

Fort Worth Central City Preliminary Design

Socioeconomics and Environmental Justice

Final Supplement No. 1 to the Final Environmental Impact Statement

Appendix D

March 2008

Rendering Image courtesy of CDM



Appendix D

Socioeconomic and Environmental Justice Assessment Supplement No. 1 to the Final Environmental Impact Statement for the Central City Project, Upper Trinity River, Texas

Central City Project - The stated preferred alternative in the authorized Central City FEIS, described as the Community Based Alternative, addressed four objectives; flood protection, ecosystem improvement, urban revitalization, and recreation. The authorized Central City Project would require approximately 5,250 acre-feet of additional valley storage to accommodate flow alterations by the project's configuration. This additional valley storage is identified in the authorized report as being provided primarily by the Riverbend Hydraulic Valley Storage Area and by smaller areas near University Drive, Samuels Avenue, and on I-35 sites just downstream of the dam close to Riverside Park.

Additionally, the Central City FEIS outlines measures to mitigate for losses wetlands, riparian woodlands, and upland woodlands primarily in these hydraulic mitigation sites. Mitigation requirements include development of emergent wetland, establishment of riparian woodland, establishment upland forest, as well as management of existing riparian woodland and upland forest. Mitigation for aquatic impacts to Marine and Lebow Creeks include diverting flows to the mid-reach of Lebow Creek, channel modifications, a gravity flow pipeline from the Samuels Avenue Dam impoundment, and additional mitigation measures for Ham Branch.

One of the controversial aspects of the authorized Central City Project was the issue of the use of private lands for public use and the potential use of eminent domain to acquire needed real estate.

Riverside Oxbow and the Modified Central City Project - The original interim feasibility report and IES identified the National Ecosystem Restoration Plan (NER) as one that "will restore the biological integrity of the wetland and bottomland hardwood communities through a combination of measures directed at either specific habitat types or specific problems within the existing ecosystem." The project consists primarily of reestablishing low flows through the natural channel of the West Fork of the Trinity River featuring a notched control structure in the existing floodway channel to allow flows through the old cutoff oxbow, facilitating restoration of the oxbow's aquatic and riparian woodland complex. Restoration of the cutoff oxbow would include demolition and replacement the existing Beach Street Bridge. Ecosystem restoration features include the creation emergent wetland, open water, and vegetative fringe habitat within the project area. Various hardwood improvement measures would be implemented on existing riparian forest within the floodplain, including a riparian corridor along the West Fork from Riverside Drive to East 1st Street. A buffer zone of grasses and forbs would be established as well as reforestation of disturbed and grassland areas with native trees and shrubs and preservation and habitat improvement measures on native prairie and scrub/shrub floodplain terrace. A variation of this plan, the Locally Preferred Plan, calls for additional features including relocation of the entrance to Gateway Park to include a new access road and bridge over the oxbow channel. Additionally, the local sponsor wanted to include acquisition of a portion of the Tandy zone to restore the native prairie grasslands.

Recreational features include pedestrian and equestrian trails, recreation access points with parking off of Riverside Drive, and west of Beach Street and south of the oxbow channel. Restroom facilities would be provided at each of the access points.

The Modified Central City Project shifts the valley storage and ecosystem restoration from the upstream sites specified in the authorized EIS downstream to the Riverside Oxbow area. Starting with the valley storage requirement of 5,250 acre-feet identified in the authorized Central City Project, an analysis determined that some, but not all, of the valley storage requirement could be met within the Riverside Oxbow area. Other valley storage sites were revisited with the intent of minimizing the acquisition of private land resulting in the identification of 22 sites within the combined study area that could accommodate the valley storage requirements. This list was further refined to one consisting of 17 preferred sites.

The Modified Project lists preferred valley storage sites consisting of the Rockwood Park West site, a 21.6 acre City of Fort Worth-owned site; the Samuels Avenue sites, covering approximately 37.8 acres lying on both the north and south banks of the West Fork; the Riverside Park site, a 13 acre site also owned by the City of Fort Worth; the Ham Branch site, a 500 acre site along US Hwy 287; the Riverside Oxbow sites, consisting of 200 acres; and the Gateway Park sites, which consist of 225 acres.

Study Area Demographics (Existing and Future)

The socioeconomic assessment for the initial Central City EIS found that the project area, as defined in that document, is predominantly Hispanic with several Census blocks displaying populations that are predominantly black. The inclusion of the Riverside Oxbow project does not significantly change the racial and ethnic composition of the study proposed in the Central City EIS. While there is essentially no one living within the actual footprint of the Riverside Oxbow project, the boundary does intersect two Census blocks containing subdivisions that may be potentially impacted due to their proximity. The following is a revision of the Central City study area demographics amended to reflect the addition of the Riverside Oxbow project.

Race and Ethnicity - The following table depicts the racial and ethnic makeup for Tarrant County, the original Central City study area, the Riverside Oxbow area, and the revised study area for the years 2000 and 1990.

**Table 1
Racial Composition – County, Original Study Area, Riverside Oxbow Area, and Revised Study Area**

	Tarrant County				Original Study Area			
	1990		2000		1990		2000	
Total Population	1,170,103	100.0%	1,446,219	100.0%	36,932	100.0%	38,945	100.0%
Male	578,095	49.4%	713,549	49.3%	19,245	52.1%	20,409	52.4%
Female	592,008	50.6%	732,670	50.7%	17,687	47.9%	18,536	47.6%
Hispanic	133,979	11.5%	285,338	19.7%	18,930	51.3%	23,658	60.7%
White	859,883	73.5%	895,446	61.9%	11,348	30.7%	10,373	26.6%
Black	140,512	12.0%	180,457	12.5%	6,078	16.5%	4,275	11.0%
Asian, Hawaiian, PI	29,175	2.5%	52,303	3.6%	285	0.8%	306	0.8%
American Indian	5,575	0.5%	6,856	0.5%	189	0.5%	171	0.4%
Other	979	0.1%	25,819	1.8%	116	0.3%	162	0.4%

	Riverside Oxbow				Revised Study Area			
	1990		2000		1990		2000	
Total Population	1,602	100.0%	2,053	100.0%	38,534	100.0%	40,998	100.0%
Male	868	54.2%	1,091	53.1%	20,113	52.2%	21,500	52.4%
Female	734	45.8%	962	46.9%	18,421	47.8%	19,498	47.6%
Hispanic	375	23.4%	1,095	53.3%	19,305	50.1%	24,753	60.4%
White	1,123	70.1%	910	44.3%	12,471	32.4%	11,283	27.5%
Black	18	1.1%	11	0.5%	6,096	15.8%	4,286	10.5%
Asian, Hawaiian, PI	56	3.5%	0	0.0%	341	0.9%	306	0.7%
American Indian	30	1.9%	22	1.1%	219	0.6%	193	0.5%
Other	0	0.0%	15	0.7%	116	0.3%	177	0.4%

As was noted in the initial Central City EIS, total population for Tarrant County increased almost 24 percent from 1990 to 2000 while the total population for the original study area increased by five percent. The Riverside Oxbow area increased by 28 percent between 1990 and 2000, giving the new revised study area an increase of 6.4 percent. All ethnic groups saw increases in population in Tarrant County with the Hispanic population having the largest, an increase of 113 percent. The Hispanic population increased almost 25 percent in the original study area and increased almost 200 percent for the Riverside Oxbow area. The revised study area Hispanic population increased by 28.2 percent.

