

# JAPANESE KNOTWEED

## Putting the Brakes on a runaway problem

APSE Parks, Open Spaces and Horticultural Services Seminar

Sean Hathaway  
Environment Officer  
City and County of Swansea



17/3/16



- 
- 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

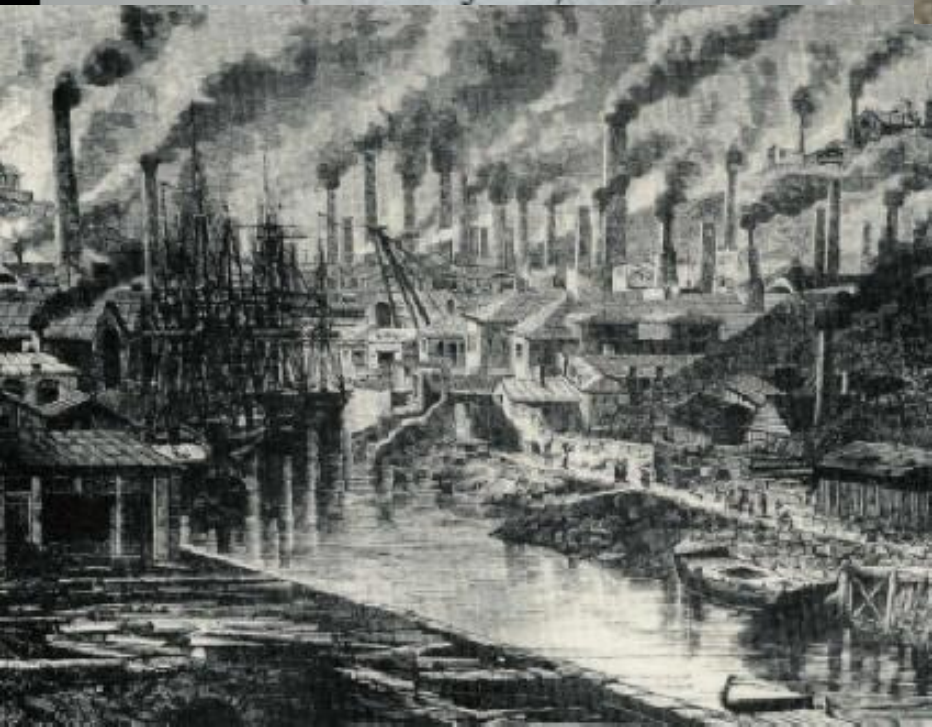
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- Bought back to Europe as an; ornamental, fodder and as slope stabiliser (Thunberg and von Siebold)
- Kew Gardens records from early 1800's
- 1886 naturalised at Maesteg
- 1902 first Swansea (Glamorgan) record
- 1970 first known official complaint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

