OPEN SPACE BOARD OF TRUSTEES

Wednesday, July 9, 2014 at 6:00 p.m.

Council Chambers, 1777 Broadway

MEETING AGENDA
(Please note that times are approximate.)

6:00 I. Approval of Minutes

6:05 II. Public Participation for Items Not on the Agenda

6:15 III. Director's Updates:
A. Trail Maintenance Schedule
B. Sanitas Valley Trail Reconstruction Project (verbal only)
C. Skunk Canyon Trail Connection
D. Royal Arch Trail Reconstruction

6:55 IV. Matters from the Board

7:05 V. Consideration of a recommendation to grant a nonexclusive revocable license to Colorado Department of Transportation for the purposes related to the Highway 36 Project, including the design, construction, maintenance, repair and replacement of the Shearer Ditch crossing at U.S. 36 which traverses the Van Vleet South and Van Vleet East Open Space and Mountain Parks parcels*

7:20 VI. Adjournment

*Public Participation

7:20 Study Session – Agricultural Resources Management Plan **

** The study session is open to the public but there will be no Public Participation.

OPEN SPACE BOARD OF TRUSTEES
Minutes
Meeting Date June 11, 2014

BOARD MEMBERS PRESENT
Tom Isaacson Shelley Dunbar Frances Hartogh Molly Davis Kevin Bracy Knight

STAFF MEMBERS PRESENT
Mike Patton Dave Kuntz Steve Armstead Mark Gershman Heather Swanson
Steve Mertz Annie McFarland Brad Skowronski Mike Orosel Andy Pelster
Leah Case Michele Gonzales Alyssa Frideres

GUESTS
Jesse Lewis, Colorado State University
Eric Ameigh, Senior Project Manager

CALL TO ORDER
The meeting was called to order at 6:03 p.m.

AGENDA ITEM 1 – Approval of the Minutes
Frances Hartogh said the first line of the second paragraph should have the language, "what he indicated was." Kevin Bracy Knight said in the same paragraph, the word "invasiveness" could be changed to "impact."

Shelley Dunbar moved to approve the minutes from May 14, 2014 as amended. Frances Hartogh seconded. This motion passed unanimously.

AGENDA ITEM 2 – Public Participation for Items not on the Agenda
Mike Barrow, Boulder Mountainbike Alliance (BMA), said there are some cattle grades out on the system that have yet to be put in. He asked what the timeline is for these, and offered BMA's help for funding and implementation. He said, in reference to last month's meeting, that items of higher importance need to be put as an agenda item (instead of a Director's Update) so the public can comment.

The Board asked staff to bring back information on cattle grades and a long-range plan for implementation.

AGENDA ITEM 3 – Director's Updates
The effects of recreation and urbanization on wildlife populations
Jesse Lewis, Colorado State University, gave a presentation to the Board discussing his recent work funded by Open Space and Mountain Parks (OSMP) and Boulder County which uses his data to address questions related to recreation and wildlife on OSMP and other Boulder County Open Space.

Kevin asked if there is any difference in temporal use patterns between weekends and weekdays. Jesse said they did not look specifically at this but the data could most likely be manipulated to answer that question. Molly asked if there is any information on prey population in relation to predators. Jesse said this is something they plan to look at, but did not for this study.

Frances asked if animals having to change their behavior due to human activity affected their health or population. Jesse said he does not have any information on this. Frances asked if they captured how many people use headlamps at night. Jesse said they would not have data on this because the cameras typically

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capture from the waist down. Tom asked if he had any information on the benefits of concentrated versus dispersed human use. Jesse said he does not have concrete information on this.

Voice and Sight Tag Monitoring Project
Mark Gershman, Environmental Planning Supervisor, gave an update on the Voice and Sight Tag Program monitoring.

Shelley asked who is doing the monitoring. Mark said OSMP staff. Shelley asked how these staff members are trained. Mark said staff uses a training document developed to remove subjectivity.

Frances asked if a guardian has more than two dogs off leash if a friend can walk the additional dog. Steve Armstead said no one can walk a dog off leash unless he/she is registered for this program. Frances asked if a dog is considered under sight control if the guardian has the dog behind them. Mark said if the guardian is frequently looking behind, then this could be considered sight control. Frances said frequently is not definite. Mark said the monitors will record anything the dog is doing and can provide data on whether this is effective or not. Tom asked what the time frame is for when this will be completed. Mark said they are looking at being finished by mid July.

AGENDA ITEM 4 – Matters from the Board
Dave asked if the Board would like to have a study session in July. Shelley asked if brainstorming for the North Trail Study Area (TSA) would be included. Dave said the study session would be on the agricultural plan. Mark pointed out that having a study session can be helpful when presenting ideas to City Council. Tom confirmed that the Board would have both their regularly scheduled business meeting as well as a study session on July 9.

Kevin asked about the plan for trail repair in the north part of the system. Mike said staff will come back with a prioritization plan for fixing trails across the system. Frances asked about the citizen trail work opportunity. Mike said Jennelle is working with Bill Briggs and the volunteer group on this topic.

Frances asked how staff determines where a fence is placed. Andy said typically the fence is used to indicate a property boundary, but it can be adjusted overtime. Frances asked if wildlife is affected by either fences or cattle grades. Andy said they are unaware of any negative impacts.

AGENDA ITEM 5 – Summary of 50th year of OSMP Junior Ranger Program and Declaration to Honor Five Decades of Youth Service*
Steve Mertz, Public Relations Coordinator, gave a presentation celebrating the Junior Ranger Program and its 50th year of continuous service. The City of Boulder OSMP Department joins the community in recognizing the thousands of young people for their efforts in preserving our public lands.

<u>Public Comment</u>
None.

<u>Return to the Board</u>
Tom Isaacson read the following proclamation:
The Open Space Board of Trustees joins the staff of the City of Boulder Open Space and Mountain Parks Department in recognizing all of our Junior Rangers over the past 50 years. We salute the more than 5,000 Boulder youth who contributed their talents and efforts in helping the City of Boulder carry out its land management missions. These irreplaceable individuals are an inspiration as they help to protect the resources that make Boulder's Open Space and Mountain Parks so special.

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AGENDA ITEM 6 – Review of and Recommendation Regarding the 2015 OSMP Capital Improvement Program Budget and a portion of the Lottery Fund Capital Improvement Program Budget*
Mike Orosel, Financial Services Manager, gave a presentation on the 2015 CIP budget.

Frances asked what OSMP can expect back from Federal Emergency Management Agency (FEMA). Mike said they are still in the process of submitting invoices, but any money the department receives will be considered a reimbursement for work that has already taken place and will go into the Open Space fund.

Molly asked if the North TSA will really take six years. Dave said that is just the timeline for implementation. Kevin asked how the Light Detection and Ranging (LIDAR) imaging will be used. He added that it is a really great tool for mapping and surveying. Dave said staff will brief the Board once they get to that point. Tom asked about Gregory Canyon Road. Mike said the county will begin work next week and he believes OSMP will receive a full reimbursement.

Public Comment
Mike Barrow, BMA, thanked staff members for their very nice work.

Return to the Board
No further comment.

Motion
Shelley Dunbar moved the Open Space Board of Trustees approve, and recommend that Planning Board approve an appropriation of $7,608,000 in 2015 from the Open Space Fund CIP as outlined in this memorandum and related attachments; and recommend that $355,300 be appropriated from the city's Lottery Fund CIP in 2015 as outlined in this memorandum and related attachments. Frances Hartogh seconded. This motion passed unanimously.

AGENDA ITEM 7 – Consideration of a smoking ban on all OSMP properties, including trails, without exception.*
Andy Pelster, gave a presentation on a potential smoking ban for OSMP properties.

Public Comment
Ray Bridge, Boulder, asked if agricultural leases would be affected by this ban. Andy said yes.

Return to the Board
Tom asked how often users complain about smokers on Open Space. Mike said rarely. Shelley said we have the ability to ban smoking during the fire season and this would make the smoking ban unnecessary for fire danger alone. She said she does not view smoking on Open Space as an issue as it happens so infrequently. Frances said she favors implementing this ban. Kevin agreed as having rules that are consistent are easier to understand. Molly said she supports this ban because of the fire risk. Shelley said in more public places, such as a trailhead, this could be beneficial, but system-wide is far-reaching. She asked if e-cigarettes are included in this ban. Eric Ameigh, Senior Project Manager, said this is not included in the smoking definition. Tom said smoking is so rare and having never encountered this issue, he would lean against supporting this ban. He noted that it could also be hard to justify the regulation.

Motion
None.

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AGENDA ITEM 8 – Review of proposed trail reroutes in Skunk Canyon valley*
Annie McFarland, Visitor Master Plan Implementation Coordinator, gave a presentation on Skunk Canyon and the plan developed by the Community Collaborative Group (CCG). OSMP staff used the guidance of that plan to determine which trails would be closed and restored, which would be designated and which would be rerouted.

Kevin asked what the sense was from the CCG for this area. Shelley said the shorter connection and trail loop was preferred. Annie said she looked back at notes from CCG meetings and other documentation to better understand the consensus and was unable to find a lot of information. Shelley said she has maps and documents from these conversations, and would have liked staff to ask Board members for their contribution.

Public Comment
None.

Return to the Board
Shelley said the first part of this alignment is good, but the lower trail should connect with the upper portion of trail after the bridge. She said this will help to minimize social trails. Tom agreed that would be the alignment desirable to the neighbors. He added that it is important not to sway too much from what was agreed upon in the West TSA. Shelley said what staff is proposing deviates too much. Frances said she would support whatever design is the most sustainable. Shelley said the neighbors would prefer what was on the ground before. Mike said staff's intent is to be faithful to the CCG and West TSA. Frances asked how proposed trails would be signed to discourage users from shortcutting. Mike said they would have signs in the area, but they typically do not prevent this. Kevin said building sustainable trails that allow users to go from point A to point B will be favored, and also making sure sensitive habitat is protected. Molly suggested building the trail beyond the bridge as that is where people will most likely go anyway. Shelley agreed that the trail could head back west after the bridge. She noted that this is also a great area for bird watching and she was concerned that the proposed trail alignment would disturb this. Mike said staff will take the Board's feedback into consideration and come back with a recommendation.

