1900

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. ..... Office No. 1900

LOCALITY

State California

General locality Vicinity of

Locality Oceanside

1887-8

~~194~~

CHIEF OF PARTY

A. F. Rodgers

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DATE .....

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1900

U. S. COAST AND GEODETIC SURVEY.

F. M. Thorn, Superintendent.

State: California.

DESCRIPTIVE REPORT.

Topographic Sheet No. 1900.

Sea 1645

LOCALITY:

Vicinity of Oceanside.

1887-8.

CHIEF OF PARTY:

A. F. Rodgers.

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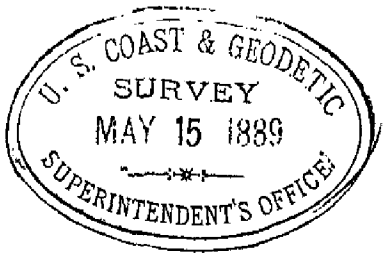

DESCRIPTIVE REPORT

To Accompany Original Field Sheet, Entitled

TOPOGRAPHY, PACIFIC COAST

in vicinity of

OCEANSIDE, SAN DIEGO COUNTY, CALIFORNIA.

------ 1887-3 ------

Scale $\frac{1}{10,000}$

Locality,

Lats. 33°10' to 33°17',

Central Merid. 117°23'.

Survey by, AUG. F. RODGERS,

Asst.U.S.C.& G.S., Chief of Party.

DESCRIPTIVE REPORT

To accompany Original Field Sheet entitled, Topography, Pacific Coast in Vicinity of Oceanside, California 1887-8, Scale $\frac{1}{10,000}$

Party of Aug. F. Rodgers.

Reg. No. 1900.

:o:

Locality.

The locality embraced is upon the Coast of San Diego County, California between Latitudes 33°10' and 33°17'. The Central Meridian of the Sheet is 117°23'.

Climate.

The Coast climate of San Diego County is a very equable one, extreme temperature of Winter 32° and of Summer 90° though ice is not often seen thicker than a window pane. The seasons are divided into "Wet" and "Dry", November, December, January, February and March, may be classed as belonging to the "Wet" season, and April, May, June, July, August and September, as "Dry" although showers are expected both in October and April.

Rainfall.

The average annual precipitation is stated at 12 inches upon the coast though the interior of the County, 15 miles from.

and at elevations of from 3000 to 6000 feet above, the ocean it is claimed that 30 to 40 inches rainfall is not infrequent.

Winds.

The winds of the dry season from May to October inclusive, are nearly always from the North West, though occasionally varied by light airs from the South.

The North West winds are indicative of invariable clear weather, the sky may be overcast by a thin covering of fog but the North West wind never fails to blow at some time in the 24 hours, from May to October, and rarely at higher rates than from 5 to 10 miles per hour. From November to April, North West winds are no longer certain in duration or force and Southeasterly winds are frequent and bring with them the rainy period of the year.

Barometric Range.

The normal range in San Diego County is upon the Coast from 29.70 in to 30.30 in.

Below 30.10 in in the Rainy months the weather is uncertain, and lower than 29.80 in South East storms are indicated etc.

Topographic Detail, etc.

The topography is broken and somewhat complex, indicating former ocean submergence, shown by the smooth benches which occur at intervals of elevation while these are worn

at right angles to the ridges or axis lines of greatest elevation by successive ages of rain erosion.

Character of Soil, etc.

Much of the surface is composed of argillaceous sand stone and conglomerate, the latter when weathered showing a layer of loose rounded pebbles, lying upon the surface, wherever the outcropped stratification is horizontal. The hill soil is usually the decomposed result of the above stated formation, fertilized by ages of vegetable mould.

The valley soils are alluvial and in low elevations, a joint contribution from sea and stream, and generally clayey, and well known in California under the name of "A-do-be". These valley soils are of great depth and extremely fertile.

Coast line, formation, etc.