Income Levels - The following charts illustrate the income distribution for County, the original Central City study area, the Riverside Oxbow area, and the revised study area based on household income for the 1990 and 200 censuses. Chart 1 depicts this income distribution for 1990.

Chart 1

Income Distribution 1990

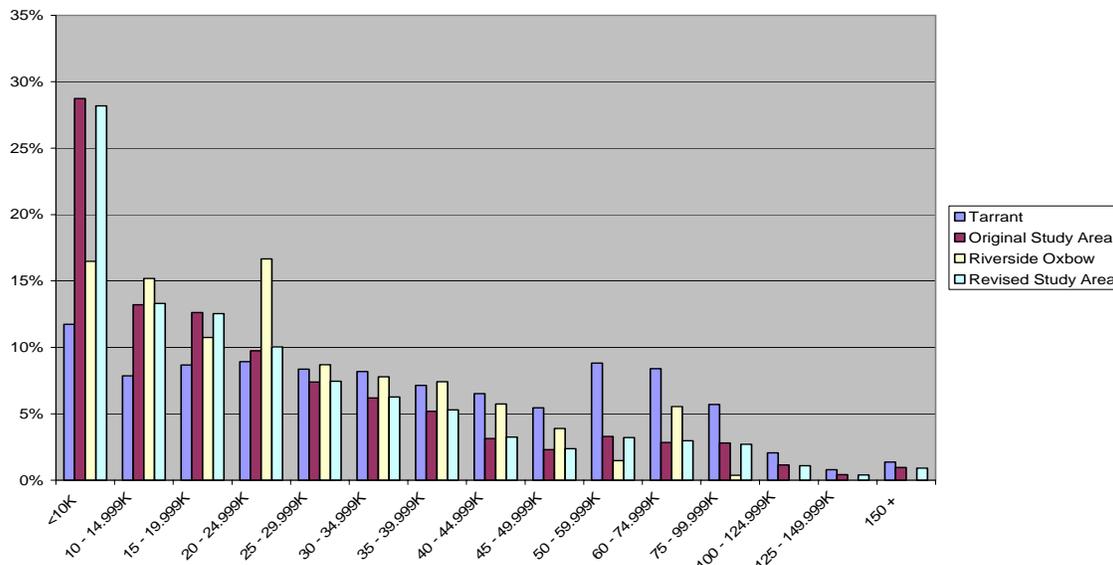
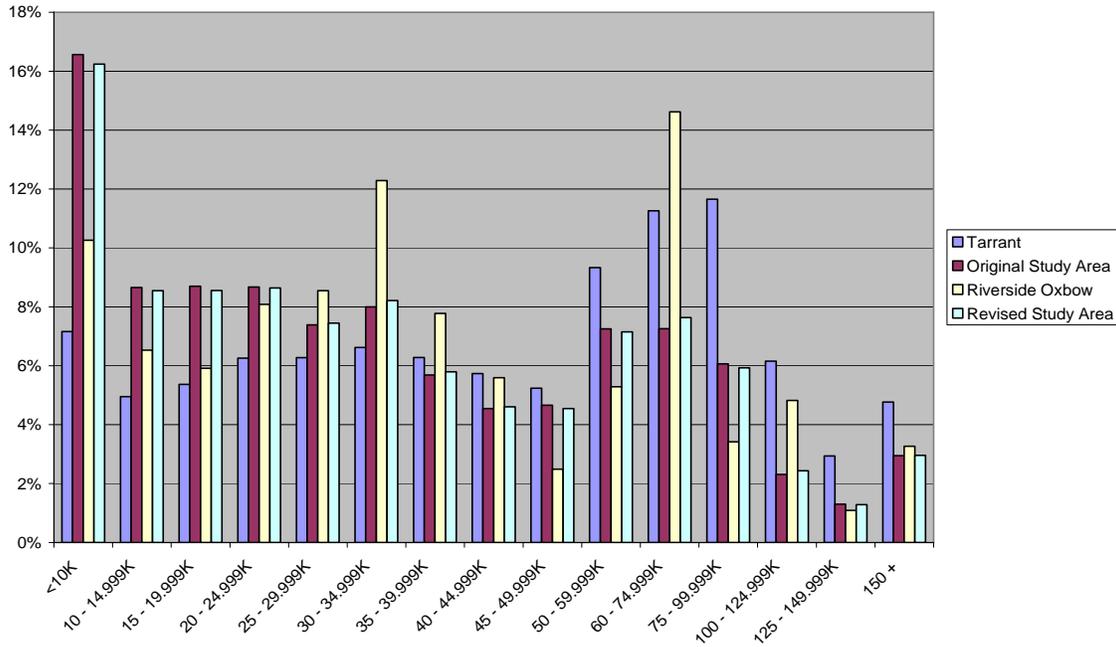


Chart 1 shows a relatively even distribution of income for the county with only 11.7 percent of the households having incomes less than \$10,000. Almost 29 percent of the

households in the original study area had incomes less than \$10,000 while almost 17 percent of the households in the Riverside Oxbow area had incomes less than \$10,000. The revised study area displays income distribution patterns very similar to the original study area. Chart 2 shows the income distribution for the County, the original Central City study area, the Riverside Oxbow area, and the revised study area for 2000.

Chart 2

Income Distribution 2000



In 2000, the percentage of households having incomes less than \$10,000 decreased to 7.2 percent for Tarrant County and decreased to 16.6 percent for the original study area. The Riverside Oxbow area decreased to 10.3 percent for the percentage below \$10,000. Again, the revised study area displays an almost identical pattern as the original study area.

Table 2 displays the number of households, aggregate household income, and average household income for Tarrant County, the original Central City study area, the Riverside Oxbow area, and the revised study area in 1990 and 2000.

Table 2
Household Income – County, Original Study Area, Riverside Oxbow Area, and Revised Study Area

	Tarrant County		Original Study Area	
	1990	2000	1990	2000
Total Households	439,335	534,019	11,539	11,955
Agg. Household Income	17,607,117,254	32,100,894,600	313,840,671	539,184,900
Avg. Household Income	40,077	60,112	27,198	45,101

	Riverside Oxbow		Revised Study Area	
	1990	2000	1990	2000
Total Households	540	643	12,079	12,598
Agg. Household Income	13,289,198	34,720,900	327,129,869	573,905,800
Avg. Household Income	24,610	53,998	27,083	45,555

Average household income for the original study area was 32 percent less than the county in 1990 and 25 percent less than that of the county in 2000. The Riverside Oxbow area was almost 39 percent less than the county in 1990 but the gap shrunk to just over 10 percent in 2000. The patterns for the revised study area are very close to that of the original study area.

Poverty Status - Table 3 describes the poverty status of Tarrant County, the original Central City study area, the Riverside Oxbow area, and the revised study area.

