#### **MINUTE ITEM**

This Calendar Item No. 22 was approved as Minute Item No. 22 by the California State Lands Commission by a vote of 3 to 0 at its 08/31/96 meeting.

# CALENDAR ITEM C22

08/21/96				9	Α
WP 7203.9	PRC 7203.9	•	·		
D. Jones			-	6	√S

### **AMENDMENT TO MASTER LEASE NO. PRC 7203.9**

## LESSEE/APPLICANT:

The State Reclamation Board 1416 Ninth Street, Room 1148 Sacramento, California 95814

## AREA, TYPE LAND AND LOCATION:

A parcel of submerged land in the American River at "River Park" measuring approximately 3,500 lineal feet of the south riverbank of the American River from River Mile 4.4 to River Mile 5.0, City of Sacramento, Sacramento County.

### LAND USE:

The construction and maintenance of new bank protection.

## **MASTER LEASE TERMS:**

Master Lease period:

Term of maintenance of existing structures - 30 years beginning May 1, 1988.

Term for new construction; five years beginning May 1, 1988, or upon completion of Phase II Part 2 of the Sacramento River Bank Protection Project, whichever is longer.

#### Consideration:

The public use and benefit, with the State reserving the right at any time to set a monetary rent if the Commission finds such action to be in the State's best interest.

#### **BASIS FOR CONSIDERATION:**

Pursuant to 2 Cal. Code Regs. 2003.

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# CALENDAR ITEM NO. C22 (CONT'D)

## **APPLICANT STATUS:**

Applicant is permittee of upland.

## PREREQUISITE CONDITIONS, FEES AND EXPENSES:

Processing fees are not required pursuant to the terms of the Master Lease.

## STATUTORY AND OTHER REFERENCES:

- A. Public Resources Code: Div. 6, Parts 1 and 2; Div. 13.
- B. Cal. Code Regs.: Title 2, Div. 3; Title 14, Div. 6.

#### AB 884:

Incomplete.

#### OTHER PERTINENT INFORMATION:

- 1. A Master Lease for the Sacramento River Bank Protection Project was authorized by the State Lands Commission on May 9, 1988 effective May 1, 1988. The Master Lease authorizes maintenance of existing bank protection structures and the construction of new bank protection structures as specific construction sites become known. The Master Lease requires the Reclamation Board to seek an amendment of the lease to include new sites as they become known.
- 2. The Reclamation Board has applied for an amendment to the Master Lease to include proposed bank protection work on a parcel of submerged land in the bed of the American River at "River Park". The proposed project area measures approximately 3,500 lineal feet on the south riverbank of the American River between River Mile 4.4 and River Mile 5.0. It is part of the Phase II, Part 2 work (Contract 42D).

During the winter of 1995-1996, severe erosion occurred over a 400-foot long section of the proposed project area, necessitating that the work commence in August of 1996 prior to the fall/winter season. The objectives of the bank protection work are to provide underlying continuous hard protection, ensuring a high level of flood control, and to fully replace Shaded Riverine Aquatic Habitat (SRAH), riparian, and endangered-species habitats onsite.

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- 3. This activity involves lands identified as possessing significant environmental values pursuant to Public Resources Code Sections 6370, et seq. Based upon the staff's consultation with the persons nominating such lands and through the CEQA review process, it is the staff's opinion that the project, as proposed, is consistent with its use classification.
- 4. A Finding of No Significant Impact and Negative Declaration were prepared and adopted for this project by the U.S. Army Corps of Engineers and the State Reclamation Board, (SCH 96052001).

  The State Lands Commission's staff has reviewed such documents.
- 5. A Mitigation Monitoring Plan was adopted by The Reclamation Board on June 19, 1996.

### **APPROVALS OBTAINED:**

State Reclamation Board, Central Valley Regional Water Quality Control Board (waiver).

