CRITERIA FOR AN EFFECTIVE WATER RESOURCE PLANNING PROCESS

by

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ABSTRACT

In examining the present status of water resource planning in the Pacific Northwest, numerous critical inadequacies become readily apparent. One method of minimizing some of these inadequacies is through administrative reorganization. Realizing this there have been many different reorganization proposals put forth. Along with these proposals has come much propaganda.

In order to obtain a clearer picture comparative criteria were established. Upon doing this it was decided to limit the analysis to the compact, the authority and the inter-agency approaches. Upon applying the criteria to these three structures, the following conclusions were reached:

1) the compact would probably be worse than the existing setup,
2) the inter-agency committee has some value and not too many dangers,
3) the authority fulfills by far the most criteria but because of certain possible dangers should not be strived for,
4) that the criteria are useful in discovering which structures may be unacceptable but they do not tell which is the optimum one. Much is dependent upon the type of planners the structures attract.
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I. Introduction

Government is the established system of administering public affairs. Primary democratic theory states that it exists to carry out the "public will" but such theory does not satisfactorily explain how this "will" is to be defined and measured. This becomes a controlling problem.

In defining the "public will" it is imperative to note that it has unlimited time dimension. Actions started now will at least have as great an influence on future generations as upon this one. Present voters cannot represent the public as a historic community for they are individuals, time-directed and non-continuing. As a result the historic public is represented by the executive. Public policy lies in the accommodation between the present political public and the executive.

The assumed method of measuring and defining the "public will" is for the government to be the chief policy initiator rather than the "public". By taking the generally accepted goals of our society,

"Another possible way of measuring it is by weighing the various un-directed public impulses in a functional field. Reliance is placed upon the government for adequate collation and definition of these impulses. This method has numerous weaknesses. Some of them are (1) little regard for future generations, (2) public opinion time lag (3) no representation for unorganized public (4) problem of defining and collating impulses and (5) as the concerned functional field becomes more specific the measurement of the "public will" through this means becomes more impossible.

There are several broad accepted goals under certain definitions which have major importance to the water resources field. The first is conservation or "wise use". Undoubtedly this is very broad but it can serve as the base for the development of alternatives. The second is concerned with the "socialist-capitalist" controversy. The majority of the people in the United States are against "socialism" in some degree or another. But they are not against it to the extent that it would exclude all mention of alternatives pointed in that direction. This would seem to mean that there is a priority of goals. The public might rather want to prevent waste of water resources than to encourage private development per se. Thus there may be conflicting goals and, as a result, conflicting alternatives.
drawing up alternatives in the numerous functional fields for the fulfillment of these goals, and then giving the present public the choice of alternatives the criterion of the "public will" is met.

The process is started by needs envisioned for the present and/or the future. If the needs are envisioned mainly for the fulfillment of some present desire the process is likely to be started by the "public" or its representatives. If the future is the prime consideration then the executive is apt to be the prime mover. Once the process has been started the basic goals of our society are remeasured by the executive through consideration of the past and future and through weighing the present.

One part of weighing the present is listening to the "public" and its representatives. Ideally perhaps the "public" should speak for itself. Because it is unorganized and almost totally voiceless on a large scale its representatives - interest groups, political parties and legislators - do most of the speaking. The interest groups, being primarily interested in policy, define and represent the special interests of specific groups of people. In contradistinction, the political parties, being mainly interested in the attainment of public office, represent the people as a whole and as members of areal constituencies. The legislators also represent groups of the public but largely in an areal sense. They tend to bring together the interest groups and the parties.

The other part of present needs as well as past traditions and future needs is largely weighed by the executive.* While he is weighing

* It is important to note that there is, and should be, some cross fertilization between these two parts of the present but never (cont.)
these he begins acting as chief administrator by bringing together the various functional fields of government. Once the goals have been determined, directions go to the various functional administrators under the executive, telling them to find ways of optimizing the determined goals.

The administrators have control of the various functional fields during the planning, construction, and operation stages of goal optimization. They usually operate on the national level, tying the various functional ends together. They, in turn, send directions down to the various regions. There the regional planner is concerned with the development of specific areal alternatives for goal optimization.* In

* The planner's actions have been institutionalized into a process. This process can be broken down into several overlapping, interrelated parts. The first is the identification and clarification of areal goals based upon general functional goals handed down from above. Among other things this entails interaction with the pressure groups and the public to identify what is needed and desirable. The second part is the measurement of the existing situation. This includes research, data collection and analysis of the results of the synthesis of research and data collection. The third is the development of alternatives to realize the goals determined in the first part, and, later on, the development of a detailed plan to realize the selected alternative. The last part is the transmission of the alternatives and, later on, the plan to those in authority.

(*-cont.) – should one overwhelm the other. "In this century, the balance of the two powers has been seriously upset. Two great streams of evolution have converged upon the modern democracies to devitalize, to enfeeble, and to eviscerate the executive powers. One is the enormous expansion of public expenditures ...; this has augmented the power of the assemblies which vote the appropriations on which the executive depends. The other development which has acted to enfeeble the executive power is the growing incapacity of the large majority of the democratic peoples to believe in intangible realities. This has stripped the government of that imponderable authority which is derived from tradition, immemorial usage, consecration, veneration, prescription, prestige, heredity, hierarchy."¹

order to fulfill his duties he must redefine the broad national goals, functionalized by the administrator, into specific workable goals. He leads the examination of the future but is also directly concerned with existing realities.

The regional planner then presents the alternatives for the approval or disapproval of the public and its representatives. The results of this contact with the public on a political level serve to modify the planner's earlier findings.* This modification goes back up to the executive and the process is started over again.

One of the many problems entailed in this process is that there are many desired interrelationships between the various players and there is no apparent way of insuring that these will take place in an optimum manner. In spite of this there is a means available to effect partial optimization of these various executive mergings and interrelationships and the relations between the executive and the present public, i.e., government optimization. This is through organizational optimization.

In any one combination of area, administrative phase, and functional field there are various organizational setups possible. Each has its strengths and weaknesses. This study will attempt to examine one such field - water resource planning in the Columbia River Basin - and some of the organizations envisioned for optimization.

* It should be emphasized that planning does not insure the right results. No matter what the process there will always be uncertainties, inadequacies, and limitations. Planning is a way of minimizing these but it does not and cannot eliminate them. "Planning should never be confused with certitude. Rational techniques for identifying resource problems and preparing proposed solutions cannot assure correct answers, but must deal in terms of approximations and probabilities. The technique used may represent the highest level of rationality; it may be mathematically precise. But the non-rational and irrational (cont.)
In order to do this, comparative criteria have to be established. This entails examining the basic concepts of the functional field and the existing processes and how they evolved. Once the criteria have been established the next step is to go to the study region and examine what has happened there and to set down what possibly should happen in the way of development. The last step will be to consider organizational proposals put forth to optimize this development and to examine their strengths and weaknesses in the light of the criteria.

(*-cont.) - aspects of human behavior must also be included as a part of the matrix from which policy decisions will flow.¹ Planning and politics go hand in hand; they complement one another.

¹Wengert, Norman, Natural Resources and the Political Struggle, Short Studies in Political Science, Doubleday and Company, 1955, p. 6.
II. Water Planning Model

A. The Regional Water Resource Planning Process

"Integrated river development is a tool for social change, supporting economic growth and bettering living conditions not only materially but also culturally and spiritually."¹ Water development is one of many different instruments of social change used to realize governmental goals. As with most such instruments it is apparently susceptible to planning. "A program for conservation, development, control and use of the water in a stream is one that will bring results; it is one that requires and will respond to overall planning."² The impetus initiating the water planning process comes from two slightly different directions. One direction comes from the existence of water in an area; the other direction comes from the existence of a public need or desire. To bring these together several theoretical concepts have been formulated: multiple-purpose development, river basin planning, and comprehensive regional development. Though there is considerable controversy concerning the meaning and application of these interdependent concepts they form the foundation for modern water resource development.*

In dealing with the ideal water planning process it is necessary to understand the planning process itself. It might be assumed that the various parts of the process follow logically one after another. This is not the case as they are all deeply intertwined and interrelated. There may be a kind of basic order to them but there are no separate stages.

* See Appendix I for an expansion of these concepts.
At the same time.

Areal goal identification and clarification is the first part of the process. Before this is attempted the regional planner must be given the general national goals and the specific national goals dealing with water. The President, through his office, has already determined what the general national goals shall be. These need specific functional and areal translation. A national planning board is needed to adequately do the former and regional planners to do the latter. Since this study is concerned with the development of a region the emphasis will be on the latter but one should not lose sight of the importance of the national body.

After the planner has gone through the entire process his regional actions will likely have modified the national water goals. Thus the process is circular and never ending. Public interest is always changing, perhaps at times due to the planner's actions. When it changes the planner must respond. "What is important, even indispensible, is the constant, unrelenting search for the public interest and a dedication to furthering programs and policies which on the basis of the best judgments at the time of decision will advance the public good."¹ This reexamination is likely to be difficult because vested interests will have become attached to the first results, but it must be done. Planning is for the

¹ Wengert, Norman, Natural Resources and the Political Struggle, Short Studies in Political Science, Doubleday and Company, 1955, p. 66.

* The success of the process is partially dependent upon the existence of a national planning board. Such does not now exist and the chances of creating one do not appear too bright. Without one, the goals handed down by the executive are apt to be very general in a time-limited way. Since success is partially dependent upon specificity of goals and breadth of vision some means must be found to make them more specific and to broaden their coverage. The regional water planning agency must develop much closer ties with other functional agencies to do this. The interrelationship of other resource and functional fields becomes controlling. Also the regional planner will have to lean towards the national view.
public interest and must change with it.

Upon receiving the general and functional goals the regional water resource planner determines the regional public needs and the ways of fulfilling the goals and the needs through water development. Here the basic problem becomes one of identifying the regional needs and desires. The planner should emphasize the former; the representational process will be heavily weighted towards the latter.

The second part of the planning process is the measurement of the present situation. The major water planning concern here is the increase of data collection in the field. There are numerous gaps in hydrological data which should be closed before the physical possibilities of water development are determined for a particular area. Perhaps of greater concern are the major gaps in the economic and social information which is to serve as the base for the water plan.* Also involved in this part is a consideration of possible future technological and meteorological changes which could affect needs, desires and efficient operation.

After determining regional needs and weighing national goals alternative proposals are developed by the planner. The more specific the goals handed the planner the fewer the alternatives developed. Some regional needs will be conflicting and various alternatives will be based on these differences. Questions are also apt to arise concerning such things as the most efficient means available to realize the various goals and the type of location of either governmental action or governmentally regulated private action.

* "If ... (water) ... projects are to serve the region and Nation according to the principles upon which they were conceived or if they are to establish the ideal for which they were created, then all policies concerning their planning, construction and operation must be based on a complete and comprehensive economic and industrial survey. Such a survey is the true point of beginning."

One major consideration to be made by the planner in this part is to determine the superior uses of water. Water has many varied and conflicting uses and in order to partially resolve the conflict between them superior uses are determined. These are largely market and value judgments, strongly shaped by present technology. Another major objective in this part is the optimization of benefits. This follows closely from the last objective. Along with determining superior uses the planner must find the optimum way these uses can be realized. This may largely be an engineering solution but it is heavily based upon economic and social data. The physical plan will accomplish part of the optimization and scheduling of it through priorities may accomplish the other part. A third major objective in this part is the determination of means. Once the superior uses have been defined and the direction of benefit optimization established the problem becomes one of finding the means for realizing them.

The last major objective to be considered in this part is the actual delineation of alternatives and, later, a plan for the area. These are specific sets of proposals and projects which, acting together, fulfill the stated objectives to the feasible optimum. If the plan is to be a water plan it has to consider all the uses and misuses of water in order to be complete. Pollution, recreation and fisheries should be considered as well as navigation, irrigation and floods. Nor should any of the means

* It is apparent that it is necessary to have a comprehensive water planning agency to optimize the means. An agency tied to a specific means is not likely to do the job properly. "One major objective of cooperative regional planning is to point up the need for change from the old ways of utilizing resources to better ways and means for both conserving and developing for further use." A limited interest, past oriented, planning agency would not be likely to point up such a need even if it existed.

of implementing the uses and dispelling the misuses be forgotten. It should be comprehensive in scope and implementation.

After alternatives are formulated the way is apparently open for a choice as to which direction to go. One direction is for the planner to send these alternatives to a national planning board for study to see if they fulfill the national goals. The remaining alternatives are then put into the political arena to be weighed and decided upon. It is largely a choice between extremes.* After the extremes are discovered the regional planner develops a regional plan optimizing the goals within the chosen extremes. Once this has been done it goes through the same process as the alternatives.

The second method is different in that instead of sending the alternatives to a national planning board for review and then into the political arena they are at once sent into the arena. This latter method gives more weight to the regional public. Each method has arguments for and against usage. To simplify things it is suggested that the two be combined; present the alternatives to the region and discard those which are totally unacceptable.** Those that are left are sent through the first process.

The last part in the planning process is the transmission of the alternatives and, later, the plan to the action agencies. In water resource development there are numerous such agencies. In order for water planning to be successfully carried out these agencies must be coordinated. They must work together toward a common goal. Planning

* The alternatives developed by the planner are used to discover the popular extremes of public opinion. As a result they don't have to be too detailed.

**Obviously this is the key word and it is probably undefinable. It is felt, though, that some such obscure criterion is needed as the first process may give too little consideration to regional desires and the latter too much.
should implement this coordination. "Proper coordination of the activities of the Federal Government in its various branches and of the States and localities in the conservation and development of resources and in measures for economic and social advancement is one of the prime objectives of planning." 1

Another important phase of this last part is the job of awakening the regional public. Actually this may be the first thing the planner will do. Citizen interest is to be desired throughout all the stages of the planning process if they are to properly decide between alternatives. "The people of the affected area should be advised as early as feasible on the various stages of the programme, the solutions being considered, the promise afforded for improvement in their way of life, the results already obtained, the conflicts of interest which have developed or may develop and the considerations involved in resolving these for the general good." 2

These, then, are the basic objectives to be realized in the water resource planning process. In the first part of goal identification and clarification the objective is to receive national goals and to determine the regional public needs and wants which can be fulfilled through water development. In the second part of measuring the situation the objectives are to fill the gaps in the needed hydrologic, economic and social data. In the third part of plan formulation the objectives are to determine a priority of water uses, optimize development benefits

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1 National Resources Committee, op.cit, p. 13.
2 United Nations, op.cit., p. 29.

* If the planner is to see his plan carried into action without too much distortion he must partially effect this coordination. Obviously if there is an effective national planning body this objective will be largely fulfilled.
through project design and scheduling, determine means, and lastly, delineate alternatives and, ultimately, the plan. In the fourth part of transforming the alternatives and the plan to the national agencies and the public, the objectives are the functional coordination of concerned administrative bodies and the awakening of the regional public. If these are what the planner should be striving for, the next question to be asked is what are the conditions he must fulfill if he is to successfully realize the aforementioned objectives?
B. Conditions for Planning Success

In order to optimize the water planning process the planner must consider and weigh in an unbiased manner the physical, economic, social and political surroundings. To do this he must consider the physical setting, all of the water uses, and the interrelationships between water and other resources. He must consider the present and future needs of the various areal groupings. In making these and other requirements more specific a list of water planning criteria is arrived at. Optimization of these may be equatable with the optimization of the planning process.

The controlling requirement for planning success is that the planner must be comprehensive in his vision. He should be comprehensive on at least three facets of river basin development directly related to its theoretical foundation: the multiple direct and indirect benefits of water development; the total water resources of a river system; and the interrelationships of the region's resources.*

'Full development' has been one of the terms used to describe the general goal of this comprehensiveness. This term has become quite obscure and closely tied with the confusions of conservation. It is difficult to base a water development program on such a foundation. The term "comprehensive development" has been recently suggested to serve as an adequate foundation. It is "the application of integrated multiple-purpose design, planning and management which include joint consideration

*It should be pointed out that there is much public opposition to this latter point. Because of this it is understandable if most proposals do not emphasize this but this does not detract from the validity of the idea. Since public acceptability is a criterion for success there are apparently conflicting criteria. Depending on the situation one is apt to be controlling. Public acquiescence is a necessity.
of ground and surface waters, conservational and other measures for "engineering" of demand, and treatment and management of waters having substandard quality. Consideration of every appropriate technique would be a routine part of planning for development".¹

The need to take a comprehensive look at the future and plan accordingly increases in importance as water uses become more competing. For semi-arid areas efficiency of water use is receiving widening consideration. As the need for water for direct human consumption expands and as water misuse also increases the cries for more efficient use will be heard increasingly throughout the country.*

Besides having consumer pressures pushing for efficiency in use there are also technical pressures pushing for use of efficiency methods. The planner should help to resolve these pressures in an optimum manner. Efficiency of development will help to lessen this competition. The word efficiency may take the place of the word conserve or conservation which has become subject to many conflicting interpretations.**

¹ Ackerman, Edward, The Impact of New Techniques on Integrated Multiple-Purpose Water Development, Senate Select Committee on National Water Resources, Committee Print No. 31, p. 2.

* "As settlement increases in density and water uses increase in their intensity, it becomes necessary at some point to manage water in such a way that competition among uses is reduced or avoided, complementarity of use is increased and efforts are made to obtain the maximum amount of services from the water available. In other words, we seek improvement of efficiency in the manner of our water use, as well as justice in its allocation."²

²Ibid, p. 5.

**"Efficiency is the relation between the amount of input and the amount of resulting useful output. The larger the useful output per unit of input, the more efficient the process."³ Efficiency concerns such things as (a) low interest rates, (b) nonprofit distribution of benefits and (c) preservation of public interest.***


***Letter from Gus Norwood to author, March 5, 1961.
of facilities are major means for realizing it.

Administrative structure goes far to influence the vision of the planner on these facets.\*$\*$ Indirectly then, planning success is related to the administrative structure. Another basic requirement for the success of the planning process may thus be that it be formalized with an adequate administrative structure. The structure should be located within the geographic area with which it is operating. Its boundaries should be the area's boundaries. Besides having geographic continuity it should also have functional continuity.

It should go without saying that the planning agency should be under one head to reduce the many problems created by separate, semi-functional planning agencies. "It is almost an inseparable task to plan for the relating of similar functions when the administration through which these functions must be carried out is so disintegrated that the actual work of fulfilling the functions is perpetually unrelated."\$\$ It may not be necessary to have the planning agency also construct and operate the physical plan recommendations, but the three phases should be regarded as a continuous process and should be under some sort of common control. Also there must be close ties with the other resource agencies in the region.

Since planning is a continuing function the organizational structure should be a continual one. The development of a physical plan

\[\text{\textsuperscript{1}}\text{ National Resources Committee, op. cit, p. 149-50.} \]

\[\text{\textsuperscript{*}}\text{ Institutional organization and management go far to determine policy, while policy is everywhere present in administration, shaping it, handicapping or furthering it, and ultimately controlling its effectiveness.} \text{\textsuperscript{2}}\]

\[\text{\textsuperscript{2}}\text{ Dimock, Marshall E., "Government Corporations; A Focus of Policy and Administration", American Political Science Review, October, 1949, p. 904.} \]
is not enough. The plan must be in a constant state of revision so as to take into account changing variables and conditions and to be ready for the unexpected.*  The greatest activity in the water resource field usually takes place in response to a crisis such as a costly flood. As elective bodies do not have adequate continuity it is up to the administrative agency to respond to such crises with well based plans rather than fear induced ones.

Lastly, the structure should both be legally and fiscally adequate. It must have both the necessary legal powers and an adequate supply of funds to properly fulfill its functions.

On a more general level there are various other conditions to be met for planning to be successful. These conditions can be grouped in four categories which are related to the four steps in the planning process. The first condition could be called "proper orientation". A second is related to the available data. A third condition can be called "proper vision". The fourth is concerned with public and governmental acceptance. Within these various categories are over-lapping sub-criteria. Though they are not strictly definable, it does not lessen the validity of their usage.

A major requirement of the first condition of "proper orientation" is that the planner understand the basic goals behind his actions and operate accordingly. Water development is but one of many actions devoted to public ends. "The emphasis upon water and upon construction of dams has obscured the fact that these are means, not ends. It follows that the*

*"The lesson (of the Missouri Basin) is that planning multiple-purpose developments must be a standing assignment, or be done impromptu when catastrophe strikes."  

planning of water resource projects must be oriented to policy judgments about ends to which water and construction projects can contribute.¹

Besides just understanding the goals behind his action the planner must also judge the validity of what he does in comparison with them. This entails establishing adequate criteria for weighing projects. Such criteria must weigh much more than the "efficient use of capital".

Pressures will be on the planner to maximize the rate of return on the invested capital. This would be acceptable if the economic, social and political needs and desires of the public could be translated into monetary terms. The controlling fact is that they cannot be. Thus the planner must not over-emphasize the rate of return; he must rise above this and establish and use adequate criteria for optimizing "public" needs and desires.*

As an instrument of social and economic change water development has a broad influence on many different functional fields such as agriculture, transportation, and recreation. It is pluralistic in its functional relationships. As it is not an end per se, and as it is causally multi-functional, any successful water planning has to be directly related to the other causal, functional groups. Thus water planning cannot properly succeed in fulfilling its basic goal of promoting human welfare unless it is done in conjunction with transportation planning, energy planning, agricultural planning, etc. It cannot stand alone.**


* Obviously this puts a burden on private water development. A workable partnership arrangement will have to be established if there is to be private development which is willing and able to optimize "public" goals.

**"Public expenditures to control the behavior of waters are only (cont.)
Some caution is warranted, though, as water development has only a limited effect upon economic and social growth. This is so because such development only has a limited effect in producing social and economic benefits. It is also true because of the planning difficulties in predicting the nature of future technological, economic and social changes. All the same, for water planning to be successful it must relate itself to the broader goals.

When the water planner relates his plans to such goals he must interpret them into physical meaning. The more specific the objectives the more efficient the administration. When deriving such objectives the planner should be at least partially controlled by the culture of the area he is in. "Plans must rest on an accurate appraisal of the existing realities and reflect an understanding of the aspirations of those to be affected.....History is full of examples of the failure of unrealistic plans made by authorities remote from the problems they sought to deal with."¹ This is a major reason why administrative proposals for one region might not be transferable to another region.

The planner must also be aware of the political conflicts involved in water development. A regional view is needed to prevent getting overwhelmed by local issues. But he cannot trample upon the local cultures and hope to be successful. This is true under most political systems but especially true under a limited, federal democracy.

This local and regional consideration must be tempered by the

¹ United Nations, op. cit., p. 29.

(**-cont.) - justified when they promote human welfare. ....The plan cannot be separated from some degree of economic and social planning."²

knowledge that the nation as a whole has a great interest in the results of the planning done in the region. One assumption is that planning will serve as a buffer between federal centralization and local isolation. A dangerous condition arises if either national or local forces are overpowering.* They must interact without overwhelming. This entails more than administration, as both political and social forces are also vitally concerned. National goals must be couched in terms acceptable to the region and the regional givens must be looked at in national terms.

A second major condition upon which the success of the planning process is dependent is that there be adequate data upon which to develop alternatives and plans. Among the basic data needed to start the process are complete topographic and hydrologic information and reliable geologic and economic data. Some of the more important parts of this data can only be gathered over time and, apparently, little can be done to speed up the process. Another important phase of this requirement is that there should be adequate social and economic data. This is needed to guide the direction of the plans and to point out their effect upon society.

A third basic condition can be called "proper vision". On a general level this calls for the planner to be both visionary and flexible. He should have the ability to foresee the future or at least have the wisdom - and the strength - to represent it. He should be able to predict with some success what future needs are apt to be and what

* Since the political process is largely locally oriented the planner, if he is biased at all, should lean towards the national direction, never the local.
future technological developments might influence these needs and desires. Flexibility is called for because, through the effect of changing demands and technology, social and economic development and water policy issues are constantly in a state of flux. If a planner is tied to one problem or solution he will not be able to adequately handle the overall problem. He must have a basic amount of flexibility to enable him to operate effectively in a changing world. He should be flexible in providing alternate courses of action which fulfill the basic goals.

The fourth requirement for the success of water planning is that it have acceptance, both governmental and public. The one may logically follow from the other but, whatever the case, both are necessary. The chance of realization of the resulting plans may be slight if the governments do not heed the validity of the planner's actions. The planner must recognize the existing agencies operating and interested in the field. Public acceptance is also needed for plan realization. "The range of planning activities which government planning structures may undertake is limited to what public opinion in the region and its subdivisions desires. While these limits are subject to short-term variations, there are deeper, more abiding, popular traditions that will always act and should act as limiting factors in the work of governmental planning agencies."\(^1\) The necessary acceptance may come through public recognition of the planner's role and may be furthered by information exchange.* The public should be kept informed in order for

\(^1\) National Resources Committee, op. cit., p. 13.

* The act of establishing a regional planning body has a public education function. Such a body can serve as a focal point for planning ideas and methods and random public thoughts. This has the effect of strengthening the movement as the people will become more aware and thus more interested in what the body is trying to do. By developing (cont.)
the planner to optimize fulfillment of his duties and in order to realize the democratic ideals. "If democracy and democratic processes are to prevail in an advancing technical age, the citizen must understand the basic problems and be in touch with the plan's development."

The first requirement is that the planner be comprehensive in his vision on at least three facets of river basin development: the multiple benefits of water development; the total water resources of a river system; and the interrelationships of the region's resources. Directly related to this is the requirement that the planning be done within an adequate administrative structure. This was defined as one having geographic and functional continuity, continuance and legal and fiscal adequacy.

On the general level there were four major conditions to be met. The first, "proper orientation", was composed of three sub-criteria. First, the planner must be aware of the goals in back of his actions and must relate himself to administrators of those functions directly affected by such actions. Secondly, he must take the regional mores into consideration. Thirdly, he must walk a tightrope between local and national interests and not be overwhelmed by either. The second major condition was that there be adequate data. The third major condition, "proper vision", was composed of two sub-criteria. The first was a call for the planner to be visionary and the second called for flexibility. The last major condition concerned public and governmental acceptance.

1 Bessey, R.F., The Unified Water Resources Development Plan, address before the Economic Commission for Asia and the Far East, May, 1954, p. 14. (*-cont.) - a cadre of followers, ideas and questions can be sent out to the public for their reactions. This will result in better public participation. The planning process will be strengthened accordingly.
III. Existing Water Development Processes

Various criteria for the success of the ideal, non-institutionalized water development and planning process were set down in the preceding section. All of the institutions in the process will, at one time or another, act in contradiction to these criteria. This is not to say that the institutions are wrong in their actions as the criteria may be unrealizable as a whole or unacceptable. The resolution of the created conflict between institution and criteria will probably involve some sort of a balanced change between both.*

In examining the politics and administration of the planning and development of water projects it is seen that there are two basically different systems which have to be considered. The first is where the Federal Government is the planner, developer and operator of the project. Within this system there are basic sub-systems concerned with controversial revenue producing projects and non-controversial non-revenue producing projects. The other basic system is where the Federal Government regulates private or local public development. This latter type is usually concerned with hydroelectric projects.**

A. All Federal - Non-revenue producing

1. Desires and Goals

Considering the all-federal, non-controversial process first, one of the initial steps involves the expression of a desire or the

*Because the contradictions for one institution directly involve the other institutions, the reversal of one may result in the invalidation or strengthening of many of the others involving other institutions. Thus there are contradictory contradictions.

**Pollution abatement problems may fall into this category in the near future.
recognition of a need. A desire is expressed to Congress by the public through individual means, through interest groups, or through the concerned agencies. A recognition of a need is pointed out by the concerned agencies or, perhaps, by the Congressman's conscience. Congress reacts to the receipt of these diverse impulses by authorizing the agencies to make regional studies. These are to be limited and directed by national goals that are enumerated by various institutions and collated by the President.

While the enumeration of specific goals is not too difficult the collation of these and the enumeration of comprehensive goals is. This is the result of the absence of a national water policy. Without such a policy there is no set of overall water resource development objectives. The possibility of Congress adopting such a policy seems rather distant as the "present water policy conflicts expressed in law and action by the Congress exist because these conflicts ... represent the general limit of political agreements which can be reached at the present". Congress should not be expected to adopt such a policy but with the absence of a national planning body it is the only alternative.

