4.4 Comments and Responses

Eleven written comments were received during the public comment period from June 9 through July 8, 2009. Nine verbal comments were recorded at the Public Hearing and are included in the transcript in Appendix B.

4.4.1 Written Comments

Copies of the written comments are included in Appendix C. Each written comment and a corresponding response are listed below.

1. COMMENT FROM JOHN SEIFERT
Email to Jess Ortiz, CCD, June 16, 2009:

I was wondering if the EIS is available on-line? If not, why not? It would be so much easier for residents of the impacted areas to access this important information if it were available on-line.

Response:

The Environmental Assessment (EA) is available on-line at: http://www.denvergov.org/Capital_Projects_Center/CentralParkBoulevardInterchange/tabid/431817/Default.aspx

2. COMMENT FROM REBECCA LOY
Email to Jess Ortiz, CCD, June 19, 2009:

While I understand that the CPB exchange has been planned for quite awhile, I think it's an unnecessary "improvement" to the I-70 that promises to increase traffic through Stapleton without substantially improving access to the I-70. There are already entrances on Quebec and Havana and it seems to me that a better expenditure of this capital would involve making those pre-existing entrances more efficient.

I'm concerned about increasing traffic on CPB, as there are herds of families with young children consistently crossing the street down by 28th Avenue, both because of the Westerly Creek elementary school and because of the Aviator Pool. As the area builds in, there will also be more pedestrian traffic near Central Park. A substantial

increase in vehicle traffic on CPB would increase the potential for pedestrian/ biker-vehicle incidents and no one wants to see that.

Furthermore, every interchange that's added to an expressway slows traffic on that expressway and makes it less efficient.

So instead of improving what we already have, I feel like we're wasting money on an unnecessary project that will make the freeway slower and increase vehicle traffic in a heavily pedestrian area.

I know that the momentum is obviously in support of building this interchange but I wish that we would all ask ourselves if this is actually the best use of this money.

Thanks for reading!

Response:

Improvement of the I-70/Quebec Street and I-70/Havana Street interchanges was evaluated in both the *I-70 East Draft Environmental Impact Statement* and the *I-70/Central Park Boulevard Environmental Assessment*. Both studies determined that interchanges at I-70/Quebec Street, I-70/Havana Street, and an additional interchange at I-70/CPB are required to serve traffic demand generated by new development in the Stapleton redevelopment project and surrounding areas.

Improvements to the I-70/Quebec Street and I-70/Havana Street interchanges are included in the package of improvements now under evaluation in the *I-70 East Draft Environmental Impact Statement*.

Vehicle traffic on the streets within and adjacent to the Stapleton redevelopment project will continue to increase as the community continues to develop and the project's street network continues to expand. The City's traffic engineering department monitors traffic operations in and adjacent to Stapleton and implements changes, as needed, to maintain the efficiency of the street system. Denver police provide enforcement of traffic laws, including monitoring and enforcement of areas experiencing excessive vehicle speeds.

3. COMMENT FROM CHRISTINE WHINERY
Email to Jess Ortiz, CCD, June 25, 2009:

Although my husband and I are unable to attend the hearing tonight, we would like to comment on the prospect of an I-70 / Central Park Interchange. We recently purchased a house in Stapleton, on Central Park Boulevard, and we are stongly opposed to this project. The first reason we are opposed to this idea is because it would greatly diminish the value of our property and that of many other Stapleton families. This is a major concern to us as new homeowners in the midst of economic crisis which has already led to a struggling housing market.

Secondly, Stapleton is a neighboorhood full of families with small children and we believe that as a result of the interchange project, the additional traffic on Central Park would create a much less safe neighboorhood for our families, putting our children at risk. We are stongly opposed to the idea of our street becoming a thoroughfare between I-70 and other areas of the city, allowing drunk drivers and others entrance into our neighboorhood, again putting our children at risk. The third and final reason that we oppose this project is the additional traffic noise it will create on Central Park Boulevard. The street is already quite noisy just due to Stapleton traffic alone; but if this project is allowed to proceed, the traffic noise will most-likely become a huge problem for residents.

We appreciate the opportunity to present our concerns regarding the project.

Response:

The I-70/Central Park Boulevard interchange and the extension of Central Park Boulevard are part of the Denver region's transportation plan. The I-70/Central Park Boulevard interchange, the subject of this current Environmental Assessment, will provide a connection between I-70 and Central Park Boulevard. The extension of Central Park Boulevard from 36th Avenue to Northfield Boulevard (excluding the interchange area), is a separate (but concurrent) project of the Park Creek Metro District.

A new interchange on I-70, serving the Stapleton Redevelopment project, has been on the Stapleton Infrastructure Master Plan since 2001. The plans for an interchange at Central Park Boulevard were made available to the public before they were finalized. Traffic planning for the Stapleton project, as well as overall planning for the Denver region, has anticipated the interchange with I-70 and the extension of Central Park Boulevard across I-70 to the Northfield area.

The design of Central Park Boulevard between 36th Avenue and Northfield Boulevard, a concurrent project to the planning of the I-70/Central Park Boulevard interchange, anticipates the traffic demand on Central Park Boulevard that will be generated by adjacent development as well as motorists accessing the interstate. An annual traffic count program is conducted by Forest City Stapleton to confirm that traffic volumes on the area's street system remain within planned levels. Denver police provide enforcement of traffic laws, including monitoring and enforcement of areas experiencing excessive vehicle speeds.

A detailed analysis of traffic noise in the immediate vicinity of the proposed interchange was completed as a part of the I-70/Central Park Boulevard Interchange Assessment (EA) in June 2009. The detailed analysis was limited to the interchange study area, however, and did not evaluate Central Park Boulevard south of 40th Avenue. As noted above, planning and design of Central Park Boulevard as an urban arterial street in the Stapleton redevelopment project, was based on forecasts of future traffic demand (and traffic noise). It is anticipated that traffic noise levels on Central Park Boulevard, south of 36th Avenue, will be consistent with the traffic noise levels of other urban arterials in the Denver area with comparable traffic volumes.

4. COMMENT FROM ADAM GILDEN TAI
Project Website Comment Form, June 26, 2009:

My neighbors have informed me that there are no plans to restrict the traffic of large commercial vehicles through the Stapleton neighborhood as part of the Central Park Blvd Interchange. I think most of us in the neighborhood agree that while the trucks need at least one way to get to their destination (in case they run into construction or traffic), and while we want the businesses in Stapleton to be financially viable, we do

not want eighteen wheeler trucks driving through our small streets and putting our kids at risk. So, please restrict trucks and other large commercial vehicles to the arteries in the area, such as MLK Blvd, Central Park Blvd, Quebec St, Havana St, etc. Thank you.

Response:

It is expected that heavy truck traffic using the I-70/Central Park Boulevard interchange will be serving commercial and industrial destinations in the immediate area, including Northfield, the 40th Avenue corridor between Central Park Boulevard and Havana Street, and Quebec Square. Because there are few significant commercial and industrial designations along and adjacent to Central Park Boulevard in south Stapleton, it is not anticipated that there would be a substantial increase in truck traffic on Central Park Boulevard south of 35th Avenue. The City may install truck weight restriction signs and/or wayfinding signs if a problem develops with trucks inadvertently travelling through residential areas.

5. COMMENT FROM KELLY PROCTOR
Email to Jess Ortiz, June 26, 2009:

I could not attend the meeting last night, but have a lot of concerns about this interchange especially because the other existing interchanges on I-70 are not being improved and feel that this new interchange will negatively impact the Stapleton neighborhood. I think the original purpose of the interchange, which was to improve local north/south access in Stapleton and to Northfield is valid, but think that adding multiple lanes off and on I-70 and I-270 will create shortcuts around I-70 that will place unneccessary traffic on roads through neighborhoods. As included on the comment sheet, I think that truck weight limits should be placed on CPB for any traffic south of Smith Road and north of Northfield. Also, stop signs (like the ones at 29th Ave) and low speed limits should be used between 35th Ave and I-70 to discourage any "through" traffic trying to bypass I-70 and Quebec or Havana.

Response:

The I-70 East Draft Environmental Impact Statement and the I-70/Central Park Boulevard Environmental Assessment studied the interchanges at I-70/Quebec Street and I-70/Havana Street, and determined that an additional interchange at I-70/Central Park Boulevard is required to serve traffic demand generated by new development in the Stapleton redevelopment project and surrounding areas. Please see the response to Written Comment 4 for additional information on truck traffic.

6. COMMENT FROM KELLY PROCTOR
Project Website Comment Form, June 26, 2009:

I think that there should be truck weight limits and speed restrictions on all roads south of Smith Road and north of Northfield to limit traffic into neighborhood streets.

I think the lane access over I-70 should be limited to 2 lanes in each direction (not 3) to match the existing streets in Stapleton and Northfield.

I don't think there should be any access to I-270 from this exit. Trucks and other non-neighborhood traffic will use this neighborhood boulevard just to bypass Quebec's poor design.

Response:

As part of the Environmental Assessment process, traffic forecasts for the year 2035 were analyzed to determine the appropriate number of lanes and access in the interchange area. Traffic planners for the extension of Central Park Boulevard from 36th Avenue to Northfield Boulevard conducted a similar analysis. To service forecast traffic, Central Park Boulevard is designed as a six-lane arterial from 40th Avenue to Northfield Boulevard, including the interchange area. Central Park Boulevard, between 36th Avenue and 40th Avenue, is planned as a four-lane arterial.

FHWA required that a full-movement interchange, providing access to both I-70 and I-270, be implemented at this location.

Please see the response to Written Comment 4 for additional information on truck traffic.

7. COMMENT FROM BRIDGET MCANDREW
Project Website Comment Form, June 26, 2009:

What restrictions will be in place to prohibit heavy truck traffic and high traffic speeds on central park blvd south of I70? This area has a high concentration of small children and I am concerned about safety issues that comes with the high volume traffic this project would bring. I believe the enforcement of a slower speed limit would be a reasonable precaution. My other concern is over noise pollution. CPB runs along side residential properties and I am concerned about traffic noise, especially from trucks that would disrupt my peaceful neighborhood, and depress property values in these areas. Likewise I believe a restriction on heavy truck use is resonable since Quebec is still available and has a higher proportion of commercial buildings on it. Finally, where can I get more information on how to bring these concerns to the planning committee to ensure they are reviewed and considered?

Response:

It is expected that heavy truck traffic using the I-70/Central Park Boulevard interchange will be serving commercial and industrial destinations in the immediate area, including Northfield, the 40th Avenue corridor between Central Park Boulevard and Havana Street, and Quebec Square. For additional truck traffic information, please see the response to Written Comment 4. The City's traffic engineering department monitors traffic operations in and adjacent to Stapleton and implements changes, as needed, to maintain the efficiency of the street system. The City can be contacted for additional information regarding traffic concerns in your neighborhood.

Central Park Boulevard was planned and designed as an urban arterial street in the Stapleton redevelopment project, and was based on forecasts of future traffic demand (and traffic noise). It is anticipated that traffic noise levels on Central Park Boulevard, south of 36th Avenue, will be consistent with the traffic noise levels of other urban arterials in the Denver area with comparable traffic volumes.

8. COMMENT FROM LORI MALDONADO
Project Website Comment Form, June 26, 2009:

Traffic is high in this area already. Because it is the 1st community in Stapleton, the majority of residents consist of young families with small children. Already there is racing along these streets. I am concerned for pedestrian safety and the increase of traffic that will occur in this residential area. Pets have been killed on Central Park, pedestrians will be next. Frequently the police are called to report speeding and drag racing. I also am concerned that my property value will decline as I live along Central Park. To assume it will not be impacted is a farce. I would hope for safety of the residents along Central Park that stop signs or lights be installed to slow down increased traffic. I would hope that signage to detour large vehicles/trucks/semi's, etc., would be placed prominently so that these vehicles are not driving thru the residental area which starts at MLK and Central Park continuing south to Montview.

