Phytophthora ramorum Situation Report Summary

Current Situation as of 04/08/2017

This report details the current situation regarding trees affected by *Phytophthora ramorum* with Wales[1]. The following is derived from GIS datasets and includes data issued under the GB Situation Report.

Wales Wide:

Description	Current Report Data		Last Report Data		Changes	
	Total	WGWE	Total	WGWE	Total	WGWE
Total Area under SPHN:	9182 Ha	7103 Ha	8,860 Ha	6,881 Ha	322	222
Total No of SPHNs	699	504	680	493	19	11
Total % of larch under SPHN:	38 %	63 %	37 %	61 %	1	2
Area under suspicion or awaiting lab confirm	285 Ha	268 Ha	745 Ha	618 Ha		
No of sites awaiting inspection including revisits	93	87	231	191		
Total Area of known larch[2]:	24,200 Ha	11,288 Ha				
Total % of known larch within all woodlands:	8%	7%				
Amount of known larch actually felled[3]	Estimated 33%					

Disease Limitation Zone (DLZ):

Description	Current Report Data		Last Report Data		Changes	
	Total	WGWE	Total	WGWE	Total	WGWE
Total Area under SPHN:	919 Ha	650 Ha	643 Ha	431 Ha	276	219
Total No of SPHNs[4]	114	74	100	64	14	10
No of SPHN[M,MR]	2	0	2	0	0	0
No of SPHNs where trees destroyed:	92	65	85	61	7	4
Area reported as destroyed:	607 Ha	431 Ha	545 Ha	426 Ha	62	5
Area known to be non-compliant:	0 Ha	0 Ha	56 Ha	0 Ha	-56	0

[1] Excluding non-woodland infections managed by APHA

[2] NFI 2012 GIS data shows total woodland cover as 311, 000 ha (2010 NFI report shows 303,500 ha)

[3] NRW will try to establish how much larch has actually been felled, but this information is not readily available.

[4] All Types (Full SPHNs, SPHN[M], SPHN[MR])

Core Disease Zone (CDZ):

Description	Current Report Data		Last Report Data		Changes	
	Total	WGWE	Total	WGWE	Total	WGWE
Total Area under SPHN:	8263 Ha	6454 Ha	8,217 Ha	6,450 Ha	46	4
Total No of SPHN[5]	585	430	579	428	6	2
No of SPHN:	226	185	226	185	0	0
No of SPHN[m]:	358	245	352	243	6	2
No of SPHN[mr]	1	0	1	0	0	0
Area of SPHN:	2,980 Ha	2,424 Ha	2,980 Ha	2,424 Ha	0	0
Area of SPHN[m]:	5,280 Ha	4,029 Ha	5,234 Ha	4,026 Ha	46	3
No of SPHNs where trees destroyed	263	222	243	202	20	20
Area known to have been destroyed	3125 Ha	2688 Ha	2,848 Ha	2,411 Ha	277	277
Area known to be non-compliant:	381 Ha	210 Ha	381 Ha	210 Ha	0	0

The Summary per Year

2017

During May 2017, NRW carried out the two aerial surveillance flights and the initial findings show a possible significant spread of the disease in Ceredigion and west Powys.

Main blocks where symptoms were observed are:

Tywi South & North (ground visit)
Myherin
Crychan
Brechfa West & East
Hafod
Cwm Berwyn
Caio
Trecwn
Crynant
Tarenig (ground visit)

Following concern raised through the flight analysis, NRW instigated a survey programme to include all larch on WGWE in an area outside the CDZ in the area picked up through the flight. The total area identified for inspection is 1843, the bulk (1500 ha) lie outside the CDZ, of which 1300 ha are on Welsh Gov. Woodland Estate. The majority of sites have been visited with approximately 285 ha outstanding. Approx. 646 ha has been considered as uninfected.

The remaining 910ha has been categorised as:

- 232ha Lab confirmation
- 575ha Infected based onSurveyors Assessment
- 98 ha Neg lab results but visually infected
- 10 ha Pending lab results

NRW have issued SPHNs on the outliers and work is underway to destroy the trees.

NRW will be issuing SPHN, based on the outcome of the Welsh Government review of the CDZ boundary. The two maps below show a) the distribution of Statutory Notices across Wales and b) the extent of the 2017 infected and suspicious sites.

