

## OKANAGAN BASIN WATER BOARD

### **MINUTES OF A MEETING OF THE OKANAGAN BASIN WATER BOARD HELD ON FEBRUARY 7TH, 1995, IN THE BOARD ROOM, REGIONAL DISTRICT OF OKANAGAN-SIMILKAMEEN, 101 MARTIN STREET, PENTICTON, B.C. AT 10:00 A.M.**

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**PRESENT:**

Chairman R. Hobson	C.O.R.D.
Director A. Hancock	O.S.R.D.
Alternate Director S. Price	N.O.R.D.
Director E. Hornby	N.O.R.D.
Director R. Ginther	C.O.R.D.
Director D. Cameron Sr.	O.S.R.D.
Director W. McGrath	N.O.R.D.
Director G. Ockenden	C.O.R.D.

**ALSO PRESENT:**

M.D. Maxnuk	Ministry of Environment
Sheila White	Summerland Municipal Council

**STAFF:**

G. Armour	Field Supervisor
P. Mackiewicz	Administrator

#### **Appointments to the Board:**

##### **Regional District of North Okanagan**

- Director Gyula Kiss
- Director Wayne McGrath
- Director Eric Hornby
- Alternate Director Guenter Rieger
- Alternate Director Sherry Price

##### **Regional District of Central Okanagan**

- Director Ron Ginther
- Director Gord Ockenden
- Director Robert Hobson
- Alternate Director James Stuart
- Alternate Director Eain Lamont

##### **Regional District of Okanagan-Similkameen**

- Director Ann Hancock
- Director Don Cameron Sr.
- Director Tom Shields
- Alternate Directors Jake Kimberley, Rick Wilson, Sue Whittaker

#### **ELECTION OF CHAIRMAN:**

The Administrator called the meeting to order, and introduced the appointed members

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of the Okanagan Basin Water Board, the staff, and others present.

The Administrator then called for nominations for the position of Chairman of the Okanagan Basin Water Board for 1995.

Director Ginther nominated Director Hobson.

There being no further nominations, Mr. Mackiewich declared Director Hobson elected Chairman of the Okanagan Basin Water Board for 1995.

**ELECTION OF VICE CHAIRMAN:**

The Chairman called for nominations for the position of Vice Chairman of the Water Board.

Director Hornby nominated Director Shields for the position, and there being no further nominations, Director Shields was declared elected Vice Chairman of the Okanagan Basin Water Board for 1995.

**FREEDOM OF INFORMATION COORDINATOR:**

The Administrator explained that the Okanagan Basin Water Board is required, by the Ministry of Government Services, to appoint a Freedom of Information Coordinator. He volunteered that since he presently acted in that capacity for the Regional District of North Okanagan, he would extend this action to the Okanagan Basin Water Board.

***Moved by Director Hornby and seconded by Director Ginther:***

***"That the Okanagan Basin Water Board appoint the Administrator, Peter Mackiewich as the Freedom of Information Coordinator."***

***CARRIED.***The

**SCHEDULE OF REGULAR MEETINGS FOR 1995:**

The proposed schedule for Okanagan Basin Water Board meetings for the next year was discussed.

Director McGrath noted that in the case of meetings scheduled for the Tuesday following a holiday there would be a conflict with Vernon Council. The September 5th meeting was re-scheduled for Wednesday September 6th.

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The October 3rd meeting was changed to October 13th to avoid conflict with the UBCM Convention.

It was also noted that twelve monthly meetings may not be required.  
A revised meeting schedule incorporating the above changes is attached.

**ISSUES OF CONCERN IN 1995 FOR THE OKANAGAN BASIN WATER BOARD:**

Chairman Hobson outlined some areas where he thought Water Board activity should focus in 1995. He said that the issue of financing options for sewerage infrastructure remained to be dealt with, along with the holding of a water conservation workshop and procedures for the management of small watercraft on our lakes.

In addition, storm drainage management might be a subject the Board would wish to consider as a new focus for grant funds, now that the installation of tertiary liquid waste treatment facilities throughout the valley was near completion.

Foreshore planning received some attention last year and Chairman Hobson noted that the Regional District of Central Okanagan was preparing a plan for Wood Lake and their portion of Kalamalka Lake.

Director Cameron indicated that the preservation of marshlands was of concern to him and described a foreshore wetland in lower Summerland and the difficulties being encountered by his community in protecting it.

Director Hancock stated that there should be Water Board action in the Stewardship of the Water process including comment from the Board to government on proposed legislation.

Mr. Armour said that early in the process, the Board had met with Dr. Kasianchuk, the Executive Director of Water Management Branch, and later had participated in workshops on specific portions of new Water Act legislation, but had not commented as a Board on recent activities.

The Board agreed that it should ask the Ministry of Environment to update the status of the Stewardship process, noting that this was a subject scheduled for review at the UBCM in October.

Director Cameron questioned the involvement of First Nations in the Okanagan Basin Water Board. He recalled that representatives of the Indian Bands in the Okanagan watershed had been invited to participate in Board meetings and that representatives of

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the Osoyoos and Westbank Band had done so for a brief period. He added that local government was sometimes not made aware of band activities.

Mr. Armour said that the bands received the agendas and meeting material for each regular Board meeting.

Chairman Hobson suggested that we consider asking the Federal Minister to consider the Water Board an interested party to First Nation activities and participate in meetings. He noted that the Bands may not have attended Water Board meetings due to the number of issues not directly of interest to them and we might consider a special meeting to discuss issues of mutual interest. He said that, in his opinion, the treaty process was not sufficiently open, but it might still be worthwhile to indicate an interest in participating.

Director Ockenden reported that activities on Band lands near Westbank (Smith Creek area) appeared to be impacting on streamflows and he expressed concern that practices on Band lands were not subject to similar guidelines as for non-band developments.

Director Ginther stated that the Board should make the public aware of practices not conforming to accepted standards.

Chairman Hobson wondered if the Okanagan Basin Water Board should deal with specific examples or broader principles.

Director McGrath observed that the facts pertaining to a specific issue should be determined and if there is a lack of permission, then make this known, if proper permission has been obtained, and the issue still does not seem to conform to accepted standards, then further explanation should be sought from the permitting authorities.

**Moved by Director Cameron and seconded by Director Ginther:**

***"That the Okanagan Basin Water Board determine the appropriate facts regarding permits in connection with the Smith Creek development, and if an unsatisfactory explanation is received make the public aware."***

**CARRIED.**

**Moved by Director Ockenden and seconded by Director Ginther:**

***"That the Okanagan Basin Water Board send a letter asking the Federal Minister for recognition of the Okanagan Basin Water Board as an interested party in participating in First Nation discussions."***

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*CARRIED.*

The Board agreed to continue to invite the Indian Bands to regular meetings and perhaps inquire about the possibility of holding a meeting at a band office.

Director McGrath observed that local meetings should deal with local issues, and perhaps the Water Board role was in noting valley wide environmental concerns.

Director Ginther reiterated his concern about watershed and stream issues.

Chairman Hobson informed the Board that a goal of the Central Okanagan Regional District was to reduce the complexity involved in decision making with provincial agencies so that all authority necessary to render a decision was present at the discussion table and a series of consultation steps with other agencies or levels was not required.

Director Hancock added that the Stewardship process might address this issue and an update would assist the Okanagan Basin Water Board in defining its direction on many water issues.

Councillor White of Summerland advised that a seminar on selective logging would be held March 10th at the Penticton Community Theatre, which might fit into some of the Board members watershed concerns.

It was also noted that a workshop on airshed management was scheduled for April 10th, sponsored by the MOE, Environment Canada, and the City of Kelowna.

**MINUTES:**

*Moved by Director Ginther, seconded by Director Ockenden:*

*"That the minutes of a regular meeting of the Okanagan Basin Water Board held on December 6th, 1994 be adopted as circulated."*

*CARRIED.*

**AQUATIC PLANT MANAGEMENT BUSINESS:**

**F.Y. 1994/95 BUDGET UPDATE (end of December, 1994)**

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The Field Supervisor circulated an update of aquatic weed control expenditures to the end of the third quarter of the fiscal year. He noted that almost exactly three quarters of the funding had been spent and while this would appear to be on schedule, February and March were traditionally heavy expenditure months as derooting work reached its peak. In summary, Mr. Armour noted that our funding level appeared adequate to cover our current operational needs, as opposed to the last few years of funding shortfalls.

**CORRESPONDENCE:**

**MINISTRY OF ENVIRONMENT - AQUATIC WEED CONTROL FUNDING REQUESTS  
FOR FISCAL YEAR 1995-96**

Correspondence was received from Mr. Maxnuk outlining the funding requests received by his Ministry for aquatic weed control. These include the Water Board, Columbia Shuswap Regional District, Kootenay Boundary Regional District, City of Nanaimo, Cultus Lake Park Board, and the North Okanagan Regional District. Requests total \$957,600 which would require a provincial contribution of \$478,800. The Ministry has \$450,000 available and will have to consider where to make cuts.

The Chairman suggested that the Okanagan Basin Water Board should advance and support the needs of our program and not indicate that we can absorb a funding cut without consequences.

*Moved by Director Ginther, seconded by Director Cameron:*

*"That the Okanagan Basin Water Board advise the Ministry of Environment of the need to maintain our program at the level indicated in our workplan and encourage the Ministry to address the shortfall by means other than a budget reduction to this program."*

**CARRIED.**

**REGIONAL DISTRICT OF NORTH OKANAGAN - ADMINISTRATION FEE INCREASE**

A letter was received detailing the basis for the five percent administration fee increase requested by the Regional District for administering the Water Board function. It was pointed out that no increase had been sought for three years and the proposed charge was in line with bids submitted for this purpose in 1982.

Director McGrath noted that the amount of the increase was small (\$1550) and that the frequency of Okanagan Basin Water Board meetings had doubled in the past year.

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*Moved by Director Hancock, seconded by Director Cameron:*

*"That the Okanagan Basin Water Board approve a five percent increase in the administration fee charged by the Regional District of North Okanagan and provide the funds without increasing the total amount requisitioned from the regional districts."*

**CARRIED.**

### **OSOYOOS LAKE WATER QUALITY SOCIETY - BIOCONTROL OF EURASIAN WATERMILFOIL**

The Field Supervisor commented on a letter and news report from the Water Quality Society, pertaining to the use of a weevil for biocontrol of EWM in Vermont. He had informed the society that the same weevil was naturally occurring in the Okanagan. He noted that biocontrol research in the valley previously conducted by the MOE had been a casualty of funding cuts and although this Board had offered to participate financially, we lacked the expertise to conduct a research program on our own.

*Moved by Director Hornby, seconded by Director Ginther:*

*"That the Okanagan Basin Water Board correspond with the Ministry of Environment and ask them to ensure that efforts are maintained to stay current with biocontrol research efforts on Eurasian watermilfoil, and that the Water Board be kept informed."*

**CARRIED.**

### **WATER QUALITY TASK GROUP - MINUTES OF NOVEMBER 30TH MEETING**

Mr. Armour noted that the Board had been informed regarding this meeting on Dec. 6th, at which time the Peachland water quality study proposal was discussed. He added that a list of water quality project information is being compiled which will outline the activities, goals, and information available from all groups performing water quality work in the valley. Mr. Armour noted that the Group had established specific goal as stated in the minutes and although progress might seem slow, it was extremely useful to have a direct interaction of the technical people involved in water quality.

Director Ockenden presented a brief to the Board (attached) and suggested that a group be formed, on a one time basis, to make technical recommendations to the Okanagan Basin Water Board on water quality issues which need to be addressed. He said that he had discussed the subject with two retired scientists who would be willing to do this.

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Director Hancock asked if there was a lack of direction or philosophy of the Board on the matter of water quality in the valley.

There was some discussion regarding the goals of the Water Board in this process. The Field supervisor informed the Board that the water Quality Task Group was jointly chaired by himself and Dr. J. Bryan of the MOE. He stated that because of the diversity of interests and mandates of many of the group members, it might be difficult to impose the Board's focus on a specific issue, other than to make the group aware of a perceived problem.

***Moved by Director Cameron, seconded by Director Ockenden:***

***"That the Field Supervisor acting as co-chair of the Water Quality Task Group take the proposal made by Director Ockenden to the group to determine if such a statement of more technically oriented, specific objectives from the Okanagan Basin Water Board would assist the group."***

***CARRIED.***

### **OKANAGAN XERISCAPE - CONSULTING SERVICES**

An offer of consulting services on xeriscape landscape concepts was received by the Board, following the presentation on the subject received at the December meeting.

It was agreed the Board should check with some of the listed users of the service and consider this subject for inclusion in the proposed fall workshop on water conservation.

Alternate Director Price noted that a demonstration xeriscape project is to be conducted by the City of Vernon.

### **CANADIAN COAST GUARD - REGULATION OF SMALL WATERCRAFT**

A response from the Acting Director General of the Canadian Coast Guard, indicating that a framework for regulating pleasure craft activities across Canada will be put together was received.

The Board noted the general nature of this response which does not indicate any sort of time frame.

A letter from Mr. R. Brodie, Senior Land Officer in Kamloops, was also considered by the Board. Mr. Brodie indicates that the jurisdiction of his Ministry applies mainly in the case

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of trespass involving pleasure craft rentals, while the Federal Government has authority over operational and safety regulations. Lands Branch does not have adequate staff to enforce trespass regulations, but indicates that with the cooperation of local government staff such as bylaw enforcement officers, it may be possible to better regulate the rental of seadoos etc. in problem areas.

The Chairman noted that R.C.M.P. involvement is required to enforce safety standards.

Director Hancock asked if this subject had been addressed by the UBCM?

Alternate Director Price commented that the upcoming meeting of OMMA could provide a resolution for submission to the UBCM.

Chairman Hobson noted that regional districts can submit draft resolutions to OMMA, but not the Okanagan Basin Water Board directly.

Director Hornby commented that his experience with the snowmobile industry led him to question the feasibility of enforcing regulation of small mobile craft. He noted that although snowmobiles are licensed and required to display registration, they are still almost impossible to identify.

The Board was also advised of the potential for environmental damage from ATVs.

***Moved by Alternate Director Price, seconded by Director McGrath:***

***"That the Okanagan Basin Water Board ask the regional districts to ratify and forward to OMMA, a resolution advising senior government that a means to effectively regulate the rental and operation of small watercraft such as jet skis and seadoos to minimize the safety hazards to operators and to the public and to minimize the environmental and aesthetic problems associated with these craft and land based ATV's, should be pursued with Canadian Coast Guard, The Ministry of Environment Lands and Parks, and the R.C.M.P."***

**CARRIED.**

## **REGIONAL DISTRICT OF OKANAGAN-SIMILKAMEEN - PRIVATE SEWAGE UTILITIES**

A copy of a letter to MOE indicating that RDOS is opposed to local government being named as co-permittee on liquid waste permits issued to private developers was received.

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Mr. Armour noted that this resolution seemed to be in conflict with the position taken by the Okanagan Basin Water Board at its August meeting.

Director McGrath indicated that he did not see the two resolutions representing opposing views, rather that both parties did not wish to see permits issued to private developers to operate liquid waste treatment facilities.

Director Hancock provided clarification on the RDOS discussion and said the regional board felt the responsibility was being downloaded onto local government.

Chairman Hobson informed the Board that the policy of the Regional District of Central Okanagan involved creating a local service area for development requiring a liquid waste treatment facility, and having local government hold the permit.

Mr. Mackiewich reported that the Regional District of North Okanagan had a similar policy where all permits were to be held by local government as costs, repairs, and maintenance were often impossible to recover from a developer.

The Board noted that people in the area benefitting from a treatment facility should pay the costs and received the correspondence.

#### **W.A. KASTELEN, REGIONAL DIRECTOR, MOE - WATER CONSERVATION WORKSHOP**

A reply was received from the Regional Director to the Okanagan Basin Water Board inquiry regarding Ministry assistance in holding an Okanagan Valley Water Conservation Workshop. Mr. Kastelen indicated the Ministries willingness to participate, but also noted the failure of a similar effort proposed for Salmon Arm last October to attract sufficient participants to go ahead.

The Board asked Mr. Armour to determine the details as to the lack of success of the Salmon Arm effort and report back at the March meeting.

Director Hancock noted that the Water and Improvement Districts should be contacted as they routinely carry out this type of activity.

The Chairman commented, and the Board agreed, that we should determine if we wish to proceed with the workshop prior to contacting interested parties.

#### **SEWERAGE FACILITIES ASSISTANCE GRANTS:**

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Grant Applications:	Town of Osoyoos	\$55,076.32
	Town of Oliver	\$36,769.20
	City of Vernon	\$118,033.47 (Old Debt)
		\$166,172.00 (Outfall)
	City of Penticton	\$237,089.36
	City of Armstrong	\$12,456.48
	RDOS	\$19,084.24

*Moved by Director McGrath, seconded by Director Hornby:*

*"That the Sewerage Facilities Assistance Grants listed above be approved for payment"*

*CARRIED.*

Director McGrath asked how many years were remaining to be paid on the Vernon deep outfall. Mr. Mackiewich said the debt was to be repaid over a twenty year period and there were approximately 15 years remaining.

Director McGrath left the meeting.

#### **NEW AND UNFINISHED BUSINESS:**

##### **MISSION CREEK WATER SAMPLING PROGRAM -**

The Field Supervisor explained that the Board had been informed of a newspaper report on a water sampling program being undertaken at Mission Creek in Kelowna. They had asked that project personnel be invited to explain the sampling program. Dr. Eric Krogh of the OUC Chemistry department had forwarded a letter explaining the purpose of the work, its funding and scope. Also Ms. Linda Hilbrecht, who is performing the sampling and educational work was present to provide additional information.

Ms. Hilbrecht outlined her work at the Eco Centre and in schools in the Kelowna area in increasing awareness of water quality work and the methods used to gather data. She noted that hands on experience was to be provided to students.

The Chairman asked if there were provisions to continue this work.

Ms. Hilbrecht replied that Dr. Krogh was looking for additional funding, and would likely continue the work himself in the absence of other staff. She also informed the Board that the data collected was being stored in a computer data base at the college for future reference.

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The Chairman noted that the Eco centre would contain a demonstration compost garden and xeriscape garden. He suggested that the Okanagan Basin Water Board might consider a meeting at this facility at sometime in the spring or summer.

The Board thanked Ms. Hilbrecht for her time in informing them of water quality sampling activities at Mission Creek.

### **SEWERAGE INFRASTRUCTURE DCC'S -**

A spreadsheet on results of information sent out to all local government administrators relating to the need to incorporate interest charges in sewerage infrastructure DCC's was circulated.

Mr. Mackiewich suggested that the results indicate that an additional meeting of administrative and financial staff is required as opinions on incorporation of interest component in sewerage DCC's vary widely.

The Board suggested that Mr. A. Tamblin of the Ministry of Municipal Affairs should be invited to attend.

*Moved by Director Cameron, seconded by Director Ginther:*

*"That the Okanagan Basin Water Board convene a meeting of local government administrators and financial staff to discuss sewerage infrastructure DCC's and invite Mr. Tamblin from the Ministry of Municipal Affairs to attend."*

**CARRIED.**

### **OKANAGAN BASIN WATER BOARD WATER CONSERVATION INITIATIVES -**

A report on past involvement of Water Board, under the direction of the previous Chair, in water conservation initiatives in consultation with a private consultant was deferred to the next meeting when Director Shields could attend. This report would be part of the discussion of the proposed workshop on conservation.

### **OTHER MATTERS:**

### **OKANAGAN BASIN WATER BOARD REQUISITION FOR 1995 -**

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A report was circulated (attached) outlining the changes in revenue generated for the aquatic weed control program by the 1995 assessments. The Administrator explained the impact of various levies on the individual taxpayer and the total dollars requisitioned from the regional districts.

**Moved by Director Cameron, seconded by Director Ginther:**

***"That the Okanagan Basin Water Board requisition \$252,821 as provided in the provisional budget operating budget plus the additional approved administration fee and an additional \$9,500 for the equipment reserve fund, the latter being generated from new growth."***

**REJECTED.**

Directors Cameron and Ginther in favour.

**Moved by Director Hancock, seconded by Director Hornby:**

***"That the Okanagan Basin Water Board requisition the sum of \$266,000 for the basic weed control operating budget and Water Board non-sharable expenses and place the funds in excess if the provisional budget and additional approved administration fee into the equipment reserve fund. (approximately \$12,000)"***

**CARRIED.**

Directors Cameron and Ginther opposed.

The motion will result in the same amount of money being collected as in 1994, but from an increased tax base. The average individuals taxes (average increase in assessment) will be lower for the Okanagan Basin Water Board weed control function, and the excess funds will be put into the equipment reserve.

an increased tax base. The average individuals taxes (average increase in assessment) will be lower for the Okanagan Basin Water Board weed control function, and the excess funds will be put into the equipment reserve.

The Chairman asked that this information be sent out to the regional districts immediately for incorporation in their final budgets.

**ADJOURNMENT:**

There being no further business, the meeting adjourned at 2:30 p.m.



**CHAIRMAN**



**SECRETARY-TREASURER**



**OFFICE OF REGIONAL DIRECTOR**

GORDON OCKENDEN  
Director - Electoral Area H

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February 6, 1995

Okanagan Basin Water Board  
9848 Aberdeen Road  
Vernon, B.C.  
V1B 2K9

Dear Sir:

Re: Water Quality Monitoring - (Okanagan Basin)

Attached is an outline of what I presented to the Chairman of the Okanagan Basin Water Board which is a brief summary of the water quality areas of interest that somehow should be addressed by the Board.

I've also indicated to him in a Memorandum that I believe this Board should have a small sub-committee composed of one Director from each region that can be the interface between the Government representative in the three region areas plus the larger Okanagan Water Quality Task Group (OWQTG) now meeting and moving ahead in various directions.

We need to have answers to two very basic questions that should dictate where the OBWB, the OWQTG and the Ministry of Natural Resources, etc. should go in jointly accomplishing the task of enhancing and controlling the Okanagan Basin Water quality. Little co-ordinated action appears to have taken place since the Okanagan Lake study done in the late 70's, early 80's.

The two questions simply stated are:

- What is the "health" status of the lake and
- What are our concerns and how can they be actioned?

Okanagan Basin Water Board --2  
Vernon, B.C.  
February 6, 1995

It is time to take constructive, co-ordinated action to answer these questions by the experts with steering action to be accomplished through the elected representatives of this Board to resolve the concerns.

I'd like to discuss one way to start to answer these questions using a few volunteer retired experts.

Yours sincerely,



Gordon Ockenden  
RDCO Delegate

GO/nl

Encl.

## Water Quality Monitoring (Okanagan Basin)

The following are some of the elements that affect the ecosystem. Each are complex and impact directly on the water quality of the lake.

1. Animals
2. Population
3. Agriculture
4. Landfill

### Animals

- wildlife
- cattle operators/ranchers } upper watershed
- hobby farmers (5-10 animals)
- urban pet owners - daily outing of pets  
(storm sewers - watering)

### Population

- raw sewerage
- failed septic systems (outdated)
- tourists contaminating beaches (outhouses)
- boating - pumpout stations?
- uncontrolled urban development
  - water purification - for consumption use  
v.s. irrigation

### Agriculture

- pesticides
- herbicides
- fertilizers - natural & chemical

### Landfill

- uncontrolled - poor monitoring
- site location poor

### What to do?

- look at existing control measures?
- enforcement of regulations?
- monitoring schemes?
- study the lake?

## Water Monitoring Plan for Okanagan Lake & Watershed

- Who or what group will provide?
- What are monitoring objectives?
- What agencies involved?
- What will be co-ordinating body?
- What agency (agencies) channels will be used to initiate corrective advice or orders appropriate to rectify water quality problems identified.

## OKANAGAN BASIN WATER BOARD

**MINUTES OF A MEETING OF THE OKANAGAN BASIN WATER BOARD HELD ON MARCH 7TH, 1995, IN THE BOARD ROOM, REGIONAL DISTRICT OF CENTRAL OKANAGAN, 1450 KLO ROAD, KELOWNA, B.C. AT 10:00 A.M.**

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<b><u>PRESENT:</u></b>	Chairman R. Hobson	C.O.R.D.
	Vice-Chairman T. Shields	O.S.R.D.
	Director A. Hancock	O.S.R.D.
	Director G. Kiss	N.O.R.D.
	Director E. Hornby	N.O.R.D.
	Director R. Ginther	C.O.R.D.
	Director D. Cameron Sr.	O.S.R.D.
	Director W. McGrath	N.O.R.D.
	Director G. Ockenden	C.O.R.D.

