

ALTERNATIVES UNDER THE SECTION 404(B)(1) GUIDELINES

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OVERVIEW

Requirements – Permit Types

Developing Alternatives Information

Screening Criteria

Effects

Availability

Practicability

Overall Project Purpose

Tips for Preparing Alternatives Information



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SECTION 404(B)(1) GUIDELINES

Two Fundamental Decisions in Corps Regulatory Program:

- Is project contrary to the Public Interest?
- Does project comply with the Section 404(b)(1) restrictions on discharge?
 - The 404(b)(1) Guidelines are the substantive criteria used in evaluating discharges of dredged or fill material under section 404 of the Clean Water Act.



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SECTION 404(B)(1) GUIDELINES

Organization:

- **Preamble**
- **Subpart A** Policy, Definitions, Procedures
- **Subpart B** Restrictions on Discharge, Factual Determinations
- **Subparts C-G** Technical Evaluation Factors
- **Subpart H** Factors to Minimize Impact
- **Subpart I** Advanced Identification of Disposal Sites
- **Subpart J** Compensatory Mitigation

SUBPART B – RESTRICTIONS ON DISCHARGE

No discharge of dredge or fill material shall be permitted:

- (a) If there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem.**
- (b) Which causes or contributes to violation of state water quality standards, applicable toxic effluent standard or requirements to protect marine sanctuaries, or jeopardizes the continued existence of an Endangered Species or destroys or adversely modifies critical habitat.
- (c) Which causes or contributes to the significant degradation of the Waters of the United States
- (d) Unless all appropriate and practicable steps have been taken to minimize adverse impacts**



APPLICABILITY

Guidelines only applicable to activities under Section 404 of the Clean Water Act

- Section 10 of the Rivers and Harbors Act
 - Alternatives may still be required for Public Interest Review/National Environmental Policy Act Compliance

General Permits (NWP, RGP, PGP): Compliance with Guidelines completed when NWP, RGP, PGP is issued. Verification requires only compliance with terms/conditions.

- NWPs:
 - GC 23 (activities must be designed to avoid/minimize adverse effects)
 - SPK RC 1(a): complete PCN must include written statement describing how activity has been designed to avoid/minimize adverse effects to waters of the U.S.
- RGP/PGP:
 - most have requirement to avoid/minimize, may require written statement.

40 CFR 230.6(a), 230.7



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APPLICABILITY

Individual Permits (Letters of Permission/Standard Permits)

- Section 404(b)(1) Guidelines Alternatives information required for Section 404 CWA Activities
 - See Section 404 LOP Processes for California and Nevada.
- Analysis commensurate with impacts (RGL 95-01, 40 CFR 230.6)



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SECTION 404(B)(1) GUIDELINES

Basics:

➤ Flexible methods NOT rigid standards:

“Characteristics of waters of the United States vary greatly, both from region to region and within a region...The materials to be discharged, the methods of discharge and the activities associated with the discharge also vary widely...The susceptibility of the aquatic ecosystem to degradation by purely physical placement of dredged or fill material further complicates the problem...”

Guidelines specify tools for evaluation rather than listing numerical pass-fail points.



SECTION 404(B)(1) GUIDELINES

Flexibility: Must comply with Guidelines but “The compliance evaluation procedures will vary to reflect the seriousness of the potential for adverse impacts on the aquatic ecosystem...” (40 CFR 230.10)

1993 Joint Corps/EPA Memo to the Field

Regulatory Guidance Letter 95-01



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SECTION 404(B)(1) GUIDELINES

Basics:

- The **Corps** is responsible for determining compliance with the guidelines.
- Compliance with the Guidelines is mandatory. If a project does not satisfy the guidelines, authorization must be **denied** (exception is 404(b)(2) “Navigation Override”).
- The **applicant** is responsible for demonstrating compliance (RGL 88-05)



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230.10 – RESTRICTIONS ON DISCHARGE (SUBPART B)

No discharge of dredge or fill material shall be permitted:

- If there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem so long as the alternative does not have other significant adverse environmental consequences.”

LEDPA



230.10 – RESTRICTIONS ON DISCHARGE (SUBPART B)

No discharge of dredge or fill material shall be permitted:

- If there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem so long as the alternative does not have other significant adverse environmental consequences.”

