CLUB # 801
5/2/80 HN

SUISUN

resource conservation district

Management

Plan

SCS-CONS-16
OCTOBER 1974

CONSERVATION PLAN MAP

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Owner Taylor, James F. Operator

County Solano State CA Date

Approximate acres 51.51 Approximate scale 1"=660'

Cooperating with Suisun Resource Conservation District

N

Plan identification 801 Photo number

Assisted by USDA Soil Conservation Service

SCS-CONS-15
OCTOBER 1974

SOIL MAP

U.S DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

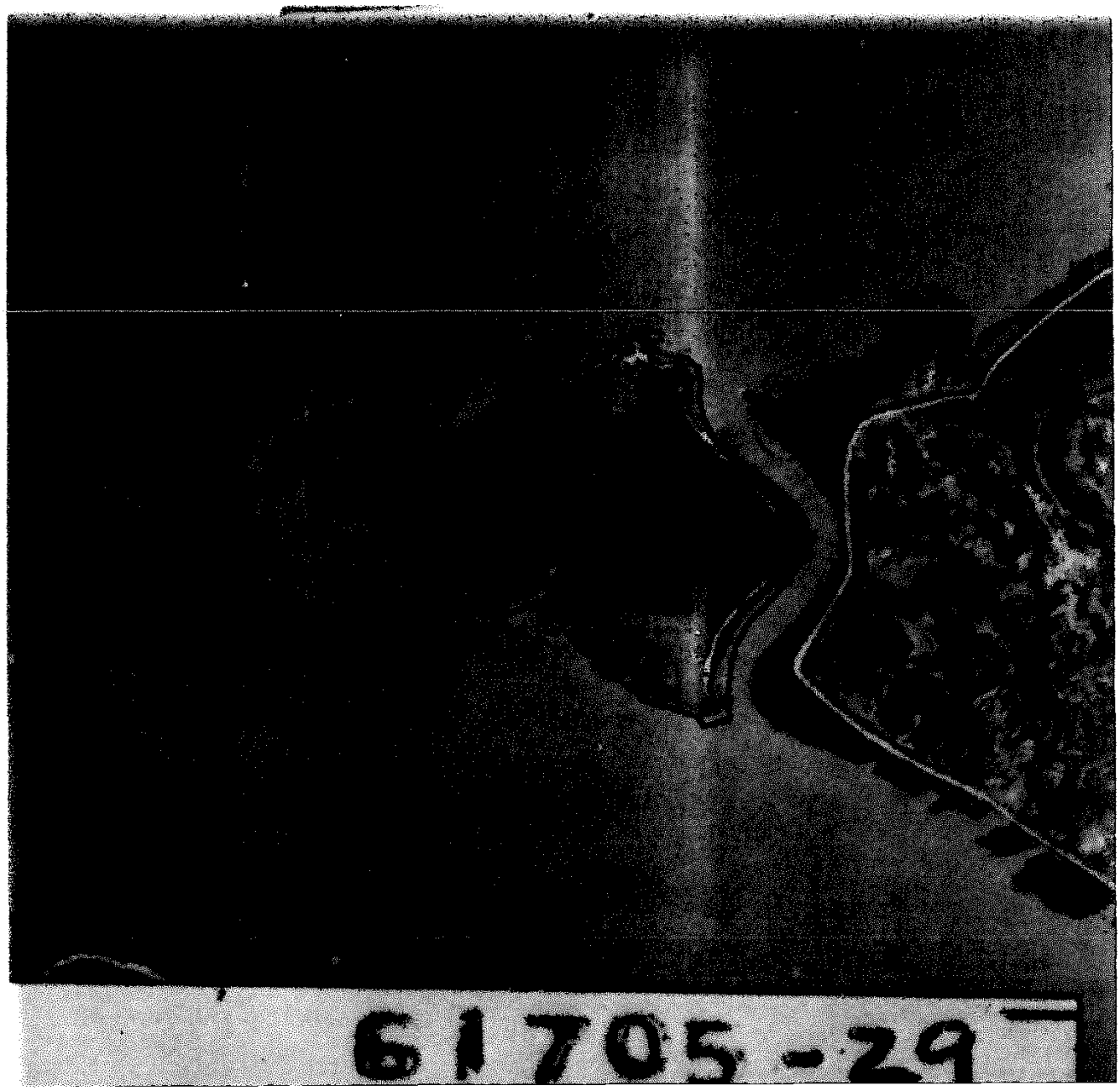
Owner Taylor, James F. Operator

County Solano State CA

Soil survey sheet(s) or code nos. Approximate scale 1"=660'

N

Prepared by U.S. Department of Agriculture, Soil Conservation Service cooperating with Suisun Resource Conservation District



CLUB #801

ANNIE MASON POINT CLUB

RECEIVED
NOV 15 1984
SAN FRANCISCO BAY CONSERVATION
& DEVELOPMENT COMMISSION

LAND USE SUMMARY

Managed wetland	30 ac.
Upland area	6 ac.
Tule berm	15 ac.
TOTAL	51 ac.

PRESENT CLUB CONDITIONS

WATER MANAGEMENT

Annie Mason Point Club is a small lone club located on Buckley Island. It is contained within a single levee surrounded by Grizzly Bay to the north and Suisun Cutoff to the south. Structure A on the east side of the club functions as the main flood gate and brings water into the club via a perimeter ditch system. A system of interior ditches running from south to north further distributes water to the pond. Structure B is used to drain the club into Grizzly Bay. Two small check dams (C and D) are located in the perimeter ditch. These structures aid in circulation by putting a head on the inlet water and forcing it to circulate across the club in a south to north direction. Removing the boards in the dam enables the ditch to drain.

VEGETATION

An on-club survey in 1976 found the club to be composed predominantly of olney and hardstem bulrush in the lower areas and saltgrass in the higher areas. The 1978 CA Dept. of Fish and Game aerial survey reported tule growth intermixed with the above vegetation. None of these plants has a relatively high use and selection value for waterfowl.

Olney and hardstem bulrush are both sod forming perennials which grow along sloughs and in ditches containing water most of the year. They will invade ponds which are shallowly flooded year round and are indicative of fairly fresh water conditions. Tules are also common in permanent ponds. Their increase was probably due to the club's lack of water control at the time.

