BOARD TRANSMITTAL MEMORANDUM

PLACER COUNTY
PLANNING DEPARTMENT

TO: **BOARD OF SUPERVISORS**

FROM: **PLANNING DEPARTMENT**

SUBJECT: **PLACER COUNTY NATURAL COMMUNITIES CONSERVATION PLAN AND HABITAT CONSERVATION PLAN - UPDATE**

DATE: February 25, 2005

SUMMARY/ACTION REQUESTED: The Planning Department is providing the Board with a status report on the preparation of the Placer County Conservation Plan (PCCP) with a particular emphasis on the costs associated with the implementation of the program.

BACKGROUND: In June 2000, the Board directed the staff to initiate the implementation of the Placer Legacy Program. The Placer Legacy program was adopted by the Board to address open space and agricultural land conservation in Placer County through by meeting the the following objectives:

- Maintain agriculture as a viable part of the economy;
- Protect the diversity of plant and animal communities, including endangered and other special-status species;
- Protect and expand outdoor recreation areas;
- Protect important areas that are scenic or historically significant;
- Establish open-space buffers between communities, and
- Ensure public safety.

To meet the second objective listed above, the Board directed the staff to prepare a Natural Communities Conservation Plan and Habitat Conservation Plan in 3 phases. This effort, now referred to as the Placer County Conservation Plan, is nearing completion for the first phase. (Exhibit A). The PCCP is intended to provide 50 years of compliance for the following state and federal regulations:

- Federal Endangered Species Act – Habitat Conservation Plan (HCP) for federally-listed endangered species
- State Endangered Species Act – Natural Communities Conservation Plan (NCCP) for state listed and other sensitive species (See Attachment C for further information)
- Federal Clean Water Act, Section 404 – Programmatic General Permit for wetland fill permits
- Federal Clean Water Act, Section 401 – Programmatic Water Quality Certification

- State Fish and Game Code Section 1600-1616 – Master Streambed Alteration Agreement for streambed modifications

DISCUSSION: The PCCP is at a critical point in its work program. The essential elements of the plan have been prepared, the public agencies are reviewing the proposed mitigation strategy, and the process to prepare the EIR/EIS has been initiated. Review by stakeholders is anticipated following the receipt of comments from the state and federal agencies. In the opinion of staff, it is critical to continue to proceed in a forthright manner. Significant efforts have been made at the local, state and federal level to prepare a comprehensive plan that has the potential to provide regulatory coverage for almost 5 decades.

PCCP Benefits
The specific benefits with a program like the PCCP include the following:

- The PCCP provides a 50-year permit that improves certainty
- Regulatory coverage for major infrastructure projects and routine maintenance
- Local regulatory control with agency oversight
- Improved governmental efficiency and elimination of redundant review procedures
- Improved habitat conservation
- Improved monitoring and coordination of mitigation efforts
- Stabilization and recovery of sensitive species
- Support for species de-listing
- The PCCP enables the County to tap state/federal funding sources.

SUMMARY OF IMPACTS
The following is a summary of the impacts on natural communities associated with 50-years of growth covered by the PCCP. These impacts are based upon a 2050 population/employment projection prepared for the County and City of Lincoln for the PCCP. The 2050 projection scenario includes growth being contemplated by the City of Lincoln's General Plan update as well as potential growth in the unincorporated area based upon a cumulative scenario of new projects and future planning efforts.

New growth is expected to impact approximately 67,300 acres in western Placer County. If you only account for growth in the unincorporated County and the City of Lincoln, the two participating agencies in the PCCP will local land use authority, the impact is 54,300 acres of land converted to new development.

SUMMARY OF PCCP MITIGATION
The following is a summary of the mitigation requirements that must be satisfied to address the 50-years of growth covered by the PCCP. The mitigation measures are based upon the proposed PCCP. Once applied, at 2050, the mitigation plan would require the permanent conservation of 57,184 acres of land. Of these 57,184 acres, 13,458 acres would have some amount of restoration occurring, primarily in the form of vernal pool complex restoration, stream restoration and oak woodland restoration.

SUMMARY OF PCCP COSTS

There are a number of costs associated with the implementation of the PCCP. These costs are borne by the parties who benefit from the regulatory relief provided by the program. The majority of the cost will be borne by new development. These costs would replace the current costs that are incurred by parties seeking approval from state/federal agencies who are currently regulating these resources. The first table represents the one-time costs associated with protecting and restoring lands within a reserve system. The second table represents the costs of administering the program and managing the lands on an annual basis. In both cases, they represent a scenario in which project proponents are paying a fee that goes to the acquisition of the land. In many cases, project proponents will reduce this fee obligation through the dedication of land.

ESTIMATES OF PCCP ONE-TIME COSTS THROUGH 2050 (2004 dollars)			
	Local Mitigation	**State/Federal Conservation**	**PCCP TOTAL**
Land Acquisition	$568,000,000	$203,000,000	$771,000,000
Restoration	319,000,000	120,000,000	439,000,000
Contingency	89,000,000	32,000,000	121,000,000
Total One Time Costs	**$976,000,000**	**$355,000,000**	**$1,331,000,000**
Percent of Total Costs	**73%**	**27%**	**100%**
Assumptions:	**Valley**	**Foothills**	
Fee title land value/acre	$7,000	$14,000	
Weighted average land acquisition cost over 48-year period, assuming 28 % of acres acquired by easement:			**$13,300**

ESTIMATES OF PCCP ANNUAL ON-GOING COSTS IN 2005, 2025, AND 2050 (2004 dollars)			
	2005	**2025**	**2050**
Management of Local Mitigation Land Total Annual Costs	**$1,117,000**	**$3,504,000**	**$6,865,000**
Management of State/Federal Conservation Land Total Annual Costs	**$1,407,000**	**$3,273,000**	**$2,702,000**
TOTAL PCCP Total Annual Costs	**$2,524,000**	**$6,777,000**	**$9,567,000**
Total Annual Cost per Acre Managed	**$700**	**$200**	**$170**

RECOMMENDATIONS: This information is presented for discussion purposes only. This information is intended to provide the Board and public with information on this important and far-ranging project. There are no recommendations for specific action at this time.

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MEMORANDUM

PLACER COUNTY
PLANNING DEPARTMENT

TO: **BOARD OF SUPERVISORS**

FROM: **Loren E. Clark, Assistant Director of Planning**

SUBJECT: **PLACER COUNTY NATURAL COMMUNITIES CONSERVATION PLAN AND HABITAT CONSERVATION PLAN - UPDATE**

DATE: February 25, 2005

SUMMARY:
The Planning Department is providing the Board with a status report on the preparation of the Placer County Conservation Plan (PCCP) with a particular emphasis on the financial costs associated with the implementation of the program.

Purpose of this Memorandum
This program is entering into final planning and development for Phase 1 (western county area - Exhibit A), leading towards final policy and program decisions and implementation. The overall objective of this memorandum is to provide the Board with an update on the PCCP work program and more specifically:

- Outline the program development completion schedule, identifying key program decision points.
- Describe the impact assessment scenarios resulting from the preparation of a 2050 population and employment projection.
- Provide the Board a summary of costs associated with implementation of implement the program based upon the new impact scenarios.
- Discuss the management obligations of the County and other participating agencies resulting from implementation of the PCCP.
- Provide the Board with information on proposed methods to comply with the Federal Clean Water Act related to wetlands.

BACKGROUND:
In 1994, the Placer County General Plan was updated. This update included the adoption of numerous policies and programs related to resource conservation and mitigation. One of these programs called for the preparation of a conservation plan to address impacts on sensitive species. In 1998, the staff initiated the development of what became the Placer Legacy program. Placer Legacy included, as one its key elements, the preparation of a 3-phase natural communities conservation plan and habitat conservation plan to address the impacts of growth on endangered species throughout Placer County. Other components of the Placer Legacy program include

agricultural conservation, new outdoor recreation opportunities, public safety, scenic land conservation and protection of cultural resources.

In June 2000, the Board directed the staff to begin implementation of the Placer Legacy Program including the preparation of the Phase 1 NCCP/HCP for western Placer County. This combined effort, is now referred to as the Placer County Conservation Plan (PCCP), and is nearing completion for the first phase (Exhibit B). It is important to note that Placer County is the first jurisdiction that has attempted to combine all of these program elements. Jurisdictions have prepared all of the elements of the County's PCCP but not all in one single comprehensive effort.

This effort, now referred to as the Placer County Conservation Plan, is nearing completion for the first phase (Exhibit A). The PCCP is intended to provide 50 years of compliance for the following state and federal regulations:

- Incidental Take Permit - Federal Endangered Species Act
- Natural Communities Conservation Plan - California Endangered Species Act and Natural Communities Conservation Act
- Section 404 and 401 of the Federal Clean Water Act related to wetlands and water quality
- Section 1600 Fish and Game Code - Master streambed modification agreements

These regulations are in place today and are part of the current land development review process. These regulations are administered outside of the local land development review process through as many as 4-5 different state/federal agencies. The PCCP will shift the responsibility from state and federal agencies to Placer County so that the review of these permits is coordinated locally.

VALUE OF THE PCCP

The development the PCCP has taken considerable time and money. The primary value for such an investment of public and private resources is the ability of the PCCP to replace the current highly fragmented, time consuming and expensive project-by-project approach to mitigation with a comprehensive, long-term plan.

An approach, like the PCCP, is increasingly seen as a solution to problems associated with project-by-project review of land development projects. In Northern California there are 6 similar efforts underway including efforts in the counties of Yuba, Sutter, Sacramento, Solano, Contra Costa, and Santa Clara. The Eldorado Irrigation District is also considering the preparation of a plan. The interest on everyone's part is to solve the numerous and complicated problems associated with balancing growth in the region with the mandate of the state and federal agencies to protect sensitive species and their habitats. Southern California approached programmatic solutions only after the project-by-project process became so untenable that a programmatic solution was the only viable alternative left. It has always been Placer County's objective to avoid crisis management as the reason to consider a regional approach to resource conservation.

PCCP Benefits

The specific benefits with a program like the PCCP include the following:

- The PCCP provides a 50-year permit that improves certainty when compared to a status quo that is completely uncertain. Each project is approached with whatever rules are in effect at the time the project is being reviewed.
- The current large entitlements under review for the Phase 1 area account for approximately 19% of the region's growth. Even if these projects receive state/federal permits outside the PCCP 81% of the growth that is still contemplated will require a project-by-project review.
- Routine maintenance activities of local government requiring agency approvals are approved for the term of the permit.
- Regulatory coverage for major infrastructure projects (e.g., Placer Parkway)
- Intergovernmental coordination to resolve regional problems
- Local regulatory control with agency oversight
- Integration of species and wetland permitting into the County's CEQA review procedures and timeline
- Improved governmental efficiency and elimination of redundant review procedures
- Improved habitat conservation
- Improved monitoring and coordination of mitigation efforts
- Stabilization and recovery of sensitive species
- Support for species de-listing
- 5-years of programmatic permitting for wetland impacts with a rollover provision for additional years of coverage.
- The PCCP will provide a "no surprises" policy that protects the County from the impacts of future listings on the Endangered Species Act. Absent the PCCP, unknown future listings would affect future development.
- Resource agencies and the County increasingly find that permitting demands are escalating at a pace that is much higher than their ability to find sufficient funds to provide the staff to process such permits.
- The PCCP provides the County with an opportunity to meet its own adopted policy and regulatory obligations in a manner that is comprehensive and, internally consistent and predictable.
- Without the PCCP, mitigation ratios could increase and the regulatory burden for individual projects could become more burdensome.
- The PCCP enables the County to tap state and federal resources for contributions to broader resource conservation goals.

Constituency Groups

There are numerous key constituency groups who would benefit from the PCCP. Some of these constituency groups are participants in the effort (e.g., PCWA as an infrastructure provider), others are evaluating the program for its potential benefits (e.g., the large specific plan projects) and others have yet to come forward because their projects haven't even been conceived yet. The key groups include: 1) large specific plan projects (approximately 19% of the residential holding capacity through 2050), 2) the countless smaller projects that will

account for the balance of the projected development to 2050 (80%), 3) property owners and residents and businesses who benefit from enhanced conservation and restoration of county's natural resources and, 4) landowners/agricultural interests benefiting from the market for the resource credit values of their lands.

CLARIFYING INFORMATION CLEAN WATER ACT COMPLIANCE

As of late, there have been a number of questions asked about the County's proposed method of providing programmatic compliance with the Federal Clean Water Act as it relates to impacts on wetlands. In particular questions have focused on how the PCCP addresses this issue. Since the inception of the work program, the County has proposed to integrate wetland permitting into the PCCP. Wetland permitting entails an entirely separate regulatory process from endangered species compliance and consequently requires a different approach in the PCCP. As with the endangered species issue, it is the County's intention to negotiate with the agencies to gain permitting authority for wetlands with the outcome of streamlined and more efficient processes at the local level.

County Aquatic Resources Program (CARP)

As a part of the overall PCCP process, the County is preparing a County Aquatic Resource Program (CARP) that is intended to provide a local process for compliance with the Federal Clean Water Act. The CARP will also provide for compliance to the California Fish and Game Code (to be discussed at a later date). The CARP will provide opportunities for compliance to federal regulations through the implementation of local procedures at the County. The two key elements of the CARP, a programmatic general permit (PGP) and the letter of permission (LOP) are based upon federal law. Both permit types are further discussed in Exhibit D.

The PGP permitting process occurs entirely at the local level and would apply to projects with 3 acres of wetland area or less. Such projects represent the vast majority of permit activity that the County reviews on a day-to-day basis. For the remainder of the projects (i.e., very large projects with more than 3-acres of wetland fill), the County will provide a review procedure through the letter of permission that will address the mitigation requirements of federal law. However, the Army Corp of Engineers will be the party to issue the permit once the review procedure has been completed. The primary benefit of the LOP process is that mitigation for CEQA and COE will be derived at the same time and the COE's permitting procedures is abbreviated because the verification process will have been completed by the County (this can reduce as much as a year off the time line). Provided that the County and applicant meet the procedural requirements of the LOP, the COE's involvement is limited. However, permitting would not occur at the local level, it would not have the same regulatory assurances as is the goal of major elements of the PCCP. Specifically, the COE offers the Letter of Permission process (LOP).

Status Quo – 0.10 acre of wetland area or more

Today, most impacts less than 0.10 acres in area do not require a permit from the COE prior to the impact occurring. For 0.10 acres and above, a proponent seeking to fill a wetland typically must comply with one of two types of permit, a nationwide permit or an individual permit. There is considerable delay today on getting these permits, even for the simplest of projects, primarily due to a lack of sufficient staffing at the COE to process permits. In contrast to the

proposed CARP, the status quo approach would result in the following approximate time frames:

0.15 acres of wetland fill - Nationwide Permit requiring **0.5-1.5 years**
1-5 acres of wetland fill - Individual Permit requiring **1-2 years**
5-20 acres of wetland fill - Individual Permit requiring **1.5-2.5 years**

It is important to note that both the PGP and LOP provide an improved regulatory environment for the numerous public and private sector projects that will have an effect on federal wetlands. Such a program provides streamlining and certainty that is not evident today.

In all cases, it's important to note that the COE retains the authority to require permitting. The County's CARP is intended to significantly improve the current process; not replace it.

DECISION MAKING AND TIMELINE
There are policy-level decisions dealing with the broad choices and options and key components of the various documents that must be approved in order for the program to proceed towards implementation. There will be opportunities for key stakeholders and the public to review the program and provide comment. It is anticipated that some of these decisions would be considered concurrently.