Table 3
Poverty Status – County, Original Study Area, Riverside Oxbow Area, and Revised Study Area

	Tarrant County		Original Study Area	
	1990	2000	1990	2000
Total Population for Poverty Level	1,149,013	1,421,383	33,959	35,737
Total Population Above Poverty Level	1,022,460	1,270,895	23,307	27,715
Total Population Below Poverty Level	126,553	150,488	10,652	8,022
Percent Above Poverty Level	89.0%	89.4%	68.6%	77.6%
Percent Below Poverty Level	11.0%	10.6%	31.4%	22.4%

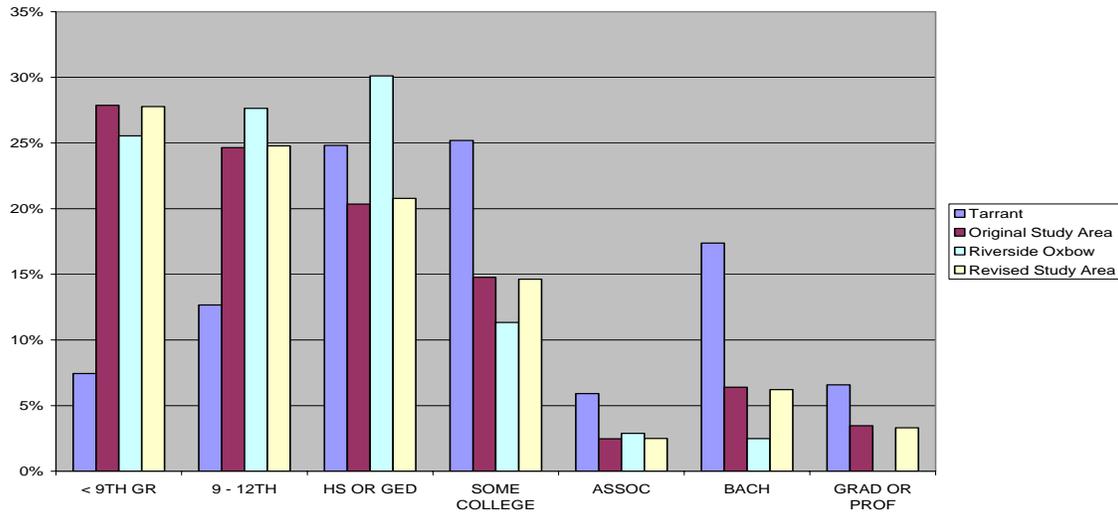
	Riverside Oxbow		Revised Study Area	
	1990	2000	1990	2000
Total Population for Poverty Level	1,602	2,053	35,561	37,790
Total Population Above Poverty Level	1,280	1,733	24,587	29,448
Total Population Below Poverty Level	322	320	10,974	8,342
Percent Above Poverty Level	79.9%	84.4%	69.1%	77.9%
Percent Below Poverty Level	20.1%	15.6%	30.9%	22.1%

The percentage of the population in Tarrant County living below the poverty level was eleven percent for 1990 and declined slightly to 10.6 percent in 2000. The original study area had 31.4 percent of its population living below the poverty level in 1990 and decreased to 22.4 percent in 2000. The Riverside Oxbow area by contrast, had 20.1 percent of its population living below the poverty level in 1990. The percentage living below the poverty decreased to 15.6 percent in 2000, a larger drop relative to the county. The revised study area is within a percentage point of the original study area in both 1990 and 2000.

Educational Attainment. Chart 3 depicts educational attainment for Tarrant County, the original Central City study area, the Riverside Oxbow area, and the revised study area for 1990.

Chart 3

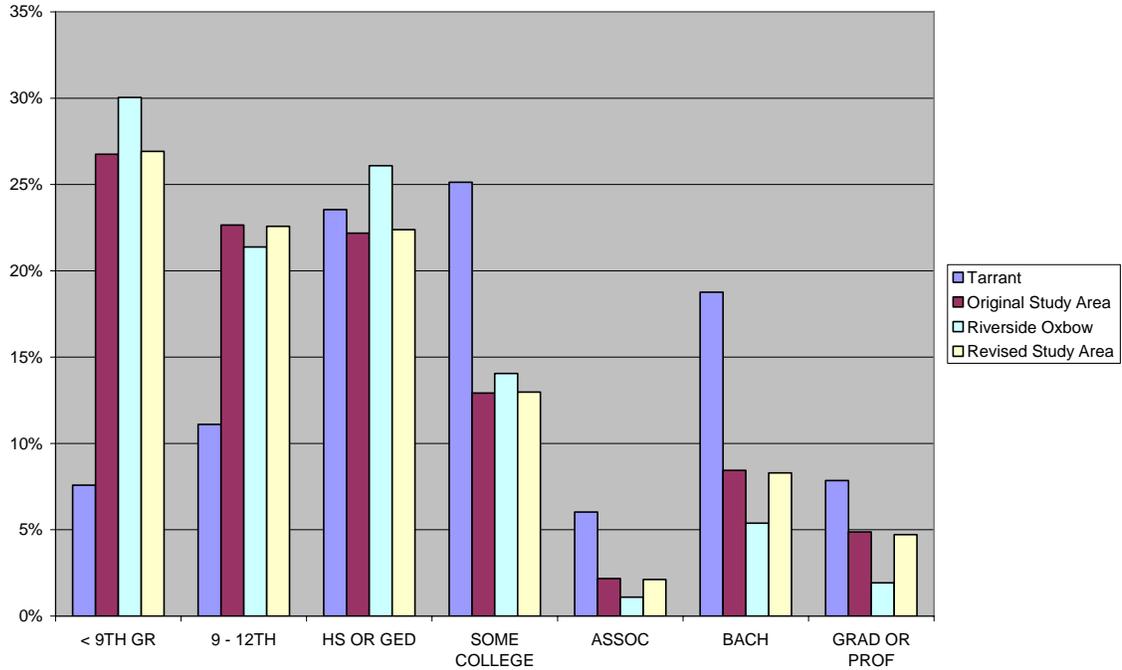
Educational Attainment 1990



In 1990, almost 28 percent of the population of the original study area had less than a ninth grade education of those 25 and over. This compares with only 7.4 percent of the population 25 and over for Tarrant County. Almost 26 percent of the population of the Riverside Oxbow area had less than a ninth grade education in 1990. The Riverside Oxbow area also had substantially lower rates of college attendance than the county as a whole. The revised study area had roughly the same educational pattern as the original study area. Chart 4 depicts educational attainment for 2000.

Chart 4

Educational Attainment 2000



This chart displays many of the same disparities in educational attainment between Tarrant County, the original study area, the Riverside Oxbow area, and the revised study area. The original and revised study areas did see small percentage reductions in lower levels of educational attainment for 2000 but these were offset by increases in higher levels of educational attainment, particularly attainment of bachelor's degrees as well as professional and graduate degrees. The Riverside Oxbow area did however see increases in the percentage of those with less than a 9th grade education bringing with it reductions in the percentage of those attending and graduating from high school but did see increases in rates of college attendance and increases in the attainment of bachelor's and graduate degrees.

Unemployment - Table 4 displays the unemployment rates in 1990 and 2000 for Tarrant County, the original Central City study area, the Riverside Oxbow area, and the revised study area.

