

Stage 2 Soil and Groundwater ESA – Airport Link Project, Brisbane



Assessment of human health risks associated with a historical service station site and impact on below ground tunnelling activities

Client: Thiess John Holland/ Airport Link Project

E3 Consult was engaged by Thiess John Holland (TJH) to complete a series of environmental assessments at a historical service station site. TJH were required to complete both bored tunnel (TBM) and mined tunnels below the site at depths of 18m and 35m respectively. Hydrocarbon impacted soil and groundwater was initially detected by E3 and required detailed assessment of the potential project risks to ensure safe working conditions and appropriate environmental conditions.

E3 completed a series of groundwater sampling programs and progressive soil assessments to determine the nature and extent of impacted material and extent of the hydrocarbon plume, with particular reference to benzene concentrations. Human health and migration risks were identified and required detailed soil vapour and groundwater modelling. E3 were able to present a number of measures to manage these identified risks. The involvement of E3 staff in this project demonstrates our skills in the following areas:

- Ability to assess and review significant site historical information;
- Expertise in groundwater and soil vapour modelling and assessment;
- Expertise in evaluating human health and environmental risks associated with construction and development projects; and
- Development of pragmatic and effective measures to address environmental risk in the construction context.

PH29 - Airport Link Felix Street ESA