

CHAPTER 2 PUBLIC COMMENTS AND RESPONSES

The Board's Section of Environmental Analysis (SEA) received 25 comment letters during the public comment period on the EA.¹³ This section summarizes the comments from the public and various local and state agencies and presents SEA's responses. SEA prepared the responses to comments in accordance with CEQ guidance. The guidance provides that "if a number of comments are identical or very similar, agencies may group the comments and prepare a single answer for each group. Comments may be summarized if they are especially voluminous."¹⁴

Many commenters had similar or identical topics. SEA grouped such comments together by subject and for each subject provides a summary of the comments to illustrate the commenters' concerns. Each summary is followed by SEA's response. SEA's responses clarify or correct information presented in the Draft EA, explain and communicate government policy or regulations, direct commenters to information in the Draft EA, or answer technical questions.

In addition to comment letters from agency officials and land owners in the vicinity of the Proposed Action, SEA received a petition in opposition to the Proposed Action, signed by approximately 100 people residing in Safford, Solomon, Thatcher, or other surrounding communities. Copies of the public comments, including the signed petition, are presented in Appendix A to this Post EA.

The comments and responses are organized into sections that follow the table of contents of the Draft EA. An introductory summary describes in general terms the comments received for each subject.

NEPA Process

Summary

SEA received comment letters on the NEPA process that requested extending the length of the comment period another 60 days. SEA also received comments suggesting that an environmental impact statement (EIS) should have been prepared instead of an EA; that further study was needed to assess potential connected actions, and cumulative, direct and indirect impacts; and a request to include a modified alignment as an alternative in the EA. Specific comments include:

Comment

Commenters called for extending the comment period another 60 days.

¹³ AZER's petition, as well as the Draft EA and this Post EA, and all written comments submitted, are available on the Board's website at www.stb.dot.gov. For the Draft EA and Post EA, go to "E-Library," click on "Decisions & Notices," and then conduct a full text search for the material under "FD 34836." The environmental correspondence can be viewed by selecting "Environmental Matters," then clicking on "Environmental Correspondence," and then searching the correspondence under "FD 34836."

¹⁴ See Forty Most Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg. 18026 (1981), Question 29.

Response

The Draft EA was made available to the public on February 25, 2008 with a 36 day comment period that ended on March 31, 2008. Although CEQ regulations do not prescribe a specific time limit for the comment period on EAs, it is the Board's practice to typically provide 30 days. However, in response to requests by the public, on April 2, 2008, the Board issued a notice to all interested parties that extended the comment period to May 1, 2008, for a total comment period of 66 days. Accordingly, the opportunity for public comment here has been fully adequate.

Comment

Commenters called for the preparation of an EIS instead of an EA.

Response

NEPA requires Federal agencies to prepare an EIS for "major Federal actions significantly affecting the quality of the human environment."¹⁵ However, under the CEQ's rules and the Board's own rules, the Board may first prepare an EA to determine if an EIS is necessary. In this case, SEA – through its independent analysis of all the available information, including materials filed by the applicant, SEA's consultation with tribes, and Federal, state and local agencies, and a site visit with CirclePoint, Inc., the third-party consultant assisting SEA – concluded that the Proposed Action would not significantly affect the quality of the human environment if the recommended mitigation measures in Chapter 1 of this Post EA are imposed by the Board and implemented by AZER.¹⁶ Therefore, in making its finding of no significant impact, SEA determined that the EIS process is not warranted, based on the following:

- The proposed right-of-way alignment would cross only two improved public roads (U.S. Highway 70 and Airport Road) with an average daily traffic volume of 5,900 and 425 vehicles, respectively;
- Existing land use is largely agricultural;
- Projected traffic is two daily trains or 730 trains per year, with no diversions of existing traffic to or from other systems or modes;
- There would be no significant impact on local or regional air quality;
- There would be minimal impacts on flora and fauna and AZER would comply with any permit conditions issued by the USACE; that while the preferred alignment would cross 100-year flood zones at five locations, AZER's bridge would be designed and sized to comply with the requirements of the Graham County Engineer to minimize any flood-related impacts; and that the SEA did consult and is continuing to consult with other state and Federal agencies and has not to date identified any significant issues during the agency consultation process.
- Accordingly, there is no need for an EIS.

Comment

The primary purpose of the Proposed Action is to serve the Mine. Therefore, these two projects – the Mine and the proposed rail line – are connected actions that should be discussed together in one EIS pursuant to 40 CFR 1508.25(a)(1), to provide a complete picture of impacts.

¹⁵ 42 U.S.C. 4332(2)(C)

¹⁶ See SEA's letter dated August 23, 2007 in Appendix B of this Post EA. SEA granted the applicant's request for a waiver of 49 CFR 1105.6(a), which generally provides for the preparation of an environmental impact statement for a rail line construction proposal.

Response

AZER has sought only Board authority to construct and operate the proposed rail line. Therefore, including the Mine, which opened in December 2007, as part of the Proposed Action would not inform the Board's decision on AZER's petition to construct and operate a rail line. The purpose of SEA's environmental review process is to ensure the Board's compliance with NEPA, 42 U.S.C. 4321 et seq. and related environmental laws and regulations, as specified in the Board's rules at 49 CFR Part 1105. The purpose of NEPA is to focus the attention of the government and the public on the likely environmental consequences of a proposed agency action before it is implemented in order to minimize or avoid potential negative environmental impacts. See Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 371 (1989). NEPA's requirement has two purposes: First, it "ensures that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts." Second, it "guarantees that the relevant information will be made available to the larger audience that may also play a role in both the decision making process and the implementation of that decision." Department of Transp. v. Public Citizen, 541 U.S. 752, 768 (2004) (Public Citizen) (quoting Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 349 (1989)). Thus, information that does not inform the agency's decision need not be included in the environmental document.

The Board has jurisdiction over rail transportation by rail carriers. 49 U.S.C. 10501. In this case, AZER has petitioned the Board, under 49 U.S.C. 10502, for authority to construct and operate a rail line in Graham County, Arizona. After completion of the environmental review process, the Board will decide whether to approve, deny, or approve with conditions AZER's rail construction project. Thus, the EA must include information that the Board needs to issue an informed decision on AZER's proposal to construct and operate the proposed rail line. The Mine, however, is not part of the Proposed Action before the Board and has been subject to the approval process of other laws, not the Interstate Commerce Act.

The Board can only impose conditions that are consistent with its statutory authority over rail transportation by rail carrier under the Interstate Commerce Act. Accordingly, any conditions the Board imposes must relate directly to the transaction before it, must be reasonable, and must be supported by the record before the Board. In this proceeding, the Board's power to impose mitigation extends only to the railroad applicant, AZER, and to potential impacts that could be caused by AZER's proposed rail line construction and operation. The Board does not have authority to regulate Freeport-McMoRan or its mine, and thus could not impose mitigation to reduce potential harms from the Mine. Therefore, an environmental analysis of the potential impacts of the Mine is not properly part of the EA in this rail construction case. See Public Citizen, 541 U.S. at 769.

Comment

The Draft EA should include the cumulative, direct, and indirect impacts from the Mine per 40 CFR 1508.7 and 1508.8.

Response

The CEQ regulations define cumulative impact as "the impact on the environment which results from the incremental consequences of an action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions." 40 CFR 1508.7. This ensures that the range of actions that is considered in the NEPA document includes not only the proposed project, but also actions that could contribute to cumulative impacts. The CEQ regulations define direct effects as those "which are caused by the action and occur at the same time and place," and indirect effects as those "which are caused by the action

and are later in time or farther removed in distance, but are still reasonably foreseeable.” 40 CFR 1508.8.

In preparing the Draft EA, SEA reviewed the EIS for the Mine and determined that it provided a thorough investigation and evaluation of past, present, and reasonably foreseeable future actions over a wide geographic area that included the area of the Proposed Action. In addition, SEA consulted with Federal, state and local officials to determine what projects and activities would occur in the immediate area of the proposed rail line. Based on its review of the EIS for the Mine and its agency consultations, SEA identified two projects – the proposed Airport expansion and the planned light industrial uses – within the vicinity of the proposed rail line that could warrant further analysis of cumulative and indirect impacts. However, SEA consulted with the City of Safford and was informed that there were no immediate or foreseeable plans to develop the two projects. Thus, there is no way, based on current available information, to conduct any analysis of direct or indirect environmental effects of these projects, as information about the location, size and timeframe of these projects is unknown and it would be speculative to make such an assumption. SEA analyzed the direct effects concurrent with its analysis for the Proposed Action. See Chapter 4 of the Draft EA.

Comment

The Mine is now considering a sulfur burning plant that the Board should assess for potential cumulative and indirect effects under 40 CFR 1508.7 and 1508.8. This analysis would provide a more complete picture of impacts to the area.

Response

The newspaper article the commenter is referring to is entitled “Freeport-McMoran Plan for Sulfur Burning Plant” and dated April 18, 2008, two months after the Draft EA was published.

