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Mr. Henry Segerius
Grain Products Australia Pty Ltd.
General Manager Operations
PO Box 543
Tamworth NSW 2340

Re: Arboricultural advice Wastewater irrigation at Calala.

Reference is made to your recent request for an arboricultural advice in regards to protection of trees at Calala.

It is our understanding that a wastewater poly pipe is planned to be installed along King George V Ave Calala. Our comments on this are based on our site inspection and report undertaken for Peel River Estates Pty. Ltd. July 2010.

Question 1.

If road widening occurs at the west end of King George V Ave and trees are subsequently replanted, what impact (if any) would an already installed pipeline have on the health of those trees as they continue to mature;

Being poly pipe as long as there are no leaks or breakages of the pipe trees would not have an effect on the pipe. This being said I would recommend that the new trees not be planted directly over the pipe. I would try to allow at least 2-3 meters clearance if possible. Roots taper off very quickly so the further away the better. Most trees have their roots in the top 500mm of soil so I would also suggest that the pipe be laid deeper than this, recommend at least 1 meter or greater if possible.

Once installed the poly pipe will have no affect on any new tree plantings as long as when the trees are installed the digging of the tree pit does not damage the pipe. Normal systems of warning tap and gravel should be included when the pipes are laid to avoid this.



Question 2.

Assuming that at least some of the trees lining King George V Ave remain in place, what impact would trenching (to say 1.0 metre depth) have on the existing root system and hence the health of the trees. Clearly this assessment is proximity based, so it may be as simple as recommending a separation distance in relation to the drip line or trucks of the tree present (this assessment may need to be species dependent assuming a variety of species is present on the south west side of the road).

The closer the trenching goes the more the damage. The trench will remove fine feeder roots that take water and air to the tree. The current Australian Standard (AS 4970 - 2009) on construction sites for tree protection is:

- Measure the diameter of the tree and then multiply that by 12 to give you the tree root protection zone. So at tree that's 1 meter in diameter would require a setback of 12 meters. Under supervision by a consulting arborist this can be slightly reduced by 1/3 on only one side. This is not species specific applies to all trees except weeds.

It is also acceptable to under bore trees and then lay the pipe. We are doing this across Sydney for water and sewage replacement program. If this is undertaken then the under bore needs to be deeper than 1.5 meters and should be slightly placed off centre of the trees if possible.

Should you have any questions or require any further information in relation to this letter, please contact our office on 1300 737 674 or myself on 0418 474 796.

Yours sincerely



Hugh Taylor
Director

NAAA Consulting Arborist No: 622202

BA (L) Major In Wilderness Management / Outdoor Education

Diploma Horticulture (Arboriculture)

Australian Qualification Framework Level 6

Arborist/ Tree Surgeon/ Horticulturist

Board Member Arboriculture Australia