

Twin Tunnels Environmental Assessment



Purpose:	Twin Tunnels EA and Frontage Road Project SWEEP Meeting		
Day:	Wednesday	Date:	October 19, 2011
Location:	CDOT Region 1 - Golden		

Participants:

Attendee	Representing	
Ben Acimovic	CDOT R 1	Y
Phyllis Adams	Upper CC Watershed Assn.	Y
Samer Alhaj	CDPOT R 1	Y
Chuck Attardo	CDOT R 1	N
Sandy Beazley	Jacobs	Y
Jim Bemelen	CDOT R 1	Y
Rena Brand	USACE	Y
Allan Brown	Atkins	Y
Carl Chambers	USFS	Y
John Connelly	Michael Baker	N
Jeff Crane	Colorado Watershed Assembly	N
Mike Crouse	Clear Creek Consultants	Y
Lynne Deibel	USFS	Y
Jim Eussen	CDOT R 1	Y
Matt Fairchild	USFS	N
Gary Frey	Colorado Trout	Y
Janet Gerak	CDOT R 1	Y
Stephanie Gibson	FHWA	N
Al Gross	CDOT R 1	Y
Holly Huyck	CDOT	Y
Randy Jensen	FHWA	Y

Attendee	Representing	
Tamara Keefe	Michael Baker	Y
Carol Kruse	USFS	N
Kelly Larkin-McKim	USFS	Y
Gina McAfee	Jacobs	N
Fred Lyssy	Upper CC	Y
Gina McAfee	Jacobs	N
Wendy Magwire	USFS	N
Alison Michael	USFWS	N
Bill Miller	Miller Ecological Consultants	Y
Matt Montgomery	USACE	N
Marc Morton	CDOT R 1	Y
Pat Noyes	Pat Noyes & Assoc.	Y
Becky Pierce	CDOT	Y
Bob Quinlan	Jacobs	Y
Ed Rapp	CC Watershed Foundation	Y
David Singer	CDOT	Y
Jo Ann Sorensen	Clear Creek County	Y
Francesca Tordonato	Jacobs	N
Melinda Urban	FHWA	N
Mary Jo Vobejda	CH2M HILL	Y
Mandy Whorton	CH2M HILL	N

Discussion Items

The purpose of the meeting was to review the project background and schedule, the SWEEP MOU, current information and updates, the role of SWEEP on the Twin Tunnels and Frontage Road projects and the implementation process, and to solicit comments on any of these topics.

Introductions

Participants introduced themselves. Jim Bemelen welcomed the group and reviewed the agenda for the meeting.

Twin Tunnels EA and Frontage Road Project Overview

Jim Bemelen said the Governor has directed CDOT to come up with a solution to fix the I-70 east-bound congestion problem during peak periods. The Twin Tunnels project is a result of the previous Zipper Lane and Tunnel Visioning projects. The Proposed Action widening the interstate to three eastbound lanes between Idaho Springs and the base of Floyd Hill, enlarging the eastbound bore of the tunnels and addressing safety issues on the eastbound highway curves between the tunnels and Floyd Hill. He is confident the Transportation Commission will approve the \$60M funding for this project at their monthly meeting the following day. The Twin Tunnels EA schedule is very aggressive with the decision document to be signed in September 2012. Construction is expected to begin in the spring of 2013 and would take about six months.

Jim said tolling is being studied for the Twin Tunnels project. He feels the third lane might end up being a managed lane during peak periods and the other two lanes will remain free. He also said enlarging the size of the tunnel is being considered.

Jim said the Twin Tunnels will use CM/GC (Construction Management/General Contractor) for project delivery. This will start during the EA process and he expects this will help improve the design and lower the costs. The general contractor can help CDOT come up with innovative solutions for disposing of the rock and dirt from enlarging the tunnel.

Jim said the I-70 Frontage Road Improvements project came about as part of the commitments from the I-70 Mountain Corridor Programmatic Environmental Impact Statement (PEIS). The goal of this project is to develop context sensitive solutions (CSS) for the Frontage Road to provide enhanced safety and mobility for vehicles, pedestrians, and bicyclists. This project will be approved using a Categorical Exclusion (CatEx) rather than an EA. The CatEx is expected to be signed in January of 2012 with construction starting in the summer. The frontage road needs to be widened first to accommodate the detour of traffic off of I-70 during construction of the Twin Tunnels.

