Historical and Projected Sea-Level Extremes for Hobart and Burnie, Tasmania

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Executive Summary

Background

In 2006, the Tasmanian Department of Primary Industries and Water (DPIW) was awarded funding from the Tasmanian Risk Mitigation Programme to undertake a Climate Change and Coastal Risk Assessment and Management Project. The project seeks to mitigate against risks to significant infrastructure and resources around the Tasmanian coastline from climate change and sea-level rise.

As part of the process of establishing the context for risk assessment and management, DPIW entered into partnership with the Antarctic Climate & Ecosystems Cooperative Research Centre (ACE CRC) to review information relevant to the Tasmanian region on historically recorded extreme sea-level events, and to determine sea-level rise probabilities for the 21st century.

Purpose

This report represents the results of the analysis of tide-gauge data from Hobart and Burnie, which have records that are sufficiently long to allow extrapolation of the statistics of extreme events for return periods as long as 100 years. It provides estimates of the effect of future projections of sea-level rise on high sea-level extremes at these locations during the 21st century. It should serve as a reference document for the preparation of planning and policy statements relating to extreme sea-levels in Tasmania.

The report starts from the premise that planners, managers and developers need to know the probability of an event happening during the expected life of a development. This is important in the context of risk management where development and management regimes can be adapted to reduce risks to acceptable levels. It is a more direct, and in some ways more sophisticated, approach than the more usual convention of designing for a standard (e.g. 100 year) return period. In general, the application of a '100-year return period' approach for assets of even modest lifetimes represents an unacceptable risk.

The report provides a set of 150 tables and 300 figures for reference by planning and management authorities responsible for setting standards for assets in the coastal zone. The tables and figures enable the determination of exceedance probabilities and return periods depending on the time span of the asset, the required level above the Australian Height Datum (AHD) and the assumed IPCC emission scenario.

Issues

This report covers only sea-level height and not shoreline erosion. Both of these factors should in general be considered for coastal risk assessment and management.

Extrapolations cannot be made for return periods beyond 130 years because of the relatively short length of the Hobart and Burnie tide-gauge records.

Sea-level projections are based on the IPCC Third Assessment Report (2001) and are similar to those provided by the Fourth Assessment Report (2007).

Key Findings

For a given asset, the probability that a certain sea-level will be exceeded depends on the expected lifetime of that asset. The annual exceedance probability (i.e. the probability that a level will be exceeded in any one year) is therefore not an adequate planning criterion. The overall exceedance probability increases both with a longer asset life and with projected sea-level rise. This report integrates information on present variability of sea level (i.e. the extremes to which we are now subject) with projections of future sea level rise, in order to provide a basis for planning decisions in Tasmania during the 21st century.

1 Introduction

This report describes the results of work commissioned by the Department of Primary Industries and Water (DPIW), Tasmania, on 15 September 2006. The study involved the analysis of historic tide-gauge[1] data from Hobart and Burnie in order to quantify the frequency of occurrence of high sea-level extremes. Projections of future sea-level rise were then used to estimate how these extremes will be modified during the 21st century.

The scope of work was described in Schedule 1 of the Collaborative Agreement between the Antarctic Climate & Ecosystems Cooperative Research Centre (ACE CRC) and DPIW, which is included in the Appendix. Although minor changes have been made to the way in which the analyses were performed, the primary deliverables (exceedance probabilities and return periods) are presented here.

An earlier draft version of this report was produced in December 2006, containing only results for Hobart. This report repeats the results for Hobart (unchanged) and includes similar results for Burnie.

2 Definitions and Explanations

2.1 Sea Level

Sea level is the level of the sea surface at any one time. In this report, it is expressed mathematically as η.

2.2 Relative Sea Level

Relative sea level is the level of the sea surface, relative to the land, at any one time. The land generally has a slow vertical motion due to effects such as glacial isostatic adjustment (GIA; also called postglacial rebound or PGR) and tectonic activity. At Port Arthur, 51 km southeast of Hobart, the vertical land motion is 0.2 ± 0.2 mm y^{-1} upwards[2] (Hunter et al., 2003). The results in this report relate to relative sea level.

2.3 Mean Sea Level

Mean sea level is the average value of sea level over a period of years to decades. If there was no such thing as 'sea-level rise' *mean sea level* would remain steady or constant.

Sea level varies with a wide range of time scales, including twice-daily and daily tides,

[1] A *tide gauge* is an instrument for measuring relative sea level (see Section 2). Tide gauges were originally designed primarily to measure tidal motions in a port for the management of shipping movements. However they are now also used for the measurement of sea level at all time scales although they retain the name 'tide gauge'.

[2] Uncertainties in this report are expressed as ± 1 standard deviation.

meteorological fluctuations over days to weeks, and seasonal, interannual, decadal and multi-decadal variations. There is generally a slow overall rise at a rate of 1-2 mm y^{-1}, superimposed on these variations and caused predominantly by anthropogenic global warming (Church et al., 2001). It is generally accepted that between 50 and 80 years of data are necessary for the estimation of the trend in *mean sea level* at a single site (Douglas, 2001).

2.4 Extremes of Sea Level

This report is mainly concerned with *high extremes* of sea level, which are the maximum sea levels observed over a prescribed period. These extreme levels may be altered by either a rise in mean sea level or by changes in the variability about mean sea level. From observation of the long tide-gauge records at Fremantle and Fort Denison (Sydney) it appears that sea-level rise was the dominant effect on changes in high sea-level extremes over the 20th century (Church et al., 2006). This report estimates the effect of future projections of sea-level rise on high sea-level extremes in Hobart during the 21st century. These projections were provided by the Third Assessment Report (TAR; Church et al., 2001) of the Intergovernmental Panel on Climate Change (IPCC), which are similar to those provided by the Fourth Assessment Report (AR4; IPCC, 2007).

2.5 The Return Period

The *return period* (R, otherwise known as the *average recurrence interval* or *ARI*), is the average period between the start (or end) of exceedance events. In other words, if there are N exceedance events in a period T, where N is large, then the return period is T/N. Another (and in some ways more useful) way of expressing the frequency of extreme events is by defining the probability that an event will occur during a specific time span. If this time span is one year, then this statistic is called the *annual exceedance probability* or *AEP*, which is here expressed as a percentage. For return periods that are much longer than a year (say, greater than about 20 years), then the return period in years is closely approximated by 100 divided by the annual exceedance probability (i.e. $R(\text{years}) \approx 100/AEP$). For this reason, the exceedance level for a return period of 100 years is often defined as the level which has a probability of 1% of being exceeded during one year. It must be remembered that this is only an *approximate* definition and one which does not hold for short return periods. For example, for a return period of one year, the annual exceedance probability is 63% (not 100% as we might expect from the approximate definition).

For each *sea level* there is a corresponding *return period*. Due to the wide range of return periods, they are often plotted logarithmically (as in this report).

2.6 The Asset Life

It is important to understand the concept of an *asset life* during which the probability of occurrence of extreme events may be estimated. This *asset life* may be thought of as the expected serviceable lifetime of an asset, such as a building or other infrastructure; a developer generally needs to know the probability that an extreme event will occur (perhaps more than once) during this lifetime. Asset life is generally measures in *years*.

2.7 The Asset Period

The *asset period* is closely related to the asset life. It is actual period over which the asset will be in existence. It is therefore measured by a *range of years*. An asset with an asset period of *2010 to 2050* therefore has an asset life of *40 years*.

2.8 The Exceedance Distribution

If a specific sea level has a return period, R, then the probability that this level will be exceeded (the *exceedance probability*, E) during the *asset period*, T, is given, to a good approximation, by $100\,(1-\exp(-T/R))$ (Pugh, 1996, p. 270), when expressed as a percentage. If $T \ll R$ then the exceedance probability is approximately $100\,T/R$. A commonly-used parameter is the *annual exceedance probability* or *AEP* (see Section 3), which is just the exceedance probability for a period, T, of 1 year.

For each *sea level* there is a corresponding *exceedance probability*. Together they form an *exceedance distribution*, which is here plotted with sea level along the vertical axis and exceedance probability along the horizontal. Exceedance probability may be expressed as a proportion (between 0 and 1) or as a percentage (between 0% and 100%). In this report, exceedance probability is expressed as a percentage; for low sea levels the exceedance distribution tends to 100%, and for high sea levels it tends to 0%.

2.9 The Frequency Distribution

For every *exceedance distribution, E* there is a corresponding *frequency distribution, F*. While an exceedance distribution indicates the probability that the sea level will exceed a certain value during a prescribed period, the frequency distribution indicates the probability that the maximum sea level during that period will be a specific value. Mathematically, the frequency distribution is simply the negative of the derivative (with respect to the sea level, η) of the exceedance distribution, so $F = -\mathrm{d}E/\mathrm{d}\eta$. The *peak* of the frequency distribution indicates the *most probable* maximum sea-level. On either side of the peak, the frequency distribution tends to 0 for both low and high sea levels.

3 Overview of Tasmanian Extreme Sea-Level Events

Sharples (2006) reviewed coastal flooding events (pp. 22-24 in his report) and available tide-gauge data (pp. 79-88 in his report) for Tasmania. In order to evaluate the vulnerability to sea-level extremes under conditions of rising sea level, Sharples used records from the seven sites at which there was sufficient data to derive statistics for extreme events. They were: Hobart (29 years), Georgetown (29 years), Burnie (31 years), Spring Bay (18 years), Devonport (18 years), Stanley (3 years) and Granville Harbour (4 years). Extreme sea levels for 2004 were derived from these records. Extreme sea levels for 2100 were then estimated by adding minimum and maximum estimates of sea-level rise from 2004 to 2100 (0.08 m and 0.84 m, respectively) from the IPCC TAR (Church et al., 2001).

The present study provides a more detailed and thorough description of sea-level extremes for Hobart and Burnie, by:

- adjusting the historic Hobart and Burnie tide-gauge records for known vertical datum shifts and removing significant portions of questionable data,
- presenting the present and future extreme statistics both as exceedance probabilities over a give time span and as *effective* return periods, and
- incorporating the uncertainty in the IPCC projections into the above statistics.

4 The Historic Tide-Gauge Data

4.1 Hobart

In 1889, a remarkable paper was published in the Papers and Proceedings of the Royal Society of Tasmania, by Alfred Mault, Engineering Inspector of the Central Board of Health (Mault, 1889). Mault had arranged for the tide gauge of a visiting Royal Navy survey vessel, the *HMS Egeria*, to be installed on the New Wharf, Hobart, and for tidal observations to be made during February and March 1889. His paper includes the observed times and heights of High and Low Waters for 31 days, and corresponding observations of barometric pressure and wind. In addition, and most importantly, he related the tidal levels to an existing survey mark on the Town Hall steps. Although this mark has not survived, we know from other survey information the height of this mark relative to modern survey datums. In summary, Mault provided all the information necessary to estimate relative sea level during the early months of 1889. His record was however very short compared with the seasonal to multi-decadal variations present in most tide-gauge records, but it may still be used to provide a constraint on mean sea level at the end of the 19th century. Our estimate of mean sea level[3] at that time from Mault's data is 0.12±0.06 m below AHD 83[4,5]. This suggests a rise of relative sea level in Hobart of 0.12±0.06 m over the 83 years from 1889 to 1972, or a rate of 1.5±0.7 mm y^{-1}, which is in good agreement with the 'Australian average' estimate for 1920-2000 of 1.2 mm y^{-1} (Church et al., 2006).

The Tasmanian State Datum[6], the survey datum used prior to the proclamation of AHD in 1983, provides another estimate of mean sea-level around the end of the 19th century. It

[3]This was, strictly, *mean tide level*, which is the average of an equal number of high and low waters, and is a good approximation to mean sea level for Hobart, where the shallow-water constituents of the tide are small.

[4]In this Section, the uncertainty in an estimate of mean sea-level is based on the observed temporal variability in sea level.

[5]Australian Height Datum for Tasmania (AHD 83) was proclaimed in 1983 and based on the annual mean sea level for 1972 at Hobart and Burnie. The datum will henceforth be called 'AHD'.

[6]the Tasmanian State Datum was proclaimed in 1944 and based on mean sea level in Hobart for the period 1874-1904. In Hobart, it is 0.165 m below AHD.

was based on mean sea level in Hobart for the period 1874-1904 (although the source of some of the corresponding tide-gauge data is obscure[7]) and is 0.165 m below AHD. This level does not differ significantly from the estimate of mean sea level in 1889 from Mault's data (0.12±0.06 m below AHD). A comparison of the Tasmanian State Datum and AHD indicates a rise in sea level over the 82.5 years from 1889 (the mid-point of the 1874-1904 period used for the State Datum) to 1972 of 2.0±0.3 mm y^{-1}. This estimate is somewhat higher than the 'Australian average' estimate for 1920-2000 of 1.2 mm y^{-1} (Church et al., 2006), suggesting that the uncertainty in mean sea level inferred from one or both of the Datums may have been underestimated.

Although Mault's paper provided an early and excellent example of how sea level should be recorded for posterity (providing both the original observations and vertical datum information), the hundred years that followed provide a salutary lesson on how not to do it. Even though the tidal observations collected almost continuously since 1889 may have served their original purpose in supporting port operations, they fall far short of meeting any reasonable criteria for a scientific data set. Indeed, it is only since 1989 that we have a reasonably continuous record of trustworthy data unambiguously related to a known vertical datum. The 100 years from 1889 to 1999 were marred by:

- Poor or non-existent recording of vertical datum information: there is no surviving datum information for the 65-year period from 1889 until 1954 (other than that provided by Mault in 1889 for his temporary tide gauge).
- Poor operation of the tide-gauge: for example, the period from mid-1973 to early 1976 was characterised by periods of the gauge not working, apparently arbitrary datum changes and drifting instrument offset; as a result, there is probably little of value in this period of data. Data from the five-year period from early-1982 to mid-1987 is also of dubious quality and cannot be used.
- Many documents describing survey levels, and the tide gauge and its operation, being undated.
- Some data (e.g. 1972-1977 inclusive) having only been digitised to the nearest 0.1 m.

The available tide-gauge observations for Hobart are summarised in Table 1. From these were chosen only data that had already been digitised and for which there was some vertical datum information; that is, the hourly sea levels for 1960 to 2004 provided by the Australian National Tidal Centre. This data was of variable quality and was selected as

[7]The first permanent recording tide gauge was installed in Hobart in late 1889 and was operational on 1 December 1889 (Marine Board of Hobart, 1894), which prompts the question of the source of the sea-level data that contributed, prior to December 1889, to the 1874-1904 average used for the State Datum. Apart from the data provided by Mault (1889), the discussion attached to his paper suggested the existence of two other sets of tidal data (although they do not appear to have survived to the present time). Tidal observations were also indicated on local drawings (e.g. a map of proposed Hobart sewerage (Mault, 1886) and a plan of the storehouse at Port Arthur (Laing, about 1833)). It also seems inconceivable that the development of the Port of Hobart during the 19th century was not accompanied by tidal observations. Although we do not have any original tidal data prior to 1889 that may have contributed to the estimate of mean sea level used to define the State Datum, the lesson is clear: people were observing tides at Port Arthur and Hobart long before 1889. It is therefore assumed that the data used for defining the State Datum was derived partly from the automatic tide gauge established in 1889, and partly from earlier observations made, for example, on an *ad hoc* basis for civil surveying purposes.

shown in Table 2. It should be stressed that the datums prior to 1989 are somewhat obscure. However, the resultant sea levels are probably accurate to ±0.05 m. This data covers a total span of 43.0 years and includes 31.8 years of actual data, representing a data recovery of 74%.

4.2 Burnie

The available tide-gauge observations for Burnie are summarised in Tables 3 and 4. Information about the datum prior to the installation of the National Tidal Centre gauge in 1992 was unavailable. However the datums for this period have been estimated, somewhat heuristically, assuming a constant sea-level trend of 1.2 mm y^{-1} (see Section 4.1), yielding resultant sea levels which are probably accurate to ±0.05 m. This data covers a total span of 52.5 years and includes 32.2 years of actual data, representing a data recovery of 61%.

5 Sea-Level Projections

5.1 The IPCC Projections

The projections of global-average sea-level used for this work were derived from the IPCC TAR (Church et al., 2001) rather than from the more recent AR4 (IPCC, 2007). There are two main reasons for this:

1. the first part of this work, relating to the sea-level at Hobart, was completed prior to the release of the AR4, and
2. the AR4 has not provided published numerical values of modelled sea-level projections through the 21st century.

The IPCC TAR provided projections of global-average sea-level from 1990 to 2100 (Church et al., 2001, and Houghton et al., 2001, pp. 824-825[8]). These projections were based on the results of seven atmosphere-ocean general circulation models (AOGCMs) and 35 different scenarios (called the *SRES* scenarios (Nakićenović et al., 2000)). The present study used the B1 (low impact), A1B (medium impact) and A1FI (high impact) scenarios. These projections, adjusted so that they are relative to 2000 (rather than 1990) are shown in Figure 1.

Figure 1 also shows the range of projections, averaged over the decade 2090-2100, derived from the AR4 for these three scenarios. When an additional contribution is added to account for increased ice flow from Greenland and Antarctica, it is seen that the maximum TAR and AR4 projections are very similar at the end of the 20th century. The minimum projections for the AR4 are, however, about 0.1 m higher than for the TAR. The use of TAR projections, rather than those of the AR4, therefore causes the extreme levels derived from the following work to be biased slightly low. This bias should probably be less than 0.05 m, even at the end of the 20th century.

[8]There are errors in each of the tables entitled *Models minimum – Total sea level change (mm)* and *Models maximum – Total sea level change (mm)* on pages 824 and 825 of Houghton et al., 2001: the columns *A1T* and *A1FI* should be interchanged.

6 Caveats

6.1 Sea-Level Projections

A recent paper (Rahmstorf et al., 2007) showed that global sea level has closely followed the upper limit of the IPCC TAR projections since 1990. This suggests that the models (including those described in the IPCC AR4, which agree quite well with those of the TAR) may have underestimated future sea-level rise. This possibility was supported by semi-empirical modelling by Rahmstorf (2007) which suggested that the IPCC TAR projections of sea-level in 2100 may have been underestimated by around 0.5 m. However, it is extremely difficult to quantify the impact that these two publications should have on our interpretation of sea-level projections which carry the weight of two IPCC Assessment Reports.

Another recent paper (Raupach et al., 2007) showed that present global CO_2 emissions, far from indicating any reasonable mitigation pathway, are currently increasing faster than 3% per year and following the (high-emission) A1FI scenario.

Taken together, these recent results suggest that a precautionary approach would be (a) to consider that the following exceedance probabilities *may* have been underestimated, and (b) to assume that the high-emission A1FI emission scenario applies in any policy or planning applications.

6.2 Limitations of Observations

The tide-gauge records for Hobart and Burnie are subject to some uncertainty in datum levels, such that sections of the record are probably only accurate to ±0.05 m. The records are also rather short, covering time spans of about 43 and 52 years (for Hobart and Burnie respectively) and, due to data gaps, including only about 32 years of actual data in each record. As a consequence, estimation of levels with a return period as large as 100 years requires significant extrapolation with its inherent uncertainty.

6.3 The Application of Exceedance Statistics

It is often believed, in planning a development for (say) 100 years, that designing for an exceedance level with a 100-year return period is sufficient – i.e. that the extreme will not occur until 100 years have passed. However, extreme events do not occur regularly with a period equal to the return period. The probability that the extreme will happen at least once during a prescribed period is simply given by the exceedance probability, E, defined in Section 2.8. This shows that the probability of an extreme with a 100-year return period occurring during the first 25 years is 22%. During the first 50 years the probability is 39% and during the full 100 years the probability is 63% – none of which gives much confidence that the level would not be exceeded during the life of the structure! In fact, if we require that there is only a probability of 1% that the level will be exceeded during 100 years, then we need to plan for exceedance levels with a return period of 9950 years. Unfortunately, the records on which we can base estimates of the return period are, comparatively, very short.

Pugh (1996, p. 272) indicated that the maximum return period that may be estimated from a sea-level record is about four times the record length, which for Hobart and Burnie is only about 130 years (taking into account data gaps). This means that, for an *asset life* of 100 years, which is typical of a residential development, we can have little confidence in estimates of events which have an exceedance probability of less than about 54% during that period. From these considerations, the following rule-of-thumb has been derived for Hobart and Burnie: we should treat with caution any estimates for which the *asset life (in years) is greater than 1.6 times the percentage exceedance probability.*

Standards Australia (2005; Table 5.4) gives useful guidelines concerning appropriate design criteria for coastal structures. For example, they suggest that 'residential developments' of 'high property value', having a working life of at least 100 years, should be designed for a 1 in 2000 (i.e. 0.05%) annual exceedance event. This implies an exceedance probability of about 5% for an asset life of 100 years. Unfortunately, as noted above, the available sea-level data for Hobart and Burnie do not allow us to estimate such a statistic with any real confidence. In such cases, the precautionary principle has to apply.

7 Methodology

7.1 Preprocessing of Tide-Gauge Data

The presence of a trend in a sea-level record affects the frequency of occurrence of extreme events of a given level. Therefore, prior to any statistical analysis, a constant trend was removed from the Hobart and Burnie tide-gauge data to allow for present-day sea-level rise. The value of this trend (1.2 mm y^{-1}) was based on estimates of relative sea-level rise for Australia as a whole (Church et al., 2006) and for Port Arthur, Tasmania (Hunter et al., 2003). This trend line was zero at 2000, so the resultant adjusted sea-level data related to conditions in 2000.

7.2 Return Period

The return period, R, is the average time between successive exceedances of a given level. For this study, the return period for a range of sea levels was found by counting the number of exceedances in the tide-gauge record. Where more than one exceedance occurred during a period of 3 days they were counted as a single exceedance. The return period was defined as the record length divided by the number of exceedances.

The maximum return period considered in this study was approximately 130 years (see Section 4.2).

7.3 Present Exceedance Probability

The present exceedance distributions were calculated for Hobart and Burnie, and for a range of selected asset lives, using the return periods calculated in the previous Section.

The Hobart and Burnie tide-gauge records each include only about 32 years of actual data. They cannot therefore directly be used to estimate return periods as long as 100 years. However, extrapolation out to about four times the record length is generally acceptable (Pugh, 1996, p. 272). The extrapolation was carried out by using *generalized extreme value* (GEV) distributions with k-values equal to -0.3, 0 and 0.3, which represent a reasonable range of possibilities (Pugh, 1996, p. 272). The extrapolation was based on a least-squares fit over a range or return periods from 5 to 16 years.

For this study, the exceedance probability was calculated from the return periods for a range of levels and for asset lives of 1, 10, 20, 50 and 100 years.

7.4 Application of the IPCC Sea-Level Projections

The minimum (L_{min}), average and maximum (L_{max}) IPCC sea-level projections over the AOGCM model simulations for SRES scenarios B1, A1B and A1FI were abstracted from Houghton et al., 2001 and are shown in Figure 1, relative to a starting year of 2000. Most of the uncertainty for each scenario is due to disagreement between the seven AOGCMs, while a smaller amount is due to 'uncertainty in land-ice changes, permafrost changes and sediment deposition' (Church et al., 2001, Figure 11.12). If we assume that the uncertainty in the projections for one scenario, at one time, is the result of about 10 independent values drawn from a distribution of mean and standard deviation μ and σ, respectively, then the minimum and maximum projections (L_{min} and L_{max}, respectively) are approximate estimates of $\mu \pm 1.5\sigma$ [9]. The mean and standard deviation for any one projection was therefore estimated from:

$$\mu = \frac{L_{min} + L_{max}}{2} \tag{1}$$

and

$$\sigma = \frac{L_{max} - L_{min}}{3} \tag{2}$$

For this study, the uncertainty in the projections for one scenario, at one time, was therefore described by a probability distribution of mean, μ, and standard deviation, σ, defined by equations 1 and 2. Two types of distribution were investigated: a normal (or Gaussian) distribution, which has rather large tails, and a uniform (or 'box-car') distribution, which has no tails. The final results depend only weakly on the choice of distribution.

These distributions were adjusted using an estimate of vertical land motion so as to convert to *relative* sea-level rise. For Hobart, the vertical land motion was estimated to be 0.2 mm upwards (Hunter et al., 2003). For Burnie, the same figure was used, supported by an estimate for George Town of 0.14 mm upwards (Lambeck, 2002).

In order to combine the variability of sea-level (due, for example, to tides and meteorological surges) with the uncertainty in IPCC projections, the *frequency distributions* of sea level

[9] This follows from elementary order statistics (e.g. `mathworld.wolfram.com/OrderStatistic.html`).

(derived from the *exceedance distributions* of de-trended sea level for Hobart and Burnie for 2000) were convolved[10] with the *uncertainty distributions* described in the previous paragraphs, for all combinations of the following:

1. asset lives of 1, 10, 20, 50 and 100 years,
2. SRES scenarios B1, A1B and A1FI,
3. the years 2020, 2040, 2060, 2080 and 2100,
4. GEV k=values of -0.3, 0 and 0.3 used for extrapolation of the exceedance distribution, and
5. normal and continuous approximations to the uncertainty distribution of the IPCC projections.

The results are presented as Tables and Figures showing projected exceedance probabilities for the above combinations of asset life, SRES scenario and year ((1)-(3), above). For comparison, results for the year 2000 are shown with every projection. In order to indicate the uncertainties in extrapolating the exceedance distributions for long return periods, and in our choice of probability distribution for projection spread, the results for (4) and (5), above, are shown for each projection.

For completeness, for each of the above combinations, *effective* return periods were calculated from the exceedance probabilities. However, unlike conventional return periods, *these are only relevant to the specific asset lives for which they were calculated* (see Section 7.5, below).

It should be noted that the above procedure does not take into account the fact that, in reality, the statistics of the extremes actually changes during the asset period. One approach, for a development which is planned to last from year Y_1 to Y_2, is to use an asset life of $Y_2 - Y_1$ years and exceedance probabilities appropriate to the central year, $(Y_1 + Y_2)/2$. However, this would probably underestimate exceedance levels, because the rate of sea-level rise will undoubtedly increase during the 20th century. A more conservative (precautionary) approach would use exceedance probabilities appropriate to the final year, Y_2.

7.5 A Note About Statistics

Two distinct types of statistics have been used in this analysis. Firstly, the exceedance distribution of present sea-level extremes has been derived for each sea-level record and for each asset life(Section 7.3). This exceedance distribution tells us the probability that a certain event (in this case a sea-level exceedance) will happen during a specified time span (the asset period). If that time span is increased, then the probability of a given exceedance is increased. There is therefore an inherent time scale built into the process and which is closely related to the *return period*. This analysis is often called a *frequentist* approach.

[10] *Convolution* is a way of mathematically combining two distributions. *Smoothing* is a simple example of convolution. A helpful explanation is given at `mathworld.wolfram.com/Convolution.html`.

On the other hand, the application of the uncertainty of the IPCC sea-level projections involves another form of statistics. The various projections may be regarded as a set of hypotheses, only one of which is true; the problem is that we do not know categorically which one this is. However, we may estimate the probability that any one hypothesis is true, thereby forming an *uncertainty distribution* as described in Section 7.4. It is important to realise that no amount of sampling is going to indicate that the *wrong* hypothesis is *true*. For example, if we believe that projections A and B have equal possibilities (i.e. 50%) of being the correct one, this doesn't mean that projection A is 'correct' half the time and projection B is 'correct' for the other half; only *one* projection is correct and it is correct *all* the time. An important property of this type of analysis is that it has no inherent time scale. For example, it can't be described by a *return period*. It is effectively a *Bayesian* approach.

A consequence of the above is that, once we have combined the two analyses into the results described in this report, the concept of a *return period* becomes severely weakened. This is the reason why the 'return periods' shown in Tables 9 to 158 and in Figures 2 to 301, are described as 'effective return periods'; they are dependent on the chosen asset life and are therefore not applicable to any other asset life. They should be used with caution.

8 Results

The results for Hobart are shown in Tables 9 to 83 and Figures 2 to 151, and the results for Burnie are shown in Tables 84 to 158 and Figures 152 to 301.

The Tables and Figures are ordered as follows. Firstly they are divided into 5 sequential groups, each related to the year in the 21st century (2020, 2040, 2060, 2080 and 2100). Each group is then subdivided into three groups, one for each of the three SRES scenarios (B1, A1B and A1FI). Within each of these groups are five Tables or ten Figures representing asset lives of 1, 10, 20, 50 and 100 years. Tables 5 and 6 indicate Table numbers for Hobart and Burnie, respectively, while Tables 7 and 8 indicate Figure numbers for Hobart and Burnie, respectively.

In the Tables, the minimum and maximum values for 2000 represent the range over the three GEV k=values of -0.3, 0 and 0.3, used for extrapolation of the exceedance distribution (the *extrapolations*). The minimum and maximum values for the projected year represent the range over the three extrapolations, and over the normal and continuous approximations to the uncertainty distribution of the IPCC projections (the *projection distributions*). Blank entries indicate where it is not appropriate to estimate the range of values, either because the exceedance probability is outside the valid extrapolation range or because the exceedance probability is greater than 99% (so that there is little doubt that the level would be exceeded).

In the Figures, the three curves for 2000 indicate the results for the three extrapolations. The six curves for the projected year indicate the results for the three extrapolations and the two projection distributions. Exceedance probabilities are only plotted within the valid extrapolation range, while effective return periods are only plotted within the valid extrapolation range and where the exceedance probability is less than 99%.

9 A Worked Example for Hobart

Suppose that a development near Hobart is planned to last for 50 years from 2010 to 2060. The asset life is therefore 50 years and the asset period is 2010 to 2060. Initially, information for the year 2040 (which is the nearest to the middle year of 2035) will be used for deriving the exceedance probabilities; as noted in Section 7.4, this is not very conservative and a more precautionary approach (as suggested in the final paragraph of this Section) is preferable. Suppose the planner wants to allow for the high-impact SRES scenario A1FI.

Firstly, Tables 5 and 7 serve as an aid to finding the relevant Tables and Figures (in this case, for Hobart, 2040, scenario A1FI and a 50-year asset life), which are Table 37, and Figures 58 and 59.

Table 37 shows exceedance probabilities and effective return periods for levels (in 0.10 m increments) for which valid estimates may be made. For example, for a level of 1.40 m above AHD, the minimum and maximum exceedance probabilities at 2000 are 49.4% and 78.1%, respectively. Taking a precautionary approach, the latter of these two values ('Max.': 78.1%) would be selected. Similarly, at 2040, the precautionary exceedance probability is 91.8%. In a similar way, the effective return periods may be extracted for this level, although it should be noted that the precautionary values are, in this case, the minima ('Min.': 32.9 years and 20.0 years, for 2000 and 2040, respectively).

The Figures show the results in more detail. For a level of 1.4 m, Figure 58 again indicates that, at 2000 (dashed lines), the range of exceedance probabilities is about 49-78%, and at 2040 (continuous lines) it is about 86-92%. Similarly, Figure 59 indicates ranges of return periods of about 33-74 years and about 20-25 years for 2000 (dashed lines) and 2040 (continuous lines), respectively.

In summary, these Tables and Figures demonstrate that the probabilities that an asset at 1.40 m above AHD would suffer flooding *at least once* during a 50-year period are about 78% and 92% at 2000 and 2040, respectively (taking a precautionary approach and selecting the maximum probabilities is each case). The increase in probability from 2000 to 2040 is caused by the rise in mean sea level. Again, it should be noted that these results relate to an asset period which is approximately centred on 2000 or 2040. A more precautionary approach, where the statistics are chosen from the *end* of the asset period, is discussed later in this Section.

Figure 58 indicates a common problem associated with attempting to estimate low exceedance probabilities from relatively short sea-level records (as we have for both Hobart and Burnie and, in fact, for all Tasmanian sea-level records). The minimum exceedance probability for which there is valid information is about 35%, which depends on significant extrapolation as illustrated by the diverging curves for different extrapolations (the spread due to the choice of projection distributions is scarcely discernible this early in the 21st century). However, if the planner is content to work with an exceedance probability of, say, 40% over the 50-year life of the development, then it is evident that the development should be above about 1.75 m (relative to AHD and taking the highest curve), which is about 0.09 m above the 2000 level. It should be recalled that mean sea level is presently within a few cms of AHD.

To be more conservative, the planner might instead select the results for the end of the asset period (2060), which are given in Table 52 and in Figures 88 and 89. In these Figures, the small difference between the results for the two projection distributions becomes evident, as each of the three 'extrapolation' curves is split into two. For an exceedance probability of 40%, the development would have to be above about 1.86 m (relative to AHD), which is about 0.20 m above the 2000 level. In this latter case, it can also be seen that the level for an effective return period of 100 years is about 0.20 m above its 2000 level (Figure 89, taking the highest curve in each case).

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Period	Description	Source	Is it digitised?	Datum information?	Used for this study?
1889	Data collected by Mault (1889)	See references	Yes	Yes	No
1889-1946	Records of high and low water only	Archives Office of Tasmania (MB2/57)	Yes	No	No
1923-1944	Miscellaneous charts	Archives Office of Tasmania (MB2/58)	No	No	No
1950-1960	Miscellaneous charts	Tasmanian Ports Corporation	No	Some	No
1960-2004	Digitised hourly data	National Tidal Centre	Yes	Some	Some

Table 1: Summary of available tide-gauge observations for Hobart.

Period (inclusive)		Description	Assumed level of tide-gauge zero (m relative to AHD)
From	To		
1/1/1960	31/12/1961	Omit: datum unknown	-
2/1/1962	31/12/1969		-1.201
1/1/1970	28/5/1973		-1.290
29/5/1973	3/3/1976	Omit: poor data	-
4/3/1976	31/12/2004		-1.200
3/2/1982	26/7/1987	Omit: poor data	-

Table 2: Summary of tide-gauge data used for the present study for Hobart.

Period	Description	Source	Is it digitised?	Datum information?	Used for this study?
1952-1992	Data collected by Burnie port authority	National Tidal Centre	Yes	No	Yes
1992-2004	Data collected by National Tidal Centre	National Tidal Centre	Yes	Yes	Yes

Table 3: Summary of available tide-gauge observations for Burnie.

Period (inclusive)		Description	Assumed level of tide-gauge zero (m relative to AHD)
From	To		
15/7/1952	12/8/1971	Datum estimated	-2.128
14/12/1971	28/8/1992	Datum estimated	-1.938
3/9/1992	31/12/2004	Datum defined	-1.938

Table 4: Summary of tide-gauge data used for the present study for Burnie.

Scenario	2020	2040	2060	2080	2100
B1	9 - 13	24 - 28	39 - 43	54 - 58	69 - 73
A1B	14 - 18	29 - 33	44 - 48	59 - 63	74 - 78
A1FI	19 - 23	34 - 38	49 - 53	64 - 68	79 - 83

Table 5: Table numbers for Hobart, in relation to year and scenario.

Scenario	2020	2040	2060	2080	2100
B1	84 - 88	99 - 103	114 - 118	129 - 133	144 - 148
A1B	89 - 93	104 - 108	119 - 123	134 - 138	149 - 153
A1FI	94 - 98	109 - 113	124 - 128	139 - 143	154 - 158

Table 6: Table numbers for Burnie, in relation to year and scenario.

Scenario	2020	2040	2060	2080	2100
B1	2 - 11	32 - 41	62 - 71	92 - 101	122 - 131
A1B	12 - 21	42 - 51	72 - 81	102 - 111	132 - 141
A1FI	22 - 31	52 - 61	82 - 91	112 - 121	142 - 151

Table 7: Figure numbers for Hobart, in relation to year and scenario.

Scenario	2020	2040	2060	2080	2100
B1	152 - 161	182 - 191	212 - 221	242 - 251	272 - 281
A1B	162 - 171	192 - 201	222 - 231	252 - 261	282 - 291
A1FI	172 - 181	202 - 211	232 - 241	262 - 271	292 - 301

Table 8: Figure numbers for Burnie, in relation to year and scenario.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.40	1.4	3.0	32.9	73.5	2.3	3.6	27.0	42.3
1.30	4.2	5.1	19.1	23.1	6.5	6.8	14.2	14.9
1.20	9.0	9.0	10.6	10.6	12.4	12.5	7.5	7.6
1.10	19.8	19.8	4.5	4.5	29.6	29.7	2.8	2.9
1.00	59.9	59.9	1.1	1.1	76.0	76.2	0.7	0.7
0.90	94.5	94.5	0.3	0.3	98.4	98.4	0.2	0.2

Table 9: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2020, scenario B1 and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 2 and 3.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.40	12.7	26.2	32.9	73.5	21.0	30.9	27.0	42.5
1.30	35.1	40.7	19.1	23.1	48.3	49.9	14.5	15.2
1.20	61.1	61.1	10.6	10.6	72.7	73.0	7.6	7.7
1.10	89.0	89.0	4.5	4.5	95.8	95.9	3.1	3.2

Table 10: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2020, scenario B1 and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 4 and 5.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.40	23.8	45.6	32.9	73.5	37.4	52.2	27.1	42.8
1.30	57.9	64.8	19.1	23.1	72.6	74.4	14.7	15.4
1.20	84.9	84.9	10.6	10.6	92.2	92.4	7.8	7.8
1.10	98.8	98.8	4.5	4.5	-	-	-	-

Table 11: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2020, scenario B1 and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 6 and 7.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.40	49.4	78.1	32.9	73.5	68.2	84.0	27.3	43.6
1.30	88.5	92.7	19.1	23.1	95.5	96.2	15.2	16.2

Table 12: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2020, scenario B1 and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 8 and 9.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.40	74.4	95.2	32.9	73.5	89.2	97.3	27.6	45.0

Table 13: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2020, scenario B1 and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 10 and 11.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.40	1.4	3.0	32.9	73.5	2.3	3.6	27.1	42.8
1.30	4.2	5.1	19.1	23.1	6.4	6.7	14.3	15.1
1.20	9.0	9.0	10.6	10.6	12.2	12.4	7.6	7.7
1.10	19.8	19.8	4.5	4.5	29.2	29.4	2.9	2.9
1.00	59.9	59.9	1.1	1.1	75.6	75.8	0.7	0.7
0.90	94.5	94.5	0.3	0.3	98.4	98.4	0.2	0.2

Table 14: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2020, scenario A1B and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 12 and 13.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.40	12.7	26.2	32.9	73.5	20.7	30.8	27.2	43.0
1.30	35.1	40.7	19.1	23.1	47.9	49.7	14.6	15.3
1.20	61.1	61.1	10.6	10.6	72.4	72.8	7.7	7.8
1.10	89.0	89.0	4.5	4.5	95.7	95.8	3.2	3.2

Table 15: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2020, scenario A1B and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 14 and 15.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.40	23.8	45.6	32.9	73.5	37.0	52.0	27.2	43.3
1.30	57.9	64.8	19.1	23.1	72.3	74.1	14.8	15.6
1.20	84.9	84.9	10.6	10.6	92.0	92.3	7.8	7.9
1.10	98.8	98.8	4.5	4.5	-	-	-	-

Table 16: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2020, scenario A1B and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 16 and 17.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.40	49.4	78.1	32.9	73.5	67.8	83.9	27.4	44.1
1.30	88.5	92.7	19.1	23.1	95.4	96.1	15.4	16.3

Table 17: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2020, scenario A1B and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 18 and 19.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.40	74.4	95.2	32.9	73.5	88.9	97.3	27.7	45.5

Table 18: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2020, scenario A1B and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 20 and 21.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.40	1.4	3.0	32.9	73.5	2.3	3.6	27.1	42.6
1.30	4.2	5.1	19.1	23.1	6.5	6.8	14.3	15.0
1.20	9.0	9.0	10.6	10.6	12.3	12.4	7.5	7.6
1.10	19.8	19.8	4.5	4.5	29.4	29.5	2.9	2.9
1.00	59.9	59.9	1.1	1.1	75.8	76.0	0.7	0.7
0.90	94.5	94.5	0.3	0.3	98.4	98.4	0.2	0.2

Table 19: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2020, scenario A1FI and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 22 and 23.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.40	12.7	26.2	32.9	73.5	20.9	30.9	27.1	42.8
1.30	35.1	40.7	19.1	23.1	48.1	49.8	14.5	15.3
1.20	61.1	61.1	10.6	10.6	72.6	72.9	7.7	7.7
1.10	89.0	89.0	4.5	4.5	95.7	95.8	3.1	3.2

Table 20: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2020, scenario A1FI and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 24 and 25.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.40	23.8	45.6	32.9	73.5	37.2	52.1	27.2	43.1
1.30	57.9	64.8	19.1	23.1	72.4	74.3	14.7	15.5
1.20	84.9	84.9	10.6	10.6	92.1	92.3	7.8	7.9
1.10	98.8	98.8	4.5	4.5	-	-	-	-

Table 21: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2020, scenario A1FI and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 26 and 27.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.40	49.4	78.1	32.9	73.5	68.0	83.9	27.3	43.9
1.30	88.5	92.7	19.1	23.1	95.4	96.2	15.3	16.2

Table 22: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2020, scenario A1FI and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 28 and 29.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.40	74.4	95.2	32.9	73.5	89.0	97.3	27.6	45.2

Table 23: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2020, scenario A1FI and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 30 and 31.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.50	-	-	-	-	1.5	3.0	33.3	68.2
1.40	1.4	3.0	32.9	73.5	4.5	5.2	18.7	22.0
1.30	4.2	5.1	19.1	23.1	9.7	9.9	9.6	9.9
1.20	9.0	9.0	10.6	10.6	21.0	21.6	4.1	4.3
1.10	19.8	19.8	4.5	4.5	55.1	55.5	1.2	1.2
1.00	59.9	59.9	1.1	1.1	90.0	90.2	0.4	0.4
0.90	94.5	94.5	0.3	0.3	-	-	-	-

Table 24: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2040, scenario B1 and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 32 and 33.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.50	-	-	-	-	13.4	25.8	33.6	69.7
1.40	12.7	26.2	32.9	73.5	35.4	40.7	19.1	22.9
1.30	35.1	40.7	19.1	23.1	62.4	62.9	10.1	10.2
1.20	61.1	61.1	10.6	10.6	86.3	86.5	5.0	5.0
1.10	89.0	89.0	4.5	4.5	98.8	98.9	2.2	2.3

Table 25: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2040, scenario B1 and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 34 and 35.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.50	-	-	-	-	24.5	44.6	33.9	71.3
1.40	23.8	45.6	32.9	73.5	56.6	64.0	19.6	24.0
1.30	57.9	64.8	19.1	23.1	84.6	84.9	10.6	10.7
1.20	84.9	84.9	10.6	10.6	97.1	97.2	5.6	5.7
1.10	98.8	98.8	4.5	4.5	-	-	-	-

Table 26: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2040, scenario B1 and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 36 and 37.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.50	-	-	-	-	48.2	76.3	34.7	76.2
1.40	49.4	78.1	32.9	73.5	84.5	91.1	20.7	26.8
1.30	88.5	92.7	19.1	23.1	98.3	98.6	11.8	12.2

Table 27: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2040, scenario B1 and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 38 and 39.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.50	-	-	-	-	69.4	93.8	35.9	84.7
1.40	74.4	95.2	32.9	73.5	96.0	98.9	22.0	31.0

Table 28: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2040, scenario B1 and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 40 and 41.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.50	-	-	-	-	1.7	3.1	31.7	59.8
1.40	1.4	3.0	32.9	73.5	4.9	5.6	17.4	20.1
1.30	4.2	5.1	19.1	23.1	10.5	10.5	9.0	9.1
1.20	9.0	9.0	10.6	10.6	23.6	24.0	3.7	3.7
1.10	19.8	19.8	4.5	4.5	58.7	59.1	1.1	1.1
1.00	59.9	59.9	1.1	1.1	91.0	91.5	0.4	0.4
0.90	94.5	94.5	0.3	0.3	-	-	-	-

Table 29: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2040, scenario A1B and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 42 and 43.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.50	-	-	-	-	15.0	26.8	32.0	61.5
1.40	12.7	26.2	32.9	73.5	37.8	42.8	17.9	21.1
1.30	35.1	40.7	19.1	23.1	64.7	64.9	9.5	9.6
1.20	61.1	61.1	10.6	10.6	87.7	88.0	4.7	4.8
1.10	89.0	89.0	4.5	4.5	-	-	-	-

Table 30: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2040, scenario A1B and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 44 and 45.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.50	-	-	-	-	27.1	46.1	32.4	63.4
1.40	23.8	45.6	32.9	73.5	59.4	66.1	18.5	22.2
1.30	57.9	64.8	19.1	23.1	85.9	86.3	10.1	10.2
1.20	84.9	84.9	10.6	10.6	97.4	97.6	5.4	5.5
1.10	98.8	98.8	4.5	4.5	-	-	-	-

Table 31: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2040, scenario A1B and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 46 and 47.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.50	-	-	-	-	51.7	77.7	33.3	68.8
1.40	49.4	78.1	32.9	73.5	86.1	91.9	19.9	25.3
1.30	88.5	92.7	19.1	23.1	98.6	98.8	11.4	11.7

Table 32: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2040, scenario A1B and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 48 and 49.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.50	-	-	-	-	72.1	94.4	34.7	78.4
1.40	74.4	95.2	32.9	73.5	-	-	-	-

Table 33: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2040, scenario A1B and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 50 and 51.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.50	-	-	-	-	1.7	3.1	31.8	60.1
1.40	1.4	3.0	32.9	73.5	4.8	5.6	17.4	20.2
1.30	4.2	5.1	19.1	23.1	10.4	10.5	9.0	9.1
1.20	9.0	9.0	10.6	10.6	23.5	23.8	3.7	3.7
1.10	19.8	19.8	4.5	4.5	58.5	58.9	1.1	1.1
1.00	59.9	59.9	1.1	1.1	90.9	91.4	0.4	0.4
0.90	94.5	94.5	0.3	0.3	-	-	-	-

Table 34: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2040, scenario A1FI and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 52 and 53.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.50	-	-	-	-	15.0	26.8	32.1	61.8
1.40	12.7	26.2	32.9	73.5	37.6	42.7	18.0	21.2
1.30	35.1	40.7	19.1	23.1	64.6	64.8	9.6	9.6
1.20	61.1	61.1	10.6	10.6	87.6	87.9	4.7	4.8
1.10	89.0	89.0	4.5	4.5	-	-	-	-

Table 35: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2040, scenario A1FI and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 54 and 55.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.50	-	-	-	-	27.0	46.0	32.4	63.7
1.40	23.8	45.6	32.9	73.5	59.3	66.0	18.5	22.3
1.30	57.9	64.8	19.1	23.1	85.8	86.2	10.1	10.2
1.20	84.9	84.9	10.6	10.6	97.4	97.6	5.4	5.5
1.10	98.8	98.8	4.5	4.5	-	-	-	-

Table 36: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2040, scenario A1FI and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 56 and 57.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.50	-	-	-	-	51.5	77.6	33.4	69.2
1.40	49.4	78.1	32.9	73.5	86.0	91.8	20.0	25.4
1.30	88.5	92.7	19.1	23.1	98.6	98.7	11.4	11.8

Table 37: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2040, scenario A1FI and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 58 and 59.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.50	-	-	-	-	71.9	94.3	34.8	78.8
1.40	74.4	95.2	32.9	73.5	-	-	-	-

Table 38: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2040, scenario A1FI and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 60 and 61.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.60	-	-	-	-	1.2	2.6	37.5	83.6
1.50	-	-	-	-	3.6	4.6	21.2	27.4
1.40	1.4	3.0	32.9	73.5	8.2	8.7	11.0	11.7
1.30	4.2	5.1	19.1	23.1	19.0	19.2	4.7	4.8
1.20	9.0	9.0	10.6	10.6	43.6	44.7	1.7	1.7
1.10	19.8	19.8	4.5	4.5	74.9	76.3	0.7	0.7
1.00	59.9	59.9	1.1	1.1	95.1	95.1	0.3	0.3
0.90	94.5	94.5	0.3	0.3	-	-	-	-

Table 39: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2060, scenario B1 and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 62 and 63.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.60	-	-	-	-	10.6	23.0	38.3	89.2
1.50	-	-	-	-	28.2	36.3	22.2	30.3
1.40	12.7	26.2	32.9	73.5	52.7	55.2	12.5	13.4
1.30	35.1	40.7	19.1	23.1	77.1	77.4	6.7	6.8
1.20	61.1	61.1	10.6	10.6	92.9	93.6	3.6	3.8
1.10	89.0	89.0	4.5	4.5	-	-	-	-

Table 40: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2060, scenario B1 and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 64 and 65.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.60	-	-	-	-	19.0	40.0	39.1	95.1
1.50	-	-	-	-	45.2	57.6	23.3	33.2
1.40	23.8	45.6	32.9	73.5	73.2	76.9	13.7	15.2
1.30	57.9	64.8	19.1	23.1	91.7	92.0	7.9	8.0
1.20	84.9	84.9	10.6	10.6	98.6	98.6	4.7	4.7
1.10	98.8	98.8	4.5	4.5	-	-	-	-

Table 41: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2060, scenario B1 and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 66 and 67.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.60	-	-	-	-	36.2	70.2	41.3	111.4
1.50	-	-	-	-	69.5	85.3	26.1	42.1
1.40	49.4	78.1	32.9	73.5	92.0	95.4	16.3	19.8
1.30	88.5	92.7	19.1	23.1	-	-	-	-

Table 42: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2060, scenario B1 and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 68 and 69.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.50	-	-	-	-	83.8	96.7	29.2	54.9
1.40	74.4	95.2	32.9	73.5	-	-	-	-

Table 43: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2060, scenario B1 and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 70 and 71.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.60	-	-	-	-	1.7	3.1	31.5	56.7
1.50	-	-	-	-	4.8	5.6	17.3	20.5
1.40	1.4	3.0	32.9	73.5	10.4	11.2	8.4	9.1
1.30	4.2	5.1	19.1	23.1	25.3	26.0	3.3	3.4
1.20	9.0	9.0	10.6	10.6	53.1	53.5	1.3	1.3
1.10	19.8	19.8	4.5	4.5	81.2	82.2	0.6	0.6
1.00	59.9	59.9	1.1	1.1	96.5	97.1	0.3	0.3
0.90	94.5	94.5	0.3	0.3	-	-	-	-

Table 44: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2060, scenario A1B and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 72 and 73.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.60	-	-	-	-	15.2	26.4	32.6	60.8
1.50	-	-	-	-	35.1	41.2	18.8	23.2
1.40	12.7	26.2	32.9	73.5	59.9	61.5	10.5	11.0
1.30	35.1	40.7	19.1	23.1	82.1	82.3	5.8	5.8
1.20	61.1	61.1	10.6	10.6	95.2	95.4	3.2	3.3
1.10	89.0	89.0	4.5	4.5	-	-	-	-

Table 45: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2060, scenario A1B and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 74 and 75.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.60	-	-	-	-	26.1	44.7	33.8	66.1
1.50	-	-	-	-	53.5	63.0	20.1	26.1
1.40	23.8	45.6	32.9	73.5	79.0	81.4	11.9	12.8
1.30	57.9	64.8	19.1	23.1	93.9	94.2	7.0	7.2
1.20	84.9	84.9	10.6	10.6	-	-	-	-
1.10	98.8	98.8	4.5	4.5	-	-	-	-

Table 46: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2060, scenario A1B and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 76 and 77.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.60	-	-	-	-	46.0	74.6	36.5	81.1
1.50	-	-	-	-	76.4	88.3	23.3	34.6
1.40	49.4	78.1	32.9	73.5	94.4	96.6	14.8	17.3
1.30	88.5	92.7	19.1	23.1	-	-	-	-

Table 47: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2060, scenario A1B and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 78 and 79.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.60	-	-	-	-	61.2	91.7	40.2	105.6
1.50	-	-	-	-	88.8	97.6	26.8	45.7
1.40	74.4	95.2	32.9	73.5	-	-	-	-

Table 48: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2060, scenario A1B and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 80 and 81.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.60	-	-	-	-	2.3	3.5	27.9	43.7
1.50	-	-	-	-	5.6	6.5	14.9	17.4
1.40	1.4	3.0	32.9	73.5	12.5	13.4	7.0	7.5
1.30	4.2	5.1	19.1	23.1	30.1	31.5	2.7	2.8
1.20	9.0	9.0	10.6	10.6	58.8	59.0	1.1	1.1
1.10	19.8	19.8	4.5	4.5	84.3	85.4	0.5	0.5
1.00	59.9	59.9	1.1	1.1	97.2	97.9	0.3	0.3
0.90	94.5	94.5	0.3	0.3	-	-	-	-

Table 49: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2060, scenario A1FI and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 82 and 83.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.60	-	-	-	-	18.7	28.9	29.3	48.5
1.50	-	-	-	-	39.5	44.8	16.8	19.9
1.40	12.7	26.2	32.9	73.5	64.2	65.6	9.4	9.7
1.30	35.1	40.7	19.1	23.1	84.8	85.0	5.3	5.3
1.20	61.1	61.1	10.6	10.6	96.3	96.3	3.0	3.0
1.10	89.0	89.0	4.5	4.5	-	-	-	-

Table 50: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2060, scenario A1FI and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 84 and 85.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.60	-	-	-	-	31.1	48.0	30.6	53.8
1.50	-	-	-	-	58.3	66.5	18.3	22.9
1.40	23.8	45.6	32.9	73.5	82.0	84.0	10.9	11.7
1.30	57.9	64.8	19.1	23.1	95.0	95.4	6.5	6.7
1.20	84.9	84.9	10.6	10.6	-	-	-	-
1.10	98.8	98.8	4.5	4.5	-	-	-	-

Table 51: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2060, scenario A1FI and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 86 and 87.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.60	-	-	-	-	52.0	77.3	33.8	68.2
1.50	-	-	-	-	79.9	90.1	21.7	31.1
1.40	49.4	78.1	32.9	73.5	95.5	97.2	14.0	16.1
1.30	88.5	92.7	19.1	23.1	-	-	-	-

Table 52: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2060, scenario A1FI and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 88 and 89.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.60	-	-	-	-	66.3	92.9	37.8	92.0
1.50	-	-	-	-	91.0	98.0	25.4	41.6
1.40	74.4	95.2	32.9	73.5	-	-	-	-

Table 53: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2060, scenario A1FI and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 90 and 91.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.70	-	-	-	-	1.1	2.5	39.6	86.8
1.60	-	-	-	-	3.3	4.4	22.3	30.2
1.50	-	-	-	-	7.4	8.6	11.2	13.0
1.40	1.4	3.0	32.9	73.5	18.1	18.7	4.8	5.0
1.30	4.2	5.1	19.1	23.1	37.6	39.7	2.0	2.1
1.20	9.0	9.0	10.6	10.6	62.9	63.9	1.0	1.0
1.10	19.8	19.8	4.5	4.5	84.0	85.8	0.5	0.5
1.00	59.9	59.9	1.1	1.1	96.5	97.1	0.3	0.3
0.90	94.5	94.5	0.3	0.3	-	-	-	-

Table 54: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2080, scenario B1 and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 92 and 93.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.70	-	-	-	-	9.9	21.4	41.6	96.3
1.60	-	-	-	-	24.1	33.2	24.8	36.2
1.50	-	-	-	-	45.1	50.1	14.4	16.7
1.40	12.7	26.2	32.9	73.5	67.7	69.2	8.5	8.9
1.30	35.1	40.7	19.1	23.1	85.2	86.1	5.1	5.2
1.20	61.1	61.1	10.6	10.6	95.6	95.9	3.1	3.2
1.10	89.0	89.0	4.5	4.5	-	-	-	-

Table 55: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2080, scenario B1 and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 94 and 95.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.70	-	-	-	-	16.9	37.0	43.3	108.4
1.60	-	-	-	-	37.7	52.6	26.8	42.3
1.50	-	-	-	-	62.1	69.9	16.7	20.6
1.40	23.8	45.6	32.9	73.5	82.5	85.3	10.4	11.5
1.30	57.9	64.8	19.1	23.1	94.7	95.0	6.7	6.8
1.20	84.9	84.9	10.6	10.6	-	-	-	-
1.10	98.8	98.8	4.5	4.5	-	-	-	-

Table 56: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2080, scenario B1 and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 96 and 97.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.60	-	-	-	-	56.8	79.4	31.6	59.5
1.50	-	-	-	-	80.3	90.7	21.0	30.8
1.40	49.4	78.1	32.9	73.5	94.8	97.0	14.2	16.9
1.30	88.5	92.7	19.1	23.1	-	-	-	-

Table 57: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2080, scenario B1 and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 98 and 99.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.60	-	-	-	-	68.4	93.3	37.0	86.8
1.50	-	-	-	-	90.0	97.9	25.9	43.5
1.40	74.4	95.2	32.9	73.5	-	-	-	-

Table 58: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2080, scenario B1 and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 100 and 101.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.80	-	-	-	-	0.8	2.1	46.3	120.2
1.70	-	-	-	-	2.5	3.7	26.4	39.9
1.60	-	-	-	-	5.7	7.1	13.5	16.9
1.50	-	-	-	-	14.1	14.7	6.3	6.6
1.40	1.4	3.0	32.9	73.5	29.7	31.9	2.6	2.8
1.30	4.2	5.1	19.1	23.1	52.1	52.8	1.3	1.4
1.20	9.0	9.0	10.6	10.6	72.7	75.1	0.7	0.8
1.10	19.8	19.8	4.5	4.5	90.0	90.7	0.4	0.4
1.00	59.9	59.9	1.1	1.1	97.6	98.7	0.2	0.3
0.90	94.5	94.5	0.3	0.3	-	-	-	-

Table 59: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2080, scenario A1B and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 102 and 103.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.70	-	-	-	-	18.5	28.4	30.0	49.1
1.60	-	-	-	-	36.1	43.1	17.7	22.4
1.50	-	-	-	-	57.4	60.8	10.7	11.7
1.40	12.7	26.2	32.9	73.5	76.3	77.9	6.6	6.9
1.30	35.1	40.7	19.1	23.1	90.1	90.7	4.2	4.3
1.20	61.1	61.1	10.6	10.6	97.3	97.7	2.6	2.8
1.10	89.0	89.0	4.5	4.5	-	-	-	-

Table 60: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2080, scenario A1B and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 104 and 105.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.70	-	-	-	-	29.0	46.1	32.4	58.5
1.60	-	-	-	-	51.2	62.2	20.5	27.9
1.50	-	-	-	-	72.1	77.9	13.3	15.7
1.40	23.8	45.6	32.9	73.5	88.3	90.0	8.7	9.3
1.30	57.9	64.8	19.1	23.1	96.5	97.0	5.7	6.0
1.20	84.9	84.9	10.6	10.6	-	-	-	-
1.10	98.8	98.8	4.5	4.5	-	-	-	-

Table 61: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2080, scenario A1B and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 106 and 107.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.70	-	-	-	-	45.4	72.7	38.5	82.7
1.60	-	-	-	-	68.0	85.2	26.2	43.9
1.50	-	-	-	-	87.0	93.7	18.1	24.5
1.40	49.4	78.1	32.9	73.5	96.6	98.2	12.4	14.8
1.30	88.5	92.7	19.1	23.1	-	-	-	-

Table 62: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2080, scenario A1B and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 108 and 109.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.70	-	-	-	-	56.1	89.0	45.3	121.6
1.60	-	-	-	-	77.9	95.5	32.4	66.2
1.50	-	-	-	-	93.8	98.8	22.7	36.0
1.40	74.4	95.2	32.9	73.5	-	-	-	-

Table 63: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2080, scenario A1B and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 110 and 111.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.80	-	-	-	-	2.1	3.2	30.3	48.0
1.70	-	-	-	-	4.8	6.1	15.8	20.5
1.60	-	-	-	-	11.7	12.3	7.6	8.0
1.50	-	-	-	-	24.1	27.2	3.2	3.6
1.40	1.4	3.0	32.9	73.5	43.0	45.2	1.7	1.8
1.30	4.2	5.1	19.1	23.1	62.9	64.7	1.0	1.0
1.20	9.0	9.0	10.6	10.6	79.6	83.0	0.6	0.6
1.10	19.8	19.8	4.5	4.5	93.6	93.8	0.4	0.4
1.00	59.9	59.9	1.1	1.1	-	-	-	-
0.90	94.5	94.5	0.3	0.3	-	-	-	-

Table 64: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2080, scenario A1FI and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 112 and 113.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.80	-	-	-	-	14.6	25.1	34.7	63.4
1.70	-	-	-	-	29.2	38.0	20.9	28.9
1.60	-	-	-	-	48.4	54.0	12.9	15.1
1.50	-	-	-	-	66.9	70.0	8.3	9.1
1.40	12.7	26.2	32.9	73.5	82.3	84.5	5.4	5.8
1.30	35.1	40.7	19.1	23.1	92.9	93.8	3.6	3.8
1.20	61.1	61.1	10.6	10.6	98.2	98.7	2.3	2.5
1.10	89.0	89.0	4.5	4.5	-	-	-	-

Table 65: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2080, scenario A1FI and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 114 and 115.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.80	-	-	-	-	22.9	41.2	37.7	76.9
1.70	-	-	-	-	42.1	55.9	24.5	36.6
1.60	-	-	-	-	61.8	70.7	16.3	20.8
1.50	-	-	-	-	79.1	84.2	10.8	12.8
1.40	23.8	45.6	32.9	73.5	91.8	93.2	7.4	8.0
1.30	57.9	64.8	19.1	23.1	97.6	98.0	5.1	5.4
1.20	84.9	84.9	10.6	10.6	-	-	-	-
1.10	98.8	98.8	4.5	4.5	-	-	-	-

Table 66: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2080, scenario A1FI and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 116 and 117.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.80	-	-	-	-	36.2	66.6	45.6	111.4
1.70	-	-	-	-	57.4	79.4	31.6	58.6
1.60	-	-	-	-	76.0	89.5	22.2	35.1
1.50	-	-	-	-	91.2	95.7	15.8	20.6
1.40	49.4	78.1	32.9	73.5	97.6	98.9	11.1	13.3
1.30	88.5	92.7	19.1	23.1	-	-	-	-

Table 67: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2080, scenario A1FI and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 118 and 119.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.70	-	-	-	-	66.0	92.2	39.1	92.7
1.60	-	-	-	-	84.3	96.9	28.8	54.1
1.40	74.4	95.2	32.9	73.5	-	-	-	-

Table 68: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2080, scenario A1FI and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 120 and 121.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.80	-	-	-	-	1.2	2.5	40.2	81.2
1.70	-	-	-	-	3.2	4.4	22.0	31.2
1.60	-	-	-	-	7.3	8.7	10.9	13.3
1.50	-	-	-	-	17.3	19.0	4.7	5.3
1.40	1.4	3.0	32.9	73.5	33.0	36.3	2.2	2.5
1.30	4.2	5.1	19.1	23.1	54.1	54.4	1.3	1.3
1.20	9.0	9.0	10.6	10.6	71.6	74.8	0.7	0.8
1.10	19.8	19.8	4.5	4.5	87.3	89.4	0.4	0.5
1.00	59.9	59.9	1.1	1.1	96.7	97.5	0.3	0.3
0.90	94.5	94.5	0.3	0.3	-	-	-	-

Table 69: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2100, scenario B1 and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 122 and 123.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.80	-	-	-	-	9.6	20.0	44.7	98.9
1.70	-	-	-	-	21.3	31.0	26.9	41.7
1.60	-	-	-	-	38.6	46.0	16.2	20.5
1.50	-	-	-	-	58.2	62.0	10.3	11.5
1.40	12.7	26.2	32.9	73.5	75.2	77.9	6.6	7.2
1.30	35.1	40.7	19.1	23.1	88.5	89.9	4.4	4.6
1.20	61.1	61.1	10.6	10.6	96.4	96.5	3.0	3.0
1.10	89.0	89.0	4.5	4.5	-	-	-	-

Table 70: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2100, scenario B1 and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 124 and 125.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.80	-	-	-	-	15.6	34.5	47.3	117.7
1.70	-	-	-	-	32.1	48.5	30.2	51.7
1.60	-	-	-	-	52.7	63.4	19.9	26.7
1.50	-	-	-	-	71.0	78.1	13.2	16.2
1.40	23.8	45.6	32.9	73.5	86.3	89.4	8.9	10.0
1.30	57.9	64.8	19.1	23.1	95.6	96.0	6.2	6.4
1.20	84.9	84.9	10.6	10.6	-	-	-	-
1.10	98.8	98.8	4.5	4.5	-	-	-	-

Table 71: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2100, scenario B1 and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 126 and 127.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.70	-	-	-	-	47.8	73.3	37.9	77.0
1.60	-	-	-	-	67.0	85.0	26.3	45.1
1.50	-	-	-	-	84.5	93.2	18.6	26.8
1.40	49.4	78.1	32.9	73.5	95.5	97.6	13.4	16.1
1.30	88.5	92.7	19.1	23.1	-	-	-	-

Table 72: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2100, scenario B1 and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 128 and 129.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.70	-	-	-	-	56.8	88.8	45.7	119.3
1.60	-	-	-	-	75.6	95.0	33.4	71.0
1.50	-	-	-	-	91.8	98.3	24.5	39.9
1.40	74.4	95.2	32.9	73.5	-	-	-	-

Table 73: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2100, scenario B1 and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 130 and 131.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.90	-	-	-	-	1.5	2.7	36.4	66.7
1.80	-	-	-	-	3.5	5.0	19.4	28.3
1.70	-	-	-	-	8.3	9.8	9.8	11.6
1.60	-	-	-	-	18.1	20.7	4.3	5.0
1.50	-	-	-	-	32.3	35.9	2.2	2.6
1.40	1.4	3.0	32.9	73.5	50.5	51.3	1.4	1.4
1.30	4.2	5.1	19.1	23.1	66.3	69.1	0.9	0.9
1.20	9.0	9.0	10.6	10.6	80.6	84.0	0.5	0.6
1.10	19.8	19.8	4.5	4.5	92.9	93.3	0.4	0.4
1.00	59.9	59.9	1.1	1.1	-	-	-	-
0.90	94.5	94.5	0.3	0.3	-	-	-	-

Table 74: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2100, scenario A1B and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 132 and 133.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.90	-	-	-	-	10.7	20.5	43.7	88.9
1.80	-	-	-	-	21.4	31.1	26.9	41.5
1.70	-	-	-	-	36.8	44.9	16.8	21.8
1.60	-	-	-	-	54.3	59.0	11.2	12.8
1.50	-	-	-	-	69.6	73.6	7.5	8.4
1.40	12.7	26.2	32.9	73.5	83.2	85.7	5.1	5.6
1.30	35.1	40.7	19.1	23.1	92.9	93.6	3.6	3.8
1.20	61.1	61.1	10.6	10.6	97.7	98.4	2.4	2.7
1.10	89.0	89.0	4.5	4.5	-	-	-	-

Table 75: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2100, scenario A1B and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 134 and 135.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.90	-	-	-	-	16.5	34.4	47.5	111.0
1.80	-	-	-	-	31.0	47.2	31.3	53.9
1.70	-	-	-	-	49.3	60.6	21.5	29.5
1.60	-	-	-	-	65.2	74.1	14.8	18.9
1.50	-	-	-	-	80.1	85.6	10.3	12.4
1.40	23.8	45.6	32.9	73.5	91.7	93.2	7.4	8.0
1.30	57.9	64.8	19.1	23.1	97.1	97.9	5.2	5.6
1.20	84.9	84.9	10.6	10.6	-	-	-	-
1.10	98.8	98.8	4.5	4.5	-	-	-	-

Table 76: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2100, scenario A1B and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 136 and 137.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.80	-	-	-	-	44.5	70.2	41.3	85.1
1.70	-	-	-	-	61.5	81.6	29.6	52.4
1.60	-	-	-	-	77.2	90.2	21.5	33.8
1.50	-	-	-	-	90.8	95.6	16.0	21.0
1.40	49.4	78.1	32.9	73.5	97.0	98.8	11.4	14.2
1.30	88.5	92.7	19.1	23.1	-	-	-	-

Table 77: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2100, scenario A1B and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 138 and 139.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.70	-	-	-	-	68.7	92.6	38.3	86.1
1.60	-	-	-	-	84.3	96.8	29.1	54.0
1.40	74.4	95.2	32.9	73.5	-	-	-	-

Table 78: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2100, scenario A1B and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 140 and 141.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.10	-	-	-	-	0.9	2.2	45.8	113.6
2.00	-	-	-	-	2.3	3.9	25.1	43.9
1.90	-	-	-	-	5.2	7.3	13.2	18.8
1.80	-	-	-	-	12.6	13.9	6.7	7.4
1.70	-	-	-	-	22.5	26.4	3.3	3.9
1.60	-	-	-	-	36.1	39.5	2.0	2.2
1.50	-	-	-	-	52.2	52.5	1.3	1.4
1.40	1.4	3.0	32.9	73.5	65.3	68.1	0.9	0.9
1.30	4.2	5.1	19.1	23.1	77.7	81.4	0.6	0.7
1.20	9.0	9.0	10.6	10.6	89.1	90.6	0.4	0.5
1.10	19.8	19.8	4.5	4.5	96.0	97.4	0.3	0.3
1.00	59.9	59.9	1.1	1.1	-	-	-	-
0.90	94.5	94.5	0.3	0.3	-	-	-	-

Table 79: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2100, scenario A1FI and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 142 and 143.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.00	-	-	-	-	14.6	23.7	37.0	63.4
1.90	-	-	-	-	25.6	35.1	23.2	33.9
1.80	-	-	-	-	39.8	47.5	15.5	19.7
1.70	-	-	-	-	54.8	59.6	11.0	12.6
1.60	-	-	-	-	68.0	72.8	7.7	8.8
1.50	-	-	-	-	80.3	83.8	5.5	6.1
1.40	12.7	26.2	32.9	73.5	90.4	91.5	4.0	4.3
1.30	35.1	40.7	19.1	23.1	96.1	96.7	2.9	3.1
1.20	61.1	61.1	10.6	10.6	-	-	-	-
1.10	89.0	89.0	4.5	4.5	-	-	-	-

Table 80: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2100, scenario A1FI and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 144 and 145.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.00	-	-	-	-	21.1	37.6	42.4	84.6
1.90	-	-	-	-	34.8	49.6	29.2	46.8
1.80	-	-	-	-	50.7	61.3	21.1	28.3
1.70	-	-	-	-	64.0	73.5	15.1	19.6
1.60	-	-	-	-	77.1	83.9	11.0	13.6
1.50	-	-	-	-	88.5	91.4	8.2	9.2
1.40	23.8	45.6	32.9	73.5	95.3	96.2	6.1	6.5
1.30	57.9	64.8	19.1	23.1	-	-	-	-
1.20	84.9	84.9	10.6	10.6	-	-	-	-
1.10	98.8	98.8	4.5	4.5	-	-	-	-

Table 81: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2100, scenario A1FI and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 146 and 147.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.90	-	-	-	-	46.8	70.2	41.3	79.2
1.80	-	-	-	-	60.8	80.6	30.5	53.3
1.70	-	-	-	-	74.2	88.6	23.0	36.9
1.60	-	-	-	-	86.9	94.1	17.6	24.6
1.50	-	-	-	-	95.0	97.8	13.1	16.7
1.40	49.4	78.1	32.9	73.5	-	-	-	-
1.30	88.5	92.7	19.1	23.1	-	-	-	-

Table 82: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2100, scenario A1FI and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 148 and 149.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.80	-	-	-	-	66.9	91.2	41.1	90.4
1.70	-	-	-	-	80.2	95.6	32.1	61.7
1.60	-	-	-	-	92.4	98.4	24.0	38.8
1.40	74.4	95.2	32.9	73.5	-	-	-	-

Table 83: Minimum and maximum exceedance probabilities and effective return periods for Hobart, 2100, scenario A1FI and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 150 and 151.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.90	2.1	3.8	25.6	47.2	14.8	15.1	6.2	6.3
1.80	39.2	39.2	2.0	2.0	59.2	59.2	1.1	1.1
1.70	85.4	85.4	0.5	0.5	95.0	95.1	0.3	0.3

Table 84: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2020, scenario B1 and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 152 and 153.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.90	19.1	32.3	25.6	47.2	71.8	73.7	7.5	7.9

Table 85: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2020, scenario B1 and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 154 and 155.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.90	34.5	54.2	25.6	47.2	87.2	89.4	8.9	9.7

Table 86: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2020, scenario B1 and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 156 and 157.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.90	65.3	85.8	25.6	47.2	97.0	98.4	11.9	14.1

Table 87: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2020, scenario B1 and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 158 and 159.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.90	88.0	98.0	25.6	47.2	-	-	-	-

Table 88: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2020, scenario B1 and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 160 and 161.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.90	2.1	3.8	25.6	47.2	14.5	14.7	6.3	6.4
1.80	39.2	39.2	2.0	2.0	58.6	58.8	1.1	1.1
1.70	85.4	85.4	0.5	0.5	94.9	95.0	0.3	0.3

Table 89: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2020, scenario A1B and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 162 and 163.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.90	19.1	32.3	25.6	47.2	70.9	73.0	7.6	8.1

Table 90: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2020, scenario A1B and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 164 and 165.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.90	34.5	54.2	25.6	47.2	86.6	89.2	9.0	10.0

Table 91: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2020, scenario A1B and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 166 and 167.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.90	65.3	85.8	25.6	47.2	97.1	98.4	12.0	14.1

Table 92: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2020, scenario A1B and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 168 and 169.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.90	88.0	98.0	25.6	47.2	-	-	-	-

Table 93: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2020, scenario A1B and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 170 and 171.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.90	2.1	3.8	25.6	47.2	14.7	14.9	6.3	6.4
1.80	39.2	39.2	2.0	2.0	58.9	59.0	1.1	1.1
1.70	85.4	85.4	0.5	0.5	95.0	95.1	0.3	0.3

Table 94: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2020, scenario A1FI and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 172 and 173.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.90	19.1	32.3	25.6	47.2	71.4	73.3	7.6	8.0

Table 95: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2020, scenario A1FI and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 174 and 175.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.90	34.5	54.2	25.6	47.2	86.9	89.3	8.9	9.8

Table 96: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2020, scenario A1FI and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 176 and 177.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.90	65.3	85.8	25.6	47.2	97.1	98.4	12.0	14.1

Table 97: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2020, scenario A1FI and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 178 and 179.

Level (m above AHD)	2000				2020			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.90	88.0	98.0	25.6	47.2	-	-	-	-

Table 98: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2020, scenario A1FI and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 180 and 181.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.00	-	-	-	-	6.3	7.3	13.4	15.5
1.90	2.1	3.8	25.6	47.2	38.7	38.9	2.0	2.1
1.80	39.2	39.2	2.0	2.0	80.6	80.6	0.6	0.6
1.70	85.4	85.4	0.5	0.5	98.2	98.4	0.2	0.3

Table 99: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2040, scenario B1 and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 182 and 183.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.00	-	-	-	-	31.3	40.7	19.3	26.9
1.90	19.1	32.3	25.6	47.2	91.6	92.7	3.8	4.0

Table 100: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2040, scenario B1 and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 184 and 185.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.00	-	-	-	-	41.1	55.5	24.8	38.2
1.90	34.5	54.2	25.6	47.2	96.0	97.9	5.1	6.2

Table 101: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2040, scenario B1 and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 186 and 187.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.00	-	-	-	-	52.1	75.4	35.7	68.3
1.90	65.3	85.8	25.6	47.2	-	-	-	-

Table 102: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2040, scenario B1 and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 188 and 189.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.00	-	-	-	-	57.9	87.9	47.3	116.2
1.90	88.0	98.0	25.6	47.2	-	-	-	-

Table 103: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2040, scenario B1 and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 190 and 191.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.00	-	-	-	-	8.2	9.6	10.0	11.9
1.90	2.1	3.8	25.6	47.2	42.6	42.7	1.8	1.8
1.80	39.2	39.2	2.0	2.0	82.3	83.1	0.6	0.6
1.70	85.4	85.4	0.5	0.5	98.5	98.5	0.2	0.2

Table 104: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2040, scenario A1B and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 192 and 193.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.00	-	-	-	-	37.6	46.5	16.1	21.5
1.90	19.1	32.3	25.6	47.2	93.0	93.6	3.6	3.7

Table 105: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2040, scenario A1B and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 194 and 195.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.00	-	-	-	-	47.8	60.0	21.9	31.1
1.90	34.5	54.2	25.6	47.2	96.9	97.9	5.1	5.7

Table 106: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2040, scenario A1B and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 196 and 197.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.00	-	-	-	-	56.8	79.1	32.0	59.7
1.90	65.3	85.8	25.6	47.2	-	-	-	-

Table 107: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2040, scenario A1B and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 198 and 199.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.00	-	-	-	-	61.9	90.1	43.3	103.9
1.90	88.0	98.0	25.6	47.2	-	-	-	-

Table 108: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2040, scenario A1B and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 200 and 201.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.00	-	-	-	-	8.2	9.5	10.1	11.9
1.90	2.1	3.8	25.6	47.2	42.4	42.5	1.8	1.8
1.80	39.2	39.2	2.0	2.0	82.1	82.9	0.6	0.6
1.70	85.4	85.4	0.5	0.5	98.4	98.5	0.2	0.2

Table 109: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2040, scenario A1FI and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 202 and 203.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.00	-	-	-	-	37.3	46.2	16.2	21.7
1.90	19.1	32.3	25.6	47.2	92.9	93.4	3.7	3.8

Table 110: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2040, scenario A1FI and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 204 and 205.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.00	-	-	-	-	47.4	59.7	22.1	31.4
1.90	34.5	54.2	25.6	47.2	96.7	97.8	5.2	5.8

Table 111: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2040, scenario A1FI and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 206 and 207.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.00	-	-	-	-	56.5	78.8	32.3	60.2
1.90	65.3	85.8	25.6	47.2	-	-	-	-

Table 112: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2040, scenario A1FI and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 208 and 209.

Level (m above AHD)	2000				2040			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.00	-	-	-	-	61.6	89.8	43.7	104.7
1.90	88.0	98.0	25.6	47.2	-	-	-	-

Table 113: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2040, scenario A1FI and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 210 and 211.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.10	-	-	-	-	6.0	7.0	13.9	16.4
2.00	-	-	-	-	28.3	29.6	2.9	3.0
1.90	2.1	3.8	25.6	47.2	63.7	64.4	1.0	1.0
1.80	39.2	39.2	2.0	2.0	90.0	90.6	0.4	0.4
1.70	85.4	85.4	0.5	0.5	-	-	-	-

Table 114: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2060, scenario B1 and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 212 and 213.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.10	-	-	-	-	22.7	32.6	25.4	39.1
2.00	-	-	-	-	64.2	71.3	8.0	9.7
1.90	19.1	32.3	25.6	47.2	95.4	96.7	2.9	3.3

Table 115: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2060, scenario B1 and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 214 and 215.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.10	-	-	-	-	27.9	42.2	36.5	61.2
2.00	-	-	-	-	69.6	80.0	12.4	16.8
1.90	34.5	54.2	25.6	47.2	-	-	-	-

Table 116: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2060, scenario B1 and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 216 and 217.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.10	-	-	-	-	34.1	56.1	60.7	120.0
2.00	-	-	-	-	75.0	89.2	22.4	36.0
1.90	65.3	85.8	25.6	47.2	-	-	-	-

Table 117: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2060, scenario B1 and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 218 and 219.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.00	-	-	-	-	78.3	94.3	34.9	65.6
1.90	88.0	98.0	25.6	47.2	-	-	-	-

Table 118: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2060, scenario B1 and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 220 and 221.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.10	-	-	-	-	11.5	12.5	7.5	8.2
2.00	-	-	-	-	38.5	39.4	2.0	2.1
1.90	2.1	3.8	25.6	47.2	71.7	72.5	0.8	0.8
1.80	39.2	39.2	2.0	2.0	93.2	93.5	0.4	0.4
1.70	85.4	85.4	0.5	0.5	-	-	-	-

Table 119: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2060, scenario A1B and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 222 and 223.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.10	-	-	-	-	35.5	43.3	17.6	22.8
2.00	-	-	-	-	72.9	79.2	6.4	7.7
1.90	19.1	32.3	25.6	47.2	96.7	98.8	2.3	2.9

Table 120: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2060, scenario A1B and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 224 and 225.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.10	-	-	-	-	41.5	52.2	27.1	37.3
2.00	-	-	-	-	77.9	85.8	10.3	13.2
1.90	34.5	54.2	25.6	47.2	-	-	-	-

Table 121: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2060, scenario A1B and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 226 and 227.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.10	-	-	-	-	48.0	66.2	46.1	76.5
2.00	-	-	-	-	83.0	92.4	19.4	28.2
1.90	65.3	85.8	25.6	47.2	-	-	-	-

Table 122: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2060, scenario A1B and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 228 and 229.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.00	-	-	-	-	86.0	96.9	28.7	50.9
1.90	88.0	98.0	25.6	47.2	-	-	-	-

Table 123: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2060, scenario A1B and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 230 and 231.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.20	-	-	-	-	2.4	3.5	28.4	42.8
2.10	-	-	-	-	16.0	17.5	5.2	5.7
2.00	-	-	-	-	45.1	45.7	1.6	1.7
1.90	2.1	3.8	25.6	47.2	75.8	77.0	0.7	0.7
1.80	39.2	39.2	2.0	2.0	94.6	94.8	0.3	0.3
1.70	85.4	85.4	0.5	0.5	-	-	-	-

Table 124: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2060, scenario A1FI and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 232 and 233.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.20	-	-	-	-	11.3	18.1	50.3	83.9
2.10	-	-	-	-	43.7	49.7	14.6	17.4
2.00	-	-	-	-	77.4	83.2	5.6	6.7
1.90	19.1	32.3	25.6	47.2	-	-	-	-

Table 125: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2060, scenario A1FI and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 234 and 235.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.10	-	-	-	-	49.8	58.7	22.7	29.1
2.00	-	-	-	-	82.1	88.6	9.2	11.6
1.90	34.5	54.2	25.6	47.2	-	-	-	-

Table 126: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2060, scenario A1FI and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 236 and 237.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.10	-	-	-	-	54.6	71.9	39.4	63.4
2.00	-	-	-	-	86.8	94.2	17.6	24.7
1.90	65.3	85.8	25.6	47.2	-	-	-	-

Table 127: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2060, scenario A1FI and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 238 and 239.

Level (m above AHD)	2000				2060			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.10	-	-	-	-	57.4	81.2	59.8	117.4
2.00	-	-	-	-	89.6	98.0	25.7	44.2
1.90	88.0	98.0	25.6	47.2	-	-	-	-

Table 128: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2060, scenario A1FI and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 240 and 241.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.20	-	-	-	-	7.2	7.9	12.2	13.4
2.10	-	-	-	-	24.1	26.8	3.2	3.6
2.00	-	-	-	-	51.4	52.0	1.4	1.4
1.90	2.1	3.8	25.6	47.2	76.5	78.6	0.6	0.7
1.80	39.2	39.2	2.0	2.0	93.8	93.9	0.4	0.4
1.70	85.4	85.4	0.5	0.5	-	-	-	-

Table 129: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2080, scenario B1 and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 242 and 243.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.20	-	-	-	-	20.9	29.6	28.6	42.8
2.10	-	-	-	-	51.4	55.9	12.2	13.9
2.00	-	-	-	-	77.0	83.4	5.6	6.8
1.90	19.1	32.3	25.6	47.2	96.1	98.4	2.4	3.1

Table 130: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2080, scenario B1 and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 244 and 245.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.20	-	-	-	-	24.4	36.4	44.3	71.5
2.10	-	-	-	-	55.1	63.9	19.6	25.0
2.00	-	-	-	-	80.8	88.0	9.4	12.1
1.90	34.5	54.2	25.6	47.2	-	-	-	-

Table 131: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2080, scenario B1 and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 246 and 247.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.10	-	-	-	-	58.9	74.5	36.6	56.3
2.00	-	-	-	-	84.5	92.9	18.9	26.8
1.90	65.3	85.8	25.6	47.2	-	-	-	-

Table 132: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2080, scenario B1 and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 248 and 249.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.10	-	-	-	-	61.1	82.0	58.3	105.9
2.00	-	-	-	-	86.7	96.6	29.5	49.5
1.90	88.0	98.0	25.6	47.2	-	-	-	-

Table 133: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2080, scenario B1 and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 250 and 251.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.30	-	-	-	-	4.9	5.8	16.7	20.0
2.20	-	-	-	-	17.6	20.2	4.5	5.2
2.10	-	-	-	-	39.7	41.6	1.9	2.0
2.00	-	-	-	-	63.5	65.9	0.9	1.0
1.90	2.1	3.8	25.6	47.2	84.3	85.8	0.5	0.5
1.80	39.2	39.2	2.0	2.0	95.9	96.8	0.3	0.3
1.70	85.4	85.4	0.5	0.5	-	-	-	-

Table 134: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2080, scenario A1B and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 252 and 253.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.30	-	-	-	-	15.0	22.3	39.7	61.5
2.20	-	-	-	-	38.5	44.5	17.0	20.6
2.10	-	-	-	-	63.4	70.0	8.3	10.0
2.00	-	-	-	-	85.6	89.3	4.5	5.2
1.90	19.1	32.3	25.6	47.2	-	-	-	-

Table 135: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2080, scenario A1B and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 254 and 255.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.30	-	-	-	-	17.5	28.2	60.5	104.0
2.20	-	-	-	-	42.6	50.4	28.5	36.1
2.10	-	-	-	-	66.7	76.0	14.0	18.2
2.00	-	-	-	-	88.9	92.3	7.8	9.1
1.90	34.5	54.2	25.6	47.2	-	-	-	-

Table 136: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2080, scenario A1B and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 256 and 257.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.20	-	-	-	-	46.9	60.6	53.7	79.1
2.10	-	-	-	-	69.9	83.3	27.9	41.6
2.00	-	-	-	-	92.1	96.6	14.8	19.6
1.90	65.3	85.8	25.6	47.2	-	-	-	-

Table 137: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2080, scenario A1B and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 258 and 259.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.10	-	-	-	-	71.8	88.4	46.5	78.9
2.00	-	-	-	-	93.2	98.9	22.1	37.2
1.90	88.0	98.0	25.6	47.2	-	-	-	-

Table 138: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2080, scenario A1B and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 260 and 261.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.40	-	-	-	-	4.0	4.7	20.6	24.8
2.30	-	-	-	-	13.7	16.7	5.5	6.8
2.20	-	-	-	-	31.2	34.9	2.3	2.7
2.10	-	-	-	-	53.4	54.6	1.3	1.3
2.00	-	-	-	-	72.3	76.2	0.7	0.8
1.90	2.1	3.8	25.6	47.2	89.1	90.5	0.4	0.5
1.80	39.2	39.2	2.0	2.0	97.2	98.3	0.2	0.3
1.70	85.4	85.4	0.5	0.5	-	-	-	-

Table 139: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2080, scenario A1FI and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 262 and 263.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.40	-	-	-	-	11.7	18.5	49.0	80.6
2.30	-	-	-	-	29.6	37.3	21.4	28.5
2.20	-	-	-	-	53.4	57.9	11.6	13.1
2.10	-	-	-	-	72.2	79.8	6.3	7.8
2.00	-	-	-	-	91.1	93.0	3.8	4.1
1.90	19.1	32.3	25.6	47.2	-	-	-	-

Table 140: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2080, scenario A1FI and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 264 and 265.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.30	-	-	-	-	32.9	42.3	36.4	50.2
2.20	-	-	-	-	56.1	64.1	19.5	24.3
2.10	-	-	-	-	75.0	84.0	10.9	14.4
2.00	-	-	-	-	93.7	95.4	6.5	7.2
1.90	34.5	54.2	25.6	47.2	-	-	-	-

Table 141: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2080, scenario A1FI and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 266 and 267.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.30	-	-	-	-	36.4	49.7	72.8	110.7
2.20	-	-	-	-	58.9	72.6	38.7	56.3
2.10	-	-	-	-	77.8	89.0	22.7	33.3
2.00	-	-	-	-	94.9	98.5	11.9	16.8
1.90	65.3	85.8	25.6	47.2	-	-	-	-

Table 142: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2080, scenario A1FI and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 268 and 269.

Level (m above AHD)	2000				2080			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.20	-	-	-	-	60.5	78.9	64.2	107.6
2.10	-	-	-	-	79.4	92.3	38.9	63.3
1.90	88.0	98.0	25.6	47.2	-	-	-	-

Table 143: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2080, scenario A1FI and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 270 and 271.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.40	-	-	-	-	1.1	2.5	39.5	92.0
2.30	-	-	-	-	8.2	9.5	10.0	11.7
2.20	-	-	-	-	21.6	25.7	3.4	4.1
2.10	-	-	-	-	42.7	44.5	1.7	1.8
2.00	-	-	-	-	63.0	66.3	0.9	1.0
1.90	2.1	3.8	25.6	47.2	81.6	84.6	0.5	0.6
1.80	39.2	39.2	2.0	2.0	94.7	94.9	0.3	0.3
1.70	85.4	85.4	0.5	0.5	-	-	-	-

Table 144: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2100, scenario B1 and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 272 and 273.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.30	-	-	-	-	19.6	28.1	30.4	46.0
2.20	-	-	-	-	41.9	46.9	15.8	18.4
2.10	-	-	-	-	63.0	69.9	8.3	10.1
2.00	-	-	-	-	81.9	87.7	4.8	5.9
1.90	19.1	32.3	25.6	47.2	96.0	98.4	2.4	3.1

Table 145: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2100, scenario B1 and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 274 and 275.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.30	-	-	-	-	22.2	33.1	49.8	79.8
2.20	-	-	-	-	45.7	52.2	27.1	32.8
2.10	-	-	-	-	65.8	75.3	14.3	18.7
2.00	-	-	-	-	84.6	90.6	8.4	10.7
1.90	34.5	54.2	25.6	47.2	-	-	-	-

Table 146: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2100, scenario B1 and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 276 and 277.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.20	-	-	-	-	49.5	61.6	52.3	73.2
2.10	-	-	-	-	68.5	82.1	29.1	43.3
2.00	-	-	-	-	87.4	93.9	17.9	24.2
1.90	65.3	85.8	25.6	47.2	-	-	-	-

Table 147: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2100, scenario B1 and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 278 and 279.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.10	-	-	-	-	70.1	86.9	49.2	82.7
2.00	-	-	-	-	89.0	97.0	28.6	45.3
1.90	88.0	98.0	25.6	47.2	-	-	-	-

Table 148: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2100, scenario B1 and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 280 and 281.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.50	-	-	-	-	2.3	3.8	26.1	43.4
2.40	-	-	-	-	9.9	11.8	8.0	9.6
2.30	-	-	-	-	22.1	26.6	3.2	4.0
2.20	-	-	-	-	40.1	42.5	1.8	2.0
2.10	-	-	-	-	58.1	60.6	1.1	1.1
2.00	-	-	-	-	74.0	78.3	0.7	0.7
1.90	2.1	3.8	25.6	47.2	88.8	90.3	0.4	0.5
1.80	39.2	39.2	2.0	2.0	96.5	97.8	0.3	0.3
1.70	85.4	85.4	0.5	0.5	-	-	-	-

Table 149: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2100, scenario A1B and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 282 and 283.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.50	-	-	-	-	8.6	12.9	72.9	111.2
2.40	-	-	-	-	20.7	28.7	29.6	43.2
2.30	-	-	-	-	39.4	44.6	17.0	20.0
2.20	-	-	-	-	58.1	63.5	9.9	11.5
2.10	-	-	-	-	73.9	81.1	6.0	7.4
2.00	-	-	-	-	89.8	92.2	3.9	4.4
1.90	19.1	32.3	25.6	47.2	-	-	-	-

Table 150: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2100, scenario A1B and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 284 and 285.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.40	-	-	-	-	23.0	32.9	50.2	76.7
2.30	-	-	-	-	42.5	48.8	29.9	36.2
2.20	-	-	-	-	60.4	68.6	17.3	21.6
2.10	-	-	-	-	76.3	84.6	10.7	13.9
2.00	-	-	-	-	92.1	94.2	7.0	7.9
1.90	34.5	54.2	25.6	47.2	-	-	-	-

Table 151: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2100, scenario A1B and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 286 and 287.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.30	-	-	-	-	45.6	56.3	60.4	82.1
2.20	-	-	-	-	62.7	75.4	35.7	50.7
2.10	-	-	-	-	78.6	88.8	22.8	32.4
2.00	-	-	-	-	93.9	97.6	13.4	17.9
1.90	65.3	85.8	25.6	47.2	-	-	-	-

Table 152: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2100, scenario A1B and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 288 and 289.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.20	-	-	-	-	64.1	80.5	61.2	97.7
2.10	-	-	-	-	80.0	91.7	40.1	62.2
1.90	88.0	98.0	25.6	47.2	-	-	-	-

Table 153: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2100, scenario A1B and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 290 and 291.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.70	-	-	-	-	0.8	2.9	34.6	126.0
2.60	-	-	-	-	6.6	7.1	13.6	14.7
2.50	-	-	-	-	14.7	18.3	4.9	6.3
2.40	-	-	-	-	27.1	31.6	2.6	3.2
2.30	-	-	-	-	43.1	44.9	1.7	1.8
2.20	-	-	-	-	58.0	60.5	1.1	1.2
2.10	-	-	-	-	71.3	75.9	0.7	0.8
2.00	-	-	-	-	84.6	87.2	0.5	0.5
1.90	2.1	3.8	25.6	47.2	94.2	95.1	0.3	0.4
1.80	39.2	39.2	2.0	2.0	-	-	-	-
1.70	85.4	85.4	0.5	0.5	-	-	-	-

Table 154: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2100, scenario A1FI and asset life of 1 year for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 292 and 293.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.60	-	-	-	-	13.7	20.0	44.9	67.9
2.50	-	-	-	-	26.2	33.3	24.7	33.0
2.40	-	-	-	-	42.8	46.6	15.9	17.9
2.30	-	-	-	-	58.0	63.0	10.1	11.5
2.20	-	-	-	-	71.3	78.2	6.6	8.0
2.10	-	-	-	-	84.6	89.0	4.5	5.3
2.00	-	-	-	-	94.9	97.5	2.7	3.4
1.90	19.1	32.3	25.6	47.2	-	-	-	-

Table 155: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2100, scenario A1FI and asset life of 10 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 294 and 295.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.60	-	-	-	-	15.2	23.5	74.7	121.8
2.50	-	-	-	-	28.3	36.8	43.5	60.1
2.40	-	-	-	-	45.4	50.2	28.7	33.1
2.30	-	-	-	-	59.9	67.3	17.9	21.9
2.20	-	-	-	-	73.3	81.4	11.9	15.2
2.10	-	-	-	-	86.6	91.0	8.3	9.9
1.90	34.5	54.2	25.6	47.2	-	-	-	-

Table 156: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2100, scenario A1FI and asset life of 20 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 296 and 297.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.40	-	-	-	-	48.0	56.9	59.4	76.5
2.30	-	-	-	-	61.9	73.2	38.0	51.8
2.20	-	-	-	-	75.2	85.6	25.8	35.8
2.10	-	-	-	-	88.6	93.6	18.1	23.1
1.90	65.3	85.8	25.6	47.2	-	-	-	-

Table 157: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2100, scenario A1FI and asset life of 50 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 298 and 299.

Level (m above AHD)	2000				2100			
	Exceedance (%)		Effective return period (years)		Exceedance (%)		Effective return period (years)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.30	-	-	-	-	63.0	77.7	66.6	100.5
2.20	-	-	-	-	76.4	88.6	46.0	69.3
2.10	-	-	-	-	89.7	96.5	29.8	44.0
1.90	88.0	98.0	25.6	47.2	-	-	-	-

Table 158: Minimum and maximum exceedance probabilities and effective return periods for Burnie, 2100, scenario A1FI and asset life of 100 years for three extrapolations and two projection distributions. Also shown are equivalent values for 2000 for three extrapolations. See also Figures 300 and 301.

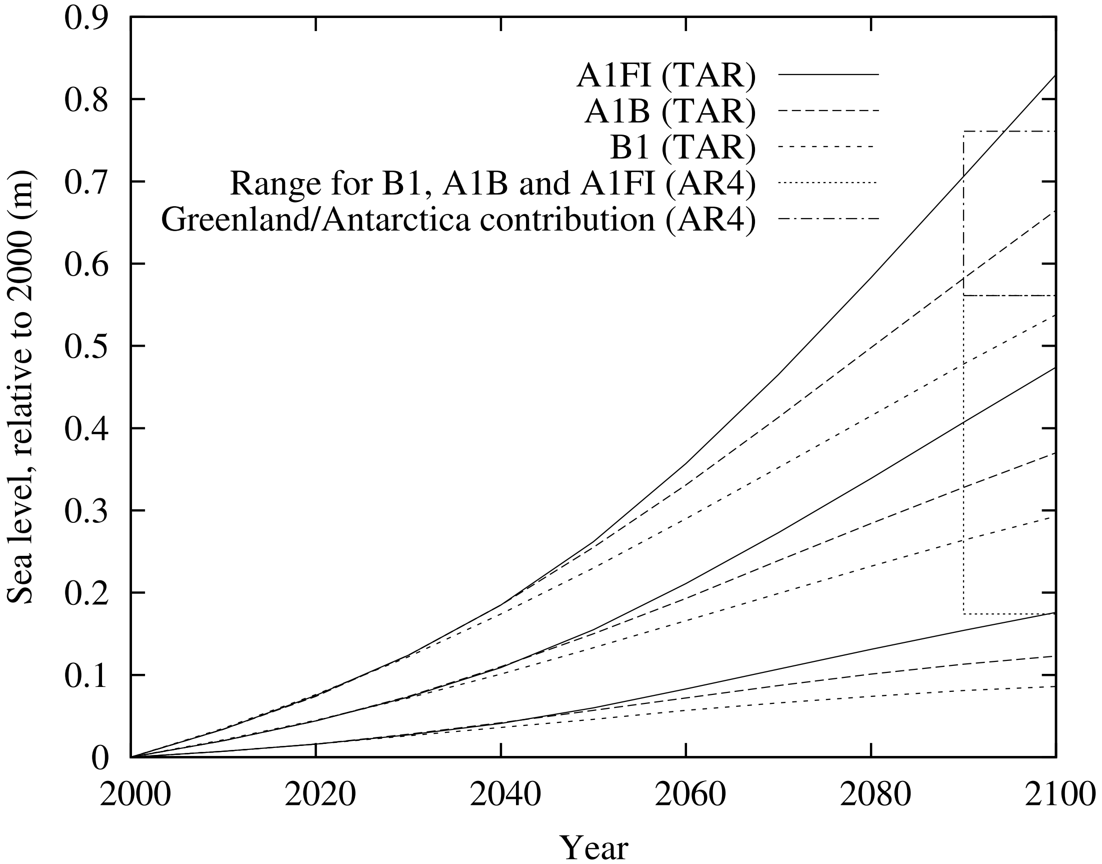

Figure 1: Projections of sea level for the B1 (low impact), A1B (medium impact) and A1FI (high impact) scenarios, relative to 2000, from the IPCC TAR (Houghton et al., 2001). The three lines for each scenario represent the minimum, average and maximum over the AOGCM model simulations. The lower rectangle spanning 2090-2100 represents the range of projections for these three scenarios from the IPCC AR4 (IPCC, 2007). The upper rectangle represents an indicative maximum additional contribution of 0.2 m to allow for increased ice flow from Greenland and Antarctica, which is not presently well understood and is not fully represented in climate models.

