Sacramento River Environmental Atlas 1978

Prepared for the Upper Sacramento River Task Force by the Resources Agency of the State of California.



FOREWORD

The Upper Sacramento River Task Force was organized to resolve problems in management of the Sacramento River and its adjacent lands. Sportsmen and environmentalists are alarmed at the rapid decline of salmon and steelhead runs and destruction of riparian vegetation vital to the survival of wildlife. Farmers along the river are worried about bank erosion and loss of prime agricultural land. Residents of the Sacramento Valley and many who vacation there but live elsewhere are concerned about public access and maintaining the quality of the river as a valuable recreation resource.

The Upper Sacramento River Task Force, a group of federal, state, and county agencies as well as individuals representing Sacramento Valley farming interests and environmental groups, have labored over the past two years to resolve many of the conflicts.

As part of its work, the Task Force has assembled this environmental atlas of the river to include the data necessary for informed approaches to the river's problems. This publication is a picture of the river as it is now, with the flaws that we intend to correct and the beauties that we strive to preserve.

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Copies of this atlas at \$20.00 each may be ordered from: Department of Water Resources P.O. Box 388 Sacramento, California 95802 Make Checks payable to STATE OF CALIFORNIA. California residents add 6 percent sales tax.

North of the City of Colusa, the Sacramento River possesses many of the natural endowments associated with its past. The goal of the Upper Sacramento River Task Force is to preserve these amenities and still deal successfully with the issues of today.

With the threat of flooding diminished by construction of Shasta Dam in the mid-1940's, agriculture and urban development have moved steadily onto the Sacramento River flood plain. Under the present operation of Shasta Dam, river flows are now at higher stages for longer periods; they do not peak and subside rapidly as they once did. Some refer to the river as a "canal" because it carries these large flows of water for use in the Sacramento-San Joaquin Delta and south. Farmers that have moved down to the river's edge to plant in the deep alluvial soils are experiencing severe erosion. They are demanding rock "riprap" to armor the riverbanks. Recreationists and environmentalists view with alarm the removal of large tracts of riparian vegetation that once gave the Sacramento River its primal appearance and nurtured

large populations of wildlife.

Anadromous (migratory) fish of the upper Sacramento River are also threatened. Salmon and steelhead runs have declined, producing poorer fishing in the upper river and lower commercial catches in the ocean. The reason for the decline is unknown, although the Red Bluff Diversion Dam, pollution, hatchery management, flow release schedules, removal of riparian vegetation, irrigation diversions, gravel removal, and water temperature changes have all been named as responsible agents.

Introduction

This environmental atlas establishes a "baseline". It shows the present conditions along the river in pictorial form, and provides a basis for management decisions that will ultimately assure the conservation and wise use of the Sacramento River and its resources.

Study Area Boundaries

The study area covered in the environmental atlas extends from the bridge at Colusa north to Keswick Dam, a distance of about 257 kilometres (160 miles). From Colusa north to Ord Ferry the Sacramento River is contained at high flows by east and west setback levees 1 to 2 or more kilometres (0.6 miles) apart. Within this stretch the tops of the setback levees were chosen as the limits of the study area.

North of Ord Ferry, the boundary selected was the State Reclamation Board's "designated floodway". There were numerous exceptions to this, however, because the designated floodway frequently cuts across tracts of riparian vegetation that are of utmost interest to the Task Force. In those cases, the study area boundary included the land parcel in question. An example of this is on atlas sheet 32A, where the western half of Mooney Island lies outside of the designated floodway. Other types of deviations can be noted on atlas sheets 24A, and 28A where the photomaps did not cover the entire designated floodway areas. In these cases the study area was adjusted inward to stay on the edge of the photomap.

North of Red Bluff, from river mile 250 to Jelly's Ferry bridge at mile 267, the Sacramento River narrows, cutting between steep canyon walls that some compare in beauty to the Grand Canyon of the Colorado River. This area is locally called the Iron Canyon. Through this section, the designated floodway is virtually at the river's edge. The study area boundary, selected by use of stereoscopic aerial photographs, was extended to include all lands within line of sight from the center of the Sacramento River. It was felt that by selecting a zone of interest beyond the designated floodway in this reach, the Task Force might better express its concern over the possible man-made developments that have been proposed there. In total, the study area includes about 22 200 hectares (54,900 acres).

Riparian Vegetation and Land Use

The first visitors to the Sacramento Valley, in the middle of the last century, found vast forests of riparian vegetation bordering the larger streams, sometimes in bands 3 kilometres (2 miles) wide. The area in riparian forest was estimated at over 280 000 hectares (700,000 acres). Clearing for agriculture, fuel, and, to a lesser extent, lumber reduced these once-vast forests to mere remnants.

In order to measure the remaining riparian vegetation resource, personnel from the California Departments of Fish and Game and Water Resources established the various land use and vegetation classes shown in this atlas. Tabular results of the study are shown in the table on the following page.

Riparian vegetation is comprised of plant species that obtain their nutrient and water supply at the capillary fringe (just above the water table) or have the ability to survive with their roots entirely submerged. The following lengend was used to map the vegetative types within the study area boundary.

Riparian Vegetation Mapping Legend

Symbols

- AG General crops including grain, alfalfa, pasture and row crops.
- AD Deciduous orchard.
- V1 Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comprised of box elder, grape, blackberry, poison oak, and some perennial grasses.
- V2 Vegetation similar to V1 but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows -- subclimax vegetation.
- V3 Vegetatively less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.
- V4 Comprised mainly of forbs, grasses, and low-growing willows and alders.
- U Urban or urban related.
- PR Formal parks, e.g. Woodson Bridge State Park.
- Rc Commercial recreation.
- W Water surface.
- OW Oxbow lakes, isolated from river.
- R Gravel bars, rocks, sand.
- GR Grass/hardwood

Denominator

Symbols

- H High terrace lands, generally free from inundation except during exceptionally high river flows.
- L Low terrace lands, generally inundated at only moderately high river flows.

For this study, riparian vegetation was grouped into climax (mapped as V1), subclimax (V2), young trees (V3), and, finally, grass and forb (V4) classes. Climax vegetation is a grouping of plant types that will ultimately dominate a given location. As mapped for this study, it could be dominated by sycamore, black walnut, cottonwood, oak (mainly valley oak), or combinations of the above. Valley oaks and California sycamore tend to dominate the highest of the high terrace sites, giving way to cottonwoods and alders as the physiography approaches low terrace. In a few cases, unmixed stands of valley oak, as seen on sheet 18 left bank, were delineated as climax vegetation. Large, unmixed stands of valley oaks along the margins of the river are rare now, although a few large blocks still survive away from the river, interspersed with agricultural land.

Oxbow lakes, some located 1 or 2 kilometres (3,000-6,000 feet) away from the main river channel, provide the water necessary to sustain large bands of riparian vegetation. Some of these should be protected from degradation, because they represent the finest example of a complete riverine ecosystem.

It is difficult to distinguish between idle agricultural land and land characterized by native forbs and grasses. When agricultural land is left idle, possibly for as little as two years, a native plant succession begins. Signs of tillage and other cultural impacts begin to disappear, and nature reclaims the land. The reason for distinguishing between native plants and those that typically grow on idle agricultural land is that native plants have a greater capacity for sustaining wildlife populations.

North of Red Bluff, through Iron Canyon and north to Jelly's Ferry, a nonriparian vegetal class, GH (grass-hardwood) was mapped on rocky sidehill land. The study-area boundary was extended beyond the designated floodway to include this environmentally sensitive and scenic area.

RIPARIAN VEGETATION AND LAND USE COUNTY SUMMARIES (Hectares and Acres)

Land Use Category	Mapping	Butt	9	Colu	sa	Gle	nn	Shas	ta	Teha	ima	To	tal
Land Use Calegoly	Symbol	Hectares	Acres	Hectares	Acres	Hectares	Acres	Hectares	Acres	Hectares	Acres	Hectares	Acres
Agricultural										×	-	1.1.1	
High Terrace-Orchards	AD/H	449	1 110	720	1 779	1 683	4 159	0	0	1 137	2 8 1 0	3 989	9 858
High Terrace-Annual Cropland	AG/H	1 166	2 880	123	303	845	2 088	12	29	708	1 750	2 854	7 050
Subtotal		1 615	3 990	843	2 082	2 528	6 247	12	29	1 845	4 560	6 843	16 908
Low Terrace-Orchard	AD/L	0	0	0	0	0	0	0	0	0	0	0	0
Low Terrace-Annual Cropland	AG/L	0	0	0	0	0	0	0	0	12	30	12	3 O
Subtotal		0	0	0	0	0	0	0	0	12	30	12	30
Native Vegetation								6					
High Terrace - Climax Vegetation	V1/H	330	815	394	974	540	1 335	202	499	859	2 122	2 325	5 745
High Terrace - Sub-Climax Vegetation	V 2 / H	132	326	171	422	215	531	215	532	253	626	986	2 437
High Terrace - Young Trees	V3/H	82	202	53	131	102	252	40	98	53	132	330	815
High lerrace – Forbs and Grass	V4/H	516	1 2/4	301	/ 43	402	994	332	821	675	1 667	2 2 2 2 6	5 499
Subtotal		1 060	2 617	919	2 270	1 2 5 9	3 112	789	1 950	1 840	4 547	5 867	14 496
Low Terrace - Climax Vegetation	V1/L	62	153	9	22	141	349	0	0	310	767	522	1 291
Low Terrace - Sub-Climax Vegetation	¥2/L	78	192	19	46	145	358	17	41	223	551	482	1 188
Low Terrace - Young Trees	V3/L	90	222	29	72	289	715	126	312	142	350	676	1 671
Low Terrace - Forbs and Grass	V4/L	108	268	72	178	208	514	54	134	503	1 2 4 4	945	2 338
Subtotal		338	835	129	318	783	1 936	197	487	1 178	2 912	2 625	6 488
Other Land Use								-					
Urban	U	0	0	0	0	4	9	53	130	4	9	61	148
Formal Parks	PR	0	0	6	14	4	10	32	79	101	250	143	353
Recreational Commercial	Rc	3	8	2	5	-1	3	3	7	16	39	2 5	62
Water Surface	W	514	1 270	3 4 7	858	727	1 796	720	1 778	1 497	3 699	3 805	9 401
Oxbow Lake	O W	3 5	87	18	4 5	64	159	8	19	11	26	136	336
Gravel Bar	R	236	583	122	302	392	968	158	390	537	1 328	1 445	3 571
Grass/Hardwood	G H	0	0	0	0	0	0	0	0	1 242	3 070	1 242	3 070
Total Area		3 801	9 390	2 386	5 894	5 762	14 240	1 972	4 869	8 283	20 470	22 204	54 863

Prime Agricultural Lands

This element of the atlas describes and locates prime agricultural soils. As used here, the definition of prime agricultural soil closely parallels the U. S. Soil Conservation Service capability Class I grouping. In the study area these are moderately deep to deep, nongravelly, well drained recent alluvial soils occupying a physiographic position sufficiently high above the flood plain to be subject to flooding only during unusually high flows. These soils are capable of producing maximum yields of all climatically adapted crops, including orchard and vineyard. In the Storie classification these soils rate at least 80. Along the Sacramento River, prime soils include soils of the Columbia, Sycamore, Wyo, Reiff, and Vina associations.

This inventory was prepared in three stages. First, stereoscopic black and white aerial photographs at a 1:24,000 scale were studied. With these and with the aid of published soil surveys, bodies of prime soil were delineated on 1:12,000 scale sepia reproductions identical to the photomaps comprising this atlas. Mapping units totaling less than 1 hectare (about 2 acres) were included in larger, adjoining units. The second phase examined soil boundaries on 35-mm colored aerial photographs taken from very low altitude. Channeling, gravel streaks, and vigor of native vegetation were evaluated as evidence of soil quality.

The third stage of the inventory consisted of on-site field verification and adjustment of the suspected boundaries. Variables such as soil depth, gravel content, texture, degree of channeling, and physiographic position were considered during this phase of study. Finally, the prime land areas were tabulated for each atlas map.

Recreational Developments

As a recreation resource, the Sacramento River is known mainly for salmon and steelhead fishing. It is also classed as a premium scenic, wildlife, and recreational river by the California Protected Waterways Plan. In 1970, parts of the Sacramento River, including the reach from Keswick Dam to Sacramento, were identified as potential additions to the National Wild and Scenic Rivers System. Section 5(d) of the Wild and Scenic Rivers Act provides, "In all planning for the use and development of water and related land resources, consideration shall be given by all federal agencies involved to potential national, wild, scenic and recreational river areas."

The California Department of Water Resources surveyed recreational use along the Sacramento River in 1973. Recreationists using the river were counted and many interviewed. The survey showed that the river is an important recreation attraction for a large part of the local population. Use of the river from Redding to Colusa totaled nearly 700,000 recreation days. (A recreation day is defined as the use by one person for all or part of one day.) Although camping, picnicking, boating, and beach use are important, fishing is by far the most popular activity. Anglers catch many species of fish--for example, rainbow trout between Redding and Red Bluff and shad below Red Bluff. Striped bass are taken during the spring and summer months south of Hamilton City. Salmon and steelhead are caught during the fall and winter months throughout the river. Largemouth bass, green sunfish, bluegill, and brown bullhead are taken from the many oxbow lakes and sloughs along the river.

There is little swimming in the river due to its strong currents and low temperature. However, sunbathers are often seen in parks at Redding, Anderson, Red Bluff, Woodson Bridge, Chico Landing, and Colusa. Water skiing is limited mainly to Lake Red Bluff and to the river near Colusa.

During recent years river touring by raft, canoe, or kayak has become popular in the reach below Keswick Dam. The best reaches are found above Red Bluff, especially Chinese Rapids in Iron Canyon. However, the river is ideal for all types of watercraft. In fact, one can see everything from inner tubes to big pontoon houseboats on the river.

The Sacramento is one of the few large rivers that offers long reaches of free-flowing water and dense streamside vegetation close to major population areas. It is scenic, and even near urban areas it retains a sense of isolation and remoteness, despite the fact that the band of vegetation screening urban or agricultural development is often only a few metres wide.

Public and privately owned recreation areas, resorts, and fishing access points along the river are numerous. State and federally operated campgrounds are found at Reading Island, Red Bluff Diversion Dam, Woodson Bridge, and Colusa-Sacramento River Recreation Areas. This atlas shows existing developed recreation sites where public access is available. Symbols indicate the type of facilities provided at each site. The atlas does not show privately owned areas such as riveroriented mobile home parks for permanent residences.