#### **FURTHER APPROVALS REQUIRED:**

State Lands Commission; [U.S. Army Corps of Engineers (federal sponsor),] Sacramento Area Flood Control Agency

#### **EXHIBITS:**

- A. Lease description
- B. Location Map
- C. Mitigation and Monitoring Plan/Notice of Determination

## IT IS RECOMMENDED THAT THE COMMISSION:

#### RECOMMENDED

**ACTION:** 

IT IS RECOMMENDED THAT THE COMMISSION:

CEQA

FINDING:

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# CALENDAR ITEM NO. C22 (CONT'D)

- 1. FIND THAT A FINDING OF NO SIGNIFICANT IMPACT AND NEGATIVE DECLARATION AND A MITIGATION MONITORING PLAN WERE PREPARED AND ADOPTED FOR THIS PROJECT BY THE U.S. ARMY CORPS OF ENGINEERS AND THE STATE RECLAMATION BOARD AND THAT THE COMMISSION HAS REVIEWED AND CONSIDERED THE INFORMATION CONTAINED THEREIN.
- 2. ADOPT THE MITIGATION MONITORING PLAN, AS CONTAINED IN EXHIBIT "C". ATTACHED HERETO.

#### SIGNIFICANT LANDS INVENTORY FINDING:

FIND THAT THIS ACTIVITY IS CONSISTENT WITH THE USE CLASSIFICATION DESIGNATED FOR THE LAND PURSUANT TO PUBLIC RESOURCES CODE SECTIONS 6370. ET SEQ.

#### **AUTHORIZATION:**

- 1. AUTHORIZE ISSUANCE TO THE STATE RECLAMATION BOARD OF AN AMENDMENT TO MASTER LEASE NO. PRC 7203.9 TO ADD A PARCEL OF SUBMERGED LAND ON THE LAND DESCRIBED ON EXHIBIT "A" ATTACHED AND BY REFERENCE MADE A PART HEREOF; FOR THE PROPOSED BANK PROTECTION WORK AT "RIVER PARK", CITY OF SACRAMENTO; IN CONSIDERATION OF THE PUBLIC USE AND BENEFIT WITH THE STATE RESERVING THE RIGHT AT ANY TIME TO SET A MONETARY RENTAL IF THE COMMISSION FINDS SUCH ACTION TO BE IN THE STATE'S BEST INTEREST. THE AMENDMENT IS EFFECTIVE JULY 1, 1996.
- ALL OTHER TERMS AND CONDITIONS OF MASTER LEASE NO. PRC 7203.9 SHALL REMAIN UNCHANGED AND IN FULL FORCE AND EFFECT.