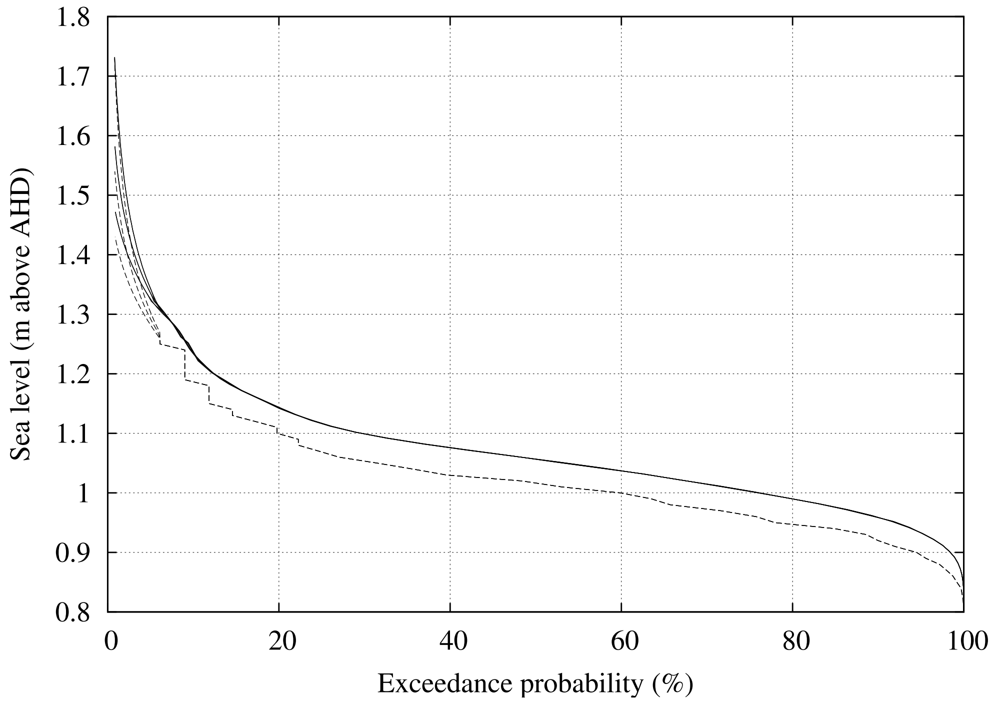

Figure 2: Exceedance probabilities for Hobart, 2020, scenario B1 and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 9.

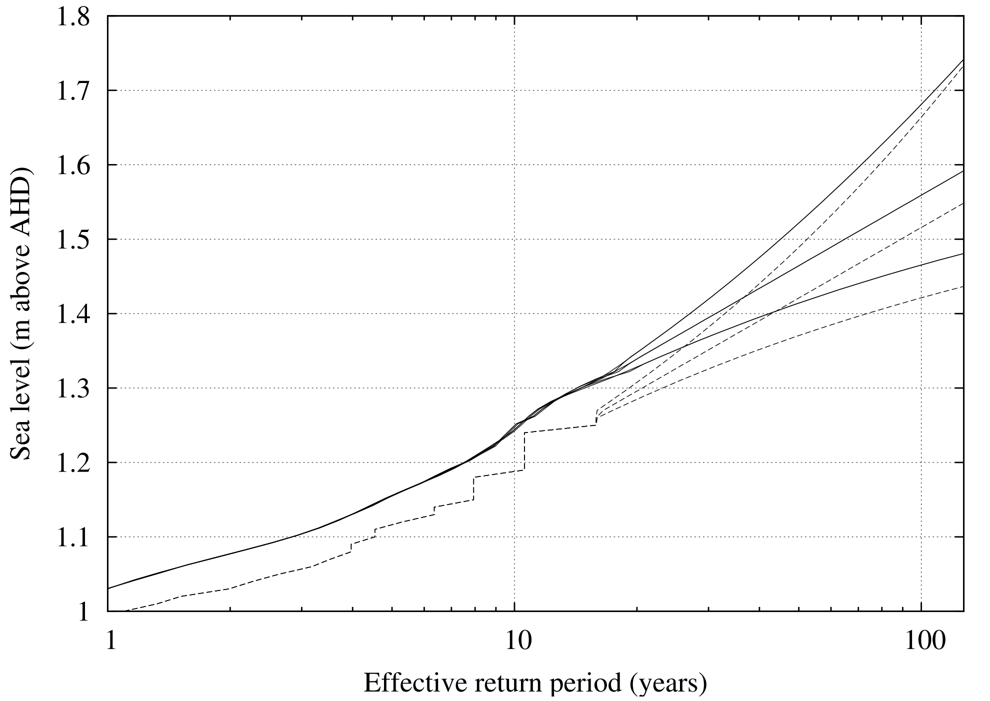

Figure 3: Effective return periods for Hobart, 2020, scenario B1 and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 9.

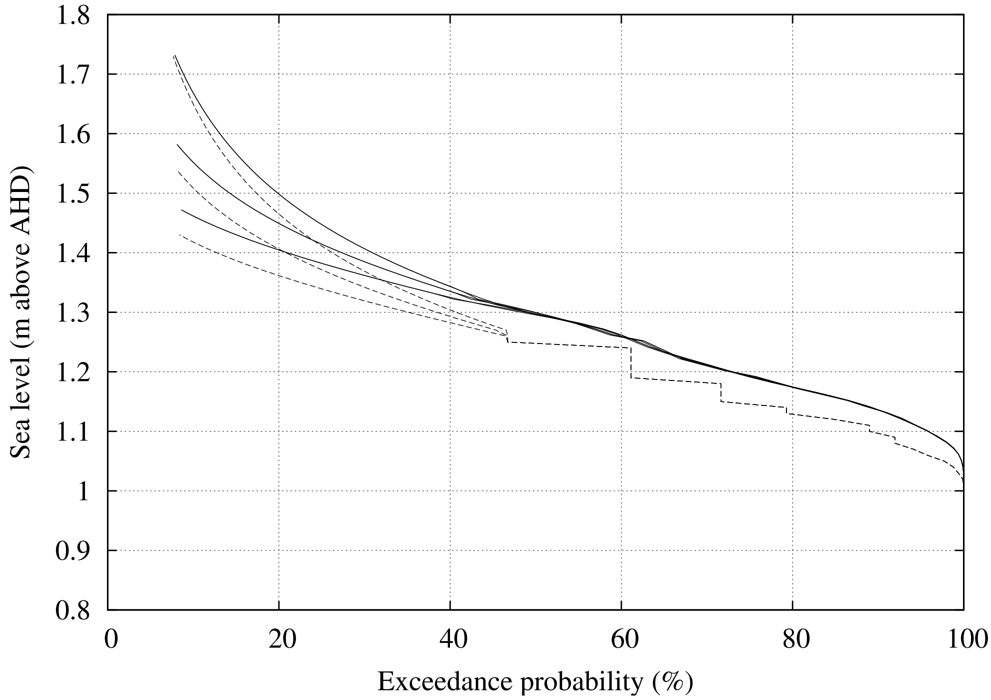

Figure 4: Exceedance probabilities for Hobart, 2020, scenario B1 and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 10.

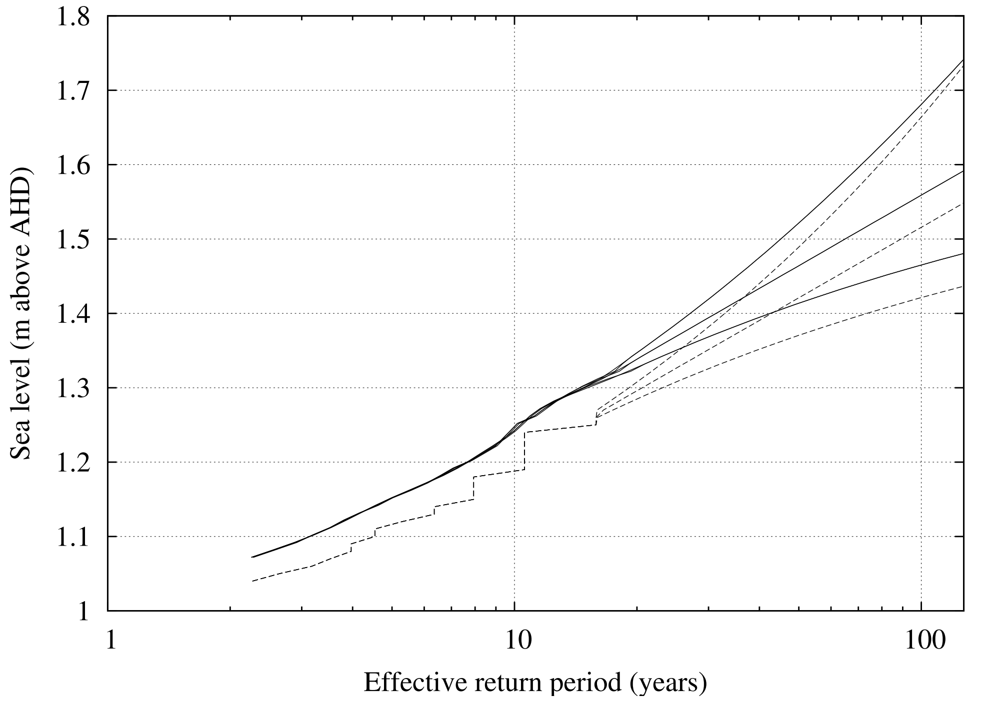

Figure 5: Effective return periods for Hobart, 2020, scenario B1 and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 10.

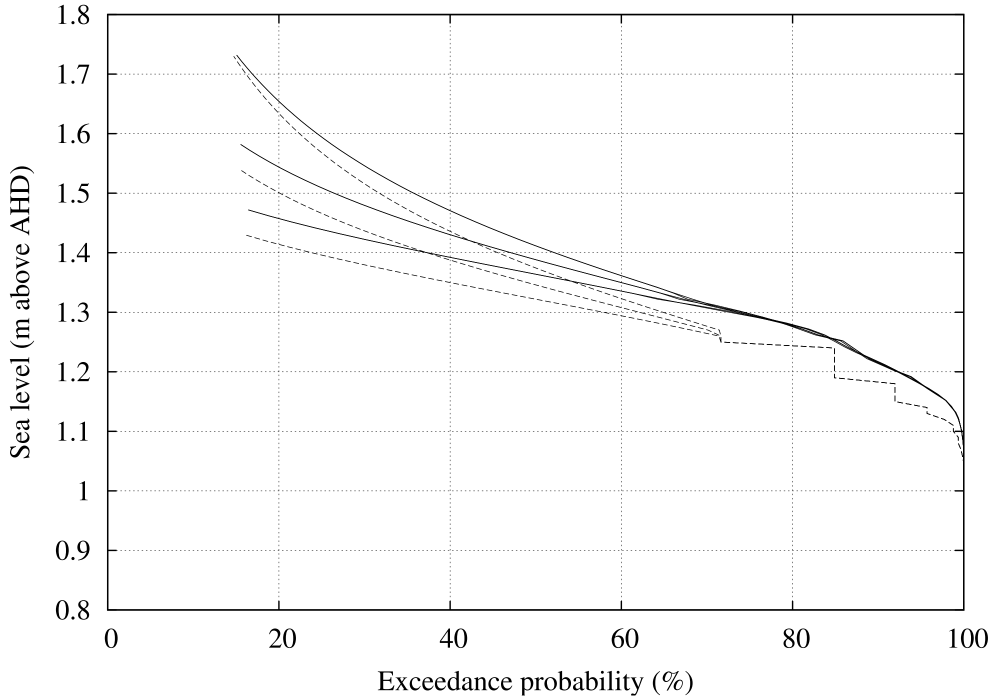

Figure 6: Exceedance probabilities for Hobart, 2020, scenario B1 and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 11.

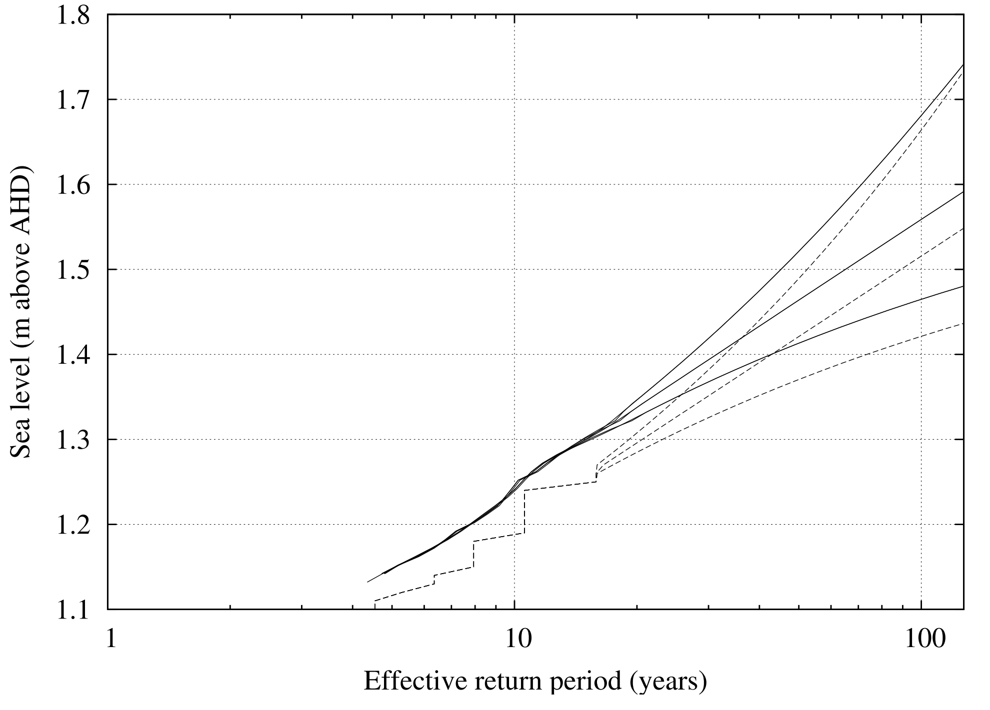

Figure 7: Effective return periods for Hobart, 2020, scenario B1 and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 11.

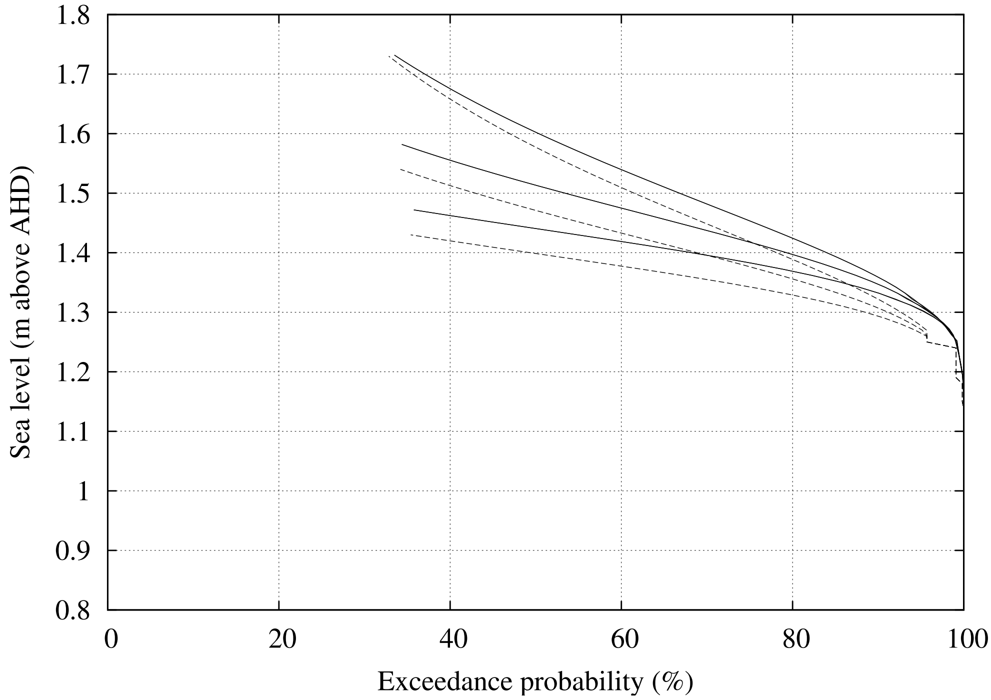

Figure 8: Exceedance probabilities for Hobart, 2020, scenario B1 and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 12.

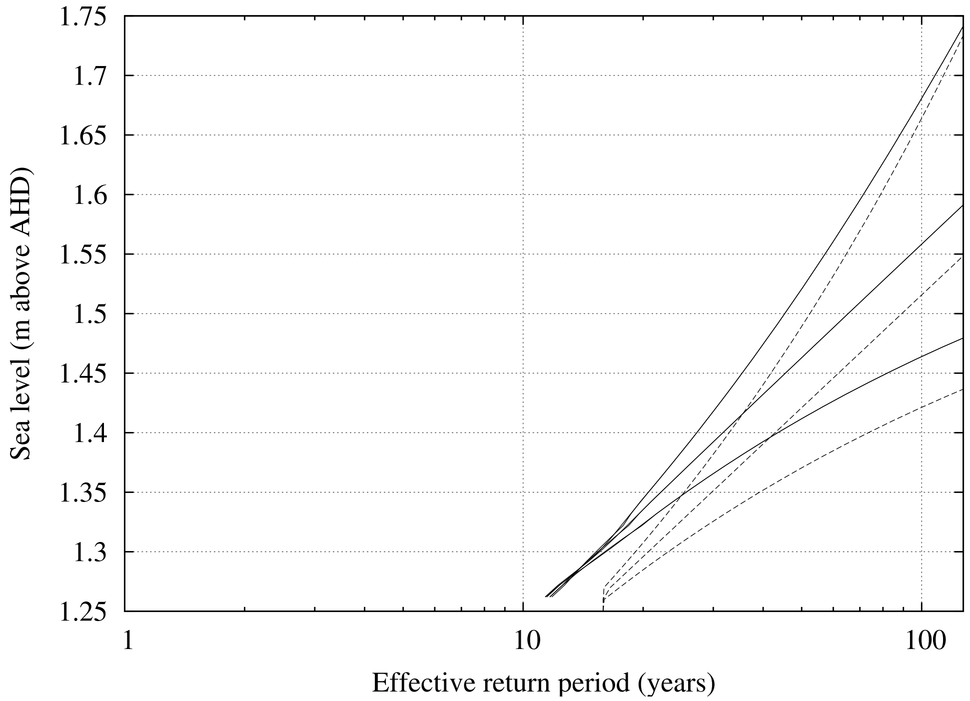

Figure 9: Effective return periods for Hobart, 2020, scenario B1 and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 12.

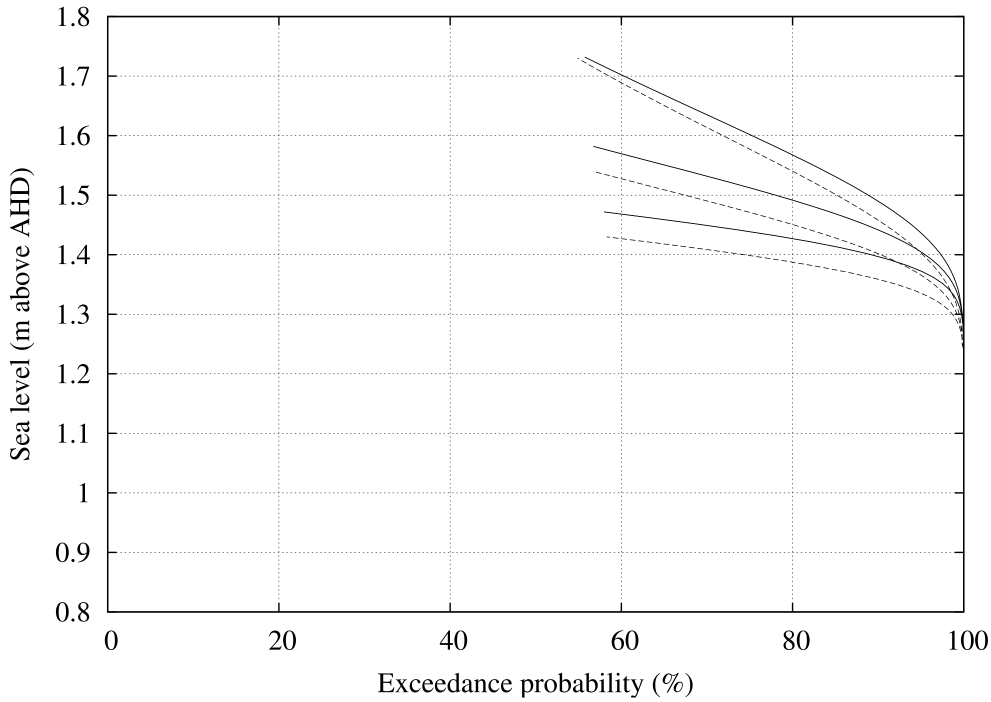

Figure 10: Exceedance probabilities for Hobart, 2020, scenario B1 and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 13.

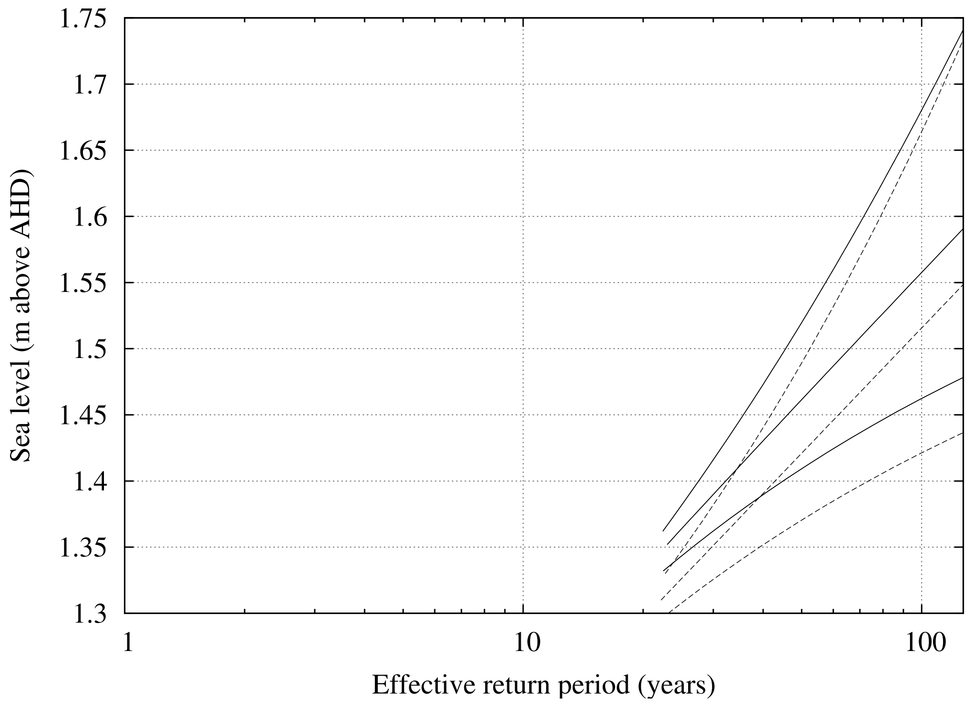

Figure 11: Effective return periods for Hobart, 2020, scenario B1 and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 13.

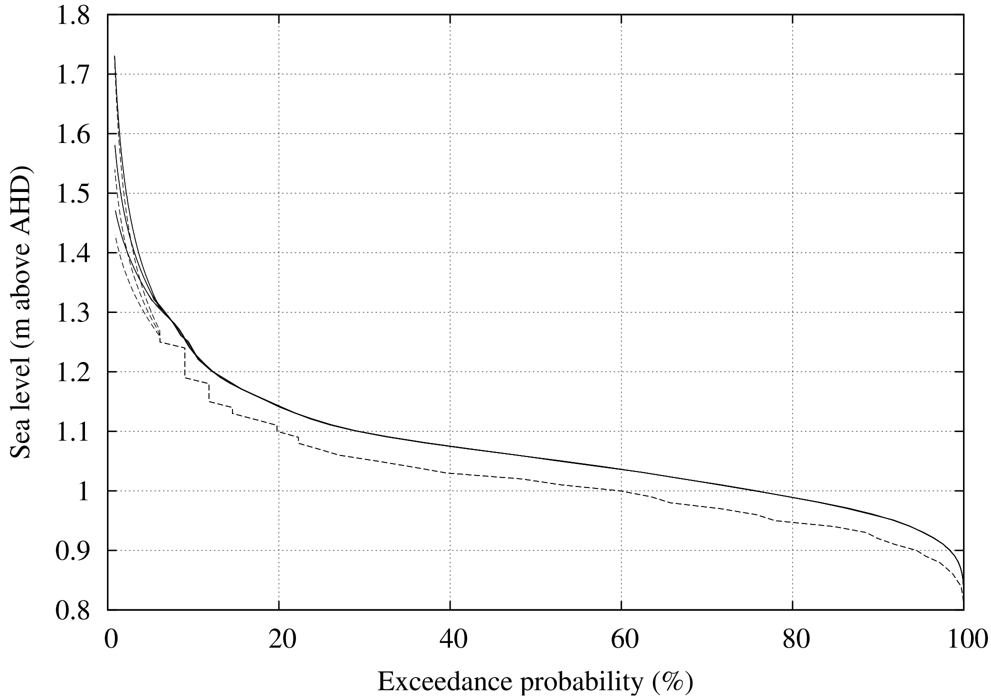

Figure 12: Exceedance probabilities for Hobart, 2020, scenario A1B and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 14.

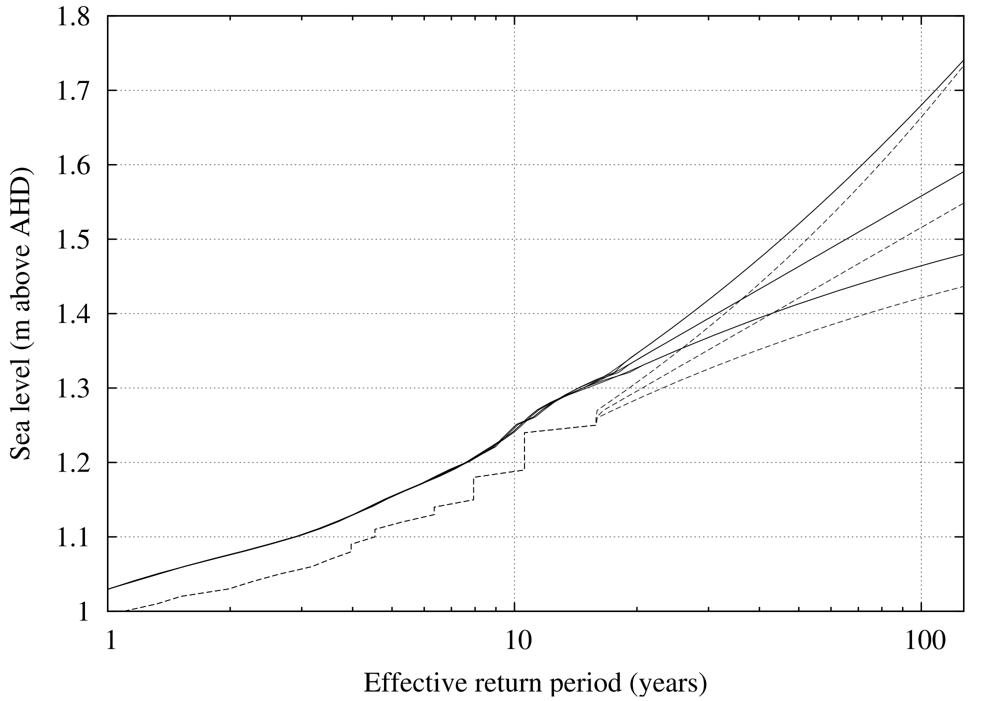

Figure 13: Effective return periods for Hobart, 2020, scenario A1B and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 14.

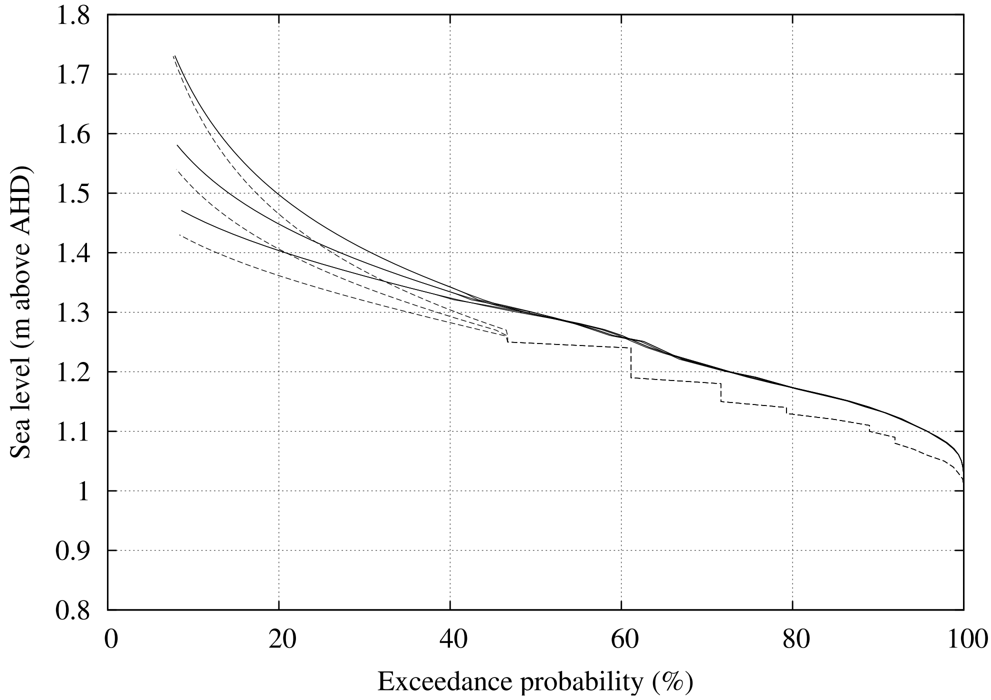

Figure 14: Exceedance probabilities for Hobart, 2020, scenario A1B and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 15.

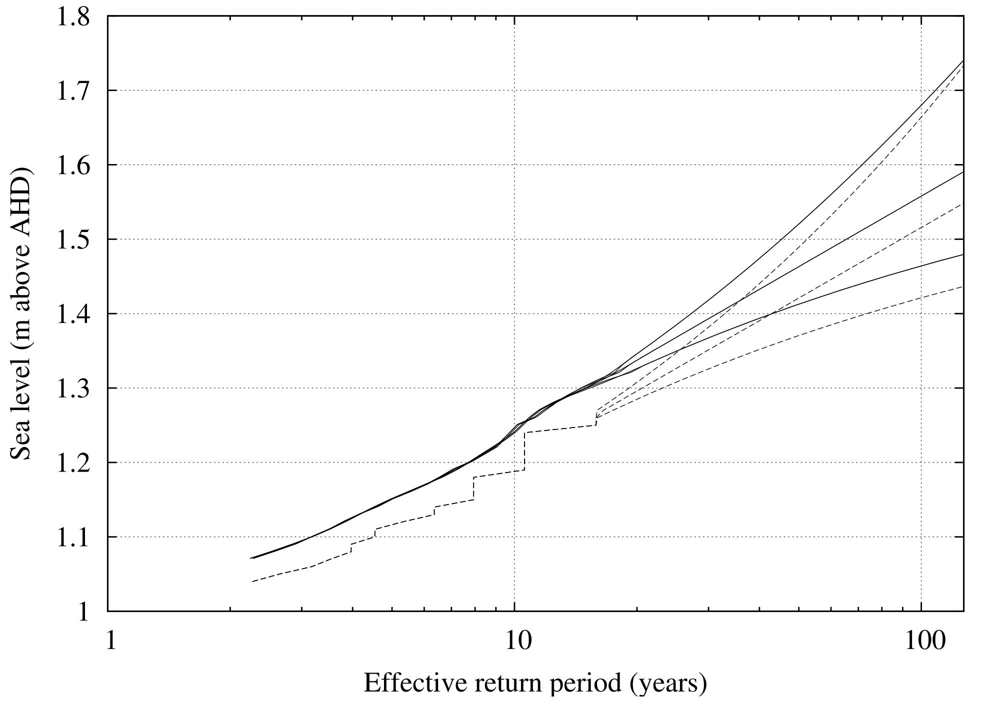

Figure 15: Effective return periods for Hobart, 2020, scenario A1B and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 15.

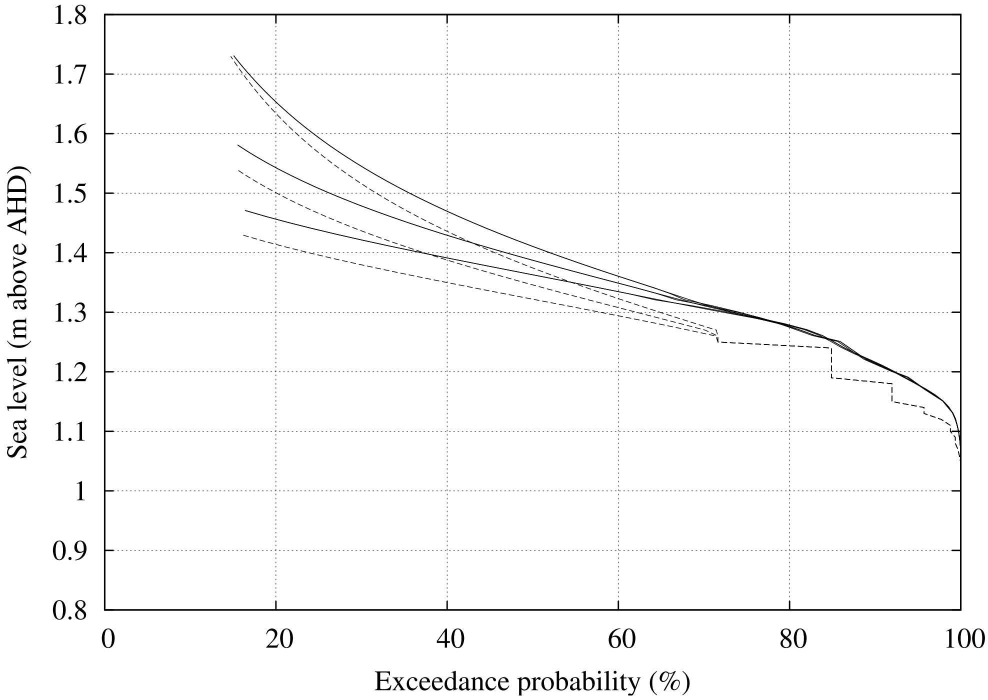

Figure 16: Exceedance probabilities for Hobart, 2020, scenario A1B and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 16.

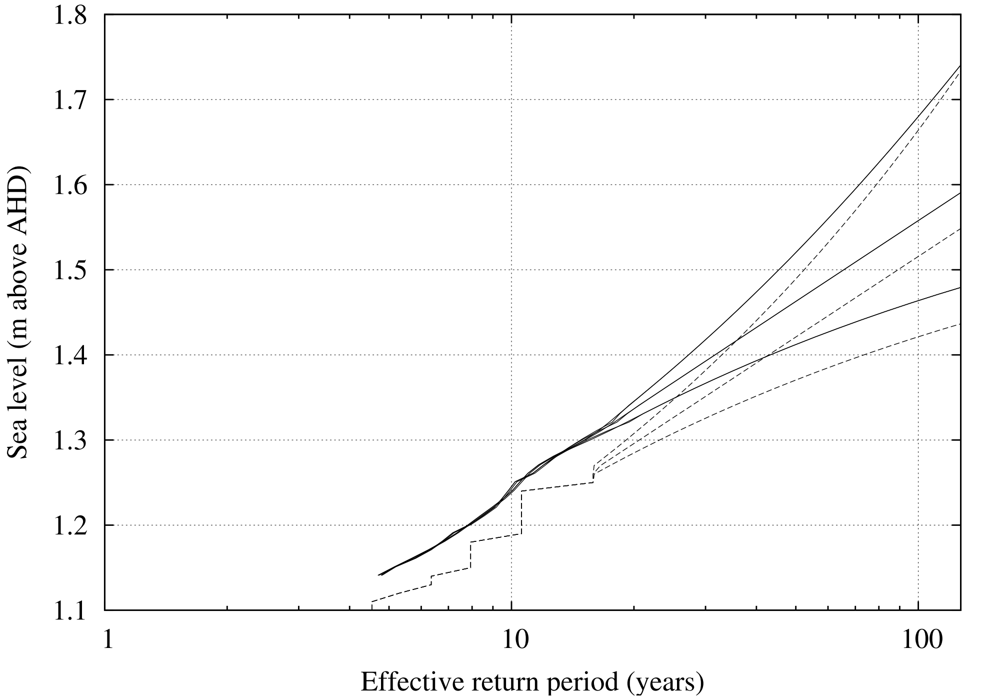

Figure 17: Effective return periods for Hobart, 2020, scenario A1B and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 16.

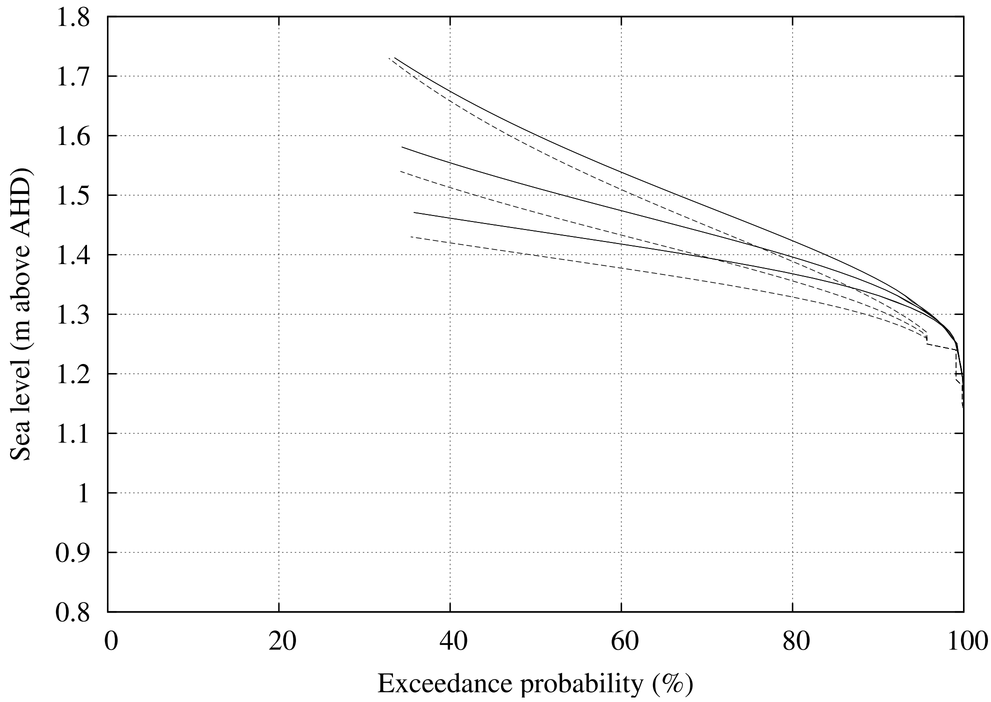

Figure 18: Exceedance probabilities for Hobart, 2020, scenario A1B and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 17.

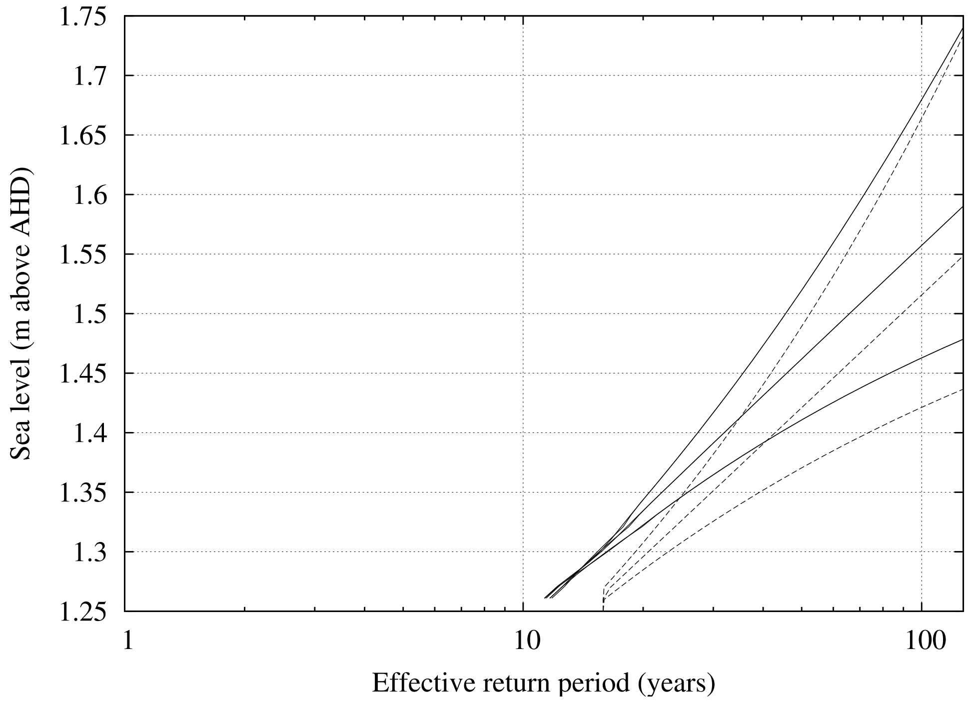

Figure 19: Effective return periods for Hobart, 2020, scenario A1B and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 17.

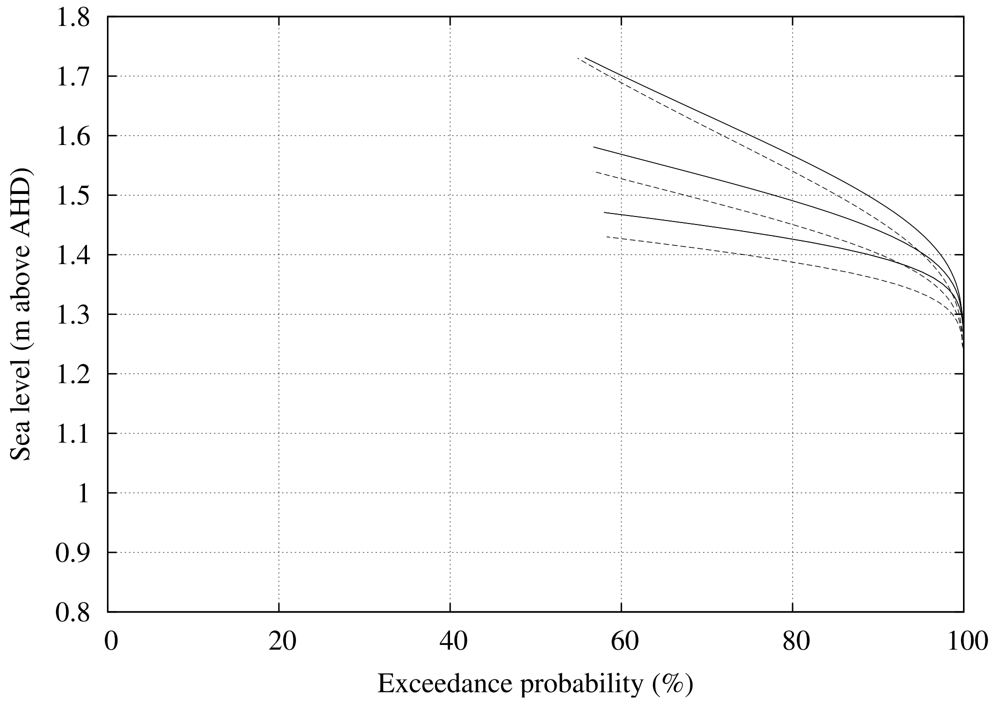

Figure 20: Exceedance probabilities for Hobart, 2020, scenario A1B and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 18.

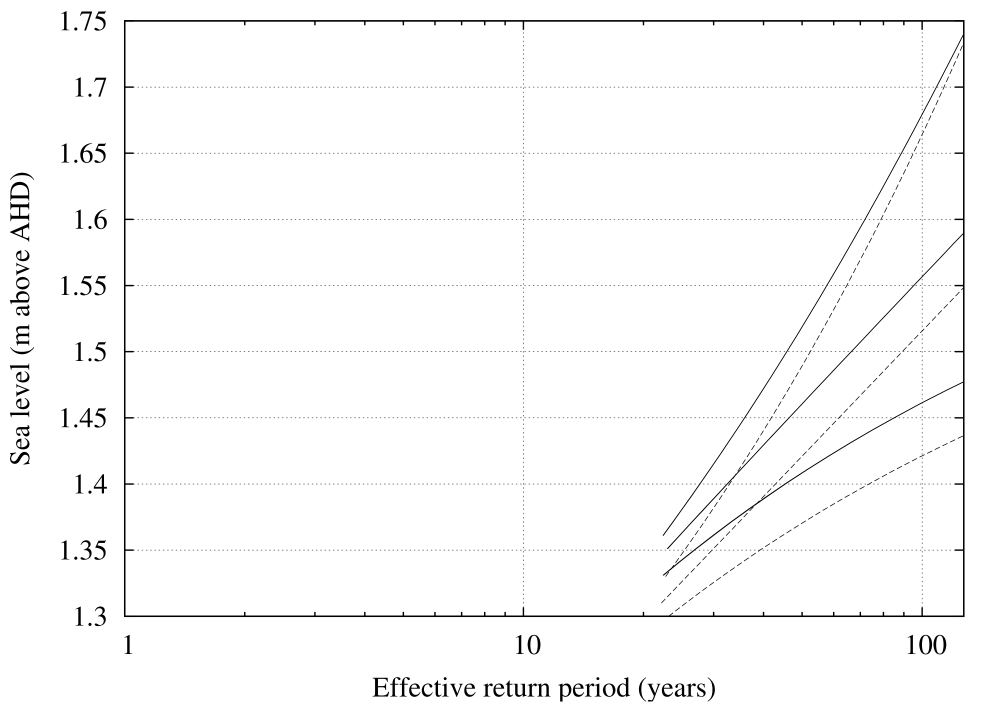

Figure 21: Effective return periods for Hobart, 2020, scenario A1B and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 18.

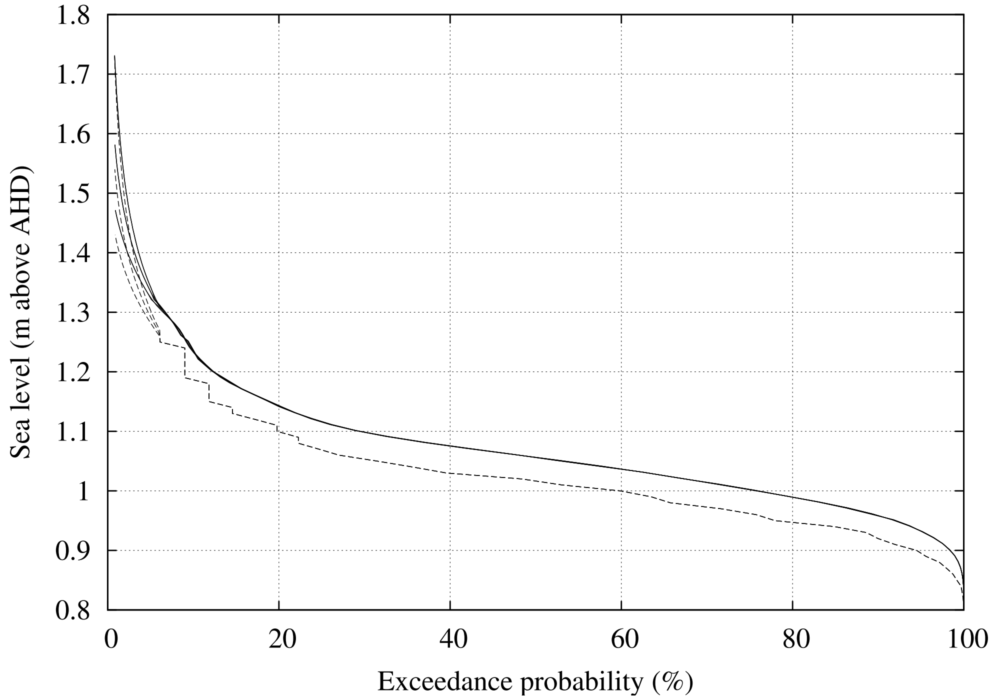

Figure 22: Exceedance probabilities for Hobart, 2020, scenario A1FI and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 19.

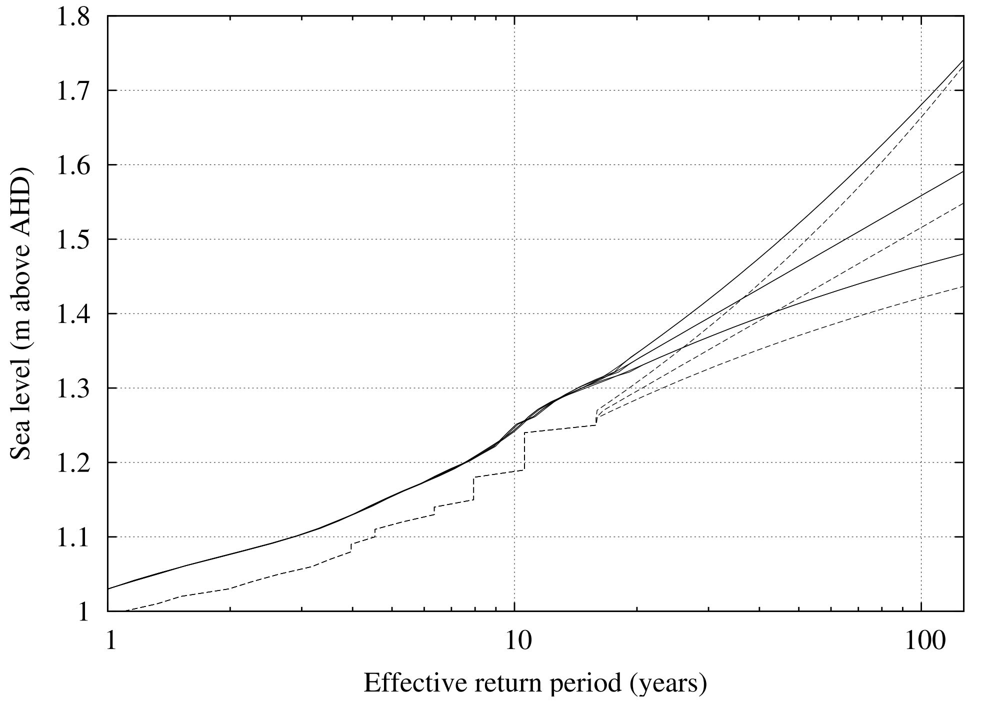

Figure 23: Effective return periods for Hobart, 2020, scenario A1FI and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 19.

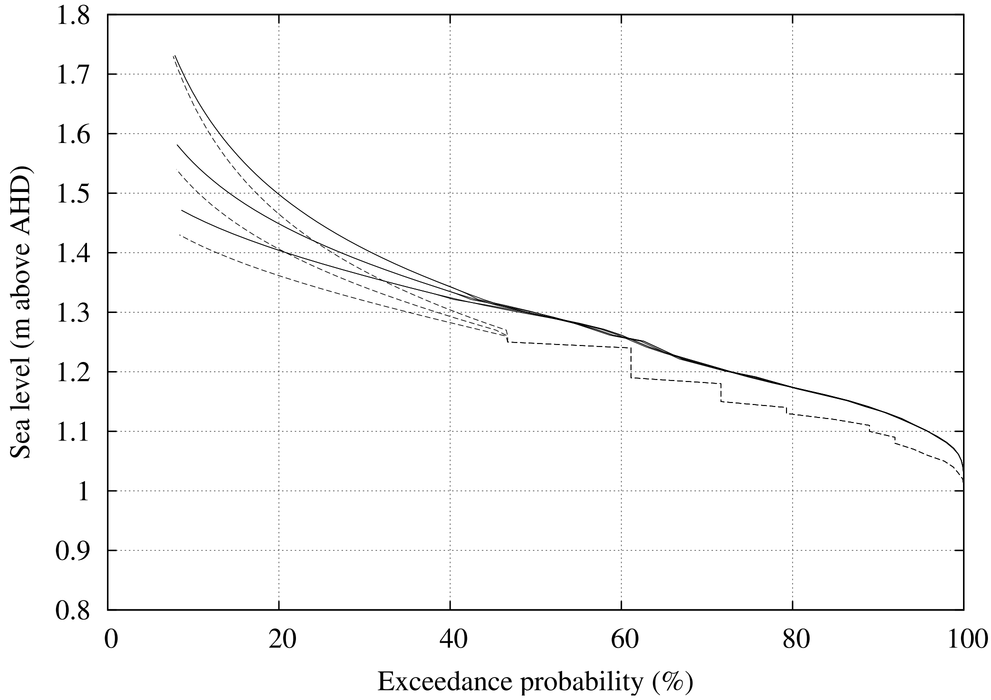

Figure 24: Exceedance probabilities for Hobart, 2020, scenario A1FI and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 20.

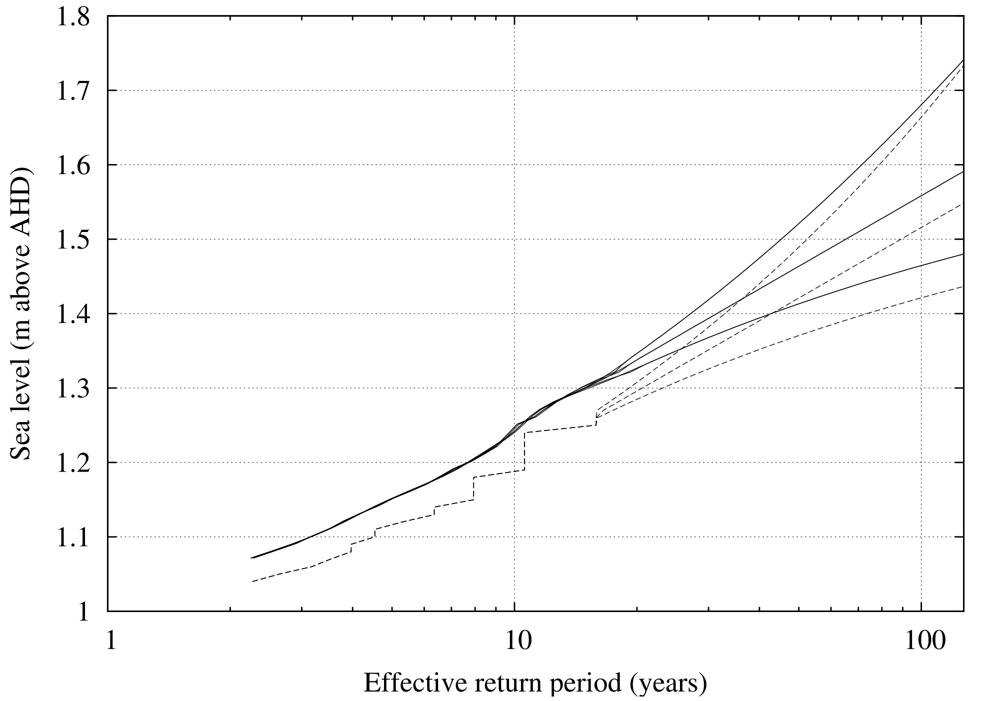

Figure 25: Effective return periods for Hobart, 2020, scenario A1FI and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 20.

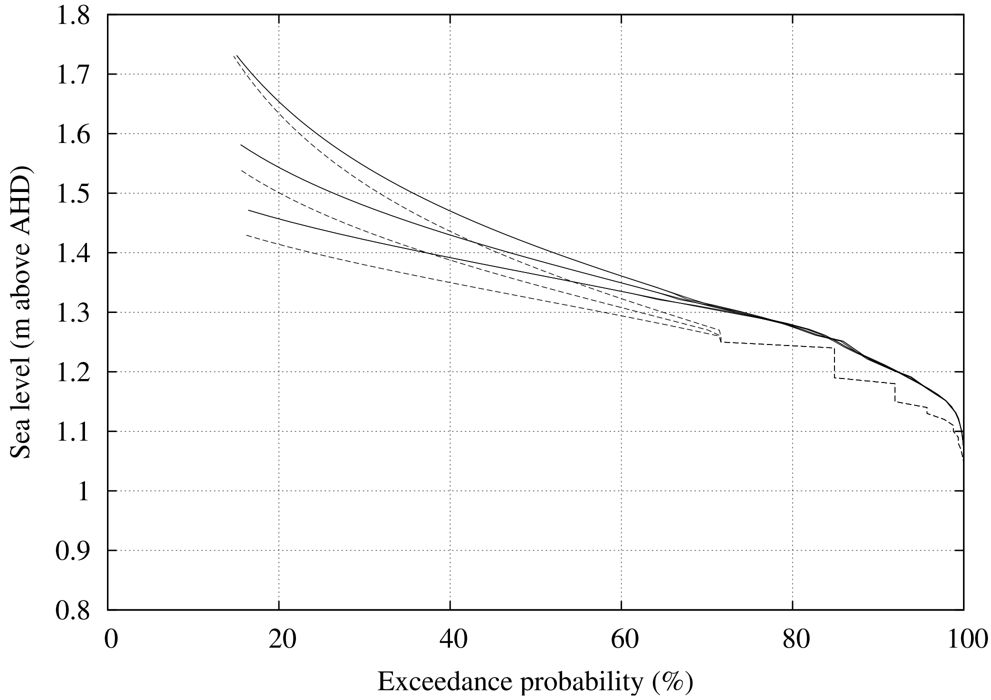

Figure 26: Exceedance probabilities for Hobart, 2020, scenario A1FI and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 21.

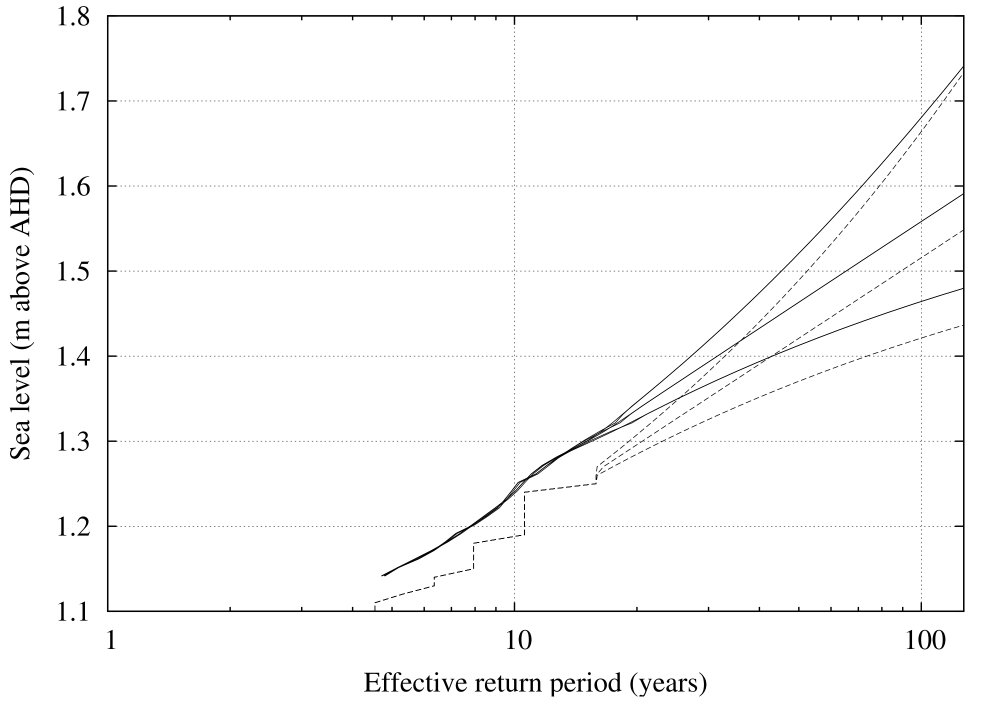

Figure 27: Effective return periods for Hobart, 2020, scenario A1FI and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 21.

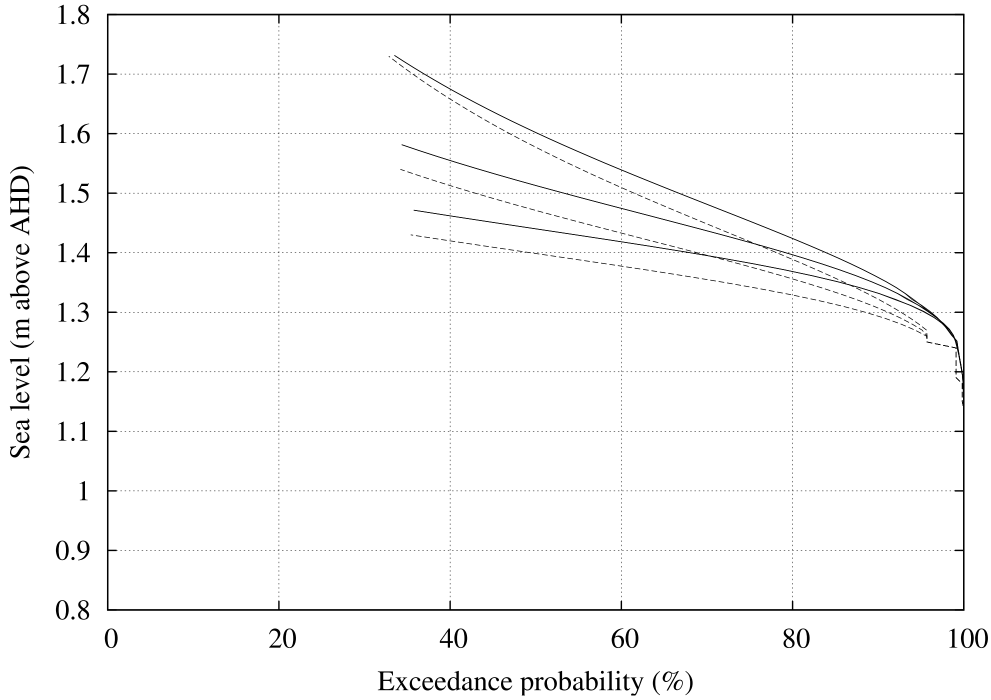

Figure 28: Exceedance probabilities for Hobart, 2020, scenario A1FI and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 22.

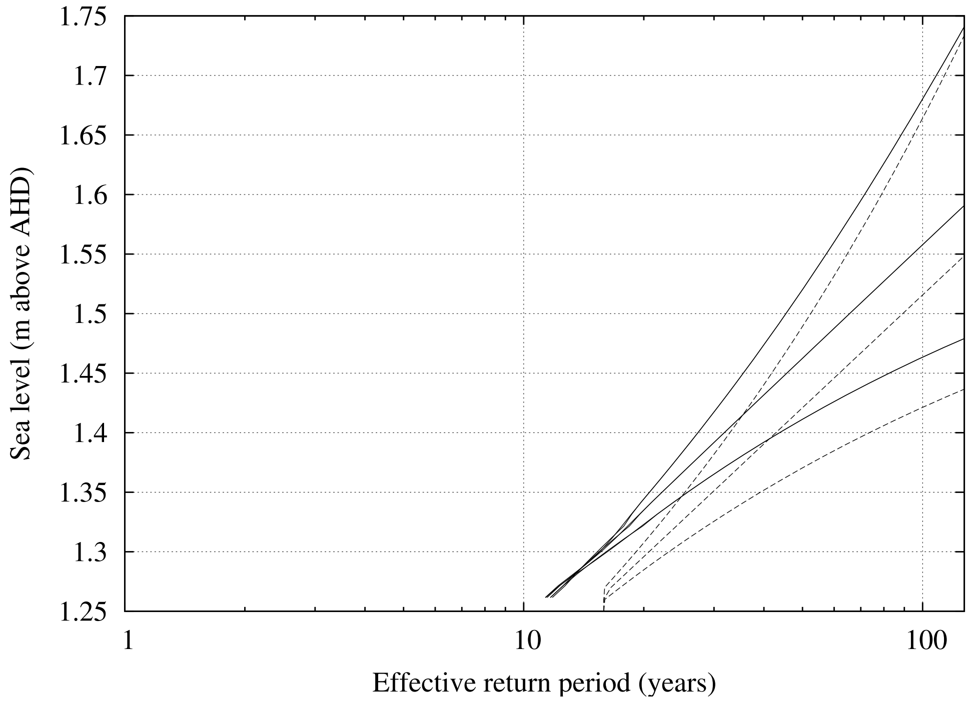

Figure 29: Effective return periods for Hobart, 2020, scenario A1FI and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 22.

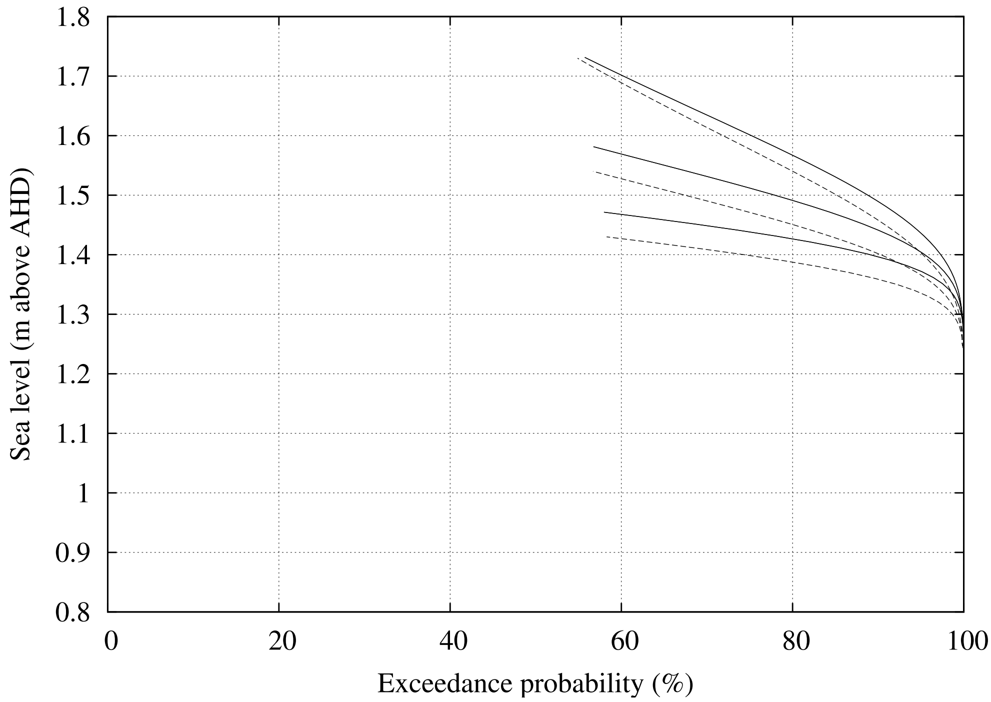

Figure 30: Exceedance probabilities for Hobart, 2020, scenario A1FI and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 23.

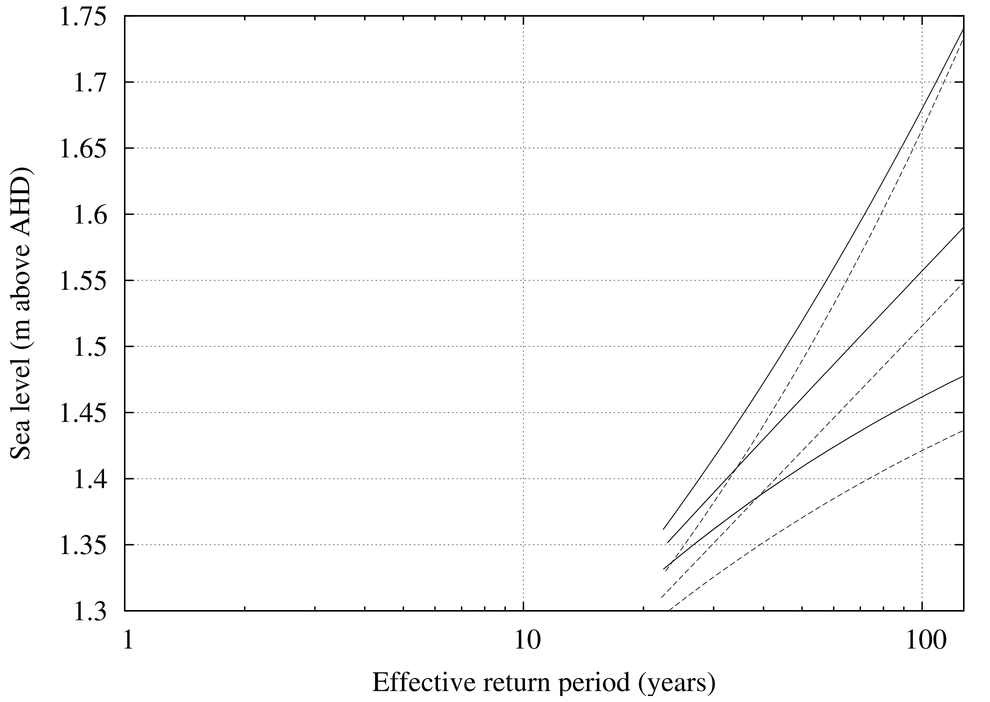

Figure 31: Effective return periods for Hobart, 2020, scenario A1FI and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 23.

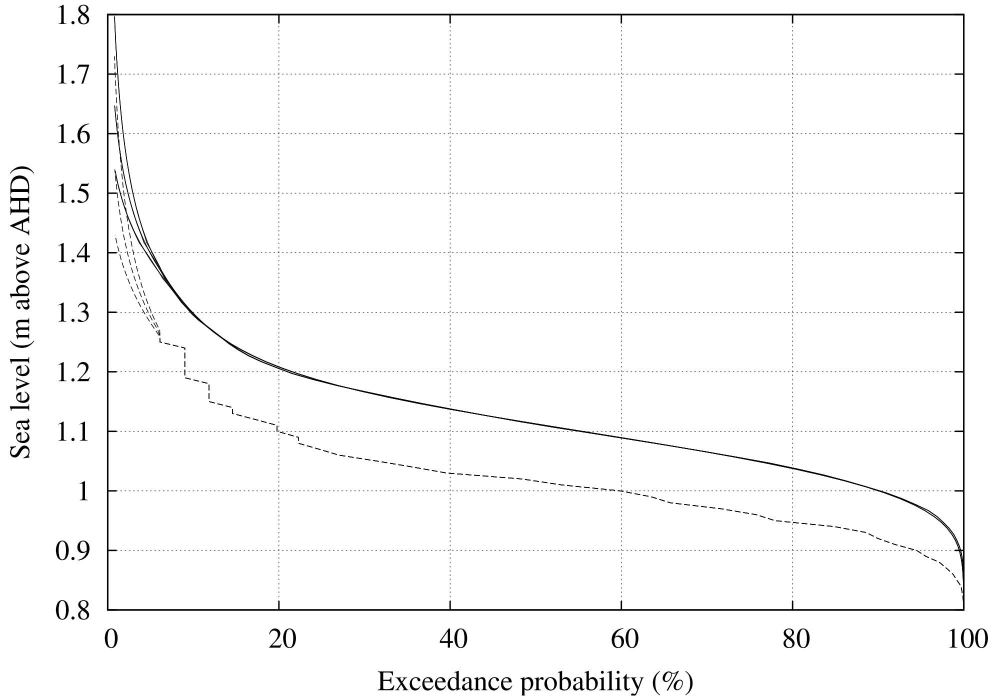

Figure 32: Exceedance probabilities for Hobart, 2040, scenario B1 and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 24.

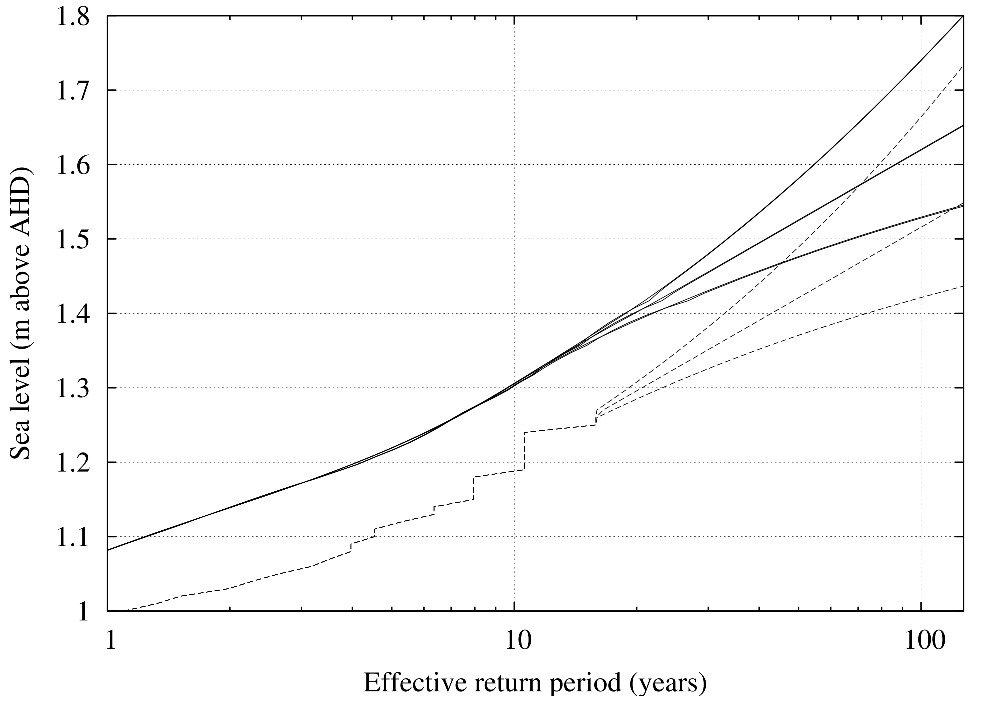

Figure 33: Effective return periods for Hobart, 2040, scenario B1 and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 24.

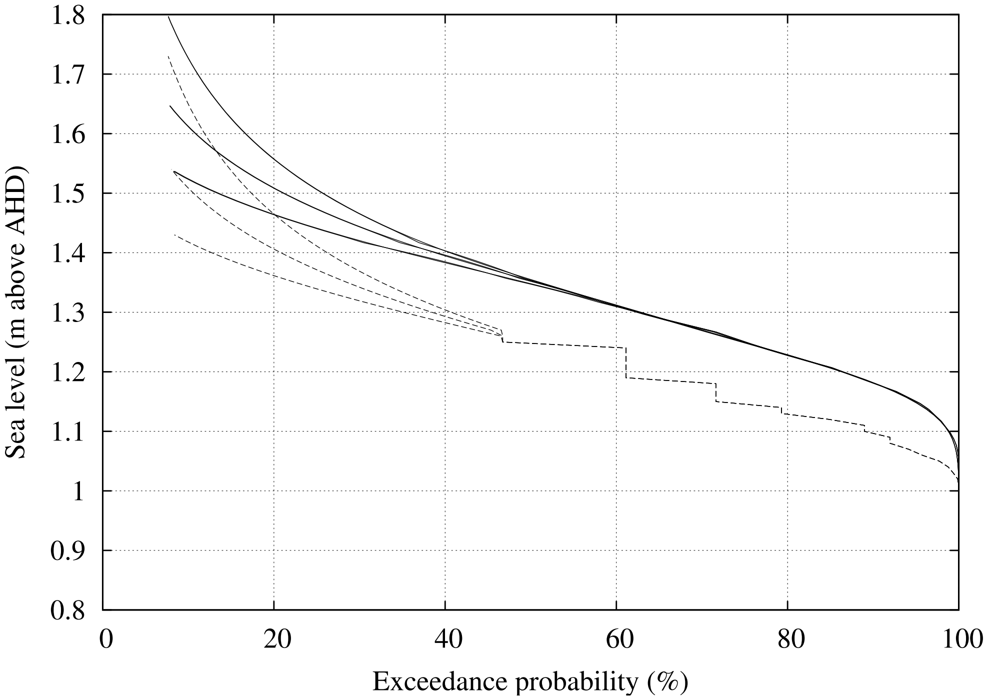

Figure 34: Exceedance probabilities for Hobart, 2040, scenario B1 and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 25.

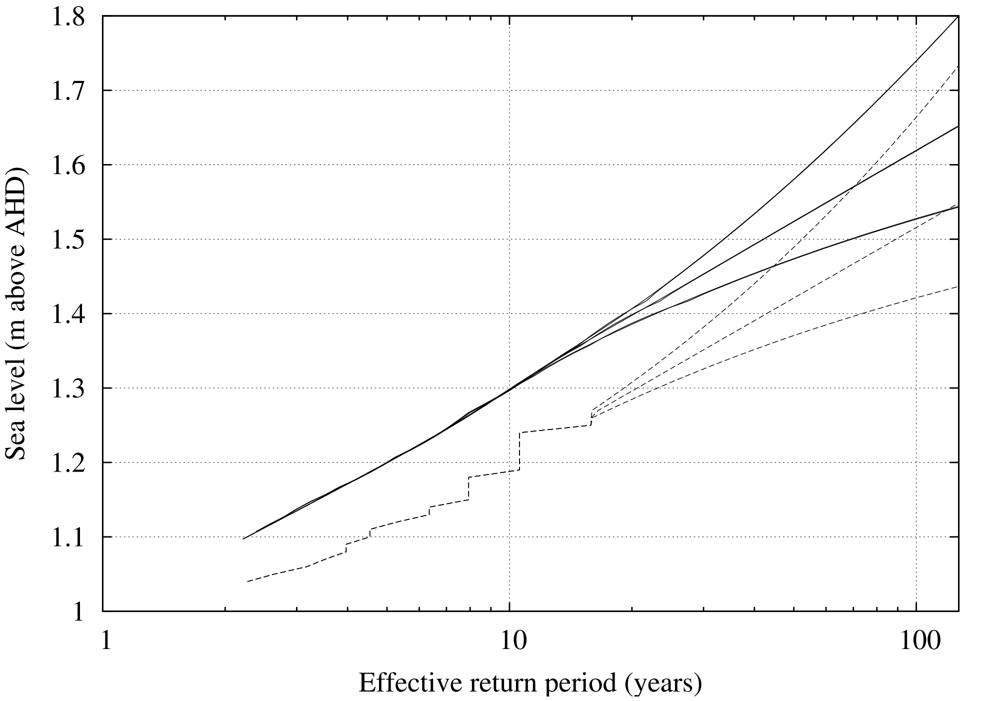

Figure 35: Effective return periods for Hobart, 2040, scenario B1 and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 25.

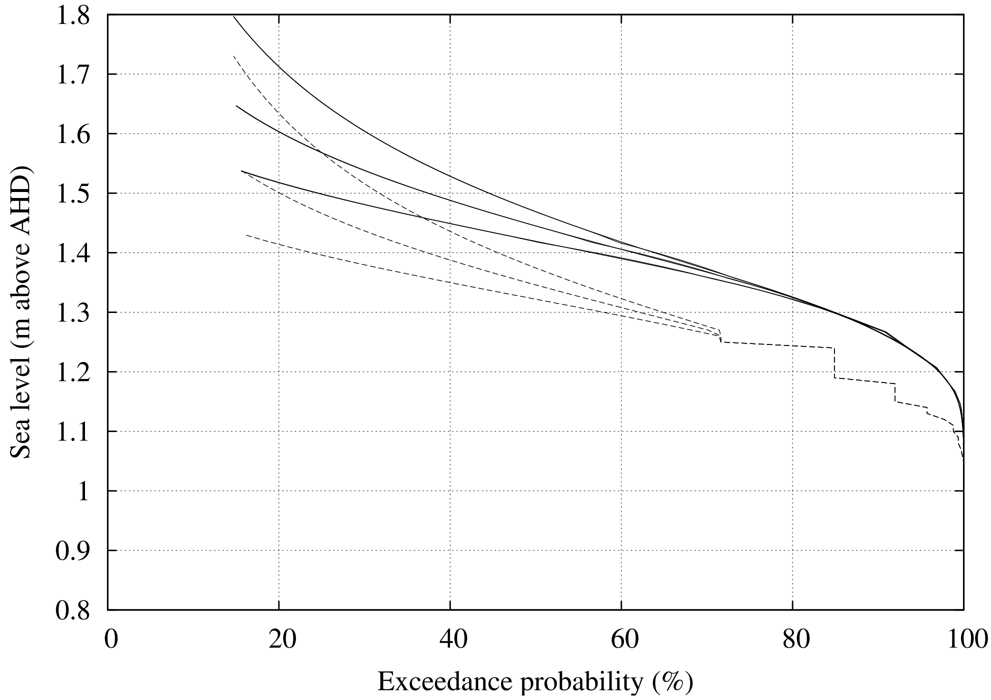

Figure 36: Exceedance probabilities for Hobart, 2040, scenario B1 and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 26.

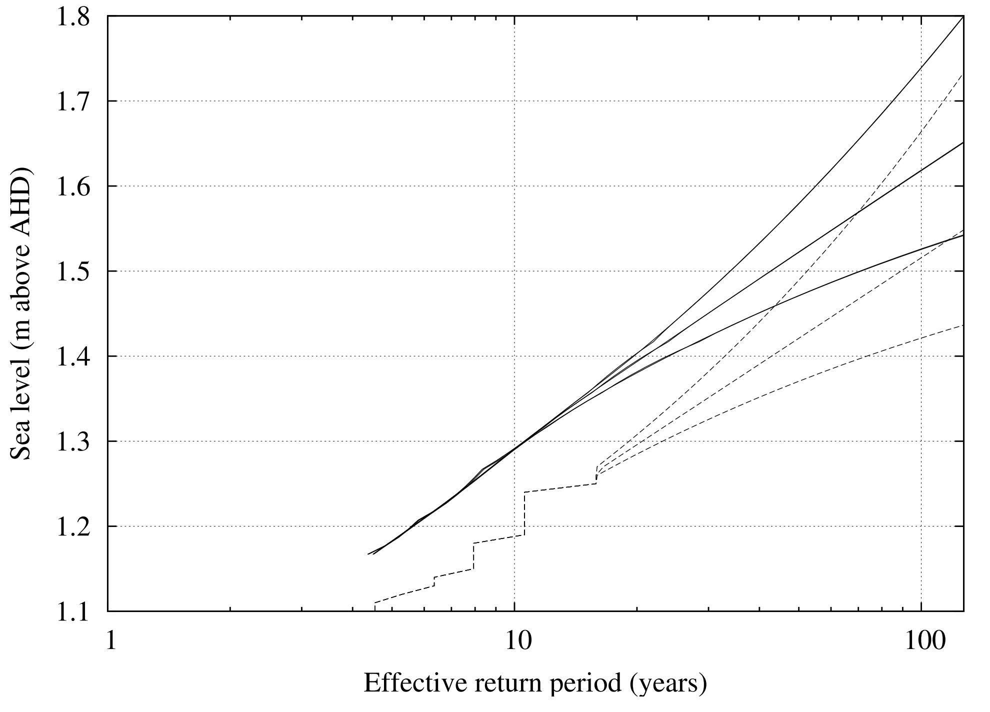

Figure 37: Effective return periods for Hobart, 2040, scenario B1 and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 26.

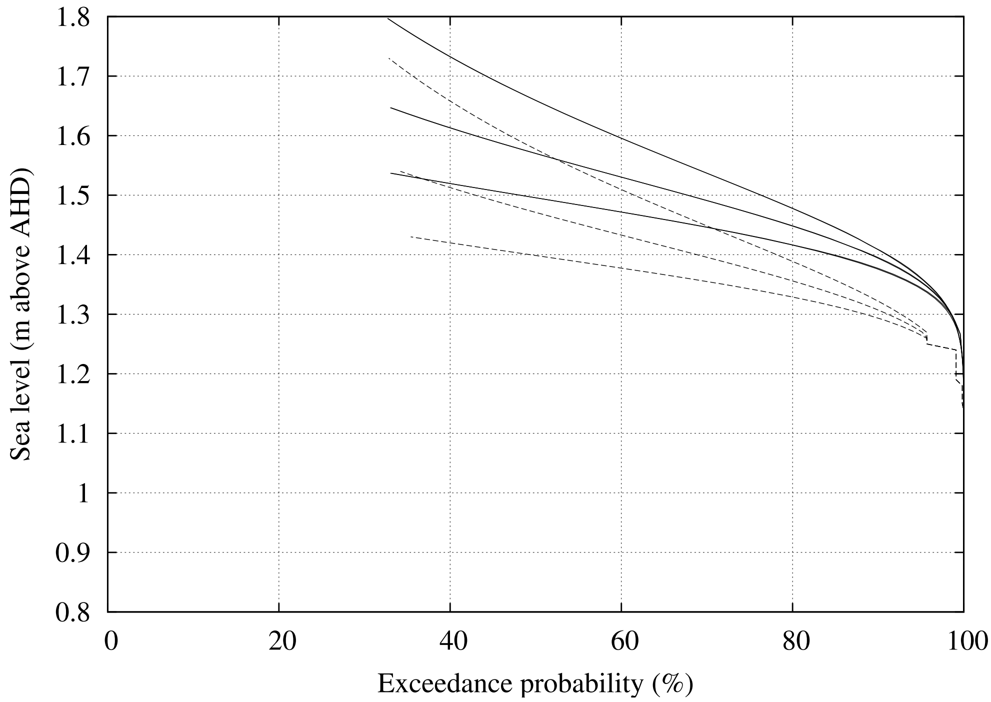

Figure 38: Exceedance probabilities for Hobart, 2040, scenario B1 and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 27.

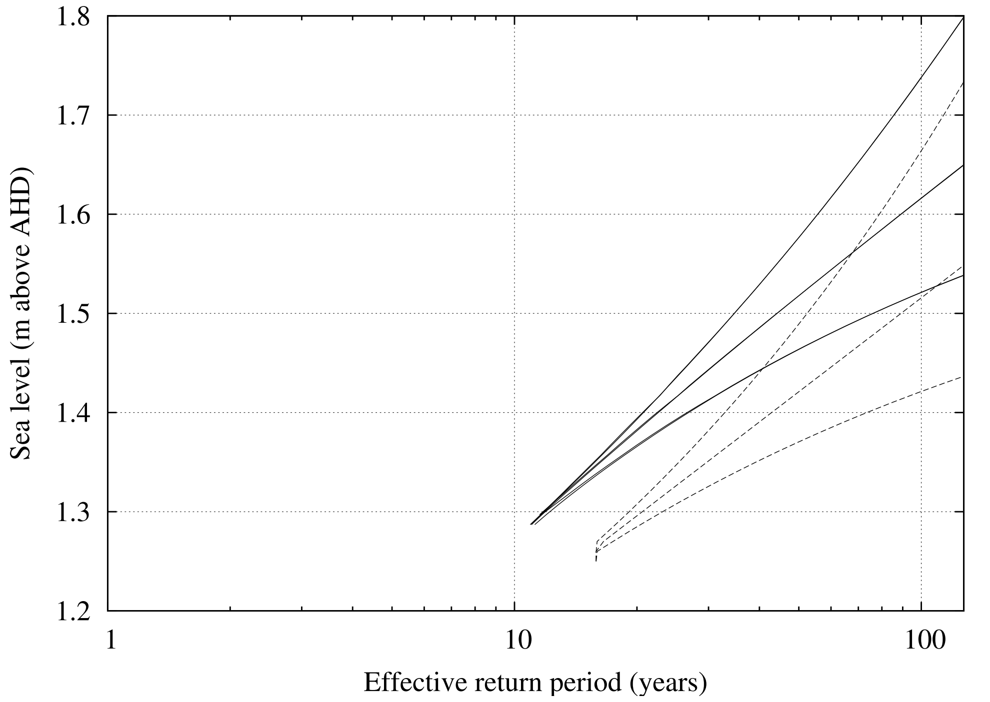

Figure 39: Effective return periods for Hobart, 2040, scenario B1 and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 27.

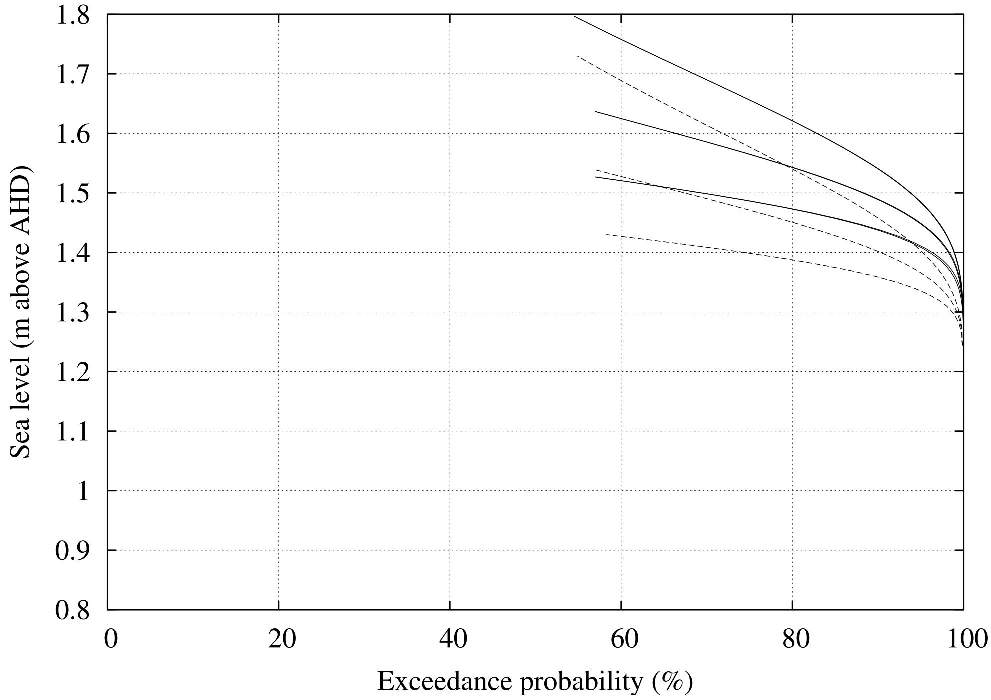

Figure 40: Exceedance probabilities for Hobart, 2040, scenario B1 and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 28.

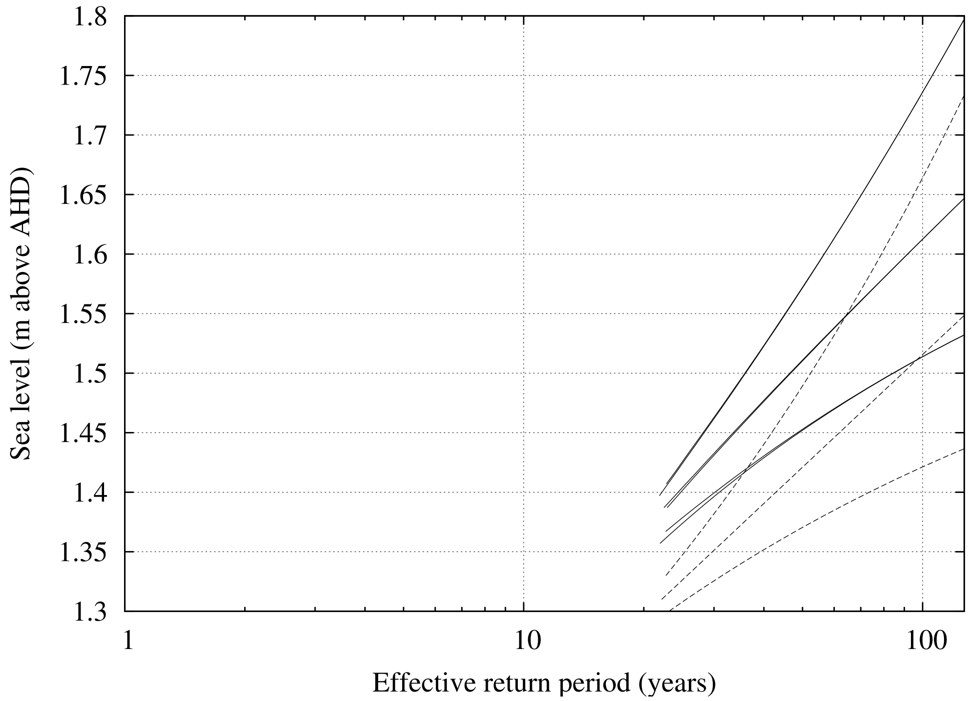

Figure 41: Effective return periods for Hobart, 2040, scenario B1 and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 28.

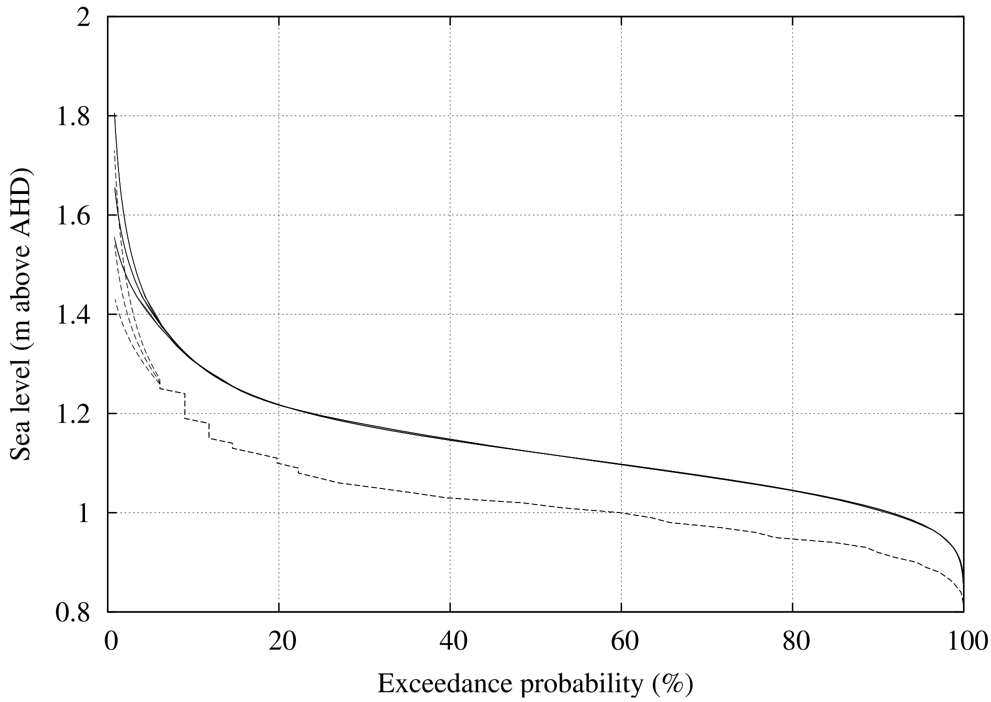

Figure 42: Exceedance probabilities for Hobart, 2040, scenario A1B and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 29.

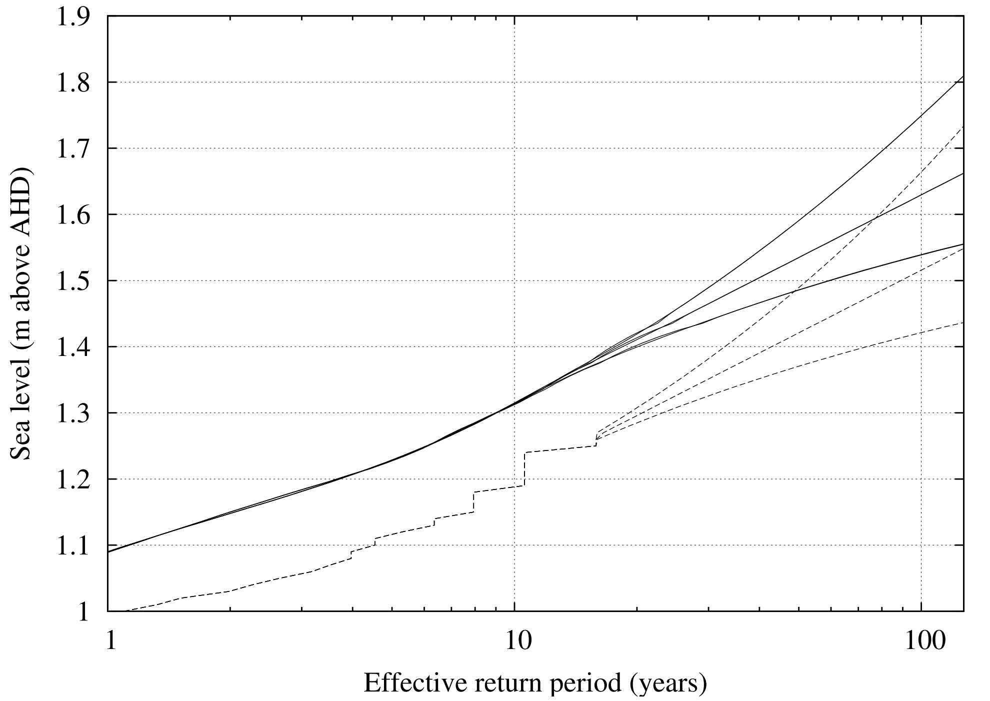

Figure 43: Effective return periods for Hobart, 2040, scenario A1B and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 29.

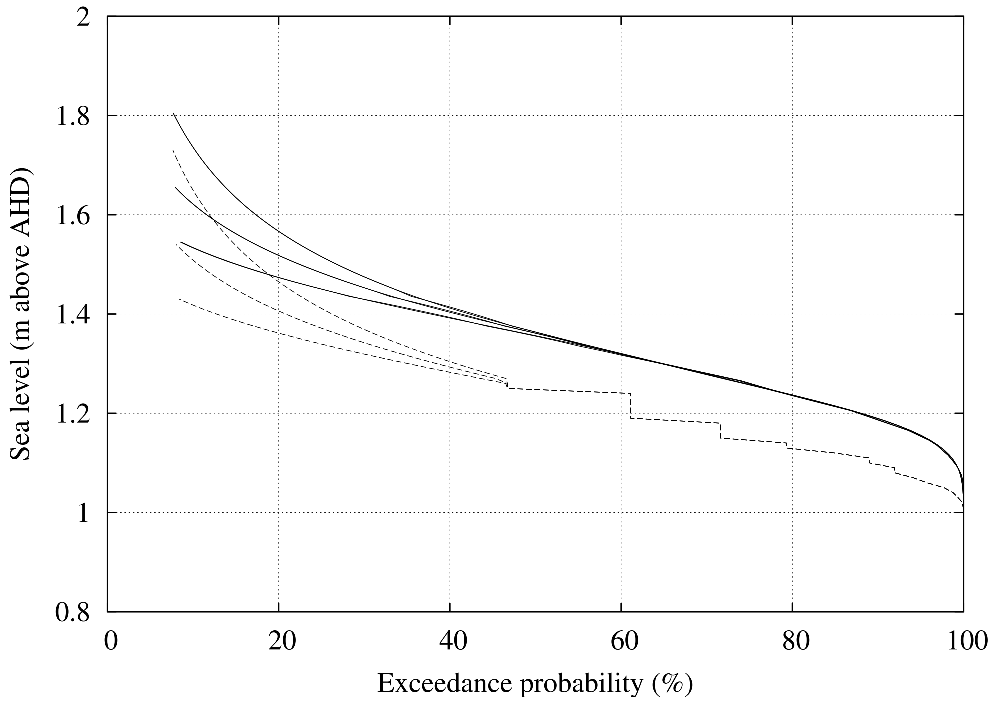

Figure 44: Exceedance probabilities for Hobart, 2040, scenario A1B and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 30.

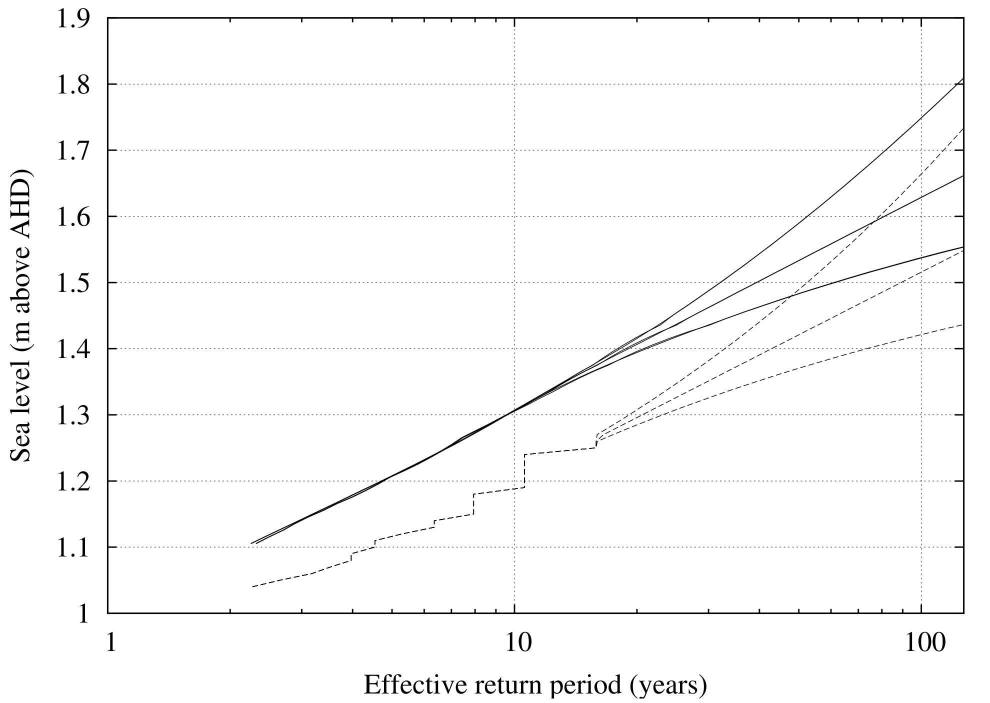

Figure 45: Effective return periods for Hobart, 2040, scenario A1B and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 30.