Response:

The City's traffic engineering department monitors traffic operations in and adjacent to Stapleton and implements changes, as needed, to maintain the efficiency of the street system. Denver police provide enforcement of traffic laws, including monitoring and enforcement of areas experiencing excessive vehicle speeds. The planned posted speed limit for Central Park Boulevard is 35 mph. Please see the response to Written Comment 4 for additional information on truck traffic.

9. COMMENT FROM STEPHANIE HICKMAN
Email to Kelly Maiorana, URS, June 26, 2009:

We are very concerned about the amount of traffic that will be coming through Stapleton as a result of this project. We are very excited about the interchange and are behind it 100%. However, we would like to see a restriction of large commercial vehicles driving south of Smith Road, through the middle of our neighborhood. We would like to see a good number of stop signs/stop lights on Central Park Blvd, making it a hinderance to people cutting through from the interchange to Quebec, especially when traffic on westbound I-70 is slow and backed up.

The speed limit also needs to be kept at 30 miles or less.

Response:

The planned posted speed limit for Central Park Boulevard is 35 mph. The City's traffic engineering department monitors traffic operations in and adjacent to Stapleton. Please see the response to Written Comment 2 for additional information on vehicle traffic within and adjacent to Stapleton and Written Comment 4 for additional information on truck traffic.

10. COMMENT FROM STEPHANIE WARNELL
Project Website Comment Form, June 29, 2009

My husband attended the June 25th mtg. Although we are in favor of the Central Park Blvd. interchange we were not aware the project was so large. I am quite concerned about the amount of traffic this interchange will bring to the neighborhood. Again, while I understand the need for the interchange, I hope someone is considering the families and the children that reside in the area. I would like to see at minimum a restriction on large commercial vehicles venturing south of Smith Road. Also will expect to see enough stop signs and lights on CPB to control traffic speed. I also hope to see strict enforcement of the speed limit. Already cars fly down the Blvd. Prior to this home I lived on Roslyn Street at 26th Blvd. I was there when it was a quiet little one lane road to the speedway it has become; I hope the City does a better job with Central Park Blvd.

Thank you.

Response:

The City's traffic engineering department monitors traffic operations in and adjacent to Stapleton. Please see the response to Written Comment 2 for additional information on vehicle traffic within and adjacent to Stapleton and response to Written Comment 4 for additional information on truck traffic.

11. COMMENT FROM PHIL AND LISA VOGEL
Project Website Comment Form, June 30, 2009

There must be restrictions on commercial traffic (i.e. large trucks) heading south on Central Park Blvd from the I-70 interchange. Otherwise there are going to be serious

safety and noise concerns with large heavy vehicles travelling down CP Blvd right next to residential homes and Central Park itself. These vehicles can access the various Quebec Square businesses via Quebec St without needing to travel down CP Blvd.

Response:

Heavy truck traffic using the I-70/Central Park Boulevard interchange will be serving commercial and industrial destinations in the immediate area. Please see the response to Written Comment 3 for additional information on traffic noise and response to Written Comment 4 for additional information on truck traffic.

4.4.2 Public Hearing Comments

Nine people commented at the Public Hearing and those comments are included in Appendix B Public Hearing Transcript. Each comment and corresponding response are listed below.

1. MARIANNE RODGERS:

Marianne Rodgers, 8456 East 35th Avenue, Denver, 80238. I'd like to say that this project has potential to funnel an awful lot of traffic into a lovely residential neighborhood, Stapleton. My husband and I moved here about a year and a half ago. And Stapleton was sold to us—we came from Buffalo, New York. Stapleton was sold to us as a safe, walkable, quiet neighborhood. So our concerns are about the traffic that's going to be funneled right down the center of our neighborhood and the increased speed of that traffic. And I realize I'm probably in the minority. So what I'd like to ask you to do is to have signage that will direct the commercial traffic to the areas that they want to go, such as the business district, Quebec—Quebec Square, and so forth; and some kind of signage indicating that people staying straight on Central Park Boulevard are entering a residential neighbor. And traffic—the speed limit now, I believe, is 30 miles per hour. People exceed that already. If you're increasing it to 35 miles per hour, I'd like to see some enforcement of the speed limit. I'd really like to see the speed limit stay at 30. Did I leave anything out? I think that's the extent of my comments. And I thank you for the opportunity.

Response:

The City's traffic engineering department monitors traffic operations in and adjacent to Stapleton and implements changes, as needed, to maintain the efficiency of the street system. Denver police provide enforcement of traffic laws, including monitoring and enforcement of areas experiencing excessive vehicle speeds. The planned posted speed limit for Central Park Boulevard is 35 mph.

It is expected that heavy truck traffic using the I-70/Central Park Boulevard interchange will be serving commercial and industrial destinations in the immediate area, including Northfield, the 40th Avenue corridor between Central Park Boulevard and Havana Street, and Quebec Square. Because there are few significant commercial and industrial designations along and adjacent to Central Park Boulevard in south Stapleton, it is not anticipated that there would be a substantial increase in truck traffic on Central Park Boulevard south of 35th Avenue. The City may install truck weight restriction signs and/or wayfinding signs if a problem develops with trucks inadvertently travelling through residential areas.

2. ROBERT REINERT:

Robert Reinert, 7505 East 35th Avenue, Quebec Square. I'm representing the Greater Stapleton Business Association; I represent them. We support 3B. Stapleton is not just a—south of I-70 or north of I-70; it's all of I-70. There are businesses on the north side—sorry. I'm not used to mikes. Stapleton and I-70 is all of north metro, not just Stapleton. And all we keep mentioning here is Stapleton. I want to make people understand it's not just Stapleton. Commerce City, everything up here depends on this—Aurora, everything. We need this interchange. We need it now. We need it not in 2013. That's our biggest complaint, is we've been promised that we're going to get this done in Thanksgiving, it will be opened in 2010. It's now being, what—I just heard 2013. We have too many businesses that are failing and not working in Northfield because of this not being open and not having traffic getting up there. For any of you that have driven Quebec or tried to go up Quebec at any time when there's anything going on at the north end of town, you can't. Same thing with Havana with the four-way stop that we have up there. We need access—another access road to allow

businesses, residents, and everyone in the north end of Denver to get in and out of the businesses and the residential areas. If you look at what's being built up by the Rapids stadium—this year, again, we're going to have a big tournament—a big rock festival there. I'm telling you now, if you haven't—if you just moved here, don't try and go up Quebec on those days. It's not going to happen. You won't get there. I appreciate that—your comments about traffic. I'm concerned about that as well. I have grandchildren that live out this way. It's something that we can address. But we have to have this interchange, and we have to do it expedited. I would like to also thank Forest City, who wasn't mentioned here. Forest City has been putting a lot of money in behind the doors, I think, to help this project. For those of you who didn't know it, they put a ton of money in. A quick example of how this project can get done in a hurry if it wanted—for those of you who have lived in Colorado a long time, in the early 80s, US-36 was blown up on a Friday night by a train wreck. US-36 was open Monday morning to traffic. We can do this in a hurry. They can do it in a hurry if they want to. GSBA wants this and we want it now. We don't want to wait until 2013. Our comments are, please do what you can to expedite this process. Thank you.

Response:

Comment noted.

3. DANIEL ST. LAURENT:

Well, it's—it's Dan St. Laurent. I'm at 2843 Central Park Boulevard. And I'm only wearing a uniform because I came from work, not because I represent any government agency. I represent a very concerned citizen. There already exist major thoroughfares from I-70: Havana, Quebec, Peoria. Central Park Boulevard is quickly also becoming a major thoroughfare. I'm all for a bridge that connects north and Stapleton to allow access to—between those two areas. But access from I-70 into Central Park Boulevard I have serious reservations about. And I realize I'm probably coming to this debate a little bit late, but this is honestly the first that I knew about it. Central Park Boulevard already has traffic problems. That's been mentioned. I live right on Central Park Boulevard and constantly see people exceeding the speed limit. There are generally police traps at MLK and 29th, and they are constantly pulling

people over. They're not just sitting there waiting to find somebody; they find somebody every minute that they're sitting there. I saw a photo speed trap sitting on Central Park Boulevard. And I went up and I thanked him for sitting there. Because—and his flash to catch on camera the traffic was going off every 30, 60 seconds because people speed down that area. And then I find out that this bridge is three lanes both directions. Central Park Boulevard is only two lanes. So is there some plan in the future to extend this? Central Park Boulevard becomes, you know, more and more of a major thoroughfare. It's just already a dangerous—it's a dangerous place for me to live and bring up my child. Stapleton is such a great family centered and oriented community. And I constantly see children walking around Central Park Boulevard. There are not enough stop signs on that street. There are not enough streetlights on that street. And I will be first on that petition list, if there is one going around, that would propose increased regulations on Central Park Boulevard, speed limit restrictions, and stoplights. I appreciate your attention.

Response:

To service forecast traffic, Central Park Boulevard is designed as a six-lane arterial from 40th Avenue to Northfield Boulevard, including the interchange area. The I-70/CPB Interchange bridge over I-70 would be nine lanes wide with three through lanes in each direction and the remaining lanes being used for left-turns. Central Park Boulevard, between 36th Avenue and 40th Avenue, is planned as a four-lane arterial (two lanes in each direction).

The design of Central Park Boulevard between 36th Avenue and Northfield Boulevard, a concurrent project to the planning of the I-70/Central Park Boulevard interchange, anticipates the traffic demand on Central Park Boulevard that will be generated by adjacent development as well as motorists accessing the interstate. An annual traffic count program is conducted by Forest City Stapleton to confirm that traffic volumes on the area's street system remain within planned levels.

Vehicle traffic on the streets within and adjacent to the Stapleton redevelopment project will continue to increase as the community continues to develop and the

project's street network continues to expand. The City's traffic engineering department monitors traffic operations in and adjacent to Stapleton and implements changes, as needed, to maintain the efficiency of the street system. Denver police provide enforcement of traffic laws, including monitoring and enforcement of areas experiencing excessive vehicle speeds.

4. MATTHEW GRAY:

My name is Matthew Gray. I live at 8501 35th Drive. Along with most of the people here, the concern is the traffic. I think my biggest concern is going to be the large commercial vehicles that will be able to exit onto Central Park and go through a neighborhood. I am for the interchange and—to go through to the other side. Businesses—we've seen what happens. The other town centers haven't gone up—and going yet. We need to get some people in the neighborhood; make it easier for them to get here. But large commercial traffic should not be brought in through a residential neighborhood with kids, just like other people have mentioned. Also, if this does go through, I think that the other interchanges, Quebec and Havana, have to be updated and made more accessible for use. I get onto I-70 from Quebec every day and get off there. And I think a lot of changes have to be made in those interchanges too. That is all I have to say today.

Response:

Improvement of the I-70/Quebec Street and I-70/Havana Street interchanges was evaluated in both the I-70 East Environmental Impact Statement and the I-70/Central Park Boulevard Environmental Assessment. Both studies determined that interchanges at I-70/Quebec Street, I-70/Havana Street, and an additional interchange at I-70/Central Park Boulevard are required to serve traffic demand generated by new development in the Stapleton redevelopment project and surrounding areas.

Improvements to the I-70/Quebec Street and I-70/Havana Street are included in the package of improvements now under evaluation in the *I-70 East Draft Environmental Impact Statement*. Please see the response to Public Hearing Comment 1 for additional information on truck traffic.

To service forecast traffic, Central Park Boulevard is designed as a six-lane arterial from 40th Avenue to Northfield Boulevard, including the interchange area. The I-70/CPB Interchange bridge over I-70 would be nine lanes wide with three through lanes in each direction and the remaining lanes being used for left-turns. Central Park Boulevard, between 36th Avenue and 40th Avenue, is planned as a four-lane arterial (two lanes in each direction).

