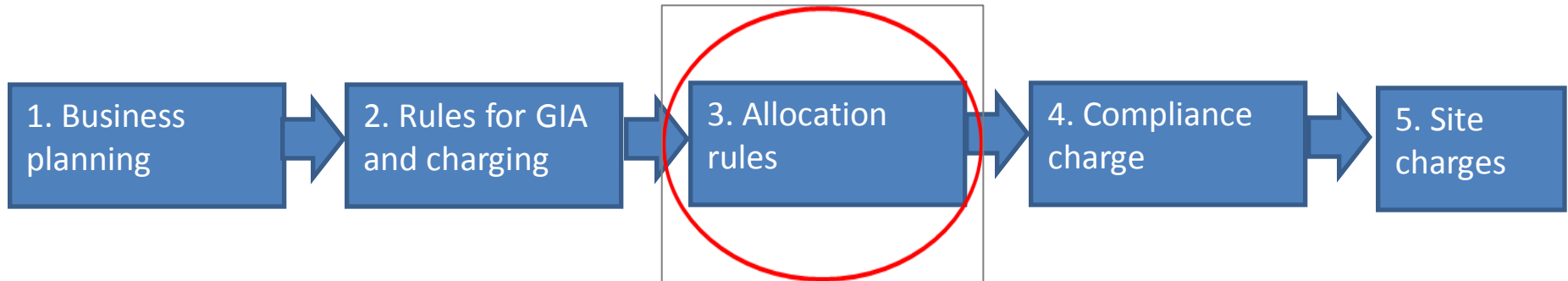


Environmental Sensitivity and Impact

Paul Griffiths



Background



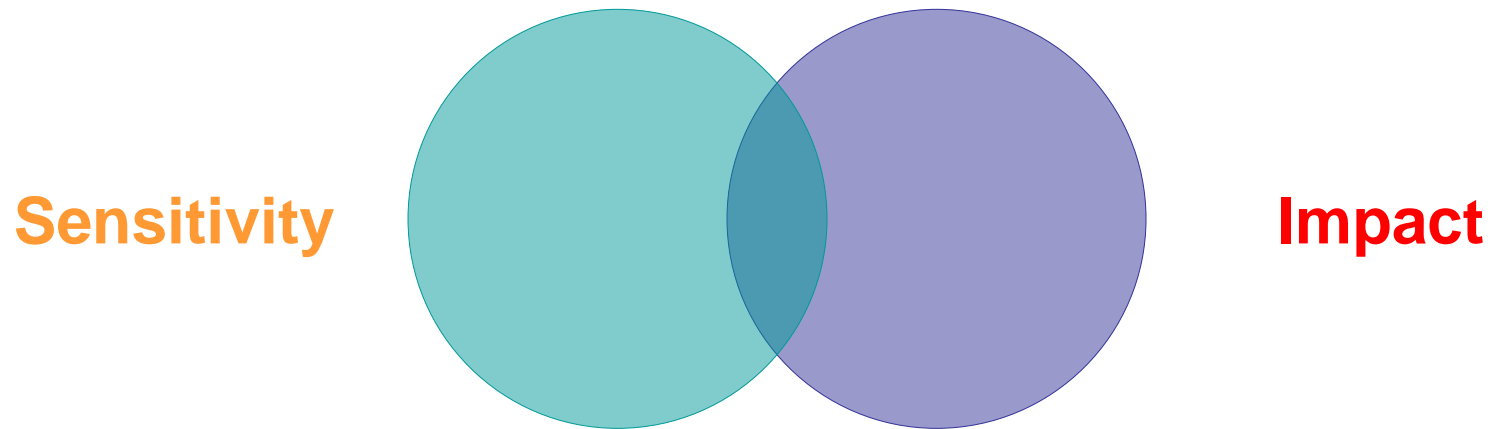
June Workshop Feedback

- This option best reflected environmental risks and impacts
- However, concerns about complexity, stability and transparency
- Not suitable for small scale operations with consistent technology and low impacts
- This factor may therefore be given a relatively low weighting in the overall framework
- The aim is to make appropriate adjustments to reflect risks and impacts on human and environmental receptors

Principles

- Relevance – the content of the emission, abstraction or discharge must be of direct relevance to the sensitivity of and/or impact(s) on the receptor
- Proximity – is there a direct, verifiable pathway from source to receptor, or is it indirect?
- Condition – the receptor must be impacted before significant extra charges are applied

The Two Key Elements...



Receptor Types

- Centres of Population
- Protected Areas (drinking waters, bathing waters, shellfish waters)
- Natural Heritage (Special Areas of Conservation, Special Protected Areas)
- Lochs, Groundwaters, Rivers, Coastal Waters
- Air Quality Management Areas (AQMA)
- Nitrate Vulnerable Zones (NVZ)
- Contaminated Land (CL)

Scoring Table - Sensitivity

Receptor	Direct Pathway	Indirect Pathway
Population		
Drinking Water		
Bathing Water		
Shellfish Water		
SAC		
SPA		
Lochs		
Groundwater		
Rivers		
Coastal		

Scoring Table - Impact

Population	Score	Protected Area	Score	Natural Heritage	Score	Waterbody	Score	AQMA	Score	NVZ	Score	CL	Score
Persistent odour complaints	H	Drinking water not sufficient	H	Not favourable declining	H	Loch poor or bad	H	Gross exceedence	H	Gross exceedence	M	Gross exceedence	M
Infrequent odour complaints	M	Drinking water sufficient	M	Not favourable	M	Loch moderate	M	Slight exceedence	M	Slight exceedence	L	Slight exceedence	L
No complaints	Z	Drinking water good or better	Z	Not favourable recovering	ML	Loch good or high	Z	Compliant	Z	Compliant	Z	Compliant	Z
		Bathing water not sufficient	H	Favourable declining	L	Groundwater poor	H						
		Bathing water sufficient	L	Favourable recovering	Z	Groundwater good	Z						
		Bathing water good or better	Z	Favourable	Z	River poor or bad	M						
		Shellfish water not sufficient	M			River moderate	L						
		Shellfish water sufficient	Z			River good or high	Z						
		Shellfish water good or better	Z			Coastal poor or bad	ML						
						Coastal moderate	L						
						Coastal good or high	Z						

Not Included

- Extent of contribution to impact (e.g. primary or contributory)

Example – Dry Cleaners

- Would not attract additional charges for proximity or impact



Example – Medium Size Sewage Treatment Works

- Would not attract additional charge for proximity
- Might attract additional charge for impact
- (or vice versa?)



Example – Power Station

- Could attract additional charges for both proximity and impact, as illustrated.



Receptor	Direct Pathway	Indirect Pathway
Population		
Drinking Water		
Bathing Water		
Shellfish Water		
SAC		
SPA		
Lochs		
Groundwater		
Rivers		
Coastal		

Natural Heritage	Score	Waterbody	Score	AQMA	Score
Not favourable declining	H	Groundwater poor	H	Gross exceedance	H
Not favourable	M	Groundwater good	Z	Slight exceedance	M
Not favourable recovering	ML	Coastal poor or bad	ML	Compliant	Z
Favourable declining	L	Coastal moderate	L		
Favourable recovering	Z	Coastal good or high	Z		
Favourable	Z				

Key Questions

- Are the 3 principles right?
 - Is the approach practicable and fair?
 - Which are the most important receptors?
 - What changes would you make?
-
- Please answer as many questions as possible on the worksheet