

## Port Stephens Hydrologic Soil Group Mapping

# Hydrologic Soil Group Map - Sheet HSG\_003

## **Hydrologic Soil Group**



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#### Cadastre

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This map provides an estimation of Hydrologic Groups of Soils in NSW according to the four class system. The map was released by the NSW Government 11 October 2016. The map uses the

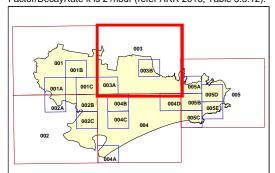
Group A— soils having high infiltration rates, even when thoroughly wetted and consisting chiefly of deep, well to excessively-drained sands or gravels. These soils have a high rate of water transmission. For design purposes, it is assumed that the Antecedent Moisture Condition is "Rather wet" (refer to Australian Rainfall and Runoff (ARR) 2016, Table 5.3.11) and the Horton Maximum (Initial) Infiltration Rate is 83.6 mm/hr, the Minimum (Final) Infiltration Rate is 25 mm/hr and the Shape Factor/Decay Rate k is 2 /hour (refer ARR 2016, Table 5.3.12).

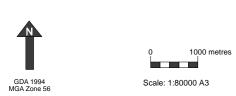
best available soils mapping coverage and was derived by linking a Hydrologic Group class to a particular Great Soil Group.

Group B— soils having moderate infiltration rates when thoroughly wetted and consisting chiefly of moderately deep to deep, moderately fine to moderately coarse textures. These soils have a moderate rate of water transmission. For design purposes it is assumed that the Antecedent Moisture Condition is "Rather wet" (refer to ARR 2016, Table 5.3.11) and the Horton Maximum (Initial) Infiltration Rate is 66.3 mm/hr, the Minimum (Final) Infiltration Rate is 13 mm/hr and the Shape Factor/Decay Rate k is 2 /hour (refer ARR 2016, Table 5.3.12).

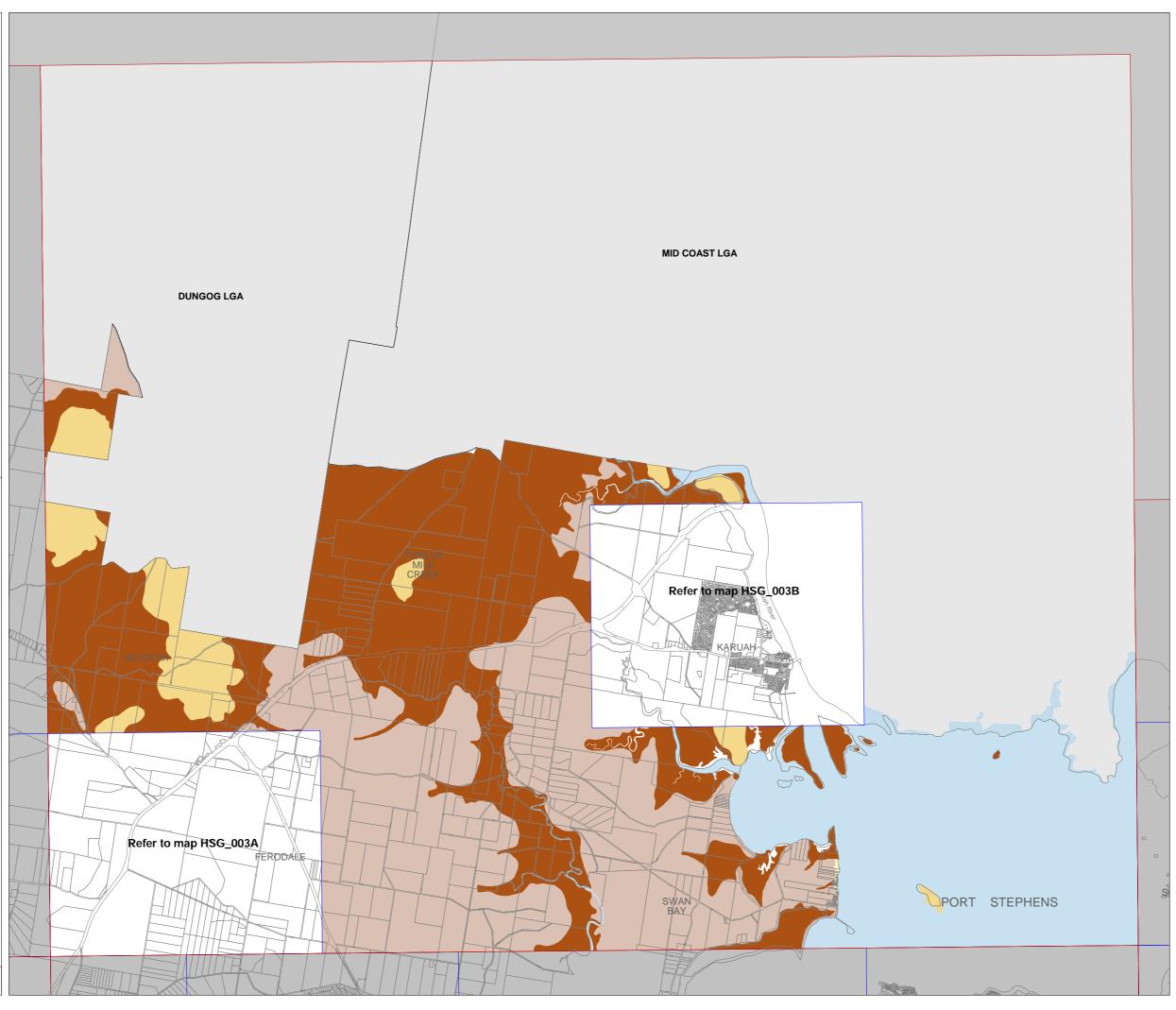
Group C— soils having slow infiltration rates when thoroughly wetted and consisting chiefly of soils with a layer that impedes downward movement of water, or soils with moderately fine to fine texture. These soils have a slow rate of transmission. For design purposes, it is assumed that the Antecedent Moisture Condition is "Rather wet" (refer to ARR 2016, Table 5.3.11) and the Horton Maximum (Initial) Infiltration Rate is 33.7 mm/hr, the Minimum (Final) Infiltration Rate is 6 mm/hr and the Shape Factor/Decay Rate k is 2 /hour (refer ARR 2016, Table 5.3.12).

