



Gestion des bassins versants en théorie et pratique Expérience au Royaume Uni, Irlande, Bulgarie

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Cranfield University, UK



The River Restoration Centre (RRC)

Vision et objectifs:

‘pour des systèmes fonctionnant naturellement, riches en biodiversité,
accessibles et appréciés par tous’

- Rétablir les processus naturels, les habitats et la biodiversité des rivières.
- Apporter un soutien technique par la collecte et compilation des savoirs et ‘savoir-faire’ pour tous les utilisateurs et acteurs de terrain.



RRC 2020 conference: “Scaling up Our Ambition”

- 5030 projets en 20 ans, coût: £1 milliard.
- En Angleterre, 13% des rivières atteignent le bon état écologique!
- A ce rythme, cela prendra 200 ans pour atteindre les objectifs de la directive cadre sur l'eau!
- **75% bon état écologique en 2027: £27 milliards**
- **Les budgets réduisent!**
- Comment atteindre nos objectifs?



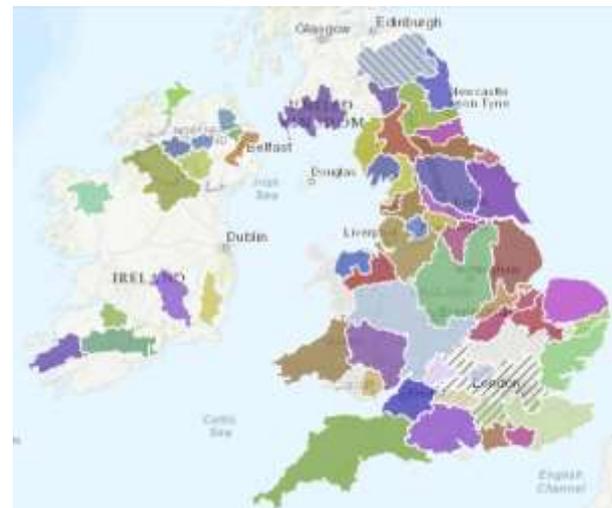
Les volontaires



Solutions

Communes
et autorités
locales

Dublin City Council



the umbrella body of the rivers trust movement

where there's water, there's life

Besoins

- Transfert de savoir => formation
- Développement de méthodologies d'études des bassins versant
- Développement de méthodes simples et applicables
- Justifiables, fiables...
-et valorisantes!

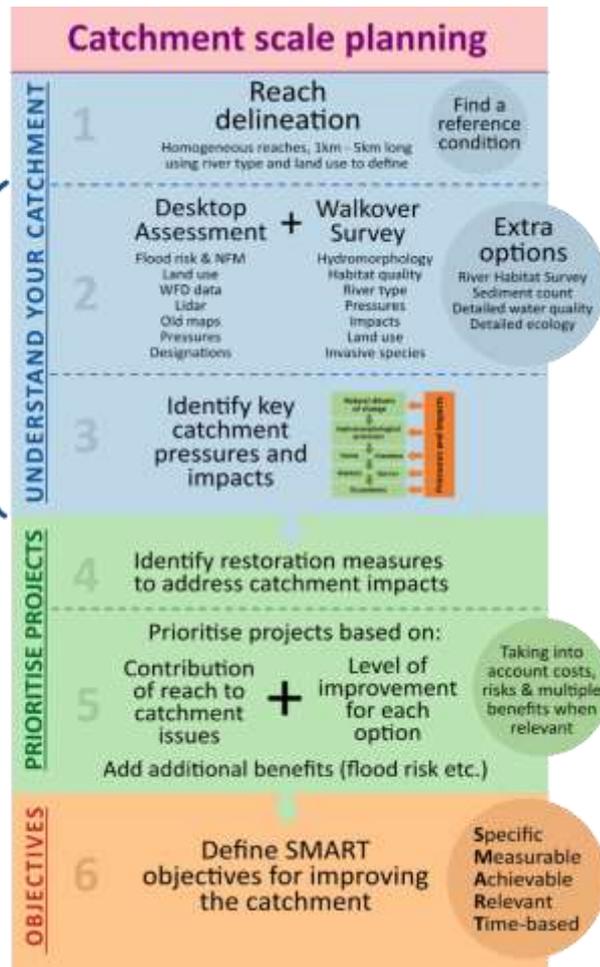




Process de planification

- ‘Comprendre son bassin versant’
 - Délimitation de tronçons
 - Evaluation ‘Google’ et travail de terrain
 - Identifier **les pressions et impacts**
- **Etablir des priorités** en fonction des couts et bénéfices
- Définir des **objectifs**

Update regularly



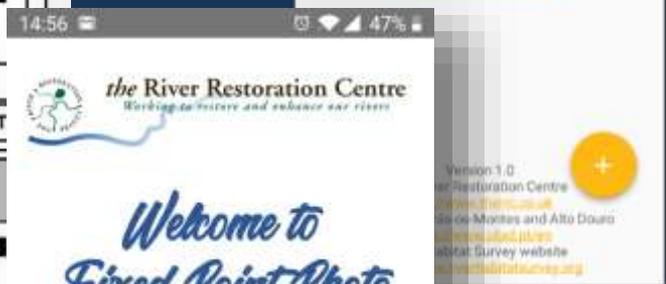
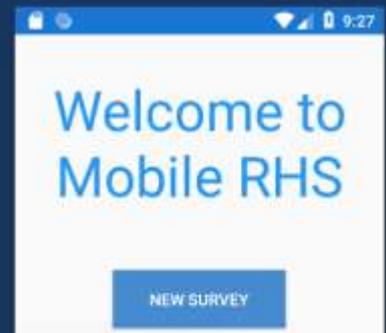
Méthodes de terrain pour 'tous'

The River Restoration Centre
CITIZEN RIVER HABITAT SURVEY - Version 1 Page 1 of 3

A Survey Details	B Survey Information
Reach name/reference:	Is the reach part of a river or an artificial channel? River <input type="checkbox"/> Artificial <input type="checkbox"/>
Reach length (m):	Are adverse conditions affecting survey? No <input type="checkbox"/> Yes <input type="checkbox"/>
River name:	If yes, state _____
Date: / / Time:	<i>If you see a photo icon, please take a photo of the feature</i>
Surveyor name:	<input type="checkbox"/> When options shown with 'shadow boxes', tick one box only
LEFT Banks determined by facing downstream RIGHT	

C Artificial features
(indicate total number of occurrences of each category within the site)

