ALTERNATIVE FORMULATION PROCESS AND STRATEGIES

AGENDA ITEM 3A AND 3B

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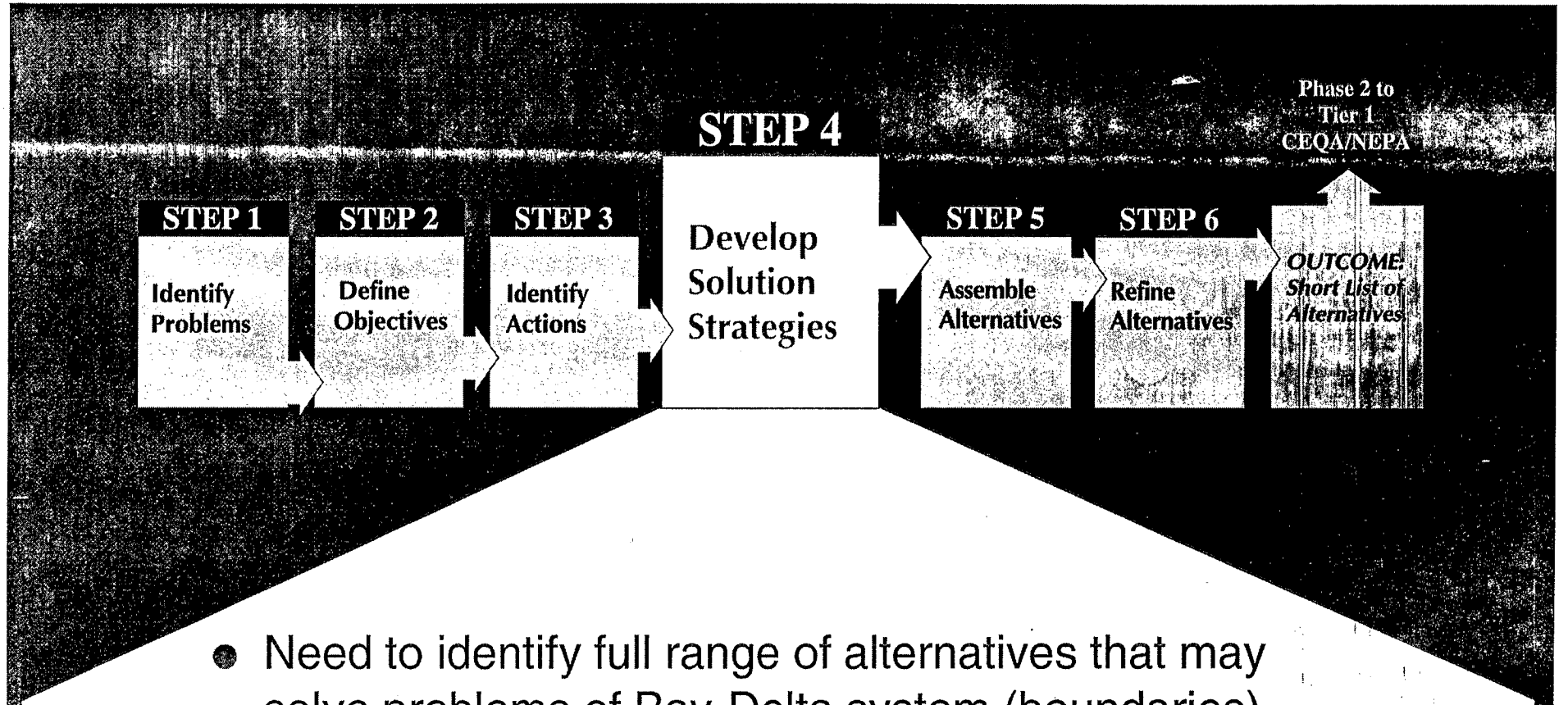

- Need to identify full range of alternatives that may solve problems of Bay-Delta system (boundaries)
- Use 4 basic conflicts as a tool to guide alternative development
- Multiple starting points define the boundary of possible solutions