Table 4
Unemployment Rates – County, Original Study Area, Riverside Oxbow Area, and Revised Study Area

	Tarrant County		Original Study Area	
	1990	2000	1990	2000
Male Labor Force	349,640	408,737	8,893	9,488
Employed	329,516	391,793	7,852	8,723
Unemployed	20,124	16,944	1,041	752
Unemployment Rate	5.8%	4.1%	11.7%	7.9%
Female Labor Force	285,758	340,752	5,648	6,280

Employed	269,429	323,594	4,959	5,489
Unemployed	16,329	17,158	689	791
Unemployment Rate	5.7%	5.0%	12.2%	12.6%
Combined Labor Force	635,398	749,489	14,541	15,768
Employed	598,945	715,387	12,811	14,212
Unemployed	36,453	34,102	1,730	1,543
Unemployment Rate	5.7%	4.6%	11.9%	9.8%

	Riverside Oxbow		Revised Study Area	
	1990	2000	1990	2000
Male Labor Force	549	480	9,442	9,968
Employed	490	469	8,342	9,192
Unemployed	59	11	1,100	763
Unemployment Rate	10.7%	2.3%	11.7%	7.7%
Female Labor Force	336	273	5,984	6,553
Employed	319	255	5,278	5,744
Unemployed	17	18	706	809
Unemployment Rate	5.1%	6.6%	11.8%	12.3%
Combined Labor Force	885	753	15,426	16,521
Employed	809	724	13,620	14,936
Unemployed	76	29	1,806	1,572
Unemployment Rate	8.6%	3.9%	11.7%	9.5%

The combined unemployment rate for Tarrant County for 1990 stood at 5.7 percent while the same rate for the original study area was 11.9 percent (11.7 percent for the revised study area). The Riverside Oxbow area was 8.6 percent. In 2000, the combined unemployment rate for Tarrant was 4.6 percent, 9.8 percent for the original study area (9.5 for the revised), and 3.9 percent for the Riverside Oxbow area.

Housing Characteristics - The following table describes the average home values, as well as percentage of home ownership, and the percentage of rentals for the County, the original and revised study areas, and the Riverside Oxbow area.

Table 5
Housing Characteristics – County, Original Study Area, Riverside Oxbow Area, and Revised Study Area

	Tarrant County		Original Study Area	
	1990	2000	1990	2000
Total Housing Units	491,152	565,830	13,260	12,958
Occupied Housing Units	438,634	533,864	11,622	11,829
Vacant Housing Units	52,518	31,966	1,638	1,129
Owner Occupied	254,897	324,754	5,610	5,669
Renter Occupied	183,737	209,110	6,012	6,160
Agg. Val. For Owner Occ. Units	20,212,397,000	33,328,205,000	315,415,500	469,925,000
Avg. Val. For Owner Occ. Units	79,296	102,626	56,224	82,894
Owner Occupied %	58.1%	60.8%	48.3%	47.9%
Renter Occupied %	41.9%	39.2%	51.7%	52.1%

Vacancy Rate	10.7%	5.6%	12.4%	8.7%
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	Riverside Oxbow		Revised Study Area	
	1990	2000	1990	2000
Total Housing Units	653	718	13,913	13,676
Occupied Housing Units	553	665	12,175	12,494
Vacant Housing Units	100	53	1,738	1,182
Owner Occupied	356	417	5,966	6,086
Renter Occupied	197	248	6,209	6,408
Agg. Val. For Owner Occ. Units	11,791,000	39,537,500	327,206,500	509,462,500
Avg. Val. For Owner Occ. Units	33,121	94,814	54,845	83,711
Owner Occupied %	64.4%	62.7%	49.0%	48.7%
Renter Occupied %	35.6%	37.3%	51.0%	51.3%
Vacancy Rate	15.3%	7.4%	12.5%	8.6%

The original and revised study areas have lower home ownership rates than the County. The revised study area sees slightly average values for owner occupied housing compared to the original study area due to slightly higher values for the Riverside Oxbow area.

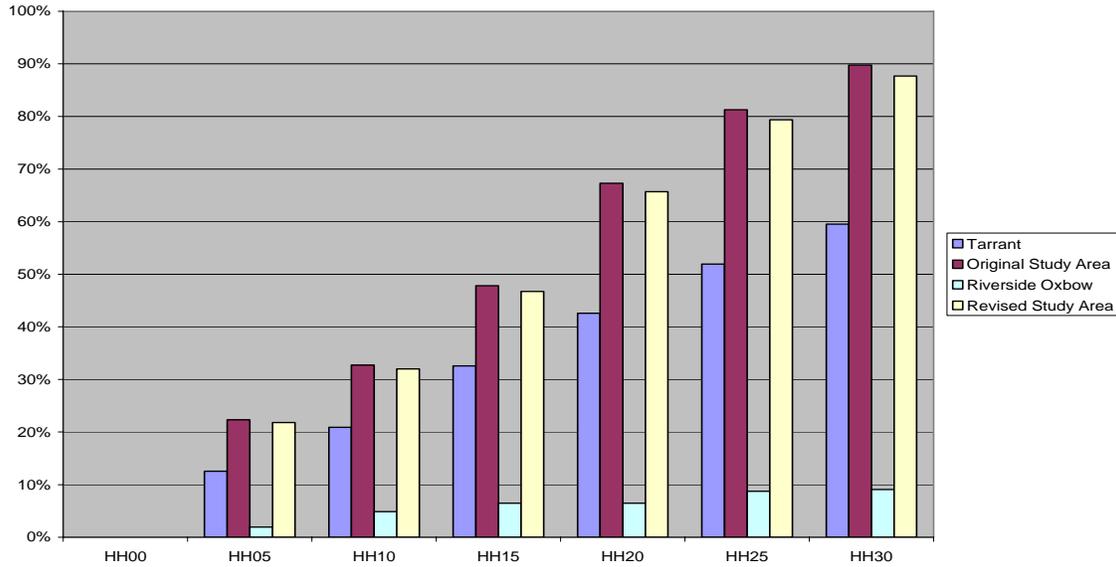
Projections (Future Without Project Conditions)

The following information is based on the North Central Texas Council of Governments' Demographic Forecast, which provides long-range, small-area household and employment projections for use in intra-regional infrastructure planning and resource allocations in the metropolitan area of North Central Texas. The Demographic Forecast is conducted by NCTCOG's Research and Information Services Department under review and oversight of the Demographic Methodologies Task Force. The Forecast has a 30-year time horizon, with 2000 as the base year and 2030 as the end year. Data applicable for a county level are used for Tarrant County, while data for the project area are disaggregated down to the traffic survey zone for those TSZ's that coincide with the project study area. This information includes projections for the number of households, household population, and employment. Additionally, these projections should be considered as what would occur in the absence of the Trinity River Vision.

Households - Chart 7 depicts the growth rate of households for Tarrant County, the original study area, the Riverside Oxbow area and the revised study area for the period beginning in 2000 and running to 2030.

