

5.0 COMMENT SUMMARY AND RESPONSE TO THE DEIS

In this chapter, the Section of Environmental Analysis (SEA) responds to the comments on the Draft Environmental Impact Statement (DEIS).

5.1 Overview

SEA received approximately 120 comment letters on the DEIS. These letters are included in Appendix B of this Final Environmental Impact Statement (FEIS) and are also available in the Environmental Correspondence section of the Surface Transportation Board's (Board's) website at www.stb.dot.gov. The majority of these letters were postmarked on or before the comment deadline of January 10, 2005. However, SEA has also accepted comment letters that were postmarked after this deadline. Some of the late-filed comment letters contained responses to comments instead of comments on the actual DEIS. Because commenters submitted written comments through various modes (mail, fax, electronic filing, or submission at the public meetings), SEA received duplicate copies of a number of comment letters. Appendix B notes the instances in which these duplicate submissions were inadvertently included in the public record.

Of the 120 comment letters, approximately 70 letters expressed opposition to the proposed project, while approximately 30 letters expressed support. The remaining letters were either procedural in nature (for example, the submission of a map or the submission of a specific procedural question) or were submitted by Federal, state, and local agencies or elected officials who expressed no position on the proposed project.

SEA also accepted oral comments at the public meetings held in Hondo, Texas, on December 2, 2004. At the afternoon session, approximately 100 people attended the meeting, and 42 people provided oral comments (commenters who spoke multiple times have been counted as a separate commenter each time they spoke). Thirty-seven of these commenters expressed opposition to the proposed project, while four expressed support. The County Judge for Medina County, Texas, also provided comments expressing concerns regarding the proposed project. Approximately 90 people attended the evening session, and 33 people provided oral comments (commenters who spoke multiple times have been counted as a separate commenter each time they spoke). Twenty-seven of the oral commenters indicated that they were opposed to the proposed project, and six of the commenters indicated that they supported the proposed project. Copies of the meeting transcripts are included with the written comment letters in Appendix B.

Below, SEA provides responses to the substantive comments received. It should be noted, however, that many of the comments address the alternatives studied in the DEIS. However, as discussed throughout the Supplemental Draft Environmental Impact Statement (SDEIS) and FEIS, SEA has now studied Eastern Alternatives to avoid many of the concerns raised in response to the DEIS, and SEA is recommending two Eastern Alternatives and one modification as environmentally preferable. Therefore, the concerns raised in response to the DEIS, to the extent that they do not apply to the environmentally preferable Eastern Alternatives, may no longer be relevant. Pursuant to Council on Environmental Quality (CEQ) guidance, SEA has summarized the substantive comments on the DEIS and grouped similar comments.¹ Each comment is preceded by an Environmental Correspondence Tracking (ECT) number or numbers as well as a set of sequential letters and numbers for each issue area. The numbers indicate the specific comment letters from which each comment originates. The transcript of the

¹ See Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg. 18026 (1981), Question 29. ("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.")

afternoon session of the public meeting has an ECT number of #EI-1369 and the transcript for the evening session has an ECT number of #EI-1370. Individual oral commenters have been specified by including their names in parenthesis after the ECT number for the meeting transcript.

In many instances, the comment summaries contain specific language that was provided in a comment letter or by an oral commenter. However, because SEA has edited the summaries to attain an overall consistent writing style, they are no longer direct quotes and therefore SEA has not used quotation marks. For example, most commenters used the term “Vulcan” to specify Southwest Gulf Railroad Company (SGR), Vulcan Construction Materials, LP (VCM), and Vulcan Materials Company (Vulcan). SEA has edited the comments so that the appropriate entity is specified, in keeping with the distinctions made among these entities throughout the environmental review process. In some instances where oral commenters read written comments that were later submitted, SEA has included only the ECT number of the written comment.

Section 5.2 includes the comment summaries and responses for comments received on the DEIS. The comment summaries and responses for the DEIS have been organized into the following categories:

5.2 Draft Environmental Impact Statement (DEIS) Comment Summaries and Responses

5.2.1	<i>General Matters (GM)</i>	<i>Page 5-3</i>
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	<i>U.S Army Corps of Engineers (Corps) Permits</i>	
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	<i>Extension of the Comment Period</i>	
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	<i>Medina Lake Dam</i>	
	<i>Meetings</i>	
	<i>Miscellaneous Opposition</i>	
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	<i>Third-Party Contracting</i>	
5.2.2	<i>Procedural Matters (PM)</i>	<i>Page 5-16</i>
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	<i>Legal Issues</i>	
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5.2.3	<i>Alternatives (Alt)</i>	<i>Page 5-29</i>
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	<i>No-Action Alternative</i>	
5.2.4	<i>Rail Maintenance and Operation (ROM)</i>	<i>Page 5- 38</i>
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5.2.5	<i>Transportation and Traffic Safety (TTS)</i>	<i>Page 5-43</i>
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	Wells	
	Surface Water	
	Stream Crossings	
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5.2.15	Vibration (V)	Page 5-116
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5.2.17	Cultural Resources (CR)	Page 5-121
5.2.18	Socioeconomics (SE)	Page 5-126
5.2.19	Cumulative Impacts (CI)	Page 5-131
5.2.20	Indirect Impacts (II)0	Page 5-135
5.2.21	Mitigation (M)	Page 5-136

5.2.1 General Matters

SEA received comment letters expressing frustration with the quality, accuracy, and adequacy of the DEIS, and with SEA's environmental review process. Commenters also requested an extension of the comment period, an additional public meeting, and the preparation of a SDEIS. Most commenters indicated whether they supported or opposed the project. SEA responds to the specific comments received on these general issues below.

Adequacy of the DEIS

Comment GM-01, #EI-1287: The commenter indicated that more detailed field studies needed to be done and that much of the material in the DEIS was not supported by definitive facts or scientific data. Furthermore, the document allegedly relies too much on general sources of information, such as information available on the internet, rather than good field data. Site-specific data should be collected and used to make a fair and unbiased comparison of all the alternatives.

Response: The preparation of the DEIS involved data collection from a variety of sources, including data gathered from field studies and from published documents, and these data sources are referenced in the DEIS. SEA believes that the information gathered throughout the EIS process thoroughly supports SEA's conclusions and the comparison of alternatives.

Comment GM-02, #EI-1287: The DEIS is extremely biased toward the proposed action; statements and data are twisted to make the proposed action appear to impact the environment to a lesser degree than any of the other alternatives.

Response: The DEIS considered in detail five alternatives. These alternatives include four rail routes (Proposed Route, Alternative 1, Alternative 2, and Alternative 3) and the No-Action Alternative (involving the use of truck transportation).

Section 2.6 of the DEIS provides a comparison of these alternatives in tabular form and details SEA's preliminary conclusion that the proposed action (rail) would be environmentally preferable to the No-Action Alternative (truck) and that Alternative 1 would be the least environmentally preferable rail route of the rail routes examined in depth in the DEIS. In that section, SEA further stated that the distinctions between the Proposed Route, Alternative 2, and Alternative 3 were not sufficient to designate

one potential route as the most environmentally preferable, and specifically requested comments on this issue from all interested parties and the public.

Based on comments received on the DEIS, SEA determined that three additional routes to the east that had yet to be studied — the Eastern Bypass Route, SGR's Modified Medina Dam Route, and the MCEAA Medina Dam Alternative — were potentially reasonable and feasible. Thus, SEA decided that these alternatives warranted study in a SDEIS. The SDEIS issued by SEA on December 8, 2006, contains SEA's assessment of the three additional rail line alternatives. To present an equal basis for comparing all of the alternatives studied in this environmental review process, SEA assessed these Eastern Alternatives in a similar fashion as the alternatives examined in the DEIS. Chapter 6 of the SDEIS provides a comparison of all alternatives studied in the environmental review process for this proceeding and preliminarily concludes that the Eastern Bypass Route and the MCEAA Medina Dam Alternative would be environmentally preferable to the other alternatives studied.

Please see Chapter 3 of this FEIS for further discussion and analysis of alternatives and Chapter 1 for SEA's final recommendations regarding the environmentally preferable alternatives (including the Modified Eastern Bypass Route discussed in Chapter 2 of the FEIS).

Comment GM-03, #EI-1361: The DEIS fails to answer questions on specific issues, such as surface water, traffic, and air quality impacts. Statements indicating that problems would be dealt with through Best Management Practices (BMPs) or that environmental impacts are not significant are insufficient.

Response: Chapter 4 of the DEIS and Chapter 3 of the SDEIS set forth SEA's analysis of the environmental consequences of the proposed rail line construction and operation. In the DEIS, Section 4.5.3 discusses impacts to surface water; Section 4.1 addresses impacts to local traffic; and Section 4.7 sets forth impacts to air quality. In the SDEIS, Section 3.5 discusses impacts to surface water, Section 3.1 discusses impacts to local traffic, and Section 3.7 discusses air quality impacts. In this FEIS, SEA provides responses to specific comments regarding surface water, traffic, and air quality impacts. In short, the EIS presents a thorough analysis of these issues, and adequately explains the basis for SEA's determination that impacts to surface water, traffic, and air quality would not be significant from SGR's proposed rail line construction and operation, provided the final mitigation measures recommended by SEA in this FEIS are implemented.

Comment GM-04, #EI-1261, #EI-1289, #EI-1299, #EI-1326, #EI-1329, #EI-1353, #EI-1368, #EI-1369, #EI-1370, #EI-1424, and #EI-1425: In the DEIS, SEA has relied only on information provided by the railroad and has not carefully considered data submitted to it during scoping as well as other correspondence. It appears that the project proponent is able to put together its own study of concerns that were expressed by residents, show it to SEA, and then have it presented as true. The DEIS is vague, incomplete, and basically a rehash of other documents used in similar situations. The document contains data that is not relevant to the problems that the project would cause, and comments that gloss over or ignore problems completely, whereas other minor comments are repeated many times.

The DEIS was very poorly done and very unprofessional. The document left out many important issues or trivialized them, using words like "minimal," "not significant," or "negligible." The document suggests that SGR did the study in a rushed manner. Most problems were left up to SGR to solve later as mitigation. Moreover, the DEIS was hard to read and illegible on many pages, and some data was blacked out. The number of copies of the document that was distributed was not adequate. Data varied widely without notations and comments. The adequacy of this DEIS for public records and archives is questionable. It was necessary to add 10 omitted pages after publication. The DEIS leaves many of its

scoping questions unanswered. It appears that there was a lack of funding for preparing the DEIS and illegal time restrictions for its issuance.

The DEIS was prepared using less than perfect data and there was no “on the ground” research. The document was commissioned, bought, and paid for by SGR, and demonstrates a one-sided approach that is not fair to all concerned. The entire environmental review process was a farce. The Board should be and will be held liable for total corruption.

The information in the DEIS was insufficient for determining the impact of the rail line on the area. The DEIS concludes that there would be little or no impact from the proposed rail line construction and operation, but area residents know that there would be tremendous impacts. Almost every conclusion is in favor of the railroad and minimizes the real impacts. Mitigation measures are left up to SGR to handle during construction or operation. The effect on the human environment has not been given adequate study.

Response: As required by the National Environmental Policy Act (NEPA), SEA has conducted an independent detailed environmental review of SGR’s proposed rail line construction and operations, provided ample opportunity for public input, and adequately presented its analysis and conclusions in the DEIS, and later in the SDEIS and this FEIS.

SEA began the environmental review of SGR’s proposal by consulting with appropriate Federal, state, and local agencies, as well as with SGR, and conducting technical surveys and analyses. SEA also conducted a general site visit on June 12, 2003, to develop a basic understanding of the human and natural environment of the proposed project area.

Due to substantial early public interest in this proposal, SEA conducted an informational Open House in Hondo, Texas, on June 12, 2003. At the Open House, SEA staff distributed handouts, displayed maps of the proposed rail line and posters that explained the Board’s environmental review process, informally answered questions, and solicited written comments. Approximately 200 people attended the Open House and over 100 comment letters were received in response to the Open House.

SEA reviewed the comments received and continued to conduct technical studies. SEA also consulted with the Texas Historical Commission (THC) in accordance with the regulations implementing Section 106 of the National Historic Preservation Act (NHPA) at 36 CFR Part 800, and identified several consulting parties to the Section 106 process.

On October 10, 2003, SEA issued a report entitled Preliminary Cultural Resources Assessment to the then-identified Section 106 consulting parties for review and comment. The report set forth SEA’s preliminary conclusions and recommendations regarding cultural resources in the proposed project area. The THC, consulting parties, and other individuals submitted comment letters in response to the report or to address environmental concerns.

Based on the nature and content of the numerous public and agency comments received on this controversial project, SEA determined that the preparation of an Environmental Impact Statement (EIS) rather than a more limited Environmental Assessment (EA) would be appropriate. On January 28, 2004, SEA issued a Notice of Intent to Prepare an EIS (NOI) and Draft Scope of Study for preparation of the EIS (Draft Scope) for public review and comment. SEA developed the Draft Scope based on all the comments and other information gathered on the proposed project. SEA received approximately 100 comment letters in response to the Draft Scope.

SEA reviewed and carefully considered the comments in preparing the Final Scope of Study for the EIS (Final Scope), which was issued on May 7, 2004. SEA then continued to conduct appropriate studies and analyses for the environmental review of SGR's proposed project.

SEA issued the DEIS on November 5, 2004, for public review and comment. The Board served the DEIS on all parties of record; appropriate Tribes, Federal, state, and local agencies; and Section 106 consulting parties. SEA also provided a copy of the Executive Summary of the DEIS and information about the document's availability on the Board's website and in local libraries and to the approximately 400 individuals on SEA's environmental mailing list.

In the DEIS, SEA evaluated the environmental impacts associated with construction and operation of the proposed rail line for the following resource areas: transportation and traffic safety; public health and worker health and safety; water resources; biological resources; air quality; geology (including karst features); soils; land use; environmental justice; noise; vibration; recreation and visual resources; cultural resources; and socioeconomics. In addition, SEA evaluated the proposed action and alternatives, and assessed the potential for direct and indirect cumulative impacts. SEA's analysis resulted in the recommendation of 52 mitigation measures to minimize the potential environmental impacts of this project, five of which SGR voluntarily proposed.

SEA received over 100 written comment letters on the DEIS. To gather oral comments, SEA held two public meetings in Hondo, Texas, on December 2, 2004. Based on the information collected through sign-in sheets, approximately 100 people attended the first meeting and about 90 people attended the second meeting. SEA obtained a total of 75 oral comments at these meetings (SEA counted each time a person spoke as one oral comment, even though some people spoke multiple times).

Based on the comments received on the DEIS, SEA determined that a SDEIS should be prepared to address the following: (1) evaluate three new alternative rail routes and compare these three alternative routes to the four previously studied rail routes, as well as the No-Action Alternative; (2) provide additional information on historic properties and landscapes; and (3) conduct additional noise and vibration analyses based on updated operational data provided by SGR indicating that trains may operate during nighttime hours. SEA issued the SDEIS for public review and comment on December 8, 2006.

Chapter 1 of this FEIS summarizes the additional analysis performed and the modifications made in the FEIS, based on comments to the DEIS and SDEIS. Chapter 1 also contains SEA's final conclusions and recommendations, including 10 voluntary and 81 recommended mitigation measures.

During the environmental review process, SEA appropriately requested and received from SGR specific information about SGR's proposal that SEA needed to conduct the environmental analysis (see Appendix G of the DEIS and Appendix B of the SDEIS). Because SGR is the project proponent, it is appropriate for SGR to provide details of its project plans to SEA and to keep SEA updated about any changes in project plans since SGR is the entity that is designing the project.

SGR provided additional information that it believed could be useful for this environmental review process (e.g., Vulcan Materials Company's (VCM) Biological Assessments (BA) (see Appendix F of the DEIS)). As stated throughout the DEIS, SDEIS, and FEIS, in cases where SEA has relied on environmental information provided by SGR, SEA has reviewed and independently verified this information; has clearly indicated the source of the information; and has allowed for public comment on the information SGR provided. SEA's approach is consistent with CEQ regulations. See 40 CFR 1506.5(a).

In addition, SGR provided several newspaper clippings that contained information about the proposed project. These clippings were included in Appendix G of the DEIS as part of the comprehensive Appendix of information submitted to SEA by SGR, and did not reproduce well. SEA assumes that the comment regarding illegible and blacked out pages is referring to these clippings. However, because these articles are all publicly available elsewhere and the source is provided in the DEIS, SEA does not believe it is appropriate and necessary to include a clearer version of these clippings in the FEIS.

While the 11 pages were inadvertently excluded from the bound copies of Volume I of the DEIS, the error was fixed in time to permit service of those 11 pages separately at the same time as the rest of the DEIS.

Comment GM-05, #EI-1369: The DEIS states that it contains an appropriate analysis of the combined effects of VCM quarry and the rail line, but this is not true.

Response: As discussed in Chapter 1 of the DEIS and Chapter 2 of this FEIS, SEA properly determined that VCM's quarry should be included in SEA's analysis of the cumulative effects of the proposed project. The cumulative impacts analysis, contained in Section 4.17 of the DEIS and further explained in Chapter 3 of this FEIS, assesses the combined effects of the development and operation of the quarry, and the construction and operation of the proposed rail line on the environment. This analysis includes potential impacts from the quarry development and operation that overlap with potential impacts, both spatially and in time, from the rail line construction and operation (i.e., affect the same resources so that the impacts are additive). As explained in Chapter 2 of this FEIS, potential direct and indirect impacts from the quarry development and operation that do not overlap with the rail line construction and operation are not within the scope of analysis for this EIS.

Please see Chapter 3 of this FEIS for a more detailed discussion of SEA's analysis of cumulative impacts.

Comment GM-06, #EI-1369: The environmental review process is a justification after the fact. The project is going to happen and the community cannot stop it.

Response: The Board will not issue a final decision on whether to authorize SGR's proposal and, if so, what environmental conditions to impose, until after completion of the environmental review process. In making its final decision, the Board will take into account both the transportation merits and the environmental record (the DEIS, the SDEIS, the FEIS, and all environmental comments received).

Comment GM-07, #EI-1370: The DEIS does not contain enough statistical information, particularly when assessing uncertainty. The DEIS is general in its conclusions about the significance of an impact and could have relied on models to more precisely predict outcomes. Section 4.1.2, which references a U.S. Department of Transportation (USDOT) study on accident-related injuries occurring at at-grade crossings between 1991 and 1996, was the only part of the DEIS that provided such information. However, no data inputs were included and the assumptions used in the study are not known. The study found that there was a 1 in 92 chance of an injury occurring while crossing an at-grade structure. Based on this value, the commenter calculated the number of injuries, and accordingly determined that yearly injury rates for crossing at at-grade structures could be as high as the number of incidents. The airline industry uses similar methods, and the commenter noted that such studies could be used for comparison.

Response: SEA believes that the DEIS, in conjunction with the modifications and additional analysis presented in the SDEIS and this FEIS, contains a thorough analysis of the potential impacts from the proposed rail line construction and operation that fully supports SEA's conclusions. SEA's decision

regarding the type of methodology to utilize for an environmental analysis depends on SEA's prior practices in other cases, the availability of data, the import, and consequences of the impact being assessed, and the likelihood of the impact's occurrence. In this case, SEA believes that additional statistical analysis of the risk of accidents from proposed rail operations was not necessary because of the low probability of risks of accidents, as set forth in Section 4.1.2 of the DEIS and Section 3.1 of the SDEIS.

The statistics presented in Section 4.1.2 of the DEIS properly reflect the probability of injuries or fatalities occurring due to the proposed operation of SGR's rail line. It should be noted that these numbers are conservative because they reflect the probability of injuries or fatalities occurring to anyone in the general population. If the calculations were limited to the probability of injury or fatality to any specific individual living near the rail line, the numbers would be far lower than those presented in the DEIS.

U.S. Army Corps of Engineers (Corps) Permits

Comment GM-08, #EI-1287: Development of the quarry would impact three streams. The U.S. Army Corps of Engineers (Corps) may require a permit, pursuant to Section 404 of the Clean Water Act (CWA). In addition, NEPA review may be triggered if the disturbance to waterways results in excessive erosion, flood damage, potential contamination to the Edwards Aquifer, or rechannelization of the streams.

Response: SGR has already obtained all the necessary state and Federal permits for the development and operation of VCM's quarry. Specifically, SGR has obtained an air quality permit and a Water Pollution Abatement Plan (WPAP) authorization from the Texas Commission on Environmental Quality (TCEQ), which authorize VCM to begin operations at the quarry regardless of whether SGR's rail line is built. (See DEIS, Appendix G, page G-133). In Section 1.5 of the DEIS, SEA specifically stated that the proposed quarry did not require any Federal permits that would necessitate NEPA review by any other Federal agency. To ensure against that possibility, SEA provided a copy of the DEIS for review and comment to the Corps (and subsequently a copy of the SDEIS and this FEIS), whose permit program requires all activities in waters of the United States to have minimal or no impact to water resources. SEA believes that an individual Section 404 Corps Permit that triggers additional NEPA review is unlikely to be required for VCM's quarry operations. Should VCM's quarry activities require a Corps permit, it would most likely be a nationwide permit that would not trigger additional NEPA review. Nonetheless, SEA agrees with the commenter that there may be some remote scenario for which a permit may be needed.

Description of the Proposed Action

Comment GM-09, #EI-1287: The description of the proposed action in Chapter 2 is inadequate and should include more information on the location of bridge and at-grade road crossings, bridge details including design, cut and fill, and cross sectional areas of various segments along the proposed rail lines. Each of the alternatives should be described in detail so that readers can understand where berms, bridges, and other infrastructure would be constructed.

Response: Please see Appendix C-2 in the SDEIS for an in-depth discussion of cut and fill along each of the rail line alternatives studied by SEA and Chapter 6 of the SDEIS for a detailed comparison of all of the alternatives. SEA believes that the level of detail regarding SGR's proposal is sufficient for NEPA purposes.

Comment GM-10, #EI-1287: More details should be provided regarding the type of at-grade crossing safety devices that would be used since the type of device would determine the level of impact expected.

Response: SEA has recommended mitigation that would require SGR to consult with the Texas Department of Transportation (TxDOT) and Medina County and, based upon the recommendations of those agencies, install and maintain appropriate grade-crossing warning devices at all at-grade crossings. Please see Mitigation Measure #F-8 in Chapter 1 of this FEIS.

As discussed in Sections 4.1.2 and 4.19 of the DEIS, while there would be a risk to human health and safety from potential rail-related accidents, SEA believes the risk of accidents from proposed train operations would be minor due to the limited amount of proposed rail operations (four trains per day – two round trips from the quarry to the UP rail line); the relatively short length of the proposed rail line; the relatively low level of vehicular traffic on area roadways; and the relatively slow speed of proposed train operations (25 miles per hour).

Comment GM-11, #EI-1287: More details should be given about the proposed fencing along the right-of-way to better determine impacts to wildlife and domestic animals.

Response: Based upon Texas Parks and Wildlife Department's (TPWD's) comments, SEA is recommending a condition (Mitigation Measure #F-56) that would require SGR to consult with TPWD and affected landowners, before beginning construction activities, regarding implementation of appropriate measures to protect livestock and wildlife in the area during rail construction and operation. Such measures could include the use of specific types of fencing or barriers.

Comment #GM-12, #EI-1287: More details should be provided as to how SGR would maintain the right-of-way in a manner consistent with industry and local standards. Would herbicides be used? If so, what types of herbicides and how would they be applied? Would the area be mowed periodically? Would brush be trimmed along the right-of-way? Would fences be kept clear of brush and weeds? Would invasive species be removed? Would SGR be responsible for any invasive species encroaching on farmland adjacent to the right-of-way?

Response: To respond to this comment, SEA requested additional information from SGR regarding its plans to maintain the right-of-way. In response, SGR has stated that it would maintain the right-of-way consistent with the Manual for Railway Engineering issued by the American Railway Engineering and Maintenance of Way Association (AREMA). (See #EI-1439 in Appendix D of this FEIS). SEA recommends this agreed upon compliance in its final mitigation conditions as Voluntary Mitigation Measure #F-VM-6 (see Chapter 1 of this FEIS).

SEA is also recommending mitigation that would require SGR to use manual vegetation cutting methods (rather than chemicals or herbicides) for weed control and other right-of-way clearing activities, and mitigation that would require SGR to maintain the vegetation along and within the right-of-way to provide a clear line of sight for train operators and vehicle drivers at all at-grade crossings (including public roadways, private roadways, and driveways). (See Mitigation Measure #F-42 in Chapter 1 of this FEIS).

Comment #GM-13, #EI-1361: Specific information regarding bridge designs, and berm and culvert dimensions should be provided.

Response: SGR has stated that it would be inappropriate to develop detailed engineering plans until a specific route has been approved by the Board. (See #EI-1664 in Appendix D of this FEIS) SEA believes that the level of engineering detail that is available regarding SGR's proposal is sufficient for NEPA purposes.

Extension of the Comment Period

Comment GM-14, #EI-1260, #EI-1261, #EI-1369, and #EI-1424: The DEIS comment period should have been extended 60 to 90 days, given the three winter holidays and the length of the document. The request to extend the comment period (so that commenters could have additional time to study the DEIS and to make rational and inquiring comments) was denied. In addition, many of the pages were long, difficult to read, and illegible, and not enough copies were delivered.

Response: The comment period for a DEIS is generally 45 days; however, a 60-day comment period on the DEIS was requested during the scoping period, and was provided. While SEA did not believe an extension of the 60-day comment period was necessary, SEA has considered late filed comments, and an additional comment period was provided on the SDEIS. Accordingly, the opportunity for public comment here has been fully adequate.

Maps and Figures

Comment GM-15, #EI-1259 and #EI-1355: The area is not as sparsely populated as Vulcan has stated and FM 2676 is the only road that can be used to access the area. Traffic detours would not be possible through narrow, unpaved, and periodically flooded roadways. A map submitted by MCEAA depicts new and planned subdivisions to demonstrate the population growth in the area; outlines a potential historic district that contains the concentration of the most historic features in the Quihi, Texas, area; and identifies three Texas Family Land Heritage ranches in the area.

Response: As discussed in response to comment LU-16 in this Chapter, SEA studied the submitted map and subsequently compared it to the number of houses depicted in Section 6.2.10 of the SDEIS. Based on the data presented, SEA found that the number of houses listed in the SDEIS exceeded the number of residences on the map provided (see Table 5.1 in response to comment LU-14), with the exception of Alternative 1, where both house counts were quite similar. SEA based its conclusion on existing houses visible in 2004 aerial photographs, which yielded a more conservative analysis than the map provided by the commenter. SEA did not include houses that may be constructed along the environmentally preferable route(s) at a later date. While SEA has not verified the source of all of the information in MCEAA's map, if accurate, this information would not change SEA's conclusions regarding impacts to existing land use.

With respect to improvements to FM2676, please refer to Chapter 2 of this FEIS.

SGR has agreed, as voluntary mitigation, that it would develop emergency evacuation plans after the completion of final engineering on whatever route is constructed (assuming that the Board approves the proposed construction), and before beginning construction. In its operational plans for the rail line, SGR also plans to require the routine monitoring of weather reports and conditions so that it would be in a position to temporarily cease operations along the line as warranted by weather conditions. The operational plan would also specify that rail operations would not resume until any flooding had ceased and the rail line had been inspected to ensure that it was safe to resume operations. SGR further states that trains using SGR's rail line would not be parked so as to block emergency evacuation routes. (See #EI-1664 in Appendix D of this FEIS.) SEA is recommending this mitigation as Voluntary Mitigation Measure #F-VM-8 in Chapter 1 of this FEIS.

Finally, during the EIS process, SEA conducted a study of the Rural Historic Landscape in the Quihi area and identified three rural historic landscape districts. Historic preservation concerns have been fully addressed in this case. Please see the SDEIS, Chapter 5 and Appendix F-2.

Comment GM-16, #EI-1287: Figure 2.1-1 of the DEIS is not useful as a general location map. The map could be improved by focusing on Medina County and the counties surrounding Medina

County. More roads could be included in greater detail that might allow readers to more readily identify the location. Also, captions for all the figures should be more detailed. Figure 2.1-1 could be labeled as the “general location map for the areas impacted by the proposed and alternative actions.” Additionally, the map shows the proposed project area as a circle; it could be shown more as a square or rectangle to depict the linear nature of the project.

Response: SEA believes that Figure 2.1-1 in the DEIS provides useful information to demonstrate the distance between the project area and the metropolitan regions of San Antonio, Texas, Austin, Texas, and Corpus Christi, Texas. The information provided there augments and complements the other, more detailed maps included in the DEIS.

Comment GM-17, #EI-1287: Figure 2.1-2 should be provided as a much larger figure or could be broken into seven or eight individual figures showing detailed locations of each of the routes being proposed by the EIS. The majority of the EIS readers would be personally impacted by the rail line and would like to know the exact location of each of the potential rail routes; therefore, more detailed figures should be provided.

Response: It would be inappropriate for SGR to develop final engineering plans until the Board decides whether to authorize this rail construction and if so, which alternative or alternatives should be approved. Without detailed engineering plans, detailed maps showing the exact location of the routes with respect to property boundaries would be misleading. Thus, SEA’s analysis has been based on the available project maps, which include approximate corridors for each alignment and suggest that some of the alignments could pass in close proximity to homes (see Noise and Vibration Technical Report, Appendix C-3 of the SDEIS). SEA is recommending mitigation to address the potential noise and vibration issues (see Mitigation Measure #F-62).

Comment GM-18, #EI-1349, #1353, and #EI-1369: Area residents claim that some of their property is inaccurately depicted in the DEIS Appendix A photo captions, and that in some cases the renderings are offensive.

Response: Photos were included in the DEIS to provide background information on the proposed project area. Because commenters found some photo captions to be offensive, Chapter 7, Errata, of this FEIS states that the photo captions in Appendix A are deleted.

Comment GM-190, #EI-1383: Oversized maps were submitted showing the existing grade profiles of the Proposed Route and the old Medina Dam Route.

Response: The SDEIS contains more detailed information on cut and fill. Please see Appendix C-2 in the SDEIS for an in-depth discussion of cut and fill along each of the rail line alternatives studied by SEA and Chapter 6 of the SDEIS for a detailed comparison of all of the alternatives.

Medina Lake Dam

Comment GM-20, #EI-1255: It is not known what the railroad’s effect would be on the stability of the Medina Lake Dam and the Diversion Lake Dam.

Response: SEA sees no basis to conclude that SGR’s proposed rail line construction and operation would impact the stability of the Medina Lake Dam and the Diversion Lake Dam because of the distance between the proposed rail line and these dams. The shortest distance from Medina Lake Dam to the nearest rail alignment considered (the MCEAA Medina Dam Alternative) is approximately 6.7 miles. As discussed in Section 4.13 of the DEIS and Section 4.5 of the SDEIS, potential vibration impacts from construction and operation of the rail line would be limited to areas in close proximity to the proposed rail

line. Fragile or extremely fragile cultural resources and other sensitive structures (i.e., pipelines, ancillary equipment, and private wells) are unlikely to be affected by the construction and operation of any of the rail alternatives. As stated in Section 4.4 of the SDEIS, Alternative 1 is the only alternative that has the potential to cause some vibration annoyance to two houses (and is not one of the recommended environmentally preferable routes in this FEIS). None of the other rail alternatives would create any operation-related vibration impacts. In addition, SEA predicts no construction-related vibration impacts. To minimize the potential impacts of pile driving on water wells, SEA recommends Mitigation Measure #F-75 (see Chapter 1 of this FEIS).

Comment GM-21, #EI-1261, #EI-1263, #EI-1329, #EI-1338, #EI-1344, #EI-1347, #EI-1369, and #EI-1370: The proposed quarry, Medina Lake Dam, and associated relief wells are all on the same fault line. Further study is needed because the impacts to these features are not known. Geologic reference for the faults is in the following source: Edwards Aquifer Outcrops, Medina County, Ted A. Small and Allan K. Clark, Water Resources Investigative Report 00-4195, 2000.

Response: As discussed in the DEIS, the impact of quarry blasting on water wells is considered negligible. Damaging blasting effects to other infrastructure external to the geographic limits of the quarry is also considered negligible. Some effects such as minor audible or seismic indications of blasting operations may be measurable outside of the quarry property. However, as indicated in Section 4.5 of the SDEIS, damaging or perceptible quarry-activity-related ground vibration, including blasting vibration, would not extend beyond the quarry boundary.

Comment GM-22, #EI-1268: The Medina Lake Dam and the Diversion Lake Dam need not be studied in the EIS. A citizen originally asked for this documentation at the public meeting in Hondo, Texas, to obtain information on matters unrelated to the proposed project.

Response: Comment noted.

Meetings

Comment GM-23, #EI-1281 and #EI-1284: STB Board members should be held accountable to the citizens of the county and should come to Medina County for a face-to-face meeting with the public.

Response: Commenters can file requests to the Board under the Board's regulations at 49 CFR 1104. The Board holds oral hearings in accordance with the Board's regulations at 49 CFR 1113. SEA is the office within the Board that is responsible for ensuring the Board's compliance with NEPA and related environmental laws, pursuant to the authority delegated by the Board under 49 CFR 1105. Thus, SEA does not have the authority to determine whether a request for an oral hearing on the merits of this proceeding, if properly filed, would be granted.

Miscellaneous Opposition

Comment GM-24, #EI-1225, #EI-1263, #EI-1289, #EI-1297, #EI-1322, #EI-1325, #EI-1327, #EI-1328, #EI-1341, #EI-1346, #EI-1359, #EI-1360, #EI-1368, #EI-1369, and #EI-1425: The project would destroy the quality of life in the area by affecting air, water, and peaceful, rural agrarian environment. The Board is enabling a private company to destroy people's property and quality of life, and is turning a blind eye to the schemes of Vulcan.

Response: Comment noted. The quality of life issues raised in the comment are discussed in the air, land use, water, and socioeconomic sections of the DEIS, SDEIS, and FEIS.

Comment GM-25, #EI-1267, and #EI-1289: The DEIS did not address the most troubling impact of this project, which is the effect on the community. The project is turning friend against friend and family against family, and no amount of limestone is worth this.

Response: Comment noted. As discussed throughout the DEIS, SDEIS, and FEIS, SEA understands that this project is highly controversial in the community. Indeed, it is for that reason that SEA decided to prepare an EIS for this proceeding.

Comment GM-26, #EI-1332: A commenter stated that the residents of Quihi, Texas, are trying to preserve their family memories and way of life.

Response: Comment noted. See land use, historic preservation, and socioeconomic sections of the DEIS (Sections 4.10, 4.15, and 4.16), SDEIS (Sections 3.10, 3.14, and 3.15), and FEIS (Sections 2.5.1.10, 2.5.1.14, and 2.5.1.15).

Comment GM-27, #EI-1333: The rail line operations would impact the rural atmosphere of the Creekwood Subdivision.

Response: Comment noted. SEA's analysis considered the Creekwood Subdivision as part of the proposed project area. Thus, SEA's analysis of, and conclusions on, impacts from the proposed project apply to the Creekwood Subdivision.

Comment GM-28, #EI-1343: The Board should read the transcript of the December 2, 2004 public meetings to ensure that all questions from the public have been addressed and that the approval of the railroad does not do an injustice to the citizens of Quihi, Texas.

Response: When making its final decision on SGR's proposal, the Board will take into consideration the DEIS, SDEIS, FEIS, and all comments (including oral comments) received. This FEIS addresses the oral comments submitted at the December 2, 2004 public meetings. Copies of the meeting transcripts are included in Appendix B, and are available for viewing on the STB web site under #EI-1370.

Comment GM-29, #EI-1347, #EI-1351, and #EI-1359: Only Vulcan and the quarry landowners would benefit from the construction and operation of the rail line and quarry. Everyone else in the area would face the problems caused by the rail line and quarry, including pollution, risks to safety, and flooding impacts.

Response: Comment noted. It is also worth mentioning that some comments favoring this project have been received. Also, see the sections on water, air, and public safety in the DEIS, SDEIS, and this FEIS.

Comment GM-30, #EI-1369: People who live near other quarries choose to live there. The people of Quihi did not choose to live near a quarry and do not want to do so.

Response: Comment noted. Such concerns related to the quarry are not part of this rail construction project and are not subject to the Board's jurisdiction. The quarry has been duly licensed, and can be built and operated whether or not the rail construction project before the Board is authorized.

Miscellaneous Support

Comment GM-31, #EI-1258: The proposal to build the rail line should be granted. Many of the opponents to the project are upset because they would not receive a financial benefit from the project. The people with real concerns should work with Vulcan independently.

Response: Comment noted.

Comment GM-32, #EI-1274, #EI-1295, and EI-1369: Vulcan is committed to a clean environment, has been very generous in helping form the Schweer's Foundation to restore historic homes in the area, and has a reputation for supporting community projects. Vulcan has located the quarry at the chosen site because it is trying to take advantage of the fact that there is high quality limestone there.

Response: Comment noted.

Comment GM-33, #EI-1318, #EI-1356, and #EI-1369: The American free-enterprise system that encourages business development and growth should be embraced and supported. The project would help revitalize and bring greater prosperity to the county while not jeopardizing the quality of life or cultural resources in the area.

Response: Comment noted.

Comment GM-34, #EI-1369: People who live near the rail line in San Antonio have not complained about flooding, train delays, or noise. Students at a high school near a Vulcan quarry in San Antonio have found that quarry activities are not noticeable.

Response: Comment noted.

Comment GM-35, #EI-1805 and #EI-1808: Commenters support the proposed project and the items enumerated in #EI-1358, which have been summarized in other sections below.

Response: Comment noted.

Miscellaneous Other/Non-Substantive

Comment GM-36, #EI-1075: The Corps has indicated that it will take a while to submit a response to the DEIS.

Response: Comment noted. SEA spoke to the Corps by telephone on November 9, 2005, and the Corps indicated that it had no comments on the DEIS.

Comment GM-37, #EI-1264: The Texas Water Development Board (TWDB) has submitted comments indicating that it no longer has resources to review reports such as the DEIS.

Response: Comment noted.

Comment GM-38, #EI-1270: A commenter requested information on how to access the Board's ECT database.

Response: The Board's ECT database is available on the Board's website at www.stb.dot.gov. Interested persons can access this database by clicking on "Environmental Matters" on the Board's homepage, then clicking on "Environmental Correspondence," and then searching the docket number for the case in which they have interest. The docket number for this proceeding is "FD 34284."

Physical Setting

Comment GM-39, #EI-1287: Section 3.6 of the DEIS provides fairly good general information for Medina County, but no real information for the project area. This would be an excellent section in which to discuss grades and topography, and their impact on the project. Models could be developed using digital elevation maps, which are available on the internet and could be easily used to determine potential grades and cut and fill requirements for each of the alternatives, including a route or routes that would use portions of the old Medina Dam Route. This information could be used either for or against a route or routes that would incorporate portions of the old Medina Dam Route, but either way it would provide more substantive evidence for arguments. The well discussion in the fourth paragraph of the physical setting section on page 3-31 is out of place and should have been part of the groundwater discussion.

Response: SEA prepared an SDEIS looking at three additional rail alignments, one of which would use portions of the old Medina Dam Route (SGR's Modified Medina Dam Route). SEA also requested additional information from SGR regarding the cut and fill requirements of the various rail alternatives. SEA independently verified the cut and fill information provided by SGR and studied the cut and fill requirements of the rail line alternatives being studied in this proceeding (see SDEIS, Appendix C-2).

SEA believes the fourth paragraph on page 3-31 of the DEIS provides the commenter with useful general information about the physiography of Medina County.

Supplemental EIS

Comment GM-40, #EI-1367, and #EI-1287: The Board should require an SDEIS and an additional public meeting. This request is justified because the DEIS has the following deficiencies: (1) it lacks adequate and credible data on many environmental issues; (2) much of the data is erroneous and insufficient and as such, does not allow for meaningful comments to be made to the Board; (3) many issues were not addressed at all; (4) it fails to fairly compare all of the alternatives including a route or routes using portions of the old Medina Dam Route; (5) not all of the pertinent data possessed by the Board was included in the DEIS for public review and comment; and (6) the Board failed to respond to the information and questions submitted during the scoping period, giving the impression that it is prejudiced and in favor of SGR. The DEIS phase of the process was, in effect, a farce used to Vulcan/SGR's advantage.

None of the conclusions in the DEIS can be supported in court to any degree and the Board is urged to prepare an SDEIS for review and comment. The current DEIS has a significant number of errors and omissions, which must be addressed and may have a bearing on the conclusions of the EIS. An SDEIS should be prepared and submitted for public comment. Another public hearing should be conducted to present the revised EIS and its conclusions. It is the Board's responsibility to ensure that the EIS is properly prepared and provides an unbiased answer as to the potential impact of this project on the environment. The Record of Decision made by the Board must be made for the public good, and not for the good of rail industry, or any other interest groups including those of the public. Moreover, the Board should provide a fair and unbiased environmental impact analysis of the project; the current DEIS falls far short of that goal.

Response: SEA issued an SDEIS for public review and comment on December 8, 2006. SEA believes that the DEIS, SDEIS, and this FEIS have fulfilled the Board's responsibilities under NEPA and related environmental laws.

Throughout the environmental review process, SEA has made comments and information publicly available on the Board's website at www.stb.dot.gov, and responded to numerous inquiries and

requests for information. Moreover, public meetings were held in the project area during the EIS process, and the SDEIS and this FEIS adequately respond to the public comments. The Board's process complies with NEPA.

Third-Party Contracting

Comment GM-41, #EI-1261, #EI-1369, and #EI-1370: URS may have a conflict of interest in working on this project since URS also studied the integrity of the Medina Lake Dam. A representative of the Bexar/Medina/Atascosa Water Improvement District (BMA) said URS does all the engineering for BMA and he has a problem with URS working as SEA's contractor in this case.

Response: URS is SEA's independent third-party contractor in this case, and has assisted in the preparation of the DEIS, SDEIS, and FEIS under SEA's supervision, direction, and control. In effect, URS has served as an extension of SEA's staff throughout the environmental review process. (See 49 CFR 1105.4(j); Policy Statement on Use of Third-Party Contracting in Preparation of Environmental Documentation, 66 Fed. Reg. 16,975 (2001); and 40 CFR 1506.5(c).)

SEA follows certain steps when preparing environmental documents with the aid of third-party contractors. One of these steps requires contractors to sign a disclosure statement specifying that they have no financial interest in the outcome of the applicant's proposal. This practice prevents conflict of interest problems and assures the objectivity of the third-party contractor in the environmental review process. (See 40 CFR 1506.5(c); Sierra Club v. Marsh, 714 F. Supp. 539, 553 (D. Me. 1989).) URS signed a disclosure statement for this project prior to beginning work as SEA's third-party contractor, and this statement was made publicly available on the Board's website in the Environmental Correspondence section (see FD 34284, #EI-27).

After the third-party contractor has signed and returned the disclosure statement to SEA, SEA prepares a Memorandum of Understanding (MOU), which SEA, the applicant, and the third-party contractor all must sign. The MOU outlines the conditions and procedures each party must follow in preparing the environmental document. Under the MOU, the applicant's primary responsibility is to pay for the contractor's service; the contractor's primary responsibility is to assist SEA in preparing the environmental document as SEA directs; and SEA's primary responsibility is to supervise and direct the contractor's work. The MOU provides that the applicant will not attempt to improperly influence the contractor's work, and that the contractor will cooperate fully with SEA. The MOU clarifies that SEA, not the applicant, is in control of the preparation of the environmental analysis, even though the applicant is paying the contractor's bills. The MOU for this case is available in the Environmental Correspondence section of the Board's website. (See FD 34284, #EI-26.) Accordingly, SEA believes that there have been sufficient safeguards in this case to ensure the neutrality of the third-party contracting process and the independence of SEA's environmental review.

5.2.2 Procedural Matters (PM)

Common Carrier and Condemnation

Opponents of the proposed rail line and VCM's quarry have repeatedly stated that SGR was formed to enable it to condemn land along the rail line right-of-way under Texas law. According to the comments on this issue, SGR should not be considered a common carrier railroad because the rail line would only be used for quarry purposes, and there are no other proposed or potential customers. In the DEIS, SEA stated that while these issues are not appropriately part of the environmental review process, it is well settled under court and agency precedent that the fundamental test for whether rail services are common carrier in nature is whether there is a "holding out" for other shippers to obtain service now or in the future (DEIS at 1-4).

The comments state that numerous landowners in the area of the proposed project have placed a restrictive covenant upon their properties that would prevent their lands from being used for rail purposes. Commenters claim that Vulcan formed SGR solely to obtain condemnation authority under Texas law, and that such use of condemnation authority would be unjust and essentially amount to a taking of private property for private use because no other shippers would use the rail line. Thus, they state that the Board should not grant SGR common carrier status.

While issues related to the transportation merits of SGR's proposal are outside of SEA's purview, to address the comments submitted during the environmental review process, SEA is providing a general discussion of the terms "common carrier" and "condemnation" below, preceded by the specific comments received on this issue.

Comment PM-01:

- **#EI-1257:** Allowing Vulcan under the guise of SGR to condemn land for the sole benefit of a private industry is an infringement on the freedom of the landowners. This is not how the American free enterprise system works; this is how totalitarian governments work.
- **#EI-1267, #EI-1320, #EI-1336, and #EI-1359:** It is unconscionable that SGR should have the right of eminent domain strictly for the economic gain of a private company.
- **#EI-1267:** The rail line would only serve Vulcan and should not have been designated a common carrier.
- **#EI-1289, #EI-1337, #EI-1338, and #EI-1340:** Allowing SGR to be a common carrier would enable an unconstitutional use of eminent domain.
- **#EI-1289:** There is no justification for giving SGR common carrier status. A rail line has been available from Hondo to Houston for 100 years and no additional rail line is needed.
- **#EI-1310, #EI-1345, #EI-1346, and #EI-1368:** It is not right to enable a private company to condemn historic farmland for uses destined only to line the pocket of private profit-seeking companies. As Federal employees, the Board members are responsible for protecting the rights of citizens. They should protect the property rights of the people of Quihi and not submit to the will of those who only seek financial profit from this project.
- **#EI-1316 and #EI-1359:** SGR should not have the right to take away the legal ownership of this land by using the antiquated law of eminent domain.
- **#EI-1319:** The Board should not grant SGR common carrier authority that would allow the condemnation of private property because the project is clearly designed to serve one industry for one purpose.
- **#EI-1330:** A map was submitted showing the terms of the restrictive covenant placed on approximately 60 parcels of land in the area that prohibits any rail line of any description, or conveyor belt system, from being placed on the property. Approximately 2.3 miles of the Proposed Route contain lands that are within the covenant. Thus, SGR would only be

able to obtain this land through condemnation, which is an abuse of eminent domain laws since SGR should not be able to condemn land for its own profit.

- **#EI-1335 and #EI-1352:** The DEIS did not sufficiently address the issue of condemnation.
- **#EI-1345:** Would the covenants that restrict rail development on area lands be ignored if SGR condemns land for its own use?
- **#EI-1369:** If other SGR rail customers are speculative, should SGR be considered a common carrier? If the existence of other SGR rail customers is not speculative, will they be included in the EIS study?
- **#EI-1369:** There are about 50 miles of rail track between D’Hanis and San Antonio, and not many new plants have developed along that track in the last 100 years. This indicates that there is not much demand for a rail line or new plants in this area.
- **#EI-1369:** Vulcan has created a common carrier railroad solely to serve a privately held rock quarry in order to obtain the land it needs.
- **#EI-1369:** It is outrageous that SEA’s only recourse for a private company sending a railroad down the middle of 100-year-old historical farms is to put up native grass and shrubs, and ensure that the landowner has access to the severed property. If SGR has to condemn and steal citizens’ private farmland against their will to make way for its own personal gain, then this project should be stopped. The reality of SGR holding itself out as a common carrier is both a farce and an insult to our intelligence. No one but Vulcan is going to use the rail line.
- **#EI-1369:** Do you think it’s right for a private company to take our land for profit for stockholders? They’ve already destroyed our hill country in San Antonio, the Medina Lake area, New Braunfels, and now Knippa and Quihi.
- **#EI-1370:** The Board should provide in writing an explanation of how a private enterprise for profit could be considered a public use.

Response: The issue of whether an entity proposing to build and operate a new rail line would become a common carrier is a jurisdictional matter for the Board. The Board’s jurisdiction does not extend to private rail operations (those that are not operated for hire in common carrier service). If a shipper does not hold out to provide common carrier railroad service over a line it constructs and maintains to serve its own facility, and no other shippers are served by the line, then neither that construction, nor a railroad’s operation over that track to reach the shipper’s facility, requires Board authorization or approval. Such a rail line construction would be a construction of private track that would not be subject to the Board’s jurisdiction. (See B. Willis, C.P.A., Inc. – Petition for Declaratory Order, STB Finance Docket No. 34013 (STB served Oct. 3, 2001).)

Under court and agency precedent, “the important factor in determining common carrier status is the holding out to transport for hire the property or person of any member of the public.” (See Status of Bush Universal, Inc., ICC Finance Docket No. 27026 (ICC served March 5, 1973).) The Board has consistently held that it has jurisdiction over new rail line construction cases where the line would initially

serve only one shipper (even when the shipper is the same entity as or is affiliated with the rail carrier) as long as the rail carrier intends to hold itself out to serve other shippers that may locate along the rail line in the future. (See Public Service Company of Colorado – Construction Exemption – Pueblo County, CO, STB Finance Docket No. 33862 (STB served Aug. 23, 2000); Midwest Generation, LLC – Exemption from 49 U.S.C. 10901 – for Construction in Will County, IL, STB Finance Docket No. 34060 (STB served March 21, 2002); and Alamo North Texas Railroad Corporation – Construction and Operation Exemption – in Wise County, TX, STB Finance Docket 34002 (STB served September 3, 2002)). Here, SGR has agreed to hold itself out to other shippers.

In a decision served in this proceeding on May 19, 2003, the Board found that, from a transportation perspective, SGR's proposed construction and operation met the standards of 49 U.S.C. 10502, subject to the Board's consideration of the anticipated environmental impacts of the proposal in this EIS, and the issuance of a final decision to grant final approval of this project following the conclusion of the NEPA process. On May 23, 2003, MCEAA filed a petition to revoke the Board's conditional approval of SGR's proposal in the May 2003 decision. The Board denied MCEAA's petition, by a decision issued on August 21, 2003.

As stated in the DEIS on page 4-65, in Board-approved rail construction cases, the railroad is responsible for the acquisition of land necessary to implement the approved project. Condemnation (also known as eminent domain) of property needed to complete a Board-approved line occurs in accordance with the state's railroad condemnation law. Thus, if the Board grants final approval to SGR's proposal to construct and operate the rail line, SGR would be a common carrier railroad authorized to construct and operate the proposed line, and would be responsible for acquiring the necessary land to implement this project. Any condemnation proceedings would be governed by Texas state law. However, states cannot apply their eminent domain statute in such a way as to present an "insurmountable barrier" for a Board-approved railroad construction project. If they did, their railroad condemnation statutes would have the effect of state "regulation" of railroads, and accordingly would be preempted under 49 U.S.C. 10501(b) of the Interstate Commerce Act, which gives the Board exclusive jurisdiction over rail transportation by rail carriers and preempts the application of state and local laws that would unreasonably interfere with interstate commerce. See The Burlington Northern and Santa Fe Ry. v. City of Houston, 171 S.W.3d 240 (Tex. App. 2005) (holding that "when state eminent domain law, as applied in the circumstances, amounts to regulation by blocking a Federally-approved rail line, it is expressly preempted" under 49 U.S.C. 10501(b)); see also Dakota, Minn. & E. R.R. Corp. v. South Dakota, 236 F. Supp. 2d 989, 1006-09 (D.S.D. 2002), aff'd on other grounds, 362 F.3d 512 (8th Cir. 2004).

In rail construction cases, the railroad typically tries to work with landowners to come to terms regarding acquisition of the property needed to implement the project. Should this process be unsuccessful, state eminent domain or condemnation laws are involved, which provide that the landowner receive just compensation for the involuntary taking of any property. As pertinent here, the Texas state civil statutes include a specific law regarding the condemnation of land for the construction and operation of a rail line to a quarry. This law states as follows:

Corporations created to build, maintain and operate a line of railroads to mines, gins, quarries, manufacturing plants, and mills, shall have the right to condemn land necessary for the right-of-way for such road from and between such mines, gin, quarry, manufacturing plant or mill and the nearest line of railroad, provided, that no such corporation shall have said right of eminent domain until it shall declare itself a public highway and common carrier, thus placing said road under the control of the Railroad Commission. Tex. Rev. Civ. Stat. Ann. Art. 6550 (2005).

While the applicability of this statute to any condemnation proceedings SGR may initiate (if the Board grants final approval to the proposed rail line construction and operation and if SGR cannot obtain the necessary land by other means) are matters for the Texas state legal system to decide, SEA notes that the Court of Appeals of Texas has held that land can be condemned under Texas state law in situations similar to the case at hand. (See West v. Whitehead et al., 238 S.W. 976 (1922) *writ of error refused*, No. 6663 (April 5, 1922).)

Legal Issues

This section contains comments and responses that contain more legal jargon than is typical for an EIS. SEA has attempted to provide language and explanations to make the material understandable to the lay reader but, in the interests of summarizing the comments appropriately, has included legal language and citations to relevant court cases.

Comment PM-02, #EI-1287: The discussion of connected actions in the EIS should provide significant rebuttals to the arguments presented in the scoping comments. This issue is vital to this entire project and the EIS and should be thoroughly and completely addressed.

Response: Please see Section 1.5 of the DEIS and Section 2.2 of this FEIS for SEA's thorough discussion of this issue.

Comment PM-03, #EI-1287: The discussion of Wetlands Action Network v. U.S. Army Corps of Engineers, 222 F.3d 1105 (9th Cir. 2000) (WAN) on pages 1-12 to 1-13 of the DEIS should be expanded to include background information on the actions that were involved. To clarify the discussion for the average reader, SEA should provide more information describing what the actions were and why they were not considered to be related. Also, the types of actions involved may provide information as to whether this discussion is applicable to the Vulcan project. Thus, the discussion should be expanded or deleted.

