US Department of the Interior

Bureau of Land Management
Hollister Field Office, California

Hollister Oil and Gas Environmental Impact Statement and Resource Management Plan Amendment

Social and Economic Workshop Summary Report

March 2015

TABLE OF CONTENTS

1 Introduction 1

1.1 Purpose of Social and Economic Workshop 1
1.2 Workshop Materials and Supporting Documents 1

2 Outreach and Notification for Workshop 2

2.1 Notification 2
2.2 Correspondence with Interested Parties 2
2.3 Workshop Attendees 2

3 Workshop Presentations 4

3.1 Introduction/Overview 4
3.2 Purpose/Intent of Workshop 4
3.2.1 Workshop Handouts 4

4 Outcomes of Social and Economic Workshop 5

4.1 Summary of Group Discussion 5
4.1.1 BLM Actions under the RMP Amendment 5
4.1.2 Economic and Social Conditions 5
4.1.3 Community and Group Values 7
4.1.4 Low-Income and/or Minority Populations 8
4.1.5 Other Considerations 9
4.2 Summary of Written Comments 10
4.2.1 Monterey County Farm Bureau 10
4.2.2 Submitted Workshop Comments 10

5 References 11

Tables

Table 1 Inquiries from Interested Parties prior to the Workshop 2
Table 2 Social and Economic Workshop Participants 3

Appendices

Appendix A Workshop Notification Materials
Appendix B Workshop Handouts
Appendix C Written Comments

SECTION 1 INTRODUCTION

1.1 Purpose of Social and Economic Workshop

The United States Department of the Interior, Bureau of Land Management (BLM), Hollister Field Office (HFO) is preparing a resource management plan (RMP) amendment and associated environmental impact statement (EIS) to guide leasing and management of oil and gas resources on BLM-administered mineral estate within the HFO. The EIS and RMP Amendment will amend the existing 2007 Hollister RMP (BLM, 2007a).

With preparation of a new or amended management plan, the BLM is required to integrate social science information in order to support an informed and sustainable land use planning decision per the Federal Land Policy and Management Act (FLPMA) [43 USC 1712(c)(2); 43 CFR 1610.4-3 and 1610.4-6)] and the National Environmental Policy Act (NEPA) [42 USC 4332(2)(A)]. Applicable social science information can include demography and social indicators, social organization and institutions, attitudes and values, human geography, economic value, employment, income and subsistence, public finance, and government services. The BLM's management plan must also identify any disproportionately high and adverse human health or environmental effects on minority and/or low-income populations, per Executive Order 12898 on Environmental Justice.

In order to develop the social and economic analysis for the EIS and RMP Amendment, the BLM has undertaken a public involvement effort that includes a social and economic workshop. The Social and Economic Workshop (Workshop) was held on February 4, 2015. The purpose of the Workshop was to provide an opportunity for local government officials, community leaders, and other citizens to discuss regional economic conditions, trends, and strategies with BLM managers and staff.

The Workshop was held in Monterey County, which is one of 12 counties that are located in the HFO boundary. This location was selected due to the large number of split estate lease areas in southern Monterey County (i.e., subsurface federal minerals underlying privately-owned land), which will be affected by the EIS and RMP Amendment.

1.2 Workshop Materials and Supporting Documents

Workshop participants received handouts and presentation materials to facilitate the discussion of social and economic issues. All Workshop-related documents are included in the following appendices:

Appendix A: Workshop Notification Materials

- Workshop Invitation and List of Invitees
- BLM News Release

Appendix B: Workshop Handouts

- Sign-In Sheet
- Agenda
- Workshop Summary Handout
- County Fact Sheets
- Presentation Slides for BLM Introduction/Overview

Appendix C: Written Comments

- Written Comments Submitted by Participant
- Written Comments Submitted by the Monterey County Farm Bureau

SECTION 2
OUTREACH AND NOTIFICATION FOR WORKSHOP

2.1 Notification

In December 2014, the BLM mailed the Workshop invitation to 47 individuals and/or agencies and provided the following date and venue information:

Wednesday, February 4, 2015
1:00 pm to 4:00 pm
Carpenter's Hall
910 Second Avenue
Marina, CA

On January 20, 2015, BLM posted a news release to its website for the California Oil and Gas Planning Effort and Science Review (http://www.blm.gov/ca/st/en/prog/energy/og/ogeis.html). The news release announced the scheduled Workshop, provided participant information, and explained the purpose and intent of the Workshop.

2.2 Correspondence with Interested Parties

Prior to the February 4th Workshop, the BLM corresponded with interested parties who had inquiries specific to the Workshop. This communication is documented below in Table 1.

Table 1. Inquiries from Interested Parties prior to the Workshop

Name	Organization	Correspondence Date & Method	Attended Workshop?
TaNeashia Sudds, Executive Administrative Assistant	Earth Economics	1/5/2015 via email	No
Jason McCormick, Journalist	Benito Link	1/14/2015 via phone	No
Andrea Weber, Climate Law Institute Paralegal	Center for Biological Diversity	1/20/2015 via email	No
Daniel Padilla, Regulatory Advisor Sr.	California Resources Corporation	1/27/2015 via email	Yes

2.3 Workshop Attendees

In addition to BLM HFO staff, 11 participants attended the February 4th Workshop, which included local agency representatives, oil and gas industry representatives, and members of the general public. Table 2 lists the Workshop participants.

Table 2. Social and Economic Workshop Participants

Name	Organization
George Armstrong	BLM Resource Advisory Council
Mary Gorden	BLM Resource Advisory Council
Reb Monaco	BLM Resource Advisory Council
Daniel Padilla	California Resources Corporation
John Eade	Humboldt West Inc.
Aaron Johnson	L+G Attorneys at Law
Mike Novo	Monterey County Resource Management Agency
Grace Bogdan	Monterey County Resource Management Agency
Carmel de Bertaut	San Benito Rising
Jennifer Pitcher	Western States Petroleum Association
Ann Clarke	Not Applicable

SECTION 3
WORKSHOP PRESENTATIONS

3.1 Introduction/Overview

The Workshop attendees were welcomed by the BLM Hollister Field Office Manager, Rick Cooper, who provided an overview of the BLM's proposal to amend the RMP for the HFO. The RMP is the primary tool that guides the BLM's management activities, and is created and modified only through an EIS. The EIS serves to identify potential impacts that may result from the proposed RMP Amendment, and is required to analyze a variety of alternatives to the proposed amendment.

Rick Cooper described that the purpose of the proposed RMP Amendment is to guide management of oil and gas resources on lands with federal mineral estate within the jurisdictional boundaries of the HFO. The proposed RMP Amendment would only apply to the BLM's decision-making authority to lease federal mineral estate. The RMP Amendment would be used by BLM to determine which BLM-managed lands or subsurface federal minerals are open or closed to oil and gas leasing, and which stipulations or restrictions apply to protect specific resources. The RMP Amendment would not authorize any actual drilling for exploration or development of oil and gas resources.

3.2 Purpose/Intent of Workshop

Negar Vahidi (Aspen Environmental Group) introduced the Workshop format to the attendees and explained the purpose and desired input from Workshop participants. For all new RMPs, RMP revisions, and RMP amendments, the BLM conducts a public involvement effort that includes at least one economic strategies workshop. The purpose of the workshop is to provide a meaningful opportunity for public input on the effects of the proposed RMP Amendment on local economic and social goals, with the intent of engaging local government officials, community leaders, tribes, and other interested parties in the discussion of desired economic and social conditions in the planning area. Guidance for the public involvement process, including the economic strategies workshop, is detailed in the BLM Land Use Planning Handbook, Appendix D (BLM, 2005).

The economic strategies workshop must meet three objectives:

- Provide information on local and regional economic and social conditions and trends;
- Assist the community to identify desired economic and social conditions; and
- Identify ways to advance local economic and social goals through BLM's planning and policy decisions.

3.2.1 Workshop Handouts

Negar Vahidi briefly discussed the workshop handouts and their content, and provided a brief overview of the HFO area's social and economic statistics. The Workshop participants received a series of county fact sheets that provided a snapshot of the current demographics, socioeconomics, economy, and the oil and gas industry for each of the 12 counties. Participants also received a Workshop Summary Handout that summarized the typical oil and gas decisions made in an RMP, the role of the EIS, and the purpose of the Workshop. The handout included a series of questions for Workshop participants to encourage discussion on the social and economic conditions and potential effects of the proposed RMP Amendment. This discussion is summarized in Section 4.1.

SECTION 4
OUTCOMES OF SOCIAL AND ECONOMIC WORKSHOP

4.1 Summary of Group Discussion

The Workshop attendees participated in a round-table discussion that was facilitated by staff from Aspen Environmental Group and was guided by the discussion topics listed in the Workshop Summary Handout. The discussion focused on the following themes, which are summarized in Sections 4.1.1 through 4.1.4:

- BLM actions under the RMP Amendment;
- Economic and social conditions within the HFO;
- Local community and group values;
- Low-income and/or minority populations; and
- Suggested mitigation strategies and other considerations within the EIS and RMP Amendment.

4.1.1 BLM Actions under the RMP Amendment

Workshop participants inquired into the type of outreach that BLM has undertaken with operators, whether operators have been asked to provide BLM with projections on oil and gas development, and whether these projections differ from BLM's estimates. Participants also pointed out that BLM should maintain consistency in its interactions with, and requirements for, oil and gas developers. The BLM explained that each Field Office must develop its own approach with RMP amendments in regard to whether or not to lease or close specific federal mineral estate. For example, the HFO will coordinate with the Bakersfield Field Office regarding the guidance and stipulations for oil and gas development that was incorporated into the Bakersfield Approved RMP (BLM, 2014). However, BLM emphasized that the HFO RMP Amendment will be specific to the affected resources within the HFO boundary.

4.1.2 Economic and Social Conditions

Split Estate Leases. Much of the Workshop discussion centered on the issue of split estate leases, which define leases where subsurface resources are publically held and managed by the BLM and surface lands are privately owned and managed by the local jurisdiction. In these situations, mineral rights are considered the dominant estate, meaning the owner of the mineral estate has the right to enter and occupy as much of the surface as is reasonably necessary to explore, drill, and remove the oil and natural gas resource on the leasehold, subject to obtaining the BLM's approval of the drilling and surface use plans (BLM, 2007b). However, the mineral estate owner must conduct operations to minimize adverse effects to surface and subsurface resources and prevent any unnecessary surface disturbance (BLM, 2007b). It was noted that split estate leases are important to local agencies and have both adverse and beneficial impacts to local economies. Workshop participants concluded that the economic analysis for the EIS and RMP Amendment should focus on the issues of limiting, eliminating, and creating new split estate lease areas. The analysis of split estate leases should also consider:

- **Subsurface property rights –** The BLM emphasized that proposed actions under the RMP Amendment would only apply to federal mineral estate underlying federal surface land and privately owned land. The RMP Amendment would not affect subsurface activities regulated by the Division of Oil, Gas and Geothermal Resources. Hollister Field Office Manager Rick Cooper explained that it is BLM's policy to provide notification to surface land owners when split estate lands are nominated for a lease sale.

