Title: Alternatives
Date: August 2016
SOP No.: 5
Issued by the Office Planning and Environment (TPE)

1. Purpose

This document provides guidance on the identification, development, and evaluation of alternatives in the environmental review process.

2. Applicability/Scope

The consideration of alternatives may occur during transportation planning or the environmental review process. This SOP focuses on alternatives development in the environmental review process but recognizes that the results of prior planning work may be incorporated into the environmental review process.

The Council on Environmental Quality (CEQ) implementing regulations at 40 CFR 1502.14 state that the evaluation of alternatives is the heart of the environmental document, and that FTA must:

- Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives eliminated from detailed study, briefly discuss the reasons for their having been eliminated;
- Include the alternative of no action; and,
- Include appropriate mitigation measures not already included in the proposed action or alternatives.

3. Responsibilities

FTA Regional staff ensures the description of alternatives is appropriately drafted and that the alternatives are developed in enough detail to evaluate the impacts of each alternative. Regional staff, working closely with the project sponsor and any other agencies covered by section 4.2.1 (below), will ultimately decide the project alternatives to carry forward into the environmental document.

4. Standard Procedures

4.1. Define alternatives. At the start of scoping, FTA and the project sponsor should propose a set of alternatives to be evaluated in the environmental document based on the project's purpose and need and the alternatives developed during the transportation planning process, if applicable. Through the scoping process, FTA and the project sponsor can validate the elimination of alternatives made through prior planning studies. Additionally, FTA may identify new alternatives designed to eliminate or reduce environmental impacts or to better meet the purpose and need. FTA Regional staff must ensure that a discussion of alternatives is included in each environmental assessment (EA) or environmental impact statement (EIS), as required by 42 U.S.C. §4332(2)(E) and as defined in 40 CFR 1508.9(b). Additional guidance is also found in the *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act (NEPA) Regulations*, Questions 1a (Range of Alternatives) and 36a (EAs). The types of alternatives identified in an environmental document are as follows.

- The **No Action/No Build Alternative** typically includes improvements already committed to in transportation plans and regular maintenance of the transportation infrastructure. The No Build Alternative does not contain the proposed action in its definition, but must be included in the range of alternatives under consideration (see 40 CFR 1502.14).
- The **Build Alternative(s)** is a proposed course of action in meeting the project's purpose and need.
- The **NEPA Preferred Alternative** is the alternative identified as the favored course of action by the lead agency(s) during the environmental review process.
- The **Environmentally Preferred Alternative(s)** is a record of decision (ROD) requirement and must be identified in the project's ROD, per 40 CFR 1505.2(b); it does not apply to other classes of action. In the ROD, FTA must identify all alternatives considered for the project and specify which of the alternatives were considered to be environmentally preferable.

4.2. Considerations for developing alternatives.

4.2.1. Other laws requiring the evaluation of alternatives. Other environmental laws, regulations, and Executive Orders (e.g., Endangered Species Act, the Floodplain Management Executive Order 11988, as amended; Section 4(f) of the U.S. DOT Act; Section 106 of the National Historic Preservation Act; and Section 404 of the Clean Water Act) can influence a project's development and evaluation of alternatives. Per 23 U.S.C. § 139(d)(8)(B), to the maximum extent practicable, the lead agency must develop an environmental document sufficient to satisfy the requirements for any Federal approval or other Federal action required for the project, including permits issued by other Federal agencies. Alternatives developed to comply with these other environmental requirements, when applicable, should be evaluated or identified in the EA or EIS, and FTA must coordinate the development of the purpose and need and alternatives with other Federal agencies that have jurisdiction under those laws (23 U.S.C. § 139(d)(8)).

4.2.2. Prior planning study. Prior planning studies and results can be used to narrow the range of reasonable alternatives. FTA Regional staff should ensure that prior planning followed the requirements under 23 CFR 450.318(a)-(c) when evaluating whether to incorporate the evaluation of alternatives conducted through prior transportation planning work into the environmental review process. Guidance on use of those provisions for bringing planning results forward into the environmental review process are outlined in Appendix A of 23 CFR part 450 – Linking the Transportation Planning and NEPA Processes. If FTA staff conclude that prior planning work can be utilized, then the planning studies should be incorporated by reference and copies of/links to the relevant planning documents should be available to the public throughout the environmental review process. FTA Regional staff should retain or archive the study(s) until construction is complete in the environmental project file.

4.2.3. Logical termini and segmentation. Pursuant to 23 CFR 771.111(f), in order to ensure meaningful evaluation of alternatives and to avoid commitments to transportation improvements before they are fully evaluated, the proposed alternatives must:

- Connect logical termini and be of sufficient length to address environmental matters on a broad scope;

- Have independent utility or independent significance (i.e., be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made); and
- Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

4.2.4. Scope of alternatives. FTA Regional staff should encourage project sponsors to develop "complete" alternatives. Depending on the project, Regional staff may ask the project sponsor the following questions:

- Would a new maintenance and vehicle storage facility or expansion of an existing facility be necessary for the project? If needed, where would traction power substations or converter plants be located?
- Where would stations be located and would they include buildings or bus shelters, bus bays, parking lots, and/or pedestrian improvements?
- How much space would be required for construction staging and what are the general locations for the staging areas (e.g., tunnel boring locations or sites for storing, staging, and pre-casting major guideway components)?

