COLUMBIA BASIN
Irrigation Project

GRAND COULEE DAM

HEADQUARTERS

SPOKANE

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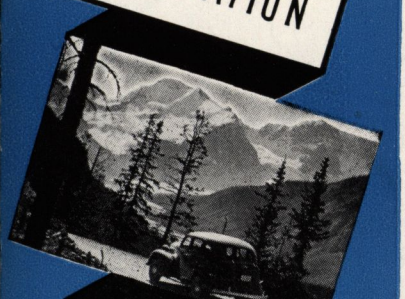
SPOKANE

PLEASURE AND RECREATION



SPOKANE

METROPOLIS OF RICH INLAND EMPIRE

Largest city between Minneapolis and Pacific tidewater, holding a dominating position in a vast domain, extending from the crests of the Rockies to the Cascades, from the Selkirks of Canada to the Blue Mountains of Oregon, Spokane is a financial dynamo, a business and commercial powerhouse of major importance.

The Spokane country contains millions of acres of golden grainlands, extensive irrigated areas, tremendous water-power, billions of feet of standing timber, untold mineral wealth, that produce a normal yield of $500,000,000 annually.

Product of a new country hewn out of raw wilderness in two generations, Spokane is a teeming municipality, magnificently situated, finely appointed, with wide boulevards, buildings of latest design, splendid parks and playgrounds.

Picturesquely located at the falls of the Spokane River, whose cascades foam white and beautiful, it is a city of distinctive homes amid spacious grounds, of scenic drives that wind along rimrock heights, of spanning bridges, arched and graceful. Spokane's golf courses, both public and private, are among the finest in the Pacific Northwest.

Here is a better homeland of loveliness and charm, of friendly, hospitable people, of unusual opportunity.

You will want to visit Spokane. Stay, rest, play—get the exhilaration that comes from sunny days, refreshing nights, mountain-cooled breezes.

HEART OF SCENIC WONDERLAND

Fanning out for hundreds of miles in every direction from Spokane is a land of matchless natural beauty.

The silver links in a chain of crystal lakes encircle Spokane—76 within fifty miles—each beautiful, each with its own distinctive charm. Hundreds at greater distance—with cliffs of sheer rocks and miles of virgin forested shores, offer every fascinating lure of the wilds. Here you will enjoy fishing as it was destined to be.

Sixteen National Forests, with 100,000 acres of timbered playgrounds, offer the primeval joys of camping, hiking, climbing, with modern public camp grounds available at selected locations.

The land is intersected by great rivers criss-crossed with turbulent streams. It abounds in canyons, weird and multi-colored; towering mountains that pierce the sky; falls that roar in violence or trace delicate patterns of silver.

And surrounding this entire area, a chain of magnificent gems, set aside by the United States and Canada to be preserved for all time in their unspoiled grandeur—the NATIONAL PARKS.

Spokane is Gateway to the National Parks of the Pacific Northwest. Within easy access by rail and improved highways are more national parks than can be found within like distance of any other American city:

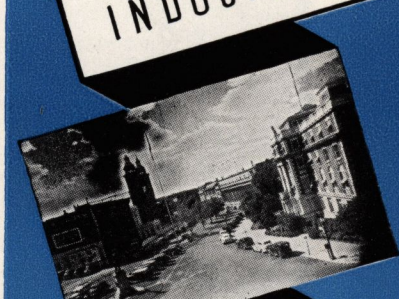
Banff, Lake Louise, Yoho, Kootenay, Glacier,
Revelstoke, Waterton Lakes, Mount Rainier,
Yellowstone, Grand Teton, Jasper.

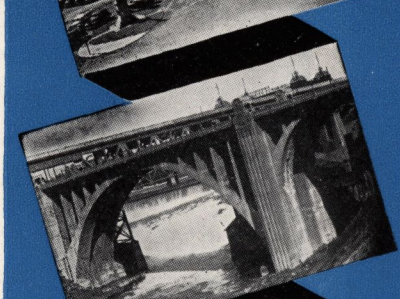
Here, indeed, is a vacation-land supreme! A wide range of modern accommodations is available at Spokane and throughout the region. Pleasant auto parks, charming bungalow camps, palatial hotels.

For detailed information write

Spokane Chamber of Commerce, Spokane 8, Wash.

PROGRESS AND INDUSTRY





A STUPENDOUS ENGINEERING ENTERPRISE | IN A GEOLOGICAL WONDERLAND | A STRIKING FEATURE OF WESTERN TRAVEL

PERTINENT FACTS

Grand Coulee Dam

Location GRAND COULEE DAM is located at the head of the Grand Coulee, a chasm 52 miles long, 1½ to 5 miles wide. Its rock walls towering in places a thousand feet, streaked with red and greens, reveal at least seven lava flows.