Motion
None.

ADJOURNMENT – The meeting adjourned at 9:25 p.m.

These draft minutes were prepared by Leah Case.

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MEMORANDUM

TO: Open Space Board of Trustees

FROM: Mike Patton, Director, Open Space and Mountain Parks
Jim Reeder, Land and Visitor Services Division Manager
Greg Seabloom, Trails Supervisor

DATE: July 9, 2014

SUBJECT: Trails Maintenance Schedule

Maintenance of the Open Space and Mountain Park's designated trail system is a major component of the department's annual work plan. Maintenance of the 140+ miles of designated trails in the OSMP system is supported by allocations of over $680,000 in operating funds and over $3,700,000 in capital funds. Much, but not all, of the planned maintenance of the designated trail system in 2014 is to repair damage caused by the September 2013 flood.

Staff includes a trail supervisor, four trail specialists, a trail contract coordinator and over 20 seasonal employees. Five seasonal trail crews, each consisting of a crew lead plus four crew members, and the equivalent of two crews from Mile High Youth Corps are working this year on trail repair and maintenance. Much of the work done by Junior Rangers is trail maintenance. Final accomplishments for the year will depend on weather and on whether or not priorities are realigned.

General trail maintenance is performed by the crews sweeping the system in early spring. Some areas are held for work later in the year to address issues that show up in late spring and to give crews a break from long running projects such as constructing the Lion's Lair Trail on the Wittemyer property.

Junior Rangers coordinate their efforts with the trails staff to ensure that they have appropriate and timely work. Some of the recent trails they have worked on are Viewpoint, Dakota Ridge, Shadow Canyon, Four Pines, Mesa/Bear intersection, NCAR and Chautauqua trails.

Volunteer projects are held throughout the year. These include a series of projects with specific groups such as Bike Patrollers, Foothills Climbing Council and Boulder Mountainbike Alliance. Staff is hoping to add the Boulder Trail Runners to the list later this year. Staff is in the planning phase to add another volunteer opportunity that was recently suggested at an OSBT meeting – the Trail Custodians. Many volunteer projects are also one-time affairs to help trail crews with their current projects such as National Trails Day at East Boulder – White Rocks.

During the latter part of 2013, post-flood, 17 volunteer projects were held that addressed trail maintenance. So far in 2014, an additional seven have been run. At this time, there are 11 more volunteer projects to work on trail maintenance already scheduled for the rest of 2014.

The lists below indicate trail projects that staff has completed, is currently working on or will work on during the year indicated. Trail maintenance efforts for 2014 are aimed at repairing trails and trail segments at least back to pre-flood functionality. The 'Non-Flood' projects are ones that either were in progress at the time of the flood or are annual cooperative efforts.

2014

Flood Recovery Projects - Completed

a. Saddle Rock
b. Shanahan North Trail
c. South Boulder Creek Trail
d. Bluebell Road
e. Creek access trails off South Mesa Trail (resurface)

Flood Recovery Projects – In progress

a. East Boulder – White Rocks
b. Green Mountain Lodge Access
c. Upper Gregory Canyon
d. Homestead Trail
e. Skunk Canyon Valley trails

Flood Recovery Projects – In planning process

a. Chapman Drive
b. Chautauqua Meadow Trails
c. Homestead Trail
d. Long Canyon
e. Royal Arch
f. Sanitas Valley Trail
g. South Foothills Trail
h. Boulder Falls Trail

Non-Flood Projects

a. Anemone Hill Loop
b. State Highway 93 underpass
c. IBM Connector
d. Seal Rock climbing access
e. Crown Rock climbing access
f. Lion's Lair (Wittemyer)

2015

Flood Recovery Projects

a. Bear Canyon and Bear Peak West Ridge trails
b. Chautauqua, Phase II - Main Chautauqua Trail
c. Towhee and Homestead Trail - Lower portion of each
d. Royal Arch Trail - WTSA direction and/or flood repairs
e. Cowdrey Draw Trail
f. Doudy Draw bridge and trail to the south
g. Goshawk Ridge Trail
h. Gregory Canyon Trail (lower section)

Additional Flood Recovery Projects

HIGH PRIORITY

a. South Boulder Creek West
b. Amphitheater bridge at Gregory Canyon
c. Lower Big Bluestem - considering temp repairs before major South Complex project
d. Mesa Trail crossing of Skunk Canyon
e. Wonderland Hill and Wonderland Lake (re-surfacing)
f. Hogback Trail

MEDIUM PRIORITY

a. Cottonwood (re-surfacing)
b. Dry Creek (re-surfacing)
c. Eldorado Canyon
d. Flatirons Vista South
e. Mesa Trail - general repairs of non-road sections
f. Shadow Canyon
g. Bobolink - creek/fishing access at trailhead
h. Centennial equestrian trail (re-surfacing)

MEMORANDUM

TO: Open Space Board of Trustees

FROM: Mike Patton, Director, Open Space and Mountain Parks
Jim Reeder, Land and Visitor Services Division Manager
Brad Skowronski, Trails Contract Coordinator

DATE: July 9, 2014

SUBJECT: Skunk Canyon Trail Connection

At the June 11, 2014 Open Space Board of Trustees meeting, the Board asked that staff take another look at the proposed alignment of one of the trails in the Skunk Canyon valley. Staff believes that the revised alignment as depicted on the attached map accomplishes the direction provided by the Board.

Specifically, the revised alignment of this southern access trail makes the desired connection to Skunk Canyon Trail as short as possible by going basically west using the existing social trail. This alignment shortens the path for users wanting to go to the west and it no longer parallels the northern access trail so it no longer bisects the un-trailed meadow. Some thought was given to using the new bridge that was recently installed. However, it was determined that people would be reluctant to go north to the bridge just to turn and go south again. Instead, they would likely continue to use the social trail. Around 50 steps will be necessary to build a sustainable trail that gets users to the Skunk Creek Trail directly enough that they will not short cut between the trails. Staff has some concerns that people will not use the stairs but will step off and create parallel social trails just to the side of the steps.

As previously indicated, further construction on this trail cannot resume until November 1 due to its location in the Preble's meadow jumping mouse buffer as defined in the permit for the trail project.

User: philc2 Date: 7/3/2014 Document Path: E:\MapFiles\Signs\TrailheadMaps\SkunkValleyTrailProposal_20140703.mxd

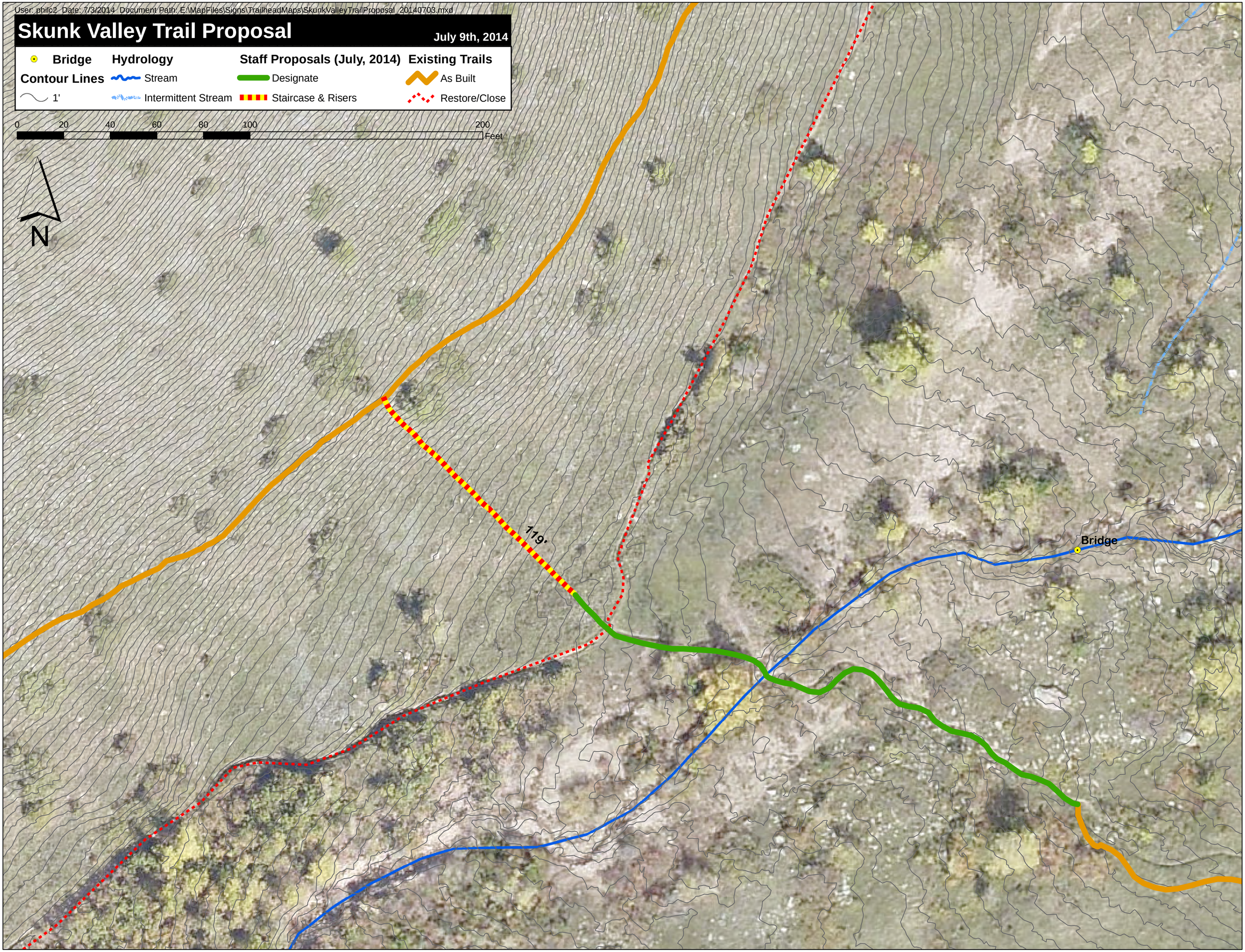
Skunk Valley Trail Proposal

July 9th, 2014

Bridge	Hydrology	Staff Proposals (July, 2014)	Existing Trails
Contour Lines	Stream	Designate	As Built
1'	Intermittent Stream	Staircase & Risers	Restore/Close