EVERY PROJECT HAS A LEDPA: THIS DOES NOT MEAN A PERMIT SHOULD NECESSARILY BE ISSUED



230.10 – RESTRICTIONS ON DISCHARGE (SUBPART B)

LEDPA:

➤ 1st Rebuttable Presumption:

When discharge doesn't require siting within a **special aquatic site** to achieve basic purpose (i.e., not "water dependent"), **practicable** alternatives not involving special aquatic sites are presumed available, unless clearly demonstrated otherwise

➤ 2nd Rebuttable Presumption

Practicable alternatives not involving special aquatic sites are presumed to have less adverse impact on aquatic ecosystem, unless clearly demonstrated otherwise.



230.10 – RESTRICTIONS ON DISCHARGE (SUBPART B)

Rebuttable Presumptions:

- Majority of proposed activities are not water dependent
 - E.g. a proposed boat ramp, while it requires placement in “water,” does not require access or proximity to or sighting within a special aquatic site.
- Not applicable if no proposed discharge into special aquatic sites
- Even if activity is water dependent, alternatives are still required to meet 40 CFR 230.10(a)



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230.10 – RESTRICTIONS ON DISCHARGE (SUBPART B)

Practicable Alternatives Include:

- Activities which do not involve discharge of dredged/fill material into waters of the U.S.
- Discharges at other locations in waters of the U.S
- For non-water dependent activities, discharges into non-special aquatic sites
 - e.g. for boat ramp proposed to be constructed in riffle and pool complex of a river, alternative should include construction of the boat ramp outside of the riffle and pool complex

230.10 – RESTRICTIONS ON DISCHARGE (SUBPART B)

An alternative is practicable if:

- It is available and capable of being done after taking into consideration:
 - Cost
 - Logistics
 - Existing Technology
 - In light of the overall project purpose



DEVELOPING ALTERNATIVES INFORMATION – ALTERNATIVES

- Identify alternatives that avoid additional waters of the U.S. on-site

- Work with USACE Project Manager to develop alternatives

- Include alternatives that also minimize adverse effects to the aquatic ecosystem (40 CFR 230.10(d))
 - Preservation of avoided aquatic resources
 - Buffers from avoided aquatic resources
 - Implementation of BMPs
 - Designs for road crossings

DEVELOPING ALTERNATIVES INFORMATION – SCREENING CRITERIA

- Develop screening criteria, with justification addressing:
 - Effects to waters of the U.S.
 - Other significant adverse environmental consequences
 - Availability
 - Cost
 - Logistics
 - Existing Technology
 - Overall Project Purpose
- Only develop screening criteria that are relevant to alternatives under consideration
- Once screening criteria developed, compare alternatives to the screening criteria
- Recommend providing screening criteria/justification to PM for review/comment prior to preparing alternatives information report.



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DEVELOPING ALTERNATIVES INFORMATION – SCREENING CRITERIA

- Only develop screening criteria that are relevant to alternatives under consideration
- Once screening criteria developed, compare alternatives to relevant screening criteria
 - Not all screening criteria are relevant to all alternatives
- Recommend providing screening criteria/justification to PM for review/comment prior to preparing alternatives information report.



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SCREENING CRITERIA

Degree of analysis increases as the number of alternatives shrinks

- Coarse screens – e.g. geographic area
- Intermediate screens – e.g. size, direct/indirect adverse effects to aquatic resources
- More refined screens – e.g. cost



ALTERNATIVES INFORMATION

LEDPA:

- **Less Damaging**
- **Available**
- **Cost, logistics, and technology**
- **Overall Project Purpose**



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SCREENING CRITERIA – LESS DAMAGING

Environmental Damage

- Provide screening criteria related to effects to aquatic ecosystem and other adverse environmental consequences, if applicable to the alternatives information.
- Provide justification for each screening criteria
 - Why is the screening criteria appropriate?
 - Provide documentation to support screening criteria
- Do not need to provide screening criteria/justification if not relevant to any alternative



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SCREENING CRITERIA – LESS DAMAGING

Environmental Damage

➤ Effects to aquatic ecosystem

- If alternative has greater adverse effects to aquatic ecosystem, it can be eliminated.
- Compensatory mitigation not taken into account
- Adverse effects to functions and services – not just acreage
- Consider BOTH direct and indirect/secondary effects



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SCREENING CRITERIA – LESS DAMAGING

➤ Things to Consider - Effects to aquatic ecosystem:

- Loss of watershed – would the hydrology be changed such that it is likely it would not be an aquatic resource over time?
- Adjacent development – would indirect effects occur from adjacent activities?
 - Increase/decrease in hydroperiod?
 - Effects from human use?
 - Effects to biological community (vegetation, wildlife)?
- Conversion of a water of the U.S. into a non-water of the U.S.?
- Function/Condition of affected aquatic resource (e.g. not just acreage)
 - e.g. proposed project affects 1 acre of vernal pool, alternative would affect a greater acreage of irrigated wetland



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SCREENING CRITERIA – LESS DAMAGING

Environmental Damage

- **Other significant adverse environmental consequences**
 - Only applicable if alternative would have fewer adverse effects to the aquatic ecosystem
 - Are there other environmental effects that would occur from the alternative that are significant or outweigh the reduction in effects to the aquatic ecosystem?
 - Threatened/endangered species
 - Floodplain
 - Cultural resources

SCREENING CRITERIA – LESS DAMAGING

Environmental Damage

- Focus on reducing adverse effects to aquatic resources
- Effects to other resource areas only relevant for alternatives with fewer adverse effects to aquatic resources
- Evaluation of alternatives with fewer effects to other resource types not required under Guidelines
 - May be necessary for PIR and NEPA evaluation
 - EO 11988 requires evaluation of alternatives to construction within floodplain
 - NHPA requires avoidance/minimization of effects to cultural resources.

SCREENING CRITERIA – LESS DAMAGING

Tips for Alternatives Information

- If proposing to eliminate alternative due to effects to aquatic ecosystem, ensure sufficient justification/full information is provided.
 - Identify functions/services being lost for proposed action and alternatives.
 - If acreage of adverse effects is less, but functions and services are greater for alternative, provide justification for greater adverse effects.
 - If loss of watershed, provide watershed data/information
 - If reduction/increase in hydrology, provide hydrologic information



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ALTERNATIVES INFORMATION

LEDPA:

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SCREENING CRITERIA - AVAILABILITY

Available:

- If it is otherwise a practicable alternative, an area not presently owned by the applicant which could reasonably be obtained, utilized, expanded or managed in order to fulfill the basic purpose of the proposed activity may be considered.



40 CFR 230.10(a)(2)



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SCREENING CRITERIA – AVAILABILITY

Is the site available?

- Provide screening criteria related to whether the site is available. Provide justification.
 - Examples:
 - Site for sale
 - Site may be for sale
 - Site currently proposed for development
 - Site currently developed
 - Existing restrictions? (e.g. preserves, land-use constraints)
 - Even if a site is not currently for sale, it may be available
 - Even if a site is developed/proposed for development, it may be available



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SCREENING CRITERIA – AVAILABILITY

Tips for addressing Availability:

- Ensure appropriate justification provided for screening criteria – provide supporting documentation

- May be appropriate to assume site is available
 - Can use other criteria to eliminate under 404(b)(1)

- Limit number of off-site alternatives evaluated to **reasonable** number commensurate with impacts
 - Do not need to identify every parcel within geographic area

- If unsure, assume available



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ALTERNATIVES INFORMATION

LEDPA:

- **Less Damaging**
- **Available**
- **Practicability**
 - **Cost, Logistics, and Technology**
- **Overall Project Purpose**



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SCREENING CRITERIA – PRACTICABILITY

Is the alternative practicable?

➤ **Cost**

➤ Logistics

➤ Existing technology



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SCREENING CRITERIA – PRACTICABILITY: COST

Is the alternative practicable due to Cost?

➤ **Cost not economics**

- December 24, 1980 Preamble to 40 CFR Part 230
- 1993 Memo to the Field



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SCREENING CRITERIA – PRACTICABILITY: COST

Is the site practicable due to cost

- Provide screening criteria related to whether the site practicable due to cost. Provide justification

- If cost is used to eliminate alternatives, must provide costs for construction of the proposed project/similar projects and the specific alternative.
 - Do not necessarily need costs for all alternatives

- Rate of return, profit, etc., are not appropriate for cost criterion.

- All costs for construction may be included, if applicable
 - e.g. grading, construction, transportation, etc.



