APPENDIX C

P.I.P. TASK FORCE SEVEN RECOMMENDATIONS

RECOMMENDED PLAN AS PRESENTED
BY THE PUBLIC THROUGH
"PIP" TASK FORCE SEVEN

(FROM PRELIMINARY REPORT NO. 1 "TO OUR CHILDREN'S CHILDREN")

A major assignment of Task Force Seven was to synthesize all the work of the previous six PIP Task Forces and to develop a type of framework plan for the future development and management of the Okanagan's water resource. In carrying out their responsibilities in this regard, the Task Force gave consideration to all recorded inputs received through the "info in" aspect of the Public Involvement Program. The framework plan developed by Task Force Seven is primarily a series of recommendations plus a time chart and maps (the unabridged version is to be found in Preliminary Report #1 and Technical Supplement XII). In providing a condensed version of it now a brief preamble introduces the recommendations:

"Since a unique environment is the key to the very desirable life-style of the Okanagan, we, who live here, should attempt to exert control over social and economic planning so as to prevent deterioration of that physical environment. Any such deterioration would inevitably lead to the deterioration of our unique social and economic environments as well. All planning decisions, at any level of government, should be made only after full assessment of the effect of such decisions on the quality of life in this area, not only for our own sake, but also for the sake of future generations.

We recognize that the Okanagan is not yet in imminent danger of environmental collapse but concern is growing that already there has been too much deterioration. While we recognize that it is necessary to maintain the economic viability of the valley, we do not believe that a rapid growth policy is necessary particularly when such policies have adverse effects on the environment.

We are convinced that the water resource is critical to the maintenance of our environment which in turn preserves the desired life-style. Therefore, it is imperative that sufficient supplies of water be made available, when . necessary, for those priorities decided upon through a valley consensus. It is recognized that there are two major categories in water use: consumptive (water not returned to the system, i.e. drinking, orchards, cattle, certain industrial uses, etc.) and non-consumptive (water used but either left in the system or else returned to the system shortly after use, i.e. fishing, swimming, boating, sewage treatment systems, industrial and domestic cooling

systems, etc.). In future Okanagan planning both consumptive and non-consumptive uses must be taken into consideration. However, priorities need to be established for guidance in those years in which the amount of inflow is less than the required diversions. The knowledge of such a system of priorities would greatly influence the decisions concerning future expansion of any segment of the economy.

Results from preliminary study investigations, including hydrological information, economic projections, and computer simulation lead us to the opinion that there is enough water in the mainstem system to provide for all consumptive and non-consumptive uses during most years. In all years there is enough water for consumptive uses if the management process is altered and improved. We further recognize that the present water system also depends on tributary storage. Available preliminary data indicates there could be quantity problems in certain tributaries in drought years. Consideration should therefore be given to increasing tributary storage where possible, pumping from the lake where feasible, and curtailing of population expansion in critical areas.

We are also seriously concerned about the quality of water. Preliminary research by the Study has shown that water quality is declining in varying degrees and in various places throughout the Okanagan system. It is of prime importance that such decline be arrested and when and where possible, reversed. Water quality is critical for consumption, recreation, aesthetics, fish and wildlife.

While the Okanagan Basin Study was established to examine specifically water resources, we have found that activities on land both have an effect on, and are affected by, water quality and quantity and therefore should be taken into account in comprehensive planning. If we wish to plan the development of the Okanagan Valley towards the achievement of the optimum life-style, those activities should be promoted which will enhance the environment, or at least have a minimal negative effect. In assessing the nature of the Okanagan we feel that agriculture, and especially the fruit industry, is an integral component of the quality of life. The second major aspect of Okanagan life that should be protected and enhanced is the recreational potential.

Before outlining our recommendations however, we also believe that it is important to recognize that the Okanagan Basin Study has made people aware of other deficiencies in planning exercises. Throughout the deliberations of the various Task Forces and especially through the work of the PIP staff, it became obvious that there is a major problem of communication between the public and their governments. Often people don't realize what is happening within the operations of their government, or why. Yet democracy demands an enlightened electorate. In this age of rapidly advancing technology and resource

utilization, it is critical that society as a whole continually be aware of the operations and interconnectedness of the components of their physical, social and economic environment. As well, it is increasingly important that people be guided towards maintaining those practices which will enhance the physical, social and economic environment of the valley by legal as well as by educational means. There are too many regulations overlooked intentionally or unintentionally which, if adhered to, would significantly improve the water resource.