Consistent with BLM policy, a surface land owner would be contacted prior to the issuance of a drilling permit and would be invited to participate in on-site inspections and meetings with the lessee (BLM, 2007b). Workshop participants discussed the need for adequate financial compensation for loss of surface land uses.

- **Conflicts between mineral rights owners and surface land owners –** Workshop participants suggested that more dialogue is needed regarding the siting of future wells in order to minimize conflicts between the needs of surface land owners and the financial benefits of well permit approvals. It is up to the lessee to negotiate a surface use agreement with the land owner, and BLM requires the lessee to demonstrate that the negotiation is in good faith. The lessee must submit an adequate bond to the BLM to ensure compliance and to cover the costs of complete and timely plugging, reclamation, and restoration. The surface land owner may also seek compensation from the lessee for loss or damages (BLM, 2007b).

  BLM noted that it monitors the coordination efforts of developers with surface land owners. However, when there is a Surface Trust in place, coordination becomes very complicated due to the involvement of multiple parties. In such cases, developers may consider directional drilling in order to consolidate multiple wells on an individual well pad. This technique reduces the footprint of oil and gas activities and can avoid conflicts with land owners by minimizing the amount of affected surface area (BLM, 2013). Furthermore, directional drilling allows siting the well pad away from existing surface land uses (should a more suitable open area be available nearby). The development of a land use regulatory process may also help to reduce future conflicts. Furthermore, participants discussed the economic benefits of split estate leases where surface uses coexist with oil and gas production wells (e.g., wells within grazing lands).

- **Protection Measures –** BLM has standard best management practices (BMPs) to minimize the effects of subsurface drilling. These include road building BMPs that reduce the amount of disturbed area, visual resource BMPs to reduce the visual footprint of development, BMPs to reduce human activity in wildlife habitat, and reclamation BMPs to restore habitat resources during well operations (BLM, 2009). Local jurisdiction participants discussed the importance of these BMPs to be consistent with local plans and policies to preserve recreational opportunities, visual resources, and land use plans.

Effects on Agriculture. Concern was expressed regarding the use of water for well stimulation activities. Representatives from Monterey County requested that the economic analysis for the EIS and RMP Amendment include an evaluation of the potential loss of water for agricultural uses as a result of any well stimulation activities associated with the proposed RMP Amendment, with a particular focus on effects to southern Monterey County. The analysis should also consider the guidance and policies in the *Monterey County General Plan: Agricultural and Winery Corridor Plan* (Monterey County, 2010).

It was noted that the RMP Amendment could seek to further coexisting uses for oil and gas production, such as within agricultural grazing areas. Coexisting uses would increase the lands' economic values.

Regional Economic Effects. BLM and Workshop participants agreed that the focus of the social and economic effects EIS analysis should be on Fresno, San Benito, and Monterey Counties, where existing leases and oil and gas potential exist within the HFO. Specific regional economic concerns that were expressed by various representatives included the following:

- **Monterey County –** The majority of oil and gas-related activities would be located in the southern portion of the county, which is generally characterized by an income level that is less than the county

average. Representatives from Monterey County requested that the EIS and RMP Amendment consider the potential loss of tax revenue should split estate leases be limited or decreased within the county. Currently the county receives substantial tax revenue from oil and gas fields as well as from employees' income taxes. The county recommended that the economic analysis should include information on Monterey County's tax revenue from oil and gas-related activities.

Monterey County requested that the EIS and RMP Amendment consider the potential economic effects to tourism that may result from adverse visual impacts and loss of recreation lands, especially in the county's southern area. The county also requested an analysis of any economic consequences (e.g., emission offset purchases) from air quality impacts, in the event that the North Central Coast Air Basin reaches a status of nonattainment due to emissions from oil and gas development.

- **San Benito County –** In November 2014, San Benito County passed a ban on high-intensity petroleum operations that includes hydraulic fracturing (Measure J). The EIS and RMP Amendment would need to consider the effects of Measure J, especially on property rights and the preclusion of economic development of private property. One constituent asked if there is pressure to expand oil and gas development within the county, and how such an expansion would affect the local economy.

  It was also recommended that the EIS and RMP Amendment consider the results of a San Benito County study that is evaluating the loss of property values from future restrictions of oil and gas development on split estate leases.

Localized Social and Economic Effects. Workshop participants noted that there are other economic costs that may be incurred by local communities as a result of oil and gas development. The EIS and RMP Amendment should consider the following concerns:

- Risk of upset (including but not limited to: well blowout, groundwater contamination, localized oil spills and accidental release of other hazardous fluids from pipes and wells, and the cumulative risk from increased well activity);
- Coordination with emergency responders and the ability of local communities to respond to potential accidents;
- Demand on local public services from increased fire or seismic risks;
- Effect on property values; and
- Possible boom and bust cycles associated with fluctuating oil prices, and the effect on local employment.

Some attendees noted that the EIS should include a localized social and economic analysis, as feasible, for communities most affected within Fresno, San Benito, and Monterey Counties (e.g., southern Monterey County).

4.1.3 Community and Group Values

The Workshop participants discussed the regional focus of the social and economic analysis for the EIS and RMP Amendment given the location of federal mineral estate within the HFO boundary. BLM and participants agreed that future oil and gas development is most likely to occur in the counties of Fresno, San Benito, and Monterey.

Representatives from the counties identified the following community characteristics that should be considered in the social analysis for the EIS and RMP Amendment:

Monterey County

Monterey County is experiencing a growing economy and seeks to maintain a high environmental quality in order to retain a more technical workforce. The county is experiencing growth in both the northern and southern areas, and most of the oil and gas development is located in the southern region that has primarily been an agricultural area. One of the county's goals is to improve the economy in a manner that is modern and attractive to a younger population and has more stratigraphic layers of income (i.e., aside from agriculture). The county is concerned that adverse environmental effects from oil and gas development (e.g., impacts to air quality and water quality) may impact recreation and visual resources, resulting in a less desirable area for recruiting and retaining a young workforce. The county stated future oil and gas leases would need to be well-managed and should carefully consider conflicts with visual resources and existing land uses.

The county identified the following three economic goals and drivers that should be considered in the approach to managing oil and gas development:

- **Agriculture –** Monterey County seeks to balance the economics from new oil and gas development with its agricultural industry. There is particular concern regarding the effects of water use on the local economy. According to county representatives, there has not been a notable increase in water use resulting from current oil and gas development.
- **Tourism –** Potential future areas for oil and gas leasing are located along the travel routes to tourist destinations (e.g., lakes and missions) in southern Monterey County. There will need to be a balance of oil and gas development with surrounding visual resources and other tourist attractions such as winery corridors, as not to adversely impact tourism and its associated revenue.
- **Greenhouse Gas Reduction Mandates –** Monterey County wants to ensure that oil and gas development would not increase local greenhouse gas emissions or place a burden on the local economy to meet reduction mandates and goals.

Carmel Valley

Representatives from the community of Carmel Valley expressed their desire to maintain the area's rural character, and they were concerned about future traffic on Carmel Valley Road from Highway 101 to Highway 1. It was requested that the EIS and RMP Amendment consider the social and economic impacts from oil and gas development on the rural character of this small community and on all of Monterey County.

Other Community Concerns

Additional social and economic concerns from oil and gas development were identified by the attendees as being relevant to many of the affected communities. It was recommended that the EIS and RMP Amendment consider the following:

- Identifying the professional skills that are needed to meet the employment needs of the oil and gas industry. The creation of technical educational facilities was suggested;
- The need for a mix of the types of industry in the local economy (i.e., in addition to agriculture);
- The effects of a transient workforce associated with oil and gas development;
- A policy consistency analysis of local agencies' applicable plans and policies with an increase in oil and gas development (e.g., Monterey County's Fort Ord Redevelopment Plan and the Agricultural and Winery Corridor Plan);
- The proximity of leases to transportation corridors, water sources, and gas pipelines;

- The effects on historic and pre-historic resources; and
- The effects on public health. The BLM noted that the oil and gas industry has developed its policies to be consistent with the requirements of the Office of Spill Prevention and Response. The Office of Spill Prevention and Response is also working on regulations.

4.1.4 Low-Income and/or Minority Populations

The Workshop participants considered the topic of low-income and minority populations in the HFO boundary, and discussed any areas containing such population that would most likely be affected by the RMP Amendment. Monterey County participants mentioned there may be disproportionate effects on vulnerable communities in southern Monterey County, specifically King City and the community of San Ardo. These areas should be specifically evaluated within the EIS. Potential impacts to low-income and minority populations may include the following:

- Increase in water use from oil and gas development may affect communities dependent on agriculture; and
- The creation of jobs in low-income communities may be affected by future oil and gas prices and changes in oil and gas development and leasing.

4.1.5 Other Considerations

Additional EIS Analysis Comments

The BLM emphasized that the scope of the EIS and RMP Amendment is specific to the federal mineral estate within the HFO boundary, which defines the locations of lands available for federal mineral estate leases. The proposed RMP Amendment also addresses changes to well stimulation techniques. When asked if a change in policy regarding oil and gas development required an entire plan amendment, the BLM responded that NEPA and the FLPMA require an EIS and RMP amendment to establish additional stipulations, conditions of approval, BMPs, and to update the reasonably foreseeable development scenario. The BLM sponsored an independent review of oil and gas development, which was prepared by the California Council on Science and Technology and is entitled *Advanced Well Stimulation Technologies in California* (CCST, 2014). The results of the study are being incorporated into the RMP Amendment, as applicable.

In addition to the items discussed throughout the Workshop with respect to the EIS, it was noted that the Social and Economic Effects analysis should consider the following:

- Potential impacts associated with each phase of oil and gas development (e.g., exploration, drilling, production, transport, refining, decommissioning, clean-up); and
- Consider, as feasible, the oil and gas data provided by the Los Angeles County Economic Development Corporation's publication Oil and Gas in California: The Industry and its Economic Contribution in 2012 (LAEDC, 2014).

BLM staff was asked about the Draft EIS schedule and information on future public meetings. At this time, the Draft EIS is expected to be published in fall 2015. Future public meetings are planned, but have not yet been scheduled.