Tentative Timeline	BOS action Needed	Task
March 2005		Agency review of PCCP
April 2005		Science Advisor review of PCCP
May 2005		Comments on Conservation Plan back from Agencies
June 2005		Biological stakeholder working group meetings on the Plan
June 2005	X	Review of agency comments and biological working group comments, decision on mitigation strategy acceptability.
July 2005		BWG review of financing plan and governance alternatives
August 2005	X	Review of financing plan with decision on funding scheme.
September 2005		Circulation of the draft EIR/EIS
September 2005		Circulation of the PCCP and Finance Plan.
October 2005		Preparation of Implementing Agreement
October 2005		BWG review of draft Implementing Agreement
November 2005	X	Review of governance alternatives for PCCP mgmt/implementation
November 2005		Review of draft Implementing Agreement and provide direction to proceed
December 2005	X	Approval of final governance structure
December 2005	X	Approval of final Implementing Agreement
December 2005	X	Certification of the Final EIR/EIS

The following is a brief summary of the work completed to date:

- The NCCP Planning Agreement has been signed by the state/federal agencies and Placer County outlining how the document is to be prepared.
- The Agency Review Draft PCCP has been completed and distributed to the major state and federal agencies.
- All research has been completed including the necessary studies on riparian setbacks, salmonid habitat conditions, vernal pool resource conditions, wintering waterfowl, and vegetative land cover has been delineated for the entire Phase 1 area
- CEQA/NEPA - The Notice of Preparation/Intent, Initial Study and environmental setting for the EIR/EIS has been prepared. The Notice of Intent to prepare an EIS is complete and is to be filed on the Federal Register on March 1, 2005. 3 public scoping meetings for the EIR/EIS have been scheduled and publicly noticed.
- GIS data base of all major natural communities and current and projected land use has been prepared
- The deliberations of the Science Advisors have been received
- The Conservation Opportunity Analysis has been prepared and includes the Board's direction on the preferred alternative
- 2050 population and employment projections have been prepared in 5-year increments
- 2050 impacts have been identified in 5-year increments
- Species accounts have been prepared
- A draft ordinance has been prepared for the programmatic general permit (PGP)
- A draft procedures manual has been prepared for the Programmatic General Permit
- A finance committee has met to identify early funding priorities and sources of state/federal funds to sources to initiate land acquisitions

SUMMARY OF PCCP MITIGATION REQUIREMENTS

The purpose of the PCCP is to mitigate impacts on endangered species and the sensitive habitats associated with those species. The PCCP always provides mitigation for impacts to stream zones and wetlands. It provides compliance with a number of state and federal laws and also helps the County meet its general plan policy obligations. The mitigation strategy has been developed using many of the same considerations that are applied on a project-by-project basis by Placer County and the resource agencies. While the ultimate application is on a project-by-project basis as the County reviews discretionary entitlements over the next 50-years, the requirements for mitigation are known each and every time an application comes forward. There is no need to renegotiate each time a project comes forward. For some applicants the mitigation responsibility may be as simple as the payment of a fee, thus avoiding significant delays.

Covered Activities

In order to achieve its objectives the PCCP must mitigate the anticipated impacts resulting from all covered activities that are requested by the participating agencies. The covered activities are those activities spelled out by the participating agencies and must be specifically addressed by the PCCP. A covered activity could be a single one-time action (e.g., Placer Parkway) or could be activities that are as routine as maintenance actions of local government (e.g., clearing of flood control channels). Selection of covered activities is a discretionary

process that is left up to the agencies that seek coverage through the PCCP. The following is a summary of the types of activities that are proposed to be covered by this plan. A full list of covered activities is included as Exhibit H.

- Placer Parkway
- Cumulative and indirect effects of providing Sacramento River water to west Placer.
- Land development activities between now and 2050 for unincorporated Placer County, west of Auburn, and for the City of Lincoln
- County infrastructure and roadway projects – new construction
- County maintenance activities (flood control, roads, drainage facilities, etc.)
- Restoration activities related to PCCP implementation and Placer Legacy.

Projected "Take" Between 2005-2050

In order to determine the mitigation required for the 33 species covered by the PCCP, it was necessary to determine the extent of the impact (i.e., the take) is expected from activities that are in some way caused or regulated by the participating agencies. Take is not the conversion of land but the irreversible conversion of habitat that is necessary to support viable populations of endangered species. Because take is mostly related to the conversion of land that is open in character to land that is in a developed condition, take can be estimated by analyzing growth projections and land conversion rates. Hausrath Economics Group (HEG) completed these estimates in January of 2005. The estimates were based upon the Board's direction to consider new growth in unincorporated areas of western Placer County along with the City of Lincoln's potential growth associated with their General Plan update. (A full summary of the HEG assumptions is included as Exhibit C). The net result of this analysis is that the County now has a reasonable estimate of how much growth will impact habitat take through 2050.

It is estimated that 54,300 acres of land will be impacted by development and associated infrastructure improvements authorized by participating agencies through the year 2050. The total area of the Phase 1 boundary subject to this permit is approximately 221,160 acres. The direct take, or area of habitat impacted, therefore represents approximately 253% of the total land area of Phase 1. This figure includes existing urban/built up areas that will experience infill over time. The indirect impacts (such as water quality impacts on stream systems) cover a larger area. The total take including non-participating cities (Auburn, Loomis, Rocklin, and Roseville) is projected to be 67,300 acres between 2002 and 2050.

Table 1 summarizes the total amount of land conversion that is anticipated through the year 2050. The various geographic units are depicted on Exhibit C.

Table 1
Projected Land Conversion 2002 –2050 (Measured in Acres)

Geographic Area	Acres	Percent of total
Development Opportunity Area--County	9,700	14%
Development Opportunity Area--Lincoln Planning Area	8,500	13%
Existing Urban and Built Up - County	21,100	31%
Existing Urban and Built Up - Lincoln	4,700	7%
Rural Residential - County	10,300	15%
Non Participating Cities	13,000	19%
Total Phase 1 Area	**67,300**	**100%**
PCCP area excluding non-participating cities	**54,300**	

Mitigation Strategy
The key element of the PCCP is the mitigation strategy that seeks to offset the impacts associated with impacts on the 54,300 acres of land. The PCCP mitigation strategy focuses on the key resource areas including grasslands, wetlands/vernal pools, streams and oak woodlands. The conservation strategy will result in the permanent protection of 57,184 acres of land or a ratio of approximately 1.05:1. A summary of the key elements of the mitigation strategy is incorporated in Exhibit F.

Table 2 summarizes the anticipated mitigation and conservation requirements using the mitigation measures described in the PCCP for the impact that is expected as a result of land development.

Table 2
Lands to be Protected to Mitigate Impacts and to Accomplish Other Conservation via State and Federal Efforts

ESTIMATES OF PCCP ACREAGE THROUGH 2050			
	Local Mitigation	State/Federal Conservation	PCCP TOTAL
Acres Acquired/Under Management	41,734	15,450	**57,184**
Percent of Total	73%	27%	100%
Acres Restored/Created	9,858	3,600	**13,458**
Percent of Total	73%	27%	100%

NOTE: Acres restored/created are included in acres acquired and under management. Restoration or creation results in a change in ecosystem type, such that acres of one type are acquired and, after restoration/creation, those acres are eventually under management as another type.

COSTS OVERVIEW

The implementation of the PCCP involves a range of costs. They can generally be separated into 3 major components: 1) One-time land acquisition costs in the form of acquisition of fee title interests or conservation easements; 2) One-time habitat restoration costs; and 3) On-going operational/management costs. These are not costs that are borne by the County or any other

local implementing agency. These are the costs to resulting from the need to mitigate the impacts of 50-years of growth on wetlands and endangered species habitat. Consequently, the costs will be borne by the parties that create the impact. To the extent that the County causes such an impact for new public facilities or for maintenance purposes, we would be expected to pay our fair share of those costs. Mitigation fees, assessments, etc. are options for the Board's consideration to pay for the majority of the projected program costs.

Staff and the consultants have made every effort to understand the costs associated with this program through the following efforts:

- Contacting other agencies that have prepared or are preparing an HCP/NCCP;
- Hiring an appraiser to examine regional land costs
- Contacting state agencies, special districts involved in large scale land management such as park districts, open space districts, and water districts, and private parties who are presently conducting large scale land management activities
- Consultation with County staff including county Facility Services staff
- Stakeholder group meetings representing diverse interests
- Carefully examining the assumptions regarding the program, while recognizing negotiations for the program content are pending.

Methodology - The development of the costs for the PCCP is the result of a long series of related activities that had to conclude before estimating could occur. One change in any number of assumptions and variables can have a very real effect on the costs associated with the program. In summary the activities included the following:

1. Determine the scope of the overall effort, i.e., what areas of the County are to be covered by the PCCP.
2. Determine the length of time for which development impacts are to be covered (The PCCP is assuming approximately 50 years)
3. Determine which species are to be covered and the relationship of those species today and over time in Placer County
4. Determine which covered activities are to be mitigated
5. Determine the amount of growth to be covered over the term of the permit
6. Predict the amount of land required to accommodate the growth
7. Develop a mitigation strategy to address the predicted impacts
8. Prepare a cost model for the one-time and ongoing costs to acquire and maintain those lands protected through the PCCP.

All of the above work has now been completed.

Acquisition Cost Summary – The land acquisition costs are to be assigned to the parties that causes the impact and are responsible for mitigation. The analysis is based on the generalized location and characteristics of properties that would be acquired to satisfy the conservation goals of the PCCP. Land value estimates are based upon an analysis conducted by the appraisal firm of Bender-Rosenthal in June of 2004. The costs were inflated for this report because of the ongoing trend upwards of land prices.

The current analysis is conservative in the sense that it assumes that the majority of acquisitions will be through the purchase of fee title. The assumption is that it is generally possible to identify willing sellers for fee title transactions over time because property is routinely transferred and sold. To identify willing sellers for conservation easements on the other hand has proven to be more difficult and that trend is expected to continue. Conservation easements could, on average, reduce the cost of protection by as much as 50% for each property acquired.

With fee title lands there is the likelihood of some cost recovery to the development interests providing mitigation or to the County. Fee title lands can be resold with a conservation easement for agricultural or open space uses after the initial sale is complete, at a reduced price. Agricultural leases can generate additional revenue as well. These potential recovery costs have not yet been estimated but will be included in the complete financial alternatives analysis.

Habitat Restoration

In order to meet the mitigation requirements of the PCCP, it is necessary to have a component of restoration of certain resource types. In particular, in order to meet the anticipated long-term regulatory obligations, a significant amount of vernal pools will need to be restored (this is predicted to be the case with or without the PCCP and is occurring today).

Restoration activities are prevalent today for most forms of project mitigation and it appears to be necessary at a more landscape scale as well. It is apparent that a conservation program that is heavily dependent upon restoring habitat in order to meet mitigation and program objectives has the potential to significantly increase the cost of the program. In addition to the cost of acquiring land, it is then necessary to conduct the restoration activities (estimated to be as much as $36,000 to $43,000/acre of restored habitat). In addition to these direct costs, the management costs are higher in order to insure that the restored habitat meets performance objectives over time. Consequently more monitoring occurs, more labor-intensive site management occurs and remedial costs are incurred to correct deficiencies over time.

Summary of Land and Restoration Costs

Table 3 depicts the estimate of one-time acquisition, restoration and contingency costs for the amount of take anticipated. The costs are a cumulative summary of costs to acquire and manage 57,000 acres of land by 2050, the approximate final date of the permits. If all land were acquired by means of fee title, acquisition costs would be 14 percent higher, adding $117 million to total costs over the 50-year period.

The County has assumed that both land acquisition costs and restoration costs are shared by development, local government, and state/federal agencies. For purposes of this cost analysis, we have assumed that 73% of these costs are borne locally and 27% is borne by state/federal agencies over time. This sharing is consistent with other similar efforts in California and nationally. We have predicted a lower percentage than has been applied in Southern California in order conservatively estimate what local obligations may entail.

Table 3
One-time Cost Estimate to 2050
Combination of Fee Title and Conservation Easement

ESTIMATES OF PCCP ONE-TIME COSTS THROUGH 2050 (2004 dollars)			
	Local Mitigation	State/Federal Conservation	PCCP TOTAL
Land Acquisition	$568,000,000	$203,000,000	$771,000,000
Restoration	319,000,000	120,000,000	439,000,000
Contingency	89,000,000	32,000,000	121,000,000
Total One Time Costs	**$976,000,000**	**$355,000,000**	**$1,331,000,000**
Percent of Total Costs	**73%**	**27%**	**100%**
Assumptions:	**Valley**	**Foothills**	
Fee title land value/acre	$7,000	$14,000	
Weighted average land acquisition cost over 48-year period, assuming 28 % of acres acquired by easement:			**$13,300**

Assumptions for means of acquiring land

Natural Community Type	% Fee title
Oak Woodland	60%
Aquatic and Wetland	95%
Valley-Foothill Riparian	95%
Valley Grassland/Vernal Pool	95%
Other Grassland/Agriculture	60%
Public Conservation Other Grassland/Agriculture	100%

NOTE: These summaries represent the worse case scenario for land acquisition costs. These are the costs associated with the County or a future governance entity, buying all lands with funds collected through a fee program paid by the parties causing the impact. It is anticipated and may be required, that some lands be acquired through dedication. An example of this is the Natomas Basin HCP has a mandatory dedication requirement. The cost of these dedicated lands would be borne by the project proponent but no acquisition fees would be collected from those projects. Because the larger projects are expected to dedicate all or most of their compensatory lands (with or without the PCCP), it is expected that the overall costs would be reduced substantially. These costs also don't represent any cost recovery that would be associated with selling land back into the private sector with conservation easements and/or any revenue derived from the property, primarily in the form of farm leases, recreation or other sources.

Program Administration Costs

The management of a PCCP includes significant on-going costs. These costs increase over time as more land is acquired and more staffing is required to maintain the support of these lands. However, costs per acre decline over time as the level of activity decreases after initial start-up, acquisition, and restoration activities are completed and as the managing entity gains experience and begins to realize efficiencies and economies of scale. By 2025, the midpoint of PCCP implementation, it is expected to cost about $200 per acre to manage PCCP lands. This would amount to about $6.8 million per year in 2025 when about 33,000 acres would be under

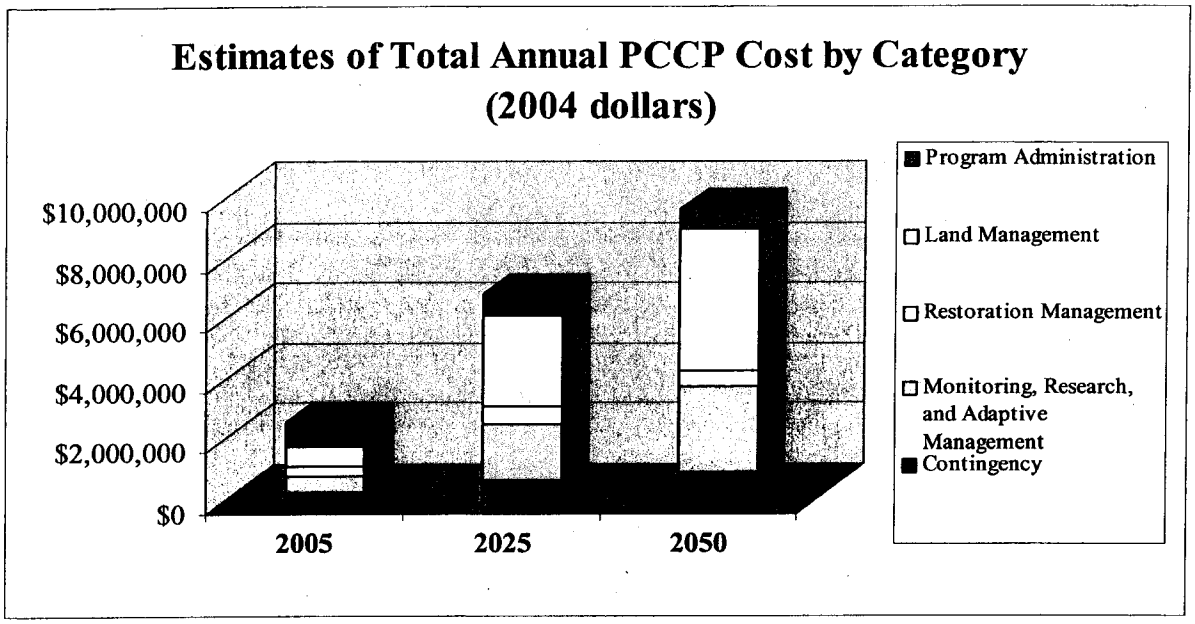
management (half of which would be land associated with state and/or federal conservation). By 2050, per acre land management costs would be lower (about $170 per acre) and the on-going annual costs to manage 57,000 acres would be about $9.6 million.

