



COUNTY OF PLACER
Community Development/Resource Agency

Michael J. Johnson, AICP
Agency Director

PLANNING
SERVICES DIVISION

E.J Ivaldi, Deputy Director

MEMORANDUM

TO: Honorable Board of Supervisors

FROM: Michael J. Johnson, AICP
Agency Director

Loren Clark, CD/RA Assistant Director

DATE: September 9, 2014

SUBJECT: DEVELOPMENT OF AN IN-LIEU FEE PROGRAM

ACTION REQUESTED

1. Provide direction regarding the continued preparation and implementation of the Placer County In-Lieu Fee Program in advance of the approval of the Placer County Conservation Plan (PCCP).
2. Approve a contract amendment with ICF, Inc. for continued preparation of the Placer County In-Lieu Fee Program in the amount of \$48,395.00 with no added net County cost (for a total aggregate amount of \$98,389), and authorize the County Executive Officer to sign the contract amendment.

BACKGROUND

Since 2008, the County has been working on the preparation of an in lieu fee (ILF) program for the PCCP. It has been staff's intent to prepare an ILF concurrent with the adoption of the PCCP. An ILF will allow a project proponent to mitigate many, if not all, of their impacts on endangered species and wetlands through the payment of a fee in lieu of implementing the mitigation activity on their own or by purchasing mitigation/conservation bank credits.

When an ILF is available to mitigate impacts to waters of the United States (e.g., wetlands), the methodology used to develop an ILF must be consistent with criteria developed by the U.S. Army Corps of Engineers (COE) in its updated rules that govern how projects compensate for impacts. This "Final Compensatory Rule", issued in 2008, makes it a priority to utilize mitigation banks and ILF programs to mitigate impacts over permittee initiated mitigation. Therefore, a PCCP ILF program for wetland impacts must be consistent with the COE's direction for wetlands mitigation. The preparation of an ILF work program includes the following tasks:

- Prepare an ILF Prospectus – The prospectus would identify the need for an ILF, the service area boundary, anticipated threats to aquatic resources, historic losses, stakeholder participation, a description of the long-term protection and management strategies and monitoring and adaptive management. (Staff and the consultant team have prepared a draft prospectus).
- Prepare a Compensation Planning Framework – as part of the prospectus, it is necessary to identify the location, types, and general approach for wetland mitigation. The COE's required

"compensation planning framework" is compatible with the PCCP in a number of ways (e.g., landscape level, watershed approach, in-kind replacement of function, in perpetuity management and monitoring, and no net loss for wetlands).

- Prepare a draft and final ILF Program Instrument – the Program Instrument is the document that will be reviewed and approved by the agencies and will serve as the program document for the County's implementation.

In 2013, County staff was contacted by the Placer Vineyards Development Group, LLC about the possibility of developing an interim ILF as a means to provide mitigation for impacts associated with endangered species, wetlands, and open space of the Placer Vineyards Specific Plan project. The development of an interim ILF began in the winter of 2013. A draft ILF Program Prospectus has been prepared (Exhibit B) and was presented to the Inter-agency Review Team in May 2014. Overall the draft Prospectus was well received by the Agencies. However, the agencies did identify a couple of issues including: 1) Concern about the use of a wetland-oriented ILF for endangered species credits (combining wetland credits and endangered species credits), 2) Understanding how the PCCP conservation strategy for endangered species and County Aquatic Resources Program (CARP) for impacts on waters of the United States will align to work together under this interim program, and 3) Providing assurances to the COE and U.S. Fish and Wildlife Service that the County has the ability to process and manage an ILF program in the event the PCCP is never completed.

DISCUSSION

With the continued financial support by the Placer Vineyards Development Group, LLC, the preparation of an ILF can proceed in advance of the adoption of the PCCP. The scope of work included in Exhibit A will allow for the completion of an interim ILF program that will ultimately serve as the ILF for PCCP implementation. Under the current schedule, the ILF will be available at least one year prior to implementation of the PCCP.

There are a number of benefits associated with the preparation of an interim ILF including:

- The availability of private sector funding from the Placer Vineyards Development Group to develop an interim ILF (a savings to County of approximately \$98,000).
- An interim ILF will serve as a pilot project for PCCP implementation prior to adoption of the larger program.
- An ILF will serve as an on-ramp to the PCCP and enable a smooth transition to the PCCP when adopted.
- An interim ILF will encourage coordinated mitigation that advances the County's overall conservation strategy. Early integration of state and federal regulations associated with wetlands and endangered species with the County's objective of having more local control and local implementation within one unified conservation strategy and will help lay the foundation for a successful PCCP.
- An interim ILF would help to coordinate mitigation measures needed for County requirements with mitigation measures needed for federal endangered species and wetlands requirements for the Placer Vineyards Specific Plan Project.
- All public and private projects that impact aquatic resources in the service area (Exhibit C) would be able to utilize the ILF program.

- The ILF would also be available to other plan participants including the City of Lincoln and the Placer County Water Agency

There are a couple of issues which need to be noted. First, if the PCCP is not finalized, the County would remain obligated to manage ILF program funds and use them to implement the ILF program's compensation planning framework. Second, the ILF program will require County staff to implement the program and the staffing obligations would precede the formation of a joint powers authority for the PCCP. Because the ILF program is scheduled to be ready for approval in mid-2015 additional staff and administrative support will be required 1-2 years in advance of the PCCP being fully implemented. Given this schedule the ILF program will require staff funding starting as early as the FY 15-16 budget cycle. This will mostly impact Community Development Resources Agency (CDRA) and Facility Services Property Management. Third, ILF revenues will fund implementation but may be less than the estimated PCCP funding depending on the endangered species requirements and other factors that need to be evaluated. Lastly, lands acquired with ILF revenues will need to be managed and monitored in perpetuity, even if the PCCP program is not adopted and the ILF program was suspended.

Because of the issues surrounding the early implementation of an interim ILF, staff is requesting direction on a key policy issue:

Should the County prepare an ILF program in advance of the PCCP work program and initiate implementation of the ILF compensation planning framework prior to adoption of the full scope of regulatory coverage associated with the PCCP?

Environmental Clearance

The continued preparation of the ILF program documents and implementation of this contract amendment is categorically exempt from the California Environmental Quality Act (CEQA) in accordance with Placer County Code Section 18.36.080 Class 6, Information Collection (CEQA Guidelines Section 153061 (b)(3)).

FISCAL IMPACT

The total amount of the contract amendment is \$48,395.00. Funds for this amendment will be provided by the Placer Vineyards Development Group. County staff assigned to this project is funded through the CDRA and Planning Division budgets. Therefore there will be no new net County cost associated with this contract amendment. Implementation of the ILF will require additional staff resources. Funding for future staff resources will be provided through the ILF fee revenues.

ATTACHMENTS

- Exhibit A: ICF Contract Amendment for the Preparation of an In Lieu Fee Program
- Exhibit B: Agency Review Draft ILF Program Prospectus (May 2014)
- Exhibit C: ILF Service Area Boundary

cc: Robert Shattuck, Placer Vineyard Development Group
David Zippin, ICF
Mike Vondergeest, ICF
Krystal Bell, USACOE
Mary Dietrich, Facility Services
BWG Stakeholders

**FIRST AMENDMENT TO CONTRACT FOR PREPARATION
OF AQUATIC RESOURCES PROGRAM – IN LIEU FEE PLAN
For: PLACER VINEYARDS SPECIFIC PLAN**

THIS FIRST AMENDMENT TO THE CONTRACT AGREEMENT FOR PREPARATION OF AQUATIC RESOURCES PROGRAM – IN LIEU FEE PLAN is made and entered on this _____ day of _____, 2014, by and between the COUNTY OF PLACER, hereinafter referred to as COUNTY, ICF Jones & Stokes, INC, hereinafter referred to as CONSULTANT and PLACER VINEYARDS DEVELOPMENT GROUP hereinafter referred to as APPLICANT.

WHEREAS, on November 8, 2013, COUNTY CONSULTANT and APPLICANT entered into a Contract whereby consulting services would be provided to the COUNTY; and

WHEREAS, the parties have agreed to additional services to be provided by Consultant under said contract and the compensation for those additional services.

NOW, THEREFORE, IT IS MUTUALLY AGREED by and among the parties as follows:

1. That section 2.A. of the original Contract shall be amended to provide for the additional services and compensation as follows:

The CONSULTANT agrees to perform the additional professional services as set forth in Exhibit "A-1" attached hereto and incorporated herein by reference, and the total compensation to be paid CONSULTANT for these additional services shall not exceed forty-eight thousand three hundred ninety-five and no cents (\$48,395.00) as set out in Exhibit "A-1". As of the date of this amendment, the total compensation to be paid to CONSULTANT shall not exceed ninety-eight thousand three hundred eighty-nine and no cents (\$98,389.00). 2. The APPLICANT agrees that concurrent with the execution of this amendment, the Applicant shall deposit 100% of the amount of this amendment in the sum of forty-eight thousand three hundred ninety-five and no cents (\$48,395.00) with COUNTY.

EXCEPT as specifically modified above, all of the remaining terms and conditions of the said original Contract shall remain and continue in full force and effect.

COUNTY OF PLACER:

By: _____ Date: _____

Print: _____
David Boesch, County Executive Officer

CONSULTANT*:

By: _____
Print: _____ Date: _____
ICF Jones & Stokes, Inc.

By: _____
Print: _____ Date: _____
ICF Jones & Stokes, Inc.

APPLICANT:

By: _____

Print: _____ Date: _____
Placer Vineyards Development Group, LLC

By: _____

Print: _____ Date: _____
Placer Vineyards Development Group, LLC

APPROVED AS TO FORM:

By: _____ Date: _____

Print: _____
Karin Schwab, Deputy County Counsel

APPROVED AS TO CONTENT:

By: _____ Date: _____

Print: _____
Michael Johnson, AICP
Agency Director

*If a corporation, contract must be signed by two corporate officers; one must be the secretary of the corporation, and the other may be either the President or Vice President, unless an authenticated corporate resolution is attached delegating authority to a single officer to fin the corporation.



July 22, 2014

Jennifer Byous
Senior Planner
Placer County Planning Division
3091 County Center Drive, Suite 190
Auburn, CA 95603

Subject: **Scope of Work and Cost Estimate to Assist Placer County Gain Approval of the Placer County In-Lieu Fee Wetland Program (Contract No. 373160; Amendment No. 1)**

Dear Ms. Byous:

ICF Jones & Stokes, Inc. is pleased to submit our scope of work describing the remaining tasks we will perform to assist Placer County to complete the In-Lieu Fee Wetland Program. These tasks were included in our June 2013 Scope of Work, which the County partially funded at that time (\$49,994). Attached is our cost estimate to complete these tasks (Table 1). We estimate that the cost to complete the project is \$48,395. This amount includes a \$10,000 contingency to be used in case the work necessary to complete the tasks exceeds our assumptions or becomes "out of scope". The original tasks, which will we complete with this proposed contract amendment, are described below.

Task 1: Finalize the ILF Prospectus

Objective

Finalize the ILF Prospectus based on IRT comments and submit it to USACE for public notice.

Methods

ICF will coordinate with the County and address the IRT comments made on the Draft Prospectus. The final document will be submitted to the County for one round of review/comments and then submitted to USACE for public notice.

Assumptions

- Original assumptions provided for Task 1 still apply.

- The final prospectus will be sent to the County for review and comment. One round of comments will be covered under this task.

Deliverables

- Work remaining under this task is to incorporate the comments of the IRT and submit the Final Prospectus to the IRT for Public Notice.

Task 2: Prepare a Draft ILF Program Instrument

Objective

Complete a Draft Instrument based on the revised prospectus describing in detail the physical and legal characteristics of the ILF and submit it to USACE for approval.

Methods

ICF will coordinate with the County to prepare a Draft ILF Program Instrument that will describe in detail:

- the proposed geographic service area of the ILF Program with supporting documentation why the service area boundaries are where they are;
- credit accounting procedures;
- a statement that legal responsibility will be on the program sponsor after fees are paid;
- default and closure provisions;
- reporting protocols;
- the compensation planning framework;
- specification of the initial allocation of advance credits and a draft fee schedule for credits;
- the methodology for determining future project-specific credits and fees; and
- a description of the ILF program account

Assumptions

- The service area will be the Plan Area for the PCCP.
- The Draft Instrument will be sent to the County for review and comment. Up to two rounds of comments will be covered under this task
- The Draft Instrument will undergo one round of revisions based on comments from the IRT.

Deliverables

- Draft Instrument (GIS layers and Word or pdf files, including maps)

Meetings

- Two, one-hour internal conference calls to discuss the details of the Instrument.

- One, two-hour meeting with USACE and other agencies to discuss comments

Task 3: Prepare the Final ILF Instrument

Objective

Complete the Final ILF Instrument that addresses all the comments received by the IRT on the Draft Instrument and submit it to USACE for approval.

Methods

ICF will revise the Draft ILF Instrument to address all the comments received by the IRT on the draft including supporting documentation that explains how the final instrument addresses the comments provided by the IRT.

Assumptions

- The Final Instrument will be sent to the County for review and comment. Up to two rounds of comments will be covered under this task

Deliverables

- Final ILF Instrument (GIS layers and Word or pdf files, including maps)

Meetings

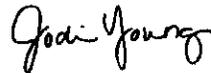
- Two, one-hour internal meetings to discuss the details of the Instrument.
- One, two-hour meeting with USACE and other agencies to discuss comments

These services shall be performed under the terms and conditions of the County's Contract No. 373160. Please contact Michael Vondergeest at (916) 231-9570 or me at (415) 677-7179 if you have any questions or comments on this request.

Sincerely,



David Zippin, PhD
Vice President



Jodi Young
Manager, Contracts

Attachment

Cost Estimate Spreadsheet (Table 1)

cc: Michael Vondergeest, ICF Regulatory Compliance Specialist

Table 1. Cost Estimate for Placer In Lieu Fee Instrument_Amendment 1

Task	Employee Name	Consulting Staff			Subtotal	Production Staff		Subtotal	Labor Total	Direct Expenses	Total Price
		Project Role					Editor				
Labor Classification		Sr Proj Dir	Sr Consult II	Mng Consult							
Task 1 - Finalize the ILF Prospectus	Zippin D	3	16	10	\$5,505	10	6	\$1,520	\$7,025		
Task 2 - Prepare a Draft ILF Program Instrument	Vondergeest M	12	65	18	\$17,565	12	32	\$4,180	\$21,745		
Task 3 - Prepare the Final ILF Instrument	Mattson M	6	35	10	\$9,405			\$0	\$9,405		
Total hours		21	116	38		22	38				
ICF E&P 2014 Billing Rates		\$255	\$165	\$210		\$95	\$95				
Subtotals		\$5,355	\$19,140	\$7,980	\$32,475	\$2,090	\$3,610	\$5,700	\$38,175		
Direct Expenses											
523.02 Reproductions										\$75	
523.04 Postage and Delivery										\$75	
523.05 Travel, Auto, incld. Mileage at current IRS rate (.56/mile)										\$50	
Mark up on all non-labor costs and subcontractors: 10%										\$20	
Direct expense subtotal										\$220	
Contingency										\$10,000	
Total price											\$48,395

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PLACER COUNTY IN-LIEU FEE PROGRAM DRAFT PROSPECTUS, PLACER COUNTY, CALIFORNIA

PREPARED FOR:

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916-231-9570
michael.vondergeest@icfi.com

April 2014



ICF International. 2014. *Placer County In-Lieu Fee Program Prospectus*.
Administrative Draft. April. (ICF 00631.13.) Placer County, CA.

