe	RED DEER	[Signature]
14	Wendy Howland	Red Deer	[Signature]
15	Robert Burton	Red Deer	[Signature]
16	Jackie Burton	Red Deer	[Signature]
17	LOANIE BERGQUIST	Alix AB	Ronnie Bergquist

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parlyby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlyby Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

Colleen MacDonald ^{Callery}	95 Dawson Street ^{Red Deer}	Callery MacDonald
KENT SUTLEY	95 Dawson St. Red Deer	Kent Sutley
Loren Thacker	30 Conners Ave, Red Deer	Loren Thacker
Bob Criss	Red Deer Alta	Bob Criss
I. Anderson	3404-60 ST. NE Calgary	I. Anderson
Shirley Wilton	Red Deer	Shirley Wilton
Alice Wilton	Alix	Alice Wilton
DALORA WILTON	DEL BURNIE AB	Dalora M. Wilton
LARRY E. WILTON	DEL BURNIE AB	Larry Wilton
BLEN LYSBAARD	SEDERWICK	Blenn Lysgaard
Les Hewitt	CORONATION	Les Hewitt
Sherri Hewitt	Coronation	Sherri Hewitt
MARIE Lysgaard	Sedgewick, AB	Marie Lysgaard
GORDON HEWITT	CORONATION	Gordon Hewitt
Edith Schultz	Red Deer	Edith Schultz
Norma MacDonald	Red Willow	NORMA MACDONALD
Ron Butcher	Red Willow, Alta	Ron Butcher
Dianne Cowling	Kelowna	Dianne Cowling

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE 23

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Farby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Farby Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

1	Jim MacDonald	Stettler	Jim MacDonald
2	Dr. R. E. Hancey	Stettler	Dr. R. E. Hancey
3	Wendy Hancey	Lacombe	Colleen Hodsoworth
4	Elaine Fodor	Blackfalds	Elaine Fodor
5	Rocky NEUFELA	STETTLE	R. Neufela
6	Howard & Maria Burnsted	Calmar	
7	Jeff Marshall	Stettler	Jeff Marshall
8	Shirley Martin	Asakatoon, St.	
9	L. E. Marshall	Alix	LEONARD MARSHALL
10	Angus Marshall	Alix	Angus Marshall
11	Randy Hoop	Box 3637 Lacombe	Randy Hoop
12	DAVID ROUX	Box 2043 STETTLE	D. Roux
13	MARY ROUX	STETTLE	Mrs Mary Roux
14	Harvey Roux	STETTLE	Harvey Roux
15	Stan Taylor	Stettler	Stan Taylor
16	Georgette Habib	Calgary	Georgette Habib
17	GRANT PAULSON	STETTLE	G. Paulson
18	ROBERT T. DE GRAFF	STETTLE	Robert DeGraff

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parlyb Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlyb Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

Dave Worsick	148 Silver Hill Way NW Calgary	Dave Worsick
Janie Worsick	148 Silver Hill Way NW Calgary	Janie Worsick
ANTOINE HABIB	519 Ranchview Pl. Calgary	Antoine Habib
MAE ROGERS	STETTLER AB	Mae Rogers
Olga Bolin	STETTLER AB	Olga Bolin
Shirley Pearson	Edsby	Shirley Pearson
Key Hansen	Edsby	Key Hansen
Penny Remmer	Lot 34, Scenic Sands	Penny Remmer
Berry Lake	26 ERIN RIDGE RD. CALGARY	Berry Lake
Shirley Verschuur	Red W. Hwy, AB	Shirley Verschuur
Jay Stuckey	Gen. Del. Red. Willow, Alta	Jay Stuckey
Sheri Skene	Box 575 Alix	Sheri Skene
Harriette Hudson	Box 783, Stettin	H. HUDSON
Walter Hudson	Box 783, Stettin	Walter Hudson
Ernest Newell	Box 29, Aukim	Ernest Newell
Mike Steele	Box 89, Donaldia	Mike Steele
Joanne Miller	Box 474, Open Alta	Joanne Miller
Rick Wobb	RR#3 Red Deer, Alta	Rick Wobb

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major tourist Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Farby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Farby Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

1	DEAN SCHMIDT	Red Deer	[Signature]
2	Lillian Zimmer	Bothe	LILLIAN ZIMMER
3	CLARENCE F. ZIMMER	Batha Alta	C. F. Zimmer
4	LILLIAN ZIMMER	BOTHA	Lillian Zimmer
5	ERIC Walper	Hanna	Eric Walper
6	Kirk Walper	Hanna	Kirk Walper
7	WALTER SANTJENS	HANNA	Walter Santjens
8	Fay Walper	Hanna	Fay Walper
9	Adeline Santjens	Hanna	Adeline Santjens
10	Baine Cleaver	Red Deer	[Signature]
11	Deb McAvey	Edm.	Deb McAvey
12	G. Sweiter	Calgary	G. Sweiter
13	Al Zimmer	Calgary	Al. Zimmer
14	EDITH ZIMMER	Calgary	Edith Zimmer
15	W. Wright	Fort St. John	W. Wright
16	Alexis Wright	Calgary Alta	Alexis Wright
	Blake Tally	Edmonton	Blake Tally
	Nada Moore	Edmonton	Nada Moore

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourist Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 5 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parly Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parly Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

Lick Robinson	Box 113 Pine Lake	Lick Robinson
Garry Robinson	RR3 Box 100	Garry Robinson
Scott Parker	Box 53 Penhold	Scott Parker
Meliza Callion	RR#4 Red Deer	Meliza Callion
Sandy Lander	Box 96 Spruce View	Sandy Lander
Joni Webb	R.R.#3 Red Deer	Joni Webb
Angela Webb	R.R.#3 Red Deer	Angela Webb
Tom Gilks	RR#2 Innisfail	Tom Gilks
Jonna Gilks	Box 682 Killam	Jonna Gilks
LUDY ROBINSON	Box 113 PINE LAKE	Ludy Robinson
SOPIE GILKS	RR#2 INNISFAIL	Sophie Gilks
Doreen Lenth	Box 5114 R.R.2 SERRAN	Doreen Lenth
Tom Gilks	Box 5114 R.R.2 SERRAN	Tom Gilks
Laurie Gilks	RR#2 Innisfail	Laurie Gilks
Diane Gilks	RR#2 Innisfail, AB	Diane Gilks
DIANE BERNES	Box 2173 STETTER	D. Bernes
BRIAN BERNES	Box 2173 STETTER	B. Bernes

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourist Destination area.

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Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parlyby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlyby Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

1	Brian Gibson	Edm.	Brian Gibson
2	MARY-LOU GIBSON	Edm.	Mary-Lou Gibson
3	Alan Dean	Calgary	Alan Dean
4	Stella Dean	Calgary	Stella Dean
5	Henry Dean	Calgary	Henry Dean
6	H.B. Bellinger	Calgary	H.B. Bellinger
7	E.W. Bellinger	Calgary	E.W. Bellinger
8	Susan Dean	Calgary	Susan Dean
9	MARILYN JORGENSEN	DRUMHURST	Marilyn Jorgensen
10	Tom Jorgensen	Drumheller	Tom Jorgensen
11	Gordon Kerbel	Rosher Sands	Gordon Kerbel
12	Tim Lorne	Edmonton	Tim Lorne
13	Gregory Hunt	Edmonton	Gregory Hunt
14	Gordon Miller	Calgary	Gordon Miller
15	Fayal Hecott	Edmonton	Fayal Hecott
16	Sam Taylor	Edmonton	Sam Taylor
17	Tom Taylor	Edmonton	Tom Taylor
18	Peter Hecott	Edmonton	Peter Hecott

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

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NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

1	CYRIL BALL	Box 501 Stettler	C. C. Ball
2	PHYLLIS BALL	Box 501 Stettler	Phyllis Ball
3	DORRIN McDONALD	Box 1714 Stettler	D. McDonald
4	Louise Whittaker	Box 670 Stettler	L. Whittaker
5	Alberta Harrison	Box 1883	Alberta Harrison
6	Linda Kelm	Box 247	Linda Kelm
7	Lana Regan	Box 61 Box 110A	Lana Regan
8	Frederic Thorne	Box 1062 Stettler	Frederic Thorne
9	Shirley Stenhouse	Box 100 Donnelly	Shirley Stenhouse
10	Jean Cromley	Donnelly	Jean Cromley
11	MYRNA PARCELS	EDMONTON	M. Parcells
12	DOROTHY MILLAR	CALGARY	Dorothy Millar
13	John VOLTE	Stettler Box 886	J. Volte
14	N. ALWOOD	Stettler	N. Alwood
15	P. M. BROWN	ERSKINE	P. M. Brown
16	Vicki Brown	Laskin AB	Vicki Brown
17	Nat. Public Works	Calgary AB	Nat. Public Works
18	Heidi Wood	Stettler	Heidi Wood

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NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

LAURIE HOOPFUR

STETTNER

Laurie Hoopfur

Cecil Wolgast

Betha

Cecil Wolgast

June Wayne

Acadon Sands

June Wayne

GAIL LANGILLE

Calgary

Gail Langille

BARBARA COSTIGAN

St. Hilar

Barbara Costigan

Eileen Spraul

Calgary

Eileen Spraul

Cara Spraul

Calgary

Cara Spraul

Mary Thomson

Calgary

M. Thomson

JIM THOMSON

u

J. C. Thomson

Susan Taylor

Sherwood Park

Susan Taylor

MURIEL TAYLOR

Sherwood Park

Muriel Taylor

WENDY JOHNSON

Calgary

Wendy Johnson

YVONNE GRAY

CARSTAIRS

Yvonne A. Gray

IAN FRAZER

AIRDRIE

Ian Fraser

LYNNE FRASER

AIRDRIE

Lynne Fraser

ALLISON GRAY

EDMONTON

Allison Gray

LARDE PERSON

EDMONTON

L. Person

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ADDRESS

SIGNATURE

Andy Tak	Crossfield	Andy Tak
Con Tak	"	CON TAK
LAMBERT TAKS	Crossfield	L. Taks
Twilo TAKS	Crossfield	Twilo Taks
HARVEY TAK'S	Crossfield	Harvey Taks
YVONNE TAKS	CROSSFIELD	Yvonne Taks
MYRTLE TAKS	MADDER ALB	Myrtle Taks
BARBARA SODERQUIST	5925 CALGARY 5925 MIDWINTER DR. SE	Barbara Soderquist
Ellen Moore	Crossfield	Ellen Moore
Jim WATCHEL	DRAYTON VALLEY	Jim Watchel
ADA TAKS	Box 552 CROSSFIELD	Ada Taks
Larry Laks Larry Taks	Crossfield	Larry Taks
CATHY HALEY	CREMONA	Cathy Haley
Gale Haley	CREMONA	Gale Haley
Leena Haley	Cremona	Leena Haley
MARY ANN PHILLIPS	CROSSFIELD	Mary Ann Phillips
DON PHILLIPS	"	Don Phillips
Darlene Moore	Buck Creek Alta	Darlene Moore

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* NAME (PLEASE PRINT) *

ADDRESS

SIGNATURE

B. ROCHEMONT

3831 - 15th NW

B. Rochemont

Legislative (S. Egilsson)

3831 - 15th NW

Alexander Egilsson

de Buzaly

112 FALLS WATER CREEK
CALGARY

Alex de Buzaly

KAREN J BURWASH

#206-73 GLAMIS DR SW

Karen J Burwash

Dave Pente

#1 same

Dave Pente

FRED PRATT

223 SILVERIDGE CR NW CAL

Fred Pratt

PAUL VAILLANCOURT

3423 - 1st N.E.

