Public Input on Protecting Floodplains in the Carson River Watershed

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Introduction
In 2003, the Carson River Coalition (CRC) surveyed its members to determine the most important message that the public needs to understand about the Carson River Watershed. Coalition members voted that protection of floodplains through creation of a no-development corridor along the river is the main message for public outreach.

This main message was worded by coalition members as follows: “Protect the floodplain from future development. Once the floodplain – and especially the river’s meander belt corridor – are impacted by development, the river loses the ability to reestablish its natural functions. Agricultural fields near the channel are critical for floodwater attenuation, groundwater recharge, nonpoint source pollution buffering, and providing habitat for wildlife.”

A CRC subcommittee, called the River Corridor Working Group, was formed in 2005 to heighten community awareness and develop strategies for protecting the Carson River floodplains. The work of this group has raised support for floodplain protection. The process and findings reported herein inform both local decision-makers and watershed managers in other communities that face similar threats of development in their important floodplains.

Methodology
The River Corridor Working Group designed a community presentation about the river corridor concept, along with a companion questionnaire. The questionnaire (Appendix A), was completed by attendees following the presentation. It sought to identify the number of people in favor of preserving a river corridor, factors most important to consider in determining corridor width, and mechanisms best suited for establishing a corridor.

The presentation, “Protecting Our Lifeline in the Desert: the Carson River Corridor,” was made to 14 groups throughout the Carson River Watershed, from the headwaters to

Table 1. Audience groups receiving the Carson River corridor presentation 2005-06.

- Alpine Watershed Group
- Douglas County Water Conveyance Committee
- Washoe Tribal Council
- Carson River Advisory Committee (2 presentations)
- Washoe Tribe Environmental Staff
- Carson Valley Kiwanis
- Floodplain Managers
- Carson Valley Conservation District
- Dayton Valley Conservation District
- Carson River Coalition
- Carson City Open Space Advisory Committee
- Lahontan Valley Environmental Alliance
- Carson Valley Sertoma
Fallon in the Lahontan Valley, in 2005 and 2006 (Table 1). There were 292 attendees and three presenters. Ninety attendees completed the questionnaire, for a response rate of 31 percent.

**Protecting the Corridor**
Results showed that all 90 respondents were in favor of preserving a river corridor. The reasons they gave for preserving a river corridor are identified in Table 2. The majority of respondents felt that a river corridor should be preserved for the purpose of flood control. Many identified wildlife habitat, life and property safety, water quality / quantity, natural resource system, and aesthetics as main reasons to preserve a corridor. Others felt that a corridor would benefit open space, water conveyance, recreation, future generations, agriculture, and the remaining undeveloped lands.

**Determining Corridor Width**
Questionnaire respondents identified factors they deemed most important to consider for determining river corridor width (Table 3). The three factors most respondents felt were critically important included wildlife / riparian habitat, flood protection, and channel movement and meander path. According to respondents, these should be considered primary determinants for planners calculating width of the corridor.

Other factors were identified by some respondents as important, but to a lesser degree overall. A few reasons were offered by respondents as to why these factors are important to consider. In regard to wildlife habitat and natural channel movement, respondents felt that river natural functions are of the utmost importance and that the community needs to recognize the importance and preservation of nature.

### Table 2. Reasons given for preserving a river corridor.
- Flood control & recognition of historic floodplain (20)*
- Wildlife habitat (15)
- Life & property safety (13)
- Water quality / quantity (12)
- Natural resource & natural system (12)
- Beauty, aesthetics, our life-line (10)
- Open space (4)
- Water conveyance (4)
- Recreation, fishing (3)
- Future generations (2)
- Agriculture / irrigation (2)
- Save what we have left (2)

*Number in parentheses is number of responses*

### Table 3. Primary factors to consider in determining river corridor width.
- Wildlife / riparian habitat (52)*
- Flood protection (51)
- Channel movement & meander path (51)
- Water pollution & sedimentation control (39)
- Fish & aquatic life (36)
- Elevation / topography / slope (31)
- Agriculture preservation (31)
- Cultural / historic values (22)
- Recreation values (19)
- View shed (16)
- Historic floodplain (12)
- Peak flow (2)
- Future generations (1)
- Property rights (1)

*Number in parentheses is number of responses*
A few respondents also offered reasons regarding clean water and the fact that it is the staple of life and of human communities. Those who identified flood protection as the primary width factor felt that historic data and the 100-year floodplain should be used. Those who advocated agricultural factors as being most important to consider in determining corridor width felt that agriculture is the best use of undeveloped land.