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Acronyms and Abbreviations

CARP	County's Draft Aquatic Resource Program
CDFW	California Department of Fish and Wildlife
CESA	California ESA
Corps	U.S. Army Corps of Engineers
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FESA	federal Endangered Species Act
HCP	Habitat Conservation Plan
HGM	Hydrogeomorphic
IRT	Interagency Review Team
LEDPA	Least Environmentally Damaging Practicable Alternative
NCCP	Natural Community Conservation Plan
NCCPA	National Community Conservation Planning Act
NFWF	National Fish and Wildlife Foundation
NMFS	National Marine Fisheries Service
PCCP	Placer County Conservation Plan
PFG	planned future growth
Placer County ILF Program	Placer County proposes to establish an in-lieu fee program
RAA	Reserve Acquisition Area
SWRCB	State Water Resources Control Board
USFWS	U.S. Fish and Wildlife Service

Placer County Aquatic Resource Draft In-Lieu Fee Program Prospectus

1.0 Executive Summary

Pursuant to the Environmental Protection Agency (EPA) and U.S. Army Corps of Engineers (Corps) regulations governing compensatory mitigation for losses of aquatic resources ("Mitigation Rule," 33 Code of Federal Register [CFR] Parts 325 and 332, and 40 CFR Part 230), Placer County proposes to establish an in-lieu fee program (Placer County ILF Program) that will provide compensatory mitigation for projects affecting waters of the United States, including wetlands, and waters of the state, including riparian areas and other habitats within the stream zone. These waters and other aquatic resources are collectively referred to herein as "aquatic resources of Placer County." The Placer County ILF Program will use fees paid to implement compensatory mitigation projects within a framework of regional and watershed-planning approaches for unavoidable impacts authorized by the Corps, Central Valley Regional Water Quality Control Board (CVRWQCB), and California Department of Fish and Wildlife (CDFW).

The Placer County ILF Program would operate over a regionally and watershed-based Service Area covering the 212,000 acres of western Placer County (Figure 1), including parts of seven (7) primary watersheds within the American Basin Hydrologic Unit (e.g., American River, Auburn Ravine, Bear River, Coon Creek, Dry/Steelhead Creek, Markham Ravine, and Pleasant Grove). This Service Area is coincident with the plan area for the Placer County Conservation Plan (PCCP), which is in development. The County ILF Program is proposed as a standalone program that would operate regardless of whether the PCCP is approved, to provide compensatory mitigation for permits issued for unavoidable impacts on aquatic resources.

Within its broad geographic reach, the Placer County ILF Program is, among other things, intended to establish a mechanism for the mitigation of impacts associated with projects under the Placer Vineyards Specific Plan ("PVSP"). Because of the large number of Corps permit applications pending under the PVSP (i.e., 23), this Program will enhance the efficiency of mitigation efforts undertaken by the PVSP landowners, and enable the acquisition of larger and more strategic reserve properties than would be possible if mitigation were done on a property-by-property basis. The County has approved a three-part mitigation strategy for the PVSP area (the "PVSP Mitigation Strategy") that addresses the compensatory wetland mitigation requirements of the Corps, but also the wetland preservation requirements typically imposed by the U.S. Fish and Wildlife Service (USFWS), and a general vernal pool land cover mitigation requirement that will facilitate a broader level of functioning of enrolled mitigation properties. Although the Placer ILF Program is being established under the auspices of the Corps' mitigation rule, the Program will also offer and track vernal pool and grassland preservation credits to enable the County as local lead agency (and the state and federal resource agencies in their respective roles) to monitor implementation of the PVSP Mitigation Strategy on a holistic basis.

Placer ILF Program mitigation projects will result in establishment (creation), reestablishment and rehabilitation (restoration), and preservation of aquatic resources of Placer County, including wetlands, riverine systems, vernal pools, vernal pool grasslands, and other aquatic resources such as

critical adjacent riparian, stream zone, and upland buffer areas. ILF programs provide up-front identification, design, and approval of large-scale mitigation sites that are implemented within a required timeframe from when the fee is first collected. This limits the time lag between permit issuance and implementation of the mitigation site and ensures compliance with the watershed approach by providing large, higher-functioning mitigation lands. Providing advanced credits expedites agency permitting by eliminating the responsibility of individual applicants to identify, execute, monitor, and manage compensatory mitigation projects that meet the strict requirements of the Mitigation Rule. Up-front planning of mitigation also alleviates a substantial amount of work for the regulatory agencies by eliminating the detailed project-by-project analysis required of project managers and legal staff to review and approve individual mitigation sites proposed by applicants.

The Mitigation Rule has established requirements for the approval and timing of mitigation sites, including evaluation of the proposed location, design, size, monitoring and management activities (e.g., performance standards, short- and long-term management plans and schedules), real estate protection mechanisms (e.g., conservation easements, restrictive covenants), and funding mechanisms for management in perpetuity (e.g., non-wasting endowments). The Corps and other agencies – including USFWS -- also have compliance and enforcement responsibilities until performance standards are achieved and the site is transferred to an approved manager and funded in perpetuity. By providing the up-front identification, design, and approval of large-scale mitigation sites that meet the requirements of the Mitigation Rule, as well as the mitigation requirements adopted or that may be adopted by the County for various development projects within the program area, the County ILF Program expedites and streamlines permitting and compliance efforts by the agencies.

Placer County has been engaged in the development of several regional and watershed-based resource planning efforts from which data and documentation are being utilized to develop the ILF Program. These include the Administrative Draft Placer County Conservation Plan, which includes the County's Draft Habitat Conservation Plan and Natural Community Conservation Plan (HCP/NCCP), the County's Draft Aquatic Resource Program (CARP), and the PVSP Mitigation Strategy. The Draft HCP/NCCP provides the basis for streamlined permitting and compensatory mitigation for unavoidable impacts on protected species and habitat by the USFWS and CDFW (herein referred to as the "Wildlife Agencies") pursuant to the federal Endangered Species Act (FESA) Section 10, California ESA (CESA), and the California National Community Conservation Planning Act (NCCPA). The Draft CARP is being developed as a multidisciplinary, watershed-based approach for identifying, classifying, ranking, and protecting the aquatic resources of western Placer County. The CARP is being designed to provide a process through which the County's HCP/NCCP strategy for aquatic resources would be implemented if approved by resource and regulatory agencies. This would include the ultimate goal of receiving a Programmatic General Permit from the Corps, and Programmatic Water Quality Certification from the CVRWQCB. The HCP/NCCP outlines a comprehensive conservation strategy that conserves sensitive plants, wildlife, and aquatic and terrestrial natural communities in western Placer County. If approved, these programs will be compatible with the ILF Program.

2.0 Objectives

The objectives of the proposed County ILF Program are to:

- Provide an effective regional and watershed-based compensatory mitigation program for unavoidable impacts on jurisdictional aquatic resources permitted by the Corps, CVRWQCB, and CDFW in western Placer County.
- Provide a means to establish and track mitigation values that are required for mitigation under CEQA (e.g., the PVSP Mitigation Strategy), including vernal pool preservation, vernal pool grassland, and other resources, regardless of whether they are aquatic resources within the jurisdiction of the Corps.
- Provide an environmentally preferable alternative to permittee-responsible compensatory mitigation pursuant to the Mitigation Rule by constructing biologically superior mitigation projects of adequate quality and quantity to meet current and expected demand for credits in the ILF Service Area.
- Minimize the temporal loss of aquatic resources by identifying, designing, and gaining approval for compensatory mitigation projects in advance of compensatory mitigation needs.
- Maintain a level of accountability commensurate with mitigation banks, such that the compensatory mitigation obligations assumed by the County through sale of credits are met in a timely and effective manner pursuant to the Mitigation Rule.
- Consolidate funding for compensatory mitigation projects in the Service Area to reduce the prohibitive costs of constructing isolated and/or small-scale mitigation projects by implementing larger and more comprehensive mitigation projects.
- Provide the Interagency Review Team (IRT) with compensatory mitigation projects that target needs specific to the Service Area.

As noted above, it is also the intent of the County to propose mitigation projects funded by the Placer ILF Program as compensation for adverse effects on state or federally listed as threatened or endangered aquatic species and associated habitats subject to NCCPA and FESA “take” permits for projects within the Service Area. Through coordination with the Wildlife Agencies, the County intends to have in place a process by which effects to aquatic species and associated habitats can be assessed for projects within the Service Area, including both those projects that do and those that do not require Corps permits. Where a project requires both Corps and endangered species permits, mitigation requirements for both can be addressed within the Program based on the terms and conditions of the permits and authorizations issued by the County and other agencies. The PVSP Mitigation Strategy is a key example of County mitigation requirements for impacts to both biological and aquatic resources for which the County would seek to provide mitigation values under the Program. The County intends for the Program to provide some assurance to project proponents that they will not have to buy compensatory mitigation credits twice: once for aquatic resource losses and a second time for aquatic species habitat losses. Credits sold for compliance with take authorizations that do not require Corps permits would be tracked separately so that duplicative use of the same type of credits for multiple permittees would not occur, as described later in Section 5.0. Once approved, the PCCP will establish mitigation requirements for both aquatic resources and covered species and will provide a means to integrate permitting and mitigation

requirements for NCCPA and FESA “take” permits and CWA 404 permits. The County intends that the Program will adhere to the approved PCCP.

3.0 Establishment

The Placer County ILF Program would provide compensation for unavoidable impacts on aquatic resources of Placer County resulting from projects implemented within western Placer County. See Figure 2 for the ILF Program Plan Area and anticipated growth and conservation areas. The County would be the ILF Program sponsor and would develop the framework to facilitate the implementation process for compensatory mitigation projects, including mitigation site selection, project prioritization, and project execution. The County will utilize extensive conservation data collected during the development of the PCCP and respective watershed plans to develop the ILF Program. The use of regional and watershed-based data already compiled will ensure the County develops a cohesive direction in aquatic resource management and a mitigation program to maximize ecosystem benefits and success of mitigation sites through effective site selection and implementation of the watershed approach. In addition, the ILF Program will be coordinated to the extent possible with conservation efforts outside of Placer County, including the Yuba-Sutter County Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP), Yolo County National Heritage Program, Butte County Conservation Plan (an HCP/NCCP), Natomas Basin HCP, and others, to enhance regional connectivity and maximize the watershed approach to better ensure success of individual sites. See Figure 3 for a map of the Regional Conservation Planning Efforts. The ILF Program will be structured to:

- Provide an incentive for proposed public and private projects to maximize avoidance and minimization of aquatic resources, and design for the Corps Least Environmentally Damaging Practicable Alternative (LEDPA) early in project development as envisioned by the Placer County General Plan Natural Resource goals and policies.
- Provide advanced compensatory mitigation credits required through Corps General and Individual Permits pursuant to Section 404 of the Clean Water Act (CWA), CVRWQCB Water Quality Certifications pursuant to Section 401 of the CWA, CVRWQCB Waste Discharge Requirements pursuant to the State Porter-Cologne Act, and CDFW Streambed Alteration Agreements pursuant to Section 1602 of the State Fish and Game Code.
- Provide advance compensatory mitigation credits required by the County’s CEQA process or by state and federal wildlife agencies.
- Plan and execute compensatory mitigation projects at the regional and watershed level to maximize ecological benefits by taking into account aquatic habitat diversity, habitat connectivity, physical processes including hydrologic sources (including the availability of water rights), soils and geologic conditions, trends in land use, and compatibility with adjacent land uses.
- Utilize the existing regional planning efforts and data developed in concert with resource and regulatory agencies to identify compensatory mitigation projects for efficient IRT approval by prioritizing sites already identified and by providing site-specific objectives, comprehensive site plans, and ecological performance standards that meet the strict requirements of the Mitigation Rule.

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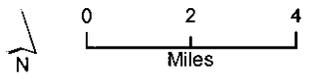
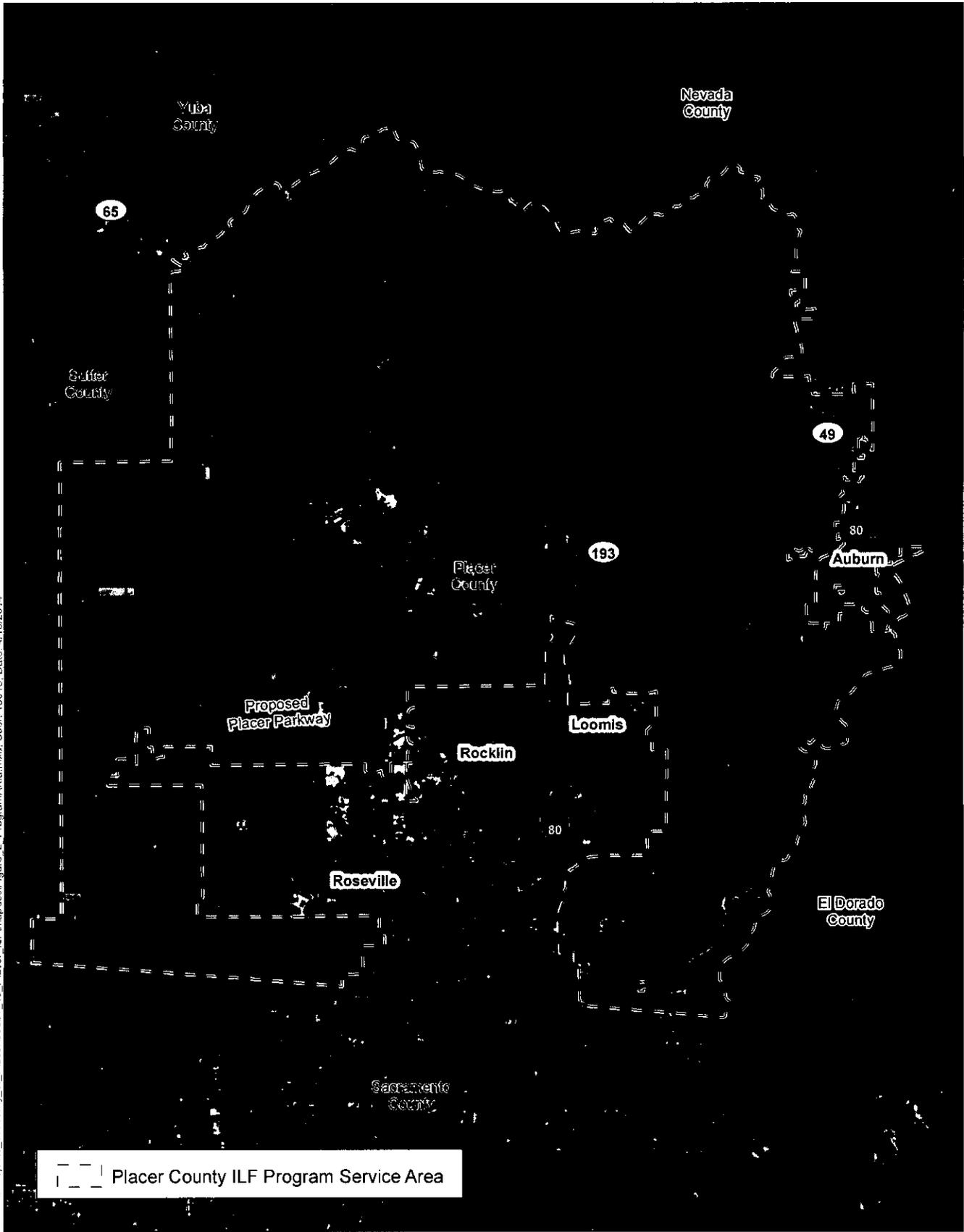