Paul Vaillancourt

Gerry Thompson

526 Markham Rd

Gerry Thompson

~~Bruce Brown Walker~~

514 Redwine Ct

Bruce Brown Walker

CARL LAWELL

CALGARY ALTA

Carl Lawell

GARY C. WALSH

LACOMBE, BOX 3153

Gary C. Walsh

HARRY UBELS

304 WILLOWDALE PHARMACY

Harry Ubels

ROBERT COULTHARD

RR1 Forrestburg AT

Robert Coultard

JOHN UBELS

3214 50th ST SW CAL

John Ubels

CLARK UBELDA

3214 50th ST SW, AL

Clark Ubelda

~~CLARK UBELDA~~

~~3214 50th ST SW, AL~~

~~CLARK UBELDA~~

~~CLARK UBELDA~~

~~3214 50th ST SW, AL~~

~~CLARK UBELDA~~

Silas Chapman

Box 1474 Stettler

Silas Chapman

Linda Pratt

223 Silver Ridge Cres

Linda Pratt

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NAME (PLEASE PRINT)	ADDRESS	SIGNATURE
Nancy Green	5229-41 Ave	Nancy J. Green
Mary Meehan	Box 1071 Corstair	Mary Meehan
Kels Schlichter	Box 1071 Corstair	Kels Schlichter
BRENDA SCHNICKER	5324 55ST CARROSE	Brenda Schlichter
Lynn Peterson	Box 99 H&P	Lynn Peterson
Dana Smeets	Box 336 Stettler	Dana Smeets
G. LYNN PRATT	742 5136 Stettler	G. Lynn Pratt
Rick Schofer	5019 48 ST	Rick Schofer
GI. PARRAS	4940-50 Stettler	Gi. Parras
TRENE MCMILLAN	Box 577 Stettler	Trene McMillan
HERB KARG	Box 1146 Stettler	Herb Karg
Don Pukhary	Box 1146 Stettler	Don Pukhary
Shane Pukhary	4204-6451 STETTLE	Shane Pukhary
Dale Kowalske	4204-6451 STETTLE	Dale Kowalske
DORRINE KOWALSKA	6105-43 AVE STETTLE	Dorrine Kowalske
LENA EVERETT	1039 VILLAGE DE SHERWOOD PARK	Lena Everett
RHONDA HJORTH	1039 VILLAGE DE SHERWOOD PARK	Rhonda Hjorth
KEN FALKENBERG	6105-43 AVE STETTLE	Ken Falkenberg
CHIFF EVERETT		Chiff Everett

P PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

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NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

1	Bonnie Pickett	STETTNER 4204 62 ST	Bonnie Pickett
2	NORM PICKETT	STETTNER AB	Norm Pickett
3	CLARENE EVERETT	Box 83 Botha AB	Clarence Everett
4	BERNICE EVERETT	Box 83 Botha AB	Bernice Everett
5	DUGAN EVERETT	6105 43 Ave	Dugan Everett
6	JENNIFER BUSSEY	6405 38 AVE	Jennifer Bussey
7	FRANK GROSSHAUSER	16315-110 St	Frank Grosshauser
8	IRENE GROSSHAUSER	" "	Irene Grosshauser
9	JOHN NOLTE	Stettner, Alta	J. Nolte
10	Theresa Nolte	" "	T. Nolte
11	STEW KINSEY	Stew Kinsey	Calgary
12	MRS B KINSEY	Calgary	B Kinsey
13	MICHAEL DAVE	Leckerville	
14	DAVE SHARP	✓ ✓	
15	ALFRED HARRIS	ROCKWELL FIELDS	Alfred Harris
16	BRYAN BUCK	Rockwells	Bryan Buck
17	LEWIS REPP	Stettner	Lewis Repp

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SIGNATURE

Ray ESTELL	MIRROR	R. Estell
Leah McIlveen	MIRROR	Leah McIlveen
EARL ESTELL	MIRROR AB.	Earl Estell
Luci M. McILVEEN	MIRROR	Lucy McIlveen
GROHLMUSS, ALI	CALGARY	Edith Grohlmuss
S. Grohlmuss	Calgary	S. Grohlmuss
Brenda Fisker	Carstairs	Brenda Fisker
Nancy Lund	Stettler	Nancy Lund
Jeanne Lee	Halkirk	Jeanne Lee
DARIN D. RAO	STETTNER	Darin D. Rao
W H Lee	Halkirk	W H Lee
Jordan Lee	Camrose	Jordan Lee
DALE YOUSCH	CARSTAIRS	Dale Yousch
Joyce SIMARD	Alix	Joyce Simard
GUS SIMARD	Alix	Gus Simard
Susan Yousph	Carstairs	Susan Yousph
Rhonda Paulin	Carstairs	Rhonda Paulin
LYNN CRUMP	CARSTAIRS	Lynn Crump

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ADDRESS

SIGNATURE

John Pklys	Carstens Alta	John Pklys
Shirley Klys	RR 2 Carstens	Shirley Klys
Archie Coary	HANNA, ALTA	Archie Coary
HEATHER CAIRN	The Pas, Manitoba	Heather Cairn
Mary Ann	11315 125 St. AB	Mary Ann
OW Campbell	Hume AB	OW Campbell
W Young Young	St. Albert	W Young
Mario Dubon	Calgary, Alberta	Mario Dubon
NICOLAS AROCHE	GUATEMALA CITY	Nicolas Aroche
D. Heap	Spruce Grove	D. Heap
J. GALLAGHER	Edmonton	J. Gallagher
PETE OSTAFICHUK	EDMONTON	Pete Ostafichuk
Wendy Melnyk	Edmonton, AB	Wendy Melnyk
LIZ OSTAFICHUK	EDMONTON	Liz Ostafichuk
Brad Spencer	Edmonton	Brad Spencer
Lisa Spencer	Edmonton	Lisa Spencer
Holly Ostafichuk	Edmonton	Holly Ostafichuk

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NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

PETER TAKS	Box 55 Crossfield	P Taks
Ruth Taks	Box 55 Crossfield	Ruth Taks
Ken Rust	Alliance	K Rust
Bell Rust	Alliance	Bell Rust
LINDA PRUDEN	SHERWOOD PARK	L. Pruden
Connie RUSZNIAK	Calgary	Connie Rusznak
GER. RUSZNIAK	CANADA	Ger. Rusznak
BRYAN SOOBSQUES	CALGARY	Bryan Soobsques
DARRELL TEUDEN	SHERWOOD PARK	Darrell Teuden
Geroldine KILBRIDE	Calgary Alta	G.D. Kilbride
Kevin M. Kilbride	Calgary Alta	KEVIN M. KILBRIDE
PAT MCDANIEL	REDCLIFF ALTA	Pat McDaniel
Bob Haldane	Red Deer, Alta	Bob Haldane
BRAD DAHL	SETTLER	Brad Dahl
Mike ROBINSON	CALGARY ALTA	M. Robinson
George Elliott	Lethbridge	G. Elliott
L. JAKAE	SHER. PARK	L. JAKAE
Darry Rae	Sher. Park	Darry Rae

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NAME (PLEASE PRINT)	ADDRESS	SIGNATURE
JACK WILLIAMS	RR#1 Reduc	<i>Jack Williams</i>
HEATHER WOOLLEY	8812 42A Ave EDMONTON, ALB	<i>Heather Woolley</i>
Deborah Williams	RR#1 Reduc	<i>Deborah Williams</i>
DARRELL SLATON	3631-51ST ELM	<i>Darrell Slaton</i>
PL Vivans	Box 222 Myra sk Park	<i>PL Vivans</i>
ALAN DESCHEREAU	35 Hillcrest (Hinton) 9179	<i>Alan Deschereau</i>
Elizabeth		
Shela Gail King	Box 922 High River TOLBO	<i>Shela King</i>
Doug BENNETT	112- FATHERLAND DR HINON	<i>Douglas J. Bennett</i>
Nancy Harron	Box 670 Alix	<i>N. Harron</i>
Darlene Todd	Box 311 Coronation	<i>Darlene Todd</i>
Denise Wenzel	Box 507 Leader Sk	<i>D Wenzel</i>
Steve R. Linn	Box 1396 D. White	
Alea	Calgary	<i>Angie Lea</i>
Garry Roberts	Box 368 Redwater	<i>Garry Roberts</i>
SHARON ROBERTS	Box 368 Redwater	<i>Sharon Roberts</i>
ESTHER WENZEL	Box 316 LEADER SASK	<i>Esther Wenzel</i>
GORD PARKER	216 DEERVIEW DR SE CALGARY	<i>G Parker</i>

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Ryan Wizniuk	Sherwood PK	<i>Ryan Wizniuk</i>
Verna Walton	Erskine	VERNA WALTON
Don Walton	Erskine	Don Walton
HOWARD STINSON	EDMONTON	<i>Howard Stinson</i>
Norma Stinson	Edmonton	<i>Norma Stinson</i>
Garry Webster	Coronation	<i>Garry Webster</i>
<i>J. Shacker</i>	Edmonton	<i>J. Shacker</i>
<i>E. H. Henry</i>	Edmonton	<i>E. H. Henry</i>
Luis Belk	Calgary	<i>Luis Belk</i>
Freda Lynde	Calgary	<i>Freda Lynde</i>
JOHN CAIN	Edmonton	<i>John Cain</i>
M. D. McNamee	MEXEY ALTA	<i>M. D. McNamee</i>
JIM REID	COALDALE ALTA	<i>Jim Reid</i>
A SELF	EDMONTON	<i>A SELF</i>

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NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

JOE BEATTY

Duncan BC

Joe Beatty

Thelie Hallett

Stittsville

LARRY BUREFIELD

Box 4 Munson

L Burefield

PAUL BRAUTIGAN

MEDICINE HAT ALTA

Paul Brautigan

Robert Brautigan

Pratte Sask.