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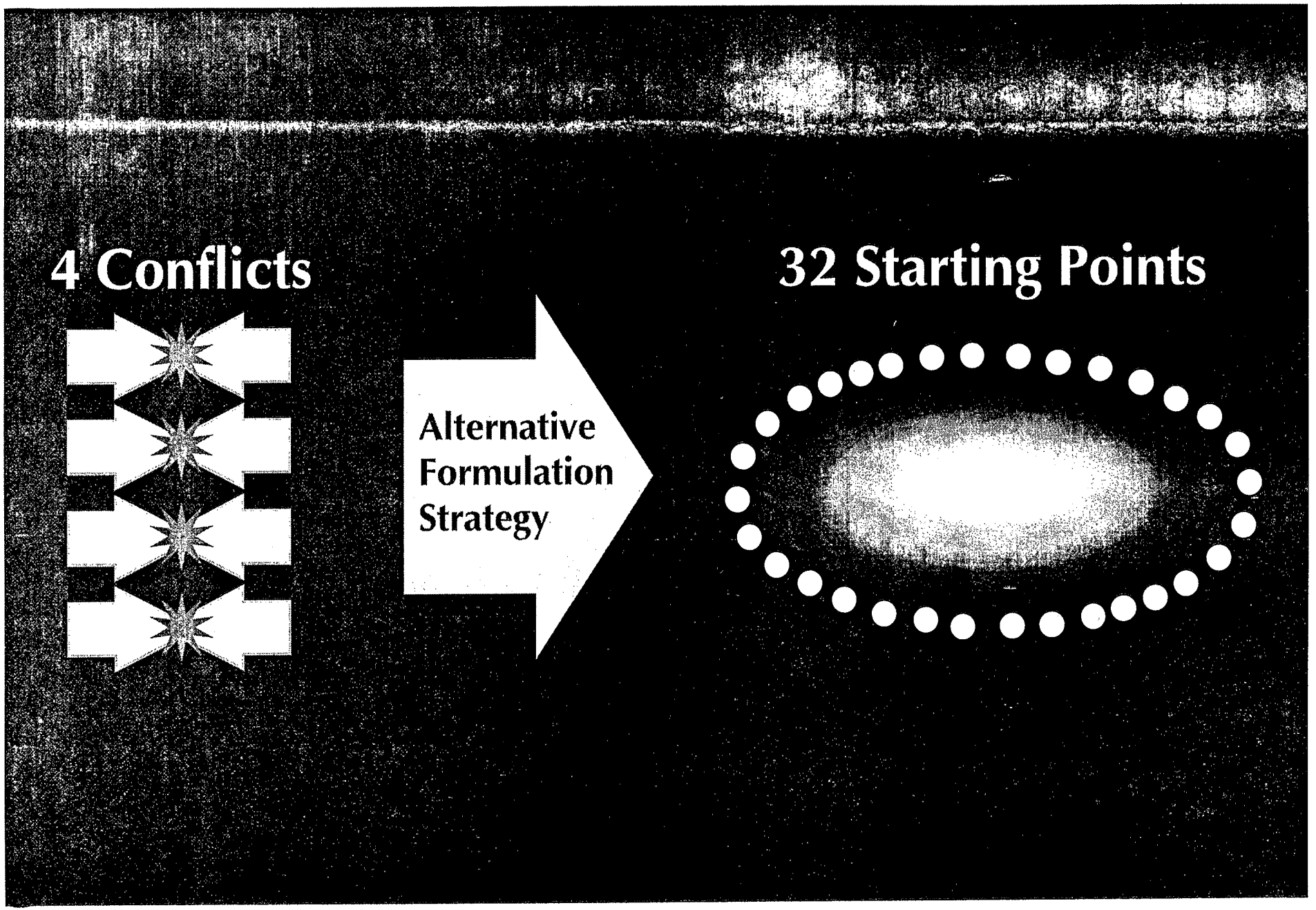

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Four Primary Conflicts

1

Fisheries & Diversions

2

Habitat & Land Use/Flood Protection

3

Water Supply Availability & Beneficial Uses

4

Water Quality & Land Use

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Alternative Formulation Strategy

Conflicts

1 Fisheries & Diversions

2 Habitat & Land Use/Flood Protection

3 Water Supply Availability & Beneficial Uses

4 Water Quality & Land Use

Approaches to Resolving Conflicts

1A *Fish Productivity*

1B *Diversion Modification*

2A *Existing Land Use Pattern*

2B *Modified Land Use Pattern*

3A *Demand Reduction*

3B *Supply Enhancement*

4A *Managing Quality of Delta Inflow*

4B *Post-Discharge Management*

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Alternative Formulation Strategy