Response: SEA believes that its discussion of WAN in the DEIS to support its position on connected actions was appropriate and need not be amplified. The DEIS contains the full citation for that case so that any interested person could find and read the entire court decision and draw his/her own conclusions about the case. Providing a detailed case history of this or other court cases cited in the DEIS, SDEIS, and FEIS, would be unduly burdensome and inappropriate for an EIS, which is not a court brief.

Comment PM-04, #EI-1374: The agency's argument for whether the rail line and the quarry are connected actions fails because it applies the independent utility test to the quarry, but not to the rail line. The Board should apply the relevant connected action regulation, 40 CFR 1508.25(a)(1)(iii), to the rail line because it lacks independent utility.

Response: The proposed action before the Board is a proposal to build a rail line, not a quarry. See Section 2.2 of this FEIS for SEA's discussion of the appropriate scope of analysis of the quarry in the environmental review process.

Comment PM-05, #EI-1374: SEA should treat the quarry as a connected action and disclose its direct, indirect, and cumulative effects in the EIS. The rail line does not possess any real independent utility. The CEQ connected action regulation includes those projects on which the proposal depends and recognizes that this dependence makes them part of a larger action. Therefore, the rail line and the quarry are both part of the proposed major Federal action.

Response: The proposed action before the Board is a proposal to build a rail line not a quarry. See Section 2.2 of this FEIS for SEA’s discussion of the appropriate scope of analysis of the quarry in the environmental review process.

Comment PM-06, #EI-1374: The Board’s fundamental worldview and its policy choice for new rail line constructions for build-outs and access to competitive service are inconsistent with the U.S. Constitution and the Constitution of the State of Texas, as well as with the requirements of NEPA. The four necessary elements of this policy are: (1) no analysis of nonjurisdictional related proposals, such as the quarry; (2) approval of a paper railroad created by a private, non-rail corporation to obtain a common carrier license that the statute grants only if consistent with public convenience and necessity; (3) the assumption of all permitting and construction costs by the private, non-rail corporation (the shipper); and (4) preemption of state eminent domain authority.

Response: Comment noted.

Comment PM-07, #EI-1374: Until the Board interprets the term “interdependent” in a rulemaking, asks CEQ to make an exception for new rail line constructions in its regulations, or promulgates regulations of its own and makes an argument that they are consistent with the controlling CEQ regulation, the agency’s arguments concerning the scope of the EIS are entitled to no respect from any court or from any U.S. citizen.

Response: Comment noted.

Comment PM-08, #EI-1374: A multi-factor federalization test for relatedness has evolved to determine whether actions must be considered in an environmental assessment. However, no court has held that any other test replaces the controlling CEQ regulations for the scope of environmental impact statements. Nowhere in Public Citizen, 541 U.S. 752, 768 (2004) does the Supreme Court say that the CEQ regulations for the scope of an EIS are invalid or superseded by a test of the Court’s creation. SEA’s use of Public Citizen to support its position for the scope of the analysis of the quarry in the DEIS is beyond disingenuous.

Response: See Section 2.2 of this FEIS for SEA’s discussion of the appropriate scope of analysis of the quarry in the environmental review process and a response to this specific comment.

Comment PM-09, #EI-1374: Under 40 CFR 1508.25(a)(1)(iii) the rail line lacks independent utility. Thus, the rail line and the quarry are connected actions and must be analyzed together in the EIS.

Response: Comment noted. See Section 2.2 of this FEIS for SEA’s discussion of the appropriate scope of analysis of the quarry in the environmental review process.

Comment PM-10, #EI-1431: The rail line and the quarry are not connected actions. The CEQ regulations at 40 CFR 1508.25(a)(1) set forth a three-part test for determining whether actions are connected for the purposes of NEPA review. None of the parts of this test are met in this situation. The independence of the quarry and the fact that the quarry is likely to begin at least some operations prior to the rail line’s construction proves that it would be illogical to consider the rail line and the quarry as connected actions. The connected action rule was designed to prevent Federal agencies from breaking down what should be considered in one EIS into two – not to force agencies to consider environmental effects over which they have no control.

Response: Comment noted. See Section 2.2 of this FEIS for SEA’s discussion of the appropriate scope of analysis of the quarry in the environmental review process.

Comment PM-11, #EI-1431: The Supreme Court’s decision in Public Citizen applies with particular force in this case. The quarry is not an “effect” of the Board’s action: the quarry will exist with or without the Board’s approval of the rail line. Accordingly, just as the President’s authority over cross-boundary trucking in Public Citizen negated any need for the USDOT to consider that traffic’s air impacts, the Board need not review the quarry’s environmental effects here because, as an agency charged with addressing primarily matters related to rail carriers, it has no control over the quarry.

Response: Comment noted.

Comment PM-12, #EI-1374: The term “action” in the CEQ regulations does not mean only “Federal actions.” The CEQ regulations for cumulative impacts clearly state that non-Federal actions must be considered.

Response: As discussed in Section 4.17 of the DEIS and Chapter 3 of this FEIS, SEA has considered non-Federal actions as part of the cumulative impacts analysis.

Comment PM-13, #EI-1374: If the rail line has independent utility, then impacts from other shippers are imminent and must be analyzed.

Response: As stated in Section 4.18 of the DEIS, SEA has identified no current proposals for other projects in the area. Thus, while SGR has agreed to hold itself out to serve other shippers, there is no way, based upon the information available at this point, to predict whether there would actually be an increase in area development as a result of the project or whether or when other shippers would locate along the rail line. There would be no sound way to assess potential impacts from other hypothetical shippers; any such analysis would be speculative at best.

Comment PM-14, #EI-1374: Because the agency has not analyzed the rail line and quarry as connected actions, it has misrepresented the No-Action Alternative.

Response: See Chapter 2 of this FEIS for a detailed discussion of the appropriate scope of analysis of the quarry and the No-Action Alternative.

Comment PM-15 #EI-1480: SGR’s suggestion that the applicable test to determine the scope of the EIS applies “only in one direction” makes the scope of the EIS vary at the whim of the applicant, which can either (1) withhold its potentially connected action from being proposed until after the Federal license for the first action is issued, or (2) propose both Federal and non-Federal actions simultaneously, so long as it is the Federal action that lacks independent utility. Besides undermining NEPA’s goal of providing a sound basis for decision-making to Federal and non-Federal decision makers, Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 349 (1989), SGR’s one-way test shifts the risk of the allegedly “unconnected” project onto the community, without full disclosure or mitigation of its consequences. Rather than fully accounting for the consequences of the allegedly “unconnected” – yet certain to occur – project as part of a baseline, an EIS in SGR’s view, much like the one its contractor prepared here, views the lone Federal proposal in a vacuum. The result is a half-hearted and legally inadequate disclosure of cumulative environmental harms.

Response: See Section 2.2 of this FEIS for a detailed discussion of the appropriate scope of analysis of the quarry. See Chapter 1 of the DEIS for a discussion of the role of the independent third party contractor that worked under SEA’s direction and control to draft the environmental documentation for this proceeding.

Comment PM-16, #EI-1480: Vulcan will accrue substantial benefit from receiving the rail license while concurrently proposing the allegedly unconnected quarry without NEPA analysis. Not only does Vulcan receive the financial benefit of a less rigorous analysis; it can literally, as it has here, delay opening the quarry for six years until it applies for and receives the rail license necessary for the overall proposed action (a rail-served quarry).

Response: Comment noted. See the responses to similar concerns above.

Comment PM-17, #EI-1374, #EI-1380, and #EI-1480: Rather than publicly disclosing the environmental harms of the quarry development and operation, Vulcan and the Board are hiding behind inadequate conclusory statements in the DEIS regarding the quarry's contribution to cumulative effects, particularly for flooding and damage to water supply wells. Vulcan's attempt to shift unanalyzed risk and environmental harm associated directly and cumulatively with the quarry onto the community, rather than disclosing it up front, is wrong, illegal, and, as more than six years have shown, just plain stupid. The DEIS does not satisfy the hard look and sufficient detail test set forth in Mississippi River Basin Alliance v. Westphal, 230 F.3d 170, 174 (5th Cir. 2000). SEA must answer the following three questions for both the quarry and the rail line: (1) Can you tell what the baseline is? (2) Can you tell what the impact contribution of each project in the connected action is? (3) Can you tell what the total impact is, when added to any other cumulative impacts?

Response: See Section 4.17 of the DEIS and Chapter 3 of this FEIS for SEA's cumulative impacts analysis and discussion of the conditions imposed on the quarry to address concerns about flooding and water supply.

Comment PM-18, #EI-1369: The Board's process is unconstitutional because the Board is placing itself in a judicial position. Based upon SEA's recommendations, the Board will make a decision that affects the local people of Medina County. The Constitution was designed to allow sovereign people control of their local areas.

Response: Congress has authorized the Board to approve proposals to construct and operate rail lines. (49 U.S.C. 10901, 10502. In 1995, Congress enacted a broad Federal preemption provision, 49 U.S.C. 10501(b), that expressly makes the Board's jurisdiction "exclusive" for all transportation by rail carriers, including the facilities and structures that are an integral part of that transportation.² Section 10501(b) also expressly states that "the remedies provided under this part are exclusive and preempt the remedies provided under Federal and State law." Communities and the general public have ample opportunity to participate in the Board's licensing process by opposing the proposed construction on the merits, or filing comments and requesting conditions during the environmental review process.

Comment PM-19, #EI-1369: SEA's primary reason for not recognizing the quarry as a connected action is based upon the Supreme Court's Public Citizen decision. However, the Board has not carefully considered the detailed information submitted concerning significant environmental impacts. Moreover, the DEIS contains little or no evidence that the Board has made available relevant information to the larger audience, such as other agencies who would have to issue permits for this project. Yet these are the two points on which SEA based the decision not to recognize the quarry as a connected action.

Response: See Section 2.2 of this FEIS for a detailed discussion of the appropriate scope of analysis of the quarry and a summary of the available information on construction and operation of the quarry, and the precautions that will be taken to minimize potential impacts that could result from the quarry.

² 49 U.S.C. 10102(9); 10501(b).

Public Involvement

Comment PM-20, #EI-1369: Comments and concerns expressed during scoping have been ignored. Public meetings or workshops were not allowed during scoping, which is a common thing used in most agencies' scoping processes. Written comments were given lip service with standard replies and impersonal letters. Most of the comments were addressed poorly in the DEIS as if to state that the public's opinion will not impact this decision.

Response: SEA has carefully considered all of the comments submitted by members of the public at all stages of the NEPA process, and SEA believes that the public has been provided with ample opportunity to participate in all respects of the environmental review process for this proceeding.

Comment PM-21, #EI-1369: NEPA is based upon disclosure of all aspects of public information to the public, but SEA has not been helpful in providing information to citizens in the project area. SEA hides behind the bureaucracy of the Freedom of Information Act (FOIA) to prevent citizens from obtaining information in a timely manner.

Response: SEA has posted copies of incoming and outgoing environmental correspondence for this proceeding on the Board's website and in the public docket reading room as quickly as possible, and has responded to the comments received on the DEIS and the SDEIS in this FEIS. SEA also believes that it has responded to direct requests for information from members of the public in an efficient manner. The Board has not hidden behind FOIA. In any event, SEA staff does not process FOIA requests.

Copies of the comments received in this case are consolidated in Appendices B and C of this FEIS. In addition, please visit the Board's website at www.stb.dot.gov, click on Environmental Matters, then click on Environmental Correspondence, and then search the material under "FD 34284" to view the environmental correspondence for this proceeding.

Comment PM-22, #EI-1369: SEA is requested to carefully consider all the oral and written comments submitted on the DEIS and to respond with individual personal letters to show respect to these commenters.

Response: SEA has carefully considered all of the oral and written comments submitted on the DEIS and SDEIS, and has great respect for the commenters and all of the opinions expressed by these commenters. However, while SEA has provided direct responses to comments that were procedural in nature and warranted a direct response (see Appendix D, #EO-187), responding to substantive comments with individual personal letters is not required by NEPA. SEA also issued an SDEIS on December 8, 2006, to provide the public with an additional opportunity to review and comment on SEA's analysis of the Eastern Bypass Route, the MCEAA Medina Dam Alternative, SGR's Modified Medina Dam Route, the Rural Historic Landscape study, and additional noise analysis. The CEQ regulations for implementing NEPA at 40 CFR 1503.4 specify that the appropriate forum in which to respond to comments on draft environmental documents (the DEIS, and the SDEIS) is in the FEIS document, as SEA has done here.

Comment PM-23, #EI-1369: The DEIS has many flaws and has shown a blatant disregard for the public. The DEIS is based only on general information on the project area and no actual data regarding field studies is furnished. The lack of detail and analysis indicates SEA's lack of respect for the community. SEA can turn this all around by representing the public good and not Vulcan.

Response: In the DEIS, SEA undertook a thorough evaluation of the environmental effects of the proposed rail line construction and operation for the following impact categories: transportation and traffic safety; public health and worker health and safety; water resources; biological resources; air

quality; geology and soils (including karst features); land use; environmental justice; noise; vibration; recreation and visual resources; cultural resources; and socioeconomics. SEA also studied the potential cumulative effects and indirect effects that could be caused by the proposed project.

The DEIS provided detailed information about the proposed action and alternatives; the affected environment; SEA's assessment of potential environmental impacts; and SEA's preliminary conclusions and recommendations. SEA recommended a total of 52 mitigation measures in the DEIS, 5 of which had been voluntarily proposed and agreed to by SGR.

Based upon the comments received on the DEIS, SEA prepared the SDEIS, which studied the potential environmental impacts of the construction and operation of three additional alternative rail alignments, and presented the results of the extensive Rural Historic Landscape Study as well as an updated noise and vibration study. This FEIS responds to the comments on the DEIS and SDEIS. The EIS shows that the Board has taken the required hard look at this project required by NEPA and has provided ample opportunity for public participation and public comment.

Purpose and Need

Comment PM-24, #EI-1329: SGR's rail line would serve no other use than transporting materials from the quarry since the project area is a rural, residential area devoid of other businesses.

Response: As discussed in Section 1.2 of the DEIS, SGR has stated that the primary purpose of the proposed rail line construction and operation is to transport limestone from VCM's quarry to the UP rail line for shipment to markets in the Houston area, as well as to other markets in the Southeast, Gulf Coast, and Rio Grande Valley regions of Texas. As discussed in Section 4.18 of the DEIS, SEA has identified no current proposals for other projects in the area that would utilize the rail line. However, SGR has agreed to hold itself out as a common carrier and provide service to other industries that might locate in the area in the future. This brings the proposed construction within the Board's jurisdiction under U.S.C. 10901.

Scope of Analysis

Comment PM-25, #EI-1250, #EI-1292, #EI-1316, #EI-1336, #EI-1341, #EI-1343, #EI-1344, #EI-1345, #EI-1346, #EI-1361, #EI-1369, #EI-1370, #EI-1424, and #EI-1425: Commenters requested that a full connected-action study be conducted for the railroad and the quarry.

Response: The only proposed action before the Board here is the proposal to construct and operate a rail line. Please see Section 1.5 of the DEIS and Section 2.2 of this FEIS for SEA's discussion of the scope of analysis of the quarry in the environmental review process for this rail line construction proceeding.

Comment PM-26, #EI-1261: A commenter requested that SEA provide information on the time line for providing a decision as to the reconsideration of the scope of analysis for the quarry, and requested information on when the notification would occur, and by whom the decision would be made.

Response: SEA's final determination regarding the appropriate scope of analysis of the quarry in the environmental review process for this rail line construction proceeding is set forth in Section 2.2 of this FEIS. The commenter has been sent a copy of this FEIS. Pursuant to the Board's environmental rules at 49 CFR 1105.2, the Chief of SEA is responsible for preparing documents under the Board's environmental rules and is delegated the authority to interpret NEPA in the first instance.

Comment PM-27, #EI-1267: If SEA limits its analysis of traffic over the rail line to traffic generated solely by the quarry, then SEA must consider the proposed quarry and the proposed rail line as a joint project and include the environmental impacts of the quarry in the EIS.

Response: The issue of whether to assess traffic over the rail line from other potential shippers and the issue of the appropriate scope of analysis of the quarry in the EIS are two separate and unrelated issues.

SEA appropriately limited its analysis in the EIS to traffic that would be generated by the quarry because, while SGR has agreed to hold itself out as a common carrier and provide service to other industries that might be located in the area in the future, there is no available information at this point as to when other shippers might use the proposed line and who they would be. Thus, there is no way for SEA to attempt to assess any potential impacts from such speculative traffic.

Please see Section 1.5 of the DEIS and Section 2.2 of this FEIS for SEA's discussion of the appropriate scope of analysis of the quarry in the environmental review for this rail line construction proceeding.

Comment PM-28, #EI-1268: The Board should not perform more studies on quarry operations because the Board does not have jurisdiction over the quarry.

Response: Comment noted. As discussed in Section 1.5 of the DEIS and Section 2.2 of this FEIS, because the development and operation of the quarry would affect some of the same resources as the rail line at about the same time as the rail line construction and operation, SEA has included an analysis of the environmental impacts of the quarry's development and operation as part of the cumulative impacts analysis in this rail line construction proceeding (see Section 4.17 of the DEIS and Chapter 3 of this FEIS).

Comment PM-29, #EI-1287 and #EI-1369: There are no guarantees that the quarry can be constructed and will be officially permitted at this time. Therefore, it seems illogical to be constructing a railroad to a nonexistent facility. If Vulcan was going to install the quarry regardless of modes of transportation for its product, the quarry would already be in place and operating at this time, with limited use by trucks. The order in which the project is being developed is illogical unless the construction of the quarry is dependent upon a railroad being available to service its needs. The fact that Vulcan places so much emphasis on the rail line in spite of the difficulty of the rail permitting process demonstrates that the rail line and the quarry are connected actions. If trucking is really a viable alternative, then why has Vulcan not initiated construction of the quarry using trucking until a rail line can be constructed?

Vulcan planned the quarry and the rail line together, researched both at the same time, informed the public about both projects at the same time, and informed the public that the quarry would not open without the rail line. If this were not true, why wouldn't Vulcan obtain the appropriate permits to open the quarry and operate the quarry with trucks in the local area, and then use the justification of the demand in Houston and the Gulf Coast regions for limestone to seek a permit for the rail line?

The rail line is dependent on the quarry and has no independent utility. But for the quarry, the rail line would not exist.

Response: Information submitted by SGR indicates that the quarry permitting processes have concluded and that VCM will begin operations at the quarry regardless of whether SGR's rail line is built. Specifically, according to SGR, the TCEQ granted VCM's application for an air quality permit for a portable rock crusher on December 28, 2004 and an air quality permit for quarry operations in 2007.

VCM has also obtained approval of a WPAP from TCEQ. (See Appendix D of this FEIS, #EI-1411, and #EI-2525.)

According to SGR, the air quality permit application conservatively assumed the use of truck transport of the aggregate extracted from the quarry, but noted that the construction and operation of SGR's rail line remains under regulatory review. (See Appendix D of this FEIS, #EI-1664.)

See Section 1.5 of the DEIS and Section 2.2 of this FEIS for SEA's discussion of the appropriate analysis of the quarry in the environmental review process for this rail line construction proceeding.

Comment PM-30, #EI-1361: Cost figures are provided for the rail line construction and operation so this information must be provided for the trucking alternative as well, including the special loading and unloading facilities, the special trucks required, fuel, insurance, driver's wages, and road construction. It is clear the trucking alternative is not feasible and is a ruse to not consider the rail line and the quarry as connected actions.

Response: Please see Section 2.4 of the DEIS and Section 2.3 of this FEIS for SEA's discussion of the feasibility of the trucking alternative.

As stated in the Final Scope of Study for the EIS, SEA does not believe that a detailed cost-benefit analysis of rail versus truck transport would be appropriate or necessary here. CEQ regulations state that in an EIS "the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations." (See 40 CFR 1502.23.) As discussed in Sections 2.4 and 2.6 of the DEIS, there are important qualitative considerations between rail transport and truck transport of the limestone, such as the need to construct a 100-acre remote truck-to-rail loading facility for the truck transport, which would not be needed if the aggregate from the quarry moves by rail. Finally there are also differences in terms of the potential environmental impacts that would result from rail transport and truck transport, primarily related to traffic safety and impacts to air quality, groundwater, and surface water resources.

Furthermore, neither VCM nor SGR has developed final engineering plans for any of the alternatives being studied by SEA, and thus, any attempts to project cost comparisons between truck and rail would be speculative. Finally, cost comparisons are unnecessary to inform the Board's decision because this is not a case where the applicant's financial ability to implement this project is at issue.

Comment PM-31, #EI-1369: SEA's reasoning that the quarry should be treated as a cumulative effect and not a connected action because other agencies have the responsibility to evaluate the environmental impacts of the quarry while the Board had no jurisdiction over the quarry or its environmental impacts is a poor excuse for not analyzing the quarry. The Board is the lead agency and the buck should stop here.

Response: Please see Section 1.5 of the DEIS and Section 2.2 of this FEIS for SEA's discussion of the appropriate scope of analysis of the quarry in the environmental review for this rail line construction proceeding.

Comment PM-32, #EI-1369: On February 19, 2004, Tom Ransdell was quoted in the Hondo newspaper as saying that this project does not yet have the approval of Vulcan's Board of Directors, which supports the contention that Vulcan's position is: no railroad, no quarry.

Response: Comment noted. SGR has repeatedly stated to SEA that if the rail line were not built, VCM would transport the material from the quarry to the UP rail line via truck. SGR is responsible to inform SEA if project plans change or information that it has submitted to SEA is incorrect.

Comment PM-33, #EI-1369: Vulcan should agree to do a professional environmental impact study at the quarry site; otherwise Vulcan is going to ruin an environmentally sensitive area.

Response: Comment noted. The quarry has been thoroughly reviewed and VCM has obtained the requisite WPAP and air quality permits from the TCEQ

Comment PM-34, #EI-1369, #EI-1424, and #EI-1370: The EIS should study the safety, traffic, and environmental impacts of increased rail traffic moving east on the UP line. Does the Board believe the statement made by SGR that MCEAA's concerns regarding increased traffic over the UP line from SGR's rail operations are weird and unprecedented? The rail traffic over this line has already reached critical limits in the San Antonio area and there have been six accidents in the past six months. Why has SEA ignored MCEAA's scoping comments on this issue? The DEIS does not address this issue at all. How would the added traffic on the UP line impact San Antonio?

Response: Any impacts that are not related to the proposed action and are farther removed in distance from the proposed project area (such as an increase in traffic moving east on the UP rail line) would occur regardless of the proposed action and thus would not be caused by the proposed action itself and need not be considered in this EIS.

NEPA requires agencies to assess three types of potential impacts that could be caused by a proposed action: direct effects, indirect effects, and cumulative effects. Direct effects and indirect effects are caused by the proposed action, either directly or indirectly, as the terms indicate. (See 40 CFR 1508.8.) An example of a direct effect from a rail line construction could be destruction of a certain species' habitat from construction of the rail line right-of-way. An example of an indirect effect would be if it were reasonably foreseeable to assume that several years after construction of the rail line, the destruction of the habitat would cause a decline in the population of another species that is dependent on the species whose habit was destroyed.

Cumulative effects are the effects that result from the overlapping direct and indirect effects of multiple actions. For example, a direct effect of a proposed action plus a direct effect of other action nearby could equal a cumulative effect associated with the proposed action. If a rail line construction caused destruction of a certain species' habitat and a nearby roadway construction caused more destruction to that same species' habitat, it is likely that cumulative or additive effects to the species and its habitat would result. (See "Considering Cumulative Effects under the National Environmental Policy Act" (CEQ, 1997).)

Based upon all information to date, the increased traffic moving east over the UP rail line would not be caused by SGR's proposed rail line construction and operation, and does not overlap with the potential environmental effects that could be caused by the rail line construction and operation. Thus, such traffic is not a direct, indirect, or cumulative effect of SGR's proposal and is not appropriately part of SEA's environmental review of the proceeding before the Board. With regard to comments about safety on the UP line, SEA notes that UP must comply with all of the Federal Railroad Administration's (FRA's) rail safety regulations.

Comment PM-35, #EI-1424: The EIS should include an analysis of the dust, drainage, and noise impacts of the loading track.

Response: SGR has not decided on a final configuration for the loading track. SGR is still evaluating the possibility of having a system of straight tracks in lieu of a loading loop. However, SEA assessed the impacts from the loading track based on all of the information that was available. As far as dust emissions, SGR stated that the construction activities proposed for the loading track would not differ in comparison to those for the rest of the rail line. Therefore, the dust emissions from construction for the loading track are similar to those of the rest of the line presented in the DEIS Section 4.7. Furthermore, the dust emissions within the loading track were accounted for in the air emission calculations performed in the DEIS (under loading and unloading dust emissions). The results of this analysis are presented in Section 4.7 of the DEIS. In addition, as stated in #EI-1664 (see Appendix B of this FEIS), SGR intends to control dust in the area by utilizing Best Available Control Technology (BACT) based upon TCEQ's Technical Guidance for Rock Crushing Plants (RG 058, February 2002) and by operating water sprays at the inlet and outlet of the crushers, screens, and conveyors. Partial enclosures would also be used at locations where material was transferred from crushers to conveyors to reduce emissions from cross winds.

SEA evaluated the noise impacts associated with the loading track. The results of this analysis are presented in Section 4.3.2 of the SDEIS. SEA concluded that noise could occur during the loading process, in one of two ways. Rubber-tired, front-end loaders would load material directly into the cars from finished product stockpiles in the vicinity of loading tracks, or the rail cars would be loaded from an elevated loading bin filled by a conveyor located under large finished stockpiles. The loading process would be continuous and would take about eight hours. SEA concluded that sound levels from loading would be expected to be consistent with those generated by quarry operations and would not result in off-site effects. SEA further explained that, if the loading track were in the shape of a loop, the curve radius could be designed to preclude wheel squeal noise from occurring. Furthermore, the typical wheel-rail noise associated with a fixed point would not likely cause adverse noise effects because the nearest receptor would be too far away to be affected. The sound of coupling and uncoupling of rail cars, indexing the train to permit loading, and the startup or stopping of a train would also produce short duration noise. SEA performed acoustical calculations to estimate sound levels at the closest residence (1,000 feet from the area) and concluded that this noise could be periodically audible at the closest residences, but would not significantly impact any residence.

SEA did not perform a detailed drainage analysis of the loading track area. However, in Section 4.5.3 of the DEIS, SEA discussed the potential impacts of SGR's proposed rail line construction and operation on existing flood conditions. SEA concluded that, if several recommended mitigation conditions are implemented, impacts to existing flood conditions under any of the potential rail route alternatives studied in depth (including the loading track) would not be significant. Furthermore, SGR has agreed to conduct appropriate hydrological modeling prior to beginning construction, and incorporate the resulting design criteria into the design of the loading track and rail line to avoid or minimize adverse impacts to existing floodplain and drainage conditions.

5.2.3 Alternatives (Alt)

Comment Alt-01, #EI-1095, #EI-1107, #1109, #EI-1254, #EI-1293, #EI-1317, #EI-1356, #EI-1358, #EI-1370, #EI-1898, and #EI-1899: Commenters stated that transporting the limestone from the quarry by rail is safer and environmentally preferable to transporting the limestone by truck.

Response: As stated in Section 2.6 of the DEIS, Chapter 6 of the SDEIS, and Chapter 1 of this FEIS, SEA's analysis indicates that construction and operation of the proposed rail line, under any of the potential rail routes studied in depth, would be safer and environmentally preferable to the use of trucks to transport the limestone from the quarry to the UP rail line.

Comment Alt-02, #EI-1249: The Proposed Route should be built.

Response: Comment noted.

Comment Alt-03, #EI-1251: A commenter requested information on how close Alternative 2 would come to her property.

Response: SGR will develop final engineering plans, including the exact location of the track, only after completion of the environmental review process and the issuance of a decision granting final approval to the proposed rail line construction and operation.

Comment Alt-04, #EI-1297 and #EI-1356: Alternative 1 would not be a good route because it would pass near Quihi Creek for a long distance, which would not be good for wildlife habitat. Alternative 1 would cross Quihi Creek near large ponds and marshes that contain wildlife and would pass within 125 feet of the historic William Schweers Home. Alternative 1 also would pass near the historic Heyo Schweers Home and would be two miles longer than the Proposed Route. Alternative 1 should not be approved due to its impacts on landowners and historic resources.

Response: As stated in Section 2.6 of the DEIS, Chapter 6 of the SDEIS, and Chapter 1 of this FEIS, SEA has concluded that of the potential rail route alternatives examined in depth, Alternative 1 would be the least environmentally preferable. Moreover, the railroad applicant has no objection to the Eastern Alternatives SEA has recommended as environmentally preferable in the SDEIS and the FEIS, and now favors the Eastern Bypass Route (including the Modified Eastern Bypass Route). Thus, it is extremely unlikely that Alternative 1 would be authorized and constructed. Please see Chapter 1 of this FEIS for SEA's final recommendations regarding the environmentally preferable alternative(s).

Comment Alt-05, #EI-1356: Alternative 2 is not a good route because it would cross Quihi Creek at small, spring-fed ponds and marshes, and would pass near the Schweers family cemetery and the Henry Schweers Home. This route would also cross an area near the Saathoff Historic Home and the family cemetery located south of the Quihi Creek on the Pichot property that contains historic and archeological resources.

Response: Comment noted. See response to previous comment.

Comment Alt-06, #EI-1356: Alternative 3 passes within 250 feet of the Oeffinger Cottage and between the two Saathoff Cottages and the Cottage Ruins. This route is 2,500 feet longer than the Proposed Route and, though it is better than Alternatives 1 and 2, it is not the preferred route.

Response: Comment noted. See responses above.

Comment Alt-07, #EI-1356: The Proposed Route is better than the alternative routes studied in the DEIS because it would cross Quihi Creek at a location that is often dry, and has no marshes or significant ponds. The route also appears to take advantage of existing pipeline right-of-way. Although the route would be 250 feet from the Henry Schweers Historic Home, it would avoid other historic structures and environmentally sensitive areas. The Proposed Route would prove to be the most economically feasible point to cross Quihi Creek, would have minimal effects on wildlife, and would be screened somewhat by existing trees.

Response: Comment noted.

Comment Alt-08, #EI-1341 and #EI-1369: The rail line should be moved to avoid creeks, floodplains, and historic resources.

Response: SEA prepared a SDEIS that studied three additional rail line alternatives (the Eastern Bypass Route, SGR's Modified Medina Dam Route, and the MCEAA Medina Dam Alternative, collectively, the Eastern Alternatives). As stated in Chapter 6 of the SDEIS, and Chapter 1 of this FEIS, SEA's analysis indicates that the Eastern Alternatives would pass through a smaller amount of floodplain and would have fewer impacts on historic resources. Moreover, SGR now favors the Eastern Bypass Route (including the Modified Eastern Bypass Route). Please see Chapter 1 of this FEIS for SEA's final recommendations regarding the environmentally preferable alternative(s).

Comment Alt-09, #EI-1359: The quarry could be located elsewhere in Texas where less people would be impacted.

Response: As discussed in Section 1.5 of the DEIS and Chapter 2 of this FEIS, alternative locations of VCM's quarry are not within the scope of SEA's environmental analysis for this rail line construction proceeding.

Comment Alt-10, #EI-1287: The last paragraph on page 2-8 of the DEIS discusses 15 potential rail routes that were initially considered for comparison in the EIS. The information provided does not allow the reader to decipher how SGR decided to drop most of these rail routes. To improve this argument, SGR should provide the following: (1) a figure showing the routes that were considered; (2) a table listing criteria used to rule out these routes and some level of measurement as to how each route impacted the criteria (e.g., operational considerations, cut and fill requirements, impacts to wetlands, impacts to property owners, location of property boundaries, impacts to floodplains, and impacts to cultural resources); and (3) a final conclusion that provides more detail as to why each alternative was dropped from analysis.

Response: SEA requested additional information from SGR regarding its initial evaluation of rail line alternatives. In response to SEA's request, SGR submitted information stating that initially 15 potential rail alignments had been considered, all of which were in the same general area as the four alignments considered in depth in the DEIS. According to SGR, these 15 alignments consisted of 8 basic alignments and 7 variations of those alignments. SGR explained that it had screened the alignments by using specific criteria including: avoidance of wetlands; topography (avoidance of grades in excess of 1%); avoidance of curves in excess of 4 degrees near the ends of the line and 3 degrees near the central part of the line; limiting the number of properties required to be crossed; and minimizing the number of properties that might have to be bisected. According to SGR, apart from the Proposed Route, Alternative 1, Alternative 2, and Alternative 3, none of the other initial routes fully satisfied these screening criteria.

SGR also initially asserted that other alternative alignments further to the east or to the west of the routes studied in depth in the DEIS, essentially bypassing the Quihi area, would not be reasonable or feasible. According to SGR, among other problems, a western bypass route would traverse areas containing a large number of historic resources and would also cross more floodplain than any of the four routes studied in depth in the DEIS.

As for an eastern bypass route, SGR initially stated that any such route would require a degree of cut and fill that would be much greater than the routes studied in depth in the DEIS, making such a route infeasible. Nevertheless, to address the feasibility of an eastern bypass route, and to respond to SEA's specific questions regarding the determination of cut and fill volumes, SGR developed two eastern alignments (the Eastern Bypass Route and SGR's Modified Medina Dam Route) and provided SEA with a study of the cut and fill calculations for these two routes as compared to the Proposed Route, Alternative 1, Alternative 2, and Alternative 3. MCEAA suggested a third Eastern Alternative, the MCEAA Medina Dam Alternative.

SEA prepared an SDEIS that assessed three Eastern Alternatives (the Eastern Bypass Route, the SGR's Modified Medina Dam Route, and the MCEAA Medina Dam Alternative). In addition, SEA studied a modification of the Eastern Bypass Route that accommodates the Weiblen Farm and avoids the Castroville West Subdivision (the Modified Eastern Bypass Route) in the FEIS in response to comments in the SDEIS (see Chapter 2 of this FEIS). SEA believes that the DEIS, SDEIS, and FEIS have thoroughly examined the reasonable range of alternatives for SGR's proposed rail line construction and operation.

Comment Alt-11, #EI-1287: The description of each alternative is vague and provides little information to allow the reader to visualize each alternative. Again, more detailed figures showing the location and alignment of each alternative is required. One of the most significant issues in this entire project is the encroachment on private properties, which cannot be deciphered by the figures provided. Detailed maps showing property lines, contours, and topography along each route should be provided. This can easily be done by dividing Figure 2.3 into smaller segments at a minimum of 1:24,000 scale. Each segment could show property lines and other features, and allow the reader to see exactly where each alternative right-of-way is located.

Response: SGR will be developing final engineering plans, including the exact location of the rail track, after completion of the environmental review process if the Board grants final approval of the rail line construction and operation project. Because it is not yet known which route, if any, will be approved and constructed, it is not possible for SEA to attempt to develop maps showing the precise encroachment of each alternative rail route on private properties at this time.

Comment Alt-12, #EI-1287: The Environmentally Preferable Alternative section should be moved from the end of Chapter 2 of the DEIS to the end of the document. The section provides a preliminary conclusion before any data or arguments have been presented, which biases the reader towards the alternative selected by SEA.

Response: SEA followed CEQ's recommended format for the organization of the DEIS (40 CFR 1502.10). According to CEQ's regulations, the section of the EIS that discusses and compares alternatives should be presented prior to the affected environment and environmental consequences sections. The comparison of alternatives should include identification of the agency's preferred alternative or alternative, if one or more exists, in the DEIS. See 40 CFR 1502.14(e).

In the SDEIS, SEA presented the comparison of alternatives and the discussion of the environmentally preferable alternatives in the last chapter of the document.

Comment Alt-13, #EI-1287: Data should be collected for each alternative alignment and properly quantified to offer unbiased conclusions. The EIS should include a summary table that compares each alternative using quantitative and qualitative measurements. Scores should be assigned for each environmental factor based on the impact level presented by each action. This would provide an unbiased method of weighing impacts by alternatives. Scores could be weighted according to importance to the community and sensitivity of the resource, and then added to provide a final score that would indicate the overall impact to the environment. Although the value of the score would not necessarily indicate significance, a comparison of the values would show the differences between the alternatives.

Response: Section 2.6 of the DEIS and Table 2.6-1 provide detailed comparisons of all the alternatives assessed in depth in the DEIS, specifically discussing the differences in impacts to the various resources studied. Chapter 6 of the SDEIS compares all the alternatives being studied in the environmental review process for this proceeding, providing tables that summarize impacts for each resource area and quantifying the differences between the alternatives, where appropriate. Chapter 1 of

this FEIS contains an additional discussion of the comparison of alternatives. SEA believes that the information comparing alternatives in the DEIS, SDEIS, and the FEIS, and the manner in which this information is presented allows for a full understanding of the differences between the alternatives. Assigning scores to alternatives based upon impact factors would not further distinguish between the alternatives.

Medina Dam Alternative

Comment Alt-14: SEA should conduct an in-depth study of an alternative rail alignment that would use a portion of the old Medina Dam Route, which was excluded from consideration in the DEIS (see DEIS, Section 2.4). These comments are summarized below, followed by SEA's response.

- **#EI-1354:** The Medina County Floodplain Administrator suggested that a rail route using portions of the old Medina Dam Route might be a better alternative than the rail routes studied in the DEIS (based upon information provided to him by MCEAA) and requested that all information submitted be given diligent consideration.
- **#EI-1289:** Use of the old Medina Dam Route was not adequately investigated in the DEIS because the information was provided only by SGR. The elevation of the route refutes that there would be significant adverse impacts to floodplains, hydrology, and soils since there are no floodplains or wetlands along that route. All of the other routes would cross the Quihi Creek floodplain. SGR does not want to build a route using portions of the old Medina Dam Route because it would be more expensive.
- **#EI-1343:** Use of the old Medina Dam Route should be given further consideration since this route is not within the floodplain.
- **#EI-1361:** Use of the old Medina Dam Route should be studied further. SGR's statements regarding the cuts and fills required for this route are incorrect, and MCEAA has submitted maps and other data to support this. SGR has not provided specific information regarding the cuts and fills of any of the potential rail routes.

A potential route using portions of the old Medina Dam Route would bypass the Cherry Creek floodplain and most of the Quihi Creek floodplain.

This route would be a better alternative for the following reasons: it would avoid impacts to the Quihi Creek and Cherry Creek floodplains, thus eliminating the risk of increasing area flooding problems; it would cross fewer county roads (four); it would cross roads at safer locations; it would incur less construction costs for bridges, culverts, and berms; it would bypass the historic areas and archeologically sensitive zones; it would traverse the property of five landowners known to favor the quarry; there would be less impacts to floodplains, wetlands, and hydraulics; and it would traverse level, plateau-type terrain rather than floodplains, resulting in reduced maintenance costs.

While longer than the other alternative routes examined in detail in the DEIS, length alone should not be a reason for eliminating this route from further consideration.

Agreements to not build along these routes between Vulcan and landowners, some of whom are owners of the quarry site, should not be permissible. The Board has a duty to determine whether such an agreement exists and consider such an agreement before

deciding whether to eliminate from further consideration a route using the old Medina Dam Route.

The maps, graphs, and data submitted by MCEAA providing information about this route should be carefully reviewed and compared to the Proposed Route and the alternative routes examined in the DEIS.

- **#EI-1361:** A possible route utilizing the old Medina Dam Route would extend only 2.2 miles after crossing FM 2676 in a north-south orientation. SGR's statements that the route would be several miles east of the quarry site are misleading.
- **#EI-1361:** An alignment utilizing the old Medina Dam Route could be designed so that the steep decline at the northern end, discussed by SGR in its designs, could be avoided.
- **#EI-1361:** The original old Medina Dam Route was used to haul heavy loads of construction material up much steeper grades with less powerful steam engines than today's diesel engines, as shown in Ripples from Medina Lake, by Cyril Matthew Kuehne. SGR cannot know how long its proposed rail operations would have lasted on the original old Medina Dam Route, and SEA must not base its decisions on SGR's guesswork.
- **#EI-1361:** SEA should make an on-site evaluation of the old Medina Dam Route.
- **#EI-1287:** SGR and SEA both realize that a route using portions of the old Medina Dam Route is one that has been requested by the public and does have viability as an alternative. The arguments provided in the DEIS for excluding from further study a route using the old Medina Dam Route are weak and contain no detailed data that would allow any outside reader to agree or disagree with the conclusions made by SGR. One example is the statement, "SGR further asserted that this route would be much longer than the proposed route and other alternative routes, would cross more properties, and would require land and a new easement to permit rail service to be obtained." These are ambiguous statements with no data to back up the information presented. Additionally, all of the routes will require land and new easements as well as condemnation of properties. This is nothing new.

Further, SGR indicated that "deviations from the route that it believes would be necessary to avoid a grade-separated crossing of US 90." Construction of a grade-separated crossing should not be a reason to remove an alternative from the analysis. In fact, the Proposed Route may involve a grade-separated crossing, and SGR is making no attempt to deviate the rail to avoid this crossing.

Additionally, SGR states that deviations from the old Medina Dam Route would present serious engineering/design problems. There is no attempt to describe those engineering and design problems, and whether or not they are significant. The reader can only assume that the most significant problem would be having to design such deviations.

SGR continues to argue that steep grades are encountered on the old Medina Dam Route. No attempt has been made to describe or show where these steep grades occur. If a route using the old Medina Dam Route is dropped because of steep grades, definitive data must be provided to show why this is the case. A great deal of mining and quarrying is

currently being conducted in the Rocky Mountains where steep grades are definitely an issue and much more of a problem than in Medina County.

SGR could easily overcome steep grade problems by decreasing the load on each train trip or by designing the track to average grades across the area. Again, this argument cannot be justified by the data provided by SGR. The entire argument lacks proof, data, or any definite information that would allow a good comparison.

In conclusion, a route that uses portions of the old Medina Dam Route should be studied unless more definitive data can be provided and arguments are much stronger. It is obvious that SGR just does not want this alternative and cannot truly base its decision on good scientific fact.

- **#EI-1370:** Other alternative routes or variations of routes would go through land that is owned by people supportive of the quarry. An alternative route could be designed so that it would be better than the routes studied in detail in the DEIS. A route using the old Medina Dam Route would be on level ground, would not cross as many county roads, would cross roads at safer locations, would have less flooding impacts, and would impact historic resources much less.
- **#EI-1491:** The MCEAA Medina Dam Alternative differs from SGR's version of a route using portions of the old Medina Dam Route and has not yet been analyzed by SEA. This route would be shorter and would cross fewer landowners' properties. The route would approach the quarry site from the east, rather than from the south, so that the sharp turns at the quarry terminus that would be part of SGR's Modified Medina Dam Route would be eliminated. The route would require less cut and fill than SGR's version, and would cross FM 2676 at a safer location. MCEAA's route would cross the Quihi Creek floodplain in its extreme northern portion in open farm country, thus avoiding significant floodplain impacts and eliminating much of the potential to exacerbate flood impacts. The route would also avoid the Elm Creek floodplain entirely, reducing cumulative downstream flood impacts on the Quihi, Texas, area.
- **#EI-1491:** The MCEAA Medina Dam Alternative would be about 2.5 miles longer than the Proposed Route, but would have the following advantages over the four routes examined in depth in the DEIS: (1) the route would be mostly on a level plateau, and according to U. S. Geological Survey (USGS) maps, it would enter the quarry at 930 feet and would terminate at Dunlay Acres Subdivision at an elevation of 965 feet, avoiding 90 to 95 percent of the Quihi Creek floodplain, and all of the Cherry Creek and Elm Creek floodplains, as well as significant amounts of cut and fill; (2) the route would avoid the Quihi Valley Basin and the historic area of Quihi; (3) the route would cross FM 2676 and County Road 4516 at safer locations; (4) the route would cross fewer county roads than any of the other proposed or alternative routes; (5) the route would reduce the number of trestle bridges, culverts, and berms that would be needed; (6) the route would reduce the maintenance costs on structures because less floodplain would be traversed; (7) the route would cross land owned by quarry land lessors, their families, and Vulcan employees who support the project; and (8) the southern terminus of the route near Dunlay Acres Subdivision would be the same as for the Proposed Route or Alternative 3 so no overpass over U.S. Highway 90 would be required.

Response: In the SDEIS, SEA assessed three additional rail line Eastern Alternatives: the Eastern Bypass Route, SGR's Modified Medina Dam Route, and the MCEAA Medina Dam Alternative.

The MCEAA Medina Dam Alternative is the specific route described by MCEAA in the above comments. SGR's Modified Medina Dam Route would use portions of the old Medina Dam Route. SEA believes that the SDEIS has thoroughly addressed the issues raised in the above comments. In this FEIS, SEA also addresses the Modified Eastern Bypass Route, which would avoid potential impacts on the Weiblen property and a new subdivision, Castroville West. See Chapter 2 of this FEIS for a detailed discussion of the Eastern Alternatives and the modification.

Further, SGR has indicated that it now favors the Eastern Bypass Route and does not oppose the modification to avoid the Weiblen property. SEA recommends in this FEIS the Eastern Bypass Route (including the the Modified Eastern Bypass Route) and the MCEAA Medina Dam Alternative as the environmentally preferred routes for the proposed rail line.

No-Action Alternative

Comment Alt-15, #EI-1319: The No-Action Alternative should be adopted since SGR's proposed rail line construction and operation would have serious environmental, cultural, and economic impacts.

Response: Comment noted. As stated in Section 2.6 of the DEIS, Chapter 6 of the SDEIS, and Chapter 1 of this FEIS, SEA's analysis indicates that the construction and operation of SGR's proposed rail line would be environmentally preferable to the No-Action Alternative. Due to the large amount of truck traffic that would be needed to transport the limestone from the quarry to the UP rail line under this alternative (approximately 850 loaded and 850 empty trucks per day), the No-Action Alternative would cause significant adverse impacts on the transportation infrastructure and traffic safety of the project area, and would produce significant emissions of criteria air pollutants. Truck transportation also has the potential to cause more adverse impacts to groundwater and surface water from the non-point source pollutants (e.g., oils, greases, and rubber) that would be deposited on area roadways and carried as runoff into the local drainage network. Moreover, the construction of the remote truck-to-rail loading facility that would be necessary under the No-Action Alternative would displace more potential biological habitat than would construction of any of the rail route alternatives. Visual impacts from the construction of this facility and from the operation of trucks could also be greater than if the proposed rail line were constructed and operated.

In addition, truck operations would cause more adverse noise impacts. The No-Action Alternative would also have a greater impact on the historic districts due to roadway upgrades, causing extensive modification of the historic road network and the visual and auditory effects of the high volumes of truck traffic.

Comment Alt-16, #EI-1287 and #EI-1369: SEA is considering the use of trucks as part of the No-Action Alternative. Although this is an acceptable alternative, it actually is not the No-Action Alternative. NEPA rules explicitly state that the alternative analysis in the EIS must include the alternative of no action. There are several interpretations of no action, of which the most accepted definition involves no action occurring and allowing present conditions to continue. In this case, the rail would not be built, and no quarry would be present. Using trucking as an alternative assumes that the quarry will be constructed. At the time of this EIS, a quarry is not present and therefore should not be included as part of the No-Action Alternative. Therefore, trucking would not be part of a No-Action Alternative; rather, it would be an alternative that would be available if the quarry is built, similar to the rail.

The purpose of the No-Action Alternative is to determine the level of impacts caused by the various alternatives on the environment compared to a baseline. Thus, in making decisions, SEA should compare changes in the environment with the present conditions. A No-Action Alternative that truly

leaves out any alternatives such as trucking and rail is a much better baseline than using trucking as a No-Action Alternative. The trucking alternative as a No-Action Alternative significantly biases the EIS analysis towards showing rail as a more “eco-friendly” option. Obviously, both trucking and rail cause significant impacts to the environment and should be compared to a baseline of true no action.

The EIS should include an analysis of a No-Action Alternative that provides baseline data on the environment as it is at the present time. Such an alternative would provide a baseline that is truly based upon current conditions for determining the level of significance of impacts from the proposed action rather than using postulated environmental conditions associated with trucking as a comparison. The DEIS compares the environmental impacts of the rail line construction and operation to a possible future situation where there is extensive trucking. That trucking does not exist today. The DEIS needs to be revised to determine the impact of the proposed rail line construction and operation on the status quo, not on some future condition that might exist.

Response: As discussed in Chapter 3 of the DEIS and Chapters 3, 4 and 5 of the SDEIS, SEA’s description of the affected environment was based on current conditions in Medina County, Texas. Thus, the baseline SEA used to determine the potential impacts of SGR’s proposed rail line construction and operation, as presented in Chapter 4 of the DEIS and Chapter 3, 4, and 5 of the SDEIS, was the baseline of the status quo.

CEQ’s regulations for implementing NEPA require agencies to consider the alternative of no action in an EIS to assess the environmental consequences of not proceeding with a proposed action. See 40 CFR 1502.14(d). As stated in Section 2.4 of the DEIS and Chapter 2 of this FEIS, because SGR has stated that VCM would use trucks to transport the limestone from VCM’s quarry to the UP rail line, if SGR’s proposed rail line is not built, SEA has appropriately assessed the use of truck transportation as part of the No-Action Alternative in the environmental analysis for this proceeding.

In the response to Question 3 in CEQ’s guidance document, Forty Most Questions Concerning CEQ’s National Environmental Policy Act Regulations (Forty Questions), 46 Fed. Reg. 18026 (1981), CEQ specifically states: “Where a choice of ‘no action’ by the agency would result in predictable actions by others, this consequence of the ‘no action’ alternative should be included in the analysis. For example, if denial of permission to build a railroad to a facility would lead to construction of a road and increased truck traffic, the EIS should analyze this consequence of the ‘no action’ alternative.” Thus, SEA believes that the inclusion of truck traffic in the analysis of the No-Action Alternative is appropriate in this case.

Comment Alt-17, #EI-1289: The No-Action Alternative would not result in truck emissions because the quarry would not be developed without the rail line. Thus, the No-Action Alternative is the environmentally preferable alternative. There is limestone and rail access to limestone in other areas.

Response: SGR has stated that if the proposed rail line is not built, VCM will use trucks to transport the limestone from the quarry to the UP rail line. Based on all information to date, SEA believes that such trucking operations would be feasible. Please see Section 2.4 of the DEIS and Chapter 2 of the FEIS for a detailed discussion of this issue.

Comment Alt-18, #EI-1369: The trucking alternative would be better than the rail line. If Vulcan agrees to widen, pave, install traffic control devices on, and continually maintain the roads, this would be a better option than having a rail line permanently scar the families, communities, and culture of Quihi. Table 2.6-1 (under worker’s health and safety) states that peak workforce would be larger for the trucking alternative, implying that this alternative would provide more jobs as well. Moreover, the trucking alternative would eliminate Vulcan’s use and abuse of an antiquated law of eminent domain for its own personal gain.

Response: Comment noted. As discussed in Section 2.6 of the DEIS, Chapter 6 of the SDEIS, and Chapter 1 of this FEIS, SEA's analysis indicates that construction and operation of SGR's proposed rail line, under any of the alternative rail routings studied in depth, would be environmentally preferable to the trucking alternative. Nonetheless, as noted in Chapter 6 of the SDEIS, based upon additional information provided by SGR about possible road upgrades under the No-Action Alternative and additional information regarding construction of the truck-to-rail remote loading facility, SEA now believes that the workforce for construction activities under the No-Action Alternative might not be larger than for the rail alternatives, and that construction activities would likely be completed in less time than would be needed for the rail line construction. See Chapter 2 of this FEIS for more detailed discussion of the trucking alternative.

Comment Alt-19, #EI-1370: VCM should build a private road and use it for the trucking alternative, constructing overpasses over area roadways. Quarry traffic would not have to compete with any other traffic, the road would be maintained by VCM, and people would not be affected by train horn noise.

Response: As discussed in Section 2.6 of the DEIS, Chapter 6 of the SDEIS, and Chapter 1 of this FEIS, SEA's analysis indicates that construction and operation of the proposed rail line would be environmentally preferable to the use of trucks to transport the limestone from the quarry to the UP rail line, which would take place under the No-Action Alternative. In the event that the proposed rail line is not built, one of the potential truck routes would involve the construction of a private roadway by VCM (see Section 2.4 of the DEIS and Chapter 2 of this FEIS). The commenter's suggestion could perhaps be mitigation for VCM's proposed private road trucking route that could serve to reduce the significant impacts to transportation and traffic safety from the increased truck traffic on area roadways (see DEIS, Section 4.1.4).³ However, even with the construction of overpasses to reduce the risk of accidents on area roadways and to reduce other impacts to local traffic, SEA believes that, due to the potential impacts of the trucking alternative on other resources (air quality, biological habitat, water resources, land use, and visual resources), SGR's proposed rail line construction and operation would still be environmentally preferable to the truck transport of the limestone from the quarry to the UP rail line.

5.2.4 Rail Maintenance and Operation (ROM)

Maintenance Activities

Comment ROM-01, #EI-1252: A landowner whose property would be crossed by the rail line questioned whether SGR would keep up an easement fence and keep noxious weeds out.

Response: Based on comments submitted by the TPWD, SEA is recommending specific mitigation measures regarding SGR's installation of fencing in appropriate areas along the right-of-way. Please see Mitigation Measure #F-56 in Chapter 1 of this FEIS.

