San Luis Valley
Data in part of trip - Fall 1913
Baishale
Irrigated Farms
Open to Settlement

In the
United States Government
Shoshone Irrigation Project
Big Horn Basin Wyoming
SINCE the Reclamation Act was passed in 1902, the United States Government has expended nearly $50,000,000 in building irrigation projects in various parts of the so-called "Arid West." This work is done under the supervision of government engineers and is not commenced until they are satisfied that the soil is susceptible of producing satisfactory agricultural results, and that the supply of water is ample and permanent. Among these projects, and one of the most extensive, is the Shoshone Project in Northern Wyoming, about seventy-five miles east of the Yellowstone National Park. It covers approximately 150,000 acres of irrigable land, and will cost some $6,750,000. The Government desires no profit from the enterprise, and the land, with perpetual water rights, will be turned over to the settlers at the actual cost of the improvements.

HOW THESE FARMS MAY BE OBTAINED

Any citizen who has not exercised his homestead right is entitled to file on any unoccupied farm on the project. The settler is given six months from the time of making entry to establish residence, before the end of which time he must actually be living on the land. A citizen may make a second homestead entry provided he lost, forfeited or abandoned a homestead entry prior to February 8, 1908, if such entry was not cancelled for fraud, or relinquished for a consideration. He may also make a second entry if he commenced his former entry prior to June 5, 1900.

HISTORY

Investigation of soil, water supply and land was commenced by the Reclamation Service in 1904 and as soon as these important points were satisfactorily established actual work was commenced on the irrigation works. Notwithstanding their magnitude and the permanent character of their construction, the first unit was ready for settlers in the spring of 1908. Since this time two more units have been added, making a total of about 33,000 acres ready for settlement. The more important features of the project are now completed. These embrace the building of the highest dam in the world (328.4 feet high—42 feet higher than the Flat Iron Building in New York) in the Shoshone Canyon, which will store nearly half a million acre feet of water; the Corbett diversion dam; Corbett tunnel, three and one-third miles in length; Ralston reservoir; the main canal, forty feet wide on the bottom; and the distributing system for the
units now in operation. Practically all structures, even down to the farm turnouts, are built of reinforced concrete and steel. Work is now in progress on additional canals, and new units will be opened from time to time as settlement shall require, until the entire 150,000 acres are under cultivation.

Settlers began to arrive in the spring of 1908 and about 1,500 acres were irrigated the first year. That acreage was increased until it reached 17,000 in 1910, of which 6,000 acres were planted to alfalfa alone. The irrigated portion of this land has been changed from a typical desert to a densely populated agricultural community, enjoying the advantages of excellent schools and churches. Two lines of the Burlington Railroad pass through the project; telephone, telegraph and postoffice facilities are available. The towns are well provided with good stores of all kinds; each has a newspaper and bank, as well as other necessary branches of business, and the leading fraternal orders have lodges in the various towns.

**COAL AND OIL**

There are several coal mines on and close to the project, where farmers may secure their fuel at from $2.00 to $3.00 per ton. There are also oil wells in several nearby localities, and a refinery at Cowley.

**CROPS**

All crops native to the Central Temperate Zone can be raised with success, including cereals, forage, roots, fruits, and garden vegetables. Alfalfa, sugar-beets, and the small grains do especially well. On account of the altitude, corn is not so successfully produced as the smaller grains. It is expected that the production of sugar-beets will become an important and profitable industry. Representatives of various sugar factories are already looking over the field with the view of establishing sugar factories as soon as settlement of the project will warrant it. At this time the factory at Billings, Montana, is offering $5.00 per ton for beets delivered at the railroad stations on the project. Potatoes do splendidly, producing from 200 to 400 bushels per acre and they are of the finest quality, successfully rivaling the well-known Colorado potato.
1910 CROP RETURNS

On 162 farms that were being farmed the second year, the average returns per acre were as follows:

- From alfalfa $26.80 per acre; oats $16.02 per acre; wheat $15.09 per acre.

The maximum yields on the Shoshone Project during the year 1910 were 7 tons of alfalfa per acre, 70 bushels of oats, and 32 bushels of wheat.

THE SOIL

The soil consists of light sandy and clay loam, alluvial or sedimentary in character. It is grayish brown in color, fine in texture, very deep, almost entirely free from alkali and so rich that no fertilizer is necessary for the production of abundant crops. This fertility is due to qualities inherent in the soil itself, and soluble elements essential to plant life, instead of being dissolved and carried away by thousands of years of rainfall, having been preserved in the ground, awaiting only the magic touch of water to change the bare, brown desert into luxuriant green fields.

CLIMATE

The climate is invigorating, healthful and enjoyable at all seasons. There are no cyclones, blizzards or severe storms. The winters are pleasant, milder than in Eastern states in the same latitude, with usually only light snowfall. In summer it is never sultry, and the temperature varies according to the altitude. The lightness of the air, due to the altitude, its dryness, modifying the extremes of heat and cold, and the almost continuous sunshine, are a constant stimulus and make mere existence a pleasure.

There are absolutely no malarial or other disease-breeding conditions.

SMALL FRUITS AND GARDENS

Small fruits, such as currants, gooseberries, raspberries, and strawberries grown on the project yield abundantly, the fruit being of excellent flavor. Irrigation in this district is so recent that other fruits have not had time to show what they can do. Results obtained under similar conditions in other parts of the Big Horn Basin indicate that all hardy fruits can be successfully grown on the project. With the unusual amount of sunshine and the abundant water supply, apples will undoubtedly prove an especially profitable crop. The soil is easily prepared for gardens and all hardy flowering plants thrive and bloom freely. Vegetables of all kinds can be raised, including delicious varieties of tomatoes. The local demand for all garden produce is far in excess of the supply, and the opening for market gardeners is one of the best afforded by the project.

DAIRY PRODUCTS AND POULTRY RAISING

Not a town in the Big Horn Basin produces enough milk, cream and butter to supply its needs.
Hence dairying as an industry offers exceptional opportunities and will bring increasingly satisfactory results to the settler of the Shoshone Project. The open winters and bright days of early spring are especially favorable to the poultry raiser. Eggs and dressed fowls are always in demand at good prices, and the home market consumes all that can be produced.

for all time. The cultivation of alfalfa has brought the hog, and hog raising has been found to be very profitable. There is no fear of hog cholera and the market for years will be at home.

**BUSINESS OPPORTUNITIES**

There are opportunities in every line of business. The valley is practically a virgin field.

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**LIVE STOCK**

The Big Horn Basin will always be a live-stock country because of the natural adaption of the climate and products of the soil to the highest development of animal life. The foothills and higher altitudes of the mountain ranges afford cheap pasture for sheep, horses and cattle during the summer months and the abundant forage crops which can be produced in the valleys under irrigation will render the live-stock business profitable.

The reclamation of 150,000 acres of land, with a family on every forty or eighty acres, will necessitate the establishment of many new towns, and will add greatly to the population of the towns now in existence.

All manufacturing industries which depend upon agriculture for their raw material will find a virgin field in the Shoshone Project. There are exceptional openings at this time for the establishment of a creamery, a flour mill, a condensed milk.
factory, a packing house, an ice factory, brick yards, a steam laundry and sewer pipe and tile factories.

The valley needs a nursery, good seed growers, greenhouses and truck farms. The man who wants to farm a small place and live near town will find profitable sources of income in small fruits, orchards, bees, flowers and in raising chickens for poultry and eggs.

There is an excellent opportunity for profitable employment in raising well-bred stock for range and dairy, to be sold to the new settlers. The raising of a good class of horses and mules will also prove remunerative.

In the building trades every opportunity is offered, as there is a scarcity of skilled artisans of all classes.

ADVANTAGES OF IRRIGATION

Farming in the Big Horn Basin is strictly an irrigation proposition.

The advantages of irrigation are many:
1st. The yield from irrigated land in the dry regions of the West is about double that from lands in the humid zone.

2d. The harvest is absolutely certain, as the water supply is under control at all times and the growing crop need never be injured by receiving too much or too little water. There is no waiting for the ground to be moistened or for the rain to cease.

3d. The crop is never lost at harvest time—the farmer harvests when he is ready without having to wait for favorable weather conditions, for they are always favorable.

4th. The continual sunshine not only enables the farmer to better cultivate the soil, but the products of that soil are of better quality than are those usually produced where man must depend upon uncertain rain.

Farming by irrigation is not an experiment and any person capable of farming by other methods is certain of success providing he will give careful, intelligent attention to the work before him; is not too set in his own way as to how irrigation should be carried on, but is willing to learn and be guided by those irrigation principles and methods which have been proven by the experience of others to bring the best results.
CAPITAL NEEDED

Even on an estate where there is full capital, just as he would if he were in any other country. The amount of capital, will vary with the individual, but few men will succeed without some capital. He will need a house to live in, horses, a well, a barn, provision for the cattle, milk and food for the stock for at least one year in some instances, tools, seed, etc. Being unknown, he will be unable to secure credit at the local stores and at a bank, because he has nothing to mortgage. Consequently, his capital should be sufficient to enable him to bring his farm to a paying basis and this will require at least one year.

THE COST

The land is free. The cost of an irrigated farm on this ranch is the building, including (cost of constructing the homes), which averages $80 per acre. This amount is payable in annual instalments, without interest. In addition to this there is in operation and management charge of one dollar per acre per annum. At least one instalment of this charge must be made at time of signing. The ten or fifteen years from fifty to $15. This would make the first year payment be made in $25 to $500 according to the size of the farm.

TRANSPORTATION

Transportation to the land of the Shoshone Project is via the Burlington Railroad, two lines of which come to the project. Homeowners' return tickets for any town in the Big Horn Basin are usually sold by the Burlington and other railroad companies on the first and third Tuesdays of each month. These tickets are good for twenty-five days, allowing ample time in which to visit the project and make a selection of land. The rates from any point may be obtained on application to the general offices of the Burlington or other roads. The freight rates given below are used by shippers in making shipments to Powell, Wyoming, from the places listed. These are the lowest rates procurable and cover 100,000 pounds of equipment, including not exceeding ten head of live stock (horses, cattle, hogs and sheep) and the transportation of one person, where he stock is included in the shipment. All stock shipped into Wyoming should be inspected by state or federal veterinarians before shipping and cattle must pass the tuberculosis test. The rates shown are per 100 pounds in weight, on each head or lot, as given in the column headed "PR." It is obvious that the rates are higher for lighter than for heavier stock.

EMIGRANT MOVABLES

Carloads to Powell, Wyoming:

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<tr>
<th>Item</th>
<th>Weight</th>
<th>Rate (per 1000 pounds)</th>
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<tr>
<td>Phones</td>
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<tr>
<td>Saddles</td>
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<tr>
<td>Tools</td>
<td>1000</td>
<td>2.00</td>
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<tr>
<td>Lumber</td>
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<tr>
<td>Houses</td>
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<tr>
<td>Furniture</td>
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<tr>
<td>Clothing</td>
<td>1000</td>
<td>2.00</td>
</tr>
<tr>
<td>Other</td>
<td>1000</td>
<td>1.00</td>
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</tbody>
</table>

HOW TO GET THERE

As already stated, two branches of the Burlington Railroad run through the lands of the Shoshone Project. All railroad companies usually sell homeowners' tickets on the first and third Tuesdays each month to any railroad town in the Big Horn Basin, and return, and the rates to Powell and return, in effect, on April 1st and which will probably continue in effect, are as follows from the important cities: Chicago $35.00, St. Joseph $40.00, St. Louis $45.00, Denver City $50.00, Cheyenne $55.00, and Los Angeles $2.50. Final return fare, twenty-five days.

Further information desired concerning the homestead lands under the Shoshone Project may be had by addressing the United States Reclamation Service at Powell, Wyoming.
RULES
AND
REGULATIONS

Governing the Distribution of Water in the Modesto Irrigation District.

Adopted Feb. 2, 1909
Rules and Regulations

Governing the Distribution of Water in the Modesto Irrigation District

Revised rules and regulations governing the distribution of water in the Modesto Irrigation District were adopted Feb. 2, 1909, by the Board of Directors under authority of the provisions of Section 15 of the Irrigation Act of 1897, which reads as follows:

* * * * “It shall be the duty of the said Board to establish equitable by-laws, rules, and regulations for the distribution and use of water among the owners of said lands, which must be printed in convenient form for distribution in the District. Said Board shall have power generally to perform all such acts as shall be necessary to fully carry out the purposes of this act.”
RULES AND REGULATIONS

OF THE

Modesto Irrigation District

Control of System

No. 1. The canals and works of the District are under the exclusive management and control of the superintendent, appointed by the Board of Directors, and no other person, except his employees and assistants, shall have any right to interfere with said canals and works in any manner.

Ditchtenders and Other Employees

No. 2. The superintendent shall employ such ditchtenders and other assistants as may be necessary for the proper operation of the system, and distribution of the water. Each ditchtender shall have charge of his respective section and shall be responsible to the superintendent. From the ditchtender's decisions an appeal may be made to the superintendent. From the action of the superintendent, appeal may be made to the Board of Directors.

Apportionment of Water

No. 3. The water will be apportioned to each distributing section by the superintendent, and in cases of controversy or shortage of water the apportionment shall be made upon the basis of the acreage irrigated from each section.
Rotation of Water
No. 4. The water will be furnished in rotation to each irrigator except by agreement between adjoining owners satisfactory to the superintendent and which will not change the time of irrigation of other irrigators. Rotation shall commence at the upper end of each District distributing section. The method of distributing water in any section may be changed at the discretion of the superintendent if satisfactory to a majority of the irrigators in the section.

Time Limit for Use of Water
No. 5. Each irrigator will be allowed not to exceed one half hour to irrigate an acre of land in alfalfa and other crops or land requiring flooding, but for gardens the District will endeavor to supply continuous flow, and in case of a scarcity of water, to provide rotation as often as possible. The time will start when the diverting gate in the District canal is opened, and water must be used night and day continuously until time limit expires.

Irrigation of Trees and Vines
No. 6. Tree and vine heads will be furnished in rotation at about the same interval as alfalfa heads. Where trees or vines are irrigated from the same private ditch as alfalfa the District may require that they shall be irrigated at the same time as the alfalfa. The District will refuse water on trees and vines, except citrus trees, after July 10th, except as provided below, and in order to avoid a possible failure to secure water, irrigators are advised to give trees and vines the last irrigation before July 1st.

Continuous Use of Water
No. 7. When water is turned into a private, individual, or party ditch, it must be used continuously, night and day, and all land upon which water is not used, loses its right to water until the next regular irrigation for that ditch.

Priority of Use
No. 8. In case of shortage in water priority will be given first to garden crops; second to first year trees, vines and cuttings so far as such water may be necessary to keep such trees and vines alive.

Notice of Delivery
No. 9. Each irrigator will be notified at least 12 hours before water will be delivered to him and further notified of any change in time of delivery, and the irrigator who fails to use his allotment of water during an irrigation will not be entitled to any more water at any future irrigation than if he had used his full share at the time of allotment.

Control of Diverting Gates
No. 10. The District's employees alone will be allowed to open the diverting gates, and they have full authority to close the same as soon as the requisite amount of water for each irrigator has been discharged. Said gates will be supplied with locks, and the keys will be under the control of the superintendent.

Using Water Out of Turn
No. 11. Any person who uses water out of his turn and without the permission of his ditchtender forfeits his right to water at the next regular irrigation and is also subject to criminal prosecution.

Waste of Water
No. 12. Persons wasting water on roads or vacant land, or land previously irrigated, either willfully, carelessly, or on account of defective ditches or inadequately prepared land, or who shall flood certain portions of the land to an unreasonable depth or amount in order to properly irrigate other portions, will be refused the use of water until such conditions are remedied.

Access to Land
No. 13. The authorized agents of the District shall have free access at all times to lands irrigated from the canal system for the purpose of examining the canals and ditches and the flow of water therein.

Water Receipts
No. 14. Any person to whom water is offered must sign a receipt therefor. If the water is used, the receipt must show upon what kind of crop it was used; and if not used, the receipt must specify the reason.

In Case of Breaks
No. 15. When a break or a succession of breaks occurs under any distributing section, the
person to whom the water is last given while the break is being repaired, will be allowed to finish before the water is taken from him, and shall not claim another irrigation for that run. When the breaks are repaired the water will be returned to its original rotations as nearly as possible.

Part Ditches 
No. 16. Before water is furnished to any private distributing ditch the landowners receiving water therefrom must agree upon and sign rules and regulations satisfactory to the Board of Directors, providing for the repair, maintenance, and distribution of water from such ditch, authorizing some one to represent the users in all conferences with the ditchtender, and providing for the apportionment of water, subject to all rules and regulations of the District.

Diverting Gates and Weirs 
No. 17. All diverting gates and weirs are under the control of the District. The District will not build, repair, or maintain gates or weirs in the District canals.

