

HYDROLOGY STUDY OF MUD
SLOUGH (NORTH), MERCED COUNTY

California Regional Water Quality Control Board
Central Valley Region
3443 Routier Road
Sacramento, California 95827-3098

February 1989

HYDROLOGY STUDY OF MUD
SLOUGH (NORTH), MERCED COUNTY

California Regional Water Quality Control Board
Central Valley Region
3443 Routier Road
Sacramento, California 95827-3098

February 1989

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

Board Members

Karen Vercruse, Chair
Clifford C. Wisdom, Vice Chair
John S. Corkins
Hugh V. Johns
Paul E. Simpson
W. Steve Tompkins
W. M. "Walt" Winn

William H. Crooks, Executive Officer

The staff involved in the
preparation of this document are:

Wayne Pierson, Staff Engineer
Edward James, Engineering Geologist
Ron Thomasson, Engineering Assistant

TABLE OF CONTENTS

	Page
Introduction	1
Background	1
Methods and Results	3
 <u>List of Figures</u>	
Fig. 1 Location Map	2
Fig. 2 Discharge and Diversion Site Map	4
Fig. 3 Discharge and Diversion Sites South of Gun Club Road	5
 <u>Appendices</u>	
Appendix A - Index to Mud Slough (North) Discharge and Diversion Sites	A-1
Appendix B - Flow Diagrams	B-1
Appendix C - Discharge and Diversion Descriptions	C-1

INTRODUCTION

The State Water Resources Control Board (SWRCB) hearings on the problems at Kesterson Reservoir identified the need to control the discharges of agricultural subsurface drainage in the San Joaquin River Basin. SWRCB Order No. WQ 85-1, in part, requires that the Central Valley Regional Water Quality Control Board (Regional Board) adopt appropriate basin plan amendments and implement a program to regulate agricultural drainage flows in the San Joaquin River Basin. As part of the regulatory program, the Regional Board intensified monitoring of agricultural discharges, required agricultural dischargers to monitor the quality of their discharges and initiated drainage hydrology investigations for the agricultural areas on the westside of the San Joaquin River.

The majority of the subsurface agricultural drainage pollutant load discharged to the San Joaquin River enters via Mud Slough(North) and Salt Slough in Merced County. However, there was little hydrologic information available on these sloughs prior to this investigation. This study was initiated to gain information about the hydrology of Mud Slough(North) especially as it relates to subsurface agricultural drainage. The objectives of the study were to physically characterize Mud Slough(North) and identify the surface hydrologic influences on it. The goal of the study was to develop information that could be used in identifying the beneficial uses and appropriate water quality objectives for Mud Slough(north) and in developing the portion of the regulatory program that deals with the discharges to and from Mud Slough(North).

BACKGROUND

Mud Slough(North) is located in Merced County in the San Joaquin Valley, and is a tributary of the San Joaquin River. There are two Mud Sloughs in the area, and for the purposes of clarification the one described here is denoted Mud Slough(North).

Mud Slough(North) is a typical valley floor slough. It has a very small slope; it meanders and is generally shallow and slow moving except during periods of exceptionally high flow. It runs from Kesterson Ditch north to the San Joaquin River(Figure 1). It enters the San Joaquin River approximately two miles upstream of the Merced River confluence. Its principal tributaries are Kesterson Ditch, Fremont Canal, Santa Fe Canal (and Eagle Ditch through the Santa Fe Canal) and Los Banos Creek.

Mud Slough(North) drains the area west of the San Joaquin River. It also receives subsurface agricultural drainage from irrigated agricultural lands to the south and west in Merced and Fresno Counties. During the winter and early spring its flows are a mixture of subsurface agricultural drainage, precipitation runoff, and discharges from local duck clubs and wildlife refuges. During the summer and fall its flows are made up of agricultural tail water, irrigation district spill water and subsurface agricultural drainage.

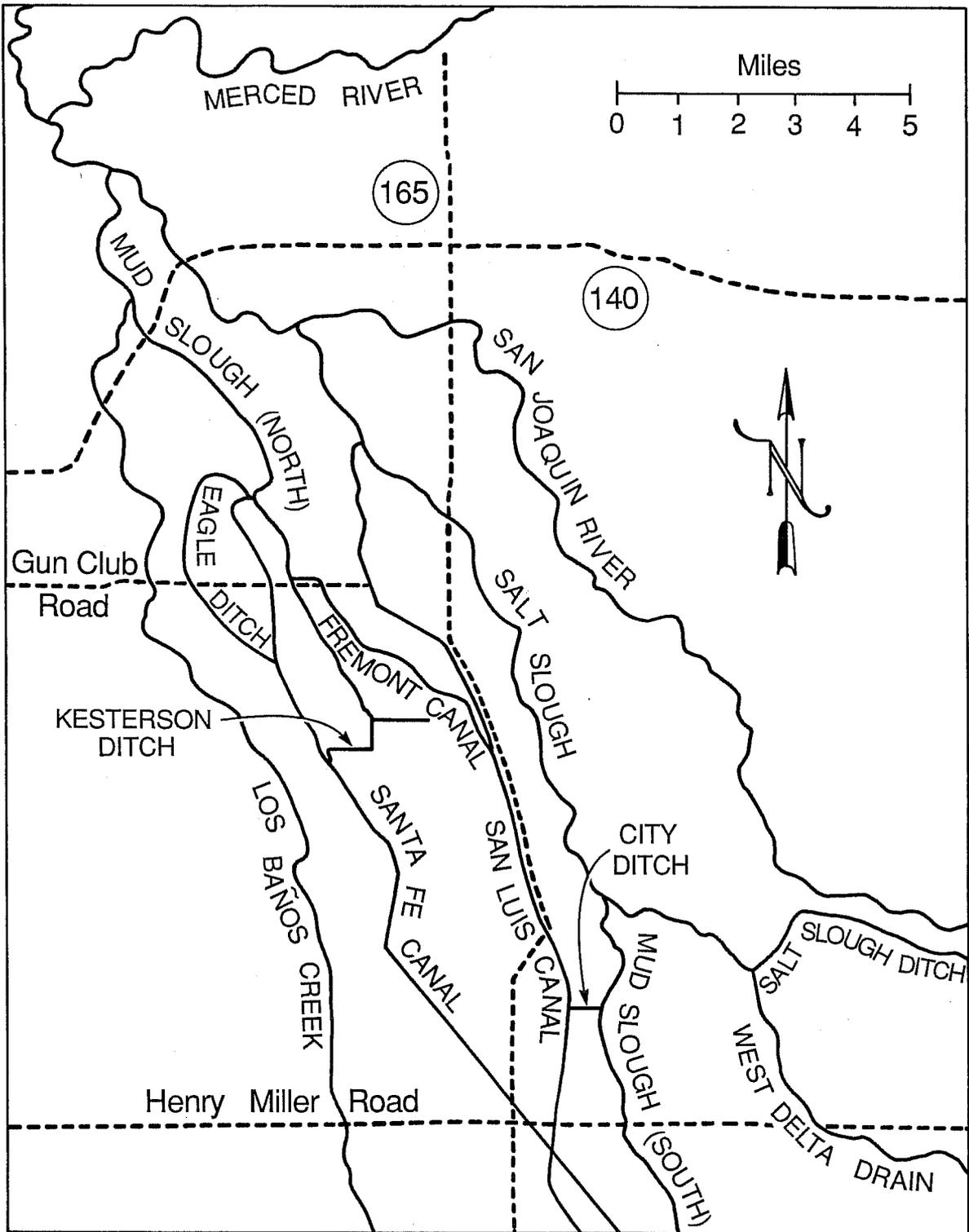


Figure 1. Location Map.

METHODS AND FINDINGS

The study was initiated in early 1987, the field work completed by the end of the summer of 1987, and the study essentially completed by the end of 1987. The following describes the methods used to gather information, describes the appendices which contain the detailed information gathered, and presents a summary of findings.

Methods

Several methods were used to gather information about Mud Slough(North). Initially, it was surveyed by air. Additional information was obtained from U. S. Geological Survey Topographical Quadrangles and Regional Board files. Lastly, an on-the-ground inspection of the entire length of Mud Slough(North) was done.

The on-the-ground inspection of Mud Slough(North) consisted of traveling its entire length, noting the location and type of all discharges and diversions, and identifying the source of all discharges. Detailed photographs of each site are available in Regional Board files. The detailed information compiled by this study is presented in Appendices A through C. The appendices contain:

Appendix A - Index to Mud Slough(North) discharge and diversion sites

Appendix B - Flow diagrams for Mud Slough(North)

Appendix C - Discharge and diversion descriptions

The index to Mud Slough Discharge and Diversion Sites lists the sites in order from south to north, identifies the sites by a unique site number, locates the site by distance along the slough, references the photographs of the site, and provides a brief site description. The flow diagrams locate the discharges and diversions by distance along the slough (in "slough miles") and the direction from which they enter or leave the slough. The Discharge and Diversion Descriptions provide additional detailed information on location including a description of how to access the site, information on the type or source of discharge, any monitoring that is regularly done of the discharge and the ownership of the discharge or diversion.

Findings

Mud Slough(North) has 42 discharges and 2 diversions. Figures 2 and 3 locate each discharge and diversion site by their unique site number. Most discharges are from wetlands areas, either private duck clubs or federal refuges and are seasonal discharges of low volume. Both diversions are by gun clubs and the water is now used for pasture irrigation and on some field crops. Prior to 1985, the water was used to maintain seasonal wetlands.

Half of the discharges enter Mud Slough(North) prior to Gun Club Road, i.e. in the first 3.4 out of 16 miles. However, the major discharges

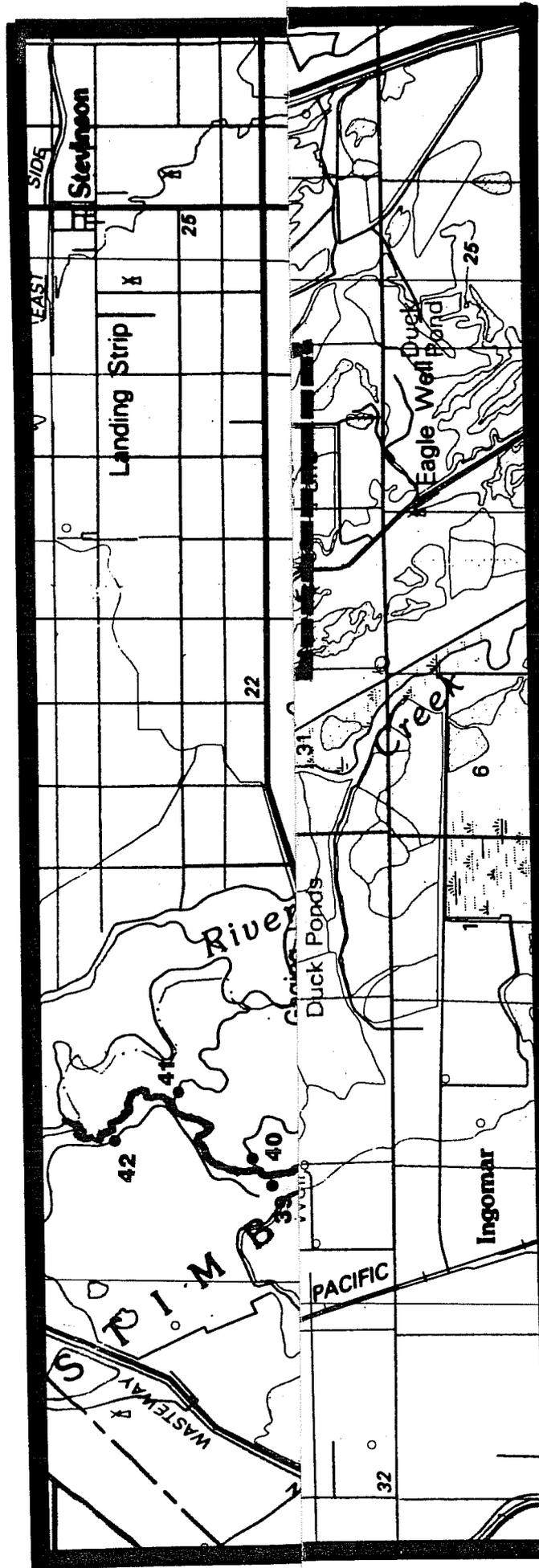


Figure 2. Discharge and Diversion Site Map

APPENDIX A

INDEX TO MUD SLOUGH(NORTH)
DISCHARGE AND DIVERSION SITES

INDEX TO MUD SLOUGH(NORTH) DISCHARGE AND DIVERSION SITES

Discharges

<u>Site*</u>	<u>Slough Mile</u>	<u>Photograph #**</u>	<u>Description of Site</u>
MSL000	0.00S		Discharge from duck pond south of Kesterson Ditch
MSL001	0.00S	Q9, Q11	Intake from Kesterson Ditch
MSL002	0.02W	Q10	Inlet from ditch next to the Slough
MSL003	0.45W	Q8	Pond drain (undercrossing of the road)
MSL004	0.53W	Q7	Pond drain
MSL005	0.65W	P20	Pond drain
MSL006	0.95E	Q6	Pond drain (through weir)
MSL007	1.05W	Q5	Pond drain
MSL008	1.10S	Q4	Pond drain
MSL009	1.25S	Q1, Q2	Pond drain
MSL010	1.35E	P22-P25	Coast Cattle Gun Club Waste Discharge
MSL011	1.59S	Q3	Large pond drain
MSL012	1.63E	Q19	Pond drain
MSL013	1.79W	Q18	Pond drain
MSL014	2.06W	Q17	Pond drain
MSL015	2.20E	Q16	Pond drain
MSL016	2.23W	Q15	Pond drain
MSL017	2.40W	Q14	Ditch from Santa Fe Canal
MSL018	2.41E	Q13	Pond drain
MSL019	2.86E	Q12	Pond drain
MSL020	3.07E	Q20	Pond drain
MSL021	3.41W	P18, P19	Pump discharge and gravity discharge from same channel

<u>Site*</u>	<u>Slough Mile</u>	<u>Photographs**</u>	<u>Description</u>
MSL022	3.46E	P8	Fremont Canal discharge
MSL023	4.53S	P9	Duck club drain, water comes from Santa Fe Canal
MSL024	5.44W	P10	Santa Fe Canal discharge
MSL025	5.77S	P11	Pond drain
MSL026	6.76E	P12	Pond drain
MSL027	6.92E	P13-14	Pond drain
MSL028	7.53W	P4-5	Major drain for this portion of Kesterson Wildlife Refuge
MSL029	7.98W	P3	Pond drain
MSL030	8.59W	P2	Pond drain
MSL031	8.84E	P15-16	Pond drain
MSL032	9.82E	P17	Pond drain
MSL033	10.24W	P1	Pond drain
	10.27		Highway 140 (reference point)
MSL034	11.63E	R1	Large drain that originates south of Highway 140
MSL035	11.80W		Small pond drain
MSL036	12.15W	R3	Los Banos Creek discharge
MSL037	12.42E		Pond drain
MSL038	12.91W		Large pond drain
MSL039	13.92W		Pond drain
MSL040	13.98E		Large drain
MSL041	14.90E		Large drain
MSL042	15.58W		Large drain
	15.98		Mud Slough(North) entering the San Joaquin River (reference point)

Diversions

<u>Site*</u>	<u>Slough Mile</u>	<u>Photographs**</u>	<u>Description</u>
MSL043	1.28S	P21	Coast Cattle Gun Club Pump
MSL044	13.14E		Newman Gun Club Pump

* MSL site numbers correspond to the numerical site numbers on Figures 2 and 3.

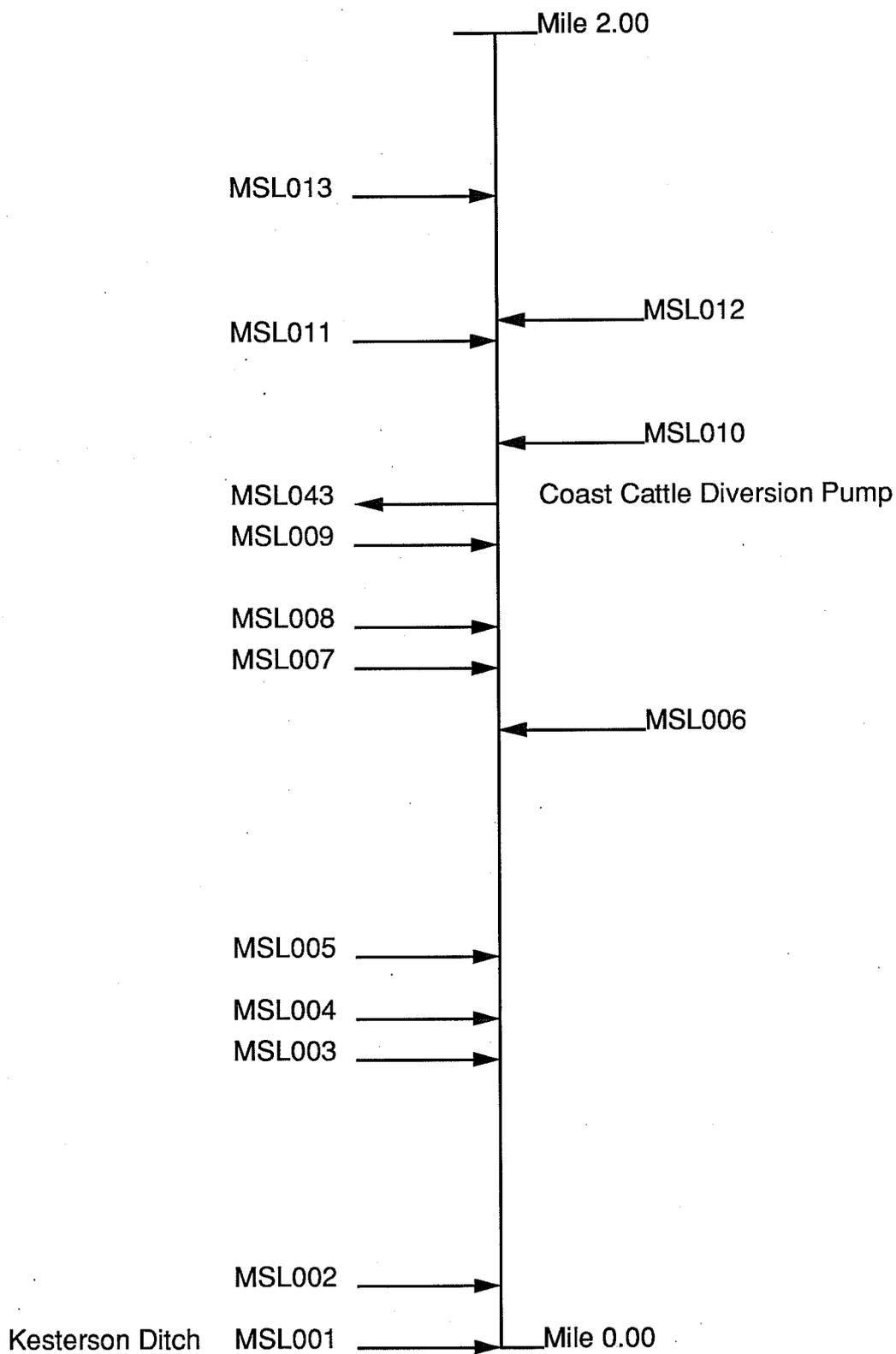
** Photographs are available in the Regional Board Files.

APPENDIX B

FLOW DIAGRAMS

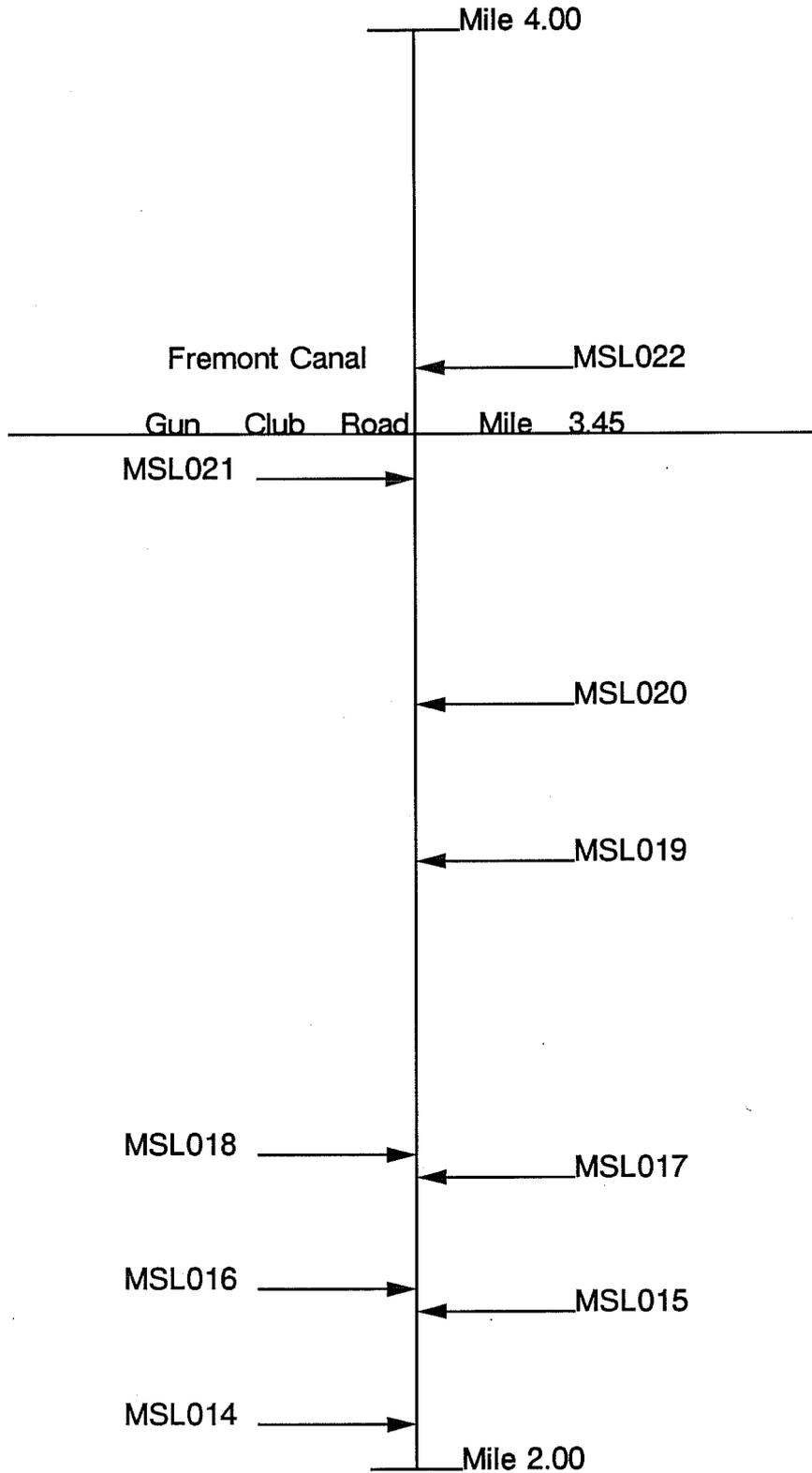
MUD SLOUGH (NORTH)

Mile 0.00 - Mile 2.00



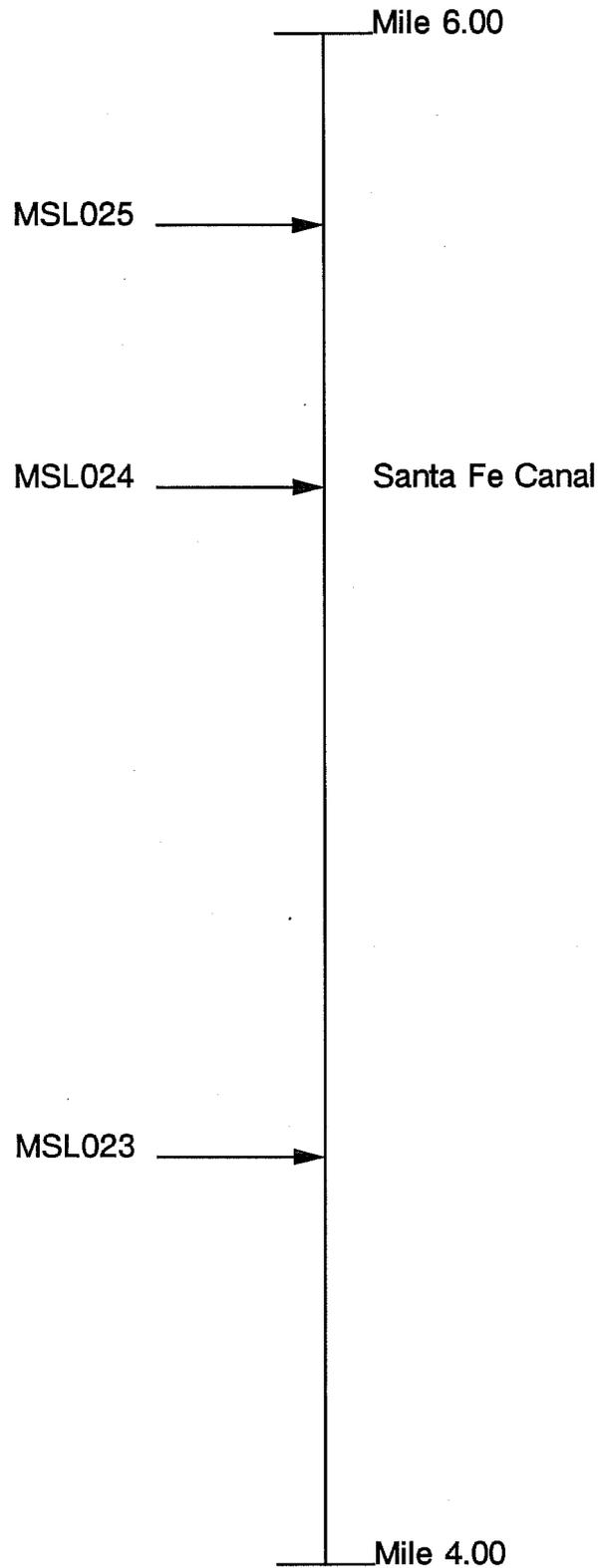
MUD SLOUGH (NORTH)

Mile 2.00 - Mile 4.00



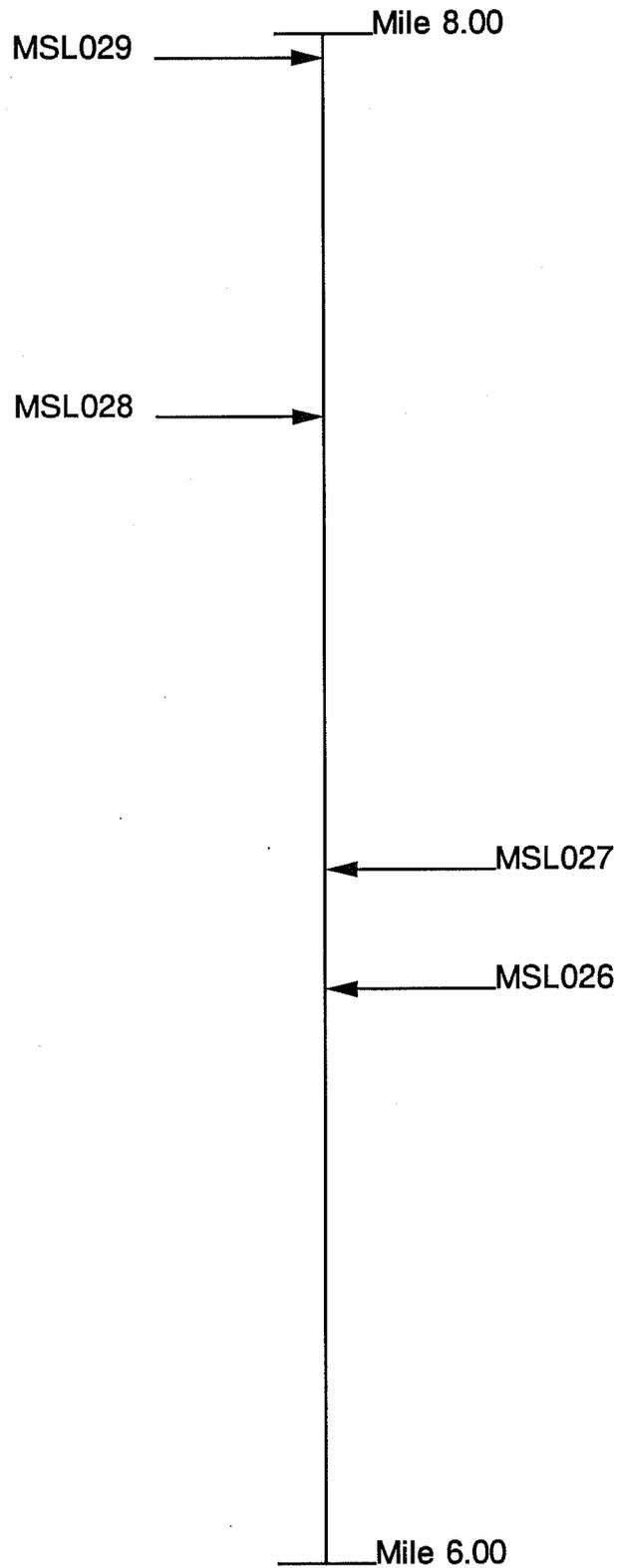
MUD SLOUGH (NORTH)