Major Navigation Hazards

There are numerous navigation hazards in the river. Tree snags, rocks, car bodies, and other obstacles can prove injurious or fatal to boaters. The navigational hazard identification element is the only such compilation for the northern Sacramento River. It was prepared by the Department of Navigation and Ocean Development (DNOD) in cooperation with the counties of Shasta, Tehama, Glenn and Colusa. County boating patrol personnel surveyed their respective stretches of the river and recorded the location and type of significant navigation hazards on the aerial maps, and the rough mapping record was incorporated into the maps shown in the following pages. Working from these data the State Lands Division undertook a snag removal program with the affected counties, but new boating hazards will inevitably develop over time, often in the same locations pinpointed in this atlas. Hopefully then, this element will serve to alert the boating public to problem areas of the river.

Public Land Ownership

Along the 160 miles of the Sacramento River extending from Colusa to Keswick Dam are numerous parcels of public land. These range from highly developed parks, like Tehama River Park at Woodson Bridge and Colusa State Park, to undeveloped low terrace gravel bars scattered along the length of the river.

From assessors' maps for the five counties bordering the river, lands owned by cities or counties and State or Federal Government were located and delineated on the atlas sheets. In several instances ownership of certain land parcels seemed questionable. If no taxes were being paid, or if no parcel identification number was apparent, these lands were assumed to be in State ownership. In most instances those lands with nonspecific ownerships were low lying gravel bars, usually islands.

In the future, additional State lands may be identified. The State Lands Commission is currently determining ownership boundaries of State land in the Chico Landing area. As the need arises, this activity may be expanded to other land parcels along the river.

Bank Protection Areas

Bank protection shown in this report (commonly referred to as rock riprap) represents the effort of landowners along the river to protect their agricultural lands and flood control levees from the erosional forces of the Sacramento River. Most of these works were designed and constructed by the U. S. Corps of Engineers with approval and financial participation from the State of California through the State Reclamation Board. Bank protection work shown in this atlas comprises about 32 kilometres (20 miles) of riprap at present.

Within the atlas study area the USCE work effort is conducted under two projects: the Sacramento River Bank Protection Project and the Chico Landing to Red Bluff Project. Eight new sites, totaling about 5,500 metres (16,800 feet) are scheduled for construction during 1978.

Bank protection activities often require work that adversely affects fish and wildlife habitat and spoils the natural beauty of the river. To minimize these effects, construction practices are being altered in order to retain trees, shrubs and other vegetation where practicable. New rock placement methods such as "back-dumping" and limiting the height of rock on the bank are now being employed to reduce environmental damage. A study is in progress to evaluate compensation for wildlife habitat losses through purchase of lands on or adjacent to levees and revegetation to provide a condition where they will sustain appropriate levels of wildlife.

Commercial Gravel Operations

This element includes not only the location of active gravel extraction sites but also farmer-built flood control levees, and small scale erosion control works, such as rubble riprap. Shown in the atlas are 16 gravel extraction sites with Reclamation Board operating permits. There are four sites of record without permits. North of Ord Ferry, above the leveed section of the river, there are 76 farmer-built levees. Only 33 of these have Reclamation Board permits. These farm levees range in height up to 3.3 metres (10 feet) and in length to 2 kilometres (1.2 miles). Also included in this element are seven erosion control sites, five of which are without Reclamation Board permits. These erosion control structures are usually attempts to stabilize the riverbank by the placement of rubble concrete. Most of these attempts are structurally inadequate and unsightly.

Several years ago, under Section 8710 of the California Water Code, the Reclamation Board adopted the permit system on the Sacramento and San Joaquin Rivers. This was intended to regulate activities within the designated floodway that might affect the flood-carrying capacity of the river. Some older gravel extraction sites, levees and erosion control works without permits are in arbitration between their owners and the Reclamation Board.

Waste Water Discharges

The State Water Resources Control Board, under statutes of the Porter Cologne Water Quality Control Act, is assigned the primary responsibility for the control of water quality in California. This responsibility for the Sacramento River has been further delegated to the California Regional Water Quality Control Board, Central Valley Region. Each regional board is currently formulating water quality control plans that will establish water quality objectives to ensure reasonable protection of all beneficial water uses and prevent nuisance.

The main tool for implementing these water quality objectives is by establishing a thorough monitoring and enforcement program. The Federal Water Pollution Control Act prohibits any point discharge of pollutants to the waters of the United States without a National Pollutant Discharge Elimination System (NPDES) permit. California was the first state to obtain approval of such a program and now issues such permits. The following listing shows the name, California permit number, volume of discharge and location of major waste dischargers between Colusa and Keswick Dams.

WASTE DIS	SCHARGERS	Estimated	Sheet	River
Discharger	Permit No.	MGD	No.	Mile
Spring Creek Debris Dam ⁽¹⁾	None		Not Shown	303.5
Redding, City of, Clear Creek STP	CA0079731 74-461	4.0	50	288.5
R.S. Cleary, North Valley Fish Hatchery	CA0004898 75-254	7.0	50	286.5
Shasta Dam Area P.U.D. STP ⁽²⁾	CA0079511 74-306	0.5	Not Shown	284.5
Redding, City of, Twin View STP ⁽³⁾	CA0077887 74-86	0.3	Not Shown	284.5
Redding, City of, Enterprise STP ⁽⁴⁾	CA0078905 74-340	0.7	Not Shown	284.5
Anderson, City of, STP	CA0077704 74-78	0.7	48	283.3
Simpson Paper Company	CA0004065 74-468	11.0	47	279.5
Rio Alto Water District	CA0077852 74-143	Potential Discharge	43	268.7
Red Bluff, City of, STP	CA0078891 74-304	1.3	35	244.2
Diamond International Corp.	CA0004821 74-69	2.0	34	243.0
Corning, City of, STP	CA0004995 74-298	0.5	27	218.0
Chico, City of, STP	CA0079081 74-296	2.5	Not Shown	193.0

 Collects drainage from the Iron Mountain Mine area and assists in controlling a serious potential water quality problem of the upper Sacramento River.

(2) Potential discharge between 1 October and 30 April to Churn Creek (approximately 26 kilometres [16 miles] upstream from confluence with Sacramento River).

(3) Potential discharge between 31 October and 31 May to Churn Creek (approximately 19 kilometres [12 miles] from confluence with Sacramento River).

(4) Potential discharge between 1 October and 30 April to Churn Creek (approximately 10 kilometres [6 miles] from confluence with Sacramento River).

Gaging Stations and Water Quality Sampling Sites

The water quality of the Sacramento River is generally classified as excellent for nearly all purposes. The various data collection programs of many agencies form the data base and the surveillance necessary to determine and maintain this quality. Included in this atlas are the locations of Department of Water Resources stream-gaging stations, surface water quality monitoring stations, and some of the ground water quality monitoring wells located within the atlas study boundary.

Well Coordinates

16N-1W-13F3 17N-1W-30K3

17N-1W-6R1

19N-1W-7B3 27N-3W-19A1

27N-3W-20A1

28N-3W-29G1 28N-3W-28A1

30N-3W-34D1

32N-5W-26M2

The following table shows the location (river mile and atlas sheet number), recognized name, and function of several types of sampling stations. Some stations continuously record only river stage height, others continuously record stage height and are also used as a reference point for periodic surface water quality sampling. Ground water quality wells, on the other hand, are sampled once a year during the middle of the irrigation season to determine possible year-to-year changes in quality. Climatological (weather) stations are manned principally by nonpaid cooperators interested in maintaining a complete data network. Rainfall is measured daily at these stations.

The three sedimentation stations listed are serviced by U. S. Geological Survey personnel, Water samples are generally taken periodically during periods of high flood flow in order to best characterize the nature and quantity of the transported sediments.

DWR Index Number River Mile Location Name Atla A-02430 146.4 Sacramento River stage at Colusa Weir A-02445 158.4 Sacramento River stage at Moulton Weir A-02450 Sacramento River opposite Moulton Weir 158.6 A-02570 Sacramento River at Ord Ferry 184.2 A-02700 Sacramento River at Vina 218.3 A-02788 Sacramento River above Bend Bridge 260.3

Stream-Gaging and Surface Water Quality Sampling St

Stream-Gaging Stations

DWR Index Number	Location Name	River Mile Atla
A-02420	Sacramento River at Colusa	143.5
A-02500	Sacramento River at Butte City	168.6
A-02630	Sacramento River at Hamilton City	199.4
A-21010	Sacramento River at Keswick Dam	301.5

Surface Water Quality Sampling Station

Climatological Stations

DWR Index Number		Location Name	River Mile	Atla
A-02785	Sacramento	River at Bend Bridge	257.8	

Ground Water Quality Sampling Wells Location Name Nearest R. M. Atla

-	and the second se	and the second se	
	Colusa	144.5R	
	Moulton Weir	153.4L	
	Moulton Weir	159.8L	
	Glenn	174.OR	
	Red Bluff	245.7R	
	Red Bluff	246.3L	
	Bend	256.9L	
	Bend	253.6L	
	Balls Ferry	276.2R	
	Redding	299.4L	

		and the second se	
DWR Index Number	Location Name	Nearest R. M.	Atla
A0 6849-11	Phelan-Parrott Ranch	193.5L	
A0 3460	Glenn-Colusa Headgate	205.5R	
A0 4346	Jelly	268.5L	
A0 0201-30	Anderson STP	283.2R	
A0 7295-02	Redding 5 SSE	289.R	
	Sedimentation	Sampling Stations	
DWR Index Number	Location Name	Nearest R. M.	Atla
A-02420	Sacramento River at Colusa	143.5R	
A-02630	Sacramento River at Hamilton City	199.4L	
A-02788	Sacramento River above Bend Bridge	260.3	

s Sheet	Measurement Frequency
2A	Continuous
6A	Continuous
6A	Continuous
16A	Continuous
27A	Continuous
40A	Continuous
1011	00110110000
ations	
s Sheet	Measurement Frequency
2A	Monthly for W. Q.
10A	Bi-monthly for W. Q.
21A	3-month interval for W. Q.
55A	Monthly for W. Q.
	and the first state of the second state of the
s Shoot	Massuramont Fraguency
is sheet	neasurement frequency
39A	Monthly
a batt	- Herberg and and black the
s Sheet	Measurement Frequency
2A	Early summer
5A	Early summer
6A	Early summer
13A	Early summer
35A	Early summer
35A	Early summer
38A	Early summer
39A	Early summer
46A	Early summer
54A	Early summer
s Sheet	Measurement Frequency
19A	Daily
23A	Daily
43A	Daily
48A	Daily
51A	Hourly
s Sheet	Measurement Frequency
2A	High flow
21A	High flow
40A	High flow

Salmon Spawning Areas

The State Department of Fish and Game through the years has documented king salmon spawning areas in the upper Sacramento River. These major spawning areas are located upstream from Woodson Bridge, river mile 219, and are characterized by gravel of ideal size, water depth greater than 0.3 metres (0.8 feet) and water velocities between .4 and 1.1 metres (1.3 and 3.5 feet) per second measured .2 metres (onehalf foot) above the gravel. The gravel areas shown in this atlas are generalized, many small spawning areas other than delineated exist throughout the entire upper reaches of the river.

Salmon spawning gravels in the Redding area are deteriorating ---- smaller gravel is being washed away. High sustained flows scour the river bottom and leave behind only the larger rock that tends to armor the bottom against effective spawning. Gravel replenishment to the Redding region is blocked by Keswick and Shasta Dams. Spawning gravels, then, are a finite resource that is gradually diminishing.

If future runs of king salmon in the Sacramento River are to be sustained then an increasing degree of attention and protection must be given to the preservation of these important spawning areas.

1970 Flood Line

This atlas shows the extent of flooding during recent times in the upper Sacramento Valley. Shasta Reservoir began to fill in 1945. There were floods in 1955, 1958, 1964, 1969, 1970, and twice in 1974. Of these, the flood of 1970 was best documented. By the use of aerial photographs, measurements of debris lines, river stage records, and markings made by residents along the river, the extent of maximum flooding, particularly north of Ord Ferry, where the Sacramento Valley flood control project begins, was accurately determined. This line, marking the maximum extent of flooding in 1970, is shown in the atlas beginning on sheet 2. On many atlas sheets, our photographic coverage was too confined to show the actual area flooded. In these instances, the line marking the extent of flooding was merely drawn along the edge of the atlas map.

The Designated Floodway, already discussed under study area boundaries, is defined as the normal water channel plus that portion of the adjoining flood plain needed to carry a flow of a specific size. For the counties within the study area, the 1958 flood was selected as the representative flow. Due to contributions from tributary streams, the channel size needed to carry a given flood-flow increases as you go down-river. For example, the 1958 flood was measured at 3,960 cubic metres (140,000 cubic feet per second) at Red Bluff, 5,100 cubic metres (180,000 cfs) at Vina, and increased to 6,510 cubic metres (230,000 cfs) at Ord Ferry. The designated floodway line, as shown in this atlas, should not be misinterpreted. It shows the extent of flooding if adequate works were present, such as levees, dikes, or natural high berms. In many areas where no such works are present, floods such as those recorded in 1958 and 1970 actually extended far outside the designated floodway line.