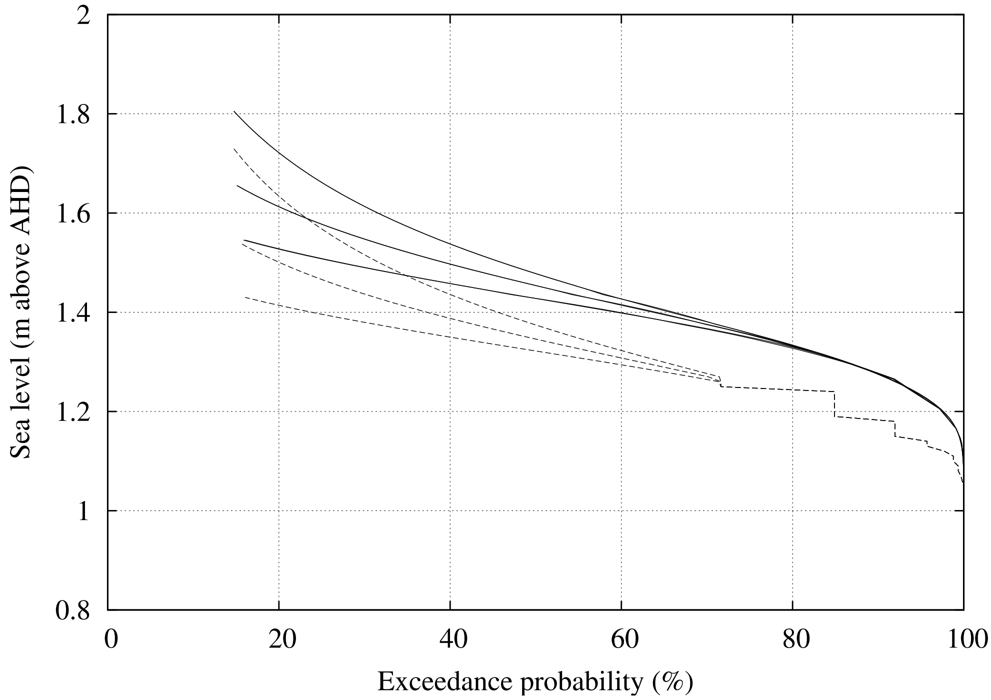

Figure 46: Exceedance probabilities for Hobart, 2040, scenario A1B and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 31.

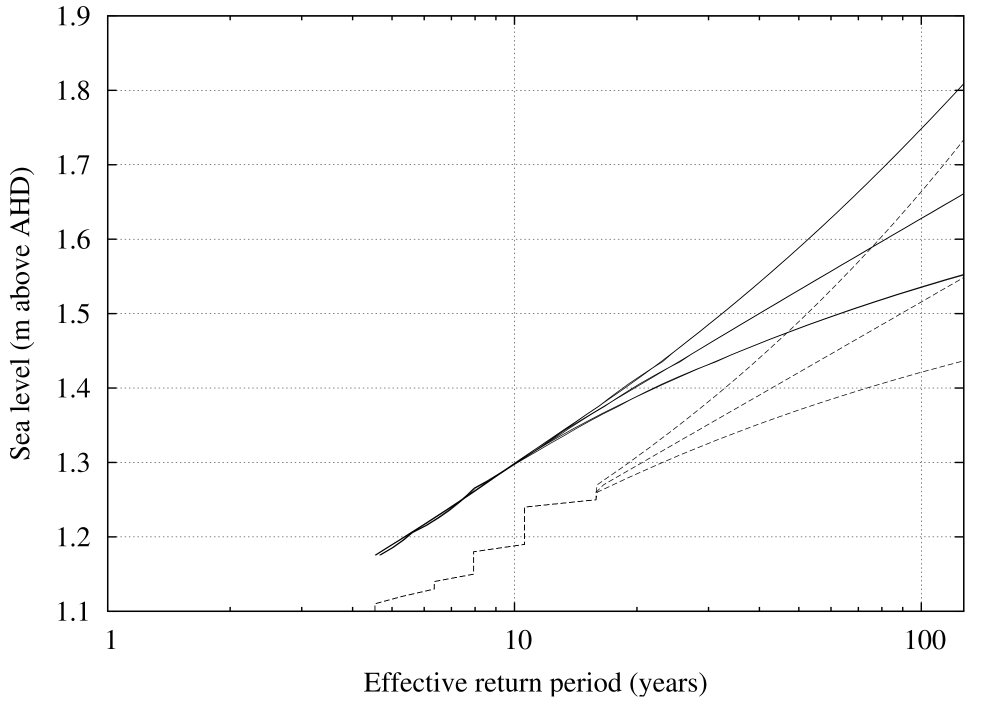

Figure 47: Effective return periods for Hobart, 2040, scenario A1B and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 31.

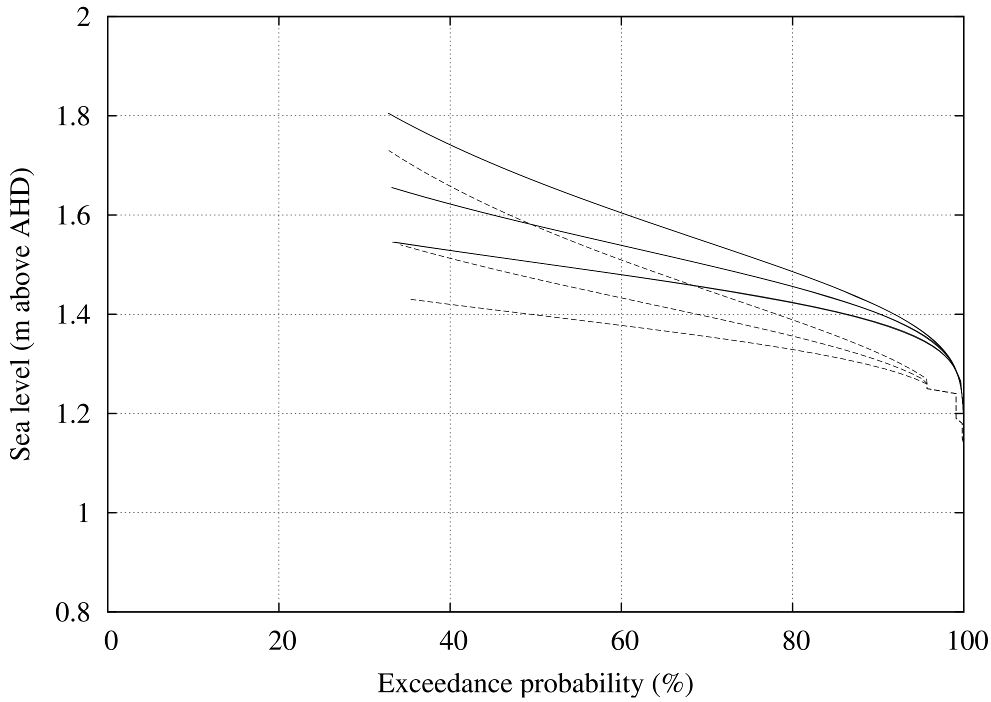

Figure 48: Exceedance probabilities for Hobart, 2040, scenario A1B and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 32.

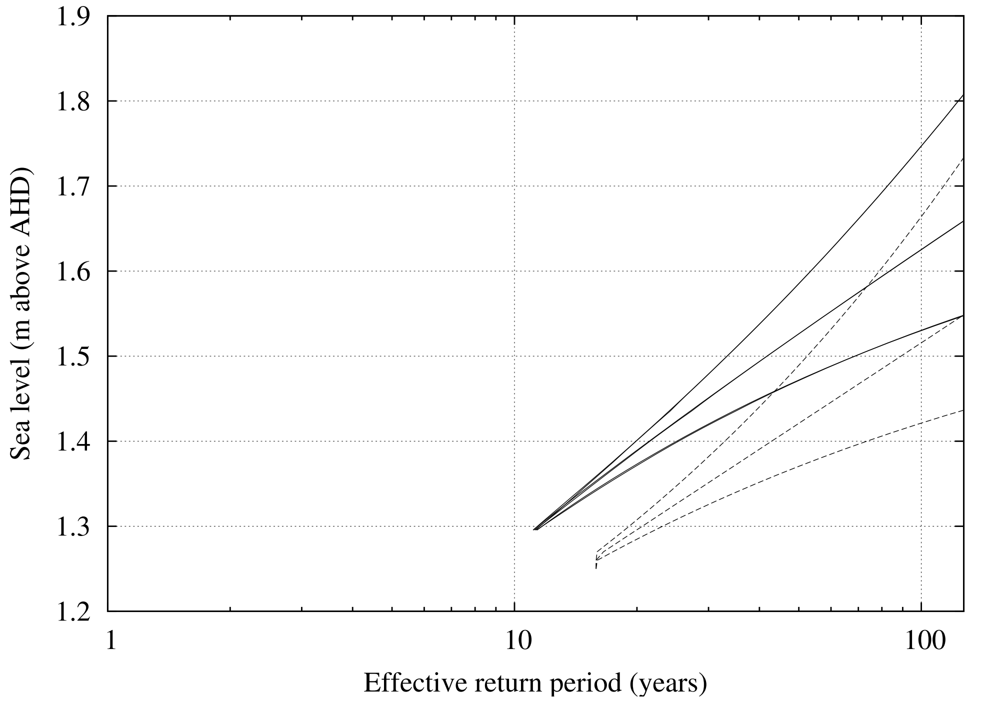

Figure 49: Effective return periods for Hobart, 2040, scenario A1B and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 32.

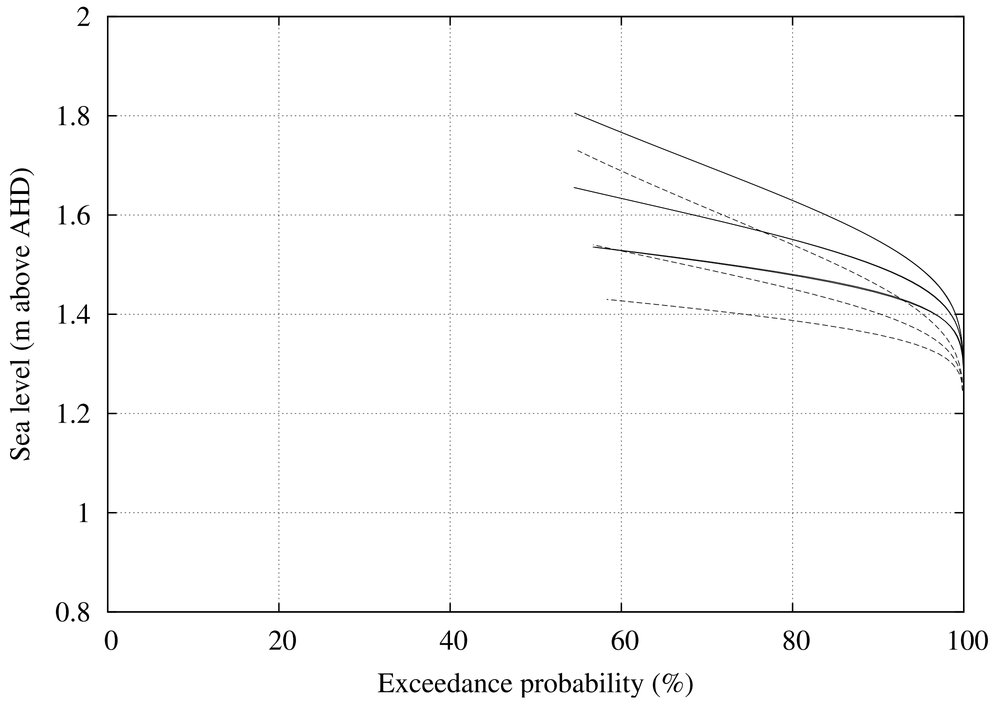

Figure 50: Exceedance probabilities for Hobart, 2040, scenario A1B and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 33.

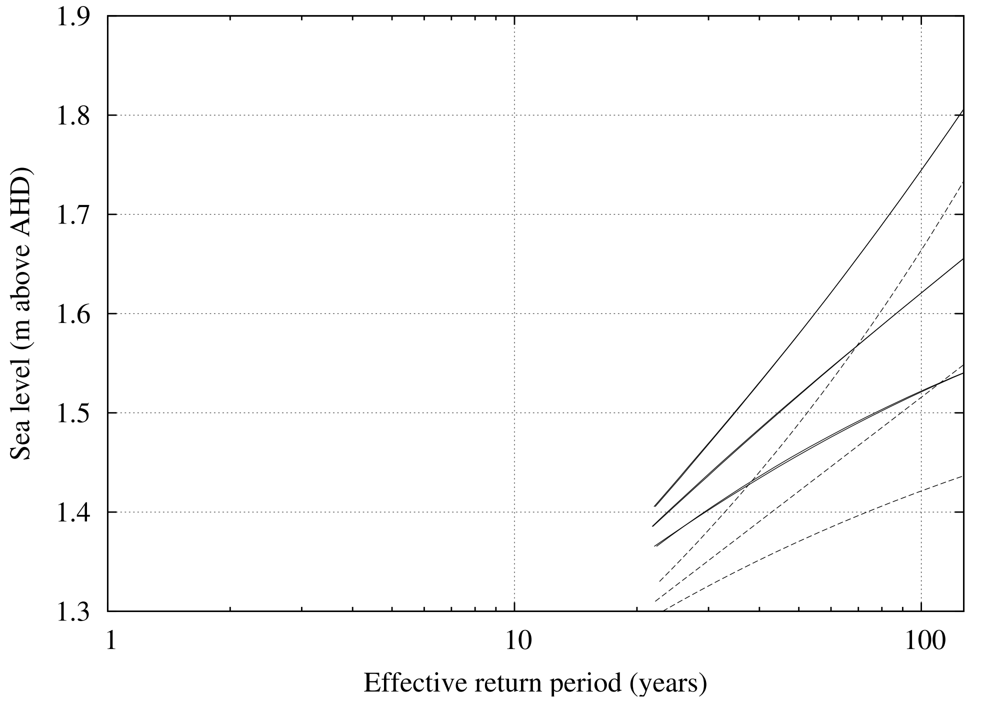

Figure 51: Effective return periods for Hobart, 2040, scenario A1B and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 33.

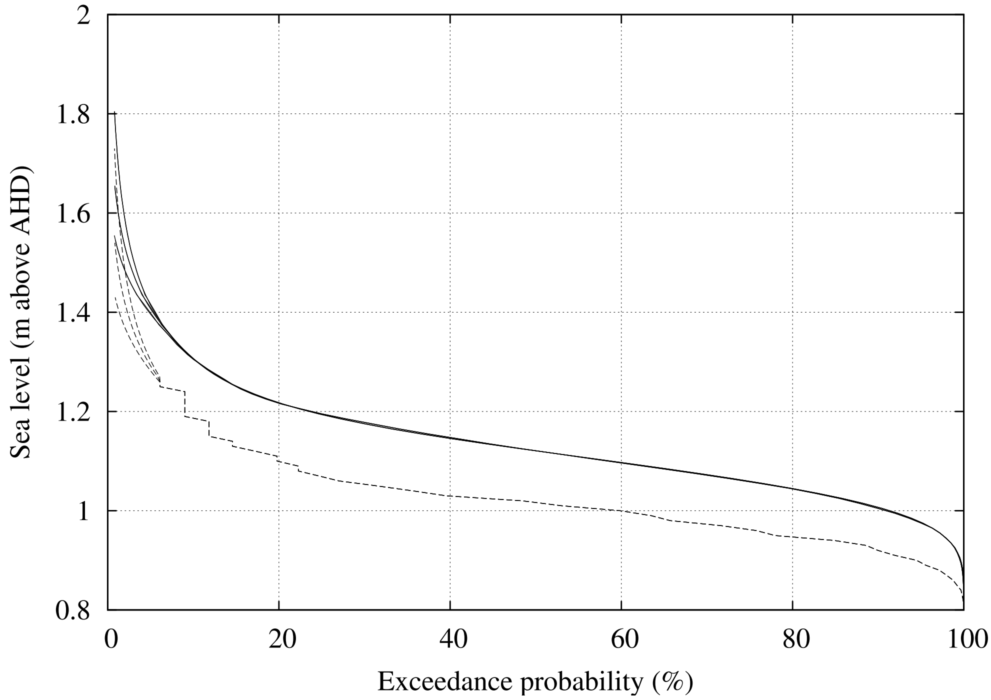

Figure 52: Exceedance probabilities for Hobart, 2040, scenario A1FI and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 34.

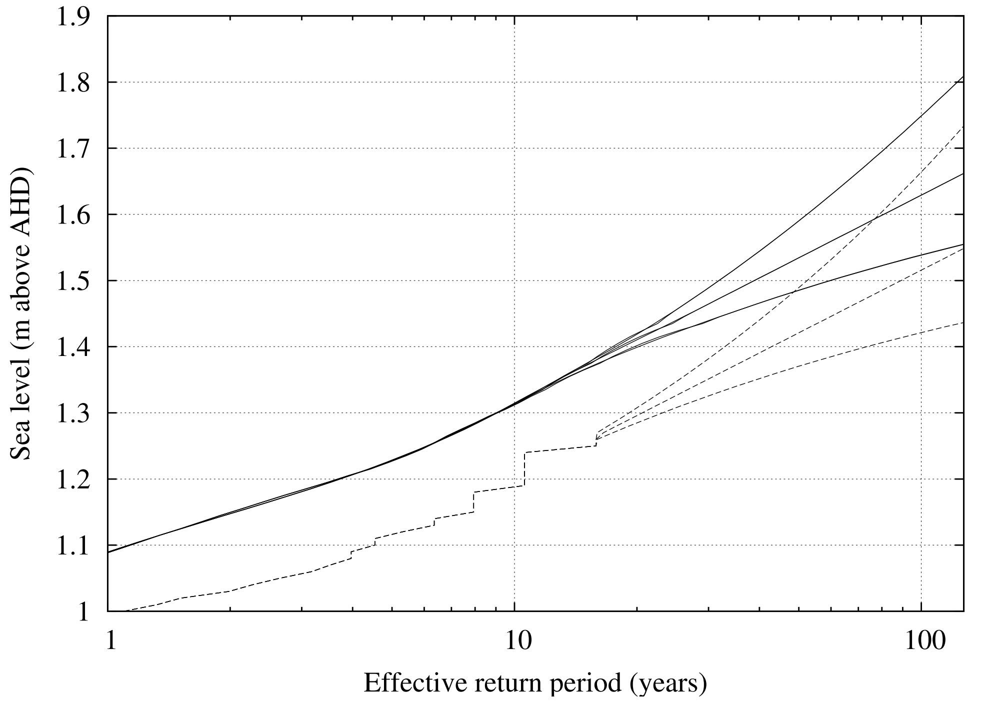

Figure 53: Effective return periods for Hobart, 2040, scenario A1FI and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 34.

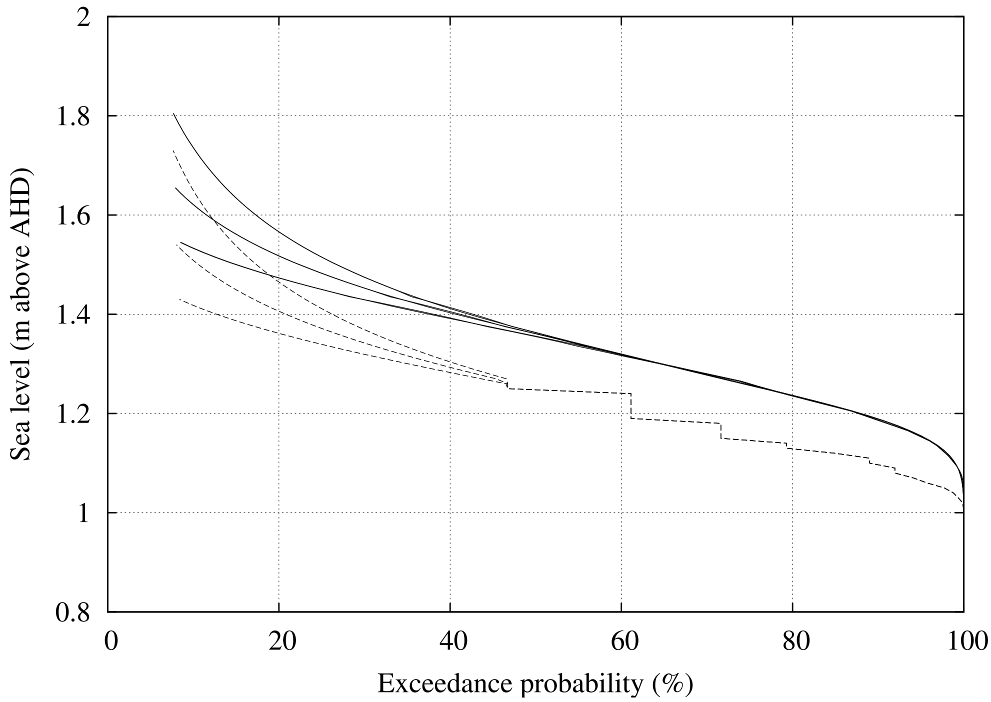

Figure 54: Exceedance probabilities for Hobart, 2040, scenario A1FI and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 35.

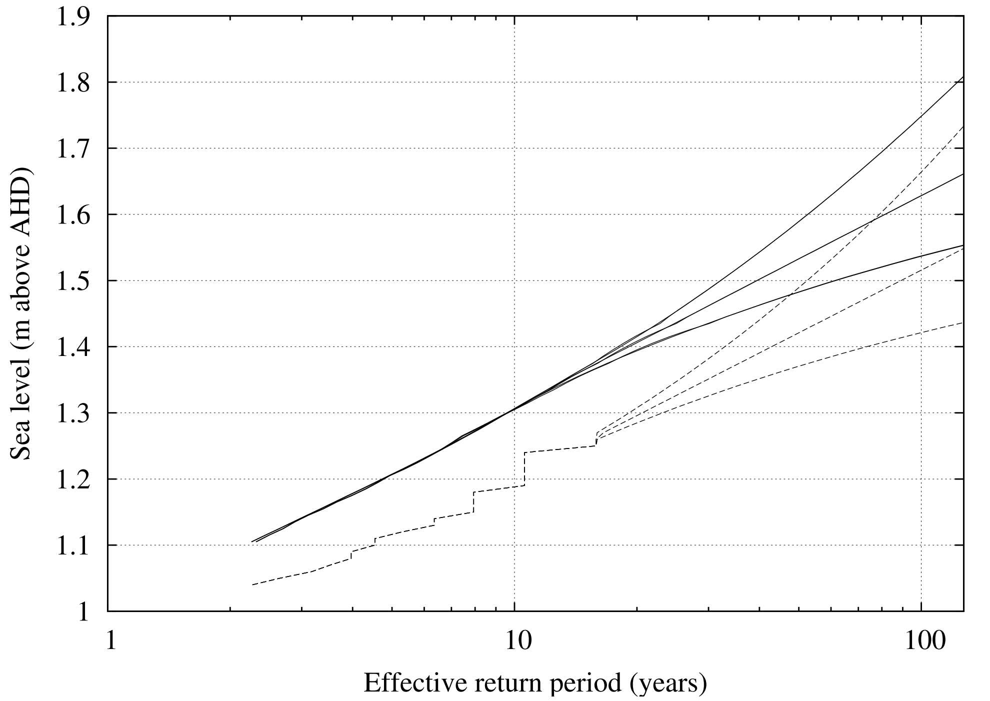

Figure 55: Effective return periods for Hobart, 2040, scenario A1FI and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 35.

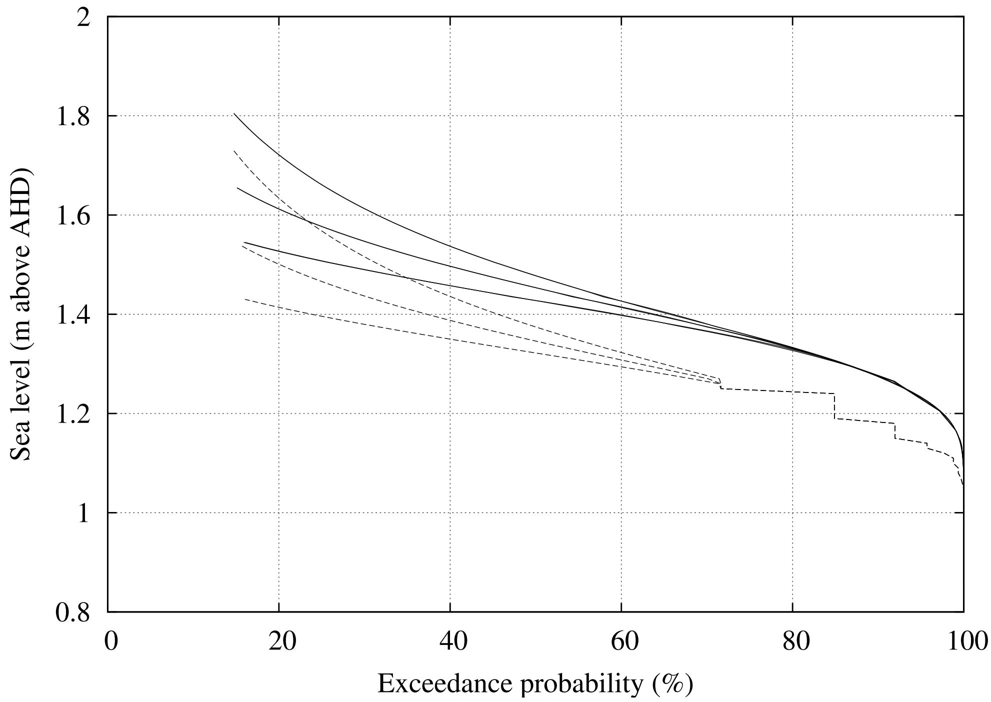

Figure 56: Exceedance probabilities for Hobart, 2040, scenario A1FI and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 36.

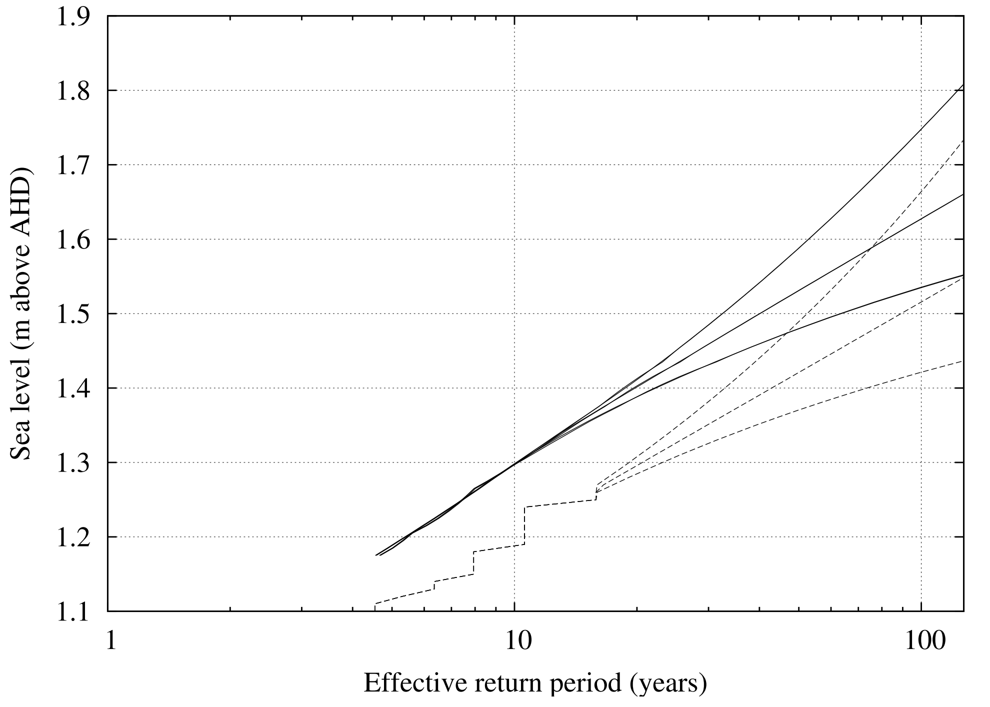

Figure 57: Effective return periods for Hobart, 2040, scenario A1FI and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 36.

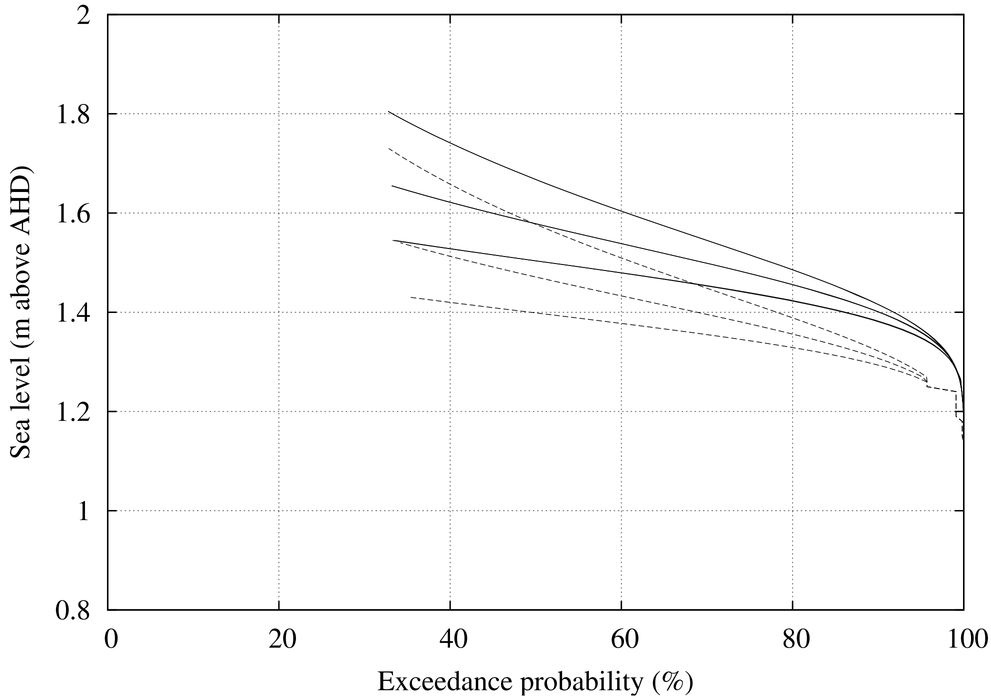

Figure 58: Exceedance probabilities for Hobart, 2040, scenario A1FI and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 37.

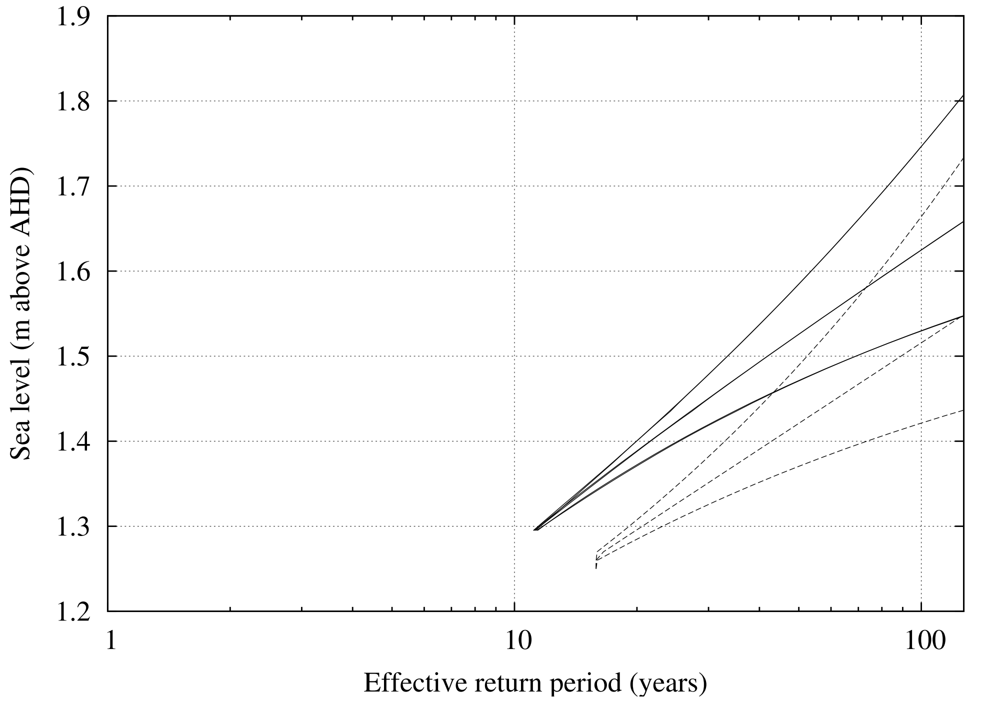

Figure 59: Effective return periods for Hobart, 2040, scenario A1FI and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 37.

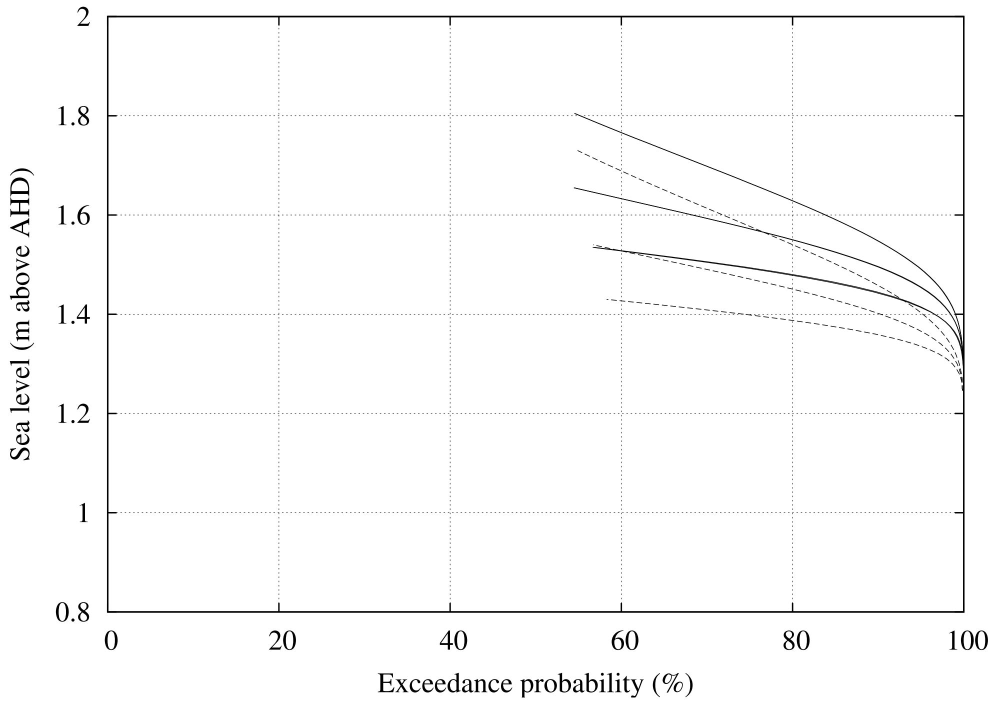

Figure 60: Exceedance probabilities for Hobart, 2040, scenario A1FI and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 38.

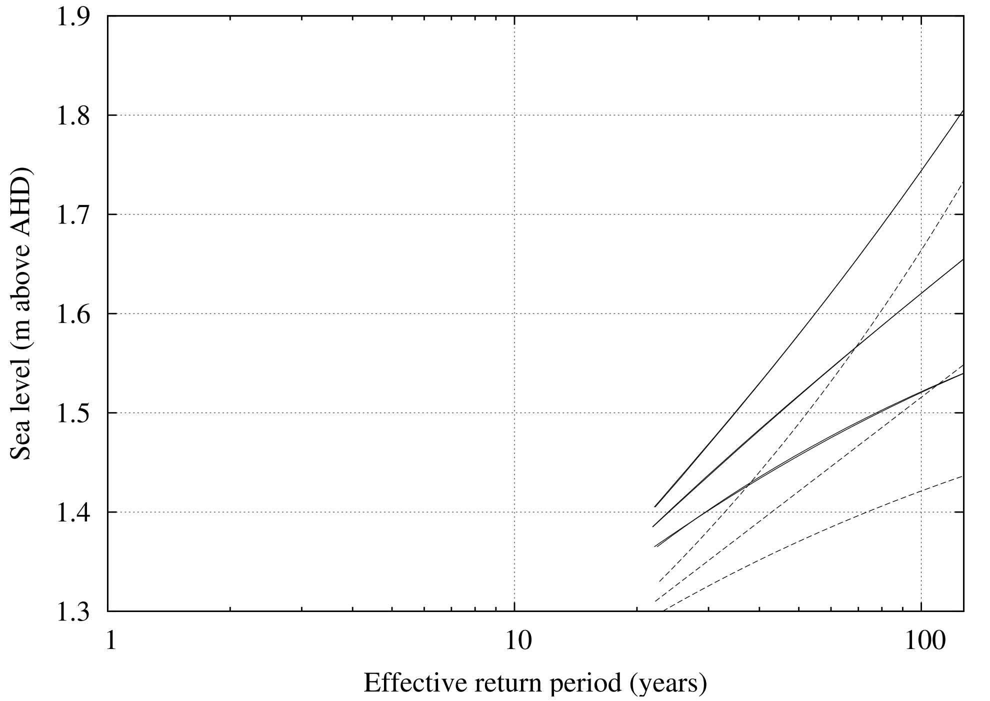

Figure 61: Effective return periods for Hobart, 2040, scenario A1FI and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 38.

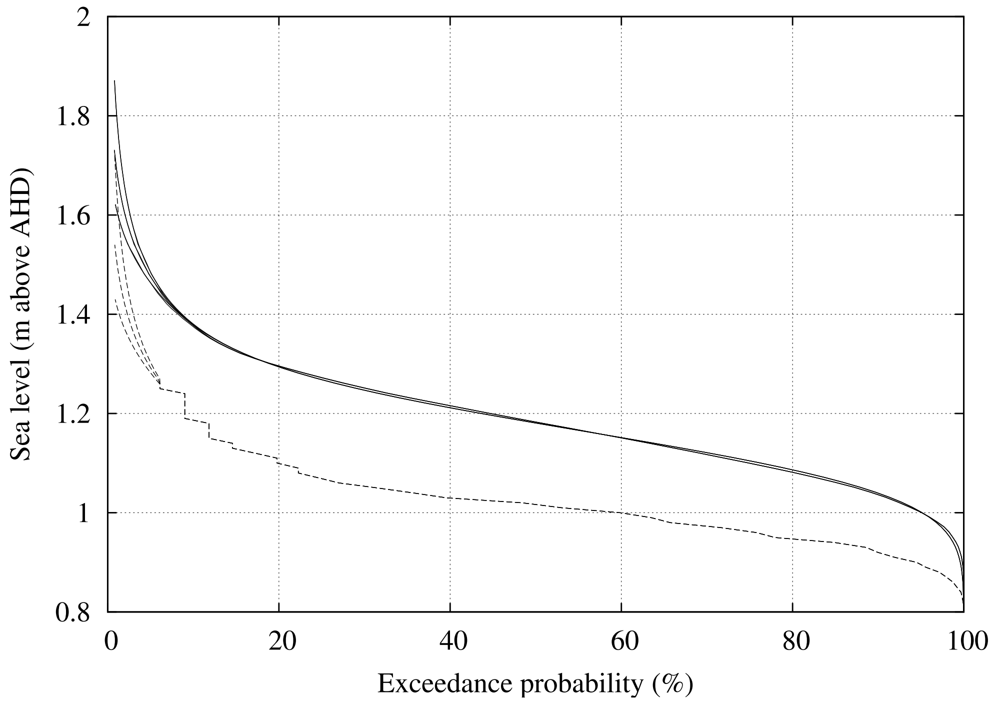

Figure 62: Exceedance probabilities for Hobart, 2060, scenario B1 and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 39.

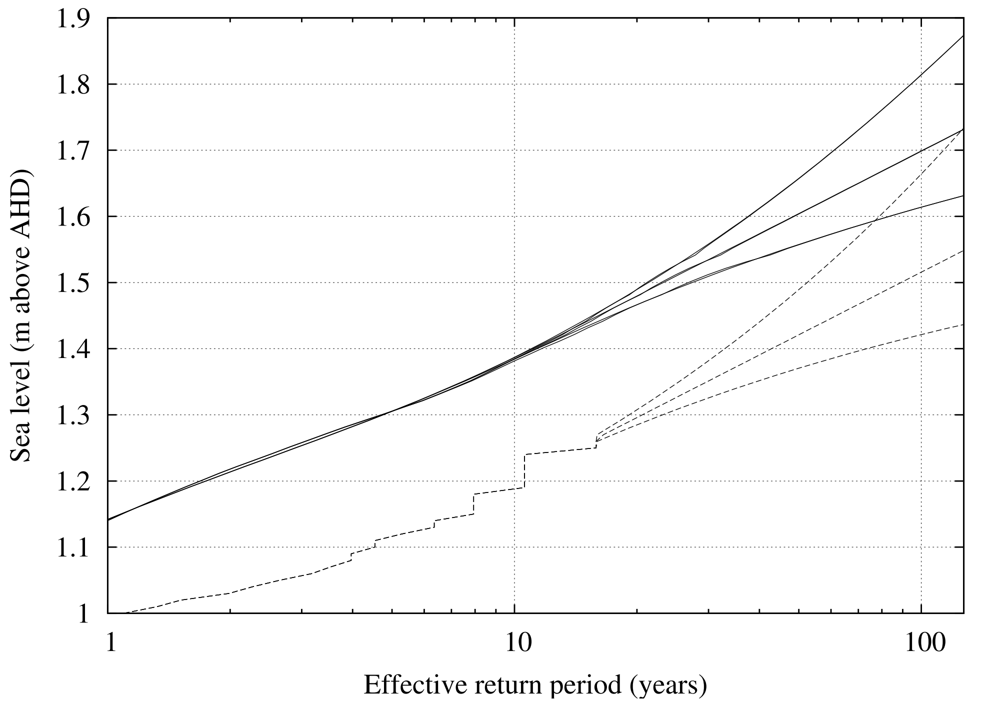

Figure 63: Effective return periods for Hobart, 2060, scenario B1 and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 39.

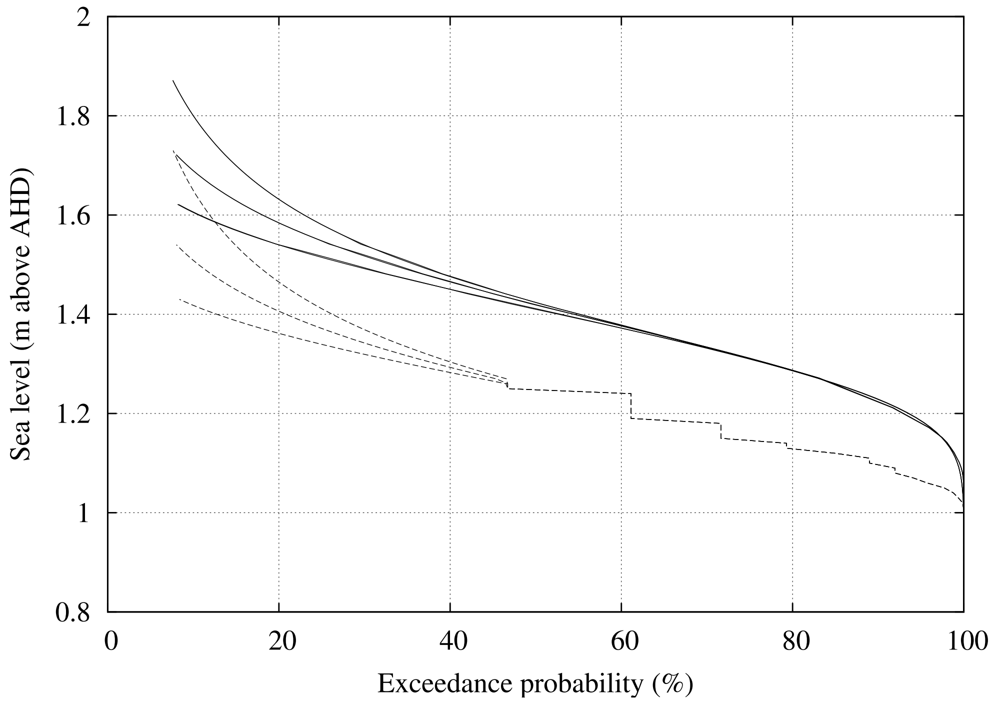

Figure 64: Exceedance probabilities for Hobart, 2060, scenario B1 and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 40.

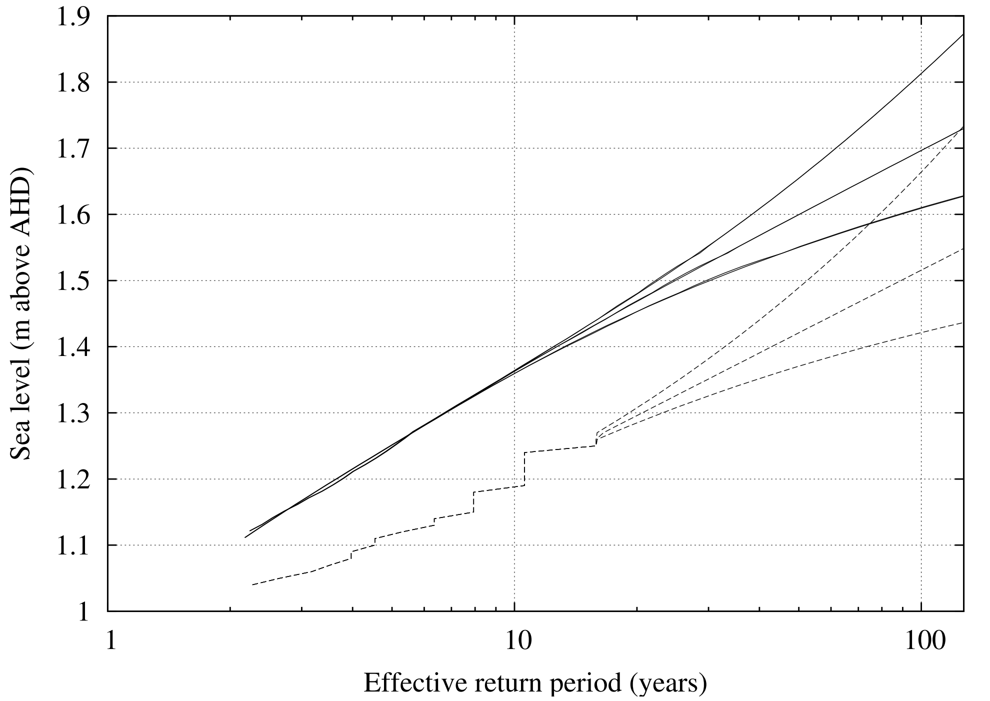

Figure 65: Effective return periods for Hobart, 2060, scenario B1 and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 40.

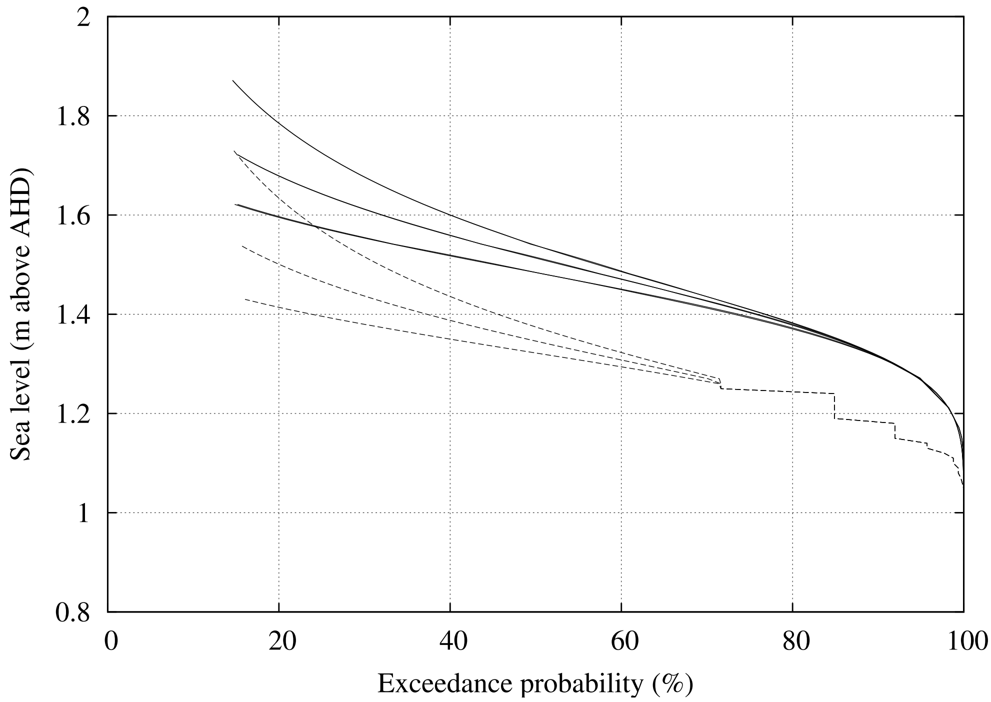

Figure 66: Exceedance probabilities for Hobart, 2060, scenario B1 and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 41.

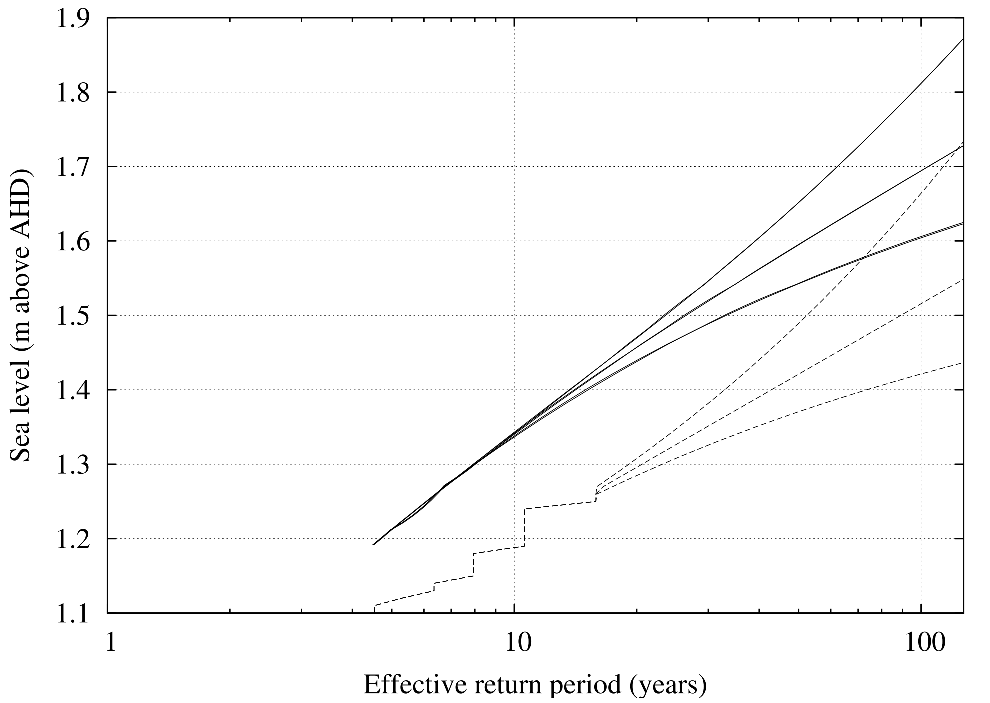

Figure 67: Effective return periods for Hobart, 2060, scenario B1 and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 41.

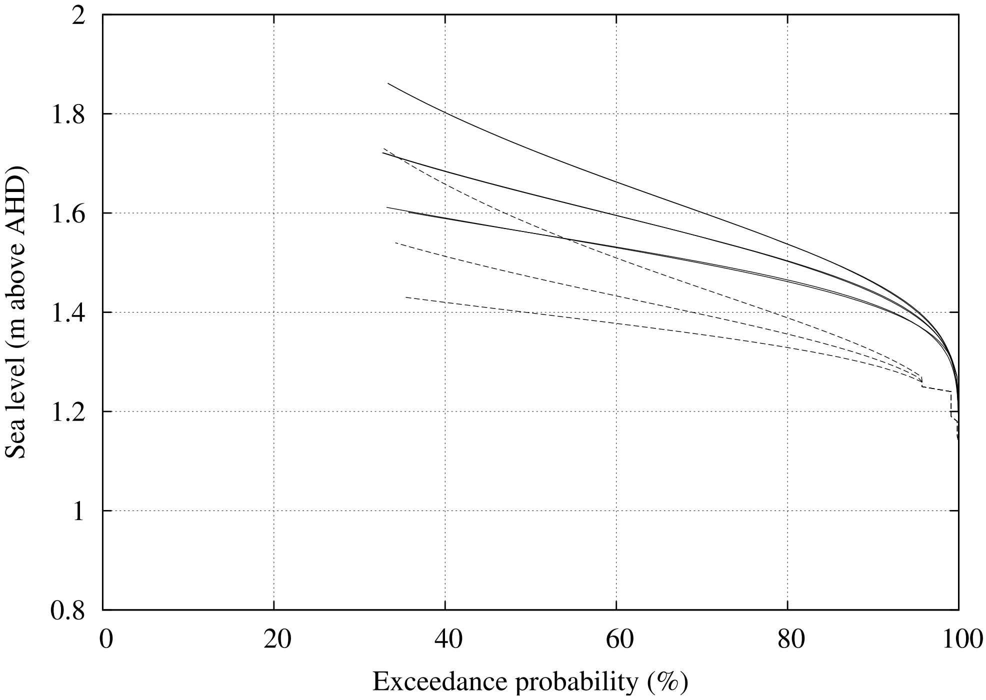

Figure 68: Exceedance probabilities for Hobart, 2060, scenario B1 and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 42.

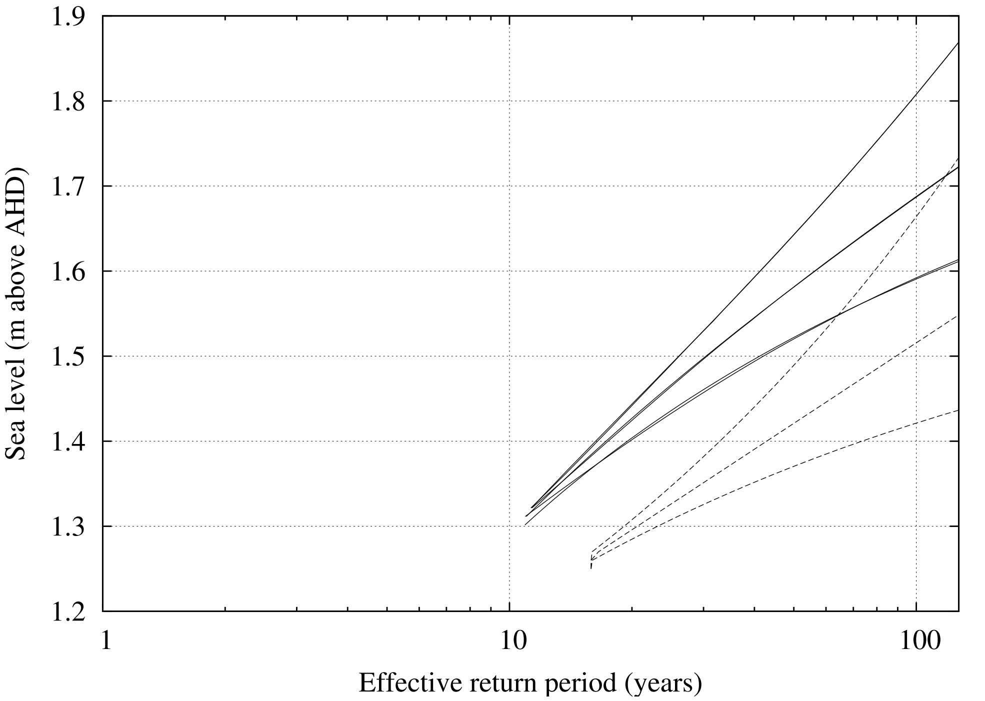

Figure 69: Effective return periods for Hobart, 2060, scenario B1 and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 42.

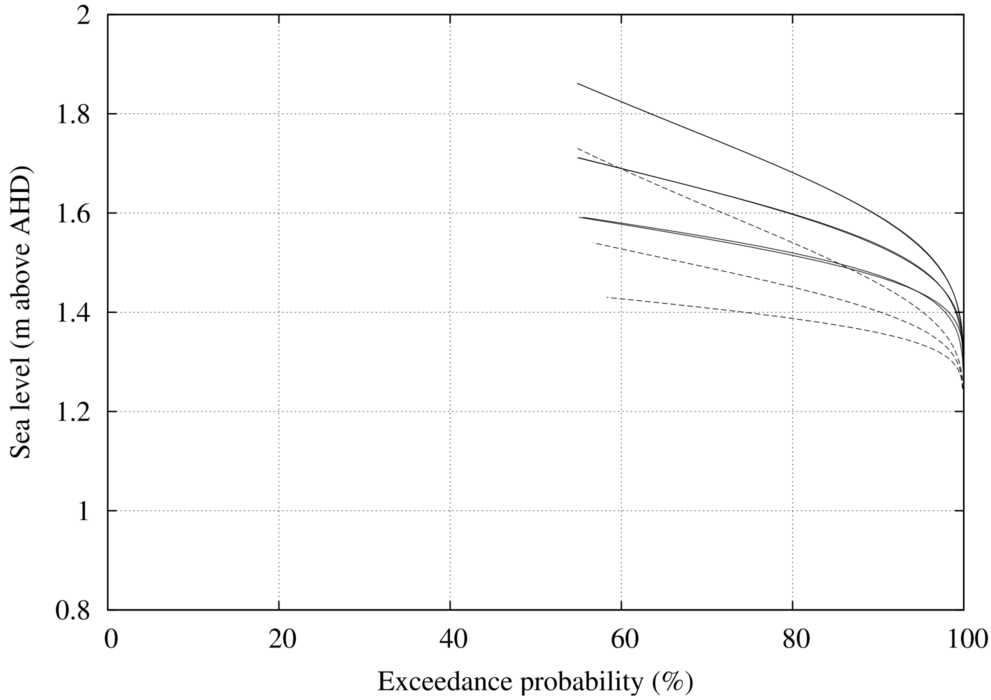

Figure 70: Exceedance probabilities for Hobart, 2060, scenario B1 and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 43.

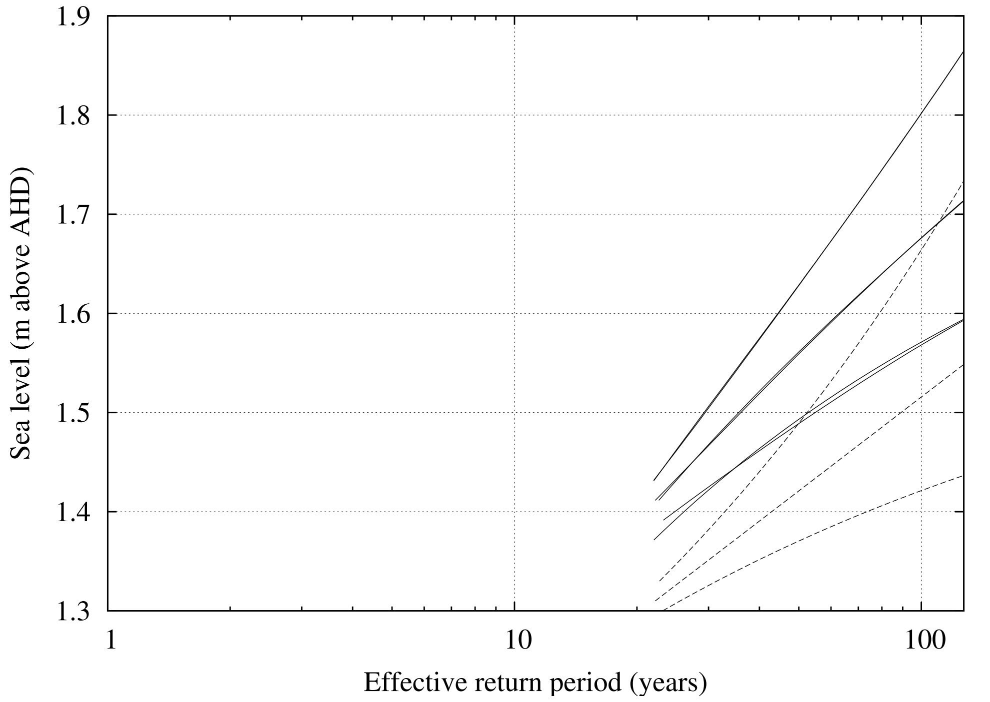

Figure 71: Effective return periods for Hobart, 2060, scenario B1 and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 43.

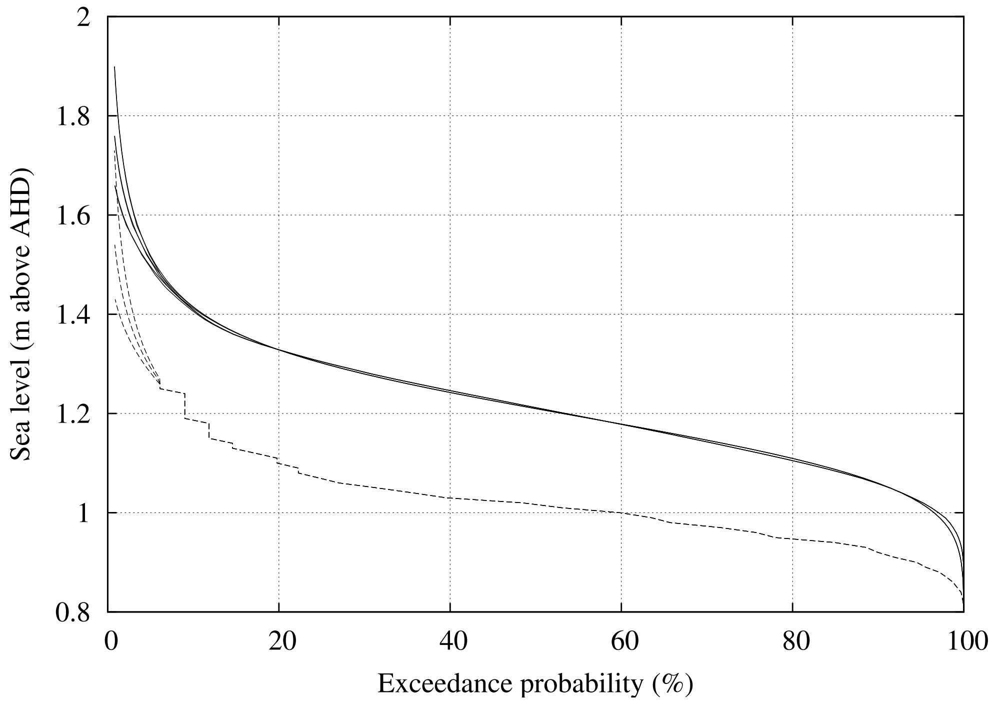

Figure 72: Exceedance probabilities for Hobart, 2060, scenario A1B and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 44.

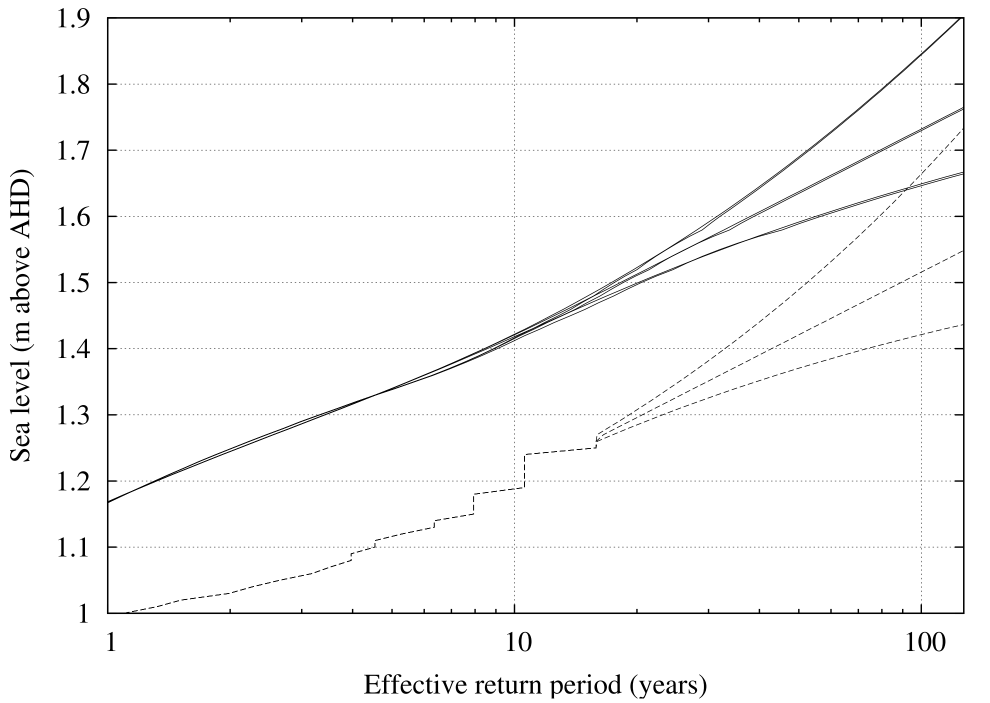

Figure 73: Effective return periods for Hobart, 2060, scenario A1B and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 44.

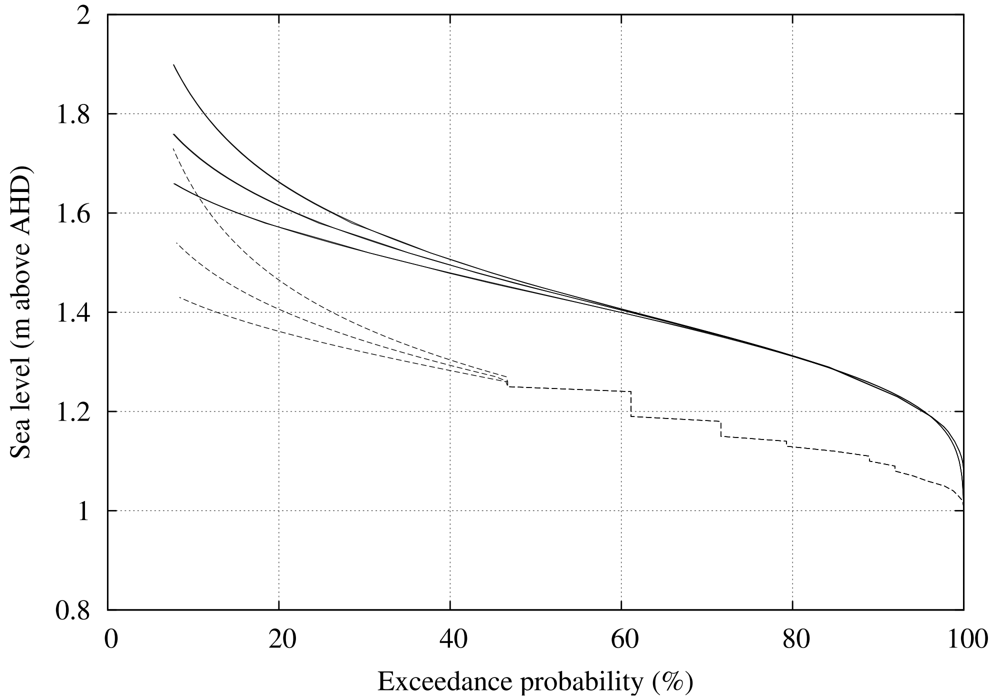

Figure 74: Exceedance probabilities for Hobart, 2060, scenario A1B and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 45.

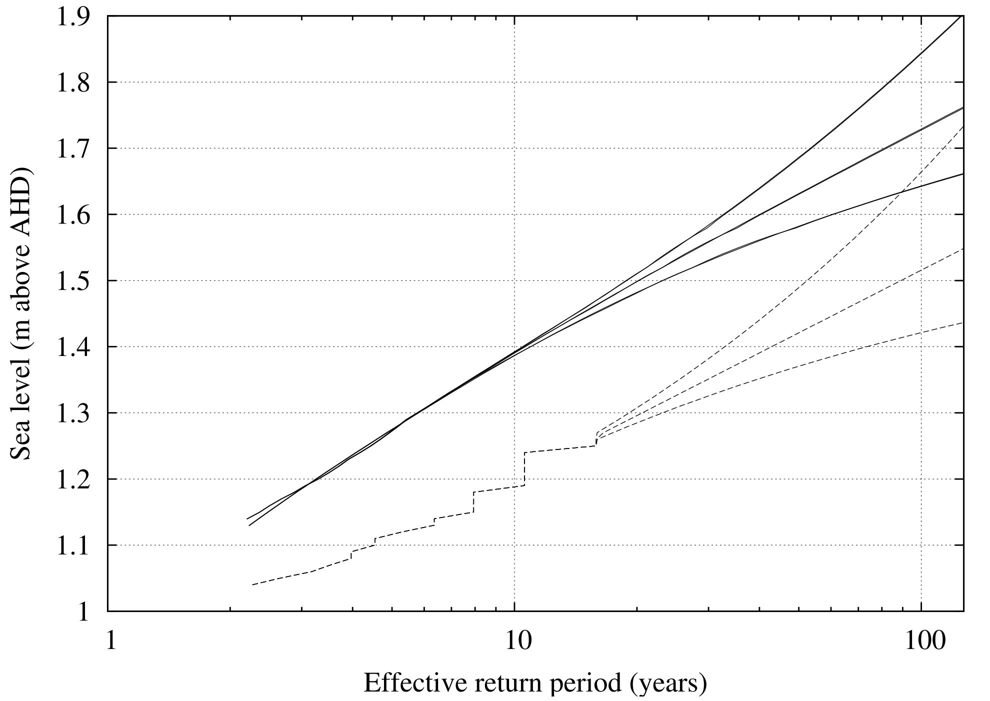

Figure 75: Effective return periods for Hobart, 2060, scenario A1B and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 45.

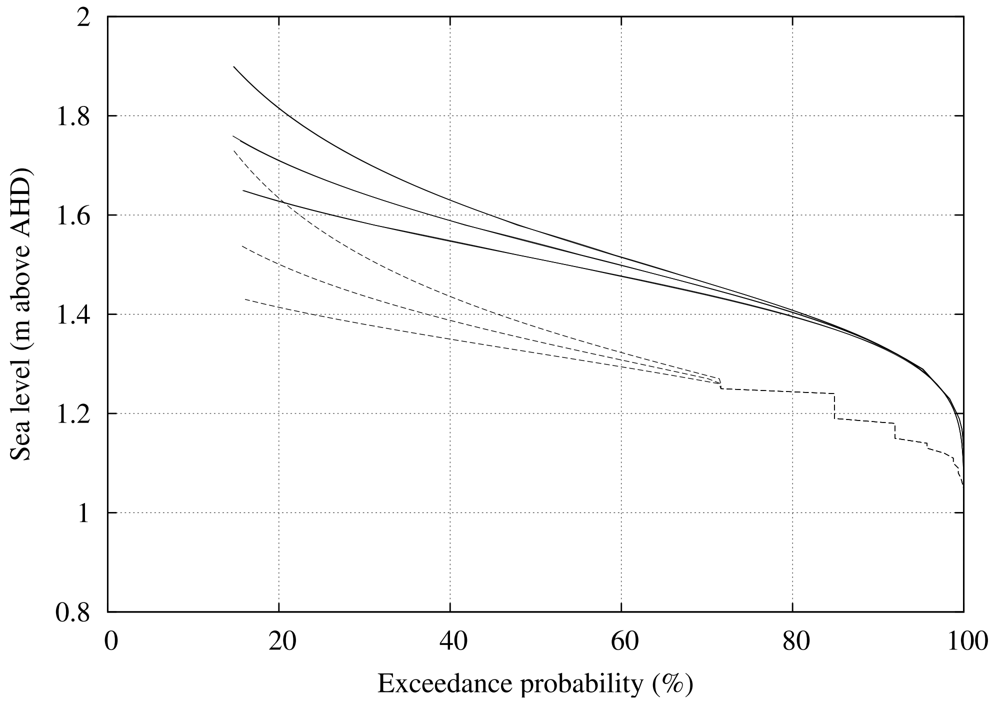

Figure 76: Exceedance probabilities for Hobart, 2060, scenario A1B and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 46.

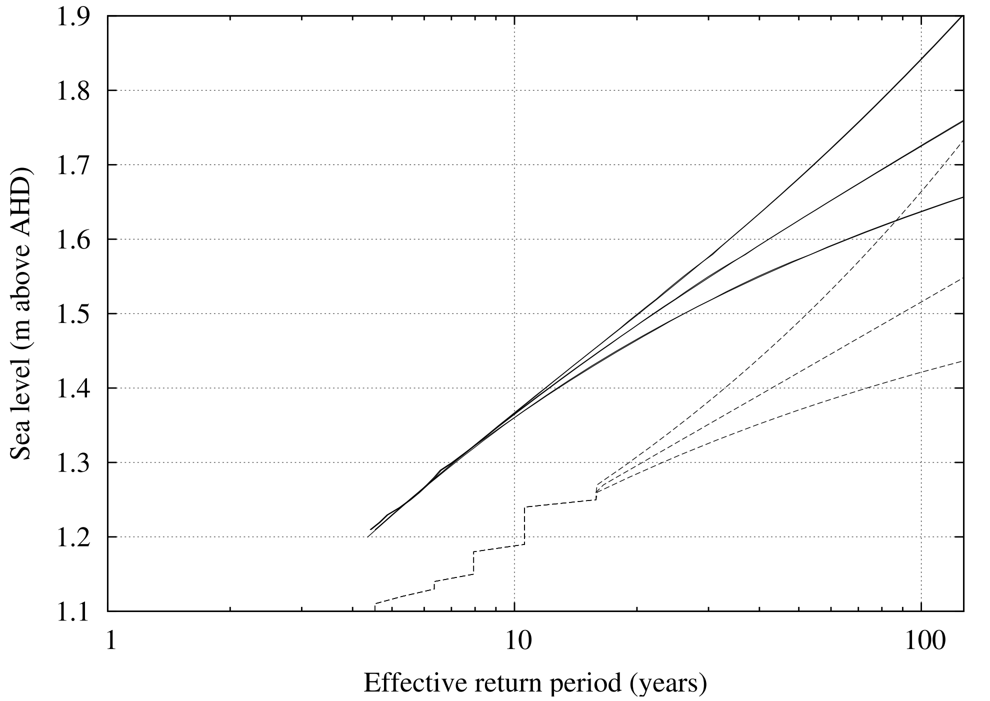

Figure 77: Effective return periods for Hobart, 2060, scenario A1B and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 46.

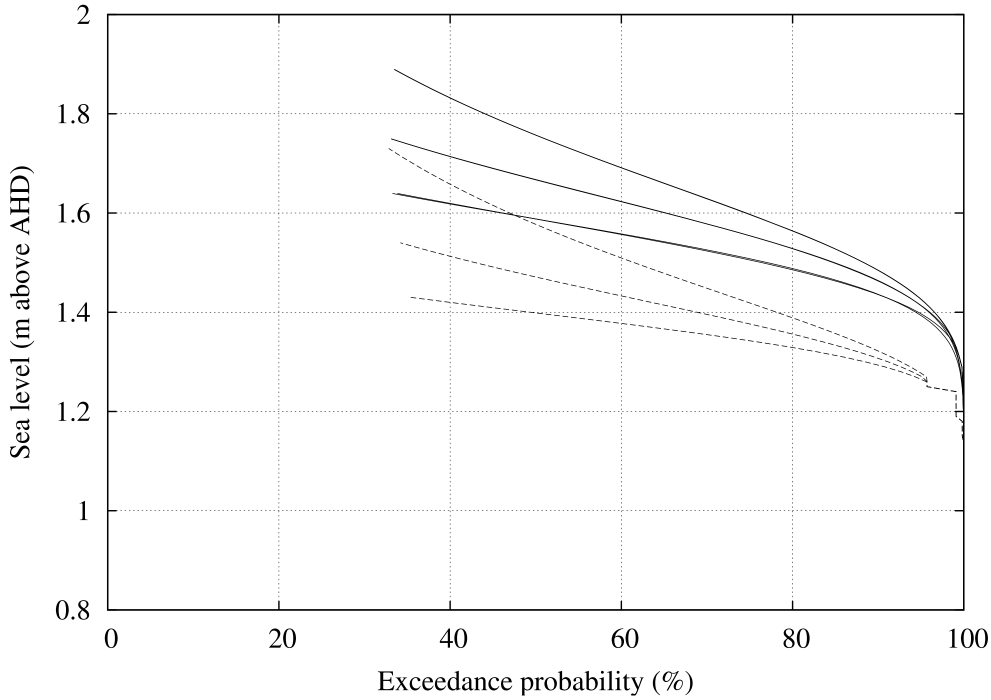

Figure 78: Exceedance probabilities for Hobart, 2060, scenario A1B and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 47.

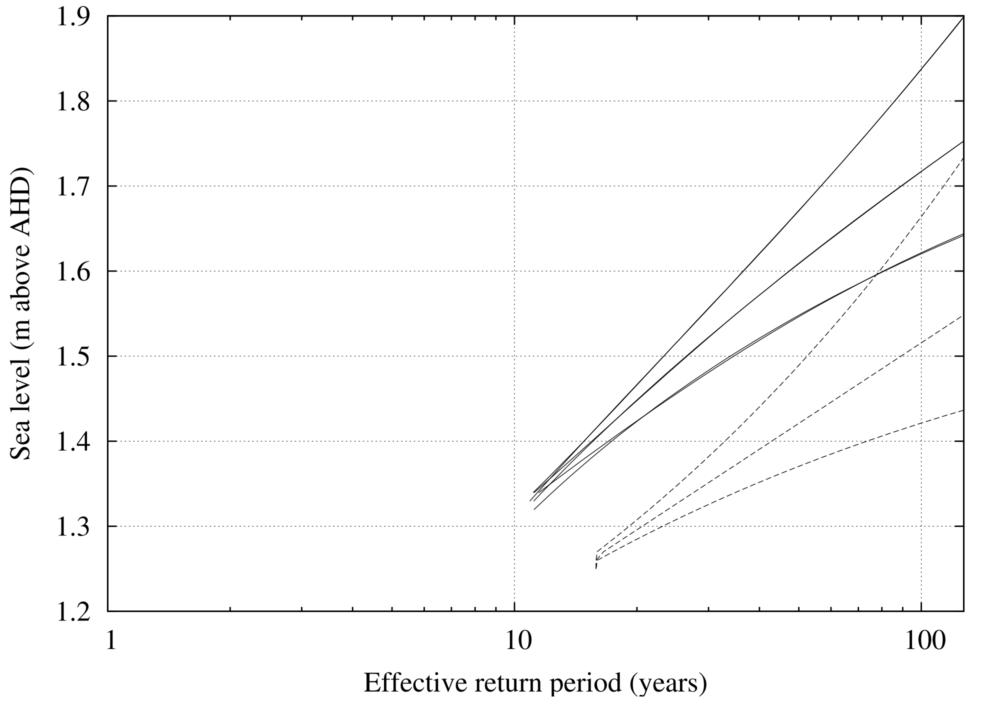

Figure 79: Effective return periods for Hobart, 2060, scenario A1B and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 47.

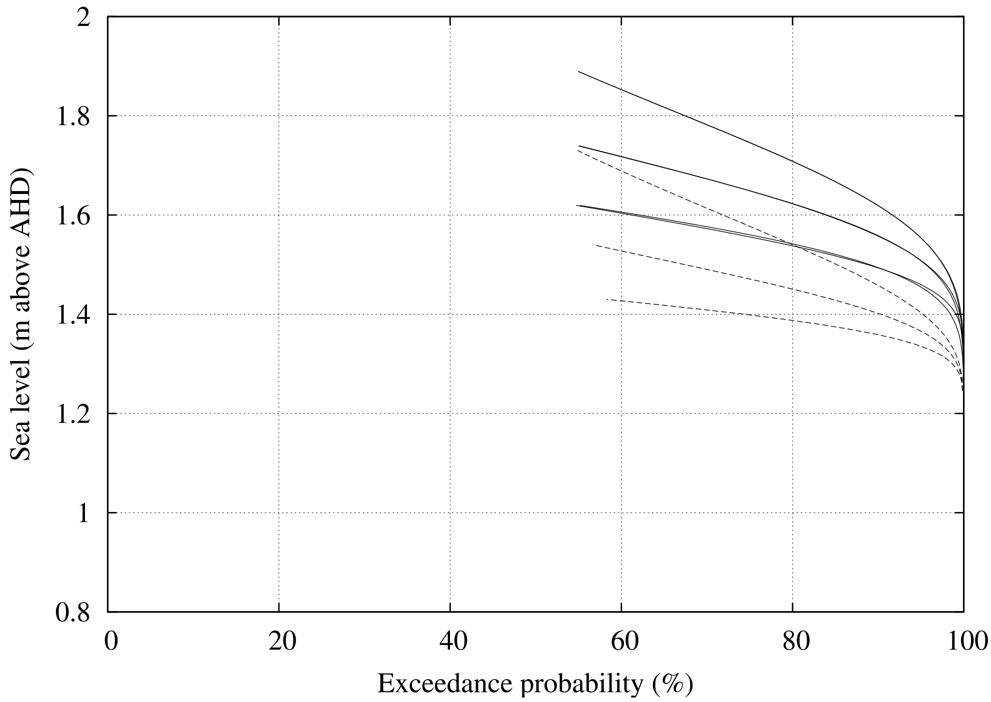

Figure 80: Exceedance probabilities for Hobart, 2060, scenario A1B and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 48.

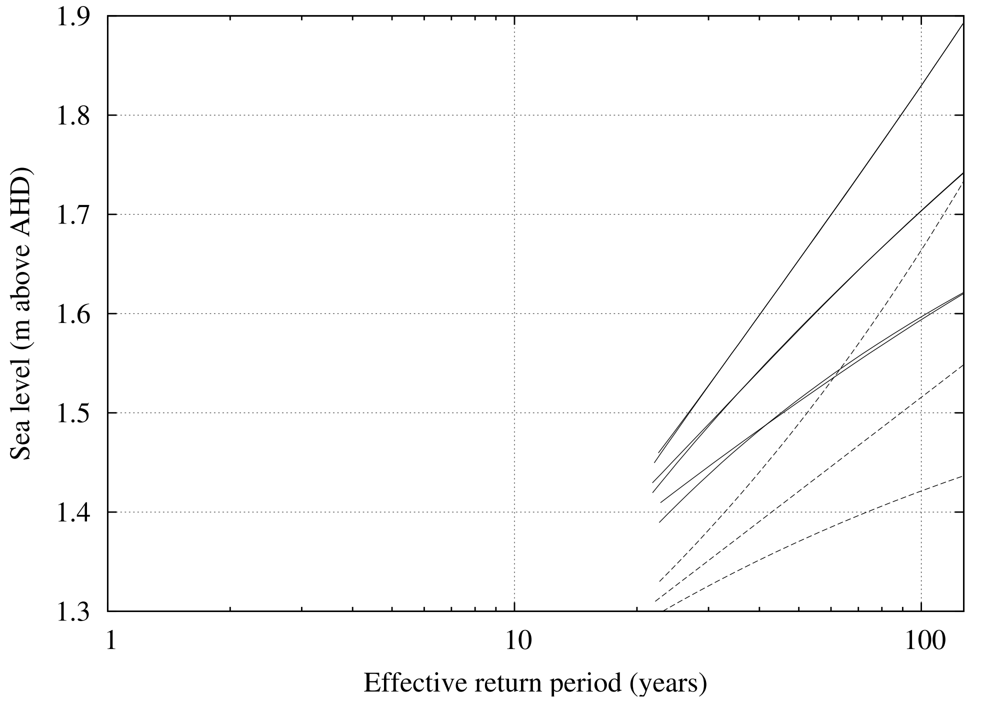

Figure 81: Effective return periods for Hobart, 2060, scenario A1B and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 48.

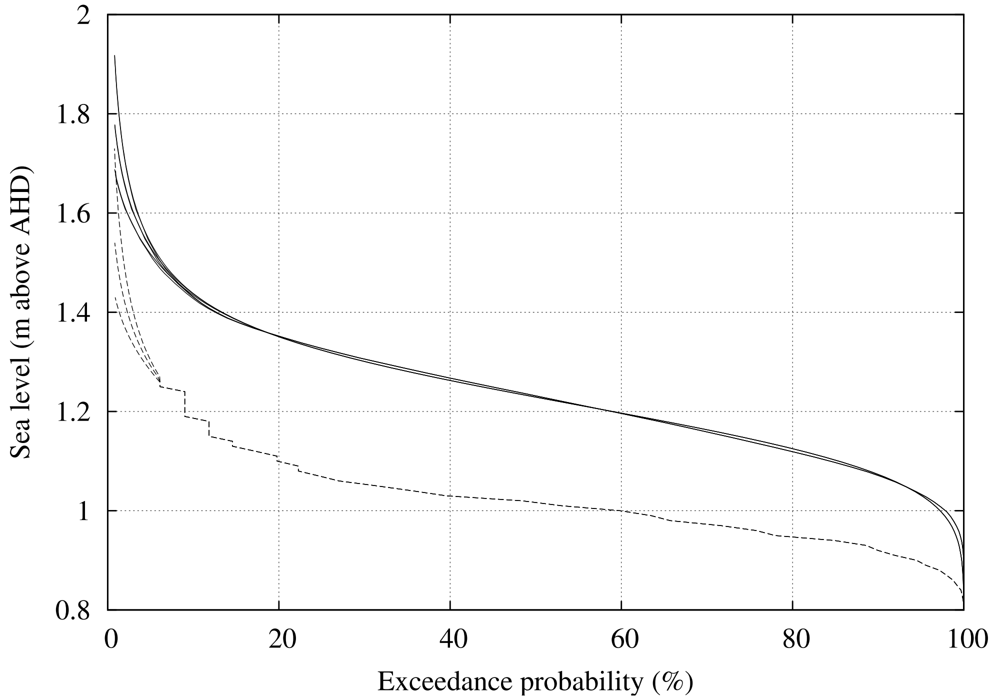

Figure 82: Exceedance probabilities for Hobart, 2060, scenario A1FI and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 49.

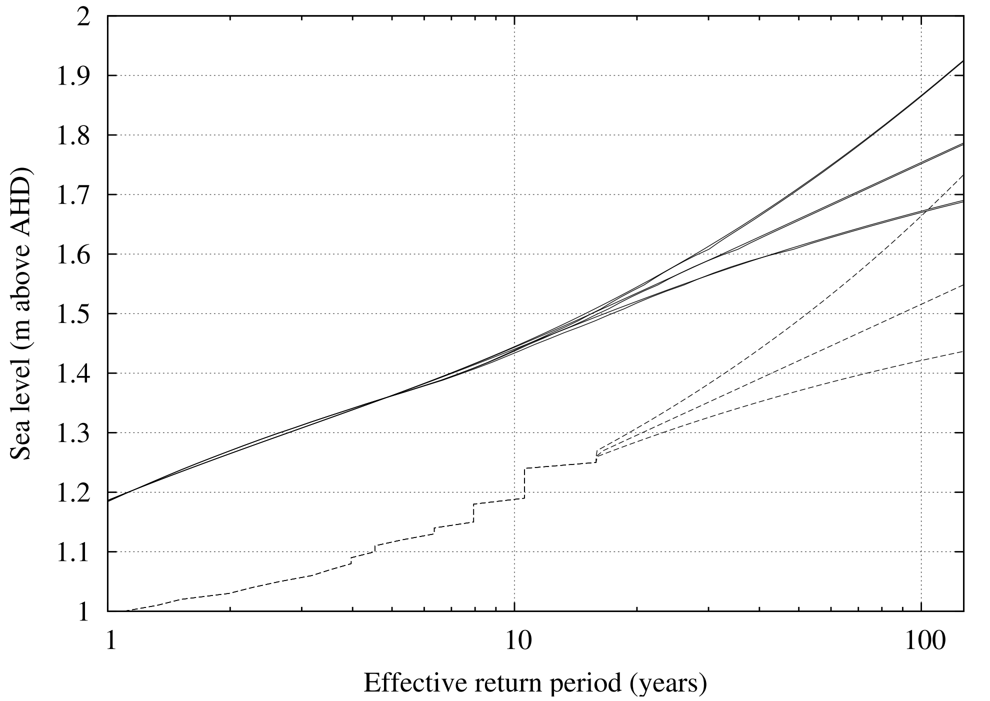

Figure 83: Effective return periods for Hobart, 2060, scenario A1FI and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 49.

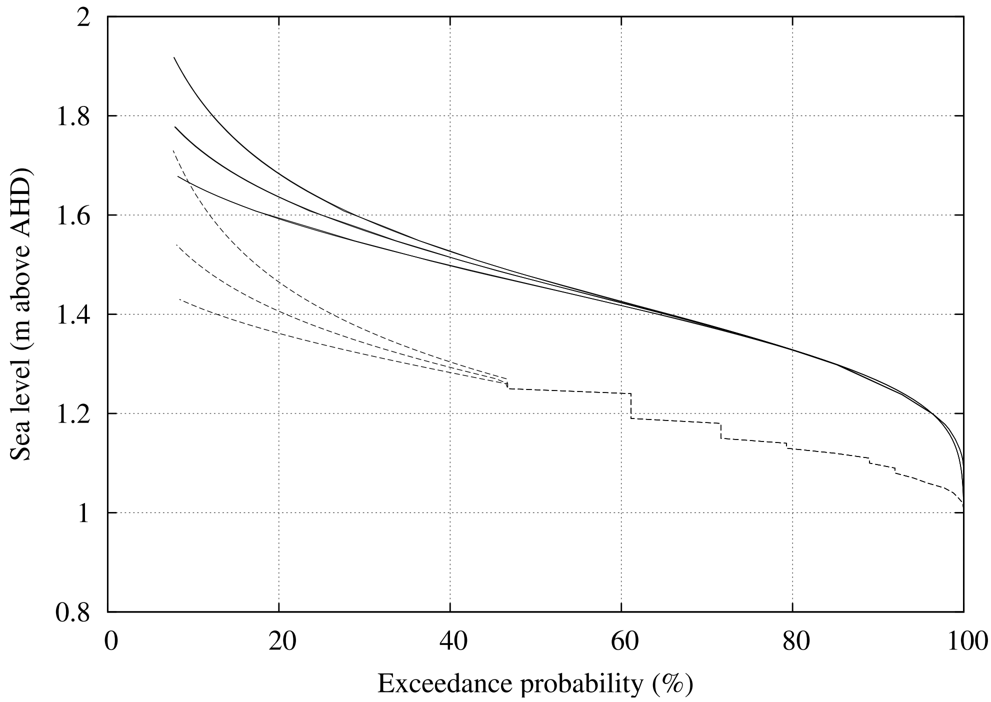

Figure 84: Exceedance probabilities for Hobart, 2060, scenario A1FI and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 50.

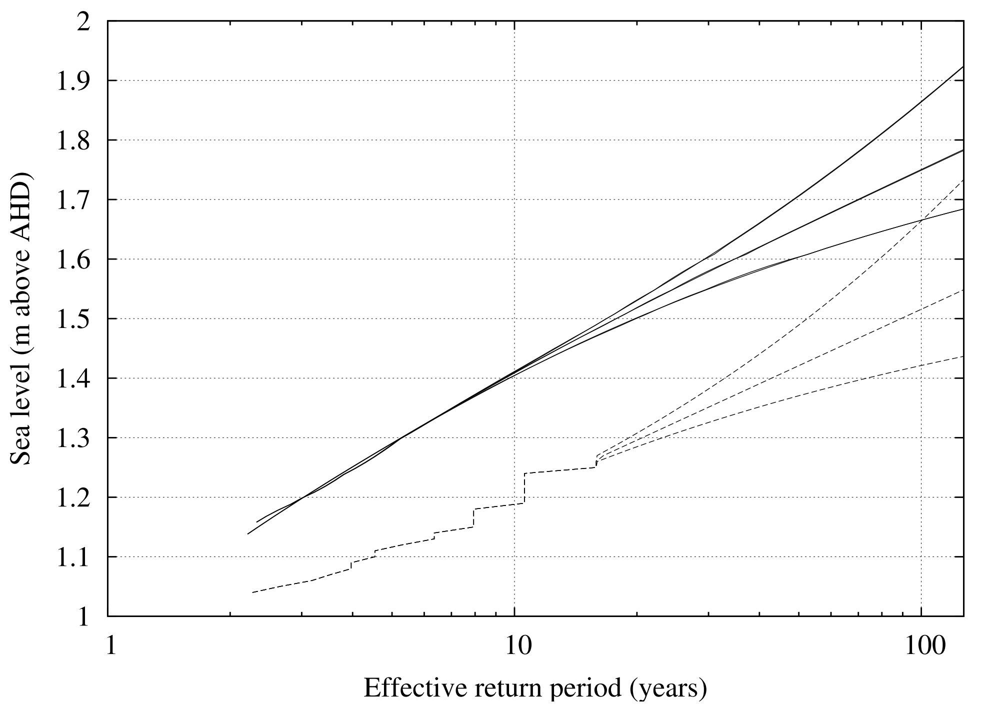

Figure 85: Effective return periods for Hobart, 2060, scenario A1FI and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 50.

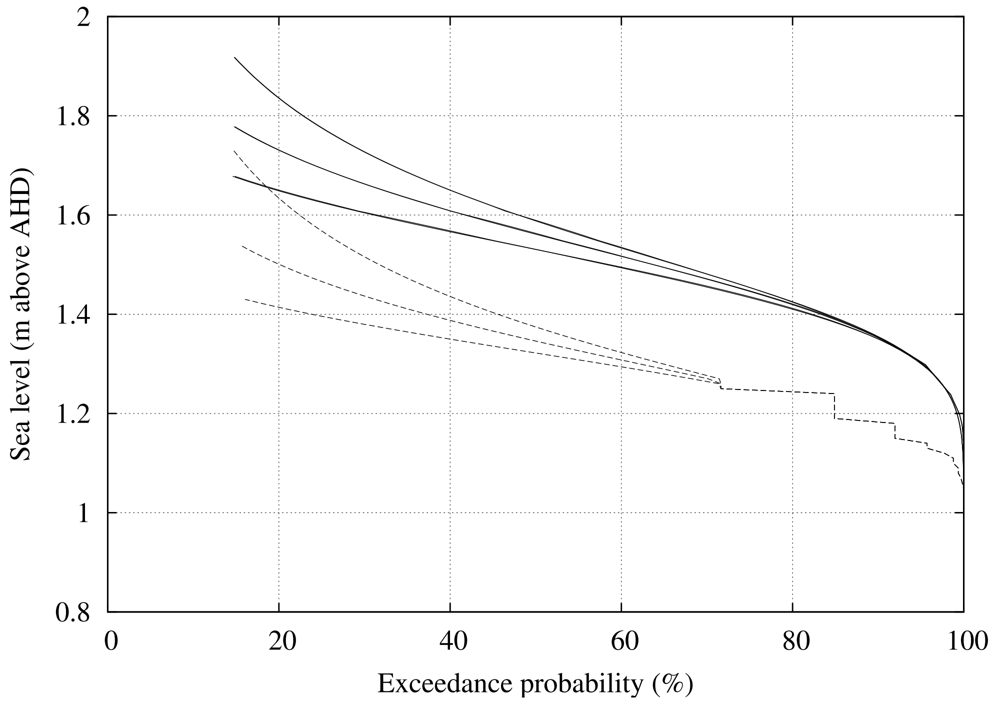

Figure 86: Exceedance probabilities for Hobart, 2060, scenario A1FI and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 51.

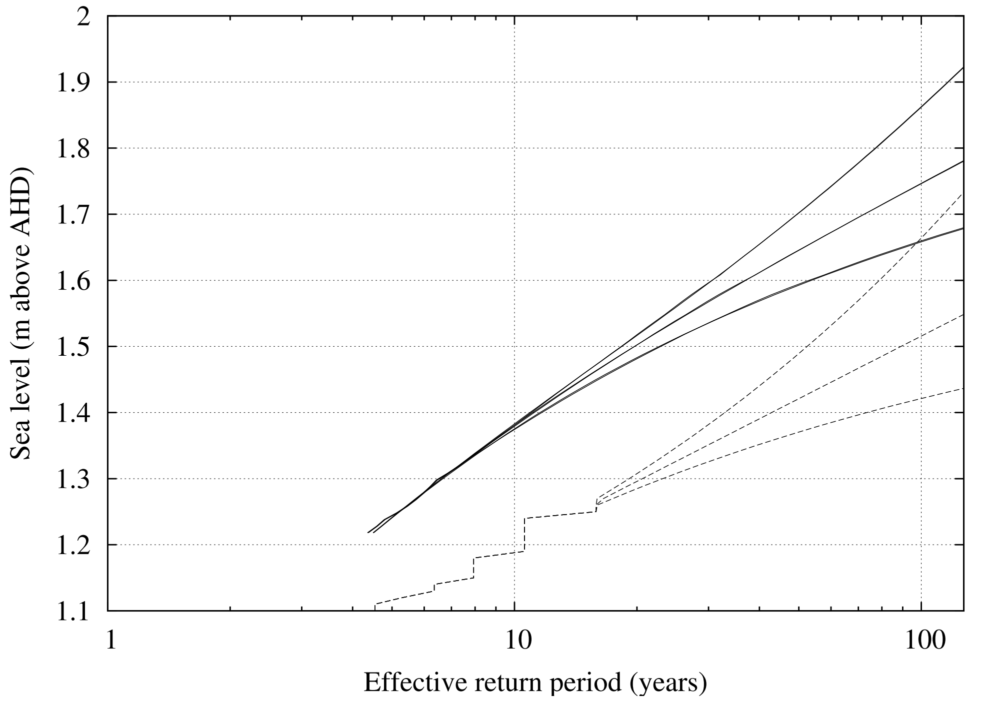

Figure 87: Effective return periods for Hobart, 2060, scenario A1FI and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 51.

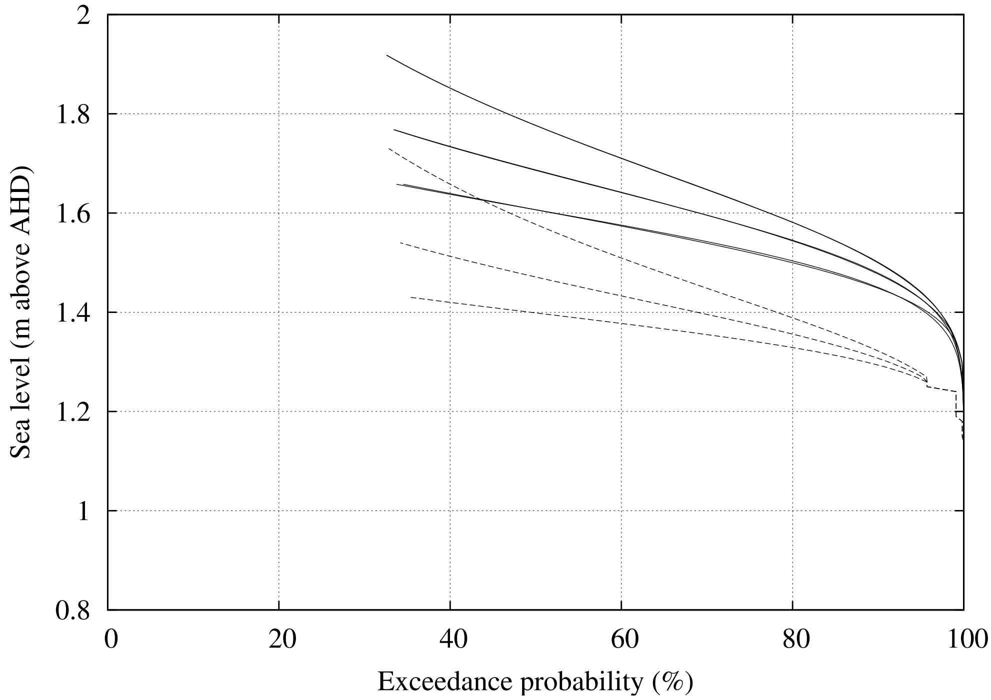

Figure 88: Exceedance probabilities for Hobart, 2060, scenario A1FI and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 52.