Mile 4.00 - Mile 6.00



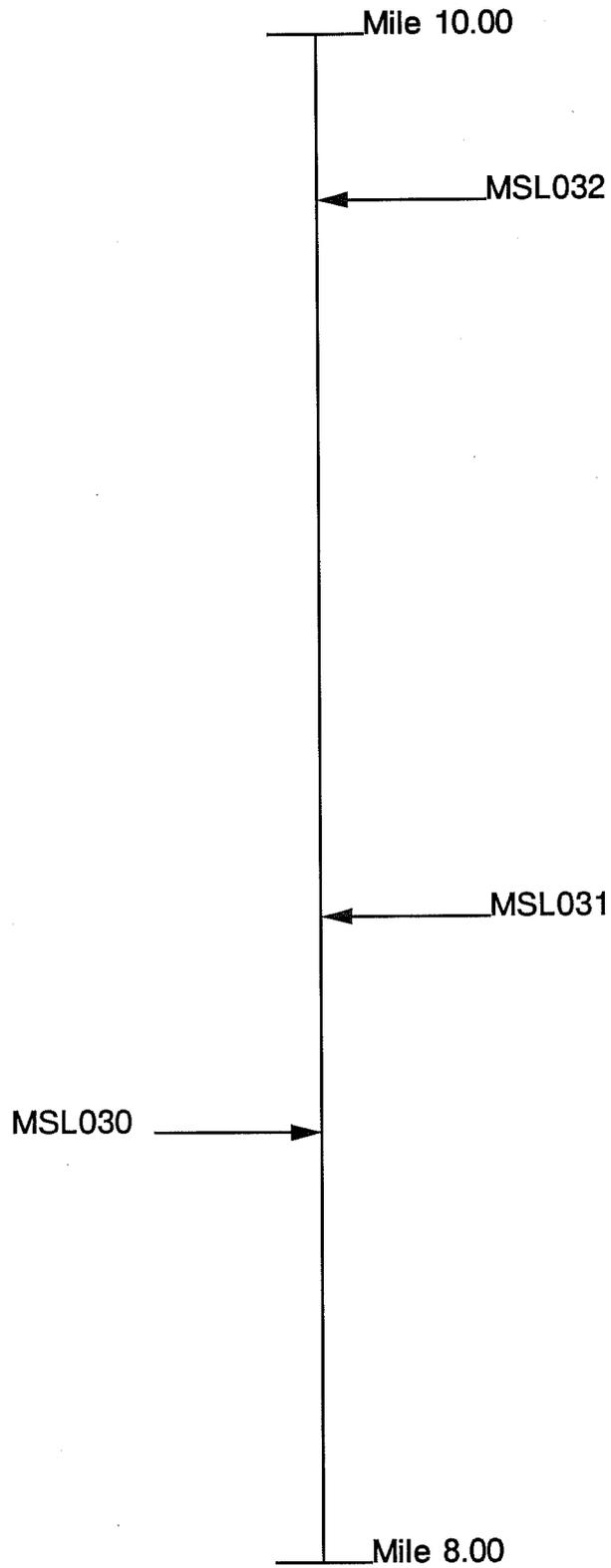
MUD SLOUGH (NORTH)

Mile 6.00 - Mile 8.00



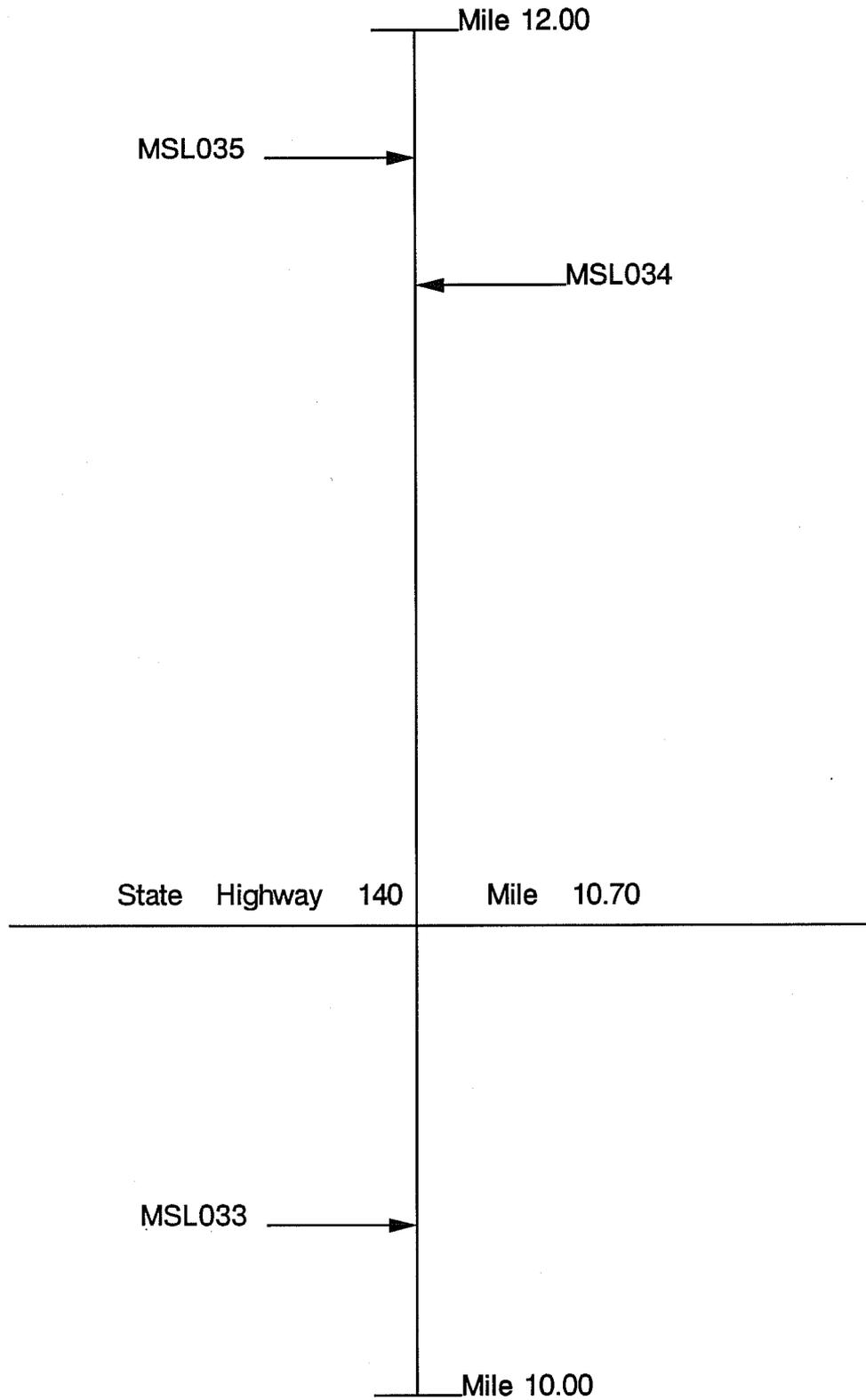
MUD SLOUGH (NORTH)

Mile 8.00 - Mile 10.00



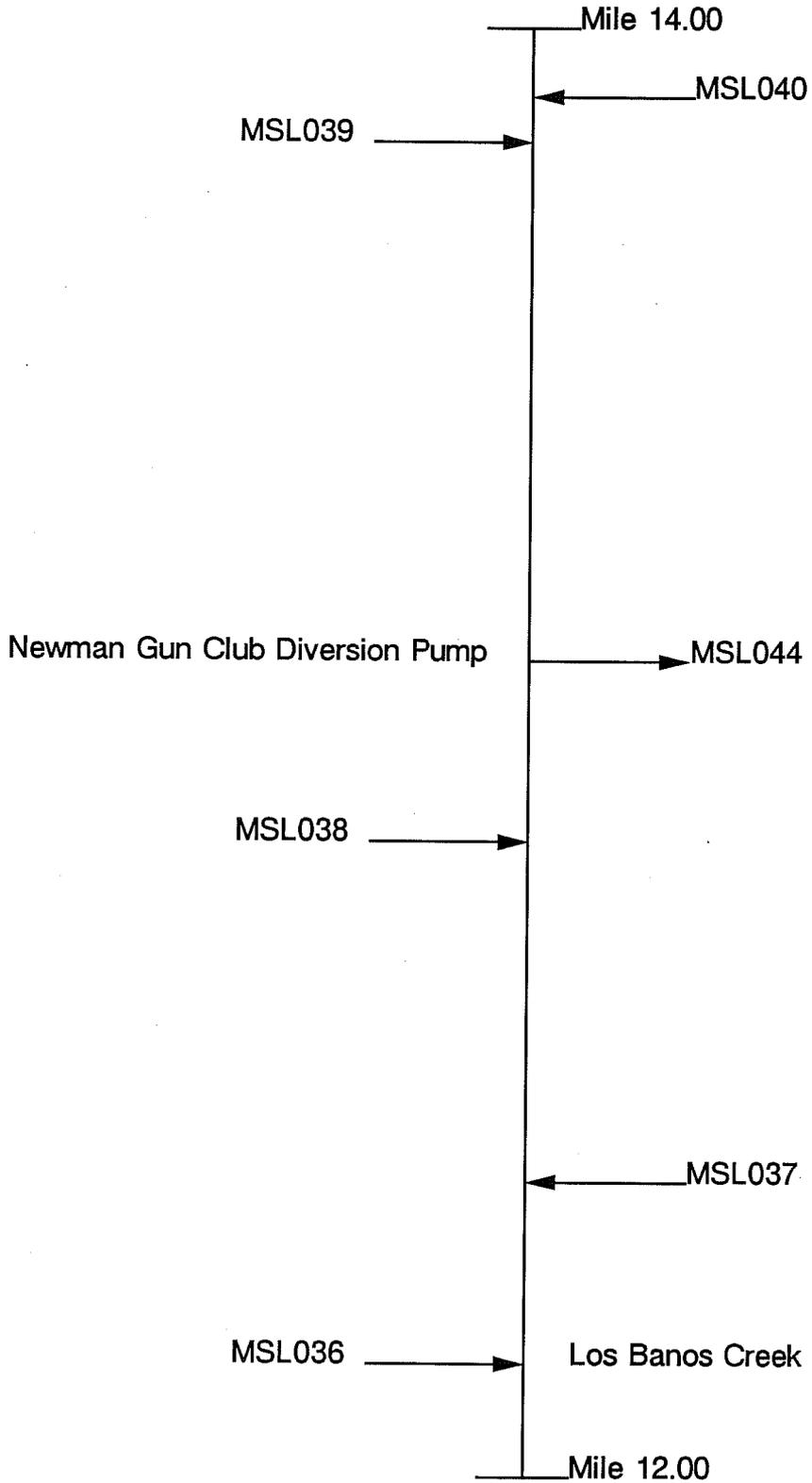
MUD SLOUGH (NORTH)

Mile 10.00 - Mile 12.00



MUD SLOUGH (NORTH)

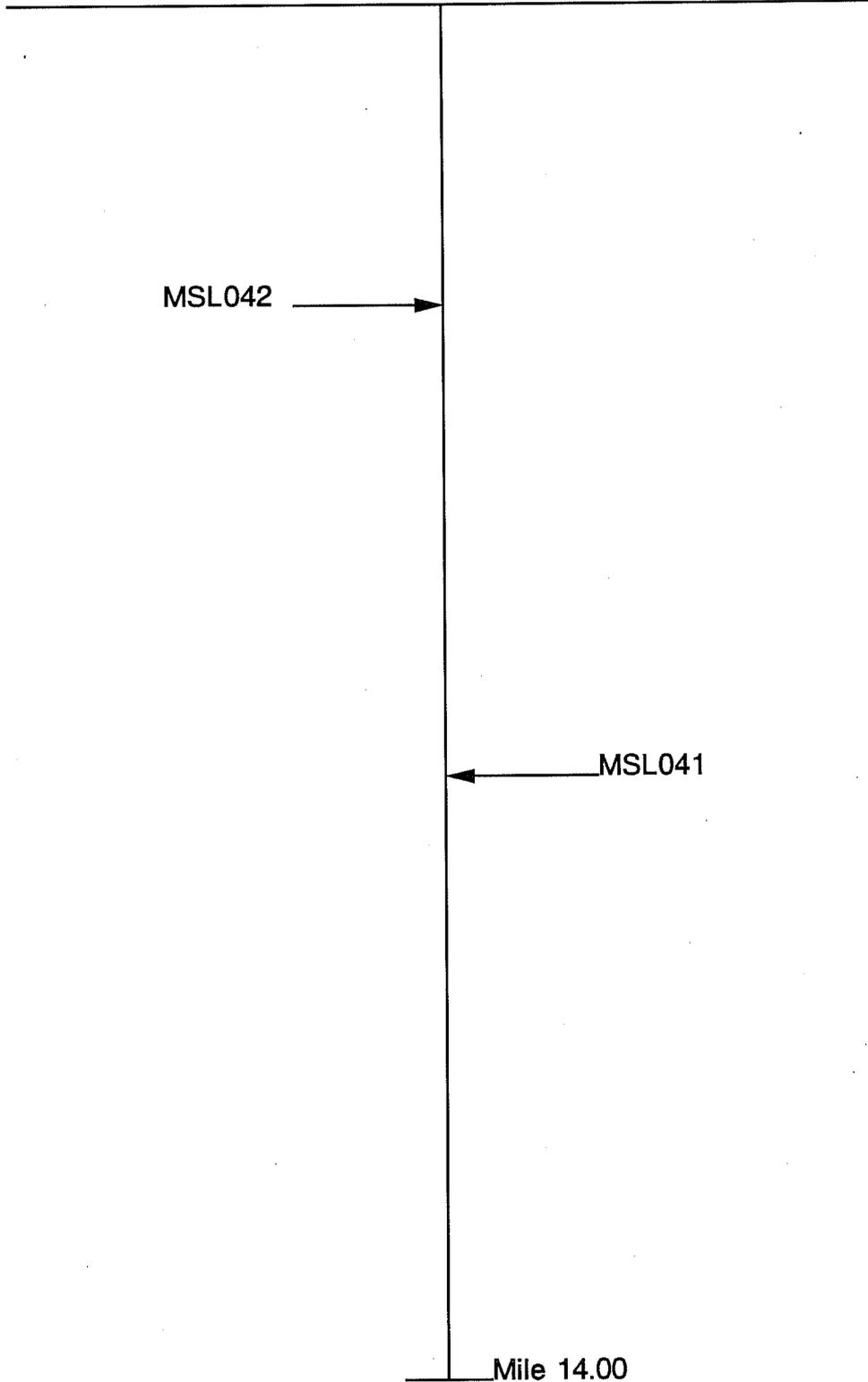
Mile 12.00 - Mile 14.00



MUD SLOUGH (NORTH)

Mile 14.00 - Mile 15.98

SAN JOAQUIN RIVER MILE 15.98



APPENDIX C

DISCHARGE AND DIVERSION DESCRIPTIONS

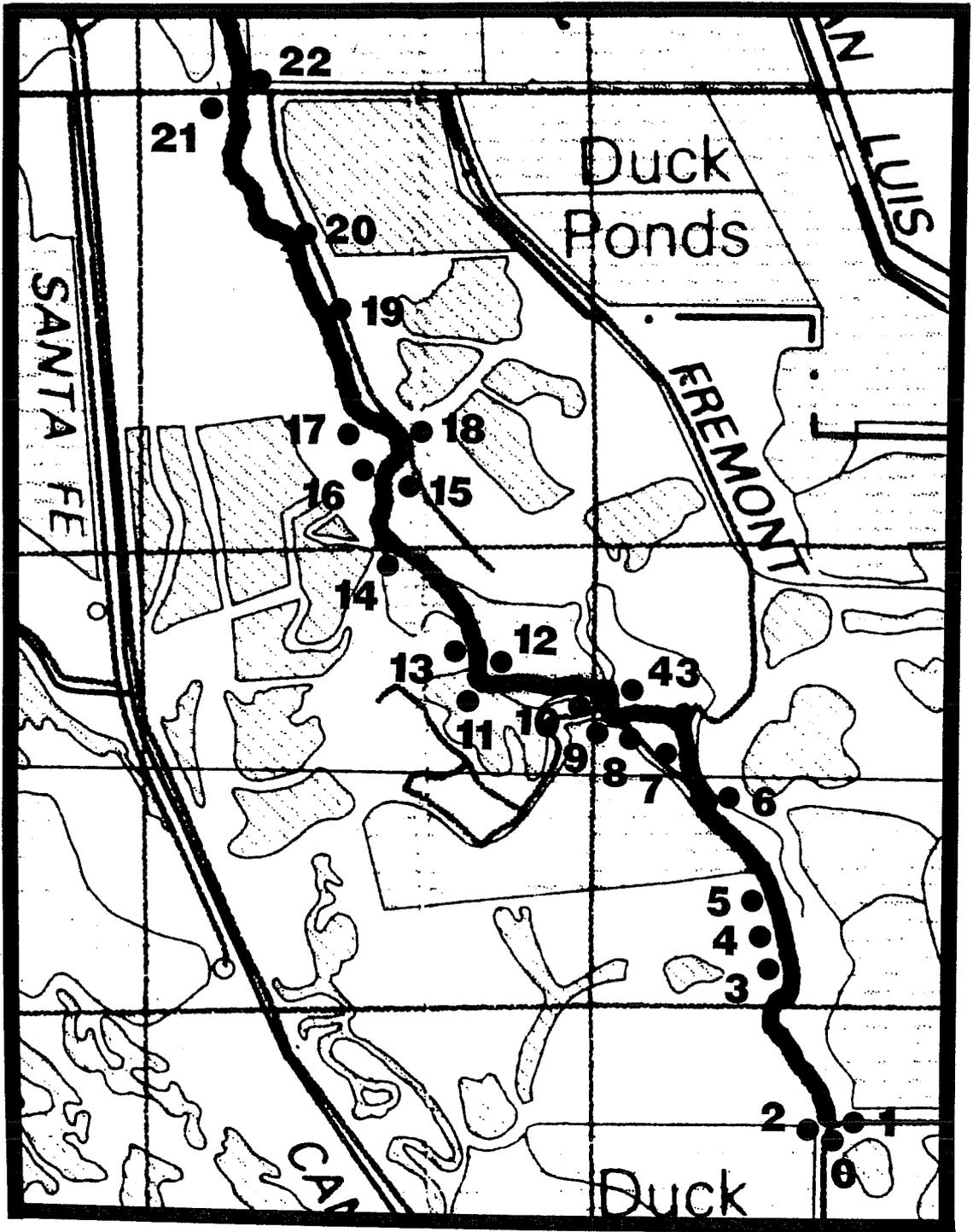


Figure 3. Discharge and Diversion Sites
South of Gun Club Road

are the tributaries; Kesterson Ditch, Fremont Canal, Santa Fe Canal and Los Banos Creek. The latter three of which enter downstream of Gun Club Road. All four tributaries may carry agricultural subsurface drainage and irrigation district spill water at one time or another. However the majority of the subsurface agricultural drainage reaches Mud Slough(North) via the Santa Fe Canal and the majority of the flows in Los Banos Creek are irrigation district spill water.

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL000

Site Name: Start of Mud Slough (North) **Slough Mileage:** 0.00S

Site description, location, and access: From Highway 152 take Mercy Springs Road north approximately 3.25 miles to the Santa Fe Grade. Head northwest on Santa Fe Grade approximately 3.4 miles to where the Santa Fe Canal turns north (0.3 miles past Wilson Road). Follow the Santa Fe Canal for approximately 3.5 miles to the Tri-City Gun Club. Kesterson Ditch begins here. Follow Kesterson Ditch for approximately 1.4 miles to where the ditch heads east. At this point two large pipes run under Kesterson Ditch from a duck pond south of the ditch to Mud Slough north of the ditch. This is the start of Mud Slough.

Township/Range/Section: SW 1/4, NW 1/4, NE 1/4, Sec. 33, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 11'54"/120° 52'29"

County: Merced

USGS Quad Map: San Luis Ranch

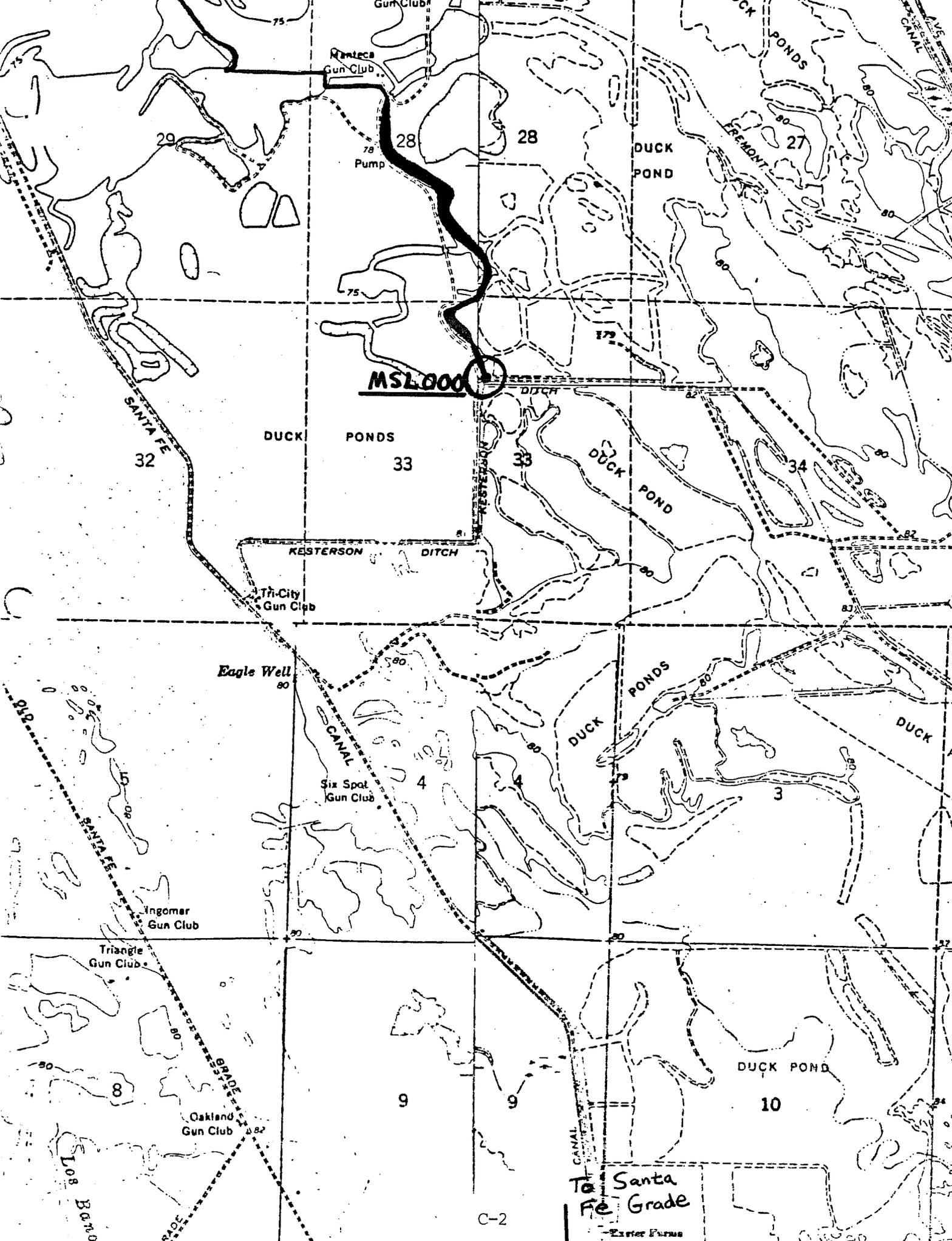
WATER SOURCE

Type and source of water being discharged (description): The water discharged at this point is duck pond drainage from duck ponds south of Kesterson Ditch.

Comments on factors affecting water quality and quantity at the site: This discharge is duck pond drainage and therefore flow will be highly seasonal.

Discharge Ownership and Operation: Reeves Lake Land Co. LTD
c/o L.E. Austin
2125 Amador St.
Fresno, CA 93721

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



MSL000

Santa Fe Grade
Earlier Form

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL001

Site Name: Kesterson Ditch Discharge

Slough Mileage: 0.00S

Site description, location, and access: From Highway 152 take Mercy Springs Road north approximately 3.25 miles to the Santa Fe Grade. Head northwest on Santa Fe Grade approximately 3.4 miles to where the Santa Fe Canal turns north (0.3 miles past Wilson Road). Follow the Santa Fe Canal for approximately 3.5 miles to the Tri-City Gun Club. Kesterson Ditch begins here. Follow Kesterson Ditch for approximately 1.4 miles to where the ditch heads east. The Kesterson Ditch discharge to Mud Slough is a gate valve to a pipe going through the levee.

Township/Range/Section: SW 1/4, NW 1/4, NE 1/4, Sec. 33, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 11'54"/120° 52'29"

County: Merced

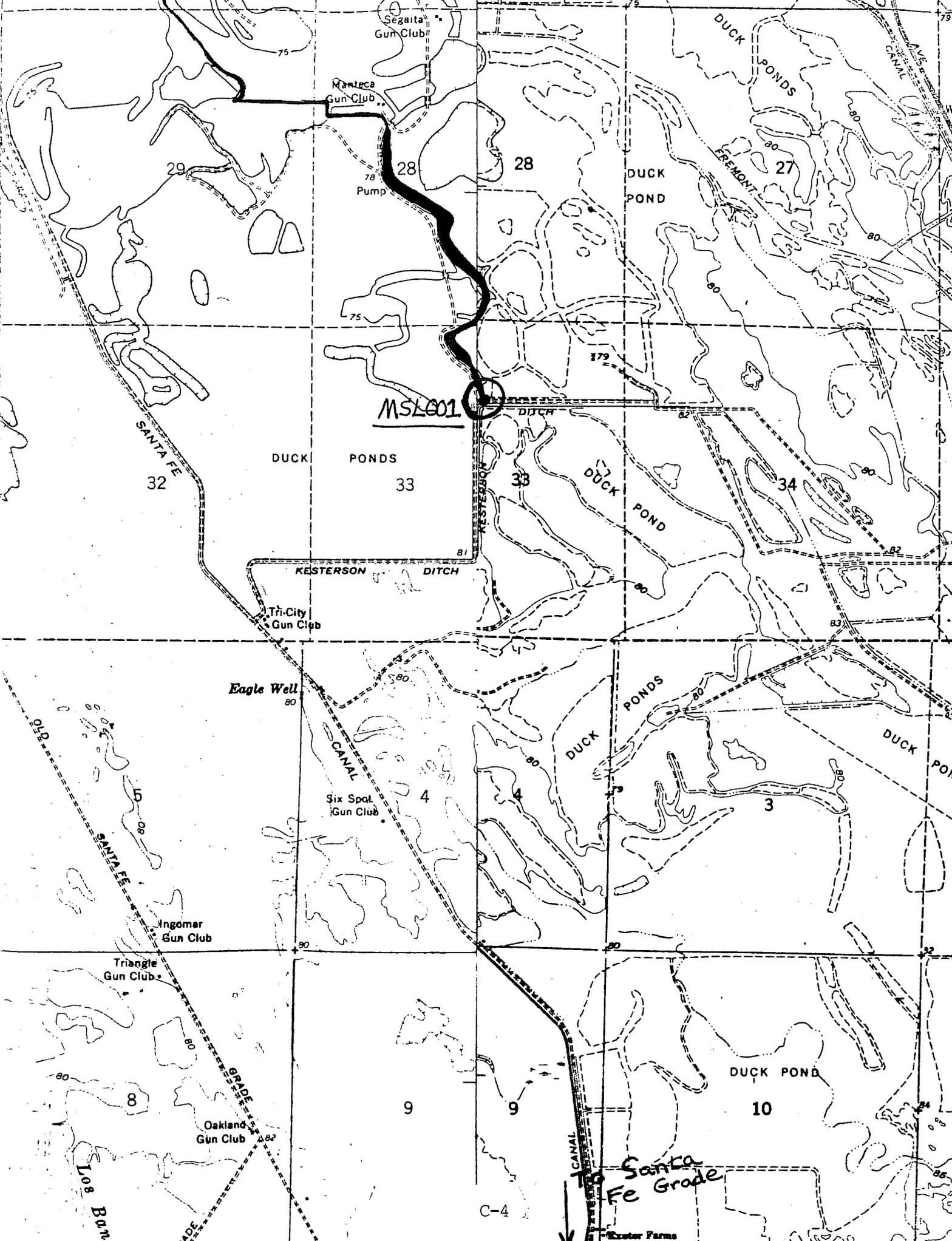
USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): The water discharged here comes directly from Kesterson Ditch. Kesterson Ditch receives its water from the Santa Fe Canal and is used to flood duck ponds.

Discharge Ownership and Operation: Grassland Water District
610 West Pacheco Blvd. (P.O. Box 1443)
Los Banos, CA 93635
(209) 826-5188

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL002

Site Name:

Slough Mileage: 0.02W

Site description, location, and access: From Highway 152 take Mercy Springs Road north for approximately 3.25 miles to the Santa Fe Grade. Head northwest on Santa Fe Grade approximately 3.4 miles to where the Santa Fe Canal turns north (0.3 miles past Wilson Road). Follow the Santa Fe Canal for approximately 3.5 miles to the Tri-City Gun Club. Kesterson Ditch begins here. Follow Kesterson Ditch for approximately 1.4 miles to where the ditch heads east. Mud Slough begins at this point. The discharge site is a pipe to Mud Slough from a ditch paralleling it on the west side.

