

## OKANAGAN BASIN WATER BOARD

**MINUTES OF A MEETING OF THE OKANAGAN BASIN WATER BOARD IN COMMITTEE OF THE WHOLE HELD IN THE REGIONAL DISTRICT OF NORTH OKANAGAN BOARD ROOM, 2903 - 35th AVENUE, VERNON, B. C. HELD ON THURSDAY, APRIL 7TH, 1983 AT 1:30 P.M.**

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PRESENT:

|                       |                                 |
|-----------------------|---------------------------------|
| Chairman E. Lamont    | Central Okanagan Reg. Dist.     |
| Director H. Thwaite   | Central Okanagan Reg. Dist.     |
| Director R. P. French | North Okanagan Reg. Dist.       |
| Director H. Blattner  | North Okanagan Reg. Dist.       |
| Director S. McKergow  | North Okanagan Reg. Dist.       |
| Director R. P. Frost  | Okanagan-Similkameen Reg. Dist. |

STAFF:

|               |                            |
|---------------|----------------------------|
| P. Mackiewich | Administrator, O.B.W.B.    |
| G. Armour     | Field Supervisor, O.B.W.B. |

ALSO PRESENT:

|                    |                               |
|--------------------|-------------------------------|
| Alt. Dir. J. Foord | North Okanagan Reg. Dist.     |
| Mr. T. Oxland      | Ministry of Environment       |
| Mr. R. Nickel      | Ministry of Environment       |
| Mr. M. Maxnuk      | Ministry of Environment       |
| Mr. T. Moore       | Ministry of Municipal Affairs |
| Mr. B. Harvey      | Vernon Irrigation District    |
| Dr. M. R. Smart    | North Okanagan Health Unit    |

### PURPOSE OF THE MEETING:

The purpose of the meeting was to review the current objects and purpose of the Okanagan Basin Water Board and discuss its future role.

Mr. T. Oxland: Mr. Oxland stated that he envisages the Okanagan Basin Water Board as a regional authority to co-ordinate Waste Management plans for the Basin. It can be the single entity to pull such a plan together for the valley.

Mr. T. Moore: Mr. Moore stated there are two ways this can be done, have each Regional District assume the power for composing a Waste Management plan and the other way is for the Okanagan Basin Water Board to merely play a co-ordinating role.

Director S. McKergow: Director McKergow was of the opinion that in order for any guidelines for sewage disposal to be developed and in order for such guidelines to have an impact, funds would be required to implement necessary action.

Director Thwaite: Director Thwaite indicated that the proper role of the Board is as a co-ordinator and to express concern to various agencies who have the power to do something.

Chairman Lamont: Chairman Lamont stated that the Board can give political backing to agencies when such action required. He noted that in the beginning, the Okanagan Basin Water Board had a lot of clout, which has since been eroded.

Director Frost: Director Frost observed that the Minister in Victoria would prefer a strong Board with clout. This must be accomplished with a unified body.

Mr. R. Nickel: Mr. Nickel observed that the Okanagan is one system insofar as Waste Management is concerned. Some municipalities are discharging effluent using "Cadillac" systems; others use "Model-T" systems. The one mill levy being applied for sewerage facilities assistance is good and vital to have, but he is not sure whether the valley is getting the best for the dollar.

A comprehensive and enforceable plan for the Okanagan Basin is required, but the problem is how does one develop it. It would be ideal if the Ministry of Environment could deal with one Board to develop such a plan and, for this, there perhaps could be a slippage of funds.

Director McKergow:

Director McKergow stated this is the philosophy he has been trying to get out. We are all now going our own way and spending money to prove our own cases, which is wrong. We will have to try to accomplish this plan. This valley has to co-ordinate as one unit and we will need to determine the quantity of funds required to do this.

Mr. T. Oxland:

Mr. Oxland noted that Water Management is just a large a problem as Waste Management, consequently, one group is required to co-ordinate a plan.

Mr. T. Moore:

Mr. Moore stated that there are Provincial standards which municipalities must meet, particularly, engineering standards when submitting by-laws for approval and he wouldn't expect the Okanagan Basin Water Board to go into engineering standards.

After much discussion, it was finally moved by Director Thwaite, seconded by Director Blattner:

"That the Okanagan Basin Water Board reaffirm its objects and purpose as set out in the Supplementary Letters Patent establishing the Okanagan Basin Water Board as amended, as sufficient authority appears to be available to exercise this function."

CARRIED.

Dr. M. Smart:

Dr. Smart suggested that there is a great need for the Okanagan Basin Water Board to work and become concerned with water quality and quantity, and not just involve itself with Waste Management.

Mr. T. Oxland:

Mr. Oxland assured the Board that he will liaise with the Board in matters concerning Waste Management and requested that he be provided with notices of meetings, together with meeting minutes.

**1983 EXPENDITURES - AQUATIC WEED PROGRAM:**

The Administrator advised the Board that the Province has not yet approved the Budget under the Aquatic Weed Program and, therefore, is uncertain whether or not Provincial funding will be available beyond March 31st, 1983.

Mr. M. Maxnuk stated that they have been advised by the Ministry of Environment in Victoria that up to 10% of the total budget can be spent prior to any approvals.

The Board agreed that the Aquatic Weed Program continue while funds last.


**ADJOURNMENT:**

There being no further business, the meeting adjourned on a motion of Director Blattner at 3:10 p.m.

The Board agreed that the Aquatic Weed Program continue while funds last.

**ADJOURNMENT:**

There being no further business, the meeting adjourned on a motion of Director Blattner at 3:10 p.m.

  
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CHAIRMAN

  
\_\_\_\_\_  
SECRETARY-TREASURER

OKANAGAN BASIN WATER BOARD

MINUTES OF A REGULAR MEETING OF THE OKANAGAN BASIN WATER BOARD HELD IN THE REGIONAL DISTRICT OF NORTH OKANAGAN BOARD ROOM, 2903 - 35TH AVENUE, VERNON, B. C., ON THURSDAY, APRIL 7TH, 1983 AT 10:00 A.M.

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PRESENT:

|                        |                                 |
|------------------------|---------------------------------|
| Chairman E. Lamont     | Central Okanagan Reg. Dist.     |
| Director H. Thwaite    | Central Okanagan Reg. Dist.     |
| Director R. P. French  | North Okanagan Reg. Dist.       |
| Director H. Blattner   | North Okanagan Reg. Dist.       |
| Director S. McKergow   | North Okanagan Reg. Dist.       |
| Director R. P. Frost   | Okanagan-Similkameen Reg. Dist. |
| Alt. Dir. R. Hermiston | Okanagan-Similkameen Reg. Dist. |

STAFF:

|               |                            |
|---------------|----------------------------|
| P. Mackiewich | Administrator, O.B.W.B.    |
| G. Armour     | Field Supervisor, O.B.W.B. |

ALSO PRESENT:

|                         |  |
|-------------------------|--|
| Alt. Dir. R. W. Postill | North Okanagan Regional Dist.                |
| Alt. Dir. J. A. Foord   | North Okanagan Regional Dist.                |
| Mr. T. Moore            | Ministry of Municipal Affairs                |
| Mr. T. Oxland           | Ministry of Environment                      |
| Mr. R. Nickel           | Ministry of Environment                      |
| Mr. M. Maxnuk           | Ministry of Environment                      |
| Mr. R. Vest             | City of Vernon                               |
| Mr. D. Morris           | District of Coldstream                       |
| Mr. B. Harvey           | Vernon Irrigation District                   |
| Mr. T. Carter           | Association of B. C.<br>Irrigation Districts |
| Dr. M. R. Smart         | North Okanagan Health Unit                   |
| Mr. J. Prior            |  |

MINUTES:

Moved by Director Blattner, seconded by Director Thwaite:

"That the minutes of a regular meeting of the Okanagan Basin Water Board held on January 21st, 1983, be adopted as circulated."

CARRIED.

It was further moved by Director Frost, seconded by Director Blattner:

"That the minutes of a meeting of the Aquatic Plant Management Committee held on February 15th, 1983, be adopted as circulated and the recommendations contained therein be confirmed."

CARRIED.

DELEGATIONS:

MAYOR J. ROSS      City of Armstrong:  
& MR. G. SAWADA:

Mayor Ross presented a brief to the Board outlining the history and current status of the City of Armstrong's efforts to realize tertiary treatment facilities and requested that the Board approve the City's application for funds under the Sewerage Assistance formula.

Mayor Ross stated that:

- a) In 1980 a Loan Authorization By-law to facilitate construction of tertiary treatment facilities was approved;
- b) The preferred treatment was identified as spray irrigation;
- c) In 1981 the City proceeded with the acquisition of 160 acres of land for an effluent storage site;

- d) In 1982, the City received a Waste Management Permit for spray irrigation. Implementation of spray irrigation was deferred until the Provincial Government is in a position to formally commit a Special Project grant to the City;
- e) In mid-1982, the City commissioned a report to address short term alternatives to improve the quality of discharge into Deep Creek;
- f) In February, 1983, Phase 2 of the Project was awarded, which includes a contract allowance for the installation of tertiary treatment facilities;
- g) The Ministry of Municipal Affairs has approved the necessary by-laws for revenue sharing under the Province's Sewerage Facilities Assistance Program.

