Figure 1-1. Geographical Jurisdictions of the MPRSA and CWA

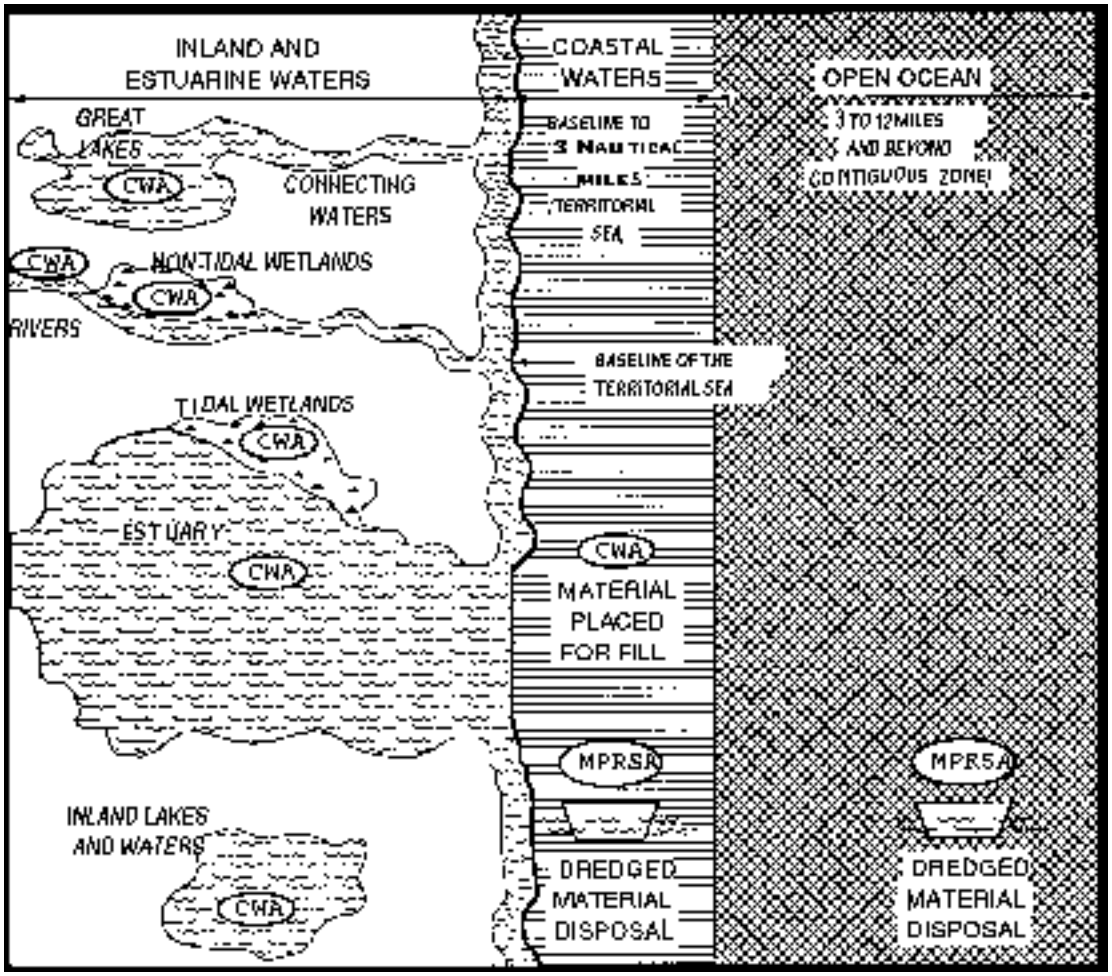

Figure 1-1. Geographical Jurisdictions of the MPRSA and CWA

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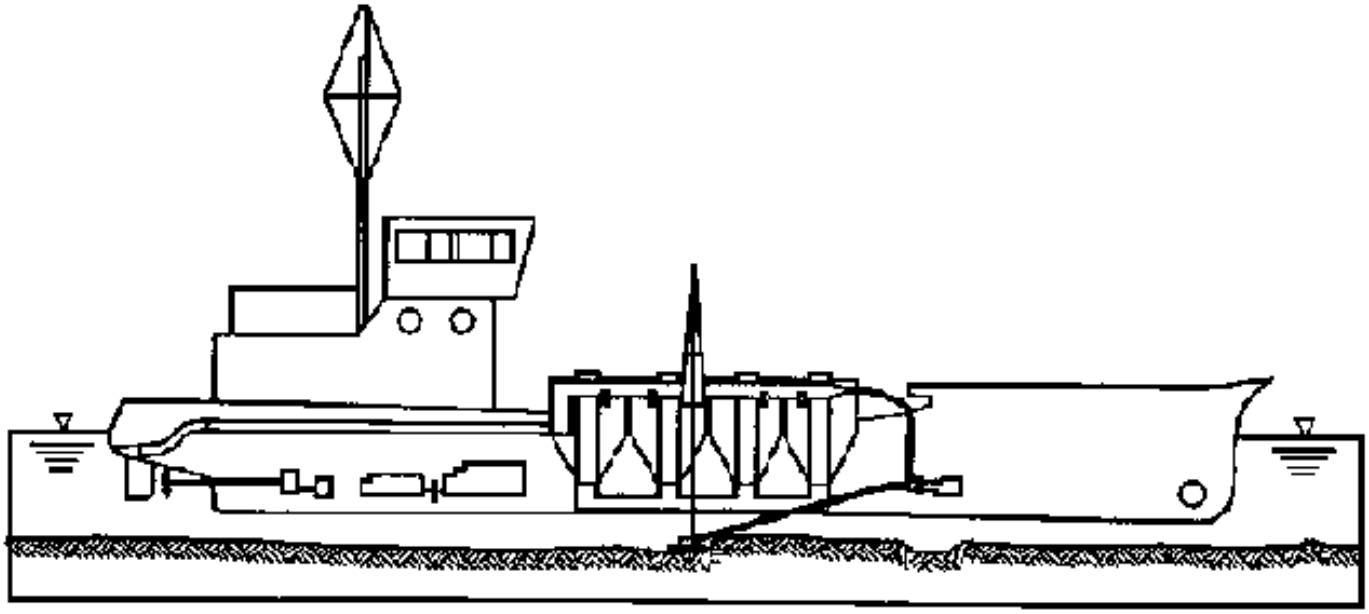
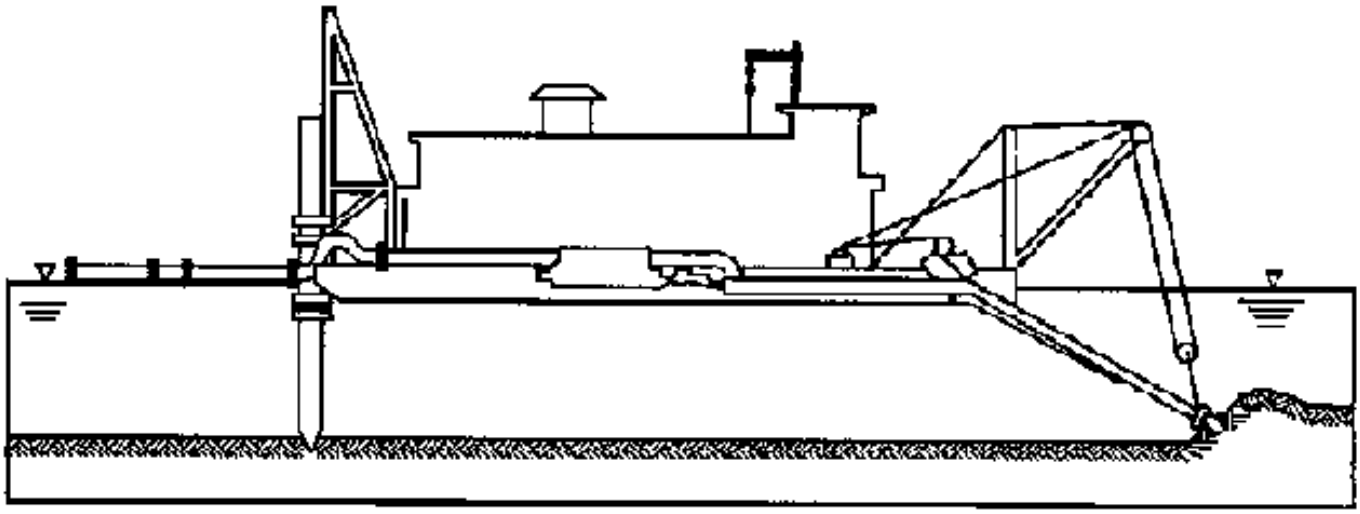
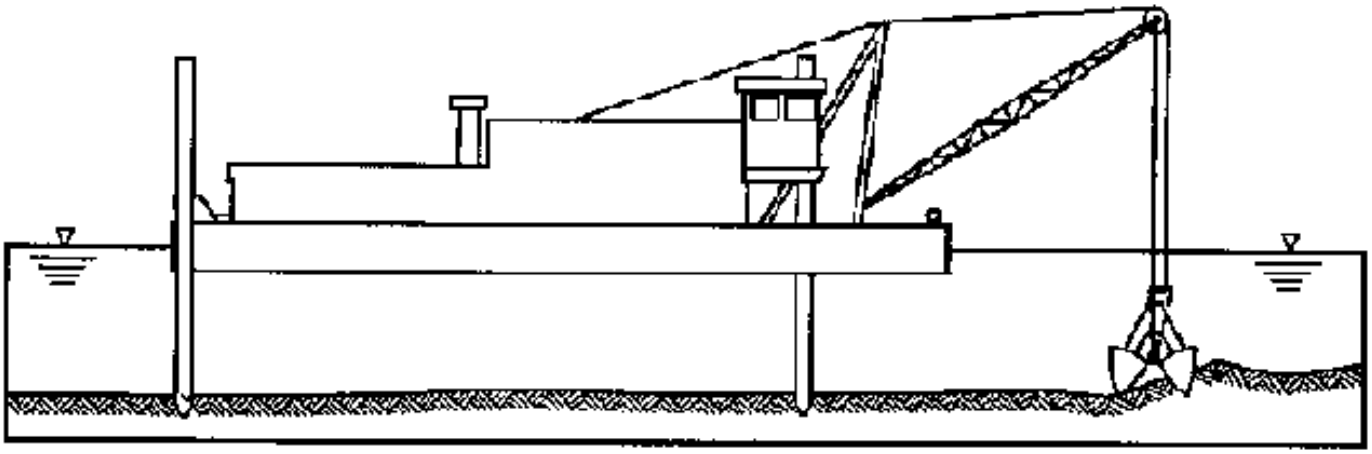
Figure 2-1. Commonly Used Dredges