Township/Range/Section: SW 1/4, NW 1/4, NE 1/4, Sec. 33, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 11'54"/120° 52'29"

County: Merced

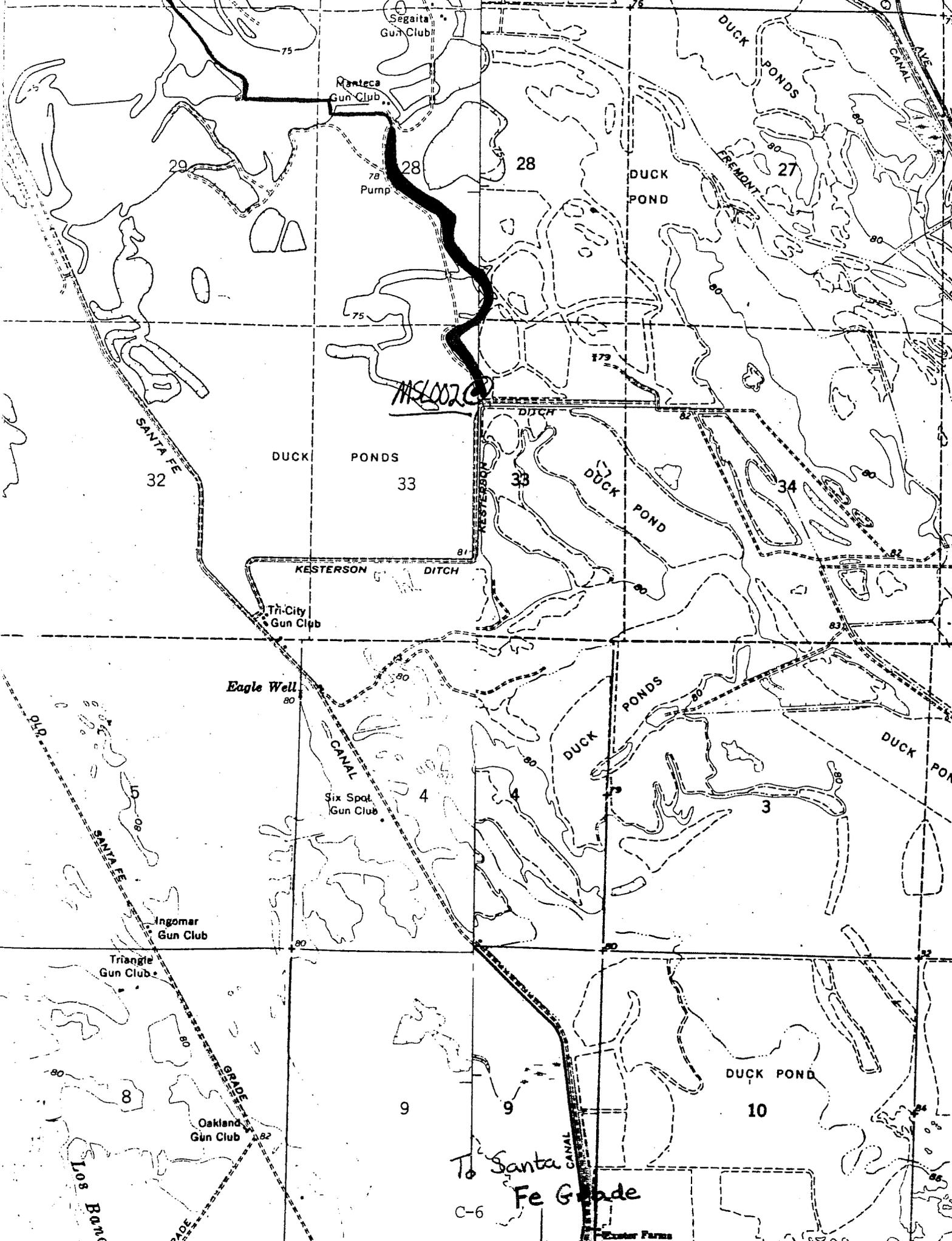
USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): The water discharged at this point is spill water from a paralleling ditch.

Discharge Ownership and Operation: Grassland Water District
610 West Pacheco Blvd. (P.O. Box 1443)
Los Banos, CA 93635
(209) 826-5188

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



Segaita Gun Club

Manteca Gun Club

Pump

MSL002

DUCK PONDS

KESTERSON DITCH

Tri-City Gun Club

Eagle Well

Six Spot Gun Club

Ingomar Gun Club

Triangle Gun Club

Oakland Gun Club

To Santa Fe Grade

C-6

DUCK PONDS

DUCK POND

EREMONT

SANTA FE

DITCH

DUCK POND

DUCK PONDS

DUCK POND

DUCK POND

10

9

9

8

Los B...

AVE CANAL

DIP

SANTA FE

GRADE

CANAL

Exterior P...

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL003

Site Name:

Slough Mileage: 0.45W

Site description, location, and access: From Highway 152 take Mercy Springs Road north approximately 3.25 miles to the Santa Fe Grade. Head northwest on Santa Fe Grade approximately 3.4 miles to where the Santa Fe Canal turns north (0.3 miles northwest of Wilson Road). Follow the Santa Fe Canal for approximately 3.5 miles to the Tri-City Gun Club. Kesterson Ditch begins here. Follow Kesterson Ditch for approximately 1.4 miles to where the ditch heads east. Mud Slough begins here. Follow Mud Slough north for approximately 0.4 miles to a pipe under crossing the road. At this point follow this channel (on foot) eastward to where the channel discharges to Mud Slough.

Township/Range/Section: SW 1/4, SW 1/4, SE 1/4, Sec. 28, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 12'11"/120° 52'27"

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): The water discharged at this point is duck pond drainage.

Discharge Ownership and Operation:

Flow originates
on property of:

Deer Park Properties, Inc.
c/o Carlo E. Vecchiarelli
2134 Hillside Drive
San Leandro, CA 94577

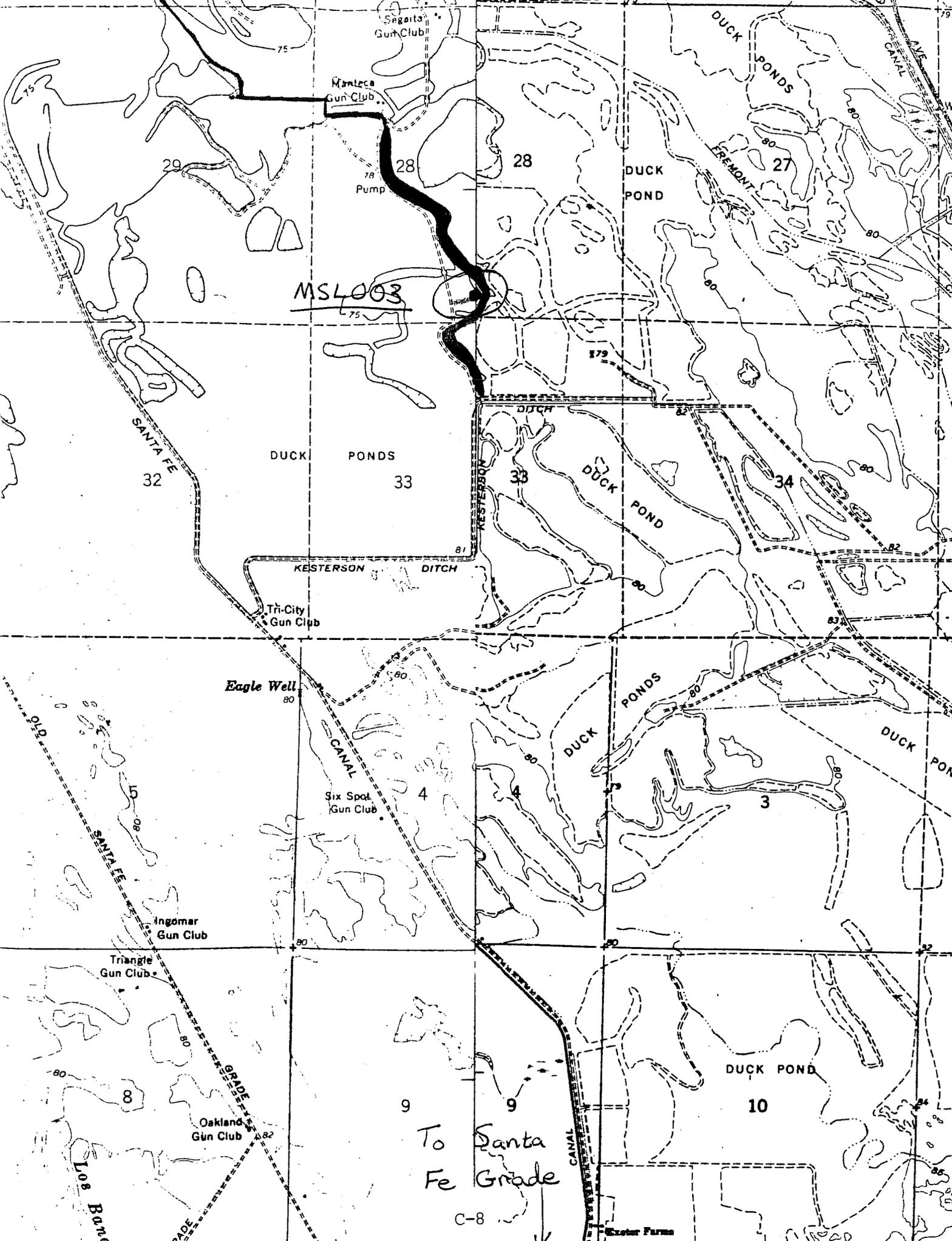
Discharges to

Slough on property of:

Meadowlark Investment Co.
c/o Ben F. Patricio
402 Washington Avenue
Los Banos, CA 93635

SKETCH/MAP:

Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



MSL 003

To Santa Fe Grade

C-8

Segara Gun Club

Manteca Gun Club

Pump

Tri-City Gun Club

Six Spot Gun Club

Ingomar Gun Club

Triangle Gun Club

Oakland Gun Club

Los Bunn

Exeter Farms

SANTA FE

OLD SANTA FE

GRADE

KESTERSON DITCH

DITCH

KESTERSON

DUCK PONDS

DUCK POND

FREMONT

DUCK PONDS

DUCK POND

DUCK PONDS

DUCK

DUCK PON

DUCK POND

29

28

28

27

32

33

34

33

4

3

8

9

9

10

179

C-8

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL004

Site Name: Slough Mileage: 0.53W

Site description, location, and access: From Highway 152 take Mercy Springs Road north for approximately 3.25 miles to the Santa Fe Grade. Head northwest on Santa Fe Grade approximately 3.4 miles to where the Santa Fe Canal turns north (0.3 miles northwest of Wilson Road). Follow the Santa Fe Canal for approximately 3.5 miles to the Tri-City Gun Club. Kesterson Ditch begins here. Follow Kesterson Ditch for approximately 1.4 miles to where the ditch heads east. Mud Slough begins here. Follow Mud Slough north for approximately 0.5 miles to a pipe under crossing the road. At this point follow this channel eastward to where the channel discharges to Mud Slough.

Township/Range/Section: NE 1/4, SE 1/4, SW 1/4, Sec. 28, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 12'17"/120° 52'32"

County: Merced

USGS Quad Map: Ingomar

WATER SOURCE

Type and source of water being discharged (description): The water discharged at this point is duck pond drainage.

Discharge Ownership and Operation:

Flow originates
on property of:

Deer Park Properties, Inc.
c/o Carlo E. Vecchiarelli
2134 Hillside Drive
San Leandro, CA 94577

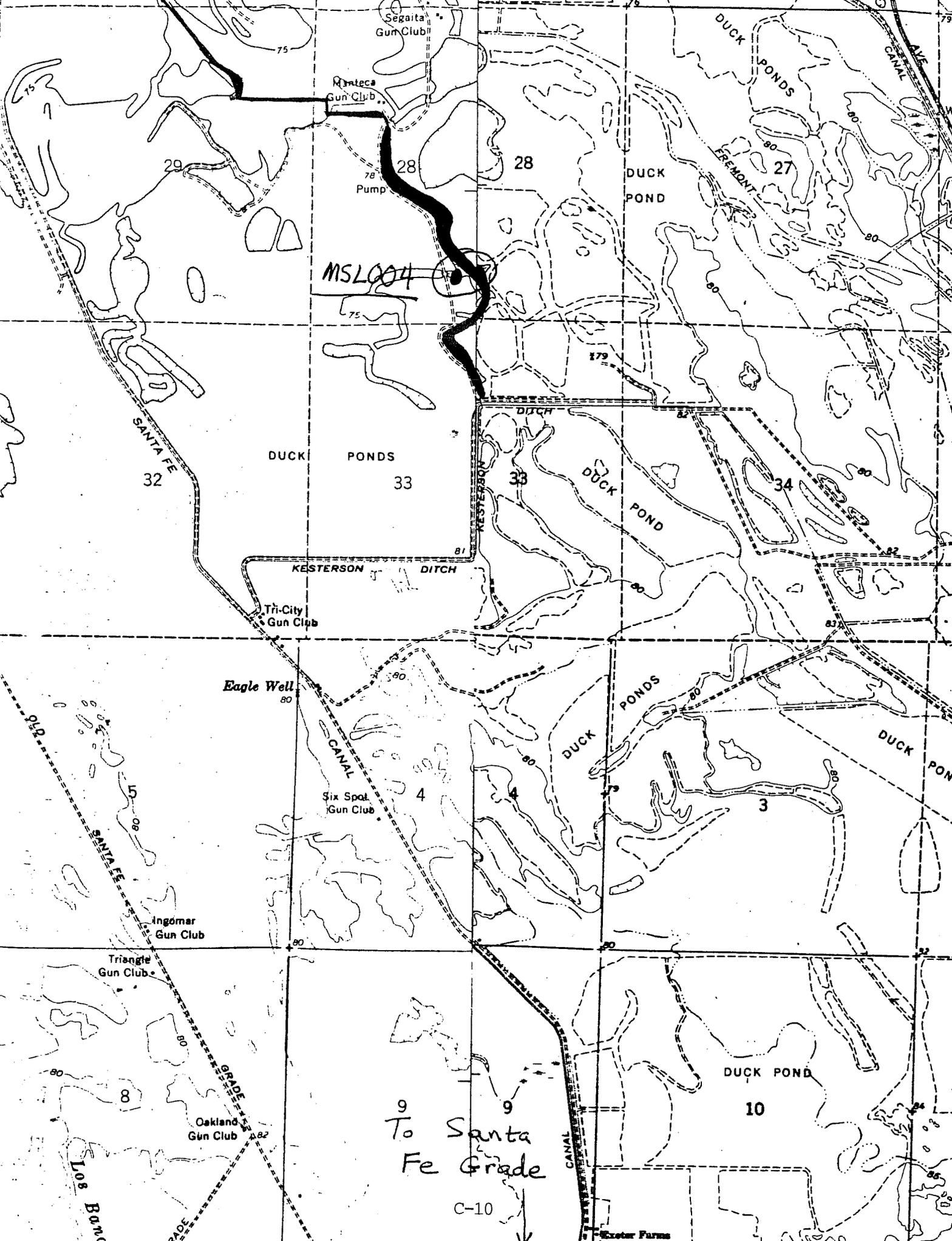
Discharges to

Slough on property of:

Meadowlark Investment Co.
c/o Ben F. Patricio
402 Washington Avenue
Los Banos, CA 93635

SKETCH/MAP:

Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



Segaita Gun Club

Monteca Gun Club

78 Pump

MSL 004

DUCK PONDS

33

KESTERSON DITCH

Tri-City Gun Club

Eagle Well

Six Spot Gun Club

4

Ingomar Gun Club

Triangle Gun Club

Oakland Gun Club

To Santa Fe Grade

C-10

DUCK PONDS

DUCK POND

FREMONT

27

SANTA FE

32

28

DUCK POND

33

34

DUCK PONDS

DUCK POND

DUCK POND

DUCK POND

10

LOS BANCOS

GRADE

CANAL

Kester Farms

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL005

Site Name:

Slough Mileage: 0.65W

Site description, location, and access: From Highway 152 take Mercy Springs Road north for approximately 3.25 miles to the Santa Fe Grade. Head northwest on Santa Fe Grade for approximately 3.4 miles to where the Santa Fe Canal turns north (0.3 miles northwest of Wilson Road). Follow the Santa Fe Canal for approximately 3.5 miles to the Tri-City Gun Club. Kesterson Ditch begins here. Follow Kesterson Ditch for approximately 1.4 miles to where the ditch heads east. Mud Slough begins here. Follow Mud Slough north for approximately 0.6 miles to where the road turns due west. The discharge is a channel just over the fence from this turn.

Township/Range/Section: SE 1/4, NE 1/4, SW 1/4, Sec. 28, T.8S, R.9E, MDB&M

Latitude/Longitude: 37° 12'22"/120° 52'38"

County: Merced

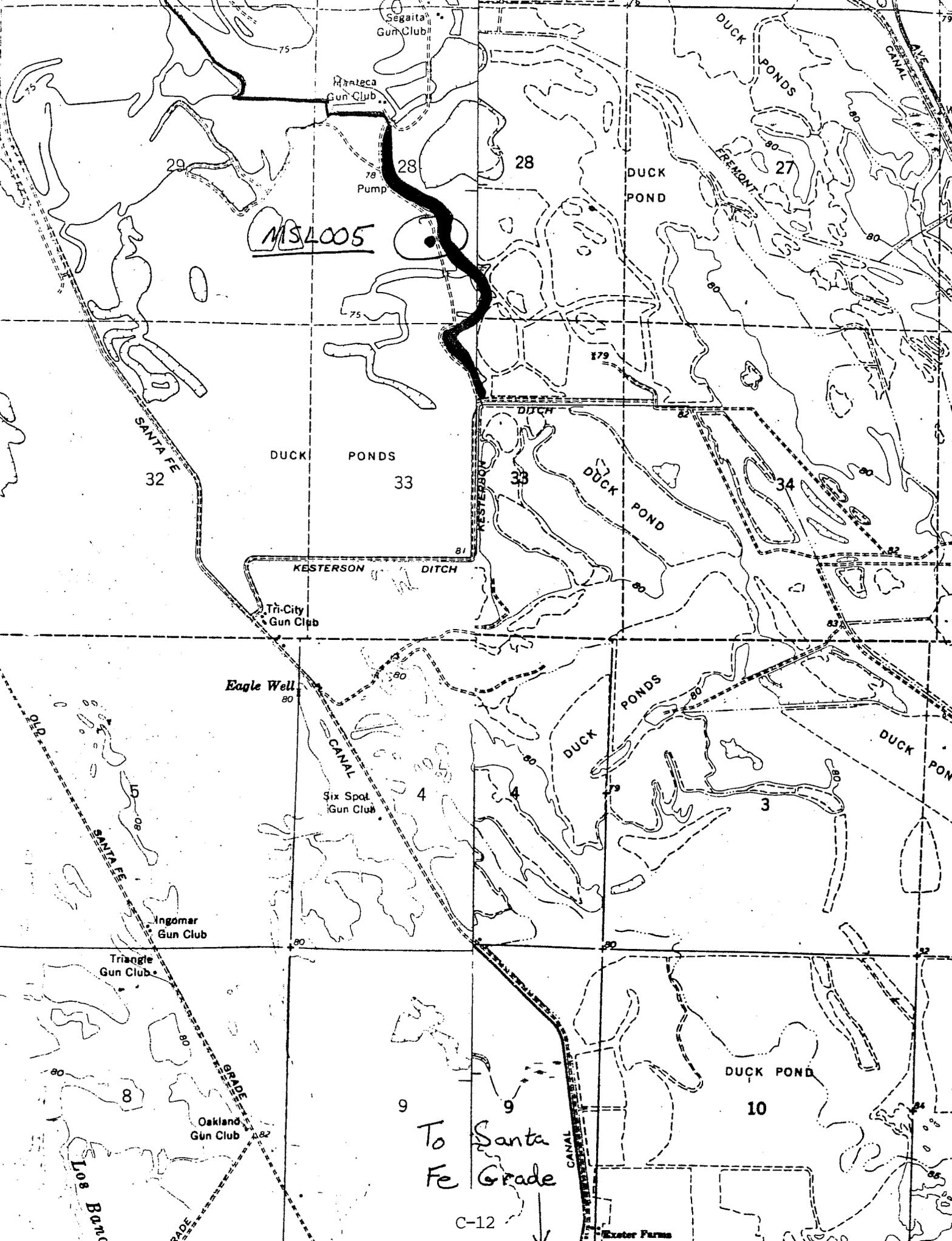
USGS Quad Map: Ingomar

WATER SOURCE

Type and source of water being discharged (description): The water discharged at this point is duck pond drainage.

Discharge Ownership and Operation: Coast Cattle Co.
P.O. Box 980
Modesto, CA 95353

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



MSL005

To Santa Fe Grade

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL006

Site Name: Slough Mileage: 0.95E

Site description, location, and access: From Highway 33 take Gun Club Road east for approximately 6.8 miles to where the Fremont Canal undercrosses the road. At this point turn south on the Fremont Canal levee. Head south on the levee for approximately 1.8 miles to where Mud Slough meets the road (approximately 0.1 miles east of Coast Cattle Gun Club). At this point follow Mud Slough, on foot, south for approximately 0.15 miles to a weir draining a pond on the east side of the slough.

Township/Range/Section: SE 1/4, SW 1/4, NW 1/4, Sec. 28, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 12'36"/120° 52'50"

County: Merced

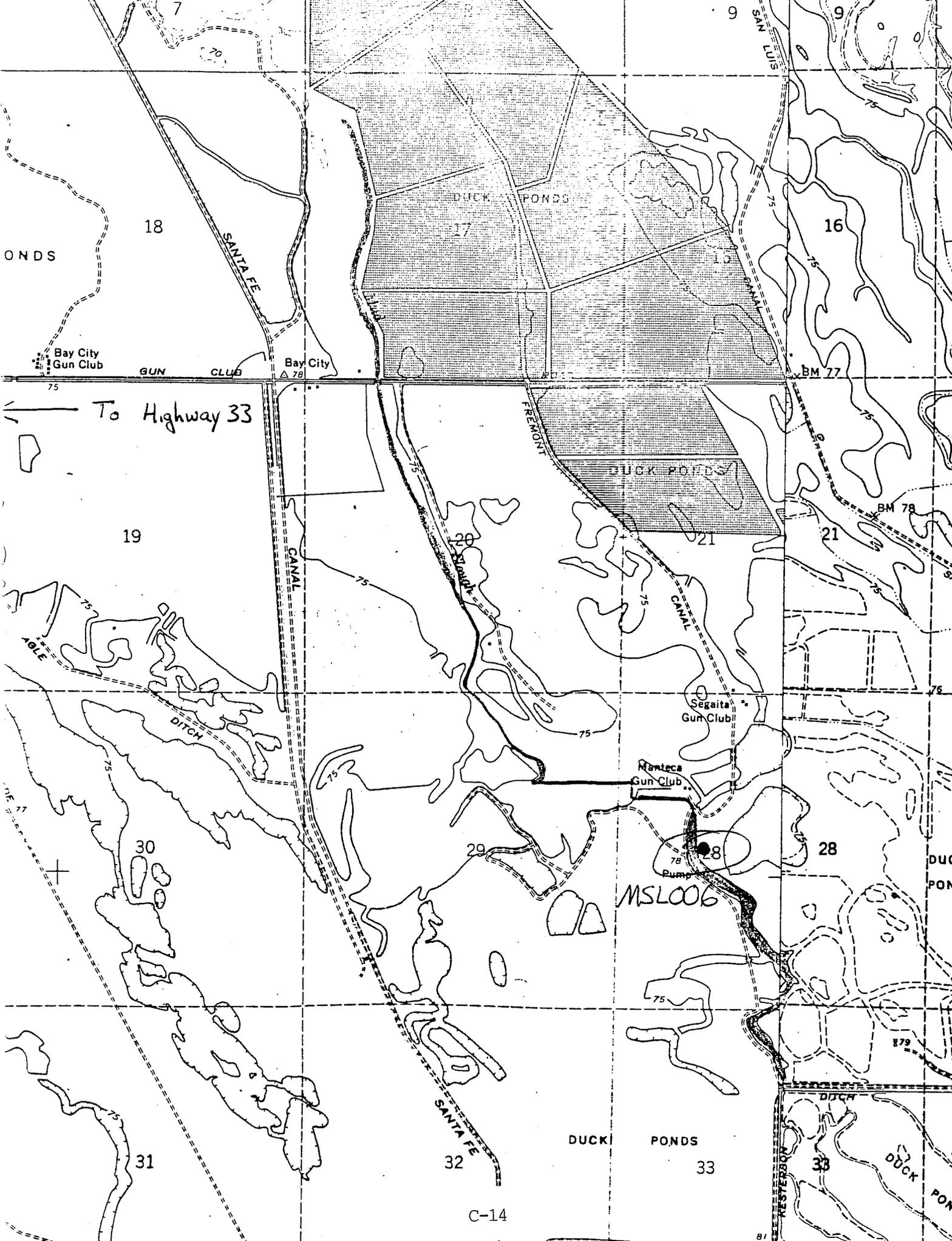
USGS Quad Map: Ingomar

WATER SOURCE

Type and source of water being discharged (description): The water being discharged at this point is duck pond drainage.

Discharge Ownership and Operation: Coast Cattle Co.
P.O. Box 980
Modesto, CA 95353

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



18

DUCK PONDS

16

Bay City Gun Club

GUN CLUB

Bay City

BM 77

To Highway 33

19

DUCK PONDS

BM 78

21

CANAL

CANAL

Segaita Gun Club

Nanteca Gun Club

28

28

MSL006

30

29

SANTA FE

DUCK PONDS

33

31

32

33

C-14

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL007

Site Name:

Slough Mileage: 1.05W

Site description, location, and access: From Highway 33 take Gun Club Road east for approximately 6.8 miles to where the Fremont Canal undercrosses the road. At this point turn south on the Fremont Canal levee for approximately 1.9 miles to the Coast Cattle Gun Club. Continue past the buildings and across Mud Slough. Once across Mud Slough turn south and then immediately turn east. At this point a duck pond will be to the south. Follow the road to the northeast corner of the pond. The discharge is a pipe running under the road from the corner of the pond to Mud Slough.

Township/Range/Section: NE 1/4, SW 1/4, NW 1/4, Sec. 28, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 12'40"/120° 52'50"

County: Merced

-USGS Quad Map: Ingomar

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this point is duck pond drainage.

Discharge Ownership and Operation: Coast Cattle Co.
P.O. Box 980
Modesto, CA 95353

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL008

Site Name:

Slough Mileage: 1.10S

Site description, location, and access: From Highway 33 take Gun Club Road east for approximately 6.8 miles to where the Fremont Canal undercrosses the road. At this point turn south on the Fremont Canal levee and follow it for approximately 1.9 miles to the Coast Cattle Gun Club. Continue past the buildings and across Mud Slough. Once across the slough turn south and then immediately turn east. Travel east for approximately 0.20 miles to where a gate valve allows flow to a pipe undercrossing the road. This is the discharge site.

Township/Range/Section: NE 1/4, SW 1/4, NW 1/4, Sec. 28, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 12'45"/120° 52'52"

County: Merced

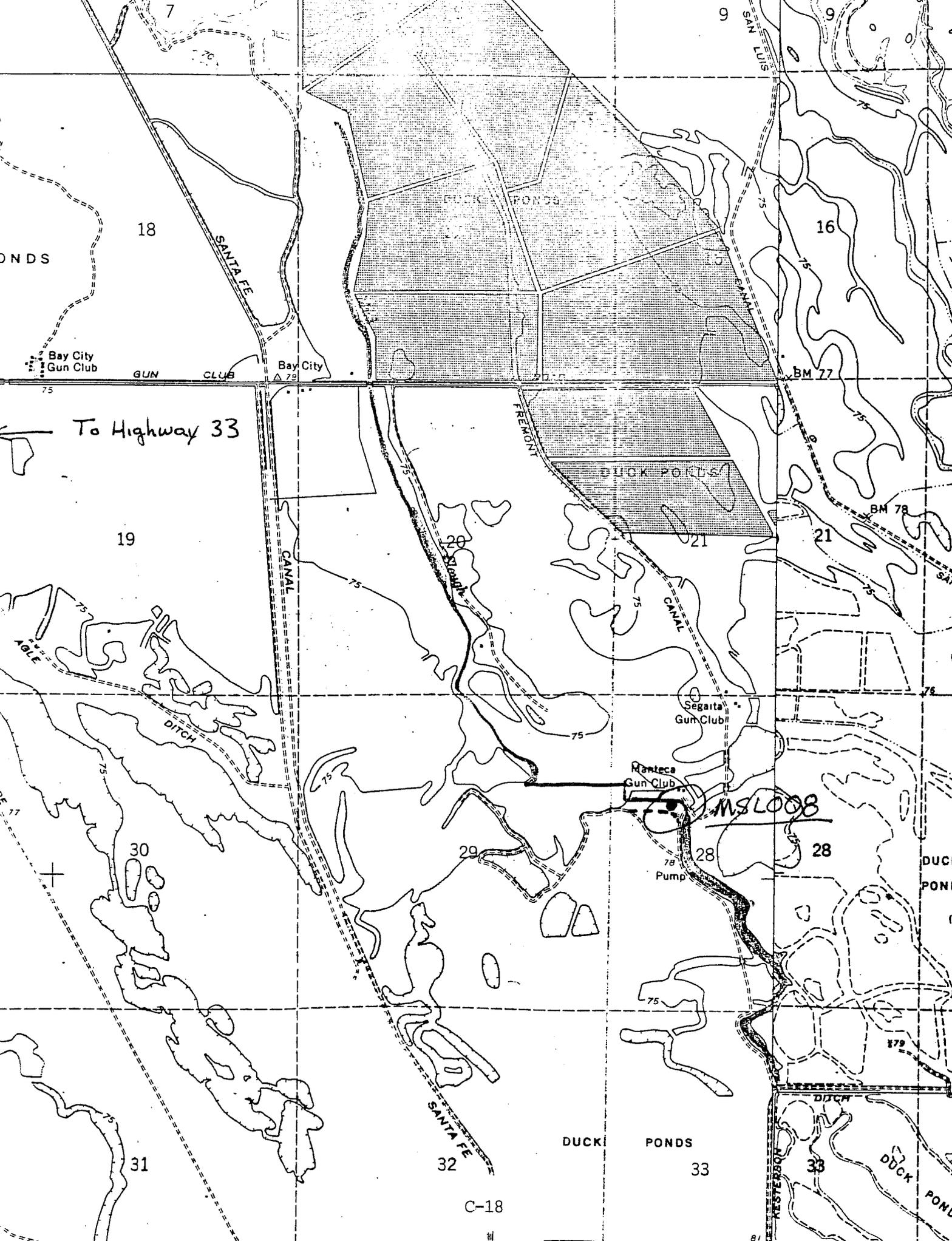
USGS Quad Map: Ingomar

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this point is pond drainage.