Acreage of Crops 
No. 18. Between January 1st and June 1st of each year, the superintendent will obtain from each user of water, a signed statement of the kinds of crops and number of acres of each which he intends to irrigate. Such other information as may be desirable may be obtained on the same forms.

Use of District Right of Way 
No. 19. No trees, vines, or alfalfa shall be planted on the right of way of any District canal and all such crops growing on such right of way shall belong absolutely to the District. Permission, however, may be granted by the superintendent, under such restriction as he may deem expedient, to raise annual crops thereon.

Liability of District 
No. 20. The District will not be liable for any damages resulting directly or indirectly from any private ditch or the water flowing therein; but its responsibility shall absolutely cease when the water is turned therein according to these rules and regulations.

Liability of Irrigators 
No. 21. Every consumer of water shall be responsible to the District for all damages caused by his willful neglect or careless acts, and upon his failure to repair such damage after notification by the ditchtender, such repairs shall be made at his expense by the District.

Unlawful Acts 
No. 22. Attention is called to the fact that any person draining water upon or permitting water to drain upon a public highway is liable to fine and damages. Any interference with the canals or structures under the control of the District is a penal offense.

Building Diverting Gates and Weirs 
No. 23. No openings shall be made or structures placed in any District canal without the special permission of the superintendent. All structures in District canals must be constructed according to requirements of the District, and must be maintained in a condition satisfactory to the superintendent, and must not be changed without the permission of the superintendent.

Obstructions on Right of Way 
No. 24. No fences or other obstructions shall be placed across or upon or along any canal bank or right of way of any canal or ditch belonging to the District without the special permission of the Board of Directors. Whenever such special permission shall be granted it shall always be with the distinct understanding that proper openings or passage ways for teams shall be provided and that such fence or obstruction must be removed whenever requested by the superintendent.

Enforcement of Rules 
No. 25. Refusal to comply with the requirements hereof, or transgression of any of the foregoing rules and regulations, or any interference with the discharge of the duties of any official, shall be sufficient cause for shutting off the water, and water will not again be furnished until full compliance has been made with all requirements herein set forth.
CAVELL
THE PRINTER
MODESTO
Rules and Regulations

OF THE

Sacramento Valley West Side Canal Company

IN RELATION TO THE Delivery of Water
<table>
<thead>
<tr>
<th>CONTENTS</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose of the Following Rules and Regulations</td>
<td>1</td>
</tr>
<tr>
<td>Control of System</td>
<td>1</td>
</tr>
<tr>
<td>Ditch Tenders' Districts</td>
<td>1</td>
</tr>
<tr>
<td>Rotation Sections</td>
<td>1</td>
</tr>
<tr>
<td>Apportionment of Water</td>
<td>1</td>
</tr>
<tr>
<td>Delivery of Water for Irrigation</td>
<td>2</td>
</tr>
<tr>
<td>Notice of Delivery</td>
<td>2</td>
</tr>
<tr>
<td>Ditch Tenders' Records</td>
<td>2</td>
</tr>
<tr>
<td>Using Water Out of Turn</td>
<td>2</td>
</tr>
<tr>
<td>Time Limit for Use of Water</td>
<td>3</td>
</tr>
<tr>
<td>Priority of Use</td>
<td>3</td>
</tr>
<tr>
<td>Control of Diverting Gates</td>
<td>3</td>
</tr>
<tr>
<td>Waste of Water</td>
<td>3</td>
</tr>
<tr>
<td>Access to Land</td>
<td>4</td>
</tr>
<tr>
<td>In Case of Breaks</td>
<td>4</td>
</tr>
<tr>
<td>Use of Water in Private or Party Ditches</td>
<td>5</td>
</tr>
<tr>
<td>Regulations Covering Party or Private Ditches</td>
<td>5</td>
</tr>
<tr>
<td>Liability of Company</td>
<td>5</td>
</tr>
<tr>
<td>Crop Data</td>
<td>5</td>
</tr>
<tr>
<td>Use of Company Right of Way</td>
<td>6</td>
</tr>
<tr>
<td>Unlawful Acts</td>
<td>6</td>
</tr>
<tr>
<td>Building Diverting Gates and Weirs</td>
<td>6</td>
</tr>
<tr>
<td>Checking Water in Laterals</td>
<td>7</td>
</tr>
<tr>
<td>Obstructions on Rights of Way</td>
<td>7</td>
</tr>
<tr>
<td>Complains of Water Users</td>
<td>7</td>
</tr>
<tr>
<td>Amount of Water to Which Each User Is Entitled</td>
<td>7</td>
</tr>
<tr>
<td>Crossing Canals, and Construction of Bridges</td>
<td>8</td>
</tr>
<tr>
<td>Appeals</td>
<td>8</td>
</tr>
<tr>
<td>Enforcement of Rules</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RULES AND REGULATIONS</th>
<th></th>
</tr>
</thead>
</table>

PURPOSE OF THE FOLLOWING RULES AND REGULATIONS:

By the terms of its agreements with the landowners under this project, the Sacramento Valley West Side Canal Company is charged with the equitable and efficient distribution of the water carried in its canals and laterals to the irrigators entitled to receive water therefrom. The sole purpose of the following Rules and Regulations is to insure such equitable and efficient distribution, and they are promulgated, and will be rigidly enforced, in the interest of all present and future irrigators under this Project, both individually and collectively.

CONTROL OF SYSTEM:

No. 1: All canals, gates, weirs and other works of the irrigation system belonging to the Sacramento Valley West Side Canal Company, are under the exclusive control of a superintendent appointed by the Company, and no other person, excepting his employees and assistants, shall have any right to interfere with said canals and works in any manner.

DITCH TENDERS' DISTRICTS:

No. 2. For convenience, and in order to facilitate the distribution of water, the Project shall be divided by the Superintendent into "Ditch Tenders' Districts" of convenient size. Each ditch tender shall have charge of a district, and shall be responsible to the Superintendent for the distribution of water, and the patrol of the canal and laterals therein.

ROTATION SECTIONS:

No. 3. Each ditch tender's district shall be subdivided into rotation sections, each of said sections to contain about 12 farm units, or less.

APPORTIONMENT OF WATER:

No. 4: The water will be apportioned to each ditch tender's district by the superintendent, and in case of a shortage of water the apportionment
shall be made in accordance with the acreage actually being irrigated in each district.

**DEVELOPMENT OF WATER FOR IRRIGATION:**

No. 5: The water will be furnished in serviceable heads, in turn, or rotation, to each irrigator in a rotation section except that, when agreeable to the superintendent, owners within a rotation section may exchange turns for mutual accommodation, provided such exchange will not alter the system of rotation of other irrigators. Irrigation in each run, or period of rotation, shall commence at the upper end of each rotation section. The method of distributing water in each rotation section may be changed at the discretion of the superintendent, if satisfactory to a majority of the irrigators in the section.

**NOTICE OF DELIVERY:**

No. 6: Each irrigator will be notified at least 24 hours before water will be delivered to him, and further notified of any necessary change in time of delivery, and an irrigator who fails, through his own fault, to use his allotment, or irrigating head, during one rotation period, will not by reason thereof be entitled to an extra allotment during a later rotation period.

**DITCH TENDERS’ RECORDS:**

No. 7: A record of all deliveries of water to irrigators will be made daily by the ditch tenders, and these records will be filed in the office of the Company. These records will show to whom water has been delivered and for what period of time during each rotation period.

**USING WATER OUT OF TURN:**

No. 8: Any person who uses water out of his turn without permission of his ditch tender shall forfeit his right to water at the next regular rotation period, and is also subject to criminal prosecution.

**TIME LIMIT FOR USE OF WATER:**

No. 9: Each irrigator will be allowed not to exceed 1 1/4 hours to irrigate one acre of land in alfalfa or other crops requiring flooding, and receiving water in regular rotation, but for gardens the Company will provide rotations as often as possible. The time shall start when the delivery gate in the Company’s canal is opened, provided due notice has been given the irrigator as called for in Rule No. 6, and water must be used night and day continuously until the time limit expires.

**PRIORITY OF USE:**

No. 10: In case of shortage of water, priority will be given first to garden crops; second, to first year trees, vines and cuttings, insofar as water may be necessary to keep such trees and vines alive.

**CONTROL OF DIVERTING GATES:**

No. 11: The Company’s employes alone will be allowed to open diverting gates, and they shall close the same as soon as the time allowed for irrigation has expired. Gates will be supplied with locks if found necessary, and the keys will be under the control of the superintendent. Under no circumstances will irrigators be permitted to open or close gates. Water will be permitted to flow upon the land of an irrigator for the time allotted in the period of rotation, unless the ditch tender has been notified that it is desired for a shorter time. Such notice shall be given the ditch tender not less than 24 hours before the allotted time for turning on the water. Only the ditch tender, or some one authorized by him, will be permitted to close the gate at the expiration of this time.

**WASTE OF WATER:**

No. 12: The Company will endeavor to furnish enough water at all times for the proper irrigation of crops, to the extent provided for in its water right agreements, but will not furnish water for wasting, and the Company will not be responsi-
bles for any damage which may result from the flooding of lands or other property by water which may be allowed to waste from fields that are being irrigated. A person wasting water on roads or vacant land, or on land previously irrigated, through wilful carelessness, or on account of defective ditches, or on account of the land being poorly prepared for irrigation, or who shall flood portions of his land to an unreasonable depth or amount in order to irrigate other sections, will be refused the use of water until the conditions causing such waste are remedied.

The drain ditches which have been constructed by the Company are not intended to serve as waste channels for the irrigators, but such ditches were designed to facilitate the drainage of water resulting from rainfall and they shall be kept open and in proper condition by, and at the expense of, the land owners whose land may be crossed or benefited by the same. The Company will not be responsible for any damage which may be claimed, or which may result, from the wasting of water by an irrigator in any of said drain ditches.

**ACCESS TO LAND:**

**No. 13:** The authorized agents of the Company shall have free access at all times to lands irrigated from the canal system for the purpose of examining the canals and the flow of water therein.

**IN CASE OF BREAKS:**

**No. 14:** When a break occurs affecting any rotation section, any person to whom the water is given out of his turn while the break is being prepared, will, after the break has been repaired, be allowed to finish irrigating before the water is taken from him, and he shall not claim another irrigation for that period. Thereafter the water will be returned to its regular rotation as nearly as possible.

**RULES AND REGULATIONS**

**USE OF WATER IN PRIVATE OR PARTY DITCHES:**

**No. 15:** When water is turned into a private, individual or party ditch not belonging to, or controlled by, the Company, it must be used continuously night and day, and all land upon which water is not used will lose its right to water until the next regular rotation period of such ditch.

**REGULATIONS COVERING PARTY OR PRIVATE DITCHES:**

**No. 16:** Before water is given to any party or private distributing ditch not belonging to the Company, the land owners receiving water therefrom must agree upon, and sign, rules and regulations satisfactory to the Company, providing for the repair and maintenance of, and the distribution of water from, such ditch, authorizing some one to represent the users in all conferences with the ditch tender, and providing for the apportionment of water, subject to all rules and regulations of the Company.

**LIABILITY OF COMPANY:**

**No. 17:** The Company will not be liable for any damages resulting directly or indirectly from the water flowing in any private ditch, but the responsibility of the Company shall absolutely cease when the water is turned into the same. At the beginning of each season, and before water will be turned into such private or party ditch, such ditch shall be put in good repair and vegetation shall be removed so that water may be conducted with as little loss as possible. Such work shall be done to the satisfaction of the superintendent.

**CROP DATA:**

**No. 18:** Between January 1st and May 1st of each year the superintendent will obtain from each user of water a signed statement of the kinds of crops and number of acres of each he intends to irrigate during the season. Such other information as may be desirable may be obtained on the same form.
USE OF COMPANY RIGHT OF WAY:

No. 19: No trees, vines or alfalfa shall be planted on the right of way of any Company canal, and all such growing on such rights of way shall belong absolutely to the Company. Permission, however, may be granted by the Company, under such restrictions as may be deemed expedient, to raise annual crops thereon, or to use such rights of way for other purposes.

When any right of way is plowed or cultivated for any purpose, the furrows shall always be turned or thrown towards the embankment.

No cattle, horses or hogs will be allowed to graze upon the right of way of any canal belonging to the Company, but an irrigator may, upon proper application being made to the Company, and approved by it, fence the right of way of any canal crossing his land and have the free use of the same for the pasturing of sheep or goats. When such rights of way are fenced, however, convenient and proper passage ways shall, as provided in Rule No. 23, be provided for teams.

UNLAWFUL ACTS:

No. 20: Attention is called to the fact that any person draining upon, or permitting water to drain upon, a public highway, is liable to fine and damages under the laws of the State.

Any interference with the canals or structures of the Company is a penal offense.

BUILDING DIVERTING GATES AND WEIRS:

No. 21: One opening, or delivery gate, will be provided in a Company lateral, by and at the expense of the Company, for the delivery of water to each parcel or tract of land which may be covered by a single water right agreement, or to each farm unit as originally subdivided and sold by the Sacramento Valley Irrigation Company, or its predecessor, at such point as will best facilitate the irrigation of the same. No additional opening, or delivery gate, will be installed for the benefit of such parcel of land, or farm unit, except upon written application to the Company by the land owner, said application to be accompanied by an amount covering the estimated cost of such structures. Upon the approval of such application such additional structures will be installed by the Company at the expense of the applicant, or he may construct such structure himself and install the same at his own expense, under the supervision of the Company's representative.

CHECKING WATER IN LATERALS:

No. 22: Laterals have been located and constructed with a view to reasonable economy and the safety of the lateral system, as a whole. Laterals banks have been carried above the established flow line, and neither the ditch tenders nor the irrigators shall raise, or attempt to raise, the level of the water in the laterals above the established height on which said construction has been based.

OBSTRUCTIONS ON RIGHTS OF WAY:

No. 23: No fences or other obstructions shall be placed across, or upon, or along, any canal bank or right of way of any canal or ditch belonging to the Company without the special permission of the Company. Whenever such special permission shall be granted, it shall always be with the distinct understanding that proper openings or passage ways for teams shall be provided, and that such fence or obstruction must be removed whenever requested by the Superintendent.

COMPLAINTS OF WATER USERS:

No. 24: No complaint will be considered by the Company unless made in writing and filed with the Company within three days of the time the acts complained of have occurred.

AMOUNT OF WATER TO WHICH EACH USER IS ENTITLED:

No. 25: Unless provided otherwise by contract, each water user shall be entitled to not to exceed 1½ acre feet of water per acre during
the irrigating season. This amount is equivalent to an 18-inch rainfall and will be delivered in serviceable irrigating heads from time to time when most needed throughout the irrigating season.

CROSSING CANALS, AND CONSTRUCTION OF BRIDGES:

No. 26: Persons are prohibited from crossing canals and laterals belonging to the Company with wagons or other vehicles which may cause any injury to the embankments of such canals, and should a canal bank be injured from this cause, the cost of repairing the same will be charged to the land owner through whose land the injured portion of such canal may pass.

Bridges may be constructed by the land owner at his own expense across canals or laterals belonging to the Company, under the supervision of the Company's representative, upon proper application being made and approved. Such bridges shall be maintained by and at the expense of the land owner. Should the flow of water in a Company lateral be obstructed or retarded by a bridge constructed by a land owner, such bridge shall be removed by order of the Company, or the Company may remove the same at the expense of the said land owner.

APPEALS:

No 27: Appeal may be made from decisions of the ditch tenders to the superintendents; from the action of the superintendent, appeal may be made to the Chief Engineer of the Company.