A. SELF PROPELLED HOPPER DREDGE



B. CUTTERHEAD PIPELINE DREDGE



C. CLAMSHELL DREDGE

Figure 2-1. Commonly Used Dredges

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Figure 2-2. Open Water Placement Operations

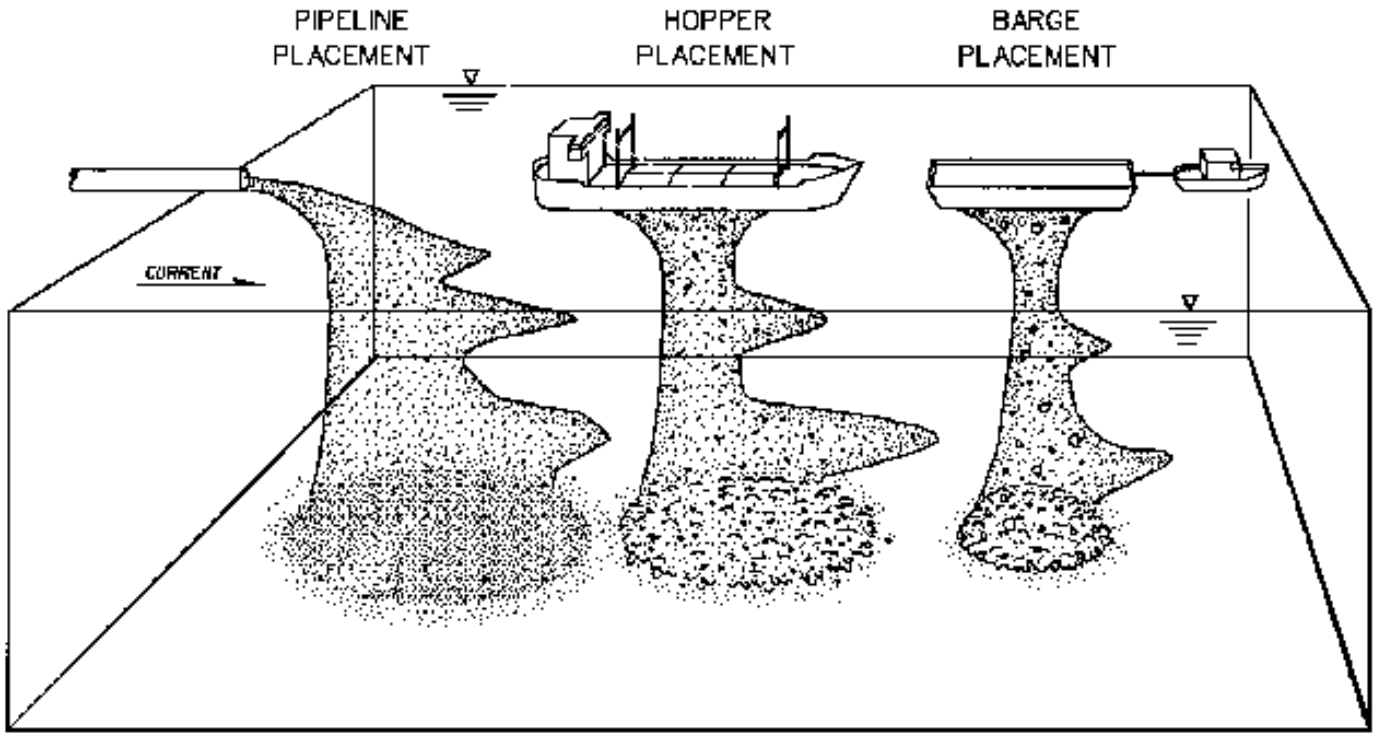


Figure 2-2. Open Water Placement Operations

Return to Framework Document Chapter 2

Figure 2-3. Upland, Nearshore, and Island CDFs

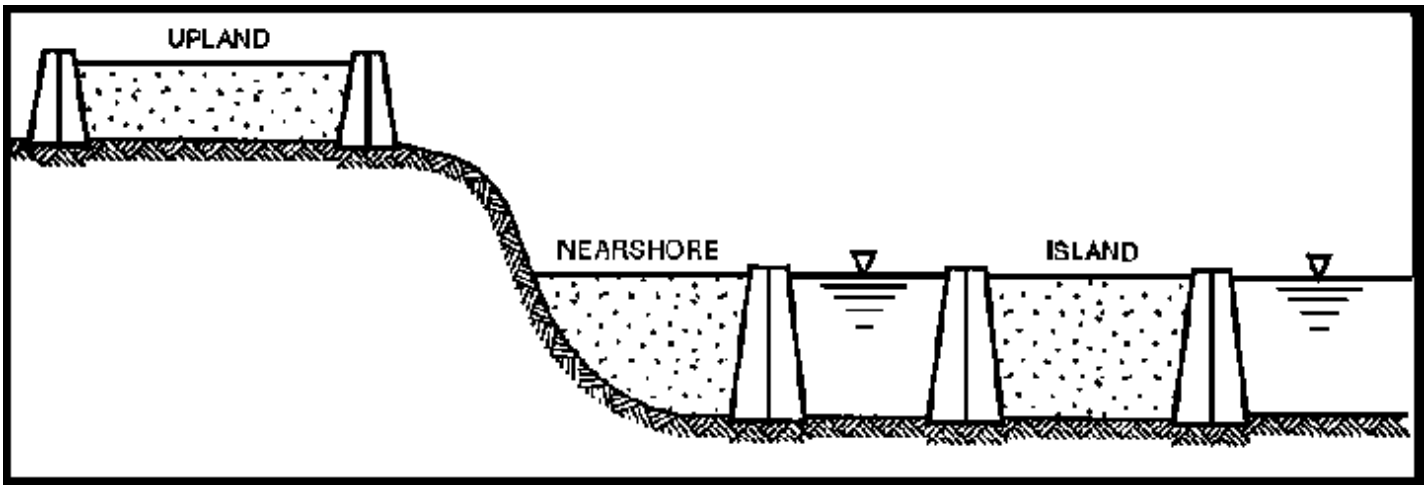
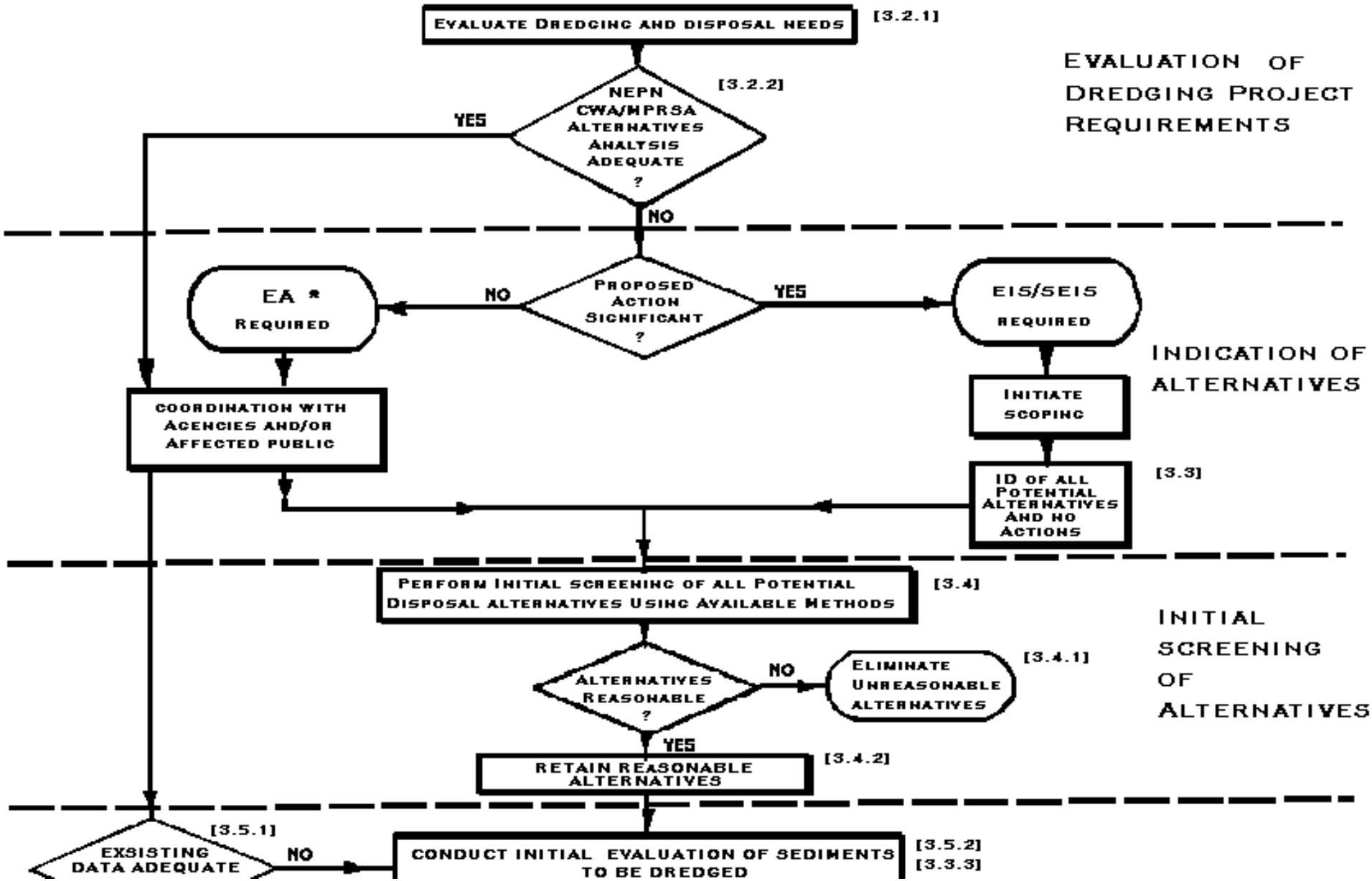
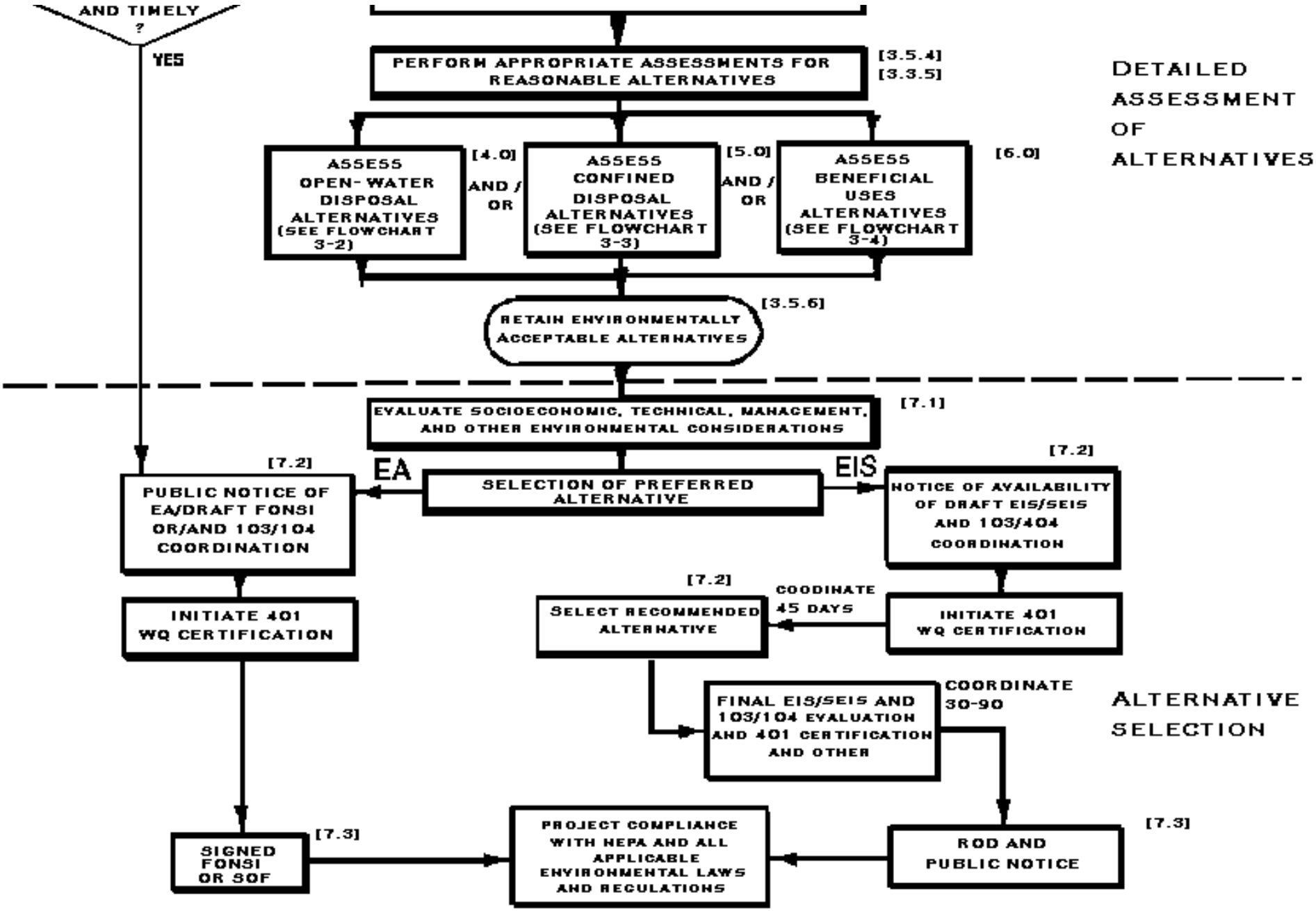


