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February 24, 2004

VIA FAX: 202/565-9000 and Certified Mail
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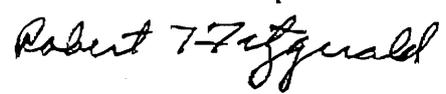
Ms. Rini Ghosh
Section of Environmental Analysis
Surface Transportation Board
ATTN: STB Finance Docket No. 34284
1925 K Street, NW
Washington, DC 20423-0001

Dear Ms. Ghosh:

Re: Analysis under the National Environmental Policy Act of
(1) Vulcan Materials Company's planned Medina County stone quarry
(2) Vulcan Materials Company subsidiary Southwest Gulf Railroad Company
proposed rail line to serve Medina County stone quarry

Enclosed please find the scoping comments of the Medina County Environmental Action Association for *Finance Docket No. 34284*, the proposed Southwest Gulf Railroad Company rail line and its connected action, the Vulcan Materials Company quarry.

Sincerely,



Dr. Robert T. Fitzgerald
President, MCEAA

BEFORE THE SURFACE TRANSPORTATION BOARD

STB Finance Docket No. 34284

**SOUTHWEST GULF RAILROAD COMPANY
CONSTRUCTION AND OPERATION—MEDINA COUNTY, TX**

MEDINA COUNTY ENVIRONMENTAL ACTION ASSOCIATION

Scoping Comments

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February 24, 2004

February 24, 2002

STB Finance Docket No. 34284

**SOUTHWEST GULF RAILROAD COMPANY
CONSTRUCTION AND OPERATION—MEDINA COUNTY, TX**

Scoping Comments of the Medina County Environmental Action Association

On January 22, 2004, the Surface Transportation Board's (STB's) Section of Environmental Analysis announced a request for Environmental Impact Statement (EIS) scoping comments under the National Environmental Policy Act (NEPA) for the proposal contained in Finance Docket No. 34284. This proposal would allow the Southwest Gulf Railroad Company (SGR), a wholly-owned subsidiary of Vulcan Materials Corporation (Vulcan) to construct a new rail line from an existing Union Pacific Railroad (UP) main line to Vulcan's planned quarry in north central Medina County, Texas. In response to the Surface Transportation Board's request, the Medina County Environmental Action Association (MCEAA) submits these written comments. These comments aim to identify and clarify issues and impacts that the EIS must discuss and disclose.

MCEAA seeks to ensure that the SEA conducts a full and fair analysis of this project using appropriate methodologies. An EIS informs the decision makers—the STB as well as the public—of the impacts of the proposed SGR line as well as the impacts of alternatives. NEPA requires truthful disclosure about the impacts to the environment and the surrounding community, as well as a fair and unbiased evaluation of alternatives. For the reasons stated here, the search for a better solution has guided MCEAA in drafting these comments to assist the SEA in preparing the SGR EIS.

It remains MCEAA's position that SGR's proposal represents the spawning of a fictional corporate entity from the parent, Vulcan, solely for the purpose of evading federal environmental laws in this proceeding and, once an exemption is granted, attempting to assert eminent domain condemnation power in state court.

Every reviewing body that this proposal encounters should take note of the awesome scope of the applicant's duplicity. Without owning a single parcel of land, Vulcan has entered a community and cut a deal to financially entice a handful of landowners to lease their land for a massive quarry that the rest of the community does not want. To make the quarry as financially profitable as Vulcan desires (and perhaps to make it viable at all, though Vulcan disputes this), a rail line will be required. Owning no

land for such a route, even though a perfectly good route exists on land owned in part by the now-enriched quarry lessors, Vulcan spawns a shell corporation, SGR, which applies for a construction exemption from the STB. In an attempt to shield the quarry, now obviously directly related to the proposed rail line, from any of the environmental analysis that this federal action triggers, Vulcan and its representatives segment the quarry into numerous phases, and lobby agencies with potential jurisdiction over the project relentlessly.

From May of 1999, when Vulcan first begins its own studies, to January of 2004, when STB makes the decision to proceed with an EIS, rather than a less detailed Environmental Assessment (EA), Vulcan conducts study after study at the quarry site and in the rail line area in an attempt to convince the agencies that its two connected projects do not merit a hard look. But during these nearly five years, Vulcan never conducts the three required years of focused counting for two endangered bird species that the U.S. Fish and Wildlife Service says may be present at the site. During these five years, Vulcan never comes forward with an authoritative inventory of wetlands nor monitors for endangered species along its proposed rail routes. During these five years, Vulcan never conducts flood modeling along the creeks that its proposed rail line will cross despite credible evidence from residents that the creek crossings will exacerbate flooding. During these five years, Vulcan never explains to the residents of Medina County why it plans to take their land in state court condemnation proceedings if the quarry supposedly does not need rail to become viable. During these five years, no landowner sells their land to any entity looking to relocate for the purpose of using SGR as a common carrier, because none comes looking. During these five years, Vulcan never explains to Medina County why the quarry and the rail line are not being analyzed together and why their complete impact is not being disclosed to the community.

Now that an EIS is required, Vulcan has no shame. It blames the environmental laws, it blames citizen groups like MCEAA, and it blames the agencies for prolonging the process. It blames everyone but itself. And it continues to use a small group of enriched quarry lessors to pit neighbor against neighbor in Medina County and threaten vocal opponents with the eventual loss of their land for the rail line.

For Vulcan, this EIS (though they had hoped for an EA) is one small part of the larger process of exercising unchecked aggression against a community that does not want them. The more that the scope of the EIS is restricted, the more that its contractors' studies are allowed to provide misleading, incomplete, or inaccurate results, and the more that the EIS fails to provide a complete and detailed picture of both the quarry and the rail line's impacts, the closer Vulcan gets to its goal of entering a community, taking land, and establishing a massive industrial operation without ever having to once disclose its full consequences to the community.

In 1836, people fought and died 40 miles away from here for rights that are now being ignored by Vulcan. Please, don't let them mess with Quihi today.

1.0 FUNDAMENTALS

The Section of Environmental Analysis must address the following fundamental issues consistently throughout the Draft Environmental Impact Statement (DEIS), and in the manner described below, for it to function as a legitimate decision making tool.

1.1 Scope of Study

The DEIS should include consistent and detailed analysis for all impacts and their appropriate geographic extent.

1.1(a) Relatedness and Connectedness

MCEAA incorporates by reference its February 19, 2004 letter to Victoria J. Rutson, Chief of the Section of Environmental Analysis, concerning the scope of the EIS. That letter, which shall be made part of the administrative record in this proceeding, speaks for itself and there is no reason to repeat most of it in these comments, aside from its conclusions.

Vulcan's planned quarry and SGR's proposed rail line are "connected actions" requiring "discuss[ion] in the same impact statement" under the Council on Environmental Quality's (CEQ) regulations implementing NEPA. 40 C.F.R. § 1508.25(a)(1) (2003). Specifically, the proposed rail line is "an interdependent part" of the larger quarry action, and "depends on it" for its justification. *See id.* § 1508.25(a)(1)(iii) (2003).

"The proper test to determine relatedness under 40 CFR § 1508.25(a)(1)(iii) is whether the project has independent utility." *Town of Huntington v. Marsh*, 859 F.2d 1134, 1141-42 (2d Cir.1988); *Hudson River Sloop Clearwater v. Department of the Navy*, 836 F.2d 760, 764 (2d Cir.1988). The independent utility test requires that "[i]f proceeding with one project will, because of functional or economic dependence, foreclose options or irretrievably commit resources to future projects, the environmental consequences of the projects should be evaluated together." *Fritiofson v. Alexander*, 772 F.2d 1225, 1241 n.10 (5th Cir. 1985); *Stewart v. Potts*, 996 F. Supp. 668, 683 (S.D. Tex. 1998).

On the facts in this case, the rail line does not possess any real independent utility. Most significantly, the rail line originates at the quarry site. There is no "independent utility" to building an aggregate loading yard at the start of the line, in phase 2 of the quarry site, without the construction of the quarry that Vulcan intends to supply it at that exact site. Construction of the rail line "forecloses options" as to the quarry's location. If the quarry were not a possibility, it would clearly be "irrational, or at least unwise," *Trout Unlimited v. Morton*, 509 F.2d 1276, 1285 (9th Cir. 1974), to proceed with the rail line. That action is "irrational" absent imminent construction of the quarry through phase 2, and "functional[ly] dependent" on the quarry. Vulcan could not "reasonably consider"

going ahead with the rail line construction if there were no other development to utilize it. *Blue Ocean Preservation Society v. Watkins*, 754 F. Supp. 1450, 1459 (D. Haw. 1991).