Weirs/sluiques		Outfalls/intakes	
Culverts		Fords	

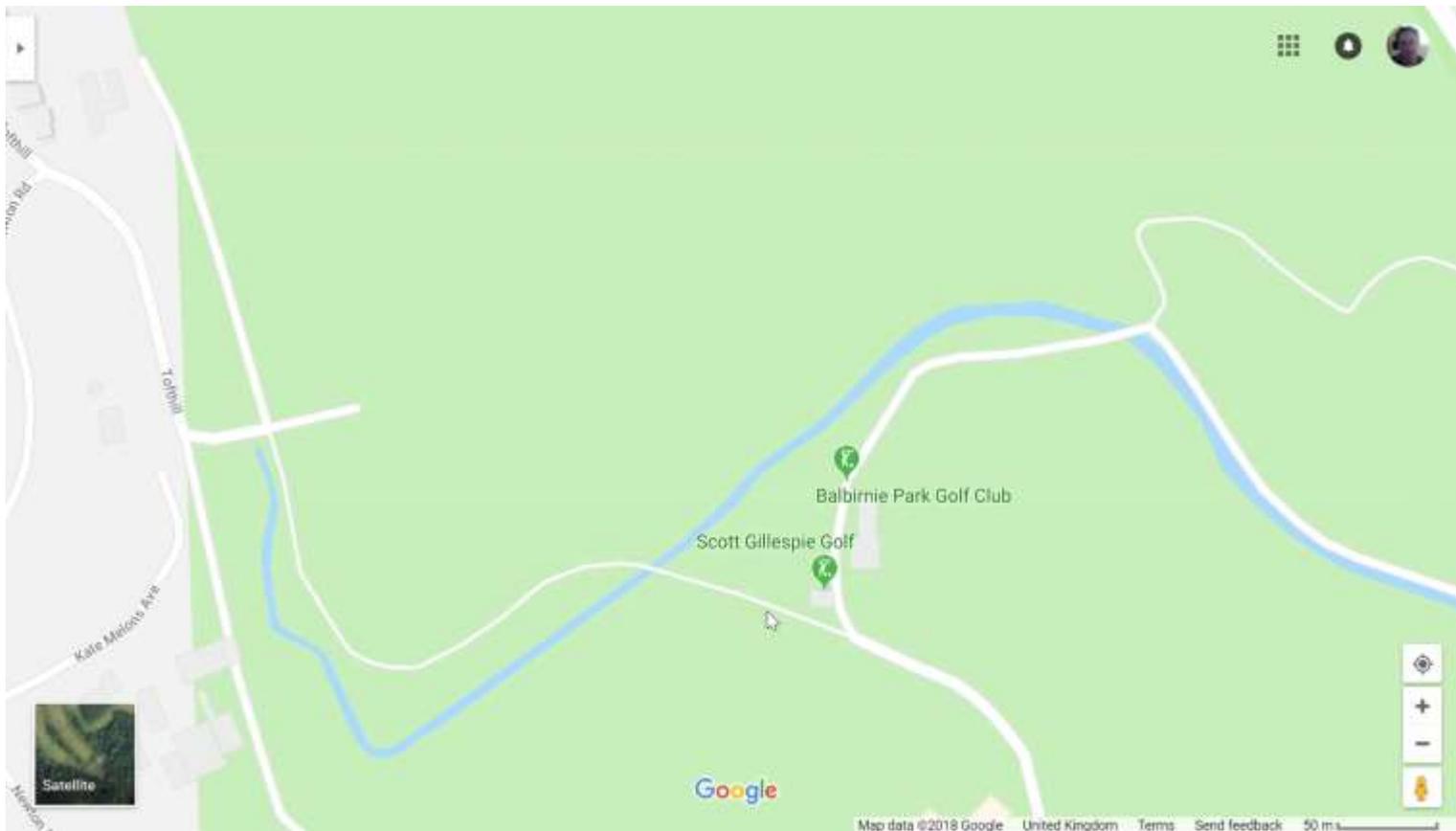


'StreamView' using 360 cameras





360 photos and Streetview



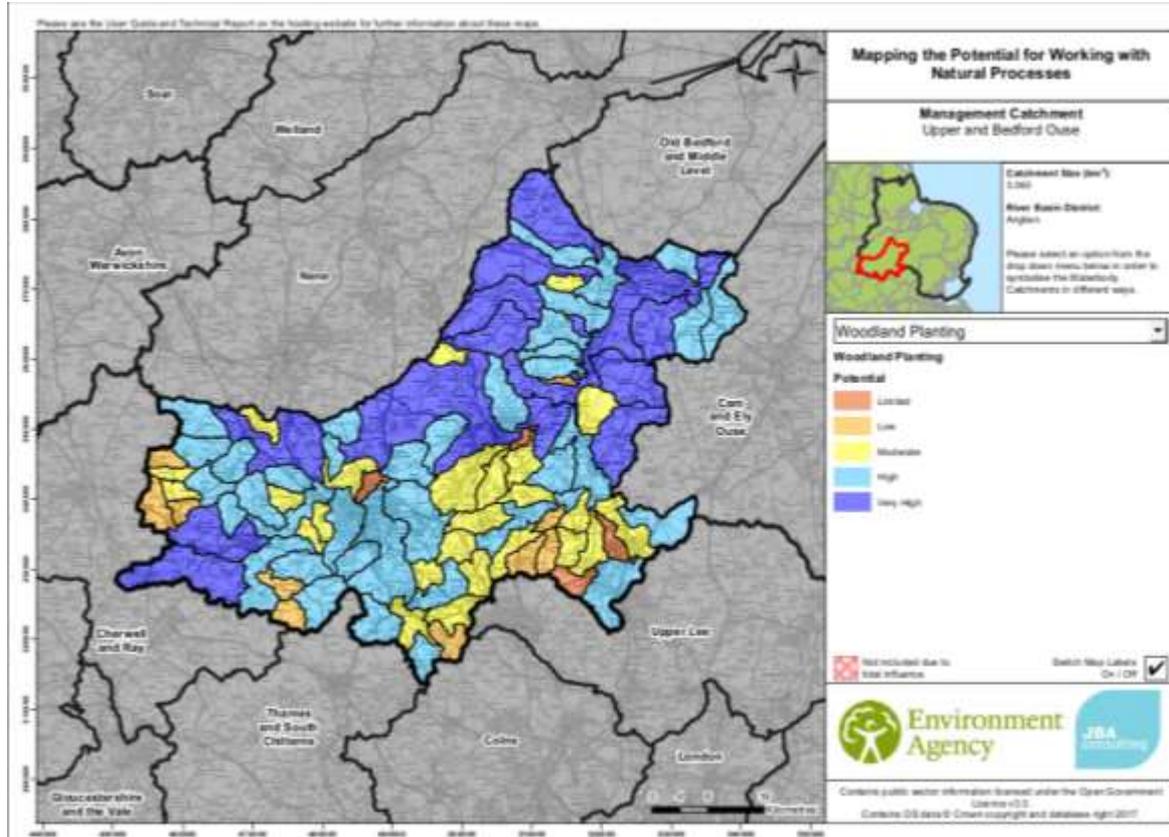
Citizen Science



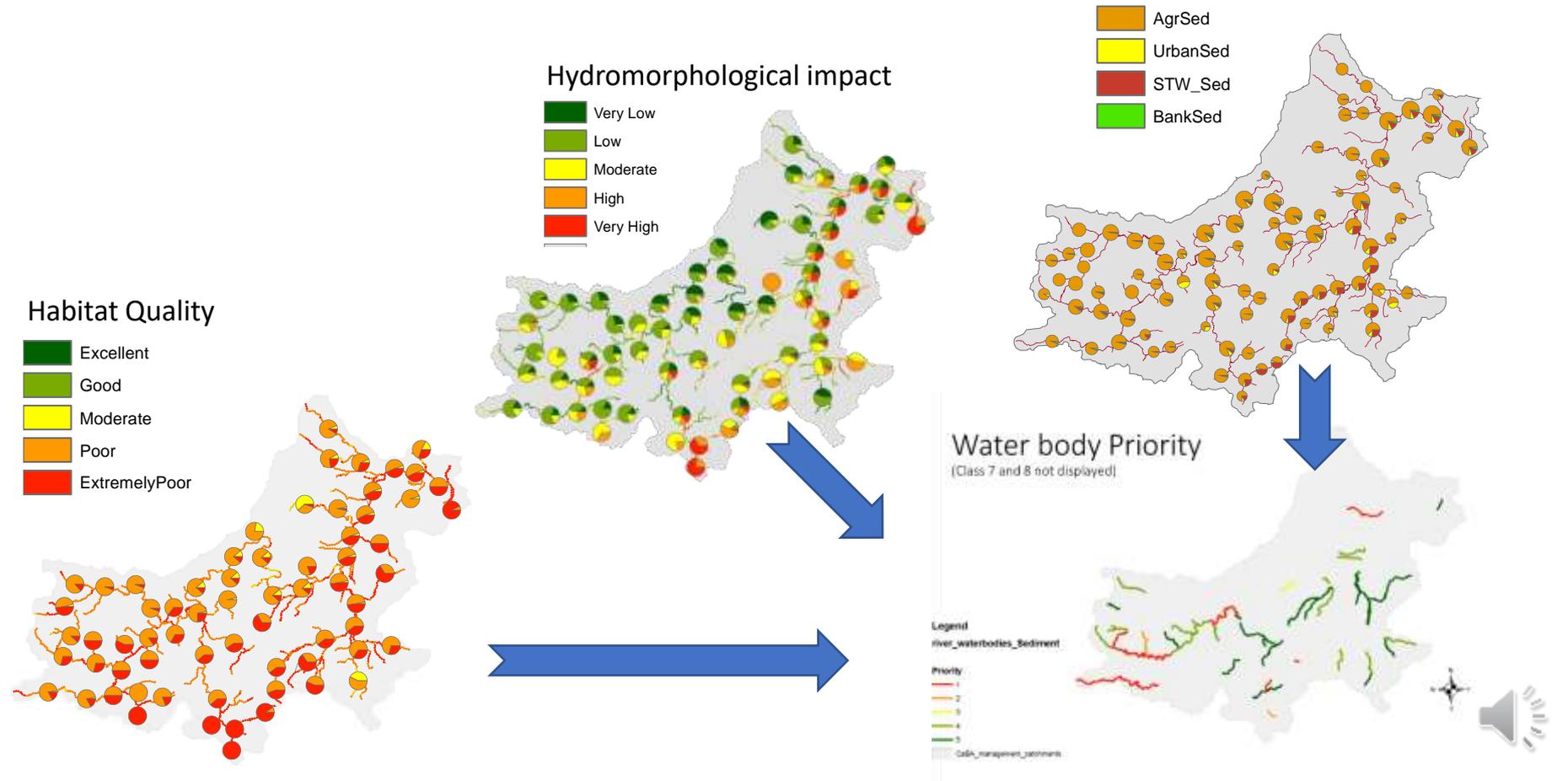
The RRC are working on a H2020 project to develop tools and metrics to measure the impacts of citizen science.



