

**Attachment B**  
**Answers to questions raised by the Water Resources Advisory Board**  
**February 13, 2006**

**Water Quality**

**How are trails along canals addressed in other areas? Are there similar examples?**

The consultant, Brown & Caldwell was asked to research similar situations where there are trails adjacent to an open drinking water source. The consultant contacted 15 cities and water districts in Colorado and across the United States looking for situations similar to this trail proposal. Four similar examples were found, each taking a different approach to recreation near either a natural stream or a constructed channel providing drinking water supplies. The examples included the Salt River Project canal system in the Phoenix area that has trails all along the 130 mile system. Also included were the Central Arizona Project canals that have no public access currently but have many trails in the planning stages, the San Francisco Utilities canals that allow three guided tours three days a week, and the Salt Lake City Utilities canals which exclude dogs and horses and have continuous water quality monitoring. One of the key findings from the study is that “providing a reliable and quality water supply was always identified as the top priority, but this did not necessarily restrict recreational activities.”

Additionally, recently staff contacted the areas listed above as well as East Bay Regional Parks District, Oakland, CA and Fresno, CA. We were looking for information that would help us better assess potential impacts as well as what mitigation approaches were effectively used. Information learned includes:

- We didn't hear that the recreational uses caused significant impacts to water quality;
- Measures utilized for safety and protection of the water sources include:
  - Fencing between the trail and canal, used in several examples;
  - Providing trash facilities and dispensers for dog waste for reducing impacts has been effective in reducing impacts; (Contra Costa Trail)
  - Signs at all trail access points (prohibiting contact with water, emphasizing safety issues and shared use between pedestrians, bikes and horses) is common to all examples;
  - Prohibiting the use of pesticides is done to prevent water quality impacts. (Contra Costa Trail)

**The CEAP Report is lacking in specific information about how the outfalls and drainage issues will be solved. What information is available about how the drainage issues will be addressed?**

There are approximately 50 existing outfalls along the canal which drain from adjacent areas and agricultural lands directly into the canal. Drainage from the watershed comes in contact with animal waste, fertilizers, hydrocarbons (gas and oil), herbicides and pesticides. Off-site runoff has been identified in the CEAP as the highest priority contaminant source on the Boulder Feeder Canal. The report recommends addressing existing drainage issues as well as designing the trail to drain away from the canal. How this will be specifically achieved will be addressed in the next steps of trail design.

The city Utility has budgeted funding in 2006 and 2007 to begin work to redirect the most problematic sites. Utility staff has entered discussions with the Northern Colorado Water Conservancy District (NCWCD) to reduce off-site runoff into the canal where possible regardless of trail development. This includes identifying appropriate solutions to where the runoff will go. Each site will have to be assessed to determine feasible options for rerouting the runoff. The city's intention is to pursue those runoff sites that can be addressed, on a prioritized basis based on monitoring of water quality and estimation of pollution loads at various points along the canal.

### **What are the existing contaminants found in the water delivered by the Boulder Feeder Canal?**

City staff has been monitoring the Boulder Feeder Canal for bacterial levels since 1983. Historically total coliform and fecal coliform levels were measured; in 2002 monitoring was switched to E. Coli. The monthly average bacterial loading at the water treatment plant intake is 25 - 50 organisms/100 ml. Periodic sample spikes in the 600 - 1000 range are seen, the highest recorded spike being 2,400. For comparison purposes, water from the Barker Reservoir delivered to the Betasso Water Treatment Plant averages 3 organisms/100 ml. (Nationally, the EPA considers water sources which are >20 organisms/100 ml to be "contaminated".)

Turbidity is also a contaminant of concern. As stated in the study Assessment of Pathogen Risk of a Proposed Trail on the Boulder Feeder Canal (C.H. Diagnostic, 2000), "...dirt or sediment in water can hide pathogens or consume disinfectants intended to deactivate pathogens. Periods of high turbidity in the canal are routinely associated with storm events and irrigation return flow discharges. While turbidity itself is not necessarily a health issue, it does significantly impair treatment processes. Increases in turbidity are related to many documented *Cryptosporidium* outbreaks."