Partially because there is no national planning body the general governmental goals defined for water development purposes often go to the extreme of ambiguity. Assuming that a basic governmental goal is to protect and/or improve the health, safety, and welfare of its citizens while protecting their rights, the next step is to translate it into

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* See Appendix II for a more detailed discussion of the general role of the public.
meaningful terms for water development.* Health can be protected and improved by checking and eliminating pollution. Safety can be provided by offering protection from floods. Although these two goals are important, welfare appears to be the key goal here. It is strengthened by improving agricultural conditions through irrigation; by lowering the costs of transportation to the consumer through inland navigation; by lowering the costs and improving the supply of electricity through hydro-electric development; and by preventing waste of a natural resource. This latter reason often appears to be the most important one with the others being just by-products. This is apparently so because of public knowledge and support of "conservation". As a result the governmental goal in relation to water resource development is often defined by a single term, i.e., full development (or some other comparable term). Full development is both an engineering efficiency term and a value term with numerous meanings.

*On a somewhat more specific level one analyst has set down the common objectives of resources and regional and economic development.

"Prime objectives
1. Human welfare and advancement - economic, cultural and spiritual
2. Better lives for individuals and a better environment and a better society

Secondary objectives ... or means to the deeper purpose
1. Effective, multiple, nonwasteful, and sustained use of resources for the benefit of the human being, society, community, and region
2. Expansion of economic productivity, opportunity, and stability ... with equitable distribution of opportunities ...
3. Growth and improvement of social and cultural institutions, services, and opportunities
4. Improvement of the combined geographic - economic - social environment."

2. Regional Mores

With the broad goals in mind the agencies go into a region and examine its potential. This is done with vision colored by the regional mores, local desires, and functional biases. Attempts are made at measuring regional mores through a weighing of Congressional, regional and local forces upon them. The local desires are measured by presenting the developed proposal in numerous public hearings throughout the region. The agencies' functional biases are historically based.

A comprehension of, and partial direction by, the region's culture is one of the previously stated criterion for success. Instead of meeting this to the desired extent the agencies tend to minimize it. Being interested in survival they must operate in response to where the political power is. In our public oriented government this is usually on the local level. Also, it is usually difficult to discover and define what the regional culture is.*

In order to have a regional voice regional awareness must be emphasized. One of the major ways of doing this is for a regional institution to operate before the public, but there are few in existence which do so to the desired scale. The problem is that in order to get a regional agency it is almost necessary to have a regional public and in order to get a regional public it is almost necessary to have a

* Some observers go so far as to claim that there is no regional public or voice. Though there are many local voices they are not counter-balanced. This is the result of uneven population distribution and the lack of a rallying point. The possibility of creating an effective regional voice appears difficult as there is "emotional attachment to ideas and slogans like state's rights, local self-government and home rule, and emotional reaction to words like centralization and bureaucracy".¹

regional institution.*

3. Local Orientation

While the agencies are operating on the local level they are required to consult with the concerned states. They must furnish the states with the information they have gathered and give them the opportunity of helping them in their investigations.** On a more informal level the region's Congressmen contact the agencies. There are apt to be strong ties between the two players as both envision local projects benefiting their power positions. As neither can afford to lose power on a local, relatively non-important issue, they usually bend with the political wind.***

*One hope for strengthening the regional awareness in the Pacific Northwest is seen in the probability of other regions in the country striving for its water and low cost power. If anything will unite a region it will be outside regions attacking it. The idea is to divert attention outside to a larger problem or danger. The Federal Government may also serve as an attention diverter. At present local interests get together and decide that they want some type of water resource development to occur; at first they might even have hopes of doing it themselves. Then somebody backs down and pressure mounts for the federal action agencies to take over. If they do, there is little hope for the creation of a regional public. If they don't, pressure begins to mount on the governments within the basin and "this is the necessary, although not the sufficient, prerequisite of a basin constituency".1


**It is interesting to note that the Corps, in its relations with lower levels of government, has been accused of weakening them. The pursuit of the non-reimbursable funds for Corps projects has become the principal activity of various state agencies. "As a result, the Corps of Engineers' concept of project planning has dominated much of the thinking on state resource planning and state agencies have become thoroughly committed to playing the Engineers' game of "grass roots" politics in an endeavor to establish project feasibility, authorization and finally appropriation."2 Federal agency action directed towards state action and state action towards the agencies has been a major factor in keeping the states divided and ineffective for any operation in river basin planning and thus reduces the possibility of it occurring.


***This may not optimize national goals but, if everybody is given a voice, local goals are optimized.
If the goals to be fulfilled through water development are national goals then they should receive national consideration. A basic characteristic of the agencies and Congress is a leaning towards local interests and pressures. Because of this local orientation and the absence of adequate functioning by other players, Congressmen are quite susceptible to crisis reactions. This would be okay if there was a national planning board or if the executive branch, the political parties or the general public strongly supported the national view but there isn't and they don't.

4. Functional Orientation

The agencies' action abilities and visions are limited by their specific functional divisions. Each of the major agencies has been established to serve relatively different purposes and each has developed different means to realize these. "Traditionally, the Corps has been a navigation and flood control agency, with particular emphasis upon major streams and devastating floods. The Bureau of Reclamation was established to help provide settlement opportunities in the West and has a tradition of managing water supplies for irrigation, power, and other uses. No one of the agencies has a tradition of comprehensive river basin planning ...."1 These lines of distinction have grown more indistinct with time as the agencies have expanded into multiple-purpose and area planning.

Several agencies are apt to be dealing with a region's water resources. What one does usually has a profound effect upon the others.

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* It is noted that by now these functional divisions are representative of divisions within our society. Because of this an organizational rearrangement will not eliminate the problem though it might help to minimize it.
the total whole of the causes and effects of their actions. To an extent they are only service-oriented insofar as it leads to preservation of the status quo or increased power.* Their main orientation still remains the fulfillment of their authorized tasks but, by the nature of things, they are unable to see beyond these tasks. The agencies don't want to tread on unsure ground.**

Because of the authorized functional divisions and the resulting separation of agencies into different departments the President is the only possible effective head in the water resources field. Generally, though, he does not, or cannot, fulfill his function. Thus in competing for power the agencies compete over who shall plan.

5. Congressional Organization

After acceptable regional programs are developed by the various agencies they are taken to Congress on a project basis. The proposals are then passed down to the proper committees. The Interior and Insular Affairs Committees consider reclamation or Bureau projects and the Public

*This orientation to the status quo has carried over into Congress. This is so perhaps because of the close ties between Congress and the agencies; because of Congress's role as representative of the people; and/or because of the individual biases of the Congressmen. One of the major difficulties of such an orientation is its effect upon attempts at administrative reorganization. "There have been many examples of resistance to administrative improvements within the traditional executive framework because of the disturbance implied by the proposed changes to the prerogatives and habits of particular Congressmen or committees of the Congress." 1


**"The strength of the Army Corps of Engineers lies in part, in its lack of enthusiasm for public power and its inclination to subordinate other basin programs to navigation and flood control. These biases of the Corps assure that its programs will involve a minimum disturbance to the status quo for by their very nature, flood control and navigation are not likely to stir up much organized opposition at the points where the crucial decisions will be made." 2

Works Committees consider flood control and navigation or Corps projects. Because of its nature and because of the Bureau of Reclamation's jurisdictional boundary on the 98th meridian most of the Congressmen on the Interior and Insular Affairs Committees are from the Western states. The Public Works Committees have members from all over the United States, with a preponderance from the Southern states bordering the Mississippi.

This organizational setup encourages areally based, functional considerations. With their biases, the committees are relatively inflexible, and, as a result, there is no adequate consideration of alternatives. A comprehensive water development plan for a region would not be too likely to receive optimum treatment in Congress because of its probable dismemberment among the different committees. On the other hand, the areal orientation of Congress as a whole is a benefit because areal based proposals should get better consideration than functional ones.*

The committees, upon receipt of the agencies' proposals, sometimes try to get public reactions to those projects of over a certain magnitude or importance. These are gained through public hearings, pressure on the Congressmen from individuals, interest groups and parties. If there is enough reaction against a project it is usually sidetracked. Usually, though, the committees listen to the recommendations of the concerned Congressmen and agency who have already weighed the forces.

6. Project Authorization

After the committees have weighed the political factors they

*"... A single bill dealing with all the water problems of a particular basin, if it escapes dismemberment among committees, may get more truly national attention than a bill dealing with navigation or irrigation ostensibly on a national scale."1

make recommendations for authorization of acceptable projects. These recommendations are usually followed for the simple reason that few Congressmen have the time to gain adequate knowledge of such local matters of indirect concern. Also there is the unstated promise of something for everybody, now or in the future. As a result there is no overall Congressional review, and practically everything hinges on the local Congressman and his relationship with the concerned agency.

Though a great number of projects are authorized through this process the politically limited funds restrict their actual construction. By having a backlog of authorized projects Congressmen are apt to be tempted to step into project trading and log rolling. When this happens some of the projects become the end themselves and are not thought of as a means to fulfill basic governmental goals.

Apparently log rolling is becoming a thing of the past. "More planning, more feasibility analysis have greatly lessened that tendency (for log rolling). The larger problem now is getting good and needed projects and programs approved in accord with growing needs of resource development and conservation. The rates lag well behind growing needs of larger, more complex society." Because such projects are vitally handled through representative means rather than executive means the representative time lag becomes controlling.*

B. All Federal-Revenue Producing

There is considerable difference in the way those projects of

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* "The movement of opinion is slower than the movement of events....Just because they are mass opinions there is an inertia in them.....The propensity to say No to a change of course sets up a compulsion to make mistakes. The opinion deals with a situation which no longer exists." Lippmann, Walter, *The Public Philosophy*, Mentor Book, New American Library, New York, 1955, p. 24.
more than local concern are handled. The major difference is a shift from local benefits to national benefit controversies. Many hydroelectric projects are in this category because of the importance placed on them by the private power companies and because of their partial lack of geographic restrictions. Here is a case where private industry competes with the Federal Government. There is considerable feeling, latent or propagandized, that the government should not enter the domain of private enterprise and should only do those things which private companies will not or cannot do.

The local and congressional impulses tend to be of less importance and are usually only used to modify the meaning of "full development". A stage of government is reached where it is largely above the local public. The basic goals are charted out by governmental experts through national pressures. The local public is then allowed to modify them as best it can. The role of the "national" public in the guise of parties and national interest groups increases in importance while the role of the agencies is lessened.

After the agencies have made the usual broad regional studies they present proposals before the public. After public discussion a modified set of proposals is sent to the higher officials in the concerned agency and then to Congress. The question of who should construct the project is usually left unanswered by the unresolved local group conflict. Agencies refuse to champion a cause for fear of alienating major groups.

Because there is a split in the country on such a basic question the national political parties take sides. Usually one of the many planks
of the platform upon which a president is seemingly elected is a statement concerned with hydroelectric power production. As a result the question of who is to do what is usually decided by the party controlling the Presidency.

Perhaps the major criticism leveled at this process is that the battle is often over the wrong question. The questions should be how can we optimize development and who can we get to do it, rather than just who do we want to develop it. This problem has been brought about because of the public acceptance of "full development" and the public orientation of the Presidency. The assumption has been made that the question of "full development" has been answered. It has not and probably never will be because of ever changing conditions.

The role of the public in this process is largely the same as in the more local process. The major difference is a shift in emphasis to a more national orientation. It becomes more directly concerned with the political parties, the executive, and, perhaps, the agencies. Because of the magnitude of this emphasis the public is apt to lose much of its power to control the flow of developments. The same can be said for many of the pressure groups. On the other hand, the more nationally oriented ones or the ones closely related to the parties are apt to gain in effectiveness. Depending upon the national importance of the issues involved as defined by the parties, Congress is apt to be just a party battleground.

The role of the agencies is to develop a list of feasible projects and separate out for themselves those projects which would be feasible for non-federal development.* The role of the executive is to

*This may change if the law is modified to give such developers the right to collect benefits from the multiple-purpose uses of their projects. (cont.)
determine national goals. These are probably determined before the
President is elected. They will concern such things as the question of
public or private development and the question of full development. One
is apt to carry more weight than the other.

C. Federal Regulation

The procedure of licensing non-federal water projects is
totally different from the federal initiation procedures. The main type
of project in question is hydroelectric. The private companies or local
public bodies start out by determining a need for more productive capacity
or a need for protecting their position. They then look around for a
site and, upon finding a suitable one, make a preliminary engineering
study. After this is done they apply to the Federal Power Commission,
an independent agency, for a license to build the project.

The FPC takes the application into consideration and may
consider several factors. If there is a plan or a fairly comprehensive
federal program for the river it can see how the proposal fits into it.
By deciding whether a proposed project is acceptable the FPC has the role
of reinterpreting and defining the region's goals. It does these
things through the use of examiners, consultation with the concerned
agencies, and public hearings. Besides determining whether the project
fulfills the regional goals it should also determine if it optimizes the
benefits realizable out of the site. Lastly it has the role of relating
(*-cont) - If this becomes the case either the agencies will largely
drop out of the picture or else jump right into the middle of things.
They could do this latter by either becoming the champion of compre-
hensive development or of federal development. The two are not likely
to be synonymous under the present process. "But Federal development
seems more likely to be comprehensive than any other. Especially if there
is a regional planning and development set-up of some kind."1

1Letter from Roy F. Bessey to author, March 9, 1961.
the project to administration policy. Weighing some of these factors it finally decides whether to issue or withhold the license.

Many of the proposed projects will, or should, be built as multiple-purpose projects. They are to be judged by a regulatory agency which is hydroelectric oriented. Functional planning is further separated. Since both parties are for conservation the prime question becomes who is going to plan, develop and operate the hydroelectric plants. The FPC suffers from deciding this question rather than the question of what is to be done. Though the former is vitally important the latter question should be answered properly first and it isn't. Part of this is due to weaknesses in the concerned agencies. Even if it were properly answered, though, it is hard to imagine the commission, as it is now setup, being controlled by it.*

Another of the FPC's institutional contradictions is concerned with political motivation. Because the hydroelectric question is apt to be a national policy question the men appointed to the FPC by the President are likely to share his beliefs. The decisions that come before the commission under any president are apt to be colored, and perhaps controlled, by the political philosophy of that president. Political interests may overbalance economic and engineering criteria.

The FPC is an independent agency setup by the President. It deals with a national policy question. It gains its power from the President, not Congress. Thus it is nationally oriented. It is asked

*This is the basic criticism of the FPC in the water planning process. It does not belong. It is a regulating body not a planning body. It sees hydroelectric projects rather than examining multiple-purpose ones. With it, as long as non-federal development takes place, there is little chance for comprehensive river basin planning being accomplished.
to determine through national criteria matters which are of both local and national importance. This is in counter-distinction to the previously described process. Local interests become of secondary importance. "The controlling action is taken by a federal executive agency which can, and sometimes does, act contrary to state objectives and desires." 1

If all sets of proposals for a like stretch of river were exactly alike there would be no problems that would concern this study. The trouble is private companies want to make money and they do not do it by offering flood protection, recreation opportunities, etc. As a result competing proposals are usually not comparable. Being controlled by the scope of the body requesting the license and its own internal limitations, the FPC considerations are not as comprehensive in vision as desired.

It is of interest to consider the roles of the various players of the all-federal processes in this process. The agencies are usually called upon to present their proposals for the concerned river and determine what the effect of the proposed project will be. They also present the Administration's policy when it calls for federal action. If it does not they try to keep out of the procedure as much as possible. Congress has a minor role except insofar as its action on a federal proposal for a like stretch of the river is influential.

The interest groups can play a major role. They can present the opposing case to the FPC against the hopeful power company or public

1 State Engineer, Oregon, Stanley, Speech given at Oregon Reclamation Congress, Klamath Falls, August 20, 1959.
body, * and, in a minor sense, can try to pressure the President. Through its partial control of the Presidency the public has an indirect role. Along with this it is apt to have a little influence through its effect on the development of the agencies' proposals for the river. It should be noted that many of the contradictory characteristics in the roles of the public and agencies as set forth in the first process also apply here.

This was a general analysis of the "typical" processes. The importance of the centers of power has become quite evident. These centers are seen to be varied, dispersed and constantly changing. "The content and direction of public policy is thus a function of the location of decision-making power with respect to particular programs or activities and access to the points of decision is the primary goal of group activity."¹ Much is subject to the whims of forceful administrators.

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*An example of this was the Hells Canyon case where a group of interest groups opposed granting a license to Idaho Power Company. The groups found that their only hope was in delaying licensing long enough so that a political change might be effected in the government.

¹Wengert, Norman, Natural Resources and the Political Struggle, Short Studies in Political Science, Doubleday and Company, 1955, p. 11.
IV. Federal and Regional Water Planning and Development History

Comprehensive water planning received its major impetus while President Theodore Roosevelt was in office. In his first message to Congress he said that "the storing of our rivers is but an enlargement of our present policy of river control under which levees are built on the lower reaches of the same streams". The Reclamation Act, passed in response to these words, served as an important broadening of the federal base in the water resources field. Along these same lines the General Dam Act of 1906 (34 Stat 386) required the installation of fish passage and navigation facilities in dams placed on navigable streams, and the General Dam Act of 1910 (36 Stat 593) required consideration of the relation of any such structure to "a comprehensive plan for the improvement of the waterway ... with a view to the promotion of its navigable quality and for the full development of water power". ¹

In 1908 President Roosevelt directed the newly created National Conservation Commission to make a study of the condition of the Nation's natural resources. In transmitting its preliminary report he said that "every river system, from its headwaters in the forest to its mouth on the coast, is a single unit and should be treated as such" and that each should be made to "serve the people as largely and in as many different ways as possible". Included in the Commission's final report, issued in 1909, was the suggestion that "broad plans should be adopted providing for a system of waterways improvements extending to all uses of the waters and benefits to be derived from their control, including the clarification of the water and abatement of floods for the benefit of navigation; the extension of ¹ Sec. 1, 36 Stat. 593.
irrigation; the development and application of power; the prevention of soil wash; the purification of streams for water supply; and the drainage and utilization of the waters and swamp and overflow lands." The same general recommendations were made in the National Waterways Commission's report of 1912. Little action resulted from these studies but they aroused interest and served to clarify thinking.

In 1917 Congress enacted legislation which furthered the idea of comprehensive development. The act (39 Stat. 948) provided that examinations and surveys of water projects relating to flood control should include a comprehensive study of the watershed. It further required that all uses of the water in question be considered in the resulting reports. A waterways commission was to be setup to act as a general planning and coordinative agency but because of World War I the commission was not appointed.

In 1920 the Federal Power Commission was organized in response to the directive found in the Federal Water Power Act (41 Stat. 1063). Up to this time Congress had been handling the numerous requests for permission to construct power dams. This partially entailed determining the relation between the proposed dams and the interests of the United States. The FPC was to relieve Congress of this burden and to afford a more general determination of policy in such matters. It was to license

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1 S Doc. 676, 60th Cong. 2nd Sess., p. 24.

* About this time the conservation movement was taken over by nature and wilderness groups. Before this it had specific direction; after this it became very diverse in its meanings. "All efforts to restore specificity to the concept have proved (and will continue to prove) futile, for the vague connotations of the term, the inconsistencies in its applications and its emotional and moral content merely reflect the diversity of group support and interest." This was to have a controlling influence upon the development of public thought in the water planning field.

non-federal projects on navigable streams through consideration of the rivers' power potentials and the coordination of power development with water development for irrigation, navigation, and recreation. In a short time it became apparent that the FP was not the agency to coordinate these uses.

The first action to have a readily apparent effect upon development of the Columbia River came about through the Rivers and Harbors Act of 1925 (43 Stat. 1186). Congress directed the Army Engineers and the FP to make estimates of the cost of making examinations of those navigable streams where power development appeared feasible. This was to be done with the view of making "general plans for the most effective improvement of such streams for the purpose of navigation and the prosecution of such improvements in combination with the most efficient development of the potential waterpower, the control of floods and the needs of irrigation". The report that resulted from this directive became known as the "308" Report.

In 1927 Congress authorized the Army Engineers to undertake the surveys as proposed in the "308" Report.* The Columbia was among the rivers recommended to be surveyed. The staff of the Chief of Army Engineers spent the next five years making a "comprehensive" study of the river. Navigation, flood control, irrigation and power were considered. Data was assembled on such subjects as vital statistics, mineral resources, population trends, and markets. The resulting report (The Columbia River and Tributaries, H.D. 103, 73rd Congress, 1st Session) was submitted to Congress in March, 1932. Contained in it was "a general plan for the improvement of the Columbia River and minor tributaries for the purpose

*This was a potential far ranging step in the direction of river basin planning but it was limited by its envisionment of only certain functional engineering solutions.
of navigation and efficient development of water power, the control of floods and the needs of irrigation". Fisheries, recreation, watershed development and pollution problems were not considered. The main emphasis was on water power. It recommended a system of eight dams along the main stream of the Columbia. (Appendix III) It was claimed these would utilize over 92% of the 1300 foot drop of the river from the Canadian border to the mouth. There was no direct recommendation for Federal Government development.

The public presentation of this report had a lasting effect on the Pacific Northwest. Since 1918 various groups had been fighting for a dam on the Columbia River at a place called the Grand Coulee. Through a presidential decision based on emergency public works powers the Corps' report gave the dam the amount of bureaucratic acceptance that was necessary and from then on things began to happen. In June, 1933, investigations and plans were started on the Grand Coulee Dam. It was finished in 1942. Bonneville, on the lower Columbia, was started about the same time and it was completed in 1938. Thus started active federal intervention on a major scale. These dams were to have a lasting effect upon the institutional development of the region.

During this same time a regional planning commission was being setup and put into operation in the Northwest. Early in 1934 the National Planning Board took over and revised the areal divisions of the Public Works Administration, with the final aim of creating regional planning commissions. One of these divisions included Oregon, Washington, Idaho and Montana. Under the PWA a regional "plan for planning" had been started. This was begun by examining the whole field for planning in the region, possible planning organization, characteristics and areal and
When the National Planning Board took over, a regional commission, the Pacific Northwest Regional Planning Commission, was organized and a chairman and a consultant were assigned. The commission had no definite legal or official status, but with a small staff it began work toward the development of a regional plan. One of the first problems thrown its way was what to do with the power that was going to be generated at Grand Coulee and Bonneville. In July, 1935, President Roosevelt requested that it submit "a report on the future of the Columbia Basin which might be helpful in determining the type of organization which should be setup for planning, construction, and operation of certain public works in the area".

In response to this directive the commission made a study of the question and issued the resulting report in December, 1935. It recommended that "planning should be continued along organizational lines which are now established, with provision for more permanent legal basis and for effective coordination of federal agencies and state and local government. ... A new operating body in the form of a federal corporation should be created and assigned all federal power operations".\(^1\) Partially through this recommendation the Bonneville Power Administration was created by Congress in 1936. It was authorized to build transmission lines, and to administer and market the energy from Bonneville and Grand Coulee.\(^2\)

* On June 30, 1934 the National Planning Board changed to the National Resources Board. Its duties became more strictly defined and it was placed under the direct jurisdiction of the President. In June, 1935, the National Resources Board changed to the National Resources Committee. There was no basic change in duties. In 1939 this changed to the National Resources Planning Board which had somewhat expanded duties.


\(^2\) The authority for marketing the energy from later dams was given in a piecemeal fashion as time went on.
As a compromise to various political functions this was envisioned to be a temporary setup until the results obtained by the Tennessee Valley Authority could be analyzed. World War II intervened before such analyses could be done. Though it has been discussed in recent years, no action has been taken.

Between 1936 and 1953, the BPA played the major role in power planning for the region. It pushed for the adoption of a project schedule which would keep up with the region's power needs. Its "initiative was an important factor in the projection of future power requirements and in planning additions of generating and transmission facilities".¹ "It has found necessary a degree of regional resource, industrial and developmental planning."² After 1953 its planning role became inhibited through the philosophy of the Eisenhower Administration.

The PNWRPO came to an end when, in 1943, Congress refused funds for the National Resources Planning Board, the PNWRPO, and the other regional planning bodies. The Pacific Northwest was left without a regional planning body and river basin planning was left without an even potentially adequate federal sounding board. Even though the Bureau of the Budget took over some of the functions of the NRPB its ability to effectively control the direction of the plans of the Corps of Engineers and the Bureau of Reclamation has been very limited.

During this same time important actions were taking place back in Washington. In 1934 Congress requested the President to make a survey and report on a "comprehensive plan for the improvement and development of the rivers of the United States". This was to be used as a basis for

legislation that would "provide for the maximum amount of flood control, navigation, irrigation, and development of hydroelectric power".1 This request was largely in response to the tremendous sums of money being spent on water projects for "make-work" reasons. The projects that were being built were largely done so without reference to any overall plan for the river. As the ideas developed during the time of Theodore Roosevelt had received some public acceptance, it was felt that plans should be formulated to counteract this project orientation.

A Committee on Water Flow, with the Secretaries of War, Interior, Agriculture, and Labor as members, submitted a report in June, 1934, entitled "The Development of the Rivers of the United States". The recommendations were directional in character. A program was suggested for the Columbia River involving power production, irrigation, navigation, and flood-control works on the lower rivers, and "the application of sound policies of land utilization, forestry, and wildlife preservation".2

In 1935 the Federal Power Act (41 Stat. 1063) was authorized. This act superseded the 1920 act. It stipulated that the site for any project to be passed upon by the Federal Power Commission must be "... best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefits of interstate or foreign commerce, for the improvement and utilization of water power development, and for other beneficial public uses, including recreational purposes". This did not, and probably could not, have any major effect on expanding the Commission's vision. It just had too many inherent weaknesses to do an adequate planning job.

1 House Res. 248, 73rd Congress, 2nd Session, February 2, 1934.
2 House Doc. 395, 73rd Congress, 2nd Session.
When Congress passed the 1936 Flood Control Act a major stepping-stone towards federal planning and construction of water projects was created. The Government assumed responsibility for attempting to provide flood control by building reservoirs. Power facilities were to be included wherever possible. Whenever large benefits were to be reaped in an area, local interests were to pay up to one-half of the project cost. The "308" Reports were to be used as the program basis.

This act was amended by the Flood Control Act of 1938. Water projects became more locally desirable through the lifting of the restriction that local interests pay part of the cost of the projects.* Also in 1938, Congress passed as an amended act Public Law No. 502 which required the conservation of the fishery resources of the Columbia River. It directed the Secretary of Commerce to make a survey, experiment with, and construct fish protective devices. This was an important legal recognition of the problem created by constructing dams in the path of anadromous fish. It was passed after Grand Coulee blocked the passage of fish into the upper Columbia and its tributaries.

Another important step in water resource planning was taken in August, 1946, when President Truman approved the Coordination Act (60 Stat. 1080). It required that any body, public or private, under federal permit which wished to control water must consult with the Fish and Wildlife Service and the concerned state conservation departments with a view to preventing losses to fish and wildlife resources. Costs of planning, constructing, and maintaining fish protective devices would

* At one time the majority of the water projects developed in the country were largely paid for by the local interests. When the projects became bigger and, as a result, more costly, local investment dwindled. As the benefits became more diffuse and, thus, less directly profitable to local interests, the Federal Government began to take over.
become part of project cost. The Water Pollution Control Act of 1948 was also envisioned to be another pace setting action. It gave the Public Health Service a task which had been an exclusive concern of the states. The Watershed Protection and Flood Prevention Act of 1954 (Public Law No. 566, 83rd Congress) was of comparable importance. It authorized the Soil Conservation Service to initiate a small watershed program. Under this program the Service would take action on those watersheds which were smaller than 250,000 acres. The dams to be built could have no more than 5,000 acre-feet of storage. The Flood Control Act of 1960 was a step in the direction of giving local areas more responsibility in water development. It called for a uniform minimum of 20% non-federal cost sharing on Corps of Engineers' local flood protection projects.

For several years before 1946, both the Corps of Engineers and the Bureau of Reclamation had been making studies of the Columbia River in regards to development plans. In June, 1946, the Regional Director of the Bureau of Reclamation sent to the Commissioner of the Bureau his "Comprehensive Report on the Development of the Water Resources of the Columbia River Basin". It recommended that twelve projects be authorized by Congress for the Bureau to construct, operate and maintain. In June, 1948, the Secretary of the Interior Department transmitted the report to President Truman. By this time, two projects had been added to the list and two deleted.

