MINUTE ITEM

This Calendar Item No. 16 was approved as Minute Item No. 16 by the State Lands Commission by a vote of 3 to 0 at its 9/25/86 meeting.

CALENDAR ITEM

16

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09/25/86
W 23451
Horn

CONSIDERATION OF FINAL REPORT ON THE SACRAMENTO RIVER CARRYING CAPACITY STUDY AND ADOPTION OF COURSE OF ACTION REGARDING THE STUDY AND THE COMMISSION'S MORATORIUM ON MARINA CONSTRUCTION

BACKGROUND:
On July 12, 1984, the State Lands Commission imposed a moratorium on marina development along the Sacramento River within Sacramento and Yolo counties, until a comprehensive study of the cumulative effects of existing and proposed marina development on the River's carrying capacity is completed.

The purpose of the study was to assess the marina carrying capacity of the Sacramento River from River Mile (RM) 44.8, approximately one and one-half miles below Freeport, up river to RM 76.0, just above the Sacramento/Sutter county line. Carrying capacity is defined as "the extent to which the Sacramento River and its adjacent banks can carry marina development without significant negative impact on other human, ecological or water quality benefits associated with the river system".

A principal focus of the study was to develop criteria which could be used by the Commission and local agencies to evaluate what level of marina development could be accommodated within the study area, in balance with competing uses for the river and with resource protection. The study would provide the Commission, other public agencies, and prospective developers with a common information base to: a) use in their respective planning efforts; b) assess specific project proposals in a more comprehensive way; and c) incorporate relevant information into future project and site specific environmental impact reports.

(PAGES 125-126.17 ADDED 09/23/86)

CURRENT COMMISSION ACTION:
At its meeting on May 22, 1986, the Commission took the following action with regard to the report and the moratorium:

a) Authorized distribution of the report for public review and comment and directed staff to report back to the Commission at its August meeting;

b) Approved augmentation of the original contract to supplement the data presented in the interim report; and

c) Maintained in effect the moratorium until completion of the public review and comment period and the completion of additional studies regarding wave wash on the berms in the study area and a peak use study.

STUDY CONCLUSIONS AND RECOMMENDATIONS:
At the Commission's direction, staff has submitted the interim report to local, state and federal officials for review and comment as well as to interested and affected parties. Of the dozen or so commenting parties, nearly all fully support the interim report's findings and conclusions. Most comments were nonsubstantive in nature and did not require a direct response in the final report. Those comments that included technical or other suggested changes have, however, been addressed in a revised final report. The final report includes the data derived from the peak-use study and also discusses the wave wash effects on berms.

A revised Executive Summary of the report which also details report findings, conclusions and recommendations is attached as an exhibit. The revised summary includes additional findings and recommendations regarding the data and analysis by the contractor on the peak use study and berm wave wash effects.

The staff has reviewed the revised report and finds that most of the findings and conclusions are reasonable, supported within the report or otherwise and accurately present the current state of marina development and its effect on the river. These findings and conclusions have formed the basis for many recommendations by the report's author - Riparian Systems/Meyer Resources, Inc.

In its analysis, staff has concluded that while the Commission may agree with most of the report's recommendations, a number of them are either beyond the scope of authority of the

Commission or would be better handled by local or other State or federal agencies having specific lawful authority in specific areas, e.g., noise abatement, water quality regulations, etc.

Staff is, therefore, recommending that the Commission direct staff to prepare an implementation plan that specifically addresses the reports recommendations. The implementation plan would provide a basic framework for the Commission to use in its management of the river lands under its jurisdiction. The plan will be developed with local, state and federal agency involvement and will incorporate public review and comment.

EXHIBITS: A. River Study Final Report Executive Summary.
B. Site Map.

IT IS RECOMMENDED THAT THE COMMISSION:

1. FIND THAT ACCEPTANCE OF THE REPORT AND MAINTAINING THE EXISTING MORATORIUM ARE EXEMPT FROM THE REQUIREMENTS OF CEQA PURSUANT TO 14 CAL. ADM. CODE 15061 BECAUSE THE ACTIVITIES ARE NOT PROJECTS AS DEFINED BY P.R.C. 21065 AND 14 CAL. ADM. CODE 15378;

2. ACCEPT THE FINAL SACRAMENTO RIVER MARINA CARRYING CAPACITY STUDY REPORT PREPARED BY RIPARIAN SYSTEMS/MEYER RESOURCES, INC;

3. MAINTAIN ITS MORATORIUM ON FURTHER DEVELOPMENT OF MARINA FACILITIES IN THE SACRAMENTO RIVER UNTIL STAFF COMPLETES A RIVER STUDY IMPLEMENTATION PLAN REGARDING MARINA DEVELOPMENT POLICIES AND PRACTICES AND REPORTS BACK TO THE COMMISSION AT AN UPCOMING MEETING; AND

4. AUTHORIZE THE EXECUTIVE OFFICER OR HER DESIGNEE TO HOLD WORKSHOPS AND/OR PUBLIC HEARINGS REGARDING THE IMPLEMENTATION PLAN.

