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Department Generated Correspondence (Y)



Planning

ASSESSMENT REPORT

Section 75W Modification Incitec Remediation Project – Stage 1

1. BACKGROUND

Incitec Fertilizers Limited (IFL) proposes to remediate its land at Cockle Creek, Boolaroo in the Lake Macquarie local government area (see area marked in red in Figure 1). From 1969 to 2009, IFL manufactured fertilisers on the site, prior to which the site formed part of the Pasminco Cockle Creek Smelter (see the area marked yellow in Figure 1), where it was the location of the superphosphate (type of fertiliser) manufacturing facility (production commenced around 1913).

As a result of previous operations on site, the IFL site (soil and groundwater) is contaminated with a range of substances including heavy metals, phosphorus, sulphate, calcium and asbestos. The primary source of contamination has been identified as contaminated fill that was placed on site some time prior to the mid 1950s. Consequently, IFL proposes to remediate the site in two stages:

- *Stage 1:* the construction and operation of a groundwater treatment system on site to treat and remediate contaminated groundwater hotspots located in the northern section of the site; and
- *Stage 2:* decommissioning and demolition of existing buildings and infrastructure on site; the construction of a containment cell; and the remediation of contaminated soils across the site, with contaminated material to be contained within the containment cell on site.

The surrounding Pasminco Cockle Creek Smelter site (Paminco site) is also in the process of being remediated, and the remediation strategy proposed by IFL is consistent with works that are occurring on the Pasminco site.

On 17 August 2009, project approval was granted for Stage 1. This approval allows the extraction and treatment of contaminated groundwater from the northern section of the site. IFL are also currently seeking approval for Stage 2. The environmental assessment for Stage 2 works has been prepared and IFL is in the process of responding to issues raised during the exhibition of the environmental assessment.

Ferrier Hodgson (Deed Administrators of Pasminco) has initiated remediation in areas adjacent to the IFL site and has raised concerns that contaminated groundwater from the southern section of the IFL site is leaching onto the Pasminco site.

To address Ferrier Hodgson's concerns and to minimise the potential for contaminated groundwater migrating off-site and re-contaminating parts of the Pasminco site, IFL proposes to expand the groundwater treatment system to the southern sections of its site.



Figure 1: Site Location

2. PROPOSED MODIFICATION

On 2 December 2009, IFL lodged an application with the Department to modify the Stage 1 project approval to expand the groundwater treatment system.

The primary purpose of the Stage 1 works is to treat contaminated groundwater in the northern section of the site ("northern area"). To address Ferrier Hodgson's concerns and to minimise the potential for the re-contamination of the Pasmenco site, IFL proposes to install an additional 6 wells along the south-west boundary of the site to intercept contaminated groundwater ("southern area"). The extracted groundwater would be piped to the existing treatment plant for treatment prior to being infiltrated into the aquifer by gravity drainage.

Details of the location of the wells and the extraction transfer line are depicted in Figure 2. No upgrade to the approved groundwater treatment plant would be required as part of the proposal.