Conflicts

1. Fisheries & Diversions
2. Habitat & Land Use/Flood Protection
3. Water Supply Availability & Beneficial Uses
4. Water Quality & Land Use

Approaches

- 1A *Fish Productivity*
- 1B *Diversion Modification*
- 2A *Existing Land Use Pattern*
- 2B *Modified Land Use Pattern*
- 3A *Demand Reduction*
- 3B *Supply Enhancement*
- 4A *Managing Quality of Delta Inflow*
- 4B *Post-Discharge Management*

Example Combination (One of 16 possible variations)

1A, 2B, 3B, 4A

- *Fish Productivity*
- *Modified Land Use Pattern*
- *Supply Enhancement*
- *Managing Quality of Delta Inflow*

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Alternative Formulation Strategy

Conflicts	Approaches	Example	Level of Resolution
1 Fisheries & Diversions	1A *Fish Productivity* 1B *Diversion Modification*	1A, 2B, 3B, 4A • *Fish Productivity* • *Modified Land Use Pattern* • *Supply Enhancement* • *Managing Quality of Delta Inflow*	Maximum Conflict Resolution Minimum Conflict Resolution
2 Habitat & Land Use/Flood Protection	2A *Existing Land Use Pattern* 2B *Modified Land Use Pattern*		
3 Water Supply Availability & Beneficial Uses	3A *Demand Reduction* 3B *Supply Enhancement*		
4 Water Quality & Land Use	4A *Managing Quality of Delta Inflow* 4B *Post-Discharge Management*		

2 x 2 x 2 x 2 = 16 x 2 = 8

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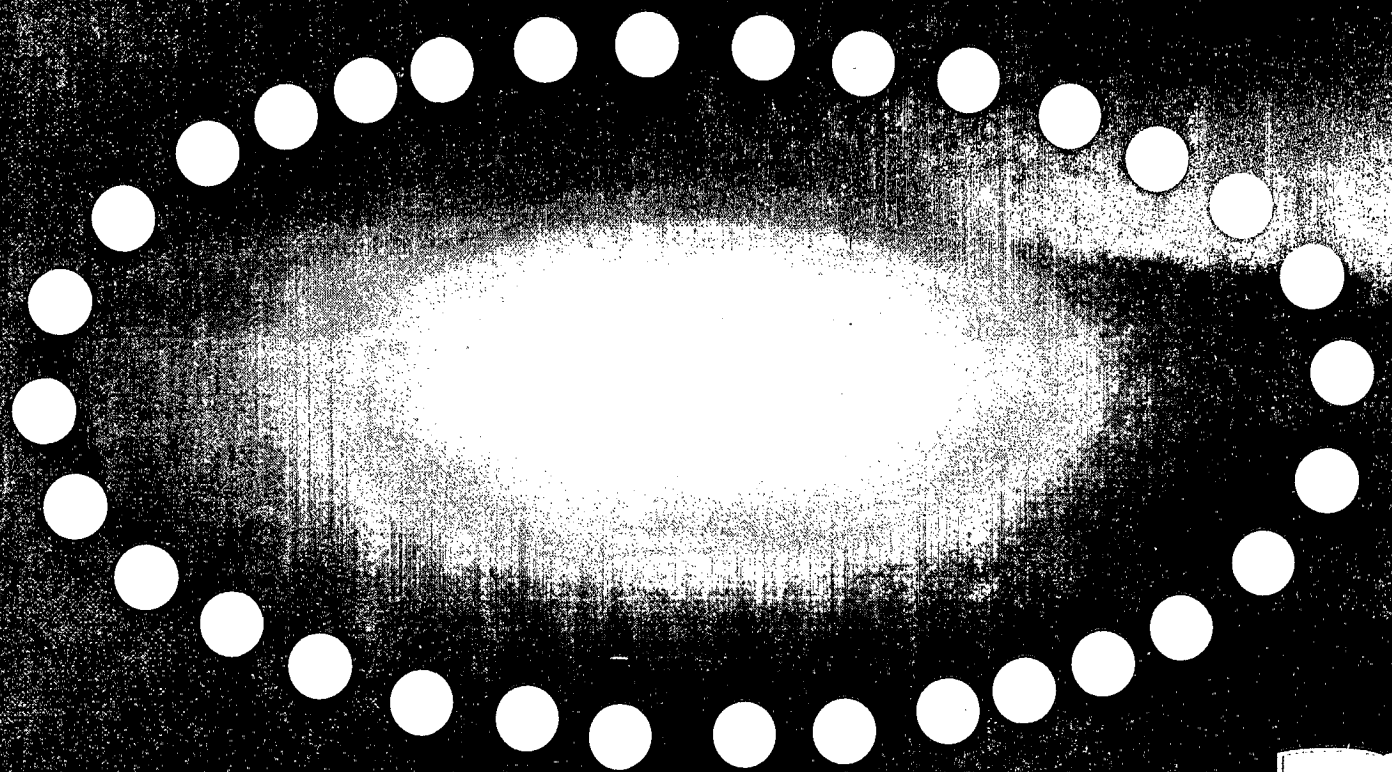
32 Starting Points



