PULLMAN-MOSCOW
WATER RESOURCES COMMITTEE
STATUS REPORT
February, 1969

LETTER OF TRANSMITTAL

TO: Ernest W. Hartung, President
University of Idaho

Glenn Terrell, President
Washington State University

Fred W. Handel, Mayor
City of Moscow, Idaho

W. T. Mitchell, Mayor
City of Pullman, Washington

FROM: PULLMAN-MOSCOW WATER RESOURCES COMMITTEE

SUBJECT: Status Report of February, 1969

DATE: February 26, 1969

The attached status report by the Pullman-Moscow Water Resources Committee has been prepared to provide you with information on the progress made by the Committee in considering alternative solutions to the problem of meeting the future water needs in our area. It is intended that portions of this report will provide support for the continuation of the Palouse River Basin Study by the Corps of Engineers. Also, the preparation of this report has provided guidelines for further work by the Committee in determining definite recommendations to be made in the future.

Two preliminary studies associated with the comprehensive water resources development of the Palouse River Basin have been undertaken by the Bureau of Reclamation and the Corps of Engineers within the scope of operations of these two agencies. A letter of support for the Bureau of Reclamation study was not sent following the completion of their reconnaissance appraisal in September, 1967. The Bureau of Reclamation preliminary study was based on only the single-purpose development of surface water supplies in conjunction with present ground-water supply systems. If, in the future, the Bureau of Reclamation is asked to continue its study, then multi-purpose benefits would be considered and the initial cost figures for water supply might be reduced.

The Palouse River Basin Study by the Corps of Engineers has been of a more comprehensive nature. As part of the general project, the Corps has done flood studies of the Pullman area and will complete a flood plain information study this Spring. A flood plain information study of Paradise Creek in Moscow was completed in August, 1968. A proposed Corps project for passing floods through Pullman was not accepted and the authorization on this project lapses as of May 1, 1969, unless further action is requested by the city.

The foregoing remarks regarding studies by federal agencies have been made to show that the water supply problem can be approached:

(a) as part of comprehensive projects incorporating benefits from other water resource uses, or

(b) as a single-purpose project only for supplying water to the cities and universities.

Benefits which can be assigned to municipal water supply as part of a multi-purpose project would be equal to the least costly, single-purpose project that would provide the same amount of water. Multi-purpose projects would depend heavily on water supply benefits for support.

The Corps of Engineers anticipates that the preliminary report on the Palouse River Basin Study will be completed in April, 1970, contingent upon the availability of funding. When the report is completed, the four entities will have to decide whether or not they wish to:

(a) pursue the completion of one of the alternative projects as recommended by the Corps,

(b) proceed on their own, or

(c) apply to the Bureau of Reclamation for further investigation.

Supposing that one of the projects is selected for approval, then its completion will depend on appropriation of funds by Congress, the solution of inter-state water transfer problems, and the funding by the four entities of all components of the water supply system ancillary to the basic dam and pipeline. Present discussions indicate that the Corps will suggest building either the Harvard or Laird projects as discussed in more detail in this report.

Two other possibilities for meeting future water supply demands are:

1. the drilling of additional wells within and outside the Pullman-Moscow ground-water basin, and

2. going directly to the Snake River near Wawawai with a single-purpose project.

The pros and cons of these two alternatives are covered in the status report. But, drilling more wells would require extensive study and evaluation and probably provide a limited supply, whereas using the Snake River as a source would provide the only

"unlimited" supply at approximately the same cost, based on preliminary estimates.

The Committee proposes to continue its studies with more detailed investigations into some facets of the general water supply problem. Some funding may be required to adequately carry out these investigations. Close liaison with federal agencies and the administrations of the four entities will be maintained.

Your comments for future Committee direction are requested.

Respectfully submitted,

John F. Orsborn

John F. Orsborn, Chairman
For the
Pullman-Moscow Water Resources Committee

JFO:ca

City of Moscow, Idaho--University of Idaho
and
City of Pullman, Washington--Washington State University

STATUS REPORT
of the
PULLMAN-MOSCOW WATER RESOURCES COMMITTEE
February, 1969

PREFACE

At a meeting held on January 30, 1969, the Pullman-Moscow Water Resources Committee (P-MWRC) agreed that a status report on past committee activities and those of participating federal agencies was in order.