Figure 2
Placer County ILF Program Service Area

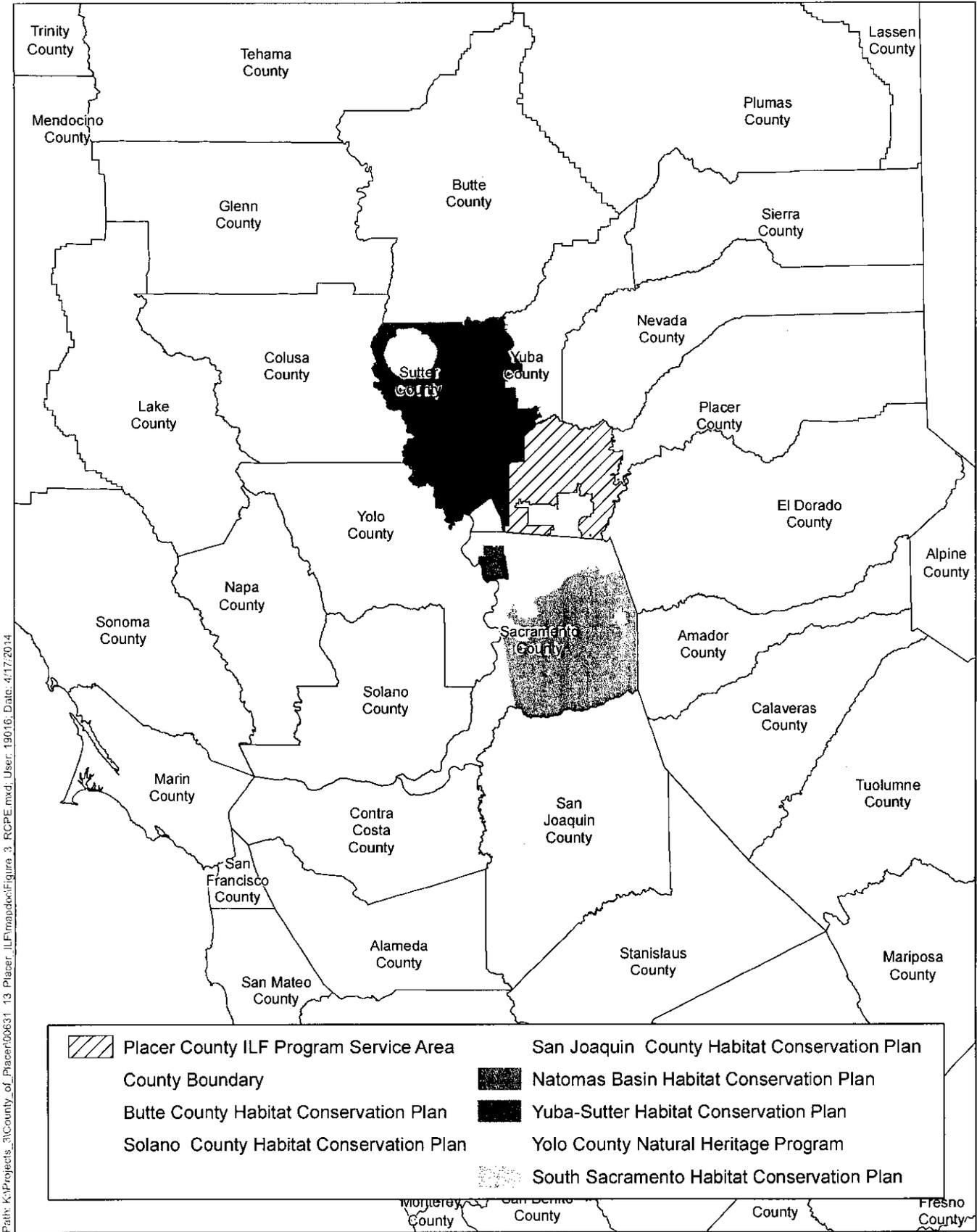
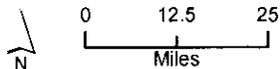


Figure 3
Regional Conservation Planning Efforts



4.0 Background, Need, and Technical Feasibility

4.1 Background

The ILF Program will service approximately 212,000 acres of western Placer County. Approximately half of the Service Area is within the Central Valley and half is in the Sierra foothills. The valley region consists of the urban and suburban areas in Lincoln and unincorporated areas surrounded by agricultural uses and natural grassland, riparian and stream floodplains, and vernal pool communities. The foothills region consists of lower-density suburban and rural residential development along the Interstate 80 corridor and lower density rural residential development, grazing land, natural woodland communities, and higher gradient streams with typically narrow floodplains in the north foothills. See Figure 4 for the waterways of Placer County and the boundary separating the valley and foothill regions within the County.

The County has been preparing the PCCP with the goal of providing an effective framework to protect, enhance, and restore the natural resources in specific areas of western Placer County. The PCCP is proposed to streamline permitting of unavoidable impacts anticipated from covered activities through development of an HCP with USFWS and an NCCP with CDFW. The PCCP, CARP, and their Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) are expected to be approved in 2015 or 2016. However, the ILF Program is proposed as a standalone program that would be available sooner and to applicants seeking CWA Section 404 Permits from the Corps, Water Quality Certifications and Waste Discharge Requirements from the CVRWQCB, and Streambed Alteration Agreements from CDFW within the ILF Program Service Area. If the PCCP is approved, the County will seek approval from the IRT to integrate the ILF Program with the PCCP's proposed fee-based mitigation program for impacts on covered species. This integration would provide a single comprehensive program covering terrestrial natural communities, endangered species, and aquatic resources.

As described in Section 5.0, a tracking system and ledger will be in place to ensure that fees collected will be used to meet the specific permit requirements, whether they are aquatic species-specific (PCCP), aquatic resource-specific (ILF Program), or serve the dual purpose of meeting species and aquatic resource requirements of a single project. In such dual-purpose cases, fees will be tracked separately to ensure proper expenditure for specific habitat types, which may include upland and/or aquatic habitats as applicable to specific project mitigation requirements. In addition, funding from other sources, such as grants or donations, will be tracked separately but can be used to augment the overall ILF Program by funding additional, non-mitigation restoration projects.

The ILF program would utilize an approach developed for the PCCP of purchasing large blocks of land within the northern and western regions of western Placer County, identified as the Reserve Acquisition Area (RAA).

Assembly of the RAA would be based on scientifically accepted principles of conservation biology and informed by the best available biological data. Information on species (e.g., distribution, habitat relationships, and life history characteristics) and habitats (e.g., distribution, species composition, ecological function) would be used to inform acquisitions within the RAA. The RAA would be the primary focus of land acquisitions on which to preserve and restore aquatic resources due to the larger parcel size and more intact watersheds and adjacent uplands. See Figure 5 for the proposed RAA shown in dark green.

The County would implement mitigation projects within the Reserve Acquisition Area to maximize connectivity and likelihood of success, as well as within stream corridors outside of the designated Reserve Acquisition Area that maximize ecosystem functions and services, including benefits to species, depending on priorities within the watershed. Stream Restoration Opportunity Areas currently identified are shown on Figure 6.

4.2 Need

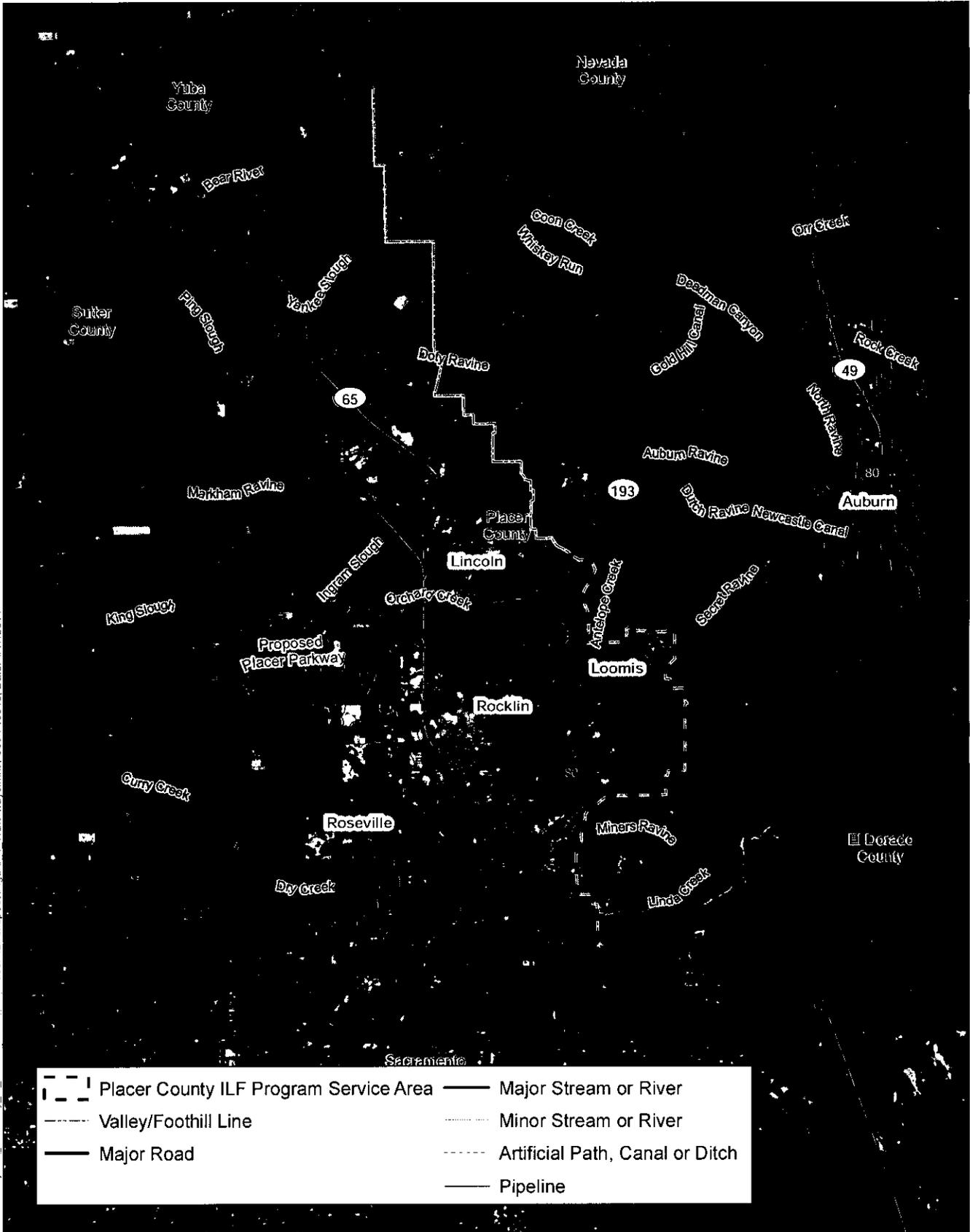
The ILF Program is a key element to providing a comprehensive conservation strategy for the protection and use of natural resources within the Service Area. The proposed PCCP includes a County-wide conservation strategy and streamlined regulatory process that covers sensitive plants, wildlife, and natural communities. The PCCP conserves aquatic resource habitats needed to protect covered species or those that traverse the uplands within the Reserve Acquisition Area. If approved, the ILF Program would complement the PCCP by providing the mechanism for applicants under the PCCP to satisfy Corps, CVRWQCB, and CDFW aquatic resources mitigation requirements by paying the PCCP fees.

If the PCCP is not approved, or until such time as it is approved, the ILF Program is still needed. Activities within regulated aquatic resources require authorization by the Corps, CVRWQCB, and CDFW and the ILF Program is needed to provide the residents of Placer County with a comprehensive regional approach to natural resource mitigation for projects affecting aquatic resources. The ILF Program will simplify the permitting process by providing advanced compensatory mitigation which meets the strict requirements of the Mitigation Rule, thereby eliminating the time needed by the project proponent and regulatory agencies to identify, develop, review, and approve a project-specific mitigation proposal. Similarly, projects requiring CESA or FESA approval, or similar requirements under the County's mitigation requirements, can benefit from the ILF Program in advance of PCCP approval.

Over the next 50 years, urban development, in-stream projects, capital projects, operation and maintenance projects, and rural development projects will result in significant unavoidable impacts on aquatic resources that must be mitigated. The majority of the impacts are anticipated to be within the potential future growth areas shown on Figure 5, where an increase in population from 116,000 to 349,000 is anticipated. To accommodate the projected population growth, approximately 19,744 acres of open space in the valley is anticipated to be converted to urban and associated land uses. In addition, approximately 14,673 acres of land conversion are projected in the foothills and I-80 Corridor due primarily to expansion of rural residential land uses and transportation projects. Figure 5 shows the Valley/Foothill line, which bisects the Service Area. The ILF Program is needed to provide the substantial quantity of high-quality compensatory mitigation needed to respond to projected growth, regardless of whether the PCCP is approved or not. The ILF Program will ensure that compensatory mitigation credits are available prior to project approval and will be consistent with the Mitigation Rule (40 CFR Part 230), limiting the temporal loss of functions and services between impacts and successful compensatory mitigation. Further, the Mitigation Rule includes a preference hierarchy that gives priority to ILF programs over permittee-responsible mitigation options because ILF programs provide a greater watershed planning effort, making them generally environmentally preferable.