In the DEIS, SEA stated that SGR had voluntarily agreed to control weeds and vegetation along its right-of-way, consistent with rail industry standards and the need to minimize fire hazards. Therefore, SEA recommended this as a condition (Voluntary Mitigation Measure #5) and continues to recommend this as Voluntary Mitigation Measure #F-VM-5 in Chapter 1 of this FEIS. In a letter dated April 4, 2005, SGR further specified that it would maintain the right-of-way consistent with the Manual for Railway Engineering issued by the American Railway Engineering and Maintenance of Way Association (see #EI-1439, Appendix D of this FEIS). This manual specifies appropriate means of vegetation and weed control

³ Because the Board does not have jurisdiction over VCM and the use of truck traffic under the No-Action Alternative, SEA cannot recommend that the Board impose mitigation measures on VCM for the implementation of this alternative. Thus, SEA has discussed mitigation for the No-Action Alternative in general terms throughout the DEIS, SDEIS, and this FEIS, without recommending specific conditions.

on railroad rights-of-way, and SEA has incorporated reference to this manual as part of Voluntary Mitigation Measure #F-VM-6 in Chapter 1. SEA's recommended Mitigation Measure #F-42 in Chapter 1 of this FEIS would also require SGR to use manual vegetation cutting methods for weed control and other right-of-way maintenance.

Rail Operations

Comment ROM-02, #EI-1361: SGR has recently stated that UP could operate the proposed rail line. This issue needs to be studied in more depth. Is SGR incapable of managing the railroad? Is it able to get personnel to manage the railroad? Why does it wish to turn the rail line over to a railroad that is already admittedly understaffed, over-burdened and years behind in getting necessary construction of new track and upgrading of current lines? Is this what the Board condones? Why would a newly created railroad, that presents itself as a common carrier with eminent domain power to condemn land and thus build a railroad, seek to have another railroad company that had previously been unwilling to build the railroad, assume management of this railroad? The answer to the commenter is obvious. This is the only way this railroad can be built. A private company should not be allowed to masquerade as a common carrier railroad that is allowed to condemn property to build a railroad if it only transports its own product.

Response: SGR's petition in this proceeding seeks authority for both construction and operation of the proposed rail line. Thus, SEA's review has assumed that SGR would construct the proposed railroad line and also be the operator over the proposed line. Another entity would need to seek separate Board authority to operate over the line before any such operation could begin.

See Section 5.2.5 of this chapter for a discussion of the issues raised by commenters regarding the terms "common carrier" and "condemnation."

Comment ROM-03, #EI-1361: The details of SGR's potential agreement with UP to operate over the line need to be researched further and thoroughly assessed in the FEIS. The commenter specifically asks: What is the current and future availability of shipping Vulcan's products? How long will the loaded rail cars stand idle? How many cars would accumulate before shipment? Maximum number? Where would these unattended, loaded cars be parked? How would air pollution from dust be controlled in this area?

Response: As stated above, another carrier, such as UP, would need to seek separate Board authority to operate over the proposed line before any such operations could begin. Should the Board grant final approval of SGR's petition to construct and operate the rail line and should another carrier later seek Board approval to operate over the line, the Board would then decide whether such approval should be granted to another carrier. During the Board's decision-making process for the other carrier, SEA would determine what further environmental analysis needs to be undertaken and what mitigation, if any, should be recommended. Even if the possibility of SGR entering into an agreement with another carrier to operate is reasonably foreseeable, until such an agreement is reached, and a request for Board authority to conduct the proposed operation is submitted, any analysis of the potential agreement would be purely speculative. SGR has stated that an operating plan for the line would be developed, after the Board has granted final approval to this project, a final route has been chosen, and final engineering plans have been made (see Appendix D of this FEIS, #EI-1664). It would be premature for SEA to attempt to assess the issue raised in this comment at this point. The EIS appropriately reflects the information that SGR has provided regarding proposed rail operations over the proposed line.

SGR has stated that the maximum output of the quarry for the reasonably foreseeable future would generate approximate 5 million tons of limestone per year, which would equal two loaded rail cars per day. (See Appendix G of the DEIS, pages G-12, G-14, G-79 and G-156.)

SEA requested additional information from SGR to respond to the questions received regarding specific rail operations (see Appendix D of this FEIS, #EO-212) and SGR provided the following responses (see Appendix D of this FEIS, #EI-1664).

Question 1: How long would the loaded rail cars stand idle?

SGR's Response: Because it would be impossible to anticipate weather, scheduling and mechanical issues impacting the idle time, SGR is designing the system to load a 100-car unit train in eight hours from the time it arrives at the quarry loading area. SGR does not know the answer to this question relative to other traffic it may handle for shippers that might locate on its line.

Question 2: How many cars would accumulate before shipment? Maximum number?

SGR's Response: With respect to VCM's shipments, SGR plans to ship approximately 100 loaded cars per unit train. SGR's plans include a loop loading system that could hold up to approximately 200 loaded cars for VCM. SGR does not know the answer to this question relative to other traffic it may handle for shippers that might locate on its line.

Question 3: Where would these unattended, loaded cars be parked?

SGR's Response: SGR currently plans that the cars handling VCM's shipments would be parked on the loop track in the loading area and that these cars would be attended by SGR's load-out crew. SGR does not know the answer to this question relative to other traffic it may handle for shippers that might locate on its line.

Question 4: How would air pollution from dust be controlled in this area?

SGR's Response: VCM would use BACT to control dust emissions at the quarry. The BACT practices that would be used are derived from the TCEQ Technical Guidance for Rock Crushing Plants (RG 058, February 2002). Emissions from the first section of the plant would be controlled by operating water sprays at the inlet and outlet of the crushers, screens, and conveyors. Partial enclosures would also be used at the locations where material is transferred from crushers to conveyors to reduce emissions from cross winds. The second section of the plant would consist of wash screens, conveyors, and processes where the material is drenched with or submerged in water. This method of processing the material inherently controls emissions well beyond BACT requirements because the material is saturated. The crushers in this section would be equipped with water sprays at the inlet and outlet points. Emissions from the roads, active work areas, and stockpiles would be controlled using an 8,000-gallon water truck. The water truck would apply water to the road and work area. A side cannon on the truck would be used to water stockpiles as needed. In addition, the entry/exit road would be paved, watered, and washed to control dust. A wheel wash would be installed at the location where trucks enter the paved road from the unpaved area, minimizing track-out onto the paved road. In addition, signs would be posted, limiting product trucks to 15 miles per hour on the facility property.

Comment ROM-04, #EI-1361: If SGR plans to operate trains at speeds ranging from 12 to 25 miles per hour, why does the track design need to accommodate speeds of 40 miles per hour? It appears that this may be to mislead SEA into believing that a route (or routes) using the old Medina Dam Route is not feasible. If SGR could use speeds of 12 miles per hour going up one-degree grades, why couldn't speeds of 12 miles per hour be used to round curves?

Response: SEA requested additional information from SGR to respond to this comment (see Appendix D of this FEIS, #EO-212) and SGR provided the following response (see Appendix D of this FEIS, #EI-1664, and #EI-1749).

SGR's Response: The track design is based upon safety considerations. SGR expects that the average speed of trains operating on the line may be 25 miles per hour and therefore top speeds are expected to exceed 25 miles per hour. The speed to be used on curves would vary based upon the degree of curvature and grade considerations.

SGR further clarified this statement to eliminate any suggestion that trains operating on the rail line would significantly exceed 25 miles per hour. SGR stated that while it anticipates that track geometry would allow for maximum speeds of 40 mph on all or most of the alignments under review, it does not anticipate that trains would generally operate at that speed. SGR expects that the typical speed of its trains would be 25 miles per hour, with slower speeds as the trains approach the quarry and near the intersection with the UP rail line. SGR stated that while a train might also occasionally exceed 25 miles per hour by some modest amount, SGR believes that 25 miles per hour likely would be the most frequently experienced speed of the trains.

Comment ROM-05, #EI-1369: The rail line might be operated by UP. This issue should be resolved before UP gets involved in the project.

Response: SGR's petition in this proceeding is for both construction and operation of the proposed rail line. Thus, SEA's review has included both the construction of the new railroad line and rail operations over that new line, and SEA has recommended mitigation measures that address construction, maintenance, and operation activities by SGR.

As stated above, another carrier, such as UP, would need to seek separate Board authority to operate over the line. Should the Board grant final approval of SGR's petition to construct and operate the rail line, and should another carrier then seek Board approval to operate over the line, the Board would then decide whether such approval should be granted to another carrier. During the Board's decision-making process for the other carrier, SEA would determine what further environmental analysis needs to be undertaken and what additional mitigation, if any, should be recommended.

Comment ROM-06, #EI-1370: How long would a train sit on the rail line waiting to be transferred to the UP line? How would operations be coordinated with UP? Would cars be marshaled? How many trains would be on the rail line at one time?

Response: SEA requested additional information from SGR to respond to this comment (see Appendix D of this FEIS, #EO-212) and SGR provided the following response (see Appendix D of this FEIS, #EI-1664).

SGR's Response: The amount of time a train would sit on the SGR line awaiting interchange to the UP line would vary based on the schedules of trains operating on the UP line. SGR personnel would coordinate regularly with UP personnel regarding train interchange with respect to scheduling and other operational considerations. SGR cannot estimate how many trains would be on the rail line at any given time. However, it is highly unlikely that there would be more than one train in transit on the SGR line at any one time due to the fact that it would be a single track line. As stated in the DEIS, SGR anticipates that there would be two movements of empty trains and two movements of loaded trains daily when the quarry is operating at design capacity. SGR would coordinate its operations with the UP or other Class I railroads to provide for the most efficient handling of cars on the SGR line.

Comment ROM-07, #EI-1424: How would SGR interface and move trains to and from the UP line? Would SGR move directly from the quarry to the main line without pausing? What would be the average speed of the train entering or exiting the quarry at County Road 353? What would be the estimated speed of the train entering or exiting the UP line? How much time is required for a loaded train to accelerate from rest to 20 miles per hour? What would be the average speed of the train as it crosses County Road 353 from the quarry? What would be the days and hours of the train movements? Would UP's "fall peak" period affect the quarry movements? These issues need to be addressed and incorporated into mitigation to ensure that the 3-4 minute vehicle delay time calculated in the DEIS is accurate.

Response: SEA requested additional information from SGR to respond to the questions received regarding specific rail operations (see Appendix D of this FEIS, #EO-212) and SGR provided the following responses (see, Appendix D of this FEIS #EI-1664).

Question 1: How would SGR interface and move trains to and from the UP line?

SGR's Response: These details would be worked out with the Class I railroads in the future.

Question 2: Would SGR move directly from the quarry to the main line without pausing?

SGR's Response: It is currently anticipated that the unit trains from the quarry would move directly between the main line and the loading area without stopping. SGR does not know the answer to this question relative to other traffic it may handle for shippers that might locate on its line.

Question 3: What would be the average speed of the train entering or exiting the quarry at County Road 353?

SGR's Response: This would be determined after final engineering of the crossings and the development of an operating plan for the line after a final route has been chosen, and the grades and lines of sight have been determined. However, SGR does not anticipate that the speed of trains at this point would exceed 10 miles per hour.

Question 4: What would be the estimated speed of the train entering or exiting the UP line?

SGR's Response: This has not yet been determined because the type of switch (manual or automatic) and the design of the line at the point of intersection have not yet been engineered.

Question 5: How much time is required for a loaded train to accelerate from rest to 20 miles per hour?

SGR's Response: This would depend upon the number of and type of engines, and the grade and curvature of the track.

Question 6: What would be the average speed of the train as it crosses County Road 353 from the quarry?

SGR's Response: This would be determined after final engineering of the crossing and the development of an operating plan for the line, after a final route has been chosen and the grades and lines of sight determined. SGR does not anticipate that the speed of the trains at this point would exceed 10 miles per hour.

Question 7: What would be the days and hours of the train movements?

SGR's Response: SGR plans to operate seven days per week. The exact hours of train movements are subject to several factors, which include the schedules established by the Class I Railroads and the needs of any other shippers that might locate on the SGR line. (See Appendix D of this FEIS, #EI-1664)

Question 8: Would UP's "fall peak" period affect the quarry movements?

SGR's Response: Based upon SGR's consultations with UP, UP does not believe that the fall peak period would have any impact on traffic originating on the SGR line. It is possible that the fall peak period could have some short term impact on SGR operations, but SGR believes that this would diminish over time as the UP increases its system efficiency.

Comment ROM-08, #EI-1369, #EI-1270, and #EI-1318: How would the increase in demand for product be handled, and would train traffic increase from the four trains per day currently proposed by SGR? The proposed train operations would not significantly affect traffic on the roadways.

Response: SGR has stated that proposed operations over the rail line would be four trains per day (two loaded and two empty) for the reasonably foreseeable future. (See DEIS, Appendix G, page G-79.) SGR's projections are reasonable given the available information to date.

5.2.5 Transportation and Traffic Safety (TTS)

Comment TTS-01, #EI-1270: The traffic information used in the DEIS is outdated. More current information needs to be used for the analysis. Medina County's population is already where it was projected to be in 2010.

Response: In preparing this EIS, SEA obtained the most recent traffic count information available from TxDOT's Urban Traffic Count Maps (TxDOT, 2005). The information on these maps includes the following: the Average Daily Traffic (ADT) of U.S. Highway 90 is 13,260 vehicles; the ADT of FM 2676 is between 610 to 750 vehicles; the ADT of County Road 4516 is between 330 to 380 vehicles; the ADT of County Road 265 is 90 vehicles; the ADT of County Road 4643 is 460 vehicles; the ADT of County Road 4545 is 280 vehicles; and the ADT of County Road 454 is 280 vehicles. SEA also contacted the office of the Medina County Commissioner for Precinct #1 to obtain the most recent information for the roadways in the area not included on TxDOT's maps. The county office indicated that it purchased traffic counters for the purpose of updating traffic counts within the area but, as of September 2007, it had not yet installed them, and no more recent traffic counts data was available at the time of this FEIS.

Comment TTS-02, #EI-1361: How will traffic on area roadways continue to flow during any construction period? FM 2676 and County Road 4516 are two major arteries that would be crossed by the proposed railroad. No alternative routes exist in the area and none have been designated in the DEIS. Coordination with local officials has not yet been done, although SEA recommends this as mitigation.

Response: SEA is continuing to recommend the mitigation proposed in the DEIS that would require SGR to consult with TxDOT and Medina County regarding how to minimize vehicular traffic delay during rail line construction across roadways, and to adhere to their reasonable requirements. SEA has modified this mitigation to require that consultation with local officials be completed prior to the start of any construction activities. SEA is also recommending other mitigation measures to reduce potential impacts to vehicles traveling on area roadways during construction activities. Please see Mitigation Measure #F-5 in Chapter 1 of this FEIS.

Comment TTS-03, #EI-1287: The discussion of transportation in Chapter 3 of the DEIS should include detailed figures showing all roads potentially impacted by each alternative. The map should be at a scale where even minor roads and private roads are shown to allow readers to determine if the rail line is going to impact their property and their easements. The section on traffic should include descriptions of each of the roads impacted including road limits, surfacing, and widths, all of which have bearings on the level of impacts caused by truck traffic. Information on current traffic loads and general uses for each of these roads should be provided, as well as the number of private roads and driveways crossed by each rail route.

Response: Figure 2.1-2 of the DEIS, Figure 2.1 of the SDEIS, and Figure ES-1 of this FEIS depict the public roadways that would be crossed by each alternative. SEA believes that the detail is of appropriate scale for this project. The extent to which the rail line construction would impact specific property areas and easements would depend upon final engineering designs and right-of-way acquisition processes that would take place only if the Board issues a final decision approving SGR's request for authority to build and operate a rail line, and the alternative that would actually be built is chosen.

Section 2.3 of this FEIS includes a detailed discussion of the types of upgrades that would be needed for area roadways to support truck traffic under the No-Action Alternative. Section 4.1.1 of the DEIS discusses the traffic counts on the roadways that would be crossed by the proposed rail line. In preparing this FEIS, SEA has conducted additional research regarding the traffic counts on the area roadways, based upon available 2005 TxDOT traffic data. All of the roadways that would be crossed by the proposed rail line would have an ADT substantially less than 5,000 vehicles. The ADT on the county roads ranges from 90 to 750 vehicles, whereas the ADT on FM 2676 ranges from 670 to 750 vehicles within the project area (TxDOT, 2005).

Private roads and driveways can constitute an additional safety risk because on a national basis, these are almost uniformly protected only with passive controls. Here, however, these potential risks would be reduced because of the very low traffic volume and the high level of driver awareness of risk on private roads and driveways. In response to the comments on the DEIS on this issue, SEA gathered additional information on private roads or driveways, as presented in Table 6.2.1-1 of the SDEIS, and determined that all the alternatives studied would cross a number of private roads or driveways. (See response to Comment TTS-01 in this chapter of the FEIS for more information.) SEA also is recommending the following mitigation measures to reduce the risk of accidents at private roadway and driveway crossings (see Chapter 1 of this FEIS):

Mitigation Measure #F-13: Prior to beginning any construction activities, SGR shall perform an engineering evaluation at each private roadway and driveway crossing, and shall consult and negotiate with the respective landowners to implement appropriate changes to roadway geometry and to install and maintain appropriate warning signs and/or signals.

Mitigation Measure # F-12: SGR shall maintain the vegetation along and within the right-of-way to provide a clear line of sight for train operators and vehicle drivers at all at-grade crossings (including public roadways, private roadways, and driveways).

SEA believes that the analysis of road crossings in the EIS and its final recommended mitigation is fully adequate, given the circumstances presented in this case.

Comment TTS-04, #EI-1353: Vulcan said there would be 125 to 150 quarry employees, not the 100 employees assessed in the DEIS. Also, the calculations in the DEIS do not factor in the 24 railroad employees, supervisory and contract personnel, and the increase in population from new and planned subdivisions. Moreover, year 2000 traffic data is out-dated and based upon all highways in Texas. SEA

needs to revise and update the risk of accident calculations based upon up-to-date and accurate data. The commenter questioned the location of County Road 364, mentioned on page 4-105.

Response: SEA requested that SGR verify in writing that the number of about 100 quarry employee cars that SEA used in the DEIS is correct, and SGR did so. Please see Appendix D of this FEIS, #EI-1664.

As stated in the response to comment TTS-01, above, SEA obtained the most recent traffic count information available from TxDOT's Urban Traffic Count Maps (TxDOT, 2005) in preparing this FEIS. The information on these maps includes the following: the average daily travel (ADT) of U.S. Highway 90 is 13,260 vehicles; the ADT of FM 2676 is between 610 to 750 vehicles; the ADT of County Road 4516 is between 330 to 380 vehicles; the ADT of County Road 265 is 90 vehicles; the ADT of County Road 4643 is 460 vehicles; the ADT of County Road 4545 is 280 vehicles; and the ADT of County Road 454 is 280 vehicles. SEA also contacted the office of the Medina County Commissioner for Precinct #1 to obtain the most recent information for the roadways in the area not included on TxDOT's maps. The county office indicated that the county has purchased traffic counters for the purpose of updating traffic counts within the area but, as of September 2007, it had not installed them and no more recent traffic counts data were available at the time of this FEIS.

The location of County Road 364 is clearly shown in Figure 2-2 of the SDEIS. It is a small northeast-southwest road that connects County Road 265 to FM 2676 and County Road 365, and it is located east of County Road 353.

Comment TTS-05, #EI-1369: A commenter expressed concern about the increase in roadway traffic from the quarry employees affecting school bus schedules.

Response: As discussed in Section 4.17.2 of the DEIS, approximately 100 quarry employee cars would be traveling on area roadways. However, the Board does not have jurisdiction over the construction and operation of VCM's quarry. Therefore, the Board could not impose any mitigation on the quarry activities themselves. Nonetheless, SEA suggests that VCM contact local school officials to discuss whether employee departure and arrival times would affect school bus schedules and, if so, discuss mutually acceptable ways to reduce any conflict(s). Further, SEA is recommending Mitigation Measure #F-10, which would require VCM to consult with local school officials to minimize rail operations when school buses are on area roadways. Although not directed at quarry employee traffic, this condition could provide the model for additional consultation between VCM and local school officials.

Comment TTS-06, #EI-1267: Because SGR is a common carrier, the EIS should consider the effects of additional rail traffic and traffic carrying hazardous cargo.

Response: SGR has stated that proposed operations over the rail line would be four trains per day (two loaded and two empty) for the reasonably foreseeable future. (See DEIS, Appendix G, page G-79.) While the potential for an increase in rail traffic over the line exists (including the potential handling of hazardous cargo) since SGR would hold itself out as a common carrier to any shipper that might locate along the line, there is no information at this time on who those potential shippers might be, or what commodities they would transport along the line. Thus, any assessment at this time of whether and when traffic over the rail line would increase, and if so, what the type and the volume of the increased traffic would be, would be pure speculation.

Comment TTS-07, #EI-1270 and #EI-1333: What are the projected traffic impacts at the Hondo City crossings and what impact will this have on emergency vehicles and school buses? A

resident of the Creekwood Subdivision expressed concern about increased rail traffic over the existing UP rail line causing a safety impact. The impact of an additional 1000 railcars a week traversing the congested San Antonio rail system en route to Houston's congested rail system needs to be studied. San Antonio has had six train accidents in the last half of 2004, with five deaths and untold property damage. The addition of Vulcan's 5 million tons of aggregate per year to this system will further tax the overburdened UP rail system.

Response: As explained in Section 4.18 of the DEIS and in chapter 2 of this FEIS, SGR states, that if the proposed rail line were not built, VCM would use trucks to transport the limestone aggregate for approximately seven miles from the quarry to the UP rail line. Therefore, any concerns about traffic impacts outside the project area, including an increase in rail traffic over the UP rail line through Hondo, Texas, would occur regardless of the proposed action, and would not be caused by the proposed rail line. Thus, such traffic is not a direct, indirect, or cumulative impact of SGR's proposal and is not appropriately part of SEA's environmental review for this proceeding.

SEA is recommending specific mitigation conditions that would require SGR to consult with school officials to minimize rail operations when school buses are on area roadways, and to consult with local fire, police, and EMS officials prior to beginning construction activities in order to develop a plan to minimize impacts to area emergency response capabilities during construction and operation of the rail line. Please see Mitigation Measures #F-7 and #F-10 in Chapter 1 of this FEIS.

Comment TTS-08, #EI-1374 and #EI-1387: The DEIS does not consider the effect of the new rail line traffic on San Antonio's railways and roadways, particularly at-grade crossing delays. There is only one route the rail traffic can physically follow, making a cumulative impact on specific lines not speculative, but certain. (This route is shown on attached slides.) The traffic will not have a chance to turn onto other lines before it reaches the San Antonio River. Applying the methodology that SEA used in the 2002 DEIS in *San Jacinto Rail Limited and the Burlington Northern and Santa Fe Railway Company, Construction and Operation of a Rail Line from the Bayport Loop in Harris County, Texas*, Draft Environmental Impact Statement, STB Finance Docket No. 34079, to avoid vehicle delay at three major intersections in South San Antonio, a grade-separated crossing is presently required for one at-grade crossing, and may be required for two more at-grade crossings, based upon current traffic levels. SEA has a duty to determine the actual level of train traffic along the route and determine the effect of SGR's contribution to this traffic.

Response: The limited number of trains at issue here (four per day) would not have enough impact on train traffic on the UP line in San Antonio to warrant mitigation there. Furthermore, as stated in Section 4.18 of the DEIS, if the proposed rail line were not built, according to SGR, VCM would use trucks to transport the limestone aggregate from the quarry for the approximately seven miles to the UP rail line. Therefore, any concerns about traffic impacts outside the project area, such as an increase in rail traffic over the UP line through Hondo, Texas, would occur regardless of the proposed action, and would not be caused by the proposed rail line. Thus, such traffic is not a direct, indirect, or cumulative impact of SGR's proposal and it is not appropriately part of SEA's environmental review for this proceeding. Finally, SEA notes that to the extent that rail traffic moving on the UP line increases, UP will have to comply with FRA's safety requirements that apply to all active rail lines.

Comment TTS-09, #EI-1297: According to the President of the Castroville Conservation Society, TxDOT has estimated that, in addition to the proposed rail operations, there would be an addition of 75 to 150 trucks per day to area roadways. This would affect the safety of area roadways and require expensive roadway maintenance.

Response: SGR has stated that, regardless of whether the rail line is built, VCM would use from 20 to 30 loaded trucks per day to deliver limestone to local markets (see DEIS, Volume III, page G-76 and G-161). In Section 4.17.2 of the DEIS, SEA assessed the cumulative risks to transportation and traffic safety that would be caused by the local market trucks (using an average of 24 loaded trucks per day) and determined that the combined risk of accidents to human health and safety from the local truck traffic and SGR's proposed rail operations would not be significant. SGR states that VCM plans to upgrade County Road 353 to support the local market truck traffic and would coordinate with Medina County officials regarding the upgrade (see DEIS, Volume III, page G-156).

Comment TTS-10, #EI-1353: The estimate of 24 truck round trips per day to local markets stated on page 4-105 of the DEIS is incorrect. Vulcan said there would be 850 loaded trucks per day if there were no rail line, and 10 to 20 percent would be sold to local markets, meaning that there would be 85 to 170 truck trips per day to local markets. Therefore, the numbers used in Table 4.17.2 are incorrect.

Response: SGR had initially estimated that about 10 to 20 percent of the limestone produced would be shipped to local markets. However, as stated in footnote 16 on page 4-105 of the DEIS on September 2, 2003, SGR provided subsequent written information to the record stating that between 20 to 30 loaded trucks per day would deliver limestone to local markets. See DEIS, Volume III, Appendix G, pages G-76 and G-161. Therefore, the 10 – 20 % range is no longer valid. SEA used an average of 24 trucks per day, or roughly 3 %, for purposes of the analysis conducted in the DEIS, SDEIS, and FEIS.

Comment TTS-11, #EI-1267: The current infrastructure of roads would not allow trucking to be an economically viable option for Vulcan and the No-Action Alternative should not include trucking.

Response: SEA believes that the use of truck transportation to haul limestone from the quarry to the UP rail line would be feasible. Please see Section 2.3 of this FEIS and Chapter 2 of the DEIS for a detailed discussion of the use of trucks to transport limestone from the quarry to the UP rail line, which SEA has assessed as part of the No-Action Alternative.

Comment TTS-12, #EI-1287: The DEIS does not include a discussion of the trucks that VCM would use to serve local markets. The increase in local truck traffic would require some level of improvements to area roadways. The lack of discussion of this issue in the DEIS biases the conclusions.

Response: Please see pages 4-105 to 4-107 of the DEIS for SEA's discussion of the trucks that VCM would use to serve local markets and the routes they would take.

Comment TTS-13, #EI-1310 and #EI-1360: Flying rocks from gravel trucks could crack windshields and cause dust problems.

Response: As stated in Section 4.7.4 of the DEIS, during truck transport of aggregate, there is a risk of fugitive dust emissions. These emissions include load losses during transport (including dust, gravel, and small rocks); dust suspended along paved and unpaved roads as trucks pass over the roads; the risk of flying rock and gravel hitting cars and other targets; and fugitive emissions lost during loading and unloading operations. The volume of trucks, the weights of the vehicles, and the anticipated wind speeds are all factors that determine the severity of this potential problem. Concerns about fugitive dust emissions here led SEA to conclude that the No-Action Alternative (with over 1,700 total truck trips a day) would have significant long-term impacts on air quality that would greatly exceed the air quality impacts of construction and operation of the proposed rail line. The impacts of truck transport would be greater even if trucks used a cover, which would reduce the amount of losses incurred en route.

Comment TTS-14, #EI-1325, #EI-1338, #EI-1345 and #EI-1369: There is increased risk for accidents involving large trucks and impacts to travelers on area roadways.

Response: SEA calculated the risk of accidents from the increased truck traffic on area roadways that would occur if the rail line is not built, under the No-Action Alternative, in Section 4.1.2 of the DEIS. SEA calculated the risk of accidents from the local market truck traffic that would take place regardless of whether the rail line is built in Section 4.17.2 of the DEIS. The Board does not have jurisdiction over VCM's quarry activities, including the additional truck traffic on area highways that would result if the proposed line is not built. Therefore, the Board could not impose any mitigation on VCM's use of trucks to transport the limestone.

Comment TTS-15 #EI-1287: The truck alternative would have significant adverse impacts on transportation infrastructure and traffic safety in the area. However, this could be mitigated by construction and road improvements. Some form of mitigation should be provided along with approximate costs involved to allow for an economic analysis comparing trucks to the rail. This is not provided in Section 4.1.4 of the DEIS, or in any other portion of the DEIS.

Response: Section 4.1.4 of the DEIS discusses VCM's possible construction of private roads to support the truck traffic and the roadway upgrades that would be needed under the No-Action Alternative. Section 2.3 of this FEIS provides a detailed discussion of the feasibility of using trucks to transport the limestone from the quarry to the UP rail line. Because the Board does not have jurisdiction over VCM's quarry activities, including the associated truck traffic, SEA cannot recommend that the Board impose any mitigation measures on VCM's use of trucks to transport material from the quarry.

Comment TTS-16 #EI-1370: Truck operations over winding area roadways are dangerous and impose a cost on local taxpayers to maintain such roadways.

Response: See Section 4.1.2 of the DEIS for SEA's assessment of the risk to human health and safety from trucking operations under the No-Action Alternative, if the rail line is not built. See Section 2.3 of this FEIS for further discussion of the No-Action or trucking alternative, including a discussion of upgrading and further maintenance of area roadways. If VCM builds a private roadway or roadways to support the truck traffic from the quarry to the UP rail line, VCM would schedule routine maintenance of these roadways to fix small potholes and cracks on an ongoing basis, according to SGR. Resurfacing (chip and seal) would likely be necessary every three to five years and a surface overlay would likely be necessary every eight to nine years, depending on the impact of weather conditions on the roadway. (See Letter from SGR, #EI-1439, FEIS, Appendix D.)

For the existing roadways that could be upgraded to support the truck traffic, based upon general engineering practice and public works experience, SEA believes that these upgraded roadways would be expected to perform well to support the truck transport from the quarry to the UP rail line without any major life cycle maintenance cost for up to 10 to 15 years.

Comment TTS-17, #EI-1344: How much time would it take for area roadways to deteriorate after the local market truck traffic begins?

Response: SGR has stated that VCM intends to work with the Medina County government to consider appropriate upgrades to area roadways to support the local market truck traffic. VCM plans to upgrade County Road 353 leading into the quarry. (See DEIS, Volume III, pages G-145 and G-156.)

Comment TTS-18, #EI-1287: The discussion concerning scheduling of truck traffic under the No-Action Alternative on page 2-17 of the DEIS is ambiguous. This is extremely important in determining the levels of impacts with regard to safety issues. More information should be provided here to allow for such analysis.

Response: SEA specifically asked SGR for information regarding the hours of operation of the truck traffic under the No-Action Alternative. SGR had initially indicated that trucks would operate throughout the day, with the exception of between 2 pm and 6 pm, but VCM was unable to commit to specific hours of operation. Page 2-17 of the DEIS contains the information SGR provided. Please see DEIS, Volume II, pages G-125 and G-177. SEA based the assessment of transportation and traffic safety on a methodology that does not account for specific hours of operation; therefore, the specific hours of operation would not affect SEA's assessment of the risk of accidents from the proposed trucking operations under the No-Action Alternative, as described in Section 4.1.2 of the DEIS.

Comment TTS-19, #EI-1287: The truck alternative would be a viable No-Action Alternative if the quarry were in place and in operation. However, the quarry is not in existence at this time and there is no indication that VCM will be able to construct and operate the quarry. SGR is using the trucking alternative as a No-Action Alternative to bias the conclusion of the EIS to show rail as a more "eco-friendly" alternative. A No-Action Alternative involving the baseline of no actions occurring should be used to allow for a more unbiased comparison of alternative actions.

Response: Please see Section 2.3 of this FEIS for a detailed discussion of the No-Action Alternative and the feasibility of the truck transport of aggregate from the quarry to the UP rail line. While the quarry is not yet in existence, all the necessary permits for the quarry have now been received.

Comment TTS-20, #EI-1287: On page 4-25, Paragraph 2 of the DEIS, the statement is made that road construction activities would be longer in duration and disturb a larger area for the truck alternative. There is no justification for this statement. Please provide facts and data to back up this statement.

Response: Road construction activities to support the truck alternative would result in greater impacts to local traffic because the disturbances to local roadways would impact a greater portion of the local road system.

SGR has provided information stating that VCM has not studied the improvements to public roadways in detail, and so detailed information regarding these upgrades cannot be provided at this time (see Appendix D of this FEIS, #EI-1439). However, SGR estimates that if it becomes necessary to construct a private roadway, it would be approximately 1.5 to 1.75 miles in length, link CR 353 to CR 365, and cross FM 2676. SGR states that the road could be built in seven weeks assuming a 15-person crew. The road would consist of two travel lanes, each about 12 feet wide with 8-foot shoulders on either side. (See Appendix D of this FEIS, #EI-1439). SGR also states that the remote truck-to-rail loading facility would take approximately six months to construct. (See #EI-1664 in Appendix D of this FEIS.) Please see the errata chapter in Chapter 7 of this FEIS, for SEA's correction of statements made in the DEIS that construction activities associated with the No-Action Alternative would be longer in duration than construction of the proposed rail line.

Comment TTS-21, #EI-1369 and #EI-1370: Contracted truck drivers usually get paid by the load or the mile and not by the hour, which could create safety problems on area roadways from the local market truck traffic. Truck traffic would be dangerous; other local quarries have truckers who show no consideration for other drivers on the roadways.

Response: Please see Section 4.1.2 of the DEIS for SEA's calculations of the risk to human health and safety from the operation of trucks under the No-Action Alternative and Section 4.17.2 of the DEIS for SEA's calculations of safety impacts from the trucks transporting limestone to local markets. Because the Board does not have jurisdiction over VCM's quarry activities, including the associated truck traffic, SEA cannot recommend that the Board impose any mitigation measures on VCM's use of trucks to transport material from the quarry. However, SEA notes that there are Federal and state regulations governing truck drivers. Please see the Federal Motor Carrier Safety Administration's website at www.fmcsa.dot.gov/registration-licensing/cdl/cdl.htm for a discussion of requirements for obtaining and maintaining Commercial Driver's Licenses.

Comment TTS-22, #EI-1287: The accident analysis methodology used to calculate the risk of accidents appears to be sound. However, some allowance should be made for private road crossings, which do not appear to be included in this analysis. The analysis does not include the 10% truck traffic that will still occur with the rail alternatives. Private roads and driveways are often the location of injuries and deaths because warning devices and other safety features are not usually provided. Mitigation measures should include some method to accommodate and minimize injuries and deaths at these locations. At the very minimum, railroad crossing signs and warnings should be provided, even for driveways, etc.

Response: Private roads and driveways do constitute an additional potential safety risk because, on a national basis, these are almost uniformly protected only with passive controls. However, SEA believes that there is no need for additional statistical analysis of these risks in this case because of the very low traffic volume and the high level of driver awareness of risk on private roads and driveways. In the SDEIS, SEA approximated the number of private roadway and driveway crossings for each rail route alternative. The Proposed Route would cross three private roadways or driveways; Alternative 1 would cross four private roadways or driveways; Alternative 2 would cross two private roadways or driveways; Alternative 3 would cross two private roadways or driveways; the Eastern Bypass Route would cross eleven private roadways or driveways; the MCEAA Medina Dam Alternative would cross ten private roadways or driveways; and SGR's Modified Medina Dam Route would cross eight private roadways or driveways.

SEA is recommending the following mitigation measures to reduce the risk of accidents at private roadway and driveway crossings (please see Chapter 1 of this FEIS):

Mitigation Measure #F-12: SGR shall maintain the vegetation along and within the railroad right-of-way to provide a clear line of sight for train operators and vehicle drivers at all at-grade crossings (including public roadways, private roadways, and driveways).

Mitigation Measure #F-13: Prior to beginning any rail construction activities, SGR shall perform an engineering evaluation at each private roadway and driveway crossing, and shall consult and negotiate with the respective landowners to implement appropriate changes to roadway geometry, and to install and maintain appropriate warning signs and/or signals.

The risk of accidents from the truck traffic to local markets that would take place regardless of whether the rail line is built is addressed in the cumulative impacts analysis in the DEIS. Please see Section 4.17.2 of the DEIS.

Comment TTS-23, #EI-1315, #EI-1287, #EI-1369 and #EI-1370: On page 2-15, paragraph 2, the DEIS discusses upgrades to roads in the area. More detail is required to describe the types of upgrades that are being proposed by SGR. None of the roads in the county, with the exception of state roads, can handle constant gravel truck traffic. SGR states that there would be a significant cost factor in

upgrading, improving, and maintaining roadways due to the raw materials would be required, and that those raw materials would be easily provided by VCM. This discussion should include cost analysis and should indicate who will pay the bill for these upgrades. The public has a right to know whether VCM intends Medina County and other municipalities to contribute to improvement of roads, or if this will be completely handled by VCM. This is also important in the discussion of road improvements and railroad crossings associated with other alternatives.

The trucking alternative is not feasible. The large quarry trucks that would use FM 2676 would negatively impact the maintenance of the road and make the roadway dangerous for all other vehicles. The 850 trucks would have to travel on narrow, gravel county roads that flood extensively with just a few inches of rain. FM 2676 was not built to handle the heavy trucks that would be used. Roads and parts of roads would be closed continuously for repairs. These conditions do not exist at the other quarries that Vulcan services with trucks. If trucking were a viable option, Vulcan would be trucking gravel now. The trucking alternative is being used to deceive people to think that a rail line would be better.

Since SGR states that trucks would be used with the Proposed Route for service to local markets, improvements to roads and safety issues associated with the local market truck traffic should be included in the impact analysis. Even with the rail line, there would still be approximately 125 additional trucks per day on the roads. Although Vulcan has stated that if the rail line were built there would only be 24 local market trucks per day, based upon its activities at other quarries, there would be many more trucks on area roadways. This fact is being completely ignored in the EIS.

Response: SGR has stated that, regardless of whether the rail line is built, VCM would use from 20 to 30 loaded trucks per day to deliver limestone to local markets (see DEIS, Volume III, page G-76 and G-161). In Section 4.17.2 of the DEIS, SEA assessed the cumulative risks to transportation and traffic safety that would be caused by the local market trucks (using an average of 24 loaded trucks per day) and determined that the combined risk of accidents to human health and safety from the local truck traffic and SGR's proposed rail operations would not be significant. SGR states that VCM plans to upgrade County Road 353 to support the local market truck traffic and would coordinate with Medina County officials regarding the upgrade (see DEIS, Volume III, page G-156).

In Section 4.1.4 of the DEIS, SEA discussed the potential roadway upgrades that would be needed to support truck traffic under the No-Action Alternative. If the rail line were not built, according to SGR, VCM would transport all of the limestone from the quarry by truck. This would require about 850 loaded trucks per day and, as discussed in Section 4.1.4 of the DEIS, would represent an approximately 300% increase in daily traffic volume for FM 2676. See Section 2.3 of this FEIS for a more detailed discussion of the potential roadway upgrades and the feasibility of trucking the limestone from the quarry to the UP rail line if SGR's rail line is not built. SGR has stated that it would work with state and county officials to upgrade and improve the area roadways, and, as mentioned above, the roadway upgrades would be needed, even if the rail line were built, to accommodate the truck traffic that would be needed to transport aggregate to local customers. (See Letters from SGR, #EI-766, DEIS, Appendix G, page G-145, #EI-793, DEIS, Appendix G, pages G-155-156, and #EI-1439, FEIS, Appendix D.) Because of the traffic impact and the impacts to road maintenance, however, the No-Action Alternative would represent a more significant change to the current road system. Thus, as discussed in the DEIS and SDEIS, the No-Action Alternative would have significant, adverse impacts on the transportation infrastructure and traffic safety of the area.

Comment TTS-24, #EI-1369 and #EI-1424: The DEIS used national statistics to evaluate the risk of accidents at at-grade crossings. Texas statistics are worse than the national statistics and should be examined. Texas is number one in grade-crossing fatalities. With recent UP accidents over the last two years, a more local statistic should be included as well.

Response: In the document Texas Highway-Rail Grade Crossing Facts for the Year 2003, the Texas Railroad Commission notes that, based upon FRA data, Texas was the state with the most at-grade crossings in 2003 (11,236 public at-grade crossings and 5,951 private at-grade crossings). According to the Texas Railroad Commission, “(t)his fact alone undoubtedly contributed to Texas recording more highway-rail grade crossing collisions, deaths and injuries than any other state.” (See <<http://www.rrc.state.tx.us/divisions/rail/execsum.htm>>.)

Over the time period 2001-2003, Texas had 960 road-rail grade crossing collisions (statistics from www.rrc.state.tx.us/divisions/rail/gxhist.html), resulting in 360 injuries and 112 fatalities. On an annual basis assuming that all collisions occurred at public at-grade crossings, this would equate to a 1 in 35 chance of an accident at each crossing, a 1 in 94 chance of accident-related injury, and a 1 in 301 chance of an accident-related fatality. These numbers compare with the national averages cited in the DEIS of a 1 in 32 chance for an accident, 1 in 92 chance for an injury, and 1 in 320 chance for a fatality.

Based on this data, SEA does not agree that Texas statistics are worse than the national statistics, and therefore considers it appropriate to rely on the larger data pool from the national statistics for the purposes of the EIS risk analysis.

In preparing this EIS, SEA also looked at six years worth of accident data from FRA’s Office of Safety Analysis (<http://safetydata.fra.dot.gov/OfficeofSafety/>) for Medina County to collect a statistically representative sampling. From August 1995 through July 2005 the FRA database listed 19 rail-car collisions at public grade crossings in Medina County, resulting in six non-fatal injuries and 2 fatalities. According to the FRA database, there are 47 public at-grade crossings in Medina County. Based upon these numbers, over the last 10 years, the annual risk of accidents over rail lines in Medina County is as follows: a 1 in 25 chance of an accident at each public at-grade crossing, a 1 in 78 chance of an accident-related injury, and a 1 in 235 chance of a fatality. Although these numbers do not have the same level of statistical significance as those from the much larger Federal and State of Texas datasets, they do suggest that public at-grade crossings in Medina County are at a slightly greater risk for accidents, injury, or fatality than the national or state averages.

However, the potential risk of accidents over the proposed rail line is reduced, to some extent, because of the low level of train traffic from SGR’s proposed rail operations (four trains per day - two from the quarry, two returning to the quarry). Potential rail-car interactions would happen much less frequently on the proposed rail line than along more heavily trafficked portions of the existing UP rail line in Medina County.

Comment TTS-25, #EI-1225 and #EI-1325: The proposed rail line would cause traffic hazards where the rail line would intersect with roadways.

Response: In Section 4.1.1 of the DEIS, SEA discussed the potential impacts of the rail line’s at-grade crossings of roadways. Due to the relatively low level of proposed train traffic, the relatively short length of the proposed rail line (over any of the alternative routes), the relatively low level of vehicular traffic on area roadways, and the relatively slow speed of train operations, SEA does not believe that at-grade crossings of area roadways would pose significant safety risks. SEA has recommended several mitigation measures (see Mitigation Measure #F-3 through #F-15 in Chapter 1 of this FEIS,) to minimize the potential risks and address the concerns raised by commenters regarding safety at at-grade crossings. These mitigation measures include requiring SGR to consult with TxDOT and Medina County prior to beginning rail line construction activities regarding crossing designs, and the installation and maintenance of warning devices at crossings. (See specifically Mitigation Measure #F-4 and Mitigation Measure #F-8.)

Comment TTS-26, #EI-1263, #EI-1282, #EI-1283, #EI-1320, #EI-1339, , #EI-1341, #EI-1344, #EI-1360, and #EI-1369: Area roadways support a large amount of traffic that would be impacted by traffic delays caused by the trains passing over at-grade crossings. Grade-separated crossings should be constructed to ensure that emergency vehicles and buses will not be delayed. Traffic could become a problem from the proposed project when rail cars block roadways. An at-grade crossing of FM 2676 would cause delays for school buses, which could make children late for school in the mornings. In addition, there is increased risk for potential derailments. Potential derailments would create safety hazards for children traveling on the buses.

Response: In Section 4.1 of the DEIS, SEA discussed the potential impacts of the proposed rail line construction and operation on transportation and traffic safety in the area. Based upon SEA's analysis, as set forth in Sections 4.1 and 4.1.1 of the DEIS, it does not appear that impacts to transportation and traffic safety from the proposed rail line construction and operation (including at-grade crossings) would be significant. However, SEA has recommended several mitigation measures (see Mitigation Measures #F-1 through #F-15 in Chapter 1 of this FEIS,) to address the concerns raised by commenters. Specifically, SEA is recommending Mitigation Measure #F-15 (newly developed in the FEIS) that would require SGR to notify local authorities immediately following the blockage of any road crossing within the project area due to a disabled train. SGR would also be responsible for clearing the blocked road crossing as soon as possible, and for working with local authorities to set up warning signs and detour routes for local traffic. SEA is recommending Mitigation Measure #F-3, which would require SGR to consult with TxDOT regarding the rail line crossing of FM 2676 and to adhere to TxDOT's reasonable recommendations regarding the design of this crossing. SEA is also recommending Mitigation Measure #F-10, that would require SGR to consult with local school officials prior to construction to take school bus schedules into consideration in its plans and to minimize rail operations when school buses are on area roadways.

Comment TTS-27, #EI-1287 and #EI-1370: Traffic delays would be much longer than the five minutes estimated by the railroad. A train coming out of the quarry from a dead stop and coming across County Road 353 would take longer than five minutes. Just because the ADT is less than 5,000 vehicles on the roadways does not mean that traffic delays should not be quantified at each crossing. One of the greatest concerns in Medina County regarding this rail line is the fact that the train has the potential to impede emergency vehicles and school buses. Also, the analysis in Section 4.1 of the DEIS assumes that the train will immediately accelerate to 25 miles per hour (mph) before crossing any of the roads. Crossings at or near the loading and unloading areas will probably experience very slow and even stopped train cars. There is no explanation given as to whether this will be a problem. Again, specific information about each crossing for each alternative and the proposed action should be provided based upon the distance from the starting and stopping points. This will definitely change the level of delay at each location. Otherwise, impacts cannot be properly weighed or analyzed.

Response: SEA calculated the potential traffic delays that could be experienced by vehicles at the at-grade crossings of area roadways in Section 4.1.1 of the DEIS. Based upon more detailed information submitted by SGR regarding rail operations (see Appendix D of this FEIS, #EI-1664), SEA later conducted additional calculations regarding potential vehicular delays at at-grade crossings. SGR has stated that the track design would be based upon a maximum speed of 40 mph; that it expects the average speed of trains operating on the line to be approximately 25 mph; and that trains approaching and leaving the quarry (i.e., crossing County Road 353) would travel at speeds no greater than 10 mph. Based upon this information, SEA estimated that the delay times at intersections would range from 2.2 minutes when the train would be at its maximum speed of 40 mph, to 8.9 minutes when the train is approaching or leaving the quarry at 10 mph (crossing County Road 353). The delay times account for the approximate distance required for the train to reach 10 mph past the intersection by assuming that no cars would cross the track once the train is within 1000 ft of the intersection, or until the train is 1000 feet past the

intersection. Most of the intersections would likely be blocked for approximately four minutes (as stated in Section 4.1.1 of the DEIS).

SGR states that it does not intend to block crossings for any longer than would be needed for the trains to pass, and that rail cars would be located on the loading tracks during loading operations, not on the portion of the SGR line that would cross any public roads. (See Appendix D of this FEIS, #EI-1664.) As discussed in Section 1.2 of the DEIS, SGR's planned operations would move trains from the quarry to the UP rail line for shipments to markets in the Houston area, as well as to other markets in the Southeast, Gulf Coast, and Rio Grande Valley regions of Texas. Thus, rail unloading operations would likely not occur in the project area.

Comment TTS-28, #EI-1270: In the DEIS, the description of the roadway crossings is at-grade for the alternative routes, but the term "at-grade crossing" is not used for the Proposed Route. What exactly does SGR plan to do for crossings?

Response: As discussed in Section 4.1.1 of the DEIS and Section 3.1 of the SDEIS, SGR proposes to construct all roadway crossings at-grade over any of the rail routes studied in depth. However, SEA's recommended mitigation would require SGR to consult with TxDOT prior to construction and to adhere to TxDOT's reasonable recommendations regarding the design of the crossing of FM 2676. SGR would also be required to consult with Medina County prior to construction and adhere to Medina County's reasonable recommendations regarding the design of the crossings of the county roads. Please see Mitigation Measures #F-3 and #F-4 in Chapter 1 of this FEIS.

Comment TTS-29, #EI-1270: The mitigation measures regarding maintenance and repair of at-grade crossing warning devices (Mitigation Measures #6 and #8 of the DEIS) are contradictory and need to be clarified so that the impacts to and responsibilities of Medina County can be understood.

Response: To clarify the meaning and intent of these mitigation measures, SEA has combined these mitigation measures into Mitigation Measure #F-8 of this FEIS, which provides:

Prior to beginning construction activities, SGR shall consult with TxDOT and Medina County to develop a plan that specifies the responsibility of each party concerning the maintenance and repair of grade-crossing warning devices and the grade crossings along the new rail line, consistent with recognized highway safety standards, taking into account the level of highway traffic at the crossing.

Comment TTS-30, #EI-1358: The area roadways carry a minimal amount of traffic and SGR would work with TxDOT to install the appropriate warning devices. Medina County has had railroad tracks with warning signals since 1861 so county residents are accustomed to these signals. The at-grade crossings of the proposed rail line should not cause any greater problems than others throughout the United States.

Response: Comment noted. SEA is recommending Mitigation Measure #F-8 which would require SGR to consult with TxDOT and Medina County to develop a plan regarding warning devices at grade crossings (see Chapter 1 of this FEIS).

Comment TTS-31, #EI-1270 and #EI-1352: Medina County taxpayers should not be subjected to any financial burden as a result of rail operations; SGR and Vulcan should be responsible for the cost of maintaining and repairing warning devices and at-grade crossings. That understanding should be the development of the plan recommended in Mitigation Measure #8.

Response: Comment noted. SEA is continuing to recommend the mitigation that was proposed in Mitigation Measure #8 in the DEIS, as discussed in the response above.

Comment TTS-32, #EI-1310, #EI-1337, #EI-1340, and #EI-1361: The at-grade crossings of area roadways would be dangerous and disruptive to the entire community. Safety and transportation impacts studies should be completed prior to the Board's final decision to address safety issues associated with at-grade crossings. Public and local government officials have repeatedly requested the Board to require the safest road-railroad crossings, which means grade-separated crossings.

Response: In Section 4.1.2 of the DEIS and Section 3.1 of the SDEIS, SEA used statistics compiled by USDOT to calculate the risk of accidents from proposed rail operations at at-grade crossings for each of the alternative rail routes studied in depth. Due to the relatively low level of proposed train traffic, the relatively short length of the proposed rail line, the relatively low level of vehicular traffic on area roadways, and the relatively slow speed of train operations, SEA does not believe that at-grade crossings of area roadways would cause significant impacts to the transportation and traffic safety in the area. Therefore, it would be inappropriate to recommend mitigation requiring grade-separated crossings in this case. However, SEA is recommending several mitigation measures (see Mitigation Measures # F-3 through #F-15 in Chapter 1 of this FEIS) that would address the concerns raised by commenters regarding safety at at-grade crossings. These mitigation measures include requiring SGR to consult with TxDOT regarding the crossing of FM 2676 and to adhere to TxDOT's reasonable recommendations regarding the design of this crossing. Under SEA's recommended mitigation, SGR would also be required to consult with Medina County regarding the crossing of county roads (including County Road 4516) and to adhere to Medina County's reasonable recommendations regarding the design of this crossing.

Comment TTS-33, #EI-1335 and #EI-1368: The issue of potential train accidents and derailments was not sufficiently addressed in the DEIS. The DEIS did not sufficiently address the damage to FM 2676 and other area roads that would be caused by heavy gravel trucks, the traffic delays due to road maintenance and at-grade crossings, and the cost of maintaining FM 2676 at the expense of local taxpayers. The DEIS also did not include a complete study of potential derailments, the frequency and probability of accidents, crossings blocked due to train malfunctions, and stopping distances.

Response: Please see Section 4.1 of the DEIS and Section 3.1 of the SDEIS for SEA's comprehensive analysis of the potential transportation and traffic safety impacts that could be caused by SGR's proposed rail line construction and operation. See response to comments TTS-16 and TTS-17 above for information regarding FM 2676 and damage to area roadways. SEA did not approximate the stopping distances for SGR's proposed train operations in the DEIS and does not believe that it is necessary to do so at this time. Because of the low risk of accidents from SGR's proposed rail operations (see Section 4.1.2 of the DEIS and Section 3.1 of the SDEIS), SEA does not believe that an analysis of train stopping distances would further inform the Board's decision in this proceeding. However, SEA notes that Operation Lifesaver's website indicates that the average freight train stopping distance is one mile or more (see OLI Response to New York Times, Operation Lifesaver, November 14, 2004 <http://www.oli.org/whats_news/printerfriendly.taf?id=94>) and the Illinois Operation Lifesaver's website states that the estimated stopping distance for a 150 car freight train traveling at 30 miles per hour is 3,150 feet (see Do Your Part, Illinois Operation Lifesaver <http://www.icc.illinois.gov/iol/yourpart.asp>). It is also important to note that stopping distances for trains depend upon many variable factors (e.g., train speed, train length and weight, brake pipe pressure, engineer's reaction time, etc.). (See John Bentley, An Introduction to Train Brakes, The Traffic Accident Reconstruction Origin <<http://www.tarorigin.com/art/Jbentley/>>.)

Comment TTS-34, #EI-1296: SGR suggested that Mitigation Measure #6 in the DEIS be modified to add the following language before the period: “consistent with recognized highway safety standards taking into account the level of highway traffic at the crossing.” SGR believes that this language will help to better define the term “appropriate.”

Response: To make the mitigation measure more clear, SEA removed the word “appropriate” and added the term “consistent with recognized highway and safety standards, taking into account the level of traffic at the crossing.” SEA has incorporated this modification into Mitigation Measure #F-8 in Chapter 1 of this FEIS.