In May and June, 1948, the Pacific Northwest suffered its most disastrous flood on record. In response to this, the President requested the Secretary of the Interior to review the report in the light of the
flood situation. This was to be done with the help of the Secretary of the Army. They were told to "bury the hatchet" and come up with an integrated plan. Partially in response to this the Corps issued its plan for the development of the river in October, 1948. This was in the form of a review report of the "308" Report issued in 1933. It was concerned principally with flood control, power development, and navigation. (Appendix III) One interested group called it .... "a feasibility report indicating the alternative sites in the basin where it would be desirable to construct dams for multiple purpose uses".

A major point of disagreement between the two reports centered about the Hell's Canyon project. Each agency claimed it as its own.

An interbureau agreement between the Corps and the Bureau was reached in the latter part of the year. This agreement became known as the Weaver-Newell agreement. By April, 1949, the concerned departments agreed to go along with the bureaus. The Corps was to have responsibility for all navigation and local and exclusive flood control works. The Bureau was to have responsibility for all federal irrigation and related drainage and domestic water developments, and irrigation waters from Corps projects. The multipurpose project responsibility was distributed on a geographic basis. "In this division, it was recognized that the Bureau of Reclamation had a predominant interest in the Snake River basin upstream from and including the mouth of the Grande Ronde River. This predominant interest came about because of the major land and water


* The Corps had almost finished its report by June. When the flood came the report was strengthened in its "flood control and main control system aspects".

**H.D. 531, 81st Congress, 2nd Session.
projects in the Snake River Basin which had been developed by the Bureau of Reclamation during the course of almost 50 years. The other areas of Bureau responsibility were the basins of tributaries to the Snake entering below the Grande Ronde, the Clark Fork basin above Pend Oreille Lake, and the basins of streams flowing into the Columbia within the United States, except the Willamette and Spokane Rivers.

Some observers declared that the only reason the Bureau and the Corps got together was because they were worried; worried about the OVA and the Hoover Commission. The proposed OVA would have drastically limited the importance of the two agencies in the region and the Hoover Commission had recommended that the water development functions of the Corps be transferred to the Department of the Interior. In effect, a department of public works would be setup. Nothing came of either of these proposals though.

In May, 1949, the Bureau submitted to the Department of the Interior a report on the Columbia River, founded on its earlier report, but modified by coordination with the Corps study. Eleven projects were recommended for authorization, including the Hells Canyon project. In July the Secretary of the Interior submitted the report to the President. He emphasized in his letter of transmittal that it should be regarded as a limited plan for physical development of the Columbia. "It is clear that under the existing statutory and administrative situation a truly

1 Letter from H.T. Nelson, Director of Region I, Bureau of Reclamation, April 13, 1959.

* As a result the Bureau had jurisdiction over the Hells Canyon project.
** While the President wanted the two agencies to get together he stated that the act of doing so must not be a reason for denying the creation of a OVA.
comprehensive plan and a fully effective administrative mechanism for carrying out the plan cannot be attained, nor do these reports tend to provide one. The Secretary was in charge of the fight for a GVA.

During the first session of 81st Congress numerous bills were introduced to give legal effect to the recommendations in the two reports. Several of the bills called for approval of both reports and a couple just called for approval of the Bureau report. Approval was not readily forthcoming for the Bureau report because of problems raised by including the Hells Canyon project in it and by tacking on the "basin account" idea. No consideration was given to the joint report. Neither report was adopted by Congress as a basin-wide plan.

In 1952 there was a basic changeover in the Presidency. Relatively fundamental policy differences came to the forefront. While campaigning in Seattle, General Eisenhower made a speech during which he first enunciated his policy towards water resource development. "We need resource development, and we need it on a river-basin basis. We need resource development, not to the limit of the whim of any administration in power, but to the limit of the capacity of the region to benefit. And to do that we need partnership to the limit of everyone's ability". This "partnership" policy was suppose to mean that the Federal Government would build multipurpose dams without power plants. Private enterprise or local public power groups would then come in and construct the plant and market the power. There was some thought that they should

1 Letter from the Secretary of the Department of Interior to President Truman, July 20, 1949.

* By this time the Federal Government had invested $631,000,000 in water resource development on the Columbia. $410,000,000 of this was for electric power facilities; $133,500,000 for irrigation facilities; $72,000,000 for navigation facilities; and $11,200,000 for single-purpose flood control facilities.
pay for that part of the dam cost which was allocated to power.

This policy had a profound effect on the development of water resources in the region. "Long-dormant private companies have meshed with local public utilities since 1952 to open up new projects adding some 4,500,000 kilowatts to the Northwest power pool. But such projects are chiefly local, barely keep abreast of minimum needs."¹ It also has meant that no new starts have been made on federal water projects since 1952 as a result of executive initiation. The role of the federal agencies in leading the region was accordingly reduced.*

Eisenhower's "partnership" policy was a success in the sense that it stimulated private investment in hydroelectric plants. It was not successful in drawing together federal and non-federal groups in "partnership" development. Because of this there was a rise in the average unit cost and price of power. In analyzing this lack of success one newspaper came up with a very cogent reason: "federal developments of great river basins for multiple-purpose use of water has proved to be so successful and beneficial to the regions that the Eisenhower Administration has not been able to arouse any substantial public acceptance of "partnership" in individual projects."² Does this mean that the public has accepted the multiple-purpose idea but not the river basin idea? Or is the question of what the "public" accepts important anyway; maybe the important thing is what the leaders think.

¹ Time, April 15, 1947, p. 104.
* "'Partnership' meant both some loss of integral quality of primary Pacific Northwest power system and rise in average unit cost and price of power, and a slowdown in power development and use."³
In July, 1955, the Senate Public Works Committee directed the Corps of Engineers to review its 1948 review report and earlier reports on the Columbia River. Investigations were made and hearings were held. The completed review report was issued in June, 1958, as a five volume set. As of now this is the existing "plan" for the Columbia River (Appendix III).

As the Corps states it, "the report formulates a plan, identified as the Major Water Plan for the Columbia River Basin, consisting of a group of proposed projects selected from a number of alternatives which together with the projects completed, under construction and reasonably assured, will provide for optimum utilization of the resources of the Columbia River Basin available within the United States."¹ The latest Corps' proposal recommends thirteen projects for construction. As a method of pointing out the problems involved in project construction in the region a study of various criticisms of these projects has been included as Appendix III-B. Numerous criticisms have been leveled at the present plan for being even less comprehensive than the apparently inadequate 1948 plan.

This, then, is the setting.

V. Columbia Basin Facts and Goals

Before considering the organizational proposals for the region it is necessary to establish a factual regional framework. The various uses of water should be examined in detail so as to discover their past, present and probable future importance in the region. It is necessary to note some of the "accepted" objectives of Columbia River development in order to be able to envision the scale of the future undertaking and to judge the effectiveness of any one administrative proposal.

A word of caution is given though. The objectives of development, both controlling economic and social and secondary engineering, cannot be justified in this brief study. An attempt has been made to collate those objectives which appear to be the expected optimum but no guarantee can be given that this is the case. In spite of this weakness it is extremely important to consider such objectives for they are the ends toward which any administrative body is directed. Administration should not be examined in a vacuum.

General

"In the Pacific Northwest, as in many other areas of the world, man's dependence on water has largely determined his destiny. The history of this vast region has been the history of the Columbia-Snake River system."¹ "Most of the world's great rivers flow more or less sluggishly through wide alluvial plains. But the Columbia, although second in size only to the Mississippi in the United States, possesses to a striking degree certain characteristics of a mountain stream whose turbulent and

¹ Inland Empire Waterways Association, Yours is the River, p. 6.
swift-flowing waters have cut deeply its channel, leaving high rocky
canyon walls on either side, thus creating an ideal situation for the
development of a series of great power sites, by means of which the river
ultimately can be made navigable for its entire length in the United
States, millions of acres of high-fertility land can be reclaimed as the
Nation may hereafter have use for it, and unprecedented quantities of

The Columbia River and its tributaries drain an area of some
259,000 square miles. 15 per cent of this area is located in Canada.
From this total area comes a mean annual runoff of 180 million acre feet
of water. About 28 per cent of the runoff comes from Canada.

It has been estimated that, on the average, 73 per cent of the
yearly runoff flows down the river during the six summer months.* This
erratic flow is mainly due to the runoff coming from melting snow which
had collected during the winter. Because of this type of flood which
occurs in May and June, the volume of the flood can be broadly estimated
by the first of April, even though much is dependent upon the weather
conditions in the next two months. With this predictive ability and if
proper storage is available, enough of the flood waters can be held back
to provide for adequate electricity during the high load - low water
period in the winter. This offers the possibility of optimizing the use
of the multiple-purpose idea.

\footnote{* This is quite a bit lower than that realized by some of the other
major rivers of the U.S. The St. Lawerence has the smallest erratic
flow because of the storage of the Great Lakes.}

Going beyond the river for a minute it is seen there are major
natural and demographic differences within the region. Average rainfalls range from 4 to 114 inches per year. The average growing season varies from 90 days in the mountain areas to 273 days in the lowlands. There is also a great diversity in the areal economies. The coastal states of Oregon and Washington have a more balanced economy than either Idaho or Montana. This has resulted in the population being concentrated in the coastal states. In 1957, Idaho had 640,000 people; Montana, 666,000; Oregon, 1,764,000; and Washington, 2,722,000. The downstream states are growing relatively faster than the upstream ones. The U.S. Department of Labor estimated that by 1975, Idaho's population would increase 31%; Montana's, 21%; Oregon, 67%; and Washington's, 57% (Appendix IV-A). The region as a whole is expected to grow faster than the nation.*

Regional Economy - Facts

The economy of the Pacific Northwest is primarily based upon exploitation of natural resources. Water is the major resource. "Among the regions of the world with important economic potentials, probably no other has its fate so closely tied to the character of water development as the Columbia Basin."¹ Because of the nature of the resource based economy the region's unemployment rate is higher than the nation's. During the winter logging, construction, and farming are partially curtailed. The upstream states are especially vulnerable. "The absence of industrial diversification leaves the region's economy susceptible to sharp employment fluctuations as a result of seasonal factors and changes


* Though the region did not grow as fast as expected during the last ten years there is no reason to assume that the migration rate won't pick up soon. The reason for this becomes apparent when one considers the attractiveness of the region, its relative freedom from overcrowding and the overcrowded condition of other areas.
in market prices of raw materials.\(^1\) (Appendix IV-B)

**Goals**

There are various regional and national economic objectives which can be at least partially fulfilled through water resource development. One such objective is to provide job opportunities through industrial and agricultural expansion. A second is to balance the economy through industrial diversification and expansion. A third is to offset the isolation of the basin through a re-consideration of the cost of imported raw materials and lower transportation costs. A fourth is to retard depletion of the resource base. A fifth is to cushion predictable environmental catastrophes. A sixth is to provide as far as possible a balanced choice of living area. A seventh is to strive for a broad regional distribution of benefits. On the national scale the "development should contribute toward augmentation of national food, fiber, fuel and power, and industrial material supplies, insofar as increase is needed in any given period".\(^2\) It should also be ready to serve national defense needs when required. Coordination of water development with the national and regional economies is strived for as well as with the conservation of the other resources of the region.

**Hydroelectric Energy - Facts**

We are in an age where energy dominates social and economic growth. In many parts of the country such energy comes from organic fuels. In the Northwest there are few such fuels which can be economically produced at this time. As a result, energy production is dependent either

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2 President's Water Resources Policy Commission, op. cit., p. 69.
upon water or nuclear fuels. At the present time nuclear fuels cannot successfully compete in the region, and until they can, the basic part of its energy is dependent upon hydroelectric development. Since energy and industrialization are equatable, economic and the related political development is dependent upon water development.

As a result of federal hydro-electric development and the characteristics of the Columbia River, the Northwest is blessed with low-cost electricity. The average cost of power to residential customers is about one-half of the national average cost. Because of this the average regional residential use per capita is 7,100 kilowatts per year as compared to a national average of 2,750 kwh. The commercial use per capita is about 840 kwh compared to a national average of 490 kwh and industrial use per capita is about 4,200 kwh compared to 1500 kwh. About one-half of the electricity used for industrial purposes is used by the aluminum industry.

About one-third of the total estimated hydroelectric capacity of the United States, excluding Alaska, is located in the Northwest. In 1953, it was estimated that the region has a total peak capacity of 39,000,000 kilowatts.* The amount of prime power capacity is much less. At that time about 5,000,000 were developed. By 1958, about 7,000 kilowatts had been developed. Of these 25% were from private development; 11% from local public development and 64% from federal developments.

To date most of the hydro projects have been located on the lower streams in the form of run-of-the-river projects. Most of the sites for such projects have been utilized. What is now needed are upstream

projects. Because of various characteristics this type of a project is usually not too popular with the constructing bodies. In order to fulfill the requirements of a comprehensive development plan they have to be multi-purpose and generally they are too costly to be justified through power production alone. The non-federal developers cannot recoup any of their expenditures for the downstream benefits realized from their storage project except in the case of other non-federal power projects. Because of such factors as these it becomes difficult to force non-federal developers to optimize the development of their upstream sites.*

Goals

The Corps estimates that the regional power load will increase to more than 10 million average kilowatts by 1965, to 16 million by 1975, to 23 million by 1985, and to about 56 million average kilowatts by 2010.** (Appendix IV-C) The minimum goal should be to fulfill these needs. It is felt that the projects now under construction or scheduled to come into service into the middle and late 1960's will probably be enough to meet the energy requirements for the decade.

* "Public and private agencies have built projects which best suited their needs and pocketbooks. Few have been willing to undertake the more remote, costly, controversial and troublesome storage projects. Hence the region finds itself with large quantities of unsold secondary energy."¹


**It should be noted that most estimated energy requirements made to date have been quite tenuous. One of the problems concerns predicting the direction of public policy. The policies of the Eisenhower Administration resulted in a drop in estimates. This, in turn, resulted in a drop in new project starts. Without the promise of electricity industries decided not to enter the region. If, on the other hand, projects are developed ahead of the market, new industries will come in to fill the gap. Though this is an oversimplification it emphasizes the fact that over-estimates have a way of fulfilling themselves and under-estimates may have, if either public or private policy is based upon them.
The region has peaking capacity of 40 to 45 million kilowatts. It is estimated that between 50% and 80% of the undeveloped capacity can be economically developed.* The percentage developable is dependent upon the interest rate charged and taxes, if there is non-federal development. It has also been estimated that by about 1975, atomic power will come into its own.

The main question to be answered becomes whether to either accept the estimated power loads and develop the river to meet the needs until atomic power comes in or to not accept the estimated load and develop the river as fast as possible and then find users for the electricity. The question involved partially concerns priority in that it asks whether some money should be spent now to conserve a resource and help a region or whether to do it later. The question of public and private power might also be involved with the question of atomic power.

Alternative proposals should be developed for these differences in development emphasis. The alternative of developing power as fast as possible has at least two factors in its favor. One is the idea that power needs are determined by power supply; the greater the supply the greater the need. The other is that many of the surrounding regions have need for energy. Along with rapid development, costs should be kept as low as possible.**

*As the "best" projects were built first, the potential projects will suffer from relatively higher costs. These increased costs will be likely to cut down the percentage developable even further.

**"This means Federal where fixed charges (are) less than 4 per cent, compared with 11 or so for private, with local public in between at 6 or 7. Federal unit costs are minimal, multiplier effects large, stimulation of industrial and general economic development greater, general income and total tax income higher."1

1Letter from Roy F. Bessey to author, March 9, 1961.
Water Supply

Besides attracting industry through low-cost electricity the region's pure waters act as industrial beacons. "Many leaders of industrial development feel that this area's greatest single attraction to industry ranking even above low-cost hydroelectric power, is the continued availability of a large supply of cool, pure water." 1

The combined availability of clean water, low-cost power and an extensive navigation system results in industrial attraction "greater" than the sum of the parts. At the present time stream pollution is not a major problem on the Columbia. The main goal is to preserve the good water quality rather than to reclaim bad waters. One reason for this is found in the high volume and speed of the river itself. Other reasons are because of the relatively low population density and relatively recent industrial development. But as the region's attractions bring in more industry a major issue will become the "coordination of future industrial development stimulated by the water resource development programs on the Columbia with the associated planning that must be accomplished for quality control along with quantity control". 2

In some circles it is reasoned that the pollution control of the future will necessitate increasing the amount of river storage available. At present this need receives little consideration in developing the optimum storage for the region. Because of the very probable

increase in pollution within the next several decades storage

2 Marple-Dworsky, op. cit. p. 20.
will have to be provided to insure that there will be adequate water
for carrying the pollutants, especially during low water periods. *

Also at the present time there is no scarcity of water
available for domestic and industrial consumption. "Providing domestic
and industrial water supply is not now a problem on the Columbia.....
Basically the Columbia has almost no development for domestic and
industrial water supply.....But we must never lose sight of this eventual
use which must someday be the principal purpose to which all of our
other water developments is subsidiary."1

In 1954 the average per capita water use from municipal systems
in the region was 231 gallons per day. By 1980, this should range from
226 to 217 gallons per day and by 2000 from 224 to 209 gallons per day.2
The Public Health Service estimates that the domestic and industrial
consumption in 1958 was 1.8 billion gallons per day and that this would
increase to 3.5 billion gallons in 1975. This latter amount would be
the equivalent to an average flow of 3,000 cfs and, as two-thirds of this
would be returned to the streams, the net consumptive use would be
rather small.

Irrigation - Facts

Besides attracting industry the region's water resources
have also served as a boon to agriculture. In 1954, approximately
4,350,000 acres were under irrigation in the region. This was increased

1 Clark, Brig. Gen. Allen, Jr., Report to Columbia Basin Interagency
Committee, June, 1958.
2 Senate Select Committee on National Water Resources, Future Water
Requirements for Municipal Use, Committee Print No. 7, January, 1960.
* The effect of this increased storage need will be pointed out in the
flood control section.
to 5,060,000 acres in 1958. Approximately 50% of this area was aided and developed by the Federal Government. Without regarding economic factors there are about 15 million acres of potentially irrigable land in the Columbia Basin. It is estimated that, depending upon the population, between 5,020,000 and 6,340,000 acres will be under irrigation by 1980 and between 5,060,000 and 7,720,000 acres by 2000.\textsuperscript{1} (Appendix IV-D) On the other hand the Bureau of Reclamation estimates that by 2010 there will be approximately 8,800,000 acres under irrigation. In 1954, approximately 13,930,000 acre feet of water were used in irrigation. There was a 25,400,000 acre feet capacity in storage and diversion facilities. About one-half of this was located in the approximately 180 reservoirs in the United States portion of the Columbia Basin.

**Goals**

It is estimated that by 1980 between 13,060,000 and 16,500,000 acre feet of water will be used per year for irrigation. This will require between 21,800,000 and 27,500,000 acre feet of storage and diversion facility capacity. By 2000 the irrigation use might range from 11,600,000 to 17,800,000 acre feet and would require storage and diversion capacity of from 18,500,000 to 28,300,000 acre feet.\textsuperscript{2} (Appendix IV-E)

Because of the probable small growth in irrigation needs and because of a likely increase in storage, delivery, and application efficiency, the amount of water required for irrigation is not likely to increase greatly. The main goal here should be to give impetus to

\textsuperscript{1} Senate Select Committee on National Water Resources, *Land and Water Potentials and Future Requirements for Water*, Committee Print No. 12, December, 1959, pp. 70-1.

\textsuperscript{2} Ibid
research and development to methods of improving such efficiency. It is important to note, though, that it is likely that some submarginal lands now being irrigated will be taken out of production and more productive lands brought in. This would entail different geographic location of some storage and diversions facilities.

Fish - Facts

Besides being directly used in the product of industrial and agricultural goods water also serves as a vehicle for travel for both fish and man. An investment of approximately $130 million has been made for fish protective devices on the federal facilities in the Columbia Basin. These devices have increased the cost of each dam from 9 to 15%. About $8 million a year is spent on their operation, maintenance and interest on investment.

Commercial fisherman place the value of salmon at about 50¢ per pound. For sports fishermen the value is estimated to be about $4 a pound. This figure was arrived at by considering the sale of equipment and normal tourist expenses. The intangible value of fishing is not measured. Using these figures the Fish and Wildlife Service estimates that the annual value of the salmon and steelhead to commercial and sports fishing interests is about $17 million; $12 million being attributable to commercial fishing. Considering all of these figures "it requires an investment of $8 to produce a dollar's worth of value from the salmon".1 The great majority of the expenses are paid out of


This latter view is not the view of the Bureau's. Its latest proposals which have been approved call for projects to serve 100,000 additional acres. It is in the process of restudying previously approved projects which would irrigate 180,000 additional acres and it has preliminary reports completed on projects that would serve a total of 1,950,000 additional acres.
the power revenues.*

Goals

With a basic amount of protection the poundage and value of the fish catch will increase considerably over the coming years. (Appendix IV-F) This should be realized to the fullest extent possible within the confines of the other enumerated goals. Research should be increased and project schedules in favor of fish should be worked out.**

Along with the research on fish passage facilities for existing and future projects there should also be study of the possibilities of restoring and extending spawning areas. Coupled with this should be a continuing emphasis on the various pond-rearing proposals.

Between 30 and 40% of the salmon and steelhead passing McNary dam come from the undammed Salmon river. It is recommended that they be allowed unrestricted passage on this river.*** As population and leisure time increase the need for recreation in this area will also grow. The planner should develop alternatives to realize the various conflicting goals for this area.

Inland Navigation - Facts and Estimates

The Columbia is also used to carry goods. The use of the lower river for ocean bound traffic has shown a relative increase each year.*

* Power users also suffer because of a loss of 80,000 kilowatts of prime power each year through water used for operating the facilities and power used for pumping attraction water.

**"For a decade or more regional thinking has been that the solution to the fish-versus-dam conflict is to be found along two broad approaches:

1. To press forward vigorously and on all fronts with basic and applied research, with the installation of the best known protective facilities, and with adequate compensatory programs;

2. To gain time within which solutions may be found by deferring construction of dams on critical stretches where the salmon resource would be most greatly threatened and giving priority to development on the headwaters."¹

¹Marple and Dworsky, op. cit., p. 17.

***Such a recommendation is now before Congress in the Salmon River (cont.)
In 1940 about 6,900,000 tons of goods were carried over the river. This was increased to 9,200,000 tons in 1950 and to 10,900,000 in 1955. This stretch of the river is served by a 35-foot channel. It is some 100 miles in length, from the mouth of the river to Portland.

The next stretch of the river, 100 miles, is from Portland to The Dalles, Oregon. It has a channel depth of 27 feet. In 1940 there was about 700,000 tons of barge traffic through this stretch. In 1950 this was increased to 1,100,000 tons and in 1955 to 1,500,000 tons. The next 200 miles of the river will soon have a channel of 14 feet. The Corps has estimated that within the years 1975-2025, barge traffic will increase to 9,000,000 tons and effect a saving of $20,000,000 yearly.

**Goals**

Inland navigation goals are the subject of much debate. Within the past few months, a year or two after the 27-foot channel to The Dalles was completed at a cost of $8.5 million, the Division Chief of the Engineers has expressed grave misgivings about maintaining it. Thus far it has not received any use from deepsea cargo vessels and none are in sight.* Most of the politicians and the adjoining cities and towns want it maintained.

Much barge traffic uses the river but it needs only a 14-foot channel. As soon as the projects now under construction are finished there will be a 9-foot channel up to the mouth of the Snake. This can and should be made a 14-foot channel without too much trouble. When

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*One of the reasons ocean-going traffic hasn't used it is because the lock at Bonneville dam is inadequate to handle most ocean-going ships. (*-cont.) - Sanctuary Bill. It does not include a like reference for the lower Snake River.
various authorized projects are started and completed there will be a
9-foot channel up to Lewiston, Idaho. This too can be made deeper if the
need warrants. When these and future goals are reached the amount of
water required for efficient navigation will not be too great (Appendix
IV-G).

These proposals are based upon existing technological develop-
ment. As with many of the other water uses and misuses their benefits
can be optimized partially through new technical developments. Thus
navigation goals should include a reference calling for increased con-
sideration of technical improvements of water navigation.*

Floods - Facts

Lastly something should be said about the river's destructive
moods. The Columbia has had a long history of spring flooding. This is
characterized by a relatively uniform runoff distribution over the entire
basin. The maximum flood on record was the 1894 flood which had a peak
discharge of 1,240,000 cfs at The Dalles. This is computed to be a 100
year flood. If it would occur today without the existing protective
facilities it would incur damages estimated at $340,000,000. Most of the
damage would occur in the lower stretch of the river where the damage
stage is reached at a flow of 400,000 cfs.

The Corps has constructed levees on the lower Columbia pro-

* "A number of recently applicable techniques may change the cost-benefit
outlook for inland waterway development if adopted as a part of develop-
ment and operation. Among them are the following: new techniques of
earth moving and channel improvement, increase in lock size, motive
power improvements yielding increased speed and economy, flexibility
of operation and adaptability of equipment, etc."1

1Ackerman, Edward A. and Lof, George, O.G., Technology in American
or a median value of 820,000 cfs. At the present time there is usable
flood control storage of about 10,500,000 acre feet. More than half of
this is found in Bureau of Reclamation projects. This storage would
have reduced the peak discharge of the 1894 flood to 1,050,000 cfs.
The resulting damages of such a flood would then be reduced to $110,000,000.

Goals

It has been estimated that it is physically feasible to
develop 94 million acre feet of storage in the region, 72 million being
in the United States. About 60 million acre-feet is presently economically
feasible, 47 million being in the United States. The latest Corps goal
is to reduce the maximum peak discharge of 1,240,000 cfs at The Dalles,
Oregon to 800,000 cfs. This will require 18 million acre feet of usable
storage. About 8 million is presently available.

The Corps feels that a lower goal down to 600,000 cfs is "not
supported by current estimates of damage relief. However, recognition
must be given to the strong impetus for more intensive development of these
ideally situated flood zone lands that would accompany provision of
multipurpose storage in an amount adequate for control to 600,000 cfs".¹
Thus when the development occurs the goal will have to be lowered to
600,000 cfs.

It is assumed that the flood control goal should be 600,000 cfs
at The Dalles. This will require about 30,000,000 acre feet of usable
storage. This goal coupled with the need for increased storage of

¹ U.S. Army Engineer Division, North Pacific, Water Resources Develop-
* The Corps' plan calls for two groups of projects. The first group would
provide a total of 10 million acre feet of storage. The second would
provide a total of 13 million acre feet. With this latter group of
projects control of the 1894 flood to 600,000 cfs can be obtained.
pollution control in the future along with other water uses raises the amount of storage that will have to be provided. It has been roughly estimated that it might increase the presently proposed amount by one-third. Whatever the figure is the dangers of underestimation are obvious. Goals are something to shoot high for.

The key to flood control, hydroelectric development and future pollution control is upstream storage. The main stem of the Columbia up to the Canadian line is already largely developed. Upstream storage is needed to make the main stem structures function properly. The prime objective is to even out the seasonal flow of the river. The more even it is the greater the amount of firm power and the less the danger of floods.
B. Power Intertie

Besides such relatively common considerations as these there are presently two unique factors which have to be considered by any regional planning body. The first of these involves basically a power intertie with California, though interties with other areas are also being considered. About twenty years ago the idea was first discussed; ten years later a formal proposal was put forth. This was revised in 1959 and it still awaits resolution.

The main idea is a high voltage transmission line connection between the Columbia River Power System and some part of California to facilitate the energy situation in both areas through the transference of secondary power. At present the BPA has considerable non-firm or secondary power which is largely going to waste. This over production mainly occurs during the high water - low load period in the summer. In California the peak load occurs during this time when it has low water. If the two systems could be interconnected they could help to balance each other out and many benefits would result.

This idea has gained urgency because of California action on its water plan. The main proposal in the plan is to move its abundant northern waters down to the critical southern areas. In order to do this the water will have to be pumped over some mountains. The new developments will not furnish enough power. Steam plants could furnish the needed power but Columbia River power would be much cheaper. For the Northwest the stated benefits would be a firm up of the power supplies, the obtainment of additional revenues, the aversion of an immediate raise in
BPA rates, and, perhaps, the justification for more water projects.