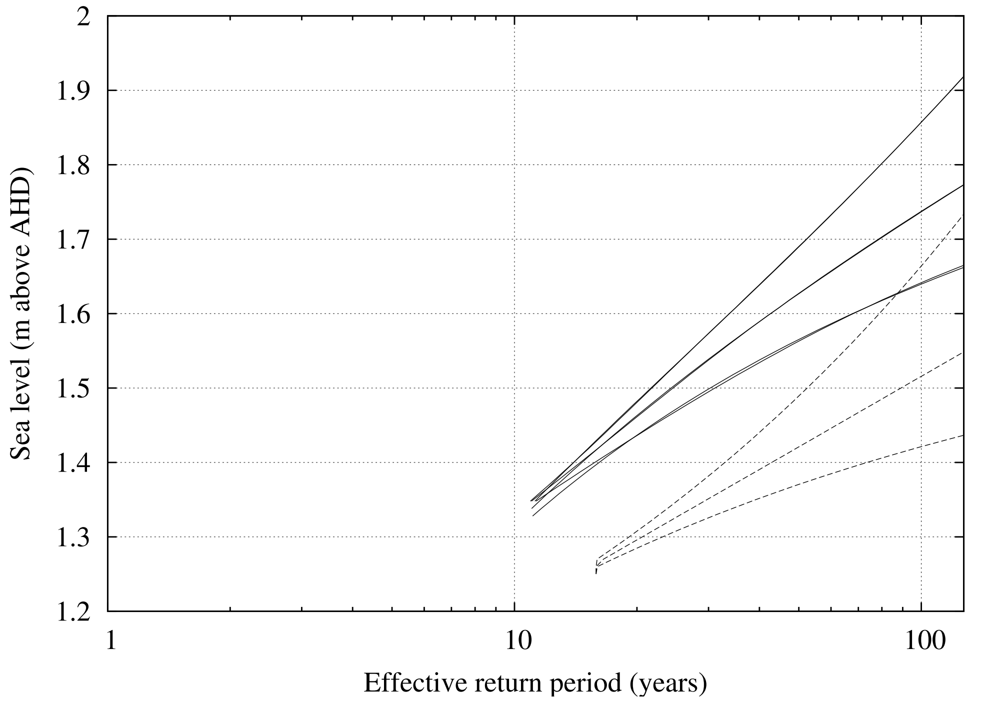

Figure 89: Effective return periods for Hobart, 2060, scenario A1FI and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 52.

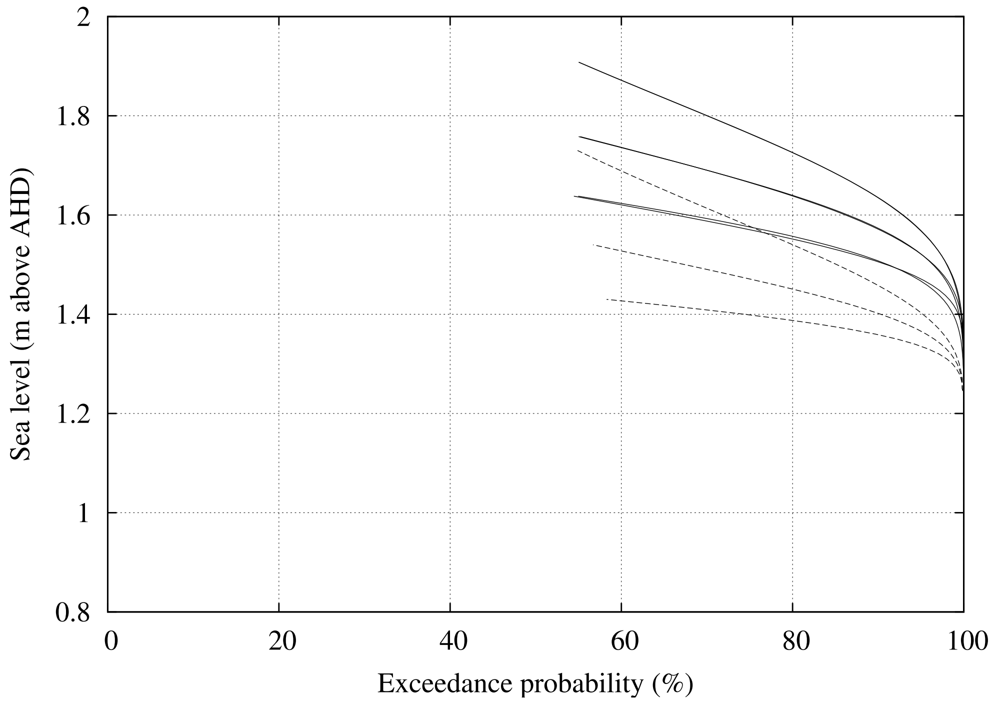

Figure 90: Exceedance probabilities for Hobart, 2060, scenario A1FI and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 53.

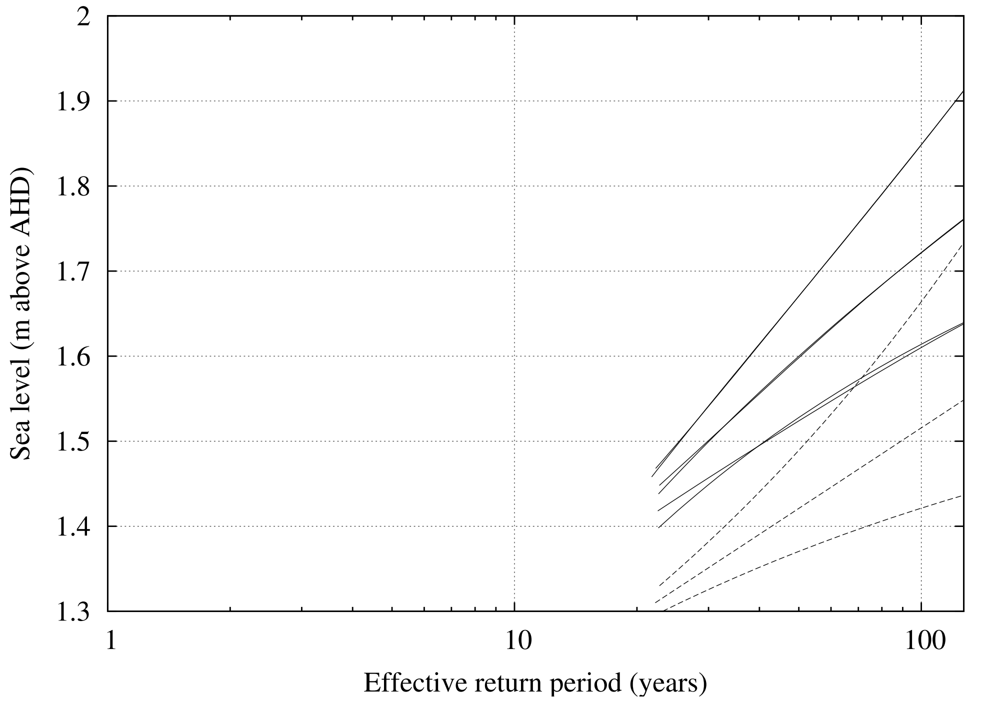

Figure 91: Effective return periods for Hobart, 2060, scenario A1FI and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 53.

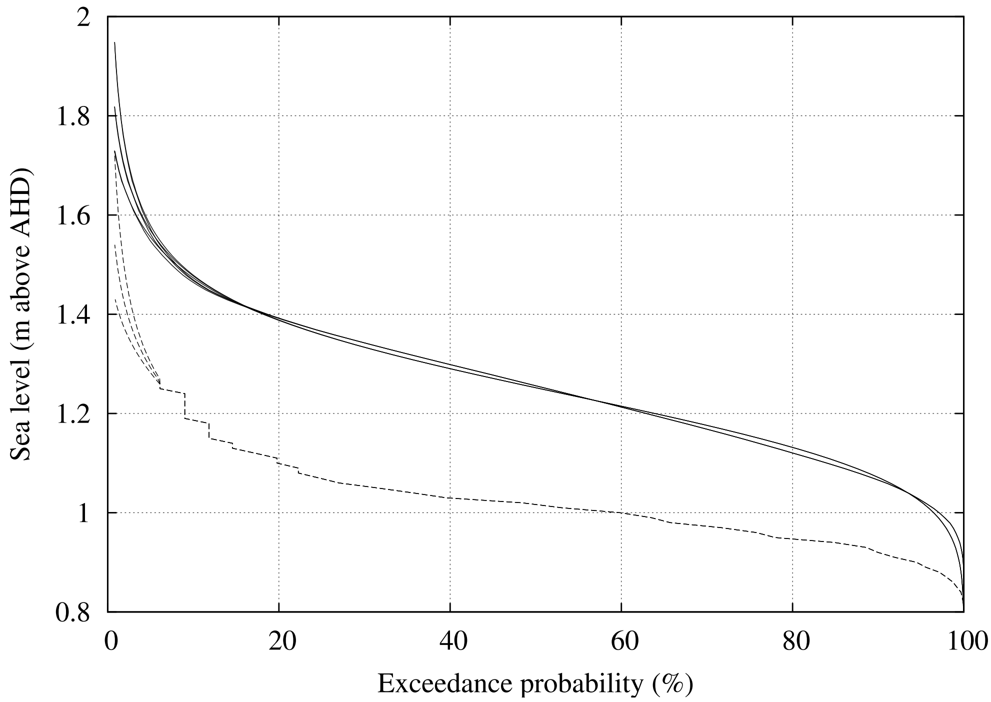

Figure 92: Exceedance probabilities for Hobart, 2080, scenario B1 and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 54.

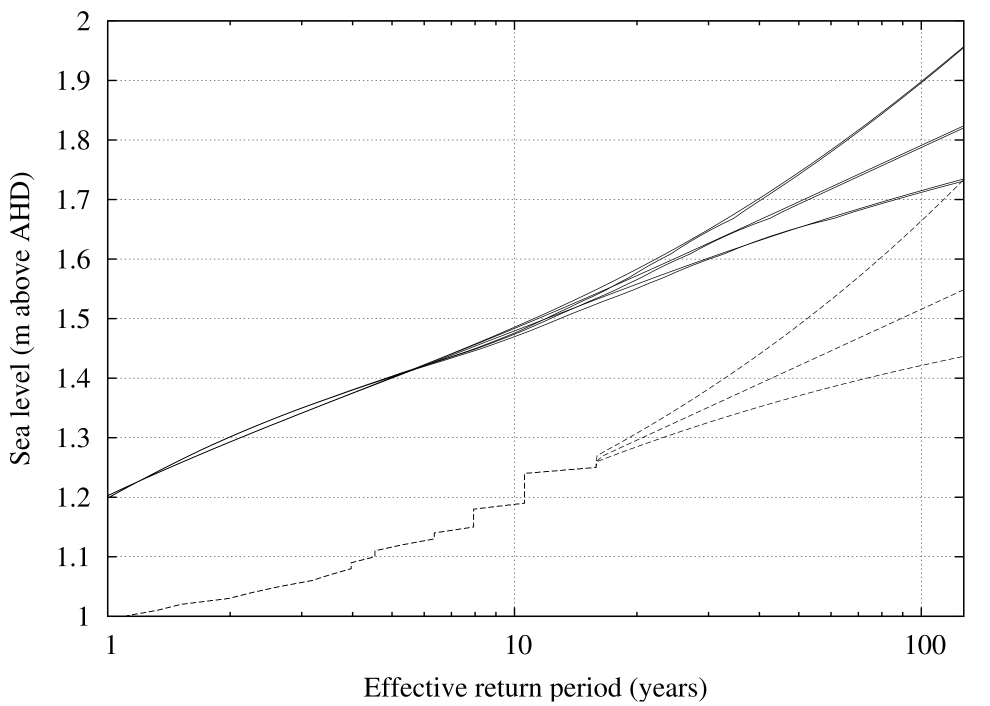

Figure 93: Effective return periods for Hobart, 2080, scenario B1 and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 54.

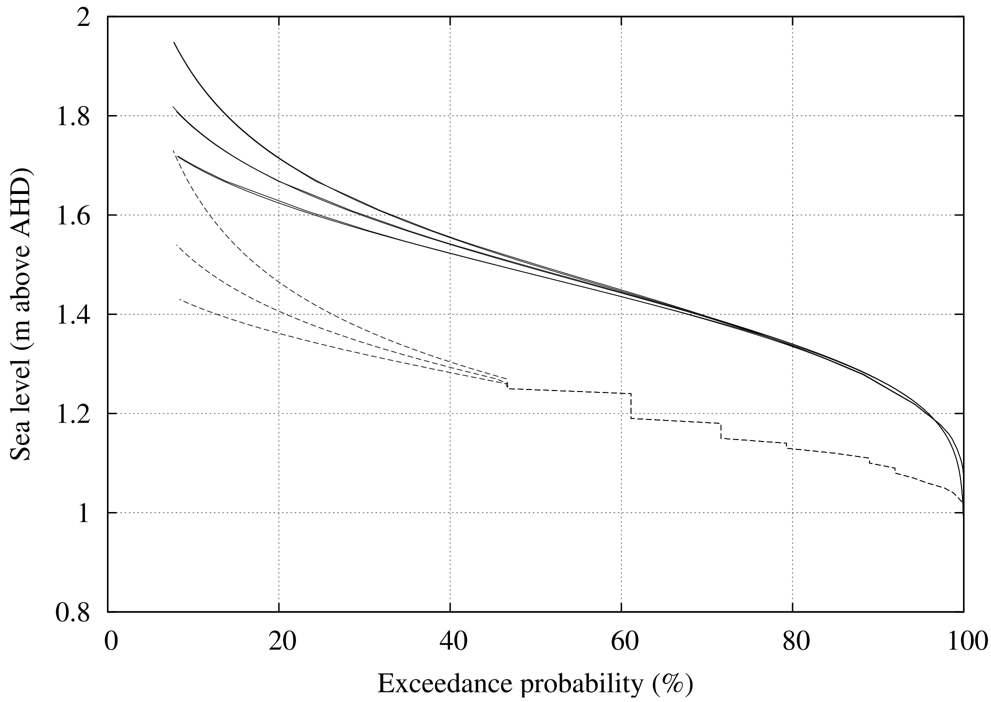

Figure 94: Exceedance probabilities for Hobart, 2080, scenario B1 and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 55.

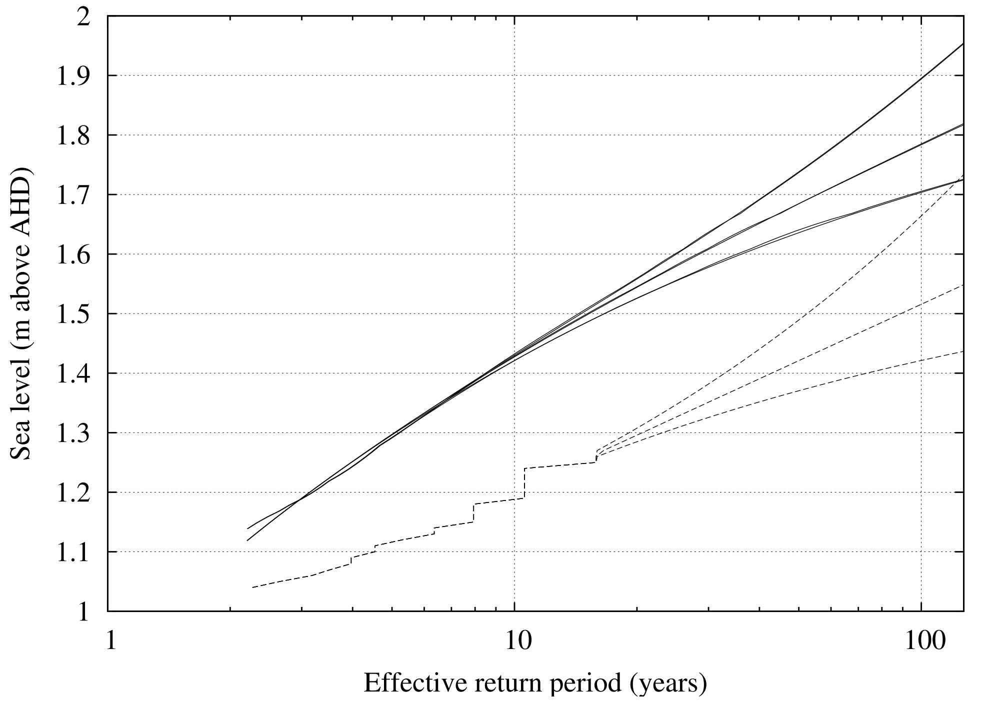

Figure 95: Effective return periods for Hobart, 2080, scenario B1 and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 55.

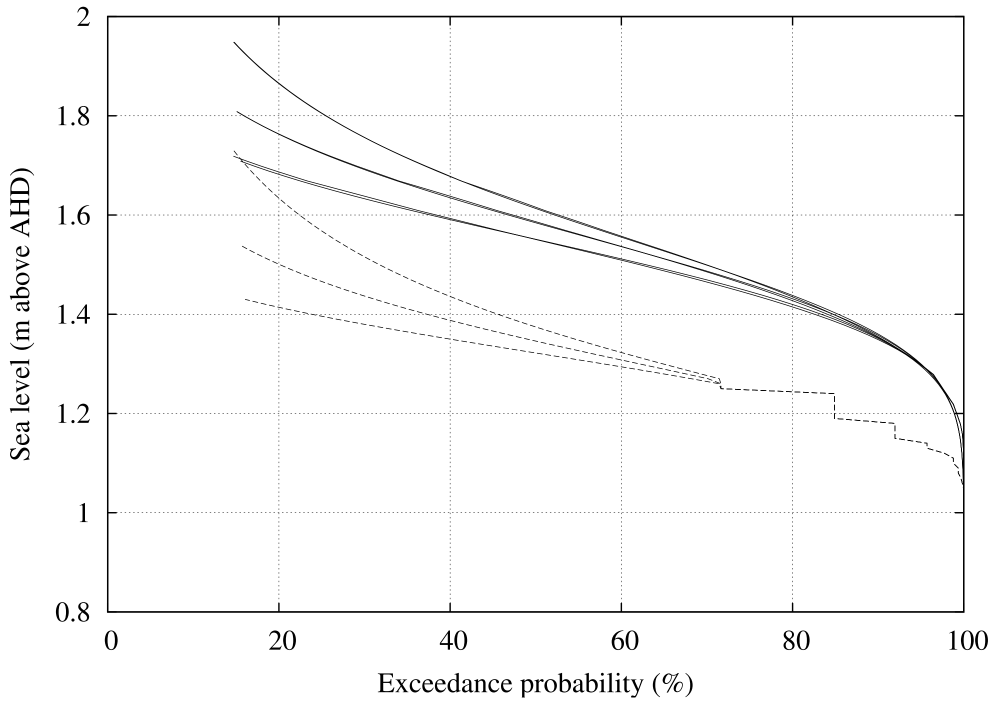

Figure 96: Exceedance probabilities for Hobart, 2080, scenario B1 and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 56.

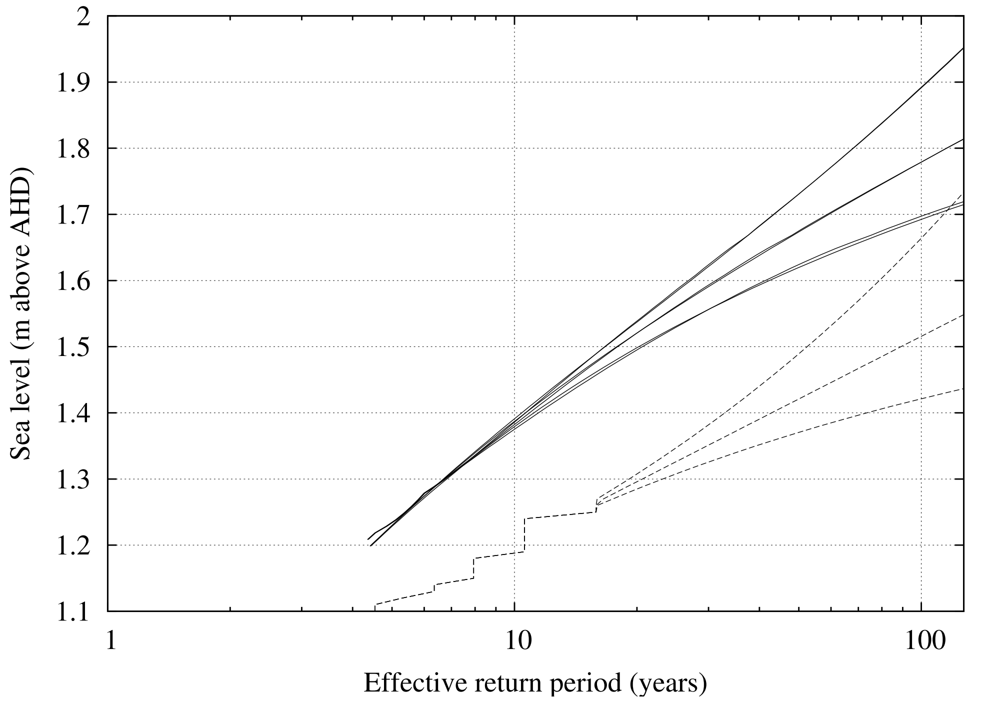

Figure 97: Effective return periods for Hobart, 2080, scenario B1 and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 56.

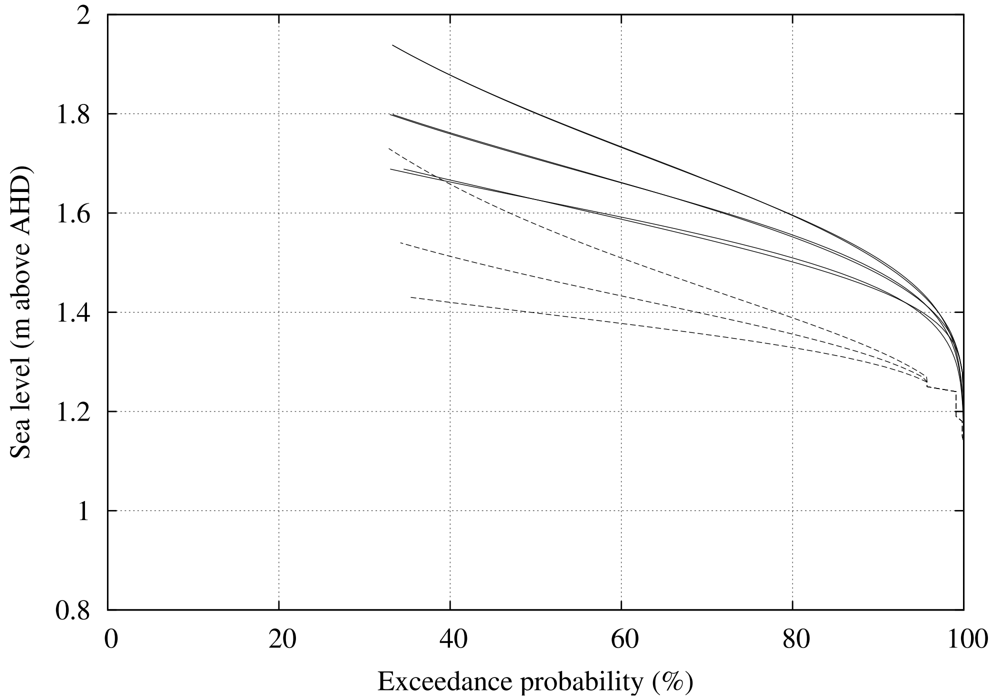

Figure 98: Exceedance probabilities for Hobart, 2080, scenario B1 and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 57.

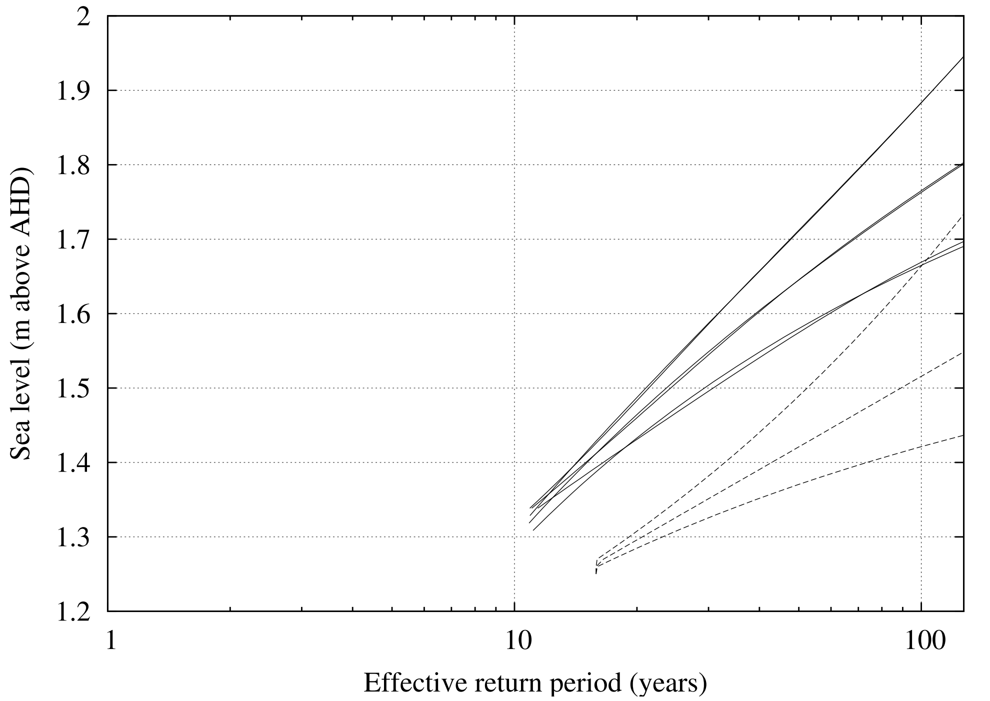

Figure 99: Effective return periods for Hobart, 2080, scenario B1 and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 57.

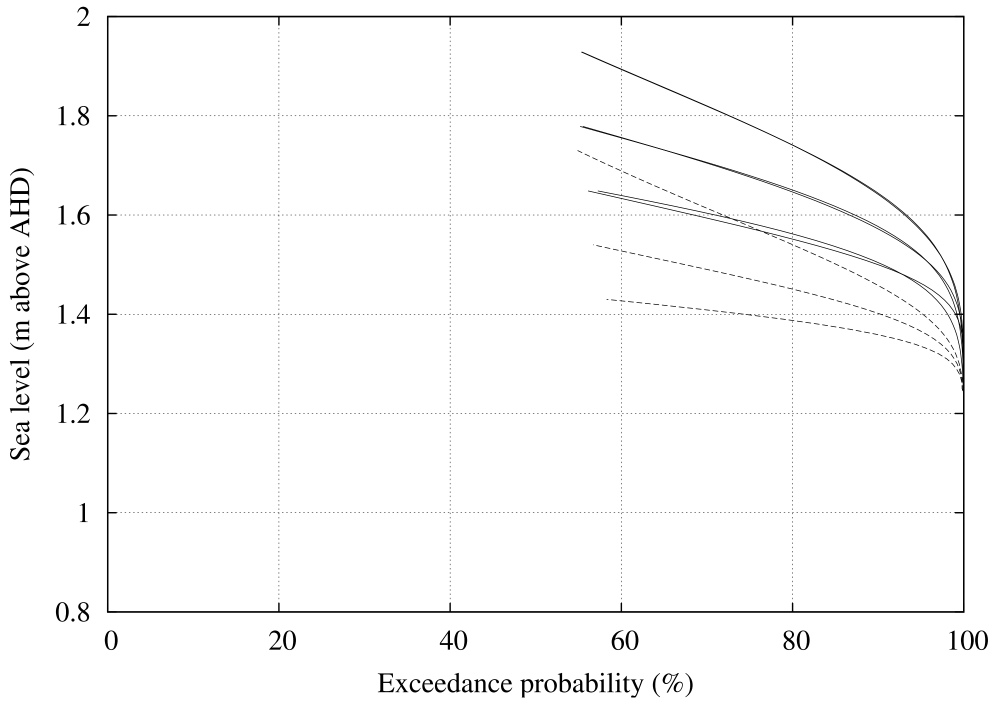

Figure 100: Exceedance probabilities for Hobart, 2080, scenario B1 and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 58.

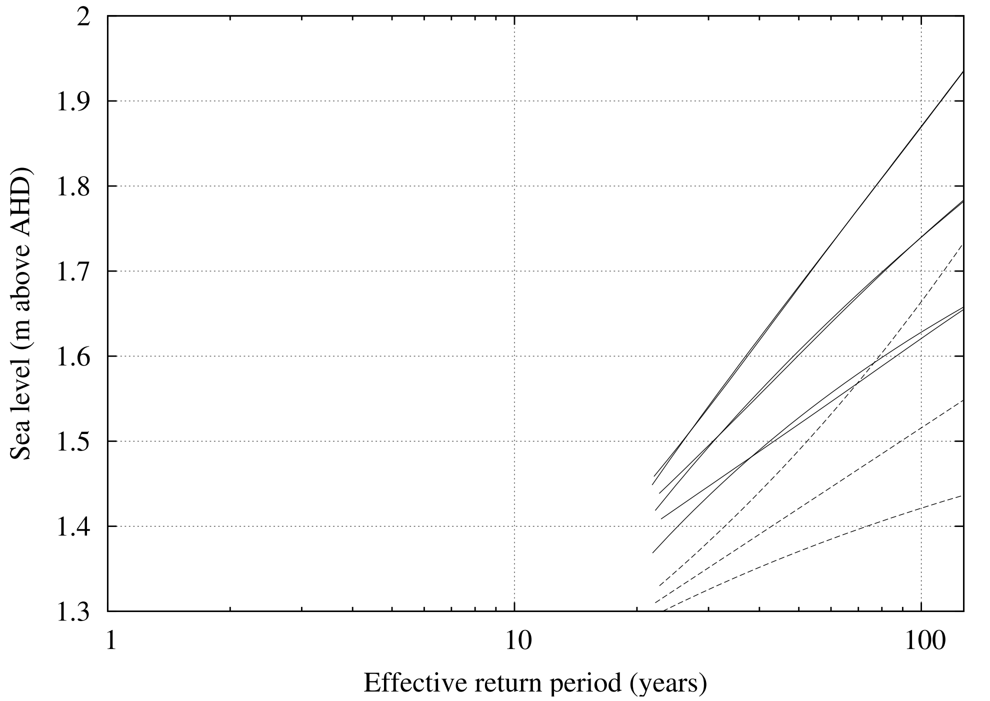

Figure 101: Effective return periods for Hobart, 2080, scenario B1 and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 58.

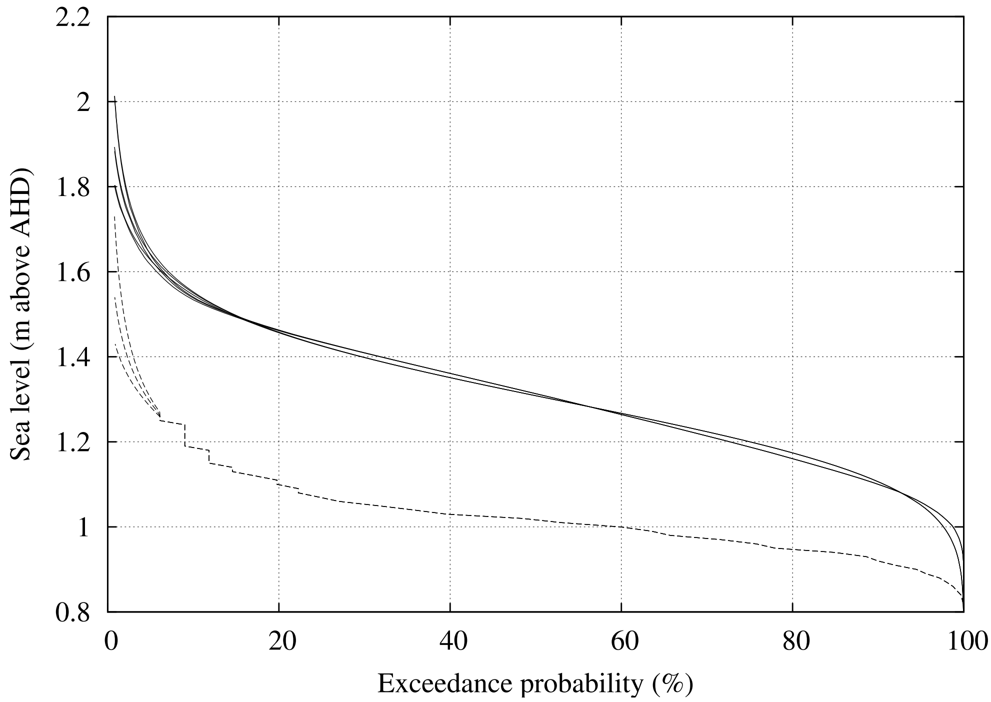

Figure 102: Exceedance probabilities for Hobart, 2080, scenario A1B and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 59.

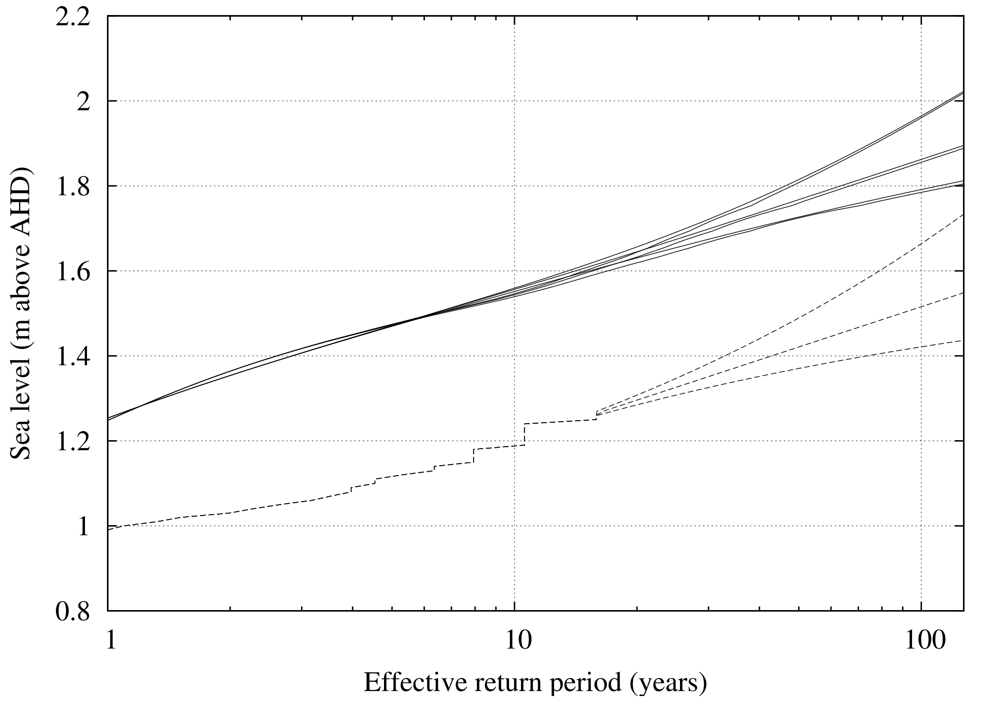

Figure 103: Effective return periods for Hobart, 2080, scenario A1B and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 59.

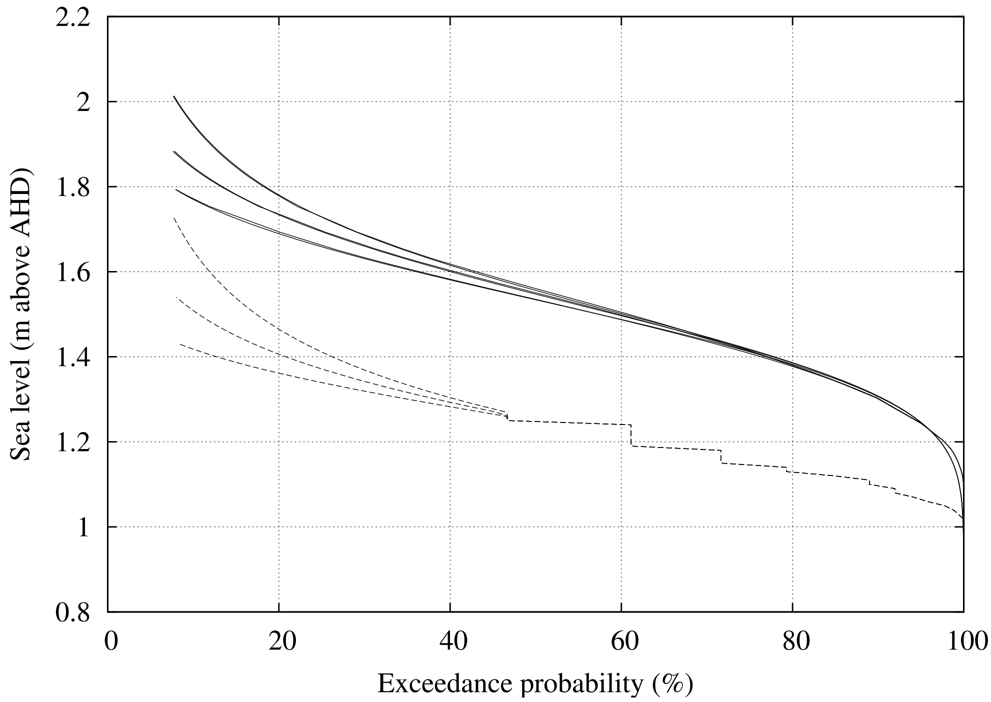

Figure 104: Exceedance probabilities for Hobart, 2080, scenario A1B and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 60.

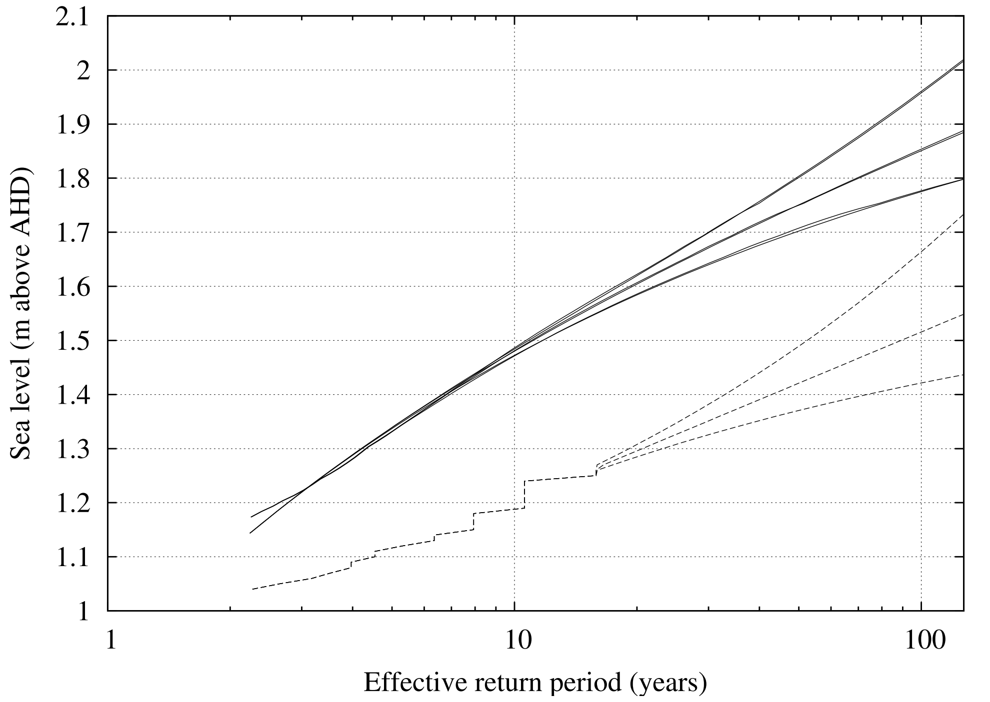

Figure 105: Effective return periods for Hobart, 2080, scenario A1B and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 60.

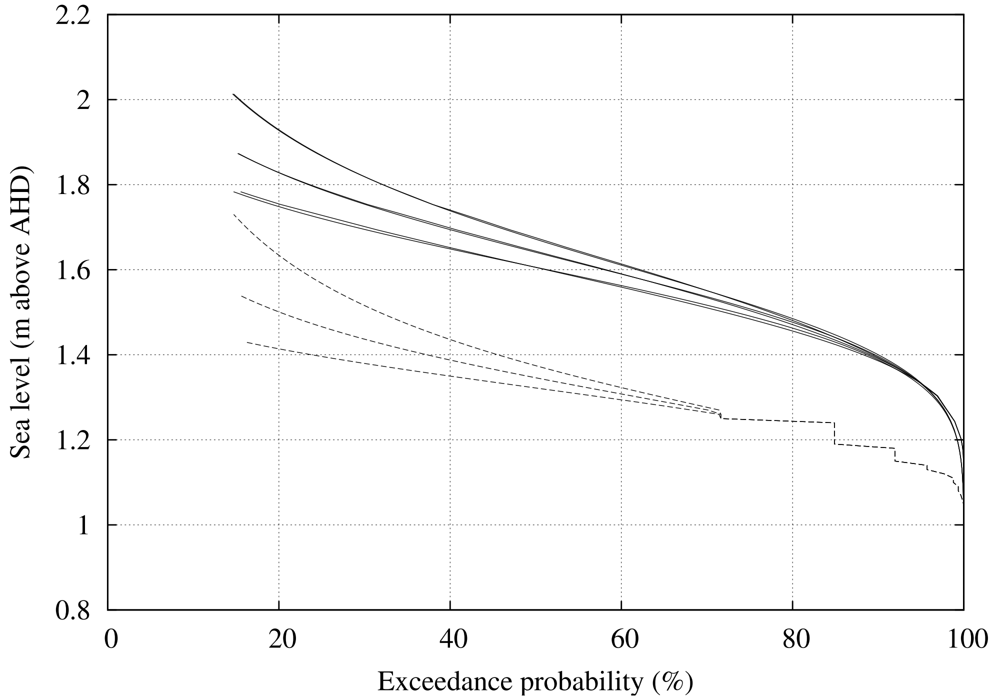

Figure 106: Exceedance probabilities for Hobart, 2080, scenario A1B and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 61.

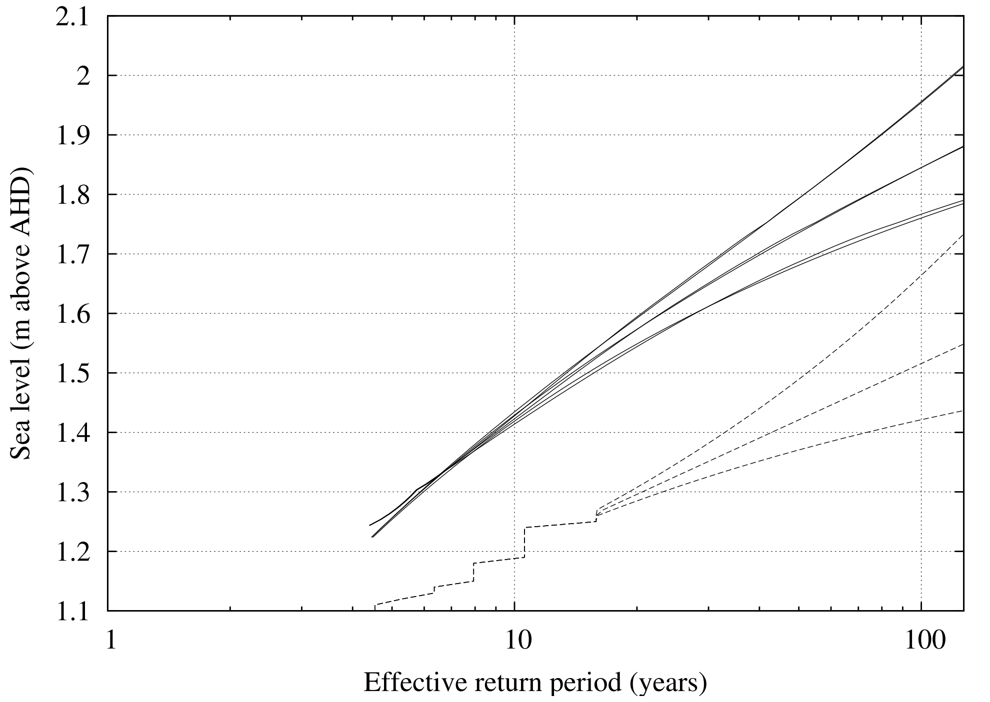

Figure 107: Effective return periods for Hobart, 2080, scenario A1B and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 61.

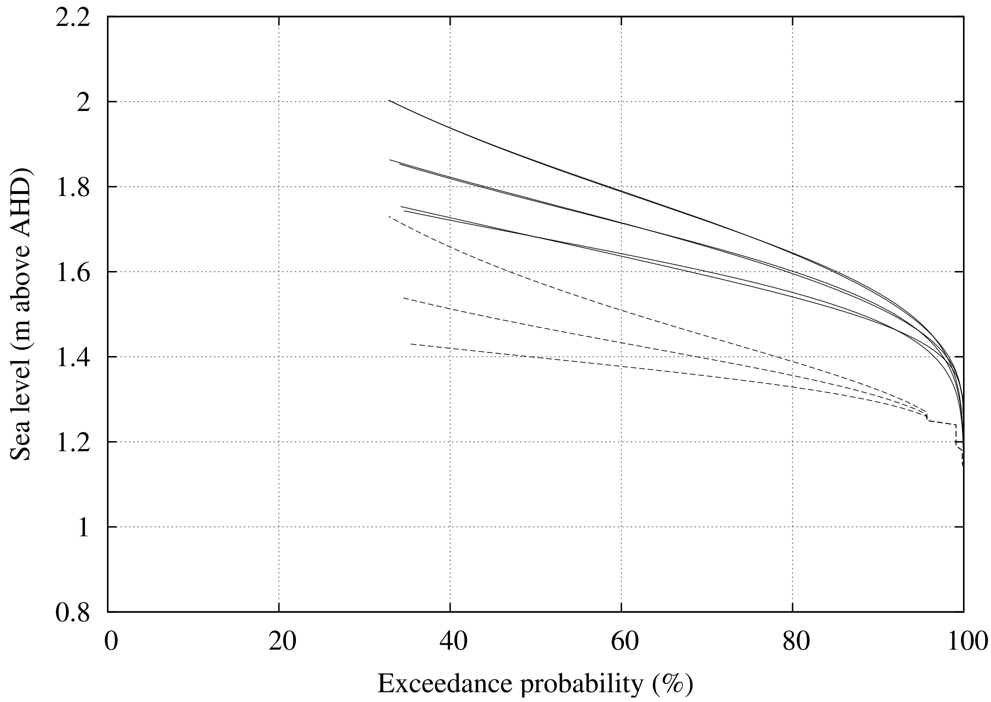

Figure 108: Exceedance probabilities for Hobart, 2080, scenario A1B and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 62.

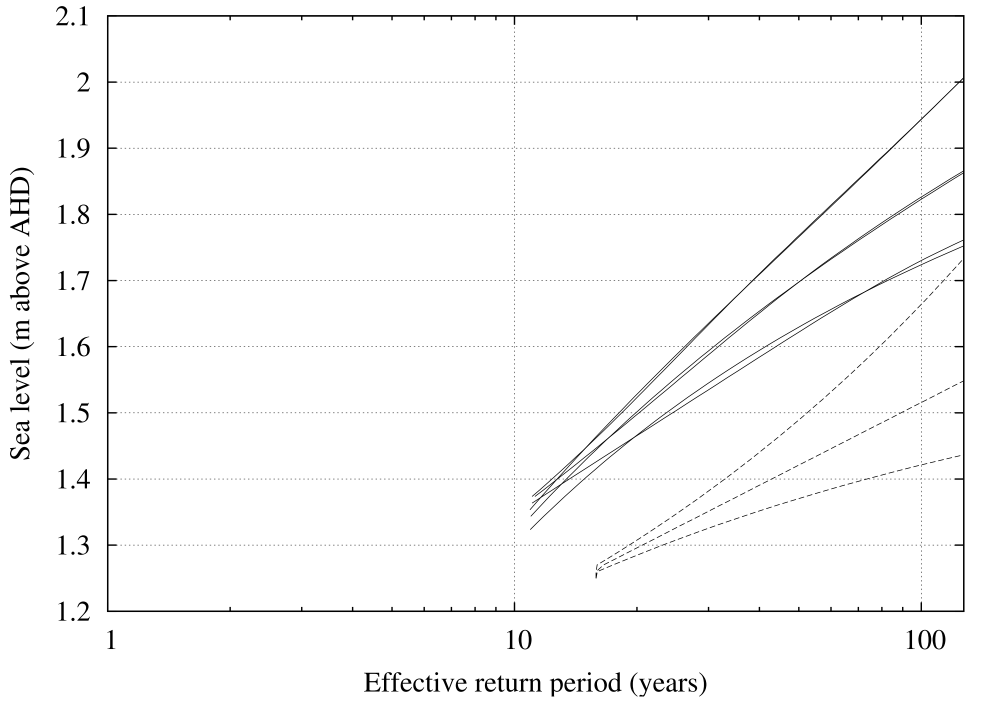

Figure 109: Effective return periods for Hobart, 2080, scenario A1B and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 62.

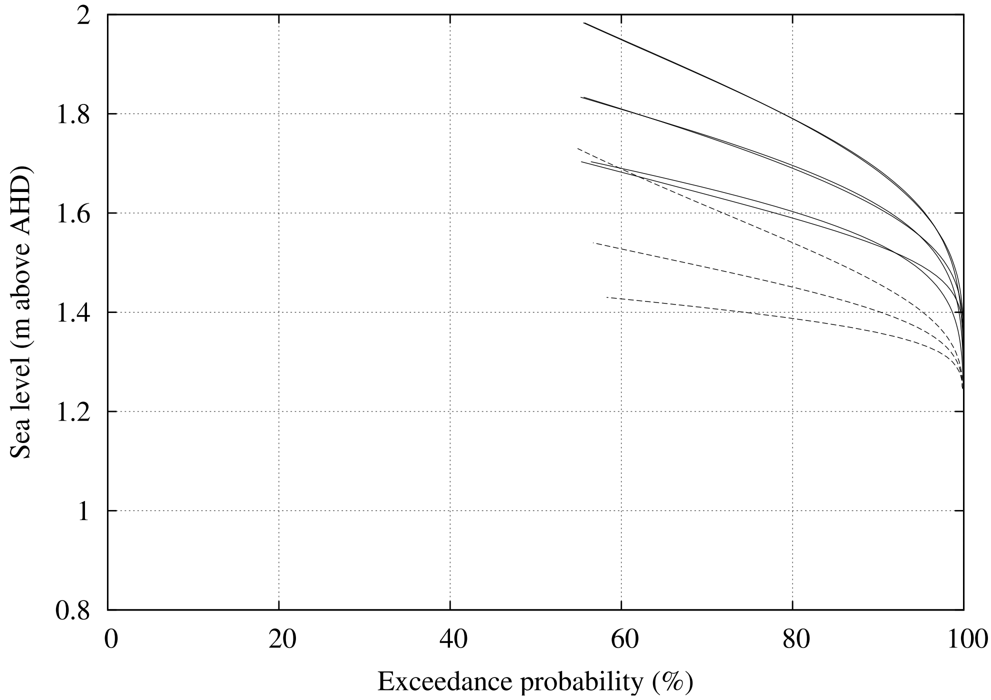

Figure 110: Exceedance probabilities for Hobart, 2080, scenario A1B and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 63.

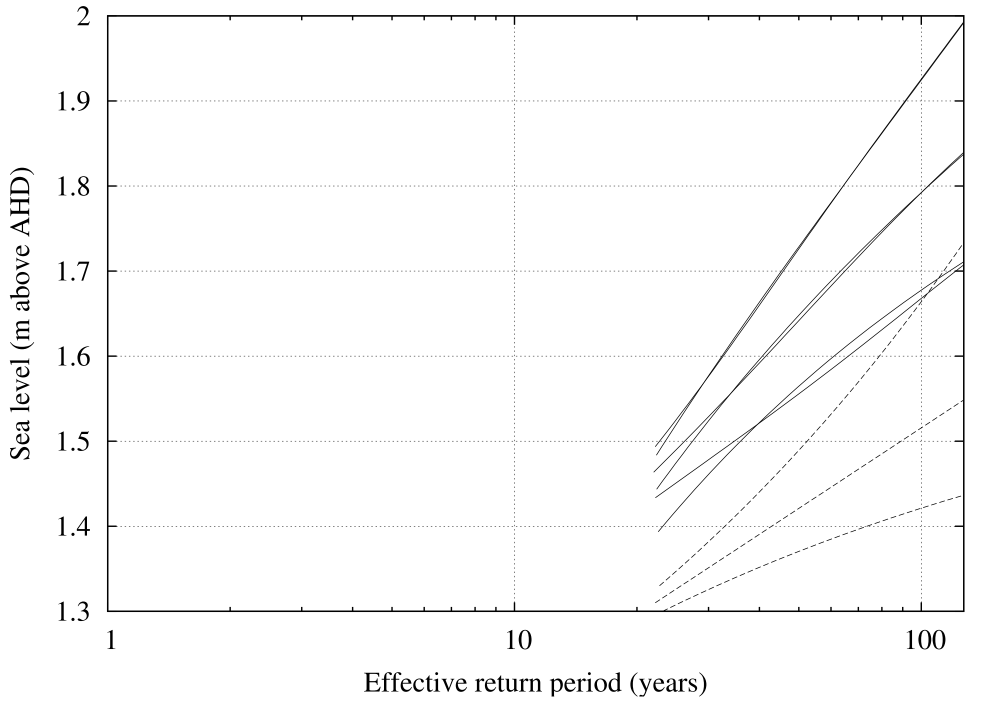

Figure 111: Effective return periods for Hobart, 2080, scenario A1B and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 63.

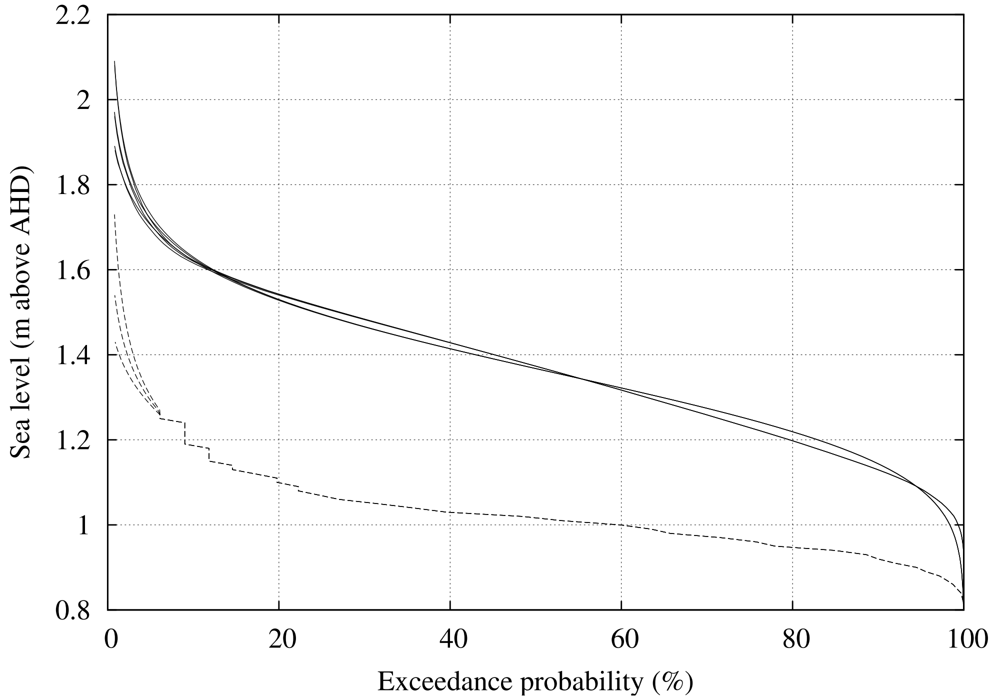

Figure 112: Exceedance probabilities for Hobart, 2080, scenario A1FI and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 64.

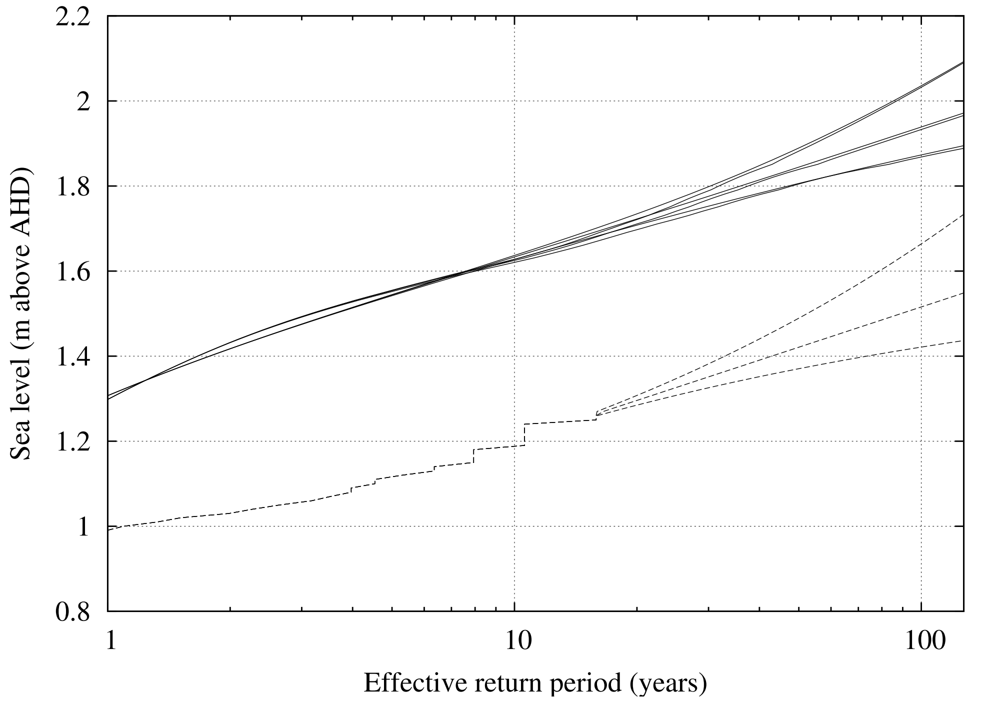

Figure 113: Effective return periods for Hobart, 2080, scenario A1FI and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 64.

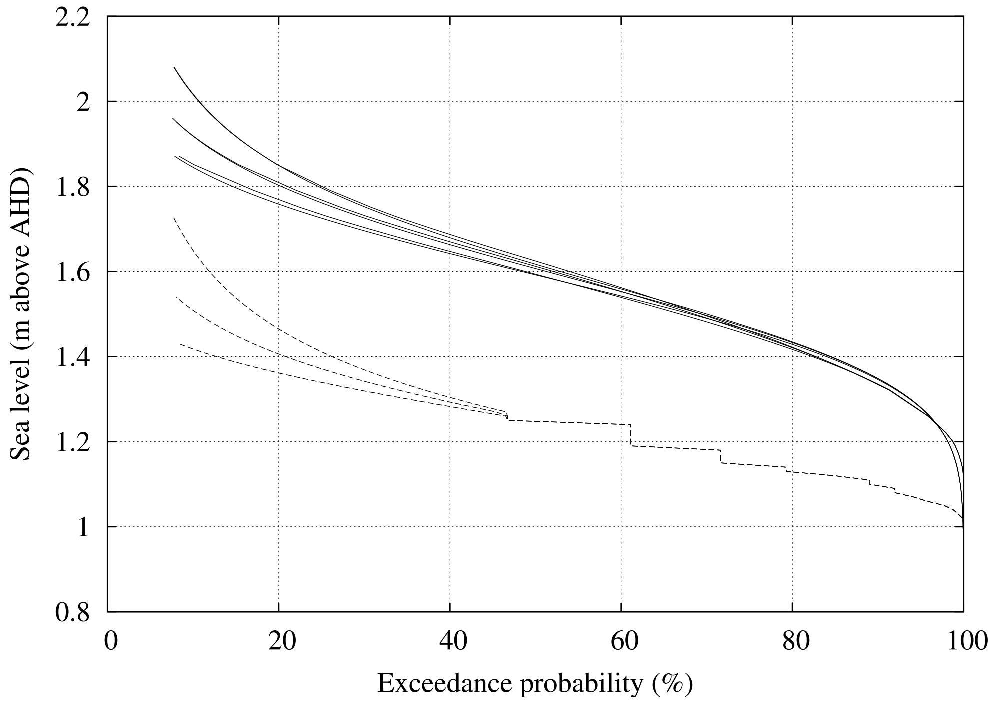

Figure 114: Exceedance probabilities for Hobart, 2080, scenario A1FI and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 65.

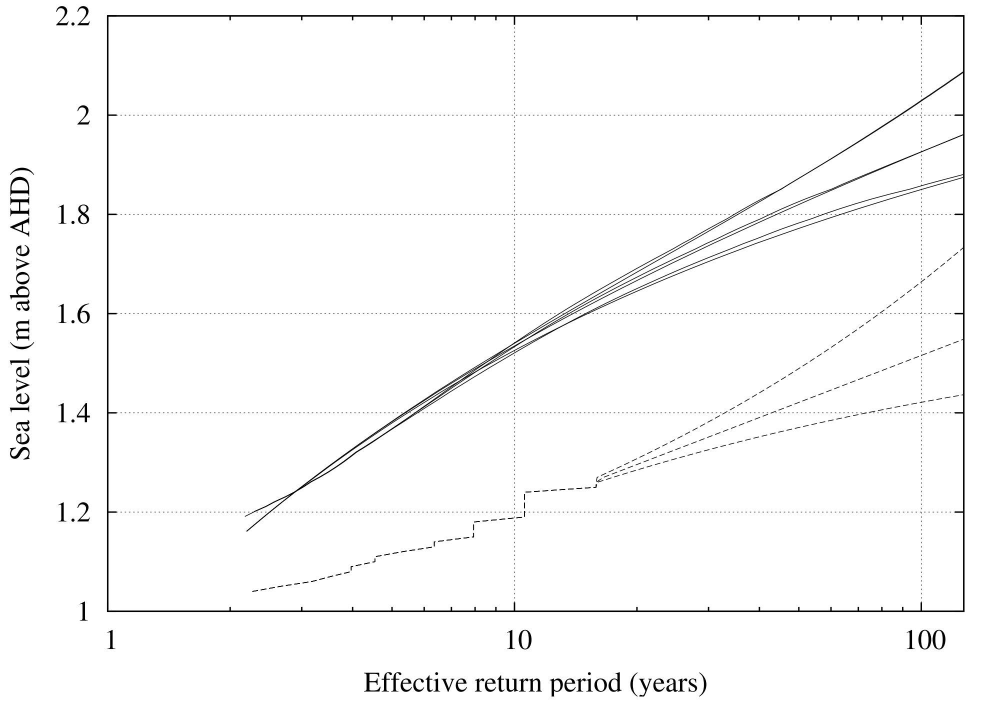

Figure 115: Effective return periods for Hobart, 2080, scenario A1FI and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 65.

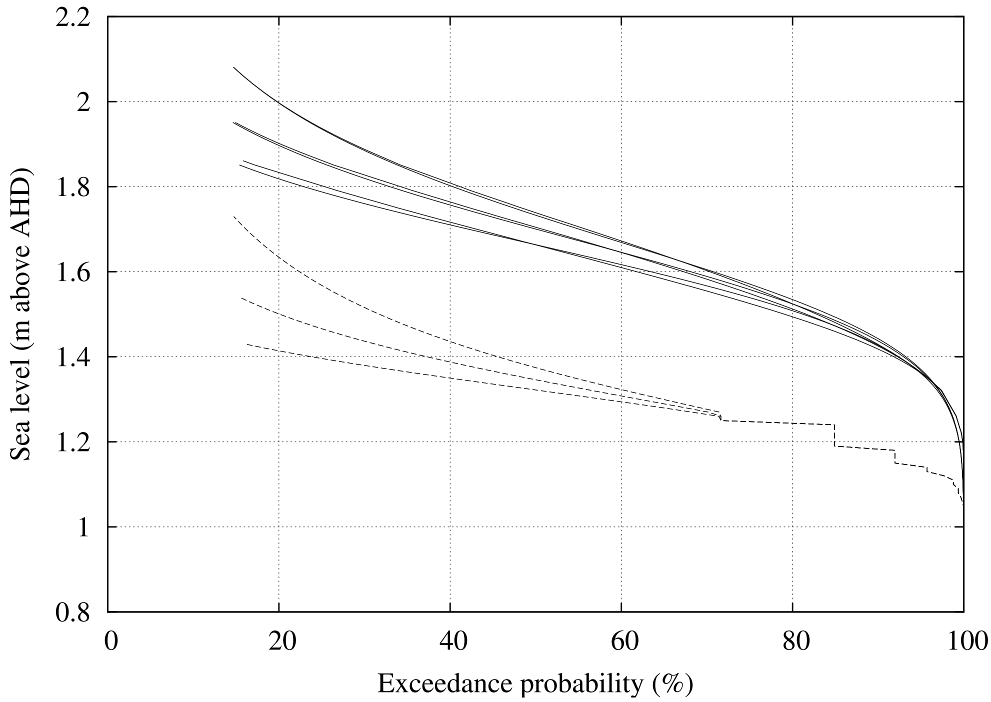

Figure 116: Exceedance probabilities for Hobart, 2080, scenario A1FI and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 66.

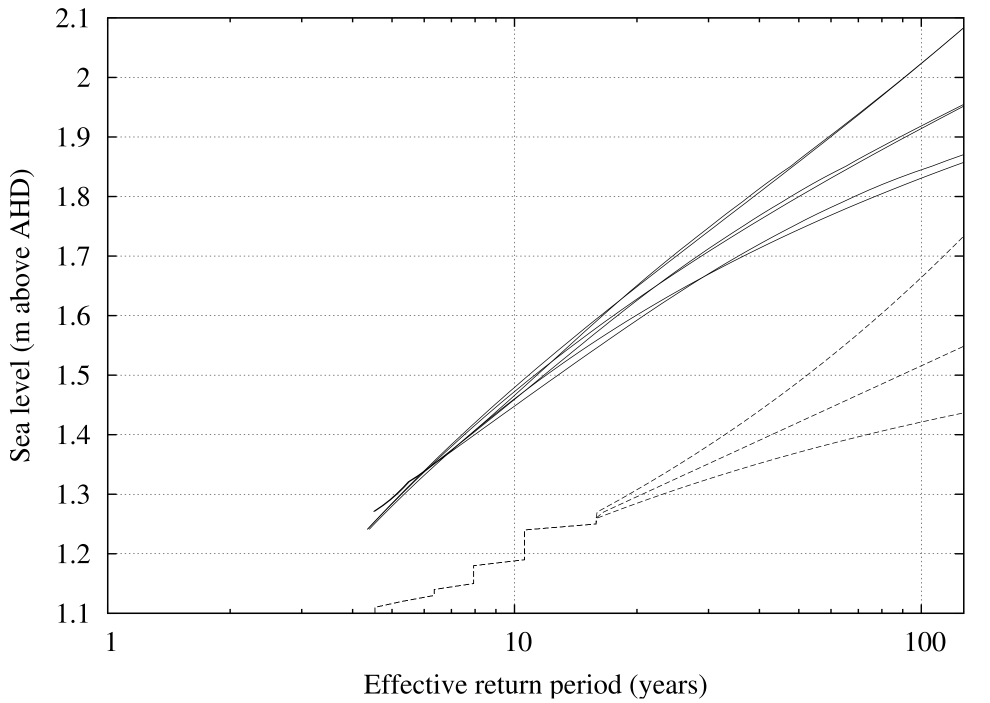

Figure 117: Effective return periods for Hobart, 2080, scenario A1FI and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 66.

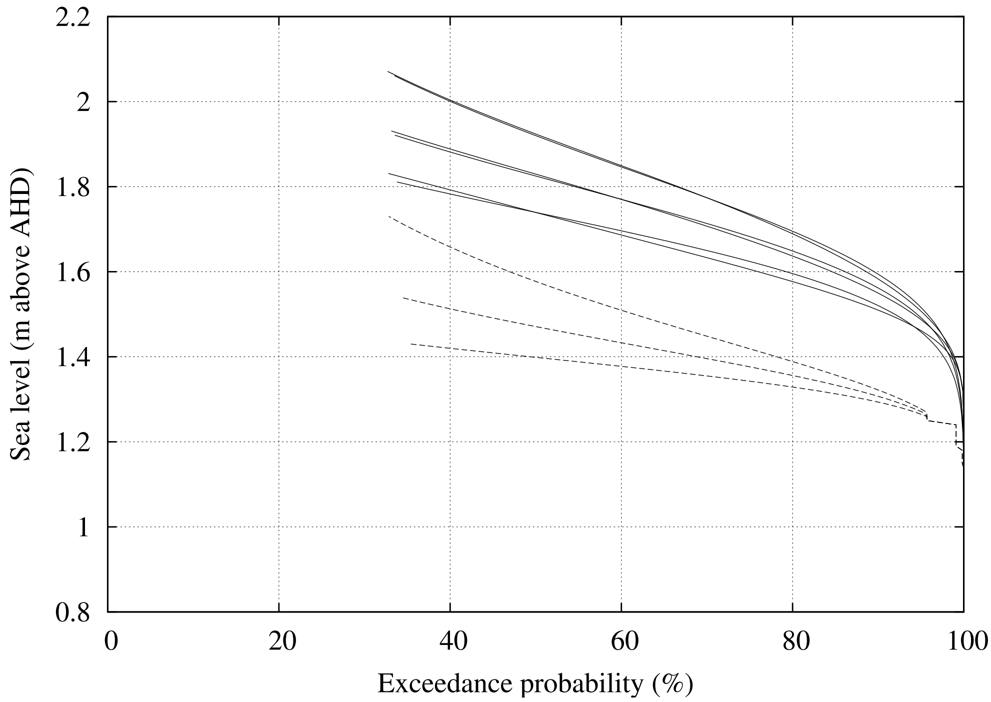

Figure 118: Exceedance probabilities for Hobart, 2080, scenario A1FI and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 67.

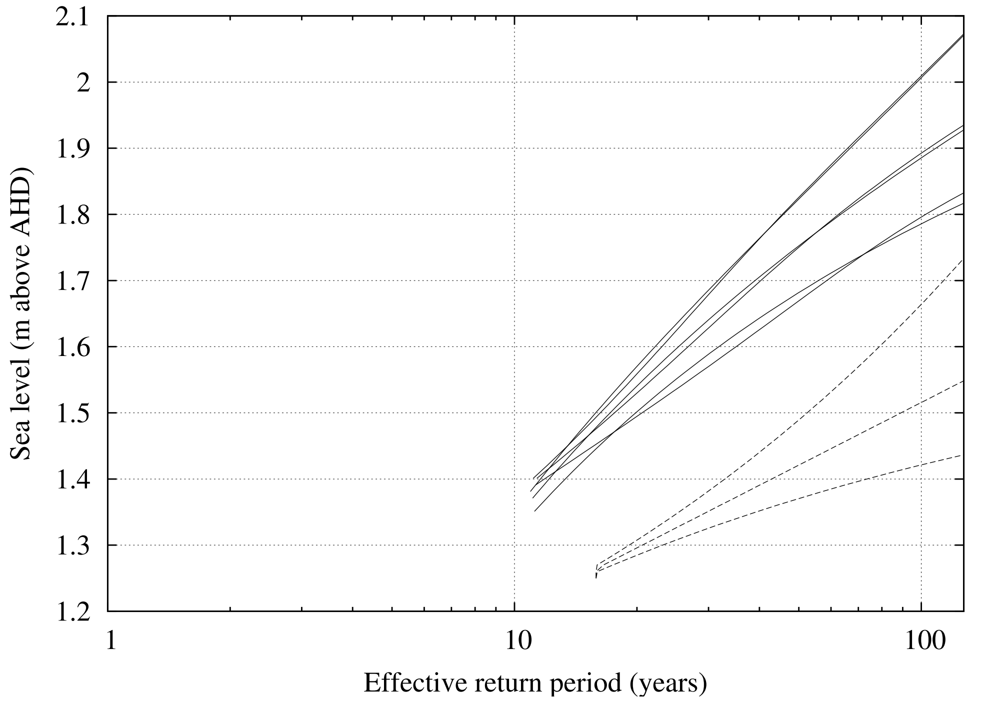

Figure 119: Effective return periods for Hobart, 2080, scenario A1FI and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 67.

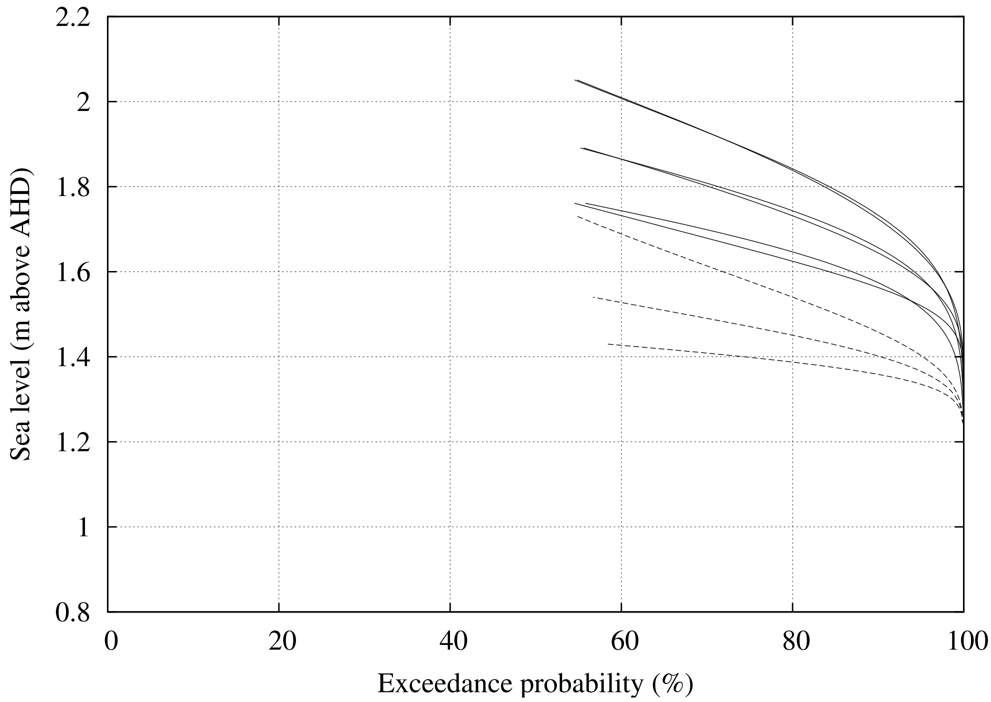

Figure 120: Exceedance probabilities for Hobart, 2080, scenario A1FI and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 68.

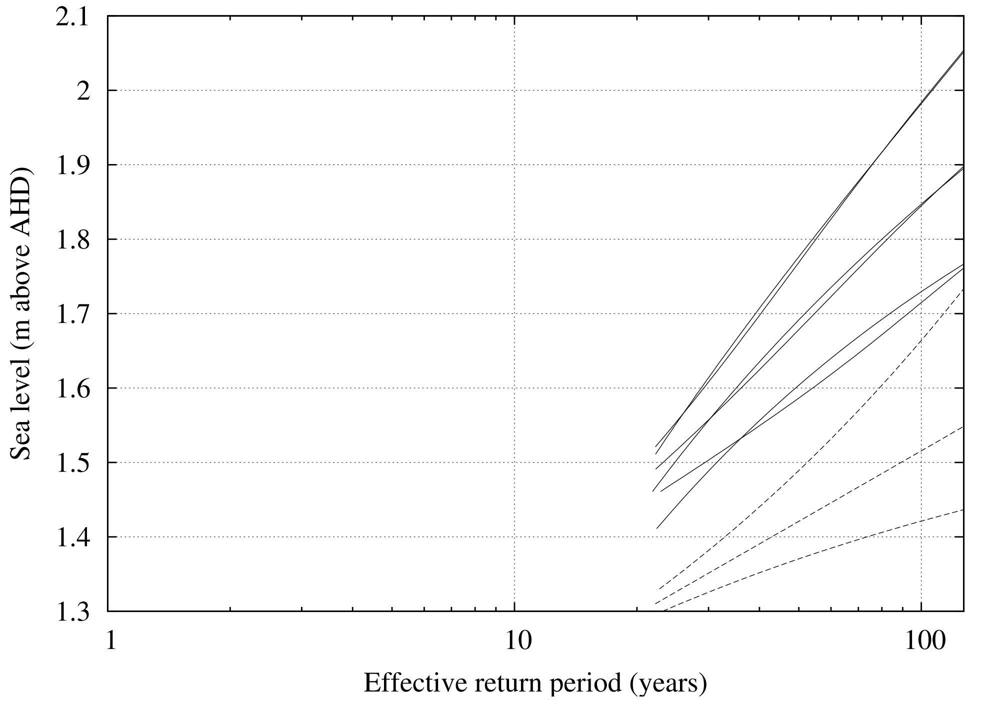

Figure 121: Effective return periods for Hobart, 2080, scenario A1FI and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 68.

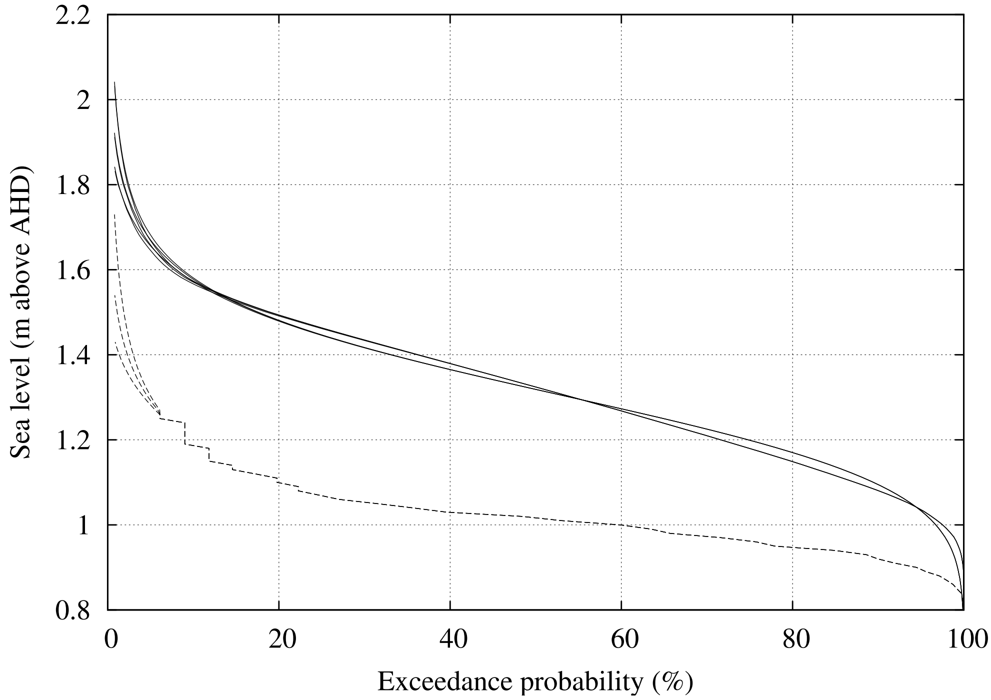

Figure 122: Exceedance probabilities for Hobart, 2100, scenario B1 and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 69.

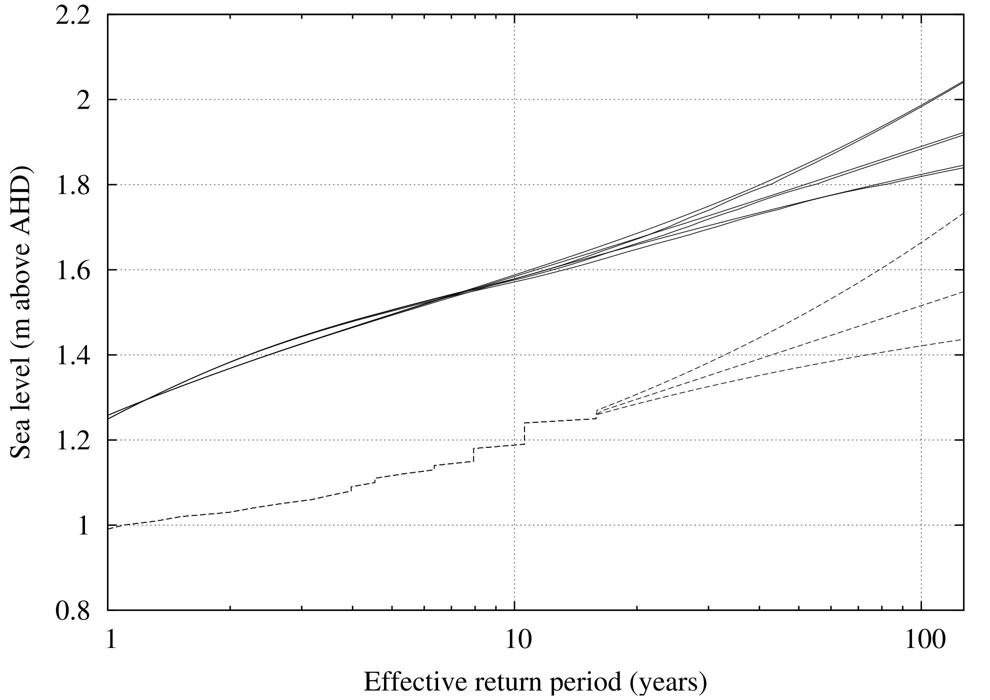

Figure 123: Effective return periods for Hobart, 2100, scenario B1 and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 69.

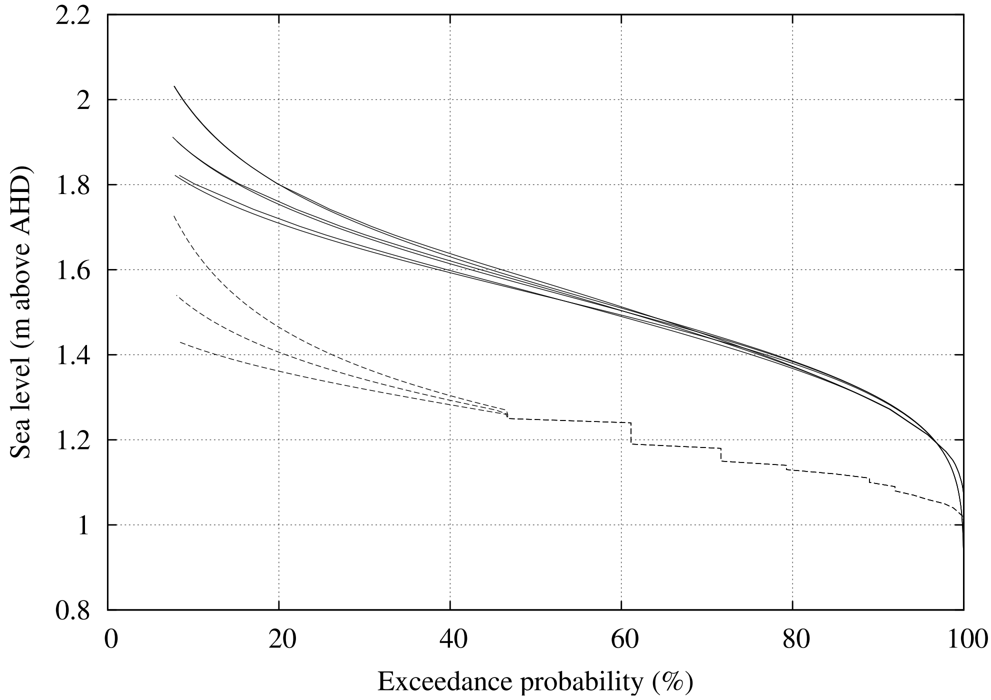

Figure 124: Exceedance probabilities for Hobart, 2100, scenario B1 and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 70.

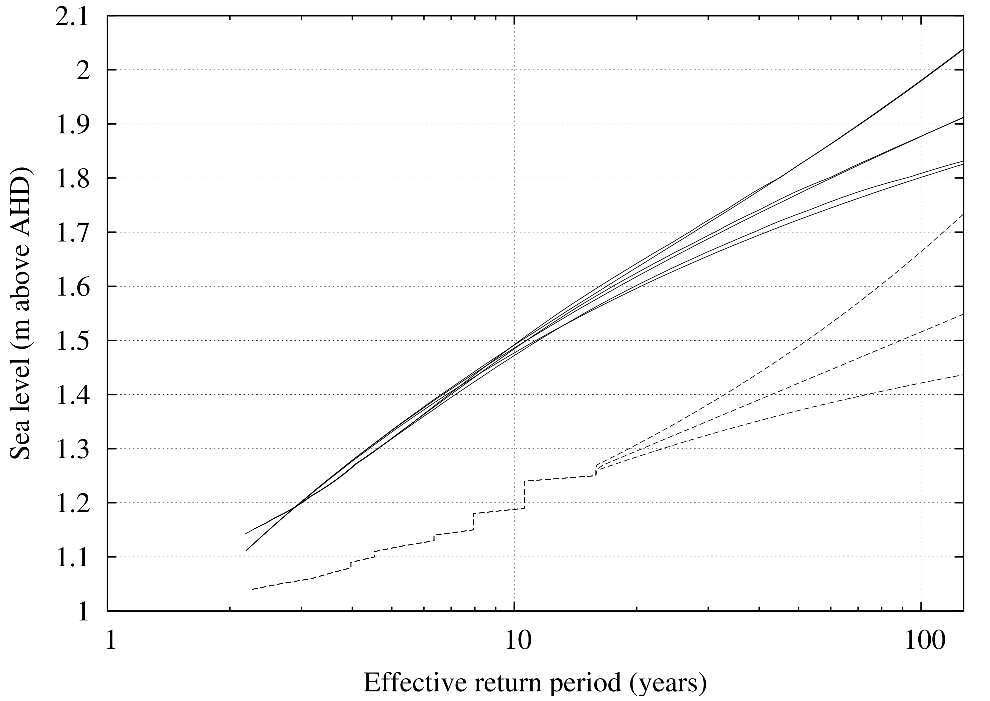

Figure 125: Effective return periods for Hobart, 2100, scenario B1 and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 70.

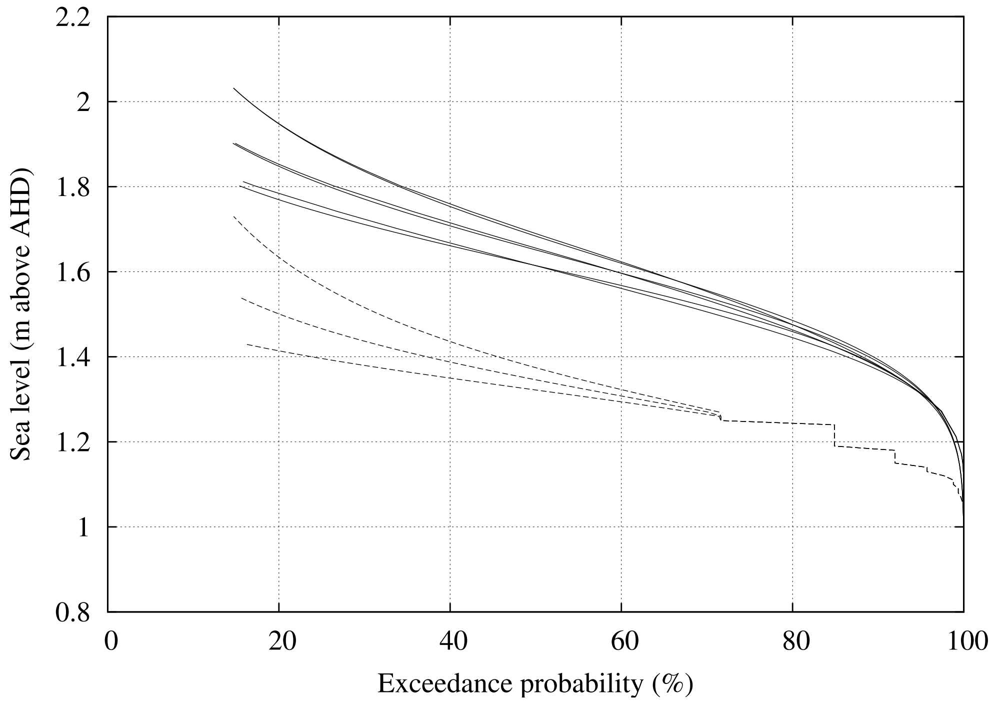

Figure 126: Exceedance probabilities for Hobart, 2100, scenario B1 and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 71.

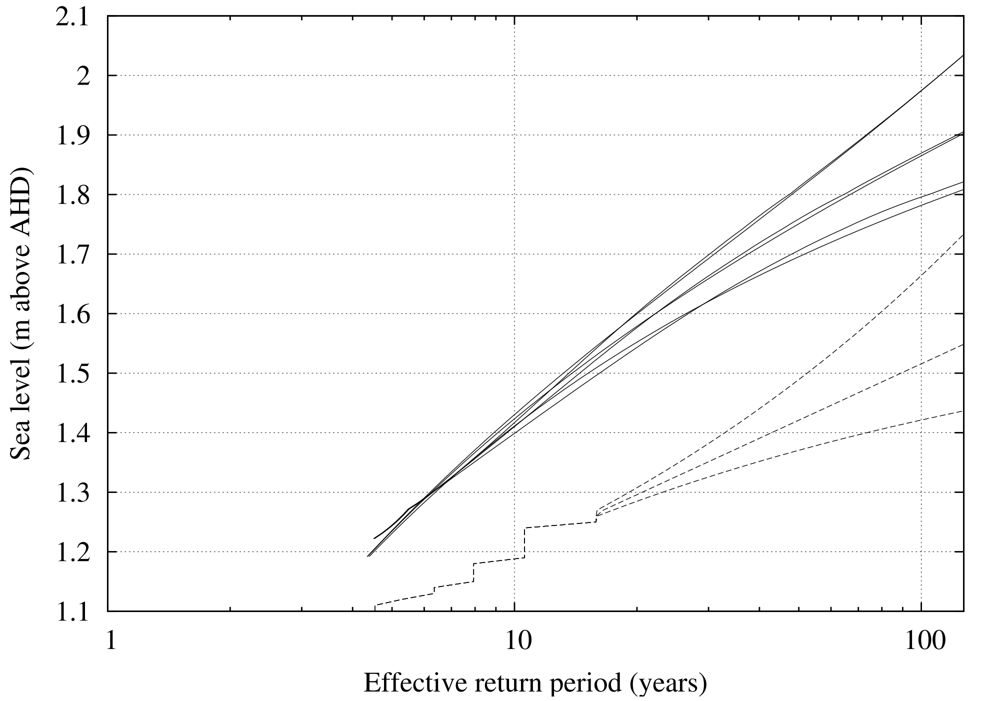

Figure 127: Effective return periods for Hobart, 2100, scenario B1 and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 71.

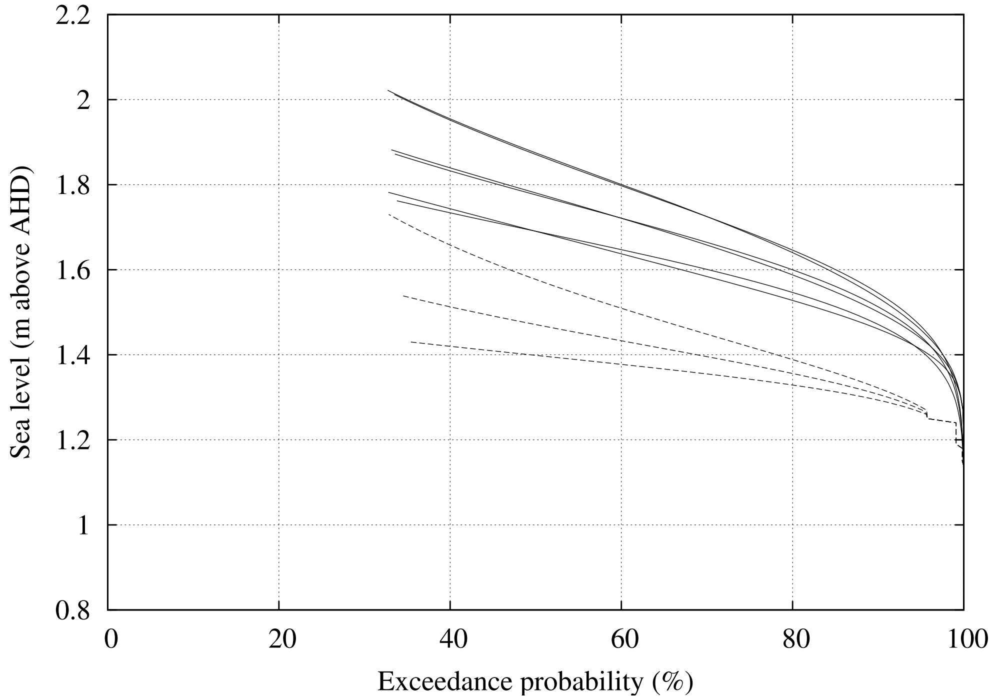

Figure 128: Exceedance probabilities for Hobart, 2100, scenario B1 and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 72.

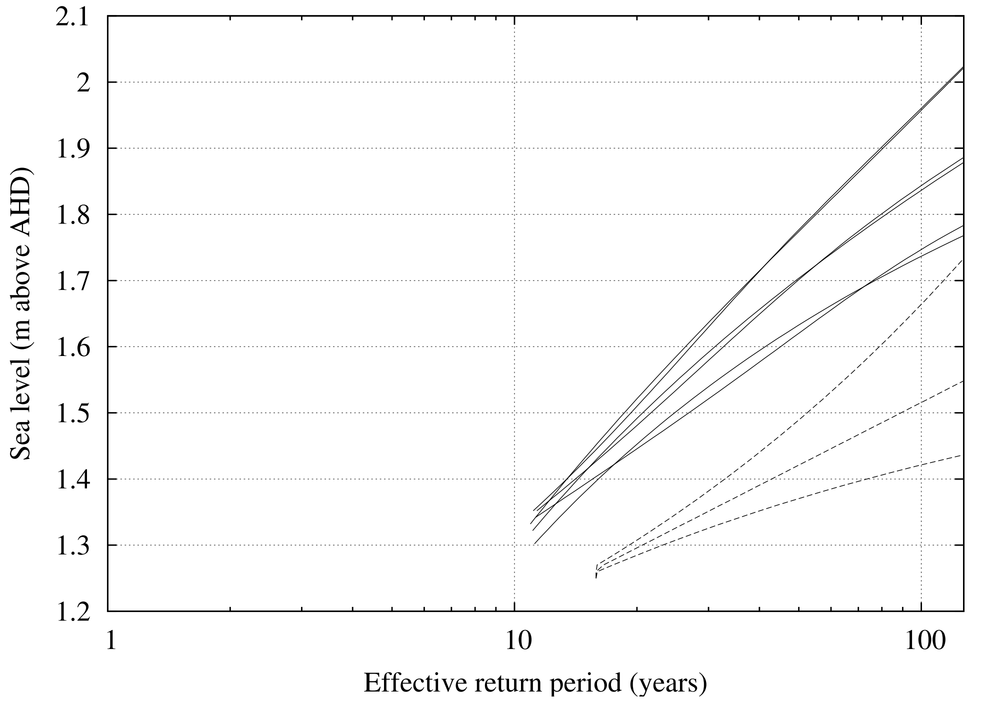

Figure 129: Effective return periods for Hobart, 2100, scenario B1 and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 72.

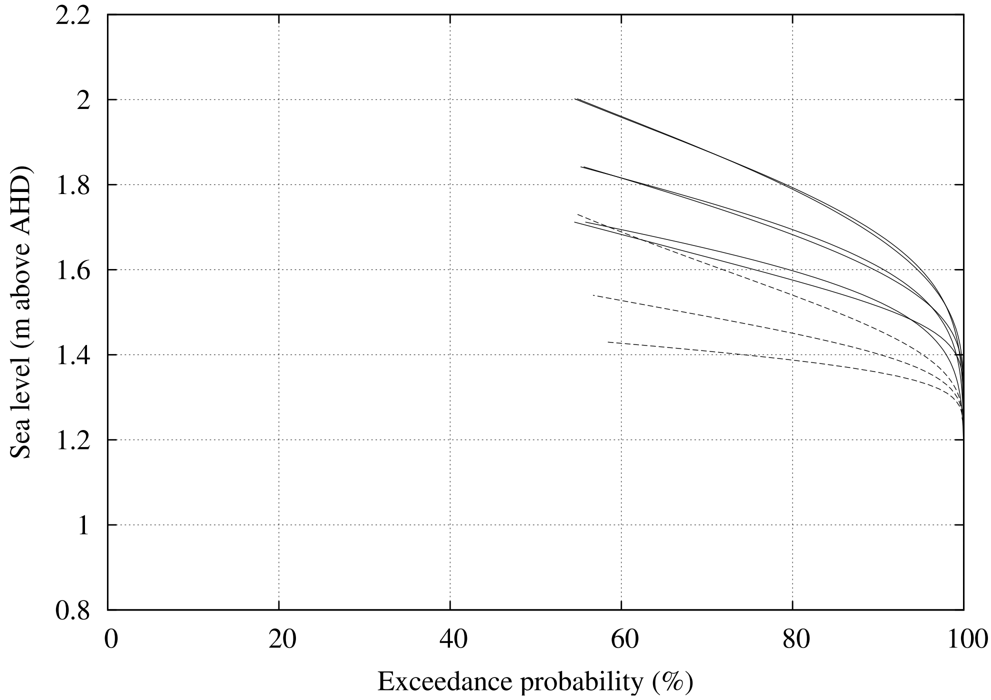

Figure 130: Exceedance probabilities for Hobart, 2100, scenario B1 and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 73.