This status report has been written for three reasons: (1) to inform the principal administrative officers of the four entities; (2) to express support for continuation of the Corps of Engineers' Palouse River Basin Study; and (3) to provide guidance for future work by the Committee.

All of the work conducted thus far by the Committee, federal agencies and individuals has been of a preliminary nature. Future efforts will consider alternatives in more detail so that sound recommendations can be made.

INTRODUCTION

The initiative for the formation of the P-MWRC came from the Financial Vice President of the University of Idaho in March, 1967. At that time, momentum was supplied by the desire of the University of Idaho to acquire water rights in order to insure an adequate water supply in future years. The University of Idaho invited Washington State University

and the cities of Moscow, Idaho, and Pullman, Washington, to participate in discussions and to pursue the common objective of acquiring future water supply sources through group action.

Since March, 1967, many sources of future water supply have been considered, federal agencies have provided considerable assistance and the membership of the Committee has changed. But the basic purpose of the P-MWRC, that of considering possible sources of future water supply, has not been altered.

As a basis of operation in all studies, it was considered that any solution would include a central water treatment system with associated distribution facilities to the four entities. Present ground-water sources require only minimal treatment, but since future sources would probably come from surface supplies of poorer quality, a treatment plant (or plants) and distribution systems will be future requirements.

To provide basic input data, all four entities completed preliminary studies of projected populations and water demands for the next fifty years. These projections were considered in later studies by the Bureau of Reclamation and the Corps of Engineers.

The following comments present a brief outline of the studies which have been completed, problems which have arisen and must be given further consideration, and those solutions which appear to hold the most promise.

DESCRIPTION OF MAJOR STUDIES

Interim Study of Future Water Supply (made by Dr. Robert A. Sutherland, WSU, August 4, 1967)

This study incorporated basic information on present water supplies and future demands, created a probable future demand function, and considered four alternative sites as future water sources. These sites were:

A. Hatter Creek south of Princeton, Idaho
B. Palouse River northeast of Harvard, Idaho
C. East Fork of Potlatch Creek east of Bovill, Idaho
D. Clearwater River east of Lewiston, Idaho

Each scheme would involve some pumping, Scheme A would not provide an adequate supply, Scheme D would be the most costly of the four, and Schemes B and C were considered to be suitable sources of approximately equal cost. Scheme B, the North Fork of the Palouse River near Harvard, Idaho, was felt to be the most preferable because of the more adequate supply.

A question which arose early in initial discussions, and which is emphasized in the subject report, is that of the legality of inter-state water transfer. Section 41-408 of the Idaho Code annotated 1932 provides, in substance, that inter-state diversion from Idaho will be permitted only if the sister state permits diversion into Idaho. Section 90.03.300 of the Washington Water Code--1917 Act--provides for the possibility of making similar reciprocal arrangements. Section 90.16.110 (Water for use outside state) provides, in substance, for use of supplies for municipal supply (and other uses) in contiguous areas, cities and states, subject to the reciprocity requirements (Section 90.03.300) as

reiterated in Section 90.16.120. There seems to be no reason to doubt that inter-state diversion could be accomplished in the common interest of the four entities, no matter which state is the point of origin. The legal provision exists in both states. All surface sources under consideration in Idaho flow naturally into the Washington drainage network at the present time.

Bureau of Reclamation Study--September, 1967

This reconnaissance appraisal was made by the Upper Columbia Development Office in Spokane as the result of a P-MWRC request made July 7, 1967. The subject appraisal considered four alternate sources:

A. Palouse River below Poorman Creek
B. Hatter Creek
C. Snake River (Lower Granite Pool)
D. Potlatch River near Deary, Idaho

The first two sources require an in-stream reservoir, pumping plant and receiving reservoir, whereas Schemes C and D do not require the construction of in-stream reservoirs.

