

Figure 1-4 2009 DWE meeting minutes

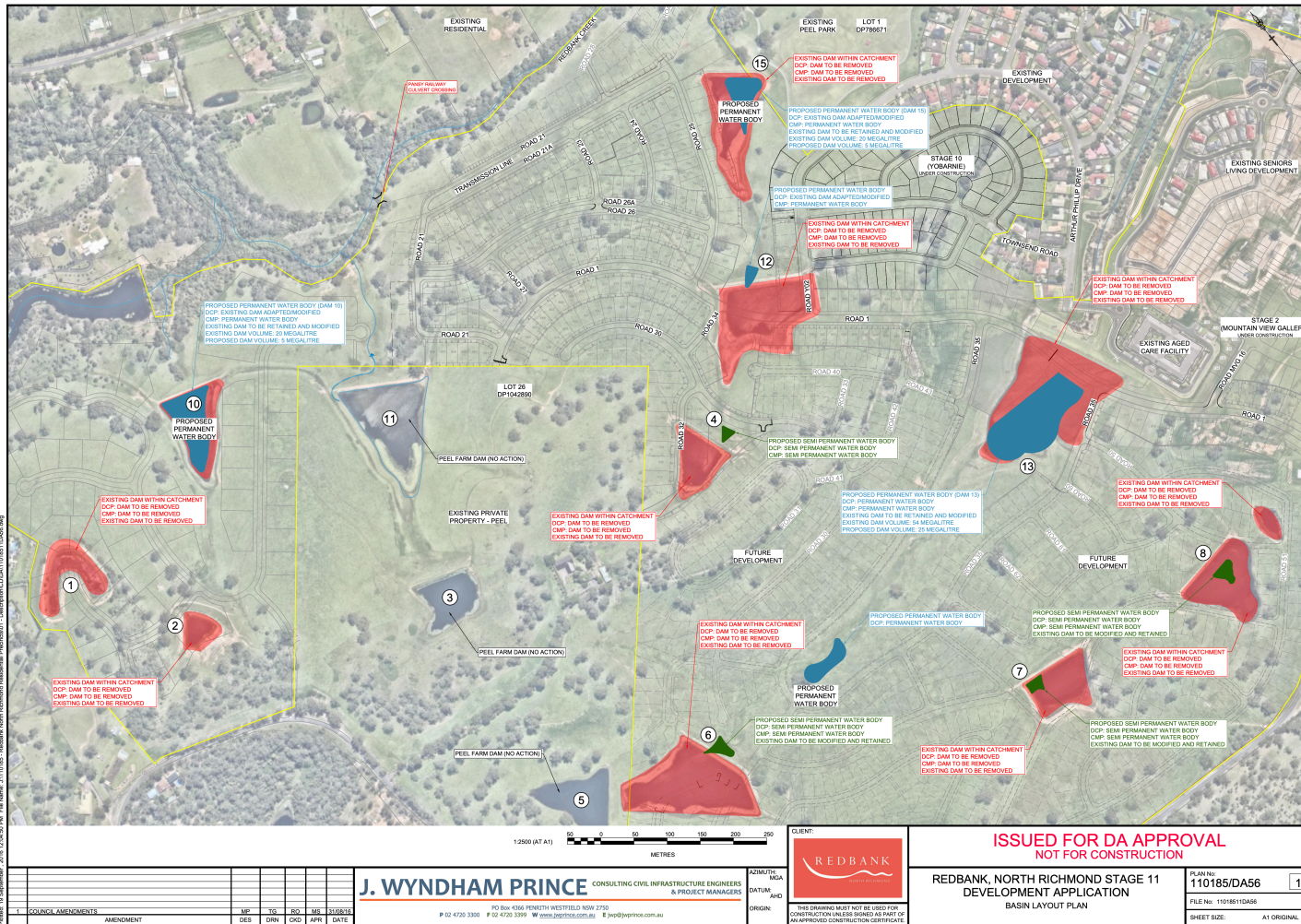


Figure 1-5 Redbank North Richmond basin layout plan

2 RELEVANT LEGISLATION

Legislation and policy relevant to the proposed works are outlined below:

2.1 Water Management Act 2000

The objectives of the *Water Management Act 2000* (WM Act) are to provide for the sustainable and integrated management of the water sources of the state for the benefit of both present and future generations and, in particular, ecologically sustainable development.

