

# 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.**

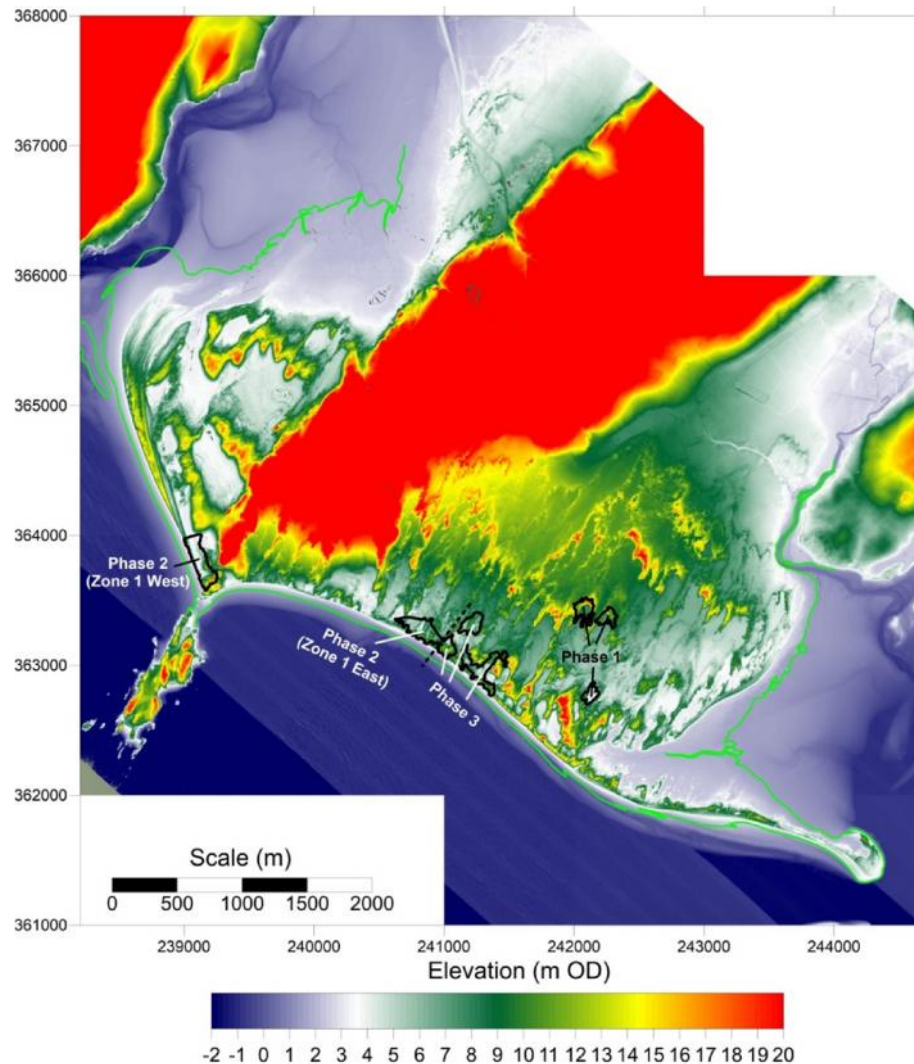
**KPAL (2015d) Newborough Dune Rejuvenation Works Topographic Survey March 2015 Phase 2 Site: Zone 1 East. NRW Evidence Report No. 102. Kenneth Pye Associates Ltd., Solihull.**