*Giardia* and *Cryptosporidium* have been monitored in the Boulder Feeder Canal and other city of Boulder source waters. The consultant report Assessment of the Boulder Reservoir Water Treatment Plant (McGuire Environmental Consultants, 2001) noted a detection frequency of 68% and 23% for *Giardia* and *Cryptosporidium*, respectively in canal source water, compared to 0% and 8% in the Boulder Reservoir source. This report concluded that "The Boulder Feeder Canal water is clearly vulnerable to the occurrence of protozoa. The concentration of *Cryptosporidium*, in particular, is sufficiently high that conventional treatment may not provide adequate public health protection".

The Source Water Quality Planning Study Phase I (Black and Veatch, 2003) underscores the concerns with elevated pathogen levels reported in previous studies. Based on review of the city's monitoring data, this study concluded that "Although the raw water at its source in Carter Lake is of a very high quality, significant degradation generally occurs as the water travels the length of the Boulder Feeder Canal".

Historic testing data and all of these reports are available to the public upon request.

**What studies were used by the consultant regarding cryptosporidium and horses? Doesn't one of the reports listed actually indicate that horses do not present a high risk of cryptosporidium in their feces?**

Six reports were listed in the Brown & Caldwell report's bibliography regarding the issue of pathogens in animal feces. Staff has also conducted research on this issue and found a range of results regarding the levels of cryptosporidium and other pathogens found in animal feces. The Water Utility position is that animal feces from all sources are undesirable and should be kept out of the water supply whenever possible. This includes wild animals, livestock and pets. Wild animal and livestock waste may enter the canal via off-site runoff. Control of this source is not directly related to the proposed trail. Pet waste is more likely to enter the canal as a result of recreational activities and is directly related to trail design, operation and maintenance. This is why the recommendations include mitigation to address both existing sources of animal feces entering the canal through runoff as well as mitigation to prevent the feces from trail visitors with animals from entering the water.

**What are the species of concern for Cryptosporidium and Giardia? Are these the ones typically carried by horses?**

There are many studies used by staff regarding Cryptosporidium and Giardia in animal feces. A bibliography of such reports is available from staff as well as the Colorado Department of Health and Environment Guidance Document that contains information on cryptosporidium and drinking water supplies. These are available upon request. A few excerpts from studies compiled by Utility staff are listed below.

- “Cryptosporidium parvum has been recognized as a human pathogen since 1976... *C. parvum* is capable of infecting all species of mammals including humans... In a study in Atlanta, 10% of puppies examined at an animal shelter were found infected and shedding oocysts... It is estimated that 50% of dairy calves shed oocysts.” (from *Cryptosporidiosis: Sources of Infection and Guidelines for Prevention*, Dennis D. Juranek, Centers for Disease Control and Prevention, *Clinical Infectious Diseases* 1995;21(Suppl 1)S57-61).
- “Found in water as a result of deposition of fecal material from both humans and animals, *Giardia lamblia* is the most common pathogenic parasite in the United States.” (from *Seeking Safe Drinking Water*, Susan W. Putnam and Jonathan Baert Wiener, Harvard University Press, Massachusetts, 1995.)
- “More than 40 mammals, both wild and domestic, have been found to harbor *C. parvum*. This evidence, along with the finding that *C. parvum* readily crosses host species barriers, has convinced most experts that human infections are often the result of transmission from wild and domestic animals, including horses and dogs (Current and Garcia 1991, Rose 1990). As for *Giardia*, Hobler and Hancock (1990) state, “some investigators considered the parasite found in humans (*Giardia lamblia*) to be host-specific, but the majority of the research performed to date questions this assumption.” *Cryptosporidium* and *Giardia* have been found in humans and a wide variety of birds, mammals, fish and reptiles. It has been cross transmitted between humans and a number of these animals (Hibler and Hancock 1990).” from *Drinking Water from Forests and Grasslands: a synthesis of the scientific literature*, George E. Dissmeyer, editor, USDA/Forest Service, 2000.