SUMMARY

Prior to 1978, Annie Mason Point Club's vegetation largely consisted of non--waterfowl food plants. This was likely due to the club's lack of water control at the time. Since then, the situation has greatly improved and the club reports that it now has the water control structures and tight levees necessary for proper water management.

FLOOD/DRAIN EVALUATION

Due to limited access, an elevation survey was not done for this club. That being the case, the club's flood and drain capability could not be determined. However, using some assumptions, it is apparent that as the ponded area is very small, gates A and B would likely have to be only 24" in diameter to service this club effectively. Although structure B, the drain gate, must be set low enough to provide subsurface drainage of the pond.

CLUB IMPROVEMENTS

WATER MANAGEMENT

Needed Improvements: It is, first of all, necessary that the club follows a

regular program of water management; in this case the alkali bulrush program is recommended to promote such growth as well as fat hen and brass buttons. Considering the generally poorer quality water in Suisun Bay, effective spring leach cycles performed within 30 days are required to establish and maintain suitable habitat.

Proper water control necessitates inspection and maintenance of levees, ditches, and water control structures. Ditches need to be kept clear of vegetation blockages or silt build-ups to allow circulation and drainage. For effective drainage, ditches should be at least 2.5 ft. deeper than the average pond bottom elevation at the controlling tide gate, sloping to 1.5 ft. deep at the most remote point in the pond. Water control structures should also be kept in working order. Levees require frequent inspection and attention to prevent major breaks from occurring. See the enclosed list of standard recommendations for more information on the maintenance and repair of water control facilities.

VEGETATION MANAGEMENT

Needed Improvements: The dense growth of undesirable vegetation in the pond needs to be reduced by burning and/or discing followed by flooding according to the water management schedule. Removing the old vegetation and turning over the soil provides a seed bed for the establishment of new vegetation which is more preferred by waterfowl.

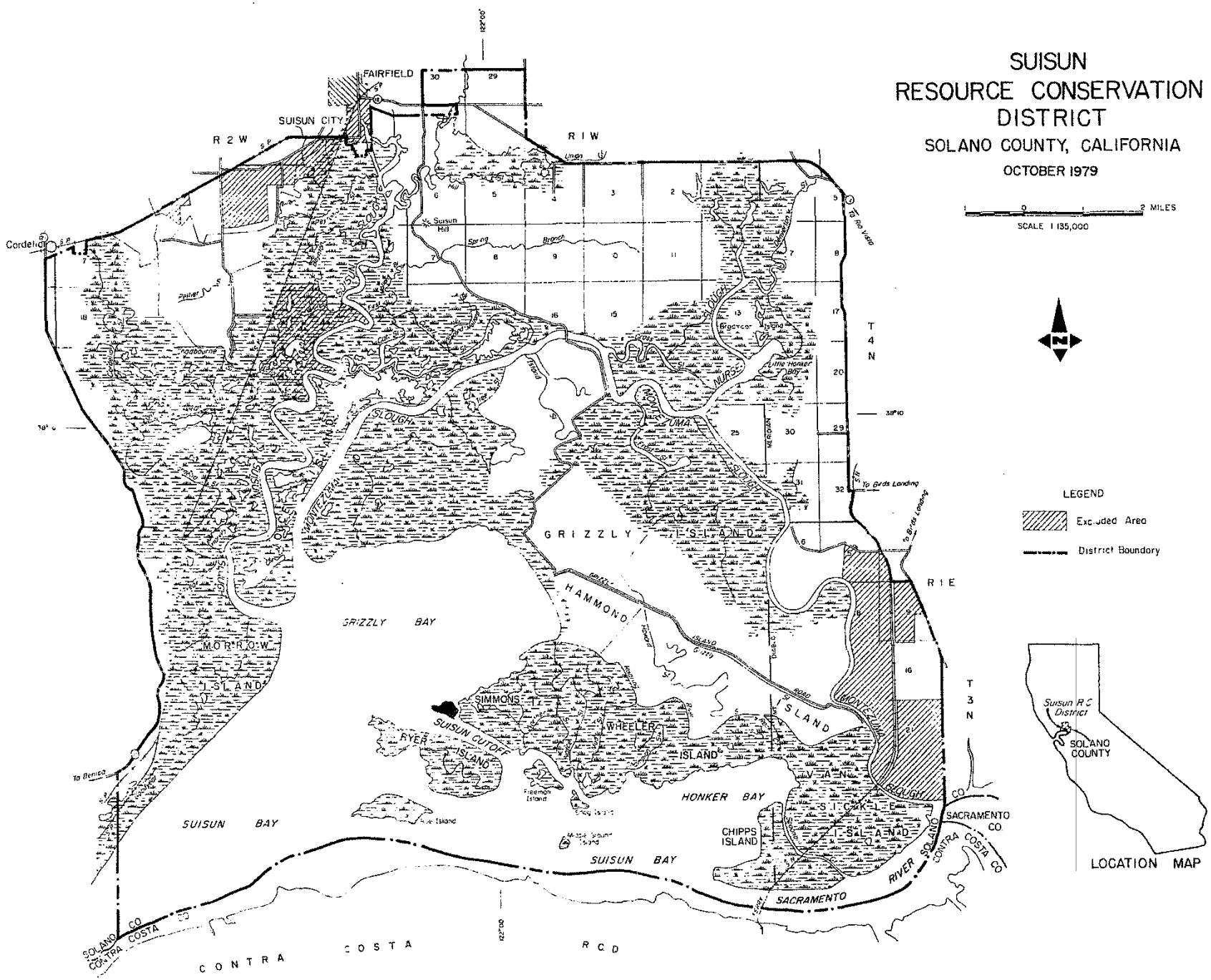
Emergent pond vegetation should be mowed to create open pond areas which are attractive to over-wintering waterfowl in the Suisun Marsh. The extent and pattern of mowing is left to the desires of the club. Close-cutting of tules and olney bulrush prior to fall flooding is an effective method of setting back their growth.

Levee vegetation should be mowed, as necessary, to facilitate access for maintenance reasons. This should be done after June 1st to lessen disruption of pheasant and waterfowl nesting.

