This Appendix gives figures showing the estimated activity concentrations for 1998 to 2030 for the 83 indicators using the discharge cases described in Section 9 of the main report.

In considering the significance of predicted future concentrations analytical limits of detection were presented for comparison. For radionuclides, these limits depend on a variety of factors including size of sample, instrument sensitivity, length of counting time, background count rates, and whether radiochemical separation and concentration techniques have been applied. Typical limits of detection are summarised in Table 13 of the main report though it should be noted that values lower than these may be achievable, for example by using larger sample sizes or longer counting times.
Figure 1 Estimated activity concentrations of tritium in seawater for the Channel Islands coastal area (note that discharges beyond 2020 are not considered)
Figure 2 Estimated activity concentrations of caesium-137 in seawater for the Channel Islands coastal area (note that discharges beyond 2020 are not considered)
Figure 3 Estimated activity concentrations of caesium-137 in fish for the Channel Islands coastal area (note that discharges beyond 2020 are not considered)
Figure 4 Estimated activity concentrations of cobalt-60 in molluscs for the Channel Islands coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for the UK Discharge Strategy and Discharges continue at 2000 levels until plant closure cases.
Figure 5 Estimated activity concentrations of caesium-137 in molluscs for the Channel Islands coastal area (note that discharges beyond 2020 are not considered)
Figure 6 Estimated activity concentrations of plutonium-239/240 in molluscs for the Channel Islands coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for all discharge cases
Figure 7 Estimated activity concentrations of americium-241 in molluscs for the Channel Islands coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for all discharge cases
Figure 8 Estimated activity concentrations of carbon-14 in crustaceans for the Channel Islands coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for the UK Discharge Strategy and Discharges continue at 2000 levels until plant closure cases
Figure 9 Estimated activity concentrations of technetium-99 in crustaceans for the Channel Islands coastal area (note that discharges beyond 2020 are not considered)
Figure 10 Estimated activity concentrations of cobalt-60 in seaweed for the Channel Islands coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for the UK Discharge Strategy and Discharges continue at 2000 levels until plant closure cases
Figure 11 Estimated activity concentrations of strontium-90 in seaweed for the Channel Islands coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between all discharge cases
Figure 12 Estimated activity concentrations of tritium in seawater for the Dounreay coastal area (note that discharges beyond 2020 are not considered)
Figure 13 Estimated activity concentrations of caesium-137 in seawater for the Dounreay coastal area (note that discharges beyond 2020 are not considered)
Figure 14 Estimated activity concentrations of carbon-14 in fish for the Dounreay coastal area (note that discharges beyond 2020 are not considered)
Figure 15 Estimated activity concentrations of caesium-137 in fish for the Dounreay coastal area (note that discharges beyond 2020 are not considered)
Figure 16 Estimated activity concentrations of cobalt-60 in molluscs for the Dounreay coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for the UK Discharge Strategy and Discharges continue at 2000 levels until plant closure cases
Figure 17 Estimated activity concentrations of strontium-90 in molluscs for the Dounreay coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for the UK Discharge Strategy and Discharges continue at 2000 levels until plant closure cases
Figure 18 Estimated activity concentrations of caesium-137 in molluscs for the Dounreay coastal area (note that discharges beyond 2020 are not considered)
Figure 19 Estimated activity concentrations of plutonium-239/240 in molluscs for the Dounreay coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for all discharge cases