ENFORCEMENT OF RULES:

No. 28: Refusal to comply with the requirements, or any transgression, of any of the foregoing rules and regulations, or any interference with the proper discharge of the duties of any official of the Company, shall be considered sufficient cause for shutting off the water, and water will not again be furnished until full compliance has been made with all the requirements herein set forth.
THE INDEX

Altitude............................................................... 6
Amusements and health resorts.................. 24
Area of irrigable land................................. 7
Banks................................................................. 23
Building materials................................. 13
Business opportunities.......................... 21
Capital needed.................................................. 20
Carey Act, The................................................... 3
Churches......................................................... 24
Climate and health........................................... 22
Community life, Townsites and................ 8
Conditions of repayment, operation and main-
tenance......................................................... 20
Cost of clearing the land.......................... 20
Cost of filing................................................. 8
Dairy products............................................... 18
Date of opening to settlement................. 26
Desert-land entries........................................ 13
Distributing system....................................... 20
Domestic water supply................................... 16
Drainage......................................................... 19
Dry farming..................................................... 4
Duty of water............................................... 22
Electricity, Water power and.................... 16
Experiment farms........................................... 16
Explanation of Reclamation Act................. 3
Farm units, Size of........................................ 8
Filing, Cost of............................................... 8
Fraternal lodges............................................. 24
Fruits, Small................................................. 18
Fuel............................................................... 22
Game and game laws...................................... 24
Gardens and small fruits.......................... 18
General introduction..................................... 3
Health and climate........................................ 22
Health resorts, Amusements and.............. 24
Historical items.............................................. 4
Homesteads and conditions of residence...... 10
Homestead entries.......................................... 11
Insect pests.................................................... 19
Irrigable lands, Area of......................... 7
Irrigated lands Value of......................... 19
Irrigation, Methods of.................................... 21
Items of historical interest........................ 4
Labor needed.................................................. 19
Land, Cost of clearing...................................... 20
Land office, Location of.............................. 10
Lands, Area of irrigable........................... 7
Lands, Value of irrigated and non-irrigated... 19
Location of land office................................... 10
Location and source of water supply........... 4
Lodges, Fraternal............................................ 24
Lumber and other building materials........ 13
Mail facilities................................................. 22
Maintenance, Conditions of...................... 20
Markets.......................................................... 15
Methods of irrigation..................................... 21
Mining........................................................... 22
Nationality of settlers................................... 25
General Introduction
Explanation of Reclamation Act

On June 17, 1902, the Reclamation Act was made a law by the signature of President Roosevelt. The substance of this act is that all moneys received from the sale and disposal of public lands in certain western states, beginning with the fiscal year ended June 30, 1901, including the surplus of fees and commissions in excess of allowances to registers and receivers, and excepting 5 per centum of these amounts which is set aside for educational and other purposes, be set aside and appropriated as a special fund in the Treasury to be known as the "reclamation fund," to be used in the examination and survey for and the construction and maintenance of irrigation works for the storage, diversion and development of the waters for the reclamation of arid and semi-arid lands in the said states.

The lands so reclaimed are subject to homestead entry and there is absolutely no charge for the land itself, but the settler must pay to the United States, in not more than ten annual installments—without interest—his proportion, according to the number of acres he owns, of the amount expended by the United States in reclaiming his land.

THE CAREY ACT

Another law was enacted by Congress in 1894, called the "Carey Act," which donates 1,000,000 acres of public land in each of the arid states, to the states themselves, to be reclaimed at the hands of the respective states, or through contract with private corporations. The terms of settlement under the Carey Act are not as rigorous as under the Reclamation Act. The Government has over $50,000,000 invested under the Reclamation Act, on which it is drawing no interest, and every effort is made to see that the lands are occupied by actual homemakers, who will give permanence and value to this great investment.
Dry Farming

The United States Government is not only interested in settling its irrigated lands, but also in developing all parts of its territory, and for this reason the various bureaus of the Department of Agriculture have been studying the soils of the West and scouring the world to find crops suited for these regions. Dry farming is meeting with a certain amount of success in various parts of the country, and the combined effort of all of these endeavors to make fertile and productive these lands will result in an era of unprecedented prosperity for the entire West.

Location and Source of Water Supply

The Belle Fourche Reclamation project is adjacent to and north of the Black Hills in South Dakota. The country is gently rolling, with here and there level areas, and is threaded by numerous streams, bordered with trees, which are tributary to the Belle Fourche River. The territory surrounding the project is an open cattle range. Here for years vast herds have grazed knee-deep in the tall wheat grass that covers the hillsides.

Water for irrigating the lands in the valley is supplied by the Belle Fourche and Redwater rivers. This water has been diverted into an immense reservoir, formed by the construction across Owl Creek of an earthen dam, more than a mile long, between two hills. From this reservoir two canals carry the water north and south to the lands to be irrigated. No pumping is necessary at any point in the system, all the land being irrigated by gravity canals. Compared with the area to be irrigated, the water supply is exceptionally large, while the certainty of supply and the simplicity of arrangement afford unusual advantages in the work of reclaiming the valley.

Items of Historical Interest

The history of the Belle Fourche Valley had its beginning in the glamour, success, and the tragedy of the Black Hills, when in 1875 the discovery of gold brought thousands of men to seek their fortunes in this wild, new country, among hostile bands of Indians. Many of these men, recognizing the agricultural wealth of the fertile soil, left the pine-covered mountains to make permanent homes in the valleys. Great herds of buffalo still ranged the grass-grown slopes, hunted by the Crow, the Cheyenne, and the Sioux, and the Indians resented the intrusion of the white man into their favorite hunting grounds. No settlement in the district but has its story of sudden Indian attack, of homes built only to be burned, of crops destroyed, and of brave men who sacrificed their lives in opening this rich district to civilization.

The early history of the Belle Fourche Valley is the story of the cattle industry in the West. It was in 1876 that the first herd was turned loose on the range, and at dear cost to their owner, for the same fall a band of Sioux swept down upon the cattle and drove them off. The next year a herd of several thousand was driven over the trail from Texas, guarded by a band of cowboys, and from that time, though not without exciting conflict, cattle gradually took the place of buffalo on the ranges, and white men roamed where for centuries the Indians had hunted and fought.

With the extension of the Chicago & North Western Railroad to Belle Fourche in 1889, shipments of cattle from this district first attracted attention. In that year 1,615 earloads of cattle, twenty head to a car, left Belle Fourche, the freight on the shipment amounting to $200,000. From that date the cattle industry has been increasingly successful; and although in recent years the ranges have been cut up into farms and the great herds of the early days have been broken up or moved to other sections of the country, the raising of cattle is still an important industry in the valley, and the number of cattle is not less than in the time of the open range.

The great irrigation project rapidly nearing completion begins a new epoch in the history of the valley, which from now on will rank as one of the richest agricultural regions of the country.

Statistical Statement of General Features

1. State: South Dakota.
2. Counties: Butte and Meade.
3. Latitude: 44° 40'; longitude, 103° 30'.
4. Townships: 6-10 north, ranges 3-8 east, Black Hills meridian.
5. Altitude: 2,600 to 3,000; average, 2,800 feet above sea.

6. Irrigable area, 100,000 acres, 50,000 acres public lands, 45,000 acres private lands and 5,000 acres state lands.

7. Size farm units: 50 acres of irrigable land.

8. Watershed area: 4,300 square miles.

9. Average precipitation in irrigable area: 14 to 18 inches.

10. Average discharge: 400,000 acre feet.*

11. Storage reservoirs: Area, 8,010 acres; capacity, 207,770 acre feet.

11A. Storage dam: Type, earth embankment with concrete water slope; height, 115 feet; top length, 6,200 feet.

12. Diversion dams: Type, concrete weir; height, 23 feet; length, 400 feet.

13. Towns on project: Belle Fourche, Sturgis, Vale, Orman, Whitewood.

14. Location land office: Belle Fourche, S. D.

15. Soil: Clay loam and sandy loam.

16. Winds: There are not apt to be high winds except very occasionally in the spring.

16A. Temperature: Maximum, 100°; minimum, 25° F.

17. Principal products: Alfalfa, grain, vegetables, hardy fruits, sugar beets and native hay.


19. Value irrigated lands: $75 to $100 an acre.

20. Value non-irrigated lands: $10 to $20 an acre.


22. Railroads: Chicago & North Western and Belle Fourche Valley & North Western.

23. Duty of water: Two acre feet per acre, per annum.

24. Length main canals: 100 miles.

25. Length laterals: 125 miles; sublaterals, 1,000 miles.


27. Power developed: None.

28. Domestic water supply: Artesian wells at depth of 500 to 1,500 feet.

29. Date of opening: June 21, 1907.

30. Charges: Building charges, $30 per acre; maintenance 40 to 50 cents per acre.

31. Per cent project completed: 71 per cent, August 31, 1909.

32. Allotments: $2,350,000 to December 31, 1909.

**AREA OF IRRIGABLE LANDS**

The Belle Fourche project covers a territory of 150,000 acres, of which 100,000 acres will be irrigated in the Belle Fourche Valley. This tract lies on both sides of the river, begins two miles east of the town of Belle Fourche, and extends eastward for forty miles. Within the area are included 50,000 acres of public land, 45,000 acres of private land, and 5,000 acres owned by the State of South Dakota. Owing to the rolling character of the region, however, much of the land included between the main canals lies above the ditch, so that it is possible to irrigate only 100,000 acres; the lands have, where possible, therefore, been so divided that each farm unit will contain a portion of dry pasture land as well as irrigated land. Twelve thousand acres in the project are now being supplied with water, and the irrigated area is being increased as fast as the canals are completed, and 42,000 acres of irrigable land will be covered with water for 1910 crops.

**ALTITUDE**

The average elevation of the valley is 2,800 feet above sea level. The town of Belle Fourche, the highest point in the district, has an altitude of 3,000 feet above the level of the sea, and in plain sight of the city are the Black Hills, shouldering their way thousands of feet into the air. Harney's Peak, rising 7,216 feet above sea level, is part of this range, and is the highest peak in the State.

*An acre foot of water is so much water as will cover an acre of ground one foot deep.
SIZE OF FARM UNITS

It has been the plan of the Reclamation Service to so subdivide the lands in the Belle Fourche Valley that each farm unit will contain approximately eighty acres of dry land and eighty acres of irrigable land. This proportion, however, cannot be strictly maintained, owing to the irregularity of the land surface, and the irrigated portion of each farm usually varies from 60 to 100 acres. Where the land is adjacent to a town site, the maximum allowance to each settler is forty acres of irrigable land.

View showing a series of small 20-acre tracts being very profitably farmed one mile west of Spearfish, S. D.

COSTS OF FILING

When a filing is made on one of these farm units, there is a filing fee of $6.50 for a 40-acre farm and $8 for an 80-acre farm. Filing may be made at the United States land office which is located at Belle Fourche.

TOWN SITES AND COMMUNITY LIFE

On the western edge of the irrigated district, gilt on the north by the Belle Fourche River, and on the south by the Red River, a cool mountain stream, heavily wooded and with luxuriant fields of alfalfa along its banks, lies the city of Belle Fourche. On the eastern border and adjacent to the city is a reservoir on the Belle Fourche River formed by the diversion dam, and is a beautiful lake, where launches and pleasure craft of various sorts are already to be seen. To the south rise the highest peaks of the Black Hills. Miles of the surrounding territory are used as an open cattle range. With this delightful and advantageous situation, the city of Belle Fourche has grown rapidly in the last few years, and now has a population of about 2,500. The town is lighted with electricity, has many beautiful homes, churches and schools, a flouring mill and a saw mill both operated by water power, a well equipped creamery, banks, newspapers, and all the business establishments of a modern, enterprising city. Belle Fourche is the largest initial shipping point for range live stock in the United States, and last year 1,250,000 pounds of wool were also shipped from here. The city is the trade center for a rich and extensive agricultural district, and is the natural distributing point for the irrigated lands of the Belle Fourche Valley. It is at the gate of an immense coal field, tapped by the Wyoming & Missouri Railroad, which runs into the town from the west. With these varied resources, the city is rapidly developing in size and importance, and holds the promise of a golden future.

Southeast of Belle Fourche lies Sturgis, one of the most progressive towns in the region. Sturgis has many attractive homes, several churches and handsome public buildings, lighted for the most part by electricity. Besides two flourishing banks and the usual business establishments of a thriving city, Sturgis has two excellent brickyards, one of which has a capacity of 25,000 bricks a day. Large stockyards have been erected in the city to facilitate the handling of the live stock of the district, and extensive shipments of cattle and sheep are sent out from Sturgis each year.

Whitewood is located in the heart of one of the finest farming districts of the Black Hills. Over 60 per cent of the wheat raised in this section is grown within fifteen miles of the city.

An extensive trade with the farmers and stock raisers of the region is a source of large income: while a saw mill in town supplies lumber for 100 miles of the surrounding country, and a quarry of buff-colored sandstone furnishes Whitewood and other nearby cities with fine building material. The city is growing rapidly and promises to become a leading trade center in the valley.

Vale is a flourishing village about two years old, situated on the south side of the river, in the center of the agricultural community, and has splendid prospects for future developments.

It has established during its short existence a remarkable record for business as shown by the fact that two years after its birth the local bank had deposits of over $100,000. There are established here a good newspaper, bank, two livery stables, two hotels, two drug stores, hardware store, two general stores, meat market, dry goods store and numerous real estate and land offices.

A new town, for which a section of land has been reserved, is to be built by the Government in the center of the irrigated district. The Government will conduct the sale of lots, and with the proceeds...
streets will be laid out, a sewage system constructed, and every possible measure taken to improve and beautify the city. From its convenient location, this city will doubtless become the site of numerous and varied enterprises, such as sugar-beet factories and canneries, and will furnish a home market for the products of the valley.

The Belle Fourche Valley and North Western Railroad are now building to this town site, and as soon as opened will become a shipping point for a large territory of irrigated land as well as miles of country lying to the north and east, above the project, which is settling up very fast with dry farmers.

HOMESTEADS AND CONDITIONS OF RESIDENCE

Any citizen who has not exercised his homestead right is entitled to make a homestead entry in any unoccupied farm on the project. The settler is given six months from the time of making entry to establish residence, and before the end of that time he must be actually living on the ground. A title to the land cannot in any case be acquired before the expiration of five years. The commutation clause of the homestead law does not apply in reclamation projects. Under the act of February 8, 1908, a person who, prior to the date, has made and lost one homestead entry, but who is otherwise qualified, may, subject to certain conditions, make a second entry. The law states that second entries will be permitted if the first entry was lost, forfeited, or abandoned, providing the first entry was not canceled for fraud nor abandoned or relinquished for a consideration.

Veterans of the Civil and Spanish wars and the Philippine insurrection are entitled to have the term of their enlistment, not exceeding four years, deducted from the time necessary to prove upon a homestead under the Reclamation Act. Veterans also have the privilege of filing by proxy.

LOCATION LAND OFFICE

The nearest land office to this project is at Belle Fourche where filings may be made after personally seeing the land. No filing, except those of veterans, will be accepted unless the entryman makes the statement under oath that he has seen the land.

WATER USERS' ASSOCIATION

On the various projects there have been formed associations of individuals—called “Water Users' Associations.” The individuals of these associations are those who claim the right to the use of the water, and who live on the lands of the project. The associations are formed to assure the Government that the land owners will apply for water from the irrigation works, and that they will so adjust the existing claims to the use of water that the administration of all the water available for the lands under the project, whether supplied from private or from government irrigation works, shall be under one control, viz., that of the water users themselves. This organization is necessary in order that there may be supervision over the water to lands in private ownership.

QUESTIONS AND ANSWERS

A list of the principal questions asked by prospective settlers and the proper answers has been compiled and is as follows. The answers are based upon present conceptions of the law and its requirements, and are, in some cases, not necessarily final; it is possible that in the future some of these laws will be modified or reversed.

HOMESTEAD ENTRIES

1. Q. In what way can public land be taken under the Reclamation Act?
   A. The only way in which land can be taken is under the terms of the homestead law, which requires actual residence and cultivation.

2. Q. Can I take up a homestead under the Reclamation Act and obtain title when I am earning a living in a nearby city?
   A. You cannot obtain a homestead unless you live on the land and make it your home. Occasional absence is allowable, if some good reason is given, but you cannot live elsewhere and claim a homestead.

3. Q. Is it necessary for me to live on the land more than once in six months?
   A. Yes; actual and continuous residence is required by law; you must establish your home on the land and live there for the full term required.

4. Q. Must I move onto the land at once?
   A. You are given six months from the time of making your entry to establish residence, and before the end of that time you must be actually living on the ground.

5. Q. Is it sufficient to erect an ordinary claim shanty, with one door and window?
   A. No; the claim shanty and nominal residence which may have sufficed under some conditions will not be sufficient on the irrigable land. An actual home, where you sleep and take your meals habitually, and the cultivation of a portion of your claim, will be required.

6. Q. Can I enter 160 acres and then sell off parts of it?
   A. You can obtain title only to a certain piece of land, which may be from 10 to 160 acres, and you cannot convey any title to this or to any portion of it until final certificate has issued for your entry. Under certain conditions you may relinquish or give up a portion of it, and in that event some other person can make a new homestead entry, but you cannot transfer to him any rights or privileges, and he must begin his term of residence as required in the case of a new entry.
7. Q. Must I live on the land if the water is not available?
   A. Yes; after you make your homestead entry you must comply with the terms of the homestead law. No excuse will be accepted because of lack of water; if lands are entered before water is ready, there is a presumption that the person making the entry does it for speculative purposes rather than for an actual home.

8. Q. What is the area of the farm unit on this project?
   A. Eighty acres of irrigable lands.

9. Q. When can I ascertained the limit for which water may be obtained under a project?
   A. Under Section 4 of the Reclamation Act the Secretary of the Interior will give public notice of the lands irrigable and limit of area per entry, "which limit shall represent the acreage which, in the opinion of the Secretary, may be reasonably required for the support of a family upon the lands in question." This notice is usually given during the season preceding that during which water is to be furnished.

10. Q. What assurance is there that the land which I enter will be irrigated?
    A. You can have no assurance that the land will be irrigated until public notice has been given.
    If you enter in advance of the public notice, you make a speculative entry, wholly at your own risk, and without any guaranty or safeguard that water will be supplied, and with a reasonable probability that you may lose your homestead right.