The Coulee was formed by the flood waters of a mighty glacier which blocked the original bed of the Columbia and forced the river to carve for itself a new channel. When the glacier receded the Columbia went back to its old course, left the Coulee dry. Where the waters once broke through to form the Coulee, is the site of the Dam. It is 92 miles from Spokane, 151 miles downstream from Canada.

Purpose GRAND COULEE DAM is a major project in the federal government's comprehensive program for development of the Columbia River basin. Its primary purpose is providing farm homes under American living standards for 12,800 families by placing water on a vast tract of rich desert and dry-farming land in central Washington. The tract covers a region 60 by 85 miles, embracing 1,029,000 acres suitable for irrigation.

The Dam develops electric energy which will pump the water of the Columbia to the land, where it will be distributed by a system of canals.

The harnessing of the Columbia at GRAND COULEE brought important benefits in flood control, water storage, and navigation. The Dam conserves the great flow of the stream and increases its water resources downstream from 50% to 100%.

Supervision and Construction GRAND COULEE DAM was designed by the United States Bureau of Reclamation. The work, under direction of the Department of the Interior and the Bureau, is in active charge of District Manager Frank A. Banks, with Project Headquarters at Coulee Dam, Washington.

The project was authorized by the Congress of the United States in the passage of the Rivers and Harbors bill, approved August 30, 1935.

Grand Coulee Dam was completed early in 1942.

Type GRAND COULEE DAM is of the monolithic, straight, gravity type, depending on its weight to resist the surging pressure of the river. The center section consists of a 1,650-foot spillway, surmounted by control gates and spanned by concrete arch bridges, over which the river forms a spectacular waterfall twice as high as Niagara. At each side of the spillway is a powerhouse and abutment section, each more than 1,000 feet long. All nine giant generators have been manufactured for the West powerhouse, all of which will be in action by the summer of 1948. The installation also includes two small station service units. The first six of nine big units have been authorized for the East powerhouse, the first three of which will be installed in 1949, and the next three in 1950. A 30-foot highway spans the river on top of the Dam.

The Dam is constructed in blocks, 5 feet thick and varying in area from 50 feet square to 25 by 40 feet in some parts of the powerhouse sections. After the concrete cooled and shrank, the blocks were formed into one massive whole by grout of cement and water forced into the contraction joints.

The rate of flow and the quality of water held in storage are controlled by 11 drum gates at the crest of the spillway.

Dimensions Rising 550 feet above bedrock, the Dam measures 4,173 feet in length at the crest, 3,000 feet at the base. With a base thickness of 500 feet, it tapers to 30 feet at the top.

Comparative Size The completed Dam is the world's largest masonry structure. The base of the Dam alone, completed early in 1938, constituted the biggest man-made structure on earth, exceeding by a wide margin the Pyramid of Khufu, or Cheops.

The Dam and appurtenant works contain nearly 11,000,000 cubic yards of concrete, three times the amount that went into Hoover Dam.

GRAND COULEE DAM is high as a 46-story building; long as 12 ordinary city blocks. Its huge mass, weighing 22,000,000 tons, would build a monument 100 feet by 100 feet by 5¼ miles in height. If placed on an average city block, the Dam would tower 2.7 times the height of the Empire State Building.

Scope The undertaking involved building a mighty structure unequalled in size in all previous construction history; the controlling of the Columbia, second largest water course in North America; the moving of 23,000,000 cubic yards of earth and rock; the erection of giant cofferdams; the freezing of a mountainside to prevent slipping; the installation of giant equipment to assemble immense quantities of sand, gravel and cement, and the mixing, weighing and placing of the concrete; the building and equipping of enormous powerhouses and pumping plant; and the building of towns with modern facilities to house the army of workmen and their families.

Power Development While the Columbia Basin project is primarily an irrigation development designed to bring an extensive waste area into productivity, the plan necessarily called for the generation of electrical energy, for it is by the combining of these two functions—water for irrigation and water for power—that the project was classified as feasible and put into a self-liquidating status.

GRAND COULEE DAM will be the greatest power development possible on the North American continent. The total installed power capacity will be 2,742,000 horsepower, the largest in existence. The two powerhouses will each contain 9 generators, each of 108,000 k. w. rated capacity.

The generators are driven by 150,000-horsepower vertical hydraulic turbines, to which water is delivered through steel penstocks, each 18 feet in diameter.