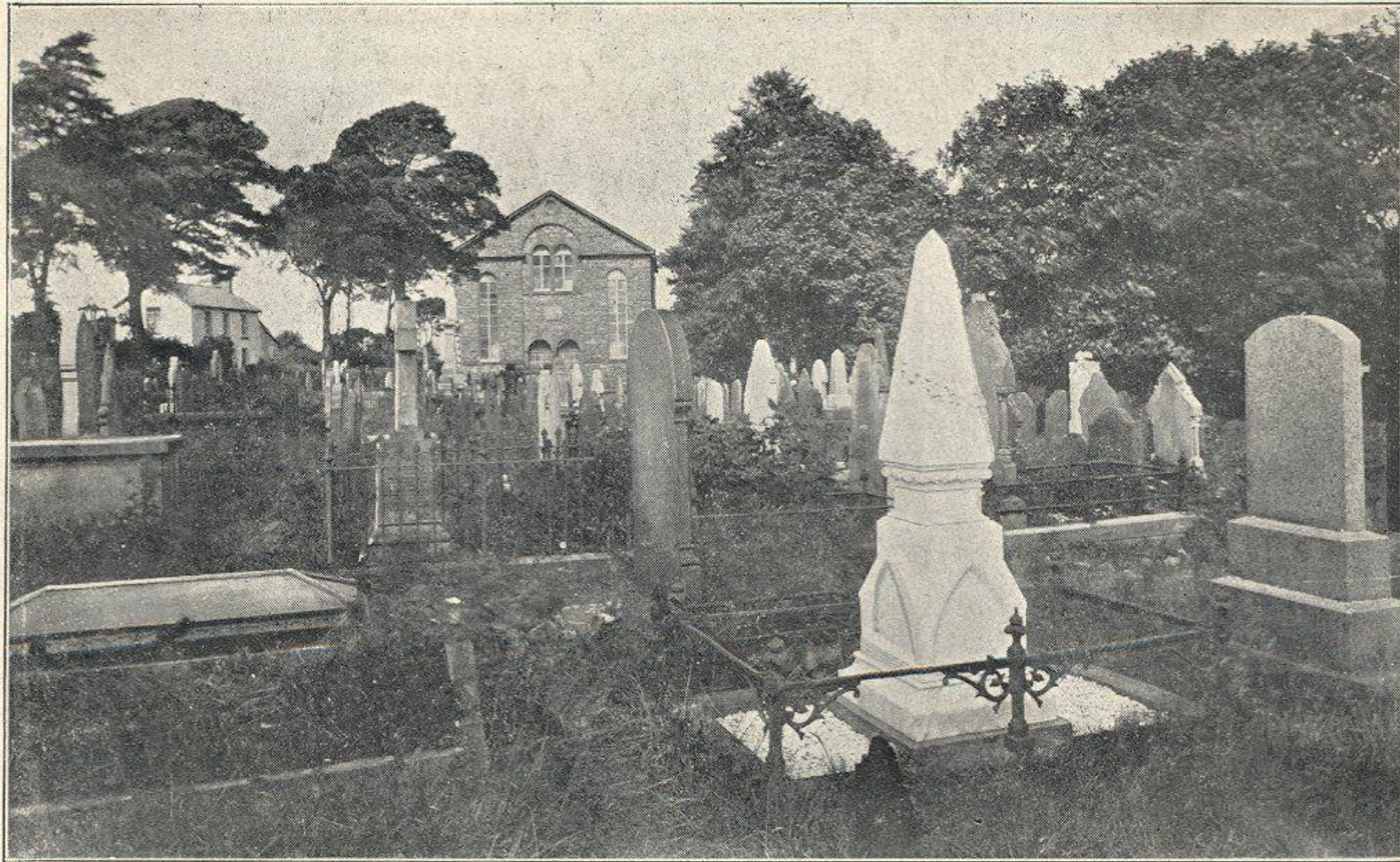




"This blighted area lives at Swansea's front door..."  
(R. Huws Jones, 1961)



# Mynydd Bach Chapel Pre 1907



MYNYDDBACH CHAPEL

# The Strand 6/7/1970



CITY ESTATE  
DEPARTMENT,  
SWANSEA.

Neg No. E/3357  
Date Taken July 6<sup>th</sup> 1970  
Time Taken Morning  
Photo by A. J. Simons  
Subject Former Architects Yard  
Upper Strand, Swansea

THIS PHOTOGRAPH IS THE  
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# Swansea Bay





# Three Cliffs Bay, Gower AONB



# Reed bed



6500m<sup>2</sup>



# Inside bathroom



⑩ Point C  
- from inside 1<sup>st</sup>  
floor of property  
facing south

# Inside library



# 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  
National Trust

Green Coast Award.  
Heritage Coast.

**Holmoean**

Private land  
PROW.  
Open access  
Right of access

**Gower AONB**

**Coton Easter**

Llŷr Pwlldu Cliffs +  
Site 5 agreement.

# Costs

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## 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