Produire des cartes!



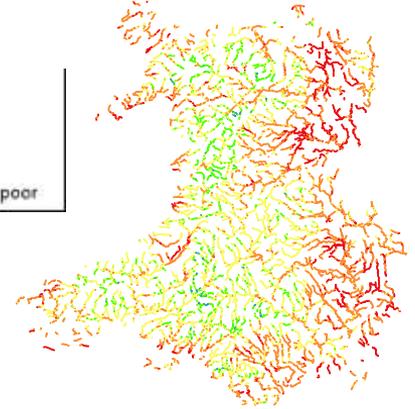
Prioritising at river basin scale



Prioritising at national scale

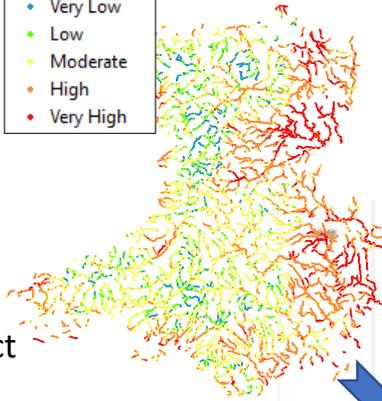
Water Quality

- Excellent
- Good
- Moderate
- Poor
- Extremely poor



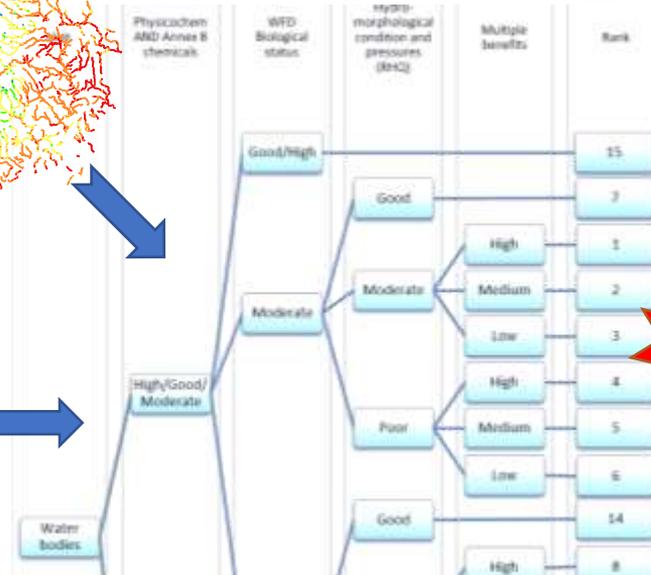
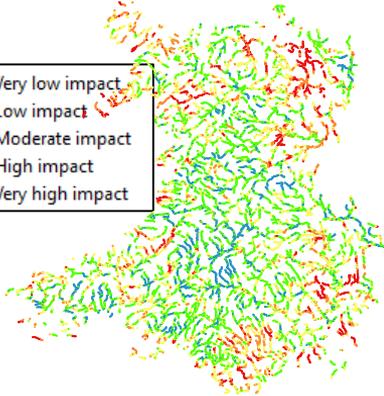
Channel modification