Various proposals are in the offing concerning who is to build this transmission line and what it connects. Federal, state, public and private bodies have spoken for the task. A preliminary study by the BPA found in favor of the private plan. No matter which plan is agreed upon there are two stated reasons why a decision hasn't been made. Some of the Northwest's leaders are wary of California and its motives. They feel that California is in this for a bigger reason than surplus power: it really wants a large supply of Columbia prime power. Once California gets hold of some of the surplus power they will demand that it be made prime power through the use of the preference clause. If this happens and it wins it will be able to take power from all of the industrial users in the Northwest.

California has always wanted a lions share so the Northwest is on its toes. "California is moving toward the point of proposing to Congress that the Columbia River be tapped for cheap power by much of the West - a proposal that would set off a rough fight if the Northwest decides to resist this move all the way."¹ One bill was introduced in the last session of Congress at the request of the Governor of Oregon with the hopes of protecting the Northwest. It would have given the Secretary of the Interior the right to determine when power would be cut off from California. There were some very apparent weaknesses in the proposal and it received little support from the region's Congressmen.

Any planning body setup in the region would have to help resolve the discussion. The benefits realizable out of such interties

¹ Smith, A. R., "California's Bonneville Plan Proposes Power for all Western States", The Oregonian, August 2, 1960.
would be great.* The possible political dangers are also large. By taking a more than local view the correct decision becomes quite apparent. But since planning and politics go hand in hand resolution of the problem will be difficult.

*A little imagination and foresight will show (the) potentials of power exchange all the way from Alaska through British Columbia and Pacific Northwest to California, with more for all and, potentially at least, for each. Ironically, British Columbia and Alaska are subject to fear of "exporting" power to Pacific Northwest.¹

¹ Letter from Roy F. Bessey to author, March 9, 1961
C. Canadian Development

The other major factor outside of the more typical realm concerns Canadian development. The good relations between the United States and Canada concerning Columbia river development have been furthered in the near past. On January 17, 1961 the President of the U.S. and the Prime Minister of Canada signed a treaty outlining plans for the Columbia Basin's upstream flood control and power development.* This is a far ranging treaty and could go far to solving numerous heretofore perplexing problems.

Under the treaty Canada is to build three storage dams at Mica Creek, Arrow Lakes and Duncan Lake, providing a total of 15.5 million acre feet of usable storage. 8.5 million acre-feet of storage are to be realized within five years after the exchange of the ratifications and the rest of the storage within nine years. These three dams with the existing projects and those under construction in the U.S. will control the design flood to a flow less than 800,000 cfs at The Dalles. The U.S. will pay Canada one-half of the flood control benefits - estimated at $6,000,000/year - it realizes from the projects. If the dams are completed on schedule the U.S. will pay a total of $64,000,000. From these dams the U.S. will also receive about 2,300,000 kilowatts through benefits realized from upstream water storage. This will be divided equally with Canada. Also it is important to note that no diversions

* British Columbia has not yet agreed to the treaty. As it almost has the total power of veto, what it finally decides will be of utmost importance. Two of the stated reasons why it has not yet acted are (1) lack of adequate engineering data on the proposed dams - without it the time schedule cannot be met - and (2) lack of market for the power produced from the Canadian dams.
will be allowed out of the Columbia Basin river system.

Under the treaty the Libby project in the U.S. is okayed by Canada. When constructed it will provide five million acre feet of storage and will be credited with an addition of 544,000 kilowatts of prime power. Benefits from this project will be retained by each of the respective countries.

It is claimed that the addition of the total amount of power within the scheduled time "will give time to resolve local problems of the effect of dam and reservoir construction in critical areas in the U.S. on fish and wildlife".¹ Already it has been suggested that since the projects realized from this treaty will meet the region's power needs for at least ten years the proposed controversial projects can be sidetracked for awhile to await resolution of the problems. This is all well and good if the Canadian projects could meet the needs and if they are constructed on time. These are big ifs and there are questions about both of them.

Some observers doubt if all the storage credited to the Canadian projects can be realized. They think that about 3½ million acre feet are cyclical and that the downstream power benefits would be thus reduced. It is also claimed that by the time the projects are completed the power benefits realized in the U.S. will only be equal to about the load growth needed for two years. Besides the question of meeting needs there is discussion as to whether Canada can and will construct the projects within the allotted time.

Whatever happens any planning body created for the U.S. portion

of the Columbia Basin will have to work closely with its Canadian counterpart. The actions taken or not taken by the Canadians will have great effects upon water development in the U.S. The treaty offers much hope but too heavy a reliance upon it may prove to be disastrous to the Northwest.

These, then, are the problems and type of goals with which any regional water planning body in the Northwest must deal.* Success will be measured in what is or is not accomplished in problem and goal resolution. Since this is a study involving largely non-realized proposals their success can only be measured by considering the criteria to be met to fulfill the goals.**

* On a more explicit level a list of various policy problems which have to be dealt with were set down in a previous study. These are included in Appendix V for reference.

** Obviously much is dependent upon person, place and time. The controlling question becomes how much does any basic organization type control the direction of the resulting plans.
D. Criticisms of Existing Situation

In order to set the stage for a consideration of various administrative proposals for the Columbia Basin it is necessary to see how the present setup fulfills the planning criteria. The assumption is made that the Columbia Basin Inter-Agency Committee doesn't exist. This is done so that later the effectiveness of the committee can be measured by comparing it with the undirected situation. Since most of the problems have already been pointed out this will be done in a brief manner.

The first basic criterion concerns comprehensiveness of vision. A subcriterion of this calls for a recognition of the multiple benefits of water development. Because of the functional biases of the controlling agency or agencies and the related biases within the society, this is not realized.*

A second subcriterion involves the consideration of the total water resources of the region. Because of the division of duties among different agencies and because of the dominant agency approach numerous water uses and misuses receive little consideration. "Most of the planning done to date has been in the fields of flood control, navigation, irrigation, soil conservation, watershed control, and hydroelectric power."

*This is pointed out in a criticism leveled at the present Corps plan for the river. "One reason that the present Division report produces too small a plan for power is that it depends upon the flood control target to guide the power supply. The projects that offer the amount of storage wanted for flood control happen to provide the 4 million annual kilowatts. That, then, becomes the power figure of the Major Water Plan. But that is not the way to plan for maximum development of all the uses of the Columbia River to meet the region's needs. The power needs should be determined independently of the flood control needs." 1

There has not been sufficient planning, however, with respect to such functions as drainage, preservation and propagation of fish and wildlife, recreation, preservation of historic and scenic areas, abatement of pollution, and municipal and industrial water supplies.\(^1\) It can be concluded that the agencies in the region do not meet the criterion of comprehensiveness of vision. In other words, there is no regional water development plan worthy of that name.

The next major criterion concerns administrative structure. First is a requirement that the planning be done under one head. Obviously with the numerous functional agencies in the field this is not being done. Next is the requirement that the planning, developing, and operating phases be done under some sort of common control. This also is not being done on a river basin level. Another requirement is that the planning agency should have close ties with other causal, functional groups. Without any effective coordinating device on the national level there can be few close ties on the regional level. Lastly is the requirement that the planning structure should be both legally and fiscally adequate. No one agency is legally adequate because of the functional limitations placed on it. No one agency is fiscally adequate because of the controlling role played by Congress in the appropriative process.

On a somewhat more general scale is the criterion of "proper orientation". A sub-criterion is that the planner understand the goals behind his actions. The government should exist to effect social changes. The agencies appear to be in business to develop rivers, stop floods or

irrigate lands. The end result is not weighed as heavily as it should be. Social and economic growth become by-products not end results.

A major criticism of the present Corps' plan is that the Corps had no definite goal in mind when it developed it. Speaking of the major control plan, it said, "the preceding chapter has discussed the various proposed projects which will compose a practical and reasonably full development of the Columbia Basin water resources". Can reasonably full development properly be a goal of a "planning" agency? If the "optimum", whatever that may be, is not aimed at in the plan where will it be considered? Does political expediency outweigh the advantages of optimum or comprehensive development? Is "reasonably full development" something that the public can easily grasp or is such a goal defeating its purpose? Without a definable goal the plan's effectiveness is minimized.

Another sub-criterion calls for reaching a balance between local national interests. Because of the character of the water development field and the agencies operating within it the local interests are apt to be greatly over-weighted. * Because of this real decisions are


* "The Corps of Engineers has become a crisis agency....Isolated from the executive hierarchy, by the very incongruity of its function in a defense department, it depends for decisions and support on Congress - on Congress not, however, as it may be challenged to define broad policy, but rather in its local and ephemeral manifestations. Likewise, it depends on the consent of "local interests" - not, however, as they might be challenged to identify their community of interests in cities and states, but rather upon the immediate common denominator of consensus. That is provided in both cases by crises."2

not made just postponed. "... mechanisms and institutions for clarifying conflicts and permitting choices with respect to the goals of river basin development are weak and inadequate. Where conflict over goals develops, pressures of various sorts push in the direction of expedient accommodation of many interests and issues (e.g., the Pick Sloan Plan) rather than resolution of conflicts and clear decisions on goals and objectives."\(^1\)

National interests go by the wayside when expediency becomes the goal.

Another general criterion involves "proper vision". Subcriteria under this call for the planner to be visionary and flexible. Because of their local orientation and their functional divisions the agencies are not apt to realize either of these. Change might tend to lessen their all-important acceptability. As a result it can't be risked. The agencies are not apt to be visionary because of their strict functional divisions and because of the job of catering to the present, local public.

Thus it is seen that there are numerous critical weaknesses in the existing situation. There is no comprehensive vision. There is no planning agency per se and, thus, no adequate administrative structure. The end results of water development receive secondary consideration. A balance between local and national interests is not strived for. The needed vision and flexibility is non-existent. Comprehensive water resource planning is not now realized. The chances of it being realized under the existing administrative structure appear to be nil.

VI. Interstate Compact

A. General Characteristics

The interstate compact is a device used to realize the resolution of various interstate problems and duties. It is formed when a group of states (with the consent of Congress) agree to transfer powers of control and administration in some field to an interstate agency. The right to such action is found in the compact clause in the U.S. Constitution. The powers included in the compact can be no greater than those held by the compacting states.

The resulting compact has six basic characteristics.*

1. It is formal and contractual.

2. It is an agreement between the states themselves; similar in content, form, and wording to an international treaty, and usually embodied in state law in an identifiable and separate document called the "Compact".

3. It is enacted in substantially identical words by the legislature of each compacting state.

4. At least in certain cases, consent of Congress must be obtained; in all cases, Congress may forbid the compact by specific enactment.

5. It can be enforced by suit in the Supreme Court of the U.S. if necessary.

6. It takes precedence over an ordinary state statute.

Compacts can be initiated in two different ways. The first is where one state passes an act which then becomes an offer to the other

concerned states. They accept it by passing the same act. The second method, most typically used in water compacts, is based upon an agreement reached by appointed negotiators of the various states. Typically, for water compacts, a federal representative is also present during the negotiation stage. This agreement is then acted upon by the various state legislatures. All the states must agree to it. For both methods the next step is to get consent from Congress and the President.

After it has been initiated and put into operation it may be found that certain amendments are needed. If such concern substantive matters of importance agreement must be obtained from all the concerned states and Congress. In other words it is a re-ratification.*

As of this date no compact has been ratified and put into operation with a scope broad enough to plan comprehensive river basin development. Most often they have been involved with the allocation of water. Because of this the following analysis of the compact as a comprehensive planning device will be speculative. This in itself does not necessarily admit to any weaknesses in the use of the compact for that purpose.

B. Columbia Basin Compact History**

The first important try for a compact for the Columbia River was made in 1925. After numerous negotiations between state and federal representatives it became obvious that agreement on the allocation and

*It is interesting to note that it has been found that the average length of time of initial compact negotiation of some 19 compacts dealing with various aspects of river control and management was eight years and nine months.¹ This length of time may serve somewhat as a check in the effective use of the compact but it is symptomatic of the problems involved in negotiating. Re-ratification would suffer from the same time problem.


**For a more detailed history see Appendix VI-A.
use of water between the states was impossible and the attempt failed.

The second important try started in the early 1950's. Congressional authorization for compact negotiation was given in 1953 and a negotiating commission was setup with the concerned states - Oregon, Washington, Idaho, Montana, Wyoming, Utah and Nevada - and the Federal Government as members. An expert was called in and he submitted a preliminary compact draft in March, 1954. After some discussion it was concluded that the proposed compact agency should be coordinating and recommendatory. By November a preliminary draft was agreed upon by the negotiators. The makeup and voting strength of the proposed agency drew most of the discussion. After getting recommendations from various federal agencies a final draft was signed in January, 1955. It was promptly sent to the state legislatures for approval. Most of the upstream states approved but, though hearings were held, no action was taken by either Oregon or Washington.

After this partial success the compact was partially revised and resubmitted to the 1957 sessions of the state legislatures. This time it was not approved in any state. As a result of this defeat and the 1956 elections, pressures began to rise for an "action" agency rather than a recommendatory one. The legal problems concerning such an agency were studied and it was apparently found that they were not insurmountable. A committee was setup to draft a proposal for an action compact. It soon ran into difficulties. The major problem concerned the question of hydroelectric development. The downstream states proposed that either the commission construct and operate the hydroelectric plants itself or else any reference to power in the compact should be
deleted. These proposals were voted down and because of political and economic difficulties, it was decided to discard the idea of an "action" agency.

In September, 1958, the negotiating commission voted to return to the 1956 draft. The Oregon and Washington delegations then threatened to go back to their state legislatures and recommend that they terminate the existing negotiations unless an "action" compact was drafted. This threat was not carried out, partly because of the change in the delegations resulting from the 1958 elections. As a result, throughout 1959 and the first part of 1960, discussion was centered around the 1956 compact draft. After some more difficulties with the downstream states the revised compact was approved by the commission in September. In January, 1961, the draft was put before the state legislatures. In February, the Washington Legislature failed to ratify the compact; thus at least putting it off for another year or so.

C. Proposed Columbia Basin Interstate Compact

The purposes of the recently proposed compact are two-fold. The first purpose is to "facilitate and promote their (the land and water resources of the Columbia basin) orderly, integrated and comprehensive development, use, conservation and control for various purposes". The second purpose is to "further intergovernmental cooperation and comity with respect to these resources and the programs for their use and development by, among other things, providing for the relationships between certain beneficial uses of water as a practicable means of effecting an equitable apportionment thereof, and for means of facilitating and effecting additional interstate agreements with respect thereto, and pro-

viding an interstate body to consider the various common problems with respect to the use and development of these resources and to plan for, review and recommend plans for their development.1

These purposes are to be fulfilled by setting up a commission composed of three commissioners each from Oregon, Washington, Idaho, and Montana, and, "if they ratify the Compact", two from Wyoming and one each from Nevada and Utah. Each commissioner shall have one vote. A representative of the Federal Government shall serve as chairman but shall have no vote. When all states have ratified the compact a vote of 12 commissioners in favor of a proposal will be required before acceptance. An executive director will be appointed to act as secretary to the commission. Each state will be required to share in the financing with each of the major states paying approximately 23.5% of the budget.

The general powers of the proposed compact have been included in Appendix VI-B. In brief form the first power is to collect data and make investigations concerning the water and other related resources of the region and to recommend plans and programs for their development. The second is to review all plans for projects, public and private, authorized after the compact is initiated. The third is to make recommendations on any plans, projects, or programs before appropriate governmental agencies. The fourth is to collect and publish water facts needed for pursuit of the above powers. The fifth is to cooperate with the International Joint Commission.

Along with these powers certain existing rights are recognized (Appendix VI-C). Nothing is to impair or affect the federal rights, powers or jurisdiction "except as otherwise provided by the federal

1Ibid
legislation required for the implementation of this Compact”.

D. Compact and planning criteria

With these factors in mind and the proposed compact as a base, the next step is to see how a compact might fulfill the planning criteria set forth earlier. This will be done by considering the compact as a general means of resolving administrative and planning problems. It will be noted where the proposed Columbia River compact differs with the general compact.

The basic condition calls for comprehensiveness of vision concerning the total water resources of a region, the whole river system, and the multiple direct and indirect benefits of water development. This comprehensiveness is apt to be lacking in most compacts because of their strong local orientation. Without the possibility of having a regional balance there is little possibility for comprehensive regional consideration. As the proposed compact is now drawn up the upstream interests carry considerable more weight than the downstream ones. Because of this basic split and the voting requirement there will be little action taken of a comprehensive nature, which, by definition, is often controversial. "The inadequacy of the interstate compact is that while ostensibly it seeks to resolve such issues (conflicts between different water users), it actually tends to exacerbate them, either by postposing a decision, or by working out a temporary makeshift solution at the expense of sound resource development."¹ The decisions which are made will concern only those areas upon which there is agreement. This

Another basic condition calls for an adequate administrative structure. The first sub-criterion calls for geographical coverage. To the extent that everything is to be handled within the river basin the proposed compact adequately fulfills this. Certain difficulties might arise in its relations with Canada and other river basins. The second sub-criterion is a requirement for the planning of a river basin to be done under one head. If there is no cooperation between the compact commission and the federal agencies, this will not be met. The commission is also dependent upon the agencies for factual data. If there isn't considerable contact between them it will have little foundation to stand upon. Because of these characteristics it becomes necessary to insure federal cooperation and participation. There are constitutional and political difficulties involved in holding the federal government to an agreement. Apparently there have been no cases where an administrative or planning compact was initiated with federal participation insured.

The third sub-criterion calls for the planning, development, and operation of water development to be done under some sort of common

"It cannot be emphasized too strongly that though agreement is a desirable goal of coordination, a realistic analysis of coordination processes reveals that effective administration often requires decisions against the interests of some and favorable to the interests of others. While unnecessary contentiousness and conflict should be minimized, the governmental process in a democracy is properly characterized by conflict, by struggle for favorable decisions. And the process of administrative decision requires choices among interests. Hence arrangements which only deal with areas of agreement, which ignore and refuse to fact up to consequences, are not adequate to the tasks of resource administration."\(^1\)

\(^2\)Wengert, N., Natural Resources and the Political Struggle, Short Studies in Political Science, Doubleday and Company, 1955
control. As it is presently envisioned the proposed compact does not meet this, as all of the existing water development groups would continue on their own way. In the earlier stages of negotiation there was much discussion concerning the creation of an "action" agency through the compact. It was found that there were no major legal obstacles to such an agency "other than prohibitions in state constitutions against pledging the credit of a state or creating any debt or liability except on conditions laid down in the various State constitutions".¹ Certain criticisms concerning the idea were put forth by the Department of Justice, but they were not controlling.* One of the main reasons why the idea was finally discarded was the cost involved. If the commission were to take over all of the federal projects the cost would be considerable. On a political level the problems involved in taking over the work of existing, entrenched agencies would be overwhelming.

Another sub-criterion is continuity. Because of its strictly defined orientation and the problems of re-negotiation the compact commission would have a hard time keeping up with the present. "...The interstate compact has not proved a satisfactory medium for continuous and progressive planning activity....." The reason for this limited


*"Apparently the big stumbling block in the drafting of an interstate compact which would bind Federal agencies to any great extent is the Department of Justice. Their theory is that the Federal Government cannot consent to a compact which would delegate or impair any of its powers....Thus Justice objects strenuously on "Constitutional grounds" to compact negotiations involving powers of the Federal Government even where those powers are according to the Constitution to be exercised concurrently by the States and the Federal Government. We have been given to believe that often, while Justice will object during compact negotiations, its objections will be withdrawn or not pressed if the compact is drafted and presented for Congressional consent. Apparently the term "constitutional grounds" are used as a negotiating lever rather than in the sense that the term is usually used....."²

Competence is that additional grants of authority and frequent approval of action taken must be sought by the agency executing the compact, instead of its having power to go ahead and make its own independent plans.¹ Of course this can be changed to the degree that the initial compact is made broad and far ranging but it is much more likely to be specific.

Lastly the administrative body should be both legally and fiscally adequate. There is much debate as to whether the states have the right to tell federal agencies what to do. If they don't have this right they can either buy out the agencies in the region or else rely upon their persuasive powers. As was pointed out previously the first alternative does not offer much hope. The fiscal adequacy of the compact commission is also subject to misgivings. "Unless independent sources of revenue are made available to the (compact) commissions they may tend to suffer due to the difficulties of multistate financing."² This is apt to be a major problem for a comprehensive regional planning body.

Besides these basic criteria there are four general criteria which should be met in order to insure planning success. Under the first general criterion, proper orientation, is the sub-criterion calling for coordination between the water planner and the administrators of those functions which are directly affected by his actions. As a general trait compacts have not been too successful in providing such coordination. The proposed compact would be likely to suffer the same weakness because of state concern over expanding jurisdiction. On the other hand there is no legal reason why such cooperation could not be realized. If the compact commission learns to cooperate with the federal agencies in the water field

there is little reason why they can't cooperate with agencies in other fields. The main check might be a political one.

The second sub-criterion calls for the planner to take regional mores into consideration. A compact commission is not too likely to do this because of its foundation on "equal sovereignty". Under the compact method the State is the dominant symbol; for it there should be substituted the concept of regionalism. Because the representatives of the various states entering into a compact are special pleaders for their respective causes, differences between states become increased, compromise more difficult, and the recognition of overall common interests less telling.¹

The third sub-criterion calls for walking a tightrope between local and national interests. By their very nature compacts are not apt to consider the national scene except as a matter of necessity. Their local, nonregional and non-national, orientation is perhaps the basic reason for not using the compact to handle regional planning duties.

Under another general criterion, proper vision, is the sub-criterion calling for the planner to be visionary. Compact orientation will have a negating effect upon the planner when he tries to represent or visualize the needs and desires of future populations. The very nature of a compact commission is as a representative body for areas; a representative body for the present not the future. Lack of realization of the sub-criterion calling for flexibility of vision is another compact weakness. Because of its required negotiative unanimity, it is relatively fixed in scope. "It (the compact) is ill-suited for fields in which its

use can mean strait-jacketed administration, prescription of standards on the level of the "lowest common denominator", and, in time, "ossified" arrangements. It is inflexible because it is only as strong as its weakest member.

The last criterion calls for public and governmental acceptance. The legislative government is apt to accept it because of the local political weight behind its decisions. This is not true of the executive government. "Regional planning, by a group of states only, has an element of "tail-wagging-dog". This aspect may be particularly true of western interstate regions in view of the large federal ownerships and rights involved, the large federal responsibilities for resources, and the dominant place of federal programs in natural resource conservation and development.

To the local public the compact solution is probably more acceptable initially than the creation of a regional federal agency. It is more acceptable because it maximizes the local view and bows to parochial symbols. In spite of, or perhaps, because of this acceptability, its success is not guaranteed. First of all, in order to keep this acceptability it must produce and there is question as to whether it can. Secondly, success is most dependent upon the traditions and thought of the concerned people and in this case such thought does not emphasize cooperation.

Thus it is seen that the compact, as it is presently envisioned,


* This is really putting the cart before the horse. The compact first must be initiated and this requires Congressional approval. Such approval is not likely to be forthcoming if it involves any delegation of federal responsibilities to states. Also, the states are not likely to agree on anything so encompassing. Leaning over backwards, though, it is assumed for purposes of discussion that just such a compact has been initiated.
fails to meet most of the planning criteria. Perhaps there is a way of modifying the proposal in such a way so as to fulfill most of these criteria. If such could be the case the next factor to consider is whether or not a compact could be initiated.*

E. Compact Realization

As it is now being considered "the principal movers for an interstate compact on the Columbia River seem to be concerned with "state rights"."1** This was especially observable in the compact negotiations when considerable discussion was placed on the power issues. As it is now stated the upstream states reserve the power produced on upstream sites.*** The downstream states have not looked too favorably upon this, for as one local newspaper put it, "if the upper basin states are to get all or most of the at-site power of the storage projects yet to be built, and the State of Washington, 80% served by public power agencies, is to continue to have priority on all federal power, what's left for Oregon?"2 Is this the result of a regional concept? Some do not think so. "Perhaps some good can come of setting up another agency, of regional scope, apparently

2 The Oregonian, "Compact Up Again", Editorial, September 26, 1960.
* This is an improper way to ask the question of public acceptability because it is likely that as a proposed compact fulfills most of the criteria public acceptance wanes.
**"Should the compact be adopted it would represent a major victory for local control and states rights forces as against proponents of federal government control."
(Statement made by Cecil Hagen, Managing Editor of Oregon, Washington, Idaho and Utah farmers' publications before Oregon Association of Soil Conservation Districts, November 17, 1960)
***"The member states recognize that on federally developed storage projects, located wholly or partly in upstream states, a reservation shall be made of the equivalent of a major part of the at-site power and energy for use in meeting future needs of such state or states without regard to their existing energy requirements."
(Proposed Columbia Interstate Compact, Article VI, Section 0-3)
dedicated to fragmentation of the regional concept of power development and distribution.\textsuperscript{1} With such thoughts on both sides does it seem as if the regional "culture" is ready for an interstate compact?

A weak compact can be envisioned as a means of protecting the status quo. This would seem to mean that the proposed compact has some possibility of being initiated, especially if a big push is put forth for furthering federal control of the valley. If such a push is started private power interests, the existing federal agencies, and those against "centralization" will go to the compact side. This is a formidable array of power. In spite of such support the possibility of a compact being initiated is not too great, especially one with the needed powers.

It is concluded that the interstate compact as it is now envisioned does not effectively meet the necessary criteria. This is not to say it cannot. The main problem and hope concerns the relationship between the national government and the state governments within a compact. Views have been very restricted as to the possibility of beneficial interactions between the two. Perhaps they need not be. "In the absence of a Supreme Court decision that no interstate compact can establish a water resources agency which contemplates a greater federal part than now exists, there is a wide leeway for discussion and good reason for exploration of such arrangements. The paramountacy of the national government is the undeniable major premise of the discussion. The challenge is that of finding a formula recognizing that sovereignty but permitting closer state-federal collaboration on crucial water-resource issues."\textsuperscript{2}

\textsuperscript{1} Ibid.

It should not be too close though. "Some observers have pointed out that the combination of the States and the Federal Government into a single entity to undertake the development of a Basin might very well prove to be a serious delaying operation. Historically, States have found it difficult to agree expeditiously on matters of an interstate nature. The Federal Government has historically been in a position to resolve interstate problems through Congressional action. While these actions no doubt did not meet with the approval of all parties concerned, they did have the value of at least gaining a decision. The problem that is of concern to some is the possibility that the Federal Government, as a party to a compact with the States, may be forced into a situation where it could not take effective action, if decisions could not be made within the compact in reasonable time on interstate and regional problems."¹

The compact offers slight hope at best.

VII. Valley Authority

A. General Characteristics

"An authority is a governmental business corporation set up outside of the normal structure of traditional government so that it can give continuity, business efficiency and elastic management to the construction or operation of a self-supporting or revenue-producing public enterprise."\(^1\) The prime example of a successful authority in the water resources field is the Tennessee Valley Authority. Authorities have several characteristics which set them apart from other governmental structures. Some of these characteristics are: *

1. It usually has a reservoir of fluid capital on which it can draw for expenditures without the restrictions and delays of the normal appropriation process.

2. Its borrowing power enables it to obtain credit in emergencies.

3. It usually has freedom from the restrictions of government auditing and accounting.

4. It has relative freedom of contract.

5. It usually has freedom from civil service restrictions.

6. It has a unique pattern of overhead organization resulting from the presence of a board of directors.

7. It is liable to suit in the courts.

8. It is only indirectly subject to "democratic controls".

9. It usually has relative freedom from Congressional interference.

Authorities are setup through action by the President and Congress. One of the major advantages of the authority is the speed with


which it can be put into effect. "Despair over unraveling the tangled
skein at Washington accounts for the eager welcome for the proposal of
a valley development authority.....Thus the Gordian knot is deftly cut
and area coordination of Federal water resource functions is assured."¹
As would be expected there are administrative and political problems
attached to the authority idea which tend to limit its effectiveness.
These will be discussed later.

