

JAPANESE KNOTWEED

Putting the Brakes on a runaway problem

APSE Parks & Horticultural and Grounds
Maintenance Advisory Group

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Environment Officer
City and County of Swansea



6/12/16



-
- Defining the problem
 - The importance of survey data
 - Developing a plan of control



Defining the problem

Sally Rhubarb

Gypsies Curse

Super Weed Buster

Pysen saethwr

Tigers Walking Stick

(pea shooter)

Mari waedlyd

March of the Triffids

(bloody Mary)

Chinese Bamboo

Donkey Rhubarb

The Knot Cracker

Itadori



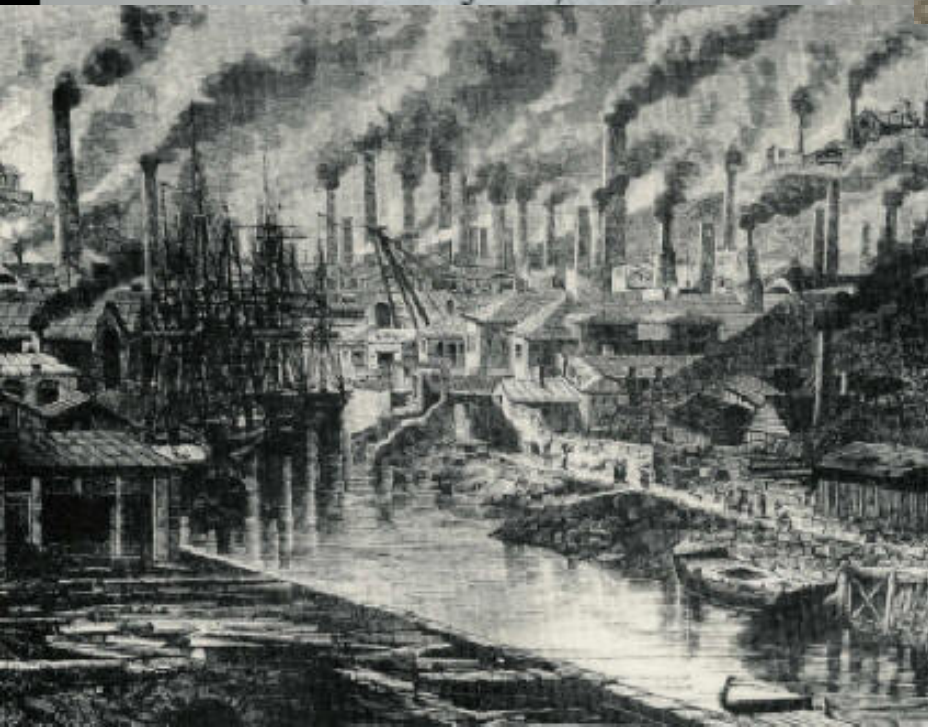
Spread

- Bought back to Europe as an; ornamental, fodder and as slope stabiliser (Thunberg and von Siebold)
- Kew Gardens records from early 1800's
- 1886 naturalised at Maesteg
- 1902 first Swansea (Glamorgan) record
- 1970 first known official complaint in Swansea