- Very Low
- Low
- Moderate
- High
- Very High



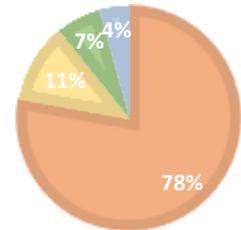
Hydromorphological impact

- Very low impact
- Low impact
- Moderate impact
- High impact
- Very high impact

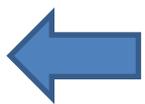
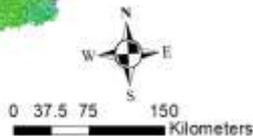


WFD RISK FOR WELSH WATERBODIES

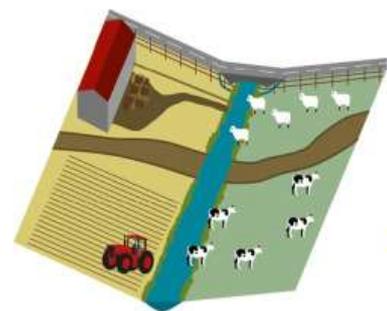
- At risk
- Probably at risk



Assessing hydromorphology in Bulgaria



		Habitat Quality Assessment Score Categories				
		Top 20%	Top 40%	40% - 60%	Below 40%	Below 20%
Habitat Modification Score Categories	Semi-natural (HMS 0-14)	I Excellent Habitat	II Good Habitat and Features	III Moderate Features	IV Poor Habitat and Features	V Severely Modified
	Predominantly modified (HMS 15-39)	II Good Habitat and Features	III Moderate Features	IV Poor Habitat and Features	V Severely Modified	
	Obviously modified (HMS 40-69)	III Moderate Features	IV Poor Habitat and Features	V Severely Modified		
	Significantly modified (HMS 70-139)	IV Poor Habitat and Features	V Severely Modified			
	Severely modified (HMS 140-)	V Severely Modified				





Dublin city council

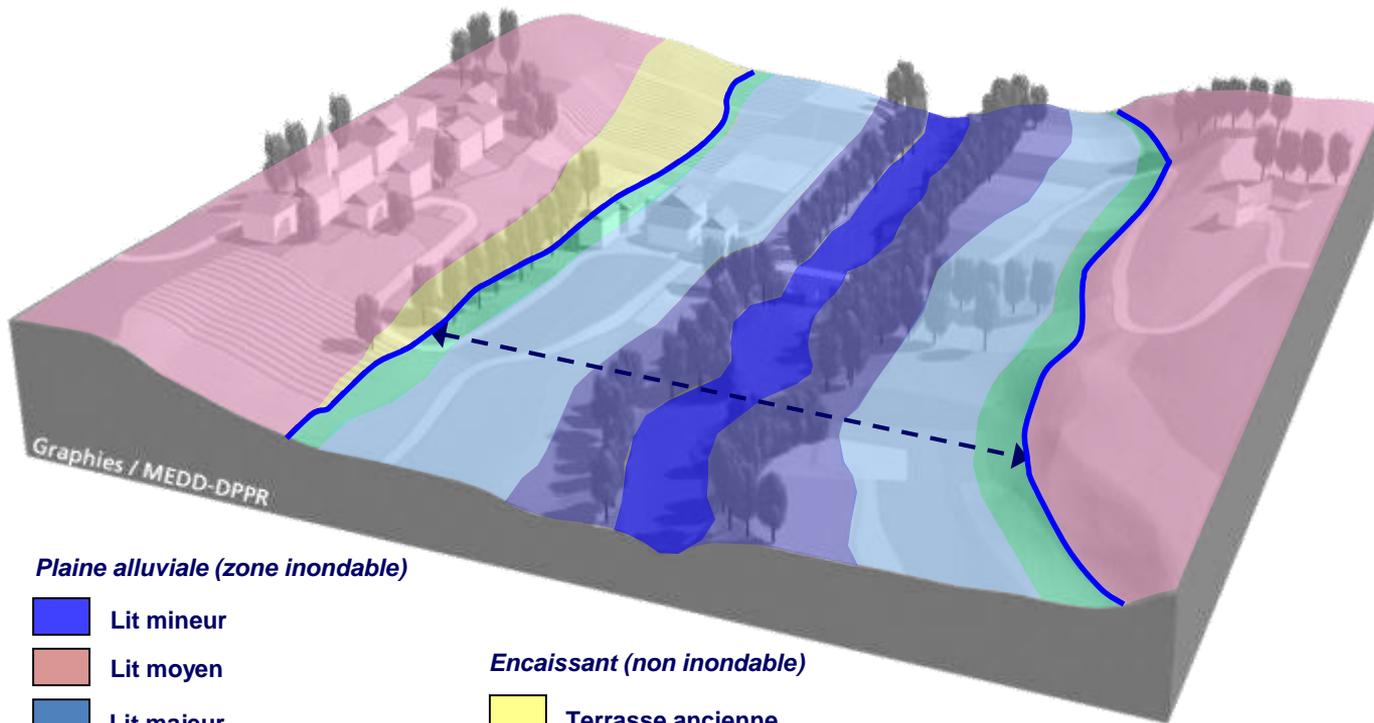
Plan d'occupation des sols: protection et restauration des couloirs hydromorphologiques et écologiques des rivières de Dublin

Cartographie des couloirs hydromorphologiques et écologiques Dublin :

- Evaluation de leurs conditions
- Identification des impacts (qualité, diversité, connectivité)
- Identifier des zones de restauration
 - des zones d'inondation → gestion des risques de crue
 - de la connectivité → mouvement des espèces

METHODE HYDROGEOMORPHOLOGIQUE

Identification des unités spatiales homogènes modelées par les différentes crues et séparées par des discontinuités topographiques :



Plaine alluviale (zone inondable)