Index to Sheet 2 Land Use and Riparian Vegetation

Syn	1601	Colus Hectare	a County s Acres			Denominator Symbols
AG	high terrace low terrace	3 B 0	9 3 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	8 4 0	2 0 7 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	5 D 4	123 11	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder grane blackberry	L low	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	x	Riprap
٧2	high terrace	5 5	136	Vegetation similar to VI but with less		
	low terrace	3	7	crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace	14	3 5	Vegetation less mature than V2, lower tree		
	low terrace	2	4	height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace low †errace	4 0 2	100 5	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sub)-total					
	high terrace low terrace	2 8 1 1 1	694 27			
	U	0	0	Urban or urban related		
	PR	6	14	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	2	5	Commercial recreation		
	W	5 2	129	Water surface		
	OW	2	6	Oxbow lakes, isolated from river		
	R	6	16	Gravel bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
Tot	al	360	891			



Index to Sheet 2A Prime Agricultural Lands





Index to Sheet 3 Land Use and Riparian Vegetation

Syr	nbol	Colusa Hectares	County Acres			Denominator Symbols
AG	high terrace low terrace	8 0	2 0 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	47 0	116 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	33 0	8 2 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry,	Llow	Low terrace lands generally inundated at only moderately high river flows.
V2	high terrace low terrace	21 5	52 13	poison oak, and some perennial grasses. Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	XXXXX	Riprap Salmon spawning areas
٧3	high terrace low terrace	13 7	31 17	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace low terrace	2 1 1 3	51 33	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sut	o-total high terrace low terrace	143 25	352 63			
	U	0	0	Urban or urban related		
	PR	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	W	40	98	Water surface		
	OW	3	7	Oxbow lakes, isolated from river		
	R	18	45	Grave! bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
To	tal	229	565			



to Sheet 3A Index Prime Agricultural Lands

C	Study Area	Boundary
0 0 0 0 0 0 0 0 0 0 0 0	Designated	Floodway
	1970 Flood	Line

3500

Commercial Gravel (Permit number or Owners name)



Snag

Prime Agricultural Land Colusa County Hectares Acres 380 154



Public Lands (Name of Owner)



X

- Stream Gage
- ∇
 - Stream Gage and Surface Water Quality Sampling Station
- -0

P

Surface Water Quality Sampling Station



Ground Water Sampling Station

- Climatological Station
- Sedimentation Sampling Station



Sanitary Disposal Plant (Name of Facility)

- Camping Picnicking L Boat Ramp, Docks, and Rentals Boat Dock or Slip
- \ominus Boat Ramp or Hoist



RECREATION FACILITIES

Cafe, Bait, Tackle, and Gas Cafe Bait and Tackle 200 Gas Archeological - Historical Sites



Index to Sheet 4 Land Use and Riparian Vegetation

Symbol		Colusa County Hectares Acres				Denominator Symbols
AG	high terrace low terrace	4 0	9 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	136 0	337 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	3 5 0	87 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry,	Llow	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	x x x x x	Riprap
٧2	high terrace	2 9	71	Vegetation similar to VI but with less		
	low terrace	11	26	crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	-	Salmon spawning areas
٧3	high terrace	8	19	Vegetation less mature than V2, lower tree		
	low terrace	0	0	height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace low terrace	2 5 0	63 0	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sut)-total					
	high terrace	237	586			
			26	Urban or urban related		
	U	U	0	Formal parks e a Woodson Bridge State Park		
	PR	U	0	Pormar parks, e.g. woodson bridge state raik.		
	Rc	U	U	Commercial recreation		
е.,	W	58	143	Water surface		
	OW	4	9	Oxbow lakes, isolated from river		
	R	2 0	49	Gravel bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
To	tal	330	813			



Index to Sheet 4A Prime Agricultural Lands

Study Area Boundary Dooooooooo Designated Floodway 1970 Flood Line

PPrime Agricultural LandColusa County214528



Commercial Gravel (Permit number or Owners name)





Public Lands (Name of Owner)

GAGING STATIONS

 \bigcirc

0

X

- Stream Gage
- Stream Gage and Surface Water Quality Sampling Station
- 0

 ∇

- Surface Water Quality Sampling Station
- Ground Water Sampling Station

- Climatological Station
- ♥ Sedimentation Sampling Station
 - Waste Discharge Point (Name of Facility)
 - Sanitary Disposal Plant (Name of Facility)

RECREATION FACILITIES

Cafe, Bait, Tackle, and Gas Camping Π Cafe Picnicking \bigtriangleup Bait and Tackle Boat Ramp, Docks, and Rentals Gas Boat Dock or Slip Archeological=Historical Sites \ominus Boat Ramp or Hoist 0 Boat Rentals



Index to Sheet 5 Land Use and Riparian Vegetation

Symbol		Colusa (County			Depeningtor Symbols
-	1	Hectares	Acres			Denominator Symbols
AG	high terrace low terrace	0 0	0 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	2 1 4 0	528 0	Deciduous orchard		river flows.
VI	high terrace low terrace	6 2 4	154 11	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry,	L low	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	x x x x x	Riprap
٧2	high terrace low terrace	2 3 0	57 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation		Salmon spawning areas
1/2	high torroop	11	2.6	Vegetation less mature than V2 lower tree		
V3	low terrace	12	29	height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace low terrace	9 2 0	2 2 8 0	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sub)-total					
	high terrace low terrace	402 16	993 40			
	υ.	0	0	Urban or urban related		
	PR	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	W	11	190	Water surface		
	OW	0	0	Oxbow lakes, isolated from river		
	R	12	30	Gravel bars, rocks, sand		
	GH			Grass, upland hardwoods, mainly oak		
Tot	tal	507	1 253			



to Sheet 5A Index Agricultural Lands Prime

Study Area Boundary Designated Floodway 1970 Flood Line

> Prime Agricultural Land Colusa County

Hectares Acres 397 981



Commercial Gravel (Permit number or



Owner

Public Lands (Name of Owner)

GAGING STATIONS

X

- Stream Gage
- Stream Gage and Surface Water ∇ Quality Sampling Station
- $-\Theta$

P

Surface Water Quality



Sampling Station



Ground Water Sampling Station

- \bigcirc Climatological Station
- 0 Sedimentation Sampling Station
 - Waste Discharge Point (Name of Facility)
 - Sanitary Disposal Plant

 \ominus

Camping Picnicking

- Boat Ramp, Docks, and Rentals
- Boat Dock or Slip
- Boat Ramp or Hoist







Index to Sheet 6 Land Use and Riparian Vegetation

Symbol		Colusa County Hectares Acres				Denominator Symbols	
AG high ter low terr	rrace race	2 7 0	6 6 D	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except	
AD high ter low terr	rrace race	109 0	269 0	Deciduous orchard		during exceptionally high river flows.	
VI high ten low tern	rrace race	7 9 0	196 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry,	Llow	Low terrace lands generally inundated at only moderately high river flows.	
				poison-oak, and some perennial grasses.	XXXXX	Riprap	
V2 high ter low terr	rrace race	3 1 0	76 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas	
V3 high ter low terr	rrace race	6 2	14 5	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.			
V4 high ter low terr	rrace race	8 3 3 2	206 79	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.			
Sub-total							
high ter low terr	rrace race	335	827				
U		0	0	Urban or urban related			
PR		0	0	Formal parks, e.g. Woodson Bridge State Park.			
Rc		0	0	Commercial recreation			
W		74	182	Water surface			
OW		0	0	Oxbow lakes, isolated from river			
R		4 0	98	Gravel bars, rocks, sand			
GH		0	0	Grass, upland hardwoods, mainly oak			
Total		483	1 191				



Index to Sheet 6A Prime Agricultural Lands

P Prime Agricultural Land Colusa County 331



Commercial Gravel (Permit number or Owners name)



20wner

Public Lands (Name of Owner)

GAGING STATIONS

C

X

Stream Gage



Stream Gage and Surface Water Quality Sampling Station



Surface Water Quality Sampling Station



Ground Water Sampling Station

Climatological Station

♥ Sedimentation Sampling Station

Acres

818

Waste Discharge Point (Name of Facility)

Sanitary Disposal Plant (Name of Facility)





Index to Sheet 7

Land Use and Riparian Vegetation

Syn	bol		Colusa Hectares	County Acres			Denominator Symbols
AG	high terrace low terrace		2 6 0	65 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace Iow terrace		121 0	300 0	Deciduous orchard		river flows.
VI	high terrace low terrace	2e 8	3 7 0	9 1 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry,	L low	Low terrace lands generally inundated at only moderately high river flows.
					poison oak, and some perennial grasses.	x x x x x	Riprap
٧2	high terrace		11	27	Vegetation similar to VI but with less		
	low terrace		0	0	crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace		0	0	Vegetation less mature than V2, lower tree		
	low terrace		0	0	height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
V4	high terrace		13	33	Comprised mainly of forbs, grasses, and low-		
	low terrace		0	0	growing willows and alders. Generally the next'vegetative step above raw gravel bars.		
Sub	-total						
	high terrace		208	516 N			
			0	0	Urban or urban related		
	PR		0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc		0	0	Commercial recreation		
	W		2 1	53	Water surface		
	OW		3	8	Oxbow lakes, isolated from river		
	R		4	11	Gravel bars, rocks, sand		
	GH		0	0	Grass, upland hardwoods, mainly oak		
Tot	al		236	588			


Index to Sheet 7A Prime Agricultural Lands

	Study Area	Boundary
000000000000	Designated	Floodway
	1970 Flood	Line

3500

Commercial Gravel (Permit number or Owners name)

S

> Snag

P Prime Agricultural Land Colusa County

Hectares Acres 200 494



Public Lands (Name of Owner)

GAGING STATIONS

C

X

- Stream Gage
- ∇
- Stream Gage and Surface Water Quality Sampling Station
- 0
 - Surface Water Quality Sampling Station



Ground Water Sampling Station

Climatological Station

Gedimentation Sampling Station

Waste Discharge Point (Name &f Facility)

Sanitary Disposal Plant (Name of Facility)



RECREATION FACILITIES

Cafe, Bait, Tackle, and Gas Cafe

Bait and Tackle

Gas

 \square

Archeological-Historical Sites



Index to Sheet 8 Land Use and Riparian Vegetation

-

Sym	bol	Colusa Hectares	County	Glenn Co Hectares	unty		Denominat	or Symbols
AG	high terrace Iow terrace	16 0	40	5 2 0	1 2 8 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally
AD	high terrace low terrace	9 0	2 2 0	55 0	135 0	Deciduous orchard		during exceptionally high river flows.
V I	high terrace low terrace	7 6 0	189 0	3 2 0	79 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry, poison oak, and some perennial grasses.	Llow	Low terrace lands generally inundated at only moderately high river flows.
V2	high terrace low terrace	1 0	3 0	3 0	7 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	*****	Riprap
٧3	high terrace low terrace	0 7	0 1 7	5 0	1 2 0	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.	-	Salmon spawning areas
٧4	high terrace low terrace	1 3 2 5	32 61	8 9	19 23	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bar.		
Sub	-total							
	high terrace low terrace	1 1 5 3 2	286 78	155 9	380 23			
	U	0	0	0	0	Urban or urban related		
	PR	0	0	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	0	0	Commercial recreation		
	W	19	46	15	37	Water surface		
	OW	6	15	4	9	Oxbow lakes, isolated from river		
	R	4	9	3	7	Gravel bars, rocks, sand		
	GH	0	0	0	0	Grass, upland hardwoods, mainly oaks		
Tot	al	176	434	186	456			



Index to Sheet 8A Prime Agricultural Lands

	Study Area	Boundary
00000000000	Designated	Floodway
	1970 Flood	Line

D	Daima Againultural Lord	Colusa County	Hectares 107	Acres 265
r	Prime Agricultural Land	Glenn County	160	395



Commercial Gravel (Permit number or Owners name)



Owner 2

Public Lands (Name of Owner)



- Stream Gage
- ✓ Stream Gage and Surface Water Quality Sampling Station
- 0
- Surface Water Quality Sampling Station
 - Sampli
 - Ground Water Sampling Station

- Climatological Station
- Sedimentation Sampling Station
- Waste Discharge Point (Name of Facility)







Index to Sheet 9 Land Use and Riparian Vegetation

Sym	ibol	Colusa	County	Glenn (County		Street in	
		Hectares	Acres	Hectares	Acres	Table a second of the second data a	Denominat	or Symbols
AG	high terrace low terrace	4 0	1 O 0	53 0	131 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally
AD	high terrace low terrace	0 0	0 0	192 0	474 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace Iow terrace	2 1 0	5 2 0	100 2	248 5	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry, poison oak, and some perennial grasses.	Llow	Low terrace lands generally inundated at only moderately high river flows.
٧2	high terrace low terrace	0 0	0 0	2 3 8	57 20	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	*****	Riprap
٧3	high terrace low terrace	2 0	6 0	2 0 2 7	4 9 6 6	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.	-	Salmon spawning areas
٧4	high terrace low terrace	1 2 0	3 O O	66 13	162 33	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bar.		
Sub	-total							
	high terrace low terrace	3 9 0	9 8 0	454 50	1 121 124			
	U	0	0	0	0	Urban or urban related		
	PR	0	0	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	0	0	Commercial recreation		
	W	7	17	75	185	Water surface		
	OW	0	0	5	1 3	Oxbow lakes, isolated from river		
	R	18	4 4	17	4 1	Gravel bars, rocks, sand		
	GH	0	0	0	0	Grass, upland hardwoods, mainly oaks		
Tot	al	64	159	601	1 484			



Index to Sheet 9A Prime Agricultural Lands

00000000000

P

Study Area Boundary Designated Floodway 1970 Flood Line

> Hectares Acres Colusa County 31 76 Glenn County 433 1070

3500

Commercial Gravel (Permit number or Owners name)

RECREATION FACILITIES



Owner 2

Public Lands (Name of Owner)

GAGING STATIONS

C

X

- V Stream Gage
- ✓ Stream Gage and Surface Water Quality Sampling Station

Prime Agricultural Land

Surface Water Quality Sampling Station



Ground Water Sampling Station

- Climatological Station
- Gereal Sedimentation Sampling Station
 - Waste Discharge Point (Name of Facility)
 - Sanitary Disposal Plant (Name of Facility)

Cafe, Bait, Tackle, and Gas Camping Ш Picnicking Cafe $\langle \rangle$ Bait and Tackle Boat Ramp, Docks, and Rentals Gas Boat Dock or Slip Archeological=Historical Sites \ominus Boat Ramp or Hoist Boat Rentals



Index to Sheet 10 Land Use and Riparian Vegetation

Syn	ibo l	Glenn Hectares	County Acres			Denominator Symbols
AG	high terrace low terrace	1 O 1 O	2 4 9 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	376 0	929 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace Iow terrace	4 9 5 9	1 2 2 1 4 7	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grane, blackberry	Llow	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	x x x x x	Riprap
V2	high terrace Iow terrace	. 0 2 1	0 5 3	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace low terrace	1 4 5 5	35 136	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace low terrace	2 2 4	5 5 9	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sub	-total		1 0 0 0			
	high terrace low terrace	562 139	3 4 5			
	U	0	0	Urban or urban related		
	PR	D	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	W	6 9	170	Water surface		
	OW	2 8	70	Oxbow lakes, isolated from river		
	R	3 5	87	Gravel bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
Tot	al	833	2 062			



to Sheet IOA Index Prime Agricultural Lands

Study Area Boundary Designated Floodway 00000000000 1970 Flood Line

Hectares Acres P 566 1 398 Prime Agricultural Land Glenn County



Commercial Gravel (Permit number or Owners

RECREATION FACILITIES



Owner,

Public Lands (Name of Owner)



