

# **CARSON CITY STORM DRAINAGE ADVISORY COMMITTEE**

## **Minutes of the November 4, 1999 Meeting**

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A regular meeting of the Carson City Storm Drainage Advisory Committee was held on Thursday, November 4, 1999 at 5:30 p.m. in the Utilities Department Conference Room, 3505 Butti Way, Carson City, Nevada.

**PRESENT:** Chairperson Jay Aldean  
Vice Chairperson Howard Anderson  
Delacy Perry  
Russell Plume

**STAFF:** Mahmood Azad, Development Services Manager  
Randy Bowling, Consultant  
Kathleen King, Recording Secretary  
(SDAC 11/04/99; Tape 1-0001)

**NOTE:** Unless indicated otherwise, each item was introduced by Chairperson Aldean. A tape recording of these proceedings is on file in the Clerk-Recorder's Office, and is available for review and inspection during regular business hours.

**A. ROLL CALL AND DETERMINATION OF A QUORUM** (1-0051) - Chairperson Aldean called the meeting to order at 5:36 p.m. Roll call was taken; a quorum was present. Members Bawden, Hildebrand, and Oakwood were absent.

**B. APPROVAL OF MINUTES** (1-0077) - Member Perry moved to approve the October 11, 1999 minutes. Member Plume seconded the motion. Motion carried 4-0-3-0.

**C. MODIFICATION OF AGENDA** - None.

**D. PUBLIC COMMENT** (1-0070) - None.

**E. DISCLOSURES** (1-0074) - None.

**F. PUBLIC MEETING ITEM**

**F-1. PRESENTATION BY WRC NEVADA, INC. ON EXAMPLES OF DRAINAGE MASTER PLANS** (1-0090) - Mark Forest, Executive Vice President of WRC Nevada, provided background information on his firm and current projects in Carson City. Mr. Azad provided information on WRC Nevada's past involvement with drainage projects in Carson City, and advised that WRC Nevada is the recommended consultant for development of Carson City's storm drainage master plan. Mr. Forest explained the primary purpose for a storm water master plan, and discussed its step-by-step development. Initial assessments of locations, sizes, conditions, and capacities of existing drainage improvements are needed. A detailed hydrologic analysis of the system follows to determine the range of discharges contributing to the existing facilities. Current levels of protection are then assessed. The desired level of protection is then determined in order that the focus of retrofit improvements can be assessed. Detailed analyses of alternatives, such as detentions in the upper watershed and conveyance networks, follow. As has been discovered with the Carson City freeway project, significant savings can be realized in constructing upstream detention as opposed to downstream improvements. Upstream detention results in reducing flood plain widths between improvements which affects property values, maintenance impacts, emergency access, etc. Once the best alternatives have been identified through cost/benefit analysis, a master plan can be developed which delineates the facilities, and assesses costs for each element of the master plan. Financial analysis of available funding alternatives is part of the task. Funding mechanisms include a flood control district statute, sales tax revenue, a storm water utility, a general improvement district, or a special assessment district. Using the example of a storm water utility, Mr. Forest explained that the typical range of acceptable costs to the public can be identified based upon data from other communities. Revenue from the utility can be determined based on a range of fees which, in turn, determines the rate at which facilities can