(ADDED 09/23/86)

EXHIBIT "A"

Sacramento River Marina Carrying Capacity Analysis

Executive Summary

The purpose of this analysis is to assess the marina carrying capacity of the Sacramento River from River Mile (RM) 44.8, approximately 1 1/2 miles below Freeport, upriver to RM 76.0, just above the Sacramento/Sutter county line. Carrying capacity is defined as "the extent to which the Sacramento River and its adjacent banks can carry marina development without significant negative impact on other human, ecological or water quality benefits associated with the river system." This analysis further divides the river study area into 5 reaches. These reaches are described in Executive Table 1 and illustrated in Figure 1 (following page 4 of the main report).

There are presently 21 operating marinas on the river. In general, they have a 95+ percent occupancy rate in the May through August/ September peak period, with an approximate 75 percent occupancy rate in winter months. It appears clear that demand for moorage exceeds supply during the peak use period, particularly for vessels in larger size classes. For boaters who moor at marinas, slip rental is estimated to account for a relatively small portion of average boating costs, and industry-wide rental charges do not widely affect demand for moorage. Considerable price competition exists between individual facilities, however, particularly from public agency marinas which characteristically charge less for slip rentals. This practice is considered economically destablizing by private marina operators. Tie up facilities not offering permanent moorage are treated separately in our report.

Executive Table 1

River Reaches in the Study Area

Reach No.	River Mile Reference	Reach Description
1	RM 44.8 to 53.5	This reach begins just below the proposed Sacramento County marina, and includes Cliff's, Freeport, Dock Holiday, Light 29, Garcia Bend and Stan's Marinas.
2	RM 53.5 to 55.5	This reach begins downstream of the Four Seasons Marina, and extends upriver two miles to include Sherwood Marina, Sacramento Yacht Club and Captain's Table.
3	RM 55.5 to 57.5	This reach extends upriver from the Sacramento Yacht Club to the Sacramento Deep Water Ship Channel.
4	RM 57.5 to 62.0	This reach extends from the Sacramento Deep Water Ship Channel upstream to the gaging station near Bryte Yard. It includes the Sacramento Yacht Harbor at Miller Park, Ramos Oil, Raley's, Discovery Park, the Broderick boat ramp, Chart Room, Viewpoint, River Galley, Village, Riverbank, Virgin Sturgeon, Riverview, and Dwyer's Landing marinas, and proposed facilities at Sacramento and Broderick.
5	RM 62.0 to 76.0	This reach extends from Bryte Yard to the upstream end of the study area just downstream from Rio Ramaza. It includes Metro and Alamar marinas, a proposed marina at Sand Cove and boat ramps at Elkhorn Regional Park (Yolo), and at the Elkhorn Ferry Site (Sacramento).

The majority of boat owners in Sacramento and Yolo counties reach the river via launching ramps. However, during peak weekend days, launching ramp congestion constrains access by these boaters. It appears that traffic generated from launching ramps exceeds that from marinas in Reach 5 during peak summer periods. Marina generated traffic slightly exceeds that from launching ramps in Reach 4, and considerably exceeds it in Reaches 3, 2 and 1. The greatest apparent need for expanded launching ramp capacity is at the upriver and downriver extremities of the study area. Boater activity during peak periods is relatively intense in the urban Sacramento area (Reach 4). Crowding will also occur on a spot basis in other reaches during such peak periods. On an annual basis, boat fishing accounts for almost 60 percent of boater activity in the study area. General cruising accounts for about 36 percent. Water and jet skiing account for less than 5 percent of total activity.

Strongest constraints to further marina expansion on the river relate to ability of boats to maintain a reasonable speed while traveling, and to the need to protect remnant riparian vegetation, fish and wildlife. The Sacramento River is relatively narrow, and traveling craft must slow to 5 MPH when within 200 feet of moored vessels. In Reach 4 from Dwyer's Landing downstream to Miller Park, existing marinas now largely constrain river travel to the 5 MPH limit. Unmanaged future marina development in the study area could progressively reduce the ability of both recreation and commercial boats to maintain a reasonable traveling speed.