SEA was not aware of any plans for the sulfur burning plant at the time the Draft EA was published and only recently became knowledgeable of this proposal after reading the submitted comment. SEA understands that the plant is intended to produce acids that would be used on site in the copper mining and refining process. The implementation of the plant requires site improvements, including provisions for the handling of molten sulfur and product acid, turbine generators for power production, cooling towers, hydrogen peroxide exhaust scrubbers, and electrical substations.¹⁷

As mentioned prior, SEA evaluated the information in the Draft EIS for the Mine and conferred with Federal, state, and local officials to determine what projects and activities would occur in the immediate vicinity of the proposed rail line that could warrant further analysis. The Draft EIS for the Mine did not mention the sulfur burning facility. In addition, AZER has not informed SEA of any changes to its operations regarding the type and quantities of commodities to be transported.

In November 2008 and March 2009, SEA reviewed ADEQ’s data base to determine the permit status for the sulfur burning plant. However, based on this review, SEA did not observe any information pertaining to the subject Mine or proposed sulfur burning plant in either the “permits issued” or the “permits pending” sections of the data base. Freeport-McMoRan would be required to obtain such a permit in order to operate the plant, pursuant to Title V of the 1990 Federal Clean Air Act Amendments, because sulfur burning plants are regulated as major stationary sources of air pollution. Moreover, the following is a quote from page 2-26 of the Draft EIS for the Mine:

¹⁷ Information from istockanalyst.com; accessed December 2008 at <http://www.istockanalyst.com/article/viewiStockNews/articleid/2751093>.

“The Project must and will meet all applicable state and Federal air quality standards. These standards prescribe emission limits, operational practices and administrative requirements. The purpose of these standards is to ensure that emissions are sufficiently reduced so as to prevent any exceedances of health-based, maximum allowable ambient concentrations. PDSI (now Freeport-McMoRan) will utilize proven control equipment, innovative process designs, and responsible operating practices as methods to minimize air emissions. These operating practices and compliance with the terms and conditions of the permit will ensure that Project operations are in compliance with applicable air quality standards.”¹⁸ As of December 2008, Freeport-McMoRan has deferred construction of the sulfur plant, related to anticipated production cuts at the Mine.¹⁹

As a result, SEA believes that analysis of potential cumulative effects of the sulfur plant in combination with the Proposed Action would be speculative at this time because it is unclear when and if the sulfur plant project will proceed. If and when the sulfur plant proceeds it will be subject to separate permitting processes which should take into consideration the cumulative effects of the sulfur plant in combination with other reasonably foreseeable projects including the Proposed Action if approved by the Board.

Comment

The Draft EA fails to consider alternatives for a shorter, more direct route between the existing mainline and the Mine, particularly in light of potential airport development. For example, the commenter suggests that SEA could have analyzed a route approximately one mile west of the Proposed Action that would reduce impacts to agricultural lands and allow development of a spur to the airport. Why does the Draft EA not consider other alternatives south of the Gila River besides the Proposed Action alternative, which would bisect the Claridge property.

Response

As stated in Chapter 2 of the Draft EA, SEA analyzed four other routing alternatives that were later rejected from consideration due to a number of factors. Based on its analysis, SEA believes that it considered a reasonable range of alternatives. Figure 2-3 in the Draft EA depicts the routing alternatives examined. One of these, Alternative D, would have largely avoided the Claridge property, but in doing so, would have crossed the Gila River and the San Simon River.

The evaluation of alternatives was based on a number of environmental factors, including the length of the rail line, the number of perennial and ephemeral stream crossings, the ability to directly serve future business/industrial park uses adjacent to the Airport, and several other factors. As discussed at length in this Post EA, the Proposed Action alternative demonstrated the greatest compatibility with the objectives stated in the Purpose and Need chapter and posed the lowest degree of potential environmental impacts.

The commenter submitted a modified alignment for the area south of the Gila River. Specifically, the modified alignment would diverge from the AZER mainline where the mainline crosses the San Simon River. The modified alignment would then follow the course of the San Simon River northerly, turning sharply west just before the Gila River, and then crossing the Gila River approximately one mile to the west of the crossing location proposed in the Draft EA. This alternative would increase the overall length of the rail alignment by at least one mile or more and would limit the ability to provide service to the Airport area.

¹⁸ Environmental Impact Statement, Dos Pobres/San Juan Project; United States Department of the Interior, Bureau of Land Management, Safford Field Office, June 2004.

¹⁹ Eastern Arizona Courier, December 8, 2008; accessed 12/31/08 at http://www.eacourier.com/articles/2008/12/08/news/breaking_news/doc4936e1316adb2965661450.txt.

The alignments considered for the area south of the Gila River were designed to minimize private property impacts. As shown in Figure 2-3 of the Draft EA, spur tracks from the AZER mainline were located to utilize land already owned by Freeport-McMoRan, while also providing the shortest and straightest alignment path north to the Gila River. In addition, as noted in the FWS's Biological Opinion (see Appendix C of this Post EA), the proposed crossing is located at a narrow point of the Gila River in a portion of the river near, but not immediately within, an area of perennial river flow.

The modified alignment as suggested would also face potentially significant adverse effects to land use on the north side of the Gila River. Unless the modified alignment were to take a sharp turn easterly after crossing the Gila River about one mile west of the Proposed Action's alignment, the modified alignment would likely have to pass through Dry Lake Park, a Section 4(f) resource, or Arizona State Reservation land. This modified alignment would face similar issues to Alternatives A and C contemplated in Section 2.3 of the Draft EA (Alternatives Considered but Rejected).

The commenter observes that future Airport business uses could be served from a more westerly rail alignment if a spur track were to be constructed heading east. As shown in Figure 2-3 of the Draft EA, such spur tracks might need to be constructed through Dry Lake Park and/or Arizona State Reservation Land, while at the same time increasing the overall footprint and acreage of land affected.

Comment

The Corps should be a cooperating agency and be involved in the environmental review process.

Response

SEA invited the Corps to be a cooperating agency for the environmental review, but the Corps declined to participate in such a capacity. SEA did consult with the Corps during preparation of the Draft EA, and continues to do so through the Post EA, and afterwards, for potential impacts to waters of the United States and nontidal wetlands under Corps jurisdiction. The Corps is currently being consulted on permits required for the proposed bridge over the Gila River and is a concurring party to the MOA for cultural resources. Mitigation Measure #16 requires AZER to obtain all Federal permits, including the Section 404 permit required by the Corps for project-related encroachment of jurisdictional waters of the U.S. prior to the initiation of any project-related construction, and Mitigation Measure #38 requires AZER to coordinate with the Corps.

Comment

The Arizona Game and Fish Department (AGFD) commented that it would like to be informed of any conservation measures required by the U.S. Fish and Wildlife Service (FWS) as described on pages 6-8 of the Draft EA. AGFD would also like to be informed of future actions in meeting those requirements.

Response

On October 27, 2008, the FWS issued a Biological Opinion for the Proposed Action, pursuant to section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544). A copy of the Biological Opinion is included in Appendix C and was sent via U.S. mail to the Chief of the Habitat Branch and the Region V supervisor at AGFD. In its opinion, the FWS stated that the construction and operation of the Proposed Action would not result in any direct, indirect, or cumulative adverse impacts to the razorback sucker and southwestern willow flycatcher, or their habitats. The FWS did not require any additional mitigation measures beyond what has already been recommended in the Post EA.

Comment

The Proposed Action would cause an increase in traffic along AZER's mainline that would exceed SEA's threshold for analysis under 49 CFR 1105.7. SEA should therefore consider traffic on AZER's mainline in the EA. SEA should also consider impacts on environmental resources along AZER's mainline, not just air quality per 49 CFR 1105.7 and CEQ regulations.

Response

SEA determined that the regulations at 49 CFR 1105.7 do not require analysis or mitigation of down-line impacts for energy, air, and noise because SEA's regulatory thresholds have not been met.

In the case of energy consumption, the regulations require a detailed analysis of energy if a Proposed Action would divert significant quantities of goods from rail transportation to motor carriage or truck traffic. The reverse would occur in this case because the Proposed Action would divert truck traffic to rail transportation to and from the Mine. Such a diversion would reduce the amount of energy consumed and thus have an overall beneficial effect on energy resources.

For determining air impacts, the regulations require at least a 100 percent increase in rail traffic, as measured in gross ton miles annually, or that an increase of at least eight trains a day would occur on any segment of rail line affected by the proposal. In this case, ADEQ has determined that the Project area is in attainment for all criteria pollutants and that, pursuant to SEA's regulations, the projected rail traffic of two trains per day does not meet the minimum threshold for analysis.

For determining noise impacts, the Proposed Action does not meet the threshold criteria of eight trains per day that would trigger the need for a detailed noise impact analysis. However, SEA considered ambient noise levels in accordance with FRA noise criteria in the Draft EA and determined that the Proposed Action would not have a significant impact on noise-sensitive land uses in and around the project area.

Comment

The Draft EA should quantify the rail traffic anticipated from the light industrial uses and the Airport to determine if the air quality thresholds have been met per CFR 1105.7(e)(5)(i)(A). Otherwise, these land uses should not be included in the Purpose and Need statement.

Response

According to the City of Safford, development of the light industrial uses adjacent to the Airport (an area of approximately 78 acres) has been limited by poor access. As stated in the EA, the provision for rail service to the Airport area would significantly improve access and greatly facilitate any business/industrial park development. Therefore, at the City of Safford's request, SEA included the future development of the Airport area in the purpose and need statement.