**Is there information regarding livestock use on adjacent properties and what existing pollution enters the water from these sources?**

Yes, staff has an inventory of adjacent uses along the Boulder Feeder Canal. Approximately 6 sites currently have livestock and have drainage into the canal. The types of pollutants of concern from these include: known pathogens (Giardia, Cryptosporidium or E Coli), nutrients, total organic carbon (TOC) and turbidity. There may be additional pathogens and chemical contaminants such as endocrine disruptors that impact water supplies adjacent to areas with livestock. Water Utility staff has conducted an analysis of all the outfalls and drainage locations along the Boulder Feeder Canal which drain into the canal. This included identifying the most problematic or high leverage sites to focus on redirecting drainage. The utility has funding budgeted in 2006 and 2007 and is working with NCWCD to eliminate all sites.

**Are there data that supports purported dumping events?**

Staff does not have knowledge of a specific dumping event however data collected for pathogen levels indicates high spiking events that would likely be connected to dumping. The proximity of many road crossings and the occurrence of significant spikes in contaminant loads seen at the Boulder Reservoir Water Treatment Plant intake, which have been observed in dry weather as well as wet weather, has raised suspicion that dumping may be a source of some of the contaminants observed.

**What are the costs and benefits of constructing the pipeline for water protection?**

The feasibility, costs and benefits of protecting the water in a pipeline are being studied in a separate evaluation from the Boulder Feeder Canal Trail CEAP. The information regarding the potential pipeline was provided in the CEAP report as contextual information regarding this water supply. The recommendations in the report are not linked to the future possibility of a pipeline since the water quality improvements and mitigation measures would be needed in the near term.

The pipeline feasibility study is anticipated to be presented to advisory boards and available to the public in February 2006. A CEAP for Boulder Reservoir source water management options including the pipeline, water treatment upgrades and other options will be developed in 2006 beginning in the next few months.

**Does mitigating potential impacts and drawing from the reservoir align with water quality goals of providing a similar product from the Boulder Reservoir Treatment Plant as from the Betasso Water Treatment Plant?**

It is a water quality goal to provide similar treated water quality from the two treatment plants in the form of always meeting federal and state drinking water standards and, to the extent possible, the city's internal treatment goals. Although the city strives to maintain similar taste characteristics in the finished water from each plant, it can never be exactly the same because the two plants have such differing source waters. If drawing water from Boulder Reservoir instead of the feeder canal is necessary to assure that primary drinking water standards are met, then the city's water quality goals dictate that the Boulder Reservoir source must be selected because meeting primary health-related standards must take priority over concerns about secondary characteristics such as taste. In the past, the city has received more taste and odor complaints

about the drinking water when Boulder Reservoir is the source than when the feeder canal is the source, in part due to the higher mineral content of the Boulder Reservoir water.

**How is the Boulder Feeder Canal Trail different from watershed protection of Silver Lakes? If one is open we should consider effect on other. What are the implications?**

The Silver Lake Watershed area is significantly different than the Boulder Feeder Canal for many reasons. There are many compelling reasons to maintain closure to public access in the Silver Lake Watershed in addition to the need to protect drinking water quality. A critical concern is continuance of the research projects that have been conducted in the Silver Lake Watershed since the 1930s. The area provides an internationally known research site for studies on alpine and tundra environments. A great deal of sensitive research is possible at this location because it is closed to public access. The University of Colorado Mountain Research Station has been located adjacent to the Silver Lake Watershed for this reason. For some of these studies, any direct human impact would skew the results because the experiments and measurements are so sensitive. Each year, researchers propose study plans to the city and gain approval for limited access for research purposes. Many of these studies rely on data collected at the same undisturbed site for many decades.