Define Boundary of Range
of Solutions to Four Primary Conflicts

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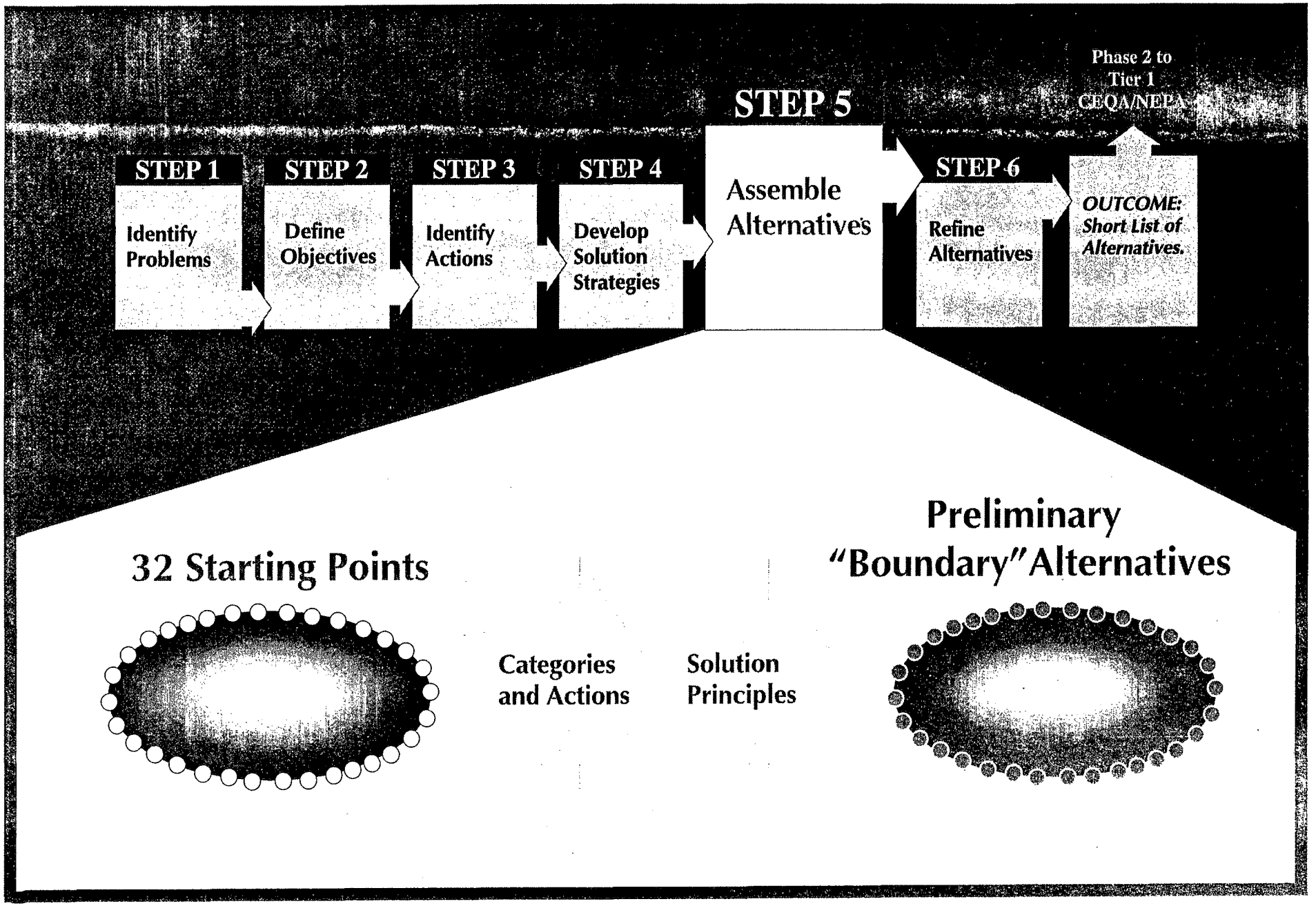