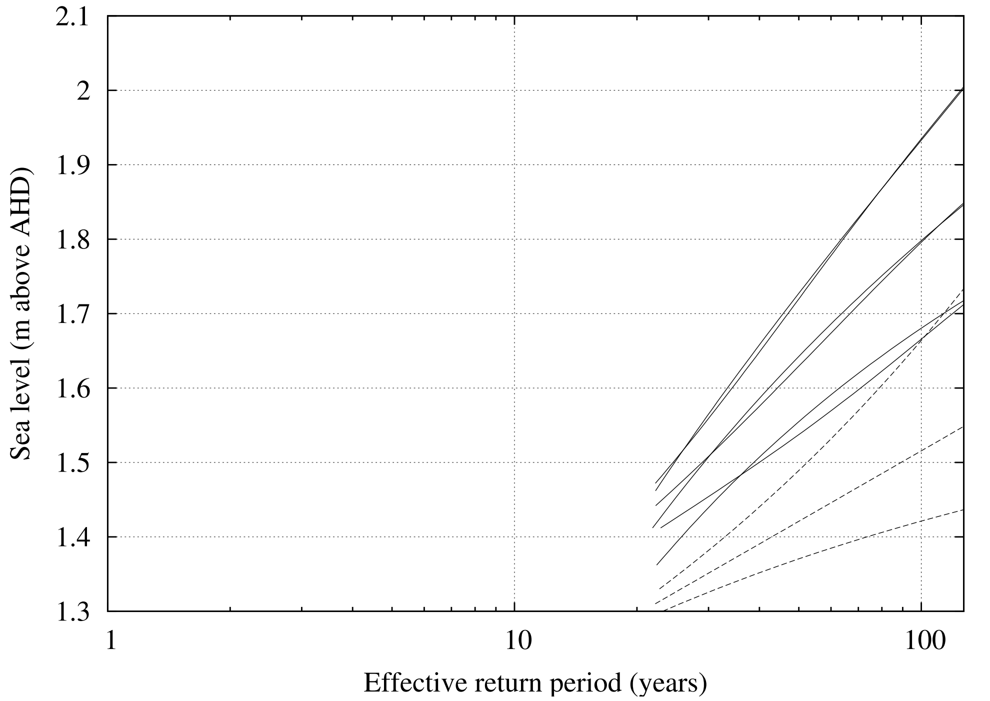

Figure 131: Effective return periods for Hobart, 2100, scenario B1 and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 73.

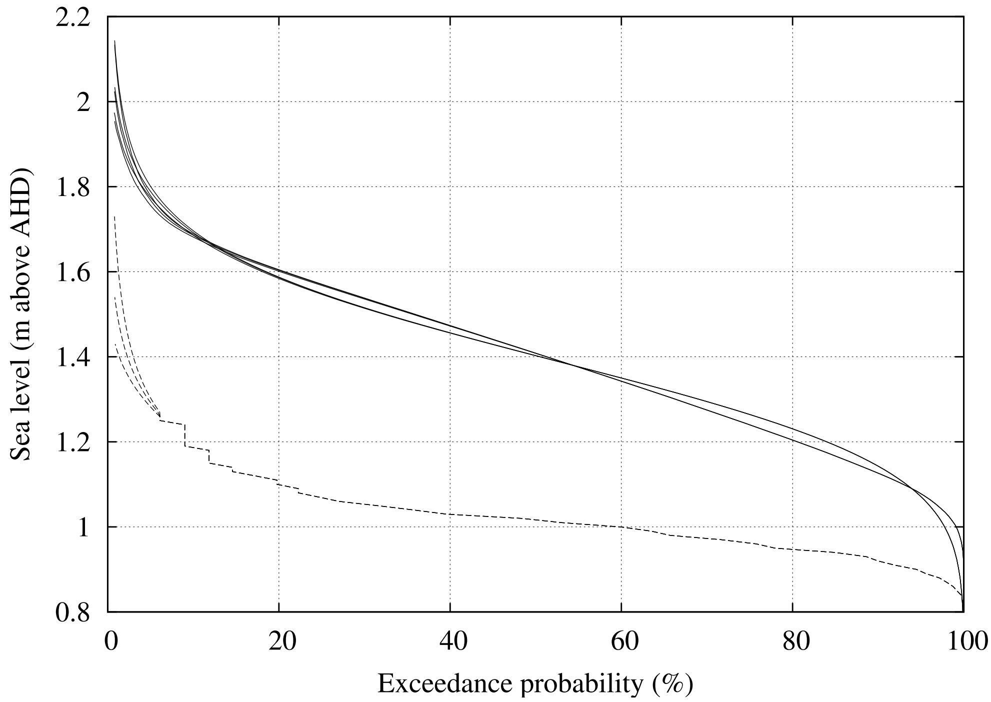

Figure 132: Exceedance probabilities for Hobart, 2100, scenario A1B and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 74.

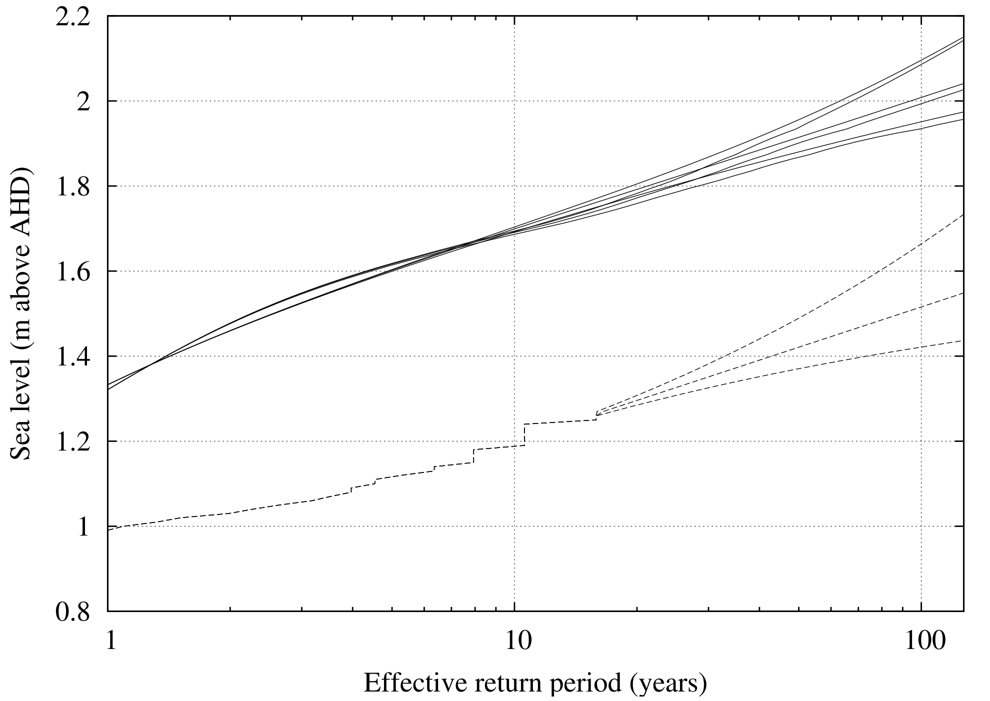

Figure 133: Effective return periods for Hobart, 2100, scenario A1B and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 74.

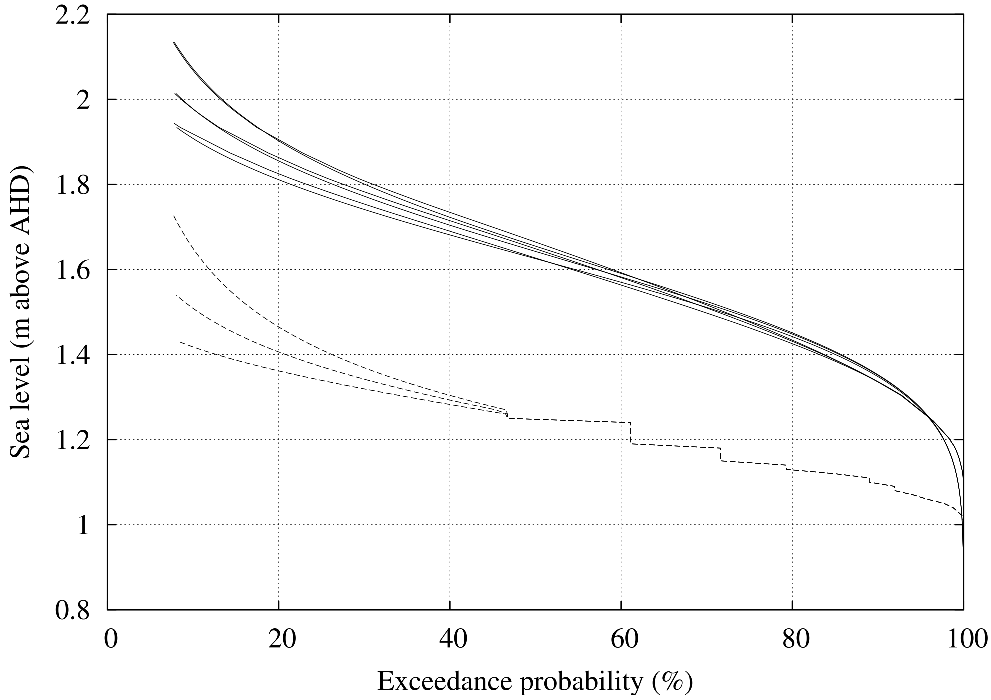

Figure 134: Exceedance probabilities for Hobart, 2100, scenario A1B and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 75.

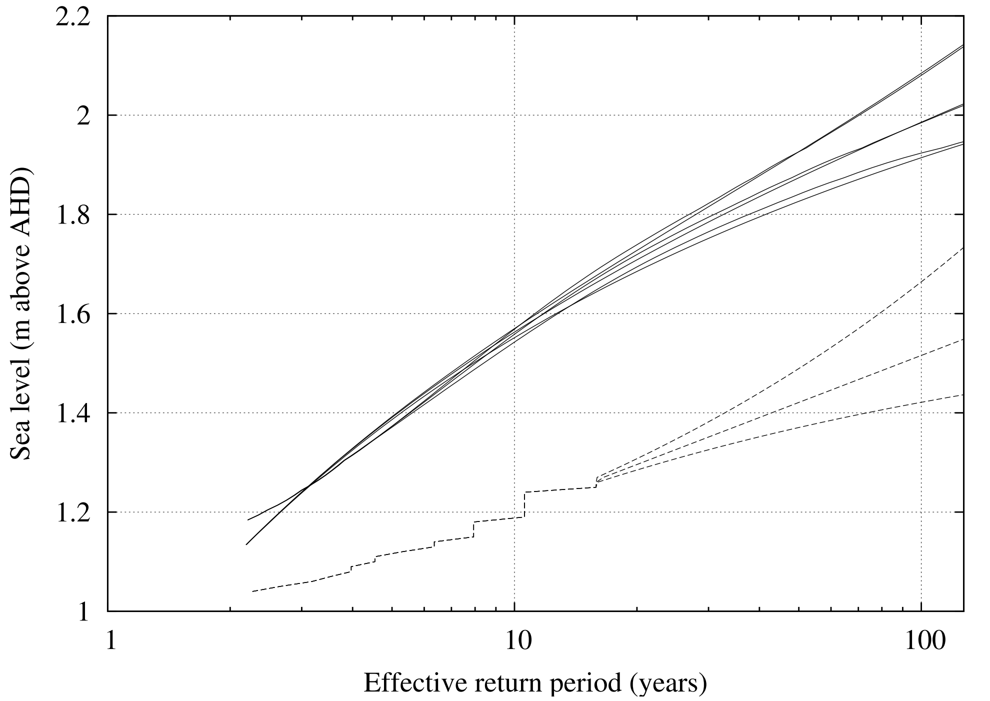

Figure 135: Effective return periods for Hobart, 2100, scenario A1B and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 75.

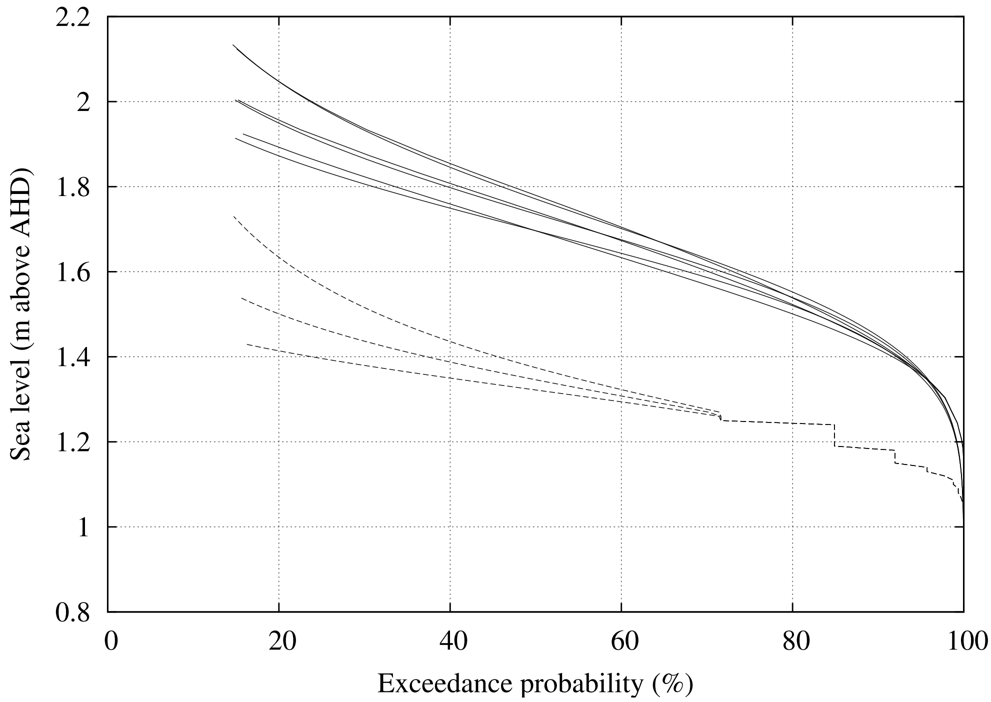

Figure 136: Exceedance probabilities for Hobart, 2100, scenario A1B and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 76.

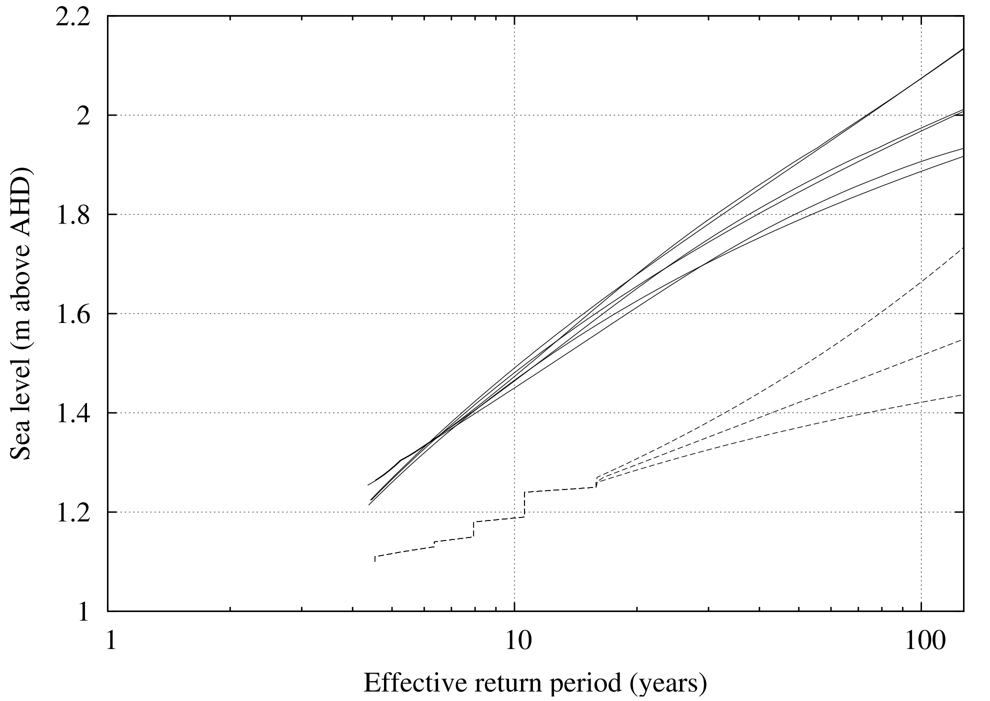

Figure 137: Effective return periods for Hobart, 2100, scenario A1B and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 76.

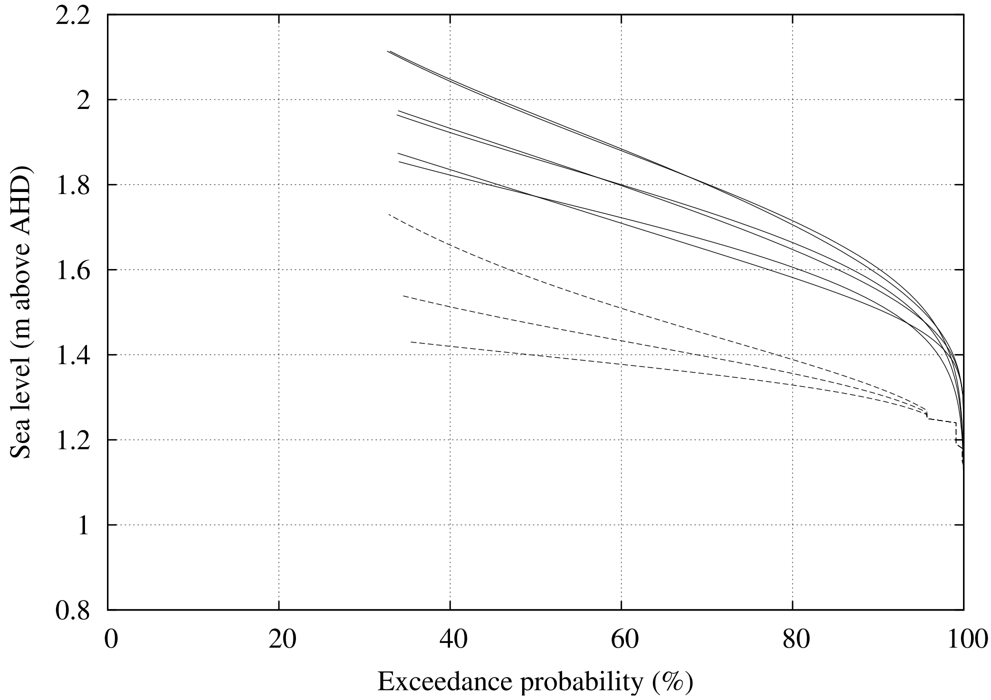

Figure 138: Exceedance probabilities for Hobart, 2100, scenario A1B and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 77.

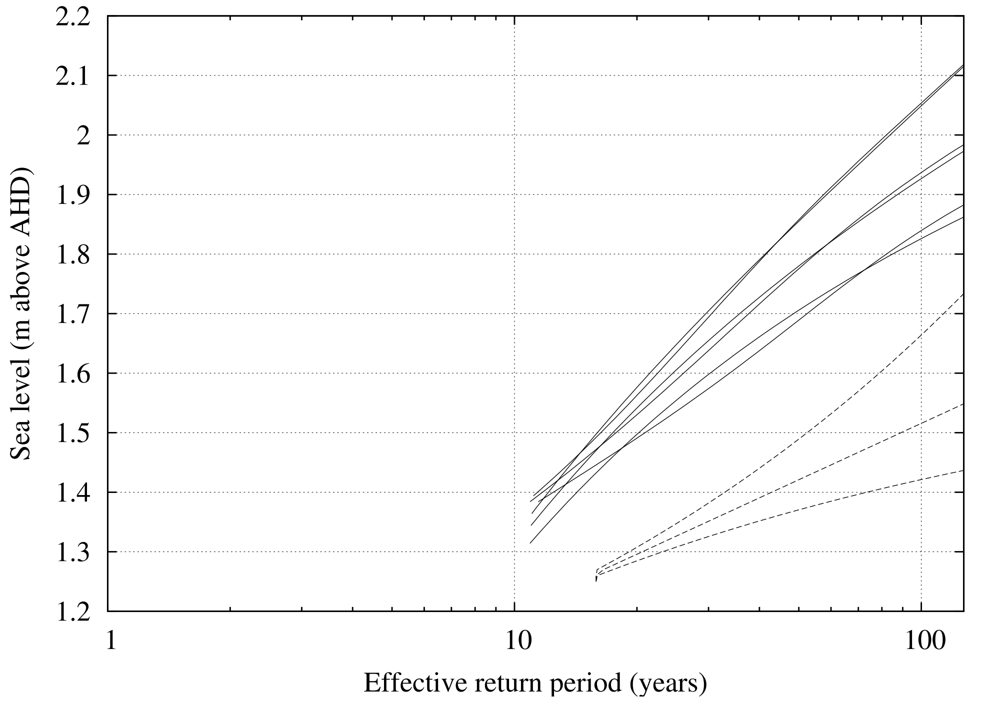

Figure 139: Effective return periods for Hobart, 2100, scenario A1B and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 77.

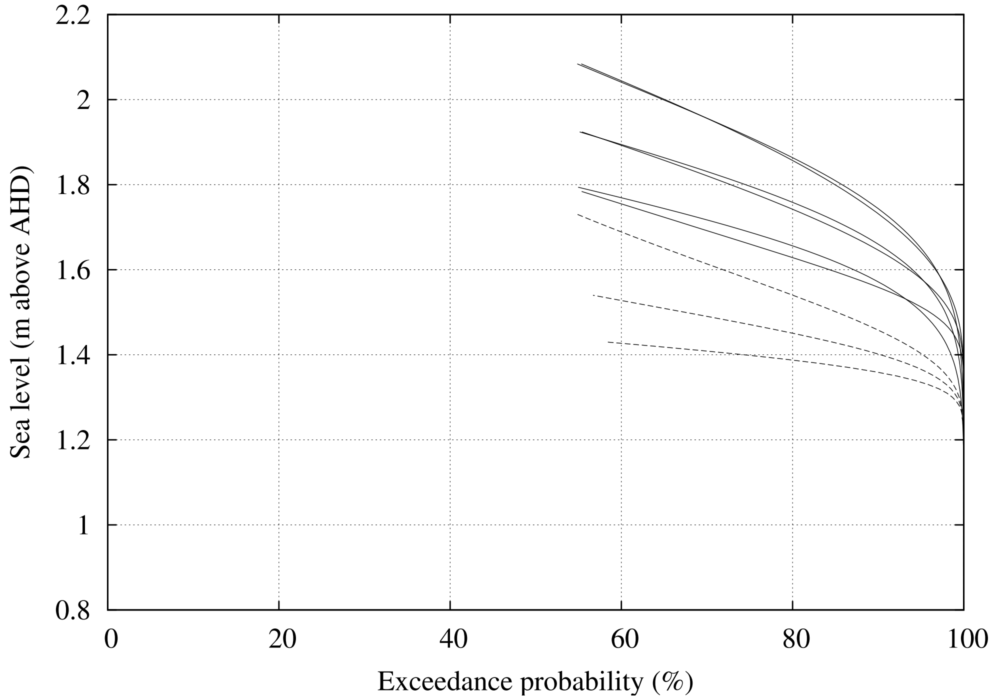

Figure 140: Exceedance probabilities for Hobart, 2100, scenario A1B and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 78.

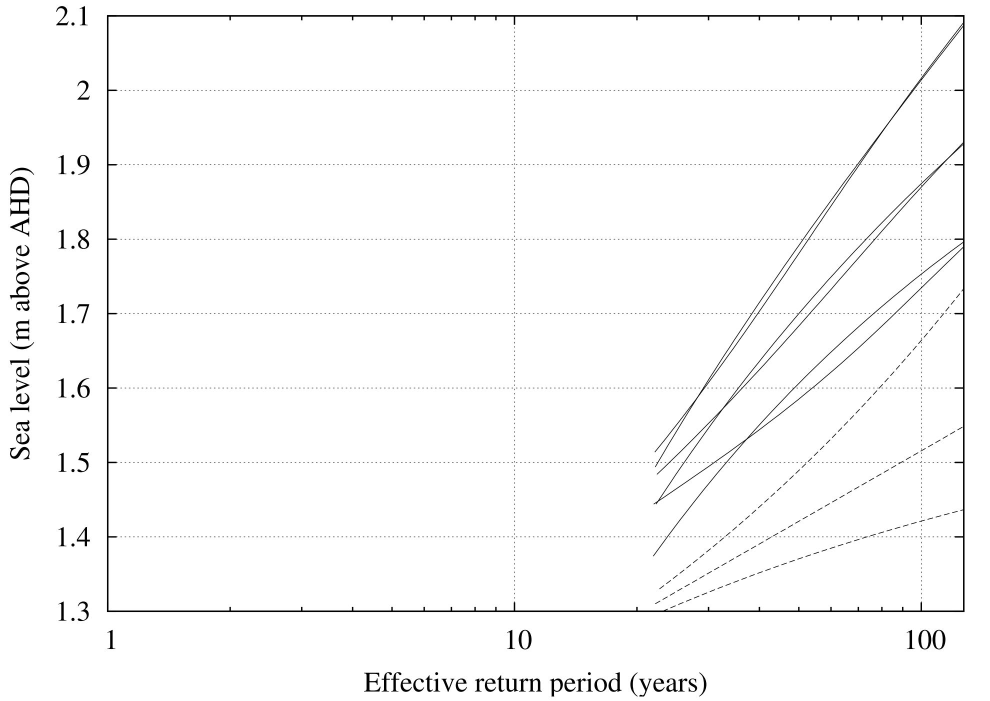

Figure 141: Effective return periods for Hobart, 2100, scenario A1B and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 78.

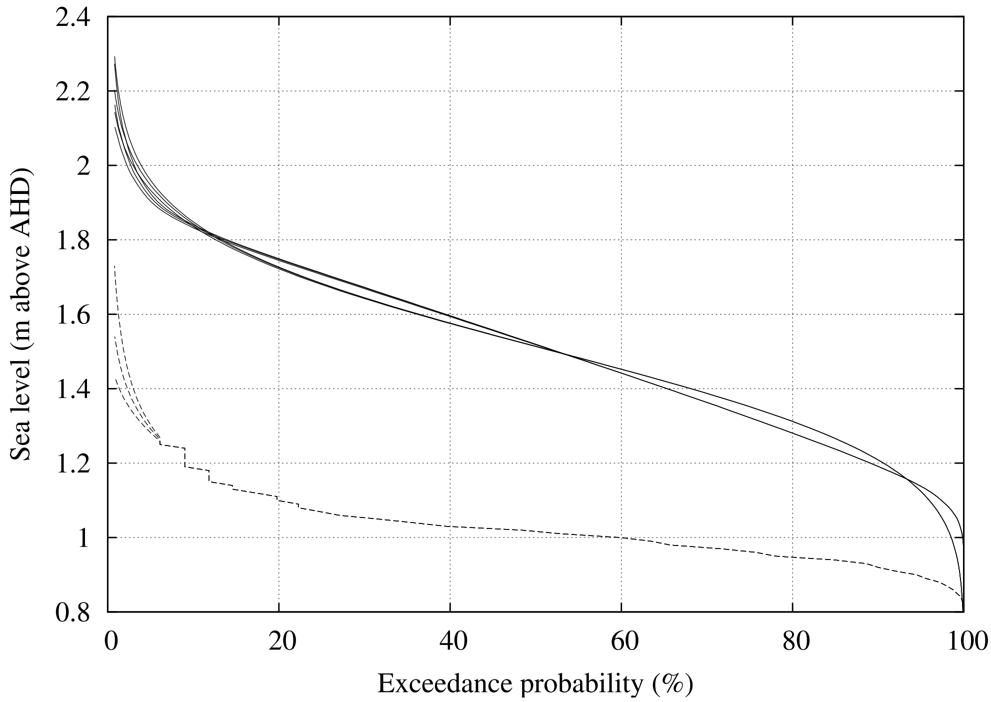

Figure 142: Exceedance probabilities for Hobart, 2100, scenario A1FI and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 79.

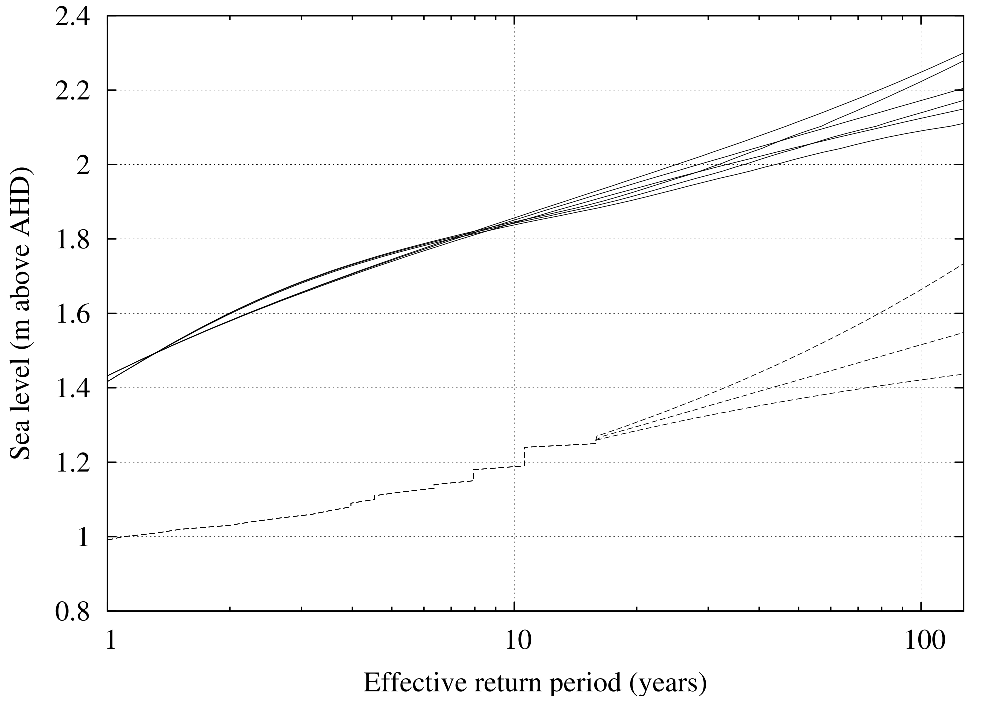

Figure 143: Effective return periods for Hobart, 2100, scenario A1FI and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 79.

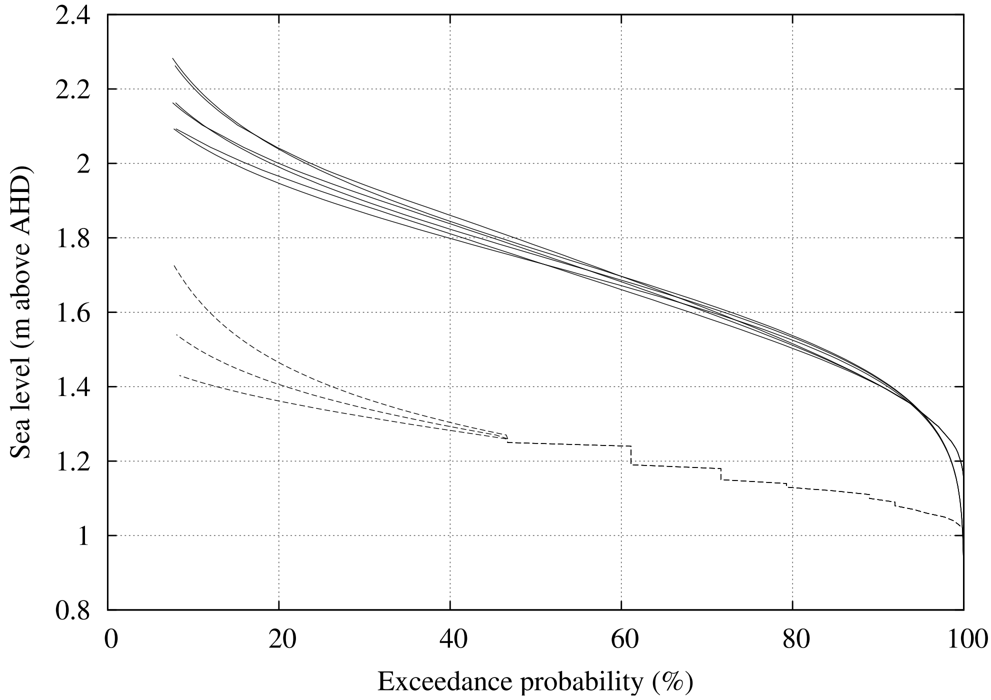

Figure 144: Exceedance probabilities for Hobart, 2100, scenario A1FI and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 80.

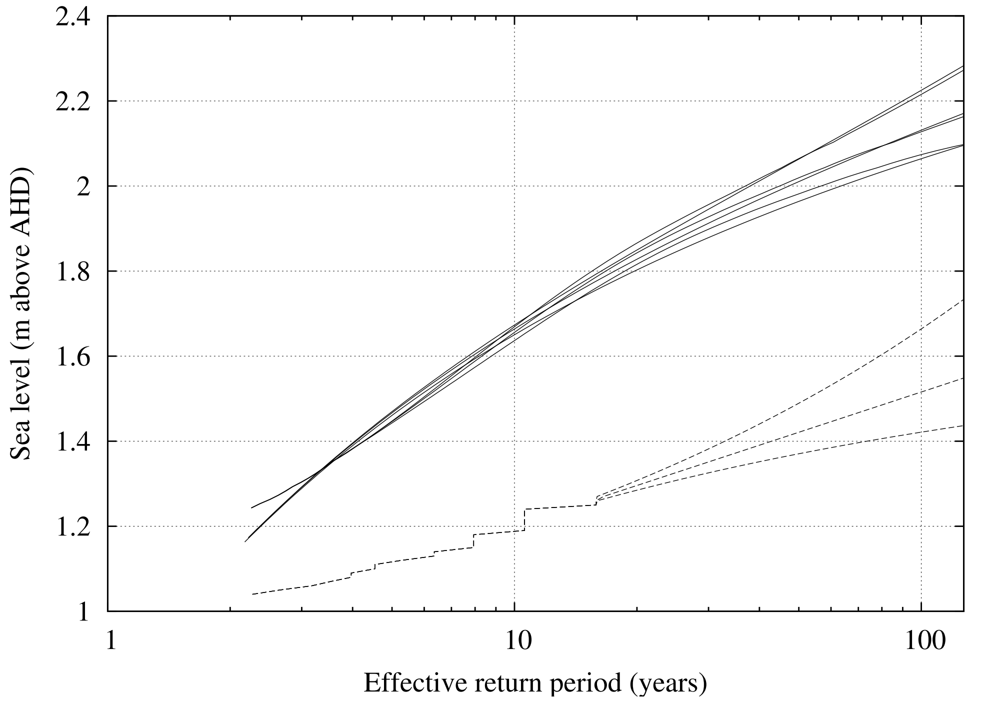

Figure 145: Effective return periods for Hobart, 2100, scenario A1FI and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 80.

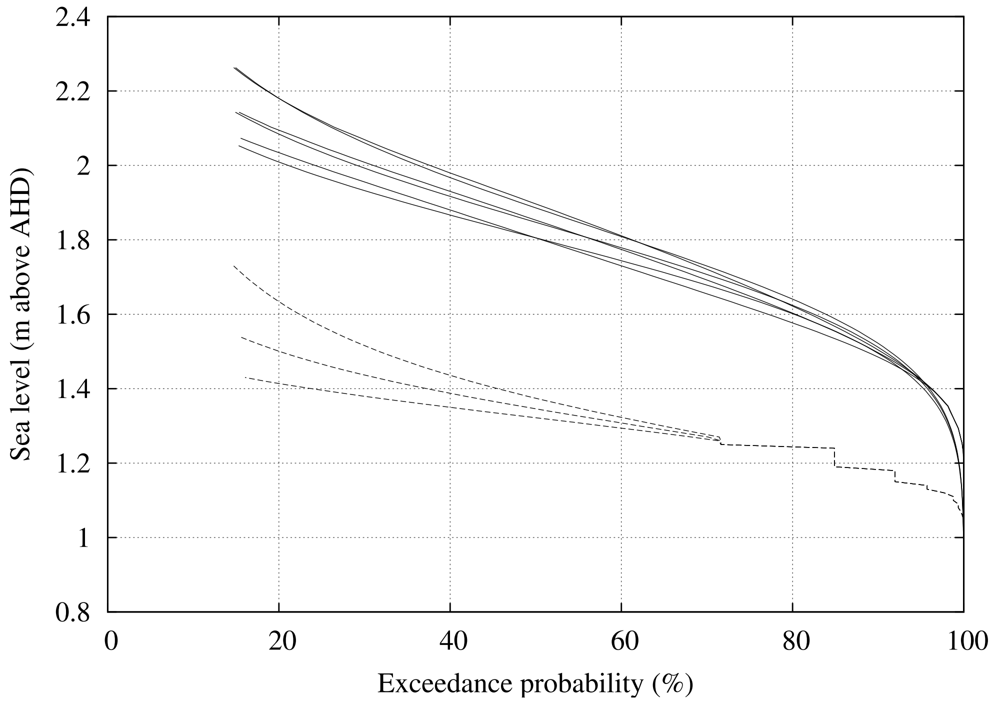

Figure 146: Exceedance probabilities for Hobart, 2100, scenario A1FI and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 81.

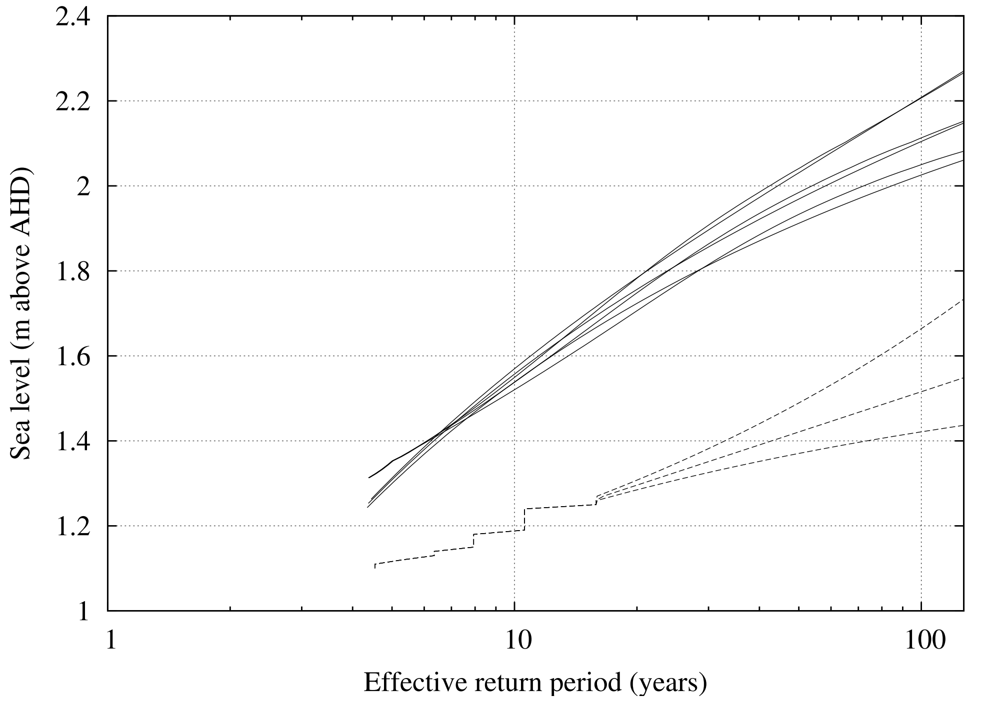

Figure 147: Effective return periods for Hobart, 2100, scenario A1FI and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 81.

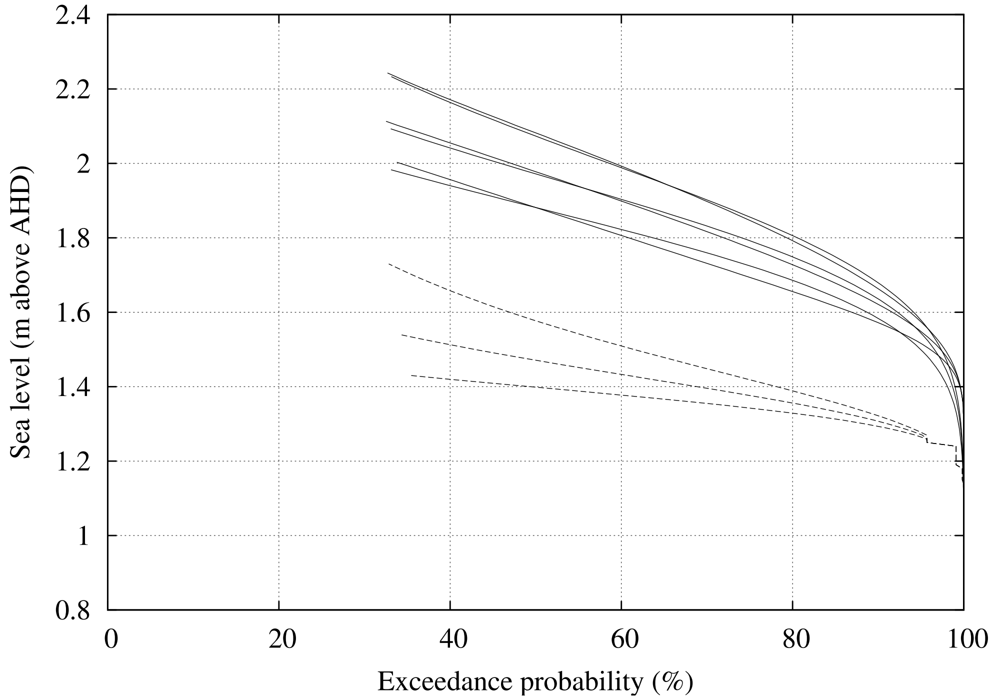

Figure 148: Exceedance probabilities for Hobart, 2100, scenario A1FI and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 82.

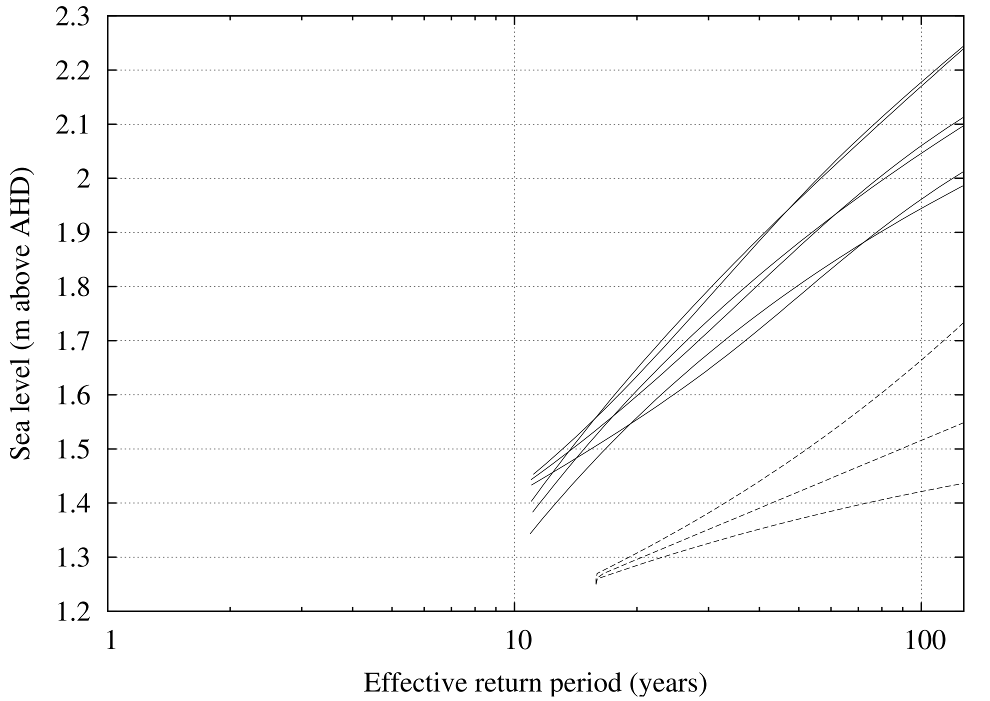

Figure 149: Effective return periods for Hobart, 2100, scenario A1FI and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 82.

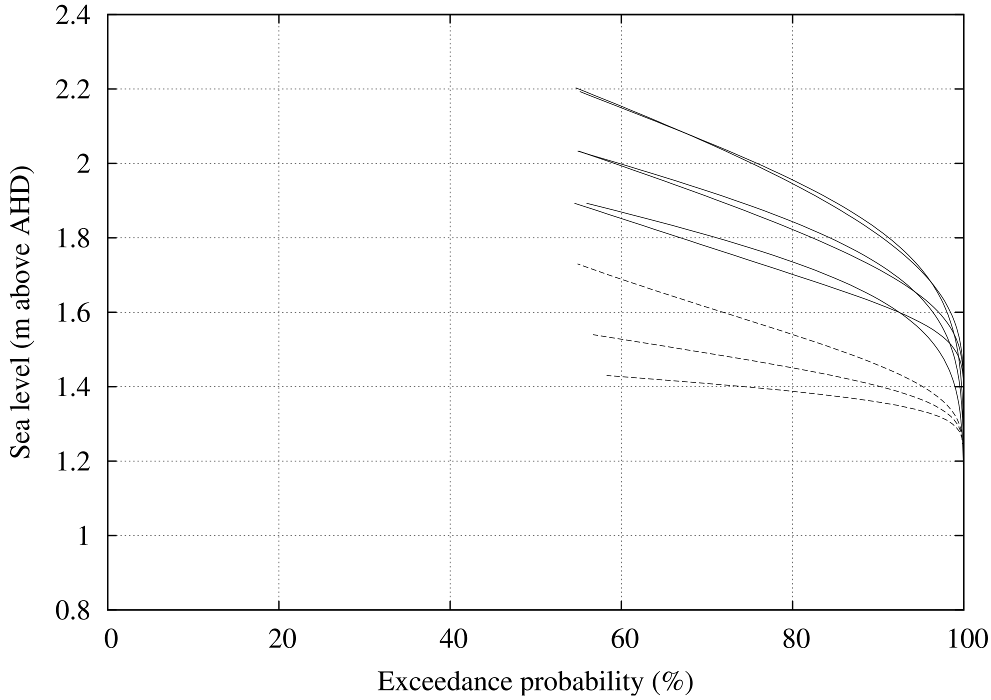

Figure 150: Exceedance probabilities for Hobart, 2100, scenario A1FI and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 83.

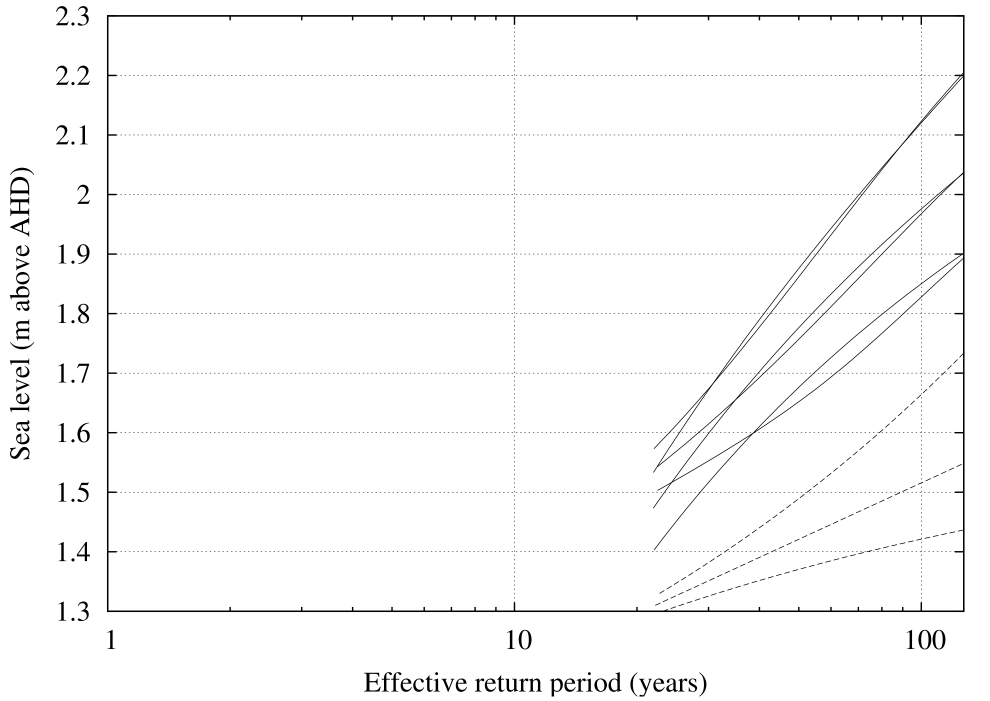

Figure 151: Effective return periods for Hobart, 2100, scenario A1FI and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 83.

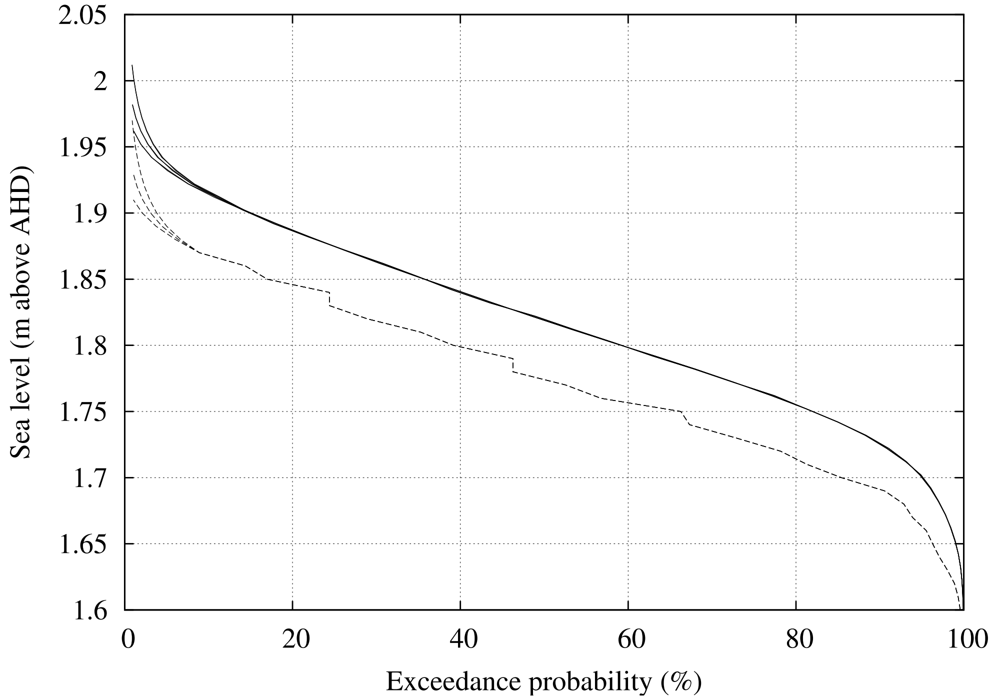

Figure 152: Exceedance probabilities for Burnie, 2020, scenario B1 and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 84.

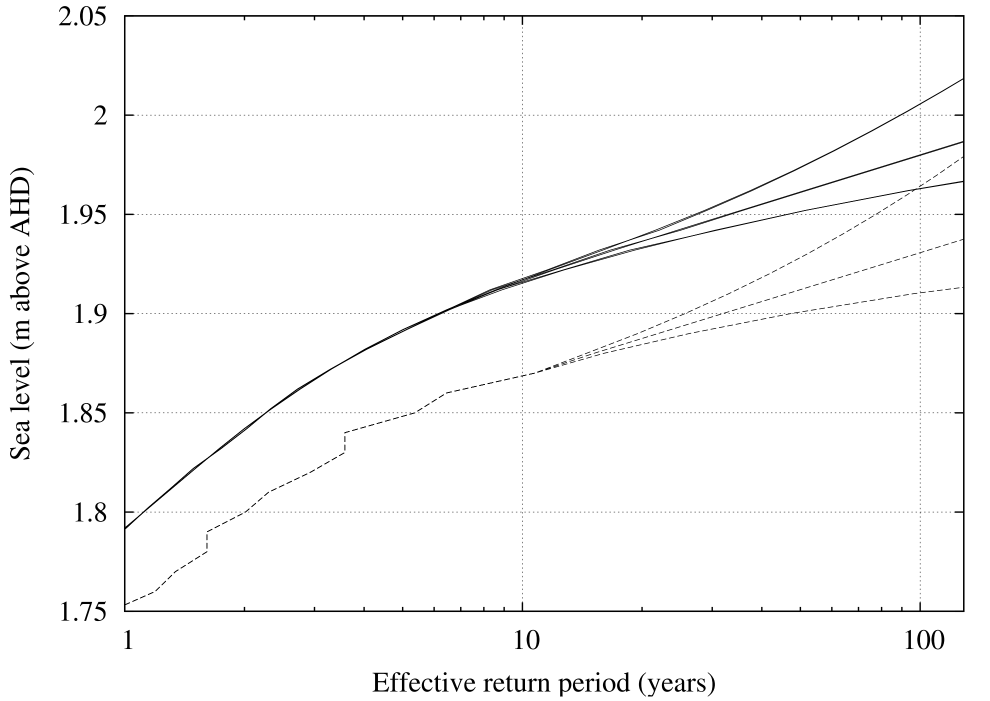

Figure 153: Effective return periods for Burnie, 2020, scenario B1 and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 84.

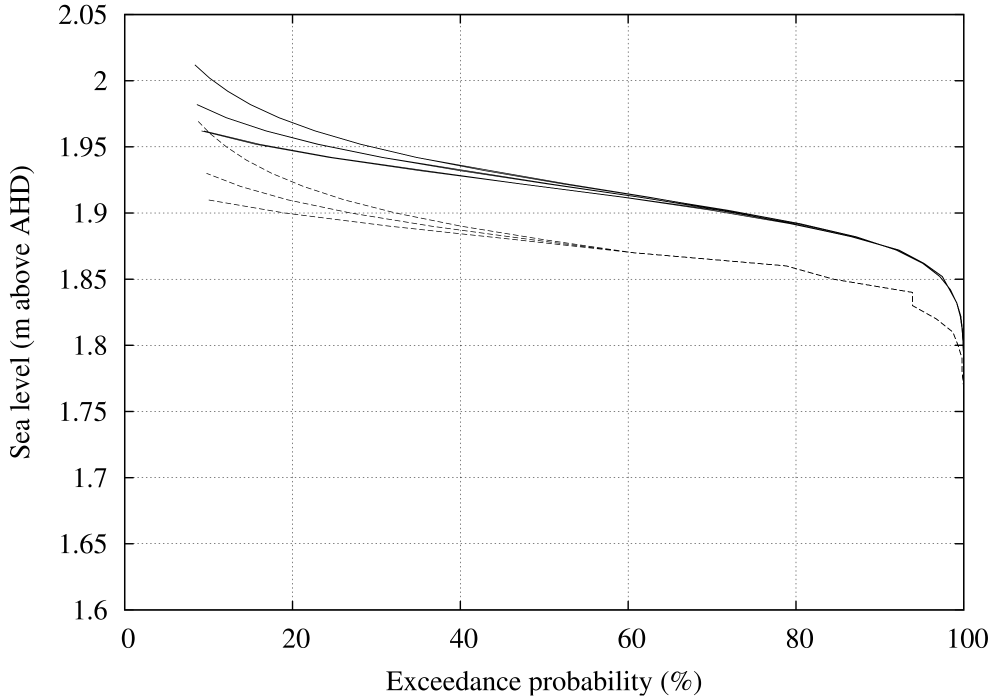

Figure 154: Exceedance probabilities for Burnie, 2020, scenario B1 and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 85.

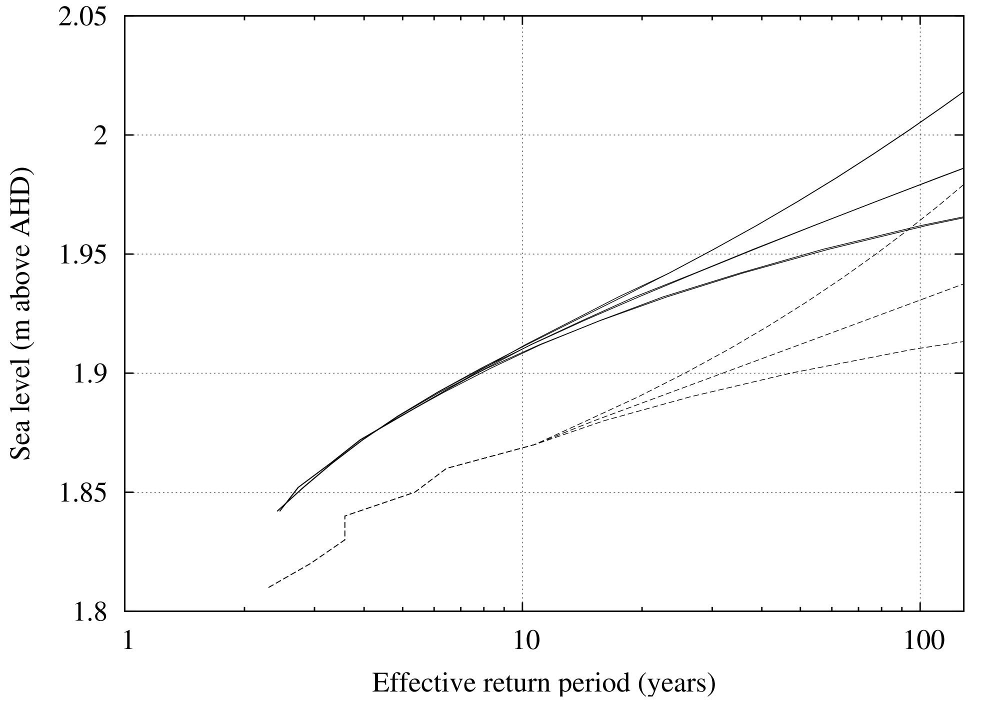

Figure 155: Effective return periods for Burnie, 2020, scenario B1 and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 85.

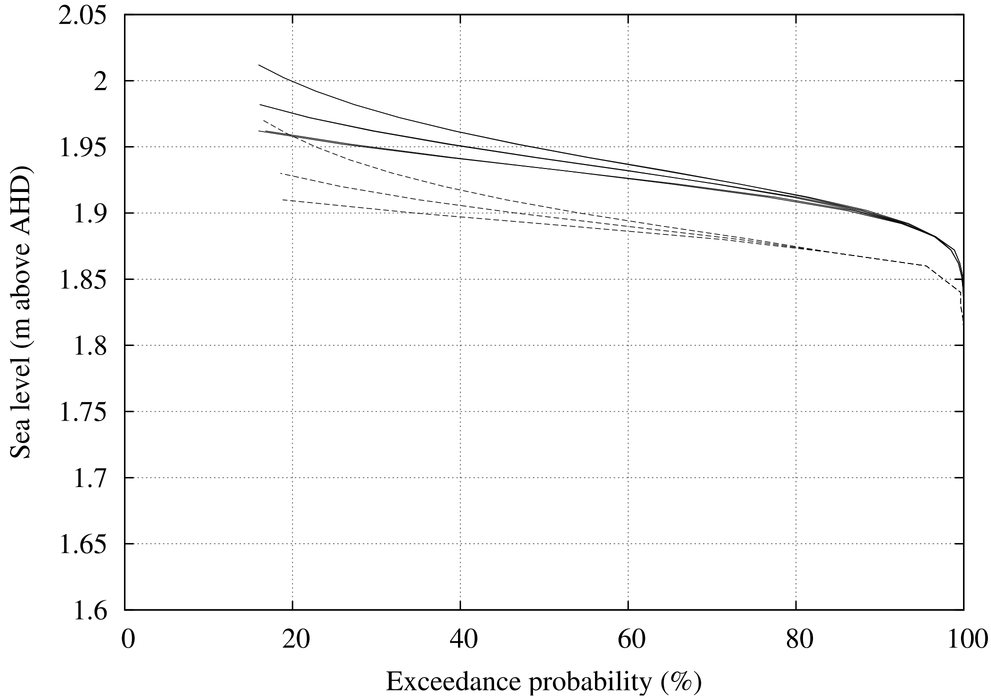

Figure 156: Exceedance probabilities for Burnie, 2020, scenario B1 and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 86.

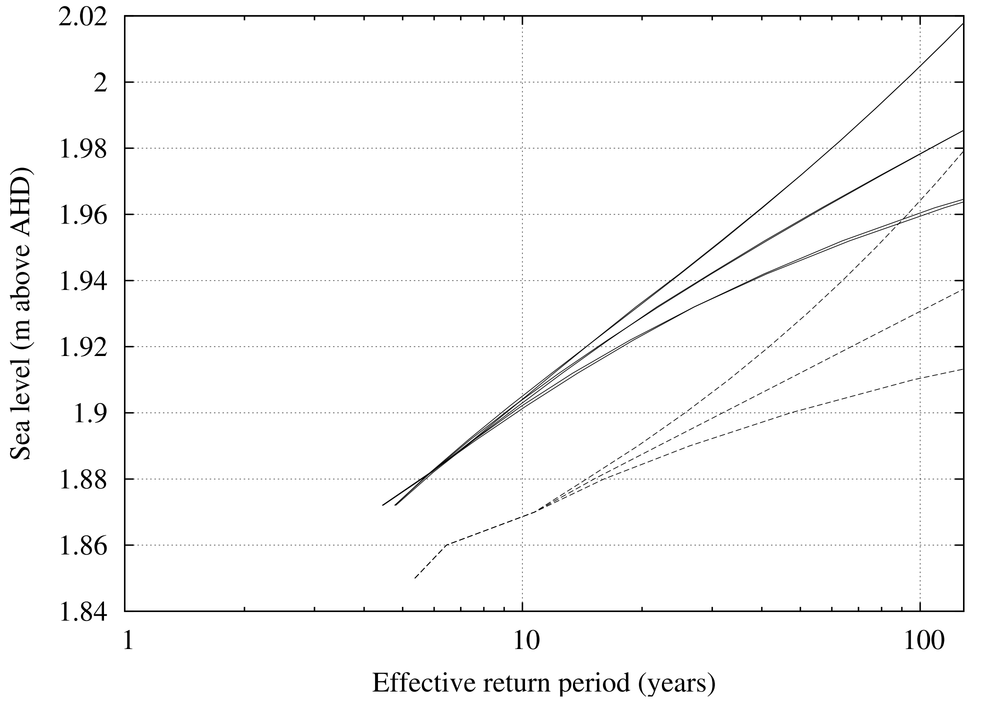

Figure 157: Effective return periods for Burnie, 2020, scenario B1 and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 86.

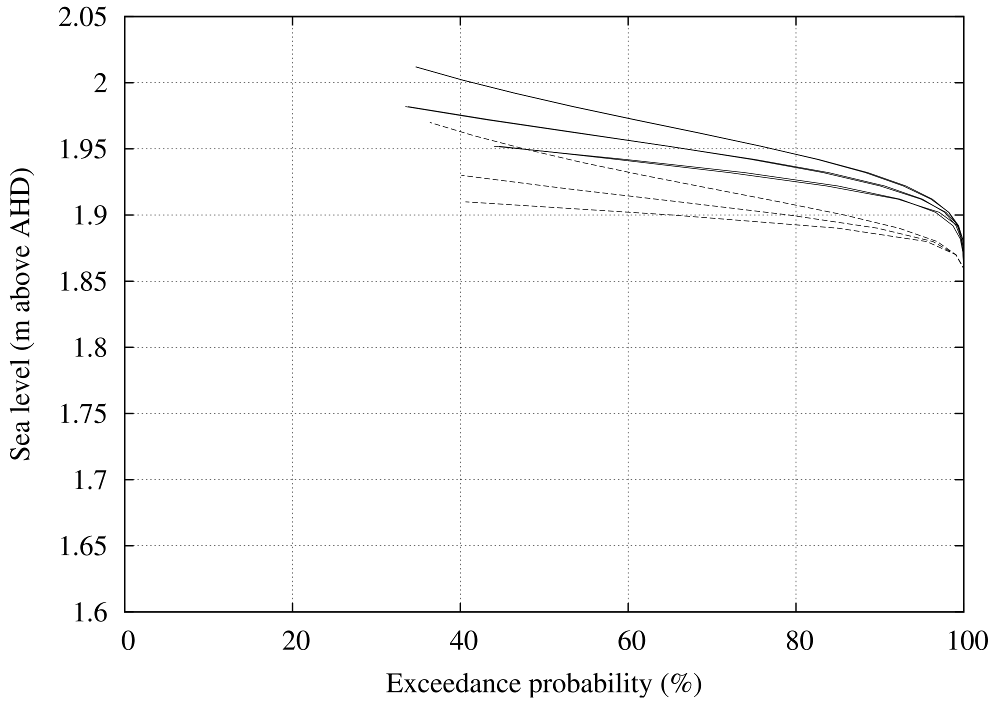

Figure 158: Exceedance probabilities for Burnie, 2020, scenario B1 and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 87.

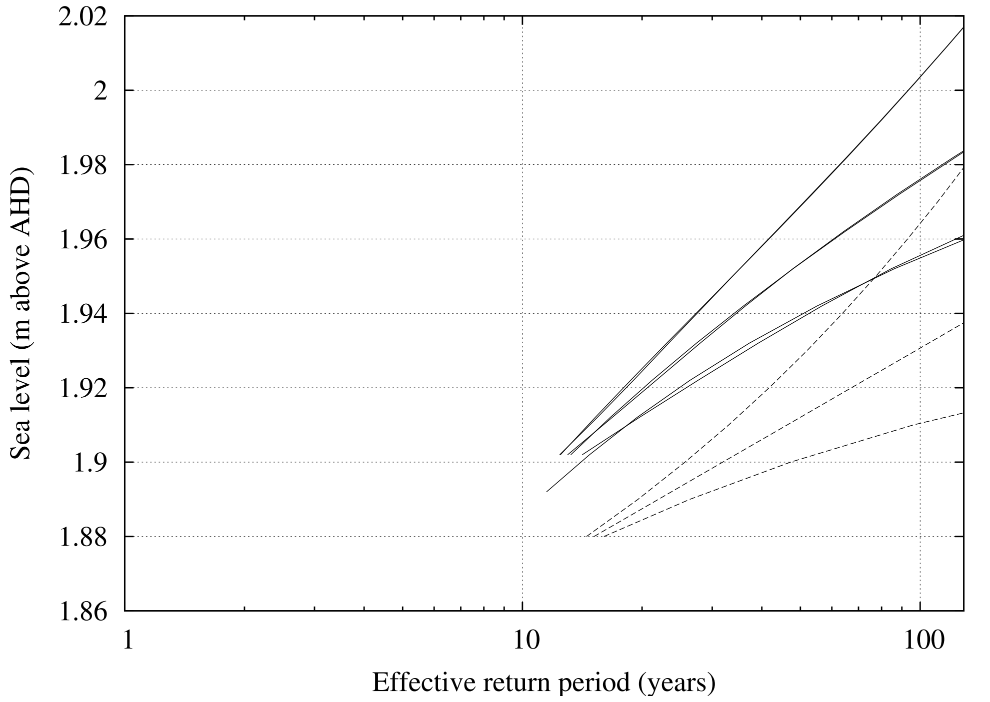

Figure 159: Effective return periods for Burnie, 2020, scenario B1 and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 87.

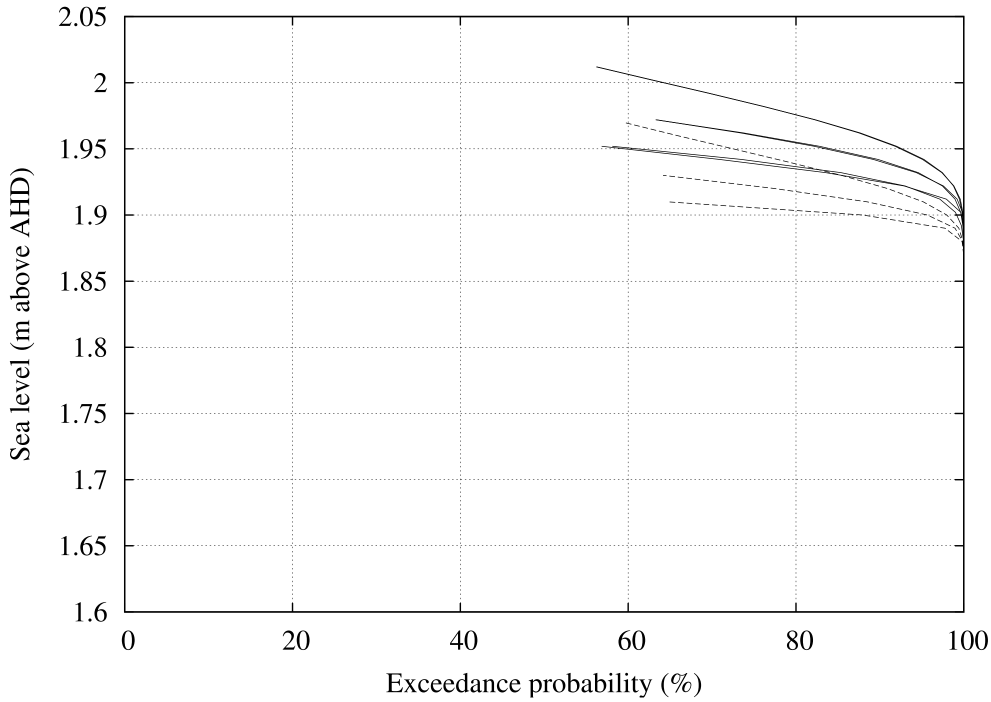

Figure 160: Exceedance probabilities for Burnie, 2020, scenario B1 and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 88.

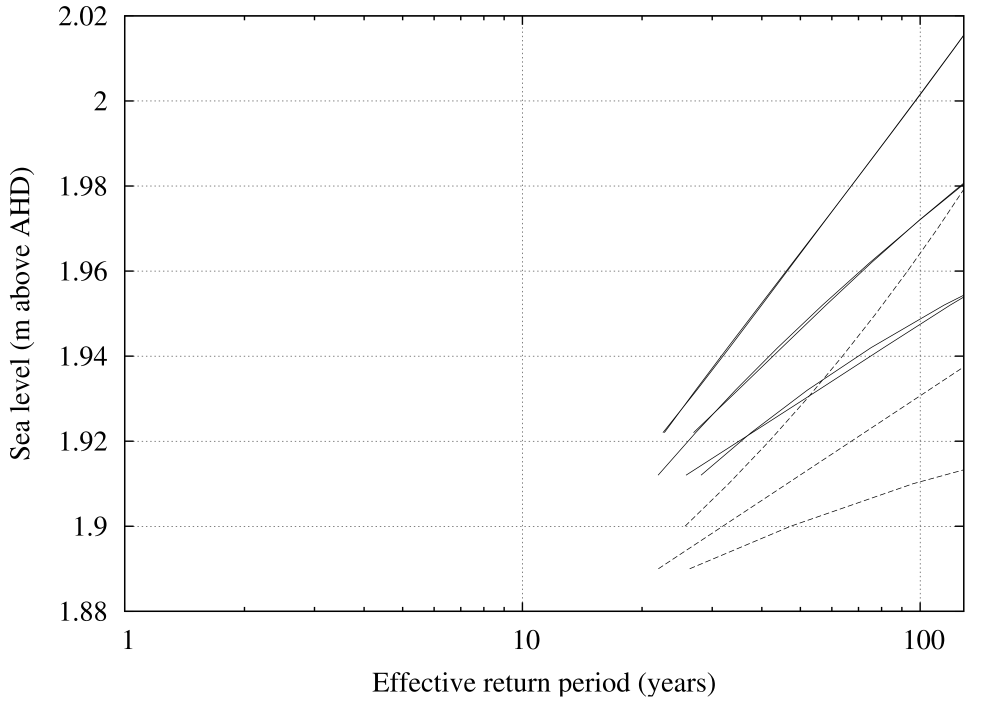

Figure 161: Effective return periods for Burnie, 2020, scenario B1 and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 88.

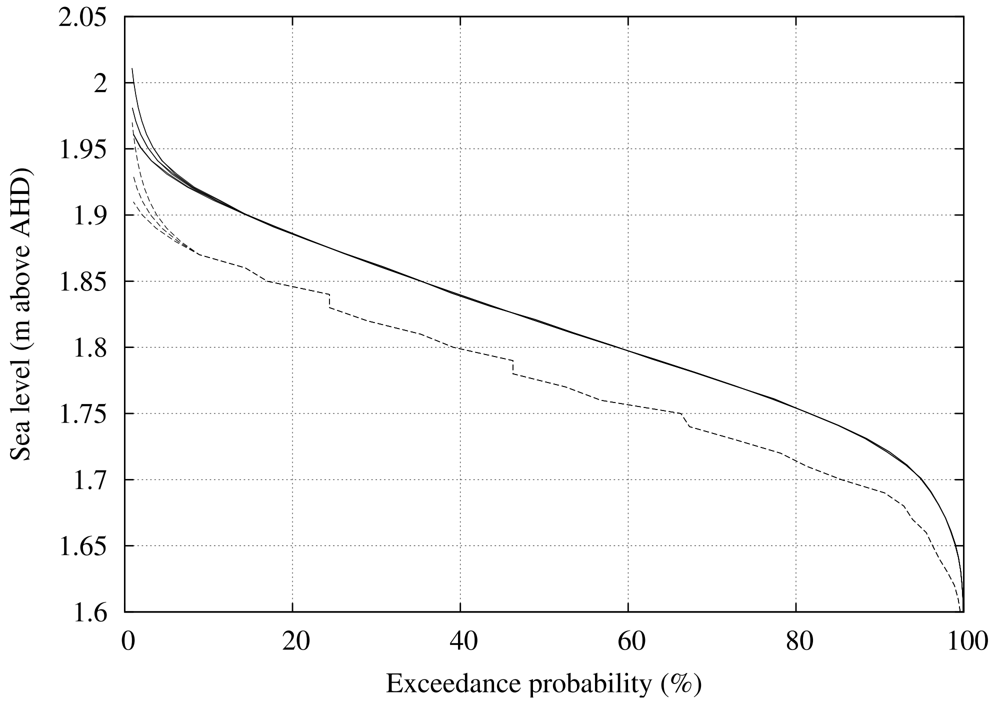

Figure 162: Exceedance probabilities for Burnie, 2020, scenario A1B and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 89.

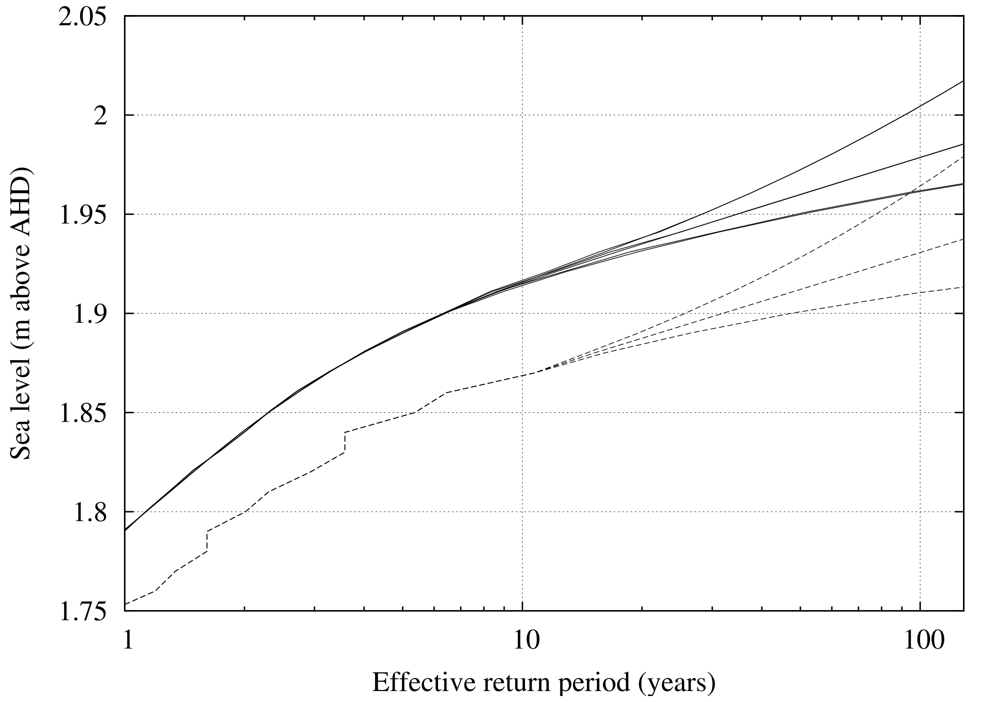

Figure 163: Effective return periods for Burnie, 2020, scenario A1B and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 89.

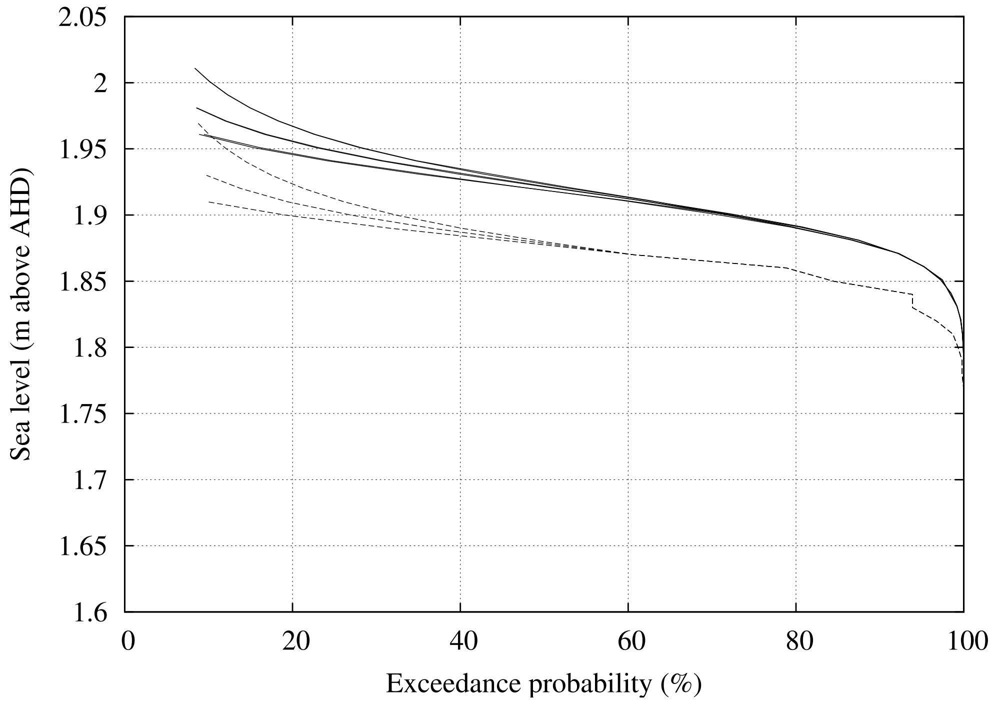

Figure 164: Exceedance probabilities for Burnie, 2020, scenario A1B and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 90.

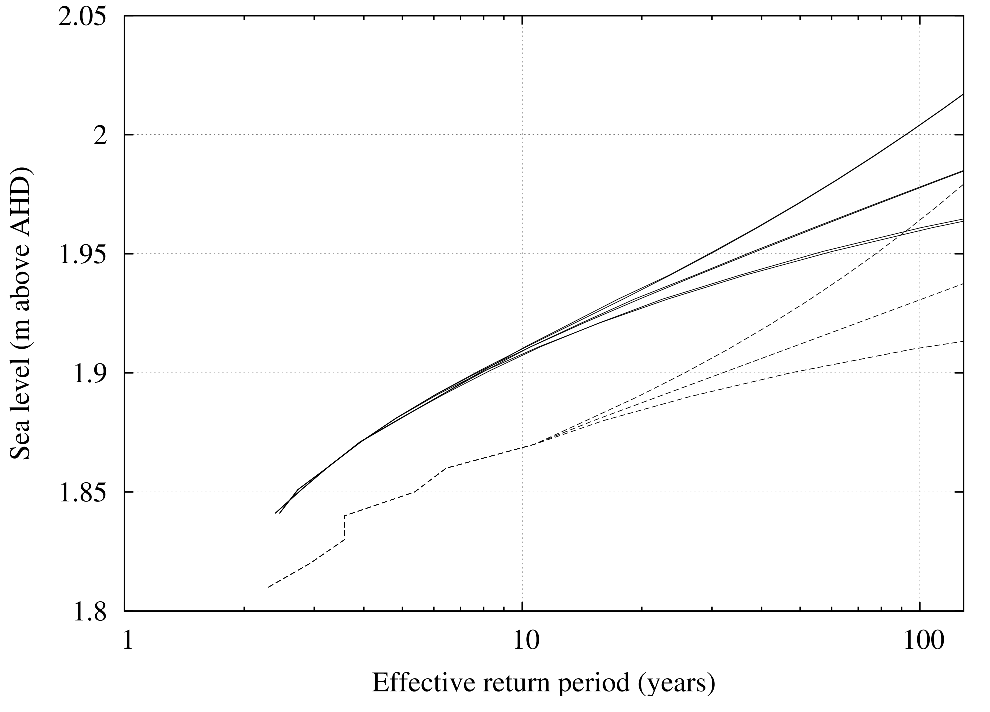

Figure 165: Effective return periods for Burnie, 2020, scenario A1B and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 90.

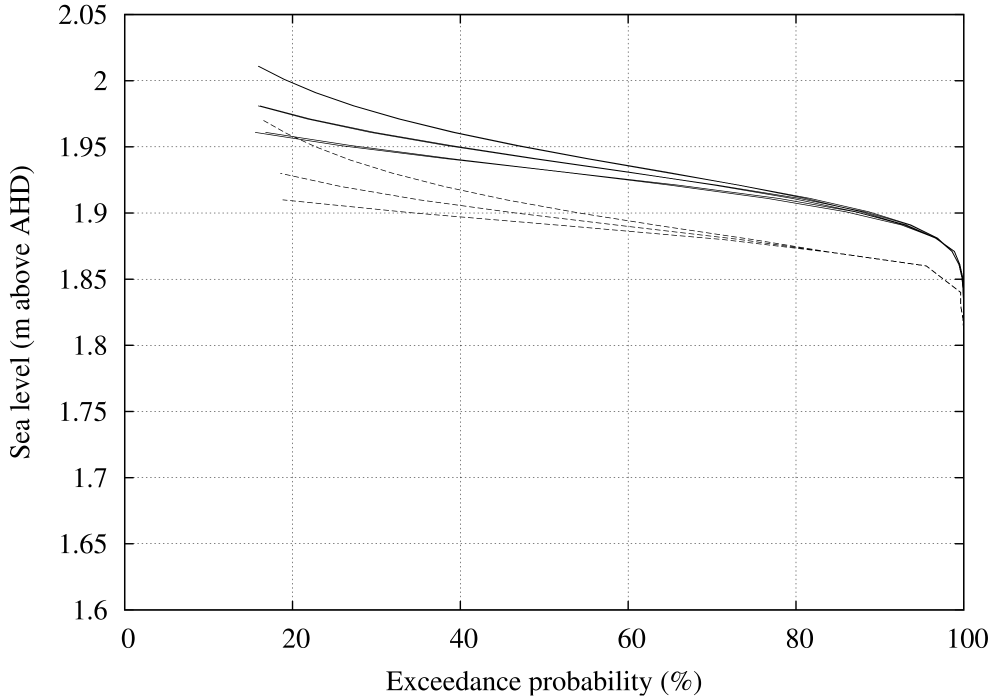

Figure 166: Exceedance probabilities for Burnie, 2020, scenario A1B and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 91.

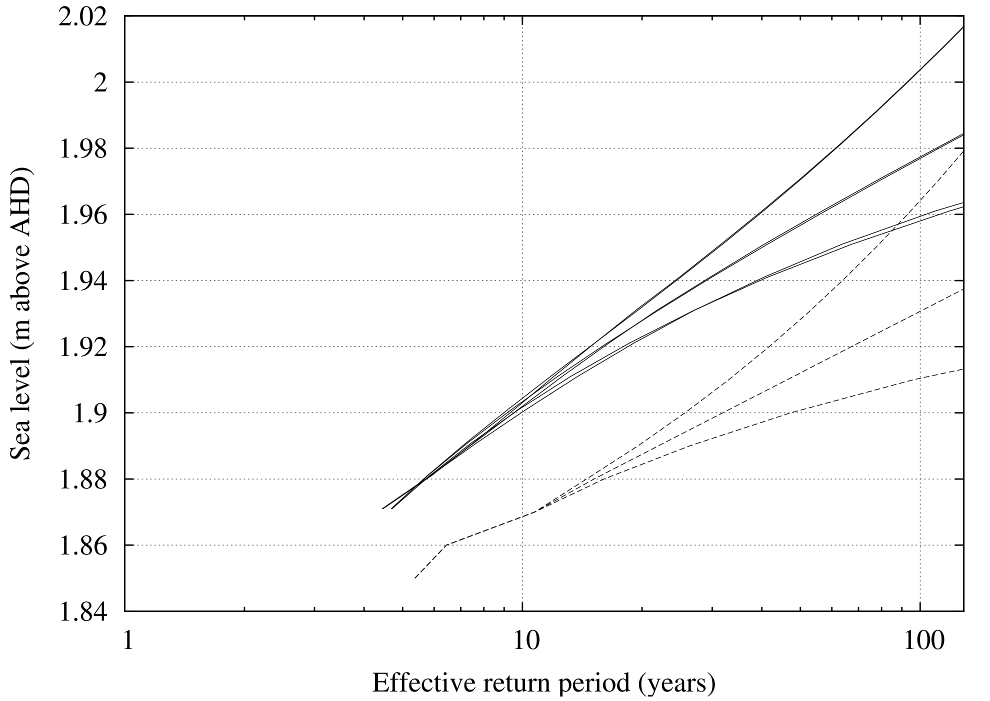

Figure 167: Effective return periods for Burnie, 2020, scenario A1B and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 91.

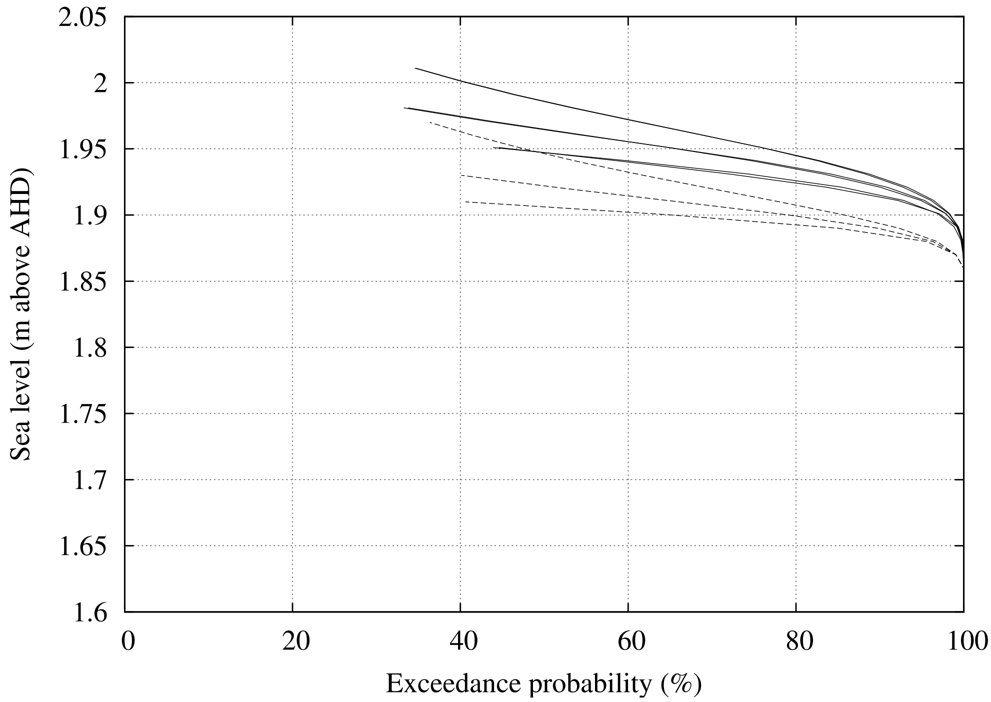

Figure 168: Exceedance probabilities for Burnie, 2020, scenario A1B and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 92.

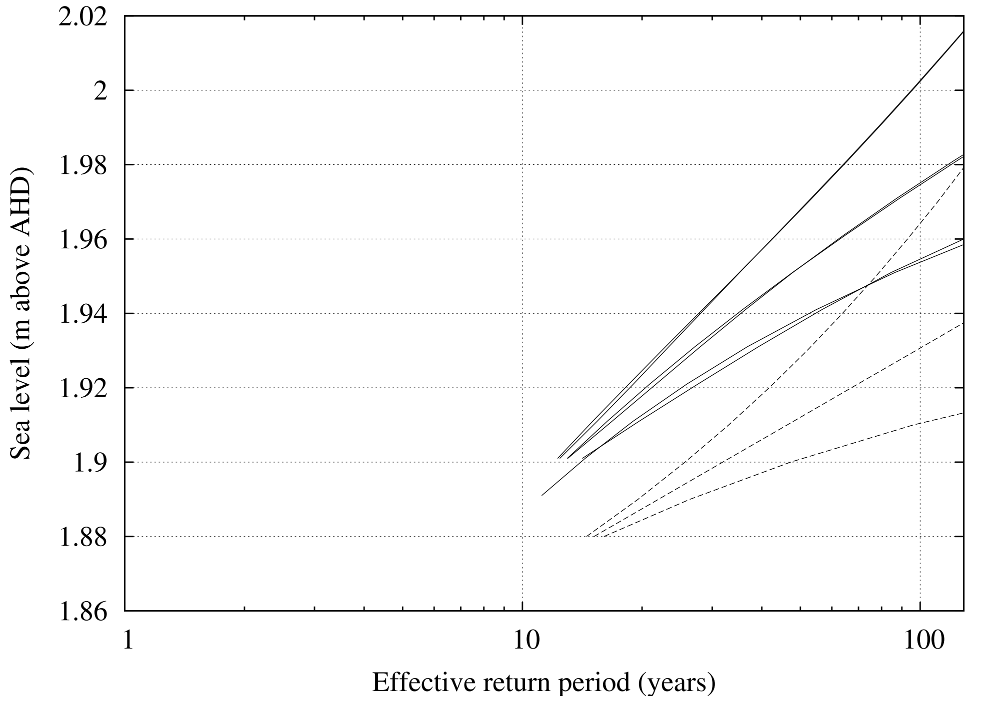

Figure 169: Effective return periods for Burnie, 2020, scenario A1B and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 92.

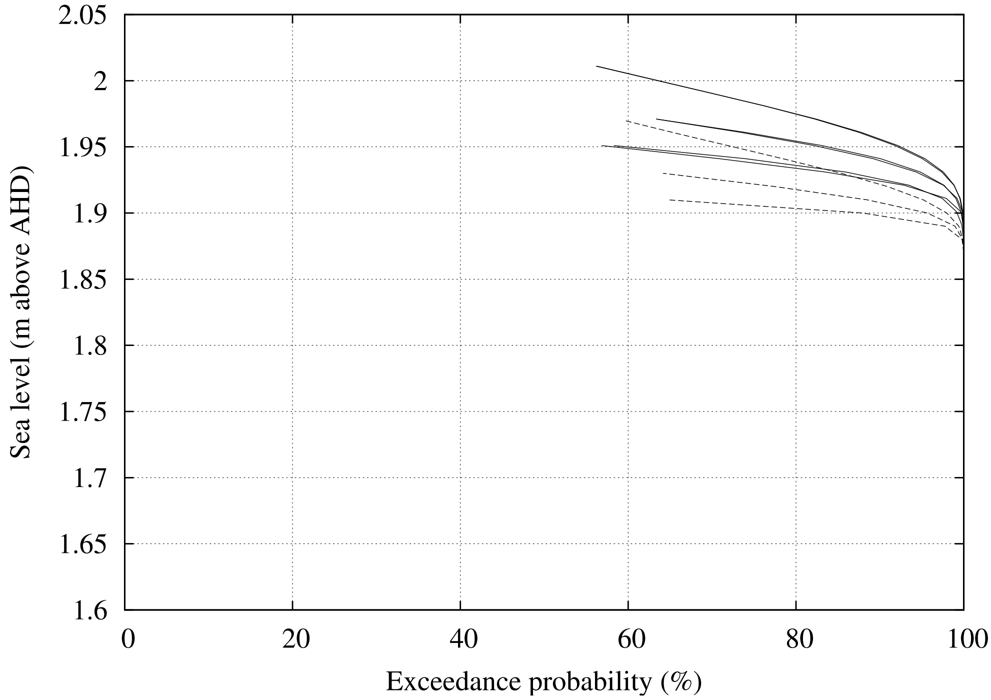

Figure 170: Exceedance probabilities for Burnie, 2020, scenario A1B and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 93.

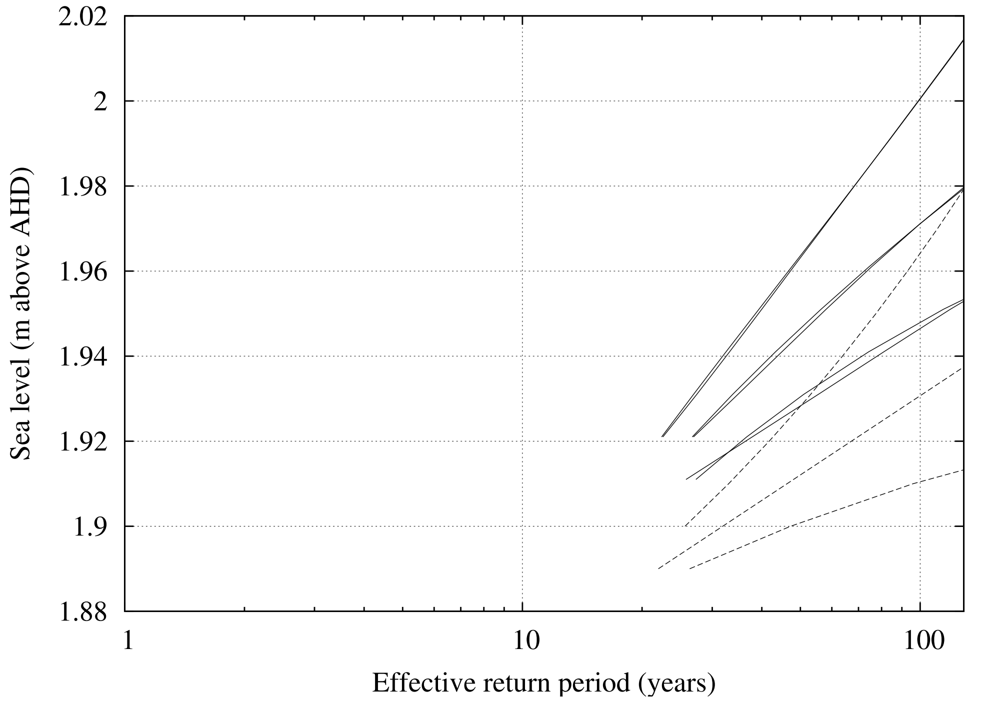

Figure 171: Effective return periods for Burnie, 2020, scenario A1B and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 93.

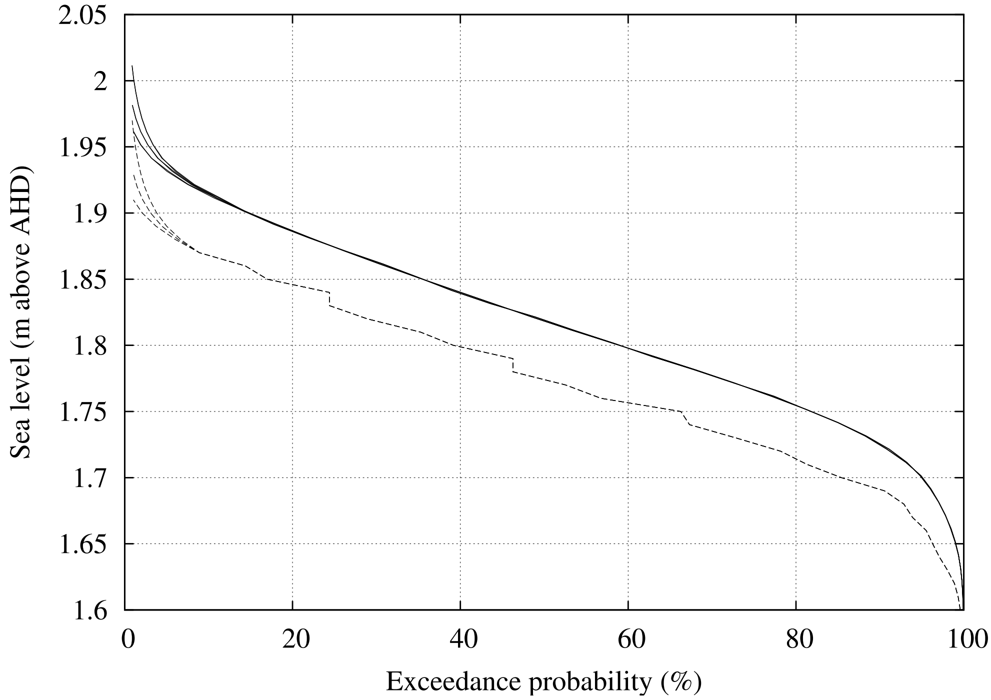

Figure 172: Exceedance probabilities for Burnie, 2020, scenario A1FI and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 94.

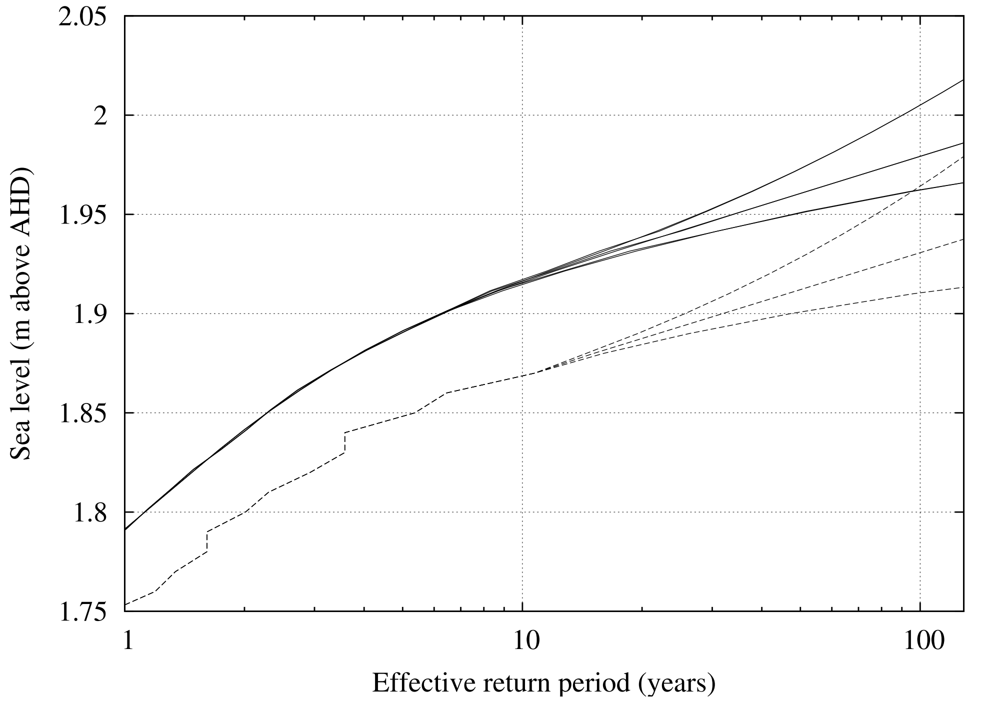

Figure 173: Effective return periods for Burnie, 2020, scenario A1FI and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 94.