In the absence of the proposed ILF Program, applicants would need to utilize appropriate credits on an ad hoc basis from mitigation banks if available within the area of their project, from other ILF programs (such as the National Fish and Wildlife Foundation [NFWF] ILF Program), which may not

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	Placer County ILF Program Service Area		Major Stream or River
	Valley/Foothill Line		Minor Stream or River
	Major Road		Artificial Path, Canal or Ditch
			Pipeline

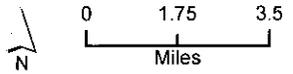


Figure 4
Waterways of Placer County

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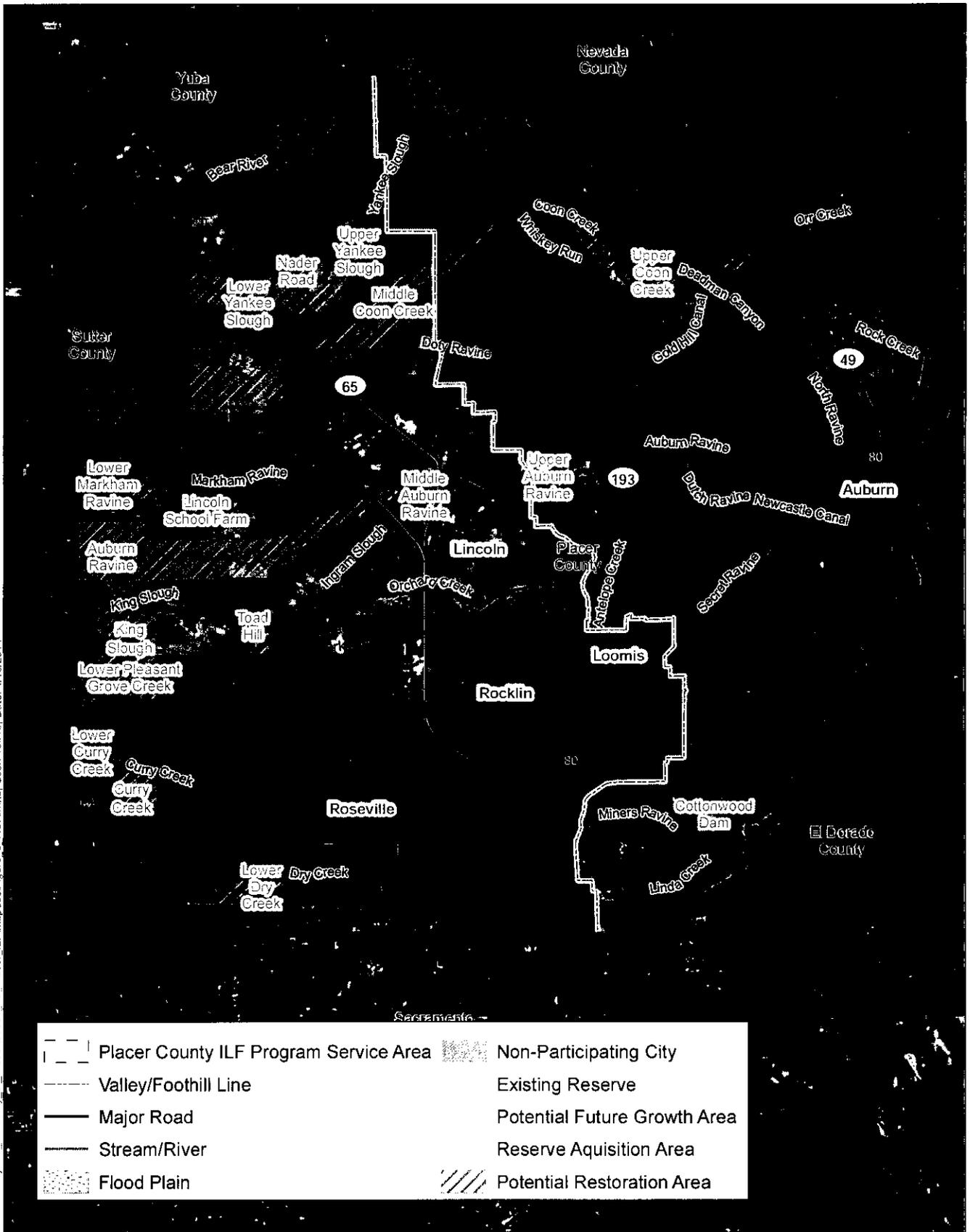


Figure 5
Restoration Opportunity Areas

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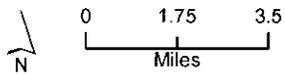
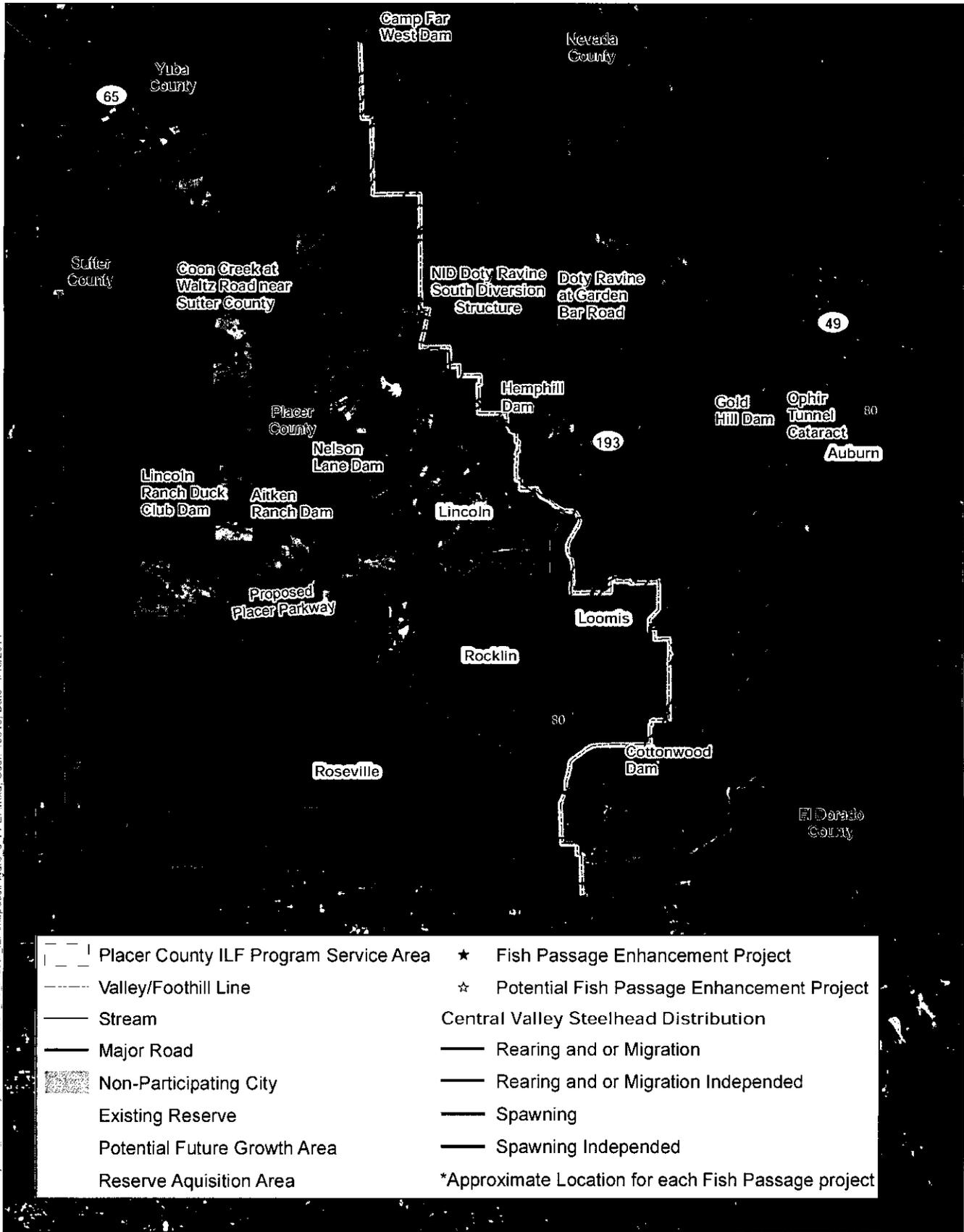


Figure 6
Fish Passage Enhancement Projects

19B

support the ongoing regional conservation efforts, or propose a permittee-responsible mitigation project. There are currently no approved mitigation banks that can provide all the credits anticipated to be needed to mitigate for potential future growth. The NFWF ILF Program, currently being reviewed by Corps, has a large service area covering the Corps' Sacramento District; this Program will not ensure the fees collected from projects in Placer County are used to fund mitigation projects in Placer County and satisfy the regional conservation goals in the PCCP or County General Plan. The Placer ILF Program aims to maintain the regional watershed functions and services more broadly than other ILF programs are likely to be able to do.

Permittee-responsible mitigation projects have been documented nationally as being less environmentally preferable because they have historically had a low success rate. This was attributed to the fact that these sites are typically small onsite wetlands and the placement and design lack application of the watershed approach as well as a third party manager and long-term protection and management (NRS 2001).¹ Locally, the effectiveness of small vernal pool preserves (less than 60 acres) have been evaluated in Placer County and found to be highly important for protecting rare flora and fauna, but inadequately protected and funded compared to larger preserves (Vollmar and AECOM 2009).² Therefore, the small preserves evaluated by this study were more vulnerable to the effects of human and domestic pet trespass, infestation by weeds, and generally have more intensive management challenges with lower oversight by regulatory agencies. The Placer County ILF Program would overcome these challenges and substantially increase the success rate of mitigation sites for aquatic resources because these mitigation sites will be larger and designed within a larger landscape of protected upland and aquatic natural communities. Because these sites will be large, they will be much less vulnerable to the effects of human development and other management issues such as invasive species.

4.3 Technical Feasibility

4.3.1 Regional Approach

The ILF Program is feasible because it will be based on both the regional and watershed efforts ongoing within the Service Area. Resource and regulatory agencies, local jurisdictions, and other stakeholder groups are collaborating in these efforts. Informed by information and analysis prepared for the PCCP and the CARP, the ILF Program would be implemented through a detailed planning framework and monitoring program. Restoration, enhancement, and preservation projects within a reserve system of acquired properties would be funded by the fees generated by the permits issued by the Corps, CVRWQCB, and CDFW.

Aquatic resources preservation and restoration are well-established in Placer County. There is a wealth of local information and expertise with successful mitigation projects, such as approved mitigation banks and other restoration mitigation projects, which the County will draw upon in implementing the ILF Program. The ILF Program will utilize information and conceptual projects already identified in the draft PCCP and strive to generate credits based on mitigation projects with at least conceptual planning documents approved by the IRT to minimize the use of advance credits and reduce financial risks.

¹ National Research Council, 2001. *Compensating for Wetland Losses Under the Clean Water Act*. National Academy of Science, Washington, D.C., ISBN-10: 0-309-07432-0.

² Effectiveness of Small Vernal Pool Preserves, 2009. Prepared for Placer Land Trust by Vollmar Consulting and AECOM.

4.3.2 Watershed Approach

As described above, the ILF Program is based on a regional watershed approach designed to conserve uplands and aquatic resources, and species as envisioned in the Draft PCCP and Draft CARP. The ILF Program adopts this approach and integrates three watershed plans:

- the Dry Creek Coordinated Resource Management Plan,
- the Auburn Ravine/Coon Creek Ecosystem Restoration Plan, and
- the Pleasant Grove/Curry Creek Ecosystem Restoration Plan.

These Placer County/CALFED funded watershed management plans were designed to give direction to control pollution, manage stormwater, and restore and enhance stream system habitats and uplands that surround them. In addition, the Dry Creek Greenway Regional Vision is a regional open space greenway and park system that protects the natural waterways, riparian corridors, natural and cultural resources and sensitive habitat lands, and provides compatible recreational opportunities that do not impact sensitive resources or private property rights.

By definition, watershed planning focuses on a watershed, a geographic area that is defined by a drainage basin. A watershed based mitigation strategy should address a geographic area large enough to ensure that implementing the strategy will successfully mitigate causes of impairments and threats to the waterbody impacted. Although there is no rigorous definition or delineation of this concept, the general intent is to avoid a focus on single waterbody segments or other narrowly defined areas that do not provide an opportunity for addressing watershed impacts in a rational, efficient, and economical manner. At the same time, the scale should not be so large that it hampers the ability of the resource to recover and negatively affects biodiversity.

Plans that bundle watersheds within a given geographical location with similar sets of problems, or address a common stressor (e.g., sediment, nutrients, loss of biological function) across multiple related watersheds, can be particularly useful in terms of planning and implementation efficiency and the strategic use of administrative resources. Within the Service Area, what are commonly referred to as the western Placer Creeks (e.g., Dry, Pleasant Grove, Auburn Ravine, and Coon) share a common landscape with a similar set of problems and stressors. These watersheds, between the Bear and American rivers, lie within the American Basin Hydrologic Unit.

Placer County believes this regional geographical designation is a feasible watershed approach that will ensure minimizing effects in individual watersheds. The regional watershed approach allows large-scale restoration efforts to occur outside individual HUC-8 watersheds in locations of contiguous habitat with buffer lands and where they are more likely to succeed. These large-scale efforts would likely occur within the Reserve Acquisition Areas in the northern and western areas of the Service Area. The flexibility of being able to mitigate project impacts within the larger American Basin Hydrologic Unit will prove over time to improve watershed functions and services and species recovery; it is essentially the environmentally preferable alternative with the greatest likelihood for ecological success and sustainability.

Placer County's watershed approach ensures that compensatory mitigation will be located where it is most likely to successfully replace lost functions and services, taking into account such watershed-scale features as aquatic habitat diversity, habitat connectivity, relationships to hydrologic sources (including the availability of water rights), trends in land use, ecological benefits, and compatibility with adjacent land uses.

5.0 Operation

5.1 Program Components

The proposed ILF Program has five main components that will ensure no net loss of aquatic resources acreage, functions, and services within the Service Area.

1. **Reserve System.** As land is acquired within the RAA and through the ILF Program, it would become part of a reserve system that is expected to become 45,000 to 50,000 acres over the next 50 years (anticipated permit term of the PCCP). The ILF Program will implement compensatory mitigation projects on the lands acquired by the County and protect them with new conservation easements, which would augment the approximately 16,000 acres of existing conservation lands in Placer County. Cumulatively, 36% of the present non-urban landscape in the Service Area would ultimately be subject to conservation management. The County will be responsible for protection and management of the reserve system in perpetuity to ensure the protection of aquatic resource functions and services at the regional and watershed scales. If the PCCP is approved, the County would also be responsible for the implementation of the conservation strategy of that plan to provide for the conservation and management of the species covered by the plan, including endangered aquatic species.

The Reserve System would provide a means for protecting and managing the mitigation projects funded by the ILF Program. The Reserve System would mainly be located in the western and northern valley and in the northern foothills, regionally separated from future urban and suburban growth.

The County will assemble the Reserve System in the following ways:

- o Enhancement of land owned by the County or City of Lincoln (i.e., the anticipated PCCP Permittees) and inclusion in a conservation easement.
- o Purchase of conservation easements or land in fee title from willing sellers.
- o Purchase of land or conservation easements in partnership with other organization(s) (these sites cannot be used as mitigation projects).
- o Acceptance of land or easement dedication in lieu of fee payment if the easement contributes to the goals and objectives of the ILF Program and with County approval.
- o Acceptance of land or easement dedication as a gift or charitable donation.