After some discussion of whether or not the City's project is in compliance with the Board's policy covering the construction of tertiary treatment facilities, it was moved by Director Blattner, seconded by Director McKergow:

"That the work being undertaken by the City of Armstrong in the upgrading of its sewerage treatment facilities qualifies for financial assistance under the Okanagan Basin Sewerage Assistance formula and, further, the guidelines for payment of assistance for projects under construction be determined."

CARRIED.

MR. R. KEAN:

Fathom Diving:

Mr. R. Kean of Fathom Diving presented a brief to the Board offering to provide a cosmetic clean up service to lakeshore residents. Paid for by the individual homeowner, the service would involve the cutting and removal of all eurasian water milfoil at a cost of between 0.5¢ and .40¢ per sq. ft., depending on the weeds and type of control requested.

To offer this service, Mr. Kean requested that the Board provide him with two small aluminum skiffs, two outboard motors, six scuba tanks, and safety equipment, such as life jackets, miscellaneous handtools, pitch forks, rakes, and shovels.

Mr. Kean stated that the work would be performed by four scuba divers and support staff. The average area of infestation is approximately 1,000 sq. ft. and would require 4 - 5 hours to clean up. The weeds would either be pulled by hand or cut, after which a weed sheet would be laid.

Mr. Kean emphasized that he is not asking the Board for funds, but only for the lease of surplus equipment which the Board has. He indicated he has spoken with 30 lakeshore residents, 18 said that they would like his firm to control the weeds and 6 others said they would look at it.

Mr. Maxnuk of the Ministry of Environment stated that the program proposed by Mr. Kean appears to be a good one because the weed cutter cannot get around many of the areas which he'll be working, such as around docks, and surplus equipment is available.

After some discussion, it was moved by Director Thwaite, seconded by Director French:

"That the surplus equipment under control of the Okanagan Basin Water Board be leased to Mr. R. Kean of Fathom Diving for a nominal sum and that the results of this harvesting program be monitored."

CARRIED.

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CORRESPONDENCE:

REGIONAL DIST.  
OF OKANAGAN  
SIMILKAMEEN:

Payment Dilemma:

A letter was received from the Regional District of Okanagan Similkameen outlining their dilemma to pay the sum of \$46,372.00 under requisitioned, now that the maximum of one mill is being levied within the Okanagan Basin.

Mr. Tom Moore stated that the Ministry of Municipal Affairs is prepared to authorize the Regional District of Okanagan Similkameen the one mill levy over Electoral Areas "C", "E", and "F" to provide for the catch up. It would be up to the Board whether they wish to do it over one or more years.

Moved by Director Thwaite, seconded by Director Blattner:

"That the Board of the Regional District of Okanagan Similkameen be requested to provide us with the method and term for repayment of the \$46,372.00 owing to the Water Board."

CARRIED.

CITY OF  
KELOWNA:

Domestic Water Conservation:

Moved by Director McKergow, seconded by Director Frost:

"That the letter from the City of Kelowna outlining some water conservation measures be received and filed."

CARRIED.

MINISTRY OF  
ENVIRONMENT:

Replacement of Zosel Dam:

Moved by Director Frost, seconded by Director McKergow:

"That the copy of an Order of Approval issued by the International Joint Commission covering the replacement of Zosel Dam, be received and filed."

CARRIED.

DISTRICT OF  
PEACHLAND:

Application for Amendment of Waste Management Permit - Brenda Mines Ltd.:

A resolution that the Council of the Municipality of Peachland are totally opposed to anything but natural runoff water being disposed into Trapanier Creek or Peachland's watershed was received from that municipality.

After some discussion, it was moved by Director Thwaite, seconded by Director Frost:

"That the Waste Management Branch be requested to provide the Board with all pertinent information covering the application for amendment of Waste Management Permit No. PE-263 of Brenda Mines Ltd. and, further, the Provincial Government be asked why they have two different policies for the discharge of effluent, one for municipalities and the other for industry."

CARRIED.

SEWERAGE FACILITIES ASSISTANCE GRANTS:

CITY OF  
VERNON:

Moved by Director McKergow, seconded by Director French:

"That the application for a Sewerage Facilities Assistance Grant by the City of Vernon for the second half of 1982, in the amount of \$70,103.86, be approved."

CARRIED.

REGIONAL DIST.  
OF OKANAGAN  
SIMILKAMEEN:

Moved by Director McKergow, seconded by Director Frost:

"That the application of the Regional District of Okanagan Similkameen for a Sewerage Facilities Assistance grant for the second half of 1982, in the amount of \$11,034.07, be approved."

CARRIED.

APPOINTMENT:

AQUATIC PLANT  
MANAGEMENT  
COMMITTEE:

Moved by Director Frost, seconded by Director French:

"That Director S. McKergow be added as a member of the Aquatic Plant Management Committee for 1983."

CARRIED.

1982 AUDITED FINANCIAL STATEMENTS:

Moved by Director Thwaite, seconded by Director Blattner:

"That the 1982 Audited Financial Statements be adopted as presented."

CARRIED.

FUTURE ROLE OF OKANAGAN BASIN WATER BOARD:

Discussion over the future role of the Okanagan Basin Water Board opened by review of the Summary Report on the Okanagan Basin Implementation Agreement, dated September, 1982.

Mr. Tom Moore stated that the report is technical in nature and suggested that any role of the Okanagan Basin Water Board be political, as the representatives of the Board have a sensitivity to local development and grass root problems can be addressed.

The Chairman stated that he is of the opinion that the Okanagan Basin Water Board was never given the full authority to exercise its mandate. If the responsibility and authority is not transferred, then the entity erodes itself. Representatives of the Board are close to the scene and need greater authority.

Director Frost stated that it is his feeling that the Provincial Government wants the Okanagan Basin Water Board to flex its muscles. We have to show them how sensitive the valley is and they want us to tell them what we want.

Mr. Moore advised that the day to day implementation of the recommendations of the Okanagan Basin agreement should be with the Ministry of Environment. The Supplementary Letters Patent granted to the three Okanagan Regional Districts gives the Okanagan Basin Water Board fairly broad powers.

Mr. Harvey stated that one area where the Okanagan Basin Water Board can get involved is in water conservation. The Ministry of Environment is involved in management, but not conservation.

Director Frost noted that the International Water Agreement stipulates certain quality as well as quantity which has to be met. In speaking with the United States Corporation of Engineers, they indicated that the United States is not far from stipulating the quality of water which they will require to be met.

Alt. Director Foord noted that the Okanagan Valley is one unit and asked if there could not be an organization for co-ordination and development of all uses in the valley, so that the best advantage to the public would develop. He asked whether the Okanagan Basin Water Board could have broader authority, at least for co-ordination and planning for use and recovery of water, and to look at the value of sewage as a fertilizer.

Dr. Smart recommended that the Okanagan Basin Water Board concern itself with watersheds, as these areas are becoming multi-purpose use areas. He was of the opinion that in the future, mountain lakes and streams will become a source of pathogenic diarrhea (beaver disease).

Mr. Vest asked how the Board envisages its structure. If any expanded role was to occur, staff may be required to provide legwork. He suggested that the Board look initially at the funds which it will have available to it. Once the funds are determined, the Board can decide whether its role will be reactionary or initiatory.

Mr. D. G. Morris recommended that the best role of the Okanagan Basin Water Board could play would be one as a co-ordinating agency.

Mr. Oxland stated that he would support the Okanagan Basin Water Board as a co-ordinating agency, and suggested that he wished to discuss further the role of the Board in Committee. He noted, however, that residents of the Okanagan Basin virtually share the same bathtub and the Ministry of Environment needs a single political contact which, ideally, could be the Okanagan Basin Water Board.

Mr. R. Nickel noted that funds are available for the many tasks now being performed, but many of the functions over the which the Water Board is concerned are being performed by various agencies. An agreement may have to be devised as to the transfer of such funds.

Mr. T. Carter noted that his Association receives many requests from its members and the Ministry of Environment has numerous guidelines to protect Irrigation Districts. The Ministry of Forests, however, has not heard of the Ministry of Environment guidelines.

Mr. Moore noted that the Okanagan Basin Water Board's request, together with the three Okanagan Regional Districts, for authority to enact septic tank regulations requires legislative action, and consequently the delay in providing this authority.

**ADJOURNMENT:**

The Chairman suggested that further discussion be held in Committee, and the meeting adjourned at 12:00 noon on a motion of Director Frost.