Additionally the area has the following environmental concerns that would be impacted by trail construction:

- Reduction of wildfire risk (human activity increases wildfire risk—wildfire in the watershed would make use of this area for water supply difficult or impossible for a minimum of several years)
- Wildlife habitat protection (watershed is a known elk calving area)
- Protection of lakes from contamination by non-native aquatic plants and animals and whirling disease
- Protection of a fragile alpine ecosystem that is highly vulnerable to damage from uncontrolled human impacts (damage to off trail areas could take decades to recover in alpine areas)
- Protection of a purebred population of greenback cutthroat trout which are a listed threatened species

**Will there be an impact to the people who swim or recreate in Boulder Reservoir?**

It is possible that, if pathogen loading in the Boulder Feeder Canal water increases due to recreational trail use, then the concentration of pathogens in Boulder Reservoir could also increase because the canal provides almost all of the water in the reservoir. The Utility is working with the Parks and Recreation Department to reduce existing fecal contamination by constructing additional restroom facilities at the north end of the reservoir.

**Are the Utilities staff views represented in the CEAP report?**

The CEAP report was developed by the city and county staff team and consensus was reached on all the recommendations in the report. Throughout the CEAP process utility staff voiced a strong preference to limit land uses within the watershed which could impact drinking water supplies. If trail planning proceeds along the Boulder Feeder Canal, utilities staff supports the recommended option to include robust protection measures to be designed, constructed and maintained. The intention is to include mitigation to reduce new risk to the best degree possible.

## **Other Stakeholders**

**What have been the opportunities for public input? Why have the neighbors not been more involved with this project? When will the community impacts be addressed? (parking, hours of operation, weed management, agricultural impacts, conflicts with pets or livestock, trespassing onto private property, pesticides, impacts on local roads, )**

The CEAP process has included two public open houses. An initial open house was held on July 24, 2004 to introduce the CEAP process and take public input on issues to address. A second public open house was held on Oct. 6, 2005 to gather input on the CEAP report and staff recommendations. County and city staffs have talked about the trail with numerous canal neighbors over the last three years.

Because the CEAP focuses on drinking water protection issues, the majority of the process has focused on the issue of drinking water impacts and the ability to mitigate those impacts. The CEAP process was used to evaluate whether or not to proceed with trail planning and if so, what would be included. Neighborhood concerns regarding trail alignment, trailheads, use and security have been identified and will be considered in the next steps of trail design. Boulder County is committed to an extensive public process and has been waiting for a CEAP decision before resuming public discussion of trail alignment and design. The next steps will include meetings with adjacent property owners, public meetings and input from stakeholders.

**What is the impact of the proposed conveyance of the Bureau of Reclamation to the Northern Colorado Water Conservancy District? What is the anticipated timing?**

A rider containing a direction to the Bureau of Reclamation to transfer the Southern End facilities has been included in a current bill before the US Congress. It has passed in the House of Representatives and will likely be considered by the Senate in March 2006. If the proposal is approved, then the process to complete the transfer can begin. A similar process for the North End facilities out of Horsetooth Reservoir took several years. If NCWCD is the owner of the Boulder Feeder Canal, a federal Environmental Assessment under NEPA would not be required, however in either instance standard practice for city of Boulder and Boulder County trail design and construction includes an environmental review and public process that would build on the issues identified in the CEAP process.

City and county staff will meet with NCWCD staff and board as trail planning continues to ensure that the preliminary trail design meets their needs for operations and maintenance as well as to determine the potential approval process if NEPA is not required.

**Can we get info on the Bureau of Reclamation's Vulnerability Assessment? Are there any dealbreakers?**

The city has been not been permitted to review the BOR's Vulnerability Assessment. A limited number of Northern Colorado Water Conservancy District staff members have had access to the document. NCWCD is currently reviewing the recommendations in the report with the district's policies for recreational use on their facilities to determine if changes to the policies are necessary. We are not aware of any dealbreakers.

**Was there any input from ditch companies or Left Hand Water District?**

Staff contacted representatives at Left Hand Water District, City of Longmont Water/Wastewater Department, City of Erie and appropriate ditch companies to inform them of the CEAP report and recommendations and request input from them. Left Hand Water District submitted a letter which is included in the Public Comments received. The District representative outlined and described the need for water protection mitigation including the mitigation measures outlined in the CEAP.