4.2.5. Consideration of alternatives outside FTA jurisdiction. CEQ states that an alternative that is outside the jurisdiction of the lead agency must still be analyzed in the EIS or EA if it is reasonable. This may preclude alternatives that have been eliminated from consideration during a planning process due to excessive costs (as compared to other comparably priced projects which meet the purpose and need), but FTA should consider an alternative that (1) is comparable to other alternatives in project cost and (2) meets the project's purpose and need, even if the alternative is outside the jurisdiction of FTA.

4.3. Determining range of alternatives.

4.3.1. Range of alternatives. The phrase "range of alternatives" refers to the alternatives discussed in environmental documents, per CEQ's "Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations" guidance (1981; see Q.1a). Ultimately what constitutes a reasonable range of alternatives depends on the nature of the proposal and the project's purpose and need statement.

FTA and the project sponsor should begin with a list of reasonable alternatives[1] that is comprehensive so as to not revisit the range of alternatives later. FTA Regional staff should also review the range of alternatives selected for evaluation, typically provided by the project sponsor, and decide whether alternatives should be added or removed from the

[1] Reasonable alternatives are economically and technically feasible, and can be implemented if they were chosen. Unreasonable alternatives may be those that are unreasonably expensive; that cannot be implemented for technical or logistic reasons; that do not meet FTA directives; that are inconsistent with carefully considered, up-to-date planning studies; or that have adverse environmental impacts that cannot be mitigated. Alternatives that do not resolve the need for the proposed action or fulfill the stated purpose in taking the proposed action should be eliminated as unreasonable before the environmental analysis begins.

proposed list of alternatives based on the project's purpose and need or other environmental laws/requirements.

4.3.2. Agency and public participation. FTA and the project sponsor must provide an opportunity for agency and public review and comment on the alternatives to be considered during the environmental review process (23 U.S.C. § 139(f)(4)), which typically occurs during public scoping. To the maximum extent practicable and consistent with Federal law, the range of alternatives developed with agency and public participation must be used for all Federal environmental reviews and permit processes required for the project unless the alternatives must be modified (1) to address significant new information or circumstances or (2) to fulfill the lead agency's or a participating agency's responsibilities under NEPA (see 23 U.S.C. § 139(f)(4)(B)).

Further review and comment on alternatives occur during the public circulation of the draft environmental document, at which point, the public and Federal, State and local agencies and interested tribal governments can comment on the evaluation of alternatives.

4.3.3. Dashboard. FTA must identify any participating agencies not participating in the development of the range of alternatives on the Federal Infrastructure Permitting Dashboard (Dashboard) per 23 U.S.C. § 139(o)(1)(A)(ii). FTA Regional staff includes the participating agency's identification after receiving written notice (e.g., email, letter) from the participating agency stating the agency does not wish to participate in determining the project's range of alternatives.

4.4. Evaluation of build alternatives. After identifying the alternatives to carry through the environmental review process, FTA and the project sponsor will:

- Conduct a thorough analysis of the alternatives;
- Compare the impacts, positive and negative;
- Be responsive to the values and concerns of the cooperating agencies, participating agencies, and the public; and,
- Document the decisions and ensure they are objective and meet the project's purpose and need.

4.4.1. Comparable level of detail. When evaluating alternatives, each build alternative (not including the No Action/No Build Alternative) should be developed to a similar level of detail to ensure a fair comparison among the alternatives. For example, if one alternative includes identification of station locations, then all build alternatives need to include identification of station locations. The level of design and engineering for each alternative should be consistent and include enough detail to be able to complete the environmental analysis and deliberate on an alternative's merit compared to another alternative.

4.4.2. Comparable level of detail exception. The preferred alternative may be developed to a higher level of detail to facilitate development of mitigation measures or concurrent compliance with other applicable environmental laws (e.g., Clean Water Act), pursuant to 23 U.S.C. § 139. If the preferred alternative is developed to a higher level of detail in the Draft EIS (DEIS) as compared to the other build alternatives, the FTA Regional staff must ensure the objective consideration of all alternatives, including the preferred alternative.

4.5. Identification of preferred alternative. Ultimately, the alternatives will be narrowed to the point that the lead agencies can identify the preferred alternative. FTA should identify the NEPA preferred alternative in the EA or DEIS, but no later than in the Final EIS (FEIS). Due to MAP-21 changes, namely the creation of the combined FEIS/record of decision (ROD) document, the NEPA preferred alternative should be identified in the DEIS in order to give the public and Federal, State and local agencies, and tribal governments an opportunity to comment on the preferred alternative prior to FEIS/ROD publication. When the DEIS does not include identification of the preferred alternative, the lead agency should give other agencies and the public an opportunity to provide input on the preferred alternative and its impacts either (1) by a separate notice announcing the preferred alternative (which was evaluated in the DEIS) when FTA still intends to publish a combined FEIS/ROD or (2) through review of an FEIS not combined with a ROD.

4.6. Consistent terminology. FTA and the project sponsor should ensure terms are used properly and consistently throughout the environmental document, including "No Action Alternative" or "No Build Alternative," "Build Alternative(s)," and "Preferred Alternative."

5. References

- Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations (CEQ, 1981)
- CEQ regulations implementing NEPA, 40 CFR parts 1500-1508
- Executive Order 11988: Floodplain Management
- Executive Order 13690: Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input
- FTA's Environmental Impact and Related Procedures, 23 CFR part 771
- Section 4(f) regulations, 23 CFR part 774
- Section 404(b)(1) guidelines, 40 CFR part 230

APPROVAL: _____

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