Chart 7

Household Projections

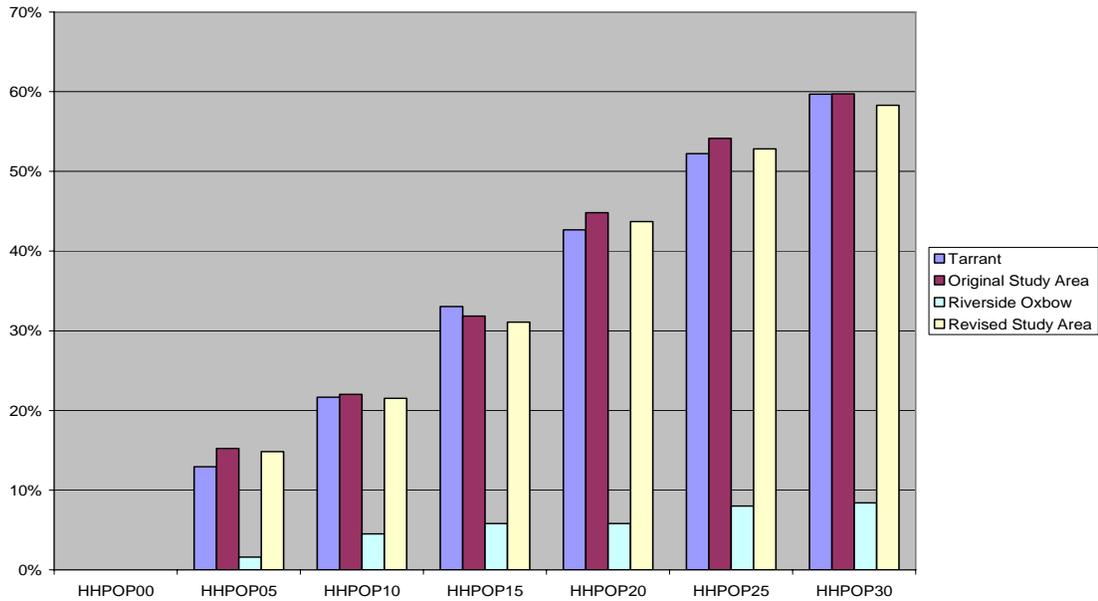


The number of households for Tarrant County is projected to grow by almost 60 percent between 2000 and 2030. By comparison, households for the original study area are expected to grow by almost 90 percent. Households for the Riverside Oxbow area are expected to only increase by nine percent. This relatively low growth rate subsequently drops the growth rate for the revised study area slightly.

Household Population - Household population for Tarrant County is projected to grow by almost 60 percent. Growth in household population for the original study area is expected to grow at roughly the same rate. Growth in household population for the Riverside Oxbow is expected to only grow by 8.4 percent between 2000 and 2004. again, this low growth rate produces a slightly lower rate for the revised study area. This is depicted in Chart 8.

Chart 8

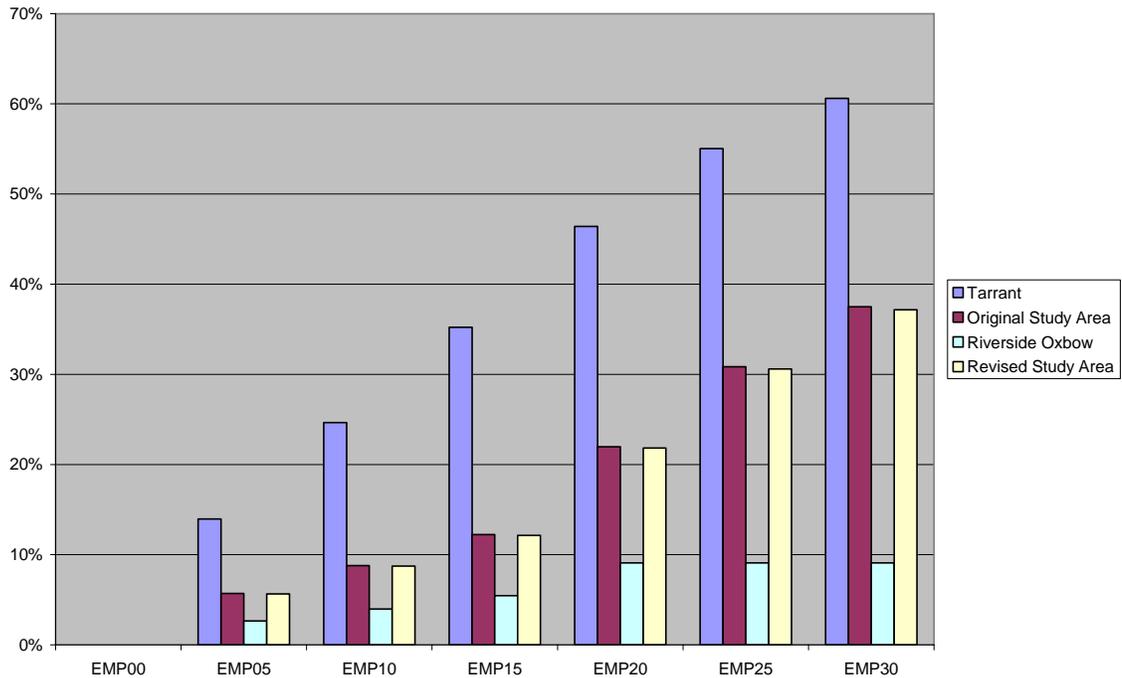
Household Population Projections



Employment - Employment for the period from 2000 to 2030 is expected to grow by almost 61 percent for Tarrant County. Employment for the original study area is expected to grow by only 37.5 percent while employment growth is expected to only grow by nine percent for the Riverside Oxbow area. This slow rate again pulls down the employment growth rate for the revised study area slightly. Employment projection rates are displayed in Chart 9.

Chart 9

Employment Projections



Riverside Oxbow Land Use

The following table lists the total number of square acres within the Riverside Oxbow area with its associated land use classification based on 2007 Tarrant Appraisal District data. Just over 45 percent of the land within the Riverside Oxbow area is classified as vacant platted. Commercial makes up just over 30 percent and residential comprises less than one percent of the of the total land use for the area. Figure 1 graphically displays these land use patterns.

**Table 6
Riverside Oxbow Land Use**

Classification	Number of parcels	Square Acres	%
Vacant Platted	33	533.0	45.1%
Commercial/Industrial	26	358.8	30.3%
Acreage	20	198.6	16.8%
Utilities	8	84.6	7.2%
Residential	10	7.5	0.6%
Total	97	1182.4	100.0%

Effected Populations

In accordance with Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations” in assessing the potential impacts to minority populations within the study area, data in Appendix I of the FEIS listed 25 of the 40 2000 Census blocks within the original study area as having minority populations over 50 percent.

Of the 25 Census blocks, 20 contain Hispanic populations of more than 50 percent while the remaining five have African American populations of more than 50 percent. The revise study area adds two Census blocks that intersect the Riverside Oxbow project. The racial composition and median income for these two Census blocks are listed below in Tables 7 and 8. These Census blocks are depicted in Figure 2.

**Table 7
Minority Populations of Riverside Oxbow Census Blocks**

Census Block	White	Hispanic	Black	Am. Indian	Asian	Haw. or PI	Other	2 or More
1012.01.002	53.6%	43.6%	1.1%	1.0%	0.0%	0.0%	0.0%	0.7%
1012.02.006	35.5%	62.6%	0.0%	1.1%	0.0%	0.0%	0.0%	0.8%

Of the two Census blocks intersecting the Riverside Oxbow project area, 1012.02.006 shows to have a Hispanic population of 62.6 percent. The other Census block shows a Hispanic population of 43.6 percent. There is an issue with Census block however. This Census block extends eastward out of the Riverside Oxbow area ending at East Loop 820. This Census block includes subdivisions outside the Riverside Oxbow area that may be diluting Hispanic populations from subdivisions that may be impacted. We will discuss these subdivisions in more detail when we discuss income and housing values.

Table 8 depicts the median income of the two Riverside Oxbow Census blocks.