Acquisition of land in fee title and conservation easements will likely be the primary land acquisition mechanism.

When possible, land adjacent to existing protected areas will be acquired first to ensure that the Reserve System is composed of contiguous units rather than isolated parcels.

2. **Vernal Pool Mitigation Projects.** The ILF Program will implement vernal pool, vernal pool complex, and grassland preservation, establishment, and restoration projects that protect vernal pool basins, swales, and associated watersheds.
3. **Stream and Riparian Mitigation Projects.** The ILF Program will implement stream and riparian mitigation projects in and along stream corridors to establish riparian and stream credits and improve habitat connectivity to the Reserve System.

4. **Wetland and Open Water Mitigation Projects.** The ILF Program will implement wetland and open water preservation, establishment, and restoration (re-establishment and rehabilitation) projects that include upland buffers.

5.2 Credit Types

The Mitigation Rule (33 CFR 332.2) recognizes four mitigation approaches for which credits can be generated. The ILF Program would cover a large geographic area and would include mitigation activities that meet each of these definitions. The type of credits will be defined in each site-specific mitigation plan and will adhere to the definitions of preservation, restoration (re-establishment and rehabilitation), establishment (creation), and enhancement in the Mitigation Rule.

- *Preservation:* Removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions. For preservation to be used as compensatory mitigation, five (5) criteria must be met: (1) The resources to be preserved provide important physical, chemical, or biological functions for the watershed; (2) The resources to be preserved contribute significantly to the ecological sustainability of the watershed; (3) Preservation is determined by the District Engineer to be appropriate and practicable; (4) The resources are under threat of destruction or adverse modifications; and (5) The preserved site will be permanently protected through an appropriate real estate or other legal instrument.
- *Restoration:* Manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.
 - *Re-establishment:* Manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.
 - *Rehabilitation:* Manipulation of the physical, chemical or biological characteristics of a site with the goal of repairing the natural/historic functions to a degraded aquatic resource. Rehabilitation results in gain in aquatic resource function, but does not result in a gain in aquatic resource area.
- *Establishment:* Manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area and functions.
- *Enhancement:* Manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

The PCCP has identified initial opportunities and priorities within the Service Area to address the anticipated growth and associated unavoidable impacts on waters. The ILF Program utilizes these

same opportunities and priorities and establishes three general categories of credit types based on aquatic resource habitat type: (1) Vernal Pool and Vernal Pool Complexes Credits; (2) Riverine and Riparian Credits; (3) Freshwater Emergent Marsh and Open Water Credits. Within each category, credits are proposed to be defined as one acre of the establishment or re-establishment or calculated as a percent gain in function or condition in existing degraded aquatic resources through rehabilitation and enhancement activities. Stream credits may also be defined by stream miles measured along the centerline or linear feet of shoreline, depending on the site and mitigation approach. Credits within these categories will be further refined in site specific mitigation plans and provide the Hydrogeomorphic (HGM) class, Cowardin wetland class, and vegetation classification.

5.3 Credit Amounts

The ILF Program initially proposes the following targets:

1. Vernal Pool and Vernal Pool Complex Credits (may include wetted acre credits as well as grassland acre credits)
 - Acquire 17,000 acres of vernal pool complex grassland in the valley and establish vernal pool and grassland preservation credits.
 - Acquire 7,150 acres of grasslands (i.e., non-vernal pool complex grassland)—an estimated 3,750 acres in the valley and 3,400 acres in the foothills—and create vernal pool/seasonal wetland establishment and reestablishment credits where proper physical conditions allow. An estimated maximum of 477 acres of credits are expected.
2. Riverine and Riparian Credits
 - Acquire 2,200 acres of riparian habitat—an estimated 1,600 acres in the valley and 600 acres in the foothills—protect 40.6 stream miles and establish riverine and riparian preservation credits.
 - Restore or enhance riparian and riverine habitats to reestablish, reconnect, and expand existing riparian areas and create reestablishment, rehabilitation and/or enhancement credits. An estimated maximum of 1,206 acres of credits are expected to be available.
 - Remove, replace, and/or modify dams, at-grade crossings, and culvert crossings that inhibit natural sediment transport, hydrology, and/or inhibit fish passage. Replace if necessary with structures that allow for a natural or semi-natural bankfull cross section and reestablish physical processes. Credits to be determined based on percent gain in stream function, condition and/or linear feet of restored streambed.
3. Freshwater Emergent Marsh and Open Water Credits
 - Acquire 600 acres of freshwater emergent marsh and open water (e.g., pond) land cover types—approximately 400 acres in the valley and 200 acres in the foothills—and establish preservation credits.
 - Establish or rehabilitate freshwater emergent marsh and open water (e.g., permanent and semi-permanent ponds) habitat. An estimated maximum of 709 acres of establishment or rehabilitation credits are expected to be available.

5.4 Credit Pricing

Credit costs will be established based on a full cost accounting of expenses in accordance with the Mitigation Rule.

The cost for one credit will be based on the cost of land acquisition, legal fees, program administration, mitigation project planning and design, implementation (e.g., grading or other construction activities, plant materials, erosion control materials, labor, etc.), short-term performance monitoring and maintenance (5 to 10 years), adaptive management and remedial measures, long-term maintenance and management (e.g., non-wasting endowments or equivalent), financial assurances (e.g., performance bonds, letters of credit, etc.), and contingency. Therefore, the cost per credit is based, in part, on the level of intensity of the mitigation approach, making preservation credits generally less expensive than establishment credits. Credit prices for each mitigation site and across the program will be re-evaluated periodically and, if necessary, adjusted to ensure prices are adequate to fully protect and manage the mitigation sites in perpetuity.

A method for determining credit fees for future mitigation sites will be included in the draft instrument.

5.5 Advance Credits and Released Credits

Under the ILF Program, the number of credits will reflect the mitigation approach as defined above and the difference between pre-and post-project site conditions as determined by a jurisdictional delineation or equivalent mapping effort (e.g., habitat map) and functional or conditional assessment. Credit determinations will be defined in site-specific mitigation plans in coordination with the IRT. *Advance credits* are a subset of the total approved credits for each site-specific mitigation plan, and are approved for sale prior to being fulfilled. The number of advance credits will be determined in coordination with the IRT through review of the Compensation Planning Framework (described in Section 8 below) and approval of site-specific mitigation plans.

The ILF Program will encourage collaborative funding from multiple sources for mitigation projects, as allowed for in federal regulations (33 CFR Part 332). When determining the amount of mitigation credit for the ILF Program provided by a collaboratively funded project, mitigation credit will be claimed proportional to the funding amount it provided to the project, including cash and in-kind contributions.

The timing and sequence of reserve assembly relative to impacts of permitted activities is critical to the success of the ILF Program. The availability of credits must stay ahead of total impacts permitted within the Service Area. To meet this provision, a mitigation project will need to be approved by the IRT prior to the release of any credits.

5.6 Credit Releases

In order for the ILF Program to be available as an option for meeting compensatory mitigation requirements for permit authorizations within the Service Area, a mitigation project will have to be identified and described in a mitigation plan that has been approved by the IRT. Given the volume of projects, the County proposes such approval to occur on a programmatic basis (e.g., annually, property by property, or some other logical grouping of mitigation projects). The number of credits

available at any given time will be determined by the credit release schedule outlined in the mitigation plan, and may include advance credits (33 CFR Part 332).

Credits generated through ILF Program mitigation projects may be sold to any private or public sector individual, organization, or agency that is seeking mitigation credits to comply with a Section 404 permit, Water Quality Certification, Streambed Alteration Agreement, or other environmental permit issued within the Service Area that allows ILF Program credits for compensatory mitigation. Use, as well as the number and type, of credits for activities authorized by Corps permits will be at the discretion of the Corps District Engineer. Similarly, use of credits authorized by other agencies will be at the discretion of that agency. Upon sale of the credits, the County becomes responsible for the compensatory mitigation requirements of the permit. The cost of the credit will be determined by the County in coordination with the IRT.

5.7 Credit Tracking

The County will establish and maintain an annual report ledger that tracks the production of advance and released credits for the ILF Program and for individual mitigation sites within the ILF Program. Reporting requirements for the annual report will be provided in the ILF Instrument.

The County will track fees and all other income received, the source of the income, and any interest earned by the program account. The ledgers will include a list of all the permits for which ILF Program funds were accepted, including the file number, the specific watershed in which the authorized impacts are located, the amount (acreage/linear feet) of authorized impacts, the aquatic resource type impacted, the amount of compensatory mitigation required, the amount paid to the ILF Program, and the date the funds were received. In addition, the County will create and maintain a report ledger for the ILF Program that will track all disbursements/expenditures and the nature of disbursement. The County will also track funds obligated or committed, but not yet disbursed.

The ledger will also include, for each mitigation project, the specific watersheds (e.g., HUC-10 and HUC-8) in which the project is located, the amount of compensation being provided by each type of mitigation approach (preservation, re-establishment, enhancement, or establishment), the aquatic or other resource type represented, the amount of compensatory mitigation being provided (acres/linear feet), and the number of credits certified by the IRT. The annual report ledger will also include a balance of advance credits and released credits at the end of the report period for the Service Area.

5.8 Processes for Mitigation Project Development

The Mitigation Rule generally requires mitigation projects to be approved and implemented to a specified level within three growing seasons of the first sale of advance credits within the Service Area.

The County will develop compensatory mitigation projects that are consistent with the ongoing regional conservation efforts in the Draft PCCP, watershed plans, and the General Plan over time as opportunities within the Service Area become available. Mitigation projects will be prioritized on the basis of anticipated impacts on aquatic resources. As such, the selection of potential mitigation projects will focus on large scale restoration/establishment and preservation projects that address IRT and County priorities within the Service Area. Each compensatory mitigation project will be

evaluated for its potential to provide appropriate compensatory mitigation for aquatic resources based on the following criteria:

- *Likelihood of Success* – Demonstrated through a mitigation plan concept and proper site due diligence.
- *Achieves Multiple Objectives* – In addition to the establishment and preservation of aquatic resources, the potential mitigation projects should increase the physical (soils and hydrology), chemical (biogeochemical and water quality), and biological (habitat, species, and buffers) functions and services of the aquatic resources.
- *Land Use Compatibility* – Projects must be located where they limit land use conflicts and where they can benefit existing habitat corridors and nearby protected natural areas.
- *Funding leverage* – Mitigation project costs must be itemized (e.g., planning, implementation, and monitoring) and funding must be secured.
- *Capacity of the County* – The County must demonstrate that there is sufficient capacity and expertise to plan, implement, monitor, and manage the mitigation project.
- *Long Term Management* – Mitigation projects must have a funded plan for the long-term management of the site in perpetuity.

5.9 Initial Project Prospectus

After a mitigation project site has been selected, an Initial Project Prospectus will be prepared and submitted to the IRT. The Initial Project Prospectus will provide (at a minimum) the following information:

- Property location and ownership
- Mitigation proposal
- Consistency with Compensation Planning Framework and mitigation site evaluation criteria
- Project partners
- Number of proposed credits to be generated by the project
- Budget
- Title review

6.0 Service Area

The proposed geographic Service Area for the ILF Program is located on the Sierra west slope of the Lower Sacramento River Basin in western Placer County (Figure 1). Sacramento River tributaries define a series of subbasins. Western Placer County falls in four subbasins at USGS level HUC-8. See Figure 7 showing the HUC-8 Watershed Boundaries:

- The Upper Bear River (18020126) defines the northern service area boundary.
- The Upper Coon Creek—Upper Auburn Ravine (18020161) watershed covers the majority of the service area.

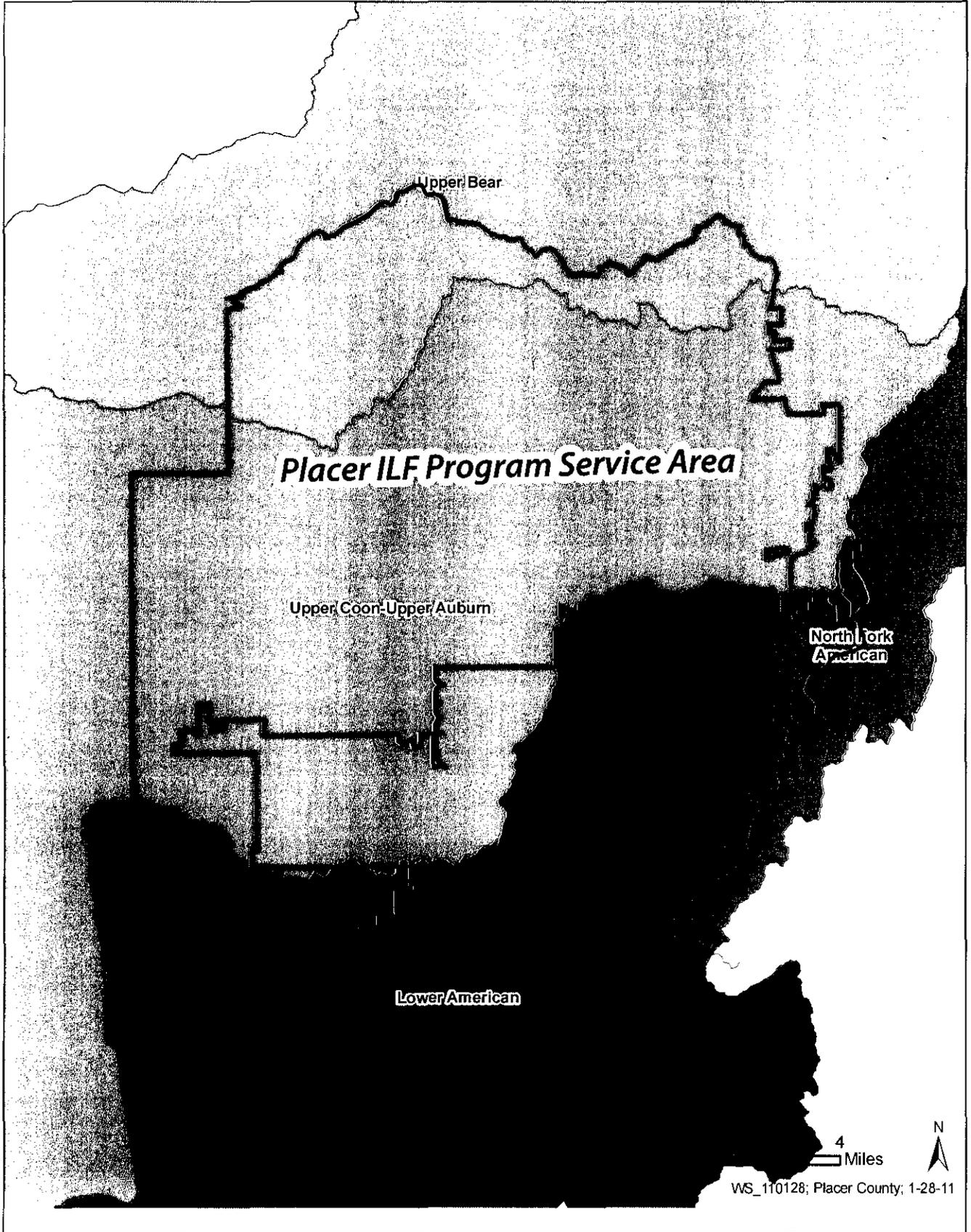


Figure 7
HUC 8 Watersheds

- The Lower American River (18020111) covers the majority of the southern service area along the southern boundary.
- The North Fork American River (18020128) delineates the southeastern service area boundary.