## **EXHIBIT "A"**

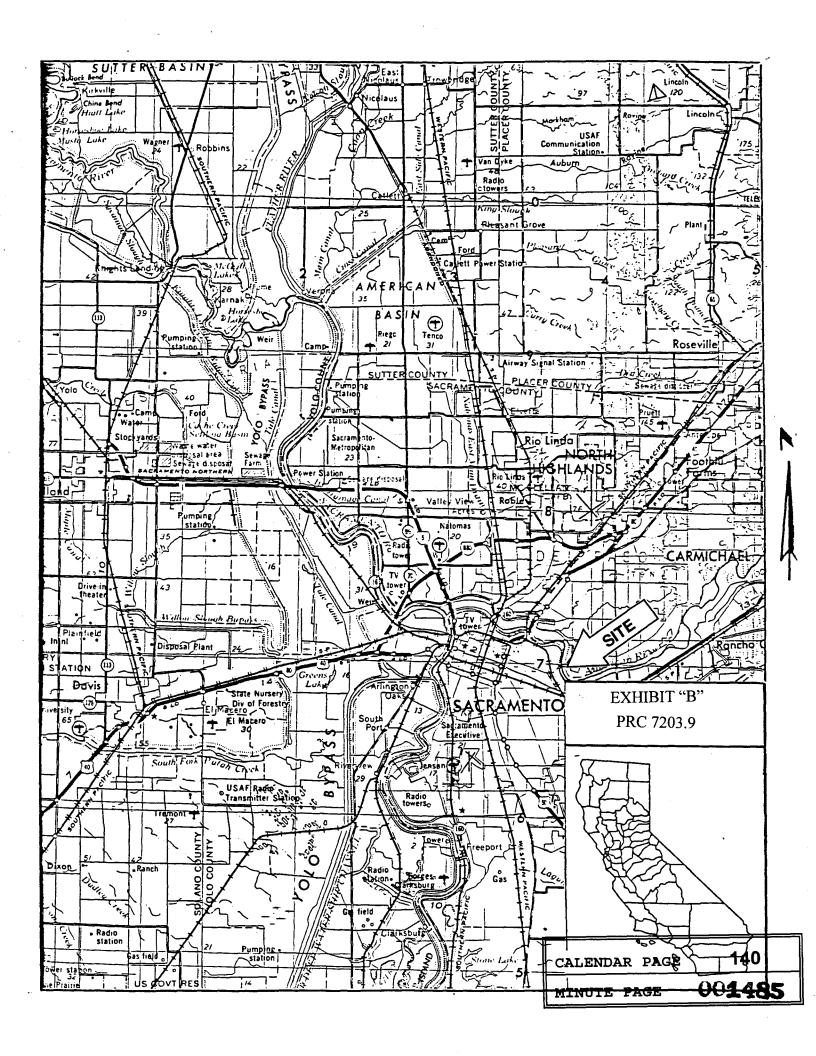
## LEASE DESCRIPTION

## SACRAMENTO RIVER BANK PROTECTION PROJECT

All State owned land lying immediately beneath proposed bank protection at the following sites:

Location	Lineal Feet	River Mile
American River at "River Park", City of Sacramento, County of Sacramento	3,500 lineal feet	Between River Miles 4.4 and River Mile 5.0; south bank of the Lower American River; T 8 N R 5 E., MDM.

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# Appendix C. Biological Resources Monitoring and Reporting Program for the River Park Site

## **Program Responsibility**

As described in Chapter 2, the U.S. Army Corps of Engineers (Corps) is responsible for implementing monitoring programs and remedial measures for 3 years following completion of project construction and installation of riparian vegetation plantings. These responsibilities will be transferred from the Corps to the Reclamation Board after this period. Monitoring will be supervised and conducted by a qualified biologist or habitat restoration specialist.

Habitat evaluation procedures (HEP) and habitat suitability index (HSI) models used to evaluate without-project and project conditions may be used in future years to determine the success of establishment of riparian habitat and shaded riverine aquatic (SRA) cover. The Corps (for the first 3 years of project monitoring) and the Reclamation Board (for subsequent monitoring years) will collect data and would conduct any needed riparian habitat and SRA HEP analyses. A mitigation evaluation team will be appointed to advise the Corps and Reclamation Board in evaluating project performance and determining the need for further HEP analysis (see Chapter 2).

# **Nesting Avian Species**

# Swainson's Hawk, Cooper's Hawk, and White-Tailed Kite

## **Monitoring Schedule**

Project construction is currently scheduled for fall 1996, after the nesting season. However, if

construction is rescheduled to take place during the nesting season, surveys will be conducted twice in April at 2-week intervals and once in mid-May at and near the project site before construction is initiated, to locate nesting or territorial Swainson's hawks, Cooper's hawks, and white-tailed kites.

## **Monitoring Methods**

Monitoring will consist of pedestrian surveys in any suitable nesting habitat within 0.25 mile upstream or downstream, and from the river shoreline to the levee crown at the project site, for birds exhibiting territorial behavior and for occupied stick nests.

### **Bank Swallow**

#### **Monitoring Schedule**

Project construction is currently scheduled for fall 1996, after the nesting season. However, if construction is rescheduled to take place during the nesting season, a survey will be conducted following the peak flood season and before initiation of construction to locate potential bank swallow nest sites at and near the project site.

## **Monitoring Methods**

The project site and an area up to 100 feet surrounding the site will be inspected to locate cliffs or river banks composed of soils with texture suitable for construction of bank swallow nesting burrows.