The total initial start-up costs for PCCP on-going management would be approximately $2.5M. The start-up costs would be expected to be borne by those parties benefiting from the PCCP. The estimated cost of management obligations to be borne locally at 2050 is $6,865,000. If the property were all owned in fee title, on-going costs would be about 14 percent higher, adding another $1.3M per year to on-going costs. Those higher costs, however, could be somewhat offset by increased opportunities for revenue-generating activities such as agricultural leases. Table 4 and Chart 1 include a summary of the costs in 3 increments: 1) startup in 2005, 2) 2025, and 3) at the conclusion of the permit 2050.

Table 4
Estimated Annual Ongoing Costs

ESTIMATES OF PCCP ANNUAL ON-GOING COSTS IN 2005, 2025, AND 2050 (2004 dollars)	2005	2025	2050
Management of Local Mitigation Land			
Program Administration	$359,000	$382,000	$467,000
Land Management	277,000	1,551,000	3,331,000
Restoration Management	144,000	285,000	407,000
Monitoring, Research, and Adaptive Management	235,000	967,000	2,036,000
Contingency	102,000	319,000	624,000
Total Annual Costs	**$1,117,000**	**$3,504,000**	**$6,865,000**
Management of State/Federal Conservation Land			
Program Administration	$443,000	$337,000	$173,000
Land Management	362,000	1,498,000	1,358,000
Restoration Management	177,000	251,000	151,000
Monitoring, Research, and Adaptive Management	297,000	889,000	774,000
Contingency	128,000	298,000	246,000
Total Annual Costs	**$1,407,000**	**$3,273,000**	**$2,702,000**
TOTAL PCCP			
Program Administration	$802,000	$719,000	$640,000
Land Management	639,000	3,049,000	4,689,000
Restoration Management	321,000	536,000	558,000
Monitoring, Research, and Adaptive Management	532,000	1,856,000	2,810,000
Contingency	230,000	617,000	870,000
Total Annual Costs	**$2,524,000**	**$6,777,000**	**$9,567,000**
Total Annual Cost per Acre Managed	**$700**	**$200**	**$170**

Chart 1
Summary of Annual Ongoing Costs



The largest cost is associated with managing large acreages of land (54% of all on-going costs). Staff administrative costs are a relatively small percentage of the on-going costs associated with the management of PCCP (6%). Some costs are expected to increase at the beginning, peak and then decline towards the end of the permit term because restoration and acquisition needs will have been satisfied. Additionally, costs will continue after the permit term expires because of the ongoing management and monitoring obligations.

On going management and monitoring costs are the most difficult to fund because they require a consistent and reliable stream of revenue over time. The staff and consultants are reviewing a number of alternatives including the use of endowments, fees, assessment districts, community facilities districts and other mechanisms. Staff will be presenting recommendations on how to fund the on-going costs once the final PCCP mitigation strategy has been determined. The consulting firm MuniFinancial has been retained to develop these alternatives.

State/Federal Funding Support
As summarized in Table 3, the majority of the cost to implement and support the PCCP is expected to be borne by private sector mitigation. However, a key element of the state's NCCP program is funding support to meet the overall program objectives. This support comes through the direct acquisition of fee title and conservation easements by the state/federal government and through the awarding of grant funds such as the Section 6 funds of the federal Endangered Species Act. At this time, the staff is not predicting that there will be any

state/federal support for ongoing costs. It may be possible to identify such costs at a later date but at this time it is not considered feasible.

Based upon decisions the Board made in mid-December of 2004, early state support would be expected in the next 1-5 years, primarily in the areas of blue oak woodland conservation, stream restoration and wetland/rice conservation.

PCCP FINANCE PLAN

It is anticipated that most of the local mitigation costs of the PCCP will be borne by the new development receiving incidental take coverage for impacts to species and habitat under the PCCP permit. The greatest percentage of participation will come from new development in unincorporated western Placer County and the City of Lincoln. Projections prepared for the PCCP indicate long-term growth from 2002-2050 of about 128,000 additional households, additional household population of 321,000, and 264,000 additional jobs for the Phase 1 area.

The summary above describes estimates of PCCP costs for the Phase 1 area of the PCCP. MuniFinancial will be preparing a draft finance plan for the Board's consideration once the mitigation strategy has been agreed to. The plan will address the funding that would need to be obtained from funding partners such as state and federal agencies as well as from parties benefiting from the PCCP.

Cost Allocation/Fees for One-Time Costs

New residential and non-residential development in the unincorporated area of western Placer County and the City of Lincoln will bear much of the cost of the local mitigation for impacts attributable to covered activities, largely proportional to the conversion of land from non-urban to urban uses. For example, since non-residential development would represent about 15 percent of the total conversion to urban uses, it is likely that non-residential development would bear a share of the PCCP local mitigation cost proportionate to that impact.

For the purposes of illustration, Table 5 depicts a scenario allocating all one-time acquisition and restoration costs (including contingency) associated with the local mitigation component of the PCCP to the new development expected in western Placer County and the City of Lincoln through the year 2050. Other covered activities such as public agency projects including major infrastructure projects, might also contribute to these costs. Options will be outlined in the complete financial alternatives analysis. For this preliminary scenario, local mitigation costs allocated to new development have been evenly distributed proportional to the acres of land converted, irrespective of the specific natural communities and/or species that would be impacted. The resultant fee per acre is translated to a fee per dwelling unit or a fee per 1,000 square feet of non-residential development. The table presents illustrative fees for a range of development densities. A high-density project with a small development footprint has 10% of the per unit obligation of a project that is at a very low suburban density (2 du/ac). The incentives to reduce the footprint and increase densities are logical in that less land required for development will result in less conversion of land that harbors sensitive species.

The staff has highlighted two fees in Table 5. The first is the per unit fee that would apply for development representative of the average density of residential development in the greater

Sacramento area today. The second is the per-unit fee that would apply for development at the residential densities proposed by the SACOG Blueprint project. By utilizing Blueprint densities, the PCCP fee per-unit for individual projects are reduced by a factor of 3 when compared to densities being developed today.

Table 5
Preliminary Estimate of Mitigation Fees for Residential and Non-residential Development based on PCCP Costs presented in Table 3

Residential development densities	Acquisition	Restoration	Total
2 du per acre	$6,150	$3,450	$9,600
4 du per acre	$3,075	$1,725	$4,800
6 du per acre	$2,050	$1,150	$3,200
8 du per acre	$1,540	$865	$2,405
10 du per acre	$1,230	$690	$1,920
12 du per acre	$1,025	$575	$1,600
14 du per acre	$880	$495	$1,375
16 du per acre	$770	$430	$1,200
18 du per acre	$685	$385	$1,070
20 du per acre	$615	$345	$960
Non-Residential development densities	**Acquisition**	**Restoration**	**Total**
0.20 FAR	$1,400	$800	$2,200
0.25 FAR	$1,100	$600	$1,700
0.30 FAR	$900	$500	$1,500
0.35 FAR	$800	$500	$1,300
0.40 FAR	$700	$400	$1,100

Ongoing Costs

The ongoing costs are more difficult to specifically identify on a per unit basis because such costs could be spread through a variety of finance mechanisms. If an endowment only alternative was considered, a very significant amount of funding would have to be set aside in a non-wasting account in order to generate sufficient revenue on an annual basis to support the ongoing costs in perpetuity. Because such an account may be difficult to establish and protect in perpetuity (over $400M would be necessary) other alternatives are to be examined and presented in the financial alternatives analysis.

Comments on Cost Estimates

A number of factors could reduce these costs including spreading the costs across a broader base, reducing the overall footprint of take, acquiring a higher percentage of conservation easements versus fee title, obtaining greater funding support from state/federal agencies, establishing revenue generating activities, etc. Conversely, other factors could increase these costs including inflated land costs, increased administrative costs, increased adaptive management obligations and others. With this said, development of this data and a recommended approach will come out of the financing plan being developed.

Lastly, it is not possible for staff to insure the Board at this time that the above costs will not, in some way, result in support costs from the County in order to insure implementation of the plan.

COST SUMMARY

The following is a summary of the overall cost of the PCCP:

- Acquiring 57,000 acres of land – fee title and conservation easement - $1.3 billion over 50 years (about $26 million per year) funded by state and federal contributions and new development impact fees
- Actual costs would be lower to the extent significant mitigation land were provided through land dedications by new development
- Offsetting revenues have not yet been predicted
- Start up costs - $2.5 million
- On-going annual costs at 2050 - $9.6 million
- Offsetting revenues and alternative financing options have not yet been estimated
- Local vs. state/federal funding percentages: 73:27
- The average cost per dwelling unit at 4 du/acre is $4,800. The fee per unit would be less at higher development densities.

COST COMPARISON FOR NEW DEVELOPMENT – STATUS QUO VS. PCCP

The Board has previously expressed an interest in having a comparison between the cost of the PCCP to new development and cost of mitigating impacts under current conditions, i.e., on a project-by-project basis with individual permit applications being obtained from the various regulatory agencies. The staff has discussed this with a number of private consultants, developers who have experienced these costs and economists familiar with land development costs. What we have found is that there is no systematic evaluation of these costs and no published data from either public or private sources. Additionally, we have only identified anecdotal costs that are not representative of the cumulative costs associated with resource mitigation.

Rather than continuing with research or the development of a complex model (the cost of such a model was estimated at over $100,000), the staff has prepared a couple of simple comparisons that provide a side by side comparison based upon: 1) the proposed cost of the PCCP, 2) the cost of land, and 3) the cost of management. What we don't know is important to recognize as well. Each project is different in a number of respects and each of those characteristics is a variable that can significantly change the various costs affecting a project. Because there are so many variables affecting costs, any scenario will necessarily be only an estimate. Nevertheless, the summary prepared below and further detailed in Exhibit E at least provides a basic understanding of the comparison between status quo and the PCCP.

4 Cost Scenarios

Scenario 1 - 1000 acres - 6 DU/acre,
Alternative A Onsite Avoidance = 10 acres

	No PCCP	PCCP
Total Elapsed Time	2+ years (2 additional years if separate EIS is prepared)	60 days
Estimated Cost	**$5,689/DU**	**$5,680/DU**

Scenario 1 - ,1000 acres - 6DU/acre, 4,010 Dwelling Units
Alternative B Onsite Avoidance = 230 acres contiguous habitat

	No PCCP	PCCP
Total Elapsed Time	2+ years (2 additional years if separate EIS is prepared)	60 days
Estimated Cost	**$3,473/DU**	**$3,061/DU**

Scenario 2 - 50 acres - 4DU/acre, 160 Dwelling Units
Alternative A Onsite Avoidance = 5 acres

	No PCCP	PCCP
Total Elapsed Time	2+ years (2 additional years if separate EIS is prepared)	60 days
Estimated Cost	**$8,727/DU**	**$9,984/DU**

Scenario 2 - 50 acres - 4DU/acre, 160 Dwelling Units
Alternative A Onsite Avoidance = 15 acres

	No PCCP	PCCP
Total Elapsed Time	2+ years (2 additional years if separate EIS is prepared)	60 days
Estimated Cost	**$4,895/DU**	**$5,015/DU**

ALTERNATIVES TO THE PCCP

Questions have been raised about the utility of the PCCP given the nature of the development being seen in Placer County today. Projects are considered at very large scales, with thousands of new residents and employees associated with single entitlements. If the current wave of permitting can be accomplished without the PCCP, the question is reasonable to pose, what then is the value of the effort?

The primary alternative to the PCCP is no PCCP. Projects would be individually evaluated for their state and federal endangered species impacts, impacts on local natural resource policies, federal wetlands, impacts on streambed and bank and water quality impacts. A second alternative would be to identify a single species or short list of species and seek regulatory coverage through a federal habitat conservation plan (HCP) for those species. With this approach, partial regulatory compliance is achieved for certain species but other issues are unresolved and the ability to obtain state/federal-matching funds is limited. Another alternative is to focus on wetland compliance and not seek compliance with the state and federal Endangered Species Act. This alternative is not supportable by the COE because the ability of the County to solve the wetland regulatory problem is dependent upon the development of a larger and more certain comprehensive conservation plan.

The County has a challenge associated with managing large-scale growth with the resource impacts that are associated with that growth. In the opinion of staff a deferral of the issue back to the resource agencies will result in continued time delays, increased costs to public agencies and the development community, and an uncertain future regulatory environment.

COST TO COMPLETE THE PCCP

The staff wants to insure that the Board has the necessary information to make decisions on how to proceed with this effort. One of those issues is the cost to the County to complete this project. At present we are funded for the balance of this fiscal year to work on the following tasks:

1. Preparation of the programmatic general permit, letter of permission and master streambed alteration agreement for wetlands
2. Preparation of the draft EIR/EIS for the PCCP

Funding needs for the balance of FY 04/05 include additional funding for: 1) the preparation of the public review draft PCCP document and related technical support, 2) additional work on the financial alternatives analysis, 3) potential need for a reassessment of property values in western Placer County, and 4) outside legal counsel. The total of these costs is approximately $300,000. Of this total, $100,000 is presently available in the Planning Department's budget. An additional funding request in the amount of $75,000 is likely for County Counsel's Office for the Resources Law Group contract and $125,000 for the Planning Department for the PCCP and financial alternatives analysis.

There is the potential for some revenue to be generated through cost-sharing arrangements with other participating agencies. The staff will continue a dialogue with these agencies regarding the cost of the preparation of the PCCP and the need for funding support for program

development and implementation. Additionally, staff continues to identify funding support from grant sources including the awarding of a $349,000 "Section 6" federal grant for the PCCP that will be placed under contract in late spring/early summer of 2005.

CRITICAL HABITAT - VERNAL POOLS

"Critical habitat" is habitat that is essential for the conservation of federally-protected endangered or threatened species. The FWS designates critical habitat through a formal rule-making process. A critical habitat designation may include land that does not contain the species ("unoccupied habitat"), as well as land that does ("occupied habitat"). The FWS may exclude otherwise appropriate habitat from a critical habitat designation if it determines that the economic impact of the designation would outweigh its benefits. (This exclusion occurred in other areas in Northern California and was the subject of the County's letter to the FWS in December of 2004.) In Placer County we have a large area of vernal pool habitat designated as critical habitat by the FWS. The area, known as "Unit 12" includes over 30,000 acres of vernal pool complexes. It lies along the SR 65 corridor and areas to the west. A significant amount of growth being considered by the County and City of Lincoln lies within the Unit 12 boundary.

Changing Regulatory Environment

In recent years, environmental groups have filed a series of lawsuits against the USFWS challenging the way it designates critical habitat and the adequacy of certain regulations pertaining to critical habitat. These lawsuits have forced the USFWS to accelerate the rate at which it designates critical habitat and, due to a recent loss in the court of appeals, raise the mitigation standard for impacts to critical habitat. In response, on December 9, 2004, the FWS sent a memorandum to its regional directors requiring staff to apply a new framework for how the Service analyzes such impacts in actions authorized by other federal agencies (e.g., including fills of wetlands regulated under the Federal Clean Water Act). The memo directs FWS biologists to analyze impacts to critical habitat more completely and with greater scrutiny. The December 2004 memorandum (Exhibit I) is designed to serve as an interim measure while the Service proceeds with a proposed rulemaking in 2005 that addresses the various court rulings.

The practical effect of recent court rulings and the December 2004 memo is that vernal pool critical habitat is given heightened importance by the FWS in its review of Army Corps of Engineers' permits for projects built in or around vernal pools. The guidance (and the rule that will soon follow) represents a significant change in how the Service will examine the impact of federal actions on critical habitat. In addition, the recent court rulings regarding critical habitat may make projects impacting critical habitat areas more vulnerable to legal challenges from opponents.

Relationship to the PCCP

It is the objective of the County to provide regulatory relief not only for current conditions but also to be responsive to conditions as they change. One of the benefits of the PCCP is that it gives the County the ability to provide its own long-range plan to address regulatory requirements, rather than responding to changes in regulatory requirements as they change from project to project.

As it relates to this particular issue, the PCCP has the potential to improve the regulatory requirements of property owners who participate in the PCCP process. It is anticipated that the FWS will be requiring that a significant portion of the vernal pools within the critical habitat boundary be avoided (Exhibit J). Figures as high as 85% avoidance are being considered. It is also anticipated that impacts that occur in this area are to be mitigated inside the Unit 12 boundary. Because of the amount of impact proposed and the degree to which lands are already conserved, it is going to become increasingly difficult to find compensatory lands.