**Table 8
Median Income of Riverside Oxbow Census Blocks**

Census Block	Median Household Income	Poverty Threshold for Family of Three	Above (+) / Below (-) Poverty Threshold
1012.01.002	\$43,317	\$13,290	\$30,027
1012.02.006	\$29,583	\$13,290	\$16,293

Neither of the two Census blocks displays populations living at or below the poverty threshold. Again, however, Census block 1012.02.006 includes subdivisions that dilute the median incomes of those subdivisions that may be impacted.

Potentially Impacted Neighborhoods

Housing values for the subdivisions within the two Census blocks intersecting the Riverside Oxbow area, based on 2007 Tarrant Appraisal District values for land and structures, are depicted in Table 9. Of those subdivisions listed below, 17 are identified as being potentially impacted. Figure 3 depicts these neighborhoods and their proximity to the Riverside Oxbow project area.

**Table 9
Housing Value for Riverside Oxbow Census Block Subdivisions**

Subdivision	Parcels	Total Value	Average Value
Baker, E L Subdivision*	5	\$173,600	\$34,720
Carver Place*	1	\$34,900	\$34,900
Davenport, Bert M Subdivision*	10	\$589,500	\$58,950
Eastview Addition*	8	\$289,400	\$36,175
Gilmore, G W Addition*	47	\$1,815,771	\$38,633
Kendall Subdivision*	6	\$325,900	\$54,317

King Oaks Addition*	66	\$4,055,600	\$61,448
Lynch, John Survey*	1	\$85,700	\$85,700
Page Co's East Side Addn*	106	\$4,665,867	\$44,018
Page's East Side*	12	\$564,700	\$47,058
Riverside Addition-Ft Worth*	157	\$7,380,300	\$47,008
Shutter Addition*	34	\$1,850,300	\$54,421
Tinsley Addition*	1	\$120,300	\$120,300
Tinsley, Lewis G Survey*	3	\$181,017	\$60,339
Waller, Benjamin E Survey*	3	\$179,700	\$59,900
Warren, Alex C Survey*	4	\$128,700	\$32,175
Woodrose Addition*	27	\$2,998,100	\$111,041
Akers, John Survey	4	\$171,500	\$42,875
Enos, Mamie Revision	5	\$109,400	\$21,880
Garden Of Eden Addition	10	\$197,418	\$19,742
Jones Court Addition	20	\$1,023,000	\$51,150
Louis, Joe Addition	7	\$106,100	\$15,157
Norris, William Survey	1	\$54,000	\$54,000
Oakview Addition	45	\$2,619,100	\$58,202
Richland Gardens Addition	1	\$153,300	\$153,300
River Bend Estates	188	\$67,609,780	\$359,626
Russell Addition	1	\$58,900	\$58,900

*Potentially impacted subdivisions

The span of average housing values for the two Census blocks ranges from \$15,157 for the Joe Louis Addition to \$359,626 for the River Bend Estates subdivision. Among the potentially impacted neighborhoods, the average housing values range from \$32,175 for the Alex C. Warren to \$120,300 for the Tinsley Addition. A comparison of the average housing values for those residential houses in the two Riverside Oxbow Census Blocks identified as being potentially impacted area are listed in Table 10.

Table 10
Average Housing Value Comparison for Riverside Oxbow Area Residences

Census Blocks	Parcels	Total Value	Average Value
1012.01.002	209	\$12,404,955	\$59,354
1012.02.006	282	\$13,034,400	\$46,221

Since the average housing value for those potentially impacted in Census block 1012.01.002 are actually higher, we can reasonably assume that this Census block, like 1012.02.006, does not exhibit a significantly high percentage residents living at or below the poverty level. From a racial and ethnic composition perspective, Census block 1012.01.002 shows a Hispanic population of 43.6 percent. Stated earlier, the population for this Census block is diluted by subdivisions outside the potentially impacted area. Considering the proximity of these potentially impacted subdivisions to those in Census block 1012.02.006, and the relatively high Hispanic population in the Census block overall, it is also a reasonably safe assumption that those potentially impacted subdivisions in 1012.01.002 have a significant population for consideration under EO 12898.

Consideration of Potential Impacts from Construction Activities on Protected Populations

The potential exists for short-term adverse impacts from construction of the Modified Project Alternative to occur to those identified neighborhoods within proximity to the Riverside Oxbow area. According to the Texas Department of Transportation, traffic counts on Beach Street, the major north/south thoroughfare running through these potentially impacted neighborhoods, averaged approximately 15,000 vehicles daily in 2004 between SH-121 and IH-30 and is expected to grow to 26,000 vehicles by 2030. Traffic, namely heavy duty, multiple-axle vehicles associated with construction activities of the Modified Project, could be expected to increase as construction commences during the short-term. Additionally, noise from the associated construction of the Modified Project could also impact these neighborhoods.

Camp Dresser & McKee (CDM) retained Trinity Consultants to assist in the review of potential noise impacts from construction activities and preparation of an emissions analysis for the Modified Central City Project. This analysis would also identify the potential impacts to those identified neighborhoods in the vicinity of the Riverside Oxbow area.

The focus of the air analysis is to identify the potential for increased construction related air emissions as a result of work proposed in the Riverside Oxbow area and to demonstrate that traffic-related emission changes resulting from the proposed project do not result in adverse cumulative impacts as evaluated in relation to the National Ambient Air Quality Standards (NAAQS) and regional air quality planning efforts. The analysis concluded that no long-term adverse air impacts are expected from implementation of the Modified Central City Project and that air quality impacts would mainly consist of airborne particulate matter (PM) generated by earth moving activities and construction traffic on unpaved roads, as well as emissions from construction equipment identified previously in the initial Central City FEIS, all of which should be minimized by Best Management Practices. NO_x and VOC emissions are calculated as being less than 100 tons per year.

The focus on the construction impacts is to identify where the proximity and intensity of the work to nearby residential receptors would be greatest. Common temporary noise producers in urban areas include construction noise from heavy equipment operation, building of foundations and structures, earthwork, and trenching and utility installation. The analysis identified that noise impacts could be significantly mitigated by 1) the extended distance between the construction activity and noise receptors, 2) trees and vegetation along the creek bottom area and elsewhere between the construction area and receptors, 3) depressed elevation of the construction area due to the excavation cuts, and 4) the addition of an elevated excavation deposit area southeast of the intersection of North Beach and East 1st Street. Mitigation for hauling activities are identified as 1) ensuring trucks have working muffler systems, 2) managing haul truck speed and acceleration, and 3) limiting haul truck activity to daytime hours.

Environmental and Recreational Impacts

Estimates based on construction activities of the authorized Central City project and the associated residential and commercial development and recurring business will generate \$4.3 billion in economic activity and employ almost 42,000 over a 40-year period. While the majority of this anticipated economic activity is expected to directly benefit those parts of the city in close proximity to Trinity Uptown, the beneficial impacts from the Modified Project to be realized by those neighborhoods close to the Riverside Oxbow area will generally come in the form of recreational amenities and improved environmental quality. As noted, the Riverside Oxbow project will reestablish low flows in the natural channel through a control structure restoring the oxbow's aquatic and riparian woodland complex. Other ecosystem restoration features include the creation emergent wetland, open water, and vegetative fringe habitat within the project area.

Recreational features specified in the original Riverside Oxbow interim feasibility report include pedestrian and equestrian trails, recreation access points with parking, and restroom

facilities. The draft concept recreation plan for Gateway Park, done by Gideon Toal depicts the following amenities.

