

Sand Dune Update Geomorphology 2015

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Newborough



List of NRW Reports:

KPAL (2013d) Newborough Phase 1 Dune Rejuvenation Works Topographic Survey, May 2013. NRW Evidence Report No. 93. Kenneth Pye Associates Ltd., Solihull.

KPAL (2014a) Newborough Phase 1 Dune Rejuvenation Works Topographic Survey, March 2014. NRW Evidence Report No. 95. Kenneth Pye Associates Ltd., Solihull.

KPAL (2015c) Newborough Phase 1 Dune Rejuvenation Works Topographic Survey March 2015. NRW Evidence Report No. 101. Kenneth Pye Associates Ltd., Solihull.

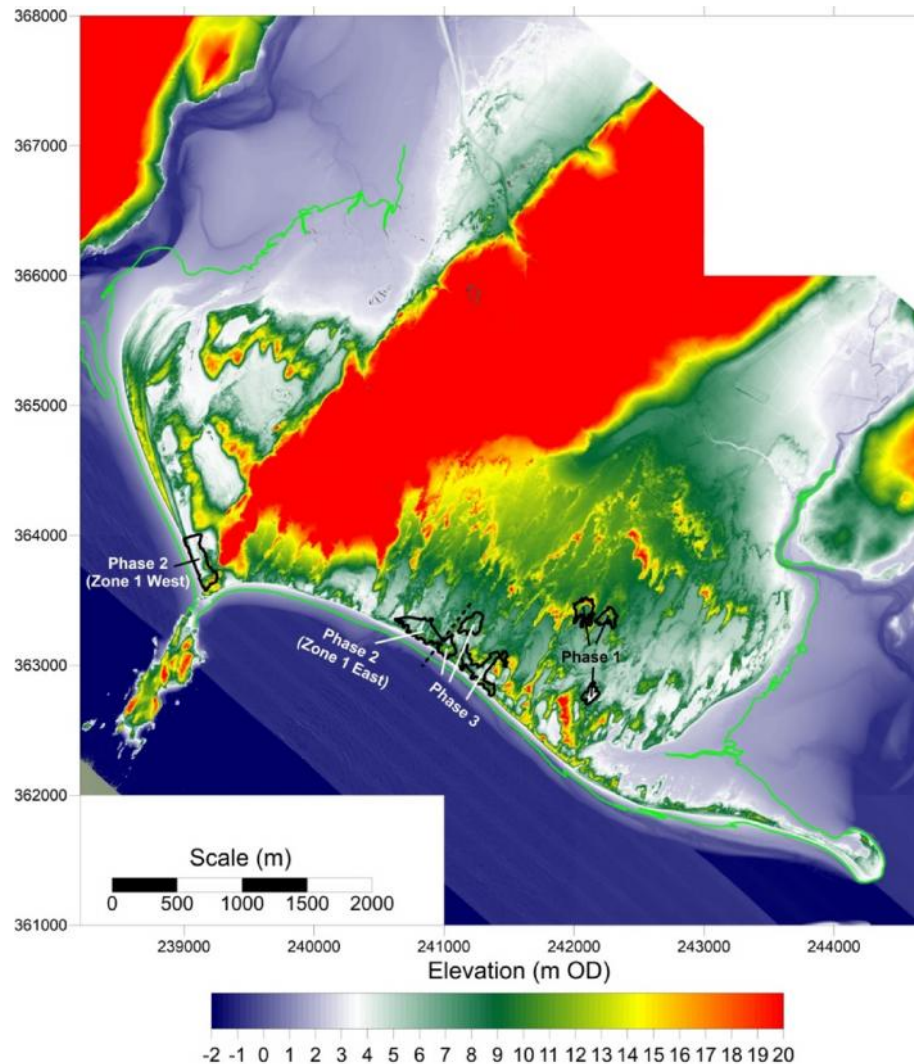
KPAL (2015d) Newborough Dune Rejuvenation Works Topographic Survey March 2015 Phase 2 Site: Zone 1 East. NRW Evidence Report No. 102. Kenneth Pye Associates Ltd., Solihull.