[5] All Types (Full SPHNs, SPHN[M], SPHN[MR])

Compliance Checks and Winter Felling of Larch
During winter 2016/17 NRW have issued 8 SPHN(m)s. These were "on request" of the land managers following the process of "Winter felling of Larch" in connection with Felling Licence Applications.

During February 2017, NRW undertook a survey of species other than larch that are highly susceptible to *P. ramorum*, as part of ongoing monitoring of the impact of the disease. The species included were Douglas Fir, Grand Fir, Noble Fir, Beech and Sweet Chestnut, with the last also being a sporulating host rather than a terminal host. The survey was carried out on the Welsh Government Woodland Estate, targeted around recent outbreaks and also areas of historically high infection and the species were chosen based on them previously having naturally occurring infections rather than just under laboratory conditions.

Six new infected sites were found, all of which were in South Wales in the CDZ. All six were on Beech in close proximity to either highly infected standing larch or recently clearfelled sites. The damage in Beech appeared to be more significant than in previous years, though the damage was still not causing tree mortality. Where there were individual trees that appeared to be in significant decline, there were several other secondary pathogens such as Honey Fungus and bacterial infection contributing as well as the Phytophthora infection. These results were similar to previous year's findings, indicating that *P. ramorum* continues to affect other species, but that spread and impact is limited at present

NRW have closed (revoked) 53 SPHNs where the sites have been compliant for more than 3 years. Compliance checks are reviewed annually.

Minor errors in the data have been corrected from previous report.

2016

Compliance Survey 2016:
The 2016 Compliance Survey covered 67 sites in the Disease Limitation Zone – of which only 9 sites (140 ha) had compliance deadlines in 2016.

The other sites had SPHNs issued in previous years but for different reasons had not systematically been inspected for compliance until then.

Altogether 535 ha were inspected, 377 ha on Welsh Government Woodland Estate (WGWE) and 158 ha on private land.

Of these were:
- 51 sites **compliant** – 36 sites (253 ha) on WGWE, 15 private sites (94 ha)
- 5 sites **non-compliant** – 1 site, 1ha, on WGWE and 4 private sites (60.0 ha – however, non-compliance only on roughly 5% of that area!)
- 11 sites that need **re-visiting** after Larch flushes – 10 WGWE sites, 1 private one; altogether 126 ha
- 24 sites **stem-injected**
- 11 sites **restocked** (*information was available for 33 sites*) – 8 sites on WGWE (141 ha), 3 private sites (30ha) and 1 private site (8.5 ha) where planting will commence in early 2017

NRW have completed the **aerial surveillance** for 2016, and this note summarises the findings.

The first flight was carried out in May and the initial findings were that the disease was still spreading, but at a slower speed than was anticipated based on the wet late summer and early autumn in 2015. The last flight was late September and we are still finding the same slow spread. Over the course of the year we investigated 41 sites as a result of the flights, 17 (14 WGWE) were found to be positive for *Phytophthora ramorum*. We also investigated a number of sites reported to us by land managers as well as some sites as a result of felling licence applications.

Based on anecdotal evidence, the rate of spread is reduced as a result of main areas of larch within Wales already under notice, leaving the remaining larch in more isolated areas. Additionally, the work to fell infected trees will also be reducing the spore load.

For the financial year to date up to 1st January 2017, NRW has issued 28 SPHN[m] (120ha) within the CDZ. And 22 SPHN (69ha) out-with the CDZ. Total 50 SPHN/SPHN[m] (189 ha), this is primarily on private woodland owners (24 SPHN/[m]s (101 ha)). This year *Phytophthora ramorum* has also been confirmed on sweet chestnut and noble fir. As noble fir is not a sporulating host there is no regulatory actions.

Of additional note, the flights have picked up a number sites with suspected Phytophthora r. on noble fir and a few sites with other suspected non-quarantined organisms.

Over the winter period (15-16), field staff carried out monitoring of *P. ramorum* in the main susceptible species. The survey follows the pattern of previous years and indicates that *P. ramorum* has not yet started to infect species other than larch on a significant scale in Wales yet. However the recent findings on noble fir are of concern as noble fir has been widely planted as replacement species for larch on infected sites. We may see many more cases in noble fir.