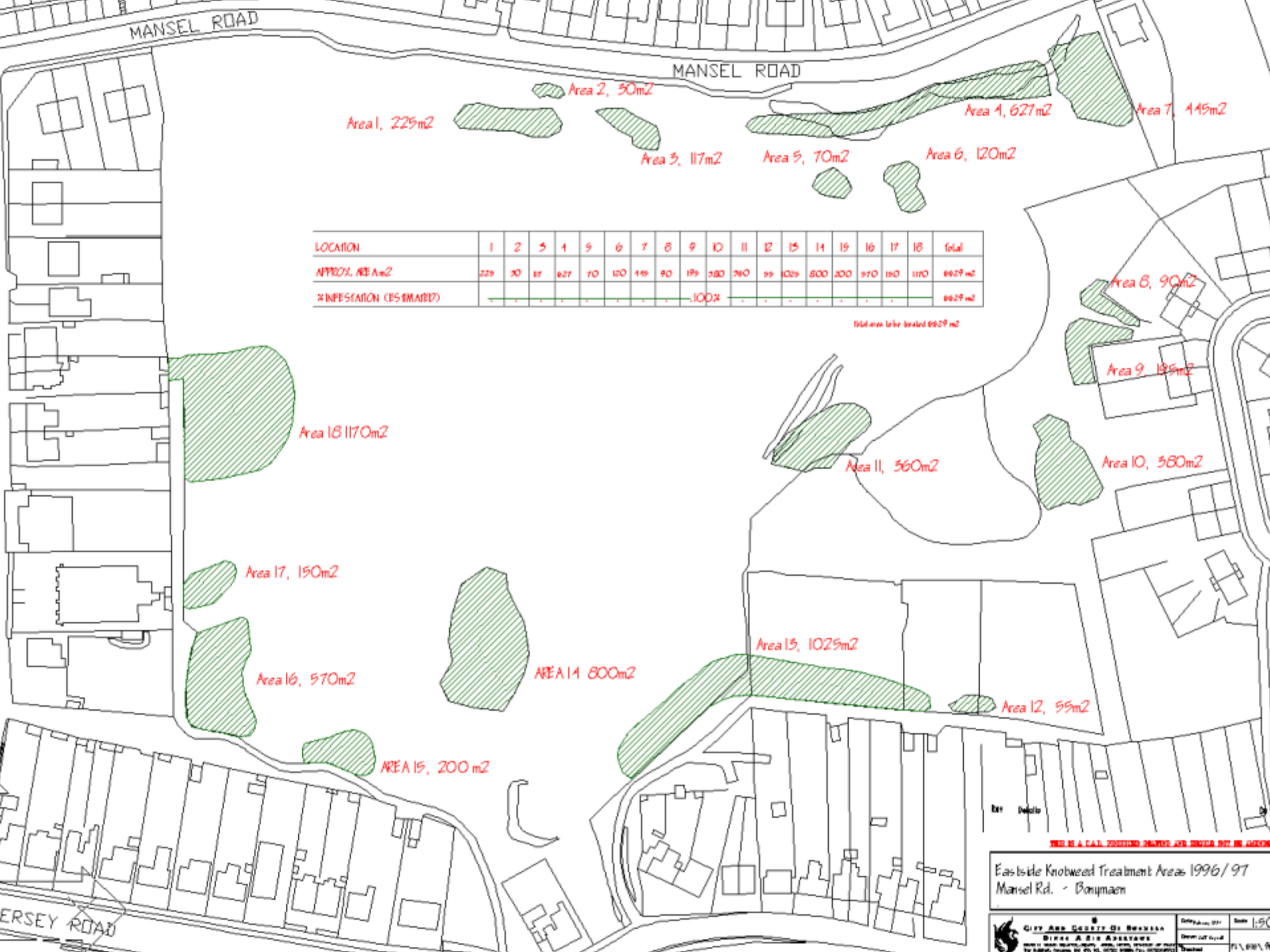
# Importance of survey data

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## 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 <sup>2</sup>	229	30	87	827	70	120	149	90	199	260	260	99	1029	800	200	570	150	1170	8829 m <sup>2</sup>
% INFESTATION (ESTIMATED)										100%									8829 m <sup>2</sup>

Total area to be treated 8829 m<sup>2</sup>

Area 1, 229m<sup>2</sup>    Area 2, 30m<sup>2</sup>    Area 3, 87m<sup>2</sup>    Area 4, 827m<sup>2</sup>    Area 5, 70m<sup>2</sup>    Area 6, 120m<sup>2</sup>    Area 7, 149m<sup>2</sup>    Area 8, 90m<sup>2</sup>    Area 9, 199m<sup>2</sup>    Area 10, 260m<sup>2</sup>    Area 11, 260m<sup>2</sup>    Area 12, 99m<sup>2</sup>    Area 13, 1029m<sup>2</sup>    Area 14, 800m<sup>2</sup>    Area 15, 200m<sup>2</sup>    Area 16, 570m<sup>2</sup>    Area 17, 150m<sup>2</sup>    Area 18, 1170m<sup>2</sup>

THIS IS A CALL FOR TENDERS DOCUMENT AND SHOULD NOT BE USED  
 Eastside Knobweed Treatment Areas 1996/97  
 Mansel Rd. - Bonnyman

# The Surveys

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1992 Urban 96km<sup>2</sup>

- 47.7 ha

1998 Urban 96km<sup>2</sup>

- 61.9 ha

1998 all of CCS 400km<sup>2</sup> (inc' 1992/8 urban area)

