



FARMING OPPORTUNITIES COLUMBIA BASIN PROJECT

The following discussion, on a question and answer basis, has been prepared by the Bureau of Reclamation for the information of World War II veterans and others who are interested in farming on the Columbia Basin Project. The questions discussed here are those that are most commonly asked in the many inquiries received. It has not been possible in a publication of this size to discuss these questions in detail. For further information on any of these or other questions related to this subject, inquiries may be directed to the Bureau of Reclamation, Ephrata, Washington.

1. How much land is available for irrigation on the Columbia Basin Project?

Approximately 1,029,000 acres in the Project are suitable for irrigation. The main features of the irrigation system are designed to serve an area of this size. Although some 300,000 acres of land, now largely in wheat production, have been withdrawn from the Project, there is a possibility that in future years part or all of this may be returned to the Project.

2. When will water be available for irrigation on the various blocks or divisions of the Project?

On the first block to be irrigated, known as the Pasco Pump Unit, situated about 12 miles northwest of Pasco, water will be available in the fall of 1947 or spring of 1948. This block contains 5,361 acres of irrigable land, and is divided into 76 farm units. It is possible that an additional block of 1,300 acres on the Burbank Bench, a few miles south of Pasco, will also have water available in the spring of 1948.

Assuming adequate appropriations by the Congress for construction to carry out present plans, first water through the

Main Canal will be available for lands in the northern part of the Project in 1951 or 1952. Just how much land will be made available for irrigation each year thereafter cannot be stated definitely at this time.

3. Is land available for homesteading on the Project?

No. The amount of public or unpatented land on the Project is comparatively small. This land, and that which the government purchases from private owners, will be divided into farm units and sold to prospective settlers on the basis of appraised values.

It is expected that land for homesteads will be available on other Bureau of Reclamation Projects in the Northwest during the next few years. Information regarding the location and approximate dates of opening such lands for Homestead Entry can be secured by writing the Bureau of Reclamation, Region I, Boise, Idaho.

4. How may government-owned land be purchased?

About the time water will be available for a certain block or blocks of land on the Project, the government-owned land in these blocks will have been divided into farm units of a size suitable to support an average family with an adequate level of living. At that time, a public notice will be prepared by the Bureau of Reclamation, giving the number and description of such farm units. Those who wish to buy a farm unit may then make application on a prescribed form which may be secured from the Bureau of Reclamation at its offices in Ephrata, Washington, or Coulee Dam, Washington.

Successful applicants will be selected on the basis of character, industry, farm experience, and capital. This selection will be made by a well qualified board of from three to five men.

5. Do veterans have preference in buying land from the Government?

It is planned that qualified veterans of World War II will be given preference for the purchase of Government-owned farm units although the exact procedures have not yet been fully developed.

6. Where is the best land on the Project located?

This question is often asked by those interested in farming on the Columbia Basin Project. It might be best answered by discussing briefly the complete and detailed classification that has been made of all lands on the Project.

The principal aim of the Bureau of Reclamation in this land classification program is to indicate the comparative productivity of the land and to a certain extent its adaptability to various types of farming. Three general classes of land suitable for irrigation farming are used. They are designated as Classes one, two, and three. Classes two and three each have several sub-classes.

Class 1 land has deep loamy soil, not more than 5% slope, and is well suited to the production of row crops, such as potatoes, sugar beets, and truck crops, as well as hay and pasture.

Class 2 is divided into two principal sub-classes, 2T and 2S. Land classified as 2T (T for topography) has soil of about the same depth and quality as Class 1, but may have up to a 10% slope, and the land may be more rough in contour. Land of sub-class 2S (S for soil) may have soil slightly more shallow and slightly lighter or more sandy in texture than that of Class 1. A limited acreage of Class 2 land was rated 2R because of loose rock in the plow zone. There are likewise combinations that have deficiencies in both soil and sur-

face, like 2ST. Class 2 land is well adapted to diversified farming, but should not be farmed as intensively as Class 1.