KPAL (2015e) Newborough Dune Rejuvenation Works Topographic Survey March 2015 Phase 2 Site: Zone 1 West. NRW Evidence Report No. 103. Kenneth Pye Associates Ltd., Solihull.

KPAL (2015f) Newborough Phase 3 Dune Rejuvenation Works Topographic Survey March 2015. NRW Evidence Report No. 104. Kenneth Pye Associates Ltd., Solihull.

Newborough Highlights



The three phases of dune rejuvenation works at Newborough, undertaken in:
Jan 2013 (Phase 1)
2014 (Phase 2 West)
2014-2015 (Phase 2 East)
Feb-March 2015 (Phase 3).

Total Bare Sand:

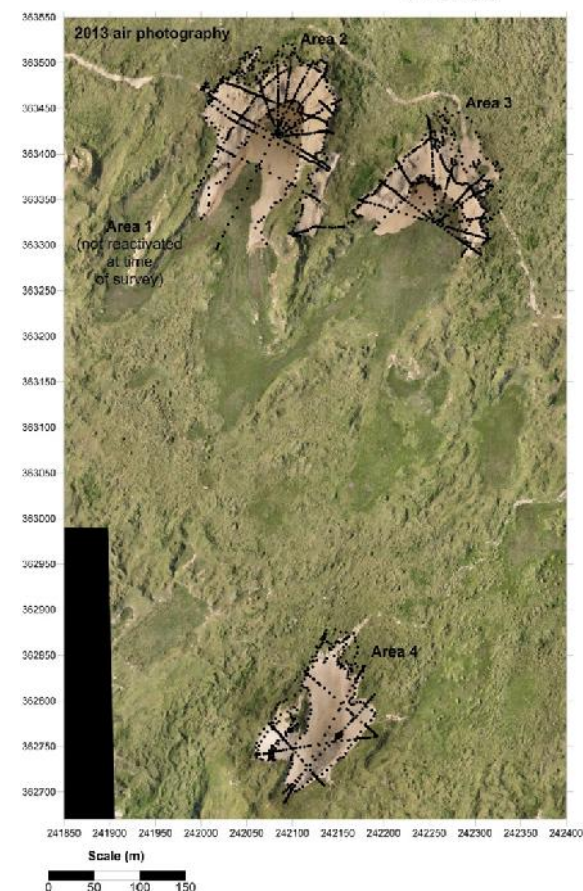
18.5 Ha

Newborough Phase 1

Bare sand type in Area 2	Area (ha)			
	May 2013	March 2014	March 2015	Change 2013-2015
Vegetation-stripped	1.36	1.36	1.36	0.00
Significant sand deposition in heaps	0.35	0.35	0.35	0.00
Blown sand	0.08	0.25	0.25	0.16
Total	1.79	1.96	1.95	0.16