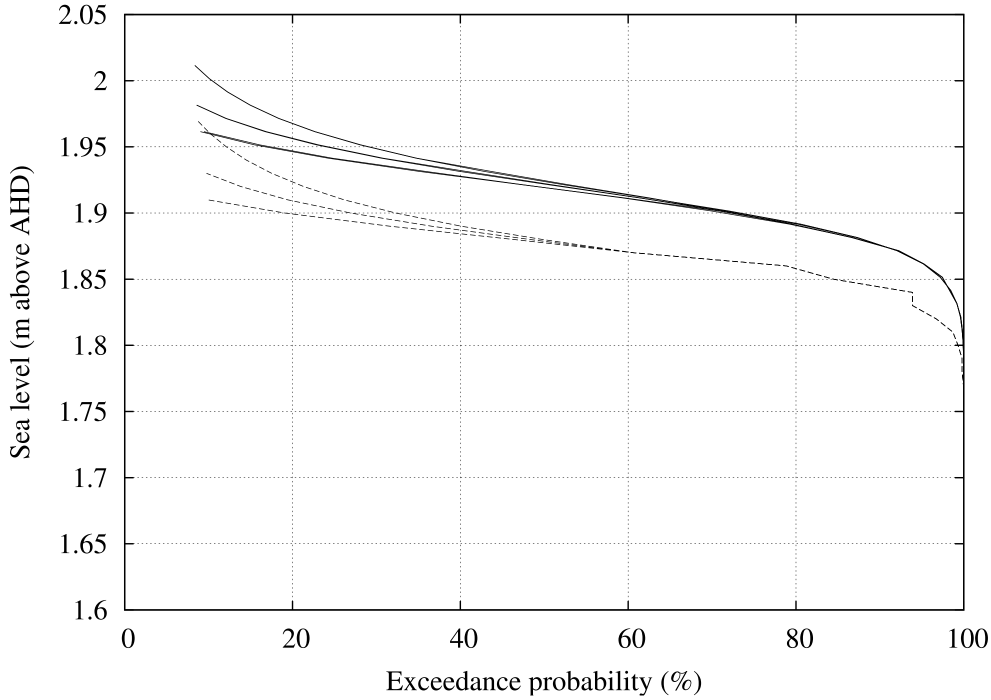

Figure 174: Exceedance probabilities for Burnie, 2020, scenario A1FI and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 95.

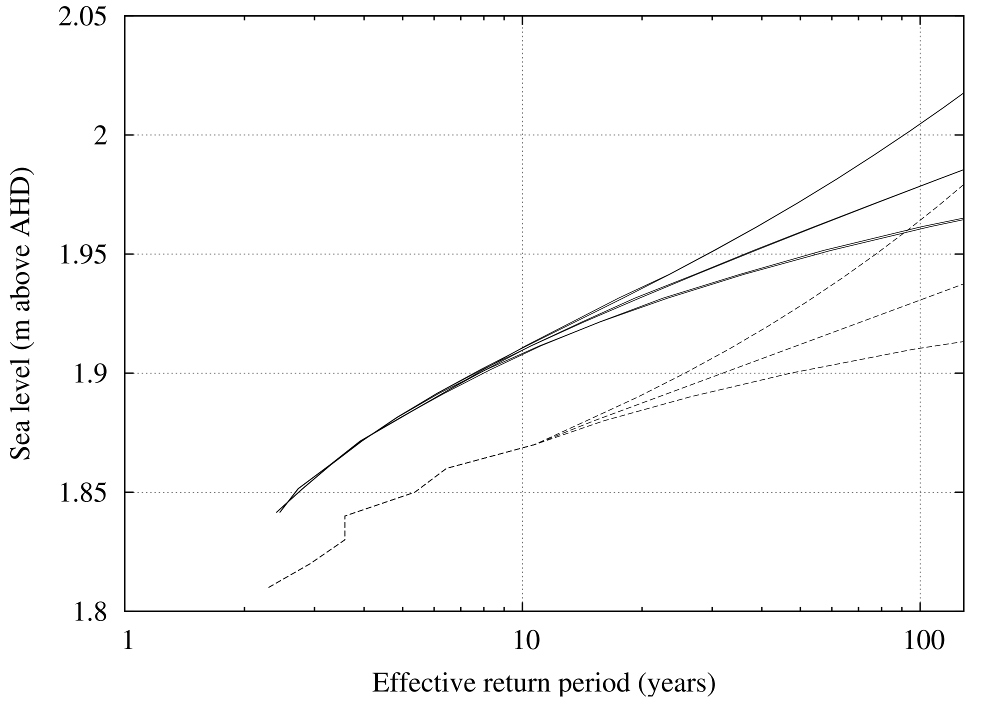

Figure 175: Effective return periods for Burnie, 2020, scenario A1FI and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 95.

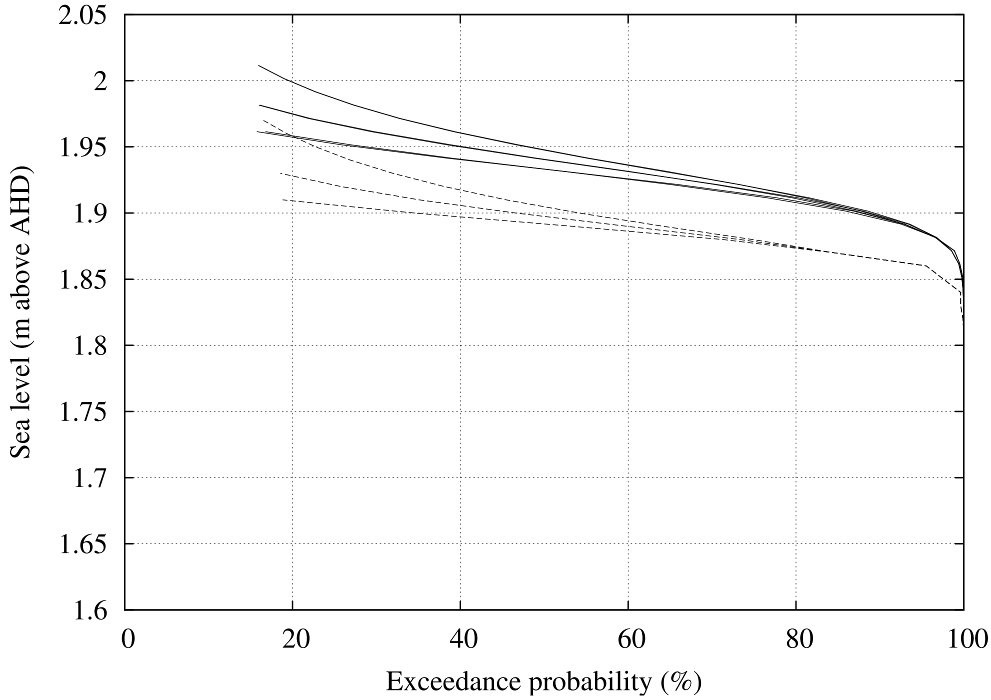

Figure 176: Exceedance probabilities for Burnie, 2020, scenario A1FI and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 96.

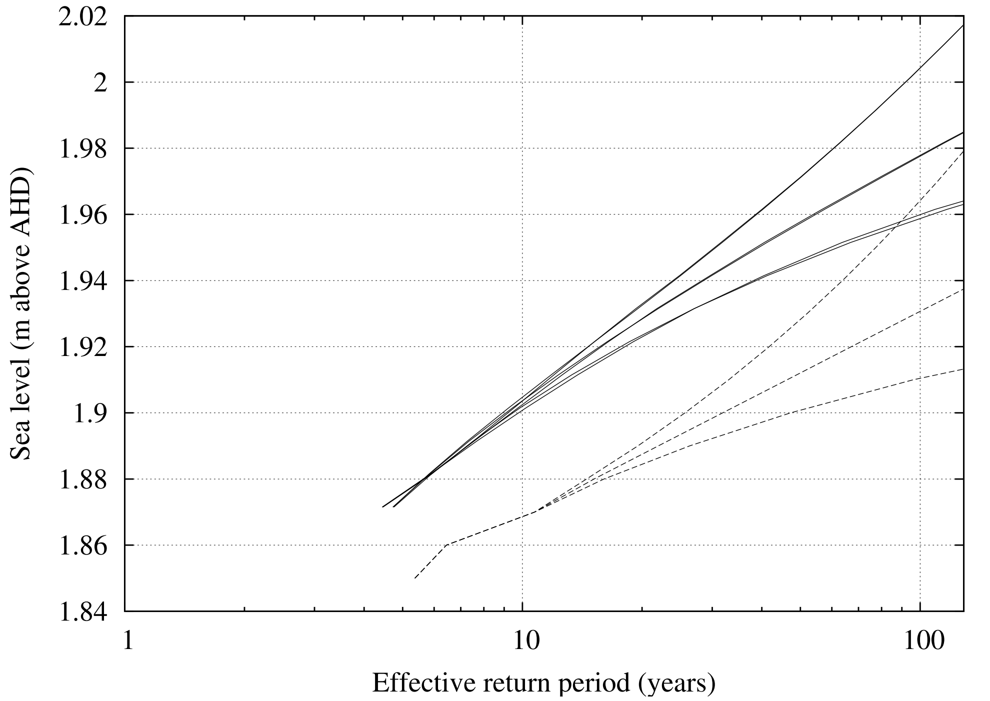

Figure 177: Effective return periods for Burnie, 2020, scenario A1FI and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 96.

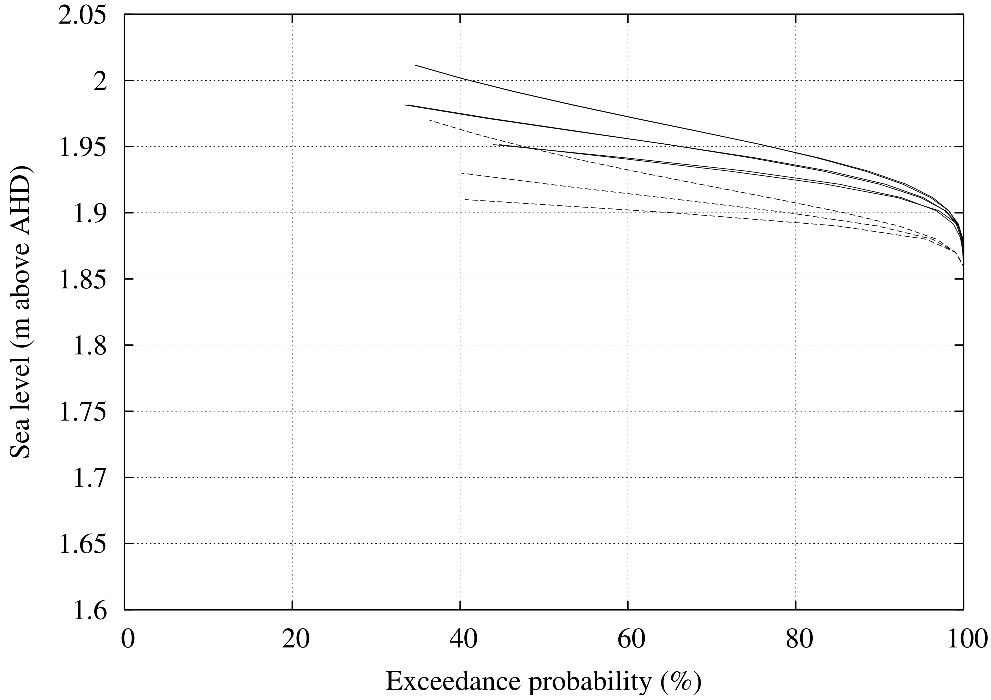

Figure 178: Exceedance probabilities for Burnie, 2020, scenario A1FI and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 97.

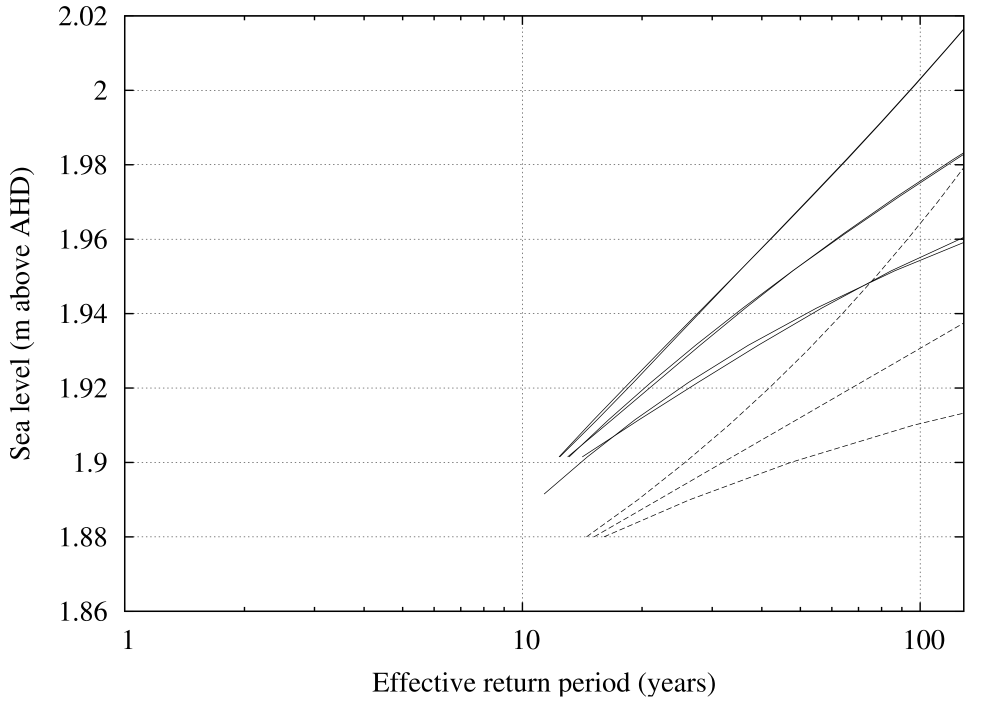

Figure 179: Effective return periods for Burnie, 2020, scenario A1FI and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 97.

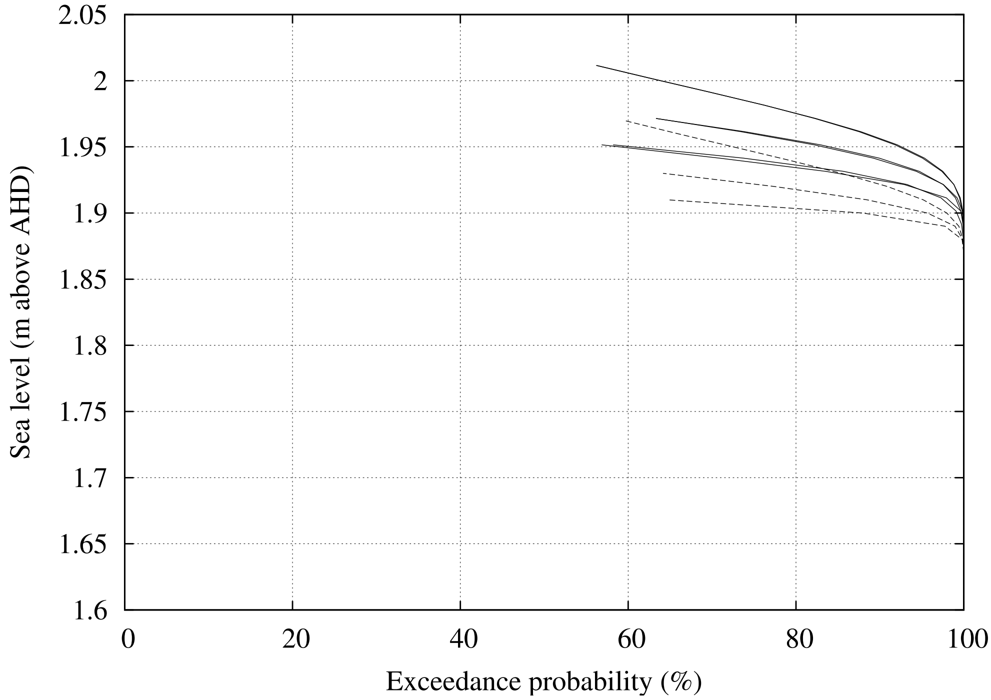

Figure 180: Exceedance probabilities for Burnie, 2020, scenario A1FI and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 98.

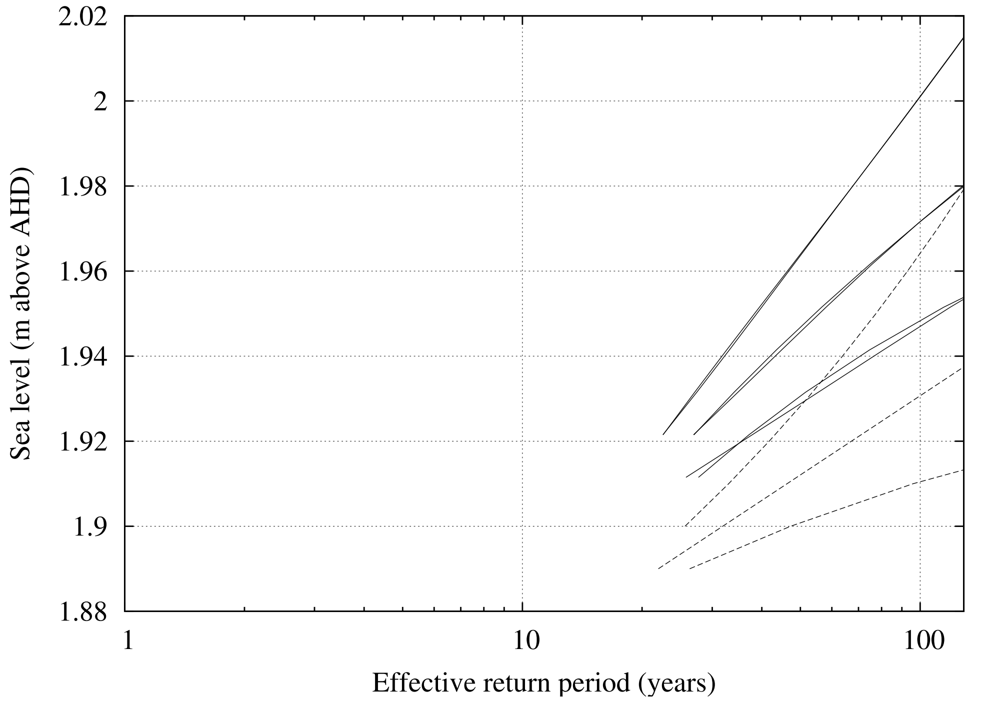

Figure 181: Effective return periods for Burnie, 2020, scenario A1FI and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 98.

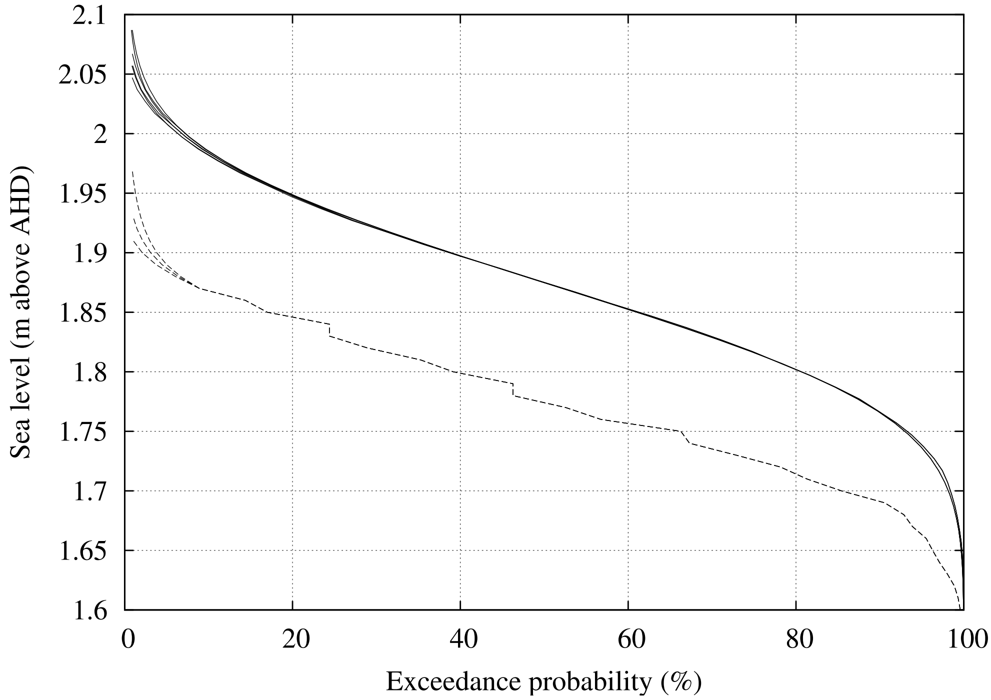

Figure 182: Exceedance probabilities for Burnie, 2040, scenario B1 and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 99.

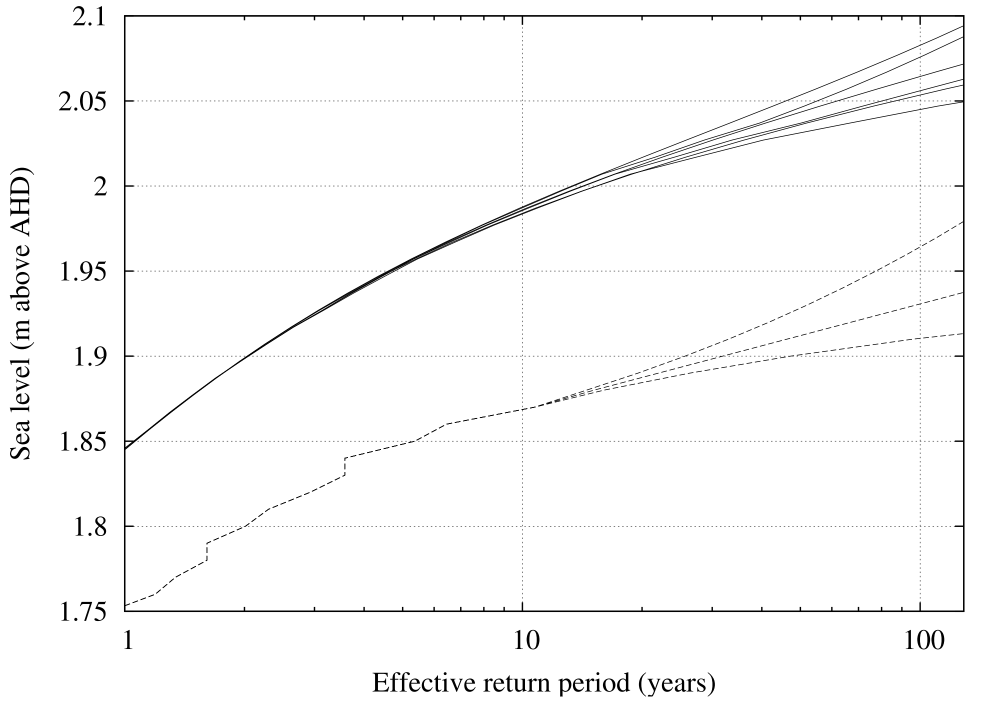

Figure 183: Effective return periods for Burnie, 2040, scenario B1 and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 99.

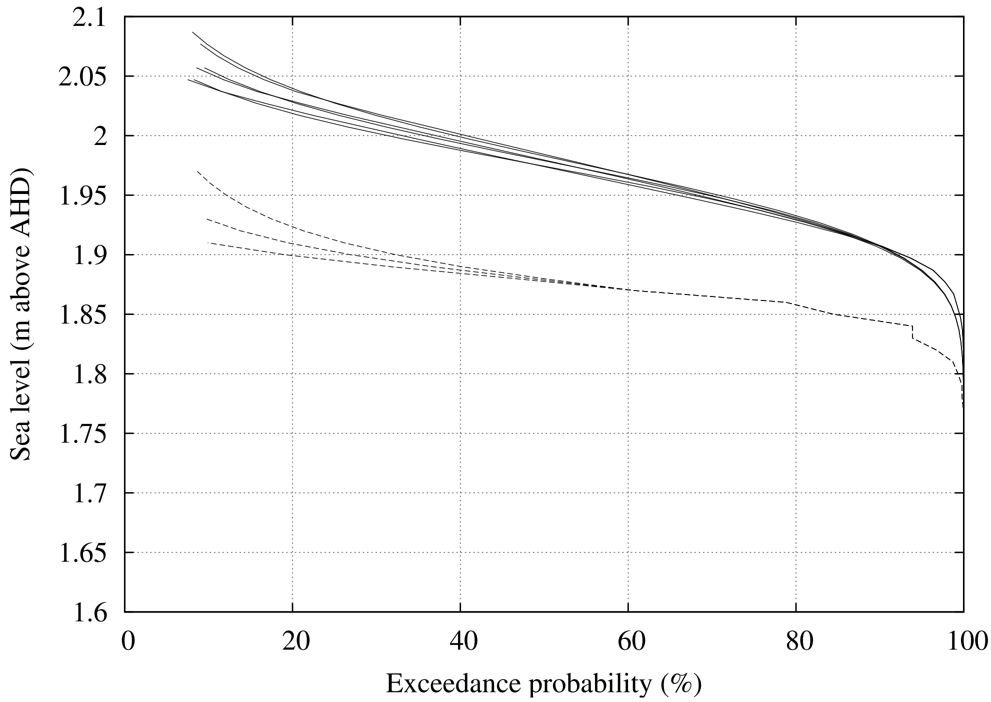

Figure 184: Exceedance probabilities for Burnie, 2040, scenario B1 and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 100.

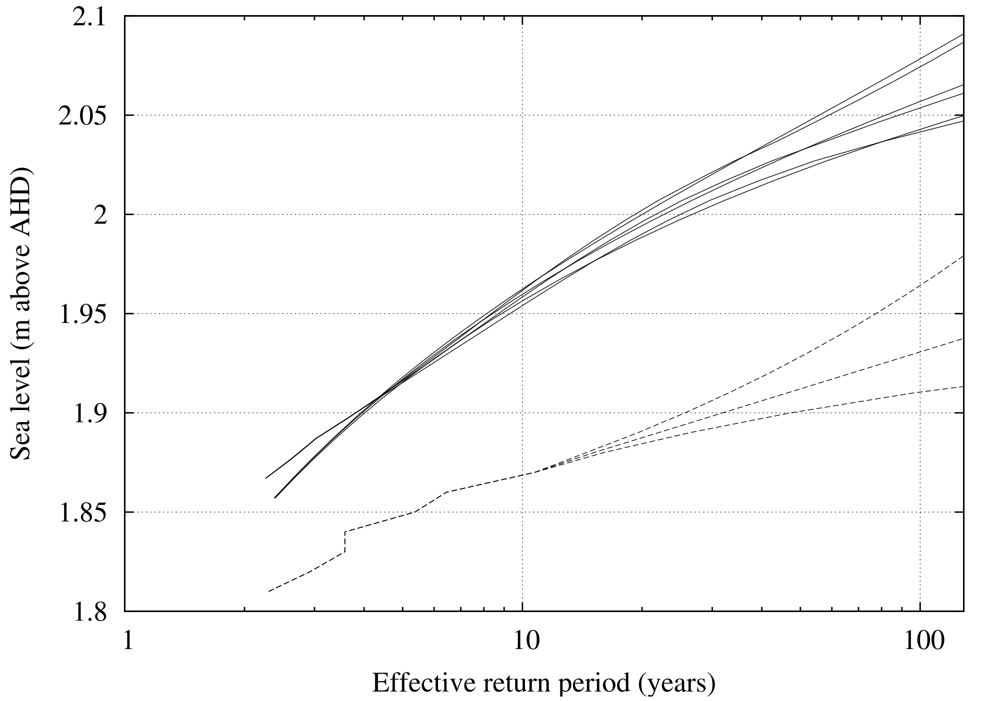

Figure 185: Effective return periods for Burnie, 2040, scenario B1 and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 100.

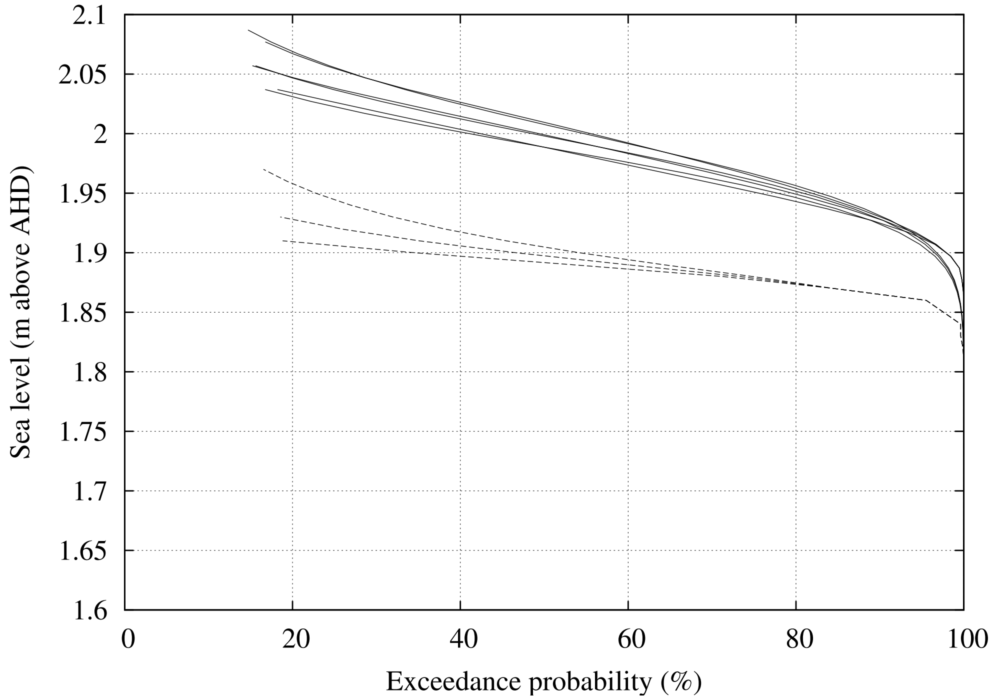

Figure 186: Exceedance probabilities for Burnie, 2040, scenario B1 and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 101.

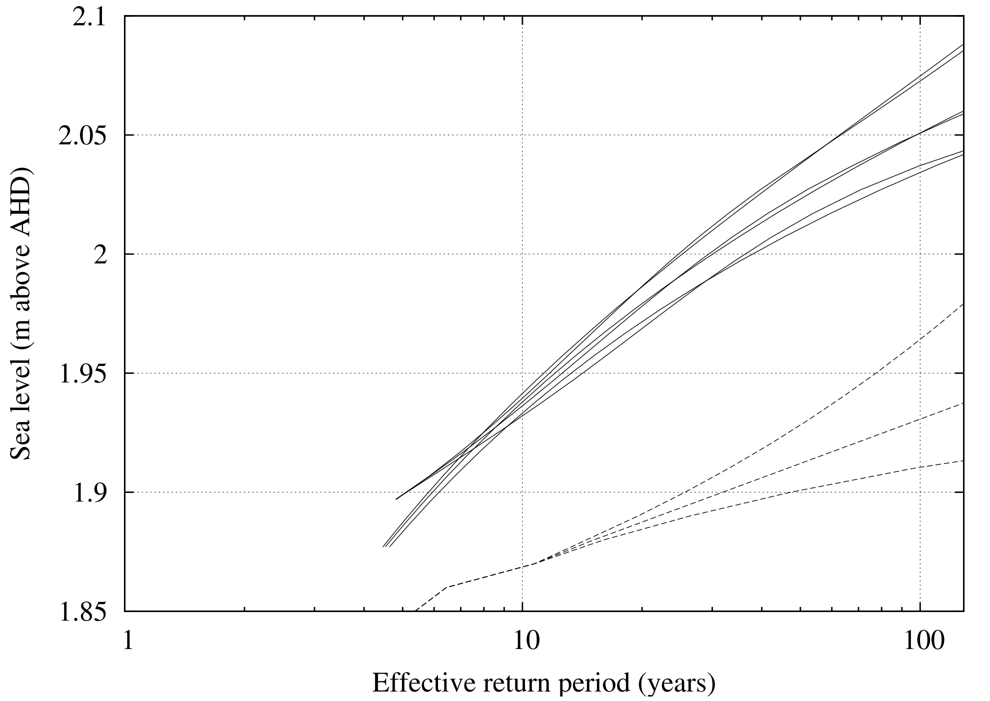

Figure 187: Effective return periods for Burnie, 2040, scenario B1 and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 101.

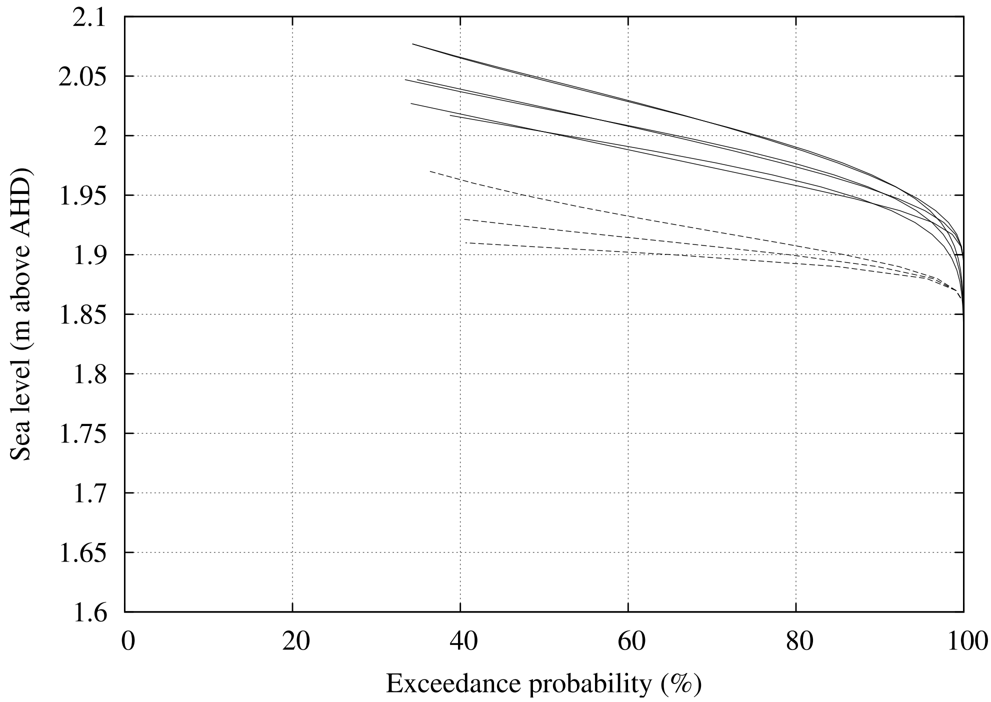

Figure 188: Exceedance probabilities for Burnie, 2040, scenario B1 and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 102.

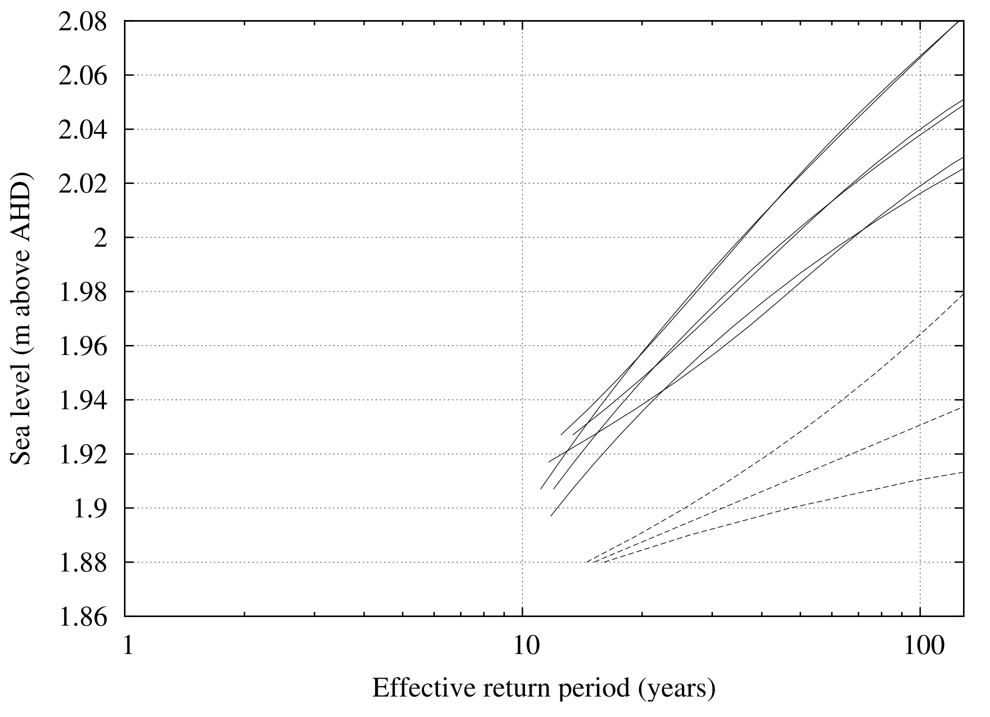

Figure 189: Effective return periods for Burnie, 2040, scenario B1 and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 102.

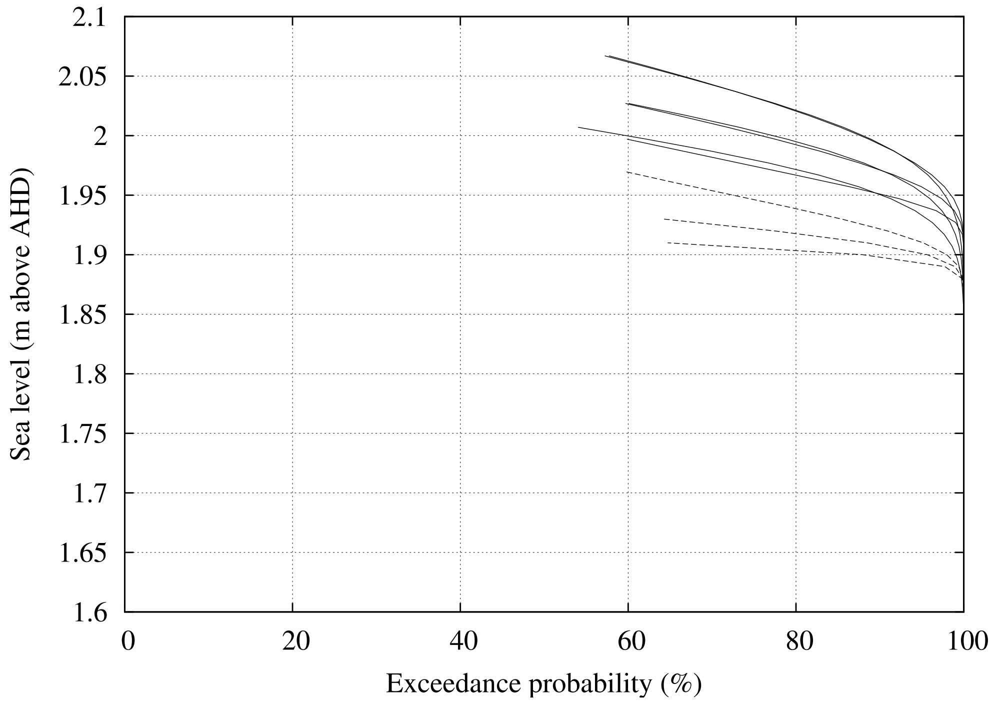

Figure 190: Exceedance probabilities for Burnie, 2040, scenario B1 and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 103.

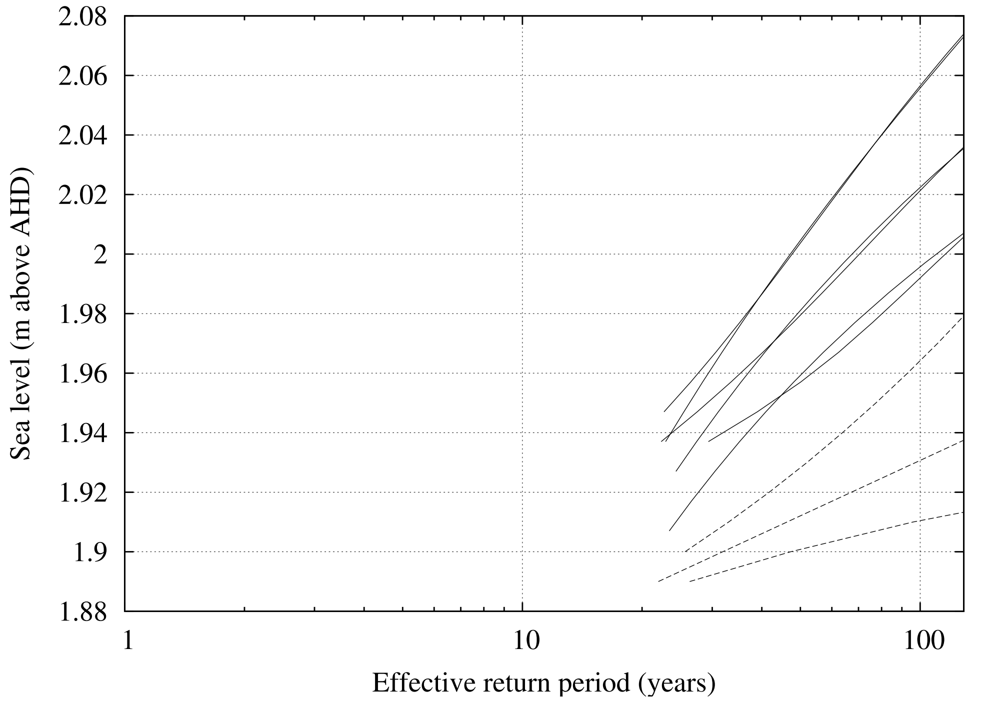

Figure 191: Effective return periods for Burnie, 2040, scenario B1 and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 103.

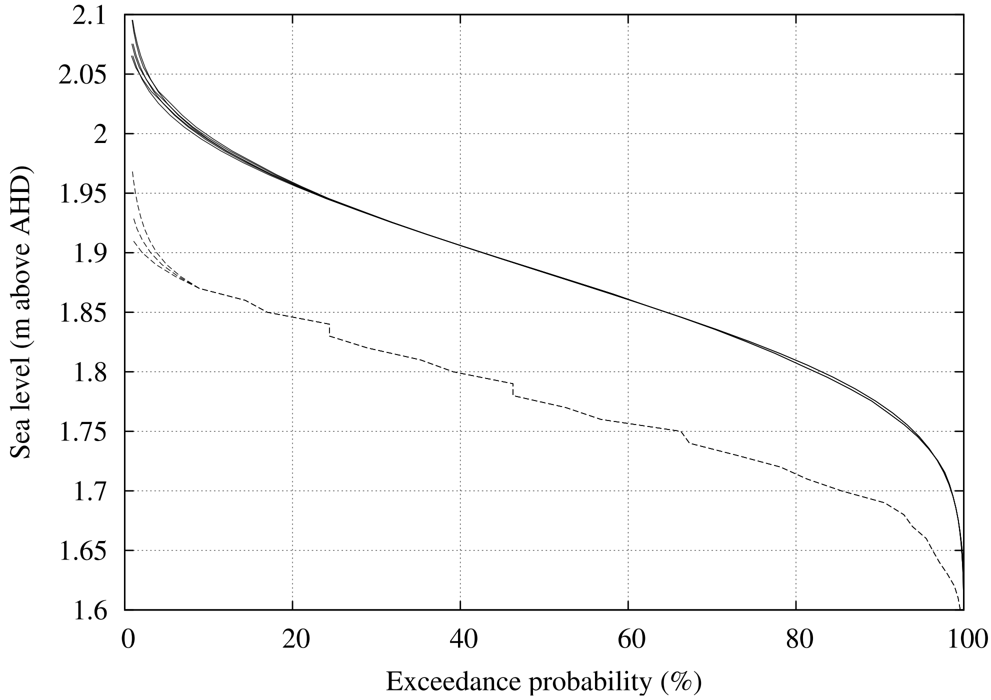

Figure 192: Exceedance probabilities for Burnie, 2040, scenario A1B and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 104.

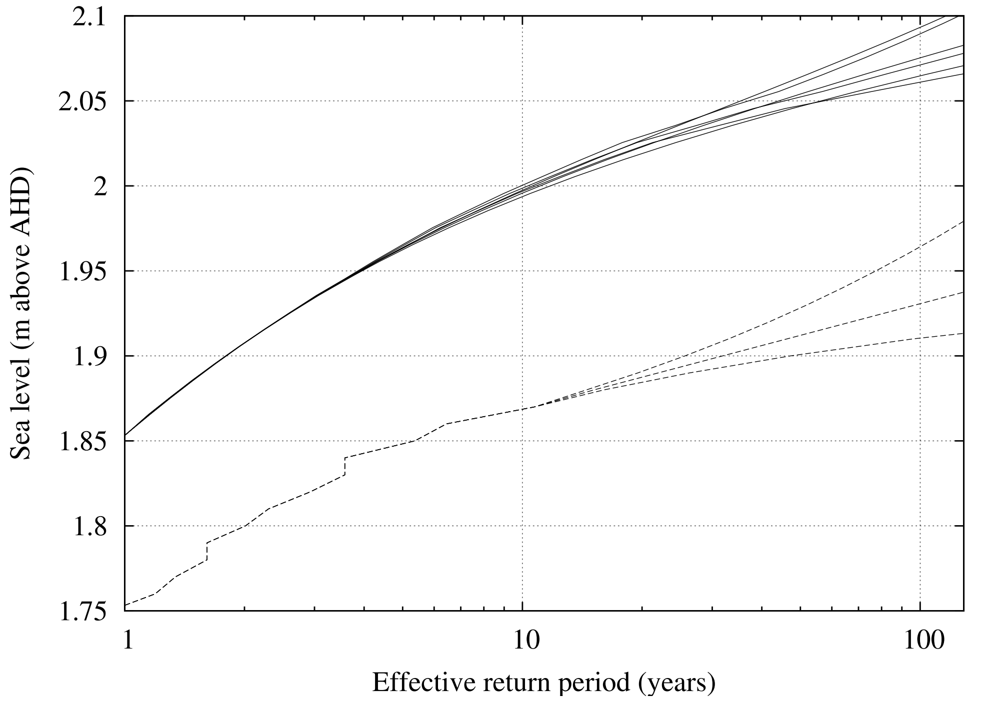

Figure 193: Effective return periods for Burnie, 2040, scenario A1B and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 104.

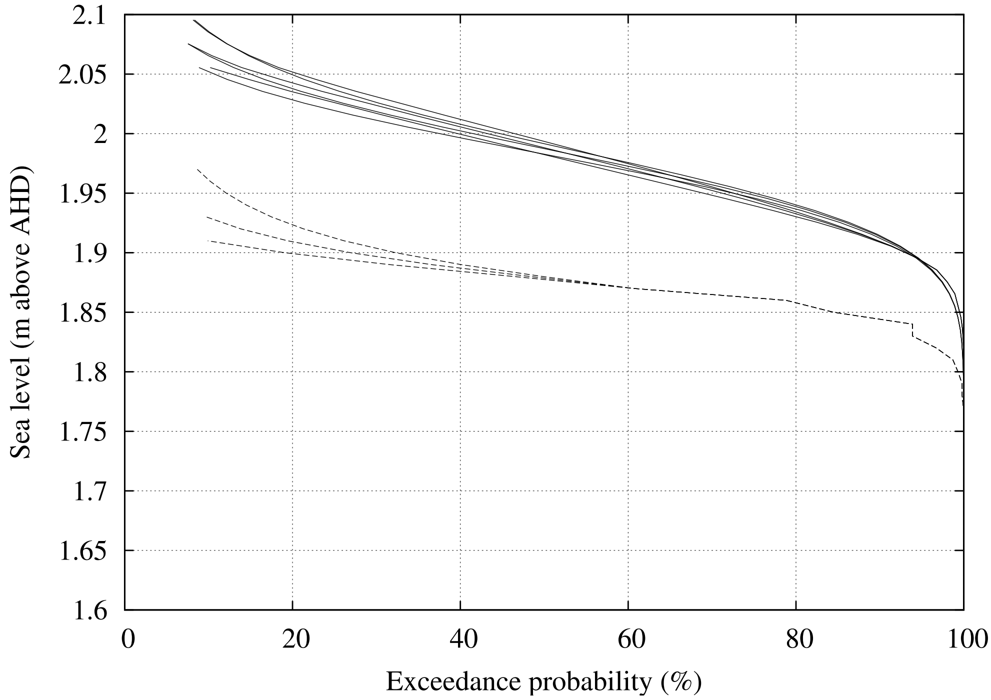

Figure 194: Exceedance probabilities for Burnie, 2040, scenario A1B and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 105.

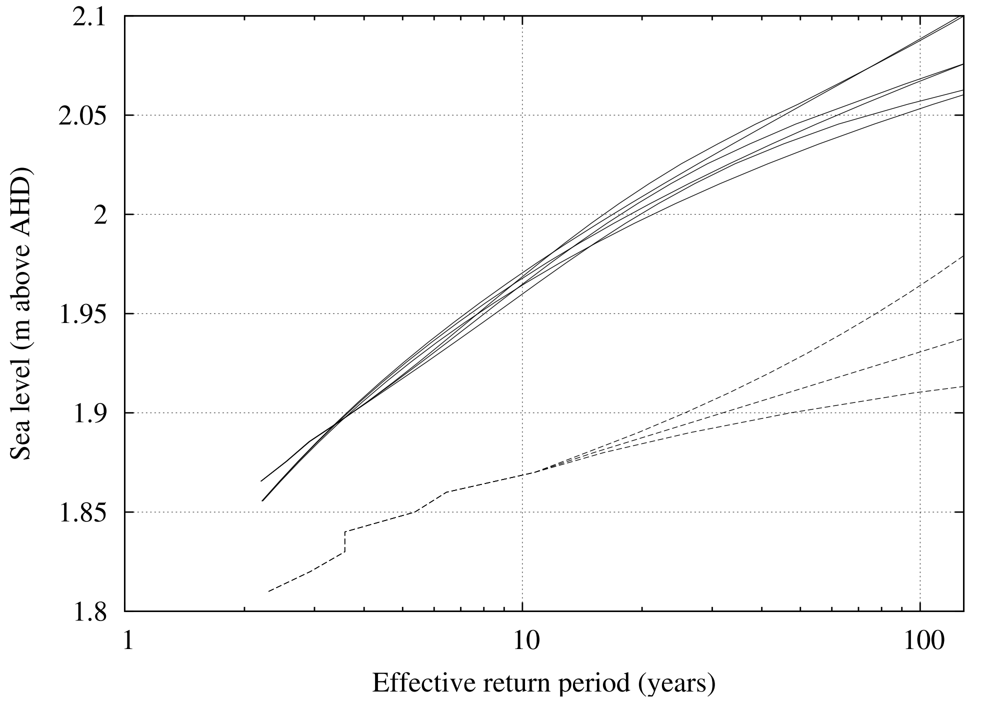

Figure 195: Effective return periods for Burnie, 2040, scenario A1B and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 105.

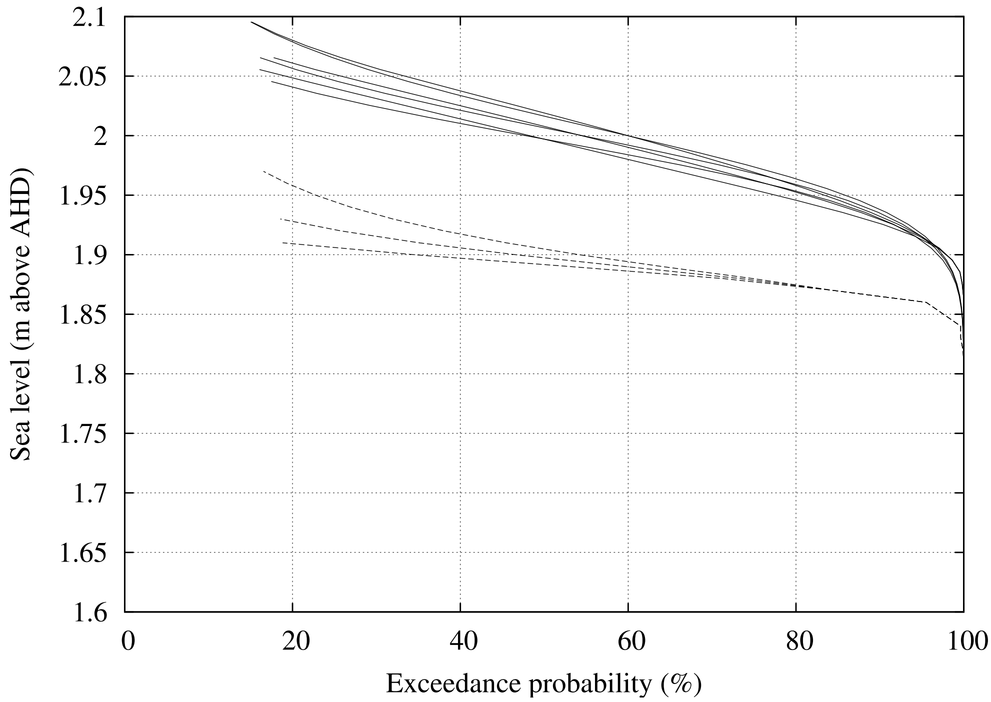

Figure 196: Exceedance probabilities for Burnie, 2040, scenario A1B and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 106.

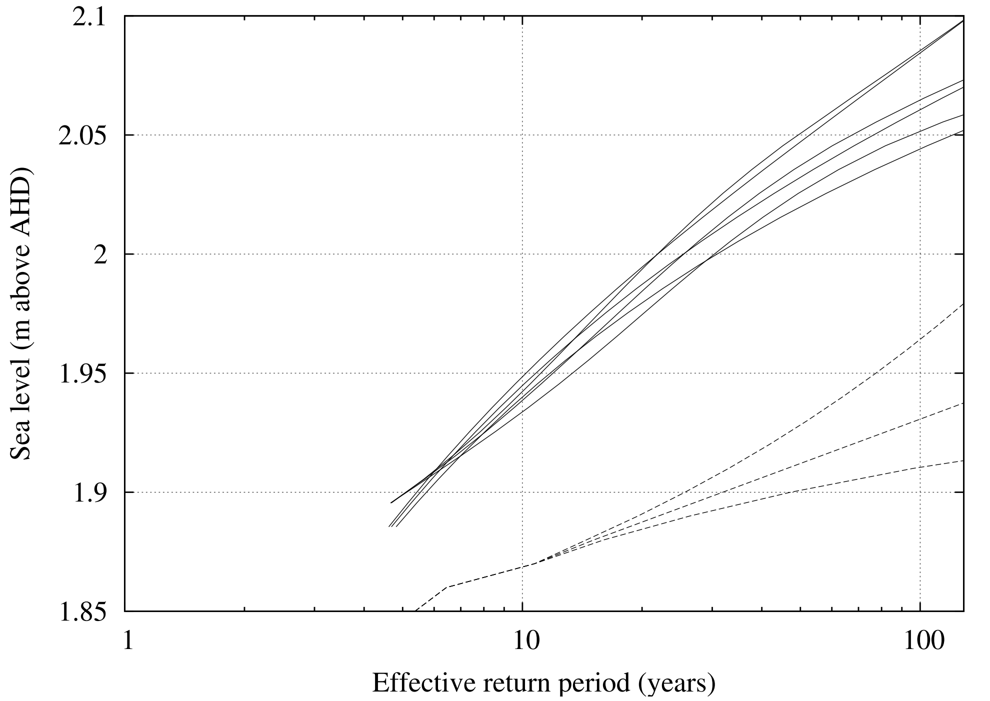

Figure 197: Effective return periods for Burnie, 2040, scenario A1B and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 106.

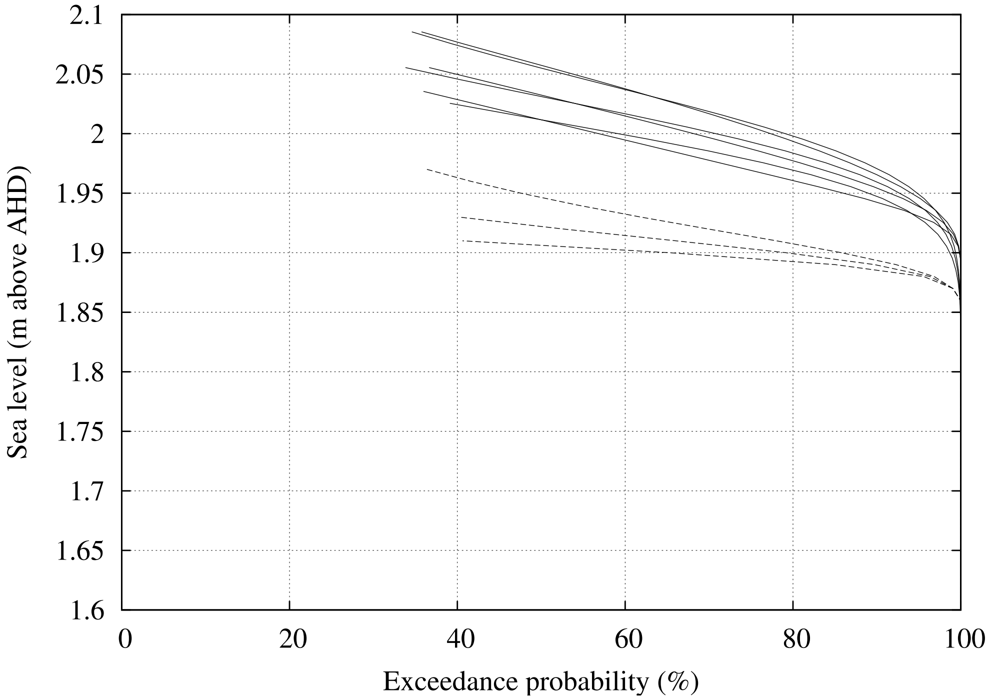

Figure 198: Exceedance probabilities for Burnie, 2040, scenario A1B and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 107.

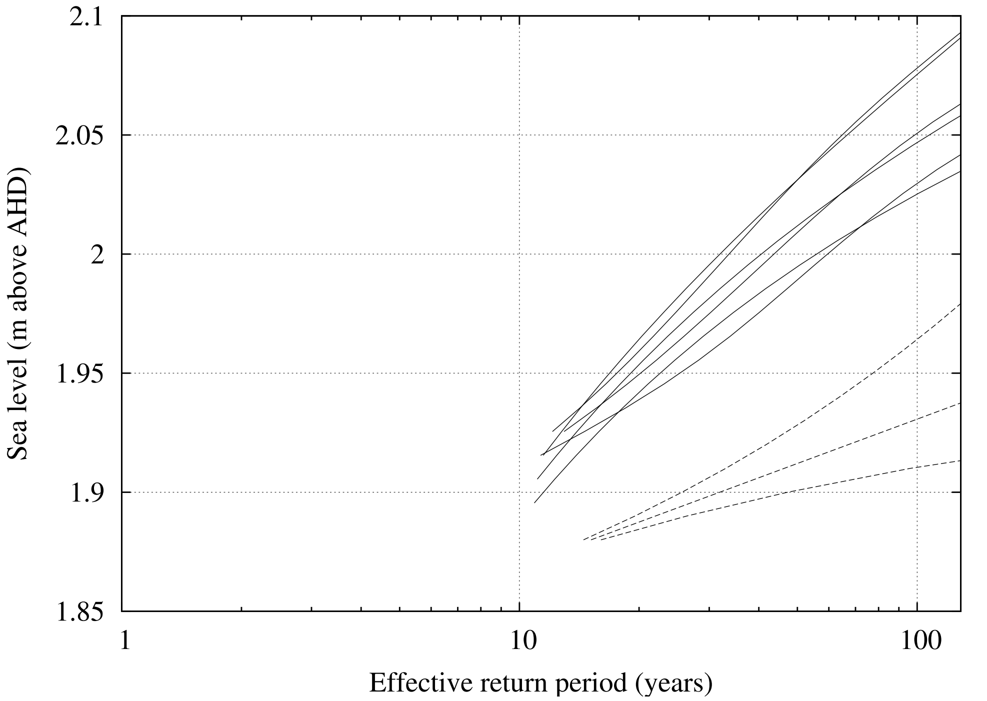

Figure 199: Effective return periods for Burnie, 2040, scenario A1B and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 107.

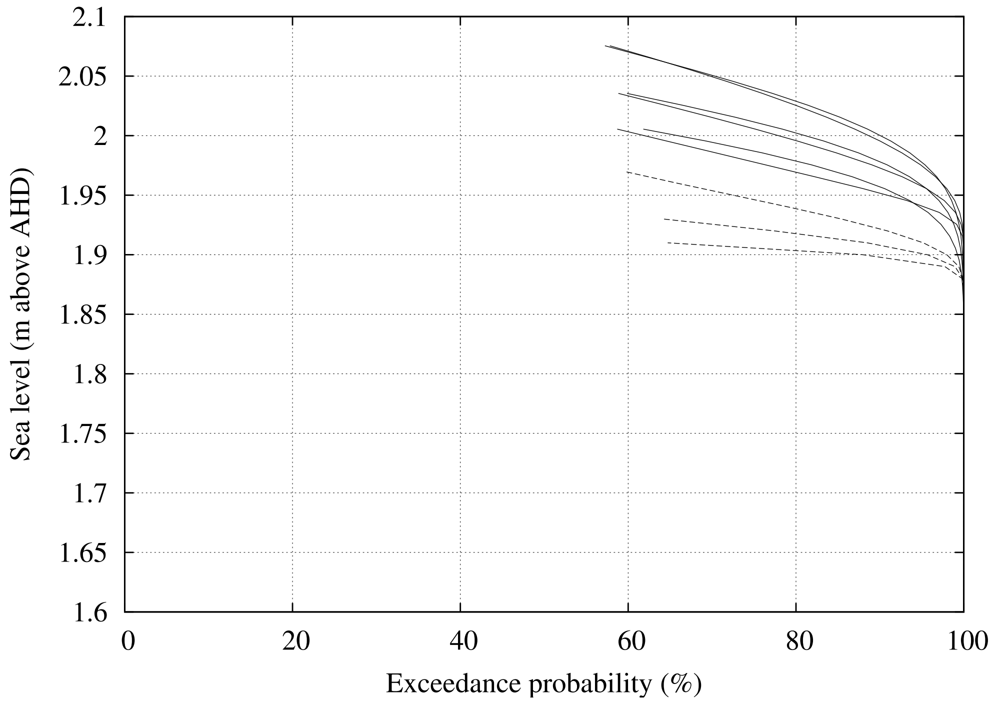

Figure 200: Exceedance probabilities for Burnie, 2040, scenario A1B and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 108.

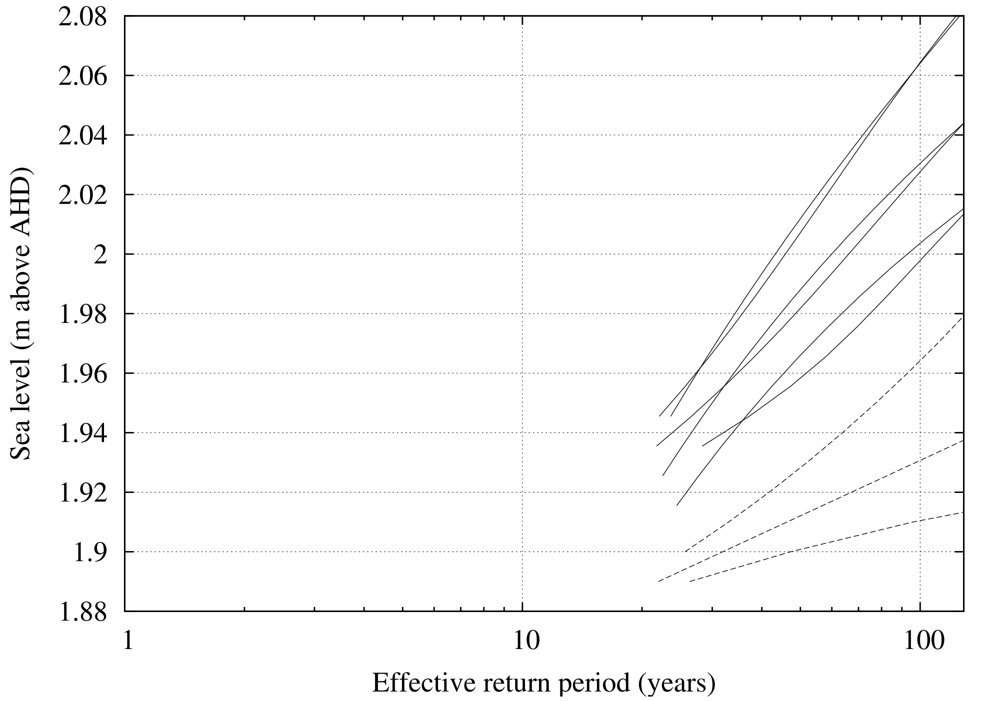

Figure 201: Effective return periods for Burnie, 2040, scenario A1B and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 108.

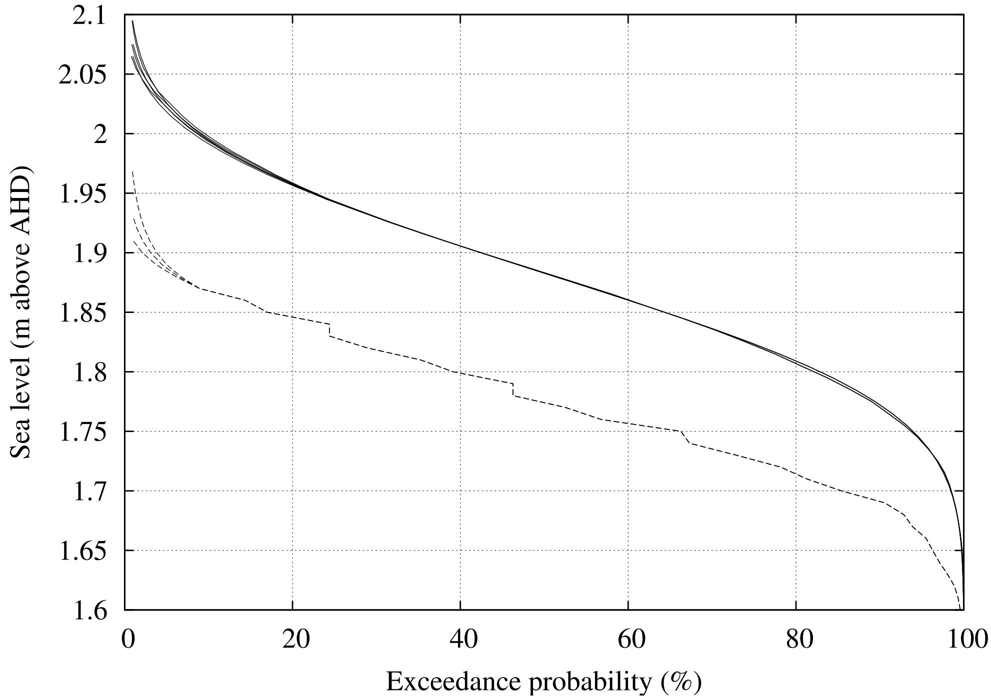

Figure 202: Exceedance probabilities for Burnie, 2040, scenario A1FI and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 109.

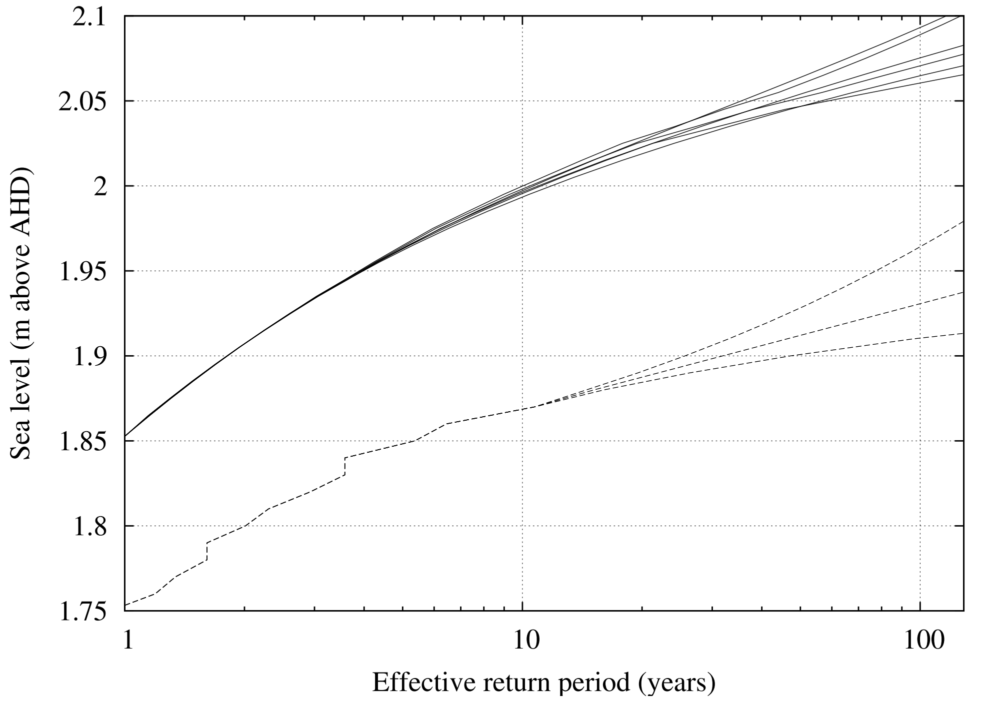

Figure 203: Effective return periods for Burnie, 2040, scenario A1FI and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 109.

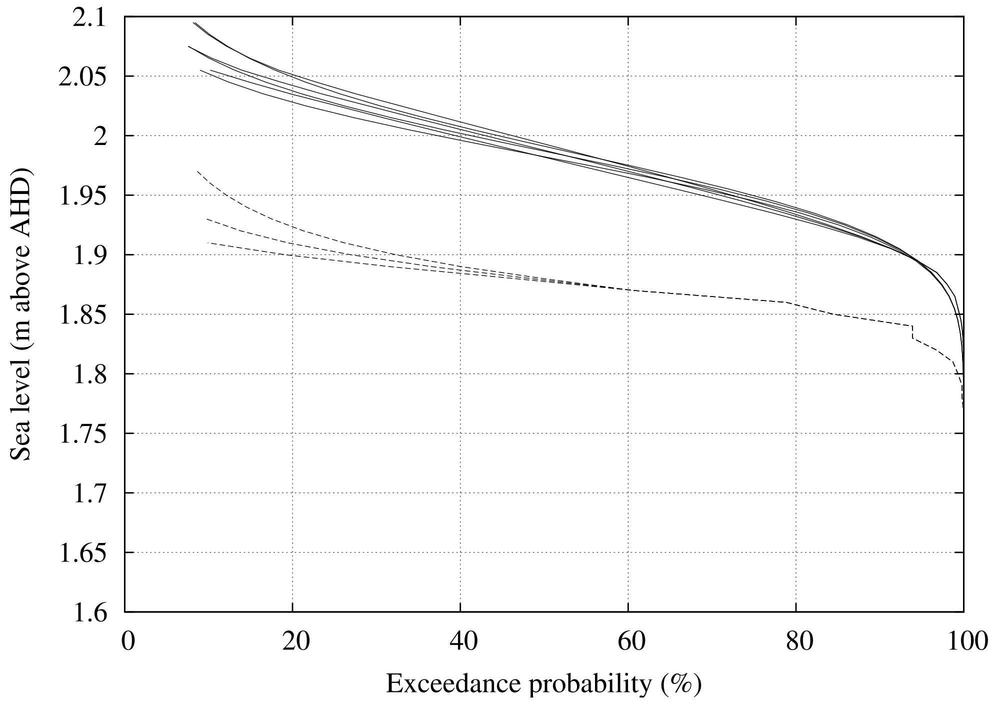

Figure 204: Exceedance probabilities for Burnie, 2040, scenario A1FI and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 110.

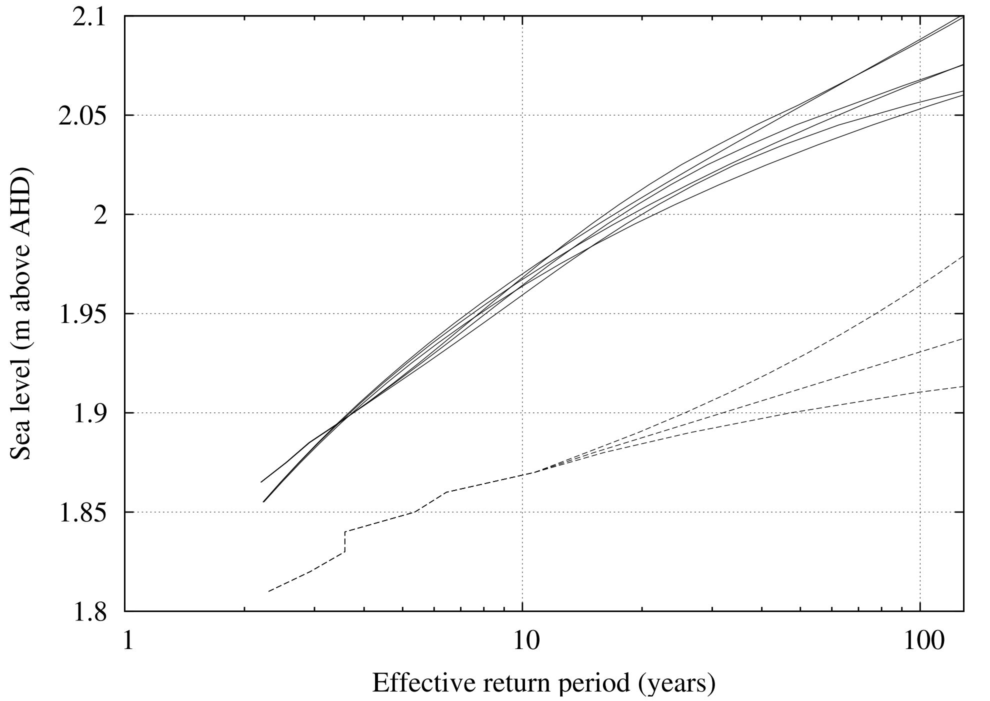

Figure 205: Effective return periods for Burnie, 2040, scenario A1FI and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 110.

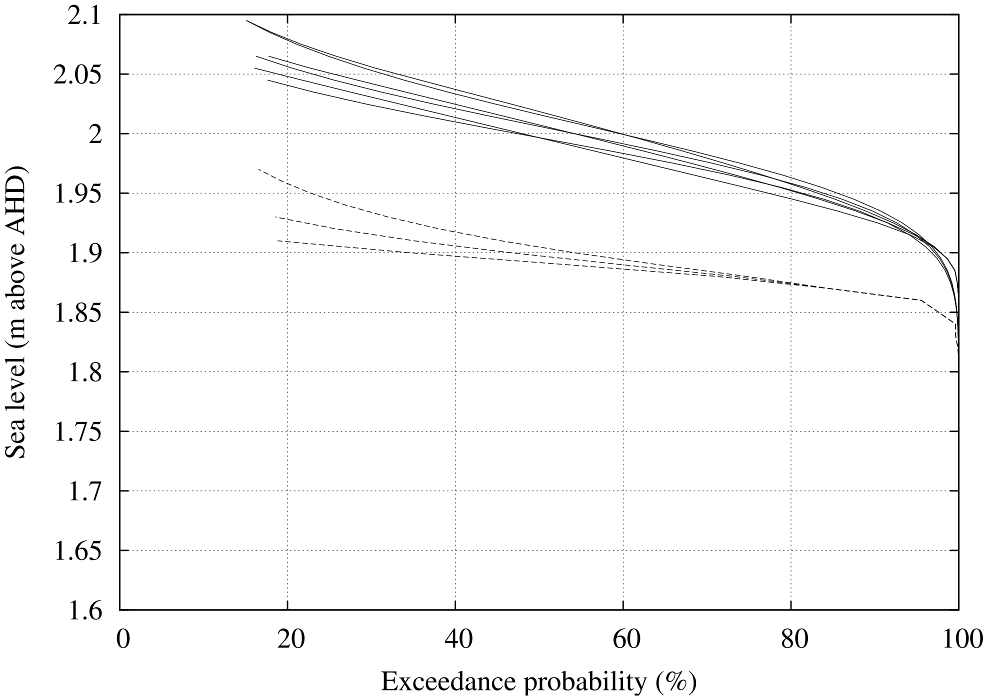

Figure 206: Exceedance probabilities for Burnie, 2040, scenario A1FI and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 111.

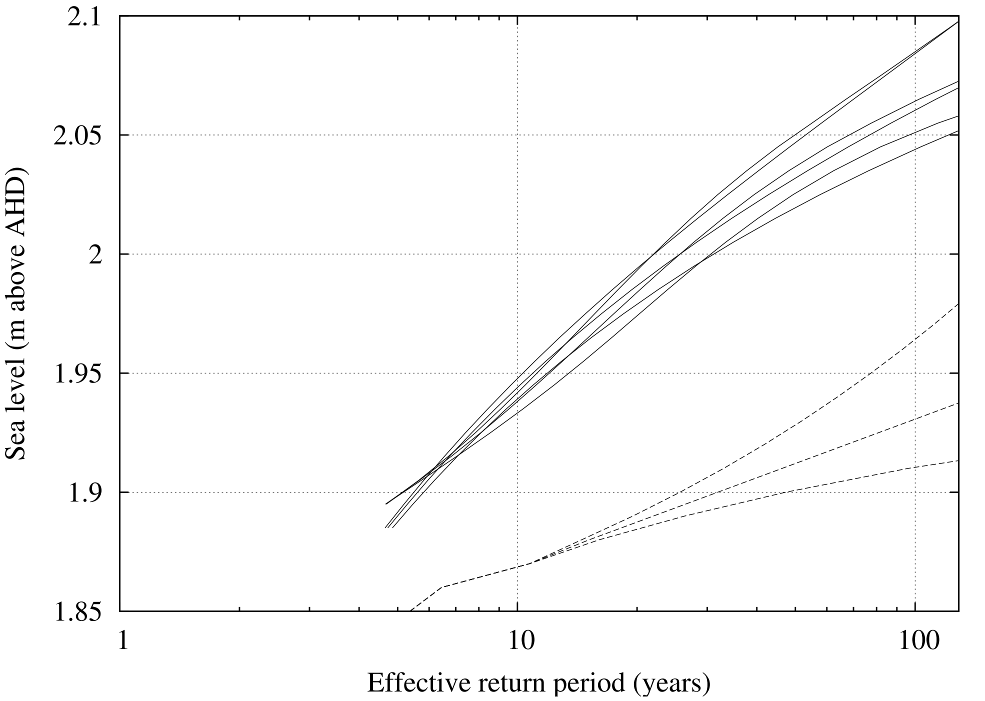

Figure 207: Effective return periods for Burnie, 2040, scenario A1FI and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 111.

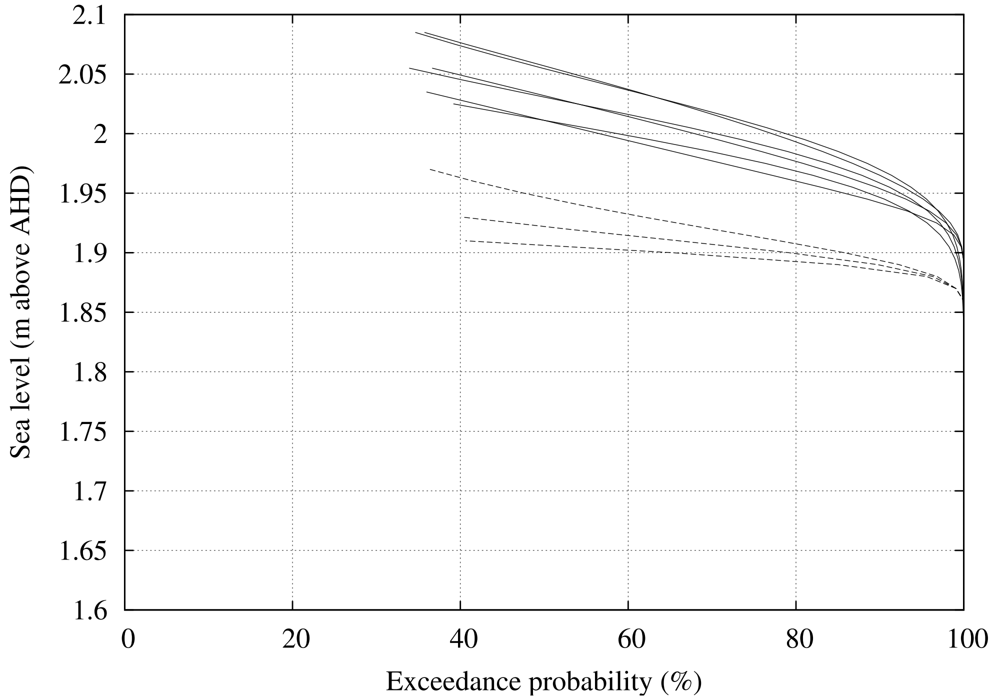

Figure 208: Exceedance probabilities for Burnie, 2040, scenario A1FI and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 112.

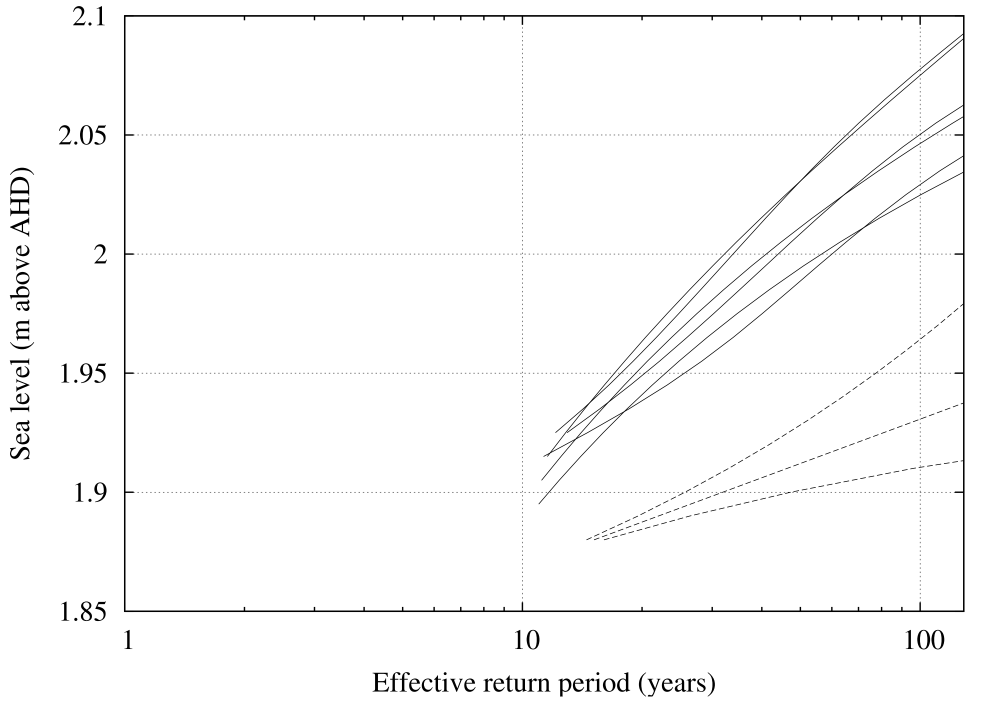

Figure 209: Effective return periods for Burnie, 2040, scenario A1FI and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 112.

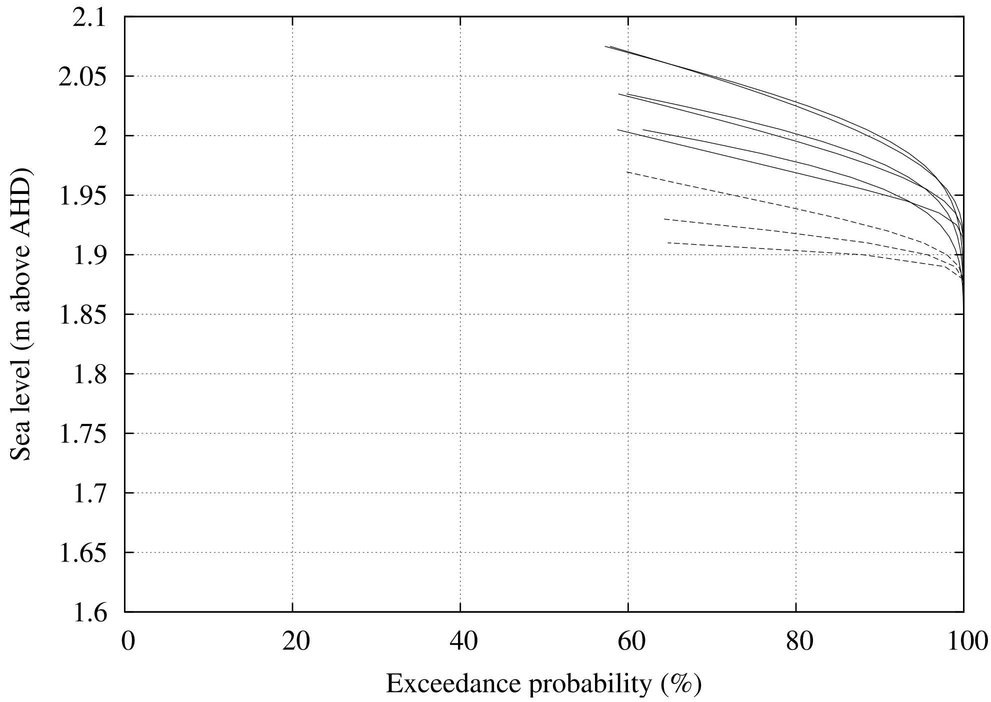

Figure 210: Exceedance probabilities for Burnie, 2040, scenario A1FI and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 113.

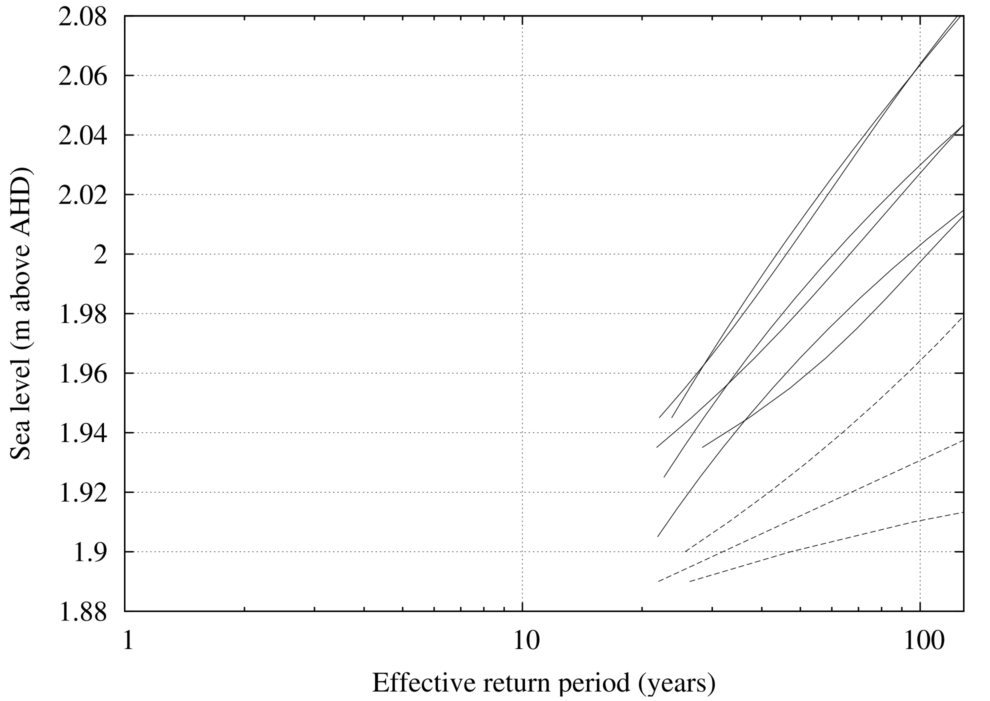

Figure 211: Effective return periods for Burnie, 2040, scenario A1FI and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 113.

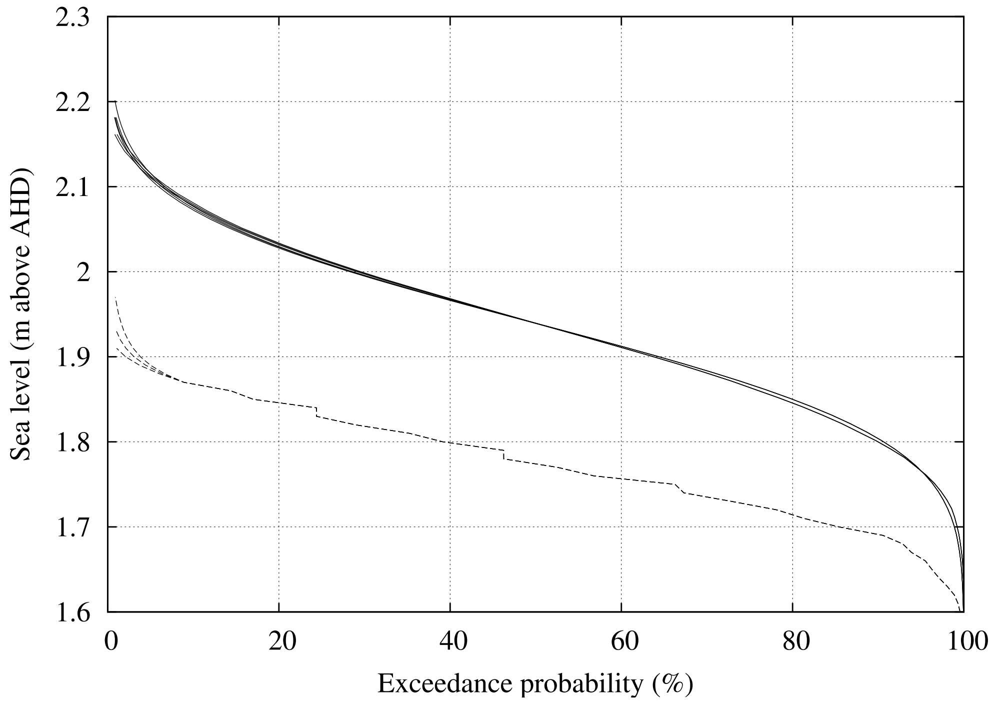

Figure 212: Exceedance probabilities for Burnie, 2060, scenario B1 and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 114.

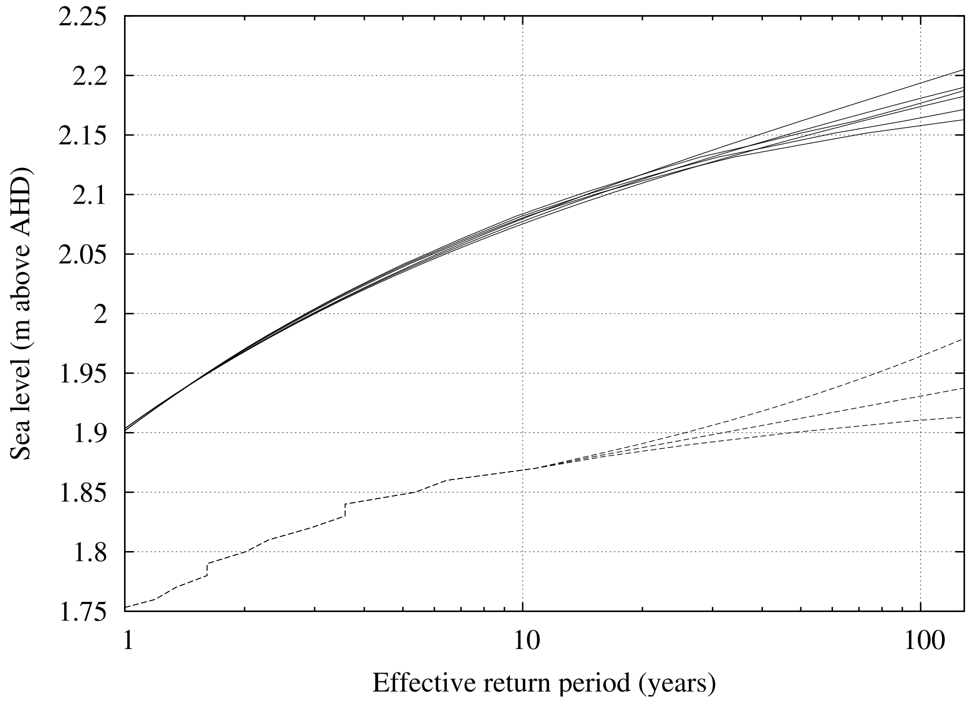

Figure 213: Effective return periods for Burnie, 2060, scenario B1 and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 114.

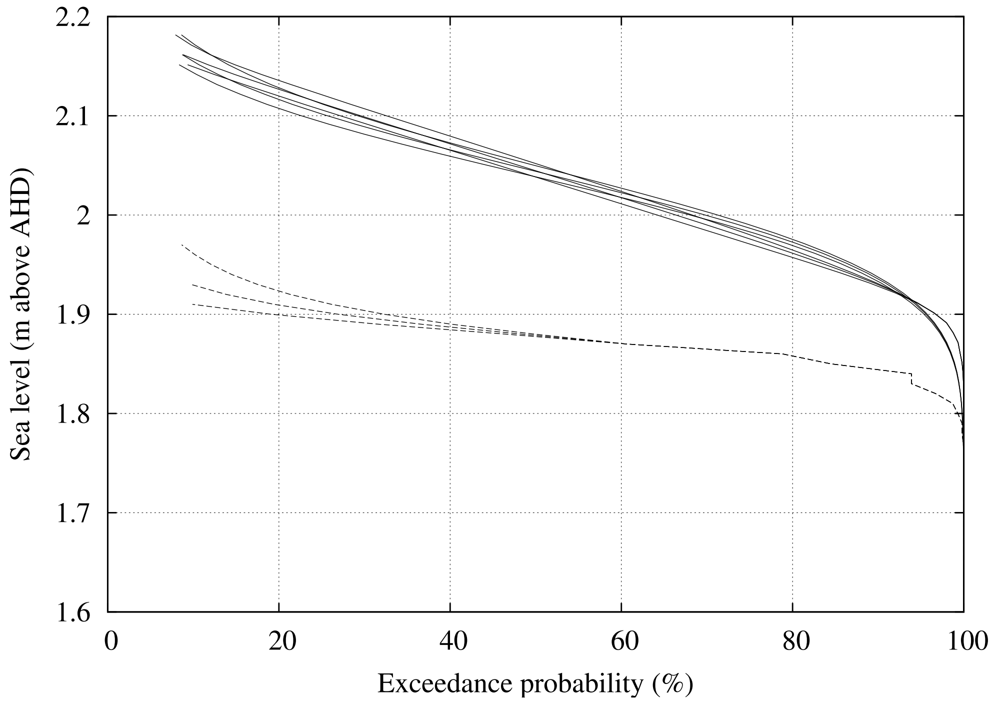

Figure 214: Exceedance probabilities for Burnie, 2060, scenario B1 and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 115.

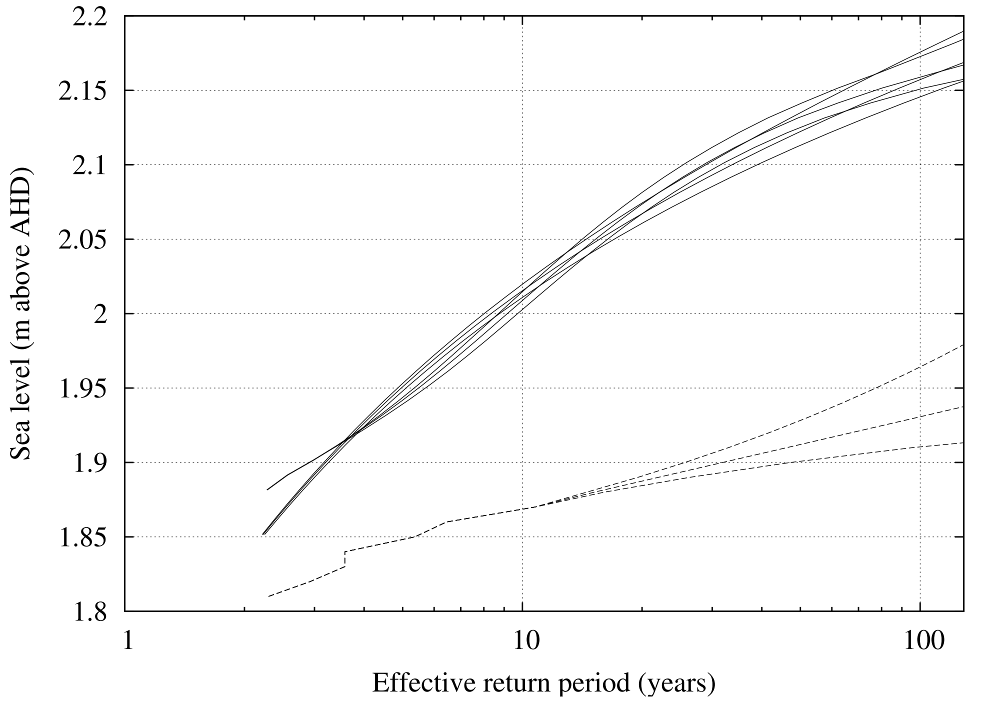

Figure 215: Effective return periods for Burnie, 2060, scenario B1 and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 115.

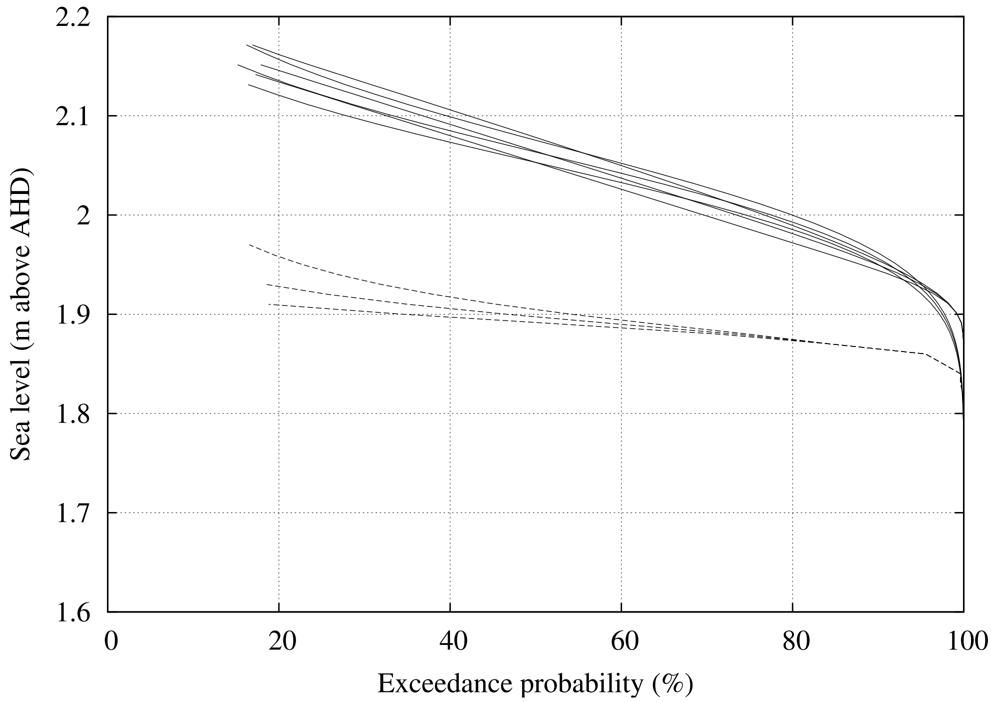

Figure 216: Exceedance probabilities for Burnie, 2060, scenario B1 and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 116.

