

*The importance of Council guidelines in
creating water sensitive cities*

Stephanie Milankovic



ARUP



Story



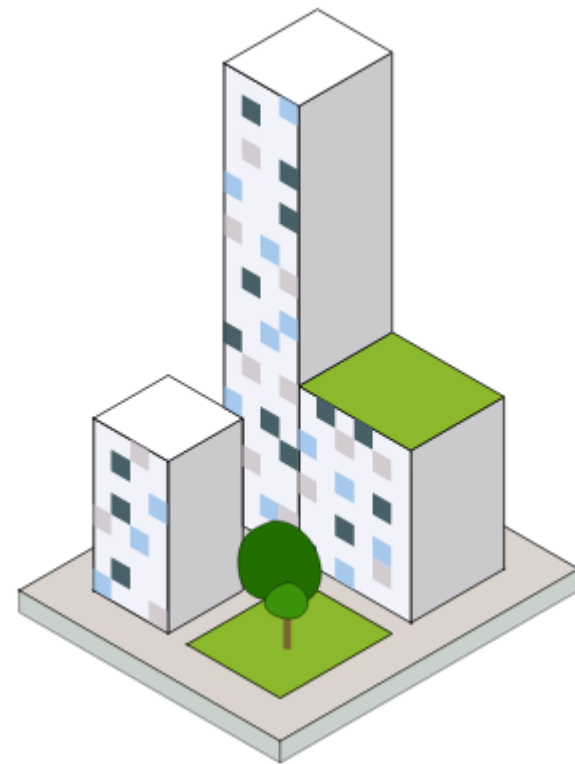
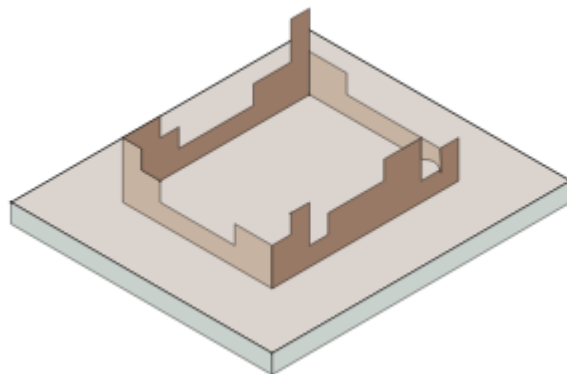
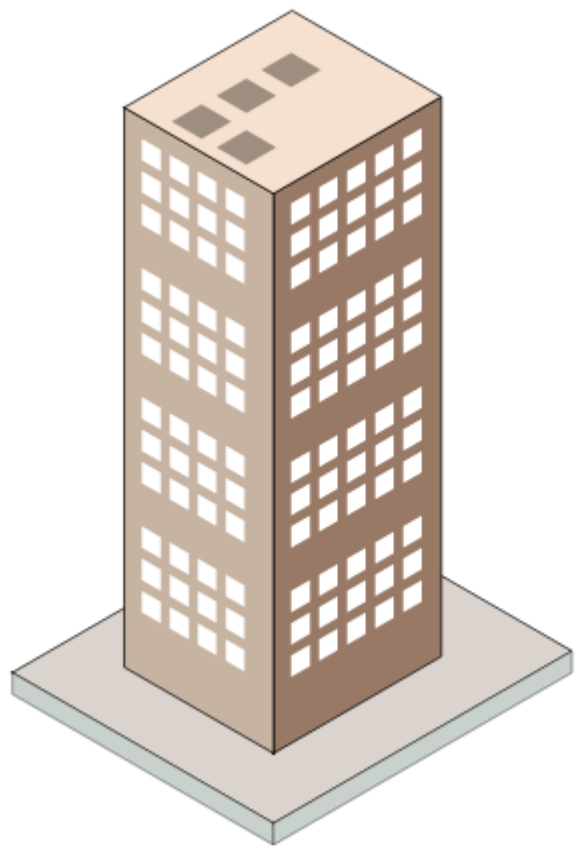
Research