Finally, Vulcan has conceded that any assumption that other shippers would use the line is "speculative", that in fact no such demand exists, and that the only "good reason" for building the line is to serve the quarry. Letter from David H. Coburn, Steptoe & Johnson LLP, to Victoria J. Rutson, STB-SEA 1 (January 5, 2004) (Document EI-423); SGR Reply to MCEAA Petition to Revoke 5 (Jun. 9, 2003) (Document 208015).

1.1(b) Cumulative Significance

In the event that Vulcan's quarry ripens into a proposal for federal action, it must be jointly analyzed in the EIS with the rail line as a "cumulative action" under 40 C.F.R. § 1508.25(a)(2). As with a connected action, the regulations mandate a complete analysis, including direct impacts and alternatives, in the same EIS. *Id.* Once major federal actions reach the stage of actual proposals, impact statements on them will take into account the effect of their approval on the existing environment; and the condition of that environment presumably will reflect *earlier proposed actions and their effects*. *Kleppe v. Sierra Club*, 427 U.S. 390, 410 n.20 (1976) (emphasis added). The direct effects and alternatives analysis is necessary for both actions because both must proceed from a common baseline of no impact. Once the direct effects and alternatives for each action have been analyzed side by side in the same EIS, the cumulative impact section of that same EIS aggregates them. To the extent that *Piedmont Heights Civic Club, Inc. v. Moreland*, 637 F.2d 430, 441 (5th Cir. Unit B 1981), suggests a different result by allowing the agency to "aggregate from the underlying data base," that case only applies to situations where connected and cumulative actions are deemed not present.

1.1(c) Breadth of analysis required for the quarry and rail line as connected actions

Logically, that same side by side analysis of direct effects and alternatives is required for connected actions and their effects. As the CEQ regulations themselves provide, an action need not be "proposed" to be connected so long as it satisfies one of the three tests of 40 C.F.R. § 1508.25(a)(1). Yet the command of the CEQ regulations for full analysis in the same EIS remains the same between § 1508.25(a)(1) and (a)(2). It is simply impossible to argue that *Kleppe's* statement for what the CEQ regulations later termed cumulative actions under § 1508.25(a)(2) should be ignored in favor of a different result under § 1508.25(a)(1).

It makes no sense to argue that the cumulative impacts of the rail line and the quarry must be described in the same EIS, but that consideration of alternatives and direct impacts for the connected action (quarry) may be deferred until the connected action (quarry) is ripe for proposal. The actions must be analyzed from the same baseline of no action side by side. Only then can their cumulative impacts be determined, also in the same document.

The Fifth Circuit has already decided this issue contrary to any attempt by SGR to segment the EIS' analysis of the quarry as a connected action. In *Sierra Club v. Sigler*, the Fifth Circuit held that related actions that are not "proposals" must be discussed alongside the proposed action in the direct effects and alternatives analyses of the EIS, not simply in the cumulative impact section. 695 F.2d 957, 978-79 (5th Cir. 1983). While the Supreme Court in *Kleppe* addressed (yet, unambiguously resolved) the issue of combined EIS breadth only in dicta, the STB needs to appreciate the directly on point Fifth Circuit precedent it will subvert by adopting the SGR's improvident and self-serving suggestions:

If an agency were permitted to cite possible benefits in order to promote a project, as the Corps has done here, yet avoid citation of accompanying costs by hiding behind *Kleppe*, the cost-benefit analysis in the EIS would be reduced to a sham: such a "cost-benefit analysis" would always be tipped in favor of benefits. *Kleppe* cannot be used to defend a skewed cost-benefit analysis; it was concerned solely with determining when an EIS with its informal cost-benefit analysis must be prepared. Once that threshold is crossed, the analysis must be objective. This case is beyond the threshold at issue in *Kleppe*, since the Corps had to prepare an EIS on the superport project. The issue here is one not discussed in *Kleppe*: once an EIS is required, can the costs of any claimed benefits be ignored? This issue was correctly resolved in [*Chelsea Neighborhood Association v. U.S. Postal Service*, 516 F.2d 378 (2d Cir.1975)], and as NEPA required it must, *Chelsea* answered it negatively.

Sigler, 695 F.2d at 979.

The DEIS must be generally organized as follows to achieve the purposes behind the command for combined analysis:

- Description of the no action alternative (same for both quarry and rail line)
- Descriptions of proposed and eliminated alternatives to the proposed rail line
- Descriptions of proposed and eliminated alternatives to the planned quarry
- Direct effects analysis
 - For each category of effect, a common and appropriate methodology
 - For each methodology, an analysis applying it to the:
 - No action alternative
 - Action alternatives for the rail line
 - Action alternatives for the quarry
- Cumulative effects analysis
 - Identification of effect categories where cumulative effects will exist
 - For each category of effect, an analysis that adds the effects past, present, and future reasonably foreseeable future actions to:

- The no action alternative, and stops.
- All possible combinations of action alternatives for the rail line and quarry, which includes adding their direct effects.
- A matrix or table, while perhaps useful, cannot substitute for the actual analysis required by this section.
- Only then will it be possible to select a preferred alternative, if applicable.

Sigler makes it clear that the proposed rail line does not exist independently of any phase of the quarry. The phases of development will overlap. These phases will not locate elsewhere, away from the rail line or rest of the quarry; nor will they use exclusively trucks. While not the rule for all phased connected actions, once this quarry is deemed a connected action, every phase of it will be connected to the proposed rail line, because none of the quarry phases have independent utility with respect to one another. They will all rely on common equipment, a shared crushing unit, and shared personnel and resources. They cannot exist apart from one another or the rail line that will transport at least some of their joint output.

1.1(c)(1) Direct effects of rail line and quarry must be analyzed at full build out

For a connected action, the impact on public health and safety from transportation facilities and equipment arises from the full scope of the action that is connected, not just a single phase. The relevant analysis is the full build-out level of rail traffic from the action that will not proceed without, or which is interdependent with, the rail line.

For the SGR proposal, which is a connected action, the full build-out level of rail traffic has not been disclosed. Rather, an estimate from the first few phases of the Vulcan quarry is being used, because the other phases of the quarry, even though obviously interdependent with and connected to the rail line, are being treated as speculative.

This cannot occur. While NEPA does not require a worst case analysis, it does require an analysis of the entire connected action, not simply part of it. Following the principle of *Sigler*, since the rail line claims the benefit of the entire quarry, and since the entire quarry will use the rail line, the direct effects analysis must analyze a full build out scenario.

1.1(c)(2) Consistent use of phasing

The phases of the quarry must be defined at the beginning of the EIS, in the alternatives section for Vulcan's proposed site. Throughout the document, these phases must be used consistently. Analysis should occur, at minimum, for Phase 1 (which Vulcan represents as pre-rail, though it will ultimately use the rail and deliver rock to it from the crushing unit), Phase 2 (rail connection and first expansion of quarry), and full build out.

For the action alternatives, the cumulative impacts analysis should be conducted with the results from the direct effects analysis at full build out.

1.2 Disclosure of All Supporting Data, Reports, and Analysis in the DEIS

STB should not attempt to play "hide-the-ball" with any working papers, data, reports, or analysis used to reach conclusions on any part of the project. Where the STB discusses a methodology, each step, formula, or calculation should be clear and documented. The data necessary to follow those steps, formulas, or calculations completely to the conclusion reached should be placed in the DEIS to allow the public to review and comment on it, and not restricted to internal reports from the contractor or "correction factors" that the DEIS merely refers to. The STB should not hide information from the Administrative Record or decide a matter of agency discretion without referencing and documenting that decision in the DEIS. No analysis or information should appear the FEIS that the public has not had a chance to comment on in a DEIS or SDEIS.

1.3 Reasonable Comment Period for DEIS

MCEAA requests at least 60 days for the public comment period on the DEIS.

1.4 Public Hearing

A public hearing with oral testimony—not a workshop—should be held no sooner than 45 days after the DEIS release. This public hearing should not occur between the Thanksgiving and Christmas holidays, or on the Our Lady of Guadeloupe feast day. Many people in these areas attend church on Wednesdays, so MCEAA recommends holding the hearing on a Monday or Tuesday. It is preferable to have both an afternoon and evening session for the hearing, so that everyone will have a chance to be heard, so that the hearing will conclude at a reasonable hour, and so that there will be no need to pre-register. MCEAA suggests the Bethany Lutheran Church Hall in Quihi as a potential venue with adequate capacity for this hearing. Venues in Hondo may also be explored in the unlikely event that the Hall cannot be reserved in advance of the hearing date.