Furthermore, a major Task Force concern has been post-study activity and the fear exists that the results of this Study will be shelved and forgotten. As this Study is a unique pilot project in inter-jurisdictional planning, we hope that there will be some type of continuance into an implementation phase, with ongoing public involvement. We feel that the public involvement sector of this Study has been too valuable a factor to abandon, and there should be continuing opportunities for residents to give their views on the future of their valley."

It is from the above beliefs and rationale that Task Force Seven presents the following recommendations based on the earlier work of Task Forces #1 - #6 representing a cross-section of the Okanagan community, towards the planning of an improved Okanagan River Basin:

1. Therefore, we recommend that: *Future planning in the Okanagan should place primary emphasis on environmental protection, giving due emphasis to maintaining the economic viability of the valley.*

2. Therefore, we recommend that: *For purposes or water quantity the Okanagan water system be planned so that all consumptive and non-consumptive uses be met in all but the most severe drought conditions (historically, one in fifty years).*

   We also recommend that: *Provincial legislation concerning strict flood-plain zoning be enacted and enforced, the responsibility of implementation be given to the regional district.*

3. Therefore, we recommend that: *Water quality standards be developed for the Okanagan which will be directed towards the improvement of present water quality and that all practices affecting water quality be made to conform with such standards.*

4. Therefore, we recommend that:

   1) The agricultural industry be the first priority in the management of water after the personal consumptive needs of the present population have been met.

   2) Agriculture be given more attention by senior levels of government so that it becomes a viable industry in the economy of the nation.

   Because:

   i. B. C. has such a small proportion of arable land, that it should be conserved for food production.

   ii. Support payments for an industry which maintains the desired environment (such as agriculture) may prove to be cheaper than cleaning up the pollution of some other industries.

iii. Agriculture assists in the preservation of green spaces between the urban centres.

iv. The small family farm is an important social component in the Okanagan life-style.

v. Agriculture provides a great deal of the aesthetic value of the Okanagan.

vi. Agriculture provides opportunities for reycling human waste.

Though we are suggesting that agriculture be given this priority in water use, we realize that this is a simplification of the question of the overall direction of planning and we therefore would further recommend the following ideas which are compatible with such a priority:

a) Each area should be encouraged to develop its own capabilities but any such development should not affect negatively the environment of other areas.

b) Future development should tie geared towards low, but stable growth policies, such as a projected population in 2020 A.D. of 275,000 to 290,000 people, with the main increase going to the urban central portion, rather than the agricultural north and south.

c) In the future, because we desire a high standard of environmental quality, we should no longer actively promote residential growth, industries with waste problems and tourism, because these sectors will likely increase anyway, due to the momentum already built into the Okanagan economy.

d) Future growth policies should emphasize the expansion of existing industries, that are compatible with the new standards desired above, rather than seeking to bring in new ones.

5. Therefore, we recommend that: *Considering the trends towards increased leisure time, and considering the unique recreational possibilities of the Okanagan Valley, the second priority in the management of the water resource should be improving and increasing the quality and quantity of water-based recreational opportunities, with primary emphasis on the needs of the residents. The costs of future developments, including pollution control facilities should be shared by all users, whether resident or tourist.*

6. Therefore, we recommend that: *In the development and management of water resources within the Okanagan Valley, there should be a strong and continuing commitment to the enhancement of sport fisheries, with the planning focus on the needs of -the residents.*

7. Therefore, we recommend that: *strict pollution control standards be instituted and rigorously enforced for industries locating in the Okanagan.*

8. Therefore, we recommend that: *A comprehensive program of education towards proper water resource management and planning be developed for both the "public-at-large" and the "student-in-the-classroom".*