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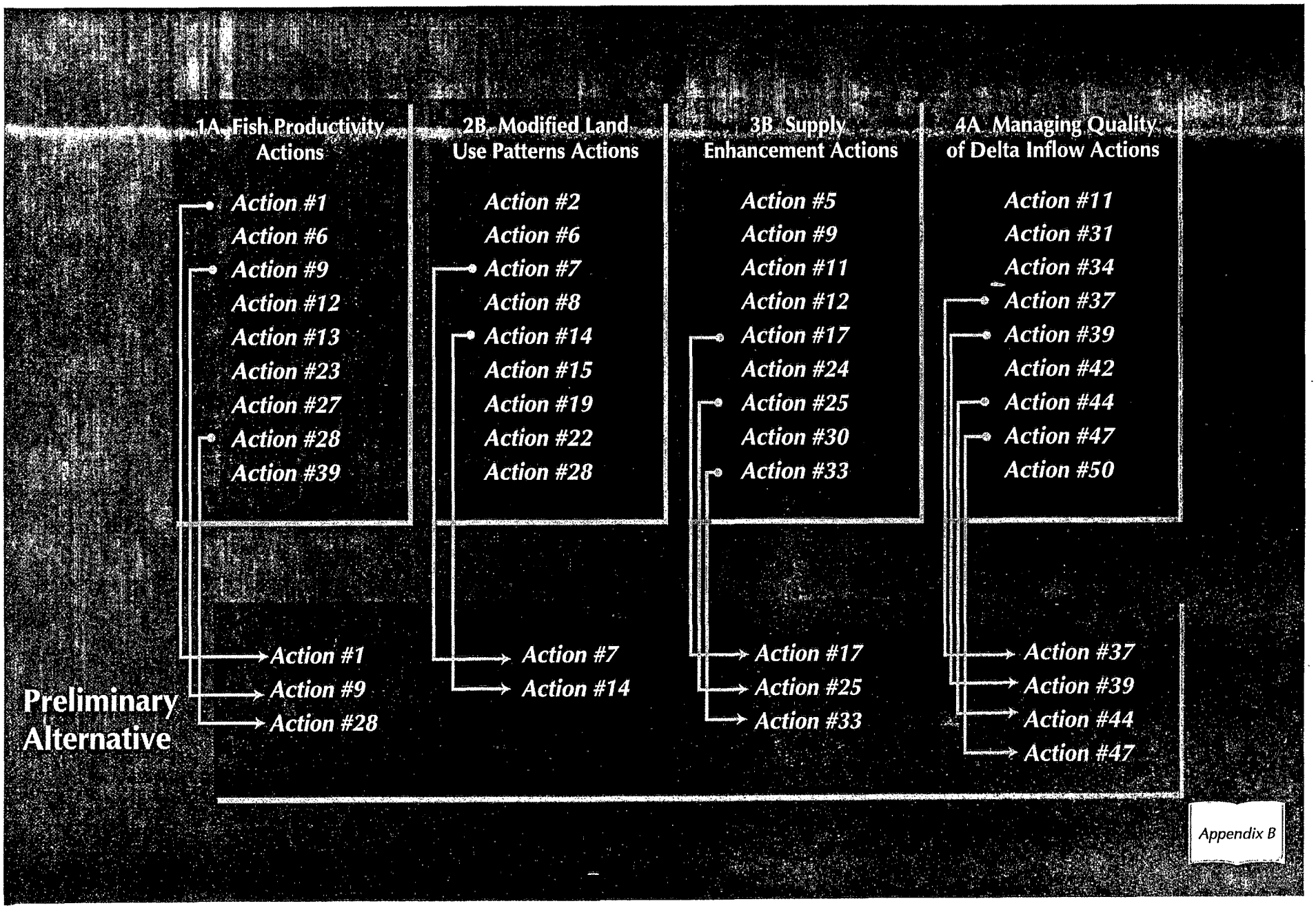