0 20 40 60 80 100 200 Feet

N



MEMORANDUM

TO: Open Space Board of Trustees

FROM: Mike Patton, Director, Open Space and Mountain Parks
Dave Kuntz, Resource Systems Division Manager
Jim Reeder, Land and Visitor Services Division Manager

DATE: July 9, 2014

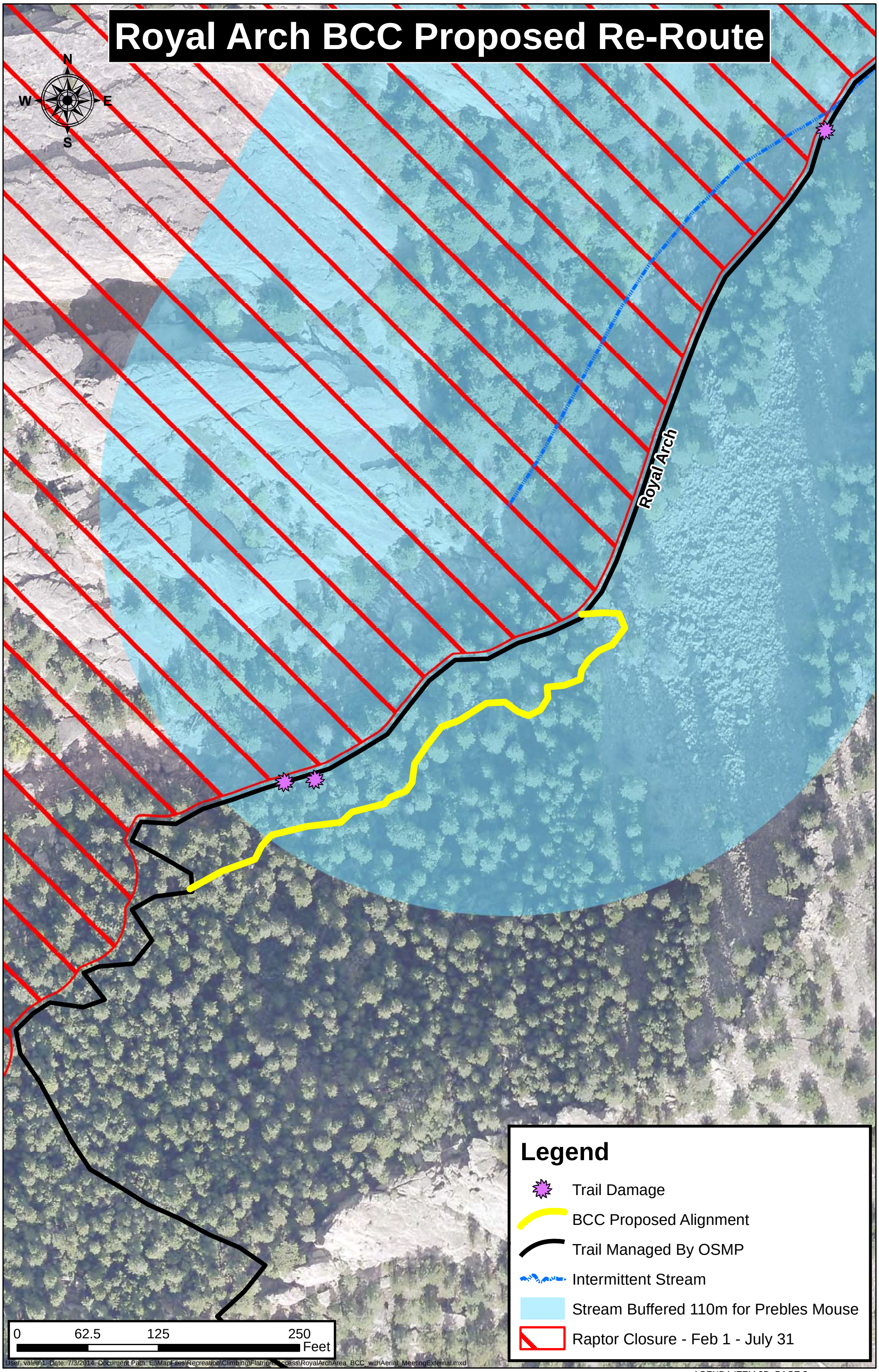
SUBJECT: Royal Arch Reconstruction

At the May 14, 2014 Open Space Board of Trustees meeting, the Board discussed various options to address the significant upper blowout on Royal Arch Trail with a goal of opening the trail for public use as soon as practicable. Staff trail experts have subsequently worked with members of the Front Range Climbing Stewards to determine their best thoughts as to the location of a re-route that would take users around the blown out section of the trail. Their best alignment is depicted on the attached map. The trail will likely not meet our normal trail standards, at least in slope of the trail – it will be rather steep. However, it will be built on and with the rocks that are the basic feature of this alignment so erosion should not be a big concern. Also, since it will be almost the same length as the trail it replaces, the overall average slope will not be significantly different from that of the original trail.

Staff is currently working through the logistics needed before this work can be done. These issues include: wetland and Preble's permits, contracting with a trail builder to build the trail and determining the requisite construction schedule. The Preble's clearance is the most time consuming factor. We anticipate a six week turnaround since we do not believe the alignment will impact the mouse. In addition, while the re-route is not within a raptor closure, the current alignment is the eastern boundary of a raptor closure which opens on July 31. All things considered, it is unlikely any construction will begin before August 1.

A timetable for construction will be established once all prerequisites are completed. Staff will be working diligently to complete this work as soon as possible.

Royal Arch BCC Proposed Re-Route



CITY OF BOULDER
OPEN SPACE BOARD OF TRUSTEES AGENDA ITEM

MEETING DATE: July 9, 2014

AGENDA TITLE Consideration of a recommendation to grant or a nonexclusive permit to Colorado Department of Transportation for the purposes related to the Highway 36 Project, including the design, construction, maintenance, repair and replacement of a crossing of the Shearer Ditch at U.S. 36 which traverses the Van Vleet South and Van Vleet East Open Space and Mountain Parks parcels (please see map--Attachment A).

PRESENTER/S
Michael D. Patton, Director, Open Space and Mountain Parks
James Reeder, Land and Visitor Services Division Manager
Todd Doherty, Water Resources Administrator

SUMMARY
The Colorado Department of Transportation (CDOT) is currently in the process of widening portions of U.S. Highway 36 (U.S. 36) and will be working on the section in the vicinity of the intersection of U.S. 36 and Cherryvale Road. Open Space and Mountain Parks (OSMP) and the City Attorney's Office have worked on the attached Crossing Agreement (Attachment B). The City of Boulder OSMP owns the entirety of the Shearer Ditch. U.S. 36 crosses the city's ditch, and related property ownership interests. The Highway Project will occur on city property within CDOT's deeded right of way. The Agreement will allow for the construction, use and maintenance of modifications to such facilities by CDOT on, over and under the highway right of way and crossing the Shearer Ditch. OSMP staff has reviewed and approved the design plans for the ditch crossing.

The parties desire to enter into this Crossing Agreement whereby CDOT and its authorized contractors will be allowed to construct and maintain the Highway Project within the city's property interest while protecting and preserving the city's ability to carry and deliver water up to its decreed amounts without interference and not limiting or impairing the carrying capacity of the Shearer Ditch.

STAFF RECOMMENDATION

Staff requests that the Open Space Board of Trustees pass a motion recommending the OSMP director grant a nonexclusive permit to CDOT for the purposes related to the Highway 36 Project, including the design, construction, maintenance, repair and replacement of the Shearer

Ditch crossing at U.S. 36 which traverses the Van Vleet South and Van Vleet East OSMP parcels.

COMMUNITY SUSTAINABILITY ASSESSMENTS AND IMPACTS

- Environmental: OSMP is a significant community-supported program that is recognized worldwide as a leader in preservation of open space lands contributing to the environmental sustainability goal of the City Council. The department's land acquisition, land and resource management and visitor service programs help preserve and protect the Open Space values of the surrounding publicly-owned lands.
- Economic: OSMP contributes to the economic vitality goal of the city as it provides the context for the diverse and vibrant economic system that sustains services for residents. The land system and the quality of life it represents attract visitors and help businesses to recruit and retain quality employees.
- Social: Because OSMP lands, facilities and programs are equally accessible to all members of the community, they help to support the city's community sustainability goal because all residents "who live in Boulder can feel a part of and thrive in" this aspect of their community.

OTHER IMPACTS

- Fiscal – No fiscal impacts have been identified.
- Staff time – This matter has been handled by staff during its normal work hours.

PUBLIC COMMENT AND PROCESS

This item is being heard at this public meeting, advertised in the *Daily Camera* on July 6, 2014.