Placer County stretches from the Sacramento Valley east to the high Sierra and the California-Nevada state line and covers a total area of 1,500 square miles (962,000 acres). The Service Area proposed for the ILF Program is the City of Lincoln plus all unincorporated lands within western Placer County—approximately 212,000 acres or roughly five-sixths of western Placer County.

The Service Area is the area within which the ILF Program will be implemented, and nearly all (approximately 95%) of the Service Area is in private ownership. Specific aquatic resource conservation and mitigation strategies outlined in the County’s General Plan, Draft PCCP, Draft CARP, and individual watershed management plans will be integrated into the development of the ILF Program. This integration of existing data developed in coordination with regulatory agencies and local jurisdictions ensures that the ILF Program will start off addressing known stakeholder interests and land uses. In addition, the early identification of priority sites for aquatic resource restoration and protection helps to ensure implementation of a sound watershed approach across the Service Area.

7.0 Ownership Arrangements and Long-Term Management Strategy

The ILF Program provides for the long-term preservation and management of the mitigation sites through direct acquisition of land and/or conservation easements. The County may work with other partners who will own and manage the land in cooperation with the County and as approved by the IRT, under certain conditions. However, the County anticipates that conservation easements will be recorded on all preserve lands and that the County will own the conservation easements in most cases. Each mitigation project covered by the ILF Program will meet the appropriate ownership and stewardship requirements to insure its long-term protection in accordance with the Mitigation Rule. Conservation easements or equivalent protection measures will be recorded on mitigation project sites before the final release of mitigation project credits.

8.0 Compensation Planning Framework

The Compensation Planning Framework addresses the following 10 elements required by the Mitigation Rule.

1. The geographic service area(s), including a watershed-based rationale for the delineation of each service area.
2. A description of the threats to aquatic resources in the service area(s), including how the ILF program will help offset impacts resulting from those threats.
3. An analysis of historic aquatic resource loss in the service area(s).
4. An analysis of current aquatic resource conditions in the service area(s), supported by field documentation.

5. A statement of aquatic resource goals and objectives for each service area, including a description of the general amounts, types and locations of aquatic resources the program will seek to provide.
6. A prioritization strategy for selecting and implementing compensatory mitigation activities.
7. An explanation of how any preservation objectives identified above satisfy the five (5) criteria in the Mitigation Rule (33 CFR Section 332.3h) for use of preservation.
8. A description of any public and private stakeholder involvement in plan development and implementation, including coordination with federal, state, tribal, and local aquatic resource management and regulatory authorities.
9. A description of the long-term protection and management strategies for activities conducted by the ILF program sponsor.
10. A strategy for periodic evaluation and reporting on the progress of the program in achieving the goals and objectives above, including a process for revising the planning framework as necessary

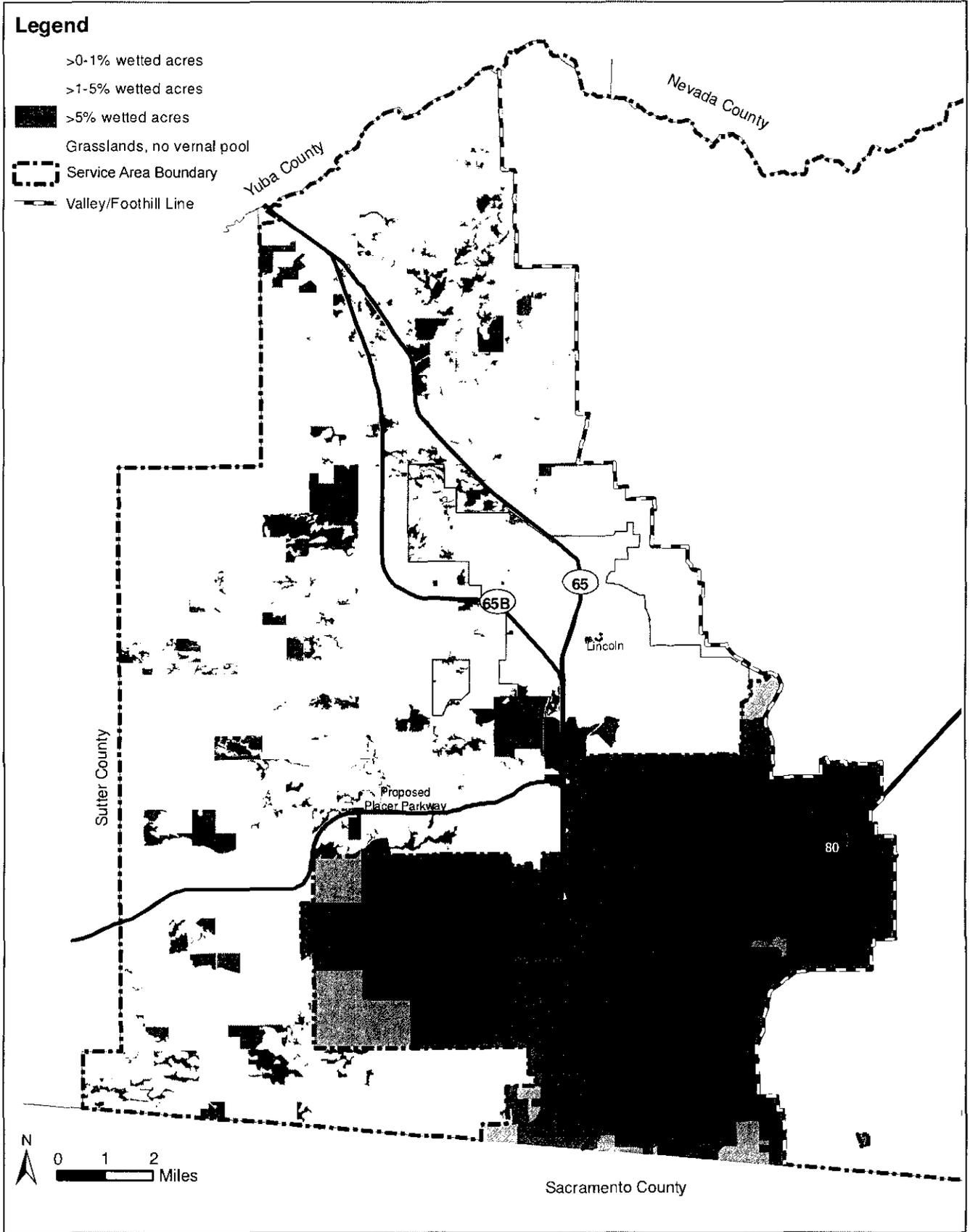
8.1 Geographic Service Area

The rationale for the structure of the proposed ILF Program Service Area is described in Section 4.0 of this document. A key element of the ILF Program is that it is aligned with the habitat and species conservation goals of the regional conservation planning efforts in process for the Draft PCCP, rather than strictly focusing on mitigation needs based on geographic proximity. As a result, the Service Area covered by the ILF Program incorporates a watershed-based rationale to identify mitigation planning, as well as the regional conservation approach that aims to designate large areas for conservation.

8.2 Current Aquatic Resource Condition

Vernal Pools and Vernal Pool Complexes: Vernal pools and vernal pool complex (includes wetlands and grasslands) comprise 44,077 acres within the Service Area (Figure 8). Vernal pools occur in undulating topography and may be isolated from one another, but more often they are interconnected by swales or ephemeral drainages in vernal pool complexes that may extend for hundreds of acres. These swales are part of the vernal pool complex, although often they do not remain saturated long enough to develop the unique plants and animals that characterize vernal pools. Pools may also be hydrologically connected by subsurface water flows. Direct rainfall is the primary water source but overland runoff and groundwater may also contribute to vernal pool hydrology (Jokerst 1990, as cited in JSA 2004). Size and depth of vernal pools vary. Vernal pools are ecologically integrated with the surrounding uplands, typically annual grassland habitats that form the watershed of the complex.

Vernal pools are classified on the basis of physical, geographical, and biological factors (Sawyer and Keeler-Wolf 1995, as cited in JSA 2004). Several types of restrictive soil layers have been described (Smith and Verrill 1998, as cited in JSA 2004), two of which occur in western Placer County: hardpans and volcanic flows. Hardpans are formed when silica minerals are leached, redeposited, and then cemented lower down the soil profile. They occur on alluvial terraces on the east side of the Central Valley. Northern Hardpan Vernal Pools are most common in the Southeastern Sacramento Valley Vernal Pool Region, where they occur in complexes of many small pools and



Graphic Scale: 7/26/01, 1/16/02



Figure 8
Vernal Pool Complexes and Grasslands

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swales among mima mounds on soils of the Pentz-Pardee-Red Bluff, Redding-Corning, and San Joaquin series (USFWS 2005). Northern Volcanic Mudflow Vernal Pools (Holland 1986; Sawyer and Keeler-Wolf 1995, as cited in JSA 2004) occur on the Exchequer soils that formed on the lahars (mudflows) of the Mehrten Formation. Remaining vernal pools and vernal pool complexes in the Mehrten formation occupy approximately 1,700 hectares (4,200 acres) or approximately 1.5% of the remaining land area. These are almost completely within private ownership and have been converted by urban and suburban development. Placer County contains most of the small number of Volcanic Mudflow Vernal Pools in the southeastern portion of the Sacramento Valley (California Department of Fish and Game 2001a, as cited in JSA 2004; USFWS 2005).

Riverine Systems and Riparian Habitats: Riverine systems and associated riparian habitats make up approximately 7,175 acres of the Service Area. There are two riverine and riparian land-cover types found in the Service Area.

- Riverine
- Valley foothill riparian

Riverine systems occurring in western Placer County HUC-10 watersheds include perennial, intermittent, and ephemeral streams (Figure 9). As the term implies, perennial streams sustain flows year round. The larger streams in the Plan area and vicinity such as the Bear River and American River are perennial and always have been. Intermittent streams receive some input from groundwater discharge in addition to precipitation runoff and seasonal flow. They typically do not flow in the late summer and fall. Some streams in the Service Area were historically intermittent but have become perennial because of inter-basin water transfers (e.g., the movement of water from one basin or watershed to another) and inputs of water destined for downstream uses (e.g., Auburn Ravine, Coon Creek, etc.). Ephemeral streams receive no input from groundwater and flow only during and following storm events in response to precipitation runoff. The flow regime in a stream profoundly affects its ecology, in particular its ability to support fish and other aquatic organisms.

In western Placer County, valley foothill riparian woodland occurs on the American and Bear River corridors and along Coon Creek and lower Auburn Ravine. Significant stands are generally restricted to low-gradient depositional reaches with some floodplain development. Along most other creeks in western Placer County, this ecosystem occurs as narrow and generally discontinuous bands of trees, rarely occurs on intermittent streams, and never occurs on ephemeral streams that only flow during storm events. On high-energy, bedrock-constrained river systems, the riparian corridors are patchy and quite narrow, limited laterally by steep side slopes, and usually not exceeding one tree canopy in width. Willow scrub is generally persistent, but is also an early successional stage that is eventually over-topped by valley oak, cottonwood, or alder in mature riparian woodland (Mayer and Laudenslayer 1988, as cited in JSA 2004).

Freshwater Emergent Wetlands and Open Water: Freshwater emergent wetlands and open water communities make up 4,030 acres of the Service Area. The wetlands and open water contain vegetation and wildlife that is aquatic, but not necessarily riverine or associated with vernal pools.

Freshwater emergent wetland is distinguished from deepwater aquatic habitat and wet meadow or grassland habitats by the presence of tall, perennial, grass-like plants rooted in soils that are typically permanently flooded or inundated, but can also be semi-permanent and seasonally flooded. The boundary between freshwater emergent wetland and deepwater (i.e., lacustrine and riverine) habitats is at a depth of 6.6 feet (Cowardin et al. 1979, as cited in JSA 2004). Freshwater emergent wetland ecosystems can occur in basins or depressions at all elevations, aspects, and exposures, but

they are most common on level to gently rolling topography (Mayer and Laudenslayer 1988, as cited in JSA 2004). They are often associated with small human-made ponds and natural drainageways that are enhanced by intentional or unintentional releases of irrigation water. Freshwater emergent wetland can also occur as a fringe around reservoirs where the slopes are gentle enough to create a rim of shallow water and where water levels do not fluctuate widely. Unmaintained roadside and agricultural ditches can also support these ecosystems. Small marshes can also be found along low-gradient reaches of rivers and streams in backwater areas or ponded overflow channels.

In western Placer County, freshwater emergent wetland occurs at elevations of about 50–1,765 feet. These ecosystems occupy about 1,280 acres, or less than 1% of the Service Area. Approximately 98% of this habitat is on private land. Most individual occurrences of freshwater emergent wetland in the County are less than 1 acre in extent; some larger, restored freshwater emergent wetlands exist in the northwestern part of the Service Area near Sheridan.

Open water lacustrine ecosystems are defined as inland, natural ponds and lakes, as well as artificial features such as reservoirs that are formed by dammed river channels. Aquatic features less than 0.1 acre, such as small stock ponds, are found throughout the Service Area; however, most of these shallow features were not mapped as lacustrine ecosystems due to limitations of scale in the aerial photography. Although many are named as lakes, it is important to recognize that reservoirs are different from natural lakes in their physical and biological characteristics. Most reservoirs fluctuate on an annual basis, being gradually drawn down in summer to supply water for irrigation, power generation, or agriculture. However, even a fluctuation of as little as 3 to 6 feet can prevent plants from establishing at the shoreline or aquatic plant beds from developing. Stratification also characterizes deep natural lakes.

Open water lacustrine ecosystems, including reservoirs, are found throughout California at virtually all elevations, but they are less abundant in arid regions. Approximately 4,790 acres of lacustrine ecosystems were mapped in western Placer County; these are widespread across the Service Area. Many artificial reservoirs and agricultural or residential ponds exist in the Service Area. The two largest reservoirs, Camp Far West on the Bear River and Folsom Lake on the American River, border Placer County on the north and south, respectively. They were created by public agencies for a combination of flood control, power generation, and water storage; both are also used for recreational purposes.

8.3 Threats to Aquatic Resources

Vernal Pools and Vernal Pool Complexes: Threats to vernal pools include development and fragmentation, modification to inundation and hydro-period due to changes in the hydrology of surface flows and perched groundwater flows, nonnative vegetation (including annual grasses and noxious weeds), impacts from recreational use, impacts on water quality, nonnative predators, and decreased pollination and dispersal of vernal pool species due to impacts on adjacent uplands.