Although the projects are separate, many of the environmental resources to be evaluated overlap and the decision was made for the SWEEP group to consider both projects concurrently.

The group would like to see the existing conditions map as soon as possible. Mary Jo Vobejda said the information is available on the interactive map on the CSS website:

<http://i70mtncorridorcss.com/>. She also noted that both projects have separate websites that will be a good resource for this group:

<http://www.coloradodot.info/projects/i70twintunnels>

<http://www.coloradodot.info/projects/i70frontageroad-idahosprings>

SWEEP MOU Review

Becky Pierce reviewed the history of the SWEEP group and the MOU signed in January 2011. The MOU and Implementation Matrix will be used as guidance for water quality, natural habitat and information during all phases of projects on the I-70 Corridor. The SWEEP MOU is available on the CSS website:

http://i70mtncorridorcss.com/docs/plans/SWEEP%20MOU%20Signed%2001_2011.pdf/view

Current Information and Updates

David Singer said a SCAP (Sediment Control Action Plan) is being developed for Clear Creek and will be used by both projects.

David said there are two new reports available on the CSS website that address wildlife connectivity in the corridor, including aquatic wildlife:

- [*A Regional Ecosystem Framework for Terrestrial and Aquatic Wildlife along the I-70 Mountain Corridor in Colorado*](#)
- [*Guidelines for Improving Connectivity for Terrestrial and Aquatic Wildlife on the I-70 Mountain Corridor*](#)

Role of SWEEP on the Twin Tunnels EA and Frontage Road Project

Pat Noyes asked the group to let her know if there were any updates or suggested additions to the current SWEEP membership list.

Implementation Process

Pat said to make it easier for the group to focus on the project development; the Implementation Matrix presented is limited to the project development life cycle phase. The group proceeded to identify issues of concern for each of the projects.

Water Quality - Sediment Management

Gary Frey noted that excavated rocks and possibilities for mineralization were a concern.

Jim Bemelen said CDOT is working on a task order for a Geotech firm to do some boring in the Twin Tunnels. This will help with the design and also determine what the rock is. Holly Huyck stressed that it is important to both horizontal and east-to-west borings done.

The portion of the SCAP that covers the Twin Tunnels and Frontage Road will be available before the entire report is complete. Sediment control and ongoing maintenance of BMPs were identified as issues.

BMPs will be developed for drainage control. Holly said erosion prevention is the first step and sediment control is second.

Water Quality - Clean Water Act

EMC monitoring for storms is very important.

There are stations at Kermitts and Twin Tunnels that were used to get data for the PEIS so there is a baseline. Monitoring at these stations could continue during the projects.

This segment of Clear Creek is on the Section 303(d) list for cadmium.

Water Quality - Mine Workings

I-70 acceleration lane east of Idaho Springs just before the Twin Tunnels and the eastern end of Twin Tunnels has an area of mineralized rock and mine workings.

The west end of the County Road could have mine waste that was used as subbase material.

The south side of the bank on the frontage road east of the Twin Tunnels is an area of concern.

Water Quality - Mine Waste

Gary Frey inquired if the CDOT MOU with the CDPHE for mine waste was ever completed. Mary Jo said no because there are already laws that cover what would have been in the MOU. In its place a Liability Relief Memo would be prepared by the CDOT Regional Water Quality person during the preliminary design and submitted to the EPA and CDPHE.

Natural Habitat - Wetlands Protection

The wetlands inventory is underway so the impacted acres are unknown at this time. Rena Brand said the Corps will be looking at the two projects together and stressed the importance of keeping permanent impacts under ½ acre.

Becky will get Jim Bemelen a copy of the merger agreement.

Temporary impacts due to construction won't count if the wetlands can be returned to their original condition.

Rena explained that any changes, including enhancement, may be considered in the overall impact area calculation.

Natural Habitat - Aquatic Species

There will be an ecological and species inventory done.

There are green back cutthroat trout. Paul Winkle with Colorado Parks and Wildlife has an inventory of species in the creek.

Brown trout spawning season creates restrictions on working in the creek.

Information & Research Needs

University of Northern Colorado Deicing Study

Corridor wide study for riparian and aquatic species

Will there be a public repository for documents? They would go on the CSS website when completed but maybe the draft copies can be provided through the project website or other site.

Next Steps

Ben Acimovic will put together a list of which project team members are developing each of the resource documents and will provide this to the SWEEP committee.