5. ANGIE MALPIEDE:

Good evening. My name is Angie Rivera Malpiede. And I'm at 7350 East 29th Avenue, Denver, Colorado 80238. I'm here tonight as the director of the Stapleton Area Transportation Management Association. And we're here in support of the bridge, number one; but number two, the need for that pedestrian and bicycle connection. Of everything that I've heard within the community and the surrounding communities, the one thing that people consistently ask is for the pedestrian and bicycle connections and that perhaps there be some kind of a buffer between the traffic and the actual 12-foot lanes that will be happening for that. So we are thrilled with the 3B, along with the Greater Stapleton Business Association, and we are thankful to all the partners that helped this happen. Thank you.

Response:

Comment noted.

6. AMANDA ALLSHOUSE:

Amanda Allshouse. 10107 East 31st Avenue, 80238. So in further support of additional pedestrian and bicycle access and a buffer, if there could be some sort of traffic control for cars that are entering and exiting the freeways so that the pedestrian and bicycle traffic has the right-of-way over cars that are coming and going from the freeway, in addition to an increased barrier—as much separation as possible. We've used Quebec to cross over the interstate on bicycles, and there was actually police presence at the time to facilitate that. But it—in the high-traffic area, it's important to protect the pedestrians and cyclists as much as possible.

Response:

The ramp intersections will be signalized and allow for cyclists and pedestrians to cross at these locations. Each side of the bridge will have attached sidewalks that are 10 to 12 feet in width and are separated from the general traffic lanes by a concrete traffic barrier.

7. DANIEL BENJAMIN:

Daniel Benjamin, 2863 Central Park Boulevard, Denver. We'd like to see just the access to Northfield without any on-ramps or off-ramps of I-70. Having a 12-lane bridge is quite insane. We'd much rather see money spent on improving the Quebec and Havana interchanges and making those much more pedestrian-friendly as well.

Response:

To service forecast traffic, Central Park Boulevard is designed as a six-lane arterial from 40th Avenue to Northfield Boulevard, including the interchange area. The I-70/CPB Interchange bridge over I-70 would be nine lanes wide with three through lanes in each direction and the remaining lanes being used for left-turns. Central Park Boulevard, between 36th Avenue and 40th Avenue, is planned as a four-lane arterial (two lanes in each direction).

Improvement of the I-70/Quebec Street and I-70/Havana Street interchanges was evaluated in both the *I-70 East Draft Environmental Impact Statement* and the *I-70/Central Park Boulevard Environmental Assessment*. Both studies determined that interchanges at I-70/Quebec Street, I-70/Havana Street, and an additional interchange at I-70/Central Park Boulevard are required to serve traffic demand generated by new development in the Stapleton redevelopment project and surrounding areas.

Improvements to the I-70/Quebec Street and I-70/Havana Street are included in the package of improvements now under evaluation in the *I-70 East Draft Environmental Impact Statement*.

8. LORI MALDONADO:

My name is Lori Maldonado. I live at 2725 Central Park Boulevard. And I'm for stop signs or stoplights because it's such a—traffic flow is just terrible there. I see dogs that have been hit there now. Late at night, there's drag racing going on. You can hear cops stopping people left and right there. So right as it is, it's too fast and it's going to get worse. So that's my input; just for safety reasons.

Response:

Please see the response to Public Hearing Comment 3 for additional information on vehicle traffic within and adjacent to Stapleton.

9. COLLETTE SHAUGHNESSY:

My name is Collette Shaughnessy. My address is 9003 East 24th Place, Number 102, Denver, 80238. I'm in favor of traffic calming on Central Park Boulevard, a four-way past the new Stapleton. I don't care how. But there's kids going to school at Bill Roberts. Cars speed up going from Montview north past Bill Roberts—the access to Bill Roberts School and the Denver School of Science and Tech. And then it proceeds by the RE/MAX building, and it starts speeding up. There's a bridge there that shows—that you can't see traffic because of the construction of the bridge itself. So there's need for a stop sign there on 25th and Central Park Boulevard on both sides of the—on the south side of that bridge proceeding north. I especially want no truck traffic, no commercial traffic through the residential area of 35th Avenue. That should be redirected to the Quebec Square area. And since they can't go further—the trucks are not able to go further east now on 35th. There will not be a bridge that connects it to Havana. There's going to be a dead-end there at Westerly Creek. So people—there's no reason for them to go through that residential area on 35th Drive—35th Avenue. The only other thing I could think of was—I know it's a major arterial. I know it was meant to be a major arterial for CCD. However, this is residential, and we need additional traffic calming on Central Park Boulevard, the entire distance through Stapleton, from south to north. Thank you.

Response:

The design of Central Park Boulevard between 36th Avenue and Northfield Boulevard is a concurrent project to the planning of the I-70/Central Park Boulevard interchange by Park Creek Metro District. This project has anticipated the traffic demand on Central Park Boulevard that will be generated by adjacent development as well as motorists accessing the interstate. The planned posted speed limit for Central Park Boulevard is 35 mph. An annual traffic count program is conducted by Forest City Stapleton to confirm that traffic volumes on the area's street system remain within planned levels.

Please see the response to Public Hearing Comment 1 for additional information on truck traffic.

4.5 Agency Coordination

The EA was sent to the following agencies for review on June 8, 2009:

U. S. Army Corps of Engineers
Denver Regulatory Office
9307 South Wadsworth Blvd.
Littleton, Colorado 80128-6901

U.S. Environmental Protection Agency
1595 Wynkoop Street
Denver, Colorado 80202

Denver Regional Council of Governments
1290 Broadway, Suite 700
Denver, Colorado 80203

Forest City Stapleton
7351 East 29th Avenue
Denver, Colorado 80238

U.S. Fish and Wildlife Service
Ecological Services, Colorado Field Office
P.O. Box 25486, DFC (MS 65412)
Denver, Colorado 80225-0486

Colorado Division of Wildlife
Department of Wildlife Headquarters
6060 Broadway
Denver, Colorado 80216

State Historic Preservation Officer
Colorado Historical Society
1300 Broadway
Denver, Colorado 80203

Regional Transportation District
1600 Blake Street
Denver, Colorado 80202

4.6 Agency Comments and Responses

Written comments were received from the U.S. Army Corps of Engineers (USACE), USFWS, the U.S. Environmental Protection Agency (USEPA), and the CDOW during the comment period and have been included in Appendix D, Agency Coordination and Comments. Letters from the USACE, USFWS, CDOW, and USEPA have been summarized and a response to comments is provided below. Changes to the EA text have been recorded in Section 4.7, Clarifications to the Environmental Assessment.

4.6.1 U.S. Army Corps of Engineers

In response to a letter sent to the USACE on May 6, 2009, a letter was received on June 5, 2009 from the USACE concurring with determination that the 0.146 acre wetland in the study area is not jurisdictional. A Department of the Army Permit is not required for the construction of the proposed project.

Response:

Comment noted.

4.6.2 U.S. Fish and Wildlife Service

A letter was received on June 18, 2009 from the USFWS. The USFWS asked to be notified if raptor nests are in the project area. They also asked for updates to the mitigation table to reflect Colorado Division of Wildlife's *Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors* (CDOW 2008) that recommends restricting human encroachment within a 1/3-mile radius of active red-tailed hawk nests beginning February 15. Any land-clearing and tree removal activities will also be required to start prior to February 15.

Response:

These comments have been addressed in Table 3-1 and are included on page 3-11 of this FONSI.

4.6.3 Colorado Division of Wildlife

A letter was received on July 24, 2009 from the CDOW. The CDOW asked for mitigation measures to be implemented for impacts associated with the Preferred Alternative.

Specifically the CDOW asked for the mitigation measures to be implemented for wetlands, riparian area, and threatened and endangered species.

Response:

Project mitigation measures are discussed in Table 3-1 and are included on page 3-11 of this FONSI. Some of the mitigation measures requested by CDOW were included but revised to be consistent with other projects in the region.

To clarify comments regarding impacts to riparian areas, this project will impact clusters of trees in upland areas not associated with streams or flowing ditches. Five small areas are present within the project area located on the south side of I-70, in a slight roadside depression that extends from the proposed CPB bridge west approximately 0.50 mile (Figure 4-1). The roadside depression is dominated by eastern cottonwood (*Populus deltoides*), Russian olive (*Elaeagnus angustifolia*) and Siberian elm (*Ulmus pumila*) trees, and sandbar willow (*Salix exigua*). Although two raptor nests were observed within this roadside depression, there will be no direct impacts to the Sand Creek riparian area.

To accommodate CDOW mitigation requests, the following changes have been made to Table 3-1:

- Tree mitigation has been changed to require "Impacted trees within the ROW greater than 1 inch at Diameter at Breast height to be replaced on a 1:1 basis" which is more specific than the CDOW requested language.

- The mitigation table has been revised to include that "Contractors' vehicles will be washed before they are used for construction to ensure they are free of soil and debris capable of transporting noxious weed seeds or roots" which is not as specific as the CDOW requested language.

- The mitigation table has changed the requirements for the borrowing owl survey to read "Conduct burrowing owl surveys within potential impacted black-tailed prairie dog (BTPD) colonies between March 1 and October 31".

It should also be noted that the Preferred Alternative is anticipated to permanently impact 21.9 acres of BTPD colonies and temporarily impact 1.8 acres of BTPD colonies. This was correctly stated on Page 1 of the CDOW comment letter, but misstated on the bottom of Page 2. The project will comply with the *Impacted Black-tailed Prairie Dog Policy* (CDOT 2009) and the *Black-tailed Prairie Dog Relocation Guidelines* (CDOT 2002).

4.6.4 U.S. Environmental Protection Agency

USEPA Region 8 reviewed the I-70/Central Park Boulevard Interchange EA and responded in a letter dated July 8, 2009. The USEPA does not object to the proposed interchange at I-70 and CPB; however, they offered the following detailed comments to ensure adequate protection of human and environmental health. The letter is included in Appendix D, Agency Coordination and Comments, and comments attached to the letter have been responded to below.

Air Quality Comments

Section 4.7.15: Air Quality (first bullet):

Pages 4-66 and 4-67: This section discusses carbon monoxide (CO) and PM_{10}; however, it does not address other pollutants of concern for the metropolitan Denver area. The metro-Denver area is currently designated as nonattainment for the 1997 8-hour (0.08 ppm) ozone National Ambient Air Quality Standard (NAAQS). A historical discussion regarding the 1997 8-hour ozone NAAQS and the relevance to metro-Denver is provided in section 2.2 of the Air Quality Technical Report, but there is no discussion on how emissions from the construction of this project from 2010 through 2012 will affect the area's ability to attain and maintain that NAAQS. Further, will construction emissions from the timeframe of the construction of this project hinder the metro-Denver area's ability to meet the 2008 8-hour (0.075 ppm) ozone NAAQS? This should be considered, as the EA offers no emissions mitigation except for construction dust emissions. In addition, EPA notes that Colorado submitted its State Implementation Plan revision (dated June 18, 2009) for demonstrating attainment of the 1997 8-hour ozone NAAQS on June 23, 2009.

We also note that EPA's Integrated Risk Information System states that diesel exhaust appears "…likely to be carcinogenic to humans by inhalation from environmental exposures." Diesel exhaust is the combination of diesel particulate matter (DPM) and diesel exhaust gases which include $PM_{2.5}$. As the vast majority of the construction equipment likely to be used on this project would be both on-road and non-road diesel equipment, it would be appropriate that a discussion be provided regarding $PM_{2.5}$, and the potential impacts, as associated with this project.

Response:

A discussion on how mitigation measures will assist in the attainment plan of the 8-hour ozone standard has been included in Section 4.7 of this FONSI.