Key messages



Story



ARUP

Tender design

Detailed design

For tender
documentation



Town planning



Schematic design



For construction
documentation

ARUP

Tender design

Detailed design

For tender documentation



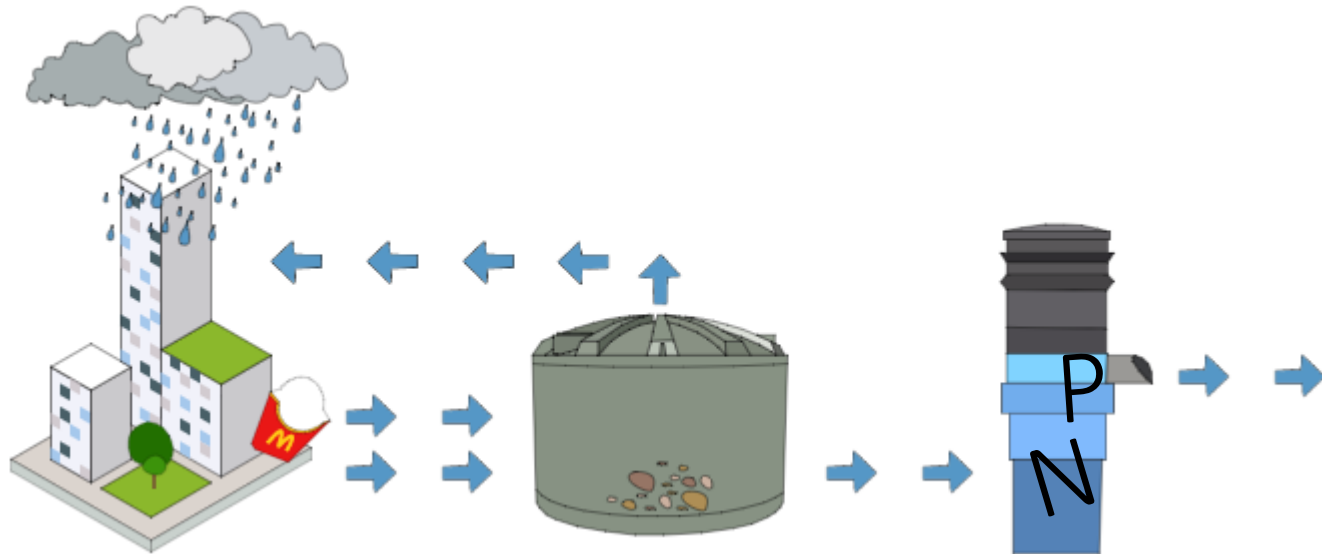
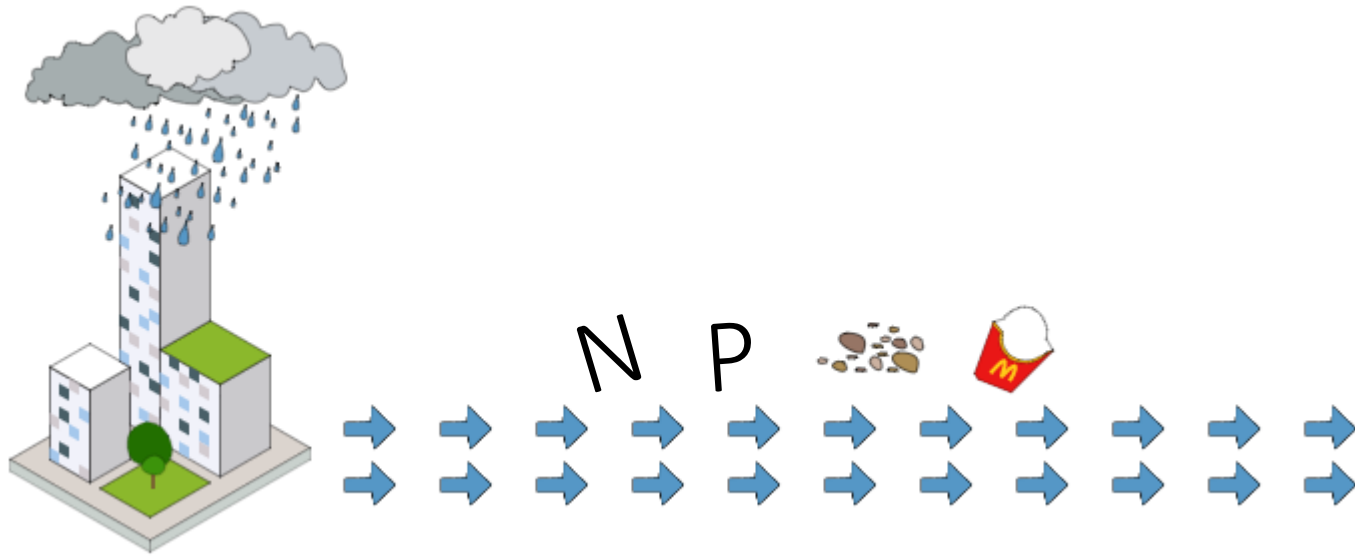
Town planning