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SCREENING CRITERIA – PRACTICABILITY: COST

Is the site practicable due to cost

- Generally, cost of entire project is used as the comparison to determine if alternative is practicable due to costs
 - Would not include only a portion of development – unless appropriate justification is provided
- Must have apples-apples comparison for costs
 - e.g. if current price for purchase of property for alternative used, must use the current value of the proposed project site
- Costs include only costs for preparation and construction of the alternative, not “soft” costs
 - e.g. permitting fees, investor fees



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SCREENING CRITERIA – PRACTICABILITY: COST

Is the alternative practicable due to cost?

- Is the cost reasonable?
 - For the type of project
 - For the avoidance of waters
- May be appropriate, with justification, to include local agency requirements related to costs.
 - e.g. fiscally neutral to the local agency



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SCREENING CRITERIA – PRACTICABILITY: COST

Cost: The mere fact that an alternative may cost more does not necessarily mean it is not practicable.

- Things to consider:
 - Cost compared to other similar projects
 - Cost of new infrastructure development
 - Cost against industry based value of the project/product
- Things not to consider:
 - Investment or Sunk Costs
 - Applicant's financial standing
 - Applicant's market share
 - Profit



SCREENING CRITERIA – PRACTICABILITY: COST

Tips for availability:

- Ensure appropriate justification provided for screening criteria – provide supporting documentation to show the alternative does/does not meet the screening criteria.
- Provide cost information if proposing to eliminate alternative due to costs.
 - May not need to provide costs for all alternatives
- Do not include economics, profit, etc.

SCREENING CRITERIA – PRACTICABILITY: LOGISTICS

Is the alternative practicable?

➤ Cost

➤ **Logistics**

➤ Existing technology



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SCREENING CRITERIA – PRACTICABILITY: LOGISTICS

Logistics:

- Physical and Geographic Constraints
- Land use Constraints
- Access to infrastructure/facilities
- Public Health/Safety concerns



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SCREENING CRITERIA – PRACTICABILITY: LOGISTICS

Logistics:

Manufacturing Facility

- Proximity to supply chain
- Proximity to distribution corridor

Highway Projects

- Connection to existing facilities
- Safety concerns
- Defense concerns

Residential/Commercial Developments

- Topography
- Land-use constraints
- Local agency requirements
- Proximity to services



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SCREENING CRITERIA – PRACTICABILITY: LOGISTICS

Physical/Geographic Constraints:

- If sufficient justification provided, may be appropriate to include physical/geographic constraints as a screening criteria
 - Topography
 - Hydrology
 - Floodplain
 - Protected resources

- Ensure justification includes why the screening criteria is necessary for an alternative to be practicable



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SCREENING CRITERIA – PRACTICABILITY: LOGISTICS

Zoning/Land-Use:

- 33 CFR 320.4(j)(2)
 - Primary responsibility for determining zoning/land use rests with state/local/tribal governments.
 - USACE will normally accept decisions unless there are significant issues of overriding national importance

- Does not mean that alternatives to the existing/approved zoning/land-use cannot be evaluated under 404(b)(1) Guidelines
 - Zoning/land-use may be changed

- If sufficient justification provided, there may be zoning/land-use constraints that are appropriate as screening criteria
 - Ensure justification includes rational why it would not be practicable to change zoning/land-use for the screening criteria



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SCREENING CRITERIA – PRACTICABILITY: LOGISTICS

Local Agency Requirements:

- If sufficient justification provided, may be appropriate to include screening criteria related to local agency requirements
 - e.g. compliance with general plan; emergency access
- Ensure justification includes why the screening criteria is necessary for an alternative to be practicable



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SCREENING CRITERIA – PRACTICABILITY: LOGISTICS

Access to infrastructure/facilities:

- If sufficient justification provided, may be appropriate to include screening criteria related to access to existing infrastructure/facilities
 - distance from hospital/public facilities
 - distance from major transportation corridors
 - distance from existing utilities

- Ensure justification includes why the screening criteria is necessary for an alternative to be practicable



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SCREENING CRITERIA – PRACTICABILITY: LOGISTICS

Public Health/Safety:

- If sufficient justification provided, may be appropriate to include screening criteria related to public health/safety
 - Distance from airports
 - Distance from hazardous facilities
 - Distance from emergency services

- Ensure justification includes why the screening criteria is necessary for an alternative to be practicable



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SCREENING CRITERIA – PRACTICABILITY

Is the alternative practicable?

- Cost
- Logistics
- **Existing technology**



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SCREENING CRITERIA – PRACTICABILITY: EXISTING TECHNOLOGY

Technology:

- Does Appropriate Equipment, Engineering, and/or Machinery exist?