2015

Throughout 2015, NRW have reviewed the data structure held for P. ramorum and the method of calculating figures, this review has found a number of anomalies. These were corrected in the end of July GB Situation Report. This showed an increase in 2,000 ha of area under notice, **this is not as a result of increased infections as may be inferred from the report**. We have also reduced the “Area of infected larch not under notice” from 650 to 120, by issuing SPHNs to WGWE for suspicious sites within the CDZ. NRW have also amended some large SPHNs where the extent was in excess of the actual land ownership. This resulted in a reduction of area in the November report.

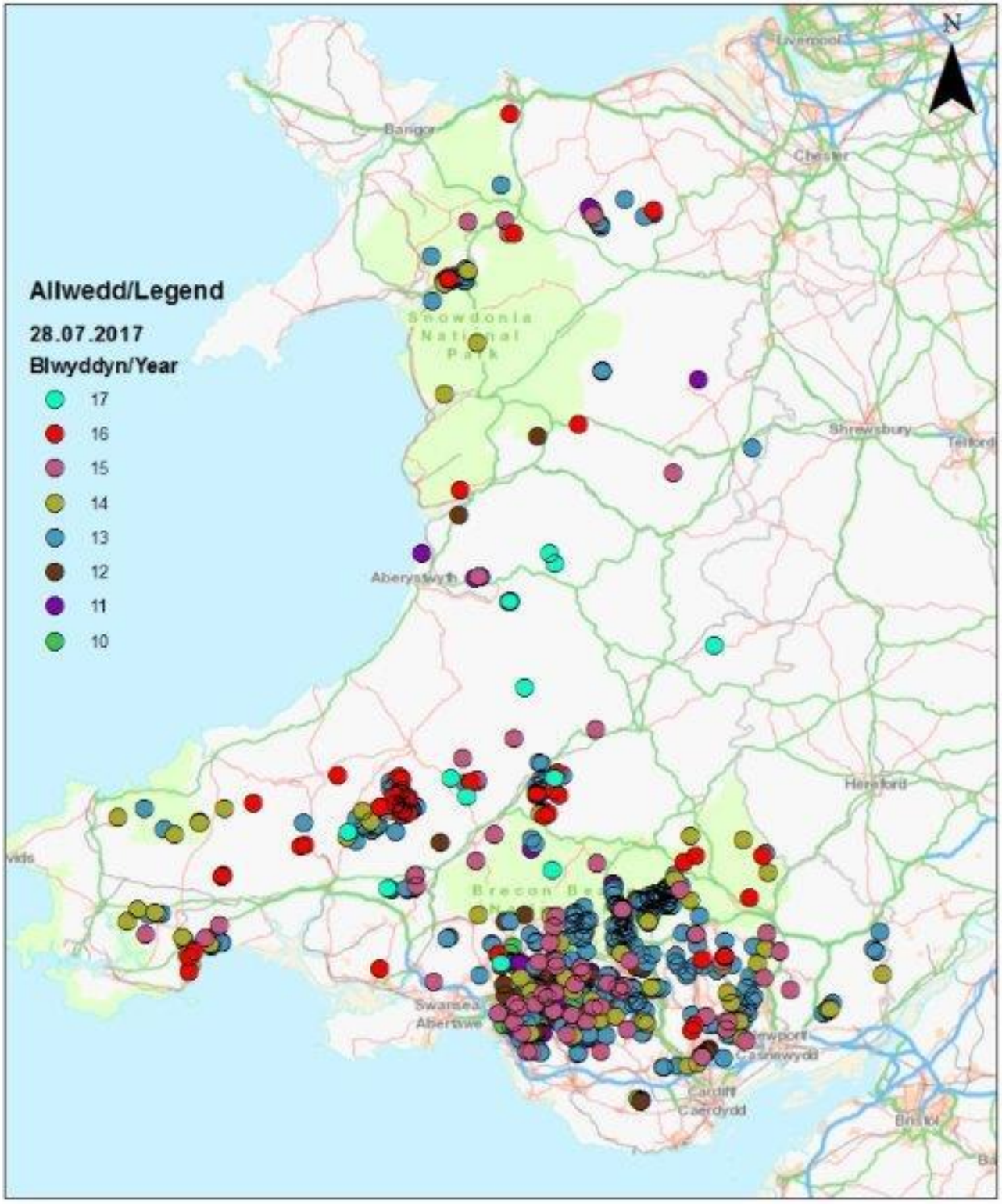
NRW have carried out 5 flights this summer, all the field surveys have now been completed and most of the lab analysis has been carried out.