2.0 ALTERNATIVES

Once it is established that Vulcan's rail line and quarry are connected actions requiring analysis of direct effects and alternatives, as well as cumulative impacts, in the same EIS, Vulcan will make its final stand against full disclosure to the community here, in the alternatives analysis. An extended discussion in layman's terms of what is at stake is in order before proceeding into the legal analysis.

2.0(a) No action - MCEAA's position

The no action alternative to the connected action neither builds a rail line nor builds any quarry facilities. For a connected action, no action is something that is *not the connected action* (i.e., something that has independent utility apart from the connected action) that would occur anyhow. It is illogical to define no action as part of the action itself.

2.0(b) No action - Vulcan's position

MCEAA fully anticipates that Vulcan will have a different interpretation, one that fails to appreciate the distinction provided by the nature of the quarry and rail line as connected actions. Vulcan will tempt STB to take the easy way out of analyzing the connected quarry's numerous impacts by defining the no action alternative in terms of a misstated "either/or" proposition.

Vulcan will ask the STB, as it already has in comments, to define the no action alternative to a quarry and a rail line as a quarry and thousands of trucks. Either Medina County will get a quarry and rail line, or it will get a quarry without a rail line, in which case it will be served by trucks. To Vulcan, the argument has a certain seductive logic: there has to be a quarry to justify any transportation operation, and presumably the quarry is still analyzed, in all its phases, as the no action alternative.

The result assumes the completion of the quarry, conferring a de facto independent utility status on it that the connected action analysis and Vulcan's own words prove does not exist. It yields an EIS where the public and decision-makers never see the impact of the quarry without thousands of trucks lumped in with it, or the impact of doing nothing at all—a result that would be perfectly fine if we were considering, say, an independent federal interstate highway project that was going to be built through part of the quarry site where the quarry was certain to be built with or without the highway. But here, we are considering a rail line that will only be built if the quarry is.

2.0(c) No action – Why Vulcan’s position is unreasonable and contrary to law, and why STB must adopt MCEAA’s position

However, Vulcan’s incorrect argument is predicated on a line of NEPA case law that does not deal with connected actions. In every single case that could justify Vulcan’s position, the either/or proposition to reasonably define no action applies as follows:

either the *action* / or something that is *not the action* that would occur anyhow.

No action is obviously the latter “or” result. These cases all proceed from the assumption that no action can be defined “reasonably” as something that is *not the action* that would occur regardless of whether the *action* did. We cannot disagree with that general principle. Here, however, the *action* is a *connected action* with two constituent and interdependent parts. If actions are so bound up and closely related that they cannot be separated, and require side-by-side consideration in the same EIS, then they obviously cannot be juxtaposed against one another in an either/or analysis. The proper analysis to determine the no action alternative is:

either the *connected action* /

or something that is *not the connected action* (i.e., something that has independent utility apart from the connected action) that would occur anyhow

not what Vulcan wants, which is:

either one part of the connected action /

or the other part of the connected action with a substitute for the first part that would occur anyhow

As the definition of “scope” in the CEQ regulations states, scope consists of the ranges of actions, alternatives, and impacts to be considered in an EIS. Actions, alternatives, and impacts—each term is set out and defined separately by the regulation; each term follows from the other. Defining alternatives to an action, including the alternative of *no action*, necessarily requires defining the *action* in a previous step of the scoping process. The agency cannot “undefine” or “redefine” the scope of the action—be it connected, cumulative, similar, or single and unconnected—in a subsequent step if these codified words, which are entitled to the highest deference, mean anything at all.

The general principle that something that is *not the action*, but that would occur regardless of whether the *action* did or did not, can reasonably constitute a no action alternative differs by orders of magnitude from redefining the scope of the action after it has already been defined. The de facto result of independent utility if the quarry is assumed as part of *no action* is no illusion—it is the outright reversal of the connected action determination made one step earlier.

2.0(c)(1) Interstate highway hypothetical

Returning to the earlier federal interstate highway and quarry example, assume a proposed interstate with independent utility that would cross a planned quarry site. Assume that the planned quarry is not a federal action and does not trigger NEPA. Because it has independent utility, the federal highway would occur regardless of whether the quarry ever began operations, and the quarry would begin operations regardless of whether the highway was ever built. The highway and quarry are not connected actions and do not need to be analyzed in the same EIS.

However, assume also that it is reasonably foreseeable that the quarry will begin operations. The Federal Highway Administration, justifiably concerned about the impacts from fine particulate air pollution, decides to assume the operation of the quarry in the no action alternative. The Highway Administration uses the quarry operations to establish a more accurate baseline for its analysis of the interstate routing alternatives. This is perfectly reasonable.

2.0(c)(2) Channel deepening hypothetical

Now, in a different example, assume a proposed channel deepening project in a bay. The proposed channel deepening project requires an EIS. A planned, but not yet proposed, container port is found to be connected to it under the regulations. The channel deepening project claims all of the benefits of the container port to justify itself. The container port, however, could live with the existing channel if it had to. Nevertheless, the channel deepening depends on the larger container port action for its justification, and that is why it is deemed a connected action with the container port under the regulations.

The no action alternative to the connected action neither deepens the channel nor builds any port facilities on the bayshore and uplands. Action alternatives to the connected action involve various reasonable and feasible combinations and locations of channel deepening (including none) and port facilities (including none). Clearly, the agency can eliminate the deeper channel-but-no container port alternative early on, if the facts support that decision. But deeper channels, combined with container ports of varying extent and location, certainly merit further analysis. So does not deepening the channel but still building the port—just not as the no action alternative.

What was a single, unconnected federal action with a scope limited to aquatic environment impacts from dredging and dredge disposal becomes a connected action with a scope encompassing bayshore and upland impacts as well. This is as it should be, because the channel deepening lacks independent utility of its own. Without encompassing these bayshore and upland impacts that it depends on for its justification, the scope of the EIS would be artificially restricted to a level that does not reflect the action that is actually proposed. The case of *Sierra Club v. Sigler* in the Fifth Circuit holds exactly that.

It makes no sense, then, to redefine the scope of the action back to the aquatic environment, and assume the bayshore and upland impacts as a given in the alternatives analysis. The scope of the action has already been decided. The action is the connected action of aquatic environment plus bayshore plus upland, not simply aquatic environment. Stated differently, the action is the connected action of channel deepening and the container port development it depends on for its justification, not simply channel deepening.

To proceed otherwise requires reading the connected action test out of the CEQ regulations. That argument assumes that the differences here are solely semantic, and that the process of defining action, alternatives, and impacts with reference to one another has no meaning so long as a reasonable-looking outcome is achieved. If that were true, then the bayshore and upland impacts could just as easily be added into the cumulative impacts section, rather than considered as part of the no action alternative, *just as they would be in an unconnected single action*. That may be what Vulcan and some in the Federal government want. It is not what they are going to get.

2.0(c)(3) Application to Vulcan's facts

The facts of Vulcan's proposed rail line and planned quarry match the channel deepening hypothetical exactly. We repeat the analysis below.

Now, assume a proposed rail line in a rural area. The proposed line requires an EIS. A planned, but not yet proposed, quarry is found to be connected to it under the regulations. The rail line claims all of the benefits of the quarry to justify itself. The quarry, however, could live with the existing transportation network, namely roads, if it had to. Nevertheless, the rail line depends on the larger quarry action for its justification, Vulcan concedes as much, and that is why it is deemed a connected action with the quarry under the regulations.

The no action alternative to the connected action neither builds a rail line nor builds any quarry facilities. Action alternatives to the connected action involve various reasonable and feasible combinations and locations of rail lines (including none) and quarries (including none). Clearly, the agency can eliminate the rail line-but-no quarry alternative early on, if the facts support that decision. But rail lines, combined with quarries of varying extent and location, certainly merit further analysis. So does not building a rail line but still building the quarry—just not as the no action alternative.

What was a single, unconnected federal action with a scope limited to track-proximate impacts from rail construction and operation becomes a connected action with a scope encompassing quarry site impacts as well. This is as it should be, because the rail line lacks independent utility of its own. Without encompassing these quarry site impacts that it depends on for its justification, the scope of the EIS would be artificially restricted to a level that does not reflect the action that is actually proposed. The case of *Sierra Club v. Sigler* in the Fifth Circuit holds exactly that.

It makes no sense, then, to redefine the scope of the action back to the proximity of the track, and assume the quarry site impacts as a given in the alternatives analysis. The scope of the action has already been decided. The action is the connected action of trackside impact plus quarry site impact, not simply trackside impact. Stated differently, the action is the connected action of building the rail line and the quarry site development it depends on for its justification, not simply building the rail line. No action is something that is *not the action*, whether the action encompasses one or many constituent actions. It defies logic to define no action as part of the action itself.