Comment TTS-35, #EI-1352: A Medina County Judge recommended that the language used for mitigation for the state road crossing of FM 2676 be used for mitigation for the county road crossings. The comment suggests that the language calling for the railroad to consult with TxDOT prior to beginning construction activities regarding the crossing of FM 2676 and to adhere to the reasonable recommendations of TxDOT should be used for consultation with Medina County prior to the construction of the county road crossings as well.

Response: Comment noted. SEA has included this as a new condition in its final recommended mitigation. Please see Mitigation Measure #F-4 in Chapter 1 of this FEIS, which states as follows:

SGR shall consult with Medina County prior to beginning rail line construction regarding the rail line crossing of county roads and shall adhere to Medina County’s reasonable recommendations regarding the design of these crossings.

Comment TTS-36, #EI-1287: The fact that TxDOT, Medina County, and Vulcan all agreed to an above-grade crossing for FM 2676 was never addressed in Section 4.1 of the DEIS. Vulcan changed its mind and is now petitioning TxDOT for at-grade crossings. In spite of the mitigation measures that are recommended in the DEIS, the public at large is not happy with the fact that Vulcan wants an at-grade crossing at FM 2676. Also, SEA is apparently not familiar with environmental impacts in rural areas if it considers delays to vehicular traffic insignificant because of low levels of traffic on the roads. This is especially true for delays during construction. These can be very significant, especially for private roads and driveways that may be blocked for long periods of time during construction. An additional mitigation measure should be added that will make SGR responsible for any accidents or injuries associated with at-grade crossings as well as financially responsible for compensation of any loss of business, etc., associated with delays due to construction. SGR should also be responsible for any loss of life and additional damages caused by fire, etc., due to the fact that emergency vehicles were delayed by trains at the time of the emergency. All of these situations would be completely alleviated if an above-grade crossing were available, at least for the FM 2676 crossing.

Response: SEA has received no information that TxDOT, Medina County, and Vulcan have entered into an agreement regarding a grade-separated crossing of FM 2676. The comments from TxDOT that SEA received prior to issuance of the DEIS were included in Appendix C of the DEIS and summarized in Section 4.1 of the DEIS. TxDOT initially submitted a letter to SEA requesting that the Board require a grade-separated crossing of FM 2676 (see DEIS, Volume II, page C-19-20). TxDOT submitted a subsequent letter to SEA stating that, based upon further consultation with SGR, if the Board issues final approval to SGR’s rail line construction and operation, TxDOT would conduct a safety assessment of the proposed crossing of FM 2676 to determine the necessary safety improvements that would be required for this crossing. Accordingly, SEA is recommending mitigation that would require SGR to consult with TxDOT regarding the design of this crossing and to adhere to TxDOT’s reasonable requirements. (See Mitigation Measure #F-3 in Chapter 1 of this FEIS). SEA believes the recommended

mitigation measures in the FEIS would appropriately reduce impacts to transportation and traffic safety in the area. (See Mitigation Measures #F-1 through #F-15 in Chapter 1 of this FEIS).

Finally the Board would not oversee claims for any damages that might result during rail construction and operation. Determining whether SGR would be responsible for any specific damage and whether any fines should be imposed as a penalty for any damage would be a matter for a court of competent jurisdiction to decide if and when any such damage occurs. SEA's role is to assess the potential environmental impacts that could be caused by SGR's rail line construction and operation, consistent with the requirements of NEPA and to recommend appropriate mitigation to reduce these potential effects. SEA has performed these tasks in the EIS here.

Comment TTS-37, #EI-1424: FM 2676 is the only major road in the area. The area and the road will be inside the new proposed loop around the San Antonio area. This new loop is to incorporate State Highway 173, just west of Quihi. With this new loop and a rapidly expanding population growth west from San Antonio, a grade-separation is required. This issue was not addressed in the DEIS.

Response: SEA is recommending Mitigation Measure #F-3 in this FEIS that would require SGR to consult with TxDOT regarding the rail line crossing of FM 2676 and to adhere to TxDOT's reasonable recommendations regarding the design of this crossing. TxDOT plans to conduct a safety assessment of the proposed crossing if the Board grants final approval to SGR's rail line construction and operation (see DEIS, Volume II, page C-40). SEA believes that the recommended mitigation condition appropriately addresses the concerns raised by the commenter.

Comment TTS-38, #EI-1320, #EI-1335, #EI-1342, #EI-1344, #EI-1361, #EI-1368, and #EI-1369: Commenters stated that FM 2676 is the only road they can use to leave the area. Commenters requested that a grade-separated crossing of FM 2676 be built and indicated that the DEIS did not sufficiently address this issue. Commenters stated that Vulcan had initially agreed to grade-separate FM 2676 and questioned what had happened. Commenters also requested that the crossing of County Road 4516 be grade separated.

Response: As discussed in Section 4.1 of the DEIS, SEA does not believe that the at-grade crossings of area roadways by SGR's proposed rail line would cause significant impacts to the transportation and traffic safety in the area. However, SEA is recommending mitigation that would require SGR to consult with TxDOT regarding the crossing of FM 2676 and to adhere to TxDOT's reasonable recommendations regarding the design of this crossing. SGR would also be required to consult with Medina County regarding the crossing of the county roads (including County Road 4516) and to adhere to Medina County's reasonable recommendations regarding the design of this crossing. (See Mitigation Measures #F-3 and #F-4 in Chapter 1 of this FEIS).

Comment TTS-39, #EI-1334: TxDOT submitted a letter stating that it has no comments on the proposed project at this time; however, for any portion of the rail line that crosses TxDOT rights-of-way, the railroad would be responsible for compliance with all applicable local, state, and Federal regulations.

Response: Comment noted. SEA is recommending Mitigation Measure #F-3 in this FEIS to require SGR to consult with TXDOT as suggested by the commenter.

5.2.6 Public Health and Safety (PHS)

Comment PHS-01, #EI-1252: Would SGR be responsible for cleanup following a derailment and/or chemical spill?

Response: In the DEIS, SEA recommended mitigation that would require SGR to develop a Spill, Prevention, Containment, and Countermeasures Plan (SPCC) in compliance with U. S. Environmental protection Agency (EPA) regulations at 40 CFR Part 112 that would reduce potential adverse impacts from spills during construction, maintenance, and operation activities. SEA is continuing to recommend this mitigation and is also recommending a new mitigation condition that would require SGR to include, at a minimum, certain provisions in the SPCC Plan. These provisions include: definition of what constitutes a spill; requirements and procedures for reporting spills to appropriate government agencies; methods of containing, recovering, and cleaning up spilled material; equipment available to respond to spills where the equipment is located; and a list of government agencies and SGR's management personnel to be consulted with in the event of a spill. Please see Mitigation Measures #FVM-9 and #F-25 in Chapter 1 of this FEIS.

In addition, in the case of a chemical or other spill, TCEQ, TPWD, and the Texas General Land Office (GLO), have been designated as Trustees for the natural resources of the state of Texas. Each agency is authorized to act on behalf of the public under state and/or Federal law to assess and recover natural resource damages, and to plan and implement actions to restore the natural resources and resource services injured or lost as the result of discharges. The Trustees work cooperatively with other participating state and Federal agencies, and responsible persons to restore lost natural resources and their services on behalf of the public. Natural resources are defined in the Comprehensive Environmental Response and Liability Act (CERCLA), 42 U.S.C. §101(16), and the Federal Oil Pollution Act of 1990, 33 U.S.C. §1001(20), as land, fish, wildlife, biota, air, water, groundwater, drinking water supplies, and other resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States, any state or local government, or Indian tribe. This process, the Natural Resource Damage Assessment, sets forth measures to implement the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300.600) for natural resources harmed by any incident on rail lines, including the line proposed here.

Comment PHS-02, #EI-1255, #EI-1338, #EI-1344, #EI-1345, #EI-1368, and #EI-1369: During construction of the rail line, utilities could be cut off, and traffic such as emergency vehicles and school buses could be delayed. During operation, trains might block roadways at at-grade crossings and prevent emergency vehicles from responding to emergencies. Are provisions in place for fire/police/EMS access to needed areas?

Response: As explained in Section 4.1.1 of the DEIS, temporary road closings or traffic delays would occur during construction while track is installed and adjustments or tie-ins are made along the road crossings. Additionally, the potential for some vehicular delay (approximately four minutes at each crossing) could result during normal rail operations (DEIS 4.1.1). Longer unscheduled delays could occur if a train were to block an intersection due to an accident or malfunction.

As noted above, in the DEIS, SEA recommended mitigation that would require SGR to take into account maintenance of emergency response capabilities and school bus schedules during construction and maintenance activities, SEA also recommended mitigation that would require SGR to develop emergency response plans for use during rail line construction, and operation to ensure that appropriate agencies and individuals are notified in case of an emergency. SEA is continuing to recommend those mitigation measures and is also recommending a new mitigation measure that would require SGR to consult with local fire, police, and EMS officials prior to beginning construction activities in order to develop a plan to minimize impacts to area emergency response capabilities during construction and operation of the rail line. Please see Mitigation Measures #F-6, #F-7, #F-9, and #F10 in Chapter 1 of this FEIS.

SEA is also recommending mitigation measures that would require SGR to survey the location of transmission utility poles and avoid them during construction of the rail line right-of-way; to consult with utility companies serving the area prior to beginning construction; and to develop a plan with provisions for alerting residences of any disruption to utility service during construction of the rail line. SGR would be required to contact the appropriate utility companies as soon as it becomes aware of any power outages and work with the utility companies to restore service to area residents as soon as possible. Please see Mitigation Measures #F-18 and #F-19 in Chapter 1 of this FEIS.

Comment PHS-03, #EI-1262: Neighboring Bexar County is conducting a study to assess rail safety in San Antonio. SGR and Federal agencies should participate in the study.

Response: The study on rail safety in San Antonio likely would involve the FRA, the Federal agency that has primary jurisdiction over all aspects of rail safety. Because the proposed action here does not involve San Antonio, and the proposed rail line would not in and of itself impact the City of San Antonio, it does not appear that the Board, which typically does not oversee day-to-day rail operations, would have a role in the study.

Comment PHS-04, #EI-1270 and #EI-1360: If UP and SGR finalize possible agreement between them that would allow UP to operate over SGR's line, safety and security appear to be lacking given UP's recent record of accidents. Also, SGR's proposed rail operations would cause more derailments to occur.

Response: Although any rail operation has the potential to result in derailments, SEA believes that the risk of derailments and accidents from the proposed rail operations here would be low due to the small number of train trips per day over the line (four trains per day or two round trips from the quarry to the UP rail line). SEA quantitatively assessed the risk of accidents for proposed train operations in Section 4.1.2 of the DEIS and in Section 3.1 of the SDEIS, and provided a comparative discussion of national, state, and local accident statistics.

SGR's current proposal is for construction and operation of the rail line. Any other entity, such as UP, would need to seek separate Board authority to operate over the line. Should UP seek approval to operate the line at issue here, any safety concerns could be raised and would be addressed at that time.

Comment PHS-05, #EI-1335: The DEIS did not sufficiently address concerns regarding diesel fuel and chemical spills, and other hazardous materials being transported.

Response: As stated in Section 4.3.1 of the DEIS, SGR's proposed rail operations do not involve the transportation of hazardous materials. While SGR must hold itself out as a common carrier to other traffic that could include hazardous materials, the primary purpose of the proposed project is to transport limestone from VCM's quarry to the UP rail line. Section 4.5 of the DEIS discusses the small risk of impacts to water resources from potential fuel spills during the proposed construction and operation activities, and recommends mitigation measures to reduce this risk. Please see Mitigation Measures #F-24, #F-25, #F-26, and #F-35 in Chapter 1 of this FEIS, for specific mitigation that SEA is recommending to prevent and remediate potential impacts from spills of fuel.

Comment PHS-06, #EI-1369: Will Vulcan be paying medical expenses for health problems incurred by area residents as a result of the project? Will Vulcan pay for road fatalities as a result of the proposed rail line?

Response: As discussed in Section 4.2 of the DEIS, SEA does not believe that impacts to public health and safety from construction and operation of the proposed rail line would be significant.

Moreover, because an individual's health is dependent on so many factors related to the individual and unrelated to SGR's proposed rail line construction and operation (e.g., pre-existing physical condition, age, susceptibility to particular illnesses, allergies, medications, etc.), it would be speculative for SEA to attempt to assess the likelihood that individuals in the area could experience particular health problems resulting from the proposed rail line construction and operation. Such an analysis is not appropriately part of SEA's environmental review for this proceeding.

The Board is a Federal agency charged with determining certain transportation matters, particularly those related to the regulation of railroads, such as rail rates, rail mergers, rail construction projects, and the abandonment of rail service. The Board does not oversee claims for damages for specific environmental harms brought against railroads or quarry companies. Determining whether Vulcan, VCM, or SGR would be responsible for any specific damage and whether any fines should be imposed as a penalty for any damage caused is a matter for a court of competent jurisdiction after any such damage occurs.

SEA has assessed the potential environmental and public health impacts that could be caused by SGR's rail line construction and operation, and has recommended appropriate mitigation to reduce these potential effects. See Mitigation Measures #F-27 to prevent well contamination, #F-31 to monitor water pollution in streams, #F-59 to control fugitive dust emissions, and #F-60 to minimize air pollution.

Comment PHS-07, #EI-1370 and #EI-1424: What is the forecasted impact on safety at the point where the SGR line will connect to the existing UP line? Ammonia and chlorine tank cars travel over the UP line on a daily basis. A heavy limestone train colliding with an ammonia or chlorine tank car in the area of the proposed connection, which is one of the more populated areas of Medina County, could have devastating effects. The DEIS did not address safety issues associated with the impending interface between SGR and UP. UP's past and recent history offers little assurances that this railroad can safely handle additional traffic. The Board is aware of the rail accidents in the Bexar and Medina County areas in the last few years and has direct knowledge of UP operations during the fall peak season. Therefore, the Board should have the ability to limit the number of train carloads of rock being transported through the area. These issues were not addressed in the DEIS. Any mitigation regarding this issue should be developed with the input of the Board's Director of the Office of Compliance and Enforcement to reflect local UP operations. Mitigation could extend to the Houston area, which is the destination for SGR's rail traffic. The DEIS did not fully address the operational impacts of the existing UP line.

Response: As stated on page 2-6 of the DEIS, SGR anticipates that it will enter into an agreement with UP regarding the connection with the UP rail line, the details of which would be determined at a later date. SGR has also stated that it would coordinate regularly with UP personnel regarding train interchange with respect to scheduling and other operational considerations. (See Appendix D of this FEIS, #EI-1664.)

According to SGR, and as discussed throughout the DEIS, SDEIS and FEIS, if the proposed rail line is not built, VCM would transport the limestone from the quarry by truck to the UP rail line. Thus, the existing UP rail line would experience the same increase in rail traffic (two loaded trains and two empty trains per day) regardless of the Board's decision in this proceeding. According to SGR, based upon SGR's consultations with UP, UP does not believe that the "fall peak" period would have any impact on traffic originating on the SGR line. SGR states that it is possible that the "fall peak" period may have some short-term impact on SGR's operations, but SGR believes that this will diminish over time as UP increases its system efficiency. (See Appendix D of this FEIS, #EI-1664). Therefore, regardless of the interchange operations, due to the low level of projected train operations on the SGR line, SEA believes that the risk of a train traveling over the SGR line colliding with a train traveling over the UP line would be low. Moreover, as discussed in Section 4.1.2 of the DEIS, the overall risk of

accidents from the proposed rail operations would be low. However, SEA is recommending a new mitigation condition to address the specific concerns raised by the commenter. This mitigation condition states as follows:

Prior to beginning rail construction activities, SGR shall consult with UP to ensure that the design of the connection and rail interchange area with the UP rail line is safe. During construction, maintenance, and rail operations, SGR shall coordinate with UP regarding all activities in the vicinity of the UP line and shall comply with all applicable safety laws. See Mitigation Measure #F-14 in Chapter 1 of this FEIS.

5.2.7 Hazardous Materials and Existing Energy Resources (HME)

Comment HME-01, #EI-1287: USGS topographic maps and aerial photographs are not good sources of information to determine hazardous materials spill sites and hazardous waste sites. Section 4.3.1 of the DEIS should include a figure showing the location of hazardous waste sites and hazardous material sites in the vicinity of the different alternatives. More than likely there are no risks in disturbing these areas, but the information is useful to the reader. We assume that SEA conducted a search of the current regulatory databases, as stated in the DEIS, and this information should be provided in an appendix.

Response: As stated in Sections 3.2.1 and 4.3.1 of the DEIS Section 3.3 of the SDEIS, and Chapter 2 of this FEIS, SEA conducted a search of the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database for Medina County, Texas, on September 15, 2004. SEA also searched the CERCLIS database for any updates when preparing the SDEIS (on March 15, 2006) and again when updating the FEIS (on January 17, 2008). The website for the CERCLIS database can be accessed to verify the search results at <http://www.epa.gov/superfund/sites/cursites/>. CERCLIS lists four hazardous waste sites in Medina County, Texas, none of which is within the project area. Therefore, SEA does not believe that generating maps of each of these sites and showing the relationship of these sites to the project area is necessary or appropriate.

Comment HME-02, #EI-1287: The DEIS should include information on the location of pipelines, water lines, sewer lines, and electrical utility lines potentially crossed by each alternative.

Response: As stated in Section 3.2.2 of the DEIS, SGR's proposed rail line on any of the routes studied in the DEIS would cross two utility gas pipeline right-of-ways. Figure 3-1 in the SDEIS shows the location of the two pipelines. According to SGR, the pipeline nearest the south end of the Proposed Route was previously operated by Koch Pipeline and was removed in 2004. The pipeline on the north end of the route is currently owned by the Regency Gas Services unit of Regency Energy Partners LP. (See Appendix D of this FEIS, e-mail from SGR). Mitigation Measure #F-2 requires SGR to consult with the owner of the pipeline that would be crossed prior to construction.

As stated in Section 3.3 of the SDEIS, there is one high-tension transmission line located near the southern end of the proposed project area. Figure 3-2 depicts this transmission line and the crossings of this line by each of the alternative rail routes.

SGR states that it does not have any information on existing water, sewer, or utility lines potentially crossed by each alternative studied in the DEIS and SDEIS, and such information would be gathered at the time of final engineering. As such, SGR is prepared to accept as voluntary mitigation a requirement that it work with local utilities, and review crossing protocols that may already be in place for each utility to ensure that its rail line does not interfere with the operation of any utility line that might be

crossed. (See Appendix D of this FEIS, #EI-1664.) SEA has developed a condition to require this as Voluntary Mitigation Measure #F-VM7 in Chapter 1 of this FEIS.

SEA is also recommending a new mitigation measure that would require SGR to consult with utility companies serving the area prior to beginning construction, and to develop a plan so that area residents would be provided with advance notice prior to any necessary disruption of utility services during construction. In the event of any unscheduled disruption of utility services during construction and operation of the rail line, SGR would be required to contact the appropriate utility companies as soon as it becomes aware of the situation, and to work with the utility companies to restore service to area residents as soon as possible. Please see Mitigation Measure #F-19 in Chapter 1 of this FEIS.

SEA does not believe that doing further research to generate a map of the existing water lines and sewer lines potentially crossed by each alternative is necessary to provide additional information on this issue. The above-described mitigation measures would minimize impacts to water lines, sewer lines, and electrical utility lines during SGR's proposed construction and operation activities.

Comment HME-03, #EI-1287: The proposed rail operations do not involve transportation of hazardous materials, but the trains themselves contain significant quantities of diesel and hydraulic fluids that could be released in the event of an accident or engine malfunction. Ruptured hydraulic lines, brake lines, transmission fluid reservoirs, oil reservoirs, and fuel tanks can occur on trains, and this should be addressed. SEA should be very familiar with the potential for these types of incidences to occur when trains are pulling loads similar to those associated with this quarry. This information should also be provided in this section. Additionally, this potential would probably change with each site based upon length of rail and grade of rail.

The fact that a fuel supply facility is provided both in the trucking alternative and the rail alternatives is not addressed in this section. Both of these facilities would contain materials that are considered hazardous to groundwater resources. Information needs to be provided to show mitigation measures that will be used at each of these facilities to minimize or avoid impacts to groundwater. Otherwise, significant impacts would have to be considered.

Response: Section 4.1.2 in the DEIS discussed the potential risk of accidents from proposed operations over the rail line. The potential for leaks of fuels and other fluids to impact water resources was addressed in Section 4.5.2, Groundwater and Section 4.5.3, Surface Water of the DEIS. Additional discussion of the fueling facility that would be used for quarry, rail, and truck operations is included in Section 5.2.32, Groundwater.

The DEIS discusses routine leaks and spills at the fueling/maintenance area and accidental releases along the railroad right-of-way. However, the commenter is correct in that there is not a specific discussion of potential leaks of hydraulic fluids or fuel along the right-of-way in the DEIS.

Locomotives operate with a number of hazardous fluids, including fuel, lube oil, bearing grease, coolant, and compressor oil. The only lubricant on freight cars is in sealed roller bearings. Given modern train equipment, shop facilities, and environmental systems, the risk of oil leaks during rail operations is small. Oil and lubricant from train operations are generally spilled by workers rather than leaking equipment, and thus would be concentrated in the fueling and maintenance area, which was discussed in the DEIS. Over the route of the rail line, routine releases of these products would therefore be minimal, and are not expected to cause significant impacts to surface waters, groundwater, or soils. Furthermore, all fueling and maintenance activities will be conducted at a designated area off the recharge zone and will be conducted within secondary containment areas. Any potential spills would be addressed through

SEA's recommended mitigation. (See Mitigation Measures #F-VM9, #F-VM10, #F-24, #F-25, #F-26, #F-32 #F-35, and #F-43 in Chapter 1 of this FEIS).

Comment HME-04, #EI-1287: Paragraph 1 on page 3-3 refers to a pipeline that ruptured in the past. This information should be referenced and more detail provided.

Response: According to the US DOT Hazardous Liquid Pipeline Incident Database 1986-2002 (downloaded from <http://ops.dot.gov/stats/IA98.htm> on 9/29/05) on April 8, 1992, an accident occurred along an American Petrofina crude oil pipeline located approximately one and a half miles northwest of Quihi, and one mile east of FM 2676. The accident caused the release of 1,384 barrels of hazardous materials, resulting in a fire but no injuries or fatalities. The spill caused \$40,000 in damage, yet only 10 barrels of crude oil were recovered.

Comment HME-05, #EI-1287: The appendix should include correspondence with Duke Energy and Koch Pipeline. If it is in the appendix, it needs to be stated in the text in Section 4.1.3 of the DEIS. Otherwise, the reader is forced to assume that such correspondence occurred. This is extremely important in this case and the information should be provided for reader review. Also, any oral consultations with the Texas Office of Pipeline Safety should be confirmed in writing.

Response: In Section 4.1.3 of the DEIS and Section 3.3 of the SDEIS, SEA stated that the proposed rail line would cross two utility gas pipeline rights-of-way under any of the alternatives studied in this proceeding (according to SGR, one of the pipelines previously owned by Duke Energy is now owned by Regency Energy Partners, LP, and the other is owned by Koch Pipeline and subsequently was removed in November 2003). SGR has indicated that its correspondence with the pipeline owners has been verbal and thus no written correspondence exists for this 30-foot-wide right-of-way with 10-inch diameter pipe.

SEA consulted with the USDOT's Office of Pipeline Safety (OPS) during the preparation of the DEIS (please see Chapter 6 of this FEIS, the errata chapter, for a correction to the agency's title). To respond to this comment, SEA requested that OPS submit written verification of its earlier consultation. This was later submitted. Please see Appendix D of this FEIS, #EI-1717.

SEA believes that the DEIS and SDEIS discussion of potential impacts from the rail line construction and operation on pipelines under all of the rail alternatives studied is adequate. Further, SEA is continuing to recommend the mitigation condition that SGR be required to consult with the pipeline owners prior to beginning rail line construction, and to make appropriate modifications to the design of the rail line necessary to ensure that the rail line does not affect the integrity of the pipeline. Please see Mitigation Measure #F-2 in Chapter 1 of this FEIS, (modified from the DEIS to reflect Duke Energy's sale of the pipeline).

5.2.8 Water Resources (WR)

Flooding

Comment WR-01, #EI-1374, #EI-1698 and #EI-1480: SEA's analysis of flood impacts from the quarry in the DEIS consists of a conclusory statement indicating that VCM's use of BMPs would prevent and control any stormwater runoff from the quarry site and that accordingly, no potentially significant adverse cumulative effects are expected as a result of the quarry. According to the commenters, SEA has not analyzed the direct, indirect, and cumulative effects of any of these impacts and has impermissibly delegated its responsibilities to the applicant. This requires correction in a Supplemental EIS.

Construction of the quarry would alter the hydrology and increase the flood risk to surrounding communities. The impacts would largely be due to site grading; changes in drainage patterns; increased

impervious surfaces, the removal of vegetation from significant portions of the quarry site adjacent to and flowing into Polecat and Elm Creeks, the excavation, blasting into ledges, and piling of debris; and the paving or rendering impermeable of large portions of the site. Polecat Creek and Elm Creek would suffer the biggest set backs due to losses in surface water from altered terrain and pumping of groundwater. Groundwater, originally pumped from one of the confining aquifers upstream for use as a dust suppressant at the quarry, would eventually be discharged to surface waters downstream. In addition, bridge abutments and other in-stream structures that are not properly engineered and maintained could alter hydrologic conditions by impeding the natural flow of water, thereby creating log jams and out-of-bank flows. Such changes in the flow patterns could cause the water to back up at upstream locations, and alter channel configuration and increase floodplain width. These factors are relevant to any cumulative impact analysis that would determine how the rail line should be designed and where it should be placed.

Response: Although the direct impacts from quarry development and operation are separate from this proceeding and thus not within the scope of SEA's environmental review for the proposed rail line, as explained in Section 1.5 of the DEIS and Chapter 2 of this FEIS, SEA has examined impacts from the quarry that would overlap with impacts from the rail line construction and operation as part of its cumulative impacts analysis (see Section 4.17 of the DEIS and Chapter 3 of this FEIS). In addition, Vulcan's Water Pollution Abatement Plan (WPAP) submitted to the TCEQ has been granted. To support the WPAP application, Vulcan performed hydrological and hydraulic studies that TCEQ reviewed and considered acceptable. Furthermore, to the extent that the quarry or any structures are built within the floodplain, Vulcan will be required to consult with the local floodplain administrator and seek authorization to build within the floodplain and meet floodplain protection restrictions.

In Section 4.5.3 of the DEIS, SEA discussed in detail the potential impacts to flooding that could be caused by SGR's proposed rail line construction and operation. As described in SEA's recommended mitigation, temporary BMPs would be placed along the rail route during construction to control sediment leaving the construction areas until such time that vegetation and other permanent BMPs are put in place to serve the same function. A SWPPP would be established to control any probable pollutant scenario contingencies. Any impacts that the rail line construction and operation could potentially have on any surface water drainages and potential flooding would be addressed in consultation with the Corps and in any Section 404 permit that might be needed (as required by Mitigation Measures # F-39 and #F-47). Therefore, the potential impacts of this project have been adequately assessed and SEA concludes that if SEA's recommended mitigation is imposed and implemented, no potentially significant, adverse, cumulative effects on flooding are expected as a result of this project. Please see Mitigation Measures #F-21, #F-33, #F-36, #F-44, and #F-VM2 in Chapter 1.

In the DEIS and SDEIS, SEA provided a comparison of all of the rail routes assessed in depth in terms of the number and type of floodplain crossings for each alternative; the length to which each potential rail route would intercept the floodplain; and conclusions as to which routes would be easier to engineer in a manner that would mitigate potential impacts to the floodplain. SEA does not believe that detailed hydrological studies of each potential rail route would provide information that would change SEA's conclusions regarding this issue.

SEA continues to believe that, if the recommended mitigation measures are implemented, SGR's proposed rail line construction and operation would not significantly affect existing flooding conditions. SEA has also proposed additional mitigation measures to address concerns regarding debris blocking crossings and the maintenance of evacuation routes. Please see Mitigation Measures #F-VM2, #F-36, #F-38, #F-44, #F-46, #F-49, and #F-50 in Chapter 1 of this FEIS for SEA's recommended mitigation regarding potential flooding impacts.

Comment WR-02, #EI-1480: SEA hides the quarry's impact by layering conclusory statements to obscure its lack of analysis. For example, on page 3-17 of the DEIS, SEA states that no streamflow sites have been identified. However, on the record before it, SEA states that it has no way of knowing the impact of groundwater-surface water interactions along most of the rail line since only a paper survey of the area's hydrography has been completed. The commenter points out that most of the analysis of groundwater infiltration comes from discussion of previous studies concerning the Edwards Aquifer Recharge Zone (EARZ), which lies to north of most of the rail line and which encompasses only the portion of the rail line that enters the quarry. According to the commenter, the geology of the area changes markedly south of the quarry.

Response: The EIS contains an adequate analysis of all of these issues. However, the text on page 3-17 should be modified to read "no streamflow **monitoring (measurement)** sites have been identified within the area of the proposed project" (bold text added).

Comment WR-03, #EI-1369: The rail line would increase flooding hazards in the area. The DEIS did not address the impact that the diversion of two watersheds that run into the quarry would have on the flooding problems created by the rail line.

Response: The scope of the DEIS did not include a detailed assessment of the impacts of water diversions from the quarry. It is the responsibility of Medina County to review the proposed development project and determine if the development occurs within the identified floodplains as shown on the Federal Emergency Management Agency (FEMA) maps. If a project is located in a mapped 100-year floodplain (A or V zone), Medina County must require that a permit be obtained prior to development and will impose conditions on any permits issued for the quarry to reduce the potential for damage from floodwater. Permits are required for any development as well as for filling or grading activities in the floodplain. Moreover, state law requires that local entities have a local floodplain ordinance that meets or exceeds FEMA's National Flood Insurance Program (NFIP) requirements. As a result of numerous comments received in this issue and further consultation with the Medina County Floodplain Administrator, SEA has relocated the loading loop away from the floodplain. SEA is recommending Mitigation Measure #F-38 to ensure adequate assessment of the floodplain.

Comment WR-04, #EI-1296: SGR recommended that Mitigation Measure #24 in the DEIS be revised to require that SGR: (a) conduct a floodplain study for submission to the Medina County Floodplain Administrator and (b) consult with the Medina County Floodplain Administrator to ensure that SGR's construction plans do not cause more than a 12-inch rise in the current 100-year floodplain elevation, consistent with the Floodplain Administrator's permitting standards as set forth during the pre-DEIS consultation process. Although SGR believes that it will meet the standards for issuance of a permit by the Floodplain Administrator, in light of Federal preemption of state and local rail permitting obligations, SGR does not believe that its ability to construct its rail line should be conditioned on whether the Medina County Floodplain Administrator chooses to issue a permit to SGR, or to do so in a timely manner.

Response: In 1995, Congress enacted a broad Federal preemption provision, 49 U.S.C. 10501(b), that expressly makes the Board's jurisdiction "exclusive" for all transportation by rail carriers, including the facilities and structures that are an integral part of that transportation.⁴ Section 10501(b) also expressly states that "the remedies provided under this part are exclusive and preempt the remedies provided under Federal and State law." Thus, Section 10501(b) does not permit dual state and Federal regulation of railroads or activities related to rail transportation at railroad facilities, and state and local permitting or pre-clearance requirements (including zoning ordinances and environmental and land use

⁴ 49 U.S.C. 10102(9); 10501(b).

permitting requirements) are wholly preempted where the railroad facility is an integral part of the railroad's operations.⁵

Although exempt from traditional permitting, zoning, and land use processes for their railroad operations, railroads like SGR are not necessarily exempt from other generally applicable laws. States can take appropriate actions to protect public health and safety so long as their actions do not serve to regulate rail operations or unreasonably interfere with interstate commerce.⁶ Further, state and local entities can raise their environmental concerns before the Board during the environmental review process under NEPA for consideration in cases such as this one that require a license from the Board.⁷

Section 10501(b) must also be harmonized to the extent possible with other Federal statutes.⁸ Thus, Federal environmental statutes, relevant here, such as the National Flood Insurance Act (NFIA) of 1965 and the National Flood Disaster Protection Act of 1973, 42 U.S.C. 4001 *et seq* (NFIA)—statutory schemes that are implemented in part by the states—as well as railway safety regulation under the Federal Railway Safety Act continue to apply to railroads to the extent that they would not unreasonably interfere with interstate commerce.

Thus, the Board's mitigation under NEPA sometimes will include conditions that require a railroad to consult with, or seek approvals from, other government entities provided that the Board is reasonably confident that those requirements will not be applied in a discriminatory manner or in a manner that would interfere with the railroad's right to conduct its operations.

Medina County's floodplain permitting process, follows the requirements of the FEMA's NFIP set forth at 44 CFR 60.3, which was developed to implement the NFIA. Thus, this permitting process is essentially a Federal permitting process that has been delegated to the local Medina County authority, meaning that this permitting process must be harmonized to the extent possible with Section 10501(b). Moreover, as stated in its comment, SGR has committed to complying with the local floodplain requirements.

For these reasons, SEA does not believe that requiring SGR to adhere to the reasonable requirements of the Medina County Floodplain Administrator would unreasonably interfere with interstate commerce. In the unlikely event that the floodplain permitting process is misused, adequate safeguards would be in place because, as stated above, the Board would control the process and could take steps later, if necessary, to ensure that the local requirements are not being applied in such a way as to unduly restrict SGR's operations or unreasonably burden or interfere with interstate commerce.

To clarify the Board's role in the process, as well as FEMA's role in implementing local floodplain regulations and SGR's voluntary commitment to ensure that the proposed rail line construction

⁵ City of Auburn v. United States, 154 F.3d 1025 (9th Cir. 1998) (Auburn); Friberg v. Kan. City S. Ry., 267 F.3d 439 (5th Cir. 2001); Norfolk S. Ry. V. City of Austell, 1997 U.S. Dist. LEXIS 17236 (N.D. Ga. Aug. 18, 1997); Flynn v. Burlington N. Santa Fe Corp., 98 F. Supp. 2d 1186 (E.D. Wash. 2000); Joint Pet. For Decl. Order-Boston & Maine Corp. v. Town of Ayer, MA, STB Finance Docket No. 33971 (STB served May 1, 2001), aff'd, Boston & Maine Corp. v. Town of Ayer, 206 F. Supp. 128 (D. Mass. 2002), rev'd solely on attorneys' fee issue, 330 F.3d 12 (1st Cir. 2003) (Ayer); Borough of Riverdale-Pet. For Declar. Order-The New York Susquehanna & W. Ry., STB Finance Docket No. 33466 (STB served Sept. 10, 1999).

⁶ See Ayer.

⁷ See Auburn, 154 F.3d at 1033.

⁸ Tyrrell v. Norfolk S. Ry., 248 F.3d 517 (6th Cir. 2001); Friends of the Aquifer et al., STB Finance Docket No. 33966 (STB served Aug. 15, 2001).

does not cause more than a 12-inch rise in the current 100-year floodplain elevation, SEA has combined and refined the wording of recommended mitigation measures #23 and #24 in the DEIS. This recommended condition is now Mitigation Measure #F-38 (see Chapter 1 of this FEIS), which states following:

Prior to initiating any rail line construction activities, SGR shall conduct a floodplain study, as described in Voluntary Mitigation Measure #F-VM2, and in consultation with the Medina County Floodplain Administrator. SGR shall comply with the reasonable requirements of the Medina County Floodplain Administrator, as delegated to the Medina County Floodplain Administrator pursuant to the regulations of FEMA at 44 CFR 60.3. These reasonable requirements will include, but not be limited to, ensuring that SGR's construction plans will not cause more than a 12-inch rise in the current 100-year floodplain elevation, consistent with the Medina County Floodplain Administrator's permitting standards, as set forth during the pre-DEIS environmental consultation process for this project.

Comment WR-05, #EI-1225, #EI-1263, #EI-1270, #EI-1287, #EI-1315, #EI-1320, #EI-1325, #EI-1327, #EI-1329, #EI-1335, #EI-1338, #EI-1340, #EI-1341, #EI-1343, #EI-1344, #EI-1345, #EI-1346, #EI-1349, #EI-1351, #EI-1353, #EI-1359, #EI-1360, #EI-1369, #EI-1370 and #EI-1376:

Regarding concerns about potential flooding issues, SEA should clarify the letter in Volume II, page C-39 of the DEIS, discussing Medina County's development standards (construction must not cause more than a 12-inch rise in the 100-year floodplain) for construction in floodplains. Information should be provided explaining how a 12-inch rise in the 100-year floodplain would change existing floodplain conditions. Any affected structures should be identified. Flooding caused by the quarry and the railroad might not be completely mitigated. The proposed rail line could cause drainage changes that would increase area flooding and impact water tanks for livestock and wildlife.

The DEIS classified many of the streams in the areas of the Proposed Route and the three alternative routes as "intermittent, with seasonal flow," but this is not correct. In 2004, flood heights in many of the intermittent streams exceeded 50 inches. The proposed rail line could increase flooding on roadways and in the area, particularly on County Roads 4512 and 365.

The DEIS did not examine the potential flooding impacts associated with elevation changes from the proposed rail line, including flooding impacts from railroad beds, trestles, and culverts. Moreover, the DEIS did not include a full flood analysis of the potential rail routes and the quarry site, and did not address the concern of debris clogging the trestles during flooding. SGR's voluntary mitigation proposal to conduct hydrological and engineering studies before beginning construction is inadequate. Studies are needed before the Board issues a final decision so that the Board can consider this information and the public has been fully informed.

Flooding in the Elm Creek drainage basin has been so frequent in the past few years that TxDOT has kept the temporary flood barrier in place at the bridge crossing on FM 2676. Any additional development within this watershed would increase flooding potential in Elm Creek, including Quihi. The DEIS does not include any real flood studies, only statements about the use of best engineering practices to avoid increasing floodplain width.

SGR should be required to provide assurances that flood control measures will be put into place to prevent flooding impacts from the proposed rail line.

Response: In Section 4.5.3 of the DEIS, Section 3.5 of the SDEIS, and Chapter 2 of the FEIS, SEA discussed the potential impacts to existing flood conditions that SGR's proposed rail line construction and operation could cause. With implementation of several recommended mitigation

conditions, SEA concluded in the DEIS (and continues to believe) that impacts to existing flood conditions under any of the potential rail route alternatives studied in depth in this case would not be significant.

These mitigation conditions include SGR's voluntary mitigation, which would require SGR to design stream crossings in a manner that would not exacerbate pre-existing flooding risks. Specifically, SGR has agreed to conduct appropriate hydrological modeling prior to beginning construction and shall incorporate the resulting design criteria into the design of the rail line to avoid or minimize adverse impacts to existing floodplain conditions. As part of this modeling, SGR agreed to do the following:

- (a) Compile information regarding existing land use, topography, drainage features, impervious surfaces, and other information needed for the modeling effort.
- (b) Conduct additional surveying, as required, to obtain data related to existing channel geometry.
- (c) Coordinate with the Medina County Floodplain Administrator and the U.S. Army Corps of Engineers (Corps) to discuss the project and address reasonable mitigation requirements.
- (d) Delineate the overall watershed and sub-watersheds, and related drainage patterns corresponding to relevant points of interest.
- (e) Compile an existing-conditions hydrologic model, based upon existing watershed characteristics and regional design storm information to determine the 2-, 5-, 10-, 25-, 50-, 100-, and 500-year design storm intensities, and related stream or flood-flow rates for these recurrence intervals.
- (f) Develop existing-conditions hydraulic models of appropriate points of interest, such as stream crossings so that the existing conditions-hydraulic model can be compared to the existing floodplain data.
- (g) Analyze the proposed bridges and other proposed structures on the rail line that may impact the floodplain and the watershed, producing a technical report that addresses the estimated extent of the existing floodplains in the project vicinity and provides appropriate design criteria for minimum bridge openings, culvert locations and sizes, bridge lengths and low chord heights, bank stabilization, scour protection, and erosion control measures.
- (h) Design a WPAP and a Storm Water Pollution Prevention Plan (SWPPP), and provide a narrative description of plans to mitigate water quality impacts during and after construction of the rail line.

SEA also recommended mitigation that would require SGR to do the following: use Best Engineering Practices in the design of the rail line stream crossings to avoid increasing floodplain width; design and implement site-specific "scour and instability countermeasures" to minimize local and downstream instability from stream crossings; comply with the reasonable requirements of FEMA; and obtain a Medina County Floodplain permit for each crossing prior to initiating any rail line construction activities. In the FEIS, SEA has combined and modified the language of the recommended conditions regarding compliance with FEMA requirements and Medina County's Floodplain permitting process, as discussed above. See Mitigation Measure #F-38 in this FEIS.

SEA included in the DEIS a description of Medina County's development standards for construction within floodplains for general information purposes. However, SGR will be required to

comply with the Medina County's floodplain permitting process, which would involve the detailed hydrological modeling described above to refine the design and to minimize or avoid flood impacts. The Medina County floodplain regulations are set forth in a Medina County court order available from the Medina County Floodplain Administrator. These regulations follow the requirements of FEMA's NFIP, set forth at 44 CFR 60.3, and are specifically designed to prevent area development from increasing flooding risks.

In the DEIS and SDEIS, SEA provided a comparison of all of the alternative rail alignments studied in depth in terms of the number and type of floodplain crossings for each alternative; the length to which each potential rail route would intercept the floodplain; and conclusions as to which routes would be easier to engineer in a manner that would mitigate potential impacts to the floodplain. SEA does not believe that detailed hydrological studies of each potential rail route would provide information that would change SEA's conclusions regarding this issue.

Figure 3.3.7 of the DEIS showed that any rail connection to the quarry would require that the floodplain of Elm Creek (which is continuous across the study region) be traversed and that the loading loop itself would cross a couple of unnamed creeks and associated floodplain. The SDEIS discussion in Chapter 6 includes a quantification of length of floodplain to be disturbed for each studied alternative. The relative lengths of floodplain traversed were therefore considered in the evaluation of alternatives. Based on comments received on the DEIS and SDEIS, SGR has relocated the loading loop off the floodplain, as indicated in Figure 5-2 of this FEIS and it no longer crosses the unnamed creeks.

SEA continues to believe that, if the previously mentioned recommended mitigation measures are implemented, SGR's proposed rail line construction and operation would not significantly affect existing flood conditions, especially now that SGR has relocated the loading loop off the floodplain. SEA has also proposed additional mitigation measures to address concerns raised by commenters regarding debris blocking crossings and the maintenance of evacuation routes. Please see Mitigation Measures #F-VM2, #F-36, #F-38, #F-44, #F-46, #F-49, and #F-50 in Chapter 1 of this FEIS for SEA's recommended mitigation to reduce potential flooding impacts.

Executive Order 11988, "Floodplain Management," requires Federal agencies to consider whether a proposed action will occur in a floodplain and to consider alternatives that avoid adverse effects and incompatible development in floodplains. The Executive Order also requires public notification if a proposed action is to be located in a floodplain. SEA's analysis and recommendations, as set forth in the DEIS, SDEIS and this FEIS, constitute compliance with this Executive Order, and the circulation of this FEIS serves as notice that, if the Board approves the proposed rail line construction and operation (or denies the proposed rail line construction and operation and the trucking alternative goes forward), development within the local floodplain will take place.

Comment WR-06, #EI-1480: Four major and three minor streams converge above Quihi, Texas. SGR's Proposed Route would cross each of these water bodies. Although the alternative to be built has yet to be determined, Polecat and Elm Creeks would be impacted by all the alignments, with railroad crossings at various points downstream of VCM's quarry.

The proposed railroad bed, or berms would be elevated to a certain height for its entire distance and would be well within or along the boundaries of the 100-year floodplain. According to the commenter, SEA has not analyzed any impacts associated with the berms and their potential to impound water. Nor has SEA analyzed the potential impacts the berms would have on properties around Quihi even though the Board controls the cumulative flood risk from the quarry and the rail line to the extent that it controls the design and placement of the rail line. To date, the commenter states that the agency has illegally abdicated its responsibility to analyze the flooding impacts. Rather, it appears that STB has

delegated its responsibility to SGR. The duty to comply with NEPA falls on the agency; therefore, STB's delegation of authority in this proceeding is contrary to NEPA, which requires public participation and the material required for informed decision-making

Response: The response to Comment WR-02, above provides a list of engineering studies that SGR would be required to perform in the project design phase. These studies would be reviewed by the Medina County Floodplain Administrator (and, if requested by the County, by FEMA Region VI) for technical adequacy and compliance with local and Federal floodplain regulations, and would use engineering methods that satisfy FEMA. These studies would contain detailed information necessary to evaluate the effect of the proposed project on floodplains within the project area and would be performed using standard engineering methods.

Therefore, SEA believes that any adverse impacts of the proposed rail line on a regulatory floodplain would be sufficiently studied and quantified before SGR obtains final authorization to construct and operate the proposed rail line.

Comment WR-07, #EI-1369, #EI-1376, and #EI-1424: A commenter submitted a map and photos of area flooding, stating that flash floods are particularly common in Medina County. The DEIS did not fully study the flash flood and flooding impacts associated with the project. According to the commenter, the proposed bridges and temporary stockpiles associated with the project would have the potential to trap debris and impede the flow of water, resulting in upstream and downstream flooding. It is imperative that all floodplains and stream channels be adequately maintained during construction and operation of the rail line. SGR's mitigation should include a requirement for maintenance to ensure that debris is routinely removed from all railroad ditches, culverts, and bridges. Areas could be monitored and policed by a local flood prevention organization with delegated oversight authority. All creek and floodplain crossings should be kept open with road beds for the rail line constructed in upland areas, outside the floodplain.

Response: The response to Comment #WR-02 above provides a list of engineering studies that would be performed in the project design phase to ensure that the rail line would not exacerbate pre-existing flood conditions. These studies would be reviewed by the Medina County Floodplain Administrator and, if requested by the County, FEMA Region VI for technical adequacy. These studies would address all fill into or adjacent to the floodplains including the berms that bear the rails. In any location where the rail line would cross or potentially impinge on a floodplain, the engineering studies to be performed would require that the future berms and bridges be accurately laid out (i.e., represented properly in all dimensions: height, length, width of berm, and any openings for flow etc.) on project mapping. Cross-sections selected for modeling would include any changes associated with the rail line.

For instance, the inputs associated with the flood analysis models would require the following: a cross-section located through the centerline of each rail line stream crossing and four additional cross-sections upstream and downstream of the floodplain crossings. These models have accurately predicted potential changes to floodplains caused by fill in thousands of projects nationwide. It should be noted that where the rail line would impinge on the edge of a floodplain (i.e., where the line would run nearly parallel to the length of the floodplain), the fill associated with the rail line would also be modeled.

Quantification of floodplain changes requires numerous structural decisions (height of berm, size of bridge opening, number/orientation/shape of bridge supports) that would vary substantially by crossing location. SEA agrees that imposing mitigation so that the design of crossings (and the associated rail line berm) would not exacerbate pre-existing flood conditions is appropriate. Such engineering is routine and can properly be assigned as a mitigation measure and overseen by the County Floodplain Administrator and indirectly by FEMA.

As a result, SEA is recommending Mitigation Measure #F-45 (see Chapter 1 of this FEIS), which states: SGR's plans for maintaining drainage structures associated with the rail line shall provide for regular maintenance (i.e., removal of debris, rock, and sediment) of ditches and crossings.

Comment WR-08, #EI-1480: SEA has ignored the considerable downstream impact of the bridges. Information was submitted on the frequency and severity of flash flood events in the project area indicating that the flow from such events would wash out the rail line's roadbed and bridges, and alter upstream and downstream hydrology. In addition, the overland or out-of-channel flow upstream that formerly did not reach out-of-channel areas downstream may be diverted away from the railroad bed and funneled through bridge openings, increasing the volume of water downstream.

Response: If the rail line were located within a stream's floodplain, and paralleled the stream for a significant reach without cross-drainage, the rail line would act as described: out-of-channel flows would be constrained to the channel, and overland flows could potentially pond upstream of the rail line. Figure 3-4 of the SDEIS shows that the Proposed Route and alternative rail routes do not fit this description. However, the rail line would not parallel streams in the region for any significant length. The rail line would also include cross-drainage (culverts) to prevent significant ponding where minor swales/watersheds are intercepted, and bridges where floodplains are traversed. The volume of water transmitted downstream is not expected to discernibly change with the proposed rail line construction.

The commenter states that "overland or out-of-channel flow upstream that formerly did not reach out-of-channel areas downstream may be diverted by the berms and funneled through the bridge openings, actually increasing the volume of water reaching downstream areas." It is not clear how out-of-channel flow upstream would not reach out-of-channel areas downstream in the current condition. In any case, the proposed mitigation would require that pre-construction design demonstrate with detailed modeling that the project does not exacerbate pre-existing flood conditions.

Comment WR-09, #EI-1480: SEA's recommended mitigation would require SGR to model only the bridges, which would create the problems of not considering the berms along the rest of the rail line and not considering the effects of the quarry on the hydrology of the upper watershed.

On page 4-56 in the DEIS, SEA states that the berms (or at least the parts containing the rail beds) are porous and concludes that there would be minimal disruption to the natural drainage during construction of the proposed rail line. This is contrary to a mitigation condition in the previous section of the DEIS that recommends that the Board impose a condition requiring SGR to design the bridges without impounding water on the upstream side of the structure. SEA comes to this absurd position because it has never analyzed the design or placement of either the berms or the bridges and yet has made a finding that the bridges, which at least contain some passage for water, but somehow, not the berms, which are solid, will impound water, alter the hydrology, and present an increased flood hazard.

Response: The comment correctly points out that the paragraph titled "Alteration of Hydrologic Flow Paths" on page 4-56 of the DEIS incompletely explains the issue. The two factors that potentially significantly affect hydrologic flow paths (watershed area and land use) are discussed individually below:

- Watershed area. The rail line would not alter the total area of watershed draining into any stream through Quihi, Texas. The rail line project as proposed (see Figure 3-4 of the SDEIS) does not involve diversion of existing regional streamlines; streamlines would remain within their current watercourses. Individual small watersheds not associated with streamlines in Figure 3-4 of the SDEIS may be intercepted, but in that case, cross drainage (culverts) would be provided.

- Land use. The change in land use from the existing condition to the proposed rail line construction and operation would not discernibly affect total runoff (i.e., the total volume of water running immediately off the surface into creeks rather than infiltrating into the ground). This is the case for two reasons. First, the footprint of the rail line would be minimal when compared to stream watershed areas. An increase in percentage of rainfall converted to runoff due to impact on such a relatively small area would not materially affect flood peak in downstream creeks. Second, it is unlikely that any increase in percentage of rainfall converted to runoff would occur. The proposed rail line would replace existing vegetated land cover with a vegetated embankment with a rail bed crest. The rails would be placed on a permeable ballast whose purpose would include drainage, i.e., preventing water from building up between the rails. Rain water would fill voids in the porous ballast before draining down the embankment into the existing drainage system. Because rail beds do not shed water immediately like a paved road, there would be less runoff to surface waters due to infiltration.

In the DEIS, SEA recommended Mitigation Measure #21, which would require SGR to use BMPs in the design of the rail line stream crossings to avoid increasing floodplain width. To further clarify the intent of that Mitigation Measure, SEA has added two new Mitigation Measures (#F-44 and #F-45) that would require SGR to use span bridges where possible to minimize impacts to streams and to properly maintain drainage structures associated with the rail line.

Comment WR-10, #EI-1480: The county development standards would require SGR to demonstrate that its project would not result in more than a one foot rise in the 100-year floodplain. However, SEA's recommended mitigation in the DEIS does not require compliance with these standards. The recommended mitigation only requires SGR to consult with the Medina County Floodplain Administrator. Moreover, even though SGR would have to obtain a permit from the Medina County Floodplain Administrator, the county could not legally deny or impose conditions on the permit (including the one-foot increase in the 100-year floodplain limit) that would prevent construction or otherwise regulate rail construction or operation. When combined with the delegation of analysis, the result is a post-license study that finds what SGR wants to find, and recommended design modifications by the county that prevent construction when SGR decides how much it wants to spend.

Response: SEA has combined and modified the wording of recommended mitigation measures #23 and #24 in the DEIS in response to comments such as this. This recommended condition now states as follows: Prior to initiating any rail construction activities, SGR shall conduct a floodplain study, as described in Voluntary Mitigation Measure # F-VM2, and in consultation with the Medina County Floodplain Administrator. SGR shall comply with the reasonable requirements of the Medina County Floodplain Administrator, as delegated to the Medina County Floodplain Administrator pursuant to the regulations of FEMA at 44 CFR 60.3, prior to initiating any rail line construction activities. These reasonable requirements will include, but not be limited to, ensuring that SGR's construction plans will not cause more than a 12-inch rise in the current 100-year floodplain elevation, consistent with the Medina County Floodplain Administrator's permitting standards as set forth during the pre-DEIS consultation process. See Mitigation Measure # F-38 in Chapter 1 of this FEIS.

Comment WR-11, #EI-1480: In the DEIS, SEA states that there are no streamflow sites originating from downstream or downgradient seeps, but has yet to fully characterize all the streams and crossings within the project area. SEA has only characterized streams located on the Edwards Aquifer and has done no modeling to test if such a statement regarding streamflow is correct. Therefore, SEA cannot substantiate its conclusion that no streamflow sites exist in its flood analysis.

Response: As indicated above, the text on page 3-17 was modified as requested. The reference to a lack of a streamflow record within the project area is provided to explain why numerical tabulations of regional flow regime (spring flows, seasonal variations in flow, etc) are not provided within the DEIS. As set forth in mitigation measure #F-VM2, SGR would conduct appropriate hydrological modeling prior to beginning construction and would perform engineering analyses to demonstrate that the project design does not exacerbate pre-existing flood conditions. Once the project is approved by the Board, estimated flood flows for crossings would be checked against USGS regional regression equations for flood flows derived from the data of the full suite of flow gages from the region.