Robert Brautigan

Benny Nicholas

Calgary AB

Benny Nicholas

K. PUFFER

CALGARY

K. Puffer

A. T. HOLT

CAIRO, EGYPT

A. T. Holt

HELEN HOLT

CAIRO Egypt

Helen Holt

KEN KIRKPATRICK

CALGARY AB

K. A. Kirkpatrick

Keith Lawrence

CALGARY AB

Keith Lawrence

Lewen Shipton

Castor Alta

Lewen Shipton

Chris Shipton

Castor Alta

C. Shipton

ALBERT BLAKE

AIRDRE ALTA

Albert Blake

MICHAEL KELLER

CAMROSE ALTA

Michael Keller

Blaine Shipton

Castor Alta

Blaine Shipton

Edward F. WARD

FORT SASK

Edward F. Ward

EDITH HILTZ

KITSOBY

Edith Hiltz

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NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

G. ROWLEDGE

ERSKINE

D. Grant Rowledge

R. Grandfield

Stettin

R. Grandfield

BRIAN Kelly

Edmonton

Brian Kelly

Gary McEwen

Erskine

Gary McEwen

George Albert

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George Albert

ALDEN HEMMERLING

5901-9th AVE EDSON

Alden Hemmerling

RONALD MURPHY

KALKRIK

Ronald A. Murphy

Alvin Ball

Sherwood Park

Alvin Ball

GREG E GAIL

9318 71 Ave Grande Prairie A Ha

G. E. Gail

S. Ball

228-9 A ST. N.E. CALGARY

S. Ball

McKinnon

CALGARY

McKinnon

Fredy Nordstrom

CALGARY

Fredy Nordstrom

CECIL BRACE

Camrose

CECIL BRACE

LARRY THOMAS

Fort Saskatchewan

LARRY THOMAS

Laura Locke

Calgary

Laura Locke

Cheryl Cysouw

Box 4 Stettin

Cheryl Cysouw

B. M. Kee

1007-63 ST. Edmonton

B. M. Kee

J. J. Smith

6007-10 Ave

J. J. Smith

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NAME (PLEASE PRINT)	ADDRESS	SIGNATURE
Christina Bergman	Box 28, Erskine	Christina Bergman
Marilyn Nikish	12523-59 ST	Marilyn Nikish
Ramona Barratt	Box 65, Alix, AB	Ramona Barratt
V. W. Wetherup	44 Woodfield H	V. W. Wetherup
Susan Harris	Box 689 Vikings	Susan Harris
George Harris	Box 689 Vikings	George Harris
W. J. ANDERSON	640-6550	W. J. Anderson
ROBIN BRIERE	764-15th ST W P.O.	Robin Briere
BRYAN BRIERE	764-15th ST W P.O.	Bryan J. Briere
Ruby Boomhauer	Box 2075 Wainwright, ALTA	Ruby Boomhauer
John Johnson	4612-61st Camrose	J. O. Johnson
CLIFFORD LARSON	6215, 49 ave Camrose	Clifford Larson
BERT HOVELAND	1519-47th ST W P.O.	Bert Hoveland
James Nelson	172 Grandin Village	James Nelson
Ed FINGAS	INGHIS MAN.	Ed Fingas
WANDA HAIRE	Edson AB	Wanda Haire
Dennis Robinson	Edmonton, Alta	Dennis Robinson
W. E. HANEY	Stettin AB	W. E. Haney

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NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

Cheryl Hailles	Box 515 Tohampo Fox Creek Alta	Cheryl Hailles
C.F. Perkin	Box 1609 Strathmore Alta	C. Perkin
(Doug Bowie) Doug Bowie	Rosamind	Bowie
(G. Cardell) G. Cardell	Stettler	Cardell
(S. Dankwerth) S. Dankwerth	Victoria	S. Dankwerth
JERRY WOOD	Box 522 CROSSFIELD	Jerry Wood
TEERY DANKWERTH	VICTORIA BC	T. Dankwerth
M. Gommersd.	47 Mc Murry 112-Beale Cres	M. Gommersd.
Chris Fix	6 Grier Crescent. Alton	Chris Fix
DON FIX	Calgary	Don Fix
ART LUTJKE	THREE HILLS	Art Lutjke
L. LUTJKE	3-Hills	L. Lutjke
L. LUTJKE	Lethbridge	L. LUTJKE
Travis Sweet	Stettler	Travis Sweet
Jennifer LUTJKE	3-Hills	Jennifer LUTJKE
RUTH E. FORTENS	1203 KEEWOOD CRES. CALGARY T2V 3A7	Ruth E. Fortens
Janice Auer	INISFAIR	Janice Auer
Walt Cornelius	Redwater Alta.	Walt Cornelius

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parlyby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlyby Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

FLOYD MATHERS	Box 1304 Drum.	FLOYD MATHERS.
RUSSELL ELM	14 RANDOLPH ST. RED DEER	Russell Elm
Jo-Anne Edmunds	31 SANDS ST. ROCHAN	Jo-Anne Edmunds
MARIEL McCONNELL	17403-94th Ave Edmonton	M. McConnell
NEIL GERTSMA	Box 1177 STETLER AB	Neil Gertsma
Roy Chelson	148 Pumphill calgy	Roy chelson
Trent Walsh	Lacombe	Trent Walsh
Glen Walsh	Lacombe	Glen Walsh
Judy Walsh	Lacombe	Judy Walsh
Karen Pokojay	37 Simons canw Calgary	K. Pokojay
Lloyd Schultz	Box 3 Botha	Lloyd Schultz
Laurie Schultz	Box 3 Botha	Laurie Schultz
Barlene Nemetz	5922 Spruce Pt Cres	Barlene Nemetz
ANTHONY NEMETZ	5922 Spruce Pt Cres	Anthony Nemetz
Ad Luyik	Box 488 THREE HILLS	Ad Luyik
MaryAnn Battin	4607-56th	M. Battin
Gus PRAND	Calgary Alta	Gus PRAND
ANN PRAND	Calgary, AB	Ann Prand

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Aliv Lake, and then allowing the water to flow through Parlyby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlyby Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

KELLY ANDERSON	BOX 109, ERMINE	K. Anderson
Susan Adams	Edmonton	Susan Adams
Jina Young	Grande Prairie	Jina Young
DWUE STREIS	RED DEER	Dwue Streis
STREIS		
Tina Broome	Stettler	Tina Broome
Vicky Marshall	Nevis	Vicky Marshall
Chris Hankins	Box 89 Stettler	Chris Hankins
Shirley Piddington	Box 1140 Stettler	Shirley Piddington
Paul Lee	14308 - 106 Ave	Paul Lee
David Hollings	Box 2572 Stettler	David Hollings
Ray J. Kern	3400 - 65 St	Ray J. Kern
Kevin Sweet	Box 376 Stettler	Kevin Sweet
Robbie Sweet	Box 1563 Lacomb	Robbie Sweet
Jackie Fidler	Box 2342 Westlock	Jackie Fidler
Tannis Young	Grande Prairie	Tannis Young
Cindy Duchscher	Stettler	Cindy Duchscher
Kimberly Walker	Stettler	Kimberly Walker
S. Sprule	Calgary	S. Sprule

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourist Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alex Lake, and then allowing the water to flow through Parlyby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlyby Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO INCLUDE IN THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

* NAME (PLEASE PRINT) *

ADDRESS

SIGNATURE

Pam GANCER

Box 127 Beiseker

P. Gancer

PETER GANCER

" " "

Peter Gancer

THORVAL DYCK

Box 2315 STETTIN

Thorval Dyck

Aug Rec

Box 825 "

Nom Clontie

215 Whiteside Rd.

N. Clontie

H.M. Clarke

839-25 Ave SE

Calgary-H.M. Clarke

E.A. Gomer

60 Saw Willow

E.A. Gomer

C. Gomer (C. Gomer)

FL incoming

C. Gomer

DEREK YOUNG

GRANDE PRAIRIE

D.W. Young

ELLEN YOUNG

" "

E. Young

Peter Wood

Stettin

Peter Wood

Mary-Jean Burke

Hanna

M.J. Burke

DAVE GIBEL

OWDS

Dave Gibel

CHARMAINE TWEIT

STETTIN

Charmaine Tweit

Mike Hazel

Swanton

Mike Hazel

Chris Lambert

Three Hills

Chris Lambert

Carol Anne Walker

Three Hills

Carol Anne Walker

R. KOHN

EDMONTON

R. Kohn

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parly Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parly Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

Gaylene Christman

Fort Saskatchewan

Gaylene

Nina Costerke

medicine Hat

Nina

Carmen Heap

Spruce Grove

Carmen Heap

Jaime Gallagher

Edmonton

Jaime Gallagher

B. Pauley

Devon

B. Pauley

Sandra Costerke

medicine Hat

Sandra Costerke

Shirley Hunt

RR#1 Markerville

Shirley Hunt

Marvin Lentz

RR#1 Markerville

Marvin Lentz

Sam May

110 Mayfair Rd.

Derrick May

CORAMAY

✓

Coramay

LARRY MAY

✓

Larry May

LOUISE MAY

✓

Louise May

JOE VANDONGE

Box 272 Crossfield

Jeff Dumont

110 Mayfair Rd.

BOBA KEICHINGER

ALLIANCE

Anne Takuschie

Calgary

Hilma & Evelyn Good

Alliance

Ch. Baker

Cal. attn

PETITION TO STABILIZE WATER LEVEL in BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parlyb Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlyb Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)	ADDRESS	SIGNATURE
DARRELL TURNER	Box 15701 Olds	Darrell Turner
DAN McISAAC	23 Howson Cess	Edm. McIsaac
JIM KOSTENUK	Box 481 Baskin	Jim Kostenuk
R. ROGERS	RED DEER	R. Rogers
P. L. L...	1112 VICTORIA CESS	P. L. L...
M. Metu	30 Gummow R.D.	M. Metu
Susan Laberge	18 Castleplace path.	Susan Laberge
Steve Hummel	Box 2304 Drum.	Steve Hummel
Juanita Hummel	HANNA	NOEL JORGENSEN
Mr. & Mrs. Lindballe	4308-38 St. Edm.	Linda Lindballe
Diane Boush	680 2nd Ave. W. Drum.	D. Boush
JIM EVANS	12247 106 St. Edmonton	J. Evans
MART FINLEY	Box 252 Drumheller	M. Finley
GARTH DAKU	Box 14 SITE 2 RET. LANE	Garth Daku
Peggy Heary	4119 61st St. Edm.	Peggy Heary
N. W. H. H. H. H. H.	"	N. W. H. H. H. H. H.
Kurtis Plawick	9635-76 St. Edm.	Kurtis Plawick
Pen Nikish	10223-81 St. Edm.	Pen Nikish