<b><u>ALSO PRESENT:</u></b>	M.D. Maxnuk	Ministry of Environment
	M. Watts	Westbank First Nation
	R.A. Nickel	Ministry of Environment
	K. Vance	Union of B.C. Municipalities
	T. Forty	Ministry of Environment
	K. Cooper	North Okanagan Union Board of Health

<b><u>STAFF:</u></b>	G. Armour	Field Supervisor
	P. Mackiewich	Administrator

### **MINUTES:**

***Moved by Director Ginther, seconded by Director Ockenden:***

***"That the minutes of a regular meeting of the Okanagan Basin Water Board held on February 7th, 1995 be adopted as circulated."***

***CARRIED.***

Director Hancock advised the Board that the status of the Master Liquid Waste Plan and the objectives for the Okanagan Basin Water Board in 1995 were of great interest to her Regional Board.

The Chairman promised to circulate information on these topics to the regional districts.

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**DELEGATIONS:****OLAND ENGINEERING**

Mr. Jeff Oland made a presentation to the Board on the use of onsite sewage disposal systems for effluent irrigation on an individual residential household basis. A copy of his presentation is attached.

He suggested that alternatives other than sewer could be looked at for problem sites and outlined the details of a system incorporating a shallow transpiration field which could be designed to irrigate and fertilize a lawn area. He pointed out that in addition to the nutrient recycling advantage of this system, there was also a water conservation factor.

Mr. Oland indicated that a number of factors need to be researched in a demonstration project.

Mr. Ken Cooper, the Deputy Public Health Inspector for the South Okanagan Health Unit, informed the Board that sewage is required to be kept underground and this system meets that criteria. He commented that there could be a concern with exposure to effluent in gardening. Mr. Cooper stated that his Ministry has criteria for setting up demonstration projects for innovative technology and said that this system showed promise for dealing with on-site disposal in problem areas and for water conservation.

Mr. Tim Forty, Head of the Municipal Section, Environmental Protection, MOE, advised the Board that he is supportive of this type of on-site disposal system. He added that he feels there is a need to test it in the Okanagan as replacing irrigation water with reclaimed wastewater makes good sense.

Director Cameron asked Mr. Oland about accumulation of sludge in the system and the cost compared to conventional on-site disposal.

Mr. Oland answered that there would be a lifespan to the system but without testing he could only speculate. With proper design and maintenance, he felt the system should be competitive. As to cost, Mr. Oland estimated that a prototype would require about \$10,000 to construct including metering of household water consumption. Costs would drop with subsequent installations. He added that he referred to this system as the exfiltration evapotranspiration or EXET system.

Director Kiss commented that this represented a sort of containerized garden and should work well. He said the resource use of effluent and the water conservation aspects were admirable. He wondered about funding such a trial system.

Director Shields asked if this type of system would be effective around a lake shoreline.

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Mr. Oland speculated that nutrient loading would be substantially lowered for shoreline sites using on-site disposal, with this system.

Mr. Forty informed the Board that he was aware of other, similar technologies, and said that several versions should be investigated, not just one.

Director Hornby commented that similar concepts had been used for many years in Europe.

Mr. Oland agreed but said the system needed some modification for Okanagan conditions such as a back up winter mode when evapotranspiration may be impossible in cold temperatures.

Director Ginther asked if any previous Ministry of Environment or Health testing of this system had taken place.

Mr. Forty said that funding reductions had made this testing impossible.

Director McGrath noted that this was not a new proposal but added that he supported the merits of the design in rectifying problems, not enabling new development. He noted that advances in on-site disposal might extend the time before costly collection and treatment works needed to be put in place.

Director Shields questioned the ability of the average homeowner to maintain a more sophisticated system, with its possible need to switch from a summer to winter mode.

Mr. Oland indicated that he fully expected the test to eliminate the need for a winter conventional system, and he also expected that those installing the system would be interested and become more knowledgeable.

The Chairman noted that the conservation aspects of the proposal were easily supported but stated that the regional districts would have to approve any funding of research by the water board.

Director McGrath observed that the dollar amount was not great and he could support it.

Director Hancock said the approving authority should fund any research.

Director Cameron advised that he could not support funding for one system alone; there was a need to look at other available technology.

Director McGrath suggested sending Mr. Oland's proposal to the regional districts.

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Chairman Hobson observed that this would be a very good investment if it did delay or reduce the need for major treatment projects.

***Moved by Director Ginther, seconded by Director McGrath:***

***"That the Okanagan Basin Water Board request comment from the regional districts on the general proposal to fund research projects and use Mr. Oland's proposal as an example. The letter should also indicate that the Okanagan Basin Water Board believes that some funding should come from the Ministry of Environment, since they support the concept of this on-site treatment proposal."***

**CARRIED.**

Directors Hancock and Kiss opposed.

The Administrator informed the Board that the options at this point for contribution of local dollars to research were limited to the Water Board Sewage Facilities Assistance Fund and the Regional District's Feasibility Reserve Fund.

**AQUATIC PLANT MANAGEMENT BUSINESS:**

**DEROOTING PROGRAM UPDATE:** (attached)

***Moved by Director Ginther, seconded by Director Hornby:***

***"That the summary of 1995 derooting circulated by the Field Supervisor be received for information."***

**CARRIED.**

**CORRESPONDENCE:**

**MINISTER OF ENVIRONMENT - AQUATIC WEED CONTROL FUNDING REQUESTS  
FOR FISCAL YEAR 1995-96**

A letter from the Minister of Environment, in response to the Water Board request for F.Y. 1995/96 funding offered similar information as correspondence from Mr. Maxnuk received at the last meeting. The Okanagan Basin Water Board replied to the Minister stating that our budget request was within limits set by the agreement signed last year and we hoped that any cuts would be made from new programs drawing on the fund. The Board does not have written confirmation of the ministry portion of our F.Y. 95/96 budget at this time.

**MINISTER OF TRANSPORT - DISCHARGE OF HOUSEBOAT WASTES**

The Federal Minister of Transport replied to the Water Board letter of 14 December. He enclosed the Federal regulations pertaining to sewage discharge from pleasure craft. (and non pleasure craft) He noted that authority to designate a lake as subject to these regulations is delegated to local and Provincial government. (Only Shuswap, Mara, and Okanagan have been thus designated) He also indicated that greywater is not considered a pollutant at present, and is not subject to regulation. The information paper provided states that the provincial authority must ensure that adequate pumpout facilities are available on a designated lake.

Director Cameron asked whose responsibility it was within the Ministry of Environment to do this, and also wondered how the designation is to work; that is, how are boaters made aware, are signs posted, and who polices the regulations.

Mr. Nickel said he was not familiar with the regulations himself but would get some information from his Ministry.

Chairman Hobson indicated that the information brochure on the Houseboat Pollution Prevention Regulations received was put out by the Provincial MOE.

Mr. Mackiewich noted that the Okanagan Basin Water Board had previously corresponded with the Federal Ministry regarding the designation of Kalamalka Lake under the Houseboat Pollution Prevention Regulations and as yet that lake was not designated.

***Moved by Director Kiss, seconded by Director Ginther:***

***"That the Okanagan Basin Water Board apply to the Provincial Ministry of Environment to have Kalamalka and Skaha Lakes designated under the Houseboat Sewage Pollution Prevention Regulations."***

**CARRIED.**

**MINISTER OF TRANSPORTATION AND HIGHWAYS - DELEGATION OF  
SUBDIVISION APPROVAL AUTHORITY**

Correspondence was received from the Minister acknowledging the Okanagan Basin Water Board support of delegation of subdivision approval authority to the regional districts in unorganized areas.

Mr. Mackiewich informed the Board that the Regional Districts have met with the Ministry to discuss this issue. The Regional Districts of North Okanagan and Fraser Cheam are agreeable to testing this delegation of authority.

**SEWERAGE FACILITIES ASSISTANCE GRANTS:**

Grant Applications:	Town of Oliver	\$22,503.49
	" " "	35,495.00
	Municipality of Coldstream	65,481.21

Mr. Armour indicated that the application by Oliver for \$35,495 was a new project extending the sewer collection system to the Tucelnuit Lake area.

Director McGrath observed that this was a provincially approved project and thus qualified for Okanagan Basin Water Board assistance.

***Moved by Director McGrath, seconded by Director Cameron:***

***"That the Sewerage Facilities Assistance Grants listed above be approved for payment"***

**CARRIED.**

Director McGrath and Mr. Maxnuk left the meeting.

**NEW AND UNFINISHED BUSINESS:**

**WATER POLICY AND LEGISLATION - CURRENT STATUS OF THE STEWARDSHIP OF THE WATER PROCESS**

Mr. Ken Vance, Policy Analyst with the Union of B.C. Municipalities, presented the Board with an information package (Attached) on the current status and issues relating to water legislation and policy in British Columbia.

The Board dealt with the issues of Groundwater, Water Pricing, Managing of Activities in and About a Stream, and Water Management Planning.

The Chairman indicated that time would obviously not permit a full review of all the water policy legislation at this Board meeting. He asked Mr. Vance if he would be able to return to a future meeting to complete the stewardship discussion.

Director Hornby added that he would appreciate some time to review the material provided.

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It was tentatively agreed that the review would be completed at the June meeting.

### **COMMERCIAL DEVELOPMENT ON WESTBANK FIRST NATION LANDS**

Special Projects Coordinator for the Westbank First Nations, Mr. Mike Watt, provided the Okanagan Basin Water Board with information on the development being undertaken near Westbank.

Mr. Watt noted that the publicized version of the facts concerning the development was very inaccurate. Two main points were that Smith Creek is not being diverted or put into a culvert, and, while the developer is not subject to the same permit requirements as exist for non-band lands, he has filed two environmental impact assessments required under Federal legislation as of January, 1995. This is required for development on all land on reserves, both band and individual owned. While the guidelines may differ, Mr. Watt pointed out that every effort is being made to conform with or, in this case, go beyond the recommended standards.

Mr. Watt stated that the work is not affecting the Smith Creek channel and that Westbank Creek was previously diverted by the Ministry of Transportation and Highways in the construction of Bering Road.

The Chairman commented that there was a lesson to be learned in that the Okanagan Basin Water Board should invite the proponents in an issue to explain their side prior to the Board adopting a position.

Director Ockenden suggested that closer consultation occur in the future so that local government is aware of the facts and can comment accordingly. He added that a short summary of land use practices on First Nations lands would be useful.

Mr. Vance noted that, along with the Federal Legislation passed in December, a consultative process between First Nations and the Province may be developed.

### **OTHER MATTERS:**

#### **NEXT MEETING -**

Chairman Hobson summarized that issues to be dealt with at the next meeting (April 4th) would include the results of the meeting of Administrators and Financial Staff to discuss liquid waste management issues, a presentation from Dr. Peter Dill of Okanagan University College on "A Report Card on the Okanagan Basin Study", and a summary of land use practices of Westbank First Nations.

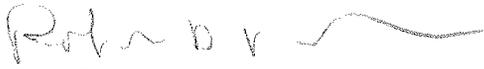
After some discussion, it was decided to cancel the May 2nd meeting as both the

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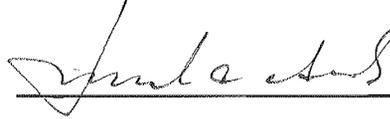
Chairman and Vice Chairman would be absent, and meet as regularly scheduled on June 6th.

**ADJOURNMENT:**

There being no further business, the meeting adjourned at 2:20 p.m.



**CHAIRMAN**



**SECRETARY-TREASURER**

TO: Okanagan Basin Water Board  
FROM: Ken Vance, Policy Analyst,  
DATE: March 7, 1995  
RE: **WATER STEWARDSHIP**

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## **A. OVERVIEW OF WATER POLICY**

Water is one of our most important resources as without we cannot survive.

British Columbians are the highest users of water in Canada.

I am going to provide an update on the eight issues identified in the policy document entitled "Stewardship of the Water" which was released in 1992, as well as some other environmental issues:

1. Groundwater
2. Water Pricing
3. Managing Activities In and About Steams
4. Water Management Planning
5. Water Allocation
6. Floodplain Management
7. Water Quality Management
8. Water Conservation

The Ministry of Environment, Lands and Parks in its vision document proposed to use the UBCM principles for delegation outlined in its paper "Delegation of Environmental Responsibilities" as its 'Criteria for Environmental Partnerships':

- Process must be fair, open and equal.
- A comprehensive process of consultation, agreeable to both parties should be undertaken.
- Partnerships should be based on the meeting of certain basic conditions and criteria.
- Appropriate funding and resources should be available to meet new responsibilities.
- Planning processes of all ministries, commissions and agencies should be fully coordinated.
- The appropriate legislative, regulatory and policy authorities should be in place.
- Protection from any liability arising from the delivery of provincial programs of standards should be in place.

changes in water policy that would allow it to work in a more efficient manner.

In the Okanagan Valley is an environmentally sensitive area the Board faced with a number major issues over the next few years which will affect the quantity and quality of water available:

- Increased urban development;
- Increased cultural activity;
- Increased resource activity in the upland areas.

**STATUS AND ACTION**

**Groundwater Management**

*BC has the most groundwater legislation  
Groundwater 9% of total*

Okanagan Basin Water Boards role in the establishment of standards and the management of groundwater management areas.

The ministry in its paper on the 'Stewardship of Water Resources' initially proposed to bring in controls over groundwater on an incremental basis by initially designating certain areas as 'Groundwater Management Areas' (i.e. Gulf Islands, Fraser Valley etc.) where problems currently exist and regulating the drilling and management of well sites and by licensing all drillers in the province.

British Columbia is the only province in Canada that does not have some form of legislation to govern the use of groundwater. The province has 150 groundwater observation wells, however, it does not have a detailed understanding of the size of the aquifers in the province their recharge rates and the consumption rates. Groundwater accounts for 9% of total water use in British Columbia and as much as 20% in rural areas. The largest user of groundwater is industry (55%), followed by municipal and rural use (25%) and finally agriculture at 20%.

The Ministry of Environment, Lands and Parks in 1993-94 undertook a groundwater pilot project on Hornby Island and hearings around the province concerning the establishment of groundwater legislation. The ministry had hoped to get amendments to the Water Act governing groundwater legislation on the 1994 legislation agenda, however, it was unable to develop a consensus around the implementation of groundwater legislation.

It was unclear from the ministry initiative whether the changes governing groundwater would be province wide or in designated areas. There was opposition from industry and the agriculture community who perceived the regulation of groundwater as a further attempt by the province to get more revenue - there had been

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required. The  
sensitive areas

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undertaken under the Forest Practices Code concerning community watersheds and stream restoration.

New guidelines for resource activities in community watersheds are being developed under the auspices of the Forest Practices Code.

**ACTION:** UBCM has supported the need for the protection of community watersheds and the ability of local areas to have input into what activities are undertaken in local watersheds.

## **5. Water Allocation**

**ISSUE:** Okanagan Basin Water Boards role in the management and allocation of water resources in the area.

**STATUS:** The Ministry of Environment, Lands and Parks proposed in this section that the underlying basis as to how water is allocated to water users be changed. Under the present licensing system priority of use is determined on the basis of "first-in-time, first-in-right" and is issued for life. The ministry proposed that in future water should be allocated based on highest use and future licences should be for fixed terms, with renewal provisions.

The allocation of water is politically one of the most sensitive issues that will have to be addressed. Any proposed changes in this area will be met with a great deal of concern as it is viewed as essential for the economic survival of the rancher or the orchadists.

The allocation of water will likely become one of the most important issues in the future, and it may well determine the type of development that will take place in an area and where it will take place. In environmentally sensitive areas where water use is important, such as the Okanagan, it will be an important issue in land claim negotiations.

**ACTION:** The UBCM has not taken a formal position on the allocation of water.

## **6. Floodplain Management**

**ISSUE:** Okanagan Basin Water Boards role in the development of floodplain management plans.

**STATUS:** The Ministry of Environment, Lands and Parks in the stewardship document proposed to continue its floodplain management activities and in proposing amendments to the Municipal Act to enable local government to undertake floodplain management plans the report proposes:

The Ministry of Health under the Health Act has developed Safe Drinking Water Regulations. It sets standards for testing drinking water sources and for bacterial contamination, and provides Medical Health Officers with the authority to require water purveyors to meet these standards. The Ministry of is considering increasing the Safe Drinking Water Regulations to the Canadian Drinking Water Guidelines which would mean that many of the small water utilities would be required to chlorinate or treat the water provided to meet this new standard.

There is a concern that many of the existing water utility operations, improvement districts and water user communities may be non-viable business operations and/or are providing substandard service

**ACTION:** UBCM has requested that community watersheds be protected to ensure the adequate provision and ongoing quality of safe drinking water to domestic to domestic users in the area, but has not taken a position on the type of standards that should be set.

#### 8. Water Conservation

**ISSUE:** Okanagan Water Basin Boards role in developing and implementing water conservation measures.

**STATUS:** The report proposes the development of:

- Water Smart Program
- Water Act amendments “to require the installation of water meters, flow control and leak detectors”
- changes to the Provincial Building Code to require water conservation measures in new construction.

Local governments have undertaken a variety of water conservation initiatives, from setting regulations for sprinkling to requiring water conservation measures in construction. Qualicum Beach, for example, provided and installed water saving devices in each home in an effort to prevent having to construct a larger liquid waste treatment plant.

**ACTION:** The UBCM has supported the need for water conservation.

#### GENERAL CONCERNS ABOUT THE STEWARDSHIP REPORT

- No legislative protection is provided for ‘Community Watersheds’ what is proposed is an upgrading of the guidelines that are currently in place. UBCM resolutions on this issue have called for the need to provide a legislative base to protect community watersheds from possible destruction by other resource users.
- Financial downloading on local government:

**10. Pesticide Management Policy**

**ISSUE:** Local governments role in the establishment of standards and the management of pesticides, given the public concern over the effect of pesticide use on ones health.

**STATUS:** Local government currently obtains pesticide use permits in the form of service licences and uses pesticides to control weeds in parks, on playing fields and along roads. A number of regional districts have weed control programs to control weeds that are harmful to agriculture.

The Ministry of Environment, Lands and Parks, as part of the development of the B.C. Environmental Protection Act, intends to include a new pesticide management policy. This policy will focus on the use of integrated pesticide management programs to reduce the use of pesticides in the long-term. It is not known at this time what action if any the ministry may take in this area if the Environmental Protection Act is not implemented.

**11. Liquid Waste Discharge Criteria**

**ISSUE:** The Ministry of Environment, Lands and Parks is developing new sewage discharge criteria which will impact on the operation of sewage treatment plants and the design of sewage and storm sewer works.

**STATUS:** The Ministry has released a draft discussion paper outlining new criteria for the development and operation of sewage treatment plants.

The UBCM was requested to assist the Ministry in the development of a communication strategy on this issue to local government. A special summary of the policy and some of the costs to local government was identified.

The new discharge criteria could have a major impact on local government:

- minimum of secondary sewage treatment - no time frame potential cost of \$1 billion dollars (\$600 million GVRD and CRD).
- liquid waste management plans.
- monitoring and testing - increased frequency in testing; toxicity testing (will range from \$1,000 to \$1,650 per year per plant) and if out of compliance could result in studies which would cost between \$10,000 to \$100,000 for a Toxicity Reduction Evaluation.
- new water quality objectives.
- site specific studies/environmental assessments will be required of new sewage plants.

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The UBCM pointed out that there are two issues that must be addressed. The first issue is how to upgrade existing facilities to ensure that they meet existing standards and do not create future problems. The second issue is how to deal with future requests for the development of private sewage disposal facilities. If it is the intent of the provincial government not to approve any future private sewage disposal facilities then it should outline this policy clearly and put it forward for discussion.

We suggested that the pollution prevention and polluter pay principles should guide the provincial government in its policy development on this matter. The provincial government needs to develop a new regulatory framework which will require a private sewage disposal facility to be responsible for its construction, ongoing operation and maintenance, and future financing requirements in the same way that a public utility is required to do. This policy would require the private disposal facility to take responsibility for ensuring that it did not pollute the environment and would require the users of the facility to pay for its day to day operation and ongoing maintenance requirements.

The UBCM indicated that there may be an opportunity for local governments in some cases to assist the province in addressing the issue of private sewage disposal facilities and their integration into the land use planning process. A full discussion, however, needs to take place on the future role and direction of local government in this area and whether or not the approval and/or operation of privately operated sewage facilities is one of the powers it is willing to consider. There will need to be clear legislative and regulatory authority in place concerning the operation of private sewage facilities to ensure that if a local government is involved it does assume additional financial or liability responsibilities as a result of its involvement.

**13. Environmental Protection Act (Draft)**

**ISSUE:** The Ministry of Environment, Lands and Parks has developed draft legislation which is intended to provide the principles and overall framework for all environmental legislation in the province.

**STATUS:** The Ministry began consultations with stakeholders in 1993 on the development of the principles and framework for its new environmental policy outlined in the Environmental Protection Act. Consultations continued on this matter through 1994. UBCM was part of a stakeholders group which was established to review the draft legislation. The UBCM has had numerous meetings with the stakeholders group and have commented on all sections of the proposed Environmental Protection Act at this time. The ministry will

4. Flexibility - Protection of the environment can be achieved through a variety of methods.
5. Partnerships and Coordination - All levels of government must work together to ensure that public health and the natural environment are protected.
6. Prioritization - Address the worst environmental problems first.
7. Technical Assistance/Information - Local government needs technical support and additional information in dealing with these highly complex issues.
8. Public Education/ Communication - The public must understand the financial, environmental and community impacts resulting from the passage of environmental mandates.

No final draft of the Environmental Protection Act has been developed. The Ministry of Environment, Lands and Parks has taken the legislation for review to the Cabinet Planning Committee, no decision was made regarding its legislative status for the 1995 session and the ministry was requested to undertake further review of it. The Ministry awaits a further opportunity for the legislation to be considered by the Planning Committee. The legislation as it is currently drafted appears to be quite controversial from the perspective of a number of sectors and is it unlikely that the provincial government will go forward with it in 1995.

## ENVIRONMENTAL LEGISLATION

### 14. Environmental Assessment Act

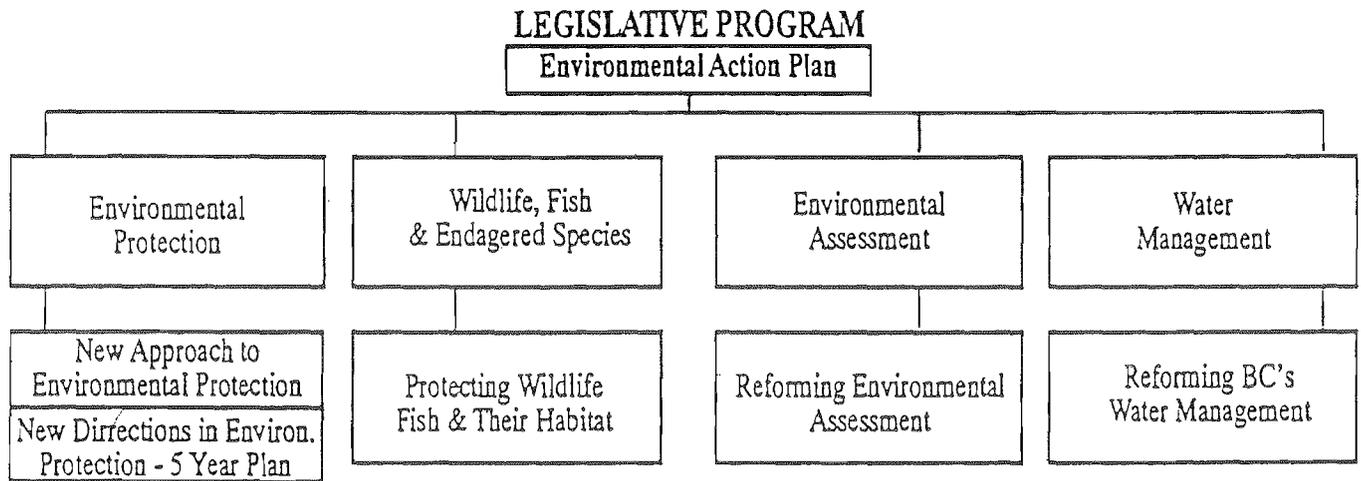
ISSUE: The role of local government in the determination of environmental assessments. There are two specific areas of concern:

- the nature and type of local government projects which will come under review;
- the nature of local government involvement in project reviews.

STATUS: The Ministry of Environment, Lands and Parks introduced Bill 32 - Environmental Assessment Act into the provincial legislature in 1993. The provincial government agreed to undertake further consultation on the development of a comprehensive environmental assessment policy in the province and indicated that it intended to put forward new legislation in 1994.