The group agreed upon the next meeting date of Wednesday, November 30th from 9:00 – 11:00 in the Fox Hollows conference room at CDOT in Golden.



Twin Tunnels EA and Frontage Road Project

AGENDA

Purpose:	SWEEP Meeting		
Day:	Wednesday	Date:	October 19, 2011, 9:00 am
Location:	CDOT Region 1 - Golden		

Introductions

Twin Tunnels EA and Frontage Road Project Overview (J. Bemelen)

- Project background
- Schedule

SWEEP MOU Review (R. Pierce)

- MOU development and commitments
- Implementation process and matrix

Current Information and Updates (D. Singer)

- Clear Creek SCAP
- [*A Regional Ecosystem Framework for Terrestrial and Aquatic Wildlife along the I-70 Mountain Corridor in Colorado*](#)
- [*Guidelines for Improving Connectivity for Terrestrial and Aquatic Wildlife on the I-70 Mountain Corridor*](#)

Role of SWEEP on the Twin Tunnels EA and Frontage Road Project (P. Noyes)

- Identify SWEEP related issues
- Develop recommendations through the SWEEP implementation process

Implementation Process (P. Noyes)

- Initial list of issues
- Identification of information and data needs

Next Steps (P. Noyes)

- Assignments for next meeting
- Next meeting schedule

Twin Tunnels EA and Frontage Road Project SWEEP Committee

Implementing the SWEEP MOU on the I-70 Mountain Corridor

Implementation of the Stream and Wetland Ecological Enhancement Program (SWEEP) recommendations is subject to the respective parties' planning, National Environmental Policy Act (NEPA), and decision-making requirements. SWEEP activities and recommendations should coordinate with the Memorandum of Understanding (MOU) and recommendations of A Landscape Level Inventory of Valued Ecosystem components (ALIVE).

- **Project-Specific SWEEP Teams:** A project-specific SWEEP team will collaboratively develop specific project recommendations and mitigations. The establishment of a SWEEP team will follow the Context Sensitive Solutions (CSS) guidelines for establishing Issue Task Forces based on the specific needs and issues of the project.
- **Mitigation Development Process for Tier 2 Documents:** Determine SWEEP Committee involvement in Tier 2 and how mitigation recommendations will be incorporated into project development.
- **Implementation Matrix:** The Implementation Matrix provides guidance for developing recommendations at each Life Cycle Phase. The matrix outlines inputs, considerations, and outcomes for each phase of a project -- consistent with the phases used by the CSS Decision-Making Process.
- **Development and Implementation of Sediment Control Action Plans (SCAPs):** SCAPs will be used to address sediment management and meet Total Maximum Daily Loads (TMDLs). Parties will work collaboratively to implement SCAP recommendations.

SWEEP Meetings

Meeting 1

- Confirm SWEEP Committee membership
- Review the SWEEP MOU and Implementation Matrix
- Identify SWEEP issues associated with Twin Tunnels EA and Frontage Road Project

Meeting 2

- Review inputs and considerations from SWEEP Implementation Matrix
- Endorse project approach to SWEEP concerns
- Review mitigation options

Meeting 3

- Review evaluation results
- Provide recommendations on SWEEP elements



SWEEP Implementation Matrix

The following matrix identifies the primary objective for each of the Issues of Concern identified in the SWEEP MOU and supports policy-level mitigation for aquatic resources as it applies to the Twin Tunnels EA and Frontage Road Project. The matrix outlines the inputs, considerations, and outcomes needed for project development. This approach is consistent with the Life Cycle Phases and 6-Step Process in the CSS Guidance for the I-70 Mountain Corridor.

Water Quality:

<p>Sediment Management</p> <p>Objective: Reduce sediment loading in waterways from winter maintenance, erosion, and mine waste</p> <p>Applicable Laws: Clean Water Act Section 303(d)</p>	<p>Inputs:</p>
	Existing water quality monitoring programs
	Sediment Control Action Plans (SCAPs)
	Site specific assessments
	<p>Considerations:</p> <p>Does the existing SCAP provide strategies to avoid, minimize or mitigate impact to meet the objective?</p> <p>What are the costs and benefits of each strategy?</p> <p>What revisions are needed for the SCAP?</p>
<p>Outcomes:</p> <p>Revise or endorse SCAP</p> <p>Specific sediment management recommendations to meet the standards</p> <p>Identify site specific mitigation strategies</p> <p>Water Quality Management Plan</p>	