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CHAIRMAN

SECRETARY-TREASURER

OKANAGAN BASIN WATER BOARD

MINUTES OF A REGULAR MEETING OF THE OKANAGAN BASIN WATER BOARD HELD IN THE REGIONAL DISTRICT OF NORTH OKANAGAN BOARD ROOM, 2903 - 35TH AVENUE, VERNON, B. C., ON THURSDAY, JULY 7TH, 1983 AT 1:30 P.M.

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PRESENT:

|                         |                                 |
|-------------------------|---------------------------------|
| Chairman E. Lamont      | Central Okanagan Reg. Dist.     |
| Director D. Burtch      | Central Okanagan Reg. Dist.     |
| Director R. P. French   | North Okanagan Reg. Dist.       |
| Director S. McKergow    | North Okanagan Reg. Dist.       |
| Alt. Dir. J. A. Foord   | North Okanagan Reg. Dist.       |
| Director G. Butterfield | Okanagan-Similkameen Reg. Dist. |
| Director R. P. Frost    | Okanagan-Similkameen Reg. Dist. |
| Director J. Piazza      | Okanagan-Similkameen Reg. Dist. |

STAFF:

|               |                                     |
|---------------|-------------------------------------|
| P. Mackiewich | Administrator, O.B.W.B.             |
| T. Mori       | Asst. Secretary-Treasurer, O.B.W.B. |
| G. Armour     | Field Supervisor, O.B.W.B.          |

ALSO PRESENT:

|                |                         |
|----------------|-------------------------|
| Dr. P. Newroth | Ministry of Environment |
| Mr. R. Nickel  | Ministry of Environment |
| Mr. M. Maxnuk  | Ministry of Environment |
| Mr. R. Vest    | City of Vernon          |

MINUTES:

Moved by Director McKergow, seconded by Director Frost:

"That the minutes of a regular meeting of the Okanagan Basin Water Board held on April 7th, 1983, be adopted as circulated."

CARRIED.

DELEGATIONS:

MR. R. VEST: City of Vernon - Spray Irrigation Problems:

Mr. R. Vest, Engineer from the City of Vernon, made a slide presentation covering the spray irrigation problems being experienced by the City.

Mr. Vest advised that the spray irrigation system of the City was designed to last to the year 2000, but won't last through 1983. The sewage effluent reservoir is full to overflowing, in spite of all the funds spent by the City to increase its capacity, etc..

Mr. Vest explained that the City has endeavoured to stop infiltration of storm water into the sewer system, has purchased additional guns to spray effluent, has raised the dam to accommodate at least 50% more effluent. The cost to spray effluent is now at least one-third more than the treatment costs, whereas in 1976 it was the other way around.

The City is limited to approximately 1,800 acres of land on which it can spray its sewage. It is also not able to achieve the rates of spraying that it originally was thought possible. The City supports and endorses the spray irrigation concept, but needs more land on which to spray effluent. In order to relieve the problem, the City proposes to spend approximately \$30.6 million to construct an advanced wastewater treatment plant, a trunk line along outfall into Okanagan Lake, and a force main to the existing spray irrigation program.



The first phase would include an expenditure of \$12.6 million dollars to construct a trunk line and a long outfall into Okanagan Lake. There is not sufficient land in the Commonage area to meet the long term needs of the City's program.

When the spray irrigation program was implemented, based on previous year's records, there was enough land in the Commonage area, but several things went wrong and the capacity was over estimated.

The City's proposal to discharge into Okanagan Lake has been tested with U.B.C., the Provincial Government, consultants, and city staff, who all see the inevitability of constructing an advanced wastewater treatment plant and a long outfall into Okanagan Lake.

The Okanagan Implementation Board recommended that 95% of the phosphorus be removed before discharging effluent into the lakes. Based on the 1983 figures, 353 kg of phosphorus would be added to Okanagan Lake whereas the lake now receives 6,500 kg of phosphorus per annum naturally.

Director Frost noted that good engineering practise is a must, but can be overturned by future Councils. He stated that lake discharge should not be allowed because if the lake is lost, so is the valley.

Alt. Director Foord asked whether the removal of all nutrients from sewage is affordable by any community. He stated that his concern is for the valley. There are alternatives for getting rid of sewage, such as rapid infiltration and spray on tree farming. Lands are also available in Coldstream and Spallumcheen which require political solutions.

Director McKergow stated that the City of Vernon has lead the Okanagan in the spray irrigation program and was the first community to pull its effluent out of the lake. This has not been done by either Kelowna or Penticton. The cost of spraying effluent in Spallumcheen would be between \$50 and \$100 million dollars. He noted that only enough land is available there until approximately the year 2000, notwithstanding that the Council of the Township has resolved not to take any sewage effluent from the City of Vernon. Funds are not unlimited, and even if sufficient lands were available in the Commonage, the cost to the user would be prohibitive.

The present solution proposed by the City is cost effective and will last for approximately 40 years and will accommodate sewage effluent from the entire Vernon sub-region. Even if senior governments made unlimited funds available immediately, it is not likely that a discharge into Okanagan Lake can be avoided, due to the severity of the problem and the length of time it would take to implement alternate schemes.

#### CORRESPONDENCE:

REGIONAL DIST.  
OF OKANAGAN  
SIMILKAMEEN:

#### Requisition Shortfall:

Correspondence from the Regional District of Okanagan Similkameen advising that they will cover the past year's requisitions in the amount of \$43,862 in 1984/85 was received and the Board agreed to receipt of the funds as outlined.

REGIONAL  
WASTE MANAGER:Brenda Mines Ltd. - Proposal to Discharge to McDonald and  
thence to Trepanier Creek:

A letter was received from the Regional Waste Manager outlining the application of Brenda Mines Ltd. to release water from their lower reclaim dam to the McDonald Creek and thence to Trepanier Creek.

Mr. R. Nickel, Regional Waste Manager, advised the Board that the application is not near the adjudication stage.

Brenda Mines Ltd. has asked that the application be held in abeyance. The original approval was granted, based on past practice. The flow into Peachland Lake was monitored and the quality of the discharge presented no problem. The decision was appealed and an appeal hearing will be held. In the interim period, Brenda Mines Ltd. has agreed to divert their discharge into a tailings impoundment. Testing of the effluent by the Waste Management Branch revealed that molybdenum and nitrates achieved were less than expected.

The present application is to allow relief from the water in the mines reservoir. The Branch has approached the Mines to provide alternate methods of relief to minimize the discharge which they are presently doing.

In conjunction with Dr. Clark of the South Okanagan Health Unit, water analyses have been completed and it has been found that the contaminants were within the water quality criteria.

The Chairman expressed concern that Brenda Mines Ltd. does not have the capability of doing an extensive water analysis. Mr. Nickel replied that he is aware of the Mines' capability, but the Waste Management Branch has done its own testing and has found that Brenda Mines Ltd. test results are reasonable.

PEACHLAND  
RATEPAYERS'  
ASSOCIATION:Appeal Brenda Mines Ltd. Waste Management Permit Application:

Advice was received from the Peachland Ratepayers' Association advising that their organization supports the position of the Peachland Council objecting to the issuance of a Waste Management Permit to Brenda Mines Ltd., and that they have filed a notice of appeal against the issuance of such a permit.

SOUTH OKANAGAN  
SIMILKAMEEN  
UNION BOARD  
OF HEALTH:Urge Independent Study - Brenda Mines Ltd. Operation:

A letter was received from the South Okanagan-Similkameen Union Board of Health urging the Okanagan Basin Water Board to undertake an independent study covering the Brenda Mines Ltd. application to discharge mine run off water into Peachland Lake.

After some discussion, it was moved by Director Burtch, seconded by Director French:

"That the South Okanagan-Similkameen Union Board of Health be advised that the Okanagan Basin Water Board has the same financial difficulty and as they do not have adequate funds to undertake a study of the magnitude recommended and, unfortunately at the present time, is not in a financial position but to morally and verbally support any study which may be undertaken."

CARRIED.

It was also noted in discussion that the Waste Management Branch has conducted extensive studies on the quality of water of Brenda Mines Ltd. at a cost of approximately \$1,500 per sample.

REGIONAL  
WASTE MANAGER:

City of Vernon - Proposed Discharge of Renovated Water to  
Vernon Creek:

A copy of an application for an amendment of the Waste Management Permit held by the City of Vernon to discharge renovated wastewater into Vernon Creek was received from the Regional Waste Manager.

Director Frost noted that on July 13th, 1979, the Lieutenant Governor in Council cancelled the Waste Management Permit held by the City of Penticton to discharge into Okanagan Lake. The Cabinet has also decreed that no discharge of sewage will be permitted into water within the Okanagan Basin.

Moved by Director Frost, seconded by Director Piazza:

"That the Okanagan Basin Water Board endorse the position of the Lieutenant Governor in Council taken on July 13th, 1979, that sewage effluent not be dumped into Okanagan Lake."

MOTION DEFEATED.  
DIRECTORS FROST, PIAZZA, LAMONT & ALT. DIR. FOORD IN FAVOUR.  
DIRECTORS FRENCH, MCKERGOW, BURTCH, & BUTTERFIELD OPPOSED.