The PCCP will provide the County with greater flexibility in planning how and where impacts to vernal pools and critical habitat in Unit 12 are addressed, including the degree of impact avoidance. A great deal of scientific and planning information has been incorporated in the PCCP. This will enable the County to demonstrate the viability of various mitigation strategies and select the best alternative from both a land use planning and conservation perspective. In addition, once the PCCP has been approved, the likelihood of future critical habitat designations will be greatly diminished. The FWS has recently begun to exclude areas covered by an approved HCP from critical habitat designations. The USFWS has also expressed a willingness to remove existing critical habitat designations once an HCP covering designated critical habitat has been approved based on its conclusion that HCPs can provide adequate protections for critical habitat areas and make formal designation of critical habitat unnecessary.

RECOMMENDATIONS: This information is presented for discussion purposes only. This information is intended to provide the Board and public with information on this important and far-ranging project. There are no recommendations for specific action at this time.

Respectfully Submitted

Loren E. Clark
Assistant Director of Planning

EXHIBITS: The following exhibits are provided for the Board's consideration:

Exhibit A:	Phase 1 Boundary
Exhibit B:	Phase 1 Development and Conservation Opportunity Areas
Exhibit C:	Hausrath Economics Group – Growth Assumptions
Exhibit D:	Clean Water Act Background information
Exhibit E:	Cost Comparison Scenarios
Exhibit F:	Summary of Mitigation Strategy
Exhibit G:	Covered Species List
Exhibit H:	Covered Activities
Exhibit I:	FWS memo regarding critical habitat
Exhibit J:	Boundary of "Unit12" Vernal Pool Critical Habitat

cc: Jan Christofferson, County Executive Officer
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IWG Members
Sally Nielsen, HEG
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Exhibit A
Phase 1 PCCP Boundary

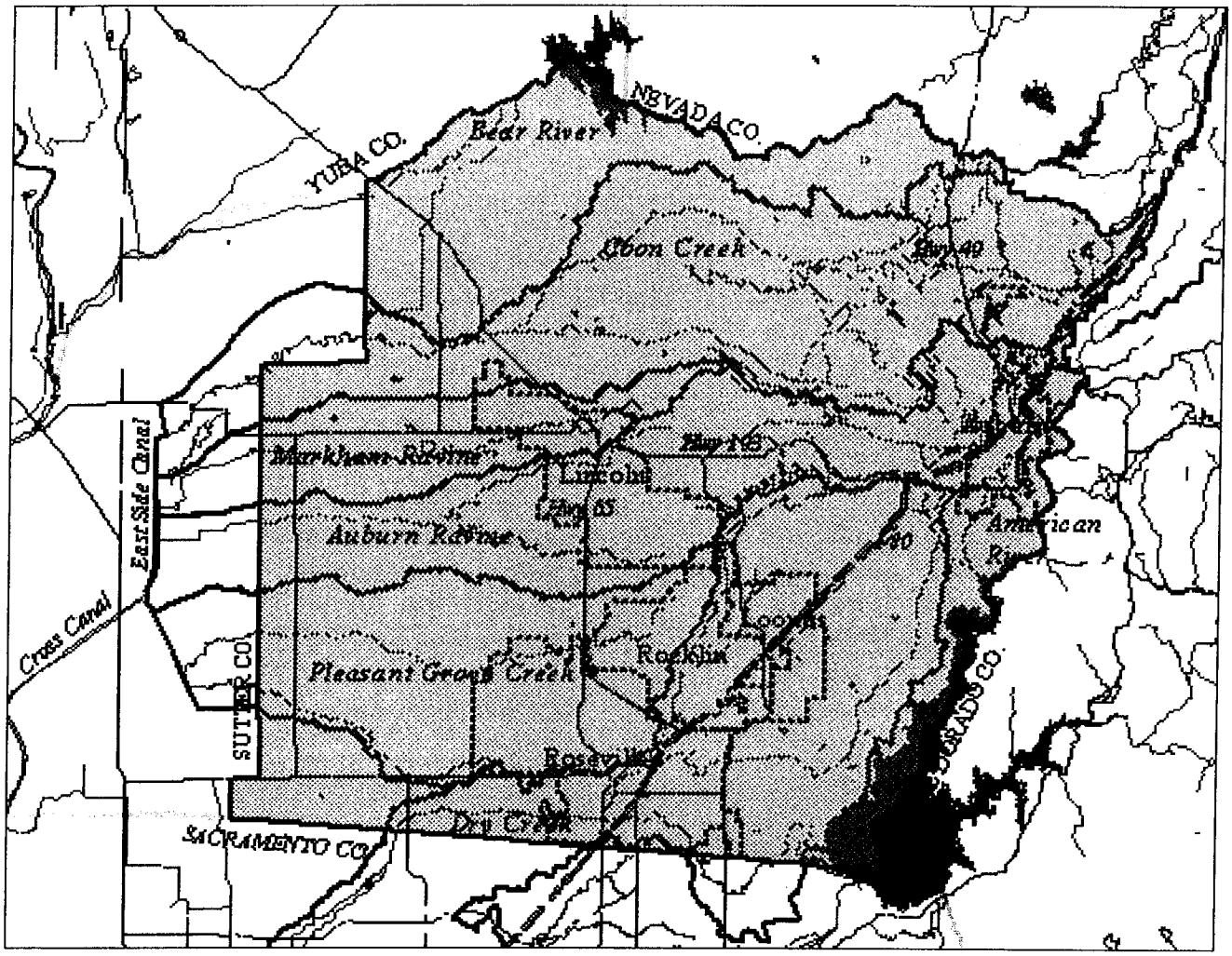
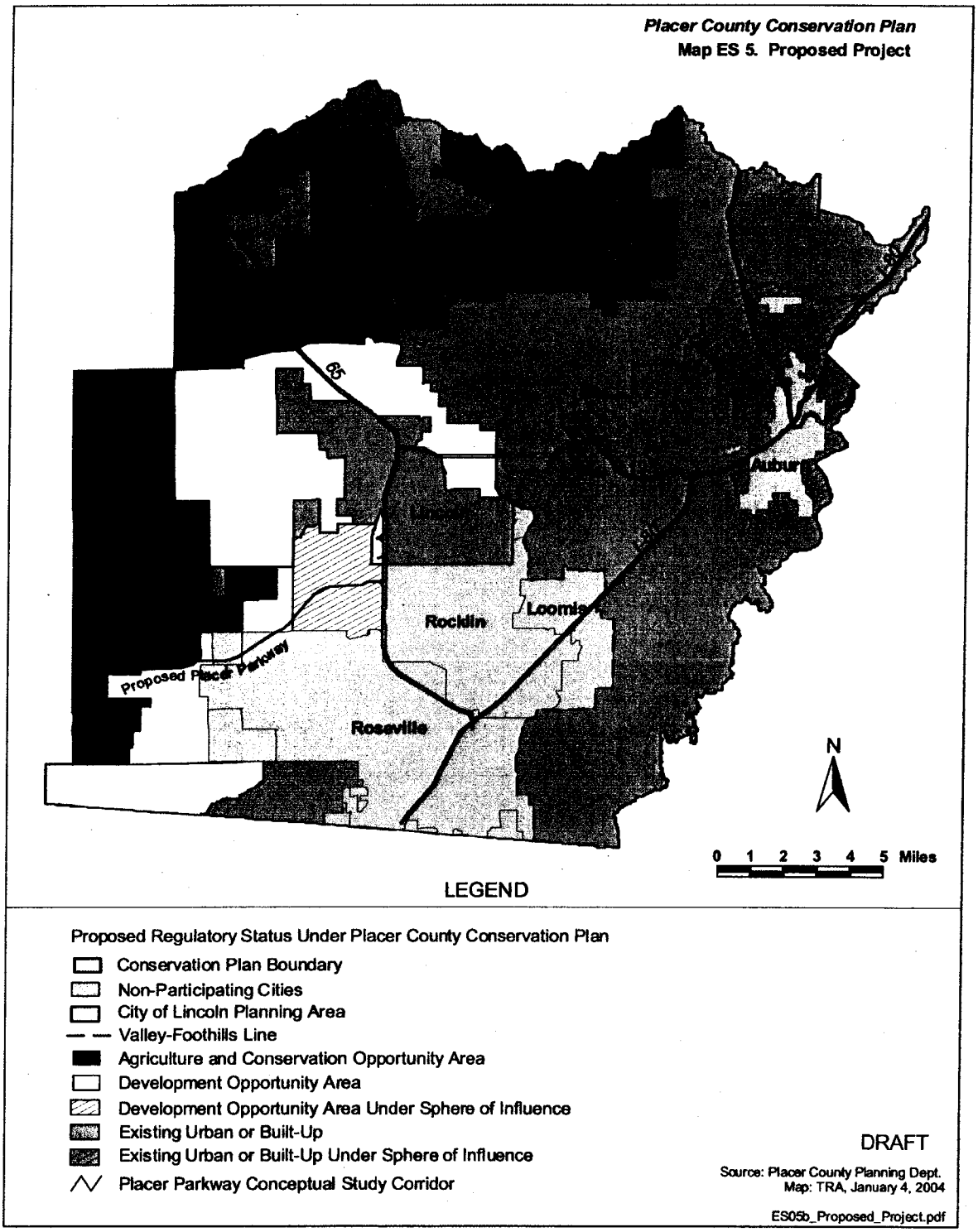


EXHIBIT A

Exhibit B
Phase 1 PCCP Development and Conservation Opportunity Areas



HAUSRATH
ECONOMICS
GROUP

MEMORANDUM (revised)

Date: January 21, 2005

To: Loren Clark, Placer County Planning Department

From: Sally Nielsen

Subject: **Projections of growth and land conversion for urban development in Placer County through 2050**

This memorandum summarizes projections of population and employment growth and estimates of land conversion for urban development prepared for the economic analysis of the proposed Placer County Conservation Plan (PCCP). Hausrath Economics Group (HEG) prepared projections of population and employment growth for Placer County from the base year (2002) through 2050 and estimates of growth from 2002 through 2050 for the PCCP Phase 1 planning area (western Placer County) based on those county totals. The estimates of land conversion for the PCCP Phase 1 planning area represent the acres of residential and non-residential development and associated infrastructure that would accommodate projected growth in the Phase 1 planning area through the year 2050. This memorandum presents the projections and land conversion estimates and describes the sources and assumptions used to generate the numbers.

The projections represent one possible scenario for long-term growth in Placer County, assuming continuation of regional growth trends and development patterns. That scenario reflects current assessments of future economic and population growth potential and development plans and proposals under consideration in Placer County and in cities in the county as of December 2004. Among other factors, changes in household composition over the longer-term and potential market responses to those changes will alter the 50-year growth scenario.

The estimates of land conversion reflect development types and development intensities (dwelling units per acre and floor-area ratios for non-residential development) that are currently envisioned in city and county general and specific plans, planning studies, and development proposals. Over the 50-year planning horizon, a number of factors will influence whether or not and how such development actually occurs on the Placer County landscape. Relevant factors include local planning policies and other development regulations, development costs (land, materials, financing, infrastructure and public facilities), availability of private capital, levels of public investment, local and regional economic activity, and market preferences. The estimates

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EXHIBIT C

presented in this memorandum are intended as a starting point for the PCCP analysis and reflect a reasonable scenario given current economic and planning assumptions.

BASIS FOR LONG-TERM PROJECTIONS

HEG analyzed two primary sources to develop the long-term projections of population and employment growth in Placer County through the year 2050. In 2002, the Center for the Continuing Study of the California Economy (CCSCE) conducted an economic and demographic analysis of long-term regional growth trends through 2050 for the Sacramento Area Council of Governments (SACOG) Blueprint project.[1] In May 2004, the California Department of Finance (DOF) published updated projections of population by county through 2050. HEG reviewed these materials in conjunction with Census data; estimates of current housing, population, and jobs from DOF, the California Employment Development Department (EDD), and the U.S. Department of Commerce Bureau of Economic Analysis (BEA); trend data from those sources; and SACOG's *March 2001 Projections* series, Placer County growth projections, and scenarios of regional growth by subarea prepared by SACOG for the Blueprint Project.

HEG's long-term projections for Placer County represent a scenario of demand for urban development based on analysis of economic factors, demographic trends, regional growth potential, and development patterns. The projections consider Placer County's role in the regional economy and housing market and link population growth to job growth through analysis of labor force participation and the growth of jobs relative the growth of employed residents. The projections represent a reasonable scenario of expected growth based on the assumption that a high quality of life continues to attract economic activity and new residents and that appropriate infrastructure development occurs to accommodate growth. Table 1 presents the projections developed for Placer County, as well as regional projections that provide a context for the Placer County estimates. Key determinants of the projections are summarized following the table.

[1] This analysis was presented at the SACOG Regional Forum in 2002. See *Growth Trends in the Sacramento Region: Jobs, Population, and Households 1950 – 2050*, October 18, 2002, (http://www.sacregionblueprint.org/sacregionblueprint/the_need/sacgrowthtrends.pdf).

TABLE 1
PROJECTIONS OF EMPLOYMENTAND POPULATION FOR THE SACRAMENTO REGION AND PLACER COUNTY: 2002 - 2050

			2002 - 2050	
	2002	2050	Net Growth	Annual Growth Rate
Placer County				
Jobs by Place of Work[1]	152,000	421,000	269,000	2.1%
Total Population	278,000	616,000	338,000	1.7%
Household Population	275,000	609,000	334,000	1.7%
Six County Sacramento Region[2]				
Jobs by Place of Work[1]	1,086,000	2,160,000	1,074,000	1.4%
Total Population	2,065,000	4,106,000	2,041,000	1.4%
Household Population	2,024,000	4,026,000	2,002,000	1.4%
Placer Share of Regional Total				
Jobs by Place of Work	14%	19%	25%	
Total Population	13%	15%	17%	
Household Population	14%	15%	17%	

NOTE: These projections represent one possible scenario for long-term growth in the Sacramento region and in Placer County, assuming continuation of regional growth trends and development patterns. The projections reflect current assessments of future economic and population growth potential and development plans and proposals under consideration in Placer County and in cities in the county as of December 2004.

[1] Estimates of jobs (employment) by place of work include wage and salary employment, the self-employed, and proprietors.

[2] In addition to Placer County, the six county region includes El Dorado, Sacramento, Sutter, Yolo, and Yuba counties.

SOURCE: Hausrath Economics Group for the purposes of the Placer County Conservation Plan economic analysis.

EMPLOYMENT GROWTH

The estimates of long-term regional job growth are based on the CCSCE analysis for SACOG described in the baseline growth trends presentation identified above (*Growth Trends in the Sacramento Region: Jobs, Population, and Households 1950 – 2050*, October 2002). Tying regional employment growth to projections of statewide economic growth, analysis of the prospects for the region's economic base industries, and assessment of the competitive advantages of the Sacramento region, the CCSCE projects an annual employment growth rate of 1.44 percent for the six-county region between 2000 and 2050. At this rate, the number of jobs in the region would double over the 50-year period; the projection is for an increase of about 1.1 million new jobs between 2002 and 2050. The number is large, but the rate of growth represents a substantial slowing of growth in economic activity compared to preceding periods. Between 1970 and 2000, the employment growth rate for the region was 3.5 percent per year.

HEG projections show Placer County capturing 25 percent of regional job growth between 2002 and 2050. This increase in the share of regional employment growth captured in Placer County is consistent with trends of the 1990s as evidenced in State Employment Development Department data and U.S. Department of Commerce Bureau of Economic Analysis data. It is also consistent with assumptions used in the base case scenario developed for SACOG's Blueprint Project, which shows Placer County capturing 25 percent of regional job growth.[2] Total employment in Placer County is projected to reach 421,000 by 2050, an increase of 269,000 jobs between 2002 and 2050. The employment growth rate for Placer County slows over time; the overall rate for the long-term future (an annual rate of 2.1 percent) is about 40 percent of the job growth rate experienced in the County over the last 30 years (5.7 percent on an annual basis between 1970 and 2000).

The estimates of employment and employment growth prepared for the PCCP are larger than SACOG estimates of Placer County jobs because of some differences in methodology, although underlying assumptions about growth rates and the allocation of employment growth within the region are similar. As described above, the Placer County employment growth scenario for the PCCP is based on the long-term SACOG regional employment growth scenario developed by the CCSCE and on the assumption, consistent with SACOG, that Placer County's share of regional employment will continue to increase over time. The primary differences in methodology appear to reflect differences in base year estimates, specifically in the treatment of self-employed workers.