Riparian vegetation along the Sacramento River has been reduced to a remnant 5 percent of its pre-development abundance. Remaining trees, shrubs and associated vegetation are vitally

important to human enjoyment of the river corridor and to birds and animals. In this report, we propose a "no further net loss" policy for riparian vegetation, together with a strategy to make that objective compatible with further marina expansion. Maintenance of water quality and management of user conflicts on the river, particularly respecting water and jet skiing and impact of boating on bankside residents, are also significant concerns. A full display of the marina related issues and effects we have examined, with associated recommendations, is provided in Executive Table 2. Jurisdictional issues associated with our conclusions and recommendations are discussed in Section VIII (pg. 145 ff.)

The Sacramento River provides a diverse array of human, ecological, water quality and recreation benefits to citizens of Sacramento and Yolo counties. Left to random development, the river corridor is rapidly reaching carrying capacity limitations in several areas. With proper management, we believe these limitations can be overcome, and that marina patrons and other river users can enjoy the river for many years into the future.

Executive Table 2-1

A Summary of Conclusions and Recommendations Concerning Marina Development and its Effects on Other River - Related Benefits

Study Conclusions	Recommendations	Report Page References
HUMAN USE AND BENEFITS		
1. Traveling Conditions for Boats on the River		
1a. Traveling at speed is now largely pre-empted in Reach 4. 1b. Traveling boats are now generally required to reduce speed or go to the far side of the channel when passing instream marinas in other river reaches 1c. New instream marina development in Reaches 1, 2, 3, & 5 will eventually limit traveling speeds in these reaches, as it has in Reach 4. 1d. Boats traveling at speed too close to marinas and private docks create damage and inconvenience with their wakes.	1.1 Restrict new instream marina development to to Reach 4. Apply a 5 MPH boating speed limit from the I-80 overpass at (approx.) RM 62.5 downstream to the lower limit of Reach 4. 1.2 Do not allow new marinas in Reach 4 to intrude further into the river than existing marinas. 1.3 Expansion of existing marinas could be a permitted use in all river reaches, subject to meeting other criteria specified in this report (including Rec. 1.2 above). 1.4 Do not allow new instream marinas to be constructed directly opposite an existing marina. 1.5 Develop stable funding to ensure continued operation of the accessing lock to the Sacramento Deep Water Ship Channel. 1.6 Encourage a cooperative speed signing program on the river. 1.7 Establish a more effective standard to assess and remove inebriated/irresponsible boaters from the river.	1-12, 20-22, 157-158, 183-188, 202-205

Executive Table 2-2

Study Conclusions	Recommendations	Report Page References
	1.8 Encourage a cooperative review of enforcement and safety capabilities on the river.	
2. Multiple Use Conflicts and Crowding on the River		
2a. Generally, river user densities in the study area have not reached levels that would constrain further marina development.	2.1 Prohibit water/jet skiing in Reach 4.	22-65, 182-183, 188-192, 202-205
	2.2 Prohibit water/jet skiing between RM 46 and 50 during fishing seasons.	
2b. Development of further launch ramp capacity is most needed at upriver and downsriver extremities of the study area.	2.3 Consider prohibition of water/jet skiing opposite all study area instream marinas	
	2.4 Consider prohibition of water/jet skiing in areas adjacent to private docks (primarily RM 62-68) during the off-peak season (September-May).	
2c. Sport fishing hot spots at the mouth of the American River and between Garcia Bend and Freeport (approx. RM 46 to 50) can be adversely affected by other river users during periods of intense fishing.	2.5 Post other areas for water/jet skiing, with private dock development proceeding at owner's risk.	
	2.6 Do not encourage further launch ramp development between Elkhorn - Sacramento and Miller Park.	
2d. Conflicts between water/jet skiers and other users are among those potentially most severe on the river.	2.7 Sign all marinas and launch ramps, re. boater responsibilities- ie. wave wash.	
2e. Impact of boat noise upon shore bank residents and shoreline users and other boaters is a locally severe problem.	2.8 Post speed signs at fishing hot spots during fishing season.	