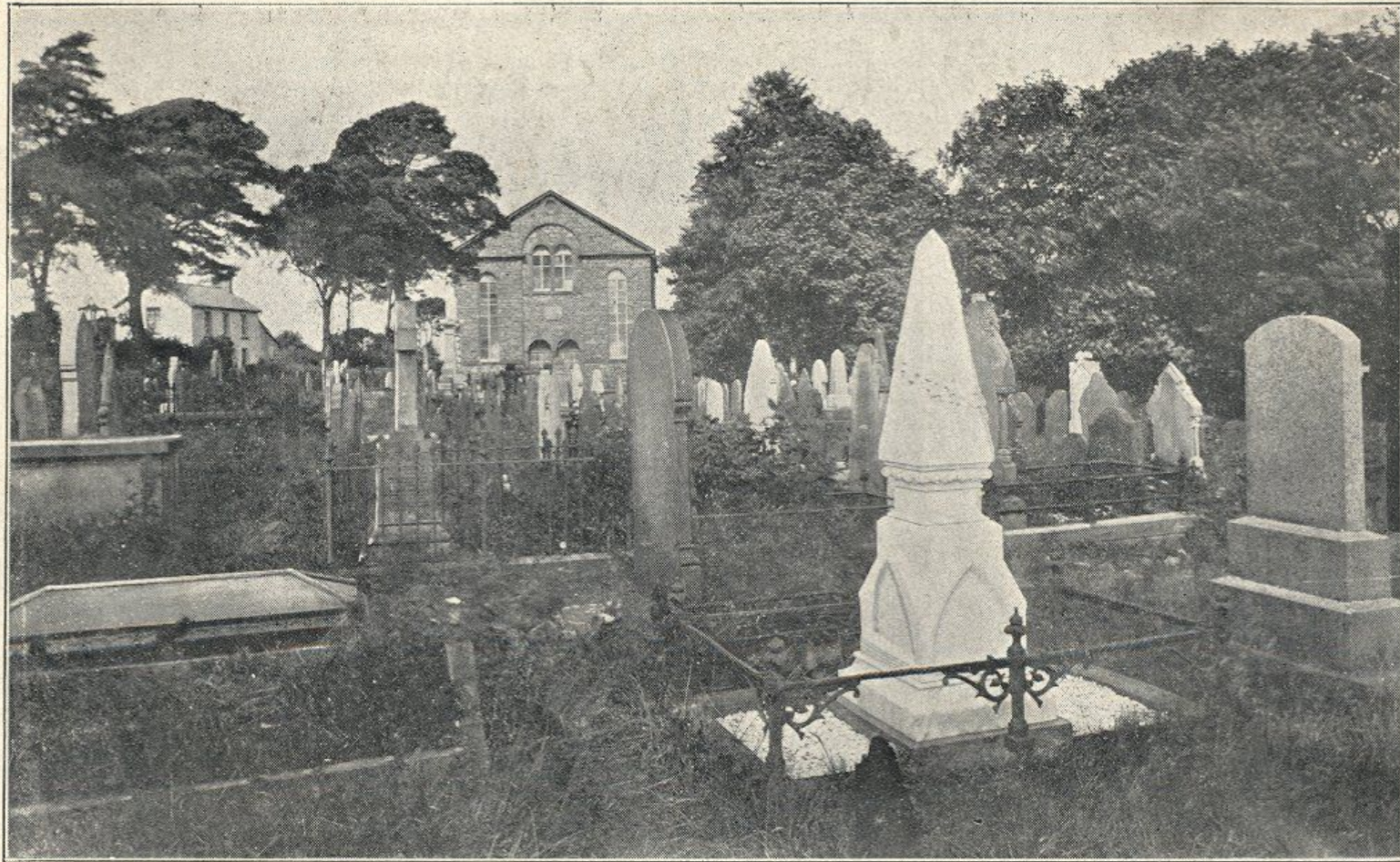




"This blighted area lives at Swansea's front door..."
(R. Huws Jones, 1961)



Mynydd Bach Chapel Pre 1907



MYNYDDBACH CHAPEL

The Strand 6/7/1970



CITY ESTATE
DEPARTMENT,
SWANSEA.

Neg No. R/3357
Date Taken July 6th 1970
Time Taken morning
Photo by A.J. Simons
Subject Former Architects Yard
Upper Strand, Swansea

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Swansea Bay



Three Cliffs Bay, Gower AONB



Reed bed



6500m²



Inside bathroom



Inside library



Council land bank, Development Sites



For Sale



Designated sites

SSSI-Pwlldu Head/Cliffs.
SAC-Limestone Cliffs.
Common Land-Pennard Cliffs.
National Trust land.

Gower AONB

Green Coast Award.
Heritage Coast.

SAC-Ash Woodland.
Ancient woodland.

SSSI-Caswell Bay.
CCS land.
Private land.
PROW.
Open access
Right of access

LNR-Pwlldu Cliffs +
Sec 15 agreement.

Knotweed

SSSI-Pwlldu Head/Cliffs
SAC-Limestone Cliffs
Common Land Fenland Cliffs.
National Trust
Green Coast Award.
Heritage Coast.

Holmoea

Private land
PROW.
Open access
Right of access

Gower AONB

Cotoneaster

Limestone Cliffs +
Site 15 agreement.

Costs

St Joseph's School

- £59,500 to remove soil with knotweed
- £13,000 to remove soil without knotweed
- Increase of £46,500 due to presence of knotweed.

PLUS additional costs of (in bold)

•Armater panels	260m2	£1625
•Geosynthetic liner	366m2	£1010
•Geomembrane	125m2	£230
•Membrane Protection layers		£512

Total (Inc vat, delivery, installation)