Discharge Ownership and Operation: Coast Cattle Co.
P.O. Box 980
Modesto, CA 95353

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



To Highway 33

MSLOOB

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL009

Site Name:

Slough Mileage: 1.25S

Site description, location, and access: From Highway 33 take Gun Club Road east for approximately 6.8 miles to where the Fremont Canal undercrosses the road. At this point turn south onto the Fremont Canal levee and follow it approximately 1.9 miles to the Coast Cattle Gun Club. Continue past the buildings and across Mud Slough. Once across the slough turn south and then immediately turn east. Proceed east approximately 0.05 miles to where a gate valve allows flow to a pipe undercrossing the road. This is the discharge site.

Township/Range/Section: NW 1/4, SW 1/4, NW 1/4, Sec. 28, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 12'45"/120° 52'58"

County: Merced

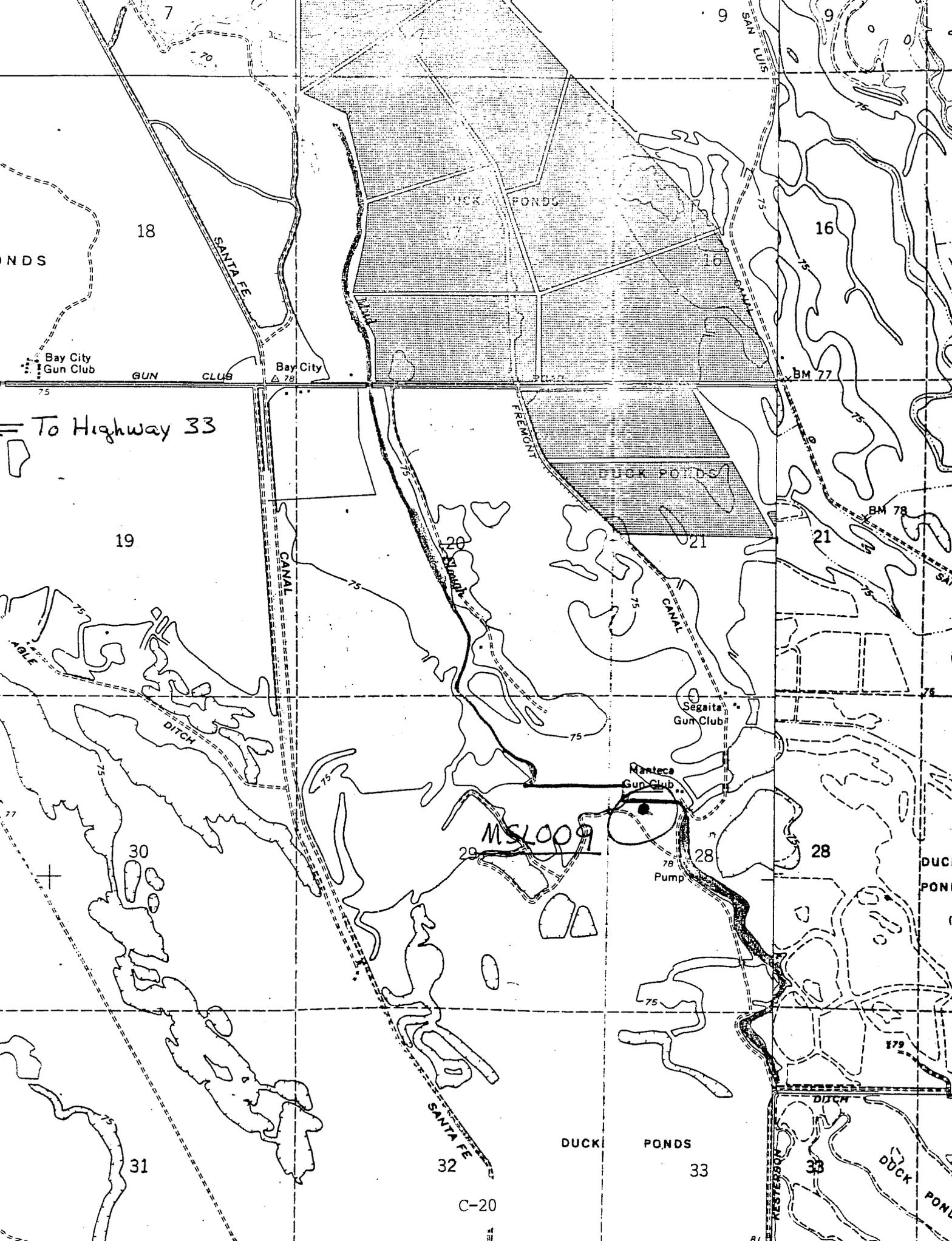
USGS Quad Map: Ingomar

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this point is pond drainage.

Discharge Ownership and Operation: Coast Cattle Co.
P.O. Box 980
Modesto, CA 95353

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



18

16

19

21

30

28

31

32

33

33

To Highway 33

MSLOO9

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL010

Site Name:

Slough Mileage: 1.35E

Site description, location, and access: From Highway 33 take Gun Club Road east for approximately 6.8 miles to where the Fremont Canal undercrosses the road. At this point turn south onto the Fremont Canal levee and follow it approximately 1.9 miles to the Coast Cattle Gun Club. Continue past the buildings and across Mud Slough. Once across the slough turn north for approximately 0.05 miles to the site. The site is a number of pipes running from the trailers to the east side of the slough.

Township/Range/Section: NW 1/4, SW 1/4, NW 1/4, Sec. 28, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 12'46"/120° 53'01"

County: Merced

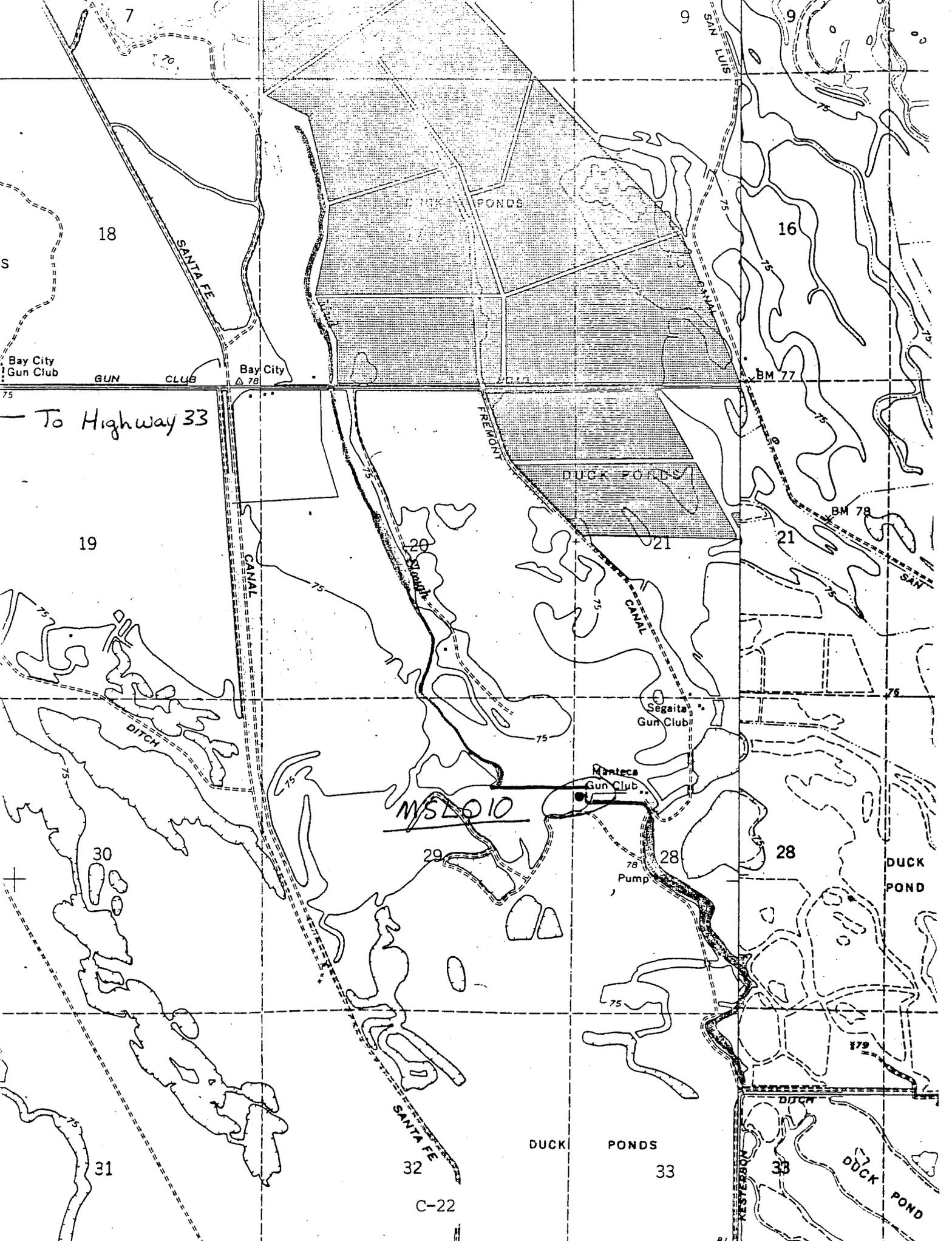
USGS Quad Map: Ingomar

WATER SOURCE

Type and source of water being discharged (description): Water discharged from these pipes is untreated wastewater from the duck club trailers.

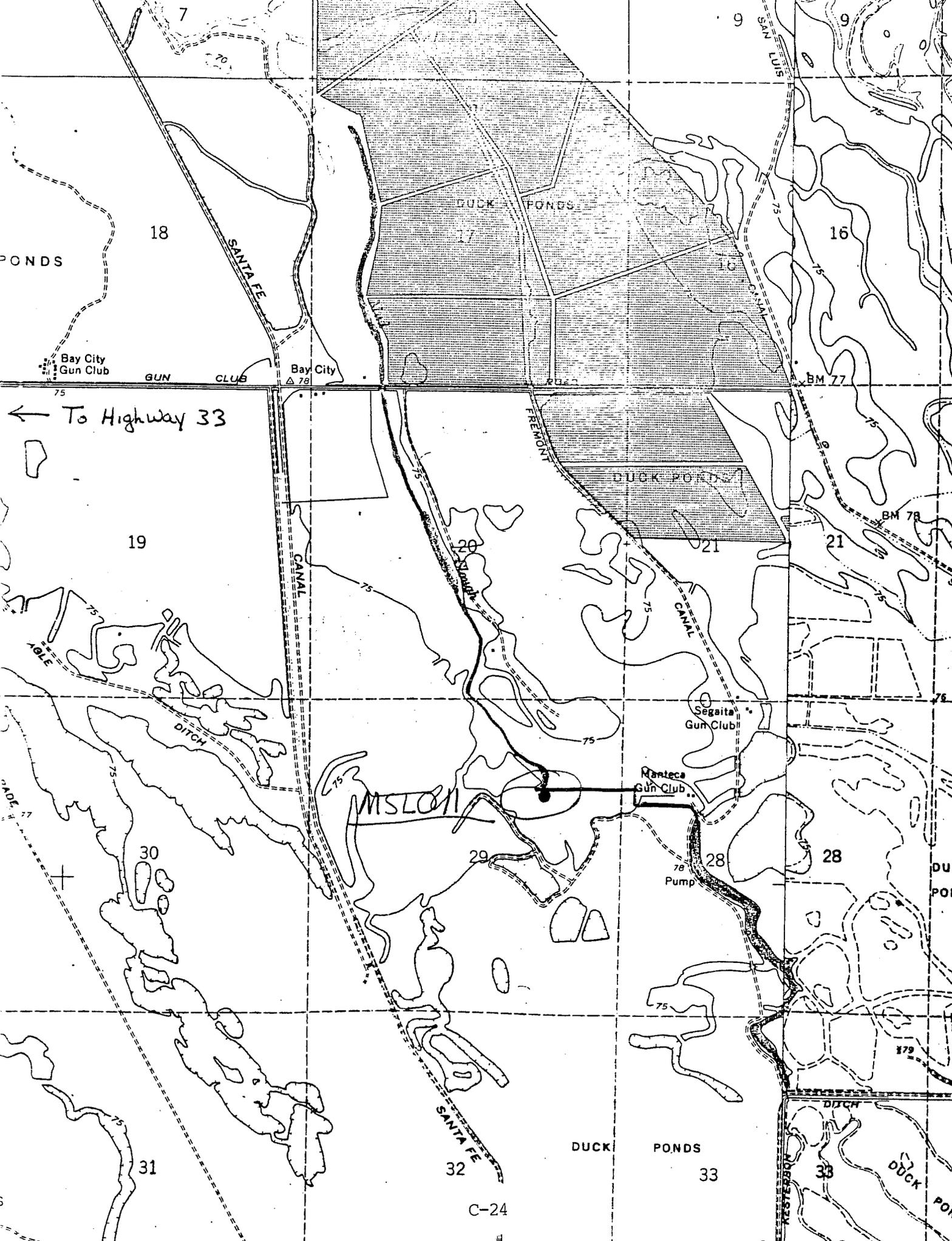
Discharge Ownership and Operation: Coast Cattle Co.
P.O. Box 980
Modesto, CA 95353

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



18
SANTA FE
Bay City Gun Club
Bay City
To Highway 33

MSLOIO



18

DUCK PONDS

16

Bay City Gun Club

GUN CLUB

Bay City

BM 77

← To Highway 33

19

SANTA FE CANAL

DUCK PONDS

21

Segaita Gun Club

Manteca Gun Club

MISLOH

30

29

78 Pump

28

28

31

32

DUCK PONDS

33

33

C-24

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL012

Site Name:

Slough Mileage: 1.63E

Site description, location, and access: From Highway 33 take Gun Club Road east for approximately 6.3 miles to where Mud Slough undercrosses the road. From this point continue east for another 0.07 miles to a large orange gate on the south side of the road. Proceed through the gate and head south approximately 1.1 miles to the second gun club. At this point the road forks. Take the fork to the right. (This road heads west to the slough and then parallels it.) Follow the right fork south for approximately 0.80 miles to where the drain undercrosses the road.

Township/Range/Section: NW 1/4, SE 1/4, NE 1/4, Sec. 29, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 12'47"/120° 53'19"

County: Merced

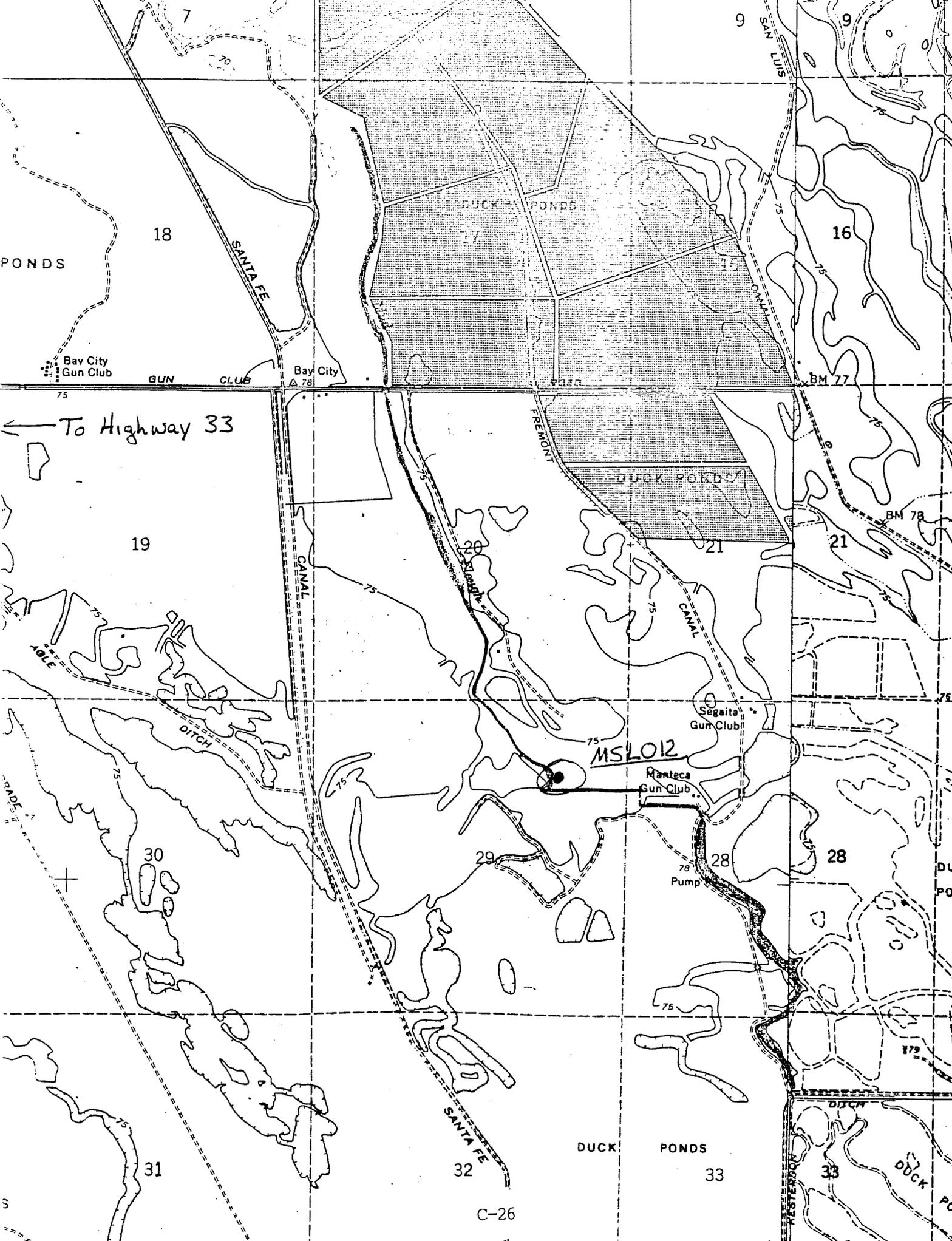
USGS Quad Map: Ingomar

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this point is duck pond drainage.

Discharge Ownership and Operation: Robert Clayton Shanrock and
Luz Del Carmen Trustees
1428 Cherry Lane
San Jose, CA 95125

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL013

Site Name:

Slough Mileage: 1.79W

Site description, location, and access: From Highway 33 take Gun Club Road east for approximately 6.3 miles to where Mud Slough undercrosses the road. From this point continue east for another 0.07 miles to a large orange gate on the south side of the road. Proceed through the gate and head south approximately 1.1 miles to the second gun club. At this point the road forks. Take the fork to the right. (This road heads west to the slough and then parallels it.) Follow the right fork south for approximately 0.60 miles to where a channel enters the slough from the west. This channel is the discharge site.

Township/Range/Section: SE 1/4, NW 1/4, NE 1/4, Sec. 29, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 12'51"/120° 53'25"

County: Merced

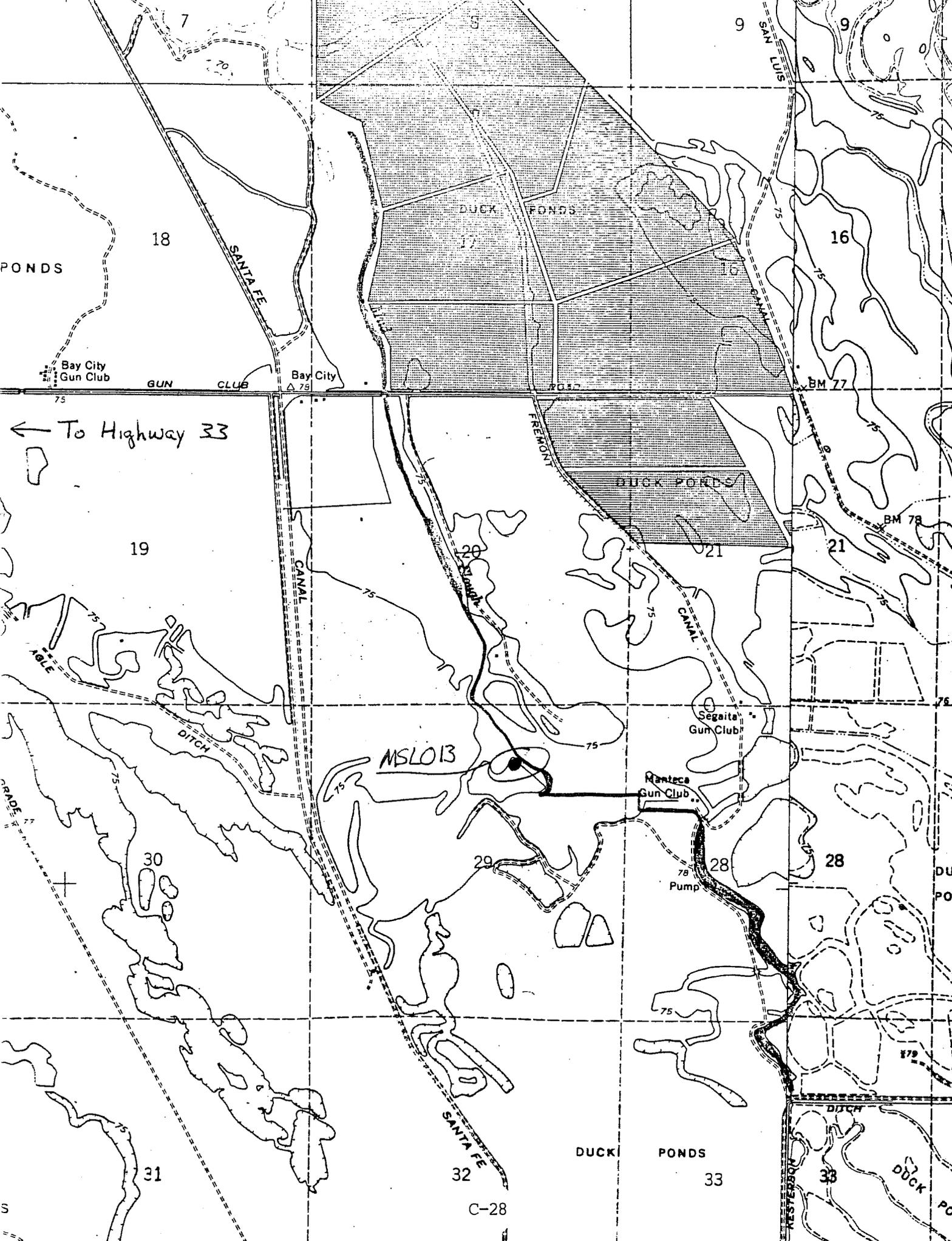
USGS Quad Map: Ingomar

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this point is duck pond drainage.

Discharge Ownership and Operation: The Cherokee Cattle Ranch
c/o R.P. Tolles
1782 Stanford Avenue
Menlo Park, CA 94025

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



← To Highway 33

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL014

Site Name: Slough Mileage: 2.06W

Site description, location, and access: From Highway 33 take Gun Club Road east for approximately 6.3 miles to where Mud Slough undercrosses the road. From this point continue east for another 0.07 miles to a large orange gate on the south side of the road. Proceed through the gate and head south approximately 1.1 miles to the second gun club. At this point the road forks. Take the fork to the right. (This road heads west to the slough and then parallels it.) Follow the right fork for approximately 0.35 miles to where a channel enters the slough from the west. This is the discharge site.

Township/Range/Section: NW 1/4, NW 1/4, NE 1/4, Sec. 29, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 12'59"/120° 53'33"

County: Merced

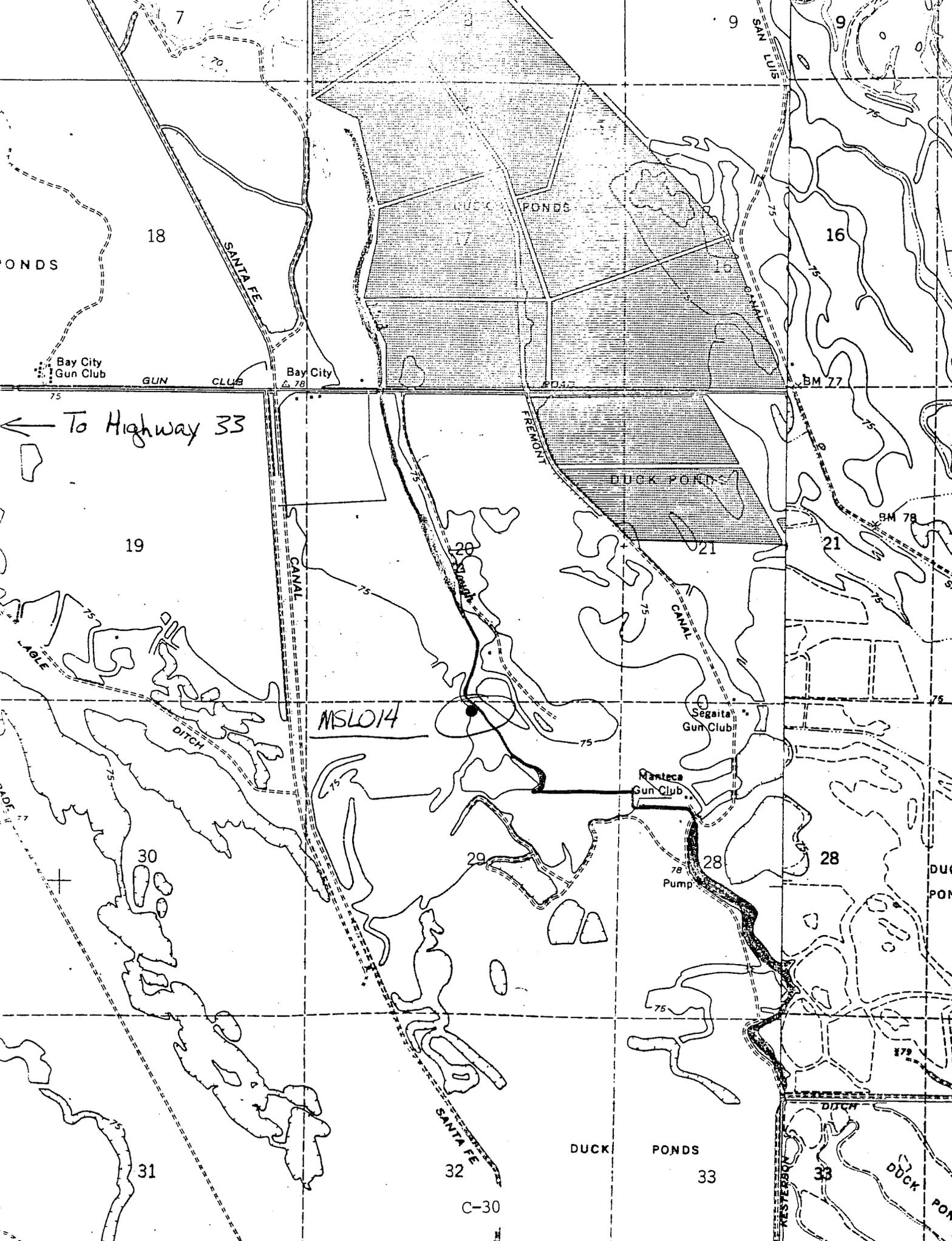
USGS Quad Map: Ingomar

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this point is duck pond drainage.

Discharge Ownership and Operation: The Cherokee Cattle Ranch
c/o R. P. Tolles
1782 Stanford Avenue
Menlo Park, CA 94025

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



18

16

19

20

21

21

30

20

28

28

31

32

33

33

C-30

MSLO14

To Highway 33

PONDS

DUCK PONDS

DUCK PONDS

DUCK PONDS

DUCK PONDS

Bay City Gun Club

Bay City

Segaita Gun Club

Manteca Gun Club

Pump

GUN CLUB

BM 77

BM 78

SANTA FE

FRENCH CREEK

CANAL

CANAL

SANTA FE

DITCH

NORRIS

DUCK PONDS

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL015

Site Name: Slough Mileage: 2.20E

Site description, location, and access: From Highway 33 take Gun Club Road east for approximately 6.3 miles to where Mud Slough undercrosses the road. From this point continue east for another 0.07 miles to a large orange gate on the south side of the road. Proceed through the gate and head south approximately 1.1 miles to the second gun club. At this point the road forks. Take the fork to the right and head west 0.1 miles to the slough and turn south. At this point a pipe undercrosses the road. This is the discharge site.