Figure 2-3. Upland, Nearshore, and Island CDFs

Return to Framework Document Chapter 2

Flowchart 3-1. Framework for Determining Environmental Acceptability of Dredged Material Disposal Alternatives




AND TIMELY ?
YES
PERFORM APPROPRIATE ASSESSMENTS FOR REASONABLE ALTERNATIVES
[3.5.4]
[3.3.5]
DETAILED ASSESSMENT OF ALTERNATIVES
ASSESS OPEN-WATER DISPOSAL ALTERNATIVES (SEE FLOWCHART 3-2)
[4.0]
AND / OR
ASSESS CONFINED DISPOSAL ALTERNATIVES (SEE FLOWCHART 3-3)
[5.0]
AND / OR
ASSESS BENEFICIAL USES ALTERNATIVES (SEE FLOWCHART 3-4)
[6.0]
RETAIN ENVIRONMENTALLY ACCEPTABLE ALTERNATIVES
[3.5.6]
EVALUATE SOCIOECONOMIC, TECHNICAL, MANAGEMENT, AND OTHER ENVIRONMENTAL CONSIDERATIONS
[7.1]
EA
SELECTION OF PREFERRED ALTERNATIVE
EIS
[7.2]
PUBLIC NOTICE OF EA/DRAFT FONSI OR/AND 103/104 COORDINATION
[7.2]
NOTICE OF AVAILABILITY OF DRAFT EIS/SEIS AND 103/404 COORDINATION
INITIATE 401 WQ CERTIFICATION
[7.2]
SELECT RECOMMENDED ALTERNATIVE
COODINATE 45 DAYS
INITIATE 401 WQ CERTIFICATION
FINAL EIS/SEIS AND 103/104 EVALUATION AND 401 CERTIFICATION AND OTHER
COORDINATE 30-90
ALTERNATIVE SELECTION
SIGNED FONSI OR SOF
[7.3]
PROJECT COMPLIANCE WITH NEPA AND ALL APPLICABLE ENVIRONMENTAL LAWS AND REGULATIONS
ROD AND PUBLIC NOTICE
[7.3]
* IF AT ANY TIME IN THE EA PROCESS
EA = ENVIRONMENTAL ASSESSMENT
EIS/SEIS = ENVIRONMENTAL IMPACT
ROD = RECORD OF DECISION
SOF = STATEMENT OF FINDINGS

