U. S. COAST AND GEOETIC SURVEY.

A. F. Thorne, Superintendent.

State: California.

DESCRIPTIVE REPORT.

Topographic Sheets No. 5, 1807, 1808.

Locality: San Diego Bay and Vicinity.

1887.

Chief of Party: A. F. Rodgers.
U. S. Coast and Geodetic Survey,

M. C. San Diego

September 1, 1887.

Mr. C. R. Lyon
U. S. Surveyor
Washington D.C.

The survey closed my examination of San Diego Bay & vicinity in accordance with your instructions & the request of the United States Hydrographer of the North Atlantic. I have to conclude the following:

A comparison of San Diego Bay as I saw it 40 years ago & as it is now shows very little change. The bay is still landlocked.

From my observation it seems plain to me that in the time past what we knew as San Diego & Salee Bays were undecided, an indentation in the Coast line extending to the ocean Southern limit of San Diego Bay & North to the Northern edge of the vast Salee Bay. At some point when
When the land rose from the waves of the ocean needed—successor to deeply marked shaunches all along the coast fairly found in many rocks in nature, laboratory—the original land indentation was bordered seaward by four islands. The present "Ti-Toma" the largest is most prominent. The other three looked perhaps in form of a roundly carpeted "BEET". Two of these islands were east of the present Indiana to the bay and covered upon the east by the island of the words "THE ISLAND", the one there in fact, two distinctly outlined islands originally the work is now called "Daneish Bright". These two are joined by a congealing sand fork over which the ocean rolls its higher waves at each high stage. The fourth island is quite small as compared on area with the other, being about one mile long and a half mile in width. It is joined to the mainland at the extreme south.
In 5, the bay by an unknown of the
Dana Act which including a sharp
Escorial the S. In the old, Is# mentioned
rows in some could Irresistible barrier against
The bearing of the reef extends in all
9 miles North from the recess end of the
San Diego Bay. The three gulls
were about the surface of the sea when
the formation of the sand obis which now
connect them, appear too plain to need
Argument. They are as much or more
the genius of Ocean inhabitants than the
adjacent land to which their structure
Material. For them to be缺陷 Allied.

The outlets Band Beck building
was notable. The same North & South end
of the tona & the waters by the Northern
port of San Diego inlet were probably
minimized at the same time, leaving
the inlet thin with two entrance. The
North end & the South of the tona,
The latter standing as an island, unconnected
with the main island. No lake connected
with the main is due to the oldment
bearing water of the so called San
Diego's Cove. The Normal Admiration
of this cove, flowing though the Strongly
Marked High bordered Section known
now as "Mission Valley" was the South
side of San Diego Creek, which at first
wrenched and then separated from the
Cottonim connection thus making the
adjoining now known as San Diego's
& Balboa Bays. The effect caused by
the freshets of the Run being channeled into
San Diego's Bay are warped to the delta
or marshes & shoals which extend out
toward the edge of the main channel both
at "Old Town" as shown on Chart 606
- Former Areas of San Diego & Estuay
- The Second Channel

Taking the original formation which their
outlines as a basis of measurements to
find that the former miles birth of Port
San Diego measured from bank to bank
contains an area of 264 square miles
The measure is practically identical with the present high-water area of San Diego Bay. That much of this area was originally covered with water of considerable depth is supported by my observations elsewhere. In March of 1853, a bar formed as shoals whenever they have been seen or sketched previously. Now mud, \\
and sediment are visible from 60 to 100 feet in depth. Looking at the channel section of Dana Point and measuring the depth of channel which now reaches from the Entrance at Balboa Point to the north end of the bay, looking at the Entrance and at a depth of 40 feet diminishing to bare at low tides I find a channel area of less than four square miles. The Northern end of the organic inlet now False Bay, contains within as banks an area of four square miles. This area nearly three square miles is now laid bare at high low-water and...
The bar in front of the entrance instead of being
shushed seaward and pushed down by the heavy
slopes of its original tidal reservoir,
really joins the beach line and has a depth
of little over two feet upon its crest at low
water.

San Diego Bay

Point Loma, which I saw covered as a
former island, is 6 miles long and averages a
mile in width, with a height above sea
level of 400 feet.

East of the southern
point of Point Loma is formed the bar of
San Diego Bay, which is so protected from
the prevailing N.W. wind by the high
lands of the Point of the range that keeps
whitewater from the point, that
on ordinary weather no change of wave
motion would be noticed in passing over it.

