



# LOWER OWENS RIVER RECREATION USE PLAN - APPENDICES

Prepared for Inyo County

Prepared by:



January 15, 2013

# appendix a:

Community Involvement Findings



## MEMORANDUM

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from Dean Apostol and Joan Chaplick, MIG, Inc.

to Larry Freilich, Project Manager, Inyo County

re Summary of Stakeholder Interviews

date January 18 , 2011

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During the week of December 6, MIG consulting team members Joan Chaplick and Dean Apostol conducted interviews with more than 30 individuals in Inyo County regarding their opinions about potential recreation opportunities along the Lower Owens River. MIG will use this information as the basis for developing draft concepts that will serve as the basis for the development of the Recreation Element of the Lower Owens River Plan.

The interviews were conducted one on one and in small groups. MIG also was given the opportunity to make brief presentations to the Bishop Rotary Club and the Board of the Interagency Visitor Center. A complete list of interview participants is provided at the end of this summary.

Participants were asked to describe their involvement in activities related to the Lower Owens River, share their issues and concerns about potential recreation uses, and comment on a variety of potential recreation activities. Key findings are as follows:

### **Key Areas of Agreement**

While the interviews revealed a wide range of interests and concerns, there was substantial agreement on the following topics:

- Tule Management- the growth of tules in the channel is having a significant impact on the river. From a recreation use standpoint, tules have taken over areas that were previously open water reducing fishing and boating opportunities and impacting wildlife habitat. Several participants described dangerous and unsafe conditions they experienced when they tried to navigate portions of the channel in boats and kayaks that are dominated by tules, which have expanded into previously open water areas.
- Information- Most participants suggested that there is a critical need to provide information about current recreation and public access policies including: activities allowed, day use only, road conditions, reminders to

close gates, lack of services such as picnic tables and restrooms, presence of cultural artifacts and “leave no trace” principles.

- Signage- Basic way finding and directional signage is needed to help users identify access points, stay on major roads, and to remind users of the importance of closing cattle gates.
- Day use policy- Few participants are seeking to change the “day-use only” policy. Most participants believe that enforcing the day use policy is important. Concerns were expressed that any overnight use, especially camping could significantly increase the risk of fire in the area. Some camping occurs presently near Billy Lake.

## **Key Findings**

### **Increased Responsibilities and Liability for Lessees**

Lessees are significantly impacted by recreation use on their lands. LADWP as land owner, requires that the lessee carry insurance that indemnifies LADWP against any claims. The ranchers are concerned about insurance costs and their ability to get continued coverage. One rancher described a recent case where a motorcyclist hit a cow that wandered into the road in an area that is open range. Even though no claim was filed against the rancher, the insurance company cancelled his policy.

Lessees must allow public access on most of their leased areas. Some recreation users, both local and out-of town visitors, are careless and do not close the cattle gates. If damage or injury occurs because a cow got out through a gate that was left open, the rancher can be held liable. Ranchers are very concerned about the financial and management responsibilities they incur as a result of these requirements. Ranchers are allowed to lock some gates to help them manage their grazing operations, but they find the public opposition to this can be significant, and locks and gates have been vandalized.

Some ranchers were dissatisfied with the placement of the fencing that put the fence between the road and the river. Users cut the fence so they can gain direct access to their desired locations. LADWP will pay for some repairs and has put in additional access gates or pass throughs, but overall, the ranchers are concerned that they end up being defacto recreation managers for their leases.

Lessees mentioned that improvements such as new cattle guards at key locations, signage and information could help reduce recreation use impacts on their operations.

### **Economic Impact**

Most participants welcome the related economic benefits that may occur with increased recreation tourism in the area. Some participants hoped that the recreation opportunities on the Lower Owens would cause visitors to become



more of a destination and not just a brief stopover. They hope Lower Owens River visitors will shop in local stores, buy lunch and possibly extend their stay. Their expectations are relatively modest and few participants believe that increased recreation will be a significant boon to the area. Chamber of Commerce officials noted that during peak season (summer months) hotels already have a high occupancy rate so they don't need more visitors then. Communities would experience greater economic benefit if recreation on the Lower Owens helped attract visitors during the shoulder season so that local businesses had more consistent revenue throughout the year. December is the slowest month.

### **Cultural Resources**

The Lower Owens River area is rich in Native American Indian cultural artifacts. Representatives from the tribes and many interviewees recognized these artifacts as important, irreplaceable resources that should remain undisturbed. Signage and information should remind visitors that if any artifacts are found should be left undisturbed.

Some local residents have a long tradition of collecting artifacts. This practice should be discontinued and all visitors to the river should be reminded to follow federal laws that require these artifacts be left undisturbed.

### **Recreation Activities**

Participants were asked their opinions about the following recreation activities in or along the Lower Owens: fishing, hunting, target shooting, birding, hiking, bicycling, boating/kayaking, picnicking, horseback riding, volunteer stewardship activities, environmental education, ATV/ORV usage, and camping. The following summarizes the feedback received for each activity,

Fishing and hunting are established uses and should be continued.

Target shooting is common in some areas. A few users shoot up signs and the sound of the shots can be scary to someone recreating.

The regular river flow has greatly increased bird habitat. Birding opportunities have increased significantly and should be encouraged, including opportunities that might attract visitors from outside the area.

Hiking, road, and off road bicycling are established uses and should be continued. Users, especially those who are not locals, would likely benefit from improved signage and general information about trails and routes.

Boating/kayaking activities should be encouraged. Tule presence and management will be the most important factor to the quality and safety of a user's experience.

Picnicking should be encouraged at key access points. Inyo County may need to provide information directing users to locations that provide easy access. If picnicking is encouraged, users will likely expect minimal infrastructure, including picnic tables, shade, trash cans and possibly restrooms or a portapotty. There is a need to provide clear information about the available facilities or lack thereof.

Horseback riding was identified as a suitable activity. Participants said there was some riding near the river, but were not aware of any increased interest in riding in the area. If riding were encouraged as a recreation activity, it would like require that pull-outs be provided for horse trailers.

Volunteer stewardship and environmental education activities were considered important and should be expanded. There are some annual clean-up events and local schools have incorporated lessons about the Lower Owens River into their curriculum. Several participants, including tribal participants, were enthusiastic about increasing these activities to help encourage understanding and stewardship of the natural and cultural resources in the area. Some area youth have little connection to the river and these activities may help them better understand what is right in their backyard.

Use of ATV's and ORV's in parts of the area is very popular. Riders should continue to be provided information about suggested routes and areas that should be avoided (if this use is to be permitted). Several participants noted that a small number of users cause negative impacts. Unfortunately, these impacts can be significant and really "tear up" desert vegetation.

Camping generated the most comments of the recreation activities identified. Most participants are opposed to overnight use and the development of new campgrounds. Concerns were expressed about potential fire danger from campfires. Some lessees expressed strong concerns about having overnight users on their leased lands including concerns about the potential for increased negative impacts from some of these users and the related increase in liability that would occur.

### **New Facilities**

Several participants expressed concern about the County's ability to operate and maintain any new facilities developed in the project area. They called out the County's recent need to contract out the operations and maintenance of Diaz Campground as an example.

### **Current Planning Activities**

Several participants suggested the project team should pay attention to and avoid scheduling outreach activities that conflict with other current planning activities.. Participants noted the timing and scheduling of meetings for the LADWP proposed solar power project. It was also suggested the team consider linking this effort to the proposed water museum in Independence and

connecting to the planning effort for the Master Plan for Owens Lake. Consolidating meetings could save people time.

### **Previous Planning Activities**

Several participants referenced the long history of planning that has occurred in the project area. Participants suggested a number of documents and some provided copies of materials describing these previous efforts. These participants hope this planning effort will not re-invent the wheel and will reference and draw on these past planning efforts.

### **LORP Outreach Activities**

Participants were asked for their advice on the best timing for a workshop or planning charrette. *Participants suggested that a Saturday workshop would not be popular since there are many competing activities.* Participants also suggested it wasn't practical to expect Independence residents to travel to Lone Pine. Workshops scheduled for consecutive weekday evenings, one in Lone pine and one in Independence, were likely to attract the largest number of participants. Some Bishop business owners suggested that since most of the project area was closer to Independence and Lone Pine that the workshops should be held in these locations rather than in Bishop.

### **Ongoing Public Participation Responsibilities**

The Project team was reminded that there are eight public agencies in the area—all with multiple projects and activities that require consistent public participation to ensure some type of agency response. *Participants cited specific examples of agency approval of unpopular concepts or projects that occurred when a key community member was unable to attend a public meeting or provide the required written response needed.* Many of these community members have been active in the planning for the Lower Owens River for almost twenty years. As a result, many take a measured approach when it comes to championing new activities. We should not consider this a lack of interest, but more an effort by these individuals to conserve their time and energy.

## **INTERVIEWEES**

### **Lessees**

Murton Steward – (by phone)

Mark Johns

Scott Kemp and Mark Lacey

Mark Johns

Tom Nolan, Kathy Nolan, Russell Nolan and Gabe Fogerty (ranch manager as of Jan 1, 2011)

\*Leasee Robert Tanner was contacted multiple times but additional follow-up is needed.

**Elected Officials**

Richard Cervantes, Inyo County Board of Supervisors  
Marty Fortney, Inyo County Board of Supervisors

**Tribal Contacts**

Melvin O. Joseph, Lone Pine Paiute Shoshone Reservation  
Bruce Kline, Bishop Paiute Tribe  
Bill Helmar, Big Pine Band of Owens Valley Paiute Shoshone Indians – Note:  
Bill arranged for Dean Apostol and Larry Freilich to discuss the project at a  
meeting of the Cultural Committee  
Richard Wilder and Priscilla Naylor, Fort Independence Indian Community of  
Paiute Indians

**Conservation**

Mark Bagley, Ceal Klingley, and Brad Henderson  
Mike Prather, Audubon Society  
Stacy Corliss, Friends of the Inyo

**Recreation Interests (Hunting, Fishing, Kayaking, Hiking)**

Bruce Ivey, Duck Unlimited  
Jim Stroh, Community Member and Hiker

**Business**

Jacque Hickman, Lone Pine Chamber of Commerce and Diaz Campground  
Concessioner  
Sharon Avey, Arlene Gridden, and Linda Ellsworth, Independence Chamber of  
Commerce members  
Bishop Rotary – Team made presentation at Dec 7 meeting. About 12 members  
in attendance.  
Lone Pine Chamber of Commerce – Team was invited to holiday mixer on Dec 7.  
Kathleen New, Lone Pine Chamber Executive Director, facilitated introductions.

**Public Agencies**

Kevin Carunchio, Inyo County Administrator  
Jon Klusmire, Eastern California Museum Administrator  
Les Inafuku, Superintendent, Manzanar NHS  
KC Wylie, USFS and lead staff for Interagency Visitor Center\*  
KC also invited the team to make a presentation at a meeting of the  
Interagency Visitor Center. Eight agencies and guests were in attendance





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From: Dean Apostol, Landscape Architect, MIG, Inc.

To: LORP Recreation Use Plan Team and Citizen Stakeholders

Re: May 2011 Public Workshops for the Lower Owens River Recreation Use Planning Process

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## Workshop Overview

On Thursday and Friday, May 5-6, 2011, Inyo County hosted two recreation planning workshops to explore recreation use ideas as part of the Lower Owens River Recreation Use Plan. The workshops took place in Lone Pine at the Boulder Creek Resort and Independence at the Owens Valley School. Both were facilitated by Daniel Iacofano, Principal, Joan Chaplick, Senior Outreach Specialist, Dean Apostol, Landscape Architect, of MIG, Inc., and Larry Freilich, Mitigation Projects Manager of Inyo County. Lori Dermody represented the Los Angeles Department of Water and Power (LADWP) at both workshops.

The purpose of the public workshops was to help shape recreation use programming for the lower Owens River, develop ideas for recreation and environmental education that reflect the opportunities and constraints of the recovering ecosystem, and identify key management issues and potential facility improvements that would support recreation use.

Meeting participants included local recreationists and residents, County and LADWP staff, community leaders and educators, tribal members, environmental and community health advocates, and business owners. Out of town visitors from Boulder Creek Resort also participated. An important objective was to bring together a diverse group of local citizens to meet each other with the hope that potential conflicts among users would be identified and addressed in a facilitated environment.

Following introductions, Daniel Iacofano presented a PowerPoint show that summarized the project goals, provided an overview of the Lower Owens River Project (LORP) landscape, noted opportunities and constraints for recreation, and demonstrated current ideas from the community and consultant in the form of a map. A free-form session followed in which participants identified issues or concerns they had with recreation use in the Lower Owens area, including their own experiences or recreation preferences. Daniel recorded comments and suggestions on a large map posted on the wall in front of the group. Hosts provided refreshments. The atmosphere was positive and community-oriented.

In addition, each participant was given a three-page comment card that allowed them to respond to specific suggestions for recreation facilities or activities. Eighty participants turned in comment cards. Map notes from the workshop discussion, the comment card and comment card responses are provided as attachments. A brief summary of workshop discussion and participant recommendations and concerns follows.



## Summary of Discussion

Generally, workshop participants supported the direction presented, which proposes adding and maintaining modest facilities designed to be relatively low impact and cost. These include better signage and way-finding, development of a multi-use trail network, enhanced birding and recreation use, improved kayak and canoe access, and expanded environmental education and volunteer stewardship opportunities. New facilities would be planned to avoid impacting key habitats, ranching, and facility maintenance operations. There appeared to be a consensus that incremental, low-key, ecosystem-appropriate recreation development and programming would yield the best possible results. Key issues for workshop participants included trails, fishing, and kayaking and paddling opportunities.

While the workshop participants mostly supported the suite of recreation ideas illustrated in the Recreation Opportunities Map and discussed during workshops, two key areas appear to require further discussion and analysis before moving forward:

1. Development of a multi-use trail network, including proactive management of OHV use.
2. Facilitating appropriate river access for fishing, kayaking and paddling, as well as for environmental education.

### *Trails Development and Uses:*

Many participants were enthusiastic about establishing a designated trail network. Forty-eight percent of comment card respondents identified establishing the Lower Owens River Trail as “extremely important,” while an additional forty percent said this was “worth considering.” Forty-three percent supported the Lone Pine Heritage Trail, with an equal number saying it was worthy of consideration. Workshop participants would like future trails to accommodate non-motorized activities such as hiking, bicycling, running and interpretation/education. One participant suggested establishing trail sections in the most scenic areas, perhaps combined with existing trails and roads. Using the former railroad right of way is another idea that was shared (“rails to trails”). At least one participant questioned the need to create a trails system given the existing network of roadways in the project area, and a few felt trails were inappropriate.

Some workshop participants expressed a desire for OHV and motorized use. OHV riding enthusiasts cautioned against “too much intervention” or prohibiting current motorized use. Related community suggestions include keeping motorized uses to the existing two-track dirt roads, or establishing motorized use areas on one side of the river and non-motorized uses on the other. At least one workshop participant noted that OHV use would conflict with enhancing habitat and improving wildlife viewing opportunities for visitors. Local expectations, along with LADWP and ranchers’ continuing needs for vehicle access, may limit the ability to designate some existing roads strictly for non-motorized use.