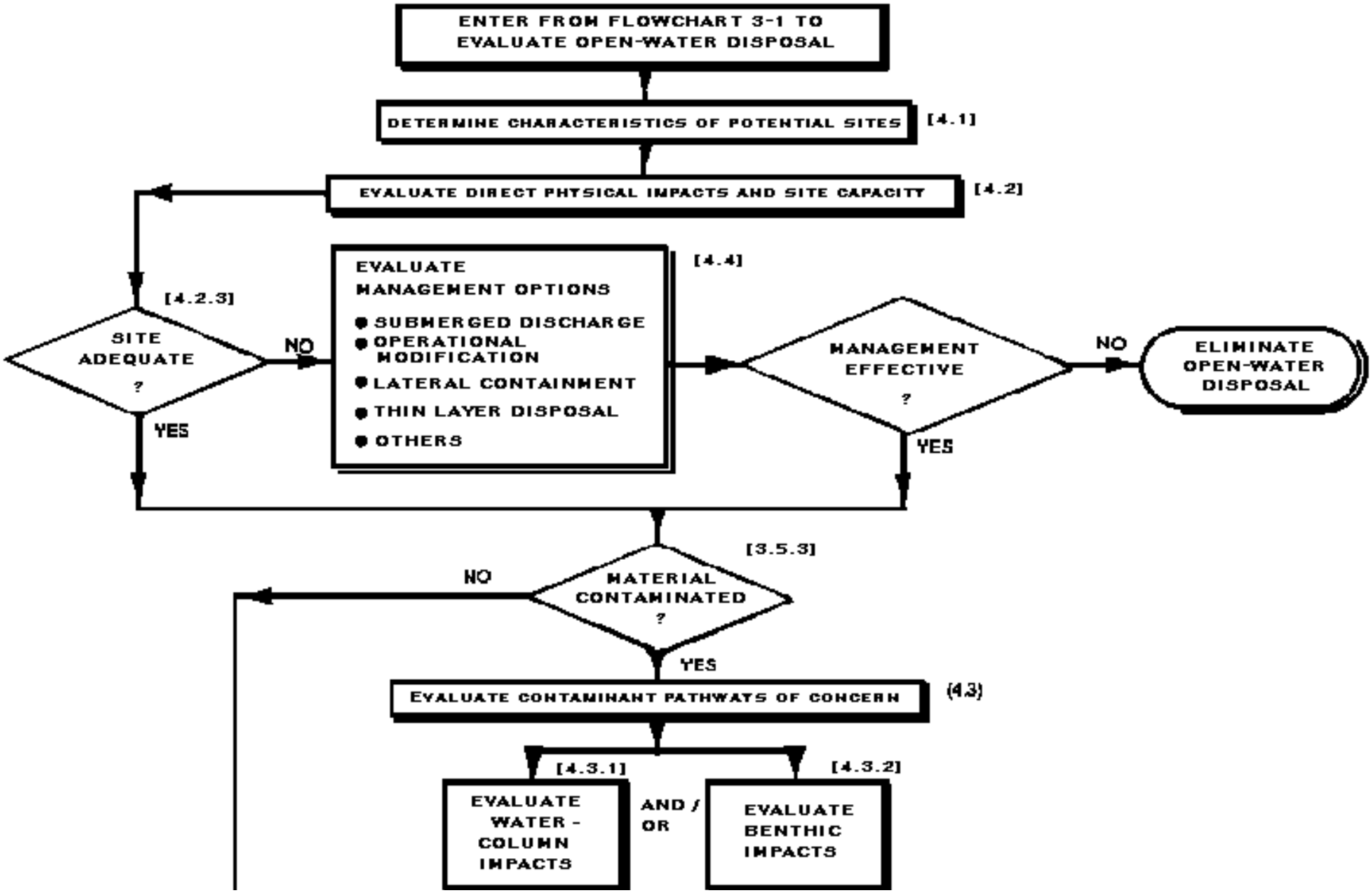
FEDERAL ACTION IS REASSESSED AS BEING SIGNIFICANT, EIS SCOPING IS INITIATED

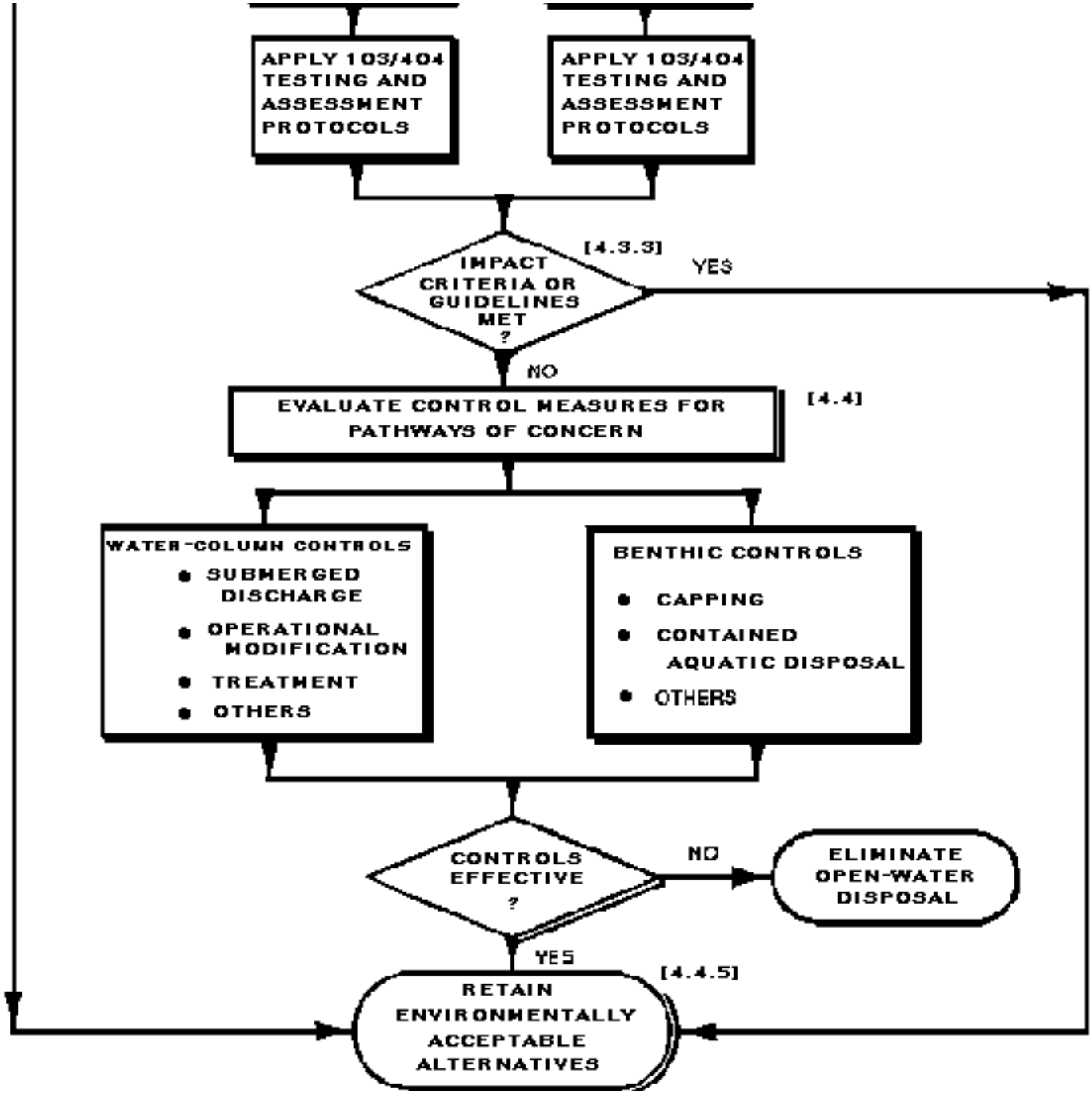
EIS/SEIS = ENVIRONMENTAL IMPACT STATEMENT /SUPPLEMENT

FONSI = FINDING OF NO SIGNIFICANT IMPACT

SOF = STATEMENT OF FINDINGS

Flowchart 3-2. Framework for Testing and Evaluation for Open-Water Disposal

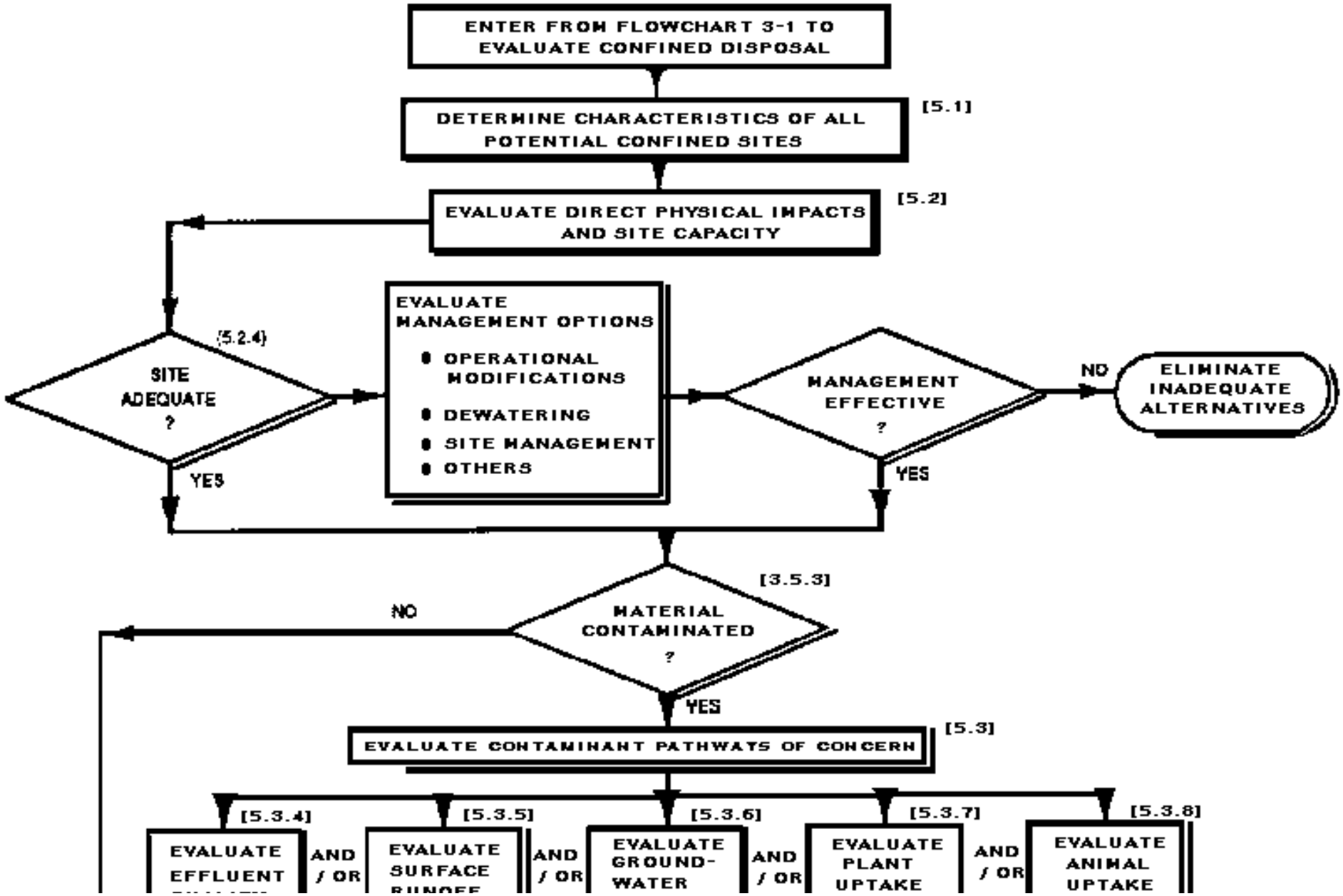


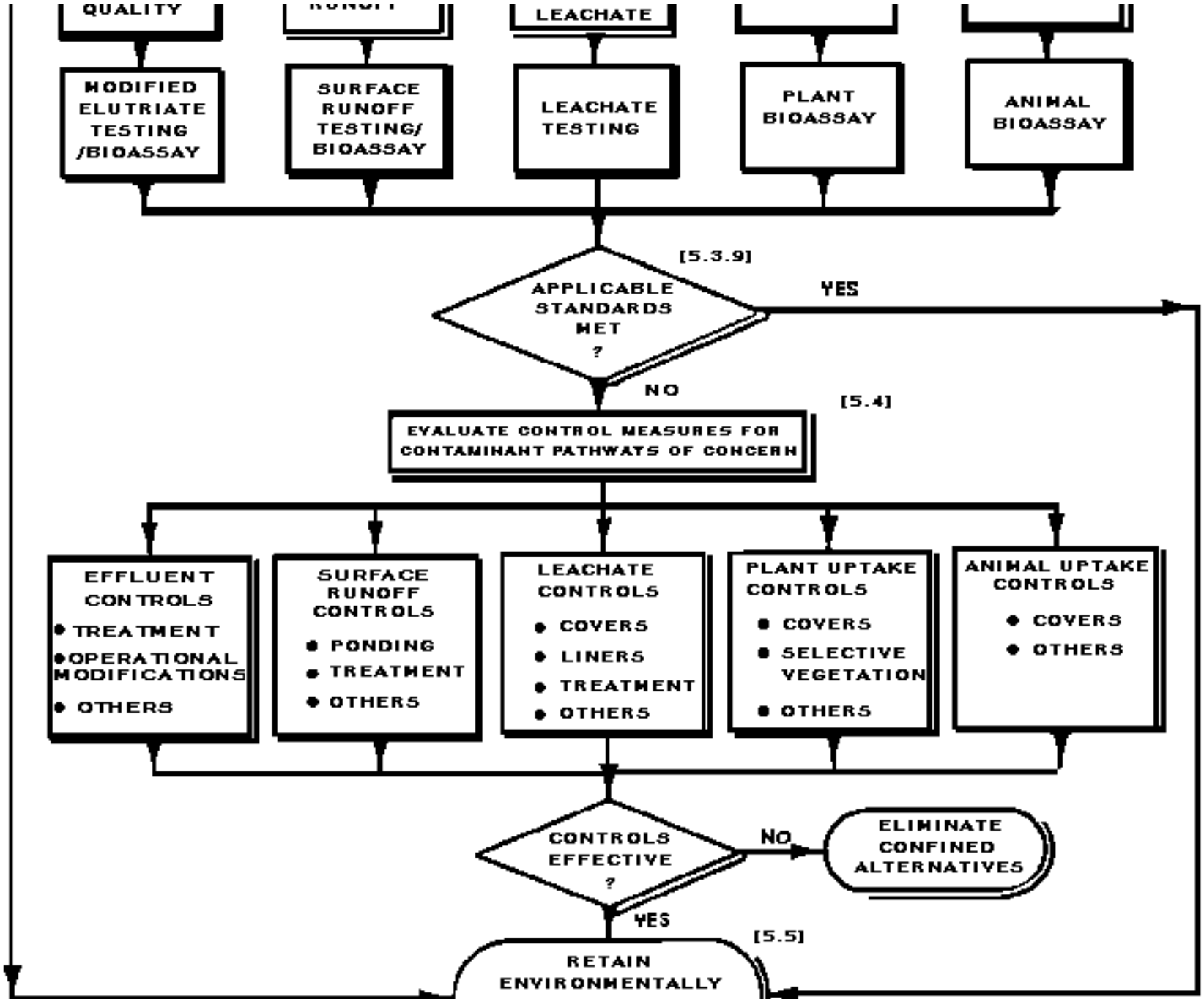

APPLY 103/404 TESTING AND ASSESSMENT PROTOCOLS
APPLY 103/404 TESTING AND ASSESSMENT PROTOCOLS
IMPACT CRITERIA OR GUIDELINES MET ?
[4.3.3]
YES