Class 3 land also is divided into two principal sub-classes, 3T and 3S. Land in these sub-classes is irrigable, but is suitable principally for the production of hay, and for pasture. Some Class 3R land has been mapped because of loose rock in the top six inches of soil, which makes intensive tillage difficult. As in the case of Class 2, there are some combinations of sub-classes, such as 3ST.

Land too rough, steep, sandy, rocky, or for other reasons unsuited for economical farm operations, is termed Class 6, and will not be supplied with irrigation water.

This land classification information is available on Section (640 acres) Maps for the entire project. These maps are available through the Bureau of Reclamation offices at Ephrata and Coulee Dam, Washington, at a cost of 25¢ each.

It might be pointed out that while some parts of the Project contain a higher proportion of the better classes of land than others, land of the same classes is similar in productiveness regardless of location.

7. Is privately owned land on the Project available for purchase?

Approximately 80% of the irrigable land on the Project is now in private ownership. The size of holdings vary from a few acres to several thousand acres. Since not more than one farm unit can be developed by one owner (except in the case of those who held their land prior to 1937, in which case they may retain up to a quarter section), it is obvious that much of this land will be sold either to the Government or to potential settlers.

The Bureau of Reclamation does not maintain a list of owners who wish to sell their land.

8. What is the price of land on the Project?

All the lands within the project were appraised prior to the war by an impartial appraisal board on the basis of dry land values.

Lands suited principally for grazing were valued within the following ranges:

Class 1	—	\$7.50 to \$10.00 per acre
Class 2	—	5.00 to 7.00 per acre
Class 3	—	2.50 to 4.50 per acre
Class 6	—	1.00 to 2.00 per acre

Lands adapted to dry farming were found to have higher values, ranging in some cases up to \$30 per acre. The appraised value of buildings and other improvements, including the value of clearing and leveling, was added to these values.

The Columbia Basin Project Act provides that lands covered by a recordable contract cannot be sold at more than their government appraised value and be eligible to receive water, although reappraisals may be made upon application of the landowner. These provisions are effective until five years from the time water is available to the block within which the land is located.

9. How much land should one individual buy?

It is recommended that purchase of land for farm units not be made until the farm unit plat for the area in which the settler is interested has been approved. This will make it possible to acquire a farm of the size and shape which will

meet the standards of the Columbia Basin Project Act, and to avoid the possibility of having to buy or sell land to make farm boundaries conform with those of the farm unit plat.

If, however, the prospective settler does buy land before farm units have been laid out, it is recommended that he buy at least 80 acres of Class 1 or a combination of Classes 1 and 2. If the land under consideration is largely Class 2 or a combination of Classes 2 and 3, he should buy at least 120 acres. If the land is largely Class 3, and particularly if there is some Class 6 included, he should acquire 160 acres.

While farm units as they are finally determined, may not be as large as suggested above, it would be better to have a few acres of excess area than to have to buy additional land later.

10. Will land be available for renting or leasing on the Project?

At the present time, about 80 percent of the land on the Project is privately owned. Some of the landowners have indicated that they may desire to develop their farms by leasing to others.

The Columbia Basin Project Act provides that farm units on government-owned land may be either sold or leased. At the present time, it does not appear that the provisions for leasing will be extensively used. More definite policies on this matter will be developed later.

11. How much water will be available for irrigation?

In planning the irrigation system and structures, provision has been made for an ample supply of water for all lands on the Project.

Careful study and investigations have been made of the probable water requirements of the various types of soil on the Project. Four water-duty classes have been recommended, ranging from an annual allotment per acre of 3.25 acre-feet to 5 acre-feet. An allotment in acre-feet will be established for each farm unit, based upon soil type and other factors that influence water requirements. Where the production of crops with above-average water requirements are grown, water in excess of the established allotment can be acquired by payment of the established fee for such supplies.