### *River Access for Fishing, Kayaking and Paddling, and Environmental Education:*

River access for fishing, boating and other near-stream and in-stream activities was a key issue for workshop participants. Workshop discussion and questions point to the need to determine the following:



- Whether and where to establish vehicle parking sites with maintained paths to the river in select locations for boat access (“put-ins” and “take-outs”).
- Identifying locations of access points along “tule-free” river segments.
- Where access points are established, identifying the amenities that should be provided (trash cans, toilets, interpretive signs, etc.).

Participants concurred that proactive management of tules is critical to expanding open water habitat for fishing and boating purposes, as well as for other uses such as environmental education. In-channel tule growth has been higher than initial expectations and has clearly inhibited recreation use. LADWP and the County have agreed to support a study of how more variable river flows could help control tules in some areas, perhaps opening them up for recreation. This, combined with targeted mechanical management, could establish several areas that would be adequately tule-free for recreationists, including boaters and anglers.

More than one participant noted the potential environmental benefits of improving river and area access: “Without access, people will carve their own paths, leading to stream bank erosion and environmental degradation. Non-motorized river recreation can be very low impact as long as access issues are addressed, signed and properly managed.” Another participant articulated the importance of providing clear, unobtrusive signage within the recreation area: “Signage should be high visibility yet low impact, without taking away from the ‘wilderness experience.’”

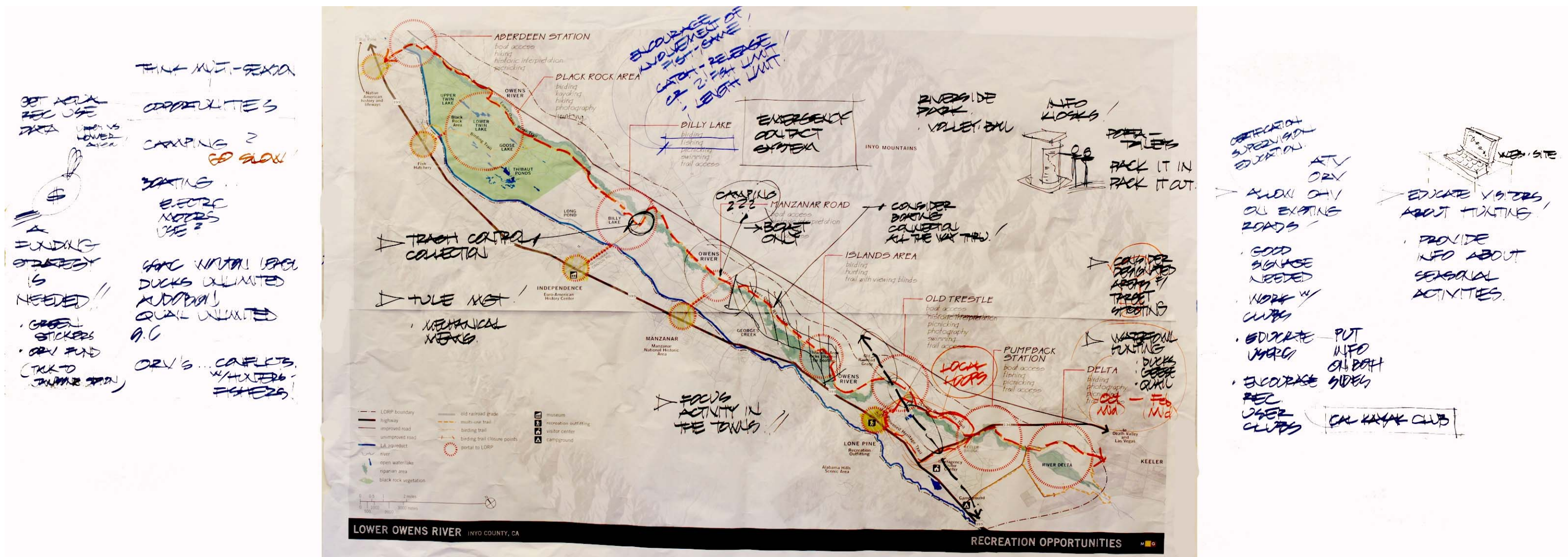
### Next Steps

Inyo County will conduct some additional public outreach over the next few weeks, including contacting key stakeholders who were not well represented at the workshops. They also plan to post the comment card and PowerPoint presentation on the County web site to gain additional input.

Over the next few months MIG will produce a draft recreation use plan in close consultation with Inyo County and LADWP. We expect that the plan will represent an incremental step forward from the recreation opportunities presented at the workshops. We do not expect any significant changes, but rather more clarity, detail and fleshing out of ideas.

LADWP and Inyo County have agreed to fund an effort to update modeling of open water channel sections based on more variable seasonal flows. This modeling could be used to help identify river segments that will be accessible to boaters and anglers.





## Lower Owens River Recreation Use Planning Process

May 5, 2011 Community Workshop and Open House

Prepared by MIG, Inc.





PORTAL = GATEWAY



DEMONSTRATE  
 NEXT MOTORIZED TRAILS  
 UNDERSTAND  
 SOIL CONDITIONS:  
 DUST  
 MUD  
 ADVENTURE TRAIL  
 POSSIBILITY  
 CONSOLIDATE  
 TRAILS...  
 RESTORE  
 DEAD ENDS  
 ATV  
 PERMITTED / GREEN STICKER  
 SOIL  
 SCIENTISTS

BRING ALL REC USER GROUPS TOGETHER

USER SAFETY  
 WARNINGS  
 EDUCATION  
 MARKERS



## Lower Owens River Recreation Use Planning Process

May 6, 2011 Community Workshop and Open House

Prepared by MIG, Inc.



**Inyo County**  
**Lower Owens River Recreation Planning Process**  
Community Workshop and Open House  
May 5-6, 2011

- 
- I. Welcome and Introductions
  - II. LORP Project Overview and Planning Framework
  - III. Recreation Constraints and Opportunities
  - IV. Group Discussion and Mapping the Possibilities
  - V. Summary and Next Steps

*Close . . .*

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Please tell us about yourself!

**A. Where do you live?**

- ☐ Lone Pine      ☐ Independence      ☐ Big Pine      ☐ Bishop      ☐ Other: \_\_\_\_\_

**B. How long have you lived here?**

- ☐ 0-5 years      ☐ 6-10 years      ☐ 10+ years

**C. Which of the following describes you best? Check all that apply.**

- ☐ Homeowner      ☐ Rancher      ☐ Tourist      ☐ Tribal member  
☐ Business owner: \_\_\_\_\_ ☐ Agency employee: \_\_\_\_\_ ☐ Other: \_\_\_\_\_

**D. What are your favorite recreation activities? Check all that apply.**

- ☐ Birding and wildlife watching      ☐ Horseback-riding      ☐ Hiking      ☐ Bicycling      ☐ Canoeing/ Kayaking  
☐ Fishing      ☐ Hunting      ☐ ORV Riding      ☐ Photography      ☐ Other: \_\_\_\_\_

*Please return the workbook to County staff at the end of the workshop.*

*Thank you!*

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## LOWER OWENS RIVER RECREATION OPPORTUNITIES

*Please review the recreation opportunities below and indicate your level of support for each by checking the appropriate box.*

	Personal Preference (choose one with a ✓)			
	EXTREMELY IMPORTANT	WORTH CONSIDERING	NOT A PRIORITY	NOT APPROPRIATE HERE
<b>1. Improve river access for canoes and kayaks.</b>				
<i>Comments and additional ideas here:</i>				
	EXTREMELY IMPORTANT	WORTH CONSIDERING	NOT A PRIORITY	NOT APPROPRIATE HERE
<b>2a. Establish the Lower Owens River Trail.</b>				
<b>2b. Establish the Lone Pine Heritage Trail.</b>				
<i>Comments and additional ideas here:</i>				
	EXTREMELY IMPORTANT	WORTH CONSIDERING	NOT A PRIORITY	NOT APPROPRIATE HERE
<b>3. Enhance birding and wildlife viewing opportunities.</b>				
<i>Comments and additional ideas here:</i>				

	<b>Personal Preference</b> (choose one with a ✓)			
	EXTREMELY IMPORTANT	WORTH CONSIDERING	NOT A PRIORITY	NOT APPROPRIATE HERE
<b>4. Establish gateways and “portals” to recreation areas along Highway 395 and main LORP access roads.</b>				
<i>Comments and additional ideas here:</i>				
	EXTREMELY IMPORTANT	WORTH CONSIDERING	NOT A PRIORITY	NOT APPROPRIATE HERE
<b>5. Improve wayfinding and signage.</b>				
<i>Comments and additional ideas here:</i>				
	EXTREMELY IMPORTANT	WORTH CONSIDERING	NOT A PRIORITY	NOT APPROPRIATE HERE
<b>6. Establish designated picnic areas.</b>				
<i>Comments and additional ideas here:</i>				

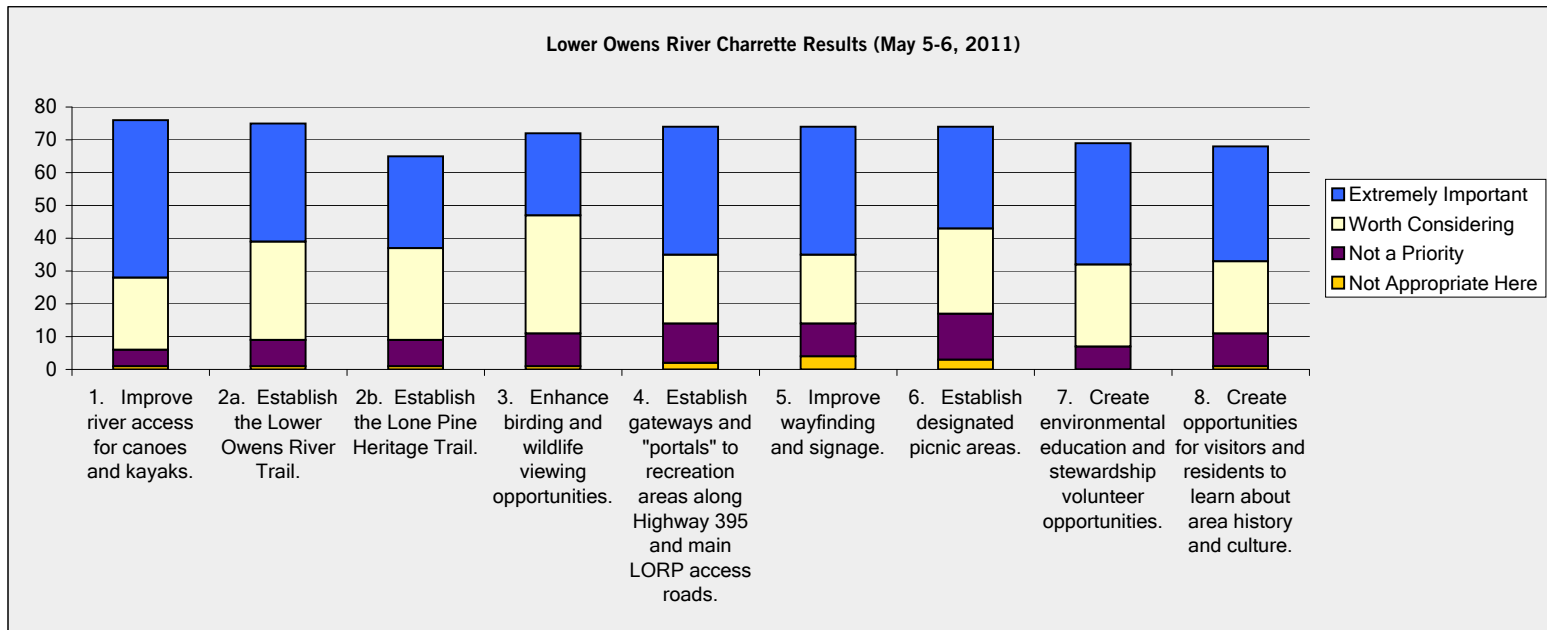


	<b>Personal Preference</b> (choose one with a ✓)			
	EXTREMELY IMPORTANT	WORTH CONSIDERING	NOT A PRIORITY	NOT APPROPRIATE HERE
<b>7. Create environmental education and stewardship volunteer opportunities.</b>				
<i>Comments and additional ideas here:</i>				
	EXTREMELY IMPORTANT	WORTH CONSIDERING	NOT A PRIORITY	NOT APPROPRIATE HERE
<b>8. Create opportunities for visitors and residents to learn about area history and culture.</b>				
<i>Comments and additional ideas here:</i>				

Lower Owens River Workshop Comment Card Responses (May 5-6, 2011)

**Level of Support for Recreation Opportunities**

Please review the recreation opportunities below and indicate your level of support for each by checking the appropriate box.									
Answer Options	Extremely Important		Worth Considering		Not a Priority		Not Appropriate Here		Response Count
1. Improve river access for canoes and kayaks.	48	63%	22	29%	5	7%	1	1%	76
2a. Establish the Lower Owens River Trail.	36	48%	30	40%	8	11%	1	1%	75
2b. Establish the Lone Pine Heritage Trail.	28	43%	28	43%	8	12%	1	2%	65
3. Enhance birding and wildlife viewing opportunities.	25	35%	36	50%	10	14%	1	1%	72
4. Establish gateways and "portals" to recreation areas along Highway 395 and main LORP access roads.	39	53%	21	28%	12	16%	2	3%	74
5. Improve wayfinding and signage.	39	53%	21	28%	10	14%	4	5%	74
6. Establish designated picnic areas.	31	42%	26	35%	14	19%	3	4%	74
7. Create environmental education and stewardship volunteer opportunities.	37	54%	25	36%	7	10%	0	0%	69
8. Create opportunities for visitors and residents to learn about area history and culture.	35	51%	22	32%	10	15%	1	1%	68
answered question									78
skipped question									2



## Lower Owens River Workshop Comment Card Responses (May 5-6, 2011)

### Comments and Additional Ideas

#### Overall comments and ideas:

Response Text	
1	Not real excited about OHV/ORVs. They are not the most responsible group. I've seen that where I live. Since they pushed "the Keen River - A wild and rustic river", it has become overrun and trashy. I don't go there anymore.
2	ATV access is important because 2/3 of Inyo County is wilderness and Forest Service does not allow use of most of its land. LORP stops at pump station?
3	No night lighting other than kiosks with motion sensors.
4	Every action should be one of respect for the river, something that has not existed at DWP.
5	Tules? What would happen if you let them go. Could you use them at all for anything?
6	Adopt a "river" section stewardship.
7	Facing across the river at places should be eliminated.
8	Continue to hold the occasional public meeting to keep people up to date on recreational planning for the LORP.
9	Historic conflict - When it suites them, DWP identifies itself as a "public" entity and other times as a "private" entity.
10	Restoration in the direction of original environmental conditions 100% of cfs, 40 cfs. Rehab section at a time. Accretion of flow Billy Lake So.
11	The best form of re-watering would be to let all the creeks and streams run all the way to the river. It (the water) should come out of the canal with the same cfs as it goes in, on a year-round basis. The Owens should run at 150 cfs on average with levels as high as 450 cfs during runoff. Then there would be plenty of water for everything.
12	You should leave it as is. It is a historic site. My grandmother rode a ferry across the river. It should remain untouched.
13	1 thru 8: all these are good projects for tourism and the enjoyment of the public. The potential is high. I would request the McGiver (?) Canal not be damaged by these projects. It may be used in the future for irrigation, etc.
14	Creation of campgrounds (limited) in designated areas.
15	PLEASE - Catch and release or 2 fish limit! Trash!
16	Our work is in tourism industry - we would market this opportunity.
17	Would love to float down river and camp along the way.
18	I favor well-managed, maximized, recreational opportunities for our visitors and locals.
19	Concern that we not alter existing roads or uses (ranching). A thoughtful expansion of use and building of LORP as a tourism growth tool, as well as enhancement of local lifestyle.