In addition, the effect of "seepage"⁹ into streams down slope of SGR's project would be negligible. The drainages are generally considered to be losing segments immediately down slope of the Edwards Aquifer Recharge Zone (EARZ) because the geologic substrate is comprised of Leona Gravel and recent alluvium. Only in periods of extremely elevated precipitation would the stream sections in the area be gaining from bank storage and this would only occur for a very limited period. As a result, SEA concludes that there would be no streamflow sites originating from downgradient seeps.

Comment WR-12, #EI-1352: Mitigation Measure #30 should be expanded to include minimizing impacts to wetlands and aquatic resources, as follows: SGR shall be required to engineer its rail line spans across other water flow and flood prone areas to minimize impacts to wetlands, aquatic resources, homes, buildings, and agricultural resources (e.g., crops, orchards, etc).

Response: SEA agrees with EPA's recommendations to minimize impacts of construction on streams and riparian areas, as indicated in Mitigation Measure #F-44 in this FEIS. SEA's final recommended mitigation would require SGR to do the following:

- a) Use span bridges where possible to minimize impacts to streams; including all perennial streams;
- b) Take precautions to avoid channel degrading from head-cutting (such as ensuring that grades at the culverts and bridges remain at their existing elevation);
- c) If a series of box culverts is installed to carry high flows, make one culvert lower than the others to handle frequent flows (i.e., "bankfull" or less), and the other culverts at higher elevations for less frequent events;
- d) Plan the route and design of the rail crossings to avoid the need to cut off meanders and channelize stream reaches;
- e) Minimize impacts to the riparian corridor, especially by forested areas, for example, not clearing entire right-of-way through the riparian area or floodplain and only clearing what is needed for construction and access;
- f) Minimize impacts to the creek banks (soil and vegetation) and stabilize and replant disturbed banks with native vegetation as soon as construction in the creek bank is completed;
- g) Minimize erosion of banks and bare soil, and reduce siltation of streams; stabilize and revegetate bare soil as soon as possible; inspect and repair hay bales and silt fences as needed after each rainfall that creates runoff; install multiple rows of silt fences as necessary, parallel to contours on long and steep slopes; and

⁹ Seepage is a certain quantity of fluid that has slowly passed through small pores into the streams down slope from the project.

- h) Avoid using wetlands or forested floodplains for staging areas or for borrow areas.

Comment WR-13, #EI-1354: The Medina County Floodplain Administrator expressed concern about the project, stating that adverse effects can also occur in areas outside of the mapped floodplain if the overall drainage basin is not factored into the planning process. Cherry, Quihi and Elm Creeks have experienced flooding during periods of high rain so development within these drainage basins should take into consideration flood risks.

Response: Comment noted. SEA is recommending mitigation that would require SGR to coordinate with the Medina County Floodplain Administrator and to comply with the reasonable requirements of the Medina County Floodplain Administrator prior to initiating any rail line construction activities. Please see Mitigation Measures # F-38 in Chapter 1 of this FEIS.

Comment WR-14, #EI-1358: Lands located in the local floodplain would flood after significant rainfall events, regardless of whether the rail line is built.

Response: Comment noted.

Comment WR-15, #EI-1369: If the road bed were built at a one percent maximum grade, the line would consist of almost continuous berms and trestles. Agencies need to make more realistic studies of flooding impacts before determining final grades.

Response: SGR's voluntary mitigation to conduct hydrological studies prior to beginning construction and the review of the project by the Medina County Floodplain Administrator would include consideration of any berms and trestles necessary for the rail line construction. This would ensure that such structures would not significantly affect flooding of the project area. (See Mitigation Measure #F-VM2 and #F-38 in Chapter 1 of this FEIS.)

Comment WR-16, #EI-1370: The proposed rail line would cause increased flooding, which in turn, will cause the trains to stall on the tracks and block evacuation routes, trapping people in their homes, and rendering emergency travel useless.

Response: SGR has stated that it is prepared, as part of its voluntary mitigation, to develop emergency evacuation plans prior to constructing the proposed rail line, following the completion of final engineering on whatever route is authorized and is chosen for construction. SGR also states that it would include in its operational plans language that requires the routine monitoring of weather reports and conditions so that it would be in a position to temporarily cease operations along the line, if warranted by weather conditions. The plan would also state that rail operations would not resume until any flooding has ceased and an inspection has been made of the rail line to ensure that it is safe to resume operations. SGR would also not park trains so as to block emergency evacuation routes. (See #EI-1664 in Appendix D of this FEIS.) SEA has recommended this as Voluntary Mitigation condition #F-VM8, in Chapter 1 of this FEIS. SEA is also recommending an additional mitigation measure to address this comment. Please see Mitigation Measure #F-46 in Chapter 1 of this FEIS, which states: SGR shall consult with appropriate Medina County officials prior to beginning rail construction to identify the location of emergency evacuation routes in the project area. When flood conditions prevail in the area, SGR shall ensure that train operations do not obstruct identified emergency evacuation routes, even if this may require SGR to cease rail operations during periods of flooding.

Comment WR-17, #EI-1109: Flooding concerns for the proposed rail line are exaggerated.

Response: Comment noted.

Comment WR-18, #EI-1741: A commenter summarized and provided a copy of a video prepared by Federal, state, and local agencies, called “Flash Flood Alley.” The video underscores the importance of taking flood impacts into consideration when planning development. The commenter noted the importance of conducting a detailed analysis of floodplain impacts during the environmental review process.

Response: Comment noted. As discussed in several of the responses above, SEA believes that SEA has conducted an appropriate analysis of the potential impacts to the floodplain and that the FEIS contains adequate mitigation to minimize flooding concerns.

Groundwater

Comment WR-19, #EI-1257: The Medina County Special Utility District’s Plant No. 5 is located approximately 5.5 miles south of the proposed quarry and near the proposed rail line. This plant consists of various elevated storage facilities and two municipal water wells drilled into the Edwards Aquifer that are the sole source of water for over 700 families. The potential effects of the quarry on the EARZ need to be studied. The effects of rain and point source pollutants on the Edwards Aquifer are immediate and dramatic since the aquifer has tremendous permeability; the only water supply for these 700 families should not be placed at risk. Even if the risk is determined to be negligible, these families should not have to bear this risk.

Response: Although the separate direct impacts from quarry development and operation are not within the scope of SEA’s environmental review for this rail line construction proposal, as explained in Section 1.5 of the DEIS and Chapter 2 of this FEIS, SEA has examined impacts from the quarry that would overlap with impacts from the rail line construction and operation as part of the cumulative impacts analysis (see Section 4.17 of the DEIS and Chapter 3 of this FEIS). As discussed in Section 4.17.3 of the DEIS, all quarry-related construction activities would be regulated under the Edwards Aquifer Rule at Title 30 Texas Administrative Code (TAC) Chapter 213. These rules are administered by the TCEQ. Plans for regulated activities in Medina County are reviewed by TCEQ staff in the San Antonio Regional Office. Compliance with these rules would adequately mitigate potential impacts to the local aquifer.

Comment WR-20, #EI-1263, #EI-1325 and #EI-1370: The use of large amounts of water for quarry and railroad operations will affect water quality in local wells and other areas of the Edwards Aquifer now and in the future. Drinking water will be polluted by runoff from the quarry and the railroad, and will lead to disastrous and irreversible consequences for wildlife and humans. A commenter expressed concern about water pollution from chemicals, and spilled fuels from the quarry site.

Response: Although the separate direct impacts from quarry development and operation are not within the scope of SEA’s environmental review for this rail line construction proposal, as explained in Section 1.5 of the DEIS and Chapter 2 of this FEIS, SEA has examined impacts from the quarry that would overlap with impacts from the rail line construction and operation as part of the cumulative impacts analysis (see Section 4.17 of the DEIS and Chapter 2 of this FEIS). As discussed in Section 4.17.3 of the DEIS, all quarry-related construction activities would be regulated under the Edwards Aquifer Rule at Title 30 TAC Chapter 213. These rules are administered by the TCEQ. Plans for regulated activities in Medina County are reviewed by TCEQ staff in the San Antonio Regional Office. SEA is recommending compliance with these rules to mitigate potential impacts to the local aquifer (see Mitigation Measure #F-29). In addition, TCEQ has approved VCM’s WPAP for the quarry (see Appendix D of this FEIS, #EI-2525).

With respect to the proposed rail line, as stated in Section 4.5 of the DEIS and Section 3.5 of the SDEIS, SEA’s analysis indicates that construction and normal operations over the proposed rail line, under any of the alternatives studied, would result in little or no impacts to groundwater resources,

including aquifers. Temporary silting due to construction and maintenance activities for the proposed rail line could cause minor impacts to groundwater. In the highly unlikely event of a release of diesel fuel caused by a derailment on the proposed line, SEA has proposed mitigation (as detailed below) to prevent significant impacts to groundwater.

Construction of a rail line involves earth-disturbing activities, such as creation of a roadbed, and making cuts and fills to level out the grade for the rails. In this case, disturbance of the earth could create the potential for stormwater runoff containing silt and debris to enter into the streams that recharge the Edwards Balcones Fault Zone (BFZ) and Leona Gravel aquifers. The Edwards BFZ Aquifer is a major aquifer and is the source of drinking water for private wells in the area as well as some municipal water supplies. The portion of the proposed rail line, under any of the rail alternatives studied, crossing the EARZ (zone that recharges the Edwards BFZ Aquifer) is small, representing only the northernmost one-half mile of the proposed rail line.

Repair and replacement activities that would take place after the proposed rail line begins operating could also involve some minor disturbance of the earth and generate small volumes of runoff containing silt or debris to enter into the groundwater in the two aquifers. Stormwater runoff tends to occur during more intense rainfalls that are in excess of three inches per hour or greater. Rainfall events of this size usually occur during the spring and fall months. The summer and winter months are relatively dry by comparison.

To minimize the impact of silt or debris entering the groundwater to the maximum extent possible, SEA is recommending that the Board impose a condition requiring that construction and repair/replacement activities be performed in accordance with a SWPPP that contains BMPs to use during construction and maintenance activities. These BMPs would entail use of temporary measures such as silt fencing, rock berms, and hay-bale berms. (See Mitigation Measure #F-21 in Chapter 1 of this FEIS).

As explained in more detail in Section 4.5.2 of the DEIS and in Section 3.5 of the SDEIS, construction and maintenance of the proposed rail line (under any of the routes studied in detail) would result in an extremely small risk of a significant amount of petroleum products entering the area's aquifers. Any piece of equipment used in construction or repair would contain only a small volume of gasoline (or diesel fuel) and oil, and there is only a small risk of an accident causing a piece of equipment to spill fuel.

Petroleum poses a concern when it reaches the groundwater table in an aquifer because the petroleum spreads out on top of the water surface and travels in the direction of water flow, eventually emerging at springs or other discharge points. This represents a particular concern for those wells that withdraw from the top of the water column. However, the impact of such a petroleum spill would be minor when the water is used to irrigate crops or to water stock because petroleum products may be applied to the land surface as a low concentration over a wide surface area and would evaporate rapidly or dissipate through natural attenuation. The impact would be more significant if the water were used for domestic supply (private-use wells) because the benzene, toluene, and other organic compounds in gasoline and diesel fuel are a health risk to humans. SEA is recommending mitigation measures in this FEIS that would require SGR to implement plans to reduce the risk of petroleum spills, to promptly remediate any spills that occur, and to address the needs of well owners should any contamination occur. (See Mitigation Measures #FVM-10, #F-25, and #F-43 in this FEIS.)

Moreover, to reduce the likelihood of an equipment-related fuel spill, SEA is recommending a condition requiring good maintenance and safe operation of rail construction equipment and requiring construction contractors and repair crews to act immediately to contain and remediate any fuel spill from construction equipment. (See Mitigation Measure #F-23 in Chapter 1 of this FEIS.)

Also see Mitigation Measures # F-21 through F#-34 in Chapter 1 of this FEIS for all of SEA's recommended mitigation regarding groundwater resources. Given the results of SEA's analysis and the recommended mitigation, SEA believes that impacts to water quality in local wells and aquifers from the proposed rail line construction and operation would not be significant.

Comment WR-21 #EI-1326, EI-1281, #EI-1284, #EI-1320, #EI-1329, #EI-1335, #EI-1338, #EI-1339, #EI-1344, #EI-1345, #EI-1349, #EI-1360, #EI-1369, #EI-1370: The DEIS does not address quarry impacts to water quality. Quarry operations could cause impacts to Edwards Aquifer wells, septic systems, and open tanks for livestock. Blasting activities could weaken a septic system and contaminate nearby wells or fracture impervious formations and destroy wells, which would bring an end to all farming and livestock operations.

Response: Although the separate direct impacts from quarry development and operation are not within the scope of SEA's environmental review for this rail line construction proposal, as explained in Section 1.5 of the DEIS and Chapter 2 of this FEIS, SEA has examined impacts from the quarry that would overlap with impacts from the rail line construction and operation as part of the cumulative impacts analysis (see Section 4.17 of the DEIS and Chapter 3 of this FEIS). As discussed in Section 4.17.3 of the DEIS, all quarry-related construction activities would be regulated under the Edwards Aquifer Rule at Title 30 TAC Chapter 213. These rules are administered by the TCEQ. Plans for regulated activities in Medina County are reviewed by TCEQ staff in the San Antonio Regional Office. Compliance with these rules would mitigate potential impacts to the local aquifer.

SEA considers the impact of quarry blasting on water wells to be negligible. In addition SEA believes that damaging blasting effects to infrastructure external to the geographic limits of the quarry is also considered negligible. Some effects such as minor audible or seismic indications of blasting operations may be measurable outside of the quarry property. See EUWD, 1992, Blasting Effects on Engineered Structures: Edwards Underground Water District, 3 Volumes (variously paged). As stated in Section 4.5 of the SDEIS, damaging or perceptible quarry activity-related ground vibration, including blasting vibration, would not spread beyond the quarry boundary.

Comment WR-22, #EI-1287: The entire section in Chapter 3 on groundwater needs much more detail concerning the project site. Figures should include maps scaled to a minimum of 1:24,000 showing the location of each of the aquifers and drinking water wells found in the project area. The wells should be color-coded according to the source aquifer. The EARZ should be carefully delineated and mapped. Delineations should be performed according to field data and not using the maps found through public information. These maps are for informational purposes only and do not show the physical boundaries of the EARZ on the project area. It is critical that this be delineated, especially in the location where the fuel facility is to be located. This area is highly vulnerable to contamination, and its location within the project area is extremely important. Many of the aquifers in the area are sensitive to withdrawal of water and are very slow to recharge. These aquifers are also sensitive to vibration. More information should be provided concerning the sensitivities of the aquifers in the area. Another figure should be offered that shows the location of all wells in the area, but color-coded according to their usage. This may also have a bearing on sensitivity to impacts; for example, whether groundwater is used for domestic or stock purposes or for commercial or industrial use makes a difference on the level of impact or contamination that the well sources can accommodate.

Response: SEA does not believe that more extensive field studies of aquifers and wells in the area or the creation of a color-coded map of all wells in the area are needed to assess the impacts to groundwater resources from the proposed rail line construction and operation. As stated in Section 4.5.2 of the DEIS and in Chapter 3 of the SDEIS, construction, maintenance, and normal operations over the proposed rail line would result in an extremely small risk of a significant amount of petroleum products

entering the area's aquifers. Although the low level of traffic over the proposed rail line (four trains per day) makes a derailment very unlikely, a derailment could potentially cause a release of fuels (likely diesel) that could impact groundwater resources. The severity of the impacts on groundwater from a derailment would vary with the speed of detection, and the speed and thoroughness of the cleanup. SEA is recommending several mitigation measures to reduce the risks of SGR's proposed construction and operation to local groundwater sources, including mitigation to address vibration impacts to wells. See Mitigation Measures # F-21 through #F-34 in Chapter 1 of this FEIS,.

SGR has stated that the fueling facility would be located in an area off of the EARZ. Based upon additional information provided by SGR, SEA has developed a small-scale map showing the proposed location of the fueling and maintenance facility, and the relationship between the facility, the proposed rail line, and the EARZ and transition zone (see Figure 5-2 of the FEIS.) SEA is recommending that the Board impose a condition requiring SGR to locate the fueling facility on a site down gradient (southerly) of the EARZ over the upper confining units of the Edwards Aquifer and to implement permanent BMPs that would prevent and/or abate the departure of potential pollutants or sediment from the site. In addition, a SWPPP should be established appropriate to address potential stormwater runoff concerns. See Mitigation Measures #F-VM9, #F-VM10, #F-32, #F-33, and #F-35 in Chapter 1 of this FEIS.

SGR has indicated that the SPCC Plan would be prepared and implemented in compliance with EPA's regulations at 40 CFR Part 112, including the map requested by EPA in its comments, and would incorporate measures to protect groundwater from contamination. (See Appendix D of this FEIS, #EI-1664.) SEA has incorporated this as Voluntary Mitigation #F-VM9, in Chapter 1 of this FEIS. SGR also states that above-ground fuel and oil storage tanks would be utilized and located in concrete containments of adequate height, volume, and thickness to prevent leakage into the ground should the integrity of the tanks be breached. The SPCC plan would require fencing and/or other security measures for the containment area, and the tanks would have fill gauges to prevent overfilling. Procedures would also be in place to clean up incidental spills. SGR further pointed out that VCM's WPAP permit for the quarry addresses BMPs for the fueling and maintenance area and drainage matters. TCEQ has approved VCM's WPAP permit. (See Appendix D of this FEIS, #EI-1664, and #EI-2525.) As noted above, SEA has developed this condition as Voluntary Mitigation # F-VM10, in Chapter 1 of this FEIS that would require SGR to utilize above-ground fuel storage tanks equipped with fill gauges to prevent overfilling.

Comment WR-23, #EI-1287: The section discussing operational impacts to groundwater in Chapter 4 needs to address the fact that the actual boundaries of the EARZ have not been delineated on the site, making it almost impossible to determine where to place the fuel and maintenance facility so that it is not located on the EARZ. This needs to be addressed in advance of any impact analysis. Also, the section needs to discuss the potential hazards associated with railroads, such as the potential for derailments and the release of hydraulic fluids.

Response: Based upon additional information provided by SGR, SEA has developed a small-scale map, showing the proposed location of the fueling and maintenance facility and the relationship between the facility, the proposed rail line, and the EARZ and transition zone (see Figure 5-2). In addition, SEA is recommending a new mitigation condition, (see Mitigation Measure # F-30 in Chapter 1 of this FEIS) which would require SGR to conduct appropriate studies before beginning construction to ensure that the fueling facility would be located off of the EARZ.

SEA is recommending a number of conditions to reduce the potential for contaminants to enter groundwater and surface water (see Mitigation Measures # F-21 through F-49 in Chapter 1).

Finally, locomotives operate with a number of hazardous fluids, including fuel, lube oil, bearing grease, coolant, and compressor oil. The only lubricant on freight cars is in sealed roller bearings. Given

modern train equipment, shop facilities, and environmental systems, the risk of oil leaks during rail operation is rather small. Most oil and lubricant is spilled by workers rather than leaking from equipment, and thus is concentrated in the fueling/maintenance area, which was discussed in the DEIS and would be addressed with BMPs. Over the route of the rail line, routine releases of these products would therefore be unlikely and are not expected to have any potential for impact to surface waters, groundwater, or soils.

Comment WR-24, #EI-1226, #EI-1250, #EI-1263, #EI-1329, #EI-1335, #EI-1337, #EI-1338, #EI-1341, #EI-1347, #EI-1348, #EI-1351, #EI-1353, #EI-1369, and #EI-1370: The Edwards Aquifer is the sole source of water for a large area and the quarry would be located over the EARZ, which is the most sensitive portion. The rail line would allow the quarry to be developed. The EIS should examine the effects of the quarry on the Edwards Aquifer and impacts to water wells supplied by the aquifer. Impacts of the quarry on the aquifer need to be studied. Effects from the quarry on private wells need to be disclosed since wells are the sole source of water for area residents. To say that the quarry would have little or no impact is ludicrous.

The permeable geology of the Edwards Aquifer would allow pollutants to infiltrate into confining aquifers from the rail line and the quarry, leading to disastrous and irreversible consequences for wildlife and humans. Impacts from blasting activities at the quarry to the Edwards Aquifer should be examined.

Commenters questioned the legality of locating diesel storage tanks above the recharge zone, as the dynamite and associated blasting activities at the quarry could cause a release of chemicals into the soil and waterways. Quarrying to a depth of 200 to 250 feet would not leave enough of a buffer zone between the Edwards Aquifer to filter out the chemicals. Who would be responsible for dry and/or contaminated wells and whether water quality monitoring stations would be installed to monitor the quarry and the rail line to assure compliance with water quality standards?

Commenters expressed concern that the water level at the quarry's material and rail loading site is extremely shallow, with caves, sink holes, and fault lines, and that any fuel or chemical spill would contaminate the aquifer.

Commenters noted that eight to ten similar industries already exist in Medina County over the Edwards Aquifer and the quarry would add to the risks currently faced by the Edwards Aquifer. Another commenter said that TCEQ does not have regulations that protect the aquifer. Fines would not remedy the aquifer once it becomes polluted.

Response: Although separate direct impacts from quarry development and operation are not within the scope of SEA's environmental review for this rail line construction proposal, as explained in Section 1.5 of the DEIS and Chapter 2 of this FEIS, SEA has examined impacts from the quarry that would overlap with impacts from the rail line construction and operation, as part of the cumulative impacts analysis (see Section 4.17 of the DEIS and Chapter 3 of this FEIS). As discussed in Section 4.17.3 of the DEIS, all quarry-related construction activities would be regulated under the Edwards Aquifer Rule at Title 30 TAC Chapter 213. These rules are administered by TCEQ. Plans for regulated activities in Medina County are reviewed by TCEQ staff in the San Antonio Regional Office. Compliance with these TCEQ rules would mitigate potential impacts to the local aquifer.

SGR provided information stating that VCM has received approval from TCEQ for its WPAP and a storm water permit (see #EI-1411 and #EI-2525 in Appendix D of this FEIS). According to SGR, the application process for the permit was detailed and included a geological assessment (GA) of the area, including the preparation of a geologic map illustrating the outcrop of surface geologic units and all geologic and manmade features, such as caves and sinkholes. The WPAP application also included a technical report describing stormwater runoff, the area of the site expected to be disturbed, and a

description of BMPs to be adopted. The storm water permit would regulate the discharge of storm water at the quarry site and would require VCM to utilize BMPs to prevent pollutants from exiting the quarry property, and to address erosion issues.

SGR also provided information regarding VCM's projected mining depth at the quarry site, water quality impacts of the quarry, and quarry water usage. (See DEIS, Appendix G, pages G-146 to G-147.) According to SGR, no mining would occur at depths such that the water table would be impacted. SGR states that only the amount of fuel and lubricants required for short-term operations would be maintained on-site, and all storage tanks and drums would be placed in secondary containment facilities in accordance with all Federal, state, and local requirements governing storage tanks and the handling of petroleum products.

Blasting agents would be brought into the quarry area and mixed during placement within the shot holes. According to SGR, these agents would be consumed during the blast and any trace and/or minor residual components would adhere to the broken aggregate that is transported out of the quarry. SGR has provided information stating that blasting at the quarry would occur approximately five times per week when the quarry facility is operating at its design capacity and that the duration of any given blast would be from 350 milliseconds to 1,500 milliseconds. According to SGR, VCM would design all blasts using BACT as it does at other quarries. SGR states that VCM would design its blasts to comply with the widely applied blast-induced vibration guidelines set forth in report RI 8507 issued in 1980 by the U.S. Bureau of Mines. SEA concludes that because blasting from quarry mining will be conducted to industry safety standards; it would likely have negligible impacts to the groundwater environment. (See Appendix D of this FEIS, #EI-1664.)

SGR also has shown that any Edwards Aquifer water used for the quarry would be regulated by permits from the Edwards Aquifer Authority (EAA) to ensure that VCM would only utilize the amount of water that complies with EAA's rules. (See DEIS, Appendix G, pages G-148.)

Furthermore as discussed in Section 4.5.2 of the DEIS, construction and normal operation over the proposed rail line would result in little or no impacts to groundwater resources, including aquifers. SEA is recommending a mitigation measure to prevent significant impacts to groundwater, in the highly unlikely event of a release of diesel fuel caused by derailment on the proposed line. (See Mitigation Measure #F-26 in Chapter 1 of this FEIS.)

Comment WR-25, #EI-1313: The EPA submitted comments recommending that the boundary between the EARZ and the transition zone be illustrated on detailed and small-scaled maps, and should be included on Figure 4.17-1 of the DEIS. EPA recommended that the SPCC Plan be site-specific and should include a map showing recharge features in the EARZ within the vicinity of the rail line, and indicate measures to protect groundwater from contamination through those features. EPA also requested more information on the fueling and maintenance areas that would be located outside the EARZ (e.g., storage and management of fuel, thickness of confining layer there, and safeguards against drainage of spills onto the recharge zone).

Response: SGR has stated that the SPCC plan would be prepared and implemented in compliance with EPA's regulations at 40 CFR Part 112, that the map requested by EPA in its comments would be included, and that the SPCC would incorporate measures to protect groundwater from contamination. (See #EI-1664 in Appendix D of this FEIS.) SEA has incorporated these assurances as Voluntary Mitigation #F-VM9 and as Mitigation Measures #F-24 and #F-25 in Chapter 1 of this FEIS. SGR also states that the fueling and maintenance area would not be located on the EARZ, and that above-ground fuel and oil storage tanks would be utilized and located in concrete containments of adequate height, volume, and thickness to prevent leakage into the ground should the integrity of the tanks be

breached. Moreover, according to SGR, the SPCC plan would require fencing and/or other security measures for the containment area, and the tanks would have fill gauges to prevent overfilling. As indicated in voluntary mitigation # FVM-10 (See #EI-1664 in Appendix D of this FEIS), procedures would also be in place to clean up incidental spills. In addition, Vulcan's WPAP permit for the quarry addresses BMPs for the fueling and maintenance area and drainage matters. (See Mitigation Measure #F-25 in Chapter 1 of this FEIS.)

Comment WR-26, #EI-1314: Based upon Figure 3.6-1 in the DEIS, it appears that the maintenance and fuel storage area would be located on an outcrop of Del Rio Clay immediately south of the EARZ. The EAA staff recommends that the maintenance and fuel storage area be located as far south of the EARZ as possible in an area that will provide drainage away from the EARZ and in an area where, at a minimum, the full thickness of Del Rio Clay is present.

Commenter states that EAA regulations prohibit the installation of new aboveground and underground storage tanks that contain hazardous materials on the EARZ (EAA Rules, Chapter 713, Subchapter G). Any excavations into Del Rio Clay that encounter Edwards Limestone would be considered as being on the EARZ; therefore, the installation of tanks containing regulated materials into any such excavations would be prohibited. If the maintenance and fuel storage area must be located in an area of Del Rio Clay outcrop, EAA staff recommends that any storage tanks be constructed with tertiary containment.

EAA states that many consider the Del Rio Clay to act as a barrier to keep contaminants and water from entering the aquifer; however, naturally occurring fractured clays are not engineered fills and should not be considered as imparting protection to the Edwards Aquifer. EAA suggested the SPCC plan should be aggressive for the portion of the rail line that crosses the EARZ. Due to the potential for rapid infiltration of any spills on the EARZ and due to the rapid groundwater flow rates in the aquifer, EAA believes spill prevention would be essential to preventing aquifer contamination.

Response: To address EAA's concerns, SEA is recommending specific mitigation measures that would require using "CONVAULT-type" Above Ground Storage Tanks (ASTs) at the railroad's fueling and maintenance facility. This type of AST is an above-ground, concrete, full-storage tank that has dual wall construction providing redundant containment in the event of a leak. These types of tanks are also equipped with sensors that will "alarm" if leakage is detected. They are instrumented to show the fuel level and have multiple safety devices to prevent overfilling and rupture, and have superior flame-arrested venting ports. These ASTs would also be located within a third concrete-walled container that holds 1-1/2 times the volume of the AST maximum volume. This would provide additional protection to contain a fuel leak in the unlikely event of multiple containment failures. All ASTs would be required to be located off of the EARZ and on areas where fuels from an unlikely catastrophic release would flow away from the EARZ. SEA's recommended mitigation also provides that these sites generally should be south of the Balcones Escarpment on outcrops of Del Rio Clay (as determined by a geologist). (See Mitigation Measure #F-32 in Chapter 1 of this FEIS.) The fueling and maintenance facility also would have an established SPCC plan in place in addition to any SWPPP appropriate to the location. Please see Mitigation Measures #F-25, #F-32 and #F-33 in Chapter 1 of this FEIS and Figures 5-1 and 5-2 in this FEIS for the revised approximate location of the fueling and maintenance facility.

Comment WR-27, #EI-1287: The DEIS states that the fueling and maintenance facility would be located off of the EARZ, but no data is provided to support this statement. Only a figure showing the geologic atlas and a projected location of the boundaries of the EARZ are shown. It is well known in this local community that these boundaries are only projected and politically based, and are not scientifically delineated in the field. Fueling facilities are not allowed on the EARZ and a geologic survey should be conducted to determine the boundaries of the recharge zone with respect to the quarry and the fueling

facility. The figures provided in this section of the DEIS are at such a large scale that no definitive conclusions could possibly be made. The figure should be made at a scale that would accommodate the property to be used for the fueling station and some of the surrounding area. The exact boundary of the EARZ could then be drawn based upon definitive field data.

Voluntary Mitigation Measure #1 of the DEIS indicates that SGR will ensure the maintenance of fuel activities at a facility in a designated area off the EARZ. This can only be accomplished by a GA of the area to determine where the boundaries of the EARZ are located.

Response: Based upon additional information provided by SGR and comments received on the DEIS and SDEIS, SEA has developed a small-scale map, illustrating the revised proposed location of the fueling and maintenance facility, and the relationship between the facility, the proposed rail line, and the EARZ and transition zone (see Figure 5-2 of this FEIS).

SEA also is recommending Mitigation Measures #F-29 that would require SGR to conduct a GA typical to TAC Chapter 213 rules as a basis for determining the appropriate location for the maintenance and refueling facility. Please see Chapter 1 of this FEIS.

Comment WR-28, #EI-1287: Paragraph 1 on page 3-8 of the DEIS states that a field survey and mapping of the project area were conducted to identify major or minor groundwater spring sites along or near the proposed and alternative routes. It is difficult to believe that the statements in the paragraph are supported by field data. The entire area, especially in northern Medina County, is covered with springs and seeps, which have produced wetlands that are fairly obvious. More careful field surveys should be conducted of the project area because of these wetlands, and because karst features are known to occur along the proposed route, especially in the area of the fueling facility and loading loop. Intensive field studies need to be conducted to identify these karst features, which the commenter states, include sinkholes, faults, and fault zones. A figure should be provided to show the location of all seeps, springs, and karst features within one mile of each route or alternative route.

Response: During the preparation of the DEIS, SEA did not conduct a detailed survey of springs, seeps and sink holes, but rather a general site assessment of karst features and karst feature formation potential in the project area as part of the study of the overall impact of the proposed rail line on groundwater resources. In the DEIS, in Sections 3.6.3 and 4.9, SEA discussed the susceptibility of the area near the loading track and a portion of the proposed rail line extending approximately 1,500 feet south of the loading track to karst-feature formation. SEA is recommending mitigation regarding karst features and groundwater resources, including requiring SGR, prior to construction, to conduct a comprehensive karst feature inventory (including springs, seeps, and sink holes) and evaluation in compliance with 30 TAC Chapter 213, administered by TCEQ, which regulates construction activities over the EARZ. Please see Mitigation Measure #F-34 in Chapter 1 of this FEIS.

SGR also provided information indicating that VCM has undertaken an extensive study of the geologic features on the quarry site in order to comply with 30 TAC Chapter 213 for proposed quarry operations. SEA believes that the information VCM is gathering for the quarry may be sufficient to address the TCEQ's requirements for construction of the proposed rail line. (See Appendix D of this FEIS, #EI-1411.) However, SEA is recommending a mitigation condition that would specifically require SGR to comply with TCEQ's requirements. (See Mitigation Measure #F-29 in Chapter 1 of this FEIS.) Given this recommended mitigation, and the results of the analysis that SEA conducted, SEA does not believe that additional field studies are needed to assess impacts to groundwater resources and karst features from the construction and operation of the proposed rail line.

Comment WR-29, #EI-1287: In the section discussing operational impacts to groundwater in Chapter 4, comparisons are once again made that allude to a greater occurrence of accidents and releases of petroleum hydrocarbons from trucks, but no data to justify these statements is furnished. All of these arguments must be based upon sound scientific data and not inferences. For example, what is the actual quantitative difference of dust produced by trucks versus that by the rail? How was the potential occurrence of motor vehicle accidents determined and compared to rail transport? Again, this section did not even address the fact that a fuel station will be constructed for the trucks. This station is apparently off the recharge zone, which would be less of an impact compared to the fuel station for the rail, which is on or near the recharge zone.

Response: Information on potential impacts to ground water from accidental spills was presented in Section 4.1.2 “Risk of Accidents” of the DEIS and to air quality in Section 4.7 “Air Quality Impacts” of the DEIS. It is also discussed in Chapters 3 and 6 of the SDEIS. SEA’s analysis shows that risks of injuries to human health and fatalities per year associated with the proposed rail transport are approximately 0.05 and 0.03, respectively, while the risks associated with truck transport are about 2.6 and 0.1 injuries and fatalities per year, respectively. The dust emissions (particulate matter) associated with rail transport would be 27.7 tons per year, while the dust emission on unpaved and paved roads from truck transport would be about 3,181.6 and 1,316 tons per year, respectively. Additionally, the fueling and maintenance facility would serve both trucks and rail and would be located off the EARZ regardless of the mode of transport selected. The remote truck-to-rail loading facility, which would only be built under the No-Action Alternative, would also have fueling facilities for trucking operations and rail locomotives. (See DEIS, Appendix G, pages G-73 to G-76.)

Comment WR-30, #EI-1296: SGR recommended that Mitigation Measure #18 in the DEIS be modified by having the last clause state “and shall remediate any soils contaminated by any diesel or gasoline release for which SGR is responsible as soon as practicable” in order to clarify that SGR is not responsible for remediating soils that are contaminated as a result of conduct unrelated to SGR’s activities.

Response: Comment noted. SEA has incorporated this suggested language into the recommended Mitigation Measure #F-26 in this FEIS (see Chapter 1).

Comment WR-31, #EI-1318 and #EI-1356: Recycling the water at the quarry would protect against the use of large amounts of water for quarry activities.

Response: Comment noted.

Comment WR-32, #EI-1358: The rail line would cause fewer impacts to groundwater than trucking.

Response: Comment noted. As stated in Section 4.5.2 of the DEIS and Chapter 6 of the SDEIS, SEA’s analysis indicates that the use of trucks to transport the limestone from the quarry to the UP rail line, under the No-Action Alternative, would have a greater potential for impacts to groundwater resources in the area than the construction and operation of the proposed rail line, due to the increase in truck traffic.

Water Supply

Comment WR-33, #EI-1252, #EI-1310, #EI-1342, #EI-1343, #EI-1345, and #EI-1360: Medina County is already facing challenges to provide communities with water and Vulcan’s use of large amounts of water would impact the future growth of the county. Some wells in the area are currently operating at limited capacity and any increases in water usage elsewhere could offset the water pressure

within the wells, deeming them inoperable. Wells are very expensive to install and many residents have limited incomes. Would Vulcan be responsible for installing new wells on private land in the event that existing wells cease to function as a result of water usage at the quarry and during construction of the rail line? Can Vulcan guarantee that landowners will continue to have access to the water on their lands at a reasonable cost? Homeowners may be forced to deepen wells.

Response: SGR states that it would obtain water for construction, operation, and maintenance of the rail line from the most economical and environmentally safe source, which could include local water authorities or private landowners. (See Appendix D of this FEIS, #EI-1664.) SGR also states that Vulcan owns Edwards Aquifer water rights and other water rights that could be transferred from Bexar County and other Vulcan operations in Medina County to adequately supply the needs for the rail line construction, operation, and maintenance. SEA has recommended mitigation that would require SGR to negotiate with affected landowners to provide access to severed properties and to develop additional water sources for livestock and wildlife to replace those lost, adversely affected, or rendered inaccessible due to new rail line construction. Please see Chapter 1 of this FEIS, Mitigation Measure #F-63.

SGR provided the following information regarding quarry water usage: “The amount of water utilized in the project will be a function of the market demand and the resultant volume of material sold from the operations. It is estimated that, in the early stages of the project, the volume of water to be utilized may range from 500 to 2,000 acre/feet annually. If this is regulated Edwards Aquifer water, then it represents the use of existing water rights that would otherwise be used in some other part of the region. As such, use of Edwards Aquifer water in quarrying operations does not represent an increase in total regional Edwards Aquifer usage. Included within this estimate is Vulcan’s utilization of extensive water re-use equipment and technology. In 2000, Vulcan Materials received an award for “Outstanding Water Saver of the Year - Big Business Category” from the San Antonio Water Systems, for using water re-use technology in its Bexar County quarry operations. Vulcan is the only aggregate producer in the area to utilize this water saving approach. Implementation of this technology resulted in Vulcan recovering as much as 75% of the water it would have otherwise lost. The same technology is planned for use at the quarry to be served by the SGR line.” (See DEIS, Volume III, Appendix G, Page G-148.)

The Board does not have jurisdiction over the development and operation of Vulcan’s quarry. Accordingly, the Board does not have the legal authority to impose mitigation conditions on Vulcan’s use of water for quarry operations.

Wells

Comment WR-34, #EI-1352 and #EI-1369: Where and how deep is Vulcan going to drill its well, and what will this do to the water table? How could SEA conclude that cumulative impacts to water resources would not be significant when there is no public water supply in the area, and shallow water wells are the only source of water? These wells range from 180 to 350 feet deep, with water levels as high as 140 feet from the surface. Vulcan plans to mine to a depth of 250 feet, so how could impacts not be significant?

Response: Although the impacts from quarry development and operation alone are not within the scope of SEA’s environmental review for this rail line construction proposal, as explained in Section 1.5 of the DEIS and Chapter 3 of this FEIS, SEA has examined impacts from the quarry that would overlap with impacts from the rail line construction and operation as part of the cumulative impacts analysis (also see Section 4.17 of the DEIS and Chapter 3 of this FEIS). As discussed in Section 4.17.3 of the DEIS, all quarry-related construction activities would be regulated under the Edwards Aquifer Rule at Title 30 TAC Chapter 213. These rules are administered by the TCEQ’s San Antonio Regional Office for activities in Medina County. Compliance with these rules would address potential impacts to the local aquifer that would result from the development and operation of the quarry.

SGR states that it would obtain water for construction, operation, and maintenance from the most economical and environmentally safe source, which could include local water authorities or private landowners. (See Appendix D of this FEIS, #EI-1664.) SGR also states that Vulcan owns Edwards Aquifer water rights and other water rights that could be transferred from Bexar County and other Vulcan operations in Medina County to adequately supply the needs for the rail line construction, operation, and maintenance. SEA is recommending mitigation that would require SGR to develop a SWPPP prior to initiating rail line construction activities and to implement the measures in the plan during construction and maintenance activities. See Mitigation Measures #F-21 and #F-33 in Chapter 1 of this FEIS. Thus, SEA believes impacts to water quality in local wells and aquifers from the proposed rail line construction and operation would not be significant.

According to SGR, although the thickness of the limestone on the quarry property generally exceeds 400 feet, the potential mineable thickness varies from as thin as 40 feet from the surface in some areas to as great as 180 feet in other areas. SGR states that no mining would occur at depths so deep as to contact the water table since the presence of water in active quarrying areas is a hindrance to mining activities. (See DEIS, Volume III, Appendix G, page G-146.)

Comment WR-35, #EI-1424: SEA did not address the request of the EAA, submitted to SEA in a February 26, 2004, letter, to conduct an inventory of all water wells within the project area, to identify the aquifer in which they are completed, and to make sure that all wells within the right-of-way are properly abandoned.

Response: SEA believes that a detailed inventory of all water wells (beyond public supply sources) is unnecessary, given the relatively low risk of impacts to groundwater resources expected to result from this project. SEA is recommending mitigation to appropriately address impacts to local aquifers, in the unlikely event that construction and operation of the rail line were to cause such impacts. SEA is recommending a mitigation measure that would require SGR to make sure that all wells within the right-of-way are properly abandoned prior to beginning rail construction activities. (See Mitigation Measure #F-28 in Chapter 1 of this FEIS.)

Comment WR-36, #EI-1425: Commenter expresses concern that a water well problem or catastrophe could occur.

Response: SEA is recommending a mitigation condition that would require SGR to develop a contingency plan to protect the health and safety of well owners should any contamination to wells occur as a result of rail line construction and operation. That mitigation should adequately address the commenter's concerns. See Chapter 1 of this FEIS, Mitigation Measure #F-27.

Surface Water

Comment WR-37, #EI-1378: TPWD supports SEA's recommendation for bridges to span the entire width of creeks and streams within the area of the proposed construction. Bridges are typically constructed to span creeks and avoid wetlands and other waterbodies. In addition, minimizing impacts to riparian corridors will afford wildlife the opportunity to continue using the waterways in the project area.

Response: Comment noted.

Comment WR-38, #EI-1349: Commenter expresses concerns about fault lines in the area and potential impacts to water quality from the quarry activities.

Response: Although the impacts from quarry development and operation alone are not within the scope of SEA's environmental review for this rail line construction proposal, as explained in Section 1.5 of the DEIS and Chapter 2 of this FEIS, SEA has examined impacts from the quarry in conjunction with

impacts from the rail line construction and operation, as part of the cumulative impacts analysis (see Section 4.17 of the DEIS and Chapter 3 of this FEIS). As discussed in Section 4.17.3 of the DEIS, Vulcan plans to build the quarry in the topographically higher elevations within the project site. Because of this, only minor runoff water and water from direct rainfall would enter the area around the quarry. In addition, the use of BMPs would prevent and control any stormwater runoff from the quarry site, as well as prevent the release of suspended sediment into local surface waters. Accordingly, no potentially significant adverse cumulative effects to water quality or surface water resources in the proposed project area are expected as a result of the quarry.

Comment WR-39, #EI-1361: The DEIS states that there would be no significant adverse cumulative effects to surface waters in the region. However, the southern half of the rail loading loop in the quarry area is located within the floodplains of Pole Cat and Elm Creeks, approximately 30 feet below the northern portion of the rail loading loop. Thus, it is likely that the southern portion of the rail loading loop would cause adverse cumulative effects to surface waters in the area.

Response: Both the DEIS and the SDEIS have provided estimated total lengths of the amount of floodplain that would be traversed under each of the alternatives studied. This analysis also included the rail loading loop at its original location submitted by SGR. At that location, the rail loading loop would have likely required some construction within the floodplains of an unnamed tributary of Elm Creek, and within the floodplain of Polecat Creek. However, as a result of numerous comments received on this issue and further consultations with the Medina County Floodplain Administrator, SGR has relocated the loading loop away from the floodplain (see Figure 5-1 and 5-2 of this FEIS for the new proposed conceptual location). SEA cannot quantitatively estimate the impacts of this revised location because the final route or routes that would be approved or constructed are not yet known and final engineering has not yet been done. However, SEA believes that relocating the loading loop away from the floodplain will further minimize impacts on surface waters. The design of the final loading loop would ultimately be based on information from the hydraulic studies that would be completed after a final alignment is chosen.

Some of the design considerations, however, could include constructing an embankment with culverts, or designing a bridge that would withstand the forces associated with flooding. There are a wide range of potential impacts associated with an equally wide range of structural alternatives, and SGR would have to provide an estimation of impacts as part of engineering documentation associated with permitting of an eventual detailed design. As a result of these concerns, SEA is recommending several mitigation measures designed to minimize potential impacts associated with siting facilities within a floodplain (see Mitigation Measures #s F-VM2, F-36, F-38, F-44, and F-49 in Chapter 1 of this FEIS):

SEA has incorporated EPA's general recommendations to minimize impacts of construction on streams and riparian areas (see comment from #EI-1313 on Appendix B), which include recommendations to:

- Span perennial streams (both Elm Creek and Polecat Creek are perennial near the south half of the potential loading loop area);
- Avoid clearance of the entire right-of-way through the floodplain;
- Minimize impacts to stream banks by stabilizing with native vegetation slopes impacted during construction;

- Avoid use of forested floodplains as staging areas or borrow areas¹⁰; and
- Minimize erosion. (See Mitigation Measure #F-44 in Chapter 1 of this FEIS.)

SEA believes that these mitigation recommendations will ensure that significant adverse effects to surface waters will not result.

Comment WR-40, #EI-1287: The figure associated with the surface water section in Chapter 3 is unacceptable and shows very little useful information for the DEIS. More detail is definitely required to provide information on surface waters. Again, 1:24,000 scale maps should be used, and all perennial, intermittent, and ephemeral streams should be shown on this map. The information offered in this section shows a complete and total lack of any intensive field studies to support any conclusions drawn. The location and flow of streams in the area is extremely important because the streams serve as conduits for transporting contaminants from the project area, should there be an accidental release of hydrocarbons or other hazardous materials. Figure 3.3-2 is completely useless, and the need for it in the EIS is questionable. Figure 3.3-3 again needs more detail and should be divided into several figures scaled to a minimum of 1:24,000.

Response: Although a hydrologist did not perform field studies in preparing Section 3.3.2 of the DEIS, SEA believes that the map study was appropriate to assess the potential impacts to surface waters from construction and operation of the proposed rail line. Moreover, SGR would need to conduct a field assessment of the streams in the area prior to construction as part of the hydrological modeling it has voluntarily proposed to do in order to define modeling parameters. (See Voluntary Mitigation Measure #F-VM2 in Chapter 1 of this FEIS) The surface water study presented in the DEIS and the SDEIS used best available topographic maps (USGS 1:24,000 scale quadrangles) for the identification of streams and delineation of watersheds (as noted on page 3-8 of the DEIS). The figures in the DEIS and SDEIS are at a larger scale than 1:24,000 for clarity reasons, to show the full extent of alternative routes on a single map. The individual USGS maps (6 quadrangles: Murphy School, Quihi, Timber Creek, Castroville, Riomedina, and Medina Lake) are available from the Texas Natural Resources Information Service (TNRIS) website.

Comment WR-41, #EI-1287: Chapter 3 of the DEIS, Affected Environment, contains a section on surface waters that discusses stream orders of 1, 2, 3, and 4. However, no definitions were provided, making it very confusing for the reader. SEA should provide more detail on stream orders because one could use the information to more precisely determine the significance of an impact. Also, this section inappropriately discusses “impacts,” which is typically included in the environmental consequences section of an EIS, and should be moved accordingly.

Response: Stream order is a standard term used in geomorphic study. As stated in Stream Corridor Restoration: Principles, Processes, and Practices, a document prepared by the Federal Interagency Stream Restoration Working Group:

The uppermost channels in a drainage network (i.e., headwater channels with no upstream tributaries) are designated first order streams down to their first confluence. A second-order stream is formed below the confluence of two first-order channels. Third-order streams are created when two second-order channels join, and so on. Within a given drainage basin, stream order correlates well with other basin parameters, such as drainage area or channel length. Consequently, knowing what order a stream is can

¹⁰ Borrow area means an excavation contained within a parcel of land where the spoils from the excavation are removed and placed on another parcel of land.

provide clues concerning other characteristics such as . . . relative channel size and depth.¹¹

In the DEIS, stream order was used as an indirect indicator of likely flood width and depth, i.e., significance in terms of flooding. The text in Chapter 3 compares routes by tabulating numbers of crossings and the order of the crossings (i.e., noting data). The significance of this data in terms of potential impacts is discussed for each alternative in Section 4.5.3.

Comment WR-42, #EI-1287: Paragraph 4 on page 3-13 describes Quihi Creek as an intermittent stream that is dry most of the time. This is inaccurate, and careful field observations would show that this statement is not true. Quihi Creek is intermittent, but flows for a significant period of time during the year. The creek is supplied with surface water and groundwater from the northern part of Medina County.

Response: Stream channels in the vicinity of the proposed rail line were found to be dry during the periods that SEA's field surveys were conducted. Field surveys were conducted by biologists and geologists in May of 2003, and in April of 2006. Additional field surveys were also conducted by archeologists and engineers in the first quarter of 2006. None of these surveys encountered flowing water in Quihi Creek at the time of the visits. These conditions may not reflect average conditions and SEA welcomes the new information provided by the commenter. SEA agrees that it may be appropriate to characterize the surface water flows in the stream channels as intermittent (meaning that the streams flow sometimes and are dry at other times). However, this revision does not change SEA's final conclusions and recommendations.

Comment WR-43, #EI-1287: The discussion on significant stream crossings should include much more detail. A field photograph of each crossing for the alternatives should be provided in the EIS. Additionally, a 1:500 scale map should be presented to show the location of each crossing and the approximate width of the ordinary high water mark at that crossing. This will allow for a definitive determination of the area of jurisdictional water impacted or crossed by the rail. This discussion should also include all crossings of ephemeral streams. Ephemeral streams in this part of Texas are extremely important and contribute significantly to storm flow and in providing water to perennial streams and recharge zones in the area.

Response: SEA assessed the impacts of all stream crossings within each route studied, regardless of the type of stream. However, in the June 2006 *Rapanos* decision regarding the issuance of Nationwide permits, the U. S. Supreme Court excluded ephemeral streams from the Corps regulatory program and held that waters of the U.S. are streams with standing or continuously flowing water. Ephemeral streams are regulated in some local jurisdictions as stormwater, and are managed as such. See Rapanos v. United States and Carabell v. United States, 126S. Ct. 2208 (2006).

Comment WR-44, #EI-1287: Table 3.3-4 does not provide any information that is of consequence for the EIS. The fact that routes cross streams is important, but the data provided in this table does not allow for a well-designed argument concerning significance of impacts to those crossings. The number of crossings that are impacted by each alternative is not as important as the sensitivity of the streams to impacts. Also, no information is provided concerning the contribution of these streams to areas that may be supporting endangered and threatened species further downstream.

¹¹ See FISRWG (10/1998). Stream Corridor Restoration: Principles, Processes, and Practices. Pages 1-26. By the Federal Interagency Stream Restoration Working Group (FISRWG) (15 Federal agencies of the U.S. Government). GPO Item No. 0120-A; SuDocs No. 1 57.6/2: EN 3/PT.653. ISBN-0-934213.59-3.

Response: This table is designed to provide the reader with information regarding how many streams of what relative size would be crossed by each of the alternative rail routes. Potential impacts to surface waters are discussed in Section 4.5.3 of the DEIS and potential impacts to Federally-listed threatened and endangered species are discussed in Section 4.6 of the DEIS.

Comment WR-45, #EI-1287: Much of the information shown in the map in Figure 3.3-4 is useless. The DEIS should include a detailed field delineated map of the EARZ because even the EAA has determined that the map's lines are mere interpolations of point data taken in the past, and therefore do not represent actual conditions.

Response: SEA is recommending a new mitigation condition that would require SGR to conduct a recharge zone delineation study by a qualified hydrogeologist, under the supervision and oversight of the EAA, to determine the exact boundaries of the recharge zone in order to ensure that the fueling and maintenance area is completely off the recharge zone. Please see Mitigation Measure #F-30 in Chapter 1 of this FEIS.

Comment WR-47, #EI-1287: The arguments presented in paragraph 3 of page 3-17 are ambiguous and difficult to follow. Throughout the rest of the DEIS, SEA has attempted to show that the EARZ is not impacted by the project. However, in this section, SEA is stating that stream flow is significantly reduced as a result of the number of karst features in the area. At the surface, this entire section appears to be an attempt to show how much SEA knows about karst features and stream flow. SEA should include a paragraph to this section that explains why stream flow regimes are important, and why it matters that they have not changed over the past 45 years.

Response: The primary point of discussion in this section is to provide a base condition description of the water resources of the region. Since a portion of the streams in the northern portion of the study area traverse the EARZ and have the potential to contribute recharge to the Edwards Aquifer, this section was included to describe what limited data was available concerning the effect of the EARZ on stream flow. Since data is only available from 1958, SEA presented this discussion to explain why the data would likely provide a reasonable description of current conditions.

Comment WR-48, #EI-1287: Information on water quality downstream of the creek crossings is almost completely irrelevant because of the distance of the sampling points from the project area. Because of the importance of the impact of the project on water quality, samples should be taken in the streams in close proximity to the alternatives to provide a baseline for monitoring in the future to determine if the project is impacting water quality. Because the area is rural, much of the stream quality in the area is very good and should remain so.

Response: SEA recognizes the importance of recommending that SGR conduct periodic downstream monitoring of stream water quality to assess any impacts from the proposed rail line. SEA proposes that, depending on the final alignment selected, SGR select and monitor pre-determined points along Quihi Creek and/or along Cherry Creek that would identify any pollution that may flow downstream from the Quihi, Polecat, Elm Creek, and Cherry Creek watersheds. This monitoring program would include, at a minimum, analyses for oil and grease, total petroleum hydrocarbons, and total suspended solids. If elevated concentrations of pollutants that exceed water quality criteria are encountered during monitoring, SGR would be required to implement appropriate corrective actions to comply with Texas Surface Water Quality Standards. SEA has added a new mitigation measure incorporating these recommendations. (See Mitigation Measure #F-31 in Chapter 1 of this FEIS).

Comment WR-49, #EI-1287: In Chapter 4, on page 4-38, paragraph 2, statements are made that the No-Action Alternative would have a greater impact on surface water, but no quantitative information

is provided to justify this conclusion. Also, no comparison is made concerning floodplain impacts. The truck option should have no impact on water quality because the floodplain would not be altered as a result of the bridges being built. Flooding is a major impact of this project, and it is not addressed in a manner that allows for a proper comparison among alternatives.

Response: The paragraph to which the commenter is referring, on page 4-38 of the DEIS, states: “The no-action alternative would have a greater impact on surface water due to the substantial increase in heavy truck traffic on the roadways in the project area.” The paragraph goes on to discuss the rationale behind this statement: dust generated by heavy truck traffic on unpaved roadways; generation of non-point source pollutants, such as oils, grease, and rubber; roadway construction increasing sediment contaminated stormwater runoff; and the risk of fuel spills from accidents, and how these would impact water quality.