Schematic design



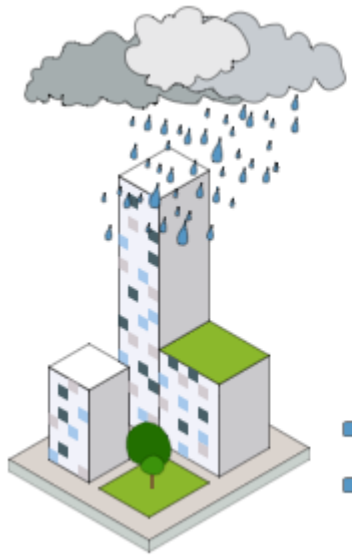
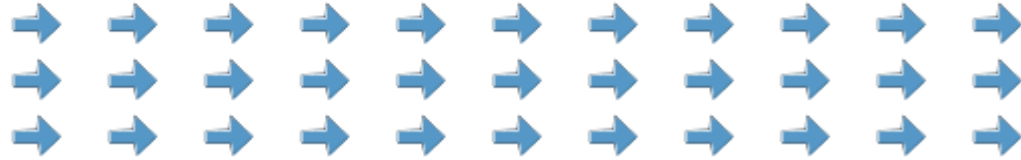
For construction documentation



Quality management

Tender design

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Volume management

Tender design

Tender design

Detailed design

For tender
documentation



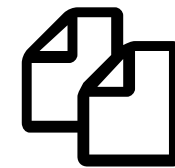
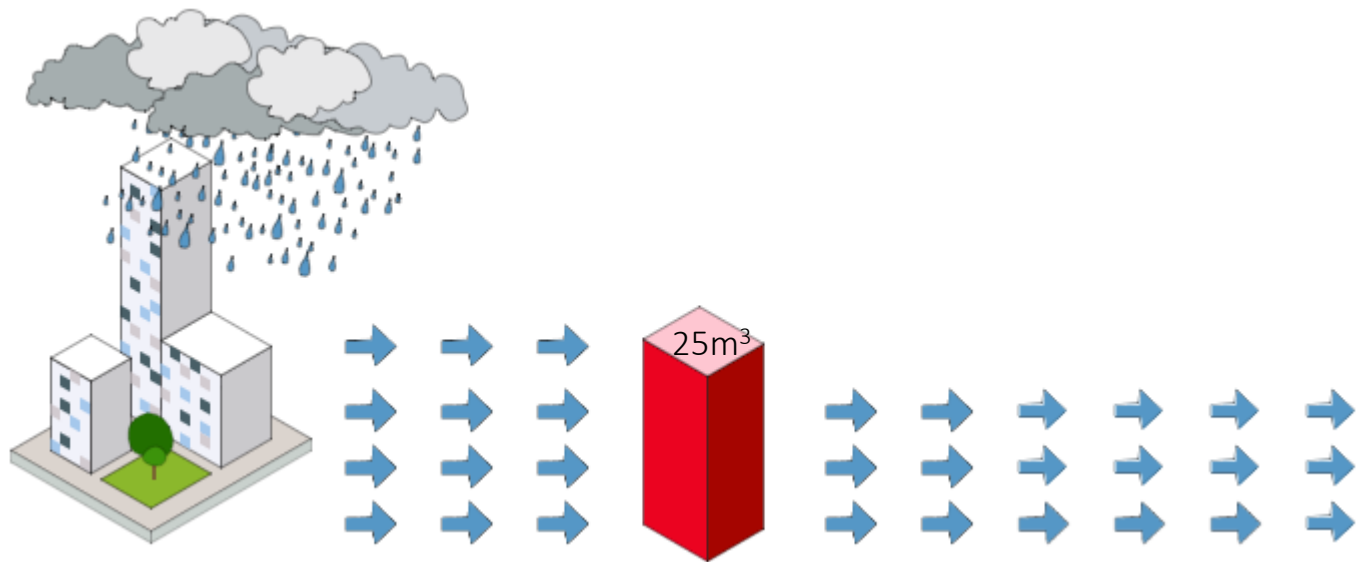
Town planning