0

Ø

- Stream Gage
- ∇
- Stream Gage and Surface Water Quality Sampling Station
- 0
- Surface Water Quality





 \bigcirc Climatological Station

Sedimentation Sampling Station

Waste Discharge Point (Name of Facility)





Index to Sheet II Land Use and Riparian Vegetation

Syr	nbol	Glenn C Hectares	acres			Denominator Symbols
AG	high terrace low terrace	7 4 0	183 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	2 0 5 0	507 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	1 0 4 4 3	258 107	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grane, blackberry	Llow	Low terrace lands generally inundated at only moderately high river flows.
		a set to a		poison oak, and some perennial grasses.	x x x x x	Riprap
V2	high terrace low terrace	3 4 0	83 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	-	Salmon spawning areas
٧3	high terrace Iow terrace	117	1 4 2	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace low terrace	3 0 2	75 4	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sul	o-total high terrace low terrace	4 4 8 6 2	1 107 153			
	U	0	0	Urban or urban related		
	PR	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	W	3 6	88	Water surface		
	OW	9	23	Oxbow lakes, isolated from river		
	R	2 3	58	Gravel bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
To	tal	578	1 4 2 9			



to Sheet Index IIA Agricultural Prime Lands

Study Area Boundary Designated Floodway 000000000000 1970 Flood Line

> P Prime Agricultural Land

Glenn County

Hectares Acres 467 1 155



Commercial Gravel (Permit number or Owner's name)

Snag S

Cowner] Public Lands (Name of Owner)

GAGING STATIONS

0

X



- Stream Gage and Surface Water Quality Sampling Station
- Surface Water Quality Sampling Station



 Θ

 ∇

Ground Water Sampling Station

 \bigcirc Climatological Station

Ð Sedimentation Sampling Station

Waste Discharge Point (Name o, f Facility)

Sanitary Disposal Plant (Name of Facility)



RECREATION FACILITIES

Cafe, Bait, Tackle, and Gas Ш Cafe Bait and Tackle Gas Archeological-Historical Sites



Index to Sheet 12 Land Use and Riparian Vegetation

Syn	1bo I	Glenn C Hectares	ounty Acres			Denominator Symbols
AG	high terrace low terrace	7 0 0	172 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terra <mark>c</mark> e low terrace	191 0	472 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	4 2 0	103 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry,	Llow	Low terrace lands generally inundated at only moderately high river flows.
				poison eak, and some perennial grasses.	x	Riprap
V2	high terrace low terrace	2 0 1 1	50 26	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	-	Salmon spawning areas
٧3	high terrace low terrace	3 2 9	8 7 2	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
V4	high terrace low terrace	2 3 4	56 10	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sub	ı-total					
	high terrace	349	861			
		0	0	Urban or urban related		
	PR	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	W	64	158	Water surface		
	OW	2	5	Oxbow lakes, isolated from river		
	R	28	68	Gravel bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
Tot	tal	487	1 200			



Index to Sheet 12A Prime Agricultural Lands

	Study Area	Boundary
00000000000	Designated	Floodway
	1970 Flood	Line

3500

Commercial Gravel (Permit number or Owners name)

s Snag

Owner Public Lands (Name of Owner)

GAGING STATIONS

Glenn County

X

- Stream Gage
- ✓ Stream Gage and Surface Water Quality Sampling Station

Prime Agricultural Land

Surface Water Quality Sampling Station



0

P

Ground Water Sampling Station

Climatological Station

Hectares

351

● Sedimentation Sampling Station

Acres

868

Waste Discharge Point (Name of Facility)

> Sanitary Disposal Plant (Name of Facility)



RECREATION FACILITIES





Index to Sheet 13 Land Use and Riparian Vegetation

IT Had

Sym	bol	Butte Co Hectares	Acres	Glenn Co Hectares	Acres		Denominat	or Symbols
AG	high terrace low terrace	2 4 0	59 0	36 U	8 8 0	General crops including grains, alfalfa, pasture, and iow crops.	H high	High terrace lands generally
AD	high terrace low terrace	0 0	0 0	168 0	415 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	0 3	0 7	3 14	8 35	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry, poison oak, and some perennial grasses	L low	Low terrace lands generally inundated at only moderately high river flows.
V2.	high terrace low terrace	6 2	15 4	1 4 4 9	34 121	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	*****	Riprap
V3	high terrace low terrace	1 O 8	24 19	7 17	18 43	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.	-	Salmon spawning areas
V4	high terrace low terrace	17 1	4 1 1	4 0 1 4	99 34	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bar.		
Sub	-total							
	high terrace low terrace	57 13	139 31	268 94	662 233			
	U	0	0	0	0	Urban or urban related		
	PR	0	0	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	0	0	Commercial recreation		
	W	3	8	5 3	131	Water surface		
	OW	0	0	2	5	Oxbow lakes, isolated from river		
	R	0	0	3 3	8 2	Gravel bars, rocks, sand		
	GH	0	0	0	0	Grass, upland hardwoods, mainly oaks		
Tot	al	73	178	450	1 113			



to Sheet I3A Index Agricultural Lands Prime

	Study Area	Boundary
000000000000	Designated	Floodway
	1970 Flood	Line

						Hectares	Acre
Ρ	Drimo	Agricultural	Land	Butte	County	79	196
	FILME	Agricultural	Lano	Glenn	County	347	858



Commercial Gravel (Permit number or Owners name)



Owner

Public Lands (Name of Owner)

GAGING STATIONS

X



- ∇
- Stream Gage and Surface Water Quality Sampling Station
- 0
- Surface Water Quality Sampling Station





Ground Water Sampling Station

 \bigcirc Climatological Station

Sedimentation Sampling Station

es



Sanitary Disposal Plant (Name of Facility)



RECREATION FACILITIES





Index to Sheet 14 Land Use and Riparian Vegetation

Symbol		Butte County		Glenn County					
		Hectares	Acre.s	Hectares	Acres		Denominato	or Symbols	
AG	high terrace low terrace	374 0	923 0	14 0	3 5 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally	
AD	high terrace low terrace	0 0	0 0	2 0	4 0	Deciduous orchard		during exceptionally high river flows.	
VI	high terrace low terrace	7 17	18 42	2 1 0	5 1 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry, poison oak, and some perennial grasses.	L low	Low terrace lands generally inundated at only moderately high river flows.	
V2	high terrace low terrace	5 19	13 48	0 13	0 31	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	****	Riprap	
٧3	high terrace low terrace	13 11	32 26	0 10	0 24	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.	-	Salmon spawning areas	
٧4	high terrace low terrace	1 02 30	251 74	18 20	45 50	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bar.			
Sub	-total								
	high terrace	501	1 237	55	135				
	low terrace	77	190	4 3	105				
	U	0	0	0	0	Urban or urban related			
	PR	0	0	0	0	Formal parks, e.g. Woodson Bridge State Park			
	Rc	0	0	0	0	Commercial recreation			
	W	40	99	58	144	Water surface			
	OW	5	12	0	0	Oxbow lakes, isolated from river			
	R	17	42	32	78	Gravel bars, rocks, sand			
	GH	0	0	0	0	Grass, upland hardwoods, mainly oaks			
Tot	al	640	1 580	188	462				



to Sheet 14A Index Prime Agricultural Lands

	Study Area	Boundary
000000000000	Designated	Floodway
	1970 Flood	Line

				Hectares	Acres	
Р	Prime Agricultural Land	Butte	County	550	1 358	
	i vino Agriculturur Luna	Glenn	County	43	107	



Commercial Gravel (Permit number or Owners name)

RECREATION FACILITIES





Public Lands (Name of Owner)

GAGING STATIONS

X

- Stream Gage
- Stream Gage and Surface Water ∇ Quality Sampling Station
- Θ





Ground Water Sampling Station

- \bigcirc Climatological Station
- Sedimentation Sampling Station
- Waste Discharge Point (Name of Facility) \bigcirc





Index to Sheet 15 Land Use and Riparian Vegetation

Symbol		Butte County Hectares Acres		Glenn County Hectares Acres			Denominator Symbols		
AG	high terrace low terrace	199 0	492 0	14 0	34 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally	
AD	high terrace low terrace	0 0	0 0	8 0	19 0	Deciduous orchard		during exceptionally high river flows.	
VI	high terrace Iow terrace	11 1	26 2	68 0	169 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry, poison oak, and some perennial grasses	L low	Low terrace lands generally inundated at only moderately high river flows.	
V2	high terrace low terrace	0 9	0 2 2	5 0	12 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	****	Riprap	
V3	high terrace low terrace	0 7	0 18	0 6	0 14	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.	-	Salmon spawning areas	
٧4	high terrace low terrace	226 16	559 39	30 3	75 7	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bar.			
Sub	-total								
	high terrace	436	1 077	125	309				
	low terrace	33	81	9	21				
	U	0	0	0	0	Urban or urban related			
	PR	0	0	0	0	Formal parks, e.g. Woodson Bridge State Park.			
	Rc	0	0	1	3	Commercial recreation			
	W	80	198	27	67	Water surface			
	OW	4	11	4	9	Oxbow lakes, isolated from river			
	R	19	46	13	32	Gravel bars, rocks, sand			
	GH	0	0	0	0	Grass, upland hardwoods, mainly oaks			
Tot	al	572	1 413	179	441				



to Sheet 15A Index Agricultural Lands Prime

	Study Area	Boundary
000000000000	Designated	Floodway
	1970 Flood	Line

P Prime Agricultural Land

		Hectares	Acres
Butte	County	467	1 155
Glenn	County	134	330



Commercial Gravel (Permit number or Owners name)



Owner

Public Lands (Name of Owner)

GAGING STATIONS

X

Stream Gage

- Stream Gage and Surface Water Quality Sampling Station
- Surface Water Quality Sampling Station



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 ∇

Ground Water Sampling Station

 \bigcirc Climatological Station (P-Sedimentation Sampling Station

Waste Discharge Point (Name of Facility) 0



to Sheet 15A Index Agricultural Lands Prime

	Study Area	Boundary
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Designated	Floodway
	1970 Flood	Line

P Prime Agricultural Land

		Hectares	Acres
Butte	County	467	1 155
Glenn	County	134	330



Commercial Gravel (Permit number or Owners name)



Owner

Public Lands (Name of Owner)

GAGING STATIONS

X

Stream Gage

- Stream Gage and Surface Water Quality Sampling Station
- Surface Water Quality Sampling Station



÷

 ∇

Ground Water Sampling Station

 \bigcirc Climatological Station (P-Sedimentation Sampling Station

Waste Discharge Point (Name of Facility) 0





Index to Sheet 16

Land Use and Riparian Vegetation

Sym	Symbol .		Butte County Hectares Acres		Glenn County Hectares Acres			Denominator Symbols		
AG	high terrace low terrace		236 0	582 0	68 0	169 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally	
AD	high terrace low terrace		59 0	147 0	6 O 0	149 0	Deciduous orchard		during exceptionally high river flows.	
V I	high terrace Iow terrace		0 0	0 0	13 0	31 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry, poison oak, and some perennial grasses.	L low	Low terrace lands generally inundated at only moderately high river flows.	
V2	high terrace low terrace		2 1 0	5 1 0	26 20	65 50	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	****	Riprap	
٧3	high terrace low terrace		30 6	74 14	32 17	79 41	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		Salmon spawning areas	
٧4	high terrace low terrace		13 4	31 11	8 2 4	19 59	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bar.			
Sub	-total									
	high terrace		359	885	207	512				
	low terrace		10	25	61	150				
	U		0	0	0	0	Urban or urban related			
	PR		0	0	4	10	Formal parks, e.g. Woodson Bridge State Park.			
	Rc		0	0	0	0	Commercial recreation			
	W		49	122	55	137	Water surface			
	OW		2	5	1	2	Oxbow lakes, isolated from river			
	R		23	58	30	73	Gravel bars, rocks, sand			
	GH		0	0	0	0	Grass, upland hardwoods, mainly oaks			
Tot	al		443	1 095	3 5 8	884				


to Sheet 16A Index Agricultural Lands Prime

	Study Area	Boundary
00000000000	Designated	Floodway
	1970 Flood	Line

				Hectares	Acres
Ρ	Prime Agricultural Land	Butte	County	374	924
	a series of <u>a</u> for the series of the series	Glenn	County	120	296



Commercial Gravel (Permit number or Owners name)



20wner

Public Lands (Name of Owner)



- Stream Gage
- Stream Gage and Surface Water 57 Quality Sampling Station

Surface Water Quality

Sampling Station

 \ominus



Ground Water Sampling Station

- \bigcirc Climatological Station **P** Sedimentation Sampling Station C Waste Discharge Point (Name of Facility) X

Sanitary Disposal Plant (Name of Facility)

RECREATION FACILITIES Cafe, Bait, Tackle, and Gas Camping Ш Picnicking Cafe Bait and Tackle Boat Ramp, Docks, and Rentals Gas Boat Dock or Slip Archeological-Historical Sites \ominus Boat Ramp or Hoist Boat Rentals



Symbol		Butte C	ounty	Glenn County				
		Hectares	Acres	Hectares	Acres		Denominato	or Symbols
AG	high terrace low terrace	66 0	162 0	16 0	4 0 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally
AD	high terrace low terrace	0 0	0 0	68 0	168 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	3 0 4	73. 10	4 0	9 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry, poison oak, and some perennial grasses.	L low	Low terrace lands generally inundated at only moderately high river flows.
V2	high terrace Iow terrace	2 6 1 5	64 37	15 8	37 20	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	*****	Riprap
٧3 [.]	high terrace low terrace	3 8	8 2 1	4 15	10 36	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.	-	Salmon spawning areas
٧4	high terrace low terrace	52 11	128 26	4 1 4	11 35	Comprised mainly,of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bar.		
Sub	total							
	high terrace	177	435	111	275			
	low terrace	38	94	37	91			
	U	0	0	0	0	Urban or urban related		
	PR	0	0	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	0	0	Commercial recreation		
	W	79	196	43	106	Water surface		
	OW	0	0	0	D	Oxbow lakes, isolated from river		
	R	71	175	21	51	Gravel bars, rocks, sand		
	GH	0	0	0	0	Grass, upland hardwoods, mainly oaks		
Tota	1	365	900	212	523			



to Sheet 17A Index Agricultural Prime Lands

e	Study Area	Boundary
0000000000000	Designated	Floodway
	1970 Flood	Line

						Hectares	Acres
				Butte	County	155	382
Ρ	Prime	Agricultural	Land				
				Glenn	County	88	217