2.0(d) No action – Legal analysis and further refutation of Vulcan’s argument

MCEAA recognizes that a large amount of potentially confusing guidance and case law exists on this point, since the principle that the no action alternative can include something that is *not the action* that would occur anyhow has been accepted in a number of single, unconnected action cases. To assist the agency, we discuss these cases and guidance.

2.0(d)(1) Question 3, CEQ’s Forty Questions

CEQ’s Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations, 46 Fed. Reg. 18026 (Mar. 23, 1981), presents an example in question 3 that seems at first to fit this situation exactly. It reads:

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.

Id. at 18027. Again, we cannot disagree. But the question clearly assumes that the facility already exists. The only action assumed in the question is that of constructing the rail line. No connected or cumulative actions intervene. This example provides no guidance beyond implicitly setting out the "either/or" proposition.

2.0(d)(2) Three cases applying the CEQ guidance.

The cases that have applied the CEQ guidance stand only for applying the either/or proposition to unconnected actions with independent utility. They provide no support for the proposition that an action can be redefined into one of its dependent parts when connected actions are involved.

In *Young v. General Services Administration*, 99 F. Supp. 2d 59 (D.D.C. 2000), the General Services Administration (GSA) planned to build two buildings for the U.S. Patent and Trademark Office in Alexandria, VA. No connected actions were involved in the construction. The GSA found that it was reasonably foreseeable that the land, owned

by a private developer, would be developed privately if the government did not build on it. Therefore, the no action alternative assumed private development. This was perfectly reasonable.

Young borrowed most of its analysis from two earlier cases. In *Nashvillians Against I-440 v. Lewis*, 524 F. Supp. 962 (M.D. Tenn. 1981), the no action alternative to a major interstate project assumed the resurfacing of city streets that would need to occur if the interstate were not built. The interstate was not connected in any way to the resurfacing. Both projects would have independent utility, but only one would occur, as the interstate necessarily foreclosed any need to resurface city streets. Here, the quarry does not foreclose any need for the rail line; in fact, it creates the justification.

Nashvillians makes clear that a "do nothing" alternative was discussed. *Id.* at 988. "The FEIS examined in detail a 'no build' alternative which involved not building I-440. . . ." *Id.* This alternative was a sufficient no action alternative because it reasonably included something that was *not the action* (i.e., resurfacing city streets) that would occur anyhow, but did not include any part of the action (building I-440) itself.

The plaintiffs in *Nashvillians* wanted a reasonable no action alternative to be defined as one where nothing occurred. We are not saying that no action means this. We are only saying that no action cannot include any part of the action, and that the no action alternative to the connected action neither builds a rail line nor builds any quarry facilities. No action can mean doing something else that is not part of the action if the facts justify it.

Young also relied on a second case, *Communities, Inc. v. Busey*, 956 F.2d 619 (6th Cir. 1992). In that case, the FAA evaluated a proposal of a regional airport authority to proceed with an airport expansion. The city of Louisville had urban renewal plans that involved both condemnation and purchasing from willing sellers in three neighborhoods near the airport. The court found that these actions were not connected to the airport expansion, and that the city's plans to condemn the neighborhoods had independent utility. *Id.* at 626-27. Consequently, it was proper for the FAA to assume that the neighborhoods would no longer exist in the no action alternative.

The independent utility of the city of Louisville's plans make them the complete opposite of the proposed rail line in this proceeding, which depends on the quarry for its justification. The authority of the city to act independently in this manner is completely distinct from whether a private entity such as Vulcan may assume part of its own connected action as the no action alternative.

2.0(d)(3) Piedmont Heights Civic Club

Most of the remaining basis for Vulcan's position comes out of *Piedmont Heights Civic Club, Inc. v. Moreland*, 637 F.2d 430 (5th Cir. Unit B 1981). Like the three cases above, it stands only for the general principle that a no action alternative can reasonably include something that is not the action but which will occur anyhow.

Piedmont involved three segments of the Atlanta freeway system with independent utility. These three segments were part of a regional transportation plan that was previously determined, in *Atlanta Coalition on the Transportation Crisis, Inc. v. Atlanta Regional Commission*, 599 F.2d 1333 (5th Cir. 1979), to not require a comprehensive EIS within the holding of *Kleppe v. Sierra Club*, 427 U.S. 390 (1976), because the elements of the plan had not ripened into concrete proposals for major federal action. *Piedmont*, 637 F.2d at 438. This sort of programmatic ripeness analysis is what we recognize today as the holding of *Ohio Forestry Association v. Sierra Club*, 523 U.S. 726 (1998).

It is important to note that none of these cases displace the connected or cumulative action tests in the CEQ regulations. Had certain elements of the regional transportation plan been concurrently proposed, they may have been cumulative actions. Had the segments not had independent utility, they may have been connected actions. But they were neither of these things.

The plaintiffs in *Piedmont* argued that the EIS should have considered the MARTA transit system as an alternative to the highway segments. But the court found that MARTA would occur anyhow, was part of the baseline analysis, and "amounted to a 'no-build' alternative." *Piedmont*, 637 F.2d at 437. The highway segments would be needed with or without MARTA, and "complemented the system," clearly indicating that the segments and MARTA each had their own independent utility. *Id.* at 438. A similar finding of independent utility for a transit system and highway was made in *Movement Against Destruction v. Volpe*, 361 F. Supp 1360 (D. Md. 1971).

At no time in *Piedmont* does the court ever say that a connected action can be redefined into constituent parts, where one part serves as the no action alternative.

Vulcan likely relies most heavily on this statement:

However, NEPA does not require an agency to restate all of the environmental effects of other projects presently under consideration. Where the underlying database includes approved projects and pending proposals, the "statutory minima" of NEPA has been met.

Piedmont, 637 F.2d at 441. By "approved projects," the court means MARTA. By "pending proposals" the court means other highway projects in the regional transportation plan. *Id.* at 442. All of these actions have independent utility. The court's statement simply cannot support Vulcan's desired result for a connected action.

Even the dissent in *Piedmont* does not reach the result desired by Vulcan. The dissent would have considered the highway segments as connected actions, but not MARTA. *Piedmont*, 637 F.2d at 443-45. The dissent disagrees with whether MARTA was actually considered as an alternative, no action or otherwise. However, it does not contest the majority's finding that MARTA could have been used as the no action

baseline because it had independent utility, even though the dissent notes that MARTA might have been affected by the highway segments. *Id.* at 444.

2.0(d)(4) Additional cases

Additional cases still do not support the proposition that Vulcan urges, because none of them apply to connected actions or stand for the principle of defining the no action alternative as part of the action itself. *City of Olmstead Falls, Ohio v. FAA*, 292 F.3d 261, 271 (D.C. Cir. 2002) (21 projects with independent utility were properly considered part of the baseline “no action/no-build” alternative); *Grand Canyon Trust v. FAA*, 290 F.3d 339, 343, 347 (D.C. Cir. 2002) (FAA’s failure to establish a natural, airport-free baseline noise level in the EA was a failure to evaluate past, present, and future reasonably foreseeable impacts for the EIS-threshold cumulative significance determination; no related actions were involved); *Custer County Action Association v. Garvey*, 256 F.3d 1024, 1037, 1040 (10th Cir. 2001) (Air National Guard’s existing flight patterns could be considered the no action alternative for new flight plan, where new plan had independently utility and was not connected action).

MCEAA also notes that in *Dakota, Minnesota, and Eastern Railway Co.—Construction into the Powder River Basin—Finance Docket No. 33407*, STB considered what was clearly a two part connected action: reconstruction of part of an existing track that would only occur if new construction also occurred. In the EIS for that proposal, the no action alternative neither reconstructed the existing track nor added new construction.

2.0(e) No Action – STB’s duty to consider alternatives outside of its jurisdiction

Vulcan’s attempt to avoid alternatives and direct effect analysis for the quarry cannot be justified by the fact that the STB lacks direct jurisdiction over the quarry site. By defining a truck-served quarry as no action, Vulcan seeks to avoid discussion of any other quarry site alternatives that may arise during the environmental review, including alternative configurations and phasing at the current site. STB must consider the effects of such alternatives. In *NRDC v. Morton*, 458 F.2d 827, 834 (D.C. Cir. 1972) the government’s contention that “the only ‘alternatives’ required for discussion under NEPA are those which can be adopted and put into effect by the official or agency issuing the statement” was expressly rejected. While other holdings of *Morton* have been called into question, this one endures. *City of Alexandria v. Slater*, 198 F.3d 862, 868 (D.C. Cir. 1999).