The first delivery of Grand Coulee power occurred on March 22, 1941, when two 10,000-kilowatt station-service units were connected to the Bonneville-Grand Coulee transmission net-work, to help meet the heavy demand for power in defense industries. The first of the large 108,000 k. w. units went into operation on October 1, 1941, and two more followed at short intervals. In February and May of 1943, two 75,000-kilowatt units, built for use at the Shasta Dam, were put into service at Grand Coulee, and later in the same year two more 108,000-kilowatt units were in operation. The sixth of the large units was put on the line in February, 1944.

Throughout the period of the war, the power plant at the Grand Coulee Dam was a steady contributor of power to the 13,000-mile net-work of high-voltage power lines which interconnected all the generating stations and all the war-industry plants in the Pacific Northwest. From its modest beginning with a 16,000-kilowatt contribution, it rose in output to a maximum of 962,000 kilowatts, and became the world's greatest power producer, with an output of nearly 22 million kilowatt-hours a day and more than 600 million kilowatt-hours in a month.

The two Shasta Units were removed after the war. By the summer of 1948, the west powerhouse had its full installation of nine 108,000-kilowatt generators and was by far the mightest power plant in the Pacific Northwest.

GRAND COULEE DAM will develop three times the power of Muscle Shoals, 50% more power than Hoover, and equal the installed capacity at Niagara.

Primary, or firm power, may reach 8,320,000,000 KWH annually; secondary or seasonal power, 4,200,000,000 KWH annually.

The Columbia offers unique advantages among all American rivers in that its peak flow occurs at periods when seasonal power can take care of all pumping needs, leaving primary and much secondary power available for commercial and other uses.

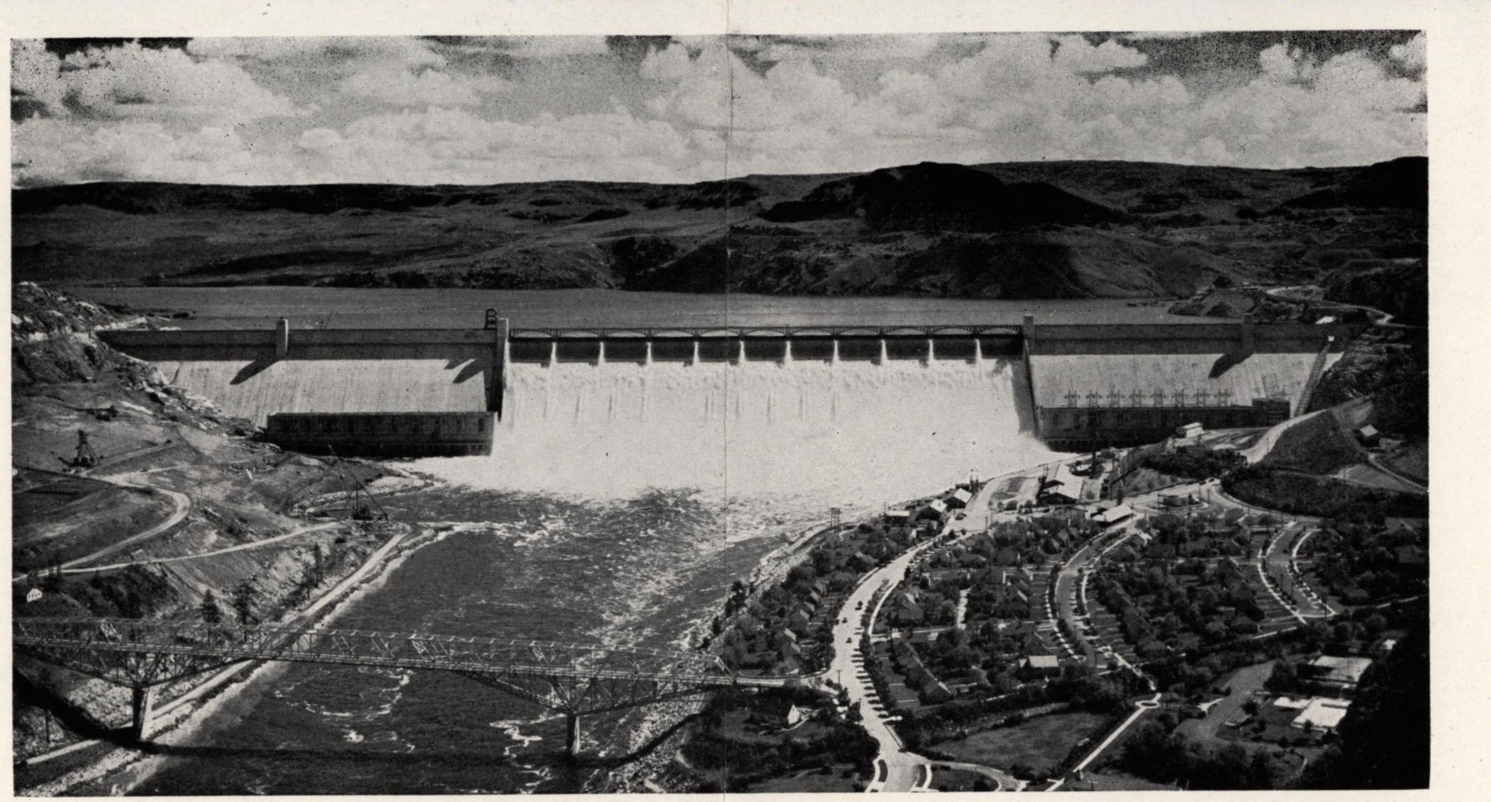
Pumping Plant The largest pumping plant yet devised, consisting of 12 units each with a capacity of 1,600 cubic feet per second, each directly connected with a 65,000 horsepower synchronous motor, is being provided at GRAND COULEE DAM. This pumping capacity would supply the 140,000,000 people in the United States with all the domestic water they would normally use. A single pump could supply enough water every 24 hours for 7,000,000 persons.