That this program, utilizing as wide a variety of media as possible including booklets, video-tapes, pamphlets, tv, radio the press , films etc. would explain and discuss at least the following:

- *The process of operating Lake Okanagan as a reservoir.*
- *Drought possibility and consequences plus elementary steps to alleviate drought problems including basic practical steps reducing water consumption around the home.*
- *The life-process (especially spawning) of the Columbia sockeye salmon, including on-site tours of the spawning run in the Okanagan River in the fall of the year.*

- *The present institutional and social frameworks for the management of water resources in the Okanagan.*

- *The present operational process of various departments of governments involved in water management.*

- *The possible effects of agricultural practices (cattle, fertilizers, etc.) on water quality, plus plausible management alternatives to alleviate such problems.*

9. Therefore, we recommend that: *All legislation, regulations and guidelines which have been established for the purpose of improved water management should be policed more consistently and more extensively than at present in order to attain and maintain a better environment and that public involvement and participation in this process be encouraged through education.*

10. Therefore, we recommend that: *upon conclusion of the Canada-British Columbia Okanagan Basin Agreement an Okanagan Basin authority be established by the Provincial and Federal Governments with the responsibility for management of water and other resources in the valley.*

    a) That such an authority be given real powers in the field of water management and the responsibilities arising there from. These responsibilities to include implementation of the recommendations of the Okanagan Water Basin Study and the recommendations of the Public Involvement Program.

    b) That such an authority be responsible for the development and co-ordination of a totally comprehensive plan for the future orderly development of the Okanagan Water Basin.

    c) That provision be made for continuing public participation so that changing attitudes, perceptions and goals of valley residents would continually be taken into consideration in the planning process.

In addition to the general recommendations which outline the objectives and the philosophy of Task Force Seven, there are numerous recommendations and suggestions that the Task Force members believe must be acted upon over the next few years in an effort to ensure not only the preservation of the Okanagan Valley but to aid in the improvement and management of the water resource and evolve from an "indepth" consideration of the results of the various research tasks undertaken by the Okanagan Basin Study.

11. Therefore we recommend that: *All municipalities undertake programs to ensure that as* a *minimum standard, no more than 20% of the phosphorus from its sewage waste effluent reach either surface or ground water systems; and in order to achieve the major goal of effectively retarding eutrophication of the lakes in the Okanagan, all municipalities must strive to severely limit the input of all nutrients and other deleterious substances from sewage waste effluent to surface and ground water systems.*

    All built-up municipalities and unorganized urban areas must be utilizing some form of sewage collection and treatment by the year 1985 in accordance with the above standards and the timetable accompanying these recommendations -Appendix A (because different communities have begun various treatment systems at various times completion dates are set non only according to the size of the community but also to the degree to which their facilities are currently achieving some measure of phosphorus removal). (Consideration should be given by all governments to continuing studies regarding the feasibility of marketing or otherwise disposing of sewage sludge as a soil conditioner or fertilizer.)

    All industrial plants must adhere to the above standards *by 1985 in accordance with the accompanying timetable.*

We also recommend that: *In an effort to control all Inputs of nutrients (In addition to phosphorus) all positive waste discharges should be removed from the major valley lakes and tributary streams by the year 2000 A.D. Municipal governments should note that when developing new waste treatment systems that may be necessary following the implementation of the recommendation noted previously, overall it may be more economical to initially develop facilities that do not require discharging effluent to receiving waters. Moreover, as will be noted in the aforementioned timetable (Appendix A), it is evisaged that in the near future the minimum standard for phosphorus removal, with expanding population will have to be 90% to achieve the same effect as 80% with today's population.*

There are several possible alternatives to discharging effluent to mainstem lakes and streams:

(i) Spray irrigation of effluent should be utilized as a method of waste disposal wherever feasible throughout the valley.

(ii) Waste stabilization ponds with exfiltration facilities utilizing spray irrigation during the summer might be acceptable for smaller centres provided the overall effect is the removal of 80% phosphorus.

(iii) Consideration should be given to the development of

methane gas production facilities utilizing sewage in combination with other municipal and *industrial wastes.*

(iv) Wherever geologically or geographically impractical to implement (i) or (ii) above, consideration might be given to advanced forms of tertiary treatment.