B. Columbia Valley Authority - History *

The first attempt to setup a Columbia Valley Authority came
in response to interest aroused by the creation of the Tennessee Valley
Authority in 1933. In 1935 a proposal for a CVA was introduced into
Congress but it met with extreme regional and national hostility. This,
along with other factors, convinced the President that such an authority
should not be strived for at that time. For the next ten years numerous
like proposals were put forth but they received little hearing.

In 1945 Senator Mitchell of Washington introduced a CVA bill
which received considerable attention. It had several basic differences
with the TVA: a board of federal officers was to be setup to direct the
authority's activities; an advisory council would be established consisting
of the four state governors and three regional Presidential appointees;
and it also had considerably broader duties than the TVA. The proposal
was attacked from many different directions; two important criticisms
involved water rights and public purchase of private power facilities.
The bill was buried in committee.

* See Appendix VII-A for a more detailed history.
put forth calling for a CVA. Even though no action was taken on them, they did serve to keep the idea before the public. The major push for a CVA gained its impetus through Truman's surprise victory in 1948. Early in 1949 he got behind the CVA idea and really started it moving. Numerous bills were introduced and considered; the Administration backing one in particular (S. 1645).* Hearings were held and propaganda flooded the nation. The idea received poor reception and no action was taken. No major proposals have been made since then.

C. Proposed Columbia Valley Administration

For purposes of discussion the analysis of the proposed CVA goals will be based upon the 1949 "Administration bill". It received the most publicity of the numerous bills on the subject and thus, of any proposal, it probably contains what the public would envision as a CVA.**

The administration would be run by a board composed of three full-time directors, appointed by the President for six-year terms. This board is to concern itself with policy and general supervision. An executive director would be appointed to act on administrative matters. On an advisory level the administration is to "seek the advice, assistance, and participation of the people of the region and their state and local governments and organizations, public and private, to the fullest practicable extent ..." This means establishing at least four advisory boards dealing with irrigation, power, fisheries, and navigation.

These boards would be given the right to have their comments included.

* A description of this bill is found in the following sub-section.
** This bill did not go as far as previous bills in certain situations and, as a result, might be looked at as the end result of the political process.
in the administration's annual report.

The duties of the administration would be "to construct, operate, and maintain projects and to carry out activities, necessary for the promotion of navigation; for the control and prevention of floods; for the conservation of forest, mineral, fish and wildlife resources; for the generation, transmission, and disposition of electric energy".\(^1\)

Besides being charged with the responsibility for planning, constructing and operating projects dealing with water in the channel it also has the responsibility for regional resource planning.\(^*\) A third major responsibility concerns research. It is "to conduct economic, scientific, and technologic investigations and studies, to establish, maintain and operate research facilities, and to undertake experiments and demonstrations".\(^2\)

In order to fulfill these duties it would take over the functions and property of the BPA, Bureau of Reclamation, and most of the civil-works activities of the Corps in the Columbia Basin, but not the functions of the Forest Service, SOS, Fish and Wildlife Service.

D. Authority and Planning Criteria

With these factors in mind and the 1949 proposal as a base, the next step is to see how a valley authority might fulfill the planning criteria. The basic weakness of the valley authority is that there is no guarantee it will consider either national or local interests and try to strike a balance between them. The valley authority "is not a joint creature of Federal, State, and local governments of the area, nor is it

\(^1\) S. 1645, 80th Congress, 1st Session, Sec. 6(b). (Also see Appendix VII - A for more detail).

\(^2\) Ibid, Sec. 6(c).

\(^*\) See Appendix VII-B for regional planning duties.
responsible, in the literal sense of democratic government, to the people
of the valley in which it operates."\(^1\) There is always the threat of
creating a superstate above the local bodies and below the national one,
i.e., a regional limbo.

One might assume that because of the "U.S. tradition", most of
the authority directors would look towards the local people.* If this is
the case the problem becomes one of insuring that they get all of the
local impulses.** This is attempted by setting up a local advisory
council. No matter how one is chosen, though, it is almost an impossibility
to hear and consider all opposing groups.

Another danger involving local interests is the possible
tendency of the authority to by-pass the role of Congressmen. All of its
proposals would go to the appropriation committees rather than the more
typical water oriented ones. They would find it difficult to compare
the authority's projects to what is being done in the other areas of the
country. In other words the authorities would take away much of Congress's
policy determining duties. The local interests represented by the
Congressmen become of less importance as only a national view would have
much validity in such a consideration. Thus in a legislative sense
national control is tightened. On the other side of the fence this is
not the case. The local people would either be represented within the

\*From the local standpoint it is seen that the TVA has handled it quite
well and thus has gained for itself the title as the purveyor of "grass
roots" democracy. This was a decision made by its directors and it is
not inbred in the type of organization.


\**"The challenge is to take up President Truman's offer and to turn their
fears of "socialism and statism" into corrective action by setting up
local agencies to work with CVA and in this way to keep CVA from be-
coming a Federal monster grinding local rights under foot."\(^2\)

\(^2\)Commonweal, "Columbia Valley Authority", 50:60-1, April 29, 1949, p. 61.
authority or not at all. The historical system of checks and balances is partially eliminated. This seems to be consolidating roles too much and the chance of them being fulfilled in the wrong manner becomes much greater.

The valley authority idea is also criticized for creating a body which does not have close enough ties with the national government. There is apparently no feasible way to insure that the national interest will be considered and weighed. One of the major dangers is "that the major policy decisions of authority (may) fail to run parallel with the democratically determined decisions of other agencies affecting the same area, or actually run counter to those decisions".¹

By becoming too closely tied to the region it may separate itself away from national programs. Also the national goals might not be modified by regional findings. The goals would thus tend to lose touch with reality. "Organizational autonomy neither enhances nor detracts from the essential attributes of a government corporation. It may result, however, in so isolating the corporation that it does not have any voice in the formulation of broad public policies affecting its sphere of activity. Autonomy is two edged. It means not only freedom from outside direction and control, but also exclusion from the "official family" and close working relationships with top policy-making officials. These informal day-to-day associations afford an official the most favorable opportunity to influence policy determinations."²

Congress is unable and probably unwilling to do the necessary

¹ Gulick, Luther, op. cit., p. 51.
coordination of the authorities needed to prevent sectionalization. The executive branch would thus have to be drastically reorganized.*

The greatest danger and the most likely possibility is that an authority would be setup with the promise of executive reorganization which would never come about.

On a lesser level the authority may have a difficult time working with other governmental agencies in the region. As the bill was written it would take over the functions and physical facilities of three governmental agencies and plan for the total resources of the region. Depending upon the direction of plan flow the agencies not enveloped by the administration might be apt to harbor resentments against it because its threatening power over their destinies.**

Somewhat in contradistinction to this is the thought that the authority will not be able to properly fulfill its regional planning duties. This may be the case if the public attaches itself to its water development aspects. "The political strength and public prestige likely

* "The valley-authority mode of organizing natural-resource development and management calls for a drastic overhaul of the national executive pattern. Under the valley-authority plan the existing domestic cabinet departments and non-cabinet operating agencies should shed any of their operating duties which duplicate those entrusted to the authorities... The existing departments should assume a staff relationship to a central office of valley authorities, directly attached to the President's office and higher in status than the cabinet departments."1 Obviously the political problems involved in such a reorganization are overwhelming. 1 McKinley, C., Uncle Sam in the Pacific Northwest, U. of California Press, 1952, p. 565.

**"In any given valley a number of federal agencies will have active programs under way. The agencies are of long standing and possess great going-concern strength, and they are understandably loyal to their programs as set forth in law and enshrined in tradition. It is not strange that the TVA has encountered the agency defensiveness which is well-nigh universal and which in varying degrees characterizes every river basin in the country."2

to mass behind an established CVA will come from its combined river-construction programs. The bulk of its personnel will be engaged in those activities. With the public attention and pressures focused on these water construction and operating jobs, can the administration attain sufficient detachment in its perspective to build a balanced plan for all resource interests?¹

The requirement that the planning be done under one head is met in that it is done under a single administrative body. It may not be met though by having it divided among several administrative heads. "The three directors of the TVA have divided their supervisory work into three parts, and each has the primary responsibility for the carrying out of the functions falling within his allocation.....It is almost inevitable that each director should come to look upon his sphere of control as his particular bailiwick, and consequently integration of policies and programs becomes increasingly difficult."² The same criticism may be true of integrating the different phases of development; though the burden of proof is on the disbeliever. The executive director could very possibly unite these factors.

Lastly there is the question of public and governmental acceptance. It would appear from the reception that the TVA has received in the Tennessee Valley, public acceptance should be forthcoming shortly after projects are started. In spite of this there are apt to be a few more problems in the Columbia Valley because of support for the existing

* Because of the realization of these dangers the TVA setup a general manager. Apparently this office has been relatively successful in resolving these dangers.
agencies and because many of the projects are already built. This might, however, be overcome once the authority got down to work. The question of governmental acceptance is directly concerned with its national ties. These were discussed earlier and it would appear that the fulfillment of this criterion is debatable.

The valley authority fulfills most of the planning criteria. The basic one it does not necessarily fulfill concerns walking a tightrope between local and national interests. In order to do this properly both have to be considered. National consideration can only be insured by reorganizing the executive branch of the government. Local considerations cannot be insured. The other criteria which it may not fulfill concern its relations with other governmental bodies, the requirement that planning be done under one head and public and governmental acceptance.

E. Authority Realization

Again the question to be asked is whether an authority is politically feasible for the Columbia Basin. A partial answer can be formulated by examining the antagonists and protagonists of the previous GVA proposals and weighing their relative strengths. Among the groups fighting for the various proposals were public power groups, labor groups, Granges and Farmers' Unions and the liberal wing of the Democratic Party. The antagonists counted as members such groups as private power interests, railroads, chambers of commerce, reclamation groups. For a considerable period of time there have been close ties between the National Reclamation Association and the Bureau of Reclamation. During the GVA fight it was claimed that the NRA served as a go-between for the Bureau and the aforementioned interests. 'Since 'reclamation' is a magic word in the West, the association provides the perfect front for the forces fighting river authorities....The association is interested not in power development but in old-style, single-purpose (cont.)
the press*, and the existing federal agencies and various Congressmen.

The stated interest groups on both sides partially balanced one another out except that the antagonists had the most funds and effective mass arguments and were fighting from an entrenched position. Probably deciding the issue was the position of both the agencies and Congress. As would be expected the concerned agencies along with their supporters fought vigorously against the proposals.** Certain Congressmen were against relinquishment of power by these agencies as they themselves would be apt to lose control.*** The established members of the committees working with the Corps, the Bureau and the other affected agencies would especially be apt to see something distasteful in authority proposals.

On the general public level the CVA proposals were criticized because they would change the status quo. The public's relations with

*In a study of the press' position on the CVA it was found that among the large metropolitan newspapers of the region, only the Portland Oregonian was not "determinedly" opposed.1 Four local small dailies, having a combined circulation of 35,000, favored it. The circulation of the neutral papers was 224,000 and the anti papers circulated 990,000. 1Neuberger, R.L., The Press and the CVA, Nieman Reports - Harvard Press, Vol. 14, No. 1, January, 1950, p. 3.

**"The political heart of the decision registered in the (Pick-Sloan) bill was that the Missouri basin would be developed within the balanced political power of the rivers and harbors and the reclamation blocs. When in the next Congress Senator Murray introduced the Missouri Valley Authority bill ..., both blocs received a direct challenge."2 They rose to it there and in the Columbia Basin.


***"The Pick-Sloan plan was to many Congressmen the alternative to a valley authority which they feared meant the relinquishing by Congress of initiative in planning and control over the uses to which tax-financed reservoirs would be put."3

3Hart, op. cit., p. 135.

(*-cont.) - reclamation projects. It was once a vital and progressive force, but the dirt farmers of the West have gradually withdrawn from membership, and today both the national association and its affiliates are dominated by the railroads and the private power interests."4

4McWilliams, "Columbia River Bureaucrats", Nation, June 23, 1945, p. 693.
the existing agencies had been good and there wasn't an apparent need to change them. "From the first the people of the Pacific Northwest have desired to avoid the establishment in their region of such an agency as the TVA, believing that so comprehensive, far-flung a complex of activities as those of the TVA would disastrously weaken the helpful services of these older, well-established federal agencies who already have a wide knowledge of regional needs and opportunities for development, and are so helpfully engaged in working with the people of the Pacific Northwest."  

With this type of opposition the chances appear dim for the establishment of a CVA. Too many powerful, entrenched groups are against it and the arguments used are apt to be quite effective. The latter can be examined in more detail to point out what an authority proposal may be up against. A listing of such arguments was found in a national magazine listing them as criticisms of the CVA. These are not necessarily factual arguments as many of them are untrue but this is apparently besides the point as truth is relative, especially on the public level.

1. ... these broad powers open the gates for the corporation to do almost anything it desires.

2. All CVA bills are patterned after the TVA. The commercial features (government-in-business) of TVA are not on a sound pay-off basis.

3. A valley authority is not subject to local taxes.

4. A CVA would not be subject to the regular procedure of the appropriative processes required of all other government agencies.


5. The authority corporation is not subject to Civil Service regulation.*

6. The CVA would be a continuation of encroaching Socialism.

7. If the OVA were created all water rights would be in jeopardy.

8. A OVA would give three men complete control over the vast resources of the region.** Freedom would go by the wayside.***

9. If a valley authority with all its socialistic features is good for one section of the U.S., why is it not good for the entire nation?

10. A CVA can do all its work by force-account labor (day-labor) if the directors chose to use this method.

11. Under the guise of "advisory" help the OVA could employ an indeterminate number of citizens and this could be a danger to the local governments.

On a completely different level is the argument that the job is being adequately done so why create something which is uncertain.

Areal problems would, in time, replace functional problems.

* "Why have the proponents of OVA thought it desirable to claim exemption from civil-service laws and regulations affecting other Federal employees? Is it because they wish to revert to the spoils system? Or is it to circumvent the loyalty check to which civil-service employees are subject so that the authority may be loaded with communist sympathizers."


** "I hesitate to turn the Government's money over to a so-called authority, staffed, perhaps by "planners" and idealists interested in remaking society according to their ideas."


*** "Should CVA become law, I would suggest Moscow, Idaho as the administrative headquarters for the super bureau it would create, and then dedicate the site as the burial ground of human freedom."

VIII. Columbia Basin Inter-Agency Committee

A. History

In August, 1939, an agreement to maximize national and regional coordination of water resource development was reached by the Departments of War, Interior and Agriculture and concurred in by the NRFB. When the NRFB ceased to function in 1943, the Federal Inter-Agency River Basin Committee was established to "insure cooperation in the preparation of reports and to correlate the results to the greatest practicable extent among the coordinating agencies". ¹

In November, 1945, the Department of the Interior suggested that a Columbia Basin Inter-Agency Committee be developed from the Bonneville Advisory Board. The board's legal responsibilities were too limited to deal with general regional planning and development. As a result the CBIAC was organized in February, 1946, as a distinct and separate organization. *

It was setup to provide "a means through which the field representatives of the participating federal agencies may effectively interchange information and coordinate their activities among themselves and with those of the states in the preparation of reports and in the planning and execution of works for the control and use of the water of the Columbia River system and the streams of the coastal drainage areas". Its members were representatives of the Departments of War, Interior and Agriculture, the FPC, and the BPA. A representative of the Department of Commerce was added in early 1947. The governors of the seven northwestern states

* The representatives of the agencies on the committee were also the representatives on the Bonneville Advisory Board.
participated in the meetings as non-members, for the purpose of keeping advised of the plans or proposals under discussion.

A rotating chairman was assigned with the post going to a different agency each year. The executive secretary was appointed by the chairman from his agency. No staff or money was accorded it. Each of the members was paid by his respective agency. The secretarial work was paid by the department whose representative served as chairman. Numerous technical subcommittees were established to handle work in such fields as hydrologic data collection, power planning and dredge mining.

The first couple of years were spent in holding public meetings for the exchange of information about the water resource activities of each of the member agencies. These open meetings served to stimulate interest in the committee and basin development. It was found, though, that there was need for frequent executive sessions where subjects could be talked over without the direct ear of the public listening in. In this period some success was attributed to the committee.*

In 1954 there was a reorganization of the FIARBO into the Inter-Agency Committee on Water Resources and this resulted in a reorganization of the regional committee. This was in response to the findings of various study groups such as the Hoover and the Cooke Commissions. At the time it was claimed that such a change had much to offer in the direction of more effective operations. "The broad wording of our new charter and especially the removal of the old "unanimity" rule gave promise that regional water and land resources development planning...

* "The agreement between the Bureau of Reclamation and the Corps of Engineers can be largely attributed to the efforts of the OBIAC.... Other factors entered into bringing this accord, but the stimulus provided for inter-agency cooperation probably did as much as any other single factor in resolving the differences between the two agencies.(cont.)
was being placed on a more effective basis. Under the reorganization the OBIAC expanded its membership to include seven federal department representatives and seven states. The departments now represented were the Departments of Agriculture; Army; Commerce; Health, Education, and Welfare; Interior, Labor; and the FPC. Though the committee was given the right to reach decisions through a majority vote, the right has been little used as total agreement has been strived for.

Also out of this reorganization came an executive subcommittee. Its functions were to: (a) "plan and program OBIAC activities for approval of the Chairman, (b) to advise and collaborate with the latter on policy and related problems, (c) plan OBIAC meetings in advance, (d) review matters coming before OBIAC to make sure they are in proper shape for consideration and action, (e) dispose of minor matters on its own initiative, and (f) follow up on the progress of the Subcommittees".2 By meeting once a month this committee was to mitigate some of the weaknesses created by the lack of a permanent staff. It was to be composed of the executive secretary as chairman, three state representatives and three federal representatives.* There has been little change of individual representatives since the subcommittee was established.

The last two years have been a period of critical self-examination for the committee. The June, 1959, meeting was called specifically for that purpose. Out of this meeting came various proposals for improving

1 Remarks by General A.F. Clark, 102nd meeting of the OBIAC, June, 1959, Timberline Lodge, Oregon.

2 Mayer, Phillip M., A Permanent Executive Secretariat for OBIAC, Memorandum to Executive Subcommittee - OBIAC, January 5, 1961.

* To date, Oregon, Washington and Idaho have chosen the state representatives. (*-cont.) - However, in some quarters, this agreement has been compared to the "shot-gun marriage" of the Pick-Sloan Plan".3

the effectiveness of the committee. The executive subcommittee collated these and issued a report in August containing five proposals. These were discussed and passed upon by the full committee. The proposals and the committee actions upon them were as follows:

A. Requested ICWR to amend the charter to provide that OBIAC may consider any problem or controversial issue regardless of the position of a member agency (clarification of the role of committee members);

B. Requested ICWR to amend OBIAC charter to eliminate the requirement that the Executive Secretary be from the same agency as the Chairman;

C. Approved in principle the establishment of an office of the Executive Secretary on a nonrotational basis, with a small permanent staff;

D. Requested ICWR to establish improved lines of communication from OBIAC to IOWR and, through ICWR, to the Executive Establishment and others; and

E. Established a Subcommittee for Comprehensive Planning with the initial assignment of inventorying the status of water resource plans in the Columbia River basin, and identifying the agencies responsible for each program element.

The report containing these proposals was sent to the ICWR. After some study the national committee sent down its reactions to the requests in December. On point A it clarified OBIAC's role by confirming that "there is nothing in the present charter which places restrictions on the subjects which the field inter-agency committee can discuss. The committee itself must judge when any problem involves considerations beyond its jurisdiction and which therefore cannot be resolved locally". 1

1 OBIAC, Minutes of Meeting No. 107, June 14, 1960, Portland, Oregon, p. 29.
On points B and C it "recognized OBIAC's desire to improve on the present system of the rotating chairman and executive secretary; indicated that it did not favor changing this basic procedure; and did not believe, therefore, that a charter amendment was necessary".¹ On point D the "ICWR stated that it will forward regional inter-agency reports, recommendations and minutes to the Bureau of the Budget and other interested executive agencies".²

In reaction to the negative tone of this response the CBIAG decided to continue study on the problem of internal organization. The executive subcommittee requested that a management study of the OBIAC be made with the aim of strengthening internal organization. Phillip Mayer of the BPA undertook the study and issued the resulting report in the summer of 1960. In it he proposed two alternatives. The first concerned the employment of a permanent executive secretary and small staff. The second concerned the employment of a small staff to be taken from one of the member agencies and to be headed by the executive secretary on the existing rotational basis. In spite of the ICWR reaction the CBIAC decided to pursue the first alternative further so that it "might effectively demonstrate to ICWR how and why proposal A (1) is superior".³ Mayer was told to strengthen his report in the light of this decision. The strengthened report was sent to the executive subcommittee in January, 1961.

In spite of its various weaknesses numerous accomplishments have been claimed for the CBIAC. Three of the basic ones are enumerated here.

¹ Marple and Dworsky, op. cit., p. 35.
² Ibid, p. 35.
of the region into closer and more active participation in the basic planning and programming of resource development. One of its major achievements has been the accomplishment of voluntary inter-agency and state cooperation. Unquestionably the greatest accomplishments of OBIAC are represented by the results of technical subcommittee activities. They achieve the highest degree of technical coordination with almost complete elimination of duplication of effort which is so common to multi-agency responsibility.¹

B. Characteristics

As stated in the revised charter the purpose of the committee is "to provide in the Columbia River region improved facilities and procedures for the coordination of the policies, programs, and activities of the Departments ... and the States in the field of water and related land resources investigation, planning, construction, operation, and maintenance; to provide means by which conflicts may be resolved; and to provide procedures for coordination of their interests with those of other Federal, local governmental, and private agencies in the water and related land resources field".²

The committee is given the responsibility "to establish means and procedures to promote coordination of the water and related land resource activities of the Federal agencies and the States; to promote resolution of inter-agency problems at the regional level; to suggest to the Inter-Agency Committee on Water Resources and the States changes in law or policy which would promote coordination, or resolution of inter-

² Charter for a OBIAC, November 16, 1954, Section 2.
agency problems; and in its discretion to communicate with the Inter-
Agency Committee on Water Resources on any matters of mutual interest". \(^1\)

The work of the committee is facilitated through technical
subcommittees of which there are, at the present time, eleven.* The
subcommittee for comprehensive planning is to "review the status of plans
of various aspects of water resource development and conservation and
identify the agency responsible therefor. The intent of the subcommittee
is to formulate, through its coordinating authority, a broad regional
water and related land resource plan for the Columbia River Basin, and to
submit such a plan to ICWR for action in the Congress". \(^2\) At present it
has completed its first study reviewing the organizations responsible for
planning and the current status of the various plans. Its next step
is to develop mutual agreement as to what is meant by a comprehensive plan.

C. OBIAC and Planning Criteria

With the existing committee in mind the next step is to compare
it to the planning criteria. The first criterion concerns comprehen-
siveness. By its very nature the committee fails to adequately fulfill
this. Since it is composed of representatives of various federal agencies
interacting on an equal level with no central, regional direction the
resulting vision is determined by considering the acceptable parts. If
any member agency of the committee objects to any subject, the committee

\(^1\) Charter for a OBIAC, November 16, 1954, Section 5(a).

\(^2\) Marple and Dworsky, op. cit., p. 35.

* Comprehensive Planning, Dredge Mining, Fisheries, Hydrology, Mosquito
Control, Power Planning, Recreation, Technical Coordinating Committee
for Rogue River Basin, Water Management, Water Supply and Water
Pollution Control, and Executive.
will rarely take a position on it.*

This is not comprehensive. The committee just becomes a valuable forum for discussion of acceptable topics. "The pace of a cooperative group, in which the chairman is a presider but not a decider, is set by the member least able to commit his agency or least disposed to cooperate. In the field service, this means that the pace is fixed by the most centralized agency."¹ Just throwing the agencies together in one room will not make for comprehensiveness of vision. For, the agencies have a "long history of different concepts of the public interest, different interest group clienteles, different sources of political support, responsibility to Congress through different committees and ancient prejudices against Cabinet members long passed from the scene"².

Directly related to this is the requirement for an adequate administrative structure. Under this is a call for the planning to be done under one head. The Chairman of the committee cannot be considered a head because he is elected on a yearly basis with little chance to succeed himself. He has few powers and, as a paid representative of an existing federal agency, works only part time as chairman. If planning is done it is done under many heads, for each representative is his own boss in-so-far as his agency allows him to be. Because there is no staff; because there is apt to be rapid turnover in the top positions in some of the agencies; and because the chairman and the executive secretary serve yearly the committee also

¹ Fesler, J.W., Area and Administration, Univ. of Alabama Press, 1949, pp. 144-5.
² Ibid, p. 97.
* "There is a reluctance to undertake resolution of those issues which are known to conflict with agency policy or upon which agency superiors have taken a position."³
lacks the necessary continuity. *

Another sub-criterion involves adequate legal powers to properly fulfill planning duties. Inter-agency committees do not have such adequate powers. "Interagency cooperation and the making of integrated resource plans and programs are slowed down and hindered because some field officials have no discretion to commit their agencies or no power to command a region-wide field staff." 1 Again, "the product of such efforts (as the OBIAC) are never greater than the imagination of the least of the participants, never broader than the legal powers of each member, and usually only so significant as the lowest common denominator". 2

On a somewhat more general level is the criterion of "proper orientation", with the sub-criterion of reaching a balance between local and national interests. In the case of the committee, when interests are considered, local interests may tend to be weighed too heavily. ** As was pointed out in Section III-A the agencies are oriented towards Congress and, thus, local groupings. The inter-agency committee does not offer much to help counteract this. The coordinating committee at Washington might help to do this if there was strong presidential direction, if there was national coordination, and if there was good communication between the regional and the national committees, but there isn't. ***

2 Wengert, Norman, Natural Resources and the Political Struggle, Short Studies in Political Science, Doubleday and Company, 1955, p. 46.
* "The annual change in Executive Secretary results in important inadequacies. These include (1) time lag in office establishment; (2) inadequate office management, difficulty in follow-up and continuity of Committee operations; and (3) confusion in the minds of the public and Committee correspondents." 3

3 OBIAC, Minutes of Meeting No. 103, Sept. 9, 1959, Appendix I, p. 5.
** Actually because of the Committee's shyness towards controversial issues, interests are seldom weighed on the desired scale anyway.
*** "Inter-agency coordination of field activities ... requires (cont.)
Under the criterion of "proper vision" is the sub-criterion of flexibility. Because the members of the committee are representatives of their agencies they are very apt to be "aware" of their agency's solutions to various problems and not others. This does not optimize flexibility.

It all boils down to the fact that the coordinating committee does not have enough powers to transcend the existing problems. In order to have the necessary powers it would have to transcend the agencies themselves. This is not too likely. This can be pointed out by examining the effects of some of the proposed reforms.

One such reform is to setup a small full time staff with a permanent executive secretary. This would partially lessen the criticisms concerning continuity and planning under one head. It would not do much for the others. Another suggestion is to have the President appoint a chairman, not connected with any of the member agencies, with determinative powers and with a staff. This would tend to dispel many of the criticisms but it would also create several others. One would be the problem of balancing local and national interests as the emphasis would be heavily on the latter. Also the political problems involved with the creation of such a position would be great. "There seems no reason to expect that Congress would welcome such an arrangement, for the President would again be forcing Congress to think of water resources development as a coordination at the center even more than it requires on-the-spot coordination in field service areas. Most of the major field conflicts - ... that between the Bureau of Reclamation and the Army Corps of Engineers - have stemmed from poor coordination at Washington, a failure to define agency functions clearly, or a failure to resolve differences in concepts of public interest. Problems of this character cannot be satisfactorily resolved at a dozen different regional centers."¹

¹Fesler, J.W., Area and Administration, Univ. of Alabama Press, 1949, pp. 89-90.
national program rather than as a disparate assemblage of specific projects in the districts of the individual congressmen. Also the agencies might think it presumptuous. The problems of coordinating presidential and departmental interests could be great. "If departmental and presidential field representatives are created, the strain upon "dual supervision" will indeed become heavy."2

It would seem then that, though the CBIAC is a valuable body for fulfilling certain necessary duties, it is not the organization to optimize the comprehensive water planning of the region.