£3377

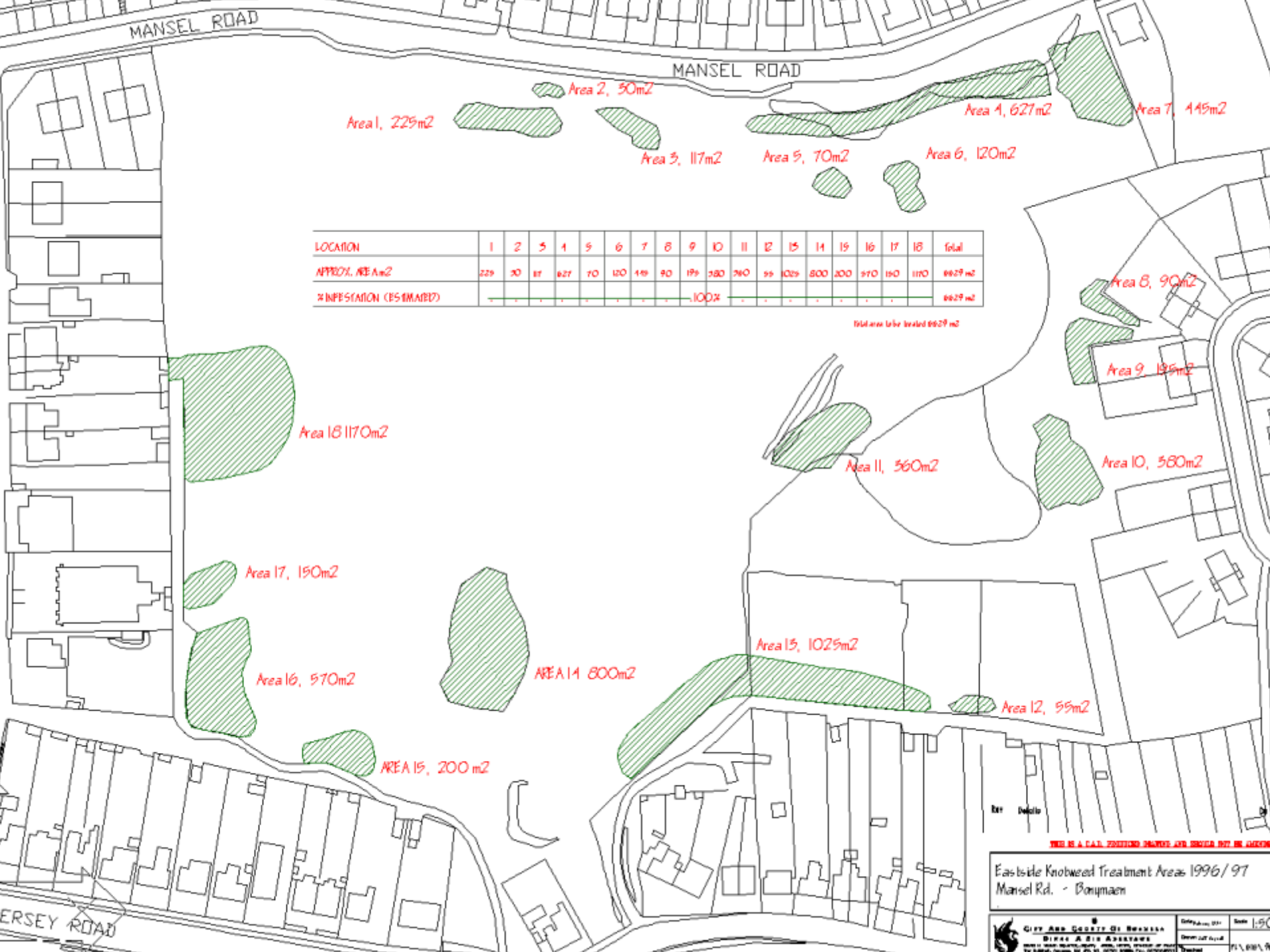


Importance of survey data

A Site Survey

- Entrance/exit
- Access routes
- Boundary – physical eg walls, fences
- Boundary – legal/political eg land ownership
- Waste, tipping
- Storage, surcharge
- Riparian zones/watercourses
- Habitats eg woodland, wetland
- Services eg sub stations, pumping stations
- Disturbed areas





LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total
APPROX. AREA m ²	229	50	117	627	70	120	149	90	199	260	260	55	1029	800	200	570	150	1170	6629 m ²
% INFESTATION (ESTIMATED)										100%									6629 m ²

Total area to be treated 6629 m²

Area 1, 229m² Area 2, 50m² Area 3, 117m² Area 4, 627m² Area 5, 70m² Area 6, 120m² Area 7, 149m²

Area 16, 1170m²

Area 11, 560m²

Area 8, 90m²

Area 9, 195m²

Area 10, 580m²

Area 17, 150m²

Area 15, 1029m²

Area 12, 59m²

Area 16, 570m²

Area 14, 800m²

Area 15, 200m²

THIS IS A CALL POSITIONING DRAWING AND SHOULD NOT BE USED FOR CONSTRUCTION

Eastside Knobweed Treatment Areas 1996/97
Mansel Rd. - Bonnyman

CITY AND COUNTY OF BERKSHIRE
DRINK & DRINK AGAINST
 WATER IS SAFE TO DRINK. PLEASE DONATE TO THE WATER TREATMENT PLANT TO HELP US IMPROVE OUR WATER SUPPLY.
 01753 522111 Scale 1:500
 Date 20/01/02

Jersey Road

Mansel Road

Mansel Road

The Surveys

1992 Urban 96km²

- 47.7 ha

1998 Urban 96km²

- 61.9 ha

1998 all of CCS 400km² (inc' 1992/8 urban area)