Under the WM Act, a Controlled Activity Approval (CAA) from DPE Water / Natural Resources Access Regulator (NRAR) is required for activities that are carried out in, on, or under waterfront land, i.e. within 40 m of a waterway.

Under the WMA, a controlled activity means:

- The erection of a building or the carrying out of a work (within the meaning of the *Environmental Planning and Assessment Act 1979*), or
- The removal of material (whether or not extractive material) or vegetation from land, whether by way of excavation or otherwise, or
- The deposition of material (whether or not extractive material) on land, whether by way of landfill operations or otherwise, or
- The carrying out of any other activity that affects the quantity or flow of water in a water source.

Waterfront land in the context of the proposed development is defined as:

- The bed of any river, together with any land lying between the bed of the river and a line drawn parallel to, and the prescribed distance inland of, the highest bank of the river.

Parts of the proposed development will be located within 40 m of the upper bounds of the classified section of Stream O and therefore is required to obtain a Controlled Activity Approval.

2.2 Fisheries Management Act 1994

The *Fisheries Management Act 1994* (FM Act) governs the management of fish and their habitat in NSW. The Act identifies threatened aquatic species, populations, and ecological communities, and requires an Assessment of Significance if they are present within the subject site. Where significant impacts to any of these features are considered likely to occur, this triggers the need for a Species Impact Statement.

The FM Act also regulates the provision of permits required in relation to the harm of protected marine vegetation, dredging, and reclamation or obstruction of fish passage on or adjacent to Key Fish Habitat (KFH).

DPI Fisheries has not mapped any areas within the subject site as KFH. In addition, first order drainage lines (all mapped drainage lines within the subject site) are not considered KFH by DPI Fisheries. No threatened fish species are expected to occur within the subject site or in adjoining reaches. As such, no further assessment or permits under the FM Act are required.

2.3 Environmental Protection and Biodiversity Conservation Act 1999

Under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), Commonwealth approval is required for certain actions which have, or may have, or are likely to have a significant impact on a Matters of National Environmental Significance (MNES). These matters are listed as:

- the world heritage values of a declared World Heritage property,
- the ecological character of a declared Ramsar wetland,
- a threatened species or endangered community listed under the Act,
- a migratory species listed under the Act, or
- the environment in a Commonwealth marine area or on Commonwealth Land.

A person must not, without approval under the Act, take an action that has, or will have, or is likely to have, a significant impact on an MNES.

When approving developments, determining authorities should consider whether to allow actions that could significantly affect MNES. Commonwealth assessment is required for proposed activities if they are considered likely to affect any MNES. If the assessment concludes there is a significant impact, then it will become a controlled action under the EPBC Act, and the proposal must be referred to the Commonwealth. Approval from the relevant Federal Minister is required for any actions that may have a significant impact on MNES, except in circumstances that are set out in the EPBC Act.

Approval from the Commonwealth Federal Minister is in addition to any approvals under NSW legislation unless the proposal sits under the NSW and Australian Governments' bilateral agreement established under the EPBC Act. The bilateral agreement accredits certain NSW assessment processes which allows the Australian Government Minister for the Environment to rely on NSW environmental impact assessment processes to assess actions under the EPBC Act.

Our desktop assessment shows that no Wetlands of International Importance, Marine Parks, or Commonwealth Marine Areas occur within 10 km of the subject site.

A Protected Matters Search under the EPBC Act identified two species of fish with the potential to occur within 10 km of the subject site. This includes *Macquaria australasica* (Macquarie Perch) and *Prototroctes maraena* (Australian Grayling). There is no suitable habitat for these species within the subject site. Therefore, further assessment or a referral under the EPBC Act is not required with respect to impacts on threatened fish species.

2.4 Hawkesbury Development Control Plan 2023

The location of the subject site means that it is currently outside of the bounds of the 'Redbank at North Richmond' development, as defined within Chapter 8 of the Hawkesbury DCP. The DCP will be amended to incorporate the Redbank Expansion Area (Kemsley Park) site. In keeping with the character of the overall Redbank development, the principles and objectives of this chapter will be consistently applied.

