U. S. COAST AND GEODETIC SURVEY.

J. M. Thorne, Superintendent.

State: California.

DESCRIPTIVE REPORT.

Topographic Sheets Nos. 1825, 1826 & 1827.

LOCALITY:

San Pablo Bay.

1888.

CHIEF OF PARTY:

J. S. Lawson.
and others, in addition to mariners, railroad weather picture at all hours and
traffic. The stations provide a daily
transmission of weather information, routine transmissions
of forecasts and warnings, when dangerous
weather conditions are indicated. And
broadcasts are sent out from the National
Weather Service, Washington, D.C.,
and the selected weather bulletins are
retransmitted to the number of stations
in the network. Every day, the national
weather service broadcasts the number of
stations and the type of weather
information being transmitted. The
broadcasting of weather information is
dependent on the type of weather
information being broadcasted.
as operated, and total amount of each modification agent used.

The penalty for conviction of violating Public Law 92-205, and rules adopted under its authority, is a fine of not more than $10,000.

NOTE: For the next few months, space that ordinarily would be devoted to Length of Service Awards will be devoted to retirements. Award columns will be resumed as soon as possible.

Richard A. Wood, former Weather Service Specialist at the Weather Service Forecast office in Denver, Colo., is the new official in charge of the NWSO in Winnemucca, Nev.

He served earlier in Washington, D. C., Texas, and North Carolina, and was in the U.S. Navy from 1950 to 1953.
Report on Topographical Survey
Nov. 2, 3 and 4,
Reason for
San Pablo Bay, Cal.
1886-7.

Jno. H. S. Carson
Assistant.
These sheets bear the same number as the projections sent from the Office. One of these (No. 6) was defective, and a substitute therefore was made at the Sub-Office, San Francisco.

The work embraced in this survey is from Vallejo, that ward on North side of San Pablo Bay, including Vallejo Lots, Ulrichs of Sonoma, Tolay and Petaluma Creeks, to Novato Creek, where operations were stopped on account of refusal of allotment. Each sheet is described individually.

in order of number.
Sheet No. 2

From town of Valley, Western to Point M.
including Mare Island Navy Yard.

The survey of the shore line of Napa
Creek was made from nearly two miles N. and W. from
Valleys and Vale St. Navy Yard to Langweis Strait.
On the Eastern side very few changes have been made
since the survey of 1896 to save those necessary in
the growth of the towns of Valley and South Valley.
by the building of wharves, boat landings, and
the construction of the Napa Branch Railroad.
At South Valley there are most prominent by the
building of the R. R. Wharf, over a quarter of a
mile long, some lumber wharves North of the
R. R. Wharf, and the erection of the star flowing
mill and wharves adjacent.

On the Western shore (Eastern face of
Mare Island) there are a number of artificial changes
as in the construction of buildings, removal of break-
water dead, &c. and some slight natural ones
by the growth of the tide. Northward from the
Navy Yard a belt of this growth extends for three-
thousand of a mile, and 1000 metres wide, outside of
the High Water Mark of the previous survey. A small growth of the same nature has made at the southern end of the Navy Yard. The shore line of the fast land of the island shows no material change.

Of the hydrography of this portion of Napa Aukt has been expected, great changes would have been found at South Vallejo. Where formerly 30 ft. of water was found at end of wharves, dredging is now necessary to permit the docking of vessels; as also at the sides of these wharves, small blind channels, to serve as basins for discharging vessels, were dredged, outside of which beds the water was so shallow that any whaleboat would ground before low water.

At the entrance to Napa Aukt from Carquinez Strait, the width is greatly contracted. Shuttled by the extension of the Star Mill wharf on the Eastern, and the Naval Magazine wharf on the Western sides.

The shore line of the Western side of the fast land of Ulva Is. shows little or no change. It is proper, however, to state that on account of dense fogs prevailing at the times of the lowest low water, it was impossible to obtain
the outline of the small reef near the Western shore and parallel through, and from three-quarters to one mile N. and W. of Ulack Lt. Light House. Unless this reef was fully developed in the hydrography of San Pablo Bay, I suggest that the full extent as shown in the original work by Assick Cutts, be retained.

At a point on the shore line of San Pablo Bay, about a mile and a half N.W. from N. end of the first land of Ulack Lt. it will be seen that the marsh shore begins to deviate considerably from the previous survey. This is the result of a washing away, a few years ago, during a very heavy earthquake. At the Western limit of the chart a difference of 120 metres is shown between the position of the former and present shore line.

No contours were run on this chart, as no apparent changes had taken place.
Sheet No. 3.
From Western limit of Sheet No. 2 to Mouth of
Poley Creek, including Mouth of Sonoma Creek.