## 1. Improving river access for canoes and kayaks:

Response Text	
1	Would like to see a full water trail.
2	Electric motors ok.
3	Not to myself, but I suspect it would draw high revenue to valley...I don't believe it is a viable possibility however. There is no way to eliminate and maintain tule growth.
4	Control of tules is a must if this is to be feasible.
5	Exploring the LORP by watercraft could be a very important draw for visitors to the Owens Valley as well as locals.
6	The river from the intake south needs aggressive removal of tules or all boating will be lost or very limited. Tubes are also fun.
7	Clear reeds, fences across river, parking areas and river access.
8	I don't know that access to the LORP is as important as it would be to remove the tules and keep them out.
9	Without access, people will carve their own paths - leading to stream bank erosion and environmental degradation. Non-motorized river recreation can be VERY low impact as long as access issues are addressed, signed and properly managed.
10	A nice canoe route would be great - with campgrounds!
11	Two years ago I was able to kayak from Black Rock to two Culvert S (N. of Mazourka) and was taking people down two to three times a week last year. If became so clogged that I am now going from Tinemaha to Aberdeen (on) Station Road.
12	Increase recreational opportunities in Southern Inyo.
13	Specific points for access should be established. Do not increase the amount of road mileage along the river corridor from the current amount. If possible, select locations along the current roads nearest to the river and establish vehicle parking sites with footpaths to put-in and take-out for water craft.
14	The L.O.R. is a potentially first class canoe and kayak recreation area. Local tourism would increase and I believe visitors would return - if the reed problem and accessibility were improved.
15	Get rid of the tules and fences across the river. "Take-out" areas (parking, river bank improvements restrooms?)
16	It's a lot of fun.
17	This would be a good tourist draw.
18	Just open up the tules from below Tinemaha to Black Rock.
19	I'd be happy if you didn't touch anything. However, other residents and tourists would probably benefit from maintained access points. If people cannot access the river, they might not care about its existence.
20	I think this would be of interest to a lot of people.
21	Definitely a need for safe put-ins and take-outs. Think about developing river access points to accommodate both longer runs (1/2 day) and 1-2 hour after work runs (paddle powered). Segregate motorized ok vs. non-motorized sections. It's a very small channel with low flows - probably not initially, but build in triggers.
22	Need strategies to remove (open) tules for a channel.
23	I would love to kayak in this area. Am familiar with the Big Pine area.
24	Small boats (oars or small troll motors).
25	These access points could be good spots for picnic tables, trash cans, toilets, shade ramadas and interpretive signs.
26	Good for entire waterway - phase to clean out tules. Not in Delta.



## 2. Establishing the Lower Owens River and Lone Pine Heritage Trails:

Response Text	
1	Would like to see the bike trail start in town.
2	Heritage Trail will add interpretation of great natural resources and cultural heritage.
3	Loop trails for 5k, 10k etc. runs in future.
4	Have some areas of non-motorized use yet close to motorized access.
5	Maintain ATV access for Eastern Sierra. ATV adventure trails!
6	I have no idea what these trails are or how they are similar or different so a map would be helpful. I am a hiker though and so generally I think trails are good and would be enjoyed by many.
7	Need to incorporate a marathon running course in the Independence area also, River Marathon Run!
8	I'm not sure why a trail should be established with the amount of roads already in existence.
9	Trails are a key component to a recreation use plan. Without trails, people make their own (see negative impact comments above). Trails also allow recreation planners to focus impact in certain areas; highlight environmental/cultural gems; and invite self-directed recreators to visit and explore. Trails also end up in guide books, articles, websites and other media - increasing visitation and popularity.
10	I love nature hikes!
11	Any trails established along the river corridor should be used for foot traffic and non-motorized (mountain bike, as an example) use. Motorized use should be permitted only on the current established 2-track dirt roads.
12	Could be a great opportunity for education as well as recreation.
13	Ok if no conflict with ORV users.
14	It would be nice to tie in the old railroad grade and have historical interpretation along the trail.
15	I have no idea what these trails are. However, I do know that there are very few activities for tourists in the actual valley. Most recreation facilities are in the mountains.
16	Especially a bike trail, riders could go all along the river and take portals out to towns - all the way to Mammoth would be outstanding, with kiosks for overnight stay and restaurants.
17	This will open up many areas that people will surely be a part of.
18	How about motorized (ohv) trail on one side of river and multi-use trail on the other side (horse, bike, walk). Take advantage of railroad grade.
19	Not really necessary because of the ease of walking in the area.
20	Have several access points with picnic/interpretive as mentioned in #1. Lower Owens Trail could be sections in most scenic areas rather than a long, all-encompassing loop - also could combine with existing roads/trails.

### 3. Enhancing birding and wildlife viewing opportunities:

Response Text	
1	Best economic attraction factor.
2	Again - important for locals and visitors.
3	All species need to be considered. Pause and watch your local birds, you can learn something.
4	The birds and wildlife are already making use of the L.O.R.. I don't think it should be a huge priority to make it easier for people to access them above normal access.
5	Healthy bird populations are critical to balanced ecosystems. In addition, birders make up a growing number of recreators who are low impact, high income and are among the most appealing of recreation users from a land management perspective. Photographers are often bird and wildlife watchers as well, and are among a fast-growing population of recreators.
6	How about a few bird blinds? I love wildlife.
7	Again, two years ago I saw numerous birds/raptures and wildlife, now with the choking off the birding is minimal.
8	These opportunities should be folded into the design and development of the above opportunities in 1, 2a and 2b. No separate trails and roads should be created for wildlife viewing.
9	They would be improved by improving access. No ORV areas should be established.
10	I think the Billy Lake area would be a great small refuge. Fishing, walking, birdwatching would be great but now the cows have almost destroyed the area. People only, no cows!
11	Again, a good tourist draw.
12	The birds and wildlife are out there If people walk, pedal, paddle or sit quietly, they will see it.
13	Tied to Owens Lake birding.
14	I have operated a deer, elk and fishing guide service in this valley for many years. That said, I see NO reason to allow or encourage "target shooting" within 2 miles of the Owens River. Those areas already exist and it would be dangerous to fisherman birders or people in general. I would discourage the idea altogether...

**4. Establishing gateways and "portals" to recreation areas along Highway 395 and main LORP access roads:**

<b>Response Text</b>	
<b>1</b>	Common request/need of visitor.
<b>2</b>	No 10-story Holiday Inns, gas stations or other development adjacent to 395 at Manzanar or Aberdeen access points.
<b>3</b>	Again, the tule is the major problem. Who-what agency will pay for maintenance?
<b>4</b>	Need signage on Highway 395. Need adequate space for parking for walking or boating use.
<b>5</b>	Don't forget our limited or handicapped people like to enjoy life too. We all get older.
<b>6</b>	The traditional access sites are adequate.
<b>7</b>	Highway 395 is THE corridor, and providing all recreation users ease of access through portals near local communities is a necessary part of recreation management and resource protection. Proper signage, concentrating traffic and parking, economic benefits to communities and a successful LORP can only be accomplished through portals.
<b>8</b>	Almost impossible right now. Campgrounds, roads, parking spots needed.
<b>9</b>	Marked roads.
<b>10</b>	No new roads are necessary. Signs and area map for existing roads.
<b>11</b>	Use any gateways/"portals" as potential sites for interpretive signs covering topics like the Owens River history, general hydrology, riparian and adjacent upland vegetation, wildlife species and their habitat. Do not establish permanent campgrounds or permit overnight camping along the river corridor. Keep the river corridor as a day use area only.
<b>12</b>	Access could be "lightly" signed. Too much signage detracts from natural settings.
<b>13</b>	The gateways from the towns make sense.
<b>14</b>	If we open up to tourists more and more people will visit and overfishing and over-hunting will cause much litter and depletion of the animals.
<b>15</b>	From a maintenance standpoint, this is something worth considering if high use is anticipated.
<b>16</b>	Modest, simple facilities to direct visitors to recreation opportunities would probably enhance the visitor experience and benefit the tourist economy.
<b>17</b>	I think this will give people an opportunity to get around this beautiful valley.
<b>18</b>	Point out usage for seasonal use.
<b>19</b>	We are a motorcycle riding enthusiast family and would hate some or most of the trails cur out or red flagged due to too much intervention.
<b>20</b>	On County Road as well.

## 5. Improving wayfinding and signage:

Response Text	
1	See above.
2	Not more than every 5 miles.
3	Signing needs to be clear but unobtrusive.
4	Need signage and mile markers.
5	A guide would be nice.
6	Web site with access info and maps.
7	I'm not a huge supporter of signs. I'd rather look at nature!
8	People need to be told where to go. As more individuals rely on digital media, wayfinding through GPS coordinates and Google Earth applications and interactive maps (through free downloads) are almost as important as signage. Signage is still very important and should be high visibility yet low impact, not taking away from "the wilderness experience".
9	Yes! Highway signs for tourists.
10	Currently non-existent, see #4.
11	Signage should be kept to an absolute minimum. Do not "pollute" the river corridor with signs. Encourage the idea of self-exploration along the river without describing how to get from point A to B. If practical, use all or portions of the defunct narrow-gauge railroad bed as a "rails-to-rails" project, similar to railroad bed conversions accomplished in other areas of the U.S.
12	It is impossible for anyone not familiar with the area to even know where the river is located, much less know what opportunities exist.
13	Area map is needed. There are NO signs.
14	People won't use it if they can't find their way. Historical interpretation is good too.
15	I feel there are enough signs around already.
16	This is not important to me. However, many visitors to the area are not comfortable driving on the network of unmarked roads in the Owens Valley.
17	Signs are important to guide those within the use areas.
18	Need clear information on river sections that are navigable and sections that are still choked with tules. Web-based river maps.
19	Information, stress removing trash, respecting other users.
20	GPS - SIMPLE sign, maps.
21	As I said above, too much is sometimes just too much.
22	On both sides of river. A website as well.
23	And have maps etc available.

## 6. Establishing designated picnic areas:

Response Text	
1	Not too many but near roads.
2	Management should go to minimal picnicking in area near river -- keep it out of the immediate ecosystem.
3	This would require maintenance and trash collection.
4	If outhouses and trash cans are put in, sufficient funds must be allocated for emptying them on a regular basis.
5	Add toilet facilities, trash cans and someone to clean up areas on regular schedule. Volunteer program?
6	Provide trash clean-up.
7	Keep Lower Owens River project as mature as possible - keep experience natural!
8	Billy Lake is a great picnic area. Easy access.
9	Area should be shady with no cows in the picnic areas.
10	If you're not able to find a shady area to have a picnic, you're in trouble!
11	Humans are dirty and food trash is often the biggest problem in recreation use areas. Many locals and people traveling through would be inclined to stop, enjoy lunch and soak in the peace of the river if there are designated picnic areas with trash receptacles - wind and animal proof, of course.
12	Yes! Must have cool places with shade and water access.
13	Provide destination area for families and casual visitors.
14	Again, picnic areas should be established as components of canoe/kayak access points and with trails developed near or along the river. Do not place picnic areas in identified important wildlife habitat, meadows or along off-channel ponds. Keep picnic areas at least 150 feet from the river banks.
15	Areas where trash bins could be located. Tables and such create an eye sore area.
16	Some big boulders would be good. Can't be moved but don't need to be maintained.
17	Less trash in smaller areas.
18	Personally, I never use picnic areas. They seem to attract trash and will create a need for maintenance. Also, who would want to have a picnic in the baking Owens Valley sun?
19	Very important.
20	5-6 marked. How to handle trash and porta potty?
21	Keep things simple - initial costs and maintenance can be high.
22	Same as above.
23	Coordinate with boating access and trail access and birding spots. No camping is interesting concept. Tourists use towns.

## 7. Creating environmental education and stewardship volunteer opportunities:

Response Text	
1	Would like to see more ways to engage our youth.
2	Money for management is always an issue. Stewardship needs to be developed but several opportunities for volunteerism exist, and opportunities may outnumber volunteers!
3	On-site.
4	This river restoration process is such a great learning/teaching, research opportunity, it definitely should be exploited and the opportunities should be enhanced.
5	No comment.
6	Public lands can only be managed with the public's involvement. Environmental education is a critical component in any management plan, provides an outdoor classroom for local and visiting schools, and helps connect people with place.
7	Yes!
8	Adopt a river sections, Boy Scouts, maps, etc.
9	Use input, volunteer involvement in maintenance and information programs.
10	To the extent possible, coordinate with the Paiute people on developing educational, stewardship and interpretive signs. Coordinate and seek the assistance of the Paiute people in telling their story, to the degree they specify, as it relates to the Owens River.
11	Needs to be a meaningful and sustainable program.
12	See suggestion in #8. Build on existing programs, such as Eastern Sierra Watershed Project.
13	How can you miss out on one of the largest river restoration projects in the country as a teachable opportunity?
14	Personally, I don't need this. However, such programs often create and maintain interest in a resource. Such interest may be necessary to perpetuate a healthy Lower Owens River. Also, at some point a volunteer corps may be necessary to maintain facilities, resources, etc.
15	This is a great way to self police and share the responsibility.
16	Work through local organizations such as Friends of the Inyo.
17	Contact possibly interested established groups.
18	"Pole" planting for willow and cottonwood - volunteer project.
19	Student groups and seniors.