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1 Fesler, J.W., Area and Administration, University of Alabama Press, 1949, p. 468.
IX. Conclusion

"Man has only begun to use and develop water resources of the basin, and he has not yet made too many mistakes. Time, space and water use are still on his side in the future of the Pacific Northwest."¹

The Columbia River basin has a great need for comprehensive water resource planning. This need is increasing daily as the need for water increases within and without the region. The present planning that is being done is not adequate. Some way must be found to improve the existing situation if local and national people are to benefit in an optimum manner. Partial improvement can come through reorganizing the organizational setup.*

One step towards such reorganization is through the establishment of a regional administrative structure.** This involves both finding


* "The development and accomplishment of a unified and effective plan and programme for water resource and river basin development is highly dependent upon the establishment and functioning of appropriate organizational devices and practices. It should be borne in mind that this is one of the more crucial, and at the same time one of the most difficult, requirement to meet and sustain."²


**There are other steps in improving the existing situation in the water planning field besides setting up regional administrative structures. These are through congressional reform aimed at more national considerations and executive reorganization either along functional departmental lines or as a group in the executive office. Because of political problems congressional reform is much more difficult to realize than administrative reform. Some observers state that the only hope for congressional reform is to have an administrative reform which breaks up the alliances. As a result it is assumed for this study that administrative reform comes first. Likewise the executive reforms are not considered because of the political problems involved. It should be noted, though, that before a regional structure has much hope for success there must be a coordinative body on the national level to help it. At the present there is no such body.
an adequate administrative structure and getting it established. In
order to find an adequate structure there must be some way of defining
or measuring one.* A list of comparative criteria was enumerated and
expanded upon in section II-B of this thesis. Assuming that these
criteria are adequate for primary comparison the next step is to analyze
various structures in their light.** If this comparison is just attempted
in the light of whether the criteria are fulfilled it is seen that no
structure fulfills all of them (Chart A, columns I).

One must then assume either that there is an unexamined structure
which fulfills the criteria;*** that some of the criteria are inapplicable;
that the sum of the criteria fulfilled is the determinant, not the
individual criteria themselves; that various criteria are not as important
as others; or that there is no adequate structure. Postponing the first
assumption for a later study and going on to the second, it becomes
necessary to find the inapplicable criteria. By definition, these must
be the ones which are rarely met. This has to be the case or else the
assumption is invalid. Looking at the chart it is seen that the criteria
which are rarely met are such ones as comprehensiveness of vision,
balancing interests, and probably such ones as single planning head, legal

* Much of the analysis of the various administrative devices are examined
through the checks they impose on the common planner. It goes without
saying that if the ideal planner could be insured the actual device
would not be as important and would be looked at in a different light.
Instead of looking for a device which would insure against planning
mistakes, the search would be for a device which would not hinder action.
Obviously this would be desirable but it is too much of a gamble to rely
upon obtaining such a person. Thus, one must start at the lower level
and work up.

** Obviously the optimization of the enunciated criteria is not the total
answer. There is a certain something left which is rather undefinable,
but which is a major success determinant for the planner. This is the
quality of human judgment and feeling. Organizational structure may
just inhibit this. Thus the search is for a structure which does not
minimize the criteria.

*** See Appendix VIII for a brief discussion of the Pacific Northwest
Regional Planning Commission.
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**total fulfilled** 3 7 32 4 11 21 12 40 72 10 28 51

**% fulfilled** 19% 13% 29% 25% 20% 19% 75% 73% 65% 62% 51% 46%

*0 - criterion is not likely to be fulfilled by structure
1 - criterion is likely to be fulfilled by structure

**0 - criterion has little or no chance of being fulfilled
1 - criterion has 50/50 chance of being fulfilled
2 - criterion has great chance of being fulfilled
adequacy, and flexibility. It is apparent that these are some of the most important criteria. They cannot be eliminated.

Being optimists at heart we are left with the third assumption of the criteria sum as the determinant and the fourth assumption of different criteria weights. It is to be expected that all the criteria would not be fulfilled. The assumption might then be made that the structure which fulfills the most criteria is the optimum one for the job. By giving a plus one for every criterion fulfilled a total sum is arrived at which can be used for comparative purposes. If the assumptions are correct then the higher the figure the better the structure. If this were the case then the authority would apparently be the best (Chart A, columns I).

A moment's thought will tell one that this system does not work. There are unquestionably certain criteria which are more important than others. Assuming that this is the case the criteria must be weighted.* (Chart A, weight column). Once this is done the weighted criteria can be applied (Chart A, columns II). Again the authority appears to be the best structure.

As a further qualification, it is suggested that the question of criteria fulfillment cannot be answered adequately with a simple yes or no. A further refinement is needed. There are degrees of fulfillment and any analysis should take these into account. For simplicity, three

*The weights given the various criteria are not justified in this study. They are used to show the method of analysis. An educated guess has been made and further detailed study is needed before reliance can be placed upon them. The complexities of making adequate comparisons between various administrative structures becomes more and more apparent. This is especially so when it is realized that they are just the means to the planning end which is, in turn, the means to the public good and that those heading the structures partially control the direction of criteria fulfillment.
degrees have been broadly defined to show how this would work. *(Chart A, columns III-A). It is noted that the differences between the various structures have been lessened with this last modification. In spite of this the authority still appears to be the best structure. Further qualifications could be made but they would probably not bring the other structures up to the level of the authority.

Taking one last look at the criteria, though, it is found that some of them are inviolable. If they are not fulfilled either there is little chance for planning success or else the governmental system as we know it is tread upon. Assuming that the criteria which fall under this category were those given a weight of 6 it is seen that no proposal insures fulfillment of all of them. This would seem to mean that with a passive planner no structure will be able to optimize planning. If this is the case then why should a change be desired? Why should one switch from a familiar arrangement to an unfamiliar one which still can't do the job?

The answer to this is that there are degrees of proficiency and different levels of public and professional interest. In the comparisons it is noted that the authority always ranked higher than the others. While it failed to maximize the inviolable criteria the authority did promise

* Again much greater refinement would be needed before reliance could be placed upon them. Perhaps such refinement is impossible as there are many degrees and they are difficult to define. Also as with the other measurements much is dependent upon the individual heading the structure; one can assume an "average" individual for all structures but this may not be realistic. A certain type of structure may attract a "higher" type of individual. The exact political and economic situation during time of operation is also controlling. In spite of these factors which lessen the study's usefulness, such a study is needed. It is needed if for no other reason than to direct thought patterns away from political symbols and to realize the problems existing on the administrative side.
at least partial fulfillment of all of them. There are also degrees of organizational attractiveness for planners. A more optimum organization may excite planners to greater heights.

Now can it be concluded that the authority is the best structure and should be established? The answer to this depends upon the value placed upon the uninsured, inviolable criteria and the urgency of the problem. The controlling criterion concerns balancing local and national interests. The problems involved have been discussed quite thoroughly in section VII-D. The controlling question becomes whether or not it is worthwhile to possibly maximize water planning at the possible expense of minimizing political values. If it was a clearcut question answering it would be difficult enough, but it is a question of probabilities. What are the probabilities that political values would be minimized? Where would the line be drawn? This is beyond the scope of this study and perhaps beyond the scope of any one analyst.

If it is assumed that the chance should not be taken; that the choice is between the three discussed administrative structures; and that the situation will become more critical, the interagency committee approach offers the only hope.* It has the benefit of being in existence but it also has certain innate weaknesses. Since it is in existence it should be strengthened and used while a push is made for a better structure.

It can be concluded from the negative tone of these findings that the enumerated criteria are useful in determining which structures

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* The compact, if it tries to take over the planning duties, would probably be worse than the existing setup.
should not be setup, but they do not tell which should be.

At the risk of being repetitive the conclusions are again stated. There is need for comprehensive water resource planning in the Pacific Northwest. This need will expand rapidly with time. Looking at three proposed administrative structures it is found that none of them fulfill the established criteria to the desired extent. The authority comes the closest but there are critical questions raised as to its orientation and its realization. The existing structure, the OBIAC, should be strengthened as much as possible while search continues for an optimum structure.

The reasons for existence for these administrative bodies must never be lost sight of. The quest for such a body is not primarily a question of administration but one of results equatable with the public interest.* The public holds the controlling hand and it is interested in results rather than neat organizational charts.**

Though optimization of planning criteria is desired it must not be an all or nothing consideration.*** The public interest would never be realized that way. No administrative structure is worth that much.

In times of non-emergency a piecemeal attack offers the only hope. One must have patience while pushing forward.

* As water uses become more conflicting and water scarcer, water controversies will become even more localized and greater in number. Regional society could become so fragmentized that many alliances will be destroyed. If this happens a regional body might easily step into the picture. It is more likely that the few regional thought patterns in existence will be destroyed. Administrative hopes would go with them. Foresight is needed.

**"Unless we aim our policy and organization on some need which is of known importance to the American people, we shall continue to be frustrated." 1


***"The fact that we might not get the ultimate or might not have the kind of organization we would really like to see should not preclude us from taking a first step in attempting to have a regional feeling." 2

2 - Davidson, C.G., OBIAC meeting, June, 1959
Appendix I

A. River Basin Developments Concepts

Water resource development theorists have developed and expanded upon at least three basic concepts. These concepts are envisioned as serving as the foundation for river basin development.* Certain difficulties arise from their use, though, as they have not yet been fully developed or put into practice.** Also there is much public debate as to what they actually mean. On an administrative level the question is largely whether the projects should be operated together; planned together; or operated, planned, and constructed together. Assuming that the concepts are adequate expressions of ideals to be striven for the main problem becomes one of gaining public acceptance or acquiescence.

The first basic idea is that of multiple-purpose development. This is the development of one dam to serve several purposes. Such a dam may produce hydroelectric power, store flood waters, and control navigation. There are many advantages connected with such development. One advantage is economy, as it is often times more economical to build one large project rather than several small ones. Another advantage is the conservation and maximization of dam sites. It also provides for some flexibility in the use of water and it may permit the development of an administratively unjustifiable water use by including it with more justifiable uses. In spite of these apparent advantages, most engineers


* As with most foundations the individual concepts tend to be quite interrelated. Because they form the foundation for river basin development practical operation calls for them to merge together. Operationally, then, they tend to be inseparable.

** Application of the concepts has gone slowly, awaiting first of all the evolution of basic scientific and engineering tools sufficient to the task."1

1 (above)
aver that the theory of the big multiple-purpose project remains unperfected today.¹ This greatly affects the realization of the remaining concepts.

The second basic idea concerned with water resource planning and development theory is river basin planning. This is based upon the assumption that the river basin should be the primary unit of the plan. The reason for this is found in the interrelationship of streams within a watershed. A further expansion of this idea is that the river should be developed as a whole rather than as a scattering of uncoordinated projects.² The major advantage of this is that when the projects are considered as parts of a whole, the individual project benefits are increased. The whole becomes greater than the sum of its individual parts.

A third basic idea is that of comprehensive regional development. Of the three ideas, this is the most controversial. Proponents claim that the river basin offers a certain economic and social unity which should be the basis of governmental action. For practical purposes this is translated into a resource unity. The most efficient development will occur when this natural unity is maximized.²² The main controversy concerns how it should be realized. Some proponents call for a powerful, far-reaching regional agency or government but this is abhorent to those who fear the loss of political rights.

²Control and utilization of the river in a manner to meet most effectively the diverse needs of power production, irrigation, flood control, fish conservation, pollution abatement, and other purposes will require a single, fully coordinated operating plan. Without it, the maximum benefits cannot be obtain from the system of multiple-purpose storage developments which will be created.²
²²²The watershed is visualized as an organic whole, having peculiar, often mystical unifying characteristics. The river basin region is (cont.)
Some theorists claim that there are two other concepts which follow logically from these first three. They are basically concerned with the administration of these. The first calls for articulated land and water programs and the second calls for unified administration. "The continuing discussion of articulation reflects the theme running throughout this study: that water is not a clear-cut basis for organization, and that water and land are so blended as on occasion to defy placement in separate programmatic cells. The fifth concept, that of unified administration, represents an attempt to circumvent the imperfect nature of water as an organizing principle and to blend land and water problems by consigning both to a single agency for administration." ¹


(**-cont.) consequently regarded as offering a logical basis for economic development....Basin development comes to be linked to elemental life processes." ²

Appendix II

Role of Public in Water Planning Process

As governmental action is assumed to be undertaken to fulfill some public objective the role of the public needs to be examined in more detail. Its general role as an active actor in the water resources planning and development process is to develop and express an informed opinion to serve as a modifying agent of the term "full development". This is needed to protect the public's interests and its place in the democratic process. "The practical ability of the basin public through its representation in Congress to state basinwide needs, to challenge (but not veto) redefinitions of the national interest in the basin, and to challenge personal or purely local proposals as contrary to the general basin interest provides the real power at the "grassroots". It is this undergirding of political power that assures responsiveness of national administration to basin opinion."¹

The basic difficulties encountered in public fulfillment of its role come from a dearth of adequate information and a partially resulting lack of enlightened, general public interest. * Such interest is needed if the existing process is to properly fulfill its function.


* Henry Hart² has set down the determinants of the intensity, commonness, and degree of public interest in water development. Intensity varies with the capacity of the river itself to serve the regional public at its established level of technology; the flood damage inflicted and the conscious participation of the population in the control or utilization of the basin's water resources. Commonness varied with public interest intensity; social cohesion between those benefited and those burdened by water development; general social cohesion of the regional population; and the degree to which use of a water resource by one group of a community facilitates use by another. The degree of interest varies with the conformity of boundaries of the unit to the drainage area or (cont.)
"River basin planning by the national agencies and by Congress is already hypersensitive to local desires and pressures so that programs are often unduly deflected from integrating and economic objectives.\(^1\) If the public could see the whole scene perhaps the deflection wouldn't be so great. The problem is that it does not have such vision.

There are five main reasons why an individual might become informed on water resource issues. The first is because of a fear of being either economically or socially damaged by some proposed plan or project. It is likely that such an individual would become very emotional about the proposal and facts would not be too important. Such people can sometimes be a potent force in deciding the location of a local project but rarely do they transcend local boundaries. A second reason for the desire for information is crisis reaction. A person might want to become informed to learn whether or not a water oriented crisis will occur again and, if it will, whether devices will be built to handle it. It is a question of fear and is perhaps the most potent reason for public action, but it is usually quite transitory. The public is not interested in facts but action. A third reason is because the individual thinks he sees something in the proposal for himself. He becomes informed to substantiate his case. Though he is not likely to become as emotionally involved as the first person, he does enter the field with a built-in bias. He is apt to be responsive to anti-intellectual


(*-cont.) portion of the basin system which is under control and the relative importance of purposes served by the development among the purposes of the unit of government.

influences and is likely to accept the "get-rich-quick" approach to the exclusion of the "rational" approach.

A fourth reason is an apparent public spirited one. Certain people designate themselves as watchdogs for society. Since most water resource proposals offer some dangers to society which should be negated and some benefits which should be optimized these people feel that they must become informed on the subject in order to do their duty. They also enter the field with biases. The major differences between those people who are trying to protect society and those who are trying to protect themselves are moral fervor and organization. Watchdogs are apt to be more moralistic in their attack. Because of this moralistic tone they are apt to play a major role in the process. "... In the absence of debate unrestricted utterance leads to the degradation of opinion. By a kind of Gresham's law the more rational is overcome by the less rational, and the opinions that will prevail will be those which are held most ardently by those with the most passionate will."¹ A fifth reason is found with those people who just want to become informed on public issues. These people are few and far between. As a result, they are relatively unimportant on the national scene compared to the groups of moralists and the mass of individuals.

There are two basic ways the individual can fulfill this created desire for information: through individual action and through interest groups.¹ Those who operate on their own get information from interest groups, governmental agencies and objective educational sources. It is likely that the only individuals who might delve into the subject


* There is no regional government and few regional institutions in existence to collate the information.
in any detail are those who stand to gain and those who want to be well informed. Undoubtedly this is a minority of those who want to become informed.

This limited arousal and the complexity of the issues results in the domination of general interests by specific interests such as agencies, individuals and interest groups. "The (water resources development) situation seems far too complex to catch the interest of the average citizen, at least until he feels some personal pinch."¹ Because of the complexities of the issues involved and the need for information "the strength of the special-interest group is enhanced, and the difficulties of the conscientious legislator and administrator in establishing wise policies are increased. Thus, the role of citizen groups and educational and research institutions becomes more important in the attainment of prudent water resource policies."²

In order to understand how the groups fulfill their role of educating the public it is necessary to note that they are functional in nature, being areally oriented only insofar as their function is areally limited. They are formed when a group of like minded people organize to fight for or against something. The various groups interacting in one field are apt to be quite different in scope and activities because of such things as membership, organization, leadership, finances and environmental mores. They are forced to have a limited view of the problem. Besides having a limited view they are also characterized by

their intensity and inflexibility. The broader the vision of the groups the more difficult it is for them to keep their members or to arouse them to action even though the issues in the resources field are very complex and far reaching.

The groups operate publicly to gain popular support for use in impressing the concerned agencies and Congress with the mass appeal for their policies. This support is gained through "education" attempts strengthened by the use of mass media and personal contact. Both factually based and propagandistic arguments are used.

Subjective myths are developed to cover over the real issues and to maximize the use of mass media. They are made easily understandable and rational and pushed to become publicly desired "basic concepts". One such myth that has found fairly wide acceptance is that decisions in the water development field are, by definition, questions of

*A second quality of group politics in the resource field is its intensity and inflexibility, suggesting attitudes more frequently associated with religion than with other spheres of human activity. Perhaps this positiveness as to the rightness of a particular course of action reflects the scientific base of many resource proposals and is an expression of the tendency ... of justifying programs and policies in scientific terms, overinterpreting data and overextending the conclusions which the data warrant." 1


"It should now be clear to all sound thinking citizens that the destruction of America's productive private enterprise is the number one aim of public ownership socialist forces inside and outside of this country." 2


"Myths and symbols, especially when they possess an aura of rationality and reasonableness, can be effective diversionary devices, used to increase and preserve power, prestige, and advantage." 3

science and engineering. The acceptance of this results in submerging social and economic values in a mass of physical criteria. With the continuing upgrading of science and engineering this idea may receive increasing acceptance. Another myth has been created through the use of certain words describing the developments. These are such words as unified, comprehensive, and integrated. No one can be against these but it begs the controlling question. By making it "understandable" to the public the pressure groups have largely hidden from them the detailed questions which should be controlling; questions such as costs, benefits, alternatives and consequences. Also by the broad use of such terms the groups themselves have begun to accept without question certain things which are not given. The political fight thus often occurs over the wrong questions.

But even though symbolism can be misused its use is almost necessary in order to explain the problem in terms understandable to the public.* The great danger is that the public will demand too great a role based upon their symbolically based knowledge. Because of this educational base the public is always apt to be several steps behind their leaders in thought. They thus want to base present and future decisions on past thought. As of yet this danger hasn't been realized as the public has gone the other way and not taken an interest. When it does happen adequate water resources development may be doomed.

It is remembered that the public's role is to develop and express an informed opinion. We have seen why and how it gathers infor-

* "In order to convey meaning to the mass of citizens and to mobilize support for goals and ideals, connotative, symbolic language is indispensable."

1Ibid, p. 264.
nation to form an opinion. The next step is to see how the opinion can be expressed in order to attract the attention of Congress and the executive. General opinion can be expressed through the national political parties and, thus, through the President. This method is limited in effectiveness as the national parties have to be non-specific in order to be successful at the polls. They have to have programs which appeal or are acceptable to a majority of the nation's heterogeneous citizens and, thus, cannot afford to be specific except on issues of national importance as defined by the national public and interest groups rather than the President. By its very nature this only concerns such things as whether the government should act, regulate, or keep its hands off. Party budgetary policy is about the only relatively specific policy that might influence the development of local water projects and usually it is noncontrolling as the area oriented Congress holds the purse strings.*

Since parties are apt to be too general the public must find more specific means for transferring their opinion. One such means is for the individual to transfer his opinion to Congress and the concerned agencies himself. He can do this through such things as letters, telegrams, telephone calls, personal testimony, and personal contacts with Congressmen and administrators. This usually has little effect unless it is the result of a concerted movement and then it goes outside of the individual's realm.**

*A question might be raised, though, as to the influence of multiple-purpose development on this. If most such developments are partially concerned with hydro-production then wouldn't they come under the jurisdiction of the national parties? They probably do if they are controversial. A major problem arises here though because multi-purpose projects are only considered nationally through hydroelectric terms. All of the other uses, excepting perhaps pollution, are sidetracked.

**Individual action is rarely taken because of the public belief in (cont.)
A second specific method is through the state governments. State officials might run for office on specific platforms concerned with regional water development or they might be persuaded to develop a strong opinion through public pressure developed through the above means. The state government then would pressure the national government and have more chance for success than the individual. Usually, though, it is only involved on crucial issues.

The third and the most typical method is for the public to operate through interest groups. Besides trying to educate the public, interest groups often try to claim its voice. Thus they envision as one of their major roles the role of mediator between citizen and government. They claim to receive impulses from the public, reorganize them into correct terms, and transfer them to the government. In actuality they send out impulses and listen for repercussions. They become leaders and directors rather than followers and mediators.

The groups operate in two different fields. On the local field they develop close contact with the Congressmen. Party does not enter into it. It just depends on who gets elected. On this scale it is seen that the Congressmen, direct representatives, are forced to be more specific than the policy of their national party. Thus on the local, non-controversial projects the interest groups and the Congressmen work hand in hand. The groups serve both as intermediaries between the Congressman and his constituents and as constituents themselves. Also (**-cont.) - the scientific base of resource development and the resulting need to belong to a scientifically oriented group. "In the field of resource policy, there has been a pronounced effort to rationalize programs and proposals in scientific terms and to cite the authority of science as justification for particular policies. In no other field is the role of the expert more significant, and concomitantly the tendency to abdicate private, lay judgment in favor of the specialist more evident."^1

on the local scene there is a strong relationship between the interest
groups and the government agency. The agency is partly dependent on
interest groups for public support. The groups are partially dependent
upon the agencies because they occasionally must "bring home the bacon"
in order to keep their followers happy.

With controversial, non-local projects the contacts of the
interest groups are quite different. With such projects they often find
that they have very strong ties with a national party, to the extent that
they can become functional areal arms of the parties. Their ties with
the agencies are weakened and those with the Congressmen are largely
controlled by functional party ties.
### Appendix III

**A. Proposals for Columbia River Development - Corps of Engineers**


<table>
<thead>
<tr>
<th>Location or name of dam</th>
<th>Useful storage - River (1,000 acre-feet)</th>
<th>Installed capacity - (1,000 kilowatts)</th>
</tr>
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<tr>
<td>Grand Coulee</td>
<td>5,028</td>
<td>1,575</td>
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<td>691</td>
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<td>Chelan, Wa.</td>
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<td>Rock Island</td>
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<td>180</td>
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<tr>
<td>Priest Rapids</td>
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<td>The Dalles</td>
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<td>Bonneville</td>
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</table>

Recommended two additional dams, with locks, for navigation only, at points 14 and 40 miles above the mouth of the Snake. Contingent on development of a commerce justifying through canalization above the mouth of the Snake to the vicinity of Wenatchee.


<table>
<thead>
<tr>
<th>Location or name of dam</th>
<th>Useful storage - Columbia pondage (1,000 acre-feet)</th>
<th>Installed capacity - (1,000 kilowatts)</th>
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<td>Hells Canyon</td>
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<td>Nine mile Prairie</td>
<td>Blackfoot</td>
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<td>Knowles</td>
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<tr>
<td>Enaville</td>
<td>Coeur d'Alene</td>
<td>700</td>
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<td>S.F. Payette</td>
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<td>Wenaha</td>
<td>Grande Ronde</td>
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<tr>
<td>Penny Cliffs</td>
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<td>Brucers Eddy</td>
<td>N.F.</td>
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B. Review of Public Expression With Respect to Corps of Engineers' Proposals for Water Resource Development*

Long Meadows Project - Some opposition to this project was raised on the basis of effects on fish and wildlife; suggestions made by fish and wildlife interests as to remedial measures have been included in the project proposal. The Sub-committee concludes that there is no substantial disagreement with respect to this project.

Ninemile Prairie Project - Opposition to this project came from interests concerned with its effect on fish and wildlife; from others who fear a detrimental impact on the local economy; from utilities who object to relocations, fear loss of business and increased operating expense, or desire to provide alternate developments themselves, and from the supporters of the Paradise project who prefer that project to the Knowles project. However, the Subcommittee concluded that the opposition was not such as to warrant classifying this project as one which is in substantial disagreement.

Knowles Project - The record clearly indicates a substantial disagreement with respect to this project. Opposition stems from those opposed to development in the area on the basis of impact on the local economy, and because benefits accrue largely to downstream areas; from utilities and railroads, faced with significant relocations; from the fact that the Moiese Valley area of the Flathead Irrigation District would be inundated; from those opposing Federal development in general and from wildlife objections. Opposition was also expressed by those substantial supporters of the Paradise Project who feel that that project represents a more comprehensive development in the area. However, the latter group has indicated conditional approval of Knowles in the event the larger Paradise Project cannot be obtained. Senate Bill 1226, dated March 2, 1959, would authorize the construction of the Knowles project subject to certain additional investigations by the Secretary of Interior.

Enaville Project - The record indicates substantial agreement on this project although there was some objection from conservationists.

Garden Valley Division - The record indicates substantial agreement with respect to this development. Some objection was raised by conservationists on the basis of loss of big game range, and by the Idaho Power Company on the basis that the project is primarily for power and that power requirements in the area are adequately cared for. The Boise, Idaho Chamber of Commerce passed a resolution directed to the Board of Engineers for Rivers and Harbors, recommending construction of the Guffey project ahead of Garden Valley.

High Mountain Sheep Project - Fishery and conservation interests are opposed to any high dams on the Salmon River, or on the Snake River below the mouth of the Salmon and would like to see the Salmon River set aside as a fishery sanctuary. These interests object less vigorously to the High Mountain Sheep project and some have indicated it as acceptable if suitably equipped with fish passage facilities. On the other hand, public power proponents, labor, and certain farm organizations are positive in their statements of preferences for ultimate construction of Nez Perce on the basis that it represents more complete development. They feel that

the fish problem can be solved, and construction proceed thereafter. Private utilities prefer the High Mountain Sheep project as a project which might be built in the immediate future. The Secretary of the Interior has announced his opposition to construction of dams on the Middle Snake below the mouth of the Imnaha until the fish passage problem has been satisfactorily solved and has urged that further attention be directed to storage sites above the mouth of the Imnaha which can be developed now. The Governor of Oregon has taken the position that decision on Penny Cliffs, Bruces Eddy, Wenaha, Lower Canyon, High Mountain Sheep or substitute projects be deferred pending solution of the fishery problem. A group of seven United State Senators from four Northwest States have joined, according to press reports, in urging a deferral on dam construction in this stretch of the river pending outcome of a high priority fishery research program which is designed to find solution to the fishery problem. There was general agreement by all that the fishery resource should be conserved and that a strong and vigorous research program should be undertaken without delay to provide solution to the fishery problems. Each project, or combination of projects has its proponents and each its opponents. The Subcommittee concludes that proposed developments in this area are highly controversial.

Wenaha Project - Strong objections were registered against this project from fishery and conservation interests. The Corps recognized that this project might be deferred in the interest of the fishery resource. The Subcommittee concludes that it also is a controversial project for which there is no substantial agreement.

Asotin Project - The Asotin project would be operated in coordination with other projects in the region in the interest of system navigation and system power production. While fishery interests object to this project because of its alleged adverse effect on anadromous fish, it is also objected to by rail transportation interests. The Subcommittee concludes that there is no substantial agreement with respect to this project.

Penny Cliffs Project - Vigorous opposition to this project has been expressed by conservation groups, largely on the basis of its effect on winter feeding grounds of elk and other big game animals. Objection has also been registered because the reservoir will inundate a portion of the Lewis and Clark highway, the relocation of which they feel might impair its effectiveness as a major transcontinental route. The Subcommittee concludes that there is substantial disagreement with respect to this project.