However, as no actual development of the light industrial uses has occurred or been proposed to date, the exact type of businesses and/or industrial uses in the area is unknown. Also unknown is the precise amount of rail service that any such uses would utilize. AZER's initial estimates included using three locomotives and 30 rail cars. However, after conducting more detailed engineering, AZER refined its estimated service needs to two locomotives and 20 to 25 rail cars. Notwithstanding, traffic and air quality analyses performed as part of the Draft EA assumed the former train length of 30 cars plus three locomotives. AZER has indicated that if light industrial uses are developed near the Airport, 5 to 10 railcars per day could be added to the train bound to the Mine. These cars can be included on the trains without invalidating SEA's air quality and

traffic analyses, as the 30-car, 3 locomotive length would not be exceeded. Therefore, SEA estimates that 5 to 10 additional carloads could be added to the daily round trip to and from the Mine with no additional environmental effect beyond what was analyzed in Chapter 4 of the Draft the EA. Although the precise extent and nature of any light industrial development is unknown at this time, this level of rail service would provide significant shipping capacity. A single 50 foot rail car has a volume of more than 5,000 cubic feet; each car can carry upwards of 75 tons of material. On a daily basis, 5 to 10 rail cars would provide the opportunity to transport 25,000 to 50,000 cubic yards (up to 375 to 750 tons) of material to or from the potential light industrial area. While no study has been conducted to determine the precise transportation needs of any light industrial development in this area, the indicated available capacity would be able to serve one or more light industrial businesses that may develop near the Airport.

Comment

SEA should have considered the indirect and cumulative impacts associated with the Airport expansion in its environmental review per 40 CFR 1508.7 and 1508.8, if the Airport is to be included in the Purpose and Need statement of the EA. This would include analyzing future rail service to the Airport and determining potential impacts. As an alternative, the commenter suggested that the alignment could be moved further west away from the Airport since this area was not studied in the Draft EA

Response

As stated in chapter 1 of the Draft EA, SEA included the Airport in the Purpose and Need statement because the Airport is proposing to develop light industrial uses on property owned by the Airport. The light industrial uses would require some movement of raw materials and goods in and out of the Airport area. Thus, this project would provide a cost effective and efficient means for the transport of commodities. Moreover, the City of Safford has indicated that the light industrial use areas have limited access and cannot be developed until certain infrastructure improvements are made. Although the City has indicated that there are no current plans to develop this industrial area, the City did request that a connection be provided in the Draft EA with the plan that this area would one day be rail-served. Thus, there is no way, based on current available information, to conduct any analysis of direct or indirect environmental effects of light-industrial uses at the Safford Airport, as information about the location, size and timeframe of such development is unknown and it would be speculative to make such an assumption.

Furthermore, SEA considered a reasonable range of alternatives, and any changes, such as relocating the proposed rail line away from the Airport, would require further analysis and consultation with Federal agencies, and would not be a viable option for supporting any future light industrial uses around the Airport. Chapter 4.0 of the Draft EA provides a discussion of potential impacts on hydrology and viewsheds.

Comment

The Draft EA fails to analyze the environmental impacts associated with train/truck hazardous materials incidents.

Response

Hazardous materials spills from train and trucks would generate similar impacts on air and water resources (See the No Action Alternative) depending on a number of variables such as: the location of the accident relative to the surrounding terrain, meteorological conditions and the type of chemical.

As noted in the Draft EA, the Proposed Action would not result in an increase in the generation or release of hazardous waste. Although the Proposed Action would result in the transport of one train per day of sulfuric acid - a hazardous material - to the Mine from Claypool or Miami, Arizona, the No-Action Alternative would result in the transport of approximately 80 truck loads per day of sulfuric acid along public highways and roadways. As stated in the Draft EA, FRA statistics indicate that hazardous materials transported by railroad are much less likely to be involved in an accidental release than hazardous materials transported by truck.

Chapter 4 of the Draft EA states that in the event of an accident, AZER has contingency plans and crews to handle emergencies such as natural disasters and train derailments. Additionally, Mitigation Measure #33 would require AZER to develop and implement a spill prevention plan.

Comment

The Draft EA did not discuss or analyze ADOT's suggested alternatives for the proposed U.S. Highway 70 crossing.

Response

On April 10, 2008 and subsequent to the above comment, SEA participated in a conference call with representatives from ADOT, the Arizona Corporation Commission (ACC), AZER, and SEA's third party consultants CirclePoint and Wilbur Smith Associates. ADOT requested the meeting to discuss concerns over the need to include a grade-separated crossing at U.S. Highway 70 as an alternative in the Draft EA. During the meeting, AZER agreed to work with ADOT on the grade-separated road crossing issue and has since submitted a letter to SEA indicating its commitment and intent to further work on a plan that is agreeable to all parties in the future. The letter dated November 5, 2008 from John Heffner to Diana Wood in Appendix F (Post EA Correspondence) indicates that AZER is willing to participate in the planning and funding of a fare share of the costs related to a bridge span that would replace an at-grade rail road crossing, in conjunction with the planning and construction of the proposed widening of U.S. Highway 70.

Comment

The Phelps Dodge Mine has since been purchased by the Freeport-McMoRan Gold & Copper Company and should be noted in the EA.

Response

The comment is noted and incorporated herein.

General Matters

Summary

SEA received comments that provided suggestions on how the document could be better organized and comments that provided clarification on specific issues and corrections to errors. The specific comments include:

Comment

The technical appendices should have an index or table of contents.

Response

Comment noted. The Draft EA contains a table of contents and appendices. However, SEA only included a table of contents in appendices with more than 15 pages. Thus, three of the eight technical appendices have table of contents.

Comment

“Tulley Wash” should be spelled “Talley Wash.”

Response

Comment noted.

Project Description**Summary**

SEA received comments on the project description that expressed concern about potential impacts associated with the 500-foot wide corridor; questioned why other alternative routes and other highway crossings were not considered; and expressed doubt about the Gila River crossing with regard to the actual length of the bridge. Specific comments include:

Comment

The commenter questioned why the right-of-way width increased to 500 feet in the Draft EA when a narrower width was originally discussed. Commenters also questioned the amount of impact the 500-foot width would have on the land, and expressed disappointment that property owners were not informed of such changes.

Response

As indicated in Chapter 2.0 of the Draft EA, the right-of-way would be approximately 100 feet wide and contain the proposed rail line at about 8.5 feet in width, as well as a side running service road approximately 12 feet in width.

The 500-foot corridor was established early in the process as a means to assess impacts on biological and cultural resources. This corridor, or Area of Potential Effects (or APE), was also established to allow AZER some degree of flexibility in locating the final alignment, based on final engineering and environmental approvals. The proposed rail right-of-way remains at a width of no greater than 100 feet within the 500-foot corridor.

Land Use/Farmlands and Agriculture

Summary

SEA received comments on the land use/farmlands and agriculture section of the EA that expressed concerns about agricultural land, irrigation wells, and economic implications for farmers. The City of Safford requested that AZER coordinate final design and planning efforts with the City to avoid conflicts with existing and future development. Specific comments include:

Comment

The proposed rail line would devalue properties and reduce the number of farmable acres of agricultural land. Land owners should be compensated for loss of income and property values, and that damage to land should be mitigated—or that any alignment alternatives traversing farmland should be developed in cooperation with property owners who have the most in-depth knowledge of the lands in question.

Response

As stated in Section 2.3 of the Draft EA, most of the alignment areas in each of the alternatives are on privately held land that is either agricultural use or desert rangeland. In considering the various routing alternatives, SEA sought to both minimize the amount of impact to agricultural and residential properties, as well as reduce the number of river crossings to the greatest extent practicable. As a result, nearly all of the routing alternatives are located away from residential properties and avoid crossing the San Simon River.

In general, agricultural operations are compatible with freight railroads, and often rely on freight to transport agricultural commodities. The alignment alternative under the Proposed Action was developed to closely follow property lines to the extent practicable, so as to avoid private property and agricultural severance impacts.

As noted in the Draft EA, acquisition of the railroad right-of-way would require the permanent use/conversion of (ie, a direct impact to) as much as 24.6 acres of farmland, assuming a 200-foot wide right-of-way (AZER indicates that the actual right-of-way width would be approximately 50 to 100 feet). Appropriate compensation would be provided to affected property owners. It should be noted that Graham County's Comprehensive Plan has not established a "minimum farmable unit" acreage – in other words, the smallest parcel size on which agricultural uses can be feasibly conducted, given local conditions. Two land use designations set forth by the Graham County Comprehensive Plan ("A" and "A-R") allow for unspecified agricultural and grazing uses; minimum lot sizes for these designations are one acre. Where remnant parcels below an acre in size are created, affected property owners could seek compensation from the project applicant.

Notably, the National Resources Conservation Service (NRCS), a bureau of the United States Department of Agriculture, reviewed the potential farmland impacts of the Proposed Action. NRCS has determined that the quantity of farmland that the Proposed Action would impact, when taking into account the nature of surrounding land uses and soil qualities, falls short of NRCS's threshold for mitigation. A copy of a letter from NRCS has been included as Appendix D to this Post EA.