SUISUN RESOURCE CONSERVATION DISTRICT

SOLANO COUNTY, CALIFORNIA

OCTOBER 1979



Source:

CONS-3
8/75

U.S. Department of Agriculture
Soil Conservation Service

SOIL and CAPABILITY MAP SUMMARY

erator: _____ Date: _____

d -y it	Symbol on Map	Soil Name	Effective Depth	Soil Profile: Texture: Surface	Soil Profile: Texture: Subsoil	Soil Profile: A.W.C.* Inches	Average Slope in %	Erosion Status	Suitable Land Uses or Crops	Limiting Factors or Remarks
-1	Ja	Joice Muck	+60"	clayey muck	clayey muck	14-15"	0-1%	slight	1) Wildlife, wetland habitat. 2) Recreation.	1) Rooting depth restricted by high water table. 2) Requires drainage and leaching of soil salts for proper management. 3) Levees and tidegates are necessary for water control. 4) Only salt tolerant vegetation should be managed for.
Iw-1	Td	Tidal Marsh	--------	----variable------		1-2"	0-1%	NONE	1) Wildlife wetland habitat.	1) Strongly saline land type. 2) Mud flats, subject to tidal inundation.

*A.W.C. - Available Water Holding Capacity for the entire soil profile

CONSERVATION PLAN MAP

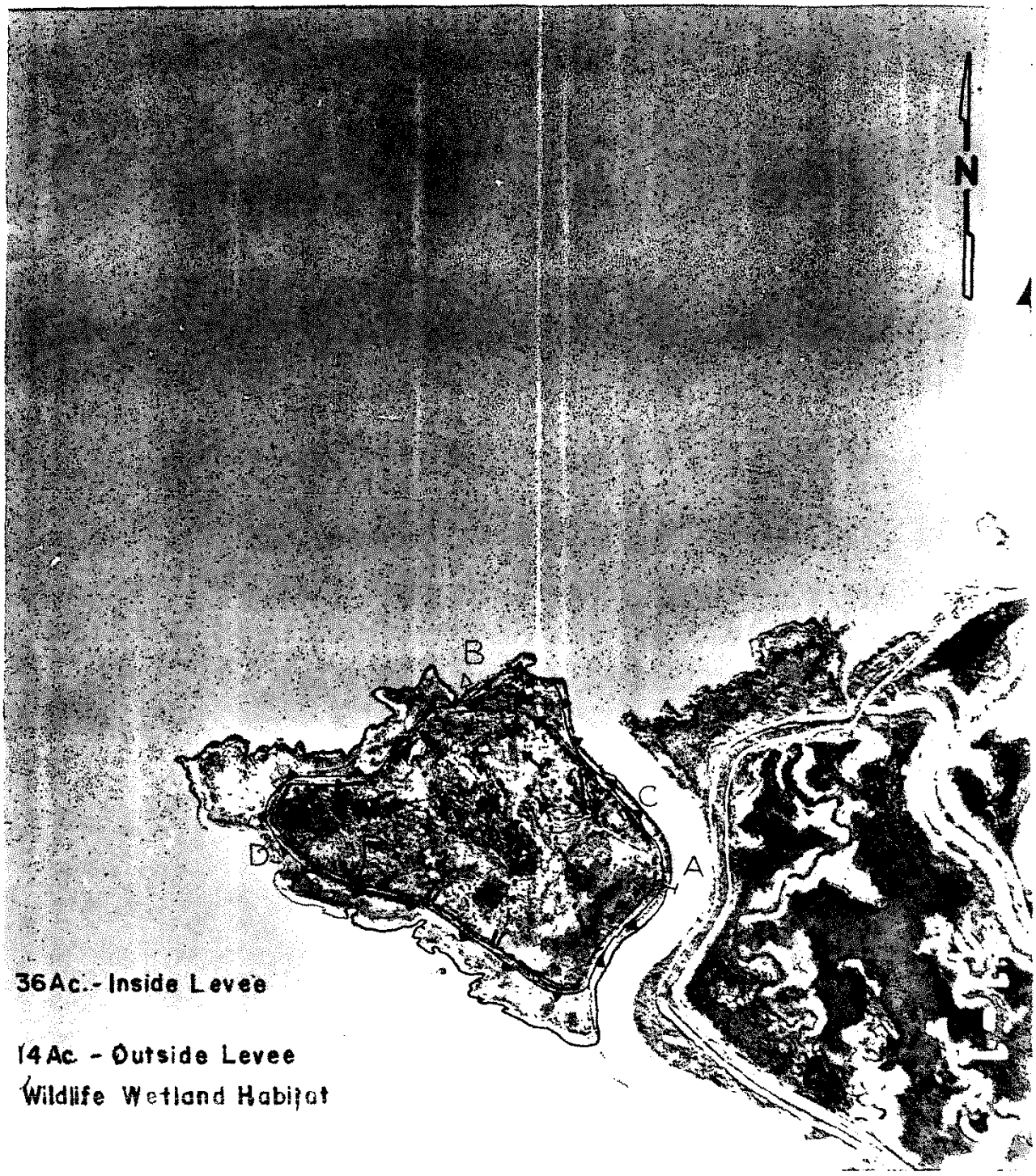
Prepared by SOIL CONSERVATION SERVICE ★ UNITED STATES DEPARTMENT of AGRICULTURE

cooperating with

OWNER
OPERATOR

FARM NO.
SCALE
PHOTO NO

DATE
ACRES



RECOMMENDED MANAGEMENT FOR ALKALI BULRUSH

Alkali Bulrush has been found to have the highest overall use and selection values of the 35 food species records (Mall, 1969) in the Suisun Marsh.

The following Water Management Schedule has been developed to produce dominant stands of alkali bulrush and subdominant stands of other important waterfowl food plants such as fat-hen and brass buttons. This management practice somewhat retards the growth of other less desirable plants such as tules, cattails, pickleweed, and saltgrass. To establish stands of alkali bulrush from seed in areas where it does not presently exist, the procedures set forth in the Department of Fish and Game bulletin entitled "Propagating Alkali Bulrush" should be followed.