HEG's base year estimate of jobs in Placer County started with the estimate of wage and salary employment for 2002 reported in annual average county-level data from the California Employment Development Department (EDD), based on employer reports. Our estimate of total employment includes both wage and salary employment and self-employed workers, i.e., people who are employed but work for themselves and who are not counted in employer statistics.[3] The

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[2] Sacramento Region Blueprint Transportation and Land Use Study, Regional Forum 2004, *Tall Order*, Regional Scenarios: Statistics by Subarea, (http://www.sacog.org/forum2004/forumbook/forumbook.pdf). Differences in geographic coverage may mean these estimates are not directly comparable to the Placer County totals in Table 1. The exclusion of "Placer County High Country" or "Tahoe Basin" estimates from the SACOG statistics does not make a large difference, however, since these areas represent only a small part of the county totals.

[3] There are a number of sources of estimates for the self-employed; each source uses different definitions. According to the 2002 Economic Census (a source of data on self-employment that measures businesses that have no employees), there were 22,000 such establishments in Placer County in 2002 (including sole proprietorships, partnerships, and corporations). The 2003 American Community Survey estimates show about 18,000 self-employed workers in Placer County, not including those whose business was incorporated. The Bureau of Economic Analysis (BEA) provides the most comprehensive estimates of the number of jobs represented by self-employment and therefore not counted in wage and salary employment estimates. From IRS tax return forms, the BEA counts the number of sole proprietorships and the number of individual business partners not assumed to be limited partners. For 2002, the BEA estimates a total of about 34,000 jobs associated with proprietors employment in Placer County. Most of Placer County's self-employed are in business as specialty trade contractors, real estate agents/brokers, accountants, lawyers, computer and other technical consultants, architects, doctors and other health practitioners, day care providers, and non-store retailers.

self-employed are an important component of the workforce. Analysis of the ability of the local economy to employ area residents is incomplete without counting the self-employed.

The U.S. Department of Commerce Bureau of Economic Analysis provides a consistent employment data series by county that identifies both wage and salary employment (based on employer reports provided to State employment security agencies—the same source for EDD estimates of wage and salary employment by county in California) and proprietors employment (based on analysis of IRS tax return forms). HEG analyzed BEA estimates for Placer County from 1969 through 2002 and based the estimate of self-employment on the ratio of proprietors employment to wage and salary employment for Placer County. That ratio was 0.26-to-1.00 in 2002. HEG projections of future employment in Placer County assume that ratio remains constant over time.[4]

POPULATION GROWTH

The CCSCE growth trends analysis for the Sacramento region (conducted in 2002) produced estimates of future population growth based on job growth, demand for labor, and assumptions about labor force participation. The result is an estimate of regional population growth of about 1.7 million people, at a growth rate of about 1.26 percent per year. The Department of Finance (DOF) released new long-term population projections for counties through the year 2050 in May 2004 that are substantially higher than those CCSCE projections.[5] The DOF population projections are based on a demographic model reflecting recent trends in fertility, mortality, and migration. The projections are not explicitly constrained by a labor demand and supply analysis. Under the DOF scenario, regional population would grow at an annual rate of 1.68 percent from 2000 to 2050; the region's population would more than double, increasing by over 2.5 million people.

It is preferable to use a projection that integrates job growth and population growth; however, assumptions about Placer County population growth using the CCSCE regional projections directly appear too low. HEG prepared a new regional population projection that takes a middle road between CCSCE and DOF. Past trends show population growing at a slower rate than jobs, although this differential should narrow over time with the aging of the population and the consequent slowing of labor force growth. Therefore, we project regional population growth at the same annual rate as regional employment growth for the 2002 through 2050 period. This is a faster rate of population growth than projected by CCSCE in the baseline regional scenario and a slower rate of regional growth than projected by DOF. The annual rate (1.44 percent per year) is

[4] In 1969, the ratio was 0.25-to-1.00 and went up from there, ranging from 0.35-to-1.00 to 0.43-to-1.00 from the late 1970s through the mid-1990s. The average over the 33 years from 1969 through 2002 was 0.33-to-1.00. Many factors influence this ratio, including the strength of the regular labor market, trends in early retirement, and the need to supplement retirement income. For future projections, HEG assumed a constant current ratio (0.26-to-1.00) to be conservative.

[5] State of California, Department of Finance, *Population Projections by Race/Ethnicity, Gender, and Age for California and its Counties 2000 – 2050*, Sacramento California, May 2004.

about midway between the low (CCSCE) and the high (DOF) growth rates. Resultant regional population growth of 2 million is about midway between the CCSCE growth projection and the DOF growth projection.

For the PCCP economic analysis, Placer County captures 17 percent of regional population growth, accounting for 15 percent of the regional total in 2050—an increase in the share over time. This is consistent with past trends in regional population growth and with assumptions used in the base case scenario developed for SACOG's Blueprint Project. Using these assumptions, total population in Placer County is projected to reach 616,000 by 2050, an increase of 338,000 people between 2002 and 2050, at an annual growth rate of 1.67 percent. SACOG's population projections for Placer County in 2050 range from 561,000 in the base case scenario to 592,000 in the preferred scenario which increases the proportion of regional housing production in Placer County. The unconstrained Department of Finance projections show an even higher growth rate for Placer County (2.0 percent per year), resulting in a total population of 657,000 in 2050, an increase of about 408,000 people between 2000 and 2050.

HOUSEHOLD POPULATION

Household population for both the region and for Placer County is projected assuming that group quarters population remains a constant share of total population over time and therefore increases proportional to the overall increase in population. Household population growth for the region between 2002 and 2050 totals just over 2 million people. Capturing 17 percent of regional growth, Placer County's household population is estimated to total 609,000 in 2050, an increase of 334,000 people between 2002 and 2050.

HOUSEHOLDS

Household size is projected to decline over time, in large part due to the aging of the population, a national demographic trend. According to CCSCE demographic analysis, the aging of the population means that people aged 55 and older will become an ever larger share of the total, and older households (persons living alone and others with no children under 18 at home) will become a larger percentage of the region's households and of regional housing demand.

The Placer County household projections reflect these trends to some extent; smaller household sizes are assumed for any age-restricted housing currently planned or proposed. HEG's methodology for deriving estimates of land conversion from the capacity of city and county general and specific plans, general plan updates, and development proposals (described below) resulted in a determination to use current planning assumptions for estimates of household size and therefore of the capacity of potential development to accommodate population growth. As a result, the household growth estimates for Placer County do not fully incorporate long-term trends towards substantially smaller household sizes overall. As noted above, such changes over the long-term would result in a market response evidenced in changes in the types and densities of residential development proposed. This scenario for the PCCP analysis does not incorporate

those types of potential long-term future changes. Instead, the PCCP scenario incorporates current thinking about the characteristics of households and housing demand, as evidenced by the shorter-term planning horizon of planning studies and development proposals under consideration today.

Table 2 presents the PCCP scenario for households and household population in Placer County. The addition of 133,000 households would result in a total of 239,000 households in Placer County in 2050.

TABLE 2
PROJECTIONS OF HOUSEHOLDS AND HOUSEHOLD POPULATION FOR PLACER COUNTY: 2002 – 2050

			2002 - 2050	
	2002	2050	Net Growth	Annual Growth Rate
Household Population	275,000	609,000	334,000	1.7%
Households	106,000	239,000	133,000	1.7%
Persons-per-household	2.59	2.55	2.51	

NOTE: These projections represent one possible scenario for long-term growth in Placer County, assuming continuation of regional growth trends and development patterns. The projections reflect current assessments of future economic and population growth potential and development plans and proposals under consideration in Placer County and in cities in the county as of December 2004. Among other factors, changes in household composition over the longer-term and potential market responses to those changes will alter the 50-year growth scenario.

SOURCE: Hausrath Economics Group for the purposes of the Placer County Conservation Plan economic analysis.

The PCCP household scenario for Placer County is lower than both SACOG's base case scenario and preferred Blueprint scenario. Those scenarios show an increase of 150,000 to 160,000 housing units in Placer County between 2000 and 2050. The larger number is in the preferred Blueprint scenario, resulting from the policy direction to improve the jobs-housing balance in the County by increasing the number of housing units relative to the number of jobs. The lower household size assumptions used in the SACOG scenarios compared to those in the PCCP scenario result in lower total population estimates associated with SACOG's larger household numbers, however. SACOG's housing and household population scenarios are based more purely on a long-term demographic analysis and the intent to illustrate outcomes of planning principles, while the PCCP scenario combines long-term growth scenarios with assumptions about the characteristics of new development based on approved development projects and specific plans as well as development proposals and current planning policies.

PROJECTIONS FOR THE PCCP PHASE 1 PLANNING AREA

HEG prepared estimates of employment and population growth for the PCCP Phase 1 planning area using generalized assumptions about the western Placer share of total Placer County

employment and population.[6] Estimates of household growth to accommodate the projected population increase are based on analysis of demographic trends in the region and on the planning assumptions incorporated in city and county planning studies and in proposals for development in western Placer County as of December 2004. Table 3 presents the resultant projections for the PCCP Phase 1 planning area. As noted above, there are a number of factors that could alter the 50-year growth scenario, but the estimates are a reasonable starting point for the PCCP analysis, given current planning assumptions.

TABLE 3
PROJECTIONS OF EMPLOYMENT, POPULATION, AND HOUSEHOLDS, PHASE 1 PLANNING AREA: 2002 – 2050

			2002-2050	
Phase 1 Area	**2002**	**2050**	**Net Growth**	**Annual Growth Rate**
Jobs by Place of Work[1]	144,000	408,000	264,000	2.2%
Total Population	250,000	574,000	324,000	1.7%
Household Population	248,000	569,000	321,000	1.7%
Households	95,000	223,000	128,000	1.8%
Persons-per-household	2.61	2.55	2.51	
Phase 1 Percentage of County Totals				
Jobs by Place of Work	95%	97%	98%	
Total Population	90%	93%	96%	
Household Population	90%	93%	96%	

NOTE: These projections represent one possible scenario for long-term growth in Placer County, assuming continuation of regional growth trends and development patterns. The projections reflect current assessments of future economic and population growth potential and development plans and proposals under consideration in Placer County and in cities in the county as of December 2004. Among other factors, changes in household composition over the longer-term and potential market responses to those changes will alter the 50-year growth scenario.

[1] Estimates of jobs (employment) by place of work include wage and salary employment, the self-employed, and proprietors.

SOURCE: Hausrath Economics Group for the purposes of the Placer County Conservation Plan economic analysis.

LAND CONVERSION ESTIMATES

Explanation of subareas

The PCCP analysis requires estimates of land conversion for urban/suburban development according to geographic areas defined for the purposes of establishing Conservation Opportunity

[6] The assumptions about the share of total county population and employment in the Phase 1 area are based on estimates for the Tahoe and Sierra areas not covered by SACOG prepared by HEG and Placer County for the 1994 Placer County General Plan and analysis of SACOG projections by regional analysis district (2001 series).

Areas and Development Opportunity Areas under the plan.[7] The subareas used to summarize growth projections and land conversion estimates for the Phase 1 planning area are as follows: [**Note to Reviewers:** This text needs to be reviewed for consistency with the January version of the administrative draft PCCP.]

- **Non-Participating Cities:** The cities of Roseville, Rocklin, Loomis and Auburn are not participants in the PCCP. Although infill and new growth in these areas will not be covered by the PCCP permits, the PCCP land conversion estimates account for future development in these areas, providing an indication of the amount of future growth that could be accommodated within their boundaries through 2050. Development in the small remaining sphere-of-influence for Rocklin and in the Roseville sphere-of-influence area west of Roseville's current city limits are included in the growth assumptions for the Non-Participating Cities. Development in the Roseville and Lincoln sphere of influence areas that are within Placer County's Sunset Industrial Area are included in the Development Opportunity Area estimates and development in the Auburn sphere of influence area is included in the Existing Urban and Built-up area described below.
- **Existing Urban and Built-up:** This area includes existing developed parts of the participating City of Lincoln and of unincorporated western Placer County. Any land that is designated for urban use in the general plans of those jurisdictions and that is already developed or is subdivided into 20-acre or smaller parcels is included in this category. The area includes land in the spheres-of-influence of the Non-Participating City of Auburn, land in the Lincoln city limits and planning area, and areas of unincorporated development along I-80, Highway 65, and elsewhere in the Valley and Foothills zones, e.g., Dry Creek, Sheridan, Granite Bay, Penryn, Newcastle, Ophir, the Loomis Basin, and Meadow Vista.
- **Development Opportunity Area:** This area covers land that is not already "built-up" (as defined above) in unincorporated western Placer County and in the City of Lincoln planning area (including land within the current Lincoln sphere-of-influence and some surrounding unincorporated Placer County land). The northern part of the Roseville sphere-of-influence (the acreage within the County's Sunset Industrial Area) is also included in the Development Opportunity Area.
- **Agriculture and Conservation Opportunity Area:** This land in the Valley and Foothills zones is under the jurisdiction of Placer County. The Placer County General Plan designates this area for agricultural use.

[7] See "6.2: Proposed Land Status Under the PCCP", *Third Administrative Draft Placer County Conservation Plan*, October 28, 2004, pp. 6-7 – 6-9. [**Note to Reviewers**: This reference needs to be updated.]

Scenario for the distribution of employment and population growth

HEG's land conversion analysis, including assessment of land use designations and planning assumptions expressed in existing adopted general plans of Placer County and the cities in the county, the proposed Lincoln General Plan Update, and planning assumptions for other potential growth areas in western Placer County, resulted in a scenario for the distribution of employment, population, and household growth within the Phase 1 planning area of western Placer County. Table 4 and Figure 1 summarize the Phase 1 planning area growth scenario according to the PCCP subareas described above.

TABLE 4
SCENARIO FOR PHASE 1 AREA GROWTH BY PCCP SUBAREA:
2002 - 2050

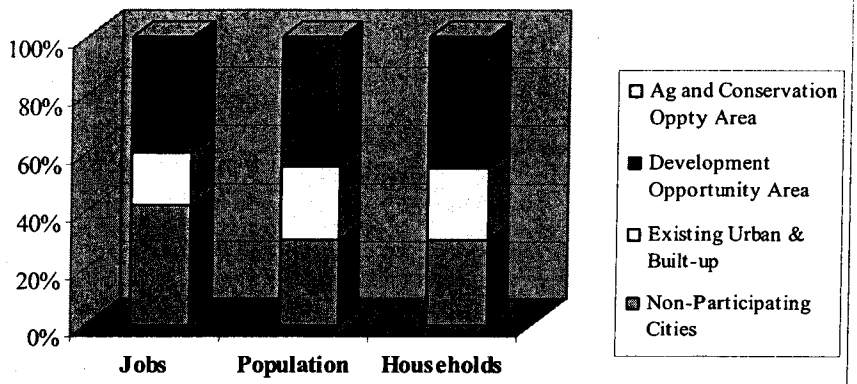
PCCP Subarea	Jobs	Population	Households
Non-Participating Cities	110,700	97,000	38,200
Existing Urban and Built-up	46,900	80,700	31,400
Development Opportunity Area	106,100	143,200	58,200
Agriculture and Conservation Oppty Area[1]	0	100	30
Total	**263,700**	**321,000**	**127,830**
Percent of Total by Subarea			
Non-Participating Cities	42%	30%	30%
Existing Urban and Built-up	18%	25%	25%
Development Opportunity Area	40%	45%	46%
Agriculture and Conservation Oppty Area	0%	< 1 %	< 1 %
Total	**100%**	**100%**	**100%**

NOTE: These projections represent one possible scenario for long-term growth and the distribution of growth in Placer County, assuming continuation of regional and county growth trends and development patterns. The scenario reflects current assessments of future economic and population growth potential and development plans and proposals under consideration in Placer County and in cities in the county as of December 2004.

[1] Represents continuing rural residential development on parcels zoned for agricultural use in the Foothills zone. While much of the existing Foothills rural residential development and land already in smaller parcels is categorized as Existing Urban and Built-up, about half of the land in the Foothills Agriculture and Conservation Opportunity Area is zoned Agriculture – 10-acre or 20-acre minimum.

SOURCE: Hausrath Economics Group for the purposes of the Placer County Conservation Plan economic analysis.