Section 8.3.5 addresses water management within the subdivision. The objectives of this chapter are:

- To ensure no net increase in discharge to Redbank Creek;
- To improve waterway health, slow the conveyance of water across the site, improve the quality and regulate the quantity of stormwater discharge into Redbank Creek through Water Sensitive Urban Design (WSUD) initiatives;
- To provide a water management network that integrates with the broader objectives of the open space network;
- To retain, modify and adapt existing Yeomans' Keyline elements, in particular waterbodies and the Keyline, as focal points for the open space network;
- To use water as a key landscape feature and incorporate the key elements of Yeomans' Keyline elements within the water management network; and,
- To retain a quantifiable amount of stormwater prior to discharge to Redbank Creek.

The proposed works will increase discharges into Redbank Creek in the north, but will not result in any increases in discharge in the south, as the proposed drainage network is already operational in the greater Redbank development downstream. This existing network will be extended into the Redbank Expansion Area (Kemsley Park) under the same Council-agreed strategy.

Direct discharge from the north catchment is required to avoid local and regional flow/flood occurrence and to restrict discharge via OSD in the south. In both cases, these arrangements protect the existing North Richmond township and the conveyance capability of Redbank Creek.

Water Sensitive Urban Design (WSUD) initiatives are proposed, which include works to stabilise and revegetate the corridor above Stream O, and Dam 11, which are proposed for interpretation and retention. These existing features will form part of an RE1 - Public Recreation zoned open space network to interface with both interpreted dams and corridors downstream within the greater Redbank development.

3 PREVIOUS WATERCOURSE ASSESSMENTS

3.1 Redbank Rezoning Riparian Assessment (GHD 2013)

GHD (2013) showed that a number of drainage lines traverse the combined site of the Redbank Expansion Area (Kemsley Park) and the greater Redbank development, all connecting with multiple dams. The Redbank Expansion Area (Kemsley Park) can be divided into two greater catchments, separated by a central right catchment. The greater southern and northern catchments both possess 2 and 3 sub-catchments within each respectively, as shown in Figure 3-1.

Catchment No. 2 – occurs marginally within the subject site. It drains in a northeast direction via one dam (Dam 5) into the adjacent Redbank site. Catchment 2 eventually discharges into Redbank Creek approximately 2 km downstream of the subject site.

Catchment No. 3 – occurs marginally within the subject site and drains in a northeast direction via a series of three previously developed dams within the adjacent Redbank site into Redbank Creek.

Catchment No. 4 – is the most significant catchment within the subject site. It drains in a northward direction towards Redbank Creek via a series of two dams (Dams 3 and 11).

The former NSW Office of Water (now NRAR) were consulted in 2009 regarding the status of watercourses within the site under the WM Act. The NSW Office of Water attended the site in 2009 and agreed that watercourses J, K, M, N and O within the Redbank Expansion Area (Kemsley Park) did not meet the definition of a river under the WM Act and therefore could be removed as constraints to future development. There are no remaining streams within the Redbank Expansion Area (Kemsley Park) (Figure 3-2). Only the upper bound of Stream O, existing directly downstream from the northern property boundary must be considered as a classified riparian area.

This agreement with the NSW Office of Water has since been consolidated and delivered across multiple stages with the progressive approval of the adjacent Redbank North Richmond development, with the most recent being the Redbank 'Southern Valley' development applications.