It is important to remember that the plant composition of the Suisun Marsh is related more to water management than any other single factor (Mall, 1969). The length of soil submergence and levels of salinity in the soil are factors which can be managed to maximize the production of waterfowl food plants. The schedule as presented here, is meant to be used as a guide to maintain optimum conditions for the production of alkali bulrush seed. For a more complete and detailed discussion of the Water Management Schedule, see the California Department of Fish and Game publication "Waterfowl Habitat Management in the Suisun Marsh".

NOTICE:

The SCMAD has participated in the preparation of this management plan and endorses this Water Management Schedule to minimize the production of mosquitoes. This plan is suitable for use on private duck club land and all other lands owned by public agencies managed as waterfowl habitat, and in normal weather cycles will limit the production of mosquitoes if water levels are managed properly. However, if adverse variations in water levels occur, SCMAD may take action to abate any production of mosquitoes pursuant to the procedures set forth in the California Health and Safety Code Sections 2274 et seq, at the property owners expense whenever larvae and adult mosquitoes are found to be present in sufficient densities to warrant control procedures.

HUNTING SEASON

September — Begin filling ditches in September only if water can be circulated in the ditches without flowing into the ponds. The ditches must have a minimum width (18") and depth (24") to allow adequate circulation of the water. Do not flood any pond surface.

October — Flood the ponds as rapidly as possible to the desired shooting depth of 8-12 inches. Maintain this water level for the duration of the duck hunting season. Circulate water through the ponds with inlet and outlet gates set to allow maximum flow through all ponds during the season. The Solano County Mosquito Abatement District usually authorizes the flooding of ponds three weeks prior to the opening of the waterfowl season. Landowners will be notified each year of the exact date.

Nov-Dec — Continue to circulate.

LEACHING CYCLES

January — Begin draining ponds at or before the end of the hunting season. Continue to drain the ponds until the water level in the ditches is 12" below the pond bottoms. This should be accomplished within 20 days. If this level is reached in less than 20 days, begin to reflood immediately.

February — The first drain should be completed by early February depending on rainfall and delta outflow conditions.

Flood: Flood the fields and ponds to shooting depth, (approximately 8-12"). This should be accomplished within 10 days. Many clubs can flood much faster than this. If shooting level is reached sooner than 10 days, begin to drain immediately. If there is a problem lowering the water to a level 12" below the pond bottoms within 20 days, use any days saved during the flooding period to increase the length of the drain period. Flooding and draining should be accomplished within 30 days.

Drain: Repeat the drain as before making sure that the water level in the ditches has been drawn down 12" below the pond bottoms.

March-April — Repeat Flood-Drain Cycle. Flood to 1/2 shooting level (approx. 4-6"). This cycle must be completed as quickly as possible. For mosquito prevention, it is important that the pond bottom not be allowed to dry out prior to reflooding for the seet-set cycle. Ideally this drain cycle should be completed and ponds reflooded and water levels stabilized and circulating prior to April 1. If significant number of mosquitoes are produced on clubs draining and flooding during April, aerial spraying by Solano County Mosquito Abatement District may be necessary at the expense of the club.

SEED-SET CYCLE

April-June — As soon as 2 leaching cycles have been completed, flood to 1/2 shooting level (approx. 4-6"). Stabilize at this level and continue circulating until summer drainage. Be sure to maintain a constant water level in the ponds for the entire cycle. It has been shown that in order to achieve a good seed-set bulrush stands must be flooded during this period. As soon as bulrush has seed-set or not later than June 1, begin final drainage.

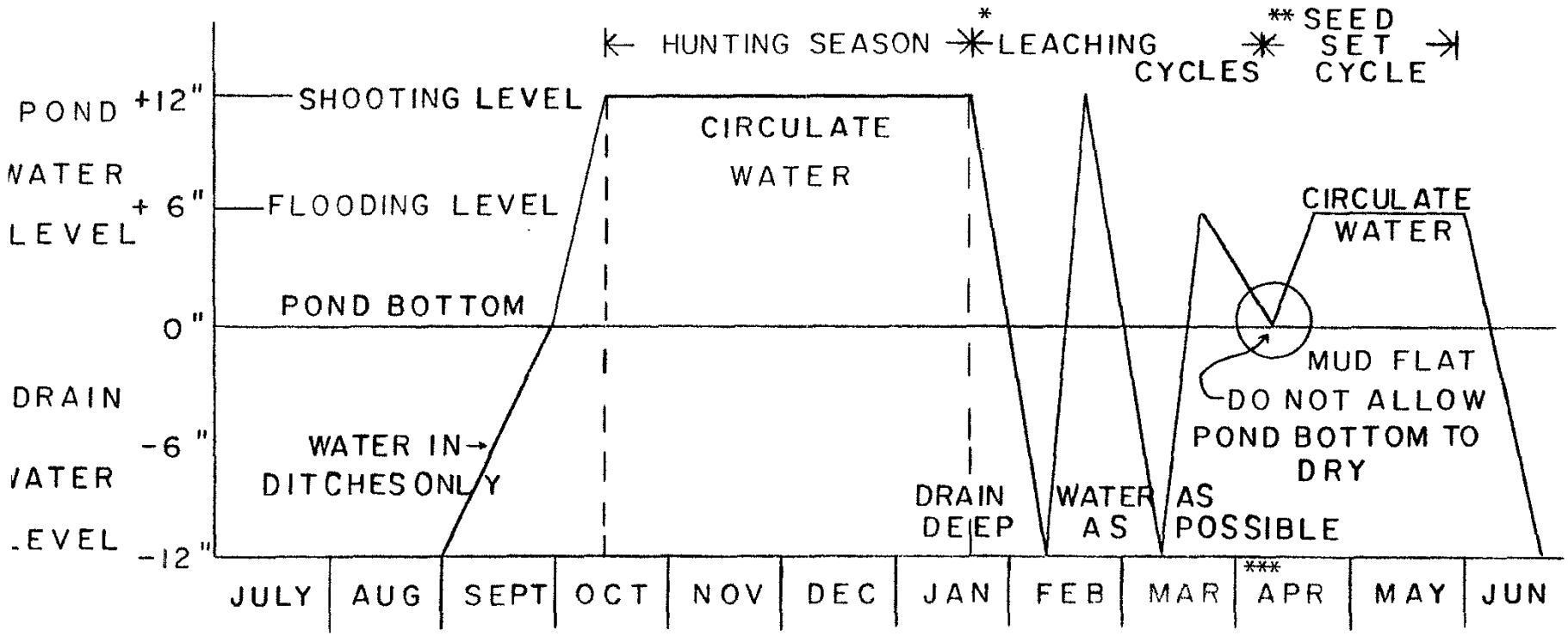
MAINTENANCE

Summer — The summer drying period will retard the invasion of undesirable plants and will allow necessary maintenance and field work.