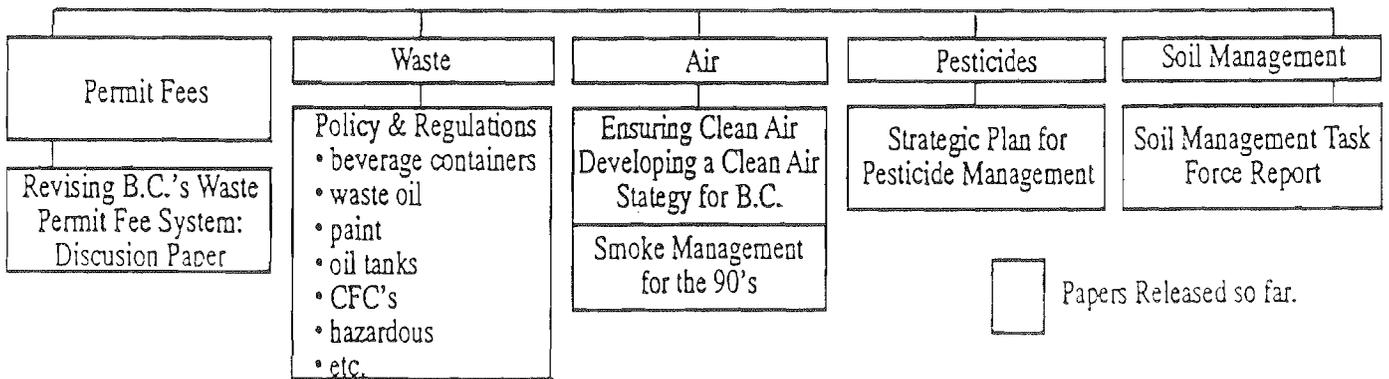
UBCM has been involved in extensive consultations on the Environmental Assessment Act and the regulations.

# Appendix 1



## ENVIRONMENTAL PROTECTION

### Policy Development



## OKANAGAN BASIN WATER BOARD

**MINUTES OF A MEETING HELD ON MARCH 9TH, 1995, IN THE WOODHAVEN BOARD ROOM, REGIONAL DISTRICT OF CENTRAL OKANAGAN, 1450 KLO ROAD, KELOWNA, B.C. AT 10:00 A.M.**

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<u>PRESENT:</u>	Peter Mackiewich	N.O.R.D/OBWB
	Doug Leahy	R.D.O.S.
	Ken Ostraat	Summerland
	Bill Brown	Peachland
	Bob Carter	Summerland
	David Perekudoff	Coldstream
	Greg Betts	Coldstream
	Harold Reay	C.O.R.D.
	Hilary Hettinga	C.O.R.D.
	Bernd Fehrmann	Vernon
	Tom Szalay	Oliver
	Dick Ramsey	Penticton
	Paul Macklem	Kelowna
	Barry Gagnon	Armstrong

### ALSO PRESENT:

Dick Nickel	Ministry of Environment
Greg Armour	Field Supervisor/ OBWB
Al Tamblin	Ministry of Municipal Affairs

Mr. Mackiewich and Mr. Armour provided a brief commentary on events preceding this meeting.

THE PROCESS OF DEALING WITH PRESSURES ON THE WATER QUALITY OF OUR LAKES BEGAN SOME 25 YEARS AGO, WHEN THE OKANAGAN BASIN STUDY IDENTIFIED MUNICIPAL SEWAGE OUTFALLS AS THE MAJOR SOURCE OF NUTRIENT POLLUTION TO THE VALLEY LAKES. IMPLEMENTATION OF ADVANCED (TERTIARY) TREATMENT PROCESSES WAS RECOMMENDED TO DEAL WITH THE SITUATION AND THE RESULTS HAVE BEEN GOOD. WE HAVE MAINTAINED THE QUALITY OF WATER IN MOST OF OUR LAKES AT AN ACCEPTABLE LEVEL DESPITE THE PRESSURES OF GROWTH BUT THERE HAS BEEN A COST TO THIS.

OVER MOST OF THE TIME PERIOD THE COSTS OF INFRASTRUCTURE HAVE BEEN PORTIONED 75% PROVINCE, 18% OBWB, AND 7% LOCAL. THINGS CHANGED A COUPLE OF YEARS AGO AS PROVINCIAL GRANTS WERE REDUCED AND LOCAL GOVERNMENT WAS FACED WITH PICKING UP AN INCREASED SHARE OF PROJECT COSTS. THE WATER BOARD, WITH THE AGREEMENT OF THE REGIONAL DISTRICTS, COMMISSIONED A MASTER LIQUID WASTE MANAGEMENT PLAN TO ATTEMPT TO ADD UP WHAT WAS PROPOSED BY THE SIXTEEN INDIVIDUAL LIQUID WASTE PLANS IN THE VALLEY, AND IDENTIFY THE COSTS

INVOLVED OVER THE PLANNING HORIZONS. IT IS RECOGNIZED THAT OUR LAKES CANNOT ACCEPT ANY INCREASE IN NUTRIENT INPUT ABOVE CURRENT LEVELS WITHOUT SUFFERING DETRIMENTAL EFFECTS. THE INITIATIVES PROPOSED BY THE MASTER LIQUID WASTE PLAN WERE INTENDED TO ENSURE THAT THE DOLLARS NEEDED WERE RAISED THROUGH A COMBINATION OF THE EXISTING GENERAL LEVY, AN ENVIRONMENTAL IMPACT LEVY ON ALL NEW LOTS IN THE VALLEY, AND A LEVY ON SEPTIC TANKS. THE PLAN WAS TO BE COORDINATED BY THE WATER BOARD ON A REGIONAL BASIS.

THESE RECOMMENDATIONS WERE DISCUSSED BY LOCAL GOVERNMENT AND RECEIVED LESS THAN UNANIMOUS SUPPORT; INSTEAD LOCAL GOVERNMENT ASKED THE WATER BOARD TO LOBBY FOR CHANGES TO MUNICIPAL LEGISLATION OR POLICY TO ALLOW THE COST OF BORROWING TO FINANCE SEWERAGE INFRASTRUCTURE TO BE INCLUDED IN DEVELOPMENT COST CHARGES.

TO THIS END, OUR CHAIRMAN AND ADMINISTRATOR MET WITH THE MINISTER OF MUNICIPAL AFFAIRS AND SENIOR STAFF AT THE UBCM. MR. TAMBLIN FORWARDED COMMENTS TO THE WATER BOARD AND WE ASKED ALL LOCAL GOVERNMENT ADMINISTRATION TO RESPOND. THE ISSUES AND A CAPSULE VERSION OF THE COMMENTS RECEIVED WERE SENT OUT IN THE LETTER PROPOSING THIS MEETING. THEY ARE:

FIRSTLY, TWO RESOLUTIONS OF THE OBWB:

- THAT THE WATER BOARD PAY SEWERAGE FACILITIES GRANT IRRESPECTIVE OF WHETHER LOCAL GOVERNMENT INCURS DEBT OR FRONTS THE \$ FOR A QUALIFYING PROJECT.
- THAT THE WATER BOARD GRANTS FUND EXISTING OBLIGATIONS AND QUALIFYING PROJECTS SERVICING DEVELOPED AREAS NOT PRESENTLY SEWERED, BUT NOT CONTINUE TO FUND GROWTH DRIVEN TREATMENT PLANT AND COLLECTION EXPANSIONS.

THE LATTER POINT IS IN RECOGNITION THAT THE ORIGINAL PURPOSE OF THESE GRANTS WAS TO HELP THE VALLEY IMPLEMENT THE ADVANCED WASTEWATER TREATMENT RECOMMENDED BY THE OKANAGAN BASIN STUDY AND WITH A FEW EXCEPTIONS, THIS HAS BEEN DONE.

SECONDLY, SEVEN POINTS RAISED IN THE LETTER FROM MR. TAMBLIN PERTAINING TO AN INTEREST COMPONENT IN SEWERAGE DCC'S. THEY ARE:

- SHOULD THERE BE AN INTEREST COMPONENT?
- SHOULD THE INTEREST COMPONENT BE LEVIED ON SEWERAGE PROJECTS ONLY?
- SHOULD THERE BE AN INTEREST CHARGE IF THE DCC IS PAID UP FRONT?
- WILL AN INTEREST CHARGE PROMOTE EXCESSIVE DCC'S?
- WILL THERE BE A NEGATIVE REACTION TO INCREASED DCC'S IN DEVELOPMENT?
- DOES AN INTEREST COMPONENT BIAS FINANCING TOWARDS THE INCURRENCE OF DEBT?
- IS AN ANNUAL INDEXED INCREASE TO THE DCC A PREFERABLE ALTERNATIVE?

WHAT WE HOPE TO ARRIVE AT FROM THIS MEETING IS A CONSENSUS ON WHAT WOULD BE A USEFUL FINANCING MECHANISM FOR LOCAL GOVERNMENT TO ENSURE THAT HIGH STANDARDS OF LIQUID WASTE TREATMENT CONTINUE TO BE MET, AND A METHOD WHICH IS ACCEPTABLE TO THE MINISTRY OF MUNICIPAL AFFAIRS.

Mr. Macklem presented an overview of the proposed City of Kelowna treatment plant expansion utilizing two scenarios; one with interest incorporated in DCC's and one without. He reported that the City will be presenting further information to the Ministry of Municipal Affairs in the form of a position paper and this will be circulated by the Water Board to those attending this meeting.

Mr. Szalay observed that latecomer charges allowed interest to be included but had the restriction of a ten year lifespan.

Mr. Tamblin commented that these charges were difficult to administer for a variety of reasons and not favoured by his Ministry. He did not see the ten year cap being removed although a resolution through the UBCM would be the route to go on this issue.

Mr. Gagnon questioned charging a developer using treatment plant capacity at the end of the planning horizon, after interest costs have accrued, the same as one drawing plant capacity at start-up.

Mr. Macklem said that Kelowna viewed plant expansion as a series of increments and the "early" developer and "late" developer were both borrowing a unit of capacity. the alternative would be a DCC at the end of the planning horizon of prohibitive size.

Mr. Fehrmann suggested that double charging must be avoided.

Mr. Carter informed the group that Summerland had proposed a charge on unimproved

land to ensure that adequate funds were collected were future infrastructure.

The group agreed that interest costs are real and must be addressed by one method or another.

Mr. Tamblin advised the group that within his Ministry there were two theories on DCC's; one indicating that they should not be used for funding of large capital projects; the second stating that they should be used only in such projects.

He noted that Provincial subsidies had declined to the point where they will no longer be a factor in promoting good growth management practices. At the same time the Ministry wished to see growth driven projects not impact existing taxpayers and also consider some measure of equity to developers.

Mr. Tamblin pointed out some areas of the Kelowna scenario in which he saw potential problems.

The cost of plant expansion and capacity must match the projected growth, that is you cannot collect twenty years worth of DCC's for a ten year increase in plant capacity.

Existing user charges, frontage and parcel taxes which incorporate capital costs must be looked at to avoid double charging.

He noted that latecomer agreements tended to be very complicated and he could not envision them being easily applied. He said there was not a lot of resistance in his Ministry to the incorporation of an interest component in sewerage DCC's. He would like to see the use of interest charges limited at first and used to address real costs. Some extensive modelling may be required at first but he feels his Ministry is prepared to approve their use. At the political level there would be some backlash from developers not wishing to see increased costs. Kelowna, he felt, would be a good test case as most of the required modelling has already been dealt with. There are no legislative changes required; this is essentially a policy change only. He expressed some surprise that the issue of addressing interest costs had not come up in the last fifteen years.

Mr. Mackiewich summarized the consensus of the group that costs of proposed sewerage infrastructure be addressed by:

incorporation of an interest component in DCC's

use of latecomer agreements

Tax levies either as a general levy or a parcel or frontage tax

He thanked everyone for their participation and assistance, and said these results would be passed on to the political level at the Okanagan Basin Water Board

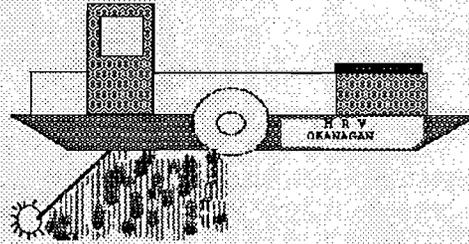
The meeting adjourned at 12:00 p.m.

Okanagan Basin Water  
Board

## Aquatic Plant Control Memorandum

To: Directors

Date: 27 February  
1995



From: Field Supervisor

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Subject: Derooting Program to February 1995

Four machines are currently in operation:

- MRV Okanagan - Kelowna Foreshore and Kelowna Westside
- Rototiller #2 - Wood Lake
- Rototiller #1 - Osoyoos Lake
- Bombardier/Cultivator - Kelowna Foreshore (Shallow zone)

Derooting work has been completed at sites in Kalamalka Lake and the Vernon Arm of Okanagan Lake.

Kalamalka Lake - December 5th to February 16th - 252 hours  
(Estimated 290 in workplan)

Okanagan Landing - December 1st - February 17th - 279 hours  
(Estimated 200 in workplan)

Some equipment may be operated 7 days a week starting in the new fiscal year in April. At present, all equipment is being run Monday through Friday.

# EXFILTRATION / EVAPOTRANSPIRATION SYSTEM ( EXET )

*C. Jeffrey Oland, P. Eng.*

## Abstract

In 1985 the Provincial Government designated the Okanagan basin as a special Environmental zone. Since 1985, there has been a movement within local governments to evaluate and make recommendations for handling and disposing of waste-water. This movement has concentrated its efforts and finances on improving and expanding collection and treatment within municipal sewage treatment plants. On-site sewage disposal systems, however, have seen little change in the past 50 years, especially the standard single family home septic system. The fact is that in many areas, on-site systems will be around for a long time. A more concentrated effort should therefore be placed on improving small systems so that failures are less frequent and nutrient loading to the Basin is reduced. One problem, of course, is that these on-site systems are most often owned and maintained by individual home owners who do not have the motivation or the finances to attack such problems as phosphorus loading to our lake system.

I believe that, with new on-site designs such as the one I propose in this report, we can begin a new movement within government to encourage home owners to change to an improved disposal system. If a new on-site disposal system is effective and feasible and old septic systems within Environmental Control Zones are targeted, we can reduce phosphorus loading from septic tanks by about 80 to 90%. At the same time, the evapotranspiration system that I propose will reduce home water consumption by another 60 to 80% during the 7 or 8 warmer months of the year.

## Introduction

The following report looks at addressing two serious problems which exist in the Okanagan Water Basin. The first problem of nutrient loading to our lake system is briefly discussed, looking at the alternatives to Municipal Sewage Treatment systems. Second, is the availability of fresh potable water and the importance of not wasting it for the purpose of irrigation when we have so much nutrient rich waste water available.

The main focus of this report is to describe a partial solution to these two problems. The Exfiltration/Evapotranspiration (EXET) system is explained by the use of drawings. We basically make it possible to take advantage of evaporation, transpiration and exfiltration, depending on weather conditions to dispose of septic effluent, and at the same time, irrigate lawns. The report should also be considered a proposal to encourage municipality funding for EXET systems to be tested.

## Nutrient Cycles

The primary waste-water management concern in the Okanagan appears to be the balance of nutrient flow to the lake system. During most times of the year, phosphates are the limiting nutrient compared to nitrates, that is, an increase phosphates will result in algae and plankton growth in a lake. To simplify the argument, we will refer to the term nutrient, to mean a pollutant causing over growth of algae and plankton.

About half of the nutrients come from natural sources due to the decay of natural vegetation, which is then transmitted to the lakes via streams and run off. The nutrients are necessary to support all life in the lake. The rate of growth of the living things in the lake depends on how many nutrients are provided by the land. Man has interfered with this balance by using the lake to dispose of his byproducts of nutrient rich waste. Man has also created an additional imbalance through adding nutrient rich fertilizers for agriculture and altering run off due to Forest Harvesting.

In 1990, about 15% of the nutrient problem can be blamed on Forestry and Agriculture, while domestic sewage accounts for about 32%. In 1970, sewage treatment plants contributed almost half of all the phosphorus loading to the Okanagan lake system, and although the population has more than doubled, treatment plants now only contribute 10%. This reduction is due to improvements in the technology of phosphorus removal from waste-water.

Small on-site septic systems, however, seem to be increasing their contribution of nutrients to the lake. In 1970 only 7% of the total phosphorus loading was due to septic fields as opposed to 22% in 1990<sup>1</sup>. This brings us to look carefully at the options which initially point to sewer systems and sewage treatment for everyone. If you compare the 3 nutrient cycles<sup>2</sup> in *figure 1*, you will see that municipal sewage treatment is not necessarily the answer to all our problems, especially when you consider the cost.

If you look at the nutrient cycle in the conventional septic system, it is virtually an open system. Our household nutrients are introduced to our home from the grocery store. Once we consume these food products and dispose of the phosphates in our soapy wash-water, the waste ends up in our septic tank. Most of the organic material remaining gets consumed by bacteria in the septic tank. Very little of the nutrients are removed in the tank and are carried by the effluent to the septic field.

The attitude for a good functioning field has always been "*get rid of the effluent in the soil so that we never see it again.*" Two problems exist with this attitude:

- 1) it never goes away like we think-nutrients eventually reach the lake.
- 2) we have wasted a wonderful resource, nutrient-rich water.

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<sup>1</sup> Reid Crowther & Partners Ltd., Okanagan Basin Master Waste water Management Plan

<sup>2</sup> ODUM, Fundamentals of Ecology, Third Edition

Most of the nutrients go deep into the soil and are retained by bacteria while the rest moves into the ground-water and eventually to the lake.

The municipal sewer system makes sure that it carries everything away. The sewer eventually carries massive amounts of waste-water to a treatment plant. Unfortunately, everything doesn't just disappear in the plant. Nitrogen can be put back into the atmosphere as one of our natural air components. Phosphorus, however, is much more difficult, since it just doesn't go away. About three or four percent of the phosphorus remains in the plant effluent and is discharged to a single point load in the lake. This leaves about 97% of all the phosphorus which originated as our waste. This huge phosphorus load is hauled away from the plant as sludge and deposited at one or two landfill sites. Let's hope it stays there. If it doesn't, we've just wasted a lot of time and an incredible amount of money. We still can't ignore the 3.5 kg of phosphorus, for example, which is dumped into the lake by the Kelowna treatment plant every day. Treatment plant technology has come a long way, but it still isn't perfect.

Treatment plants, don't get me wrong, are very necessary, since they allow to densify populations in our cities and minimize the environmental impact. My point is, however, that rural and urban areas may be better off with improved on-site systems, from both an environmental and economic view.

The third nutrient cycle in *figure 1*, is a much more closed system. The evapotranspiration system is not trying to encourage the sewage effluent to "*just disappear.*" The system design allows the effluent to be retained over a large area, and close enough to the top soil to be used up by the growth of the lawn. The plant growth then uses virtually all of the nutrients as long as it is warm enough to encourage growth. The warm effluent will also help extend lawn growth into the warmer winter days. The by-product is grass which will rot somewhere on your lawn or in the compost where it can be recycled for gardening and more plant growth.

## Water Consumption

The average consumption for a single family, three bedroom home is between 500 and 800 liters per day for domestic use. The water used for irrigation during the 6 to 8 summer months in the Okanagan Valley averages an additional 1200 liters per day. Total consumption therefore averages approximately 2000 liters per day. This data is based on a small cross-section of typical homes as well as total system flows in the Rutland Waterworks District of Kelowna. The water consumption was compared in 6 homes for 1993 (a very wet year) and for 1994 (a very dry year). In other words, for lawn watering, the average home uses three times as much water as he would normally use for domestic purposes.

During June, July and August, reducing water consumption is most important due to limited availability of fresh water and extensive water consumption. It is during these months, of course, when the evapotranspiration system is at its peak performance and can reduce water consumption by 60 to 80%. By using subsurface irrigation, the water required for a lawn is reduced by 50% since there are no direct evaporation losses as in surface irrigation. The nutrient rich septic effluent now becomes a resource rather than a waste product.

## EXET System Design

The average urban lot presently using on-site sewage disposal systems, is about 1000 m<sup>2</sup> in area. The home and parking areas use up to about 30% of the lot area leaving about 700 m<sup>2</sup> of landscaping. The average home produces about 700 liters per day of sewage effluent. A lawn in the Okanagan requires about 3.25 cm per week, or 0.5 cm/day of water for conventional irrigation. It is believed that about 50% of the conventional irrigation is lost by evaporation before reaching the soil. We can therefore assume that only 0.25 cm per day is required for lawn growth using subsurface irrigation methods<sup>3</sup>.

Based on 700 liters or 700,000 cm<sup>3</sup> per day of effluent, we can irrigate about 300 m<sup>2</sup> of lawn. The above calculation uses vaguely substantiated assumptions which must be verified using further research and actual test sites.

**Figure 2** shows a typical home and lot layout. A standard septic tank and pump system is shown to be installed in the usual fashion. In a repair or system replacement, the old septic tank and pump system will be used. The irrigation area is about 330 m<sup>2</sup>. **Figure 3** shows in a diagrammatic fashion how the evapotranspiration system works. The septic tank effluent enters a distribution box and splits the flow to each side of the field area. The distribution pipe will deliver the flow to the pond or tray area. The heavy polyethylene tray, full of drain rock, keeps the effluent at the bottom edge of the topsoil to allow moisture to wick up into the soil and root network. The maximum level of effluent will be governed by the elevation of the holes in the center overflow pipe. The minimum level will be determined by effluent flow and the rate of transpiration and evaporation.

If the effluent level in the system remains at its maximum for extended periods, there is an increased chance of anaerobic conditions slowing down the decomposition of solids to such an extent that the drain rock could clog. I am therefore proposing, at least for the test systems, that an automatic drain control valve be installed to drain the system every few days. The drain and control valve are not shown in **Figure 3**.

During the cooler months when the evapotranspiration rate cannot keep up with the flow, the effluent will overflow into the trenches below. The effluent will be treated somewhat, however, since it first must flow through the drain rock which acts as a fixed bacteria media. The treated effluent will therefore carry less of a clogging factor with it and likely less nutrients before it is deposited to the soil below. Treatment of the effluent will continue in the soil, especially if the lower trenches are well vented to the air.

**Figure 4A, 4B, and 4C** are detailed plan view drawings showing both the overflow line and automatic system drain line, as well as operational and valve variances at different times of the year. **Figure 5** shows the details of the system in profile.

For cold winter operation, see **figure 4C**, the effluent is redirected by the bull-run valve, directly to the lower trench system. This diversion is to prevent possible freezing of the piping.

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<sup>3</sup> Rainbird Canada, Irrigation Systems

## EXET System Design

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<sup>3</sup> Rainbird Canada, Irrigation Systems

It is possible that after some extensive testing in cold weather, that this diversion is not necessary. There may be enough exothermic biological activity to prevent freezing.

## **Conclusion**

Part of this concept is not new since there are several thousand evapotranspiration systems in the United States.(4) (U.S.E.P.A. Design Manual ) As far as I know, however, they are not adjustable to the varying climatic conditions which we experience in Canada. The ideal location for this design in Canada is likely in the Okanagan Valley where it is warm and dry. The proposed system is adjustable to varying conditions. Test systems must be implemented to learn the following unknown factors:

- 1) How much lawn can we irrigate.
- 2) How many months of the year can it operate.
- 3) How deep should the effluent be, and how much topsoil is required so that there is no potential health hazard and maximum evapotranspiration.
- 4) What is the best topsoil and type of grass.
- 5) What other shrubs and plants will work well.
- 6) What effect will rain have on the system.
- 7) How long can effluent be left in the system before draining.
- 8) What treatment takes place before effluent overflows.
- 9) Is venting required.
- 10) How much savings is there in water consumption.

## **Recommendation**

I recommend that 3 systems should be installed this spring in the Okanagan Valley. The first system shall be on a flat, large lot with a dependable trench backup. The second system should be installed on a small flat lot over a limited area, with a good backup trench system. The third test system should be on a sloped site of about 15 to 25% grade. On this site, a terraced system must be designed . It is often feasible to use a deep drywell system which is offset from the evapotranspiration area.

The cost of each installation is estimated to be about \$4,000. Additional costs will be Engineering design and supervision at about \$2,500 per system, \$1,000 if a septic tank is required, and another \$800 for a pump if required. Monitoring of the systems must be done weekly. To monitor, record and report on data, will cost approximately \$600 per system per month.

The above costs can be used for budgeting but are only slightly conservative. I suggest that contingencies are covered and a budget figure of \$10,000 per system be used which does not include monitoring. I also recommend that a water meter be installed in the test homes. This will cost an additional \$300 for hardware and installation .

All test systems shall have convenient monitoring stations to evaluate the ratio of evapotranspiration to infiltration. Temperature and relative humidity will also be recorded. Liquid levels and grass growth should also be observed.

I also feel that a pre-patent search should be conducted as a consideration towards protecting the process.

## OKANAGAN BASIN WATER BOARD

**MINUTES OF A MEETING OF THE OKANAGAN BASIN WATER BOARD HELD ON  
APRIL 4TH, 1995, IN THE BOARD ROOM, REGIONAL DISTRICT OF NORTH  
OKANAGAN, 9849 ABERDEEN ROAD, VERNON, B.C. AT 10:00 A.M.**

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<b><u>PRESENT:</u></b>	Chairman R. Hobson	C.O.R.D.
	Alternate Director S. Whittaker	O.S.R.D.
	Director G. Kiss	N.O.R.D.
	Director E. Hornby	N.O.R.D.
	Director D. Cameron Sr.	O.S.R.D.
	Director W. McGrath	N.O.R.D.
	Director G. Ockenden	C.O.R.D.