11. Q. How will the notice be given?
    A. Through the public press. When the adjustment of entries to the farm units is necessary, the register and receiver of the local land office will give notice by posting in the local land office, by publication, and by mailing special notice by registered mail to every person who may have made entry during the period of withdrawal, requiring him to adjust his entry to the farm unit.

12. Q. If a homestead entry is made before the issuance of the public notice as to the area of the farm unit, will the entryman be permitted to prove up as to the entire area?
    A. No. When the farm unit is established, notice will be sent to the various entrymen informing them of the fact, and that they will be required to cut down their holdings to the limit decided upon by the Secretary of the Interior as sufficient for the support of a family, and giving them the option of selecting such part of the land as they may prefer and amending their entries accordingly; or in case they fail to make such selection, the United States will make it for them and cancel the remainder of the entry.

13. Q. Where the entryman is in default as to payment of any annual installment, will his relinquishment relieve the land of the charge against it?
    A. No. The annual charge is not a rental obligation, and a succeeding entryman takes the land burdened with whatever charges may have been duly levied against it and not paid or discharged by his predecessor.

14. Q. What is the effect of a relinquishment of an entry made under the Reclamation Act?
A. The cancellation of an entry, whether by relinquishment or otherwise, carries with it a forfeiture of all claim to the water right. When the land is re-entered the water right that is appurtenant to the land inures to the second entryman, who is obliged to pay all charges then due or afterwards apportioned against the tract.

15. Q. What are farm unit plats?
   A. Farm unit plats are township plats approved by the Secretary of the Interior, showing the subdivision of land under reclamation projects, and the number of acres of irrigable land contained in each farm unit or separate tract of private land. They will be on file at the local land offices and at the offices of the Reclamation Service, after the issuance of the public notice provided by the Reclamation Act.

16. Q. How much water will be furnished for the land?
   A. Such amount as may be available from the works controlled by the United States not to exceed the amount necessary for the proper irrigation of the same. The quantity will be duly announced for each project when the Secretary of the Interior gives the public notice under Section 4 of the act.

DESSERT-LAND ENTRIES

17. Q. May a desert-land entryman or his assignee apply for a government water right?
   A. Yes; but he must live on the land or in the neighborhood and relinquish to the United States any land in the entry exceeding 160 acres.

18. Q. Will the time for making final proof on desert-land entries be extended?
   A. Yes; his entry becomes subject to the provisions of the Reclamation Act as to residence, payments, etc.

LUMBER AND OTHER BUILDING MATERIALS

Lumber and other materials used for home building are to be obtained at reasonable rates.

TREES AND SHRUBS

Throughout the valley timber is found along the borders of the streams, and trees and shrubs grow luxuriantly wherever water is supplied. Orchards of hardy fruits, such as apples, plums, and cherries, thrive, especially on the higher lands of the valley.
near the bluffs; the yield is abundant and the quality of the fruit is excellent. Small fruits also are successfully grown.

As shade trees, cottonwood, ash, and plummy willow trees flourish, all quickly attaining a large size. The slower growing oak trees are also to be seen about dwellings and along the streets.

WATER POWER AND ELECTRICITY

Numerous streams which rise in the hills surrounding the Belle Fourche district afford excellent opportunities for the development of water power. Belle Fourche is the site of a flouring mill and a saw mill, both run by water power. As the valley develops, the abundant water power of the streams will doubtless be utilized in the manufacture of the various products of the region.

A $30,000 electric light plant furnishes light for the city of Belle Fourche, power for which is transmitted seven miles from a water power plant on Redwater River. Sturgis also is lighted with electricity.

DOMESTIC WATER SUPPLY

There is an abundant underground water supply in the Belle Fourche district. Borings of from 500 to 1,500 feet reach flowing water and the supply is apparently unlimited throughout the upper part of the valley. The city of Belle Fourche is furnished with excellent water from three artesian wells flowing into a 50,000 gallon tank; there are also a number of private artesian wells within the city limits.

EXPERIMENT FARMS

Settlers are to have the advice and assistance of the Government in solving the agricultural problems of the Belle Fourche Valley. About ten miles north of Vale a quarter section has been set aside for experimental purposes, where specialists from several branches of the Department of Agriculture are to study the conditions of the valley. The tract has been enclosed by a rabbit-proof fence, and part of the land is now being used for dry farming. As soon as water is available a part of the land will also be put under irrigation. Through the work done at this station will be determined the crops best suited to all portions of the valley and the methods to be practiced in raising them.

THE SOIL

The wide valleys and rolling hills of the Belle Fourche district offer two distinct kinds of soil; that on the south side of the river is sandy loam, that on the north gradually shades into heavy clay. Throughout the region there is a large amount of rough land. This land, too high for irrigation and covered with a thick growth of sagebrush, cactus and wild wheat grass, has been divided as nearly equal as possible among the different farm units. It is suitable chiefly for grazing purposes, with here and there areas on which dry crops may be produced. All the soil is extremely fertile and free from alkali and stone; cultivation is easy and no hard pan is reached within forty to one hundred feet below the surface. In years when the rainfall is sufficient, fine crops can be raised in the valley, but a crop cannot be depended upon without irrigation.

When the heavy soil of the north side of the river is brought under cultivation the use of manure is advised, as it adds organic matter and so helps in the production of larger crops.

Grader in operation; also canal construction at Station 32 on Main Inlet Canal, looking towards headworks of Inlet Canal, showing first irrigable land under Belle Fourche project, S. D.

The territory surrounding the project is an open cattle range, the land being covered with a sod composed of western wheat grass, buffalo grass, grama grass and some wire grass and small sedges. There has been issued by the Department of Agriculture, Bureau of Plant Industry, a pamphlet called "Hints to Settlers on the Belle Fourche Project, South Dakota."

This pamphlet tells of the treatment of sod lands, the preparation of the seed bed, the importance of early planting, the crop varieties and other matters of importance.

It can be obtained either from the Department of Agriculture or the Project Engineer.

PRINCIPAL PRODUCTS AND VALUES

Looking across the rolling Belle Fourche Valley to the distant mountains, one sees a wide variety of growing crops. In the low-lying lands of creek and river bottoms, tall wheat grass and native hay grow abundantly, and these crops sell at high prices. The level upland stretches are dotted with cattle and sheep, grazing on the nutritious wild grasses that cover the prairies. Thousands of acres of luxuriant alfalfa, from which three crops may be cut in a season, furnish one of the principal products of the valley. All the cereals except corn are grown, the fields yielding from fifty to seventy-five bushels an acre. The demand for hay and grain to feed the stock during the winter months is far in excess of the supply, making a ready market for all that the farmer can raise. While the quality of the potatoes grown bespeaks for them a place on every farm, the sandy soil south of the river is especially well adapted to the growth of this crop. Sugar beets raised in the valley are claimed to contain more sugar than those of any other part of the country, and are profitable as a special crop. The pulp has proved cheap and nourishing as winter feed for stock, and a sugar-beet factory is soon to be built in the district.

Orchards of excellent apples, plums, and cherries, and patches of small fruits intervene between the fields of grain, and all garden vegetables are grown successfully.
The vast open country surrounding the valley to the north, east and west affords pasturage for immense herds, making this one of the largest cattle ranges in the United States. As many as 5,000 earloads of cattle have been shipped from Belle Fourche in a year. Large flocks of sheep also feed on the ranges, and one and one-half million pounds of wool are shipped annually from this region. With the irrigation of the valley and the production of abundant crops of alfalfa and small grain, a new and important industry will be developed in the winter feeding and fattening of stock.

The raising of hogs has not yet been developed to any great extent, but all conditions favor this industry. Large quantities of alfalfa, barley and beet pulp can be produced in the valley, and owing to the dry atmosphere, diseases peculiar to the hog are uncommon.

There is a good market for horses and mules. Eggs in the winter sell as high as forty cents a dozen, so that poultry raising is profitable.

In the bright blossoms of the cactus and other hardy plants that grow wild in the valley, and in the flowers of the alfalfa, which blooms throughout the summer, bees find ample material for honey, so that agriculture is well established in the valley.

View showing a stretch of irrigable lands under the Belle Fourche project

DAIRY PRODUCTS

The climate, the richly nutritious grasses of the valleys and hillsides, and the many clear, cool streams make ideal conditions for dairying in the Belle Fourche Valley. With the convenient market for dairy products offered in the mining towns of the Black Hills, dairying promises to become a leading industry in the district, or the cream can be sold to the Belle Fourche valley creamery, located at Belle Fourche, where thousands of pounds of fine creamery butter are made each month and shipped to eastern markets.

SMALL FRUITS AND GARDENS

The agricultural advantages of the Belle Fourche Valley have until recently been overshadowed by the cattle industry; but the picturesque cowboy with his broncho and the vast herds that he tended is gradually being replaced by the farmer; for the soil that nourished the grass on the ranges will also grow fruits and vegetables of exceptional quality. Large quantities of small fruit are being raised, strawberries, raspberries, and kindred fruits of all sorts producing abundantly. These sell for high prices, and the supply as yet does not nearly equal the demand. Potatoes are an unusually successful crop, particularly in the sandy soil south of the river, but the gardens contain all the vegetables of the northern latitudes, and the produce of the valley equals in quality and quantity that grown anywhere in the United States.

MARKETS

All the fruits and vegetables that can be raised in the valley can be sold in the mining camps of the Black Hills, where employment is given to thousands of men. Deadwood, Lead and other of these busy mining towns are only twenty-five miles distant. Milk, eggs, butter, poultry and garden truck all bring high prices, and there is a constant and growing demand for these farm products. The close proximity to the principal trade centers of the Middle West gives the Belle Fourche Valley an advantage over many of the irrigated districts now being opened to settlement. Sturgis, Whitewood, Belle Fourche and other towns have direct railroad connection over the Chicago & North Western Railroad with Omaha, Minneapolis, St. Paul, Chicago and other large cities. These great markets take all surplus products, sending in return machinery, household supplies and other manufactured articles not yet produced in the valley.

INSECT PESTS

No serious damage or inconvenience has ever resulted from swarms of insects in the Belle Fourche Valley. Flies and mosquitoes are numerous at certain seasons of the year, but these pests last only a short time, and with the improvements attending the settlement of the valley will entirely disappear. There are no pests which injure the crops. Severe losses have never been sustained from grasshoppers.

DRAINAGE

In planning for the irrigation of this great tract of land, the engineer has recognized that drainage is of equal importance with irrigation, and has made ample provision to prevent alkali rising to the surface of the ground, or swamps forming.

LABOR NEEDED

There is a steady demand for skilled and unskilled labor. The wages paid are for unskilled labor at the rate of $2.00 to $2.20 a day, and skilled labor is proportionately higher.

VALUES OF IRRIGATED AND NON-IRRIGATED LANDS

Much of the land embraced in the Belle Fourche project has been filed on, but owing to the law limiting the water rights of an individual to an amount not to exceed 160 acres, many farmers owning more land than this are offering tracts for sale. These lands may be purchased at from $15 to $25 an acre, the price varying with the location and the improvements. When under cultivation these lands will easily be worth from $75 to $100 an acre and an investment at these prices will undoubtedly pay a good interest.
CAPITAL NEEDED

Do not make the mistake of thinking that you can come to the project without any capital or equipment, settle on a homestead and make a success. Every new settler will need capital, just as he would if he went into any other country. The amount, of course, will vary with the individual, but few men will succeed without some capital. You will need a house to live in, fences, a well, barn, provisions for family and feed for stock for at least one year, farm machinery, tools, seed, etc.

CONDITIONS OF REPAYMENT, OPERATION AND MAINTENANCE

At the time you make your homestead entry you must pay, in addition to the filing fee, the first installment upon the cost of your water right. The cost of this is $30 per acre of land susceptible of irrigation, and it is payable in ten annual installments without interest. In addition to the charge for water right, a charge is assessed every year for maintaining and operating the ditches. This charge will approximate 40 cents per acre. One year's maintenance and operation charges must also be paid in advance at time of filing. Assuming that the operation and maintenance charge is 40 cents per acre, and if you file on an 80-acre tract the irrigable acreage of which is 75 acres, your first payment will amount to $255.

If you file on or before June 15th of any year, the maintenance and operation charge will apply for that year, but if your entry is made after June 15th, the charge is collected and credited to the subsequent year. The second installment of the construction is not due until December 1st of the year following that in which the filing is made.

The Reclamation Act provides that when the major part of the water shall have been paid for, the operation and maintenance of the system shall be turned over to the farmers, and after that time the only cost to the farmer who has paid for his water right will be that of maintaining and operating the ditches.

COST OF CLEARING LAND

Before new land under this project can be cultivated, it must be plowed and leveled. Most of the brush can be easily broken down with a drag, consisting in most cases of a railroad iron drawn by four or eight horses, the roots can be plowed out without difficulty, and no grubbing is required. There are people in the valley who can be hired to do this work, and the cost of preparing the land for crops is from $4 to $6 per acre, including breaking.

DISTRIBUTING SYSTEM

The main canals and main laterals are built by the Government to a point from which water can be conveniently delivered through sublaterals to the farm units. The sublaterals, as a rule, are built by the individual water users, acting singly or in groups of a few individuals. Generally these sublaterals are less than a half mile in length. The government engineers lay out the scheme of distribution and stake out on the ground the location of sublaterals, which must be built in accordance with the plans approved by the engineers. The farmer must keep these sublaterals in good condition so that the water is not wasted.

METHODS OF IRRIGATION

The basin method of irrigation is most commonly used, that is, the land is leveled in small plats with a dike around each plat. About six inches of water is turned into the plat whenever irrigation is needed, generally not oftener than once in three weeks. Other methods of applying water are also used, such as the furrow method, by which water is run down furrows beside the plants, or the flushing method, in which water is run across a gently sloping field and collected at the lower end, and thence taken to a lower field where it is used a second time.

BUSINESS OPPORTUNITIES

There are opportunities in every line of business. The valley is practically a virgin field; the mercantile pursuits are not overcrowded. Manufacturing is yet to be developed and the professional man has a great opportunity.

The reclamation of 100,000 acres of land, with a family on every eighty acres, will necessitate the establishment of many new towns, and will add greatly to the population of the towns now in existence. These new towns must have stores, the existing towns must have more stores, and there are openings in every line.

All manufacturing industries which depend on agriculture for their raw material will find a virgin field in Belle Fourche Valley.

Other opportunities exist too numerous to mention.

In the building trades every opportunity is offered, as there is a scarcity of skilled artisans of all classes.

TRANSPORTATION

The Chicago & North Western Railway passes along the south border of the valley to Belle Fourche. The Chicago & North Western sells homeseekers' tickets on the first and third Tuesday of each month. The conditions of sale and the fare can be learned by inquiring at any railroad ticket office. The time limit of these tickets permits of ample time to visit the project and make selection of land.
Low freight rates are in effect to Belle Fourche, South Dakota, for emigrant outfits and personal effects, either in car-load or less than car-load lots. Car-load rates cover 20,000 pounds of equipment, including not to exceed ten heads of live stock (horses, cattle, hogs, sheep, etc.) and the transportation for one person where live stock is included in the shipment. If the shipment is greater than 20,000 pounds in weight, an extra charge will be made per hundred pounds.

MAIL FACILITIES

Belle Fourche, Whitewood and Sturgis on the Chicago & North Western have direct daily communication with their market cities. Vale and Orman have special mail service and as the project develops, rural delivery routes are being established.

DUTY OF WATER

As there is very nearly enough precipitation to insure a crop, it is not necessary to provide but two acre feet of stored water per acre per annum, which will be available at any time during the summer in quantities desired on twenty-four hours' notice.

FUEL

Wood for fuel can be obtained from the creek and river bottoms and the neighboring mountains. Coal can be obtained from the mines of northeastern Wyoming at a reasonable price per ton. Fuel oil is obtained from the oil fields of Kansas.

CLIMATE AND HEALTH

A delightful climate, temperate as to extremes, with sunshine practically every day of the year, is found in the Belle Fourche Valley. With an altitude of from 2,700 to 3,000 feet, the air is clear and pure, and attracts attention by its scintillating quality. This dry, invigorating atmosphere is one of the most healthful features of the district and one of the greatest inducements offered to homeseekers. The rainfall, averaging from fourteen to eighteen inches, occurs in May and June, after which a long season of fair weather may be depended upon. The valley is outside the track of cyclonic storms and is never visited by tornadoes or storms of a disastrous character. In summer the temperature occasionally reaches 100°, but as in other regions where the atmosphere is dry, extreme heat causes no serious discomfort, and sunstroke is unknown. The nights are always cool. Pleasant weather lasts until late in the autumn, the earliest frosts occurring about October 1st. During the winter there is little snow or cold weather, and more or less work is done in the fields all through the season. The minimum temperature is 25° below zero; owing to the crisp, dry atmosphere it is possible to work out-of-doors with comfort when the thermometer registers 10° and 12° below zero. The sudden breaking up of winter is a noticeable feature of the climate. The fields are green and there is continuous mild weather with the opening of spring.

