

CARSON RIVER ADVISORY COMMITTEE
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A regular meeting of the Carson River Advisory Committee was scheduled for 5:30 p.m. on Monday, January 26, 2009 in the Community Center Sierra Room, 851 East William Street, Carson City, Nevada.

PRESENT: Chairperson Randy Pahl
Vice Chairperson Paul Pugsley
Member Dan Greytak
Member Mark McCubbin
Member Ernie Rink
Member Lacy Sheck

STAFF: Vern Krahn, Park Planner
Ken Arnold, Deputy Public Works Director
Kathleen King, Recording Secretary
Jano Barnhurst, Recording Secretary

NOTE: A recording of these proceedings, the committee's agenda materials, and any written comments or documentation provided to the recording secretary during the meeting is a public record, on file in the Clerk-Recorder's Office. These materials are available during regular business hours.

CALL TO ORDER (5:31:40) - Chairperson Pahl called the meeting to order at 5:31 p.m.

ROLL CALL AND DETERMINATION OF QUORUM (5:31:40) - Roll was called; a quorum was present.

CITIZEN COMMENTS ON NON-AGENIZED ITEMS (5:32:06) - None.

1. ACTION ON APPROVAL OF MINUTES - October 1, 2008 (5:32:20) - Member Sheck moved to approve the minutes. The motion was seconded. Motion carried 5-0.

2. MODIFICATIONS TO THE AGENDA (5:32:37) - None.

3. AGENDA ITEMS:

3-A. PRESENTATION ONLY REGARDING ISSUES ASSOCIATED WITH EFFLUENT (REUSE) WATER ON NEWLY ACQUIRED CARSON CITY AGRICULTURAL PROPERTIES ADJACENT TO THE CARSON RIVER AND LANDS IRRIGATED BY THE MEXICAN DITCH. (5:32:46) - Chairperson Pahl introduced the item. Steve Walker of Walker and Associates introduced himself via a biography consistent with the agenda item included in the agenda materials. He gave a presentation regarding the Carson River on an easel map presented to the members. He is working with Juan Guzman with the Carson City Open Space program on the environmental assessment of the acquisition of lands who asked him to look at the Gerard and Anderson properties and the Silver Saddle Ranch. He is analyzing what would happen if water rights on an irrigated parcel were

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sold and developed someplace along the Carson River with induction wells and sent the water to Dayton for development. Options were negotiated with private property owners. However, they are waiting for the housing industry and economy to recover and for water demand in Dayton to increase. He was asked how to use effluent on these properties to replace the Carson River or Alpine water supplies. After doing the initial property review, he made the assumption that if it was to be irrigated now, the existing irrigation system would be used for distribution of effluent. If the existing irrigation system is not used, it could be converted to a sprinkler system. The irrigation distribution system could also be changed to more efficiently apply the water to the land. The option to keep the original irrigation system was an effluent from the Carson Wastewater Reclamation Facility that is stored in a reservoir which has a leakage issue, some of which is going in the river.

