

# Stream Restoration by volunteers

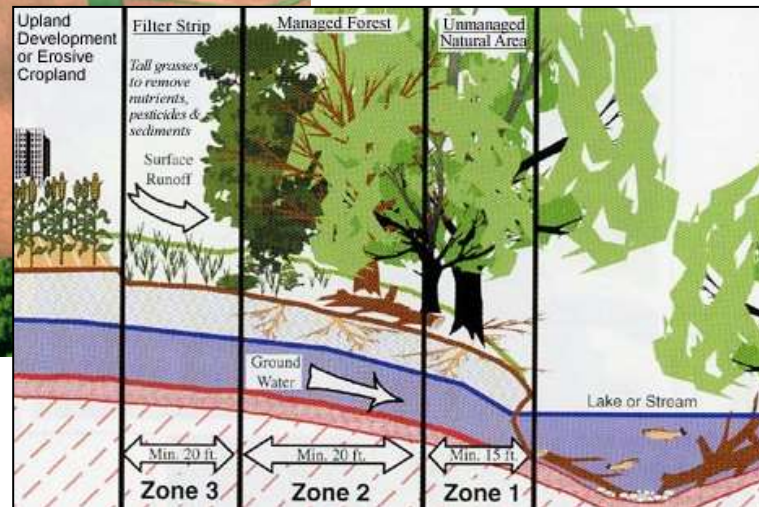
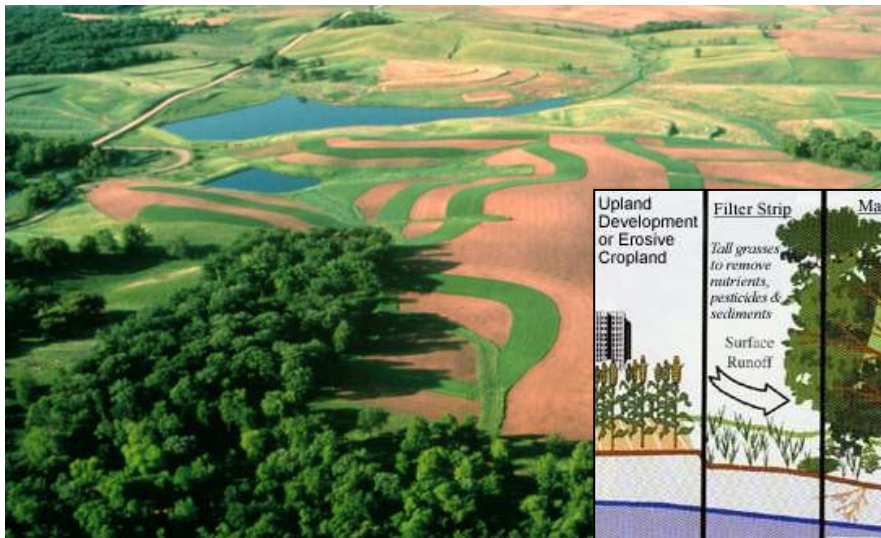


Riparian vegetation  
Invasive species  
Restoring micro-habitats  
Clean-up



# Bufferzones

## Riparian bufferzones



umweltbundesamt®

ATKINS

# Riparian buffer zones

## From voluntary to mandatory

Earlier days, voluntary buffer strips, often in combination with nature objectives and for preventing pesticide use

EU-Common Agricultural Policy

Buffer zones, buffer strips are mandatory and also directed at nutrients

### FUTURE OF FOOD AND FARMING



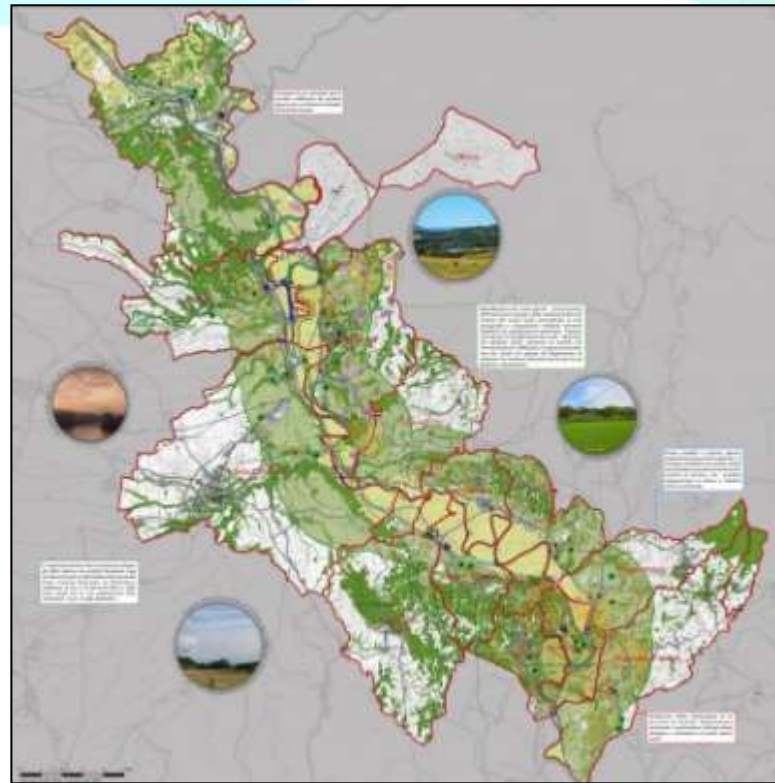


# Planning restoration measures

## Involving stakeholders



# Mapping and planning Using ESS and stakeholder involvement



Strongly emphasized in Italy, Spain and France.