The Coast line within the limits of the sheet is formed by a bluff from 20 to 40 feet in height, of original drift, inlaid with shells and shingle. The bluff is broken at short intervals by deep valleys at right angles to the direction of the coast line and notably by those of La Santa Margarita, San Luis Rey and Loma Alta. These valleys must have been but "recently" in a geologic sense, deep esteros and lagoons, into which the ocean ebbed and flowed a mile or more from the present high water-mark.

Depths off shore.

The depths along the shore are not bold, but increase apparently by a gradual slope from 0 at low water to 10 fathoms from one to one and a half miles from shore.

Lines of Breakers, etc.

Owing to the comparative shoalness there are several lines of breakers, but from May to November they are rarely of sufficient height or force to endanger the safe landing or launching of the smallest boat.

Beach formation, etc.

The beach is formed of siliceous sand and generally free from rocks, ledges or shingle. ,It is hard and firm with an approximate width of 100 meters from high to low water mark and at low tides, is the preferred highway of travel along the coast.

Rocks, Ledges, etc.

There are no ledges within the limits of the sheet visible above the plane of low water and but one isolated rock. The latter is about half a mile southeasterly from the Oceanside wharf and 150 meters from the line of high water.

Danger to stranded vessels, etc.

There is no experience to guide to

an opinion as to the survival of a stranded vessel along these shores, but the evidence of climate and character of formation would appear to favor the indefinite survival of any staunch vessel; and with reasonable care and especially in daylight, there would rarely be risk to life in landing from boats.

Traveling Dunes.

There are no traveling or other dunes upon or within the limits of the sheet.

Shingle Levees, etc.

There are shingle levees at the debouchures of the Margarita, San Luis Rey and Loma Alta; the latter quite local and small. Between Margarita and San Luis Rey the shingle line is continuous, and apparently resting upon the beach sands.

The crest is from 5 to 8 feet above ordinary H. W. M. and inclined with longest slope shoreward. It has a berme in front formed by the gravitation ~~shoreward~~ toward the Ocean of the material when disturbed by winter storms.

Size of Shingle, etc.

The sizes vary from that of a large pebble to the largest cobble used in street paving. These are mingled where exposed, without much evidence of sorting but generally with the larger material underneath the mass.

Where this shingle, which does not appear to increase or dimin-

ish from year to year, and is never seen to move, except in slight changes of the fore slope during winter storms, came from, is an interesting question, but where from, how far, and when, can only be determined by careful geologic study.

In its entirety, the present situs of this material seems to have been fixed for an indefinitely long period. If it came from the interior the valley waters must have been of torrential force to carry it, and the ocean fortified with tempest strength to have been able to place it where it appears to have been practically undisturbed for ages.

Rivers and River Beds.

The present so called "Rivers" of San Luis Rey and Margarita, when compared with cross sections of their former beds, suggest the idea of a child, in his father's clothes.

Both of these streams close in the dry season, the San Luis Rey entirely, while the Margarita has a narrow opening and a thin film of salt water only, running out at low tide.

Like many of the streams in southern California, these two sink beneath the surface in the dry season before reaching the ocean. The sun, in the longer days of summer, pumps water into the atmosphere faster than the stream can supply a surface current; there is however always a supply to be had a foot or two under the apparently dry sandy bed. As the nights lengthen with the sun's

increase of southern declination, these streams resume a surface flow, and often long before the advent of the rains of Autumn.

Recession of the Coast Line, etc.

There is no known rate for the recession of the coast line, and nothing to prove that it does recede except the evidence of bluffs eroded by winter rains and waves, and the inference drawn from rounded forms of ridges where these occur parallel and adjacent to the coast line, with long interior, inshore slopes, and those exposed toward the ocean indefinitely shortened. We may reasonably infer that in the ordinary symmetries of nature, these slopes were of nearly equal length. (This suggestion of evidence is quite strong upon the sheet northward from San Dieguito Valley). The material thus eroded from the land has probably been washed seaward and has thus changed original bold depths to the present gentle outward slope.

Salt Marsh Lands, etc.

