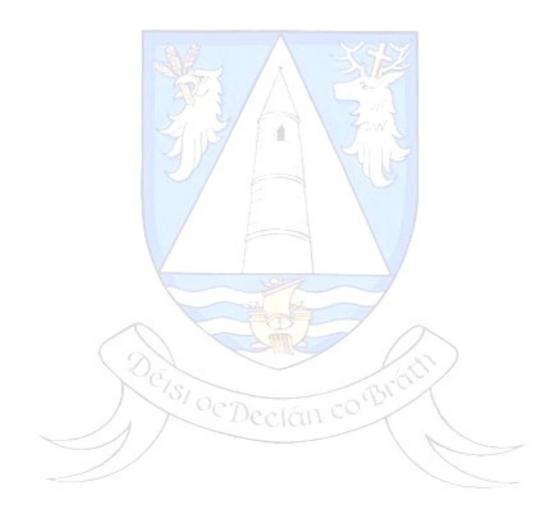
A14
Geological Heritage Sites



Appendix A14

Geological Heritage Sites

County Waterford has a particularly rich geological heritage with a long heritage of mining activity. It is a policy of the Council to protect from damage or inappropriate development, the Geological Heritage sites listed - these are recommended for designation, by the Geological Survey of Ireland

Theme Site No.	Site Name	X, GIS	Y, GIS	Principal characteristics Critical feature(s) key words	Summary description	IGH Theme - Primary
IGH 13	Ardmore	219300		erratic, beach (glacial origin)	At Ardmore, a shore platform has been cut across steeply dipping grey Carboniferous sandstones and shales, and perched on it is Saint Declan's Stone, allegedly carried miraculously by waves from Wales, but in fact a glacial erratic left on the shore: the nearby beach of subrounded gravel of varied types is also of glacial origin.	Coastal Geomorphology
IGH 8	Ardmore - Whiting Bay- Goat Island	217000	77000		Link between South Munster Basin and Carboniferous	Lower Carboniferous
IGH 13	Ardoginna	217000	76500	(monoclinal fold	At Ardoginna a monoclinal fold and synclinal dell are prominent in the cliffs. A deep branching geo has been cut out along faults, near Father O'Donnell's well. The slope-over-wall profiles have occasional deep clefts, which are not valley mouths.	Coastal Geomorphology
IGH 16	Ballinamuck	223650	94620	boreholes	Dungarvan water supply boreholes, interesting construction, historically important	IGH16 Hydrogeology
IGH 14	Ballymacart River	225290	81605	incisions	incision of river, from road bridge to coast	

IGH 3- 49	Ballynacourty	218000	95000	Shelly fauna	Tournaisian crinoids and other shelly fauna.	Carboniferous-Pliocene Palaeontology
IGH 13	Ballyquin Beach	220000	79000	slumping	Behind Ballyquin Beach bluffs cut in glacial drift show slumping caused by seepage, fronted by a shore platform that has been cut across steeply southward-dipping strata fronting grassy bluffs in glacial drift - the platform has been exhumed from the drift, and was originally of Pleistocene age.	Coastal Geomorphology
IGH 10	Ballyquinn (north side of Ardmore Bay)		80600		Transition to Carboniferous	Devonian
IGH 10	Ballyvoyle (coastal section)	234915	095055		Thinner development of upper part	Devonian
IGH 14	Cheek Point to Ballyhack, River Suir	269365	113735	gorge	One side of channel is rock cut cliff	
IGH 8	Clonea Strand	231300	93500		Base of Waulsortian	Lower Carboniferous
IGH 11	Copper Coast	251225	98430	rhyolitic intrusions	rhyolitic intrusions at locations along the coast west of Tramore	Cambrian - Silurian
IGH 13	Copper Coast	245675	98525	ORS, high cliffs	Old Red Sandstone outcrops in the high cliffs backing Ballydowane Cove, where the rocks are red and green, and behind the Cove is a prominent conical stack of conglomeratic Old Red Sandstone overlain by glacial drift deposits. The Kilfarrassy Volcanics outcrop along a coast of small headlands and coves, some related to transverse faults, and a tall stack juts up from the rocky shore. Behind Knockmahon Strand are black mudstones over banded pale grey and buff limestones. The Pipes of Baidh are a colonnade of pale grey rhyolite columns which rise and fall in the cliffs along the contact with mudstones, and the pebbly beach includes grey-green andesite and pale rhyolites, as well as waste material from mine workings along the cliffs.	Cambrian - Silurian