A brief discussion of DPM has also been added to the Air Quality text and Air Quality Technical Report (URS, Pinyon 2009). Additional mitigation measures were added to Table 3-1 on page 3-11 and Section 3.2.4 on page 3-7.

Section 4.7.15: Air Quality (second bullet):

Pages 4-66 and 4-67 and section 2.2 of the Air Quality Technical Report addressing MSATs: EPA is concerned that the MSAT discussion in the DEIS and section 2.2 of the Air Quality Technical Report contain concepts and language from FHWA's February 2006 Interim Guidance on MSATs, with which EPA has consistently disagreed. We recently provided comments on this issue in our letter dated March 31, 2009, on the I-70 East Highway Project DEIS, and we suggest you refer to this letter for details regarding our disagreements with FHWA's 2006 MSAT guidance.

We note that air toxics are defined as pollutants in the air that are known or suspected to cause cancer or other serious health effects, such as respiratory, neurological, reproductive, and developmental effects. MSATs are usually the largest source of air toxics of concern in urban areas. Emissions from on-road mobile and non-road sources typically occur near the ground and are not particularly buoyant. Therefore, the largest impacts of these emissions tend to occur at receptors close to the source.

Response:

As a result of USEPA consistently disagreeing with the MSAT discussions FHWA have been providing in FHWA documents, and their disagreement with the FHWA's 2006 Interim Guidance on MSATs, FHWA and USEPA Region 8 are in the process of preparing standard language for the MSAT sections in future NEPA documents.

Section 4.7.15: Air Quality (third bullet):

In view of the duration of this project (three years), the construction location (between the current Quebec and Havana street interchanges), the proximity to current businesses at the Northfield area (with their patrons and employees), and the potential for additional commercial development adjacent to and during the project's construction phases, it would be appropriate to develop a construction phase emission inventory that would include criteria pollutants, with precursor emissions, as well as MSAT emissions. The development of a criteria pollutants emission inventory would also provide information to assist in the evaluation of potential impacts with regard to the $PM_{2.5}$ and the 2008 8-hour ozone NAAQS noted above.

Response:

This inventory was not done because USEPA's conformity rules exempt construction activities lasting five years or less at any site, so presumably a construction project lasting three years would not require an emissions inventory.

Section 4.8.4: Air Quality:

Pg. 4-73, section 4.8.4 Air Quality, Mitigation: The EA contains mitigation measures that will essentially control dust emissions from the construction phase of the project. The EA does not contain any mitigation measures for engine exhaust emissions from construction equipment. As the vast majority of both the on-road and non-road construction equipment to be used on this project would be powered by diesel engines, we recommend that the EA include the following potential mitigation measures:

- Prohibiting unnecessary idling of construction equipment,
- Using low-sulfur fuel,
- Locating diesel engines and motors as far away as possible from residential areas,

- Locating staging areas as far away as possible from residential uses,
- Requiring heavy construction equipment to use the cleanest available engines or to be retrofitted with diesel particulate control technology,
- Using alternatives for diesel engines and/or diesel fuels (such as: biodiesel, liquefied natural gas, compressed natural gas, fuel cells, or electric engines),
- Installing engine pre-heater devices to eliminate unnecessary idling during winter time construction,
- Prohibiting tampering with equipment to increase horsepower or to defeat emission control devices effectiveness,
- Requiring construction vehicle engines to be properly tuned and maintained, and
- Using construction vehicles and equipment with the minimum practical engine size for the intended job.

Response:

USEPA's suggestion to add measures to mitigate engine emissions were inserted in the Air Quality text in Section 3.2.4, page 3-7 of the FONSI and to the Air Quality Technical Report (URS, Pinyon 2009).

Editorial Comment:

Pg. 2-2, Table 2.1-1 of the Air Quality Technical Report, correction: EPA revised the lead (Pb) standard from 1.5 $\mu g/m^3$ to 0.15 $\mu g/m^3$ as measured over a rolling 3-month average. (ref. 73 FR 66964, November 12, 2008, effective January 12, 2009) the lead primary and secondary standards are the same.

Response:

Changed lead standard from 1.5 $\mu g/m^3$ to 0.15 $\mu g/m^3$ measured over a rolling 3-month average. (*This change has been made in the Air Quality Technical Report and is included on the enclosed compact disc*)

Water Quality Comments

EPA believes the EA should include additional information pertaining to potential water quality effects to Sand Creek and the South Platte River Watershed. To ensure adequate disclosure of impacts to and protection for this environment we suggest that FHWA:

- Identify pollutants that would likely be associated with indirect water quality degradation, identified in the EA as potentially arising due to vehicular traffic and as the result of increased development of the adjacent properties; *(Information added to pages 4-42 and 4-43 of this FONSI)*
- Disclose whether the indirect impacts of the Preferred Alternative are likely to contribute to impairments of the Aquatic Life Warm Class 2 use and the Recreation Class 1a use for South Platte River Segment 16a (Sand Creek), currently 303(d) listed as impaired for selenium and *E. coli; (Information added to pages 4-44 and 4-45 of this FONSI)*
- Disclose whether or not the Preferred Alternative is likely to cause any additional impairments for pollutants associated with the Aquatic Life Warm Class 2 use, Recreation Class 1a use, or the Agriculture use; and *(Information added to pages 4-44 and 4-45 of this FONSI)*
- Discuss the extent to which the mitigation measures are likely to address the indirect impacts associated with vehicular traffic and increased development. *(Information added to page 4-44 of this FONSI)*

Response:

Information suggested above has been added and the revised EA text is located in Section 4.7, Clarifications to the Environmental Assessment.

Hazardous Materials Comments

The Hazardous Materials sections of the document (4.3 and 4.8.2) appear to focus on Health and Safety concerns and Materials Management concerns. EPA believes this leaves out critical information on source/contaminant characterization. We recommend that the EA include details on:

- How sampling programs will be designed to appropriately characterize soils and groundwater/surface water; *(Information added to page 4-55 of this FONSI)*
- How to confirm or deny the presence of contaminants of concern identified in the Phase 1 Recognized Environmental Conditions; *(Information added to page 4-55 of this FONSI)*
- What benchmarks or standards will be used to determine if action is needed to protect worker health and safety (or other receptors, if any); *(Information added to page 4-55 of this FONSI)*
- What the management actions will be (containment/capping, complete removal, or natural attenuation based on lack of receptors and incomplete pathway in the developed areas); and *(Information added to page 4-55 of this FONSI)*
- If transport and disposal will be required, what steps will be taken to ensure that it is done properly and the materials are accepted by appropriate entities. *(Information added to page 4-55 of this FONSI)*

In addition, regulatory action levels used to determine the significance of contamination should be specified. Specifically, on page 4-17, we recommend referring to the regulatory action levels for 1,1-dichloroethene in groundwater. Similarly, if there are action levels for other contaminants of concern in groundwater and soil, the EIS should be clear about the standards that will be used for reference or for cleanup levels. This information should be added to Section 4.3.3 and 4.8.2. Finally, the modified phase I environmental sites assessment refers to the Stapleton Numeric Criteria (SNC). We recommend that you include an explanation of the relationship of the SNC to the Colorado Maximum Contaminant Levels.

Response:

The information suggested above has been added and the revised EA text is located in Section 4.7, Clarifications to the Environmental Assessment.

4.7 Clarifications to the Environmental Assessment

The following clarifications to the EA are based on public and agency comments received during the comment period. If changes were made to a section of the EA, the entire section has been included for contextual purposes. Changes or additions to the text within the section can be identified by blue text.

Updates made to Tables ES-3 and 4-1 *Summary of Proposed Project Mitigation, Commitments, and BMPs* starting on pages ES-12 and 4-92 of the EA.

The Summary of Proposed Project Mitigation, Commitments, and BMPs table was updated to include USFWS, CDOW, and USEPA comments. These comments have been addressed in Table 3-1 of this FONSI.

The following information replaces text in Section 3.8: *Funding Plan and Project Completion Schedule* on page 3-43 of the EA.

The construction funds to implement the Preferred Alternative have been updated to match the funding agreements between CCD and CDOT. Funding has been assembled from several sources including federal transportation funds. The funding contribution from SAFETEA-LU has been updated from $6.3 to $6.5 million and an additional line for Interstate Maintenance (IM) funds has been added with an additional $0.5 million, for a total of $50.8 million. Other costs and contingencies were increased to $3.4 million.

These comments have been addressed in Table 2-1 and are included on page 2-5 of this FONSI.

The milestone schedule has been updated to show Right-of-Way and Utility clearances to be completed by the 3rd Quarter 2009 and is shown on page 2-7 of this FONSI.

The following clarification to the BTPD mitigation discussion was made in Section 4.2.4: *Mitigation* (pages 4-12) in the EA.

A conversation on May 12, 2009 with Ms. Ashley DeLaup, CCD Wildlife Ecologist, indicated that CCD is considering purchase of a property in summer 2009 specifically for BTPD relocation.

This would provide an opportunity for relocation if an area is available before the contractor is ready to relocate the BTPD.

The following text replaces all of the text under Section 4.7.15: *Air Quality* on pages 4-66 and 4-67 in the EA.

The USEPA has delegated authority to the CDPHE to administer many of the requirements of the Clean Air Act. Within the CDPHE, the Air Pollution Control Division (APCD) oversees air quality policies. The State Implementation Plan (SIP) establishes emission limits for different categories of polluters, such as motor vehicles. In order to achieve the emission reductions necessary for compliance, Metropolitan Planning Organizations (MPOs) are required to demonstrate that transportation plans and programs stay within these SIP budgets. This is done through the transportation conformity process through a Memorandum of Agreement (MOA) with the APCD and CDOT. Regional conformity indicates that transportation activities within the region will not cause new air quality violations, worsen existing violations, or delay timely attainment of National Ambient Air Quality Standards (NAAQS).

The air quality analysis for this project, more thoroughly detailed in the air quality technical report (Appendix D: Technical Reports) (URS, Pinyon 2008b), indicates that the Preferred Alternative would not result in long-term or permanent adverse effects to air quality. The project is included in the air quality conformity assessment for the fiscally constrained *2035 Metro Vision Regional Transportation Plan*. Similarly, the project is in the conformity network for the current *DRCOG 2008-2013 Transportation Improvement Program*; therefore, the project demonstrates regional conformity.

Pollutants of Concern

When assessing the potential impacts of transportation projects, the pollutants of primary concern for the Denver metropolitan area are CO, O_3, and PM_{10}. Pollutants of concern are commonly found air pollutants that are regulated by the USEPA. The NAAQS and Colorado ambient air quality standards represent safe levels that allow for avoidance of specific adverse health and welfare effects associated with each pollutant. Due to the status of these three pollutants in the Denver area, and CDOT and FHWA oversight, the project is subject to federal conformity requirements.

CDOT conducts project-level conformity analysis in non-attainment or attainment/maintenance areas and assess the localized effects of traffic growth in the air quality planning process. The Denver metropolitan area is in an attainment/maintenance area for carbon monoxide (CO) and particulate matter 10 micrometers in diameter and smaller (PM_{10}).

Ozone

Ozone (O_3) is also considered a pollutant of concern in the Denver metropolitan area. The Denver area is currently considered to be in non-attainment for O_3, based on a 2003 8-hour ozone violation, which caused the Denver metro region's 3-year average to violate the 8-hour ozone NAAQS for 2001-2003. The area is now considered a nonattainment area for ozone and the CDPHE is required to revise the SIP based on current air quality data. In response, the CDPHE developed the Denver Metro Area and North Front Range Ozone Action Plan in 2005 (Vol. 70, Number 94, May 17, 2005).