**How would the trail affect the farmer’s rights to use the maintenance road?**

The trail must be constructed on the opposite side of the canal away from the existing maintenance road. Existing accesses to the maintenance road or properties are not expected to be impacted by the trail, but will be examined as the trail alignment is better defined.

**Trail Management / Planning**

**There are costs to the water utility and other departments for mitigation, additional monitoring or other impacts that might not be necessary without a trail. These funding issues need to be better documented.**

Some of the mitigation will be included in the funding for trail construction. Costs for trail construction, facilities, management and maintenance will be refined as more is learned during detailed trail design. City and county staff will work to develop agreements on funding for capital costs and on-going management (enforcement and education) which will include staff from city Utilities, Parks and Recreation, Open Space and Mountain Parks as well as Boulder County. Funding sources for new on-going costs will need to be addressed within existing budgets. Funding for additional water quality monitoring will likely be funded by the city Water Utility. If additional treatment improvements are needed these costs would be funded by the Water Utility.

**Who are the anticipated users of the trail?**

Staff anticipates the users of the trail would be by non-motorized uses including: hikers and runners, cyclists, dog-walkers, equestrians and soft-surface capable wheelchairs. Estimates of user volumes are included in the Attachment B of the Brown and Caldwell report and indicate levels of use up to 40,000 by 2020. This report indicates that potential “user groups vary from families with children looking for relatively unchallenging trail conditions, individuals and small groups, regional users from outside Boulder County, to serious athletes who desire to ride or run lengthy distances.”

**What are the current user volumes? (How can we define the increased risk without a model for increased contamination?)**

Staff has estimated existing use of the entire length of the maintenance road at approximately 10,000 visitors per year. The level of use varies depending on the location. There is a high level of use occurring in the southern area closest to the Boulder Reservoir and much less use in northern sections of the canal. The 2002 Resource Inventory Report indicates observations of “at least 50 pedestrians per day, and perhaps more than 100 per day” in the section from Boulder Reservoir to Monarch Road. It also notes “somewhat less overall use than the Boulder Reservoir

area, but still a significant amount” from Monarch Road to Oxford Road. The use may have decreased in recent months due to NCWCD actively closing gates, changing the signs and actively prohibiting recreational use of the maintenance road.

Brown & Caldwell’s risk analysis did not include a model for estimating increased contamination which required actual counts or projections. Staff felt that the estimated counts of existing use were adequate for this level of analysis.

**There needs to be information included regarding phased construction.**

Although the trail would likely be built in phases, the CEAP analysis was done to document impacts and recommended mitigation for the entire length of the trail. Construction phasing will be identified in the next steps of deigning the trail. Phasing will also include monitoring of water quality designed to assess changes as well as the effectiveness of mitigation measures as trail construction progresses.

**How much of the current Right-of-Way (ROW) is in fee by the Bureau of Reclamation (BOR)? How much is needed for easements? What are the plans for ROW acquisition of routes off the canal and the method of acquisition planned?**

All sections of the Feeder Canal within the city limits and within city Open Space property is owned in fee by the Bureau of Reclamation. There are several areas north of Monarch Road that are not owned by the Bureau. Boulder County has been working to identify these easements and is planning to purchase trail easements along or through these areas.

**What alternate routes were considered?**

Staff was directed to consider the impacts and overall feasibility of a trail generally along the right-of-way of the canal. The scope of the project did not entail considering trails in other locations. When specific trail planning is done, there may be some areas where the alignment will be located outside the canal right-of-way due to physical constraints, ownership issues or preferable trail locations. These will be determined as actual trail planning proceeds based on feasibility, cost, environmental impacts, trail user experience and public involvement.