Comment

The proposed rail line would sever existing parcels and adjacent drainage ditches and thus impact farming operations. More land will be needed than just the right-of-way for ancillary rail structures such as turnarounds and spurs, yielding less prime agricultural land to actively farm. It will be difficult to use farm equipment in areas that have been severed by the proposed rail line.

Response

As stated in the Draft EA, the project would have both direct and indirect impacts to farmland pursuant to the Farmland Protection Policy Act. These factors would be taken into consideration with individual property owners during property acquisition negotiations. A new mitigation measure (see Chapter 1, measure #13) was added to better address unavoidable impacts to agricultural lands. The mitigation measure requires AZER to consult with property owners and modify the final alignment within the studied 500 foot corridor so as to minimize or avoid impacts to existing land uses, structures, and infrastructure, consistent with the floodplain approval process and the Section 404 U.S. Army Corps of Engineers and Section 7 U.S. Fish and Wildlife Service regulatory permit processes.

Comment

Commenters expressed concern about wells being capped within the 500-foot corridor resource study area for the proposed rail line. One commenter stated that drilling wells in new locations is not a simple process due to differing parameters such as aquifer depth, location, pressure, and water quality. Studies need to be performed to determine optimum well locations before the old wells are capped.

Response

Although a 500 foot wide corridor was studied in detail for portions of the environmental analysis, the actual railroad right-of-way width would be approximately 50 feet in most locations and at no point wider than 100 feet. All temporary construction effects are to be located within a 200 foot corridor centered on the proposed rail alignment. Temporary construction areas would not necessarily entail the same degree of modifications to land, such as the capping of wells or other significant ground disturbance.

When detailed engineering plans are developed, any wells, utilities, or other structures that are identified as possibly being in the right-of-way will, to the greatest extent practicable, be avoided by the final alignment. Where conflicts with wells, utilities, or other structures cannot be avoided, such features would be capped and/or relocated if necessary.

Comment

SEA should discuss plans for the proposed alignment with the City of Safford so that the proposed rail line does not conflict with existing and future development and land uses, such as the Safford Regional Airport and Dry Lake Park.

Response

SEA met with representatives from the City of Safford early in the project planning process to discuss various routing alternatives for the proposed rail line with respect to adding future rail line service to the Safford Regional Airport and avoiding Dry Lake Park. Both issues were addressed in Chapters 1.0, Purpose and Need, and 2.0, Alternatives, of the Draft EA.

The City of Safford also commented that the Safford Regional Airport Master Plan is in the process of being revised. A key component of the revision is the proposed extension of the Airport's runways. The City indicated that the Master Plan now proposes to extend the runway up to 2,000

feet in a northwesterly direction, within close proximity to the alignment of the proposed rail line. According to a diagram provided to SEA by the City of Safford (and included as Figure 1 in this Post EA), the existing taxiway A/B would be extended from 6,000 to 8,000 feet in length, and a new 8,000 foot runway would be constructed to the immediate north, parallel to the extended taxiway.

As shown in Figure 1 of this Post EA, the right-of-way for the Proposed Action turns sharply to the northwest near the Airport's northern boundary. Therefore, SEA has determined that the proposed rail alignment would not conflict with the proposed taxiway extension and new runway.

Community/Socio-Economic Effects

Summary

SEA received comments on the community/socio-economic effects that questioned the accuracy of the data used in the Draft EA for forecasting economics and demographics. Specific comments include:

Comment

A commenter questioned the accuracy of the Draft EA in stating that the proposed rail line would provide six to 12 jobs.

Response

Based on operational period job estimates provided by AZER, SEA has determined that it is reasonably foreseeable that train operations to the Mine would require additional train operators and/or maintenance of way personnel. Even if the actual number of new employees created by the Proposed Action were reduced from the estimate provided in the Draft EA from a range of 6-12 to a range of 2-4, the impact conclusion in this section would remain largely unchanged, although the degree of beneficial job creation would be slightly reduced.

Comment

Updated demographic and economic data can be found at www.workforce.az.gov.

Response

The State of Arizona Department of Economic Security has developed population estimates at the local, county, and state level as of July 1, 2007. These estimates are reflected in the updated table below.

	1990 population	2000 population	Percent change	July 2007 population estimate	Percent change
Graham County	26,554	33,498	+26.2	37,338	+11.0
City of Safford	7,359	9,232	+25.5	9,460	+2.4
State of Arizona	3,665,228	5,130,632	+40.0	6,500,194	+26.7

Relative to the Draft EA, the July 2007 population estimates show larger increases in the City of Safford, Graham County, and the State than prior estimates from 2003. This additional information does not modify any impact conclusions noted in the Draft EA.

Utilities

Summary

SEA received comments on the utilities/public services that expressed concern about possible rate increases for Graham County Electric Cooperative (GCEC) customers as a result of the proposed rail line. Specific comments include:

Comment

GCEC, a non-profit, member-owned cooperative, commented that the proposed rail line would require the rerouting of major electric and natural gas lines, and crossing of a number of smaller lines. Such measures could disrupt service and result in increased fees. AZER should be required to inform GCEC customers of any and all rate increases.

Response

Chapter 4.0 of the Draft EA stated that the Proposed Action would cross existing telephone and electric power lines at U.S. Highway 70 and that no rerouting was found to be necessary. The Draft EA also stated that there did not appear to be any gas lines in the project area. Although the commenter did not provide specific information as to the location of any gas lines or other underground utilities that might be potentially impacted by the project, SEA has included Mitigation Measure #8 in the EA requires AZER to consult with GCEC, and, if warranted, conduct an underground service alert (USA) for the length of the proposed rail alignment prior to the start of construction. Should the USA reveal the presence of any underground utilities that might be crossed by the proposed rail line, AZER would ensure that such conveyances are protected in place.

Traffic, Transportation and Safety

Summary

SEA received comments on traffic and transportation and safety that expressed concern about traffic congestion, safety, and essential services such as emergency response. Commenters also noted that some of the traffic and transportation information in the Draft EA was either incorrect or not included. Specific comments include:

Comment

The Draft EA did not take into account ADOT's 2003-2007 traffic data, published in April 2008. This is critical because SEA underestimated the level of service (LOS) and traffic delay at the U.S. Highway 70 crossing, and should update the Draft EA accordingly. The Draft EA also did not include truck transportation data, nor did it discuss safety or delay issues.

AZER should build a grade separated crossing at U.S. Highway 70 rather than the proposed at-grade crossing, because the proposed at-grade crossing will: increase traffic, delay emergency vehicle response time, limit access to private driveways, and increase the risk of vandalism and theft to surrounding properties at times when the train is crossing the highway.

Response

SEA used 2005 traffic data in the Draft EA because this was the latest information available from both ADOT and the Graham County Engineering Department at the time the traffic analysis was being conducted in 2006. SEA used this data to project potential impacts of the Proposed Action up to the year 2030, assuming an annual growth factor of 1.85 percent. SEA's analysis examined U.S. Highway 70 in both 2 lane (existing) and 4 lane (projected) configurations, as presented in Chapter 4.0 of the Draft EA. Based on the 4 travel lane 2030 projections, SEA determined that the

existing LOS A (free-flowing) would decrease to B (reasonably free flowing) for this segment of U.S. Highway 70.

Traffic data for U.S. Highway 70 from 2007 were not available until after the Draft EA was published in 2008. However, SEA has revised the traffic analysis in this Post EA (see Appendix E) to utilize the more recent data. As part of this effort, SEA recalculated the expected annual traffic volume growth rate for U.S. Highway 70, utilizing data between the years 2005 and 2007. During this period, traffic volumes on U.S. Highway 70 increased at an average annual rate of more than 8 percent. To predict year 2030 traffic volumes for U.S. Highway 70, SEA applied this same growth rate of 8 percent. Use of the 8 percent growth rate resulted in a higher level of projected year 2030 traffic than the previous use of the 1.85 percent growth rate.

Assuming 4 travel lanes, the updated analysis shows that in 2030, the LOS at the same location of U.S. Highway 70 would remain at B during the worst-case, peak-hour scenario.²⁰ For rural areas (defined by ADOT as communities with populations below 50,000) ADOT typically considers LOS C or better (in a range from LOS A (optimal) to LOS F (traffic jam)) to be an acceptable level of delay. Therefore, SEA has concluded that the traffic delay impact at the proposed at-grade crossing would remain unchanged.

The updated analysis also provided information regarding the number of trucks traveling on U.S. Highway 70 in response to comments. The updated analysis indicated that truck traffic constituted approximately 8 percent of all vehicle traffic along this portion of U.S. Highway 70. The updated analysis also noted that some vehicles, especially those carrying hazardous materials, or buses carrying children, are required to stop at all railroad crossings, regardless of the presence of a train. The earlier analysis indicated that such potential impacts could be mitigated through the placement of warning signs and devices on the eastbound and westbound approaches to the proposed at-grade crossing. The updated analysis reaffirmed that warning signs and devices would mitigate potential safe stopping distance concerns with the proposed at-grade crossing and proposed additional signs and signals within a larger potential area relative to anticipated traffic queues.²¹

The updated traffic analysis assumed a maximum traffic queue length of 3,232 feet under a proposed four-lane highway configuration. The analysis also concluded that the total delay anticipated from a single train crossing at U.S. Highway 70 would be 163 seconds (2 minutes and 43 seconds). Given that two daily trains would cross U.S. Highway 70, the maximum total daily train crossing time would be 326 seconds (5 minutes, 26 seconds) each day. Because these queues would be of relatively short duration (under 3 minutes at the longest), it is unlikely that there would be time enough for vandalism to occur.