Proposed Mitigation for Consideration within the EIS

During the Workshop discussion, the following mitigation measures were suggested to minimize the impacts associated with the RMP Amendment:

- Creation of public educational materials (e.g., brochures) that explain federal mineral estate leases and that provide information to surface land owners and developers regarding inspections, potential hazards, etc.
- Technical educational opportunities to train a local workforce in the oil and gas industry. Community informational programs could also be developed to educate residents in the area.
- Utilizing BMPs that are detailed in BLM's publication S*urface Operating Standards and Guidelines for Oil and Gas Exploration and Development* (commonly referred to as The Gold Book) (BLM, 2007c). The BLM would also incorporate the technical requirements listed in its Onshore Oil and Gas Orders (Order No. 1 through Order No. 7) (BLM, 2012).
- Protection measures for threatened and endangered species that may require No Surface Occupancy stipulations or closures in sensitive areas. BLM noted that off-site mitigation lands that compensate for development in one area can have a positive effect on conserving or enhancing resource values in these other areas.

4.2 Summary of Written Comments

The BLM received a comment letter from a local organization prior to the Workshop, as well as a set of written comments that was submitted by a Workshop participant. These comments are summarized below and included in Appendix C.

4.2.1 Monterey County Farm Bureau

The Monterey County Farm Bureau submitted a letter to BLM on December 30, 2014 stating its support for the use of current oil extraction techniques in Monterey County, including enhanced well stimulation from steam injection. The Farm Bureau described the economic benefits that the oil and gas industry has provided to the local residents in Monterey County, specifically the employment opportunities that have been created in San Ardo, San Lucas, and King City. The Farm Bureau indicated that these communities have large minority populations, and oil and gas development creates local economic benefits.

4.2.2 Submitted Workshop Comments

The BLM received one set of written responses to the Workshop discussion topics. The commenter noted that affected communities are rural and that the local economy includes agricultural tourism and visitors to recreational resources. Potential impacts to community character may include light pollution that would affect stargazing opportunities. Vulnerable populations who may be affected by the RMP Amendment include migrant farm workers and their families. Potential mitigation should include retraining displaced agricultural workers.

SECTION 5
REFERENCES

BLM (Bureau of Land Management). 2014. Bakersfield Field Office Record of Decision and Approved Resource Management Plan. [online]: http://www.blm.gov/style/medialib/blm/ca/pdf/bakersfield/planning/Bakersfield_ARMP_ROD.Par.35153.File.dat/Bakersfield_ROD-ARMP.pdf. Accessed February 13, 2015.

_____. 2013. Wildlife Management: Best Management Practices for Fluid Minerals. Updated January. [online]: http://www.blm.gov/style/medialib/blm/wo/MINERALS__REALTY__AND_RESOURCE_PROTECTION_/bmps.Par.97783.File.dat/WO1_WildlifeMgmt_BMPs_Slideshow.pdf. Accessed March 17, 2015.

_____. 2012. Onshore Orders: Order No. 1 through Order No. 7. [online]: http://www.blm.gov/mt/st/en/prog/energy/oil_and_gas/operations/orders.html. Accessed February 13, 2015.

_____. 2009. BMP General Information. [online]: http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas/best_management_practices/general_information.html. Accessed February 11, 2015.

_____. 2007a. Resource Management Plan for the Southern Diablo Mountain Range and Central Coast of California. Record of Decision. September. [online]: http://www.blm.gov/ca/pdfs/hollister_pdfs/SouthernDiablo-CenCoastRMP/ROD-August2007/ROD-Complete-8-07.pdf. Accessed February 18, 2015.

_____. 2007b. Split Estate: Rights, Responsibilities, and Opportunities. [online]: http://www.blm.gov/style/medialib/blm/wo/MINERALS__REALTY__AND_RESOURCE_PROTECTION_/bmps.Par.57486.File.dat/SplitEstate07.pdf. Accessed February 11, 2015.

_____. 2007c. Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development: The Gold Book. 4th Edition, Revised 2007. [online]: http://www.blm.gov/style/medialib/blm/wo/MINERALS__REALTY__AND_RESOURCE_PROTECTION_/energy/oil_and_gas.Par.18714.File.dat/OILgas.pdf. Accessed February 13, 2015.

_____. 2005. BLM Land Use Planning Handbook (H-1601-1). Appendix D: Social Science Considerations in Land Use Planning Decisions. March.

CCST (California Council on Science and Technology, Lawrence Berkeley National Laboratory). 2014. Advanced Well Stimulation Technologies in California. August. [online]: http://www.ccst.us/publications/2014/2014wst.php. Accessed February 13, 2015.

LAEDC (Los Angeles County Economic Development Corporation). 2014. Oil and Gas in California: The Industry and its Economic Contribution in 2012. [online]: http://laedc.org/wp-content/uploads/2014/04/OG_Contribution_20140418.pdf. Accessed February 13, 2015.

Monterey County. 2010. Monterey County General Plan: Agricultural and Winery Corridor Plan (Chapter 9.J). [online]: http://www.co.monterey.ca.us/planning/gpu/GPU_2007/2010_Mo_Co_General_Plan_Adopted_102610/Elements_Area-_Master_Plans/09J-AWCP_10-26-2010.pdf. Accessed February 12, 2015.

APPENDIX A
WORKSHOP NOTIFICATION MATERIALS

Workshop Invitation and List of Invitees

BLM News Release

Last Name	First Name	Agency/Company	Address	City	State	Zipcode
Rosia	Ashley	Western States Petroleum Association	3763 Howard Hughes Pkwy #310	Las Vegas	NV	89169
Reheis-Boyd	Catherine H.	Western States Petroleum Association	1415 L Street, Suite 600	Sacramento	CA	95814
Stemler	Kim	Monterey County Vintners & Growers Association	P.O. Box 1793	Monterey	CA	93942
Brown	Christopher	Agriculture and Land-Based Training Associatior	P.O. Box 6264	Salinas	CA	93912
Norm	Groot	Monterey County Farm Bureau	P.O. Box 1449	Salinas	CA	93902-1449
Wade	Mike	California Farm Water Coalition	6133 Freeport Blvd. 2nd Floor	Sacramento	CA	95822
Gatlin	Billy	California Cattlemen's Association	1221 H Street	Sacramento	CA	95814
Nahabedian	Armen	Citadel Exploration	417 31st Street	Newport Beach	CA	92663
Coombs	Steve	Patriot Resources LLC	1565 Canoas Road	Santa Barbara	CA	93105
Ashley	Joe	Vintage Production California LLC	9600 Ming Avenue, Suite 300	Bakersfield	CA	93311
Bianchi	Richard	San Benito County Farm Bureau	530 San Benito St. STE 201	Hollister	CA	95023
Renz	Allan	San Benito County Cattlemen Association	PO Box 820	Hollister	CA	95023
Yount	Doug	Applied Development Economics	99 Pacific St. #200 J	Monterey	CA	93940
Kerhin	Mike	Sierra Club, Loma Prieta Chapter	3921 East Bayshore Road, Ste 204	Palo Alto	CA	94303
Collins	Kevin	Sierra Club, Ventana Chapter	PO Box 5667	Carmel	CA	93921
White	Amy	LandWatch Monterey County	PO Box 1876	Salinas	CA	93902
Hsia-Corona	Andy	Coalition to Protect San Benito	221 5th St.	Hollister	CA	95023
Bakter	David	EarthEconomics	107 N. Tacoma Avenue	Tacoma	WA	98403
Weber	Andrea	Center for Biological Diversity	351 California St., Ste. 600	San Francisco	CA	94104
Mr. Doug Alger		Salinan Nation Cultural Preservation Association	Post Office Box 56	Lockwood	CA	93932
Mr. Ruben Barrios, ATTN: Mr. Lalo Franco		Santa Rosa Rancheria of Tachi Yokuts	16835 Alkali Drive	Lemoore	CA	93245
Mr. John W. Burch		Salinan Tribe of Monterey, San Luis Obispo and San Benito	7070 Morro Road #A	Atascadero	CA	93422
Ms. Silvia Burley		California Valley Miwok Tribe	10801 Escondido Place	Stockton	CA	95212
Ms. Rosemary Cambra		Muwekma Ohlone Tribe	2574 Seaboard Avenue	San Jose	CA	95131
Mr. Gregg Castro		Salinan Nation Cultural Preservation Association	5225 Roeder Road	San Jose	CA	95111
Mr. Tony Cerda		Costanoan Rumsen Carmel Tribe	3929 Riverside Drive	Chino	CA	91710
Mr. Robert Duckworth		Salinan Nation Cultural Preservation Association	Drawer 2447	Greenfield	CA	93927
Mr. Jose Freeman		Salinan Nation Cultural Preservation Association	15200 Country Road 96B	Woodland	CA	95695
Mr. Andrew Galvan			Post Office Box 3152	Mission San Jos	CA	94539
Ms. Ramona Garibay		Trina Marina Ruano Family	6626 Thornton Avenue	Newark	CA	94560
Ms. Judith Bomar Grindstaff			63161 Argyle Road	King City	CA	93930
Ms. Donna Haro		Xolon Salinan Tribe	110 Jefferson Street	Bay Point	CA	94565
Ms. Jakki Kehl			720 North 2nd Street	Patterson	CA	95363
Mr. Richard Larios			1048 San Juan Grade Road	Salinas	CA	93907
Ms. Susan Latta		Salinan Tribe	Post Office Box 817	Gonzales	CA	93926
Mr. Valentin Lopez		Amah Mutsun Tribal Band	78 Sunshine Drive	Galt	CA	95632
Ms. Shirley Macagni		Salinan Tribe of Monterey, San Luis Obispo and San Benito	1550 Guadalupe Road	Nipomo	CA	93444
Mr. Michael A. Martinez		Salian Tribe	384 Nash Road #29	Hollister	CA	95023
Mr. Tom Little Bear Nason		Esselen Tribe of Monterey County	38855 Tassajara Road	Carmel Valley	CA	93924
Mr. Patrick Orozco		Pajaro Valley Ohlone Indian Council	644 Peartree Drive	Watsonville	CA	95076
Ms. Katherine Erolinda Perez			1234 Luna Lane	Stockton	CA	95208
Ms. Bonnie Pierce		Salinan Tribe of Monterey, San Luis Obispo and San Benito	440 Highland Drive	Los Osos	CA	93402
Ms. Louise Ramirez		Ohlone-Costanoan Essien Nation	Post Office Box 1301	Monterey	CA	93942
Ms. Ann Marie Sayers		Indian Canyon	Post Office Box 28	Hollister	CA	95023
Xielolixi		Salinan-Chumash Nation	3901 Q Street, Suite 31B	Bakersfield	CA	93301
Ms. Linda Yamane			1585 Mira Mar Avenue	Seaside	CA	93955
Ms. Irene Zwierlein		Amah Mutsun Ohlone	789 Canada Road	Woodside	CA	94062