**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:

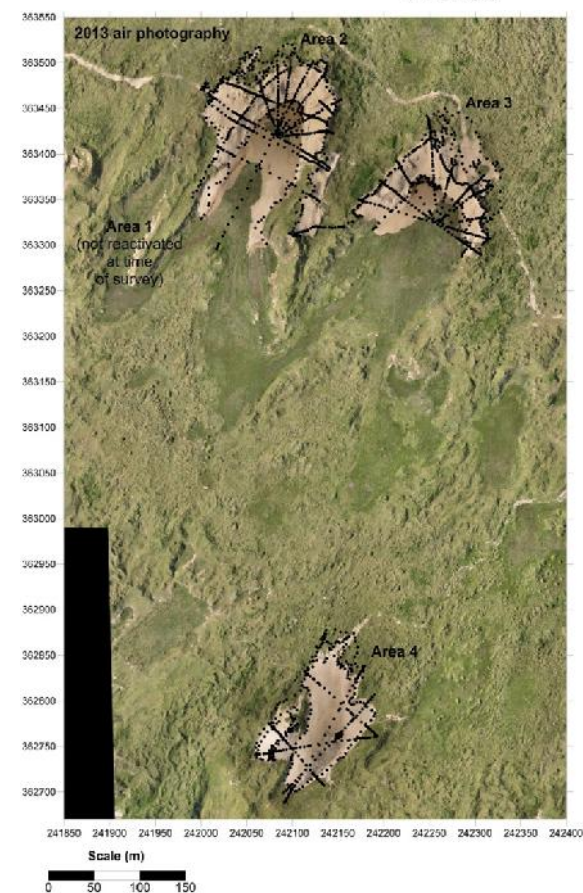
18.5 Ha

# 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
<b>Total</b>	<b>1.79</b>	<b>1.96</b>	<b>1.95</b>	<b>0.16</b>

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
<b>Total</b>	<b>1.10</b>	<b>1.29</b>	<b>1.31</b>	<b>0.21</b>

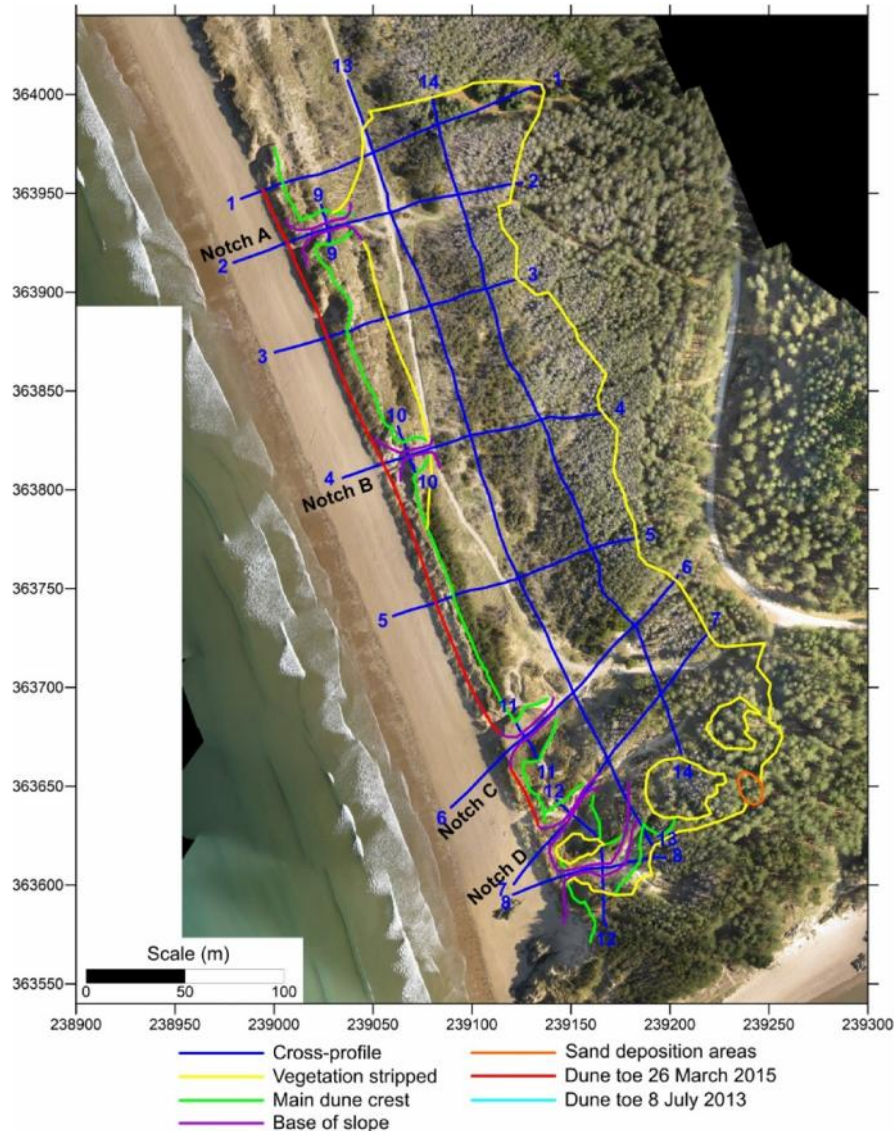
Bare sand type in Area 4	Area (ha)			
	May 2013	March 2014	March 2015	Change 2013-2015
Vegetation-stripped	0.96	0.96	0.96	0.00
Significant sand deposition in heaps	0.00	0.00	0.00	0.00
Blown sand	0.10	0.25	0.23	0.12
<b>Total</b>	<b>1.07</b>	<b>1.22</b>	<b>1.19</b>	<b>0.12</b>