In discussing the resolution, Director Butterfield noted that the intention of the Cabinet is well and good, but the City of Penticton has not been able to stop the dumping of effluent into Okanagan Lake as the costs for alternate disposal is prohibitive. Before the sewage can be taken entirely from the Okanagan Lake system, more of a financial commitment will be required from the Provincial Government.

Director Frost was of the opinion that there is no way that any community should be allowed to pollute a lake if there is any way which sewage can be kept out of the lake.

Director McKergow stated that even if the City of Vernon had unlimited funds, it does not have any alternative at the present time but to dump its excess effluent into Okanagan Lake.

Director Burtch noted that both the City of Kelowna and the City of Penticton are still discharging sewage effluent into the Okanagan Lake system and asked how permission could be refused to the City of Vernon to help them out of their problem.

It was noted that the City of Vernon has been a leader in the spray irrigation program and has spent millions of dollars keeping the sewage out of Okanagan Lake. As pointed out, the problem is now critical and the City does not have an alternative but to discharge some renovated wastewater into Okanagan Lake.

Director Butterfield stated that it is not just a question of money, it is the feasibility of discharging wastewater and it is not necessarily feasible to discharge wastewater in any other way, but into the lake.

Directors Lamont and Frost and Alt. Director Foord noted that effluent is a valuable resource and should be utilized.

It was finally moved by Director McKergow, seconded by Director French:

"That, as recommended by the Regional District of North Okanagan, the application of the City of Vernon to discharge treated effluent into Vernon Creek be supported, provided that the permit is limited to a term of not more than one (1) year and that no discharge is permitted between March 1st and September 30th."

MOTION DEFEATED.  
DIRECTORS MCKERGOW, FRENCH, BURTCH, BUTTERFIELD IN FAVOUR.  
DIRECTORS FROST, LAMONT, PIAZZA & ALT. DIR. FOORD OPPOSED.

Mr. Nickel recommended that the Okanagan Basin Water Board ask itself what affect the discharge of treated sewage effluent would have on Okanagan Lake. Many people feel that it will hurt the lake, but this is not necessarily so. Mr. Nickel stated that the quality of the lake can actually be enhanced if the discharge is made to the right spot. He noted that some northern lakes are even fertilized to enhance the fisheries.

After more discussion, it was finally moved by Director Frost, seconded by Director Butterfield:

"Whereas the City of Vernon has been a leader in spray irrigation and now finds itself in a difficult plight, therefore be it resolved that the Okanagan Basin Water Board support the application of the City of Vernon to discharge treated sewage effluent into Vernon Creek on a temporary basis to cover the impending emergency, provided that the permit is limited to a term of not more than one (1) year and that no discharge is permitted between March 1st and September 30th;

And further, the endorsation of this emergency discharge is not to be construed with the Okanagan Basin Water Board policy of not permitting the discharge of sewage effluent into the Okanagan Lake system;

And further, that the Provincial Government be urged to implement the provisions of its 1979 Throne Speech in this regard."

CARRIED UNANIMOUSLY.

A. M. THOMSON: Suggests Overview Group for Annual Review of Activities:

Moved by Director Frost, seconded by Director Piazza:

"That the correspondence from A. M. Thomson offering his services to head an overview group to annually review and report on the extent to which various agencies charged with carrying out the recommended ongoing plan of the Okanagan Implementation Agreement, be received and filed."

CARRIED.

SEWERAGE FACILITIES ASSISTANCE GRANTS:

Applications for grants under the Okanagan Basin Water Board Sewerage Facilities Assistance Fund were presented as follows:

City of Kelowna: January 1st - June 30th, 1983:  
\$ 240,950.53;

Town of Osoyoos: January 1st - June 30th, 1983:  
\$ 24,969.46;

City of Armstrong: January 1st - June 30th, 1983:  
\$ 5,647.97.

Moved by Director Piazza, seconded by Director McKergow:

"That the above Sewerage Facilities Assistance Grants for the first half of 1983 be paid as soon as verification has been received by the Administrator that the Provincial Government has paid their share of the funds to each entity and the City of Armstrong has provided evidence from their engineers that tertiary treatment of their sewage will be applied."

CARRIED.

OTHER BUSINESS:

EXPIRY OF AGREEMENT:

Mr. E. G. Jennens:

The Administrator advised the Board that the agreement with Mr. E. G. Jennens, which provided for financial assistance for the construction of an aquatic weed harvester, expired on July 1st, 1983.

Dr. Newroth advised that Mr. Jennens received \$50,000 for the construction of his machine, \$12,500 from the Okanagan Basin Water Board, and \$37,500 from the Provincial Government. The Provincial Government has advised Mr. Jennens that it has no further interest in his machine or the recovery of funds, but noted that the agreement is between Mr. Jennens and the Okanagan Basin Water Board.

Moved by Alt. Director Foord, seconded by Director Burtch:

"That since the agreement between the Okanagan Basin Water Board and Jen Industries Ltd. and E. Gordon Jennens has expired on July 1st, 1983, the Okanagan Basin Water Board take possession of the machine, unless Mr. Jennens can make suitable financial arrangements with the Okanagan Basin Water Board."

CARRIED.

Further moved by Alt. Director Foord, seconded by Director French:

"That Mr. Greg Armour be instructed to inspect the machine and to verify its location."

CARRIED.

THEFT:

Aluminum Boats:

Mr. Greg Armour advised the Board that on Tuesday, June 21st, 1983, two (2) 14' aluminum Harborcraft boats were discovered missing from the storage yard in Kelowna. The boats were taken from the fenced compound leased by the Water Board between June 17th and June 21st, 1983.

The Board's insurance agents have been contacted and an effort is being made to try to collect insurance on the boats.

AQUATIC PLANT MANAGEMENT COMMITTEE:

Dr. P. Newroth provided the Board with an overview of this morning's meeting of the Aquatic Plant Management Committee. The Board agreed with the conclusions and recommendations of the Committee, as shown in the Committee's minutes.

FUTURE MEETINGS:

Aquatic Plant Management Committee:

Moved by Alt. Director Foord, seconded by Director Butterfield:

"That future meetings of the Aquatic Plant Management Committee be combined with the regular meetings of the Okanagan Basin Water Board."

CARRIED.

BLOCKED RIVER CHANNEL:

Osoyoos Lake:

Director Piazza reported that an old river channel on Osoyoos Lake is blocked off, which blockage holds the lake back and floods the adjacent farmers' fields.

He asked whether or not there is any way in which this channel could be opened up.

Mr. Mel Maxnuk agreed to contact the Water Management Branch and the Ministry of Lands, Parks & Housing in an effort to try to resolve this problem.

ADJOURNMENT:

There being no further business, the meeting adjourned at 4:30 p.m.

  
CHAIRMAN

  
SECRETARY-TREASURER

PM/las

OKANAGAN BASIN WATER BOARD

MINUTES OF A MEETING OF THE AQUATIC PLANT MANAGEMENT COMMITTEE HELD IN THE  
REGIONAL DISTRICT OF NORTH OKANAGAN BOARD ROOM, 2903 - 35TH AVENUE, VERNON,  
B. C. ON THURSDAY, JULY 7TH, 1983 AT 10:00 A.M.

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PRESENT:

|                      |                                 |
|----------------------|---------------------------------|
| Chairman E. Lamont   | Central Okanagan Reg. Dist.     |
| Director R. P. Frost | Okanagan-Similkameen Reg. Dist. |
| Director S. McKergow | North Okanagan Reg. Dist.       |
| Dr. P. Newroth       | Ministry of Environment         |
| Mr. M. Maxnuk        | Ministry of Environment         |
| P. Mackiewich        | Okanagan Basin Water Board      |
| G. Armour            | Okanagan Basin Water Board      |
| T. Mori              | Okanagan Basin Water Board      |

REVIEW OF WINTER WORKS PROJECTS:

Mr. G. Armour advised the Committee that the following winter works projects were completed during the winter of 1982/83.

Derooting using the Bombardier and Cultivator:

Kelowna foreshore; approximately 21 hectares treated; total cost \$3,341.00.

Motel row Osoyoos; approximately 12 hectares treated; total cost \$1,514. The area now has less milfoil than before.

Kin Beach, Vernon; 6 hectares treated; total cost \$1,771.

Derooting using the Rotovator:

Kalamalka Lake north end; about 8 hectares treated; total cost \$ 4,274.

Osoyoos Lake - Willow Beach: 8 hectare area treated; total cost \$3,933.

Harvester maintenance and repairs amounted to \$6,059.

Dr. Newroth reported that his staff will be evaluating the results of the winter works harvesting during the summer.

Mr. Maxnuk advised that, in addition to the above work, approximately 1/2 hectare of burlap was installed in Kalamalka Lake at a cost of \$7,137.

Director Frost emphasized the importance of weed harvesting and its effect on the tourist industry and recommended that the Minister of Tourism be approached to look at closer co-operation with the Minister of Environment for funding of the weed harvesting program.