We also recommend that: *In some areas the possibility exists that individual septic tanks may be an acceptable alternative providing that their efficiency is such as to keep 80% of the phosphorus from entering the water system. A study should be done to establish definite guidelines as to where these would be permitted using such parameters as soil type, residential density, proximity to water table and water courses.*

Until those areas with septic tanks are able to achieve 80% phosphorus removal, regular pump-outs should be instituted on at least a three year rotation; such effluent could be further treated by aeration or through distribution to proper agricultural lands by approved methods.

Consideration should be given to the approval and installation of other biological treatment systems (including the Clivus, etc.) in such areas where septic tanks are unacceptable and regional treatment systems are uneconomical.

12. Therefore, we recommend that: *Specialized agricultural practices*

(i.e. feedlots, etc.) should be managed so that there are no adverse effects on the water quality.

13. Therefore, we recommend that: *There be a greater attempt to control and plan for future tourist expansion and that the facilities be developed with regard to consideration for Improving the quality of the environment and also diversifying the recreational experience. It is realized that there is also going to be a need to provide additional funding for such programs in order that proper quality control and clean-up be maintained. (Such funds might come, in part, from present allotments used for the promotion of summer tourism: as summer tourism has not been shown to be dependent on advertising - only 2% come as a result of advertising - such funds could be a good investment in helping to educate*

people themselves to maintain the environment for all to continue to enjoy).

There must be an increase in the availability of waste collection facilities for the traveller including:

- increased number of pump-out stations for mobile trailers, campers, motorhomes, boats, etc.

- improved accessibility of the above mentioned pump-out stations

There must be an alleviation of the crowded beach conditions, including:

- an increase in the number and diversity of other outdoor

recreational opportunities (e.g. hiking, scenic drives, etc.)

- more encouragement to industries and orchards to conduct tours and otherwise provide non "water-based attractions"

- consideration in certain locations to restricting the number of power craft on a lake at any one time

We also recommend that: As *the Okanagan is a natural recreational attraction, the enhancement of water-based recreation should enjoy a broader base for financial support than that of local taxes. Studies should be conducted as to the feasibility of establishing methods whereby the tourist may fully participate financially in the development and enhancement of water-based recreational opportunities.*

One possible method would be to assess an annual licence fee for boats which would support a fund for lake management (such a fund, being federal, would be dispersed throughout the nation including the Okanagan).

We also recommend that: *There should be an expansion of facilities to relieve congestion for the local resident (it may be necessary to create certain spots with limited access and limited promotions in order that only residents and very keen visitors would find the place).*

We also recommend that: *It is imperative that provision for improved water-based recreation include the immediate initiation of continuing programs aimed at establishing and maintaining more and better lake access points, and that such points be made more visible to the public. Policies should be developed and implemented to ensure public access and therefore should be maintained for public use.*

In the future all private commercial developments on crown land should be prevented within 660 feet of the lakeshore in an effort to increase the amount of land for public recreational use.

Continuing programs be Immediately initiated to establish and maintain more government campsites, and stricter supervision of private campsites, all conforming to new standards of environmental and social quality (i.e. less crowding). Should the achieving of such standards prove to be more expensive than present operations the per-night fee should be raised accordingly - in other words, permit the consumer to contribute'.

Lake access points should be posted and the public informed of their rights to beach usage. Such postings should be reasonably noticeable to the public.

In developing future plans regarding the expansion of water-based recreational opportunities, a major criteria should be the capability of a particular area to support a given number of people: When designated capabilities are reached, further development would be prevented; whenever individual capacities

are *reached, additional tourists would have to go elsewhere.*

14. Therefore, we recommend that: *certain high potential spawning gravel beds fronting the shoreline be designated and protected in order that natural spawning in the mainstem lakes will be significantly enhanced;*

moreover, in certain high potential streams, storage reservoirs should be developed to provide water to keep certain areas of the stream bed available for maintenance of fish stock.

