Attachment 1

Horace Williams Property: Environmental Baseline Study Scope of Work

Area of Study	**Scope of Work**	**Output/Benefits**	**Existing Related References**
Site-wide survey	Complete a site-wide land survey (physical and aerial) noting all current features man-made, (e.g. roads, trails, buildings, etc.,) and natural (e.g. lakes, streams, rock out crops, etc.)	Detailed base map and a geographical information system for all site-wide data to provide layered maps to assist planning	USGS maps and surveys UNC maps and surveys Orange County title documents
Stormwater	Complete a site-wide hydrological model (including definition of microwatersheds and identification of receiving waters)	Model impacts of development on stormwater	Town of Chapel Hill Stormwater survey Utility GIS and other documents
Surface Water	Complete a baseline water quality study for all surface waters (on-site and for all off-site receiving waters	Model impacts of development on surface water	NC DENR Water Quality Reports for Bolin Creek and Morgan Creek
Groundwater	Inventory groundwater resources (non-impacted and impacted by previous site activities) and develop site-wide hydrogeological model	Identification of groundwater resources; Summary of existing impacts and current mitigation efforts or future mitigation needs	UNC and NC DENR reports USGS models Existing monitoring well information including for water treatment at landfills
Air Quality	Complete a baseline air quality study and develop a micro-meteorological model for the site	Model impact of development on air quality	US EPA air quality data and reports; NC DENR air quality models and monitoring information
Noise and light	Complete a baseline study of noise and light within the Property and along the Property boundaries	Identify ambient, low and peak noise. Identify base glow and maximum reflective glow and point sources of light	
Ecology	Complete an inventory of all flora (mapped) and fauna, identifying any endangered, rare and specimen species in need of protection	Identification of preservation areas	Town of Chapel Hill reports
Geology/Soils	Complete a site-wide survey of soils and underlying geologic structure	Information to be used with that developed for groundwater and surface water to determine impacts from on-site activities	Town of Chapel Hill reports
Landfills; former airport and former town facilities	Complete assessment of the environmental impacts in these former operating facility areas, including landfill gas surveys	Summary of existing impacts and any current mitigation efforts or future mitigation needs	UNC reports; Town of Chapel Hill reports