In 1849, first priority on the water rights on the Carson River existed. Old oxbow channels were flood channels that were established during flood periods and if they were cut deep enough, and the bottom of the channel was at the same elevation as the surface water of the river during low or medium flows, those channels held water and were very important to wildlife habitat. They were loaded with leopard frogs and western turtles. The habitat could be reestablished if the effluent water was stored in the existing wetland areas. It would also provide a storage facility so there wouldn't be a mechanical or hydraulic problem of trying to deliver a large flow of effluent all at once. Typically, those ditches would require six to seven cubic foot per second (CFS), eight to nine CFS in a ditch, or 448 gallons per minute. Significant water flows were needed because that's what the irrigation system was built on. If the effluent could be stored in the existing wetlands and pumped, then those type of flows could be created and pumped into the existing systems. There were issues with discharge to the river. The last time there was waste water or treated waste water discharged into the Carson River was in the late 1980s. There was a moratorium that there would be no more discharge into the Carson River and standards were placed that if there was discharge, the standards would have to be met. The most limiting standard on the Carson River for highly treated effluent is phosphorus. It's very hard to meet a phosphorus standard without going to a tertiary treatment of effluent. The strategy is no effluent into the River, recreation of the wetlands and getting enough flow out of the storage area to replicate surface irrigation out of the Mexican Ditch. Carson City's treatment has the best effluent reuse program of anyone on the Carson River as far as redistributing it for parks, athletic fields, prison farm, and golf courses. When the reuse system was being developed, nitrogen was a positive because it was almost always in turf applications. There was not a nitrogen and ammonia reduction process in the treatment. Although that works well in agricultural applications away from a stream or park, when trying to replicate old environmental situations like oxbows and biotic communities for fisheries, it will require macro invertebrates. The water can't contain the type of ammonia that Carson City's effluent has. There was an immediate problem from a wetlands restorations scenario that effluent water quality was going to be limiting as far as recreating fisheries. Because of the water quality, it also was going to be required through the State and EP to not have any contact with ground water and not any flow back into the river. There's a choice as to how to use this water in a replacement of irrigation water on a field next to a river that the open space committee is going to acquire. It has been suggested and potentially planned to add another treatment process to the effluent coming out of the plant to use the water for environmental restoration. Another option is to meet the requirements of the State and use the water as it is which would cause a lot of infrastructure costs to irrigate with it. Everything has been somewhat

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slowed down on this project because growth is needed to have more effluence. The projections of growth that were being made five years ago don't exist today. The state demographer has revised most of the growth projections showing that the expectation of increasing growth from 60,000 to 72,000 is going to occur over the next 20-25 years.

Volcanic soils break down into clays and tend to seal well so they would be good soils and a good site for a pond. If there is fracturing, there can be very large discharges of water. The reservoir never got full because it was leaking about 2,000 acre feet a year and discharging into the Carson River below the mill sites. Water quality of effluent is improved going through soils and fractured volcanics. What goes into the river after that unimpeded treatment is very close to meeting river water quality discharge standards. It's permitted water that comes from either the surface water system or groundwater system and now is going into the river. It could be captured before it goes into the river, use it at a certain site because it's a high enough water quality, it wouldn't cost as much, it wouldn't be as restricted, it wouldn't kill macro invertebrates and would make good restoration water. It could potentially be marketed downstream. If enough effluent can't be generated to irrigate 500 acres, that's 2,000 acre feet. Something that may be less aggressive may be to re-create how it was pre European man. The water resource demand would be significantly less. Old oxbow channels could be created, and make better river restoration projects where the ground water adjacent to the river and the surface water within the river are the same elevation for a wider range to encourage a wider repairing area and offset oxbow wetlands. That area was originally a cottonwood flood plain and perhaps it could be re-created as such. Some of the water resource for oxbow offsite channels could be used so they would be on the outside of the cottonwood flood plain and you could have that surface water in the oxbow channel at the same elevation as the groundwater is to the river water.

(5:52:13) In response to a question, Mr. Walker replied that cost estimates will be coming if things move forward. Things are at a standstill because it is unclear as to when anything will happen, i.e., increased resource created by growth, option to buy surface water rights, induction wells, move to Dayton. Mickey Anderson and the Merchant Ranch are irrigating both places. It is being diverted out of the Mexican Ditch and irrigated surface water until all of this happens. Nothing is planned right now or is there a schedule for it. For limited funding, these options can be looked at at a planning level and when the economy and resources improve, the plan could be developed.