ESS could be used and identified together with stakeholders.

ESS=ecosystem services

## Sustainable Land Management - OptionsTool

The James Hutton Institute

Input :  
ESS-derived opportunity maps  
Stakeholders define ESS priorities for improvement

Output: land use/management change advice (where & what)

SLM-OptionsTool

National Trust

The diagram illustrates the SLM-OptionsTool process. It starts with two input maps: one showing 'ESS-derived opportunity maps' and another showing 'Stakeholders define ESS priorities for improvement'. These inputs feed into the 'SLM-OptionsTool', which produces an output map showing 'land use/management change advice (where & what)'. The output map is color-coded and includes a legend. The James Hutton Institute logo is in the top right, and the National Trust logo is in the bottom right.



# Diffuse pollution in urban areas

*Urban drainage and rain water infiltration*

*Use of chemicals in the garden environment*

*Evasive species in garden environments*



# Stakeholders in urban water management

## Total package, city of Raleigh



### 12 New Stream Monitors in Raleigh!

News posted Sep. 08, 2017 - 6:00 am

The Stormwater Management Division held a stream monitoring workshop on Aug. 19 with 12 new volunteers learning how to monitor a stream in Raleigh. During the workshop, staff explained to participants why maintaining the quality of local waterways is so important and showed the best ways to track the health of a stream. Following a staff presentation, participants visited a stream at [Walnut Creek Wetland Center](#) to take water and bug samples, which taught them what to look for when monitoring their own stream.



Stormwater Quality Cost Share Program  
Install a Rain Garden Today!

# Natural pathway of rainwater

## Rainwater garden initiatives



Stichting RIONED  
OVER 100.000 KM RIOLERING IN NEDERLAND

Acces | Over RIONED | Contact

Zoeken

Home | Hoe werkt het nou | Problemen & oplossingen | Verschillen in water | Waterrekeningen | Water in de tuin | School & werk

### Water in de tuin

- Tuinen Rob Verhulst
- Wat is een watertuin?
- Ondersdelen watertuin
- Taken en bronken
- Aarding en onderhoud
- Moodbeeld ontwerpen
  - Project Waterdunen
  - Indeling in categorieën
  - Ontwerpen

### Ontwerpen voor een "Watertuin"

Hieronder kunt u voorbeelden in PDF-formaat bekijken en eventueel ook opslaan op uw computer. De tuinen zijn ontworpen door landschapsarchitectuurbureaus Van Paridon & De Groot en Buro Man Ruys. Wie u wilt welke voorbeelden bij uw tuin passen? Bekijk dan de indeling in zes categorieën.

**Gefabriceerd water opvangen**  
Ontwerp voor tuin hoekhuis te Gouda  
Buro Man Ruys  
Categorie: 1 (niet zichtbaar) | (verbergen)



**Verdiepte tuin**  
Ontwerp voor achtertuin te Zwolle  
Van Paridon & De Groot  
Categorie: 1 (goed doolstent), 3 (zichtbaar)



### WELKE RIJSTEN ZIJN ER?

Doordat inderdaad zorgen voor schade van drinkwater en voor vloer en zetting van afvalwater en regenwater. U als bewoner ontvangt daarvoor een of meer

Lees meer >

### IS UW RIJST VERSTOPPT?

Ontwikkelen mogelijk getuik toch niet verstoppen? Lees hier hoe u verstoppingen kunt voorkomen.

Lees meer >

RIONED

12000 rain water gardens





# Rooting out invasive species

## Regulations and stakeholder involvement

EU policy on  
invasive species

Target lists  
local

Prevent

Monitoring

Control

<i>Alternanthera philoxeroides</i> (Alligator weed).....	8
<i>Asclepias syriaca</i> (Common milkweed).....	8
<i>Baccharis halimifolia</i> (Eastern baccharis).....	9
<i>Cabomba caroliniana</i> (Carolina fanwort).....	9
<i>Eichhornia crassipes</i> (Water hyacinth).....	10
<i>Elodea nuttallii</i> (Nuttall's waterweed).....	10
<i>Gunnera tinctoria</i> (Chilean rhubarb).....	
<i>Heracleum mantegazzianum</i> (Giant hogweed).....	
<i>Heracleum persicum</i> (Persian hogweed).....	
<i>Heracleum sosnowskyi</i> (Sosnowsky's hogweed).....	12
<i>Hydrocotyle ranunculoides</i> (Floating pennywort).....	13
<i>Impatiens glandulifera</i> (Himalayan balsam).....	17
<i>Lagarosiphon major</i> (Curly waterweed).....	
<i>Ludwigia grandiflora</i> (Water-primrose).....	
<i>Ludwigia peploides</i> (Floating primrose-willow).....	
<i>Lysichiton americanus</i> (American skunk cabbage).....	
<i>Microstegium vimineum</i> (Japanese stiltgrass).....	
<i>Myriophyllum aquaticum</i> (Parrot's feather).....	
<i>Myriophyllum heterophyllum</i> (Broadleaf watermilfoil).....	

Domain of stakeholder  
involvement

Majority are water  
plants

The screenshot shows the Invasive Species Centre website. At the top, there is a header with the text 'Invasive Species Centre' and a decorative graphic of colorful squares. Below the header, there is a prominent green button that says 'REPORT A SIGHTING'. To the right of the button, there are two navigation links: 'HOME' and 'WHO WE ARE'. The background of the website features a landscape with a mountain and a body of water.