Riverine Systems and Riparian Habitats: Threats to riverine ecosystems include changes in the timing and volume of stream flows (e.g., effects of reservoir operations, surface water diversions, groundwater pumping, urban and agricultural runoff), dams that impede movement of fish and natural sediment transport, changes in water quality, reduction in riparian and stream channel structural complexity (e.g., loss of riparian trees, stream down-cutting and widening, and stream channelization), siltation, and invasions of nonnative species (Meehan 1991, as cited in JSA 2004). Loss of riparian vegetation results in decreased shading, increased water temperatures, reduced

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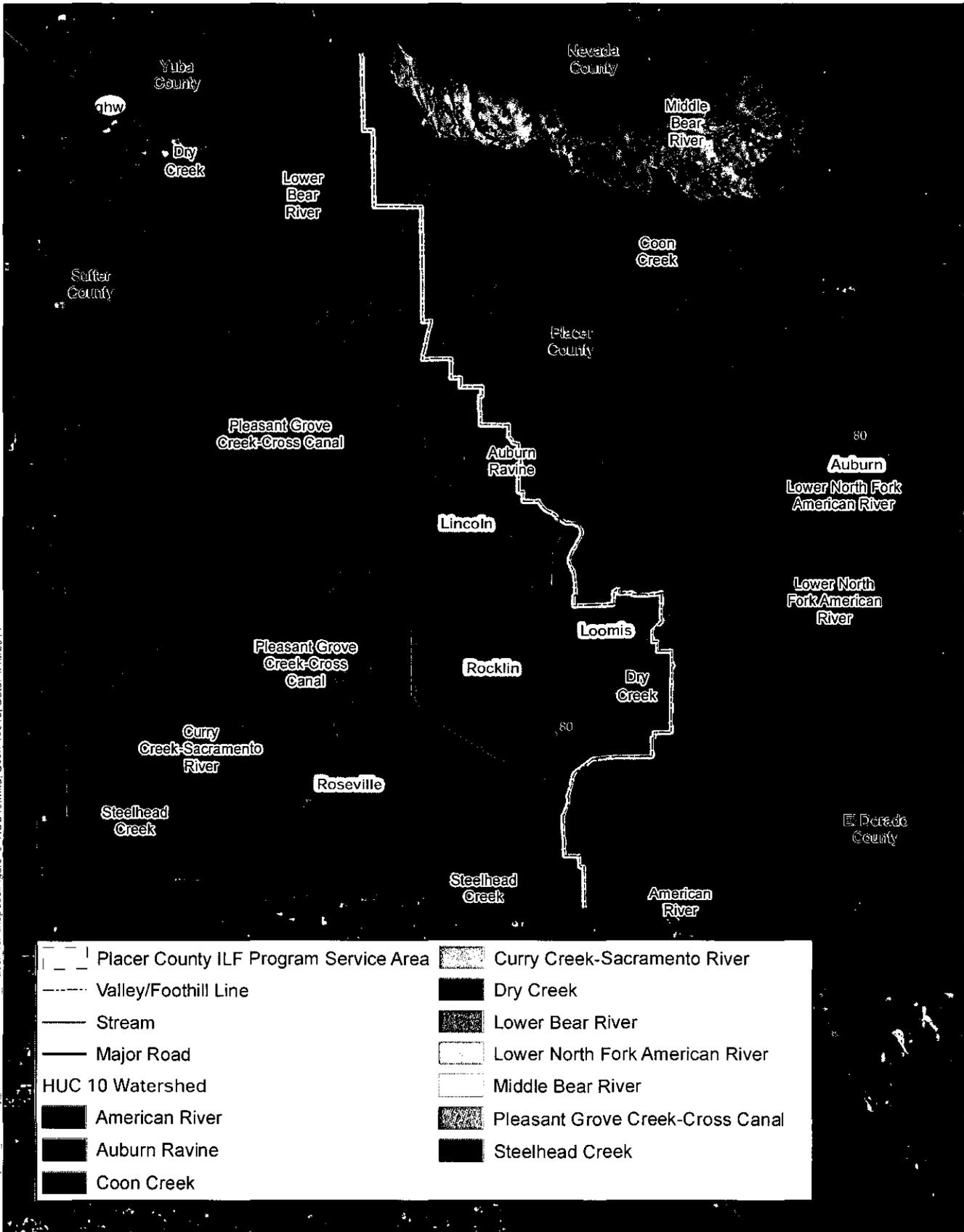


Figure 9
HUC 10 Watersheds and Riverine Systems

cover, and decreased input of nutrients. Trash and other pollutants, such as oil, fertilizers, and herbicides that are washed into streams may degrade water quality to the point that aquatic life cannot persist. Aquatic invertebrates, often sensitive to water quality, may die off, thus disrupting the food chain.

Water operations and land alterations that result in reduced stream baseflows and/or increased depth to the water table threaten growth in valley foothill riparian systems.

Freshwater Emergent Wetlands: Threats to freshwater emergent wetlands include conversion to land uses such as agriculture or urban development, pollution, grazing, changes in hydrologic regime, nonnative species invasion, and natural processes such as fire or flood.

8.4 Historic Aquatic Resource Loss

Vernal Pools and Vernal Pool Complexes: Vernal pool complexes have been degraded in western Placer County and throughout their range by direct disturbance, invasion of nonnative species, and by alteration of hydrological patterns. Vernal pool complexes have also been degraded by the lack of grazing, which allows nonnative grasses in the surrounding uplands to invade swales and the margins of vernal pools, altering microhabitat and the abundance and distribution of native species, including covered plants (USFWS 2005). For many complexes, habitat restoration may be necessary to regain proper functioning of a vernal pool ecosystem (USFWS 2005).

Riverine Systems and Riparian Habitats: Rivers and creeks are among the most altered ecosystems in the Sierra Nevada. Two major impacts are the more than 400 dams and associated impoundments (25 feet or more in height) present on rivers and creeks and the significant amounts of hydraulic mining debris that passed through these systems in the 1800s up until the early 1900s (Kattelman 1996, as cited in JSA 2004). All riverine systems within the Service Area have been further altered by creation of permanent or temporary barriers (e.g., road crossings and dams), authorized and unauthorized water diversions, channelization, flood control projects, loss of riparian vegetation, and increased rates of sedimentation. These impacts reduce habitat complexity and habitat quality, affecting ecosystem characteristics such as pool/riffle relationships, level of dissolved oxygen, and substrate composition. Valley foothill riparian woodland has been adversely affected by land development, water diversions and grazing. Flood control activities, cultivated agriculture, aggregate mining, and urban development have all significantly reduced the extent of this land-cover type.

Freshwater Emergent Wetlands and Open Water: Freshwater emergent wetlands have decreased dramatically since the turn of the century due to drainage and conversion to other uses, primarily agriculture (Mayer and Laudenslayer 1988, as cited in JSA 2004). Natural lakes did not occur in the foothill and Central Valley region of the Sierra Nevada due in large part to the absence of glaciated landscapes; essentially all the deepwater lakes and ponds in the foothills are artificial (Mayer and Laudenslayer 1988, as cited in JSA 2004).

8.5 Aquatic Resource Goals and Objectives

The aquatic resource goals and objectives for each aquatic resource addressed by the ILF Program are derived from the Draft PCCP and summarized below.

Vernal Pools and Vernal Pool Complexes: The main goal for conservation and management of grasslands and vernal pool grassland complexes is to protect, restore, enhance, and maintain

grasslands and vernal pools (including seasonal wetlands when part of vernal pool complexes) in functional vernal pool grassland complexes. This includes protecting and where necessary, restoring the hydrological processes that sustain the complexes.

The following objectives are designed to achieve this goal.

- Acquire 17,000 acres of vernal pool complex grassland in the valley in large, contiguous blocks (upwards of 1,000 acres) to support hydrological and ecosystem functions, representative biodiversity, and covered species within the reserve system.
- Acquire 7,150 acres of grassland (i.e., non-vernal pool complex grassland; an estimated 3,750 acres in the valley and 3,400 acres in the foothills) to protect grasslands and to use as a land base to restore and create other natural communities including vernal pool complex, aquatic/wetland communities, valley-foothill riparian, valley oak woodland, and oak woodland (in the foothills).
- Restore approximately 477 acres of vernal pool (and seasonal wetlands, as part of vernal pool complex) wetland area.
- Restore 1,000 acres of grasslands from agricultural land cover types.
- Enhance and maintain vernal pools, vernal pool grassland complexes, and grasslands by promoting regeneration and recruitment of covered species, controlling invasive species, and promoting hydrological and other natural processes to support native biodiversity and populations of covered species.

Riverine Systems and Riparian Habitats: The main goal for conservation and management of riverine and riparian communities is to protect, restore, enhance and maintain riverine and riparian communities that benefit covered species and promote native biodiversity. The conservation strategy for riverine and riparian habitats was designed to enhance, maintain, and restore a functioning system that provides habitat value for native biota while continuing to meet urban requirements for flood control, drinking water, agriculture, and recreation. For western Placer County streams, this generally means providing the channel width and depth to convey 100-year flood flows while maintaining habitat complexity necessary to ensure water quality and suitable streambed conditions for all life stages of covered aquatic species.

The following objectives are designed to achieve this goal.

- Acquire 2,200 acres of riparian habitat (an estimated 1,600 acres in the Valley and 600 acres in the Foothills) to promote habitat function within riparian and riverine habitats, and facilitate wildlife movement across the Service Area landscape.
- Acquire 40.6 stream miles in the Service Area.
- Restore streams to the extent available and feasible that support covered fish, amphibians, and reptile species within the Reserve System.
- Restore 1,206 acres of riparian habitat.
- Enhance and maintain stream reaches within the Service Area to promote habitat function (i.e., water temperature and shade conditions suitable for covered fish), and movement of animals and plants (i.e., dispersal of seeds of riparian species) along riverine and riparian corridors that traverse the Service Area.

- Enhance and maintain functional valley foothill riparian communities that benefit covered species and promote native biodiversity

Freshwater Emergent Wetlands and Open Water: The main goal for conservation and management of freshwater emergent wetlands is to ensure there will be no net loss of wetland area and functions and services, and to protect, restore, establish, enhance, and maintain freshwater emergent wetlands, ponds, and lacustrine habitats and the hydrologic processes that support them to benefit covered species and promote native biodiversity.

The following objectives are designed to achieve this goal.

- Acquire 600 acres of freshwater emergent wetland and open water land cover types (approximately 400 acres in the Valley and 200 acres in the Foothills).
- Protect contiguous tracts of natural and semi-natural upland habitats (e.g., grassland, vernal pool complex, oak woodland) between wetland and aquatic habitats to protect upland habitats for covered species (e.g., overwintering sites, nesting sites for northwestern pond turtles), corridors to move between habitats, and to protect hydrological functions.
- Restore and establish 230 acres of freshwater emergent wetland and open water land cover types (an estimated 190 acres in the Valley and 40 acres in the Foothills).
- Enhance and maintain hydrological functions, native biodiversity, and habitats for populations of covered species in aquatic and wetland land cover types within the Reserve System.

8.6 Prioritization Strategy

Vernal Pools and Vernal Pool Complexes: The County will prioritize vernal pool acquisition based on whether properties occur within USFWS Vernal Pool Critical Habitat for vernal pool fairy shrimp and USFWS Vernal Pool Recovery Core Area, particularly where critical habitat and core areas fall within the Reserve Acquisition Area. (The Western Placer County core area comprises 36,260 acres, all in the Service Area, including 2,580 acres of critical habitat designated for vernal pool fairy shrimp. Sixty percent of the critical habitat and 45 percent of the core habitat are in the planned future growth [PFG] area, with the balance of the total in the Reserve Acquisition Area). Focusing acquisition of critical habitat and core areas in the Reserve Acquisition Area (as opposed to PFG) will help to buffer future vernal pool reserves from urban/suburban development and associated secondary impacts (e.g., runoff, spread of invasive species, light and noise pollution).

Sites that support occurrences of large populations or high density of covered species, or rare occurrences (e.g., Conservancy fairy shrimp, which currently has one known occurrence in the Service Area) will also be prioritized for acquisition. The County will also work to protect and restore vernal pools with a diversity of characteristics (e.g., size, depth, inundation period, etc.) to ensure provision of habitat for all covered species. Areas acquired to protect and restore vernal pools and vernal pool grassland complexes in the Reserve System in general should follow these guidelines:

- In general, the minimum area for an acquisition of a vernal pool complex is 200 acres if the area is within the PFG and is not contiguous with other reserve lands, the Reserve Acquisition Area, or the Stream System. The area may consist of one or more properties. Smaller parcels may also be acquired if they are occupied by a covered species such as Conservancy fairy shrimp, Ahart's or Red Bluff dwarf rush, and nest colonies for bank swallows and tricolor blackbird.

- Areas to be acquired or incorporated will have onsite and offsite hydrological conditions that ensure that vernal pool resources can be maintained, enhanced, and/or restored to function in perpetuity. Offsite hydrological conditions that detrimentally impact vernal pools on the site to be acquired must be restored before preservation credits can be allotted.
- No outfall or similar storm drainage facility can be directed to, or constructed within, areas to be acquired for protection and restoration of vernal pool complexes unless such facilities are directed to intermittent or perennial streams or storm drainage facilities and where such discharges do not affect the hydrology of protected vernal pools and swales. The purpose of this stipulation is to avoid inundation of vernal pools beyond the natural hydroperiod.
- Lands acquired to protect vernal pool complexes must be able to allow grazing or other suitable means to control invasive species and to ensure ecological integrity. Such methods may not be practicable on reserves imbedded within an urban/suburban matrix.
- The interface between urban/suburban land uses and Reserve lands should be minimized to decrease edge effects. These concepts are described in Chapter 6 of the Draft PCCP, but will be further integrated and enforced through the development of implementation strategies for the ILF Program.

Restored and created vernal pools will be located in sites that provide suitable hydrologic conditions that will meet success criteria (e.g., average wetted area, size and depth of pools to provide habitat for covered species, etc.). Restored and created vernal pools must be able to function based upon existing hydrology without augmentation. Their design should allow these wetlands to be inundated multiple times throughout the wet season with inundation occurring regularly depending upon the precipitation amount and duration of each storm cycle.

Site-specific mitigation plans will include the 12 components required by the Mitigation Rule, including clearly defined objectives, enforceable ecologically-based success criteria, monitoring plan, adaptive management plan, and long-term management plan. Objectives and success criteria will be modified and improved as new information becomes available through development and implementation of the monitoring and adaptive management programs.

A methodology for assessing the success of vernal pool restoration efforts has been developed for the Draft PCCP by Christopher Rogers of EcoAnalysts, Inc. (*Appendix Q, Placer County Vernal Pool Functionality Assessment Method*). This methodology provides a quantitative method for monitoring the health and functionality of restored (and otherwise managed) vernal pools, and may be used by the County ILF Program to guide the development of success criteria and a program to monitor the status of restored and managed vernal pools on the Reserve System.