We also recommend that: *The costs of enhancing the sport fisheries of the Okanagan should not be assessed against local taxes*

15. Therefore, we recommend that: *Regarding possible internal measures that might be taken within a lake system to improve the water quality in the Okanagan Valley, weed harvesting is a reasonable practical method, but it should be used only in the short run to clean up a problem while simultaneously the source of food for the weed problem is also being cleared up. This process would usually be utilized in areas where weeds are deemed objectionable. Should the weeds have an aesthetic value or supply a natural habitat for waterfowl and wildlife, they should not be removed. It is also possible in the case of Wood Lake that some forms of chemical treatment may be effective (but again the provisions mentioned for weed harvesting are applicable).*

16. Therefore, we recommend that: As a *management tool, zoning be implemented in the lake systems with consideration being given to the following activities: Fishing, boating, water-skiing, sailing, canoeing, etc. Such zoning would be necessary in any lake where these activities, in having to compete at large, might seriously override other people's particular pleasure, be seriously jeopardized by other people's activities, or jeopardize the fish stock and/or wildlife and domestic water.*

In the consideration of zoning particular parts of the lake system for particular uses, any restriction that might be considered should be both discussed with and made known to the public in order that people do not invest in particular modes of water-based recreation only to have noticeable restrictions placed on them shortly thereafter.

17. Therefore, we recommend that: *policies should be initiated to permit the following:*

    a) *The acquisition and retention of shoreline for potential use as beach land or other forms of water-based recreation and related activities.*

    b) *The restriction of certain lake areas for particular uses, for example:*

        - *Vaseux Lake region - wintering ground for Bighorn Sheep*

        - *Head of Osoyoos Lake - fowl habitat*

        - *Headwaters of Inkaneep Creek - waterfowl habitat*

        - *Cousins Bay at Coldstream - environmental park*

        - *etc.*

        (i) *It is further suggested that there be more provision for mapped recreational reserves around the various lakes.*

    c) *The allocation of certain "set-back footage" around selected major lakes and streams for the purpose of activities such as hiking, riding, cycling, walking, etc.*

        (i) *Moreover, some shoreline on all lakes should be protected now for multiple public use.*

18. Therefore, we recommend that: *Greater protection or the littoral zones in various areas of the lakes be provided and that bulldozing in of the lake-shore should be severely limited. There should be no alteration of the natural conditions of the lakeshore, except where it can be shown that it is for the benefit of the public.*

    An investigation should be carried out regarding the private use of shoreline; moreover/ it should be determined who is legally permitted to have leases for wharfs, etc. Any individual without legal right should be required to remove any obstruction. Furthermore, in the future, no such leases should be given out in prime shoreline areas.

19. Therefore, we recommend that: *Flood-plain zones should be defined and mapped and further building on these areas be prohibited. In the future, consideration might be given to buying out present structures already built in the more flood prone areas. (These zones would include at least to the 918 foot elevation on Osoyoos Lake and 1127 foot elevation on Okanagan Lake.) Flood-plain zones could provide a variety of alternate uses: Agriculture, recreation, wildlife habitat, etc.*

20. Therefore, we recommend that: *a rationalization or the water supply and water demand situation be undertaken such that wherever domestic, agricultural and industrial demands exceed the supply available from the tributaries, alterations would be implemented which would require those areas adjacent to the lakes, not already doing so, to draw water from the major lakes themselves. Such alterations would not be at the expense of the present licence holders (especially those holding licences for agricultural purposes) but rather would be paid for by the new developments, through compensation or other fiscal levy.*

21. Therefore, as was mentioned earlier, and is now reiterated for further emphasis, we recommend that: *In an effort to control all nutrient inputs that cause weed problems along lakeshores, all discharges from sewage treatment facilities should be removed from the mainstem lakes by the year 2000 A.D.*

22. Therefore, we recommend that: *In an effort to increase the ability of the river channel to handle its capacity flow, several changes should be made to the structures along its course.*

    Improvements on the Oliver Highway #97 Bridge and in the drainage or Tugulnuit Lake should be undertaken to increase the ability during high flow periods to release more water from Okanagan Lake: In the case of Tugulnuit such improvements would also provide benefits of a recreational nature by keeping it cleaner for both people and fish. In the case of the Oliver Bridge, it should be replaced in that it poses a potentially serious threat to motorists both in its approaches and in its width; since #97 is a major vehicular route, such problems should be corrected in the very near future and when this is done, the water flow constraints could also be overcome.