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SCREENING CRITERIA – PRACTICABILITY: EXISTING TECHNOLOGY

Existing Technology:

- If sufficient justification provided, may be appropriate to include screening criteria related to existing technology
 - Does the technology exist to implement the alternative?
 - Is the technology feasible for use to construct the alternative?
 - Are there constraints to implementing the technology for the alternative?
- Ensure justification includes why the screening criteria is necessary for an alternative to be practicable



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ALTERNATIVES INFORMATION

LEDPA:

- **Less Damaging**
- **Available**
- **Cost, logistics, and technology**
- **Overall Project Purpose**



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SCREENING CRITERIA – OVERALL PROJECT PURPOSE

Overall Project Purpose

- Used as the basis for the **alternatives analysis**
- Expands basic purpose to applicant's specific project
- Determined from the typical applicant's perspective.
- Should be concisely stated in the public notice
- Defines the geographic boundaries of the search for alternatives
- Defines the extent of effects USACE is required to consider (permit area)



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SCREENING CRITERIA – OVERALL PROJECT PURPOSE

Overall Project Purpose

- The overall project purpose should be specific enough to define the applicant's needs, but not so restrictive as to constrain the range of alternatives that must be considered under the 404(b)(1) Guidelines

- Additional guidance on developing overall project purpose can be found through review of HQ 404(q) decisions:
 - Hartz Mountain
 - Old Cutler Bay

- Project purpose is determined by Corps
 - Take into account applicant and public needs



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SCREENING CRITERIA – OVERALL PROJECT PURPOSE

Overall Project Purpose

- Once overall project purpose is identified by USACE, screening criteria, with justification should be developed to meet the overall project purpose
 - Geographic area
 - Size limitations
 - Applicant objectives
- Ensure justification includes why the screening criteria is necessary for an alternative to meet the overall project purpose



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TIPS FOR ALTERNATIVES INFORMATION

Alternatives Information vs. Alternatives Analysis

- USACE responsible for conducting alternatives analysis, applicant responsible for providing the information to conduct the analysis. Information prepared by/on behalf of the applicant should be submitted as alternatives information

Coordinate with USACE Project Manager before completing alternatives information

- Project manager can assist in identifying alternatives related to the avoidance of on-site waters of the U.S.
- Project manager can assist in development of off-site alternatives
- Project manager can review/comment on proposed screening criteria
- Early coordination greatly reduce the amount of time to complete, as well as reduce USACE comments



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TIPS FOR ALTERNATIVES INFORMATION

Applicant must demonstrate alternative:

- Is not less damaging to the aquatic environment; **OR**
 - would have other significant adverse environmental effects; **OR**
 - Is not available; **OR**
 - is not practicable due to costs; **OR**
 - is not practicable due to logistics **OR**
 - is not practicable due to existing technology; **OR**
 - does not meet the overall project purpose
-
- Applicant does not need to demonstrate an alternative is not practicable for all of the above reasons



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TIPS FOR ALTERNATIVES INFORMATION

The reason(s) for eliminating an alternative is not the same for all alternatives

- Provide only relevant information for a particular alternative
 - For example, if the applicant does not believe an alternative should be eliminated due to cost, cost information for that alternative does not need to be provided



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TIPS FOR ALTERNATIVES INFORMATION

Even if there are multiple factors demonstrating an alternative is not the LEDPA, information on all of the reasons is not required, provided there is sufficient justification to eliminate an alternative for only one of the factors.

- Focus on the “strongest” reason(s) for the alternative to be eliminated
- Less is usually better



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TIPS FOR ALTERNATIVES INFORMATION

Ensure screening criteria are sufficiently justified

- Provide data, research, supporting documentation

Ensure information regarding the practicability of an alternative clearly identifies why the alternative does/does not meet any of the screening criteria

- Example: If sufficient justification is provided to use compliance with a local agency general plan as a screening criteria, information for alternative should describe:
 - Which general plan requirement(s) would not be met,
 - Why the alternative would not meet the general plan requirements, and
 - Why the alternative could not be modified to meet the general plan.



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TIPS FOR ALTERNATIVES INFORMATION

Even if the information has been provided previously for a different project, provide the information for the current proposal

Do not assume the project manager knows other local/state/federal laws, policies, requirements, ordinances, etc.



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QUESTIONS?



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