Comment

The Draft EA failed to analyze the impact of the at-grade railroad crossing on first-responders.

Response

The Draft EA concluded that there would be minimal disruptions along U.S. Highway 70 for all potential users. The updated traffic analysis (Appendix E to this Post EA) examined potential impacts to first responders up to year 2030. The updated analysis assumed that a worst-case delay

²⁰ The worst-case scenario assumed that the train would cross U.S. Highway 70 during the afternoon peak hour, when traffic levels are at their highest. Crossings at other times of day, when traffic levels are lower, would have proportionately milder effects on traffic.

²¹ "Traffic queues" are defined as any group of waiting or slow-moving vehicles. Traffic queues can develop at stop signs, traffic lights, and active rail crossings.

for first responders would be equal to the maximum possible train crossing time, estimated to be 163 seconds per train crossing, or a total of 326 seconds (five minutes) per day. This analysis assumed that first responders would be able to advance to the front of any traffic queues at the crossing.

Given that two trains a day would cross the highway resulting in relatively infrequent, short-duration delays, it was determined that the Proposed Action would have a negligible impact on the mobility of first responders.

In the unlikely event of an unanticipated longer delay due to catastrophic or other unforeseeable factors, area traffic would likely need to be temporarily diverted to East Solomon Road, which runs parallel to U.S. Highway 70 approximately 1 mile to the south. Any such delays would be far outside the course of anticipated daily operations. Catastrophic incidents would be coordinated by both AZER's own operational unit (based in Claypool) and Safford and Graham County emergency responders.

Comment

The Draft EA states that the proposed rail line would reduce or eliminate the trucks hauling hazardous materials; however, many trucks will likely still be needed for transport of other materials to the Mine, as evidenced by operations of the nearby Morenci Mine.

Response

The Draft EA does not state that the proposed rail line would provide all transportation needs to and from the Mine. Rather, the identified purpose and need for the Proposed Action is to provide for the transport of copper cathodes and sulfuric acid to and from the Mine. It is assumed that Mine employees would utilize local roadways to travel to and from the Mine; local roadways would also be utilized to transport other equipment and materials associated with Mine operations. Such operations were analyzed in the separate Mine EIS and are not relevant to the analysis of the Proposed Action in the Draft EA.

Comment

The ACC commented that it has approval authority for at-grade rail/highway crossings in the state of Arizona.

Response

According to its website, one of the main missions of the ACC is to ensure compliance with a number of Federal railroad operating and safety regulations. The ACC carries out these responsibilities in part through its jurisdiction over proposed crossings of public highways and through the activities of its Railroad Safety Section. SEA has recommended Mitigation Measure #2, which states that construction of at-grade road crossings are subject to the ACC's review and approval.

Comment

The Draft EA should discuss the number and types of hazardous materials haulers in the region, as well as the number and types of special vehicles that would be traveling through the at-grade crossing. Related comments argue that information on AZER's own safety record must be taken into consideration when discussing the probability of spills, accidents, and fires.

Response

The Proposed Action would remove some trucks transporting hazardous materials from local roadways and highways; however, such materials would continue to be transported along local

roadways in relation to other uses, users, and needs. SEA does not dispute this assertion. No data are available estimating the number of hazardous materials haulers in the area. Notwithstanding, the Proposed Action would still result in the removal of some hazardous material carrying trucks from local roadways, a small but beneficial impact.

The FRA Office of Safety Analysis tracks railroad accidents and provides a comprehensive, searchable on-line database. In 2007, there were five reported railroad accidents in the state of Arizona involving damages greater than \$50,000. Three of these accidents were on the Union Pacific Railroad; the other two were on the Burlington Northern Santa Fe Railroad (BNSF). During the same period, there were five accidents on the Arizona Eastern Railroad, but equipment and track damage was relatively minor (below \$50,000 in damage and involving no loss of life).

Between January and September 2008, FRA has tracked a total of thirty one railroad accidents in the state of Arizona. AZER and BNSF each experienced ten railroad accidents during this period. Of these, two were on the AZER; one was a major derailment on January 28 in Gila County, which resulted in more than \$1 million in track and equipment damage. This was the second largest rail accident in the state of Arizona between January and September 2008; the largest was on the BNSF on March 16 in Yavapai County.

To reduce and minimize any potential effects related to the unexpected release of hazardous materials, SEA has included several mitigation measures. Mitigation Measure #33 requires AZER to develop a spill prevention plan that would encompass both construction and operational phases of the Proposed Action. Mitigation Measure #34 requires that operational period safety measures encompass all applicable Federal and state regulations related to hazardous materials. In addition, Mitigation Measure #17 requires AZER to develop a stormwater pollution prevention plan (SWPPP) as a condition of an Arizona Pollutant Discharge Elimination System (AZPDES) permit from the Arizona Department of Environmental Quality (ADEQ). The SWPP and the permit would integrate best management practices into rail operation plans that would help to minimize any potential release of pollutants into waters of the United States, including the Gila River and the San Simon River.

Comment

The Draft EA does not address safety issues regarding sight distance for AZER motor vehicles entering U.S. Highway 70 from the access roads, as drivers' view of oncoming traffic may be blocked by crossing arm equipment and bridge barriers.

Response

The updated traffic analysis (Appendix E of this Post EA) indicated that no data were available regarding the number of vehicles turning into or out of properties along U.S. Highway 70 in the vicinity of the proposed at-grade crossing. This stretch of U.S. Highway 70 primarily comprises large parcels of land in agricultural use. Therefore, SEA concludes that traffic volumes turning into U.S. Highway 70 from these roads would be minimal. Crossing arm equipment, when not in a deployed position, would be similar in profile to a telephone pole and would therefore have negligible impacts to views along the roadway.

The Draft EA otherwise extensively covered potential impacts related to safe stopping distance; mitigation measures have been included to reduce the degree of these impacts.

Comment

A commenter questioned why the proposed traffic mitigation measures only covered construction and raising the at-grade crossing to the level of the bridge deck and did not address other mitigation such as the utilization of an extra lane for trucks and buses (because they stop at the tracks). The commenter also questioned why the Draft EA did not incorporate the design of the to-be-constructed five-lane configuration of U.S. Highway 70 so that the safety devices in the project area only have to be constructed once.

Response

Proposed mitigation measures examine operational conditions in the year 2030, not merely construction period impacts, as a comment asserts. Moreover, the analysis for the year 2030 concluded that delays at the proposed at-grade crossing would be relatively minor, resulting in Level of Service B operations, which are typically considered acceptable by ADOT.

In 2008, ADOT indicated that the agency plans to expand U.S. Highway 70 to include a center turn lane.

As previously mentioned, on April 10, 2008, ADOT coordinated a conference call with SEA, AZER and others. During this call, ADOT and AZER agreed to cooperate on the placement of roadway safety devices at the railroad crossing and coordination of future roadway expansions relative to the railroad crossing.

AZER would construct an at-grade crossing of U.S. Highway 70 to span existing travel lanes. It is assumed that the expansion of U.S. Highway 70 to 3 lanes would occur prior to the construction of AZER's at-grade crossing. In the event that the proposed expansion to 3 lanes does not occur, existing shoulders along both sides of U.S. Highway 70 would afford ample space for trucks, buses, and any other vehicles required to or wishing to stop at the at-grade crossing to do so outside of the main travel lanes and allow any other vehicles to pass.

Comment

The Draft EA should include "information and safety analyses for train-vehicle collisions at five-lane, three-lane, and two-lane highways with at-grade crossings."

Response

The updated traffic analysis (Appendix E of this Post EA) as well as the study prepared for the Draft EA each examined safety considerations for the proposed at-grade crossing.²² Analyses for safe stopping distance were included for two and four lane configurations of U.S. Highway 70. The analyses concluded that with mitigation, the risk of collisions would be minimized.

Comment

ADOT is proposing a grade separated railroad spur crossing of US 70 west of San Simon River Bridge at milepost 343.4.

Response

The commenter states that design and construction details for this project have not been finalized. However, the comment is acknowledged; this proposed grade separated crossing would not appear to pose any traffic delay or safety issues to the proposed AZER at-grade crossing.

²² The Draft EA can be downloaded from the Board's website at www.stb.dot.gov. Go to "E-Library," click on "Decisions & Notices," and then conduct a full text search for the material under "FD 34836."

Visual/Aesthetics

Summary

SEA received comments regarding its analysis of visual resources for the Proposed Action. Specific comments include:

Comment

The Draft EA should have utilized a standard visual resource analytical tool such as the Bureau of Land Management's Visual Resources Management System because the proposed Gila River crossing would pose a significant visual impact even if not readily observable to numerous viewers. SEA's analysis was deficient.

Response

The Draft EA acknowledged that neither the Board nor the only cooperating agency, FRA provides detailed guidance for the evaluation of visual impacts. As such, SEA used Federal Highway Administration (FHWA) guidelines for the analysis of visual resources. These guidelines are used across the nation for linear road and highway projects. Therefore, given the linear nature of this project, SEA determined that application of FHWA guidelines was appropriate.