(5:53:42) In response to a question, Mr. Walker replied that the 500 acres is the Anderson/Gerard property north of the road and doesn't include the Silver Saddle Ranch. The Silver Saddle Ranch is water short in that when Carson City acquired it, the agricultural surface water right was converted to a Municipal and Industrial Right (MNI). It is still being irrigated with a MNI which means that 4 ½ acre feet duty of agricultural right goes to 2 ½ acre feet when it converts to municipal right. He doesn't know if there is a resource to make up the difference to get the Silver Saddle Ranch back into full irrigation. There may be some type of mix of reduced agriculture and river restoration. The Carson River from Lloyd's bridge down has tremendous potential for restoration and recreation of cottonwood flood plain forests. The decision on how to do it needs to go through a public process and visioning. It's uncertain if there are the water resources to buy these ranches and keep them green and convert the existing water resource irrigated to a municipal industrial supply.

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(5:56:32) In response to another question, Mr. Walker stated that the water rights would be sold down stream once the option is exercised on Gerard and Anderson but it has not yet been finalized. Carson City acquired the water rights on the Merchant, but converted them to MNI and are still using those MNI rights to irrigate the Merchant Ranch. The full duty can't be diverted because it was reduced by 62.5 of the water rights.

(5:57:50) Mr. Krahn added that when working with BLM to create the interdisciplinary management plan for the Silver Saddle Ranch, they were aware of issues with water rights and management of the property, so the southern fields were allowed to go back into a natural state. The transition is happening on the lower fields and the focus of what water rights are being used on the Silver Saddle Ranch is to keep the area around the house and close to the road green and in production for agricultural use.

(5:58:48) Mr. Walker then commented that to reduce the irrigated area and make a more natural river situation, as soon as irrigation is abandoned, a habitat for tall white top invasion is created unless something is done to prevent it. It will take an aggressive plan and will involve retaining some of the initial irrigation water to reestablish, or mix native and introduced perennial grasses adapted to that site.

(6:00:36) Mr. Greytak commented that one of his concerns is getting the land but losing the water. If agriculture would be sustained, cows could be grazed across from what may be growing there but the character of that pastoral situation is going to shrink up if there aren't new sources of water coming through. If the Mexican Ditch dries up because water is not being taken out of the river, a lot of the upper wetlands area will dry out. The river channel is about eight feet lower than the field.

(6:01:38) In response to a comment, Mr. Walker stated that only 50 percent of water diverted is returned to the wastewater system and conversion will create a water deficit. There are options to make it up and as a community, there is time to make a decision. More planning is needed and better cost estimates to make a decision, but looking at it from a 10,000 foot level, there are other issues to solve.

(6:03:11) Vice Chairperson Pugsley commented that the prison used to take a vast majority of the effluent water when the system was first converted. He expressed his belief that their water use has declined from its original level and is curious as to what the plans are if there is a quantity that could be captured from that source if it isn't being used. Mr. Arnold replied that there is no significant reduction where some has been taken out as they've used it where they could. Recently, a plan was established taking 12-15 acres out of production for a training facility on the northwest corner of the prison. There will be some reduction in irrigation. One of the details which needs to be resolved is the discharge permit for springs at the river, the leakage from the reservoir. It's made it through the EPA and is out for public review. When a permit is obtained, it will open options. The reason a lot of questions haven't been answered so far is due to waiting for the completion of that process.

(6:06:47) Mr. Walker commented that Carson City is a geographically close community and should always integrate its planning. Having an open space plan and acquisition and replacing water, has to be integrated with facilities planning from wastewater and treatment supply.

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(6:07:22) Mr. Arnold added that Silver Saddle conversions on 240 acre feet is still in the MNI. He said that Carson City can't get it back until it can be replaced with treated effluent.

(6:08:03) Chairperson Pahl commented that it wasn't clear to him why they were short on water at Silver Saddle. He thought perhaps some of the water had been transferred downstream and he didn't realize it had been converted.