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# Procedures for Avoidance or Reduction of Impacts

# Swainson's Hawk, Cooper's Hawk, and White-Tailed Kite

The Corps will immediately notify California Department of Fish and Game (DFG) if active nesting territories of Swainson's hawk, Cooper's hawk, or white-tailed kite are located in or near the project site. If active nesting territories are present, the Corps, in consultation with DFG, will develop and implement management actions to avoid or reduce impacts on these species. The actions taken will depend on the period in the nesting cycle when potential impacts may occur and the proximity of nests to construction sites, and could include:

- monitoring nests to determine whether construction activity is sufficient to cause failure of nesting and, if so, implementing one of the actions below;
- hazing nesting pairs from the project site before initiation of egg-laying;
- removing nest trees before initiation of egglaying if trees are to be removed during construction;
- deferring a portion of construction until after the breeding season when feasible; or
- removing young birds from nests and rearing young for later release at an approved raptor rehabilitation facility.

If management actions are required, the Corps will obtain necessary permits from DFG and/or U.S. Fish and Wildlife Service (USFWS) to implement the actions.

## **Bank Swallow**

The Corps will immediately notify DFG if river banks or cliffs that are suitable for use by nesting bank swallows are located in or near the project site. If these features are present, the

Streambank Protection at River Park - Lower American River

Ayres Associates and Jones & Stokes Associates

Corps, in consultation with DFG, will develop and implement management actions to avoid or reduce impacts on this species. These management actions could include the following:

- monitoring potential nesting sites to determine whether bank swallows initiate nesting and, if so, hazing birds from the site before initiation of egg-laying;
- temporarily covering river banks or cliffs with a suitable material (e.g., plastic sheeting) that would prevent construction of nesting burrows; or
- deferring a portion of construction until after the breeding season when feasible.

If management actions are required, the Corps will obtain necessary permits from DFG and/or USFWS to implement the actions.

## **Monitoring Reports**

The Corps will notify DFG in writing within 5 days if the surveys identify in or near the project site any active nesting territories of Swainson's hawk, Cooper's hawk, or white-tailed hawk, or river banks or cliffs suitable for use by nesting bank swallows. The notification will include the following:

- a description of nest sites or potential bank swallow nesting habitat locations,
- a qualitative assessment of potential impacts of construction on nesting success, and
- a recommended management action to avoid or reduce potential project impacts.

If these special-status species are located during preconstruction surveys, the Corps will submit a report to DFG by December 31 in the year following completion of construction, describing the impact avoidance methods employed and an assessment of impact avoidance success.

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## Valley Elderberry Longhorn Beetle

## Monitoring Schedule

Postconstruction surveys for valley elderberry longhorn beetle (VELB) will be conducted at completion of grading and fill placement operations. Monitoring of mitigation elderberry plantings will be conducted annually between February 14 and June 30 for an 8-year period following the completion of project construction.

## **Monitoring Methods**

## **Postconstruction Surveys**

Following construction, the project site will be surveyed to determine the number of individual shrubs, the numbers of stems less than and more than 1 inch in diameter, and the number of stems with emergence holes and adult VELBs avoided during construction. The number of elderberry shrubs and stems more than 1 inch in diameter recorded during postconstruction surveys will be subtracted from the number of shrubs and stems present on the site before construction to determine final project impacts.

## Mitigation Plantings

Mitigation planting sites will be searched twice for adult VELBs and VELB exit holes and once to assess the success of elderberry shrub plantings. The first search for VELBs will be conducted between February 14 and April 30. The second VELB search and elderberry shrub surveys will be conducted in June concurrent with monitoring surveys of riparian habitat and SRA cover (see "Riparian Habitat" and "SRA Cover" below).

Monitoring surveys will be conducted along permanent transects established for monitoring riparian vegetation (see "Riparian Habitat"). Data collected along the transects will be extrapolated to determine mitigation success for the entirety of each mitigation site.

#### Elderberry Shrub Planting Success

The following information will be recorded along each survey transect:

- the number of live and dead elderberry shrubs,
- the amount of associated woody vegetation,
- shrub height and canopy width,
- shrub condition (qualitatively assessed), and
- a description of observed threats or potential threats to VELBs or elderberry shrubs.