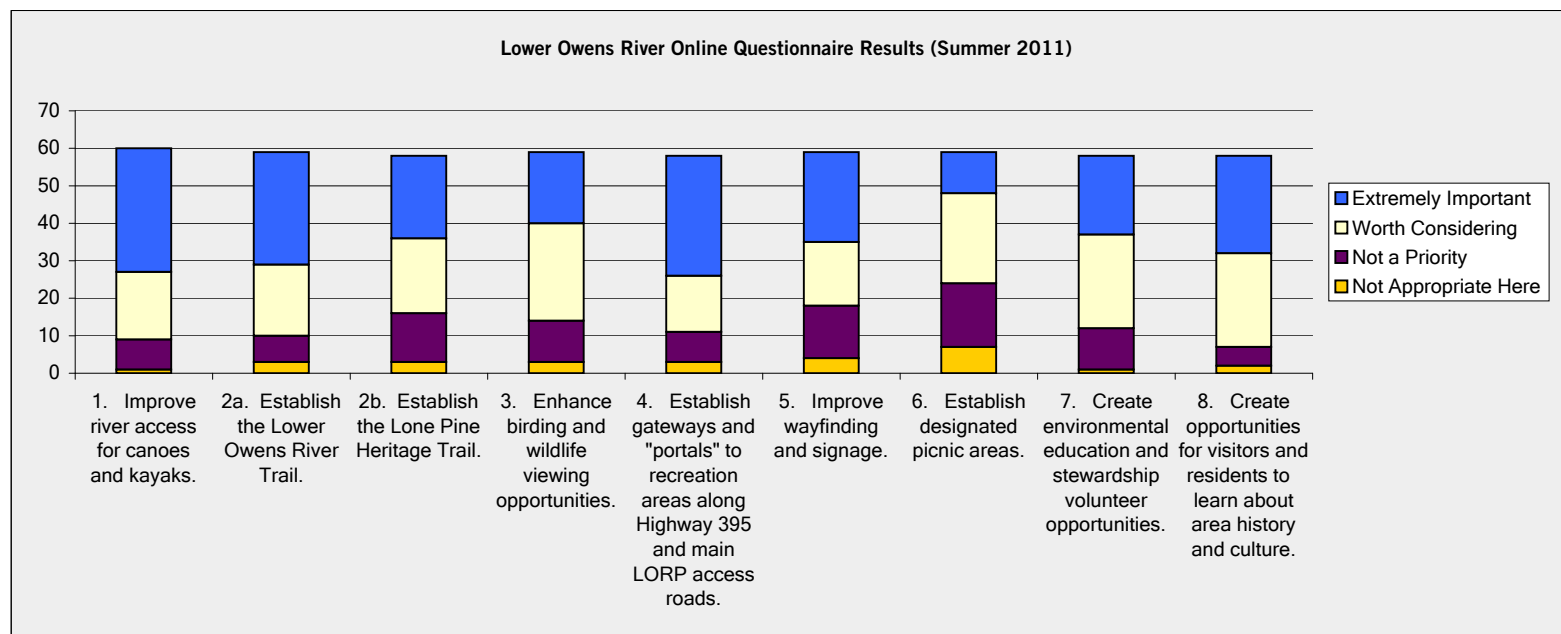
## 8. Creating opportunities for visitors and residents to learn about area history and culture:

Response Text	
1	I like this area the way it is.
2	Interpretive signage.
3	Already done.
4	Teaching/interpreting history and culture are very important, but materials/signs should be unintrusive, keeping the natural ecosystem untouched.
5	On-site.
6	Very important. Partnerships with local tribes should be formed.
7	Website.
8	It would be interesting to see who is providing the history. It needs to be accurate!
9	PEOPLE connect with PLACE through EXPERIENCE and EDUCATION. We can inspire stewardship through educational programs. Our area is rich with history and it can only be kept alive by sharing it. Local tribes should be consulted and involved in this process. Interpretive displays, docent presentations, trail guides, etc.
10	Love the museum. Love the valley!
11	Resources exist in Independence and Lone Pine.
12	See comments under #4. Interpretive signs at picnic areas would be very useful. For all "developments" along the river corridor, use life-on-the-land approach.
13	Already have numerous opportunities - Lone Pine Interagency Visitors Center, Chamber of Commerce, Eastern California Museum, Mauzanar, Darwin Museum (in Lone Pine), Novie Museum (Lone Pine). It would be good if historic sites were marked along the river and people were directed to the existing resources. Somewhere - should have maps of river, access points etc.
14	Already opportunity.
15	Collect oral histories pertaining to the river -- create audio programs for i-pod -- auto/audio-tours. Involve youth and local tribes.
16	Have a driving map or i-pod with stories so you could go around and find the part where the story applies. Like Roadside Heritage cds.
17	People need to have an idea of the area's history.
18	At Bishop High, there is an AP Environmental Science class for juniors and seniors. Students could get involved in this for projects or community service opportunities. Schools in general would probably take advantage of this opportunity.
19	The bass fishing is and can be amazing (I've done it for 40 years). BUT, catch and release needs to be implemented. PROTECT the amazing fishery at Billy Lake!
20	Work with the museum in Independence.
21	Active website.
22	Information provided about the area at kiosks.
23	Knowledge is power.

Lower Owens River Online Questionnaire Responses (Summer 2011)

**Level of Support for Recreation Opportunities**

Please review the recreation opportunities below and indicate your level of support for each by checking the appropriate box.									
Answer Options	Extremely Important		Worth Considering		Not a Priority		Not Appropriate Here		Response Count
1. Improve river access for canoes and kayaks.	33	55%	18	30%	8	13%	1	2%	60
2a. Establish the Lower Owens River Trail.	30	51%	19	32%	7	12%	3	5%	59
2b. Establish the Lone Pine Heritage Trail.	22	38%	20	34%	13	22%	3	5%	58
3. Enhance birding and wildlife viewing opportunities.	19	32%	26	44%	11	19%	3	5%	59
4. Establish gateways and "portals" to recreation areas along Highway 395 and main LORP access roads.	32	55%	15	26%	8	14%	3	5%	58
5. Improve wayfinding and signage.	24	41%	17	29%	14	24%	4	7%	59
6. Establish designated picnic areas.	11	19%	24	41%	17	29%	7	12%	59
7. Create environmental education and stewardship volunteer opportunities.	21	36%	25	43%	11	19%	1	2%	58
8. Create opportunities for visitors and residents to learn about area history and culture.	26	45%	25	43%	5	9%	2	3%	58
answered question									60
skipped question									2



# appendix b:

August 2012 Charrette Summary Memo



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From: Dean Apostol, MIG

To: Larry Freilich, Inyo County

Re: August 15-16, 2012 Charrette for the Lower Owens River Recreation Use Plan

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## Overview

On Wednesday and Thursday, August 15 and 16, 2012, Inyo County and MIG conducted a “rolling charrette” to present and explore revisions to the Draft Lower Owens River Recreation Use Plan. Charrette discussions took place in Independence at the County Water District office, and in Lone Pine at the Chamber of Commerce. Meetings were facilitated by Daniel Iacofano and Dean Apostol of MIG, and Larry Freilich of Inyo County.

Meeting participants included local recreationists, agencies, tribal representatives, ranchers, and business interests as well as LADWP and County staff. The full list of participants is included as Attachment A.

The purpose of the charrette was to share the County Board of Supervisors’ decision to select Option One (the draft plan alternative representing the least amount of change) as the baseline for additional planning, and to solicit the knowledge, expertise, and interests of the participants to improve and refine this into a Preferred Draft Plan. During each charrette meeting, participants reviewed and discussed the Option One concept map and design examples, and had opportunity to request and record alternative ideas or changes.

Generally, most participants expressed satisfaction with the direction and content of Draft Plan Option One. A few expressed that the plan contains too few amenities and does not realize the potential of the Lower Owens River Area (LORA) for recreation. In particular, the benefit to local businesses would be less under this option than other approaches that might attract more users. Other participants expressed appreciation for the low level of investment required, and the absence of built facilities. Those with ranch leases generally felt that fewer users would result in fewer conflicts with their operations.

There is agreement on the concept of providing staging areas that will provide minimal site amenities and good orientation to recreation uses.

## Charrette Summary by Issue Area

### **Orientation and signage:**

There was strong consensus, as there has been throughout the project, in support of using signage to identify the LORA, to help direct users to desirable areas, and to keep them from conflicting with other uses. There is agreement that some identification is needed at each of the main entry points along Highway 395, but that these could be low key and understated.



Ranchers in particular identified the need for good directional signage within the LORA that informs visitors about the area, warns them away from areas where they might get into difficulty (poorly maintained roads), and minimizes conflicts among recreation and other uses.

There is support for identifying ranch lease boundaries by family name as a method for encouraging more respectful behavior by users. Some who might mistreat the area if they think the owner is only a distant bureaucracy might behave with greater courtesy if they recognized that private ranching families would be negatively impacted.

Participants directed that LORA signage – and certainly sign posts -- should not be made of wood due to the strong alkali soils present, which would cause rapid deterioration.

In summary, charrette participants and other stakeholders have expressed support for creating a “family of signs”, a minimalist tiered approach to LORA signage that would include: a) Highway 395 gateways; b) staging area orientation and, finally; c) directional signage and distance markers along roads and trails.

Generally, charrette participants agreed on the importance of establishing an easily remembered set of user rules, shared visibly on signs. These might include:

- Welcome to the Lower Owens River Area (LORA)
- This is a Day Use Only Area. No Overnight Camping
- Please Respect Public and Private Property, including Gates, Fences, Signs, and Water Control Facilities
- Leave Wildlife and Livestock Alone
- To avoid Getting Lost or Stuck, Follow Signs
- To Protect Recovering Ecosystems, Stay on Roads and Paths
- Stay Safe and Share the Trails. Watch for Pedestrians, Horses, and Cyclists
- Enjoy Your Visit

#### **Maps and electronic information:**

Overall, charrette participants believe that an electronic interpretation and mapping approach is much better than going to the expense of creating, installing and maintaining interpretive signage. There is keen interest in developing “virtual” field guides and interpretation that could use a QR Code and/or web site address at orientation points to access user information, maps, and “stories” about the LORA. This could be coordinated with other local attractions, including the Interagency Visitor Center and Manzanar National Historic Site.

A “bites, snacks, and meals” approach is supported, which would provide information at an increasing level of detail to suit one’s tastes and interests.

**Fishing:**

Fishing interests expressed concern about the expansion of tules and the loss of access to open water areas. They agreed that a tiered three-part approach to fishing access should be considered. This would include:

1. Easily accessible and well identified sites, including the Pumpback station and two of the gauging stations.
2. Less accessible sites with minimal identification.
3. “Secret holes” not identified with any directional signage.

Stakeholders will recommend specific areas that should be identified for the purposes of the plan and placement of signage.

**Paddle trails:**

Charrette participants shared quite a lot of new information on paddle trails. Those knowledgeable about the river agreed that there are paddle opportunities in the lower and upper parts of the LORA (Keeler Bridge area and Blackrock WFA, respectively). Given the encroachment of tules, having clear, maintained river access and take-out points is very important. The Blackrock area in particular is a “tule tunnel” that will need good signage and direction to find access and exit points.

The area between Keeler Bridge and the Pumpback Station is the clearest, best paddle route in the LORA at present. Several paddlers mentioned the existence of cross channel fences that create hazards for boaters and should be either removed or marked well so they can avoid them.

**Tule management:**

Many if not most brought up the issue of tule management, expressing a belief that unless the County and/or LADWP do more to control the spread of tules, recreation use will never grow, and existing opportunities like boating and fishing will decline. Several mentioned the potential for using “three-square bulrush as a way to keep larger tules at bay in key areas. There is also support for experimenting with seasonal flow levels to help reduce tule growth.

**Trail system:**

There is support for the idea of repurposing existing roads as multi-use trails. Some participants expressed concern that the multi-use trail concept might not work due to inherent conflicts between motorized and non-motorized users. In addition, there are many concerns about trail surfacing and maintenance. Existing dust pits are very difficult for mountain bikers, and some surfacing or soil stabilization may be needed if these are to attract users. Some suggested that dolomite, a local material, can be used to stabilize trail surfaces.

Many agreed that the northern terminus for the River Trail should be at Blackrock to avoid the expense of constructing a river crossing, and to keep users away from the aqueduct intake area.

The trail system should be identified with signs at intersection points and distance markers. It should include opportunities for pedestrian river access where appropriate. Participants pointed



out opportunity to provide shorter loops, such as the Lone Pine Heritage Trail, within the longer Lower Owens River Trail framework.

Some charrette participants expressed that the provision of some shade or rest areas is important.

#### **Birding access:**

It was generally expressed that birders are self sufficient LORA users who find their way to where they want to go and do not need much help or direction. Small improvements to signage or existing roads and occasional car pullouts could be helpful in the Blackrock area. There were suggestions for development of some birding facilities in the Delta area. In particular, a boardwalk trail leading to a blind or series of blinds was suggested.

#### **Ranching operations:**

Ranchers had very detailed suggestions on where to replace fencing with cattle grates to lessen the problem of gates being left open by recreation users. They also had specific ideas on trail locations and signage that have been recorded on a map.

## **Next Steps**

We anticipate that MIG will return to Inyo County in October to present the Draft Preferred Plan. To get to that point, the following actions should be accomplished by the end of September:

#### **MIG:**

- Schedule October presentations in collaboration with Inyo County
- Create a new map for the Draft Plan, incorporating charrette input and, to the degree practical, stakeholder input to come (see Inyo County tasks below)
- Develop concept sketches to support the modified plan: a) trail with staging area and directional signage and/or distance markers; b) Highway 395 gateway signage; and c) paddle trail concept/launch
- Update plan narrative in support of the Preferred Plan concept and updated map
- Develop preliminary cost estimates for signs, boat access facilities, cattle guards and staging area kiosks, and spot resurfacing of the multi-purpose trail

#### **Inyo County:**

- Schedule October presentations in partnership with MIG (a) Presentation to the County Board of Supervisors and b) presentation to the public/stakeholders)
- Find out capacity of County sign shop (including sign materials, size range, colors, lettering, finishing, etc.)





- Schedule and complete a conference call with Caltrans to confirm criteria for Highway 395 gateway signs
- Work with BLM archeologist to identify any cultural resources we need to avoid
- Provide anglers with field maps and collect maps with tiered fishing access areas identified
- Hold follow up meeting with ranchers who did not attend to get their ideas for locations of cattle guards, signs, etc.
- Follow up with Ecosystem Sciences to complete their review (once the next draft of the map is available)



## Attachment A: List of Charrette Participants

- Tamara Gretz, Inyo County Planner
- Josh Hart, Inyo County Planner
- Lori Dermody, LADWP
- Brian Tillerman, LADWP
- Francis Pedneau, Owens Valley Warmwater Fishing Association
- Francee Grahm, Owens Valley Warmwater Fishing Association
- Diane Riesen, kayaker and former County employee
- Ken Hoffman, fisherman
- Terry Erickson, recreation user and owner of Alabama Hills Café in Lone Pine
- Lacey Greene, CDFG Environmental Scientist
- Richard Potashin, Manzanar National Historic Site
- Troy Strawn, Facilities Manager, Manzanar National Historic site
- KC Wylie, Eastern Sierra Interagency Visitors Center
- Katie Quinlan, Eastern Sierra Institute of Collaborative Education
- Bill Helmar, Big Pine Indian Reservation/Tribal Office Tribal Resources
- Jeremiah Joseph, Fort Independence Indian Reservation Water Program
- J Kockellberg, Bureau of Land Management
- Mark Bagley, Sierra Club
- Scott Kemp, Islands and Delta leases
- Tom Noland, President, Cattlemen's Association, Spainhower Anchor Ranch, Lone Pine Lease
- Mark Lacey, Lacey Livestock, Blackrock Lease
- Kathleen New, Executive Director, Lone Pine Chamber of Commerce
- Jaque Hickman, Campground operator, Boulder Creek Lodge; Lake Diez concessionaire; and President of Healthy Communities of Southern Inyo County



# appendix c:

LORP Existing Conditions Memo



# LOWER OWENS RIVER RECREATION USE PLAN

## EXISTING CONDITIONS MEMO

APRIL 2011



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## EXISTING CONDITIONS MEMO

## I. INTRODUCTION & PROJECT PURPOSE

This memorandum is a summary of existing conditions, opportunities and constraints with respect to developing and managing recreation within the Lower Owens River Project Area (LORP).

Inyo County is partnering with the Los Angeles Department of Water and Power (LADWP) to create a long-range Recreational Use Plan for the Lower Owens River. The goal of the Plan is to enhance and better manage community and visitor recreation experiences in the LORP area. This plan will create a foundation for the continued investment and collaboration needed to establish the Lower Owens River area as a destination for local and regional outdoor enthusiasts. Resource conservation and recovery, improved recreational access and local economic development are fundamental goals of this plan.

The planning area includes lands owned by LADWP on both sides of the Owens River, between the Los Angeles Aqueduct on the north, and the Owens Dry Lake on the south. The project area represents one of the largest river ecosystem restoration projects in the nation (<http://www.inyowater.org/LORP/default.htm>).

Much of the planning area includes ecologically sensitive riparian and wetland habitat lands that are in early stages of recovery. Since the return of flow to the river in 2006, the resurgence and recovery of the local ecosystem has resulted in a rediscovery of the area by anglers, paddle boaters, bird watchers and other recreationists.