(6:08:29) Mr. Walker stated that if there is slow growth and water was planned for growth, that's why it was converted, then there would be an option to make the application the other way. Operating on the Carson River affects other things. It has always been the concept of the Carson River that the flow picks up downstream on Cradlebaugh bridge because of basic groundwater discharge into the system from the Carson Valley. There's increased pumping in Carson Valley which is being analyzed and there could be reduced groundwater discharge. The late summer flows based on spring irrigation of Carson Valley discharge into that system may be reduced. Other hydrologic dynamics are happening on the Carson River and so planning needs to be expanded to recognize what's going on upstream.

(6:10:02) Chairperson Pahl approved of Mr. Walker's comments on integrated planning. He used to believe that all that land would be kept green, but that now seems unrealistic to keep it irrigated as it has been. Perhaps a blend of some reduction in irrigation with oxbows and more different trails through the land could be considered and not the active agriculture as is seen today.

(6:10:44) Mr. Walker commented that Riverview Park is an abandoned agricultural field with oxbow wetlands against the west side of the flood plain. That could be done in a more managed sense.

(6:11:04) Chairperson Pahl commented that he hopes that some efforts can be made in establishing better plans in terms of how this can be used in the future, or what's going to happen with the water and future effluent. In response to a question, Mr. Arnold replied that there has been a long wait to complete the process to know in which direction to move. From the beginning of this whole process, the water outlook has been changing. Drinking water resources and fire protection issues are being considered.

(6:12:15) In response to a question, Mr. Arnold replied that reuse plans will be revisited as some point in the future once the permit is issued.

(6:12:46) In response to a question, Mr. Walker stated that if someone wanted to sell a surface water right, priority would be lost. For example, an 1862 right would then turn into 2009 right. The only way to effectively use a 2009 right for municipal uses on a river that's as over allocated as the Carson River is to take 40 percent of the water in one month. There could be additional effluent from dischargers in Lake Tahoe's plants to go into Carson Valley to discharge their water. They are looking at higher value than just selling it to an agricultural reuse operation. There will be competition for enhanced use of reuse water for more than just agricultural uses. Moving a surface right down doesn't make sense.

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3-B. DISCUSSION AND UPDATE ONLY REGARDING THE CARSON RIVER ADVISORY COMMITTEE'S DEVELOPMENT ON AN ANNUAL WORK PLAN AND GOAL-SETTING WORKSHOP WHICH WAS HELD ON SATURDAY, JANUARY 10, 2009

(6:16:32) - Chairperson Pahl introduced the item and Mr. Krahn reviewed the staff report which was incorporated into the record. He gave a synopsis of the workshop. Staff was very excited about it and had the opportunity to spend time going over some issues. The notes taken at the workshop were a baseline of ideas and thoughts to develop more specific plans. He was open to suggestions on how to handle the notes and proceed with this item.

(6:20:35) Chairperson Pahl praised Mr. Krahn on a great job of capturing everything as there was a lot of information. He also commented that Steve Lewis did a great job of keeping them on task. Some details were laid out on the natural resource plan, but there wasn't an opportunity to talk more about identifying some of the access issues and follow-up activities that will need to be done.

(6:21:36) Mr. Krahn commented that this is first time this committee has gone before the Board of Supervisors. There is no staff liaison and they do their best to communicate down the line what the Board wants and vice versa. When things go up to the Board, they try to communicate what the intent is from the committee, but it's nothing like being in the same room as the Board of Supervisors and getting their thoughts and concerns directly to this committee. It will be a real opportunity for this committee to introduce itself to the Board of Supervisors.

(6:23:23) In response to a question, Mr. Krahn replied that he is not aware of the discussions regarding the outcome of the Board of Supervisors' strategic planning session and hopes they won't be eliminating any committees. He also noted that there may be nothing that comes out of that session which affects the Carson River Advisory Committee.