Taking into account the amendments noted above, the actual area of new infections now under SPHNs is only 137 ha.

Current indications are that we are in a ‘lull’ period based on the weather patterns from last year and the early survey data.

Dosbarthiad o Phytophthora ramorum yng Nghymru/ Distribution of Pythophthora ramorum in Wales

Wedi'i Diweddaru ar Gorffennaf 2017/Updated July 2017



Cyfoeth Naturiol Cymru
Natural Resources Wales

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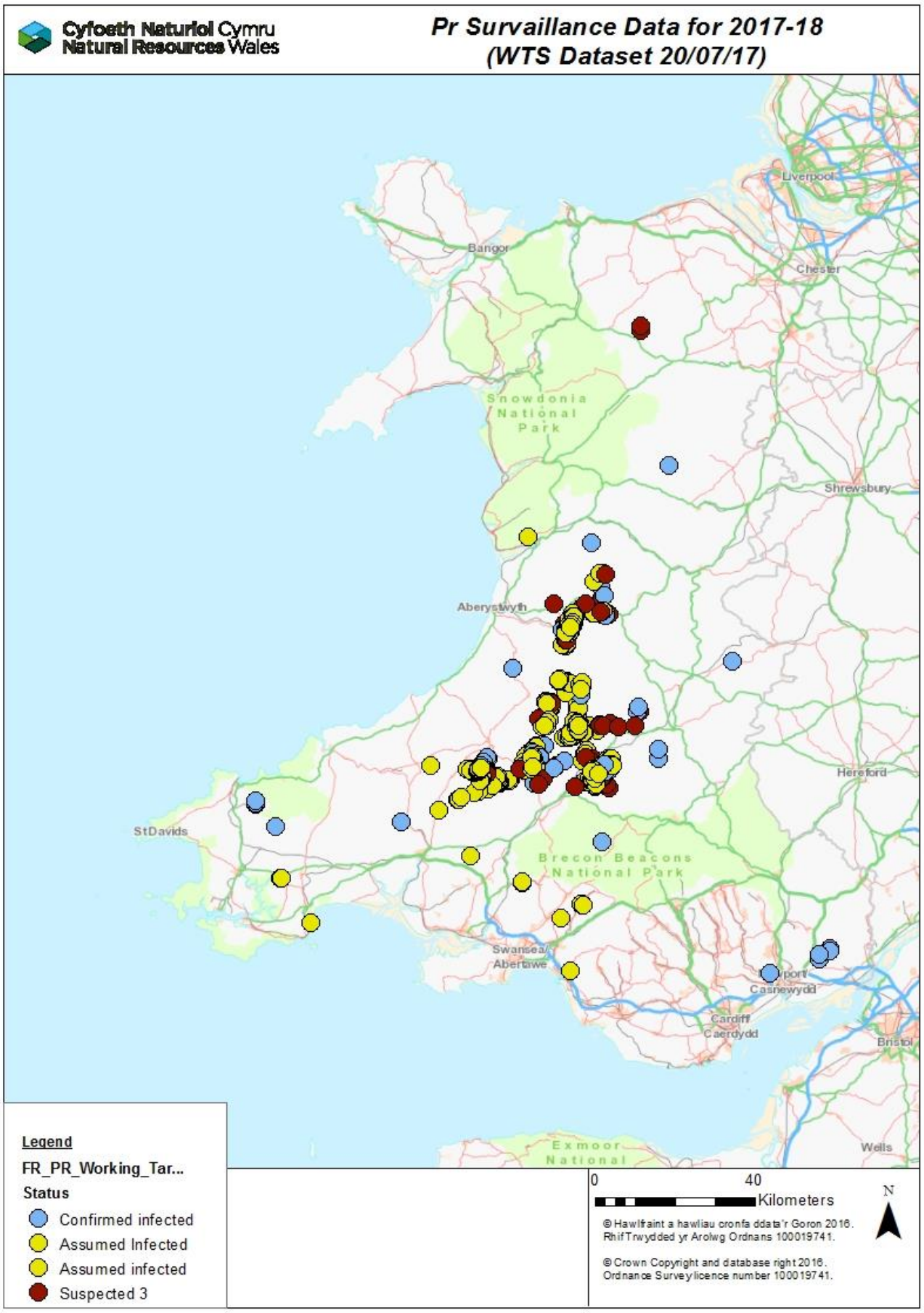
Cyfoeth Naturiol Cymru
Natural Resources Wales
Pr Survaillance Data for 2017-18
(WTS Dataset 20/07/17)
Liverpool
Bangor
Chester
Snowdonia National Park
Shrewsbury
Aberystwyth
Hereford
StDavids
Brecon Beacons National Park
Swansea
Abertawe
Cardiff
Caerdydd
Bristol
Exmoor National
Wells
Legend
FR_PR_Working_Tar...
Status
Confirmed infected
Assumed Infected
Assumed infected
Suspected 3
0
40
Kilometers
N