1GH4- 35	Copper Coass (Tramore - Stradbally)	247865	98800	important volcanic and sedimentary	The whole coast displays a series of geologically important volcanic and sedimentary phenomena illustrating Caledonide development from Island Arc to Active Continental Margin volcanism during the Upper Ordovician. The Duncannon Group Campile Formation succession comprises the products of two volcanic centres, both mainly submarine.	Cambrian-Silurian
IGH 6	Copper Coast (Tramore - Stradbally)	247865	98800	Copper minerals	Brochantite/ Langite; "Azurite; Malachite" (underground)	Cambrian-Silurian
IGH 7	Coumfea (Comeragh Mountains)	229000	109000	Aretes	Aretes	Quaternary
IGH 7	Coumshingaun (Comeragh Mountains)	232000	111000		An ice-cut corrie in the Comeragh Mountains including a lake, high walls of Old Red Sandstone and a fine complex of moraines. The lake is suspected of holding char. It drains through the moraine complex which carries heath vegetation. It is probably the finest corrie in Ireland. Cirque.	
IGH 14	Coumshingaun (Comeragh Mountains)	232000	111000	Corrie lake		Fluvial/Lacustrine Geomorphology
IGH 10	Croaghaun Hill (East of Coumshingaun)			conglomerate	6	Devonian
IGH 15	Drumslig	220480	86830	Haematite	Vein of haematite in shaley bed noted on old GSI 6in. map. Some veins in the district worked by Sir Walter Raleigh c 1600	Economic Geology
IGH4- 36	Dunhill Quarry	250600		Sequence of rhyolitic tuffs	A classic display of a sequence of rhyolitic tuffs lithified from repeated Plinian pumice-, lapilli-, and ash-falls into water below wave depth. Excellent examples of sorting, grading and submarine current reworking in the Caradocian Campile Formation of the Duncannon Group.	Carabaian Silanian
IGH 10	Dunmore East	271000	103000	Coastal Features	Coastal section from Brownstown Head to Templetown	Devonian

IGH 15	Goat Island Cove [Pb, Zn]	216430		Fault/ vein mineralisation in basal Carb (beach exposures)	Fault/ vein mineralisation in basal Carb (beach exposures)	
	Kilbride North Quarry	257740	104970		IMId Caradoc diverse shelly faiina in debris flow	Precambrian - Devonian Palaeontology
IGH 1	Killgreany Cave	217600	94375			Karst
IGH 14	Knockmealdowns	207090	106490	gullys (south side), planation surfaces		
	Little Island, River Suir	264700	111500			
IGH 7	Newtown	270360	106590	Tills, solidified solids	A complex site with an interglacial (Gortian) exposure overlain by a suite of tills and soliflucted deposits. Gortian is only 10cm thick	Quaternary
IGH 2- 16	Quillia	261200	103600		[[ramore imegione locality	Precambrian - Devonian Palaeontology
IGH4- 37	Raheen Shore	270105	107035	Andesitic tuffs, breccias, etc.	Sequence of andesitic tuffs, breccias, etc. and rhyolitic tuffs, agglomerates, perlitic and flow banded lavas, with intercalated sediments containing a very fine shelly fauna.	Cambrian-Silurian
IGH 2- 17	Raheen Shore	270105	107035		Caradoc trilohite and brachionod fauna	Precambrian - Devonian Palaeontology
	River Blackwater, Cappoquin	209980	99535	discordant river pattern		
	Section from road to Coumshingaun (Comeraghs)	233945	111595		Includes volcanic horizon	Devonian

IGH 12	Shandon Cave	224000	94000	> 32ka bone		Mesozoic/ Cenozoic	
IGH 15	Bunmahon [Cu]	242930		Vein systems, gossans, spectacular secondary Cu minerals. Mined extensively in the 19th C.	Cliff exposures and underground workings Significant inactive copper mine in quartz veins minor lead and cobalt.		
IGH 2- 20	Tramore	256800	98600		Caradoc diverse faiinas in carbonates	Precambrian - D Palaeontology	Devonian
IGH 13	Tramore Spit	260730		Sand spit, salt marsh, cobble beach with dunes	The Tramore spit, at the western end narrow, backed by salt marsh, with low dunes fronted by a protective cobble beach, and large boulders had been dumped in a sector where a breach was possible East of the boulders the spit widens, with high grassy dune hills (Tramore Burrows). The tide falls to expose a wide sandy beach with scattered pebbles, backed by uncut grassy dunes with dark green marram grass On the Point are parallel foredunes and Rinnashark Harbour, the entrance to tidal marine Back Strand, interruptes the beach, with dunes resuming on Bass Point to the east.	Coastal Geomorphology	