From the Point of the Bar to
the entrance between Balboa Point and
the Jesuit Point ship is due east a half
mile. On the side of the outer channel
between the bar and entrance on flanked
on the West by the same reason the back
by the evening tide. In classic point
this would be wide enough at low water.
the effective width of this outer
channel is approximately 1/8 of a mile.
Approaching the entrance from
outside with caution, a ballast point appears
to project half way across the normal
entrance, leaving a little over 1/2 miles
and the between the opposite sand
bars. From the character of the material
forming ballast point I am convinced that ballast point is
an old formation and the opposite sand
and comparatively new. Ballast point
and appears to project with the channel
because the new yielding material on
either side north and south have been eroded
away thus leaving the sharp curve
which appear on the Bay & Ocean face
Main Channel and Deep Bay
The Main Channel 9f 10 Deep Bay
runs close toward ballast point &inder
In the right hand of the town, the entrance to the bay, passing Ballast Point, it turns gradually to the west, then north and gradually meets the east and south in a curve until at the southern extremity it lies as it is on the meridian. Normal depth at the entrance is 0.6 feet above average at a depth of 3/4 a mile in the first 5 miles inside the entrance. From 0.6 feet to 0.8 feet from the 0.6 feet to 0.3 miles from the entrance. From 0.3 miles from the entrance to its terminus, it is less than the shoals formed at the south end of the bay. In the first 5 miles inside the entrance, the channel will average 25 feet at low water. From 0.3 to 0.75 miles the depth gradually diminishes from 25 feet to 6 feet at low water.

Shoal

A prominent feature of the San Diego Bay formation is the Zuma Shoal outside the entrance. The shoal extends south from the outer point of Ballast Point one mile westward.
and the close to the surface at low water, it will extend one mile further, gradually increasing on either side of the face into the Bar formation with the cliff which is its western border, and probably has much to do. It has been feared at times, that the embayed Channel marked upon Chart 606 as the future end of Zuminga Island, would become 9 1/2-20 fathoms deep, and would be a serious obstacle to the safe entry of vessels of the largest class in the Middle Ground in Channel which, with the Channel from the island side of the Channel, would form two Ballast Bights, which upon the East Shoal as the most vulnerable point in the Don Deep Bay formation, should it continue to increase in extent, its effect must be disastrous. The formation of this Shoal is I think largely due to the movement of material Ballast Bight, into this Channel, the tide moves 20 fathoms before
been in change directions & makes his head to the east round Ballast Point & eddy are shown off & across the narrow Channel, the easterly current in the latter is checked and sediment accreted to form the middle shoal. The original channel of San Diego Bay, its normal opening I think extended from the present entrance at Ballast Point closer to the western edge of what Black 606 calls the Island. Examination of the entrance suggests to me that the present marsh formation & the sand banks at the extreme West end of the Island are competing flow and are due to the same general cause as the formation of the Middle Round Orleans, namely, the rogue curve in the curve shown line behind Ballast Point.

San Diego City & Coronado

My visit from time to time While I was stationed at San Diego gave information of the remarkable progress of population & building both in this place & in Coronado on the eastern side of the bay. In the early
which I am fortunate will illustrate the building area & its comparison with some years ago. The San Diego issending large arms in direct gathering & cleaning. What is now a sewer is becoming a bed of soil being the Alternative. The so-called Waring System has been adopted, a scheme starting which is the small size of the draw. Added with a method of daily Automatice flushing. Coronado besides San Diego feature a Syndicate of 150 acres to large extending of Money to develop its possibilities well in all probability in a few years have as large a population as San Diego now has. As water pressure is quite as available for anything & of land connection with the Main roadway made for Railways round the northern end of the Bay. There too Concrete, San Diego & Coronado equipped as they are with all the latest Modern, Mechanic & Appliances as the Orleans filling in the building out are reaching towards each other & Contracting.
In channel of the bay at a wide point.

That the action part of a wide channel will become deeper, when the bottom is coaly, peaty, and obstructed are placed on its sides, when burning wood is introduced, that such obstructing will as time goes on become dry and become objects as they are desirable to their immediate projection. An object of the channel Narrow Channel way between San Diego & the Coronado side is exactly seen in the Sound. deep from 100 yards to 600 and the depth shown 4 feet northward is 4 1/4 fathoms. These objects will be updated as the so called movement narrow the waterway in front of San Diego & Coronado. The deepening will be commenced on the southern part directed until it is deep navigation.

Flour, Flour a San Diego

The sum of houses laid out comprising a San Diego are many — flourishing South San Diego at the southern end of the bay which is as yet more a project than a fact.


Commence north from San Diego alone the

famous road on bay or from National

City a well established fabrication of San

Diego & the present terminus of the California

Southern Rail Road. This section at no

distance day, which is to be joined to San Diego

by extensive lines of buildings & under

the common Mexican were known.