**Approaches to Establishing a River Corridor**

Lastly, respondents were asked to identify the best approaches to honor private property rights and keep the river corridor lands free from development. Most felt that the best approaches were to impose zoning and setback regulations, and to purchase development rights and create conservation easements (Table 4). All other mechanisms were identified as good approaches, but to a lesser extent.

Reasons supporting zoning and setback regulations suggested that approach would provide equal protection for future generations. Many respondents offered reasons supporting the lease or purchase of properties, saying that landowners must be compensated for the value of their property and/or the rights they give up. Some said that we must have public control of these properties, while others suggested that public ownership leads to degradation of land by neglect. Reasons to pay lease on property for not developing it also included the respect society owes farmers and the fact that it would be a cost-effective means of retaining our agricultural base. A reason offered to support bonus transfer development rights was that that approach would provide incentive for riverfront property owners. “Not planning for the future is truly ignorant” was a reason suggested for collaborative regional planning.

Finally, a few respondents gave reasons why all approaches should be made available, saying that all are important, that different landowners need different incentives, and that each individual area should be dealt with independently.

<table>
<thead>
<tr>
<th>Table 4. Mechanisms recognized as best approaches for establishing a river corridor.</th>
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<tbody>
<tr>
<td>♦ Zoning &amp; setback regulations (54)*</td>
</tr>
<tr>
<td>♦ Purchase development rights &amp; create conservation easements (43)</td>
</tr>
<tr>
<td>♦ Compensate landowner (lease) for not developing (37)</td>
</tr>
<tr>
<td>♦ Collaborative regional planning (34)</td>
</tr>
<tr>
<td>♦ Education &amp; outreach (27)</td>
</tr>
<tr>
<td>♦ Transfer development rights with added bonus for rights within corridor (26)</td>
</tr>
<tr>
<td>♦ Public purchase of property (20)</td>
</tr>
<tr>
<td>♦ State legislative action (1)</td>
</tr>
<tr>
<td>♦ Developer must be bonded and be responsible in perpetuity (1)</td>
</tr>
</tbody>
</table>

*Number in parentheses is number of responses
**Study Limitations**

There were limitations to this assessment. The questionnaire was administered at the conclusion of the river corridor presentation. This sequence was intended, as it was presumed the audience would be unable to answer questions posed without explanation provided in the presentation. The presentation was biased toward preservation of floodplains close to the river, which may have swayed the respondents’ views on the issue. Additionally, the questionnaire was given to audiences that requested the presentation. Certain groups were targeted, such as agricultural organizations representing landowners adjacent to the Carson River. It was supposed that some of the groups requesting the presentation were sympathetic to river corridor preservation prior to the presentation.

No attempt was made to obtain the views of the nonrespondents, as their identity is unknown. These results may not be used to reflect the views of the general public, but only of those who witnessed the presentation.

**Summary**

In summary, a Carson River Corridor presentation was given to 292 attendees throughout the Carson River Watershed, with 31 percent completing a questionnaire. All respondents supported the need to preserve a river corridor. Factors most important to consider in determining corridor width were identified as wildlife / riparian habitat, flood protection, and channel movement and meander path. Mechanisms identified as best approaches to establishing and maintaining a river corridor included zoning and setback regulations, and the purchase of development rights and conservation easements.

“Zoning and setback regulations, and purchase development rights and conservation easements” were considered the best approaches for preserving a river corridor. (Photo by John Warpeha, 2006)

“Wildlife and riparian habitat, flood protection, and channel movement and meander path” were identified as primary factors to consider in determining Carson River corridor width. (Photo by Steve Lewis, 2006)
Resources


River Corridor Questionnaire

1) Should a Carson River corridor be protected? Yes____ No____

Why? __________________________________________________________

2) Which of the following factors are most important to consider for determining river corridor width? (check all that are most important)

☐ Cultural / historic values
☐ View shed
☐ Elevation / topography / slope
☐ Channel movement & meander path
☐ Recreation values
☐ Wildlife / riparian habitat
☐ Flood protection
☐ Water pollution & sedimentation control
☐ Fish & aquatic life
☐ Agriculture preservation
☐ Other _______________

Why might these be the most important? ______________________________

3) Identify the best approach to honor private property rights and keep river corridor lands free from development (check all that are best).

☐ Purchase development rights & create conservation easements
☐ Collaborative regional planning
☐ Zoning & setback regulations
☐ Education & outreach
☐ Transfer development rights with added bonus for rights within corridor
☐ Compensate landowner (lease) for not developing
☐ Public purchase of property
☐ Other _______________

Why might these be the best? ______________________________________

______________________________________________________________

Thank you!

Please complete on site or mail to CRC River Corridor Group, c/o Steve Lewis, Box 338, Minden, NV 89423