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be constructed. Improvements in the master plan can then be prioritized based upon a range of criteria in terms of the most imminent needs, public hazard, greatest maintenance costs, etc. Mr. Forest displayed the Washoe County Master Plan, and explained that it was to be done in two stages. The first was a conceptual flood control master plan to identify the order of costs associated with the program. It had the effect of "sticker shock" in that although a cost assessment had been done, the politicians typically looked at the bottom line and determined that implementation was not feasible. In addition, the plan was submitted at the same time the fair share tax bill was passed, and much of the revenue from the northern communities was being shifted to southern Nevada. Thus, proceeding to the second phase was determined to be impossible. Mr. Forest emphasized the importance of timing, selling the program, and education, and added that Mr. Bowling's expertise will be beneficial in these areas. Mr. Forest presented and reviewed a graphic representation of the Northwest Alternatives Study Area which was done because of potential impacts to phase one of the freeway. He explained that alternatives for off-site detention were explored to reduce NDOT's costs, and to facilitate some of Carson City's master planning needs. This project included the gravel pit detention basin which is located off the freeway just past Arrowhead Drive, and includes conveyance as well as detention facilities. He reviewed the five major detention facilities in the northwest project, as follows: Shenandoah Heights - the gravel pit detention basin which will be expanded to handle diverting drainage, as well as the drainage above it, to a rate at which it can be conveyed into NDOT's facilities; Eagle Canyon Detention Basin - currently being designed to detain the flow so that the flood plain which currently follows Carson Street all the way to Hot Springs Road will be eliminated. (This is also the reason for the "monstrous channel" in front of K-Mart); Silver Oak - the driving range, fairway 1, and fairway 18 are currently being retrofitted as detention basins; Timberline/Combs - the conversion will be directed into the driving range detention basin and will provide a considerable amount of reduction in the peak discharges which have to be intercepted by downstream facilities. These facilities will essentially eliminate the wide flood plain and the shallow flooding below Shenandoah Heights. Mr. Forest went on to explain that the northwest area represents the type of planning effort needed for the four other major areas of the community. These include the southwest area encompassing Ash, Kings, and Vicee Canyons; Clear Creek; the southeast area where most of the drainage ultimately has to be conveyed through to the outlet; and the northeast area, encompassing the Airport, which drains directly to the Carson River. He referred the Committee members to sample master plans prepared by WRC for other communities. Discussion ensued with regard to the cost of developing a master plan, and Mr. Forest advised that the range is typically from \$15,000 to \$25,000 per square mile depending on the complexity of the problems presented. Higher costs are usually incurred for communities like Carson City where the older part of town is located in the lower part of the basin, and is fully developed without the benefit of adequate drainage facilities. The primary alternative in that case is upstream detention. The cost of the sample master plans presented were in the range of \$100,000 to \$200,000. Mr. Forest explained that cost is directly related to the level of detail. A conceptual level master plan ignores utility impacts and requires them to be assessed using approximate costs and typical percentages. Once the plan is implemented, the individual projects may be more or less expensive depending upon detail. The more detail developed into a master plan results in a better understanding of actual construction costs at implementation. Mr. Azad advised that Mr. Forest has provided a preliminary proposal for developing the master plan which includes financial analysis by FCS of Seattle. Mr. Forest explained that FCS is a firm specializing in municipal financing. He has worked with them in the past, and FCS has considerable experience in this area with the Indian Hills GID, Washoe County, Cities of Reno and Sparks, and communities at the Lake. FCS staff is familiar with Nevada's public financing statutes, has had direct experience with Carson City, and has a great deal of experience in establishing storm water utilities and rate structures for financing public infrastructure. Discussion followed with regard to funding mechanisms, and Mr. Azad explained that money channeled into the enterprise fund from the water and wastewater utilities cannot be used for any other purpose. He further explained that the amount of money needed to construct the necessary level of infrastructure is essential in defining a capital improvement project. From there, a determination is made as to the amount each property owner will pay, i.e., a citizen with a single-family home is not expected to pay the same rate as K-Mart. Further discussion regarding funding mechanisms followed, and Mr. Forest pointed out that FCS provides an advantage in the ability to determine where revenues are currently being generated for other types of public infrastructure costs. They have a strong background and understanding of municipal financing mechanisms. He provided examples of the Carson Water Subconservancy District and the Clark County Regional Flood Control

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District, and advised that, depending upon certain factors, some funding mechanisms are more "politically palatable" than others. FCS has already established the foundation. Statutory revisions would affect direct applicability to Carson City; however, WRC initially proposed using the work done by FCS in Washoe County, reviewing the methods by which Carson City is currently funding sewer, water, and other public infrastructure, and developing alternatives for funding improvements in Carson City. Mr. Forest explained that FCS's expertise exceeds that of WRC in assessing the advantages and disadvantages of options for Carson City, given the "current state of affairs in Carson City." Chairperson Aldean suggested allowing WRC to subcontract with FCS, and discussed available funding mechanisms, including subconservancy, storm water district, special assessment district, utility, and flood control district. He explained the method by which a range of revenue on an annual basis can be determined and financed over a period of years. The Committee will recommend the quickest and most feasible way to implement the plan, and then educate the public. Chairperson Aldean discussed necessary alternatives analysis for Ash, Kings, and Vicee Canyons. Discussion ensued with regard to the goal of the Committee, and Mr. Azad advised that the report should be finalized by August of 2000. He explained the "disconnect" with the City budget cycle which starts the end of June, and that there is currently no funding available to develop and finalize the master planning document. He advised that the only available option is to present a budget through the Capital Improvements Cycle in order that WRC can begin work; however, this would not be until July 1, 2000. In response to a question with regard to approximate costs, Mr. Forest advised that depending on the level of detail, and including the financial alternatives study, the master plan could cost \$200,000 to \$350,000. Discussion regarding the Committee's "next step" followed, and Chairperson Aldean suggested drafting a letter urging the Board of Supervisors to allocate funding in order to continue the master plan process. He pointed out that the Committee should be "put on hold" if there are no funds to continue. Mr. Azad suggested that a revised proposal be obtained from WRC and presented to the Board of Supervisors. Discussion followed regarding funding possibilities, and Mr. Forest acknowledged that the plan could be phased. Chairperson Aldean suggested that the Committee take a few months off until WRC completes its preliminary report. The Committee can then reconvene and provide recommendations to the Board of Supervisors which will, in turn, direct implementation of the master plan. Mr. Bowling discussed his knowledge of FCS group's work product, and pointed out that a benefit to utilizing FCS is their knowledge and understanding of what has worked in other communities of which the Committee may not be aware. FCS brings a creative element which would not be available in a closed environment. Discussion ensued with regard to developing a database and calculations. Mr. Bowling reminded the Committee that including the dollar amount usually results in "sticker shock." He pointed out the importance of cost presentations, and that implementation over a period of years should be emphasized. Chairperson Aldean suggested developing alternatives based on "ball park" figures, and presenting plans for implementation to the Board of Supervisors. FCS could develop initial figures by working with the Finance Director and the Assessor. Mr. Bowling suggested that when the Committee makes its presentation to the Board of Supervisors, a solution should be presented as well. Discussion ensued with regard to the same. Mr. Forest pointed out that the approach to the Board and the public will have to be very carefully strategized. Chairperson Aldean discussed a plan, as follows: Once a "number" is received from WRC, the Committee will reconvene and have monthly meetings to strategize a recommendation. The Board will then hold public hearings and provide initial direction to staff. After the second phase is underway, specifics will need to be discussed, however, the Board will already be headed in the right direction. The Committee's job would end at the point that recommendation to the Board of Supervisors is made. Specific issues would be resolved by the consultants and City staff. In response to questions regarding the feasibility of the proposed process, Mr. Forest advised that the financing portion of the process needs to be phased the same as the technical portion. WRC would update the work done for the Washoe County study, based upon recent changes to Nevada law, and present the advantages and disadvantages to proceeding with a certain funding mechanism. He advised that FCS would be more effective for this task, and acknowledged that the financing analysis and the infrastructure analysis can be done concurrently. Discussion ensued with regard to the process for presenting available financing mechanisms. Chairperson Aldean advised that only two to three options will be viable, and that dollar ranges will need to be presented along with the options. Mr. Forest advised that in addition to program costs, funding of operation and maintenance costs needs to be considered. Mr. Azad will meet with Finance Director David Heath regarding mechanisms for obtaining money from the budget cycle, and the subsequent recommendation to the Board of Supervisors. The presentation will be scheduled