The concluding remarks for Sheet No. 2 as
to the change of the Wash line, hold good for Sheet
No. 3 to the Mouth of Sonoma Creek, and thence S.W.
ct Poley Creek, although the cutting has not been
to extensive. The smallest appearance of the Wash
shore where the Wash has occurred is rather peculiar.
Inside the Mouth of Sonoma Creek there
has been comparatively little change, except that
the Northern half of a large marshy island between
Sonoma and Poley Creeks has been dyked, though
as yet insufficiently for perfect reclamation; that
portion extending from Sonoma to Poley Creeks and
effective in the Pettle Bay is not dyked. On the
dyked part to the west bank of Sonoma Creek,
a little over a mile inside of the mouth, are
shown some improvements belonging to Mr. C. L.
Putts. At this place an extensive well was torn
250 ft. deep, but instead of fresh water as was
desired a flow of natural gas appeared. This was
used advantageously for illuminating, heating, and cooking.
purposes.

The survey of Poley Creek was continued beyond the limits of the former work to show it junc-
tion with Russian Creek.

The name "Poley" Creek seems to be a mis-
nomen. It was adopted by Mr. Rodgers when he
made the original survey, but for what reason he
does not now recollect. It is a name, as applied
to this slough, entirely unknown there even to
"ye oldest inhabitant." There formerly existed
a small, insignificant water course, emptying into
the main slough several miles above the mouth,
and which was called Poley Creek because it was
the outlet of a small pond which was called Po-
ley Lake. This having been drained, no longer
exists. Whatever all "Poley Creek" is uniuersal-
ly known as "Windshipman Slough" for the reason
that in the very early California days two mid-
shipmen were there murdered by the boat's crew.

The west shore of Poley Creek as far as shown on this sheet; and all the marsh
land from where the first land approaches close to
the creek has been reclaimed and in use in cul-
tivation.
On the Western part of the sheet is shown a portion of the Sonoma Valley Rail Road, Narrow Gauge, which continues up the Valley, through the town of Sonoma, one of the oldest towns in the State, to the Village of Glen Ellen.
From Foley Auk to Petaluma Auk and along the Eastern shore of the latter, a large amount of marsh has been reclaimed by ditches and ditches, and is successfully cultivated. About three-fourths of a mile E. of the entrance to Petaluma Auk is the Sonoma landing, where steamboats from San Francisco connect with the Sonoma Valley R. R. This landing is connected with the main shore, 700 feet distant, by a track built on piles. At low tide the flats are bare from the shore to the inner side of the landing.

Generally the shore on North and East side of Petaluma Auk presents no greater changes than might naturally be expected from the reclamation of marsh, except in the greatly reduced area of a large slough on the East side and two and one half miles from mouth. Though this slough steamboats formerly passed at high water, now the marsh has so grown by deposit of sediment that in places a boat can hardly be pulled through, and at its North end is dried off.
On Western side of Petaluma Creek, 1½ miles inside of Entrance, a considerable portion of the marsh between the shore line and fast land has been reclaimed, and part of it cultivated. Wherever the fast land is immediately contiguous to the shore, no marked change has occurred.

Formerly the marsh from Novato Creek (North side) extended seaward of the island of fast land called Petaluma Pk., and opened on the shore line of Petaluma Ck. This arm of marsh is now cut off by a dyke, and is reclaimed.

On both sides of mouth of Novato Creek extensive changes will be seen from the great growth of the tide, or rather the *Elymus* *Maritima*; on the South side this has extended 1300 metres Eastward of the shore line of the previous survey. The positions of the stations "No Grass" and "S. Grass" give a good idea of the extent of this growth. South of the mouth of Novato Creek, it takes root and increases quite rapidly, and by retardation of the currents causes a large portion of the muddy sediment held in suspension in the waters to be deposited, thus forming new marsh, which, in the course of years, can be reclaimed and utilized for agricultural purpose.
As will be seen from the sketch a great amount of the
meadow on the side of the Creek has been dyked and
is under reclamation, and the owner proposes to
carry the work into the tide as far as practicable.

By instructions from Assistant Engineers I
was directed to continue the work described to include
the track of the San Francisco and North Pacific R.R.;
but on account of the rapid rise of the allotment for
the season this could not be done. Then work is
resumed, this can readily be readied, and then also
the branch line now being built can be added.

This latter line, which was only under consideration
when I was at work in that locality, branches off
from the main line at a near the R.R. station
called "Pacheco" (not near Pacheco A), near M.E.
crossing the Napa R., and the Merced on its side
thereof, passes through the lowest arms of the
marsh penetrating the hills W. of Petaluma Rd.
and will cross the Petaluma R. by means of a
bridge with a draw; then crosses the reclaimed
ground on E. side of Petaluma R., until it makes
a junction with the Sonoma Valley R.R. about
three-quarters of a mile southeasterly from Sears A. site
on this branch of the R.R. had not been completed.
at the time my operation closed, but is now going on, with the prospect of extending the line across the
coast from Polson Cr. to Atapi Cr. and possibly
to Benicia.

The determination of the Soth Water
Mark in connection with the work on San Pablo
Bay, was found to be so unsatisfactory that I aban-
donned the attempt. The bottom ceases so very grad-
ually that a change of a few miles in fall of the
tide would make a large change in the location
of the Soth Water, and in many places would be
so far off as to be beyond the use of the tenneter
and at the same time the water would be so
shallow that a boat could not reach the place
I deemed it best, therefore, that the Soth Water
should be located from the hydrography.

Respectfully Submitted

San Francisco, Cal.
May 22, 1856.