2.1 Purpose and Need

MCEAA understands that Vulcan is entitled to some deference in its quarry site selection. The rock is not going to move; we understand that. Still, Vulcan should be required to disclose the financial dependence of the rail line on the quarry. When will the quarry generate sufficient volume to justify the economy of scale that rail provides? When will rail first become a profitable way to ship? When will rail’s profitability exceed that of trucking? When, if ever (and particularly in the maximum production

phases), is rail necessary to make the quarry profitable? Answers to these questions should be provided in terms of planned quarry phases.

2.2 Requested alternative for consideration

In view of the above evidence presented, other alternative rail routes should be considered. For example, the Galveston, Houston, and San Antonio (GH&SA) Railroad was built in 1911 for the purpose of facilitating the construction of the Medina Dam. This rail line began at Dunlay, near the origin of the proposed and alternative #3 rail lines. It traversed north over level terrain, and avoided the major part of the Quihi Creek and its floodplain. This route passes near the proposed quarry site.

This route has several advantages over all of the routes presented by SGR for consideration to the STB. It avoids the main portion of the Quihi Creek floodplain and its artesian creek beds, the floodplains of the Cherry and Elm Creeks, thus fewer trestle bridges would be needed. It also avoids the historic areas of Quihi, the Texas Heritage Lands, and for the most part the major areas of buried artifacts.

This route crosses fewer roads. It crosses CR 445, CR 4643, CR 4516, CR 265, and FM 2676. (This does not include the eastern part of CR 4512. This portion of CR 4512 has been unused for the past 5 years and is inactive.) Crossings of FM 2676 and CR 4516 could be located for a more suitable crossing from a safety standpoint, with a better visualization of the crossing from these roads. Although this route is somewhat longer and involves more property owners, some of these property owners are known to favor the quarry and would be expected to be in favor of the railroad on their property. Additional alternative routes should be accepted or rejected on their own merits.

MCEAA requests that the old Medina Dam route be evaluated with the assumption that a grade separated crossing will exist across U.S. 90. This is the applicant's chief complaint about this route, because it would add cost. The cost of the construction of this route, or a variation of this route, should be compared to the costs of the proposed route. Cost alone is not a sufficient justification for the elimination of this alternative, at least not without a showing from the applicant of the type described in section 2.1, of the financial relationship between the quarry and the rail line. It is a feasible route.

2.3 Selection of rail alternatives

In selecting and eliminating alternative rail line routes, STB should aim for avoidance of flood impacts, not simply avoidance of the floodplain. The flood impact analysis should be an integral part of the elimination of alternatives from consideration, rather than attempting to use the floodplain map as a proxy before any analysis occurs. As discussed in our scoping comments on flooding, floodplain maps may be out of date and inaccurate, and simply selecting a parameter such as "floodplain width" to justify elimination of a route may not be reasonable without modeling.

3.0 DIRECT EFFECTS

In the direct effects analysis of both the quarry and the rail line, STB must ensure that the contractor is held to a high standard of detailed review and disclosure. Vulcan has done its own cursory studies for five years, hoping for an EA. This EIS must not simply slap together the reports that Vulcan had hoped to place in an EA.

3.1 Flooding

Residents of the project area have been most concerned with flood impacts, and with good reason. Flash flooding in Medina County is common, as are sustained flood events. Just over a year and a half ago, rivers crested at record levels in June of 2002 as accumulations totaled between 40 and 45 inches during a week-long set of storms. The Medina Dam was almost overtopped during this event. On August 1-2, 1998, during a 24-hour period, 32 inches of rain were recorded at Medina, in nearby Bandera County. The U.S. record for extreme point rainfall in a 72-hour period is held by Medina—48 inches during Tropical Storm Amelia in 1978. See U.S. Geological Survey Open File Report 03-193, "Major Catastrophic Storms and Floods in Texas," available at <http://www.floodsafety.com/USGSdemo/25ormore.htm> (last visited Feb. 22, 2004).

Accumulations of 6-9 inches in 6 hours or less leading to flash flood events occur almost annually and can be verified with rainfall data from the National Weather Service's San Antonio office. Even a few inches of rain over 1-3 hours can cause a flash flood. Additionally, the Edwards Aquifer Authority contracts with the South Texas Weather Modification Association (830-569-4186) to conduct cloud seeding year round in Medina County.

To reasonably evaluate the impacts of the quarry and rail line on flash flood and longer term flood events, STB should proceed through the following analysis:

3.1(a) Identify where flooding impacts may be exacerbated.

3.1(a)(1) Impacts from the quarry

The quarry's chief impact will be alterations of, and additions to, runoff flows. The EIS must disclose where these will occur.

- What is the buffer plan for the streams in each phase?
- Will any streams be filled at the quarry?
- How will drainage be handled from the excavated areas of the quarry?

Flood modeling for the quarry, discussed below, will then answer the following questions:

- What will be the flooding impact of increased runoff entering the streams from the quarry?
- Is the construction of a detention pond at the quarry site to decrease peak flood flows a necessary or appropriate mitigation tool?

3.1(a)(2) Impacts from the rail line

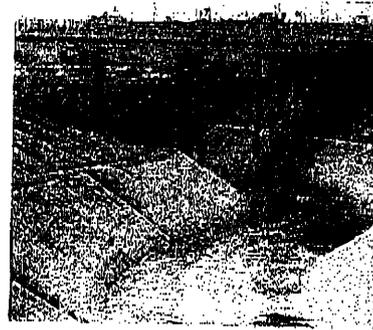
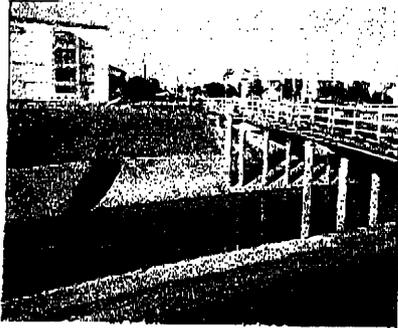
The trestle bridges proposed at the creek crossings of the rail line alternatives represent a severe flood increase hazard. This hazard has been absurdly dismissed as "overstated and unsupported" by SGR's Washington lawyer, who knows nothing about flooding, and some discussion of why these bridges will pose a severe hazard is in order. See Letter, David H. Coburn, Steptoe & Johnson LLP, to Victoria J. Rutson, STB-SEA 4 (Jan. 5, 2004) (Document EI-423).

Waterborne debris, composed primarily of tree trunks and limbs, often accumulates on bridges during flood events. Debris accumulations can obstruct, constrict, or redirect flow through bridge openings resulting in flooding, damaging loads, or excessive scour at bridge foundations. The size and shape of debris accumulations vary widely, ranging from a small cluster of debris on a bridge pier to a near complete blockage of a bridge waterway opening. The following picture, taken in 1999 along Clear Creek in Brazoria County, Texas, illustrates the nature of the problem.



This trestle bridge was severely damaged in the 2001 floods associated with Tropical Storm Allison, which produced less rainfall in the Clear Creek watershed than commonly occurs in flash-flood generating events in Medina County.

Even if Vulcan were to take responsibility for channel maintenance around the proposed trestle bridges, that may not eliminate the problem. These two bridges in Houston along Brays Bayou are being replaced along with 12 others simply because they back water up significantly during flood events to generate results shown in the third picture.



Vulcan also seems to believe that the type of bridges it will build, and how it will build them, are questions that can wait until after the EIS.

The question of whether pile drivers will be used or not, as opposed to several other construction alternatives that might be available for use, will have to await a more complete engineering assessment by SGR, which would take place only after any final STB approval.

Letter, David H. Coburn, Steptoe & Johnson LLP, to Victoria J. Rutson, STB-SEA 4 (Jan. 5, 2004) (Document EI-423). This is obviously not true considering that pier placement and the design of the trestles is going to be *the* issue that controls the flood impact of the bridges.

3.1(a)(3) Impacts from both the quarry and the rail line

Increased flooding impacts from the quarry upstream will be compounded downstream by the bridges. Part of the purpose of analyzing these connected actions

side-by-side is to enable the subsequent determination of connected impacts. The cumulative flood impact may be significant and should be evaluated as it would be for the direct impacts.

3.1(b) Model the impacts on project area subwatersheds

Once the potential impact sources have been identified, their impact should be modeled using modern hydrologic methods, explained below.