<b><u>ALSO PRESENT:</u></b>	M.D. Maxnuk	Ministry of Environment
	M. Watts	Westbank First Nation
	P. Dill	Okanagan University College
	M. Campo	Okanagan Jet Sports Association

<b><u>STAFF:</u></b>	G. Armour	Field Supervisor
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### **MINUTES:**

***Moved by Director Cameron, seconded by Director Kiss:***

***"That the minutes of a regular meeting of the Okanagan Basin Water Board held on March 7th, 1995 be adopted as circulated."***

***CARRIED.***

The Chairman noted that in dealing with the motion from the last meeting pertaining to Mr. Oland's presentation, to correspond with the regional districts about Okanagan Basin Water Board involvement in research, he had made changes and wished to have Board approval before sending the letter out.

Mr. Hobson said he wished to make a definite distinction between the general principle of the Okanagan Basin Water Board funding research, and the specific proposal made by Mr. Oland. He read the text of the letter he proposed to send to the regional districts.

Director Kiss commented that there is a need to consider proposals for use of other similar technology and the Okanagan Basin Water Board must recognize that we are not able to judge proposals of this nature without complete technical information.

Director Cameron stressed that we should have the input and approval from the Ministry of Environment before considering funding of any research proposal.

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Director Hornby added that delaying a decision on this particular proposal allows time to seek out other proven similar systems.

Director Ockenden noted that he had sought information on this subject from the federal government.

**Moved by Director Cameron, seconded by Director Kiss:**

***"That the motion from the March 7th meeting of the Okanagan Basin Water Board stating that the Okanagan Basin Water Board request comment from the regional districts on the general proposal to fund research projects and use Mr. Oland's proposal as an example and also indicate that the Okanagan Basin Water Board believes that some funding should come from the Ministry of Environment, since they support the concept of this on-site treatment proposal be rescinded."***

CARRIED.

**Moved by Director Cameron, seconded by Director Hornby:**

***"That the Okanagan Basin Water Board defer for further consideration, the proposal made by Mr. Oland at the March 7th meeting and utilize the time to obtain information from provincial ministries and other appropriate sources. The regional districts will be consulted to develop a policy on the financial participation of the Okanagan Basin Water Board in research projects."***

CARRIED.

#### **DELEGATIONS:**

#### **DR. PETER DILL - OKANAGAN UNIVERSITY COLLEGE - REPORT CARD ON THE OKANAGAN BASIN STUDY**

Dr. Dill who is a biologist on the faculty of science at OUC recapped a presentation he had made to the B.C. Water and Waste Association, on the compliance with water quality recommendations of the Okanagan Basin Study. A copy of Dr. Dill's notes is attached.

Director Cameron referred to the declining kokanee populations and asked if the competition from mysis shrimp was a factor and also if Dr. Dill saw value in re-establishing a hatchery.

Dr. Dill commented that the competition for food with the shrimp might be of consequence but that situation needed extensive investigation. He said his concern with a hatchery would be the source of eggs. Do we remove them from already declining populations? The lack of adequate spawning habitat for the fish is another problem.

There was a discussion of the phenomenon of kokanee die off and Dr. Dill advised that this is common in population of landlocked sockeye salmon. The reasons may relate to the life cycle stage of the fish and to spring turnover of the lake waters causing cold shock.

Director McGrath arrived at the meeting at 10:30

Alternate Director Whittaker referred to the loss of streambank vegetation and its impact of fish spawning and asked if one type of vegetation was appropriate in these zones.

Dr. Dill reported that guidelines for riparian vegetation are documented.

Director Ockenden wondered if the watershed restoration program will help this situation.

Dr. Dill advised that we should try to ensure that adequate funds come into this area.

Chairman Hobson asked Dr. Dill for his views on what steps the Okanagan Basin Water Board might take to address the recommendations of the Okanagan Basin Study which were not implemented.

Dr. Dill said that in addition to his concerns over tributary stream flows and riparian vegetation, the Water Board should be concerned about the changes occurring from the shutdown of Hiram Walker and the reduced water input into Wood Lake. The resultant increase in water retention time could have great consequence on water quality. He also noted that the effect of the tremendous volume of treated effluent discharged into our lakes is not well understood. Even though this water may be treated to remove nutrient, its characteristics are different than those of the receiving waters.

The Chairman asked for comments on Mission Creek and the suggestion that it be dredged to its 1940's level to alleviate flooding problems. He wondered if the increased water depth and greater resultant temperature tolerance would be of benefit to kokanee spawning.

Dr. Dill informed the Board that as long as the gravel replaced was clean, this could improve the situation for kokanee. He added that there seemed to be an adequate time window in which eggs were not in the gravels to perform this sort of work.

The Board thanked Dr. Dill for his presentation.

#### **MIKE CAMPO - OKANAGAN JET SPORTS ASSOCIATION**

Mr. Armour reviewed previous Okanagan Basin Water Board discussion pertaining to the operation of personal watercraft, stating the Board's concerns about lack of adequate

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means to identify the craft, operator training standards and controls on rental outlets.

Mr. Campo informed the Board that the Okanagan Jet Sports Association had been formed to address these problems in a self-policing manner. He said the group in Kelowna, had involved the RCMP and results last summer were highly successful in terms of achieving a reduction in number of complaints.

Mr. Campo added that he operates a rental business of his own and that his approach is that renters must be trained and adhere to a set of regulations. (copy attached) He does not rent to persons under the age of sixteen, and those under nineteen must be accompanied on the craft by an adult. He observed that this does not address private owners of personal watercraft, but he suggested that organized races held in Kelowna last summer reached a large audience with information on safe and proper operation of the craft.

The Chairman asked what area of the valley is covered by the association.

Mr. Campo replied that the group started in Kelowna but they are trying to join with groups in Vernon and Penticton.

Director Kiss stated that a license is required to drive a car. He suggested that boats should be subject to the same regulation.

Director Ockenden noted that age is not the prime factor in safe boat operation; it is training which is important.

Chairman Hobson asked about the requirement for registration of personal watercraft.

Mr. Campo said that federal regulations require registration and display of a standard size number. The fine for failure to register the craft is \$75.

Mr. Armour asked where the Kelowna RCMP obtained the craft used to police the area last summer.

Mr. Campo said the machine was donated by a manufacturer.

Director Hornby asked if there was an active club in Vernon and if they had been encouraged to pursue RCMP and equipment manufacturer assistance as in Kelowna.

Mr. Campo said that there was not an organized Vernon club at present but interested parties are welcome to join the Okanagan Association.

The Board asked that the RCMP detachment in Kelowna be approached to send the

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The Board asked that the RCMP detachment in Kelowna be approached to send the representative involved in policing personal watercraft to the next meeting of the Water Board.

**AQUATIC PLANT MANAGEMENT BUSINESS:****FISCAL YEAR 1995-96 BUDGET -**

The Field Supervisor informed the Board that no confirmation had been received from MOE on funding for new fiscal year. In the past, the Okanagan Basin Water Board has continued operation on the basis of good faith.

Mr. Maxnuk said he had not been able to determine when budget confirmation would be issued, but he had no indication that the funding would not be forthcoming.

Mr. Armour added that in view of the recently signed 5 year agreement, he was confident that the MOE will provide the agreed on funding.

The Board agreed to proceed with the 1995-96 aquatic weed control program.

**CORRESPONDENCE:****REGIONAL DISTRICT OF NORTH OKANAGAN - REGULATION OF SMALL WATER CRAFT**

The letter asking the regional district to ratify and forward to OMMA, a resolution regarding the regulation and safe operation of personal watercraft was received.

**MINISTRY OF ABORIGINAL AFFAIRS - INTERESTED PARTY STATUS AT FIRST NATION TREATY NEGOTIATIONS**

The Board considered a reply from the Chief Negotiator for the Ministry of Aboriginal Affairs, offering two ways in which representation in treaty negotiations could be accomplished.

Chairman Hobson noted that the Regional Advisory Committee might be a more appropriate role for the Water Board.

Director Cameron agreed, and commented that the Regional District of Okanagan-Similkameen had expressed some concerns about whether a position on the Treaty Advisory Committee fit into the mandate of the Okanagan Basin Water Board.

Moved by Director Kiss, seconded by Director Cameron:

"That the Okanagan Basin Water Board seek representation on the Regional Advisory Committee for Okanagan Treaty Negotiations."

CARRIED.

Director Cameron asked, and the Board agreed, to send a letter to the regional districts informing them of our intent to seek Regional Advisory Committee representation, and the reasons the Board feels such action is within its mandate.

**MR. GARY DEWHURST, SUSTAINABLE SYSTEMS - LOW MAINTENANCE LANDSCAPING SERVICES**

The Field Supervisor reviewed correspondence received from Sustainable Systems offering consulting services on low maintenance and water efficient landscaping. He suggested that if Okanagan Basin Water Board convenes a water conservation workshop we may wish consult with this company. He added that if local government has plans for this type of landscaping, information is available on Mr. Dewhurst's service.

**SEWERAGE FACILITIES ASSISTANCE GRANTS:**

Grant Applications:

Town of Oliver	\$ 18,558.00
City of Kelowna	\$733,318.68
Regional District of Central Okanagan	84,692.08

The Field Supervisor noted that the Oliver application is for works funded 100% by Oliver from 1990 through 1993. This raises the question of whether the Okanagan Basin Water Board resolution to pay sewerage facilities grants to projects funded up front by local government, is retroactive.

Moved by Director McGrath, seconded by Director Cameron:

"That the policy of the Okanagan Basin Water Board to pay Sewerage Facilities Assistance Grants to qualifying projects regardless of whether local government incurs debt or finances the project up front, not be retroactive but be implemented from the date of the resolution. (August 16, 1994)"

CARRIED.

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**Moved by Director McGrath, seconded by Director Cameron:**

**"That the Sewerage Facilities Assistance Grants for the City of Kelowna and the Regional District of Central Okanagan be approved for payment"**

**CARRIED.**

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**NEW AND UNFINISHED BUSINESS:**

**MASTER LIQUID WASTE PLAN - MEETING OF FINANCIAL AND ADMINISTRATIVE STAFF**

Mr. Armour described the results of a meeting of regional and municipal administrative staff (minutes attached) held March 9th, to discuss the incorporation of an interest component into sewerage DCC's.

He reported that Mr. Al Tamblin, of the Ministry of Municipal Affairs attended the meeting and indicated that an application from the City of Kelowna using interest calculations in financing for their treatment plant expansion would be used as a test case. He added that he felt the Ministry would likely view this approach in a positive manner.

Director McGrath questioned the complexity of the situation and discussion ensued regarding the benefits and drawbacks of the interest component approach.

Director McGrath asked if there would be another technical meeting and Mr. Armour replied that information from the Kelowna application was to be made available to all parties, and depending on the response from the Ministry of Municipal Affairs, consideration would be given to either a meeting or written reaction from local governments.

**Moved by Director McGrath, seconded by Director Cameron:**

**"That the Okanagan Basin Water Board endorse the course of action recommended by the March 9th meeting of financial staff to pursue the inclusion of an interest component in sewerage DCC's through the use of the Kelowna treatment plant expansion as a test case with the Ministry of Municipal Affairs."**

**CARRIED.**

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**OKANAGAN BASIN WATER BOARD WATER CONSERVATION INITIATIVES -**

As Director Shields was not present at the meeting, this matter was deferred until the June meeting.

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**OTHER MATTERS:****TRAILER PARKS ON WESTBANK INDIAN RESERVE -**

The Chairman brought to the attention of the Board, a letter from the Regional District of Central Okanagan, pointing out the need to hook up trailer park facilities on Westbank First Nations land to treatment facilities. He said there was a concern of the regional district that they have authority to require such hook ups on non band lands, for environmental reasons, but not on band lands.

Mr. Watts indicated that the Westbank First Nation wishes to act in an environmentally responsible manner, and most of I.R. #9 new development is sewered. He said this matter will be discussed by council and when he is provided with direction, he will report back to the Board.

The Chairman asked that this item be put on the agenda for the next Board meeting.

Director McGrath informed the Board that a similar situation exists at Okanagan Landing with three mobile home parks on reserve lands, where there is reluctance to connect to the recently installed sewer line.

**NEXT MEETING -**

Chairman Hobson reminded the Board that the next meeting would be June 6th.

Director Kiss said that he wished to encourage the Water Board to act on some of the information presented by Dr. Peter Dill, regarding tributary streams.

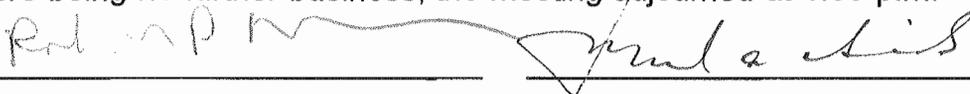
***Moved by Director Kiss, seconded by Director Hornby:***

***"That the Okanagan Basin Water Board bring to the attention of appropriate agencies, the issues raised in the presentation by Dr. Peter Dill, concerning the attention needed to conditions in and along tributary streams in the Okanagan Valley."***

**CARRIED.**

**ADJOURNMENT:**

There being no further business, the meeting adjourned at 1:00 p.m.



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CHAIRMAN

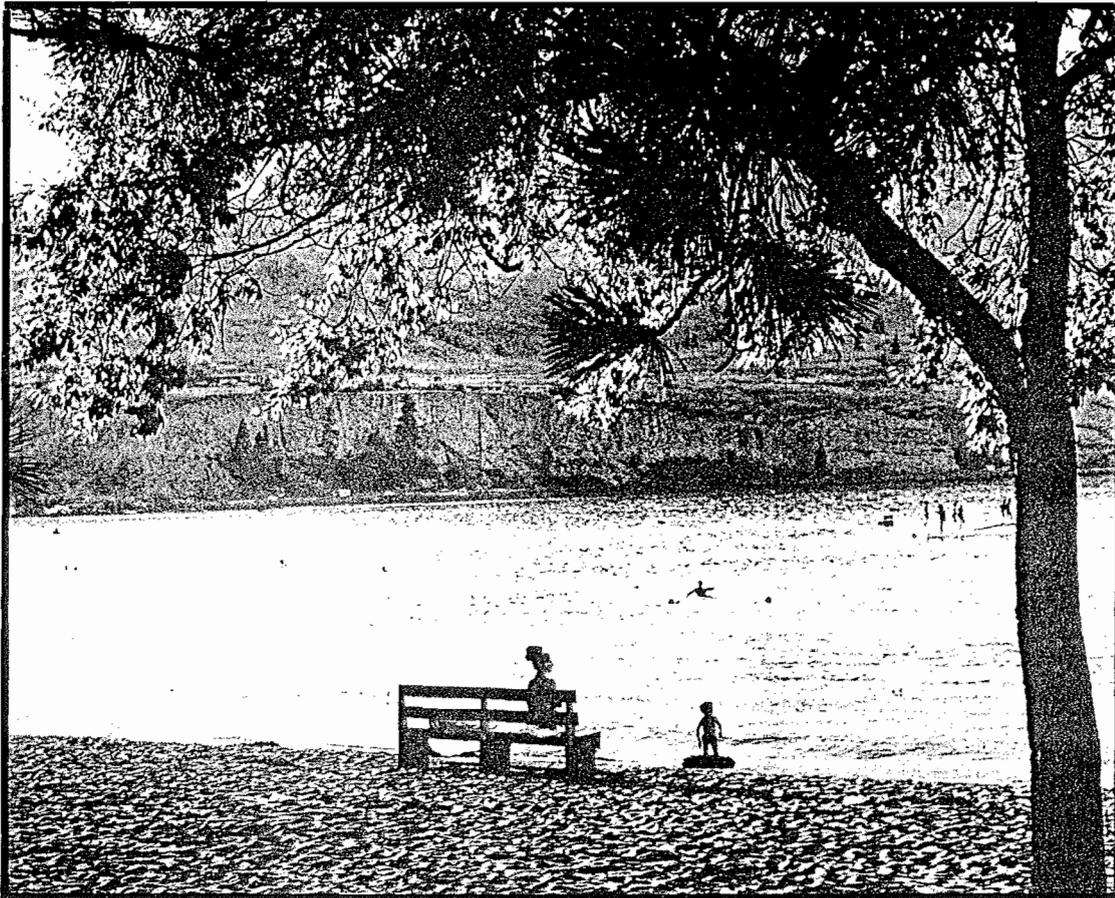
SECRETARY-TREASURER

# **ACHIEVING SUSTAINABLE WATER QUALITY**

- 1. A REPORT CARD ON THE OKANAGAN BASIN AGREEMENT WITH RESPECT TO WATER QUALITY**
- 2. PATTERNS OF NONCOMPLIANCE**
- 3. DOES IT MATTER**
- 4. IMPROVEMENTS**
- 5. THE KEY TO SUCCESS**

# MAIN REPORT

of THE  
CONSULTATIVE BOARD



"to everything there is a season  
and a time for every purpose"

including  
**THE COMPREHENSIVE FRAMEWORK PLAN**  
PREPARED UNDER THE  
CANADA-BRITISH COLUMBIA  
OKANAGAN BASIN AGREEMENT

MARCH 1974

# CANADA BRITISH COLUMBIA OKANAGAN BASIN AGREEMENT 1974

**Key:**

- WQ - pertains to Water Quality
- - implemented satisfactorily
- ⊙ - partly implemented or implemented too slowly
- - not implemented

**BASIC RECOMMENDATIONS:**

1.	WATERSHED MANAGEMENT UNIT	WQ	●
2.	IMPLEMENTATION	WQ	○
3.	WATER AVAILABILITY TO 2020	WQ	⊙
4.	IRRIGATION/FISHERY CONFLICT	WQ	●
5.	FLOOD ZONE ESTABLISHMENT	WQ	⊙
6.	OSOYOOS LAKE LEVEL		
7.	TRIBUTARY POLLUTION CONTROL	WQ	●
8.	PHOSPHATE REDUCTION	WQ	○
9.	RECREATION	WQ	⊙
10.	FISHERY HABITAT PROTECTION	WQ	●
11.	WATER RESOURCE MONITORING	WQ	○

**DETAILED RECOMMENDATIONS:**

**A. WATER QUANTITY**

12.	LAKE LEVEL	WQ	○
13.	-FLOOD ANTICIPATION DRAW-DOWN	WQ	○
	-FLOOD ZONE ESTABLISHMENT (5)	WQ	⊙
	-OKANAGAN RIVER GATE IMPROVEMENT		
	-OSOYOOS LAKE LEVEL (6)		
	-OSOYOOS LAKE EMERGENCY MEASURES		
14.	-OKANAGAN LAKE LEVEL (5)	WQ	⊙
	-OKANAGAN RIVER FLOW		
	-OKANAGAN RIVER MINIMUM	WQ	○
	-OKANAGAN LAKE LEVEL	WQ	⊙
15.	WHARF CONSTRUCTION		
16.	BRIDGE ADJUSTMENT		
17.	TUGULNUIT LAKE PUMP IMPROVEMENT		
18.	TRIBUTARY MONITORING PROGRAM	WQ	⊙
19.	MULTIPLE WATER USE MANAGEMENT	WQ	●
20.	VERNON CREEK PUMP	WQ	○

**B. WATER QUALITY**

<b>I. TRIBUTARY STREAMS</b>			
21.	MUNICIPAL & INDUSTRIAL DISCHARGE CESSATION	WQ	⊙
22.	FOREST REMOVAL GREENBELTS	WQ	⊙
23.	FEED LOT DRAINAGE REGULATION	WQ	●
24.	FERTILIZER & SPRAY REGULATION	WQ	●
<b>II. MAIN VALLEY LAKES</b>			
25.	WINFIELD SEWAGE TREATMENT	WQ	●

26.	COLDSTREAM SEWAGE TREATMENT	WQ	○
27.	-VERNON SPRAY IRRIGATION	WQ	○
	-OKANAGAN LANDING SEWAGE TREATMENT	WQ	⊙
	-KELOWNA MUNICIPAL SEWAGE TREATMENT	WQ	○
	-WESTBANK SEWAGE TREATMENT	WQ	○
28.	-PENTICTON SEWAGE TREATMENT	WQ	○
	-OKANAGAN FALLS TREATMENT	WQ	○
29.	-OLIVER SEWAGE TREATMENT	WQ	○
	-OSOYOOS LAKESHORE SEWAGE TREATMENT	WQ	●
30.	REGIONAL AUTHORITY FOR SEWAGE TREATMENT PLANTS	WQ	○
31.	SEPTIC TANK STANDARDS	WQ	●
C. FISHERY MANAGEMENT			
32.	FINANCING FISHERY MANAGEMENT		
33.	RAINBOW TROUT STOCKING		
34.	FISH HATCHERY CONSTRUCTION		
35.	BOATING REGULATIONS		
36.	-MISSION CREEK FISHERY DISCHARGE	WQ	●
	-MISSION CREEK FISHERY WATER STORAGE	WQ	○
	-MISSION CREEK STREAMBED REHABILITATION	WQ	●
37.	EQUESIS CREEK FISHERY WATER STORAGE	WQ	●
38.	TREPANIER CREEK PUMPING	WQ	●
39.	SPAWNING CHANNEL CONSTRUCTION	WQ	⊙
40.	KOKANEE SHORE SPAWNING LAKE LEVEL	WQ	⊙
D. WATER BASED RECREATION			
41.	REGIONAL SHORELINE MANAGEMENT		
	-LANDUSE PLAN		
	-ONGOING PUBLIC INPUT		
	-BOATING REGULATIONS		
	-ONGOING ASSESSMENT		
42.	BEACH WATER QUALITY COMPLIANCE	WQ	○
	-TOTAL COLIFORM MAXIMUM	WQ	○
	-FECAL COLIFORM MAXIMUM	WQ	○
	-DISSOLVED OXYGEN < 5PPM	WQ	○
	-OBJECTIONABLE DEBRIS CONTROL	WQ	○
43.	PUBLIC ACCESS		
44.	POSTING PUBLIC ACCESS		
45.	INCREASED BOAT LAUNCHING FACILITIES		

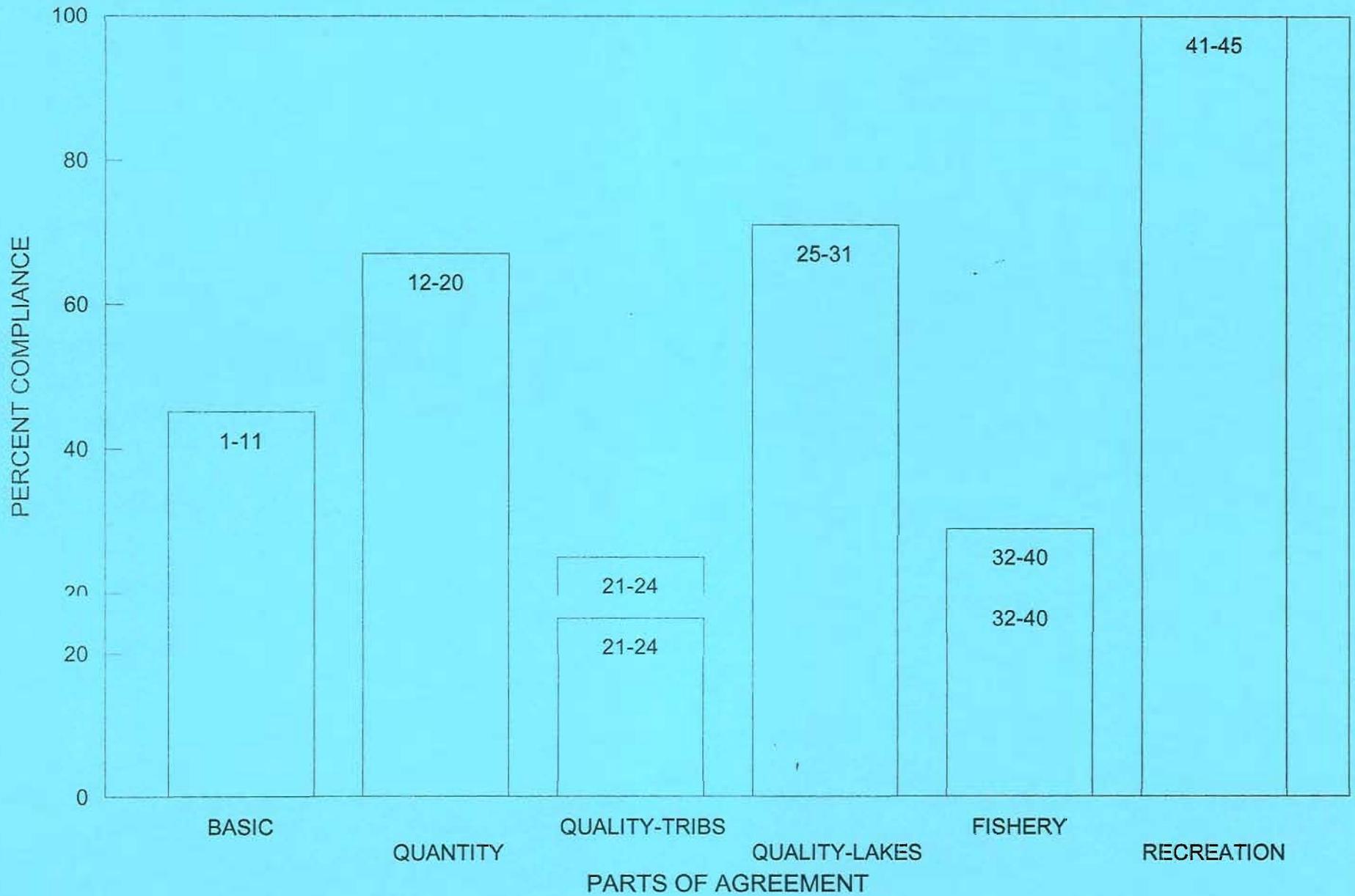
## 66 RECOMMENDATIONS

### 47 PERTAIN TO WATER QUALITY

- - 21
- ⊙ - 12
- - 14

IF WE ASSIGN A NUMERICAL VALUE OF 1 TO ○, .5 TO ⊙, AND 0 TO ●,  
THE AGREEMENT IMPLEMENTATION GETS AN OVERALL GRADE OF .57, OR 57%

# OKANAGAN BASIN AGREEMENT COMPLIANCE



WAVE JUMPERS RENTALS LTD.