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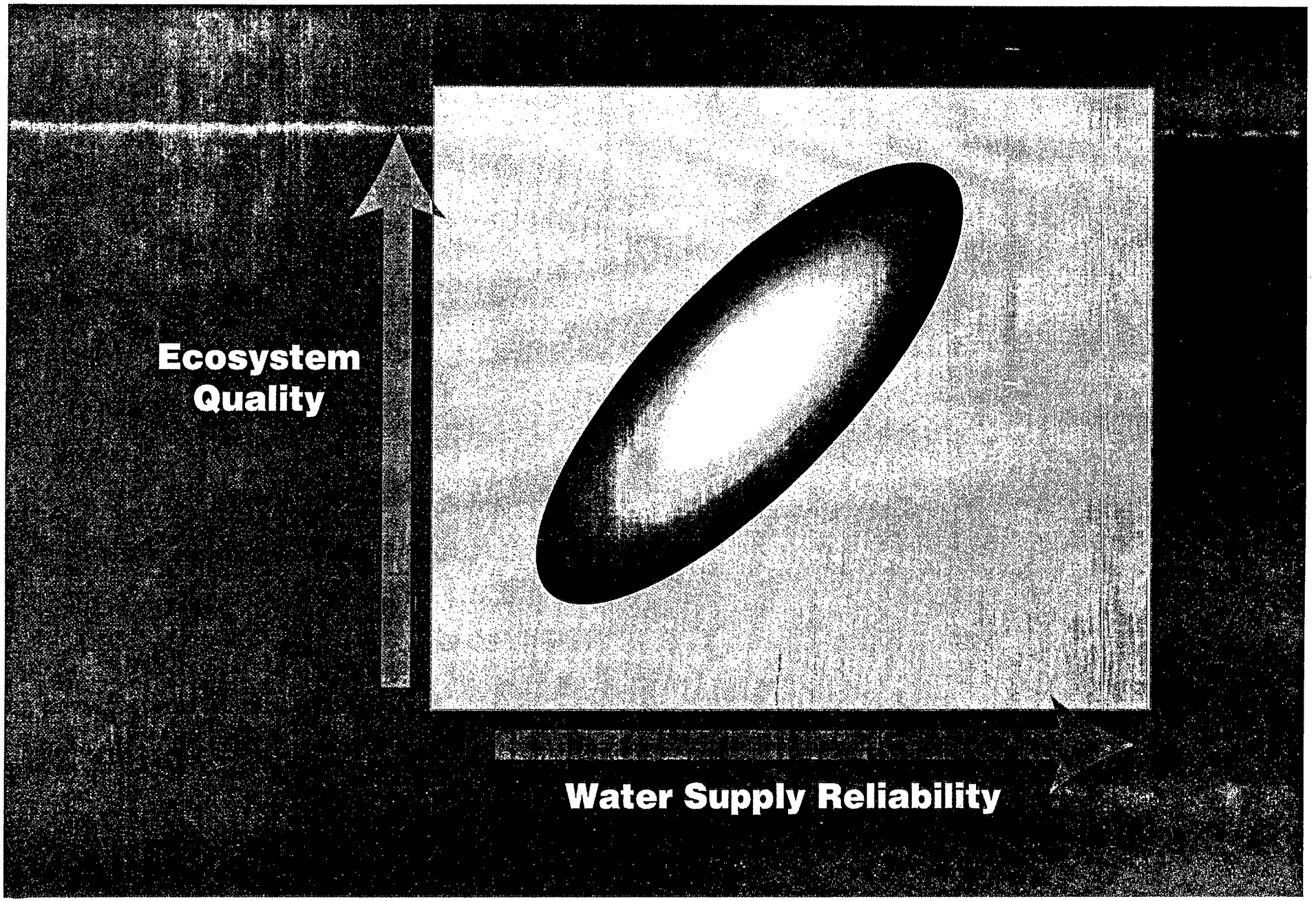