Group D— soils having very slow infiltration rates when thoroughly wetted and consisting chiefly of clay soils with a high swelling potential, soils with a high water table, soils with a clay layer, and shallow soils over nearly impervious material. These soils have a very slow rate of transmission. For stormwater design purposes, it is assumed that the Antecedent Moisture Condition is "Rather wet" (refer to ARR 2016, Table 5.3.11) and the Horton Maximum (Initial) Infiltration Rate is 7.4 mm/hr, the Minimum (Final) Infiltration Rate is 3 mm/hr and the Shape Factor/DecayRate k is 2 /hour (refer ARR 2016, Table 5.3.12).





Map identification number : HSG\_003\_080\_20170124

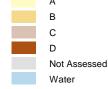




# Port Stephens Hydrologic Soil Group Mapping

## Hydrologic Soil Group Map - Sheet HSG\_003A

## Hydrologic Soil Group



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#### Cadastre

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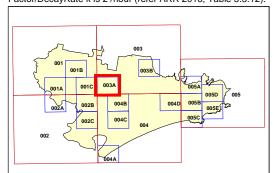
This map provides an estimation of Hydrologic Groups of Soils in NSW according to the four class system. The map was released by the NSW Government 11 October 2016. The map uses the best available soils mapping coverage and was derived by linking a Hydrologic Group class to a particular Great Soil Group.

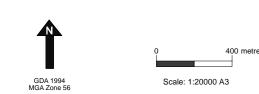
Group A— soils having high infiltration rates, even when thoroughly wetted and consisting chiefly of deep, well to excessively-drained sands or gravels. These soils have a high rate of water transmission. For design purposes, it is assumed that the Antecedent Moisture Condition is "Rather wet" (refer to Australian Rainfall and Runoff (ARR) 2016, Table 5.3.11) and the Horton Maximum (Initial) Infiltration Rate is 83.6 mm/hr, the Minimum (Final) Infiltration Rate is 25 mm/hr and the Shape Factor/Decay Rate k is 2 /hour (refer ARR 2016, Table 5.3.12).