REVIEW AND APPROVAL OF 1983/84 PROVISIONAL BUDGET:

A revised 1983/84 Aquatic Weed Harvesting Budget was reviewed. The proposed budget shows a decrease in expenditures over 1982 from \$186,667 to \$170,667 in 1983/84. The Provincial contribution is reduced from \$140,000 to \$128,000.

The Committee agreed that the Weed Harvesting Program be carried on to the extent to which the budget allows. The areas easily harvested be done first and the difficult areas be either treated with burlap or harvested on a fee for service basis.

**HARVESTING SCHEDULE:**

The Committee reviewed and approved the harvesting schedule for June, July, and August and projected tillage projects anticipated for fall and winter of 1983/84.

**PUBLICITY REGARDING AQUATIC WEED HARVESTING PROGRAMS:**

Discussion arose over publicizing the activities of the Okanagan Basin Water Board and, in particular, the cost shared control programs and projected plans for harvesting.

The Committee agreed that a news release be given to all the news media within the Okanagan Basin outlining such activities and, if possible, public meetings be held to explain such activities.

**REVIEW OF BURLAP APPLICATIONS:**

The success of aquatic weed treatment using burlap was discussed. The Committee agreed that Kalamalka Lake be a priority for aquatic weed treatment and the application of burlap.

**WEED BARRIER BETWEEN WOOD AND KALAMALKA LAKES:**

The Committee reviewed a request from Mrs. Matthews for the installation of a weed barrier between Wood and Kalamalka Lakes.

Dr. Newroth advised that the barrier is not effective in this area because milfoil moves naturally and because of boat traffic in the area.

**REPORT ON 1981 SALONA BAY 2,4-D TREATMENT:**

The Committee reviewed a report on the application of 2,4-D to control Eurasian water milfoil in Salona Bay and Goodman's Pond, Osoyoos Lake, B. C. in 1981 prepared by the Water Management Branch.

The report showed that 2,4-D treatment in these areas was highly effective in reducing the nuisance levels of the weeds.

**FUTURE AQUATIC PLANT MANAGEMENT COMMITTEE MEETINGS:**

Discussion arose over the need to hold separate Aquatic Plant Management Committee meetings from the regular meetings of the Okanagan Basin Water Board.

The Administrator stated that he was of the opinion that the remainder of the Okanagan Basin Water Board members would benefit from the type of discussion occurring at the Committee meetings and would, in all probability, desire to participate in such discussion.

The Committee agreed that, in the future, it would not meet separately, but combine its meetings with the regular meetings of the Okanagan Basin Water Board.

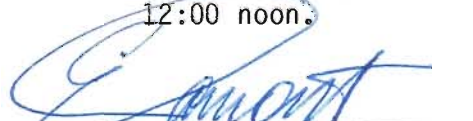
**ADJOURNMENT:**

There being no further business, the meeting adjourned at

participate in such discussion.  
The Committee agreed that, in the future, it would not meet separately, but combine its meetings with the regular meetings of the Okanagan Basin Water Board.

**ADJOURNMENT:**

There being no further business, the meeting adjourned at 12:00 noon.

  
CHAIRMAN



OKANAGAN BASIN WATER BOARD

MINUTES OF A MEETING OF THE OKANAGAN BASIN WATER BOARD IN COMMITTEE OF THE WHOLE HELD IN THE REGIONAL DISTRICT OF NORTH OKANAGAN BOARD ROOM, 2903 - 35TH AVENUE, VERNON, B. C. HELD ON THURSDAY, NOVEMBER 3RD, 1983 AT 4:05 P.M

**PRESENT:**

|                         |                                 |
|-------------------------|---------------------------------|
| Chairman E. Lamont      | Central Okanagan Reg. Dist.     |
| Director D. Burtch      | Central Okanagan Reg. Dist.     |
| Director R. P. French   | North Okanagan Reg. Dist.       |
| Director H. Blattner    | North Okanagan Reg. Dist.       |
| Alt. Dir. J. A. Foord   | North Okanagan Reg. Dist.       |
| Director G. Butterfield | Okanagan-Similkameen Reg. Dist. |
| Director R. P. Frost    | Okanagan-Similkameen Reg. Dist. |
| Director J. Piazza      | Okanagan-Similkameen Reg. Dist. |

**STAFF:**

|               |                            |
|---------------|----------------------------|
| P. Mackiewich | Administrator, O.B.W.B.    |
| G. Armour     | Field Supervisor, O.B.W.B. |

**PURPOSE OF THE MEETING:**

The purpose of the meeting was to review the agreement between Jen Industries Ltd. and the Okanagan Basin Water Board, as well as the 1983 staff salaries.

**JEN INDUSTRIES: Agreement:**

The Chairman advised the Board that, as directed at the last regular meeting, a demand for payment of the \$50,000 due and payable under the Chattel Mortgage between Jen Industries, the grantor, and the Okanagan Basin Water Board, the grantee, and E. Gordon Jennens, the guarantor, but action was not taken after contact was made by the Premier's office.

The Chairman advised that he did, at the Premier's office request, meet with Mr. Jennens and stated that his feelings are now that the letters demanding payment have been sent, a finger should be kept on Mr. Jennens to develop the machine. He was of the opinion that if the machine is repossessed, it is a no win situation. If he is successful in developing his machine, at least the Okanagan Basin Water Board will have a hold on the machine.

Director Burtch stated that the local taxpayers have invested money in the development of the Jennens machine and now that the Chattel Mortgage has expired, the machine should be picked up.

Director Piazza felt that the development of the machine will not be completed and it will not cut a weed. He stated that the Okanagan Basin Water Board should not be interested in developing something for the American Government.

Alt. Director Foord stated that there is nothing to win by taking the machine, but if he finished development, it can be beneficial for the valley.

After some debate, it was moved by Director Frost, seconded by Alt. Director Foord:

"That further action covering the Chattel Mortgage agreement between Jen Industries Ltd. and the Okanagan Basin Water Board be held in abeyance until the next regular meeting of the Okanagan Basin Water Board."

CARRIED.

STAFF SALARIES: 1983:

Discussion arose over the 1983 staff salaries. The Chairman suggested that, rather than the Board dealing with the salary situation now, he and the Administrator discuss the matter and recommend a solution to the Board.

Moved by Director Frost, seconded by Director Blattner:

"That the recommendations of the Chairman be accepted and that he, together with the Administrator, review the 1983 salaries of the employees of the Okanagan Basin Water Board and the Board be advised at the next meeting."

CARRIED.

ADJOURNMENT:

There being no further business, the meeting adjourned on a motion of Director Blattner at 4:45 p.m.

  
\_\_\_\_\_  
CHAIRMAN

  
\_\_\_\_\_  
SECRETARY-TREASURER

PM/las

OKANAGAN BASIN WATER BOARD

MINUTES OF A REGULAR MEETING OF THE OKANAGAN BASIN WATER BOARD HELD IN THE REGIONAL DISTRICT OF NORTH OKANAGAN BOARD ROOM, 2903 - 35TH AVENUE, VERNON, B. C., ON THURSDAY, NOVEMBER 3RD, 1983 AT 1:15 P.M.

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PRESENT: Chairman E. Lamont Central Okanagan Reg. Dist.  
Director D. Burtch Central Okanagan Reg. Dist.  
Director R. P. French North Okanagan Reg. Dist.  
Director H. Blattner North Okanagan Reg. Dist.  
Alt. Dir. J. A. Foord North Okanagan Reg. Dist.  
Director G. Butterfield Okanagan-Similkameen Reg. Dist.  
Director R. P. Frost Okanagan-Similkameen Reg. Dist.  
Director J. Piazza Okanagan-Similkameen Reg. Dist.

STAFF: P. Mackiewich Administrator, O.B.W.B.  
G. Armour Field Supervisor, O.B.W.B.

MINUTES:

Moved by Director French, seconded by Director Piazza:

"That the minutes of a regular meeting of the Okanagan Basin Water Board held on July 7th, 1983, be adopted as circulated."

CARRIED.

Further moved by Director Frost, seconded by Director Blattner:

"That the minutes of an Aquatic Plant Management Committee meeting held on July 7th, 1983 be adopted as circulated."

CARRIED.

DELEGATIONS:

MR. W. McGRATH Greater Vernon & District Environmental Committee:  
& MR. J. BARKER:

Messrs. McGrath and Barker appeared before the Board to express concern over the motion of the Board supporting the application of the City of Vernon to discharge sewage into Okanagan Lake.

Mr. Barker stated that the earlier information received by the Board is not entirely correct and he wished to present new information to the Board.

Since representatives of the City of Vernon appeared before the Board, approximately 400 to 450 acres of land have been added to the City's spray irrigation system. In addition, the City has become more efficient in the last few months in sewage disposal and has now announced that it will not be necessary to discharge sewage into the lake this year.