Submitted by:

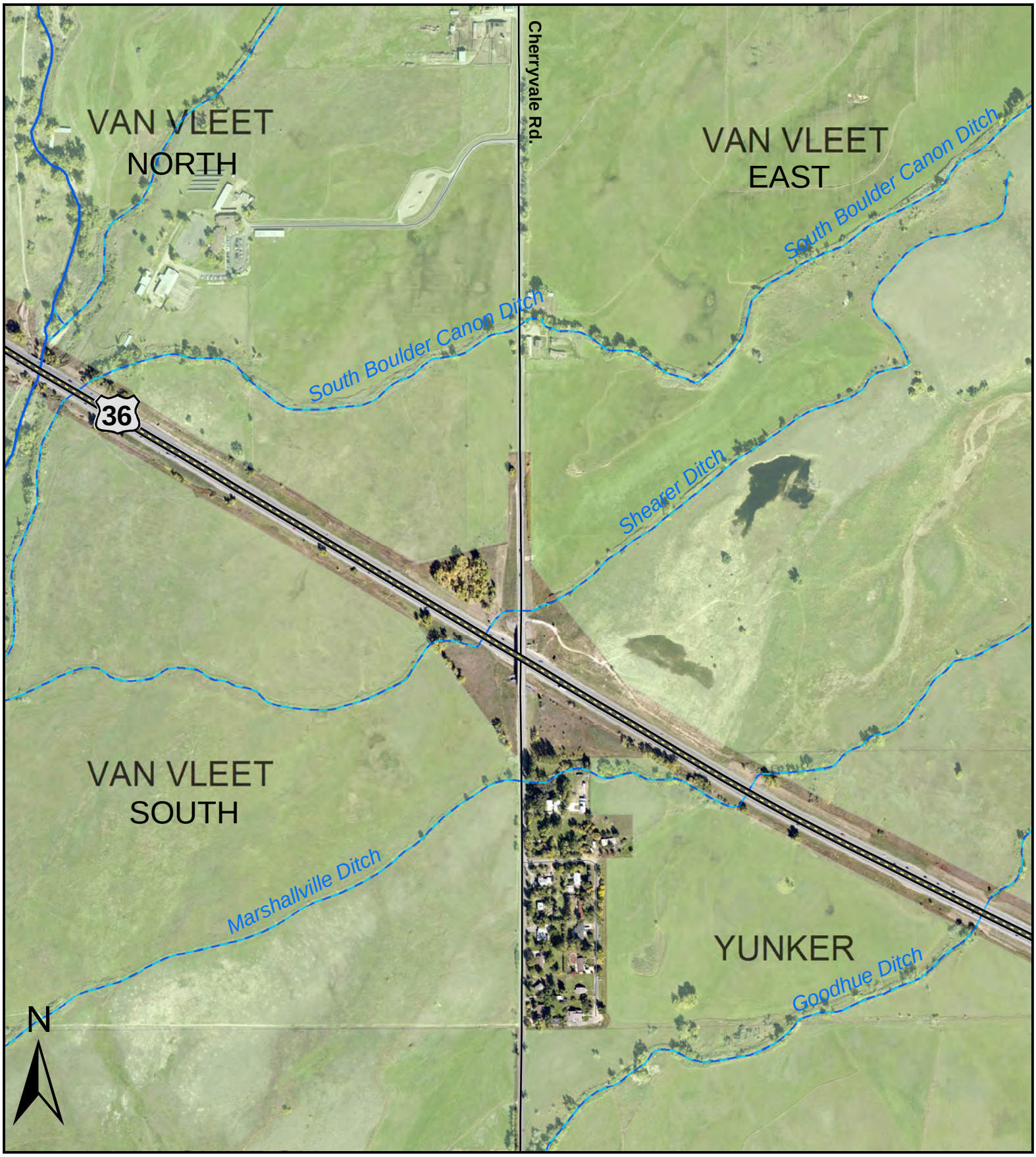
Dave Kurtz for
Michael D. Patton, Director

James Reeder, Land and Visitor Services Division Manager

Todd Doherty by CF
Todd Doherty, Water Resources Administrator

ATTACHMENTS:

A. Vicinity Map
B. City of Boulder and the Colorado Department of Transportation Crossing Agreement



Highway

- Highway
- Street

Hydrology

- Stream
- Intermittent Stream
- Ditch

OSMP Land

- Fee Property

ATTACHMENT A

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Miles

User: philc2 Date: 7/2/2014 Document Path: E:\MapFiles\Hydro\ShearerDitch_36AndCherryvale_8.5x11.mxd

City of Boulder and the Colorado Department of Transportation Crossing Agreement

This Crossing Agreement is entered into this_____day of _____, 2014, by and between the State of Colorado, Department of Transportation, Division of Engineering, Design and Construction (hereinafter referred to as "CDOT"), the Colorado High Performance Transportation Enterprise (hereinafter referred to as "HPTE"), Plenary Roads Denver (hereinafter "HPTE's Contractor") and the City of Boulder, a Colorado municipal corporation City (hereinafter referred to as "City"). CDOT, HPTE and HPTE's Contractor are collectively referred to as the "State." The State and City are collectively referred to as the "Parties."

FACTUAL RECITALS

WHEREAS, HPTE is a division of CDOT and is authorized under C.R.S. §43-4-806, in part, to aggressively pursue innovate means of more efficient financing important surface transportation projects that will improve the safety, capacity, and accessibility of the surface transportation system.

WHEREAS, the State and HPTE desire to design and construct a transportation project: US 36: 88th Street to Foothills Parkway, hereinafter referred to as the "Highway Project," which will involve widening the highway and thereafter maintaining it.

WHEREAS, the City owns and operates an irrigation ditch known as the Shearer Ditch..

WHEREAS, HPTE authorizes CDOT and CDOT staff to act on its behalf in all manners relating to this agreement and agrees that if it should need to interact with City, it will only do so in conjunction with CDOT.

WHEREAS, HPTE has contracted with HPTE's Contractor to design and build the Highway Project.

WHEREAS, US 36 crosses the City's ditch and prescriptive ditch easement, and related property ownership interests associated therewith (collectively "City Property" or "City Property Interest"), and the Highway Project will occur on City Property.

WHEREAS, Since the City and the State each have ownership interests associated with the highway right of way, the Parties enter into this agreement to allow for the construction, use and maintenance of modifications to such facilities by the Parties on, over and under the highway right of way.

WHEREAS, the Parties desire to enter into this Crossing Agreement whereby the State and HPTE, and HPTE's Contractor as HPTE's agent, will be allowed to construct and maintain the Highway Project within the City's Property Interest while protecting and preserving the City's ability to carry and deliver water up to its decreed amounts without interference and not limiting or impairing the carrying capacity of the City's ditch.

NOW THEREFORE, in consideration of the mutual promises hereinafter expressed, the Parties agree as follows:

The City permits the State and all agents, employees or representatives thereof, to enter upon City Property for all purposes related to the Highway Project, including the design, construction, maintenance, repair and replacement of the ditch crossing at US36 depicted on the attached Exhibit A ("the Installation"), subject to the terms of this Agreement as set forth below. All such work on the Installation may be referred to as "the Installation work" or "the work."

ARTICLE 1. INSTALLATION WORK

1.1 The State's Highway Project is a Design/Build contract that will complete the final design and actual construction of the Installation. The final design and construction of the Installation shall be in accordance with this Agreement, as well as CDOT's written specifications, standards of practice (which may include design format), and construction methods, to the extent such design documents are available and have been approved by the City pursuant to Article 1.7 hereof.

1.2 The State will administer the construction and other Installation work to avoid any disruption or interference with (A) use of the ditch to deliver water; and (B) maintenance of the ditch both during and before the season of use.

1.3 HPTE's Contractor shall perform the work in such a manner and at such times as not to endanger or interfere with the continuous operation and maintenance of City Property and the flow of water in the ditch at or in the vicinity of the Installation. No work shall be allowed that interferes with the schedule, rate, volume or quality of water being delivered by the ditch or the maintenance thereof.

1.4 The existing dimensions of the City ditch crossing at US36 shall be used as the initial basis for the design of the Installation, subject to such changes as may be necessary to accommodate the delivery of the City's water up to its current decreed water rights and any other existing uses of the culvert specific to the City and identified in Article 6, below.

1.5 The Installation will be designed in a manner reasonably acceptable to the City that minimizes storm water drainage into the City's ditch from US36 so that such drainage does not exceed historical rates, and that keeps spills or hazardous materials on US36 from entering the City's ditch.

1.6 The Installation shall be done within the existing prescriptive ditch easement of the City with acceptance thereof by the City in its discretion. Any changes to the ditch alignment within the State's highway right-of-way resulting from the Installation are hereby recognized by the Parties to still be within the City's prescriptive ditch easement so that the City's rights thereto shall remain unchanged. The City's use of the Installation shall be exclusive, so that any other uses thereof such as utility lines in the ditch crossing structure shall not be allowed without the City's consent.

1.7 HPTE's Contractor shall coordinate any work on the Installation with the City and shall first obtain City's acceptance in writing of final design plans and schedule including methods and procedures covering all work on City Property or that could impact City Property prior to construction. Acceptance of design plans, or rejection with comments of design plans shall be returned to HPTE's Contractor by no later than 30 calendar days after its submission to City. City's acceptance and/or comments on design plans in no way relieve the State of its liability for improper design and construction of the Installation.

1.8 Upon completion of the construction, HPTE's Contractor shall remove all equipment, surplus material, and debris, leaving the City Property Interest in a neat condition satisfactory to the City. HPTE's Contractor shall provide as-built drawings to the City, and obtain City acceptance in writing for all Installation work on or adjacent to the City Property Interest, subject to Articles 2, 4 and 7, below. Nothing in this Agreement shall be construed as a limitation on City's ability to operate, maintain and repair City Property, including without limitations its ditch, under and through the structure crossing, nor as a limitation on State's obligation to maintain, repair or replace the Installation in the future.

