

Gen. Engr. Works

BASIC DATA
ON
HANFORD ENGINEER WORKS
PASCO, WASHINGTON

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Office of the Chief of Engineers
Washington, D. C.
May 19, 1943

601 (Hanford)

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BASIC DATA ON LAND ACQUISITION
HANFORD ENGINEER WORKS
Pasco, Washington

I SUMMARY

1. Authorized by the Act of March 27, 1942 (Public Law 507, 77th Congress), and the Act of July 2, 1942 (Public Law 649, 77th Congress).
2. Site consists of land located in parts of Grant, Franklin, Adams, Benton, and Yakima Counties, in the south central part of the State of Washington.
3. Area comprises approximately 436,000 acres.
4. Acquisition was approved February 8, 1943, and commenced immediately. 193,833 acres will be acquired in fee and 237,937 acres will be leased.
5. Ownerships are as follows: Federally-owned - 67,182 acres; state-owned - 36,010 acres; privately-owned - 327,808 acres; townsites, rights-of-way, etc., - 770 acres.
6. Population consists of inhabitants of White Bluff - 200; Richland - 208; Hanford - 100, and not more than 1,000 farmers and ranchers within the project boundaries.
7. Agriculture is confined to an area comprising roughly 6,000 acres, or about 3% of the total area.
8. Irrigation Districts within the project are the Priest Rapids District - 1,100 acres receiving water, and the Richland District - 4,705 acres receiving water.

9. Crops produced within the Irrigation District aggregate not more than \$1,500,000; mainly fleshy fruits (cherries, peaches, apricots, etc.), asparagus, and mint. Three-fourths of this year's crop will be unaffected by the acquisition and can be harvested.

10. Roads, utilities, schools and railroads will be acquired and closed wherever necessary for adequate control over the project.

11. Cost of the land acquisition as originally estimated in the directive is approximately \$5,153,700.00.

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BASIC DATA ON LAND ACQUISITION
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II DESCRIPTION

1. AUTHORIZATION

The Act of March 27, 1942, (Public Law 507, 77th Congress), known as the Second War Powers Act, authorizes the Secretary of War to acquire by purchase, donation, transfer, or condemnation, any real property, temporary use thereof, or other interest therein, together with any personal property located thereon, that shall be deemed necessary for military or other war purposes. The Act of July 2, 1942 (Pub. Law 649, 77th Congress) appropriated certain funds for the Engineer Service, Army, to be expended in part upon the acquisition of lands, rights-of-way, temporary use thereof, and interests therein. Authorization for the acquisition is contained in the first act, and funds have been made available under the second.

2. SITE

The project is located in south central Washington at the confluence of the Yakima and Columbia Rivers, and includes parts of Benton, Yakima, Grant, Adams, and Franklin Counties, as well as the towns of White Bluffs, Richland, and Hanford. The most westerly boundary of the site is twenty airline miles east of Yakima, a city of 23,000 population. The principal part of the area may be described as an undulating plain sloping from 3,500 feet to about 400 feet. Temperatures range from a maximum of 114 degrees to a minimum of 27 degrees below zero. The average annual precipitation is 5.93 inches at Hanford. The soil in general is low in organic matter and the bulk of the area

may be characterized as very low grade sage brush grazing land, the rainfall being sufficient only for desert growth. Farming is practicable only in those portions of the area which are irrigable. Even here, the tillable topsoil, ranging in depth from six inches to two feet, is underlaid by gravel. The porous nature of the land makes it necessary to conduct irrigation water in concrete ditches and pipes. The balance of the site is suitable only for grazing, there being no timber and very little vegetation.

3. AREA

There have been a number of revisions in the original proposed acreage, but as of the present time the site comprises approximately 436,000 acres. It is irregular in shape, and is roughly 26 miles by 37 miles at its widest point.