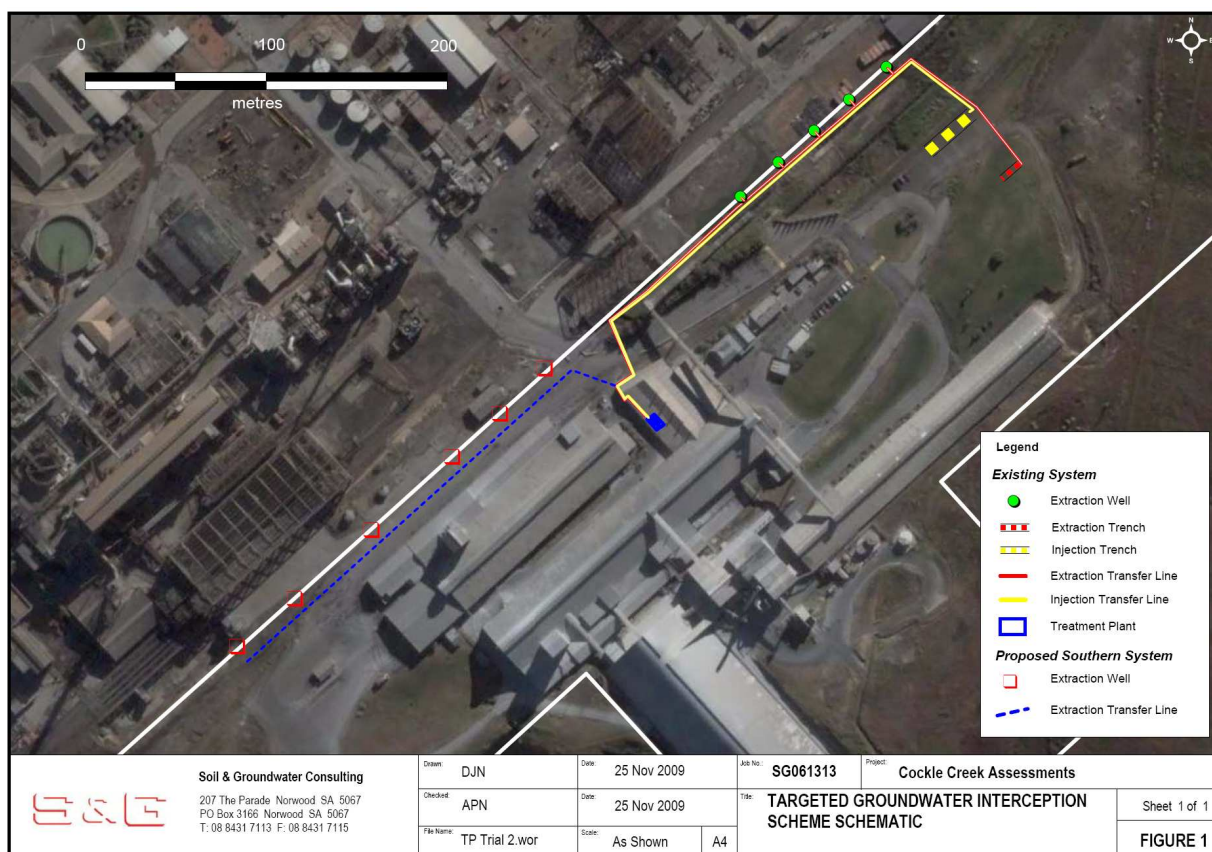


Figure 2: Site Plan Illustrating the Location of the Proposed Components

3. STATUTORY CONTEXT

Approval Authority

The Minister was the approval authority for the original project approval and is consequently the approval authority for this application. However, on 25 January 2010, the Minister's powers and functions as an approval authority to modify certain project approvals under section 75W of the EP&A Act were delegated to the Director – Mining & Industry Projects. This modification application meets the terms of this delegation. Under these circumstances, the Director may determine the application under delegated authority.

Section 75W of the EP&A Act confers on the Minister an implicit obligation to be satisfied that the modification request falls within this section of the EP&A Act.

The Department notes that:

- the proposed modification does not seek approval for a new and different project and would not change the essential function of the remediation of groundwater, for which approval was granted;
- the approved treatment plant has capacity to treat the additional contaminated groundwater to be extracted (see Section 4); and
- any potential impacts would be minimal and could be appropriately managed through commitments made by IFL and the existing conditions of approval (see Section 4).

It is therefore recommended that the Director of Mining & Industry Projects, as delegate of the Minister, agree that the modification request falls within section 75W.

Exhibition and Notification

Under section 75W of the EP&A Act, the Department is not required to notify or exhibit the application. However, the Department has discussed the application with the Department of Environment, Climate Change and Water (DECCW) and NSW Office of Water (NOW). These agencies have no objections to the proposed modification.

A submission was also received from Ferrier Hodgson with attached legal advice indicating that the additional works proposed as part of the modification application are not a project to which Part 3A of the EP&A Act applies. Ferrier Hodgson also raised concerns about the timing of the works.

On 8 February 2007, the opinion was formed that the remediation of the IFL site was a project to which Part 3A of the EP&A Act applies. The project included both the remediation of contaminated groundwater and soils.

To facilitate the remediation of the site, the Department agreed that project could be staged with separate project applications to be submitted for each stage (in accordance with 75E(4) of the EP&A Act).

Stage 1 was for the initial stage of the project, and while it did not meet the criteria of *State Environmental Planning Policy (Major Development) 2005* by itself, it was determined to be a major project under Part 3A as part of the broader project for the remediation of the site (and not as related development).