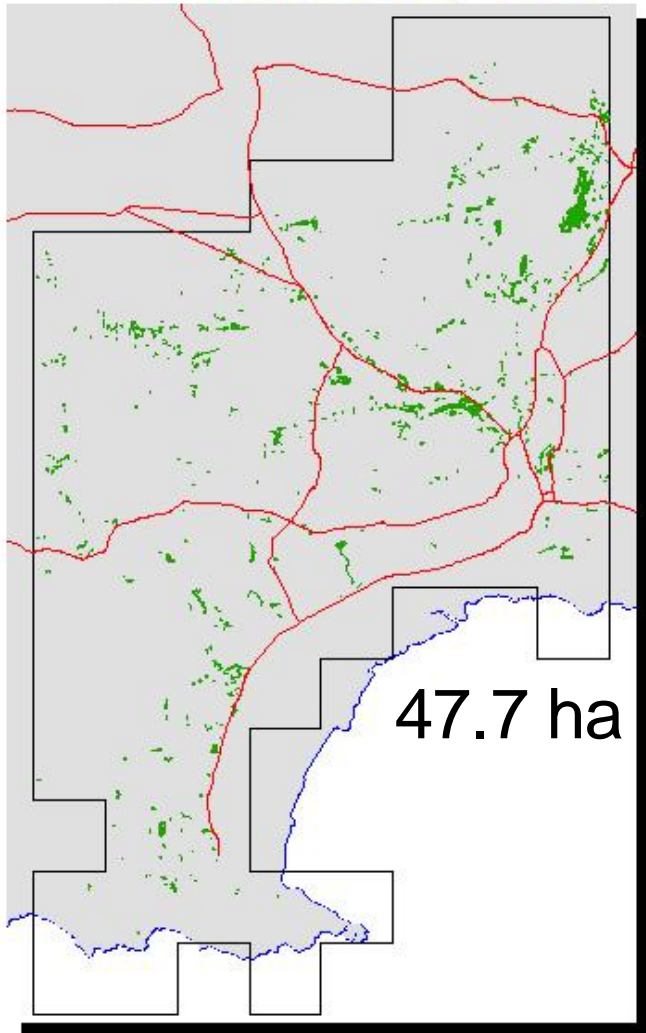
- 99.9 ha

- Gower AONB repeated 2016/17



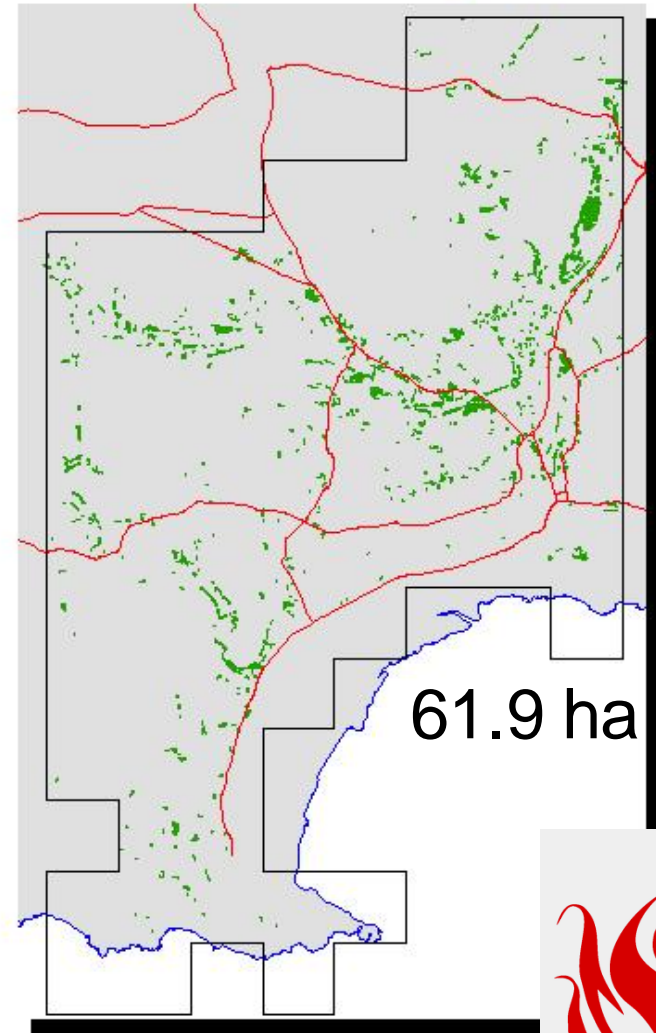
Urban surveys

1992



+ 14.2 ha

1998