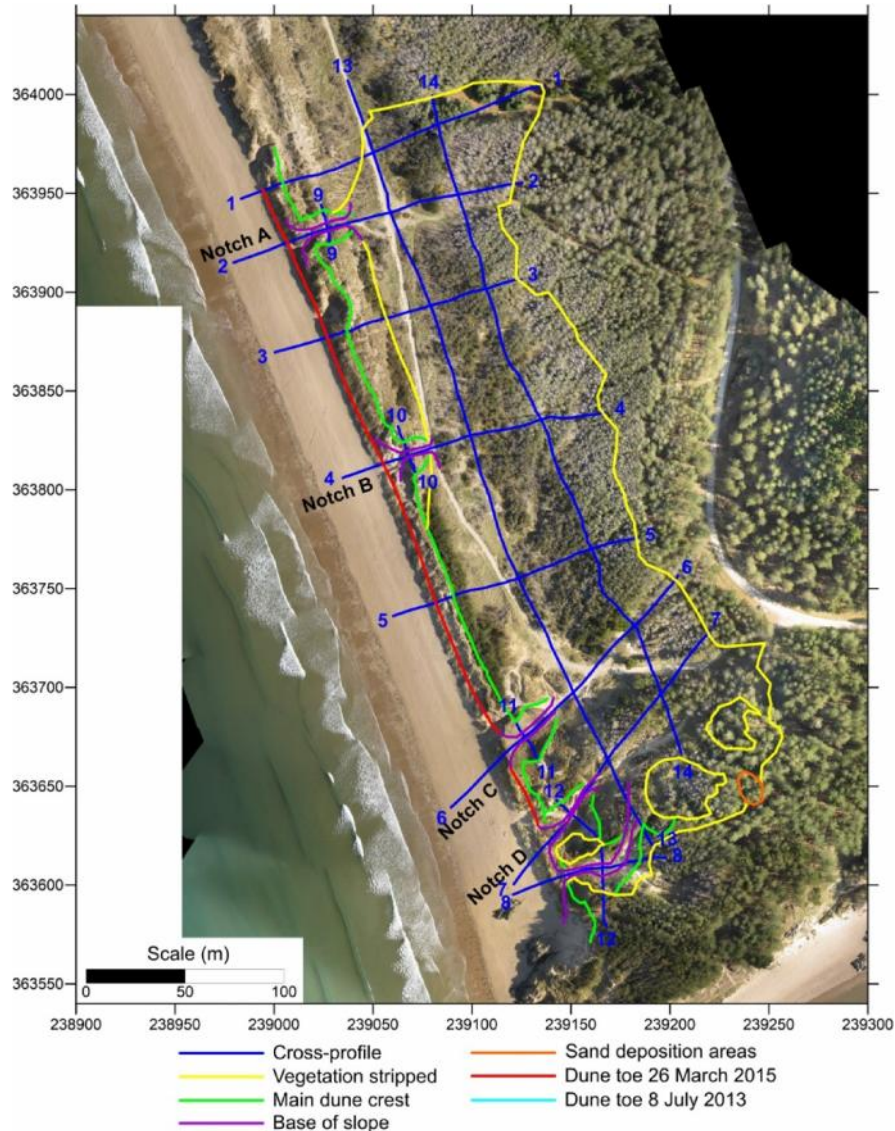
Bare sand type in Area 3	Area (ha)			
	May 2013	March 2014	March 2015	Change 2013-2015
Vegetation-stripped	0.82	0.82	0.82	0.00
Significant sand deposition in heaps	0.17	0.17	0.17	0.00
Blown sand	0.11	0.30	0.32	0.21
Total	1.10	1.29	1.31	0.21

Bare sand type in Area 4	Area (ha)			
	May 2013	March 2014	March 2015	Change 2013-2015
Vegetation-stripped	0.96	0.96	0.96	0.00
Significant sand deposition in heaps	0.00	0.00	0.00	0.00
Blown sand	0.10	0.25	0.23	0.12
Total	1.07	1.22	1.19	0.12