Bruces Eddy Project - There is a great deal of support for this project, but at the same time fish, wildlife conservation and recreation groups oppose its construction largely because of concern for its effect on big game winter range and on the steelhead runs and prospective re-establishment of the Clearwater salmon runs. The Nez Perce Indians also objected at one time to the project. The Governor of Oregon expressed his desire for deferment of this project pending solution of the fish problem and proposed that the Libby project be substituted. The Subcommittee concludes that this project is also a controversial one.
Flathead Lake Channel Improvement Project - Substantial testimony supporting this project was lacking, but neither did the record establish substantial disagreement. Objections included those of fish and wildlife interests, certain Indian tribes who are fearful of encroachment upon tribal rights, and those who object to development in Montana ostensibly for the benefit of downstream areas.
### MAJOR DAMS IN THE COLUMBIA BASIN

#### I. Existing

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<tr>
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<th>Location</th>
<th>Stream</th>
<th>Subtotal</th>
<th>Project</th>
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<th>Storage</th>
<th>Purposes</th>
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<td>(360)</td>
<td>90.1</td>
<td>1,000 P, FC, PS, R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower Salmon</td>
<td>Idaho</td>
<td></td>
<td></td>
<td>60.0</td>
<td>P, I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ox Bow</td>
<td>Ore-Idaho</td>
<td></td>
<td>0</td>
<td>190.0</td>
<td>- P</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.J. Strike</td>
<td>Idaho</td>
<td></td>
<td></td>
<td>82.8</td>
<td>P, R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Salmon-4 dams</td>
<td></td>
<td></td>
<td></td>
<td>34.5</td>
<td>P</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td></td>
<td></td>
<td>532.4</td>
<td>1,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Montana Power</th>
<th>Location</th>
<th>Stream</th>
<th>Subtotal</th>
<th>Project</th>
<th>N.P. Rating</th>
<th>Storage</th>
<th>Purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(1)²</td>
<td>(2)²</td>
<td>(3)</td>
</tr>
<tr>
<td>Kerr</td>
<td>Mont</td>
<td>Flathead</td>
<td>(180)</td>
<td>168.0</td>
<td>1,217 P, PS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thompson Falls</td>
<td>&quot;</td>
<td>Clark Fork</td>
<td>(67)</td>
<td>30.0</td>
<td>- P</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td></td>
<td></td>
<td>198.0</td>
<td>1,217</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Key: P-Power, PS-Power Storage, I-Irrigation, FC-Flood Control, N-Navigation, M-Municipal Supply, R-Recreation

**Only about 1,000,000 acre-feet of storage are now available. The above figure will be true when and if the recommended revision of the 60 existing outlets to permit better use of the storage space for flood control is carried out.

1 - Total nameplate rating when all the work is completed
2 - Nameplate rating - 1959
Private Utilities - Pacific Power and Light

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Stream</th>
<th>N.P. Rating</th>
<th>Storage</th>
<th>Purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merwin Swift #1&amp;2</td>
<td>Wash</td>
<td>Lewis</td>
<td>180.0</td>
<td>1000 A-F</td>
<td>P</td>
</tr>
<tr>
<td>Yale</td>
<td>Wash</td>
<td>Lewis</td>
<td>108.0</td>
<td>1000 A-F</td>
<td>P,PS</td>
</tr>
<tr>
<td><strong>sub total</strong></td>
<td></td>
<td></td>
<td><strong>562.0</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Private Utilities - Portland General Electric

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Stream</th>
<th>N.P. Rating</th>
<th>Storage</th>
<th>Purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Fork</td>
<td>Ore</td>
<td>Clackamas</td>
<td>38.4</td>
<td></td>
<td>P</td>
</tr>
<tr>
<td>Oak Grove</td>
<td>&quot;</td>
<td>Deschutes</td>
<td>51.0</td>
<td></td>
<td>P</td>
</tr>
<tr>
<td>Pelton</td>
<td>&quot;</td>
<td>Deschutes</td>
<td>108.0</td>
<td></td>
<td>P</td>
</tr>
<tr>
<td><strong>sub total</strong></td>
<td></td>
<td></td>
<td><strong>197.4</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Private Utilities - Washington Water Power

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Stream</th>
<th>N.P. Rating</th>
<th>Storage</th>
<th>Purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cabinet Gorge</td>
<td>Idaho</td>
<td>Clark Fork (240)</td>
<td>200.0</td>
<td></td>
<td>P</td>
</tr>
<tr>
<td>Little Falls</td>
<td>Wash</td>
<td>Spokane (57)</td>
<td>32.0</td>
<td></td>
<td>P</td>
</tr>
<tr>
<td>Long Lake</td>
<td>&quot;</td>
<td>(130)</td>
<td>70.0</td>
<td></td>
<td>P,PS</td>
</tr>
<tr>
<td>Noxon Rapids</td>
<td>Mont</td>
<td>Clark Fork (400)</td>
<td>336.0</td>
<td></td>
<td>P</td>
</tr>
<tr>
<td><strong>sub total</strong></td>
<td></td>
<td></td>
<td><strong>638.0</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Canadian - Provincial and Private Utilities

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Stream</th>
<th>N.P. Rating</th>
<th>Storage</th>
<th>Purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonnington</td>
<td>B.C.</td>
<td>Kootenay</td>
<td>162.2</td>
<td></td>
<td>P</td>
</tr>
<tr>
<td>Slocan-4 dams</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brilliant</td>
<td>&quot;</td>
<td></td>
<td>81.6</td>
<td></td>
<td>P</td>
</tr>
<tr>
<td>Corra Linn</td>
<td>&quot;</td>
<td></td>
<td>40.5</td>
<td></td>
<td>P,FC,PS</td>
</tr>
<tr>
<td>Waneta</td>
<td>&quot;</td>
<td>Pend Oreille</td>
<td>144.0</td>
<td></td>
<td>P</td>
</tr>
<tr>
<td>Whatshan</td>
<td>&quot;</td>
<td>Whatshan</td>
<td>33.8</td>
<td></td>
<td>P</td>
</tr>
<tr>
<td><strong>sub total</strong></td>
<td></td>
<td></td>
<td><strong>462.1</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total

|                |         |         | **9306.0** | **15,985** |

II. Under Construction

Corps of Engineers

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Stream</th>
<th>N.P. Rating</th>
<th>Storage</th>
<th>Purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cougar</td>
<td>Ore</td>
<td>McKenzie</td>
<td>25.0</td>
<td></td>
<td>P,FC,N,PS,I</td>
</tr>
<tr>
<td>Hills Creek</td>
<td>&quot;</td>
<td>Willamette</td>
<td>30.0</td>
<td></td>
<td>P,FC,PS,N,I</td>
</tr>
<tr>
<td>Ice Harbor</td>
<td>Wash</td>
<td>Snake (360)</td>
<td>270.0</td>
<td></td>
<td>P,N,I</td>
</tr>
<tr>
<td>John Day</td>
<td>Ore-Wash</td>
<td>Columbia (1520)</td>
<td>1304.4</td>
<td>500</td>
<td>P,FC,N,I</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>2341.0</strong></td>
<td><strong>500</strong></td>
<td></td>
</tr>
</tbody>
</table>

Non-federal Public Agencies

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Stream</th>
<th>N.P. Rating</th>
<th>Storage</th>
<th>Purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rocky Beach</td>
<td>Wash</td>
<td>Columbia (813)</td>
<td>711.6</td>
<td></td>
<td>P</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>11647.0</strong></td>
<td></td>
<td><strong>16,485</strong></td>
</tr>
</tbody>
</table>

*This sum is the total available storage for the maximum flood on all the various streams. It has been estimated that about 10,500,000 acre-feet of this could be used in controlling the 1894 flood to a low of 800,000 cfs at The Dalles.*
III. Authorized or Proposed

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Stream</th>
<th>N.P. Rating -Avail.</th>
<th>1000 KW-Storage</th>
<th>Purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asotin</td>
<td>Idaho</td>
<td>Snake</td>
<td>(384)</td>
<td>-</td>
<td>P,N</td>
</tr>
<tr>
<td>Bruce's Eddy</td>
<td>&quot;</td>
<td>Clearwater</td>
<td>(240)</td>
<td>1,433</td>
<td>P, FC,R, N, PS</td>
</tr>
<tr>
<td>Enaville</td>
<td>&quot;</td>
<td>Coeur d'Alene</td>
<td>(60)</td>
<td>700</td>
<td>FC, P, R, PS</td>
</tr>
<tr>
<td>Garden Valley</td>
<td>&quot;</td>
<td>Payette</td>
<td>(368)</td>
<td>1,940</td>
<td>I, P, FC, R</td>
</tr>
<tr>
<td>Hells Canyon (low)</td>
<td>&quot;</td>
<td>Snake</td>
<td>(280)</td>
<td>-</td>
<td>P</td>
</tr>
<tr>
<td>High Mountain Sheep</td>
<td>Ore-Idaho</td>
<td>&quot;</td>
<td>(1500)</td>
<td>2,100</td>
<td>P, FC, P, R</td>
</tr>
<tr>
<td>Knowles</td>
<td>Mont</td>
<td>Flathead</td>
<td>(512)</td>
<td>3,080</td>
<td>FC, P, R, PS</td>
</tr>
<tr>
<td>Libby</td>
<td>&quot;</td>
<td>Kootenai</td>
<td>(688)</td>
<td>5,010</td>
<td>FC, P, R, N, PS</td>
</tr>
<tr>
<td>Little Goose</td>
<td>Wash</td>
<td>Snake</td>
<td>(360)</td>
<td>-</td>
<td>N, P, I</td>
</tr>
<tr>
<td>Long Meadows</td>
<td>Mont</td>
<td>Yaak</td>
<td>(18)</td>
<td>400</td>
<td>FC, P, R</td>
</tr>
<tr>
<td>Lower Granite</td>
<td>Wash</td>
<td>Snake</td>
<td>(400)</td>
<td>-</td>
<td>N, P, I</td>
</tr>
<tr>
<td>Lower Monumental</td>
<td>&quot;</td>
<td>&quot;</td>
<td>(560)</td>
<td>-</td>
<td>N, P, I</td>
</tr>
<tr>
<td>Nine Mile Prairie</td>
<td>Mont</td>
<td>Blackfoot</td>
<td>(60)</td>
<td>885</td>
<td>P, FC, R, PS</td>
</tr>
<tr>
<td>Penny Cliffs</td>
<td>Idaho</td>
<td>Clearwater</td>
<td>(292)</td>
<td>2,300</td>
<td>P, FC, R, N, PS</td>
</tr>
<tr>
<td>Wanapum</td>
<td>Wash</td>
<td>Columbia</td>
<td>(712)</td>
<td>330</td>
<td>P, FC</td>
</tr>
<tr>
<td>Wenaha</td>
<td>Ore-Wash</td>
<td>Grande Ronde</td>
<td>(201)</td>
<td>900</td>
<td>FC, P, R, PS</td>
</tr>
<tr>
<td>Lower Canyon</td>
<td>Idaho</td>
<td>Salmon</td>
<td>(1280)</td>
<td>2,500</td>
<td>FC, P, R</td>
</tr>
</tbody>
</table>

* Projects recommended in latest Corps of Engineers report
Appendix IV

A. Population Projections (in thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Wash</th>
<th>Ore</th>
<th>Idaho</th>
<th>Western Mont</th>
<th>PNW Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1930</td>
<td>1,363</td>
<td>954</td>
<td>445</td>
<td>158</td>
<td>3,120</td>
</tr>
<tr>
<td>1940</td>
<td>1,736</td>
<td>1,090</td>
<td>525</td>
<td>173</td>
<td>3,524</td>
</tr>
<tr>
<td>1950</td>
<td>2,379</td>
<td>1,521</td>
<td>589</td>
<td>185</td>
<td>4,675</td>
</tr>
<tr>
<td>1955</td>
<td>2,570</td>
<td>1,669</td>
<td>609</td>
<td>205</td>
<td>5,053</td>
</tr>
<tr>
<td>1985 - max.</td>
<td>4,607</td>
<td>3,235</td>
<td>988</td>
<td>308</td>
<td>9,138</td>
</tr>
<tr>
<td>- min.</td>
<td>4,242</td>
<td>2,979</td>
<td>910</td>
<td>284</td>
<td>8,415</td>
</tr>
<tr>
<td>2010 -- max.</td>
<td>6,759</td>
<td>4,856</td>
<td>1,425</td>
<td>423</td>
<td>13,463</td>
</tr>
<tr>
<td>- min.</td>
<td>6,105</td>
<td>4,386</td>
<td>1,287</td>
<td>382</td>
<td>12,160</td>
</tr>
</tbody>
</table>

% of total - 1955  51   33   12   4
" - 1985 - max  51   35   11   3
" - 2010 - max  50   36   11   3


(2) migration assumption

<table>
<thead>
<tr>
<th>Year</th>
<th>low</th>
<th>high</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970 (in millions)</td>
<td>6.3</td>
<td>6.4</td>
</tr>
<tr>
<td>1980 &quot;</td>
<td>7.3</td>
<td>7.3</td>
</tr>
<tr>
<td>2000 &quot;</td>
<td>9.1</td>
<td>8.9</td>
</tr>
</tbody>
</table>

Migration assumption 1: "The average annual migration of the period 1950-58 is assumed to prevail to 1970 and then the average annual amount of migration of the 1940-58 period is assumed to prevail for the period 1970-80".

Migration assumption 2: "The average annual amount of migration during the period 1958 to 1980 is assumed to equal 1/2 that of the 1940-58 period".

After 1980 "it was assumed that the change in the proportion of population in each State between 1980 and 2000 will be the same as the change in the proportion that occurred between 1970 and 1980, as implied by the projections for these dates".

(source: computed by Resources for the Future, Senate Select Committee on National Water Resources, Population Projections and Economic Assumptions, Committee Print No. 5, March, 1960, p. 10.)

(3) migration assumption

<table>
<thead>
<tr>
<th>Year</th>
<th>low</th>
<th>high</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970 (in millions)</td>
<td>6.4</td>
<td>6.5</td>
</tr>
<tr>
<td>1980 &quot;</td>
<td>7.6</td>
<td>7.6</td>
</tr>
<tr>
<td>2000 &quot;</td>
<td>10.1</td>
<td>9.9</td>
</tr>
</tbody>
</table>

(source: computed by U.S. Bureau of the Census, Ibid, p. 31)
Appendix IV

B. Data on Manufacturing Activity - 1954

<table>
<thead>
<tr>
<th></th>
<th>Wash.</th>
<th>Ore.</th>
<th>Idaho</th>
<th>Mont.*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td># of establishments</td>
<td>4,929</td>
<td>5,870</td>
<td>961</td>
<td>442</td>
<td>12,222</td>
</tr>
<tr>
<td># of employees</td>
<td>192,354</td>
<td>134,343</td>
<td>25,722</td>
<td>9,402</td>
<td>359,821</td>
</tr>
<tr>
<td>Manufacturing payroll (in thousands)</td>
<td>$842,660</td>
<td>$561,580</td>
<td>$89,507</td>
<td>$27,956</td>
<td>$1,521,703</td>
</tr>
<tr>
<td>% of total</td>
<td>55%</td>
<td>37%</td>
<td>6%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Value added by manufacture (in thousands)</td>
<td>$1,549,060</td>
<td>$1,057,456</td>
<td>$182,276</td>
<td>$49,832</td>
<td>$2,818,624</td>
</tr>
<tr>
<td>*data not complete for all 11 counties of Western Montana as to number of employees, payroll and value added by manufacture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(source: U.S. Bureau of the Census, Census of Manufactures, 1954)

C. Electric Load Projections

(1) Projections of Loads by Classes of Use - All Utility Systems (billion KWH)

<table>
<thead>
<tr>
<th></th>
<th>PNW 1955</th>
<th>1980</th>
<th>% increase-US 1955</th>
<th>1980</th>
<th>% increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm-excluding irrigation</td>
<td>1.5</td>
<td>3.5</td>
<td>230%</td>
<td>17.8</td>
<td>43.4</td>
</tr>
<tr>
<td>Irrigation and drainage pumping</td>
<td>1.3</td>
<td>6.1</td>
<td>470%</td>
<td>8.0</td>
<td>15.1</td>
</tr>
<tr>
<td>Nonfarm residential</td>
<td>10.6</td>
<td>55.4</td>
<td>350%</td>
<td>108.7</td>
<td>434.1</td>
</tr>
<tr>
<td>Commercial</td>
<td>4.8</td>
<td>20.5</td>
<td>430%</td>
<td>80.9</td>
<td>272.3</td>
</tr>
<tr>
<td>Industrial</td>
<td>22.7</td>
<td>82.9</td>
<td>370%</td>
<td>257.5</td>
<td>807.6</td>
</tr>
<tr>
<td>Other</td>
<td>6.7</td>
<td>22.5</td>
<td>340%</td>
<td>80.6</td>
<td>248.7</td>
</tr>
<tr>
<td>Total Energy Requirement</td>
<td>47.7</td>
<td>170.8</td>
<td>360%</td>
<td>535.5</td>
<td>1821.3</td>
</tr>
</tbody>
</table>


(2) Average Annual Energy Requirements in the Northwest (billion KWH)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm</td>
<td>-</td>
<td>.9</td>
<td>1.3</td>
<td>1.6</td>
<td>1.8</td>
<td>2.0</td>
<td>2.2</td>
</tr>
<tr>
<td>Irrigation and drainage pumping</td>
<td>.2</td>
<td>1.2</td>
<td>2.1</td>
<td>3.0</td>
<td>3.8</td>
<td>4.7</td>
<td>5.5</td>
</tr>
<tr>
<td>Residential</td>
<td>6.0</td>
<td>9.4</td>
<td>14.1</td>
<td>18.0</td>
<td>21.9</td>
<td>26.1</td>
<td>30.7</td>
</tr>
<tr>
<td>Commercial</td>
<td>2.6</td>
<td>4.0</td>
<td>6.0</td>
<td>8.0</td>
<td>10.5</td>
<td>13.5</td>
<td>17.1</td>
</tr>
<tr>
<td>Industrial</td>
<td>12.2</td>
<td>20.3</td>
<td>34.1</td>
<td>46.9</td>
<td>61.6</td>
<td>77.6</td>
<td>92.7</td>
</tr>
<tr>
<td>Other miscellaneous</td>
<td>.8</td>
<td>.9</td>
<td>1.2</td>
<td>1.5</td>
<td>1.9</td>
<td>2.5</td>
<td>3.2</td>
</tr>
<tr>
<td>Total consumption</td>
<td>22.0</td>
<td>36.9</td>
<td>58.8</td>
<td>78.9</td>
<td>101.5</td>
<td>126.4</td>
<td>151.4</td>
</tr>
<tr>
<td>Losses</td>
<td>3.5</td>
<td>4.7</td>
<td>7.5</td>
<td>9.8</td>
<td>12.3</td>
<td>15.2</td>
<td>18.0</td>
</tr>
<tr>
<td>Net load at Generator*</td>
<td>25.5</td>
<td>41.6</td>
<td>66.3</td>
<td>88.7</td>
<td>113.8</td>
<td>141.5</td>
<td>169.4</td>
</tr>
</tbody>
</table>

*totals may not add due to rounding

Appendix IV

D. Estimated Irrigated Acreages

(1) 1960 acres additional acres water requirements - (thousands) (thousands) not consumptive use (acre-feet per acre)

<table>
<thead>
<tr>
<th>Region</th>
<th>1960 acres</th>
<th>1960-2010 additional acres</th>
<th>1960-2010 water requirements - net consumptive use (acre-feet per acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kootenai</td>
<td>8</td>
<td>80</td>
<td>1.0 to 1.2</td>
</tr>
<tr>
<td>Clark Fork &amp; Pend Oreille</td>
<td>374</td>
<td>295</td>
<td>1.1 to 1.5</td>
</tr>
<tr>
<td>Yakima</td>
<td>508</td>
<td>97</td>
<td>2.0</td>
</tr>
<tr>
<td>Columbia above Snake</td>
<td>2,015</td>
<td>165</td>
<td>0.8 to 1.8</td>
</tr>
<tr>
<td>Snake-King Hill to Clarkston</td>
<td>1,298</td>
<td>728</td>
<td>1.4 to 2.2</td>
</tr>
<tr>
<td>Snake below Clarkston &amp; Columbia</td>
<td>272</td>
<td>1,057</td>
<td>1.3 to 2.3</td>
</tr>
<tr>
<td>Willamette</td>
<td>175</td>
<td>377</td>
<td>1.1 to 1.5</td>
</tr>
<tr>
<td>Columbia below Bonneville</td>
<td>-</td>
<td>30</td>
<td>1.0 to 1.5</td>
</tr>
<tr>
<td><strong>total</strong></td>
<td><strong>5,158</strong></td>
<td><strong>3,637</strong></td>
<td></td>
</tr>
</tbody>
</table>


(2) Acreage of irrigated land in 1954, and acreage needed to meet specified production requirements for 1980 and 2000 - Pacific Northwest

<table>
<thead>
<tr>
<th>Year</th>
<th>1954 acreage</th>
<th>needed to meet production requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>low</td>
</tr>
<tr>
<td>1980</td>
<td>5,022,219</td>
<td>5,261,580</td>
</tr>
<tr>
<td>2000</td>
<td>5,056,902</td>
<td>6,579,107</td>
</tr>
</tbody>
</table>

(source: Senate Select Committee on National Water Resources, Land and Water Potentials and Future Requirements for Water, Committee Print: #72, December, 1959, p. 69.)

(3) Average acreage irrigated and acreage potentially irrigable in 1980 and 2000 - Pacific Northwest

<table>
<thead>
<tr>
<th>Year</th>
<th>Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1939</td>
<td>3,304,531</td>
</tr>
<tr>
<td>1949</td>
<td>3,836,538</td>
</tr>
<tr>
<td>1957</td>
<td>5,056,956</td>
</tr>
<tr>
<td>1980-potential I</td>
<td>5,060,000</td>
</tr>
<tr>
<td>II</td>
<td>5,903,900</td>
</tr>
<tr>
<td>2000-potential I</td>
<td>5,813,500</td>
</tr>
<tr>
<td>II</td>
<td>7,729,800</td>
</tr>
</tbody>
</table>


potential II - "1980 potential is based on 1957 acreage plus U.S. Bureau of Reclamation proposed project acreages; 2000 potential is based on 1957 acreage plus U.S. Bureau of Reclamation proposed project acreages and all foreseeable future projects for which data are available..."

(source: Ibid, p. 32)
Appendix IV

E. Total water requirements for different population levels - Pacific Northwest

<table>
<thead>
<tr>
<th></th>
<th>1954</th>
<th>1980</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>low</td>
<td>medium</td>
<td>high</td>
</tr>
<tr>
<td>Irrigated acreage (thousand acres)</td>
<td>4,353</td>
<td>5,022</td>
<td>5,261</td>
</tr>
<tr>
<td>Water storage required for (thousand) irrigation</td>
<td>25,392</td>
<td>21,760</td>
<td>22,796</td>
</tr>
<tr>
<td>(acre-feet)</td>
<td>13,930</td>
<td>13,057</td>
<td>13,679</td>
</tr>
</tbody>
</table>

(source: Senate Select Committee on National Water Resources, Land and Water Potentials and Future Requirements for Water, Committee Print #12, December, 1959, pp. 70-73.)

F. Estimates of Pounds and Value of Commercial Catch of Fresh-Water Dependent Species - Pacific Northwest (in thousands)

<table>
<thead>
<tr>
<th>Fresh Water</th>
<th>Anadromous</th>
<th>Estuarine</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td># Value</td>
<td># Value</td>
<td># Value</td>
<td># Value</td>
</tr>
<tr>
<td>1954</td>
<td>400</td>
<td>$40</td>
<td>72,600</td>
</tr>
<tr>
<td>1980</td>
<td>1,500</td>
<td>$200</td>
<td>117,300</td>
</tr>
<tr>
<td>2000</td>
<td>4,700</td>
<td>$700</td>
<td>163,200</td>
</tr>
</tbody>
</table>

(source: Senate Select Committee on National Water Resources, Fish and Wildlife and Water Resources, Committee Print #18, April, 1960, pp. 42-3.)

G. Flows Required for Efficient Navigation (cfs)

<table>
<thead>
<tr>
<th></th>
<th>1959</th>
<th>1980</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>at Bonneville</td>
<td>40,000</td>
<td>40,000</td>
<td>40,000</td>
</tr>
<tr>
<td>at The Dalles</td>
<td>700</td>
<td>1,500</td>
<td>2,500</td>
</tr>
<tr>
<td>Snake - mouth to Ice Harbor</td>
<td>300</td>
<td>1,000</td>
<td>2,000</td>
</tr>
<tr>
<td>John Day to McNary</td>
<td>110,000</td>
<td>1,500</td>
<td>2,500</td>
</tr>
<tr>
<td>Snake - Ice Harbor to Lewiston</td>
<td>-</td>
<td>1,000</td>
<td>2,000</td>
</tr>
<tr>
<td>&quot; Lewiston to mile 174</td>
<td>-</td>
<td>500</td>
<td>1,000</td>
</tr>
<tr>
<td>&quot; mile 174 to mile 188</td>
<td>-</td>
<td>500</td>
<td>1,000</td>
</tr>
<tr>
<td>&quot; mile 188 to mile 232</td>
<td>-</td>
<td>350</td>
<td>700</td>
</tr>
</tbody>
</table>

Appendix V - Northwest Water Policy Problems

To provide a frame of reference to analyze regional proposals for the area a list of the various policy problems which such a solution must meet has been set down in a previous study. The problems were divided into four types: (A) Distribution of benefits and responsibilities; (B) Conflict in beneficial use; (C) The character and rate of development; and (D) Unified operation. Each of these was further subdivided into groups of related problems.

There were six problems under the first section: Distribution of benefits and responsibilities. The first concerned the place of State and local participation in planning, programming, financing, and operation. The second concerned the allocation of funds to local political units in lieu of existing taxes lost. The third concerned the desirability or handicap of having acreage limitation laws. The fourth concerned water rights claims and distribution of benefits in interstate flowage. The sixth concerned the place of the interest component and the basin account in planning.

There were six problems under the second section: conflicts in beneficial use. The first concerned the weight to be given fishery production when it conflicts with construction for other purposes. The second concerned the principles for planning and construction facilities in areas previously dedicated to scenic values or wilderness use. The third concerned the weight to be assigned to interests of reservation Indians when in conflict with development plans in the area. The fourth concerned the inundation of facilities affecting established enterprises, resulting from reservoir constructions. The fifth concerned the danger to probable

future or present mine workings. The sixth concerned reservoir sedimentation and pollution from mining industries.

There were nine problems under the third section: character and rate of development. The first concerned basic data essential to future detailed plans for development. The second concerned the proper rate for future construction of facilities to provide water for irrigable lands. The third concerned the rate of future power development. The fourth concerned the allowance for future industrial water needs in specific parts of the basin. The fifth concerned the extent to which land treatment programs should be included in development. The sixth concerned the development and operation of facilities for future national defense needs. The seventh concerned the relation of the engineering design of major works at a given time to all probable future water needs. The eighth concerned the integrated planning, construction, and operation of facilities on the Columbia, particularly with reference to the place of Canadian water resources in the program. The ninth concerned the uniform policy on the development of recreational facilities in reservoir areas.

There were three problems in the fourth section: unified operation. The first concerned the need for additional legal provision for coordinated development. The second concerned the need for standardization of accounting. The third concerned unified water control.
Appendix VI-A

Columbia Interstate Compact History

The first formal proposal for a Columbia River compact was made in 1911 by former Governor Oswald West of Oregon but it met with no success. In 1915 Oregon entered into a limited compact with Washington dealing with the possibility of creating a degree of uniformity in boundary water fishery regulations. This was not expanded past its limited jurisdiction.

In 1925 the U.S. Congress passed a bill authorizing the states of Oregon, Washington, Montana and Idaho to negotiate a water resources development compact. This action was the result of difficulties encountered in developing the Big Bend area of Washington. Two plans were being considered for this development. One plan, the so called "gravity" plan, called for the use of lakes in Idaho and Montana to store the water to be used in irrigating the area. The storage and allocation of this water became of major concern because the "gravity" plan had no chance for success without the resolution of the problem. In order to facilitate agreement Congress gave its authorization for compact negotiation. At first these negotiations had to be completed by 1927 but this was extended by later acts (44 Stat 247, 44 Stat 1403, 47 Stat 381).