4. ACQUISITION

On February 8, 1943, a directive was issued by the Secretary of War, authorizing acquisition of the necessary land. The site has been divided into five areas, designated A, B, C, D, and E. The first to be acquired was area A, which is situated in the center of the project. A petition in condemnation was filed in the U. S. District Court for the Eastern District of Washington, under the Second War Powers Act of March 27, 1942 (Public Law 507, 77th Congress), on February 23, 1943, covering 193,833 acres of land, and possession was awarded as of that date.

The method of acquisition used, - filing of a petition in condemnation, - was decided upon in order to obtain immediate possession of the entire 193,833 acres with a minimum of delay and inconvenience

to all concerned. It does not indicate that the owners were in disagreement as to value, nor does it mean that the titles were in bad state. The U. S. District Court merely awarded the Government the right to occupy immediately the area within the perimeter description, and the War Department then proceeded to appraise, negotiate, and obtain options on the component tracts. As each tract was closed and paid for, the condemnation proceeding was dismissed as to that parcel.

Areas A, D, and E, comprising approximately 176,000, 17,500, and 6,400 acres respectively, are to be acquired in fee. Area B, which includes about 197,000 acres, will be leased for a term of one year, with an annual right of renewal for a period of 25 years. Area C, totalling 40,500 acres, will be leased under a form of agreement which will enable the owners to remain in possession, subject to certain rules and regulations promulgated by the Government.

5. OWNERSHIP

There are 67,182 acres of federally-owned land within the project boundaries; 36,010 acres are held by the State of Washington, and 332,308 acres are in private ownership. The latter figure is composed of 301,045 acres of grazing land, 13,487 acres of dry farm land, and 17,776 acres of irrigable land. In addition, there are 770 acres within various townsites, railroad rights-of-way, etc.

6. POPULATION

Three towns are encompassed by the site. White Bluff, with a population of 200; Richland, with a population of 208, and Hanford, with a population of 100. The villages of White Bluff and Hanford

are situated entirely within the "A" area and consequently are being vacated immediately. Residents of Richland will be given until November 15 to relocate save for that portion of the town which had to be vacated immediately. Both Hanford and White Bluff have supported a substantially larger population in past years than at present. At Hanford, particularly, there has been considerable abandonment of business buildings. The occupied buildings, while of modest type and construction, are generally in fair condition. Farm buildings vary materially in type and condition, but average a rather nominal value per set. There are some fairly substantial buildings in the town of Richland which are in fair condition but of modest construction. Few improvements have been built recently.

Nearly all of the residents of these three towns, are engaged in farming or ranching. In addition to the residents of the three towns, there are probably a thousand others living within the project boundaries, also depending on farming or grazing for a livelihood.

7. AGRICULTURE

Of nearly 18,000 acres of irrigable land within the project, not more than 6,000 acres, or 3% of the total area, may be classified as farm land. The balance is fit only for grazing. The Department of Agriculture estimates that 120 acres of this land are required to support one animal unit (5 sheep) per year. This is indicative of the inferior grazing character of the area. Due to the fact that the soil in this vicinity is predominantly volcanic ash and underlaid by gravel, a high percentage of the water is absorbed.

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The range land is used primarily for sheep in the spring and winter seasons. From 18,000 to 20,000 head of sheep may be found in the area from December to May. During this period, the site supplies full feed for sheep for about two months' time, one and a half months' of partial feed and for the balance of the period feed is supplied from outside sources, since the two irrigation projects produce no feed for sheep or cattle. Approximately 10,000 sheep cross the area from April to May on the way to the summer range. Not more than three hundred head of cattle and a minimum of other stock may be found within the project.

8. IRRIGATION DISTRICTS

Land in the vicinity of this project was first irrigated in 1908. At the present time there are two Districts within the area, - the Priest Rapids District and the Richland District. Both have been greatly reduced in size since their creation.