Group B— soils having moderate infiltration rates when thoroughly wetted and consisting chiefly of moderately deep to deep, moderately fine to moderately coarse textures. These soils have a moderate rate of water transmission. For design purposes, it is assumed that the Antecedent Moisture Condition is "Rather wet" (refer to ARR 2016, Table 5.3.11) and the Horton Maximum (Initial) Infiltration Rate is 66.3 mm/hr, the Minimum (Final) Infiltration Rate is 13 mm/hr and the Shape Factor/Decay Rate k is 2 /hour (refer ARR 2016, Table 5.3.12).

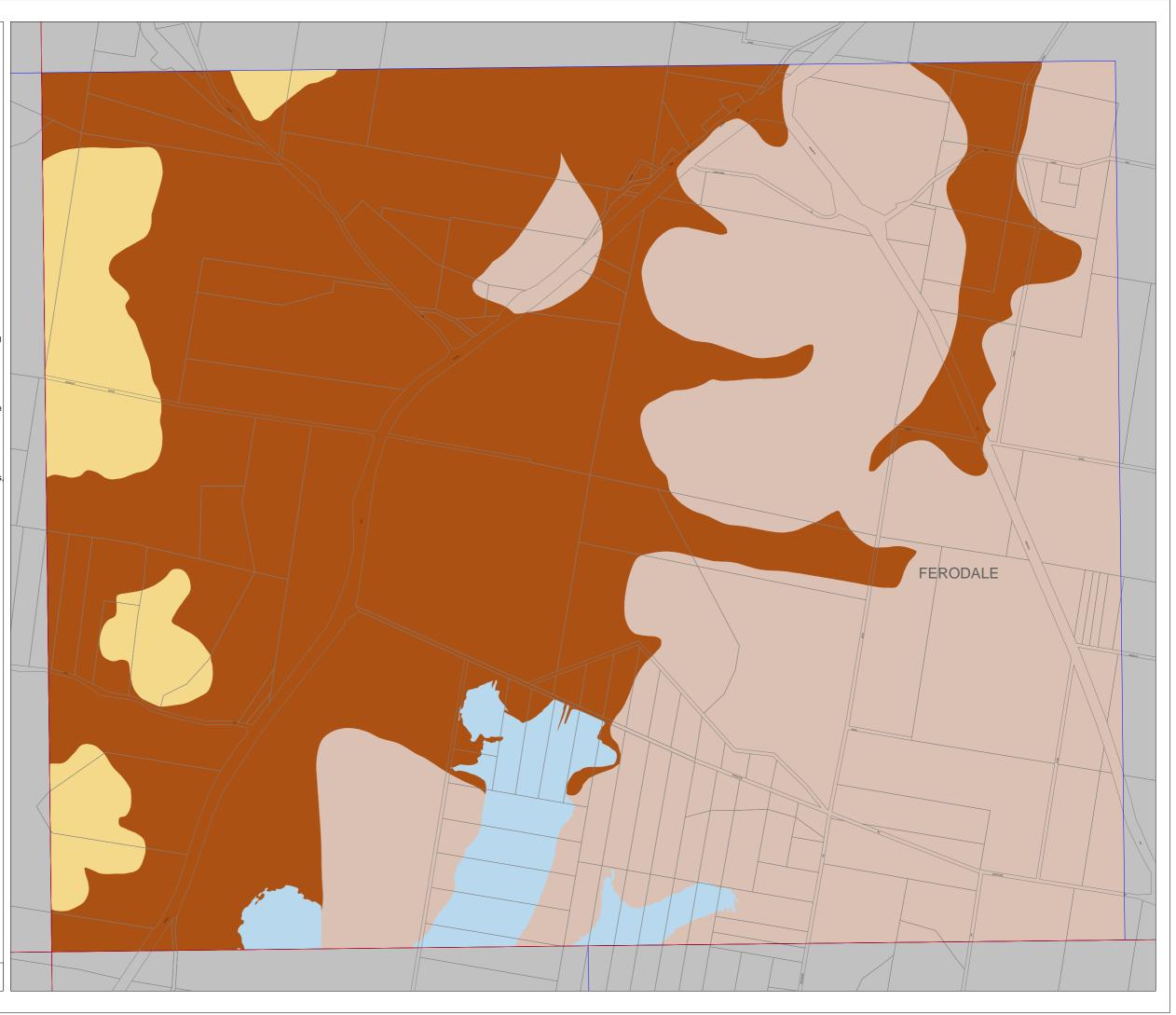
Group C— soils having slow infiltration rates when thoroughly wetted and consisting chiefly of soils with a layer that impedes downward movement of water, or soils with moderately fine to fine texture. These soils have a slow rate of transmission. For design purposes, it is assumed that the Antecedent Moisture Condition is "Rather wet" (refer to ARR 2016, Table 5.3.11) and the Horton Maximum (Initial) Infiltration Rate is 33.7 mm/hr, the Minimum (Final) Infiltration Rate is 6 mm/hr and the Shape Factor/Decay Rate k is 2 /hour (refer ARR 2016, Table 5.3.12).