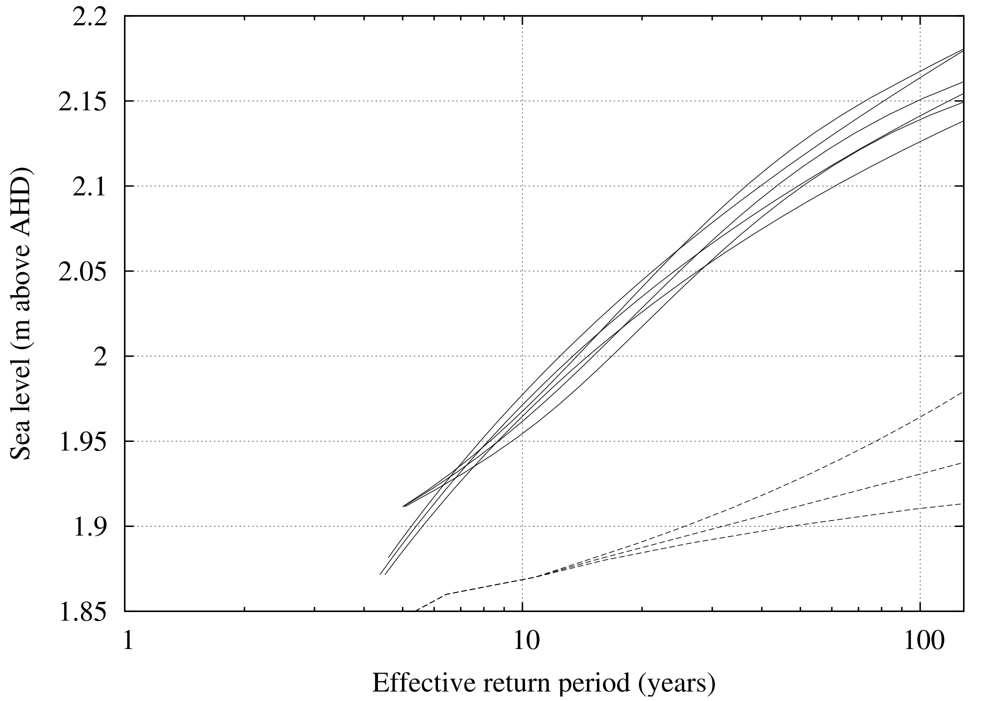

Figure 217: Effective return periods for Burnie, 2060, scenario B1 and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 116.

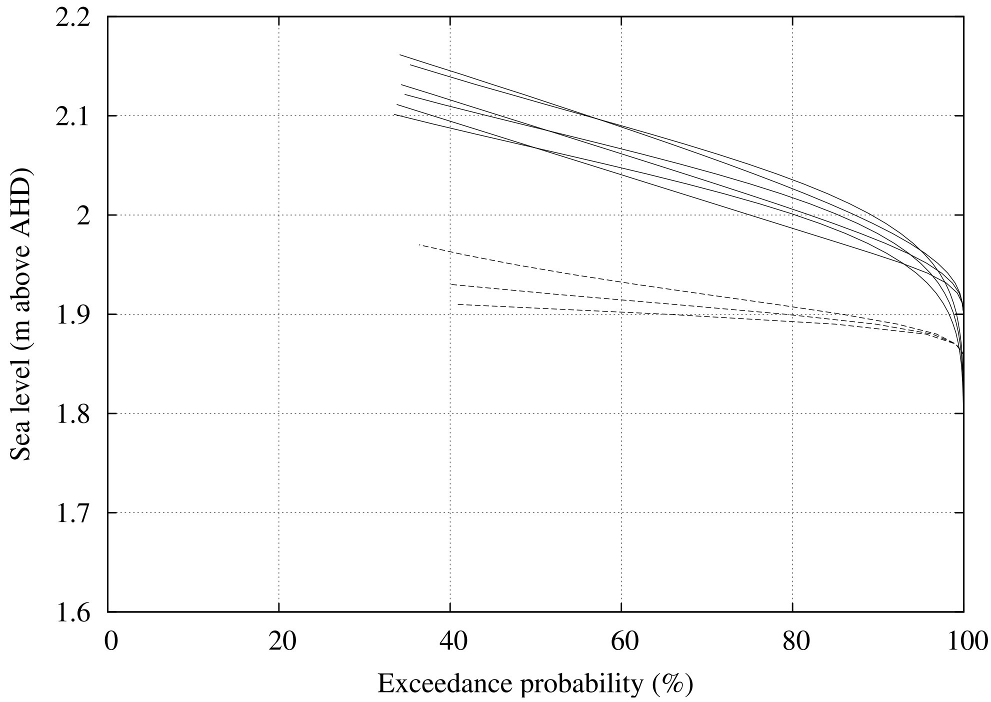

Figure 218: Exceedance probabilities for Burnie, 2060, scenario B1 and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 117.

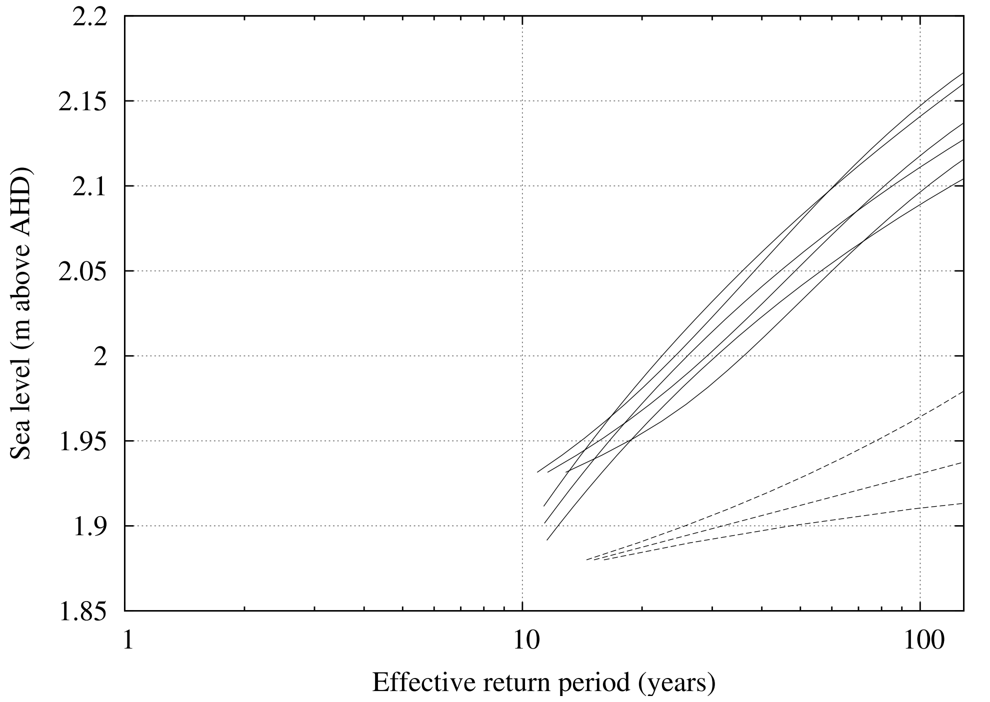

Figure 219: Effective return periods for Burnie, 2060, scenario B1 and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 117.

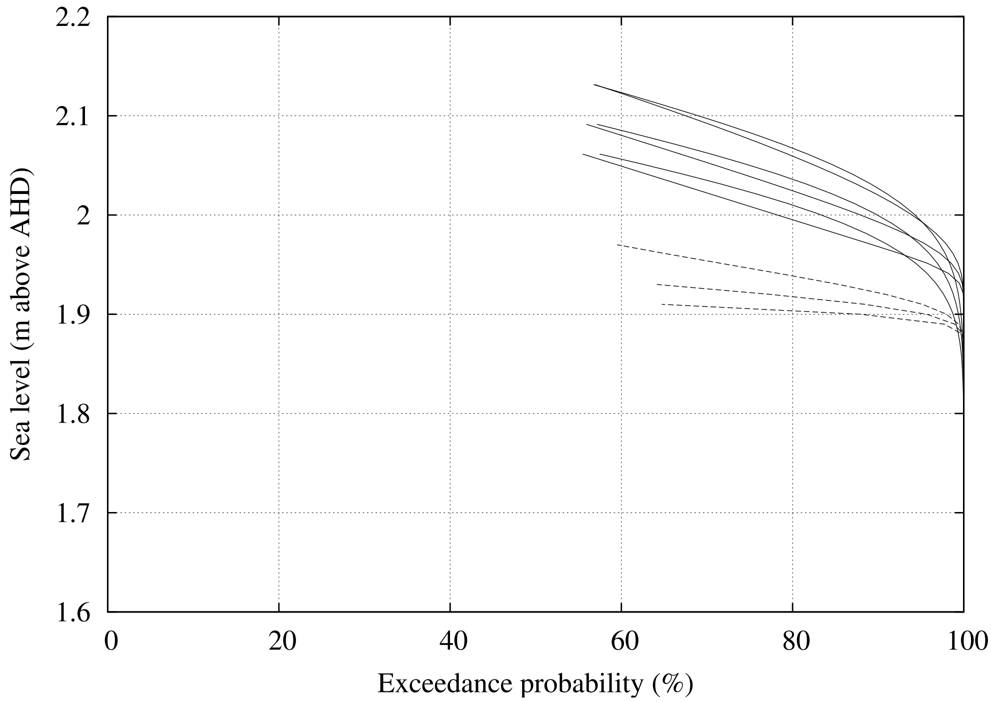

Figure 220: Exceedance probabilities for Burnie, 2060, scenario B1 and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 118.

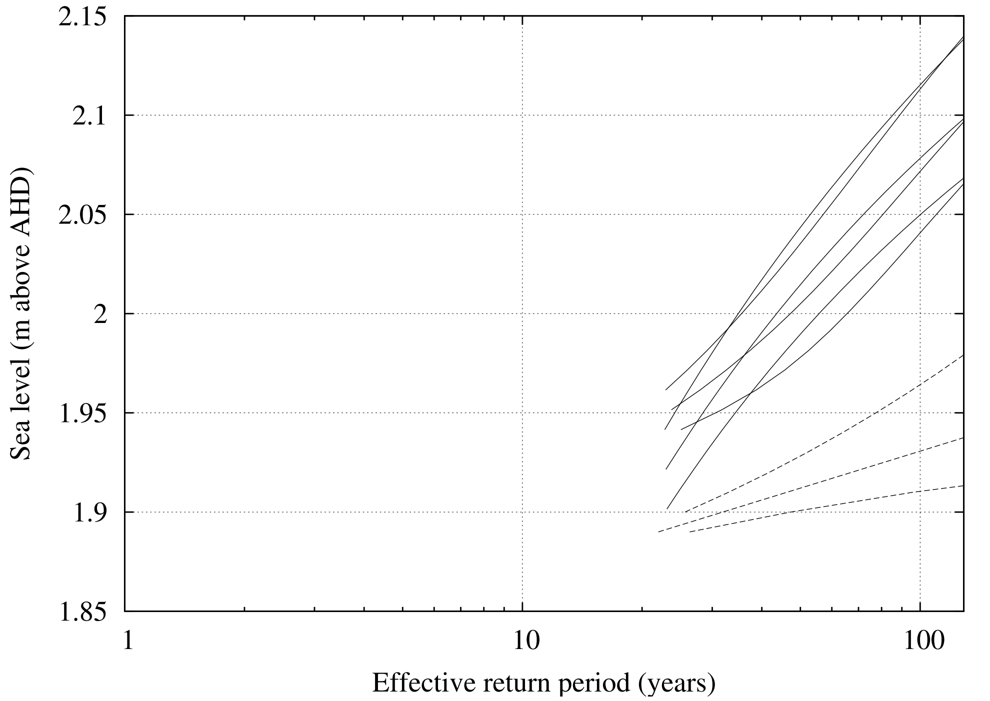

Figure 221: Effective return periods for Burnie, 2060, scenario B1 and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 118.

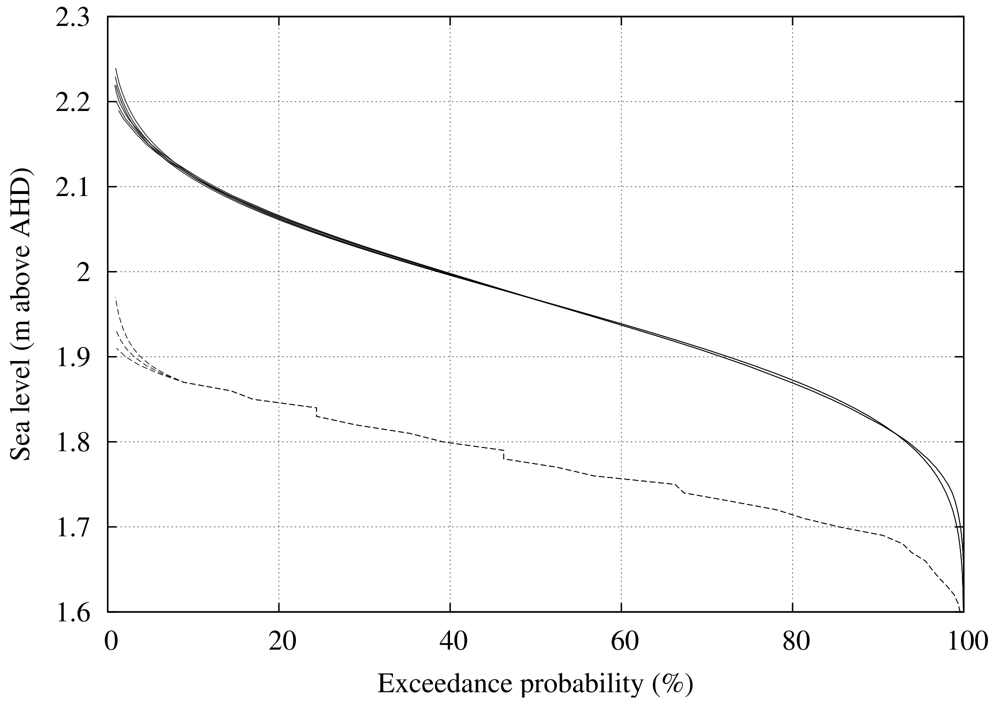

Figure 222: Exceedance probabilities for Burnie, 2060, scenario A1B and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 119.

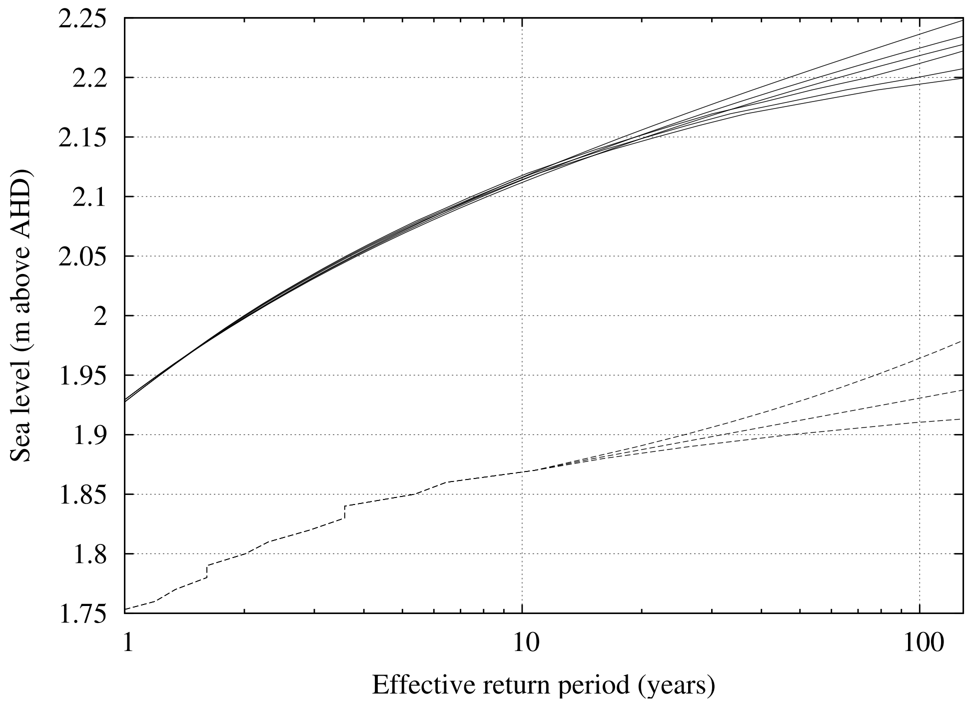

Figure 223: Effective return periods for Burnie, 2060, scenario A1B and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 119.

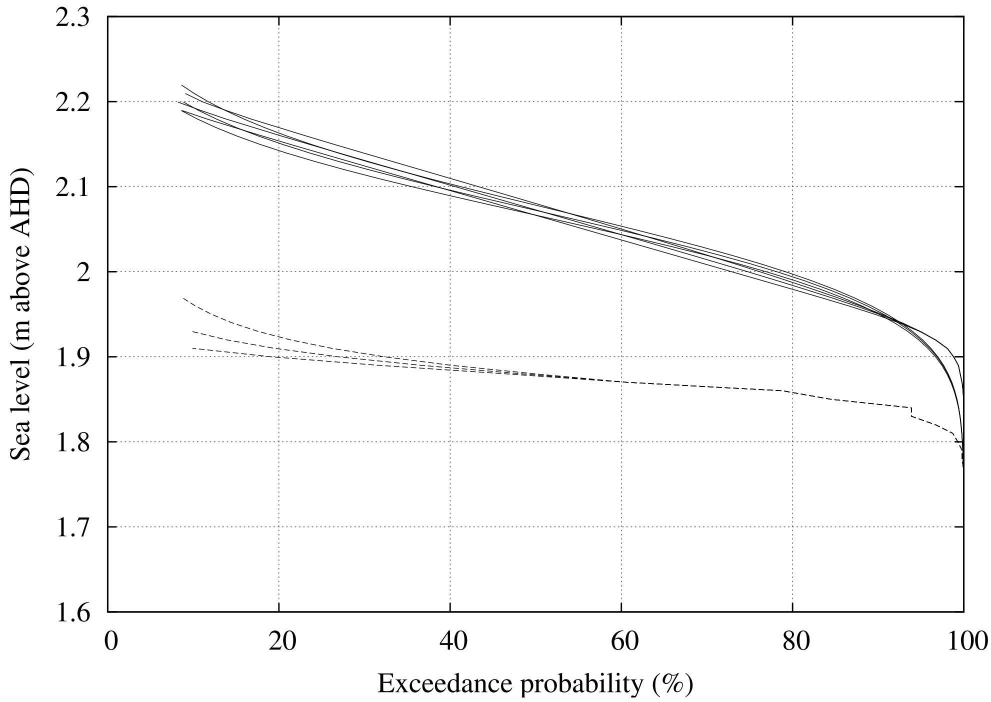

Figure 224: Exceedance probabilities for Burnie, 2060, scenario A1B and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 120.

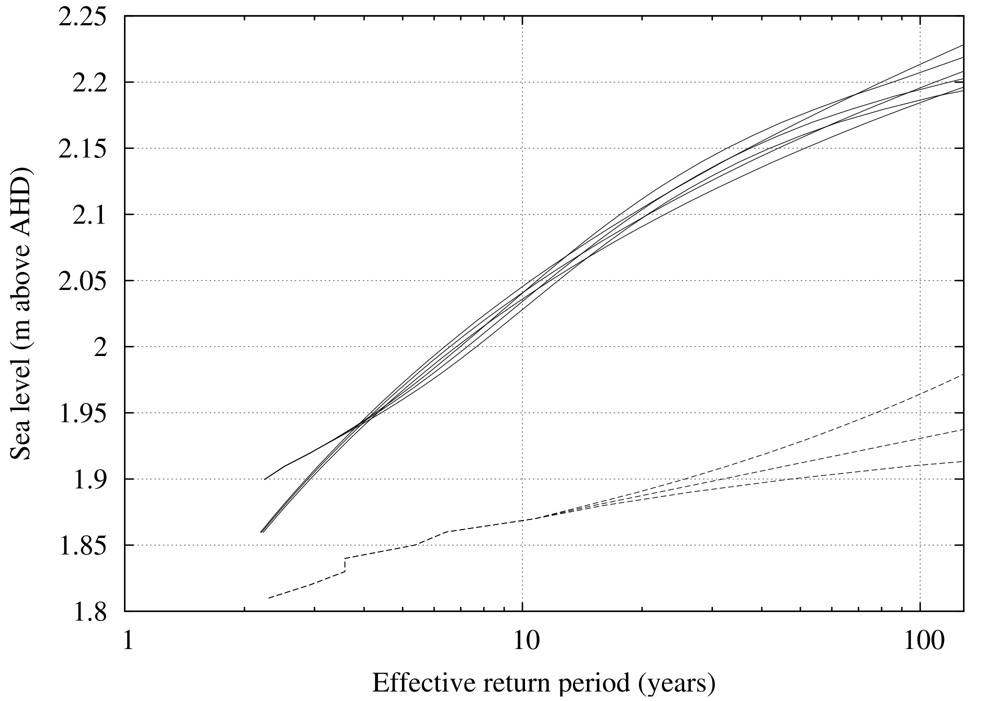

Figure 225: Effective return periods for Burnie, 2060, scenario A1B and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 120.

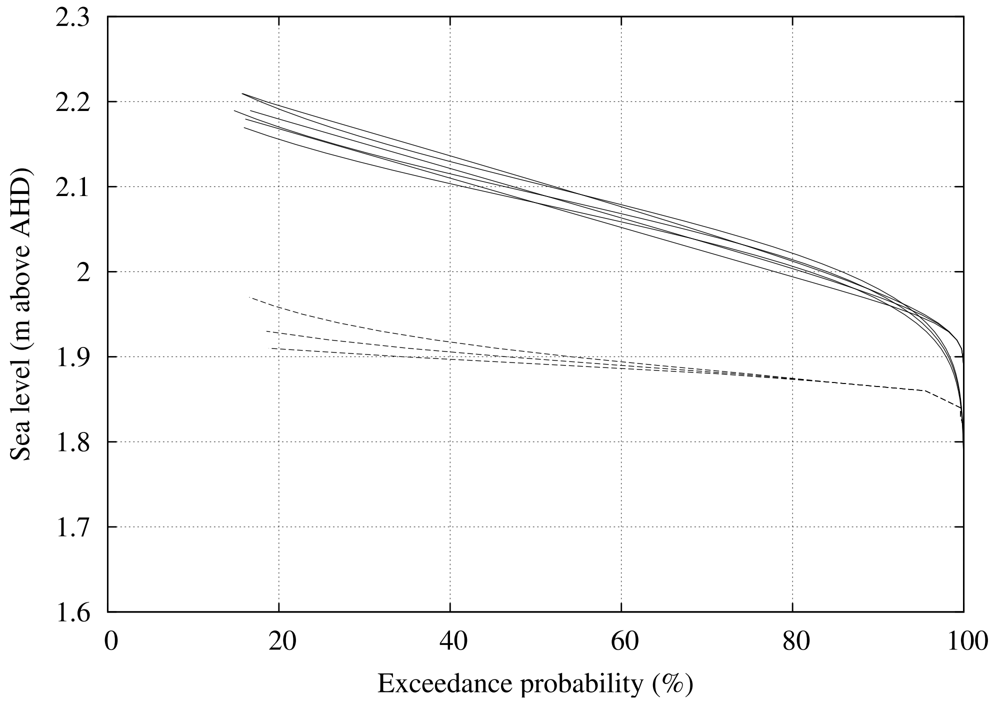

Figure 226: Exceedance probabilities for Burnie, 2060, scenario A1B and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 121.

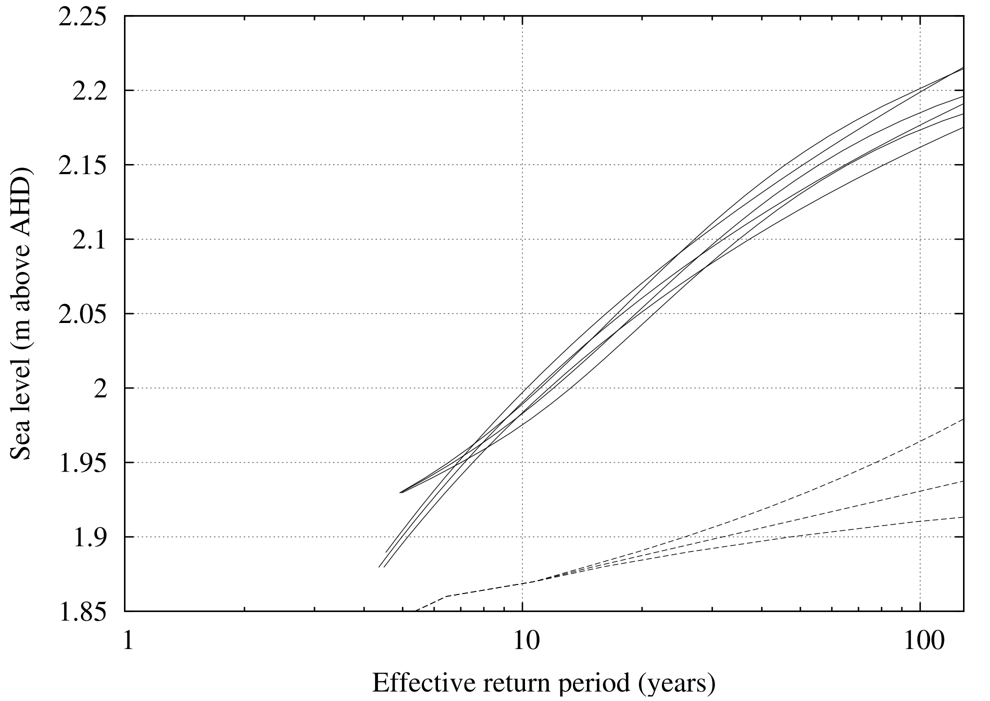

Figure 227: Effective return periods for Burnie, 2060, scenario A1B and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 121.

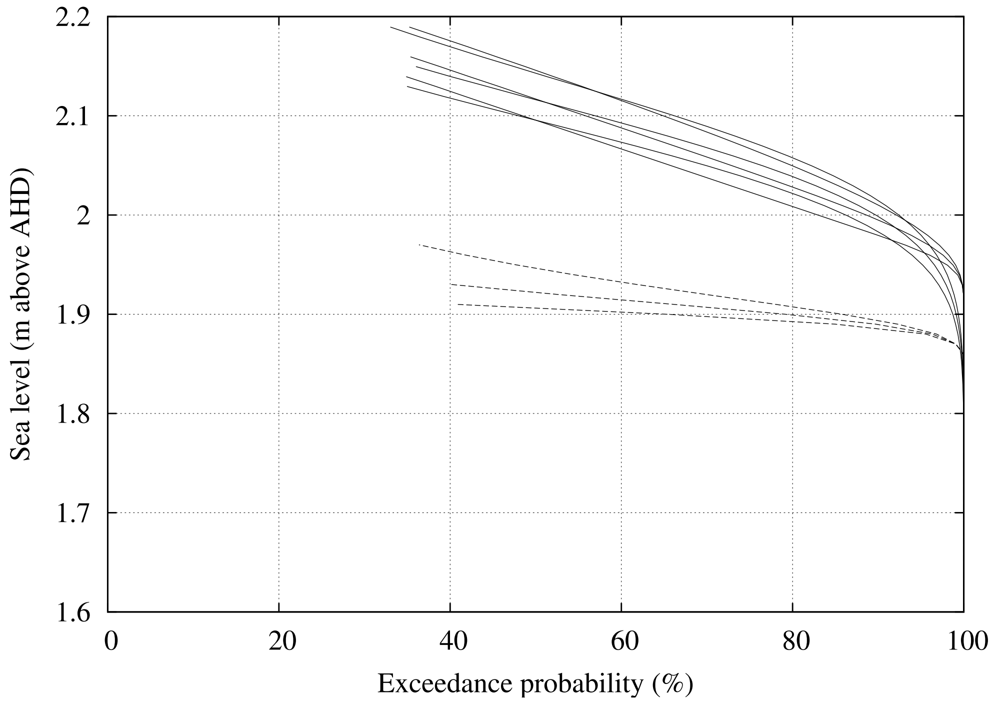

Figure 228: Exceedance probabilities for Burnie, 2060, scenario A1B and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 122.

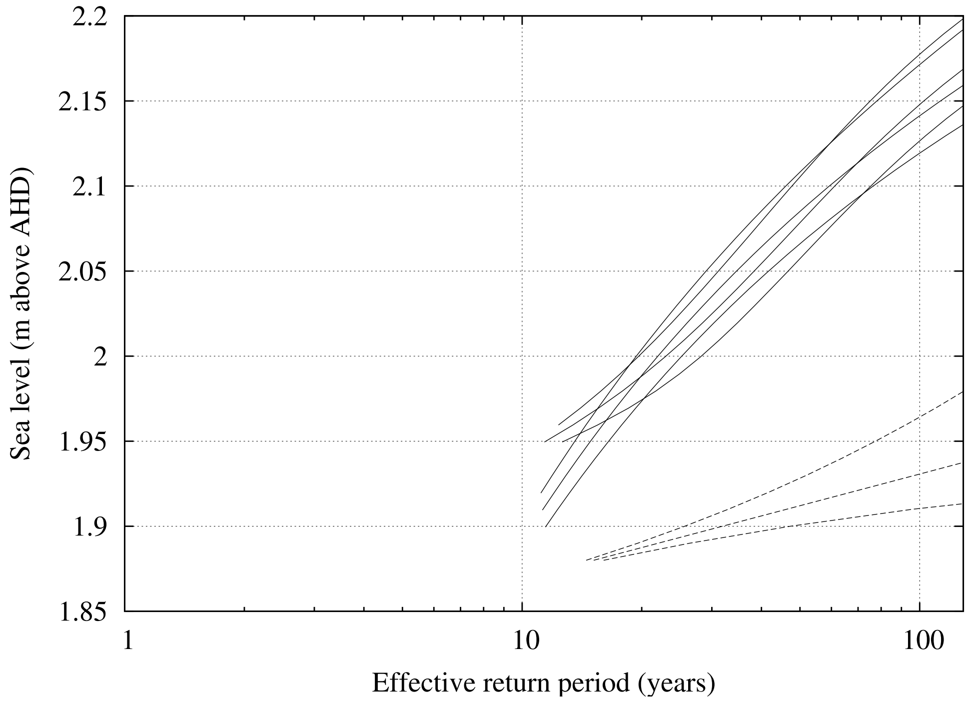

Figure 229: Effective return periods for Burnie, 2060, scenario A1B and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 122.

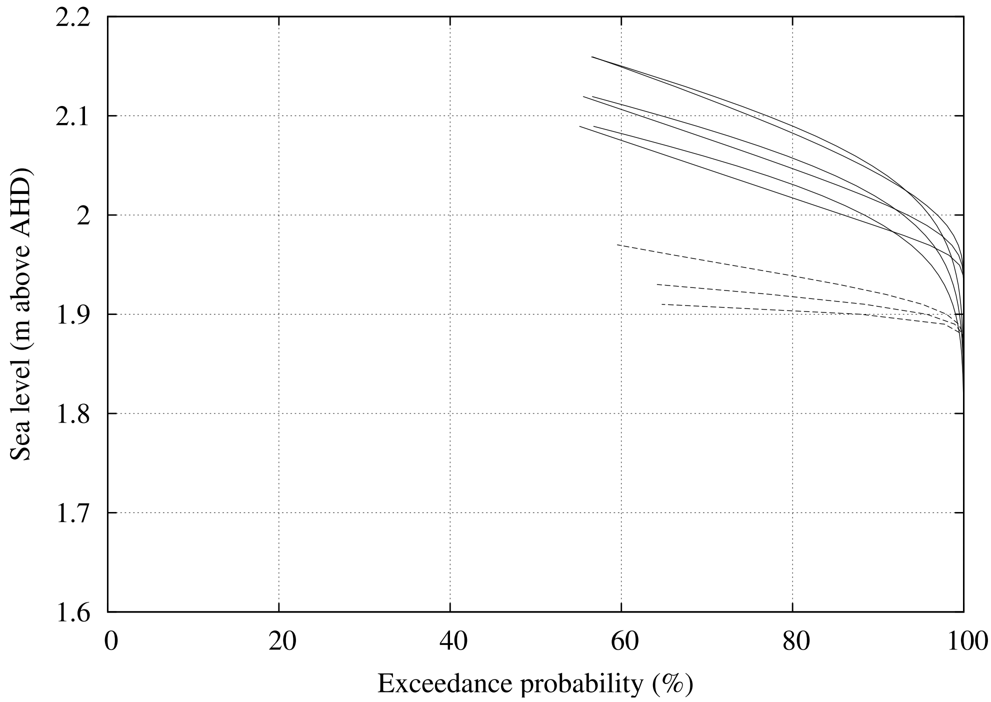

Figure 230: Exceedance probabilities for Burnie, 2060, scenario A1B and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 123.

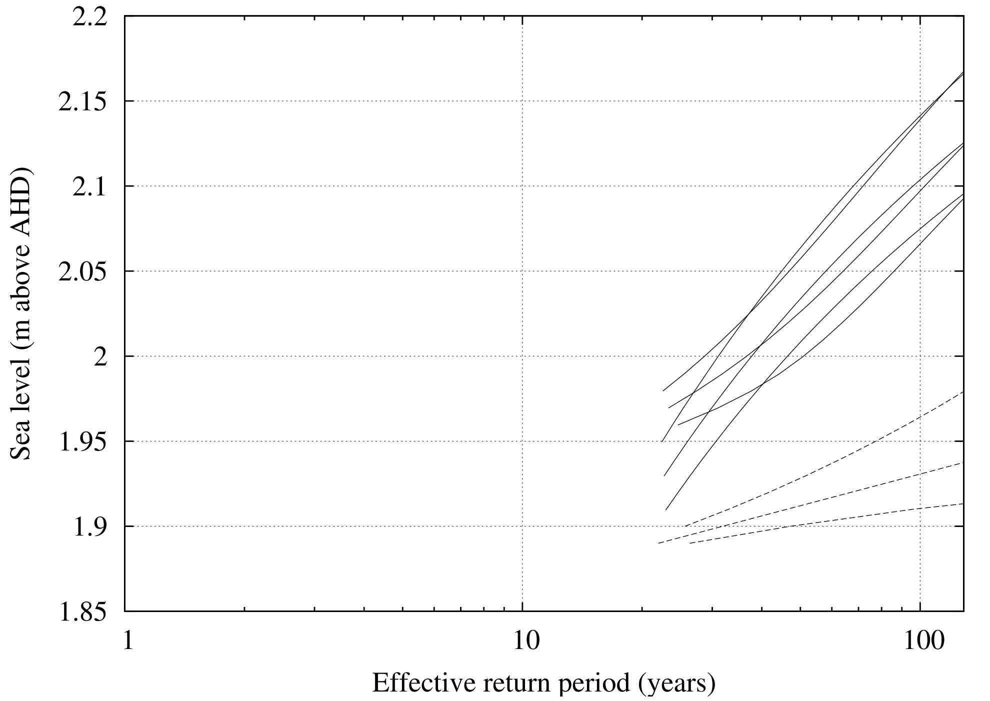

Figure 231: Effective return periods for Burnie, 2060, scenario A1B and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 123.

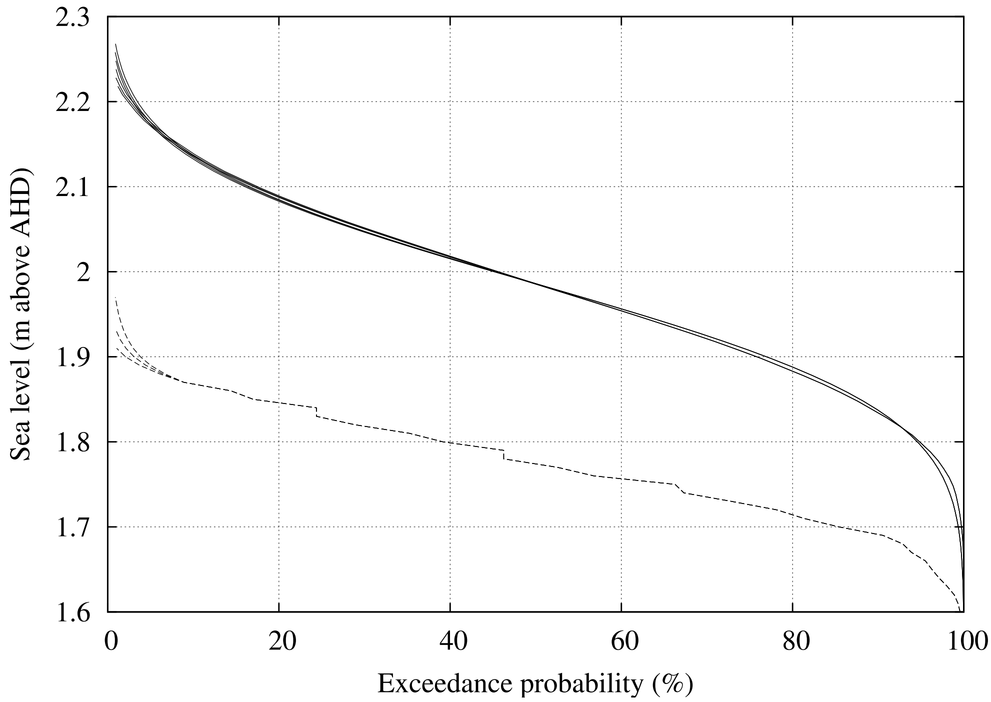

Figure 232: Exceedance probabilities for Burnie, 2060, scenario A1FI and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 124.

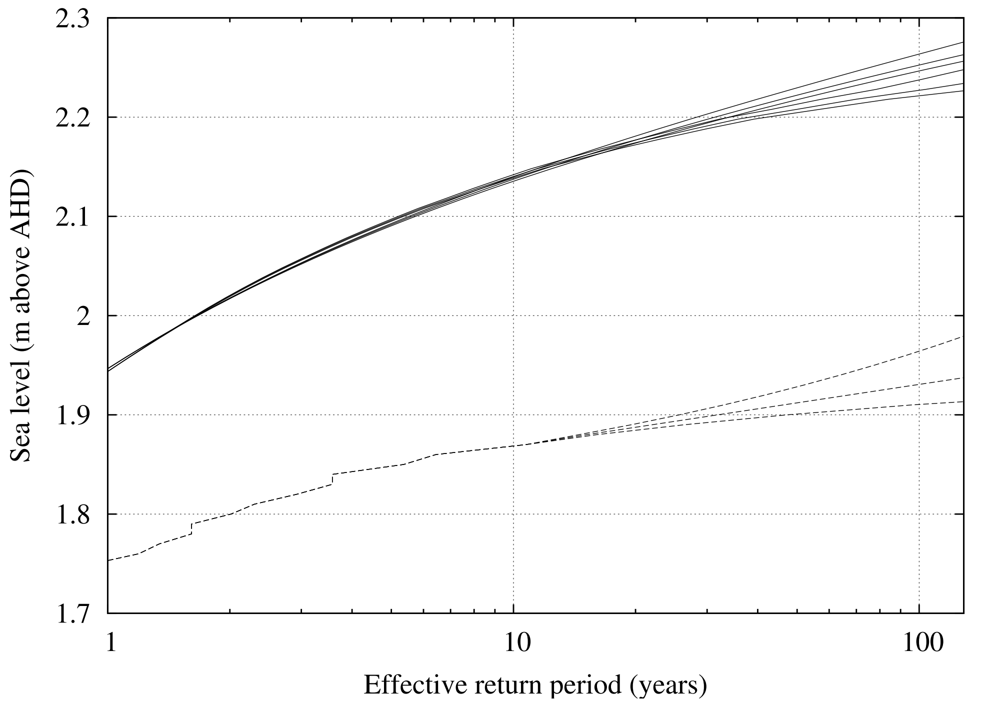

Figure 233: Effective return periods for Burnie, 2060, scenario A1FI and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 124.

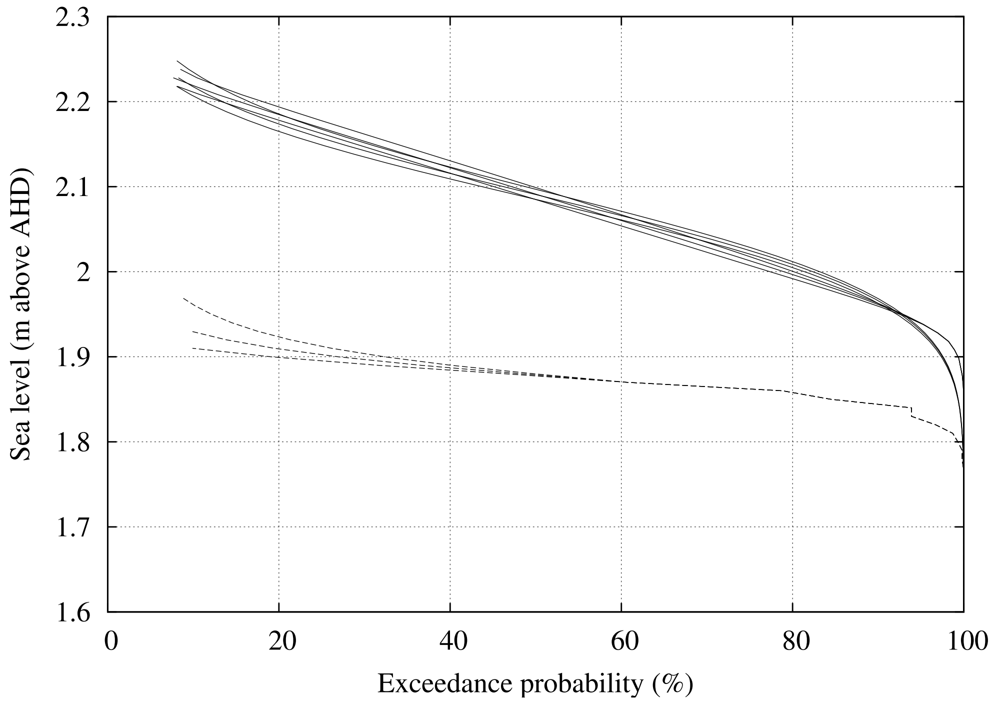

Figure 234: Exceedance probabilities for Burnie, 2060, scenario A1FI and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 125.

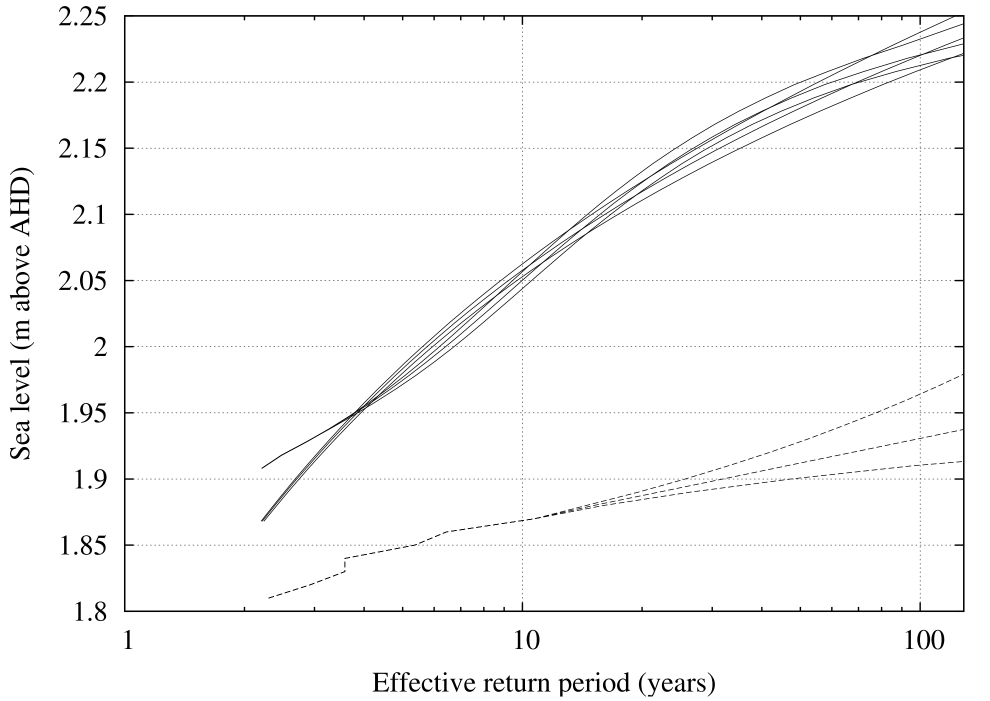

Figure 235: Effective return periods for Burnie, 2060, scenario A1FI and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 125.

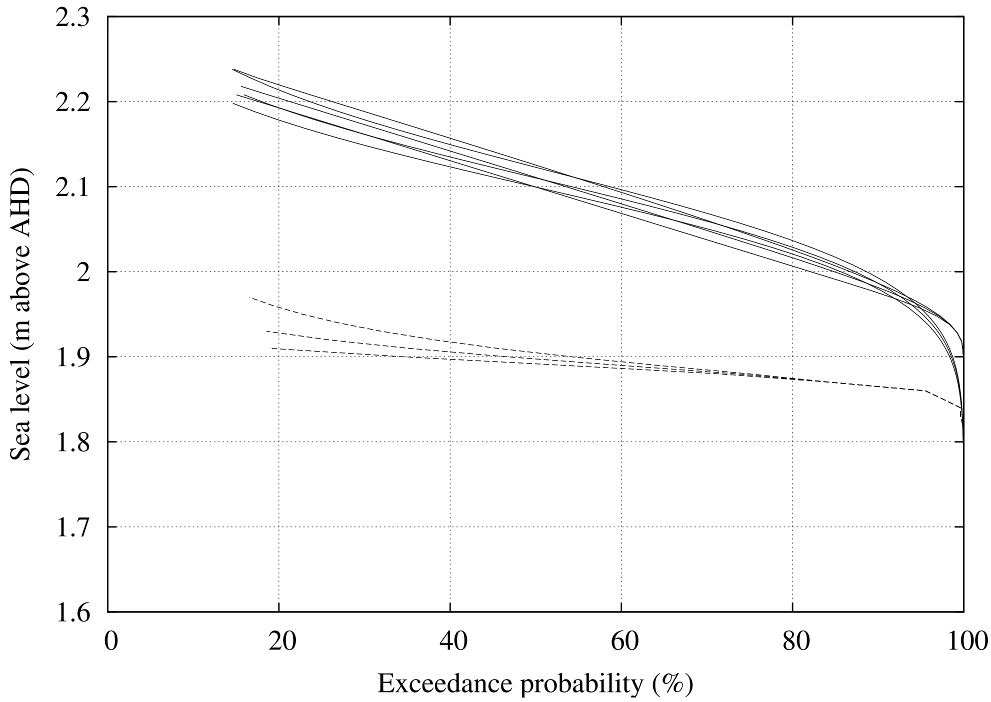

Figure 236: Exceedance probabilities for Burnie, 2060, scenario A1FI and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 126.

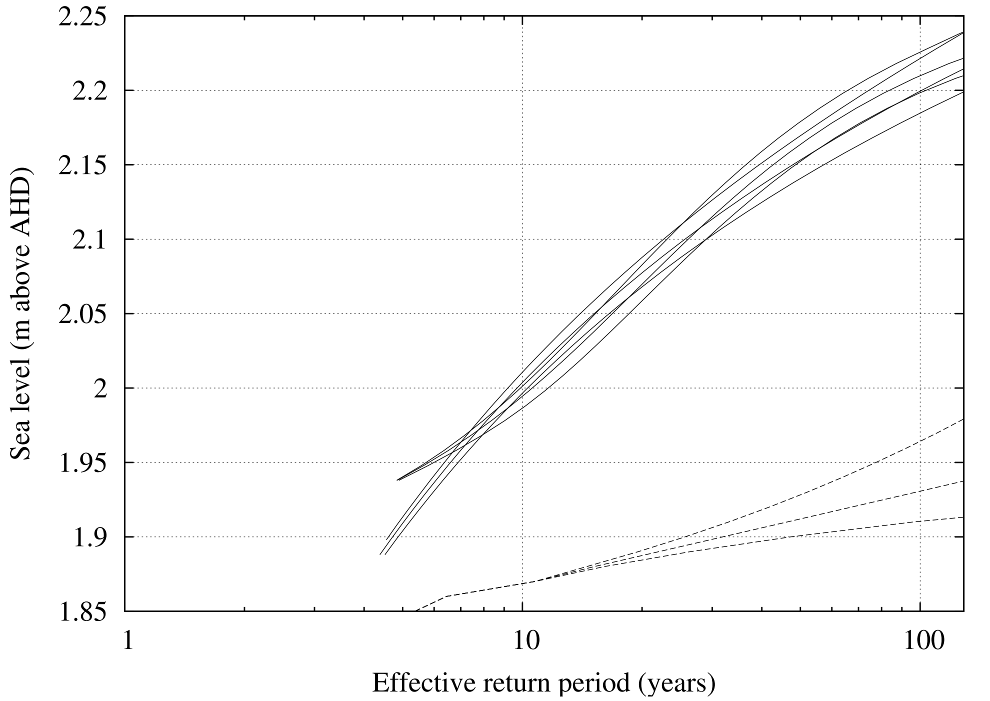

Figure 237: Effective return periods for Burnie, 2060, scenario A1FI and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 126.

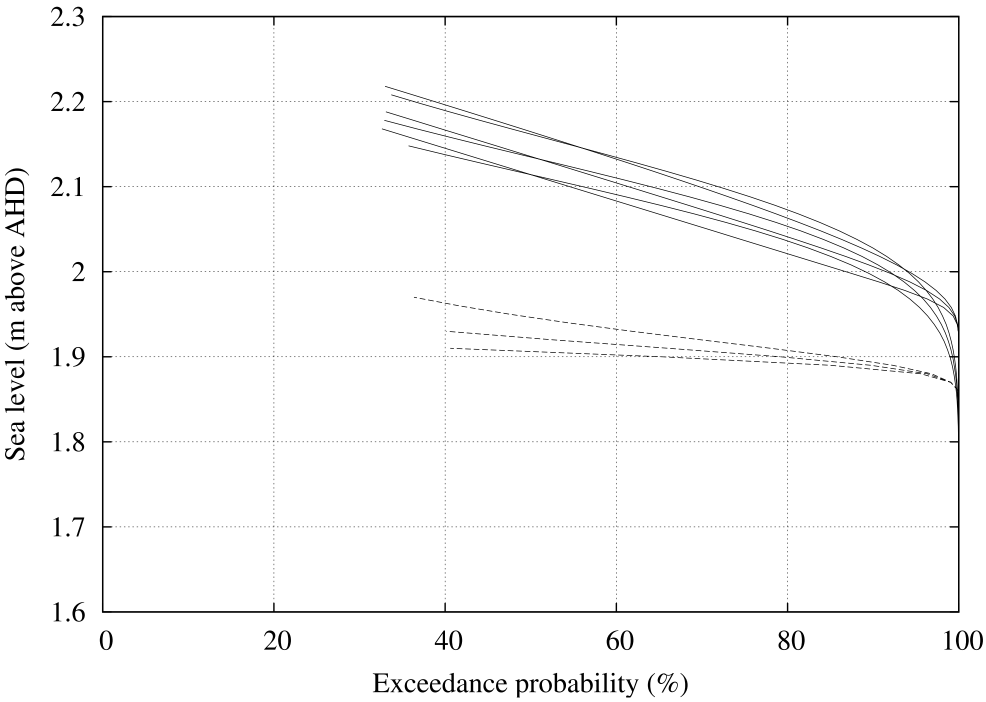

Figure 238: Exceedance probabilities for Burnie, 2060, scenario A1FI and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 127.

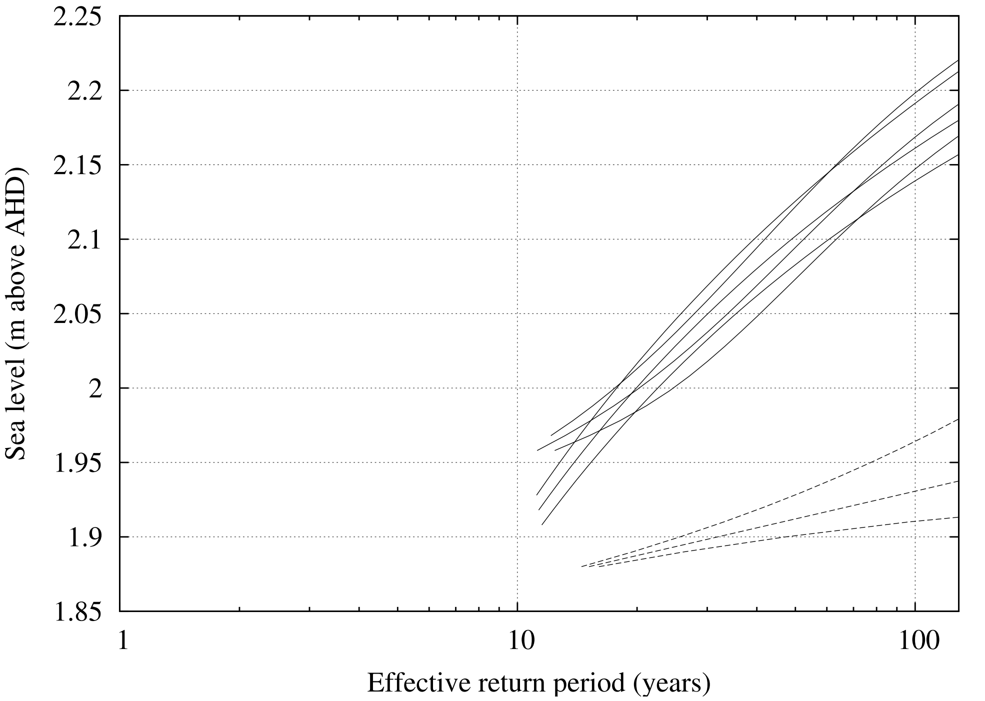

Figure 239: Effective return periods for Burnie, 2060, scenario A1FI and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 127.

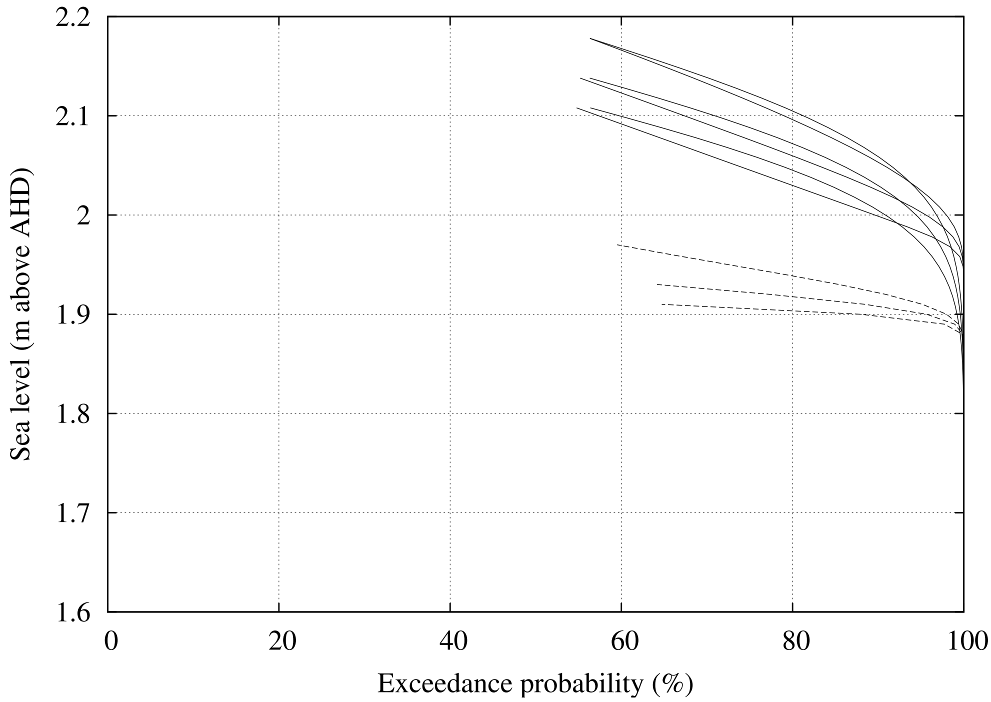

Figure 240: Exceedance probabilities for Burnie, 2060, scenario A1FI and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 128.

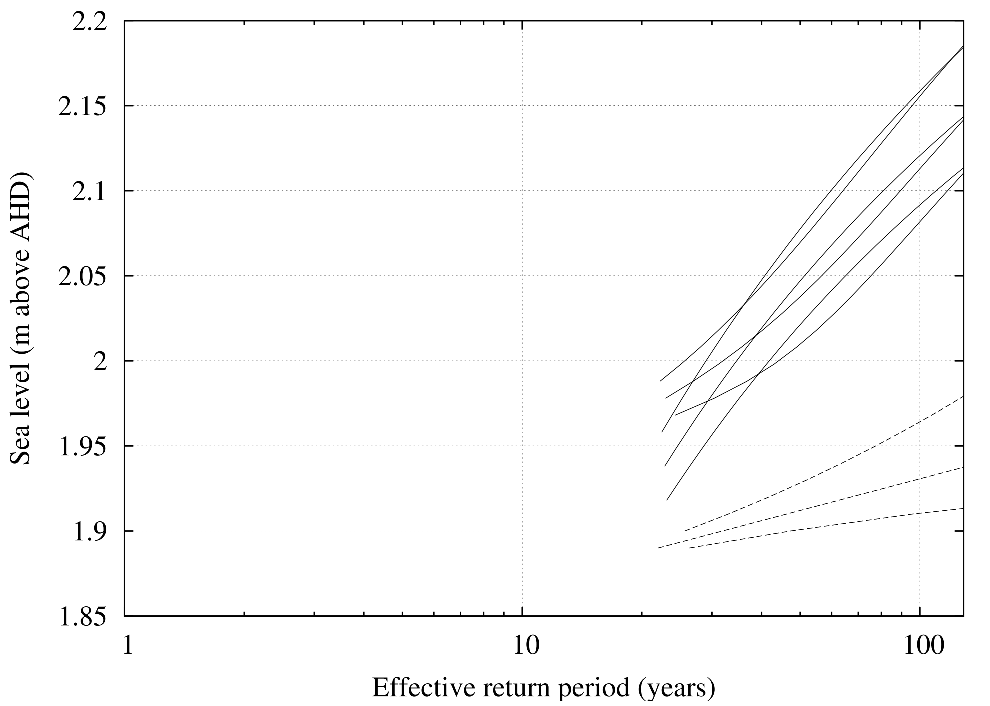

Figure 241: Effective return periods for Burnie, 2060, scenario A1FI and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 128.

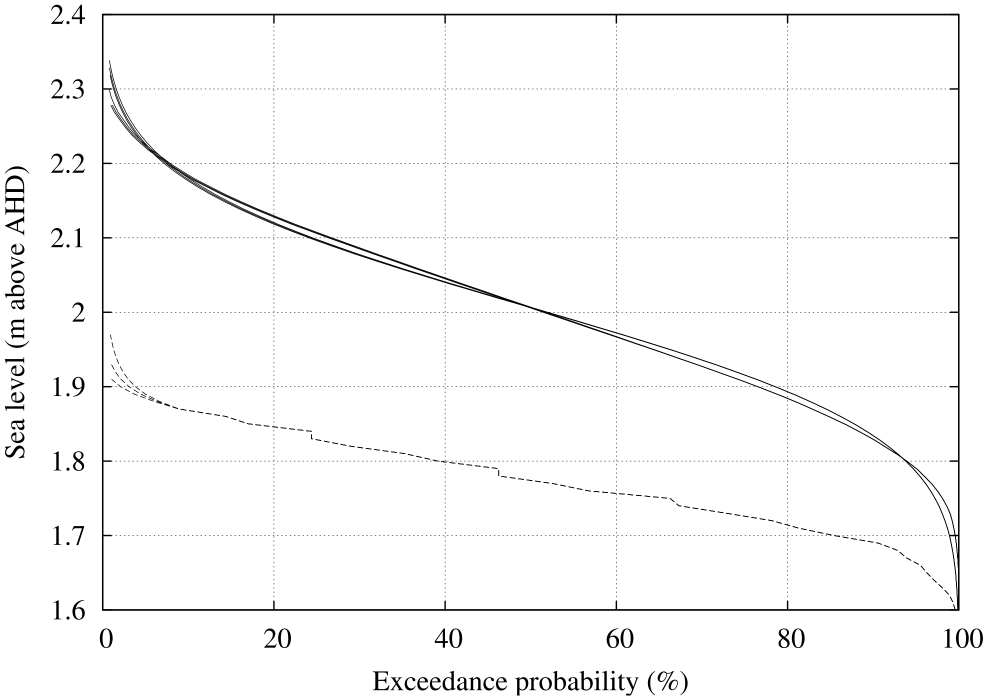

Figure 242: Exceedance probabilities for Burnie, 2080, scenario B1 and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 129.

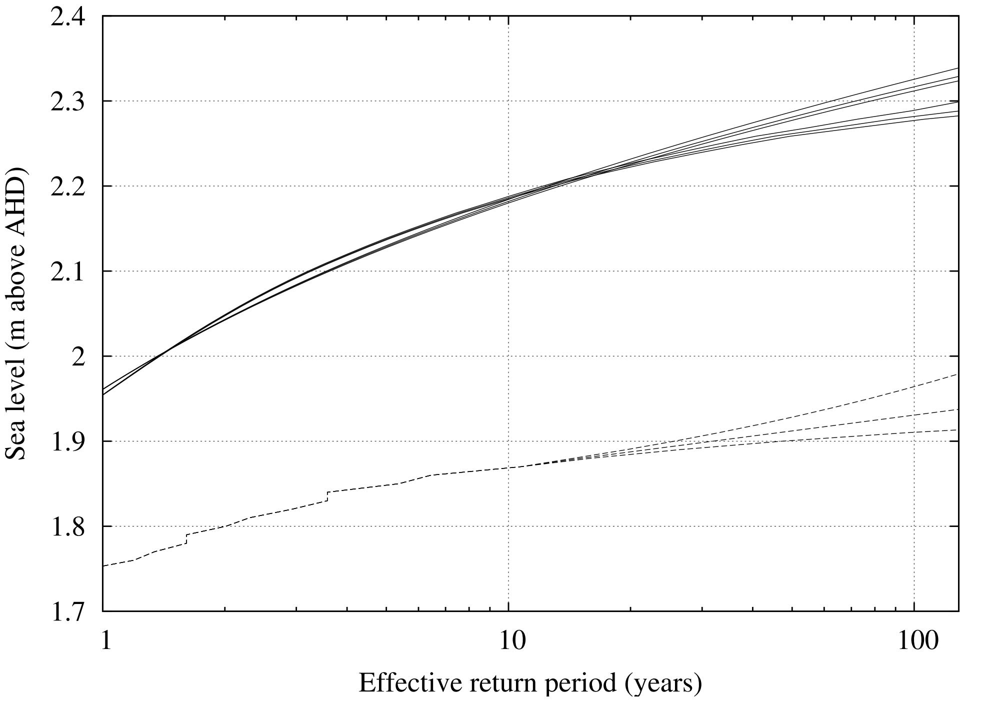

Figure 243: Effective return periods for Burnie, 2080, scenario B1 and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 129.

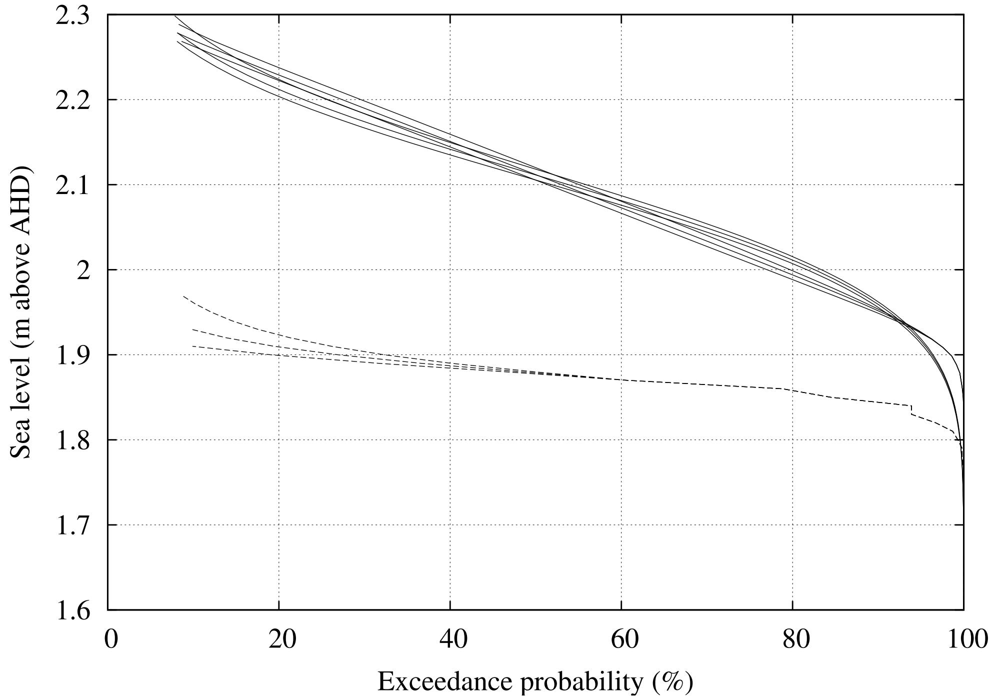

Figure 244: Exceedance probabilities for Burnie, 2080, scenario B1 and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 130.

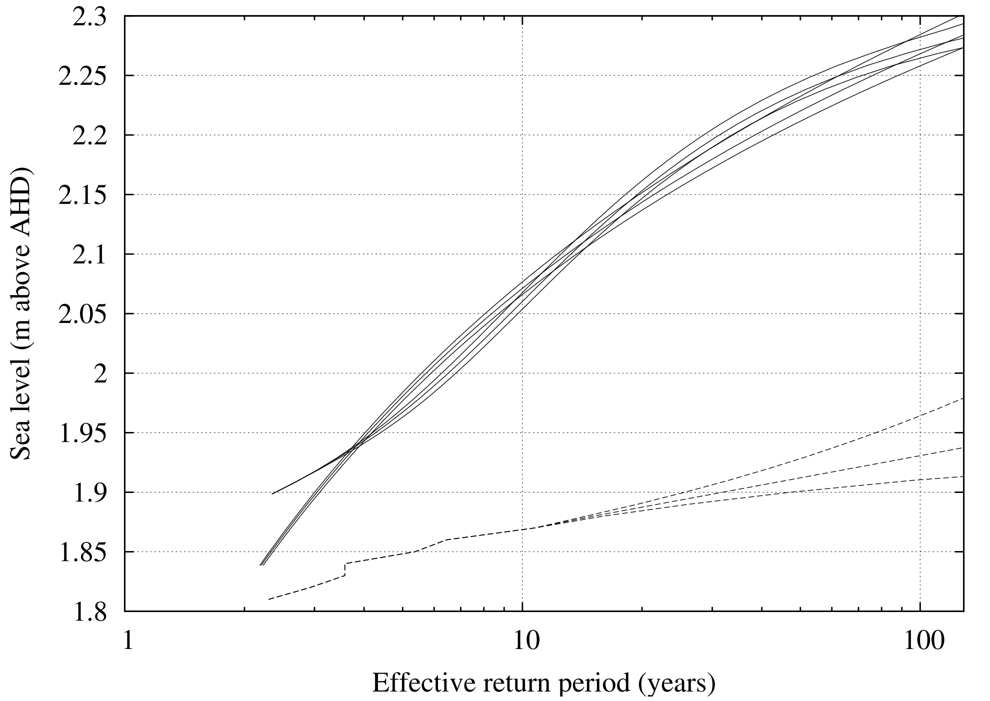

Figure 245: Effective return periods for Burnie, 2080, scenario B1 and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 130.

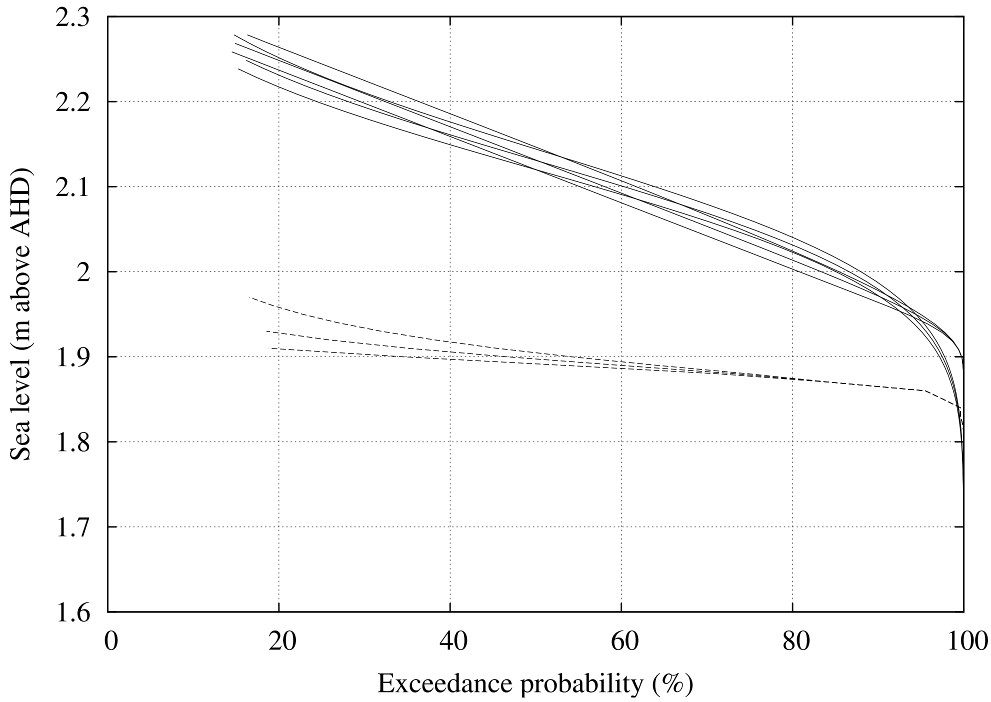

Figure 246: Exceedance probabilities for Burnie, 2080, scenario B1 and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 131.

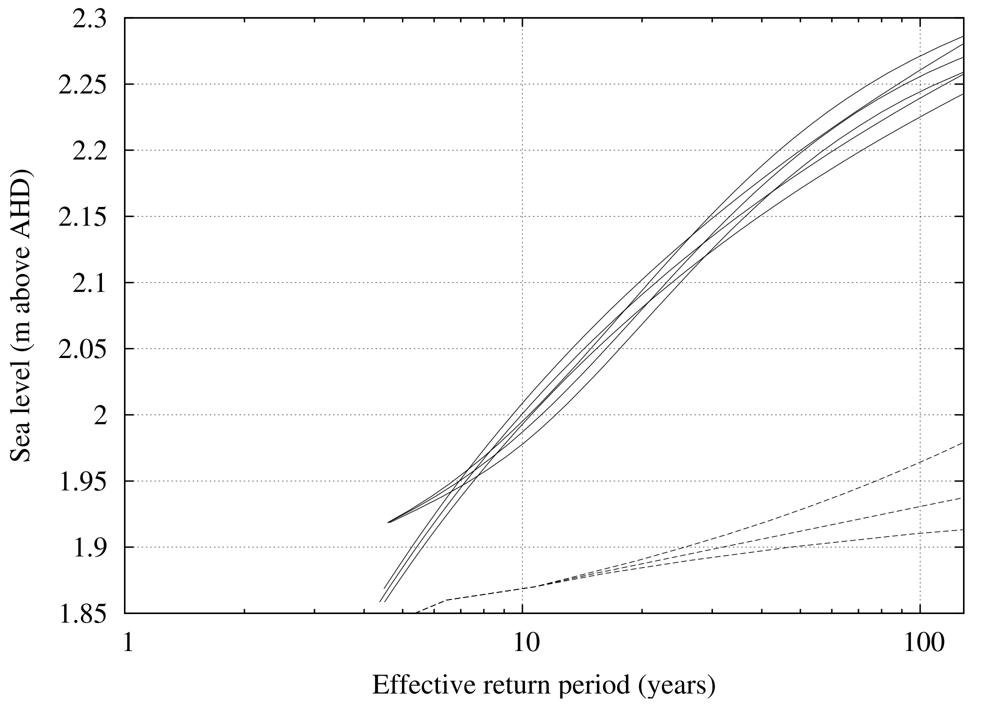

Figure 247: Effective return periods for Burnie, 2080, scenario B1 and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 131.

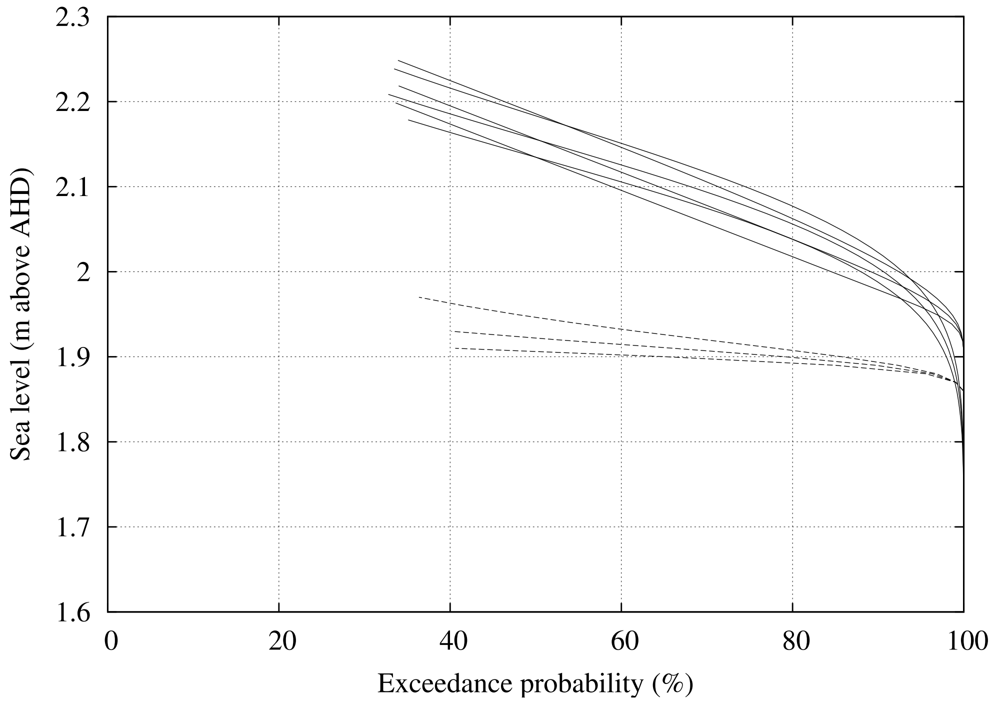

Figure 248: Exceedance probabilities for Burnie, 2080, scenario B1 and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 132.

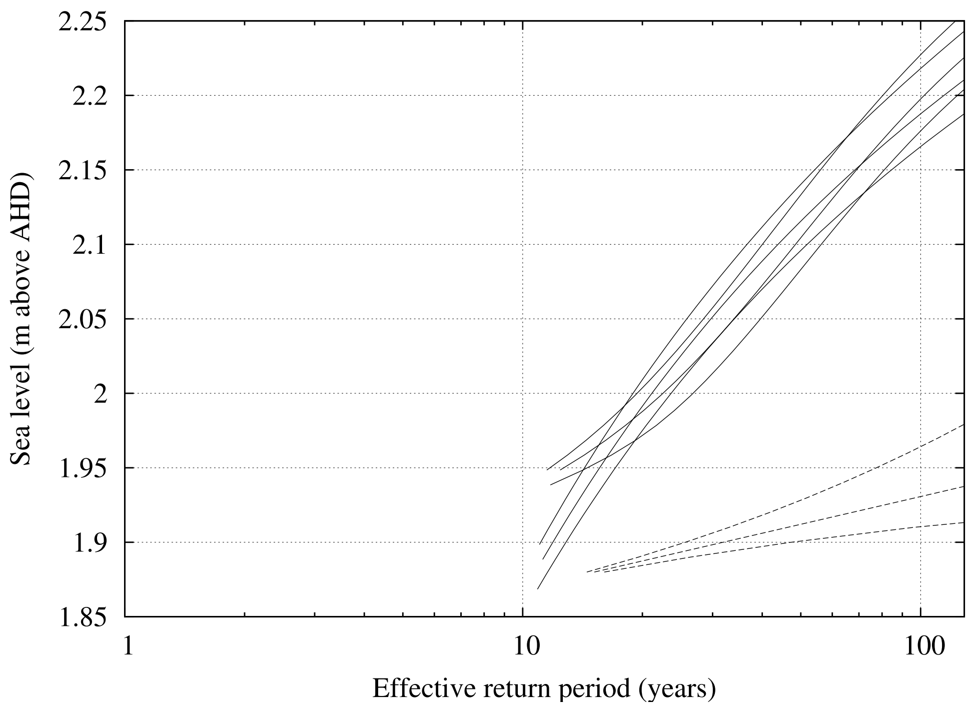

Figure 249: Effective return periods for Burnie, 2080, scenario B1 and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 132.

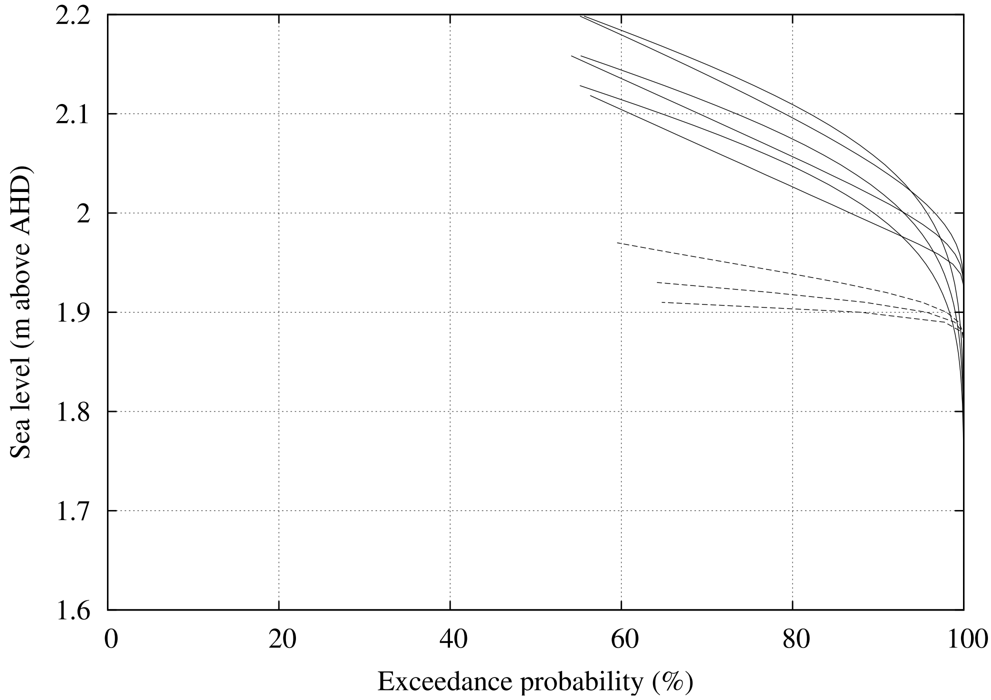

Figure 250: Exceedance probabilities for Burnie, 2080, scenario B1 and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 133.

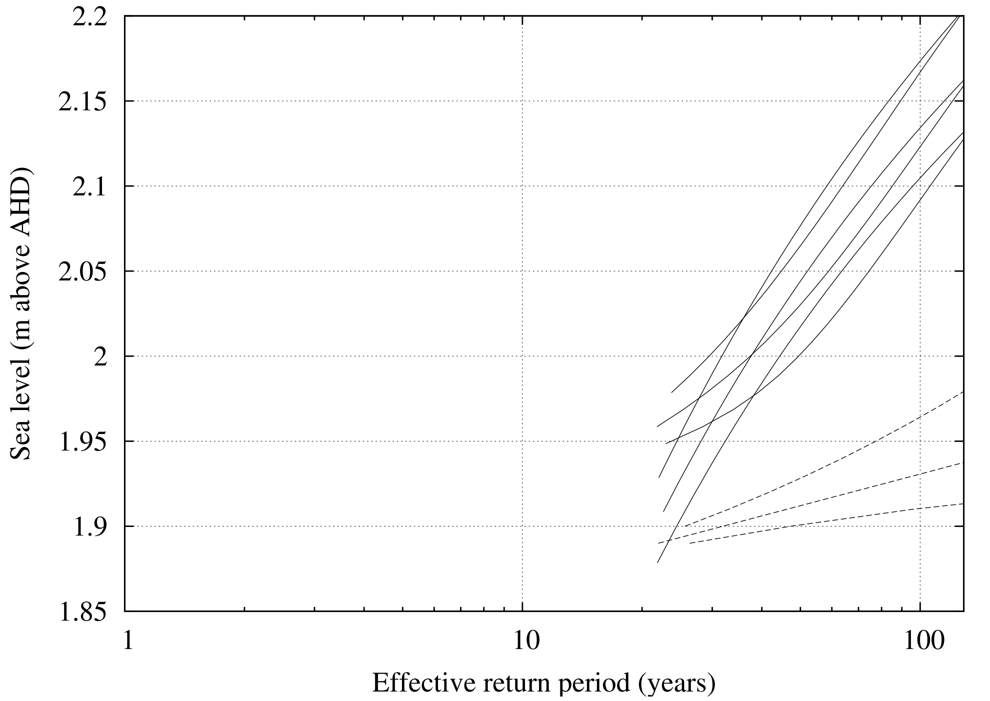

Figure 251: Effective return periods for Burnie, 2080, scenario B1 and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 133.

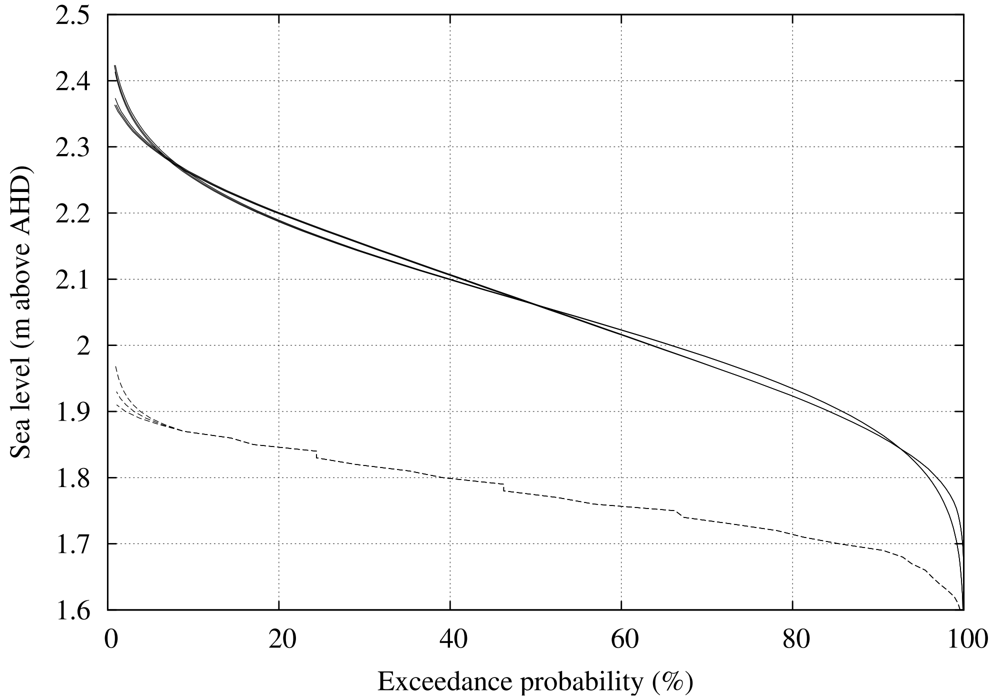

Figure 252: Exceedance probabilities for Burnie, 2080, scenario A1B and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 134.

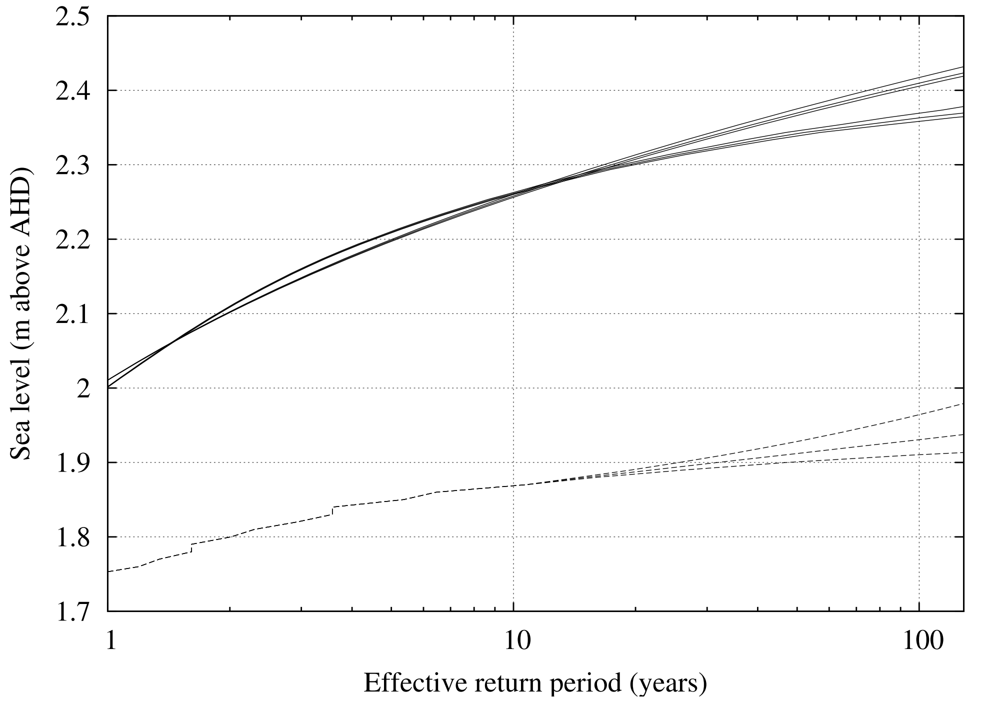

Figure 253: Effective return periods for Burnie, 2080, scenario A1B and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 134.

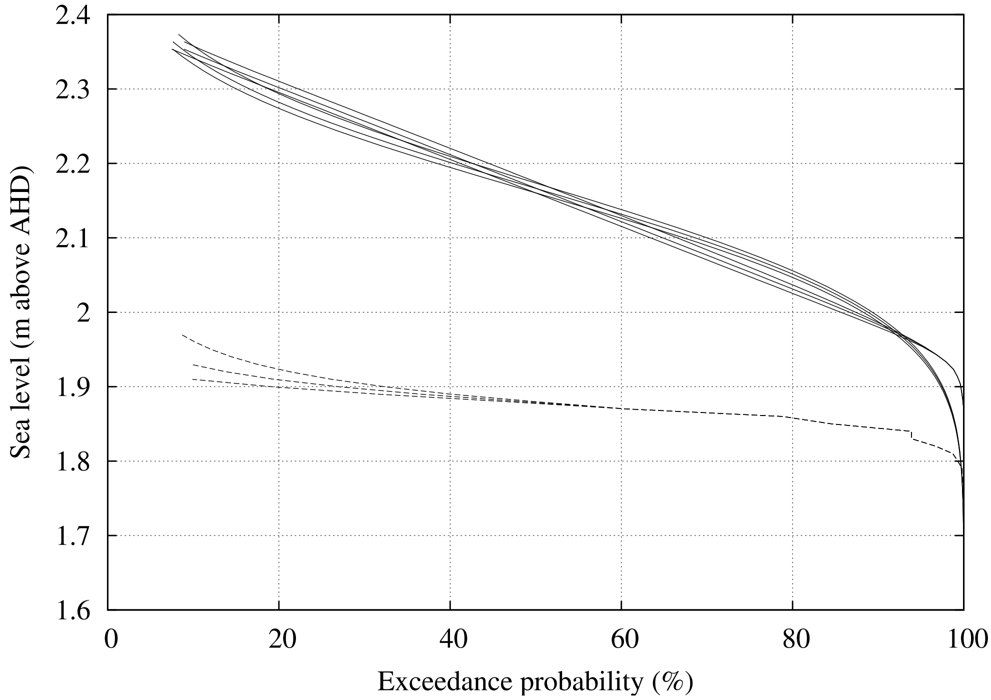

Figure 254: Exceedance probabilities for Burnie, 2080, scenario A1B and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 135.

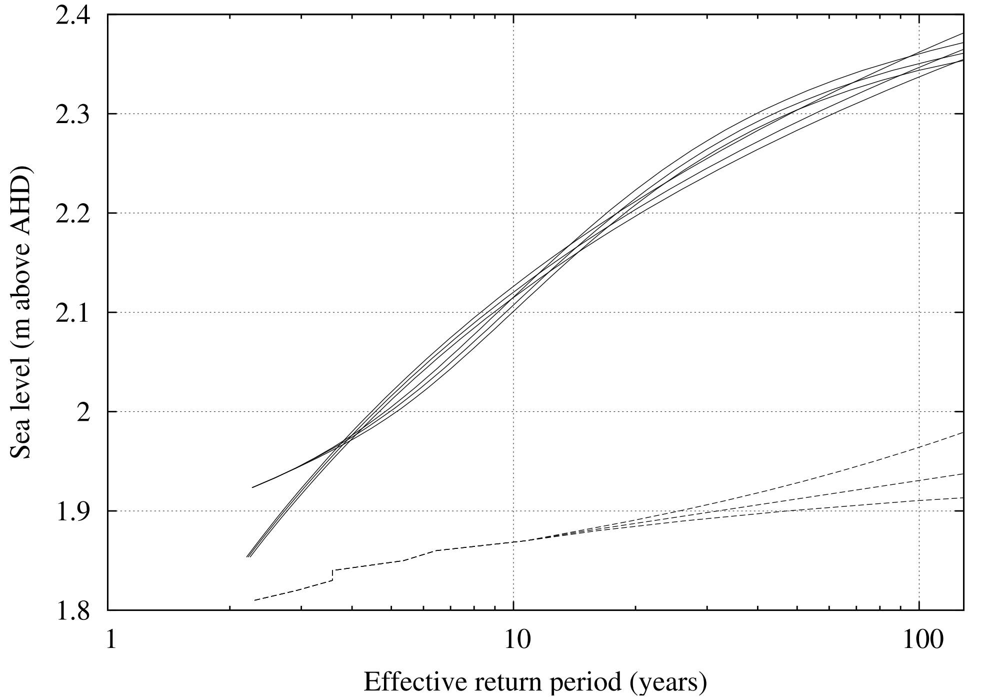

Figure 255: Effective return periods for Burnie, 2080, scenario A1B and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 135.

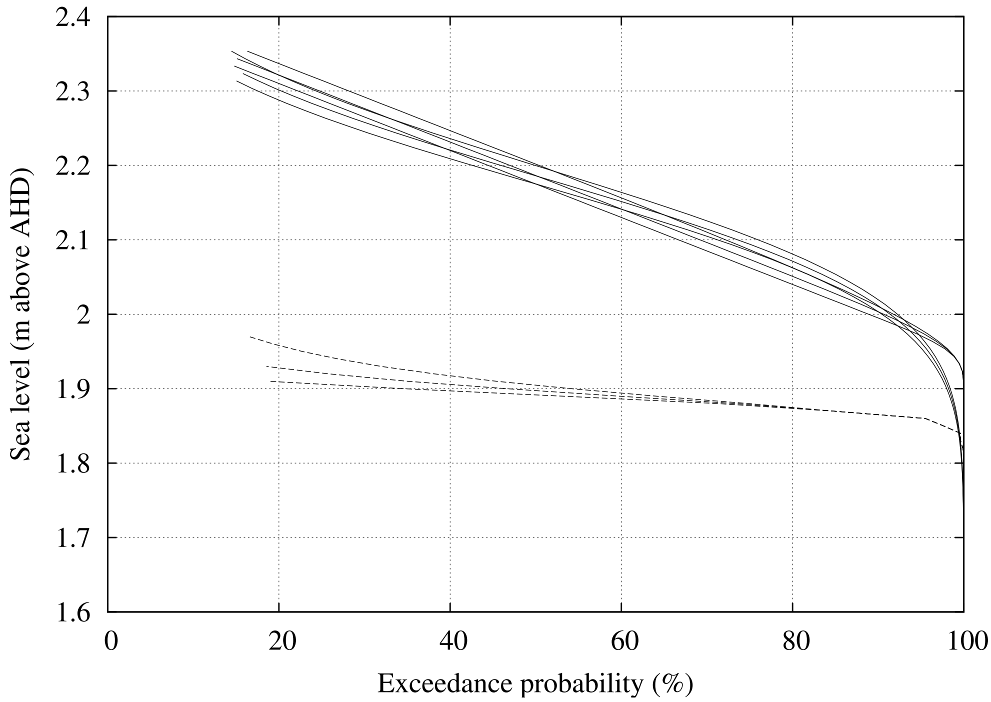

Figure 256: Exceedance probabilities for Burnie, 2080, scenario A1B and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 136.

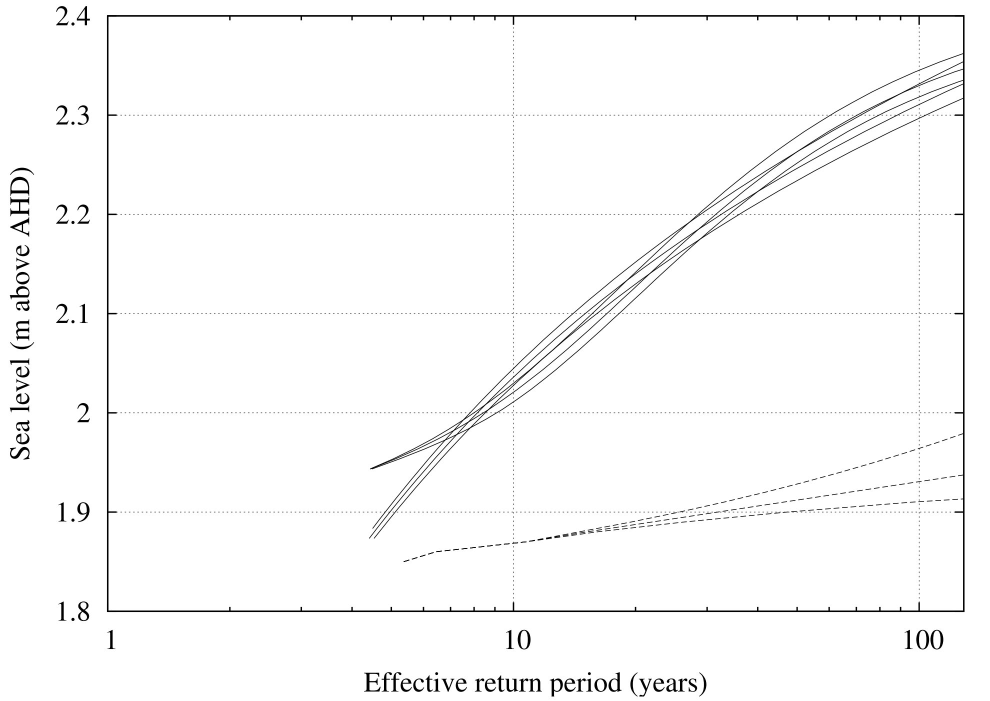

Figure 257: Effective return periods for Burnie, 2080, scenario A1B and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 136.

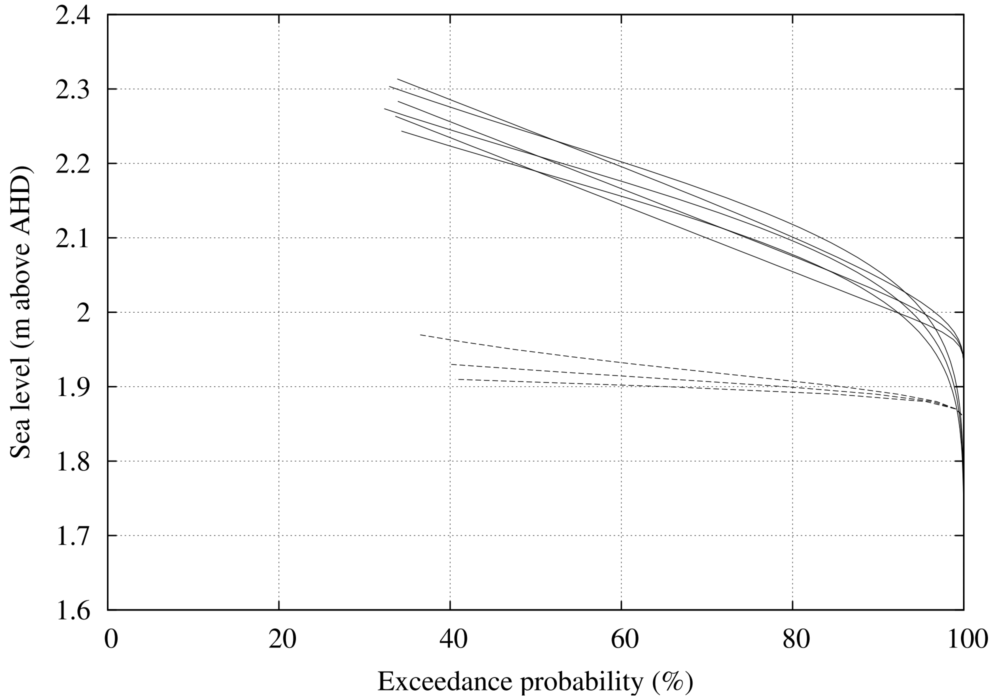

Figure 258: Exceedance probabilities for Burnie, 2080, scenario A1B and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 137.

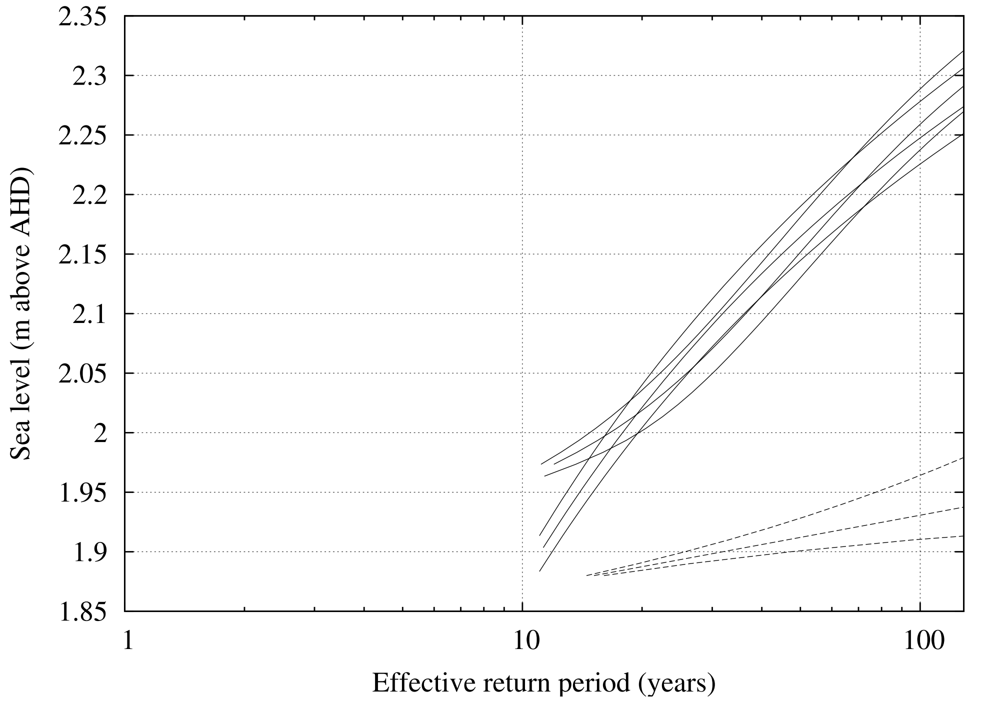

Figure 259: Effective return periods for Burnie, 2080, scenario A1B and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 137.