NO
EVALUATE CONTROL MEASURES FOR PATHWAYS OF CONCERN
[4.4]
WATER-COLUMN CONTROLS
• SUBMERGED DISCHARGE
• OPERATIONAL MODIFICATION
• TREATMENT
• OTHERS
BENTHIC CONTROLS
• CAPPING
• CONTAINED AQUATIC DISPOSAL
• OTHERS
CONTROLS EFFECTIVE ?
NO
ELIMINATE OPEN-WATER DISPOSAL
YES
[4.4.5]
RETAIN ENVIRONMENTALLY ACCEPTABLE ALTERNATIVES

Flowchart 3-2. Framework for Testing and Evaluation for Open-Water Disposal

Return to flowchart 3-1

Flowchart 3-3. Framework for Testing and Evaluation for Confined (Diked) Disposal

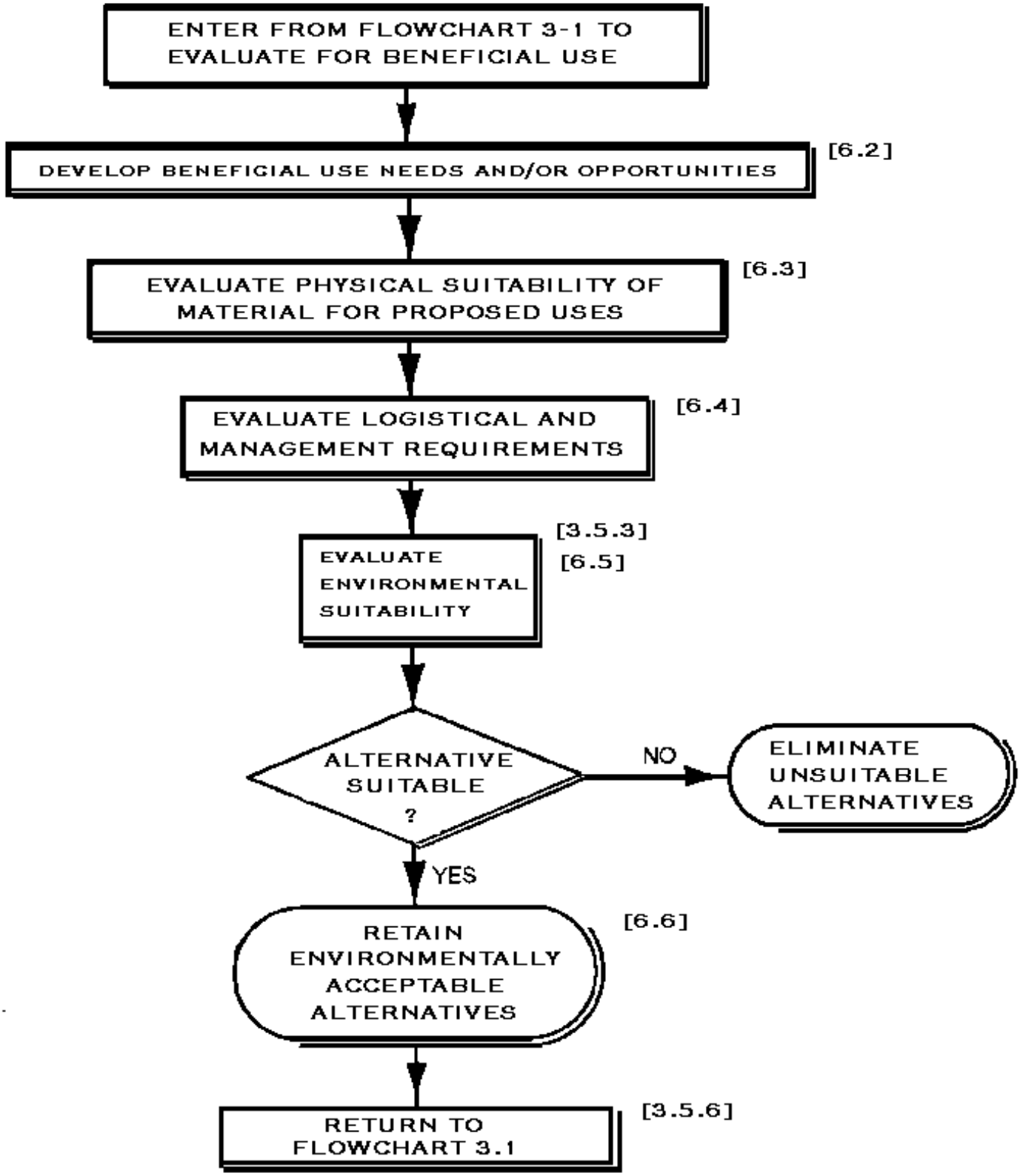



QUALITY
LEACHATE
MODIFIED ELUTRIATE TESTING /BIOASSAY
SURFACE RUNOFF TESTING/ BIOASSAY
LEACHATE TESTING
PLANT BIOASSAY
ANIMAL BIOASSAY
[5.3.9]
APPLICABLE STANDARDS MET ?
YES
NO
[5.4]
EVALUATE CONTROL MEASURES FOR CONTAMINANT PATHWAYS OF CONCERN
EFFLUENT CONTROLS
• TREATMENT
• OPERATIONAL MODIFICATIONS
• OTHERS
SURFACE RUNOFF CONTROLS
• PONDING
• TREATMENT
• OTHERS
LEACHATE CONTROLS
• COVERS
• LINERS
• TREATMENT
• OTHERS
PLANT UPTAKE CONTROLS
• COVERS
• SELECTIVE VEGETATION
• OTHERS
ANIMAL UPTAKE CONTROLS
• COVERS
• OTHERS
CONTROLS EFFECTIVE ?
NO
ELIMINATE CONFINED ALTERNATIVES
YES
[5.5]
RETAIN ENVIRONMENTALLY