12. What charges will be made for irrigation water?

Charges for water are divided into two categories: (1) repayment of construction costs and (2) payment of the cost of operating and maintaining the irrigation system.

The total amount per acre which all water users will have to pay for the construction of the irrigation system averages \$85.00. This amount will be pro-rated according to repayment ability of the land. Owners of some land will pay more than \$85 and owners of other lands less. The construction charge will be repaid in annual installments during a period of forty years. The average annual payment for the entire project will be \$2.13 per acre. No interest will be charged. The forty-year repayment period for each irrigation block will not start until the close of the development period—probably ten years after water is first made



available to that block.

The average per-acre cost of operation and maintenance has been estimated at \$2.60 per year, based on pre-war price levels. This charge, too, may be varied according to the productive capacity of the land.

13. What technical assistance will be available to new settlers in developing their farms?

Plans are being developed under which the Bureau of Reclamation, the Washington Extension Service, and other agencies, will cooperate, to make technical assistance available to all settlers on the Project. This assistance will include engineering for the leveling of land and for the farm irrigation system, planning of field layouts and farmsteads, planning farm buildings, selection and management of livestock, and advice on crops and crop rotation, and on the numerous other problems which will confront the new settler.

14. Will the government level the land for settlers on Project farms?

No provisions have been made for this type of assistance. It will be the responsibility of the settler to level his own land. This may be done on a contract basis, or the settler may do the work himself using his own equipment. It is possible, moreover, that the Bureau of Reclamation may make some heavy equipment available for leveling on a custom or rental basis.

As stated above, assistance in the engineering phases of land leveling will be supplied to settlers by the Bureau of Reclamation and cooperating agencies.

15. What provisions will be made for roads and schools in the newly settled areas?

It is expected that schools will be established and roads built by county and state authorities as the needs arise. Most of the Project is already served by a fairly adequate system of primary highways.

16. How can the settler secure domestic water?

This is an important problem, to which much study is being given by members of the Project Development Staff. Ground water in sufficient amounts for an adequate domestic water supply is reached at depths of 200 feet to 500 feet. Obviously, the cost of drilling a well for each farm unit would be quite burdensome. For this reason, consideration is being given to a plan for assisting settlers to cooperate in the development of community water systems whereby several families can be served by one well, thus reducing substantially the cost to each farm unit.

17. Will electric power be available to settlers on the Project?

Present and potential power installations on the Columbia River, including Grand Coulee Dam, will produce an abundant supply of power for farms on the Project. Power from Columbia River systems is now being distributed to the towns and some of the rural areas of the Project by private companies and public utility districts. It is expected that through these facilities power will be made available to newly settled areas early in the development period.

18. What are the climatic conditions of the Project?

Generally speaking, the climate of the Project is mild. It is not subject to either extremely hot or cold temperatures. The elevations of the project range from about 400 feet at Pasco to 1500 feet in the northeastern part of the Project. Precipitation varies from less than six inches per year in the southwestern part of the area to 9½ inches in the northeast highlands. There is a wide difference within the Project area in the length of growing season or frost-free period. This ranges from approximately 130 days to 200 days.

In most respects, the climate and weather of the Columbia Basin Project are similar to that of the Yakima Valley of Central Washington and the Boise Valley of Southern Idaho.

19. What kinds of crops can be raised on the Project?

A careful study of soil and climatic conditions, together with a comparison with such factors on other irrigation projects of the West, indicates that this Project is adapted to a great variety of crops and types of farming.

General farm crops, including alfalfa, clover, small grain, corn, and pasture, will thrive and produce well throughout the area. They will form the basis for an extensive dairy, livestock, and poultry enterprise.

The better land classes, on much of the area, will be adapted to intensive crop production. Potatoes, sugar beets, onions, and truck crops for canning, freezing, and fresh use are expected to produce high yields. Parts of the Project appear to be well adapted to the production of vegetable seed.