1998 County survey



Knotweed

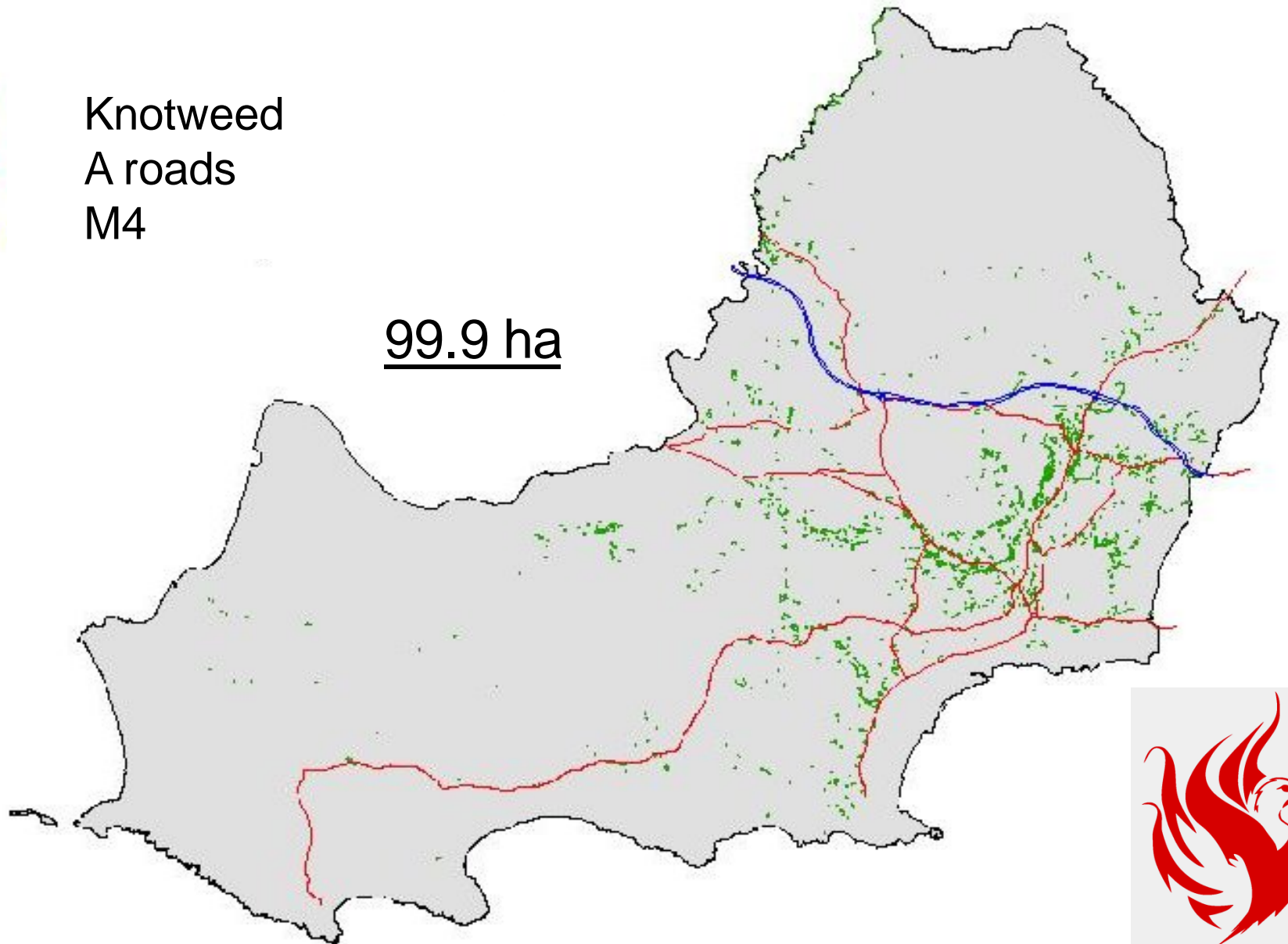


A roads



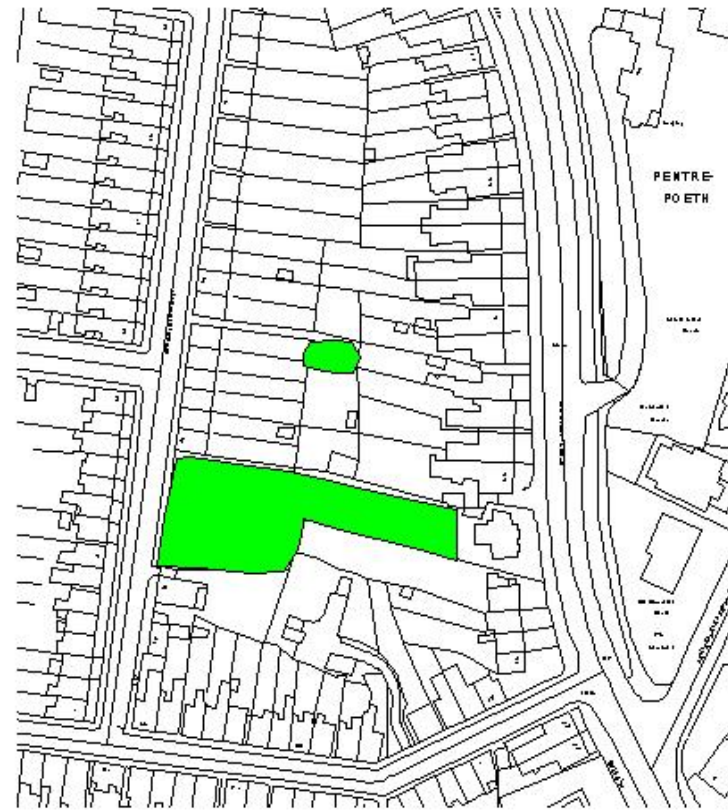
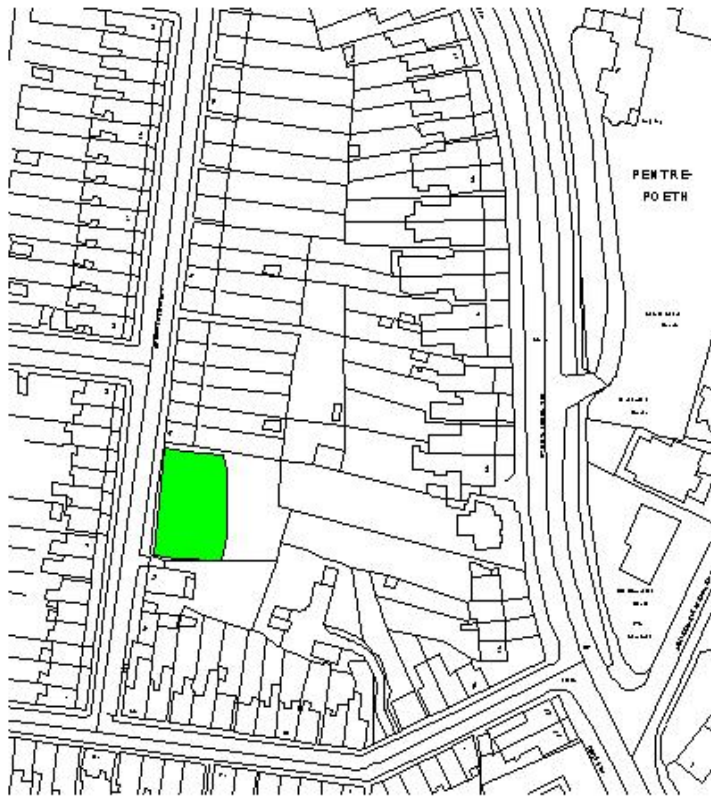
M4