This project has relied on background and technical information provided by Inyo County and LADWP. Ecological issues are complex and still evolving as the river, riparian and wetland ecosystems adapt to an increased flow of water.

For this plan to be successful, local stakeholders, including ranchers, recreation users and conservationists must be consulted and heard. A key stakeholder list was developed and initial contacts have been made. Project



## EXISTING CONDITIONS MEMO

consultants spent three days in the LORP area in early December conducting field visits, interviewing available stakeholders, meeting with various groups and organizations, and attending events to gain an understanding of the issues from the local perspective.

The information gathered through background document review, resource maps, interviews and field visits has been used to create this report, which summarizes initial project findings and recommendations.

## II. LOWER OWENS RIVER PROJECT & POLICY FRAMEWORK

The Lower Owens River Project (LORP) includes 77,657 acres of high desert land located in Inyo County, California. The land is owned by the City of Los Angeles and managed by LADWP. The concept of creating a recreation use plan is an outgrowth of a 1997 Memorandum of Understanding (MOU) between Inyo County and LADWP that states:

*“The goal of the LORP is the establishment of a healthy, functioning Lower Owens River riverine-riparian ecosystem, and the establishment of healthy functioning ecosystems in the other elements of the LORP, for the benefit of biodiversity and threatened and endangered species, while providing for the continuation of sustainable uses including recreation, livestock grazing, agriculture, and other activities.”*



The Lower Owens River was substantially de-watered in 1913 when the flow was diverted to Los Angeles. A long process of multi-party negotiations and litigation resulted in a series of agreements to return managed flow to the river based on fishery and riparian needs. The return of a consistent flow of water (since 2006) has opened new opportunities for recreation. (LADWP maintained off-river lakes and ponds through their watershed management practices for many years prior to 2006.)

The recovering river, wetlands and riparian ecosystem have together greatly increased existing and potential recreation use, particularly fishing, hunting, birding and paddling. As the river ecosystem and off-river lakes and wetlands continue to recover, recreation use is expected to grow in popularity. A central purpose of this plan is to explore ways to manage and enhance expanding recreation use.

The development of a Recreation Use Plan is intended to improve the opportunities for both local residents and tourists. Public land abounds in the Eastern Sierra region. The vast majority of the land in Inyo County is owned and managed by various government agencies, including federal, state, city and local. The region attracts millions of visitors, mostly from urban regions of



California, but many from across the nation and internationally. Death Valley attracts about one million visitors a year. The Inyo National Forest reports over four million recreation visitors per year. The local economy is highly dependent on seasonal tourist income.

The existing policy framework for LORP recreation use and management is described in a series of guiding documents developed over the past two decades. A brief summary of adopted plans follows:

- *1991 Long Term Water Agreement:* This agreement called for LADWP to help fund rehabilitation and new development of County managed recreation facilities, including day use and camping areas. Some of these facilities would be located on land owned by Los Angeles. Some funding for operations and maintenance was to be included.
- *1997 LORP MOU:* This guiding document includes recreation as a goal or benefit of the overall project to restore the river. It states that recreation use must be compatible with other LORP goals, particularly ecosystem improvement and recovery. A warm water recreational fishery is called out as a key goal of the project.
- *LORP Ecosystem Management Plan:* This document addresses potential conflicts between recreation and ecosystem recovery by stating that recreation must not negatively impact the natural ecosystem. It calls for recreation management, including tools such as seasonal closures, to prevent and reduce conflicts. It does not call for any specific recreation facilities.
- *Framework for the Recreation Plan: Technical Memo #10:* This was a joint project of LADWP and Inyo County. The analysis work was completed by Ecosystem Sciences, the consultant for the MOU parties in LORP restoration. It identified recreation use patterns prior to river re-watering, issues of concern, constraints and opportunities. It included some case study examples of other large natural area recreation issues, and presented some general ideas for types of

recreation suited for the Lower Owens River. It did not propose any specific recreation facilities or uses.

- *LORP Monitoring, Adaptive Management and Reporting Plan:* The LORP Monitoring Report has a brief section on recreation (pages 3-75-77). It describes the primary current recreation use as fishing, and notes that overnight camping is prohibited. LADWP expects an increase in recreation use, particularly wildlife viewing, bird watching, hunting and fishing over the next 10-15 years, and expresses concerns about damage to natural resources.
- *LORP Final Environmental Impact Report:* This document called for the installation of six kiosks and fencing with pass-throughs by LADWP, which was implemented in 2010. The kiosks help orient recreation users and establish use rules. The fence pass-throughs allow foot access to the river, primarily for fishing. No additional pass-throughs are planned at this time, but access may be modified if necessary.
- *LORP Post-Implementation Plan:* This document describes how LADWP and the County will divide financial costs of administering the LORP. It includes language describing the funding of recreational improvements within the LORP.

An important point emphasized in these documents is that ecosystem recovery takes precedence over other values, including recreation. This means that recreation is allowed and expected, but should not be developed at the expense of habitat preservation and enhancement.

## EXISTING CONDITIONS MEMO



### III. EXISTING CONDITIONS, RECREATION OPPORTUNITIES & CONSTRAINTS

The LORP area is a flat to gently sloping mid-elevation, north-south valley flanked by two of the highest mountain ranges in North America, the Inyo-White Mountains on the east and the Sierra Nevada on the west. The elevation of the Lower Owens River Valley ranges from a low of 3620 feet at the Delta, to a high of 3820 feet at the Los Angeles Aqueduct Intake. The surrounding mountain peaks rise to over 14,000 feet. Several seasonal creeks flow from the Sierra into the valley. Some disappear into the ground and others are conveyed to the LA Aqueduct, while a few, such as Georges Creek, flow all the way to the Owens River. The Inyo Mountains, much dryer than the Sierra, have no creeks that flow into the Lower Owens River.

The Owens River flows north to south, ending in Owens Lake, a shallow salt water body that is now mostly dry. The river itself ran mostly dry from 1913 until 2006, when a minimum, consistent flow of 40 cubic feet per second (cfs) was established, along with annual seasonal habitat flows up to 200 cfs, dependent on forecast runoff from snowmelt. These seasonal flows are meant to mimic natural spring freshet flows during high run-off years. Most of the flow continues on to Owens Lake for dust mitigation purposes. A portion of the flow (6-9 cfs) reaches the Delta area at the north end of the lake, providing expanded wetland habitat.

The dominant vegetation of the valley floor is a mix of alkali scrub and meadow habitat. Riverine-riparian trees and shrubs are taking root along the river as the shallow water table rises and gradually spreads laterally. This riparian area covers about 6,500 acres, or 8 percent of the total LORP area. A series of constructed and managed wetlands occur within the approximately 2500-acre Blackrock Waterfowl Management Area (WMA) in the northwest end of the LORP. Water levels are adjusted seasonally to maintain key habitats, particularly for waterfowl.

The Delta Habitat Area encompasses approximately 325 acres where the river meets the upper part of Owens Lake, forming a series of wetlands and shallow



pools of water. The Delta wetlands are key habitats for wading and shorebirds, and are reportedly becoming a popular area for bird watching.

A series of off-river lakes and ponds occur along a fault line opened up in a massive 1872 earthquake. They include popular fishing areas, such as Lower Twin Lakes, the Coyote/Grass Lakes complex, Upper and Lower Goose Lakes and Billy Lake. These lie mostly within the Blackrock Waterfowl Management Area.

The majority of the LORP land area is characterized by dry uplands with a range of desert shrubs and grasses. Most of this area is grazed by cattle and is fenced, limiting access to recreation users. There are few large or tall trees in the LORP. A few groves of Fremont cottonwood near the river grow up to about 40 feet in height.

The open landscape character of the LORP permits outstanding, mostly uninterrupted views of the surrounding mountains, but also provides little shade during the hot summer months. Along the river, tall and dense vegetation limits mountain views.



Water in the desert landscapes of the western U.S. is a limited and precious resource. The addition of water to the Lower Owens River has re-created habitat for fish, birds and mammals.

There are concerns that increased recreation use results in conflicts with LORP habitat enhancement mitigation goals and established ranching operations. But the return of water also creates new recreation opportunities. Kayaking, canoeing, fishing, hunting, picnicking and other activities are all made possible or enhanced by the return of water to the Owens River. Several recreation uses already take place in the LORP, while others are restricted by policy or lack of facilities.

The following is a brief summary and description of existing recreation uses in the LORP, many of which suggest opportunities and constraints more thoroughly explored in the following sections.

**Non-Motorized Boating:**

The return of flow of water to the river created great anticipation that canoeing and kayaking would become significant recreation uses. However, unsafe conditions and three main constraints have limited this activity. First, boat access points are hard to find or are non-existent. There is little signage, and access may only be possible by scrambling up or down steep, unstable banks. Second, frequent road crossings have culverts too small to paddle through. This requires multiple portages up and down the river banks. And third, the relatively shallow water depth of much of the river has resulted in widespread growth of tules and other aquatic vegetation that is impassable for sometimes long stretches. Some canoeing and kayaking does occur but repeat visits by people other than locals is unlikely, and out of town visitors may not have a rewarding experience to tell their friends and families about.

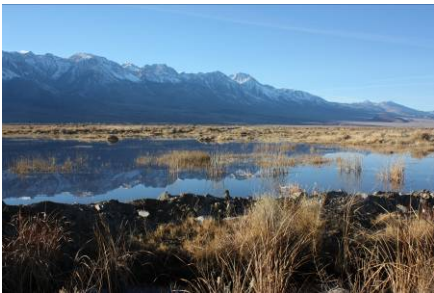


The tule problem may be an interim issue that will clear up in some areas over several years as the water table adjusts and shade increases, but some parts of the river, particularly the “Islands” area, lack a deep enough channel to drown tules out. Additionally, cottonwood and willow recruitment has been slow to develop, resulting in little shade to date. LADWP monitoring and reporting acknowledges the tule problem, and there may be some attempts to manage seasonal floods to help set back the tule growth. To date, some mechanical management of tules has been tried in portions of the river for flood control and water conveyance during the seasonal habitat flows and to improve the accuracy of flow measurement, but not for recreation management purposes.



### **Fishing:**

This is a well-established use that pre-dated the return of water to the river. Prior to the return of water, most of the fishing occurred in off-river lakes and ponds. Some fishing also occurred in parts of the river channel below Billy Lake, where water was found. Most of the Lower Owens River is a warm water bass fishery, and is productive and highly valued. Many miles of fencing were constructed to better manage livestock and human influences within the LORP and facilitate recovery of streamside vegetation. LADWP worked with the Warmwater Fishing Association to identify key access points for fishermen. LADWP has since provided multiple fence pass-throughs for anglers.



### **Birding and Wildlife Viewing:**

This is a growing activity in the LORP, with birding activities increasing significantly over the past few years. California Audubon leads trips to the area. Birding areas include the Blackrock WMA, the Delta area and the riparian area of the river.

### **Waterfowl Hunting:**

Waterfowl hunting takes place in the Blackrock area, Delta, and riparian areas in season.

### **Off-Highway Vehicle Riding:**

This is a current and expanding use, particularly in the Lone Pine area. Some suggest increased OHV use in LORP is due to restrictions on federal land. While most off-highway vehicle (OHV) users drive responsibly, the negative impacts of a small number of irresponsible users can be significant in desert and riparian ecosystems.



### **Swimming and Tubing:**

These are uses primarily engaged in by locals. There are some popular swimming holes, including the old railroad trestle area. Tubes present the same limitations on tubing as on boating.

### **Picnicking & Camping:**

There are no existing facilities for picnicking in the LORP. There are suitable sites along the main access roads. Lack of shade is a seasonal constraint.

Camping is prohibited by LADWP, as are all overnight uses, but is reported to be an activity locals engage in, particularly near Billy Lake.

### **Hiking/Walking:**

There are no established hiking trails or designated paths in the LORP. Some hiking and walking probably does occur along the many roads in the area.

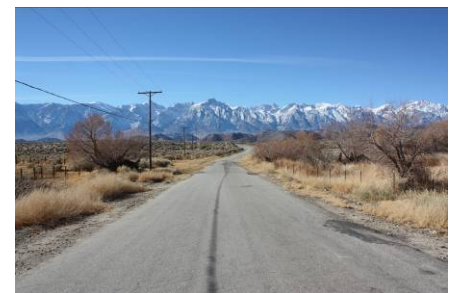
### **Scenic Driving & Road Biking:**

Scenic driving and road biking mostly occur along Highway 395, which is a State Scenic Byway. Scenic driving within the LORP is limited by poor road conditions and lack of signage. Road cycling is limited by the small amount of paved road surface.

### **Historic and Cultural Tourism:**

The Eastern California Museum at Independence draws visitors from around the state and region, as does the Federal Interagency Visitor Center just south of Lone Pine. The County is awaiting notification to determine if grant funding will be provided to create a museum in Independence focused on the Lower Owens River Project. Death Valley National Park offers much in the way of historic and cultural tourism.

The Lower Owens River area is rich in Native American cultural artifacts. Federal laws require these artifacts be left undisturbed. However, there is a long tradition in the area of gathering Native American artifacts along the river. This activity is illegal but still continues to be practiced, mostly by locals.





**Mountain Biking:**

Mountain biking may take place along the many unimproved roads in the LORP but present use is unknown. Constraints include lack of marked routes, “sand traps” in areas of deep alkali dust, fencing and cattle guards.

**Volunteer Stewardship & Environmental Education:**

There are some annual clean-up events and local schools have incorporated lessons about the Lower Owens River into their curriculum.



## IV. STAKEHOLDER VIEWS ON RECREATION PLAN

During the week of December 6, 2010, MIG consulting team members Joan Chaplick and Dean Apostol conducted interviews with more than 30 individuals in Inyo County regarding their opinions about potential recreation issues and opportunities along the Lower Owens River. The interviews were conducted one-on-one and in small groups. MIG also was given the opportunity to make brief presentations to the Bishop Rotary Club and the Board of the Interagency Visitor Center.

Participants were asked to describe their involvement in activities related to the Lower Owens River, share their issues and concerns about potential recreation uses, and comment on a variety of potential recreation activities.

While the interviews revealed a wide range of interests and concerns, there was substantial agreement on the following issues:

- *Tule Growth & Management:* The expansion of tules in the river channel is a significant limitation on recreation use. Tules have occupied areas that were previously open water, reducing fishing and boating access and possibly impacting wildlife habitat. Several participants described difficult access in places unsafe conditions in portions of the channel. Many stakeholders feel that tules should be reduced through active management.
- *Information:* There is a critical need to provide information about current recreation and public access policies including activities allowed, day use only, road conditions, reminders to close gates, the need to restrict motorized vehicles (including ATVs) to roads, the laws protecting cultural artifacts, and “leave no trace” principles.
- *Signage:* Basic wayfinding and directional signage is needed to help users identify access points and avoid getting lost.
- *Day use policy:* The current day use only policy is supported by most stakeholders interviewed. Concerns were expressed that any overnight





use, especially camping, could significantly increase the risk of fire in the area. Some camping reportedly occurs near Billy Lake. There are abundant camping opportunities near the LORP, including public and private campgrounds, as well as dispersed camping allowed on nearby Bureau of Land Management (BLM) lands.