RULES AND SAFETY PROCEDURES

TO BE FOLLOWED WHEN RIDING A SEADOO WATERCRAFT EITHER AS A RENTER OR PASSENGER.

1. Stay at least 50 feet away from all other watercraft that are on the water, including and not limited to boats, jet ski's AND ESPECIALLY OTHER SEADOOER'S.
2. Stay at least 100 feet away from shore. DO NOT ATTEMPT TO DOCK AT ANY BEACH OTHER THAN THE DESIGNATED AREA!!!
3. For your own safety, DO NOT LEAVE OUR VISUAL SIGHT!!!  
If we can not see you we can not assist or help you.
4. Drugs or alcohol are NOT permitted either before or during rental.
5. Life jackets are to be worn at all times.
6. Jumping over wakes from boats is not permitted.
7. Watercraft that are overturned and are lying upside down, MUST be turned counterclockwise to be uprighted.
8. To turn the engine off you must either push the stop (RED) button or remove the key from the ignition.
9. The watercraft is jet propelled and therefore the steering is also jet propelled. If the engine is not running there is NO STEERING AND NO BRAKES. In order to steer you must use the throttle to maneuver the watercraft.
10. If a continual horn sounds off from the watercraft, the engine must be turned off immediately, either from the stop button or the removal of the key.
11. An employee will assist you while both leaving and docking from the beach, as the watercraft MUST be in at least (3) feet of water in order to run safely.
12. Any damages incurred to machines by the rider are the responsibility of THE RIDER.

DATED: 06/24/93

WITNESS: J. Schaefer

Brad Wilson  
Signature of Customer

## OKANAGAN BASIN WATER BOARD

MINUTES OF A MEETING OF THE OKANAGAN BASIN WATER BOARD  
HELD ON JULY 5TH, 1995, IN THE BOARD ROOM, REGIONAL DISTRICT  
OF NORTH OKANAGAN, 9848 ABERDEEN ROAD, VERNON, B.C. AT 10:00  
A.M.

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<b><u>PRESENT:</u></b>	Chairman R. Hobson	C.O.R.D.
	Director G. Ockenden	C.O.R.D.
	Director W. McGrath	N.O.R.D.
	Director G. Kiss	N.O.R.D.
	Director E. Hornby	N.O.R.D.
	Director A. Hancock	O.S.R.D.
	Director D. Cameron Sr.	O.S.R.D.

**ALSO PRESENT:** R.A. Nickel Ministry of Environment

<b><u>STAFF:</u></b>	G. Armour	Field Supervisor
	P. Mackiewich	Administrator

### **MINUTES:**

*Moved by Director Kiss, seconded by Director Hornby:*

*"That the minutes of a regular meeting of the Okanagan Basin Water Board held on June 6th, 1995 be adopted as circulated."*

**CARRIED.**

### **AQUATIC PLANT MANAGEMENT BUSINESS:**

#### **PRESENCE OF *HYDRILLA VERTICILLATA* IN WASHINGTON STATE:**

The Field Supervisor informed the Board that a species of rooted aquatic plant, not previously found north of California, had been identified in a lake south of Seattle. The plant is the subject of vigorous attempts to remove it in California and is potentially more damaging and able to out compete Eurasian watermilfoil.

Director Ockenden commented that information on the plant should be placed at tourist information centers in the valley.

Chairman Hobson expressed concern that the reduced effort from the Province in areas such as biocontrol would translate into less capability to prevent the spread of this new plant.

*Moved by Director Cameron, seconded by Director McGrath:*

*"That the information on Hydrilla be received."*

**CARRIED.**

**REPLACEMENT OF AQUATIC WEED HARVESTER ENGINES:**

Mr. Armour informed the Board that both engines on the aquatic weed harvesters had required replacement. He had obtained permission of Vice Chairman Shields to go ahead with the expenditure prior to the Board meeting as long as proper procedures were followed.

*Moved by Director Cameron, seconded by Director McGrath:*

*"That the purchase of replacement engines for the Aquatic Weed Harvesters be approved."*

**CARRIED.**

Director Hornby observed that he would prefer that purchases were made from valley suppliers if prices and products are comparable. He also noted that determination of the condition of these engines might have been made at an earlier date during their shutdown period so that an 'emergency purchase' situation did not become necessary.

Director McGrath observed that it might be preferable to poll all Board members on emergency purchase issues.

The Administrator explained that the current purchasing policy for the Okanagan Basin Water Board was that purchases over \$5000 required approval of the Board, and that this policy had been developed some years ago.

The Chairman asked if it was necessary that changes be made to this policy.

The Board agreed that the purchasing policy should remain as outlined by Mr. Mackiewicz.

*Moved by Director Hancock, seconded by Director McGrath:*

*"That all directors of the Okanagan Basin Water Board be polled when purchases requiring Board approval are necessary and cannot be delayed until a scheduled Board meeting."*

**CARRIED.**

**CORRESPONDENCE:**

**P. F. EPP - WATERSHED RESTORATION INFORMATION:**

Mr. Epp, the Forest Renewal Programs Coordinator for the Okanagan Sub-Region,

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could not attend this meeting, but sent a letter in response to the Board request for an update. He outlined the role of local government in watershed restoration projects, the types of activities funded and listed active projects approved and proposed for the Okanagan. The other question concerned the ability of the Okanagan Shuswap Forest Coalition to fund projects. Mr. Epp indicated that they are not empowered to give out funds at present.

*Moved by Director Cameron, seconded by Director Kiss:*

*"That the information from Mr. Epp be received."*

**CARRIED.**

#### **REGIONAL DISTRICT OF OKANAGAN-SIMILKAMEEN - RESEARCH FUNDING**

A response was received to the OBWB request regarding the general proposal to fund research projects, supporting the general proposal but advising that the Ministry of Environment should be asked to provide funding. This question arose out of Mr. Oland's presentation on on-site effluent reuse.

The Board discussed the latter part of the response and agreed that any research project funded by local government should be supported technically and financially by senior government.

Mr. Mackiewich reported that the response from the Regional District of North Okanagan supported research undertakings in general but stipulated that specific proposals should be approved by the regional district.

*Moved by Director Kiss, seconded by Director Hornby:*

*"That the letter from the Regional District of Okanagan-Similkameen be received."*

**CARRIED.**

#### **DISTRICT OF INVERMERE - INFORMATION ON REGULATION OF PERSONAL WATERCRAFT**

The Field Supervisor informed the Board that Ken Vance of UBCM had suggested that we contact the District of Inveremere as they had some experience with a legal challenge to a local bylaw designed to control or limit the operation of personal watercraft.

A resolution of Invermere Council (1987) was made to prevent rental of personal watercraft at a particular location because of perceived noise and safety concerns. This was challenged in local court and lost. A subsequent appeal of this decision was unanimously allowed as it was deemed within the power of local government to act in areas presumably under federal jurisdiction, where the federal government has not occupied or exercised its authority.

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Information was provided by Director Ockenden on local media coverage of the personal watercraft issue.

*Moved by Director Hancock, seconded by Director Kiss:*

*"That the information from the District of Invermere be received."*

**CARRIED.**

#### **FIRST NATION TREATY NEGOTIATION MEETING - JUNE 15TH**

Director Ginther attended the meeting, but was not present to report. The matter was deferred to the next meeting.

#### **STEWARDSHIP OF THE WATER - CONSULTATION UPDATE**

Information from the Ministry of Environment on the Water Protection Act and Phase II Stewardship priorities was received.

The Field Supervisor noted that non point source pollution management strategy was listed as a Phase II priority, a subject which had been discussed by the Water Board on numerous occasions. The update also mentioned the release of seven water quality status reports. The OBWB had asked for release of Okanagan information compiled by the Regional Water Manager but this was not one of the reports released. Mr. Armour observed that it did indicate an intention to release this type of water quality information.

Director Hornby asked if we had received any of the water quality information for other watersheds, and if so, of what value did it appear to be.

Mr. Armour reported that we had not received this information.

*Moved by Director Cameron, seconded by Director McGrath:*

*"That the information from the Ministry of Environment be received."*

**CARRIED.**

#### **TOWNSHIP OF SPALLUMCHEEN - REQUEST FOR STATEMENT OF SEWERAGE FACILITIES GRANT PAYMENTS AND DISBURSEMENTS.**

The Administrator reviewed correspondence from the Township of Spallumcheen regarding a request for sewerage facilities grant information. He explained that the information requested would require a significant amount of work to put together, both on his part and on the part of financial or administrative staff at the other regional districts.

Director Cameron questioned the purpose of the request.

*Moved by Director Cameron, seconded by Director McGrath:*

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*"That the Okanagan Basin Water Board reiterate the position that the detailed historical information requested by Spallumcheen could not be provided."*

The Chairman suggested that the Water Board provide the specific dollar figures we do have available.

Director Hancock observed that the Township of Spallumcheen was asking for data which required extensive research and the Regional District of Okanagan-Similkameen would likely want to be compensated for the time of their administrative staff.

*Moved by Director Cameron, seconded by Director McGrath:*

*"That the motion be amended to state that the Okanagan Basin Water Board reiterate the position that the detailed historical information requested by Spallumcheen could not be provided, however an accounting of the funds collected by each regional district since the inception of the sewerage facilities assistance grants could be provided by administration when time permits."*

*CARRIED.*

Mr. Nickel entered the meeting at 11:45 a.m.

**OTHER MATTERS:**

**MASTER LIQUID WASTE MANAGEMENT PLAN - SUMMARY OF WATER BOARD RECOMMENDATIONS**

A summary of recommendations adopted by the Water Board from the Master Liquid Waste Management Plan was circulated and discussed.

The Chairman pointed out that the Board would be arranging to talk to the Minister of Environment at UBCM in October, and matters arising from this report affecting the future of the valley should be consolidated for discussion.

Director Hancock questioned when there would be an end to discussion of this report, and some recommendations made to the regional districts.

Director McGrath wondered why we are continuing to deal with the report if the regional districts have not bought into it.

Mr. Nickel commented that there was an initial buy in as the regional districts agreed to fund the study. He expressed his wish that the Province, as contributor of seventy-five percent of the study funds and considerable staff time, be informed of the final disposition of the plan.

*Moved by Director Cameron, seconded by Director Hornby:*

*"That the Okanagan Basin Water Board send the interim report prepared for this meeting to the regional districts and to the Ministry of Environment along with a covering letter explaining the time frame for final recommendations."*

*CARRIED.*

**MINISTRY OF ENVIRONMENT - OKANAGAN LAKE FISHERY RECOVERY  
PROGRAM AND WORKSHOP**

Mr. Armour reported on the workshop held June 28 to 30 dealing with the reasons for the decline in kokanee stocks in valley lakes. The information he provided is contained in the attached summary.

**MR. M. WATTS: SPECIAL PROJECTS COORDINATOR -TRAILER PARKS ON  
WESTBANK INDIAN RESERVE**

Mr. Mike Watts of the Westbank First Nation stated that the Band Council is encouraging the trailer parks to hook up to the Regional District of Central Okanagan collection system.

The Chairman asked if Council can require the hook-ups to be made.

Mr. Watts said that they can, but were confident that voluntary cooperation would take place.

Director McGrath asked for information on the costs involved in making the connections.

Director Ockenden said that there was the cost of the collection system within the parks, the connection charge to the main, and the user fees.

Mr. Mackiewich noted that the Regional District of Central Okanagan has a premium on their user fees to pay for infrastructure including the utilization of plant capacity.

Director McGrath questioned the recourse of the regional district if a homeowner did not pay.

Director Ockenden said that the Regional District bills the band per unit and it would be up to the band to collect from all users.

**OTHER MATTERS:**

**HOUSEBOAT PUMPOUT FACILITIES:**

Mr. Armour reported that he had contacted the Community Economic Development Officer in Summerland, following the last Water board meeting.

Summerland has applied for B.C. 21 funding to put in a sewage pumpout facility at the Yacht Club but as yet no funds have been received. He added that he was awaiting a return call from Mr. Andrew MacTaggart of the Ministry of Municipal Affairs on the subject of combining pumpout facility requirements into a single request which would be comprehensive enough to receive Provincial shared funding.

Chairman Hobson informed the Board that he had discussed the issue with Mr. McTaggart who indicated that there needed to be Ministry of Health support for such a request, and that all current fiscal year funds were committed, so that it would be next year before the request might be considered.

It was noted that there is currently no pumpout facility on Kalamalka Lake, including the Provincial launch at Kekuli Bay.

***Moved by Director Ockenden, seconded by Director McGrath:***

***"That the Okanagan Basin Water Board write to the Ministry of Environment, Lands and Parks informing them of the need to have pumpout facilities at lake shore provincial parks in the Okanagan."***

**CARRIED.**

**NEXT MEETING:**

Chairman Hobson asked the Board whether the next meeting scheduled for August 1st would be required.

The Board agreed to eliminate the August meeting and convene again September 6th as scheduled, in Kelowna.

**ADJOURNMENT:**

There being no further business, the meeting adjourned at 1:30 p.m.



CHAIRMAN



SECRETARY-TREASURER

## Kokanee Fishery Workshop:

July 7, 1995

Held at OUC Kelowna last Weds, Thurs, Friday. (June 28, 29, 30)

Mainly technical staff - local and provincial as well as academic  
a couple of elected representatives

Discussed reduced kokanee numbers showing up in trawl and hydroacoustic counts, which prompted the recent closure of Okanagan Lake to kokanee fishing and the 2 fish limit imposed on Kal and Wood Lakes. (The latter was done to keep a flood of Okanagan fishermen from causing problems in other lakes)

Likely it is not just one cause, but an interaction of pressures which has brought about the current situation.

- Loss of spawning habitat (both shore and stream) Mainly human activity  
Up to 90% in some cases  
Fishing mortality, lake drawdowns, changes in water quality
- Competition from introduced species of fish: carp, perch, whitefish, lake trout
- Natural predation by rainbow trout and burbot
- disease and parasites
- Mysis shrimp - compete for same food source as juvenile kokanee
- Lack of productivity in lake - as the nutrient level is reduced, the amount of plankton on which the kokanee feed is reduced. No matter how many young fry enter the lake, the available food limits the number of 1+ fish produced.

My guess is human pressure through habitat destruction; and the introduction of mysids.

Experiments can be conducted which can help to assess, and may improve the situation:

- the current fishery closure and reduction - less pressure on the stock
- mysis reduction - aeration brings the mysids to the surface where they are prey for mature fish both rainbow and kokanee
- reduce predation on young kokanee - no regulation on rainbow trout catch.
- Why do kokanee and mysis shrimp co-exist at satisfactory levels in Kalamalka Lake, which has roughly the same nutrient level as Okanagan.
- What is the actual shore spawning component of the kokanee stock and what sites are best?
- How does phosphorus vary seasonally in amount and type in Okanagan Lake?
- Agreed that any hatchery use should be delayed pending determination if this is a lake limited problem.

## **OKANAGAN BASIN WATER BOARD**

**MINUTES OF A MEETING OF THE OKANAGAN BASIN WATER BOARD HELD ON JUNE 6TH, 1995, IN THE BOARD ROOM, REGIONAL DISTRICT OF CENTRAL OKANAGAN, 1450 KLO ROAD, KELOWNA, B.C. AT 10:00 A.M.**

**PRESENT:** Chairman R. Hobson C.O.R.D.  
Director D. Cameron Sr. O.S.R.D.  
Director G. Ockenden C.O.R.D.  
Director R. Ginther C.O.R.D.  
Alternate Director G. Rieger N.O.R.D.  
Director E. Hornby N.O.R.D.  
Vice Chairman T. Shields O.S.R.D.  
Director A. Hancock O.S.R.D.

**ALSO PRESENT:** K. Vance U.B.C.M.  
L. Kriwoken Ministry of Environment

**STAFF:** G. Armour Field Supervisor  
P. Mackiewich Administrator

### **MINUTES:**

***Moved by Director Cameron, seconded by Director Hornby:***

***"That the minutes of a regular meeting of the Okanagan Basin Water Board held on April 4th, 1995 be adopted as circulated."***

***CARRIED.***

### **DELEGATIONS:**

#### **WATER POLICY - KEN VANCE (UBCM) AND LYNN KRIWOKEN (MOE)**

A discussion of water policy was led by Mr. Ken Vance of the Union of B.C. Municipalities and Ms. Lynn Kriwoken, the Manager of Water Policy for the Ministry of Environment, Environmental Policy Branch.

The Chairman noted that UBCM had recently held its third annual environmental conference, which some of the Board members had the opportunity to attend. He added that there are some new policies and legislation which may impact on the activities of the Water Board.

Mr. Vance indicated that there is a background information document to the conference entitled "Your Community and the Environment" and that proceedings of the conference will be available soon.

Ms. Kriwoken outlined the Water Protection Act (Bill 9) which is presently at second reading in

the house. This legislation covers bulk water export from the province and diversion between major watersheds. Although there has been a moratorium on bulk water export since 1991, the new legislation would confirm that authority over groundwater as well as surface water is vested in the Crown. There is no current regulation of groundwater as a resource and the new act would prohibit the removal of any bulk water in quantities greater than individual twenty liter units, to any location outside the Province.

In addition, large scale water diversions would be prohibited between watersheds. (Small diversions would be subject to review under the Environmental Assessment Act)

Ms. Kriwoken indicated there is some grandparenting of existing water export licenses and referred to four licenses for bulk surface water removal by coastal tanker which will be permitted to continue.

Groundwater removal operations will be capped at their current level, once the resource is regulated, and no further bulk removal will be permitted in greater than bottled 20 liter amounts.

Director Ockenden asked if the legislation contained provisions in the event of an emergency such as fire fighting in Alberta or the State of Washington, for the cross boundary removal of water by fire control equipment.

Director Shields expressed concern that commercial operations generating revenue in this Province will be discouraged from growing and expanding.

Ms. Kriwoken answered that as long as bottling of the product in under twenty liter quantities occurs in this province, companies can grow and expand.

Director Hornby commented that the legislation made no provision for the monitoring of the groundwater resource with respect to the amount being removed and the effect on remaining supplies.

Ms. Kriwoken confirmed that the provisions in original legislation for inventory and monitoring of the resource had been dropped for the present and the Bill only confirms groundwater as a Crown resource and regulates its removal from the province. Other inventory actions had been seen by some as a possible means to institute a pricing schedule for what is now a free resource.

Alternate Director Rieger also indicated support for an inventory of the groundwater resource, stating that there could be areas of the province in which a surplus of water exists which could be used in a revenue generating project.

Ms. Kriwoken informed the Board that the regulations state that a company must have been extracting water in an area in the past three years in order to continue to export water.

Mr. Vance pointed out that there is no restriction on extraction and export of bottled water in quantities under twenty liters. He added that Bill 9 is a response to the concern that large quantities of our water will be used by water short areas of the United States.

Director Hancock observed that an inventory of the existing aquifers was a major recommendation of the workshop held by the province in the Okanagan.

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Ms. Kriwoken said that there was provision for some funds to be allocated for local government to perform studies in areas of concern.

Director Cameron applauded the Bill as a long overdue attempt to protect the groundwater resource of British Columbia. He agreed that an inventory is required but felt that an important first step had been accomplished.

Chairman Hobson expressed concern over the weakness of the legislation compared to that originally proposed. He cited several local management issues and noted that concerns will increase as development pressures impact on the resource. He asked about the relevance of the legislation to first nation lands.

Ms. Kriwoken replied that first nation rights will be addressed under the treaty negotiation process and the new legislation will not impact these rights. She noted that the Province has the power to cancel any water license it has issued if the conditions of that license are not being met and added that an inventory of water use on native lands is now being conducted.

The Chairman stated that all licenses not in compliance or not being used should be subject to cancellation, since tributaries in the Okanagan are fully subscribed. He pointed out that the level of groundwater has an effect on streamflows.

*Moved by Director Hancock, seconded by Alternate Director Rieger:*

*"That the Okanagan Basin Water Board encourage the Province to fund and carry out an inventory of supply and recharge information on groundwater aquifers in the Okanagan Valley"*

**CARRIED.**

Mr. Vance reported that there were some amendments to the Forest Practices Code which might influence the activities of the Okanagan Basin Water Board. The definition of what constitutes a community watershed has been stated in more precise terms. The definition gives the regional manager more control over designation of community watersheds as any area where water is being used for human consumption and/or irrigation. Designation of an area as a community watershed impacts on the type of activity permitted.

Mr. Vance explained that the Growth Strategies Act recognizes that the quantity of water available may limit growth in certain areas and allocation of water will play an important part in how and where growth takes place.

The Chairman noted that we will need better information on water supplies and allocation in order to make a contribution to the management of growth. The Okanagan Basin Water Board has an overall perspective as a steward of the water resources in the Okanagan system.

Mr. Vance said the management focus will be on an ecosystem approach in the future, with water allocation being made not just on human needs, but to meet the requirements of all components of the environment.

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***Moved by Director Shields, seconded by Director Hancock:***

***"That the Okanagan Basin Water Board insist on a Provincial inventory of water supplies and demand as an integral component of a Growth Management Strategy."***

***CARRIED.***

Ms. Kriwoken reported that an internal report prepared by the Regional Water Manager on water supplies will be released in the future.

Director Shields commented that he felt some of the revenue derived by senior government should be put into this type of inventory and review.

Mr. Vance offered information on the Forest Renewal BC. Watershed Restoration Program. He said that about \$60 million had been allocated for projects in local areas.

***Moved by Alternate Director Rieger, seconded by Director Hornby:***

***"That the Okanagan Basin Water Board send a letter to Forest Renewal B.C. and to the Okanagan - Shuswap Forest Coalition encouraging them to identify projects eligible for watershed restoration funding."***

***CARRIED.***

The Chairman suggested, and the Board agreed, that the local coordinator for watershed restoration projects, Mr. Phil Epp, be invited to brief the Board on the status of the program at the next regular meeting. Chairman Hobson added that he was unsure if Forest renewal B.C. had agreed to allow the local coalition to dispense the funds.

Mr. Vance presented information on the control of non point source pollution; specifically stormwater. He indicated that this was a growing area of concern with the province and could have a major impact on communities depending on the current state of their drainage systems.

Chairman Hobson noted that one question facing the Okanagan Basin Water Board was the use of funds now collected for subsidies to sewage treatment facilities, for other purposes such as stormwater treatment improvements, as debt incurred to put valley communities onto tertiary treatment is retired. He noted that the City of Kelowna had incorporated a stormwater component into their DCC's and commented that as stormwater is collected it may become more of a point source of pollution. This may also yield better opportunity for treatment.

Director Cameron questioned Mr. Vance regarding use of reclaimed wastewater for crop irrigation. He noted that drip irrigation is acceptable since effluent does not come into direct contact with the crop.

The Chairman asked if the subject of stormwater is being addressed in liquid waste plans and what the impact might be on local government.

Ms. Kriwoken indicated that non point sources of pollution such as stormwater are recognized as emerging concerns, there is as yet no definite policy. The nature and scope of the problem are

being identified, and issues such as first nation lands area being looked at.

Mr. Vance also reported that there is no clear direction from the Ministry of Environment.

The Board had some discussion on the use of funds currently collected for sewage treatment, to address the next generation of pollution problems and provide an incentive for local government to upgrade treatment of non point sources.

Ms. Kriwoken informed the Board that Section 7 'Managing Activities in and about a Stream' was proclaimed last week and accomplishes three main things:

- Streamlining of the approval process
- Definition of basic standards for routine activities such as culvert installation
- Allowing for protocol agreements with government and large organizations for multi year approval of routine activities.