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parlyby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlyby Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)	ADDRESS	SIGNATURE
Jimmy Norris	Alliance, Alta	Janet - 1 Jones
B. Felske Felske	Lloydminster	B. Felske
A. Felske	Lloydminster	A. Felske
Chas Jansen	CAMROSE Box 268 Miller	Chas Jansen
P.I. Hopkins	C#24 - FAUN CR RD. RR#1, LONE BATE BC 287-5231 R.R. Rd 231	P.I. Hopkins
Chris Bailey	Sherwood Park	Chris Bailey
DAVE MEYER	53241 A 99 Rd 231 SHERWOOD PARK	Dave Meyer
Marcia Nish	2824-14 Ave N.W.	Marcia Nish
Mundy Curran	Box 15 Merivale	Mundy Curran
Gian RAWLYK	8001-99 AST Bankview	Gian Rawlyk
Barry Rock	61 Cochran Dr	Cochrane, AB. Barry Rock
Kelvin Rock	61 Cochran Dr	Cochrane AB
Carmen Heap	Spencey	Carmen Heap
RED MORGAN	Box 31 MORRIS ALTA	Red Morgan
GARY BRIGGS	RR#1 WETASKIWIN	Gary Briggs
GARY J. WILSON	Box 33 VANDERSTADT	Gary Wilson
GLEN WILSON	Box 706 CAROLINE	Glen Wilson

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE "

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Atlin Lake, and then allowing the water to flow through Parly Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parly Creek, and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

Wayne Hills	Kitscoty, Alta	Wayne Hills
A.W. BARN	CALGARY	A.W. Barn
Don Martin	Edmonton	Don Martin
Barbara Keller	Camrose	Barbara Keller
EDITH VASS	BEAUMONT, AB	Edith Vass
KAREN Lyle	Stettler	Karen Lyle
Doug Cox	FT. SASK.	Douglas A Cox
DIANE ABRAMENKO	Red Deer	Diane D.
ANITA MAE KISHAR	Rayburg	Anita M. Kishar
Anna Mae Kishar	Rayburg	Anna Mae Kishar
MELVIN KACHOR	Stettler	Melvin Kachor
Gina Pooley	STETTLEIR	Gina Pooley
STAN POOLEY	CALGARY	Stan Pooley
FRANK MINK	Calgary	Frank Mink
Rosi Mink	Stettler	Rosi Mink
Myra Neumann	Stettler	Myra Neumann
Norma Randon	Stettler	Norma Randon
Robert Randon	Stettler	Robert Randon
DKE MOORE	Calgary	DKE Moore

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Reserve capable of becoming a major tourist destination area.
However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.
Stabilization of the water level was deemed feasible in 1962, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parley Creek into Buffalo Lake.
The Department of Agriculture has since completed the channelization of Parley Creek and we are therefore hereby petitioning the provincial government to expedite the stabilization of Buffalo Lake in the 1969 - 1970 fiscal year by proceeding with the pipeline as proposed in the Phase III study.

over →

NAME (PLEASE PRINT)

ADDRESS

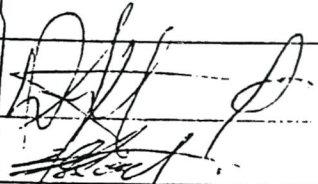
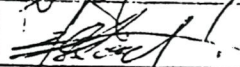
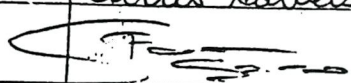
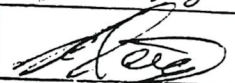

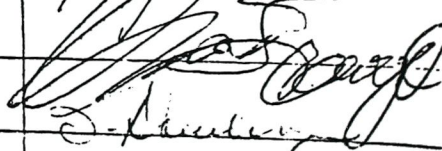
SIGNATURE

1	Alana Costigan	6308-43rd Ave	Alana Costigan
2	David Payne	Box 1732 Skutumpah	SI
3	Jean Chapman	Box 88 Skutumpah	
4	Ruth Ginters	1203 Kinned Ave.	Calgary, Alta.
5	A. D. Turnbull	Skutumpah	Alta.
6	Artis Ems	Lacombe, Alta	Alta.
7	Ken Duncan	1011A, ALMA	KEN DUNCAN
8	Cliff Everett	Box 520 Skutumpah	CLIFF EVERETT
9	Kevin Krejci	Box 1821	Kevin Krejci
10	March Snideman	Box 1821	March Snideman
11	Tom Fisher	Box 1821	Tom Fisher
12	Henry Johnson	Box 2376	Henry Johnson
13	JOSEPHINE KUZMA	162 Fyffe Rd. SE	JOSEPHINE KUZMA
14	CONNIE FITZPATRICK	Box 2283	Connie Fitzpatrick
15	BRENDA REIDA	10556 Gildcrest Cr. Red Deer	BRENDA REIDA
16	Cathy Unsworth	Gen. Del. Lacombe	Cathy Unsworth
17	Margaret A. Costigan	6308-43 Ave	Margaret A. Costigan

Please
Name

Print
Address

Signature

D AXFORD	IF STUDY ADVISES	6105 - 38 AVE STETTNER	
E. BOWLEY		1846 - 11111ST EDMONTON	
Brent O'Hara		Stettler	Brent O'Hara
Curtis Halverson		Stettler	Curtis Halverson
Steve Jones		Stettler	
SANTA DAIGLE		Box 1025, STETTNER	Daigle
Ed Langer		CALGARY	
LEATHUR MILNE		STETTNER	Leathur Milne
J. Moore		Stettler	J. Moore
Les Lattery		—	Les Lattery
DALE WICKHOLS		GADSBY	Dale Wickhols
Allen Berger		Stettler AB	A Berger
Tom Blundyside		Blundyside AB	Blundyside
Thur		Stettler AB	
Ruth Odell		Hanna, AB	Ruth & Odell
Miss Langer		Stettler, AB	
L. Langer		Halifax	L. Langer
SUSAN BELL		STETTNER	Susan Bell

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.
However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.
Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parlyby Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlyby Creek and WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

Kerry McAuley	9003 Oakfield Drive	K McAuley
Scott Melchior	112 OAKSIDE GATE	Scott Melchior
DEBORAH CARRY	Box 77 Hanna AB	Deborah Carry
MARJORIE BLAIR	Box 639 HANNA AB	Marjorie Blair
Dolores Schultz	Box 491, Bashaw	Dolores Schultz
A. Gillard	Cline	
F BLUMHAGEN	Box 58 BOTHO	F Blumhagen
JORDAN BLUMHAGEN	Box 58, BOTHO, ALTA	Jordan Blumhagen
Janet MacLennan	112 Lake Placid Rd SE	Janet MacLennan
Wanda Buckland	Red Deer	Wanda Buckland
Katherine Ilkiew	Mundare	K Ilkiew
Lynne Lorie	Trudy, alt	Lynne Lorie
LYLE MAKASKA	" "	M-L-K
MURRAY CROFT	5021 48th Avenue	Murray Croft
Mitch Zinger	Highminster	Mitch Zinger
Bryan Lamman	Rockyford AB	Bryan Lamman
Bert Turnbull	Yonkers	Bert Turnbull

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area. However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive. Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Pariby Creek into Buffalo Lake. The Department of Agriculture has since completed the channelization of Pariby Creek and WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

1	DARIN VALLER	FT MC MURRAY	[Signature]
2	Paula Chapman	STETTLER	[Signature]
3	Daphne Mitchell	FT MC MURRAY	[Signature]
4	NOREEN KAPP	STETTLER	[Signature]
5	Charles Robertson	Calgary	[Signature]
6	Steven McKay	Kindersley Sask.	[Signature]
7	COURT FORTIN	CALGARY	[Signature]
8	Harvey Hansen	Ponoka	[Signature]
9	Jeffrey Callaway	Cochrane	[Signature]
10	Kyle Rock	Cochrane	[Signature]
11	DANIEL CALLAWAY	Cochrane	[Signature]
12	JIM GILBERT	STETTLER	[Signature]
13	Muriel Maandag	"	[Signature]
14	Mary Ellen Reich	Dewinton	[Signature]
15	Judy Boorse	EDMONTON	[Signature]
16	Glennie Lavy	Red Deer	[Signature]
17	Sean LaBrie	Calgary	[Signature]
18	Kevin Swenick	Calgary	[Signature]

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parlbey Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlbey Creek and

WE THE UNDERSTONED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

Scott Page

Calgary

Scott Page

Thompson Ellen

CALGARY

Thompson

Pat Perez

Toronto Ont

Perez

Allan Ludwig

Stettler

Allan Ludwig

W.D. BERCIN

CALGARY

W.D. Bercin

Louise MacFarlane

Edmonton

Louise MacFarlane

GORDON HARDCASTLE

CALGARY

G. H. Hardcastle

LYNDA FAWCETT

Red Deer

L. Fawcett

WANDA LONG

CALGARY

W. Long

H. W. VERUEDD

CALGARY

H. W. Veruedd

Quayle Fawcett

Redwater

Quayle Fawcett

John Wilson

Beaumont

John Wilson

Sid Wisnack

Redwater

Sid Wisnack

Elva Knapp

Stettler

Elva Knapp

Leslie Knapp

Stettler

Leslie Knapp

Dale Luckwell

New Norway

Dale Luckwell

Roger Nelson

New Norway

Roger Nelson

Norm Dennis

Stettler

Norm Dennis

Don Nanta

Calgary

Don Nanta

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

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Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parly Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parly Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

Lorrie I Miller	5807 Dalhousie Dr NW	Lorrie I Miller
Martin Zimmerman	Calgary 8-432 5th St SW	Martin Zimmerman
Bob SAINSBURY	644 Del Stiller	Bob Sainsbury
Arden Bhatt	83 Marmaduke Dr NE	Arden Bhatt
JAMES M GILLES	Box 118	JAMES M GILLES
Chris Berka	Calgary	Chris Berka
Marybeth Costigan	Stettin	Marybeth Costigan
BESS HUSE	CALGARY	BESS HUSE
Christina Leung	EDMONTON	Christina Leung
Cynthia Leung	Edmonton	Cynthia Leung
Dwayne Nielsen	Stettin	Dwayne Nielsen
Terry Nims	Stettin	Terry Nims
Dyan Nims	Stettin	Dyan Nims
Blake Walstenholme	Stettin	Blake Walstenholme
Tina Gustaf	Edmonton	Tina Gustaf
Gertrude MARKS	EDMONTON	Gertrude Marks
Joanne Bishop	EDMONTON	Joanne Bishop
Linda Durham	FT-m'murray	Linda Durham

PETITION TO STABILIZE WATER LEVEL IN "BUFFALO LAKE"

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination Area.