The Bureau of Reclamation reconnaissance study assisted the P-MWRC by providing different opinions on several matters. However, in evaluating this study it was found that: the cost of a sedimentation and filter plant at the source was neglected; some unrealistic assumptions were made upon which annual capital charges were based; and the annual operating charges were too low. A letter of local interest in further USBR studies has not, as yet, been sent by the P-MWRC.

Corps of Engineers' Study--Initiated August, 1966

Under the authority of a Congressional Resolution dated July 6, 1949, the Corps of Engineers held a public hearing for all interested parties in Pullman, Washington, on December 7, 1966, concerning the Palouse River Basin Study.

Between December, 1966, and the present time, the Corps of Engineers has contacted all affected parties, considered numerous alternatives and held meetings with the P-MWRC and the Whitman County Regional Planning Council. The Corps of Engineers' studies have presented the following alternatives for consideration, while giving broad consideration to projects which incorporate such uses as recreation, flood control, and other water resource alternatives.

Letters of support for the Corps of Engineers study have been sent by the four entities, and a resolution of support was recently passed by the Whitman County Regional Planning Council. The Executive Director of the Council was invited to attend the meetings of the P-MWRC.

Description of Alternatives--Corps of Engineers' Study

a. Snake River. Pumping intake would be located near Wawawai at elevation 735. A 24-inch pipeline to Pullman, with a booster pump and 18-inch pipeline to Moscow were incorporated. It was assumed that treatment costs for Snake River water would be slightly higher than those for the Palouse and Potlatch River supplies because of greater pollution.

b. Harvard Site. A single-purpose reservoir of 24,000 acre-feet gross capacity would be constructed with a

diversion dam and pumping intake on the North Fork near the state line. A 24-inch main pipeline with an 18-inch branch line to Moscow and a 20-inch branch line to Pullman were considered.

c. Laird Site. A single-purpose reservoir of 20,000 acre-feet gross capacity, with pipeline and pumping intake were integral parts as in (b) above.

d. Potlatch River. This plan considered a single-purpose reservoir on the Potlatch River near Bovill, Idaho, of 10,000 acre-feet gross storage capacity. A 24-inch main pipeline to Moscow is required with a 24-inch branch line to Pullman. Because the Bovill site has not been investigated, it was assumed that the minimum reservoir costs there would be equal to the costs of a 10,000 acre-foot reservoir at the Laird site. The results of the analysis indicate that further refinement is unnecessary because the high cost of the Bovill pipeline makes this alternative non-competitive.

e. North Fork Palouse Well Field. The estimate for a well field is based on the premise that the North Fork ground-water basin could supply an adequate amount of water to meet the projected demands to year 2025. Only meager information of the potential of the North Fork ground-water basin is available. Palouse and Colfax, Washington, have good production from artesian wells. Potlatch and Onaway, Idaho, cannot develop good wells.[1]

Tables 1 and 2, giving costs of providing only water supply (at different interest rates) are from the January, 1969, Corps of Engineers Report.

---

[1]Corps of Engineers, Walla Walla District, "Palouse River Basin Study Municipal Water Supply Alternatives for Moscow-Pullman Area," Jan., 1969, paraphrased.

Table 1

PALOUSE RIVER MUNICIPAL WATER SUPPLY
SINGLE-PURPOSE ALTERNATIVES @ 3-1/4% INTEREST RATE

	Snake River	Harvard	Laird	Potlatch River*	North Fork Well Field
Annual Costs:					
Pumping, Pipeline, & Wells	$398,200	$248,500	$248,500	$400,900	$423,700
Reservoir	0	242,000	210,000	185,000	0
Total	398,200	490,500	458,500	585,900	423,700
Cost/AF	25.30	31.20	29.10	37.20	26.90
Cost/MG	77.50	95.60	89.20	114.00	82.40
Cost/1,000 G	0.0775	0.0956	0.0892	0.114	0.0824
Annual Treat. Cost	245,000	231.000	231,000	231,000	0
Treatment Cost/1,000 G	0.0475	0.0450	0.0450	0.0450	0
Total Cost/1,000 G	0.1250	0.1406	0.1342	0.1590	0.0824
Total Annual Cost	643,200	721,500	689,500	816,900	423,700
Daily Cost @ 14 MGD	1,760	1,980	1,890	2,240	1,160
Cost PCD @ 68,000 Pop.	0.0259	0.0291	0.0278	0.0330	0.0171
Cost PCY	9.45	10.60	10.10	12.00	6.25