Figure 1
Distribution of Growth by PCCP Subarea



Job growth would be concentrated in the Non-Participating Cities (primarily Roseville and Rocklin) and in the Development Opportunity Area (in both the Lincoln Planning Area and in unincorporated Placer County). These Non-Participating Cities and the Development Opportunity Area would account for about 80 percent of job growth, split about equally between the two areas. Population and household growth would be more evenly distributed among the Non-Participating Cities, the Development Opportunity Area, and the Existing Urban and Built-up Areas. The differences are attributable to estimates of remaining development potential in the Non-Participating Cities, the character and mix of development planned for the Development Opportunity Area, and the predominantly residential character of the Existing Urban and Built-up Areas outside of the cities.

Land conversion scenario

Table 5 and Figure 2 summarize the estimates of the land conversion to accommodate this projected growth in western Placer County between 2002 and 2050. The acreage estimates include land for residential and non-residential development and associated infrastructure. The estimates also assume development of two college/university campuses and associated enrollment. Estimates are presented for the first part of the planning period (2002 – 2025), the second part of the planning period (2026- 2050), and for the entire period through 2050.

TABLE 5
ESTIMATE OF LAND CONVERTED TO URBAN USES TO ACCOMMODATE PHASE 1 AREA GROWTH BY SUBAREA: 2002 – 2050
(acres)

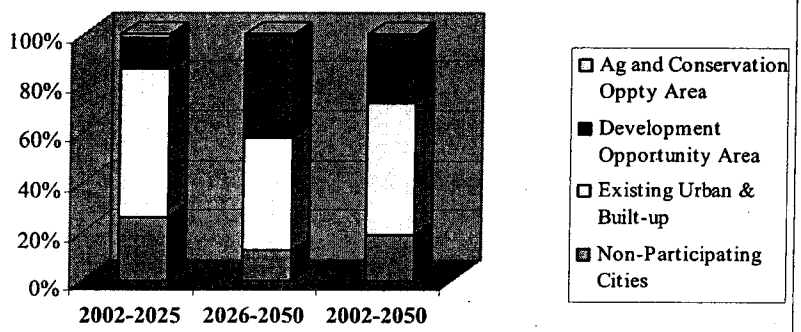
PCCP Subarea	2002-2025	2026-2050	Total
Non-Participating Cities	8,800	4,200	13,000
Existing Urban & Built-up	20,100	15,300	35,400
Development Opportunity Area	4,400	13,800	18,200
Agriculture and Conservation Oppty. Area[1]	400	300	700
Total for Phase 1 Planning Area	**33,700**	**33,600**	**67,300**
Total Excluding Non-Participating Cities	**24,900**	**29,400**	**54,300**
Percent of Total by Subarea			
Non-Participating Cities	26%	13%	19%
Existing Urban & Built-up	60%	46%	53%
Development Opportunity Area	13%	41%	27%
Agriculture and Conservation Oppty. Area	1%	1%	1%
Total for Phase 1 Planning Area	**100%**	**100%**	**100%**

NOTE: These projections represent one possible scenario for long-term growth and the distribution of growth in Placer County, assuming continuation of regional and county growth trends and development patterns. The scenario reflects current assessments of future economic and population growth potential and development plans and proposals under consideration in Placer County and in cities in the county as of December 2004.

[1] Represents continuing rural residential development on parcels zoned for agricultural use in the Foothills zone, as well as direct land conversion associated with infrastructure development such as the Placer Parkway . While much of the existing Foothills rural residential development and land already in smaller parcels is categorized as Existing Urban and Built-up, about half of the land in the Foothills Agriculture and Conservation Opportunity Area is zoned Agriculture – 10-acre or 20-acre minimum.

SOURCE: Hausrath Economics Group for the purposes of the Placer County Conservation Plan economic analysis.

Figure 2
Distribution of Land Conversion by Subarea by Time Period



A total of about 67,000 acres of land would be converted for new urban development to accommodate projected growth in western Placer County through the year 2050. In the areas covered by the PCCP (areas outside the Non-Participating Cities), 54,000 acres, or 80 percent of the total, would be converted between 2002 and 2050.

This is a long time period for planning. As noted above, this estimate is based on current planning assumptions and development types and development intensities expressed in current planning documents and project proposals. There are a number of factors, including demographic changes, market forces, environmental and infrastructure constraints, and development cost and financing considerations that could result in substantial changes to these land conversion estimates, particularly over the longer-term. The estimates represent a reasonable scenario for PCCP analysis under current planning assumptions.

Under this scenario developed for the PCCP, the Non-Participating Cities would account for about 20 percent of the land conversion between 2002 and 2050. The share would be greater in the first part of the period and decrease over time as these areas approached build-out. The Existing Urban and Built-up Areas of the County and the City of Lincoln would also account for a substantial portion of the land conversion—the scenario shows about half of total land conversion occurring in those areas. This represents primarily the large amount of land conversion associated with rural residential and large-lot suburban development in unincorporated areas. The Development Opportunity Area in both the Lincoln Planning Area and in unincorporated Placer County would see an increasing amount of land conversion in the latter half of the 50-year planning period.

Differences in development density and the character of development explain the differences in the distribution of growth by subarea when land conversion estimates are compared to estimates of employment, population, or household growth. A higher development density is planned for potential growth areas within the Development Opportunity Area and in the Non-Participating Cities than is the case in Existing Urban and Built-up Areas in the unincorporated area. The comparison highlights the low density of the predominantly suburban and rural residential development pattern in the Existing Urban and Built-up Areas under County jurisdiction in the I-80 corridor (Granite Bay, Penryn, Newcastle, Loomis Basin, and North Auburn), the Foothills zone (Meadow Vista and development areas west of Highway 49), and the Valley zone (Dry Creek, Sheridan planning area). The contrast in development density explains the larger share of total land conversion compared to the share of population or employment growth that would be accommodated in the Existing Urban and Built-up Areas under this scenario.

Conclusions about this development scenario

Accommodating the projected amount of growth in western Placer County under current planning assumptions has the following implications for land conversion in the PCCP Phase 1 area:

- The Non-Participating Cities are essentially built-out by 2050, including the West Roseville Specific Plan and the rest of the MOU area (Roseville's expanded sphere-of-influence to the west and north of the West Roseville Specific Plan). This conclusion assumes currently proposed and planned development density and also assumes some amount of infill and redevelopment. Increasing development densities in the future and higher density infill development would change holding capacity assumptions for some of these Non-Participating Cities.
- In the Placer County Development Opportunity Area, population and employment growth through 2050 could absorb about 75 percent of the land already designated or under consideration for urban/suburban development. This would include land in the following major proposed development areas: Placer Vineyards, de la Salle University and Community, and Placer Ranch. Much of the remainder of the Sunset Industrial Area is absorbed as well, as is land in the proposed Curry Creek Planning Area north of Placer Vineyards.
- In the Lincoln Planning Area, population and employment growth through 2050 absorb about 85 percent of the land remaining for urban development within existing city limits and planned or proposed for urban development in the rest of the planning area.
- Substantial population growth and some employment growth occur in the Existing Urban and Built up Areas in the I-80 Corridor and the Foothills Zone between Lincoln and Auburn. This includes continued conversion of agricultural land to rural residential use. Generally, development in these areas occurs at a substantially lower density than that planned for the Non-Participating Cities and proposed for future urbanization in the Development Opportunity Area. Nevertheless, after 2050, under existing General Plan designations (i.e., before consideration of general plan changes such as those that might be proposed in the future for the Development Opportunity Area), more development capacity remains in unincorporated Existing Urban and Built-up areas than in other parts of the Phase 1 area.
- Some residential growth is shown for the Foothill Zone portion of the Agriculture and Conservation Opportunity Area. This reflects a continuation of trends that indicate rural residential development on parcels zoned for agricultural use in this area. About half (46 percent) the total land area in the Foothills Zone portion of the Agriculture and Conservation Opportunity Area is zoned Agriculture with 10-20 acre minimum lot sizes. No such conversion to rural residential use is assumed for the Valley Zone portion of the Agriculture and Conservation Opportunity Area, where there is less evidence of existing conversion, and the Agricultural zoning is primarily 80-acre minimum. The land conversion estimates for this area reflect conversion associated with infrastructure such as the proposed Placer Parkway.

Details about the estimates of land conversion

To develop the estimates of land conversion, HEG relied on estimates of population and employment that could be accommodated under existing general plans, approved specific plans, planning area studies for general plan updates, and in development proposals under consideration. Other key sources of information were the JSA existing land cover database, a database prepared by Thomas Reid Associates summarizing acres by land use designation and detailed analysis zone for all land in the PCCP Phase 1 planning area, Department of Finance January 1, 2002 estimates of housing units, households, and population for Placer County cities and the unincorporated area, and the SACOG March 2001 *Projections* series. Key sources, assumptions, and steps in the methodology for preparing the land conversion estimates are outlined below.

Estimating capacity to accommodate population and employment growth by planning area

- Summarize information on land use, population, housing, and employment from planning documents and development activity reports. The following sources of information provided estimates of the total development capacity and total potential population and employment accommodated in existing city limits (including recent annexation areas) and in various projects and planning areas: "Draft Citywide Land Use Forecast for the City of Rocklin" (DKS Associates, October 2002), and *Draft Constraints, Opportunities, and Options Report* (October 2002), prepared for the City of Rocklin General Plan Update; population and employment projections for the City of Roseville prepared by MuniFinancial in November 2001 that cover the West Roseville Specific Plan, the remainder of the MOU area, and the remaining development capacity in other parts of the City; City of Roseville *Quarterly Development Activity Report* (April 2004); land use assumptions and population and employment estimates for the proposed Placer Vineyards Specific Plan prepared by The Spink Corporation and Hausrath Economics Group for use in the Placer Vineyards Specific Plan environmental impact report; land use summaries provided by Placer County for the proposed De la Salle University and Community (May 21, 2004) and the proposed Placer Ranch (July 9, 2004); land use, population, and employment assumptions for the proposed Bickford Ranch Specific Plan from the September 1999 Draft EIR, as modified to reflect the project subsequently approved; land use information for the Sunset Industrial area from the June 1997 *Sunset Industrial Area Plan*, modified to account for annexations to the cities of Lincoln and Rocklin, and the proposed Placer Ranch project; and land use, population, housing, and employment estimates under review for the Lincoln General Plan Update, specifically, information for the entire Lincoln Planning Area, provided by the City of Lincoln, describing the "Village Alternative" (April 1, 2004), supplemented by information provided in a November 29, 2004 memorandum from Rodney Campbell, Director of Community Development, to Loren Clark.

- For the cities of Loomis and Auburn and the rest of the unincorporated area, use the detailed general plan land use database to produce estimates of acres by land use category for relevant geographic areas, considering the combination of the PCCP Analysis Zones (Non-Participating Cities, I-80 Corridor, Valley, Foothills, and Lincoln Planning Area) and the PCCP Proposed Regulatory Status areas (Non-Participating Cities, Lincoln Planning Area, Development Opportunity Area, Existing Urban and Built-up, and Agriculture and Conservation Opportunity Area). The geographic analysis also separately identified the various sphere-of-influence areas within each zone/analysis area.
- Develop estimates of the "holding capacity" for these areas by making assumptions about the intensity of development under current land use designations, about household size, and about employment density.
  - Estimate total potential housing units assuming residential development at 75 – 95 percent of the maximum development intensity allowed in each zoning category.
  - Estimate household size based on existing conditions as evidenced in DOF and SACOG information as well as assumptions about decreasing household sizes over time.
  - Estimate non-residential development assuming 90 percent of the land so-designated is developable and using floor-area-ratios of 0.30 : 1.00 for commercial land use and 0.35 : 1:00 for office and industrial land uses.
  - Estimate employment assuming 500 sq. ft. per employee for commercial use, 300 sq. ft. per employee for office use, and 750 sq. ft. per employee for industrial use.
- Develop estimates of incremental growth potential for these areas by subtracting estimates of 2002 population and 2002 employment. Derive estimates of 2002 population and employment from DOF (population for Auburn and Loomis) or from SACOG (population for unincorporated areas and employment for all areas). Use SACOG March 2001 *Projections* series, disaggregated by Regional Analysis District.
- Calculate percentages of total capacity for both population and employment represented by growth increment. Apply each growth increment percentage to estimates of residential and non-residential acres to derive estimates of the residential and non-residential acreage associated with each growth increment.

Allocating Phase 1 employment and population growth for the 2002 – 2050 period by five-year increments

The five-year increments of employment and population growth were estimated simply by assuming a constant average annual amount of growth over the projection period.

Estimating growth and land conversion by PCCP area and analysis zone

The methodology for allocating growth by geographic area was iterative, considering the distribution of growth by geographic area and over time as well as the resultant estimate of the percentage of total population and job growth potential that would occur in each area by 2050, i.e., the extent to which each area would approach build-out or the limits of "holding capacity" under current planning assumptions.

HEG prepared an analysis at a detailed level for 11 geographic areas. These areas are defined according to the intersection of the PCCP proposed regulatory status areas (Map 7, January 4, 2005) and the PCCP analysis zones (Map 8, June 25, 2004). The 11 geographic areas are listed below, along with comments that identify the jurisdiction, guiding planning documents, and relevant development proposals:

Detailed Geographic Areas for PCCP Land Conversion Analysis:

Agriculture and Conservation Opportunity Area – Valley Zone (ACO – Valley)	County
Agriculture and Conservation Opportunity Area – Foothills Zone (ACO – Foothills)	County
Development Opportunity Area – Valley Zone (DO – Valley)	Placer Vineyards, de la Salle, and Curry Creek Community Plan
Development Opportunity Area – Lincoln Planning Area (DO –LPA)	Lincoln General Plan Update, Villages Alternative
Development Opportunity Area Sphere of Influence - Valley Zone (SOI DO – Valley)	Roseville sphere-of-influence, Lincoln sphere-of-influence, and County: Placer Ranch and Sunset Industrial Area
Existing Urban and Built Up Sphere of Influence – I-80 Corridor (SOI XUB – I-80)	County: Auburn sphere-of-influence
Existing Urban and Built Up – Valley Zone (XUB – Valley)	County: Dry Creek and Sheridan
Existing Urban and Built Up – Lincoln Planning Area (XUB – LPA)	Existing Lincoln City limits
Existing Urban and Built Up – Foothills Zone (XUB – Foothills)	County: Cramer Road, Auburn Valley, Meadow Vista, and the area between Auburn and Lincoln
Existing Urban and Built Up – I-80 Corridor (XUB – I-80)	County: Newcastle, Penryn, and Bickford Ranch
Non Participating Cities (NPC)	Existing city limits of Auburn, Loomis, Rocklin and Roseville, including North Clover Valley, the West Roseville Specific Plan, and the remainder of the MOU area, and small areas of Roseville sphere-of-influence at the border of Placer and Sacramento counties

- Summarize increment of total employment and population growth potential (increment of remaining capacity for growth under current planning assumptions, developed according to the sources and methods outlined above) by the 11 geographic areas.
- Develop assumptions about the allocation of Phase 1 area employment and population growth to each of these areas, by time period (see Table 6). Assume no development in the Development Opportunity Areas before 2005 and then show a gradual increase over time.
- For each time period, apply percent distribution of growth by geographic area to the total increment of employment or population growth estimated for that time period.
- Summarize resultant employment and population growth for the 2002 – 2050 period by geographic area and review results in light of total increment of employment and population growth potential and in light of resultant overall distribution of results by geographic area. Make adjustments as appropriate.
- For each geographic area, calculate percentage of total employment and population growth potential represented by 2002 – 2050 growth. Apply this percentage to the estimate of the future development increment of non-residential and residential acres in each geographic area based on the land use data from plans, planning studies, project proposals, and the general plan land use database. The result is an estimate of total non-residential and residential land converted to accommodate employment and population growth between 2002 and 2050. Note that in the Development Opportunity Area and any other areas where land use plans are specified or proposed, the acres assumed to develop do not include acres designated in those plans for open space or conservation uses.
- Add non-residential to residential acres in each geographic area. Add campus acres in appropriate locations. Apply 15 percent factor to account for public uses, infrastructure, and rights-of-way in the Development Opportunity Area and the Lincoln Planning Area. Add acreage to account for direct land conversion associated with the proposed Placer Parkway project. The resultant sum is an estimate of total land conversion associated with urban/suburban development to accommodate projected employment and population growth between 2002 and 2050 in the Phase 1 planning area.
- Evaluate results by adding these estimates of future land conversion to estimates of existing urban development (according to the JSA database) and comparing the total to estimates of total land area by PCCP Area and Analysis Zone. Adjust as appropriate.