As discussed in Chapter 2 of this FEIS, if improvements were made to county roads and TxDOT Farm-to-Market roads located in the floodplain to support VCM’s No-Action Alternative trucking operations, the installation or upgrading of the roadway hydraulic structures and approach roadways may be necessary. This is because roads within the proposed project area could be affected by flooding due to their proximity to the FEMA-designated floodplain, their current roadway elevations, and the current capacity of the roadway hydraulic structures. Roads within the floodplain would have a higher frequency of flooding than roads located outside of the floodplain. Roadways are typically designed to handle certain flood frequencies and flood levels according to their type, or roadway classification. Freeways and minor arterial and collector roads are designed for different storm frequencies than urban and rural roads (TxDOT, Hydraulic Design Manual, March 2004). The County Floodplain Manager would be in charge of the FEMA requirements for the region. Therefore, SEA continues to believe that the No-Action Alternative would have a greater impact on surface water than SGR’s proposed rail line construction and operation.

Comment WR-50, #EI-1287: SGR states that it will conduct hydrologic studies for the proposed or accepted alternative. However, these studies should be prepared prior to selection of an alternative so that intelligent decisions can be made on the basis of sound scientific data. The floodplain section of the report should include a full hydrologic study of each alternative to determine the changes in floodplains caused by the type of crossing used and potential clogging of that crossing. Mitigative measures need to be carefully detailed and specific designs for bridges need to be required to assure the public that the 100-year floodplain will not be altered by any of the designs. Designs could then be compared with costs to construct, then assessed against the truck alternative, or no-build. It is our opinion that the truck alternative would have the least impact on floodplain changes and associated mitigation costs. This is not addressed in the DEIS and therefore leads the reader to believe that the No-Action Alternative, or truck alternative, would result in a greater impact to surface waters, which is not the case.

Response: The modeling of the varying effects of alternatives on the floodplain would require that the bridge opening of every crossing for every alternative be defined. SEA believes that this level of analysis is not necessary to appropriately compare the alternatives in this proceeding. However, SEA is recommending final mitigation measures (See Mitigation Measures # F-VM2 and F-38 in Chapter 1 of this FEIS) that would require SGR to conduct such studies before proceeding with a final route.

Comment WR-51, #EI-1296: SGR stated that the term “oil cleaning materials” is unclear in Mitigation Measure #26 and requested clarification or elimination of this term.

Response: The “oil cleaning materials,” commonly referred to as solvents and degreasers, are the chemicals used to clean excess oil from lubricated parts of a train. SEA has modified this mitigation

condition to clarify the meaning of this term. Please see Chapter 1 of this FEIS, Mitigation Measure # F-40.

Stream Crossings

Comment WR-52, #EI-1313: EPA provided general recommendations to minimize impacts of construction on streams and riparian areas. EPA recommended the following comments (see Appendix B of this FEIS):

1. Use span bridges where possible to minimize impacts to streams; span bridges should be used for all perennial streams.
2. Where channel work is necessary, precautions should be taken to avoid channel degrading from head-cutting. For example, grades at the culverts and bridges should remain at their existing levels.
3. If a series of box culverts is installed to carry high flows, one culvert should be lower than the others to handle frequent flows (i.e., “bankfull” or less), with other culverts at higher elevations for less frequent events.
4. Plan the route and design crossings to avoid the need to cut off meanders and channelize stream reaches.
5. Minimize impacts to the riparian corridor, especially forested areas. For example, do not clear the entire right-of-way through the riparian area or floodplain. Only clear what is needed for construction and access.
6. Minimize impacts to the creek banks (soil and vegetation). Stabilize and replant disturbed banks with native vegetation as soon as construction at that point is finished.
7. All BMPs should be used to minimize erosion of banks and bare soil, and reduce siltation of streams. Bare soil should be stabilized and revegetated as soon as possible. Hay bales and silt fences should be inspected and repaired as needed after each rainfall event that creates runoff. All silt fences should be parallel to contours. Long and steep slopes need multiple rows of fencing.
8. Wetlands or forested floodplains should not be used for staging areas or for borrow areas.

Response: SEA has incorporated EPA’s recommendations into its final recommended mitigation. Please see Chapter 1 of this FEIS, Mitigation Measure #F-44.

Wetlands

Comment WR-53 #EI-1378: The TPWD commented that, prior to initiating construction of the accepted alternative, SGR should prepare a habitat survey of existing site conditions. The survey should document wildlife, wetlands, and other riparian features, and be used as a guide for site restoration, ensuring that existing conditions are replicated to the greatest extent possible. The survey should include photographs, general descriptions, areal coverage of dominant vegetation, and site elevations. Following completion of construction, SGR should be required to develop a restoration plan and conduct two years of monitoring, with the goal of reaching a 70 percent success rate.

Response: SEA has incorporated TPWD’s recommendations into the following mitigation condition: Prior to the completion of final engineering plans, SGR shall conduct surveys of stream channels and associated wetlands along the right-of-way. These surveys shall include photographs of the sites, general descriptions of the dominant vegetation species and percent cover, and the elevations of the sites. SGR shall submit a written report of the surveys to TPWD, the Medina County Floodplain Administrator, and SEA. SGR shall then consult with TPWD and the Medina County Floodplain Administrator, and shall incorporate into the final engineering plans methods of restoring each site to the

pre-project elevations, contours, and hydrologic conditions or other conditions that may more appropriately take into consideration the engineering needs of the rail line and post-construction hydrology. SEA believes that by requiring SGR to restore each site to the pre-project conditions, native wildlife and vegetation in the project area will be protected. Please see Mitigation Measure #F-49 in Chapter 1 of this FEIS.

Comment WR-54, #EI-1287: Section 3.3.3 appears to rely almost completely on the National Wetlands Inventory (NWI) maps for determining the location of potential jurisdictional wetlands. NWI maps are not reliable, but provide a good starting point for assessment purposes. Field assessments and delineations should be conducted to determine if the Proposed Route and alternative routes would impact wetland areas. Granted, an individual Corps Section 404 permit can be avoided if these wetlands are crossed using bridges, or trestles, but the project would still require a Nationwide Permit 14 and pre-construction notification to the Corps. The area of surface waters impacted will determine the level of effort and the type of permit required.

The section also states that wetlands are not common in the area, which is a totally false statement. Field observations would clearly show that the area is covered by small wetlands that are fed by seeps and springs along stream gradients. The section also states that the number of wetlands would be limited due to the lack of hydric soils. This is also an inaccurate statement in that it is assuming that if hydric soils are not shown on the soil survey, they are not present in the area. It is well known that soils in the area have hydric inclusions where wetlands have formed. Also, some of the wetlands may not be jurisdictional due to the fact that they are not connected to navigable waters. These wetlands probably contain hydric soils which would not be shown on the soil surveys, but instead would need to be field verified.

It is understood that isolated wetlands not associated with streams are not regulated. However, this statement is somewhat ambiguous and should be clarified as well as accompanied by some reference to a Federal regulation.

Response: Wetland resources were identified using several sources: USGS topographic sheets; Texas Digital Orthographic aerial images; the published soil survey for Medina County; NWI maps; and site surveys. SEA's evaluation sought to include potential wetland resources, jurisdictional and non-jurisdictional, in order to prevent adverse effects on those resources, although delineations of wetlands potentially subject to the Corps jurisdiction under the Clean Water Act were not completed. Based on this analysis, SEA reasonably concluded in the DEIS that potential impacts to wetland resources from construction and operation of the rail line could be adequately avoided, minimized and/or mitigated, should they occur.

To the extent that the final proposed rail line alignment impacts jurisdictional wetlands, SGR would be required to conduct delineations of wetland boundaries and more detailed evaluations of wetland values, as appropriate, as part of the Corps permitting process. However, that level of detailed evaluation is not required here to determine if significant impacts to wetland resources are likely to occur. Significant impacts here would be impacts to jurisdictional wetlands that could not be avoided, minimized, or adequately mitigated under the existing Corps regulatory program.

In order to provide more detailed information in response to this question, SEA overlaid all of the rail alignments on the Natural Resource Conservation Service (NRCS) GIS soil data and U.S. Fish & Wildlife NWI GIS data. These data layers assisted in the evaluation of potential wetlands and hydric soils (Table 5.1). The NWI depicts locations within the project area where potential wetlands might possibly be crossed by each of the studied rail line alternatives. In addition, the NRCS soil data illustrates locations within the project area where the potential for a wetland could exist. Hydric soils are a critical

component in the development of wetlands because they form in a reducing environment, free from oxygen, and therefore can potentially sustain varying populations of hydrophytic vegetation, if present. However, the mere presence of hydric soils does not ensure that wetlands are present, only that conditions could be favorable for wetland development. So, even though all of the rail line alternatives cross hydric soils as shown in Table 5.1, they are not classified as wetlands because they lack the other two components necessary for wetland status: hydrology and hydrophytic vegetation. Therefore, the wetland boundaries remain unchanged in the SDEIS.

Table 5.1. Hydric Soils Intersected By all of the Rail Line Alternatives

Hydric Soil Map Unit	Hydric Soil Name	Location Description
Do	Divot clay loam	Floodplains of major streams
Dp	Divot clay loam	Floodplains of major streams
HaB	Hanis sandy clay loam	Uplands, along narrow drainage ways, and shallow valleys
McA	Montell clay	Found on outwash plains and stream terraces
Or	Orif-Riverwash	Floodplains adjacent to stream channels
To	Tiocano clay	Depressions 1-3 feet lower than surrounding landscape
VcA	Victoria clay	Found on outwash plains and stream terraces

As stated in the text of Section 3.3 of the DEIS, isolated wetlands are wetlands that are “isolated” from and therefore not associated with a stream. Such wetlands do not fall under the jurisdiction of the CWA, pursuant to the Supreme Court’s decision in Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, 531 U.S. 159 (2001), because they are considered to be intrastate and non-navigable. See Joint Memorandum of the EPA and U.S. Army Corps of Engineers, 68 Fed. Reg. 1995 (2003) and the consolidated Supreme Court decisions Rapanos v. United States and Carabell v. United States, 126S.Ct. 2208 (2006).

Comment WR-55, #EI-1287: Section 4.5.4 is completely useless as a comparison of impacts on wetlands and surface waters. No attempt has been made to measure the actual areas of wetlands, stock ponds, and streams that will be crossed and impacted by each alternative and the proposed action. In addition, information should be provided on the functional value of each of the impacted stock ponds. This section makes a statement that these stock ponds are not high-quality waters, but no data is provided to justify that statement. Again, conclusions are made on data that has been obtained from general sources, and no site-specific data is used to make these comparisons. A scientifically-based decision on total impact cannot be made using this information.

Response: The DEIS and SDEIS provided an analysis of impacts to surface waters, including wetlands and streams. Both documents provided a detailed description of the type and order of streams crossed by each of the alternatives studied, including an assessment of the stream flow regime, water quality downstream, and water users identification at each of those creek crossings. In addition, wetland values were assessed based on qualitative observations of livestock-watering tanks. These man-made features are used primarily for agricultural uses and no evidence was found to indicate the presence of natural assemblages of wetland plant communities. Rather, the soils within livestock and shoreline areas are typically disturbed and highly compacted, and therefore not conducive to the long-term establishment of native plant species. There are also several impoundments in this area that are developed as landscape amenities, and would not be affected by the proposed rail line. Livestock tanks located on channels

connected to streams would be subject to further review under the CWA prior to any disturbance. However, those located on uplands and not associated with streams or identifiable tributaries would not be subject to additional regulatory review.

Comment WR-56, #EI-1296: SGR stated that it is concerned about the portion of Mitigation Measure #30 that would require SGR to avoid placing fill material or structures in the ordinary high water mark of any creek channel that would be crossed. SGR believes that this absolute restriction could have an adverse impact on the final design of bridges, with no offsetting benefit. SGR stated that consistent with the terms of the DEIS (which recognize that Corps approval would be required with respect to any crossing subject to Corps jurisdiction under Section 404 of the CWA), it requests that this proposed measure be revised to require that SGR comply with any applicable Corps requirements in connection with the placement of fill material or structures in creeks during construction. In addition, SGR stated that it intends to use BMPs in connection with the construction of stream crossings and expects to minimize any placement of fill material and structures in the ordinary high water mark of any creek channel, consistent with its obligation to minimize impacts to wetlands as per the opening provisions of Mitigation Measure #30.

Response: Upon further consideration, SEA believes that SGR's compliance with Corps requirements, pursuant to Mitigation Measures # F-39 and F-47 in Chapter 1 of this FEIS, would provide adequate protection for wetland resources in the project area. These mitigation measures would require SGR to obtain all required Corps permits and to survey the location of privately owned stock ponds in the project area. SEA has deleted the previously recommended Mitigation Measure #30 from the final recommended mitigation.

Comment WR-57, #EI-1296: SGR requested that Mitigation Measure #32 be modified so that SGR would have the flexibility to consult with TPWD about any proposed embankments that would have a 3:1 slope and be permitted to use such embankments if TPWD so consents.

Response: Upon further review, SEA believes that specification of slopes should be based upon standard engineering practices and environmental considerations. Establishing an arbitrary slope ratio may not lead to minimizing effects on resources. Impacts to biological resources and especially vegetation could require the use of retaining structures and slopes approaching 1:1. The possibility of future selection of those options should be retained in order to minimize impacts. SEA has modified the condition recommended in the DEIS to reflect this. (See Mitigation Measure #F-48 in Chapter 1 of this FEIS).

5.2.9 Biological Resources (BR)

Comment BR-01, #EI-1378: The TPWD commented in response to the DEIS that its previously submitted comments during the scoping process, regarding the preservation of natural buffers, impacts to vegetation, and mitigation for loss of mature vegetation, were still applicable.

Response: Comment noted. SEA has included TPWD's recommendations in the final recommended mitigation measures. See Mitigation Measure #F-50 in Chapter 1 of this FEIS.

Comment BR-02, #EI-1378, #EI-1420, and #EI-1728: TPWD initially requested the construction of a nine-foot fence along the right-of-way of the approved alternative to protect animals from becoming entrapped along the right-of-way. In addition, TPWD recommended that culverts and other detours be used for the safe transport of amphibians, reptiles, and small mammals underneath the railroad bed.

Based on SGR's statement that trains would be traveling at speeds of 30 miles per hour or less, TPWD has suggested that a smaller perimeter fence of standard height (approximately four feet) be used to prevent livestock from wandering onto the tracks. TPWD requests that the bottom half of the fence be constructed with fine wire to prevent small animals, such as the Texas Tortoise, a state-listed threatened species, from accessing and possibly becoming stranded on the tracks.

Response: SGR has voluntarily agreed to adhere to TPWD's recommendations to construct a fence at least four feet high and with fine mesh. SGR has also agreed to incorporate wildlife crossings along the track at bridges and culverts. (See letter from SGR, #EI-1439.) Based upon TPWD's comments, SEA is recommending a mitigation condition that requires SGR to consult with TPWD and affected landowners prior to beginning construction activities regarding the implementation of appropriate measures to protect livestock and wildlife in the area during construction and operation activities. Such measures could include the use of specific types of fencing or barriers. Please see Mitigation Measure #F-56 in Chapter 1 of this FEIS.

Comment BR-03, #EI-1378: and #EI-1287: Information on the state-protected endangered and threatened species has been lifted directly from the internet site. This information is useful if it is discussed in conjunction with vegetative and wildlife surveys conducted along each alignment. However, it is completely useless to provide this information if the reader is not given information concerning habitat available in and along each alignment. Also, the status of some species is left blank, and no explanation for that fact is provided. TPWD submitted an updated list of the rare, threatened, and endangered species with potential to occur in Medina County for inclusion in the FEIS. SEA should further assess the most current information in the Natural Diversity Database regarding state-listed species that may occur within the project area, and also to ensure that contact information is current.

Response: Habitat present along each alignment was discussed in the DEIS and SDEIS. In addition, SEA obtained a list of rare, threatened and endangered species, updated March 10, 2003, from the TPWD, Wildlife Diversity Program, which is included in Table 3.4-1 (pages 3-27 to 3-29) of the DEIS and in Appendix C of the DEIS. A legend is included at the end of Table 3.4-1 on page 3-29 of the DEIS explaining the meaning of blank entries for some listed species. SEA also obtained a revised "Annotated County List of Rare Species" for Medina County (June 2, 2005), which also is included in Section 3.6.1 of the SDEIS. SEA reviewed TPWD's Natural Diversity Database on July 20, 2005, but did not identify any additional potential impacts to biological resources from the project.

Section 3.6.2 of the SDEIS includes information on special status plant and wildlife species likely to exist within the project area of the Eastern Alternatives and Chapter 2 of this FEIS includes this information for the Modified Eastern Bypass Route. More detailed information provided by lists of organisms possibly occurring in this area would not be useful in this assessment.

Section 4.6 of the DEIS and Section 3.6 of the SDEIS discuss potential impacts to biological resources from construction and operation of the proposed rail line, under each of the rail route alternatives studied. In compliance with the consultations provisions of Section 7 of the Federal Endangered Species Act, additional surveys for target species may be necessary once the final alignment alternative is chosen.

Comment BR-04, #EI-1287 and #EI-1358: Voluntary Mitigation Measure 4 (VM4) and Voluntary Mitigation Measure 5 (VM5) are contradictory. One suggests that SGR would maintain native grass and shrubs within the rail right-of-way, while the other states that SGR would control weeds and vegetation along the right-of-way. The decision needs to be made as to which of these alternatives will work. Effects of the railroad on biological resources could be mitigated by planting and reseeded the area with native vegetation.

Response: SEA does not believe that these two voluntary mitigation measures are contradictory and is including them in this FEIS as Mitigation Measures #F-VM4 and #F-VM5. It is possible for SGR to maintain native grass and shrubs within the rail right-of-way in some areas, while controlling weeds and vegetation alongside the right-of-way, consistent with rail industry standards and the need to minimize fire hazards. In its comments (see #EI-1378), TPWD recommends maintaining native grass and shrubs within the right-of-way and mowing only essential use areas. SEA has added this recommendation in Mitigation Measure #F-57. SEA also is recommending mitigation that would require SGR to reseed portions of the right-of-way with native grasses. See Mitigation Measure #F-53 in Chapter 1 of this FEIS.

Comment BR-05, #EI-1287 and #EI-1374: More detail is required in Section 3.4.3 regarding federally listed endangered and threatened species to provide information on the Black-capped Vireo and Golden-cheeked Warbler. It is stated that there is a lack of suitable habitat, and yet suitable habitat is not described. Extensive field studies should be conducted to justify the statement that suitable habitat is not present. Detailed maps should be provided that show endangered species habitat. The section states that Vulcan conducted assessments, but no data is presented and the locations and areas that were assessed are not shown. Vulcan's Biological Assessment of the quarry site does not contain sufficient detail for proper examination and analysis by the U.S. Fish and Wildlife Service (USFWS). Also, the Golden-cheeked Warbler surveys in Vulcan's Biological Assessment do not follow USFWS' official protocol for such surveys. This information is currently under review by the USFWS and has not been accepted to date.

Furthermore, SEA has not complied with Section 7 of the Endangered Species Act of 1973 (ESA). The indirect effects of the quarry and future land development along the rail line must be considered when determining whether habitat destruction for the Black-capped Vireo and the Golden-cheeked Warbler would occur. Vulcan's biological surveys for these birds only conducted focused evaluations for a 400-600 acre portion of the quarry site, leaving other portions of the quarry to be surveyed after operations begin. Low habitat quality, absence of species during screening surveys, and Vulcan's promise to keep potential habitat areas as buffers are insufficient to justify a finding that the endangered and threatened species are not likely to be affected by the project.

Response: SEA completed an assessment of habitat quality for two endangered songbirds, the Black-capped Vireo and Golden-cheeked Warbler, as described in the DEIS (see DEIS, pages 3-26 to 3-30). Additionally, SEA held discussions with biologists familiar with the area, who confirmed that habitat typically used by Black-capped Vireos is not found in the project area and there is no need for further analysis. Habitat for the Golden-cheeked Warbler was found to occur generally to the north of the proposed rail loading track area. Vulcan completed seasonal presence/absence surveys, and the results were cited in the DEIS. In a letter to Vulcan, dated October 17, 2003, USFWS stated that it had reviewed the biological assessment prepared by Vulcan, which includes the Golden-cheeked Warbler surveys, and would work with Vulcan throughout the development of the quarry project to avoid impacts to the Golden-cheeked Warbler (see DEIS, Appendix G, pages G-113-114). USFWS is the agency with the jurisdiction to implement and enforce USFWS' official protocols and to determine whether Biological Assessments submitted for its review are sufficiently detailed for USFWS purposes.

Pursuant to Section 7 of the ESA, SEA determined that SGR's proposed rail line construction and operation (under any of the alternative routings studied in the DEIS and SDEIS) were not likely to adversely affect the Golden-cheeked Warbler, and USFWS concurred with this determination. (See #EO-207 and #EI-1479, Appendix D of this FEIS.)

Comment BR-06, #EI-1339 and #EI-1341: Commenters are concerned about impacts from the rail line construction and operation on cattle and wildlife.

Response: SEA believes that Mitigation Measure #F-56 in Chapter 1 of this FEIS will adequately mitigate the effects of the rail line construction on wildlife and cattle. This mitigation measure requires SGR to consult with TPWD and affected landowners prior to beginning construction activities regarding the implementation of appropriate measures to protect livestock and wildlife in the area during construction and operation activities. Such measures could include the use of specific types of fencing or barriers.

Comment BR-07, #EI-1352: The aerial photographs SEA used to evaluate the vegetative cover along the Proposed Route and Alternatives 1, 2, and 3 are nine years old. The vegetative cover has changed in the past nine years.

Response: SEA used Texas Digital Orthophoto aerial photographs obtained from the Texas Natural Resources Information System to assess vegetative cover in the DEIS. These photographs, taken in early 1995, were found to accurately depict current ground conditions, based upon SEA's field inspection of the project area, conducted in February and May of 2003. As stated in the DEIS, SEA's field assessment of the Proposed Route included pedestrian surveys of undeveloped lands and unimproved agricultural lands. The field assessment portion of SEA's biological resources analysis along Alternatives 1, 2, and 3 was completed by partial observation by automobile. Aerial photography in the published soil survey for Medina County dated 1973 was also used to provide an historical portrayal of vegetative cover. Moreover, areas with significant ecological resource values commonly do not develop or change over periods of time as short as nine years. Thus, use of the aerial photographs taken in 1995 for this analysis, together with a recent field inspection, is appropriate.

Comment BR-08, #EI-1360: Trucks and trains would reduce the deer population in the area, which would negatively impact hunting activities.

Response: Construction of the rail line might have a temporary adverse affect on deer and other wildlife due to ground disturbance, intrusion of workers and equipment, and noise. Some of these effects might become long-term and might cause some adverse impact on deer populations in this area. However, any such adverse impacts would likely be balanced by the potential of long-term benefits to deer populations due to additional reseeded vegetation along the edges of the right-of-way, which would provide browse areas for deer, especially where the right-of-way interfaces with wooded or brushy areas.

The increased use of trucks is more likely to negatively impact the presence of deer near the public roadways. This possibility would not, however, likely affect the size of the deer population, but instead would simply restrict where they may be hunted. Thus, the combined effects of SGR's rail operations and the increased traffic on area roadways from truck traffic to local markets and the quarry employee cars could pose some adverse effects to deer hunting in the area, especially near developed areas and roadways.

The level of truck traffic that would take place if the rail line were not built, under the No-Action Alternative, would impact deer hunting to a greater degree than SGR's proposed rail operations. However, populations of deer that are hunted in the project area are typically not located near major roadways and developed areas, and hunting in such areas generally is prohibited. Thus, construction and operation of the proposed rail line would not have a significant effect on deer populations and deer hunters.

Comment BR-09, #EI-1287: Section 3.4.1 describing flora in the area is completely inadequate and provides no useful information. It appears that field observations were not conducted for this portion of the project. The vegetation communities located along each alternative should be field mapped, identified, and described. The descriptions should include the dominant plants in each plant community

as well as the level of succession. If the area has been impacted by agricultural practices, it should be mapped and so stated in the EIS. Based on the level of analysis, it is difficult to understand how SEA can assert that no sensitive plant communities could be identified in the area.

Response: SEA believes that it has provided the appropriate level of detail on biological resources in the DEIS and SDEIS needed to evaluate SGR's proposed rail line construction and operation. Additional information would not alter SEA's conclusions regarding impacts on biological resources.

The Quihi area and nearby farm and ranchlands have a long history of agricultural and rural development (as more fully described in Chapter 5 of the SDEIS and Appendix F-2 of the SDEIS). Current agricultural uses range from row crops to unimproved grazing lands. Increased detail on plants and animals using these areas are not justified because it is improbable that natural biological associations have survived these land uses. The field surveys that were conducted permitted SEA to make an appropriate evaluation of impacts on biological resources resulting from rail line construction and operation.

Comment BR-10, #EI-1287: Section 3.4.2 describing fauna is totally inadequate. Much more detail should be provided. Lists of reptiles, amphibians, birds, small mammals, and large mammals are available through TPWD and local community organizations such as the National Audubon Society. The only animals listed in this section are the most common animals found in Texas. A list of animals observed during the field investigations for wetlands and vegetation could be provided in the EIS. Also, indirect evidence of animals should be provided. This would include burrows, nests, tracks, scat, and any other evidence found during field investigations. Because the Board is a Federal agency, it falls under the jurisdiction of the Migratory Bird Treaty Act. This act protects any migratory birds found in the area. Thus, a complete survey of migratory birds in the area should be conducted. It is important to note that almost all birds in the state of Texas are considered migratory. Therefore, a rather extensive ornithological survey should be conducted to determine if any migratory birds can be potentially impacted by this project. Another source of impact of a railroad is that it will impact the connectivity of wildlife habitat in the area. It is well known that linear projects such as railroads can bisect habitat, causing significant impacts that would otherwise be overlooked. The rail may separate nesting areas from feeding areas, for instance.

Response: SEA believes that reviewing lists of all possible fauna in the project area would not be a useful assessment. Due to the level of development in this area, the wildlife species that were observed during SEA's field investigations consisted of those already identified species that are broadly distributed and common in Texas. Completion of multi-seasonal surveys and cataloging of all species actually observed in the area are not necessary to evaluate the potential impacts from the proposed rail line construction and operation.

Comment BR-11, #EI-1287 and #EI-1369: The methodology used to obtain data for biological resources is completely inadequate for a proper analysis of alternatives and the proposed action. No effort was made to characterize vegetative or wildlife communities. Additionally, these were not mapped in such a manner that impacts on an acreage basis could be determined. In Section 4.6.3 of the DEIS, impacts are discussed on biological resources that were never defined or quantified in the field. How much actual on the ground work has been done by biologists in the project area for the DEIS? Because field data was not collected, identification of potential sensitive species and sensitive plant communities could not be made. Impacts to state-listed endangered and threatened species also could not be measured because of the lack of analyses of vegetation data. Any conclusions drawn within Section 4.6 of the DEIS cannot be considered viable due to the fact that they are based upon general data that was collected from the internet and other secondary sources.

Response: SEA's evaluation of biological resources for the DEIS was based upon qualitative field investigation, review of aerial photography, published soil maps, National Wetland Inventory Maps, and USGS 7.5-minute topographic maps, as stated in the DEIS, and SEA believes that the methodology used supports the results discussed in Section 4.6.3. SEA's biologists conducted several field evaluations. The initial site visits, completed in February 2003, consisted of driving along public roads near the proposed rail line right-of-way. Some pedestrian surveys were completed in the northern and southern portions of the possible location of the right-of-way where land ownership appeared to allow such investigations. More specific locations for the Proposed Route alignment allowed for more detailed studies that began in May 2003. An initial field reconnaissance was completed with a representative of SGR on May 8, 2003, to determine specific aspects of the Proposed Route. Additional auto and pedestrian surveys were completed on May 14 and May 15, 2003, and included walking portions of the Proposed Route for which access was granted by the landowner. At that time, automobile surveys were also completed for the alternative rail routes being studied in the DEIS. SEA does not believe that additional information on vegetation composition is needed to evaluate potential impacts on endangered and threatened species.

Comment BR-12, #EI-1287: In Section 4.6.2 of the DEIS, Construction Impacts, SEA states that the removal of vegetation during construction would be temporary because natural vegetation would be restored after construction is completed. This appears to contradict other sections of the EIS that indicate that vegetation along the right-of-way would be maintained by mechanical methods (i.e., mowing), or kept free of woody plants, as is the case with most rail rights-of-way. This is not restoring vegetation to natural conditions, but rather maintaining a right-of-way. Therefore, it can only be assumed that impacts to the entire right-of-way would be permanent.

SGR's proposed mitigation methods appear to be very good. However, SEA should recommend that TPWD's recommendations be implemented to the maximum extent.

The No-Action Alternative is discussed in a manner that biases the EIS toward the proposed action. In the analysis of the No-Action Alternative, 100 acres set aside for the truck-to-rail loading facility is included in the impact analysis, while only 25 acres would be impacted by additional rail needed to connect the loading facility to the UP line. This inflates the acreage impacted under the No-Action Alternative to 125 acres, which is well above that of any of the other alternatives discussed in the DEIS. Conversely, the discussion of the Proposed Route and Alternatives 1, 2, and 3 does not include impacts caused by the rail loading track area or the fuel facility. These impacts should be included in this discussion.

Response: Following completion of construction, portions of the right-of-way will be reseeded with native vegetation. In addition, once rail operations begin, maintenance of portions of the right-of-way will be maintained by mowing on an infrequent basis for brush control. Additionally, woody vegetation, including trees, may be installed along the outside of the right-of-way, based upon mitigation recommendations by TPWD.

The acres that would be impacted by the rail line alternatives that were discussed in Section 4.6 of the DEIS take into consideration the acres to be impacted by the rail loading track on the quarry property. The fueling and maintenance facility would be constructed regardless of whether the rail line is built, and would support quarry operations, as well as either rail or truck operations.

Comment BR-13, #EI-1374: Habitat destruction has not been considered for future land development. SEA's inquiry into habitat destruction has been limited to the width of the rail line right-of-way, a distance of 80 feet. This renders it impossible to evaluate the impact of future rail-served development on threatened and endangered species.

Response: As stated in the DEIS, aside from the proposed quarry, SEA has identified no current proposals for projects in the area. Based upon the information available at this time, it is not possible to predict whether or not there would be an increase in area development (other than that caused by the quarry itself) as a result of this project.

Area development could occur regardless of whether SGR's rail line is built. However, predicting the nature of land use changes in the area regardless of the rail line construction and operation, and then predicting the impact of that development on biological resources, would be highly speculative and would not inform the Board's decision on the proposed rail line construction and operation.

The effects of any future development would be subject to review under existing laws and regulations, including those protecting endangered and threatened species.

Comment BR-14, #EI-1374: Pursuant to National Wildlife Federation v. Coleman, 529 F.2d 359 (5th Cir. 1976), SEA must consider the indirect effects of the action on threatened and endangered species. The quarry, if not a direct effect or a baseline condition that must be considered, is still an indirect effect within the meaning of Coleman. SEA must consider the effects of the quarry on threatened and endangered species. SEA must consider all phases of the quarry and the rail line in its assessment of effects to species under the ESA.

Response: SEA has addressed the combined impacts of the quarry and the rail line on biological resources in the area as part of the cumulative impacts analysis (see Section 4.17.4 of the DEIS and Chapter 3 of this FEIS). Vulcan prepared a Biological Assessment of the quarry and submitted this assessment to FWS. In a letter to Vulcan, dated October 17, 2003, FWS stated that it had reviewed the Biological Assessment prepared by Vulcan, and would be working with Vulcan throughout the quarry project to avoid impacts to threatened and endangered species, specifically the Golden-cheeked Warbler (see DEIS, Appendix G, pages G-113-114).

Comment BR-15, #EI-1296: Mitigation Measure #33 in the DEIS should be revised to require that SGR use best practices during construction to avoid or minimize disturbance to the relevant natural buffers, since complete avoidance of natural buffers may not be feasible.

Response: This mitigation measure specifies minimizing losses of woody vegetation and other types of natural buffers that could result from construction activities. Rather than generally requiring the use of BMPs, SEA believes that application of this mitigation measure would be best accomplished by requiring SGR to review specific aspects of the preliminary construction plans, including temporary construction features, prior to finalizing those plans. SGR also would be required to instruct the preparers of the plans to fully review areas to be affected such that losses of stands of woody vegetation and other forms of natural buffers, including areas along waterways, would be held to a minimum. Minimization is the goal of this mitigation measure, and SEA recommends that it be considered during planning for all construction activities. In order to be more specific in this mitigation recommendation, SEA has modified Mitigation Measure #33 from the DEIS to read as follows:

Prior to finalizing construction plans and before beginning construction activities, SGR shall review specific aspects of its construction plans, including temporary construction features, and shall instruct the preparers of the plans to fully review areas to be affected such that losses of woody vegetation and other forms of natural buffers, including areas along waterways, would be held to a minimum. During rail construction, SGR shall minimize disturbance of natural buffers contiguous to floodplains in order to prevent soil erosion and to preserve wildlife cover, food sources, and travel corridors. (See Mitigation Measure #F-50 in Chapter 1 of this FEIS.)

Comment BR-16: #EI-1287: As a courtesy to the USFWS, any caves, sinkholes, or karst features observed during construction should be subject to biological investigations to determine the presence of any endangered species. These species are not listed in Medina County, but that is only because investigations have not been conducted to determine if they are present. As a good steward of the environment, SGR, VCM, and Vulcan should be asked to voluntarily conduct biological investigations of any karst features and caves found during construction.

Response: Mitigation Measure #F-29 (see Chapter 1 of this FEIS), which would require SGR to comply with the Edwards Aquifer Rules (30 TAC Chapter 213) for the construction of the rail line and associated facilities, would necessitate the completion of a GA prior to construction. The GA would include a karst feature inventory and evaluation.

Comment BR-17-, #EI-1287: In Section 4.19 of the DEIS, the conclusion was that the level of habitat disturbed is a small percentage of comparable plant and wildlife habitat in Medina County. However, no effort was made to characterize and quantify the habitat that is disturbed. Therefore, this statement cannot be made when the type of habitat is unknown.

Response: As discussed in Sections 3.4 and 4.6 of the DEIS, SEA conducted field observations and a review of published information on resources in Medina County as part of the assessment of potential impacts to biological resources from the proposed rail line construction and operation. Section 3.4 contains descriptions of flora and fauna in the proposed project area and Section 4.6 specifies the amount of land that would be disturbed by each alternative. Section 3.6 discusses the flora and fauna in the area of the Eastern Alternatives.

5.2.10 Air Quality (AQ)

Comment AQ-01, #EI-1263, #EI-1310, #EI-1313, #EI-1315, #EI-1318, #EI-1320, #EI-1326 #EI-1335, #EI-1337, #EI-1339, #EI-1341, #EI-1344, #EI-1369, #EI-1370, and #EI-1425: The DEIS did not consider dust pollution impacts from the proposed quarry. Air pollution from the quarry would be difficult to tolerate. Large clouds of limestone dust would contaminate the air 24 hours a day, seven days a week, and dust from quarry operations was not examined in the DEIS. Another Vulcan limestone quarry would cause the nearby area to turn white from limestone dust when the weather is dry. EPA recommends that best practices be implemented to minimize the impact of any air pollutants, and that construction and waste disposal activities be conducted in accordance with applicable local, state, and Federal statutes and regulations. VCM should be required to provide dust abatement equipment at each dust emitting location, and air quality monitoring stations should be installed to ensure that VCM and SGR comply with air quality standards. Air quality test reports should be made available to area residents and property owners. A commenter asks about the effects on people's respiratory health of dust generated by blasting operations at the quarry.

Response: Comment noted. Although the separate direct impacts from quarry development and operation are not within the scope of SEA's environmental review for this rail line construction proposal, as explained in Section 1.5 of the DEIS and Chapter 2 of this FEIS, SEA has examined impacts from the quarry in conjunction with impacts from the rail line construction and operation, as part of the cumulative impacts analysis (see Section 4.17 of the DEIS and Chapter 3 of this FEIS). As stated in Section 4.17.5 of the DEIS, the TCEQ has requirements to regulate air emissions from quarry activities, and VCM has obtained an appropriate TCEQ air quality permit, which would ensure that activities would comply with all relevant air quality standards. TCEQ has specific public notification procedures for air quality permit applications that are explained in the Guidance for New Source Review Permits, available at http://www.tceq.state.tx.us/permitting/air/nav/air_guidenewsource.html. SEA has incorporated EPA's recommendations into a recommended mitigation condition. See Chapter 1 of this FEIS, Mitigation Measure #F-17.

SGR has provided information describing specific actions that would be taken to control dust emissions in the quarry area (see Appendix D of this FEIS, #EI-1664). According to SGR, VCM would use BACT to control dust emissions at the quarry. The BACT practices that would be used are derived from the TCEQ Technical Guidance for Rock Crushing Plants (RG 058, February 2002). Emissions from the first section of the plant would be controlled by operating water sprays at the inlet and outlet of the crushers, screens, and conveyors. Partial enclosures would also be used at the locations where material is transferred from crushers to conveyors to reduce emissions from cross winds. The second section of the plant would consist of wash screens, conveyors, and processes where the material is drenched with or submerged in water. SGR states that this method of processing the material inherently controls emissions well beyond BACT requirements because it is saturated. The crushers in this section would be equipped with water sprays at the inlet and outlet points. Emissions from the roads, active work areas, and stockpiles would be controlled by the use of an 8,000-gallon water truck. The water truck would apply water to the road and work area. A side cannon on the truck would be used to water stockpiles as needed. In addition, the entry/exit road would be paved, watered, and washed to control dust. A wheel wash would be installed at the location where trucks enter the paved road from the unpaved area, minimizing track out onto the paved road. In addition, signs would be posted limiting product trucks to 15 miles per hour on the facility property.

Comment AQ-02, #EI-1318, #EI-1326, #EI-1335, #EI-1337, and #EI-1369: The DEIS did not sufficiently address impacts from the dust that would be generated by uncovered rail cars. Dust from mining and transporting operations would cause detrimental impacts to air quality, human and wildlife health, and the operation of machinery, and would reduce 30-mile vistas. In times of little or no rain, dust from vehicles on the unpaved roads is already a problem; the additional dust from the proposed rail and quarry operations would make conditions unbearable and unlivable. The use of rail to ship products would keep dust to a minimum.

Response: Dust generated by the proposed rail operations would depend upon the particle size and moisture content of the limestone aggregate after it is loaded into the rail cars. SEA does not believe that dust from the limestone in the rail cars would significantly affect air quality in the project area because of VCM's plans to saturate the limestone with water, as discussed above, and the need for quarry activities to comply with TCEQ air quality requirements. However, SEA has added a specific recommendation to mitigate potential impacts from limestone dust being generated by rail operations that would require SGR to check the moisture content of the rail car loads prior to transport and to wet the surface of the rail car loads that appear to be dry prior to transport. (See Mitigation Measure #F-61 in Chapter 1 of this FEIS.)

In Section 4.7 of the DEIS, SEA quantified the air emissions from trucks traveling on both paved and unpaved roads. These calculations demonstrate that air emissions from transport on unpaved roads are significantly greater than emissions from transport on paved roads. As described in Sections 2.4 and 4.17.1 of the DEIS, and Section 2.3 of this FEIS, VCM plans to pave some area roadways to accommodate the truck transport of aggregate, for both the local market truck traffic that would occur regardless of whether the rail line is built and for the all trucking under the No-Action Alternative that would occur if the rail line is not built.

Comment AQ-03, #EI-1339, #EI-1341, and #EI-1358: Dust from gravel trucks could affect area roadways and would pollute the air. Operations over the rail line would comply with Clean Air Act (CAA) requirements, therefore causing fewer impacts to air quality than the use of trucks.

Response: Comment noted. As stated in Section 4.7 of the DEIS, and Chapter 6 of the SDEIS, SEA concludes that construction and operation of the proposed rail line would have no significant air quality impacts and that the use of trucks, under the No-Action Alternative, would cause significant air

quality impacts. SEA's analysis of the No-Action Alternative assessed the potential air quality impacts of VCM's use of trucks to transport limestone from the quarry to the UP rail line, if SGR's proposed rail line were not built, and concluded that such use of truck transportation would lead to significant air quality impacts. (See DEIS, Section 4.7.) SEA's analysis of cumulative impacts assessed the air quality impacts from the truck transport of limestone to local markets and concluded that air emissions from these trucks would not be significant. (See DEIS, Section 4.17.5.)

Comment AQ-04, #EI-1414: Medina County is currently unclassified, or in attainment of the National Ambient Air Quality Standards, for all six criteria air pollutants so general conformity does not apply. Although any demolition, construction, rehabilitation or repair project would produce dust and particulate emissions, these actions should pose no significant impact on air quality standards. The construction contractors using standard dust mitigation techniques should easily control any minimal dust and particulate emissions.

Response: Comment noted. Standard dust mitigation techniques have been incorporated into SEA's recommended mitigation measures. See Mitigation Measure #F-5 in Chapter 1 of this FEIS.

5.2.11 Geological Hazards

Comment GH-01, #EI-1287: A figure showing the location of landslide/mass movement hazards would be helpful to include in Section 3.6.2. Figure 3.6-1 is only a general atlas of the geologic outcrops in the area and does not really show site-specific information. In addition, the colors on this map make it very difficult to follow routes.

Response: As stated on page 3-37 of the DEIS, based upon a map review and an on-site field visit, SEA concluded that the risk of landslide hazards would be negligible along the proposed and alternative routes. Thus, SEA does not believe that developing a more detailed figure to assess this issue is necessary.

5.2.12 Karst Features

Comment KF-01, #EI-1287: On the northern end of all of the rail routes examined in the DEIS, karst features are present and should be discussed in more detail. The discussion in Section 3.6.2 of the DEIS is very general and does not provide site-specific information, especially to allow for a comparison among the alternatives. Susceptibility of the area to karst formation is not as important as the presence of karst formations. This can only be analyzed by site-specific geologic assessments. It is well known locally that sinkholes and caves are present in the northern portions of the project area. These should be carefully assessed according to protocol provided by the TCEQ for development of WPAPs. This will be required for the project in areas in or near the EARZ. SEA should do this as a courtesy to the general public to assure them that the fuel supply facility is not located on the EARZ or other geologic formations containing karst features. These features provide a direct conduit of contamination to shallow and deep aquifers in the area.

Response: In cases that trigger a NEPA review, the Board's mitigation will sometimes include conditions that require a railroad to consult with or seek approvals from other Federal, state, or local government entities. SEA has recommended a mitigation condition (see Mitigation Measure #F-29 in Chapter 1 of this FEIS) that would require SGR to comply with the Edwards Aquifer Rules as presented in Title 30 TAC Chapter 213 for all construction activities associated with the rail line and fuel supply facility that would occur within the EARZ. In order to comply with these rules, the quarry construction required the submission and approval of a WPAP to the TCEQ. Additionally, if the fuel supply facility is located within the EARZ and includes fuel storage underground storage tanks (UST) or aboveground storage tanks (AST) of 500 gallons or larger, an UST and/or AST Facility/Plan would be required. Both the WPAP and the AST/UST plans required the completion of a GA as a part of the application process.

The GA would require that a qualified geologist conduct a detailed karst feature inventory and evaluation of the subject area. SEA notes that SGR has indicated that TCEQ has approved VCM's WPAP application for the quarry (see Appendix D of this FEIS, #EI-2525).

Based upon the comments received on the DEIS expressing concern regarding the impacts of the proposed rail line construction and operation on the Edwards Aquifer, including comments from the EAA and the EPA, SEA believes that requiring SGR to comply with the Texas Edwards Aquifer rules for the proposed rail line construction and operation is sufficient mitigation.

Comment KF-02, #EI-1287: In Section 4.9, karst features were evaluated based on aerial photographs and topographic maps. The conclusion was that no significant sinkhole development has occurred within the study area. Sinkholes are common in the northern portion of the project area, especially around the rail loading track area and fueling facility. Many of these sinkholes have been filled in the past by farmers and should be investigated if they are within the right-of-way. A full geologic investigation should be conducted to determine the location of any karst features to provide more definitive analysis for hazards that may be a result of these features. This would protect the structural stability of the railroad and also protect groundwaters that could potentially be impacted.

Response: Mitigation Measures #46 and #47 in the DEIS, which SEA is recommending as Mitigation Measures #F-78 and #F-79, respectively, in Chapter 1 of this FEIS, fully address the issues raised by the commenter. These mitigation measures would require SGR to identify potential risk areas for sink hole formation prior to construction and to consult with a karst feature specialist to implement appropriate mitigation measures if these features are found during grading and construction activities. Additionally, as discussed above, Mitigation Measure #F-29, which would require SGR to comply with the Edwards Aquifer Rules for the construction of the rail line and associated facilities, would necessitate the completion of a GA prior to construction. The GA would include a karst feature inventory and evaluation.

Comment KF-03, #EI-1287: On page 4-60 of the DEIS, it says that an increase in impervious cover for roadway upgrades for the trucking alternative would likely be minimal, but it would exceed the amount of impervious cover generated by the rail line. No data is provided to support this statement. The section also discusses studies conducted in karst watersheds in Austin, Texas. No attempt has been made to reference studies in karst watersheds involving rail. Because of this, it is impossible to make a comparison between truck traffic and rail when there is no quantitative data available to support any conclusions made about adverse impacts to groundwater quality as a result of rail. This paragraph should be removed, or at least put into context with the fact that no studies have been conducted on rail and therefore no conclusions can be made.

Response: Roadways, by design, represent impervious cover. Conversely, railroad ballast consists of porous materials, and generally allows rainfall to percolate to the soils below. SGR has provided information indicating that it intends to use crushed limestone base for the rail bed and a combination of trap rock and limestone aggregate for the ballast material (see Appendix D of this FEIS, #EI-1664.) In watershed assessments done by the North Carolina Division of Water Quality (<http://h2o.enr.state.nc.us/swpu/clarkcreek/ccappc.pdf>), railroad rights-of-way were estimated to be at most 50 percent impervious cover, while roads were estimated at least 92 percent impervious cover. It is not possible for SEA to estimate the exact amount of impervious cover that would be generated by the No-Action Alternative or the rail line construction at this time because final engineering plans have not been developed for any alternative. However, SEA believes that, as stated in the DEIS, although the increase in impervious cover under the No-Action alternative would likely be minimal, it would exceed the amount of impervious cover generated by the rail line.

The paragraph in the DEIS specified by the commenter states that, based upon recent studies of asphalt roadways conducted in karst watersheds, the No-Action Alternative could adversely affect water quality within the project area from the accumulation of tire debris and exhaust particulates on the roadways and the use of asphalt sealer, leading to the presence of elevated levels of polycyclic aromatic hydrocarbons and heavy metals in runoff. While it is true that SEA has not located comparable studies for rail lines in karst watersheds, it is clear that construction of the rail line would not involve the use of asphalt, and operations over the rail line would emit fewer exhaust particulates (see Section 4.7 of the DEIS) and would not lead to the accumulation of tire debris. As discussed in Section 4.5 of the DEIS, construction and operation of SGR's proposed rail line or the use of trucks to transport the limestone could each cause adverse effects to water quality in the area. However, due to the high volume of projected truck traffic under the No-Action Alternative, which would introduce more pollutants in runoff, SEA continues to believe that the No-Action Alternative would have greater impacts on water resources in the area.

5.2.13 Land Use (LU)

LU-01, #EI-1336, #EI-1341, #EI-1347, #EI-1353, and #EI-1370: Land owners would suffer economic detriment from the loss of hunting leases. On page 4-102 of the DEIS, the description of land uses at the quarry site fails to take into consideration that the area has been and is being used for hunting.

Response: Aside from the rail line right-of-way removing land that could be utilized for hunting, SEA does not believe that construction of the rail line would adversely affect hunting operations. SEA has found no evidence that the existence of a rail corridor or the operations of trains at the planned frequency would impact hunting.

Page 4-102 is referring to cumulative impacts from the development and operation of the quarry, which would make land unavailable for hunting. VCM is currently leasing this land for its quarry activities. The future unavailability of the quarry site for hunting leases will not have an economic impact on the ability of other local landowners to lease their lands for hunting.

LU-02, #EI-1341: The local market truck traffic would create hazards for residents' driveways and destroy children's play areas.

Response: The local market truck traffic will result from development and operation of the quarry. Thus this traffic would occur regardless of whether SGR's proposed rail line is built. Because the Board does not have jurisdiction over the quarry project, SEA cannot recommend that the Board impose any mitigation conditions to reduce potential impacts from the local market truck traffic as part of this rail line construction proceeding. However, as noted in Section 4.17.2 of the DEIS, SEA discussed the risk of accidents in the project area from the proposed local market truck traffic. The risk to the public in the project area from the operation of local trucks on an annual basis would be minimal (0.062 injuries and 0.0022 fatalities).

Comment LU-03, #EI-1353: What is the purpose of VCM's planned buffer zone at the quarry site because it appears to be small compared to the size of the quarry?

Response: SEA requested additional information from SGR regarding the planned buffer zone at the quarry site and SGR provided the following information. (See #EO-212 and #EI-1664 in Appendix D of this FEIS.) According to SGR, while a buffer zone surrounding the quarry site is not required by regulations, Vulcan has volunteered to maintain a minimum 100-foot buffer zone (set back) between the area to be quarried and the boundaries of all the adjoining properties for safety and aesthetic purposes. Vulcan intends to retain vegetation in the buffer zones, to use BMPs for ensuring stormwater quality, and

to prevent erosion. According to SGR, because the quarry pit will only advance at approximately 50 acres per year, the 1,800 acre site will have additional buffer areas for many years to come.

Comment LU-04, #EI-1356: Land values would increase as a result of the rail line due to area growth and the demand for shipment by rail. Although several homes might initially lose value, land values would stabilize after people realize the rail line has not changed their lives.

Response: Comment noted. As stated in Section 4.16 of the DEIS, property values are determined by myriad factors, including visual aesthetics, availability of schools, employment opportunities, transportation infrastructure, access to commercial establishments, land use, water quality, and air quality. Because local property values depend upon so many factors and are somewhat subjective, the impacts on property values from the proposed project cannot be predicted accurately.

Comment LU-05, #EI-1320, #EI-1333, #EI-1335, #EI-1337, #EI-1339, #EI-1347, and #EI-1360, #EI-1369, and #EI-1370: We are concerned about decreases in land and property values. Landowners' assets will be cut in half by the rail line and sale of the property would be prohibitive for years. Based upon knowledge of the real estate business in Medina County, land adjacent and near rail lines is worth much less than land that is now under strong demand. Hundreds of people from San Antonio are interested in buying land in Quihi, Texas, from U.S. Highway 90 to Medina Lake. This property is currently being sold within a matter of days. The rail line would adversely affect land values and the future land values for families in the area for generations to come. In Texas if you reduce property values and quality of life, someone is liable so this project could require large amounts of damages to compensate for property devaluation. How will land owners be compensated for financial losses caused by the rail line? One commenter states that if he had known about the quarry and rail line project, he would not have invested in his current home.

Response: Comment noted. As stated in Section 4.16 of the DEIS, property values are determined by myriad factors, including visual aesthetics, availability of schools, employment opportunities, transportation infrastructure, access to commercial establishments, land use, water quality, and air quality. Because local property values depend upon many factors and are somewhat subjective, the impacts to property values from the proposed project cannot be predicted accurately. While specific individuals may not wish to live near rail lines, SEA cannot definitely determine whether this fact alone would cause a reduction in property values in the area.

Comment LU-06, #EI-1358: The recommended mitigation in the DEIS would ensure that landowners have access to severed properties and that natural surroundings continue to appear the same.

Response: Comment noted. SEA has modified the mitigation measure recommended in the DEIS regarding land use (Mitigation Measure #39) to require that SGR address problems that may arise due to not only to property severance and damage to homes, but also to irrigation systems. Please see Mitigation Measure #F-62 in Chapter 1 of this FEIS.

Comment LU-07, #EI-1335, #EI-1369 and #EI-1425: There are farms and ranches in the area that SGR would condemn by eminent domain. Many are listed in the Texas Department of Agriculture Family Land Heritage Program as being in continuous agricultural occupation by the same family for 100 years or more. There are also some homes in the area that are listed as historic. If the Board approves SGR's proposed rail line construction and operation, a private company would be allowed to steal private property. It is unacceptable to use words like "minimal" and "insignificant" when discussing impacts to this area. We're talking about things as basic as clean water and air.

Response: Comment noted. As stated in the DEIS at page 4-65, in Board-approved rail construction cases, the applicant is responsible for the acquisition of land necessary to implement the approved project. Condemnation (also known as eminent domain) of property needed to complete a Board-approved line occurs in accordance with the state's railroad condemnation law. Thus, if the Board approves SGR's proposal to construct and operate the rail line, SGR would be responsible for acquiring the necessary land and any condemnation proceedings would be governed by Texas state law. However, states cannot apply their eminent domain statute in such a way as to present an "insurmountable barrier" for a Board-approved railroad construction project because their railroad condemnation statutes would have the effect of state "regulation" of railroads, and accordingly would be preempted under 49 U.S.C. 10501(b).

Comment LU-08, #EI-1287, #EI-1341, #EI-1347 and #EI-1369: Dividing farmlands would destroy established grass and grazing patterns, and erosion practices. Such division of land would require landowners to build additional fences and stock tanks, and to move livestock from one pasture to another to provide them with water. Construction of the railroad may harm agricultural use due to the fact that some alternatives may bisect agricultural lands, making cultivation logistically difficult.