Newborough Phase 2

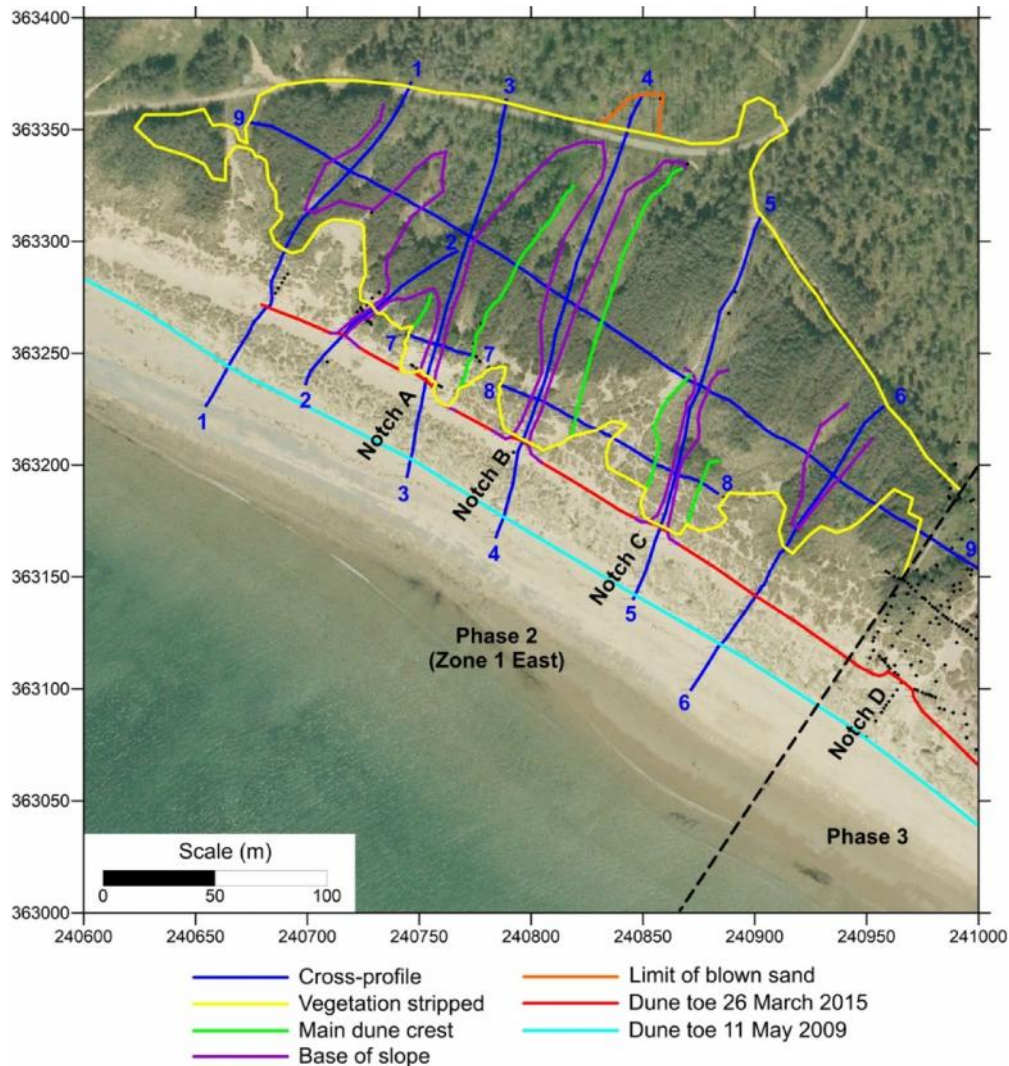
Site: Zone 1 West



Bare sand type	Area (ha)
Vegetation-stripped	3.83
Significant sand deposition in heaps	0.01
Blown sand	0.00
Total	3.85