Costs based on 2020 requirements; 15,750 AF/Yr. = 5.14 BGY = 14 MGD. Assumes water delivered into municipal water supply systems; Moscow-Pullman, WSU and U of I. Uniform pumping rate of 20.7 CFS. Existing wells to provide 1 BGY and used for peaking.

*Bovill Site

Table 2

PALOUSE RIVER MUNICIPAL WATER SUPPLY
SINGLE-PURPOSE ALTERNATIVES @ 4-5/8% INTEREST RATE

	Snake River	Harvard	Laird	Potlatch River*	North Fork Well Field
Annual Costs:					
Pumping, Pipeline, & Wells	$455,900	$295,900	$295,900	$490,300	$498,400
Reservoir	0	318,000	275,000	245,000	0
Total	455,900	613,900	570,900	735,300	498,400
Cost/AF	29.00	39.00	36.30	46.70	31.60
Cost/MG	88.90	119.50	111.20	143.10	96.80
Cost/1,000 G	0.0889	0.1195	0.1112	0.1431	0.0968
Treatment Cost/1,000 G	0.0475	0.0450	0.0450	0.0450	0
Annual Treat. Cost	245,000	231,000	231,000	231,000	0
Total Cost/1,000 G	0.1364	0.1645	0.1562	0.1881	0.0968
Total Annual Cost	700,900	844,900	801,900	966,300	498,400
Daily Cost @ 14 MGD	1,940	2,320	2,200	2,650	1,370
Cost PCD @ 68,000 Pop.	0.0286	0.0342	0.0324	0.0390	0.0201
Cost PCY	10.40	12.50	11.80	14.20	7.35

See Table 1 for notes.

DISCUSSION OF ALTERNATIVES

a. Snake River. This alternative allows for the largest available future water supply. It could be developed in stages to meet future demands. Excess withdrawals could be used for artificial recharge of the existing ground-water supply and for low flow stream augmentation, if desired. A treatment plant would be required and this source would require a considerably high level of treatment. If the Snake River source were to be chosen for development, a consulting firm would probably have to be hired to develop plans for the project, since this kind of a single-purpose development falls outside the scope of operations of the federal agencies. Transfer of water from Washington to Idaho would be of waters which initially flowed from Idaho, and should present no complications. A permit (from USCE) for use of water from the Lower Granite Reservoir and easements for the pipeline from Wawawai to Pullman and thence to Moscow would have to be obtained. Bonds or a federal grant or loan would be required to fund this project.

b. Harvard Site. Considered as a single-purpose project, this alternative is more expensive (at the end of 50 years) than Alternative (a). But there are other benefits which can be assigned to a reservoir in this area including recreation, fish and wildlife enhancement and a small amount of flood control. Irrigation benefits on the North Fork of the Palouse River were considered too minor to be included. If multiple purpose use of this reservoir is considered further, complications due to possible pollution of the source by recreational activity must not be neglected. There are groups who have expressed interest in having the Corps of Engineers build the

Harvard dam (or a similar structure in that vicinity) to provide recreational benefits even if the reservoir is not used as a source of municipal water supply.

c. Laird Site. This alternative is located upstream of the Harvard site and lies entirely within the boundaries of the St. Joe National Forest, but the purchase of private property would be required. Although the Laird site would provide less storage than the Harvard site, it would have a much smaller sediment accumulation problem. The project details with respect to pipelines, pumping requirements, etc., are very similar for the Harvard and Laird alternatives. Representatives of the four entities visited the Harvard and Laird sites and the Laird site was recommended to the Corps as preferable from a water quality standpoint.

d. Potlatch River. A detailed investigation has not been made of this alternative but due to local conflicting interests, limited dependable flow and its high preliminary cost estimate, this alternative is low in priority.

e. North Fork Palouse Well Field. At the request of the Director of the Idaho Water Resources Board, consideration was given to possibly developing other ground-water sources in the area. The alternative was discussed by the ground-water hydrologists of the entities on January 30, 1969, and their conclusions were presented to the P-MWRC later that day.