- 99.9 ha

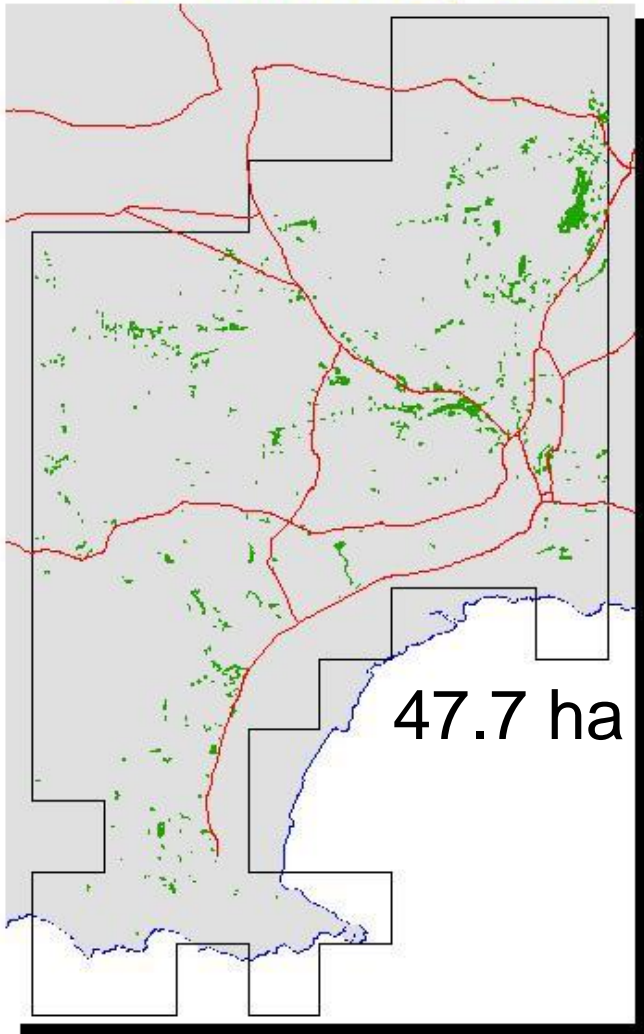
- Gower AONB repeated 2016/17



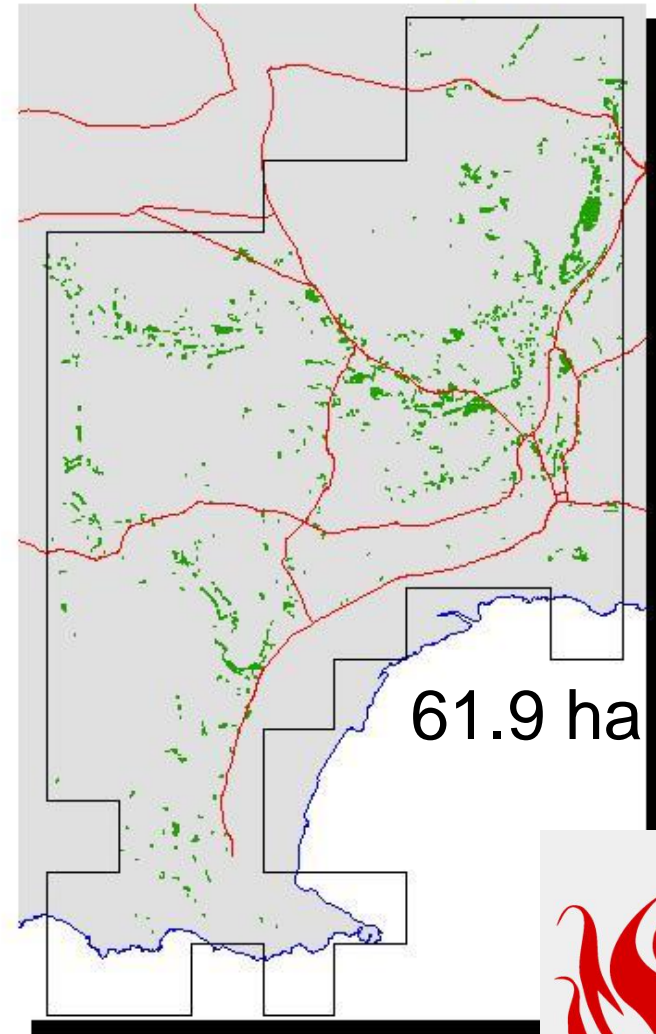
# Urban surveys

1992

1998



+ 14.2 ha



# 1998 County survey



Knotweed

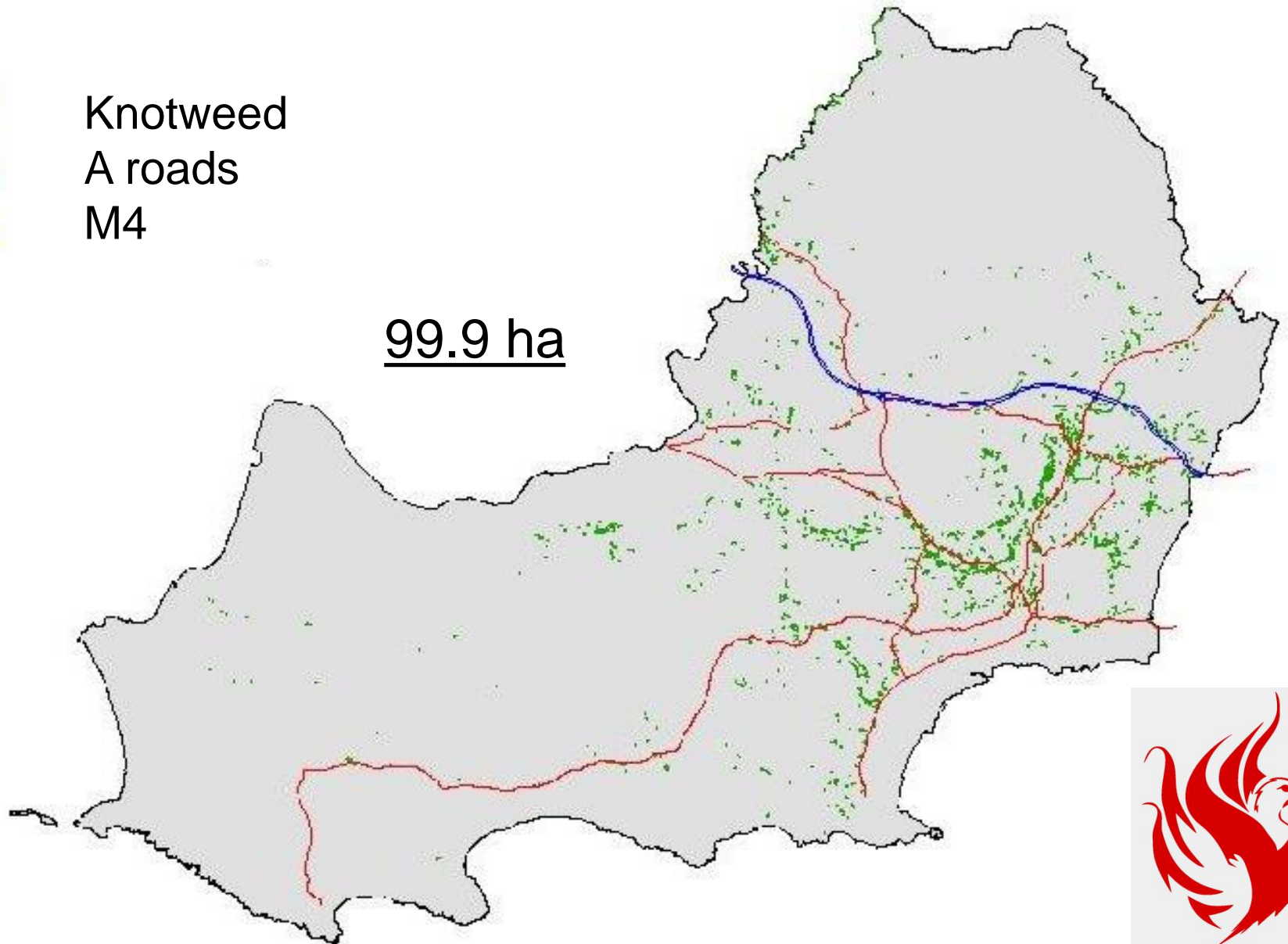


A roads



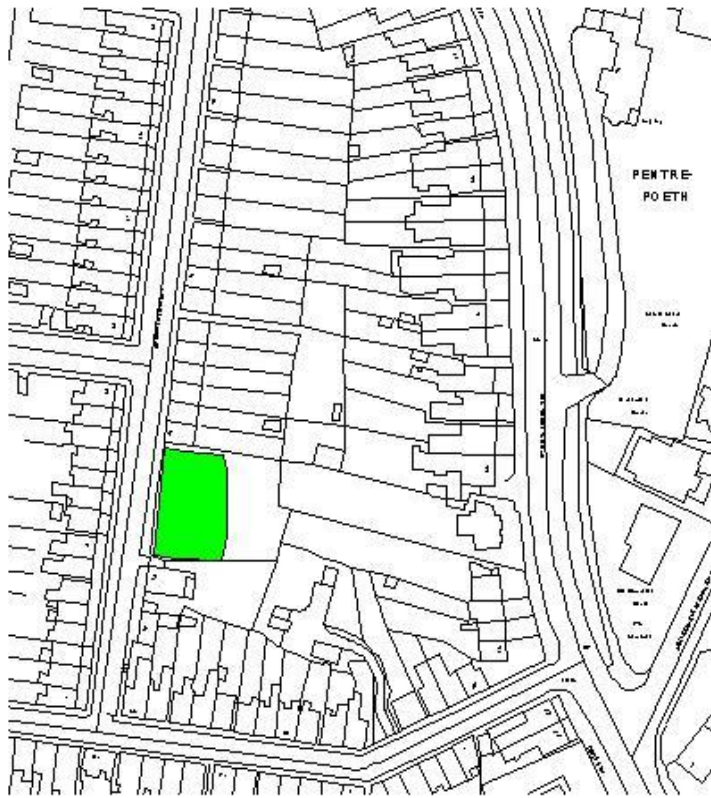
M4

99.9 ha

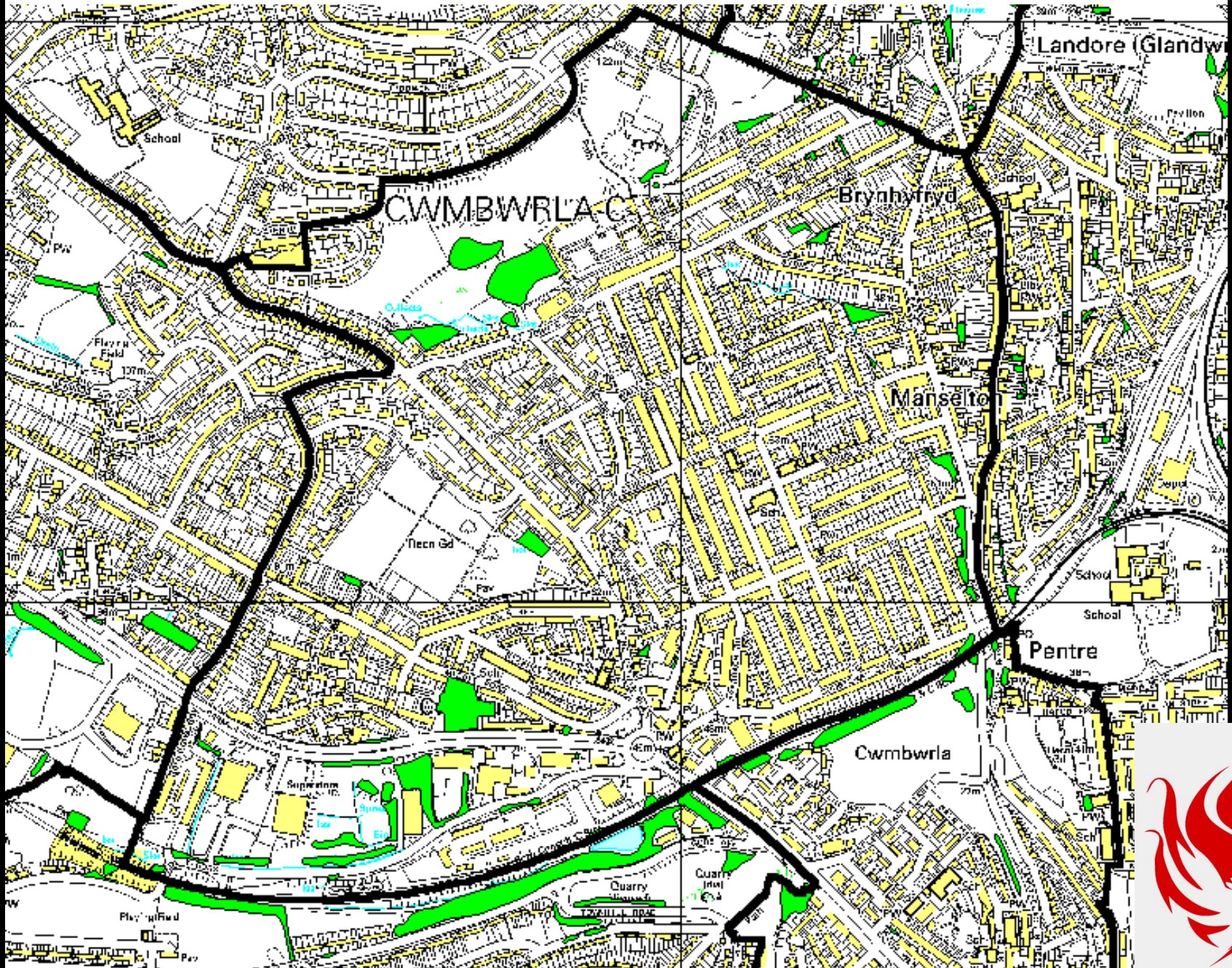


# Spread 1992 to 1998

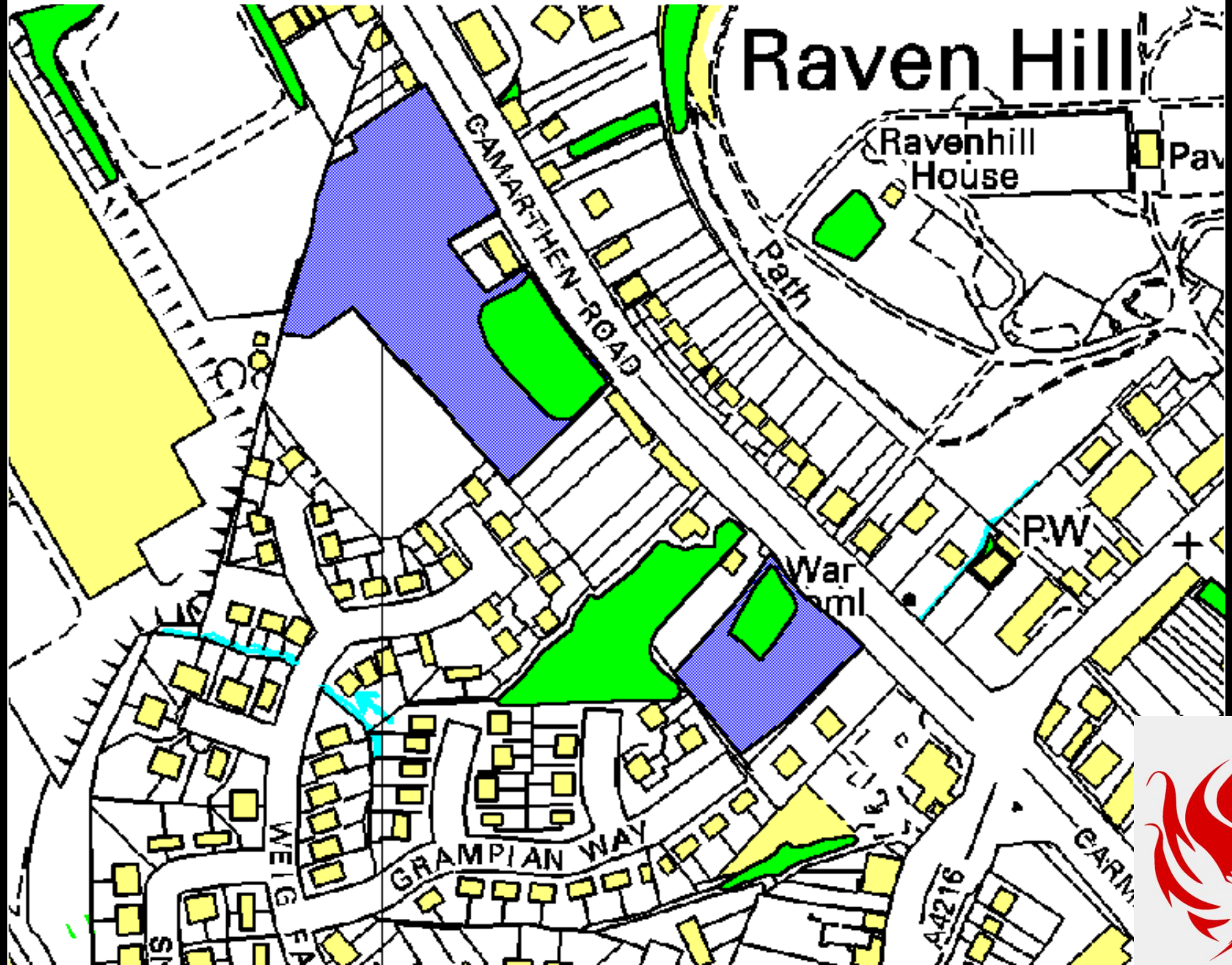
## A Planning Application



# Cwmbwrla ward 1998 – 4.66 ha



# Local plan policy, housing land allocation





# The Surveys

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## 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



# The Surveys



# Developing a plan of control

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## 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)



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## 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 100,000m<sup>2</sup>
- 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





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## 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

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1) Promote and encourage a coordinated approach to the problem

- Partnerships
- Co-ordinated control



# Action Plan

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## 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

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



# Action Plan

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## 3) Prevent spread into unaffected areas

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





# Action Plan

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## 4) Raise awareness and offer advice

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



# Standard Condition for Planning Permission

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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)

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# Planning Dept Treatment Costs

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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

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- 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

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- 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

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## 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”

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# Legislation

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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

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## PREVENTION OF DAMAGE BY PESTS ACT 1949

- Sec 4
- Keep land free from vermin

## HIGHWAYS ACT 1980 - Sec 154

- Encroachment onto a highway



# Legislation

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## 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

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- 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?