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for sometime in December. Discussion ensued with regard to the format of the presentation, and Mr. Bowling recommended that a presentation from staff and the Committee, rather than WRC, would add credibility and buttress the efforts of the Committee and City staff. The Committee's accomplishments can be presented, together with the fact that the Committee is at a true decision point, with the next step being to fund the master planning effort. Discussion ensued with regard to finalizing criteria to include in the presentation, the Committee's alternatives should the Board deny the request, and correlation of the storm drainage master plan with the freeway project. Mr. Bowling pointed out that if the storm drainage master planning effort is initiated now, Carson City will be ready for phase two of the freeway. Mr. Azad explained that ongoing construction at Shenandoah Heights, Eagle Canyon, etc. will become a component of the master plan, and that it is this continuity which needs to be pursued with WRC. Discussion ensued with regard to the sand dam at Vicee Canyon, the inability of the City to protect against catastrophic floods, and the history of flows from Vicee Canyon. Mr. Azad advised that comments regarding Vicee Canyon are mentioned five times in the preliminary report, and that the master plan must address all the comments presented. Discussion regarding groundwater problems followed. Chairperson Aldean thanked Mr. Forest for his presentation. No formal action was taken.

**G. INTERNAL COMMUNICATIONS AND ADMINISTRATIVE MATTERS (2-0259)** - Mr. Azad provided a draft letter, addressed to Robert Hildebrand, for review by Chairperson Aldean. He requested that Chairperson Aldean fax revisions to him. He will then have the letter printed on City stationery, and mailed to Member Hildebrand. Committee consensus was to allow Chairperson Aldean to revise the draft letter. Chairperson Aldean clarified that letters would not be sent to Members Bawden and Oakwood due to the circumstances surrounding their absences. Mr. Azad advised of an informational meeting regarding freeway drainage construction scheduled for November 9, 1999. It is not necessary for the Committee members to attend.

**G-1. FUTURE AGENDA ITEMS (1-0403)** - Chairperson Aldean reiterated the request to staff to develop criteria and prepare a letter to the Board of Supervisors requesting funding. He suggested canceling the December meeting, faxing the draft letter to the Committee members for review, and scheduling a meeting for himself and Mr. Azad to discuss the issue with the Supervisors. Mr. Azad confirmed that he would fax the WRC proposal to the Committee members for review, in addition to a letter requesting to be agendized for the first Board of Supervisors meeting in December.

**H. ADJOURNMENT (1-0611)** - Member Perry moved to adjourn the meeting at 7:30 p.m. Member Plume seconded the motion. Motion carried 4-0-3-0.

The Minutes of the November 4, 1999 meeting of the Carson City Storm Drainage Advisory Committee are so approved this 10th day of January, 2000.

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JAY ALDEAN, Chairperson