Mr. Vance commented that smaller communities that relied on ministry approvals to provide engineering expertise and review may face some increased consulting costs.

Chairman Hobson asked what activities will now be regulated with the staff time freed by this streamlined approval process.

Ms. Kriwoken replied that all activities are regulated but the process will proceed with fewer delays as all projects no longer require individual approval.

Director Hancock questioned the provisions in the legislation for buffer areas around streams.

Mr. Vance stated that this falls under the stream stewardship initiative, and is not covered by Section 7.

Ms. Kriwoken commented on some of the provinces initiatives with respect to water quality, pricing and conservation. She indicated that a series of water quality report cards will be forthcoming. These will not pertain exclusively to drinking water but to all aspects of water use. She noted that B.C. has one of the highest incidence of water borne disease in Canada and this is a matter of concern.

Director Shields questioned the legal liability of local government in ensuring that quality problems are addressed even though sufficient funds are lacking.

Mr. Vance observed that local government may have to set priorities as all issues such as non point source pollution, water quality and liquid waste treatment cannot be dealt with simultaneously.

Director Ginther said that local government may have to make the availability of potable water a requirement for development to proceed.

Director Ockenden noted that in the Central Okanagan Regional District, local government deals only with the quantity of water in areas serviced by wells or non community sources. Quality of these sources cannot be assured by the regional district.

Director Hancock added that a large amount of the responsibility rests with the Ministry of Health to ensure drinking water quality standards are met.

Ms. Kriwoken added that while the Ministry of Health has jurisdiction, there tends to be a shortage of funds to deal with the number of problems.

Director Hancock stated that it is imperative that regulations are enforceable and there are the staff and means provided to do this.

Alternate Director Rieger noted that in Spallumcheen there are no approvals given for subdivisions in areas with water quality problems until the system is upgraded to resolve the problem.

Mr. Vance commented that communities can be cost effective in taking water conservation action themselves as reduced volumes of wastewater delays costly expansion of treatment facilities.

The Chairman thanked Ms. Kriwoken and Mr. Vance for their input and assistance in the water policy review.

#### **PERSONAL WATERCRAFT - CONSTABLE JOHN McLEOD - KELOWNA DETACHMENT RCMP**

Chairman Hobson reviewed previous Okanagan Basin Water Board discussion concerning personal watercraft and the problems areas of noise, safety, unregulated rental operations, and use in watershed upper elevation lakes.

Constable McLeod commented on his experience with a personal watercraft donated by the manufacturer (Bombardier) to the Kelowna Detachment for policing work last summer. he observed that all the factory machines have standard noise abatement installed and noise problems stem from the continuous full throttle operation of these types of craft. Infractions concerning swimming areas, lifejackets and safe boating regulations carry a criminal penalty and a court appearance, thus are rarely pursued. He noted that some personal watercraft have been traveling up Mission Creek and there are no regulations against this. The only areas in which enforcement will occur will pertain to safety equipment (P.F.D.'s and signaling devices) Registration numbers, and operation of a vessel in a dangerous manner.

Mr. Mackiewich informed the Board that the Regional District of North Okanagan has a bylaw where excessive noise is defined as that which disturbs the peace and enjoyment of others.

The Chairman added that the Central Okanagan Regional District had recently received authority to issue business licenses outside municipal areas.

Constable McLeod was asked for any suggestion as to how local government could assist in dealing with problem areas of personal watercraft operation. He replied that it was his opinion that certification of operators through a power squadron type course, and possibly a horsepower limit on the craft would be beneficial.

The Chairman observed that many regulations are under federal jurisdiction such as registration, age limits, safe off shore operating procedures; he wondered what could be accomplished locally.

***Moved by Alternate Director Rieger, seconded by Director Ginther:***

***"That the Okanagan Basin Water Board correspond with Transport Canada and***

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*ask for a update of progress in establishing regulations for personal watercraft operation since our previous letter."*

**CARRIED.**

The Board thanked Constable McLeod for his time and the information he provided.

**AQUATIC PLANT MANAGEMENT BUSINESS:**

**SUMMARY OF 1995 DEROOTING WORK:**

The Field Supervisor circulated a summary of sites derooted in the 1994-95 season (attached)

**CORRESPONDENCE:**

**MINISTER OF ENVIRONMENT - EURASIAN WATERMILFOIL BIOLOGICAL CONTROL:**

The Minister encouraged the Okanagan Basin Water Board to put biocontrol in its workplan for the next fiscal year. Mr. Armour noted that the last provincial work cost approx. \$60,000 - 100,000. This would represent a large portion of our operations budget, and we lack the necessary lab and equipment facilities to undertake the work. Hiring a consultant with lab facilities would cost more. The letter stated " The development of biological control agents often are high risk ventures requiring a large investment of resources with no guarantee of success."

**MINISTER OF ENVIRONMENT - COPY OF LETTER TO OSOYOOS LAKE WATER QUALITY SOCIETY REGARDING BIOCONTROL**

Receive and file.

**TOWN OF OSOYOOS - LETTER EXPRESSING INTEREST IN EWM BIOCONTROL**

Receive and file.

**R.A NICKEL: CONFIRMATION OF 1995-96 AQUATIC PLANT CONTROL FUNDING**

Mr. Armour informed the Board that we had asked for \$212,000 from the Province and received \$205,000. This should be adequate as last year the Province contributed \$200,000.

**REGIONAL DISTRICT OF NORTH OKANAGAN - FUNDING OF RESEARCH PROJECTS**

The regional district agreed with the general proposal for OBWB funding for research projects but wished to approve specific projects

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**REGIONAL DISTRICT OF OKANAGAN-SIMILKAMEEN - RESOLUTION  
CONCERNING PERSONAL WATERCRAFT**

The regional district reported that this draft resolution had been defeated since it was too late to forward it to OMMA.

**INDIAN AND NORTHERN AFFAIRS CANADA - TREATY NEGOTIATION  
PROCESS**

Information from an organizational meeting was provided. Mr. Armour noted that it would be necessary to appoint a Board member as a representative to future meetings.

Director Ginther volunteered.

*Moved by Alternate Director Rieger, seconded by Director Shields:*

*"That Director Ginther represent the Okanagan Basin Water Board at Treaty negotiation meetings."*

*CARRIED.*

**OKANAGAN VALLEY TREE FRUIT AUTHORITY - PROCEEDINGS OF  
COMMUNITY FORUM**

Proceedings of the forum held October 28th in Summerland on land and water use in agriculture in the Okanagan were received.

**R. A. NICKEL: MISSION CREEK DREDGING FOR KOKANEE SPAWNING  
ENHANCEMENT**

In reply to the Board's letter, Mr. Nickel suggested that the matter of Mission Creek channel dredging for spawning enhancement be referred to the Okanagan Fishery Recovery Program . ( Dr. Peter Dill to is to be on the Advisory Panel)

**SEWERAGE FACILITIES ASSISTANCE GRANTS:**

Grant Applications: None at this time.

**OTHER MATTERS:**

**TRAILER PARKS ON WESTBANK INDIAN RESERVE**

Mr. Mike Watt of the Westbank First Nation was unable to attend the meeting thus a report on this situation was not available.

**OKANAGAN BASIN WATER BOARD WATER CONSERVATION INITIATIVES**

Director Shields suggested that Mr. John Baumbrough of the Vernon Water Conservation Committee be invited to address the August meeting of the Okanagan Basin Water Board in Penticton, as that group had done some excellent work on water conservation.

The Board agreed to issue an invitation to Mr. Baumbrough.

**HOUSEBOAT PUMPOUT FACILITIES:**

Chairman Hobson informed the board that discussions with the Ministry of Municipal Affairs indicated a possibility of some funding for houseboat sewage pumpout facilities on lakes in the Okanagan, especially if the requests were unified to compile one list for the valley. He also stated that some federal funding might be obtainable and information was available from the Economic Development Officer in Summerland.

*Moved by Director Shields, seconded by Alternate Director Rieger:*

*"That the Okanagan Basin Water Board get information regarding the availability of Federal and Provincial funding for houseboat liquid waste pumpout facilities for lakes in the Okanagan Valley."*

**CARRIED.**

**OKANAGAN BASIN STUDY INFORMATION UPDATE:**

Chairman Hobson observed that the discussion of water policy and the report card on the Okanagan Basin Study had reinforced the need to have an update of the information in that report.

*Moved by Director Ginther, seconded by Director Shields:*

*"That the Okanagan Basin Water Board make representation to the Minister of Environment at the UBCM urging that the Ministry undertake an update of the Okanagan Basin Study to provide information vital to development of a Growth Management Strategy."*

**CARRIED.**

**MINISTRY OF ENVIRONMENT: OKANAGAN LAKE FISHERY RECOVERY PROGRAM AND WORKSHOP**

Mr. Armour reported that he would attend a workshop to be held June 28th to 30th dealing with the possible reasons for the collapse of kokanee stocks in some valley lakes, planning means to correct the situation, and examining possible sources of funding.

**NEXT MEETING:**

Chairman Hobson reminded the Board that the next meeting would be July 4th.

Director Shields remarked that this was the Tuesday following the long weekend, and suggested Wednesday might be a better day.

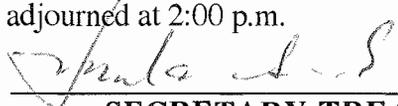
The Board agreed to meet Wednesday, July 5th, in Vernon.

**ADJOURNMENT:**

There being no further business, the meeting adjourned at 2:00 p.m.



**CHAIRMAN**



**SECRETARY-TREASURER**

## OKANAGAN BASIN WATER BOARD

**MINUTES OF A MEETING OF THE OKANAGAN BASIN WATER BOARD  
HELD ON SEPTEMBER 6TH, 1995, IN THE BOARD ROOM, REGIONAL  
DISTRICT OF CENTRAL OKANAGAN, 1450 KLO ROAD, KELOWNA, B.C. AT  
10:00 A.M.**

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<b><u>PRESENT:</u></b>	Chairman R. Hobson	C.O.R.D.
	Director R. Ginther	C.O.R.D.
	Director W. McGrath	N.O.R.D.
	Director G. Kiss	N.O.R.D.
	Director A. Hancock	O.S.R.D.
	Director D. Cameron Sr.	O.S.R.D.
	Alternate Director R. Wilson	O.S.R.D.

<b><u>ALSO PRESENT:</u></b>	M. Maxnuk	Ministry of Environment
	T. Forty	Ministry of Environment

<b><u>STAFF:</u></b>	G. Armour	Field Supervisor
	P. Mackiewicz	Administrator

### **MINUTES:**

*Moved by Director Hancock, seconded by Director Kiss:*

*"That the minutes of a regular meeting of the Okanagan Basin Water Board held on July 5th, 1995 be adopted as circulated."*

*CARRIED.*

### **AQUATIC PLANT MANAGEMENT BUSINESS:**

**MINISTRY OF ENVIRONMENT - DISTRIBUTION OF PUBLIC  
INFORMATION ON AQUATIC WEEDS:**

Mr. Maxnuk informed the Board about the aquatic weed information materials provided to Travel Infocentres, Customs, Parks Canada, as well as marinas and resorts in the Okanagan.

Alternate Director Wilson wished to confirm that the border crossing at Nighthawk had been contacted.

Mr. Maxnuk confirmed that it had.

Director Hancock asked if the information was published in the B.C. Accommodation Guide.

Mr. Maxnuk said that aquatic weed information had been included in the guide in the past but he was not sure if it had been this season. he said that he would ensure its inclusion for next years edition.

Chairman Hobson inquired about the penalty for bringing noxious species of aquatic plants into Canada.

Mr. Maxnuk answered that Eurasian watermilfoil was on a list of plants not permitted to be imported into Canada and that deliberate importation would probably be subject to a penalty.

The Chairman asked about prevention of spread to upper elevation lakes within the valley.

Mr. Maxnuk advised that staff of the Okanagan Basin Water Board had checked and repaired or replaced signs at upper elevation lakes in the Okanagan watershed this year. He noted that lakes without boat launch facilities were not of concern.

The Board thanked Mr. Maxnuk for the information.

#### **AQUATIC WEED HARVESTING 1995:**

The Field Supervisor reported that the aquatic weed harvesting program finished on Sept. 1st. He added that he would prepare a report for next meeting.

Mr. Armour summarized that two harvesting machines were operated again this season and only one operated for the complete July - August period. Extensive "off season" rototilling work seems to be effecting a gradual improvement in priority recreation areas.

Mr. Armour summarized the condition of each lake as follows:

Osoyoos - generally good - some milfoil re growth at north end in deep zone not which was probably not thoroughly rototilled.

Vaseux - was not harvested this year despite extensive weed growth as it is lower in recreational priority than other sites and the Ministry of Environment did not experience water flow restriction problems. The lack of weed control prompted some complaints. The Board discussed the situation and asked Mr. Armour to report back at the next meeting on options to offer some degree of alleviation of the problem in Vaseux Lake.

Skaha - required no harvesting as rototilling was done late in the spring and the carry over result was excellent.

Okanagan (South) - Weed harvesting was required at the Penticton Marina,

some sites at Summerland and Peachland.

(Mid) - Westbank had some infestations cut which will likely be scheduled for rototilling this fall or winter, especially in the area of the new regional park at Gellatly Bay. In Kelowna the situation was mostly good with re infestation of some naturally occurring species of weeds. Many of these species tend to become dislodged and washed up on beaches during storms.

(North) - Minimal cutting was done in the Vernon area.

Wood - Sites not rototilled in spring were harvested

Duck - The water-ski areas were harvested.

Kalamalka - no harvesting work was done

Director Kiss commented that he was concerned about the proliferation of docks and the affect on weed growth.

Alternate Director Wilson referred to Vaseux Lake, and stated that since residents pay into the program, he felt they should receive some service.

#### **UPDATE OF HYDRILLA IN WASHINGTON STATE:**

Mr. Maxnuk reviewed information received from the Department of Ecology in Washington State about the infestation of *Hydrilla* in Pipe Lake. A second downstream lake (Lucerne Lake) had also been found to contain *Hydrilla* and the State had reacted by forming a task force and implementing measures to seal off the lakes, to apply a herbicide and to introduce sterile grass carp. In addition surveys were underway downstream to determine if any additional spread had occurred.

#### **OTHER MATTERS:**

#### **DISCUSSION OF OKANAGAN BASIN STUDY:**

The Board reviewed information from the Okanagan Basin Study, and current facts supplied by Mr. Armour and Mr. Forty in order to put together a comprehensive position to be presented at a meeting with the Minister of Environment at UBCM.

Mr. Forty reviewed current information of the status of nutrient loading into the main lakes and related it to events which have taken place over the past twenty years.

Mr. Armour went through the resource base content of the original study and where information was available, indicated the current status in the valley of population, agriculture, forestry, first nations, water quantity, water quality, tourism, fisheries, lake limnology, recreation facilities, and wildlife resources. A summary of this information is attached.

Alternate Director Lamont and Director Ginther entered the meeting at 11:30.

While the Board agreed that a repetition of the original study was not required, there

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was considerable discussion of gaps in current information which needed to be addressed for local government to make decisions.

*Moved by Director Kiss, and seconded by Alternate Director Wilson:*

*"That the Okanagan Basin Water Board, adopt in principle, the information presented on the current status of the areas dealt with in the Okanagan Basin Study."*

**CARRIED.**

The Field Supervisor was asked to update the information package and circulate it to the Directors for comment prior to the UBCM Convention.

**CORRESPONDENCE:**

**Minister of Environment - Groundwater Management and Resource Assessment**

The Minister replied to the Board's letter regarding the Water Protection Act in which the Board expressed concern about management of a resource without a proper inventory. The response indicated funds are not currently available to conduct groundwater assessment and inventory. The Province will rely on voluntary arrangements with well drillers for information.

**Regional District of Okanagan-Similkameen - Osoyoos Lake Septic Tanks**

Correspondence pertaining to septic tank improvements around Osoyoos lakeshore was received.

Mr. Armour informed the Board that Osoyoos did not receive infrastructure grant funds for proposed sewerage of rural areas around the lake, and now wishes to explore the possibility of having lakeshore residents on septic systems provide documentation of proper maintenance.

Alternate Director Wilson said that this had been discussed at the RDOS Board and a resolution was forwarded asking the Water Board to incorporate measures to ensure proper functioning of septic systems into the Master Liquid Waste Management Plan.

Mr. Mackiewich advised that, in his estimation, the only way to correct any problems would be to sewer the area, as pumping of septic tanks removes only solids and the nutrient containing liquids are dispersed through the tile field.

*Moved by Alternate Director Wilson, seconded by Director Cameron:*

*"That a letter supporting the sewerage of the areas currently on septic systems,*

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*surrounding Osoyoos Lake and indicating that this is the position taken by the Water Board in the Master Liquid Waste Management Plan be sent ."*

**CARRIED.**

**District of Summerland - Proposed Ban on Sale of Phosphate Containing Detergent Products**

A resolution from Summerland Council calling for the prohibition of sale of phosphate contain laundry and dish washing detergents was received.

The Board reviewed past discussion of this subject and the difficulties in legislating and enforcing a ban on such products.

Director Hancock commented on the voluntary withdrawal of phosphate containing products by retailers in Naramata, and offered to provide copies of educational literature produced on this subject.

*Moved by Director Hancock , seconded by Alternate Director Wilson:*

*"That District of Summerland be advised of the policy of the Okanagan Basin Water Board supporting the use of phosphate free laundry and dish washing products."*

**CARRIED.**

**Water Quality Task Group - Minutes of April 27, 1995 Meeting**

Minutes of a meeting of the Okanagan Water Quality Task Group were received and the Field Supervisor noted that the group had met again in June to hear presentations concerning development of a water quality index. The group proposed to meet again Nov. 16th.

**Personal Watercraft - Information from Canadian Marine Manufacturers Association**

A invitation to attend a demonstration and trial of personal watercraft, sponsored by the manufacturing industry was received.

The Chairman commented that the Central Okanagan had formed a committee including the RCMP, elected officials, rental operators, and other concerned groups, to look at ways in which personal watercraft can, and need to be regulated.

**Minister of Environment - Growth Management Strategy**

The Minister informed the Board that water resource information collected by the regional ministry office will be available to local government, and that the ministry will

participate in the land use planning process proposed for the Okanagan-Shuswap.

*Moved by Director Cameron , seconded by Alternate Director Wilson:*

*"That the correspondence be received."*

**CARRIED.**

**SEWAGE FACILITIES GRANTS:**

*Moved by Alternate Director Wilson , seconded by Director Kiss:*

*"That the Sewerage Facilities Grant applications listed below be approved for payment."*

<i>City of Penticton</i>	<i>\$211,329.81</i>
<i>City of Armstrong</i>	<i>155,855.82</i>
<i>City of Kelowna</i>	<i>307,841.00</i>

**CARRIED.**

**NEW AND UNFINISHED BUSINESS:**

**Master Liquid Waste Management Plan - City of Kelowna Financial Proposal**

Mr. Armour informed the Board that the information on the Master Liquid Waste Management Plan discussed at the July meeting had been circulated to local government in the valley. He noted that the City of Kelowna proposal to incorporate interest charges into sewerage DCC's had been approved by Council and submitted to the Ministry of Municipal Affairs. A decision on this is expected this fall.

**NEXT MEETING:**

The Board agreed to meet as scheduled, in Vernon, on October 13th.

**NEXT MEETING:**

The Board agreed to meet as scheduled, in Vernon, on October 13th.

**ADJOURNMENT:**

There being no further business, the meeting adjourned at 1:45 p.m.





**CHAIRMAN**

**SECRETARY-TREASURER**

## Report Card on the Okanagan Basin

### **Background:**

The Okanagan Basin Study began with the signing of a Federal - Provincial Agreement in October of 1969 and continued until release of the final report in March of 1974. It was carried out in response to concerns about the supply and quality of water in the Okanagan Valley main lakes and tributaries as the resource was subjected to pressures of a rapid influx of people into the area. This was also intended to be a pilot study to develop and test techniques for comprehensive watershed management planning.

First priority was placed on water resource management in the Basin Study because of the immediacy of some of the problems. (algae blooms, weed growth) It was recognized that other resources needed to be integrated into the framework plan to ensure achievement of the goals for the future.

### **Scope of the Study:**

- Social and economic forecasts for each of three growth level projections were made to determine water requirements, waste loading and demands under differing future conditions.
- Hydrological studies to assess water supply potential of surface and groundwater sources were carried out.
- Water quality analyses of lakes and selected tributary streams were performed.
- Pilot projects for advanced wastewater treatment were initiated in the three major centres. (Kelowna, Penticton, and Vernon)
- Examination of the adequacy of the existing institutional and legal framework to manage the plan was conducted.
- Direct public involvement was incorporated into the study and recommendation process.

### **Rationale for the Study:**

A resource management plan improves the ability to make decisions regarding the use or protection of natural resources in the light of two types of unknowns: a lack of knowledge regarding the present value of resources to society and even greater uncertainties concerning the future. Inclusion of a time factor in the planning process further complicates decisions as the response of the system to existing demands must be considered and, in addition, the requirements and wishes of future generations.

It is not desirable to plan only one path for the future; people must not be locked into one single course of action based on what may be the imperfect perception of today's planners. It was recognized that steps might have to be implemented at the time which would serve to preserve a range of options for the future. The planning horizon of the study was year 2020. (50 years)

The stated objective of the Basin Study was to develop a comprehensive framework plan for management of water resources for social betterment and economic growth in the Okanagan Basin and to strike a balance between the goals of environmental quality, economic development and social betterment. The study recognized that aspects of environmental quality may conflict with goals of economic development and social betterment. (Sustainability is what we are after - a somewhat overused term which usually means meeting the needs of today without compromising the ability of future generations to meet their needs)

Framework Plans are really a "bag of tools" to indicate procedures and methods for evaluating water management alternatives and to provide a broad information base. It was anticipated these evaluation procedures developed during the study period, and the information base could be applied periodically to determine the course to be followed as conditions and desires changed in the future.

## **Content of the Okanagan Basin Study:**

### **1. Existing Resource Base 1970:**

#### **Economic Base:**

**Population:** Approximately 115,000 people lived in the Okanagan in 1970. The valley was categorized as experiencing rapid growth over the previous ten years as a result of senior government economic incentives and a desirable lifestyle and climate. Growth rates averaged about 5% per annum over the ten years 1961-1971.

#### **Current Status:**

The population of the Okanagan has surpassed the predictions of the Basin Study and will likely continue to increase to a figure of 500,000 by the year 2020. This exceeds the 430,000 postulated for the high economic growth scenario of the Basin Study. The effect of growth pressures on resources, the environment, and, ultimately the quality of life, remain at the forefront, and our ability to deal effectively with these issues is uncertain.

**Forest Resources** constituted 1,353,000 productive acres or 68% of the land base. 42% (300,000 cubic metres) of the allowable timber harvest (710,000 cu. m) was utilized in 1970.

**Current Status:**

Last year approximately 2,000,000 cubic metres of timber were harvested in the Okanagan.

Forest resources remain a mainstay of the valley economy but there is greater recognition of the importance of good harvesting and restoration practices in order to provide sustainability and to avoid degradation of watersheds.

**Agriculture** accounted for 60,000 irrigated acres plus 26,000 acres of dryland farming. There was a total of 158,000 potential arable acres.

**Current Status:**

In 1994 (with over twice the number of people) there were 75,427 acres of irrigated land using 170,000 acre feet of water, principally from headwater diversion. While we state that agriculture is a desirable feature of the lifestyle that we wish to preserve, the response to population pressure is often to develop additional land, often at the expense of agriculture. It must also be recognized that the preservation of agriculture as a viable part of the Okanagan economy means allocation of the necessary resources.

**Tourism:** There were 557,000 visitors to the Okanagan in 1970.

**Current Status:**

In 1989 there were 1,044,420 visitors to the valley, including a steadily increasing amount of 'non peak' season visitors. While the economic benefits are unquestionable, the added pressure on the environment is equally certain.

The types of activities enjoyed by the tourist have changed from two decades ago and some of these pursuits cause undesirable effects such as congestion of roads and waterways, nutrient pollution, noise pollution, degradation of natural habitat, etc.

**First Nation** lands totaled 100,000 acres, largely undeveloped but with some lands used for agriculture and some for leases supporting summer cabins.

**Current Status:**

A significant area of First Nation lands is undergoing development at a rate similar to non native urban areas. Land use issues and problems are similar, but the controls can be different.

**Water Quantity:**

Considerable emphasis of the Okanagan Basin Study was on flood control in high inflow years and mitigation of drought effects in low flow years. Objectives

were set for regulation of lake levels in the traditional manner for flood control, but not for optimization of instream uses and environmental concerns.