23. Therefore, we recommend that: *A definite commitment should be made to provide sufficient water for desirable fish species in the Okanagan River during the spawning and incubation periods; this commitment being consistent with higher priorities.*

    The sockeye salmon fishery in the lower Okanagan River must be protected for the native people's fishing rights and for the educational value to school children and the public in the area. Moreover, in this latter regard, some effort should be made to make the spawning areas more accessible to the public; the salmon, however, being very delicate and especially vulnerable at certain times of the year, must be very carefully protected from possible

menace from this public.

Studies should continue on the feasibility and desirability of construction of a spawning channel in the Okanagan River; Such studies should have built-in communication and participation links with the American community in the Columbia - Okanagan Basin!

24. Therefore, we recommend that: *Extended green-belt policies should be implemented along the Okanagan River.*

In keeping with the previously mentioned flood-plain zoning and the suggested "set-backs" from all water courses buffer zones are recommended. Dyking is more effective if set back somewhat from the river bank. In doing this, we could alleviate the severe stress put on the banks during flood as well as providing space - for green-belt strips between the banks and the dykes.

Furthermore, it is suggested that consideration be given to the restriction of certain areas for particular uses such as:

- *spawning areas for sockeye salmon*
- *wildlife habitat (ox bows)*
- *environmental park (natural part of channel at McIntyre's Bluff)*

25. Therefore, we recommend that: *Greater co-ordination among all authorities involved should be developed in an effort to schedule instream flows in a manner that would meet not only human demands but also certain critical fish needs (especially downstream).*

We also recommend that: *In three tributaries: Mission, Equesis and Trepanier fisheries, requirements including in-stream flows for spawning be guaranteed for fish enhancement.*

We also recommend that: *In seven other tributaries: Vernon, Whiteman, Powers, Coldstream, Trout, Peachland and Shingle, consideration should be given to facilitating many non-consumptive uses including fish preservation in all but very severe drought years.*

(It is suggested that consideration be given to restriction of certain areas for particular uses. For example:

- *Brent Mountain - Environmental Park*
- *Lambly Creek - multiple-use recreational area*
- *Headwaters of Inkaneep Creek - waterfowl habitat*

We also recommend that: *Consideration should be given to increased multiple-use of certain selected reservoirs for improved natural reproduction of fish and fish enhancement. This requires joint co-operation between Irrigation Districts and Fish s Wildlife people.*

We also recommend that: *An additional number of lakes be opened as is deemed feasible and beneficial to accommodate increase in fishing demand, moreover, a reasonable number of lakes should retain limited access only. Some other lakes with good access could be zoned for a variety of different fishing experiences (e.g. speciality fishing - fly, trophy, etc.) and some might even be allotted to recreational uses in general wherein the fisherman would compete for space with the canoeist, etc. Such lake zoning should be*

developed under the leadership of the Fish & Wildlife Department (Provincial Government).

We also recommend that: *Fish management practices be given due priority in water management so that optimum efficiency and production is gained from each fishing lake in the system.*

26. Therefore, we recommend that: *More multiple-use, non developed areas be designated to provide more opportunity for outdoor recreational activity;*

with the increasing amounts of leisure time becoming available to each of us it will be imperative the facilities be available.

We also recommend that: *Regulations be developed to permit the acquisition and retention of shoreline on tributary lakes for potential use in various forms of recreational activities.*

Moreover, we should make sure that we have other recreational opportunities besides those which are water-based in order to meet a diversity of interests and also to relieve some of the pressure on the prime water-based sports themselves. An inventory of all recreationary potential, including sites, should be developed for the valley as a basis to longer range planning.