There is a small area of marsh land next the ocean in nearly all the valleys bordering the coast of San Diego County. Within the limits of the Oceanside sheet, that at the mouth of Loma Alta Valley, is small in extent and that at San Luis Rey not much greater, but between San Luis Rey and Santa Margarita, there is an area of about one square mile; these however, are being reclaimed, probably in advance of other necessity, by the nat-

ural process of raising them above sea level, through sediment deposited each year during winter freshets.

Natural Vegetation, etc.

The natural vegetation within the limits of the Oceanside sheet, is mostly confined to the native grasses and forage plants of California. There is little forest growth; there are sycamore and alder trees in the valleys of San Luis Rey and Santa Margarita and the Alisos, at the northern extremity of the sheet limits, but the number of the trees is inconsiderable. There is little chapparal or brush and that of small size.

Of the forage plants "Medicago denticulata", commonly known as "Burr Clover", said to have been naturalized in Europe from its home in Asia; is now one of the most valuable plants of California. Except under pressure of hunger it is not eaten by horses or cattle in its green state, but when harvested by Nature, with its seed wrapped in spiral, burry, coils, covering the ground where the growth is luxuriant, it is eagerly sought for and in the months of Autumn forms a staple of food for range herds, after all green forage has succumbed to the long droughts of California's summer, and invariably dry season.

"Al-fil-a-ril-la", so known by the Mexicans, the "Fil-a-ree" of California herdsmen, ("Erodium cicutarium" of the botanist) is another remarkable and valuable forage plant, a native of Europe and like the wild oat and the wild horse himself, attributed in

distribution to Cortez, his cavalry stores and his cavalry, it grows all along the coast of California. It supplements other forage growths by its early luxuriance after the first rains of the wet season have well moistened the ground.

Thus, the first big mouthfuls of green herbage, which reach the hungry herds of southern California, in December are Alfilarilla, and the last satisfying feeds in October, are the pods and seeds of Burr Clover above mentioned, which Nature, as suggested above, is generally allowed to harvest in her own way and unmolested.

At this Autumn season when the inexperienced stranger asks, "What can be found edible on that bare looking ground"? the range cattle of California and San Diego County are in best condition, largely due to Nature's harvested stores of Burr Clover, ("Medicago denticulata").

Fruits, Fruit trees, etc.

Two thirds of the area of the Oceanside sheet is the property of a single estate, everything north of the San Luis Rey being so owned and devoted almost exclusively to the raising of cattle and horses, although within the limits of the tract referred to there is a vineyard, formerly belonging to the Mission San Luis Rey, said to be some seventy years old and still in full bearing.

All the semi-tropical and citrous fruits and the fruits of the

temperate zone, the Cereals, Indian Corn, and Vegetables of all kinds, may be found growing in luxuriance in San Diego County and many of them in small plantations between San Luis Rey River and Loma Alta Valley. Intelligent husbandry has only within the past few years attempted to develop the resources of this region.

Settlements, etc.

The only town within the limits of the sheet is Oceanside, situated upon the coast between the San Luis Rey and Loma Alta Valleys, with the suburb known as "South Oceanside", south of the Loma Alta.

In 1881, the present site of Oceanside was still government land and considered valueless except as sheep pasture. The Atchison, Topeka, and Santa Fe R. R. laid its branch line the "California Southern" through the tract and in 1882 a single settler built his cabin upon and preempted the land. The town has now a population of about 500 and fair prospects of future development owing to large areas of rich agricultural lands in the adjacent San Luis Rey Valley. It is quite a resort in the summer months for the population of the hot interior valleys of Los Angeles, San Diego, and San Bernadino Counties.

Rail Roads, etc.

The California Southern Rail Road, (a branch, as before mentioned, of the Atchison Topeka and Santa Fe R. R.), hav-

ing its terminus at National City, four miles south of the city of San Diego, comes north through Oceanside over a route 40 miles in length and upon the Mesa or Plateau, one mile north of the town, bifurcates, one branch following up the windings of the Santa Margarita river, heads northeasterly for Temecula Canon and the town of Colton, and thence makes connection via the Southern Pacific Rail Road with Los Angeles and San Bernardino.