The Committee expresses concern that the Okanagan Basin Water Board felt that there was no alternative but to discharge sewage into the lake and asked that the Regional District of North Okanagan and the Okanagan Basin Water Board reconsider their earlier motions supporting Waste Management Permit application to discharge effluent into Okanagan Lake.

Mr. Barker noted that spray irrigation and rapid infiltration is a long term solution to Vernon's sewage problems. Discharge into Okanagan Lake is in direct conflict with the recommendations of the Okanagan Basin Study.

Mr. McGrath observed that the City of Vernon is not conforming with the Okanagan Basin Study recommendations, which state that no additional phosphates shall be placed in the Okanagan Lake system, and in particular, in the Vernon arm. The study recommends that the phosphate discharge be reduced. Mr. McGrath noted that there is a health impact and there is a degree of risk when sewage is discharged into the lake.

Dr. Smart has stated that the discharge is harmless, but he also stated that the water would have to be boiled before it can be used.

Mr. McGrath noted that the City of Vernon is comparing its proposal with the Monterey project, however, there does not seem to be any basis for a comparison.

Mr. Barker noted that it is the short term objectives of the Committee to stop the discharge of sewage into Okanagan Lake this year. The long term objective is that a Waste Management Plan be developed. Mr. Barker further stated that if the 450 acres which have now been obtained were sprayed before and the land was properly managed, it could secure eight additional years in avoiding a lake discharge.

Mr. Barker further expressed the opinion that the agricultural activity is wagging the tail, rather than the disposal of sewage effluent. Mr. Barker noted that the City of Vernon had 225 additional acres of land since April of this year and refused to spray the land because of the high costs, which turned out to be \$70,000.00. If all city lands were properly managed, there would not be a need to over irrigate.

Director Piazza noted that the motion of the Okanagan Basin Water Board to support the City's application was made with a lot of reservation and the Board was told that the holding pond was about to overflow.

Director Burtch noted that there seems to be a difference in opinion and the Board felt that it was helping the City out in a crisis situation by supporting its application. Information has now been provided which the Board did not have before.

Director French stated that the City has been spraying as much water as possible and that agricultural has not been wagging the tail.

Alt. Director Foord noted that the City of Vernon is in an awkward position because Associated Engineering, retained by the City, consistently say that there is not enough land in the area for spray irrigation. Perhaps their report should be investigated.

Mr. Barker advised that the Committee has offered to bring in professionals, at its cost, to sit down with the elected representatives and health officials to discuss the problems and no one would take them up on their offer. He also noted that the City is proceeding with a study on alum treatment and expressed concern that this is not being done for spray irrigation, but for lake discharge.

The Chairman stated that he is on record as being opposed to sewage outfalls into the lake and after touring the City of Vernon system, still believes there are alternatives to land disposal such as bigger lot sizes and septic tanks. Natural pollution is a very serious problem and for man to add to such pollution is wrong. For years it was believed that sewage could be diluted and discharged into deep water, which is still a problem.

Director Frost stated that all the Board members want to be as well informed as can be. The Board heard Vernon's appeal and saw its predicament and it would not be asking too much to have the City of Vernon present its current proposal at a meeting of the Okanagan Basin Water Board, to which meeting representatives of the Greater Vernon & District Environmental Committee, together with health officials, could be invited.

Moved by Director Piazza, seconded by Director Blattner:

"That the City of Vernon, Greater Vernon & District Environmental Committee, together with representatives of the South Okanagan Union Board of Health, and the North Okanagan Union Board of Health be invited to the next meeting of the Okanagan Basin Water Board to discuss the alternate methods available for sewage disposal."

CARRIED.

Further moved by Director Burtch, seconded by Director Piazza:

"That a letter be written to all communities within the Okanagan Basin Water Board, including the regional districts, to obtain their current methods and long term objectives of sewage disposal, including their expected future financial expenditures."

CARRIED.

MR. E. GORDON  
JENNENS:

Inshore Submersible Amphibious Machine:

Mr. E. Gordon Jennens appeared before the Board and thanked them for their co-operation in the past covering the assistance in development of his inshore submersible amphibious machine. He apologized for being so busy in his work that he has not been able to keep the Board informed of the progress made on the development of this machine and indicated that he wishes to work closely with the Board and other levels of Government.

He stated that the machine was multi-use machine besides its ability to harvest weeds. In the development of the machine, caveats were filed (patents) and applications are made for Continuation in Part, every six months or so. One application for a Continuation in Part was for military use because this could bring a clean manufacturing industry to the valley to construct machines. About seven months ago, the U.S. Military was called in by the U.S. Patent office and, subsequently inspected the machine and issued a secrecy order. This means that the project can carry on, but the U.S. Military has input. A patent cannot be issued because it then becomes public. The secrecy order doesn't prevent development.

Mr. Jennens stated that he advised the U.S. Military that he has a commitment with the Okanagan Basin Water Board, but they said they would co-operate. Mr. Jennens further stated that the engineers were surprised that he has progressed as far as he has with the development of the machine.

Director Piazza recommended that the Board should not make any effort to support the development of this machine any further, as he personally has lost faith in its development.

Mr. Jennens replied that he did not set the deadlines in the contract, they were set by other people. This machine is the only one of its kind in the world, and he feels that he has lived up to his agreement with the Okanagan Basin Water Board and the contract is still valid.

He requested that he be allowed to get on with development of the machine and clear the weeds so that the machine can be proven. He is close enough in development of the machine to start trials either this winter or early spring.

CORRESPONDENCE:

GREATER VERNON  
& DISTRICT  
ENVIRONMENTAL  
COMMITTEE:

Report Presented to City of Vernon - August 8th, 1983:

Moved by Director Frost, seconded by Director Blattner:

"In view of the presentation made by the representatives of the Greater Vernon & District Environmental Committee, the report be received and filed."

CARRIED.

JEN INDUSTRIES:

Inshore Submersible Amphibious Machine:

Moved by Director Blattner, seconded by Director Burtch:

"That discussion over the agreement between Jen Industries Ltd. and the Okanagan Basin Water Board covering the inshore submersible amphibious machine be referred to Committee for discussion."

CARRIED.

SOUTH OKANAGAN  
SIMILKAMEEN  
UNION BOARD  
OF HEALTH:

Quality of Water - Offer Assistance:

Moved by Director Burtch, seconded by Director Frost:

"That the offer of assistance received from the South Okanagan Similkameen Union Board of Health covering matters dealing with the quality of water be accepted and they, together with representatives of the North Okanagan Union Board of Health, be invited to future meetings of the Okanagan Basin Water Board where matters relating to quality of water are on the agenda."

CARRIED.

P.M. BRADY:

Aquatic Plant Control Agreement:

Moved by Director Blattner, seconded by Director French:

"That correspondence from P.M. Brady, Director, Water Management Branch, relating to the 1983/84 Aquatic Plant Control Program budget be received and filed."

CARRIED.

DR. P. NEWROTH:

Water Board Meeting and Aquatic Plant Control Budget:

Moved by Director Piazza, seconded by Director Blattner:

"That the letter from Dr. P. Newroth relating to the Water Board meeting and the Aquatic Plant Control budget be considered when discussing the 1984/85 Provisional Budget."

CARRIED.

ACTING CHAIRMAN:

Lake Osoyoos Association:

A letter directed to Mayor R. Frost from the Acting Chairman of the Lake Osoyoos Association, Oroville, Washington, outlining the views of the Association was received.

The Association expressed concern that in the past several decades, a very serious level of deterioration has occurred. A lake once flowing with clear water is now infested with Eurasian milfoil and oil slicks often cover the beaches.

In addition, the lakeshore property is being eroded by excessive lake fluctuations.

The Association recommended that the plans developed by the the Province of British Columbia and the State of Washington, on behalf of construction of a replacement dam for the Zosel Dam needs to be implemented.

Director Frost indicated that this letter was forwarded for the information of the Okanagan Basin Water Board and not for the purposes of getting into a dialogue. Director Frost stated that he has been advised that unless some early action is taken covering the replacement of Zosel Dam, the State of Washington will withdraw the funds it has available for this project.

Moved by Director Frost, seconded by Alt. Director Foord:

"That a letter be written to Mr. Ben Marr, Deputy Minister of Environment, expressing concern that unless some early action is taken covering the replacement of Zosel Dam, State of Washington funds will not be available and the Ministry be strongly urged to make Provincial funds available so that this project can be completed."

CARRIED.

OSOYOOS  
IRRIGATION  
DISTRICT:

Concern of Odour - Osoyoos Lake:

A letter was received from the Osoyoos Irrigation District which supplies water taken from Lake Osoyoos to approximately 150 customers, expressing concern over the odour of the water this summer which is worse than any previous years.

Director Piazza advised that a presentation was made to his Advisory Planning Commission covering this problem and it appears that most of the problem is at the south end of Osoyoos Lake where the movement of water is not rapid.

Director Frost noted that there should be an improvement shortly because the Village of Oliver will be spray irrigating their effluent and will be getting it out of the canal.