Owner Public Lands (Name of Owner)



X

- Stream Gage
- Stream Gage and Surface Water ∇ Quality Sampling Station
 - Surface Water Quality Sampling Station



-0

Ground Water Sampling Station

 \bigcirc Climatological Station (P Sedimentation Sampling Station Waste Discharge Point (Name of Facility) 1

Sanitary Disposal Plant (Name of Facility)



RECREATION FACILITIES





Land Use and Riparian Vegetation

11.31

4.1 3.9

Svm	bol	Butte County		Glenn County				
-]		Hectares	Acres	Hectares	Acres		Denominato	r Symbols
AG	high terrace low terrace	7 1 0	175 0	0 0	0 0	General crops including grains, alfalfa, pasture, and row crops	H high	High terrace lands generally
AD	high terrace low terrace	0 0	0 0	82 0	202 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	99 0	245 0	2 1 0	52 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry, poison oak, and some perennial grasses.	Llow	Low terrace lands generally inundated at only moderately high river flows.
V2	high terrace low terrace	19 6	46 14	9 6	22 15	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	*****	Riprap
٧3	high terrace low terrace	11 1	27 2	1 7	1 18	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		Salmon spawning areas
٧4	high terrace low terrace	54 5	134 12	3 16	, 8 3 9	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bar.		
Sub	-total							
	high terrace	254	627	116	285			
	low terrace	12	28	29	72			
	U	0	0	0	0	Urban or urban related		
	PR	0	0	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	0	0	Commercial recreation		
	W	40	100	34	83	Water surface		
	OW	1	3	0	0	Oxbow lakes, isolated from river		
	R	17	43	38	94	Gravel bars, rocks, sand		
	GH	0	0	0	0	Grass, upland hardwoods, mainly oaks		
Tot	al	324	801	217	534			



Index to Sheet 18A Prime Agricultural Lands





Sym	ibo l	Butte Hectar	County es Acres	Glenn Cou Hectares	nty Acres		Denominato	or Symbols
AG	high terrace Iow terrace			196 0	484 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally
AD	high terrace low terrace		0	97 0	2 4 0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	57 13	140 32	6 13	16 32	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry, poison oak, and some perennial grasses.	Llow	Low terrace lands generally inundated at only moderately high river flows.
٧2	high terrace low terrace	15	37 0	10 0	2 4 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	*****	Riprap
V3	high terrace low terrace		3 6	8 2 8	19 69	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.	•	Salmon spawning areas
٧4	high terrace low terrace	14	3 4 4 4	54 29	133 71	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bar.		
Sub	-total							
	high terrace Iow terrace	8 T 3 S	214 82	371 70	916 172			
	U	(0	0	0	Urban or urban related		
	PR	(0	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc) 0	0	0	Commercial recreation		
	W	3	76	42	104	Water surface		
	OW		2	1	3	Oxbow lakes, isolated from river		
	R	(2 3	42	103	Gravel bars, rocks, sand		
	GH	(0	0	0	Grass, upland hardwoods, mainly oaks		
Tot	al	16	397	526	1 298			



Sheet 19A Index to Agricultural Prime Lands

	Study Area	Boundary
00000000000	Designated	Floodway
	1970 Flood	Line

P Prime Agricultural Land

Hectares Acres Butte County 114 282 Glenn County 381 942



Commercial Gravel (Permit number or Owners name)



Owner

Public Lands (Name of Owner)

-

GAGING STATIONS

0

Stream Gage

- Stream Gage and Surface Water Quality Sampling Station
- Surface Water Quality Sampling Station



 Θ

 ∇

Ground Water Sampling Station

 \bigcirc Climatological Station Ð Sedimentation Sampling Station

Waste Discharge Point (Name of Facility)

Sanitary Disposal Plant (Name of Facility)



RECREATION FACILITIES

Cafe, Bait, Tackle, and Gas Ш Cafe Bait and Tackle Gas Archeological-Historical Sites



Sym	ibo l	Butte County Hectares Acres			Glenn C Hectares	ounty Acres		Denominator Symbols		
AG	high terrace low terrace	197	76 0	188 0	67 0	165 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally	
AD	high terrace low terrace		10 0	25 0	107 0	265 0	Deciduous orchard		during exceptionally high river flows.	
V I	high terrace low terrace		45 5	111 13	27 8	67 21	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry, poison oak, and some perennial grasses.	Llow	Low terrace lands generally inundated at only moderately high river flows.	
V2	high terrace low terrace		5 0	12 0	2 0	6 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	xxx	Riprap	
٧3	high terrace low terrace		0 4	0 10	0 9	0 22	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		Salmon spawning areas	
٧4	high terrace low terrace		2 1	5 1	13 5	32 12	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bar.			
Sub	-total									
	high terrace		138	341	216	535				
	low terrace		10	24	22	55				
	U		0	0	0	0	Urban or urban related			
	PR		0	0	0	0	Formal parks, e.g. Woodson Bridge State Park.			
	Rc		0	D	0	0	Commercial recreation			
	W		20	5 0	15	37	Water surface			
	OW		1	2	1	3	Oxbow lakes, isolated from river			
	R		11	27	12	30	Gravel bars, rocks, sand			
	GH		0	U	0	0	Grass, upland hardwoods, mainly oaks			
Tot	al		180	444	266	660				



to Sheet 20A Index Prime Agricultural Lands

Study Area Boundary Designated Floodway 000000000000 1970 Flood Line

				Hectares	Acres
		Butte	County	143	354
Ρ	Prime Agricultural Land	Glenn	County	217	537



Commercial Gravel (Permit number or Owners name)



Snag



Public Lands (Name of Owner)



GAGING STATIONS

C

X

- Stream Gage
- Stream Gage and Surface Water ∇ Quality Sampling Station
 - Surface Water Quality Sampling Station

 $-\Theta$

Ground Water Sampling Station

 \bigcirc Climatological Station **D**-Sedimentation Sampling Station

Waste Discharge Point (Name, of Facility)

Sanitary Disposal Plant (Name of Facility)







SHEET

20

A

Prime Agricultural Lands

Sym	bol	Butte C Hectares	G He	lenn Co ectares	unty Acres	Denominator Symbols			
AG	high terrace low terrace	5 0	12 0		33 0	82 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation excent
AD	high terrace low terrace	5 2 0	128 0		25 0	62 0	Deciduous orchard		during exceptionally high river flows.
V I	high terrace low terrace	14 0	35 0		8 0	2 0 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry, poison oak, and some perennial grasses	Llow	Low terrace lands generally inundated at only moderately high river flows.
V2	high terrace Iow terrace	0 0	0 0		5 4	13 10	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	*****	Riprap
V3	high terrace low terrace	9 15	22 36		0 32	0 78	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.	-	Salmon spawning areas
V4	high terrace low terrace	2 1 2	5 30		14 16	34 40	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bar.		
Sub	-total								
	high terrace	8 2	202		85	211			
	low terrace	27	66		52	128			
	U	0	0		0	0	Urban or urban related		
	PR	0	0		0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	3	8		0	0	Commercial recreation		
	W	43	107		68	168	Water surface		
	OW	1	1		2	4	Oxbow lakes, isolated from river		
	R	7	18		28	68	Gravel bars, rocks, sand		
	GH	0	0		0	0	Grass, upland hardwoods. mainly oaks		
Tot	al	163	402		235	579			



Index to Sheet 21A Prime Agricultural Lands





Sym	ibo l	Butt	e County	Glenn (County			
		Hectar	es Acres	Hectares	Acres		Denominato	or Symbols
AG	high terrace low terrace	9	8 242 D D	1 0	1 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally
AD	high terrace low terrace	3	B 95 D O	4 3 0	107 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace		2 2 0	7 0	17 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry, poison oak, and some perennial grasses.	Llow	Low terrace lands generally inundated at only moderately high river flows.
٧2	high terrace low terrace	31) 75) 0	26 0	65 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	*****	Riprap
٧3	high terrace low terrace	i	2 5 1 19	7 9	18 23	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.	-	Salmon spawning areas
٧4	high terrace low terrace		2 3 1 2	4 0	11 0	Comprised mainly of forbs, grasses. and low- growing willows and alders. Generally the next vegetative step above raw gravel bar.		
Sub	-total							
	high terrace	17	3 442	88	219			
	low terrace		41	9	23	and the second		
	U		0 0	0	0	Urban or urban related		
	PR	1	0 0	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc		0 0	0	0	Commercial recreation		
	W	3	6 88	36	88	Water surface		
	OW		1 3	0	0	Oxbow lakes, isolated from river		
	R	1	1 28	14	34	Gravel bars, rocks, sand		
	GH	1	0 0	0	0	Grass, upland hardwoods, mainly oaks		
Tot	al	24	602	147	364			



Index to Sheet 22A Prime Agricultural Lands

	— Study Area Bound	агу		-2		
0 0 0 0 0 0 0 0 0 0 0	o Designated Flood	way			3500	Commercial Gravel (Permit nu
	 1970 Flood Line 					1.
			Hectares	Acres	S	Snag
Ρ	Prime Agricultural Land	Butte County	173	427	[Owner]	Public Lands (Name of Owner)
		Glenn County	8 1	200		

GAGING STATIONS

X



Stream Gage

Stream Gage and Surface Water Quality Sampling Station



 ∇

Surface Water Quality Sampling Station

Ground Water Sampling Station

Climatological Station P Sedimentation Sampling Station 0

Waste Discharge Point (Name of Facility)

Sanitary Disposal Plant (Name of Facility)



number

0 [

Owners nam

RECREATION FACILITIES

Cafe, Bait, Tackle, and Gas

Bait and Tackle

Archeological-Historical Sites



Symbol	Butte C Hectares	county Acres	Glenn Hectares	County Acres	Tehema C Hectares	ounty Acres			Denominator Symbols
AG high terrace low terrace	0 0	0	5 1 0	127 0	2 0	5 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD high terrace low terrace	105 0	259 0	4 0	1 1 0	0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI high terrace low terrace	5 0	13 0	3 4 1	85 2	6 0	1 4 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp-	Liow	Low terrace lands generally inundated at only moderately high river flows.
							poison oak, and some perennial grasses.	****	Riprap
V2 high terrace	1	3	23	56	0	0	Vegetation similar to VI but with less		
low terrace	8	19	5	12	U	U	trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	-	Salmon spawning areas
V3 high terrace	0	0	1	2	0	0	Vegetation less mature than V2, lower tree		
lcw terrace	4	9	13	31	0	0	height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
V4 high terrace	6	16	65	160	0	0	Comprised mainly of forbs, grasses, and low-		
low terrace	7	17	36	88	0	0	growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sub-total									
high terrace	117	291	178	441	8	19			
	15	40	0.0	100	U	0			
U	0	0	4	9	0	0	Urban or urban related.		
PR	0	0	0	0	0	0	Formal parks, e.g. Woodson Bridge State Park.		
Rc	0	0	0	0	0	0	Commercial recreation		
W	8	20	38	93	6	16	Water surface		
OW	19	48	5	1 3	0	0	Oxbow lakes, isolated from river.		
R	4	11	2 5	62	4	9	Gravel bars, rocks, sand.		
GH	0	0	0	0	0	0	Grass, upland hardwoods, mainly oak.		
Total	167	415	305	751	18	44			



Index to Sheet 23A Prime Agricultural Lands

4	Study Area	Boundary
000000000000	Designated	Floodway
	1970 Flood	Line

			Hectares	Acres
		Butte County	118	292
Ρ	Prime Agricultural Land	Glenn County	154	380
		Tehama County	7	18



Commercial Gravel (Permit number or Owners name)



Owner Publ

Public Lands (Name of Owner)

GAGING STATIONS

C

X

- Stream Gage
- Stream Gage and Surface Water Quality Sampling Station
 - Surface Water Quality Sampling Station



 Θ

Ground Water Sampling Station

Climatological Station
 Sedimentation Sampling Station

Waste Discharge Point (Name of Facility)

Sanitary Disposal Plant (Name of Facility)



RECREATION FACILITIES

Cafe, Bait, Tackle, and Gas
 Cafe
 Bait and Tackle
 Gas
 Archeological = Historical Sites



Sym	bol	Butte Co Hectares	ounty Acres	Tehama C Hectares	ounty Acres		Denominato	or Symbols
AG	high terrace low terrace	14 0	3 4 0	66 10	164 25	General crops including grains, alfalfa, pasture, and row crops	H high	High terrace lands generally
AD	high terrace low terrace	155 0	384 0	0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	33 0	8 1 0	37 6	91 16	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry, poison oak, and some perennial grasses.	L low	Low terrace lands generally inundated at only moderately high river flows.
V2	high terrace low terrace	0 15	0 38	9 36	22 89	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	*****	Riprap
V3	high terrace low terrace	3 1 0	7 25	0 2	0 5	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.	-	Salmon spawning areas
V4	high terrace low terrace	1 3 0	3 1 0	0 1 4	0 35	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bar.		
Sub	-total							
	high terrace	218	537	112	277			
	low terrace	25	63	68	170	and the second se		
	U	0	0	0	0	Urban or urban related		
	PR	0	0	0	ð	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	0	0	Commercial recreation		
	W	42	103	59	146	Water surface		
	OW	0	0	0	0	Oxbow lakes, isolated from river		
	R	20	50	44	109	Gravel bars, rocks, sand		
	GH	0	0	0	0	Grass, upland hardwoods, mainly oaks		
Tot	al	305	753	283	702			



Index to Sheet 24A Prime Agricultural Lands



GAGING STATIONS

0

X



Sampling Station

Ground Water Sampling Station

- Climatological Station
- Sedimentation Sampling Station
 - Waste,Discharge Point (Name of Facility)
 - Sanitary Disposal Plant (Name of Facility)

Camping Cafe, Bait, Tackle, and Gas Ш Picnicking \bigtriangleup Cafe Bait and Tackle Boat Ramp, Docks, and Rentals Gas Boat Dock or Slip \frown Archeological-Historical Sites \Leftrightarrow Boat Ramp or Hoist Boat Rentals