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Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parlyb Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlyb Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)	ADDRESS	SIGNATURE
W. M. Kowalski	12 Duke Close, Red Deer, AB	W. M. Kowalski
Ernest Taithe	Wembley Alta	Ernest Taithe
Claire Taithe	Wembley Alta	Claire Taithe
Pete Allen	Co. Carol	Pete Allen
ROBERT SPACAL	EDMONTON ALTA	Robert Spacal
Cheryl Burke	Calgary	Cheryl Burke
Lorri Harsyn	Strathmore	Lorri Harsyn
Les Harsyn	Strathmore	Les Harsyn
Karen Hamilton	Red Deer	Karen Hamilton
Doug Dorval	Red Deer	Doug Dorval
Bert Blackley	Less Alta	Bert Blackley
Rob Ripley	Edmonton ALTA	Rob Ripley
Janet Turnbull	miran Alta	Janet Turnbull
AL M. O'DRISCOLL	Wetaskwin	A. M. O'Driscoll
Ar. Chasse	CALGARY	A. Chasse
Wayne Linn	Edmtn.	Wayne Linn
DORIS A. CORDEL	OLDS	Doris A. Cordel
Melody Kent	HALKIRK, AB	Melody Kent
	HALKIRK AB	

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parlyb Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlyb Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

FRANK VIDOUAC	ERSKINE	Frank Vidouac
BRUCE BIGNELL	GADSBY	Bruce Bignell
BETTY KEIBEL	STETTLER	Betty Keibel
Karen Whit	Spruce Grove	Karen Whit
Dennis Bignell	Spruce Grove	Dennis Bignell
D. McComb	EDMONTON ALTA	D. McComb
J. McComb	Edmonton ALTA	J. McComb
Jennie Peters	Drumheller AB	J. Peters
Jacquie Lattery	Stettler AB	Jacquie Lattery
KELLY N. KLAETT	FT. SASKS. ALTA.	Kelly N. Klaett
Jacob Buttel	Edmonton ALTA	Jacob Buttel
Dennis McComb	Milaca, Minn	Dennis McComb
Michelle Pieper	Milaca MN	Michelle Pieper
Joan Prediger	Princeton, MN	Joan Prediger
Lee Zimmer	Coronation AB	Lee Zimmer
Roxanne Zimmer	Camrose, AB	Roxanne Zimmer
Janet Zimmer	Coronation AB	Janet Zimmer
Wilma Sturgeon	Miner, AB	Wilma Sturgeon

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parlyb Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlyb Creek and

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NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

DEBBIE CLEAVER	RED DEER	<i>Debbie Cleaver</i>
PAT CLEAVER	RED DEER	<i>Pat Cleaver</i>
MIKE CLEAVER	RED DEER	<i>Mike Cleaver</i>
BLAINE CLEAVER	RED DEER	<i>Blaine Cleaver</i>
JEFF WISMER	CASPER	<i>Jeff Wismer</i>
KEITH GRAYSON	EDMONTON	<i>Keith Grayson</i>
TINA GRAYSON	Edmonton	<i>Tina Grayson</i>
TOM GILKS JR	STONY PLAIN	<i>Tom Gilks</i>
JEANNETTE PRISLITS	Stettin	<i>Jeannette Prislits</i>
SUE EMMESS	28A Cameron Crescent Red Deer	<i>Sue Emmess</i>
C.C. GIBSON	5315 - 55 AVE WETASKIWIN	<i>C.C. Gibson</i>
GLORIA HAWLEY	#312221, Inglewood, P.E. 66	<i>Gloria Hawley</i>
MIKE HAWLEY	CALGARY AB	<i>Mike Hawley</i>
BILL WILSON	CASPER AB	<i>Bill Wilson</i>
WENDY BERRY	HALKIRK, AB	<i>Wendy Berry</i>
TREVOR BERRY	HALKIRK, AB	<i>Trevor Berry</i>
DALE KENT	HALKIRK AB	<i>Dale Kent</i>
DENNIS COPPEL	HALKIRK AB	<i>Dennis Coppel</i>

PETITION TO STABILIZE WATER LEVEL IN BUFFALO LAKE

Buffalo Lake is a Natural Provincial Resource capable of becoming a major Tourism Destination area.

However, over the past years the water level has decreased to the point that water based recreation is becoming prohibitive.

Stabilization of the water level was deemed feasible in 1982, by installing a pipeline 6 miles from the Red Deer River into Alix Lake, and then allowing the water to flow through Parlbay Creek into Buffalo Lake.

The Department of Agriculture has since completed the channelization of Parlbay Creek and

WE THE UNDERSIGNED THEREFORE HEREBY PETITION THE PROVINCIAL GOVERNMENT TO IMPLEMENT THE STABILIZATION OF BUFFALO LAKE IN THE 1989 - 1990 FISCAL YEAR BY PROCEEDING WITH THE PIPELINE AS PROPOSED IN THE PHASE III STUDY.

NAME (PLEASE PRINT)

ADDRESS

SIGNATURE

Gordon Hillman

Red Deer

Gordon Hillman

FRANK HILLMAN

NANNA

Frank Hillman

Jean Hillman

NANNA

Jean Hillman

BB McCook

Edmonton

BB McCook

M. Bokuer

EDMONTON

M. Bokuer

BRANDA MCCOMB

EDMONTON

Brandi McComb

Sandra Deeves

EDMONTON

Sandra Deeves

Phyllis Vissecher

Edmonton

Phyllis Vissecher

Phyllis Vissecher

PONOKA

Phyllis Vissecher

Brenda Walton

BROOKS

Brenda Walton

Ross Lomax

KILLAM

Ross Lomax

Vivian Clark

ALLIANCE

Vivian Clark

Terry Clark

Alliance

FRIENDS OF BUFFALO LAKE

Organizational Meeting: Stettler Town Office
Monday, November 13, 1989
Information available from Executive as follows:
Chairman: Angus Braseth Recording Secretary: Dugall Wood
Bashaw Rochon Sands
Vice-Chairman: Adrian vanNieuwkerk
Mirror

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WHEREAS: Studies regarding the Stabilization of Buffalo Lake have been carried on by the Provincial Department of Environment for many, many years, and the past number of hot dry years has caused a severe drop in the water level of the Lake; and

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WHEREAS: The stabilization of the water level of Buffalo Lake was deemed feasible in 1982 at a cost of \$14 million, and a large portion of the project known as the channelization of Parlbay Creek has since been completed by the Department of Agriculture.

THEREFORE: The undersigned are interested in supporting the Friends of Buffalo Lake, and are hereby in favour of reopening the proposal for stabilization of Buffalo Lake, and the holding of public hearings in that regard, by the Government of the Province of Alberta, with the objective of preserving this valuable provincial resource for future generations.

PLEASE PRINT NAME	ADDRESS	PHONE #	SIGNATURE
Tim Sturgeon	Mirror	-2380 788-2434	<i>Tim Sturgeon</i>
Brian Austrom	Mirror	788-2210	<i>B. Austrom</i>
RAY MORTIMER	ALIX	747-2696	<i>Ray Mortimer</i>
LOYD WATT	ALIX	747-2077	<i>Lloyd Watt</i>
WALTER GARRETT	ALIX	747-2509	<i>Walter Garrett</i>

FRIENDS OF BUFFALO LAKE
continued

PLEASE PRINT NAME ADDRESS PHONE # SIGNATURE

ARCHIE AUSTIN	ALIX	747-2650	A. H. Austin
PAT AUSTIN	ALIX	747-2650	P. A. Austin
W. KITTLE	MIRROR	788-3755	W. Kittle

FRIENDS OF BUFFALO LAKE

Organizational Meeting: Stettler Town Office
Monday, November 13, 1989
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WHEREAS: The stabilization of the water level of Buffalo Lake was deemed feasible in 1932 at a cost of \$14 million, and a large portion of the project known as the channelization of Parlyb Creek has since been completed by the Department of Agriculture.

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PLEASE PRINT NAME ADDRESS PHONE # SIGNATURE

ADRIAN VAN NIEUWKERK Box 117 MIRROR 785-3077 *Adrian van Nieuwkerk*
BILL NEIS Box 161 MIRROR-7882166 *Bill Neis*
LINDA SCHULTZ Box 47 MIRROR 788-2371 *Linda Schultz*
Dwight E Landon Box 287 MIRROR 788-2344 *Dwight E Landon*
Audrey Stenerson Box 136 MIRROR 788-3973 *Mr. A. Stenerson*

continued

SIGNATURE

(Evin MacDonall)	ERSKINE	742-5661	Karin MacDonall
Colleen JACKSON	Stettler	742-8474	Colleen Jackson
Colin JACKSON	Calgary	248-4579	Colin Jackson
JOHN WATSON	ERSKINE	742-0922	John Watson
Thomas Rye	Edmonton	432-1280	Thomas Rye

FRIENDS OF BUFFALO LAKE
continued

ADDRESS

SIGNATURE.

Barbara

372.2388

Joe Puleon

Mirror

788-2101

James A. Mudgett

FRIENDS OF BUFFALO LAKE

continued

PLEASE PRINT NAME ADDRESS PHONE # SIGNATURE

Mel Hay	Bashaw	372-3854	Mel Hay
Lucia Hohl	Bashaw	372-3678	Lucia Hohl
Kary - Wright	Bashaw	372-2174	Kary Wright
Ken Murray	Halkirk	574-2112	Ken Murray
Walter H. Buelow		788-2114	Walter H. Buelow
GARRY WALTON	TEES	788-2211	Garry Walton
Roy W. Elmer	TEES	788-2201	Roy W. Elmer
Jim Whitehouse	Bashaw	788-2370	Jim Whitehouse
Jim Boyd	Bashaw	788-2208	Jim Boyd
Robyn Luft	Bashaw	788-2229	Robyn Luft
W. JERRY LUFT	BASHAW	372-3749	W. Jerry Luft
Ted Buelow	Bashaw	788-2411	Ted Buelow
Wally Quapp	Bashaw	788-2234	Wally Quapp
Long Lanning	Mirror	788-3765	Long Lanning
Margene Forsyth	Mirror	788-2221	Margene Forsyth
James Forsyth		788-2221	James Forsyth
Paul Buntz		788-2198	Paul Buntz
Bernice Luttinger		788-2198	Bernice Luttinger
Louis Bourgeois		788-2198	Louis Bourgeois
Brian Gattley		788-2198	Brian Gattley
Jack De...		372-2478	Jack De...