The pumping installation will be housed in a mammoth structure, 600 feet long, longer than an average city block, and 276 feet high, tall as a 20-story business block.

The pumps will lift the water from the level of the reservoir behind the dam a vertical distance of 280 feet for delivery into the balancing reservoir in the Grand Coulee, 1.6 miles away. The water will flow through a system of steel pipes in tunnels cut in the solid rock, each 12 feet in diameter and 800 feet long, and thence by open canals into the reservoir.

Cement and Concrete Nearly 11,000,000 cubic yards of concrete, more than three times that required for Hoover Dam, were used in constructing GRAND COULEE DAM, the power plant, and appurtenant works. Approximately 12,000,000 barrels of cement were used, amounting to 48,000 carloads, or 960 trainloads. An average of 60 carloads of cement was delivered daily during pouring operations.

The world's record was set at Grand Coulee May 25, 1939, when the contractors, Consolidated Builders, Inc., placed 20,684 cubic yards of concrete in 24 hours. This would have laid ten miles of standard two-lane highway. With the two mixing plants running at full capacity, concrete was placed at the rate of one cubic yard every 5½ seconds.



The Waters of the Mighty Columbia pouring over Grand Coulee Dam in a falls far higher than Niagara.

Concrete Cooling Heat is produced in the chemical reaction that takes place when concrete hardens. Heat in turn causes expansion, and subsequently shrinkage occurs as the mixture cools.

In a massive structure the size of Grand Coulee Dam, it is estimated the heat generated is equivalent to burning 30,000 tons of coal. The 10,500,000 cubic yards of concrete in the Dam would take 100 years to cool in the ordinary processes of nature. To prevent serious damage and permit final sealing of the contraction joints before the Dam was finished, a special cooling system was devised, consisting of 1,700 miles of one-inch pipe through which cold water was kept moving. When the concrete cooled to the proper degree, the contraction joints between blocks were sealed with grout. An accurate record of the cooling process was made possible by a battery of electrically operated thermometers.

Columbia River The Columbia River, the nation's most powerful watercourse, is 1,210 miles in length. Its headwaters are in the ice fields of Canada. Fed by glaciers and melting snows, its peak flow comes at the height of the growing season when the demand for irrigation water is the heaviest. Its discharge is moreover more continuous throughout the year than any other river of the land, and it carries more water than all other streams of the arid region combined.

Grand Coulee and Hoover Dams Compared

	Grand Coulee Dam	Hoover Dam
Height (feet)	550	726.4
Length of crest (feet)	4,173	1,244
Width at base (feet)	500	660
Width at top (feet)	30	45
Excavation (cu. yds.)	23,000,000	7,000,000
Mass concrete in dam (cu.yds)	10,500,000	3,250,000
Total rated capacity (h.p.)	2,742,000	1,835,000
Firm power developed (KWH)	8,320,000,000	4,330,000,000
Secondary power developed (KWH) both per year	4,200,000,000	1,550,000,000
Lgth, of main reservoir (miles)	151	115
Average width (miles)	0.8	2
Average annual run-off (ac. ft)	79,000,000	15,700,000
Max. flow of river (sec. ft.)	492,000	300,000
Min. flow of river (sec. ft.)	17,000	2,300
Spillway capacity (sec. ft.)	1,000,000	400,000