(6:24:08) Vice Chairperson Pugsley inquired as to whether it was appropriate to provide the set of goals to the Board of Supervisors. Mr. Krahn replied that he will prepare a memo and short history of what the committee's thoughts are and send it to the Board. Vice Chairperson Pugsley commented that the Board should be aware of the committee's goals and if they decided to disband the committee, he'd want them to make that decision before going to the effort of fulfilling their goals. Mr. Krahn replied that no one was talking about disbanding the committee. Vice Chairperson Pugsley suggested that they could be abbreviated down to just the goals themselves or expand it to whatever set of notes is appropriate. Mr. Krahn commented that he could edit it into a document that the Board of Supervisors could review reasonably quickly. Chairperson Pahl added that having the issues would be good and not just limit it to the goals.

(6:27:22) In response to a question, Mr. Krahn replied that he would be happy to spend time with Chairperson Pahl to create a work plan so key issues and the direction the committee wants to go can be identified. It needs to be very clear so the Board of Supervisors understands precisely what the objectives are. Based on some of the goals, changing components of the Carson River Master Plan also needs to be made very clear to the Board of Supervisors. There would be an emphasis shift from what currently is in

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the Carson River Master Plan. Considering that the Plan was adopted in 1996, some of the goals have changed and need to be modified to deal with current issues that now exist on the river. A good thing to report to the Board of Supervisors would be the accomplishment of certain things and the completion of some goals.

3-C. REVIEW AND DISCUSSION ONLY REGARDING THE SUCCESS OF CARSON RIVER FEST 2008 (AKA: CARSON RIVER WORK AND EDUCATION DAY) WHICH WAS HELD ON SATURDAY, OCTOBER 25, 2008 (6:31:07) - Chairperson Pahl introduced the item and Member Greytak reviewed the events of the work day. As the organizer, he thought it went very well. The weather was better than expected and people showed up early and eager. It wasn't difficult to obtain the three permits needed and they didn't have to pay out any money. He thanked the Parks and Recreation Department for the work trailer. They broke out into groups of 45 workers, 40 of whom had never been to Silver Saddle or on the river. He applauded Rusty Duncan at Greater Nevada Credit Union for their sponsorship and who also brought everyone out to work. He expressed his appreciation to them for their efforts and would like to see them back next time. The friends of Silver Saddle and Nancy Santos cleaned bird boxes. He thanked the Western Nevada Resource Conservation Development and the Conservation District in Carson Valley for their support in providing materials and personnel, tools, equipment and advice. He thanked the BLM for allowing them to invade their space. The facilities were good and everything worked really well. Five hundred feet of chicken wire was used. Forty gallons of paint mixed with sand was used for trees. Fifty trees and shrubs were planted along the river bank. A crew of three guys did trail work from the red house to the top of the hill. Everyone seemed to enjoy themselves and he again expressed his appreciation for the work everyone did. Mr. Krahn offered t-shirts for those who weren't able to attend. He also noted that nothing breeds success like success. He was approached for an eagle scout project and a girl scout troop. He made an appeal to the public that if someone is looking for a worthy project, facilitating and helping the committee with planning, organization, and getting donations, it's a great opportunity for a worthy eagle scout project.

4. NON-ACTION ITEMS REPORTS ONLY

4-A. MEXICAN DITCH TRAIL BRIDGE(S) PROJECT (6:40:18) - Mr. Krahn advised that work is being done along the Mexican Ditch trail near Buzzy's Ranch Road and the Carson River. The concrete abutments are in for the two bridges. The bridges are due to be in February 4-5. One bridge is completely constructed and ready for delivery. The other is still being manufactured and should be delivered in the next couple of weeks. The bridges will be 45+ foot long pedestrian bridges going in over the Mexican Ditch.