Based on the 2001-2003 design values, the Denver Metro Area/North Front Range (DMA/NFR) area violated the 8-hour ozone standard at three monitors and was included on USEPA's 2004 list of nonattainment areas. However, based on terms in the Early Action Compact, USEPA deferred the nonattainment area designation pending the area continuing to meet the deadlines in the EAC and achieving the 8-hour standard by December 31, 2007 (based on data from the 2005-2007 ozone seasons).

Despite efforts in the EAC Ozone Action Plan (OAP) that reduced ozone-causing emissions in the DMA/NFR, the area failed to achieve the standard due to high readings in July 2007, resulting in a three-year (2005-2007) design value of 0.085 parts per million (ppm) at one monitor (Rocky Flats North) which violated the 8-Hour Ozone NAAQS.

On November 20, 2007 the USEPA did not continue the deferral of the effective date for nonattainment in the DMA/NFR 8-hour nonattainment area and the official nonattainment designation became effective at that time. A revision to the Ozone Action Plan to preserve the reductions estimated in the original plan was approved by the USEPA in February 2008. This plan would include a proposed revision to the SIP, which would assist in the mitigation of O_3 throughout the region.

A transportation project can affect regional air quality if emissions of O_3 precursors (nitrogen oxides (NO_x) and volatile organic compounds (VOCs)) from traffic are increased due to the project. However, no project-level analysis requirements apply for this pollutant.

Vehicle exhaust also includes emissions of particulate matter 2.5 micrometers in diameter and smaller ($PM_{2.5}$) and sulfur dioxide (SO_2); however, these two compounds are not currently pollutants of concern in the Denver area.

Carbon Monoxide

Carbon monoxide hot spot modeling was completed for three signalized intersections associated with the project. Project-level analyses indicated that none of the intersections modeled for this project are expected to exceed the 8-hour CO standard. The Preferred Alternative would not be likely to cause or contribute to any new localized violation of PM_{10}, or increase the frequency or severity of any existing violations. The greatest impact to PM_{10} as a result of this project is expected to occur during construction. Temporary impacts during construction are discussed in Section 4.8 General Construction Impacts and Mitigation and should be followed during the building of this project.

Mobile Source Air Toxics

No appreciable difference in regional mobile source air toxics (MSAT) emissions is anticipated between the No Action and Preferred Alternatives because USEPA predicts that its national control programs will result in meaningful future reductions in MSAT emissions, as measured on both a per vehicle mile and total fleet basis. FHWA believes that these projections are credible, because the control programs are required by statute and regulation.

Conclusions

Due to improvements in automotive technology, regional emissions of pollutants of concern have been steadily decreasing over the last several years. Both, regional and local air quality conformity has been demonstrated for the Preferred Alternative and therefore no air quality mitigation is required.

The USEPA's Integrated Risk Information System states that diesel exhaust appears "likely to be carcinogenic to humans by inhalation from environmental conditions." Diesel exhaust is

the combination of diesel particulate matter (DPM) and diesel exhaust gases which include $PM_{2.5}$. As the vast majority of the construction equipment likely to be used on this project would be both on-road and non-road diesel equipment, mitigation measures should be performed in order to minimize the impact of DPM.

Based on the project construction phase duration (2010-2012), it is likely that construction operations could contribute to an increase in air quality emissions at the project area. A list of proposed mitigation measures as presented in Section 4.8.8, will assist the Denver Metro Area in the maintenance and attainment of the NAAQS. In addition, adherence to the suggested mitigation measures will also assist the EAC submitted in the SIP.

The construction phase of this project will be greater than 25 acres in size, take longer than six months, and is expected to have several diesel emitting sources, which could affect air quality conditions during the construction phase of this project. Therefore, CCD will need to follow the requirements of filing Air Pollution Emission Notifications (APEN) to fulfill USEPA's concerns regarding air quality impacts.

The following text replaces all of the text under Section 4.8.4: *Air Quality* on page 4-73 of the EA. The information in this section has also been included in Section 3.2.4 *Air Quality* on pages 3-7 and 3-8 in this FONSI.

Impacts

Although motor vehicle emissions in the project area may increase, they would not result in any exceedance of the National Ambient Air Quality Standards (NAAQS); therefore, no direct project air quality mitigation is necessary (Pinyon 2008b). Construction activities from excavation, grading, and fill activities could increase local fugitive dust emissions. Airborne fugitive dust particles have a relatively large particle size (>100 micrometers in diameter) and typically settle within 30 feet of their source. The smaller particles could travel as much as several hundred feet depending on the wind speed.

Mitigation

Construction phase air quality impacts (road dust and engine exhaust emissions) will be controlled by implementing the following measures:

- Wetting exposed soils and soil piles for dust suppression
- Covered trucks hauling soil and other fine materials
- Stabilized and covered stockpile areas
- Re-vegetation of exposed areas
- Minimization of off-site tracking of mud and debris by washing construction equipment and temporary stabilization
- Limit vehicle speed of construction-related equipment when off road
- Prohibiting unnecessary idling of construction equipment
- Using low-sulfur fuel
- Locating diesel engines and motors as far away as possible from residential areas
- Locating staging areas as far away as possible from residential areas
- Requiring heavy construction equipment to use the cleanest available engines or to be retrofitted with diesel particulate control technology
- Using alternatives for diesel engines and/or diesel fuels (such as: biodiesel, liquefied natural gas, compressed natural gas, fuel cells, or electric engines)
- Installing engine pre-heater devices to eliminate unnecessary idling during winter time construction
- Prohibiting tampering with equipment to increase horsepower or to defeat emission control devices effectiveness
- Requiring construction vehicle engines to be properly tuned and maintained
- Using construction vehicles and equipment with the minimum practical engine size for the intended job

The following text replaces all of the text under Section 4.4: *Water Quality* on pages 4-21 through 4-29 of the EA.

Affected Environment

The project area is located within the South Platte River Watershed (Figure 4-3). This large watershed encompasses more than 4,000 square miles and drains the northeast quadrant of Colorado. The project area is adjacent to Sand Creek to the south, which is an east bank tributary to the South Platte River. The Sand Creek watershed encompasses 189 square miles upstream of the confluence with the South Platte River.

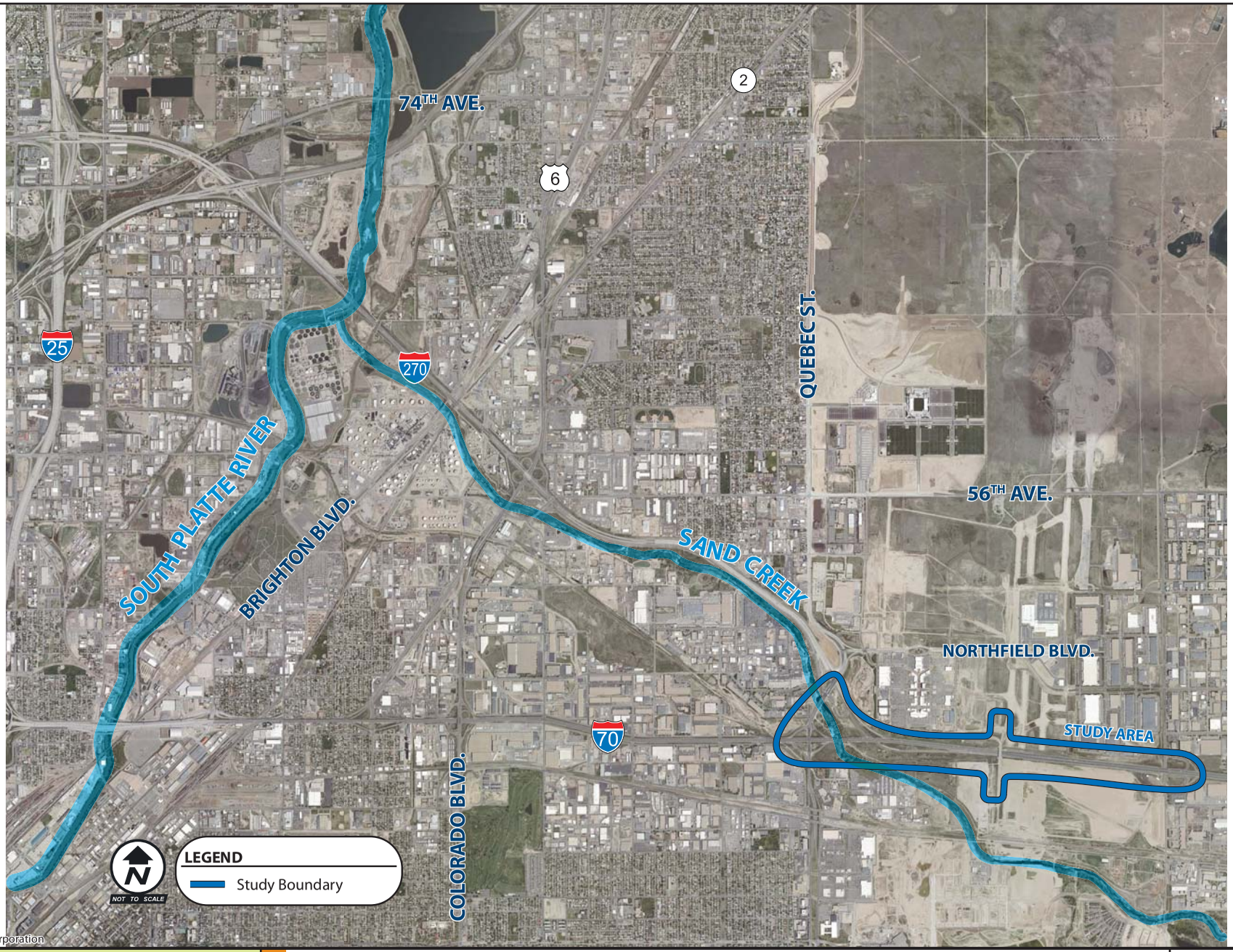
The terrain throughout the project area is flat to gently rolling, sloping predominantly to the north and west. Some depression areas (areas with no positive drainage to a major natural watercourse) exist as part of a generally urban environment.

The study limits for water quality impacts are generally the immediate site of the interchange project and surface water bodies within the project area into which the runoff from the project would be discharged.

The majority of this project is on existing I-70 ROW and the former SIA property. Existing drainage infrastructure within this part of the highway ROW and the SIA property consists of several 18- to 36-inch diameter culverts under mainline I-70 and the I-270 ramps. There is an existing 54-inch diameter culvert located under the planned CPB roadway south of I-70 in Stapleton, which would be within the future CDOT ROW for the project.

Relevant Regulations

The primary federal regulatory drivers for current stormwater quality programs are Phase I and Phase II Stormwater Regulations under the Clean Water Act (CWA), which require regulated entities to acquire a National Pollution Discharge Elimination System (NPDES) permit for their stormwater discharges. The USEPA's stormwater NPDES regulations specify that entities required to have Municipal Separate Storm Sewer System (MS4) permits must comply with the requirement to control the discharge of pollutants to the maximum extent practicable.



Source: URS Corporation

I-70 / CENTRAL PARK BOULEVARD INTERCHANGE

FIGURE 4 - 3
South Platte River Watershed

DENVER THE MILE HIGH CITY

The Colorado Department of Public Health and Environment (CDPHE) has jurisdiction over the NPDES permit program in Colorado. The Colorado program is referred to as the Colorado Discharge Permit System (CDPS) which limits the amount of pollutant entering streams, lakes, rivers, and groundwater to protect established beneficial uses and water quality standards.