Executive Table 2-3

Study Conclusions	Recommendations	Report Page References
	2.9 Post warning signs where there are extensive private docks along the river, re. transitting craft keeping to center of channel and passing port to port.	
	2.10 Allow no marina development on the Sacramento side to intrude into the waters in front of the American River Parkway.	
	2.11 Adopt noise regulations for the river study area.	
	2.12 Prohibit dry stacks & unmuffled boats in the study area.	
3. Economic Viability of Marinas		
3a. A healthy demand appears to exist for some expansion of marina facilities in the study area.	3.1 Other things being equal, the Commission should give priority to marinas that propose, or are expanding toward a diverse array of enterprise centers. (We do not consider condominiums, office buildings or residential developments to be marina enterprise centers).	1-19, 192
3b. The economic viability of individual marinas depends on the skills and perspectives of of their management and on the degree to to which each marina has also diversified into non-moorage enterprise centers (i.e., fuel stations, restaurants/bar, shops).		
3c. All private marinas complain of price undercutting from public facilities.		
3d. A financially sound private marina is better able to meet its non-revenue public obligations.		

Executive Table 2-4

Study Conclusions	Recommendations	Report Page References
4. Public Access to the River		
4a. In general, Sacramento and Yolo counties, and the City of Sacramento emphasize public access to the river as a policy. No coordinated plan to provide such access is in place, however.	4.1 The Commission should participate with the City and the 2 counties to develop a joint urban riverfront linear access policy, and a Sacramento River Corridor Plan.	79-80, 175-176, 193-194
	4-2 Alternatively, the Commission should encourage the 3 local planning agencies to jointly develop a Sacramento River Corridor element of their General Plans.	
ECOLOGICAL USES AND BENEFITS		
5. General Ecological Wellbeing		
5a. Riparian vegetation provides important benefits to human, wildlife and fishery populations-and is a useful indication of ecological wellbeing in the study area.	5.1 To the extent possible, combine avoidance and and restorative strategies to ensure no net loss of riparian habitat within each marina development/expansion site.	86-114, 155-157, 194-196
5b. Remaining riparian vegetation along the Sacramento River amounts to less than 5 percent of its pre-development abundance.	5.2 Where 5.1 is not fully effective, the marina developer should use acquisition and planting techniques to ensure restoration of productively equivalent riparian habitat elsewhere in the same river reach.	
5c. On the basis of 5a and 5b, above, we conclude that residents, wildlife and fish of the Sacramento River study area can afford no further net loss of riparian habitat.	5.3 Where 5.1 and 5.2 are not fully effective, the marina developer should extend strategy 5.2 to the full study area.	

Executive Table 2-5

Study Conclusions	Recommendations	Report Page References
	5.4 Replacement through acquisition or restoration of riparian habitat outside the study area is not recommended, because it does not respond to the loss of local habitat productivity. Strong emphasis should be placed on exhausting possibilities under strategy 5.1, before strategies 5.2 and 5.3 are considered.	
	5.5 Experts from the California Department of Fish and Game and the U.S. Fish and Wildlife Service should be consulted with respect to equivalent riparian habitat productivity.	
6. Threatened or Endangered Species		
6a. Three threatened species, the Swainson's Hawk, the California Yellow Billed Cuckoo and the Valley Elderberry Longhorned Beetle have been reported to use the the study area, and require special treatment in any policy governing marina expansion.	6.1 The California Department of Fish and Game and the U.S. Fish and Wildlife Service should be closely consulted with respect to avoidance and protection of threatened species and their habitats.	101-108, 112-114
	6.2 Where riparian habitats or threatened species may be significantly impacted by a proposed marina development, an EIR should be required.	

Executive Table 2-6

Study Conclusions	Recommendations	Report Page References
WATER QUALITY USES AND BENEFITS		
7. Waste Control		
7a. The greatest portion of human sewage from boats is presently being discharged directly into the river. To the best of our knowledge, only one pumpout station is presently operational on the river. This situation is not acceptable in a river frequented by fishermen and swimmers.	7.1 The Commission should require adequate and operational pumpout stations and holding tank facilities at all marinas, as a condition of development, expansion or lease renewal. Boat hookups should be placed on the in-channel side of marinas, and in all instances should be accessible to boaters.	117-118, 120-121, 159-161, 197-198
	7.2 The need for similar facilities at launching ramps should be closely examined, and if a need is confirmed, similar requirements instituted there.	
	7.3 All marinas should be required to place litter disposal bins on their docks, at locations convenient to boaters.	
	7.4 The Commission should encourage local jurisdictions to conduct a joint assessment of the adequacy of public washrooms in the study area, and to provide for any facility needs that are identified.	
	7.5 The Commission should consider standards for mooring, waste holding and shore service umbilicals for all live-aboard vessels during their ongoing staff study of residential use of tidal and submerged state lands.	