27. Therefore, we recommend that: *Extended green-belt or buffer zone policies be implemented along all significant water courses. The usual benefits to be gained from green-belting, are the provision of open areas both for the recreational use and aesthetic pleasure of residents around these areas as well as in many instances restricting urban sprawl. In addition, control could be established on activities along and adjacent to all water courses for the ultimate protection of the water quantity and quality as well as safeguarding wildlife along these water courses.*

28. Therefore, we recommend that: *Included in an education program there be provision for acquainting the public with the use of sewage sludge as a soil conditioner.*

We also recommend that: *Further publicity should be given to the economic benefits that are possible via agriculture in growing of forage crops with assistance from land spray irrigation sewage disposal.*

29. Therefore, we recommend that: *Consideration must be given to better water management leading to improved water utilization:*

Some consideration should be given in all major municipalities and in any new residential developments to the installation and utilization of water meters or water-use control valves.

Greater re-cycling of water should be encouraged and more studies should be conducted into the potential viability of double water systems for municipalities as well as the feasibility of some of the new home toilet and waste water systems now being studied (e.g. Clivus, etc.).

Due to the tentative state of the art regarding present levels of development of trickle irrigation, this procedure should not at present be considered a prime method for reducing agricultural water consumption or withdrawl:

This does not rule out future potentials due to potential refinements in the process.

Further study be conducted as to the necessary collaboration between members of the forest harvesting Industries and the Resource Departments of the Provincial and Federal Governments to effect a system of forest management more consistent with the needs of our water resources and the wishes of the residents of the Okanagan.

30. Therefore, we recommend that: *Greater emphasis be given to attempting to spread the tourist demand more evenly throughout the entire calendar year;*

such things as hiking and other non water-based activities, varied fishing seasons, skiing and other winter sports in controlled areas might help to alleviate some of the summer stress and strain and also provide a more economically viable situation for those valley residents more directly affected by the tourist.

A fund should be provided to support an educational program for the tourist not only to inform them of the varieties of campsites, etc., that would be available, but also helping to communicate to them the need for proper environmental management while on their vacation.

31. Due to the deteriorating condition of Wood Lake, it is imperative that major efforts be undertaken to eventually retard the rapid process of eutrophication. However, the delicate condition of this lake requires that any activities being undertaken must receive exhaustive study prior to implementation. In this regard, Task Force Seven believes that two alternatives to improving water quality in the Central Okanagan should receive serious consideration and further study. It is possible that some of the nutrient loads in Wood Lake can be reduced by a massive irrigation program which would take Wood Lake water up to the agricultural land and the bench lands beyond, thus depositing most of the nutrients in the soils before water returns to Wood Lake via ground water, etc. In this same geographic area, the recommended removal of sewage outfall from the main lakes system has brought in an effort to provide a suitable winter storage area for the Kelowna and Winfield treated sewage effluent. It may be possible to utilize Duck Lake (Ellison Lake) as a nutrient sink, providing, of course, that Vernon Creek was re-directed to by-pass Ellison Lake. In both of these instances, however, significant questions remain in terms of the implications of the proposals and therefore, we suggest that before any positive action be taken:

1. *Further studies be conducted into the long term advantageous and potentials of utilizing a form of hypolimnetic irrigation to attempt to arrest the eutrophication process presently going on in Wood Lake.*

2. *Further studies be conducted into the possibility of utilizing Duck Lake (Ellison Lake) as a potential winter reservoir for treated effluent from Kelowna, Rutland, and Winfield. (It might be possible to use this lake as a natural lagoon and nutrient sink; by short-circuiting Vernon Creek so that it does not enter the lake at all, the lake could then be used as a reservoir in the winter and, in the summer, could be pumped out and up onto the east side agricultural lands along with the regular sewage effluent: The study would also investigate various measures to reduce any possible noxious side effects for the local area.)*

32. Therefore, we recommend that: *In all future river basin planning studies, full consideration be given to the effects of land-use, forest management and any other significantly related resource in the development and management of a comprehensive water resource plan.*

Furthermore, we recommend that: *In all river basin planning studies, public Involvement be an Integral part of such a venture from the outset in order that the social, economic, and environmental goals of the community will be a major influence and continuing component in the development and management of a comprehensive water resource plan.*