As such, the Department considers that it is not a question of whether the proposed works are a major project under Part 3A of the EP&A Act, but whether a modification to the Stage 1 approval can be determined. This has been discussed above, and the Department is satisfied that the proposal falls within Section 75W of the EP&A Act.

4. ASSESSMENT

The Department's assessment of the key issues is detailed in the Table below. All other issues are considered to be minor.

Issue	Assessment	Recommended Conditions
<i>Remediation Strategy</i>	<ul style="list-style-type: none"> The primary purpose of the Stage 1 works is to treat groundwater hotspots and to minimise contaminated groundwater from the northern area of the site migrating off site. The Department considers that the proposed extension of the groundwater treatment system to minimise contaminated groundwater from migrating from the southern area is consistent with the approved remediation strategy for groundwater remediation. 	<ul style="list-style-type: none"> Minor amendments to the conditions of approval have been recommended to incorporate the modification application.
<i>Groundwater</i>	<ul style="list-style-type: none"> Extraction and treatment of groundwater from the "northern area" has commenced and IFL has indicated that the groundwater treatment plant (GTP) is currently operating at around 30% of its total capacity. While IFL is unable to predict the quantity of groundwater that would require treatment, the proposed extension of the groundwater extraction system to the "southern area" is of a similar scale to that approved at the "northern area". As such, the Department is satisfied that the GTP has sufficient capacity to treat the additional quantity of groundwater to be extracted. Similarly to that approved, treated groundwater would be infiltrated into the aquifer(s) upstream of the treatment system by gravity drainage, allowing it to be recollected for treatment and further reducing groundwater contamination. Preliminary results from the extraction and treatment of the groundwater indicate that extraction may result in some localised changes to groundwater flow, however, the lateral extent of any change to groundwater flows is unlikely 	<ul style="list-style-type: none"> Minor amendments to the conditions of approval have been recommended to require all groundwater extraction to be undertaken in accordance with licence requirements from NOW.

	<p>to be significant.</p> <ul style="list-style-type: none"> • Nonetheless, the Department considers that the environmental benefits of remediating contaminated groundwater out-weigh any localised impacts that may occur as a result of the proposal. • IFL initially proposed to undertake the work once the adjoining land had been remediated or it has been demonstrated that groundwater migrating from the “northern area” was causing an adverse impact. • Ferrier Hodgson consider that any flow of contaminated groundwater to the Pasminco site is unacceptable and that the proposed works should not be delayed. • This matter has been discussed with IFL, who has indicated that there would be no delay to the installation of the additional wells and construction would commence once approval is granted (subject to meeting the requirements of conditions of approval). 	
<i>Soil and Water - Other</i>	<ul style="list-style-type: none"> • Potential impacts relate to the disturbance of contaminated soils during the installation of the groundwater extraction wells and associated transfer lines. • IFL propose to stockpile any contaminated soils disturbed during construction within existing enclosed sheds on site and install appropriate sediment and erosion controls. • The Department is satisfied that measures to minimise impacts from the disturbance of contaminated material during construction are appropriate. • The existing conditions of approval require IFL to demonstrate that appropriate erosion and sediment controls are in place prior to the installation of the extraction wells and transfer lines. • The Department is therefore satisfied that the existing conditions of approval would ensure impacts from the erosion and sedimentation of contaminated soils would be managed. 	<ul style="list-style-type: none"> • No further conditions of approval are recommended.
<i>Noise</i>	<ul style="list-style-type: none"> • Minimal works are required to extend the groundwater extraction system and include the drilling of wells and excavation works to install the transfer line. • Existing conditions of approval restrict hours that construction works can occur to ensure noise impacts are managed. • Given the minimal works required noise impacts from construction works are expected to be negligible. 	<ul style="list-style-type: none"> • No further conditions of approval are recommended.

5. CONCLUSION

The Department has assessed the merits of the proposal in accordance with the requirements in Clause 8B of the *EP&A Regulation*.

This assessment has found that the proposed modification is unlikely to cause any significant impacts beyond that assessed and approved. Consequently, the Department believes the proposed modification should be approved.

6. RECOMMENDATION

It is RECOMMENDED that the Director:

- approve of the proposed modification under Section 75W of the EP&A Act; and
- sign the attached instrument (tagged A).

Signed 12 March 2010

Chris Ritchie
**Manager – Industry
Mining & Industry Projects**

Signed 12 March 2010

David Kitto
**Director
Mining & Industry Projects**