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## 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?

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## 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

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- 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

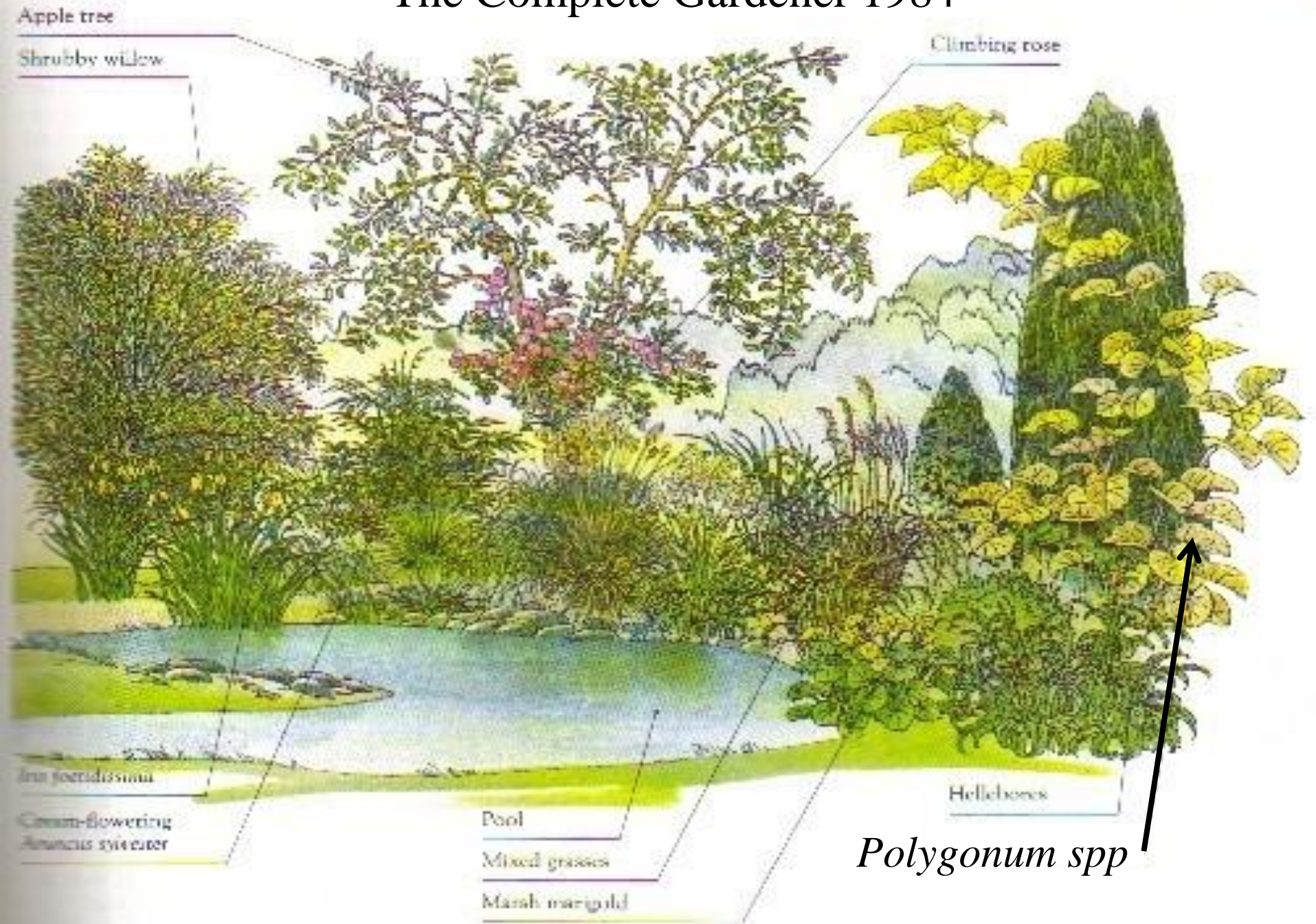


23/1/14



# The Complete Gardener 1984

LUXURIANT RURAL GARDEN



# Conclusion

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## Direct Action

- Treatment

## Indirect Action

- Planning
  - Enforcement
  - Raising Awareness
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Thank you for listening