Hasson	Bruce	CA Division of Oil and Gas and Geothermal Resources	195 S. Broadway, Suite 101	Orcutt	CA	93455
Wermiel	Dan	CA Division of Oil and Gas and Geothermal Resources	466 N. Fifth St.	Coalinga	CA	93210
Turner	Byron	San Benito County	2301 Technology Parkway	Hollister	CA	95023
Novo	Mike	County of Monterey Resource Management Agency	168 W. Alisal St, 2nd Floor	Salinas	CA	93901
Fritas	Angela	Stanislaus County	1010 10th St, Ste 3400, 3rd Floor	Modesto	CA	95354
Hendrickson	Mark J.	Merced County	2222 M St.	Merced	CA	95340
Sullivan	Kerry	San Joaquin County Community Development Department	180 E. Hazelton Ave.	Stockton	CA	95205
Lopez	Albert	Alameda Planning Department	224 West Winton Ave. Room 111	Hayward	CA	94544
Li	Hiliana	Contra Costa County Planning Commission	30 Muir Rd	Martinez	CA	94553
Girard	Kirk	Santa Clara County	70 West Herring Street, East Wing, 7th Floor	San Jose	CA	95110
McKenzie	Andrea	Santa Clara Valley Open Space Authority	6980 Santa Teresa Boulevard #100	San Jose	CA	95119
Eggemeyer	Jim	County of San Mateo	Center, 2nd Floor	Redwood City	CA	94063
Muenzer	Jerry	Board of Supervisors, San Benito County	481 4th St. 1st Floor	Hollister	CA	95023
Rivas	Robert	Board of Supervisors, San Benito County	481 4th St. 1st Floor	Hollister	CA	95023
Salinas	Simon	Board of Supervisors, County of Monterey	168 W. Alisal, 3rd Floor	Salinas	CA	93901
Parker	Jane	Board of Supervisors, County of Monterey	2616 1st Ave.	Marina	CA	93933
Judy Case McNairy		Board of Supervisors, Fresno County	2281 Tulare St. Room #300	Fresno	CA	93721
Don Horsley		Board of Supervisors, San Mateo County	Hall of Justice - 400 County Center	Redwood City	CA	94063
Joe Simitian		Board of Supervisors, Santa Clara County	County Govt. Center - 10th Floor-East Wing - 70 W. Hedding St.	San Jose	CA	95110
Dave Cortese		Board of Supervisors, Santa Clara County	County Govt. Center - 10th Floor-East Wing - 70 W. Hedding St.	San Jose	CA	95110
Jim De Martini		Board of Supervisors, Stanislaus County	1010 10th St., Ste. 6500	Modesto	CA	95354
Knox	Blair	CIPA	1112 I St. #350			95814
Rosenlieb	Trent		5500 Lennox Unit 1	Bakersfield	CA	93309
Twisselman	Carl		9501 West Lokern Road	McKittrick	CA	93251
Gorden	Mary		P.O. Box 44066	Lemon Cove	CA	93244-0066
Cattani	Emmy		5100 California Ave #234	Bakersfield	CA	93309
Monaco	Reb		6991 Southside Road	Hollister	CA	95023
Evans	Steve		1853 Third Ave.	Sacramento	CA	95818
Armstrong	George		2151 San Miguel Drive	Walnut Creek	CA	94596
Miller	Sally		PO Box 22	Lee Vining	CA	93541
Kingsley	Matt		210 Lasky Lane	Lone Pine	CA	93545
Keller	Jim		100 Mountain Springs Drive	Bonny Doon	CA	95060
		Oakland Metropolitan Chamber of Commerce	475 14th St.	Oakland	CA	94612
		San Jose Silicon Valley Chamber of Commerce	101 W. Santa Clara St.	San Jose	CA	95113
		Santa Cruz Area Chamber of Commerce	725 Front Street	Santa Cruz	CA	95060
		Modesto Chamber of Commerce	1114 J Street	Modesto	CA	95354
		San Benito County Chamber of Commerce	243 Sixth Street, Suite 100	Hollister	CA	95023
		Greater Stockton Chamber of Commerce	445 W. Weber Ave., Suite 220	Stockton	CA	95203
		The Greater Merced Chamber of Commerce	1640 N Street, Suite #120	Merced	CA	95320
		Fresno Chamber of Commerce	2331 Fresno St.	Fresno	CA	93721
		Coalinga Area Chamber of Commerce	380 Coalinga Plaza	Coalinga	CA	93210
		Salinas Valley Chamber of Commerce	119 E. Alisal St.	Salinas	CA	93901
Paulsen	Scott	Alameda County Agriculture Commissioner	224 W. Winton Ave., Rm. 184	Hayward	CA	94544
Deviney	Joseph	Santa Clara County Agriculture Commissioner	1553 Berger Dr., Bldg. 1	San Jose	CA	95112
Nicoletti	Mary Lou	Santa Cruz County Agriculture Commissioner	175 Westridge Dr.	Watsonville	CA	95076
O'Haire	Milton	Stanislaus County Agriculture Commissioner	3800 Cornucopia Way, Ste. B	Modesto	CA	95358
Ross	Ron	San Benito County Agriculture Commissioner	P.O. Box 699	Hollister	CA	95024
Pelican	Tim	San Joaquin County Agriculture Commissioner	2101 East Earhart Ave., Suite 100	Stockton	CA	95206
Robinson	David	Merced County Agriculture Commissioner	2139 Wardrobe Ave.	Merced	CA	95341
Wright	Les	Fresno County Agriculture Commissioner	1730 S. Maple Ave.	Fresno	CA	93702
Godoy	Chad	Contra Costa County Agriculture Commissioner	2366 A. Stanwell Circle	Concord	CA	94520
Lauritzen	Eric	County of Monterey Agriculture Commissioner	1428 Abbott St.	Salinas	CA	93901
Crowder	Fred	County of San Mateo Agriculture Commissioner	P.O. Box 999	Redwood City	CA	94064

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Hollister Field Office
20 Hamilton Court
Hollister, CA 95023
Phone (831) 630-5000 Fax (831) 630-5055
http://www.blm.gov/ca/hollister

December 22, 2014

In Reply Refer to:
1600 (P)
CAC090.38

Dear Sir or Madam,

The Bureau of Land Management (BLM) invites you to attend a Social and Economic Workshop to discuss social and economic issues associated with enhanced well stimulation for oil and gas production on federal minerals administered by the BLM's Hollister Field Office (ref. inserted map). The workshop will be held from 1:00 pm - 4:00 p.m. on Wednesday, February 4, 2015 at the Carpenter's Hall, 910 Second Ave. Marina, CA.

You have received this invitation because we are seeking direct input and knowledge from local businesses, organizations, associations, government agencies, elected officials, and other stakeholders. The goal of the workshop is to gather information to be included in an environmental impact statement to analyze the social and economic impacts of oil and gas leasing alternatives to be considered in the Hollister Oil and Gas Draft Resource Management Plan Amendment.

We hope that you or a representative can participate at this important stage in the planning process. Participants will have the opportunity to discuss social and economic conditions and suggest ways for the BLM and its socioeconomic contractor, Aspen Environmental Group, to improve the social and economic analyses. Please let us know if you'd like to attend and we can provide more background information and details about the workshop.

If you cannot attend, we encourage a written response that identifies: (1) how communities and groups within the region are affected by oil and gas production, including low-income and minority populations, and (2) opportunities to advance local economic and social goals through planning decisions within the authority of the BLM, its cooperating agencies, or other partners.

For more information please contact Ms. Negar Vahidi, Aspen Environmental Group, Social Sciences Task Leader, nvahidi@aspeneg.com, (310) 387-6807. BLM specialists are also available to answer questions before the workshop; please contact Sky Murphy, Planning & Environmental Coordinator, (831) 630-5039.

Thank you for your interest, and we hope to see you at the workshop!

Sincerely,

Rick Cooper

Rick Cooper, Field Office Manager

U.S. Department of the Interior
Bureau of Land Management

News Release

For Immediate Release: Jan. 20, 2015 CA-CC-15-10
Contact: David Christy, (916) 941-3146 dchristy@blm.gov

BLM Holds Socio-Economic Workshop in Marina

MARINA, Calif. - The Bureau of Land Management (BLM) will hold a workshop Feb. 4 in Marina to gather information on social and economic issues associated with enhanced well stimulation for oil and gas production on federal mineral resources administered by the BLM's Hollister Field Office.

The BLM is seeking input on social and economic issues to be included in an Environmental Impact Statement for the Hollister Oil and Gas Draft Resource Management Plan Amendment. The plan amendment will incorporate new information about well stimulation technologies, natural resource conditions, and socioeconomic trends. The information also will be used to update the reasonably foreseeable development scenario for oil and gas.

The public workshop will run from 1 p.m. to 4 p.m. at Carpenter's Hall, 910 Second Ave.

For more information contact Melinda Moffitt at (916) 978-4557 or BLM_CA_OGEIS@blm.gov. Information also is available on the BLM website at www.blm.gov/ca/eis-og.

-BLM-

Central California District Office, 5152 Hillsdale Circle, El Dorado Hills, CA 95762

www.blm.gov/ca

APPENDIX B
WORKSHOP HANDOUTS

Sign-In Sheet

Agenda

Workshop Summary Handout

County Fact Sheets

Presentation Slides for BLM Introduction/Overview

Sign-In Sheet – February 4, 2015, 1 p.m. to 4 p.m.

Social and Economic Workshop for Hollister Oil and Gas Project EIS/RMP Amendment

Please print or write legibly. Thank you.

Name	CARMEL de BERTAUT	**Organization**	SAN BENITO RISING
Address	PO BOX 1135		
Email	carmeledebertaut@gmail	**Phone**	408 891 7647
Name	Mary Gorden	**Organization**	RAC
Address	PO Box 44066		
Email	magorden@msn.com	**Phone**	559-597-2373
Name	Reb Monaco	**Organization**	RAC
Address	6991 Southside Rd. Hollister, CA 95023		
Email	—	**Phone**	831-637-1445
Name	Ann Clarke	**Organization**	
Address	P.O. Box 556 Carmel Valley, CA 93924		
Email	annclarke1000@gmail.com	**Phone**	831-298-7417
Name	Daniel I. Padilla	**Organization**	California Resources Corp
Address	10800 Stockdale Hwy		
Email	daniel.padilla@crc.com	**City**	Bakersfield, CA 93311
Name	Mike Novo	**Organization**	Mont County RMA-Planning
Address	168 W. Alisal, 2nd Floor Salinas		
Email	novom@co.monterey.ca.us	**Phone**	831 755-5192
Name	Grace Bogdan	**Organization**	Mont Co. RMA-Planning
Address	Same as above		
Email	bogdang@co.monterey.ca.us	**Phone**	
Name	Aaron Johnson	**Organization**	L+G Attorneys
Address	Aaron@L+G-Attorneys.com		318 Cayuga St. Salinas CA 93901
Email		**Phone**	831-754-2444
Name	GEORGE ARMSTRONG	**Organization**	BLM RAC
Address	2117 SAN MIGUEL WALNUT CREEK		
Email		**Phone**	925 788 5994

** Your name, address, and comments become public information and may be released to interested parties if requested.*

Sign-In Sheet – February 4, 2015, 1 p.m. to 4 p.m.

