Environmental Concerns

Urban Transportation Planning
MIT Course 1.252j/11.540j
Fall 2016

Frederick Salvucci, MIT Senior Lecturer
Environmental Protection is Reactive

- 1956 Interstate Highway Program
- 1960 Two hearing process
- 1966 section 4(f)
- 1970 NEPA
NEPA

1. Define the problem
2. Consider alternatives
3. Project consequences
4. Share information with public and receive feedback
   - "Draft" and "Final"
5. Choose action and mitigation
6. Citizen right of action
7. Agency manages process
8. Time, FONSI
MEPA

- Separate environmental agency manages process
- No citizen access to court
- Who appoints administrator?
- ENF & Scope
Transportation and Air Quality

1. Fuel consumption = \( \frac{\text{vehicles}}{\text{population}} * \frac{\text{population}}{\text{vehicle}} * \frac{\text{VMT}}{\text{VMT}} * \frac{\text{Fuel}}{\text{Fuel}} \)

1. Pollution = FN (energy consumed)
2. Fix the system; fix the vehicle
3. Air quality problem as
   - Lead
   - CO
   - HC, Nox
   - CO2
4. Fad, or long-term driver of policy?
   - Cancer; cigarettes; war & famine
5. Clean Air Act:
   - 1970
   - 1990
   - Conformity