September — Mow to create open water areas. For a discussion of mowing techniques, see the Department of Fish and Game Bulletin: "Waterfowl Habitat Management in the Suisun Marsh".

ALKALI BULRUSH

WATER MANAGEMENT SCHEDULE



* The leaching cycles are calculated using a 10 day flood and 20 day drain period, however, many clubs can accomplish one total flood and drain cycle in less than 30 days. The flushing cycles should be completed as fast as possible, however, do not cut short the 20 day drain period unless the water level in the ditches 1' below pond bottom.

** Ideally, stabilized water levels of the seed set cycle should be accomplished before April 1.

*** Any duck club planning to fluctuate pond water levels in April must notify the Solano County Mosquito Abatment District of their intentions. April is the beginning of the mosquito breeding season. Extra care is essential to insure that the pond bottoms are not allowed to dry out during April prior to reflooding for the seed-set cycle.

RECOMMENDED MANAGEMENT FOR FAT HEN

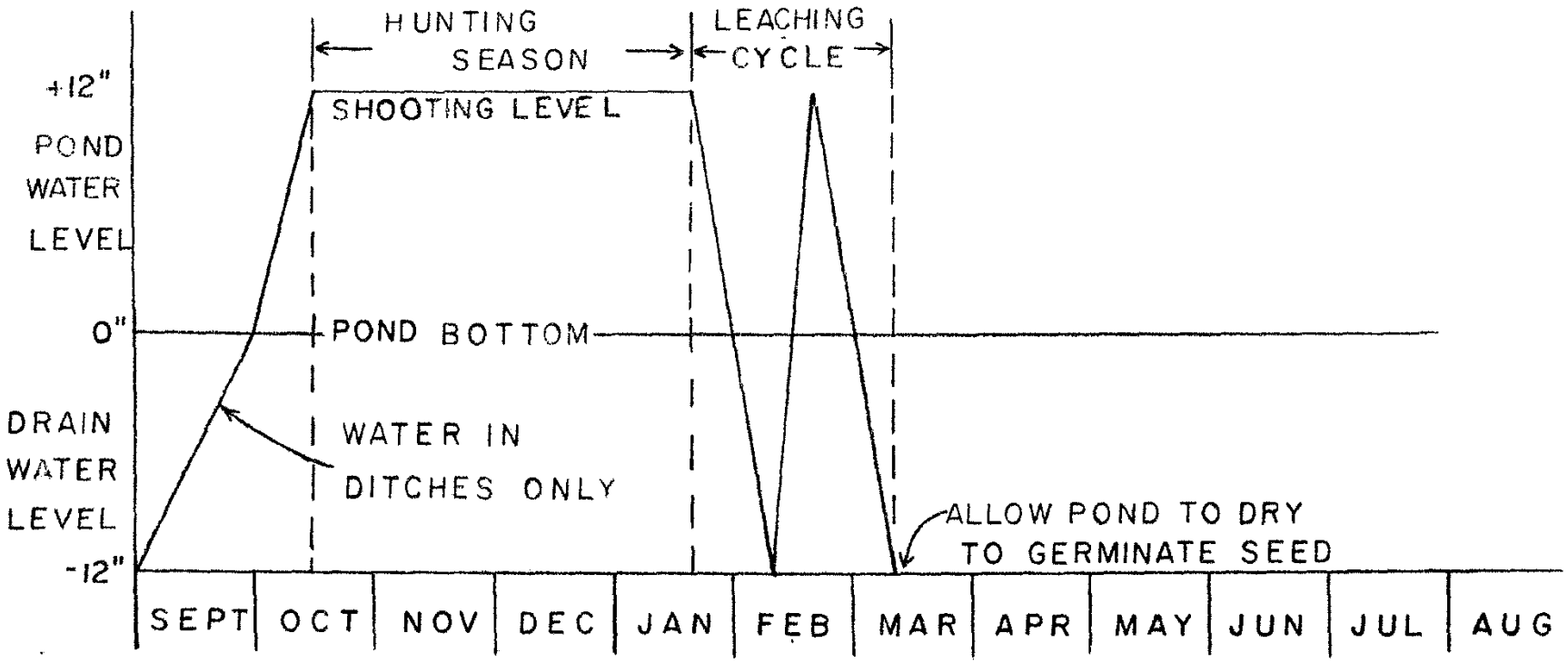
Fat hen is an annual herb that is a prolific seed producer and preferred waterfowl food plant. It grows best during the spring and summer on disturbed soils. Fat hen does not compete well with perennials and will require discing every 4-5 years in order to maintain a dominant stand. Fat hen is recommended on clubs that are relatively level, that have firm, well-drained soils and that have a manager to insure efficient Water Management. The following Water Management Schedule has been developed to produce a dominant stand of fat hen, while supressing less desirable plants such as tules, cattails and saltgrass. This schedule may support additional stands of brass buttons. Plant composition in the Suisun Marsh is related more to Water Management than any other single factor (Mall,1969). The length of the soil submergence and salinity are factors which can be managed to maximize the production of waterfowl food plants.

The schedule as presented here, is meant to be used as a guide to maintain optimum conditions for the production of fat hen seed. For a more complete and detailed discussion of the Water Management Schedule, see the Department of Fish and Game Publication "Waterfowl Habitat Management in the Suisun Marsh".

NOTICE:

The SCMAD has participated in the preparation of this management plan and endorses this Water Management Schedule to minimize the production of mosquitoes. This plan is suitable for use on private duck club land and all other lands owned by public agencies managed as waterfowl habitat, and in normal weather cycles will limit the production of mosquitoes if water levels are managed properly. However, if adverse variations in water levels occur, SCMAD may take action to abate any production of mosquitoes pursuant to the procedures set forth in the California Health and Safety Code Sections 2274 et seq, at the property owners expense whenever larvae and adult mosquitoes are found to be present in sufficient densities to warrant control procedures.

