Adding Waves to BFME 1

by _Haldir_

If you've played BFME 1, you may have noticed that some of EA's maps (such as Belfalas, Rhun or Nurn) have waves on them. But if you've ever opened these maps in Worldbuilder, you'll find that these waves won't appear, and that they aren't objects or anything else you can see.

These waves are actually added to a map through a **.wak file**, which can be created using a **WAK Editor**. BFME 2's Worldbuilder has this editor built in, which allows you to add and edit waves to your map with ease. BFME 1 however, does not. This tutorial will guide you through the quick and simple process of adding waves to your BFME 1 map.

Firstly though, you'll need the map that you'd like to add your waves to. You'll probably want to add your waves after things like terrain and objects, so try and finish your map beforehand. For this tutorial, I'll be using my Havens of Umbar map, which has a nice cliffy coastline that would look good with waves.

Once you've mostly finished your map, download the WAK Editor from T3A's download section at

http://www.the3rdage.net/item-524?addview

Next, open your map in Worldbuilder. You'll need to create a waypoint path where you'd like your waves to be. Hide your water, and use the Waypoint Tool to click and drag points near to your coastline. A wave will be created for each path segment that is created – longer segments will create wider waves.


The waves will stop and recede at this waypoint path. So if you'd like your waves to touch your coastline, make sure you place your waypoints close to the terrain. I want my waves to be crashing against the rocky cliffs, so I'm placing my waypoints as close as I can without placing them higher than the water level.

Once you have your waypoints placed, name the first waypoint **CoastStart1** and the last waypoint **CoastEnd1**. You can have as many different coastlines on your map as you like, as long as you change the number for each different coastline. What you name the waypoints in between these two waypoints is irrelevant.

When you're happy with your coastlines, save your map, and go **File>Dump Map to File**. This will create a text version of your map in your "**The Battle for Middle-earth (tm)**" folder. It will be called **YourMapName.map.txt**.
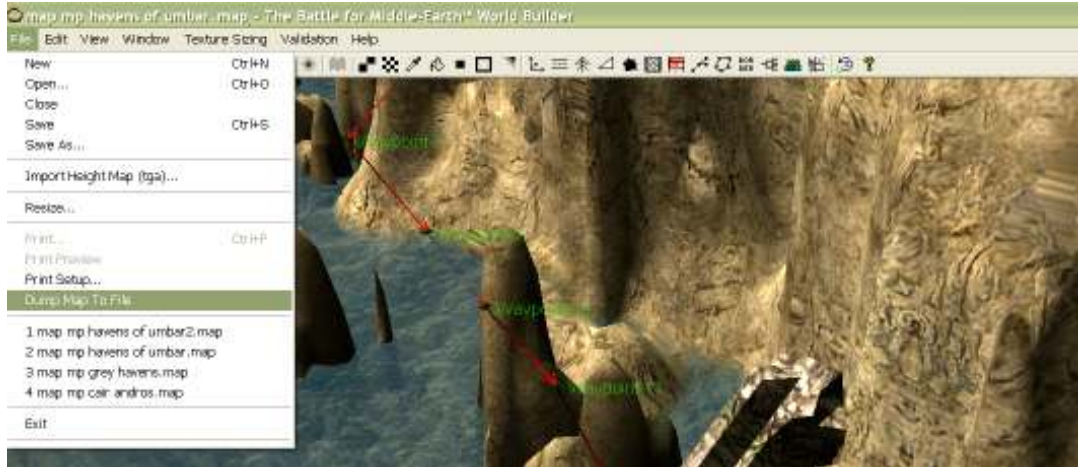
Next, run the WAK editor. Click on "**Import**" and select the text file of your map. When you do, a box will appear with available options for your waves.

At the top of the box, you will see which Coastline you are currently editing. You can also set the direction of your waves, as moving Above/Left of your waypoints, or Below/Right of them. There are also 5 different types of waves to choose from: Pond, Radial, Ocean, Close Ocean and Close Ocean Double. The best way is to try them all out and see which looks better.

Pond waves are smaller and recede quicker.
Radial waves begin as two or three smaller waves, before merging into one wave.
Ocean waves are bigger and quite normal looking.
Close Ocean waves break and recede slightly differently to Ocean waves.
Close Ocean Double waves break before the previous wave has fully receded, giving you a double wave for a slight moment.

From left to right: Radial, Pond, Ocean and Close Ocean Double.

Once you're happy with your settings, click OK. You'll then see a list of points, showing you the start and finish coordinates and the type of wave for each waypoint. If you right-click on an entry, you can edit, delete or add more points to manually edit your waves.

Click Save to create your file, and make sure it is named "**YourMapName.wak**". Place it in your map folder and your waves should now appear in-game!

If you want to change or edit them, simply redo the process by deleting the .wak file from your map folder, moving the waypoints around in Worldbuilder, then re-dump and re-import your map's text file into the WAK Editor, and save. And as long as the .wak file is placed in your map folder, you can also delete the waypoint paths from your map (though it means you'll have to redo the waypoints if you ever want to edit the waves).

You can now use other ripple effects, CINE objects and audio to really bring your coastlines to life!