MINING

Since the mining towns of the Black Hills furnish an important market for many of the products of the Belle Fourche Valley, the possibilities of this region are closely interwoven with the interests of the valley. Gold mines have made the Black Hills one of the greatest sources of wealth in the country, and the district has been pronounced "the richest 100 miles square on the face of the globe." There are 200 mines in operation, 5,000 men are employed in taking the treasure from the hills, and 200,000 tons of ore are handled each month. Some of the most famous mines known are within twenty-five miles of the Belle Fourche Valley, among them the Homestake mine, the richest dividend paying mine in the world.

The hills are rich not only in gold but in many other valuable minerals, and contain large areas of fine-grained limestone, granite, and beautiful sandstone. Innumerable ridges are crested with immense beds of gypsum. This material is used in making stucco, and the industry has become important at various points in the hills.

The resources of the district are receiving increasing recognition, and vast tracts are being explored and opened to development each year.

BANKS

Prosperous banks in several of the towns of the valley show the flourishing financial condition of the district. In Belle Fourche there are two. At Whitewood, also, there is a bank, and two banks at Sturgis.

The Belle Fourche Valley Bank at Vale, in the center of the project, though only two years old, carries deposits of over $100,000.

SCHOOLS

The character of the settlers is well shown in the high educational standard maintained throughout the Belle Fourche Valley. The schools are housed in substantial buildings, and instruction is given by competent teachers. In Belle Fourche there are two graded schools and a high school; in Sturgis, St. Martin's Academy has a large attendance, and the public graded school affords excellent advantages. The high school certificate of any town in the Black Hills district is accepted as equivalent to an examination by most of the eastern colleges. However, opportunities for good college training are offered within the State. The South Dakota Agricultural College at Brookings is one of the best colleges in the West, having a fine faculty and an excellent equipment. A government experiment station is maintained in connection with the college. The University of South Dakota at Vermillion provides excellent courses in all the regular college branches, and has the additional advantage of a meteorological station, connected with the United States Signal Service, located at the university. Dakota Wesleyan University, and the Huron, Yankton and Redfield colleges are all of high rank and are well attended.

The State Normal School at Spearfish is not only an admirable training school for teachers, but is also one of the best college preparatory and business training schools offered the young people of the Black Hills district. This school is within easy reach of the inhabitants of the Belle Fourche Valley.

The South Dakota State School of Mines at Rapid City ranks high as a technical institution. Its location near the center of a great mining region, together with the thorough courses offered, unite in making it one of the leading colleges of the country.
CHURCHES

With the discovery of gold and the rush to the Black Hills of thousands of men seeking wealth, came the church, sharing with other institutions the hardships of pioneer life. As the agricultural wealth of the valleys was recognized and settlements reached down from the hills, churches were also established here, and now share in the growing prosperity of the country. One or more denominations is represented in all of the larger towns of the Belle Fourche Valley. The city of Belle Fourche has five churches, a Congregational, a Methodist, a Baptist, a Catholic and an Episcopalian; in Sturgis churches are maintained by the Episcopalians, Catholics, Methodists and Presbyterians. Flourishing churches are also maintained in Whitewood by the Methodist, Catholic and Presbyterian denominations.

FRATERNAL LODGES

Members of the societies of Masons, Knights of Pythias, Odd Fellows, Elks, Eagles, Modern Woodmen, Redmen, A. O. U. W., G. A. R., Rebekahs, Royal Neighbors and the Degree of Honor will find flourishing lodges of each of these orders established in Sturgis. The Odd Fellows and members of the A. O. U. W. have organized in Whitewood, and many ladies here belong to the Court of Honor.

Business men of Belle Fourche and of Sturgis have organized clubs in each of these cities to promote the interests of the towns and of the surrounding country.

In Sturgis the Ladies' Literary Society and in Whitewood the Ladies' History Club are prominent social and civic factors.

NEWSPAPERS

Two weekly newspapers are published in Belle Fourche, the Bee and the Northwestern Post. Sturgis also has two weekly papers, Whitewood has one, and Vale one, especially devoted to agriculture and irrigation.

GAME LAWS

The fishing season in the Black Hills extends from the first of May to the first of November. With the close of the fishing season the open season for elk and deer begins, lasting from the 1st to the 13th of November, and with the unusual abundance of game even an amateur hunter should bag his quota of three in this time. On September 10th the season opens for ducks and geese; the season for grouse and pheasants on the same day, closing April 10th. The finest trout fishing in the West is found in the swift mountain streams but a couple of hours' drive from Belle Fourche. The United States Fish Hatchery is located at Spearfish, fourteen miles from Belle Fourche.

AMUSEMENTS AND HEALTH RESORTS

Within sight of many of the farms of the lovely Belle Fourche Valley are the shining Black Hills, clothed with dense growths of Norway pine, which give them a color of deepest blue, a shade so deep that a passing cloud turns them to intense black. Centuries before the first white man entered the hills with pick and gun, the Cheyennes jealously guarded the region as a hunting resort, and held it in reverent awe as a place where the Great Spirit had bestowed mysterious health-giving properties upon the air and wonderful medicinal qualities upon the water.

On the site of an ancient Indian village is the present town of Hot Springs, the most famous resort in the hills. Almost one hundred thermal springs are found here, and many remarkable cures have been effected by the use of the waters. A notable recognition of the value of the springs is the establishment by the Government of the “Battle Mountain Sanitarium” for disabled soldiers and sailors. Several other well-equipped sanitariums have, with the aid of the pure air and mineral baths, accomplished remarkable results.

The hotels are scenes of gaiety the year round. Healthful entertainment is offered the pleasure-seeker in long walks over the beautiful surrounding country, in horseback riding, and in drives along old trails in the typical western stage coach to the famous Wind Cave, Cascade Springs, Minnekahta Falls and many other places of interest. Throughout the hills the streams are filled with brook trout, rainbow and salmon trout. The mild winters make the region a paradise for hunters of big game, as deer, wild cats, wolves, silver foxes, coyotes and an occasional bear haunt the mountains, and partridges, pheasants, plover, ducks, and geese are abundant. Fine opportunities to indulge in both hunting and fishing are found within a day's drive of the hotels. Picturesque places for summer camps abound, and it is not uncommon for camping parties to remain in sheltered nooks in the mountains until late in October.

Fort Meade, at the base of Bear Butte, is reached by a delightful drive through the canyon, and is one of the best equipped and most noted cavalry posts in the United States.

The geological formation of the hills is of unequalled interest to students, evidences of no less than ten geological ages being exposed in the deep canyons. These strata are rich in mineral wealth and in fossil deposits of unusual character.

NATIONALITY OF THE SETTLERS

The first settlers at Belle Fourche were French. However, the rush of gold seekers to the Black Hills brought people of many nationalities from the eastern states, and some of these settled later in the Belle Fourche Valley. As the agricultural possibilities of the district became known, many other immigrants poured into the valley, especially farmers from the central states, expecting to make their fortunes with the plow and harrow rather than with the pick and shovel. As a consequence, a large proportion of the residents in the valley is American.

TESTIMONIALS

Belle Fourche, S. D., August 15, 1908.

I have farmed this year for the first time under the new Belle Fourche project and can demonstrate practically the correctness of my firm belief in the great agricultural possibilities of irrigated lands in Western South Dakota. Oats that will make eighty bushels with one irrigation and corn and potatoes looking fine after six weeks of steady drought (so far as rainfall is concerned) can be seen on my ranch, demonstrating conclusively that the most sanguine expectations of settlers will be realized and that $100 land is no dream of the future for this district, for we can get big interest on that valuation the first year of irrigating.

Dr. F. E. Townsend.
As a renter on 160 acres of irrigated land in the Belle Fourche Valley within one mile of three of the present government ditches, I have raised garden truck enough to pay all my living expenses and hired help, while putting up five hundred tons of hay and caring for the usual acreage of corn and potatoes. I received one-half of the crop and paid one-half of the water rent of $75, or $37.50 for my share. I hauled some of the hay directly from the windrow to market, getting $10 per ton. The hay stacked in the field with machinery was sold in the stack to cattlemen for $5.00 per ton, or baled and sold in the mining camps at $10 to $13 per ton, during the winter season.

J. H. Wilkinson.

I came to Butte County in 1883 without means and hired out to work on a farm. In 1889 I bought a farm of 160 acres under the Redwater Canal upon which I have since resided. I have found that all kinds of crops do remarkably well under irrigation. I have a good orchard in bearing for many years, the trees being loaded to the ground with fruit this year. I am also engaged in raising stock and run them on the range during the summer season. My farm is located near the government irrigation project.

Wm. Matthew.

DATE OF OPENING TO SETTLEMENT

The first unit of the Belle Fourche project was formally declared open for settlement on June 21, 1907, by James R. Garfield, Secretary of the Interior, and the balance in June, 1909, by R. A. Ballenger, the present secretary.
Further information may be obtained by addressing any of the following:

PROJECT ENGINEER, U. S. R. S.
Belle Fourche, South Dakota.

THE STATISTICIAN, U. S. R. S.
Washington, D. C.

INFORMATION BUREAU, U. S. R. S.
777 Federal Building (Post Office)
Chicago, Ill.
Lands and Plaza of Costilla

Road maps now being prepared.

Suico - mound of meanness - narrow
practical head.

Flooring for general courts - check

Vegetable garden.

Vegetables planted for seed.

Local markets.

Beans sometimes shipped.

A. H. Martin, Cornt Surrorger.

Two in map of the Colo. Perkin.
Notes
See Allbright on many location.
Cleaning lands
Damaged land
Alkaline
General condition of soil
Soil bake?
Irrigation practice
See Allbright caching wells

How many acreage at 0 by Seigal's Bros.
San Pedro - Sands

Alkaline in swamp land east of town.
Water table in city 25 ft.
Soil bake to some extent.
3 artesian wells in city.
Court house well only 60 ft deep.
Domestic pumped, gardin & stock.
Court house well with Menley kilet.
Swamp lands in Ventura above Sandiego
+22,500 known as Ventura Vega.
San Tino Vega about 400 acres.
Organization - Alc Spring

Land irrigated - 0, OK
Location - 0, OK

Main canals
Cross section
Grade
Length
Max Cap.
Max flow used
Avg. flow

Lateral numbers are 1-10. See map

Irrigation season
Distance from head gate to first division

Conditions
Plant growth
Seepage
Breaks
Character of soil
Cleaning
field peas developed vines and little peas - this year not so much vine and are heavily podded. Some fields, Rosenberg has been estimated to yield 40 bu. per acre.

Pea seed cost last summer $2.25 $2.50 and some $2.25 per cwt.

Saw steam flows - cast iron mules 60 cals.

Barley, all the field I have seen so far is extremely short stems - can not with binder- mowing machine, not a good bed - short and few kernels
Sept 11-13

Visited the Barnes farm - best wheat on property 55 acre estimate to thresh 28+35 bu. per acre. Avg of 3 to 4 stocks - good root development - well filled heads - red sand like conave straw. Good oats, excellent root development. 3 ft high, well filled heads - some small pods adjacent to wheat.

All farmers were discouraged with the prospects for crops until July 4th, when a rapid growth took place. Oats and wheat at the beginning of July did not exceed 2 ft in height. Oats planted June 15 are 3 1/2 to 4 ft tall, starting to ripen. Some field peas still green and contain many blossoms. Other fields show no green - avg number of peas to pod 6 - Last year the
Get more data on wells

Are there any small reservoirs of 20?

Who is the best farmer to talk with concerning food prices?

Has anyone in the vicinity除了

Potatoes

Irrigation season - Date of first and last frost

Precipitation

Markets

Weather conditions, prevailing winds
There is little or no land as yet that has been injured.

A small amount of alkali near San Luis.

The soil is sandy containing more or less small stones in the upper lands. Bottom lands, darker in color, having some tendency to become not uniform in character.

Water table not well defined and in many places thin or none, see well data.

No drainage whatever as yet.
Acreage
Possible to irrigate

System of irrigation in use
Distribution

Preparation of land for irrigation
Character of vegetation
Cleaning land and cost of same
 Implements
Plowing (steam flow 20-40 per acre)
Hitching, mowing & cost

Crops
Productive for a use and return
Duty of water for crops and head for use allowed
Markets
Business of return

Extensive in view
Ditches continued from Book No. 1

The W. F. Meyer
max cap
max flow - 4.0
avg " - 0.73

Los Anjelos river

- Jose Cordova + A. J. Arellano - under one H. G

max cap  - max cap
max flow - 3.0  - 4.0
avg " - 1.21  - 0.65
Cuartes N°1

max cap -
flow - 4,50
avg. - 1,20

Cuartes N°2

max cap -
flow - 1,0
avg. - 1,60
The Pomeroa Ditch

max cap - 24.0
" flow - 23.0
avg " - 7.6

The Vallegoo Enlargement

max cap -
" flow - 0.3 7/1912
avg " - 0.3

Jaquez Enlargement

max cap -
" flow - 0.3 7/1912
avg " - 0.3
Alamo Ditch

max cap - 3.0

avg. - 1.34

Emilio Sobado Enlargement

max cap -

max flow - 0

avg. - 0

Culebra Sanchez Canal (inlet to reo)

max cap -

flow - 420

avg. - 60.56
**Arellano Ditch**

Cover 41.15 acres

Max cap: 41.15

Avg. cap: 1.78

Last Chance Ditch

No evidence of any work having been done towards the construction of this ditch.

Jose M. Sanchez

Max cap: 11.30

Avg. cap: 1.38
Francisco Atencio

max cap  . flow  . . 15
avg . . " . . 15

Lopez Ditch

max cap . . flow . . 1.0
avg . . " . . 1.29

No 28 Unrecorded ditch - covers lands needed to Jose Atencio - poor headgate

max cap . . flow . . 1.25
avg . . " . . 1.01
Unrecorded ditch
Covers lands claimed to Bernardino Valdez and to Isaac Gallegos - Item 100 A - No. 70
max cup
" flow - 1,00
avg " - .32
10 days run

No. 70 Unrecorded Ditch - See No. 79
max cup
" flow - .50
avg " - .28

No. 81 Unrecorded ditch
Covers lands claimed to Donaciano Pando
40 A 150 rec ft
This tract appears to be also under the Antonio Pando ditch
max cup
" flow - 1.00
avg " - .33
No 82
Unrecorded Ditch
Levero Lands deeded to Casimero Pando
25.52 A., 37.40 Cft - Casimero Pando

Max cap
flow = 1.00
avg = 1.31

No 83
Unrecorded Ditch
controlled by Company owns leased tracts No 8
2-32-42

Max cap
flow = 3.0
avg = 1.33

No 84
Unrecorded Ditch
Arrows Avenue claim 8 under San Vincentius
Ditch - water used in this ditch was drawn
from San Firm Ditch

Max cap
max flow = 7.5
avg = 1.28
No 85
Unrecirculated Ditch
Controlled by Company.
Covers leased land
bored 14.85 07.15
and appears to cover
some squatters.

Max Cap -
Max flow - 1,000
Avg 11 - 0.39

No 86
Unrecirculated Ditch
Covers some squatters' lands
All water used in this ditch learned from
San Ramon Ditch.

Max Cap -
Max flow - 50
Avg 11 - 125

No 87
Unrecirculated Ditch
Controlled by company.
Covers leased land No 28-34-30-34-35

Max Cap
11 flow - 50
Avg 11 - 24
No 88  Unrecorded Ditch
controlled by company
语文 四手写 (cleaned)  Ns 25-29 31-33

max cap
" flow  80
avg flow  98

No 89  Unrecorded Ditch
controlled by company
语文 四手写 (cleaned)  Ns 26-27

max cap
max flow  0
avg "  0

No 90  Unrecorded Ditch
controlled by company
语文 四手写 (cleaned)  Ns 26-27

max cap
max flow  0
avg "  0
No 91  Uncapped Ditch
Lena confluence to Ramon
Lucero 40 Acres 1.520 cfs

Max cfs 
18
Avg 13.2

No 92  Uncapped Ditch
Controlled by company—Trucks No 8
12-14-22-23-54-72

Max cfs 
18
Avg 13.2

No 93  Uncapped Ditch
Controlled by company
Leased trucks ENo 8 22-23-24-21

Max cfs 
18
Avg 13.2
No 94
Unrecorded Ditch
Controlled by Co. Trust No 38

Max " Flow =
Avg " =

No 95
Unrecorded Ditch

Max " Flow = 1.50
Avg " = 0.80

No 96
Unrecorded Ditch
Cross Lands that are also covered by
Curtis No 51 & 2

Max " Flow = 1.00
Avg " = 0.3
No. 98. Unrecorded Ditch.