3.1(b)(1) Select a modeling method for the watershed and its subwatersheds

This is by far the most important step in the modeling process. It is important that the applicant choose a competent engineering contractor familiar with the South Central Texas region for this part of the EIS.

At a basic level, flood modeling consists of the following steps:

- *A basin model*

First, the watershed must be defined, along with all of its parameters, including runoff coefficients, channel roughness, and infiltration loss.

- *A design rainfall*

This is a statistical rainfall, most accurately obtained from NEXRAD radar data from the local National Weather Service office, since the creeks involved in this project likely do not have rain gauges nearby. It is a statistical level of rainfall over a given time span. Appropriate rainfalls to model for the quarry and rail line include those for the 10 and 100-year flood events for a short (such as 6-hour) and longer (such as 24-hour or greater) time span.

- *A runoff output*

The two elements above are combined to generate runoff from the entire watershed routed through each reach of the watershed.

- *A water surface elevation*

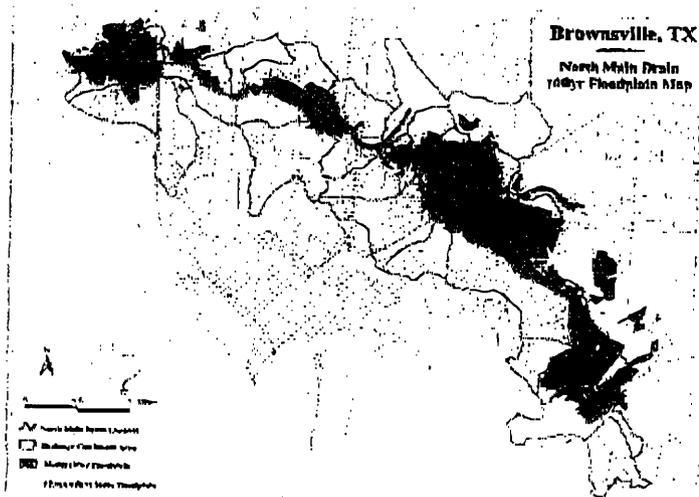
Cross sections of the stream channel at given points are combined with the runoff output in a hydraulic model to determine how high the water surface elevation will be at those points of the stream, which is then extrapolated for the remaining points. In the past, these cross sections were surveyed manually, and accuracy was compromised on streams with few such cross sections. Today, digital topography information makes the output much more accurate.

- *Floodplain analysis*

The water surface elevations can be combined with other topographic information to generate a floodplain for a given design storm. Again, digital information has made this easier.

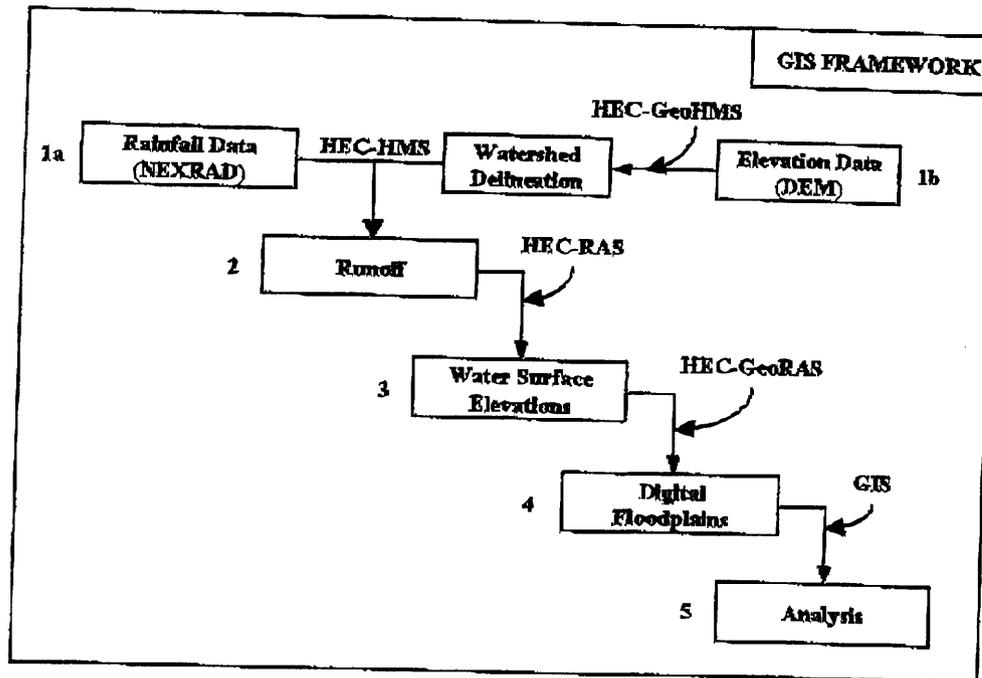
Overall, hydrology and flood modeling have been completely revolutionized since the introduction of NEXRAD radar data in 1994 (available from the local National Weather Service office) and since the introduction of Geographic Information System (GIS) technology in the mid-1990s. With the advent of applications, updates, and tools that linked the U.S. Army Corps of Engineers flood modeling software to these new technologies, flood modeling changed forever.

Therefore, certain methodologies are no longer reasonable or appropriate to evaluate flood impacts. The Corps' HEC-1 hydrologic model, for instance, has been replaced by the HEC-HMS (Hydrologic Modeling System) model. The Corps' HEC-2 hydraulic model has largely been supplanted by HEC-RAS (River Analysis System) to calculate water surface elevations and account for structural effects like bridges. The FEMA floodplain maps for Medina County, while not directly relevant since the impacts of the new project structures will have to be modeled regardless, have not been updated since August of 1980. The location of structures inside or outside of these floodplains should not be used as a shorthand to cut off further analysis. While development in the area may not have increased significantly since that time, STB should anticipate somewhat different results from the floodplain maps simply due to advances in modeling technology alone. One such example of the difference between the new and old models appears below.



Modeled 100-yr floodplain (blue) combined with the FEMA map 100-yr floodplain (green).

We suggest the following framework of analysis:



This framework is essentially the industry standard, certainly in Texas. It is being used by the U.S. Corps of Engineers, which developed most of its elements (http://www.crwr.utexas.edu/gis/gishydro99/hecesri/hec_esri.htm), on flood control projects nationwide, including along Clear Creek in the Galveston District (<http://www.clearcreekproject.com/objects/report.html>). It is being utilized by the Harris County Flood Control District along with LIDAR (state of the art aerial laser technology that we are obviously not calling for here) to resurvey all of the floodplains in Harris County after Tropical Storm Allison (http://www.tsarp.org/tsarp_over/index.html). It is being used on a neighborhood scale in communities like Brownsville, Texas (<http://hydrology.rice.edu/nmd/methodology.htm>). And, because it is a scalable methodology, it performs equally well at the subwatershed and watershed levels.

To delineate the watershed and establish the basin model, elevation data will be required. This data is contained in Digital Elevation Models that exist for the entire United States at varying levels of resolution. Free data for Medina County is available at 30m resolution, and much more accurate 10m and 1m data is available commercially. Given the small area covered by this project, obtaining this data should not be a problem. The HEC-GeoHMS applet, available for free from the Corps and for use with HEC-HMS, translates this digital data into watershed parameters for input into the hydrologic model.

Next, the appropriate design storms should be selected. NEXRAD rainfall data for these storms should be obtained from the local National Weather Service office

and/or website. Because few gages exist in this part of Medina County, this data is important to accurately reflect the distribution of rainfall over the watershed.

