

Human Resources

Archaeological/Historic
Visual (Aesthetics)
Hazardous Waste

Assessing Impacts to Cultural Resources

- ◆ Historical
- ◆ Archaeological
- ◆ Architectural

- ◆ Identify Source of Potential Impacts
 - Changes in Land Use (Inundation, Destruction, Damage)
 - Indirect Impacts (Treasure Hunting, Vandalism)
 - Changes in Access
- ◆ Determine Study Area
 - Generally the area of direct impact or adjacent properties
- ◆ Determine Existing Conditions
 - SHPO (State/County/Municipality Data)
 - Local Museums/Historical and Archaeological Societies
 - Native American Tribes
 - Colleges/Universities
 - Field Reconnaissance/Surveys

Cultural Resources (cont.)

- ◆ Identify Standard
 - Eligible for National Register
- ◆ Impact Prediction
 - Direct Damage/Destruction/Vibrations
 - Change Character of Setting
- ◆ Assess Significance of Impacts
 - No Effect
 - No Adverse Effect
 - Adverse Effect
- ◆ Mitigation
 - Limit Magnitude of Project
 - Redesign Project
 - Repair
 - Documentation of Structures
 - Relocation of Properties
 - Salvage of Archaeological Materials



Recovery as Mitigation



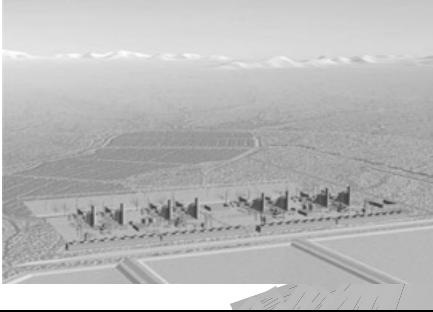
Assessing Impacts to Visual Resources

- ◆ Aesthetic
- ◆ Visual
- ◆ Identify Source of Potential Impacts
 - Changes in Land Use (Inundation, Destruction, Damage)
 - New Physical Facilities
 - Obstruct views
 - Out of character in built environment
 - Visual intrusions
 - Lighting
 - Removal of buffers
 - Isolate historic resource
- ◆ Determine Study Area
 - View shed to and/or from project
- ◆ Determine Existing Conditions
 - Define Study Area
 - Field Reconnaissance
 - Public Participation

Visual Resources (cont.)

- ◆ Identify Standard
 - Federal/ State/ Local Statutes
 - Zoning Policies
- ◆ Impact Prediction
 - Descriptive Approach (photomontage)
 - Use Scale Models
 - Photographic/Computer Simulations
 - Scoring Methods
- ◆ Assess Significance of Impacts
 - Violate Statute/Policies
 - Scoring Methods
- ◆ Mitigation
- ◆ Modify Project (location, height)
 - Screening
 - Selection of Color/Materials
 - Underground Utilities

Stimulation



Stimulation/Mitigation



Assessing Impacts to Hazardous Materials

- ◆ Waste Sites
- ◆ Spill Sites
- ◆ Storage Sites

- ◆ Identify Source of Potential Impacts
 - Changes in Land Use
 - Crossing or Construction Near Sites
- ◆ Determine Study Area
 - Generally the area of direct impact
- ◆ Determine Existing Conditions
 - Federal Agencies (EPA)
 - State Agencies (DEQ)
 - County/Municipal Data (Fire/Police Dept.)
 - Historic Land Use Maps (Sanborn Fire Insurance Maps)
 - Historic Aerial Photographs
 - Field Reconnaissance/Testing

Hazardous Materials (cont.)

- ◆ **Identify Standard**
 - Discharge Multi-Media Environmental Goals (DMEGs)
 - Ambient Multi-Media Environmental Goals (AMEGs)
 - State Clean-Up Standards
- ◆ **Impact Prediction**
 - Direct Effects
 - ◆ Construction Phase
 - ◆ Operation Phase
- ◆ **Assess Significance of Impacts**
 - Any Disturbance of Site
 - Exceed DMEGs/ AMEGs
- ◆ **Mitigation**
 - Avoid Sites
 - Minimize Impacts to Sites
 - Clean Up Site
 - Containment