Part of Sale No. 20, 53,857 1/4 S.E. one acre.
Part of surveyed tract No. 52.
The Ranch Lucero Ditch also covers the above mentioned 53,857

Max cap. 1,000

Avg. 39


Controlled by Co. covers tract No. 68, 50,527

Max cap.
flow. 1,000

Avg. 61
No 100  Uncrowded Ditch
Controlled by C,  tank No 26
Max flow = 1.00
" cap =
" avg flow = .42

No 101  Uncrowded Ditch
\[\frac{11}{42}\]
Max cap =
" flow = .50
" avg " = .29

No 102  Uncrowded Ditch
Max cap =
" flow = .19
" avg " = .19
1-46
2-44

49 - Eastdale No. 1 Canal + the Eastdale No. 1 Reservoir

48 - Eastdale No. 2 Canal

47 - Eastdale No. 2 Run off through Eastdale No. 2 Canal

36 - Marc Ditch

42 - Montez Ditch

17 - Garcia Ditch - Costilla R.

5 - Torijilla Ditch - Costilla R.

10 - Chalifa Ditch

9 - Madriles
- Acequiacita Hetch
  Cesalla River

- 6. Manzanares

- 5. Vellejos
People
Alkaline
Drainage

Educate the farmers to pay more attention to details in irrigation.

Power on the farm
Telephones in the farm homes

Stock

Gardens
Grains

Potatoes
Canals on C.E.D. C projection too deep

Scarcity of water
Management of water as C.E.T.O. projected

Storage of water
clima &
Elevation
Rainfall
Water supply
Soil — Cattaraugus Valley & ditch
Natural vegetation
Topography
Drainage area
Pab. on water
Crops
Methods of culture
Harvesting
Seeding
Industries
Markets
Facilities of market
Population
Roads
Structures
Wells
Experimental farms
Duty of water
Canal system
Lateral
Headgates & flumes
Silt
Weirs
Drops
Grade
Arellano Ditch

Cuates River

2 ditches above headgate. Headgate on south bank of north branch of Los Cuates. No headgate, no flume.

Location of acreage ranch of Faustina Arellano and possibly part of leased ranch of P.R.Trijillo. Ownership Faustin Arellano. Title derived by filing.

<table>
<thead>
<tr>
<th>Land irrigated by ditch</th>
<th>acres</th>
<th>Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deed No.156</td>
<td>41.18</td>
<td>Faustina Arellano</td>
</tr>
<tr>
<td>Part of leased tract No.15</td>
<td>46.25</td>
<td>P.F.Trijillo(Leasee)</td>
</tr>
</tbody>
</table>

Balance of leased tract No.15 probably irrigated by unrecorded ditch No. 97. Original filing May 27,1910. Claim 1 1/2 sec ft. No established system.

Nov.30/12
Ramon Lucero Ditch

Vallejos River  

No ditches above headgate. Location of headgate north bank north branch Vallejos S.63-25W 2164 ft from E Qtr.Cor.Sec 23-T 2N.R.71W. Wooden headgate with lock. Wooden rating flume. In 1905 80 acres. No additional decree or filing. Location of acreage north side of Vallejos above and below forks. Ranch of R. Lucero and tracts below. Deed No.20 part of 53.85 a. by Ramon Lucero; deed No. 43 part of 40 a. by Ramon Lucero. Leased No.52 part of 48.41 a. by Julio Gold, leasee. Lease No;55 part of 20 a. V. Hays, Leasee. partly Ramon Lucero tracts are also partly covered by unrecorded ditch No.91,98,101. Gold and Hays leases also partly covered by unrecorded ditches No.92 and 98. Date of proc. 4/20/82

No. ditch,47, 1 sec ft. Decree 1905. No established system.

Oct. 19/12
Nov.27/12
Chowny Ditch

Jaroso River  Prio. No. 52, decree 1905

No ditches above headgate. Location of headgate, south bank Jaroso, south 37-33 E, 1044 ft from W. Qtr. Cor Sec. 17-1-71 W. Wooden headgates with lock, wooden rating flume. Location of acreage, Chowny ranch at mouth of Jaroso canon

Date of prio. 5/10/89. No of ditch 43. 1/75/80 sec ft

No established system.

Oct.19/12
Nov.27/12
Sangeveld Loman Ditch

Culebra River

Prio. No. 45, 1905

83 ditches above headgate. Location of headgate south bank Culebra, south 32-43 W 2833 ft from SE Cor. Sec. 23-3-73 W.

No headgate. No flume. No additional decree or filing since 1905. Location of acreage on south side of Culebra o Red ranch and Loman ranch below San Acacio. Not feasible to enlarge or extend ditch, land better served by San Acacio ditch. Ditch has not been used for about five years. Date of prio. 7/6/39. No. of ditch 42, 5½ sec ft.

Oct. 19/12
Nov. 27/12
Canon Ditch

Culebra River  
Prio. No 53, 1905

One ditch above headgate. Location of headgate
north bank Valle branch Culebra, north 62-53 E, 2764 ft. from
S.Qtr.Cor.Sec.32-3-70 W. Wooden headgate with lock. Wooden
rating flume. Location of acreage on north side of Valle
branch of Culebra, part of ranch of P.V. Jaquez and J.F.Lobato
also part of ranch of J.G.Altencio. Lands irrigated by ditch
deed No.3 part 160 a. by P.J. Jaquez and J.F.Lobato, balance
of 160 a. irrigated by unrecorded ditches No. 79 and 80
Date of prio. 5/10/92 No. ditch 49, 1½ sec ft. No established
system.

Oct.19/12
Nov.27/12
Romero Ditch

Culebra River


Nov. 30/13
Antonio Valdez Ditch

The Valle Branch of Culebra  Prio. No.32, 1905

7 ditches above headgate. Location of headgate south bank Valle branch Culebra, S.23-39 W 17 13 ft from NE Cor.Sec.1-8-71. Wooden headgate with lock. Wooden rating flume. In 1905 259 a. Duty 1 cu ft per 80 a. No additional decree or filing. Location of acreage lands on south side of Culebra in canon. Acreage might be enlarged by about 50 a.

Date of prio. June 22/1889. Ditch No. 31 No established system.

Oct. 9/12
Nov. 22/12
Aban Sanchez Ditch

Prio. No. 30, 1905

Culebra River

19 ditches above headgate. Location of headgate south bank of Culebra N.74-4 W. 3148 ft from SE Cor Sec. 8-3-71 W. Wooden rating flume. In 1905 101 a. No additional decree of filing. Location of acreage, tract of land on south side of Culebra lying between the lands irrigated by the Vallejos ditch and the Culebra River. These two ditches may overlap. Lands irrigated by ditch, part of deed No. 144 1.3 a. P. Gonzales; deed No. 147 7.83a. Piedad Esquivel deed No. 148, 8.66 A. Piedro Trujillo; deed No. 155, 13.23A Pablo Rodriguez and part deed No. 158, 14.67 A, Aban Sanchez. Date of prio. June 20,1889, ditch No. 29, 1-21/80 sec ft. No established system.

Oct. 3/13
Nov. 22/18
Chavez and Quintana Ditch

Vallejosa River

Prio. No. 31, 1905

7 ditches above headgate. Location of headgate
south bank Villejosa, S 65-55 W 1117 ft from NE Cor. Sec. 39-71 W
Wooden headgate with lock, wooden rating flume, 1905 90 a.
1 cu ft to 80 a. No additional decree or filing. Location
of acreage on south side of Vallejosa creek below lands
Vigil irrigated by Guadalupe/ditch, which it supplements and may
overlap. Point of diversion changed about 200 ft upstream
on account of washout in 1912. This ditch irrigates a part
of the Vallejosa Promised land about 40 acres. Exact acre-
age to be determined only by survey Part of leased tract
No. 16, 36 a. J.N. Valdez, leasee. The Guadalupe-Vigil
ditch presumably irrigates a part of leased tract No. 16.

Date of prio. June 31, 1889, Ditch No. 30, 1-1/8 cu ft.

No established system.

Oct. 9/12
Nov. 22/12
The Last Chance Ditch

Rito Seco River


Oct. 12/12
Nov. 30/12
Acequia de las Cedios

Costilla Co. San Francisco Creek, 34--3. Pric. No.29, 1905

There are 9 ditches above headgate on stream or feeders, but their capacities are unknown.

S. bank San Francisco creek below town of San Francisco. Wooden headgate with lock. Wooden rating flume.

In 1905, claim of 120 a. duty of 1 sec ft per 30 acres. No additional decree or filings.

Lands covered by ditch are on S. side of San Francisco creek below town of San Francisco.

By extension and enlargement a large tract of Co. land could be served by this ditch. (See also Little Rock ditch).

No change since original construction.

No evidence of abandonment.

This ditch serves a small portion of the San Francisco Beaubien-Casper lands served by the San Francisco ditch, which lies south of the creek.

The present application of water to the lands is by the owners.

Adjudication of priorities;
Date of Pric. 6-19-39
No. of ditch 28
" " Pric. 39 Decree of 1905.
1\frac{1}{2} sec ft.

This ditch and Little Rock--Pric. No. 16 irrigate only about 50 acres together. Decree excessive.

No established system as to the diversion of water.

Oct. 9/12
Nov. 22/12
The Mondragon Ditch

Costilla County, Culebra River. Pric.No.28, 1905.

There are 18 ditches, capacity unknown, above headgate on streams or feeders. Headgate located on N. bank N.57-43 W 2312.8 ft from SE Cor.Sec6-2-71. Wooden headgate with lock. Wooden rating flume. In 1905 131 acres, 1 sec ft per 80 a. No additional decree of filing.

This ditch supplements the Cerro ditch on lands at and below Chama on N. side of Culebra. These two ditches probably overlap.

By extension and enlargement, the uncleared portion of the area now served might be irrigated, more or less 70 additional acres.

The bulk of the lands served by this ditch are Chama and San Pedro Beaubien-Gasper titled lands. One strip, about 70 acres, partially irrigated by this ditch derives title from the C.E.D.Co. by the compromise of the C.E.D.Co. Trinchera Estates Co. and the claimants of extension. Part of the above lands are irrigated by Cerro ditch. Probably a duplication of ditches. Part of the above alnds, lots in Chama, are also irrigated by R Lopez and J.M.Sanchez ditches, serial No. 77-75

Application of water by owners.

Date of priority 7-13-1899; No. of ditch 37; No. of priority 28; 1-51/80 sec ft. Decree of 1905. No established system.

Oct.9/12

Nov.22/12
Torcido Ditch

Priority No. 18, Costilla Co. 24-3.

Stream Rito Torcido, Decree 1889-1900. No division above headgate. North side Torcido Creek, Sec.3-1-71-W. Wooden headgate with lock. Water controlled by owner. No measuring box or weir installed. Depth 1.5, bottom width 3. Duty 1 cu ft per 80 a. Location of lands irrigated, on N. side Torcido Creek, leased ranches of E. Martinez and J.A. Martinez. The latter also unlawfully run water from this ditch several miles to irrigate a portion of his San Francisco Beaubien-Gasper titled lands.

By enlargement and extension, but for the small flow of the stream a large acreage of company land could be served by this ditch.

No change since original construction. During 1912 a large portion of the acreage has been diverted to San Francisco lands. No evidence of abandonment.

Part of leased tract No. 41, 20.2 acres, E. Martinez " " " " No. 38 82.03 " J.A. Martinez J.A. Martinez former lessee. Leased tract No. 38 is also partly served by Adundo Martinez ditch, Prior. No. 19 and by unrecorded ditch No. 94. The above mentioned former lessee refused to sign the new lease forms which recognize the company's ownership in the water used to irrigate the leased tract, and the lease is at present inoperative although Martinez continues to cultivate and harvest.

Present application of water is to tenant and squatter.
Original construction, May, 1874, capacity 10.54 sec ft.
Adjudication of priorities, 1 sec ft; people .50, company .50

The local custom as to diversion of water—owner takes water when desired.

June 7/13
Nov. 22/13
Guadalupe Vigil Ditch

Vallejos River

Priro. No. 30

Decree of 1889. 4 ditch above headgate. South bank
½ mi. above crossing of Culebra Sanchez canal. Wooden headgate
with lock. Water controlled by owners. Wooden rating flume.
Depth 1 ft. Top width 3, bottom 2, grade 16. In 1900 300±
acres. No new decree. Location of acreage on south side
of Vallejos creek above those irrigated by Chavez-Quintana ditch
below those irrigated by unrecorded ditch 92. This ditch is
supplemented by the Chavez-Quintana ditch and they may overlap.
By extension and enlargement this ditch could serve a large
tract of company land and do away with the Chavez-Quintana
ditch and Vallejos Ditch enlargement. Original construction
Mar.1880. Date of priro. Mar.1880, ditch No.30, 4 sec ft,
people 3½ company 1½. No established system, owners take water
when desired. Joint ownership. Max.cap.6 ft, estimated.
Max.flow 3.7, av. flow 1.09

June 7, 1912
Nov.22,1912
M. Jose'/Sanchez

Culebra Prio. No. 39, 1905

2 ditches above headgate. Headgate located north bank Valle branch of Culebra, south 66-2' E, 1143 ft from NW Cor. Sec. 5-3-71 Wooden headgate with lock. Wooden rating flume. In 1905 less than 30 acres. No additional decree or filing. Location of acreage on north side of Valle branch of Culebra in canon. No possibility of enlargement of acreage, except by extending this ditch and abandoning others lower down. Jose' M. Sanchez owner. Date of prio. 6-30-89. No. of ditch 37. 7/8 sec ft.

This ditch on north side of Culebra while half or more of the deeded acres lies on the south side of creek. By what ditch is this S tract irrigated? Decree very excessive. No established system.

Oct.9/12
Nov.26/12

In 1912 the maximum capacity 2 ft, maximum flow 1 ft. Average flow .36. Length of canal 1 mi. First day water used April 25, 1911, last day Sept. 30,1911. Total number of acres irrigated 1911, 55. Ten acres natural grass, 45 acres cereals.
Cordilleran Ditch

Culebra

Pri. No. 24 Decree 1905


Oct. 9, 12
Nov. 22/12
Guadalupe Sanchez Ditch

Culebra

Prio. No. 23

11 ditches above hadgate. Location of headgate

north bank of Culebra in canon. Wooden headgate with lock
controlled by owners. Wooden rating flume in poor condition.

Depth 3 ft, bottom width 3. In 1900 200 acres. No additional
decree or filing. Location of acreage, on north side of Culebra
in canon. By extension and enlargement this ditch could serve
an additional 50 acres. Original construction Nov/32, 15.25
sec ft. Date of prio. Nov/1882, ditch No. 23. People 2½,
company 2.75. No established system.

June 7, 12
Nov. 22/12
Acequia Chiquita Ditch

Rito Seco  

Pror. 25, 1905

3 ditches above headgate, south bank. N. 11 -48' E.

750 ft. from SW Cor. Sec. 13-3-72 Wooden headgate with lock.

Wooding rating flume. In 1905 80 acres. No additional decree or filing. Location of acreage lands on south side of Rito Seco including parts of old and new townsite of San Luis, and lands outside of both. By enlargement and extension this ditch could serve perhaps 100 acres additional.

Date of pror. 5/16/89 No. ditch 25, 1 sec ft. No established system

Oct. 9, 13
Nov. 22/12
Albert & Vigil Ditch

Culebra

Prior. No. 33, 1905

The Pozo branch of Culebra. 9 ditches above headgate.
South bank Pozo branch south 30-40 E 3648 ft from NW Cor. Sec.
36-3-71W Wooden headgate no lock. Wooden rating flume.
Acreage uncertain, as this and Antonion Sanchez's ditch and
Clarita Vigil ditch serves parts of the same land and overlap.
Location of acreage on south side of Pozo branch of Culebra
in canan. Very little possibility of enlargement of acreage.

U.S.F.L. & E Co deed No. 16, 60.27 acres with 2/3 cu ft water

" " " " 165 40 " " 1/2 " " "

" " " " 188 40 " 1/2 " " "

To cover these 140.27 acres with only 1.2/3 sec ft the
decree gives Albert & Vigil ditch 1 sec ft. Antonio Sanchez
ditch 7/8 sec ft. Clarita Vigil ditch 1 sec ft. Total of
2-7/8 sec ft.

Deed No. 16 part of 60.27 acres by Antonio Albert, and deed
No. 165 part of 40 acres, by the heirs of Maria Anta. Clarita V.
de Vigil. This ditch irrigates only about 20 acres of deeded
tract No. 16, and about 10 acres of deeded tract No. 165.
Antonio Sanchez ditch irrigating about 15 acres of tract 16,
and the Clarita Vigil ditch, irrigating about 15 acres of tract
165. No established system.