#### Valley Elderberry Longhorn Beetle Occupancy

Each elderberry shrub along survey transects will be searched for the presence of adult VELBs and VELB exit holes. The number and location of VELBs or exit holes will be recorded.

#### **Performance Standards**

Performance standards are minimum vegetation reestablishment objectives that must be achieved within a specified period to meet project objectives. Failure to achieve performance standards may necessitate implementation of remedial measures to mitigate project impacts.

Performance standards are established based on recommended guidelines developed by USFWS for mitigating impacts on VELB (U.S. Fish and Wildlife Service 1994). The USFWS guidelines suggest a performance standard of 80% survival of the minimum number of shrubs necessary to be planted for mitigation 10 years after planting. Because mitigation will be monitored for an 8-year period, the prorated performance standard for VELB mitigation would be to achieve 84% survival of planted elderberry shrubs by monitoring year 8 (Table C-1). Performance goals have also been established for monitoring years 1 through 7 (Table C-1). The purpose of performance goals is to identify the

need for management changes to improve the CALENDAR PAGE 143

success of elderberry shrub establishment and to ensure compliance with the performance standard in order to preclude the need for remedial measures to be taken in monitoring year 8.

Performance standards for associated vegetation are those established for riparian vegetation (see below). Failure to achieve performance standards for riparian vegetation may necessitate implementation of remedial measures to mitigate project impacts.

## **Monitoring Reports**

As recommended in the USFWS guidelines for VELB mitigation, monitoring reports will be submitted to USFWS, DFG, and the California Academy of Sciences by December 31 or each monitoring year. Monitoring reports will include the following:

- copies of field survey data forms;
- a summary of observations of VELBs and VELB exit holes;
- an estimate of VELB population size;
- maps showing the locations of transects, VELB observations, and elderberry shrubs with exit holes;
- a summary description of survival, condition, and sizes of elderberry shrubs;
- a description of the condition of associated vegetation;
- a description of environmental factors that are adversely affecting or could adversely affect mitigation success;
- a description of recommended management actions to eliminate or reduce actual or potential effects of adverse environmental conditions; and
- a description of proposed and implemented remedial measures.

## Remedial Measures

If performance standards for elderberry shrub plantings are not met, the causes for mitigation failure will be identified during monitoring, the problems will be corrected, and replacement plantings will be installed as necessary each year until the performance standards are met. If performance goals are not achieved, management actions may be implemented to increase the likelihood that performance standards will be achieved.

Remedial measures that may be required if associated riparian vegetation plantings fail to meet performance standards are described below under "Riparian Habitat".

## Riparian Habitat

## **Monitoring Schedule**

Riparian habitats will be monitored annually in June for an 8-year period, which will begin the year following completion of riparian vegetation planting.

# **Monitoring Methods**

## **Vegetation Monitoring**

Monitoring data will be collected using the protocol described below to determine the success of riparian revegetation plantings. Data collected using this monitoring protocol will also be suitable for use in determining riparian revegetation success using HEP procedures. The HSI models used to evaluate project impacts could be used to estimate the habitat values provided by reestablishment of riparian habitats.

Surveys will be conducted each monitoring year to measure the following:

the diversity of woody plant species,

percent p ant mortality.
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- landscape position (i.e., berm slope, low berm, or levee berm) of each plant by species,
- tree canopy height by species,
- tree canopy width by species,
- percent tree canopy cover,
- mean shrub height by species,
- mean shrub canopy width by species, and
- percent shrub canopy cover.

Data will be collected along permanent transects to be established perpendicular to the river bank. The transects will be sequentially numbered and established at 150-foot intervals starting from the upstream end of the project site and will extend the width of the project site. The beginning and end of each transect will be permanently marked to allow replication of surveys in subsequent monitoring years. The surveyors will measure the height and canopy width by species of trees and shrubs with foliage that intersects the transect line. Percent tree and shrub canopy cover will be determined by measurement of the length of the transect intersected by overhanging tree and shrub cover.