- Soccer and baseball fields
- Mountain bike course
- Amphitheater and river education center
- Dog park
- Hiking and equestrian trails
- Equestrian center
- Skate park
- Boat house with canoe launch
- Picnic/playground areas
- Basketball courts
- Splash park

While all of these amenities may not be realized, this draft concept is intended to demonstrate the ability to develop hydraulic mitigation while providing the required environmental restoration components.

In assessing the balance between the short-term impacts of construction versus the longer-term beneficial impacts of the recreational amenities and environmental restoration features of the Modified Project, depending on the level and amount of amenities, these potentially impacted neighborhoods should benefit significantly from the recreational opportunities and the improved environmental quality afforded by the Modified Project.

Public Meetings

The Notice of Intent for the Supplemental EIS was published in the Federal Register on February 16, 2007. A formal public scoping was not held since measures to address the concerns of those potentially impacted populations within proximity of the Riverside Oxbow project area were conducted during the scoping phase for the initial Riverside Oxbow project report beginning with a series of public meetings held with local citizens and interest groups regarding the future of the Trinity River and its tributaries. As part of the Public Involvement process for the Riverside Oxbow interim feasibility report, two public meetings were held at the local library branch with citizens interested in the river segment that includes the Riverside Oxbow area. Additionally, the Parks and Community Services Department of the City of Fort Worth held a series of public meetings with citizens interested in the update of the Gateway Park Master Plan. Study participants, including USACE, the City of Fort Worth, Tarrant Regional Water District, Streams and Valleys, Inc., US Fish and Wildlife, and the Texas Parks and Wildlife Department, worked to keep residents of the Riverside Oxbow study area apprised of any relevant concerns. Comments from the Riverside Oxbow public meetings are compiled in Appendix J of the Riverside Oxbow, Upper Trinity River Feasibility Study.

Comments of special interest to protected populations close to the Riverside Oxbow area included situating lighting on playing fields so that light pollution is reduced; concerns that future zoning may force some neighborhoods to be connected to trails that may not want to be; the installation of security phones in Gateway Park; creation of overlay districts to protect zoning; and better access to trails.

A Public Meeting was held on January 24, 2008 during the 45-day public comment period and conducted at a location approximately one mile from those identified neighborhoods providing another opportunity for those residing around the Riverside Oxbow area to articulate potential concerns. Approximately 200 attended the meeting with 70 attendees submitting either oral or written comments. Of the seven of the comments expressing opposition to the either the initial or modified project, two attendees were opposed to the cost of the project; another two

thought efforts should be focused on Fossil Creek; another was opposed to the use of eminent domain; and another was concerned about the impacts to Riverside Park. An additional comment expressed conditional support provided that the EIS considered the interaction between the Gateway Park floodplain and the drilling for natural gas occurring within the vicinity of the Riverside Oxbow area. No comments surfaced regarding specific impacts to protected populations during this meeting.

Notice of Availability and Fair Contracting Workshops

Once the Draft Supplemental was completed, both English and Spanish versions of the Notice of Availability were posted on the District's website. Just as had been done with the initial Central City Draft EIS, copies of the Draft Supplemental were also sent to the Fort Worth Hispanic Chamber of Commerce for review and comments as another means of soliciting potential concerns from the Hispanic community. The Hispanic Chamber has also participated, along with representatives of USACE and other federal and local entities in contracting workshops to encourage the participation of potentially protected populations in the fair contracting process.

A Public Notice was mailed to the known interested public of more than 2,000 concurrently with publication of the NOI in the Federal Register. While no neighborhood associations exist within those neighborhoods identified for the Supplemental EIS, included in the mailing lists were representatives of those neighborhood associations surrounding the Riverside Oxbow area as well as the area's City of Fort Worth Parks board member. Comments resulting for the NOI and Public Notice included 11 telephone contacts ranging from individuals seeking to determine whether their property would be affected to inquiries regarding the status of the Study and Supplemental EIS. Five letters were also received, three of which were in regard to either reopening the oxbows, eminent domain, or correcting errors in the original Central City EIS. The other two consisted of correspondence with US Fish and Wildlife and the League of Women Voters.

Assessment of Protected Populations and Potential Impacts

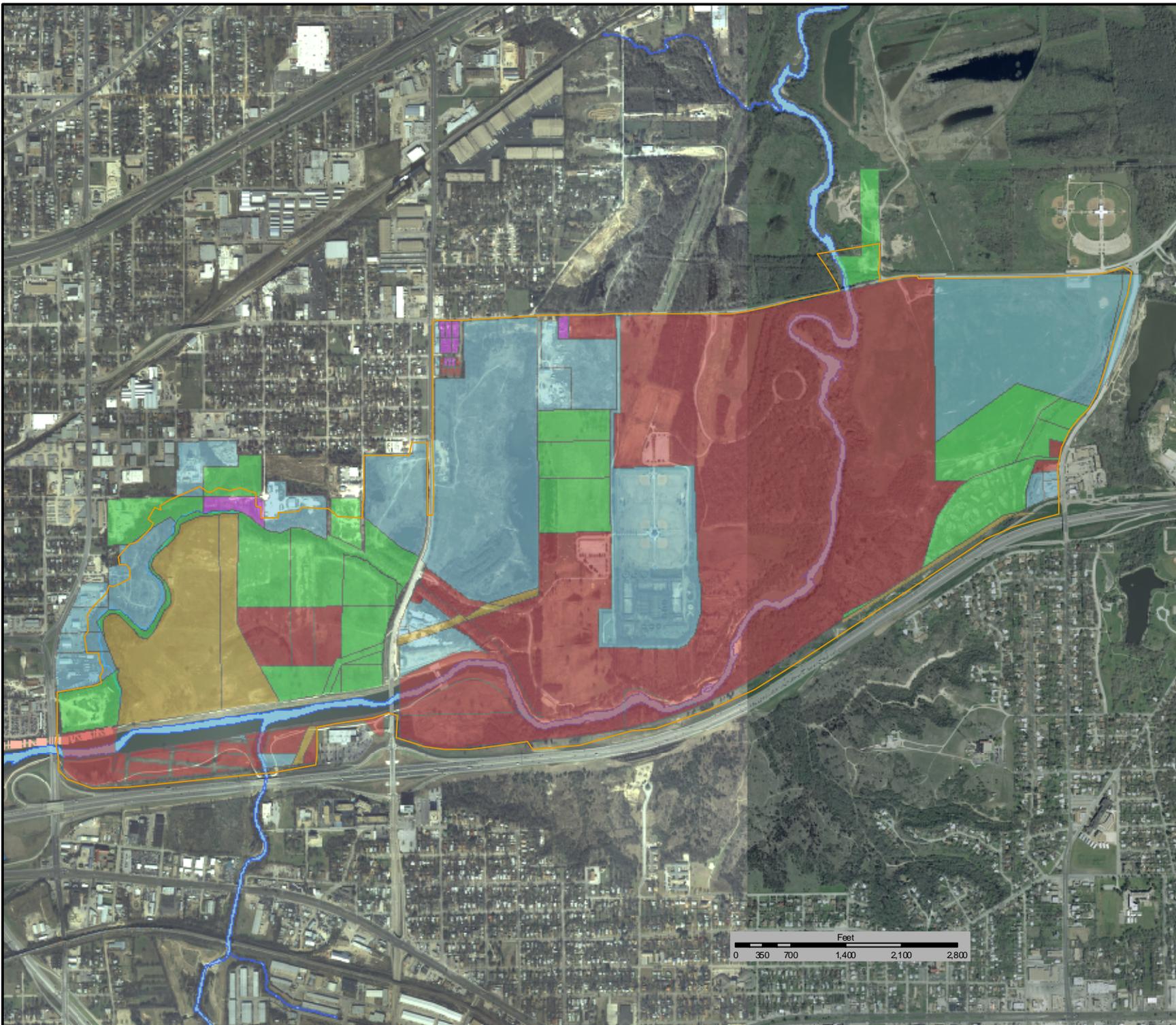
Of the two Census blocks intersecting the Riverside Oxbow project area, one contains a majority Hispanics and the other shows a high percentage of Hispanics but may be diluted by subdivisions containing higher populations of Anglos that are not expected to be impacted. For the purposes of this analysis, both Census blocks are treated as though a majority of Hispanics reside in both. Measures of income, both in terms median income and housing values, for populations of interest within both Census blocks indicate that these potentially protected populations did not warrant consideration on these terms.