Columbia Basin Irrigation Project

Average pumping lift, Columbia River to storage reservoir in Grand Coulee	280 ft.
Number of 1600 second-foot pumps	12
Secondary h.p. required for pumping, 12—65,000 h.p. motors	780,000
Lgth. main canal-river to storage reservoir(mi.)	1.6
Length Grand Coulee Equalizing reservoir(mi.)	27
Useful acre ft. of storage in equalizing reservoir	700,000
Area to be reclaimed (acres)	1,029,000
Number of farm units	12.800

Draining a watershed of 259,000 square miles, including parts of seven western states and the Province of British Columbia, its average annual run-off, 79,000,000 acre-feet, is more than five times the run-off of the Colorado River at Hoover Dam. The volume of water passing down the river will be but slightly affected, as only about 1/18th of the stream's average run-off will be required for irrigation of the Columbia Basin Project.

Storage Basin The Dam has formed a lake upstream, which extends a distance of 151 miles to the Canadian Border—the longest artificial lake in the west. The lake averages 4,000 feet in width, with a maximum depth of 390 feet. The Dam has also backed the water up the Spokane River 28 miles, up the San Poil River 14 miles, and up the Kettle River 8 miles.

The storage reservoir thus created covers an area of 82,000 acres, with a total capacity of 10,000,000 acre-feet of water.

An extensive new recreational area is coming into existence, which will serve a utilitarian purpose as well, affording an important waterway for shipment of lumber, ore, agricultural products. This lake, officially named LAKE ROOSEVELT, connects with the Arrow Lakes in British Columbia, thereby providing a watercourse international in character, stretching north from the Dam 300 miles through ideal scenic country—a route first used by the Indians and then by the trappers, voyagers, traders, and missionaries, who opened up this country to settlement.

SALIENT INFORMATION

Columbia Basin Project

Columbia River Clearing All lands embraced in the bed of Lake Roosevelt, the man-made lake behind the Dam, were cleared to a water level of 1290 feet. The government surveyed, appraised, and acquired all the backwater basin. A tremendous re-location program was involved.

Equalizing Reservoir Nature left in the dry Grand Coulee an ideal site for the equalizing reservoir required to provide secondary storage for irrigation water. The reservoir will be formed by throwing up two earthen dikes, each about 100 feet high. One will be at the head of the Coulee, near the damsite; the other, the 10,000-foot South Dam, is near Coulee City. Twenty-seven miles in length, the reservoir will cover about 27,000 acres. The maximum capacity will be approximately 1,200,000 acre-feet.

Distributing System From the south end of the equalizing reservoir in the upper Grand Coulee, water will be carried southeasterly through 2 miles of main canal, the 1,000-foot Bacon siphon; the 1.9-mile Bacon tunnel; Trail Lake—2.4 miles long; and 2.3 miles of main canal to the head of Long Lake. There, at some time in the future, the East High Canal will divert water for 215,000 acres of land. The main water supply will recreate a 165-foot water fall, discharging into Long Lake. At this point a seasonal power plant may sometime be built to supply power for seasonal pumping.

From the southerly end of Long Lake, which will be raised 90 feet and lengthened to five and a half miles by an earth dam, the water supply will be carried 6.6 miles westward to the headworks of the East Low Canal and the West Canal. The East Low Canal will ultimately be about 130 miles long, and the West Canal about 80. Each will irrigate more than 250,000 acres.

A new reservoir will be formed in the Potholes area, south of Moses Lake, by the 3½-mile-long earth-fill Potholes Dam across Crab Creek Channel. When filled, it will back water into Moses Lake and raise its level about 5 feet. The Potholes Reservoir will impound for re-use the seepage and run-off from about one-third of the irrigable area, will provide regulatory storage in the central part of the project area, and will make possible the reclamation of a large area earlier than if water for it were to be obtained by extension of the East Low Canal. The Potholes Dam is the fourth longest in the United States.

A pumping plant, to provide water for the initial development of land near Pasco, will finally be superseded by the East Low Canal. The Pasco Unit served by the pumping plant has approximately 5,400 acres.

Basin Lands The Columbia Basin project lies in central Washington, with the river forming its western boundary. It comprises parts of Adams, Grant, Franklin and Walla Walla counties. Of its 2,500,000 acres, 1,029,000 are suitable for irrigation. The area is transected by four transcontinental railroads. A net-work of federal and state highways crosses it in all directions. Across the Columbia and beyond a low-lying range of hills is the famous Yakima Valley, which presents a shining example to the nation of the value of irrigated agriculture.

Climate on Project Lands It is an area of meager rainfall. Average annual precipitation is 8.2 inches, with only 3.6 inches occurring during the growing season. Much of the land was homesteaded a number of years ago, but later abandoned because of insufficent moisture.