MS4 permits allow municipalities and other public entities to discharge stormwater from facilities that exist at the time the permit is issued. New developments over one acre need to acquire a Stormwater Construction Permit, and they need to be designed in accordance with local regulations, as described below. Design of new developments should also take into account the terms of the MS4, because once the structure is complete, it will fall under the maintenance portion of the MS4. In general,

"The (MS4) permittee must develop, implement, and enforce a Colorado Discharge Permit System (CDPS) Stormwater Management Program, designed to reduce the discharge of pollutants from their MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the Colorado Water Quality Control Act (25-8-101 et seq., C.R.S.) and the Colorado Discharge Permit Regulations (61). Implementation of best management practices (BMPs) consistent with the provisions of the CDPS Stormwater Management Program and the other requirements in this permit constitutes compliance with the standard of reducing pollutants to the MEP" (CDPHE 2006).

Stormwater Construction Permit coverage is required by State and Federal regulations for stormwater discharged from any construction activity that disturbs at least one acre of land. This permit requires the preparation of a Stormwater Management Plan for each site. If groundwater dewatering is required for construction, a Notice of Intent for groundwater dewatering must be filed with the Colorado Division of Water Resources, and a permit to discharge the water must be obtained from the CDPHE. Sampling of the discharge water must be performed, and if the discharge water is determined by the CDPHE to be contaminated, then a second permit for Groundwater Remediation must be obtained from the CDPHE. Construction sites that would require a permit with a numeric standard are not expected for this project.

The Safe Drinking Water Act, also a regulatory driver for projects such as this, was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. Amended in 1986 and 1996, the law requires many actions to protect drinking water and its sources such as rivers, lakes, reservoirs, springs, and groundwater wells. The Colorado Primary Drinking Water Regulations assure the safety of public drinking water supplies and enable the State of Colorado to assume responsibility for enforcing the standards established by the federal Safe Drinking Water Act. These regulations are maintained and enforced by the Water Quality Control Division (WQCD) of the CDPHE.

The project corridor is within the jurisdictional boundary of CCD and the highway is within the jurisdiction of CDOT. CCD and CDOT have individual MS4 permits and compliance with post-construction stormwater quality requirements for new projects includes the installation of permanent structural Best Management Practices (BMPs) on site, such as are proposed for this project.

Surface Water

This section evaluates streams, rivers, lakes, and ditches within the project area. No lakes or irrigation ditches exist within the project area.

The project area drains to the south and west to Sand Creek. Sand Creek is the major tributary to the South Platte River crossing the project area. Sand Creek flows from the southeast to the northwest, and its confluence with the South Platte River is approximately four miles northwest of the project area. Sand Creek has erosion potential due to the creek bed being composed primarily of sandy alluvial soils.

Sand Creek is a perennial stream identified as Stream Segment 16a (Sand Creek from the source to the confluence with the South Platte River) by the WQCD of the CDPHE. The Colorado Water Quality Control Commission (WQCC) has classified streams for various uses as described in Colorado Regulation 38, *Classifications and Numeric Standards for South Platte River Basin, Laramie River Basin, Republican River Basin, and Smoky Hill River Basin* (CDPHE 2001). Sand Creek is an affected segment and the designated stream uses are presented in Table 4-5. The interactive map showing these segments can be viewed on the CDPHE website: http://emaps.dphe.state.co.us/305bListing/viewer.htm.

Table 4-5
Major Watercourse and Designated Beneficial Uses

Stream Segment	Total Area of Stream Watershed (square miles)	Designated Beneficial Uses
South Platte River Segment 16a (Sand Creek)	184 at the Denver Gage	• Aquatic Life Warm Class 2 • Recreation Class 1a • Agriculture

Source: CDPHE, WQCC

Sand Creek flows through one of Colorado's most heavily urbanized areas, and receives industrial discharges from Suncor's two oil refineries (downstream of the project area) as well as treated municipal wastewater from the City of Aurora's Sand Creek Water Reuse Facility, which is located approximately one and one-half miles upstream of the project area. Sand Creek is currently exceeding the chronic and acute water quality standards for dissolved selenium, and is listed for selenium and for *E. coli* on the CDPHE 303(d) list by the WQCC (CDPHE 2008).

The numeric water quality standards that are suitable for maintaining designated beneficial uses of the streams are listed in Regulation 38. Use Protected waters, such as the South Platte River Segments 16 and 16a, are those that the state has determined do not warrant the special protection provided by the outstanding waters designation or the anti-degradation review process (CDPHE 2005), because of their poor quality. Generally, the South Platte River, below the Burlington Ditch Diversion, and Sand Creek are effluent dominated streams and have characteristics for at least three parameters that are worse than listed in the standards.

Groundwater

The project area is situated above the Denver groundwater basin. The Denver Basin underlies a 6,700-square-mile area in Colorado, extending east from the Front Range of the Rocky Mountains to near Limon and south from Greeley to near Colorado Springs. This basin includes four main bedrock aquifers that occur as layers in an elongated, bowl-shaped basin, three of which are located in the study area: the Denver Aquifer, the Arapahoe Aquifer, and the Laramie-Fox Hills Aquifer. These aquifers are generally confined, except in areas in the upper parts of aquifers where the surface water may interact with groundwater.

These aquifers are commonly used for water supply, water recharge, and water augmentation under Colorado water law. In 1985, 53 percent of Denver Basin Water use was for public supply, 34 percent for agriculture, and 9 percent for domestic and commercial purposes (USGS 1985).

The project area is also situated above the generally unconfined alluvial aquifers within the South Platte River Basin. Monitoring wells and test wells exist in the unconfined alluvial aquifer.

There are no sole source aquifers in Colorado, and no wellhead protection areas were identified in the buffer zone by CDPHE. According to the Colorado Division of Water Resources (CDWR) website, there are no beneficial-use groundwater wells located in the project area (CDWR 2008). Beneficial-use wells are those used for domestic, stock, irrigation, or municipal purposes.

Direct Impacts

No Action Alternative

Under the No Action Alternative, untreated stormwater would continue to be collected into the stormwater drains and inlets located between I-270 and Havana Street. There are no existing permanent water quality features, which allow roadway dirt and chemicals to directly flow directly into Sand Creek.

No direct impacts to surface or groundwater features would occur.

Preferred Alternative

The major changes to the local drainage patterns under the Preferred Alternative would be limited to an increase in impervious surfaces such as roadways. This increase is estimated to be approximately 10.2 acres of new pavement and 24,254 square feet of new bridge surface. The major changes to the local drainage patterns would be the increase in impervious surfaces associated with the roadway and bridges. Vehicle traffic moving on the proposed surfaces would generate the majority of water pollutants; particulate matter settling out of the air would also generate pollutants. The larger impervious areas would generate more

runoff, carrying contaminants into receiving waters. During winter months, the application of sand, gravel, and de-icers to paved surfaces would increase particulates and chloride levels in snowmelt from the roadways. Table 4-6 lists the constituents of concern for roadway runoff.

Table 4-6
Typical Water Quality Pollutants of Concern

Constituent	Source	Basis for Inclusion
Suspended Solids	Pavement wear, vehicles, atmosphere, maintenance, snow/ice abrasives, sediment disturbance.	Excessive sediment can be detrimental to aquatic life (primary producers, benthic invertebrates, and fish) by interfering with photosynthesis, respiration, growth, and reproduction.
Zinc	Tire wear, motor oil, and grease.	Toxic to aquatic organisms, can bioaccumulate and has the potential to contaminate drinking water supplies.
Cadmium	Tire wear, insecticide application.	Toxic to aquatic organisms, can bioaccumulate and has the potential to contaminate drinking water supplies.
Nickel	Diesel fuel and gasoline, lubricating oil, metal plating, brake line wear, asphalt paving.	Toxic to aquatic organisms, can bioaccumulate and has the potential to contaminate drinking water supplies.
Copper	Metal plating, bearing wear, engine parts, brake line wear, fungicides, and insecticides.	Toxic to aquatic organisms, can bioaccumulate and has the potential to contaminate drinking water supplies.
Iron	Auto body rust, steel highway structures, engine parts.	Toxic to aquatic organisms, can bioaccumulate and has the potential to contaminate drinking water supplies.
Lead	Leaded gasoline, tire wear, lubricating oil and grease, bearing wear, atmospheric fallout.	Toxic to aquatic organisms, can bioaccumulate and has the potential to contaminate drinking water supplies.
Manganese	Engine parts	Toxic to aquatic organisms, can bioaccumulate and has the potential to contaminate drinking water supplies.
Chromium	Metal plating, engine parts, brake lining wear.	Toxic to aquatic organisms, can bioaccumulate and has the potential to contaminate drinking water supplies.
Nitrite and Nitrate Nitrogen	Atmosphere, roadside fertilizer use, sediments.	Can result in accelerated growth of vegetation or algae, resulting in impaired use of water; un-ionized ammonia can be toxic to freshwater fish.
Total Phosphorus	Atmosphere, roadside fertilizer use, sediments.	Can result in accelerated growth of vegetation or algae, resulting in impaired use of water.

Constituent	Source	Basis for Inclusion
Total Coliforms/ Fecal Coliforms	Soil litter, bird droppings, truck hauling, pet/livestock/stockyard waste.	Common bacteria found in stormwater that can lead to the closure of adjacent swimming areas and may increase the cost of treating drinking water at supply reservoirs.
Polycyclic Aromatic Hydrocarbons (PAH)	Fuels.	Toxic to aquatic organisms. Toxicity of PAHs can be additive even though no single PAH concentration exceeds a water quality standard; the sum of the PAHs can, under certain circumstances, be toxic.
Magnesium	Deicing salts, engine parts.	Toxic to aquatic organisms, can bioaccumulate and has the potential to contaminate drinking water supplies.
Sodium/Chloride	De-icing salts.	Potentially detrimental to plants and animals. Can increase salinity that could impact groundwater, streams, and lakes.
Sulfates	Roadway beds, fuel, de-icing salts.	Increases acidity in streams, which stresses aquatic life and leaches toxic metals out of sediment and rocks. High acidity and concentrations of heavy metals can be fatal to aquatic organisms and may eliminate entire aquatic communities.
Chemical Oxygen Demand	Oxygen-demanding substances include plant debris, street litter, animal waste, and organic matter commonly found in stormwater.	An important water quality determinant because it estimates the level of oxygen demand in polluted waters and is also indicative of the sustainable level of aquatic life.
Biological Oxygen Demand	Oxygen-demanding substances, including plant debris, street litter, animal waste and organic matter, commonly found in stormwater.	Often used to determine the amount of organic pollution in surface waters.
Oil and Grease	Spills, leaks, motor lubricants, antifreeze, hydraulic fluids, asphalt surface leachate.	Contain a wide array of hydrocarbon compounds, some of which are toxic to aquatic organisms at low concentrations.

Source: FHWA, 1996

Stormwater runoff will be detained in on-site water quality detention facilities and other BMPs to mitigate the potential degradation of the stormwater quality, as required by CCD, CDOT, and state and local ordinances. The Preferred Alternative includes installation of permanent BMPs that will remove a large proportion of common pollutants from the stormwater, lessen the current concentrations of pollutants discharged from the project area, and benefit the water quality of Sand Creek.

Changes to the local drainage patterns as a result of the Preferred Alternative will not have a direct impact on surface water quality. No active groundwater wells would be directly impacted by the Preferred Alternative.

Indirect Impacts

No Action Alternative

Indirect impacts to water quality as a result of the project would be minimal. The existing project area does not have permanent water quality BMPs in place, and stormwater runoff is discharged directly into Sand Creek.

Preferred Alternative

Indirect impacts from the Preferred Alternative include the potential for water quality to degrade due to an increase in vehicular traffic on the highway and ramps, and as a result of increased development on adjacent properties. See the Cumulative Impacts section of the EA for a discussion on increased development. Indirect impacts as a result of the Preferred Alternative will not contribute to the impairment Aquatic Life Warm Class 2 use, Recreation Class 1a use, or Agricultural use for South Platte River Segment 16a (Sand Creek).