Outreach to potentially impacted protected populations began with the scoping activities originating out of the initial Riverside Oxbow report. Continued outreach to all potentially impacted populations included publishing of the Notice of Intent for the Supplemental EIS in the Federal Register, mailing of a Public Notice to the known interested public including surrounding neighborhood associations, coordinating availability of the Draft Supplemental with the Hispanic Chamber of Commerce, and posting both English and Spanish versions of the Notice of Availability on the District's website. The solicitation of comments from potentially impacted populations culminated with a Public Meeting held in very close proximity to those identified neighborhoods.

An analysis was conducted for both the potential noise impacts from construction related activities and emissions for the Modified Central City Project. The analysis determined there would be no long-term adverse air impacts noting that any short-term impacts could be mitigated for by using Best Management Practices. Additionally, the analysis identified a number of activities that would mitigate for any short-term noise producers in the area. Despite these short-term impacts, the Modified Central City Project will provide substantial environmental and

recreational amenities to those identified neighborhoods that, in the long run, should significantly outweigh those activities occurring in the short run.

Figure 1
Central City Project
Land Use for
Riverside Oxbow Area



Legend

-  Riverside Oxbow Area
-  Streams
-  Existing Levees
- Land Use Class**
-  ACRE AGE
-  COMMERCIAL/INDUSTRIAL
-  RESIDENTIAL
-  UTILITIES
-  VACANT PLATTED

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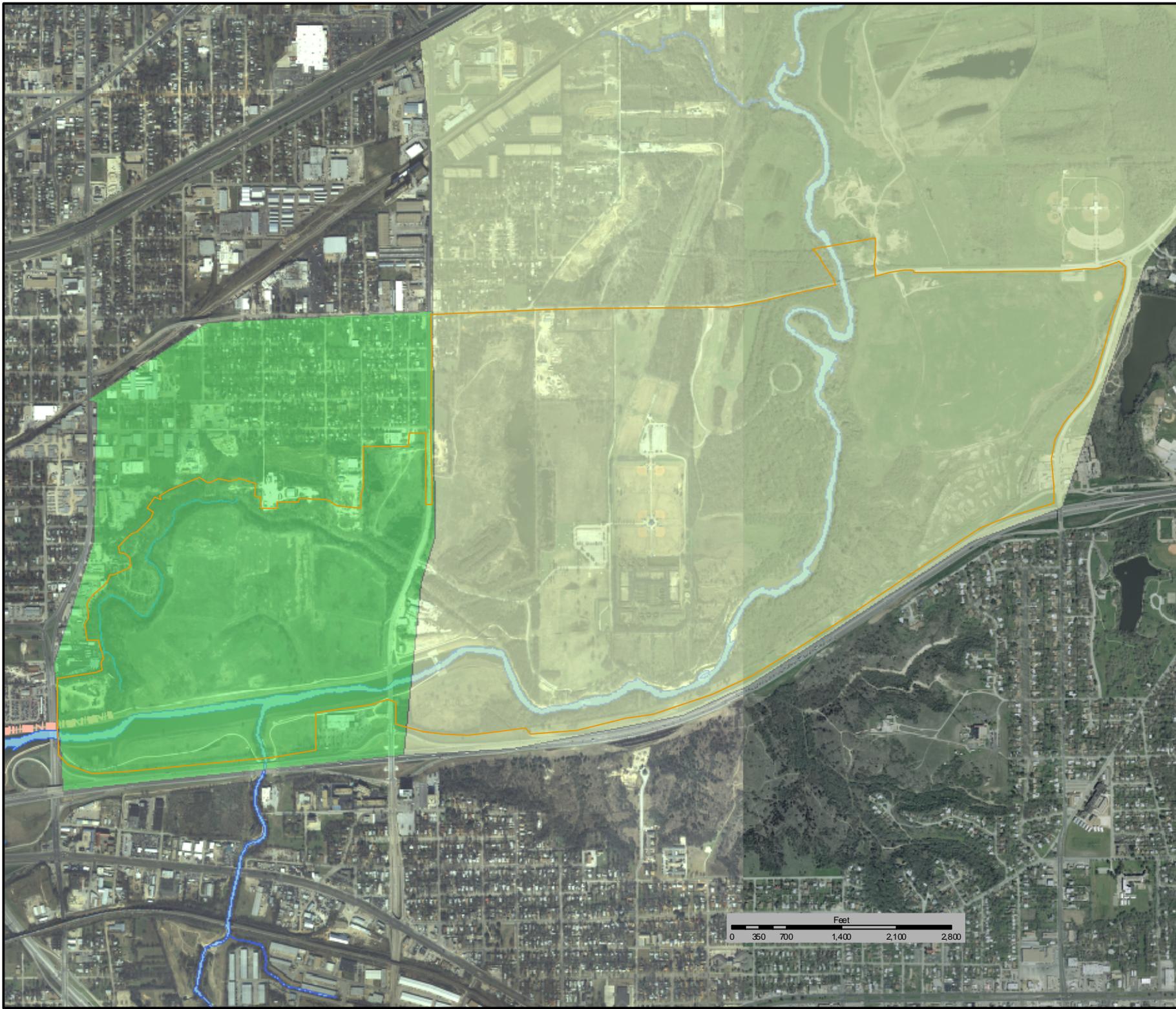


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 Corps of Engineers
 Fort Worth District

Figure 2
Central City Project
Census Blocks for
Riverside Oxbow Area

Legend

-  Riverside Oxbow Area
-  Streams
-  Existing Levees
- Census Block**
-  1012.01.002
-  1012.02.006



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Figure 3
Central City Project
Potentially Impacted
Subdivisions for
Riverside Oxbow Area

Legend

-  Riverside Oxbow Area
-  Streams
-  Existing Levees
- Subdivision**
-  Baker, E L S subdivision
-  Carver Place
-  Davenport, Bert M Subdivision
-  Eastview Addition
-  Gilmore, G W A Addition
-  Kendall Subdivision
-  King Oaks Addition
-  Lynch, John Survey
-  Page Cos East Side Adn
-  Page's East Side
-  Riverside Addition-Ft Worth
-  Shuter A addition
-  Tinsley Addition
-  Tinsley, Lewis G Survey
-  Waller, Benjamin E Survey
-  Warren, Alex C Survey
-  Woodrose Addition

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