Township/Range/Section: SW 1/4, SW 1/4, SE 1/4, Sec. 20, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 13'05"/120° 53'35"

County: Merced

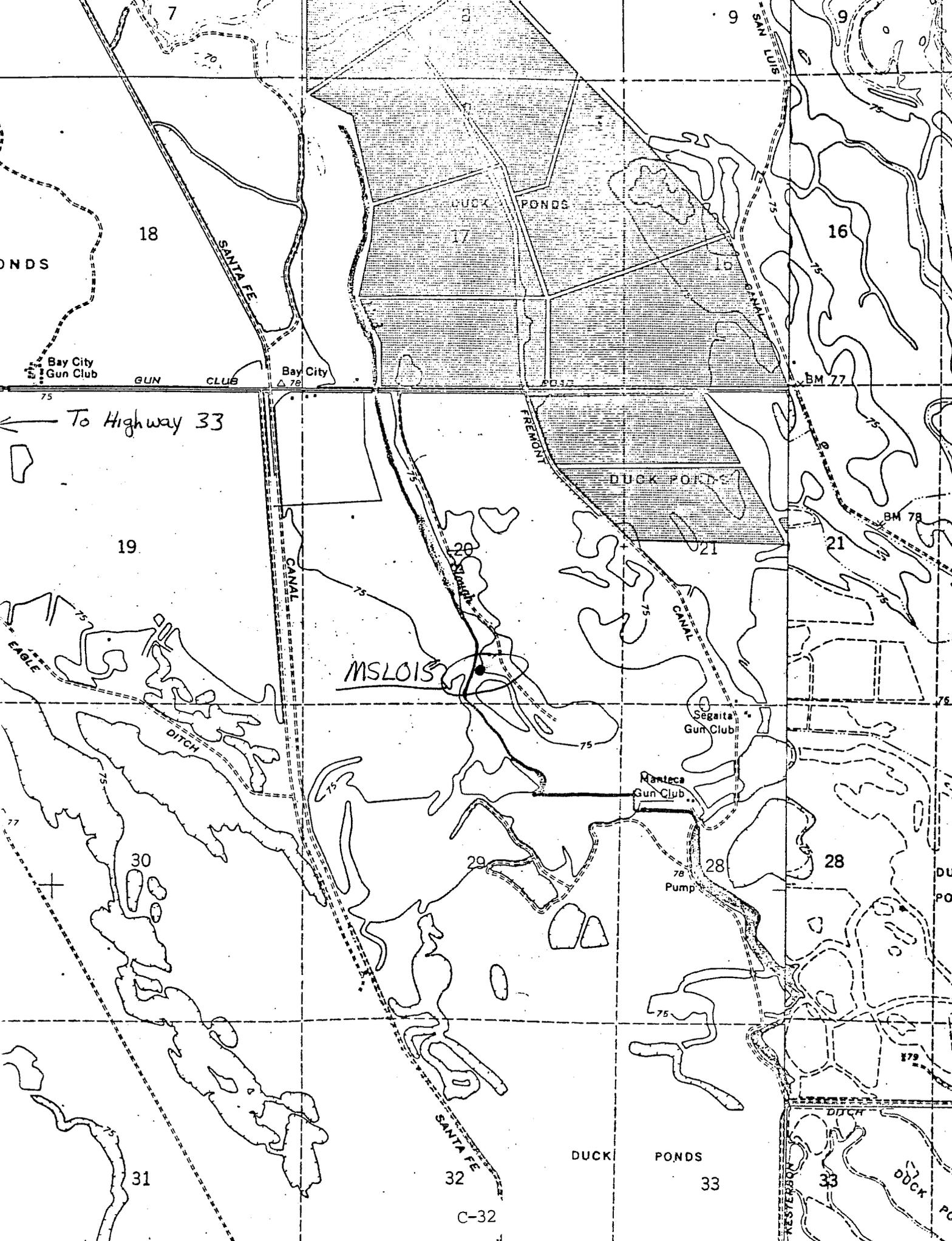
USGS Quad Map: Ingomar

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this point is duck pond drainage.

Discharge Ownership and Operation: Robert Clayton Shanrock and
Luz Del Carmen Trustees
1428 Cherry Lane
San Jose, CA 95125

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



18

17

16

19

20

21

21

30

29

28

28

31

32

33

33

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL016

Site Name:

Slough Mileage: 2.23W

Site description, location, and access: From Highway 33 take Gun Club Road east for approximately 6.3 miles to where Mud Slough undercrosses the road. From this point continue east for another 0.07 miles to a large orange gate on the south side of the road. Proceed through the gate and head south approximately 1.1 miles to the second gun club. The discharge is a channel on the west side of the slough behind the gun club.

Township/Range/Section: NW 1/4, SW 1/4, SE 1/4, Sec. 20, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 13'07"/120° 53'35"

County: Merced

USGS Quad Map: Ingomar

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this point is duck pond drainage.

Discharge Ownership and Operation: The Cherokee Cattle Ranch
c/o R.P. Tolles
P.O. Box 270
Palo Alto, CA 94302

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL017

Site Name:

Slough Mileage: 2.40W

Site description, location, and access: From Highway 33 head east on Gun Club Road for approximately 6.3 miles to where Mud Slough undercrosses the road. From this point continue east for another 0.07 miles to a large orange gate on the south side of the road. Proceed through the gate and head south approximately 1.0 miles to the south end of the first gun club. The discharge is from a ditch on the west side of the slough just behind the southernmost building of the duck club.

Township/Range/Section: NW 1/4, SW 1/4, SE 1/4, Sec. 20, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 13'12"/120° 53'32"

County: Merced

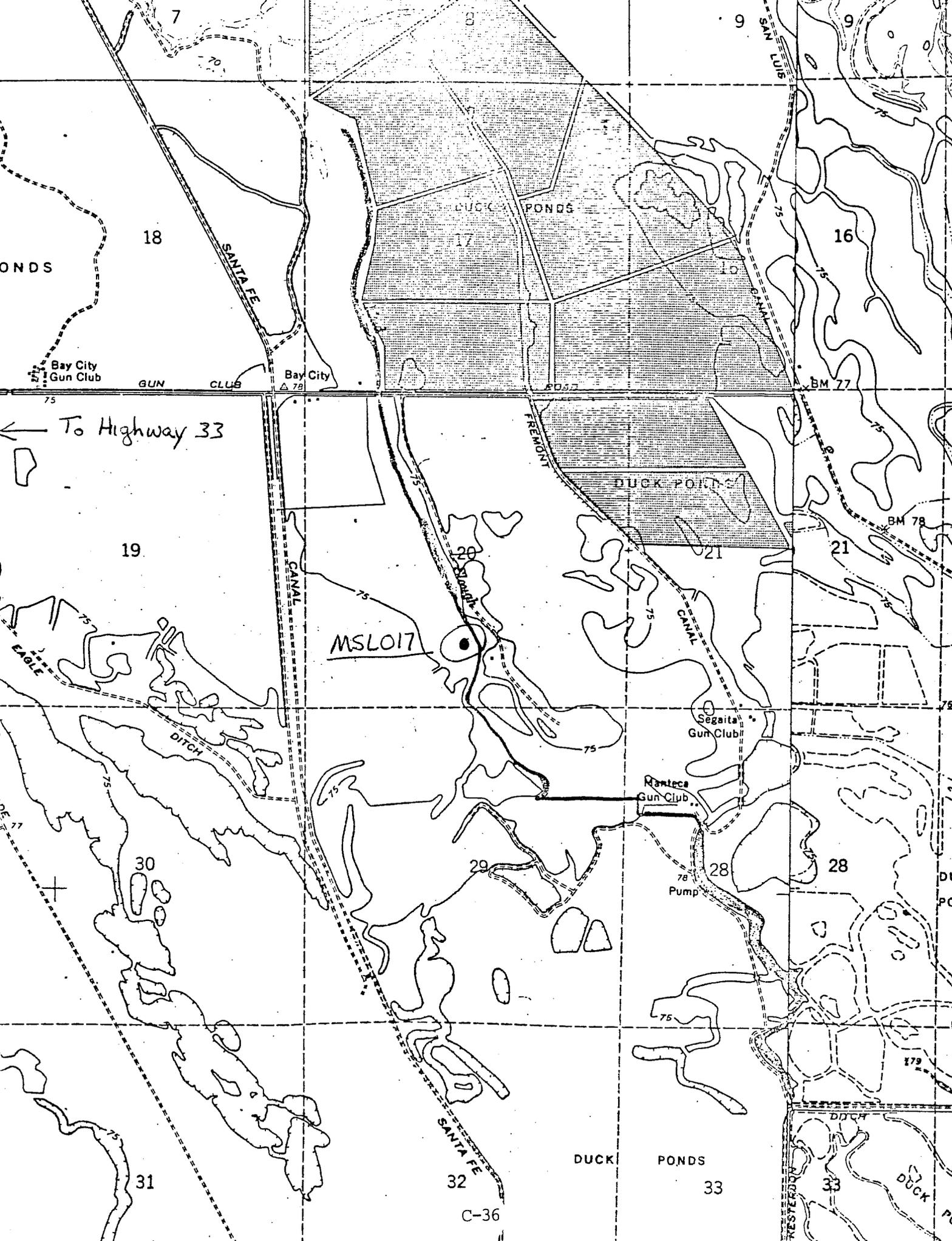
USGS Quad Map: Ingomar

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this point is from a diversion ditch of the Santa Fe Canal.

Discharge Ownership and Operation: The Cherokee Cattle Ranch
c/o R.P. Tolles
P.O. Box 270
Palo Alto, CA 94302

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



18

DUCK PONDS

17

16

Bay City Gun Club

GUN CLUB

Bay City

To Highway 33

19

MSLO17

DUCK PONDS

Segaita Gun Club

Manteca Gun Club

Pump

30

29

28

28

31

32

33

33

C-36

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL018

Site Name:

Slough Mileage: 2.41E

Site description, location, and access: From Highway 33 head east on Gun Club Road for approximately 6.3 miles to where Mud Slough undercrosses the road. From this point continue east for another 0.07 miles to a large orange gate on the south side of the road. Proceed through the gate and head south approximately 1.0 miles to the south end of the first gun club. At this point a large round concrete box is approximately 10 yards east of the road. This box directs the flow into a pipe that flows to Mud Slough. The box is the discharge site.

Township/Range/Section: NW 1/4, SW 1/4, SE 1/4, Sec. 20, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 13'13"/120° 53'32"

County: Merced

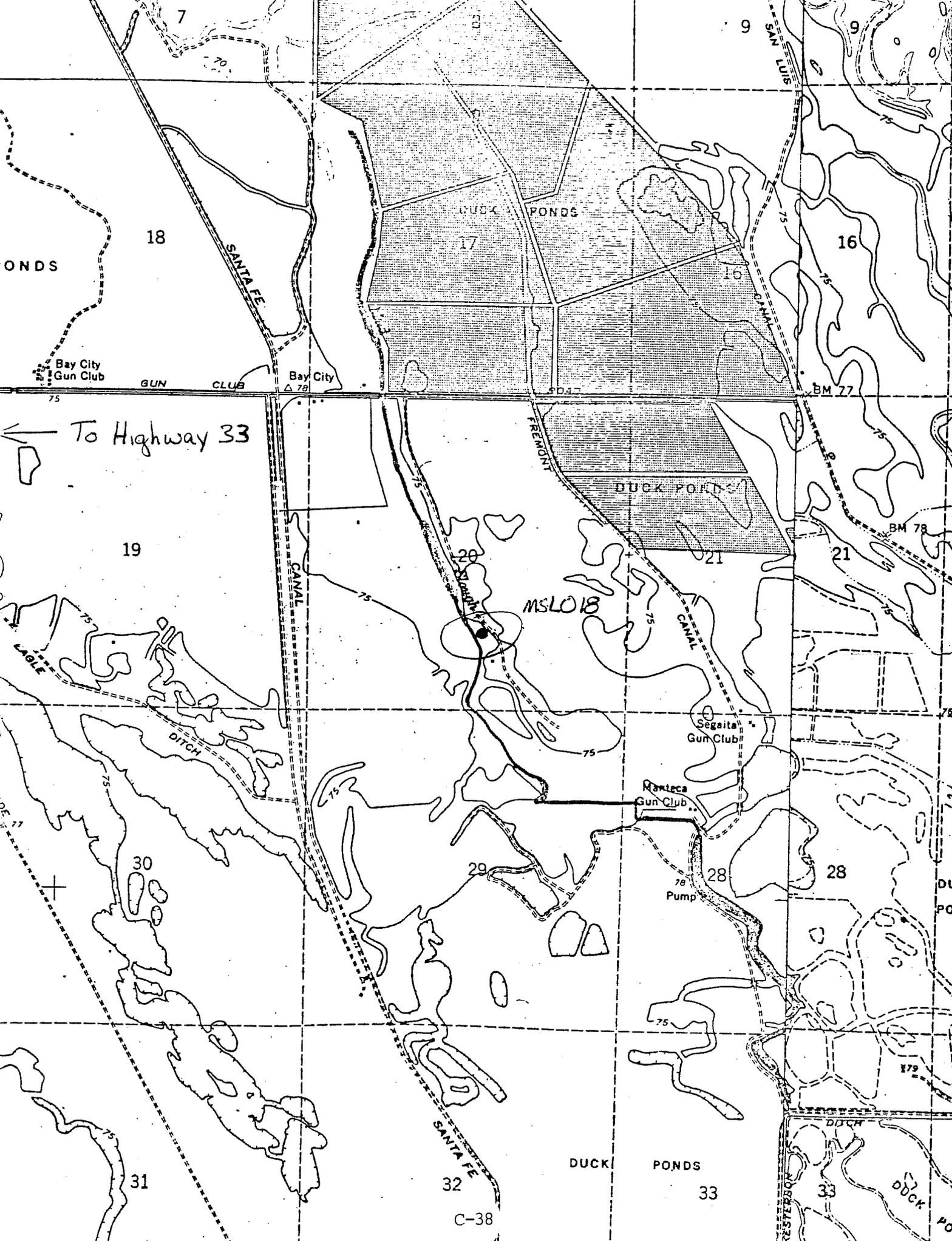
USGS Quad Map: Ingomar

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this point is duck pond drainage.

Discharge Ownership and Operation: Noel and Edna Featherstone
2201 Thomas Avenue
Ceres, CA 95307

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL019

Site Name:

Slough Mileage: 2.86E

Site description, location, and access: From Highway 33 head east on Gun Club Road for approximately 6.3 miles to where Mud Slough undercrosses the road. From this point continue east for another 0.07 miles to a large orange gate on the south side of the road. Proceed through the gate and head south approximately 0.5 miles to where a channel undercrosses the road and heads west to Mud Slough. This is the discharge site.

Township/Range/Section: SE 1/4, SE 1/4, NW 1/4, Sec. 20, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 13'30"/120° 53'44"

County: Merced

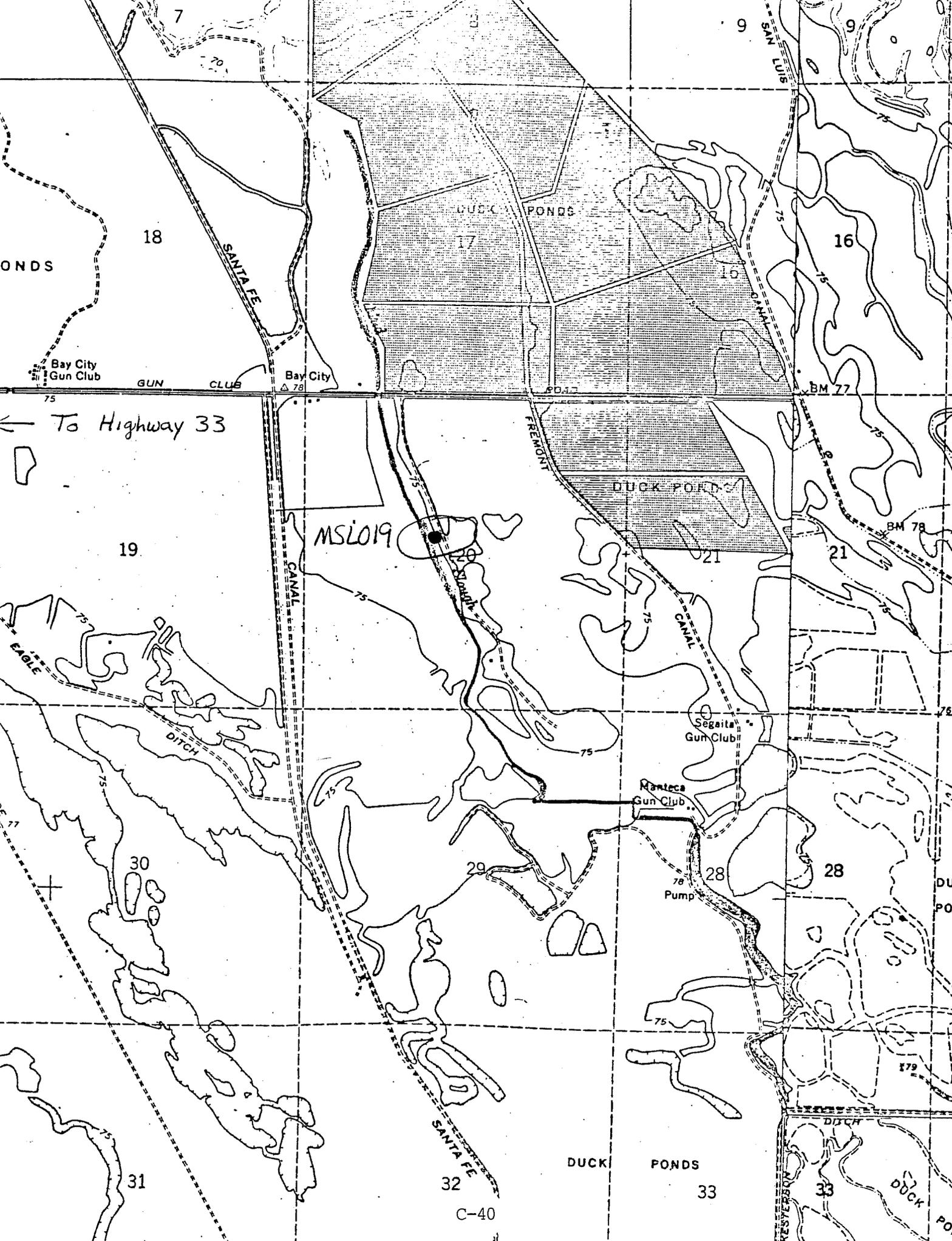
USGS Quad Map: Ingomar

WATER SOURCE

Type and source of water being discharged (description): The water discharged at this point is duck pond drainage.

Discharge Ownership and Operation: Noel and Edna Featherstone
2201 Thomas Avenue
Ceres, CA 95307

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



Bay City Gun Club

18

SANTA FE

DUCK PONDS

17

16

Bay City

GUN CLUB

BM 77

BM 77

To Highway 33

19

MS1019

DUCK PONDS

BM 78

FREMONT

CANAL

Segaita Gun Club

Manteca Gun Club

Pump

30

20

28

28

31

32

33

33

C-40

DUCK PONDS

DUCK PO

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL020

Site Name:

Slough Mileage: 3.07E

Site description, location, and access: From Highway 33 head east on Gun Club Road for approximately 6.3 miles to where Mud Slough undercrosses the road. From this point continue east for another 0.07 miles to a large orange gate on the south side of the road. Proceed through the gate and head south approximately 0.34 miles to a large channel flowing west to Mud Slough. This is the discharge site.

Township/Range/Section: NW 1/4, SE 1/4, NW 1/4, Sec. 20, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 13'37"/120° 53'52"

County: Merced

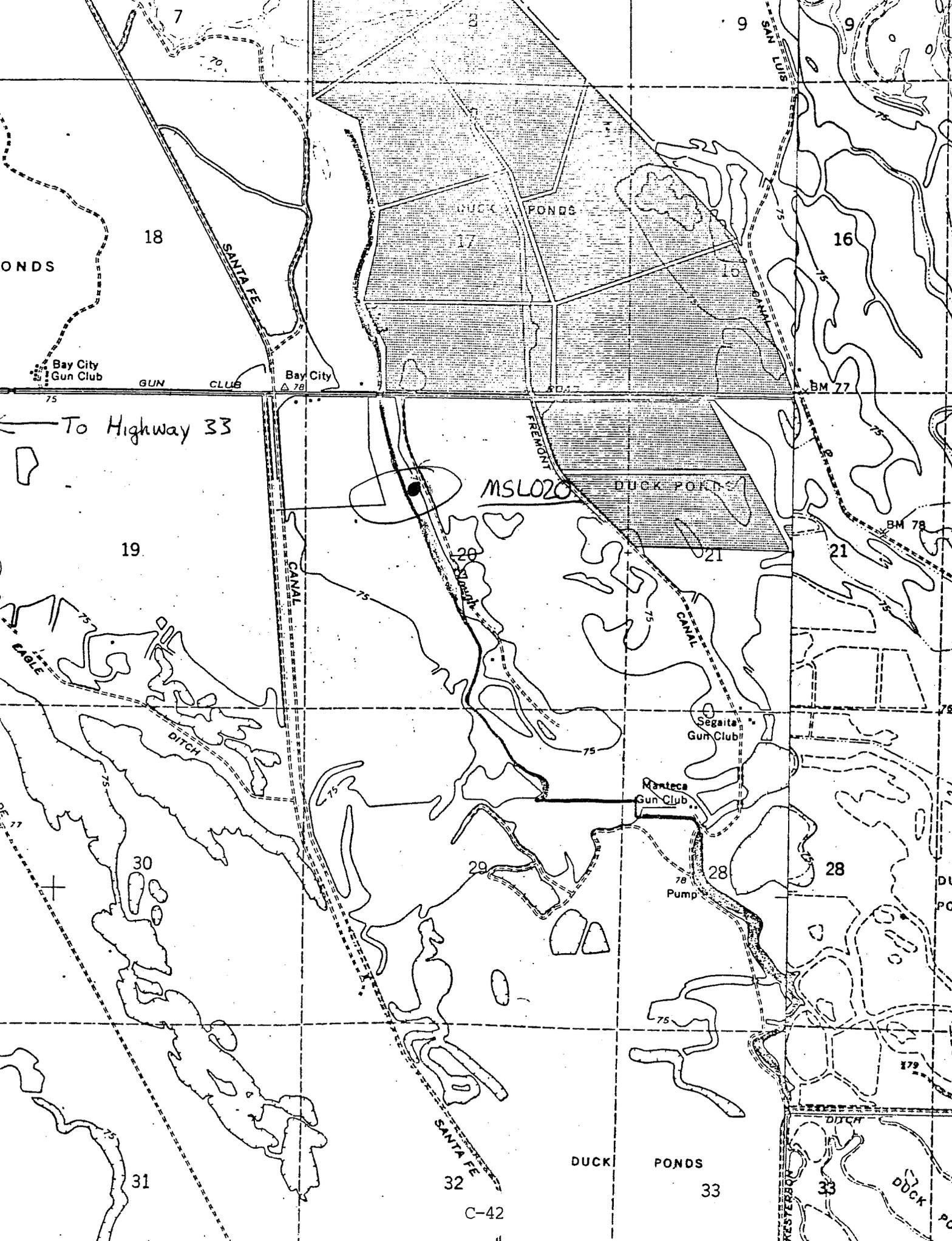
USGS Quad Map: Ingomar

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this point is duck pond drainage.

Discharge Ownership and Operation: Noel and Edna Featherstone
2201 Thomas Avenue
Ceres, CA 95307

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



18
ONDS
Bay City
GUN CLUB
Bay City
78
To Highway 33

MSLOZO

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL021

Site Name:

Slough Mileage: 3.41W

Site description, location, and access: From Highway 33 head east on Gun Club Road for approximately 6.3 miles to where Mud Slough undercrosses the road. At this point a channel enters Mud Slough from the west on the south side of the road. This channel carries water from a ditch that is either pumped or gravity discharged to the channel.

Township/Range/Section: NE 1/4, NW 1/4, NW 1/4, Sec. 20, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 13'52"/120° 53'53"

County: Merced

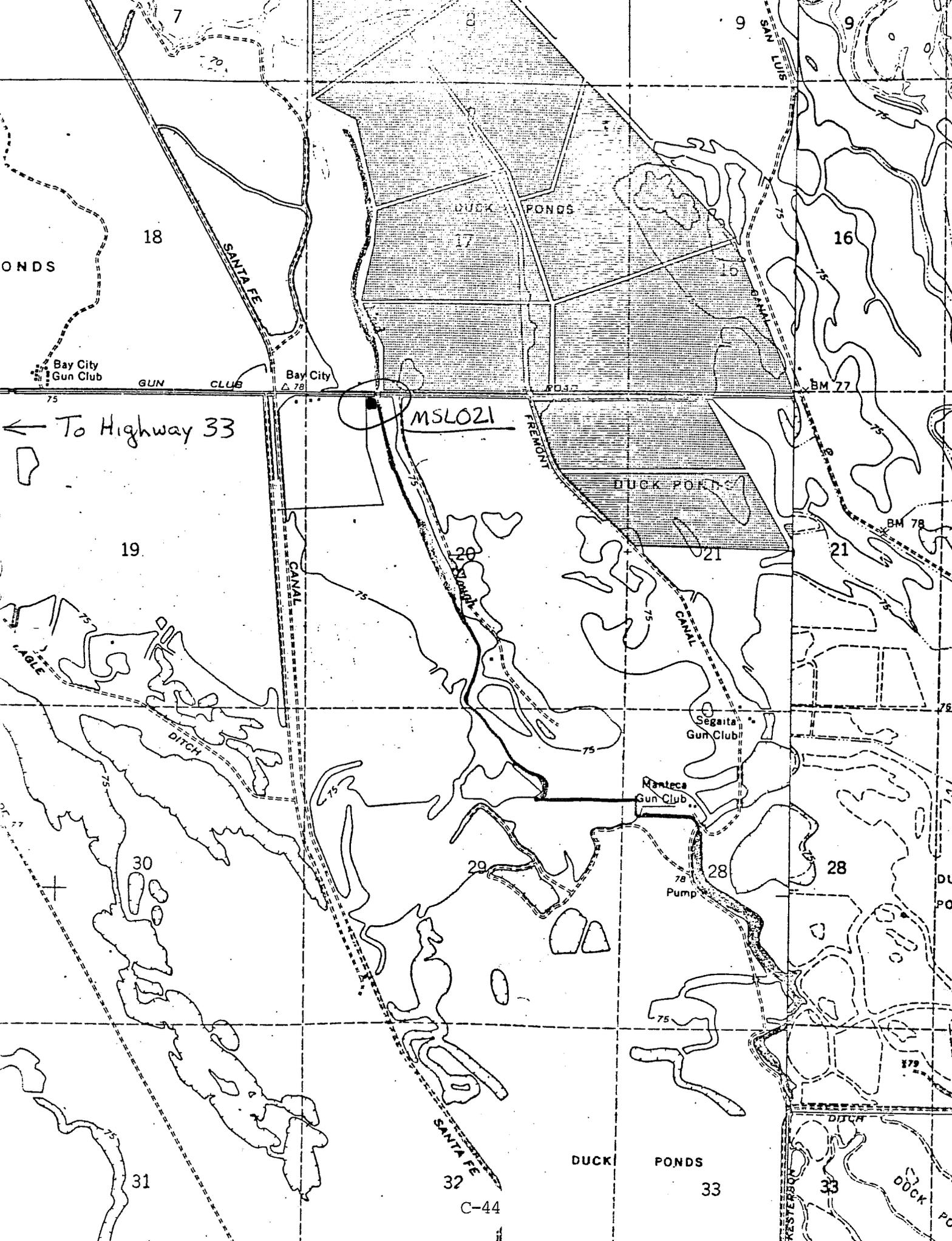
USGS Quad Map: Ingomar

WATER SOURCE

Type and source of water being discharged (description): The water discharged at this point is from a diversion ditch of the Santa Fe Canal.

Discharge Ownership and Operation: R.P. Tolles
P.O. Box 270
Palo Alto, CA 94302

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



18

DUCK PONDS

17

16

ONDS

Bay City Gun Club

GUN CLUB

Bay City

BM 77

← To Highway 33

MSLO21

19

20

DUCK PONDS

BM 78

21

SANTA FE CANAL

CANAL

Segaita Gun Club

Manteca Gun Club

78 Pump

30

29

28

28

SANTA FE

DUCK PONDS

31

32

33

33

C-44

RESTERSON

DUCK PONDS

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL022

Site Name: Fremont Canal discharge to
Mud Slough (North)

Slough Mileage: 3.46E

Site description, location, and access: From Highway 33 head east on Gun Club Road for approximately 6.3 miles to where Mud Slough undercrosses the road. On the north side of the road a channel enters from the east. This channel is the Fremont Canal discharge.

Township/Range/Section: SE 1/4, SW 1/4, SW 1/4, Sec. 17, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 13'54"/120° 53'55"

County: Merced

USGS Quad Map: Ingomar

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this point is from the Fremont Canal, a diversion of the San Luis Canal.