FHWA research determined Event Mean Concentrations (EMCs) for common pollutants in highway runoff from urban (ADT>30,000) and rural (ADT<30,000), as shown in Table 4-7. I-70 is an urban highway with ADT > 30,000. Median EMC concentrations represent the most probable value for the concentration that would be discharged from a site in a typical storm event.

Table 4-7
Median EMC Concentrations (mg/l)

Pollutant	ADT <30,000	ADT >30,000
Total Suspended Solids	41.00	142.00
Volatile Suspended Solids	12.00	39.00
Total Organic Carbon	8.00	25.00
Chemical Oxygen Demand	49.00	114.00
Nitrate plus Nitrite	0.46	0.76
Total Kjeldahl Nitrogen	0.87	1.83
Total Phosphorus	0.16	0.40
Copper	0.02	0.05
Lead	0.08	0.40
Zinc	0.08	0.33

Source: *Pollutant Loadings and Impacts from Highway Stormwater Runoff* (FHWA)

Sand Creek is impaired as a result of selenium and *E. coli*, which are not listed as common pollutants of roadway runoff by FHWA. The new development and increased vehicular traffic would not be a new source of these pollutants in Sand Creek. However, soil in stormwater runoff, which is known to have background levels of selenium, will be collected which will improve selenium levels in Sand Creek.

Although NPDES stormwater regulations do not require stormwater discharges meet a certain numeric water quality standard, there is potential for Sand Creek to experience an increase in concentrations of these common pollutants after each storm event if stormwater runoff is not captured and treated before being discharged into the receiving water. The FHWA research also shows that annual pollutant loads from typical highway runoff is low compared to loads from entire watersheds. In this case, the CPB project area of 432 acres represents less than 0.4% of the entire Sand Creek watershed. If left untreated, it is highly unlikely that stormwater discharges from the Preferred Alternative (and adjacent developable properties) would cause violations of state water quality standards or USEPA acute criteria during storm events, or otherwise affect the designated uses of Sand Creek.

If not mitigated, increased indirect impacts to water quality as a result of the project would be minimal. However, mitigation is proposed, as described in the following paragraphs. The existing project area does not have permanent water quality BMPs in place, and stormwater runoff is discharged directly into Sand Creek. The Preferred Alternative includes installation of permanent BMPs that will remove a large proportion of common pollutants from the stormwater, lessen the current concentrations of pollutants discharged from the project area, and benefit the water quality of Sand Creek. These BMPs would prevent further impairment of Sand Creek pollutants associated with the Aquatic Life Warm Class 2 use, Recreation Class 1a use, or Agricultural use by capturing sediment and trash before they are able to enter Sand Creek.

Mitigation

The Preferred Alternative will comply with existing water quality permits and regulations.

CDOT has a combination Phase I/II MS4 permit with seven program elements:

- Construction Sites Program
- New Development and Redevelopment Program
- Illicit Discharges Program
- Industrial Facilities Program
- Public Education and Public Involvement Program
- Pollution Prevention and Good Housekeeping Program
- Wet Weather Monitoring Program

To comply with the Stormwater Construction Permit, issued by CDPHE, post-construction stormwater controls are required for new construction within CDOT ROW. To meet this requirement, two additional extended dry detention ponds with micro-pools will be constructed in the areas between the mainline and ramps on the west side of the project to provide water quality treatment for the improved roadway and new ramps. Vegetated swales are also proposed throughout the interchange to provide stormwater quality treatment. Vegetated swales and extended dry detention ponds are identified in the CDOT drainage design manual as post-construction BMPs that will satisfy MS4 permit requirements.

The subcatchments discharge into Sand Creek at the west end of the project area, where two stormwater detention facilities are proposed. Water quality BMPs will consist of vegetated swales and extended dry detention basin(s) designed in accordance with UDFCD Urban Storm Drainage Criteria Manual (USDCM) Volume III, which will treat runoff from the project site and runoff from CDOT right-of-way upstream of the site. Grass swales and extended detention basins have literature reported TSS removal rates of 20 to 40 percent and 50 to 70 percent, respectively, and bacteria removal rates of 50 to 90 percent (CDOT 2004). The combination of these BMPs in series is known to be more effective than individual BMPs, and would lower future runoff loads more effectively.

To comply with the MS4 permit requirement for construction site runoff controls, the mitigation plan also includes providing temporary construction BMPs, such as temporary sediment basins, silt fence, culvert and inlet protection, seeding, mulching and placement of soil retention blankets, to control sediment and prevent surface water quality impacts during

construction. A Stormwater Construction Permit will be acquired from the CDPHE for this project. A Stormwater Management Plan (SWMP) will be prepared which will be approved by CDOT prior to construction. Implementation of the SWMP, compliance with the terms and conditions of the permit, and other BMP's to control stormwater runoff during construction will also be required.

Construction will follow CDOT standard specifications and special provisions sections 101, 107 and 208 related to stormwater management. In addition, CDOT shall inform all bidding parties of the compliance requirements of this Consent Order by incorporating the requirements into the construction contract or special conditions to such contract (CDPHE 2008b). Additional details discussing the mitigation for potential water quality impacts during construction is addressed in Section 4.8 General Construction Impacts and Mitigation.

If groundwater dewatering is required for construction, a Notice of Intent must be filed for groundwater dewatering with the Colorado Division of Water Resources and obtain a permit to discharge groundwater. Sampling of the discharge water must be performed, and if the discharge water is determined by the CDPHE to be contaminated, a second permit for Groundwater Remediation from the CDPHE will be obtained.

Contaminated groundwater may be encountered during bridge construction and would require a Phase II Environmental Site Assessment. Additional information regarding VOCs, DCE, and petroleum hydrocarbons is found in Section 4.3 Hazardous Materials.

Various water resources related permits would be required to construct and operate new storm drainage system in the interchange. Permits may include:

- Stormwater Construction Permit, CDPHE
- U.S. Army Corps of Engineers, Section 402
- Floodplain Development Permit, CCD
- Groundwater Discharge Permit, CDPHE

The following text replaces all of the text under Section 4.3: *Hazardous Materials* on pages 4-13 through 4-21 of the EA.

Hazardous material sites are those properties that have been impacted due to current or previous use, or by a release of hazardous substances or petroleum products. These materials could include pesticides, volatile and semi-volatile organic compounds, heavy metals, petroleum products (e.g., gasoline, diesel fuel, lubricants, etc.) and asbestos containing building materials (ACBMs). In general, hazardous material contamination should be avoided wherever possible, or steps should be taken to ensure that adequate protective measures are taken before, during, and after construction. For properties that are potentially contaminated and would be acquired for construction and/or ROW purposes, due diligence should be completed to provide CCD with all available purchaser protection under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the 2003 Brownfields Act, and other state programs. This due diligence requires completion of a site-specific Modified Phase I Environmental Site Assessment (MESA) for the property to be acquired.

The following construction concerns are associated with areas of soil and/or groundwater contamination, or with the demolition of buildings and bridges:

- asbestos and lead based paint
- health and safety of workers encountering contaminated material
- special handling and disposal requirements for contaminated material and a corresponding cost increase
- the inability to reuse contaminated soil as fill in other areas of the project

A MESA was performed in accordance with FHWA and CDOT guidance (CDOT 2003) to evaluate the potential presence of hazardous and/or toxic materials known as "Recognized Environmental Conditions" (RECs) in the project area. Hazardous material sites were identified that could potentially impact the project during construction and the acquisition of ROW.

The MESA was completed by an environmental professional, or conducted under the supervision or responsible charge of an environmental professional, as defined by the ASTM Standard. The environmental professional was involved in planning the site reconnaissance and interviews in October 2008, and reviewed and interpreted the information used in developing the conclusions. The sites identified during the MESA, were ranked based on such information as proximity to the corridor, known or suspected contamination, groundwater flow direction, and other available information. The MESA is included in Appendix D: Technical Reports.

Affected Environment

Historical use of the project area includes SIA, which was Denver, Colorado's primary airport from 1929 to 1995. At different times, it served as a hub for TWA, People Express, Frontier Airlines and Western Airlines as well as a hub for Continental Airlines and United Airlines at the time of its closure. In 1995, SIA was replaced by Denver International Airport. It has now been decommissioned, and is currently being redeveloped as a neighborhood.

Based on the previous airport uses, discovery of contaminated material within the study area was anticipated. During the development of the impact evaluation and a MESA, sites identified during the data collection process, were ranked as High, Moderate, Low, or Negligible based on their potential to impact the project, using the following criteria: distance from the centerline of the highway, use of hazardous substances, and the data obtained in the file reviews, including the depth and direction of groundwater flow. In addition, hazardous materials sites identified in the *I-70 East DEIS* were reviewed to ensure consistency between projects.

At sites ranked High, there was an existing release, historic release, or a high potential for release of contaminants to soil, groundwater, or surface water, and/or the potential for large-scale migration off site. These sites (or potential contamination) were generally located within 500 feet up-gradient of the Preferred Alternative.

Table 4-1
Hazardous Material Sites Ranked High or Moderate

Site Ranking[2]	Satisfi ID[1]	Facility Type	Facility Name	Address/Distance	Comments
High	14	NA	Interstate 270 Drum	Sand Creek, southeast of Quebec Street <200 feet southwest	USEPA investigations for a drum located in Sand Creek identified ground water contamination emanating from an up-gradient source. The study area is located up-gradient from the I-270 Drum site.
High	15c	Municipal	CDOT Maintenance	4375 Havana Street Adjacent to east	A petroleum release at this facility has been remediated to the satisfaction of the OPS; records indicate that residual contamination was left in place, however.
Moderate	6a, 6b, 6c	Municipal	SIA Buildings	4500 Wabash Street 550 feet north	Several underground and above ground storage tanks all remediated to satisfaction of OPS; a No Action Determination (NAD) was approved by the Colorado Department of Public Health and Environment.
High	NA	NA	Northfield Retail Development Site (Off Site DCE Source)	NA	Environmental investigations of the Northfield Retail Development Site indicate groundwater contamination of DCE. Source not identified.
High	NA	Municipal	Taylor Parcel	Southwest of CPB Interchange Adjacent	ACBMs identified and remediated by CCD. CCD removal of ACBM-impacted soil has been completed, and was documented in an "ACBM Debris and Contaminated Soil Closeout Report."
High	NA	NA	Sand Creek Disturbance Area	Sand Creek, east of Quebec Adjacent to Site near I-70 and I-270, to 1,100 feet south of the proposed Interchange	No investigations identified pertaining to potential uncontrolled dumping along Sand Creek; historic dumping along Sand Creek has led to well-documented subsurface contamination in other areas.
High	NA	Industrial	Petroleum Pipelines	No Address Within boundaries of project	Previous investigations confirm ACBMs within pipeline materials; no other compliance information identified.
High	NA	Municipal	Stapleton Development Filing No. 7	No Address Southeast of CPB Interchange	ACBMs identified on adjacent parcel. No records indicate that the interchange was investigated.

Notes: [1]Information contained in table obtained from environmental agency database search (Satisfi 2008), and regulatory agency files, historical review, or a combination thereof.

[2]During the development of the MESA, sites identified during the data collection process were ranked as High, Moderate, Low, or Negligible, based on their potential to impact the project using the following criteria: distance from the centerline of the highway, use of hazardous substances, and the data obtained in the file reviews, including the direction of ground-water flow. At sites ranked High, there was an existing release, historic release, or a high potential for release of contamination to soil, ground water, or surface water, and/or the potential for large-scale migration off-site. These sites (or documented impacts) were generally located within 500 feet up-gradient of the Site. Sites ranked Moderate were generally located within 2,000 feet up-gradient of the Site, and there were known environmental releases and/or a moderate potential for a release to impact the Site. Because of the distance from the Site and the nature of the incident, there was less likelihood of an impact.