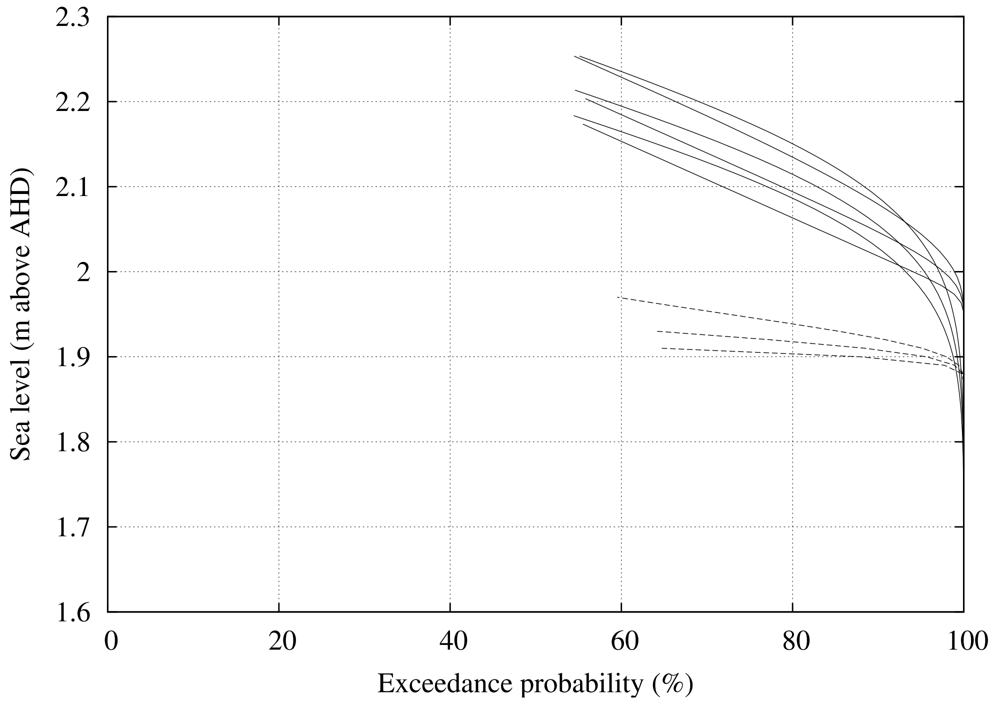

Figure 260: Exceedance probabilities for Burnie, 2080, scenario A1B and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 138.

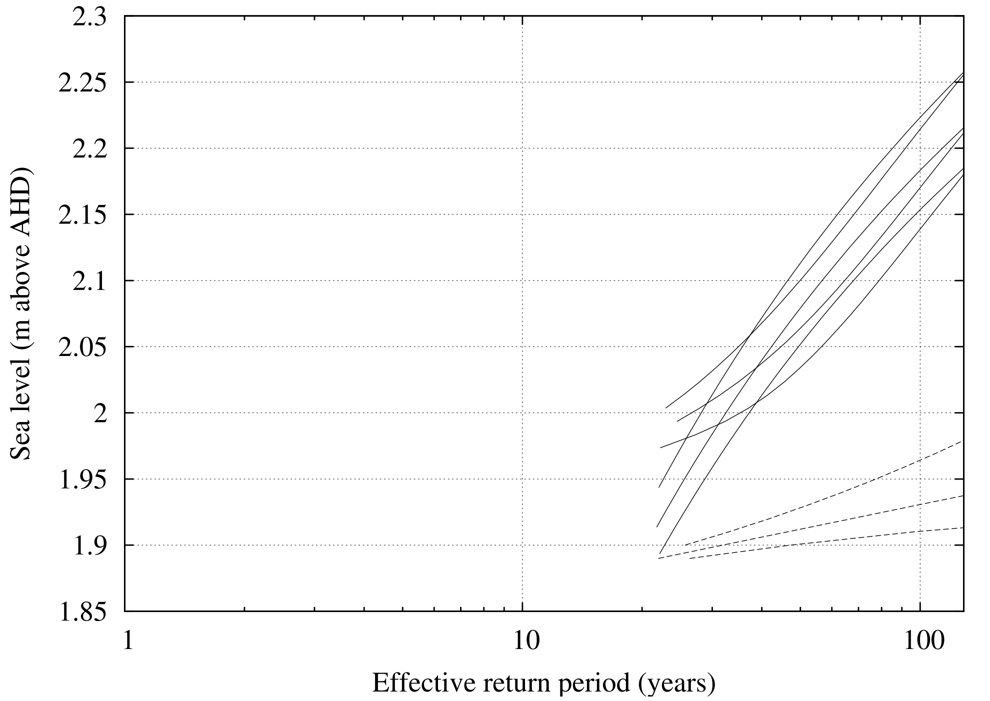

Figure 261: Effective return periods for Burnie, 2080, scenario A1B and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 138.

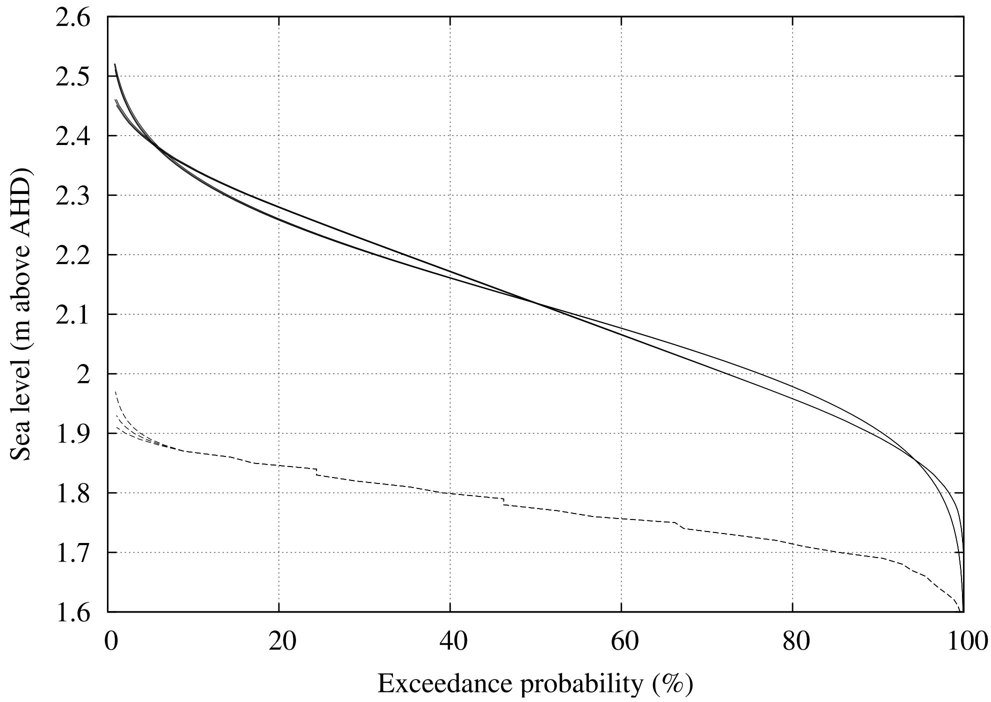

Figure 262: Exceedance probabilities for Burnie, 2080, scenario A1FI and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 139.

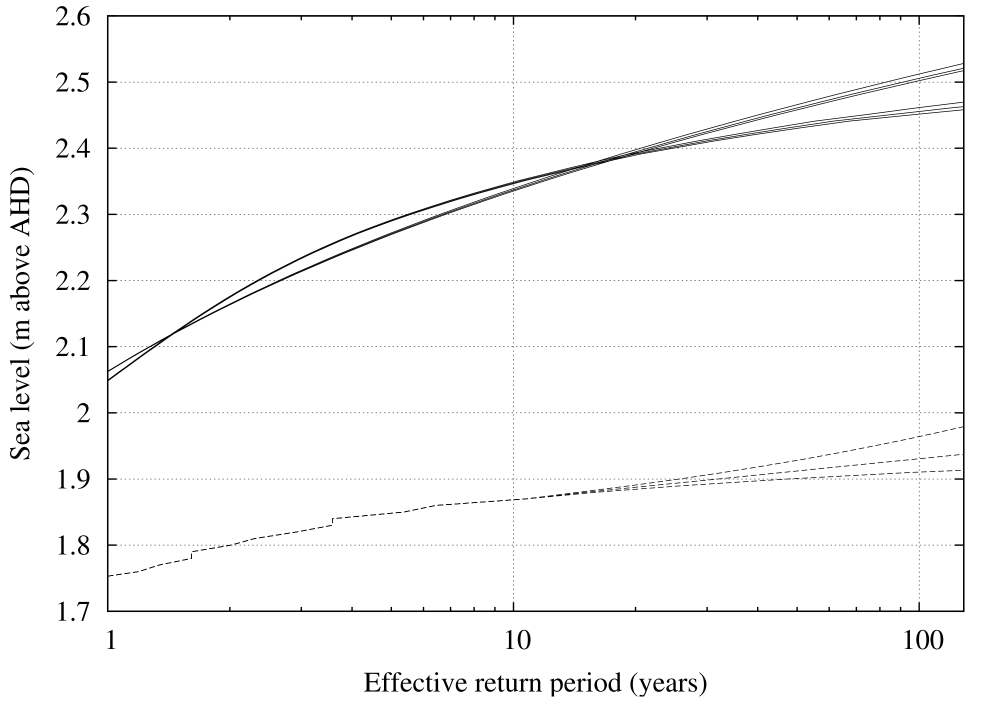

Figure 263: Effective return periods for Burnie, 2080, scenario A1FI and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 139.

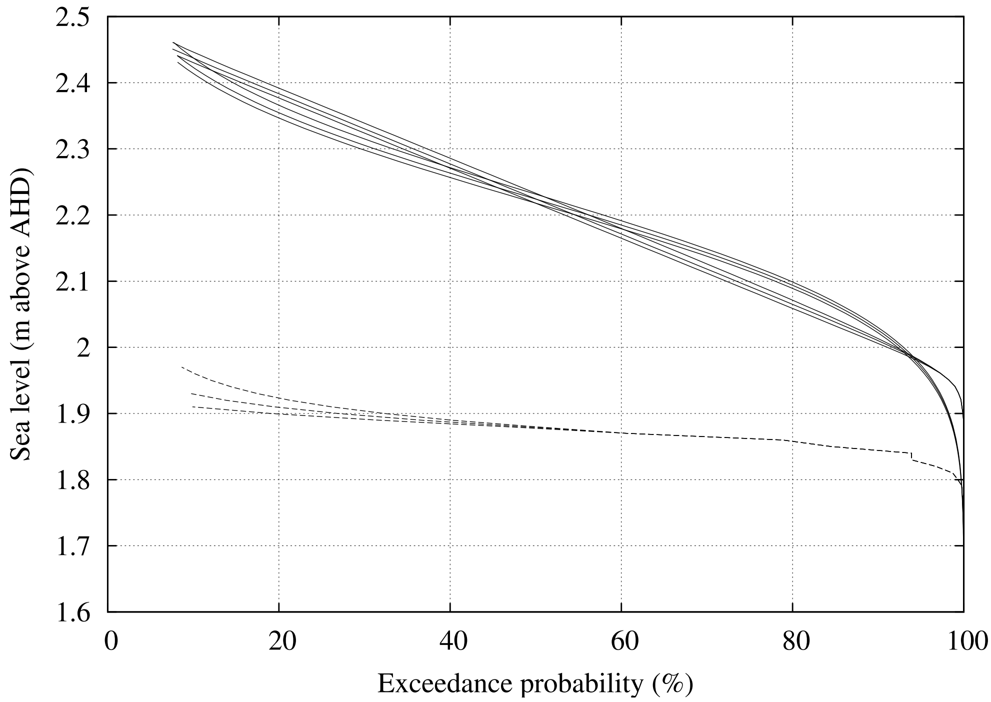

Figure 264: Exceedance probabilities for Burnie, 2080, scenario A1FI and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 140.

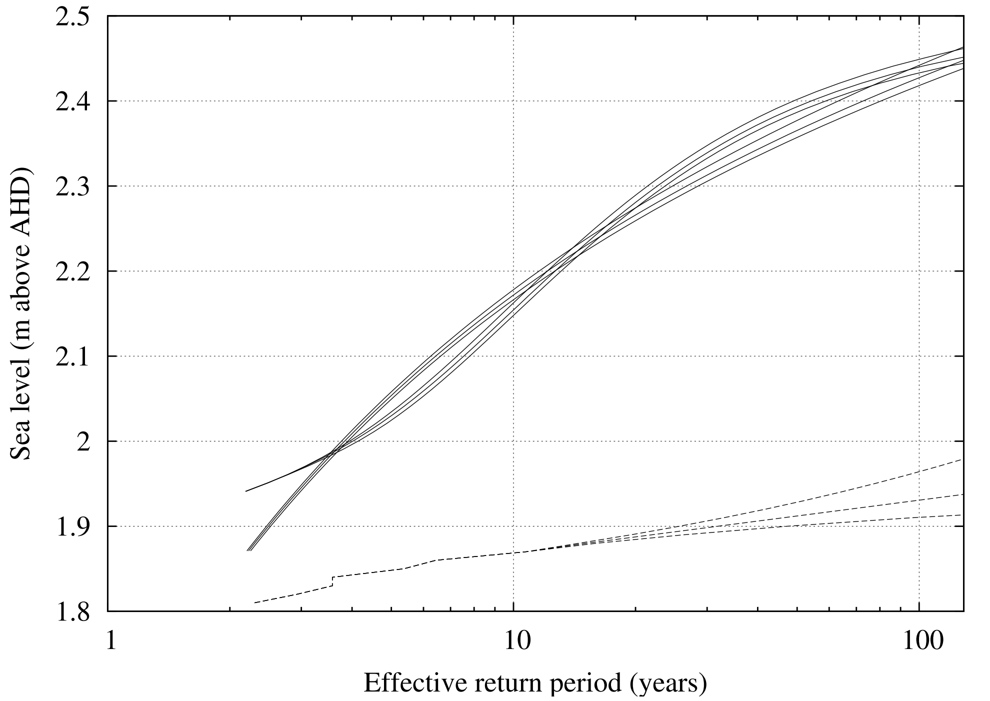

Figure 265: Effective return periods for Burnie, 2080, scenario A1FI and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 140.

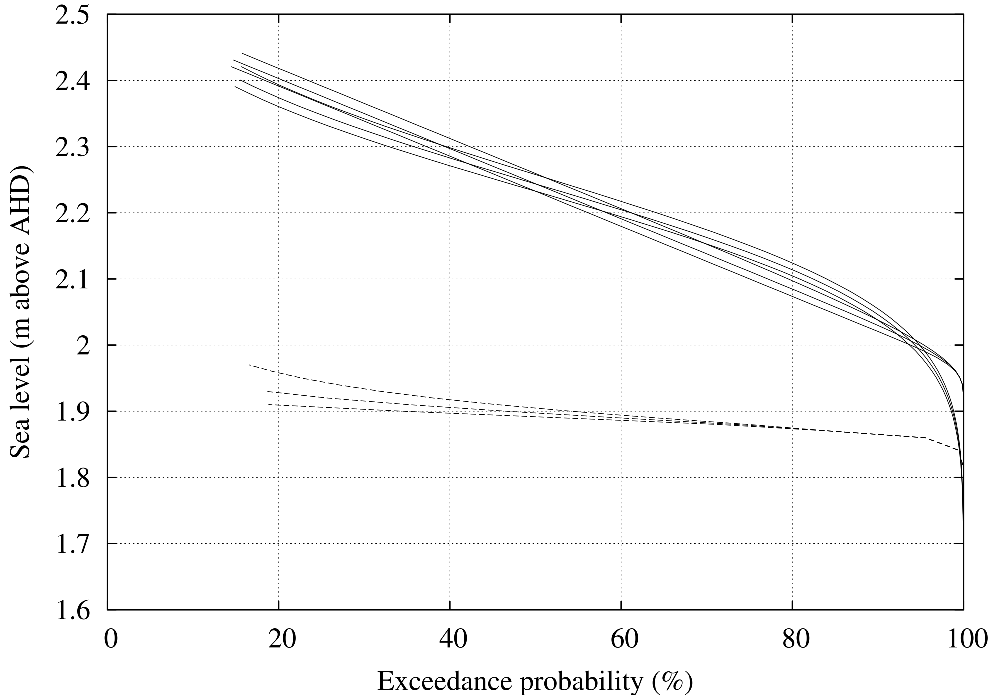

Figure 266: Exceedance probabilities for Burnie, 2080, scenario A1FI and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 141.

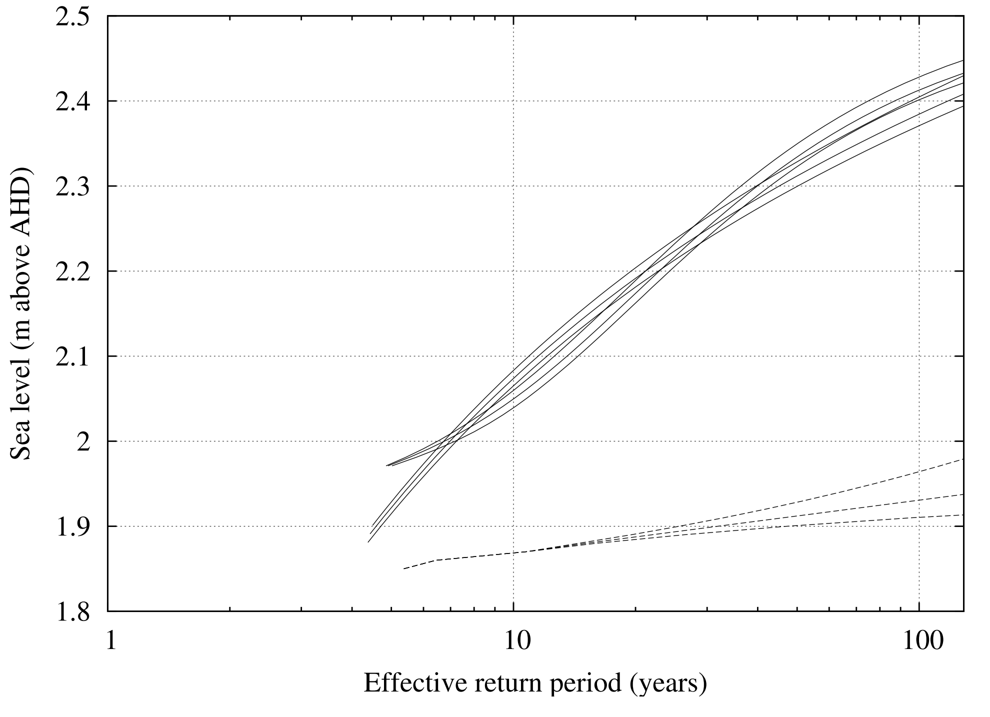

Figure 267: Effective return periods for Burnie, 2080, scenario A1FI and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 141.

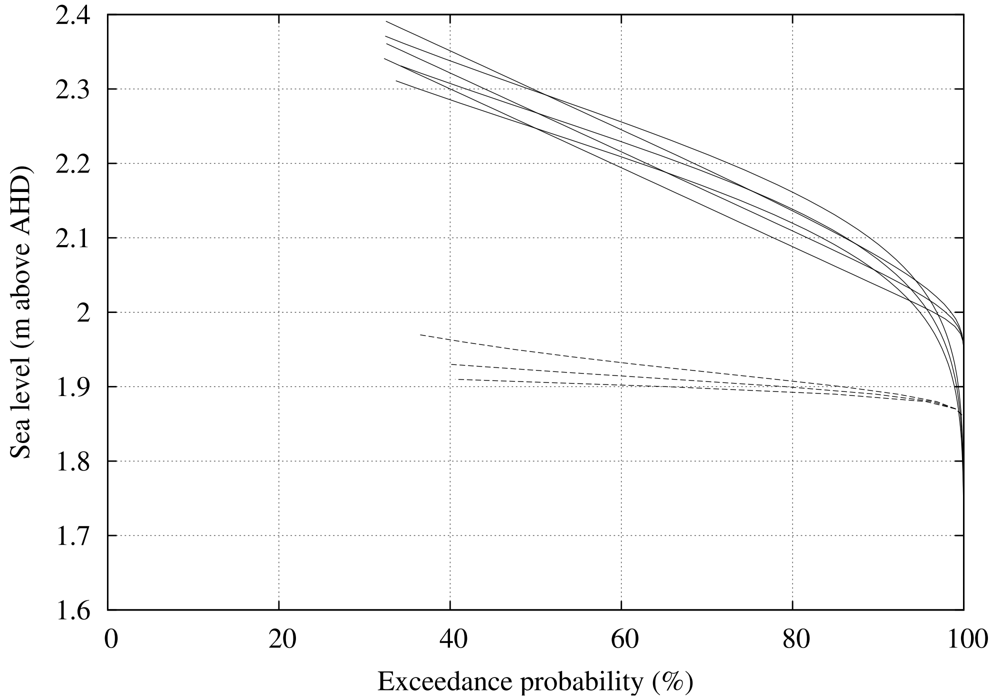

Figure 268: Exceedance probabilities for Burnie, 2080, scenario A1FI and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 142.

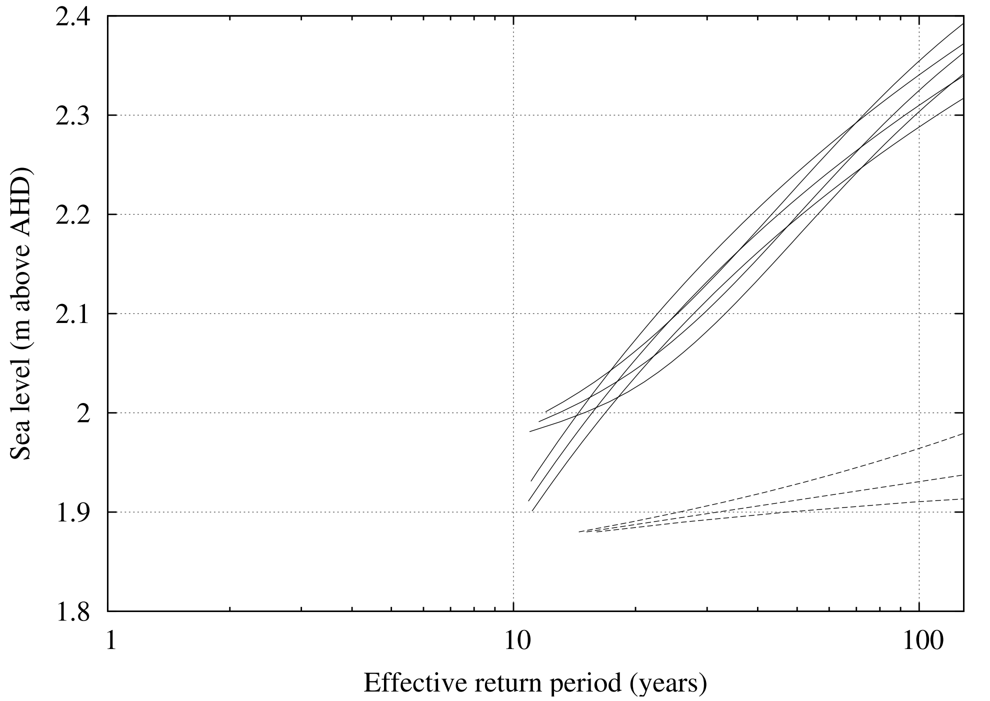

Figure 269: Effective return periods for Burnie, 2080, scenario A1FI and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 142.

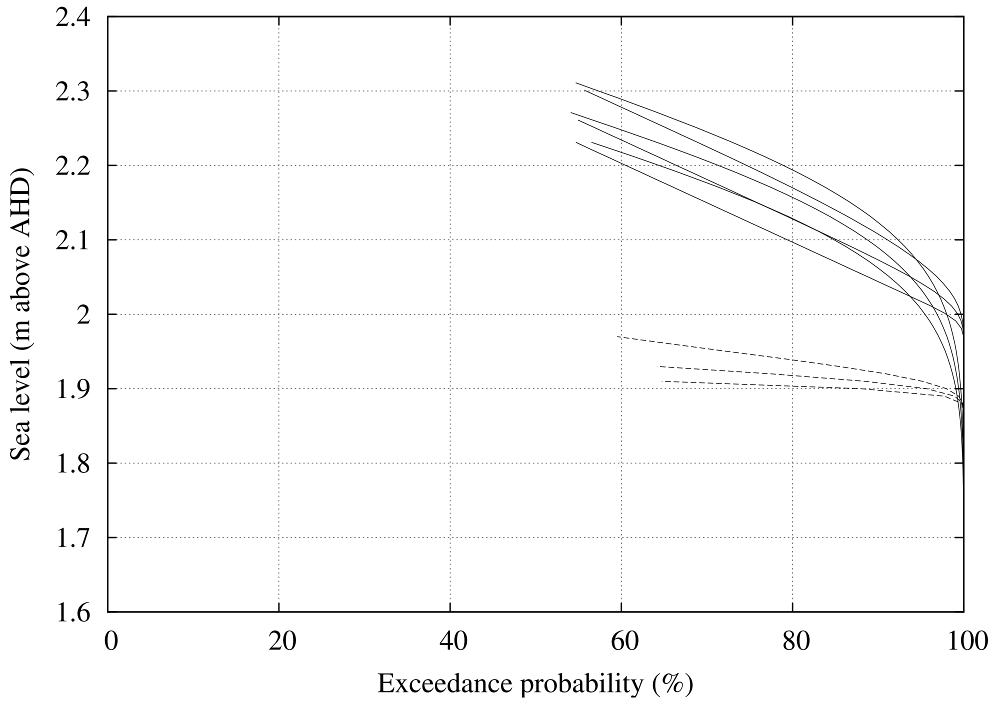

Figure 270: Exceedance probabilities for Burnie, 2080, scenario A1FI and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 143.

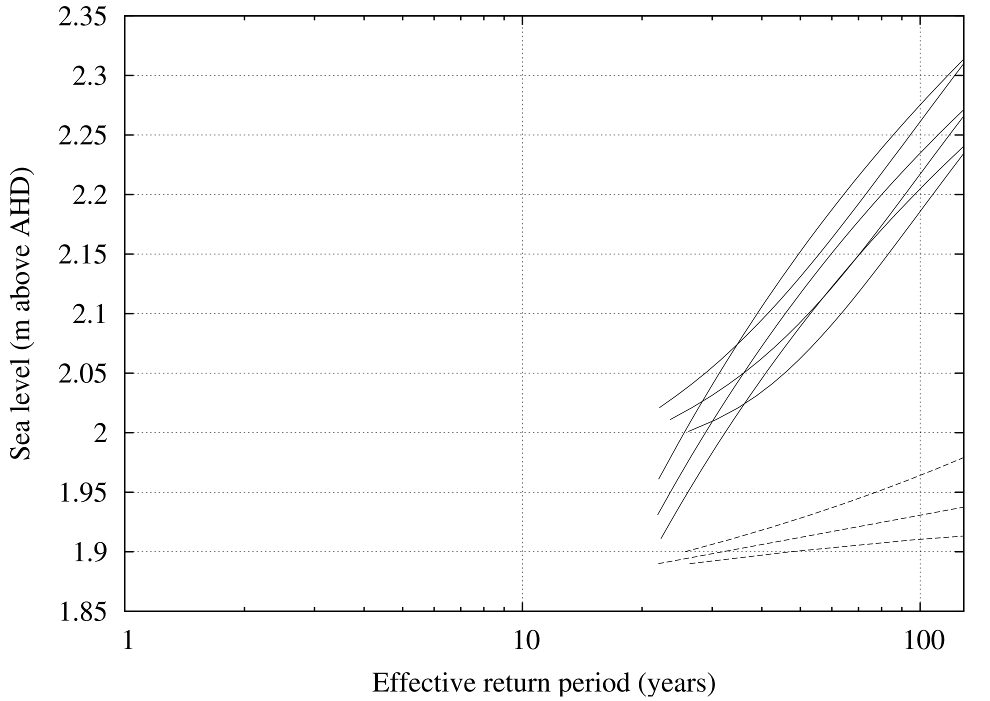

Figure 271: Effective return periods for Burnie, 2080, scenario A1FI and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 143.

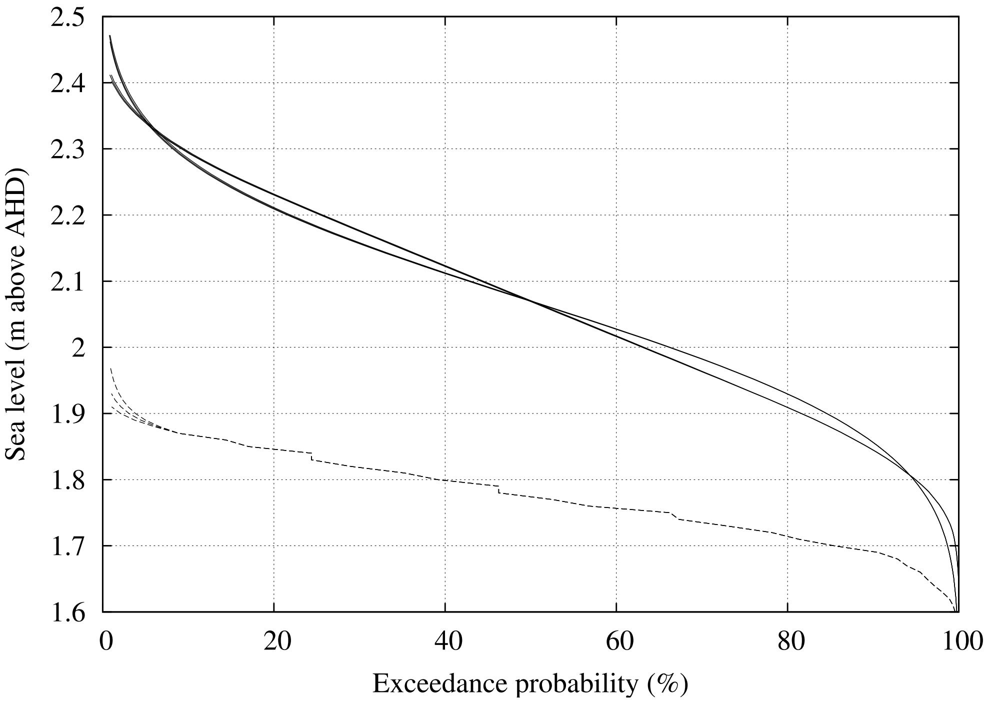

Figure 272: Exceedance probabilities for Burnie, 2100, scenario B1 and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 144.

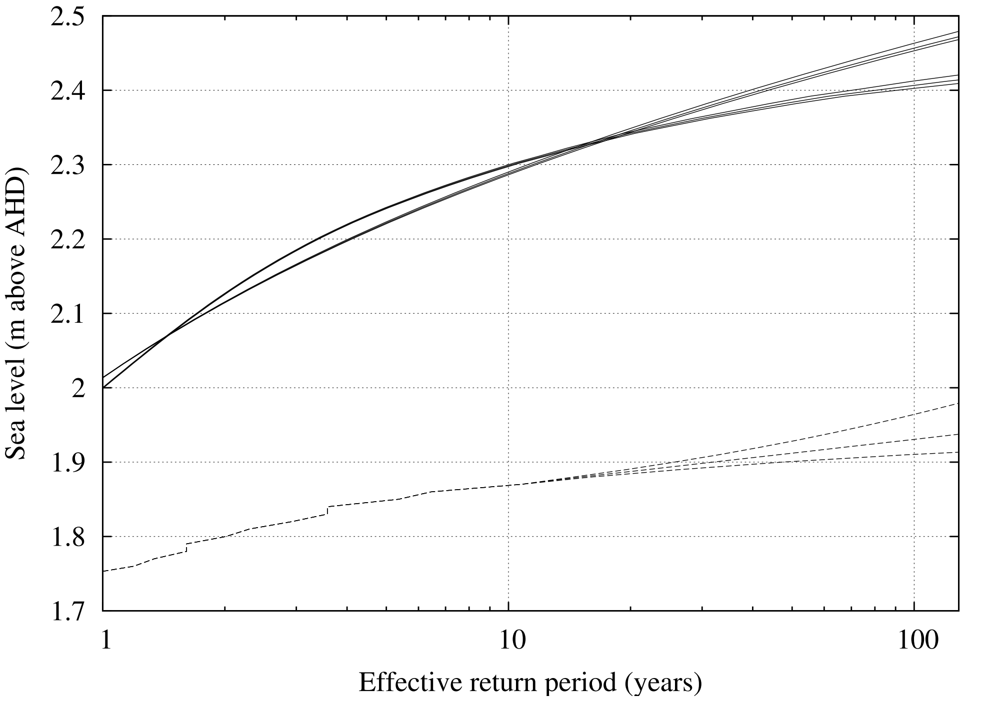

Figure 273: Effective return periods for Burnie, 2100, scenario B1 and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 144.

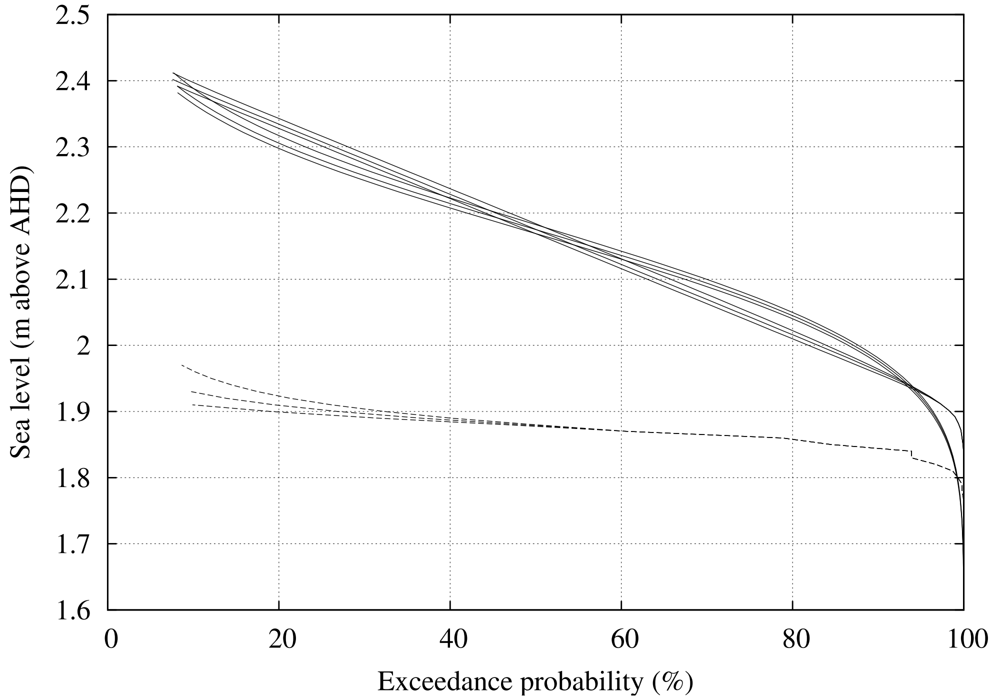

Figure 274: Exceedance probabilities for Burnie, 2100, scenario B1 and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 145.

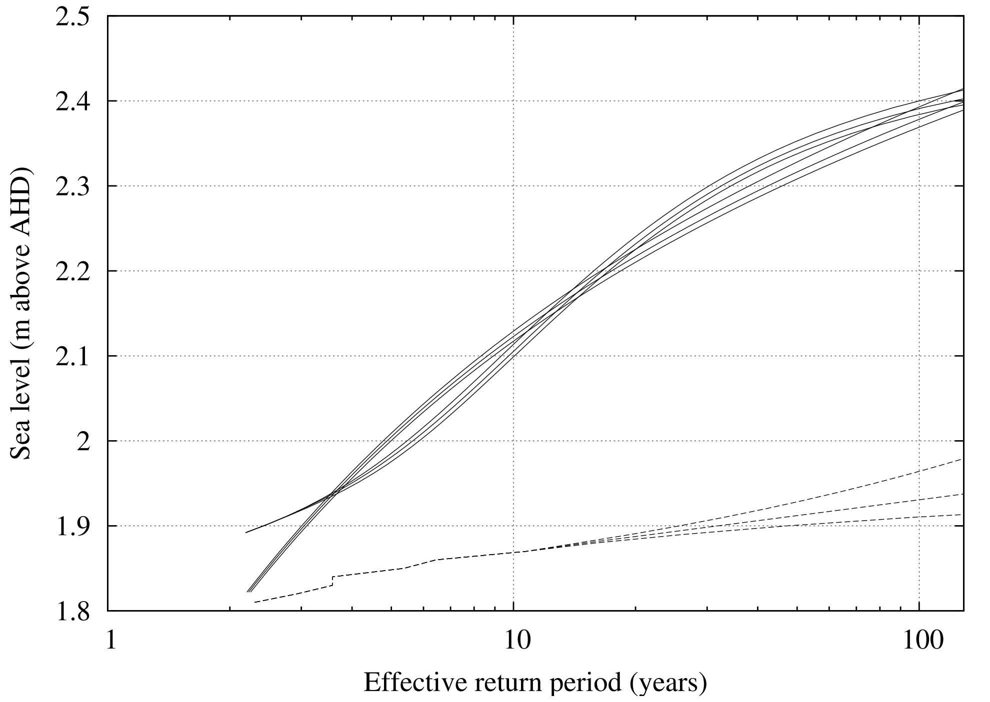

Figure 275: Effective return periods for Burnie, 2100, scenario B1 and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 145.

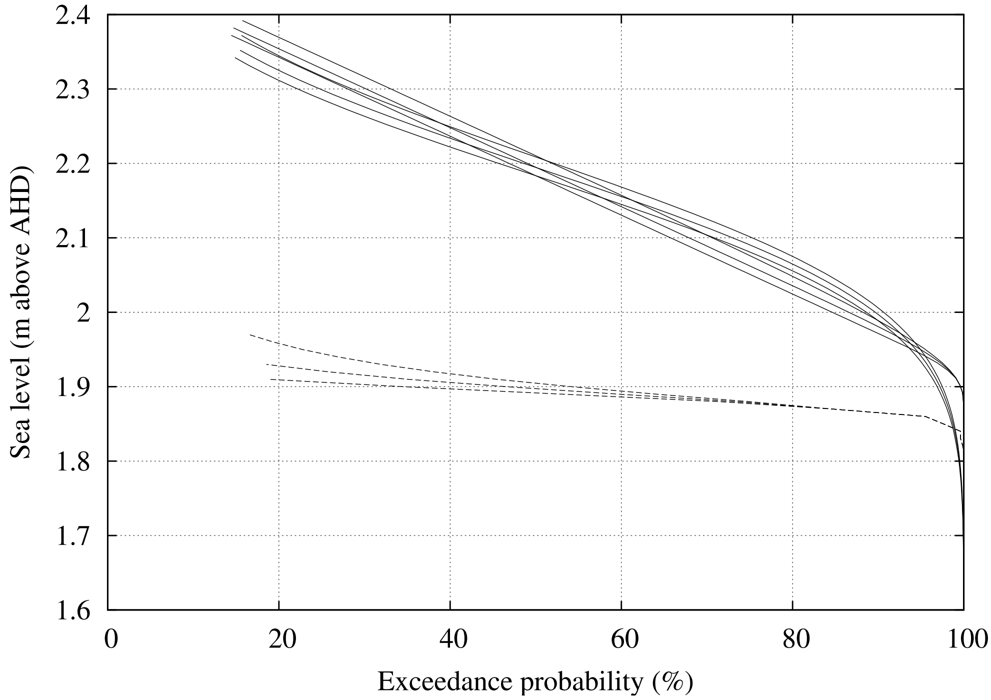

Figure 276: Exceedance probabilities for Burnie, 2100, scenario B1 and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 146.

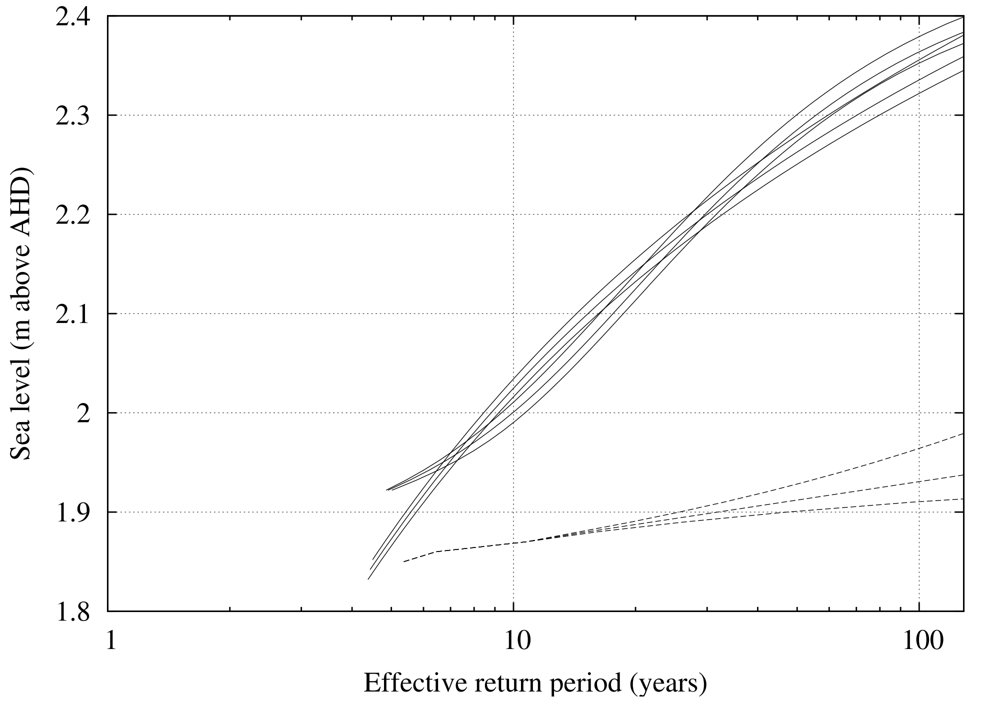

Figure 277: Effective return periods for Burnie, 2100, scenario B1 and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 146.

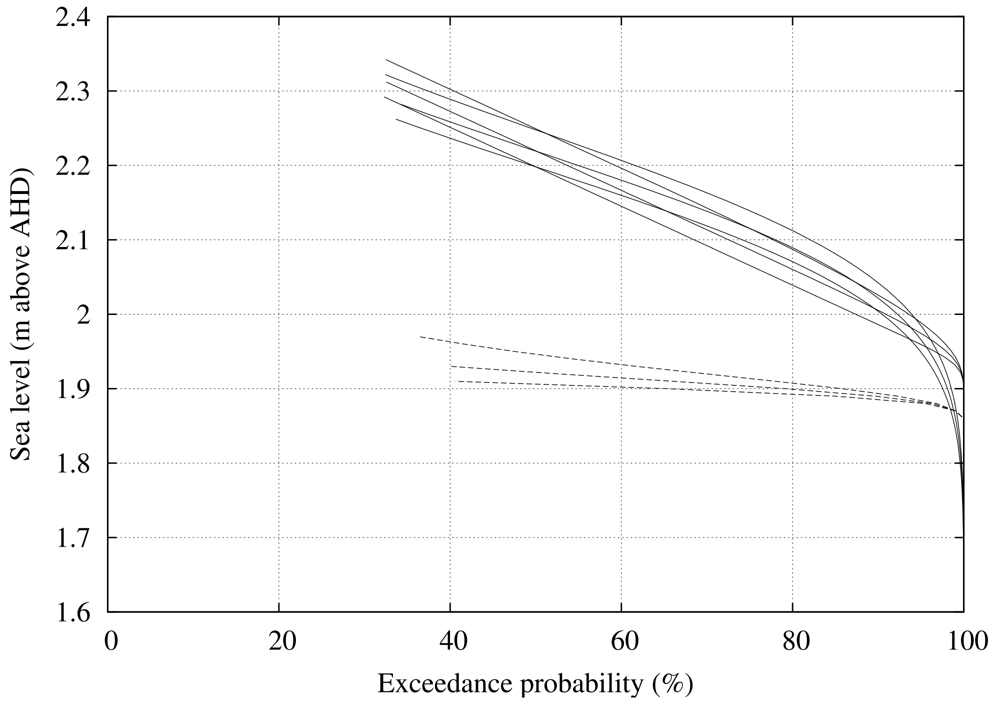

Figure 278: Exceedance probabilities for Burnie, 2100, scenario B1 and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 147.

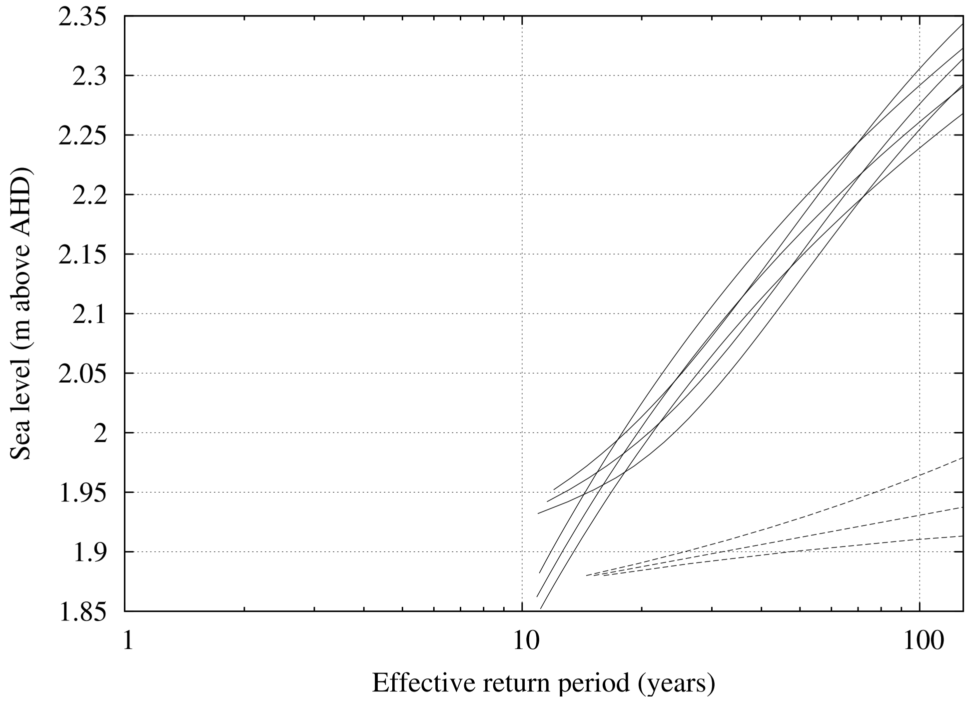

Figure 279: Effective return periods for Burnie, 2100, scenario B1 and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 147.

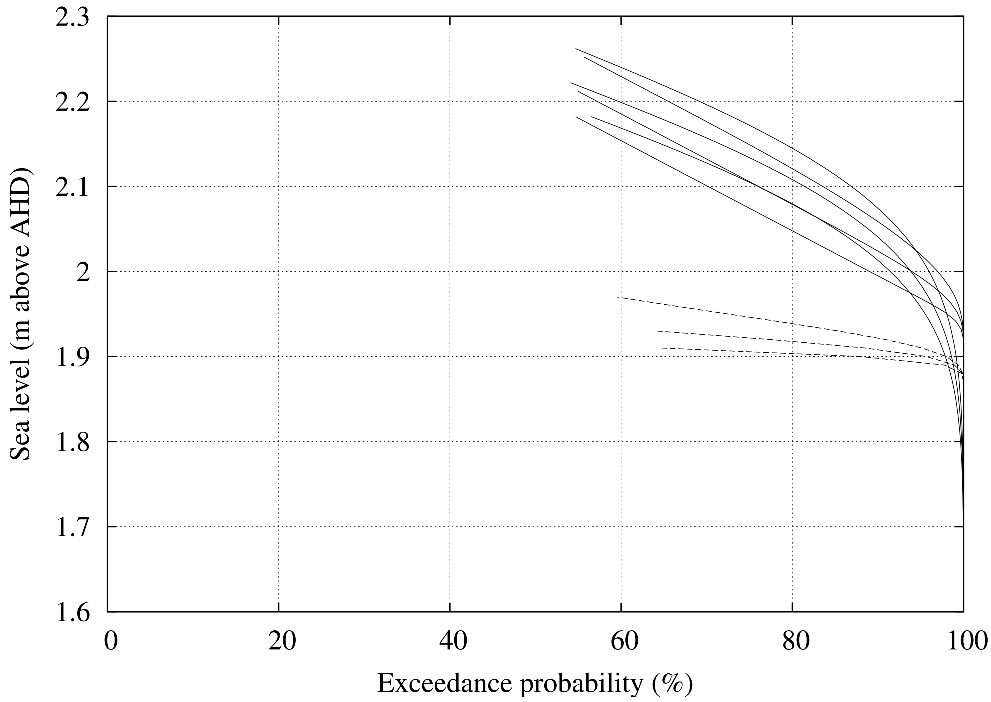

Figure 280: Exceedance probabilities for Burnie, 2100, scenario B1 and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 148.

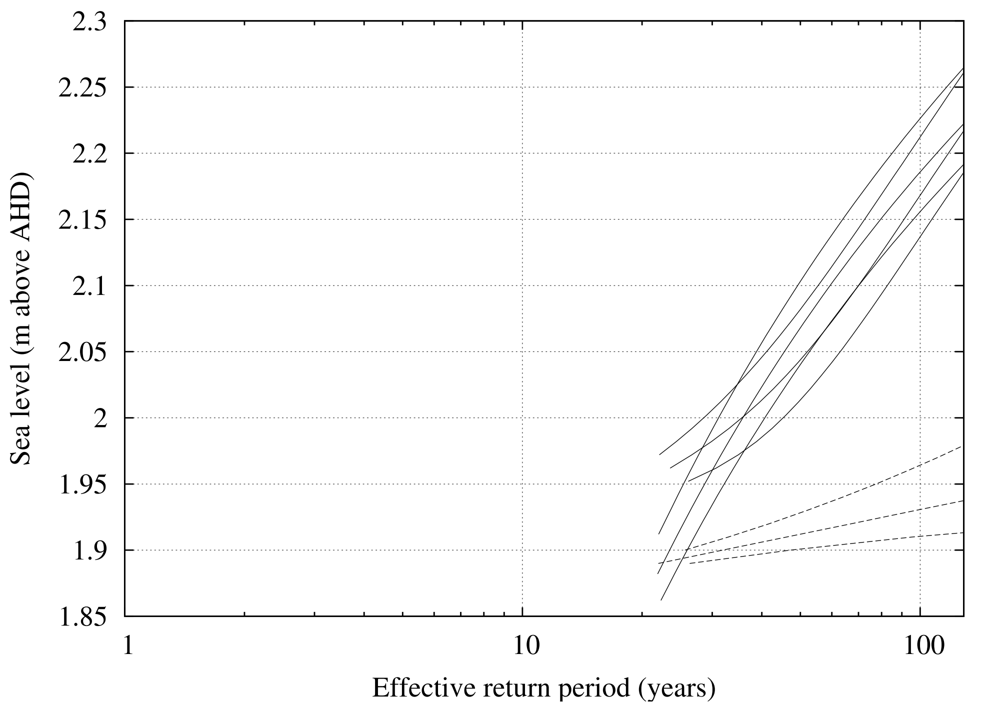

Figure 281: Effective return periods for Burnie, 2100, scenario B1 and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 148.

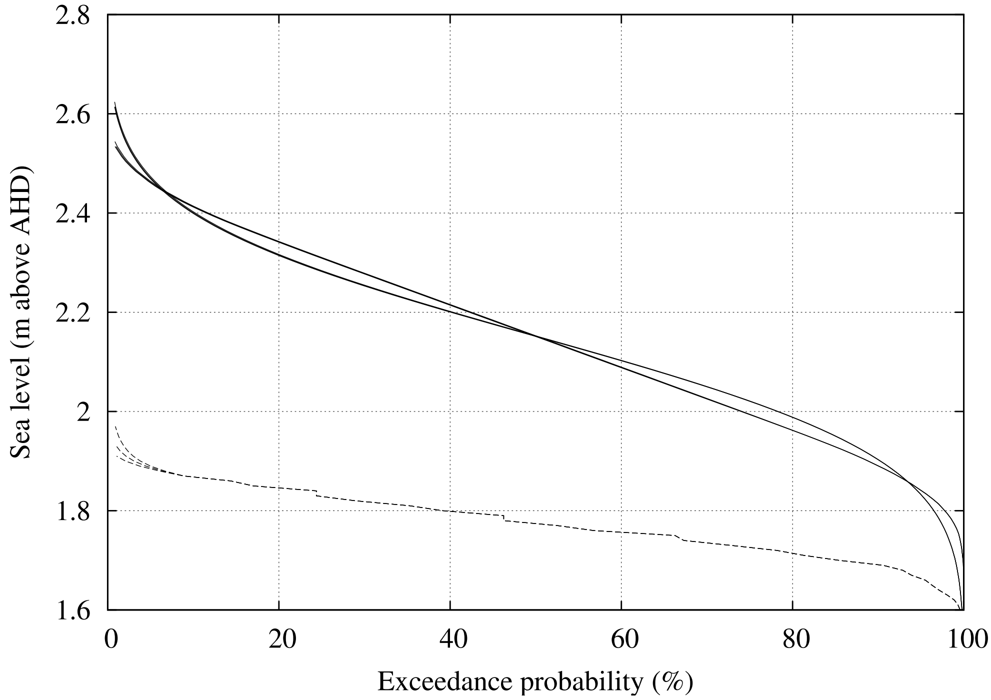

Figure 282: Exceedance probabilities for Burnie, 2100, scenario A1B and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 149.

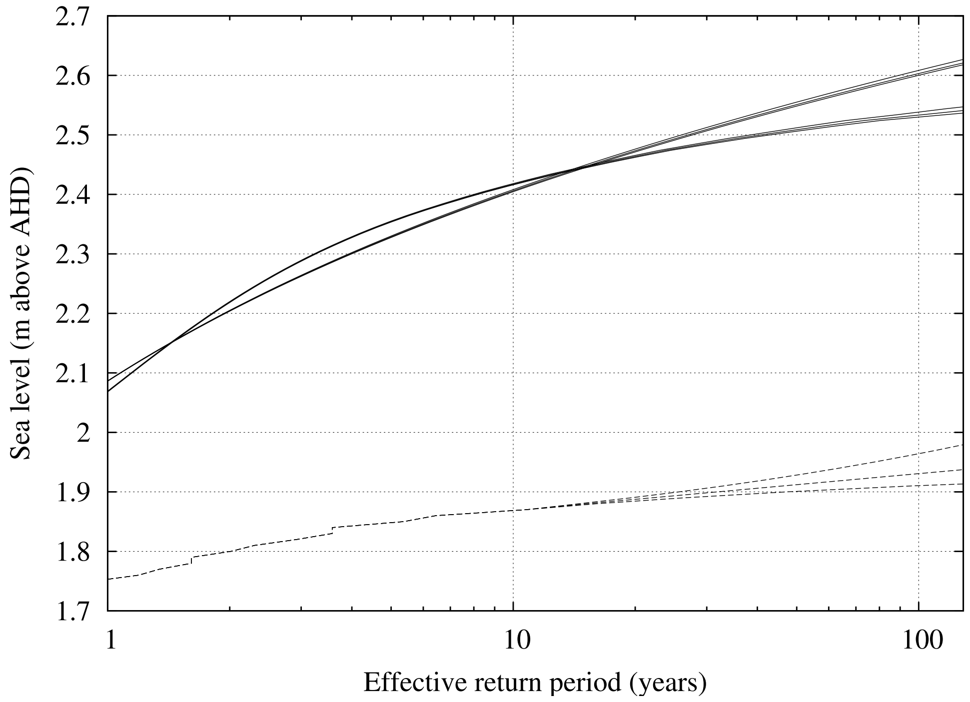

Figure 283: Effective return periods for Burnie, 2100, scenario A1B and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 149.

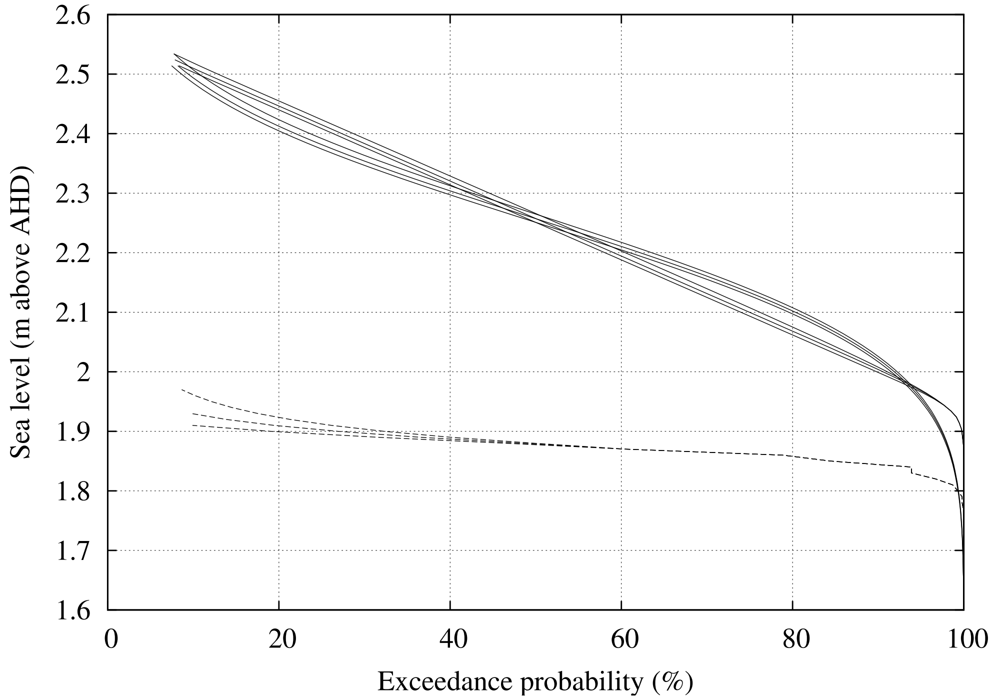

Figure 284: Exceedance probabilities for Burnie, 2100, scenario A1B and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 150.

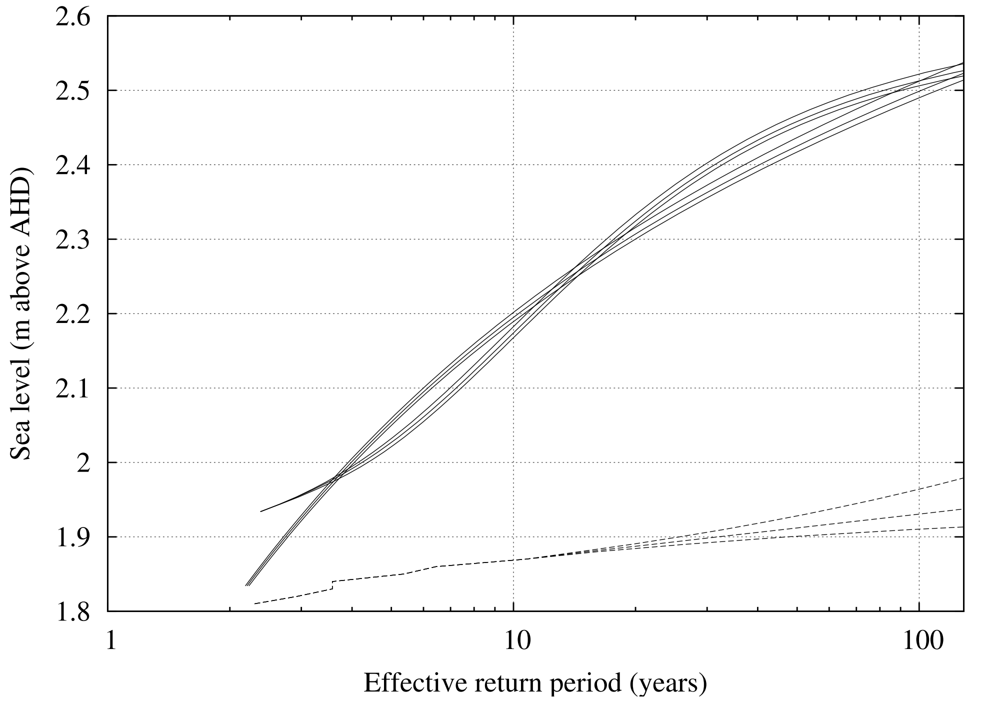

Figure 285: Effective return periods for Burnie, 2100, scenario A1B and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 150.

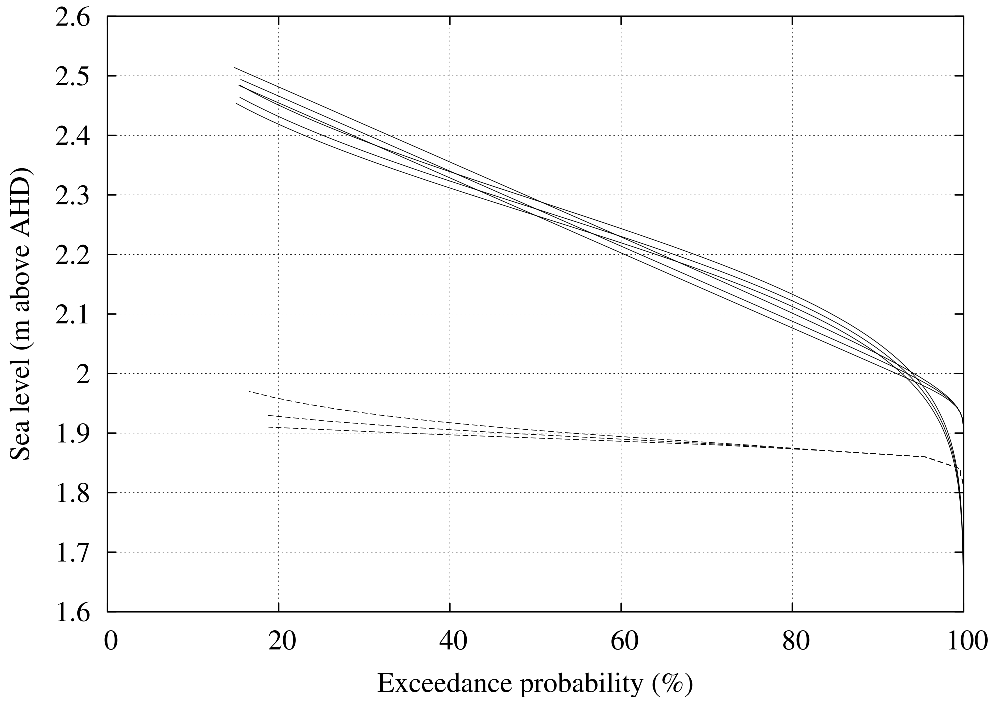

Figure 286: Exceedance probabilities for Burnie, 2100, scenario A1B and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 151.

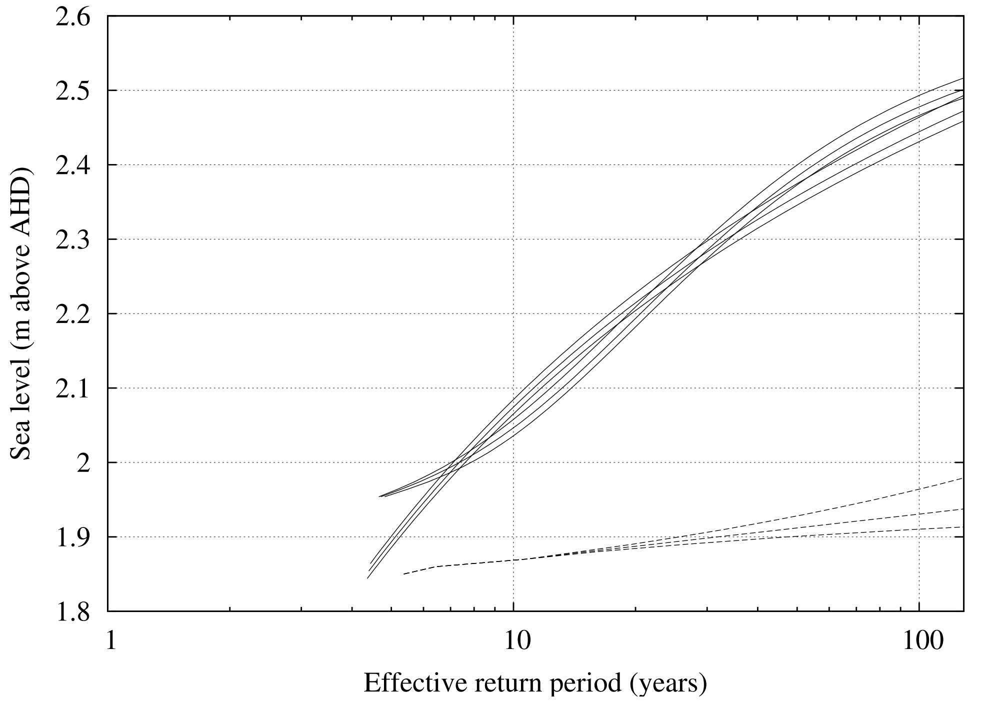

Figure 287: Effective return periods for Burnie, 2100, scenario A1B and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 151.

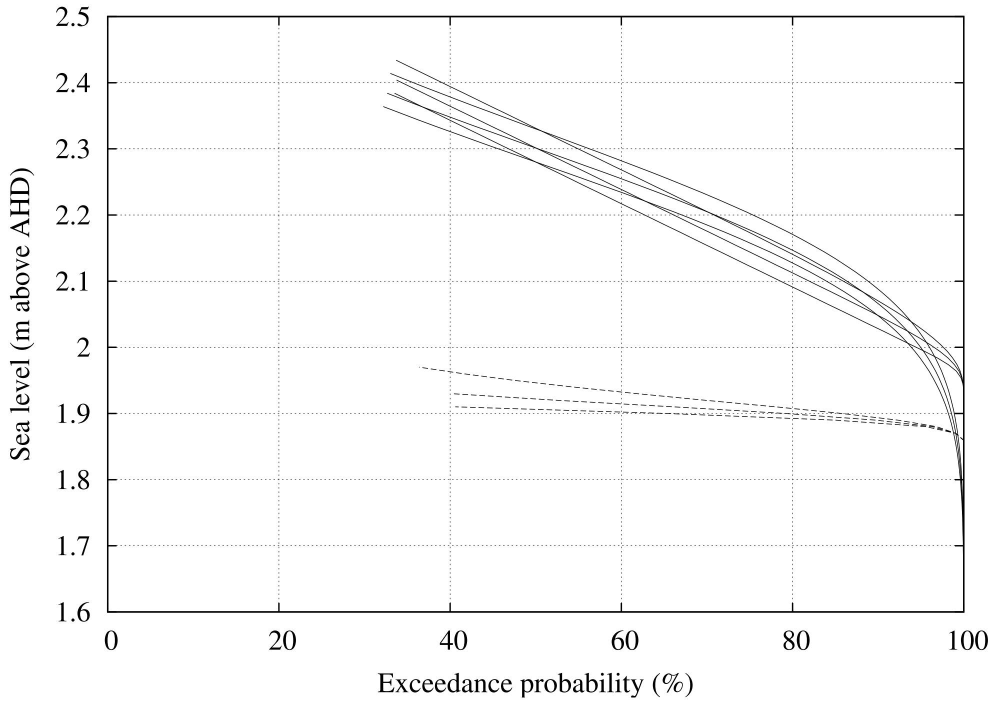

Figure 288: Exceedance probabilities for Burnie, 2100, scenario A1B and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 152.

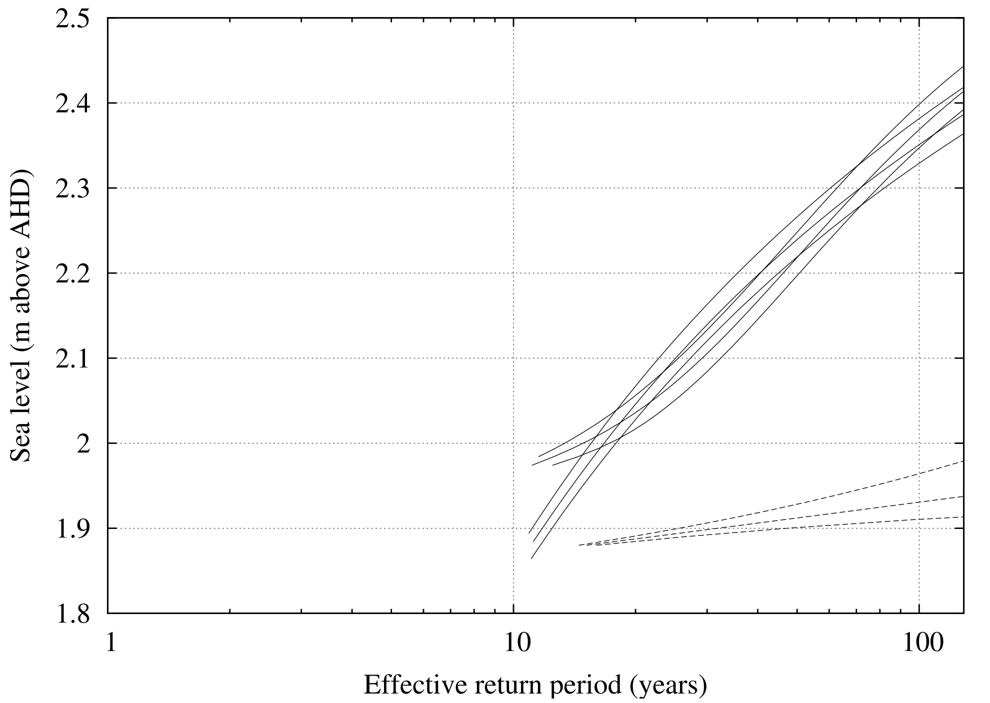

Figure 289: Effective return periods for Burnie, 2100, scenario A1B and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 152.

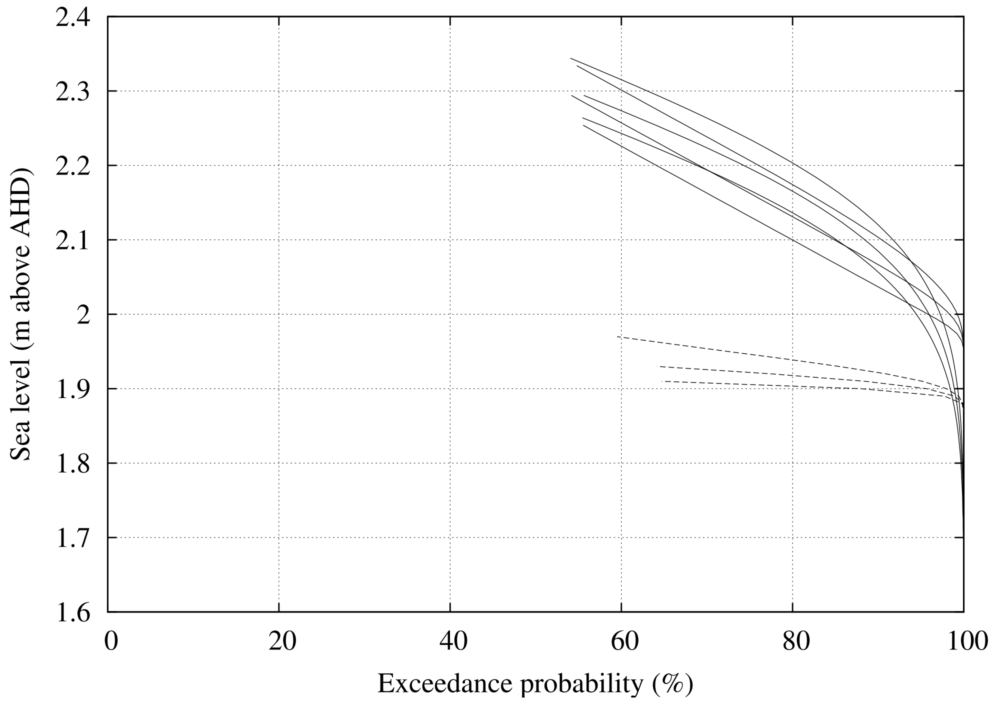

Figure 290: Exceedance probabilities for Burnie, 2100, scenario A1B and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 153.

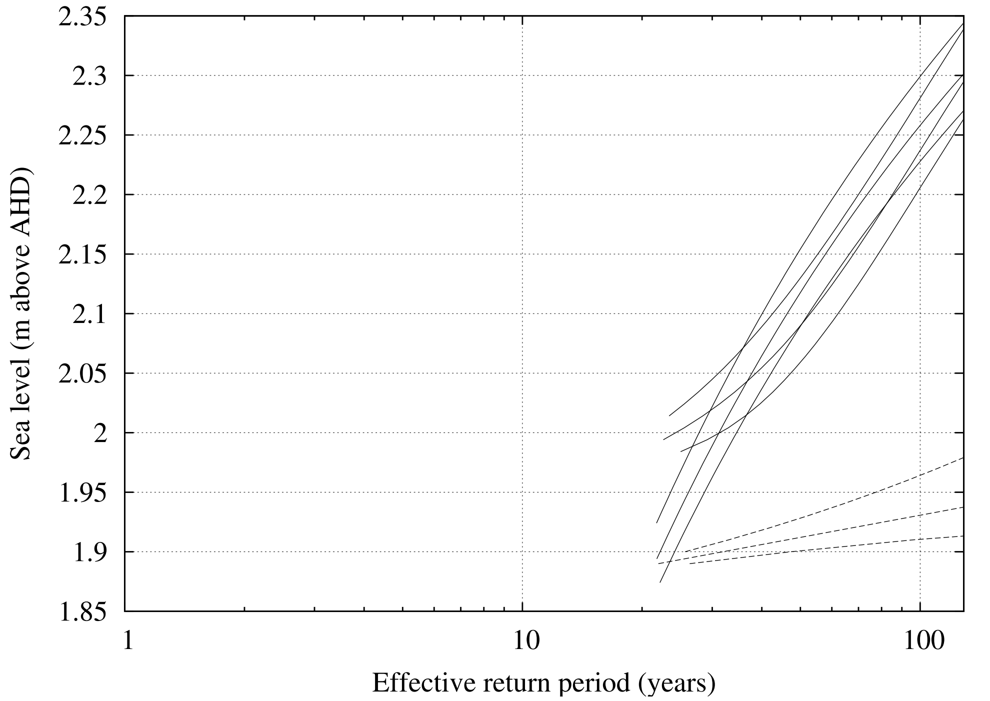

Figure 291: Effective return periods for Burnie, 2100, scenario A1B and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 153.

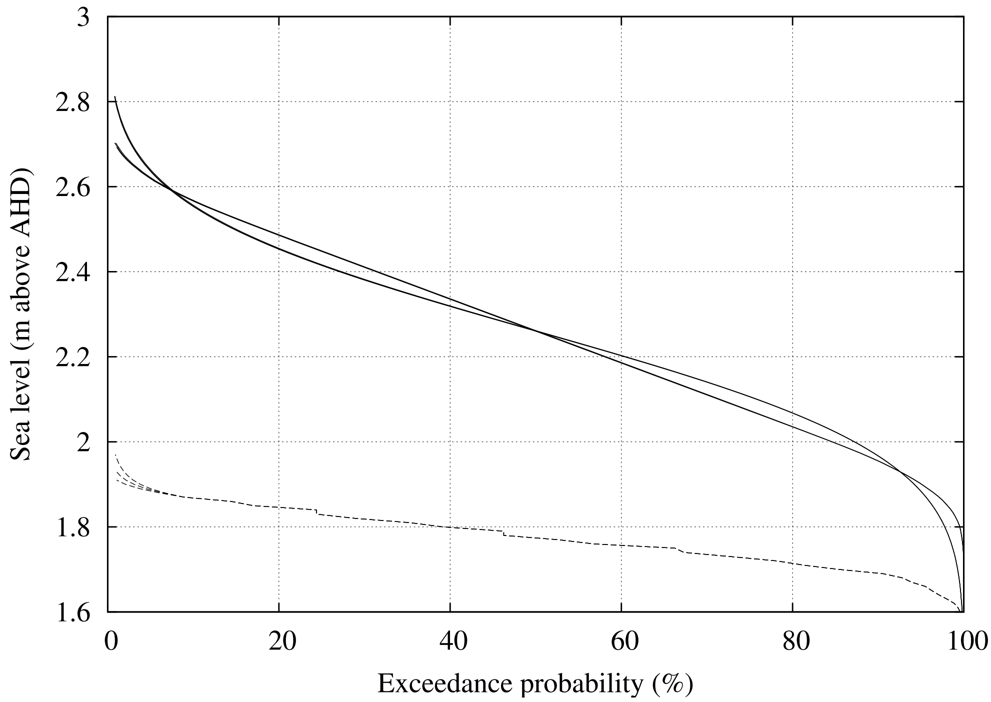

Figure 292: Exceedance probabilities for Burnie, 2100, scenario A1FI and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 154.

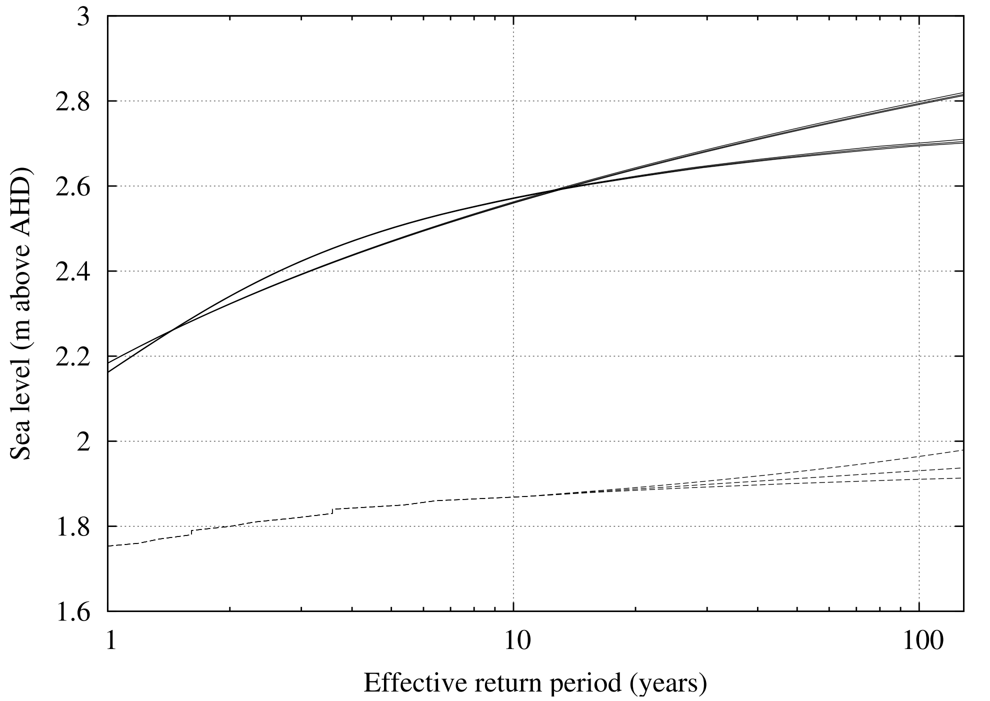

Figure 293: Effective return periods for Burnie, 2100, scenario A1FI and asset life of 1 year (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 154.

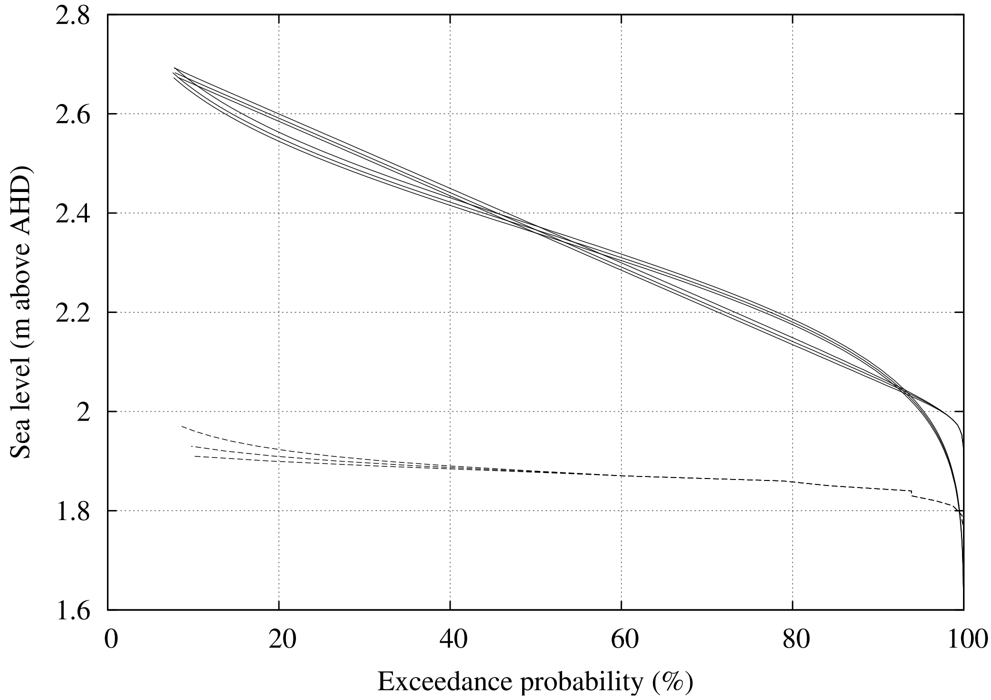

Figure 294: Exceedance probabilities for Burnie, 2100, scenario A1FI and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 155.

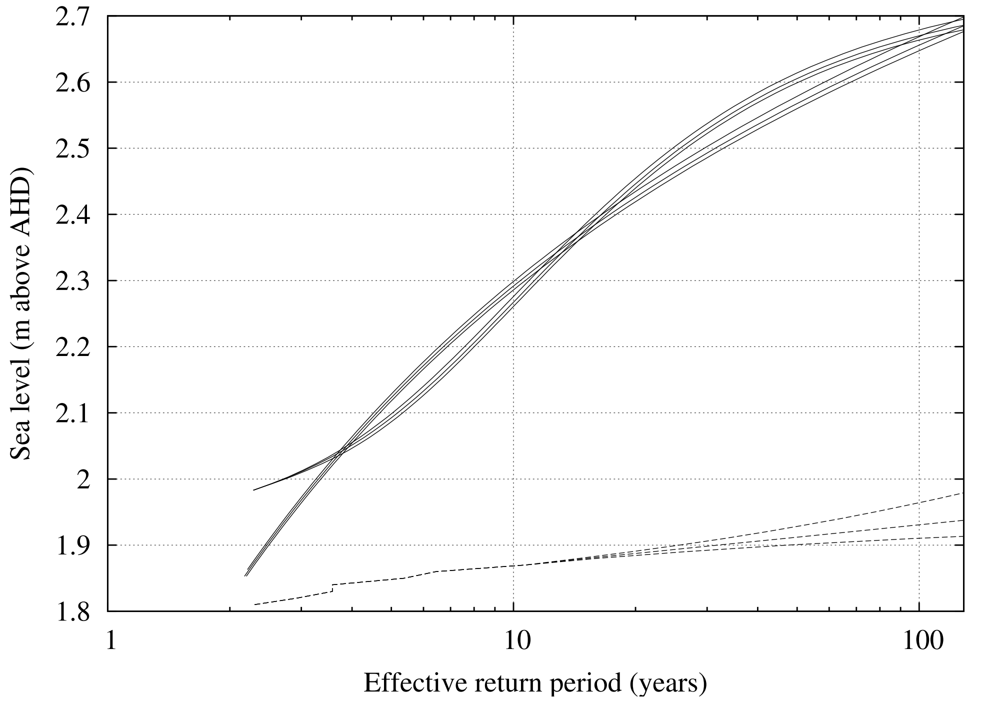

Figure 295: Effective return periods for Burnie, 2100, scenario A1FI and asset life of 10 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 155.

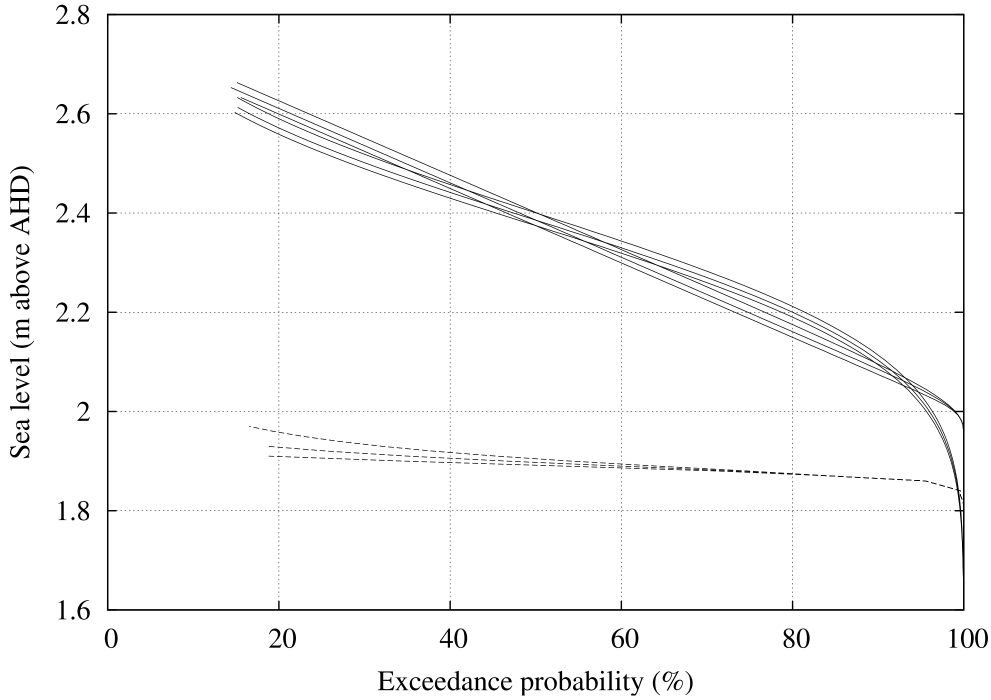

Figure 296: Exceedance probabilities for Burnie, 2100, scenario A1FI and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 156.

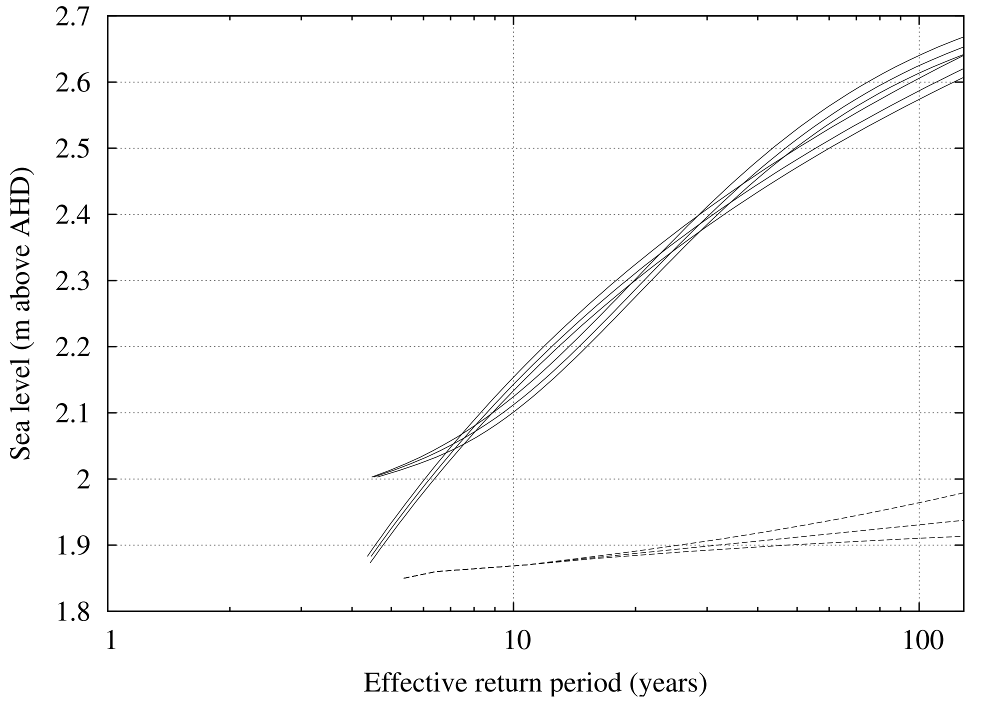

Figure 297: Effective return periods for Burnie, 2100, scenario A1FI and asset life of 20 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 156.

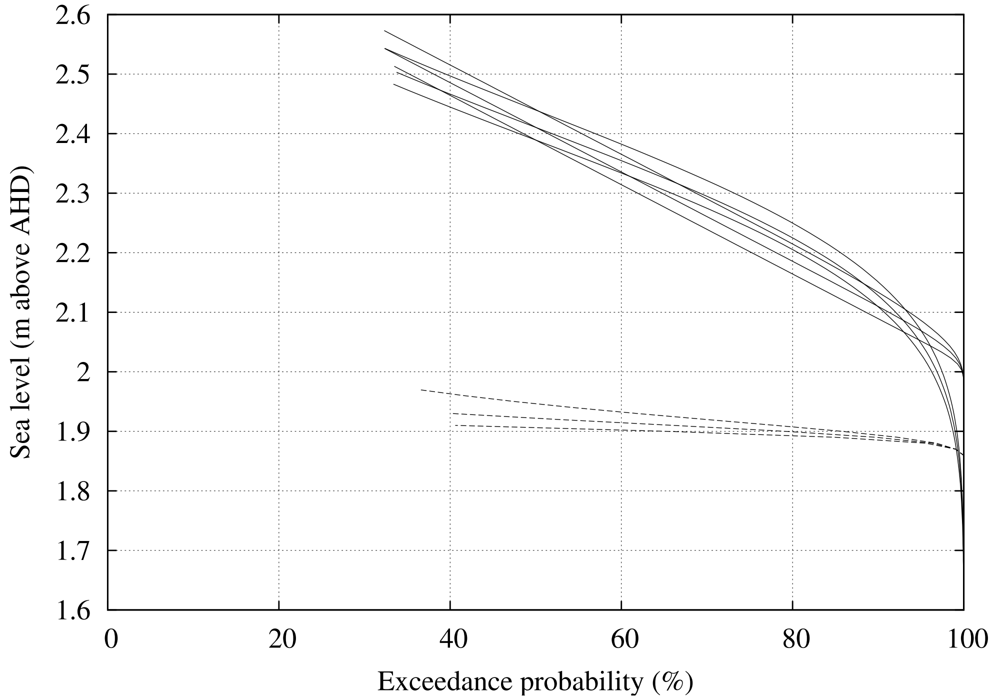

Figure 298: Exceedance probabilities for Burnie, 2100, scenario A1FI and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 157.

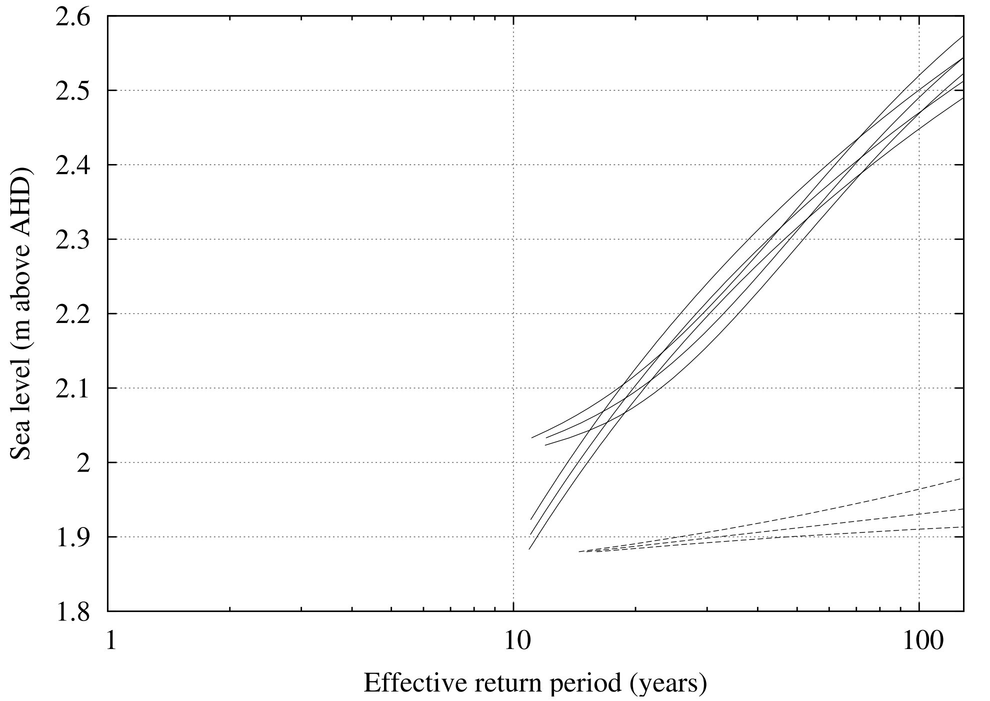

Figure 299: Effective return periods for Burnie, 2100, scenario A1FI and asset life of 50 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 157.

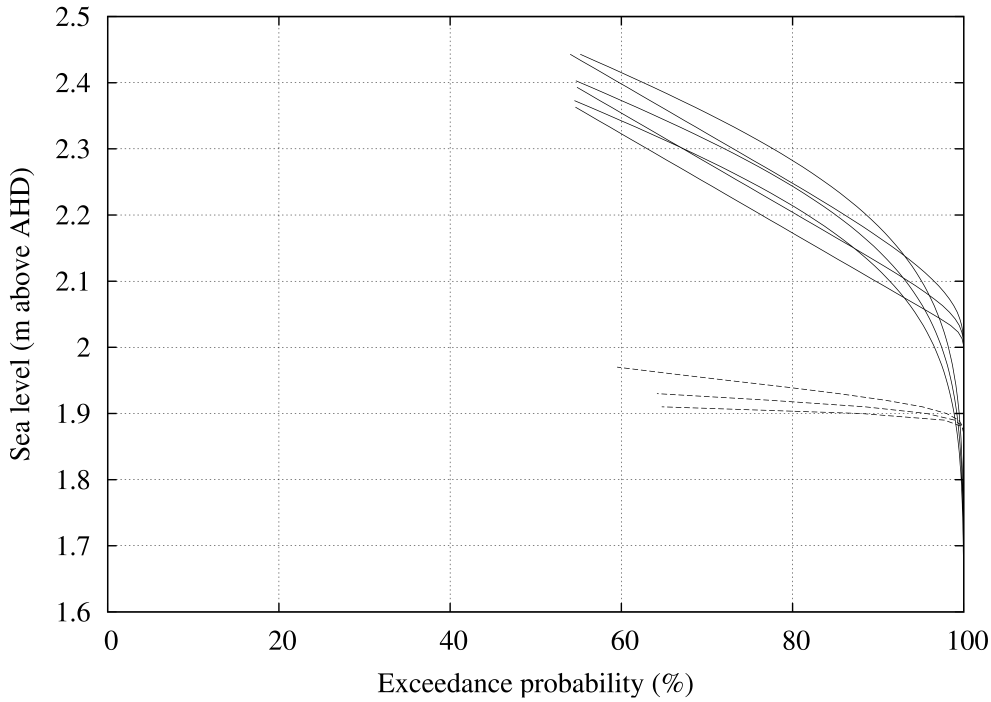

Figure 300: Exceedance probabilities for Burnie, 2100, scenario A1FI and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent exceedance probabilities for 2000 (dashed) for three extrapolations. See also Table 158.

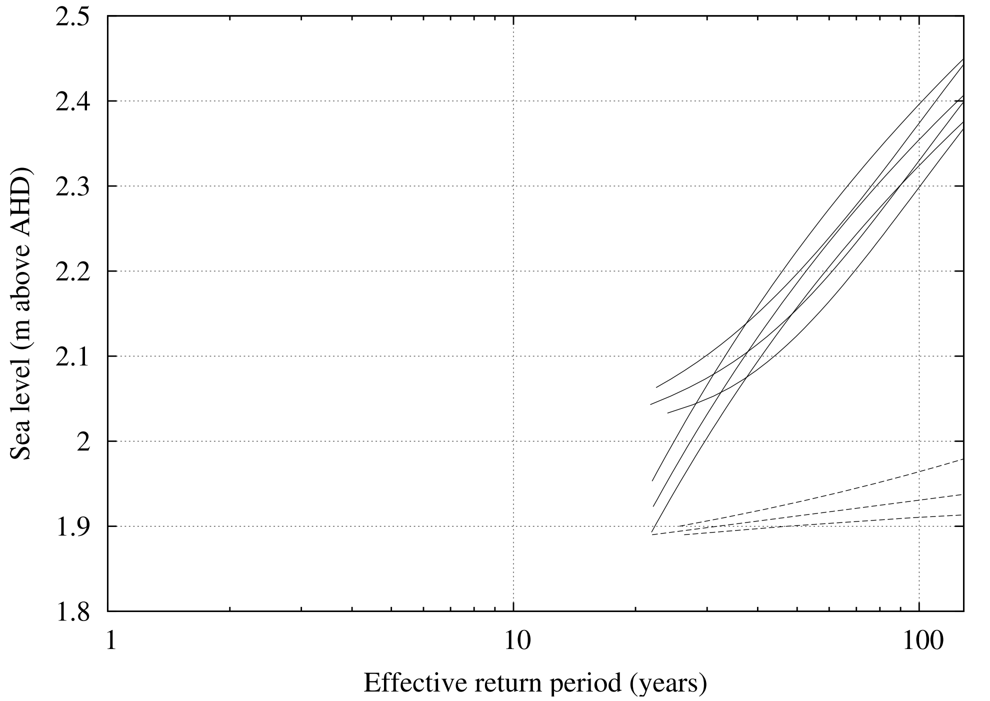

Figure 301: Effective return periods for Burnie, 2100, scenario A1FI and asset life of 100 years (continuous) for three extrapolations and two projection distributions. Also shown are equivalent effective return periods for 2000 (dashed) for three extrapolations. See also Table 158.

Appendix

Schedule 1 of the Agreement with DPIW

SCHEDULE 1

Project Services
The services to be provided are as follows:

Overview
This Collaborative Project will review information relevant to the Tasmanian region on historically recorded extreme sea-level events and determine sea-level rise probabilities for 21st century.

Stage 1
Historically recorded extreme sea-levels
1. Review available information (published and unpublished) relevant to the Tasmanian region on historically recorded extreme sea-level events.

2. Using the best data available for the Hobart tide gauge:
a) determine the present height of extreme sea-levels for exceedance probabilities in the range 0.001% to 0.01%, presenting the results in both tabular and plotted form.

b) determine the present height of extreme sea-levels for return periods (average recurrence intervals) in the range 1 to approximately 100 years, presenting the results in both tabular and plotted form.

c) derive average event duration (to be used for the conversion of projected exceedance probabilities to return period (average recurrence interval) in 4c below).

Tasmanian future extreme sea-level event probability
3. Review available information (published and unpublished) relevant to the Tasmanian region on projected sea-level rise this century. This information would be drawn mainly from the IPCC Third Assessment Report (2001).

4. For the Hobart tide gauge and for the greenhouse gas emission (SRES) scenarios B1 (low impact), A1B (medium impact) and A1FI (high impact) (IPCC Third Assessment Report, 2001):
a) show projected mean sea-levels during the 21st century, with associated uncertainties, in both tabular and plotted form.

b) show projected extreme sea-levels during the 21st century, for exceedance probabilities in the range 0.001% to 0.01%, in both tabular and plotted form.

c) for the average event durations derived under item (2c), show projected extreme sea-levels during the 21st century, for return periods (average recurrence intervals) in the range 1 to approximately 100 years, in both tabular and plotted form.

5. Deliver a technical report to DPIW by end October 2006 that outlines the information arising from steps 1 to 4 above, supported by technical appendices where appropriate. The technical report will include definitions of all terms, and guidance for a targeted audience of coastal planners and asset managers in the

practical application of the results. A conversion between return period and annual exceedance probability will be provided.

Stage 2

6. DPIW canvasses comment from relevant stakeholders on the presentation and usefulness of the 1st technical report to provide input to subsequent reports, such input being provided to the ACE CRC no later than 1 February 2007.

Stage 3

7. ACE CRC staff to repeat steps 2, 4 and 5 for the Burnie tide gauge commencing no later than 19 February 07 for delivery of the stage 2 Technical Report by end April 2007. If no feedback on the utility and format of the 1st technical report has been received from DPIW by the commencement date, work on the Burnie tide gauge data will proceed in the same mode as was developed for the Hobart tide gauge.

Stage 4

8. Provide specialist review and advice to DPIW on the writing of a report aimed at the wider community which references the technical report(s) produced in stages 1 or 3 or both.

Reports

Reports outlined at steps 5 and 7 are to be provided to the Delegate in electronic format:

- as a Word-compatible document; and
- as a PDF document.