Response: SEA has addressed the potential for the rail line construction to severed properties in Section 4.10 of the DEIS. In addition, SEA is recommending several mitigation measures that would require SGR to negotiate with affected landowners and provide access to severed properties, provide livestock and wildlife with alternate sources of water, and take precautions to ensure minimal disruption of utility services. (See Mitigation Measures #F-VM9, #F-19, #F-62, and #F-6 in Chapter 1 of this FEIS). SEA has added Mitigation Measure #F-63 in the FEIS, which requires that, prior to beginning construction, SGR must consult with the TPWD and with affected landowners to determine whether the rail line would separate livestock and wildlife from water supplies. If this is the case, SGR must develop additional water sources to replace those lost, adversely affected, or rendered inaccessible due to new rail line construction, if suitable alternative sources are not available.

As discussed in Section 4.10 of the DEIS, SEA believes that adverse effects to land use from the proposed rail line construction and operation could be reduced but not fully mitigated.

Comment LU-09, #EI-1357: The commenter is concerned that the rail line would devastate hunting opportunities, as well as ranching and farming, and that Vulcan wants a 2,000 foot easement to build a road and houses for employees along the tracks.

Response: As stated in Section 4.10 of the DEIS, acquisition and use of right-of-way for the proposed rail line under any of the alignments would have some adverse effects on land use that might not be fully mitigated, including property severance and conversion of prime farmlands to rail line right-of-way. However, SEA's recommended Mitigation Measures #F-62 and #F-63 would require SGR to negotiate with affected landowners to provide access to severed properties and to develop additional water sources for livestock and wildlife to replace those lost, adversely affected, or rendered inaccessible due to new rail line construction.

As stated above, SEA has found no evidence that the existence of a rail corridor or the operations of trains at the planned frequency would impact hunting.

SGR has provided information indicating that SGR or its affiliate, VCM, own or lease land in the project area, including the land on which the quarry would be developed. SEA has no information regarding plans to build a road and houses for railroad and quarry employees along the tracks. SGR would need to acquire property from private landowners along any of the potential alignments. SEA notes that, if SGR pursued condemnation proceedings to acquire the land, SGR could only condemn the

amount of property that would be reasonably required to serve the public use. (See Fambrough, Judon, Understanding the Condemnation Process in Texas, page 2, Real Estate Center, Technical Report 394, September 1995, < <http://recenter.tamu.edu/pdf/394.pdf>>.)

Comment LU-10, #EI-1287: In Section 3.7, the percentage of land that is prime farmland, forest, and grazing land in the entire county is not applicable to this project. Figures should be produced showing detail on site-specific land uses across each of the rail routes being studied. Percent of land within 100 feet of each of the rail routes being used for farmland, grazing land, industrial, and other uses should be calculated. This will allow for a more definitive argument and delineation of impacts to land use.

Response: SEA believes that the percentage of land types in Medina County listed in Section 3.7 provides useful information in order to characterize the land uses in the project area and to evaluate impacts to land uses on a broader scale. SEA does not believe that calculating specific percentages of the land use composition for the area that would be crossed by each alternative is necessary for an appropriate comparison of the alternatives, or for an appropriate determination of impacts to land use from the proposed rail line construction and operation. Section 4.10 of the DEIS and Section 3.10 of the SDEIS discuss potential impacts to land use.

Comment LU-11, #EI-1370: Commenters state that one of the routes would pass through their living room and no one has contacted them to determine whether the rail line construction and operation would affect their livelihood.

Response: SGR has not yet developed final engineering plans for any of the alternative rail line alignments; therefore, SEA's analysis has been based upon the available project maps, which suggest that some of the alignments could pass in close proximity to homes (see Noise and Vibration Technical Report, Appendix C-3 of the SDEIS). However, SEA is recommending two of the Eastern Alternatives studied in the SDEIS and FEIS, the Eastern Bypass Route, (including the Modified Eastern Bypass Route) and the MCEAA Medina Dam Alternative, as the environmentally preferable alignments for this project. None of these routes goes through existing homes or structures. Furthermore, to avoid property severance and damage to irrigation systems, SEA is recommending specific mitigation to address this issue (see Mitigation Measure #F-62 in Chapter 1 of this FEIS).

Comment LU-12, #EI-1370: The DEIS presents this area as a desolate area, though there are houses in the area that were not taken into consideration, such as houses toward Medina Lake and houses in subdivisions.

Response: SEA provided updated and reviewed information on the number of houses within 0.5 miles and 1 mile of each of the alternatives studied (including the Eastern Alternatives) in the SDEIS (see Section 6.2.10 of the SDEIS). SEA also reviewed the map submitted by MCEAA at the public meetings on December 2, 2004, which MCEAA indicated more accurately depicted residences and planned subdivisions near the project area of the original four routes studied in the DEIS.

As shown below in Table 5.1, except for Alternative 1, the number of residences SEA stated as being within one half mile or within one mile of the alignments examined in the DEIS consistently exceeds the number of residences based upon MCEAA's map, making SEA's analysis more conservative. While SEA has not verified the source of the information in MCEAA's map, if accurate, this information would not change SEA's conclusions regarding impacts to existing land use.

Table 5.1 Number of Houses within Half a Mile and One Mile

	Number of Houses within 1 mile		Number of Houses within Half a Mile	
	SDEIS	MCEAA	SDEIS	MCEAA
Proposed Route	190	79	74	32
Alternative 1	103	107	41	46
Alternative 2	169	85	104	32
Alternative 3	182	75	88	30

Note: MCEAA only provided information on residences near the original four alignments studied in the DEIS. SEA presents the number of residences in proximity to all alignments in Chapter 6 of the SDEIS and Chapter 2 of this FEIS.

Comment LU-13, #EI-1287: The methodology used for assessing land use impacts should include field observations. This is a relatively easy task and involves only visually observing land use along each of the alignments. This would provide the information necessary to make an educated conclusion concerning impacts to land use.

Response: As stated in Section 4.10 of the DEIS, SEA assessed the land use impacts of the Proposed Route and the alternative routes studied in the DEIS by conducting a detailed review of land use and soils data as shown on aerial photography (Texas Digital Ortho Quadrangle False Color Infrared, dated 1995), National Wetland Inventory Maps, USGS 7.5 minute topographic maps, and from Medina County soil survey data. As discussed in Sections 4.6 and 4.15 of the DEIS, SEA’s assessment of biological resources and cultural resources in the project area included field visits to determine the characteristics of the natural and built environment as well as land use in the project area. Chapter 5 of the SDEIS describes the comprehensive Rural Historic Landscape Study that SEA performed, which details the historical and current land uses in the area. SEA believes the methodology used to assess potential impacts to land use is appropriate for this proceeding.

Soils

Comment LU-14, #EI-1077: The USDA National Resources Conservation Service (NRCS) reviewed the DEIS as required by the Farmland Protection Policy Act (FPPA), and developed a Farmland Conversion Impact Rating for the alternative rail routes evaluated in the DEIS. The Proposed Route received a score of 123; Alternative 1 received a score of 142; Alternative 2 received a score of 138; and Alternative 3 received a score of 120. According to the FPPA, sites receiving a score of less than 160 need not be given further consideration for protection, and no additional sites need to be evaluated.

Response: Comment noted. In Section 4.10 of the DEIS, SEA discussed the impacts to NRCS designated prime farmland soils from the proposed rail line construction and operation under any of the original alternatives considered in depth and specifically requested comments from NRCS regarding this issue. Based upon the comments submitted by NRCS to the DEIS, as well as additional comments submitted by NRCS regarding the Eastern Alternatives (see Appendix B-2 of the SDEIS, #EI-1959, where it states that the Eastern Bypass Route received a score of 130, the MCEAA Medina Dam Route received a score of 125, and the SGR’s Modified Medina Dam Route received a score of 134), SEA concludes that the proposed rail line construction and operation under any of the alternatives studied in depth would not cause significant impacts to prime farmland soils in the area.

Comment LU-15, #EI-1287: Paragraph six on page 3-35 of the DEIS discusses the prime farmland soils impacted by the railroad. The DEIS states that the prime farmland soil designations may not be applicable here because few of the soils crossed are currently cultivated. This is a false statement. Prime farmland soils are so designated based upon potential use as well as present use. Construction of the railroad permanently removes some prime farmland soils from agricultural uses. Construction would also indirectly remove prime farmland soils due to potential industrial development in and along the railroad. NRCS requires a separate analysis for impacts to prime farmland soils that is coordinated through the NRCS State Conservationist using Prime Farmland Conversion Impact Rating Sheets, which are reviewed by the NRCS. This information must be included in the EIS.

Response: NRCS designates soils as prime farmland soils, regardless of use. The FPPA, which is administered by NRCS, also applies to farmlands that are not currently used as croplands. SEA believes that the use of soil types in describing areas potentially affected by the proposed railroad in the DEIS is appropriate and provides sufficient information to describe the affected area and to evaluate impacts adequately. Therefore, the statement on page 3-35 of the DEIS, “(a)s noted above, some of these (NRCS) designations may not be applicable here based upon use, as a few of the soil types crossed ... are not currently cultivated in the areas that would be impacted by the proposed or alternative alignments” is not accurate. The statement was intended in the broader discussion of land use to indicate that not all of the prime farmland that would be impacted by the rail line is currently in agricultural use. Please see Chapter 7 of this FEIS, the Errata chapter, for a correction of this phrasing.

The statement did not affect the analysis of impacts to NRCS designated prime farmlands, however.

Regarding the commenter’s request that SEA assess the indirect effects on prime farmland soils from an increase in area development that would be caused by the rail line construction and operation, as discussed in Section 4.18 of the DEIS, SEA has identified no current proposals for other projects in the area. Based upon the information available at this point, it is not possible to predict whether there would be an increase in area development as a result of this project.

Comment LU-16, #EI-1287: Section 3.6.1 of the DEIS, which describes soils, is fairly comprehensive and provides some information for the reader. However, the section should list soil series found on each alternative rather than combining all of the alternatives. In the environmental consequences section, this may have a bearing on conductance of vibration, potential for shrink-swell, erosion hazards, and other important factors that have a significant effect on the level of impacts caused by construction of a railroad.

This section of the DEIS is an excellent location for range sites to be described. The NRCS provides information in the soil survey on range sites in and along all of the alternative and proposed actions. The DEIS states that most of the land is not cultivated along the railroad; therefore, it can only be assumed that it is used for range or wildlife. This contradicts earlier statements about the majority of the railroad being in areas that are cleared or used for agriculture. A description of the range sites provides information for the potential production of the site for livestock and wildlife, and provides an excellent measure of the condition of the range based on plant composition. Full understanding of the condition of the range allows for a logical and scientific evaluation of the potential for recovery and level of impact expected on these areas. For example, areas in poor range condition will recover much more quickly than those areas that are in good range condition, or at or near the climax community level.

Response: Range sites are classes of soils based upon several soil characteristics. A range site consists of one or more soil types and is less specific in characterizing an area than the soil type itself. SEA believes that the use of soil types in describing areas potentially affected by the proposed railroad in

the DEIS is appropriate and provides sufficient information to describe the affected area and to evaluate impacts adequately.

Regarding the seemingly contradictory statement, the DEIS and SDEIS clearly state that there is a variety of land uses in the project area including cropland and pasture, rangeland, residential, shrub and brush rangeland, transitional areas, etc. Also, the SDEIS identifies some areas classified as prime farmland.

Comment LU-17, #EI-1287: For the description of prime farmland soils that could be impacted by the No-Action Alternative, Paragraph 2 on page 3-36 of the DEIS only discusses the prime farmland soils at the remote loading facility. The section should also include information on the soils that could be impacted by the route chosen for trucking. Upgrades required for roads due to trucking may involve impacts to soils and should be addressed.

Response: While some impacts to currently undisturbed soils may result from road upgrades and expansion under the No-Action Alternative, SEA believes that this would be a minimal impact because work should take place within existing TxDOT and Medina County roadway rights-of-way, and therefore, would largely affect soils in areas which are already in transportation use. SGR indicates that one of the private roadways would be 1.5 to 1.75 miles long and 40 feet wide; the other possible private road would be shorter and the same width. Thus, the total acreage of land and prime farmland soil that would be impacted by the possible construction of private roadways would be much less than the acreage of land and the acreage of prime farmland soils impacted by any of the original rail route alternatives studied in depth in the DEIS and SDEIS. Because SEA has concluded that impacts to prime farmland soils under any of the rail routes studied in depth would not be significant, SEA similarly concludes that impacts to prime farmlands soils impacted by the potential private roadways that VCM may build to support truck traffic under the No-Action Alternative would also not be significant.

Comment LU-18, #EI-1287: Detailed figures at a minimum scale of 1:24,000 should be provided to show soils and range sites along each of the routes proposed by the EIS. As stated in the EIS at the present time, soil descriptions are useless when the locations of these soils are not known.

Response: Although the information requested is readily available from the USDA soil survey for Medina County, this FEIS includes a 1:24,000 scale map coverage of the alternative alignments for the SGR rail line showing the extent of hydric soils in the project area. See Figure 5-1 of this FEIS.

Comment LU-19, #EI-1287: In Section 4.19 of the DEIS, conclusions are made about existing land uses which were not fully delineated in the field. This section also does not address differences between each alternative, the truck alternative, and the proposed action.

Response: Section 4.19 of the DEIS represents a cataloging of unavoidable adverse impacts identified in the individual resource analysis sections of Chapter 4. A more detailed assessment of land use impacts, which includes a comparison of the rail alternatives and the No-Action or truck alternative, is included in Section 4.10 of the DEIS. SEA does not believe that it is necessary to fully delineate existing land uses in order to recognize that construction of the rail line would alter the land use of the right-of-way.

5.2.14 Noise

Comment N-01, #EI-1263, #EI-1315 and #EI-1326: Because the quarry would operate 24 hours a day, noise impacts from quarry operations to wildlife and human life should be studied. Loud sounds from the quarry will be difficult to tolerate. The DEIS did not consider the noise pollution impacts that would be caused by the proposed quarry. Quarry operations would take place 24 hours a day for 50 years

and would cause continual noise disturbances. The noise would cause wildlife to leave the area and would also make raising and marketing livestock animals more difficult.

Response: Although the separate direct impacts from quarry development and operation are not within the scope of SEA's environmental review for this rail line construction proposal, as explained in Section 1.5 of the DEIS and Chapter 2 of this FEIS, SEA has examined impacts from the quarry that would overlap with impacts from the rail line construction and operation, as part of the cumulative impacts analysis (see Section 4.17 of the DEIS and Chapter 3 of this FEIS). SEA has discussed potential noise impacts from the quarry as part of the cumulative impacts analysis in Section 4.17.9 of the DEIS and Chapter 4 of the SDEIS. SEA found that there would be minimal overlap and addition of quarry activity noise in conjunction with train noise, resulting in no cumulative impact. Because the Board does not have jurisdiction over VCM's quarry development and operation, SEA cannot recommend that the Board impose conditions to mitigate the potential noise impacts from quarry operations.

Comment N-02, #EI-1281 and #EI-1284: The quarry and the rail line would operate 24 hours per day and create noise disturbances during the night.

Response: SEA conducted a comprehensive noise study to take into consideration SGR's updated information indicating that rail operations might take place during nighttime hours. Please see Chapter 4 of the SDEIS and Appendix C-3 of the SDEIS.

Comment N-03, #EI-1318, #EI-1356, #EI-1369 and #EI-1358: Modern plant equipment at the quarry would provide adequate noise control. Based upon experience living near rail tracks and quarries, noise from the proposed rail line and quarry should not be an issue. Train horns are heard many times a day in Hondo, Texas, without affecting people's business or rest. People will grow accustomed to the noise over time.

Response: Comment noted.

Comment N-04, #EI-1289: Noise measurements should be taken at Avenue M/Highway 90 in Hondo and then at the intersection of County Roads 365 and 4512. The different noise levels between the two locations would illustrate that the proposed rail line construction and operation would cause significant noise impacts.

Response: SEA conducted additional noise measurements to calculate the existing noise levels in the project area, as detailed in Appendix C-3 and Chapter 4 of the SDEIS. The field team was granted permission by several private property owners to conduct measurements closer to their noise-sensitive dwelling areas. These measurement locations were farther away from local traffic noise, allowing SEA to more appropriately describe some of the existing noise levels than was possible during the previous noise study for the DEIS. The results confirmed the accuracy of the noise measurements collected during the DEIS.

Comment N-05, #EI-1335: Noise level monitoring stations should be installed around the proposed quarry and rail line, and test reports should be made available to area residents and property owners.

Response: SEA does not believe that requiring SGR to monitor noise levels is necessary for the proposed rail line construction and operation. Rail line construction activities would be temporary. Moreover, SEA is recommending several mitigation conditions to further reduce potential noise impacts from construction activities (see Mitigation Measures # F-64 through #F-74 in Chapter 1 of this FEIS).

As stated in the DEIS, SGR's projected train operations over the proposed rail line would be four trains per day (two round trips from the quarry to the UP rail line). Consequently, no noise analysis would be required for this project under the Board's thresholds for noise impact assessment (eight trains per day). (See 49 CFR 1105.7(e).) Because of the public interest in this project, however, SEA performed a noise analysis of the proposed rail line construction and operation. SEA's noise calculations in the SDEIS indicate that construction and operation of the rail line over any alternative route could have some adverse noise impacts based upon the proximity of the selected rail line alignment to a noise-sensitive use.

Because the Board does not have jurisdiction over VCM's proposed quarry development and operation, SEA cannot recommend that the Board impose mitigation on the development and operation of the quarry.

Comment N-06, #EI-1310, #EI-1320, #EI-1335, #EI-1340, #EI-1360, #EI-1369, and #EI-1370: Commenters are concerned about day and night blasting and rock crushing activities at the quarry, noise from rail operations (including the sidetrack), and train horn noise at crossings. Noise studies taking these concerns into consideration should be completed for the entire Quihi area prior to the Board's final decision. The DEIS did not sufficiently address noise impacts from the quarry, train operations, and horns.

Response: Although the separate direct impacts from quarry development and operation are not within the scope of SEA's environmental review for this rail line construction proposal, as explained in Section 1.5 of the DEIS and Chapter 2 of this FEIS, SEA has examined impacts from the quarry that would overlap with impacts from the rail line construction and operation, as part of the cumulative impacts analysis (see Section 4.17 of the DEIS and Chapter 3 of this FEIS). SEA has discussed potential noise impacts from the quarry as part of the cumulative impacts analysis in Section 4.17.9 of the DEIS and Chapter 4 of the SDEIS. SEA found that there would be minimal overlap and addition of quarry activity noise and train noise, resulting in no cumulative impact. Because the Board does not have jurisdiction over VCM's quarry development and operation, SEA cannot recommend that the Board impose conditions to mitigate the potential noise impacts from quarry operations.

SEA believes that the noise study included in the SDEIS appropriately addresses all of these concerns. Furthermore, the preferred rail alternatives that SEA recommends in this FEIS do not traverse the Quihi area.

Comment N-07, #EI-1287: The baseline noise analysis appears to have been conducted in a good scientific manner. However, data used for the noise study to develop baseline levels was taken at or near highways. This biases the results of the data towards a much louder environment than is experienced by most residences in areas remote from highways. In addition, baseline levels were not determined along the routes, which would be more applicable for this project. Comparing rail to baseline data obtained from highways would result in only minimal increased noise levels. However, if baseline data was taken along the alignments of each alternative, the baseline levels would be much less because these alignments are currently not near highways. Thus, the change or increase in noise levels would be significant. This is another example of biasing data by method of data collection and lack of data collection.

In the noise analysis, the maximum levels of sound are critical for impact analysis. A 24-hour average for an area where a train traverses a track only four times during the day is not indicative of the actual noise levels when the train is present. Noise levels are especially excessive not only from the sound of the engine and train moving along the track, but also from the warning horn as the train approaches intersections.

Further, the explanation of all of the measurements made for this analysis provided in Chapter 4 should be moved to Chapter 3. Most of the readers are not going to be familiar with the terminology or the abbreviations used in Section 3.8 of the DEIS.

Response: SEA conducted baseline noise analysis using industry-accepted methodologies, as discussed in Sections 3.8 and 4.12 of the DEIS. SEA conducted additional noise measurements to calculate the existing noise levels in the project area, as detailed in Appendix C-3 and Chapter 4 of the SDEIS. SEA notes that several measurements were conducted along the proposed routes. SEA took special care during the additional measurements to eliminate bias from local roadway noise. The field team was granted permission by several private property owners to conduct measurements closer to their noise-sensitive dwelling areas. These measurement locations were farther away from local traffic noise, allowing SEA to more appropriately describe some of the existing noise levels than was possible during the previous noise study for the DEIS. The results confirmed the accuracy of the original measurements in the DEIS.

SEA's analysis in both the DEIS and SDEIS discussed the sounding of train horns at at-grade crossings. The FRA's regulations require the train operator to sound the train horn prior to a train entering any grade crossing for safety reasons and require the noise level generated by the horn to be 96 decibels adjusted (dBA) at 100 feet in front of the train (see 49 CFR 222.129; and Use of Locomotive Horns at Highway-Rail Grade Crossings; Final Rule, 70 Fed. Reg. 21844 (2005)).

While area residents unaccustomed to train noise may be displeased or otherwise adversely affected by the noise generated each time a train passes by, the methodology for noise analysis requires discussion of impacts in terms of effects to the Day-Night Average Sound Level (L_{dn}) for a 24-hour day. The effects of the maximum sound level are included and not ignored in the L_{dn} analysis.

SEA provided a glossary of terms used in the noise analysis as well as a detailed discussion of noise science in Appendix C-3 of the SDEIS.

Comment N-08, #EI-1287: Background information provided in section 4.12 should be moved to Chapter 3 where baseline data is presented. This would be very helpful to the reader and would explain many of the questions that were asked in that section.

Response: SEA believes that Section 4.12.2 of the DEIS, which describes the fundamentals of acoustics and defines noise analysis terminology, is appropriately located in Chapter 4 of the DEIS.

Comment N-09, #EI-1287: The discussion of at-grade crossings only includes those crossings for public roads. Private roads and driveways should also be included, assuming that trains would blow their horns for those crossings, as well. Because of this, the sounding of horns can be a significant impact to the quiet rural environment that the public currently enjoys in Medina County. Additionally, the noise produced by the train would be different and louder than current ambient noises. The preliminary conclusion that impacts from horn noise would not be significant is based upon averages and durations which are not applicable. The discussion should take into consideration the fact that this noise definitely pierces through the quiet environment found in Medina County.

Response: Federal regulations govern the sounding of locomotive horns near at-grade crossings of railroads and public highways, but do not require the sounding of locomotive horn at the crossings of a private roadway. These Federal regulations are codified at 49 CFR, Parts 222 and 229. SEA discussed the at-grade crossings of private roadways in the SDEIS and has proposed mitigation in this FEIS that would require SGR, prior to beginning any construction activities, to perform an engineering evaluation at each private roadway and driveway crossing, consult and negotiate with the respective landowners to

implement appropriate changes to roadway geometry, and install and maintain appropriate warning signs and/or signals. See Mitigation Measure #F-13 in Chapter 1 of this FEIS.

Comment N-10, #EI-1287: Noise data collection for the trucking alternative should occur along highways and would probably show no significant impact due to the fact that the only change is the level of traffic and not necessarily the level of noise. Areas impacted by the truck already are impacted by traffic; thus, these impacts would be less than those impacts realized by rail in areas where no traffic is currently occurring.

Response: SEA conducted an analysis of the trucks under the No-Action Alternative in the DEIS and SDEIS. This analysis indicates that the large amount of truck traffic would lead to more adverse noise impacts than rail operations over any of the alternative rail routes being studied in this proceeding.

Comment N-11, #EI-1369: Noise impacts from the side track area by the connection with the UP rail line need to be studied.

Response: Please see page 4-82 of the DEIS for SEA's discussion of potential impacts from rail operations at the side track.

Comment N-12, #EI-1369: The DEIS states that the rail line construction and operation does not trigger thresholds for analysis. This must be re-examined. Currently, rail operations over the UP rail line can be heard and felt seven miles away. Therefore, SGR's proposed rail operations would have significant noise impacts.

Response: As discussed in Section 4.12.3 of the DEIS, because SGR's projected train operations over the proposed rail line would be four trains per day (two round trips from the quarry to the UP rail line), no noise analysis would be required for this project under the Board's thresholds for noise impact assessment (eight trains per day). (See 49 CFR 1105.7(e).)

Because of the public interest in this project, however, SEA performed a noise analysis in the DEIS to ascertain if the proposed rail line under any of the routes studied in the DEIS (Proposed Route, Alternative 1, Alternative 2, or Alternative 3) or the No-Action Alternative would meet the Board's other criteria for quantifying noise receptors: an increase in community noise exposure as measured by an increase in the L_{dn} of 3 dBA or more and an increase to a noise level of 65 dBA L_{dn} or greater. If the estimated noise increase at a location exceeds these criteria, SEA estimates the number of noise-sensitive receptors (i.e., schools, libraries, hospitals, residences, retirement communities, and nursing homes) that would be subjected to such a noise increase. (See 49 CFR 1105.7(e)(6).)

Based upon updated operational information provided by SGR (that trains may operate during nighttime hours), SEA also conducted a detailed analysis of all of the alternatives being studied in this proceeding in the SDEIS and concluded that Alternative 3 would cause the fewest noise impacts, followed by the Modified Eastern Bypass Route, and then by the Proposed Route, and that the No-Action Alternative would cause more noise impacts than any of the rail alternatives.

Comment N-13, #EI-1296: Although SGR has voluntarily agreed to use continuously welded rail, as indicated by Voluntary Mitigation Measure #3 in the DEIS, it may not use continuously welded rail for the loading track (either the loop or the straight track alternative at the plant site), and does not intend for its offer of using such rail for the line to extend to the loading loop or alternate straight track. Based on discussions with SGR rail engineering consultants, SGR believes that it will not likely be practical or economical to use welded rail for the loading track, due to tight confines and the number of switches. SGR also believes that, because trains would be moving at a very slow speed on the quarry site,

the use of continuously welded rail for the loading track would not serve as a noise mitigation measure in that area. The noise analysis in the DEIS indicates that noise impacts near the loading loop would be minimal.

Response: SEA has redrafted Voluntary Mitigation Measure #3 from the DEIS to specify that the continuously welded rail would not be used for the rail loading track. Please see Chapter 1 of this FEIS, Voluntary Mitigation Measure #F-VM3.

Comment N-14, #EI-1424: Train idle time should be discussed in noise studies, and included in mitigation.

Response: Please see Chapter 4, Section 4.3.2 (“loading track and side track”) of the SDEIS for a discussion of potential noise impacts from train idling.

5.2.15 Vibration

Comment V-01, #EI-1318: Vibrations from blasting at the quarry would not affect homes because of the distance to the nearest buildings.

Response: Comment noted. Although separate direct impacts from quarry development and operation are not within the scope of SEA’s environmental review for this rail line construction proposal, as explained in Section 1.5 of the DEIS and Chapter 2 of this FEIS, SEA has examined impacts from the quarry in conjunction with impacts from the rail line construction and operation as part of the cumulative impacts analysis (see Section 4.17 of the DEIS and Chapter 3 of this FEIS). Please see Section 4.17.10 of the DEIS and Section 4.5 of the SDEIS for SEA’s discussion of cumulative vibration impacts. SEA concluded that there would be minimal additional quarry activity vibration in conjunction with train vibration, resulting in no cumulative impact.

SEA requested additional information from SGR regarding blasting activities at the quarry. SGR has provided information stating that blasting at the quarry would occur approximately five times per week when the quarry facility is operating at its design capacity and that the duration of any given blast would range from about one-third to one and one-half seconds. According to SGR, VCM would design all blasts using BACT, as it does at other quarries. SGR states that VCM would design its blasts so as to comply with the widely applied blast-induced vibration guidelines set forth in report RI 8507 issued in 1980 by the U.S. Bureau of Mines. (See #EI-1664 in Appendix D of this FEIS.)

Comment V-02, #EI-1109 and #EI-1110: Comment V-03, #EI-1318: Historic buildings in Hondo have not been damaged from vibrations from trains on the UP line; therefore, vibration impacts from the proposed rail line would not be adverse.

Response: Comment noted. Please see Section 4.13 and Appendix I-5 of the DEIS and Section 4.4 and Appendix C-3 of the SDEIS for SEA’s analysis of vibration impacts from the proposed rail line construction and operation.

Comment V-03, #EI-1356: SEA’s vibration study and Preliminary Cultural Resources Assessment report show that vibrations from rail operations would not adversely affect structures along the Proposed Route because no cultural resources would be located within the 45-foot impact distance from the tracks.

Response: Comment noted. As discussed in Section 4.15 of the DEIS and Chapter 5 of the SDEIS, SEA conducted further study of cultural resources in the project area, subsequent to issuance of the Preliminary Cultural Resources Assessment report, and also an additional vibration analysis as part of

the SDEIS. As part of the additional vibration study, SEA enlarged the field study area to encompass the all of the rail alternatives. SEA followed a conservative approach for the vibration assessment, selecting higher magnitude source levels, efficient propagation assumptions, the most sensitive of the receiver structure types, and impact criteria from conservative sources. SEA concluded that other than Alternative 1 (which has not been recommended by SEA), none of the other rail alternatives would generate vibration impacts from operations and thus no mitigation measures were recommended. However, SEA is recommending mitigation to reduce potential vibration impacts to local wells and other sensitive structures during construction of the rail line (see Mitigation Measures #F-75 in Chapter 1 of this FEIS).

Comment V-04, #EI-1358: Historic buildings and wells have existed in close proximity to rail lines in Medina County without experiencing significant damage from vibration. Appropriate rail design and monitoring construction could eliminate potential vibration impacts from the proposed rail line construction and operation.

Response: Comment noted. SEA's recommended mitigation to reduce potential vibration impacts during pile driving activities during construction of the rail line includes the commenter's suggestions. (See Mitigation Measure #F-75 in Chapter 1 of this FEIS.)

Comment V-05, #EI-1480: Vibration from the quarry and the rail line may damage private water wells and septic tanks that would then pollute the wells, or may alter the subsurface environment so as to cloud and render unusable or dry up water supplies. In the DEIS, SEA only analyzed direct impacts to groundwater from spills and contamination associated from the rail line. SEA's bare-bones vibration study was done for a preliminary cultural resources assessment back when the agency was deciding whether to prepare an EIS. This study neither identified nor accounted for impacts to private wells.

SEA hides the fact that it has not considered the relevant impacts on private wells by impermissibly delegating the responsibility for analysis to SGR during the mitigation stage, after the license has been issued.

The DEIS identifies adverse vibration from both the quarry (blasting) and the rail line. SEA concludes that because groundborne vibration is localized and occurs only close to the source, the impacts experienced by these structures would either be from the quarry or from the rail line, but not both. SEA has no basis for this statement. It has not completed any vibration study of the quarry's contribution to the cumulative harm. Moreover, because its original vibration study for the rail line did not identify the relevant structures, including private wells, SEA has no support in the record for the assertion that a well would not be impacted by both the rail line and the quarry. Numerous Quihi, Texas, residents live within a half mile of the quarry site and SEA has not yet analyzed the impact on their wells or any other wells in the project area.

Response: Separate direct impacts from quarry development and operation are not within the scope of SEA's environmental review for this rail line construction proposal. As explained in Section 1.5 of the DEIS, Section 4.7 of the SDEIS, and Chapter 2 of this FEIS, SEA has examined impacts from the quarry in conjunction with impacts from the rail line construction and operation, as part of the cumulative impacts analysis (see Section 4.17 of the DEIS and Chapter 3 of this FEIS).

SEA found that there would be minimal overlap and additional quarry activity vibration in conjunction with train vibration, resulting in no cumulative impact. Please see Section 4.17.10 of the DEIS and Section 4.5 of the SDEIS for SEA's discussion of cumulative vibration impacts. See Chapter 1 of this FEIS, Mitigation Measure #F-75, for the specific mitigation that SEA is recommending to reduce potential vibration impacts to wells in the area during construction of the rail line.

SEA conducted extensive analysis of potential cumulative vibration impacts from rock blasting at the quarry from independent studies and from information provided by SGR. SEA specifically requested additional information from SGR regarding blasting activities at the quarry. SGR has provided information stating that blasting at the quarry would occur approximately five times per week when the quarry facility is operating at its design capacity and that the duration of any given blast would range from about one-third to one and one-half seconds. According to SGR, VCM would design all blasts using BACT, as it does at other quarries. SGR states that VCM would design its blasts so as to comply with the widely applied blast-induced vibration guidelines set forth in report RI 8507 issued in 1980 by the U.S. Bureau of Mines. (See Appendix D of this FEIS, #EI-1664.)

Comment V-06, #EI-1320 and #EI-1336: Vibration from the construction and operation of the quarry and rail line could impact water wells. The DEIS' study of this issue contained insufficient information. The recommended mitigation is inadequate. Vulcan has a history of not following regulations, so requiring SGR to monitor pile driving activities and make modifications is a joke.

Response: Separate direct impacts from quarry development and operation are not within the scope of SEA's environmental review for this rail line construction proposal, as explained in Section 1.5 of the DEIS and Chapter 2 of this FEIS. SEA has examined impacts from the quarry in conjunction with impacts from the rail line construction and operation as part of the cumulative impacts analysis (see Section 4.17 of the DEIS and Chapter 3 of this FEIS). Please see Section 4.17.10 of the DEIS and Section 4.5 of the SDEIS for SEA's discussion of cumulative vibration impacts. SEA concluded that there would be minimal overlap and addition of quarry activity vibration and train vibration resulting in no cumulative impact.

SEA is recommending mitigation that would require SGR to conduct a survey to locate nearby wells and monitor vibration levels during pile driving related to rail line construction (see Mitigation Measure #F-75 in Chapter 1 of this FEIS.)

In addition, SEA is recommending new mitigation measures that would provide additional monitoring and oversight to ensure compliance with the recommended mitigation. These mitigation measures require SGR to submit quarterly reports documenting the progress of all mitigation measures during construction and until three years after operations have begun. These mitigation measures also require SGR to retain a community liaison to assist in the implementation of the mitigation measures. (See Mitigation Measures #F-80 and #F-81 in Chapter 1 of this FEIS.)

Comment V-07, #EI-1369 and #EI-1333: It is unacceptable for SEA to state that there would be no significant vibration impacts to sensitive structures, homes, and private wells from blasting, rock crushing, and rail traffic. A commenter lives 35 miles from the Knippa quarry and states that sometimes his/her house shakes from blasting activities. A commenter lives four miles away from the UP rail line, and every time a train goes through, the dishes are shaken out of his/her cupboards. What kind of impacts would occur to people who live close to the quarry or the SGR line? A commenter states that the current operations over the existing UP rail line have caused plaster to crack in his/her home in the Creekwood Subdivision.

Response: Comments noted. Separate direct impacts from quarry development and operation are not within the scope of SEA's environmental review for this rail line construction proposal, as explained in Section 1.5 of the DEIS and Chapter 2 of this FEIS. SEA has examined impacts from the quarry in conjunction with impacts from the rail line construction and operation as part of the cumulative impacts analysis (see Section 4.17 of the DEIS and Chapter 2 of this FEIS). Please see Section 4.17.10 of the DEIS and Section 4.5 of the SDEIS for SEA's discussion of cumulative vibration impacts. SEA

concluded that there would be minimal additional quarry activity vibration in conjunction with train vibration, resulting in no cumulative impact.

Chapters 4 and 5 of the SDEIS discuss potential vibration impacts to homes, wells, and cultural resources. SEA is recommending specific mitigation measures to reduce potential vibration impacts from the construction and operation of the proposed rail line (see Mitigation Measure #F-75 in Chapter 1 of this FEIS).

Comment V-08, #EI-1370: Questions during scoping regarding vibration impacts to vertigo sufferers remain unanswered in the DEIS. The DEIS does not make it clear how close to particular homes the rail line would occur.

Response: As discussed in Section 4.2 of the DEIS, SEA does not believe that impacts to public health and safety from construction and operation of the rail line would be significant. Furthermore, the environmentally preferable routes that SEA is recommending are further away from the commenter's home. However, the exact location of the rail line and its exact proximity to particular homes would only be determined after SGR completes final engineering plans, which it has not yet done (see Appendix D of this FEIS, #EI-1664).

Comment V-09, #EI-1296: Mitigation Measure #41 should be revised to eliminate the words "to the design of the rail line," and the comma between "well" and "structure" should be eliminated.

Response: In the SDEIS, Mitigation Measure #17A replaced Mitigation Measure #41. The final recommended mitigation regarding vibration impacts to wells appears as Mitigation Measure #F-75 in Chapter 1 of this FEIS. This new mitigation measure requires SGR to survey nearby wells and monitor vibration levels at those wells during pile driving activities related to rail construction.

5.2.16 Recreational and Visual Resources (RS)

Comment RS-01, #EI-1378: TWPD recommends mowing grasses only within essential use areas inside the right-of-way to allow native grasses to prosper.

Response: SEA has incorporated this recommendation as part of the recommended mitigation measures. Please see Mitigation Measure # F-57 in Chapter 1 of this FEIS.

Comment RS-02, #EI-1287: As part of the EIS, private landowners potentially impacted by each alternative should be interviewed to determine land use and types of game hunted on their properties. The statement in Section 3.10 of the DEIS regarding hunting activities is very general and includes game that could be found almost anywhere in Texas. It is doubtful that mouflon sheep are found in any of the locations in Medina County. Additionally, some of the exotics such as sika deer and axis deer may not be as common as it appears in this section.

It is important to note that javelina is not swine. In Texas, javelina is actually a native species and is a game animal. Feral hogs are hunted in the state of Texas but are not regulated by TPWD because they are not native game. Similarly, many of the exotic deer species are not under the regulation of TPWD.

Response: SEA does not believe that private landowner interviews to determine the specific types of game hunted are necessary to determine potential impacts to hunting activities from the proposed project. Construction of the rail line would have a temporary adverse affect on deer and other wildlife due to ground disturbance, intrusion of workers and equipment, and noise. Some of these effects may become long-term and adversely affect deer and other wildlife populations in this area. However, there

are aspects of the proposed rail line construction that may provide long-term benefits to deer and other wildlife populations. For example, vegetation along the edges of the right-of-way would provide browse areas for deer, especially where the right-of-way interfaces with wooded or brushy area.

Based upon the comments of TPWD, SEA is recommending mitigation that would require SGR to consult with TPWD and affected landowners prior to beginning construction activities regarding the implementation of appropriate measures to protect livestock and wildlife in the area during construction and operation activities. Such measures could include the use of specific types of fencing or barriers that serve to protect deer and other game that is hunted in the area. Please see Mitigation Measure #F-56 in Chapter 1 of this FEIS.

Comment RS-03, #EI-1356: The rail line would not significantly affect aesthetics.

Response: Comment noted.

Comment RS-04, #EI-1287: In the last paragraph of Section 3.10, a statement is made that aesthetics are dominated by naturally-appearing landforms and vegetation. This statement should be corrected to read that aesthetics are dominated by natural landforms and vegetation. The statement insinuates that landforms and vegetation are not natural, which is not the case.

Response: Comment noted. SEA has included this correction in Chapter 7 of this FEIS, the errata chapter.

Comment RS-05, #EI-1287: In Section 4.14.2, impacts to visual resources and recreational resources are discussed. The fueling and maintenance facility and rail loop are not included as areas to be impacted, while for the trucking alternative, the 100-acre truck-to-rail remote loading facility is included as an impact. This is an example of biasing results, as both of these facilities would have impacts on visual aesthetics.

Response: Section 4.14.2 of the DEIS discusses potential impacts to recreational and visual resources from construction and operation of the proposed rail line under any of the alternatives studied in depth in the DEIS. Because impacts generally would be the same, they were discussed together.

The fueling and maintenance area would be constructed primarily to serve the quarry, and would be used to support either rail or truck operations (see Appendix G of the DEIS, pages G-73-75). Thus, potential impacts to recreational and visual resources from the construction and operation of this facility would occur under any of the rail alternatives or the No-Action (trucking) Alternative, and would occur regardless of the Board's decision in this rail line construction proceeding.

Comment RS-06, #EI-1287 and #EI-1369: No real mention has been made of the impact of a train moving through the rural environment. SGR claims that it intends to use native grasses and shrubs inside the rail line right-of-way, but will maintain it by mowing and cutting to remove plants, thus not allowing native species to grow tall enough to cover the top of a trail traveling through the area. This would have a negative visual impact. The mitigation to have SGR plant native grass and shrubs inside the right-of-way to allow the rail line to blend with the natural surroundings would not disguise the view of 400 train cars crossing the area each day in addition to the trains from other businesses.

Response: SEA's final recommended mitigation includes SGR's voluntary mitigation measure to maintain native grass and shrubs inside the rail line right-of-way to allow the rail line to blend with the natural surroundings and TPWD's recommendation to mow grasses only in essential use areas inside the

right-of-way to allow native grasses to prosper. Please see Mitigation Measure #F-57 in Chapter 1 of this FEIS.

Due to safety considerations and right-of-way maintenance needs, SEA does not believe that it would be appropriate to recommend mitigation that would essentially hide the rail line. Indeed, SEA is recommending Mitigation Measure #F-12 in Chapter 1 of this FEIS to ensure that train operators and vehicle drivers have a clear line of sight at all at-grade crossings. Thus, SEA acknowledges that the rail line would be visible in the area and could have a negative visual impact. However, due to the low level of proposed train operations for the reasonably foreseeable future (four trains per day – two round trips from the quarry to the UP rail line), SEA continues to believe that impacts to visual resources in the area would not be significant. Potential visual impacts to cultural resources and the potential rural historic landscape are addressed in Chapter 5 of the SDEIS and Appendix F of the SDEIS.

5.2.17 Cultural Resources (CR)

Comment CR-01, #EI-1352: The commenter is concerned about historic preservation, and recommends that, at a minimum, the Board require that the railroad consult with the Medina County Historical Commission to avoid adverse impacts on structures and areas of significant historical value.

Response: In accordance with the Board's responsibilities, pursuant to the NEPA and Section 106 of the National Historic Preservation Act (NHPA), SEA has conducted a review of potential impacts from SGR's rail line construction and operation on historic resources in the area. Please see Section 3.11 and 4.15 of the DEIS, Appendix I of the DEIS, Chapter 5 of the SDEIS, and Appendix F of the SDEIS for detailed discussion of SEA's study and assessment of historic resources. The Medina County Historical Commission is an official Section 106 consulting party for this proceeding. SEA determined that the Eastern Alternatives have fewer cultural resources impacts than the original four rail alternatives. A PA has been negotiated and finalized among the necessary parties that establishes a process for resolving concerns associated with historic preservation. The PA includes measures for the resolution of adverse effect, the treatment of human remains, curation of artifacts, and others. (See Appendix A-3 of this FEIS). The PA was developed as part of the process for complying with Section 106 of the NHPA. This act requires Federal agencies to take into account the effects of their undertakings on historic properties. The Section 106 compliance process seeks to accommodate historic preservation concerns with the needs of Federal undertakings through consultation among the agency official and other parties with an interest in the effects of the undertaking on historic properties. The goal of consultation is to identify historic properties potentially affected by the undertaking, assess its effects, and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. Prior to any permitted construction, a systematic survey would be conducted in compliance with the PA to ensure that cultural resources are treated properly.

Comment CR-02, #EI-1293, #EI-1356, and #EI-1369: Commenter asks why Vulcan donated the William Schweers home on County Road 365 to the Schweers Historical Foundation, but not the adjacent Henry Schweers home, which is even older and closer to the proposed route?

Response: According to comments submitted by members of the Schweers Historical Foundation, Vulcan plans to donate the Henry Schweers home to their organization (see Appendix B of this FEIS, #EI-1293 and #EI-1356.)

Comment CR-03, #EI-1356: Page 28 of the Preliminary Cultural Resources Assessment report states that the proposed rail line construction and operation would not directly impact or affect any known significant cultural resources.

Response: Comment noted. SEA has conducted additional research regarding cultural resources in the area, as discussed in the DEIS and SDEIS, which has identified three rural historic landscape districts in the area and discussed the potential for archaeological sites to be found.

Comment CR-04, #EI-1358: Architectural historians are restoring two homes near the Proposed Route, and have little concern that the proposed rail operations would damage or destroy them. If similar preservation of early artifacts had been sought on all surrounding lands in the Quihi area, the persons who oppose the rail line would not have been allowed to make improvements on their land.

Response: Comment noted.

Comment CR-05, #EI-1325 and #EI-1351: Commenters are concerned about potential impacts from the quarry and rail line to historic sites and buildings, and wonder whether these structures could survive.

Response: Section 4.15 of the DEIS and Chapter 5 of the SDEIS discuss potential impacts from the proposed rail line construction and operation to cultural resources in the area. Analysis of the direct and indirect impacts of the quarry is not within the scope of the environmental review for this rail line construction proceeding. SEA has recommended that multiple mitigation measures be imposed to reduce impacts on cultural resources in the area from the rail line, as set forth in the PA. (See Appendix A-3 of this FEIS).

Comment CR-06, #EI-1335 and #EI-1342: The DEIS did not sufficiently address damage that would be caused to historic structures from flooding, vibration, dust, and diesel fumes.

Response: Section 4.15 of the DEIS and Chapter 5 of the SDEIS thoroughly discuss the potential impacts to cultural resources from the proposed rail line construction and operation. Diesel fumes are not expected to have any significant impact on cultural resources. Dust impacts were discussed in Section 4.7 (air quality impacts), and 4.15 (cultural resources impacts). Flooding impacts were discussed on page 4-29, and more thoroughly in Section 4.5.3 (surface water).

Comment CR-07, #EI-1349 and #EI-1376: The Quihi cultural landscape has remained the same for at least 100 years. The local historical group has submitted site forms for 65 sites in the area to the THC. In addition, MCEAA submitted a compilation of the history and historical features of Quihi, Texas, which included historical maps and documents and a survey of historical sites and features in the Quihi and the New Fountain area compiled by the Quihi and New Fountain Historical Society.

Response: In the DEIS, SEA stated that much of the Quihi area could be within a potential rural historic landscape. SEA then conducted an analysis of the potential landscape, as set forth in Chapter 5 of the SDEIS, and identified three rural historic landscape districts in the area: the Quihi Rural Historic District; the New Fountain Rural Historic District; and the Upper Quihi Rural Historic District. As part of this analysis, SEA examined the documents compiled by the Quihi and New Fountain Historical Society.

Comment CR-08, #EI-1349: Commenter expresses concern about impacts to Indian burial sites at Elm Creek.

Response: Current data available from the THC and local archaeologists does not include any specific information on burial sites located within the Area of Potential Effect (APE). However, prior to any permitted construction, a systematic archaeological survey will be conducted in compliance with the PA to ensure that archaeological resources are treated properly.

Comment CR-09, #EI-1382: The Draft PA is unacceptable. Only a rail line that bypasses the Quihi and Cherry Creek floodplains could avoid flooding the historic resources in the Quihi area. For this reason, SEA should re-evaluate a route or routes using portions of the old Medina Dam Route with the information submitted by MCEAA.

Response: In the SDEIS, SEA set forth its analysis of three additional alternative rail line routes (the Eastern Alternatives). One of these routes, the MCEAA Medina Dam Alternative, is the route that MCEAA proposed. Another one of these routes, SGR's Modified Medina Dam Route, uses portions of the old Medina Dam Route.

Comment CR-10, #EI-1298: The DEIS incorrectly states that Uvalde Gravels do not occur in the area. Such deposits are extensive and well published as the Quihi Soil. Archeological sites as old as 10,500 years are buried in the Uvalde Gravel. This was clearly shown in July 2004 by excavations at site 41ME132 (Mangold Site; Weimers Ranch). The site and the Quihi Soil are in the uplands, an area ignored by SEA's preliminary assessments. It is clear that 41ME132 is not isolated, but part of a larger archaeological pattern. The PA should be revised to address the need for extensive geological, geomorphology, and climate studies.

Response: The PA requires that, prior to construction, SGR will retain qualified personnel to conduct such archeological surveys within the APE as may be necessary to locate archeological sites that may be eligible for listing in the National Register. The PA also provides that, prior to any field surveys, SGR, in consultation with the STB and SHPO, will develop a scope of work and that the Board, after seeking comments from the SHPO, must approve the scope of work prior to the initiation of fieldwork. This provision will ensure that appropriate specialties such as geomorphology and climate studies can be incorporated into the scope of work if needed.

Comment CR-11, #EI-1298: The DEIS contains an inadequate review of the tribes occurring within the project area. The PA must require a professional ethno historian to examine the historical records of the area to research tribes occurring within in the project area. The rail line construction would destroy ethno historically-sensitive areas, so the research should occur prior to construction. An example of such an ethno history study is Dr. Maria F. Wade's study on the Native American tribes of the Edwards Plateau and their interaction with the Spanish in the area immediately west of Quihi.

Response: SEA has contacted multiple tribes in accordance with the regulations implementing the NHPA at 36 CFR Part 800. Nine Federally recognized tribes, as well as the Tap Pilam Coahuiltecan Nation, have been consulted. If needed, additional ethno historic research can be incorporated into the scope of any archaeological surveys that may be required in compliance with the PA.

Comment CR-12, #EI-1298: The results of surveys done by archaeology students working in the Quihi area in July 2004, and shovel test excavations done in 2005 suggest that the entire project area may contain numerous important archeological sites.

Response: Although archeological sites are differentially distributed across the landscape, it is likely that portions of the project area do contain significant archaeological sites. These will be identified and handled during the archaeological study conducted in compliance with the PA.

Comment CR-13, #EI-1298: The historical context of the early stone homes and buildings in the Quihi area needs to be studied further. These structures likely warrant designation as a National Register of Historic Places (National Register) eligible historic district, and the local historical group is working towards this designation. Moving these structures as suggested in the Draft PA, would save the structure but destroy the historic context.

Response: As described in Chapter 5 of the SDEIS and detailed in Appendix F of the SDEIS, SEA has conducted an extensive study of the architectural resources in the project area and identified three rural historic landscape districts eligible for listing in the National Register. Moving the historic structures is not discussed in the final PA.

Comment CR-14, #EI-1298 and #EI-1369: The Quihi area represents a unique, unparalleled, rural historical landscape. The area is remarkably intact in comparison to similar early settlements. Quihi had a key role in the settlement and development of south central Texas, and is a prominent part of the chronicles of early commerce and military explorations. The natural landscape, such as the stream drainages, has not been modified much. SGR's proposed rail line would seriously disturb or destroy this historical landscape. The rail line would serve a short-term, private profit objective and would significantly degrade the long term viability of an unequaled cultural and historical resource. The Quihi and New Fountain Historical Society has identified over 65 important cultural resources sites in and around Quihi, and has submitted these data to the THC. The society is attaining state and Federal designation for the Quihi area as an official historical district. The Proposed Route and Alternatives 1, 2, and 3 would cross through the heart of the historical district and divide the district.

The preliminary cultural resources report was a joke. It claimed to be a reconnaissance survey, but was really a mess. The supplemental technical memorandum included in the DEIS is much better, though it contains some technical errors that need to be corrected. Dr. Cassedy, who prepared the technical memorandum, is to be commended for recommending that SGR build none of the proposed rail routes and that a route using portions of the old Medina Dam Route be re-examined.

Response: Comment noted. In the DEIS, SEA stated that Quihi could be within a potential rural historic landscape. As described in Chapter 5 of the SDEIS and detailed in Appendix F of the SDEIS, SEA has conducted an extensive study of the architectural resources in the project area and identified three rural historic landscape districts eligible for listing in the National Register: the Quihi Rural Historic District; the New Fountain Rural Historic District; and the Upper Quihi Rural Historic District. As part of this analysis, SEA examined the documents compiled by the Quihi and New Fountain Historical Society. A PA to mitigate cultural resource impacts has been developed with multiple consulting parties, including the THC and the ACHP. It contains extensive measures designed to ensure that thorough cultural resource studies are completed and impacts are mitigated as set forth in the PA. (See Appendix A-3 of this FEIS for a copy of the executed PA and Appendix I-2 of the DEIS for a summary of the comments received on the Preliminary Cultural Resources Assessment as well as responses to those comments.)

Comment CR-15, #EI-1369: Industries that would locate in the area because of the rail line would ruin the historical appearance and cultural landscape of Quihi.

Response: As discussed in Section 4.18 of the DEIS, aside from the proposed quarry, SEA has identified no current proposals for other projects in the area. Based upon the information available at this point, SEA cannot predict whether there would be an increase in area development as a result of this project.

Comment CR-16, #EI-1369: The visual impact of the uncovered rail cars carrying dusty, crushed limestone through the heart of the historic district for 50 years would destroy the historic nature of the area and the Texas historic landscape.

Response: Comment noted. Please see Chapter 5 of the SDEIS for SEA's discussion of potential impacts to the rural landscape historic districts.

Comment CR-17, #EI-1369: The DEIS implies that there are very few archeological and historic sites other than those that have been photographed and mislabeled in the DEIS. Ten archeological sites were recorded in the area this past summer in just a few days.

Response: The DEIS and SDEIS stated that “it is likely that there are additional archaeological sites obscured by soil and vegetation that have not yet been identified within the APEs. Even though only one site (Site 41ME133) has been recorded in close proximity to any of the initial project alignments or the proposed route and none have been recorded for the area of the Eastern Alternatives, there is evidence to show that other sites are likely to be contained within the APE(s).” (See DEIS, page 3-62 and SDEIS, page 5-16.)

Comment CR-18, #EI-1369: Aside from Dr. Cassidy, URS Corporation did not ask landowners for information about cultural resources.

Response: As discussed in Chapter 5 of the SDEIS, the Rural Historic Landscape Study included extensive consultation with local landowners and area residents.

Comment CR-19, #EI-1369: The massive stone wall reported by Dr. Cassidy will be included in the National Register designation for the Schuele/Saathoff house and property.

Response: Comment noted.

Comment CR-20, #EI-1369: The Draft PA appears to be an after-the-permit exercise that leaves out many critical aspects of cultural resource studies and it is unbelievable that the THC entered into this agreement in good faith.

Response: Multiple consulting parties reviewed the PA, including the THC and ACHP. The final, executed PA contains extensive measures designed to ensure that thorough cultural resource studies are completed.