Julia Bashaw

FRIENDS OF BUFFALO LAKE

Organizational Meeting: Stettler Town Office
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Bashaw Rocken Sands

Vice-Chairman: Adrian vanNieuwkerk
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PLEASE PRINT NAME ADDRESS

PHONE #

SIGNATURE

JEANETTE HOLT BASHAW

372-3522

Jeanette H. Holt

NORMAN S. HOLT BASHAW

372-3522

N. S. Holt

TERRY WRIGHT BASHAW

372-3738

Terry Wright

NORMA WRIGHT BASHAW

372-2174

Norma Wright

SIM HOLT BASHAW

372-3628

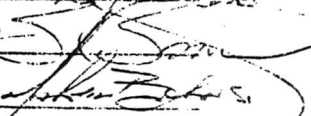
S. J. Holt

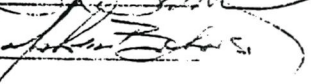
FRIENDS OF BUFFALO LAKE continued

PLEASE PRINT NAME ADDRESS PHONE # SIGNATURE

Vernice ~~Handley~~ Box 16 - 372-2208

Stuart Handlake Box 550 Dismal 372-2326

Sandy Smith General Delivery Baskin 

Mark BURRIS Box 601 Baskin 372 4061 

John Kustowick Box 160 Dismal

FRIENDS OF BUFFALO LAKE

continued

PLEASE PRINT NAME ADDRESS PHONE # SIGNATURE

John Riebel Bashaw 788-2134

WAYDE BRASETA Bashaw 372-4009 *W. Braset*

Onville Miller Bashaw 372-3606 *Onville Miller*

THOMAS W. DENNIS MIRROR 788-3768 *Tom Dennis*

JOHN L. DAWSON BASHAW 817-2575 *J. Dawson*

CAROL ANDERSON Box 421 Bashaw 372-3755 *Carol Anderson*

BIL WEATHERILL Box 579 BASHAW 372-2315 *Bil Weatherill*

DWEN W. LINDSAY Box 99 Poncha 788-2149 *Dwen Lindsay*

MARTIN RUBIS Box 601 BASHAW 372-4061 *Martin Rubis*

Shirley Johnson Bashaw 788-2128

Stephen Johnson Bashaw 788-2138

Darryle Simmers Bashaw 372-2466 *Darryle Simmers*

Kathy Young Bashaw 372-2177 *Kim Young*

STAN SCHROEDER BASHAW 372-2416 *Stan Schroeder*

Richard L. Garside Bashaw AB 372-3816

CORIN KACHER BASHAW 372-3639 *Corin Kacher*

JERRY KLINICK BASHAW 372-2341

Brad Linaker Box 1304 Bashaw 372-3023 *Brad Linaker*

Pat Carstairs Stettler 742-4089 *Pat Carstairs*

Leo Carstairs Stettler 742-4089 *Leo Carstairs*

Kel Kamen Bashaw 372-3005 *Kel Kamen*

FRIENDS OF BUFFALO LAKE

Organizational Meeting: - Stettler Town Office
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Rochon Sands
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PLEASE PRINT NAME	ADDRESS	PHONE #	SIGNATURE
BOB STEVENSON	Box 126 Bashaw	372-4410	<i>Bob Stevenson</i>
G. Alec Salmon	RR4 Donalds	883-2492	<i>G. Alec Salmon</i>
MARJAN STEVENSON	Gen Del Stettler	7428523	<i>M. Stevenson</i>
LAWRENCE BACKEN	Box 11 Bashaw ALTA	372-2463	<i>Lawrence Backen</i>
Gen. STEVENSON	Box 46 Bashaw ALTA	784-2135	<i>Gen. Stevenson</i>

FRIENDS OF BUFFALO LAKE

continued

PLEASE PRINT NAME ADDRESS PHONE # SIGNATURE

Lady Williams 10919-52 Ave. Edm 3437-5688
Mildred Williams Box 83 Mirror 758-3074
ROMAN HAAS Box 705 BASHAW 372-3661
Marlet Marlet Box 385 Bashaw
ALLAN BENKIE Box 53 BASHAW 372-2184
Kevin Berg 6826-112 Ast. Edmonton 434-3243

FRIENDS OF BUFFALO LAKE

continued

PLEASE PRINT NAME ADDRESS PHONE # SIGNATURE

WALTER ROSLAND	6217-45AV CAMROSE	672-3267	Walter Rosland
Don Zietzky	5404-50st	677-576	Don Zietzky
JOHN ROCK	BASHAW	372-3828	John Rock
FRED WILLIAMS	BASHAW	372-3842	Fred Williams
RALPH Schürman	Bashaw	372-3650	R. Schürman
Murray Holroyd	Bashaw	372-3847	Murray Holroyd
NORM SCHULTZ	BASHAW	372-3604	Norm Schultz
ED SCHNEIDER	BASHAW	372-3676	Ed Schneider
R.R. SCHULTZ	"	372-3536	R.R. Schultz
JACK DE LORME	CALGARY 65-HUNTSTROM DA (PELICAN POINT)	275-5276	Jack DeLorme
BERYL DeLorme	65 HUNTSTROM DR CALG	275-5276	Beryl DeLorme
John A. Dymally	BASHAW	372-2483	John A. Dymally
W. H. Hunt	B. 1306	372-2411	W. H. Hunt
Arnt	Rox 2612	372-3631	A.R. Rutz
KENDALL SUTLEY		372-2285	Kendall Suttley
Nelkie Darling	BASHAW	372-2285	Nelkie Darling
OREST BARON		372-3234	Orest Baron
Stan Carlson		372-2374	Stan Carlson
Clayton Vallet	Bashaw	372-2192	CLAYTON VALLET
AL LOSHNY	-BASHAW	372-3637	A. Loshny
W.D. Williams	Mission	372-2111	W.D. Williams

FRIENDS OF BUFFALO LAKE

Organizational Meeting: Stettler Town Office
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PLEASE PRINT NAME ADDRESS PHONE # SIGNATURE

CARL EURICH RR1 BASHAW 372-2460

JIM KOSTENIUK Box 481 BASHAW 372-3837

Richard D. Beck Box 171 Bashaw 372-2206

Joe Trudell Bashaw

Doug Holzworth Box 615 Bashaw

Doug Holzworth

FRIENDS OF BUFFALO LAKE

continued

PLEASE PRINT NAME

ADDRESS

PHONE #

SIGNATURE

TRACY HAUCK

BASHAW

372-3517

Tracy Louch

FRIENDS OF BUFFALO LAKE

Organizational Meeting: Stettler Town Office
Monday, November 13, 1989

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Bashaw Rechen Sands

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PLEASE PRINT NAME ADDRESS PHONE # SIGNATURE

Mark Homeister Box 27 Bashaw 372-2389 *Mark Homeister*

BRIAN HAUCK Box 612 BASHAW 372-3517 *Brian Hauck*

PETER MASTERS Box 673 BASHAW 372-2361 *Peter Masters*

Bob Cantelon Box 714 Bashaw 372-2133 *Bob Cantelon*

DARWIN KERZENOWSKI Box 231 Bashaw 372-3681 *Darwin Kerzenowski*

FRIENDS OF BUFFALO LAKE

Organizational Meeting:

Stettler Town Office

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Bashaw

Recording Secretary:

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Rechen Sands

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PLEASE PRINT NAME

ADDRESS

PHONE #

SIGNATURE

WES JARVIS BASHAW

372 2290

Wes Jarvis

Angus Braseth

BASHAW

372-3662

Angus Braseth

Angus Braseth

BASHAW

372-3740

Angus Braseth

JOAN BRASETH

BASHAW

372-3940

Joan Braseth

JIM BRASETH

BASHAW

372 3063

Jim Braseth

FRIENDS OF BUFFALO LAKE

continued

PLEASE PRINT NAME ADDRESS PHONE # SIGNATURE

Gabriel Dubitz Bashaw 372-2198

GAIL Dubitz Bashaw 372-2198 *Gail Dubitz*

MARILYN REAY Bashaw 372-3901

RAY TAYLOR CARMY 278 8917 *Ray Taylor*

SHIRLEY SMITH " 278 8917 *Shirley Smith*

RUBY BRASETH BASHAW 372 342 *Ruby Braseth*

FRIENDS OF BUFFALO LAKE

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PLEASE PRINT NAME ADDRESS PHONE # SIGNATURE

Mary D. Miller #245-Bashaw AB. 372-3654 Mary D. Miller
YVONNE DE CHODDER-BASHAW-BOX 117-372-2184 Yvonne De Chodder
STAN DE CHODDER-BASHAW-BOX 117-372-2187 Stan De Chodder
Verlie Steinhoff, Edith Schulz, Minerva Berry.
Mary Le Bon.