ACBM – Asbestos containing building materials, CPB – Central Park Boulevard, DCE – 1,1-dichloroethene, USEPA– Environmental Protection Agency, NA – not applicable, NAD – No Action Determination, OPS – Colorado Department of Labor and Employment, Division of Oil and Public Safety, SIA – Stapleton International Airport

Sites ranked Moderate were generally located within 2,000 feet up-gradient of the study area, and there were known environmental releases and/or a moderate potential for a release to the environment. Sites ranked as Low and Negligible would not likely affect the project and therefore were not considered in the impact evaluation. However, they were, discussed in the MESA, which has considered in the impact evaluation.

The impact evaluation identified 7 High, 1 Moderate, and 14 Low sites within the study area. Sites ranked High or Moderate within the project area have been summarized in Table 4-3 and are shown in Figure 4-2. Five sites were identified with the potential to impact groundwater, and four sites were identified with the potential to impact soil in the project area. Contaminated groundwater has been documented at the I-270 Drum site, CDOT Maintenance facility, and investigations related to the Northfield Retail Development site. There is also potential for contaminated groundwater at the project from the Sand Creek Disturbance area and the Taylor Parcel. Contaminated soil has been documented at the CDOT Maintenance facility, Taylor Parcel, Stapleton Development Filing No. 7, and the petroleum pipelines.

Data provided by Forest City, Table 4-4, lists temporary-monitoring wells located within the project study area (Figure 4-2). No active wells listed by the Colorado Division of Water Resources (CDWR) are located in the project area.

Table 4-2
Monitoring Wells

Site ID	Well Description	Comments
SIA-GW-71	Monitoring	Temporary well, assumed abandoned/destroyed
N-USEPA-3	Monitoring	Reportedly last sampled in 1995
N170-MW04	Monitoring	Temporary well, related to the North I-70 Redevelopment Voluntary Cleanup Program No Action Determination Application

Source: Forest City, URS Corporation

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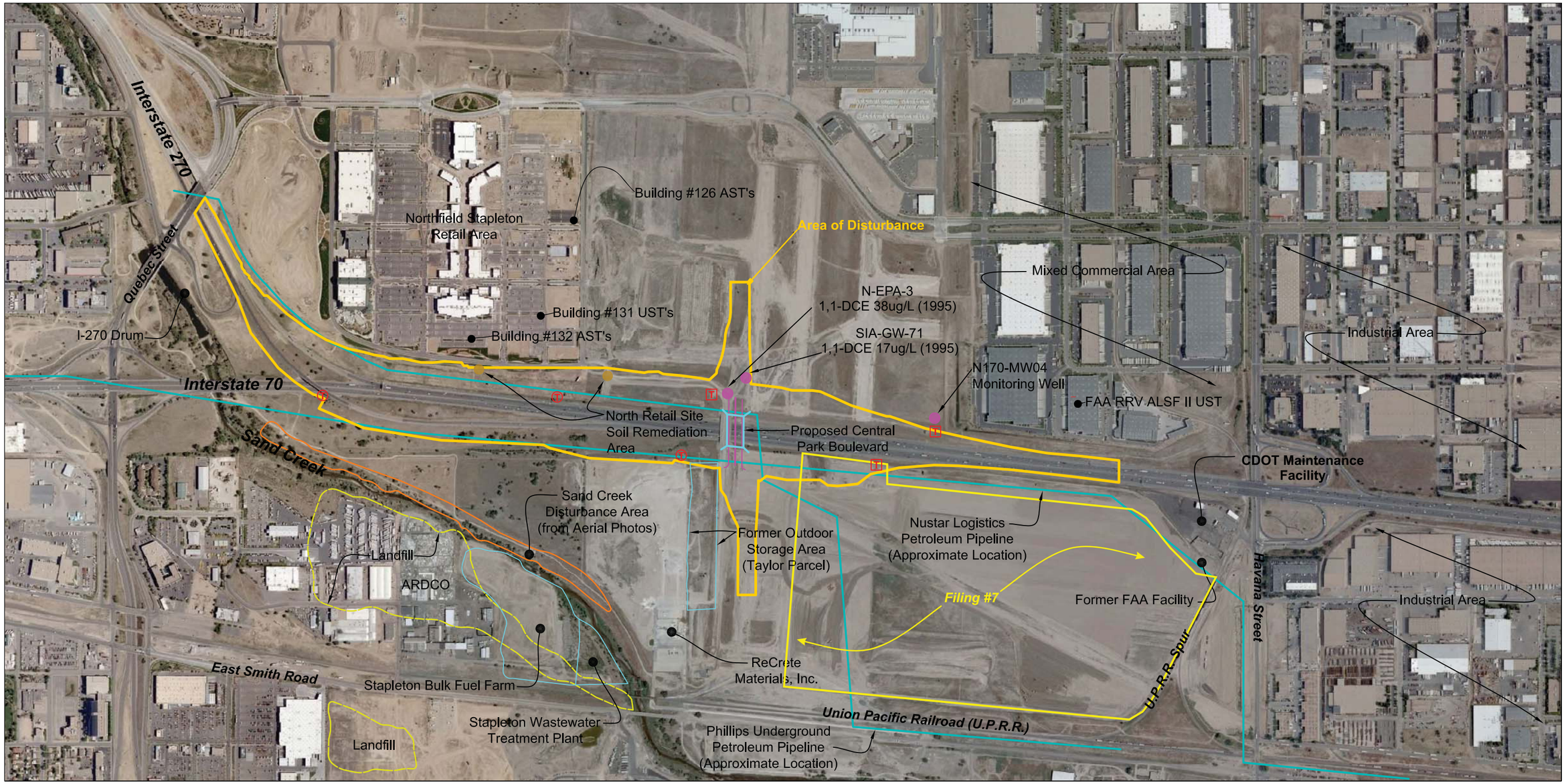

0 900

Scale in feet

LEGEND

- Pole-Mounted Transformer
- Pad Mounted Transformer
- Monitoring Well
- Area of Disturbance

Source: URS Corporation and Pinyon Environmental Engineering Resources, Inc.

CENTRAL PARK BOULEVARD INTERCHANGE

I-70 / CENTRAL PARK BOULEVARD INTERCHANGE

FIGURE 4 - 2
MESA Site Map

DENVER THE MILE HIGH CITY

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Groundwater analytical data collected immediately north of the proposed interchange bridge within the project boundaries, indicates that groundwater is contaminated with 1,1-dichloroethene (DCE) in concentrations above Colorado regulatory action levels (7.0 micrograms per liter (parts per billion) as specified in CDPHE Regulation 41, The Basic Standards for Groundwater. Other volatile organic compounds (VOCs) have been detected in groundwater at concentrations below the regulatory action levels.

Information obtained during review of the I-270 Drum site data indicated an off-site source of VOCs that were impacting groundwater. The subject interchange project is located generally up-gradient of the I-270 Drum site, indicating that ground water at the subject interchange project may also be impacted with VOC-contaminated groundwater.

A petroleum release has been reported at the CDOT Maintenance facility, southwest of the intersection of I-70 and Havana Street. Although the release was remediated to the satisfaction of the Colorado Department of Labor and Employment, Division of Oil and Public Safety (OPS), as evidenced by the issuance of a No Further Action (NFA) letter, contaminated soils were left in place. There is a potential that residual contamination from this release may impact soil and groundwater at the project. Additionally, the CDOT Maintenance facility is reportedly equipped with an individual sewage disposal system (septic system). Depending on operational procedures at that facility, contamination from the facility may have entered directly to the subsurface soil and groundwater through the septic system. The system was re-designed in mid-2008, where water entering the floor drains is connected to a holding tank that discharges the water as a spray mist into the atmosphere.

An outdoor storage area was historically located southwest of the proposed interchange (Taylor Parcel). The presence of ACBMs in soil has been documented in this area, outside of the project boundaries. Other activities, including vehicle and/or equipment maintenance, may have occurred at the Taylor Parcel, potentially contributing to soil and/or groundwater contamination.

ACBMs have historically been identified southeast of the proposed interchange (Stapleton Development Filing No. 7). Because ACBMs have been identified on this adjacent parcel, there is a potential for ACBMs to impact the proposed Interchange project.

Surface disturbances have been noted along the northern bank of Sand Creek south of the project during aerial photography review. Based on the history of uncontrolled dumping along Sand Creek that has led to groundwater contamination in the vicinity, this is considered a REC.

The Waste Management facility was located at 4500 Wabash Street, at the location of the current Northfield development. The Waste Management facility, as well as several other facilities, were operated for maintenance, and are addressed in the MESA. These properties have been extensively studied during site characterization activities related to leaking storage tanks, as well as an application for No Action Determination in the Colorado Voluntary Cleanup Program. All state agencies have issued No Further Action or No Action Determination letters for that area. Moreover, the area was determined to be down- to cross-gradient hydro-geologically of the project area, and is therefore not a concern.

Two providers with four petroleum pipelines cross through the project area. ACBMs have been associated with these pipelines. No other data has been obtained regarding environmental compliance of these pipelines.

Direct Impacts

Contaminated soil and/or groundwater may be encountered during construction of the Preferred Alternative. This could lead to issues with worker health and safety, as well as material handling.

Based on the findings of the MESA for the I-70/CPB Interchange assessment area, four sites were identified which may directly impact the Preferred Alternative construction plans in the surface or near surface soils. Five sites were identified with the potential to impact road and bridge construction at depths approaching the ground-water surface elevation.

It would be unlikely that contaminated soil and/or groundwater would be encountered during construction of the No Action Alternative since CPB would cross over I-70 via the cargo bridge.

Mitigation

Soil

The procedures under "Environmental, Health and Safety Management" subsection 250.03(d)4, of CDOT's 2005 *Standard Specifications for Road and Bridge Construction* (CDOT 2005a) shall be followed. A health and safety plan and a materials management plan will be established to describe the appropriate actions necessary to comply with local, state, and federal regulations and how to safely and properly handle and dispose of potentially contaminated soil (including asbestos-containing materials) and/or groundwater.

Groundwater

In areas where groundwater may be encountered during construction, or if road excavation is within five feet of the groundwater table, a Phase II Environmental Site Assessment will be performed. A detailed scope of work, which will include at a minimum discussion of sampling programs, proposed laboratory analysis, and sampling locations, will be submitted to CCD Environmental Staff for approval prior to commencement of work. The Phase II evaluation will include the collection of both soil and ground-water samples, which will be analyzed for VOCs, including, but not limited to, DCE, and petroleum hydrocarbons. If chemicals of concern are detected in concentrations that exceed state action levels, then management action recommendations, possibly including containment/capping, limited removal, or natural attenuation, will be provided. This data would be implemented into the materials management plan. The materials management plan will specify the appropriate actions necessary to handle contaminated media, site-specific worker health and safety precautions including OSHA permissible exposure limits, benchmarks and standards, and transportation and disposal requirements. Additionally, if contaminated media will be encountered during construction activities, the CDOT *Standard Specifications for Road and Bridge Construction* will also be followed.

The following text replaces all of the text under Section 4.8.2: Hazardous Materials on page 4-71 of the EA.

Impacts

The following construction concerns are associated with areas of soil and/or groundwater contamination, or with the demolition of buildings and bridges:

- asbestos and lead based paint
- health and safety of workers encountering contaminated material
- special handling and disposal requirements for contaminated material and a corresponding cost increase
- the inability to reuse contaminated soil as fill in other areas of the project

Mitigation

Prior to the demolition of the cargo bridge, an asbestos and lead-based paint survey will be conducted. This survey will need to be completed before CDPHE can issue a demolition permit. If contaminated soil and/or groundwater are encountered, a materials management plan (which includes asbestos-containing materials) and a health and safety plan would be prepared as required by Section 250 of the CDOT Standard Specifications for Road and Bridge Construction.