1.9 All notices or exchanges of information required or permitted hereunder, including invoices, submittals for review and requests for approval, shall be delivered to:

Todd Doherty, Water Resources Administrator
Open Space and Mountain Parks Department
City of Boulder
P.O. Box 1777
Boulder, CO 80306
with copies e-mailed to [DohertyT@bouldercolorado.gov].

R1 Utility Engineer
State of Colorado, Department of Transportation, Division of Engineering, Design and Construction
2000 S. Holly Street
Denver, CO 80222
with copies e-mail to: donna.haight@state.co.us

Michael Cheroutes
Colorado High Performance Transportation Enterprise
4201 E. Arkansas Avenue
Denver, CO 80222

Terry Ostrom
Plenary Roads Denver
500 Eldorado , suite 2301
Broomfield, CO 80021
with copies e-mailed to: Terry.Ostrom@Plenarygroup.com

Any Party may modify its address given above at any time by providing written notice to the other Parties of the new address.

ARTICLE 2. INSPECTION

2.1 The State shall notify the City at least five (5) days prior to commencement of the construction of the Installation, maintenance on the Installation, or replacement or repair of the Installation permitted by this Crossing Agreement, except for emergency repairs which are provided for in Article 4.5 of this Crossing Agreement. The City is permitted to inspect the Installation or replacements and repairs during such work.

2.2 Upon receiving written notice that the Installation work is completed (both initial construction and any replacement or repair), the City shall inspect the construction to ensure that it was built consistent with the design plans and otherwise appears satisfactory. The City shall approve the work or

notify the State regarding any concerns that it observed, in writing. Any concerns shall be resolved by the State to the City's satisfaction and approval in writing.

2.3 Upon completion of its initial approval under Article 2.2 above, the City shall have up to two years to provide final acceptance of the Installation work in writing to allow time to assess the Installation through operating and maintaining the ditch. If at any time before final acceptance of the Installation in writing the City notifies the State that the Installation is negatively impacting the City's timing, rate, or volume or quality of water deliveries or its ability to operate and maintain City Property, the State shall immediately cure the problem, at which time the City shall have another year to assess the Installation and raise any concerns before final acceptance.

2.4 The City's right to inspect the State's Installation (including repair or replacement of the Installation) and the acceptance of the Installation by City as described above in no way relieves the State of its liability for improper design, construction, maintenance, repair or replacement of the Installation. The City's inspection is solely for the benefit of the City and creates no obligation to the City.

ARTICLE 3. REIMBURSEMENT OF EXPENSES

3.1 The State agrees to pay all costs and expenses relating to the Installation. The State shall also be responsible for obtaining any necessary permits or approvals for the work, including the cost and expense associated therewith.

3.2 HPTE's Contractor shall reimburse City for engineering review, construction inspection, and legal review fees within 30 days of receiving invoices from the City.

ARTICLE 4. MAINTENANCE, REPAIR AND REPLACEMENT

4.1 During the time the State is completing construction of the Installation, all maintenance, repair and replacement of the Installation shall be the sole legal and financial responsibility of the State as described in Exhibit A. Upon completion of the Installation, the City shall be responsible for routine maintenance of City Property at the Installation subject to Articles 2, 4.2, and 5 hereof, but under no event shall the City be responsible or liable for damages to the Installation resulting from such maintenance.

4.2 The State covenants and agrees at all times to maintain the structural integrity of the Installation provided for hereunder in a good and safe condition and to repair any deterioration, break, leak, blockage and/or damage therein or thereto, or to replace as necessary.

4.3 The State shall perform any of its maintenance, repairs and replacements of the Installation in a manner and at such times as not to endanger or interfere with the continuous operation and maintenance of City Property and the flow of water in the ditch. No maintenance, repairs or replacement by the State shall be allowed that interferes with the timing, rate, volume or quality of water deliveries by the City or the City's operation and maintenance of the ditch.

4.4 In the event of an emergency, the State shall respond and conduct necessary maintenance with the immediacy required. The City shall also make best efforts to notify the State of the need for emergency maintenance. If the State fails to respond to the emergency with the immediacy required, the City may conduct necessary maintenance and give notice thereof to the other Parties as soon thereafter as

practicable. If the City responds to an emergency that falls within the State's obligations under this Article 4., the City shall be entitled to reimbursement of its costs.

ARTICLE 5. DEBRIS

5.1 The City shall be responsible for exercising reasonable care and diligence in keeping the debris grating of the Installation covered by this Agreement free and clear of debris to prevent or minimize the escape or overflow of water. The City shall stockpile the debris removed on-site. The State shall be responsible for removal of stockpiled debris, and such removal shall not be unreasonably delayed. The City may provide the State with notice to remove such debris, in which case the State must remove the debris within two weeks of receiving said notice.

ARTICLE 6. CITY SPECIFIC ISSUES

6.1 The State shall be required to address the following issues specific to the City's ditch:

6.2 The design capacity of the Installation shall be adequate to allow for the decreed water rights (26.08 cubic feet per second).

6.3 The Installation must remain within the State's highway right of way, which CDOT represents to own in fee title, and must be within the City's prescriptive ditch easement. If the City determines that the proposed design of the Installation or any changes in ditch alignment by the State is or may be outside its prescriptive ditch easement, the State must resolve that issue to the City's full and complete satisfaction as determined within the City's discretion before the State may proceed with the Highway Project or Installation.

6.4 The aforementioned issues, and others that the City may identify, must be resolved to the satisfaction of the City before the Installation may proceed.

ARTICLE 7. LIABILITY AND INDEMNIFICATION

7.1 HPTE's Contractor shall obtain and maintain insurance, in types and amounts specified in the contract between HPTE and HPTE's Contractor, which shall include without limitation comprehensive liability and commercial auto liability insurance in an amount acceptable to the City, at all times during the performance of the work authorized in this Crossing Agreement and for so long as the Installation is in use by the City under the terms of this Agreement. All insurance policies of HPTE's Contractor's (except workers compensation) shall include the City and its elected officials and employees as additional insureds as their interests may appear. The additional insured endorsement should be at least as broad as ISO form CG2010 for general liability coverage and similar forms for commercial auto liability.

7.2 The City shall provide the State, HPTE and HPTE's Contractor with invoices for any claimed damages and supporting documentation as may be available. Reimbursement of damages shall be made within 90 days of receiving the invoice or within 30 days of receiving insurance proceeds, whichever is earlier. If said invoice is not paid within that time, the City reserves all of its legal remedies to recover the damages against the State and/or the insurance company referenced in Article 7.1.

7.3 By virtue of entering into this Crossing Agreement, the City: (1) assumes no liability for use, operation, or existence of the State's Installation; and (2) assumes no additional responsibilities or obligations related to the State's future or additional activities in the area described in Exhibit A which are required by this Crossing Agreement.

7.4 The State agrees to hold harmless the City, from all claims and liability for damage or injury to property or persons arising or caused directly or indirectly by the State's construction, restoration, maintenance of, or failure to maintain, the Installation and the State's occupancy and use of the area located in Exhibit A.

ARTICLE 8. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire Agreement between City and State concerning the Work consists of the following:

8.1 This Crossing Agreement;

8.2 Exhibit A to this Agreement, which reflect the State's engineering plans and specifications at the time this Agreement was executed;

8.3 Any final and complete engineering plans and specifications for the Installation submitted to the City by the State and that are approved by the City after this Agreement is executed; and

8.4 CDOT's right-of-way exhibit attached hereto as Exhibit B, which documents the fee title ownership that CDOT represents to the City that CDOT owns and/or that CDOT will acquire for the portion of the Highway Project that includes the Installation.

ARTICLE 9. MISCELLANEOUS

9.1 The failure of one of the Parties to insist upon strict performance of any provision of this Agreement or to exercise any right, power or remedy upon a breach thereof, shall not constitute a waiver of that or any other provision of this Agreement or limit that Party's right, or any other Party's right, to thereafter enforce any provision or exercise any right in this Agreement. Time is of the essence and Parties may strictly enforce all time requirements contained herein.

9.2 This Agreement shall inure to the benefit of, and be binding upon, the Parties hereto and their agents, employees, representatives, or any successors or assigns.

9.3 If a Party believes another Party is in breach of this Agreement it shall provide written notice of the breach. If the breach is not cured within sixty days, remedies shall include any relief allowed by law, including without limitation the enforcement of the terms hereof. Nothing herein, however, shall limit or otherwise delay State's maintenance, repair or replacement obligations set forth in Article 4, nor delay or otherwise restrict the City's ability to undertake maintenance, repair or replacement activities pursuant to Article 4, including emergency response activities.

9.4 If a dispute arises regarding this Agreement that cannot be amicably resolved, the Parties agree to first endeavor to settle the dispute through nonbinding mediation using a mutually acceptable mediator before resorting to litigation. Each party shall incur its own costs of mediation. If a dispute is not resolved within 60 days of a written request for mediation, then any Party may seek to enforce its rights under this Agreement in Court. Nothing herein, however, shall limit or otherwise delay the State's

maintenance, repair or replacement obligations set forth in Article 4, nor delay or otherwise restrict the City's ability to undertake maintenance, repair or replacement activities pursuant to Article 4, including emergency response activities.

9.5 The signatories hereto warrant that they have the authority to execute this document and that it will bind the Parties hereto without further documentation.

9.6 After Installation, any entity engaged by the State to operate, maintain and/or repair US 36 where the Installation work was performed shall be notified of this Agreement and shall be bound by the ongoing obligations described herein as if they were a signatory to this Agreement. The rights and obligations hereunder are assignable, subject to notice and consent in writing by the other Parties hereto, but said consent shall not be unreasonably withheld. If assignment is allowed, any future contract between CDOT and/or HPTE with a successor of HPTE's Contractor, or another operator of US 36, shall require the new contractor to assume the obligations described herein, but also shall convey the rights conveyed herein to the new contractor.