TABLE 6
ASSUMPTIONS FOR ALLOCATING EMPLOYMENT AND POPULATION GROWTH BY GEOGRAPHIC AREA AND TIME PERIOD: 2002 - 2050

Distribution of Employment Growth by Geographic Area

Geographic areas for land conversion	2002-2005	2005-2010	2010-2015	2015-2020	2020-2025	2026-2030	2030-2035	2035-2040	2040-2045	2045-2050	2002-2025	2026-2050
ACO – Valley	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
ACO – Foothills	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DO – Valley	0.0%	2.0%	2.0%	6.0%	8.0%	12.0%	14.0%	15.0%	17.0%	18.0%	3.6%	15.2%
DO - Lincoln Planning Area	0.0%	1.0%	7.5%	10.0%	15.0%	23.0%	28.0%	25.0%	26.0%	26.0%	6.7%	25.6%
SOI DO - Valley (Sunset)	0.0%	2.0%	7.5%	10.0%	12.0%	17.0%	17.0%	21.0%	21.0%	21.5%	6.3%	19.5%
SOI XUB - I-80 (Auburn)	10.0%	8.0%	5.5%	5.0%	5.0%	3.0%	3.0%	3.0%	5.0%	5.0%	6.7%	3.8%
XUB – Valley (County Dry Crk/Sheridan)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
XUB - Lincoln Planning Area	10.0%	15.0%	15.0%	15.0%	12.5%	10.0%	8.0%	7.0%	6.0%	5.0%	13.5%	7.2%
XUB - Foothills (County)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
XUB - I-80 (County)	5.0%	2.0%	2.5%	2.0%	2.5%	2.0%	2.0%	2.0%	2.5%	2.5%	2.8%	2.2%
Non Participating Cities	75.0%	70.0%	60.0%	52.0%	45.0%	33.0%	28.0%	27.0%	22.5%	22.0%	60.4%	26.5%
Total Phase 1 Planning Area	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
NPC + Lincoln	85.0%	86.0%	82.5%	77.0%	72.5%	66.0%	64.0%	59.0%	54.5%	53.0%	80.6%	59.3%

Distribution of Population Growth by Geographic Area

Geographic areas for land conversion	2002-2005	2005-2010	2010-2015	2015-2020	2020-2025	2026-2030	2030-2035	2035-2040	2040-2045	2045-2050	2002-2025	2026-2050
ACO - Valley	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
ACO - Foothills	0.02%	0.03%	0.02%	0.03%	0.02%	0.03%	0.02%	0.03%	0.02%	0.03%	0.3%	0.3%
DO - Valley	0.00%	2.00%	12.98%	15.97%	18.98%	24.00%	29.98%	36.97%	38.98%	39.97%	10.0%	34.0%
DO - Lincoln Planning Area	0.00%	5.00%	10.00%	15.00%	20.00%	24.00%	25.00%	25.00%	30.00%	30.00%	10.0%	26.8%
SOI DO - Valley (Sunset)	0.00%	2.00%	2.00%	3.00%	3.00%	3.00%	2.00%	2.00%	2.00%	2.00%	2.0%	2.2%
SOI XUB - I-80 (Auburn)	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.0%	4.0%
XUB - Valley (County Dry Crk/Sheridan)	2.00%	2.00%	2.00%	2.00%	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%	1.8%	2.0%
XUB - Lincoln Planning Area	15.00%	15.00%	15.00%	14.00%	10.00%	7.97%	6.00%	4.00%	3.00%	2.00%	13.8%	4.6%
XUB - Foothills (County)	3.00%	2.00%	3.00%	2.00%	3.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.6%	2.0%
XUB - I-80 (County)	10.00%	10.00%	10.00%	10.00%	10.00%	8.00%	6.00%	6.00%	6.00%	6.00%	10.0%	6.4%
Non Participating Cities	65.98%	57.97%	41.00%	34.00%	30.00%	25.00%	23.00%	18.00%	12.00%	12.00%	45.8%	18.0%
Total Phase 1 Planning Area	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.0%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.0%**	**100.0%**
NPC + Lincoln	81.0%	78.0%	66.0%	63.0%	60.0%	57.0%	54.0%	47.0%	45.0%	44.0%	69.6%	49.4%

SOURCE: Hausrath Economics Group for the Placer County Conservation Plan economic analysis.

Exhibit D
Federal Clean Water Act Background Information

Wetlands are regulated by the United States through Army Corps of Engineers (COE) through Section 404 of the Clean Water Act (CWA). The basic premise of this section of the CWA is to avoid the discharge of dredged or fill material if a practicable alternative exists that is less damaging to the aquatic environment. Through the permitting program, the COE requires a project proponent to show that an application has:

- Taken steps to avoid wetland impacts where practicable
- Minimized potential impacts to wetlands
- Provided compensation for any remaining, unavoidable impacts through activities to restore or create wetlands

Generally speaking, the COE regulatory program uses two types of permits: 1) individual permits and 2) general permits. The general permits include the common "nationwide" permits that are typically applied to smaller projects. In Placer County the nationwide permits are commonly applied to projects with less than 0.10-acre impacts to wetlands. For projects with greater than 0.10 acre impacts an individual permit is required. All of these permitting activities occur outside the local land use review process and sometimes occur after local mitigation measures have been developed and local entitlements have been issued.

In 1996, the Army Corps of Engineers established an alternative approach for regulating impacts to waters of the U.S. The Programmatic General Permit (PGP) allows local, state, or other federal agencies to provide protections for these resources that achieve the objectives of the Section 404 permit program. It identifies the terms, limitations, and conditions under which classes of projects may be authorized under the Corps' regulatory program. It is designed to simplify the evaluation process for the regulatory agencies and the applicant by reducing unnecessary processing duplications and promoting more efficient use of staffing resources by the Corps and other agencies. The County, the Corps, and numerous federal and state agencies are developing a PGP to cover impacts to waters of the U.S. for up to three acres on a single project. If successful, the proposed Placer County PGP may provide a model for other local agencies trying to overcome the hindrances presented by complex regulatory layers and agency understaffing.

Programmatic General Permit – 3 acres of wetland area or less
The County proposes to replace the COE's current process with a local process at the County for wetland impacts up to 3-acres in area. A draft ordinance has been prepared that provides for a 3-tier review:

- Category 1 – wetland impacts under 3,000 square feet or less than 40 linear feet of stream zone impact in area are approved by County staff.
- Category 2 – wetland impacts between 3,001 to 10,000 square feet and 300 linear feet stream zone impact are approved by County staff when no other project elements require CEQA review.

- Category 3 – wetland impacts between 10,001 square feet and 3 acres and more than 301 linear feet of stream zone impact are reviewed as a part of a larger project and that project's CEQA processing

The mitigation requirements are streamlined because an applicant simply complies with the PCCP requirements for aquatic resources as a part of existing County review procedures. The COE's involvement is largely to receive notices and monitor how the County complies with federal requirements. Currently, it can take 1-2 years to simply get a wetland delineation verified by the COE office. With the PGP, the verification occurs locally.

Letter of Permission – 3 acres of wetland area or more

A Letter of Permission (LOP) would replace the individual permit process for projects with more than 3 acres of wetland area impact. With an LOP, an applicant complies with the LOP procedures during the County's CEQA review process – no additional time is required and no separate negotiation occurs with the COE. Once the procedural obligations have been satisfied during the County's application review process, a property then files an application with the COE for the LOP. Because the LOP procedures satisfy the majority of the COE's requirements for a "permit", the final application is intended to be more procedural than a separate substantive review process.

The object of both the PGP and the LOP is to reduce the amount of time that is required for the COE to review and approve permits, to improve the quality of the mitigation and to insure that such resources are appropriately maintained and monitored over time.

Exhibit E
PCCP Cost Comparison Scenarios

The following analysis provides cost, permitting, and timeline comparisons between the status quo permitting process and the proposed PCCP. Two project examples are provided: a larger 1,000-acre project and a smaller 50-acre project. For each size project, two alternatives are provided which show the cost differences between a) providing a mitigation package based solely on offsite mitigation and b) providing mitigation incorporating biologically-sound onsite avoidance principles.

All of the figures used in this comparison provide best-guess estimates and are included for comparison purposes only. Some of these cost figures are not readily available. Professional services and legal fees are highly variable, depending on the type of project, the permits needed, and the consulting firm conducting the work. These figures are not easily obtained and the County was unable to obtain these estimates from public sources. Consequently, the numbers provided here are rough estimates. Land costs in the Phase 1 area are assumed at $14,630 per acre (as estimated in the economics analysis prepared for the PCCP).

Current mitigation requirements for the status quo examples were estimated per the following:

- agriculture, grassland 1:1 acre-based preservation
- vernal pool, other wetlands 2:1 acre-based preservation; 1.25:1 restoration
- riparian woodland 0.33:1 acre-based restoration

Costs for status quo restoration examples were estimated per past mitigation bank fees and assume $50,000 per acre for vernal pool restoration and $70,000 per acre for riparian woodland restoration. The PCCP mitigation ratios are outlined in previous sections of this staff report.

What is important to consider in this scenario are the assumptions. The staff has developed these assumptions based upon available information. It is important to note that there are many things that we do not know which could affect these costs including:

1. What is the availability of state/federal agency staff to provide a timely review?
2. What impacts are considered 100% avoided, thus reducing costs?
3. What lands are available for offsite mitigation and what price was paid for those lands?
4. Are mitigation banks being used to mitigate impacts and what are the current market costs of mitigation credits?
5. What is the cost of time delay and uncertainty on permit process?
6. What are the costs of consulting and legal services to process permits, including litigation associated with mitigation for impacts to species?
7. Rates of inflation, rates related to debt financing and price escalation of property for mitigation purposes.
8. What are the other relevant costs that are associated with the project including initial purchase price, the cost of delivering infrastructure, phasing of the project, etc.?

Scenario 1 - 1000 acres - 6 DU/acre

Alternative A Onsite Avoidance = 10 acres

Project Impacts
Grassland 340 acres
Vernal Pool/Grassland Complex 180 acres
Agriculture 430 acres
Riparian Woodland 20 acres
Marsh 20 acres

Project Design
700 acres LDR - avg. 5 du/ac
120 acres MDR - avg. 8 du/ac
60 acres HDR - avg. 15 du/ac
40 acres commercial
25 acres business professional
45 acres parkland
10 acres natural open space

5,360 Dwelling Units

	Status Quo	**PCCP**
Mitigation Costs	$5,577/DU	$5,652/DU
Legal	$37/DU (est. $200,000)	$9/DU (est. $50,000)
Professional Services (estimate includes obtaining a verified wetland delineation, initial biological site survey, conceptual mitigation plan, CWA 401 & 404 compliance, Section 7 permit, Streambed Alteration Agreement)	$47/DU (est. $250,000)	$19/DU (est. $100,000)
EIS Preparation	$28/DU (est. $150,000)	None required
Applicable Regulations & Permits Required	CUP and Tentative Map CEQA - EIR 404 Individual Permit EIS 401 water quality certification Section 7 consultation (terrestrial) Section 7 consultation (fisheries) Section 1600 Streambed Alteration Agreement	CUP and Tentative Map CEQA - EIR Letter of Permission PCCP Permit
Total Elapsed Time	2+ years (2 additional years if separate EIS is prepared)	60 days
Estimated Cost	$5,689/DU	$5,680/DU

Scenario 1 - 1000 acres - 6DU/acre
Alternative B Onsite Avoidance = 230 acres contiguous habitat

Project Impacts
Grassland 325 acres
Vernal Pool/Grassland Complex 65 acres
Agriculture 370 acres
Riparian Woodland 5 acres
Marsh 5 acres

Project Design
600 acres LDR - avg. 5 du/ac
70 acres MDR - avg. 8 du/ac
30 acres HDR - avg. 15 du/ac
25 acres commercial
25 acres business professional
20 acres parkland
230 acres natural open space

4,010 Dwelling Units

	Status Quo	**PCCP**
Mitigation Costs	$3,324/DU	$3,024/DU
Legal	$50/DU (est. $200,000)	$12/DU (est. $50,000)
Professional Services (estimate includes obtaining a verified wetland delineation, initial biological site survey, conceptual mitigation plan, CWA 401 & 404 compliance, Section 7 permit, Streambed Alteration Agreement)	$62/DU (est. $250,000)	$25/DU (est. $100,000)
EIS Preparation	$37/DU (est. $150,000)	None required
Applicable Regulations & Permits Required	CUP and Tentative Map CEQA - EIR 404 Individual Permit EIS 401 water quality certification Section 7 consultation (terrestrial) Section 7 consultation (fisheries) Section 1600 Streambed Alteration Agreement	CUP and Tentative Map CEQA - EIR Letter of Permission PCCP Permit
Total Elapsed Time	2+ years (2 additional years if separate EIS is prepared)	60 days
Estimated Cost	$3,473/DU	$3,061/DU

Scenario 2 - 50 acres - 4DU/acre
Alternative A Onsite Avoidance = 5 acres

Project Impacts
Grassland 15 acres
Vernal Pool/Grassland Complex 10 acres
Agriculture 15 acres
Riparian Woodland 5 acres

Project Design
40 acres LDR - avg. 4 du/ac
5 acres natural open space

160 Dwelling Units

	Status Quo	**PCCP**
Mitigation Costs	$8,677/DU	$9,978/DU
Legal	$12/DU (est. $50,000)	$3/DU (est. $12,000)
Professional Services (estimate includes obtaining a verified wetland delineation, initial biological site survey, conceptual mitigation plan, CWA 401 & 404 compliance, Section 7 permit, Streambed Alteration Agreement)	$19/DU (est. $75,000)	$3/DU (est. $12,000)
EIS Preparation	$19/DU (est. $75,000)	None required
Applicable Regulations & Permits Required	CUP and Tentative Map CEQA - EIR 404 Individual Permit EIS 401 water quality certification Section 7 consultation (terrestrial) Section 7 consultation (fisheries) Section 1600 Streambed Alteration Agreement	CUP and Tentative Map CEQA - EIR Letter of Permission PCCP Permit
Total Elapsed Time	2+ years (2 additional years if separate EIS is prepared)	60 days
Estimated Cost	$8,727/DU	$9,984/DU

Scenario 2 - 50 acres - 4DU/acre
Alternative B Onsite Avoidance = 15 acres

Project Impacts
Grassland 15 acres
Vernal Pool/Grassland Complex 5 acres
Agriculture 15 acres

Project Design
35 acres LDR - avg. 4 du/ac
15 acres natural open space

140 Dwelling Units

	Status Quo	**PCCP**
Mitigation Costs	$4,845/DU	$5,009/DU
Legal	$12/DU (est. $50,000)	$3/DU (est. $12,000)
Professional Services (estimate includes obtaining a verified wetland delineation, initial biological site survey, conceptual mitigation plan, CWA 401 & 404 compliance, Section 7 permit)	$19/DU (est. $75,000)	$3/DU (est. $12,000)
EIS Preparation	$19/DU (est. $75,000)	None required
Applicable Regulations & Permits Required	CUP and Tentative Map CEQA - EIR 404 Individual Permit EIS 401 water quality certification Section 7 consultation (terrestrial) Section 7 consultation (fisheries) Section 1600 Streambed Alteration Agreement	CUP and Tentative Map CEQA - EIR Letter of Permission PCCP Permit
Total Elapsed Time	2+ years (2 additional years if separate EIS is prepared)	60 days
Estimated Cost	$4,895/DU	$5,015/DU

Exhibit F
Summary of PCCP Mitigation Strategy

1. **"Recovery base land".**
In all areas where growth occurs outside of the existing urban and built-up areas any irreversible conversion of open land to urban uses would require 1.0 acre of other open land to be conserved for each 1.0 acre converted. Such lands provide for the protection of existing biological resources and more importantly, the ability to restore biological values. Recovery base lands do not need to be protected with the same type of lands that were impacted. Out of kind acquisitions are acceptable.

2. **Vernal pool grassland complexes:**
Avoidance of vernal pool grasslands is the priority where practicable based on the size and condition of the existing vernal pool complex. The PCCP assumes that 30% of existing vernal pool complexes are avoided in new development areas. The practical size of an avoided complex is 200 acres and may take into account buffer land and adjoining land status.