FAT HEN
WATER MANAGEMENT SCHEDULE



...lornia 94585

WETLANDS MAINTENANCE MANAGEMENT REPORT
SUISUN RESOURCE CONSERVATION DISTRICT

Date: 1-29-90

Club Name: Annie Mason Pt.

Owner or Manager Jim TAYLOR

Acres in Ownership 51.5

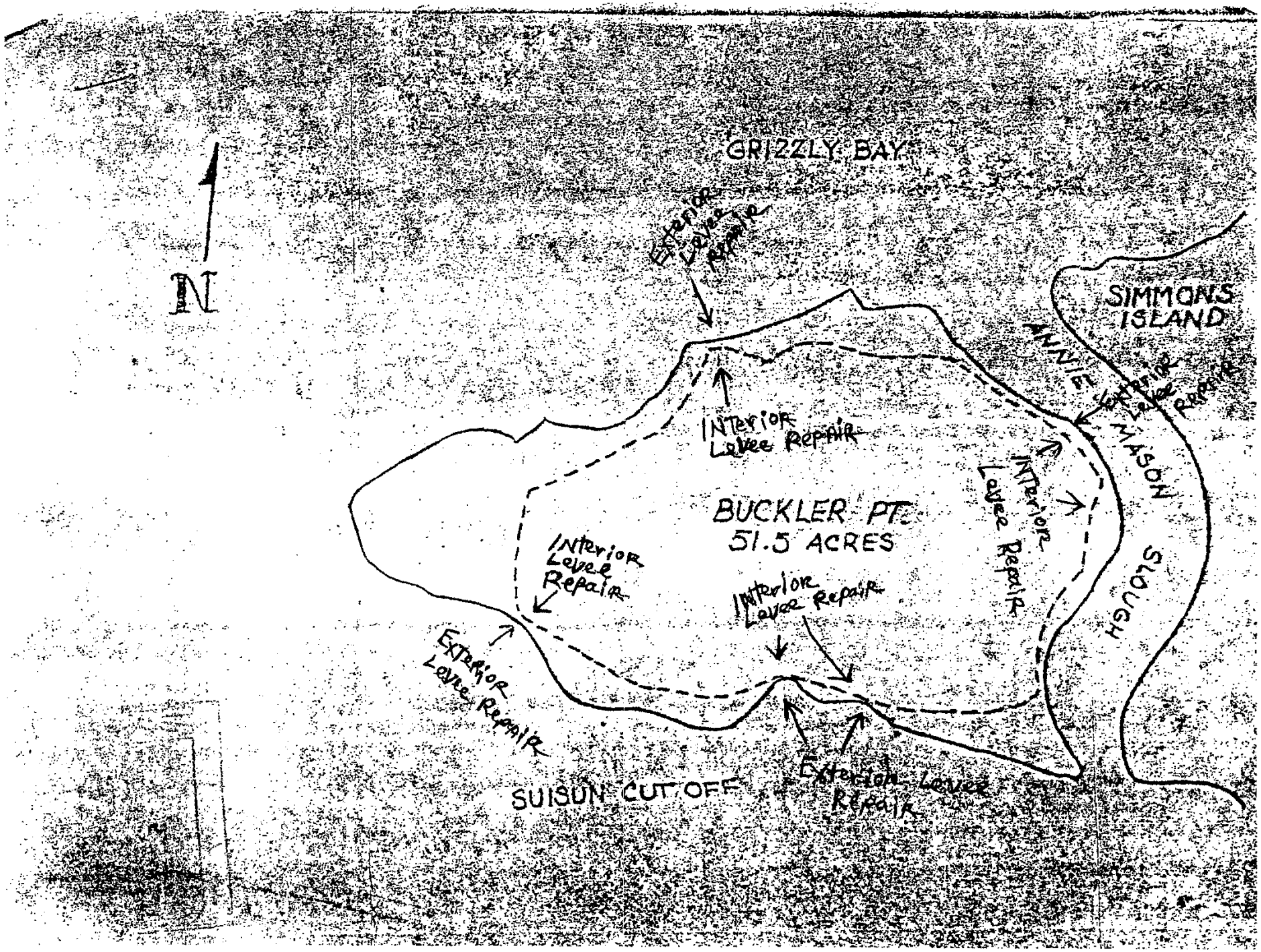
Phone: (415) 758-2095

Ownership No. 801

*NOTE: YOU MUST SUBMIT A MAP OF YOUR PROPERTY SHOWING WORK LOCATIONS. SUITABLE MAPS ARE AVAILABLE FROM ASSESSOR'S OFFICE.

Type of Work	# of Units	Size or Acreage	Cubic Yards	Linear Feet	Work Schedule Start	Work Schedule Complete	Comments
Clearing Ditches	XXXXX	XXXXXXX	1,000	Approx. 1,200	As soon as possible	Oct. 1	1) upon Existing Levees
Construct New Ditches	XXXXXX						1)
Interior Levee Repair	XXXXXX	XXXXXXXX	2000	500'	"	"	2) From Existing Ditch.
Exterior Levee Repair	XXXXXX	XXXXXXXX	2000	~750'	"	"	2) Suisun Cut + Annie Mas Suisun Bay
Road Maintenance	XXXXXX	XXXXXXXX					2)
Grading Pond Bottoms	XXXXXX						
New Culverts			XXXXXXX	XXXXXXXX			
Repair-Replace Culverts			XXXXXXX	XXXXXXXX			
Water Control Structures			XXXXXXX	XXXXXXXX			3)
Install New Blinds		XXXXXXXX	XXXXXXX	XXXXXXXX			
Relocate Blinds		XXXXXXXX	XXXXXXX	XXXXXXXX			
Other Work (Specify)							

1) State where material will be placed 2) State source of material 3) State type of structure


N
GRIZZLY BAY
Exterior Levee Repair
SIMMONS ISLAND
ANNIE MASON SLOUGH
Exterior Levee Repair
Interior Levee Repair
Interior Levee Repair
BUCKLER PT.
51.5 ACRES
Interior Levee Repair
Interior Levee Repair
Exterior Levee Repair
Exterior Levee Repair
SUISUN CUT OFF

WORK PERMITS

1. Any levee work, ditch work, or structure placement or repair must be covered by an application for such work under the Suisun Resource Conservation District Blanket Permit issued by the U.S. Corps of Engineers, San Francisco District, and San Francisco Bay Conservation and Development Commission. Permit applications should be made to the Suisun Resource Conservation District by March 30th for the upcoming summer.