4-B. MORGAN MILL ROAD RIVER ACCESS AREA PROJECT (6:41:17) - Mr. Krahn advised that plans and designs are completed. The permits are in at all levels. The permits are in to state lands and are working their way through the system. Because of wildlife nesting issues, the target is August 1. Construction cycles are being geared to that particular time frame. It works well with lower water flows in the river and parking lots can be built. The weather is still good in late August, early September to put in the parking lots. Based on engineering estimates, there should be enough money for

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the first phase of the project with a reasonably comfortable margin. He expressed his thanks to the Airport Authority as staff was able to work with them to get all the rock needed from a hill they are taking down. Some of it will go in the river for an eddy area, some will go on the banks along with vegetative treatments. A local contractor was hired to haul the material to the project site which was a huge cost savings. The rock didn't have to be purchased and the Airport Authority was happy to get rid of it. The cost was only \$8,000 to haul it. The area has also been cleared and grubbed in preparation for the upcoming rafting season. There's more room for trailers to park, and it will provide a better area for people to unload their rafts.

4-C. CARSON RIVER PARK - PHASE 2/PARKING LOT LANDSCAPING PROJECT (6:44:48) Mr. Krahn advised that this addresses getting the well. A new variable speed pump is being installed that will address irrigation demands better than the one that's currently there. An irrigation system will be installed in the parking lot and stubbing for the expansion across the road on BLM land, and the parking lot will be landscaped in late spring/early summer. The actual planning for the expansion out on to Silver Saddle Ranch will begin this fall with construction the following year. Part of the project will be done this year, part next year. Priorities are Mexican Ditch bridges, Morgan Mill, and the Carson River.

4-D. FEDERAL LANDS BILL (6:46:15) - Mr. Krahn advised of a Nevada Appeal article included in the agenda packet regarding what is happening with the Federal Lands Bill that's been approved by the United States Senate and is on its way to the House. Things are moving ahead. If the Lands Bill continues to move forward and get the President's signature, the Silver Saddle Ranch from Prison Hill will belong to Carson City along with a number of properties along the river.

(6:47:07) Mr. Krahn stated that Tom Ferrer has served two of his terms and he is not seeking reappointment so there is an opening now on the committee. It is a citizen-at-large opening which means that anyone in the City who is interested in the river may apply for it. Some of the positions on the committee are specifically related to property owners. It's one of the few committees with the City that has identified roles of each particular member. He appealed to the public who would like to serve on this committee to apply for the open position.

(6:49:24) Mr. Krahn called attention to the agenda packet regarding the October meeting whereby the Carson River Advisory Committee by-laws have changed. The updated version with the Chairperson's signature are in their packet. Discussion at the workshop included the Advisory Board to Manage Wildlife. Mr. Krahn and Mr. Guzman discussed the southern area of the river around the end of prison hill, the south end of prison hill, and down by the prison.

MEMBERS ANNOUNCEMENTS AND REQUESTS FOR INFORMATION (6:50:45) - None.

5. FUTURE AGENDA ITEMS (6:50:53) - Mr. Krahn discussed the next meeting on March 23, 2009, which includes the work plan. The Silver Saddle Ranch, Carson River workshop, final report and recommendations are being tentatively scheduled. Some discussion has been made to have a joint meeting

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with Parks and Recreation and Carson River Advisory to go through it. Chairperson Pahl suggested the meeting in June to address some action items on the work plan. Mr. Krahn also suggested the Carson River work day for the June meeting, as by meeting only every other month, people may need to be assigned early in the process. Vice Chairperson Pugsley suggested also setting the date at the June meeting. He recommended late September or early October as a more hopeful date for good weather. Mr. Krahn stated that the October date was the date the Greater Nevada Credit Union had targeted for their organization to go out and do something in the community, but it didn't mean they wouldn't come again.

6. ACTION ON ADJOURNMENT (6:56:10) - A motion to adjourn was made by Member McCubbin and seconded by Vice Chairperson Pugsley. The motion carried unanimously.

Chairperson Pahl adjourned the meeting at 6:56:20 p.m.

The Minutes of the January 26, 2009 Carson River Advisory Committee meeting are so approved this 23rd day of March, 2009.

RANDY PAHL, Chairperson