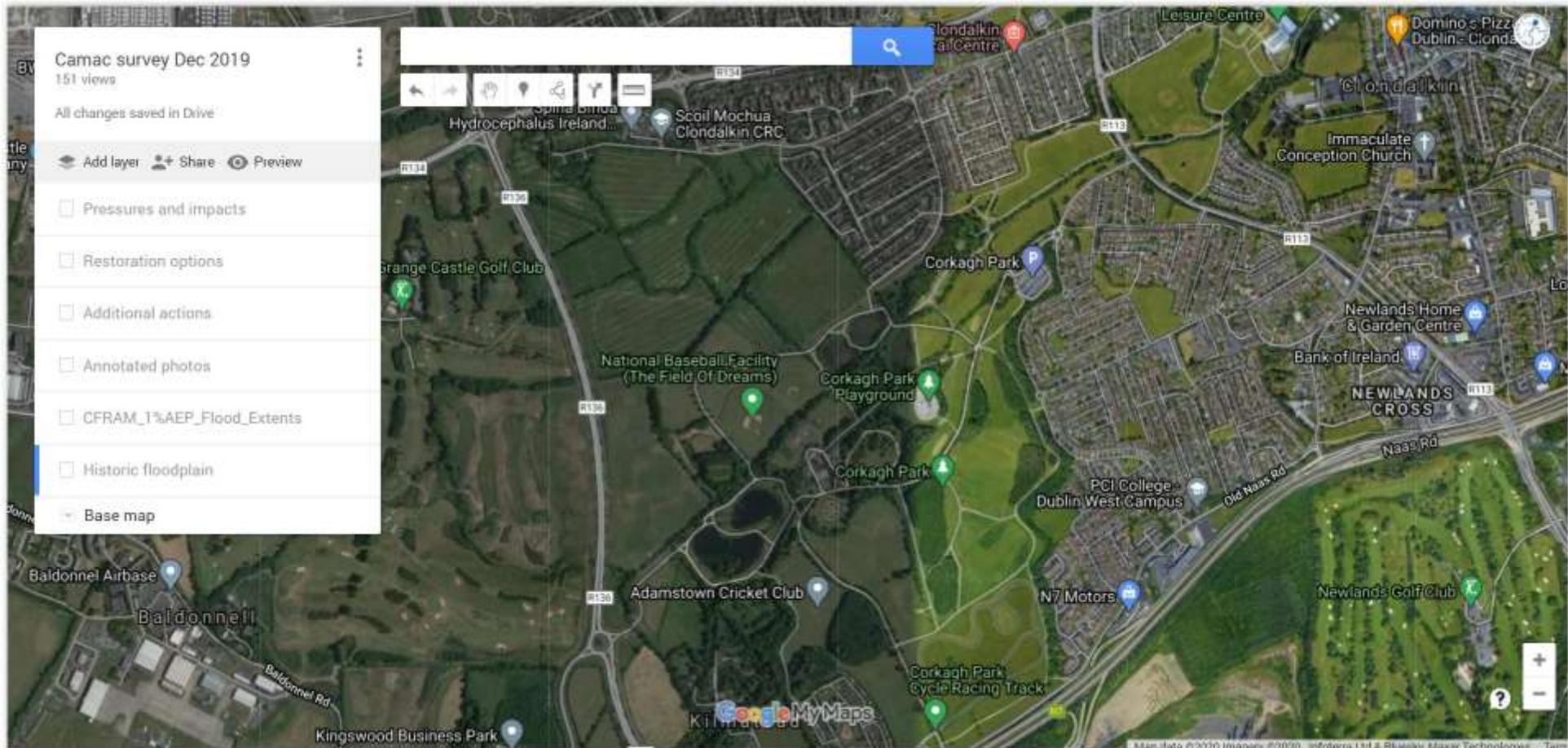
- Lit mineur
- Lit moyen
- Lit majeur
- Lit majeur exceptionnel

Encaissant (non inondable)

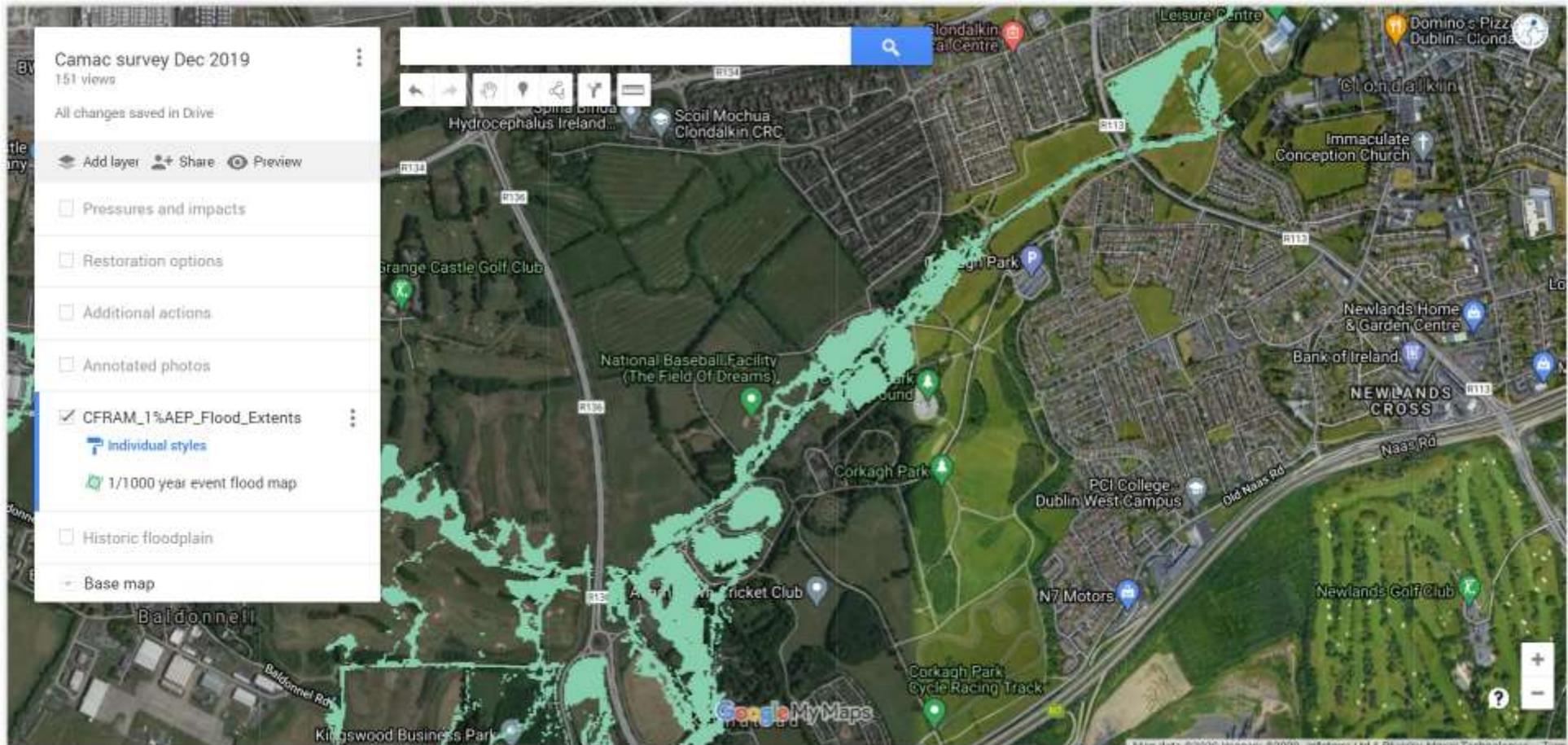
- Terrasse ancienne
- Substratum (roche en place)