Moved by Director Pizza, seconded by Director Frost:

"That the South Okanagan-Similkameen Union Board of Health be requested to investigate the odour problem of Lake Osoyoos and its possible effect on the quality of water and advise the Board on the type of action required to correct the problem.

CARRIED.

SEWERAGE FACILITIES ASSISTANCE GRANTS:

Moved by Director Frost, seconded by Director Butterfield:

"That the following Sewerage Facilities Assistance Grants for the period indicated be paid as soon as verification has been received by the Administrator that the Provincial Government has paid their share of the funds to each entity:

R.D.O.S.:                    January 1st - December 31st, 1983  
\$ 37,980.54;

City of Armstrong:        July 1st - December 31st, 1983  
\$ 9,969.00

City of Vernon: January 1st - June 30th, 1983  
\$ 136,873.75;

City of Penticton: January 1st - June 30th, 1983  
\$ 69,412.59;

Dist. of Coldstream: January 1st - June 30th, 1983  
\$ 36,317.83."

CARRIED.

**1984 PROVISIONAL BUDGET:**

The 1984 Provisional Budget was reviewed by the Board, which Budget showed the same expenditure as budgeted in 1983 for aquatic weed control.

Moved by Director French, seconded by Director Butterfield:

"That the 1984 Provisional Budget for aquatic weed control and administration be adopted as circulated."

CARRIED.

Further moved by Director Frost, seconded by Director Blattner:

"That the Okanagan Basin Water Board oppose any decrease in the 1984 aquatic weed harvesting budget and the pristine quality of the Okanagan Lake system and its immense value to the tourist industry of British Columbia be emphasized to the Okanagan M.L.A.'s and the Ministry of Environment."

CARRIED.

**NEW AND UNFINISHED BUSINESS:****RESULTS:****1983 Aquatic Weed Harvesting Program:**

Mr. Greg Armour reviewed the 1983 weed harvesting program which showed that from June 13th to September 2nd, 1983, four harvestors operated in Osoyoos, Vaseux, Skaha, Okanagan, and Wood Lakes and cut a total of 1458 machine loads. This represents just under 3,000 tonnes of weed material removed from an area of 114 hectares.

Osoyoos Lake showed a 40% reduction in weight of weeds cut in 1983 versus the previous year, but this may be due, in part, to derooting work done in the winter and spring. Okanagan Lake showed a 20% reduction in weight of weeds cut compared to last season. Harvestors cut approximately 20% more weeds in Skaha Lake and 40% more in Wood Lake in 1983, reflecting a worsening of conditions in these areas.

The policy of prioritizing efforts more towards high public use areas resulted in many questions and some complaints, especially when areas which had received treatment in previous years were not cut. This action was taken because of reduced funding.

Additional time was spent at Wood Lake this year at the expense of not cutting the west side of Okanagan Lake. In Skaha Lake, cutting in front of private houses was limited to areas where weed beds posed a general nuisance and hazard.

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PLAN AND SCHEDULE:

Tillage During Winter:

Mr. Greg Armour presented the derooting and rototilling schedule for the winter 1983/84, which schedule was accepted by the Board.

POLICY:

Harvesting in Public and Private Areas:

The Board was advised that by prioritizing weed harvesting efforts more towards high public use areas, the budget proved adequate to complete the full season of harvesting without any direct fee for service to foreshore residents:

Moved by Director Frost, seconded by Director French:

"That the administration follow the same policy for harvesting in 1984 as in 1983, and again try to avoid the need for a direct fee for weed harvesting services for foreshore residents."

CARRIED.

PUBLICATION:

Results of 1983 Program:

The Board agreed that the results of the 1983 Aquatic Weed Harvesting Program be circulated among the news media in the Okanagan Valley for publication.

ADMINISTRATION AGREEMENT:

1984:

Moved by Director Piazza, seconded by Director Frost:

"That it be recommended that the North Okanagan Regional District be again awarded the contract to administer the affairs of the Okanagan Basin Water Board at the same rate of \$17,810 as in 1983 and the Regional Districts of Central Okanagan and Okanagan-Similkameen be asked if they have any objections to the continuation of this service by the North Okanagan Regional District."

CARRIED.

OTHER MATTERS:

DUCKS UNLIMITED: Dyke:

The Board was advised that Ducks Unlimited and the Wildlife people are building a dyke on the old river channel of Osoyoos Lake and concern has been expressed that this will cause the back up of water much worse than is now being experienced if this dyke is not removed.

SUFFICIENCY:

One Mill Levy:

The Administrator advised the Board that the one mill levy is now barely sustaining the sewerage facilities assistance fund and that if new works contemplated by the major municipalities come onstream, one mill will be insufficient to cover the draw on this fund.

The Board agreed that the Administrator obtain sufficient information to complete an analysis of the expected draw on the sewerage facilities assistance fund.

ADJOURNMENT:

palities come onstream, one mill will be insufficient to cover the draw on this fund.

The Board agreed that the Administrator obtain sufficient information to complete an analysis of the expected draw on the sewerage facilities assistance fund.

ADJOURNMENT:

There being no further business, the meeting adjourned at 4:05 p.m. to Committee of the Whole.

AQUATIC WEED HARVESTING PROGRAM

Results

The program of Eurasian water milfoil harvesting was conducted from June 13 to September 2, 1983. Four harvesters operated on Osoyoos, Vaseux, Skaha, Okanagan and Wood Lakes and cut a total of 1458 machine loads. This represents just under 3000 tonnes of weed material removed from an area of 114 hectares.

Lake levels were high in the spring which resulted in reduced or delayed weed growth in a number of areas. Osoyoos Lake showed a 40% reduction in weight of weeds cut in 1983 versus the previous year, but this may be due in part to de-rooting work done in the winter and spring.

Okanagan Lake showed a 20% reduction in weight of weeds cut compared to last season. Poor July weather may have been a factor, as well as the increased time spent harvesting in Skaha and Wood Lakes which left reduced machine time for some parts of Okanagan Lake.

Harvesters cut approximately 20% more weeds in Skaha Lake and 40% more in Wood Lake in 1983 reflecting a worsening of conditions in these areas.

Our budget of 75% Provincial funds and 25% local proved adequate to complete the full season of harvesting without any direct fee for service to foreshore residents. The policy of prioritizing our efforts more towards high public use areas resulted in many questions and some complaints, especially when areas which had received treatment in previous years were not cut. Additional time was spent in Wood Lake this year, at the expense of not cutting the west side of Okanagan Lake. In Skaha Lake, cutting in front of private houses was limited to areas where weedbeds posed a general nuisance and hazard.

Expenditures included: (approximate totals)

|  |              |                 |
|--|--------------|-----------------|
| Machine operator wages (8 operators)                       | \$ 36,000.00 | <del>7000</del> |
| Truck operator wages (spoils disposal & machine transport) | 8,350.00     | 7000            |
| Vehicle rental, fuel, maintenance, travel expenses         | 14,000.00    |                 |
| Harvester operating costs: fuel, oil,                      | 4,000.00     |                 |
| maintenance & repair                                       | 9,500.00     |                 |
| crane cost for moving                                      | 1,700.00     | <del>600</del>  |
| Spoils disposal costs are not known as yet.                | n/a          |                 |
| Total  | \$ 73,550.00 |                 |

A total of <sup>my int spoils cost of</sup> \$85,000.00 was budgeted in the above categories, leaving approximately \$10,000.00 for repair work in the off season. Some of the funds saved in wages will likely be spent on work in Kalamalka Lake (burlap).

TABLE 1

HARVESTING PRODUCTION SUMMARY: 1983

| UNIT NUMBER            | LOADS HARVESTED | TONNES      | ESTIMATED AREA |
|------------------------|-----------------|-------------|----------------|
| H65015<br>(Harv #1)    | 400             | 680         | 28.2 ha        |
| H65028<br>(Harv #2)    | 383             | 651         | 27.0 ha        |
| H65035<br>(Harv #3)    | 314             | 534         | 22.1 ha        |
| H-11-1100<br>(Altosar) | 318             | 1049        | 33.5 ha        |
| H65055<br>(Harv #5)    | 43              | 73          | 3.0 ha         |
| Total                  | 1458 loads      | 2987 tonnes | 113.8 ha       |

TABLE 2

HARVESTING PRODUCTION BY LAKE: 1983

| LAKE               | LOADS HARVESTED | TONNES      | ESTIMATED AREA |
|--------------------|-----------------|-------------|----------------|
| Osoyoos            | 200             | 591         | 19.5 ha        |
| Vaseux - Lake      | 118             | 389         | 12.5 ha        |
| - River<br>Channel | 43              | 142         | 4.5 ha         |
| Skaha              | 294             | 500         | 20.7 ha        |
| Okanagan           | 607             | 1032        | 42.8 ha        |
| Wood               | 196             | 333         | 13.8 ha        |
| Total              | 1458 loads      | 2987 tonnes | 113.8 ha       |