99.9 ha

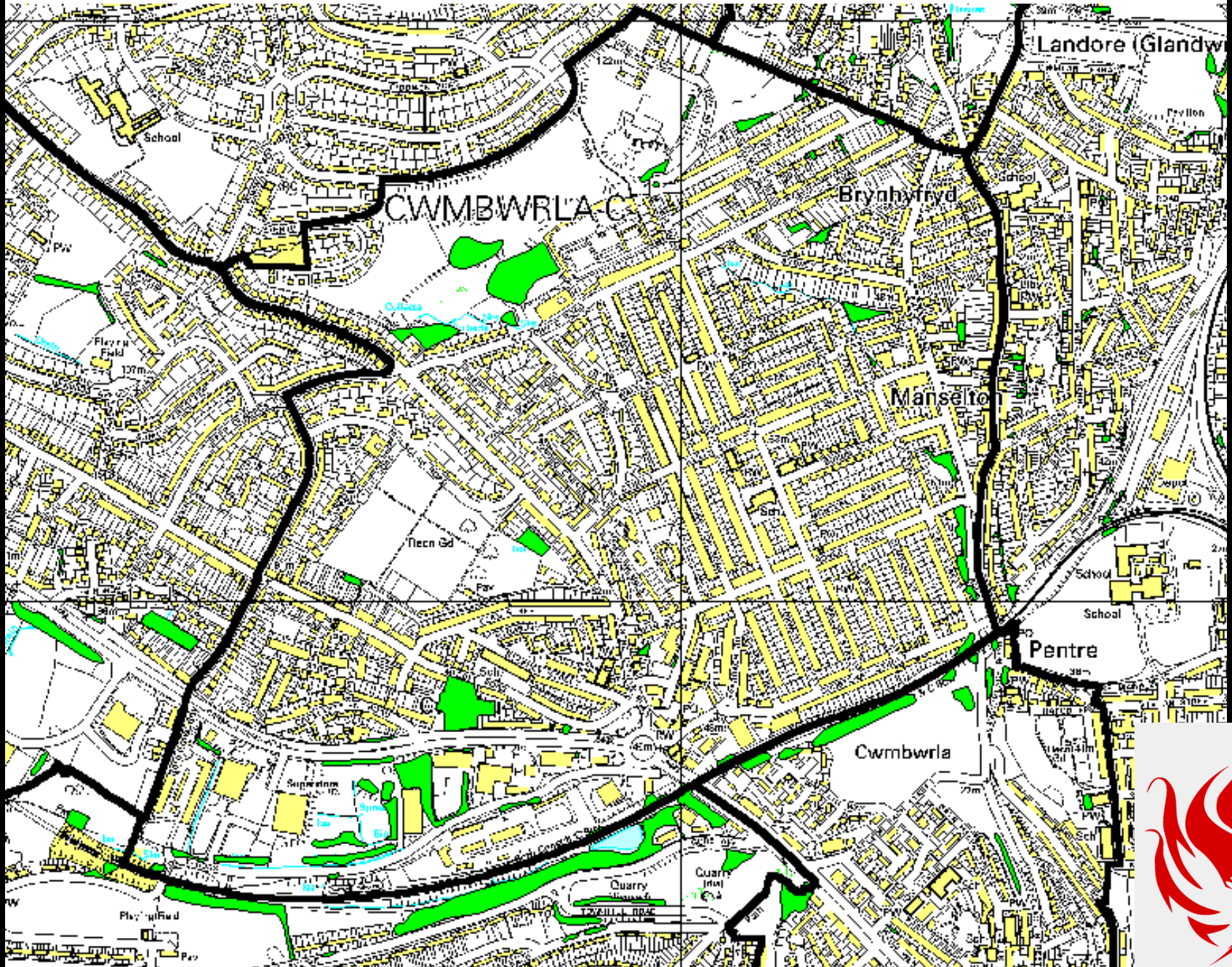


Spread 1992 to 1998

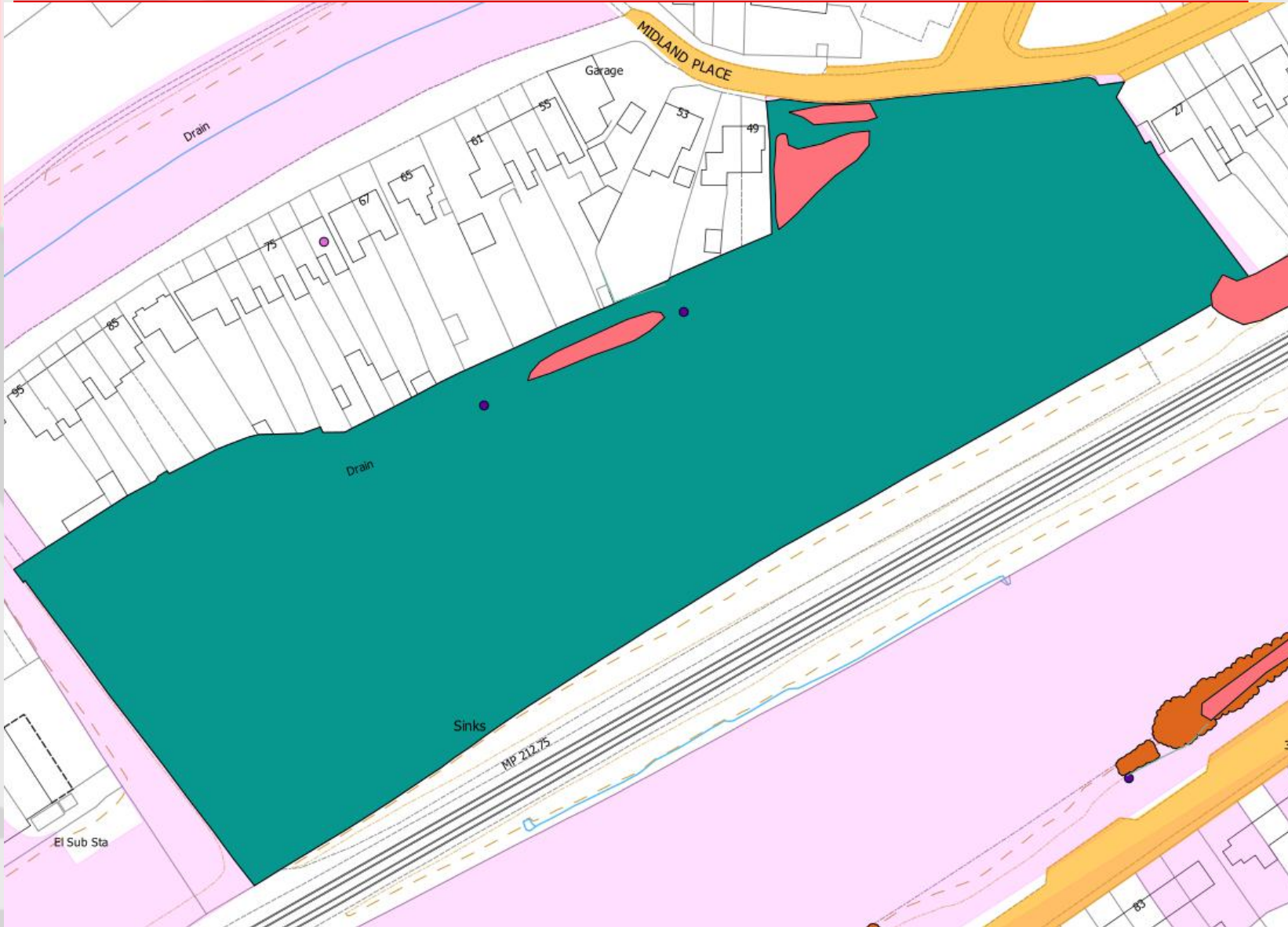
A Planning Application



Cwmbwrla ward 1998 – 4.66 ha



Local Development Plan-Housing



The Surveys

1998 Survey Results

•Parks	0.64 ha
•Landscaped area	2.41 ha
•Recreation ground	6.34 ha
•Railway	4.49 ha
•Waste ground	32.34 ha
•Grassland	12.25 ha



Gower Survey 1998 and 2016



Gower Survey 1998 and 2016



Surveys-Who

Internal

- Staff eg highways, EVH, parks
- Councilors (City, Ams, MPs, Community, Parish)

External

- Friends of
- Schools, students
- Fishing clubs, River Care Groups
- Ramblers
- Sports clubs, outdoor sports
- Eco tourism
- Scouts
- Wildlife Trust, National Trust



Developing a plan of control

Swansea and knotweed

- 1992 Urban knotweed survey
- 1993 Conference
- 1994 First large scale treatment programme
- 1995 Knotweed planning condition introduced
- 1997 Swansea Council Knotweed Action Plan
- 1998 Urban survey (measure increase from 1992)
- 1998 County wide survey
- 1998 Knotweed officer appointed (3 year post)



Swansea and knotweed

- 2000 The Knotweed Manual launched
- 2001 “No knotweed” garden waste bags
- 2002 100 years of Knotweed in Glamorgan
- 2005-8 Last large scale treatment programme, approx 100,000m²
- 2011 Wales Natural control trials (knotweed)
- 2012 INNS flora planning condition introduced
- 2015 Wales Natural control trials (balsam)
- 1/8/15 Parks dept’ launch payable knotweed control service





Action plan

- 1 Promote and encourage a coordinated approach to the problem
- 2 Identify and treat sites
- 3 Prevent spread into unaffected areas
- 4 Raise awareness and offer advice



Action Plan

1) Promote and encourage a coordinated approach to the problem

- Partnerships
- Co-ordinated control



Action Plan

2) Identify and treat sites

- Criteria list for treatment
- Funding
- Council land, non council land
- Use of statutory/non statutory powers
- Monitor treatment



Criteria for selecting sites for treatment

- Designated land
- Availability of funding, grants, partnerships
- Causing problems, complaints or an eyesore
- Safety, highways, health hazard (giant hogweed)
- Where previous control has been undertaken
- Landscape improvement work
- Planning



Action Plan

3) Prevent spread into unaffected areas

- Surveys, GIS
- Monitor
- Encourage correct disposal
- Statutory/non statutory powers