RECREATION FACILITIES



Land Use and Riparian Vegetation

Sym	bol	Butte C Hectares	ounty Acres	Tehama Hectares	County Acres		Denominato	or Symbols
AG	high terrace low terrace	1	2 0	35 0	86 0	General crops including grains, alfalfa, pasture, and row crops	H high	High ter
AD	high terrace low terrace	2 9 0	7 2 0	91 0	2 2 5 0	Deciduous orchard		during e river f
V I	high terrace low terrace	29 11	71 27	34 9	85 23	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry, poison oak, and some perennial grasses	Llow	Low tern inundate high riv
V2	high terrace low terrace	3 4	8 10	6 0	15 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	*****	Riprap
٧3	high terrace low terrace	0 7	0 17	0 5	0 1 2	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.	0	Salmon
٧4	high terrace low terrace	6 4	16 11	128 8	3 17 19	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bar.		
Sub	-total							
	high terrace	68	169	294	728			
	low terrace	26	65	22	54			
	U	0	0	0	0	Urban or urban related		
	PR	0	0	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	0	D	Commercial recreation		
	W	36	90	66	164	Water surface		
	OW	0	0	0	0	Oxbow lakes, isolated from river		
	R	25	62	34	84	Gravel bars, rocks, sand		
	GH	0	0	0	0	Grass, upland hardwoods, mainly oaks		
Tota	al	155	386	416	1 030			

sls

terrace lands generally from inundation except g exceptionally high flows.

errace lands generally lated at only moderately river flows.

n spawning areas


Index to Sheet 25A Prime Agricultural Lands



GAGING STATIONS

 \bigcirc

0

X

Stream Gage

- ✓ Stream Gage and Surface Water Quality Sampling Station
- \ominus
- Surface Water Quality Sampling Station
- Ground Water Sampling Station

- Climatological Station
- Sedimentation Sampling Station
 - Waste Discharge Point (Name of Facility)
 - Sanitary Disposal Plant (Name of Facility)

Cafe, Bait, Tackle, and Gas Camping \triangle Picnicking Cafe Bait and Tackle Boat Ramp, Docks, and Rentals Gas Boat Dock or Slip \bigcirc Archeological-Historical Sites \Leftrightarrow Boat Ramp or Hoist \bigcirc Boat Rentals

RECREATION FACILITIES



Index to Sheet 26 Land Use and Riparian Vegetation

Syn	nbo l	Butte C Hectares	ounty Acres	Tehama Hectares	County		Denominato	or Symbols
AG	high terrace low terrace	4 0	9	52 0	128	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally
AD	high terrace low terrace	0 0	0 0	284 0	701 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	0 0	0 0	44 22	108 55	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry, poison oak, and some perennial grasses.	Llow	Low terrace lands generally inundated at only moderately high river flows.
V2	high terrace low terrace	1 0	2 0	2 1 2 4	51 60	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	*****	Riprap
٧3	high terrace low terrace	0 0	0 0	0 1 7	0 43	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		Salmon spawning areas
٧4	high terrace low terrace	0 0	0 0	4 8 2 9	118 71	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bar.		
Sub	-total							
	high terrace low terrace	5 0	11 0	449 92	1 106 229			
	U	0	0	0	0	Urban or urban related		
	PR	0	0	D	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	0	0	Commercial recreation		
	W	5	13	75	186	Water surface		
	0W	0	0	0	0	Oxbow lakes, isolated from river		
	R	0	0	37	92	Gravel bars, rocks, sand		
	CH.	0	0	0	0	Grass, upland hardwoods, mainly oaks		



Index to Sheet 26A Prime Agricultural Lands



Hectares Acres Butte County 0 0

P Prime Agricultural Land

Tehama County 439 1 084



Commercial Gravel (Permit number or Owners name)





Public Lands (Name of Owner)





Index to Sheet 27 Land Use and Riparian Vegetation

Syn	ibo l	Tehama C Hectares	ounty Acres			Denominator Symbols
AG	high terrace low terrace	4 0	10 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	195 0	483 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	85 0	209 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grane, blackberry	L low	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	XXXXX	Riprap
V2	high terrace	23	56	Vegetation similar to VI but with less		
	low terrace	2	5	crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	-	Salmon spawning areas
٧3	high terrace	3	8	Vegetation less mature than V2, lower tree		
	low terrace	2	5	height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace low terrace	36 0	89 0	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sub	-total					
	high terrace low terrace	346 4	855 10			
	U	0	0	Urban or urban related		
	PR	54	134	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	6	15	Commercial recreation		
	W	84	207	Water surface		
	OW	0	0	Oxbow lakes, isolated from river		
	R	12	30	Gravel bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
Tot	al	506	1 251			



to Sheet 27A Index Prime Agricultural Lands

	Study Area	Boundar
000000000000	Designated	Floodwa
	1970 Flood	Line

Hectares Prime Agricultural Land Tehama County 373

3500

Commercial Gravel (Permit number or Owners name)



Public Lands (Name of Owner)

GAGING STATIONS

C

X



- Stream Gage and Surface Water Quality Sampling Station
- $-\Theta$

 ∇

P

Surface Water Quality Sampling Station



Ground Water Sampling Station

()Climatological Station (D-Sedimentation Sampling Station Waste Discharge Point (Name of Facility)

Acres

921

Sanitary Disposal Plant (Name of Facility)





Index to Sheet 28 Land Use and Riparian Vegetation

Syr	nbol	Tehama C Hectares	ounty Acres			Denominator Symbols
AG	high terrace low terrace	7 5 0	186 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace Iow terrace	368 0	909 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	64 38	157 94	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp-	Llow	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	x	Riprap
V2	high terrace low terrace	79 17	196 41	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows as subslimax vegetation		Salmon snawning areas
٧3	high terrace low terrace	4 8	9 19	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		Surmon Spanning Store
V4	high terrace low terrace	2 5 5 8	6 1 1 4 3	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sul	o-total high terrace low terrace	615 121	1 518 297			
	U	0	0	Urban or urban related		
	PR	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	W	84	208	Water surface		
	OW	3	7	Oxbow lakes, isolated from river		
	R	2 3	57	Gravel bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
To	tal	846	2 087			



Index to Sheet 28A Prime Agricultural Lands



GAGING STATIONS

 \bigcirc

X

- Stream Gage
- ✓ Stream Gage and Surface Water Quality Sampling Station

----- Surface Water Quality Sampling Station

Ground Water Sampling Station

- Climatological Station
- ♥ Sedimentation Sampling Station
- Waste Discharge Point (Name of Facility)
 - Sanitary Disposal Plant (Name of Facility)





Index to Sheet 29 Land Use and Riparian Vegetation

Syn	1bo I	Tehama Hectares	County Acres			Denominator Symbols
AG	high terrace low terrace	77 0	190 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	134 0	332 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	121 40	300 100	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry	Llow	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	x	Riprap
V2	high terrace low terrace	1.5 19	38 48	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	-	Salmon spawning areas
٧3	high terrace low terrace	2 2 8	54 21	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.	a contraction	
٧4	high terrace low terrace	69 60	170 148	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sub	o-total					
	high terrace low terrace	438 127	1 084 317			
	U	0	0	Urban or urban related		
	PR	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	W	89	221	Water surface		
	OW	0	0	Oxbow lakes, isolated from river		
	R	106	262	Gravel bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
Tot	tal	760	1 884			



to Sheet 29A Index Prime Agricultural Lands

Study Area Boundary Designated Floodway 000000 1970 Flood Line

> Hectares P Tehama County 419 Prime Agricultural Land

3500

Commercial Gravel (Permit number or Owners name)

Snag

 \ominus

Boat Ramp or Hoist

Boat Rentals

Public Lands (Name of Owner)

RECREATION FACILITIES Cafe, Bait, Tackle, and Gas Cafe Bait and Tackle Gas Archeological - Historical Sites

GAGING STATIONS Climatological Station Camping \bigcirc (**b**-Sedimentation Sampling Station Picnicking Waste Discharge Point (Name (Name of Facility) Boat Ramp, Docks, C and Rentals Sanitary Disposal Plant (Name of Facility) Boat Dock or Slip X

Stream Gage and Surface Water Quality Sampling Station

Surface Water Quality Sampling Station

Stream Gage

 ∇

 $-\Theta$

Ground Water Sampling Station

Acres 1 036



Index to Sheet 30 Land Use and Riparian Vegetation

Sym	1bo l	Tehama Hectares	County Acres			Denominator Symbols
AG	high terrace low terrace	153 0	378 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	61 0	150 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	65 57	160 141	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry,	L low	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	****	Riprap
V2	high terrace low terrace	2 11	5 2 6	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows are subcliman vegetation	1	Salmon snawning areas
	bish tarrasa		2	Vegetation less mature than V2 lower tree		Surmon opunning artist
V3	low terrace	2	4	height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace low terrace	1 3 3	3 8 1	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sub	n-total					
	high terrace low terrace	283 103	698 252			
	U	0	0	Urban or urban related		
	PR	6	14	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	9	23	Commercial recreation		
	W	78	192	Water surface		
	OW	10. I		Oxbow lakes, isolated from river		
	R	40	98	Gravel bars, rocks, sand	20	
	GH	0	0	Grass, upland hardwoods, mainly oak		
Tot	tal	520	1 278			



to Sheet 30A Index Prime Agricultural Lands



Study Area Boundary



Commercial Gravel (Permit number or Owners name)



Snag



Public Lands (Name of Owner)

RECREATION FACILITIES Cafe, Bait, Tackle, and Gas Camping Π Picnicking Cafe Bait and Tackle Boat Ramp, Docks, and Rentals Gas Boat Dock or Slip Archeological-Historical Sites Boat Ramp or Hoist Boat Rentals



Index to Sheet 31 Land Use and Riparian Vegetation

Hectares Acres 81 200 H high High terrace lands generally AG high terrace General crops including grains, alfalfa, low terrace pasture, and row crops. free from inundation except Π 0 during exceptionally high 4 Deciduous orchard AD high terrace 10 river flows. low terrace 0 0 234 VI high terrace 95 Large climax vegetation restricted mainly L low Low terrace lands generally 24 59 to black walnuts, cottonwoods, sycamores, inundated at only moderately low terrace high river flows. oaks, and alders with an understory comprised of box elder, grape, blackberry, poison oak, and some perennial grasses. XXXXX Riprap Vegetation similar to VI but with less 56 V2 high terrace 23 crown density and tree height. Mix of low terrace 5 13 trees tends more toward alders, cottonwoods, Salmon spawning areas and willows -- subclimax vegetation. Vegetation less mature than V2, lower tree V3 high terrace 15 38 height, open crown density. Comprised mainly 2 5 low terrace of young alders, cottonwoods, and willows. 1.1 Comprised mainly of forbs, grasses, and low-132 53 high terrace growing willows and alders. Generally the low terrace 12 29 next vegetative step above raw gravel bars. Sub-total 670 271 high terrace 43 106 low terrace 0 0 Urhan or urban related U 0 0 Formal parks, e.g. Woodson Bridge State Park. PR Commercial recreation 0 0 Rc 207 84 Water surface W 0 0 Oxbow lakes, isolated from river OW 80 32 Gravel bars, rocks, sand R 0 0 Grass, upland hardwoods, mainly oak GH

Tehama Gounty

1 063

430

Symbol

V4

Total

Denominator Symbols



to Sheet 31A Index Agricultural Lands Prime

Study Area Boundary Designated Floodway 000000000000 1970 Flood Line

> Hectares Acres Tehama County 213 P 527 Prime Agricultural Land



Commercial Gravel (Permit number or Owners name)



Owner

Public Lands (Name of Owner)



GAGING STATIONS

Stream Gage

- ∇
- Stream Gage and Surface Water Quality Sampling Station
- \rightarrow

Surface Water Quality Sampling Station



Ground Water Sampling Station

- Climatological Station ()
 - Sedimentation Sampling Station

 - Sanitary Disposal Plant
- P 1

X

- Waste Discharge Point (Name of Facility)



Index to Sheet 32

Land Use and Riparian Vegetation

Symbol		Tehama Hectares	County			Denominator Symbols
		166 641 65	ACTOS			
AG	high terrace Iow terrace	75 0	186 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	168 41	4 1 4 1 0 1	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grane, blackberry	L low	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	x	Riprap
V2	high terrace low terrace	2 5 2 7	61 67	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace	1	3	Vegetation less mature than V2, lower tree		
10	low terrace	14	35	height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace low terrace	7 1 5 1	175 127	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sul)-total					
	high terrace low terrace	340 133	839 330			
	U	2	6	Urban or urban related		
	PR	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	W	98	242	Water surface		
	OW	2	4	Oxbow lakes, isolated from river		
	R	63	155	Gravel bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
To	tal	638	1 576			



Index to Sheet 32A Agricultural Lands Prime



RECREATION FACILITIES

Cafe, Bait, Tackle, and Gas

Bait and Tackle

Archeological=Historical Sites



Index to Sheet 33 Land Use and Riparian Vegetation

Symbol		Tehama C	ounty			
		Hectares	Acres			Denominator Symbols
AG	high terrace low terrace	1 2 0	29 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace Iow terrace	0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	19 41	47 101	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry,	Llow	Low terrace lands generally inundated at only moderately hjigh river flows.
				poison oak, and some perennial grasses.	X X X X X	Riprap
٧2	high terrace	0	0	Vegetation similar to VI but with less		
	low terrace	21	51	crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace	0	0	Vegetation less mature than V2, lower tree		
	low terrace	9	23	height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace	0	0	Comprised mainly of forbs, grasses, and low-		
	low terrace	66	163	growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Su	b-total					
	high terrace	31	76 338			
		0	0	Urban or urban related		
	PR	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	1	T	Commercial recreation		
	W	84	208	Water surface		
	 NW	4	11	Oxbow lakes, isolated from river		
	R	1 3	31	Gravel bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
Τo	tal	270	665			



Index to Sheet 33A Prime Agricultural Lands





Index to Sheet 34 Land Use and Riparian Vegetation

Symbol		Tehama Hectares	County Acres			Denominator Symbols
AG	high terrace low terrace	D 0	0 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	2 8 6	68 14	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry	Llow	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	x x x x x	Riprap
V2	high terrace low terrace	0 0	0 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace low terrace	0 19	0 48	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace low terrace	126 4	312 10	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sul	o-total high terrace low terrace	154 29	380 72			
	U	0	0	Urban or urban related		
	PR	10	25	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	W	97	240	Water surface		
	OW	0	0	Oxbow lakes, isolated from river		
	R	7	17	Gravel bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
To	tal	297	734			


