

2016

FRA Rail Program Delivery

Meeting

FRA Methods and Approaches in Environmental Analysis and Critical NEPA Procedures

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Transportation
System Center

Volpe Provides FRA Environmental Support

- Support Preparation of NEPA Documents
- Review NEPA documents prepared by Grantees
- Program Support
- Environmental Resource/Regulations Support (e.g. wetlands, cultural resources)
- FRA Environmental Protection Specialist Support
- **Develop Environmental Methods and Approaches**

Volpe Supporting FRA to Development of Environmental Methods and Approaches



Environmental Commitment Compliance

- ▶ Resource Assessment and Evaluation Methodologies
- ▶ Integration of Planning, Alternatives Analysis, and NEPA
- ▶ NEPA Approaches and Training

Resource Evaluation Methodology

1. Aesthetic Environment and Scenic Resources
2. Coastal Resources
3. Construction Period Impacts
4. **Cumulative Impacts**
5. Direct and Indirect Effects
6. Energy Production and Energy Use
7. Environmental Justice
8. Farmland and Forest Resources
9. Water Resources
10. **Geology and Seismic Issues**
11. **Greenhouse Gas Emissions and Climate Change**
12. Hazardous Material
13. Irreversible or Irrecoverable Commitments of Natural Resources
14. Land Use
15. **Natural Ecological Systems**
16. **Noise and Vibration**
17. Public Health
18. Parks and Recreational Facilities
19. Safety and Security
20. Sites of Historical, Archaeological, Architectural or Cultural Significance
21. Socioeconomic Environment
22. Solid Waste Disposal
23. Threatened or Endangered Species
24. Transportation
25. Water Quality
26. **Electromagnetic Fields & Interference**

- ▶ Develop a set of standardized resource analysis methodologies for FRA NEPA projects.
 - ▶ Provides both guidelines for developing methodologies and a template that can be applied to individual projects
 - ▶ Addresses EIS, EA, Tier I and Tier II
 - ▶ Covers all phases of analysis:
 - ▶ Data Sources
 - ▶ Regulatory Context
 - ▶ Affected Environment
 - ▶ Impact Prediction
 - ▶ Mitigation