<p>Clean Water Act, Section 303(d) Listing of Stream Segments</p> <p>Objective: Reduce non-point source loading impacting stream segments and reduce metals and nutrients loading to meet water quality standards</p> <p>Applicable Laws: Clean Water Act CERCLA RCRA</p>	<p>Inputs:</p>
	<p>303d List impairments by segment</p>
	<p>Gaining/losing segments</p>
	<p>Considerations:</p>
	<p>What are the baseline vs. event driven issues?</p>
	<p>Outcomes:</p>
	<p>Remediation strategies for specific segments</p> <p>Sampling Analysis Protocol (SAP)</p> <p>Initiate site specific consultation with permitting agencies</p>

<p>Mine Workings in the I-70 Right-of-Way</p> <p>Objective: Avoid intercepting underground mines and remediate contaminated mine water where possible</p> <p>Applicable Laws: CERCLA RCRA Clean Water Act</p>	<p>Inputs:</p>
	<p>Subsurface / Geotechnical analysis</p>
	<p>Site specific avoidance opportunities</p>
	<p>Considerations:</p>
	<p>What design/controls are available?</p>
	<p>Outcomes:</p>
	<p>Water quality design/controls/ baselines</p> <p>Mitigation strategies</p> <p>Liability relief memo for specific project</p>

<p>Highly Mineralized Rock Formations within the I-70 Mountain Corridor</p> <p>Objective: Avoid cuts in rock walls that expose entrained heavy metals</p> <p>Applicable Laws: CERCLA</p>	Inputs:
	Site specific assessments
	Considerations:
	What alternatives minimize impacts?
	Outcomes:
	Avoidance or mitigation strategies

<p>Previous Construction Practices Using Mine Waste as Roadbed Material</p> <p>Objective: Avoid disturbing mine waste in mining areas or mine waste previously used as roadbed material</p> <p>Applicable Laws: CERCLA RCRA</p>	Inputs:
	Verify location inventory
	Site specific assessments
	Considerations:
	What alternatives minimize impacts?
	Outcomes:
Avoidance or mitigation strategies	
	Liability relief memo for specific project

Natural Habitat:

<p>Wetlands Protection</p> <p>Objective: No net loss of wetland functions</p> <p>Applicable Laws: Clean Water Act Section 404 Executive Order 11990</p>	<p>Inputs:</p>
	<p>Wetland location inventory</p>
	<p>Site specific assessments</p>
	<p>Wetland Functional Assessments</p>
	<p>Current guidance and regulations</p>
	<p>Coordination with USACE and USEPA</p>
	<p>Considerations:</p>
	<p>Do unique or highly functioning wetlands exist in project areas?</p>
	<p>Will project be subject to USACE Merger Agreement?</p>
	<p>Outcomes:</p>
	<p>Site specific mitigation, preferably within the same watershed</p>
	<p>ROW acquisition</p>
	<p>Clean Water Act Permit or continued consultation</p>

<p>Aquatic Species with Special Status Designation Under State and Federal Rule</p> <p>Objective: No further degradation to, and where possible improvement of, stream systems containing species of special designation</p> <p>Applicable Laws: Endangered Species Act CDOW Listing Colorado SB 40</p>	<p>Inputs:</p>
	<p>Species habitat inventory</p>
	<p>Existing recovery efforts</p>
	<p>Section 7 consultation on special status species</p>
	<p>Coordination with CDOW and USFWS</p>
	<p>Considerations:</p>
<p>Do opportunities exist for projects to enhance recovery efforts?</p>	
<p>Do fish barriers exist that should be removed or fish passages that should be designed?</p>	
<p>Should fish barriers be installed that will protect special status species?</p>	
<p>Outcomes:</p>	
<p>Identify possible recovery efforts</p>	

Aquatic Species as a Recreational Resource Objective: Protect and improve aquatic systems as significant recreational resources	Inputs:
	Recreational resource inventory within corridor
	Project area stream designations
	Adopted local plans
	Considerations:
	Does the CDOW have special designation segments within the project area?
Outcomes:	
Site specific mitigation strategies	
Partnerships	
Enhancement opportunities	

Information:

Information and Research Needs Objective: Identify and acquire information germane to watershed health	Inputs:
	Project specific data
	Considerations:
	What are the environmental effects of winter sand/salt procedures on aquatic vegetation?
	Are there alternative processes that would better minimize sand/salt deposits in the vicinity of rivers and streams?
Outcomes:	
Data collection and use	