9.7 This Agreement is entered into between the Parties for the purposes set forth herein. It is the express intent of the Parties that they are the only beneficiaries of this Agreement except as identified in Article 9.6, and the Parties are only benefitted to the extent provided under the express terms and conditions of this Agreement.

9.8 The invalidity or unenforceability of any provision of this Agreement shall not affect any other provision of this Agreement, which shall thereafter be construed in all respects as if such invalid or unenforceable provision were omitted.

9.9 The making, execution and delivery of this Agreement by the Parties has been induced by no representations, statements, warranties or agreements other than those expressed in this Agreement. This Agreement and the Contract Documents embodies the entire understanding of the Parties as to the subject matter hereof and there are no further or other agreements or understandings, written or oral, in effect between the Parties relating to its subject matter unless expressly referred to in this Agreement. Modification of this Agreement by the Parties may be made only by a writing signed by the Party or Parties to be bound by the modification.

9.10 This Agreement shall be recorded with the Boulder County Clerk and Recorder at the cost of the State. Reduced size copies of any exhibit may be attached to the original of this Agreement that is recorded at the office of the Boulder County Clerk and Recorder, and such reduced size copies shall not be considered a modification of this Agreement. The failure to record all or portions of Exhibit A and/or Exhibit B hereto because of the size of the document or for any other reason shall not affect the validity or binding nature of this Agreement.

9.11 This Agreement shall be executed in duplicate originals and each duplicate original shall be valid and enforceable against each Party. Signatures transmitted by facsimile or electronically shall be treated for all purposes as if they were original signatures.

9.12 This Agreement shall be effective on the last date it is signed by the Parties.

IN WITNESS WHEREOF, the parties hereto have caused the foregoing Agreement to be executed the day and year first above written.

State of Colorado, Department of Transportation:

WITNESS:

By: _____ By: _____

Scott McDaniel, Acting Chief Engineer

Date:_____ Date: _____

CITY OF BOULDER

_____

Michael D. Patton, Director, Open Space and Mountain Parks

ATTEST:

_____

City Clerk

APPROVED AS TO FORM:

_____

City Attorney's Office

Date: _____

Colorado High Performance Transportation Enterprise:

WITNESS:

By: _____ By: _____

Michael Cheroutes, HPTE Director

Date:_____ Date: _____

Plenary Roads Denver:

WITNESS:

By: _____ By: _____

Terry Ostrom, Vice President Program Delivery

Date:_____ Date: _____

Plenary Roads Denver:

WITNESS:

By: _____ By: _____

Date:_____ Date: _____

TO: Open Space Board of Trustees

FROM: Mike Patton, Director, Open Space and Mountain Parks
Dave Kuntz, Resource Systems Division Manager
Jim Reeder, Land and Visitor Services Division Manager
Mark Gershman, Environmental Planning Supervisor
Andy Pelster, Land and Facilities Operations Supervisor
Kacey French, Environmental Planner
Lauren Kolb, Natural Resource Specialist

DATE: July 9, 2014

SUBJECT: Agricultural Resources Management Plan

I. PURPOSE

The purpose of this study session is to provide an opportunity for the Open Space Board of Trustees (OSBT) and staff to discuss the scope, framework and planning approach for the Agricultural Resources Management Plan.

II. QUESTIONS FOR THE BOARD

1. What topics, if any, do OSBT members recommend be added to topics described in the Issues section?
2. Does the OSBT have any questions or comments on the recommended organization for the Agricultural Resources Management Plan (Agricultural Plan)?
3. Does the OSBT have any questions or comments on the timeline and planning process proposed by staff to develop the Agricultural Plan?

III. BACKGROUND

<u>Open Space and Mountain Parks Charter Direction and Agricultural Operations Background</u>
One of the City Charter purposes of open space is "the preservation of agricultural uses and land suitable for agricultural production."[1] Ongoing agricultural production is a well-established function of Open Space and Mountain Parks (OSMP) land. The charter also lists the "preservation of water resources in their natural or traditional state" as an open space purpose. Water resources in a "traditional state" include the use of water rights for agricultural production on OSMP.

- **Agricultural leases on 14,330 acres**

Approximately 14,330 acres of OSMP land are leased for agricultural production (Attachment A), which comprise almost one-third of the total lands managed by OSMP (approximately 45,000 acres).

[1] OSMP Charter Article XII. Open Space sec. 176. Open space purposes – Open space land.

Table 1: Acres of Land in Agricultural Operations

OSMP Agricultural Land	Acres
Grazed Fields (not irrigated)	11,319
Irrigated Fields	4,900
Grazed and Cultivated Fields	2,253
Cultivated Fields	757

- **Water rights**

OSMP's portfolio of water rights draws from the four major creek drainages in the Boulder Valley (Boulder Creek, South Boulder Creek, Coal Creek, and Left Hand Creek), springs and groundwater. This portfolio contains many senior water rights which establish a reliable source of irrigation in most years. These water rights are used to irrigate the approximately 4,900 acres of city open space.

- **Livestock grazing and hay production are primary uses**

The primary uses of OSMP agricultural land are livestock grazing and hay production. Hay, as feed for horses, has become a significant commodity in the last several decades. Increasing numbers of rural homes where people are keeping horses on acreages too small to meet year-round forage needs is creating a year-round demand for hay.

- **Annual crops**

Annual crops are grown on 300-600 acres of OSMP land each year. Crops commonly grown include wheat, corn and barley.

- **Certified Organic**

Ninety-two (92) acres have organic certification or are transitioning to organic certification. Perennial grasses (for hay production or grazing) and vegetables are currently grown. There are three tenants producing vegetables, which are sold at local farmers' markets, restaurants, schools, grocery stores and through Community Supported Agriculture (CSA) programs. Combined, these farms have 18 acres of vegetables planned for the 2014 growing season.

- **Agricultural commodities and "open" agriculture**

In the past, OSMP staff has rarely established commodity specific agricultural objectives, leaving the choice of what to grow to agricultural lessees. The significant exception is the prohibition of the use of genetically modified organisms (GMOs). Lessee's continue to have the freedom to decide what to grow and to a large degree how to manage their agricultural operations. Choices of agricultural commodities are influenced by local markets and the lessee's ability to sell a product profitably.

In addition to farming and ranching, OSMP leases include a horse boarding operation at Boulder Valley Ranch and a therapeutic riding facility at Cherryvale.

Management of OSMP lands has maintained traditional agricultural production as outlined in the City Charter. The City Charter prohibits the improvement of open space after acquisition unless such improvements are necessary to provide for open agriculture (and other services unrelated to

agriculture). Open agriculture refers to agricultural uses which predominantly occur outside and include grazing, keeping livestock, and the production, harvesting, and selling of agricultural products.

The Grassland Ecosystem Management Plan[2] (Grassland Plan) Agricultural Operations Target[3]

At the foundation of the Grassland Plan are "conservation targets," which were identified as the aspects of the grassland planning area that would best serve as the basis for setting objectives, taking action and measuring success. Agricultural Operations was one of the eight targets.[4] The Agricultural Operations target addresses the long-term sustainability of agriculture on OSMP lands and the conservation of native species dependent upon agricultural operations.

In order to assess the viability of Agricultural Operations, the Grassland Plan identified a limited number of key attributes and indicators. Key attributes are aspects of Agricultural Operations, which if altered can result in the improvement, degradation or loss of the target. Indicators are entities that are measurable and specifically related to one or more key attributes. Table 2 lists the key attributes and indicators identified in the Grassland Plan for Agricultural Operations.

Table 2: Key Attributes and Indicators for Agricultural Operations
(key attributes as shaded rows)

Agricultural Production
Acres in agricultural production
Irrigable land leased for agriculture
Animal Species Composition
Management of class A and class B bobolink nesting habitat
Physical and Chemical Soil Regimes
Percent soil organic matter
Vegetation and Soil Conditions
Percent of grazed areas in good condition according to an integrated measure of range quality

All of the indicators, with the exception of "Management of class A and class B bobolink nesting habitat" were given a "good" rating in the Grassland Plan. The management of bobolink nesting habitat was given a rating of "fair."

- **Agricultural Production**

The Grassland Plan identified ***acres in agricultural production*** as one of the measures to assess the level of agricultural production. OSMP currently leases approximately 14,330 acres for agricultural production. In addition, agriculture is the dominant use on approximately 3,000 acres of conservation easements protected by OSMP. In 2008 there were approximately 80,000 acres of agricultural land in the county. One model used to generate estimates of agricultural

[2] Approved by the OSBT in August 2009 and accepted by City Council in May 2010.
[3] Grassland Ecosystem Management Plan
[4] The other conservation targets are Mixedgrass Prairie Mosaic, Xeric Tallgrass Prairie, Mesic Bluestem Prairie, Black-Tailed Prairie Dog and Associates, Wetlands, Riparian Areas and White Rocks.

land predicts that by 2020 there will be approximately 40,000 acres of agricultural land remaining in the county–an amount approximately equal to the extent of land currently managed for agriculture by Boulder's city and county open space programs. If current trends continue, OSMP lands will be an increasingly critical component of agricultural land in the county. While it is unknown whether existing open space agricultural lands alone could support an agricultural economy, staff's best professional judgment led to a rating of "good."

Irrigable lands leased for agriculture was identified as the other measure to assess the level of agricultural production. Irrigated lands are the most agriculturally productive in the Boulder Valley. Under Colorado water law, if OSMP or any water right owner fails to use their water rights, those rights can be abandoned, partially abandoned, reduced by decree at the time of a water transfer and/or reduced in value. OSMP seeks to avoid such a loss or reductions because under most circumstances they result in financial and opportunity costs for OSMP's land and water management programs.