Social and Economic Workshop for Hollister Oil and Gas Project EIS/RMP Amendment

Please print or write legibly. Thank you.

Name Jennifer Pitcher	**Organization** WSPA
Address 901 Tower Way #300 Bakersfield CA 93309	
Email jpitcher@wspa.org	**Phone** 661 321 0884
Name John Eade	**Organization** Humboldt Weit Inc.
Address 4760 Santa Ana Valley Rd.	
Email johneade@garlic.com	**Phone** 831-245-7341
Name	**Organization**
Address	
Email	**Phone**
Name	**Organization**
Address	
Email	**Phone**
Name	**Organization**
Address	
Email	**City**
Name	**Organization**
Address	
Email	**Phone**
Name	**Organization**
Address	
Email	**Phone**
Name	**Organization**
Address	
Email	**Phone**
Name	**Organization**
Address	
Email	**Phone**

** Your name, address, and comments become public information and may be released to interested parties if requested.*

HOLLISTER OIL AND GAS PROJECT EIS/RMP AMENDMENT
SOCIAL AND ECONOMIC WORKSHOP
AGENDA
WEDNESDAY, FEBRUARY 4, 2015; 1:00 – 4:00 PM

---

1. Introduction – Rick Cooper, Hollister Field Office Manager

2. Workshop Objectives – Negar Vahidi, Aspen Environmental Group
    - Workshop Format/Intent
    - Regional Social and Economic Facts/Statistics

3. Questions or Comments?

4. Break (10 minutes)

5. Group Discussion(s)

    - Topic 1
    - Topic 2
    - Topic 3
    - Topic 4
    - Topic 5

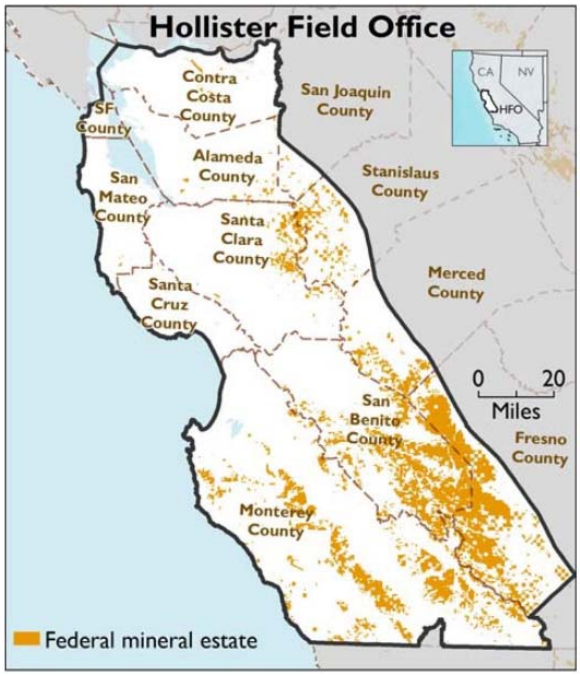
6. Questions or Comments?

Hollister Field Office Oil & Gas Leasing and Development

US Department of the Interior
Bureau of Land Management - California

February 2014

Social and Economic Workshop



The United States (US) Department of the Interior, Bureau of Land Management (BLM), Hollister Field Office (HFO) is preparing a resource management plan (RMP) amendment and associated environmental impact statement (EIS) to guide management of oil and gas resources on lands with federal mineral estate within the HFO. The RMP provides land management direction for the BLM.

The EIS/RMP Amendment will incorporate new information about well stimulation technologies and reasonably foreseeable development of federal minerals to analyze the effects of alternative management strategies on the environment, including socioeconomic impacts.

What kinds of decisions are made about oil and gas in an RMP?

- RMPs identify lands as being open or closed to oil and gas leasing.
- RMPs identify stipulations, or restrictions, that are applied to federal mineral leases in the planning area. Stipulations restrict the locations, types of activities allowed, and/or seasons of allowed activity on a certain piece of land.

What will the EIS evaluate?

- Current or reasonably foreseeable well completion and stimulation practices, including hydraulic fracturing and the use of horizontal drilling, in the HFO.
- Potential effects on the social values and economics of affected communities from oil and gas leasing and development, including well stimulation activities.
- Measures to help avoid or reduce negative socioeconomic effects.

What is the purpose of the economic strategies workshop?

- To engage local government officials, community leaders, tribes, and other interested parties in the discussion of desired economic and social conditions in the planning area.
- To provide a meaningful opportunity for public input on the effects the proposed RMP Amendment may have on local economic and social goals. Due to the diverse economic and socioeconomic areas within the HFO boundary, BLM staff and contractors are seeking localized input for the RMP Amendment socioeconomic analysis.

Discussion Topics

The following questions are designed for all workshop participants to identify social and economic conditions and potential effects of the proposed RMP Amendment. Feedback from the workshop will be incorporated into the EIS to help readers understand how public land resources are integrated into the local economy and way of life within the HFO.

1. What are the local economic goals and priorities in your region?

    a. Are they affected by local, regional, or global demand for oil and the price/barrel?

    b. Are they likely to be affected by development of federal minerals in the Hollister Field Office?

    c. Have local businesses seen a change in activity/revenue or employment levels related to oil and gas production?

2. Who is affected by oil and gas production in your geographic areas, and in what ways?

    a. If different groups are unequally affected, describe and explain why.

    b. Are there any pockets with vulnerable populations in the area?

3. Identify existing community values that are potentially affected from the leasing and development of federal minerals in the HFO.

4. What strategies should BLM consider to promote safe and responsible oil and gas development?

5. Are there mitigation measures (e.g., constraints on site-specific activities) that could help offset the potential social and economic effects of BLM's land use planning decisions?

Social and Economic Workshop

Fact Sheets for counties within the Hollister Field Office boundary:

- Alameda
- Contra Costa
- Fresno
- Merced
- Monterey
- San Benito
- San Francisco
- San Joaquin
- San Mateo
- Santa Clara
- Santa Cruz
- Stanislaus

Alameda County

Demographic and Socioeconomic Statistics	
Population and Projections	1,573,254 (in 2014) 1,682,348 (in 2020) 1,835,340 (in 2030) 1,978,656 (in 2040) 2,115,824 (in 2050) 2,195,999 (in 2060)
Minority and Low-Income Population	• Minority Population Percentage: 65.9% • Population Below Poverty Level: 12.0%
Housing Units	588,948 (2.78 persons per household)
Vacant Units (Vacancy Rate)	37,798 (6.4%)
Median Home Price	$485,000 (in 2013)
Median Household Income	$69,151
Economic Indicators	
Regional Economy Overview	• Alameda County is located on the eastern shore of the San Francisco Bay. Its largest city is Oakland, and it is home to the Port of Oakland, the fourth busiest container port in the United States. • Salaries are forecasted to rise an average of 1.5% per year from 2014 to 2019, and are expected to remain above the state average for the foreseeable future. Employment growth is forecasted to be strong over the medium term but slow over the longer term.
Unemployment and Expected Growth	• Unemployment Rate: 5.7% • Expected Job Growth (2014-2019): 7.9% • Expected Personal Income Growth (2014-2019): 15.7% • Fastest Growing Job Sector: Professional Services
Per Capita Personal Income and Average Salary Per Worker	• Per Capita Income: $57,595 (ranked 9th in CA) • Average Salary Per Worker: $79,614
Industry snapshot of the mining, quarrying, and oil and gas industry	Total Mines: 20 (8 are active) Total Oil and Gas Wells: 93 (none located on BLM lands) Mining Employment (including fossil fuels): • Number of Jobs: 135 (<0.1% of total county employment) • Average Annual Wage: $94,191 (47.8% above county average) Mining Labor Earning Trends (including fossil fuels) in thousands $: • 68,122 in 2001 (<0.1% of total county labor earnings) • 44,950 in 2012 (<0.1% of total county labor earnings)

Contra Costa County

Demographic and Socioeconomic Statistics	
Population and Projections	1,087,008 (in 2014) 1,166,670 (in 2020) 1,281,561 (in 2030) 1,400,999 (in 2040) 1,512,940 (in 2050) 1,620,604 (in 2060)
Minority and Low-Income Population	• Minority Population Percentage: 52.2% • Population Below Poverty Level: 10.2%
Housing Units	405,828 (2.83 persons per household)
Vacant Units (Vacancy Rate)	25,266 (6.2%)
Median Home Price	$392,500 (in 2013)
Median Household Income	$74,815
Economic Indicators	
Regional Economy Overview	• Contra Costa County is located on the eastern edge of the San Francisco Bay. The west and central county areas are primarily urban (residential, commercial, industrial) while the east county area is primarily agriculture and open space. Oil refineries are located in the northern central county area. • Salaries are forecasted to rise an average of 1.7% per year from 2014 to 2019, and are expected to remain above the state average for the foreseeable future.
Unemployment and Expected Growth	• Unemployment Rate: 6.1% • Expected Job Growth (2014-2019): 8.4% • Expected Personal Income Growth (2014-2019): 16.0% • Fastest Growing Job Sector: Information
Per Capita Personal Income and Average Salary Per Worker	• Per Capita Income: $65,106 (ranked 5th in CA) • Average Salary Per Worker: $77,456
Industry snapshot of the mining, quarrying, and oil and gas industry	Total Mines: 18 (4 are active) Total Oil and Gas Wells: 663 (2 located on BLM lands) Mining Employment (including fossil fuels): • Number of Jobs: 1,073 (0.3% of total county employment) • Average Annual Wage: $220,106 (265.9% above county average) Mining Labor Earning Trends (including fossil fuels) in thousands $: • 539,630 in 2001 (1.7% of total county labor earnings) • 694,153 in 2012 (2.2% of total county labor earnings)