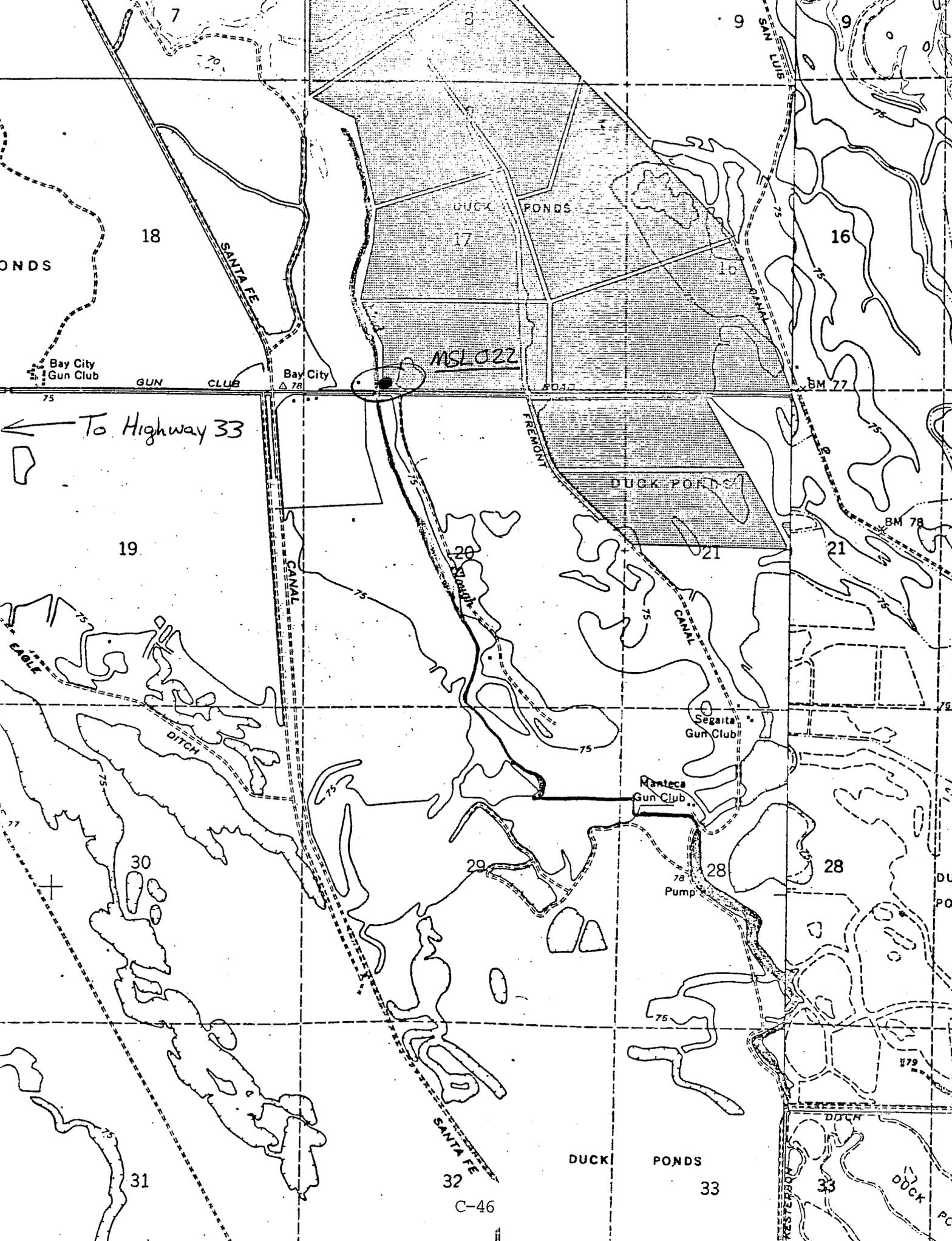
Discharge Ownership and Operation: Grassland Water District
610 West Pacheco Blvd. (P.O. Box 1443)
Los Banos, CA 93635
(209) 826-5188

MONITORING

Previous or on-going monitoring at the site:

<u>Agency</u>	<u>Site ID #</u>	<u>Constituents</u>	<u>Frequency</u>	<u>Period of Record</u>	<u>Data Storage</u>
RWQCB	MBR515	Minerals and Trace Elements	Monthly	1/86-2/87	
USBR	FREMSL	EC, TDS, pH, Cl, Cl, SO ₄ , B, Se, Cr, Mo, Ni	Monthly	7/84	

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL023

Site Name:

Slough Mileage: 4.53S

Site description, location, and access: From Highway 33 head east on Gun Club Road for approximately 6.9 miles to the U.S. Fish and Wildlife Service Trailers. At this point turn north onto the Kesterson Reservoir levee and proceed west through the gate. Follow the levee west approximately 0.5 miles to where it makes a turn to the north. Proceed north approximately 1.1 miles to the southwest corner of pond #11. At this point a channel enters Mud Slough from the south. This is the discharge site.

Township/Range/Section: NE 1/4, NE 1/4, NE 1/4, Sec. 18, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 14'41"/120° 54'10"

County: Merced

USGS Quad Map: Ingomar

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this point is duck pond drainage. The water that floods these duck ponds is Santa Fe Canal water.

Comments on factors affecting water quality and quantity at the site:

Discharge Ownership and Operation: Joe Souza and L. Tilva
P.O. Box 471
Gustine, CA 95322

MONITORING

Previous or on-going monitoring at the site:

<u>Agency</u>	<u>Site ID #</u>	<u>Constituents</u>	<u>Frequency</u>	<u>Period of Record</u>	<u>Data Storage</u>
---------------	------------------	---------------------	------------------	-------------------------	---------------------

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL024

Site Name: Santa Fe Canal Discharge
to Mud Slough (North)

Slough Mileage: 5.44W

Site description, location, and access: From Highway 33 head east on Gun Club Road for approximately 6.9 miles to the U.S. Fish and Wildlife Service trailers. At this point turn north onto the Kesterson Reservoir levee and proceed west through the gate. Follow the levee west approximately 0.5 miles to where it makes a turn to the north. Proceed north approximately 1.9 miles to the southwest corner of pond #12. At this point hike west along the fence line approximately 0.3 miles to Mud Slough. Follow the slough south for approximately 0.1 miles to a large channel flowing in from the west. This is the Santa Fe Canal discharge.

Township/Range/Section: NW 1/4, NW 1/4, SE 1/4, Sec. 7, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 15'7"/120° 54'42"

County: Merced

USGS Quad Map: Gustine

WATER SOURCE

Type and source of water being discharged (description): The discharge at this point is Santa Fe Canal and Eagle Ditch water.

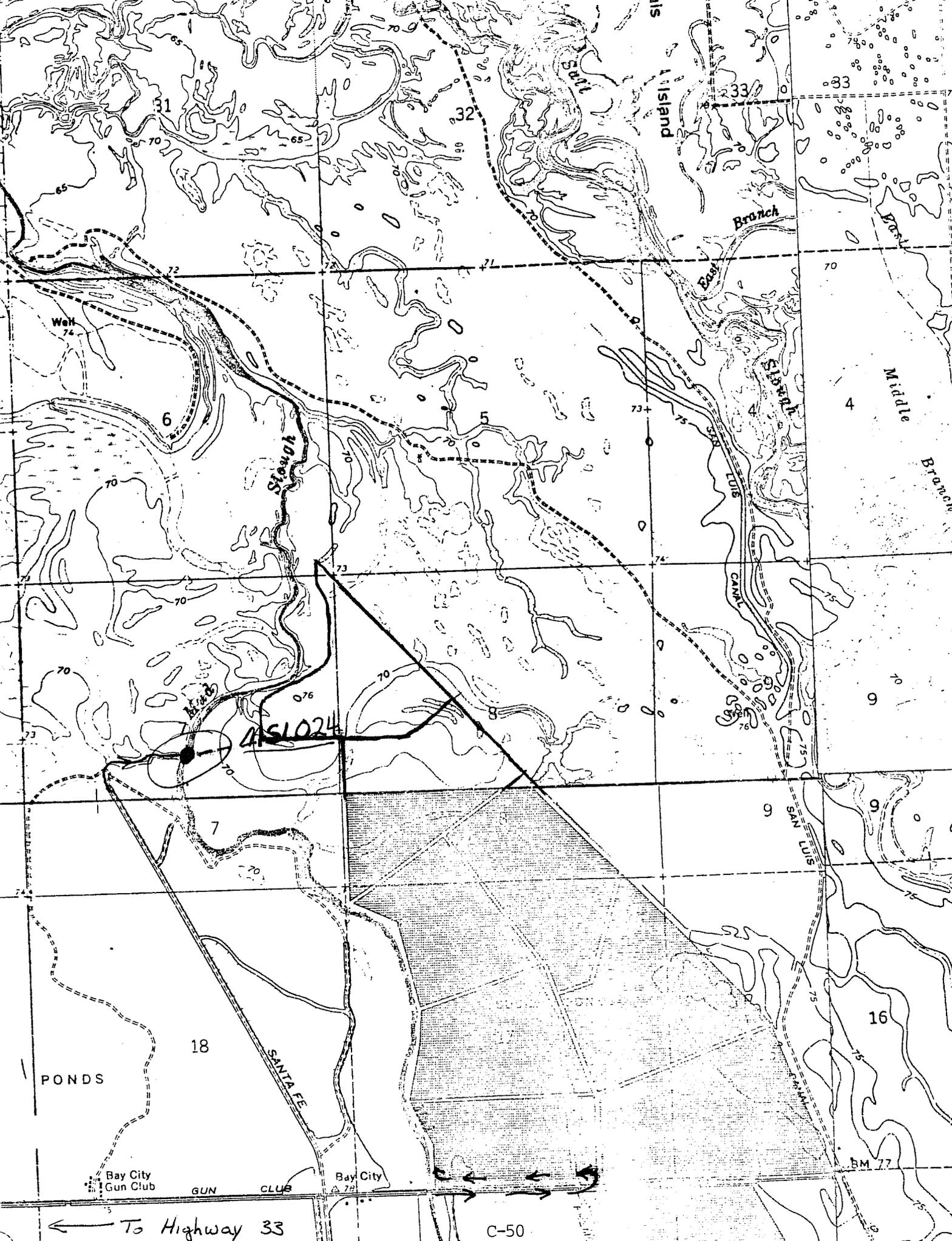
Discharge Ownership and Operation: Grasslands Water District
610 West Pacheco Blvd. (P.O. Box 1443)
Los Banos, CA 93635
(209) 826-5188

MONITORING

Previous or on-going monitoring at the site:

<u>Agency</u>	<u>Site ID #</u>	<u>Constituents</u>	<u>Frequency</u>	<u>Period of Record</u>	<u>Data Storage</u>
USBR	SFCMSL	EC, TDS, pH, Na, Cl, SO ₄ , B, Se, Cr, Mo, Ni	Monthly	7/87-	

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



31

32

33

33

Well
74

Slough

Branch

Middle
Branch

4151024

18

SANTA FE

PONDS

Bay City
Gun Club

GUN CLUB

Bay City
79

BM 77

← To Highway 33

C-50

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL025

Site Name:

Slough Mileage: 5.77S

Site description, location, and access: From Highway 33 head east on Gun Club Road for approximately 6.9 miles to the U.S. Fish and Wildlife Service trailers. At this point turn north onto the Kesterson Reservoir levee and proceed west through the gate. Follow the levee west approximately 0.5 miles to where it makes a turn to the north. Proceed north approximately 1.9 miles to the southwest corner of pond #12. At this point proceed north 0.1 miles to where the levee turns northeast. From this corner hike due west for approximately 0.95 miles to an open channel. Follow this channel north to Mud Slough. The channel is the discharge site.

Township/Range/Section: NE 1/4, SW 1/4, NE 1/4, Sec. 7, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 15'17"/120° 54'29"

County: Merced

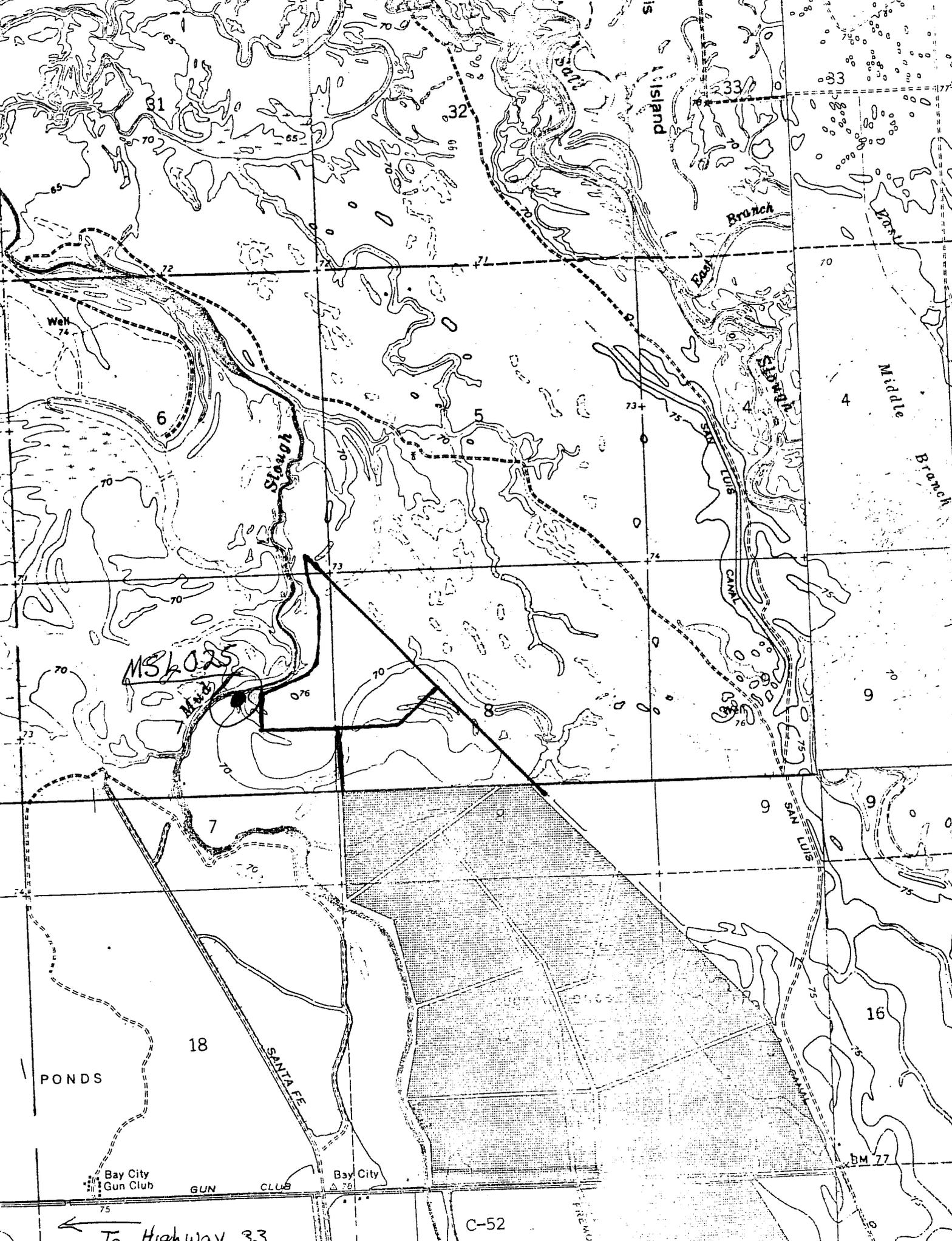
USGS Quad Map: Gustine

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this point is duck pond drainage from Kesterson NWR.

Discharge Ownership and Operation: Kesterson National Wildlife Refuge
U.S. Fish and Wildlife Service

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



MS 025

18

PONDS

Bay City Gun Club

GUN CLUB

Bay City

C-52

← To Highway 33

BM 77

SANTA FE

Branch

Middle Branch

Branch

Island

SAN LUIS CANAL

SAN LUIS

Slough

Well

31

32

33

72

71

70

6

5

73+

75

4

70

70

74

75

9

73

70

76

70

8

76

9

9

16

75

75

76

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL026

Site Name: Slough Mileage: 6.76E

Site description, location, and access: From Highway 33 head east on Gun Club Road for approximately 8.0 miles to the San Luis Drain. At this point, proceed northwest along the drain for approximately 2.7 miles to the end of the reservoir. From here continue north on the dirt road approximately 0.4 miles to where a large channel crosses the road. This channel is the discharge.

Township/Range/Section: NE 1/4, NE 1/4, SE 1/4, Sec. 6, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 15'58"/120° 54'15"

County: Merced

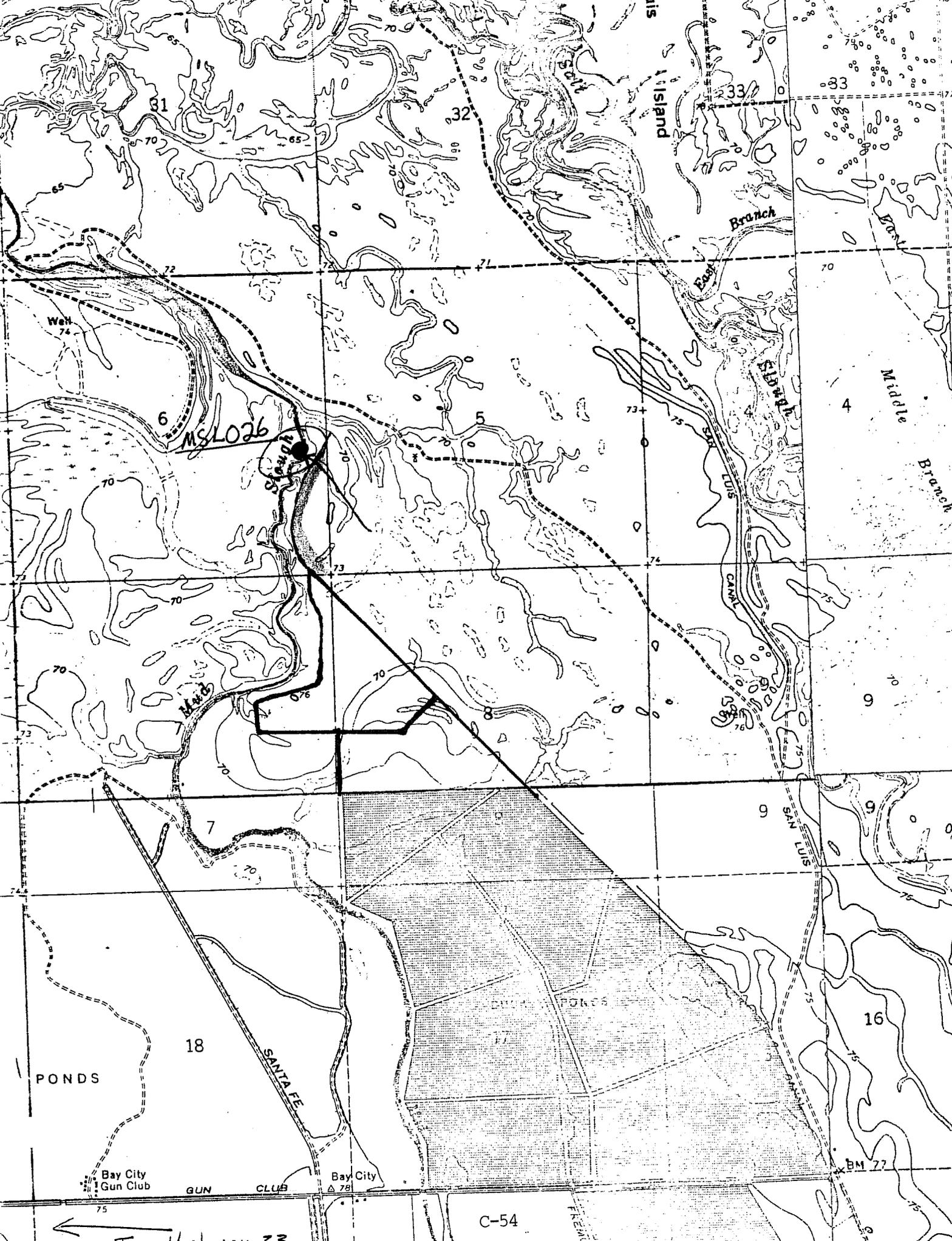
USGS Quad Map: Gustine

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this point is duck pond drainage from Kesterson NWR.

Discharge Ownership and Operation: Kesterson National Wildlife Refuge
U.S. Fish and Wildlife Service

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



MSLO 26

SANTA FE

San Luis Island

Branch

Middle Branch

6

5

73+

75

4

Branch

70

73

74

75

9

7

9

SAN LUIS

18

POND

SANTA FE

POND

16

BM 77

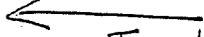
Bay City Gun Club

Bay City

△ 78

GUN CLUB

C-54



72

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL027

Site Name:

Slough Mileage: 6.92E

Site description, location, and access: From Highway 33 head east on Gun Club Road for approximately 8.0 miles to the San Luis Drain. Proceed northwest along the drain for approximately 2.7 miles to the end of the drain. At this point, head north on the dirt road extending from the drain levee for approximately 0.4 miles to where the road turns to the east. Continue east for another 0.4 miles to where the road turns north to cross a large channel. This channel is the discharge.

Township/Range/Section: SE 1/4, SE 1/4, NE 1/4, Sec. 6, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 16'04"/120° 54'16"

County: Merced

USGS Quad Map: Gustine

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this site is duck pond drainage from Kesterson NWR.

Discharge Ownership and Operation: Kesterson National Wildlife Refuge
U.S. Fish and Wildlife Service

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL028

Site Name:

Slough Mileage: 7.53W

Site description, location, and access: From Highway 33 take Highway 140 east for approximately 4.1 miles to the Kesterson Wildlife Refuge entrance. From here proceed southeast, on the refuge road, for 2.5 miles to where the road begins to head south/southwest. At this point a channel is just to the east of the road. Follow the channel, on foot, north to where it discharges to Mud Slough. This is the discharge site.

Township/Range/Section: NW 1/4, NW 1/4, NE 1/4, Sec. 6, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 16'22"/120° 54'39"

County: Merced

USGS Quad Map: Gustine

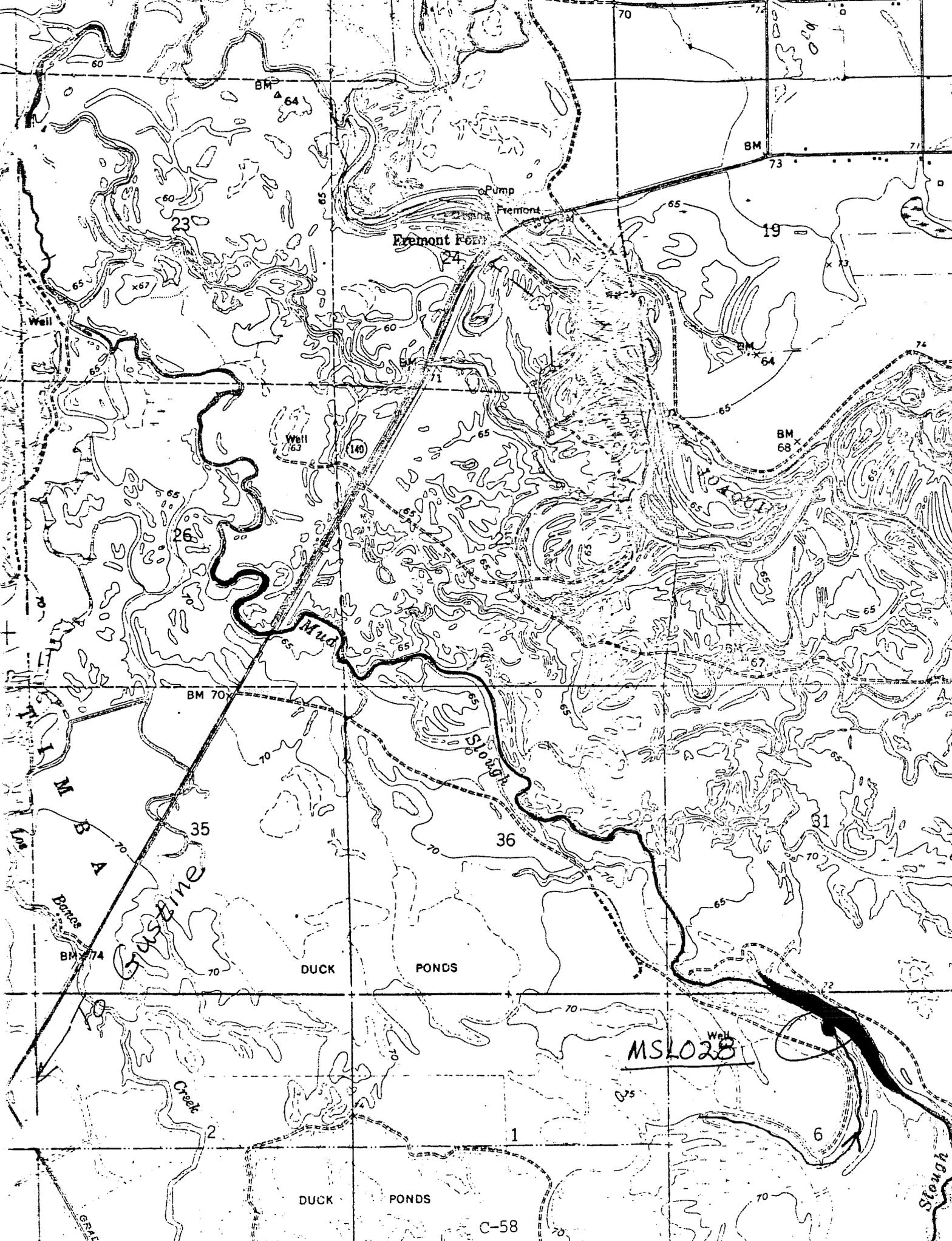
WATER SOURCE

Type and source of water being discharged (description): The water discharged at this site is duck pond drainage from Kesterson NWR.

Comments on factors affecting water quality and quantity at the site: This is the major drain for this portion of Kesterson National Wildlife Refuge.

Discharge Ownership and Operation: Kesterson National Wildlife Refuge
U.S. Fish and Wildlife Service

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL029

Site Name:

Slough Mileage: 7.98W

Site description, location, and access: From Highway 33 take Highway 140 east for approximately 4.1 miles to the Kesterson Wildlife Refuge entrance. From here proceed southeast on the refuge road for approximately 2.1 miles to where a pipe undercrosses the road. From this point, follow the channel north to where it discharges to Mud Slough.

Township/Range/Section: SW 1/4, SW 1/4, SW 1/4, Sec. 31, T.7S, R.10E, MDB&M

Latitude/Longitude: 37° 16'29"/120° 55'08"

County: Merced

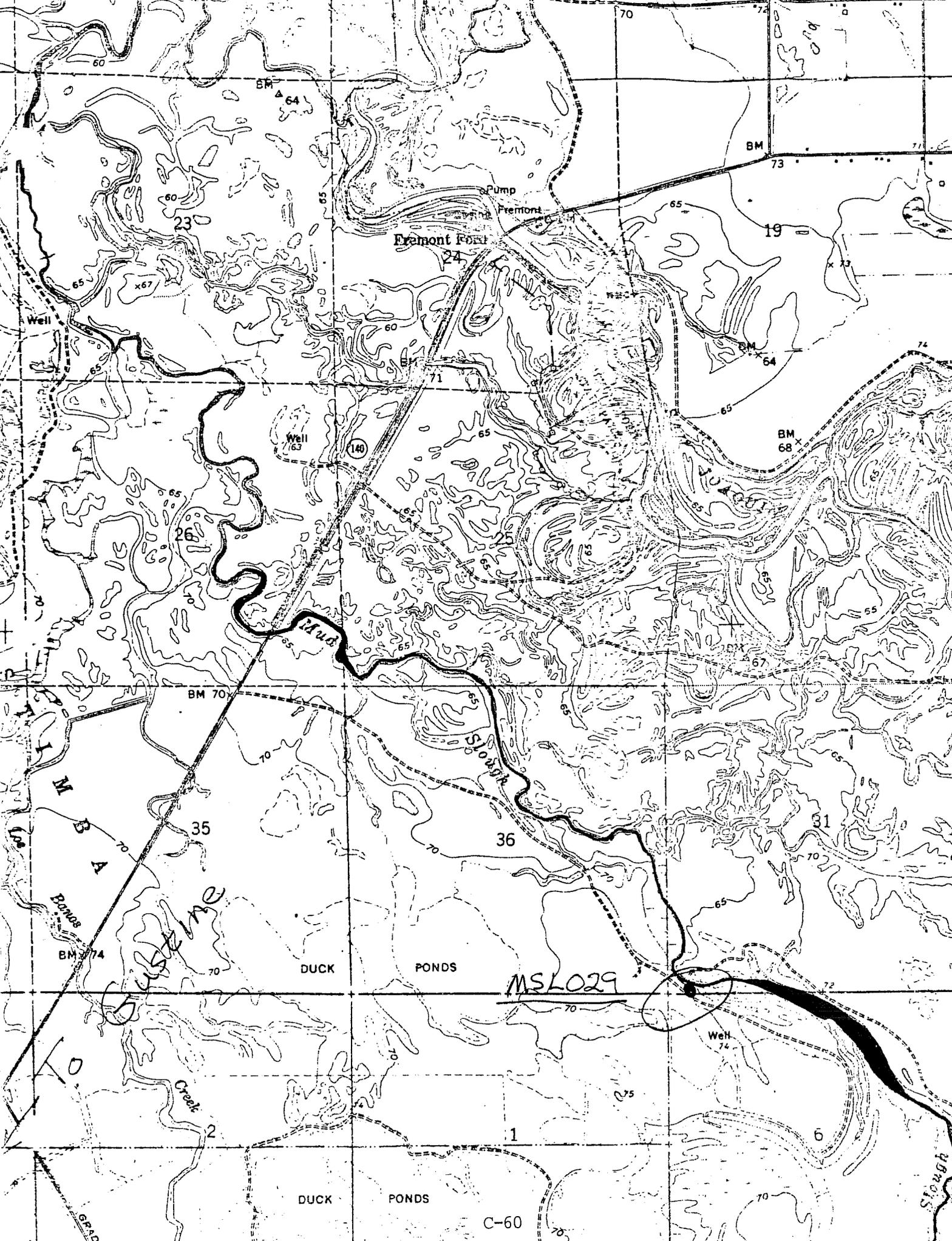
USGS Quad Map: Gustine

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this site is duck pond drainage from Kesterson NWR.