Executive Table 2-7

Study Conclusions	Recommendations	Report Page References
8. Toxins		
8a. Early evidence suggests that tributyltin-oxide, now widely used in bottom paints for boats, may be extremely toxic to fish, with possible deleterious effects for humans as well.	8.1 The Commission should request an immediate determination from appropriate State authority as to whether use of paints containing tributyltin-oxide is hazardous.	141-144, 160-162, 198-199
8b. Off-stream marina basins can become toxic sinks, if marina design and systems for for water circulation are not adequate.	8.2 An expert workshop should be considered to focus available knowledge on the problem identified in 8a.	
	8.3 An interim advisory notice concerning the possible consequences of use of paints containing tributyltin-oxide should be issued and posted at all marinas and launching ramps.	
	8.4 An approved "best wood preservative" list should be developed and distributed to marina owners and boaters.	
	8.5 Boat maintenance facilities should be monitored for their handling of hull paint residues.	
	8.6 Engine and hull washing detergents should be certified as safe for use on the Sacramento River.	
	8.7 Control measures and safe disposal standards should be established for boat maintenance and haul-out facilities.	

Executive Table 2-8

Study Conclusions	Recommendations	Report Page References
	8.8 Off stream marina sites should be engineered to provide adequate water circulation, and maintenance dredge spoil should be monitored for toxins.	
9. Fuel Spills		
9a. Fuel spills are possible at marina facilities, but are avoidable through installation and proper maintenance of adequate equipment.	9.1 Highest quality automatic shut-offs on all fueling hoses, and EPA approved fuel storage tanks should be a minimum requirement for any new boat fueling facilities.	122-123, 161, 199
10. Other Water Quality Issues		
10a. Bilge water and similar drainage discharge is often dumped back into the river when boats are taken out at launching ramps.	10.1 Consider installation of grated transverse drains across launching ramps to collect bilge discharges and convey them to a dump or buried tank for eventual safe disposal.	119-120, 141-142, 162, 199-200
10b. Urban runoff in areas ancillary to marinas can also pose a problem.	10.2 New ancillary areas should consider porous pavement designs, grading to direct drainage away from the river and periodic mechanical sweeps of parking areas.	

Executive Table 2-9

Study Conclusions	Recommendations	Report Page References
MARINAS AND RIVER LEVEES		
11. River Levees		
11a. Boats/skiiers traveling at speed can erode levees in the study area during higher water periods (where the river flows against the levee, not the berm). This will generally occur in the non-summer period.	11.1 Levee integrity must be an overriding factor during any marina development, on or off-stream.	97-100, 111-114, 123-126, 200
	11.2 Procedures for preserving <u>both</u> levee safety and ecological productivity along the river bank are available from the State Reclamation Board, the California Department of Fish and Game and the California Department of Water Resources - and should be utilized during marina development or expansion.	
11b. The presence of marinas, by reducing boat speed to 5 MPH, will reduce levee erosion in adjacent areas.	11.3 Non-essential vessel travel should be prohibited in the study area during high water periods when levee safety is threatened.	
11c. Where marina development is coupled with levee improvement work, flood control objectives will be enhanced.	11.4 The Commission should consider convening an inter-agency task force on multiple use management of levees in the study area.	
11d. Multiple use levee management is a preferred objective in the study area. Reference to documents from the State Reclamation Board, DWR and CF&G dealing with joint mangement to provide flood control and protect ecological values suggests that this objective is attainable.	11.5 Conduct study of erosive factors on East bank of the River between RM 63 and RM 76.	
	11.6 See Rec. 2.9.	

Executive Table 2-10

Study Conclusions	Recommendations	Report Page References
OTHER ISSUES		
12. Tie-Up Facilities		
12a. Tie-up facilities designed to provide temporary moorage so boaters may go to a restaurant, shop, etc. likely do not preempt traveling capabilities in adjacent river areas, to the extent which marians would.	12.1 Tie-up facilities may be permitted in all river reaches, as long as they don't extend more than 60-70 feet into the river. 12.2 Tie-up facilities must meet all ecological and water quality criteria advanced in this report. 12.3 New facilities should not be allowed to expand to marina status after initial designation as tie-up facilities.	1, 201
13. Off-Stream Marinas		
13a. Off-stream marinas do not impede traveling craft, but involve most of the other issues raised here. 13b. Offstream marinas may contribute to boat traffic.	13.1 Off-stream marinas may be considered in all river reaches. 13.2 Off-stream marinas should meet all ecological and water quality criteria advanced in this report.	86-114, 115-144, 194-205
14. Historic/Archeological Concerns		
14a. Sensitivity for Historic and archeologic sites in the marina study area is estimated to be quite high. 14b. Historic and archeologic resources seem to be dispersed throughout the study area.	14.1 Historic and archeological concerns should be met on a project specific basis through the EIR/EIS process and with site investigations.	80-83