Fresno County

Demographic and Socioeconomic Statistics	
Population and Projections	964,040 (in 2014) 1,055,106 (in 2020) 1,200,666 (in 2030) 1,332,913 (in 2040) 1,464,413 (in 2050) 1,587,852 (in 2060)
Minority and Low-Income Population	• Minority Population Percentage: 67.3% • Population Below Poverty Level: 24.8%
Housing Units	322,489 (3.2 persons per household)
Vacant Units (Vacancy Rate)	26,633 (8.3%)
Median Home Price	$152,500 (in 2013)
Median Household Income	$43,756
Economic Indicators	
Regional Economy Overview	• Fresno County is located in the San Joaquin Valley and is the most productive agricultural county in the nation. The primary commodity is grapes, followed by almonds, poultry, milk, and tomatoes. • Salaries are forecasted to rise an average of 1.2% per year from 2014 to 2019. Average salaries will remain below the state average for the foreseeable future.
Unemployment and Expected Growth	• Unemployment Rate: 12.1% • Expected Job Growth (2014-2019): 10.7% • Expected Personal Income Growth (2014-2019): 16.3% • Fastest Growing Job Sector: Professional Services
Per Capita Personal Income and Average Salary Per Worker	• Per Capita Income: $34,864 (ranked 44th in CA) • Average Salary Per Worker: $48,198
Industry snapshot of the mining, quarrying, and oil and gas industry	Total Mines: 28 (13 are active) Total Oil and Gas Wells: 11,550 (35 located on BLM lands) Mining Employment (including fossil fuels): • Number of Jobs: 208 (0.1% of total county employment) • Average Annual Wage: $83,449 (120.1% above county average) Mining Labor Earning Trends (including fossil fuels) in thousands $: • 22,062 in 2001 (0.1% of total county labor earnings) • 38,319 in 2012 (0.2% of total county labor earnings)

Merced County

Demographic and Socioeconomic Statistics	
Population and Projections	264,922 (in 2014) 288,991 (in 2020) 337,798 (in 2030) 389,934 (in 2040) 439,075 (in 2050) 485,712 (in 2060)
Minority and Low-Income Population	• Minority Population Percentage: 68.2% • Population Below Poverty Level: 24.6%
Housing Units	84,298 (3.39 persons per household)
Vacant Units (Vacancy Rate)	8,108 (9.6%)
Median Home Price	$148,000 (in 2013)
Median Household Income	$42,741
Economic Indicators	
Regional Economy Overview	• Merced County is located in the San Joaquin Valley and its economy is centered on farm crop production and agricultural processing. The county's primary agricultural commodity is milk. • Salaries are forecasted to rise an average of 1.5% per year from 2014 to 2019. Average salaries will remain below the state average for the foreseeable future.
Unemployment and Expected Growth	• Unemployment Rate: 14.3% • Expected Job Growth (2014-2019): 7.7% • Expected Personal Income Growth (2014-2019): 16.0% • Fastest Growing Job Sector: Construction
Per Capita Personal Income and Average Salary Per Worker	• Per Capita Income: $31,293 (ranked 56th in CA) • Average Salary Per Worker: $45,813
Industry snapshot of the mining, quarrying, and oil and gas industry	Total Mines: 55 (18 are active) Total Oil and Gas Wells: 195 (none located on BLM lands) Mining Employment (including fossil fuels): • 57 jobs in 2001 (0.1% of total county employment) • 144 jobs in 2011 (0.2% of total county employment) Mining Labor Earning Trends (including fossil fuels) in thousands $: • 1,691 in 2001 (<0.1% of total county labor earnings) • 9,789 in 2012 (0.2% of total county labor earnings)

Monterey County

Demographic and Socioeconomic Statistics	
Population and Projections	425,756 (in 2014) 446,258 (in 2020) 476,874 (in 2030) 500,194 (in 2040) 520,362 (in 2050) 533,575 (in 2060)
Minority and Low-Income Population	• Minority Population Percentage: 67.0% • Population Below Poverty Level: 16.1%
Housing Units	138,817 (3.23 persons per household)
Vacant Units (Vacancy Rate)	13,128 (9.5%)
Median Home Price	$356,250 (in 2013)
Median Household Income	$54,341
Economic Indicators	
Regional Economy Overview	• Monterey County is located on the central coast and its economy is centered on agriculture. The county's primary crops are lettuce and strawberries. • Salaries are forecasted to rise an average of 0.4% per year from 2014 to 2019. Average salaries will remain below the state average for the foreseeable future.
Unemployment and Expected Growth	• Unemployment Rate: 9.3% • Expected Job Growth (2014-2019): 6.3% • Expected Personal Income Growth (2014-2019): 13.5% • Fastest Growing Job Sector: Professional Services
Per Capita Personal Income and Average Salary Per Worker	• Per Capita Income: $46,224 (ranked 24th in CA) • Average Salary Per Worker: $54,301
Industry snapshot of the mining, quarrying, and oil and gas industry	Total Mines: 28 (13 are active) Total Oil and Gas Wells: 3,596 (14 located on BLM lands) Mining Employment (including fossil fuels): • Number of Jobs: 203 (0.1% of total county employment) • Average Annual Wage: $92,476 (123.6% above county average) Mining Labor Earning Trends (including fossil fuels) in thousands $: • 28,062 in 2001 (0.2% of total county labor earnings) • 39,418 in 2012 (0.3% of total county labor earnings)

San Benito County

Demographic and Socioeconomic Statistics	
Population and Projections	57,517 (in 2014) 63,418 (in 2020) 73,459 (in 2030) 82,969 (in 2040) 90,802 (in 2050) 99,215 (in 2060)
Minority and Low-Income Population	• Minority Population Percentage: 62.0% • Population Below Poverty Level: 12.7%
Housing Units	18,130 (3.35 persons per household)
Vacant Units (Vacancy Rate)	1,079 (6.0%)
Median Home Price	$355,000 (in 2013)
Median Household Income	$63,613
Economic Indicators	
Regional Economy Overview	• San Benito County is located in the Coast Range Mountains of Central California. Compared with the rest of the state, it has the highest rate of workers who commute to other counties, primarily to Santa Clara County. • Salaries are forecasted to rise an average of 1.5% per year from 2014 to 2019. Average salaries will remain below the state average for the foreseeable future.
Unemployment and Expected Growth	• Unemployment Rate: 10.8% • Expected Job Growth (2014-2019): 7.4% • Expected Personal Income Growth (2014-2019): 15.3% • Fastest Growing Job Sector: Information
Per Capita Personal Income and Average Salary Per Worker	• Per Capita Income: $39,422 (ranked 37th in CA) • Average Salary Per Worker: $49,593
Industry snapshot of the mining, quarrying, and oil and gas industry	Total Mines: 21 (11 are active) Total Oil and Gas Wells: 388 (56 located on BLM lands) Mining Employment (including fossil fuels): • 241 jobs in 1970 (3.0% of total county employment) • 106 jobs in 2000 (0.5% of total county employment) Mining Labor Earning Trends (including fossil fuels) in thousands $: • 12,733 in 1970 (3.8% of total county labor earnings) • 7,216 in 2000 (0.7% of total county labor earnings)

San Francisco County

Demographic and Socioeconomic Statistics	
Population and Projections	836,620 (in 2014) 891,493 (in 2020) 967,405 (in 2030) 1,027,004 (in 2040) 1,081,540 (in 2050) 1,103,174 (in 2060)
Minority and Low-Income Population	• Minority Population Percentage: 58.2% • Population Below Poverty Level: 13.2%
Housing Units	381,143 (2.32 persons per household)
Vacant Units (Vacancy Rate)	31,405 (8.2%)
Median Home Price	$830,000 (in 2013)
Median Household Income	$72,020
Economic Indicators	
Regional Economy Overview	• San Francisco County is located north of San Mateo County on a peninsula between the San Francisco Bay and the Pacific Ocean. The highest concentration of future job growth is anticipated to be within the downtown and northeastern waterfront areas of the county. • Salaries are forecasted to rise an average of 1.9% per year from 2014 to 2019, and are expected to remain above the state average for the foreseeable future.
Unemployment and Expected Growth	• Unemployment Rate: 4.4% • Expected Job Growth (2014-2019): 8.4% • Expected Personal Income Growth (2014-2019): 19.2% • Fastest Growing Job Sector: Professional Services
Per Capita Personal Income and Average Salary Per Worker	• Per Capita Income: $86,588 (ranked 2nd in CA) • Average Salary Per Worker: $107,171
Industry snapshot of the mining, quarrying, and oil and gas industry	Total Mines: 5 (3 are active) Total Oil and Gas Wells: none Mining Employment (including fossil fuels): • Number of Jobs: 54 (<0.1% of total county employment) • Average Annual Wage: $126,335 (51.3% above county average) Mining Labor Earning Trends (including fossil fuels) in thousands $: • 30,530 in 2001 (<0.1% of total county labor earnings) • 58,051 in 2012 (0.1% of total county labor earnings)

San Joaquin County

Demographic and Socioeconomic Statistics	
Population and Projections	710,731 (in 2014) 766,644 (in 2020) 893,354 (in 2030) 1,037,761 (in 2040) 1,171,439 (in 2050) 1,306,271 (in 2060)
Minority and Low-Income Population	• Minority Population Percentage: 64.1% • Population Below Poverty Level: 17.5%
Housing Units	236,943 (3.2 persons per household)
Vacant Units (Vacancy Rate)	18,987 (8.0%)
Median Home Price	$215,000 (in 2013)
Median Household Income	$50,168
Economic Indicators	
Regional Economy Overview	• San Joaquin County is located in the northernmost portion of San Joaquin Valley. While the county's economy is largely agricultural, it has a larger concentration of transportation and warehouse jobs than other counties in the valley. • Salaries are forecasted to rise an average of 0.9% per year from 2014 to 2019. Average salaries will remain below the state average for the foreseeable future.
Unemployment and Expected Growth	• Unemployment Rate: 11.7% • Expected Job Growth (2014-2019): 10.4% • Expected Personal Income Growth (2014-2019): 16.8% • Fastest Growing Job Sector: Construction
Per Capita Personal Income and Average Salary Per Worker	• Per Capita Income: $34,483 (ranked 47th in CA) • Average Salary Per Worker: $51,179
Industry snapshot of the mining, quarrying, and oil and gas industry	Total Mines: 46 (11 are active) Total Oil and Gas Wells: 1,225 (none located on BLM lands) Mining Employment (including fossil fuels): • Number of Jobs: 88 (<0.1% of total county employment) • Average Annual Wage: $68,144 (67.2% above county average) Mining Labor Earning Trends (including fossil fuels) in thousands $: • 17,092 in 2001 (0.1% of total county labor earnings) • 13,757 in 2012 (0.1% of total county labor earnings)