For each restoration plan, the County will coordinate with the IRT to develop a list of site-specific aspects of a vernal pool complex that needs to be restored. The County will also coordinate with the IRT to ensure that scientifically-based and site-specific restoration methods are implemented while restoring the hydrological and ecological processes in the vernal pool and upland habitats of each site.

Monitoring efforts of restored and created vernal pools in the Service Area indicate that future restoration in the Plan area has a high potential for success. These include over 100 vernal pools restored by A. Teichert & Son in Lincoln (EcoAnalysts 2009), USFWS-restored vernal pools at both the Colusa and Llano Seco Complexes of the Sacramento USFWS Wildlife Refuge (Silveira 2007), and

others. Successful restoration projects in the County with similar physical and landscape conditions will be used to inform proposed vernal pool restoration projects in the ILF Program.

Riverine Systems and Associated Riparian Forests: The County will identify restoration sites based on the site selection guidelines described below. Figure 5 displays potential restoration opportunities along upper and lower Coon Creek, upper and lower Yankee Slough, lower Markham Ravine, Auburn Ravine, lower Pleasant Grove Creek, and Curry Creek. The ILF Program will utilize the Dry Creek Coordination Management Plan, the Auburn Ravine/Coon Creek Ecosystem Restoration Plan, and the Pleasant Grove/Curry Creek Ecosystem Restoration Plan to help identify potential stream and riparian acquisition, enhancement, and restoration actions in these watersheds. These plans provide guidance for riparian and stream restoration and enhancement actions outlined in the Placer Legacy Open Space and Agricultural Conservation Program (Placer County 2012). Fish passage enhancement areas have been identified within the creeks listed above, but also within the PFG Dry Creek Watershed as shown on and Figure 6. Additional opportunities for riparian restoration would be identified through site assessments.

Restoration and enhancement sites will be selected according to criteria that include but are not limited to:

- Moderate to high potential for success of restoration activities, based on the geographic setting (location in the watershed relative to other aquatic resources, quality and management of the upstream watershed); physical setting (quality of soils and geology); and hydrology (availability of water and secure water rights); and the level of effort needed to restore the site for the increase in functions and services.
- Moderate to high potential to support covered species after restoration, including fish passage through proper stream hydrology and hydraulics, in-stream morphology, and floodplain connectivity.
- The target land-cover type is representative of the historic condition.
- The restoration area is proximate to intact riparian corridors that support, or are likely to support, covered species.
- The extent and quality of existing habitats (e.g., percent of native vegetation).
- The use of existing habitat by wildlife and the potential for adverse effects of the restoration project.
- The potential for a net increase in the extent and condition of habitat.
- The restoration project will have a net positive effect on existing native biota.
- The restoration project will have a net positive effect on the quality of the riverine and riparian community.
- The ability of the restoration project to contribute to the conservation goals of regional and watershed-based habitat connectivity as described in the Draft PCCP and appropriate watershed resource management plans.

The County will also work in consultation with the appropriate watershed group (e.g., Save Auburn Ravine Salmon and Steelhead, Auburn Ravine/Coon Creek Coordinated Resource Management Plan Group, Dry Creek Watershed American Basin Council of Watersheds, Dry Creek Conservancy, and the Pleasant Grove-Curry Creek Ecosystem Restoration Project Group, Trout Unlimited, and the

member organizations of the Central Valley Joint Venture) and, when necessary, the IRT to identify restoration sites.

Freshwater Emergent Wetlands and Open Water: Potential restoration and creation sites will be identified and selected based on their hydrologic, geomorphic, and soil conditions to ensure the success of restoration and to minimize the need for long-term management of geomorphic and hydrologic conditions. Suitable sources of water must be available to restore or create desired hydrologic conditions and to provide habitat for desired plants and animals.

Restoration sites will also be selected based on their ability to support covered species and to meet species-specific biological goals and objectives. For example, sites selected to provide nesting habitat for tricolored blackbird must be situated within a matrix of suitable foraging habitat. Sites selected to provide habitat for covered amphibians and northwestern pond turtle must have suitable upland habitat adjacent to the restored wetland or pond to provide habitat for aestivation, nesting (for northwestern pond turtle), and corridors for movement to other habitats. In accordance with the California red-legged frog recovery plan, ponds created to provide habitat for California red-legged frogs should incorporate the Appendix D Guidelines for Voluntary Pond Management for the Benefit of California Red-legged Frog (USFWS 2002). This includes locating ponds at least 0.6 mile from ponds inhabited by bullfrogs.

8.7 Use of Preservation

For impacts to aquatic resources within the Corps' jurisdiction, preservation may be utilized as a method of mitigation when the five (5) factors in the Mitigation Rule are met as defined previously.

8.8 Public and Private Stakeholder Involvement

The ILF Program is designed to involve partners such as government entities, private entities, and non-profit conservation organizations in its implementation. Such stakeholder involvement will be critical to the success of the ILF Program. The regulatory agencies including the Corps, EPA, USFWS, and CDFW as represented by the IRT are engaged in the development, review, and approval process of the ILF Program and also have jurisdiction over and significant knowledge of the geography, ecology, and aquatic resources the program addresses. If approved, the ILF Program will require the ongoing, active involvement of the IRT. In addition, The County invites other governmental entities that may not be represented in the IRT, including the National Marine Fisheries Service (NMFS), CVRWQCB, and State Water Resources Control Board (SWRCB), to review and offer input in the development of the ILF Program, and to consider participating in its implementation. Finally, it is expected that the owners of land proposed for development in Placer County – including the landowners within the PVSP – will play a critical role in the early stages of this Program by providing appropriate sites for mitigation projects implemented under the Program.

8.9 Long-Term Protection and Management Strategies

The ILF Program provides for the long-term preservation and management of the mitigation sites through direct acquisition of land and/or conservation easements. The County may work with other partners who will own and manage the land in cooperation with the IRT and the County, under certain conditions. However, the County anticipates that conservation easements will be recorded on all preserve lands and that the County will own the conservation easements in most cases. Each mitigation project covered by the ILF Program will meet the appropriate ownership and

stewardship requirements to insure its long-term protection pursuant to the Mitigation Rule. Conservation easements or equivalent protection measures will be recorded on mitigation project sites before the final release of mitigation project credits.

8.10 Evaluation and Reporting

The County proposes to meet with the IRT biannually to report on progress toward achieving the ILF Program's goals and objectives. A formal ILF Program monitoring report will be generated and submitted to the IRT annually. The Compensation Planning Framework is intended to be a living document that is evaluated periodically, and updated and refined as necessary to incorporate new information and stakeholder participation. Potential updates to the Compensation Planning Framework will be presented to the IRT at the biannual meetings.

9.0 Program Account

The County will establish and maintain a system for tracking the production of credits, credit transactions, and financial transactions between the County and purchasers of credits. Credit protection, credit transactions, and financial transactions must be tracked on a programmatic basis (i.e., the number of available credits for the entire program by service area) and separately for each individual project.

The County's ILF Program account will track funds accepted from purchasers separately from those accepted from other entities and for other purposes (i.e., enforcement actions, supplemental environmental projects, grants). The account will be set up within the Treasury of the County of Placer, which in turn is held at a financial institution that is a member of the Federal Deposit Insurance Corporation. Any and all interest accruing from the account will be used to provide compensatory mitigation for impacts on aquatic resources.

The program account will be established after the Instrument is approved and before any ILF Program fees are accepted by the County. The price of each credit fee will be based on administrative and consultant costs of site selection, conducting baseline assessments, restoration design, obtaining entitlements and permits, as well as the cost of land acquisition, implementation of the restoration project, initial management of the restoration projects until success criteria are achieved, and long-term management costs (e.g., endowment or equivalent). The detailed costs for site-specific credits will be provided in mitigation plans for review and approval by the IRT to ensure sufficient monies are collected to implement and manage planned projects in perpetuity.

A portion of the fees paid into the ILF Program may be used for administrative costs. Such costs include fees associated with the establishment and operation of the program, staff time for carrying out program responsibilities, expenses for day-to-day management of the program, and administrative duties associated with hiring private contractors or consultants.

The County will report annually to the IRT on the ILF program account. The County understands that if the Corps, or other members of the IRT, determines that the County is failing to provide compensatory mitigation by the third full growing season after the first advance of credit is secured, funds may be directed to alternative compensatory mitigation projects. In addition, the County understands that the Corps and other IRT signatories to the Instrument have authority to audit the program account at any time.

10.0 Sponsor Qualifications

The County will form an internal team led by the Community Development/Resource Agency in coordination with the other participating agencies (City of Lincoln and Placer County Water Agency) to operate the ILF Program. The County has extensive experience developing and implementing large programs, including conservation planning programs, and working with resource and regulatory agencies to comply with state and federal laws. The County also has extensive experience managing accounts, collecting fees, and managing consultant teams.

The County will implement ILF Program for compensatory mitigation projects, and it will be responsible for developing and maintaining annual budgets; obtaining grants; receiving, tracking and reporting fee revenues collected; researching land acquisition opportunities; acquiring land (with partners); implementing restoration projects; and management/monitoring of the reserves.

The County team will be responsible for collecting and tracking fees, ensuring the number of credits sold to a permittee match the final regulatory permit requirements, and reporting fee collections to the IRT through an approved letter format on a monthly basis. The County team will manage and account for the fee revenues collected under the ILF Program through credit ledger and reporting protocol that the IRT will be able to review and approve.

Placer County through the Placer Legacy program has extensive experience with the planning, implementation, maintenance, and monitoring of wetland/stream system restoration and creation projects. Recent Placer County projects include the Lakeview Farms Riparian and Wetland Restoration project (restored 17.5 acres of riparian habitat and created 3.8 acres of seasonal wetland habitat), and the Miners Ravine Streambank/Riparian Restoration Project (restored 0.42 acres of riparian habitat, and 660 linear feet of the stream channel and bank). The NID Highway 65 Gauging Station Fish Passage Restoration Project resulted in the construction a new roughened channel with rock chutes and pools designed to facilitate Chinook salmon and steelhead passage. Placer County is in the design phase of the Cotton Dam Fish Passage and Riparian Habitat Restoration Project expected to result in over 20 acres of riparian restoration through the re-alignment of the existing stream channel and partial removal of Cotton Dam. In addition, the County is currently in the design phase of two major restoration projects in the Squaw Creek and Truckee River watersheds. All projects have or will result in a cumulative net increase of waters of the United States. Moreover, since 2000, Placer County, working with the Placer Land Trust, Truckee Donner Land Trust and others, has protected over 20,000 acres of land.

In addition to drawing on the County's experience, the County will contract with experienced mitigation providers/contractors/consultants to design, construct, monitor, and maintain the mitigation sites. The County team will be responsible for the identification and management of consultant teams to plan and implement site-specific priority projects, ensure compliance with monitoring protocols and adaptive management strategies within the site-specific plans, and maintenance and management of the sites. Annual reports for each mitigation site will follow a standard format approved by the IRT and, if annual reports are prepared by consultants, they will also be reviewed by the County team prior to submission to the IRT to ensure standardization and completeness.

11.0 References Cited

<To be finalized prior to submittal to the IRT>

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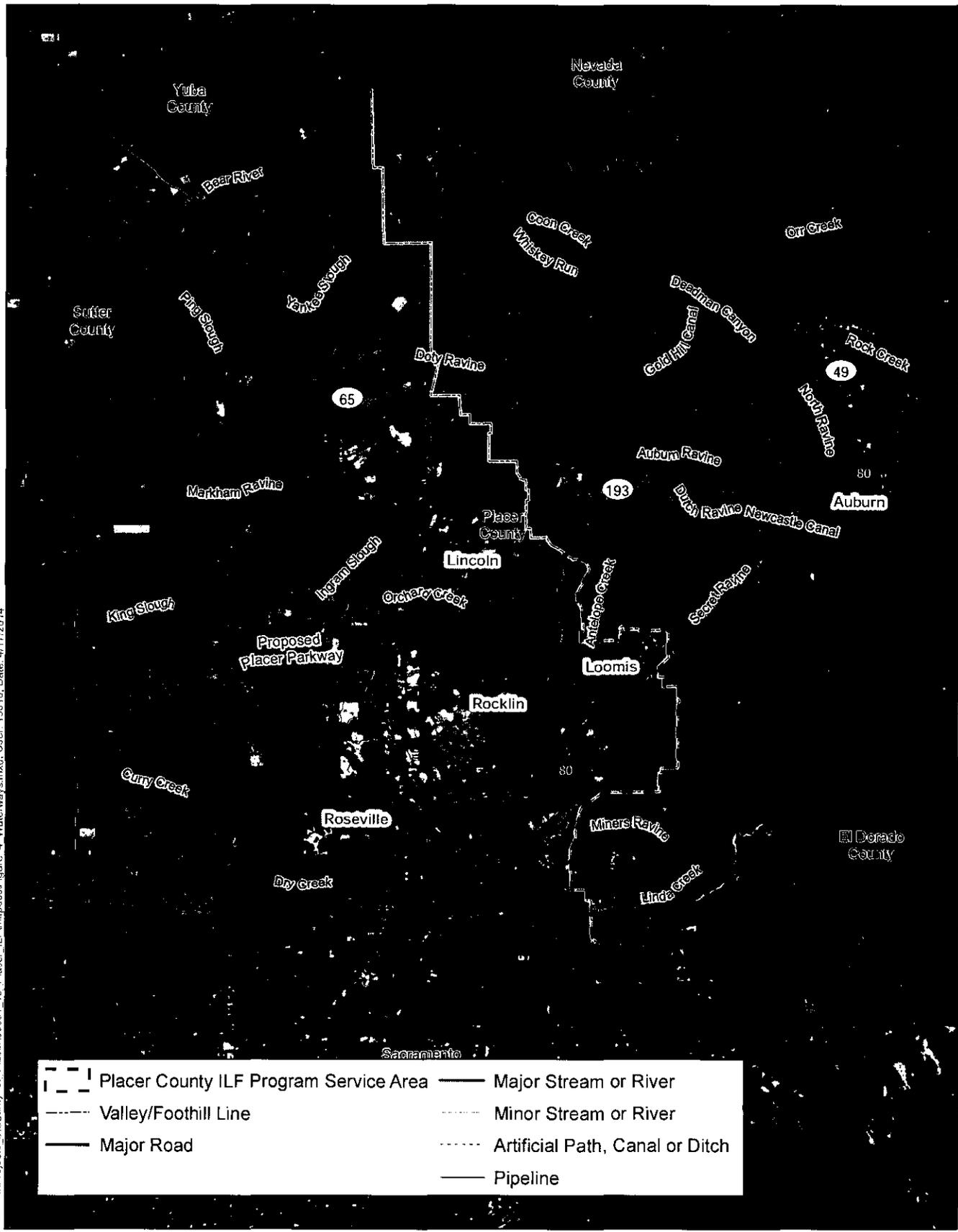


Figure 4
Waterways of Placer County

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EXHIBIT C