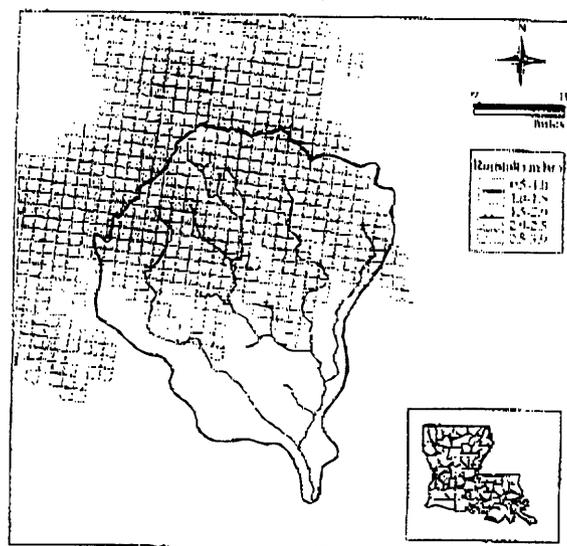
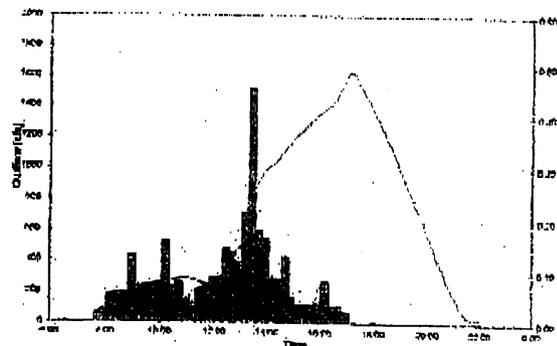
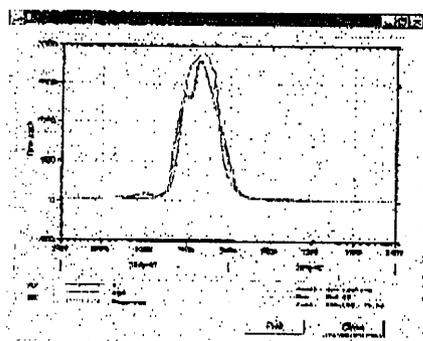


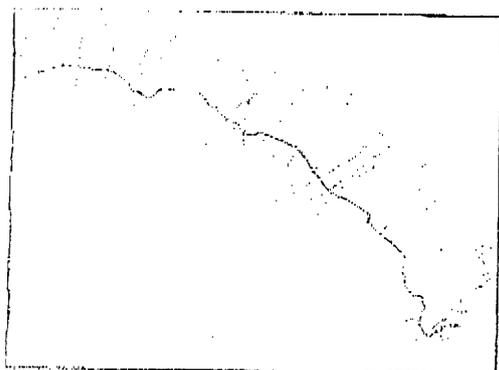
Figure 1.10
Typical NEXRAD radar rainfall data.

Once the input assumptions have been established, they should be disclosed in the EIS. This is very important since there are a number of different hydrograph and routing methods that are available in HEC-HMS. The assumptions disclosed in the EIS should allow an individual to run HEC-HMS and reach the same result. Particularly important are any adjustments. The model should also be calibrated before it is run.

Hydrographs for key points should be included in the EIS, as well as an overlay between the design storm(s) data and the resulting hydrograph.



In determining the water surface elevations, a wide variety of geometric data should be used to determine stream channel geometry as accurately as possible. Some of the potential inputs are shown below.

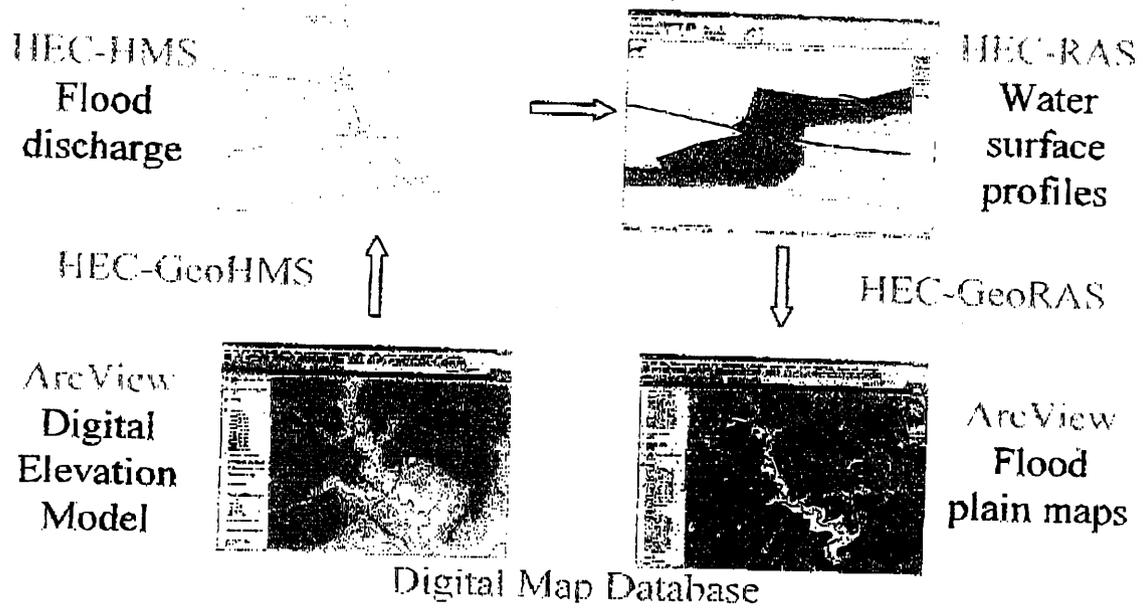


The HEC GEO-RAS applet, also available for free from the Corps of Engineers, enables HEC-RAS cross sections, reach lengths, and roughness values to be extracted from GIS data. Cross sections can be extracted from a TIN, which is a digital representation of terrain. The TIN is created within a GIS utility from a digital elevation model. The cross section alignment layout can also be created by drawing sections in ARC-VIEW.

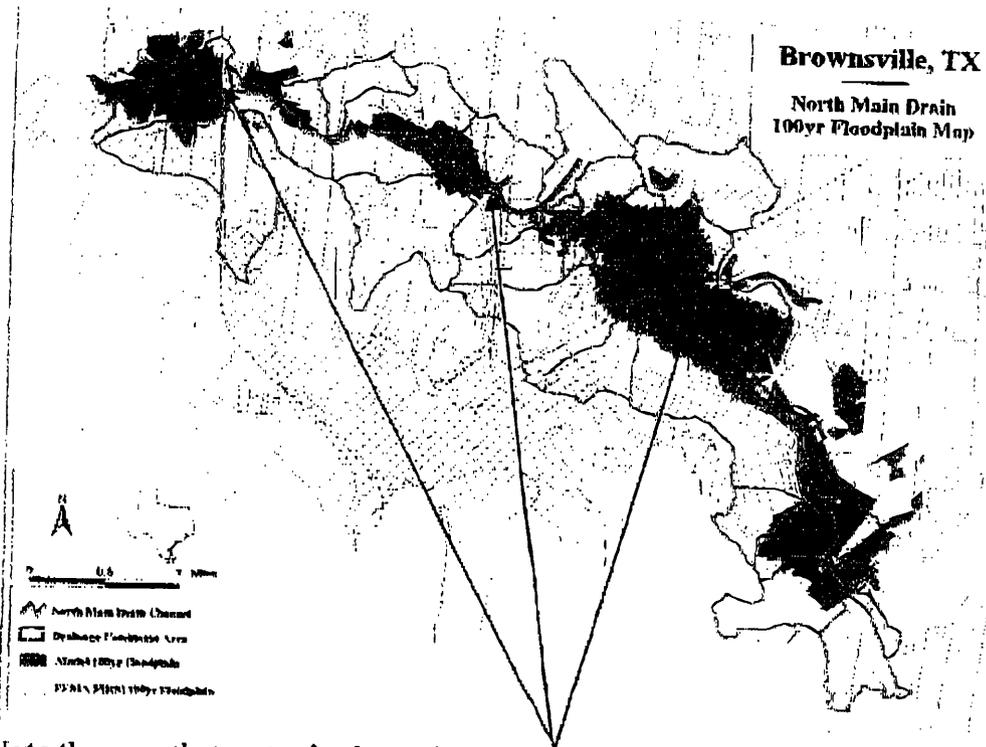
The HEC GEO-RAS cross section creation process generally resulted in sections exceeding a 500-point limit in HEC-RAS. A filter tool in HEC-RAS eliminates unnecessary coordinates from the section according to user specified tolerances. Filtering can be minimized so that the section will maintain a high density of coordinates. The filtering tool in version 3.2 of HEC-RAS does not specifically preserve roughness boundaries, therefore it is desirable to maintain as many coordinates as possible so that roughness boundaries along the channel are not distorted excessively.

The final step is the analysis of impact. Starting with the no action baseline, the digital floodplain outputs can be overlain onto structure locations and aerial photography (digital orthoquads) to accurately determine the extent of existing flood impacts. As discussed in the next section, the impacts for action alternatives can then be modeled and compared in subsequent runs.

Review of the Process



The Final Product



Note the way that water backs up behind three railroad trestle bridges in ways not accounted for on the existing floodplain map.

3.1(b)(2) Analyses of action alternatives

Assumptions for subsequent modeling runs with the action alternatives must be disclosed in the DEIS. In particular, changes in overland flow rate and quantity due to the quarry will depend on a number of assumptions about the impacts on land cover and infiltration that the quarry will have and how its drainage will occur. These changes will primarily affect the hydrologic model (HEC-HMS). Similarly, the bridge effects will primarily affect the hydraulic model (HEC-RAS) and the set of assumptions used there will need to be disclosed. Obviously the bridge effects analysis will need to assume an appropriate level of quarry operations if a particular bridge is located further down in a watershed or subwatershed affected by the quarry.