Zone inondable HGM

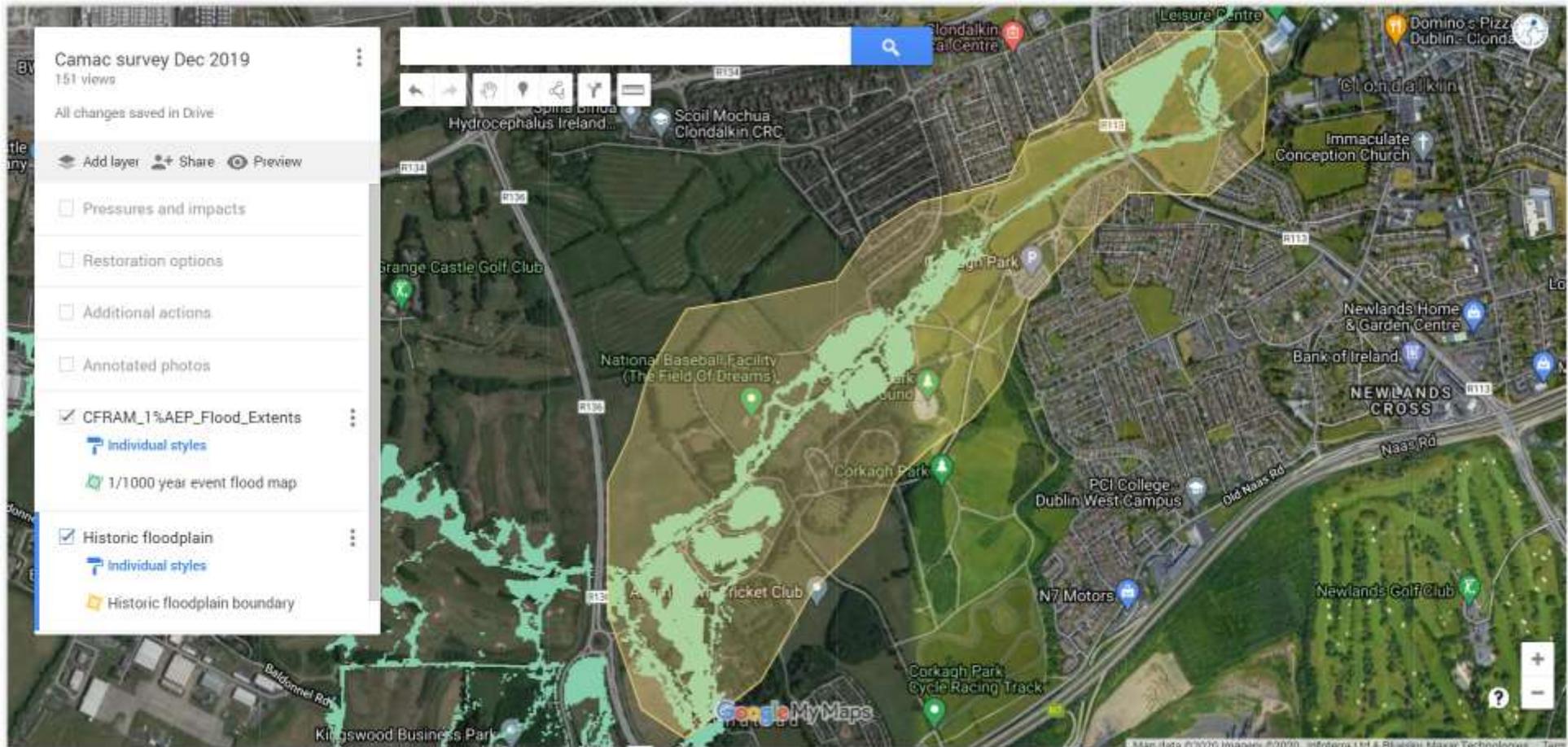
Example: river Camac



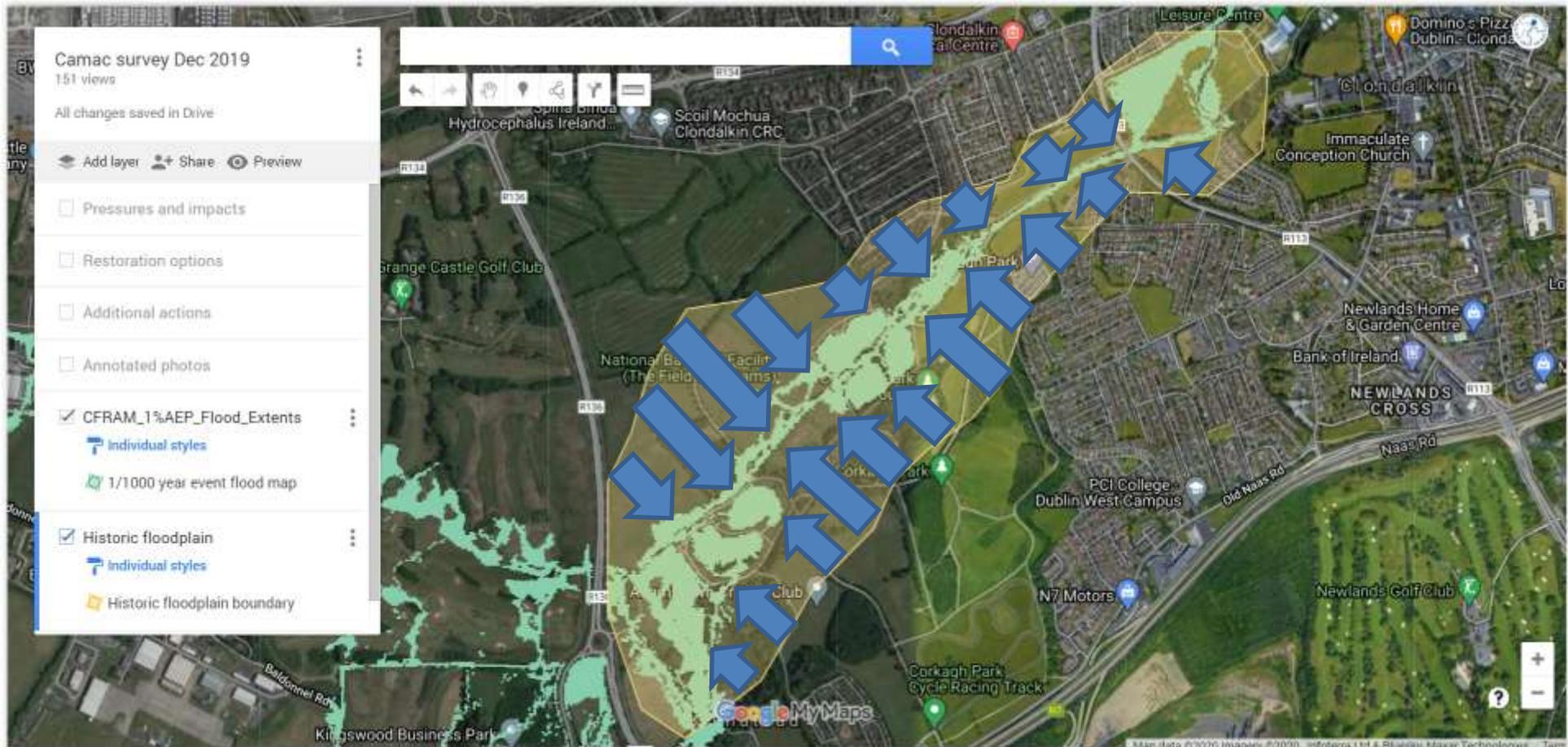
Example: existing modelled floodplain



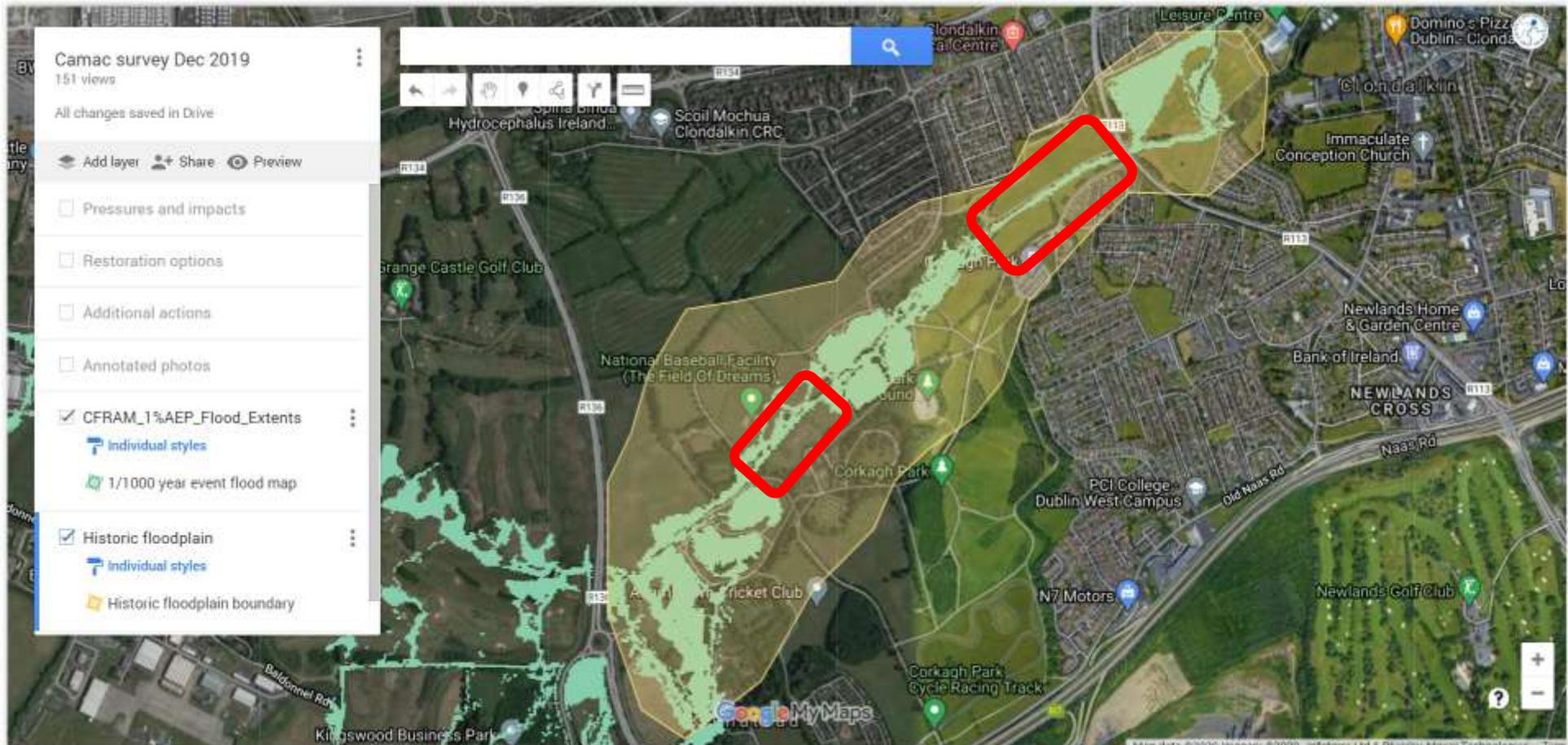
Example: river Camac



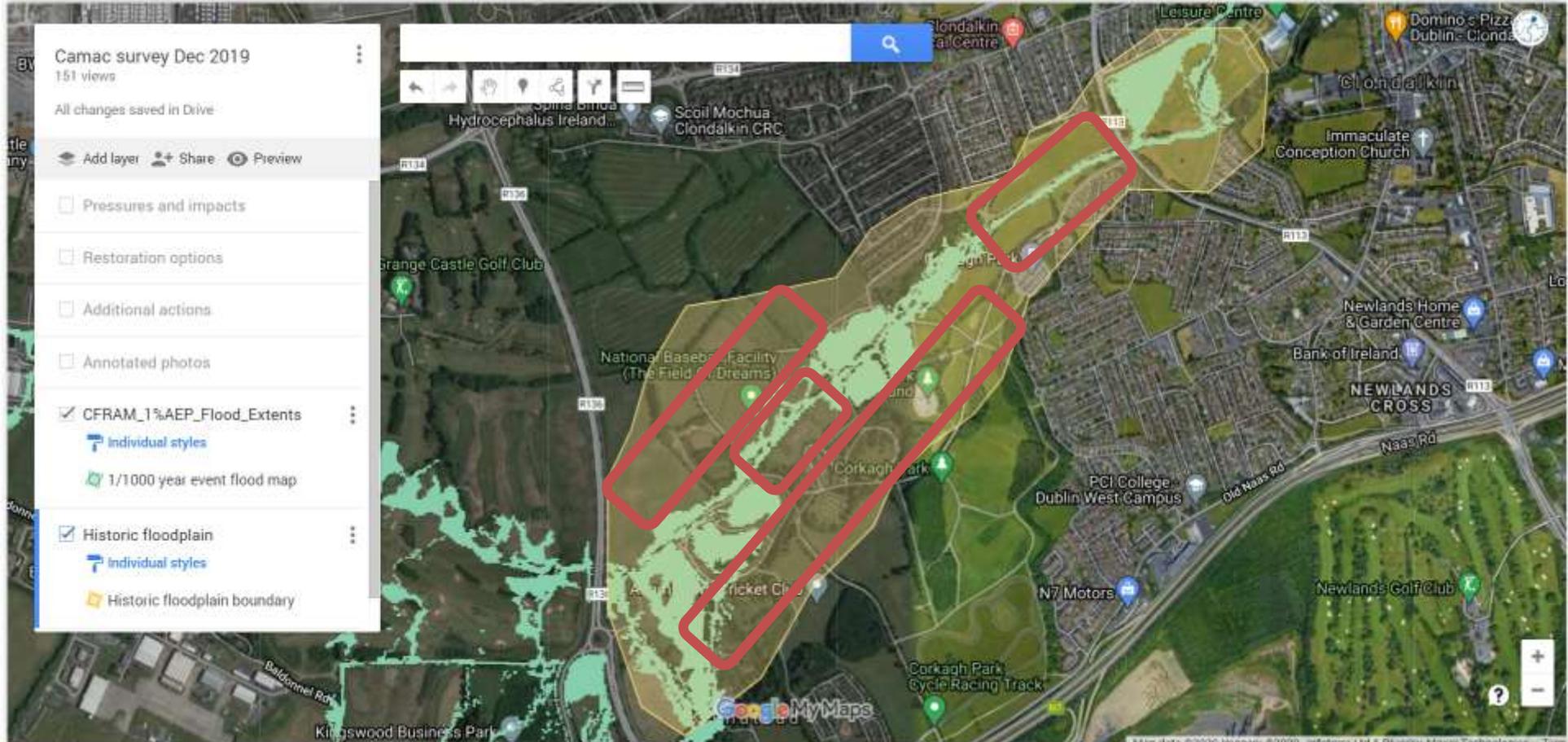
Example: évaluation des pertes



Example: identifier les zones de constriction



Example : identifier les zones de restauration





Formation en ligne & Certification

The screenshot shows a Zoom meeting interface. On the left, a 'Sharing Poll Results' window is open, displaying the following data:

Channel Form	Percentage
Step pool	72%
Stifle pool	4%
Trashed	22%

The main Zoom window shows a video feed of a presenter and a background image of a river flowing over rocks in a natural setting. The Zoom control bar at the bottom includes options like 'Unmute', 'Start Video', 'Security', 'Participants', 'Polls', 'Chat', 'Share Screen', 'Record', and 'Reactions'.

Cours en ligne:

- Introduction to hydromorphology (level 1)
- Hydromorphology for river restoration (level 2)
- Developing a Catchment-wide river restoration plan
- Mapping for natural flood management
- Desk-based assessment for river restoration planning

This composite image illustrates river restoration concepts. On the left, a satellite map of the Machno valley shows various river features labeled: 'Upstream of carroc', 'Bed forms Inbuitary 5', 'Bed forms 4', 'Bed forms 2', 'Functions and processes 3', 'Summit', 'Recognising functions and processes 1', 'Laying the hydromorphological detection in space', 'The Machno catchment - summary', and 'The Machno valley'. On the right, a diagram titled 'Functions and processes' shows a cross-section of a river channel with labels for 'Step pool', 'Stifle pool', and 'Trashed'. Below this, a list of processes is provided:

Recognising functions and processes

Identifying processes is about recognising specific forms that give them away.

- **Supply/erosion:** vertical bare banks with slumped material, small landslides on the valley slope, poaching by animals, meandering incised channel
- **Deposition:** bars, braided channels with point bars, sediment deposit on the banks, blockages under bridges, buried structures
- **Transport:** featureless beds (plane bed) moving the same size material, sediment rich environments with little sediment
- **Runoff:** pathways for sediment and water input, gullies



Documents en ligne

- Manuel de restauration
- Manuel de suivi
- Manuel de gestion durable des crues



CIRIA NFM Implementation Guide – Mott MacDonald & partners

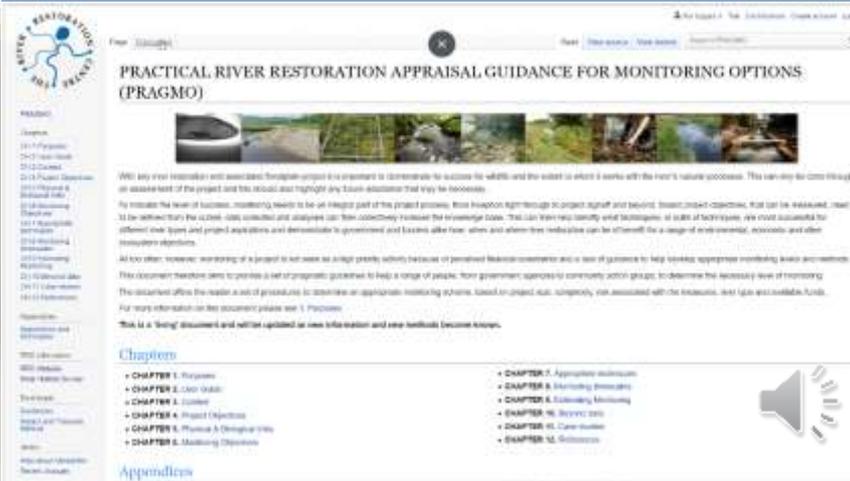
Thursday 10th September 12:30 – 13:30:
CIRIA NFM delivery guide – case study collection

To inform the development of the CIRIA NFM guide we are keen to gather project case studies – drop in to tell us all about your project and help us inform the future of NFM.

[Join Microsoft Teams Meeting](#)



Monitoring guidance (PRAGMO) - update and upgrade to web





Scaling it up!

- Une réponse Européenne:
 - European Centre for River Restoration
 - Centre de ressources sur les cours d'eau de l'Office Français de la Biodiversité
 - Josée PERESS: josee.peress@ofb.gouv.fr