Figure 20 Estimated activity concentrations of americium-241 in molluscs for the Dounreay coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for all discharge cases
Figure 21 Estimated activity concentrations of technetium-99 in crustaceans for the Dounreay coastal area (note that discharges beyond 2020 are not considered)
Figure 22 Estimated activity concentrations of cobalt-60 in seaweed for the Dounreay coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for the UK Discharge Strategy and Discharges continue at 2000 levels until plant closure cases
Figure 23 Estimated activity concentrations of technetium-99 in seaweed for the Dounreay coastal area (note that discharges beyond 2020 are not considered)
Figure 24 Estimated activity concentrations of tritium in seawater for the Hartlepool coastal area (note that discharges beyond 2020 are not considered)
Figure 25 Estimated activity concentrations of caesium-137 in seawater for the Hartlepool coastal area (note that discharges beyond 2020 are not considered)
Figure 26 Estimated activity concentrations of carbon-14 in fish for the Hartlepool coastal area (note that discharges beyond 2020 are not considered)
Figure 27 Estimated activity concentrations of caesium-137 in fish for the Hartlepool coastal area (note that discharges beyond 2020 are not considered)
**Figure 28** Estimated activity concentrations of cobalt-60 in molluscs for the Hartlepool coastal area (note that discharges beyond 2020 are not considered)
Figure 29 Estimated activity concentrations of caesium-137 in molluscs for the Hartlepool coastal area (note that discharges beyond 2020 are not considered)
Figure 30 Estimated activity concentrations of plutonium-239/240 in molluscs for the Hartlepool coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for all discharge cases
Figure 31 Estimated activity concentrations of americium-241 in molluscs for the Hartlepool coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for all discharge cases
Figure 32 Estimated activity concentrations of technetium-99 in seaweed for the Hartlepool coastal area (note that discharges beyond 2020 are not considered)
Figure 33 Estimated activity concentrations of tritium in seawater for the Northern Ireland coastal area (note that discharges beyond 2020 are not considered)
Figure 34 Estimated activity concentrations of caesium-137 in seawater for the Northern Ireland coastal area (note that discharges beyond 2020 are not considered)
Figure 35 Estimated activity concentrations of carbon-14 in fish for the Northern Ireland coastal area (note that discharges beyond 2020 are not considered)
Figure 36 Estimated activity concentrations of caesium-137 in fish for the Northern Ireland coastal area (note that discharges beyond 2020 are not considered)
Figure 37 Estimated activity concentrations of cobalt-60 in molluscs for the Northern Ireland coastal area (note that discharges beyond 2020 are not considered)
Figure 38 Estimated activity concentrations of caesium-137 in molluscs for the Northern Ireland coastal area (note that discharges beyond 2020 are not considered)
**Figure 39 Estimated activity concentrations of plutonium-239/240 in molluscs for the Northern Ireland coastal area** (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for all discharge cases
Figure 40 Estimated activity concentrations of americium-241 in molluscs for the Northern Ireland coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for all discharge cases
Figure 41 Estimated activity concentrations of technetium-99 in crustaceans for the Northern Ireland coastal area (note that discharges beyond 2020 are not considered)
Figure 42 Estimated activity concentrations of cobalt-60 in seaweed for the Northern Ireland coastal area (note that discharges beyond 2020 are not considered)
Figure 43 Estimated activity concentrations of technetium-99 in seaweed for the Northern Ireland coastal area (note that discharges beyond 2020 are not considered)
Figure 44 Estimated activity concentrations of caesium-137 in sediment for the Northern Ireland coastal area (note that discharges beyond 2020 are not considered)
C5  Scilly Isles