Flowchart 3-3. Framework for Testing and Evaluation for Confined (Diked) Disposal

Return to Flowchart 3-1

Flowchart 3-4. Framework for Testing and Evaluation for Beneficial Use Applications



Flowchart 3-4. Framework for Testing and Evaluation for Beneficial Use Applications

Return to Flowchart 3-1

Figure 4-1. Contaminant Pathways for Open-water Disposal

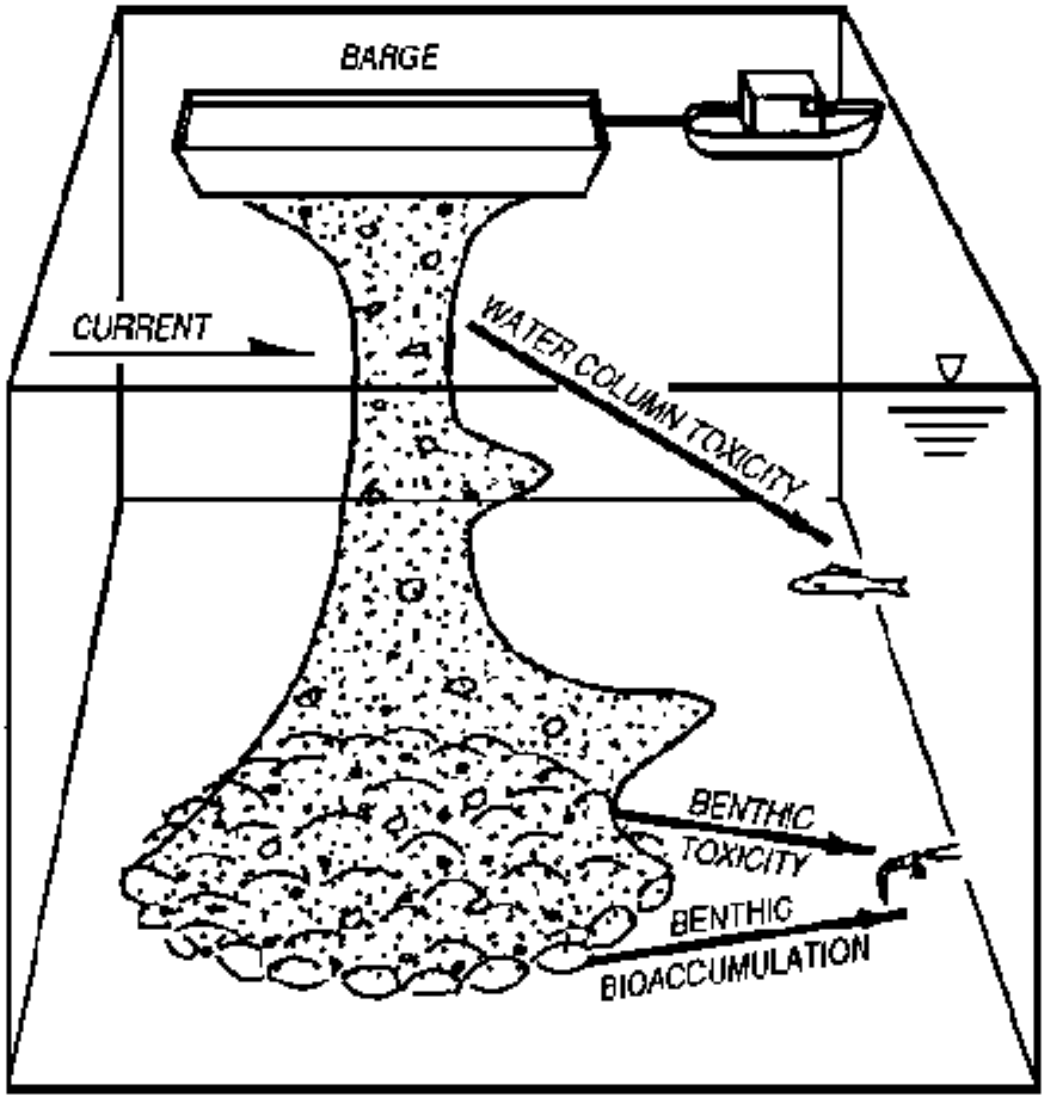


Figure 4-1. Contaminant Pathways for Open-water Disposal

Return to Framework Document Chapter 4

Figure 5-1. Contaminant Pathways for Upland CDFs

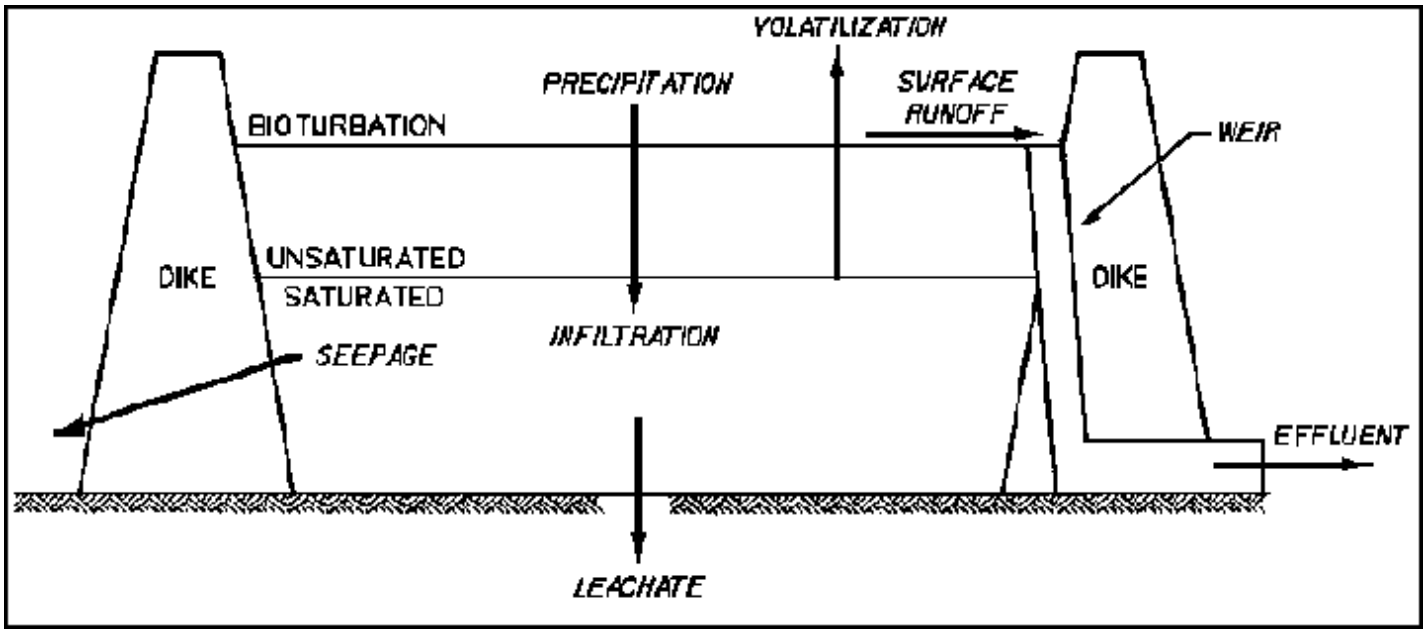


Figure 5-1. Contaminant Pathways for Upland CDFs

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Figure 5-2. Contaminant Pathways for Nearshore CDFs