The Priest Rapids District is situated in the north central part of the project, on the south bank of the Columbia River, and obtains water by means of a power plant situated at Priest Rapids. The District was first developed in 1907 by the Hanford Irrigation and Power Company and comprised over 15,000 acres of land. Most of this land is not irrigated at the present time, 7,000 acres being non-irrigable, and only 1,100 acres having actually received water in 1942. The facilities originally delivered 32 inches of water on each irrigable acre under irrigation which has been increased to 96 inches. This high requirement is due primarily to transmission losses of from 50-60% of the water pumped through the

canals to the farms over sandy soils. The District has had considerable financial difficulties over the years. At present 60% of the land within the original boundaries is owned by the District, having reverted from private ownership.

The Richland Irrigation District lies approximately ten miles northwest of Pasco, in the southeastern part of the site. Water is diverted from the Yakima River, with the aid of four booster pumps. Developed at the same time that the Priest Rapids District was created, it was operated under private ownership from 1909 to 1919, when it was organized into the present District. There were approximately 15,000 acres of land within the original project, of which only 10,500 are irrigable. Actually but 4,700 acres are presently receiving water. As in the case of the Priest Rapids District, considerable financial difficulties have been encountered, and at present 4,200 acres of the irrigable land are owned by the District.

9. CROPS

Within the 6,000 acres of irrigated lands a variety of specialized crops are grown, particularly the fleshy fruits such as apricots, peaches, cherries, peaches, and grapes. A considerable amount of mint has been recently introduced and has given substantial returns. Grapes and asparagus have been increasing, and some potatoes, corn and melons are grown. A limited amount of grain and alfalfa is produced, but in general, yields of irrigated wheat crops and range feed are all low compared with neighboring areas.

The total value of all crops presently being raised within

the Richland Irrigation District has been estimated at approximately \$1,200,000 by qualified local representatives of the Federal Land Bank. No figures are available on the Priest Rapids District but it is believed that the yield is less than a quarter of that derived from the Richland area.

Whenever possible, orchards will be left in place under the control of the owners, and where control of the area renders it essential to acquire title to the orchards, it is proposed to lease them to the original owners or nearby farmers in order that cultivation may be continued. Except in the construction area, where immediate evacuation of all residents is imperative, owners will be allowed to remain in possession until November 1. It is estimated that these arrangements for harvesting will result in a saving of more than three-fourths of the crops in the entire area. The details of this plan are being worked out by the War Department, Department of Agriculture and representatives of the State of Washington.

10. ROADS, UTILITIES, SCHOOLS, AND RAILWAYS

a. Roads

There are a number of roads within the area being taken. U. S. - Washington No. 410 passes through the southeast corner of the project for a distance of five miles. An oil-surfaced secondary state highway leads from U. S. No. 410 in the southeast corner of the site and runs as far north as the town of White Bluff. This highway intersects a graded, graveled secondary road at Hanford, which travels in a due east-west direction through the central part of the site and is

the principal outlet for traffic to Yakima. The central portion of the area south and east of the Columbia River is adequately served with a network of graded and graveled roads and trails. The outlying areas are featured by rugged terrain and have a minimum of road development.

All roads within areas "A", "B", and "D", will be condemned and closed. Roads within the "C" area will be left open, but the Government will retain the right to control, maintain, and improve the two State Highways through this area. No restrictions whatsoever are to be imposed on the use of the roads in the "C" area east of the Columbia River.

b. Utilities

With regard to utilities, electric service is available to all towns and a substantial part of the farms in the irrigated sections of the site. The Pacific Power and Light Company maintains a 66 K. V. transmission line from the southwest corner of the site at Richland north to Hanford and White Bluffs and west to the power plant of the Priest Rapids Irrigation District. The same company also has a line connecting with this system which runs west to Yakima, and an interconnection with the Bonneville 110 K. V. Walla Walla line west of the town of Hanford. A small substation is maintained at Richland.