**How can this trail be called the ‘preferred north –south’ alignment if the CEAP only focused on the canal ROW alignment?**

The 2004 OSMP Trails Assessment and Prioritization Report ranks the Boulder Feeder Canal Trail as number 1 out of 45 suggested new trails. This was based on use levels (anticipated level of attraction) and environmental impacts (level of ecological sensitivity). Locating a north-south connection along the feeder canal where environmentally sensitive areas are limited is preferable to other north-south locations where there are areas with endangered species habitat and other environmental impacts.

Other city and county open space properties closer to the foothills have significant environmental constraints for trail development. The Boulder Feeder Canal provides a previously disturbed area with existing significant human and vehicle access, limited wildlife habitat and no significant plant and animal native species. Also, other potential north-south trail alignments have significant acquisition issues that could make them impossible to implement.

### **What is the current status of the St. Vrain Trail?**

Boulder County completed a trail master plan for the St. Vrain Trail in January 2004. The Master Plan includes one alignment option that would cross the Feeder Canal at two locations: east of US36 and north of Hygiene Road. The report is available from Boulder County Parks and Open Space.

### **How does the Front Range Trail (FRT) designation affect potential use?**

There has not been an estimation of the number of additional trail visitors that would be generated due to designation of this trail as part of the Front Range Trail system. It is anticipated that most of the use on the Boulder Feeder Canal Trail will be local, but there will likely be some visitors attracted by the designation. Boulder County has an extensive existing trail system which already attracts visitors from around the state and nation.

### **How do issues with CEMEX affect this proposal? How does the air pollution created by the CEMEX plant affect people using the trail?**

CEMEX is a major property owner along the potential trail corridor and their input will be considered during design, construction, and operation of the Boulder Feeder Canal Trail. It is anticipated that an alignment away from the canal ROW through the CEMEX property will be negotiated. If necessary, air pollution impacts will be addressed in the environmental assessment of trail alignments.

### **What additional safety measures could be considered?**

There are safety measures described in the CEAP report (pg. 34) including signs at trailheads, hanging chains or racks, and ladders. These are also described in the Brown & Caldwell report (pg. 10). Special attention to signs and design at roadways is also recommended. The CEAP report underscores the need to explore and construct such safety measures; however this will be further defined with Northern Colorado Water Conservancy District as trail planning continues. Staff will work with NCWCD to identify mechanisms that will be acceptable with their operation.

## **Environmental**

### **What are the Audubon and Boulder County Nature Association (BCNA) comments regarding raptor habitat?**

BCNA provided comments on the raptor habitat impacts and recommendations in the CEAP report. These are included in Attachment D, public comment. The information provided indicated that an additional 5 ½ square miles of raptor habitat would be affected by construction of the trail (based on .25 miles on either side of the 11.5 mile trail). The response suggested ways to mitigate the impacts of the trail including provision of additional habitat. BCNA would favor assessing the impacts of this trail in the context of other potential north-south trails and would likely favor the least environmentally damaging route. Included is a letter to the Boulder County Parks and Open Space Advisory Committee (POSAC) written on behalf of BCNA, making suggestions for mitigating the effects of the trail. City and county staff have committed to additional study of the environmental impacts and specifically raptor habitat in the next steps of trail design.

**The report indicated that surveying or trapping may need to be done to determine presence or absence of the Prebles' Meadow Jumping Mouse in most likely potential habitat. Were field surveys done in the mapping of potential habitat? How does the potential de-listing of the mouse affect the recommendations in the report?**

After the Preble's was listed in 1998 a Science Team of government and non-government biologists selected by US Fish and Wildlife Service (USFWS) and CDOW conducted trapping and habitat surveys along creeks, ditches and other water courses on the plains and foothills of Boulder County. Using the results of this work the Science Team prepared and published a map in October 2000 designating seven "conservation zones". The zones ranged from highest priority "Mouse Management Areas" (where mice were caught) to low but "Potentially Suitable" (where disturbed riparian areas, if fully rehabilitated and restored to accommodate the mouse, might provide habitat that the mouse would occupy at some future date). The mapping was done at a fairly coarse scale. For example wherever a mouse was caught a Mouse Management Area designation was applied for one linear mile up and down the water course from the capture site. The Boulder Feeder Canal was designated as follows:

- Boulder Reservoir to Lefthand Creek - Suitable Contiguous Habitat. This zone represents an area where trapping occurred with no captures or habitat was evaluated without trapping. In general the habitat is considered suitable if the mouse was introduced.
- Lefthand Creek to Nelson Road - Potential Restoration Non-contiguous. This classification means that the corridor is not contiguous to any presently or historically occupied habitat. Restoration efforts could provide potentially suitable habitat. These areas are not high priority because they are isolated and would require intensive restoration efforts.
- Nelson Road to US 36/SH 66 - Suitable Contiguous Habitat. There are three ditch/water course crossings north of Hygiene Road that are designated as Mouse Management Areas based on the criteria described above i.e. a mouse was trapped within one mile of the Canal/water course intersection. This stretch of Swede Ditch, which runs along a similar alignment in proximity to the canal, is also provided with a Mouse Management Area designation. These areas as well as Preble's habitat conditions along the length of the Canal being considered for a trail are described in greater detail in the Boulder Feeder Canal Resource Inventory and Report dated December, 2002 (pp. 28 - 31).

The Resource Inventory Report recommends that "...trapping surveys would be needed to determine presence or absence of the mouse in the most likely potential habitat" where construction activities associated with developing a trail along the canal might impact that habitat. A determination regarding the necessity for trapping rests with the USFWS, which issued a determination letter on September 9, 2003 that listed the types of activities that will and will not require additional review by them. However, the Boulder County Land Use Department has been referring development proposals within the seven conservation zones to USFWS since the mouse was listed. In most cases, USFWS has issued written findings of "no adverse impacts" for those activities without requiring trapping based on their analyses of information and photographs submitted to them that described the project, the current on and-off site land use conditions, and proximity of the project to potentially affected habitat areas. This site-by-site approach may be acceptable and appropriate for the trail proposal given the isolated and

discontinuous nature of the sites that have been designated as Mouse Management Areas. A consultation with USFWS about options should be initiated if the trail plan is approved.

The city of Boulder and Boulder County are developing a Habitat Conservation Plan (HCP) for Preble's pursuant to Section 10 of the Endangered Species Act. When approved through the NEPA process, the city and county will assume the responsibility and authority for issuing "incidental take" permits and for monitoring/enforcing the terms of the approved HCP. Until the HCP is approved, development proposals within any of the seven conservation zones described above should be referred to USFWS.

Last December the USFWS announced that it was considering "delisting" Preble's as a threatened species. This decision was based on recent genetic research and the subsequent conclusion of a science peer group review that Preble's may not be a distinct subspecies of jumping mouse. USFWS anticipates releasing its final decision in February, 2006. If delisting is authorized and upheld, it is our understanding that Preble's will no longer be covered by the Endangered Species Act and the special protections the Act provides. If we have an approved HCP in place, it would become moot except where we (the city and/or county) had used any federal funds to acquire habitat solely for protection of the mouse. The current understanding is that such sites would need continued HCP-type management. There are no sites along the Canal that have been acquired in this way for that specific purpose.

**Was there a cultural inventory done for the CEAP report?**

The canal Right-of-Way has low potential for prehistoric archaeology. No structures will be impacted. The area for trail construction would have been disturbed when the canal was constructed. In areas where the trail would be outside the canal right-of-way, further analysis may be necessary. The environs around Haystack and Table Mountains are designated as Archaeologically Sensitive Areas in the Boulder County Comprehensive Plan. Any possible finds will call for a cessation of activities until the finds can be examined by a qualified archaeologist.

**How will the recommended revegetation with native species be done if it is on federally owned land?**

NCWCD has requested that disturbed soils be revegetated using a weed-free seed mix. The CEAP recommendation is for native species, so Boulder County and city of Boulder staff will be working with northern to ensure that the native species seed mix is also weed-free.