The elevation rises from 300 to 1,400 feet above sea level. A favorable agricultural climate, with two weeks longer growing season (159 days between frosts) than the rich Yakima Valley, is conducive to large yields and high quality of farm crops.

Soil and Crops The soil is mostly deep volcanic ash, highly fertile and rich in mineral plant foods, and is 2½ times as productive as the average land of the United States. The late Dr. Elwood Mead, former Commissioner of the U. S. Reclamation Bureau, described it as "one of the most fertile bodies of irrigable land in this or any other country."

The lands are admirably adapted to the growing of alfalfa, hops, vegetables, sugar beets, berries, grapes, soft fruits, products non-competitive with midwest agriculture. Much of the land will be devoted to dairying, to the raising of livestock, and to forage crops. An 80-acre Development Farm to demonstrate irrigation techniques and crop production has been established by the Bureau of Reclamation near the center of the project, about two miles east of Moses Lake. Visitors wishing to view the farm should make arrangements at the Irrigation Division headquarters of the Bureau at Ephrata, Washington. The farm, one of several planned in the Basin, is a joint venture of the Bureau of Reclamation, Washington State College, and the Bureau of Plant Industry. A second development farm was started in 1948 on the Pasco Unit.

Acquisition of Lands Nearly all the irrigable land in the Columbia Basin is privately owned. Congress has passed special legislation to control the disposition of acreage and to prevent speculation.

Water for irrigation will be provided only on condition that the land open for settlement is made available at reasonable prices. The law further calls for a government appraisal, now completed, of all the lands to establish maximum price based on the present dry-land value; fixes penalties where any of the land is resold in excess of appraised valuations; and limits the number of acres one family unit can own and receive water upon, depending on location, quality of land, and other considerations.

Cost of Reclamation and Water Rights

The greater part of the cost of constructing the irrigation system will be repaid from power revenues. The settlers on the project will pay only such part as agriculture will be able to bear—an average of about 85 dollars per acre—more for the better grades of land and less for the poorer lands to be irrigated. Repayments of construction costs will begin after a development period not to exceed ten years after the delivery of water, and are to be made in 40 annual installments, without interest. Payments will not necessarily be uniform, as they may be proportioned to crop returns. Any balance unpaid at the end of the 40-year repayment period will bear interest at 3 per cent.

The costs of operating and maintaining the irrigation system are to be paid in annual installments after water is available. The average cost of operation and maintenance is estimated at $2.60 per acre at pre-war price levels. It, like the repayment of construction costs, will be greater or less than the average charge for lands of different quality. During the development period water will be delivered on a rental basis. There is no homestead land in the project, nor will there be any.

Program of Settlement Concurrent developments in the three irrigation districts which cover the project area are planned. A block of land northeast of Moses Lake will be served by the East Low Canal, an area southeast of Quincy will receive water from the West Canal, and a 5,400-acre tract northwest of Pasco gets its water from a pumping plant on the Columbia River, 14 miles northwest of Pasco. Areas adjacent to the initial developments will be improved as the demand for land warrants and as Congressional appropriations permit.

District Organization Three irrigation districts, organized under the laws of the State of Washington, cover the project area. The directors of the three districts have entered into repayment contracts with the government, guaranteeing to reimburse the government for that part of construction costs allocated to land owners—about a quarter of the actual cost. Individual land owners have made contracts with the government, agreeing to the antispeculation features of the Columbia Basin Project Act of 1943, in order to procure water for their lands.

Additional Power Uses It is estimated pumping operations at GRAND COULEE DAM for irrigation of the project lands will require approximately 25% of the total power capacity—to be used only in the high water season. Hence, all primary, or year-round power, and much seasonal power, will be available for sale.

Original studies estimated the entire output of Grand Coulee Dam power above pumping requirements would be taken in 15 years by Pacific Northwest markets. The swiftly increasing power demand, however, far exceeds expectations. Even with the tremendous power umbrella covering this area, brought about by integration of the power systems of all power-production units, both public and private in the Pacific Northwest Power Pool, power requirements are still rising in the face of the unprecedented development taking place.

Spokane is the power capital of the Pacific Northwest. The manufacture of aluminum has given Spokane the most promising basic industry in its history, and large blocks of low rate Grand Coulee Dam power are being used to operate the great aluminum rolling mill and the aluminum reduction plant. Chemical and metallurgical plants using electrical processes are likewise being attracted to Spokane because of favorable power rates and other outstanding advantages which Spokane offers to industry.

Spokane has developed as the major western center of light-metal production.