The Bonneville Power Administration's 110 K. V. line is to remain in place, and an agreement is being worked out with the Administration whereunder that agency will maintain the line, subject to any necessary protective measures which may be adopted by the project. The Pacific Power & Light Company lines within the area are to

be acquired together with all switching stations and related properties. Representatives of the War Department and the Company are at present negotiating the location of a new line outside the project boundaries. The Company will prepare estimates of the cost of installing the new line and this factor will be taken into consideration in compensating the Company for its existing lines and other properties within the area which will be acquired by condemnation. Arrangements will be made for continuance of service by the Pacific Power & Light Company until the new lines are in full operation, at which time the facilities within the project will be placed under the plant operator.

There are two private telephone franchises operating within the area, - the Columbia River Telephone Company which serves White Bluff and Hanford, and the Kennewick Valley Telephone Company which includes the Richland area. The War Department proposed to acquire the entire holdings of the Columbia River Telephone Company, and that portion of the Kennewick system serving the Richland area in order that the telephone system will be Government-operated.

With regard to water supply, the town of Richland is served by a small privately-owned system, while the towns of White Bluff and Hanford each are served by non-profit companies. All three will be acquired by condemnation proceedings.

There is a free ferry, maintained by the State of Washington which transports traffic across the Columbia River at Hanford. All of the ferry equipment, including boats, will be acquired by the War Department.

c. Schools

All schools within areas "A", "B", and "D" will be acquired, but those within area "C" will not be taken. The schools in all areas will be continued until the close of the present term.

d. Railroads

The electrified section of the Chicago, Milwaukee, and St. Paul Railway runs north of the subject site and will remain undisturbed. A branch line of the Milwaukee system leaves the main line at the station of Beverly on the Columbia River and follows the river to the town of Hanford. Approximately thirty-five miles of this line are within the project area. The Government will acquire the right-of-way, switches, and other property of the railroad, commencing at the station of Vernita and ending at the town of Hanford.

11. COSTS

The cost of land acquisition as estimated in the directive is as follows: Approximately \$3,281,300 for the fee in Area "A"; approximately \$1,522,400 for the fee in Area "D"; approximately \$65,000 per annum for a leasehold interest in Area "B"; approximately \$60,000 for the acquisition of all improvements on Area "B"; approximately \$50,000 per annum for a leasehold interest in Area "C"; and an additional \$100,000 for the land acquisition in fee simple within Areas "B" and "C", and improvements in Area "C", if necessary. Area "E" will require approximately \$75,000 for a leasehold interest in both land and improvements. The total cost, estimating the leaseholds for one year only, is approximately \$5,153,700.

APPENDICES

I. PHOTOGRAPHS

II. MAPS

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1. Grape vineyard south of Richland looking east towards Rattlesnake Mountain. This vineyard is in good condition and adjoins the area in which early construction is planned. The 1943 harvest can be completed.

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2. Orchard north of Richland in area to be purchased. The foreground shows stumps of orchard destroyed in the fall, 1942.

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3. One of the main trunk irrigation ditches in north edge of Richland. This ditch is partially concrete lined and is of comparatively high quality. Within area to be purchased.

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4. The dam at the "Horn" of the Yakima which diverts water to the Richland District from the outlet gates in the foreground and to the Columbia Irrigation District on the far side of the river.

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5. Two views of a Mormon settlement in White Bluffs. Note destroyed orchard near row of poplars. In purchased area.

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6. View of destroyed orchard referred to
on preceding page.

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7. Village of White Bluffs looking northeast.

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8. Irrigation ditch about 1 1/2 miles southwest from White Bluffs. This is a typical ditch of the irrigation system serving Hanford-White Bluffs area.

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9. Looking north from a point about five miles southwest of White Bluffs. The white strip in the background is the bluff on the north side of the Columbia River and is about six miles away.