Max. capacity 2 1/2 ft. Max. flow 1.25. Av. flow .4 Season 1913

Oct. 9, 1912
Nov. 22, 1912
Lucero Ditch

Culebra River

Prior. No. 35, 1905

27 ditches above headgate. Headgate north bank Culebra, south
32-47 E. 1835 ft from NW Cor. Sec.13-2-72 W. Wooden headgate
no lock. Wooden rating flume. In 1905 130 acres. No additional
decree of filing. Location of acreage on north side of Culebra
above San Luis and below San Pedro. No possibility of appreci-
ciable enlargement of acreage. This ditch supplements the San
Pedro ditch and probably overlaps same. The Arroyo ditch also
irrigates portions of same tracts. Date of priority 6-25-89
No. of ditch 34  1-5/8 sec ft. Max. cap. 3 ft. Max flow .75
Av. flow. 08  Season 1912

Testimony of S.N. Smith showed following tracts
watered by this ditch:

<table>
<thead>
<tr>
<th>Name</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.N. Smith</td>
<td>20</td>
</tr>
<tr>
<td>L. Lucero</td>
<td>50</td>
</tr>
<tr>
<td>Ramon Vigil</td>
<td>10</td>
</tr>
<tr>
<td>F. Lobato</td>
<td>10</td>
</tr>
<tr>
<td>A.A. Salazar</td>
<td>30</td>
</tr>
<tr>
<td>Erinea Vigil</td>
<td>10</td>
</tr>
</tbody>
</table>

No established system.

Oct. 9, 12
Nov. 23/12
Jaroso Ditch

Jaroso River  Prio. No. 50, decree 1905

1 ditch above headgate. Headgate south bank Jaroso south 17-30 E, 18 chains from qtr. sec.cor. between Sec.12 and 13 T.1N.73W. Wooden headgate with lock. Wooden rating flume.

In 1905, 240 a. No additional decree or filing. Location of acreage, ranch of J.M.Pacheco, Venturo valley between Jaroso and Cuates. Owner J.M.Pacheco. Lands irrigated by ditch deed No.8, 240 a. owned by J.M.Pacheco and leased tract No.11, 80 a. by J.P.Mestas and other lessees. Date of prio. 8/22/89

Ditch No.46, 3 sec ft. No established system.

Oct. 19/12
Nov.27/12
Robert Allen Ditch

Culebra

Prio. No. 43, decree 1905

77 ditches above headgate. Headgate So. bank

Culebra, s. 22-33 E 3119 ft. from NW Cor. Sec. 27-3-72 W.

Wooden headgate with lock. Wooden rating flume. 1905 160 acres. No additional decree or filing. Location of acreage on south side of Culebra about 1 mi. below San Luis. Joint ownership. Lands irrigated by ditch are parts of the San Luis Beaubien-Gasper titled lands. Ownership and acreage ascertainable only by survey. The San Luis people's ditch serves the north portion of the tracts covered by this ditch. Date of prio. 7/4/39 Ditch No. 41, 2 sec ft. No established system.

Oct. 19/12
Nov. 26/12
Island Ditch

Culebra

Prio. No. 42, decree 1905

81 ditches above headgate. Location of headgate north bank about 20 yds. below forks at Island. Wooden rating flume. In 1905 120 a. No additional decree or filing. Location of acreage on north side of Culebra above and north of old San Acacio. Acreage irrigable by enlargement and extension of ditch would be better served by Francisco Sanchez ditch. Joint ownership. Date of prio. 7/3/89. Ditch No. 40, 1 ½ sec ft. Diversion of water under supervision of Supt. of water at San Acacio.

Oct. 9/12
Nov. 26/12
Cerro Ditch

Prio. No.11

16 ditches above headgate. Headgate on north bank of river about 1½ mi. above Chama. Wooden headgate with locks. Water controlled by owners. Rating flume in poor condition. Depth 1 ft. Top width 12, bottom 15, grade 14; in 1800, 1800 a. No enlargement. Location of acreage on north side of Culebra above and below Chama, westerly to San Luis Vega and mostly lying north of road from San Luis to Chama. This tract also partly served by the Mondragon ditch, and these two ditches probably overlap to some extent. Possibly 50 a. additional could be irrigated by the more perfect clearing of the area served by this ditch. Joint ownership. Date of prior. Nov.15/57 ditch No.11, 40 sec ft. decree of 1900, people 22.5, company 17.8. Diversion of water by Supt. of ditch under committee appointed by owners.

June 7 /12
Nov.22/13
San Acacio Ditch
Culebra River Prio. No. 8 decree 1889
79 ditches above headgate. The headgate is a joint
diversion for Culebra Eastdale and San Acacio ditches. The
headgates are located adjacent to each other and are controlled
by wooden gates, cast iron lifting devices, capable of being
locked. Wooden rating flumes In 1800, 1860 a. no enlarge-
ment. Location of acreage on south side of Culebra above and
below old town of San Acacio. Joint ownership. Date of prio.
April 1856, ditch No. 8, 43 sec ft. 1800 decree people 23.25
company 22.75.

June 7, 12
Nov. 21/12
J.M.J.Maez Ditch

Ventero River

Pri. No.22, decree/89 Pri.36/1905

1 ditch above headgate. Headgate east bank of Ventero creek. Wooden headgate with lock controlled by owners. Wooden rating flume. Depth 1 ft, top width 3, bottom 2 grade 12 ft per mi. In 1900 60 acres; 1905 140 a. additional; in 1909 45.40 a. additional. No filing. Location of acreage on east side of Ventero creek immediately above its junction with the Culebra. Lands irrigated by ditch 245.4 a. owned by J.M.Pacheco. Date of prior. Mar.1881, 6/26/89. First prior. 1½ sec ft; second prior. 1.75 sec ft. 1900 Hallett decree people .75, company .75.

No established system. Owner takes water when desired. Owner J.M.Pacheco.

June 7/12
Nov.22/12
Antonio Sanchez Ditch

Culebra River

Prio. No. 21, decree 1905

Pozo branch of Culebra. Ten ditches above headgate.

Location of headgate north bank, N. 8-3' W. 1895 ft from SW Cor. Sec. 35-3-71 W. Wooden headgate. No lock. Wooden rating flume. Location of acreage north side of Pozo branch of Culebra in canon. Lands irrigated by ditch deed No. 16 part of 60.27 acres, owner Antonio Albert. Only about 15 acres of deeded tract No. 16 is irrigated by this ditch. (See Albert & Vigil ditch, which irrigates about 20 acres of this same tract)

Date of proc. 6/24/39. Ditch No. 33, proc. No. 34. 7/3 sec ft.

Oct. 9/12
Nov. 22/13
San Luis Peoples' Ditch

Culebra River

Prio. 1 and 46

Water supply Culebra and Rito Seco. Number of ditches above headgate, 28 on Culebra; 16 on San Francisco; 4 on Torcido; 3 on Vanturo; 6 on Rito Seco; 8 on Cuates; 2 on Jaroso; 10 on Vallejos; total 77. Headgate on north bank Culebra. N. 43-59 W. 1414 ft from SW Cer. Sec. 38-3-72 W.

Width, top 8.75, bottom 8.25, grade 11 ft per mi.

in 1890, 1,080 acres; in 1905 increased by 300 acres, duty of 80 a. per sec. ft. Location of acreage 1380 acres west of San Luis on both sides of Culebra. A possible 200 additional acres could be irrigated in same vicinity by extension of ditch. Joint ownership. Lands irrigated by ditch some 50 tracts with practically the same number of owners, all deriving title from Carlos Beaubien and his grantees by Beaubien-Gaspar deeds. Original construction April 10, 1882, enlarged construction July 1, 1889. Date of prio. 4/10/52 ditch No. 1 23 sec. ft. Diversion of water by supt. of ditch under committee appointed by owners.

June 7, 13

Nov. 81.12
W.F. Meyer Ditch

Cuares River

Serial No. 60

No ditches above headgate. Headgate south bank south branch N.88-31 E. 17899 ft from Cor. of sections 25,26,35,36, T.1 N.
R.72 W. Wooden headgate with lock. Wooden rating flume.
Length 3½ mi. Depth 2 ft. Top width 10, bottom 6, grade 175 ft per mi. June 27, 1907, 480 acres. No additional filing.
Location of acreage ranch leased by W.F.Meyer upper end of Ventero. No water for possible enlargement. Original filing
June 27, 1907. Claim 4 sec ft. Diversion of water under super-
vision of the San Luis Power & Water Co.

Nov. 30/1912
Jose' Codova Ditch

Los Cuates River \hspace{1cm} Serial No. 61

4 ditches above headgate. North bank north branch. North 1321 W, 4337 ft. from Cor. to Sec. 23, 24, 25, 26, T.1 N.R. 73 W. Wooden headgate with lock. Wooden rating flume. Length $\frac{1}{2}$ mi. depth 1 ft, top width 3, bottom 1, grade 70 ft per mi. June 27, 1907, 120 acres. No additional filing. Location of acreage land leased by V. Mestas. No possible enlargement on account of small flow of stream. Original filing June 27, 1907. Claim 1½ sec ft. Date of original construction May 15, 1887

Diversion of water under supervision of San Luis Power & Water Co.

Nov. 30, 1912
Antonio Jose' Arelleno Ditch

Los Cuates River  Serial No. 62

4 ditch above headgate. South bank south branch.

North 10-10 West 1164 ft from qtr. cor. to Sec.24,25 T.1N. R.
73 W. Wooden headgate with lock. Wooden rating flume. Length
1 3/4 mi. Depth 1 ft. Top width 6, bottom 4, grade 75 ft per mi.
May 15, 1887, claim 160 acres. No additional filing. Location
of acreage, part of land leased by V. Mestas Ventero. No
possible extension. Original filing June 27, 1907, claim 2 sec
ft. Date of original construction May, 15, 1887. Diversion
of water under supervision of San Luis Power & Water Co.
Max. flow 4 ft, average flow .65 . The Jose' Cordova and
have
A.J. Arelleno above the same headgate.

Nov. 30, 1912
Cuates No. 1 Ditch

Los Cuates River

Serial No. 63


Nov. 30, 1912

Max. flow 4½ ft. av. flow 1.3 ft.
Cuates No. 2 Ditch

Los Cuates  Serial No. 64

4 ditches above headgate. Headgate south bank south branch. Wooden headgate with lock, wooden rating flume.


No established system. Max. flow 1 ft. Av. flow .6

Nov. 30, 1913
Jaroso Ditch

Jaroso River

Serial No. 65

2 ditches above headgate. South bank Jaroso. No headgate
No measuring box. Length 9483 ft. Water had never been applied
to beneficial use. Not much possibility of enlargement on account
of small flow of Jaroso. Water never applied to use of any kind.
Ditch taken out to irrigate lands under Cuiates No. 1 & 2
Original filing Oct. 31, 07. No diversion.

Dec. 7, 1912

Headgate south bank of Jaroso creek, south 17-30 E
18 chains from the Sec. cor. between 12 and 13. T.1 N. R. 32 W
Max. flow 5 ft. Av. flow 1.46 Season 1912
Francisco Atencio Ditch  
Filing serial No. 76  

Culebra River  

30 ditches above headgate. Location of headgate north bank of Culebra N.32-19E 3333 ft from SE Cor Sec 6-T.71 W. (Tie erroneous) No measuring box, no headgate. Main ditch length 1300 ft, depth 1 ft. top 3, bottom 2, grade 2 ft per 1,000 April 1, 1911 2 acres. Also for domestic and power purposes.

No additional filing. Location of acreage lots in town of Chama, north side of Culebra. Title derived by filing Victoria Sanchez de Atencio. Lands irrigated, lots in town of Chama. Part of these Chama tracts are also served by the Mondragon ditch, Jose' M. Sanchez ditch Lopez ditch. Original filing date April 1, 1911, cap. 19 sec ft. No established system.

Dec. 7/12
Lopez Ditch

Culebra River

Filing Serial No. 77

22 ditches above headgate. Location of headgate north bank Culebra N.9-14 W 2233 ft. from SE Cor Sec.6-2-71 W. Wooden headgate no lock. Wooden rating flume. Main ditch ½ mi. long, depth 1 ft, top 3, bottom 2, grade 2 ft per 1,000 April 21, 1911, 26 a. also domestic and power purposes. No additional filing. Location of acreage small gardens in Chama Date of filing Apr. 21, 1911, 19 sec ft. Date of original construction Sep/15, 1867. No established system.

Dec. 8/28
Arroyo Ditch

Watered supply seepage of spring water, also water of the Lucero ditch.

Prio. No. 64, 1905

No ditches above headgate. Location of headgate on land of Lucius Lucero S. 84-18 E 413 ft from NW Cor Sec. 12-2-72. No headgate or lock. No measuring device. July 10 1905 7 acres. No additional decree or filing. Location of acreage, part of south ends of San Pedro Beaubien-Gasper titled lands near Culebra bottom. Water claimed by ditch title derived A.A. Salazar, Lucius Lucero and S.N. Smith. The lands irrigated part of San Pedro Beaubien-Gasper titled lands.

Decrees adjudication of priorities, statutory. Date of prio. 7/10/05. Ditch No. 58, 1 sec ft. This ditch and Lucero ditch and San Pedro ditch probably overlap. No established system.

Oct. 19/12
Nov. 30/12
Vega Ditch

Water supply, seepage or spring water in Vega just east of town of San Luis.

Location of headgate north side San Luis, San Pablo road south 75-60W 1100 ft from E Qtr Cor. Sec. 26-3-72. No head- aget or lock. no measuring device. July 3, 1905 13 a.

Oct. 19/12
Nov.30/12
The Salazar Ditch

Rito Seco

One ditch above headgate., filed on but not constructed. Location of headgate north bank Rito Seco S. 58-11 W, 3073 ft. from NE Cor. Sec. 13-3-72 W. (Tie in decree is erroneous, as NE Cor. Sec. 13 does not exist).

Wooden headgate with lock. Wooden rating flume. Jan. 12/04

125 a. Duty 3/4 ft to 125 a. Location of acreage, ranch of D. Salazar both sides Rito Seco north of San Luis, also lease of Tomas Gallegos. (See under Espinosa ditch)


Date of prio. Jan. 12/04. Ditch No. 56, 3 3/4 sec ft. for irrigation. For non-irrigation season, prio. No. 8, 6.5 sec ft for storage. No date given.
Culebra-Eastdale Ditch

Culebra River


Nov. 30/13
Sanchez Ditch

Culebra River

47 ditches above headgate. Location of headgate south bank Culebra 3 mi. above Chama. Concrete rating flume. Title derived S.L.P & W Co. Original filing date April 26/10, cap. 606 sec. ft. Dec. 7/13

This ditch is the inlet to the Sanchez reservoir.
The Alamo Reservoir & Ditch

San Francisco River

10 ditches above headgate. Location of headgate south bank San Francisco. Wooden headgate with lock. No measuring device. Main ditch 7221 ft long. Location of acreage part of land purchased from S.M. Smith, west of road from San Pablo to Ventero, also ranch of Felipe Vigil. The land irrigated by ditch S.M. Smith deeds to two companies, certain lands and complete total to Alamo ditch and reservoir. Deed No. 1134, 11.53 a. Felipe Vigil


Dec. 7/13
The Jose' Lobato Ditch

Puerticito creek, branch Culebra  Prio. No. 54, 1905

3 ditches above headgate. Location of headgate S 67-43 W
1857 ft from E Qte. Cor Sec. 12-2-71 W. Wooden headgates with
locks. Wooden rating flumes. Mat 1/93 20 a. No additional
decree or filing. Location of acreage tract on Puerticito
creek near its junction with Culebra in canyon. Land irrigated
by ditch deed No. 177 part 20 a. by F. F. Lobato. Above tract is
only partially irrigated by this ditch. See under Antonio
Valdez Prio. No. 32. Leased tract No. 78, 15 a. with the C.E.D.
Co. (C. Atencio, lessee) Date of prio. 5/1/93 No. ditch 50
1 sec ft. No established system.

Oct. 19/12
Nov. 27/12
Jaquez Ditch

San Francisco Creek

Prio. No. 55, 1905


Oct. 12/12
Nov. 27/12
Jose' E. Sanchez Ditch

Culebra

Prio No. 58, 1905

25 ditches above headgate. Location of headgate north bank Culebra S. 4-13 E. 1338 ft. from NW Cor. Sec. 7-2-71

Wooden headgate with lock. Wooden measuring flume. May 10, 94

35 a. Duty 1 cu ft for 35 a. No additional decree or filing.

Location of acreage tract on N. bank Culebra at and above town of San Pedro. No possible enlargement of acreage by extension of ditch, land already served in excess. The land irrigated by ditch part of San Pedro Beaubien-Gasper titled lands in town of San Pedro and vicinity. These lands also partly served by San Pedro ditch, probably overlap. Date of prio. 5/10/94 No. of ditch 52, 1 sec ft. No established system.

Oct. 19 /12

Nov. 27/12
Espinoza Ditch

Rito Seco

Prio. No. 57, 1905

4 ditches above headgate. Location of headgate north bank Rito Seco N.75-4W 1186 ft. from NE Cor. Sec. 23-3-72


Location of acreage part of first addition to San Luis lying NW of Rito Seco. If point of diversion has ever been constructed it has been abandoned for the past three years at least. Water is taken through the Salazar reservoir. Ditch appears to have been abandoned, claimants furnished with water from Salazar ditch and reservoir.