Integration of Planning, Alternatives Analysis, and NEPA

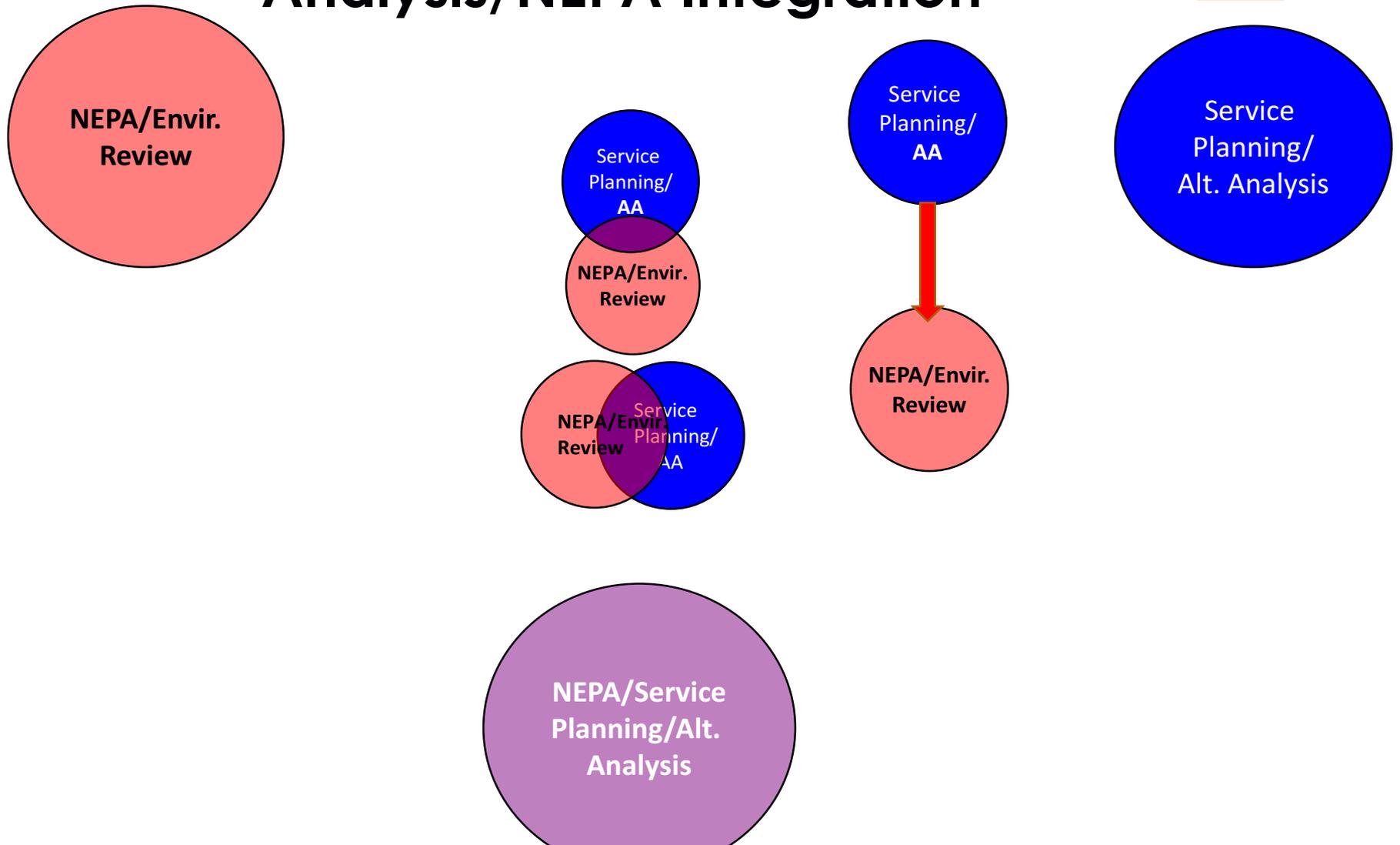
▶ **Consistent with Intent of NEPA:**

- ▶ Insure environmental consideration in decisions
- ▶ Alternatives are at the “Heart of NEPA”

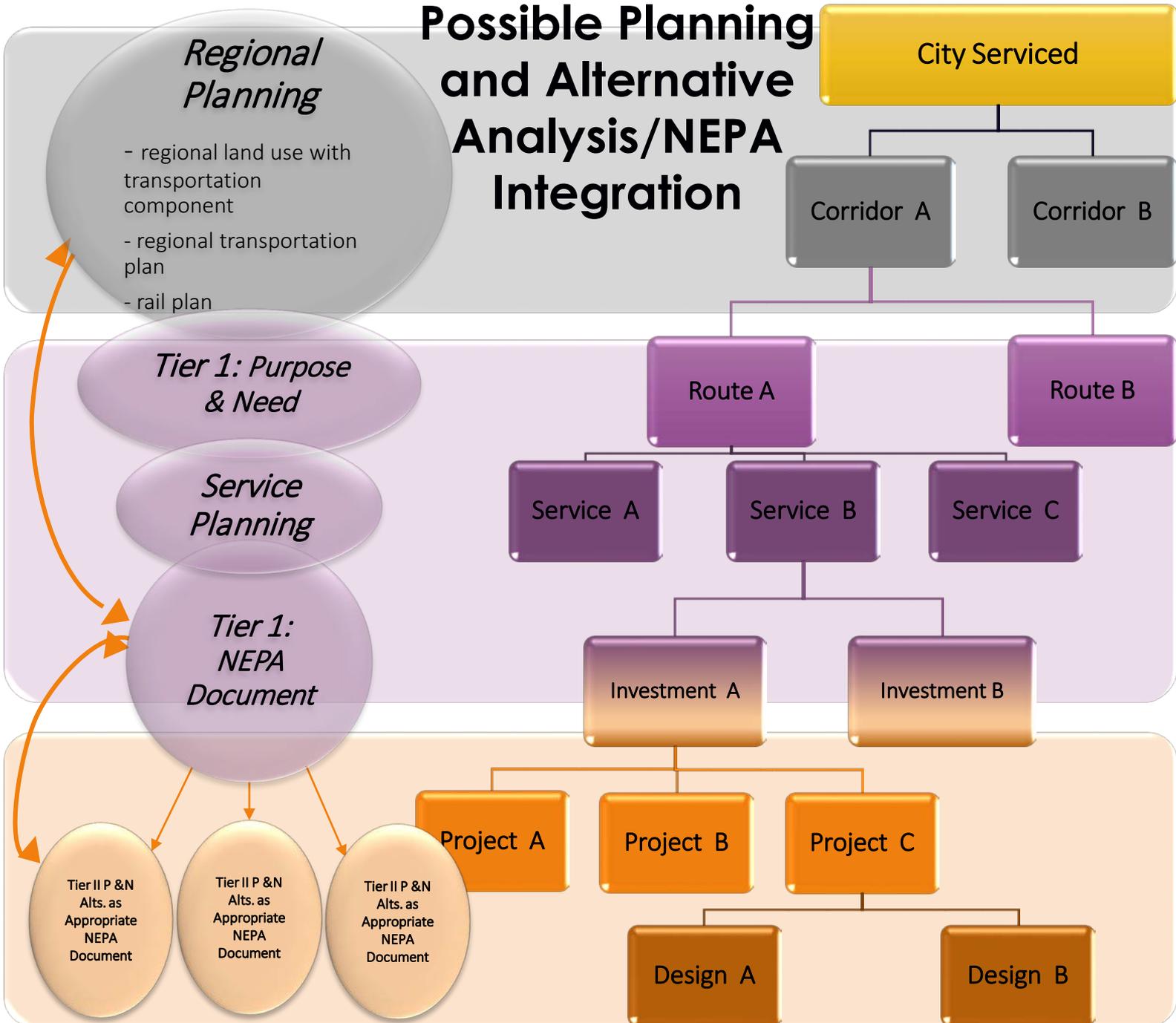
▶ **Addresses Hierarchical Nature of Rail Transportation:**