## **Photographic Documentation**

A minimum of five permanent sampling points for photographic documentation will be established at the project site so that a visual record of habitat development can be provided. The sampling points will be established immediately after planting is completed and the locations will be identified in the first year monitoring report.

# **HEP Analysis**

Data collected during monitoring will be used to determine compliance with performance standards (see below). These data could also be used to conduct a HEP analysis to assess mtigation success. If results of HEP analyses indicate that revegetation success is less than predicted in the project analysis (see Appendix B), mitigation may be required. If, however, revegetated areas perform better than predicted, riparian habitat mitigation credits may be banked as mitigation for potential impacts on riparian habitats associated with implementation of other bank protection projects on the lower American River in future years.

## Performance Standards and Goals

Performance standards for riparian habitat are minimum vegetation reestablishment objectives that must be achieved within a specified period to meet project objectives. Failure to achieve performance standards mav necessitate implementation of remedial measures to mitigate project impacts. Performance standards have been established for monitoring years 3 and 8. These standards require achievement of a minimum desirable diversity of woody plant species and desired structural characteristics of riparian habitats before reestablishment of riparian habitats would be considered successful.

The performance standards for minimum plant diversity at the project site are as follows:

- establishment of at least four species of riparian woody plant species, one of which will be Fremont cottonwood, will be successful;
- no more than 70% of woody riparian plants at the project site will be composed of a single species; and
- a minimum of four woody riparian plant species will each constitute at least 10% of the woody riparian plants at the site.

Performance standards and goals were established for structural characteristics of riparian habitats (i.e., mean tree and shrub height, and percent tree and shrub canopy cover) using estimated mean growth rates for riparian trees and shrubs developed for use in the USFWS HEP

analysis of future conditions with the project (see

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Appendix B). Performance standards have been established for monitoring years 3 and 8; performance goals have been established for monitoring years 1, 2, 4, 6, and 7 (Table C-2). The purpose of performance goals is to identify the need for management changes to improve the success of reestablishment of riparian vegetation and ensure compliance with performance standards in order to preclude the potential requirement for mitigation in monitoring years 3 and 8.

## **Monitoring Reports**

Monitoring reports will be submitted to the mitigation evaluation team by December 31 of each monitoring year. Monitoring reports will include the following:

- the number and density of plantings by species and landscape position for the project site (first-year monitoring report only),
- copies of field survey data forms,
- maps showing the survey transect locations,
- a summary of monitoring data for the project site by transect,
- a summary of extrapolated monitoring data for the project site,
- a qualitative description of the growth and vigor of vegetation,
- a qualitative description of the low berm substrate and depositional features,
- a qualitative description of the establishment of volunteer vegetation,
- a description of how plantings are performing relative to performance standards and goals,
- a description of environmental factors that may be adversely affecting planting success, and

 a description of proposed and implemented remedial measures.

## **Remedial Measures**

If riparian vegetation reestablished on the project site fails to meet performance standards, mitigation may be required. Specific remedial measures and the level of effort required will be determined based on the magnitude and causes of failure. Potential remedial measures that may be implemented to achieve performance standards include the following:

- planting additional riparian plants at the project site,
- extending the irrigation period, and
- planting additional riparian plants at offsite locations.

If implementation of remedial measures is required, monitoring would be performed for a 5-year period after measures are implemented.

## **SRA Cover**

# **Monitoring Schedule**

Construction of project features involving instream SRA cover will be monitored during the project construction period. Development of overhead SRA cover will be monitored annually in June for an 8-year period, which will begin the year following completion of construction and installation of riparian vegetation plantings.

# **Monitoring Methods**

## **Construction Monitoring**

A Corps representative will monitor construction to ensure that features constructed to provide instream SRA cover are built to specifications. Following completion of construction, surveys will be conducted to determine the

final as-built specifications of project features, including the following:

- berm surface elevations and area;
- widths, configuration, spacing, and number of hardpoints and embayments; and
- locations, width, and surface area of installed instream wood.

This information will be analyzed for the project site to determine the constructed mean SRA width for the site during low-flow periods.