OSMP lacks the staffing resources to irrigate many or large areas. Leasing water and irrigable lands to local farmers and ranchers has been an effective way to maintain water rights and agricultural land values and provide a modest source of revenue for the department. OSMP works in partnership with lessees to run water on departmental lands, and uses staff to run water on irrigated properties that are not currently leased. In order to maximize production and protect water rights, OSMP seeks to ensure that irrigable lands are leased to the maximum extent possible. At the time of writing the Grassland Plan, 85% of irrigable lands, and nearly all irrigated lands, were leased for agricultural production, giving this indicator a rating of "good."

- **Animal species composition**

OSMP staff identified the ***Management of class A and class B bobolink nesting habitat*** as the measure to assess the animal species composition of the city's agricultural lands. Bobolinks are ground-nesting songbirds that originally nested in tallgrass or mixedgrass prairie, but because of land conversion, have now increased their use of irrigated hayfields. The bobolink has had extreme population decline during the past thirty years and are protected under the Migratory Bird Treaty Act, are considered "vulnerable to extirpation" by the Colorado Natural Heritage Program and a "rare breeding species" by the Boulder County Comprehensive Plan. The use of hayfields as nesting habitat creates a potential management conflict as most operators would like to maximize yields, which translates to several harvests (i.e. mowings) each season.

Bobolinks nest in the summer when much of the mowing typically occurs. Biologists have documented very high failure rates of bobolink nests because of hayfield mowing. The consensus is that postponing mowing until July 15 allows for the majority of fledglings to be able to sustain flight and avoid mowing impacts. This indicator refers to the proportion of high quality breeding habitat on which mowing is deferred until after July 15 (or the actual date of bobolink fledging as determined by monitoring).

In order to identify key bobolink breeding sites, OSMP initiated a hayfield bird monitoring program in 2000. Using abundance and density information from the hayfield bird monitoring program, staff chose four top-tier fields to be designated Class A Bobolink Management Areas (in these areas mowing would only occur after July 15 annually) and identified 14 second-tier

fields as candidates for Class B Bobolink Management Areas. In these areas mowing would only occur after July 15 once every three years. Staff determined that only five of the 14 fields identified as candidates for designation as Class B Bobolink Management Areas were either already being managed in a manner consistent with the Class B Management Area Criteria or could easily be managed in such a manner. Based on this information this indicator was given a rating of "fair."[5]

- **Physical and chemical soil regimes**

Percent soil organic matter was selected as the measure to assess the condition of the physical and chemical soil regimes of agricultural lands. Soil organic matter is living plant tissue and decomposed or partially decomposed material from living plants and animals. Soil organic matter improves soil structure, maintains soil aggregation, minimizes erosion and is an important source of plant nutrients. These functions are all directly associated with and affect agricultural operations and productivity.

It is possible for grazing or other types of harvest to result in organic soil matter depletion faster than rates of accumulation. When removal exceeds plant growth and decomposition, long-term soil productivity decreases. Restoring higher levels of productivity is often difficult and expensive. OSMP has not yet sampled percent soil organic matter in a manner that allows staff to estimate trends. However, percent soil organic matter was given a rating of "good" according to OSMP staff's best professional judgment and familiarity with conditions on the ground.

- **Vegetation and Soil Conditions**

Vegetation and soil conditions have an effect on agricultural operations. ***Percent of grazed areas in good condition according to an integrated measure of range quality*** was identified in the Grassland Plan as one of the measures to assess whether the grazing practices are improving the condition of the land. Observations by OSMP staff have historically been the means of evaluating range and soil conditions. This indicator was given a rating of "good" in the Grassland Plan according to OSMP staff's best professional judgment and familiarity with conditions on the ground. However, qualitative observations have limitations. This indicator specifies the desire to develop a less subjective monitoring method that is easily repeatable and documented to assess grazing land soil stability, hydrologic function, as well as structural and functional resilience to disturbance.

<u>Grassland Plan Strategies</u>

The Grassland Plan identified strategies to maintain or move the indicators to a good or very good condition, or in other words restore or maintain the viability of the targets and address the stresses facing the targets. Agricultural Operations was uniquely positioned in the Grassland Plan, in that it was both a conservation target and one of the sources of stress affecting other targets. Therefore, the strategies listed below have multiple objectives; they are related to improving the conditions of Agricultural Operations directly as well as the conditions of other Grassland Plan Targets affected by Agricultural Operations, thereby balancing and blending

[5] Bobolink Indicator Fair Rating: 100% of Class A Bobolink Management Areas mowed after 7/15 annually and 30-75% of Class B Bobolink Management Areas mowed after 7/15 in one out of three years.

agricultural and ecological management. Table 3 lists the strategies related to Agricultural Operations.

Table 3: Agricultural Operations Related Strategies
(Bolded font indicates strategies that the Agricultural Plan will further develop. More detailed information on strategy development is provided in the Issues section.)

Enhance prescribed grazing program through improvements to fencing, livestock watering facilities, stocking rate and seasonal use adjustments, and the establishment of one or more grass banks
Manage agricultural activities to minimize soil erosion and protect soil fertility
Refrain from mowing the "Class A Bobolink Management Areas" until after bobolink fledging
Construct, repair, enhance and maintain irrigation delivery system
Collaborate with neighboring land management agencies to establish compatible land management practices
Promote conservation of the Grassland Plan targets by increasing awareness of grassland values and conservation issues
Identify and obtain water rights needed to support irrigated agriculture
Evaluate the suitability of alternative agricultural practices for OSMP lands
Establish ten Class B Bobolink Management Areas and refrain from mowing each area until after bobolink fledging (July 15) one year out of three
Develop a safe and effective prescribed fire program for the Grassland Planning Area
Manage Ute ladies'-tresses orchid habitat with compatible grazing, haying and irrigation practices
Treat non-native (invasive or unwanted) plant species in the grassland Planning area using appropriate integrated pest management techniques

IV. ISSUES

The Need for and Goal of the Agricultural Plan

The need for an Agricultural Plan arises from:

- City Charter approved by voters in 1967. Resource Management Plans are developed to guide the management of the charter purposes.
- City Council 2014 work plan priority.
- A need to specify management actions that will implement the broader agricultural and ecological vision articulated in the Grassland Plan and provide a framework for continuing to balance and blend agricultural and ecological management.
- An increased community desire to sustain local farming.
- A need to ensure policies are developed and formalized in order to maintain desired agricultural operations.

The purpose of the Agricultural Resources Management Plan is to ensure the long-term sustainability of agricultural operations and the ecological health of OSMP lands and to foster connections between the community and agricultural operations.

This goal is consistent with and furthers the Grassland Plan's purpose of providing a framework for on-the-ground management action, public policies, and land and water acquisition priorities to ensure on-going agricultural production.

Implementing the Agricultural Guidance Presented in the Grassland Plan

The Grassland Plan introduced several indicators and strategies that the Agricultural Plan will develop further either by more precisely defining standards or analyzing and evaluating implementation alternatives and actions. The Agricultural Plan will focus on developing the Grassland Plan strategies listed in Table 4.

Table 4: Agricultural Plan Components and Related Grassland Plan Guidance

Grassland Plan Guidance	Agricultural Plan Component
Manage agricultural activities to minimize soil erosion and protect soil fertility.	• Develop a protocol to sample percent soil organic matter on a regular basis that would allow staff to estimate trends and set the standards and refine the ratings that will define desired conditions. Because different types of agricultural management affect soil organic matter differently, the protocol will include system-wide sampling on each of the four types of agricultural land use on OSMP (annual cropping systems in dry lands, irrigated annual cropping systems, irrigated pasture/hayfield, grazing of native grasslands).

Grassland Plan Guidance	Agricultural Plan Component
Manage agricultural activities to minimize soil erosion and protect soil fertility.	• Develop an integrated measure of range quality that is easily repeatable and documented to assess grazing land soil stability, hydrologic function, as well as structural and functional resilience to disturbance. Set standards/refine ratings that will define desired conditions.
Enhance prescribed grazing program through improvement to fencing, livestock watering facilities, stocking rate and seasonal use adjustment, and the establishment of one of more grass banks (areas under lease that are not grazed - leaving them available to shift grazing there if conditions elsewhere determine such a shift would be beneficial).	• Analysis to identify and prioritize improvements to: o Fencing alignments to allow for rotational, deferred (rest rotation) and seasonal stocking systems. o Livestock watering facilities/water resources to improve OSMP's flexibility in distributing livestock. o Current stocking rates, timing and duration. • Analysis to determine how best to maintain or improve native grasslands through the grazing program. • Analysis to determine best location(s) for grass bank(s).
Construct, repair, enhance and maintain irrigation delivery system.	• Analysis to prioritize improvements and maintenance. (*A significant amount of the maintenance to the water delivery systems has been deferred. The Grassland Plan estimated the cost at $2 million before the flood of 2013*.) • Locate existing measuring devices that can quantify use, and identify and prioritize locations to install additional measuring devices. • Develop protocol for monitoring water use at key locations. • Determine how to avoid or minimize impacts from the maintenance and operation of the irrigation water delivery system to other resources. • Develop a ditch burning schedule to be integrated with the prescribed fire program. • Inventory the locations of junction boxes, assess their condition, and estimate the scope and timing of repairs or replacement.