# Newborough Phase 2

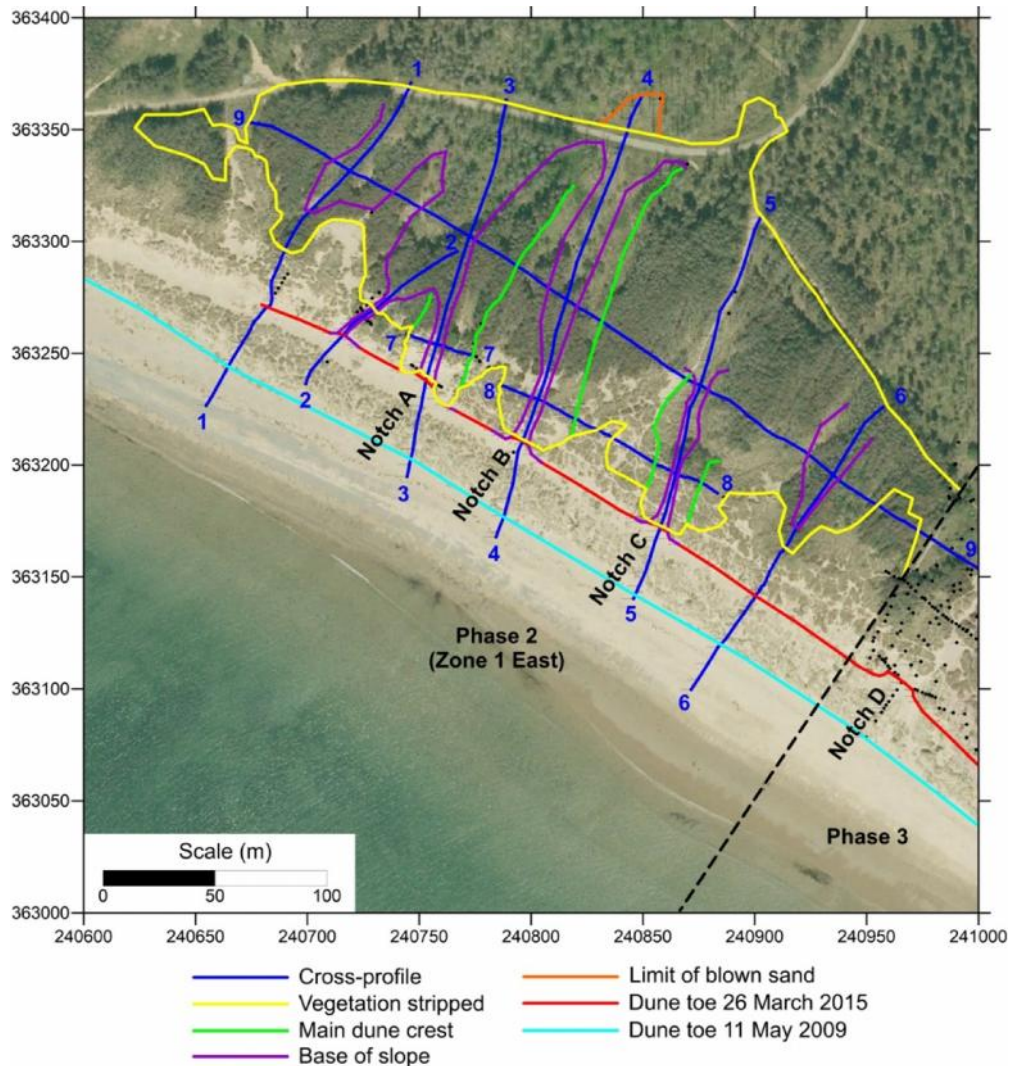
## Site: Zone 1 West



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

# Newborough Phase 2

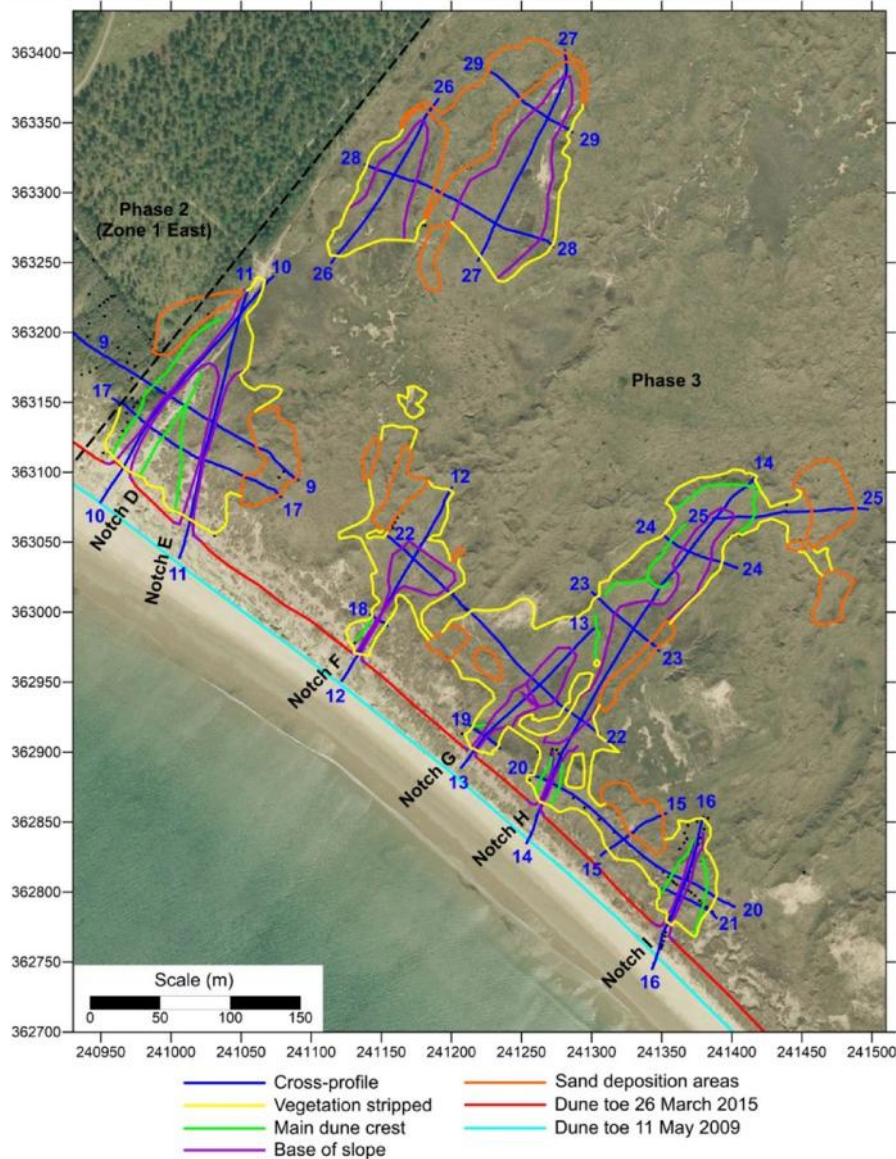
## Site: Zone 1 East



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



# Newborough Phase 3



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

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# 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.**