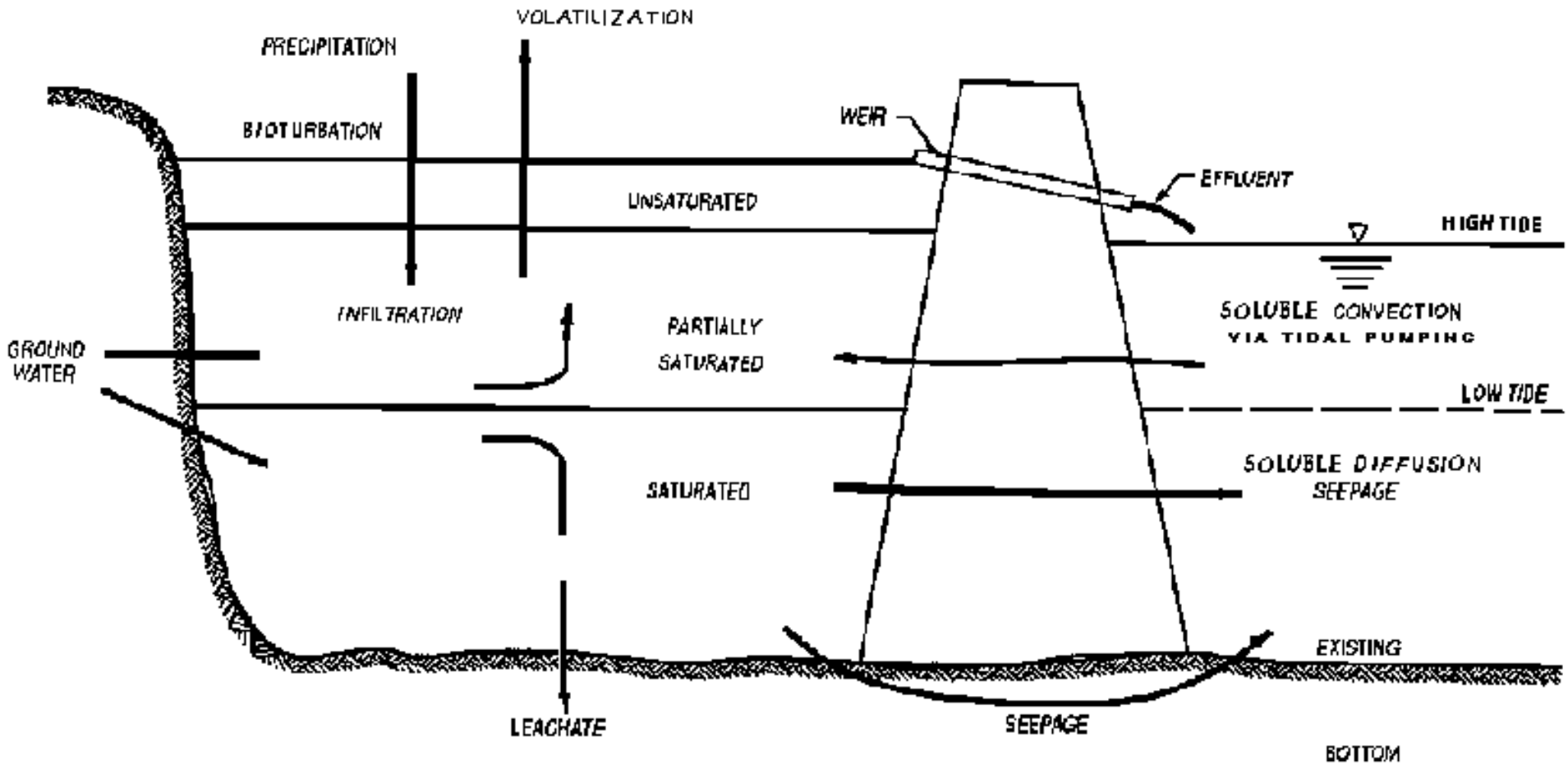
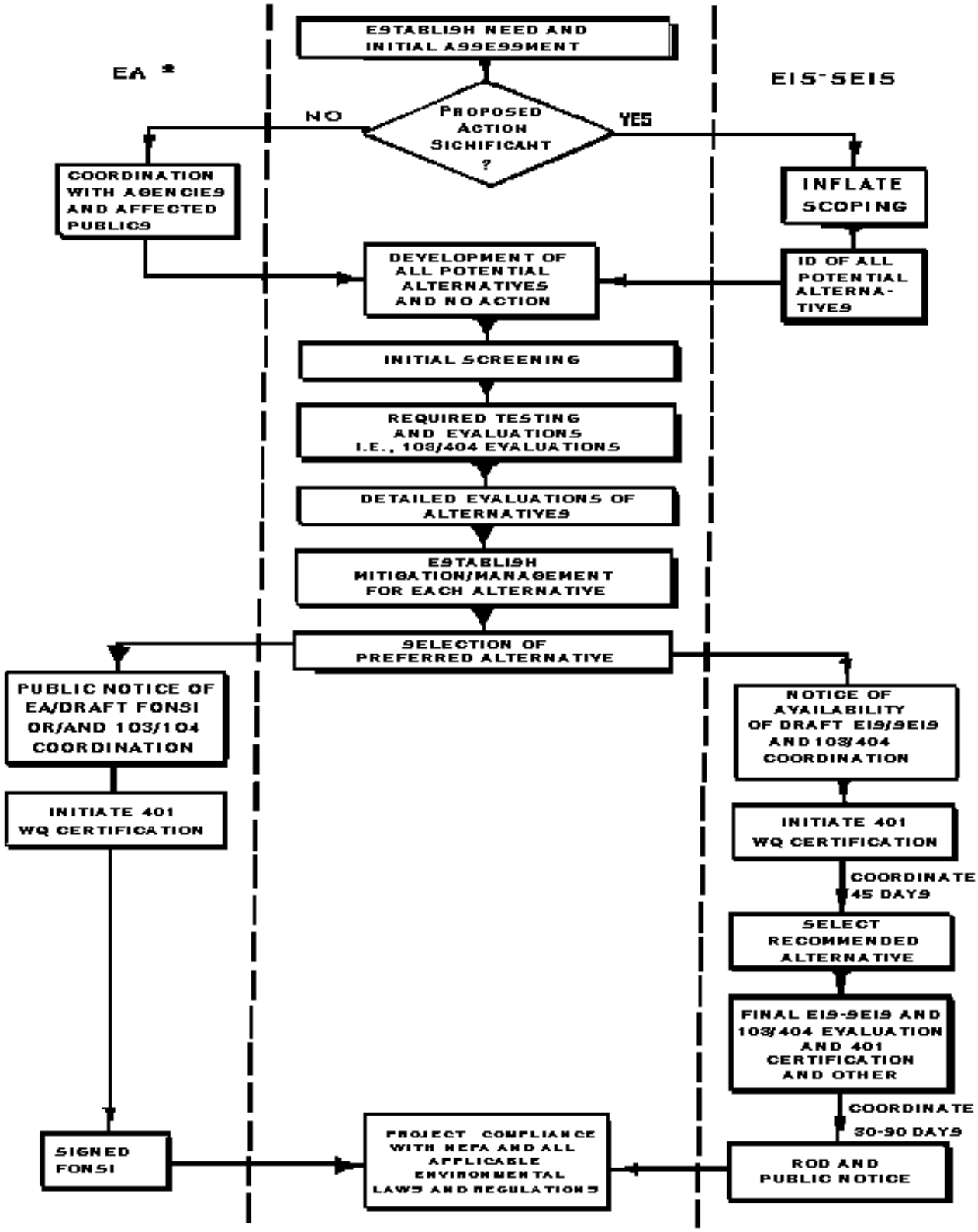


Figure 5-2. Contaminant Pathways for Nearshore CDFs

Return to Framework Document Chapter 5

Flowchart B-1. NEPA/MPRSA/CWA Compliance Process for Dredging and Disposal Projects



* IF AT ANY TIME IN THE EA PROCESS FEDERAL ACTION IS REASSESSED AS BEING SIGNIFICANT, EIS SCOPING IS INITIATED

EA = ENVIRONMENTAL ASSESSMENT
EIS-SEIS = ENVIRONMENTAL IMPACT STATEMENT/SUPPLEMENT
FONSI = FINDING OF NO SIGNIFICANT IMPACT
ROD = RECORD OF DECISION

Flowchart B-1. NEPA Process for Dredged Material Disposal Projects

Return to Appendix B