Discharge Ownership and Operation: Kesterson National Wildlife Refuge
U.S. Fish and Wildlife Service

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSLO30

Site Name:

Slough Mileage: 8.59W

Site description, location, and access: From Highway 33 take Highway 140 east for approximately 4.1 miles to the Kesterson Wildlife Refuge entrance. From here proceed southeast on the refuge road for approximately 1.3 miles to where a pipe undercrosses the road. At this point, follow the channel east to where it discharges to Mud Slough.

Township/Range/Section: NE 1/4, NE 1/4, SE 1/4, Sec. 36, T.7S, R.9E, MDB&M

Latitude/Longitude: 37° 16'48"/120° 55'18"

County: Merced

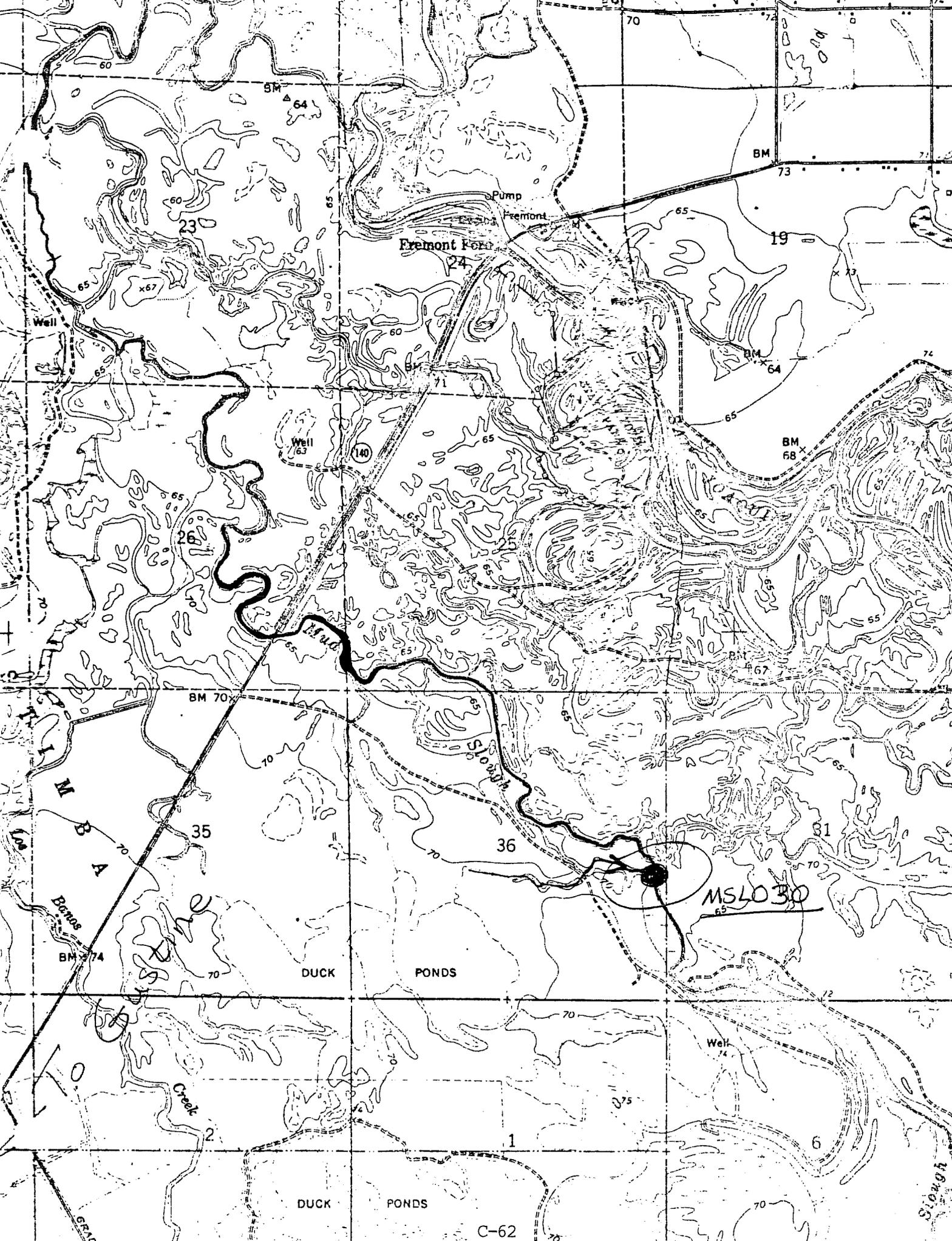
USGS Quad Map: Gustine

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this site is duck pond drainage from Kesterson NWR.

Discharge Ownership and Operation: Kesterson National Wildlife Refuge
U.S. Fish and Wildlife Service

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL031

Site Name: Slough Mileage: 8.84E

Site description, location, and access: From Highway 33 take Highway 140 east for 4.1 miles to the Kesterson Wildlife Refuge entrance. From here proceed southeast on the refuge road for approximately 1.3 miles to where a pipe undercrosses the road. At this point, head northwest on foot to the slough. Once at the slough follow it upstream to where a channel discharges into it from the northeast side. This is the discharge site.

Township/Range/Section: SW 1/4, SE 1/4, NE 1/4, Sec. 36, T.7S, R.10E, MDB&M

Latitude/Longitude: 37° 16'55"/120° 55'24"

County: Merced

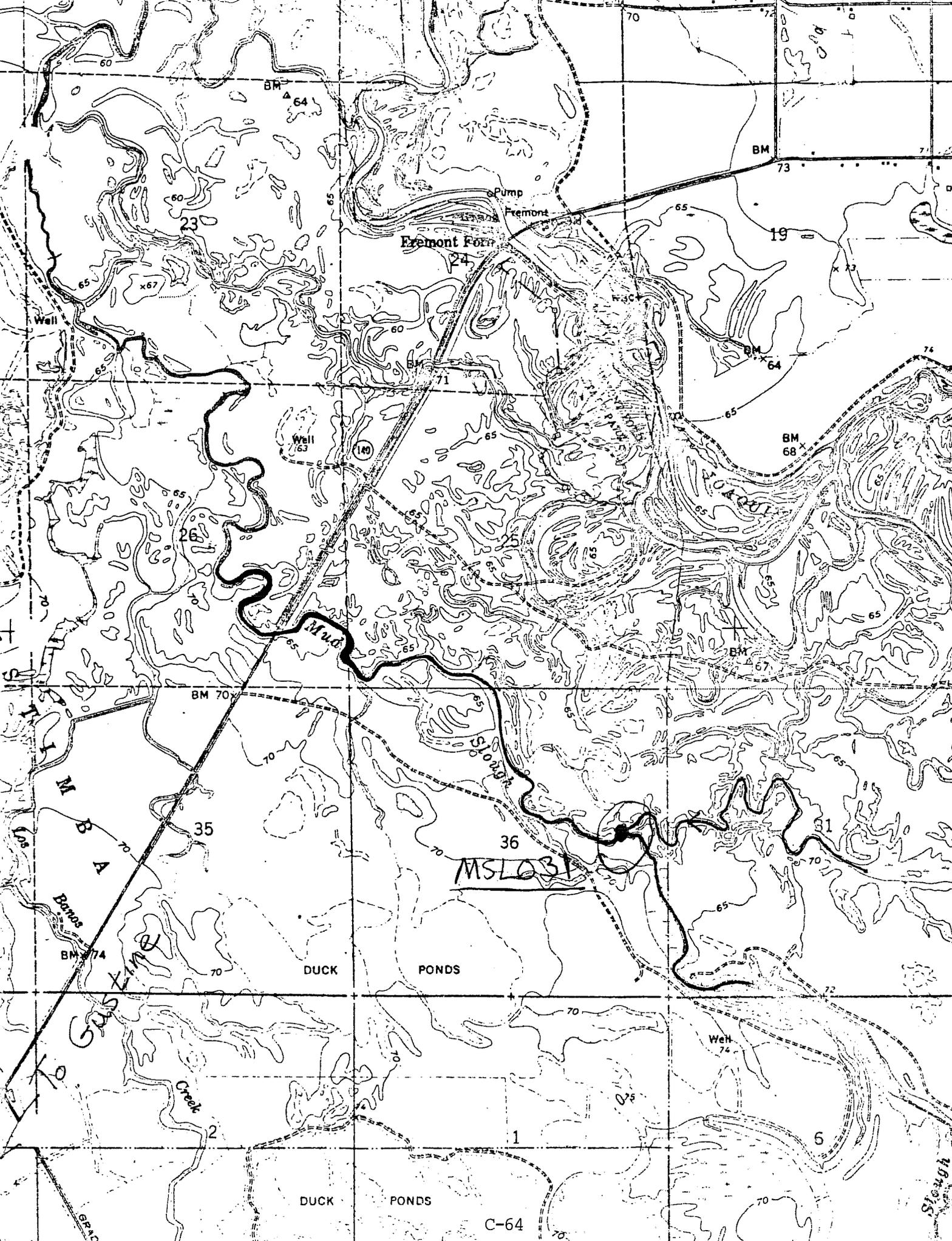
USGS Quad Map: Gustine

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this point is duck pond drainage.

Discharge Ownership and Operation: Kesterson National Wildlife Refuge
U.S. Fish and Wildlife Service

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL032

Site Name:

Slough Mileage: 9.82E

Site description, location, and access: From Highway 33 take Highway 140 east for approximately 4.1 miles to the Kesterson Wildlife Refuge entrance. From here proceed southeast on the refuge road for approximately 0.4 miles to where a pipe undercrosses the road. Follow this channel north (along the east bank) to where it discharges to the slough. At this point proceed upstream for approximately 0.4 miles to where a large channel enters the slough from the northeast side. This is the discharge site.

Township/Range/Section: SE 1/4, SE 1/4, SW 1/4, Sec. 25, T.7S, R.10E, MDB&M

Latitude/Longitude: 37° 17'22"/120° 55'55"

County: Merced

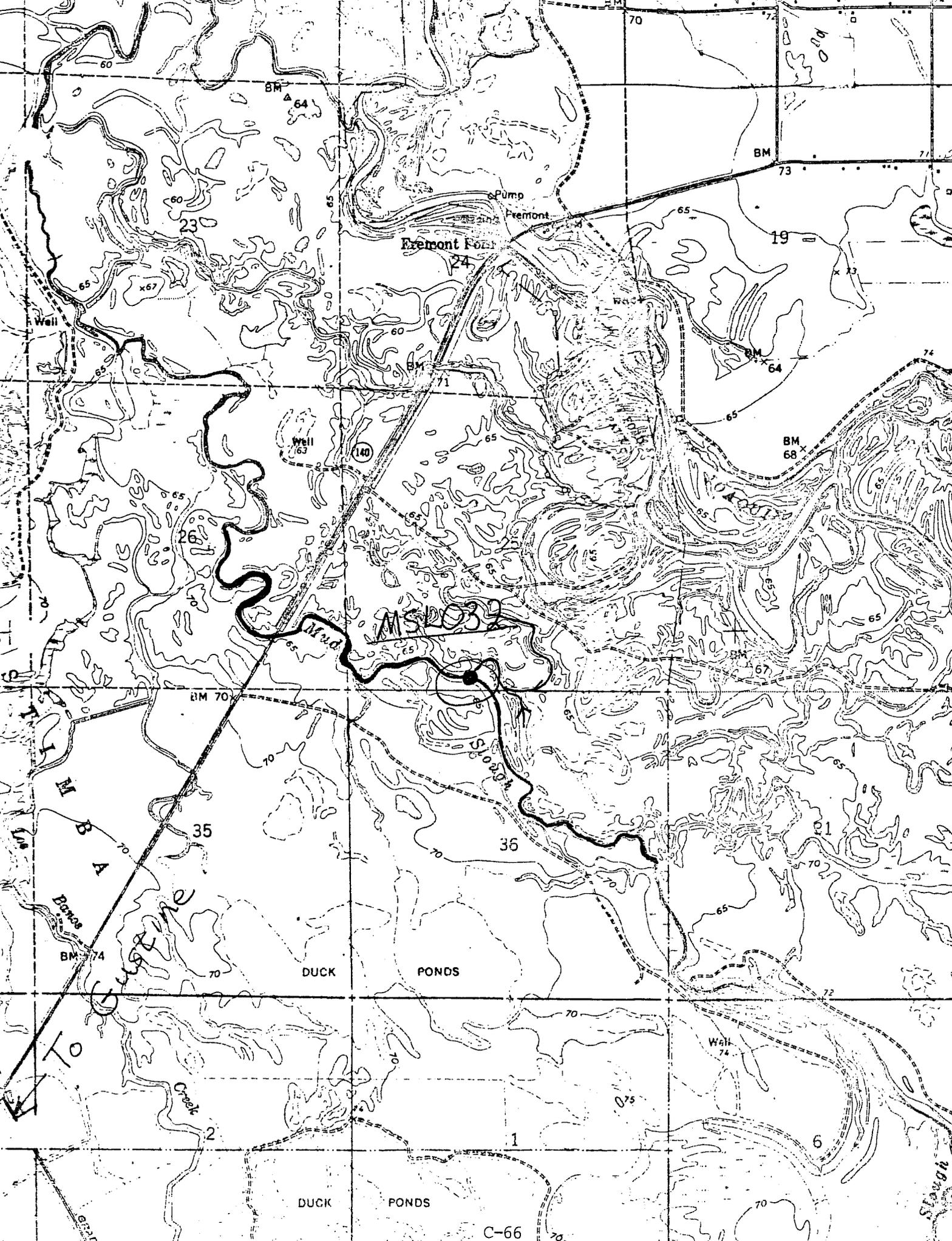
USGS Quad Map: Gustine

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this site is duck pond drainage from Kesterson NWR.

Discharge Ownership and Operation: Kesterson National Wildlife Refuge
U.S. Fish and Wildlife Service

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL033

Site Name:

Slough Mileage: 10.24W

Site description, location, and access: From Highway 33 take Highway 140 east for approximately 4.1 miles to the Kesterson Wildlife Refuge entrance. From here proceed southeast on the refuge road for approximately 0.4 miles to where a pipe undercrosses the road. Follow this channel north until it discharges into the slough.

Township/Range/Section: SW 1/4, SW 1/4, SW 1/4, Sec. 25, T.7S, R.9E, MDB&M

Latitude/Longitude: 37° 17'21"/120° 56'09"

County: Merced

USGS Quad Map: Gustine

WATER SOURCE

Type and source of water being discharged (description): This discharge drains duck ponds directly south of the site. These ponds receive water from Los Banos Creek and Eagle Ditch via the Lone Tree Gun Club.

Discharge Ownership and Operation: Kesterson National Wildlife Refuge
U.S. Fish and Wildlife Service

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE LOCATION

SITE ID # MSL034

Site Name:

Slough Mileage: 11.63E

Site description, location, and access: From Highway 33 take Highway 140 east for approximately 4.6 miles (0.3 miles past Mud Slough) to where a bridge across a large channel. At this point, hike along this channel for approximately 0.2 miles to where it discharges into Mud Slough.

Township/Range/Section: SW 1/4, SE 1/4, NE 1/4, Sec. 26, T.7S, R.9E, MDB&M

Latitude/Longitude: 37° 17'48"/120° 56'36"

County: Merced

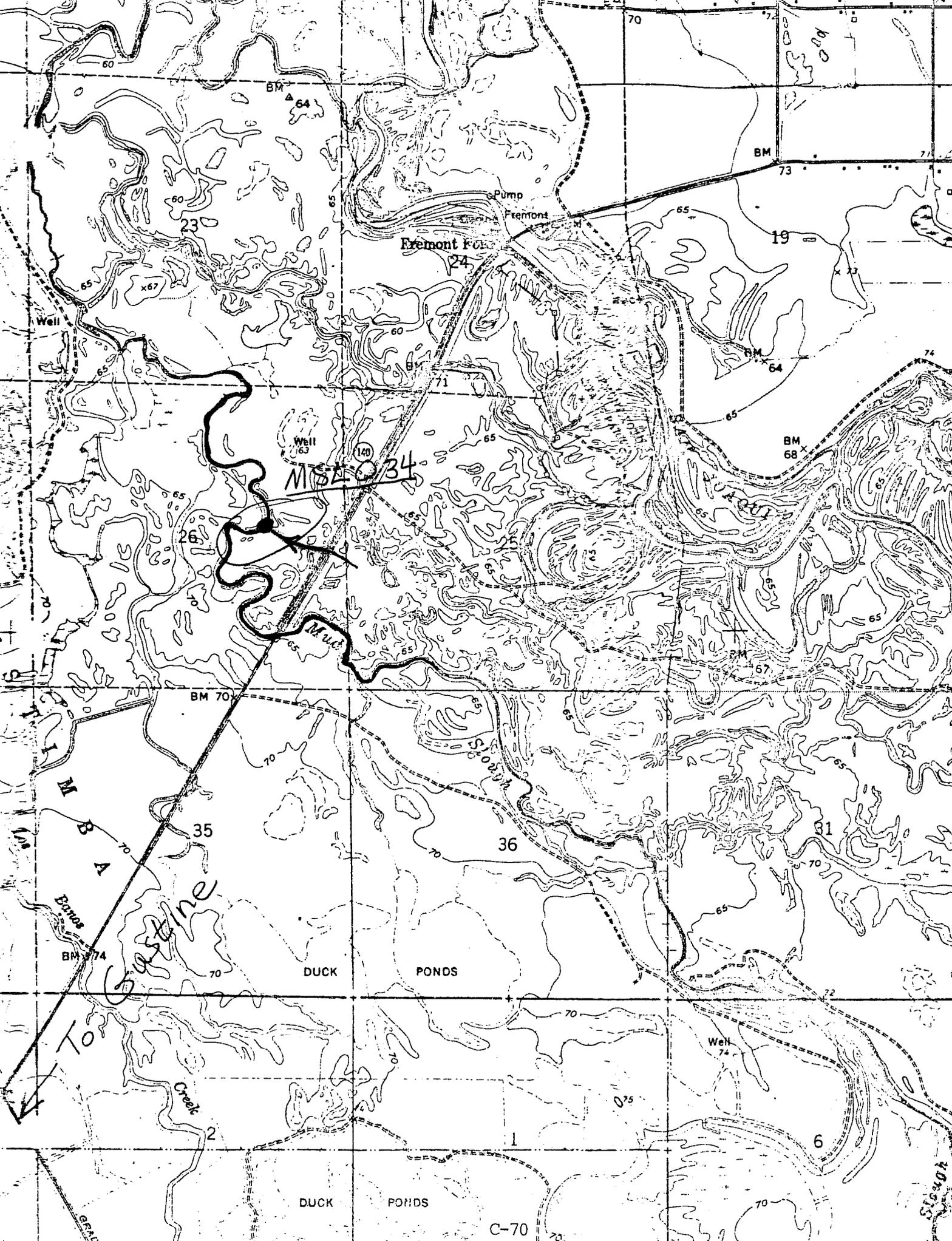
USGS Quad Map: Gustine

WATER SOURCE

Type and source of water being discharged (description): This discharge drains duck ponds from the southeast side of Highway 140.

Discharge Ownership and Operation: Simon Newman Inc.
c/o Wolfsen Land and Cattle Company
P.O. Box 311
Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL035

Site Name: Slough Mileage: 11.80W

Site description, location, and access: From Highway 33 take Highway 140 east for approximately 4.3 miles to where Mud Slough undercrosses the highway. From this point, hike along the west bank for approximately 1.1 miles to where a small channel discharges to the slough from the west bank.

Township/Range/Section: NE 1/4, SE 1/4, NE 1/4, Sec. 26, T.7S, R.9E, MDB&M

Latitude/Longitude: 37° 17'54"/120° 56'40"

County: Merced

USGS Quad Map: Gustine

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this site is duck pond drainage.

Comments on factors affecting water quality and quantity at the site:

Discharge Ownership and Operation: Irma Freitas
1534 Olsen Drive
Gustine, CA 95322

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL036

Site Name: Los Banos Creek at Mud Slough Slough Mileage: 12.15W

Site description, location, and access: From Highway 33 take Highway 140 east for approximately 4.3 miles to where Mud Slough undercrosses the road. At this point hike along the slough's west bank for approximately 1.45 miles to where a large channel enters the slough from its west bank. This is Los Banos Creek.

Township/Range/Section: NW 1/4, SW 1/4, NE 1/4, Sec. 26, T.7S, R.9E, MDB&M

Latitude/Longitude: 37° 17'58"/120° 56'48"

County: Merced

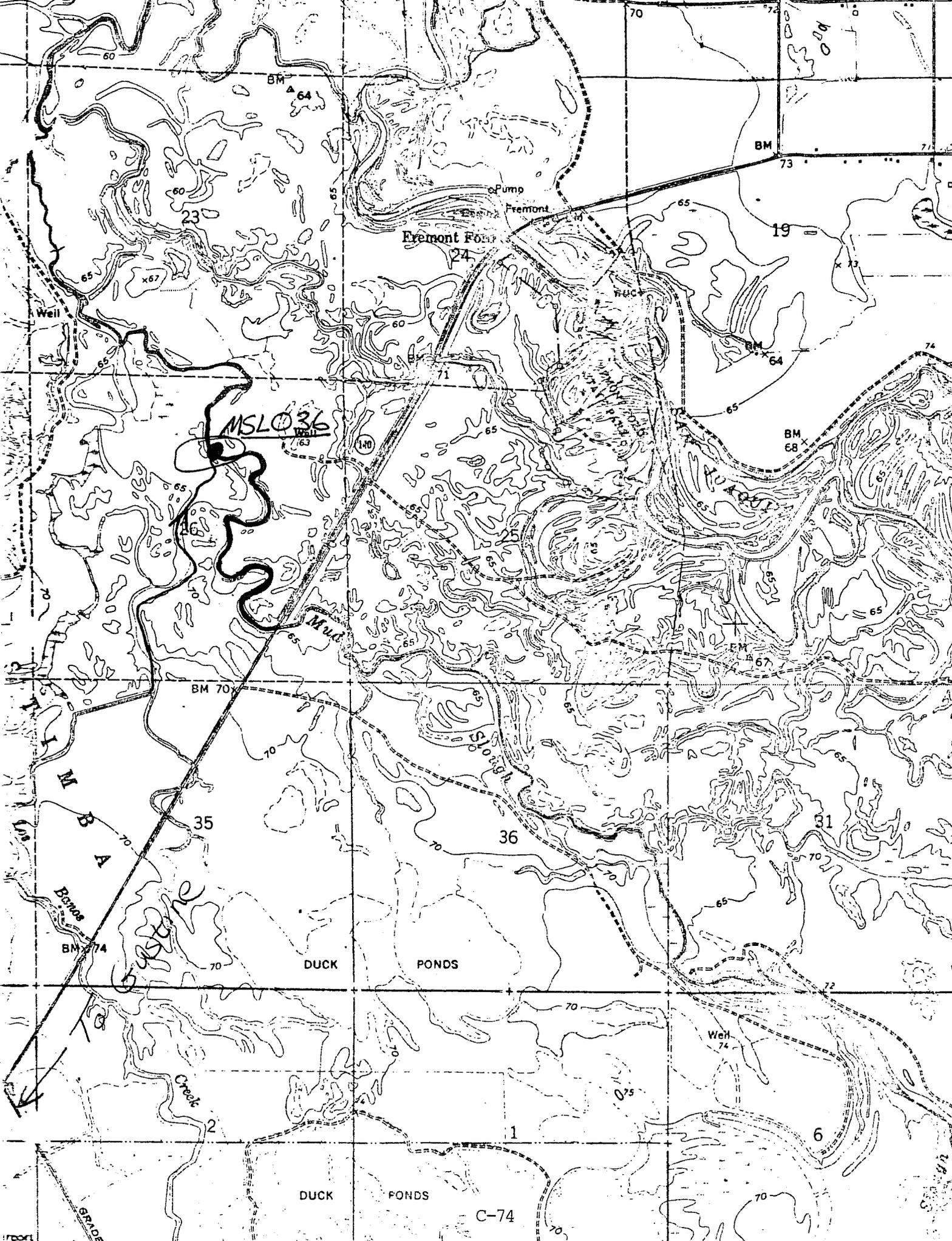
USGS Quad Map: Gustine

WATER SOURCE

Type and source of water being discharged (description): The majority of water discharged at this point is irrigation district spill water.

Discharge Ownership and Operation: Irma Freitas
1534 Olsen Drive
Gustine, CA 95322

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



Eremont Pond

MSLO 36

DUCK PONDS

DUCK PONDS

C-74

BM 70

BM 57

31

35

36

19

23

24

6

2

1

BM

BM 68

Well 74

Well

Pump

Freemont

FRAC

Mud

Mud

Bones

Creek

GRADE

60

60

65

65

70

70

70

70

70

BM 64

65

60

65

65

70

70

70

70

70

71

65

65

70

70

70

70

70

70

65

65

65

65

70

70

70

70

70

73

65

65

65

65

70

70

70

70

70

74

65

65

70

70

70

70

70

GRADE

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL037

Site Name: Slough Mileage: 12.42E

Site description, location, and access: From Highway 33 take Highway 140 east for approximately 4.6 miles (0.3 miles past Mud Slough) to where a bridge crosses a large channel. At this point, hike along the channel's east bank for 0.2 miles to Mud Slough. From this point, head north along the east bank of Mud Slough for 0.8 miles to where a channel enters the slough from the east bank.

Township/Range/Section: SW 1/4, SW 1/4, SE 1/4, Sec. 23, T.7S, R.9E, MDB&M

Latitude/Longitude: 37° 18'14"/120° 56'45"

County: Merced

USGS Quad Map: Gustine

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this site is duck pond drainage.

Discharge Ownership and Operation: Simon Newman Inc.
c/o Wolfsen Land and Cattle Co.
P.O. Box 311
Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE LOCATION

SITE ID # MSL038

Site Name:

Slough Mileage: 12.91W

Site description, location, and access: From Gustine take Hunt Road north from Highway 140. Follow Hunt Road to the end, approximately 2.0 miles, and turn east on Preston Road. Follow Preston Road to Santa Fe Grade and go south. Santa Fe Grade does not go through to the south, but the road veers east to the Newman Gun Club. Follow the road through the compound and continue on for approximately 1.7 miles to where a pump lifts water out of Mud Slough. From this pump follow the slough south for approximately 0.2 miles to where the slough forms a large pool. Follow this pool south to where it becomes channelized. This is the discharge site.

Township/Range/Section: SW 1/4, SE 1/4, SW 1/4, Sec. 23, T.7S, R.9E, MDB&M

Latitude/Longitude: 37° 18'17"/120° 57'06"

County: Merced

USGS Quad Map: Gustine

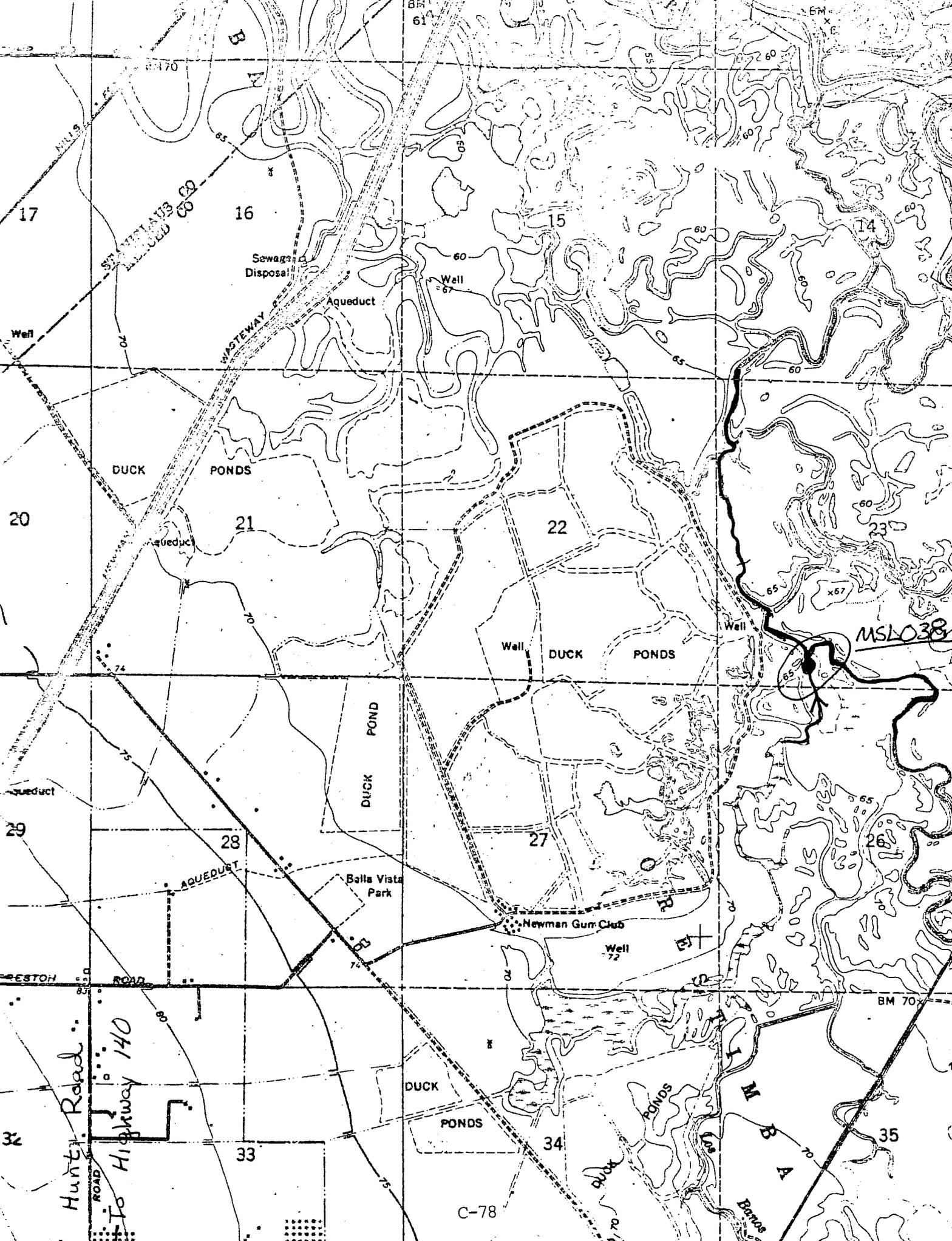
WATER SOURCE

Type and source of water being discharged (description): Water discharged at this site is duck pond drainage.