To avoid the heavy grades and sharp curves of this route from Oceanside to Colton, the new branch of the California Southern was located along and under the ocean bluffs northwesterly from Oceanside, until reaching the valley of San Juan Capistrano and passing through the old Mission village of that name, reaches Santa Ana and thence Los Angeles, this branch is officially known as the "California Central R. R.", but is popularly called "the short route, Los Angeles, San Diego".

A "feeder" of the California Southern, is built and operated over a route 20 miles long, between Oceanside and Escondido, where it taps a large and fertile agricultural valley.

Wagon Roads, etc.

The country embraced within the limits of the sheet is intersected in all directions by passable roads, which owe their general good character to qualities of climate, soil, and natural grades, much more than to the offices of the Engineer or Road Master.

These local roads make connections and give access in all directions to the interior of the County.

Wharves, etc.

There is but one wharf within the limits of the sheet and that an unfinished one at Oceanside, at present 330 meters in length, and terminating at a depth of 18 feet at low water.

Bridges, etc.

Bridges are few and generally of the most primitive kind. In summer they are not needed, while in winter none but expensive structures would securely meet the conditions of freshet and flood, which at times, between December and March, may change these motionless, sandy beds, of the dry season, into raging torrents. The county is too sparsely settled as yet, to appropriate money for permanent bridges, except near the centers of population.

Elevations, etc.

All the elevations upon the sheet and the contours of level are referred to Mean High Water.

Respectfully submitted,

Alfred A. Rogers

Assistant U. S. C. & G. Survey.

1900 9

Examination of Topographic Sheets

by the

Divisions of Field Work and Field Records.

1. Has the magnetic meridian been determined? ....No.....

2. Is the point occupied for the determination of magnetic meridian designated? .....

3. Is the approximate or rodded location of high water mark in back of mangroves shown? .....

4. Have navigable rivers been surveyed? .....

5. Is interior information given by descriptive legends or otherwise? .....

6. Is the inking of the sheet legible? ....Yes.....

7. Is projection properly shown? .....

8. Are methods of surveying fully described? ....No. Descr. Report.

9. Are descriptive legends given concerning conspicuous islets, objects, rocks, and other features given in blank areas? .....

.....

10. Are geographic names given? .....

11. Is full information regarding geographic names given in the descriptive report in accordance with paragraph 557 of the Instructions for Field Work? .....

.....

12. Are the names of topographic signals given? .....

13. Does the sheet have a neat appearance? .....

14. Is sufficient contouring shown, some of which could be obtained by sextant directions from boat positions? .....

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15. Is the control good? .....

16. Is the sheet well laid out? .....

17. Is the accuracy of traverses between triangulation stations stated in the descriptive report? No Descr. Report.....

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18. Are the elevations of prominent rocks or islets given? .....

19. Are the description of reefs, as bare, awash or covered at high or low water given? .....

20. Are objects useful for future surveys indicated? No D.R.

21. Is there a record of marking topographic stations? .....

22. Is the character of the beach shown in various places? .....

23. Is the plane of reference for elevations given? .....

24. Is the low water line determined at important places? .....

25. Is there a full list of data affecting sheet given on title sheet? .....

26. Is there a list of plane table positions? No.....

27. Are the elevations whether that of tree-top or ground indicated? .....

28. Does the descriptive report give date of instructions? No.....

29. Is a sketch given showing contouring of interior mountainous country beyond limits of sheet? .....

30. Is the general description of the coast given? .....

31. Is there information about obtaining fresh water? .....

32. Have standard symbols for various features been used? .....

1900 a

33. Is the survey complete? .....

.....

34. Is there a note as to cultivations, roads and other improvements?

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35. Is commercial information given in descriptive report? .....

36. Is there a list of landmarks? No.

Remarks

Scale somewhat small for class of work.

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