Lands irrigated by ditch are lots in first addition to San Luis. Date of prio. 5/10/90, No. of ditch 53.

69/80 sec ft. No established system.

Oct. 9/13
Nov. 37/13
Rito Seco Mill Ditch

Rito Seco

Prio. No. 59, 1905

2 ditches above mad headgate. Location of headgate south bank Rito Seco N. 23-56 E. 1553 ft. from SW Cor, Sec. 13-3-72. Wooden headgate, no lock, no measuring flume, no enlargement. Manufacturing purposes. Owner W.S. Parrish.

Date of prio. 10/8/98, ditch No. 54, 6 sec ft. No established system.

Oct. 19/12
Nov. 30/12
Jose' M. Sanchez Ditch

Culebra River

31 ditches above headgate. N. bank Culebra.

N. 33-18 W. 7 ft. from SE Cor. Sec. 6-7 N. R. 71 W.

Wooden headgate and no lock. No measuring flume. Main
ditch ½ mi. long. Depth 1 ft. top width 3, bottom 2,
grade 7 per 1,000 ft. Apr 11 1911 3 a. farming, domestic and
power purposes. No additional filing. Location of acreage
small gardens in Chama. No possible extension. Title \textit{derived} J.M. Sanchez by filing. Lands irrigated by ditch tracts
in town of Chama Beaubien-Gasper titles. Part of these Chama
town tracts are also irrigated by Mondragon ditch, also by
Lopez ditch, also by Francisco Atenciom ditch. Original
filing Apr. 1, 1911, 19 sec. ft claimed. Original construction
\textit{Oct. 15, 1870}. No established system.

Nov. 30/12
Eastdale Culebra No. 1 Ditch

Culebra River  Prio. No. 60 & 61, 1905

81 ditches above headgate. Location of headgate south bank Culebra, N.15-30 W. 2090 ft. from Cor. to Sec. 19, 20, 29, 30 -3-72. Wooden headgates, no locks, concrete rating flumes. Date of prio. 12/5/03 Ditch No. 55

20 sec ft for irrigation and 25 sec ft for storage.

Oct. 19/12
Nov. 30/12

Diversion of water under supervision of a supt. of water

C.E.D. Co.
Unrecorded Ditch No. 78

Culebra River

4 ditches above headgate. Location of headgate north bank Valle branch about 2 mi above old saw mill Wooden rating flume. Location of acreage ranch of Jose' Calvia Altucio. Lands irrigated by ditch deed No. 191 37.1 acres of Jose' G. Altucio and leased tract 19, part of 123 a. J.G.Altucio. No established system.

Nov. 30/12
Unrecorded Ditch No. 79

Culebra

3 ditches above headgate. Location of headgate south bank Valle branch Culebra about 2 mi. above old saw mill.
No headgate, no rating box. Location of acreage, part of L ranch of Jaques and Lavato branch of Culebra in canon.

The water claimed by ditch Patricio V. Jaques and J.F. Lavato by part of Deed No. 3 part of 160 a. with water right. Lands irrigated by ditch, part of 160 a. deed No. 3, and balance of 160 a. irrigated by canon ditch and Unrecorded ditch No. 80. No established system.

Nov. 30/12
Unrecorded Ditch No. 80

Culebra River

5 ditches above headgate. Location of headgate
On small stream on north side of Valle branch Culebra about 1½
mi. above old saw mill. Wooden headgate, bo lock, wooden rating
flume. Location of acreage, part of ranch of Jaquez and Lavato
Deed No.3, 160 a. with water right. Lands irrigated by ditch
deed. No. 3 part of 160 a. balance of 160 a. irrigated by canon
ditch and Unrecorded ditch No. 79. No established system.

Dec. 7/12
Unrecorded Ditch No. 31


Nov. 30/12
Unrecorded Ditch No. 83

Gulebra

15 ditches above headgate. Location of headgate about 600 ft. below Culebra Sanchez canal headgate. No headgate, no measuring box. Location of acreage part of ranch of C.V. Pando below Culebra Sanchez's canal headgate. Water claimed by ditch C.Vial Pando deed No. 15, part 25.52 a. 1/3 cu ft water. The lands irrigated Deed No. 15, part of 25.52 a. Casimiro Vial Pando and balance of 25.52 a. irrigated by A. Pando ditch.

No established system.

Nov. 30/12
Unrecorded Ditch No. 83.

San Francisco River

12 ditches above headgate. Location of headgate north bank Gregorio Wooden headgate with lock. Wooden rating flume. Location of acreage, leased ranches of J.R. Gallegos J.T. Mondragon and J.D. Mondragon on San Francisco east of San Pablo, Ventura road. 30 additional acres could be irrigated.

Water claimed by ditch leased tract No. 2, J.R. Gallegos, lessee, 73.53 a.; leased tract No. 32 Jose' I. Mondragon 85.29 a.; leased tract No. 42 J. De J. Mondragon, 40 a. The above areas formerly are irrigated by ditch and were served by San Francisco ditch, but are not now allowed water from Sam F. ditch since lessees signed leased forms. Division of water under supervision Supt. of water S.L.P.& W Co.

Nov. 30/12
Unrecorded Ditch No. 84

San Francisco River

8 ditches above headgate. Location of headgate north bank Gregorio nearly opposite headgate of Acequia E. Los Cedros. Wooden headgate with lock. No measuring box. Location of acreage, land on north side of San Francisco below town of La Valley. Title of ditch said to be owned by Mrs. Quintana. No title, water loaned from San Francisco ditch. This ditch covers in duplicate lands watered by San F. Ditch. No established system.

Dec. 6/12
Unrecorded Ditch No. 85

San Francisco River

5 ditches above headgate. Location of headgate on south bank of Gregono about 300 ft below Little Rock headgate. Wooden headgate with lock. Wooden rating flume Location of acreage leased water tracts south bank Gregono opposite town of La Valley. Lands irrigated leased tract No. 17 7.55 a. by Juan C. Ortega and small squatter tracts 5 to 10 a. Various claimants. Diversion of water under supervision of Supt. S.L.P & W.CO.

Dec. 7/12
Unrecorded Ditch No. 86

San Francisco River

6 ditches above headgate. Location of headgate north bank of Gregoro about 1200 ft. below Little Rock headgate. No headgate. No flume. Location of acreage, part of town of La Valley. Ditch said to have been built by a squatter in town of Santa Fe. No title to water. Water loaned from San Francisco ditch. Lands irrigated by ditch are squatter tracts in town of La Valley. No established system.

Dec. 3/13
Unrecorded Ditch No. 87

San Francisco river

3 ditches above headgate. Location of headgate north bank Gregoro about 1/4 mi. below forks. Wooden headgate with lock. Wooden rating flume. Location of acreage leased ranches in San Francisco canon below forks. Lands irrigated by ditch are, part of leased tract No. 30, 58.66 a. Fernanda Espinoza lessee, part of leased tract No. 34, 19.9 a, Lucas Medrue and part leased tract No. 35, 31 a. Santiago Medrue. balance of tract No. 30 irrigated by Unrecorded ditch No. 88. Diversion of water under supervision of Supt. S.L.P & W Co.

Dec. 8/12
Unrecorded Ditch No. 88

San Francisco River (North fork of Alamosito)

1 ditch above headgate. Location of headgate north bank Alamosito, wooden headgate with lock, wooden rating flume. Location of acreage, leased tracts S.F. Canon above and below forks. The land irrigated by ditch, leased tracts 31, 9.3 a, J.J. Valdez, lessee, leased tract No. 169, 64.7 a, I. Espinoza and part of leased tract No. 30, 58.1 a. Fernanda Espinoza. Balance of tract No. 30 irrigated by Unrecorded ditch No. 87. Under supervision of S.L.P. & W. Co.,

Dec. 6/12
Unrecorded Ditch No. 89

San Francisco River (North fork of Alamosito)

No ditches above headgate. Location of headgate south bank of Alamosito. No headgate and no flume. Location of acreage past of leased ranch of J.J. Valdez on Alamasito branch of San Francisco river. Lands irrigated leased tract No. 33 11.64 a. owner J.J. Valdez, lessee. Diversion of water under supervision of Supt. S.L.P.& W. Co

Dec. 6/13
Unrecorded Ditch No. 90

San Francisco River
South fork of San Francisco (Rito Derescho)

No ditches above headgate. Location of headgate
south bank of Rito Desacho near old saw mill. Wooden headgate
with lock, wooden rating flume. Location of acreage ranches
formerly leased by Rafael and Meliton Medrana. The ditch irrigated
lands formerly leased by Rafael abd Meliton Medrana who
surrendered leases Dec. 31, 1911. Diversion of water under
supervision of Supt. of water of S.L.P & W Co.

Dec. 5/12
Unrecorded Ditch No. 31

South fork of 
/Vallejos River

No ditches above headgate. Location of headgate north bank south fork. No headgate and no flume. Location of acreage, part of ranch of Ramon Lucero at and above forks of Vallaigos creek. Title derived by Ramon Lucero deed No. 30, part of 53.85 a. ½ cu ft water. Deed No. 43 part of 40 a, ½ cu ft. The above lands are also irrigated by this ditch. These tracts are also partly covered by Ramon Lucero ditch and Unrecorded ditches Nos. 98 and 101. No established system.

Dec. 6/13
Unrecorded Ditch No 93

Vallejos River

1 ditch above headgate. Location of headgate south branch south fork of Vallejos. Wooden headgate with lock. Wooden rating flume. Location of acreage various leased tracts south side of Vallejos canon, below forks. Lands irrigated.

<table>
<thead>
<tr>
<th>Part of leased tract No.</th>
<th>53 part 48.51 acres,</th>
<th>J.Gold, leases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. 55</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>V. Hays</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>P.Lucero</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>J.M.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>72</td>
<td>31.9</td>
</tr>
<tr>
<td></td>
<td>E.Quintana</td>
<td></td>
</tr>
</tbody>
</table>

Leased tracts Nos. 53 and 55 also partly covered by R. Lucero ditch and by Unrecorded ditch No. 98, Leased tract No. 22 also partly covered by Guadalupe Vigil ditch and by Unrecorded ditch No. 93. Diversion of water under supervision of Supt. of Water, S.L.P.& W. Co.

Dec. 6/12
Unrecorded Ditch No. 93

Vallejos River

5 ditches above headgate. Headgate north bank of Vallejos about 1/4 mi. below headgate of G. Vigil ditch. Wooden headgate with lock, wooden rating flume. Location of acresage on leased tracts on north side of Vallejos creek in canon.

<table>
<thead>
<tr>
<th>Land Irrigated by Ditch</th>
<th>Acres</th>
<th>Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part of leased tract No. 24</td>
<td>30</td>
<td>J.M. Vigil, leasee</td>
</tr>
<tr>
<td>&quot; &quot; &quot; No. 22</td>
<td>30</td>
<td>Max Quinitana</td>
</tr>
<tr>
<td>&quot; &quot; &quot; No. 23</td>
<td>22.14</td>
<td>C. Quinitana</td>
</tr>
<tr>
<td>&quot; &quot; &quot; No. 21</td>
<td>55.98</td>
<td>Leandes Mestas</td>
</tr>
<tr>
<td>&quot; &quot; &quot; No. 53</td>
<td>6.55</td>
<td>Luis Manzanares</td>
</tr>
</tbody>
</table>

Guad. Vigil ditch irrigates part of tract 24 and 23, and presumably parts of tract No. 21. Part of tract No. 22 also irrigated by unrecorded ditch No. 93. Diversion of water under supervision of Supt. of water of S.L.P & W.Co.

Dec. 6/12
Unrecorded Ditch No. 94

Torcedo River

1 ditch above headgate. North bank of Torcedo Abundo Martin headgate. Location of acreage part of ranch of Jri Bundo Martin on Torcedo creek. If flow of stream permitted a large additional acreage of company land could be served. J.A.Martinez claims ownership. This ditch irrigates part of leased tract No.38, part of 82.03 acres owned by J.A.Martinez former lessee, now squatter. This former lessee has refused to sign the new leases which recognize the company's ownership in the water used to irrigate the leased tract and the lease is inoperative at present, although Martinez continues in possession. Tract 38 also partly covered by Torcedo ditch and Abundo Martin ditch. Diversion of water under supervision of superintendent of S.L.P & W. Co.

Dec.6/12
Unrecorded ditch No. 95

Culebra River

22 ditches above headgate. Headgate south bank Culebra below about 1500 ft. wood headgate of Sanchez ditch. Wooden headgate with lock. Wooden rating flume. Location of acreage small tracts in and near town of San Pablo. Joint ownership.

Description of lands irrigated (see Unrecorded Ditch No. 94)

= Diversion of water under supervision of Supt. of water

S.L.P & W Co.

Dec. 6/12
Unrecorded Ditch No. 96

River
Cuates

This ditch appears to have been abandoned as a direct diversion and used for the carry of Cuates No. 2
Unrecorded Ditch No. 97

Los Cuates River

No ditches above headgate. Headgate south bank south fork Cuates about \( \frac{3}{4} \) mi. above house of Tomas Arellano. No headgate, no flume. Location of acreage leased ranch of Arellano Bros. on south side of Cuates, Ventero valley, also probably irrigates part of leased ranch of P.R.Trijillo. Leased tract No 49, 63.88 acres, Arellano Bros. leasees. Part of leased tract No. 15, 46.25 acres, P.R.Trijillo, leasee. Balance of tract No 15 probably irrigated by Arellano ditch. Filing serial No. 73 Diversion of water under supervision of Supt. of water of S.L.P & W Co.

Dec. 6/12
Unrecorded Ditch No. 98

Ballejos River

1 ditch above headgate. Headgate located north bank of north fork Ballejos, above \( \frac{1}{2} \) mi. above house of Ramon Lucero. Wooden headgate with lock. Wooden rating flume. Location of acreage, parts of ranches of R. Lucero and leases of J. Gold and D. Hays at, above and below forks of Ballejos. Ownership of ditch Ramon Lucero and S.L.P & W Co.

<table>
<thead>
<tr>
<th>Land Irrigated by ditch</th>
<th>Acres</th>
<th>Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deed No. 30</td>
<td>53.85</td>
<td>Ramon Lucero</td>
</tr>
<tr>
<td>&quot;</td>
<td>40</td>
<td>&quot;</td>
</tr>
<tr>
<td>Part of leased tract No. 52</td>
<td>48.41</td>
<td>Julio Gold (Leasee)</td>
</tr>
<tr>
<td>Part of leased tract No. 55</td>
<td>20</td>
<td>V. Hays</td>
</tr>
</tbody>
</table>

Ramon Lucero tracts are also partly covered by Ramon Lucero ditch and by Unrecorded ditches Nos. 91, 101. Gold and Hays leases also partly covered by Ramon Lucero ditch, and by unrecorded ditch No. 92. Diversion of water under supervision of supt. of water S.L.P & W Co.

Dec. 6, 1912
Unrecorded Ditch No. 99

Ventero River

2 ditches above headgate. Location of headgate west bank Ventiero creek. Wooden headgate with lock. Wooden rating flume. Location of acreage, J.M.Bigil lands on Ventiero creek opposite ranch of J.M.Pacheco above junction Culebra with Ventero.

Ditch and water owner by S.L.P.& W Co. Diversion of water under supervision of water superintendent of the S.L.P & W Co.,
Unrecorded Ditch No. 100

Ventero River

No ditches above headgate. Location of headgate East bank Xxanxhax about 300 ft below Sanchez reservoir outlet. Wooden headgate with lock. Wooden rating flume. Ventero Location of acreage, lands on east side of Xxanxhax creek below outlet of Sanchez reservoir.

Dec. 6/12
Unrecorded Ditch No. 101

Vallejos River, north fork

2 ditches above headgate. Location of headgate south bank, north fork Vallejos. No headgate. Location of acreage part of ranch of R. Lucero at and above forks of Vallejos. Water claimed by ditch Ramon Lucero by deed no. 20 part of 53.85 a. with part of \( \frac{1}{2} \) cu ft water. Deed No. 43 part 40 a. with part of \( \frac{1}{2} \) cu ft water. Above tracts are also served by ditch. These tracts are also partly covered by Ramon Lucero ditch and by Unrecorded ditches Nos. 91 and 98.

No established system.

Dec. 6/13
Unrecorded ditch No. 102

Los Cuates River

5 ditches above headgate. Location of headgate south side of north branch of Los Cuates below headgate Cuates No. 1 ditch. No headgate and no flume. Ditch said to be owned by J.F. Gallejos and also appeared to cover lands also covered by Cuates No. 2 and 3. Lands irrigated by ditch, see Cuates Nos. 1 and 2. No established system.

Dec. 7/13