HARVESTER OPERATION RECORD 1983

|                       | H65015 |         | H65028 |         | H65035 |         | H-11-1100 |         | H65055 |         |
|-----------------------|--------|---------|--------|---------|--------|---------|-----------|---------|--------|---------|
|                       | Hours  | Percent | Hours  | Percent | Hours  | Percent | Hours     | Percent | Hours  | Percent |
| Total Hours Worked    | 683    |         | 592    |         | 627    |         | 516       |         |        |         |
| Total Operating Hours | 501.1  | (73.4%) | 405.3  | (68.5%) | 473.3  | (75%)   | 392.1     | (76%)   |        |         |
| Total Downtime        | 181.9  | (26.6%) | 186.7  | (31.5%) | 153.7  | (25%)   | 123.9     | (24%)   |        |         |

1983 HARVESTING PRODUCTION SUMMARY

UNIT # H65015 (HARV #1)

| LOCATION                   |                         | DATE HARVESTED | LOADS<br>REMOVED |
|----------------------------|-------------------------|----------------|------------------|
| 1. Skaha Lake              | Recreation West Marina  | June 9 - 14    | 18½              |
|                            | Skaha Beach             | June 15,16     | 5                |
|                            | Kaleden                 | June 17-24     | 45               |
|                            | Okanagan Falls          | June 24-Jul 6  | 86               |
|                            | Sunny Bay-Skaha Estates | July 7,8       | 15               |
|                            | East side at Penticton  | July 11,12     | 12               |
| 2. Okanagan Lake<br>South: | Okanagan Marina         | July 12-14     | 9                |
|                            | Trout Creek             | July 14,15     | 1½               |
|                            | Summerland Yacht Club   | July 15,18     | 8½               |
|                            | Foreshore               | July 19        | 5                |
|                            | Naramata                | July 18        | 1½               |
|                            | Summerland - Peachland  | July 21        | 3½               |
|                            | Peachland               | July 22-26     | 13               |
|                            | Westbank - Yacht Club   | July 27,28     | 12               |
|                            | Pritchard Drive         | July 29-Aug 5  | 24               |
|                            | Green Bay area          | Aug 8-11       | 26               |
| 3. Skaha Lake              | Recreation West         | Aug 12,15      | 14               |
|                            | Skaha Beach             | Aug 16-18      | 20½              |
|                            | Penticton east side     | Aug 18-24      | 20               |
|                            | Skaha Estates           | Aug 25-26      | 13½              |
|                            | Sunny Bay               | Aug 29         | 4                |
|                            | Okanagan Falls          | Sug 29-31      | 30               |
|                            | Kaleden                 | Sept 1,2       | 3                |

1983 HARVESTING PRODUCTION SUMMARY

UNIT # H65028 (HARV #2)

| <u>LOCATION</u>                        | <u>DATE HARVESTED</u> | <u>LOADS<br/>REMOVED</u> |
|--|-----------------------|--------------------------|
| 1. Okanagan Lake                       |                       |                          |
| Kelowna Westside: Westside Cays        | Jun 10-16             | 26                       |
| Yacht Club                             | Jun 17                | 1                        |
| Casa Loma                              | Jun 20                | 1                        |
| Bear Creek Park                        | Jun 21                | 1                        |
| Vernon Westside: Naswhito Creek        | Jun 23-28             | 45                       |
| 2. Okanagan Lake                       |                       |                          |
| Vernon Arm:                            |                       |                          |
| Marinas, Paddlewheel Park              | Jun 30-Jul 4          | 14                       |
| Philp's Corner                         | Jul 5,6               | 31                       |
| Kin Beach & Sandy Beach                | Jul 7-20              | 92                       |
| West side                              | Jul 21                | 6                        |
| Corner's Point                         | Jul 22,25             | 11                       |
| Marinas & residential                  | Jul 26-Aug 4          | 66                       |
| 3. Wood Lake                           |                       |                          |
| South end                              | Aug 10-26             | 57                       |
| Lakeshore Resort - Teddy Bear<br>Lodge | Aug 29-Sep 2          | 32                       |

1983 HARVESTING PRODUCTION SUMMARY

UNIT # H65035 (HARV #3)

| <u>LOCATION</u>             |  | <u>DATE HARVESTED</u> | <u>LOADS<br/>REMOVED</u> |
|-----------------------------|--|-----------------------|--------------------------|
| 1. Wood Lake:               | Lakeshore Resort & area<br>(south end) | Jun 14-22             | 62                       |
|                             | South end - east side                  | Jun 23-29             | 33½                      |
|                             | Along highway                          |                       |                          |
|                             | Teddy Bear Lodge                       | June 30               | 4                        |
|                             | Swiss Village                          | Jul 4                 | 3                        |
|                             | Adventureland                          | Jul 5                 | 4½                       |
| 2. Okanagan Lake<br>Kelowna | Seaplane Base                          | Jul 8, 13             | 6                        |
|                             | Yacht Club                             | Jul 11,12             | 15                       |
|                             | Hot Sands Beach                        | Jul 14,15             | 8                        |
|                             | Rotary Beach                           | Jul 18,19             | 8                        |
|                             | Gyro Beach, Watt Road                  | Jul 20,21             | 8                        |
|                             | Cedar Ave - West Ave                   | Jul 22-Aug 8          | 82                       |
|                             | Strathcona - Vimy Ave                  | Aug 9 - 22            | 28½                      |
|                             | Cedar Ave & Watt Road                  | Aug 23 - 29           | 34                       |
|                             | Okanagan Center                        | Aug 30                | 1                        |
|                             | Bear Creek                             | Aug 31                | 3½                       |
|                             | Casa Loma                              | Sep 1,2               | 7                        |

1983 HARVESTING PRODUCTION SUMMARY

UNIT # H-11-1100 (ALTOSAR)

| LOCATION                |                             | DATE HARVESTED             | LOADS<br>REMOVED                      |              |
|-------------------------|-----------------------------|----------------------------|---------------------------------------|--------------|
| 1.                      | Osoyoos Lake                | Inkameep Campground        | Jun 13,14                             | 13           |
|                         | North Basin                 | Motel Row, Starlite Marina | Jun 14 - 16                           | 15           |
|                         |                             | Civic Beach, Lacey's Point | Jun 17                                | 2            |
|                         |                             | West Shore                 | Jun 20                                | 6            |
|                         |                             | Willow Beach               | Jun 21-29                             | 47           |
|                         |                             | Central and South          | Brookvale                             | Jun 30-Jul 5 |
|                         |                             | Solana Bay foreshore       | Jul 6                                 | 7            |
|                         |                             | Safari Beach               | Jul 7, 8                              | 6            |
|                         |                             | Highway bridge area        | Jul 11,12                             | 11           |
|                         | 2.                          | Vaseux Lake                | Provincial Campground and Residential | Jul 18-22    |
| South end shore         |                             |                            | Jul 25,26                             | 8            |
| River Channel           |                             |                            | Jul 26 - 29                           | 43           |
| South end along highway |                             |                            | Aug 2 - 5                             | 27           |
| 3.                      | Osoyoos Lake<br>North Basin | Willow Beach               | Aug 9 - 11                            | 23           |
|                         |                             | West shore                 | Aug 12                                | 3            |
|                         |                             | Civic Beach, Lacey's Point | Aug 15                                | 3            |
|                         |                             | Motel Row                  | Aug 16,17                             | 6            |
|                         |                             | Inkameep Campground        | Aug 19                                | 4            |
|                         |                             | Central and South          | Brookvale                             | Aug 19, 22   |
|                         |                             | Shady Lagoon- Haynes Point | Aug 23                                | 4            |
|                         |                             | Safari Beach - highway     | Aug 24,25,26                          | 6            |
|                         | North Basin                 | Inkameep Campground        | Aug 29                                | 5            |
|                         |                             | Willow Beach               | Aug 30-Sep 1                          | 15           |



DEROOTING SCHEDULE:

Winter 1983 - 1984

Bombardier and Cultivator: Operational in shallow water up to 1 m in depth.

Kelowna Foreshore: Cedar Ave. to Kinsmen Park;  
Strathcona Beach to Highway 97 Bridge;  
- November 1st to 25th.

Shuswap Lake: (Ministry of Environment);  
- November 28th to December 9th.  
Shut down for winter.

Kalamalka Lake: Coldstream Creek area where rotovating has not been effective;  
- February 13th to 20th (approximately depending on whether or not there is ice)

Osoyoos Lake: Motel Row;  
- February 27th to March 9th.

\* Kin Beach at Vernon Should not require work on inshore part in 1984.

Rototiller: Deeper Areas - up to 3.5 m

Kin Beach, Vernon Derooting work in deeper zones. Try to reduce harvesting required in summer;  
- November 1st to December?

Shuswap Lake: (Ministry of Environment);  
- December.  
Shutdown for winter.

Kalamalka Lake: Coldstream Creek to Vernon Creek;  
- February 13th to March 2nd.

Osoyoos Lake: Willow Beach;  
- March 5th to April?