Index to Sheet 34A Prime Agricultural Lands



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Index to Sheet 35 Land Use and Riparian Vegetation

Syr	nbol	Tehama Hectares	County Acres			Denominator Symbols
AG	high terrace low terrace	0 0	0 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	0 0	0 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder grane, blackberry	Llow	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	x x x x x	Riprap
V2	high terrace low terrace	5 0	13 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace	3	7	Vegetation less mature than V2, lower tree		
	low terrace	10	24	height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace	11	28	Comprised mainly of forbs, grasses, and low-		
	low terrace	16	39	growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sut	o-total	1.0	4.8			
	high terrace low terrace	26	63			
	U	0	0	Urban or urban related		
	PR	16	39	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	W	102	251	Water surface		
	OW	1	3	Oxbow lakes, isolated from river		
	R	6	16	Gravel bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
To	tal	170	420			



to Sheet 35A Index Prime Agricultural Lands

Study Area Boundary Designated Floodway 0 0 0 0 0 0 0 0 0 0 0 0 1970 Flood Line

> Hectares Acres P Prime Agricultural Land Tehama County 7

3500

Commercial Gravel (Permit number or Owners name)



Owner, j

Public Lands (Name of Owner)

GAGING STATIONS

Stream Gage

- Stream Gage and Surface Water ∇ Quality Sampling Station
 - Surface Water Quality Sampling Station



 Θ

Ground Water Sampling Station

 \bigcirc Climatological Station P Sedimentation Sampling Station

17

Waste Discharge Point (Name of Facility)

C

X

Sanitary Disposal Plant (Name of Facility)





Index to Sheet 36 Land Use and Riparian Vegetation

Syr	nbo I	Tehama Hectares	County Acres		Denominator Symbols
AG	high terrace low terrace	1 2	3 5	General crops including grains, alfalfa, H high pasture, and row crops.	High terrace lands generally free from inundation except
AD	high terrace low terrace	-0 0	0 0	Deciduous orchard	during exceptionally high river flows.
VI	high terrace low terrace	7 0	18 0	Large climax vegetation restricted mainly L low to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of bay elder, grane, blackberry	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	Riprap
V2	high terrace Iow terrace	2 2 0	55 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	Salmon spawning areas
٧3	high terrace Iow terrace	0 0	0 0	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.	
٧4	high terrace low terrace	13 21	32 51	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.	
Sub	o-total				
	high terrace low terrace	43 23	108 56		
	U	1	3	Urban or urban related	
	PR	1	2	Formal parks, e.g. Woodson Bridge State Park.	
	Rc	0	0	Commercial recreation	
	W	64	159	Water surface	
	OW	0	0	Oxbow lakes, isolated from river	
	R	0	0	Gravel bars, rocks, sand	
	GH	0	0	Grass, upland hardwoods, mainly oak	
Tot	al	132	328		



Index to Sheet 36A Prime Agricultural Lands



Hectares Acres P Prime Agricultural Land Tehama County 7 18



Owner

Commercial Gravel (Permit number or Owners name)

RECREATION FACILITIES



Public Lands (Name of Owner)

GAGING STATIONS

0

X

- Stream Gage

- ∇
- Stream Gage and Surface Water Quality Sampling Station



Ground Water Sampling Station

- \bigcirc Climatological Station
- P Sedimentation Sampling Station
 - Waste Discharge Point (Name of Facility)
 - Sanitary Disposal Plant (Name of Facility)

	Camping	Cafe, Bait, Tackle, and Gas
\triangle	Picnicking	Cafe
	Boat Ramp, Docks, and Rentals	Bait and Tackle
\diamondsuit	Boat Dock or Slip	bas
\Leftrightarrow	Boat Ramp or Hoist	ATCHEOTOgical = MISCOTICAL SILES
\Diamond	Boat Rentals	



Index to Sheet 37 Land Use and Riparian Vegetation

Syn	ibo l	Tehama Hectares	County Acres			Denominator Symbols
AG	high terrace low terrace	15 0	36 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	6 0	1 4 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grane, blackberry	Llow	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	x x x x x	Riprap
V2	high terrace low terrace	8 0	19 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace low terrace	D 3	0 8	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
V4	high terrace low terrace	13 0	3 1 0	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sut	-total high terrace low terrace	42 3	100 8			
	U	0	0	Urban or urban related		
	PR	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	W	71	176	Water surface		
	OW	0	0	Oxbow lakes, isolated from river		
	R	8	19	Gravel bars, rocks, sand		
	GH	372	918	Grass, upland hardwoods, mainly oak		
Tot	al	496	1 221			



Index to Sheet 37A Prime Agricultural Lands





Index to Sheet 38

Land Use and Riparian Vegetation

Syn	160 l		Tehama Hectares	County Acres			Denominator Symbols
AG	high terrace Iow terrace		0 0	0 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace		0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace		13 0	33 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grane, blackberry	L low	Low terrace lands generally inundated at only moderately high river flows.
					poison oak, and some perennial grasses.	x x x x x	Riprap
V2	high terrace low terrace		0 2 1	0 5 1	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace Iow terrace		0 0	0 0	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace low terrace		0 35	0 8 7	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sub	-total high terrace low terrace		13 56	33 138			
	U		0	0	Urban or urban related		
	PR		0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc		0	0	Commercial recreation		
	W		53	131	Water surface		
	OW		0	0	Oxbow lakes, isolated from river		
	R		8	19	Gravel bars, rocks, sand	i.	
	GH		93	229	Grass, upland hardwoods, mainly oak		
Tot	al		223	550			



Index to Sheet 38A Prime Agricultural Lands





Index to Sheet 39 Land Use and Riparian Vegetation

Syn	1bo I	Tehama Hectares	County Acres			Denominator Symbols
AG	high terrace low terrace	0 0	0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	19 0	46 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry	L low	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	x	Riprap
V2	high terrace low terrace	0 6	0 15	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace low terrace	0 0	0 0	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
V4	high terrace low terrace	5 1 1	13 27	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sub	-total		22.5			
	high terrace low terrace	24 17	59 42			
	U	0	0	Urban or urban related		
	PR	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	W	41	101	Water surface		
	OW	0	0	Oxbow lakes, isolated from river		
	R	_ 1	3	Gravel bars, rocks, sand		
	GH	142	350	Grass, upland hardwoods, mainly oak		
Tot	al	225	555			



Index to Sheet 39A Prime Agricultural Lands





Index to Sheet 40 Land Use and Riparian Vegetation

Syn	ibo l	Tehama (Hectares	County Acres			Denominator Symbols
AG	high terrace low terrace	4 0	10 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	1 0	3 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry	Llow	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	x x x x x	Riprap
V2	high terrace low terrace	5 4	12 10	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace low terrace	0 1 1	0 27	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
V4	high terrace low terrace	0 1 0	0 25	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sub	-total					
	high terrace low terrace	10 25	25 62			
	U	0	0	Urban or urban related		
	PR	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	W	37	92	Water surface		
	OW	0	0	Oxbow lakes, isolated from river		
	R	0	0	Gravel bars, rocks, sand		
	GH	178	440	Grass, upland hardwoods, mainly oak		
Tot	al	250	619			



Index to Sheet 40A Prime Agricultural Lands





Index to Sheet 41 Land Use and Riparian Vegetation

Sym	bol	Tehama C Hectares	ounty Acres			Denominator Symbols
AG	high terrace low terrace	4 0	11 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	0 0	0 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry,	L low	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	X X X X X	Riprap
٧2	high terrace	2	6	Vegetation similar to VI but with less		
	low terrace	1	3	crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace	4	11	Vegetation less mature than V2, lower tree		
	low terrace	0	0	height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
V4	high terrace	7	17	Comprised mainly of forbs, grasses, and low-		
	low terrace	0	0	growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sub	-total					
	high terrace	17	45			
		0	0	Urban or urban related		
	U Da	0	0	Formal parks e g Woodson Bridge State Park.		
	P K	0	0	Commercial recreation		
	RC	46	113			
	W	40	0			
	OW	U	U	Uxbow lakes, isolated from river		
	R	5	13	Gravel bars, rocks, sand		
	GH	282	696	Grass, upland hardwoods, mainly oak		
Tot	al	351	870			



Index to Sheet 41A Prime Agricultural Lands

P Prime Agricultural Land Tehama County 7 18



Commercial Gravel (Permit number or Owners name)

s Snag



Public Lands (Name of Owner)

GAGING STATIONS

- Stream Gage
- ✓ Stream Gage and Surface Water Quality Sampling Station

 \ominus

Surface Water Quality Sampling Station



Ground Water Sampling Station

- Climatological Station
- ♥ Sedimentation Sampling Station
- Waste Discharge Point (Name of Facility)
- Sanitary Disposal Plant





Index to Sheet 42 Land Use and Riparian Vegetation

Syr	nbo l	Tehama C <u>Hectares</u>	ounty Acres			Denominator Symbols
AG	high terrace low terrace	44 0	109 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	0 0	0 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of hox elder, grape, blackberry,	Llow	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	x x x x x	Riprap
V2	high terrace low terrace	0 0	0 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace low terrace	D D	0 0	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace low terrace	0 0	0 0	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sut	o-total high terrace low terrace	4 4 0	109 0			
	U	0	0	Urban or urban related		
	PR	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	W	36	90	Water surface		
	OW	0	0	Oxbow lakes, isolated from river		
	R	6	15	Gravel bars, rocks, sand	r	
	GH	174	429	Grass, upland hardwoods, mainly oak		
To	tal	260	643			



Index to Sheet 42A Prime Agricultural Lands





Index to Sheet 43 Land Use and Riparian Vegetation

Syn	1bo l	Tehama C Hectares	ounty Acres			Denominator Symbols
AG	high terrace low terrace	1 0	3 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	25 10	61 24	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grane, blackberry	Llow	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	x x x x x	Riprap
V2	high terrace low terrace	5 1	12 3	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace	0	0	Vegetation less mature than V2, lower tree		
	low terrace	13	33	height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace low terrace	3 4 1	83 2	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sub)-total					
	high terrace	65 25	159			
	1	0	0	Urban or urban related		
	PR	15	36	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	W	49	121	Water surface		
	OW	٥	0	Oxbow lakes, isolated from river		
	R	1	2	Gravel bars, rocks, sand		
	GH	3	8	Grass, upland hardwoods, mainly oak		
Tot	tal	158	388			


APPROXIMATE SCALE I INCH = 1000 FEET ENLARGED FROM EXPOSURE NO. WR-AFV-I-91 PHOTOGRAPHED AUGUST 1976 SYMBOL WR-AFV FOCAL LENGTH 152.66 mm STATE OF CALIFORNIA THE RESOURCES AGENCY UPPER SACRAMENTO RIVER TASK FORCE SACRAMENTO RIVER COLUSA TO KESWICK DAM

2 TEHAMA COUNTY SHEET Land Use and Riparian Vegetation 43

Index to Sheet 43A Prime Agricultural Lands





Index to Sheet 44

Land Use and Riparian Vegetation

11 81

Symbol		Tehama	County			and the second second
		Hectares	Acres			Denominator Symbols
AG	high terrace low terrace	1 0	3 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace Iow terrace	0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	8 12	19 29	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry,	L low	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	x x x x x	Riprap
V2	high terrace low terrace	0 28	0 69	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace low terrace	0 11	0 2 6	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace low terrace	0 57	0 140	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Su	b-total					
	high terrace low terrace	9 108	2 2 2 6 4			
	U	0	0	Urban or urban related		
	PR	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	w	47	115	Water surface		
	OW	0	0	Oxbow lakes, isolated from river		
	R	45	111	Gravel bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
То	tal	209	512			



Index to Sheet 44A Prime Agricultural Lands

Study Area Boundary Ococococoo Designated Floodway 1970 Flood Line

> Hectares Acres P Prime Agricultural Land Tehama County 11 27



Commercial Gravel (Permit number or Owners name)





Public Lands (Name of Owner)

GAGING STATIONS

0

 \square

- Stream Gage
- ✓ Stream
 - Stream Gage and Surface Water Quality Sampling Station
- Surface Water Quality Sampling Station
 - Ground Water Sampling Station

- Climatological Station
- ♥ Sedimentation Sampling Station
 - Waste Discharge Point (Name of Facility)
 - Sanitary Disposal Plant (Name of Facility)

RECREATION FACILITIES Cafe, Bait, Tackle, and Gas Camping Ш \triangle Picnicking Cafe Boat Ramp, Docks, Bait and Tackle and Rentals Gas \bigcirc Boat Dock or Slip Archeological - Historical Sites \Leftrightarrow Boat Ramp or Hoist \bigcirc Boat Rentals



Index to Sheet 45

Land Use and Riparian Vegetation

Syn	nbol	Shasta Hectares	County Acres	Tehama C Hectares	ounty Acres		Denominato	or Symbols
AG	high terrace low terrace	0	0	5 0	13 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally
AD	high terrace low terrace	0 0	0 0	D 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	18 0	45 0	17 4	41 10	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry, poison oak, and some perennial grasses.	L low	Low terrace lands generally inundated at only moderately high river flows.
V2	high terrace low terrace	0 0	0 0	4 0	9 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	****	Riprap
٧3	high terrace low terrace	1 0 0	2 4 0	0 5	0 12	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		Salmon spawning areas
٧4	high terrace low terrace	9 0	23 0	35 19	86 47	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bar.		
Sub	o-total							
	high terrace	37	92	60	149			
	low tettace	U D	U	28	69	Urban or urban related		
	U	15	36	0	0	Formal parks e g Woodson Bridge State Park.		
	PK	0	0	0	0	Commercial recreation		
	w	21	52	46	113	Water surface		
	n Ow	0	0	0	0	Oxbow lakes, isolated from river		
	P	0	0	43	106	Gravel bars, rocks, sand		
	GH	0	0	0	0	Grass, upland hardwoods, mainly oaks		
Tot	tal	73	180	177	437			



Index to Sheet 45A Prime Agricultural Lands





Index to Sheet 46 Land Use and Riparian Vegetation

Syı	1bo l	Shasta C Hectares	ounty Acres			Denominator Symbols
AG	high terrace low terrace	0 0	0 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	2 8 0	68 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry	Llow	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	x	Riprap
V2	high terrace low terrace	3 2 4	80 9	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace low terrace	1 0	3 0	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace Iow terrace	6 1 9	151 23	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sul)-total					
	high terrace low terrace	122	302 32			
	U	0	0	Urban or urban related		
	PR	4	11	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	2	6	Commercial recreation		
	W	59	146	Water surface		
	OW	0	0	Oxbow lakes, isolated from river		
	R	0	0	Gravel bars, rocks, sand	-	
	GH	0	0	Grass, upland hardwoods, mainly oak		
To	tal	201	498			



Index to Sheet 46A Prime Agricultural Lands

PPrime Agricultural LandShasta CountyHectaresAcres44109



Commercial Gravel (Permit number or Owners name)



Owner ?