GARDEN WASTE ONLY

GWASTRAFF GARDD YN UNIG

Please do not include
Peidiwch â chynnwys

- Large Branches or Logs - Canghennau Mawr neu Fencyffion
- Soil, Stones or Rubble - Pridd, Cerrig neu Rwbel
- Food waste or Plastic Bags - Gwasttraff Bwyd neu Fagiau Plastig
- Animal Waste - Gwasttraff Anifeiliaid
- Invasive Plants - (e.g. Japanese Knotweed) ★
Planhigion Ymledol - (e.g. Canclwm Japan) ★

Enquiries: Environment Department
Ymholiadau: Adran yr Amgylchedd
Tel/ffôn: 01792 635600 recycling@swansea.gov.uk

Action Plan

4) Raise awareness and offer advice

- Council staff
- Public, developers, landowners
- Professional bodies



Quick Wins

- Basic survey
- Train staff
- Student project
- Knotweed free parks
- Pathways and spread – grass clippings
- Unrealistic expectations



Standard Condition for Planning Permission

1995 Planning Condition added to the planning approval decision notice if knotweed is on site;

Full details of a scheme for the eradication and/or control of Japanese Knotweed shall be submitted to and approved by the Local Planning Authority prior to the commencement of work on site, and the approved scheme shall be implemented prior to the use of the building commencing

- Approx 50 p/a

Also for INNS flora (2012)



Planning Dept Treatment Costs

1993-96	Treatment	£58,750
1996-97	Treatment	£16,000
1997-98	Treatment	£32,000
1998-99	Treatment	£20,000
1999-00	Treatment	£13,000
2000-01	Treatment	£9000
2001-02	Treatment	£33,171
2002-03	Treatment	£46,606
2003-04	Treatment	£39,896
2005/06	Treatment	£91,307
Total		<u>£359,730</u>



How we deal with knotweed queries

- The land holding department will deal with the enquiry
- Can treat if it's a problem eg mortgage, damage
- No need to treat is not causing a problem



How we deal with knotweed queries

- Is it knotweed? (yes) (no)
- Is it on CCS land? (yes)
- Housing (10 DHOs)
- Parks (3 areas)
- Schools/Education
- Highways/adopted roads
- Estates/Policy



Is it knotweed?



How we deal with knotweed queries

Anti-social Behaviour, Crime & Policing Act 2014

The Knotweed ASBO

- The Act does not explicitly refer to knotweed
- Guidance from the Home Office is just guidance (may, can, could etc)
- The Act gives a power (**not a legal duty**) for local authorities to get involved

“CCS does not have to enforce this Act”



Legislation

NOT a Statutory Nuisance

But

COULD BE a Private Nuisance

- Common law of private nuisance defined as the “unlawful interference with a person’s use or enjoyment of land, or some right over, or in connection with it”
- Allows landowners or tenants of leasehold properties who have a right to the land affected to bring an action against the person responsible.
- Could also relate to strict liability for foreseeable damage caused by escapes resulting from non natural uses of land.



Legislation

PREVENTION OF DAMAGE BY PESTS ACT 1949

- Sec 4
- Keep land free from vermin

HIGHWAYS ACT 1980 - Sec 154

- Encroachment onto a highway



Legislation

ENVIRONMENT AGENCY AqHerb01 FORM

- Use of herbicides in or near water (ie 7m)
- PA1, PA6, PA6AW

WATER RESOURCES ACT 1991 ACT, SEC 221:

- All rivers, streams, ditches, drains, cuts, culverts, dykes, sluices, sewers and passages through which water flows

(even if the watercourse is dry for part of the year)

HIGHWAYS ACT, 1980, SEC 100(9)

- drain includes; ditch, gutter, watercourse, soakaway, bridge, culvert, tunnel and pipe.



Legislation

- BS 3882:1994, Specification for Topsoil April 1998

6.2 Weeds and Foreign matter

free from propagules of aggressive weeds (see N.6.4.5)

N.6.4.5 Weeds and foreign matter

... to minimise future weed control problems, freedom from propagules, e.g. stolons, rhizomes, or other perennial weed species, such as couch grass, red fescue, docks, **Japanese knotweed** and horsetail is critical for planting areas.



What Can You Do?

DO

- Plan ahead and understand the problems
- Find out where your knotweed is
- Set aside a budget-in the long term
- Look into grants, partnerships, cost sharing
- Use appropriate treatment methods
- Use trained contractors
- Be persistent and patient



What Can You Do?

DO NOT

- Ignore it-it will only get worse!
- Use incorrect methods
eg time of year
- Forget the law
- Use inexperienced contractors
- Expect treatment to work overnight



The Future

- Tougher legislation (eg via EU 2013) to control movement, sale and spread of INNS
- DEFRA Non Native Review
- Natural Control (in the long term)
- Outside funding eg NRW, WG, EA, EN
- A departmental corporate knotweed control budget
- Correct treatment techniques/methodologies used to ensure successful control in the long term
- New herbicides
- Global warming



7/1/16



23/1/14



The Complete Gardener 1984

LUXURIANT RURAL GARDEN

Apple tree

Shrubby willow

Climbing rose



Iris foetidissima

Cream-flowering
Anemone sylvestris

Pool

Mixed grasses

Marsh marigold

Helleborus

Polygonum spp



Conclusion

Direct Action

- Treatment

Indirect Action

- Planning
 - Enforcement
 - Raising Awareness
-





Thank you for listening

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