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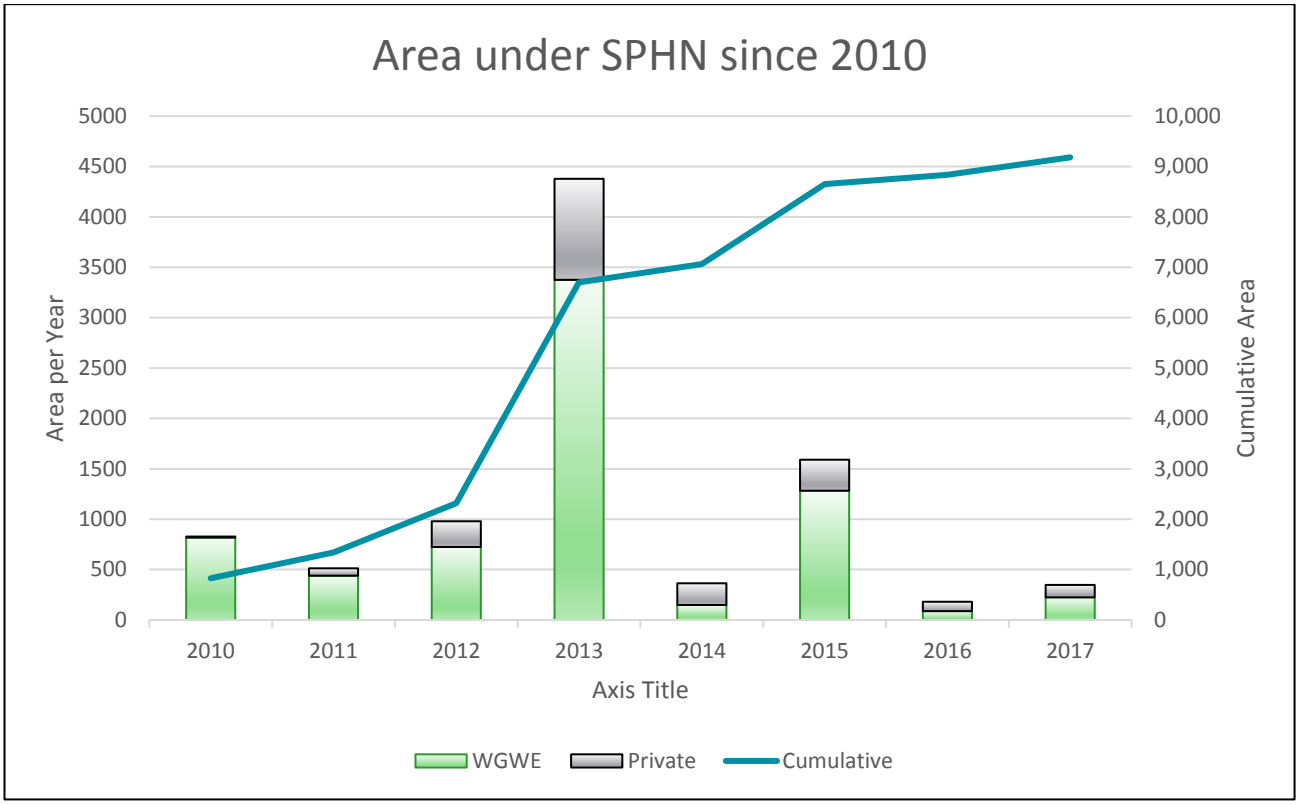
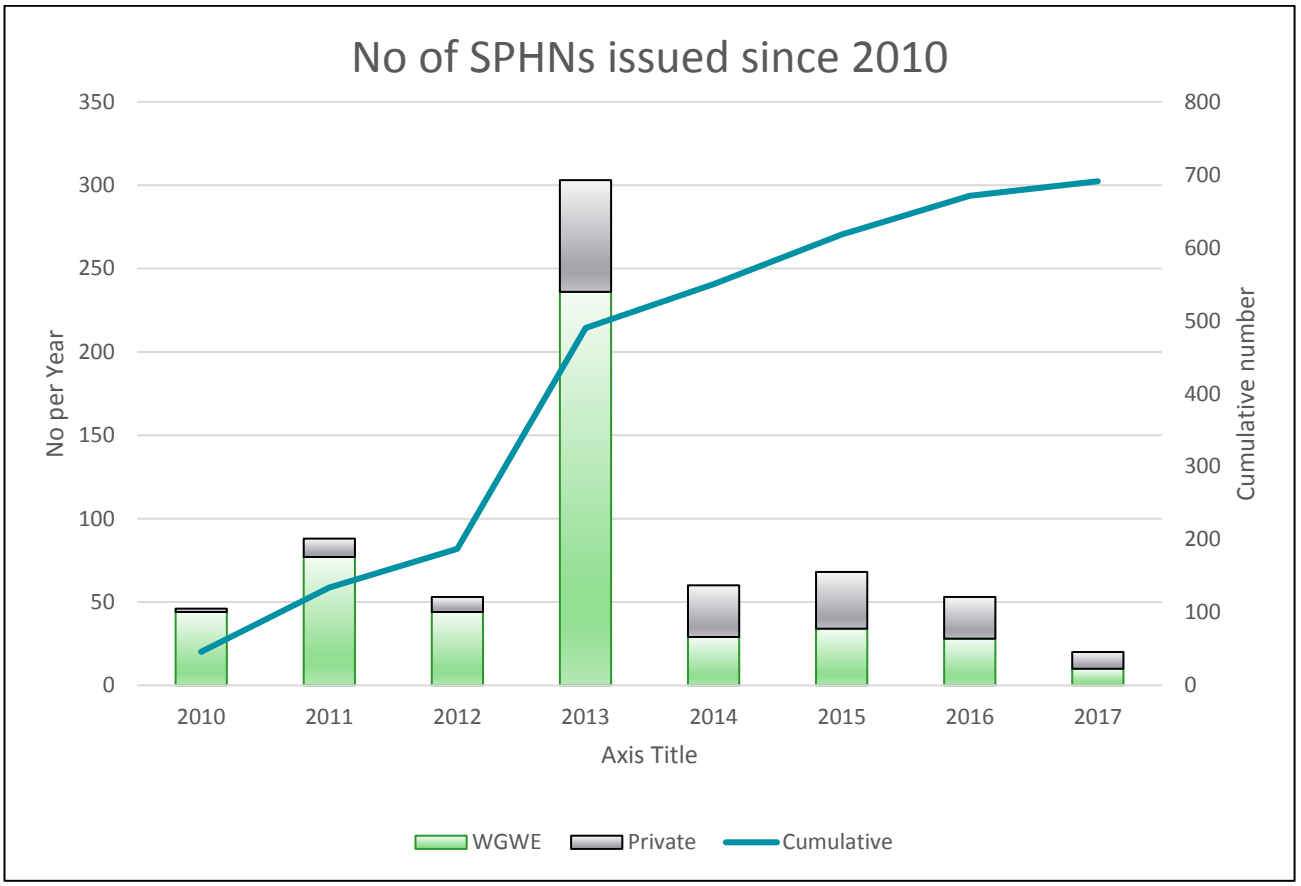

Area under SPHN since 2010
Area per Year
Cumulative Area
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
2010
2011
2012
2013
2014
2015
2016
2017
Axis Title
WGWE
Private
Cumulative


No of SPHNs issued since 2010
No per Year
Cumulative number
350
300
250
200
150
100
50
0
800
700
600
500
400
300
200
100
0
2010
2011
2012
2013
2014
2015
2016
2017
Axis Title
WGWE
Private
Cumulative