San Mateo County

Demographic and Socioeconomic Statistics	
Population and Projections	745,193 (in 2014) 777,088 (in 2020) 822,889 (in 2030) 874,626 (in 2040) 925,295 (in 2050) 936,151 (in 2060)
Minority and Low-Income Population	• Minority Population Percentage: 57.5% • Population Below Poverty Level: 7.4%
Housing Units	273,532 (2.83 persons per household)
Vacant Units (Vacancy Rate)	13,300 (4.9%)
Median Home Price	$742,000 (in 2013)
Median Household Income	$87,601
Economic Indicators	
Regional Economy Overview	• San Mateo County is located on the Bay Area Peninsula, south of San Francisco. Of the top 25 largest software companies in the Bay Area, 13 are headquartered in San Mateo County. • Salaries are forecasted to rise an average of 1.8% per year from 2014 to 2019, and are expected to remain above the state average for the foreseeable future.
Unemployment and Expected Growth	• Unemployment Rate: 4.2% • Expected Job Growth (2014-2019): 9.4% • Expected Personal Income Growth (2014-2019): 19.1% • Fastest Growing Job Sector: Information
Per Capita Personal Income and Average Salary Per Worker	• Per Capita Income: $79,021 (ranked 3rd in CA) • Average Salary Per Worker: $94,085
Industry snapshot of the mining, quarrying, and oil and gas industry	Total Mines: 5 (3 are active) Total Oil and Gas Wells: 196 (none located on BLM lands) Mining Employment (including fossil fuels): • Number of Jobs: 31 (<0.1% of total county employment) • Average Annual Wage: $82,040 (20.5% below county average) Mining Labor Earning Trends (including fossil fuels) in thousands $: • 13,342 in 2001 (<0.1% of total county labor earnings) • 16,657 in 2012 (<0.1% of total county labor earnings)

Santa Clara County

Demographic and Socioeconomic Statistics	
Population and Projections	1,868,558 (in 2014) 1,970,828 (in 2020) 2,151,165 (in 2030) 2,331,887 (in 2040) 2,482,347 (in 2050) 2,585,318 (in 2060)
Minority and Low-Income Population	• Minority Population Percentage: 64.8% • Population Below Poverty Level: 9.7%
Housing Units	644,691 (2.98 persons per household)
Vacant Units (Vacancy Rate)	28,233 (4.4%)
Median Home Price	$645,000 (in 2013)
Median Household Income	$88,478
Economic Indicators	
Regional Economy Overview	• Santa Clara County is the largest county in the Bay Area with respect to population and total employment. Silicon Valley is located in the northwest portion of the county. • Salaries are forecasted to rise an average of 2.5% per year from 2014 to 2019, and are expected to remain above the state average for the foreseeable future.
Unemployment and Expected Growth	• Unemployment Rate: 5.3% • Expected Job Growth (2014-2019): 10.0% • Expected Personal Income Growth (2014-2019): 23.3% • Fastest Growing Job Sector: Professional Services
Per Capita Personal Income and Average Salary Per Worker	• Per Capita Income: $70,772 (ranked 4th in CA) • Average Salary Per Worker: $113,951
Industry snapshot of the mining, quarrying, and oil and gas industry	Total Mines: 10 (4 are active) Total Oil and Gas Wells: 112 (none located on BLM lands) Mining Employment (including fossil fuels): • Number of Jobs: 212 (<0.1% of total county employment) • Average Annual Wage: $72,501 (24.6% below county average) Mining Labor Earning Trends (including fossil fuels) in thousands $: • 57,980 in 2001 (0.1% of total county labor earnings) • 49,651 in 2012 (<0.1% of total county labor earnings)

Santa Cruz County

Demographic and Socioeconomic Statistics	
Population and Projections	271,595 (in 2014) 281,870 (in 2020) 295,538 (in 2030) 303,512 (in 2040) 307,606 (in 2050) 314,875 (in 2060)
Minority and Low-Income Population	• Minority Population Percentage: 40.2% • Population Below Poverty Level: 14.4%
Housing Units	105,047 (2.73 persons per household)
Vacant Units (Vacancy Rate)	10,174 (9.7%)
Median Home Price	$505,000 (in 2013)
Median Household Income	$63,092
Economic Indicators	
Regional Economy Overview	• Santa Cruz County is located on the central coast and is the 2nd smallest county with respect to size. The top employer for the county is the University of California, Santa Cruz. The county's agricultural region is located in its southeastern region, and the highest valued crops include strawberries and raspberries. • Salaries are forecasted to rise an average of 1.8% per year from 2014 to 2019. Average salaries will remain below the state average for the foreseeable future.
Unemployment and Expected Growth	• Unemployment Rate: 9.0% • Expected Job Growth (2014-2019): 6.8% • Expected Personal Income Growth (2014-2019): 17.2% • Fastest Growing Job Sector: Construction
Per Capita Personal Income and Average Salary Per Worker	• Per Capita Income: $54,615 (ranked 10th in CA) • Average Salary Per Worker: $52,908
Industry snapshot of the mining, quarrying, and oil and gas industry	Total Mines: 8 (4 are active) Total Oil and Gas Wells: 65 (3 located on BLM lands) Mining Employment (including fossil fuels): • 140 jobs in 2001 (0.1% of total county employment) • 312 jobs in 2011 (0.2% of total county employment) Mining Labor Earning Trends (including fossil fuels) in thousands $: • 4,763 in 2001 (0.1% of total county labor earnings) • 22,984 in 2012 (0.3% of total county labor earnings)

Stanislaus County

Demographic and Socioeconomic Statistics	
Population and Projections	526,042 (in 2014) 573,794 (in 2020) 648,076 (in 2030) 714,910 (in 2040) 783,005 (in 2050) 856,717 (in 2060)
Minority and Low-Income Population	• Minority Population Percentage: 53.3% • Population Below Poverty Level: 19.2%
Housing Units	180,165 (3.14 persons per household)
Vacant Units (Vacancy Rate)	14,375 (8.0%)
Median Home Price	$175,000 (in 2013)
Median Household Income	$44,053
Economic Indicators	
Regional Economy Overview	• Stanislaus County is located in the San Joaquin Valley. Modesto is the county's largest city and is the site for most of the county's population and employment. The local economy is centered on agriculture, and the primary commodities include milk, almonds, and chickens. • Salaries are forecasted to rise an average of 1.1% per year from 2014 to 2019. Average salaries will remain below the state average for the foreseeable future.
Unemployment and Expected Growth	• Unemployment Rate: 12.3% • Expected Job Growth (2014-2019): 9.0% • Expected Personal Income Growth (2014-2019): 16.3% • Fastest Growing Job Sector: Professional Services
Per Capita Personal Income and Average Salary Per Worker	• Per Capita Income: $35,434 (ranked 45th in CA) • Average Salary Per Worker: $50,993
Industry snapshot of the mining, quarrying, and oil and gas industry	Total Mines: 27 (7 are active) Total Oil and Gas Wells: 146 (none located on BLM lands) Mining Employment (including fossil fuels): • Number of Jobs: 32 (<0.1% of total county employment) • Average Annual Wage: $51,826 (27.6% above county average) Mining Labor Earning Trends (including fossil fuels) in thousands $: • 3,668 in 2001 (<0.1% of total county labor earnings) • 3,181 in 2012 (<0.1% of total county labor earnings)

Sources

Association of Bay Area Governments and Metropolitan Transportation Commission. 2013. Plan Bay Area: Final Forecast of Jobs, Population, & Housing. [Online]: http://planbayarea.org/pdf/final_supplemental_reports/FINAL_PBA_Forecast_of_Jobs_Population_and_Housing.pdf. Accessed January 2015.

California Department of Conservation, Division of Oil, Gas, and Geothermal Resources. 2014. GIS, Maps, and Well Databases. [Online]: http://www.conservation.ca.gov/dog/maps/Pages/GISMapping2.aspx. Accessed June.

California Department of Finance. 2014. Report E-5: Population and Housing Estimates for Cities, Counties, and the State, 2011-2014 with 2010 Census Benchmark. [Online]: http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php. Accessed January 2015.

_____. 2014. Report P-1: Summary Population Projections by Race/Ethnicity and by Major Age Groups. [Online]: http://www.dof.ca.gov/research/demographic/reports/projections/P-1/. Accessed January 2015.

California Department of Transportation. 2014. Long-Term Socioeconomic Forecasts by County. [Online]: http://www.dot.ca.gov/hq/tpp/offices/eab/socio_economic.html. Accessed January 2015.

Contra Costa County. 2005. Contra Costa County General Plan: 2005-2020. [Online]: http://ca-contracostacounty2.civicplus.com/DocumentCenter/View/30922. Accessed January 2015.

Headwaters Economics. 2014. Economic Profile System-Human Dimensions Toolkit (EPS-HDT) Overview County Reports. [Online]: http://headwaterseconomics.org/tools/eps-hdt/geography. Accessed January 2015.

Merced County. 2013. 2030 Merced County General Plan. Adopted December 10th. [Online]: http://www.co.merced.ca.us/DocumentCenter/Home/View/6766. Accessed January 2015.

San Mateo County Economic Development Association. 2014. San Mateo County Economic & Industry Overview: October 2014. [Online]: http://samceda.org/wp-content/uploads/SMC-Economic-Industry-Overview-October-2014.pdf. Accessed January 2015.

Santa Cruz County. 2014. Santa Cruz County 2013 Crop Report. [Online]: http://www.agdept.com/Portals/10/pdf/cropreport_13.pdf. Accessed January 2015.

U.S. Department of the Interior, Bureau of Land Management. 2015. BLM Land Surface Estate SMA data set. [Online]: http://www.blm.gov/ca/gis/. Accessed January.

_____. 2014. BLM Administrative Boundary data set. [Online]: http://www.blm.gov/ca/gis/. Accessed April.

U.S. Department of Commerce, Census Bureau. 2015. 2013 American Community Survey 5-Year Estimates, Data Set BO3002: Hispanic or Latino Origin by Race. [Online]: http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml. Accessed January 2015.

_____. 2015. 2013 American Community Survey 5-Year Estimates, Data Set S1701: Poverty Status in the Past 12 Months. [Online]: http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml. Accessed January 2015.

U.S. Department of Commerce, Bureau of Economic Analysis. 2014. BEA Regional Fact Sheet: Personal Income and Gross Domestic Product. [Online]: http://www.bea.gov/regional/bearfacts/. Accessed January 2015.

U.S. Bureau of Land Management

Hollister Field Office

Oil and Gas Leasing and Development

Social & Economic Workshop

February 4, 2015

BLM

BLM Overview

- The BLM is the federal agency that has the delegated authority to manage public lands and all onshore federal mineral estate on behalf of the American people.