Long North from San Diego, "Middle

Town" is laid out & its limits are not clearly

defined, its streets are (beside the limita),

east of "Middle Town" in the North is "New

Town" formerly so known. Though officially

called "North San Diego" the first edition

of this town San Diego, abode of wealth &
leaves acres back into the last century, the

town lost its age, both the town sit. Its

population is under 500 with with a house

of 87 is number the ancestors of former

Mexican occupants. Following

the shore of the bay from Old Town toward

the Entrance, Ewing the low, partly tide

washed at high water land. Between the
On the Main the loved outline of

The town is Com as the borders of "Rose

ville" which rises as a town plat carefully
cared out them the ground is represented on

piles. On the house within the limits of

Roseville is known as "Roseville Hotel"

Its location is determined trigonometrically

The site is not occupied with town

has no present incorporation west it makes

Rabbits, Snowells & Coyote adjoining

Roseville on the west is "The Plant"

literally "The Beach" what in name seems to

extends indefinitely toward Pt. Soma

In the site of this Village seems to stretch

to the Collection of Fishermen, but from

from the entrance facing which is the

honor be forward August 20th 1848 include

the site of the former Village of "The Playa"

as shown upon Chart 606. The former

Village has no existence now—there is but

one house left, that was once a dwelling

is not now occupied for any purpose

A prominent object on the hill
One of the Village of Ta Playa is a Pepper Tree planted upon the Scenery of the Entrance. This Pepper Tree is especially entitled to notice as being the only tree of any kind upon the island. In sight below

South West of Ta Playa are the White Washed Government Buildings. Two of them upon each other upon the hill, one over the other, upon the hill. They are surrounded about them with a sizzling whiteness in the sunlight.

Four hundred yards from the hill forty feet above the Ocean a mile from the mountain by the shore is the

Chimenea Light House. This is illuminated with a 3rd Order, Fixed, White Light, Visible 1.4 miles. Light House Authority Blues

The lighthouse at the foot of the hill. Going North from

Chimenea Light House, neither house nor home are met with until the Southern Side of Estero Bay is reached. Here upon the Comparatively Level land at the foot

It is home to both of the Estero Bay inhabitants find a City in Emory "Ocean Beach"
Otter Island as took up upon lands forming a part of the "Pueblos of San Diego." The lower lands are
made by races with their races themselves. One mile from the main age broken under ground, may be plainly seen in black, locked down upon from the higher levels of the town. The present buildings within the City of San Diego are an Hotel
House completed. It stands as a monument to crossing, it has a three story on frame building.
Beside the labor employed in Public Works, the present population lives rest & thinks & toil for one's forefathers.

Wick an organized excitement was caused in settling $300,000 worth of goods lost in Ocean City by the discovery of fresh water in the sand. One 300 feet from the ocean.

The fresh water is evidently found in a former bed of the San Diego river through which the water still percolates in old tunnels from the mountains to the
Old, though its course is nearly covered
and hidden from casual observation.

Real and Cobblestone

A notable feature of the formation of the
high cliffs round San Diego Bay is the
scenery at the elevations of Cobble Sea.

Im managed to get a shot at Cobble Sea
from the heap of debris in the corner of
which stood a Cobble which measured 15 feet deep

The former President of San Diego
heard upon Coast Ec History by "Old San Diego"
at the bend of the San Diego River. The buildings
were covered there from above. The street-harsh no
longer existence was unaided by a Cobble,
sea apparently 40 a 50 feet thick. The
erosion by the river partly exposed the sea in
a cliffy point of the U.S. Engineers avoided
themselves 3rd use to furnish a Cobble
sitting on the side of the dam built by new
to obtain the flood waters of the San
Diego River.
The San Diego River

This so-called "River" is for at least 6 months in the year apparently a river of dry sand filled with glittering grains of Micas. During one year, a December month, it fails altogether to reach the Ocean as a direct running stream. At winter times of continuous heavy storms it becomes a torrent & fills Mission Valley through which it runs from bank to bank. That it always runs below the overaw many facts hence.

The City of San Diego & Coronado are

with drawn their recent deadlock of water

from this apparently dry desert bed. Into open

ravines are filled by flash floods the water piled

there into a hill reservoir near Old San Diego

there carried by pipe line to San Diego &

Across the bay to Coronado.

Have

endeavored in my abode to copy the general

requirements for a circular entitled "Instructing

& Memoranda on Disruptive Reports to be Subm

ed."

Very Respectfully,

Aug 2, 1853

E. St. George