

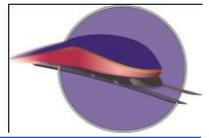
Considering High Speed Rail Environmental Impacts

Federal Railroad Administration



Resurgence of Rail in America

Milestones in HSR Development



1969: Metroliner demonstration service begins
(New York-Washington)

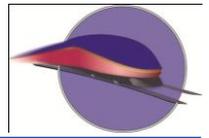
- Reduces NY-DC line haul time from 3:45 to 3:00
- Quickly proves Americans will ride trains
- Cost to Government in 2010 dollars: \$300 million



- **~1970:** TurboTrain demonstration begins (New York-Boston)
 - Reduces NY-Boston line haul time from 4:15 to about 3:45



Milestones in HSR Development

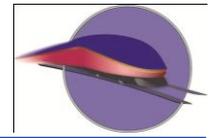


~**2000**: Electrification completed New Haven – Boston, making all 456 miles of NEC electrically powered

•~**2000**: Acelas placed in service Washington-New York-Boston



•**By 2010**: Rail has sixty percent of total “Rail+Air” market Boston-New York-Washington. It meets the definition of HSR.



DOT strategic goals

High-speed rail touches all six DOT strategic goals



Safety



State of Good Repair



**Environmental
Sustainability**



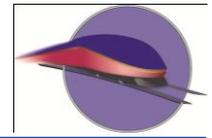
**Economic
Competitiveness**



Livable Communities



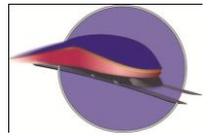
**Organizational
Excellence**



National Environmental Policy Act (NEPA) 1970

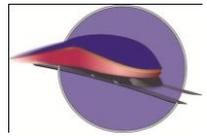
Sec. 2 [42 USC § 4321].

The purposes of this Act are: To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality.

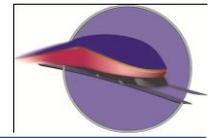


(A) utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment;

(B) identify and develop methods and procedures, in consultation with the Council on Environmental Quality established by title II of this Act, which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations;

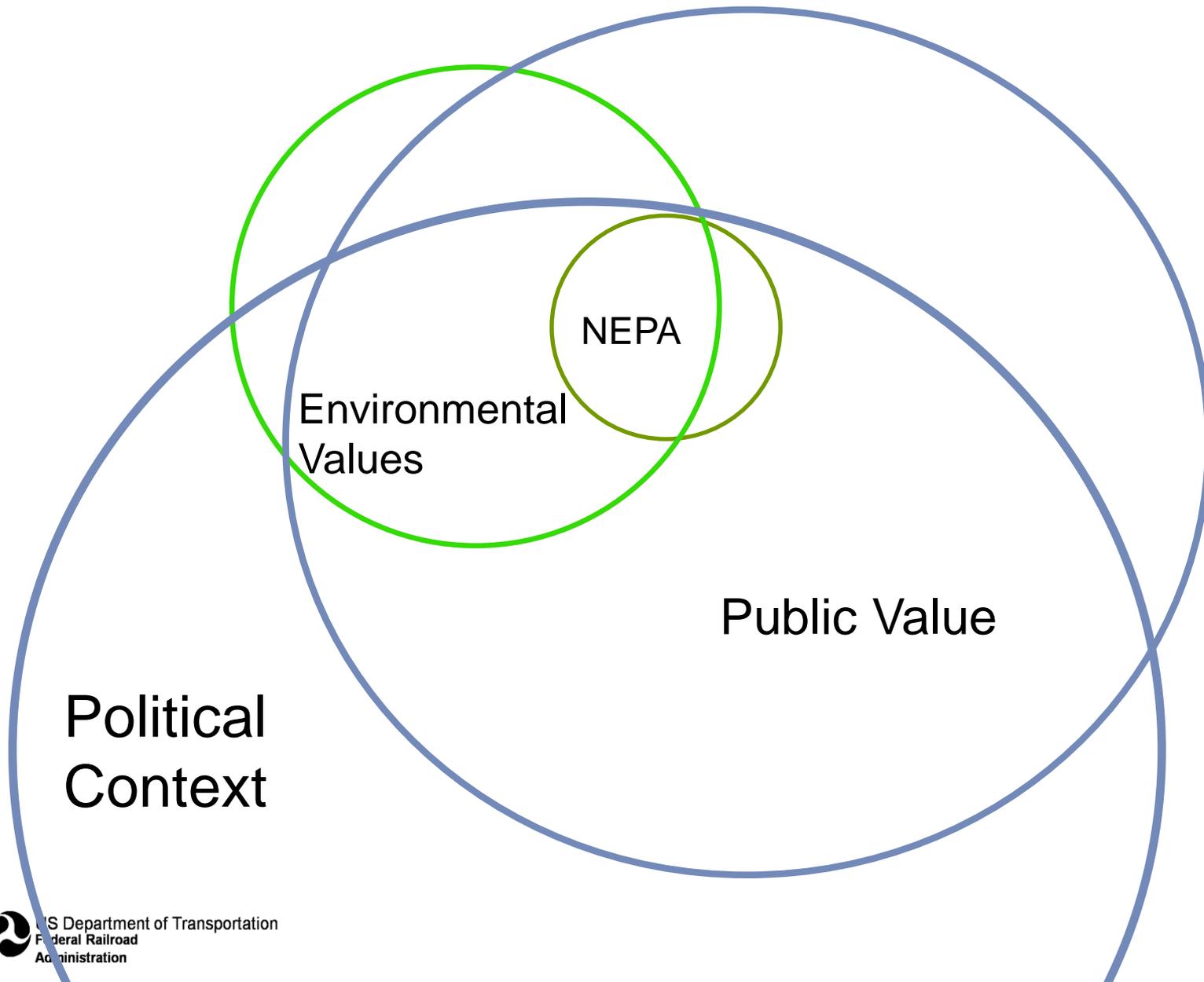
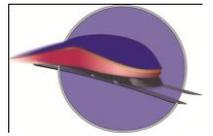


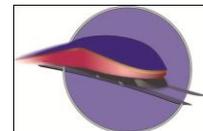
- (C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on --
- (i) the environmental impact of the proposed action,
 - (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,
 - (iii) alternatives to the proposed action,



HSR Environmental Characteristics

- ❑ Measureable operational energy advantage
- ❑ Smaller footprint than comparable highway
- ❑ Noise
- ❑ Barrier effects to wildlife (fencing)
- ❑ Barrier effects to communities
 - ❑ Closing Grade Crossings
 - Huge improvements in safety + noise reduction
 - Altering driving patterns
 - Severing or modifying street corridors
 - Effects to historic condition
- ❑ Serves stations that can support communities and transit





HSR Mega-Regions