The Draft EA recognized that the proposed Gila River bridge would be a substantial addition to the immediate visual environment of the Gila River crossing, but that the area was largely not visible from any public property, including Dry Lake Park to the north. The potential number of affected viewers would thus be minimal, leading to SEA's conclusion of no significant adverse visual effect.

Cultural and Paleontological Resources

Summary

SEA received comments on the cultural and paleontological resources with regard to potential adverse effects and mitigation to the cultural resources significant to the Hopi Tribe. Specific comments include:

Comment

The Proposed Action may adversely affect cultural resources significant to the Hopi Tribe and that the Hopi Cultural Preservation Office would like to be provided with copies of the draft testing plan and the draft testing report for review and comment if archeological testing is proposed at site AZ CC:2:370 (ASM).

Response

The Draft EA concluded that the Proposed Action may have an adverse effect on six historic resources. The Draft EA concluded that the Proposed Action would not have an adverse effect on site AZ CC:2:370. Notwithstanding, owing to the possibility of buried human remains on this site, Arizona Revised Statutes (ARS) §41-865 requires potential burial sites to be investigated consultation with identified Native American tribes.

Under the Section 106 of the National Historic Preservation Act of 1966 as amended (NHPA) (16 U.S.C. § 470f), SEA has prepared a Memorandum of Agreement (MOA) with the Arizona SHPO to ensure that a number of measures related to the treatment of historic and cultural properties are carried out during the construction of the Proposed Action. Signatory parties to the MOA are STB, FRA, Arizona SHPO and AZER. Concurring parties to the MOA are the Gila River Indian Community, the Hopi Tribe, and the United States Army Corps of Engineers (Corps). A copy of the executed MOA is included as Appendix G. Specifically, the MOA binds the Board, and by

extension, AZER, to comply fully with the terms of the approved Historic Properties Treatment Plan (HPTP) prepared for the Proposed Action. A letter indicating Arizona SHPO's approval of the HPTP is included in Appendix F (Post EA Correspondence).

Therefore, the HPTP includes this site, recommending compliance with ARS §41-865. Moreover, the MOA specifically names the Hopi Tribe as a concurring party to the MOA and invites their ongoing participation. The MOA includes a stipulation that all draft technical reports shall be circulated to all concurring parties.

In accordance with Section 106 regulations, both the MOA and the HPTP were circulated to interested parties, including interested Tribes, for review and comment prior to execution. The executed MOA includes comments generated during this review period.

Comment

The Section 4(f) evaluation discusses only potential effects to recreational facilities. There is no discussion of how potentially affected historic resources may be regulated under Section 4(f).

Response

Section 4(f) of the Department of Transportation Act of 1966, codified in Federal law at 49 USC §303, declares that “[i]t is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.”

Section 4(f) specifies that “[t]he Secretary [of Transportation] may approve a transportation program or project . . . requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park area, refuge, or site) only if:

1. there is no prudent and feasible alternative to using that land; and
2. the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

Section 4(f) further requires consultation with the Department of the Interior and, as appropriate, the involved offices of the Departments of Agriculture and Housing and Urban Development in developing transportation projects and programs which use lands protected by Section 4(f).

The U.S. Department of Transportation's regulations regarding the evaluation of archaeological resources under Section 4(f) is further codified at 23 CFR §771.135. Specifically, Section 4(f) does not apply to archaeological sites whose importance as a resource can be documented through a data recovery process and has minimal value for being preserved in place. Moreover, Section 4(f) requirements apply only to sites on or eligible for listing on the National Register of Historic Places (NRHP).

The Draft EA concluded that a recreational facility near the proposed rail alignment (Dry Lake Park) would qualify as a 4(f) resource. The Draft EA concluded that there would be no 4(f) use of this property because the proposed rail alignment would be located at least 1,500 and up to 2,000 feet away from Dry Lake Park.

The cultural resources evaluation within the Draft EA identified 12 potentially affected historic resources in the vicinity of the proposed rail alignment. The Draft EA concluded that the Proposed

Action would potentially result in adverse effects to six of the identified resources. The Draft EA further found that NRHP eligibility had not been determined for three of the six potentially adversely affected resources; the determination of eligibility would establish the extent of the project's adverse effect on each resource.

The Draft EA included mitigation for potential effects to cultural resources in the form of compliance with two guidance documents:

1. A Memorandum of Agreement (MOA), developed pursuant to 36 CFR 800.6(c), to be executed by all required parties.
2. An Historic Properties Treatment Plan (HPTP), to be prepared for the project pursuant to 36 CFR 800.11.

Subsequent to the publication of the Draft EA, the MOA has been developed; the MOA was fully executed by all signatory parties on March 10, 2009. In addition, an HPTP was developed; the HPTP was accepted by the Arizona SHPO on March 12, 2009, as indicated in the letter from Arizona SHPO included within Appendix F (Post EA Correspondence).

Notably, the HPTP identified four additional historic resources that had not been included in the Draft EA. These four sites contain water control checkdams, believed to date from the early 20th century. A supplement to the HPTP concluded that the four checkdams were eligible for listing on the NRHP.

The table below identifies and briefly describes each of the historic resources considered in the HPTP²³, indicates treatment strategies for each resource, and evaluates the applicability of Section 4(f) requirements to each resource. As indicated in the table below, none of the historic resources potentially affected by the Proposed Action are subject to the requirements of Section 4(f).

Summary of Historic Sites Considered in the Historic Properties Treatment Plan, National Register of Historic Places Eligibility, Treatment Strategies, and Section 4(f) Evaluation

ASM Site Number	Name or Type of Site	NRHP Eligibility	Treatment Strategy	Subject to Section 4(f) Requirements?
AZ CC:2:172	Union Canal – irrigation feature	SHPO has determined eligibility under criteria (a) and (c)	Data recovery	No: 4(f) requirements do not apply when importance of resource can be documented through a data recovery process
AZ CC:2:360	San Simon River Diversion	Undetermined; considered potentially eligible under criterion (a)	If eligible, data recovery	No. Even if the resource is ultimately determined to be eligible for the NRHP, a data recovery process would adequately document the value of this resource.
AZ CC:2:361	Hog raising facility (“piggery”)	SHPO has determined eligibility under criterion (d)	Data recovery	No: 4(f) requirements do not apply when importance of resource can be documented through a data recovery process
AZ CC:2:362	Montezuma Canal – irrigation	Unevaluated; considered	Eligibility testing; If	No. Even if the resource is ultimately determined to be eligible for the NRHP,

²³ Properties included in the HPTP include the four checkdam sites (AZ CC:2:377, AZ CC:2:378, AZ CC:2:379, AZ CC:2:380) plus two sites that the Draft EA concluded would not be adversely affected by the Proposed Action (AZ CC:2:364 and AZ CC:2:370).

ASM Site Number	Name or Type of Site	NRHP Eligibility	Treatment Strategy	Subject to Section 4(f) Requirements?
	feature	potentially eligible under criterion (a)	eligible, data recovery	a data recovery process would adequately document the value of this resource.
AZ CC:2:363	Farmhouse	Unevaluated; considered potentially eligible under criterion (d)	Eligibility testing; If eligible, data recovery	No. Even if the resource is ultimately determined to be eligible for the NRHP, a data recovery process would adequately document the value of this resource.
AZ CC:2:364	Buried aqueduct	Unevaluated.	Eligibility testing; If eligible, data recovery	No. Proposed Action would not adversely affect this resource. Moreover, even if the resource is ultimately determined to be eligible for the NRHP, a data recovery process would adequately document this resource's value.
AZ CC:2:370	Artifact Scatter	SHPO has determined that the site is not eligible.	Per ARS §41-865, investigation of potential for buried human remains.	No. Proposed Action would not adversely affect this resource. Moreover, the resource is ineligible for NRHP, and is therefore not subject to Section 4(f) requirements.
AZ CC:2:377	Water control checkdams	Eligible under criteria (a), (c), and (d)	Data recovery	No: 4(f) requirements do not apply when importance of resource can be documented through a data recovery process
AZ CC:2:378	Water control checkdams	Eligible under criteria (a), (c), and (d)	Data recovery	No: 4(f) requirements do not apply when importance of resource can be documented through a data recovery process
AZ CC:2:379	Water control checkdams	Eligible under criteria (a), (c), and (d)	Data recovery	No: 4(f) requirements do not apply when importance of resource can be documented through a data recovery process
AZ CC:2:380	Water control checkdams	Eligible under criteria (a), (c), and (d)	Data recovery	No: 4(f) requirements do not apply when importance of resource can be documented through a data recovery process

Hydrology and Water Quality

Summary

SEA received comments that raised concern about the proposed rail line and potential impacts to flooding along the Gila River, stormwater management, and other water resource issues. Specific comments include:

Comment

SEA should provide more information on the Corps Section 404 nationwide permit process with regard to the Proposed Action.

Response

Under 33 U.S.C. 401 et seq., the Corps is authorized to issue “nationwide permits” for activities involving minor modifications to waters of the United States. The Corps has set forth thresholds used in the determination of whether a project can qualify for approval under the nationwide permit, or if an individual permit is required. The Corps’s threshold relates to the acreage of wetlands that would be permanently lost in the event a given project is constructed and operated. Based on all information compiled to date and in consultation with the Corps (including an approved Jurisdictional Delineation), the Proposed Action is within the threshold under which a nationwide permit is permissible. As a means of ensuring the Corps’s continued oversight and involvement, a condition of the Section 404 permit requires AZER to provide pre-construction notification to the Corps.