#### Overhead SRA Cover

Overhead SRA cover will develop over time as riparian vegetation planted near the shoreline grows and eventually overhangs the river channel. Overhead SRA cover is determined by two measures of vegetation structure: mean canopy width (which determines the horizontal extent of overhanging vegetation) and percent shoreline canopy cover. Because several years may be required for overhanging vegetation to develop, overhead SRA cover will be measured indirectly.

The canopy width of shrubs on the berm face and cottonwoods on the berm surface up to 20 feet from the low-flow water edge will be measured along transects established for monitoring riparian vegetation plantings (see "Riparian Habitat") each monitoring year to ensure that canopy cover is developing at the rate necessary to provide the desired amount of overhead SRA cover in future years. Percent shoreline canopy cover will be determined from photographs of the shoreline taken from the river channel each monitoring year.

## **HEP Analysis**

Information provided on as-built construction drawings and data collected during monitoring will be used to determine compliance with performance standards (see below). These data could also be used to conduct a HEP analysis to assess mitigation success. If results of HEP

analyses indicate that constructed SRA cover values are less than predicted in the project HEP analysis (see Appendix B), mitigation may be required. If, however, constructed SRA cover values are greater than predicted, SRA cover credits may be banked as mitigation for potential impacts on SRA cover associated with implementation of other projects in future years.

## Performance Standards and Goals

Performance standards for constructed instream SRA cover features and overhead SRA cover are minimum criteria that must be achieved within a specified period to meet project objectives. Failure to achieve performance standards may require implementation of remedial measures to mitigate project impacts. Performance standards have been established for asbuilt construction specifications of project features involving instream SRA cover and for monitoring years 3 and 8 for SRA overhead cover. These performance standards require achievement of minimum desired structural characteristics of instream and overhead SRA cover before compensation for project impacts on SRA cover would be considered successful.

#### Instream Cover

Performance standards for as-built instream cover specifications have been established using instream SRA cover widths and areas of hardpoints and instream woody cover values assumed in the revised USFWS HEP analysis (see Appendix B). The performance standards for asbuilt construction specifications are as follows:

- minimum mean SRA cover width 10 feet and
- minimum percentage of instream woody cover - 17.5.

#### **Overhead SRA Cover**

Performance standards and goals for mean canopy width of woody vegetation and percent canopy cover have been established using

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estimated mean growth rates for riparian trees and shrubs (see Appendix B). Performance standards represent the minimum mean canopy width and percent canopy cover required to ensure that vegetation growth is sufficient to provide the percentage of overhead SRA cover predicted to develop in years following the 8-year monitoring Performance standards have been established for monitoring years 3 and 8, and performance goals have been established for monitoring years 1, 2, 4, 5, 6, and 7 (Table C-3). The purpose of performance goals is to identify the need for management changes to improve the success of SRA cover growth and ensure compliance with performance standards in order to preclude the need for mitigation to be implemented in monitoring years 3 and 8.

## **Monitoring Reports**

#### **Instream Cover**

The Corps will submit as-built construction drawings of the project site to the mitigation evaluation team by December 31 in the year following completion of construction. The submittal will include a report that provides the following information for the project site:

- mean SRA cover width;
- mean berm elevation and range of elevation;
- number, widths, and mean area of hardpoints;
- mean distance between hardpoints;
- number and mean area of embayments;
- widths, mean area, and distribution of installed instream woody cover; and
- a description of berm surface material.

#### Overhead SRA Cover

Monitoring reports will be submitted to the mitigation evaluation team by December 31 of

each monitoring year. Monitoring reports will include the following:

- copies of field survey data forms,
- maps showing survey transect locations,
- a summary of monitoring data for the project site by transect,
- a summary of extrapolated monitoring data for the project site,
- photographs of shoreline vegetation along the length of the project site,
- estimates of percent shoreline cover,
- a qualitative description of the growth and vigor of vegetation growing adjacent to the river channel.
- a qualitative description of the low-berm and near-shore substrate and depositional features,
- a qualitative description of establishment of volunteer vegetation on berms and berm slopes,
- a description of how plantings adjacent to the river channel are performing relative to performance standards and goals,
- a description of environmental factors that may be adversely affecting the success of SRA cover establishment, and
- a description of proposed and implemented remedial measures.