Group D— soils having very slow infiltration rates when thoroughly wetted and consisting chiefly of clay soils with a high swelling potential, soils with a high water table, soils with a clay layer, and shallow soils over nearly impervious material. These soils have a very slow rate of transmission. For stormwater design purposes, it is assumed that the Antecedent Moisture Condition is "Rather wet" (refer to ARR 2016, Table 5.3.11) and the Horton Maximum (Initial) Infiltration Rate is 7.4 mm/hr, the Minimum (Final) Infiltration Rate is 3 mm/hr and the Shape Factor/DecayRate k is 2 /hour (refer ARR 2016, Table 5.3.12).





Map identification number : HSG\_003A\_020\_20170124





# Port Stephens Hydrologic Soil Group Mapping

## Hydrologic Soil Group Map - Sheet HSG\_003B

## **Hydrologic Soil Group**



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#### Cadastre

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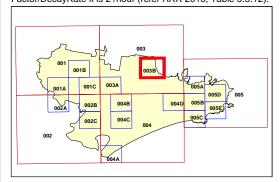
This map provides an estimation of Hydrologic Groups of Soils in NSW according to the four class system. The map was released by the NSW Government 11 October 2016. The map uses the best available soils mapping coverage and was derived by linking a Hydrologic Group class to a particular Great Soil Group.

Group A— soils having high infiltration rates, even when thoroughly wetted and consisting chiefly of deep, well to excessively-drained sands or gravels. These soils have a high rate of water transmission. For design purposes, it is assumed that the Antecedent Moisture Condition is "Rather wet" (refer to Australian Rainfall and Runoff (ARR) 2016, Table 5.3.11) and the Horton Maximum (Initial) Infiltration Rate is 83.6 mm/hr, the Minimum (Final) Infiltration Rate is 25 mm/hr and the Shape Factor/Decay Rate k is 2 /hour (refer ARR 2016, Table 5.3.12).

Group B— soils having moderate infiltration rates when thoroughly wetted and consisting chiefly of moderately deep to deep, moderately fine to moderately coarse textures. These soils have a moderate rate of water transmission. For design purposes, it is assumed that the Antecedent Moisture Condition is "Rather wet" (refer to ARR 2016, Table 5.3.11) and the Horton Maximum (Initial) Infiltration Rate is 66.3 mm/hr, the Minimum (Final) Infiltration Rate is 13 mm/hr and the Shape Factor/Decay Rate k is 2 /hour (refer ARR 2016, Table 5.3.12).

Group C— soils having slow infiltration rates when thoroughly wetted and consisting chiefly of soils with a layer that impedes downward movement of water, or soils with moderately fine to fine texture. These soils have a slow rate of transmission. For design purposes, it is assumed that the Antecedent Moisture Condition is "Rather wet" (refer to ARR 2016, Table 5.3.11) and the Horton Maximum (Initial) Infiltration Rate is 33.7 mm/hr, the Minimum (Final) Infiltration Rate is 6 mm/hr and the Shape Factor/Decay Rate k is 2 /hour (refer ARR 2016, Table 5.3.12).

Group D— soils having very slow infiltration rates when thoroughly wetted and consisting chiefly of clay soils with a high swelling potential, soils with a high water table, soils with a clay layer, and shallow soils over nearly impervious material. These soils have a very slow rate of transmission. For stormwater design purposes, it is assumed that the Antecedent Moisture Condition is "Rather wet" (refer to ARR 2016, Table 5.3.11) and the Horton Maximum (Initial) Infiltration Rate is 7.4 mm/hr, the Minimum (Final) Infiltration Rate is 3 mm/hr and the Shape Factor/DecayRate k is 2 /hour (refer ARR 2016, Table 5.3.12).





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