About 70% of the water consumed in the Okanagan basin occurs within the tributaries which provide an inexpensive, gravity fed supply to agricultural lands and irrigation districts. (8 of 35 tributaries were included in the detailed analysis)

Four feet of storage on Okanagan Lake is equivalent of 340,000 acre feet. In an average inflow year, 332,000 acre feet entered the lake under 1970 development conditions. Of this, 0.5 inches were utilized for consumptive purposes (0.4 inches agricultural, 0.1 inches domestic and industrial)

Some specific information on groundwater was collected and the study noted that the total available in the North Okanagan was 66,500 acre feet from O'Keefe aquifer but only 540 acre-feet per year was recharged from precipitation. Potential withdrawal without depleting the reserve was estimated at 2370 acre-feet per year.

#### **Current Status:**

As agricultural land is replaced by residential, the water requirement does not drastically increase, and may actually decrease, as agriculture is the greatest consumptive user. The issue centers again on the value of agriculture, both economically and as part of the Okanagan lifestyle.

Water conservation, metering, pricing are mechanisms to stretch the water resource.

There is a lack of specific inventory information on groundwater resources.

Information on the interrelationship between the amount and quality of water and the rest of the ecosystem (fisheries, wildlife) is piecemeal.

#### **Water Quality:**

Water quality in the main lakes and tributary streams was examined from the standpoint of a number of different criteria: for example, those factors which make for high quality drinking water may be undesirable for irrigation. Generally, colour, turbidity, trace metals, oxygen levels, nitrogen and phosphorus, and coliform bacteria were looked at. Some examination of pesticides (chiefly DDT, which was banned in 1970) and mercury levels was undertaken.

Nutrient loading levels and sources to the main valley lakes were extensively studied, including municipal outfalls, tributaries, septic tanks, dustfall, and leaching from refuse disposal sites .

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Storm sewers served an area in Vernon of 1,200 acres, in Kelowna of 655 acres, and in Penticton of 1,300 acres. The total contribution of nitrogen was estimated at 5,700 pounds and of phosphorus at 700 pounds, and was not considered a significant amount at that time.

Of 115,000 people residing in the valley in 1970, approximately 50% were on municipal collection and sewage systems. There were 52 industrial producers of waste products, 21 of which produced untreated effluent.

### **Current Status:**

The trophic status (quality of water) in the main lakes is relatively good given the increase in population. A growth pressure continues, our ability to respond both technologically and financially will be tested.

Septic tanks still serve about 50% of the population but the number of residents has doubled and so has the nutrient input into the lakes.

Storm sewers can no longer be considered an insignificant source of nutrient input into the lakes, nor of other toxic materials. As we consolidate storm water management systems, these non-point sources become point sources of contamination.

Provision of potable water and of treating wastewater rank behind only road and transportation infrastructure in terms of cost to local government.

The effects of alteration of tributary streams, in the bounds of their channels and on their banks has a major impact on the ecosystem. (e.g., fisheries, erosion) These streams were primarily managed to meet consumptive use requirements in the past.

Most OK basin study work on pesticides and toxins focused on levels of DDT (banned in 1971) and mercury in fish. Since then a multitude of other toxins (dioxins, furans, agricul. pesticides) have been used.

Promotion of integrated pest management to reduce the reliance on chemicals is a positive step for both commercial and domestic users.

### **Limnology of the Lakes:** (Physical, chemical, and biological conditions)

Limnological studies of Okanagan, Wood, and Osoyoos Lakes indicated an increase in biological productivity and resultant decline in water quality over the past 100 years, coincident with the first major settlement and land development.

Okanagan is the key lake in the system with over 75% of the tributary run-off and control of water quality of downstream lakes through high quality water flowing to them.

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**Current Status:**

Many currently used estimates of nutrient loading from forestry, agriculture, and 'other' sources such as dustfall are based on single studies done as part of the Okanagan Basin Study. These loadings are sometimes regarded as natural constants, but in fact, are variable and related to changes in culture.

The historical water retention time in Wood Lake was likely in the order of 12 years but this increased to 30 years as inflows were reduced by headwater diversion into storage reservoirs. The water quality in the lake deteriorated as retention time increased. With the distillery cooling water pumping, the retention time was again reduced to 12 to 14 years and the water quality of the lake showed marked improvement.

**Public Recreation:**

In 1970 there were 38 lakeshore public recreation sites covering 349 acres; 13 provincial sites and 25 municipal sites.

**Current Status:**

The number of provincial sites has actually decreased since 1970 as some daysites are maintained by local government. A large, natural reserve at Okanagan Mountain Park has been created.

There is a scarcity of additional lakeshore recreational land to serve residents and visitors and we are experiencing the effect of increased visitor numbers on our limited resources.

**Fisheries:**

Fish are often seen as indicators of the general health of a water system. They are highly dependent on the water quantity and quality within the main lakes, headwater lakes, and tributaries.

The study attempted to establish a value of the sport fishery and the capacity of the lakes to support it.

There were 157,700 angler days of fishing reported on all lakes (main and headwater) in 1971.

**Current Status:**

The Okanagan is home to a diverse community of fish, consisting of more than twenty species. An effect of human growth pressures is often a decline in numbers of species as habitat is altered or lost.

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The decline in kokanee populations is an example of the complex interaction of cultural pressure on rearing habitat, lake trophic status, and human interference through introduction of mysis shrimp.

### **Wildlife and Water Management:**

The abundance and diversity of species of birds and mammals in the Okanagan steadily declined as development and encroachment by man occurred. The loss of habitat resulting from the manner in which land next to river courses is used was deemed to have the greatest negative effect along with the manner in which water levels in the original channel oxbows is controlled.

## **2. Public Involvement in Planning:**

### **Public Involvement Program:**

Prior to the Okanagan Basin Study, in 1966 and 1967, local government representatives formed a committee to discuss the need for water resource planning to study the condition of valley lakes and the control of waste discharges into them.

An Okanagan Watershed Pollution Control Council was created with officials of ten major Okanagan municipalities invited to attend. Four meetings were held in 1967 and subjects discussed included disposal of treated sewage, approaching the federal government to reduce phosphate levels in detergents, and the concept of establishing a pollution control board composed of municipal and regional officials. In 1968, the Province responded with the concept of the Okanagan Basin Water Board which would advise on water quantity and quality management in the valley. This Board would be aided by a technical committee of local, provincial and federal officials.

In 1971, some 110 written and oral briefs were presented to public consultation meetings sponsored by the Okanagan Basin Water Board. The final Public Information Task Force report indicated that the preference of the people of the valley was to proceed with low economic growth with primary consideration given to environmental quality.

### **Current Status:**

The influx of people into the valley and changing demographics may have given rise to a change in what the majority sees as the future for the Okanagan.

In addition, the ability to effectively limit growth may not be there. It is a case of 'you can't have it both ways.' Growth will impose change on the environment and lifestyle in the valley. Some changes will be positive, especially in economic terms, and some will be negative, but conditions will not remain static.

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**Legal and Administrative Framework:**

The study reviewed the laws, rules, rights and customs governing the management and use of the water resource in 1970.

**Current Issues:**

Pollution control remains an issue as long as the source and extent of certain pollutants is not well documented. Lands under federal jurisdiction, agricultural range, logged areas, and areas served by septic systems, are examples where steps are being taken to improve practices (either on a voluntary basis or as required by law) but the data to indicate 'success or failure' may not be collected.

There is a need to observe the linkage between parts of the ecosystem. Focusing on a single objective can be counterproductive to good resource management; for example, the discharge of effluent from septic systems (under 5000 gallons per day) is regulated under the Health Act. The chief concern is with the transport of disease bearing organisms. There is no mandate to address the entry of nutrient into watercourses where recreational and fisheries values may be affected.

**4. Evaluation of Future Conditions:**

It was felt that economic predictions beyond the year 1980 were little more than educated guesses. Pressures which create growth tend to be demand oriented, and pay little heed to limitations posed by resources such as water quantity or quality.

There was a perceived requirement to orient the framework plan, over time, with respect to actual growth rates, waste loading, water demands, etc. and modify it based on improved forecasts.

Comprehensive basin planning was seen to be hampered by lack of a regional decision making body. Issues such as urban growth lacked a coordinated valley vision resulting in proliferation of strip and ribbon development, encroachment on and degradation of habitat, wetlands, and agricultural area.

Regional land use regulations including foreshore planning, boating regulations, and dealing with increasing amounts of non point source pollution, were seen to be part of regional governance assisted by technical staff from local, provincial, and federal levels.

WATER QUALITY TASK GROUP MEETING  
Okanagan University College, KLO Campus  
April 27, 1995

(Speakers Initials) --

Bruce Owen  
Erik Krogh  
Fred Schaad  
Greg Armour  
Gerry Neilsen  
Jim Bryan  
Lionel Dallas  
Norm Clarkson  
Dick Nickel  
Ron White  
Vic Jensen

- LD 2° BOI° on acceptance of previous minutes.
- GA Showed video of WRP.  
Should try to bring PFE to speak on watershed restoration.
- JB More projects are welcomed for next year  
WRP antonymous \$ from stumpage.
- GA Where are we headed with group.  
initial push from OBWB need info exchange  
Hope to compile SS booklet of who, what, when  
Still needing information.
- CD Database could be stored at college - repository of  
information
- GA Some summary sheets received from some but not all.  
now often to meet?
- LD Need come up with theme/task
- EK Need focus of some sort; restoration project?
- GN Presentation of study results needed to share info.
- GA Rotate through group to prevent what groups are doing.

- 
- Next Meeting November 16 please mark this on your calendar.
  - Time/Place - to be announced.
  - Agenda - forward suggestions to Greg Armour.

- FS EC zone mapping useful and Health table for setbacks for new construction and reconstruction of failed system or increase in size of house.
- RW Can only respond if obvious sewage discharge to surface land/water.
- FS Applied science needed - eg. stormdrainage: would this group review/design source control measures?
- RW Hopes OBWB \$ would be still available to help sewerage the small remaining areas.
- GA No long range concept.
- NC Are development cost charges sufficient to expand systems.
- BO Group could provide a paragraph/statement of expertise/list and 5 top environmental issues/present findings of studies.
- NC Workshop sessions for OBWB?
- EK Press releases?
- NC Experience of PFE soil mapping P transmission for N. Okanagan useful information.
- BO Worry re lack of defined task or focus.
- LD Agrees.
- BO Short in depth presentations and find out what members of group are doing.
- GA Need early input to agendas.
- JE Likes BO idea of short technical sessions. Need to set dates and not rely on FWI speaker sessions. IW hopeful to bring visiting scientists to OUC as part of screening processing for staffing but can't rely on this as focus for meetings.
- GA General agreement on info exchange.  
Preparation of agenda. Set deadlines on additions in agenda.
- BO Volunteer as speaker at next meeting.
- EK Volunteer as speaker at next meeting.
- VJ Suggested theme of WQ index and GA to contact R. Rocchini WQ Branch, Victoria.

Most work to be done at UBC as a PhD project.

See 2 problems @ Brenda 200 mg/kg high Mo creates copper deficiency (hyp-cuprosin).

Copper independent problem > 5 mg/Kg formation of thiomolybdates in rhumen; affects eustrogen receptors ∴ 2 weeks delay of puberty in cattle and drop in fertility 50-60%.

- Work in beef heifers initially but will need to look at wildlife eventually.

- Enderko Mine hair analysis. Strong correlation in distance from mine.

- Concerns for embryonic development in fish at higher Mo levels?

EK - Environment Canada supporting WQ display at Ecocentre;  
- Air quality display could be added;  
- Want to make it hands on;  
- Coordinate WQ info at high school/university levels on internet. Would like to integrate agency information.

DN Reallocation of Environment Protection staff. Ministry working towards FPC WRP goals. Had 2 of 4 people in Vernon APMP moving into other roles.

Adjourn 15:45

## OKANAGAN BASIN WATER BOARD

**MINUTES OF A MEETING OF THE OKANAGAN BASIN WATER BOARD  
HELD ON OCTOBER 13TH, 1995, IN THE BOARD ROOM, REGIONAL  
DISTRICT OF NORTH OKANAGAN, 9848 ABERDEEN ROAD, VERNON, B.C.  
AT 10:00 A.M.**

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<b><u>PRESENT:</u></b>	Chairman R. Hobson	C.O.R.D.
	Director G. Ockenden	C.O.R.D.
	Director W. McGrath	N.O.R.D.
	Director G. Kiss	N.O.R.D.
	Alternate Director G. Rieger	N.O.R.D.
	Alternate Director S. Whittaker	O.S.R.D.
	Director D. Cameron Sr.	O.S.R.D.
	Director T. Shields	O.S.R.D.

### **ALSO PRESENT:**

<b><u>STAFF:</u></b>	G. Armour	Field Supervisor
	P. Mackiewich	Administrator

### **MINUTES:**

*Moved by Director Kiss, seconded by Director Shields:*

*"That the minutes of a regular meeting of the Okanagan Basin Water Board held on SEPTEMBER 6TH, 1995 be adopted as circulated."*

*CARRIED.*

### **AQUATIC PLANT MANAGEMENT BUSINESS:**

#### **AQUATIC WEED HARVESTING 1995:**

The Field Supervisor distributed a summary of aquatic weed harvesting work conducted in the summer of 1995. (attached) He informed the Board that, in response to concerns about the lack of work done in Vaseux Lake, he had evaluated the past work done which seemed to be adequate to satisfy the concerns of most residents.

Mr. Armour recommended that 1996 harvesting be scheduled in late June and cut the south end, along the highway, and Provincial Park. Weeds mature early in Vaseux, so work could start there without adversely affecting other areas. He reported that derooting is not feasible in Vaseux Lake due to potential for siltation of sockeye spawning beds south of McIntyre Dam.

Alternate Director Rieger noted the expenditure under repairs and maintenance for

replacement of the two harvester engines and asked if this was covered within the budget.

Mr. Armour replied that it was covered as only \$60,000.00 of the \$76,000.00 allocated for harvesting had been spent.

### **AQUATIC WEED CONTROL WORKPLAN FOR 1996-97**

The Field Supervisor indicated that the MOE requires that we submit, by the end of October, a provisional budget and workplan for the fiscal year beginning April 1, 1996.

He circulated a provisional budget indicating the budget for the current year and a draft proposal for next year:

Funding for aquatic weed control would remain at the same level as the current year  
A wage increase for four staff is incorporated (see handout)  
\$30,000.00 is allocated for equipment reserve  
Harvesting is reduced from \$76,000 to \$65,500 reflecting the cost of work done this year  
Derooting funding is increased from \$250,000 to \$258,000

The workplan will include a list of worksites and proposed timing of treatments. Consultation has taken place with MOE Habitat Protection to ensure that work does not conflict with fish spawning and rearing habitat.

Director Ockenden questioned whether the contribution to equipment reserve reflected the additional dollars generated by increased assessments and reminded the Board that the policy was to put this extra funding into reserve in addition to the amount contributed by the province.

Mr. Armour said that it was difficult to predict the actual revenue which would be generated at the current tax rate as 1996 assessments were not yet available, but the intent would be to follow the policy outlined by Director Ockenden.

The Administrator reminded the Board that only the aquatic weed control portion of the budget was in this provisional document; the sewage facilities grant portion which is non sharable, would be put together as information on next years requirements became available. He added that he did not foresee any increase as he is not aware of anynew projects were scheduled to come onstream at this time.

Director Cameron indicated that he would like to see the amount of money requisitioned from the regional districts decline in the next year.

A discussion of wages and salaries took place. Mr. Armour circulated a proposal and wage comparison for Water Board staff. (attached)

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*Moved by Alternate Director Rieger, seconded by Director Shields:*

*"That inasmuch as Okanagan Basin Water Board staff has not received a salary increase for three years, equipment operators and labourers be given a three percent wage increase to become effective April 1, 1996 ."*

**CARRIED.**

The Board elected to continue the salary discussion in-camera.

The regular meeting reconvened at 11:35 A.M.

It was noted that a three percent increase in the salary of the Field Supervisor was approved in Committee of the Whole.

*Moved by Director Cameron, seconded by Director Shields:*

*"That Okanagan Basin Water Board Provisional Budget for Fiscal Year 1996-97 be approved and forwarded to the Ministry of Environment ."*

**CARRIED.**

**CORRESPONDENCE:**

**Regional District of Central Okanagan - Wood Lake Sewage Restrictions**

The Regional District referred to a District of Lake Country request to designate Wood Lake under Pleasure Craft Sewage Pollution Regulations.

Mr. Armour reported that Okanagan Lake is currently designated under the federal pleasure craft sewage discharge regulations, prohibiting discharge of blackwater waste. Any craft with a toilet facility must have a holding tank constructed to permit pumpout at a shore station. No discharge is permitted in designated bodies of water. At present, only Okanagan and Shuswap lakes are designated, in this area. The Federal Government has delegated authority to the Province to receive applications for designation of B.C. lakes under the regulations. It is obligatory for the province to ensure that adequate pumpout facilities are present.

The Okanagan Basin Water Board has asked the Ministry of Environment to designate Kalamalka and Skaha lakes, and the Regional District of Central Okanagan has asked for information on designating Wood Lake.

*Moved by Director Shields, seconded by Director Ockenden:*

*"That the Okanagan Basin Water Board provide the necessary information to the District of Lake Country on the procedure for designation of Wood Lake under the*

*Pleasure Craft Sewage Prevention Regulations."*

*CARRIED.*

**Minister of Environment -**

**Sewage Pumpouts at Provincial Parks**

The Minister replied to the Board's letter regarding pleasure craft sewage pumpouts at Provincial Parks. He stated that there are no plans for a sewage pumpout at Kekuli Bay at this time.

Mr. Mackiewich informed the Board that in meeting with the Minister at UBCM, Mr. Sihota expressed an interest in providing assistance to construct pumpout facilities on lakes in the Okanagan.

*Moved by Alternate Director Rieger, seconded by Alternate Director Whittaker:*

*"That the Okanagan Basin Water Board send a letter to the Minister of Environment confirming the understanding from the UBCM meeting and thanking him for making assistance available for construction of pleasure craft pumpout facilities in the Okanagan Valley ."*

*CARRIED.*

**Regional District of Okanagan-Similkameen -**

**Pleasure Craft Sewage Pumpouts**

The Regional District advised that they support the Province ensuring that adequate pumpout facilities are available on lakes in the valley. This was in response to a OBWB request for information on facilities currently available in the region and future requirements.

**Regional District of Okanagan-Similkameen -**

**Master Liquid Waste Plan Recommendations**

The Regional District advised that their Executive Committee will review the summary of recommendations of Liquid Waste Master Plan forwarded by the Water Board.

Mr. Armour reported that the Ministry of Municipal Affairs had not yet made a decision on Kelowna's application to include interest costs in sewerage DCC's.

*Moved by Alternate Director Rieger, seconded by Director Cameron:*

*"That the Okanagan Basin Water Board send a letter to the Ministry of Municipal Affairs stating the need to expedite the decision on the application made by the City of Kelowna to incorporate interest costs in sewerage DCC's ."*

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*CARRIED.*

**SEWAGE FACILITIES GRANTS:**

No grant applications were received at this time.

Director McGrath asked for clarification of the current policies of the Okanagan Basin Water Board with respect to payment of Sewerage Facilities Assistance Grants. Specifically he wished to clarify policy on payment of grants to communities who do not incur debt, that is who pay the cost of works up front; the policy with respect to grants for infrastructure made necessary by new growth; and lastly the policy for grant eligibility if a project were qualified for provincial assistance but did not receive funds due to a lack of provincial dollars.

The Chairman asked Mr. Mackiewich to prepare a written summary of the current criteria for sewage grant eligibility for the next regular meeting and to include some specific examples of application of the criteria.

**NEW AND UNFINISHED BUSINESS:**

**DISCUSSION OF OKANAGAN BASIN STUDY:**

The Chairman informed the Board about a meeting with the Minister of Environment, at UBCM, attended by himself, Directors McGrath, Kiss, Ockenden, as well as Peter Mackiewich.

Chairman Hobson indicated to the Minister that the Board felt that growth management required more up to date and comprehensive baseline information on water resources in the Okanagan. The Minister offered to confer with his staff but was not optimistic that funding will be available for any new work.

Director McGrath felt that the Board should have presented specifics of what information is required and a detailed estimate of the cost involved.

Alternate Director Rieger left the meeting at 12:00 P.M.

Director Ockenden suggested that the Field Supervisor put together a more detailed report on the water resources in the valley.

The Chairman agreed that OBWB staff could meet with technical people of the Ministry to obtain information for the Board, since we do not have money to hire outside help, and more likely that the Ministry can supply staff time than allocate funds.

Chairman Hobson commented that he would like to see the Okanagan Basin Water Board take advantage of the public forums provided under the LRMP and growth management processes and have informational materials prepared for display. This

would require some funding on the part of the Board.

*Moved by Director Shields, seconded by Alternate Director Whittaker :*

*"That the Okanagan Basin Water Board budget for, and prepare informational materials which could be used in conjunction with LRMP and growth management public consultation forums ."*

**CARRIED.**

**OTHER BUSINESS:**

Director Ockenden informed the Board of problems with connecting trailer parks on Westbank First Nation lands to sewer. He referred to correspondence with the regional district indicating a discrepancy between federal government recognition of a pollution problem and local MOE perceptions.

The Chairman suggested putting the correspondence on the agenda for the next meeting and informing Mike Watts of the Westbank Band of the need to discuss the subject.

Director Cameron observed that the Water Board representative on the Technical Advisory Committee for First Nation negotiations should bring this problem to their attention.

**NEXT MEETING:**

The Board agreed to meet as scheduled, in Penticton, on November 7th.

**ADJOURNMENT:**

There being no further business, the meeting adjourned at 12:30 p.m.

There being no further business, the meeting adjourned at 12:30 p.m.



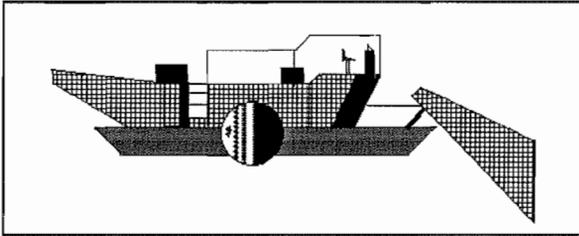
**CHAIRMAN**



**SECRETARY-TREASURER**

## **HARVESTING: 1995 AQUATIC WEED HARVESTING PROGRAM**

Two machines were used in the 1995 aquatic weed harvesting program with work beginning July 14th in Osoyoos Lake, and July 17th in Duck Lake. Work was completed by the first week of September. The start of the season was moved back by about two weeks for replacement of diesel engines on both harvesters.



121 machine loads (206 tonnes) of aquatic weeds were removed from four mainstem valley lakes. No summer harvesting was done in Vaseux or

Skaha lakes this season. Winter derooting has reduced the density of weeds in many high priority sites, and while a clean-up using harvesting is sometimes required, the amount of weed material cut per unit area is small compared to a non-derooted weed bed.

The annual totals for harvesting since 1978 are shown below. The peak amount cut occurred in 1981 at 1906 machine loads (4104 tonnes) and stabilized at around 1400 loads for the next six years. As emphasis on derooting increased, and additional equipment was acquired, a fewer loads were harvested. Some yearly harvesting continues to be needed. The amount of work will depend on plant regrowth in derooted sites, the summer growing season, and the growth of other plant species which are not as effectively derooted.

The decline in amount of aquatic plant growth harvested in 1992 is attributable to an operations shutdown following a fatal accident involving similar equipment at Mill Lake. In 1993, plant growth was slow and weeds did not reach the surface of the lake in many locations. This appeared to be a natural decline and not entirely a result of control efforts. There was some resurgence in growth during the 1994-95 season, most notably in Wood Lake. Plants were generally healthier, showed fewer signs of insect damage, and grew more vigorously than in 1993.

The policy of the Okanagan Basin Water Board is that derooting is the preferred method of control, from both the perspective of effectiveness, and decreased interference with water based recreation. Harvesting will continue to be used as a follow up to

Year	Loads	Tonnes	Cost (\$)
1978	557	947	
1979	1642	2791	
1980	1475	3212	
1981	1906	4104	
1982	1533	3207	
1983	1458	2987	
1984	1440	2817	123,735
1985	1189	2294	98,875
1986	1430	2749	114,785
1987	1356	2640	89,697
1988	1209	2315	96,272
1989	1012	1868	96,427
1990	723	1367	98,560
1991	792	1434	98,000
1992	57	188	72,685
1993	63	107	32,187
1994	421	716	65,839
1995	121	206	60,543

derooting where re-infestation of Eurasian watermilfoil or growth of other species takes place, in areas where conditions do not permit derooting, and for lower priority sites needing cosmetic weed control.

Expenditures for the 1995 harvesting program are listed below.

