Figure 5.1-1 Overview of Fate and Transport Mechanisms (Carbonate Bedrock Setting)

1. GEOLOGY	2. HYDROGEOLOGIC ZONES	3. NAPL TRANSPORT PROCESSES	4. AQUEOUS TRANSPORT PROCESSES	5. VAPOR TRANSPORT PROCESSES	6. FATE PROCESSES
	VADOSE ZONE EPIKARST SATURATED ZONE KARST AQUIFER	3A DNAPL ACCUMULATION AND LATERAL SPREAD ALONG THE RESIDUUM/BEDROCK INTERFACE DIRECTED TO ZONES OF VERTICAL PERM. OR SINKING POINTS, OR POOLED IN CLOSED DEPRESSIONS 3B DNAPL ACCUMULATION IN SEDIMENT-FILLED AND OPEN VOIDS (SOLUTION CAVITIES) 3C DNAPL SEEPAGE INTO FRACTURES AND BEDDING PLANES 3D DNAPL TRANSPORT DURING MODERATE TO HIGH TURBULENT FLOW IN SOLUTION-ENHANCED CONDUITS	INFILTRATION UNSATURATED FLOW OF GRAVITATIONAL WATER DISSOLUTION FROM DNAPL RECHARGE AT WATER TABLE LATERAL ADVECTION (FLOW) VERTICAL ADVECTION TRANSPORT WITH SUSPENDED SEDIMENT IN SOLUTION-ENHANCED CONDUITS	DIFFUSIVE LOSS OF VAPOR TO ATMOSPHERIC & INDOOR AIR VAPOR DIFFUSION EVAPORATION FROM DNAPL VOLATILIZATION FROM THE WATER TABLE	AEROBIC DEGRADATION PARTITIONING FROM SOIL VAPOR TO PORE WATER (REVERSIBLE) SORPTION ONTO ORGANIC CARBON FRACTION OF FORMATION SOLIDS (REVERSIBLE) SORPTION RETARDED INTRAGRANULAR AQUEOUS DIFFUSION (REVERSIBLE) SORPTION ONTO ORGANIC CARBON FRACTION OF FORMATION SOLIDS (REVERSIBLE) 6A SORPTION RETARDED AQUEOUS DIFFUSION INTO RESIDUUM AND ROCK MATRIX (REVERSIBLE) TRANSFORMATION OF PARENT COMPOUNDS TO DAUGHTER PRODUCTS SORPTION RETARDED INTRAGRANULAR AQUEOUS DIFFUSION (REVERSIBLE)

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