Comment

The pre- and post-project floodplain model should be included in the EA to determine the impact of the project on the floodplain.

Response

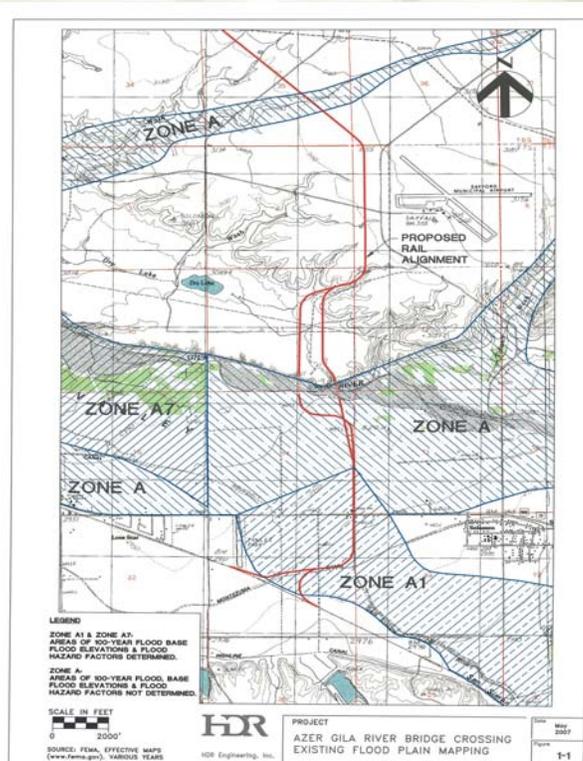
The Biological Assessment (Appendix D of the Draft EA) included a separate hydrological study of the proposed Gila River crossing (Appendix A within the Biological Assessment²⁴). This study examined potential bridge locations and configurations in an effort to avoid and/or minimize any potential flooding impacts. The study concluded that the proposed bridge location, length, and structure would essentially be floodplain neutral, resulting in minimal (less than 1 foot) changes in flooding elevations in the project area. In addition, SEA has included a mitigation measure that requires AZER to obtain a floodplain development permit from Graham County prior to initiating construction of the proposed rail line.

Comment

SEA should have included a map and reference with the write-up pertaining to the Federal Emergency Management Agency (FEMA) -designated floodplain for the San Simon and Gila rivers.

Response

FEMA publishes “Flood Insurance Rate Maps” or FIRMs for the entire United States. These maps show the locations of flood hazard areas, including areas estimated to flood at 100 or 500 year intervals. The hydrological study for the Proposed Action was based upon careful review of the FEMA FIRM map for the area. The Draft EA specifically mentioned that the FIRM for the area indicated that the proposed alignment would traverse areas of floodplains associated with the San Simon and Gila Rivers. For the greater convenience of readers, a map of the floodplain areas is shown in the figure at right.



²⁴ Available on-line at www.stb.gov; Environmental Correspondence, incoming by Docket Number: Docket FD-34836, ECT# EI-7244.

Comment

The FEMA Floodplain Map in the Draft EA has been updated as of September 28, 2007.

Response

FEMA updated its floodplain maps for Graham County in September 2007, subsequent to the preparation of the hydrological study in March 2007. Revised flood maps will be utilized in the development of detailed bridge design drawings.

Comment

SEA has not adequately addressed flooding associated with the proposed rail line along the Gila River; examined impacts from the railroad bed and bridge; or addressed mitigation. To avoid collecting flood debris and raising the flood elevation of the river, commenters indicated that the bridge should be relocated to a wider area of the river, or that bridge piers be spaced more widely.

Response

The comment suggests that riverine or flood-borne debris would have the potential to become lodged in between bridge piers. A broad accumulation of such debris could have the potential to redirect or impede river flows, potentially worsening flooding conditions. The hydrological study prepared for the Proposed Action determined through flood modeling simulations that a bridge with piers spaced 100 feet apart would allow for adequate clearance for flood debris and thus would not have a significant adverse flooding effect. In addition, SEA has included Mitigation Measure #18 which requires AZER to obtain a floodplain development permit from Graham County prior to construction.

Comment

A comment indicated that siting the Gila River crossing further west, downstream of the confluence of the Gila and San Simon rivers, would reduce flooding risks to upstream landowners, and that railroad infrastructure could serve as a barrier to mitigate flooding on the Claridge property. Related comments noted that a bridge washout occurred near the location of the proposed new crossing.

Response

The hydrological study²⁵ examined a number of potential locations for the Gila River crossing. The study utilized FEMA regulations (Section 9.4) which establish that a projected rise of 1 foot or less in 100 year water surface elevation is considered a minimally adverse effect. The study modeled several bridge alignments and configurations; the ultimately selected option was that which the study determined to have minimal flooding effects.

As noted in the Biological Opinion (Appendix C to this Post EA), the selected location for the bridge crossing is at the locally narrowest width of the Gila River. Any crossing that would be located as far west as proposed by the commenter would result in an overall alignment that could introduce new environmental impacts (such as crossing of Dry Lake Park, a 4(f) resource, and/or State of Arizona reservation land) while failing to meet objectives set forth in the Purpose and Need statement.

Comment

A commenter recommended that the grade of the proposed railroad trackbed be assessed to determine if it might cause any flooding to farms and asked what mitigation measures would be adopted to reduce the threat of flooding to surrounding properties.

²⁵ Available on-line at www.stb.gov; Environmental Correspondence, incoming by Docket Number: Docket FD-34836, ECT# EI-7244.

Response

The commenter is concerned that railroad trackbeds could worsen flooding conditions along adjacent farmland properties. While the hydrological study prepared for the Proposed Action noted that under 100 year flood events railroad tracks are allowed to be overtopped by up to 1 foot of water related to existing flooding conditions in the project area, the trackbeds for the Proposed Action have been designed with culverts running alongside (see Figure 2-2 in the Draft EA), providing positive drainage that would discharge waters from lesser storm events than 100-year floods.

The hydrological study²⁶ examined potential effects associated with a flood overtopping the railroad tracks. The hydrological study concluded that the proposed bridge crossing would not significantly alter the depth or breadth of floodplains in the project area. To protect the interests of adjacent landowners, Mitigation Measure #13 included in this Post EA requires AZER to work closely with individual property owners in developing the final alignment plan so as to avoid or minimize any negative impacts to property or structures that could be associated with implementation of the Proposed Action. AZER is also required under Mitigation Measure #18 to obtain a permit from the Graham County Engineering Department for all construction work to be conducted in floodplain areas. Graham County is a participant in FEMA's National Flood Insurance Program (NFIP), and therefore has adopted FEMA's regulations at 44 CFR Parts 59-65. As part of its permit review process, Graham County would ensure that the potential for damage from floodwater is reduced, and that river and stream crossings are designed in a manner so as not to exacerbate pre-existing flood risks, both upstream and downstream of the Project area.

Comment

Commenters indicated that hydrological issues, other than flooding, need to be addressed in the Draft EA, including the effect of the bridge on the Gila River's natural streamflow, effect of the Proposed Action on natural drainage patterns, effect of underground bridge supports on subflow in the Gila River, effect of the Proposed Action on groundwater, and the effect of the Proposed Action on the east and west banks of the San Simon River.

Response

In addition to the hydrological study prepared for the Proposed Action²⁷, Appendix H of the Draft EA provided background information on existing hydrological conditions in the project area, including groundwater conditions.

The hydrological study indicated that effects to Gila River's natural flow during non flood conditions would be minimal. Bridge supports would be spaced 100 feet apart, resulting in minimal disruption natural flow of the river channel following project construction. AZER will be installing stream bank armoring at the crossing area, which will minimize further bank erosion and associated lateral migration of the stream channel.

Regarding groundwater, the hydrological study indicated that in the vicinity of the Gila River, depths to groundwater range from 15 to 50 feet below ground surface (bgs). Along all other portions of the project area, depth to groundwater is approximately 100 feet bgs or greater. The hydrological study indicated that groundwater in the area can be used for irrigation, but contains levels of dissolved solids in excess of typical limits accepted for human consumption without treatment.

²⁶ Ibid.

²⁷ Ibid.

Proposed bridge supports are expected to be placed at 90 feet bgs. Construction of the bridge supports would have temporary effects to groundwater in so far as pumping may be required to construct the supports. However, the wide distance between supports (100 feet) would ensure that in the long term, there would be minimal disruption to the flow of groundwater.

In its Biological Opinion (Appendix C of this Post EA), the FWS concluded that neither pier placement nor the San Simon River flow training devices are anticipated to ultimately affect the potential for lateral, within-bank channel movement or recruitment of riparian vegetation at the reach scale.

Comment

The Draft EA referenced prior dumping along the Gila River. The commenter questioned what effect the bridge construction and operations have on these areas and what mitigation measures could be adopted to reduce potential impacts.