It is expected a large amount of Grand Coulee power will be utilized on the farms and towns which will spring up with Columbia Basin settlement.

Start Construction Work to prepare Columbia Basin lands for irrigation started in the spring of 1946. The present program includes twelve major structures costing about $30,000,000.

Work on the main pumping plant, the feeder canal, the East Control-Bay Building and other structures at Coulee Dam will be performed by private contractors. In the Basin itself, work already under way will be followed by other big construction jobs under the Bureau's aim to have irrigation water available for 216,000 acres in 1952. By 1948, contracts already had been granted for the 10,000-foot South Dam, the Long Lake Dam, and the Potholes Dam, fourth longest in the nation; the main canal, the 10,000-foot Bacon Tunnel, the Bacon Siphon, the first sections of the East Low and West canals, and the Pasco Pumping Plant unit.

Full completion of the Columbia Basin project, Bureau officials say, will provide an equivalent of 240,000,000 man-hours on-site and off-site employment—125,000,000 in direct work in the Basin, 115,000,000 spread throughout the nation in the line of supply.

Thus the biggest construction job ever contemplated for the Pacific Northwest is well under way, a project which is rapidly expanding along a 120-mile front running from Grand Coulee Dam to Pasco, Washington.

NATION'S LARGEST POWER DEVELOPMENT | AND GREATEST IRRIGATION PROJECT | WATER FOR 1,029,000 FERTILE ACRES

Panoramic Perspective of the Spokane Region
including the
Geological and Scenic Wonderland Embracing the

COLUMBIA BASIN IRRIGATION PROJECT and GRAND COULEE DAM

Showing SPOKANE, Gateway City and Commercial Headquarters; its proximity and accessibility;

The highways and railroads serving the territory;

The lakes, rivers, mountains, national forests and parks, unmatched scenic splendors of the Inland Empire.

The COLUMBIA BASIN AREA, now under development, containing 1,029,000 acres—one of the most fertile bodies of irrigable land in the country.

You get a ringside seat when you visit GRAND COULEE DAM.

Splendid facilities are provided by the U. S. Bureau of Reclamation, which give an unobstructed view.

A vista house, overlooking the scene of operations, has a grandstand, seating 400. Frequent explanations over a public address system tell the message of GRAND COULEE DAM and the COLUMBIA BASIN PROJECT, and highlights of the vast construction program.

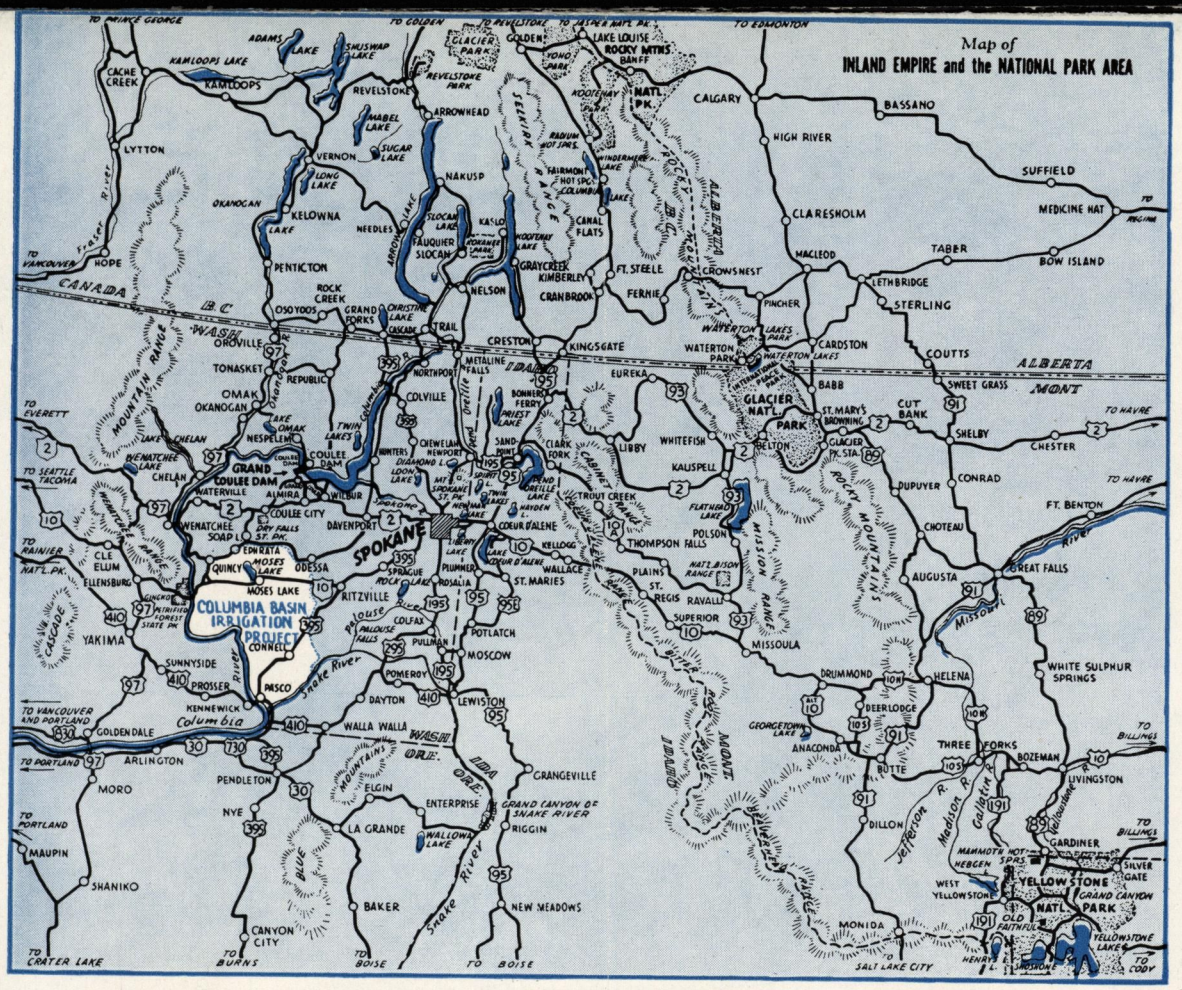
All these facilities are free.