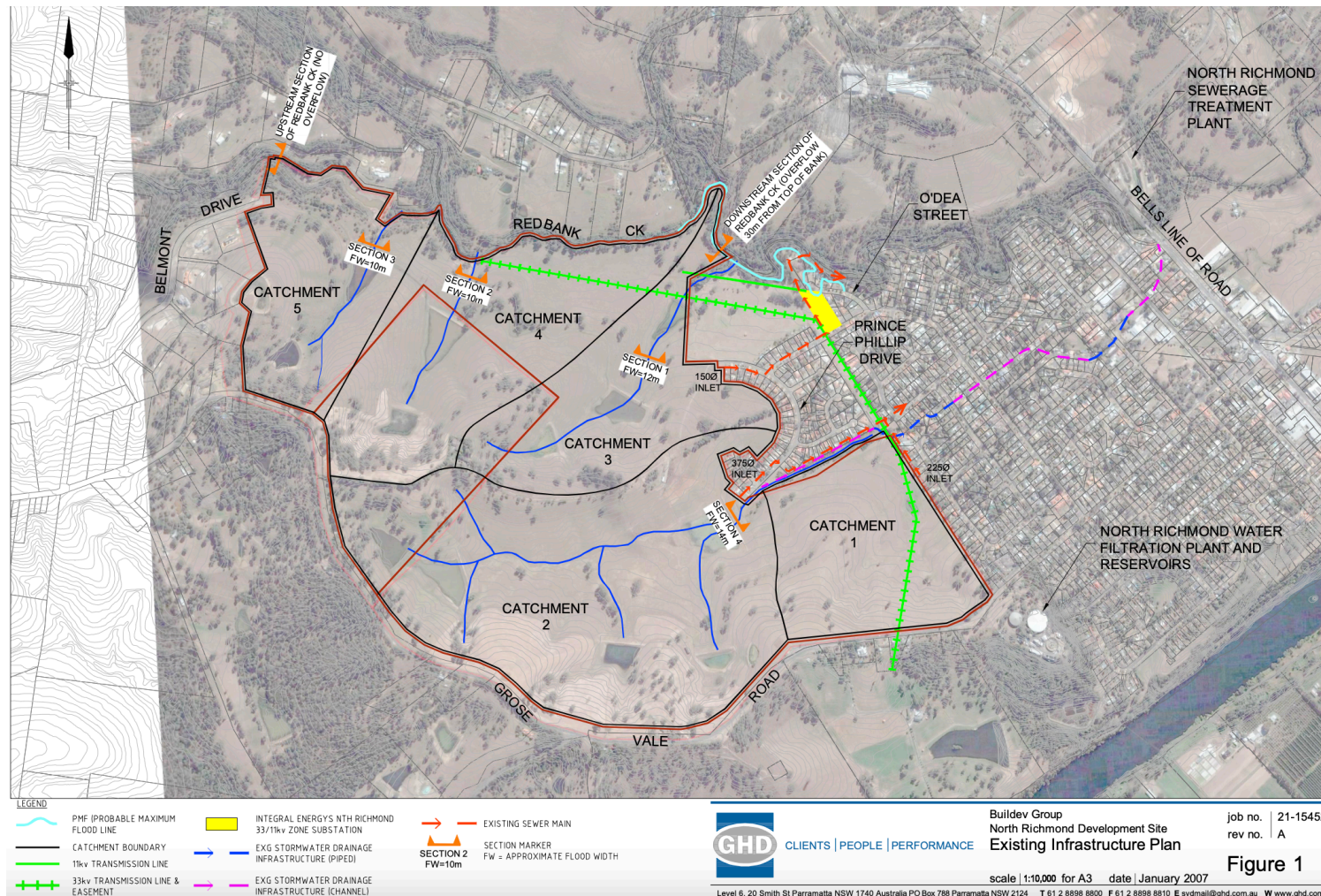


Figure 3-1 Existing GHD (2013) catchment mapping – pre-DWE approval

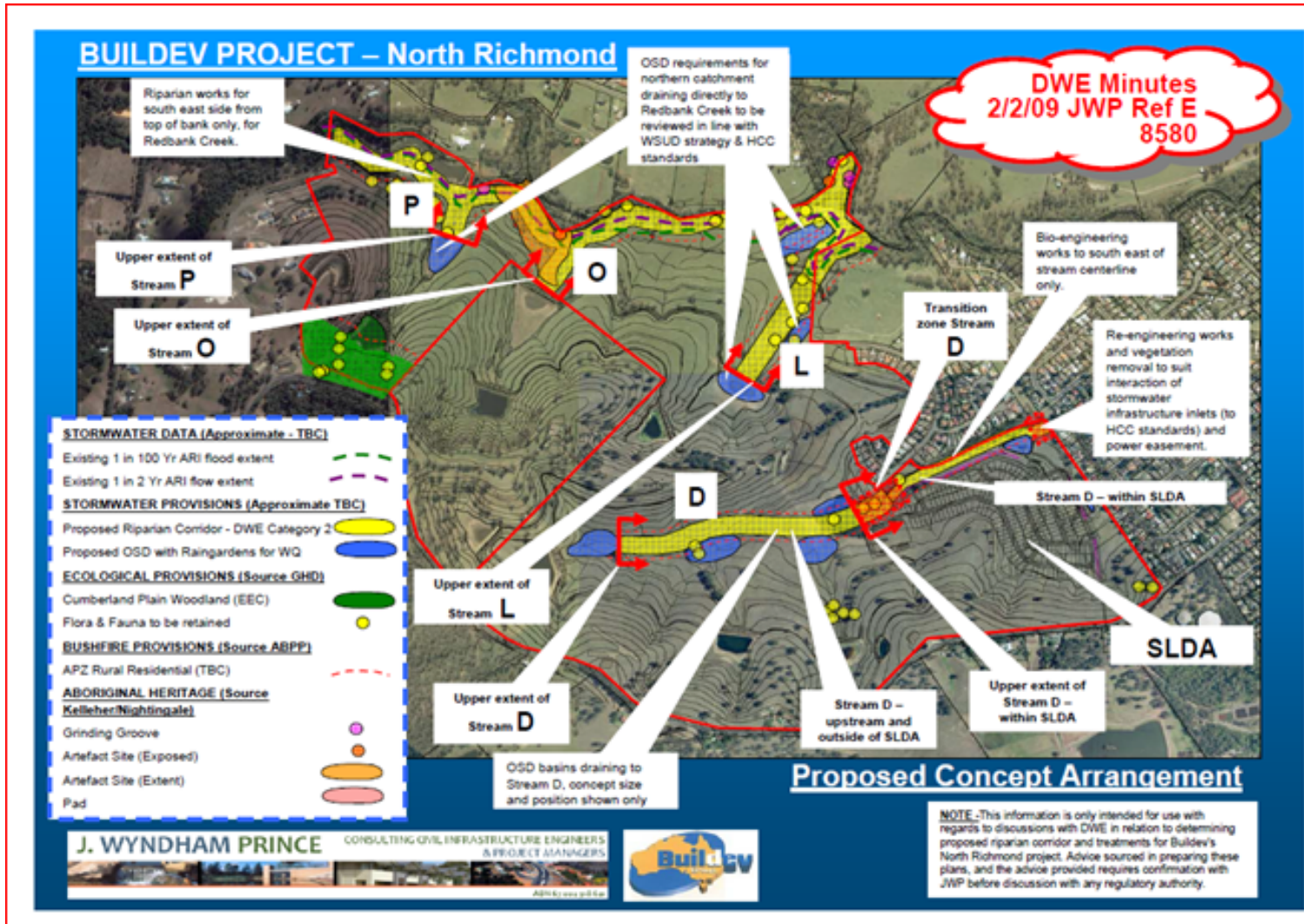


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4 DESKTOP RESEARCH AND ANALYSIS

ESEA has reviewed background information and data and undertaken searches of relevant online databases and mapping of the study area. Search tools used included:

- Water Management (General) Regulation 2018 Hydroline Spatial Data (NSW Water)
- Key Fish Habitat Mapping (NSW DPI);
- Protected Matters Search Tool (DCCEEW); and,
- NSW Bionet Atlas and NSW Seed Portal (NSW OEH)

4.1 Hydro-Line Spatial Data

Hydro-Line spatial data contains mapped information about watercourses and waterbodies in NSW. It is based on the Spatial Services (Department of Finance, Services & Innovation) NSW Hydro-Line dataset.

The purpose of the Hydro-Line spatial data is to determine the Strahler stream order of a stream. This information can also help identify whether a watercourse is exempt from requiring a water licence or approval under the *Water Management (General) Regulation 2018*.

The Hydro Line Spatial data identifies three dams within the subject site, and five first-order drainage lines (Figure 4-1). As outlined in Section 3, all drainage lines have been declassified following consultation with the NSW Office of Water in 2009.

Following the declassification of Steams J, K, M, N and O, no licence or approval under the *Water Management (General) Regulation 2018* is required for works around these areas. Stream O directly downstream remains classified as a Category 2 Stream. As such, a Controlled Activity Approval is required for any works undertaken within 40 m of this drainage line at its most upstream extent at the northern property boundary.

4.2 Waterways and Key Fish Habitat

One of the objectives of the FM Act is to conserve key fish habitats. To achieve the objectives of the FM Act, DPI-Fisheries has identified 'Key Fish Habitats' – those aquatic habitats that are important to the sustainability of the recreational and commercial fishing industries, the maintenance of fish populations generally, and the survival and recovery of threatened aquatic species. Key Fish Habitat Mapping has been produced to provide guidance on the whereabouts of all Key Fish Habitat areas in NSW.

No Key Fish Habitat is mapped as occurring within, or in proximity to, the subject site.

4.3 Matters of National Significance

The Commonwealth Government Department of Climate Change, Energy, the Environment and Water's Protected Matters Search Tool, summarises the matters of national environmental significance that may occur in, or may relate to, the subject site (Appendix B).