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HNLAP4A- HNL MEICA APPRAISAL PACKAGE – MEREWAY SLUICE

FINAL BUSINESS CASE

APPENDIX Cv –
BUILDABILITY STATEMENT

1.1 Construction process for the construction of the fish pass

NOTE- THIS SECTION ON HOLD UNTIL FISH PASS CONFIGURATION IS FINALISED
The proposed method of construction of the fish pass is indicated below.

- Set up settlement tank for dewater pumps to reduce silt entering river.
- Excavate at downstream end of bypass against concrete channel to locate back of the wall. Use dewatering pump during excavation.
- Install first sheet piles against back of river channel wall.
- Construct concrete seal between sheet piles and concrete wall. This will require dewatering pumps.
- Install sheet piles either side of fish pass section going from downstream to upstream.
- Excavate down with long arm excavator on temporary platform spanning sheet piles. This will require dewatering pumps.
- Install shuttering down between sheet piles to form a step for second concrete pour.
- Place concrete in first pour up to bottom of shuttering at downstream end.
- Excavate further upstream. Place shutting for second step.
- Second concrete pour to bottom of shuttering, and repeat, taking concrete up to around 1/2 of length up to upstream end – one step per pour.
- Install temporary cofferdam around upstream end of fish pass in Duke of Northumberland River. Alternatively, if in place, it may be possible to lower the tilting weir level to lower water level in DNR temporarily, consulting with Mogden Sewage Treatment Works and Syon Park beforehand.
- Excavate down adjacent to Duke of Northumberland River upstream end of bypass. Use dewatering pumps if required.
- Place formwork and construct upstream end of fish pass in RC concrete.
- Install further permanent sheet piles either side of fish pass channel upstream of Larinier fish pass, until the fish pass is at sufficiently shallow depth so that groundwater is not a problem.
- Place sheet files over the upstream end of the above channel section and excavate the channel above the Larinier fish pass section.
- Cut the sheet pile down to the level of the channel section profile at the channels upstream end.
- Continue excavating the higher level fish pass from this point to the flow entrance structure at the Duke of Northumberland River.
- Put ballast bags down in channel in front of downstream end of fish pass to act as temporary dam and break though concrete. Make good downstream end of bypass. Some management of flows using the gate may be necessary.
- Construct pre-barrages in river channel (for fish pass). These are envisaged to consist of 200mm high concrete blocks being lifted in to the channel and fixed into position. To do this the flows in the river will need to be managed, and it may be

necessary to obtain a temporary road closure to site the crane to lift these into position. The pre-barrages are located either side of the existing road bridge.