### RECREATION ACTIVITIES AND MANAGEMENT

Stakeholders expressed opinions about the following recreation activities in or along the Lower Owens: fishing, hunting, target shooting, birding, hiking, bicycling, boating/kayaking, picnicking, horseback riding, volunteer stewardship activities, environmental education, ATV/OHV usage and camping.

*Fishing and hunting* are established uses and should be continued.

*Target shooting* is common in some areas. A few users shoot up signs and the sound of the shots can be scary to someone recreating nearby.

The expansion of *birding* is seen by some as a key opportunity for recreation and tourism growth. Birding opportunities have increased significantly and should be encouraged, including opportunities that might attract visitors from outside the area.

*Hiking and road and off-road bicycling* are established uses and should continue. Users, especially those who are not locals, would likely benefit from improved signage and general information about trails and routes.

Users have been disappointed by the unsafe conditions and constraints that limit *boating and kayaking*. However, these activities could be encouraged if access is improved. Stakeholders believe that current tule extent and further encroachment will have the biggest influence on the quality and safety of a user's boating experience.

*Picnicking* should be encouraged at key access points. Managers may need to provide information directing users to locations that provide easy access. If

picnicking is encouraged, users will expect minimal infrastructure including picnic tables, shade, trash cans and possibly restrooms.

*Horseback riding* is currently occurring near the river, but the level of interest in riding is not known. If riding is to be encouraged, it may require parking to accommodate horse trailers.

*Volunteer stewardship and environmental education* activities were noted as important. Several interviewees, including tribal representatives, were enthusiastic about increasing and expanding these activities to help encourage understanding and stewardship of the natural and cultural resources in the area. Stakeholders expressed that some area youth have little connection to the river and these activities may help them better understand what is right in their backyard.

*ATV and OHV riding* are seen by some as the most worrisome form of recreation due to potential impacts to natural resources. Stakeholders recommend that riders are provided with information on suggested routes and that areas that are off-limits are clearly identified and posted. Several stakeholders noted that a small number of users cause most of the negative impacts. Unfortunately, these impacts can be significant and tear up desert vegetation that is slow to recover.



*The development of trails* appears to have a lot of support among stakeholders. The Lone Pine Economic Development Corporation, along with several partners and with support from the National Park Service, has developed an idea for a *Lone Pine Heritage Trail* planned to integrate various interpretive, environmental and cultural learning opportunities with trail-based recreation. One version of this trail would connect Lone Pine with the river to the east and the Alabama Hills to the west, the Interagency Visitor Center and the Diaz Lake Recreation area to the south. This project would include a reconfiguration of Highway 395 as more of a “main street” atmosphere through central Lone Pine. It uses a combination of transportation modes, including walking/hiking, cycling and driving. The Eastern Sierra Institute for Collaborative Education has identified and researched a number of

interpretive themes. [See also: <http://www.esice.org/programs/roadside-heritage.html>]

The Independence Chamber of Commerce has expressed interest in developing a trail along the river. This trail would extend along the entire 62-mile length of the river, from the LA Aqueduct intake to the north to the Owens Dry Lake to the south. The goal is to use the trail to enhance existing recreation use, mainly hunting and fishing, and to add new uses, including hiking, birding and outdoor photography. A series of hand drawn maps by trail proponents shows sections of the trail along with side trips and ideas for birding, picnicking and interpretive stations.

#### **Recreation Operations & Management:**

Several stakeholders expressed concern about operation and maintenance of new recreation facilities in the LORP. Some County facilities are operated through contractors due to lack of staff. LADWP does not provide park rangers or recreation managers. There are questions about enforcement of use regulations and maintenance and repair of facilities.

As the landowner and primary manager of the LORP, LADWP is concerned about the potential for increased recreation use to interfere with regular maintenance and management operations, cattle management and ecosystem recovery. Maintenance operations require temporary road closures, heavy equipment occupying or using roads, and access to water control facilities. Cattle operations take place within a framework of responsibilities. Recreation users, particularly those from out of the area, could leave gates open, block gates or otherwise make cattle management difficult. Ecosystem recovery is a primary objective of LORP management. Recreation users could trample recovering riparian vegetation, harass wildlife, or damage fragile areas by using OHVs off- road.

### ADDITIONAL ISSUES

Stakeholders identified a number of additional issues important to consider as the Recreation Use Plan process evolves and the Plan is developed, most notably cattle management, economic development and the protection of existing cultural resources. A brief summary follows.

#### **Cattle Management:**

Ranchers can be significantly impacted by recreation use on their leases. LADWP requires that each lessee carry insurance that indemnifies the City of Los Angeles against any claims. Ranchers are concerned about insurance costs and their ability to get continued coverage.

Ranchers are required to allow public access on most of their leased land. Some recreation users are careless or unaware and fail to close the cattle gates behind them. Ranchers are concerned about the financial and management responsibilities they may incur as a result of increased recreation use. They are allowed to lock some gates to help them manage their grazing operations, but there is some local opposition to this practice, and locks have been vandalized in some instances.

Ranchers are also concerned that they end up being de facto recreation managers for their leases. Ranchers interviewed mentioned that improvements such as new cattle guards at key locations, directional signage and user information could help reduce recreation use impacts on their operations.





### **Economic Development:**

Many stakeholders welcome the economic benefits that may occur with increased recreation tourism in the LORP. Some hope that new recreation opportunities will result in tourists making the area more of a destination rather than just a brief stopover. They hope Lower Owens River visitors will shop in local stores, buy lunch and possibly extend their stay. Their expectations are relatively modest and few believe that increased recreation will be a significant boon to the area. Chamber of Commerce officials noted that during peak season (summer months) hotels already have a high occupancy rate. Communities might experience greater economic benefits if recreation on the LORP helped increase visitation during the spring and fall shoulder seasons. December was mentioned as the slowest month for area businesses.

### **Cultural Resources:**

Representatives from the tribes and many stakeholders recognized these artifacts as important, irreplaceable resources that should remain undisturbed. There is much concern among Tribal representatives that increased river recreation will result in increased artifact gathering. Signage and information should remind visitors that if any artifacts are found they should be left undisturbed. Recreation facilities should be located away from areas known to have artifacts. All visitors to the river should be reminded to follow federal laws that require these artifacts be left undisturbed.

## V. RECREATION CONCEPT AND OPPORTUNITIES

The following recreation concept and opportunities are ideas based on stakeholder input to date, concerns expressed by LADWP, and observations by the consultants. Together, they represent a series of modest recreation investments that could create high return value for the community. By building an integrated recreation and way finding system around an organized visitor experience, Inyo County can maximize the economic value of affordable investments in recreation facilities and management.

These possible investments should be envisioned as an integrated LORP recreation and heritage system. They are intended as a starting point for further discussion. A plan for operations, maintenance and visitor management needs to be developed before new facilities are provided and increased recreation is promoted.

This system would allow and encourage visitors to use Lone Pine, Independence, and Big Pine as three station points focused on recreation, European settlement and history, and Native American heritage respectively. Self-guided or outfitter run tours by local businesses could provide a supported multi-day experience. Lone Pine would focus on recreation amenities and activities (hiking, biking, boating, and birding). Independence would offer heritage information and activities related to Euro-American settlement of the area, the diversion of water to LA, and other events and information of historical interest. Big Pine could offer Native American heritage opportunities and workshops in basketry, food gathering and tool making, for example. The story of the Owens Valley and the LORP is of potentially great interest as far as cultural and historic tourism is concerned.

Envision a tour group beginning in Lone Pine, spending one day boating and another birding at the Delta or at the Islands area. They could then hike or bike to Independence along the Lower Owens Trail, their luggage transported for them. In Independence they would learn about the early settlement of the Owens Valley, changes brought by the water diversion, and recent efforts to restore the river. They could also visit Manzanar to learn about the internment camps. The next day they might hike or bike the trail to Big Pine, where they



could learn about the local Paiute and Shoshone histories and engage in traditional Native American activities.

The ideal seasons for this could be fall and spring, especially if Elderhostel, the non-profit educational travel organization were recruited to establish or support programming.

Outfitters fees could contribute to some or all the cost of facility maintenance. These recreation experiences will also be available to visitors travelling independently who may desire to extend their stay in the local area. Since the scale and number of facilities are modest and would not likely require user fees to maintain, local users could continue their traditional recreation uses and benefit from the facilities improvement, signage and additional information.

## RECREATION MAP

The map on page 23 illustrates where potential recreation opportunities are located, and how these can be woven together into an integrated framework for recreation and heritage education and tourism.

This map is intended as a starting point for discussion. We expect community members to suggest additions or subtractions as the Recreation Use Plan process moves forward. Inyo County and LADWP officials will also weigh in and provide a management perspective that could result in changes or adaptations.

Viewing the map from lower right to upper left (southwest to northeast), there are a series of five access “portals” located along Highway 395 at junctions with the main paved roads that lead into the LORP. These would be well marked by signs or “gateways” that signify opportunities. Each portal leads to a recreation use cluster, which would include activities suitable to the location, such as:

- Birding (Delta, Islands, Blackrock WRA)
- Photography (multiple points)
- Trail access (all)
- Swimming (Old Trestle)
- Boating (several locations)
- Historical and cultural features (Trestle, Independence, Aqueduct intake)

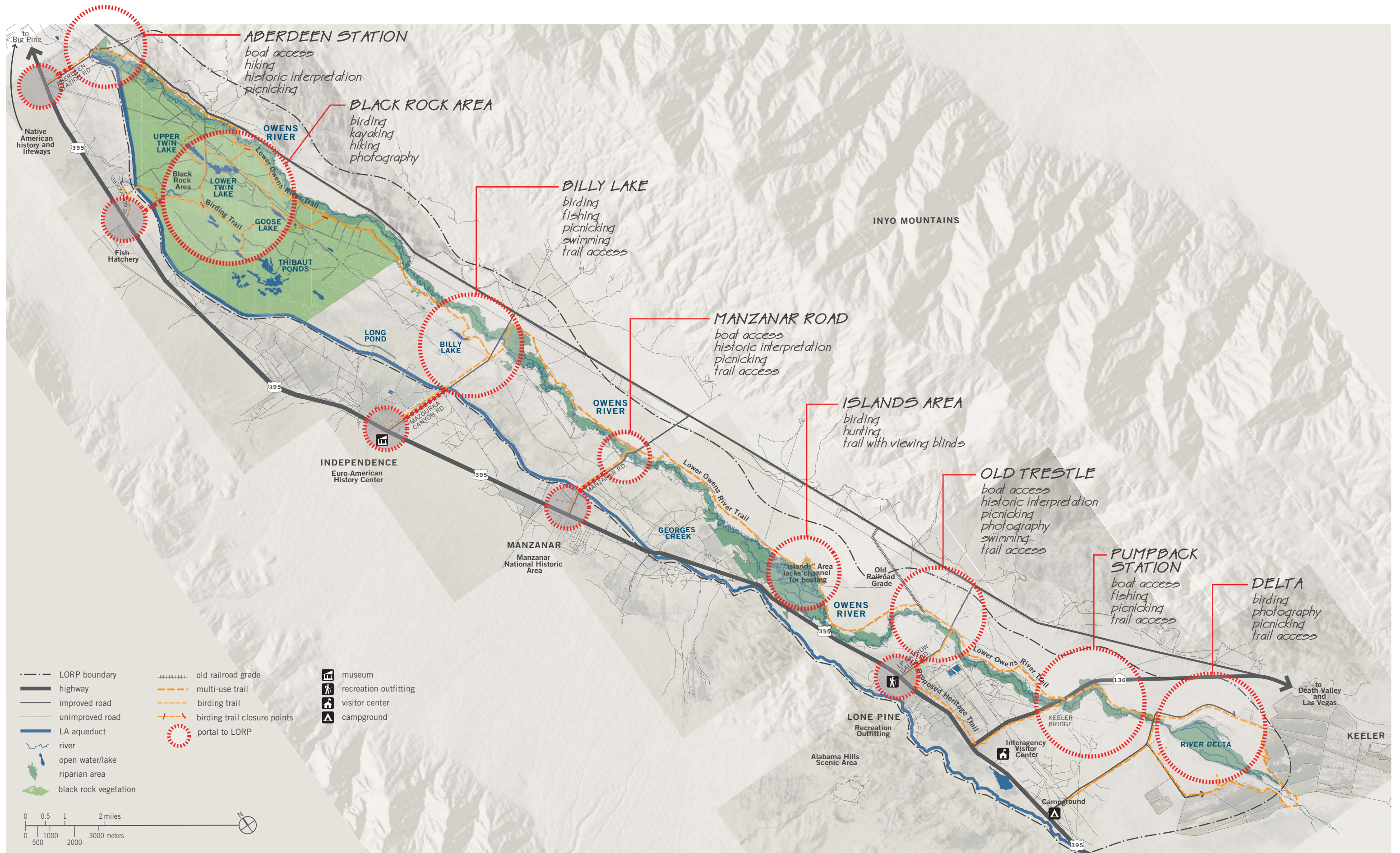
Some uses, like fishing and hunting, are presumed to be opportunistic. In other words, rather than designate areas where these occur, we assumed they occur where the user decides (unless an area is placed off limits).

The Lower Owens River Trail is a key new facility that can be created mostly from converting existing, little used primitive roads. This could be accomplished with low levels of investment. The trail could dip into and out of the riparian area depending on resource sensitivity.



## EXISTING CONDITIONS MEMO









## VII. NEXT STEPS

The next step of the project will be a multi-day “rolling charrette” to be held May 5-7. These dates correspond with a visit to Independence by the Inyo/LA Standing Committee. The charrette will gather local stakeholders and others together in 2 locations, Lone Pine on May 5 and Independence on May 6. The hours of each charrette will be from 4-7PM, with new session starting on the hour to allow maximum participation and to attract both local agency representatives and community members.

Over the following months, the Lower Owens River Recreation Use Plan will continue to reach out to community members to review and comment on developing and managing recreation. Early indications are that reaching a working consensus around modest facility and visitor improvements is possible. A key challenge will be making sure that there is adequate opportunity for local residents and stakeholders to become involved and share their knowledge and creative ideas.