FRIENDS OF BUFFALO LAKE

continued

PLEASE PRINT NAME ADDRESS PHONE # SIGNATURE

TERENCE KLEIN 722 SARRING RD. WAICORO ALTA

NANCY CRISDIE 1214-668-951 SW Calgary Alta 11111111

Madeline Goodwin Box 195, Bashaw Alta ⁷¹⁰⁻¹¹¹ TORONTO

Laura Pearson Box 104 Bashaw, AB. TORONTO

Barthe H. McLean 32 Cuth Ridge Bay SW Calgary T3M 1H4 242782

Terence A. McLean

242782

260	Alix	747-3157	Dr. H. H. L. L. L. L.
	Alix	747-2840	Lynne Bell
	ard Alix	747-2144	St. Leonard
ELL	"	747-2004	Frank W. Bell
RGH	"	747-2796	R. R. R. R.
By	"	747-2802	Larry Allen
	"	747-2004	Nola Bell
	"	788-2180	Linda Allan
LEY	"	788-3971	Marilyn Sutter
	Sorensen	747-3122	Debbie-Lou Sorensen

FRIENDS OF BUFFALO LAKE

continued

PLEASE PRINT NAME ADDRESS PHONE # SIGNATURE

Harold Strince	Alix	747-3132	<i>[Signature]</i>
Diane Davis	Alix	747-2474	<i>[Signature]</i>
Ray Mortimer	Alix	747-2696	<i>[Signature]</i>
Daphne Schultz	Alix	747-2696	<i>[Signature]</i>
Corrie Casselman	Alix	747-2047	<i>[Signature]</i>
Opal Saunders	Sacombe	782 6099	
Annette McDonald	Alix, Alta	747-2369	
Gladys	Alix Alta	747-2734	
Leola	Alix Alta	747-2030	
W. Z.	Alix Alta	747-2800	
Marie Lenef	Alix	747-3095	
Norma Seaward	Alix	747 3253	<i>[Signature]</i>
Donna <i>[Signature]</i>	Mina	788-2479	
Edna <i>[Signature]</i>	Mina	788-2479	
Jimmy Chick	Alix	749-2355	
J. B. [Signature]	Alix	747 2421	
Bob [Signature]	ALIX	747-2034	
Quar Storey	Tees	747-2191	
J. Miller	Alix	747-2082	
L. E. Christman	Alix	747 2552	
SHIRLEY BAGSHAW	Alix	747-2556	<i>[Signature]</i>

FRIENDS OF BUFFALO LAKE continued

* PLEASE PRINT NAME *	ADDRESS	PHONE #	SIGNATURE
PAUL R. BROWN	ALIX	747-2540	Paul R Brown
Darryl McDermott	ALIX	747-2337	D McDermott
Jay Barlow	ALIX	747-2424	J Barlow
BERT WARD	ALIX	747-2052	B Ward
Louise Crebas	ALIX	747-2645	Louise Crebas
Coxey Cubes	ALIX	By Hand	
Jean Jennings	ALIX ALIX		E J. JENNINGS
Karl Brown	ALIX, ALIX	747-2540	Karl Brown
Neil Humphrey	ALIX, ALIX	747-2214	Neil Humphrey
DAN KISON	ALIX ALIX	747-2259	D Kison
FRED SOLTERMANN	ALIX	747-2279	Fred Solter
Edmund Barrett	"	" - 2238	
John Rottmann	ALIX		

FRIENDS OF BUFFALO LAKE

Organizational Meeting: Stettler Town Office
Monday, November 13, 1989
Information available from Executive as follows:
Chairman: Angus Braseth Recording Secretary: Dugall Wood
Bashaw Rochon Sands

Vice-Chairman: Adrian vanNieuwkerk
Mirror

Public hearings are scheduled to determine the future of Buffalo Lake in December, 1989. We need your support and your presence at these meetings. Watch newspapers for details, or call an executive member.

OBJECTIVES OF THE FRIENDS OF BUFFALO LAKE:

WHEREAS: Studies regarding the Stabilization of Buffalo Lake have been carried on by the Provincial Department of Environment for many, many years, and the past number of hot dry years has caused a severe drop in the water level of the Lake; and

WHEREAS: Tourism is the third largest industry in the Province of Alberta, is in extremely high profile and growing, and is in need of warm water recreation lakes; and

WHEREAS: The stabilization of the water level of Buffalo Lake was deemed feasible in 1982 at a cost of \$14 million, and a large portion of the project known as the channelization of Parlbay Creek has since been completed by the Department of Agriculture.

THEREFORE: The undersigned are interested in supporting the Friends of Buffalo Lake, and are hereby in favour of reopening the proposal for stabilization of Buffalo Lake, and the holding of public hearings in that regard, by the Government of the Province of Alberta, with the objective of preserving this valuable provincial resource for future generations.

PLEASE PRINT NAME	ADDRESS	PHONE #	SIGNATURE
W.L. McDonald	Home	747-2337	W.L. McDonald
Sam Sauer	Alix	747-2139	Sam Sauer
X BEDINGFIELD	ALIX	747-2615	X. Bedingfield
Ruby Suttley	Alix	747-2493	Ruby Suttley
Edith Tanzwell	ii	747-2152	E. Tanzwell

FRIENDS OF BUFFALO LAKE

Organizational Meeting: Stettler Town Office
Monday, November 13, 1989
Information available from Executive as follows:
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WHEREAS: Studies regarding the Stabilization of Buffalo Lake have been carried on by the Provincial Department of Environment for many, many years, and the past number of hot dry years has caused a severe drop in the water level of the Lake; and

WHEREAS: Tourism is the third largest industry in the Province of Alberta, is in extremely high profile and growing, and is in need of warm water recreation lakes; and

WHEREAS: The stabilization of the water level of Buffalo Lake was deemed feasible in 1982 at a cost of \$14 million, and a large portion of the project known as the channelization of Parlbay Creek has since been completed by the Department of Agriculture.

THEREFORE: The undersigned are interested in supporting the Friends of Buffalo Lake, and are hereby in favour of reopening the proposal for stabilization of Buffalo Lake, and the holding of public hearings in that regard, by the Government of the Province of Alberta, with the objective of preserving this valuable provincial resource for future generations.

PLEASE PRINT NAME	ADDRESS	PHONE #	SIGNATURE
DEBRA FERREY	ALIX	747-3152	<i>[Signature]</i>
CORRIE BOND	ALIX	747-2028	<i>[Signature]</i>

FRIENDS OF BUFFALO LAKE

Organizational Meeting: Stettler Town Office
Monday, November 13, 1989
Information available from Executive as follows:
Chairman: Angus Braseth Bashaw Recording Secretary: Dugall Wood
Rochon Sands
Vice-Chairman: Adrian vanNieuwkerk
Mirror

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OBJECTIVES OF THE FRIENDS OF BUFFALO LAKE:

- WHEREAS: Studies regarding the Stabilization of Buffalo Lake have been carried on by the Provincial Department of Environment for many, many years, and the past number of hot dry years has caused a severe drop in the water level of the Lake; and
- WHEREAS: Tourism is the third largest industry in the Province of Alberta, is in extremely high profile and growing, and is in need of warm water recreation lakes; and
- WHEREAS: The stabilization of the water level of Buffalo Lake was deemed feasible in 1982 at a cost of \$14 million, and a large portion of the project known as the channelization of Parlyby Creek has since been completed by the Department of Agriculture.
- THEREFORE: The undersigned are interested in supporting the Friends of Buffalo Lake, and are hereby in favour of reopening the proposal for stabilization of Buffalo Lake, and the holding of public hearings in that regard, by the Government of the Province of Alberta, with the objective of preserving this valuable provincial resource for future generations.

PLEASE PRINT NAME	ADDRESS	PHONE #	SIGNATURE
RICHARD KURZENOWSKI	Box 280 HILK	747-2478	[Signature]
FRED SOLTERMANN	Box 445 ALIX	747-2279	[Signature]
LLOYD DAHL	Box 516 ALIX	747-2466	L.S.D. [Signature]
GLEN HARRON	Box 670 ALIX	747-2069	[Signature]
NANCY HARRON	Box 670 ALIX	747-2069	N. Harron

FRIENDS OF BUFFALO LAKE

continued

PLEASE PRINT NAME ADDRESS PHONE # SIGNATURE

CORALIE BOND	Box 1 97 (ALIX)	747-2028	T. Paylie, Bond
Sherrey Machuk	Box 386 ALIX	747-3218	Sherrey Machuk
ALAN McQUAIR	Box 68 ALIX	747-2470	ALAN McQuair
ARNOLD FRENCH	Box 134 STETTLEN	788-3963	Arnold French
DALE FISCHER	Box 2457	742-0462	

FRIENDS OF BUFFALO LAKE

Organizational Meeting: Stettler Town Office
Monday, November 13, 1989
Information available from Executive as follows:
Chairman: Angus Braseth Recording Secretary: Dugall Wood
Bashaw Rochon Sands

Vice-Chairman: Adrian vanNieuwkerk
Mirror

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OBJECTIVES OF THE FRIENDS OF BUFFALO LAKE:

WHEREAS: Studies regarding the Stabilization of Buffalo Lake have been carried on by the Provincial Department of Environment for many, many years, and the past number of hot dry years has caused a severe drop in the water level of the Lake; and

WHEREAS: Tourism is the third largest industry in the Province of Alberta, is in extremely high profile and growing, and is in need of warm water recreation lakes; and

WHEREAS: The stabilization of the water level of Buffalo Lake was deemed feasible in 1982 at a cost of \$14 million, and a large portion of the project known as the channellization of Parlbay Creek has since been completed by the Department of Agriculture.

THEREFORE: The undersigned are interested in supporting the Friends of Buffalo Lake, and are hereby in favour of reopening the proposal for stabilization of Buffalo Lake, and the holding of public hearings in that regard, by the Government of the Province of Alberta, with the objective of preserving this valuable provincial resource for future generations.

PLEASE PRINT NAME	ADDRESS	PHONE #	SIGNATURE
Wendy Menage	Alix	747-2407	Wendy Menage
Cathy Mehle	Alix	747-3007	Cathy Mehle
RICK KUTT	Alix	747-3283	R.K.
GRANT FULTON	Alix	747-2751	Grant Fulton
MARILYN MINER	Alix	747-3145	Marilyn Miner

A P P E N D I X

PARLBY CREEK - BUFFALO LAKE
WATER MANAGEMENT PROJECT REVIEW BOARD

SUBMISSION TIMETABLE

May 21, 1991

10:00 a.m.	Opening Remarks - Chairman of Review Board
10:10 a.m.	Proponent Presentation

QUESTIONS

11:30 a.m. to 11:45 a.m.	Neil Giliat	Representing Wescan Malting
11:45 a.m. to 12 Noon	Red Deer Regional Planning Commission	

LUNCH BREAK

1:15 p.m. to 1:30 p.m.	Neil Miller	
1:30 p.m. to 2:20 p.m.	Jill Page	Representing Pelican Point Park Management Committee
2:20 p.m. to 2:30 p.m.	Martha Inions	
2:30 p.m. to 2:40 p.m.	Colleen Jackson	Representing Stettler and District Econ. Dev. Board
2:40 p.m. to 2:45 p.m.	Wayne Alton or Bob Stewart	Representing Town of Stettler
2:45 p.m. to 2:50 p.m.	Lindsay Smith	
2:50 p.m. to 3:00 p.m.	Ken Ince	
3:00 p.m. to 3:15 p.m.	Ron Komishke	White Sands Summer Village
3:15 p.m. to 3:30 p.m.	Margaret Valet	Rockland Bay Residents
3:30 p.m. to 4:00 p.m.	COFFEE BREAK	
4:00 p.m. to 4:15 p.m.	Gilbert Giem	
4:15 p.m. to closing and	East Parkland Community Futures Association The Friends of Buffalo Lake	