2. The Solano County Mosquito Abatement District has been issued a Blanket Permit by the U.S. Corps of Engineers, San Francisco District and San Francisco Bay Conservation & Development Commission thru the California Department of Health Services.

   The SCMAD has ditching equipment for the construction and cleaning of small (18" X 18") spreader ditches. Application for ditch work to be done by the SCMAD must be filed in their office by September 15th of the year preceeding that in which the ditch work is planned.

   Further information concerning the SCMAD ditch work is provided in the following page.

3. No burning is allowed without a permit. A burning permit must be obtained through the California Department of Fish & Game in Yountville and the Fire Warden's office in Fairfield. The Bay Area Pollution Control District prohibits any person from burning any area more than once in any two-year period.

   Addresses:

   1. Suisun Resource Conservation District
      555 Veterans Blvd.
      Redwood City, CA 94063
      Tel: (415) 365-3072

   2. Solano County Mosquito Abatement District
      P.O. Box 304
      714 Main Street
      Suisun, CA 94585
      Tel: (707) 425-5768

   3. Department of Fish & Game
      P.O. Box 47
      Yountville, CA 94599
      Tel: (707) 944-2443

   4. Fire Warden
      500 Texas Street
      Fairfield, CA 94533
      Tel: (707) 425-5470

SOLANO COUNTY MOSQUITO ABATEMENT DISTRICT (SCMAD) DITCH WORK

1. Cost of ditching equipment including operator is $30.00 per hour. There is no additional charge for transporting equipment from portal to portal.

2. The SCMAD Blanket Permit allows only 5000 lineal feet of new ditch per year to be constructed for any one property.

3. There is no limitation on the number of lineal feet of cleaning existing ditches.

4. Ditching equipment will construct and clean only a 18" x 18" ditch. Depending on the density of vegetation and soil types the ditching equipment can dig about 500 - 1000 lineal feet per hour.

5. If vegetation (tules, bulrushes, etc.) is too dense the vegetation then must be mowed before the ditcher can work.

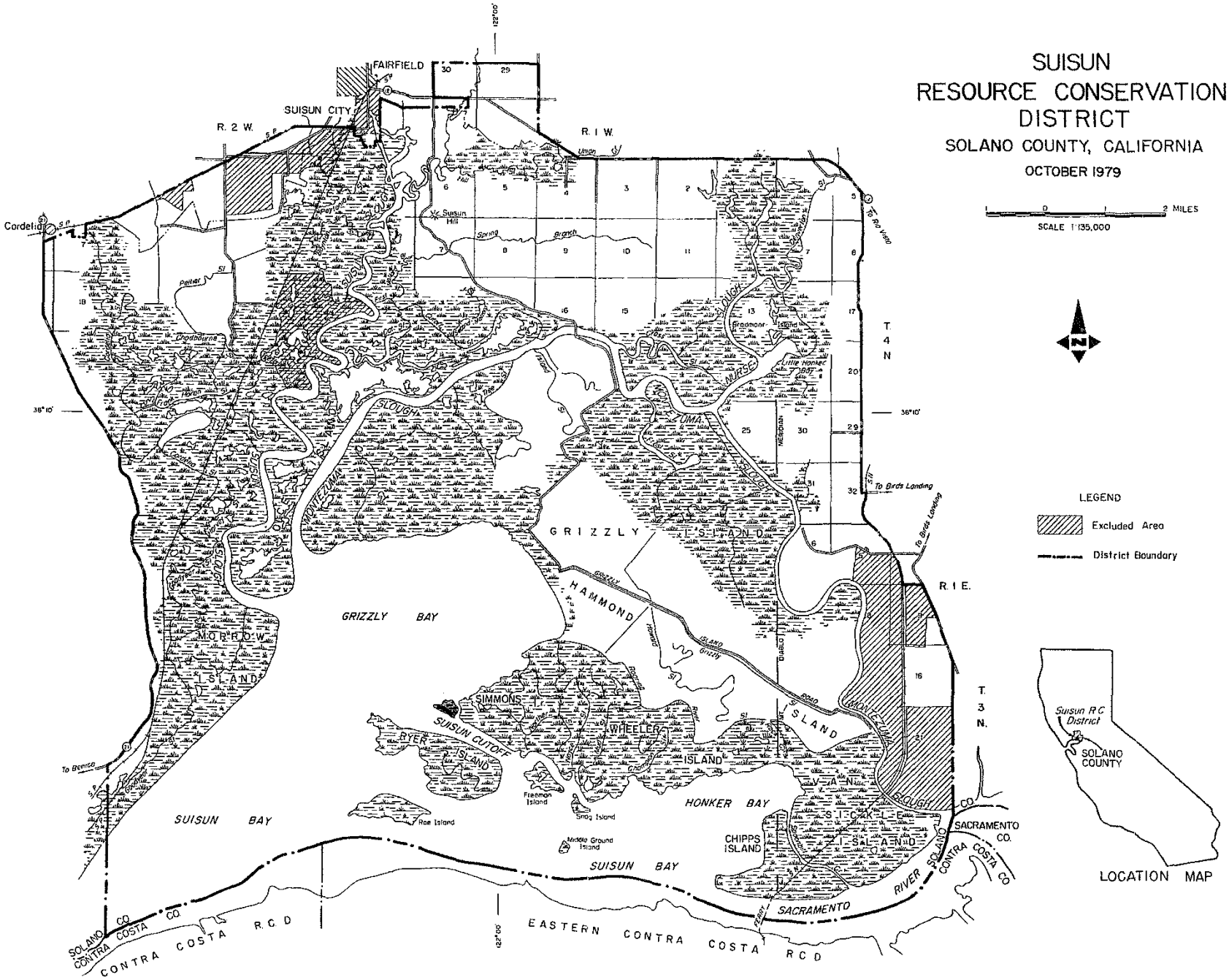
6. Because of siltation and vegetation growth in the ditches, the SCMAD recommends cleaning every 3 or 4 years.