Grand Coulee Dam is a convenient place to visit. Modern highways serve the region, and there are abundant free parking areas.

Good accommodations to serve the local population—stores, eating places, service stations, theatres, hotels, courts—are available to visitors.

Additional information about Grand Coulee Dam, and about the irrigation and settlement features of the Columbia Basin Project will be gladly supplied by

SPOKANE CHAMBER OF COMMERCE
1020 W. Riverside Avenue
Spokane 8, Washington



All Roads Lead to SPOKANE... *Gateway to*
The Columbia Basin Project and Grand Coulee Dam

Spokane is the main travel gateway to the world's greatest construction project—Grand Coulee Dam and the great Columbia Basin Irrigation Project.

Regardless of the mode of travel you most enjoy, you can reach Spokane easily and comfortably. Trains, affording incomparable convenience and luxury, carry the visitor here over five transcontinental trunk lines that connect with every part of the continent. Mainliners of the Northwest and United air systems bring the Atlantic seaboard within a day's journey of this Inland metropolis—intermediate and California points considerably closer. Modern highways in a far-flung network converge on Spokane from every direction making this region by motor bus and private car delightfully accessible.

If you live in the middlewest, the east, plan your itinerary via one of the cool, northern routes that thread their way westward over hundreds of fascinating miles.

If you live in the southwest, you have many and diverse route privileges, each revealing thrilling sights, new wonders, new experiences.

Come to Spokane first. Visit this lovely city—known at once for the warmth of its hospitality, its beautiful homes and gardens, its enterprising citizenry. Then on to a spectacle of overpowering immensity in a wonderland of nature.

The Columbia Basin Project at its nearest point to Spokane is about 85 miles west of the city, via the hard-surfaced roadways of U. S. 10, and State Highway 7.

The Dam is 92 easy miles west of Spokane via U. S. 2 and splendidly improved state highways. A visit to Grand Coulee Dam can be made an intriguing loop-trip from Spokane by motor car—through the fertile grainlands of the Big Bend country, the upper Coulee, with variegated palisades towering in places a thousand feet, and the lower Coulee with its chain of fresh water and alkali lakes of weird and picturesque beauty. The whole area is crowded with striking geological phenomena in a setting impressively different in its rugged beauty. The greatest of these is the Dry Falls of the Glacial Columbia where once roared the mightiest cataract of all time.

The Dam is served from Spokane by the Pacific Northwest Greyhound Lines and Okanogan Valley Bus Line on convenient daily schedules.

There are good facilities for accommodation of visitors in or near Coulee Dam, including comfortable hotels, cabin camps, service stations, restaurants, cafes, and stores.

The mighty waterfall that is hurtling over the spillway in a 15 - acre curtain white as snow is indeed a sight to behold, with billows of foam rising fifty feet and tongues of silver spray shooting skywards. The water cascades down the Dam's face in a cataract 330 feet high and a third of a mile long. The waterfall in height is equal to that of Victoria Falls in South Africa, and double that of Niagara.