Comment CR-21, #EI-1369: There is evidence that Native Americans occupied this area for thousands of years. Why run a noisy train over lands on which Native Americans have lived and played?

Response: Auditory effects are generally not considered adverse effects on archaeological sites.

Comment CR-22, #EI-1369 and #EI-1425: The PA does nothing to stop the railroad from going through Quihi. All it does is require SGR to document any historical, cultural, or archeological sites before it moves or destroys them. Further study regarding cultural resource impacts is required. The DEIS does not state what will be done to protect historical sites and heritage lands.

Response: The PA that has been developed for this particular undertaking, and the conditions that will be imposed on any rail line that is approved (out of the two environmentally preferable routes and one modification), contains extensive measures to avoid, minimize, or mitigate impacts. Documentation is only one possible measure among multiple measures that will be required. Furthermore, SEA determined that the Eastern Alternatives have fewer impacts than the original rail routes.

Comment CR-23, #EI-1369: Comment CR-28, #EI-1369: Representatives of tribal governments were not present at the public meetings on December 2, 2004; therefore, the Board was in violation of the NHPA. Texas Indians have not been sufficiently consulted. Aboriginal tribes, even if federally recognized, have certain privileges that should be acknowledged. The tribal mounds that could

be impacted by the project might be the burial sites of relatives. Therefore, aboriginal tribes should be properly consulted.

Response: SEA has identified and contacted Federally recognized tribes pursuant to 36 CFR 800.3(f)(2) in order to invite them to participate as consulting parties and to seek their input regarding potential impacts to historic properties within the project area. See Appendix I-1.2 of the DEIS and the official 106 Consultation Party list in Appendix A of this FEIS for a full list of tribes contacted and responses received from those tribes. In February 2004, the Tap Pilam-Coahuiltecan Nation of Texas contacted SEA independently regarding its interest in the project. Although this tribe does not have Federal or state recognition, this aboriginal tribe asserts ancestral connections to the project area and has been included as a consulting party pursuant to 36 CFR 800.2(c)(5) (the tribe is currently seeking both state and Federal recognition). A representative of the Tap Pilam-Coahuiltecan Nation submitted oral comments on the DEIS at one of the public meetings held in Hondo, Texas, on December 2, 2005, which SEA has summarized and responded to in this chapter. SEA also identified the Lipan Apache Band of Texas as the other non-Federally recognized aboriginal Tribe that may have been interested in receiving information regarding the project. However, this Tribe did not contact SEA, and SEA was unable to verify contact information for this Tribe. Therefore, SEA has not engaged in consultation with this tribe. In keeping with the open nature of the Board's environmental review process, SEA has made information regarding the environmental review process for this proceeding publicly available and believes that interested parties have had ample opportunities to participate.

5.2.18 Socioeconomics (SE)

Comment SE-01, #EI-1076, #EI-1095, #EI-1107, #EI-1109, #EI-1254, #EI-1274, #EI-1293, #EI-1295, #EI-1317, #EI-1356, #EI-1369, #EI-1810, #EI-1812, #EI-1817, #EI-1872, #EI-1898, and #EI-1925: The proposed project would have a positive impact on the economy of Medina County by creating new jobs, increasing tax revenue for the county and the Hondo Independent School District, and increasing business opportunities for small businesses. The quarry would involve a \$30 million investment, and would provide a significant economic boost to Medina County, generating about \$7.5 million in annual direct and indirect economic benefits. Vulcan would pay an estimated \$650,000 in county taxes, \$400,000 of which would go to local schools.

Response: Comment noted.

Comment SE-02, #EI-1095 and #EI-1109: Project opponents support subdivisions and trailer parks, which would drain the infrastructure of Medina County.

Response: Comment noted.

Comment SE-03, #EI-1252: Commenter asks whether there will be compensation for the loss of deer, hog, and other game hunting? Commenter asks if Vulcan will pay for a water well, pens, a barn, and utilities? Commenter asks whether there will be compensation for the devaluation of property and flood damage caused by trestles or bridges over Elm and Quihi creeks, and who would pay for the forced sale of livestock?

Response: Pursuant to the provisions of NEPA, SEA has assessed the potential environmental impacts that could be caused by SGR's rail line construction and operation, and has recommended appropriate mitigation to reduce these potential effects. Please see Chapter 1 of this FEIS for SEA's recommended mitigation measures. The Board does not oversee claims for damages for specific harms brought against railroads or quarry companies. Determining whether Vulcan, VCM, or SGR is responsible for any specific damage and what compensation should be made for any damage caused is a matter for a court of competent jurisdiction should such damage occur.

Comment SE-04, #EI-1268: The Board should not be involved in the issue of how tax revenue generated by the project would benefit the county. The statement at the public meeting in Hondo, Texas, indicating that the tax generated by the quarry and the railroad would not cover the county's increased expenses from the project (due to the population growth that would be caused by workers for the quarry moving into the area) did not consider that new members of the population would also be paying taxes.

Response: Comment noted.

Comment SE-05, #EI-1274, #EI-1295, #EI-1289, and #EI-1317: Impacts to real estate sales are already being experienced. SGR should have to compensate all landowners within a certain distance from the railroad. Landowners in the path of the rail line will be severely impacted and need to be compensated. Landowners in the community not in the path of the rail line will be minimally affected. Landowners who will have their property divided should be compensated generously.

Response: As stated in the DEIS at page 4-65, in Board-approved rail construction cases, the applicant is responsible for the acquisition of land necessary to implement the approved project through condemnation of property (also known as eminent domain) in accordance with the state's railroad condemnation law. Thus, if the Board approves SGR's proposal to construct and operate the rail line, SGR would be responsible for acquiring the necessary land, and conducting any necessary condemnation proceedings, which would include consideration of the amount of compensation to be provided to affected landowners.

As stated in Section 4.16 of the DEIS, property values are determined by a myriad of factors including visual aesthetics, availability of schools, employment opportunities, transportation infrastructure, access to commercial establishments, land use, water quality, and air quality. Because local property values depend on so many factors and are subjective, impacts to property values from the proposed project cannot be accurately predicted.

As to impact to severed properties, SEA is recommending mitigation measure to ensure access to severed property (see Mitigation Measure #F-62 in Chapter 1 of this FEIS).

Comment SE-06, #EI-1274 and #EI-1295: The railroad and quarry are needed to supply limestone to the Gulf Coast region of Texas so that state highways (important for the state's economy), that connect the Gulf Coast area to the interior of the state can be maintained and improved at a reduced cost to state taxpayers.

Response: Comment noted. According to SGR, the limestone from VCM's quarry would reach the Gulf Coast region of Texas regardless of the Board's decision in this rail line construction and operation proceeding.

Comment SE-07, #EI-1310 and #EI-1360: Medina County already has difficulty keeping roadways adequately repaired. How could the county be expected to handle the increased maintenance needed for area roadways from the truck traffic associated with the project? Residents would have to pay increased taxes to upgrade and maintain roadways for the quarry truck traffic. Area roadways were designed to accommodate a maximum truck weight of 28,000 pounds, not 78,000 pounds.

Response: According to information provided by SGR, the local market truck traffic would be responsible for 24 round truck trips per day to transport limestone from the quarry to local customers. This local market truck traffic would be generated by the quarry operations regardless of the Board's decision on the rail line construction proceeding. SGR has stated that VCM plans to upgrade County Road 353 at its own expense whether or not the rail line is built to support quarry employee cars and local

market truck traffic, and would coordinate this upgrade with county officials. (See DEIS, Appendix G, page G-156.)

According to SGR, if the No-Action Alternative were selected and the rail line was not built, VCM would use about 850 round trips per day to transport the limestone from the quarry to the UP rail line. Additional roadways would need to be upgraded. (See Chapter 2 of this FEIS for a detailed discussion of the trucking alternative.) SGR has stated that VCM would work with state and county officials on required upgrades. (See Appendix D of this FEIS, #EI-1439.)

Because the Board only has jurisdiction over SGR's rail line construction and operation, SEA cannot recommend that the Board impose mitigation conditions on any roadway maintenance or upgrading activities that would be undertaken to support truck traffic generated by the quarry either from local market truck traffic, or from trucking limestone between the quarry and the UP line in the No-Action Alternative. However, SEA is recommending two Eastern Alternatives (and one modification) as the environmentally preferred routes, not the trucking alternative, so no roadway upgrades due to that alternative will be necessary.

Comment SE-08, #EI-1333 and #EI-1370: Medina County does not have an unemployment problem. Therefore, Vulcan's 125 employees for the quarry and the rail line would be new people coming into the county. These jobs would not be high-paying jobs. According to information provided by SGR they would average around \$25,000 annually each. The workers would presumably bring children and spouses with them, so the county would have more children to educate. It appears that the taxes that Vulcan's operations would bring into the county would be exceeded by the county's costs to educate these children.

There are insufficient monetary resources in the area to ensure that the current quality of education could be maintained if the children of the quarry and rail employees attend area schools. No approval should be given for the project until there is a plan in place for funding the educational needs of the children of the workers to provide them with a quality education while continuing to maintain the current quality of the educational system.

Response: According to information provided by SGR, operation of the rail line would involve about 24 people (see DEIS, Appendix G, page G-14) and operation of the quarry would involve about 100 people (see Appendix D of this FEIS, #EI-1664). If the rail line were not built, VCM would employ from 20 to 30 truck drivers per day (see DEIS, Appendix G, page G-76) to transport the limestone from the quarry to the UP rail line and would need approximately 15 to 20 workers for the construction and operation of the truck-to-rail remote loading facility (see Appendix D of this FEIS, #EI-1664).

The Medina Valley Independent School District, one of the school districts in Medina County, has projected that future enrollment in its district in the next five years would be from 400 to 700 students, due to several projected area expansion projects that are unrelated to SGR's rail line construction proposal or VCM's quarry (see Growth Information, Medina Valley Independent School District, <http://www.mvisd.com/athletics/district%20growth%20info.htm>). The anticipated rate of growth would be 2.5% annually over the next five years and 4.5% annually over 10 years.

While SEA does not know exactly where SGR's or VCM's employees may live and what schools, if any, their children would attend (SEA notes that the Medina Valley Independent School District includes Castroville, Texas, which is one of the towns closest to the proposed project), it appears that schools in Medina County expect to experience increases in their student population regardless of whether SGR's or VCM's employees send their children to area schools. Thus, based upon the expansion figures projected by the Medina Valley Independent School District, the number of children from

families of quarry and rail employees entering Medina County's school system would likely not significantly affect the current anticipated growth rate.

Comment SE-09, #EI-1351, #EI-1369, and #EI-1370: Medina County would not derive financial benefits from the quarry. Only Vulcan and a few landowners would derive economic benefits from the project. The taxes that Vulcan would pay would not cover the education costs of the children of employees, the costs of police, fire, and EMS services, or the costs of roadway maintenance. A full economic study of the costs and benefits of this project needs to be done. This is the only way to ascertain whether the county would actually benefit from the tax money being brought in by Vulcan.

Response: Direct impacts from quarry development and operation are not within the scope of SEA's environmental review for this rail line construction proposal, as explained in Section 1.5 of the DEIS and Chapter 2 of this FEIS; therefore, SEA has only examined impacts from the quarry in conjunction with impacts from the rail line construction and operation, as part of the cumulative impacts analysis (see Section 4.17 of the DEIS and Chapter 3 of this FEIS). An economic assessment of VCM's quarry project and an analysis of whether the quarry would be financially beneficial to Medina County is not within the scope of SEA's analysis for this rail line construction proceeding.

Comment SE-10, #EI-1353 and #EI-1361: The DEIS did not adequately study the socioeconomics of changing the land use from historic/agricultural/residential to commercial/industrial, the economic impacts from the loss of hunting, or the cost of lost economic opportunities that quarry and rail line project may cause. The DEIS did not study the socioeconomic impacts to the human environment.

Commenter questions the basis for SEA concluding that there would be no significant socioeconomic impacts as a result of the proposed action or No-Action Alternative. Commenter states that the proposed project would potentially change the county from an agricultural-residential to a commercial-industrial economy, with total disruption of people's property, vocation, and livelihood, and asks SEA to provide answers as to how people will accommodate this and what the impacts would be.

Response: In Section 4.16 of the DEIS, SEA discussed the potential socioeconomic impacts of constructing and operating the proposed rail line. SEA determined that the impact on the local economy from rail line construction activities would be slight, given the relatively small number of construction employees (a maximum of 25 at the peak of construction activities) and the limited duration of the construction activities (approximately 12 months). SEA determined that any net change in employment and other effects on the local economy resulting from operation of the proposed rail operations would be small, as SGR estimates that approximately 24 employees would be needed to operate the rail line.

SEA believes that the socioeconomic impacts of the construction and operation of the rail line would not be significant. As discussed above, Medina County's population is currently growing for reasons unrelated to the SGR's proposal (see Growth Information, Medina Valley Independent School District, <http://www.mvisd.com/athletics/district%20growth%20info.htm>) SEA believes that it is reasonable to assume that the number of people that could be brought into the area by the rail construction and operation would not significantly affect the anticipated growth rate of the area.

SEA has studied the potential impacts of the rail line construction and operation on land use and cultural resources in the area. See Sections 4.10 and 4.15 of the DEIS and Chapter 5 of the SDEIS. SEA concludes that there are some unavoidable impacts to land use in the area, but that these will be minimized by implementing SEA's recommended mitigation. In Board-approved rail construction cases, the applicant is responsible for the acquisition of land necessary to implement the approved project. Condemnation of property (also known as eminent domain) needed to complete a Board-approved line

occurs in accordance with the state's railroad condemnation law. Thus, if the Board approves SGR's proposal to construct and operate the rail line, SGR would be responsible for acquiring the necessary land, and any condemnation proceedings, which would include consideration of the amount of compensation to be provided to affected landowners, would be governed by Texas state law.

As discussed in Section 4.18 of the DEIS, SEA has identified no current proposals for other projects in the area. Thus, there is no way, based upon the information available at this point, to predict whether there would be an increase in area development (other than that caused by the quarry itself) as a result of this project. Therefore, any analysis of socioeconomic impacts to the area from a change in land use patterns caused by the rail line project would be speculative at this time.

SEA believes that, aside from the rail line right-of-way removing land from availability for hunting purposes, the construction of the rail line would not adversely affect hunting operations. SEA has found no evidence that the existence of a rail corridor or the operations of trains at the planned frequency would impact hunting.

As discussed in Section 4.17.7 of the DEIS, SEA believes that the potential impacts of the quarry on existing land uses would be significant and permanent. Combined with the land use impacts of the rail line construction and operation, there would be significant cumulative impacts to land use in the area. However, because SEA has identified no other proposals for projects in the area, there is no way to predict whether there would be an increase in area development as a result of the quarry or the rail line. Thus, analysis of socioeconomic impacts to the area from a change in land use patterns caused by the quarry would be speculative at this time.

Comment SE-11, #EI-1353: The DEIS avoids addressing the issue of property values by stating that impacts cannot be predicted accurately at this time. However, a prediction can be made because it is clear that property values will fall.

Response: As stated in Section 4.16 of the DEIS, property values are determined by myriad factors, including visual aesthetics, availability of schools, employment opportunities, transportation infrastructure, access to commercial establishments, land use, water quality, and air quality. Because local property values depend upon many factors and are subjective, SEA continues to believe that the impacts to property values from the proposed project cannot be predicted accurately at this time.

Comment SE-12, #EI-1368: The increased flooding problems caused by the rail line would prevent people from being able to travel to and from work, which would reduce the income of families and threaten their livelihoods.

Response: As discussed in Section 4.5 of the DEIS and Section 5.2.31 of this FEIS, SEA believes that impacts to area flooding from the construction and operation of the rail line would not be significant, if SEA's recommended mitigation is imposed. (See Mitigation Measures #F-VM2, #F-36, #F-38, #F-44, #F-46, #F-49, and #F-50 in Chapter 1 of this FEIS, for SEA's specific recommendations to reduce potential impacts to area flooding.)

Comment SE-13, #EI-1287: Section 3.12 provides a good general overview of the socioeconomics of Medina County. However, a description of the socioeconomics located in and along the proposed alignments is not provided. This is extremely important in that the impacts to socioeconomics will be isolated to the areas in the vicinity of the alignments. More site-specific information could be obtained by analyzing data from individual census tracts through which each alignment lies. Several figures could be included in this section to show census tracts in the vicinity color-coded according to population density, minority status, average income, and other demographics.

Response: Section 4.11 of the DEIS and Chapter 3 of the SDEIS provide information regarding the minority and low income characteristics of the census block group having populations potentially affected by each alternative studied in the DEIS and SDEIS for the proposed new rail line construction.

Comment SE-14, #EI-1370: Although Vulcan's spending on community projects is admirable, in reality this is advertising that is done by all businesses, particularly big businesses.

Response: Comment noted.

Comment SE-15, #EI-1335: The DEIS did not include a study, including a full cost-benefit study, of the other industries that the quarry and the rail line would bring to the area.

Response: As discussed in Section 4.18 of the DEIS, SEA has identified no current proposals for other projects in the area. There is no way, based upon available information, to predict or quantify any increase in area development (other than that caused by the quarry itself) as a result of this project.

5.2.19 Cumulative Impacts (CI)

Comment CI-01, #EI-1287: The definition of cumulative impacts on page 1-13 of the DEIS is not clear. Examples should be used to clarify the concept of cumulative impacts and to show the reader that cumulative impacts are present for the proposed rail line construction and operation.

An obvious cumulative impact from the proposed rail line construction and operation is the addition of train traffic to the UP rail line running through San Antonio. San Antonio is facing problems with derailments and other traffic issues on this rail line, and the addition of new rail traffic from the quarry in Medina County could have a significant impact on the rail traffic in San Antonio, due to its cumulative effect. In other words, the proposed rail traffic would not be significant on its own, but its incremental increase to the existing rail traffic in San Antonio would be significant. This is an issue that the EIS should consider.

Response: The definition of cumulative impacts stated on page 1-13 of the DEIS is a direct quote from the CEQ regulation defining cumulative impacts at 40 CFR 1508.7. Cumulative impacts result when the impacts of different actions combine to cause greater impacts on a particular resource than the impacts that would be caused solely by the proposal before the agency. When an ecosystem or resource has been affected by one action and another action then affects that same ecosystem or resource before it has fully recovered from the effects of the first action, the ecosystem experiences a cumulative impact. (See Considering Cumulative Effects under the National Environmental Policy Act, p. 7 (CEQ 1997).)

To conduct a cumulative impacts analysis that provides the decision maker with relevant information for NEPA purposes, an agency must first define the geographic area and the time frame for the cumulative impacts analysis. "(If the boundaries are defined too broadly, the analysis becomes unwieldy; if they are defined too narrowly, significant issues may be missed, and decision makers will be incompletely informed about the consequences of their actions." (See Considering Cumulative Effects under the National Environmental Policy Act, p. v (CEQ 1997).) The geographic area and time frame can be different for the different resources being examined, since effects on various resources are varied. (*Id.* 15-16.)

As discussed in Section 4.17 of the DEIS and Chapter 3 of this FEIS, SEA has defined the geographic area for studying cumulative transportation and traffic safety impacts as the area from the new quarry to the existing UP rail line, and the time frame as from the present to five years into the future. SGR has stated that VCM would transport material by truck to the UP rail line if SGR's rail line were not

built. Thus, any potential impacts on rail traffic in the San Antonio area would occur regardless of SGR's rail line construction and operation, the action before the Board, and analysis of such impacts would not inform the Board's decision regarding SGR's proposal. SGR has provided information indicating that proposed rail traffic over the line would increase to two loaded trains per day, within approximately five years from start-up, and does not anticipate more than two loaded trains per day for the reasonably foreseeable future. Thus, five years is the relevant time frame for evaluation of cumulative transportation impacts due to the proposed project.

SEA does not believe that impacts to existing rail traffic in the San Antonio area need to be addressed as part of the cumulative impacts analysis for this proceeding because such impacts are not within the geographic area for the cumulative impacts analysis, and because the impacts to rail traffic in San Antonio would not be different under any of the alternatives studied, including the No-Action Alternative.

Comment CI-02, #EI-1287, #EI-1319, #EI-1361, and #EI-1369: The cumulative impacts section of the DEIS ignores the impacts of the quarry. The DEIS essentially provides a very cryptic environmental assessment of the 1700-acre Vulcan Materials quarry. The impacts associated with the quarry should be formally discussed as a Biological Assessment in a format and protocol acceptable to the USFWS and other regulatory agencies involved in that process. In addition, if the rail line is designated as a common carrier to encourage growth, then the quarry is part of that growth corridor. The DEIS does not address area growth. This would make a Board decision to approve the rail line arbitrary and capricious.

If SEA does not acknowledge the quarry as a connected action, the full impacts of the cumulative effects of the quarry need to be assessed. The Board has recognized SGR as a common carrier while allowing SGR to say it is unlikely that any other shippers would locate along the line. The argument that the quarry is an appropriate part of the cumulative impact analysis for the proposed rail line construction and operation is convoluted and shows little or no logic. This argument should not be included in the EIS, and is only used to avoid considering the quarry and the rail line as connected actions.

The cumulative impacts analysis should study the impact of the rail line construction and operation on additional contaminant load to the Edwards Aquifer and other groundwater resources, and additional loss of prime farmland and other resources caused by development along the railroad. Although the DEIS states that SGR would hold itself out as a common carrier and provide service to other industries that might locate in the area in the future, the impacts of such other industries are not addressed. SEA must assess the environmental impacts of other businesses or else the Board must deny common carrier status to SGR. Should the Board maintain the fiction that SGR is a common carrier, the cumulative impacts analysis should include projections of uses by other industries.

Response: In Section 1.5 of the DEIS and Chapter 2 of this FEIS, SEA sets forth the appropriate scope of analysis of the quarry and provides a detailed explanation of why SEA considers the quarry not to be a connected action. Section 4.17 of the DEIS and Chapter 3 of this FEIS sets forth SEA's cumulative impacts analysis for this proceeding, which includes analysis of how the quarry would contribute to cumulative impacts on the resources potentially affected by the rail line construction and operation (including impacts to the Edwards Aquifer and other groundwater resources). Impacts that could be caused by development that may locate along the rail line are not appropriately part of the cumulative impacts analysis for this proceeding. Because SEA has identified no current proposals for development along the railroad, impacts from any such development would be too speculative to include as part of the cumulative impacts analysis and are not within the time frame for the cumulative impacts analysis.

The analysis of cumulative impacts focuses on effects to specific resources. Thus, two actions that have different types of impacts, such as the construction and operation of a rail line and the development and operation of a quarry, but affect one or more of the same resources, need to be considered together in a cumulative impacts assessment. (See Considering Cumulative Effects under the National Environmental Policy Act, p. 8 (Table 1-2. Principles of cumulative effects analysis) (CEQ 1997).) For example, construction and operation of SGR's rail line and development and operation of VCM's quarry would each produce certain air emissions that could impact air quality in the project area. Thus, SEA discussed the combined air quality impacts of the quarry and rail line in the cumulative impacts analysis. (See Section 4.17.5 of the DEIS and Chapter 3 of this FEIS.)

Although the issue of SGR's common carrier status is outside the scope of SEA's environmental review, SEA notes that under court and agency precedent, "the important factor in determining common carrier status is the holding out to transport for hire the property or person of any member of the public." (See Status of Bush Universal, Inc., ICC Finance Docket No. 27026 (ICC served March 5, 1973).) The Board has consistently held that it has jurisdiction over new rail line construction cases where the line would initially serve only one shipper (even when the shipper is the same entity as or is affiliated with the rail carrier) as long as the rail carrier intends that it would hold itself out to other shippers that may locate along the rail line in the future. (See Public Service Company of Colorado - Construction Exemption - Pueblo County, CO, STB Finance Docket No. 33862 (STB served Aug. 23, 2000); Midwest Generation, LLC - Exemption from 49 U.S.C. 10901 - for Construction in Will County, IL, STB Finance Docket No. 34060 (STB served March 21, 2002); Alamo North Texas Railroad Corporation - Construction and Operation Exemption - in Wise County, TX, STB Finance Docket 34002 (STB served September 3, 2002). It is not a "fiction" for the Board to view SGR as a common carrier. SGR, as a common carrier, would have the duty to hold itself out to other shippers, even if no additional traffic is projected to occur.

Because SEA has identified no current proposals for development along the railroad, indirect impacts from any such development would be too speculative to include as part of the environmental analysis for this proceeding.

Comment CI-03, #EI-1480: SEA should analyze the cumulative harm from the quarry and rail line completely and in a manner that meets the legal requirements for adequacy and, should require SGR to commit to mitigate appropriately, up front, before the license is granted. Though the cumulative well damage analysis necessary depends on uncertain inputs (location and frequency of inputs from blasting, in particular), the agency cannot ignore these effects. In addition, Vulcan's neighbors want a binding commitment from Vulcan to document or accept documentation of existing conditions and to replace damaged water sources. Other issues may become apparent as discussions progress. The Board does not want to mitigate cumulative impacts in this proceeding because SGR does not want to analyze them. While it may be true that the Board has no authority to mitigate harm resulting solely from the quarry, the Board controls the cumulative harm to the extent that it controls the placement of the rail line. It is simply a lie to suggest that the Board lacks the power to impose mitigation conditions on the rail line to abate cumulative harm.

Response: See Chapter 5 of the DEIS for SEA's discussion of the Board's limited authority to impose conditions to mitigate potential environmental impacts from the quarry. As a government agency, the Board can only impose conditions that are consistent with its statutory authority. 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. The Board's practice consistently has been to mitigate only those impacts that result directly from the proposed action. The Board typically does not require mitigation for pre-existing environmental conditions.

SEA's recommended mitigation in Chapter 1 of this FEIS would reduce the potential environmental impacts of SGR's proposed rail line construction and operation, which in turn would reduce the contribution of SGR's proposed rail line construction and operation to cumulative environmental impacts in the project area. Information regarding potential cumulative flooding impacts and potential cumulative impacts to wells can be found in Section 4.17 of the DEIS, Chapter 4 of the SDEIS, and Chapter 3 of this FEIS. SEA cannot recommend that the Board impose mitigation conditions on the development and operation of VCM's quarry, as the Board does not have jurisdiction over quarries in general and specifically does not have jurisdiction over VCM as part of this rail line construction and operation proceeding.

Comment CI-04, #EI-1353: Why use the phrase "individually minor" on page 4-100 of the DEIS, and which actions are being referred to as "individually minor?"

Response: Pages 4-100 to 4-101 of the DEIS include the full definition of cumulative impacts, as provided in the CEQ regulations at 40 CFR 1508.7. The definition states that "(c)umulative impacts can result from individually minor but collectively significant actions taking place over a period of time." This definition was provided in the DEIS to clearly set forth what the term cumulative impacts means for the purposes of a NEPA document; the phrase "individually minor" in this sentence is not referring to a specific action.

Comment CI-05, #EI-1480: The issues of cumulative flooding impacts and cumulative vibration impacts to water wells from development of the quarry have been placed before SEA by more than 1,000 comments, including petitions. The failure to analyze the quarry's contribution to cumulative harm renders any mitigation of the cumulative harm impossible, even though SEA controls the cumulative harm to the extent that it controls the design and placement of the rail line. By relying on conclusory statements rather than disclosing cumulative harm, SEA analyzes the rail line in a vacuum, without considering the quarry as either part of the present environmental baseline or as a future proposal. This allows SGR to shift the risk of the quarry's undisclosed impacts onto the community and demand from the community the land for the rail line that would make the quarry most economically viable, while avoiding incurring any costs for designing the rail line with reference to the quarry's impacts. Shifting the risk onto the community and forcing individuals, many of them well into retirement and on fixed income, to bring inverse condemnations suits after harm has occurred, rather than disclosing environmental consequences fully and fairly up front, as required, is a clear abdication of agency authority.

Response: Please see Section 4.17 of the DEIS and Chapter 3 of this FEIS for SEA's analysis of cumulative impacts to flooding and vibration effects. Also see Mitigation Measure #F-75 in Chapter 1 of this FEIS, which would require SGR to survey and locate nearby wells and monitor vibration levels during pile driving activities associated to construction of the rail line.

Comment CI-06, #EI-1698: SGR has not provided enough information for proper analysis of cumulative impacts to groundwater supplies and groundwater quality as a result of vibration from quarry blasting and the rail line. Vulcan has not determined the location of wells around the quarry, nor has it begun to design BMPs to minimize impacts to groundwater supplies. SGR has not provided enough information for proper analysis of cumulative flood impacts of the quarry and rail line. The WPAP for the quarry does not eliminate the Board's responsibility to study the impacts under NEPA. Moreover, the WPAP is a water quality permit that does not mitigate peak flows of runoff, particularly the cumulative effect on peak flows downstream of the project site. Also, the volume of water entering the quarry and the volume exiting, downgradient, during peak rainfall events, must be analyzed. The cumulative impacts from the floodwaters of the quarry being routed downstream and interacting with berms and trestle bridges need to be addressed.

Response: See Sections 4.4 and 4.5 of the SDEIS for additional discussion of this issue. SEA believes that Mitigation Measure #F-75 in Chapter 1 of this FEIS would appropriately address these concerns. Please see Section 4.17 of the DEIS and Chapter 3 of this FEIS for SEA's discussion of cumulative impacts to surface waters.

5.2.20 Indirect Impacts (II)

Comment II-01, #EI-1289: Years from now, the undesirable presence of the railroad will cause a steady deterioration of the area and a Federal Superfund will be required to restore the area.

Response: Comment noted. Based upon the information available to date, it appears that the only commodity that would be transported over the line for the reasonably foreseeable future is limestone from VCM's proposed quarry. The Superfund program is used to clean up hazardous waste sites. Limestone and related sand and gravel are not hazardous materials and their mining will not cause the area to deteriorate. As to anything pertaining to operations, such as oil storage, SGR would be required to adhere to EPA's regulations regarding storage tanks (40 CFR 112) and to the following recommended mitigation measures: #F-21, #F-22, #F-24, #F-25, #F-26, #F-29, #F-31, #F-32, #F-33, #F-35, #F-40, and #F-43 in Chapter 1 of this FEIS.

Comment II-02, #EI-1287: The definition of indirect impacts on page 1-13 of the DEIS is not entirely correct. Indirect impacts are usually caused by secondary actions caused by the proposed action. For example, an indirect impact might be industrial development around the rail line. SEA should provide a clear definition of indirect impacts that makes sense to the common reader.

Response: The definition of indirect impacts on page 1-13 of the DEIS is the definition provided by the CEQ regulation defining the term. The full CEQ definition of indirect impacts is as follows: "are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems. Effects and impacts as used in these regulations are synonymous."

Comment II-03, #EI-1287: Section 4.18 of the DEIS needs to consider other indirect impacts as a result of the rail line construction and operation. These include the following: (1) industrial and commercial development along the rail line (there may be no current plans for development along the rail, but the potential exists and should be discussed); (2) decrease in residential development as a result of a rail line being located in a rural community. In other words, areas that have been currently designated for development of residential communities will no longer be desirable due to the fact that a railroad is traversing those areas. These areas will probably never be developed, and land values will probably decrease as a result.

Response: As discussed in Section 4.18 of the DEIS, aside from the proposed quarry, SEA has identified no current proposals for other projects in the area. Thus, there is no way, based upon the currently available information, to predict whether there would be an increase in area development as a result of this project or to evaluate such development as an indirect impact.

While it is possible that SGR's rail line construction and operation could impact the development of proposed or planned subdivisions in the area, it is also possible that SGR's rail line construction and operation could have no impact on such area development. For example, at the south end of the project area the Creekwood Subdivision developed adjacent to the UP rail line many years after the rail line was

built despite its presence.¹² Thus, there is no way, based upon the currently available information to predict whether SGR's proposed rail line construction and operation would cause a decrease in the development of subdivisions.

As stated in Section 4.16 of the DEIS, local property values are determined by myriad factors, including visual aesthetics, availability of schools, employment opportunities, transportation infrastructure, access to commercial establishments, land use, water quality, and air quality. Because local property values depend upon so many factors and are somewhat subjective, the indirect impacts to property values from the proposed project cannot be predicted accurately at this time.

Comment II-04, #EI-1287: In Section 4.19 of the DEIS, one conclusion that has not been considered in impacts to human health and safety is the fact that rail traffic along this rail line could be increased if other industries develop in the area. Common carrier status allows for this to occur.

Response: SGR has stated that proposed operations over the rail line would be four trains per day (two loaded and two empty) for the reasonably foreseeable future. (See DEIS, Appendix G, page G-79.) While the potential for an increase in rail traffic over the line exists, since, as the commenter correctly notes, SGR would hold itself out as a common carrier to any shipper that may locate along the line, SEA has identified no other potential shippers along the line. Thus, any assessment at this time of whether traffic over the rail line would increase, and if so, what the volume of increased traffic would be, would be pure speculation.

5.2.21 Mitigation(M)

Comment M-01, #EI-1261, and #EI-1289: The mitigation clauses in the DEIS are poorly stated and ill-defined, and will not prevent irreparable environmental damage. Vulcan should fund a committee to oversee the required mitigation measures. The members of the committee would live in the project area and be appointed by the county commissioner. The fund would also include provisions for attorney fees if legal counsel is necessary.

Response: In the DEIS, SEA recommended 52 mitigation measures. In response to comments received, SEA modified several mitigations and added new ones. In the SDEIS, SEA recommended 17 mitigation measures that were either new or modified measures based on comments received. In this FEIS, SEA is recommending 34 mitigation measures that are either new or modified from the SDEIS. SEA is recommending a total of 91 mitigation measures in this FEIS. SEA believes the recommended mitigation proposed is appropriate in this case and, if accepted by the Board, would reduce the potential environmental impacts of the proposed rail line construction and operation to the fullest extent feasible consistent with the proposal.

Moreover, SEA believes that the new recommended Mitigation Measures #F-80 and #F-81 in Chapter 1 of this FEIS provide for ample monitoring and oversight to ensure compliance with the recommended mitigation. These mitigation measures would enquire SGR to submit quarterly reports documenting the progress of all mitigation measures during rail line construction and until three years after rail line operations have begun. These mitigation measures also would require SGR to retain a community liaison to assist in the implementation of the mitigation measures.

¹² According to a telephone conversation between SEA and an employee of the Medina County Courthouse on August 4, 2005, Unit 2 of the Creekwood Subdivision was constructed in 1988 and Unit 1 was built a couple of years earlier. As stated in Section 3.1 of the DEIS, the UP rail line in the area (originally known as the Galveston, Harrisburg, and San Antonio Railway) was constructed during the 1880s.

Comment M-02, #EI-1378: TPWD concurs with the proposed mitigation recommended by SEA in the DEIS.

Response: Comment noted.

Comment M-03, #EI-1326: The EIS should address how residents affected by the proposed quarry operations would be protected or compensated for loss of health, quality of life, livelihood, and assess the costs to residents. Mitigation to prevent such effects should be developed and a fund and an adjudicatory procedure should be created to settle claims of loss due to quarry operations.

Response: Because the Board has no jurisdictional authority over VCM's proposed quarry operations, SEA cannot recommend that the Board impose mitigation measures upon the development and operation of the quarry.

Comment M-04, #EI-1328: Vulcan should be fined for any damage caused to Medina County, Texas, such as having to donate gravel to Medina County. The DEIS does not recommend any punishment for any wrongdoing on Vulcan's part.

Response: The Board does not oversee claims for damages for specific environmental harms brought against railroads or quarry companies. Determining whether Vulcan, VCM, or SGR is responsible for any specific damage and whether any fines should be imposed as a penalty for any damage caused is a matter for a court of competent jurisdiction should such damage occur. SEA has assessed the potential environmental impacts that could be caused by SGR's rail line construction and operation and has recommended appropriate mitigation to reduce these potential effects.

Comment M-05, #EI-1361: SGR submitted only five voluntary mitigation measures, and there is no assurance that SGR would accept SEA's recommended mitigation measures. Moreover, SEA's mitigation measures are often qualified with the terms "reasonable" and "minimal." SGR cannot be trusted and must be required to abide by written agreements before the Board permits the rail line construction and operation. The fact that SGR initially proposed to grade-separate the crossings of FM 2676 and County Road 4516 demonstrates its lack of trustworthiness.

Response: SGR has offered a total of ten voluntary mitigation measures (see Chapter 1 of this FEIS). SGR will be legally required to comply with all mitigation measures that the Board formally imposes with a decision granting construction and operation authority. SEA is recommending new mitigation measures that provide for ample monitoring and oversight to ensure compliance with the recommended mitigation. These mitigation measures would require SGR to submit quarterly reports documenting the progress of all mitigation measures during construction and until three years after operations have begun. These mitigation measures would also require SGR to retain a community liaison to assist in the implementation of the mitigation measures. Please see Mitigation Measures #F-80 and #F-81 in Chapter 1 of this FEIS.

SEA has not used the word "minimal" in any of the recommended mitigation measures, but has used the term "reasonable" in certain mitigation measures when describing the requirements of other Federal, state and local entities. For instance, that term appears in those conditions that require SGR to consult with, seek approvals from, and comply with the reasonable requirements of other government entities as a condition to a license from the Board. Because the Board's authority to grant such a license can preempt the requirements of other Federal, state, or local government entities, under 49USC 1050(b), the Board controls the process and imposes a reasonableness condition. The Board also can take steps later, if necessary, to ensure that the law is not being applied in such a way as to unduly restrict a railroad's operations or unreasonably burden or interfere with interstate commerce.

Comment M-06, #EI-1361: The DEIS includes no recommended mitigation measures for the trucking alternative, which suggests that the Board and Vulcan know that this option is not feasible.

Response: The Board's jurisdiction in this proceeding extends to SGR in connection with its proposal to construct and operate a rail line from the existing UP rail line to the proposed quarry in Medina County, Texas. SEA cannot recommend that the Board impose mitigation measures on VCM's use of trucks under the No-Action Alternative. However, in keeping with CEQ regulations requiring the alternative of no action to be compared in detail to the proposed action, including appropriate mitigation measures (see 40 CFR 1502.14) to provide a fair basis for comparison, SEA did discuss possible mitigation measures that VCM could implement if it pursues the trucking alternative in the DEIS. For example, in Section 4.5.3 of the DEIS, SEA specifically suggested that in order to reduce impacts to surface waters from trucking operations under the No-Action Alternative "potential mitigation could involve creating stormwater drainages." See Mitigation Measure #F-45 in Chapter 1 of this FEIS for similar recommendations for the rail line.

Comment M-07, #EI-1287, #EI-1369, #EI-1370, #EI-1382 and #EI-1424: The most important aspect of mitigation is accountability. Nowhere in the mitigation section has accountability for meeting the requirements of mitigation been addressed.

Vulcan has a history of causing environmental problems in communities where it operates quarries, and of not keeping its promises and mitigation agreements. The city of Maribel, Tennessee, is currently suffering from problems created by a Vulcan quarry and is defending itself in a lawsuit brought by Vulcan to expand quarry operations. It is not right that the local people will have to enforce the mitigation measures by either going to court to deal with issues the Board did not adequately address or accepting the problems.

The Board must not allow SGR to dictate mitigation measures or alter them so as to make the mitigation impotent, for instance regarding mitigation measures #6 and #24 in the DEIS, which concern traffic and flooding. Flooding studies and agreements to build overpasses must be completed prior to the Board's final decision. SGR must be required to complete all mitigation measures before the Board's final decision. This is the only way that the Board can properly evaluate, and be aware of, the environmental impacts that would be caused, and be assured that they are the least harmful to the environment. The Board is the agency with the responsibility to approve or deny SGR's proposal; thus, the Board must not assume that other agencies would provide a safety net through mitigation carried out after the Board's final decision to make up for the Board's failure to do its duty.

Additional sections to the EIS should include a section providing milestones and performance goals for mitigation, and making these goals obtainable and quantifiable. Each of the listed mitigation methods should have an associated quantifiable performance standard or goal. A minimum of 10 years of monitoring following completion of construction should be included as part of the mitigation. During the monitoring each year, specific steps should be taken to measure the attainment of performance standards. If at the end of 10 years' performance, goals and standards have not been attained, monitoring should continue and methods should be implemented to ensure that those performance standards are attained. Monitoring should be conducted by a qualified environmental scientist not affiliated with Vulcan, preferably selected by the community at large and approved by the Board. The scientist would provide interim and annual reports to a public committee comprised of the general public and any other interested regulatory agencies. The report would be reviewed by both the committee and the Board, and any changes or issues identified by the report would be corrected by SGR. It is extremely important that the Board take an active role in the monitoring of mitigation for this project. Requesting mitigation without a method of controlling it is futile. Mitigation should not be voluntary, it should be mandatory.

Response: SEA addressed SGR's specific comments regarding the mitigation measures proposed in the DEIS in the appropriate sections of the SDEIS and in Chapter 1 of this FEIS (see Section 5.2.25 for discussion of SGR's comment regarding mitigation measure #6, and Section 5.2.31 for discussion of SGR's comment regarding mitigation measure #24). SGR will be legally required to comply with any mitigation measures the Board formally imposes upon any decision granting construction and operation authority. SEA is recommending new mitigation measures that would provide for ample monitoring and oversight to ensure compliance with the recommended mitigation. These mitigation measures would require SGR to submit quarterly reports documenting the progress of all mitigation measures during construction and until three years after operations have begun. These mitigation measures also would require SGR to retain a community liaison to assist in the implementation of the mitigation measures. Please see Mitigation Measures #F-80 and #F-81 in Chapter 1 of this FEIS.

Comment M-08, #EI-1287: In general, the mitigation methods appear to be sufficient, and will minimize impacts by any of the alternatives listed. However, it is very difficult to comment on these methods when the impacts to the environment have not been properly measured using good, sound scientific data. A project of this magnitude with this level of public concern should include a much more intensive measurement of the environment and impacts to the environment. Depending on the environmental impacts found by further studies, mitigation measures may need some alteration. Based upon the data provided in this EIS, the mitigation measures listed are adequate.

Response: Comment noted. Based upon the comments received on the DEIS and the SDEIS, and additional analysis conducted by SEA in this FEIS, SEA has proposed 34 new and or modified mitigation measures, as stated in Chapter 1 of this FEIS. SEA is recommending a total of 91 mitigation measures in this FEIS.

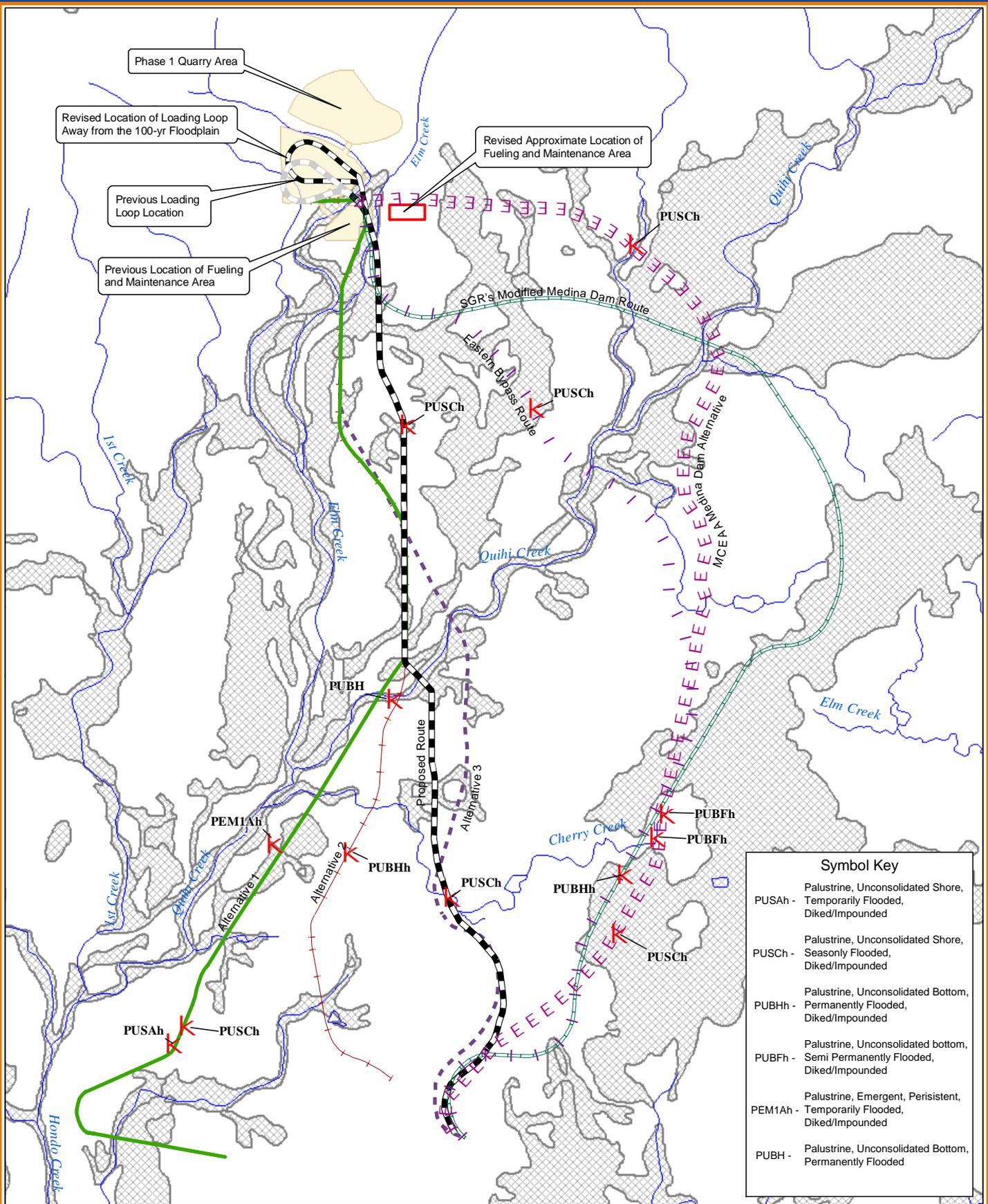
Comment M-10, #EI-1421: Mitigation issues regarding safety, traffic, flooding, and any agreement SGR would make with UP to operate over the line need to be answered prior to the Board's final decision. What will happen if the Board approves the construction and operation with mitigation conditions, and then the mitigation conditions are not resolved or carried out?

Response: SGR will be legally required to comply with any mitigation measures the Board formally imposes upon any decision granting construction and operation authority. SEA is recommending new mitigation measures that would provide for ample monitoring and oversight to ensure compliance with the recommended mitigation. These mitigation measures would require SGR to submit quarterly reports documenting the progress of all mitigation measures during construction and until three years after operations have begun. These mitigation measures also would require SGR to retain a community liaison to assist in the implementation of the mitigation measures. Please see Chapter 1 of this FEIS, Mitigation Measures # F-80 and #F-81. SEA is recommending Mitigation Measures # F-1 through #F-15 in Chapter 1 of this FEIS to reduce transportation and traffic safety impacts. Mitigation Measures #F-VM2, #F-36, #F-38, #F-44, #F-46, #F-49, and #F-50 would address potential flooding impacts.

Because SGR's petition is for construction and operation authority, SEA's recommended mitigation measures are based on SGR being the operator of the line. Another carrier would need to seek separate Board authority to operate over the line. If the Board approves SGR's proposed rail line construction and operation and another carrier, such as UP, seeks Board authority to operate over the line, SEA would then determine whether and what type of environmental review is needed, and whether and what type of mitigation measures to recommend.

Comment M-11, #EI-1344: The use of BMPs is not sufficient to alleviate impacts. SGR should describe what specific resources it would use to address problems. In particular, it should specify how flooding would be alleviated and what it would do if the Medina Dam begins to crack.

Response: SEA has recommended 91 mitigation measures that would reduce the potential environmental impacts of constructing and operating SGR's rail line. Please see Mitigation Measures #F-VM2, #F-36, #F-38, #F-44, #F-46, #F-49, and #F-50 in Chapter 1 of this FEIS. Detail specific measures that SGR would need to follow to alleviate potential impacts to flooding. As discussed in Sections 4.4 and 4.5 of the SDEIS, vibrations impacts from construction and operation of the rail line or blasting activities at the quarry would not propagate over large distances. Thus, because of the distance between the Medina Dam and the proposed rail line, SEA does not believe that the direct, indirect, or cumulative impacts of the construction and operation of the rail line would impact the stability of the Medina Dam.



Phase 1 Quarry Area

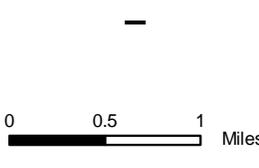
Revised Location of Loading Loop
Away from the 100-yr Floodplain

Previous Loading Loop Location

Previous Location of Fueling and Maintenance Area

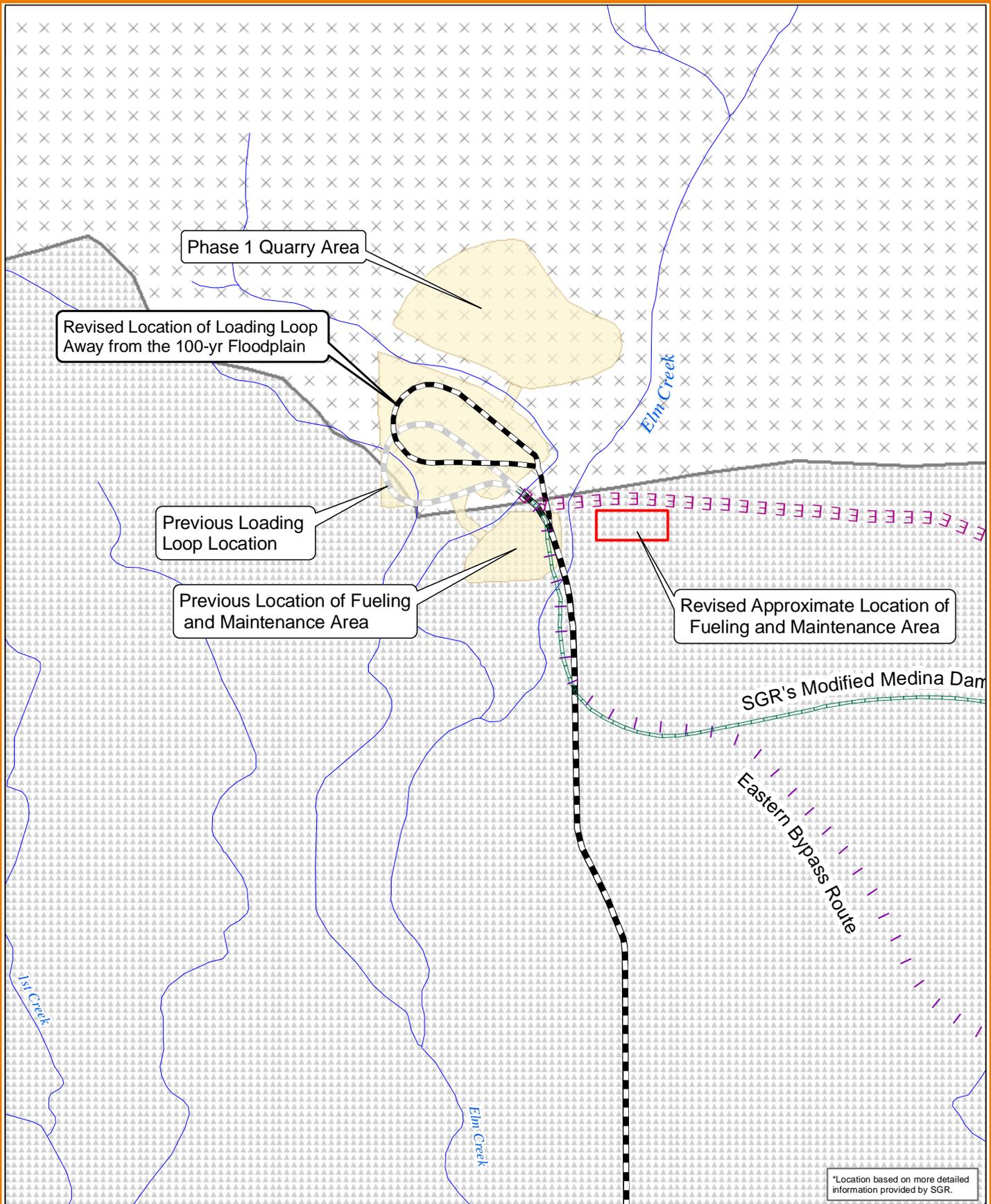
Revised Approximate Location of Fueling and Maintenance Area

Symbol Key	
PUSAh	Palustrine, Unconsolidated Shore, Temporarily Flooded, Diked/Impounded
PUSCh	Palustrine, Unconsolidated Shore, Seasonally Flooded, Diked/Impounded
PUBHh	Palustrine, Unconsolidated Bottom, Permanently Flooded, Diked/Impounded
PUBFh	Palustrine, Unconsolidated bottom, Semi Permanently Flooded, Diked/Impounded
PEM1Ah	Palustrine, Emergent, Persistent, Temporarily Flooded, Diked/Impounded
PUBH	Palustrine, Unconsolidated Bottom, Permanently Flooded

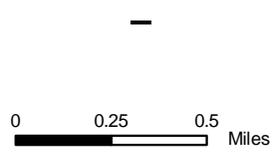


Legend			
	NWI Wetlands		Alternative 1
	Rivers		Alternative 2
	Proposed Route		Alternative 3
	MCEAA Medina Dam Alternative		SGR's Modified Medina Dam Route
	Rivers		Eastern Bypass Route
	Hydic Soil		

Figure 5-1
Southwest Gulf Railroad
Potential Wetlands Crossed
by Eastern Alternatives



*Location based on more detailed information provided by SGR.



Legend

- Proposed Route
- Alternative 1
- Alternative 2
- Alternative 3
- MCEAA Medina Dam Alternative
- Eastern Bypass Route
- SGR's Modified Medina Dam Route
- Stream
- Artesian Zone
- Recharge Zone
- Revised Fuel and Maintenance Area

Figure 5-2
Southwest Gulf Railroad
New Fueling and Maintenance
Area and Loading Loop
Locations