- ▶ City Pairs
- ▶ Corridor
- ▶ Route
- ▶ Service
- ▶ Infrastructure
- ▶ Project

Planning and Alternative Analysis/NEPA Integration



Possible Planning and Alternative Analysis/NEPA Integration



NEPA Approaches and Training

- ▶ Develop Methods and Approaches specifically for FRA Implementation of NEPA

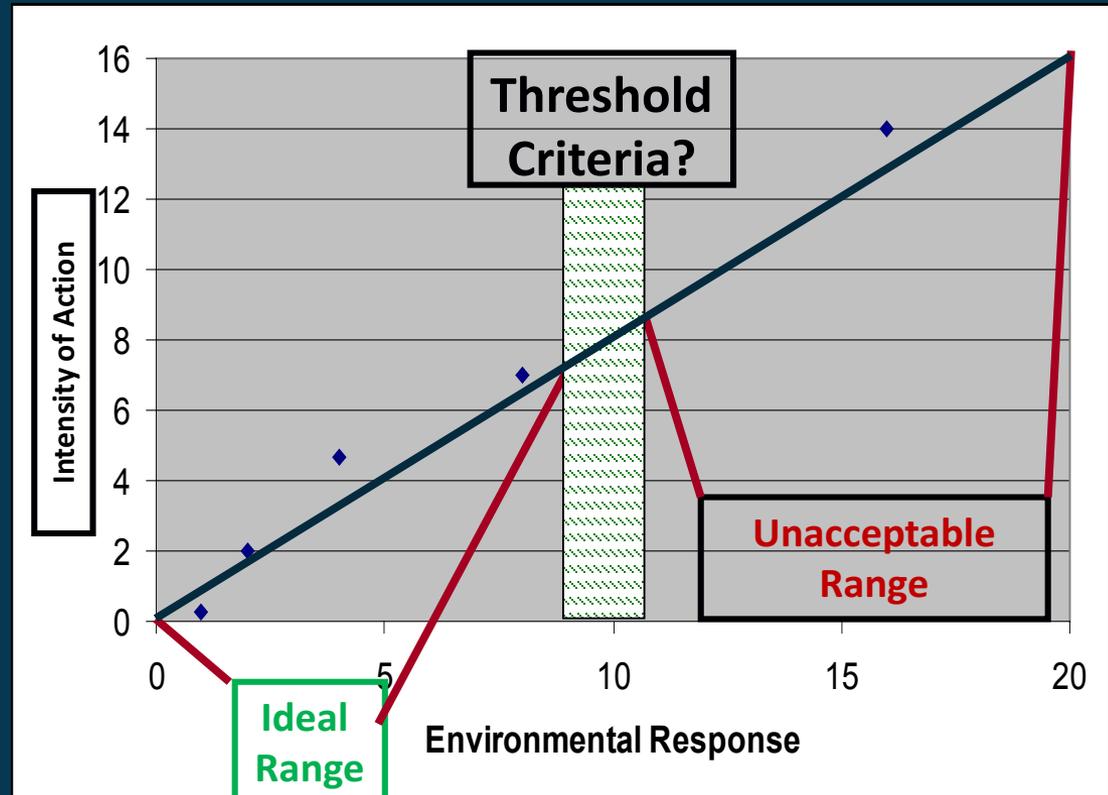
- ▶ Conduct Training
 - ▶ Environmental Protection Specialists
 - ▶ Grantees

- ▶ California High Speed Rail Example “CEQA vs NEPA for Impact Determination”