### **Harvesting Expenditures 1995 - 96**

<b>Category</b>	<b>Budget</b>	<b>Spent</b>
Supervisor Wages	\$10,300	\$5,040
Payroll Benefits	7,200	4,145
Operator Wages	25,000	14,267
Transport Op. Wages	8,500	4,927
Equipment Transport	2,500	1,544
Pickup Truck Rentals	3,000	1,701
P/U Operation and Maint.	4,000	2,712
Travel Expense	2,500	1,823
Crane Rental	2,000	408
Fuel and Lubricants	2,000	973
Repairs and Maintenance	7,000	20,715
Spoils Disposal	1,000	275
Water Intake Repairs	1,000	2,011
<b>TOTAL</b>	<b>76,000</b>	<b>60,543</b>

The table below lists the harvesting production by machine in 1995. Estimates of area are based on the number of loads cut in a test site and are accurate for comparative purposes only. (Data for sparsely infested sites is the least accurate)

### **HARVESTING PRODUCTION SUMMARY 1994**

<b>UNIT #</b>	<b>LOADS CUT</b>	<b>TONNES</b>	<b>ESTIMATED AREA</b>
H65028 HARV#2	52	88.4	3.7 ha
H65035 HARV#3	69	117.3	4.9
<b>TOTAL</b>	<b>121</b>	<b>205.7</b>	<b>8.6</b>

The following table gives a lake by lake summary of harvesting work done in 1995.

#### HARVESTING PRODUCTION BY LAKE 1995

LAKE	LOADS CUT	TONNES	ESTIMATED AREA (ha)
OSOYOOS LAKE	23	39.1	1.6
VASEUX LAKE	0	0	0
SKAHA LAKE	0	0	0
OKANAGAN LAKE	53	90.1	3.8
WOOD LAKE	40	68	2.8
DUCK LAKE	5	8.5	0.4
TOTALS	121	205.7	8.5

#### HARVESTING EQUIPMENT OPERATIONS RECORD 1995

HOURS	HARVESTER #2 (HOURS)	HARVESTER #3 (HOURS)
TOTAL HOURS	72	240
OPERATING HOURS	33.4	149.2
DOWNTIME	38.6 (53%)	90.8 (38%)

Operation of two harvesters is adequate to keep up with weed control in the summer months providing derooting work is sustained at full budget levels. Utilizing fewer than two harvesters is unlikely because of the shortness of the operating season and the number of lakes included in the program. Completion of work before the end of August allowed early shutdown of one machine.

**OKANAGAN BASIN WATER BOARD  
PROVISIONAL BUDGET**

**FISCAL YEAR 1996-97**

**ADMINISTRATION AND AQUATIC WEED CONTROL**

	<b>1995-96</b>	<b>1996-97</b>
<b><u>REVENUE:</u></b>		
Province of B. C. (50% Grant)	\$212,069.00*	\$212,200.00
R.D.C.O. Requisition	144,092.00	135,956.00
R.D.O.S. Requisition	66,952.00	63,172.00
R.D.N.O. Requisition	54,956.00	51,852.00
Transfer from Equip. Reserve		
Previous Year's Surplus (Deficit)	(15,381.00)	_____
<b>TOTAL REVENUE:</b>	<b><u>\$462,688.00</u></b>	<b><u>\$463,180.00</u></b>
<b><u>EXPENDITURES:</u></b>		
<b>Harvesting Operations</b>		
Supervisor Wages	\$10,300.00	\$10,500.00
Harvester Operator Wages	25,000.00	20,000.00
Payroll Benefits	7,200.00	5,000.00
Driver's Wages	8,500.00	6,000.00
Equipment Transport	2,500.00	2,000.00
Pickup Truck Rentals	3,000.00	2,000.00
Pickup Operation and Maintenance	4,000.00	3,500.00
Travel Expenses	2,500.00	2,000.00
Crane Rental	2,000.00	1,000.00
Fuel and Lubricants (Harvesters)	2,000.00	2,000.00
Maintenance, Repairs, Supplies	7,000.00	10,000.00
Contract Weed Disposal	1,000.00	1,000.00
Water Intake Repairs	<u>1,000.00</u>	<u>1,000.00</u>
<b>Harvesting Subtotal:</b>	<b><u>76,000.00</u></b>	<b><u>65,500.00</u></b>
<b>Winter Derooting</b>		
Supervisor Wages	32,000.00	34,000.00
Operator Wages and Contract Work	95,000.00	99,000.00
Driver's Wages	12,500.00	13,500.00
Payroll Benefits	19,500.00	20,500.00
Equipment Transport	9,000.00	9,000.00
Pickup Truck Rental	4,000.00	4,000.00
Pickup Operations and Maintenance	7,000.00	7,000.00
Travel Expenses	1,000.00	1,000.00
Crane Rental	3,000.00	3,000.00
Fuel and Lubricants	18,000.00	18,000.00
Maintenance, Repairs, Supplies	<u>49,000.00</u>	<u>49,000.00</u>
<b>Derooting Subtotal:</b>	<b><u>250,000.00</u></b>	<b><u>258,000.00</u></b>

**OKANAGAN BASIN WATER BOARD  
PROVISIONAL BUDGET**

**FISCAL YEAR 1996-97**

**ADMINISTRATION AND AQUATIC WEED CONTROL**

	<b>1995/96</b>	<b>1996-97</b>
<b><u>EXPENDITURES (Continued)</u></b>		
<b>Special Projects</b>		
Supervisor Wages	\$5,000.00	\$5,500.00
Wages	10,000.00	10,000.00
Dive Pay	7,000.00	7,000.00
Payroll Benefits	3,000.00	3,500.00
Pickup Rental and Operation	1,000.00	1,000.00
Fuel and Lubricants	1,000.00	1,000.00
Materials and Supplies	10,000.00	10,000.00
Equipment Improvements	nil	
Equipment Reserve Fund	29,238.00	30,000.00
Biological Control Program	<u>nil</u>	
<b>Special Projects Subtotal</b>	<b><u>66,298.00</u></b>	<b><u>68,000.00</u></b>
<b>Administration</b>		
Insurance	7,000.00	\$8,000.00
Yard Rental and Utilities	14,500.00	14,500.00
Office Costs	2,000.00	2,000.00
Accounting and Payroll	5,400.00	5,400.00
Interest Charges	3,000.00	3,000.00
<b>Administration Subtotal</b>	<b><u>31,900.00</u></b>	<b><u>32,900.00</u></b>
<b>Total Operating Costs</b>	<b><u>\$424,138.00</u></b>	<b><u>\$424,400.00</u></b>
<b>Administration (Non-Shareable)</b>		
Contract (RDNO)	23,000.00	23,230.00
Directors Remuneration	10,200.00	10,200.00
Sundry	5,350.00	5,350.00
<b>Administration (Non-Shareable)</b>	<b><u>38,550.00</u></b>	<b><u>38,780.00</u></b>
<b>TOTAL EXPENDITURES</b>	<b><u>\$462,688.00</u></b>	<b><u>\$463,180.00</u></b>

\*Actual Provincial Grant for Fiscal Year 1995-96 is \$205,000.00.

6 October 1995

OKANAGAN BASIN WATER BOARD

**MINUTES OF A MEETING OF THE COMMITTEE OF THE WHOLE OF THE OKANAGAN BASIN WATER BOARD HELD ON OCTOBER 13TH, 1995, IN THE BOARD ROOM, REGIONAL DISTRICT OF NORTH OKANAGAN, 9848 ABERDEEN ROAD, VERNON, B.C. AT 11:05 A.M.**

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<b><u>PRESENT:</u></b>	Chairman R. Hobson	C.O.R.D.
	Director G. Ockenden	C.O.R.D.
	Director W. McGrath	N.O.R.D.
	Director G. Kiss	N.O.R.D.
	Alternate Director G. Rieger	N.O.R.D.
	Alternate Director S. Whittaker	O.S.R.D.
	Director D. Cameron Sr.	O.S.R.D.
	Director T. Shields	O.S.R.D.

**STAFF:** P. Mackiewich Administrator

**AQUATIC PLANT MANAGEMENT BUSINESS:**

**STAFF SALARIES:**

The Water Board considered the proposal for an increase to the Field Supervisors salary to be effective April 1, 1996.

***Moved by Director Kiss:***

***"That the salary of the Field Supervisor be increased to \$51,600."***

There was no seconder for the motion.

***Moved by Director Cameron and seconded by Director Shields:***

***"That, inasmuch as Water Board staff has not received a salary increase for three years, the salary of the Field Supervisor be increased by 3% effective April 1, 1996."***

**CARRIED.**

The Chairman suggested that terms of reference for the position need to be developed.

**CARRIED.**

The Chairman suggested that terms of reference for the position need to be developed.

**ADJOURNMENT:**

***Moved by Director Shields and seconded by Director Ockenden:***

***"That the meeting of the Committee of the Whole of the Okanagan Basin Water Board be adjourned."***

**CARRIED.**



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**CHAIRMAN**

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**SECRETARY-TREASURER**

Okanagan Basin Water Board

Proposal for 1996-97 Wages

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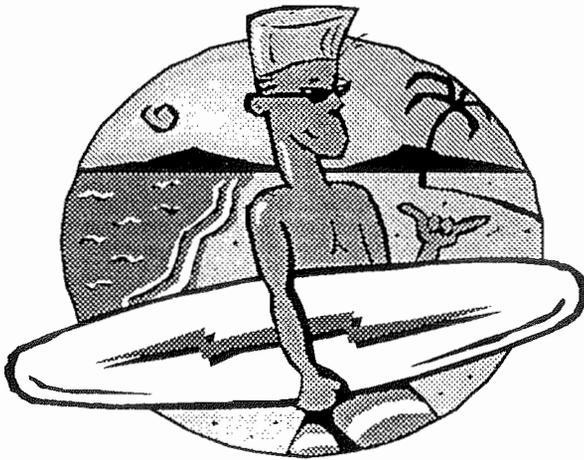
Water Board employees last increase in wages was April 1993

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Field Supervisor



Equipment Operators



Increase proposed for three hourly rate employees:

- with over three years experience and/or
- with Class 1 drivers license and/or
- with SCUBA dive site supervisor qualifications.

Comparison of Wages

Position	OBWB Present	OBWB Proposed 3%	OBWB Proposed 5%	CSRD	City of Penticton	City of Vernon	NOWA	NORD
Labourer (per hour)	13.61	14.02	14.29		17.36	17.44		
Equipment Operator 1					18.11	18.23		
Equipment Operator 2	16.21	16.70	17.02	17.74	18.48	18.62		
Equipment Operator 3	17.88	18.42	18.78		18.62	19.04	18.68	
Supervisor (Salary)	49,660	51,150	52,143	49,712*	N/A	N/A	50,512 Ops. Sup.	50,512 - 58,450 Dep. Sec.
Added Cost to Program		5,990	9,983					

\* Milfoil Control Program Supervisor

## OKANAGAN BASIN WATER BOARD

MINUTES OF A MEETING OF THE OKANAGAN BASIN WATER BOARD  
HELD ON DECEMBER 6TH, 1995, IN THE BOARD ROOM, REGIONAL  
DISTRICT OF CENTRAL OKANAGAN, 1450 KLO ROAD, KELOWNA, B.C. AT  
10:00 A.M.

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**PRESENT:** Chairman R. Hobson C.O.R.D.  
Director G. Ockenden C.O.R.D.  
Director R. Ginther C.O.R.D.  
Director W. McGrath N.O.R.D.  
Director G. Kiss N.O.R.D.  
Director E. Hornby N.O.R.D.  
Director A. Hancock O.S.R.D.  
Director D. Cameron Sr. O.S.R.D.

**ALSO PRESENT:** M. Maxnuk Ministry of Environment  
M. Watts Westbank First Nation

**STAFF:** G. Armour Field Supervisor

### **MINUTES:**

*Moved by Director Cameron, seconded by Director Ockenden:*

*"That the minutes of a regular meeting of the Okanagan Basin Water Board held on OCTOBER 13TH, 1995 be adopted as circulated."*

**CARRIED.**

*Moved by Director Kiss, seconded by Director McGrath:*

*"That the minutes of a meeting of the Committee of the Whole of the Okanagan Basin Water Board held on OCTOBER 13TH, 1995 be adopted as circulated."*

**CARRIED.**

### **AQUATIC PLANT MANAGEMENT BUSINESS:**

#### **AQUATIC WEED CONTROL WORKPLAN 1996-97:**

The Field Supervisor informed the Board that the provisional budget adopted at the October meeting, and a workplan for the fiscal year beginning April 1, 1996 had been submitted to the Ministry of Environment.

Mr. Armour outlined the requisitions which had gone out to the three regional districts and indicated that the total amount required by the Water Board had declined from the amount requisitioned in 1995. This total is comprised of the aquatic weed control portion and the sewerage facilities grant amount.

He stated that the reason for the drop in funds requisitioned was largely due to a surplus in sewerage grant funds from 1995 created as the Summerland project did not draw on the fund. He added that the Water Board sewerage facilities requisition rate will be about 12.5¢ per thousand dollars assessment. This is well under the statutory maximum allowable of 21¢.

There was some discussion of the components of the workplan and Mr. Maxnuk stated that he was concerned that there had been minimal public information directed at explaining what had been accomplished by this program as a jointly funded project of the Province and local government.

Director Hancock agreed that there is a need to inform the public of the work done.

Director Kiss suggested that signs might be placed on the major worksites when weed control is underway.

The feasibility of producing a brochure for public distribution was discussed.

Director Ockenden related that he had experienced little success with mailouts and suggested efforts would be better directed to placing information at boat launch sites etc.

Director Hornby wondered who was being targeted by the information. Was it boaters, or the taxpayer in general?

Director Ginther entered the meeting at 11:00 A.M.

Chairman Hobson indicated that most of the information needed on prevention of spread had been looked after by the Ministry, and we perhaps, needed to focus on Chambers of Commerce, Yacht Clubs, and such, with information about how the cost shared dollars are spent. He advised the Board that a staff member at the Regional District of Central Okanagan, who worked on public information for the Solid Waste program could assist.

The Board agreed that the Field Supervisor should bring to the next meeting some ideas for presentation of results, and a proposed budget.

*Moved by Director Kiss, seconded by Director Ginther:*

*"That the Okanagan Basin Water Board adopt the workplan for 1996-97 as presented."*

**CARRIED.**

Director Hornby asked if the allocation to the equipment reserve fund was sufficient.

Mr. Armour answered that the Ministry had allocated \$7,550 to the equipment reserve in 1995-96 and the Water Board would contribute about \$14,000. He added that this



The regulations provide that any craft with a toilet facility must have a holding tank constructed to permit pumpout at a shore station. No blackwater discharge is permitted in designated bodies of water although greywater remains unregulated. It is requisite for the province to ensure that adequate pumpout facilities are present. Regulations may be enforced by a Pollution Prevention Officer, Conservation Officer, or Police Officer.

Aside from difficulties in policing these regulations, it would seem sensible to discourage dumping of sewage in relatively small bodies of water which are known to be sensitive to nutrient pollution. The Water Board suggested to the Ministry that all lakefront provincial parks should have pumpouts.

Pumpout facilities are located at Kelowna (not operational yet), and at the Penticton Yacht Club, on Okanagan Lake. (Summerland Yacht Club is constructing a pumpout) Pumping stations will certainly be required in Wood, Kalamalka, and Skaha Lakes, if they are to be subject to the pollution regulations.

Mr. Watts noted that the marina located on the west side of the Kelowna Bridge has a public pumpout facility.

Mr. Armour noted that in a meeting with the Minister of Environment at UBCM, the Water Board explored the possibility of obtaining provincial funding assistance to construct additional pumpout facilities and received an encouraging response. The Ministry of Municipal Affairs has also indicated a willingness to consider sharing costs of such facilities, if presented with a coordinated proposal. (Individually, pumpouts are seen as too small a project to qualify)

Director Kiss questioned the responsibility of government in funding pumpout facilities. He said this should be the responsibility of the boaters who use them.

The Chairman informed the Board that the Ministry had not indicated that local funding would necessarily be required. The understanding was that users should pay. Director Cameron suggested that as the Ministry of Environment reviewed all applications made to construct marinas, incorporation of pumpout facilities should be a condition of any permit issued.

***Moved by Director Cameron, seconded by Director Kiss:***

***"That the Okanagan Basin Water Board send a letter to the appropriate Ministries suggesting that new marina facilities in the Okanagan Valley incorporate pleasure craft pumpout facilities as condition of their permits."***

***CARRIED.***

Chairman Hobson noted that the Board should remind the Ministry of the discussion regarding mechanisms for funding pumpouts.

The Board noted that smaller lakes which do not support craft with on-board toilets may need only a porta-pottie disposal system. The lack of a pumpout on Kalamalka

Lake was noted.

Director Kiss advised that the District of Coldstream had proposed to the Province that an on-site caretaker be hired for Kekuli Bay Provincial Park to alleviate problems with vandalism. This caretaker could also supervise a boat sewage disposal system.

***Moved by Director Cameron, seconded by Director Hornby:***

***"That the Okanagan Basin Water Board suggest to the Ministry of Environment that a contract proposal be solicited for an onsite caretaker and sewage disposal operator for Kekuli Bay Provincial Park on Kalamalka Lake."***

Director McGrath noted that the GVPRD had petitioned the Province to establish a campsite at this park as was originally proposed. As part of the operation of the camp facility, a sewage disposal system could be operated.

Director Cameron withdrew his motion, stating that he did not feel it was appropriate for him to formulate action in the North Okanagan.

***Moved by Director Hancock, seconded by Director Kiss:***

***"That the Okanagan Basin Water Board support the establishment of pleasure craft sewage disposal facilities at Kekuli Bay Provincial Park on Kalamalka Lake."***

***CARRIED.***

#### **Meeting of Water Quality Task Group**

**November 16, 1995**

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Mr. Armour informed the Board of discussions of the Water Quality Task Group at a meeting held November 16, 1995.

He indicated that Chairman Hobson spoke to the group on local government needs and expectations from this technical group.

Mr. Armour also reviewed a talk presented by Dr. T. Northcote, a retired professor from U.B.C., on water quality issues in China.

Director Ockenden asked that minutes from this meeting be circulated.

#### **Regional District Of Central Okanagan**

**Watercraft Committee**

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The Chairman outlined information circulated to the Board regarding a watercraft committee established in the Central Okanagan. He noted that this is a complex situation as evidenced by the twenty-three people on the committee.

Director McGrath asked that the other regional boards be kept informed of the progress of this committee.

Director Hornby asked if the focus was exclusively personal watercraft.

The Chairman replied that personal watercraft were the focus at the start but it soon became apparent that they are not the total problem and the committee resolved to look at all watercraft.

### **SEWAGE FACILITIES GRANTS:**

No grant applications were received at this time.

### **Current OBWB Criteria for Sewage Facilities Grant Eligibility:**

At its meeting of October 13th, the Board asked for clarification of criteria for grant eligibility and how recent policy changes of the Board might affect future grants.

Director McGrath asked to speak to the subject as he had to leave the meeting shortly. He emphasized that there was a need to consolidate and clarify grant eligibility criteria into a revised policy and circulate this to local government prior to the next regular meeting.

Director McGrath raised the issue of paying grants up front rather than repaying debt. He also noted that most projects have a component of oversizing for future growth when planning infrastructure to serve existing areas. Lastly he indicated that the Board should address the question of local government sewer projects meeting current grant criteria, which do not receive provincial funding but proceed with local funding. These projects should be eligible for water Board assistance.

Director McGrath left the meeting at 11:30 A.M.

Director Shields entered the meeting briefly, and informed the Chairman that he had to attend another meeting.

A summary of criteria for sewage grants was circulated by the Field Supervisor, and a discussion of the grants took place.

Director Cameron questioned the payment of an interest component to local government which pays for the cost of a project up front and does not incur debt.

The Board agreed to review this policy and asked that staff prepare a recommendation for the next meeting.

The Board reviewed the projected retirement of sewerage debt and asked that a projection of the anticipated status of the fund in the future be prepared and circulated for the next meeting.

Director Hancock asked that the minutes from the meeting last spring of valley Administrators and Treasurers be circulated with the next agenda. She also inquired about the need to change Water Board Supplementary Letters Patent if sewage grant

policies were changed.

Mr. Armour answered that the policies are set out in a letter from the Ministry of Municipal Affairs, and changes would require their assent.

Director Hornby asked if stormwater data presented in Ministry publications was current.

Mr. Armour said that information for stormwater input into receiving waters was collected mainly during the Okanagan Basin Study. He added that as population and the amount of paved land surface increases, there is a need to treat stormwater discharge as more than an accumulation of rainwater.

### **NEW AND UNFINISHED BUSINESS:**

#### **Trailer Parks on Westbank Indian Reserve - Sewer Connection**

Letters from the Regional District of Central Okanagan to Federal and Provincial authorities about the need to connect trailer parks on the Westside at Kelowna to the sewer trunk line were circulated. These trailer parks are estimated to contribute 427 kgs of phosphorus to Okanagan Lake annually (Letter from Dick Nickel)

Mr. Armour informed the Board that this nutrient input compares to 597 kgs from Okanagan Landing, 676 kgs from Winfield, and 242 kgs from lower Summerland. This represents a significant phosphorus source.

Mr. Watts indicated the Westbank First Nation Council had not reviewed the correspondence and he would be pleased to report back to the Water Board when this had been done.

#### **Okanagan Water Resource Information - Update from G. Armour**

The Field Supervisor reported on the status of information which updated data reported in the Okanagan Basin Study:

- Water Quantity in the Okanagan - Okanagan Basin water supply report proposed to be released as part of Okanagan Shuswap LRMP process. Study conducted to review the available water supply in the Okanagan by re-examining the Basin Study and adding in 20 years of new data.

He said this report was based on drought levels of late 1920's, early thirties, which was a one in four hundred occurrence.

- Kalamalka - Wood Lake Water Quality Update - A letter from the Water Quality Group last spring had asked the Water Quality Branch Director to make compilation and release of report a priority. He agreed, but the report was not available yet.

There was some discussion of the impact of the shutdown of cooling water flows to Wood Lake from the Hiram Walker distillery.

*Moved by Director Ginther, seconded by Director Kiss:*

*"That the Okanagan Basin Water Board ask the Ministry of Environment for an analysis of the potential impacts of the shutdown of the cooling water input into Wood lake from the former Hiram Walker Distillery operation."*

**CARRIED.**

- Skaha and Osoyoos Lakes - water chemistry information gathered under Deep River Science grant in 1994. Data needs to be put into report format and interpreted. Only one season of information - may require more years to understand what is going on. e.g. each basin reacts differently as morphometry affects water temps., phyto and zooplankton growth. No taxonomy done - may be different species in each basin. Influences water clarity at various times of the growing season.
- Regular MOE Water Quality Sampling - Done annually - get map of transect locations. Should there be more focus on shallow zones with proliferation of septic tanks?
- Periphyton Measurements in Okanagan Lakes 1995 - May be an indicator of non point source nutrient contamination.
- Contaminants in Okanagan Lake rainbow trout 1988-93

Director Hancock suggested and the Board agreed, that the Ministry of Environment be asked for their projected timeline for closure or completion of these projects.

#### **OTHER BUSINESS:**

#### **NEXT MEETING:**

The Board agreed to meet in Penticton, on February 6th, 1996 at 11:00 A.M.

#### **SEPTIC TANK PUBLIC INFORMATION:**

Director Shields had left some informational materials pertaining to septic system maintenance, produced by the Township of Langley.

The Chairman suggested that the information be forwarded to the local Health Inspectors and they be asked what information is currently sent to the public.

#### **WATER QUALITY STUDY IN OKANOGAN COUNTY, WASHINGTON STATE**

Mr. Armour informed the Board that Mr. Don Lyon, District Manager for the Okanagan County Conservation District attended the meeting of the Water Quality Task Group and spoke of a project just commenced with State, Federal, County, and local stakeholders, to assess the water quality in the drainage basin from the border south. The committee would like a representative from British Columbia. (They do not have

funds to cover costs) He asked if the OBWB would be interested in participating and covering the cost of doing so.

Director Hancock advised that as the Province has jurisdiction they should represent water interests in international matters.

Director Hornby wondered who would benefit from water Board participation at such meetings.

The Board agreed that if requested, Mr. Armour could attend one meeting and report back.

**FIELD SUPERVISOR - JOB DESCRIPTION**

Mr. Armour circulated a provisional job description for the field supervisor position. He noted that this attempted to reflect the desire of the Board to have more involvement of that position in water resource matters other than aquatic weeds.

Mr. Maxnuk noted that this indicated a shift of duties away from aquatic weeds to administration and technical support for the Board; activities which were not subject to fifty percent cost sharing by the Province.

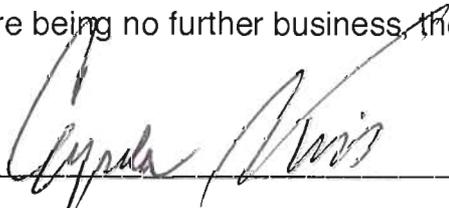
*Moved by Director Hornby, seconded by Director Ockenden:*

*"That the job description for the field supervisor position be received and discussed at the next meeting."*

**CARRIED.**

**ADJOURNMENT:**

There being no further business, the meeting adjourned at 2:00 p.m.

  
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 CHAIRMAN  
  
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 CHAIRMAN

  
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 SECRETARY-TREASURER  
  
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