- Des moyens et de l'huile de coude!



ECRR Association with 14 Member Organisations

- To encourage and support ecological river restoration throughout greater Europe
- Is an independent association, free to voice its opinions, irrespective of the interest of partners and supporters.



26.8.2010

Heute European Water Commission Meeting

3



Objectif

À destination des gestionnaires et usagers des milieux aquatiques, le Centre de ressources Cours d'eau de l'Agence française pour la biodiversité apporte un appui technique pour améliorer la préservation et la restauration écologique des cours d'eau, des têtes de bassin jusqu'aux estuaires, en France et en Europe.

Missions

- Accompagner les territoires pour la mise en œuvre d'actions de préservation, de réduction d'impact ou de restauration des cours d'eau (évaluation des besoins, projets d'échanges techniques, etc.)
- Favoriser les échanges entre professionnels, scientifiques, gestionnaires, acteurs associatifs aux différents échelles : territorial, national et européenne. Le France son appui technique au Centre européen pour la restauration des fleuves - European Centre for River Restoration
- Contribuer au développement des compétences des professionnels et usagers.
- Concevoir et élaborer des outils d'apprentissage, fiches pratiques, synthèses, référentiels techniques, outils de sensibilisation, etc.
- Développer les ressources techniques et technologiques pertinentes.

Vous pouvez contribuer

en faisant part de vos besoins

en proposant vos activités

en partageant vos expériences

en participant à nos événements