Response

Appendix C of the Draft EA contains a preliminary hazards/hazardous materials investigation. As a result of this investigation, which identified some potential dumping areas all along the proposed alignment, not only at the proposed Gila River crossing. Mitigation Measure #35 was included in the Draft EA to address any potential discoveries of dumping and/or hazardous waste sites during construction of the Proposed Action. Implementation of this mitigation measure would avoid or minimize both construction period and operational period impacts.

Comment

ADEQ's Water Quality Division commented that an individual state-issued Clean Water Act Section 401 certification would be necessary for the part of the proposed bridge crossing at the Gila River.

Response

SEA has recommended Mitigation Measure #16, which would require AZER to obtain the Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers (Corps) for project-related encroachment of jurisdictional waters of the U.S. prior to the initiation of any project-related construction, and to obtain an individual, state-issued Clean Water Act Section 401 certification for the part of the project consisting of the crossing of the Gila River.

Comment

AZER may need to explore eligibility requirements for coverage under the Multi-Sector General Permit (MSGP), a separate stormwater permit required for certain specified industrial activities. AZER would be required to develop and implement a SWPPP, which includes best management practices to reduce soil erosion and contain and/or minimize pollutants that might be released to waters of the U.S. AZER may require MSGP coverage as a Sector P industry, which includes railroads.

Response

The 2000 MSGP, expired on October 30, 2005, and has not been replaced as of January 2009. Until ADEQ replaces the MSGP 2000, facilities in Arizona that obtained coverage under this permit prior to its expiration on Oct. 30, 2005 still have permit coverage under an administrative continuance. However, the goals and intent of the MSGP can largely be applied in the SWPPP.²⁸ Mitigation Measure #17 would require AZER to prepare a SWPPP in accordance with the Arizona Pollutant Discharge Elimination System (AZPDES) Construction Stormwater General Permit.

Comment

What agencies, such as the Corps, would be involved in assessing issues relative to the Gila River bridge crossing?

Response

As recommended in Mitigation Measures #16-#19, the Proposed Action would require a combination of permits and approvals from Federal and local agencies, including the Corps, ADEQ, and Graham County. AZER is required to obtain a nationwide permit from the Corps for the proposed Gila River crossing; the Corps retains jurisdiction over proposed crossings of waters of the United States and associated wetlands. In addition, ADEQ would issue a certification under Section 401 of the Clean Water Act. This certification entails compliance with a number of conditions to ensure that the construction and operation of the Proposed Action avoid or minimize any potential adverse effects to local water quality.

Air Quality**Summary**

SEA received comments on the air quality discussion that focused on particulate matter (PM), specifically, regional haze (RH), volatile organic compounds, carbon monoxide, and nitrogen oxides. Specific comments include:

Comment

The air quality analysis was deficient in that it was limited to a comparison of rail and truck transportation. The analysis should include a comparison of the Proposed Action with other rail line paths; a truck alternative; and other alternatives.”

Response

The air quality analysis included in the Draft EA compared air quality effects of the Proposed Action and the No Action alternative. “Other rail line paths” were not analyzed but it can be assumed reasonably that any other rail line path with a comparable length as the Proposed Action would generate comparable amounts of emissions. Longer rail line paths would likely generate larger amounts of emissions than the Proposed Action. No other transportation alternatives to and from the Mine were contemplated by SEA in this Draft EA, so no air quality analysis of such alternatives was performed.

²⁸ Dennis Turner, Water Quality Division of ADEQ. Personal communication, July 25, 2008.

Noise and Vibration

Summary

SEA received comments on the noise and vibration section indicating that the Draft EA did not address all concerns relevant to noise and vibration. Specific comments include:

Comment

The Draft EA did not include analysis of noise or vibration relative to the Gene Robert Larson residence. Related comments expressed concern that the train noise will cause a devaluation of private lands and may affect older buildings.

Response

The Larson residence is located more than 0.25 miles to the west of the proposed U.S. Highway 70 at-grade crossing.

As stated in Chapter 4.0 of the Draft EA, the Proposed Action falls below the thresholds set forth at 49 CFR 1105.7(e)(5)(i)(a) for a detailed noise analysis. Although the Proposed Action did not meet the Board's criteria, SEA utilized FRA noise criteria to examine potential noise impacts of the Proposed Action. The analysis found that an at-grade crossing (at which trains would be required to sound a horn), trains would cause severe noise impacts at a distance of 120 feet; moderate noise impacts at a distance of 260 feet, and vibration impacts at a distance of 200 feet. The Larson residence is located 1,320 feet (0.25 miles) from the at-grade crossing. As such, it would be outside the severe and the moderate noise impact areas and outside the vibration impact area. Further, there are no residential properties or sensitive receptors located within these distances to the proposed rail line. As such, the potential for the Proposed Action to devalue any such properties is low. The Proposed Action would largely traverse lands in agricultural use; such lands are typically considered compatible with railroad uses.

Biological Resources

Summary

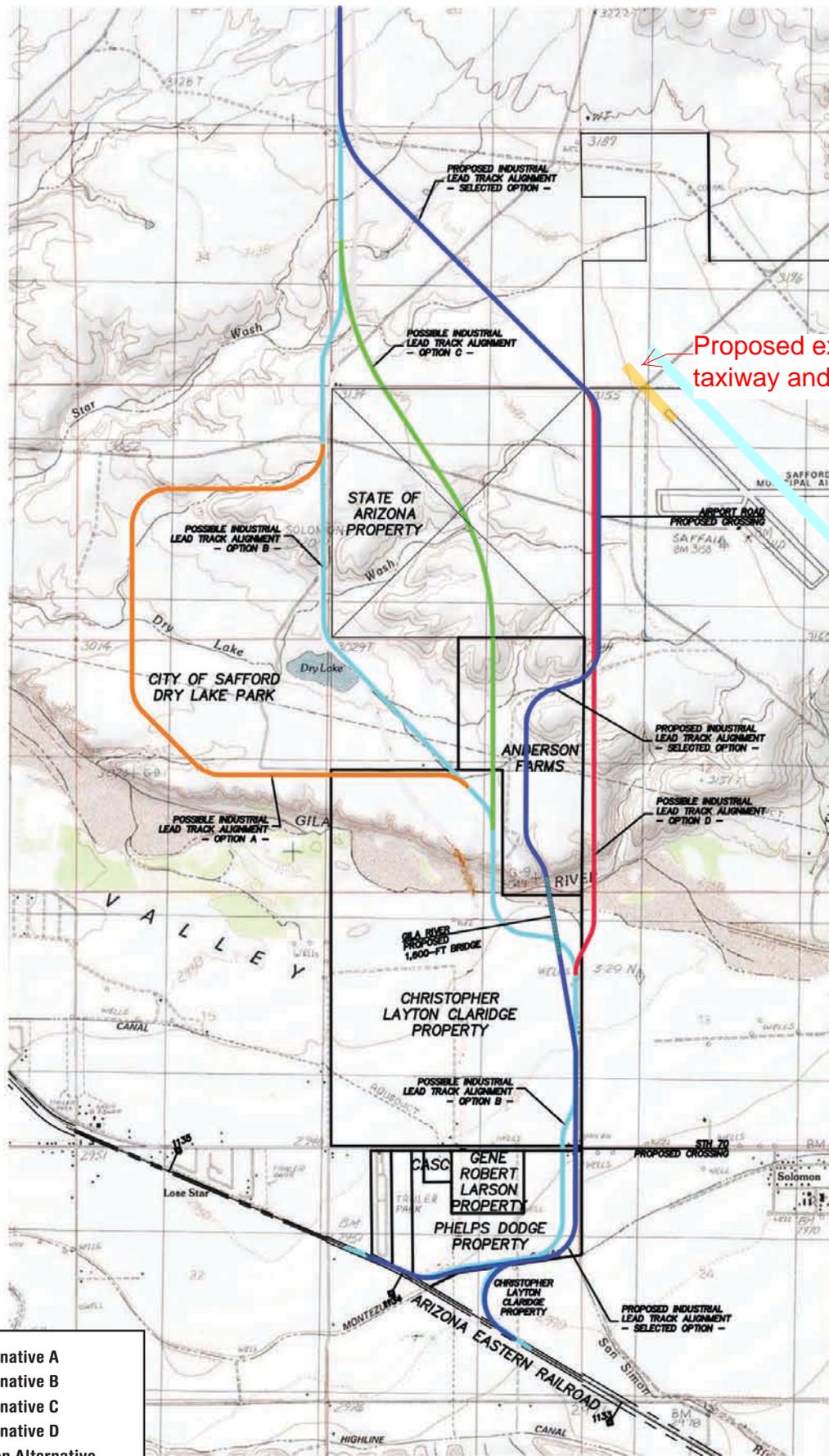
SEA received comments on the biological resources section regarding protocols used in the survey for the southwestern willow flycatcher.

Comment

Page 3-37 of the Draft EA did not include information regarding what survey protocols were followed for the southwestern willow flycatcher.

Response

Detailed information about the southwestern willow flycatcher surveys can be found on page 20 of Appendix D of the Draft EA, the Biological Assessment. The surveys were completed under FWS Permit No. TE-834782-0 and AGFD License No. SP722555.



Proposed extension of taxiway and new runway



- Alternative A
- Alternative B
- Alternative C
- Alternative D
- Action Alternative

NOT TO SCALE