It was the opinion of the ground-water hydrologists and concurred by the P-MWRC that:

(1) Additional exploration of aquifers and ground waters would be required to determine the long-range feasibility of relying on this source.

(2) A detailed study of alternative sources of ground water would be both costly (1/4 to 3/4 million dollars) and time consuming (5 years, minimum).

(3) External sources of water from deep aquifers might require some form of treatment.

(4) The use of external sources of ground water might cause hardship and additional expense to local interests in the area of origin.

(5) At the present level of knowledge, any new ground-water sources might be limited and could require that the water be mined as is the present practice in the Pullman-Moscow basin.

Numerous studies have been made of local ground-water supplies and the studies indicate that these supplies would eventually become inadequate to meet projected needs. While the extension of the existing well system in the Pullman-Moscow ground-water basin, and the expansion of this system to exterior basins, may appear feasible for providing additional water supply, it is uncertain that this alternative would provide a long-term solution to the problem. It would be expensive and time consuming to remove this uncertainty. A research project of this type would be exceedingly difficult to fund from municipal sources. Recharge to augment the present available ground-water supply would raise the costs beyond those required to provide water from surface supplies.

In a letter dated February 10, 1969, from the Director of the Washington State Department of Water Resources to the Corps of Engineers, it was stated that due to the large number of existing water rights and applications on file, the North Fork Well Field is considered to be a temporary source, and the Department would be reluctant to authorize this development to avoid overdraft of this limited supply.

GENERAL CONSIDERATIONS

In the evaluation of the alternatives which have been previously outlined, the following list of general factors should be considered.

1. The water resources of the upper basin are principally in the North Fork which contributes 83 per cent of the total flow of the Palouse River below Colfax, whereas a majority of the population and the greatest potential for population growth is in the South Fork sub-basin.

2. The most critical present problem is the need for municipal water supplies in the Pullman-Moscow area.

3. There are potentially serious flood damage problems in the South Fork basin.

4. There is a small potential need for irrigation water, especially in the lower basin.

5. The potential demand for water-oriented recreation in the upper basin is large. At present there are few nearby lakes and reservoirs, and the river and stream flows are practically nil during summer months.

6. There is a dire need for water quality control. This problem will become more critical in the future as population grows in this area.

7. Soil erosion is a serious problem in the basin. This factor will limit the reaches of river where water retention structures will be feasible because of their potentially rapid filling by sediments.

8. There is also a need for fish and wildlife enhancement.

9. The water resources of the South Fork sub-basin are not adequate to meet the projected water supply needs of that sub-basin. The ground-water table is receding at a rapid rate, and it does not appear economically feasible to collect surface supplies from the small streams in the sub-basin.[2]

---

[2]Based on USCE Progress Report of May 16, 1968, as modified by subsequent discussions.

Copies of letters from the Mayors of the cities of Moscow, Idaho, and Pullman, Washington, and the Presidents of the University of Idaho and Washington State University, pledging continuing support of the Palouse River Basin Study and designating the PULLMAN-MOSCOW WATER RESOURCES COMMITTEE as the official representative body for these entities in considering sources of future water supply, are attached.

PULLMAN-MOSCOW WATER RESOURCES COMMITTEE

UNIVERSITY OF IDAHO

George Gagon
Physical Plant Engineer

J. W. Watts
Business Manager

WASHINGTON STATE UNIVERSITY

John F. Orsborn, CHAIRMAN
Acting Head, Albrook Hyd. Lab.