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10. Looking west from the common corner of Sections 3, 4, 9 and 10, T 13 N, R 26 E. The end of the pole line is visible about three miles away. The nearest point on the bluff is about seven miles away.

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11. Looking southeast towards Hanford which is about ten miles away and is in line with the foot of Gable Mountain to the left center of the picture. This picture was taken from the same point as the two preceding photos -- the typical natural vegetation in the area.

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12. The southwest side of Gable Mountain -- a volcanic rock outcrop in the central part of the area.

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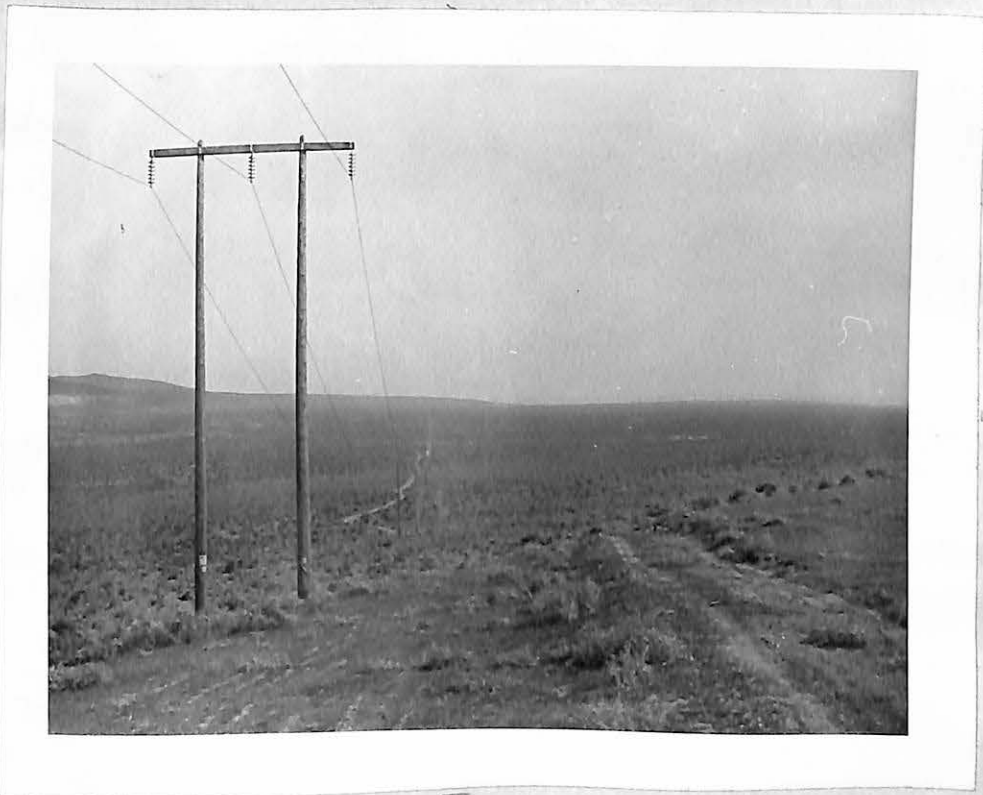
13. Looking southeast along the south slope
of Gable Mountain.

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14. Water hole south of northeast peak of Gable Mountain. The water is dirty and the surface is apparently at the general water table elevation in the vicinity. This is the lowest point in the interior of the area. White deposits of slightly alkaline salts surround the hole.

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15. The 115 kv. Midway-Walla Walla transmission line of the Bonneville Power Administration where it dips down into the Cold Creek Valley.

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16. Irrigation flume and house in the Hanford area. This is one of the best houses in the area.

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17. Abandoned orchard in vicinity of Hanford.

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18. Orchard in the area west of Richland in good condition and fairly well kept, and outside of the area to be purchased.

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19. Asparagus field and orchard on west edge of Richland. This area will be purchased, but orchard will not be permitted to die.

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20. Main ditch supplying water to Richland area.

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