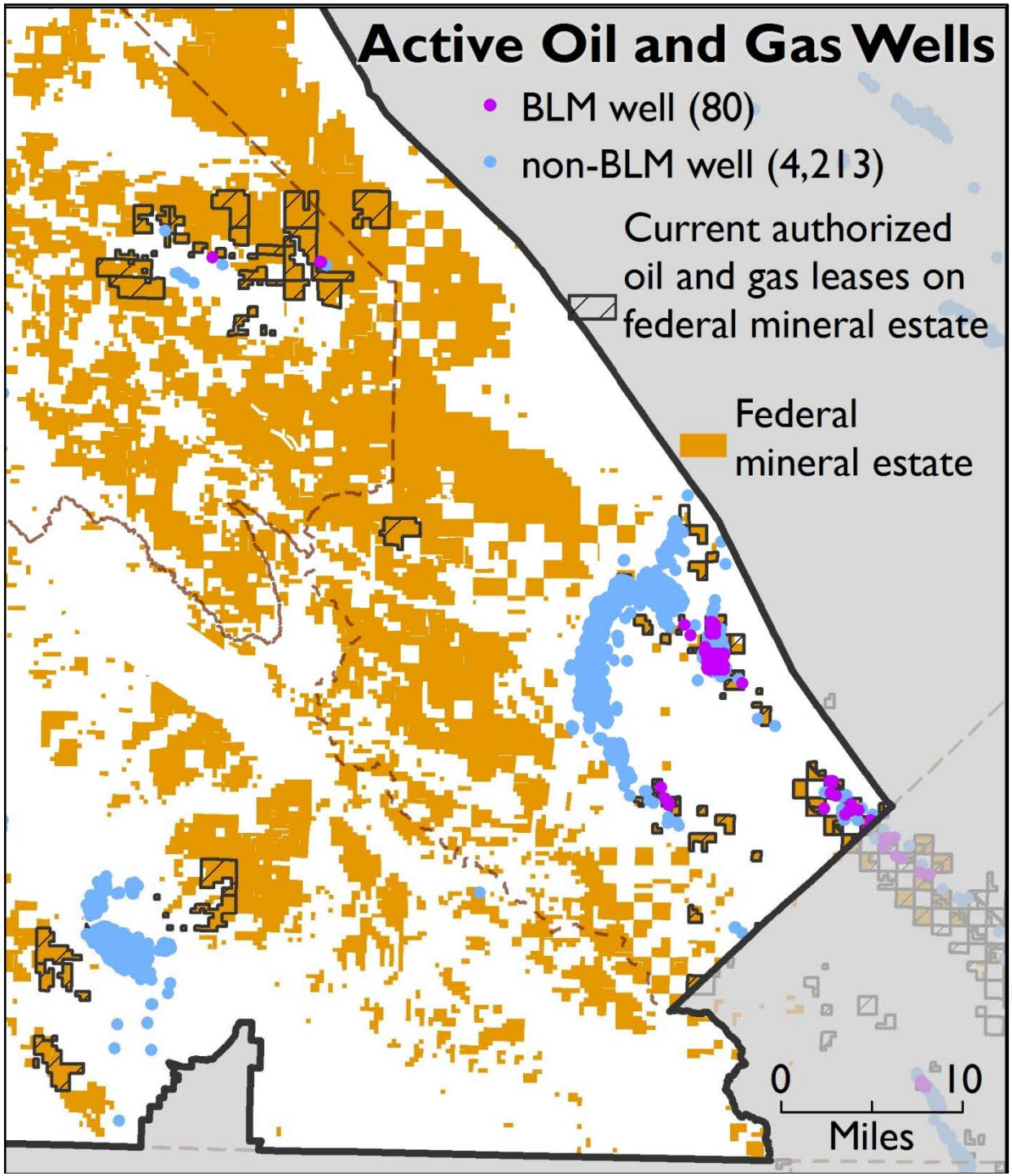
- The BLM's multiple-use mission is: "*…to sustain the health and productivity of the public lands for the use and enjoyment of present and future generations.*"

BLM

Hollister Field Office
Contra Costa County
San Joaquin County
SF County
Alameda County
Stanislaus County
San Mateo County
Santa Clara County
Merced County
Santa Cruz County
0
20
Miles
San Benito County
Fresno County
Monterey County
CA
NV
HFO
Federal mineral estate

BLM

Current Resource Conditions



BLM

What is a Resource Management Plan? (RMP)

- Primary tool guiding BLM management activities in support of the dual mandate of <u>multiple use</u> and <u>sustained yield</u>.
- Created and revised only through an EIS
  - Open, public process
  - Scoping is first step

BLM

Environmental Impact Statement (EIS) for RMP

- Will identify potential impacts that may result from implementing a proposed RMP
- Analyzes a variety of RMP alternatives
- Scoping is first phase of an EIS

BLM

Oil & Gas Decisions in RMPs

- Which lands are open or closed to leasing
- For open lands, which stipulations apply to protect certain kinds of resources
- RMPs do not authorize any actual drilling for exploration or development of oil and gas resources. Only leasing is authorized.

BLM

Workshop Objectives

Negar Vahidi, Aspen Environmental Group

- Purpose and Strategy
- Regional Social and Economic Facts/Statistics
- Questions?

BLM

APPENDIX C
WRITTEN COMMENTS

Written Comments Submitted by Participant

Written Comments Submitted by the Monterey County Farm Bureau

Discussion Topics

The following questions are designed for all workshop participants to identify social and economic conditions and potential effects of the proposed RMP Amendment. Feedback from the workshop will be incoroprated into the EIS to help readers understand how public land resources are integrated into the local economy and way of life within the HFO.

1. What are the local economic goals and priorities in your region?

   a. Are they affected by local, regional, or global demand for oil and the price/barrel?

   b. Are they likely to be affected by development of federal minerals in the Hollister Field Office?

   c. Have local businesses seen a change in activity/revenue or employment levels related to oil and gas production?

2. Who is affected by oil and gas production in your geographic areas, and in what ways?

   a. If different groups are unequally affected, describe and explain why.

   b. Are there any pockets with vulnerable populations in the area?
   migrant low income farm workers + families
   rural poor

3. Identify existing community values that are potentially affected from the leasing and development of federal minerals in the HFO. high quality environment to retain and attract skilled pop.
   rural character
   quiet
   dark skies (astronomy, growing cycles)
   tourism - agri tourism, recreation

4. What strategies should BLM consider to promote safe and responsible oil and gas development?

   BLM Gold Book

5. Are there mitigation measures (e.g., constraints on site-specific activities) that could help offset the potential social and economic effects of BLM's land use planning decisions?
   Consider socio-economic impact of a lease or multiple leases in a boom bust economic sector, similar to timber in PNW, and capacity of region to diversify, retrain displaced workers and their families, e.g., working spouse.

FARM BUREAU
MONTEREY

2015 JAN -1 AM 10: 14

RECEIVED
U.S. DEPT. OF INTERIOR
BUREAU OF LAND MANAGEMENT
HOLLISTER, CA. 95023

December 30, 2014

Rick Cooper,
Field Office Manager
U.S. Bureau of Land Management
20 Hamilton Court
Hollister, CA 95023

RE: Social and Economic Workshop – February 4, 2015

Dear Mr. Cooper:

Monterey County Farm Bureau appreciates the notice of the workshop on enhanced well stimulation on federal minerals administered by the Bureau of Land Management. Due to other commitments, we are unable to attend this workshop as currently scheduled.

Monterey County Farm Bureau represents family farmers and ranchers in the interest of protecting and promoting agriculture throughout our County. We strive to improve the ability of those engaged in production agriculture to provide a reliable supply of food and fiber through responsible stewardship of our local resources.

Farmers and ranchers of Monterey County have enjoyed a long-standing partnership of cooperation with the oil and gas industry, starting in the mid-20th century. Production of oil in the San Ardo region of south Monterey County has provided opportunities for jobs, economic benefits, and conjunctive use of farm and range lands. Over these many decades, there have been no adverse incidents involving local oil production; the agricultural community of Monterey County appreciates the good neighbors that the oil and gas industry has become in the past 70+ years.

When the discussion of enhanced well stimulation in Monterey County is brought to the public, it can mean the consideration of steam injection processes currently in use by the oil producers around San Ardo, or the potential for hydraulic fracturing. While the former technique has been employed locally for many years, yielding benefits in the form of recycled water injected into our groundwater basin, the latter technique is not being considered for oil extraction in our County. Indeed, our understanding is that hydraulic fracturing is not possible in the geology of our oil fields here.

T: (831) 751-3100 • **F:** (831) 751-3167 • 931 Blanco Circle, Salinas, CA 93901 • P.O. Box 1449, Salinas, CA 93902-1449

www.montereycfb.com

FARM BUREAU
MONTEREY

We support the use of current oil extraction techniques in Monterey County that include enhanced well stimulation in the form of steam injection. This process recovers water along with the extracted oil from the well heads, separates the water into a purification system, which then results in either the reuse of the water in further well extractions or injection into the Salinas River Groundwater Basin. This process has been utilized for many years now and yields cleaner water quality than that of the aquifer itself. The groundwater basin benefits from the additional acre feet of surplus water that the oil producers cannot utilize in their extraction process.

Additionally, the oil and gas industry of Monterey County provides skilled jobs for local residents. This has been steady work for many years and several of the employees have been working the local oil fields for their entire career. This then translates into benefits for the community as paychecks are spent locally, contributing to a healthy economy. Towns like San Ardo, San Lucas, and King City have all benefited from employees who are working in the oil fields; all of these towns can be classified as having large minority populations, as they also have numerous residents who are employed by local agricultural producers and processors.

Agriculture in Monterey County represents a $4.38 billion annual sector of our economy and comprises the largest employment group of the County. Adding in all the related sectors of the economy, the impact is estimated at $9.2 billion annually. While oil and gas production does not approach this level of economic output, it is still an important element of our County's fiscal health. Because of the intertwined sectors and employment, the communities of south Monterey County are dependent on both healthy agricultural and oil production sectors.

We urge the Bureau of Land Management to consider the importance of oil and gas production to Monterey County residents and continue to support the enhanced well stimulation techniques currently employed locally. This should be extended to any federal lands in Monterey County where oil and gas production leases are being considered. Opportunities to enhance our communities through skilled employment and increased economic output will lead to greater prosperity, improving our future outlook for economic sustainability, and ultimately providing improvements to infrastructure.

Sincerely,

Norman C. Groot
Executive Director

T: (831) 751-3100 • F: (831) 751-3167 • 931 Blanco Circle, Salinas, CA 93901 • P.O. Box 1449, Salinas, CA 93902-1449

www.montereycfb.com