Warren A. Bishop, Vice President
University Development

CITY OF MOSCOW

Marvin Kimberling
City Manager

**
City Engineer

CITY OF PULLMAN

Howard D. Copp
Councilman

John Hughlett
City Engineer

** Mr. Richard D. Day, former member of the P-MWRC, is no longer Moscow City Engineer. A new city engineer has not yet been appointed to the P-MWRC.

OFFICE OF THE PRESIDENT

UNIVERSITY OF IDAHO
MOSCOW, IDAHO

7 January 1969

Col. Robert J. Giesen
District Engineer
Corps of Engineers
Department of the Army
Building 602, City-County Airport
Walla Walla, Washington 99362

Dear Colonel Giesen:

I am pleased to advise you of the interest of the University of Idaho in the continuation of the study related to the Palouse River Basin and the water supply therein.

For some years, officials at the University of Idaho have been aware of the critical shortage of municipal water in this basin and particularly in the southfork sub-basin. As the population of the area continues to increase, this problem becomes more acute each year. For that reason, I wish to reaffirm the interest of the University of Idaho in the study. I further pledge that our staff will continue to participate with the Corps of Engineers and any other governmental or private agencies which share the concern and are similarly participating in the study of this problem. At the present time, the Pullman-Moscow Water Resources Committee, composed of representatives of the Cities of Pullman and Moscow, Washington State University and the University of Idaho, appears to be the most likely organization through which continued progress can be made.

Again, may I assure you that the University of Idaho will cooperate to the fullest extent possible toward the solution of this very critical problem.

Sincerely yours,

Ernest Hartung

ERNEST W. HARTUNG
President

EWH:ba
cc: J. W. Watts
George Gagon
Dr. John F. Orsborn

OFFICIAL COPY

OFFICE OF THE PRESIDENT

UNIVERSITY OF IDAHO
MOSCOW, IDAHO

7 January 1969

Dr. John F. Orsborn
Acting Director
Albrook Hydraulic Laboratory
Washington State University
Pullman, Washington 99163

Dear Dr. Orsborn:

In accordance with the understanding developed at the 12 November 1968 meeting of the Pullman-Moscow Water Resources Committee, I am enclosing a copy of a letter to Colonel Giesen of the Corps of Engineers expressing the interest of the University of Idaho in the Palouse River Basin study. The letter further indicates that it is the hope of the University of Idaho that the committee will be continued as the most logical organization to function in this area at this time.

I also wish to advise you that by official action of The Regents of the University of Idaho on 6 December 1968 Mr. J. W. Watts, Business Manager and Bursar, and Mr. George Gagon, Director of the Physical Plant, were designated as official delegates of The Regents of the University of Idaho to serve on the Water Resources Committee.

Sincerely yours,

Ernest W. Hartung

ERNEST W. HARTUNG
President

EWH:ba
cc: J. W. Watts
George Gagon
Col. Robert J. Giesen

CITY OF MOSCOW

MOSCOW, IDAHO
83843

316 South Main

Telephone: 882-5552—Area Code: 208

November 12, 1968

Col. Robert J. Giesen, C.E.
District Engineer
Corps of Engineers
Building 602, City County Airport
Walla Walla, Washington 99362

Dear Col. Giesen:

The City of Moscow, Idaho, wishes to encourage the continuation of the Palouse River Basin Study to determine the feasibility of constructing surface storage.

Water for municipal use is a growing problem for the communities in this area and it will be necessary that new sources of water be utilized in the near future.

As you are aware the Pullman-Moscow Water Resources Committee was organized approximately two years ago and is comprised of two members each from the city government and the universities. This committee has been officially appointed by each organization and will act as coordinating group to receive water development information and carry it back to the member organizations. Moscow's members on the committee are Marvin Kimberling, Administrative Assistant, and Richard Day, Director of Public Works.

Very truly yours,

Fred W. Handel
Mayor

FWH:jl

December 9, 1968

Colonel Robert J. Giesen
District Engineer
Corps of Engineers
Department of the Army
Building 602, City-County Airport
Walla Walla, Washington 99362

Dear Colonel Giesen:

Members of my staff have recently indicated that the Corps of Engineers is desirous of an expression of interest by various public bodies in the continuation of the study related to the Palouse River Basin study and particularly the water supply therein.