7. If property owners desire to have SCMAD construct new ditches, they must know the number of ditches to be constructed and the total lineal feet for each ditch when submitting a work order. The SCMAD Blanket Permit runs from January thru December of each year. Work orders must be submitted to the SCMAD by September 15th for work planned for the following year.

SUISUN RESOURCE CONSERVATION DISTRICT

SOLANO COUNTY, CALIFORNIA

OCTOBER 1979



Source:
Base map prepared by SCS, WTSC Carto Unit from USGS 1:24,000 quads.
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

SUISUN R. C. D. (181) CAL. M7-PL- 17659

SCS-CONS-Work
Rev. 3-75
File Code: CN-11

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

RECORD OF COOPERATOR'S DECISIONS
AND PROGRESS IN APPLICATION

COOPERATOR James Taylor
ASSISTED BY Larry Norris
DATE 7/29/76

FIELD NUMBER	PLANNED		APPLIED		LAND USE AND TREATMENT
	AMOUNT	YEAR	AMOUNT	MONTH AND YEAR	
					LAND USE SUMMARY
					FIELD # ACRES LAND USE
					1 52 Wildlife (Wetland Habitat)
					WILDLIFE MANAGEMENT SYSTEM (WETLAND HABITAT)
					The resulting end product of Marsh management is habitat. The type and quality of habitat produced is the result of a number of variables, included among those are Wildlife Management, Soil Management, Water Management, Excess water removal, erosion control and irrigation.
					WILDLIFE MANAGEMENT SUBSYSTEM
1	52	80			Wildlife (Wetland Habitat) Management
					This club will be managed in an attempt to maximize the carrying capacity of the club for waterfowl. This includes providing high quality food plants such as: alkali bulrush, lambsquarters and brass buttons, and protected resting areas and loafing sites.

SCS-CONS-49
Rev. 9-70
File Code CN-11

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

RECORD OF COOPERATOR'S DECISIONS
AND PROGRESS IN APPLICATION

COOPERATOR James Taylor
ASSISTED BY Larry Norris
DATE 7/29/76

FIELD NUMBER	PLANNED		APPLIED		LAND USE AND TREATMENT
	AMOUNT	YEAR	AMOUNT	MONTH AND YEAR	
					WATER MANAGEMENT SUBSYSTEM
1	1000±	Fall 76	477± prior to 76		Dikes and Levees:
					Existing exterior levees which need work immediately, in order to enable
					complete drainage and control of flushing and irrigation water will be
					repaired. Areas in need of work are scattered, but lie primarily on the
					North side of the island.
1	52	78			Irrigation Water Management:
					Irrigation Water Management as outlined in the enclosed Water Management
					Schedule will be followed after repair of the Dikes and Levees and in-
					stallation of adequate water control structures to do the job (See Ir-
					rigation Subsystem).
					IRRIGATION SUBSYSTEM
1	2	77			Structures for Water Control:
					Two water control structures will be installed to circulate water and
					irrigate the Duck Ponds (for structure sizes and capabilities refer to

SCS-CONS-09
Rev. 9-70
File Code CN-11

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

RECORD OF COOPERATOR'S DECISIONS
AND PROGRESS IN APPLICATION

COOPERATOR James Taylor
ASSISTED BY Larry Norris
DATE 7/29/76

FIELD NUMBER	PLANNED		APPLIED		LAND USE AND TREATMENT
	AMOUNT	YEAR	AMOUNT	MONTH AND YEAR	
					Engineering specifications). One of these structures should be a screw-
					flap type (A) used as an inlet. The other structure should be a flash-
					board riser (B) outlet. exact placement of these structures has not been
					decided upon yet. In addition to these main inlet and outlet structures,
					two small check dams (C,D) will be placed in the drainage ditch going
					around the perimeter of the club. These two structures will put a head
					on the inlet water and force it to circulate across the club, putting
					the boards in the check dam will enable the drain to empty.
					EXCESSIVE WATER REMOVAL SUBSYSTEM
			4375 ±	prior to 76	Drainage Ditches:
					The existing drainage ditch system will be kept clean to facilitate
					drainage.
					SOIL MANAGEMENT SUBSYSTEM
	52	79			Toxic Salt Reduction: Water will be circulated during the winter and
					spring to reduce toxic slats in the soil surface.

GENERAL INFORMATION

This plan covers the Annie Mason Pt. Club located on Buckley Island. The property is managed for Wildlife Habitat (primarily Wetland) and recreation.

A run down of the soil characteristics is given on the enclosed Soil and Capability Map Summary. Generally speaking Joice muck and Tamba mucky clay are strongly saline soils 15-58 mmhos with moderately alkaline layers. These layers become acid if the soil is allowed to dry, and cracks appear. The water table varies but is usually less than 30 inches below the surface in mid-summer. Dominant vegetation consists of perennial sedges and herbs.

Existing vegetation on the club consists predominantly of Olney bulrush and hardstem bulrush, on lower areas, and saltgrass on the higher. All of these plants have a relatively low use and selection value for waterfowl. Olney and hardstem bulrush are both sod forming perennials which grow along sloughs and in ditches which contain water most of the year. They will invade ponds which are shallow flooded year round. The presence of these two hydrophytic plants indicates fairly frsh conditions; therefore, changing the habitat to a highly productive and selective one for waterfowl should be relatively easy.

The main problem hampering proper management of the club is water control. It is important to remember that a marsh is actually an intermediate successional stage between an upland and a lake. Proper marsh management simply accentuates this intermediate state and perpetuates a disturbed site

condition. This allows the high seed producing perennials such as Brassbutton and alkali bulrush and the annual such as Lambsquarter to invade and dominate the marsh. Water control is the key.

The existing levee system is in poor condition and needs work including the installation of irrigation structures. If this is done adequate water control will be achieved to properly manage the marsh for waterfowl.

Once the club can be drained effectively the Olney and hardstem bulrush should be set back by first mowing and then disking. Extreme caution should be exercised when using fire around Joice muck soils, this soil tends to catch on fire. After the perennial growth has been set back physically in early spring, alkali bulrush should be seeded at the rate of 30#/AC. Seeding should take place by April thus eliminating the first couple flush cycles in the Water Management schedule the first year, while the club is dried out and disked.