## Remedial Measures

#### **Instream Cover**

If instream SRA cover features at the project site are not constructed to the specified performance standards, mitigation may be required. Because reconstruction of most instream SRA dover features would be infeasible.

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potential onsite remedial measures that could be implemented would likely be limited to placement of additional instream woody cover at the project site where SRA cover has not achieved the performance standards. If this action is insufficient to achieve the performance standards, offsite mitigation may be required.

#### Overhead SRA Cover

If shoreline riparian vegetation reestablished on the project site fails to meet the performance standards, mitigation may be required. Specific remedial measures and the level of effort required will be determined based on the magnitude and causes of failure. Potential remedial measures that may be implemented to achieve performance standards include the following:

- planting additional riparian plants along the river channel edges at the project site,
- extending the irrigation period, and
- planting additional riparian plants along channel banks at offsite locations to increase SRA cover values at those locations.

If implementation of remedial measures is required, monitoring would be performed for at least 1 year after measures are implemented.

## Citations

U.S. Fish and Wildlife Service. 1994. General compensation guidelines for the valley elderberry longhorn beetle. Sacramento Field Office. Sacramento, CA.

Table C-1. Performance Standards and Goals for Elderberry Shrub Plantings

Monitoring Year	Performance Goal (percent survival) <sup>a</sup>	Performance Standard (percent survival)*
	90	NA
2	87	NA
3-7	85	NA
3	· NA	84

<sup>&</sup>lt;sup>a</sup> Percent survival of the number of plants necessary to mitigate impacts on VELB.

Note: NA = not applicable.

Table C-2. Performance Standards and Goals for Riparian Habitat at the River Park Site

Performance	Standa Moni	mance urds by toring ar			ormance Goa onitoring Ye	•	
Criterion	Year 3	Year 8	Year 1	Year 2	Year 4	Year 6	Year 7
Mean tree height (feet)	5.0	16.7	1.7	3.3	6.7	10.0	13.3
Percent tree canopy cover	6	20	2	4	8	12	16
Mean shrub height (feet)	1.2	4.0	0.4	0.8	1.4	2.4	3.2
Percent shrub cover	11	38	. 3		15	23	30

<sup>\*</sup>Performance standards and goals are derived from estimates of planted riparian vegetation growth rates (see Appendix B).

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Table C-3. Overhead SRA Performance Standards and Goals for the River Park Site

									_ I _ II
	Performance Sta Monitoring	_		Perform	ance Goals by	/ Monitoring	Year		H CH
Performance Critera	Year 3	Year 8	Year I	Year 2	Year 4	Year 5	Year 6	Year 7	R PA PAGE
Percent Shoreline Cover	65	90	25	50	80	90	90	90	<b>4</b>
Mean Canopy Width (feet) of Shrubs on the Berm Face	4	6	1	3	5	6	6		CALEND
Mean Canopy Width (feet) of Cottonwoods on the Berm Surface	6	16	2	4	6	10	12	14	<u></u>

#### Supplementary Document P Morice of nergymnation

To:X	Office of Planning and Research	From: (Public Age	ncy) The Reclamation Board	
	1400 Tenth Street, Room 121	· · · · · · · · · · · · · · · · · · ·	rcet, Room 1148	
	Sacramento, CA 95814		(Address) California 95814	(
	County Clerk	sacramento, C	alliornia 95814	
	County of			
		•		
•				
•	American River Bank Pro	Subject: pllance with Section 21108 or 21 stection at River Park.	152 of the Public Resources Cod	le.
Project 11th				
9605200		The Reclamation Board	(916) 653-5434	
	ghouse Number o Clearinghouse)	Lead Agency Contact Person	Area Code/Telephone/Exter	sion
( M		Contact a Classic		
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-inject roc	ation (include county)	•		
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