Fruit such as apples, pears, peaches, and apricots may be grown commercially to a limited extent but are expected to be important only in small sized areas where soil and frost conditions are unusually favorable.

There will be ample opportunity to practice diversified, intensive or special types of farming on the Project.

20. What is the estimated cost of developing and improving a farm on the Project?

This frequently asked question is especially difficult to answer in view of rapidly fluctuating costs of labor and materials.

The cost of clearing, leveling, and constructing farm irrigation systems will vary widely, depending upon the previous use, as well as character and topography of the land. Dry-farmed areas have been cleared and partially leveled. Other areas are heavily covered with sagebrush, and are rough and hummocky. Based on pre-war price levels, it was estimated that costs of preparing land for irrigation would vary from \$10.00 to as high as \$45.00 per acre.

The cost of building the farm house will depend largely upon the needs and desires of the individual settler. During the first years of development, many settlers on other projects have kept initial outlay for housing at a minimum by using plans that would allow for adding to the size of the house as their needs increased, and as income from farm earnings became available.

Cash outlay for other farm buildings will vary with the amount of construction that the owner is able to accomplish for himself and the size of his livestock enterprise.

Moreover, it should be kept in mind that development costs can, within certain limits, be spread over several years of the development period.

Investigators who gave these matters careful study, estimated that total costs for developing the average farm would range from \$7,000 to \$9,000. These amounts would not include purchase of livestock and farm machinery. The above estimates were based on pre-war price levels. There is no doubt that under the present price situation, these figures would be much higher. It should be emphasized, however, that this entire outlay need not be made as soon as the farm is settled. In most cases, full development costs are not incurred until 10 or 15 years after settlement.

21. Is improvement of land before water is available recommended?

Most of the soils of the Project are somewhat light in texture and tend to blow quite badly if disturbed very much in advance of the time water is to be applied. For this reason, it is strongly recommended that all improvement such as clearing, leveling, and plowing be delayed until the year or season that water is definitely available.

22. What markets are available for crops and livestock produced on the Project?

With the rapid increase of population on the Pacific Coast of the United States, there is already a demand for more farm produce of many kinds than is now being produced in the Western States. This is particularly true of most livestock and livestock products. Since the Project development will be gradual and will require at least 15 to 20 years, it is thought that the production of the Project will be absorbed by the markets with little or no unfavorable influence.

The Project is well served by railroads over which produce can move to the principal markets.

Processing facilities such as creameries, canneries, and freezing plants are not now available on the Project, but will no doubt be established when the need arises.

23. What are the opportunities for securing work on project construction between now and the time water is available?

Work opportunities are somewhat limited, but will increase when lateral construction starts. Since the construction of dams, canals, and laterals is now highly mechanized, the number of men employed is much smaller than was formerly needed in a program of this size. Then, too, a larger percentage of those employed must be skilled in the operation of special types of machinery. Information on the labor situation may be secured by writing the Bureau of Reclamation at Ephrata, Washington.

24. What business opportunities are available to veterans in towns of the Columbia Basin Area?

Information on this subject may best be secured by writing Chambers of Commerce in the principal towns of the Project. These are: Soap Lake and Ephrata in the North; Quincy in the Northwest; Moses Lake, Othello, and Warden in the Central area, and Connell and Pasco in the Southern part.

It should be kept in mind that the greatest opportunities for successful establishment of business enterprises will come as settlement of the Project takes place. Space in buildings for business use as well as residential housing are both extremely scarce at present.

INFORMATION SERVICE - Inquiries regarding the general activities of the Bureau of Reclamation should be addressed to the Commissioner, Bureau of Reclamation, Washington 25, D.C.

Specific inquiries regarding the COLUMBIA BASIN PROJECT should be addressed to the Bureau of Reclamation at Coulee Dam, Washington, or Ephrata, Washington.

United States
Department of the Interior
Bureau of Reclamation
1947

