

OCEANIC ALARM !

SEA LEVELS
ARE RISING
AT A
FRIGHTENING
RATE!



OCEAN WATERS
ARE
BECOMING
DANGEROUSLY
ACIDIC!

Can these statements possibly be true?
What do real life measurements reveal?
Keep reading for the facts.

SEA LEVEL CHANGES – THE FACTS

- Over millions of years, sea levels have risen and fallen by huge amounts – in the recent past, by more than 100 metres.
 - During Ice Ages, water evaporated from the sea was deposited as ice on land. Thus sea levels fell. As the climate warmed, the ice melted and the sea levels rose again during interglacial periods.
 - The Earth experienced a ‘Little Ice Age’ (LIA) between 1350 AD and 1850 AD. It is probable that sea levels fell slightly in that period because water was locked up in increased polar and glacier ice and because the volume of the oceans’ contracted due to cooling.
 - Since 1850, sea levels have been slowly and steadily rising as we come out of the LIA, due mainly to melting ice but partly due to expansion as the ocean warms.
 - The current rate of increase, as measured at many sites around the world, using both tide gauges and satellites, is between zero and 3.0 mm per year - the average measured value being 1.7 mm per year = 17mm per decade = 17 cm per century (about an adult hand span).
 - Any Increase greater than this in particular areas must be due to local land masses sinking, ocean floors rising or temporary surges due to prevailing winds or atmospheric pressure changes.
 - Assuming sea levels continue to rise at an average 17 mm per decade, coastal populations can easily adapt to this moderate rise over time, just as they have in the past.
 - Recent tide gauge and satellite measurements are showing rate of sea level rise is **decelerating** – probably because global warming has stopped and a cooling trend seems to have started. Satellite measurements are actually showing a DROP in sea levels in 2010 and 2011.
 - Climate alarmists have ignored real life measurements and, using computer models, are predicting rises between 1 and 20 metres per century resulting from anthropogenic (man-made) global warming!
 - These doomsday predictions have motivated peoples of low lying islands to lobby the UN and gullible developed nations such as Australia for billions of dollars in unjustified financial compensation because of our use of fossil fuels and production of carbon dioxide.
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- **It’s a scam based on bogus science!**

OCEAN ACIDITY – THE FACTS

- Acidity levels in a liquid are measured using the pH scale. A pH of 7 is neutral, a pH below 7 is acidic and a pH above 7 is alkaline.
 - The measured pH of sea water around the world mostly stands at levels between 7.8 and 8.3 – in other words, substantially alkaline.
 - Many marine animals and plants make their shells and skeletons out of calcium carbonate (CaCO₃). The calcium and the carbonate components are substances dissolved in the sea water.
 - Calcium carbonate will dissolve in acid and so, if the pH of the oceans dropped below 7, species like corals and shellfish might be in trouble.
 - When carbon dioxide gas dissolves in water it creates a weak acid – carbonic acid (H₂CO₃).
 - Some climate scientists are using this fact to predict that, as atmospheric CO₂ levels continue to rise, the oceans will become dangerously acidic and organisms like corals and shellfish could become extinct.
 - That prediction is not borne out by the facts. Since the industrial revolution began, CO₂ levels in the atmosphere have increased by more than 30% yet ocean pH levels have dropped, at most, by 0.1 units. In other words, the oceans remain quite alkaline.
 - In the distant past, atmospheric CO₂ concentrations were much higher than current values and yet coral reefs and shellfish thrived in what must have been significantly less alkaline sea water than today’s.
 - Recent research shows that many marine organisms which make calcium carbonate shells or skeletons can do this successfully even in mildly acidic conditions (pH below 7).
 - As global warming has stopped since 1998, some climate alarmists are now using hypothetical ocean acidification as a new argument to demonise life-giving carbon dioxide and support their efforts to hobble our economy which depends on cheap energy from fossil fuels.
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