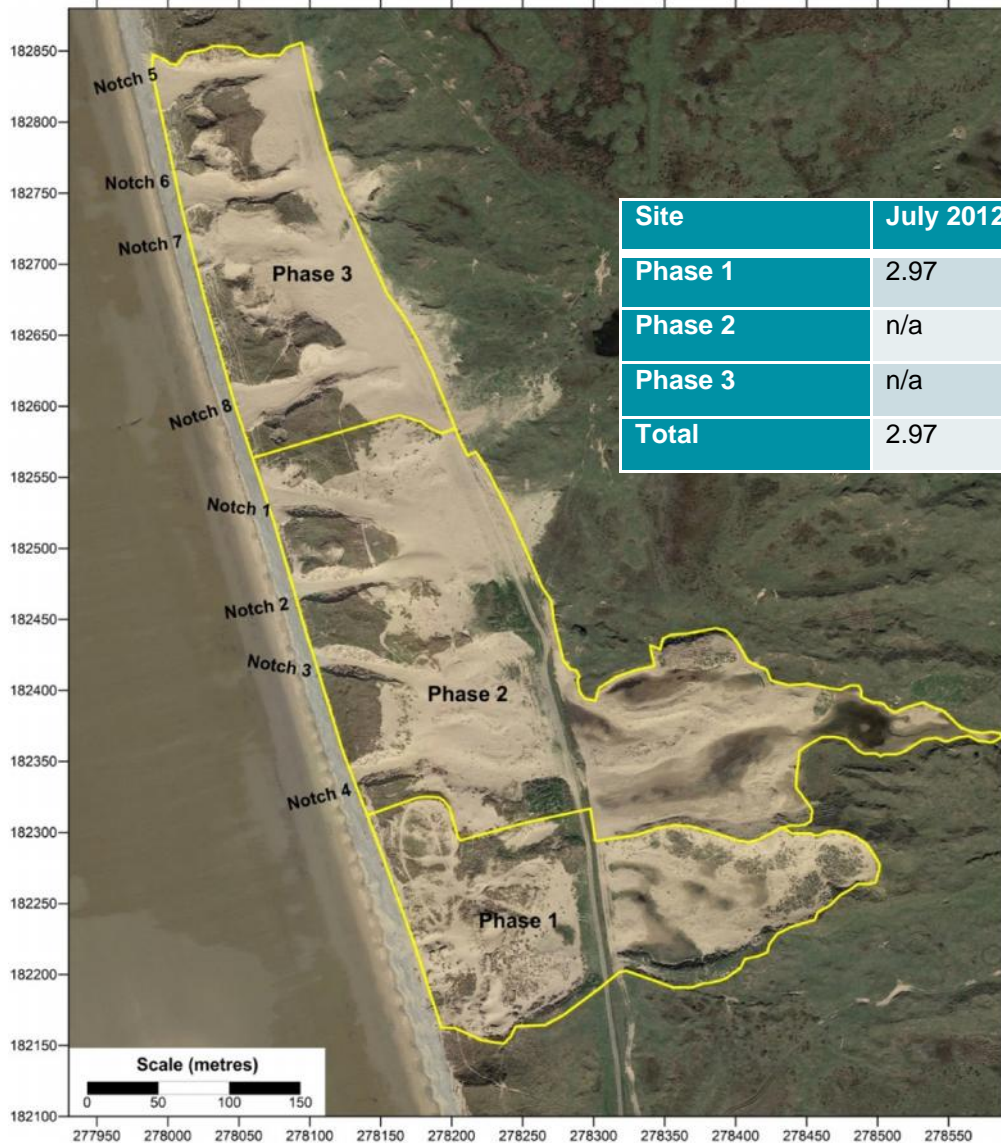
**KPAL (2014c) Kenfig Phase 2 Dune Restoration Works Topographic Survey, March 2014. NRW Evidence Report No. 97. Kenneth Pye Associates Ltd., Solihull.**

**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
<b>Total</b>	<b>2.97</b>	<b>7.49</b>	<b>6.88</b>	<b>10.20</b>

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

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# 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
<b>Total</b>	2.65	3.08	8.50