Comments on factors affecting water quality and quantity at the site: A large area north of Gustine is drained by these ponds.

Discharge Ownership and Operation: Newman Land Co.
2509 Leslie Lane
Ceres, CA 95307

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



17

16

15

14

20

21

22

23

26

28

27

26

32

33

34

35

ST. MARTIN'S

WASTEWAY

Sewage Disposal

Aqueduct

Well

DUCK

PONDS

Aqueduct

Well

DUCK

PONDS

Well

MSLO38

DUCK POND

AQUEDUCT

Bella Vista Park

Newman Gum Club

Well

RESTON ROAD

Hunt Road To Highway 140

DUCK

PONDS

PONDS

M B A

C-78

BM 70

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL039

Site Name:

Slough Mileage: 13.92W

Site description, location, and access: From Gustine take Hunt Road north from Highway 140. Follow Hunt Road to the end, approximately 2.0 miles, and turn east on Preston Road. Follow Preston Road to Santa Fe Grade and go south. Santa Fe Grade does not go through to the south, but the road veers east to the Newman Gun Club. Follow the road through the compound and continue on for approximately 1.7 miles to where a pump lifts water out of Mud Slough. At this point, continue northwest along the road for approximately 0.5 miles to where a small channel parallels the road. From this point, follow the channel downstream for approximately 0.15 miles to where it enters the slough. This is the discharge site.

Township/Range/Section: NW 1/4, SW 1/4, NW 1/4, Sec. 23, T.7S, R.9E, MDB&M

Latitude/Longitude: 37° 18'50"/120° 57'26"

County: Merced

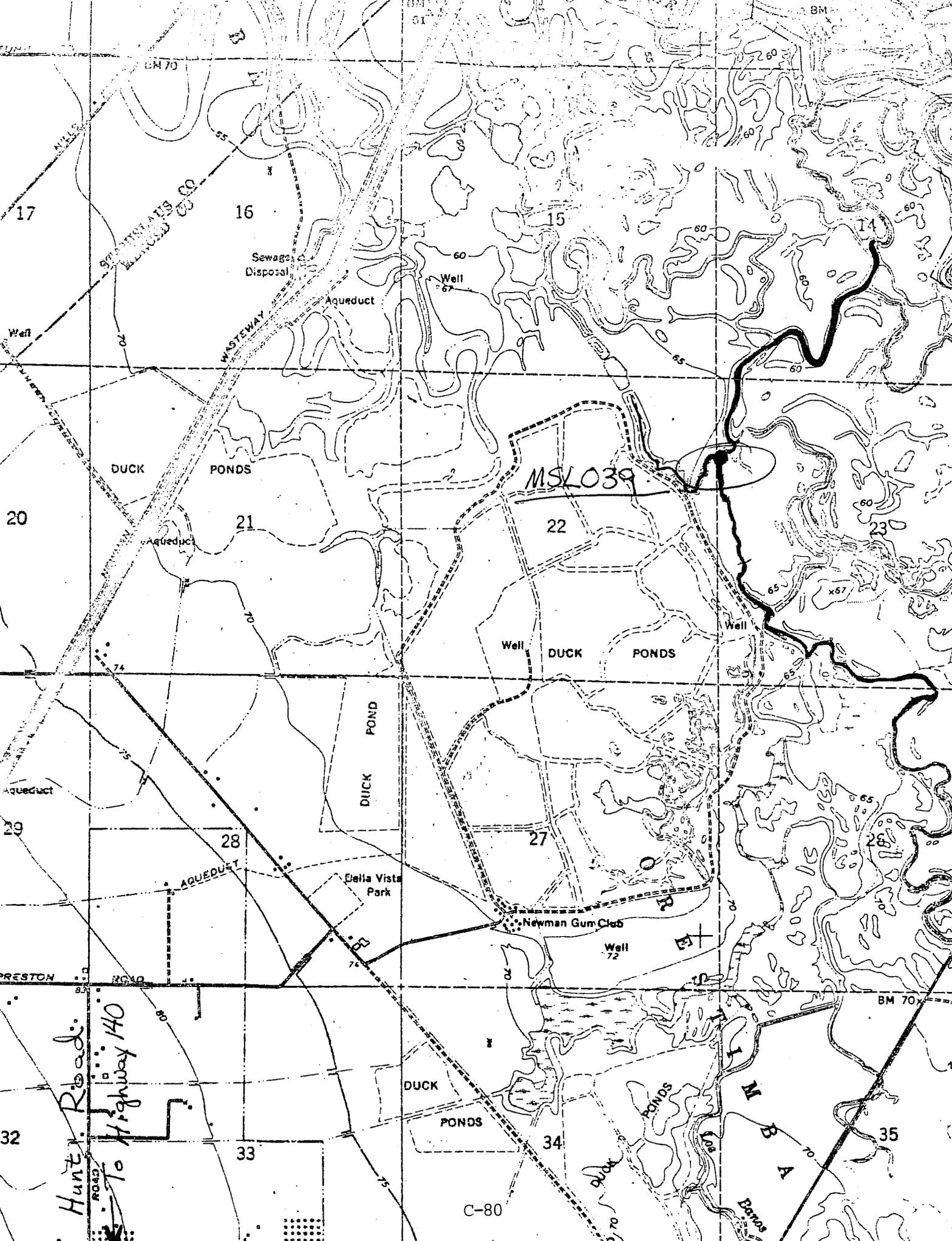
USGS Quad Map: Gustine

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this site is duck pond drainage.

Discharge Ownership and Operation: Simon Newman Inc.
c/o Wolfsen Land and Cattle Co.
P.O. Box 311
Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



BM 70

61

BM

17

16

15

14

Sewage Disposal

Well

Aqueduct

WASTEWAY

Well

DUCK

PONDS

MSLO39

20

21

22

23

Aqueduct

Well

Well

DUCK

PONDS

DUCK POND

29

28

27

AQUEDUCT

Della Vista Park

Newman Gun Club

Well

PRESTON ROAD

BM 70

Hunt Road To Highway 140

DUCK

PONDS

PONDS

M B A

32

33

34

35

C-80

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE LOCATION

SITE ID # MSL040

Site Name:

Slough Mileage: 13.98E

Site description, location, and access: From Gustine take Hunt Road north from Highway 140. Follow Hunt Road to the end, approximately 2.0 miles, and turn east on Preston Road. Follow Preston Road to Santa Fe Grade and go south. Santa Fe Grade does not go through to the south, but the road veers east to Newman Gun Club. Follow the road through the compound and continue on for approximately 1.7 miles to where a pump lifts water out of Mud Slough. At this point, continue along the road for approximately 0.5 miles to where a small channel parallels the road. From this point, follow the channel downstream for approximately 0.15 miles to where it enters the slough. From here, proceed north along the slough for 0.05 miles to where a large channel enters from the east bank. This is the discharge site.

Township/Range/Section: SW 1/4, NW 1/4, NW 1/4, Sec. 23, T.7S, R.9E, MDB&M

Latitude/Longitude: 37° 18'52"/120° 57'22"

County: Merced

USGS Quad Map: Gustine

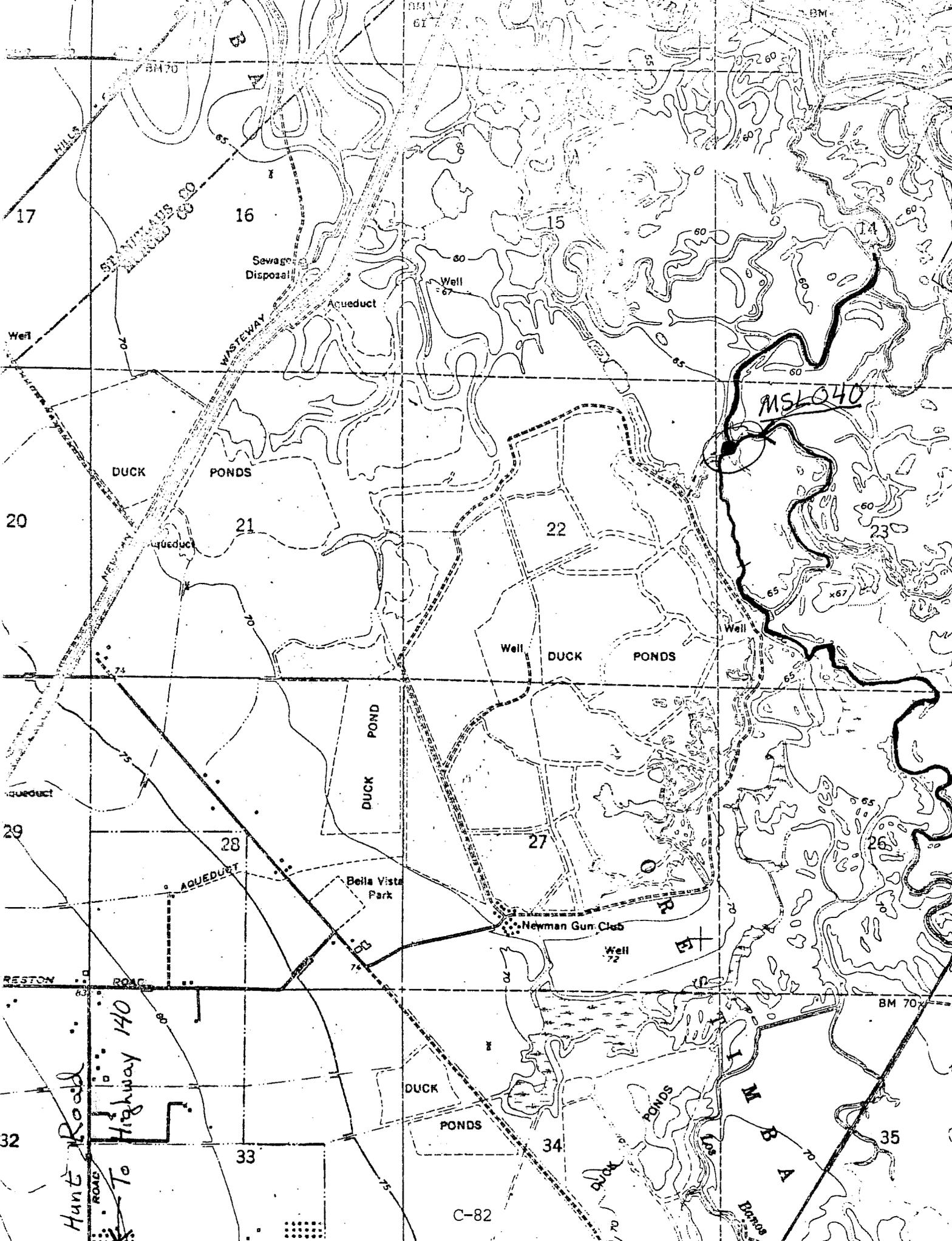
WATER SOURCE

Type and source of water being discharged (description): Water discharged at this site is duck pond drainage.

Comments on factors affecting water quality and quantity at the site: This site is a large drain, draining a fairly large area originating southeast of Highway 140.

Discharge Ownership and Operation: Simon Newman Inc.
c/o Wolfsen Land and Cattle Co.
P.O. Box 311
Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL041

Site Name:

Slough Mileage: 14.90E

Site description, location, and access: From Gustine take Hunt Road north from Highway 140. Follow Hunt Road to the end, approximately 2.0 miles, and turn east on Preston Road. Follow Preston Road to Santa Fe Grade and turn south. Santa Fe Grade does not go through to the south, but the road veers east to Newman Gun Club. Follow the road through the compound and continue on for approximately 1.7 miles to where a pump lifts water out of Mud Slough. At this point, continue along the road for approximately 0.5 miles to where a small channel parallels the road. From this point, follow the channel downstream for approximately 0.15 miles to where it enters the slough. From here, proceed north along the slough for 1.0 miles to where a large channel enters from the east bank. This is the discharge site.

Township/Range/Section: SE 1/4, NE 1/4, SW 1/4, Sec. 14, T.7S, R.9E, MDB&M

Latitude/Longitude: 37° 19'18"/120° 56'56"

County: Merced

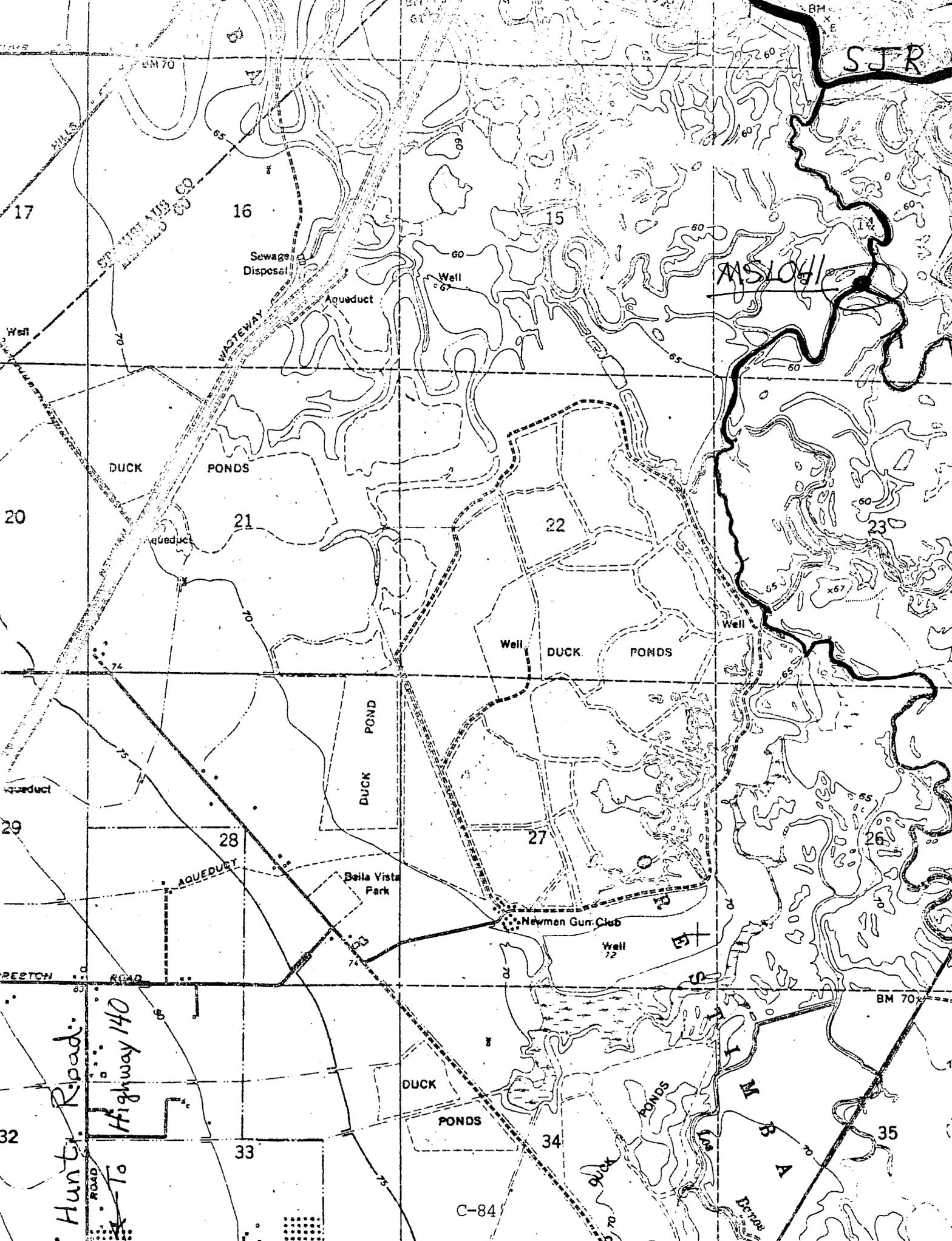
USGS Quad Map: Gustine

WATER SOURCE

Comments on factors affecting water quality and quantity at the site: This site is a large drain possibly originating at the San Joaquin River.

Discharge Ownership and Operation: Simon Newman Inc.
c/o Wolfsen Land and Cattle Co.
P.O. Box 311
Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



SJR

BM 70

17

16

15

Sewagen Disposal

Well

HOLSW

WASTEWAY

Aqueduct

Well

70

DUCK

PONDS

20

21

22

Aqueduct

70

Well

DUCK

PONDS

Well

76

DUCK POND

Aqueduct

29

28

27

AQUEDUCT

Bella Vista Park

Newman Gun Club

Well 72

REETCH ROAD

BM 70

Hunter Road

Highway 140

To

DUCK

PONDS

34

PONDS

PONDS

32

33

C-84

35

Deer

MUD SLOUGH (NORTH) DISCHARGE SITE INFORMATION SHEET

SITE ID # MSL042

Site Name:

Slough Mileage: 15.58W

Site description, location, and access: From Gustine take Hunt Road north from Highway 140. Follow Hunt Road to the end, approximately 2.0 miles, and turn east on Preston Road. Follow Preston Road to Santa Fe Grade and turn south. Santa Fe Grade does not go through to the south, but the road veers east to Newman Gun Club. Follow the road through the compound and continue on for approximately 1.7 miles to where a pump lifts water out of Mud Slough. At this point, continue along the road for approximately 0.5 miles to where a small channel parallels the road. From this point, follow the channel downstream for approximately 0.15 miles to where it enters the slough. From here proceed north along the slough for 1.7 miles to where a channel discharges to the slough from the west bank. This is the discharge site.

Township/Range/Section: NW 1/4, SE 1/4, NW 1/4, Sec. 14, T.7S, R.9E, MDB&M

Latitude/Longitude: 37° 19'45"/120° 57'09"

County: Merced

USGS Quad Map: Gustine

WATER SOURCE

Type and source of water being discharged (description): Discharge at this site is duck pond drainage.

Discharge Ownership and Operation: Simon Newman Inc.
c/o Wolfsen Land and Cattle Co.
P.O. Box 311
Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



SJR

MSLO 42

BM 70

17

16

15

14

Sawage Disposal

Well 67

Aqueduct

WASTEWAY

DUCK

PONDS

20

21

22

Aqueduct

DUCK POND

Wall

DUCK

PONDS

Well

29

28

27

AQUEDUCT

Bella Vista Park

Newman Gun Club

Well 72

RESTON ROAD

BM 70

Hunt Road

To Highway 140

DUCK

PONDS

34

PONDS

M B A

35

32

33

C-86

Bones

MUD SLOUGH (NORTH) DIVERSION SITE INFORMATION SHEET

SITE ID # MSL043

Site Name: Coast Cattle Gun Club Diversion Pump Slough Mileage: 1.28S

Site description, location, and access: From Highway 33 take Gun Club Road east for approximately 6.8 miles to where the Fremont Canal undercrosses the road. At this point, turn south onto the Fremont Canal levee and follow it approximately 1.9 miles to the Coast Cattle Gun Club. Continue past the buildings and across Mud Slough. Once across the slough turn south and drive to the lift pump. This is the diversion site.

Township/Range/Section: NW 1/4, SW 1/4, NW 1/4, Sec. 28, T.8S, R.10E, MDB&M

Latitude/Longitude: 37° 12'43"/120° 53'01"

County: Merced

USGS Quad Map: Ingomar

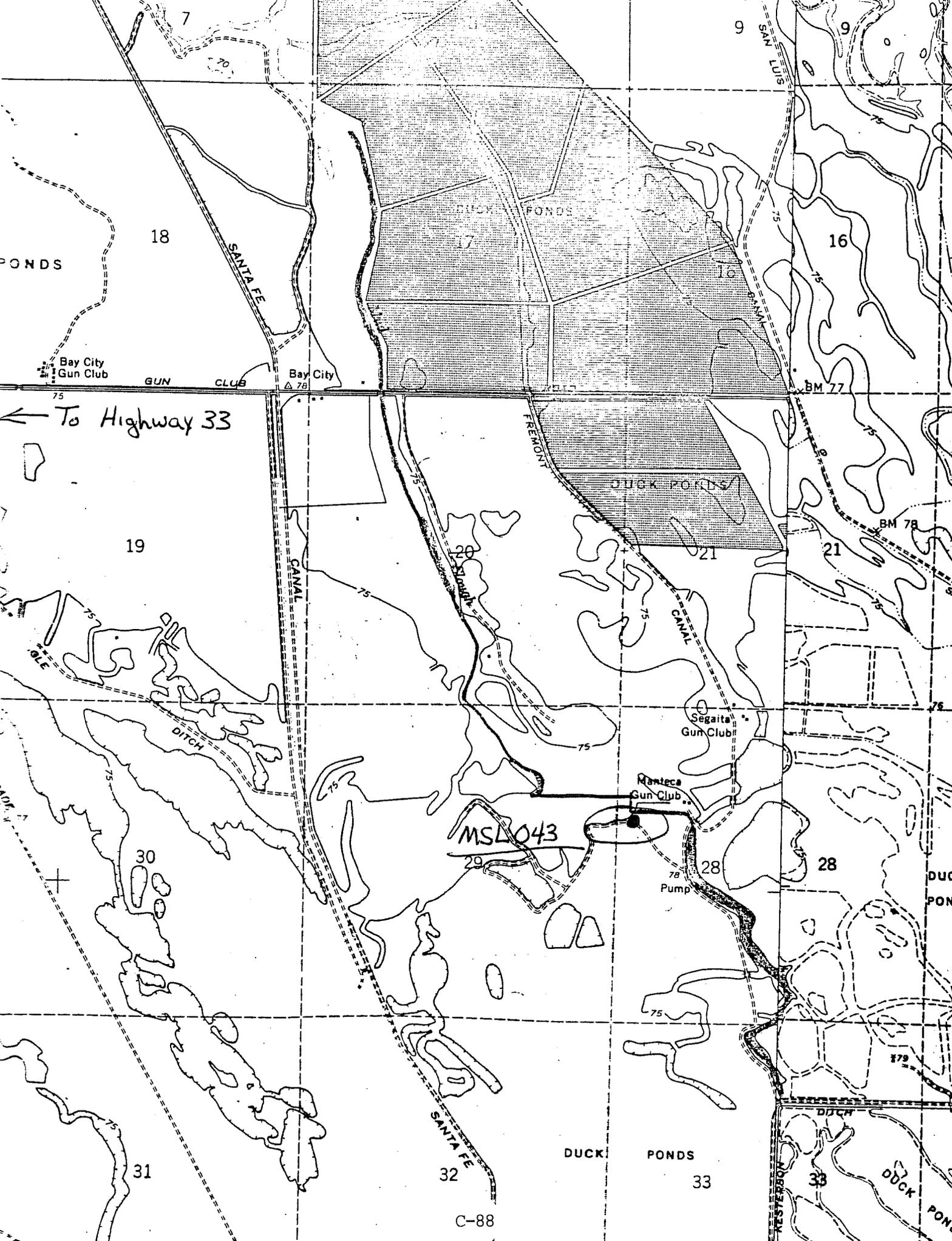
Type of diversion and use of the water: 7.5 Hp pump used to flood duck pond.

Meter Number: PG&E meter #8T0878

Water Right Permit Number: No permit has been applied for.

Diversion Ownership and Operation: Coast Cattle Co.
P.O. Box 980
Modesto, CA 95353

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



MSL043

← To Highway 33

MUD SLOUGH (NORTH) DIVERSION SITE INFORMATION SHEET

SITE ID # MSL044

Site Name: Newman Gun Club Diversion Pump **Slough Mileage:** 13.14E

Site description, location, and access: From Gustine take Hunt Road north from Highway 140. Follow Hunt Road to the end, approximately 2.0 miles, and turn east on Preston Road. Follow Preston Road to Santa Fe Grade and turn south. Santa Fe Grade does not go through to the south, but the road veers east to Newman Gun Club. Follow the road through the compound and continue on for approximately 1.7 miles to where a pump lifts water out of Mud Slough. This is the diversion site.

Township/Range/Section: NE 1/4, SW 1/4, SW 1/4, Sec. 23, T.7S, R.9E, MDB&M

Latitude/Longitude: 37° 18'21"/120° 57'17"

County: Merced

USGS Quad Map: Gustine

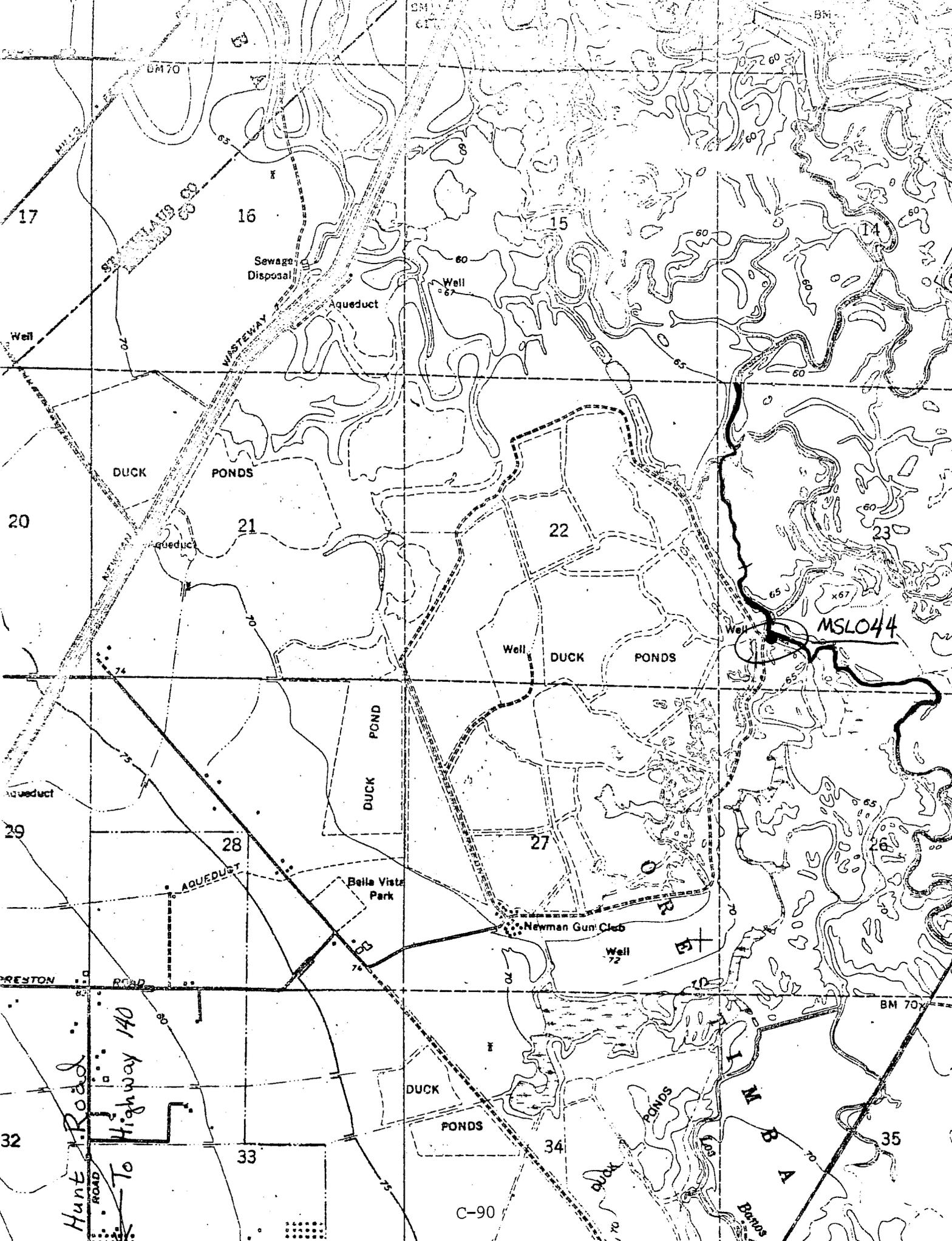
Type of diversion and use of the water: 15 Hp pump used for duck pond flooding and stock watering.

Meter Number: PG&E meter #11698

Water Right Permit Number: No permit has been applied for.

Diversion Ownership and Operation: Simon Newman Inc.
c/o Wolfsen Land and Cattle Co.
P.O. Box 311
Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



17

16

15

14

Sewage Disposal

Well

Aqueduct

Well

WASTEWAY

DUCK

PONDS

20

21

22

23

queduct

MSLO44

Well

DUCK

PONDS

Well

DUCK POND

29

28

27

26

AQUEDUCT

Bella Vista Park

Newman Gun Club

Well

ROSTON ROAD

BM 70

Hunt Road

To Highway 140

DUCK

PONDS

34

35

PONDS

PONDS

33

C-90

PONDS