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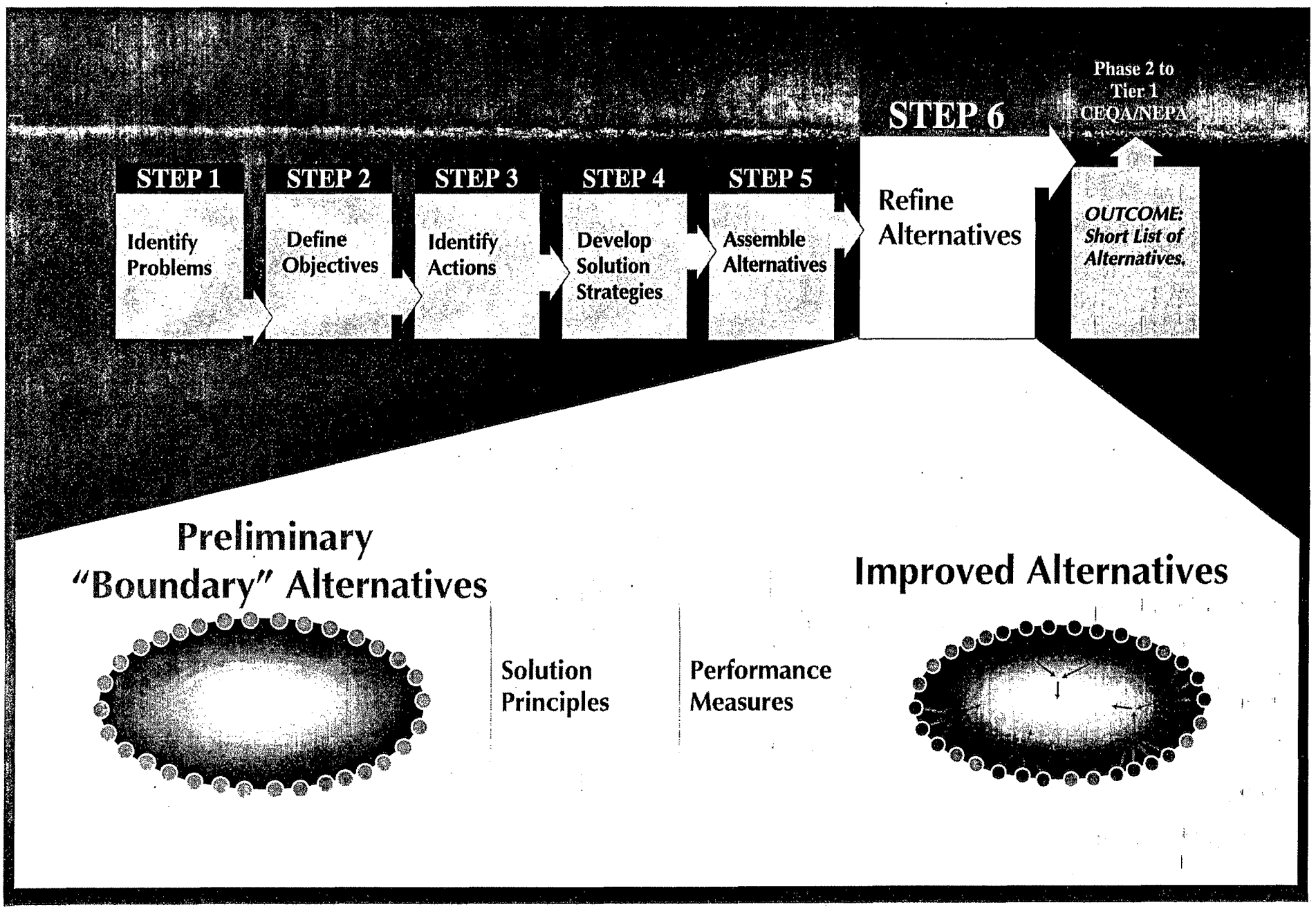

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Performance Measures

14 Objectives

Performance Measures

- Aquatic Habitat
- Wetland Habitat
- Species of Interest
- Water Supply, Average Year
- Water Supply, Dry Year
- Drinking Water Quality
- Agricultural/Industrial Water Quality
- Ecological Water Supply
- Vulnerability

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