## EXISTING CONDITIONS MEMO

APPENDIX A

LORP RECREATION SITE MATRIX

## EXISTING CONDITIONS MEMO

LORP Recreation Use Matrix

Activity	Extent	Location	Facilities	Local	Tourist	Constraints	Opportunities	*CORP ranking	Notes
Non-motor boating	Limited	River	None	X	X	Limited put ins, tules	Improve, sign, mnge tules	NA	Limited by tules
Mountain biking	Unknown	LORP access roads	Dirt roads	-	X	Gates, wayfinding	Sign & improve soft spots	14	Alkalai dust pits
Road biking		Paved road or trail	Hwy 395	-	X	Paved roads	Limited	8	Not within LORP
Birding	Common	BWMA, delta, Rip.	None	-	X	Fencing, wayfinding	Signs, blinds	6	Growing use
Wildlife viewing	Unknown	BWMA, delta, Rip.	None	X	X	Fencing, wayfinding	Signs, blinds	6	Growing use
Waterfowl hunting	Com	BWMA, delta, Rip.	n/a	X	X	Habitat & numbers	Habitat enhancement	declining	Growing in LORP
Game hunting			n/a	X	X			declining	
Fishing	Com	River & ponds	Pass-throughs	X	X	Habitat damage	Tule mngmnt	13	Major ex use expanding
OHV riding	Com	Lone Pine area	Dirt roads	X	-	Fencing	Designate routes	10	Resource conflicts
Hiking/walking	Unnown		Trails, cc	X	X	Fencing, wayfinding	Marked routes	1&5	River trail potential
Scenic driving		Highway 395	Hwy 395	-	X	Access	Marked routes	2	Hwy 395
Camping	Illegal	Billy Lake	None	X	-	Not allowed	Off site	-	Not al. in mngmt plan
Picnicking	Informal	Billy Lake & Trestle?	None	X	X	No facilities	Tables, shade	5	Lack of facilities
Historic-Cultural	Unkown	Rr Trestle, Intake	None	-	X	No information	Signs, programs	-	RR buffs & pot hntng
Swimming/ tubing?	Locals	Trestle area	None	X	-	Tules	Tule mngment	NA	Locals, limited by tules
Outdoor photography	Unknown	Random	n/a	X	X	Wayfinding	Mark routes	9	

\* Note: CORP is the California Outdoor Recreation Plan

Ranking is based on user preferences



# appendix d:

LORP Recreation Use Plan, High Level Environmental Review

10/2/2012

DRAFT

# LORP - RECREATION USE PLAN HIGH LEVEL ENVIRONMENTAL REVIEW



Environmental Review of the Draft Recreation Use Plan for the  
Lower Owens River Project

Prepared for Inyo County, CA



Ecosystem Sciences Foundation | Science Design Planning

## **1.0 Introduction**

Ecosystem Sciences Foundation (ESF) has reviewed the January 2012 draft of the *Lower Owens River Recreation Use Plan* (RUP). Additionally, the updated RUP map (Figure 1) produced in mid-September, 2012 was reviewed; the map update is a response to information provided by stakeholders at the recent charrette.

This document represents a high level environmental review of the proposed RUP and is ESF's general assessment of environmental effects that may result from the current draft plan and map. This document is an overview of environmental conditions that may be affected by the RUP. It explains the process of environmental review going forward and expands on potential effects of the RUP to the LORP. In general, the RUP will likely have minimal environmental effects to the overall conditions in the LORP. The RUP plan is predicated on the concept of working with the existing environmental conditions, avoiding sensitive and critical areas, and will work to engage visitors and provide them with a guided experience to the unique environment of the LORP. Avoiding environmental impacts is a priority for the RUP.

The current scale and detail of the RUP necessitates that only a high level environmental review can occur at this time. As the project moves forward a more fine scale analysis of environmental conditions as related to specific areas of the LORP will need to be considered.

## **2.0 Environmental Review Process**

### **Significance**

Environmental review is an important element of any major project. Inyo County residents are encouraged to engage in the environmental review process because it is their voice that will help shape what actions are taken to assure that the natural resources and aesthetic surroundings of the Lower Owens River are not significantly affected by this proposed RUP. The environmental review process doesn't mean there will be no environmental impacts but requires that those environmental impacts be mitigated, if needed. The RUP must conform to the existing LORP principals, plans and management described in the MOU, the LORP Ecosystem Management Plan, the LORP Monitoring and Adaptive Management Plan, and the LORP EIR.

### **Overview**

All projects in California, both public and private, must go through environmental review to gain approval. The state law governing the environmental review process is called the California Environmental Quality Act (CEQA) and the federal law governing the environmental review process is called the National Environmental Policy Act (NEPA).

CEQA "requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible." It is also feasible that the RUP may be Categorically Exempt, or a Negative Declaration. A discussion of this follows below.

## The California Environmental Quality Act and National Environmental Policy Act

California's landmark environmental protection measure, CEQA, requires state and local agencies to thoroughly analyze and disclose to the public the potential environmental impacts of development projects. This analysis is compiled in an Environmental Impact Report (EIR), which identifies those impacts and proposes measures to avoid, mitigate or offset them where needed and provides the public with many opportunities to learn about and provide input on the project.

The federal government has a similar review process, the National Environmental Policy Act (NEPA), which requires an Environmental Impact Statement (EIS) be prepared. Generally, when a project requires approval by a federal agency or is utilizing federal funds compliance with CEQA and NEPA is required and a joint EIR/EIS is prepared. In the case of the RUP only CEQA will need to be addressed.

## Environmental Review Documents

The first step in the environmental review process is deciding whether a full-fledged environmental review is warranted by the potential impacts of the proposed RUP. If so, as in the case of the RUP, then a set of very specific documents called an Environmental Impact Report (EIR) under CEQA and an Environmental Impact Statement (EIS) under NEPA must be prepared.

<b>Document Name</b>	<b>Jurisdiction</b>	<b>Environmental Agency</b>
Environmental Impact Report (EIR)	State of California	CEQA
Environmental Impact Statement (EIS)	Federal	NEPA

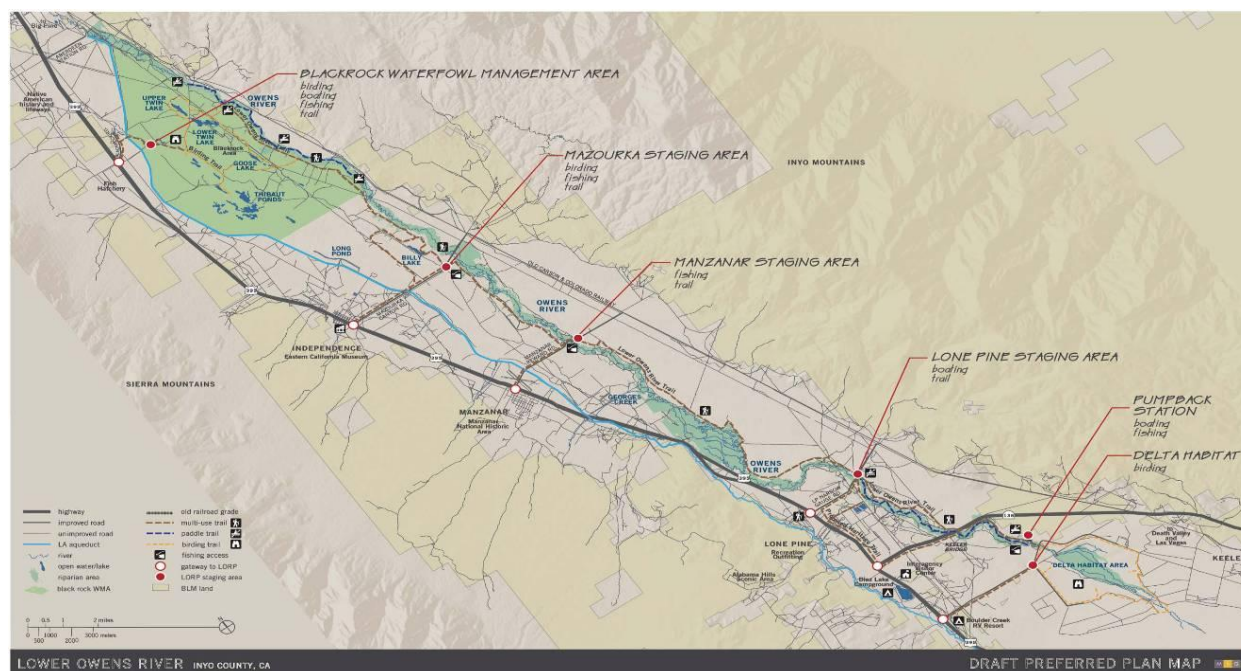


Figure 1. LORP RUP Map – Draft Preferred Plan Map

### 3.0 LORP RUP Environmental Review Process

#### Discussion

Recreation in the LORP is vital and it needs to be planned and managed effectively. The LORP is a complex and dynamic system. It has complex interactions with both the ecology, and in the use of the natural resources. It is a working landscape where water is highly managed and grazing is paramount to the community. It is also a newly developing ecological system that matures each season and is changing and evolving. The conditions experienced today may be far different five years from now. Allowing visitors and recreationists the opportunity to engage and to understand these dynamics through considerate planning and education is critical to the success of any and all LORP management components.

It will be necessary to determine whether the project may be Categorical Exempt or if a Negative Declaration will need to be prepared, in order to comport with the CEQA process. Or, if RUP impacts are significant then a more rigorous process, outlined below, may be needed. At this time the RUP is a guiding document toward managing and planning for recreation in the LORP. Once specific areas of use, improvement, construction and impact are clearly identified then a clear process will be pursued for environmental compliance.

In general, the RUP will likely have minimal environmental effects to the overall conditions in the LORP. It is reasonable to consider a Negative Declaration or a Mitigated Negative Declaration or Categorical Exemption as feasible outcomes to the RUP process. However, the current scale and detail of the RUP is such that only a cursory review can occur at this time. As the project moves forward a more fine scale analysis of environmental conditions as related to specific areas of the LORP will need to be considered.

The lead agency will determine what CEQA document is necessary, depending on the results of surveys/studies, project magnitude/timing/location, unique or unusual circumstances, input from other agencies/professionals, applicable exemption classes, type and ability. This will require a detailed description of the project, its location, the environmental setting and operational details such that potential impacts to resources can be ascertained. The lead agency will consult with other agencies, ensure project impacts are identified and mitigated, approve and file all documents.

#### Categorical Exemptions

Under the CEQA Code of Regulations there are several classes of projects that do not have a significant effect on the environment, and they are declared to be categorically exempt from the requirement for the preparation of environmental documents. If the RUP avoids all significant impacts while planning and implementing the program a categorical exemption is attainable.

A Categorical Exemption requires limited analysis and restrictions to ensure that environmental impacts will not occur. It is possible that the RUP activities may generally be considered exempt from the requirement to conduct further environmental analysis. However, where the potential exists for impacts due to location, scenic highways, hazardous materials sites, unusual circumstances, or cumulative effects the exemptions do not apply.

## Negative Declaration

A negative declaration (Neg Dec) (or mitigated negative declaration) is needed when a project does not “fit” any of the exemption classes or its implementation will require added measures to mitigate impacts related to one or more resources. A negative declaration requires the completion of an Initial Study/CEQA checklist, supported by: an archaeology records check and or sign-off by an archaeologist; a California Natural Diversity Database (CNDDDB) check with possible survey of and avoidance of identified sensitive habitats; informal and formal consultation with federal and state agencies as needed; consideration of impacts to air and water quality, aesthetics, noise; and other survey and analysis as necessary. All potential impacts must fall to the level of less than significant after mitigation.

To accommodate the first step in the process a CEQA checklist has been provided as appendices to this document. In order to assess whether or not a full-fledged environmental review is warranted the Final RUP must assess the following under CEQA:

### ***Environmental Factors Potentially Affected by the RUP***

*The environmental factors checked below would be potentially affected by this project. Please see the checklist in the appendices for additional information.*

<input type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agriculture and Forestry	<input type="checkbox"/>	Air Quality
<input type="checkbox"/>	Biological Resources	<input type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Geology/Soils
<input type="checkbox"/>	Greenhouse Gas Emissions	<input type="checkbox"/>	Hazards and Hazardous Materials	<input type="checkbox"/>	Hydrology/Water Quality
<input type="checkbox"/>	Land Use/Planning	<input type="checkbox"/>	Mineral Resources	<input type="checkbox"/>	Noise
<input type="checkbox"/>	Population/Housing	<input type="checkbox"/>	Public Services	<input type="checkbox"/>	Recreation
<input type="checkbox"/>	Transportation/Traffic	<input type="checkbox"/>	Utilities/Service Systems	<input type="checkbox"/>	Mandatory Findings of Significance

On the basis of this initial evaluation, if no significant impacts are anticipated, or are being mitigated, the following determination may be made ultimately leading to a Negative Declaration, where the RUP would have no significant impact on the environment.

### ***Determination***

<input type="checkbox"/>	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<input type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
<input type="checkbox"/>	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
<input type="checkbox"/>	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been

	adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
<input type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required

### Extended Process

If it is determined that the RUP may have impacts to the environment and a negative declaration is not viable then the environmental review process must proceed with more in-depth assessments. The first level of review is scoping. Initial environmental studies of project alternatives are prepared, circulated and discussed at public meetings, and the alternatives are defined and refined.

Next is an Alternatives Analysis (AA) report. While not legally mandated, an Alternatives Analysis provides a thorough and methodical foundation for the EIR (if required). Taking alternatives identified during scoping and using conceptual engineering and planning information, a draft AA examines all potential alternatives and compares them for reasonability, feasibility and practicality. It is circulated for public review, and the comments received are incorporated into a final AA report, which recommends which alternatives to carry forward to the EIR level, and which to drop and why. Reasons for dropping an alternative could include:

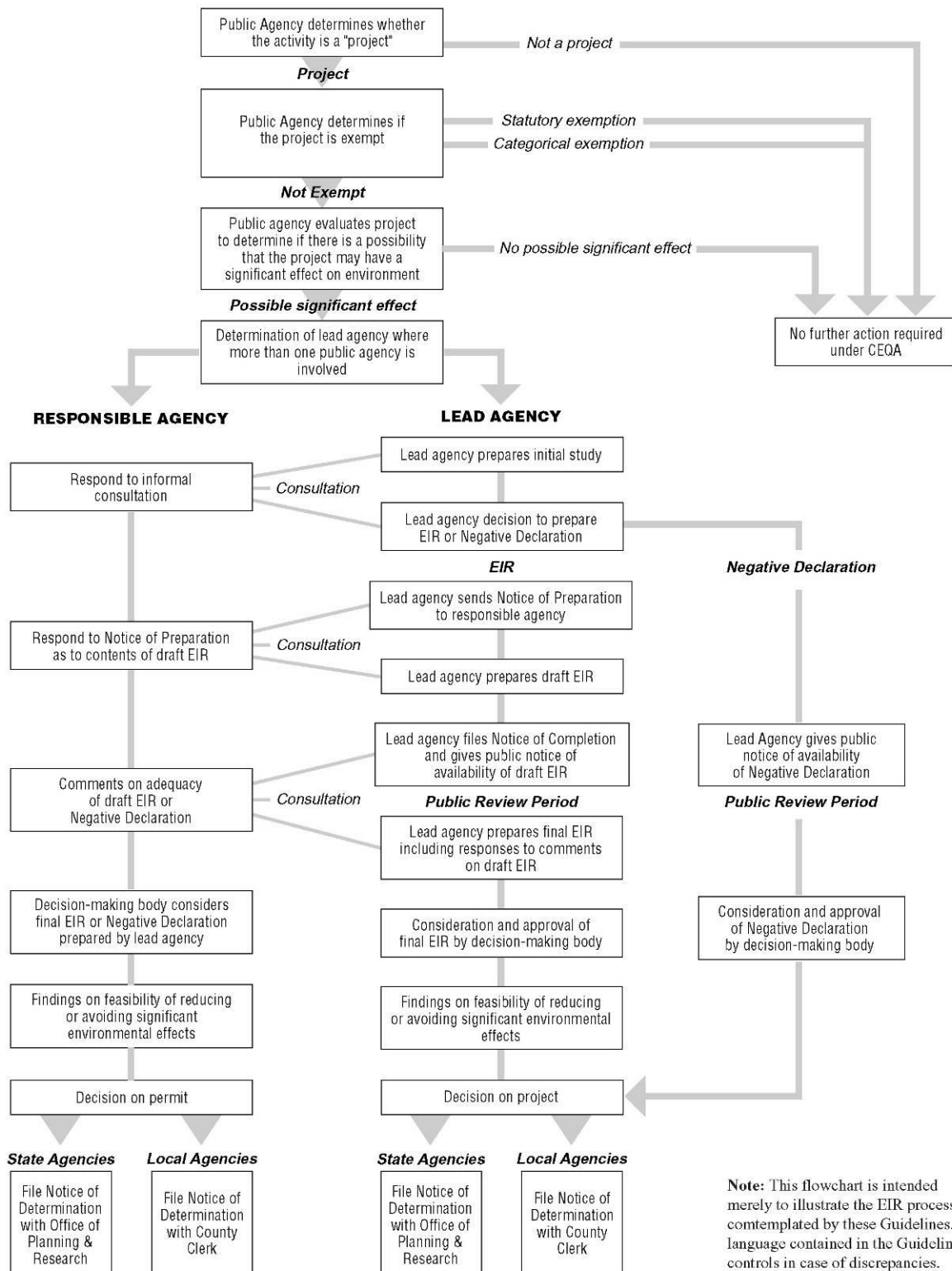
- Failing to meet a project's purpose and goals
- Environmental or engineering issues make approval infeasible
- Construction proves impossible or impractical
- Environmental impacts cannot be avoided or mitigated.