Because of the imminent critical shortage of municipal water supply in this basin and particularly in the south fork sub-basin, I should like to take this opportunity, on behalf of Washington State University, to reaffirm this institution's interest in the study. I should further like to pledge that our staff will continue to participate with the Corps of Engineers and any other governmental or private agencies which share the concern and are similarly participating in the study of this problem. At this time, the Pullman-Moscow Water Resources Committee, composed of representatives of the cities of Pullman and Moscow, the University of Idaho, and Washington State University, appears to be the most likely organization through which continued progress can be made.

Again, may I assure you that Washington State University will cooperate to the fullest extent possible toward the solution of this very critical problem.

Sincerely yours,

Glenn Terrell

Glenn Terrell
President

GTing

cc: W. A. Bishop
John P. Orsborn

WASHINGTON STATE UNIVERSITY
PULLMAN, WASHINGTON 99163

OFFICE OF THE PRESIDENT

December 9, 1968

Dr. John F. Orsborn, Acting Director
Albrook Hydraulic Laboratory
Campus

Dear Dr. Orsborn:

In accordance with the understanding developed at the November 12 meeting of the Pullman-Moscow Water Resources Committee, I am enclosing a letter to Colonel Giesen of the Corps of Engineers expressing the interest of Washington State University in the Palouse River Basin study. The letter further indicates that it is the hope of Washington State University that the committee will be continued as the most logical organization to function in this area at this time.

I should also like to take this opportunity to reaffirm the appointment of Mr. Warren A. Bishop, Vice President—University Development, and to appoint you to succeed Dr. Tinney as the two official representatives of Washington State University to the Water Resources Committee.

Sincerely yours,

Glenn Terrell
President

GT:rg

Enclosure

cc: W. A. Bishop

THE CITY OF PULLMAN P.O. BOX 438 PULLMAN, WASHINGTON 99163

November 21, 1968

Col. Robert J. Giesen, Dist. Engineer
U. S. Army Corps of Engineers
Walla Walla District
Bldg. 602, City-County Airport
Walla Walla, Washington 99362

Dear Col. Giesen:

Please be informed that the City of Pullman maintains an active interest in investigations to pursue additional sources of water for municipal use. The City is continuing to expand its use of groundwater sources; in view of rather rapid growth of population in the City and the decline of static groundwater level, unlimited expansion of such use appears unrealistic. This situation is the reason why we support continued investigations of other sources.

The committee with whom you have worked, i.e., the committee composed of representatives of Washington State University, University of Idaho, City of Moscow, and our City, appears to be the appropriate body to continue to represent these four entities. Accordingly we have appointed Howard Copp, Councilman and John Hughlett, City Engineer to be Pullman's representatives on this committee.

Very truly yours,

W. T. Mitchell
Mayor

WTM/nar

PULLMAN-MOSCOW WATER RESOURCES COMMITTEE

PULLMAN, WASHINGTON 99163

WASHINGTON STATE UNIVERSITY

Warren A. Bishop
Vice President University Development

Kenneth E. Abbey
Assistant to Vice President

John F. Orsborn (CHAIRMAN)
Acting Head
Albrook Hydraulic Laboratory

Ex-Officio

James W. Crosby III, Hydrogeologist
Albrook Hydraulic Laboratory

John S. Gladwell (Alternate)
Assistant Director, State of
Washington Water Research Center

Robert A. Sutherland, Hydraulic Engineer
Albrook Hydraulic Laboratory

CITY OF PULLMAN

Howard D. Copp, Councilman
Albrook Hydraulic Laboratory
Washington State University

John Hughlett
City Engineer

MOSCOW, IDAHO 83843

UNIVERSITY OF IDAHO

George Gagon, Engineer
Physical Plant

J. W. Watts
Business Manager
Administration Building

CITY OF MOSCOW

Richard D. Day
City Engineer

Marvin Kimberling
City Manager