PARLBY CREEK - BUFFALO LAKE
WATER MANAGEMENT PROJECT REVIEW BOARD

SUBMISSION TIMETABLE

May 22, 1991

10:00 a.m. Opening Remarks - Chairman of Review Board

10:10 a.m. Proponent Presentation

QUESTIONS

10:30 a.m. to 11:00 a.m. Village of Mirror

11:00 a.m. to 11:05 a.m. Kathy Hankins

11:05 a.m. to 11:10 a.m. George McTaggart

11:10 a.m. to 11:30 a.m. Richard Kutt

11:30 a.m. to 11:40 a.m. Alix Chamber of Commerce

11:40 a.m. to 11:45 a.m. Lacombe Fish & Game

11:45 a.m. to 12 Noon Betty Ward Representing Alix Wagon
Wheel Museum

LUNCH

1:00 p.m. to 1:30 p.m. Martha Kostuch

1:30 p.m. to 2:00 p.m. SPARE PERIOD

2:00 p.m. to 2:30 p.m. Kim Schmidt Representing Ducks Unlimited

2:30 p.m. to 3:00 p.m. SPARE PERIOD

3:00 p.m. to 3:10 p.m. Proponent's Closing Remarks

3:10 p.m. to 3:15 p.m. Review Board's Closing Remarks

PARLBY CREEK-BUFFALO LAKE WATER MANAGEMENT PROJECT
PUBLIC HEARING

Village of Alix Community Centre

May 22, 1991

PUBLIC PARTICIPATION

NO.	NAME OF PARTICIPANT	AFFILIATION
1	Gaddabov	AE
2	A. Kozlowsky	AE
3	Steve Glib	PPCA
4	Bert Friedberg	Bert Friedberg Assoc.
5	Phil Ullman	EMA
6	Annette Trimbey	Edmonton
7	W. J. / 19 -	Winnipeg
8	Judith Shaw	AE
9	Kenn Coote	AE.
10	Brenda Brassard	AE
11	Dorothy Campbell	Alix
12	Reil & Kuler	AE - Red Deer
13	Peggie Graham	Edm.
14	C.T. Grover	P.A.W.M. Hanna

PARLBY CREEK-BUFFALO LAKE WATER MANAGEMENT PROJECT
PUBLIC HEARING

Village of Alix Community Centre

May 22, 1991

PUBLIC PARTICIPATION

NO.	NAME OF PARTICIPANT	AFFILIATION
15	M. L. Ludvigsson	Alix News
16	George Baudin	Miner
17	M. J. G. Smith	PC
18	Danmer Read	Barshaw Alta
19	Leo Shoemaker	Barshaw Alta
20	Karl Grollmuss	ROCKEN FUNDS.
21	John Jackson	Edmonton
22	DON YOUNG	E.M.A.
23	Carol Zahn	J.G. Moore
24	Kevin Moore	" "
25	Roy WILLARD	P.P.C.A.
26	Jim Nish	Miner
27	L.A. Jaggart	Stetter
28	Kathie Hawkins	Stetter

PARLBY CREEK-BUFFALO LAKE WATER MANAGEMENT PROJECT
PUBLIC HEARING

Village of Alix Community Centre

May 22, 1991

PUBLIC PARTICIPATION

NO.	NAME OF PARTICIPANT	AFFILIATION
29	Alan Grace	
30	Oliver Graver	Special Area Planner
31	Joan Barker	
32	Linda Schultz	Village of Mirror
33	Randy Block	semi-Alta Eng. Ltd. (Village of Mirror)
34	DOUG NEIS	
35	Gen Macdonald	Individual
36	Angus Brant	Friends of B.L.
37	Don Curlye	Mirror
38	Martha Lewis	Mirror
39	Nancy Gien	Alix
40	Betty Ward	Alix
41	Jack Lynette	Alix
42	RICHARD KURT	Alix

PARLBY CREEK-BUFFALO LAKE WATER MANAGEMENT PROJECT
PUBLIC HEARING

Village of Alix Community Centre

May 22, 1991

PUBLIC PARTICIPATION

NO.	NAME OF PARTICIPANT	AFFILIATION
43	Alexander Graham	Red Deer
44	KAR Hancock	Red Deer
45	Martha Kozuch 2nd level	
46		
47	Neil MacAlpine	Alberta Agric.
48	GRANT FULTON	PARKLAND CREDIT UNION ALIX AB
49	DON MCULTON	EFBDC
50	GORD JONG	
51	Kim Schmitt	Ducks Unlimited CANADA - Red Deer
52	Michael O'Brien	private citizen - Red Deer
53	Bob Gorge	" " Blackfalds.
54	IAN MCFARLANE	DUCKS UNLIMITED (CAMROSE)
55	Pat Austin	Private citizen Alix
56	Greg Hill	St/Hor Independent
57	Rene: Mary Anne Gaudre	Lake lot owners - Calgary

PARLBY CREEK-BUFFALO LAKE WATER MANAGEMENT PROJECT
PUBLIC HEARING

Village of Alix Community Centre

May 22, 1991

PUBLIC PARTICIPATION

NO.	NAME OF PARTICIPANT	AFFILIATION
58	Corry Van Velzen	
59	Bella Mae Shull	Alix, ALTA
60	APRIL BEHN	RAEHLER SARR
61	D. A. Wood	Reedson SANDS
62	John Lund	Alix
63	Emily L. Sessons	Alix
64	Ed Sessons	Alix
65	Paul R Brown	Alix C.F. chairman
66		
67		
68		
69		
70		
71		

PARLBY CREEK-BUFFALO LAKE WATER MANAGEMENT PROJECT
PUBLIC HEARING

Village of Alix Community Centre

May 21, 1991

PUBLIC PARTICIPATION

NO.	NAME OF PARTICIPANT	AFFILIATION
1	Melanie Campbell	Mayor Village of Alix
2-4	Page 6 Habib R. W. Hax	Alix Point Community Assoc.
5	KARL GROLLMUSSE	POCHON SHOPS
6	PETER MELNYCHUK	Edmonton - Alta Environment
7	Anna Kozlowski	" " "
8	Earl Badolalo	"
9	RICHARD KUTT	ALIX, AB.
10	CAS LUKAY	Edmonton, Alta
11	John Jacobsen	" "
12	Brent Friedenberg	Brent Friedenberg Associates
13	Pierre Peltier	Alix Cat Bora
14	Marjorie Rudingson	Alix
15	Oliver Green	Special Area Group
16	Armin Hawer	Ron Deer Assoc.

PARLBY CREEK-BUFFALO LAKE WATER MANAGEMENT PROJECT
PUBLIC HEARING

Village of Alix Community Centre

May 21, 1991

PUBLIC PARTICIPATION

NO.	NAME OF PARTICIPANT	AFFILIATION
17	KEN JUNIPER SHAW BOB KEATING WOLFE	RD T.V.
18	Stacey Ross	Stettler Independent
19	W. J. Barnard	Imperial
20	Ian Gray	CKOA Access
21	Don Horne	HACKMAN
22	Sean Barber	
23	Kenn Loefer	Alberta Environment
24	Garth Henderson	Individual
25	Ladislav Shaw	Alberta Environment
26	Brenda Brassard	Alberta Environment
27	Mike	Alix Agencies Ltd
28	Alan Luce	Alix
29	John	Imperial
30	Hubbard	PPCA

PARLBY CREEK-BUFFALO LAKE WATER MANAGEMENT PROJECT
PUBLIC HEARING

Village of Alix Community Centre

May 21, 1991

PUBLIC PARTICIPATION

NO.	NAME OF PARTICIPANT	AFFILIATION
31	W FORSTER	MIRROR PRIVATE
32	Connie Barnett	Alix, Alta.
33	EARL STAMM	Ducks Unlimited.
34	Florence Fair	Alix.
35	Martie Lewis	Mirror
36	Elee Sharp	Bashaw
37	Pete Adams	"
38	Mike Wathel	CBC Radio
39	John Lund	Alix
40	Lis Collier	Alta Envir.
41	George Gaudin	Mayor
42	DAVID MARKO	CR LGAY
43	DENNIS SHAWSETT	Red Deer Regional Planning Commission
44	John Campbell	Environment

PARLBY CREEK-BUFFALO LAKE WATER MANAGEMENT PROJECT
PUBLIC HEARING

Village of Alix Community Centre

May 21, 1991

PUBLIC PARTICIPATION

NO.	NAME OF PARTICIPANT	AFFILIATION
45	Richard Helu	Edmonton Journal
46	Brown (Mention)	East Parkland Comm. Future
47	A. C. Rogers	Alix
48	Jeff Stork	Red Deer.
49	Don Carlyle	Mirror
50	Dick Hurd	Calgary
51	Jim Grimsdale	Red Deer
52	Ned MacAlpine	Alberta Agric, Edmtn.
53	Shaukat Ali	" "
54	Anna Sheriff	County of Steele
55	Holly Doan	CBC TV Edm.
56	Bob Woodcock	CBC TV Edm.
57	Glenberg	Alix
58	W. S. Liat	Edmonton.

PARLBY CREEK-BUFFALO LAKE WATER MANAGEMENT PROJECT
PUBLIC HEARING

Village of Alix Community Centre

May 21, 1991

PUBLIC PARTICIPATION

NO.	NAME OF PARTICIPANT	AFFILIATION
59	Joe Macauliffe	SLAVE LAKE
60	J. P. M.	CFRN
61	Ray D.	CFRN
62	John W. M.	Dist. Cmn.
63	Sheryl Lagette	Alix
64	Jean McEneaney	Alix
65	April M. M.	Alix
66	Earl K.	Alix
67	Carol A.	Palace Point
68	Jay Witherbee	ITV - News
69	Paul L.	aka. Clerk of House
70	Bill Neis	Morris
71	J. A. Keston	Alix
72	H. W. M.	Alix

PARLBY CREEK-BUFFALO LAKE WATER MANAGEMENT PROJECT
PUBLIC HEARING

Village of Alix Community Centre

May 21, 1991

PUBLIC PARTICIPATION

NO.	NAME OF PARTICIPANT	AFFILIATION
73	Ronald Komishte	Summer Village of White Sands
74	Bruce McDonald	
75	Pam Kullman	Alix Farmer
76	Loel Lee Jackson	Stettler to Dev. Bd.
77	Cur Leitch	Town of Stettler
78	Rowan	Town of
79	Lindsay Smith	Beffer Lake Summer Resident.
80	H Alice Salmen	Donaldson A.B.
81	Linda Schultz	Village of Mirror
82	John Lynskey	Alix
83	Annette Trincee	Edmonton
84	Margaret Vallit	Bashaw
85		
86		