CEQA Thresholds can be a useful tool as PART OF NEPA Impact evaluation

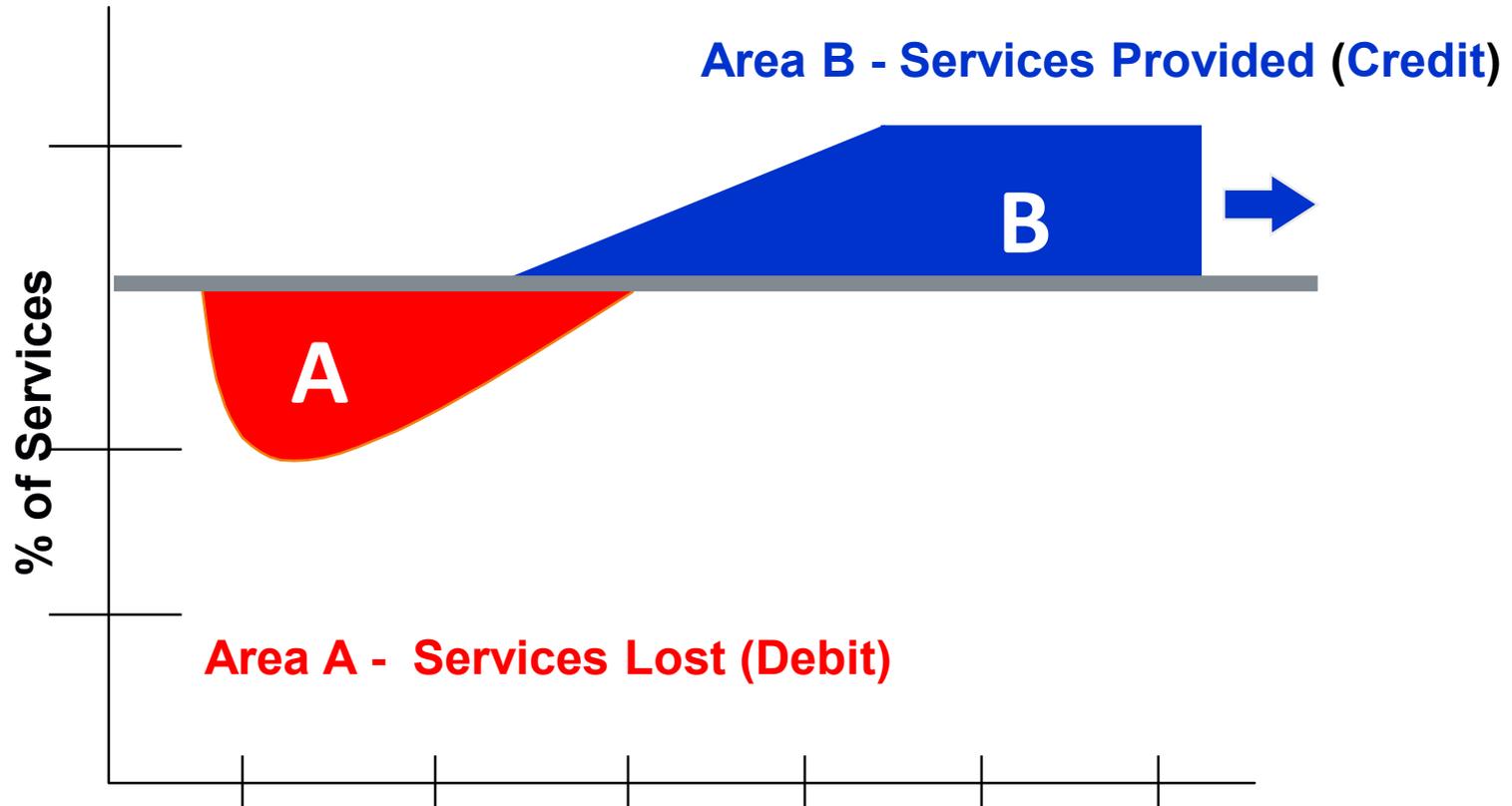
Water Quality Criteria

- » Less than Chronic Criteria
- » Less than Acute Criteria
- » Greater than Acute Criteria
- » **Area Affected**
- » **Value of Resource**
- » **Duration of Exceedance**



NEPA Impact Prediction Approaches: Professional Judgement and Tools From Other Programs

► Net Environmental Benefit Analysis



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Thank you!

Volpe National Transportation Systems Center

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Integration of Planning, Alternatives Analysis, and NEPA

FRA Objective

Develop Approaches and Training for Addressing Alternatives which:

- ▶ Integrates
 - ▶ Service Planning
 - ▶ Alternative Analysis
 - ▶ NEPA
- ▶ Addresses Alternative
 - ▶ Development
 - ▶ Screening
 - ▶ Evaluation