Figure 45 Estimated activity concentrations of technetium-99 in seaweed for the Scilly Isles coastal area (note that discharges beyond 2020 are not considered)
Figure 46 Estimated activity concentrations of caesium-137 in seaweed for the Scilly Isles coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for all discharge cases
C6 Sellafield

Figure 47 Estimated activity concentrations of tritium in seawater for the Sellafield coastal area (note that discharges beyond 2020 are not considered)
Figure 48 Estimated activity concentrations of caesium-137 in seawater for the Sellafield coastal area (note that discharges beyond 2020 are not considered)
Figure 49 Estimated activity concentrations of carbon-14 in fish for the Sellafield coastal area (note that discharges beyond 2020 are not considered)
Figure 50 Estimated activity concentrations of strontium-90 in fish for the Sellafield coastal area (note that discharges beyond 2020 are not considered)
Figure 51 Estimated activity concentrations of caesium-137 in fish for the Sellafield coastal area (note that discharges beyond 2020 are not considered)
Figure 52 Estimated activity concentrations of cobalt-60 in molluscs for the Sellafield coastal area (note that discharges beyond 2020 are not considered)
Figure 53 Estimated activity concentrations of caesium-137 in molluscs for the Sellafield coastal area (note that discharges beyond 2020 are not considered)
Figure 54 Estimated activity concentrations of plutonium-239/240 in molluscs for the Sellafield coastal area (note that discharges beyond 2020 are not considered)
**Figure 55** Estimated activity concentrations of americium-241 in molluscs for the Sellafield coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for all discharge cases
Figure 56 Estimated activity concentrations of technetium-99 in crustaceans for the Sellafield coastal area (note that discharges beyond 2020 are not considered)
Figure 57 Estimated activity concentrations of caesium-137 in crustaceans for the Sellafield coastal area (note that discharges beyond 2020 are not considered)
Figure 58 Estimated activity concentrations of cobalt-60 in seaweed for the Sellafield coastal area (note that discharges beyond 2020 are not considered)
Figure 59 Estimated activity concentrations of technetium-99 in seaweed for the Sellafield coastal area (note that discharges beyond 2020 are not considered)
Figure 60 Estimated activity concentrations of caesium-137 in seaweed for the Sellafield coastal area (note that discharges beyond 2020 are not considered)
Figure 61 Estimated activity concentrations of cobalt-60 in sediment for the Sellafield coastal area (note that discharges beyond 2020 are not considered)
Figure 62 Estimated activity concentrations of caesium-137 in sediment for the Sellafield coastal area (note that discharges beyond 2020 are not considered)
Figure 63 Estimated activity concentrations of plutonium-239/240 in sediment for the Sellafield coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for all discharge cases
Figure 64 Estimated activity concentrations of americium-241 in sediment for the Sellafield coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for all discharge cases
C7 Sizewell

Figure 65 Estimated activity concentrations of tritium in seawater for the Sizewell coastal area (note that discharges beyond 2020 are not considered)
Figure 66 Estimated activity concentrations of technetium-99 in seawater for the Sizewell coastal area (note that discharges beyond 2020 are not considered)
Figure 67 Estimated activity concentrations of caesium-137 in seawater for the Sizewell coastal area (note that discharges beyond 2020 are not considered)
Figure 68 Estimated activity concentrations of caesium-137 in fish for the Sizewell coastal area (note that discharges beyond 2020 are not considered)
Figure 69 Estimated activity concentrations of caesium-137 in molluscs for the Sizewell coastal area (note that discharges beyond 2020 are not considered)
Figure 70 Estimated activity concentrations of carbon-14 in crustaceans for the Sizewell coastal area (note that discharges beyond 2020 are not considered)
Figure 71 Estimated activity concentrations of cobalt-60 in crustaceans for the Sizewell coastal area (note that discharges beyond 2020 are not considered)
Figure 72 Estimated activity concentrations of plutonium-239/240 in crustaceans for the Sizewell coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity for all discharge cases
Figure 73 Estimated activity concentrations of americium-241 in crustaceans for the Sizewell coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for all discharge cases
Figure 74 Estimated activity concentrations of tritium in seawater for the Wylfa coastal area (note that discharges beyond 2020 are not considered)
Figure 75 Estimated activity concentrations of caesium-137 in seawater for the Wylfa coastal area (note that discharges beyond 2020 are not considered)
Figure 76 Estimated activity concentrations of carbon-14 in fish for the Wylfa coastal area (note that discharges beyond 2020 are not considered)
Figure 77 Estimated activity concentrations of caesium-137 in fish for the Wylfa coastal area (note that discharges beyond 2020 are not considered)
Figure 78 Estimated activity concentrations of cobalt-60 in molluscs for the Wylfa coastal area (note that discharges beyond 2020 are not considered)
Figure 79 Estimated activity concentrations of caesium-137 in molluscs for the Wylfa coastal area (note that discharges beyond 2020 are not considered)
Figure 80 Estimated activity concentrations of plutonium-239/240 in molluscs for the Wylfa coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for all discharge cases
Figure 81 Estimated activity concentrations of americium-241 in molluscs for the Wylfa coastal area (note that discharges beyond 2020 are not considered)

Note: there is overlap between predicted activity concentrations for all discharge cases
Figure 82 Estimated activity concentrations of technetium-99 in crustaceans for the Wylfa coastal area (note that discharges beyond 2020 are not considered)
Figure 83 Estimated activity concentrations of cobalt-60 in sediment for the Wylfa coastal area (note that discharges beyond 2020 are not considered)