Public Lands (Name of Owner)

GAGING STATIONS

X

- V Stream Gage
- Stream Gage and Surface Water Quality Sampling Station
- Surface Water Quality Sampling Station
 - Ground Water Sampling Station

- Climatological Station
 Sedimentation Sampling St
 - Sedimentation Sampling Station
- Waste Discharge Point (Name of Facility)





RECREATION FACILITIES





Index to Sheet 47 Land Use and Riparian Vegetation

Syn	ıbo l	Shasta Hectares	County Acres			Denominator Symbols
AG	high terrace low terrace	0 0	0 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace Iow terrace	0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	6 0	16 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grane, blackberry	L low	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	XXXXX	Riprap
V2	high terrace low terrace	22 7	54 18	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.	-	Salmon spawning areas
٧3	high terrace low terrace	0 0	0 0	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.	1000 C	
V4	high terrace Iow terrace	49 0	120 0	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sut	n-total high terrace low terrace	77 7	190 18			
	U	0	0	Urban or urban related		
	PR	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	W	46	113	Water surface		
	OW	0	0	Oxbow lakes, isolated from river		
	R	10	24	Gravel bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
Tot	tal	140	345			



Index to Sheet 47A Agricultural Lands Prime

Study Area Boundary Designated Floodway 1970 Flood Line

> P Prime Agricultural Land Shasta County

X

Hectares Acres 19 47

3500

Commercial Gravel (Permit number or Owners name)



Snag



Public Lands (Name of Owner)

GAGING STATIONS

- Stream Gage
- Stream Gage and Surface Water ∇ Quality Sampling Station



- Surface Water Quality Sampling Station
- Ground Water Sampling Station

- Climatological Station
- Ð Sedimentation Sampling Station





Sanitary Disposal Plant (Name of Facility)



Boat Ramp or Hoist

Boat Rentals

RECREATION FACILITIES





Index to Sheet 48 Land Use and Riparian Vegetation

Syn	bol	Shasta C Hectares	ounty Acres			Denominator Symbols
AG	high terrace low terrace	1 2 0	2 9 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	56 0	138 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of bay elder, grane, blackbarry	Llow	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	****	Riprap
V2	high terrace low terrace	8 6	19 14	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace Iow terrace	7 4 9	18 122	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace low terrace	51 30	127 75	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sub	-total	104	201			
	high terrace low terrace	85	211			
	U	6	15	Urban or urban related		
	PR	4	9	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	W	72	177	Water surface		
	OW	5	13	Oxbow lakes, isolated from river		
	R	15	36	Gravel bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
Tot	al	321	792			



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Study Area Boundary ooooooooo Designated Floodway 1970 Flood Line

P Prime Agricultural Land Shasta County 83 204

3500

Commercial Gravel (Permit number or Owners name)



20wner

Public Lands (Name of Owner)

GAGING STATIONS

X

Stream Gage

✓ Stream Gage and Surface Water Quality Sampling Station

Surface Water Quality Sampling Station

Ground Water Sampling Station

- Climatological Station
- ♥ Sedimentation Sampling Station



Sanitary Disposal Plant (Name of Facility)

RECREATION FACILITIES Camping Cafe, Bait, Tackle, and Gas Π \triangle Picnicking Cafe NO E Bait and Tackle Boat Ramp, Docks, and Rentals 7- 1-Gas Boat Dock or Slip Archeological - Historical Sites \Leftrightarrow Boat Ramp or Hoist \bigcirc Boat Rentals



Index to Sheet 49 Land Use and Riparian Vegetation

Syn	ibo l		Shasta Hectares	County Acres			Denominator Symbols
AG	high terrace Iow terrace		0 0	0 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace Iow terrace		0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace Iow terrace		49 0	120 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder grane, blackberry	Llow	Low terrace lands generally inundated at only moderately high river flows.
					poison oak, and some perennial grasses.	x x x x x	Riprap
V2	high terrace low terrace		5 1 0	125 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace low terrace		0 0	0 0	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace low terrace		4 1 0	102 0	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sub	-total high terrace low terrace		141 0	3 47 0			
	U		3	8	Urban or urban related		
	PR		7	18	Formal parks, e.g. Woodson Bridge State Park.		
	Rc		0	0	Commercial recreation		
	W		64	157	Water surface		
	OW		0	0	Oxbow lakes, isolated from river		
	R		0	0	Gravel bars, rocks, sand		
	GH		0	0	Grass, upland hardwoods, mainly oak		
Tot	al		215	530			



Index to Sheet 49A Prime Agricultural Lands

Study Area BoundaryooooooooooDesignated Floodway1970 Flood Line

Hectares Acres Prime Agricultural Land Shasta County 69 171



Commercial Gravel (Permit number or Owners name)

s Snag

Cowner 3

Public Lands (Name of Owner)



 \bigcirc

C

X

Stream Gage

Stream Gage and Surface Water Quality Sampling Station

- Surface Water Quality Sampling Station
- -0

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P

Ground Water Sampling Station

Climatological Station

● Sedimentation Sampling Station

Waste Discharge Point (Name (Name of Facility)

Sanitary Disposal Plant (Name of Facility)





Index to Sheet 50 Land Use and Riparian Vegetation

Symbol	Shasta County Hectares Acres			Denominator Symbols
AG high terrace low terrace	0 0 0 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD high terrace low terrace	0 0 0 0	Deciduous orchard		during exceptionally high river flows.
VI high terrace low terrace	40 100 0 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of bay older, grand, blackbarry	Llow	Low terrace lands generally inundated at only moderately high river flows.
		poison oak, and some perennial grasses.	x x x x x	Riprap
V2 high terrace low terrace	48 119 0 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
V3 high terrace low terrace	0 0 15 37	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
V4 high terrace low terrace	37 91 1 3	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sub-total high terrace low terrace	125 310 16 40			
U	25 62	Urban or urban related		
PR	0 0	Formal parks, e.g. Woodson Bridge State Park.		
Rc	0 0	Commercial recreation		
W	132 326	Water surface		
OW	2 6	Oxbow lakes, isolated from river		
R	62 154	Gravel bars, rocks, sand		
GH	0 0	Grass, upland hardwoods, mainly oak		
Total	362 898			



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P Prime Agricultural Land Shasta County 66 162



Commercial Gravel (Permit number or Owners name)

s Snag



Public Lands (Name of Owner)

GAGING STATIONS

0

- Stream Gage
- ✓ Stream Gage and Surface Water Quality Sampling Station

Surface Water Quality Sampling Station

Ground Water Sampling Station

- Climatological Station
- G- Sedimentation Sampling Station
 - Waste Discharge Point (Name (Name of Facility)
- Sanitary Disposal Plant (Name of Facility)





Index to Sheet 51

Land Use and Riparian Vegetation

Syn	nbo I	Shasta Hectares	County Acres			Denominator Symbols
AG	high terrace low terrace	0 0	0 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace Iow terrace	0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	0 0	0 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry,	Llow	Low terrace lands generally inundated at only moderately high river flows.
V2	high terrace low terrace	35 0	86 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwood and willows subclimax vegetation.	ds,	Kipiap Salmon spawning areas
٧3	high terrace low terrace	14 18	35 44	Vegetation less mature than V2, lower tree height, open crown density. Comprised main of young alders, cottonwoods, and willows.	e 1 l y	
٧4	high terrace low terrace	6 2 4	153 11	Comprised mainly of forbs, grasses, and lo growing willows and alders. Generally the next vegetative step above raw gravel bars	рж- 5.	
Sut	o-total high terrace low terrace	111 22	274 55			
	U	11	27	Urban or urban related		
	PR	0	0	Formal parks, e.g. Woodson Bridge State Pa	ark.	
	Rc	0	0	Commercial recreation		
	W	80	198	Water surface		
	OW	0	0	Oxbow lakes, isolated from river		
	R	46	113	Gravel bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
Tot	tal	270	667			



Index to Sheet 51A Prime Agricultural Lands

Study Area Boundary ooooooooo Designated Floodway 1970 Flood Line

Prime Agricultural Land

P

3500

Commercial Gravel (Permit number or Owners name)

RECREATION FACILITIES

S Snag

Owner 3

Public Lands (Name of Owner)

GAGING STATIONS

Shasta County



Hectares

16

Acres

39

Camping Cafe, Bait, Tackle, and Gas Picnicking Cafe Boat Ramp, Docks, and Rentals Gas Boat Dock or Slip Archeological=Historical Sites Boat Rentals



Index to Sheet 52 Land Use and Riparian Vegetation

Syn	ibo l	Shasta Hectares	County Acres			Denominator Symbols
AG	high terrace low terrace	0 0	0 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generall free from inundation except
AD	high terrace low terrace	0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	0 0	0 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder, grape, blackberry,	Llow	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	x	Riprap
V2	high terrace low terrace	0	0 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace low terrace	7 19	18 47	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace low terrace	9 9	2 3 2 2	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sub	i-total	10				
	high terrace low terrace	28	69			
	U	0	0	Urban or urban related		
	PR	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	W	99	245	Water surface		
	OW	0	0	Oxbow lakes, isolated from river		
	R	2	4	Gravel bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
Tot	al	145	359			




0

Surface Water Quality Sampling Station

Ground Water Sampling Station

Waste Discharge Point (Name (Name of Facility) C

Sanitary Disposal Plant (Name of Facility)

X





Index to Sheet 53 Land Use and Riparian Vegetation

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Syn	nbol	Shasta Hectares	County Acres	~		Denominator Symbols
AG	high terrace low terrace	0	0 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	5 0	12 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp-	Llow	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	X X X X X	Riprap.
V2	high terrace low terrace	2 0 0	4 9 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace low terrace	0 14	0 34	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace low terrace	6 0	1 4 0	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sub)-total high terrace low terrace	3 1 1 4	75 34			
	U	7	18	Urban or urban related		
	PR	2	5	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	w	86	212	Water surface.		
	OW	0 '	0	Oxbow lakes, isolated from river		
	R	12	30	Gravel bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
Tot	tal	152	374			



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P Prime Agricultural Land Shasta County 0 0



Commercial Gravel (Permit number or Owners name)



. . . .



Public Lands (Name of Owner)



C

X

- Stream Gage
- ✓ Stream Gage and Surface Water Quality Sampling Station
- Surface Water Quality Sampling Station



Ground Water Sampling Station

Climatological Station

Gereal Sedimentation Sampling Station

Waste Discharge Point (Name (Name of Facility)

Sanitary Disposal Plant (Name of Facility)



RECREATION FACILITIES





Index to Sheet 54 Land Use and Riparian Vegetation

Syr	nbo I	Shasta Hectares	County Acres			Denominator Symbols
AG	high terrace low terrace	0 0	0 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	0	0 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder grane, blackberry	Llow	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	****	Riprap
V2	high terrace low terrace	0 0	0 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace low terrace	0 11	0 2 8	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of youn alders, cottonwoods, and willows.		
٧4	high terrace low terrace	7 0	17 0	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sut	o-total high terrace low terrace	7 11	17 28			
	U	0	0	Urban or urban related		
	PR	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	W	43	107	Water surface		1
	OW	0	0	Oxbow lakes, isolated from river		
	R	12	29	Gravel bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
To	tal	73	181			



Index to Sheet 54A Prime Agricultural Lands



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are.



Index to Sheet 55 Land Use and Riparian Vegetation

Syn	1bo l	Shasta Hectares	County Acres			Denominator Symbols
AG	high terrace low terrace	0 0	0 0	General crops including grains, alfalfa, pasture, and row crops.	H high	High terrace lands generally free from inundation except
AD	high terrace low terrace	0 0	0 0	Deciduous orchard		during exceptionally high river flows.
VI	high terrace low terrace	0 0	0 0	Large climax vegetation restricted mainly to black walnuts, cottonwoods, sycamores, oaks, and alders with an understory comp- rised of box elder grape blackberry	Llow	Low terrace lands generally inundated at only moderately high river flows.
				poison oak, and some perennial grasses.	x x x x x	Riprap
V2	high terrace low terrace	0 0	0 0	Vegetation similar to VI but with less crown density and tree height. Mix of trees tends more toward alders, cottonwoods, and willows subclimax vegetation.		Salmon spawning areas
٧3	high terrace Iow terrace	0 0	0 0	Vegetation less mature than V2, lower tree height, open crown density. Comprised mainly of young alders, cottonwoods, and willows.		
٧4	high terrace low terrace	0 0	0 0	Comprised mainly of forbs, grasses, and low- growing willows and alders. Generally the next vegetative step above raw gravel bars.		
Sub	o-total high terrace low terrace	0 0	0 0			
	U	0	0	Urban or urban related		
	PR	0	0	Formal parks, e.g. Woodson Bridge State Park.		
	Rc	0	0	Commercial recreation		
	W	18	45	Water surface		
	OW	0	0	Oxbow lakes, isolated from river		
	R	0	0	Gravel bars, rocks, sand		
	GH	0	0	Grass, upland hardwoods, mainly oak		
Tot	tal	18	45			



Index to Sheet 55A Prime Agricultural Lands

	Study Area	Boundary
0 0 0 0 0 0 0 0 0 0 0 0	Designated	Floodway
	1970 Flood	Line

Prime Agricultural Land Shasta County

Hectares Acres



Commercial Gravel (Permit number or Owners name)



Owner

Public Lands (Name of Owner)

GAGING STATIONS

0

X



- $-\Theta$

V

P

- Stream Gage and Surface Water Quality Sampling Station
- Surface Water Quality Sampling Station



Ground Water Sampling Station

- Climatological Station
- **P** Sedimentation Sampling Station
 - Waste Discharge Point (Name (Name of Facility)

Sanitary Disposal Plant (Name of Facility)