Grassland Plan Guidance	Agricultural Plan Component
Identify and obtain water rights needed to support irrigated agriculture	• Analyze irrigation water requirements and availability. • Refine irrigation water models. • Analyze site conditions and water availability to identify lands where irrigation is not cost effective. (Water rights associated with these properties may be useful for supplementing irrigation on higher quality sites, establishing in-stream flow programs.)
Promote conservation of the Agricultural Operations Target by increasing awareness of agricultural values and conservation issues.	• Foster connections between the community and agricultural operations. • Establish connections between producers and local consumers/community. Analyze opportunities and barriers. • Examine the feasibility of establishing a meat marketing cooperative, or meat CSA. Examine the opportunities for creating direct sales in the existing marketplaces (e.g. farm stands, farmer's markets).
Evaluate the suitability of alternative agricultural practices for OSMP lands.	• Increase diversified organic vegetable farming on OSMP land. • Conduct a best opportunity analysis to evaluate potential locations for alternative agricultural practices on OSMP. • Evaluate the suitability/feasibility of other alternative agricultural uses. • Examine the feasibility of establishing a meat marketing cooperative, or meat CSA. Examine the opportunities for creating direct sales in the existing marketplaces (e.g. farm stands, farmers' markets).
Establish ten Class B Bobolink Management Areas and refrain from mowing each area until after bobolink fledging (July 15) one year out of three.	• Determine which 10 of the class B candidates (from the Grassland Plan) would be best added to the Class B Management areas. Analysis will use recently collected hayfield bird monitoring data.

Grassland Plan Guidance	Agricultural Plan Component
Manage Ute ladies'-tresses orchid habitat with compatible grazing, haying and irrigation practices.	• Reiterate the Ute ladies'-tresses orchid strategies identified in the Grassland Plan. • Determine where management could be improved or established on new properties.
Treat non-native (invasive or unwanted) plant species in the Grassland Planning Area using appropriate integrated pest management techniques.	• Develop an IPM policy specific to OSMP agricultural lands to manage invasive species/pests on open space agricultural lands in a way that minimizes environmental impacts, increases productivity and minimizes the use of pesticides and herbicides.

Increased Community Desire to Sustain Local Farming

The 2008 Farm Bill defined local or regional food as a product that traveled l*ess than 400 miles from its origin, or within the State in which it is produced.*[6] The increased dominance of "local" in national dialogues about food is reflected in the increase in the number of farmers' markets nationwide (up 184% from 2000 to 2013)[7,8] and advertising in grocery stores that identifies state and even farm of origin (e.g. Colorado Proud and Jersey Fresh). Consumer preferences for buying local include perceived quality and freshness of local food and support for the local economy. These consumers are willing to pay higher prices for a product they believe to have better quality, nutritional value and methods of production that are better for the environment. This market was estimated to be $4.8 billion in 2008.

Production and sale of locally marketed and direct to consumer food items is more likely to occur on small farms located in or near metropolitan areas.[9] The proximity of OSMP properties to large population centers, including Boulder, surrounding suburbs and Denver, make these agricultural properties prime for taking advantage of direct sale opportunities to consumers who are both health and environmentally conscious.

The Agricultural Plan will evaluate the potential for additional OSMP lands to be used for local consumption. This evaluation will:

- Analyze the barriers/opportunities to finishing and harvesting beef locally
- Establish a definition of natural beef for producers on OSMP lands, and an analysis of how to best support natural beef production on OSMP lands
- Examine local marketing strategies
- Examine ways to establish connections between local producers and consumers.

[6] SEC. 6015.H.R. 6124 *Food Conservation and Energy Act of 2008* http://www.usda.gov/documents/Bill_6124.pdf
[7] http://www.ams.usda.gov
[8] Martinez *et al.* Local *Food Systems Concepts, Impacts, and Issues* Economic Research Report 97
[9] http://www.ers.usda.gov/media/122868/err97_1_.pdf

Policies

Several policies have been identified by staff as needing evaluation or inclusion in the plan in order to support the management of agricultural operations. The identified policies are a Genetically Modified Organism (GMO), Lease Rate and Greenhouses.

- **GMO**

Due to potential risks to the environment and unknown consequences to consumers, staff recommended, in 2000 the department continue to prohibit the use of transgenic crops. This GMO policy was approved by the OSBT. In accordance with this policy staff: 1) sent a letter to each lessee, reinforcing the policy that transgenic crops on Open Space is not permitted, and that securing leases meant compliance with this provision 2) inserted language explicitly precluding transgenic crop production at the time of lease renewal and 3) required Open Space Resource Specialists approve crops to be planted.

- **Lease Rate**

Lease rates are generally determined by what a lessee bids. The Agricultural Plan will provide an opportunity to evaluate alternative lease rate policies.

- **Greenhouses**

As part of the desire to sustain local agriculture greenhouses are frequently suggested. OSMP currently lacks a formal policy allowing, limiting or prohibiting greenhouses. The Open Space Charter prohibits the improvement of open space land after it has been acquired by the city unless the improvements are necessary to provide for open agriculture (or support other services unrelated to agriculture). There *may be* circumstances where a greenhouse would meet the charter requirements, therefore a policy surrounding greenhouses and their appropriateness on OSMP lands, along with an analysis of the economic and energy tradeoffs will be included in the Agricultural Plan as the department evaluates ways to sustain local agriculture.

V. NEXT STEPS

OSMP staff will develop the plan through the third quarter of 2014 and into the beginning of the fourth quarter. Staff will hold a "scoping" open house for the community at the beginning of the plan development stage to gather input on the topics/issues to be addressed in the plan. Small or one-on-one meetings will be held with lessees to gather input on the plan components during the development of the draft plan. Update(s) for the OSBT will be scheduled. Upon completion of a draft plan it will be made available for broader public comment. Staff will hold an open house for interested members of the public and make appropriate changes to the plan based on public input. The plan will be submitted to the OSBT in the first quarter of 2015 for approval.

Table 5: Agricultural Plan Timeframe with Public, Lessee, and OSBT Input Opportunities

July	OSBT Study Session	Plan Development (Lessee Input)
August	Public Comment/Open House	
September		
October		
November	OSBT	
December		
January		
February	Public Comment/Open House	Draft Plan Review
March	OSBT	
2nd Quarter 2015	City Council	

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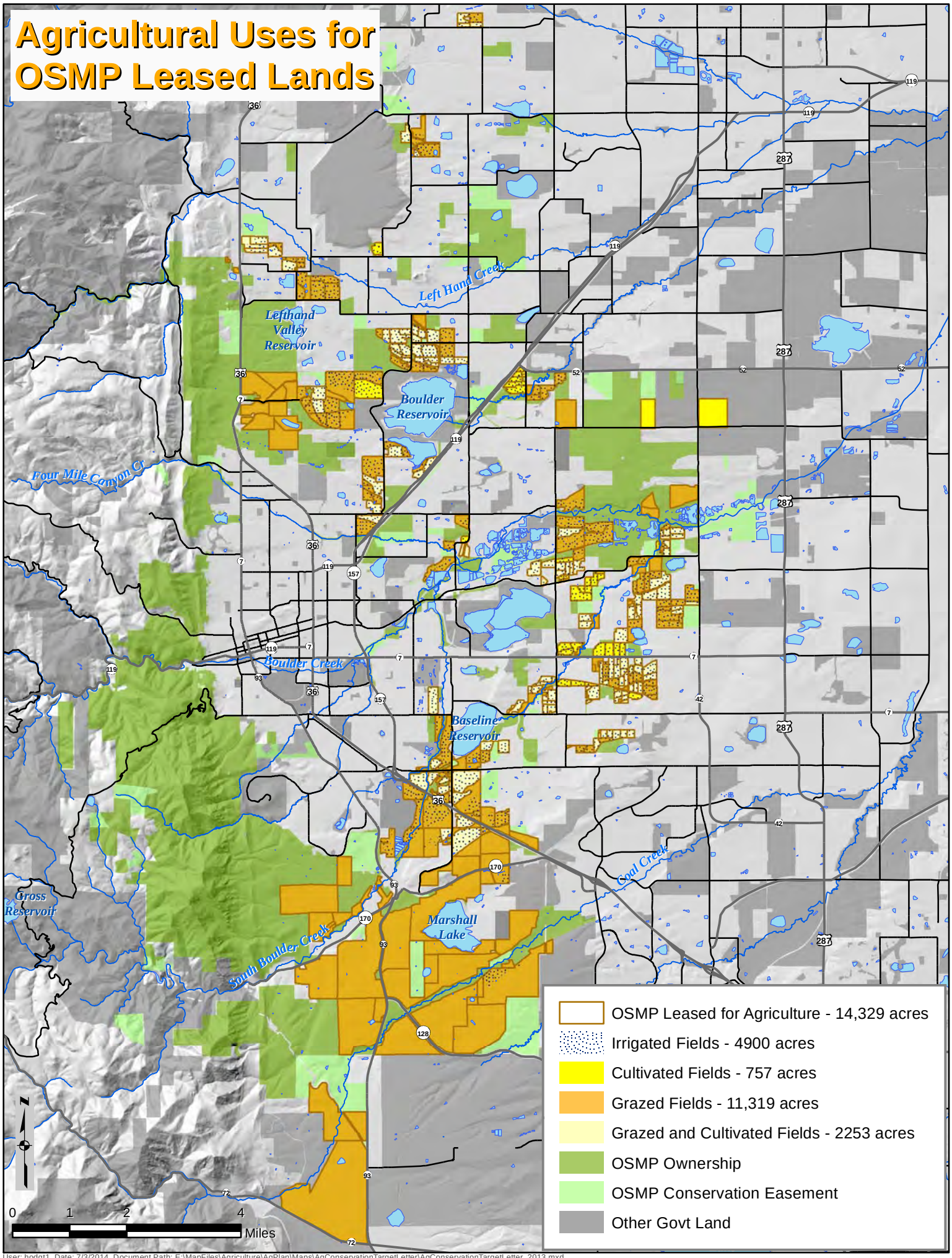
ATTACHMENT:

A. Map of OSMP lands leased for agricultural production



User: hodgt1 Date: 7/3/2014 Document Path: E:\MapFiles\Agriculture\AgPlan\Maps\AgConservationTargetLetter\AgConservationTargetLetter_2013.mxd