   The PCCP would require the conservation of 2.0 acres of existing vernal pool grassland complex land for each 1.0 acre lost. The 2 acres accounts for the recovery base requirement (i.e., it is not additive). Additionally, the PCCP would require the restoration of 1.25 acres of vernal pool grassland complex land to be conserved for each 1.0 acre lost.

3. **Hardwood (Blue Oak) Woodland, including Oak Savannah:**
Parcels 20 acres or less will be subjected to individual tree mitigation requirements consistent with adopted general plan policy, CEQA mitigation and any applicable Tree Ordinance requirements.

   On average, impacted parcels 20 acres or larger would be required to mitigate for woodland canopy loss at a 1.05:1 ratio per parcel. The ratio applies to the entire parcel subject to subdivision or planned development excepting only those areas that are set aside by dedication or conservation easement and which meet reasonable minimum size and connectivity requirements.

4. **Stream System:**
For purposes of defining the area for which mitigation is required due to predicted impacts on sensitive species, the stream zone is considered to be an area substantially larger than just the either the limit of streambed or bank. For purposes of the PCCP, the stream system includes the 100-year (FEMA) floodplain or a distance of 300 feet measured from the edge of the channel whichever is greater. Impacts to this area, which irretrievable convert the habitat, would be required to mitigate at the following ratios:

   - If the mitigation land is provided in the same impacted watershed or if the land is provided in one of the priority watersheds mitigation ratio is 3:1 acres.

- All other areas, the mitigation ratio is 5:1 acres.

5. **Riparian Vegetation**
The limit of riparian vegetation is defined to mean the edge of riparian woodland canopy, freshwater wetland, or other stream dependent vegetation. No development would be allowed within 50 feet of the edge of channel or the limit of riparian vegetation unless there is no practicable alternative (such as a road or utility crossing).

The PCCP presumes that development within the Development Opportunity Area that is set back at least 300 feet from the limit of riparian vegetation and within the Agriculture and Conservation Opportunity Area that is set back at least 600 feet has adequately avoided take of present values.

- On-site mitigation is achieved through restoration at a 3:1 area ratio in the existing stream corridor.
- Offsite mitigation is accomplished by restoration or funding restoration in an established reserve at a 3:1 area ratio within 300 feet of a stream in the Development Opportunity Area and within 600 feet of a stream within the Agriculture and Conservation Opportunity Area.

6. **Other open lands (grasslands other than vernal pool complex and agricultural lands)**
These areas are protected through the requirement to mitigate loss of the capacity to recover species by conserving "recovery base land" at a ratio of 1:1 (see the recovery base land discussion above).

Exhibit G
Covered Species

The PCCP proposes coverage for the state and federal special status species:

1. Listed species administered by the USFWS and/or CDFG: a) Endangered species: vernal pool tadpole shrimp *(Lepidurus packardi);* b) Threatened species: *v*ernal pool fairy shrimp *(Branchinecta lynchi); v*alley elderberry longhorn beetle *(Desmocerus californicus dimorphus);* bald eagle (wintering) *(Haliaeetus leucocephalus);* California red-legged frog *(Rana aurora draytoni); g*iant garter snake *(Thamnophis gigas);* and California tiger salamander *(Ambystoma californiense.* Listed species administered by CDFG: Swainson's Hawk *(Buteo swainsoni);* American peregrine falcon (wintering) *(Falco peregrinus anatum);* California black rail *(Laterallus jamaicensis);* Bank swallow (nesting) *(Riparia riparia).*
2. Listed species administered by NOAA Fisheries: a) Endangered species: Sacramento winter-run □hinook salmon *(Oncorhynchus tshawytscha);* b) Threatened species: Central Valley steelhead *(Oncorhynchus mykiss);* and c) candidate species: Central Valley fall/late fall-run □hinook salmon *(Oncorhynchus tshawytscha).*
3. The following 16 unlisted animal species may become listed during the term of the permit: Bogg's Lake Hedge-hyssop *(Gratiola heterosepala);* Foothill yellow-legged frog *(Rana boylii);* California burrowing owl *(Athene cunicularia);* Western spadefoot toad *(Scaphiopus hammondii);* Northwestern pond turtle *(Clemmes marmorata marmorata);* Northern harrier (nesting) *(Circus cyaneus);* Ferruginous hawk (wintering) *(Buteo regalis);* Rough-legged hawk (wintering) *(Buteo lagopus);* Cooper's hawk (*Accipiter cooperii*); loggerhead shrike (*Lanius ludovicianus*); Yellow warbler (nesting) *(Dendroica petechia);* Yellow-breasted chat (nesting) *(Icteria virens);* Modesto song sparrow *(Melospiza melodia mailliardi);* Grasshopper sparrow *(Ammodramus savannarum);* Tricolored blackbird (nesting) *(Agelaius tricolor);* and Yellow-billed cuckoo (Coccyzus americanus).
4. The following four unlisted plant species may become listed during the term of the permit: dwarf downingia *(Downingia pusilla);* legenere *(Legenere limosa);* Ahart's dwarf rush *(Juncus leiospermus* var. *ahartii);* and Red Bluff dwarf rush *(Juncus leiospermus* var. *leiospermus).*

Exhibit H
Covered Activities List from the Draft PCCP Document

Covered activities include direct actions by permittees and indirect actions by those permittees that would authorize or induce urban development. Agriculture will be included in the Plan analysis; some aspects of agricultural practices may also be subject to the permit if they are tied to actions of permittees, possibly through a voluntary program. Urban development in Western Placer will range from large-scale conversion of agricultural land for urban uses to infill within established urban areas. The following is a list of activities and actions covered by the PCCP.

Activities within Placer County Jurisdiction

- **Transportation Facilities** (new capital facility construction, road widening, shoulder improvements, bike lane construction, bridge replacement/widening, park and ride facilities)
- **Residential, Commercial, Public Facility, and Industrial Construction** (e.g., homes, office buildings, libraries, recreation centers, warehouses)
- **Pipeline Installation and Maintenance**
- **Recreational Activities** (e.g., boat ramps, parks, trails, new parks, golf courses, sports facilities)
- **Stormwater Management Activities** (e.g., water retention facilities, floodplain enhancement, ditch cleaning, culvert replacements, vegetation control)
- **Habitat/Land Restoration Activities** (e.g., habitat construction, monitoring, enhancement, Coordinated Resource Management Plan (CRMP) or CalFED conservation activities)
- **Waste Management Activities** (e.g., treatment plant construction or expansion, effluent discharge, force main and effluent line construction/maintenance, discharge and reclamation line installation and maintenance, pump station construction, landfill or transfer station construction)
- **Flood Control Activities** (e.g., channelization, maintenance activities, retention/detention construction, streambed and channel debris and vegetative removal, channel lining, culvert replacement, stormwater conveyance facilities and outfall structures, local detention/retention facilities, erosion/sediment control, bank stabilization)
- **Land Management Activities** (e.g., fuel load management, fence installation)

Activities Within the City of Lincoln Jurisdiction

- **Transportation Facilities** (e.g., new capital facility construction, road widening, shoulder improvements, bike lane construction, bridge replacement/widening, park and ride facilities)
- **Residential, Commercial, Public Facility, and Industrial Construction** (e.g., homes, office buildings, libraries, recreation centers, public buildings, various non-residential structures, warehouses)

- **Pipeline Installation and Maintenance** (e.g., new capital facilities construction, replacement and repairs of sewer lines, water lines, storm drainage lines)
- **Recreational Activities** (e.g., boat ramps, parks, trails, new parks, golf courses, sports facilities, including both new capital facilities and maintenance)
- **Stormwater Management Activities** (e.g., water retention facilities, floodplain enhancement, ditch cleaning, installation and maintenance of filtering systems as part of best management practices, culvert replacements, vegetation control)
- **Habitat/Land Restoration Activities** (e.g., habitat construction, monitoring, enhancement, Coordinated Resource Management Plan (CRMP) or CalFED conservation activities)
- **Waste Management Activities** (e.g., treatment plant construction or expansion, effluent discharge, force main and effluent line construction/maintenance, discharge and reclamation line installation and maintenance, pump station construction/maintenance, landfill or transfer station construction)
- **Flood Control Activities** (e.g., channelization, maintenance activities, retention/detention construction, streambed and channel debris and vegetative removal, channel lining, culvert replacement, stormwater conveyance facilities and outfall structures, local detention/retention facilities, erosion/sediment control, bank stabilization, streambed and channel debris and vegetative removal, channel lining)
- **Land Management Activities** (e.g., fuel load management, fence installation, shaded fuel breaks)
- **Land Development, infill, new urban** (e.g., commercial, residential, industrial, professional 1 du/ac or less served by municipal services, new rural residential development occurring within existing and proposed City sphere of influence and general plan)
- **Placer Legacy Implementation** (e.g., habitat construction, enhancement and restoration, monitoring, sampling, joint venture projects with other resources agencies)
- **Water Facilities** (e.g., water line construction and replacement, water storage facilities, water conservation activities)

Activities Within the Placer County Water Agency Jurisdiction

- **Indirect Impacts Associated with the future construction, operation, and maintenance of PCWA water supply facilities** required to meet the needs of residential, commercial, public facility, and industrial construction within the County of Placer and City of Lincoln permitted under this Plan (e.g., new water supply, treatment and delivery infrastructure, operation and maintenance of new water supply, treatment, and delivery infrastructure)

Activities Within South Placer Regional Transportation Authority Jurisdiction

- **Placer Parkway** construction and maintenance for a high-speed regional transportation facility connecting SR 65 in west Placer County to SR 70/99 in south Sutter County. The approximate 18-mile facility will be in a varying 500'- to 1,000'-wide corridor. In

addition to the 4- to 6-lane highway, other transportation modes such as bus rapid transit maybe also developed in the corridor.

Exhibit I
December 2004 Memo to FWS Regional Directors
Regarding Critical Habitat Designations

To: Regional Directors, Regions 1, 2, 3, 4, 5, 6, and 7 Manager, California-Nevada Operations Office

From: Director

Subject: Application of the "Destruction or Adverse Modification" Standard under Section 7(a)(2) of the Endangered Species Act.

Recent litigation has focused on the regulatory standard for determining whether proposed Federal agency actions are likely to result in the "destruction or adverse modification" of designated critical habitat under Section 7(a)(2) of the Endangered Species Act (ESA). On August 6, 2004, the Ninth Circuit Court of Appeals rendered a decision in *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service*, No. 03-35279, finding that the Service's regulatory definition of "destruction or adverse modification" of critical habitat, at 50 C.F.R. § 402.02, is contrary to law.

Previous Federal court rulings have reached similar conclusions (see *Sierra Club v. U.S. Fish and Wildlife Service*, 245 F.3d 434 (5th Cir. 2001) (held regulation to be facially invalid); *American Motorcycle Ass'n District 37 v. Norton*, Civ. No. C03-0209-S.I. (N.D. Cal., Aug. 3, 2004) (California Desert Conservation Area case)). Due to the strategic importance of the 9th Circuit ruling, the potential effects of the ruling on recent and prospective biological opinions, and the need for interim measures to be in place while the Department proceeds with a proposed rulemaking early next year that addresses this ruling, the following guidance is provided to Service biologists conducting Section 7 consultations pending the adoption of any new regulatory definition of "destruction or adverse modification.". Destruction or adverse modification determinations will be made using the analytical framework described below. First, however, I (along with our counsel in the Solicitors Office) want to emphasize that when we conduct a Section 7 consultation that involves the evaluation of whether a Federal agency action is likely to destroy or adversely modify designated critical habitat, we do not cite to or use the regulatory definition of "destruction or adverse modification" at any point in the consultation process. In fact, our biological opinion should state explicitly that we do not rely on this regulatory definition, using this language: "This biological opinion does not rely on the regulatory definition of "destruction or adverse modification" of critical habitat at 50 C.F.R. 402.02. Instead, we have relied upon the statutory provisions of the ESA to complete the following analysis with respect to critical habitat."

Analytical Framework for Adverse Modification Determinations
Until we have promulgated a new regulatory definition of "destruction or adverse modification," our evaluation of effects to proposed or designated critical habitat should consider the statutory concepts embodied in Sections 3 (the definitions of "critical habitat" and "conservation"), 4 (the procedures for delineating and adjusting areas included in a designation), and 7 (the substantive standard in paragraph (a)(2) and the procedures in

EXHIBIT I

paragraph (b)). The analytical framework described here will guide Service biologists in applying these considerations in Section 7(a)(2) consultations on Federal actions that may affect designated critical habitat, and to Section 7(a)(4) conferences on proposed critical habitat, when conference is requested by the Federal action agency. The following framework is intended to be applied as a whole since the individual parts have no meaning outside of the context of this guidance.

1. In the "Status of the Species/Critical Habitat" analysis in the biological opinion, discuss the entire designated critical habitat area in terms of the biological and physical features that are essential to the conservation (discussion of "survival" in this and other sections of the adverse modification analysis is not appropriate) of the species. This analysis should identify and discuss the primary constituent elements of the critical habitat (as described in the final rule) and, very importantly, the current condition, the factors responsible for that condition, and the conservation role of individual critical habitat units. Many critical habitat designations pre-date the requirement for identification of primary constituent elements that are essential for the conservation of the listed species. In consultations on actions that involve this type of critical habitat, the best available scientific and commercial data should be used to determine and document these elements or habitat qualities.

2. In the "Environmental Baseline" analysis, discuss the current condition of the critical habitat unit(s) in the action area, the factors responsible for that condition, and the conservation roles of the unit(s), with appropriate supporting documentation. In particular, discuss the relationship of the affected unit(s) in the action area to the entire designated or proposed critical habitat with respect to the conservation of the listed species, unless the proposed or final rule designating critical habitat has already clearly done so.

   Based on the results of this analysis, we will have a clear and credible basis for determining the significance of any adverse or beneficial effects of the action (and cumulative effects) on the function and conservation role of the affected unit(s).

3. In the "Effects of the Action" analysis, characterize the direct and indirect effects of the action and those of interrelated and interdependent actions on the proposed or designated critical habitat. Describe how the primary constituent elements or habitat qualities essential to the conservation of the species are likely to be affected and, in turn, how that will influence the function and conservation role of the affected critical habitat unit(s). This part of the analysis should focus exclusively on the effects to critical habitat. Conservation activities (e.g., management, mitigation, etc.) outside of critical habitat should not be considered when evaluating effects to critical habitat. Based on the analyses under (1) and (2) above, discuss the significance of anticipated effects to critical habitat.

4. In the "Cumulative Effects" analysis, characterize the effects of future, non-Federal actions reasonably certain to occur in the action area in terms of how the primary constituent elements or habitat qualities essential to the conservation of the species are

likely to be affected and, in turn, how that will influence the function and conservation role of the affected critical habitat unit(s). Based on the analyses under (1) and (2) above, discuss the significance of these anticipated effects to critical habitat.

5. In the "Conclusion" section, following the standard text, present the reasons why we reached our 7(a)(2) conclusion. Discuss whether, with implementation of the proposed Federal action, critical habitat would remain functional (or retain the current ability for the primary constituent elements to be functionally established) to serve the intended conservation role for the species, based on the analyses under (1) through (4) above.

Reevaluation of Existing Biological Opinions

Over the next few months Federal action agencies are likely to examine, in the context of the 9th Circuit ruling in *Gifford Pinchot*, consultations that have been completed on a variety of Federal actions. The Solicitor's Office has advised us that this review should not be premised on the theory that the ruling has necessarily invalidated all existing opinions. We recognize, however, that these reviews may result in a number of requests for reinitiation of formal consultation to examine more closely "no destruction or adverse modification" conclusions. This analytical framework should be used in any reinitiated consultations. Please work with the action agencies to give the appropriate priority to any reinitiated consultations, in light of other consultations with these agencies and your available resources. This guidance is provided to enhance national consistency in the conduct of Section 7 consultations (and conferences) where effects to designated (and proposed) critical habitat are being evaluated, in light of recent Court decisions; it does not set forth binding legal interpretations. This guidance will be in effect until a new regulation has been adopted or revised guidance issued. Please contact Patrick Leonard, Chief, Division of Consultation, Habitat Conservation Planning, Recovery, and State Grants, at (703) 358-2171 if you have any questions.

Exhibit J
Boundary of Unit 12 FWS Critical Habitat
for Vernal Pools