Using the alternatives presented in the final AA, a draft EIR is developed and circulated for more public review and hearings. Comments received and responses to them are incorporated into a final EIR, which recommends a preferred alternative. The final EIR is registered and made publicly available, and the state and federal governments issue final EIR certification of the project.

The environmental compliance process can become more complicated from this point. Figure 2, *CEQA Process Flow Chart*, illustrates the flow process for CEQA and potential steps, decisions and outcomes.



## CEQA PROCESS FLOW CHART





## 4.0 Potential Environmental Conflict Areas in LORP

Although the implementation of the RUP will most likely have limited effect on the overall natural resources and economic viability of the LORP area some actions have the potential to alter habitat for resident and migratory species and/or forage for livestock operations. Therefore, all construction and disruptive actions would have to be constrained to non-nesting (T&E birds) and non-grazing seasons, and avoid sensitive plant, animal and noxious weed areas, cultural and archeological sites, and areas of importance that should be left undisturbed (e.g. hydrologic monitoring sites). The route of the proposed trail(s), and staging areas would have to be very carefully planned and evaluated where new sections or improvements are required. This will entail a much more detailed mapping effort than is currently used for the planning purposes of the RUP. Existing LORP GIS and project databases should be utilized for discreet planning purposes and to avoid impacts to sensitive areas.

ESF has provided up to date geospatial data to the project including:

- Sensitive habitats for T&E plants and animals
- Known Noxious Weeds Locations
- Grazing Infrastructure
- Rare Plants
- Springs
- Roads

This geospatial data and mapping can be used for site planning of proposed facilities, trail routes and other planned improvements of the RUP.

In general, the RUP should intend to keep staging areas, parking, facilities, and other larger improvements out of the riparian zone and floodplains. Most areas of the LORP offer high terraces directly adjacent to the riparian zone and floodplain that offer the best area for larger development areas with least potential for impacts to the ecology. These areas are generally dominated by xeric shrub habitats, a community type that is in abundance in the Owens Valley. Access to riparian and streamside areas should be by foot. Most of these areas are fenced for grazing allotments and provide established walkthroughs for recreation access. Established, mature vegetation communities and tree stands should be avoided at all costs for any development and clearing actions. Riparian trees and shrubs are important habitat components for many of the sensitive species residing in the LORP and altering these habitats would be detrimental to the overall goals of the LORP.

Additional considerations and restrictions would include the location of sensitive habitats and species. There will certainly be seasonal restrictions and sensitive species restrictions, mostly in conjunction with any construction or land clearing activities. There would also be restrictions related to grazing operations and infrastructure. In general, construction and clearing activities should be planned to occur in winter, and avoid avian nesting season.

Fishing is an important recreational activity to consider in the development of a recreational management plan for the LORP. Regulation and enforcement of this activity are the responsibilities of California Department of Fish and Game; therefore, integration of goals and

objectives with recreation management by local communities is essential. Crowding and conflict between recreational users are potential challenges to sustainable recreation management. Trail overuse and riparian habitat disturbance need to be monitored and addressed in the recreation plan. Most likely, recreation disturbances can be monitored through existing LORP activities such as the RAS, but in some instances additional sites and monitoring may need to be implemented. For example, boat launches, parking and refuse disposal are high-impact factors and need intensive recreation management and monitoring.

The LORP calls for the establishment of a healthy riparian ecosystem and the promotion of biodiversity. Already popular, the demand for wildlife viewing will undoubtedly increase as the LORP progresses and biodiversity increases. Bird watching is one of the most popular forms of non-consumptive, wildlife-associated recreational activities currently in the LORP and the world, and is increasing in popularity yearly. Professional tour groups, bird clubs, and individuals bring millions of dollars to the areas surrounding birding hotspots. As a result of the LORP, waterfowl and many types of migratory and native birds utilize the LORP area. It could even become one of the most heavily used birding areas in the U.S. as habitat and conservation measures increase in the area. Research has demonstrated that the popularity of birding has led to habitat disturbance and that some amount of recreation management is necessary in order to protect the resource. Proximity and frequency of disturbances, especially during the nesting season, are the issues that demand attention by management. The effects of recreationists' disturbance on wildlife vary for different species, but include nest abandonment and exhaustion from energy waste due to flight responses. Recreation management of the LORP resources must include methods to efficiently coexist with wildlife in order to sustain the attraction of the resource. Also, wildlife users tend to want exclusive use of an area and this is a challenge to accommodate under a multiple use framework where entities rely on the resources for economic sustenance.

Illegal archaeological artifact hunting is another activity that may be affected. Searching for artifact memorabilia is a popular pastime in California and some amount of recreation management is necessary to protect the local Paiute heritage, to promote value for and protection of cultural and historical resources, and to inform and educate recreational users of the LORP area that there is a federal law prohibiting informal pot-hunting.

Hiking as a recreational pastime has the lowest impact to the natural environment, although it is only extremely low levels of hiking use that show significant reductions in environmental impact. Beyond low-use levels, the amount of impact remains relatively stable, until, at very high levels of use and aggravating behavior, the impact increases and the ecosystem becomes unstable. Crowding is the only significant social factor involved in hiking; as the number of users increases, satisfaction level decreases. Hiking trails need to avoid sensitive areas and noxious weed locations, as trails can be vectors for seed dispersal and weed colonization.

Hunting is a consumptive, high-impact recreational activity that will grow in popularity with the growth of the LORP; hunting can alter behavior, population structure, and distribution patterns of wildlife, and is therefore managed by state and federal agencies. Particularly sensitive ecological areas included in the LORP may require set-asides with no hunting or shooting activities allowed in the recreation management plan. The social implications of hunting include safety and some user conflict with other recreationists. Under a multiple-use framework, management must take care to satisfy all users, and hunting activities will require more intense

recreation management, as well as hunters compliance with rules of access and use if they are going to continue hunting activities in the LORP.

The use of ORVs (mechanized recreational vehicles) is another consumptive and high-impact activity that is prevalent in the Owens Valley, and an activity that will certainly increase as tourism increases. ORV use is high impact on natural resources, causing major disturbances to wildlife and habitat. ORV users also have a history of conflict with other users within multiple use frameworks. Like hunting, ORV noise is a disturbance factor for other recreational users, but extensive damage to resources is the primary cause of conflict. In order to sustain and promote the multiple uses of the LORP area, recreation management of ORV use will need to be significant; ORV use may need to be curtailed until appropriate recreation management for ORV use can be put into effect.

There are several side-effects of recreational use in the LORP that will require recreation management. Refuse and litter is a by-product of many sorts of recreational activities and management of the resource must provide local strategies to monitor and clean high-use sites in the LORP. Litter can disturb and tarnish the attraction of the recreational resource, and thereby negatively impact tourist motivation to use the resource. Crowding is also a potential general concern as the LORP gains more attention and recreational use demand. Trail and road overuse can lead to dust problems, limited parking could strain relations among users, and user encounter levels could detract from the natural recreational experience.

Invasive species and noxious weeds, such as perennial pepperweed and bassia are worrisome within the LORP. The spread of these plants not only displaces native species but reduces the habitat quality for wildlife in the area. Hiking trails, parking areas, boat launches, and other recreation components need to avoid the spread of noxious and invasive species. Monitoring of these deleterious species is already occurring under the LORP but site specific monitoring may need to be implemented to ensure containment.

## **LORP Goals**

For this high level environmental review we feel it is imperative to address two overriding concerns for the RUP; Will habitat (T&E) be affected, and could noxious and invasive weeds be spread. Fortunately, these two concerns are addressed in multiple aspects of the LORP. Below presents some of the LORP goals which address these concerns, thus addressing them in the RUP is nothing new to the project partners.

The overall goal of the LORP, as stated in the MOU (1997), is as follows:

*The goal of the LORP is the establishment of a healthy, functioning Lower Owens River riverine-riparian ecosystem, and the establishment of healthy functioning ecosystems in the other elements of the LORP, for the benefit of biodiversity and threatened and endangered species, while providing for the continuation of sustainable uses including recreation, livestock grazing, agriculture, and other activities.*

An important objective stated in the LORP guiding documents is, “*The LORP should provide for continued and sustainable uses including recreation...*” But also, “*management of recreational use must be consistent with the other goals of the LORP.*” Recreation use cannot conflict with or inhibit the overarching LORP responsibilities to:

- Establishment and maintenance of diverse riverine, riparian and wetland habitats in a healthy ecological condition.
- Create and maintain through flow and land management, to the extent feasible, diverse natural habitats consistent with the needs of the "habitat indicator species." These habitats will be as self-sustaining as possible.
- Compliance with state and federal laws that protect Threatened and Endangered Species.
- Management consistent with applicable water quality laws, standards and objectives.
- Control of deleterious species whose presence within the Planning Area interferes with the achievement of the goals of the LORP.
- Management of livestock grazing and recreational use consistent with the other goals of the LORP.

### **LORP Monitoring and Adaptive Management**

The LORP is a very complex project. Not only is the restoration and ecology of the project multifaceted, but the LORP legal agreements that direct, and often dictate, the procedures to be followed for the future management of the LORP are limiting factors that define the boundaries of management and monitoring. The RUP will need to conform to these existing conditions and work within the guidelines while also avoiding environmental conflicts.

The *LORP Monitoring, Adaptive Management and Reporting Plan (2008)* describes the methods used to collect baseline data and conduct future monitoring of environmental conditions in the Lower Owens River Project (LORP) area. This document describes the management objectives and actions, scientific background, concepts and studies, baseline data, monitoring methods, data management, data analysis and reporting, quality control, and adaptive management methods for the LORP. The LORP is divided into four management areas: the riverine-riparian area, Blackrock Waterfowl Management Area, Delta Habitat Area, and off-channel lakes and ponds. Monitoring will occur for 15 years upon implementation of the LORP. The RUP will have attributable monitoring needs that may affect the project and will need to be considered as part of the overall monitoring and analysis plan. Recreation impacts, both short and long term will affect the viability of the LORP and will be important considerations in the management of the landscape and use.

The driving tool of adaptive management is environmental monitoring. Monitoring data is used to measure progress toward a desired management objective over time. Data provides the necessary information to allow managers to adapt actions and methods to on-the-ground circumstances and unforeseen events. Successful adaptive management is dependent upon a monitoring program that provides a reliable measure if change occurs in ecosystem components. The LORP monitoring program focuses on primary, macro-scale environmental components such as water flow, water quality, vegetation, habitat, range condition and fisheries. Recreation use and impacts will need to be defined, monitored and analyzed as part of the overall LORP management plan.

## **Riverine-Riparian Corridor and Paddle Routes**

The LORP riverine-riparian, and off channel wetlands and ponds are the areas critical environments. These areas are the most dynamic and complex units ecologically. Currently, tules and cattails restrict the channel almost everywhere, and will require annual maintenance (at minimum) to keep channels open for boating. Even with channel maintenance only canoes, kayaks and float tubes are permissible craft to be using. Paddling any river section can be difficult given the amount of in-channel vegetation. It is critical that sensitive environmental features and functions in these areas are considered carefully during the planning of the RUP.

Given current river flows and ecological conditions of the river channel, maintenance of floatable sections will need to be cleared frequently (at least annually) to keep channel sections open. Perhaps in time, if flow conditions change, the channel will develop more areas of open water. But, it will likely never be a continuous open channel in the river system. Floating the Lower Owens will likely always be a challenge given aquatic vegetation growth.

Given the limiting factors toward recreation for 'paddle trails' it is appropriate to focus on shorter sections or areas of the river where access is easier, channel conditions are somewhat naturally moderated, and opportunity for dense aquatic vegetation growth is somewhat less.

[Pages 1 and 2 are only needed when preparing a “checklist” IS. If checklist will be appended to the CEQA environmental document, proceed directly to Page 3 and use that as the beginning of the checklist.]

## CEQA Environmental Checklist

### PROJECT DESCRIPTION AND BACKGROUND

Project Title:	
Lead agency name and address:	
Contact person and phone number:	
Project Location:	
Project sponsor's name and address:	
General plan description:	
Zoning:	
Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation.)	
Surrounding land uses and setting; briefly describe the project's surroundings:	
Other public agencies whose approval is required (e.g. permits, financial approval, or participation agreements):	

### ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project. Please see the checklist beginning on page 3 for additional information.

<input type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agriculture and Forestry	<input type="checkbox"/>	Air Quality
<input type="checkbox"/>	Biological Resources	<input type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Geology/Soils
<input type="checkbox"/>	Greenhouse Gas Emissions	<input type="checkbox"/>	Hazards and Hazardous Materials	<input type="checkbox"/>	Hydrology/Water Quality
<input type="checkbox"/>	Land Use/Planning	<input type="checkbox"/>	Mineral Resources	<input type="checkbox"/>	Noise
<input type="checkbox"/>	Population/Housing	<input type="checkbox"/>	Public Services	<input type="checkbox"/>	Recreation
<input type="checkbox"/>	Transportation/Traffic	<input type="checkbox"/>	Utilities/Service Systems	<input type="checkbox"/>	Mandatory Findings of Significance

## DETERMINATION:

On the basis of this initial evaluation:

<input type="checkbox"/>	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<input type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
<input type="checkbox"/>	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
<input type="checkbox"/>	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
<input type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required

<b>Signature:</b>	<b>Date:</b>
<b>Printed Name:</b>	<b>For:</b>

## CEQA Environmental Checklist

Dist.-Co.-Rte.

P.M/P.M.

E.A.

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>I. AESTHETICS:</b> Would the project:				
a) Have a substantial adverse effect on a scenic vista	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**II. AGRICULTURE AND FOREST RESOURCES:** In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ **III. AIR QUALITY:** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**IV. BIOLOGICAL RESOURCES:** Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**V. CULTURAL RESOURCES:** Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**VI. GEOLOGY AND SOILS:** Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**VII. GREENHOUSE GAS EMISSIONS:** Would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the body of the environmental document.

**VIII. HAZARDS AND HAZARDOUS MATERIALS:** Would the project:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**IX. HYDROLOGY AND WATER QUALITY:** Would the project:

a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**X. LAND USE AND PLANNING:** Would the project:

a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**XI. MINERAL RESOURCES:** Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**XII. NOISE:** Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**XIII. POPULATION AND HOUSING:** Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**XIV. PUBLIC SERVICES:**

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>XV. RECREATION:</b>				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**XVI. TRANSPORTATION/TRAFFIC:** Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**XVII. UTILITIES AND SERVICE SYSTEMS:** Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### **XVIII. MANDATORY FINDINGS OF SIGNIFICANCE**

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>