



**TABLE ES-1  
SUMMARY OF LRT ALTERNATIVE ENVIRONMENTAL IMPACTS**

<b>Subject Area</b>	<b>Impacts</b>	<b>Mitigation Approach</b>
<b>Land Use and Economics</b>	- Potential land-use adjacency impacts in the Las Colinas Urban Center, near Carpenter Ranch Station, and near North Lake College Station	- Minimize land-use conflicts through project design and mitigation of related impacts (visual)
<b>Property Acquisitions and Displacements</b>	- At all stations and for both line sections (I-1 and I-2) - Approx. 49.08 acres to be acquired for alignment - Approx. 27.97 acres to be acquired for stations - No households displaced - Two businesses displaced	- Acquisition and relocation assistance following DART and Federal policies and procedures
<b>Transportation</b>	- 58 crossings of streets, private driveways, one railroad, and the APT - 38 crossings are grade-separated; 12 at-grade crossings: 2 relocated and 6 closed - Localized traffic impacts at stations	- Grade separations, crossings relocated or closed - Install new signals / improve timing at crossings and stations - Street, signal and intersection improvements near stations - Provide for pedestrian access at stations
<b>Air Quality</b>	<b>No impacts anticipated</b>	<b>N / A</b>
<b>Noise and Vibration</b>	- Moderate noise impacts of less than 3 dB(A) to 84 multi-family residential units: 44 at Lofts at Las Colinas, 40 at Delano Apartments. No mitigation proposed. - Moderate increase in noise of less than 3 dB(A) at 132 multi-family residential units at Archstone Apartment homes. No mitigation proposed - No vibration impacts	- Mitigation options are impractical, ineffective or an unjustifiable public expenditure.  - No vibration mitigation required
<b>Visual and Aesthetic Resources</b>	Significant visual impacts at two locations: - North Lake College: elevated structures, station, and other vertical elements for residents of Archstone Apartments multi-family development - North Lake College: elevated structures, station, and other vertical elements for residents of Mandalay Place single-family neighborhood	- Design treatment of LRT structures - Landscape treatment of LRT project components - Vinyl coated fencing - Visual barriers at Station - City of Irving Development Code screening, landscaping, and lighting standards apply
<b>Ecosystems</b>	- Minimal impacts to potential U.S. jurisdictional waterways, limited to column placement within ordinary high water mark - USACE Sec. 404 and 408 permits required for Trinity River crossing - Trees will be removed along project alignment and stations  - Re-channel Intermittent stream (Tributary of Water 16)	- Proposed 2 acres of Wetlands Banking - Review and obtain Corps of Engineers permits, and replace or enhance if required - Meet Cities of Dallas and Irving Tree Ordinance replacement requirements - Replace with native vegetation - Re-channel with natural materials
<b>Geology</b>	<b>No impacts anticipated</b>	<b>N / A</b>
<b>Hydrology / Water Quality</b>	- Some additional runoff potential; temporary and limited duration during construction - Bridging of some floodplains; impacts limited to column placement	- TPDES permitting process and standards will address issues - Coordination of final design with USACE, cities, and DFW Airport
<b>Hazardous / Regulated Materials</b>	- No site within proposed project footprint - 69 sites total in databases: 0 High concern sites, 12 Moderate concern sites; 57 Low concern sites - 3 "reconnaissance sites" of potential Moderate concern were identified from field investigations	- Detailed impacts to be determined during final design - Mitigation needs dependent on impacts to be addressed during acquisition (Phase II)
<b>Safety and Security</b>	- No pedestrian crossing safety issues at stations identified	- Pedestrian bridges / tunnel - Pedestrian-activated signalized crossings - pedestrian gates - fencing where LRT speed over 45 mph
<b>Construction</b>	- Temporary and limited duration impacts	- Coordination with affected cities and property owners



**TABLE ES-1 (continued)  
SUMMARY OF LRT ALTERNATIVE ENVIRONMENTAL IMPACTS**

Subject Area	Impacts	Mitigation Approach
<b>Cultural Resources (including Historic, Archeological and Parklands)</b>	<ul style="list-style-type: none"> <li>- No historic properties affected</li> <li>- No "adverse effects" to archeological resources identified</li> <li>- No Direct, Temporary, or Constructive uses of California Crossing Park, Tournament Players Club private golf course, or North Lake College sports fields</li> <li>- Section 4(f) and Section 6(f) impacts at Trinity River Elm Fork Greenbelt (L. B. Houston Park): see <b>Section 4 (f) and Section 6 (f) Evaluation</b> below</li> </ul>	<ul style="list-style-type: none"> <li>- DART will conduct field tests for archeological deposits in Trinity River floodplain prior to construction</li> <li>- Section 4 (f) and Section 6 (f) Evaluation mitigation described below</li> </ul>
<b>Section 4 (f) and Section 6 (f) Evaluation</b>	<ul style="list-style-type: none"> <li>- No "Constructive use" of park property at Trinity River Elm Fork Greenbelt</li> <li>- "Direct Use" and "Temporary Use" of park property at Trinity River Elm Fork Greenbelt</li> <li>- Park property purchased with federal funds, therefore has a Section 6 (f) impact</li> </ul>	<ul style="list-style-type: none"> <li>- Avoidance and minimization of park land use</li> <li>- No prudent or feasible alternative (concurring by Department of Interior)</li> <li>- Park land will be restored to original condition after construction</li> <li>- ROW purchase proceeds to be used for Section 6(f) parkland replacement</li> <li>- Consultation process with City of Dallas, NPS, and TP&amp;WS has identified 2.95 acres of adjacent property as replacement park land</li> </ul>
<b>Impacts to Airport Property</b>	<ul style="list-style-type: none"> <li>- No impacts to airport systems or services. Instrument Landing System (ILS) study indicates no significant effect on Runway 31 R localizer from the project</li> <li>- Bridging of one floodplain (South Fork of Hackberry Creek) on airport property; impacts limited to column placement</li> </ul>	<p><b>N / A</b></p> <ul style="list-style-type: none"> <li>- Coordination of final design with USACE and DFW Airport</li> </ul>
<b>Cumulative Effects</b>	<p>- <b>No cumulative effects were identified</b></p>	<p><b>N / A</b></p>

Source: S.R. Beard & Associates, May 2008

**PUBLIC AND AGENCY INVOLVEMENT**

The most important outreach efforts related to the proposed project were focused on engaging the participation of the general public, including both individuals and groups with an interest in the progress and outcome of the PE/EIS phase of the project. The Public and Agency Involvement effort initially concentrated on project start-up and scoping. Later efforts were made to transition to alignment and station area definition and refinement, impact assessment and development of mitigation options.

A pre-scoping meeting was conducted with project stakeholders and the general public in March 2005. Formal public and agency scoping meetings were conducted in May and June of 2005. Scoping is a study process designed to inform the public, interest groups, and involved agencies about the proposed project, and to present the proposed actions, alternatives, and issues for public and agency review. The main goal of the process is to encourage the active participation of the public, groups, and agencies early in the decision-making process. It provides the public the opportunity to communicate issues and concerns to the project team and to help develop alternatives before considerable time and effort have been put into the process.

During the scoping and planning of the proposed project, DART actively engaged agencies and interested parties along the alignment in a proactive and iterative public involvement process. In addition to being especially informative to the design option alternatives that were developed in response to comments, this process was consistent with DART's commitment to its Public and Agency Involvement Plan.

A Staff Work Group (SWG) was developed during the MIS stage to assist in the effective communication between DART and agency representatives at the federal, state, and local level.