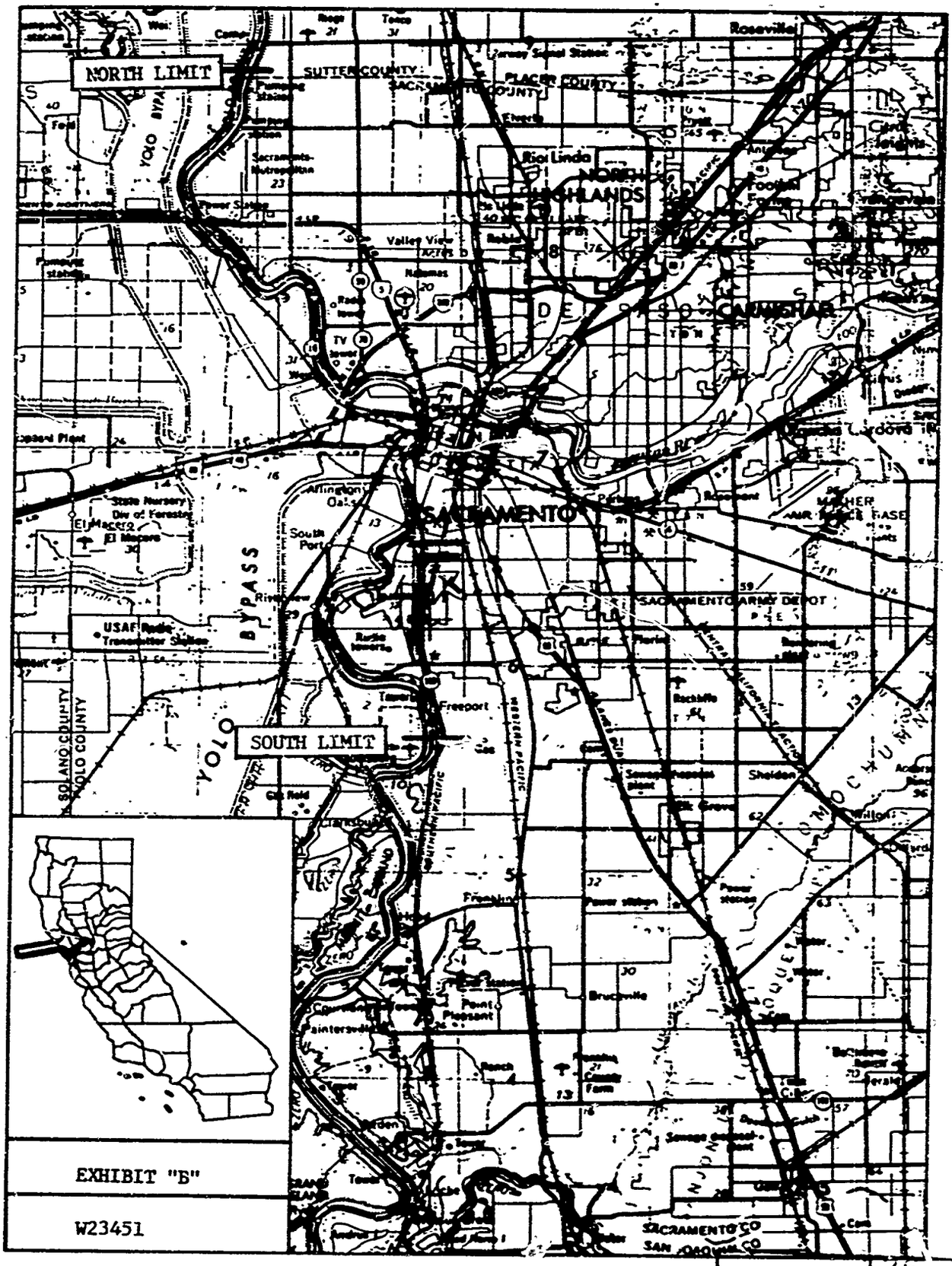

EXHIBIT "B"

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