3.2 Air

From a health effects standpoint, the most severe impact associated with this connected action will come from coarse (PM10) and fine (PM2.5) particulate matter. Both types of particulate matter will be generated during quarry operations (treating the "construction" of the quarry as part of its operation, which, with the exception of structure and road building, it is) and during rail construction and operation.

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The planned 1,760-acre quarry will be, as we understand it, the largest quarry in the San Antonio area and will far exceed Vulcan's other area quarries. This a quarry for the next century and its particulate matter emissions will be commensurate with its scope.

In 1997, EPA set a national standard for fine particulate matter that has been judicially upheld and repromulgated. However, in this case, it is not whether the national standard will be exceeded that is important. Since that time, the scientific evidence has advanced even further, beyond the findings that justified EPA's initial decision to set a national standard for PM 2.5 in 1997. The primary issue of increased mortality and health effects due to fine particle air pollution is settled within the scientific community. The research focus has now shifted to identifying which components of fine particle air pollution do the most damage. Therefore, it has required more intensive laboratory study to determine which constituents of particulate matter do the most harm to which internal system.

In a 1998 Sonoma Technology Corporation Report for the City of Houston, Dr. Michael T. Kleinman of the University of California, Irvine, identified two areas of unsettled research at the time. First, he noted "there is also some agreement that exposure to air pollutants at high concentrations can directly or indirectly affect people's hearts." A 2002 article in the *Journal of the American Medical Association (JAMA)* points to the settlement of this issue for particulate matter over the long term. The article concludes:

Long -term exposure to combustion-related fine particulate air pollution is an important environmental risk factor for cardiopulmonary and lung cancer mortality

C.A. Pope III et al., *Lung cancer, cardiopulmonary mortality, and long-term exposure to fine particulate air pollution*. 287 JAMA 1132-41 (2002).

The other important issue for health effect purposes today is the size of the incremental increase in particulate matter concentration. Dose-response studies indicate significant adverse cardiopulmonary effects from even small incremental increases in particulate matter.

Furthermore, it is near certain that localized exceedances of the national standards may occur for periods sufficient to generate acute and long-term health effects, and perhaps even increased mortality rates, during these projects. The only real question involves how far these localized exceedances will extend. Medina County obviously has no monitoring system of its own. The citizens of Medina County are entitled to find out what these impacts will be and how far from the quarry site and rail line they will travel.

3.2(a) Computerized grid modeling must occur for both the quarry and the rail line

Using an approved modeling program, the EIS should model PM10 and PM2.5 for the quarry and rail line. These two classifications of PM are different, but one is a

subset of the other, so it is understandable to wish to model them together. If that is the case, the EIS must disclose the fraction of each PM type arising from the rail line and the quarry and the basis for that determination.

Baseline emissions will consist mainly of biogenic sources and atmospheric particle formation from those sources. During the modeling:

- The quarry should be treated as an "area source"
- The rail line should be treated as a line source or series of point sources

The EIS must account for all sources during:

- Rail line construction
- Quarry site construction and excavation, which will add to quarry operations
- Quarry operations, including trucks, the crusher, loading trains and trucks, and road dust

The EIS must also include atmospheric particle formation may occur from reactions with volatile organic compound (VOC) emissions from the quarry and rail line construction and operation in its calculations. This increment may or may not add sufficiently to the direct emissions to make them more significant.

All modeling results should be presented graphically in the EIS, preferably in the form of grid outputs or isolines of PM concentration. All assumptions used in the model should be disclosed, particularly the emissions from each source and the way in which quarry phasing increases emissions. Modeling results from the quarry and the rail line should be added and disclosed as the cumulative impact for the action alternatives.

STB cannot wait for the state to analyze these impacts in the state permit process. It must disclose them now in the EIS.

3.2(b) Off-site impacts

The state of Texas does not regulate particulate emissions from uncovered rail cars. These emissions have the potential to add to or create localized particulate matter health effects for those regularly exposed to them. Unregulated particulate emissions from rail cars should be analyzed as follows:

- A general emission rate per carload per rail mile should be calculated
- A general emission rate per carload when the train is stationary should be calculated

3.3 *Wetlands*

STB should disclose and map both the jurisdictional and nonjurisdictional wetlands in the area of each action alternative. It should also disclose the volume and area of, as well as map the stream fills necessary for bridge construction. The entire wetland delineation should be included as an appendix in the EIS.

3.4 Wildlife

MCEAA incorporates by reference its February 19, 2004 letter to Victoria J. Rutson, Chief of the Section of Environmental Analysis, concerning the required analysis under the ESA that Vulcan has not yet conducted. MCEAA reiterates its conclusion in that letter—which is shared as a policy by the U.S. Fish & Wildlife Service and which the service placed Vulcan on notice of at least three years ago—that three years of focused counting at Phases 2-5 of the quarry site, as well as for the rail line alternatives, is necessary before a valid Biological Assessment (BA) can be published and included with the EIS.

No monitoring has yet been done for any of the rail line alternatives. Three years of monitoring is required for a BA on the quarry site and for these alternatives, and no BA will be complete until that monitoring occurs. The ESA requires this monitoring for two reasons. First, we know that impacts on endangered species will occur as soon as construction begins, not when a given phase is reached. Second, the law requires disclosure of indirect as well as direct impacts from the action under consideration. *National Wildlife Federation v. Coleman*, 529 F.2d 359 (5th Cir. 1976).

The BA must be included in the EIS so that the public can comment on it.

STB must also look more broadly than the ESA and indicate what plant and animal species are actually present in the project area, as opposed to simply being or not being on a list in an agency office. MCEAA encourages particular focus along streambeds and in riparian areas, in bridge construction areas, where small plant and animal species may emerge only briefly, during and after rainfall events. What is actually going on in these areas is not likely to be on a list and underpins the natural systems that we do know more about.

3.5 Noise

The STB knows how to do a noise analysis for rail. Recent court cases have further instructed it. It is the quarry, however, that presents the real issue here. Given that the quarry will face south (towards residences), it is highly likely that blasting will be audible to these receptors. To do a complete noise analysis, STB must determine:

- When are the operations going to occur for quarry and rail (day or night?)
 - Apply the nighttime weighting penalty if operations will occur at night
- Take background measurements on land crossed by rail alternatives and outside of the “buffer area” properties proposed by Vulcan
- Locate all noise receptors (i.e. residences)
- Do computer modeling of noise from both the quarry and rail line
 - Account for all sources during rail line construction
 - Account for all sources during quarry construction and excavation, which will add to quarry operations

- Account for all sources during quarry operations, including trucks, the crusher, and loading trains
- The results should be added and disclosed as the cumulative impact
- Results should be presented graphically in the EIS
- All modeling assumptions must be disclosed in the EIS
- All mitigation or lack of mitigation decisions must be fully explained and justified

3.6 Environmental Justice

Census 2000 data indicates that Medina County is 45.5% Hispanic. A detailed environmental justice analysis for each alternative must appear in the EIS.

3.8 Cumulative impact: Rail operations

- Will traffic be switched when it reaches the UP main line?
 - If so, where?
 - If not, will the trains operate directly to their final destination?
- Whether or not trains will operate directly to their final destination, or will be switched, the following specific disclosures for the Houston region, a region of severe rail traffic problems, must be made:
 - Is the final destination a rail yard or transloading facility where the aggregate is offloaded onto trucks?
 - If yes, where are these facilities in the Houston region?
 - If no, where are the locations that this aggregate is offloaded in the Houston region?
 - What is the rail traffic impact on the Houston lines that these trains will have to operate on to reach their final destination?
 - These impacts on the rail system are not speculative.
 - Even though Houston has a rail traffic control system that routes traffic to varying lines, the capacities of these lines are known to STB.
 - What will be impact on the capacity of these lines from the rail traffic in this proceeding and from other reasonably foreseeable future actions?
 - What will be the road traffic impact from this proposal's additional rail traffic in Houston, when combined with other reasonably foreseeable future actions, at least for the initial years of quarry operations?
 - Based on the air quality analysis for off-site particulate emissions from rail cars, what is the increment of particulate emissions increase in the Houston area?
 - Is the carrier of these cars prepared to comply with Houston's nonattainment plan provisions relating to railroads?
- Will rail cars of any type (particularly hazardous materials) be stored anywhere along the proposed rail route?