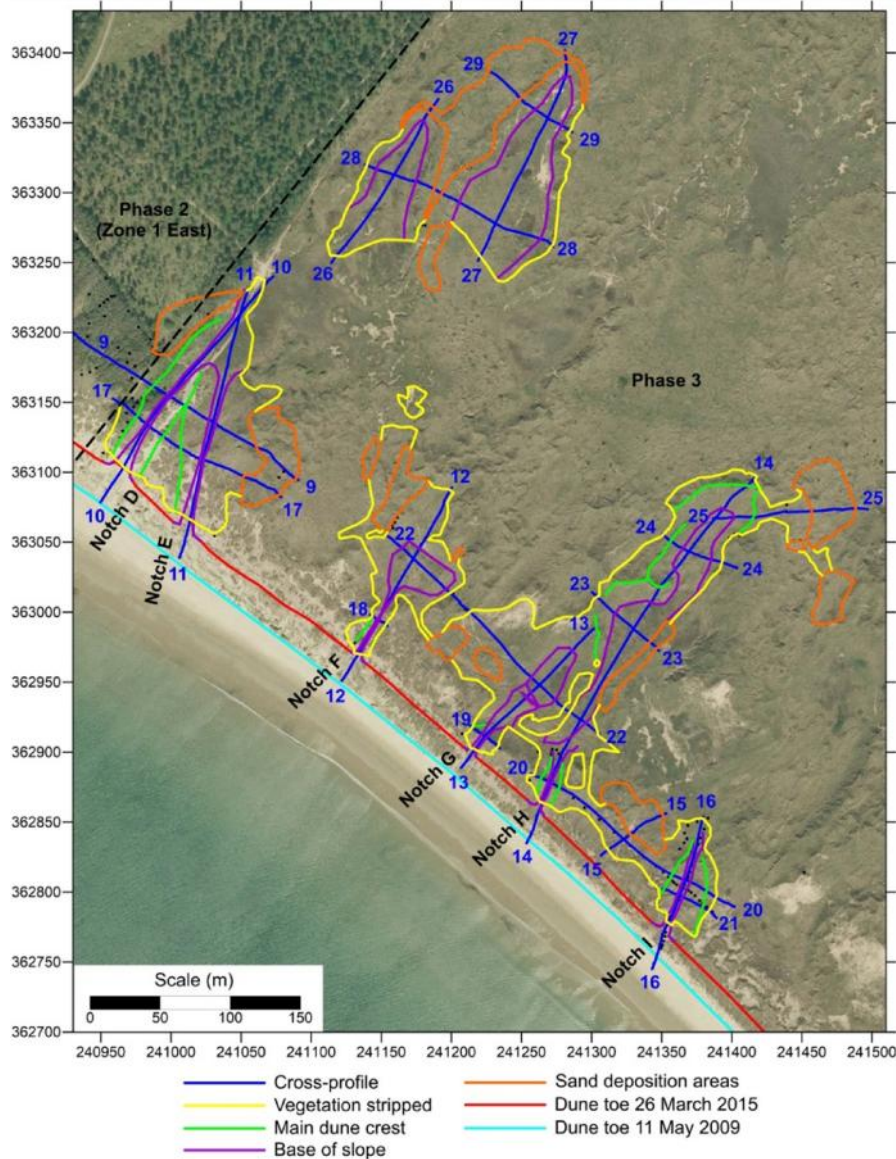
Newborough Phase 2

Site: Zone 1 East



Bare sand type	Area (ha)
Vegetation-stripped	3.50
Significant sand deposition in heaps	0.00
Blown sand	0.03
Total	3.54

Newborough Phase 3



Bare sand type	Area (ha)
Vegetation-stripped	5.30
Significant sand deposition in heaps	1.33
Blown sand	0.00
Total	6.63

Kenfig



List of NRW Reports:

KPAL (2013c) Kenfig Phase 2, Dune Rejuvenation Works Topographic Survey, May 2013. NRW Evidence Report No.92. Kenneth Pye Associates Ltd., Solihull.

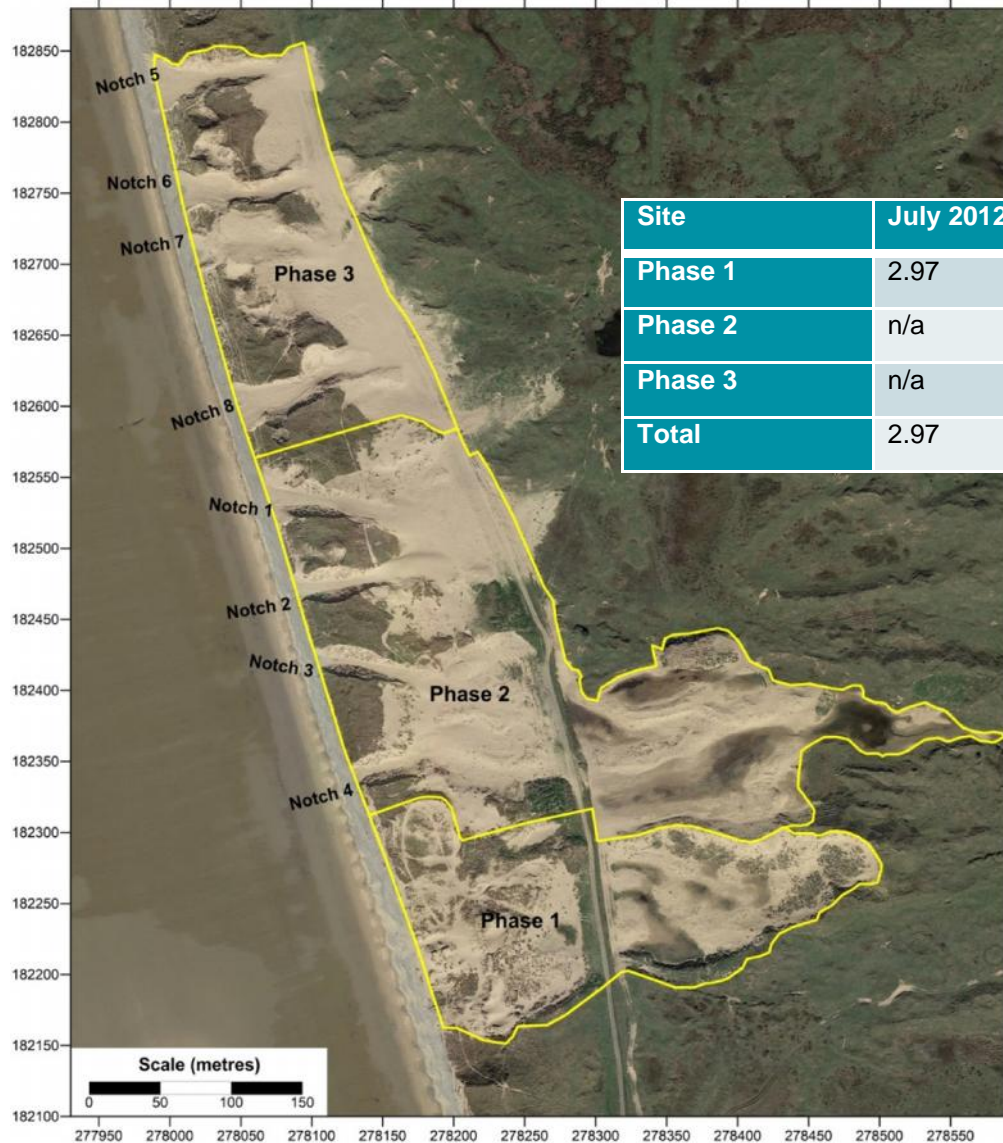
KPAL (2013f) Kenfig Phase 1 Dune Rejuvenation Works - Overview Report, July 2013. NRW Evidence Report No: 43, Kenneth Pye Associates Ltd., Solihull.