After a lengthy period of negotiations between the states and federal representatives it became apparent that agreement on the allocation and use of water between the states was impossible. The upstream states feared that the downstream states would appropriate too much water. Also water for irrigation and power purposes was highly valued by all concerned and they didn't want to lose any of their "rights" to it.
In 1950 the Secretary of the Interior stated that the efforts of the federal representatives had met with failure. In spite of this, further acts were passed to keep the way open for a solution to the problem by compact but nothing resulted. The driving reason behind this first major compact activity was eliminated when the Federal Government decided to build Grand Coulee Dam as it did not interfere with the use of water in other states.

During this period the Council of State Governments was organized to serve state governments on matters of common interest. Various states quickly called upon it to work “out cooperative solutions to river basin problems and to explore ways and means of securing a definition and integration of federal and state water policies.”¹ Out of this the Council developed machinery for interstate cooperation. This resulted in the creation of numerous river basin commissions and other interstate committees in the water resources field.

By the early 1940's the compact movement had already developed a shady reputation for itself. This was the result of being pushed by numerous people as the counter proposal to regional authorities, rather than as the solution to the problem at hand. "Most of the informed people who have sought a way to achieve the desirable purpose of a broad and coordinated water development of the great river valleys without the objectionable feature of autocratic socialistic authorities have suggested as a solution some application of the interstate compact idea...."²

² Moley, Raymond, Valley Authorities, New York, American Enterprise Association, 1950, p. 75.
obscured its possibilities as a means of administrative integration.\(^1\)

In 1943, the Governors of Idaho, Oregon, Washington, Montana and Wyoming conducted what was called "an experiment in unity" by setting up the Northwest States Development Association. Through this association plans were to be formulated for the development of the Columbia River. Two representatives were named by each Governor to an advisory committee "charged with the task of considering the merits of projects proposed for the utilization of the waters of the Columbia River and its tributaries and the coordination of their development".\(^2\) While this was going on the Governors proposed negotiation of an interstate water compact, but no action was taken. Before the Association could really begin to function properly it died "of state particularism, gubernatorial changes, and indifference".\(^3\) It was successful, though, in helping to resolve a basic controversy.

On July 10, 1950, the present series of compact negotiations were started. At that time there was a meeting of the representatives of the northwestern states and the Federal Government. On July 16, 1953, this ultimately led to Congressional authorization of an act (66 Stat. 737) which granted consent to Idaho, Oregon, Washington, Montana, and Wyoming to negotiate and enter into a compact for the equitable disposition, 

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\(^3\) McKinley, O., *Uncle Sam in the Pacific Northwest*, Univ. of California Press, 1952, p. 466.

* "The governors' Northwest States Development Association did a good ad hoc, one-shot job at a crucial time of deep controversy (over upstream storage in Columbia system) by agreeing on a group of projects in or toward a comprehensive, acceptable plan. Continuously effective organization of this kind is not likely to work for same reasons that militate against compact commissions. It was practically accidental that five (cont.)
allocation, diversion, and apportionment of the waters of the Columbia River...". The first formal organization of the compact negotiating commission was completed in October, 1950. All of the states were represented as well as the U.S. Government and each was given one vote. At that meeting it was requested that each agency of the Federal Government concerned with the development of the Columbia River designate an informal representative to the commission. Nothing further was done on this matter though.

Within a year the commission was fully organized and had a full time staff at Spokane, Washington. In November, 1953, an important first step was taken when Frederick Zimmerman and Mitchell Wendell were commissioned to draft a preliminary compact. The following March they submitted a preliminary compact draft which went to the commission's executive committee for discussion and revision. Much of the preliminary discussion centered around whether to provide an action and regulatory agency or one with just coordinating and recommendatory functions. By May, it was generally agreed that the latter type should be set-up. A revised compact was then officially received by the commission. This gave cause for optimism as many of the commissioners felt that negotiation had speeded up considerably during the preceding six months. This was partially the result of the work done by the previous negotiators, and because there was "an increasing realization that some type of coordination and planning is necessary to

insure sound development of the Basin".1


* This was amended later on to allow Utah and Nevada to enter into the negotiations.

(*-cont.) governors would be as compatible as they turned out to be in 1943,...and unlikely that they would stay that way."2

Through the next six months the full negotiating commission met each month to consider a new revision of the proposed compact. The articles dealing with the makeup and voting strength of the proposed commission, allocation of power, and apportionment of water received the most discussion. Throughout this period the question of the voting strength of the individual states was very controversial. The state of Washington called for recognition of the greater interests of Oregon, Washington, Idaho, and Montana. Nevada, Utah and Wyoming, admitting their smaller interests, still claimed individual votes as states. Perhaps of greater importance was the recognition of the need to balance the upstream and downstream states.

In November a draft was approved as consideration for a final draft. This was then taken to Washington, D.C. for study by various federal agencies. After considering the suggestions for revision that came out of these studies a final draft was approved on December 29, 1954. It was signed by the full commission on January 15, 1955 and promptly submitted to all of the state legislatures except Wyoming. The Idaho, Nevada and Utah legislatures approved the compact during their 1955 sessions. It passed in Montana's Senate but it did not come up for action in the House. Public hearings were held in Oregon and Washington and drew "heavy" public participation. No action was taken, though, as it was claimed that there was need for more time to study the proposal.

After it was seen that the compact was not going to be passed by all of the state legislatures that year a draft was again sent to Washington, D.C. After the conferences were over and some revisions made it was tentatively approved by the commission in August. Public hearings
were then held in most of the states. In December the commission approved and signed a final draft which was to be submitted to the 1957 sessions of the state legislatures.

This proposal was not as successful as the previous one. In Idaho the compact was not reintroduced; in Nevada it was not introduced and the 1955 ratification was repealed; in Montana, Utah and Wyoming no action was taken; in Oregon it was introduced in the Senate, extensive hearings were held, but no action was taken; and in Washington a ratification bill was prepared but not introduced.

After this setback pressure began to build up within the commission to create an "action" agency. In June, 1957, a special action committee was setup to study such a possibility. It polled the attorney generals of the seven states and found that the states could "legally participate in an interstate agency with authority to issue revenue boards and construct and operate multi-purpose projects". In spite of this there were numerous other problems concerned with such a compact. Probably the major one was that a vast majority of the commission members did not want an "action" agency.

In October questions arose concerning the kind of "action" the proposed compact agency should take in the field of hydroelectric power. The Executive Secretary was authorized to study the problem and the resulting report was issued in February, 1958. In response to this report and numerous pressures a drafting committee was setup in May. It was instructed to prepare a compact draft "excluding provisions relating to power except

* It should be noted that the results of local elections bid foreboding for the compact supporters. In many of the local races water resources development became an important issue. The winners of such races were almost always supporters of public development and, thus, as the issues were defined, non-compact supporters.
for allocation of power and/or revenue bond financing" which were to be explored further (during the last of July).

When the committee met two resolutions were introduced by the Oregon and Washington delegations. The first called for a compact containing provisions for the construction and operation of hydroelectric power plants. This was defeated by a vote of four to two: Oregon and Washington favoring; Idaho, Montana, Nevada and Wyoming opposing; Utah absent and the United States passing. The other resolution would have eliminated all reference to power from the compact; including any provision for the allocation of power. This was defeated by a like vote. It was then decided by a majority vote of the committee that they return to the compact draft of December, 1956.

On September 11 and 12 the commission voted for return to this draft. Again the Oregon and Washington delegations pushed for action provisions in the field of electric power but they were not successful. A common feeling was that there were too many legal and economic impracticalities involved in an "action agency". The future did not look too bright and it was claimed by some that little had been accomplished in the preceding year and a half, largely because of the indecisiveness of the delegations from Oregon and Washington.

On September 26 these two delegations issued a joint ultimatum saying that if an "action" compact in the power field would not be drafted they would report this fact to their state legislatures. They would then recommend that the existing negotiations be terminated and that new legislation be passed authorizing negotiation of a compact limited "to the fields of pollution control, apportionment of water and prohibition of out-of-basin diversion". At this time it became questionable whether the
commission would remain in business. Most felt that if this power issue and the "action"/"advisory" issue couldn't be resolved there would be little sense in continuing.

The commission did not meet again until January, 1959, when it decided to continue operations. It was agreed that it should continue negotiations within any limitations imposed by the state legislatures. The results of the 1958 election considerably changed the outlook of some of the delegations. Oregon's changed the most through the election of a Republican governor even though the legislature went strongly Democratic. Thus when the commission met in May, the various delegations could report that there had been no change in their initial legislative instructions. The Oregon and Washington ultimatums were not, or could not be, carried out. It was decided to continue study of the December, 1956, compact draft.

It is important to note that throughout this period and up to the present the compact idea has received considerable public and editorial support in Idaho, Montana and eastern Washington. Oregon and western Washington, on the other hand, have shown support for a federal corporation or authority. The whole history of the compact negotiation shows this deep split. The upstream states have been mainly interested in the protection of water rights for reclamation. They fear a power action agency which might jeopardize upstream development and might conflict with their state constitutions. The downstream states, especially after the 1956 elections, have been more power oriented.

Throughout the rest of the year and the first half of 1960, the commission was largely trying to resolve difficulties surrounding the 1956 draft. These difficulties were related to the articles dealing with the
general powers of the proposed body, allocation of hydroelectric power, and apportionment of waters. By August the commission was close to approving the compact. The main problem holding such action back was that the Oregon delegation felt that the article dealing with power should be excluded if it couldn't be written in such a way as to insure for Oregon some of the power from future upstream developments. It claimed that the proposed compact with its article on power could not be passed by the Oregon Legislature. On the other hand, Montana felt that the article had to be left in. During the August 8 meeting, an ultimatum was given to Oregon. If it couldn't agree to a compact acceptable to the other six states within approximately 35 days then they would proceed to compact among themselves. On September 15 agreement was reached through a compromise hidden in vague terms and the compact was adopted. It was signed on October 3. The next steps were to send it to the various interested federal agencies for comments and then to the state legislatures in January. In late February or early March the Washington Legislature failed to ratify the compact. This will at least put off further action for another year and probably longer.

Appendix VI-B

**General Powers of Proposed Columbia Basin Interstate Compact**

The Commission shall have power when authorized by such majority vote as provided by Article III hereof:

A. To collect, correlate and report on data relating to present and potential uses of water and other related resources of the Columbia River Basin and relating to available sources of water for use in the Columbia

*Proposed Columbia Interstate Compact, October 1960 Draft, Article V, p. 5.*
River Basin; conduct investigations and surveys to determine the extent of those resources and the nature of the problems involved in their present and future development and management; and recommend plans and programs for their development.

B. To undertake itself, or in cooperation with governments or agencies thereof or other entities, with respect to the Columbia River Basin the review of all plans for the construction of works authorized or reauthorized to be undertaken after the effective date of this Compact for flood control, navigation, power development, irrigation, or other water use or management which involve facilities having capacity for the diversion or use of flows of more than 200 cubic feet per second or the capacity to store at any time more than 25,000 acre-feet of water and which are proposed to be undertaken pursuant to laws of the United States, whether under permission granted by the United States, by means of financing in whole or in part by the United States, or otherwise.

C. To appear and make recommendations before appropriate governmental or intergovernmental agencies or other entities in public hearings or otherwise, in connection with any plans, projects or programs.

D. To collect, correlate and public water facts necessary for the purpose of this Compact directly or in cooperation with any governmental or intergovernmental agencies or other entities.

E. To cooperate with the International Joint Commission - United States and Canada, the appropriate agencies of Canada and the Province of British Columbia, as well as the agencies of the member states and the United States
and with other entities, in studies, plans and recommendations with respect to any project which may have a substantial effect on the uses of waters of the Columbia River and its tributaries that are of international concern.

Appendix VI-C

Existing Rights Recognized in Proposed Columbia Basin Interstate Compact*

Nothing in this Compact shall be deemed:

To impair or affect any rights, powers or jurisdiction of the United States, or those acting by or under its authority, in over and to the waters of the Columbia River Basin, except as otherwise provided by the Federal legislation required for the implementation of this Compact.

To affect the obligation of the United States to the Indians and Indian tribes, or any right owned or held by or for Indians or Indian tribes which is subject to the jurisdiction of the United States.

To impair or affect the capacity of the United States, or those acting by or under its authority, to acquire in accordance with the laws of the state involved rights in and to use of waters of the Columbia River Basin.

To subject any property of the United States, its agencies or instrumentalities, to taxation by any member state or subdivision thereof.

To subject any property of the United States, its agencies or instrumentalities, to the laws of any member state to any extent other than the extent those laws would apply without regard to this Compact, except as otherwise provided by the Federal legislation required for the implementation of this Compact.

To affect the applicability of the laws of any member state with respect to water rights properly claimed thereunder, except to the extent that the applicability in a given case would be inconsistent with the provisions of this Compact.

To affect adversely the areas of Mount Rainier, Glacier, Yellowstone, or Grand Teton National Parks or Craters of the Moon, Fort Vancouver or Whitman National Monuments or to limit the operation of laws relating to the preservation thereof.
Appendix VII-A

Columbia Valley Authority History

In 1933 Congress passed the Tennessee Valley Authority Act. This resulted in the establishment of the Tennessee Valley Authority, a federal-regional, governmental body primarily concerned with the development of the Tennessee's water resources. The authority idea became popular among certain groups which felt that it should be extended to other river basins throughout the country.

In the early part of 1935, Senator Pope of Idaho introduced into Congress a proposal for a Columbia Valley Authority (S.869). It was to have the same general structure and duties as the TVA with the exception that an advisory board would be created having as members the Pacific Northwest Regional Planning Commission, plus representatives of the Departments of War, Agriculture, Commerce, and Labor, and the Federal Emergency Relief Administration. Later a discussion concerning it was held with the Senator, President Roosevelt, and the Chairman of the PNWRPC. The President concluded that a CVA should not be pushed for then because time was needed to carry on a study (on the basis of a ten-year plan) for the Columbia Basin and other basins throughout the country.*

Pope's proposal met with extreme hostility, even in his own state. One of the main reasons for this hostility was from the introduction of the irrigation issue. "Sentiment in the semiard parts of the region was at once aroused, and has remained hypersensitive lest an authority plan (1) interfere with states rights in the appropriation and use of waters, (2) menace the financial feasibility of reclamation projects by

* Some felt that he concluded it wasn't necessary to push for a CVA at the time because of the job being done by the PNWRPC. Also it was overwhelmed by the proposals to create a Bonneville Power Administration.
fixing power rates too low, and (3) eliminate the Bureau of Reclamation as the chief irrigation agency."¹

In the following years numerous proposals for a CVA were put forth but no major effort was made to get them initiated. Most were modeled after the TVA with a few modifications such as the creation of a regional advisory council. In 1940, 1941 and 1942, Senator Bone and Congressmen Hill and Leavy of Washington introduced bills which would have set up a Columbia Power Administration. (S.4390, S.1852 and S.2430) In 1941, Congressman Rankin of Mississippi introduced a CVA bill. It died in committee as did the numerous other like bills introduced during that period. One of the major political mistakes made in many of these bills was to apparently disregard the popular, and partially legal, state sovereignty over water rights. This was done by setting it up in such a way that it could be claimed that the authority's irrigation development might supercede these rights. Another political problem concerned the proposed right to buy out the region's utility systems through the issuance of revenue bonds.

In 1945, Senator Mitchell of Washington introduced another CVA bill. (S.460) This bill was the result of substantial joint effort by various interested groups and was the first to receive much consideration. In comparing the Mitchell proposal to the TVA it is noted that there are several important differences. The created board of three was to present its plans and programs for review to a National River Basin Development Board (composed of the Secretary of the Interior as Chairman, the

Secretary of Commerce, the Chief of Engineers, the Chairmen of the TVA

and the CVA boards and the other chief executive officers of regional bodies which Congress might create). The chairman of this board was given the right to "direct and supervise the activities and operations" of the CVA. Thus there was a danger that it might become an arm of the Interior Department. An advisory council was also to be established, composed of the gubernatorial nominees of the four states and three regional residents appointed by the President. In a bow toward the existing agencies the CVA was, "so far as practicable", to fulfill its duties "through, or in cooperation with" other federal agencies and to work through local agencies. It was up to the authority to decide to what extent. Its duties were considerably expanded from those of the TVA as it was to prepare a plan "for the unified development of the Columbia Valley Region" including practically every phase of regional resources. Plan implementation was also involved.

At various points the authority was given the apparent right to "sell" water. This raised havoc among the irrigation interests for "the orthodox view of all western states is that Congress years ago acknowledged the jurisdiction of the states over water within their borders for reclamation purposes and their right to determine law governing the rights to that precious liquid". 1 It was widely felt that "the effect of the enactment of your bill in its present form will be (1) to interfere with state laws relating to the control, appropriation, use or distribution of water, (2) perhaps to adversely affect existing water rights acquired under such states laws, and (3) as to water developed and stored by the CVA, to substitute a system of sale upon contracts of limited duration for one of continuous delivery of water,

1 Ibid, pp. 553-4.
without limitation as to time, to users who by virtue of appropriation and beneficial use pursuant to state laws have acquired a permanent right to such use".\(^1\) These criticisms were accepted and Mitchell promised to minimize them in his next draft. Another criticism concerned the authority's right to acquire private power facilities if the distribution facilities were sold as soon as possible to the local public agencies. The bill was buried in committee.

About this same time the Columbia Valley Information League was formed to fight for an authority. It was composed of some of the commissioners of the Public Utility Districts, Washington State officialdom, and some of the strong New Deal congressional delegation. Late in 1945 a like group, the League for a CVA, was formed by these and other interests to push for the revised Mitchell Bill. Included among its officers and directors were representatives of the Washington and Oregon State Granges; Washington and Idaho Federations of Labor and CIO's; and the Oregon, Idaho and Montana Farmers' Unions. This latter group did not have sufficient financial resources to play a major role. The Pacific Northwest Development Association was organized in 1945 to fight against the CVA. In time it had some 700 supporting members, largely composed of railway, private power and chamber of commerce interests. Its directors included leading business and industrial figures. On the first board were at least three officers of state reclamation associations.\(*\)

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\(^1\) Letter from Oregon State Grange to Senator Mitchell, June 22, 1945.

\(*\) "Bonneville officials maintain that a preponderance of the development association's fund stems from private utility corporations. In 1946 and 1947, according to Nelson O. Hazeltine, director of information for Bonneville, the PNDA received substantial contributions from the Washington Water Power Co., Idaho Power Co., Northwest Electric Co. and Portland General Electric Co."\(^2\)

In the latter part of 1945 Senator Mitchell introduced a revised CVA bill (S. 1716). The main differences between the two proposals were (1) elimination of the national reviewing board; (2) elimination of the Secretary of the Interior as supervisor of the authority; (3) limited revision downward of duties in such fields as recreation, forestry, mining and fish and wildlife; and (4) apparent elimination of question of water rights. Though this latter point was probably right the people seemed to remember the mistake made in the first draft. Another major change concerned the advisory council. It was made much less formal and more far ranging by calling for "one or more representatives of each of the States of Idaho, Montana, Oregon and Washington (to be designated by the respective governors thereof), representatives of business, agricultural and labor interests of the regions, appropriate officers of representative local and state agencies and institutions, ..... and representatives of the general public of the region". This proposal also met with little success.

The elections of 1946 greatly influenced the direction taken by the CVA forces. Senator Mitchell was defeated as well as a number of other Washington New Deal congressmen. "The center of its support had been in the State of Washington. The replacement by the voters of that state of most of its liberal congressional delegation with Republican conservatives deprived the authority proponents of effective political power."¹

In 1947 Congressman Horan from Washington introduced a bill for creation of a Columbia Interstate Commission (H.R. 3969). This was

a revision of an earlier proposal of his. The commission or authority that was setup would deal only with water planning, development, and management. It would be directed by a board of five directors with a strong local orientation. An advisory council would be established to review all of the commission's proposals. Its comments would be attached to the commission's annual report. Again no action was taken.

Also in 1947 Senator Taylor of Idaho introduced a CVA bill based on the second Mitchell Bill. There was one major modification and it concerned the regional advisory mechanism. The advisory committee would be given the duties of passing on the authority's initial plan for the region and for broad policy questions. The committee would be composed of representatives from eight federal departments and agencies and the four state Governors. Also the President would name local representatives of agriculture, commerce, labor and wildlife interests. This bill met the same fate as the previous bills and was never reported out. It did, however, serve the purpose of keeping the authority idea alive in the region.

As a result of President Truman's surprising victory in 1948, a big push was made for a CVA the following year. He called for action on the regional level in his "State of the Union" and budget messages to Congress. Later, in a special message, he recommended that a Columbia Valley Administration be setup. Truman had directed one of his aides, Charles Murphy, to lead in drafting the bill. Assistant Secretary of the Interior, C. Girard Davidson, became closely associated with him in the drafting and selling of the proposal. A bill was soon drafted and

* It was felt at the time that Davidson would head the authority when and if it were setup.
introduced into the Senate in April, 1949, shortly after Truman's special message. This bill (S. 1645) became the center of discussion even though several other CVA bills had also been introduced. The Public Works Committees of both Houses began to hold hearings.*

Even before this occurred the region and the nation was flooded with competing, misinformative propaganda. Both sides strongly presented their case and the idea received poor reception. Besides the typical reasons for this was the fact that the Bureau and the Corps agreed upon their "plan" at this time. As one Senator put it: "There would be no need for Congress to approve the development plan and program which has been approved by the Secretary of the Army and the Secretary of the Interior if the Congress first approves legislation to create a CVA. It likewise follows that the reverse of this statement is true." 1 **

No more action was taken in that session of Congress. In the next session President Truman apparently began to lose hope or at least have his attention diverted to other matters. The CVA proposal has not since then been brought up as a major proposal. This is emphasized when it is noted that President Kennedy's choice to head the BPA, Charles F. Luce, stated soon after his appointment that a CVA is not even being considered as the BPA and the other agencies are doing an adequate job.

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1 Cain, Harry P., "Remarks made introducing a bill to establish a CVA", (S. 1631), Congressional Record - Senate, April 18, 1949, p. 4705.
* Hearings Before the Committee on Public Works, House of Representatives, 81st Congress, 1st Session, on H.R. 4286 and H.R. 4827.

**In an AP dispatch from Pocatello, Idaho, dated March 24, 1949, Colonel T.P. Weaver, division engineer, was reported as saying "the 308 report has been coordinated with other Federal agencies and all of the report objectives can be accomplished through existing agencies". He was further quoted as saying, "the people interested in development of the area must get behind this plan".
Appendix VII-B

General Powers of Proposed Columbia Valley Administration*

Section 6

(b) Subject to the policies, conditions, and limitations stated in this Act, the Administration is authorized and directed to construct, operate, and maintain projects (including stand-by facilities), and to carry out activities necessary for the promotion of navigation (except for channel and harbor improvement work in tidal waters tributary to the Pacific Ocean); for the control and prevention of floods; for the conservation of forest, mineral, and fish and wildlife resources; for the generation, transmission, and disposition of electric energy; for the execution of such other responsibilities as are vested in the Administration by or pursuant to this Act; and, in connection with any of the foregoing, for the development and conservation of recreational resources and for the promotion of sanitation and pollution control. Provided, that in the location, design, and construction of any dam or any other facility, or any series of dams or facilities, the Administration shall endeavor to foster, protect, and facilitate the access of all anadromous fish to and from their spawning areas throughout the region.

Appendix VII-C

Regional Planning Duties

Coordination of Federal Plans and Programs for Resource Development**

Section 7

(a) The Administration shall be responsible for preparing such multiple-purpose and unified plans and programs for the conservation,

* S. 1645, 80th Congress, First Session.

**Ibid.
development, and use of the natural resources of the region as may be useful to the President and the Congress in guiding and controlling the nature; extent and sequence of Federal programs, projects, and activities in the region, and in coordinating them with related national policies and programs.

(b) The Administration shall prepare such plans and programs after considering pertinent existing surveys and plans, conducting such additional surveys and investigations as may be necessary, and obtaining the advice and assistance of appropriate Federal, State, and local agencies, educational institutions, and private organizations and persons.

(c) Such plans and programs shall among other things provide for -

(1) The conservation and use of the waters of the region in order to reconcile and harmonize to the greatest practicable extent, consistent with section 2(b)(4) of this Act, the requirements of navigation, flood control, power, agriculture, reclamation, commercial and sport fishing, public health, pollution control, recreation and other purposes;

(2) fostering the use of the lands of the region for the purposes for which they may be best suited, the most efficient conservation and sustained-yield management to assure the protection of watersheds and the permanent and increasing usefulness of cultivated lands, grazing lands, and forests, and the occupancy and use of flood plains in the region to minimize damage by floods;

(3) fostering the development and improvement of cultivated, grazing, and forest lands by irrigation, drainage, clearing, reforestation, reseeding or otherwise;
(4) the conservation, management, and rehabilitation of birds, fish, and other wildlife through the development, protection, and management of such wildlife and their habitat, and the control of losses from disease or other causes;

(5) fostering the use of the mineral, forest, land, water, fish, and other resources of the region to assure a balanced and stable economic development;

(6) the establishment and maintenance of recreational areas and facilities, including wilderness areas, and the protection of scenic and scientific values.
Appendix VIII

Pacific Northwest Regional Planning Commission

This study started with the limitation that only three organizational proposals would be considered. As further study was made of the region and its history it became apparent that the PNWRPC would be of value to consider as a fourth alternative. On second thought, this was partially discounted on the basis of political realities. In order for such a regional group to begin to function properly a national planning body has to be established. At the present time the political odds against this are very high. Be that as it may, brief mention should be made of the commission and, without extensive study, the criteria should be applied to it to provide rough comparison with the other proposals.

The commission was established in 1934 as a regional arm of the National Planning Board. Its chairman was appointed nationally to act as a representative of the Board. The other four members of the commission were the chairmen of the four state planning boards. Federal representatives often sat in, but in a non-voting capacity. It was given a small staff by the Board.

Numerous volunteer advisory committees were established in various functional fields. Their memberships were composed primarily of members from the corresponding states committees. Federal representatives also were members but tended to be inhibited by their agency ties.

The regional commission started out by collating and collecting data. While it was doing this it tried to further official and public cooperation. Its main task was to search out the region's critical problems and gather facts for their solution. In time it outlined some major
policies which, because of previous groundwork, received considerable support. It was only successful insofar as it could persuade the publics and/or the agencies of the rightness of its arguments. To do this is enlisted the help of various educational institutions, federal and state representatives and local groups in the "regional movement".

Its main weaknesses appeared to be (1) a lack of sufficient funds, (2) inadequate legal powers, (3) unclear lines of responsibility and (4) poor national and regional coordination partially due to the absence of a national board with substantive powers. Its major accomplishment was in getting people and officials talking and thinking about regional problems and proposals.

With this sketchy analysis it is concluded that the commission fulfills the weighted criteria in the following manner:

| (I) Comprehensive Vision | - 6 | (III) Proper Orientation |
| (II-A) Areal Continuity | - 2 | (III-A) Understand Goals | - 12 |
| (II-B) Single Planning Head | - 3 | (III-B) Regional Mores | - 2 |
| (II-C) Common Phase Control | - 0 | (III-C) Balance Interests | - 6 |
| (II-D) Agency Relationships | - 3 | (IV) Adequate Data | - 1 |
| (II-E) Time Continuity | - 6 | (V) Proper Vision |
| (II-F) Legally Adequate | - 0 | (V-A) Visionary | - 12 |
| (II-G) Fiscally Adequate | - 0 | (V-B) Flexibility | - 6 |

| (VI) Acceptance |
| (VI-A) Governmental | - 3 |
| (VI-B) Public | - 6 |

Total fulfilled 68

% fulfilled 62%

*This is comparable to columns III-B of Chart A on page 116a.
This compares to 29% fulfilled for the existing situation, 19% for the compact, 65% for the authority and 46% for the inter-agency committee. Because of the authority's danger, it would appear that the commission approach might be the best for the region. Further study would have to be made before such could be concluded though. The main problem of such a commission would be the controlling need for a national executive body. At the present time this does not appear realizable. Also, there is a question concerning its legal adequacy.
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