KPAL (2014c) Kenfig Phase 2 Dune Restoration Works Topographic Survey, March 2014. NRW Evidence Report No. 97. Kenneth Pye Associates Ltd., Solihull.

KPAL (2014d) Kenfig Phase 1 Dune Rejuvenation Works Topographic Survey, May 2014. NRW Evidence Report No. 98. Kenneth Pye Associates Ltd., Solihull.

KPAL (2015b) Kenfig Dune Rejuvenation Works Topographic Survey March 2015. NRW Evidence Report No. 100. Kenneth Pye Associates Ltd., Solihull.

Kenfig



Site	July 2012	May 2013	March 2014	March 2015
Phase 1	2.97	2.97	2.69	2.42
Phase 2	n/a	4.52	4.20	5.32
Phase 3	n/a	n/a	n/a	2.46
Total	2.97	7.49	6.88	10.20

The three phases of dune rejuvenation works at Kenfig Burrows, undertaken in:
 Winter 2011-12 (Phase 1),
 January 2013 (Phase 2)
 January 2015 (Phase 3).

Base aerial photography flown 18 April 2015

Merthyr Mawr



List of Reports:

KPAL (2013e) Merthyr Mawr Dune Rejuvenation Works Topographic Survey, May 2013. NRW Evidence Report No. 94. Kenneth Pye Associates Ltd., Solihull.

KPAL (2014b) Merthyr Mawr Dune Rejuvenation Works Topographic Survey, March 2014. NRW Evidence Report No. 96. Kenneth Pye Associates Ltd., Solihull.

KPAL (2015a) Merthyr Mawr Dune Rejuvenation Works Topographic Survey, March 2015. NRW Evidence Report No. 99. Kenneth Pye Associates Ltd., Solihull.

Merthyr Mawr



The three phases of dune rejuvenation at Merthyr Mawr, with works being undertaken in:

December 2012 (Phase 1)

November 2013 (Phase 2)

November 2014 (Phase 3).

Site	May 2013	March 2014	March 2015
Phase 1 site	2.65	2.74	3.00
Phase 2 site	n/a	0.34	0.56
Phase 3 site	n/a	n/a	4.95
Total	2.65	3.08	8.50