Schematic design

For construction
documentation





Volume management

Town planning

Tender design

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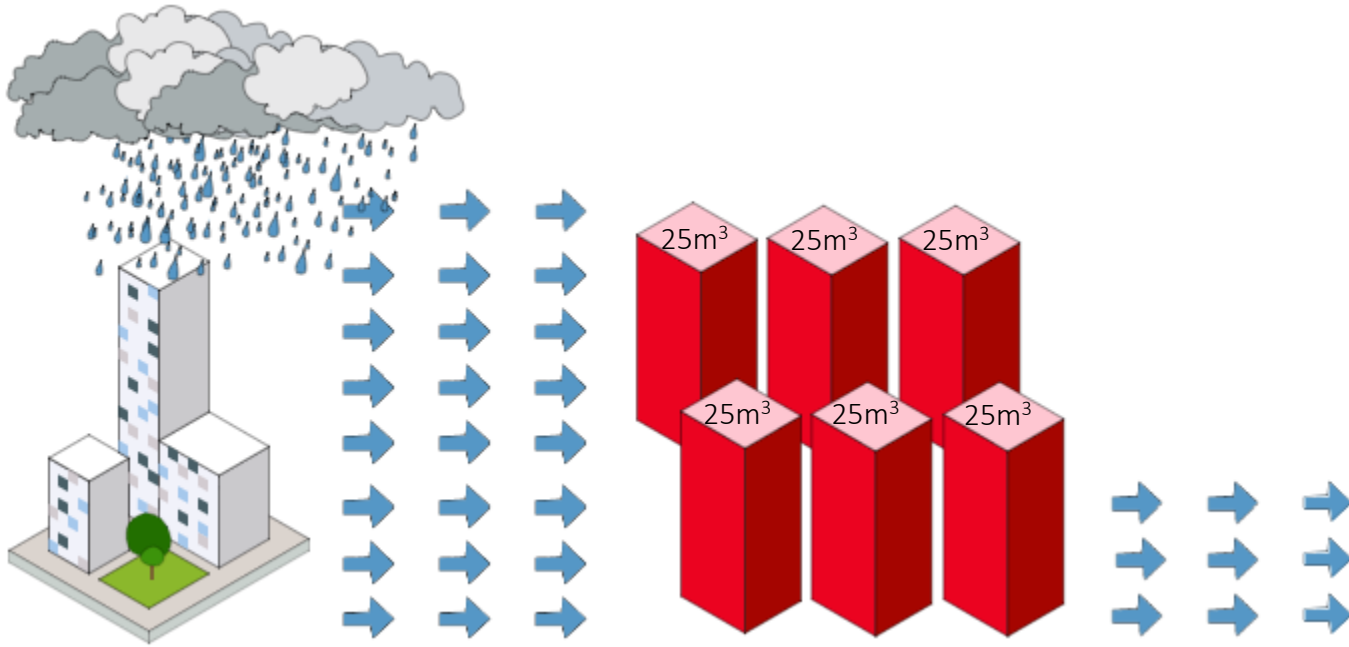
Town planning



Schematic design

For construction
documentation





Volume management

Schematic design



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Research

1. What are Council's **targets for stormwater quality**?
2. What is Council's policy on the **use of proprietary products** for stormwater treatment?
3. Does Council require designs to allow for increases in rainfall intensity due to **climate change**?
4. What are Council's requirements for **stormwater detention**?
5. What is Council's policy on the collection and **discharge of groundwater** seepage?
6. Does Council have an **offset scheme** for stormwater quality and detention?



Questions



Councils contacted

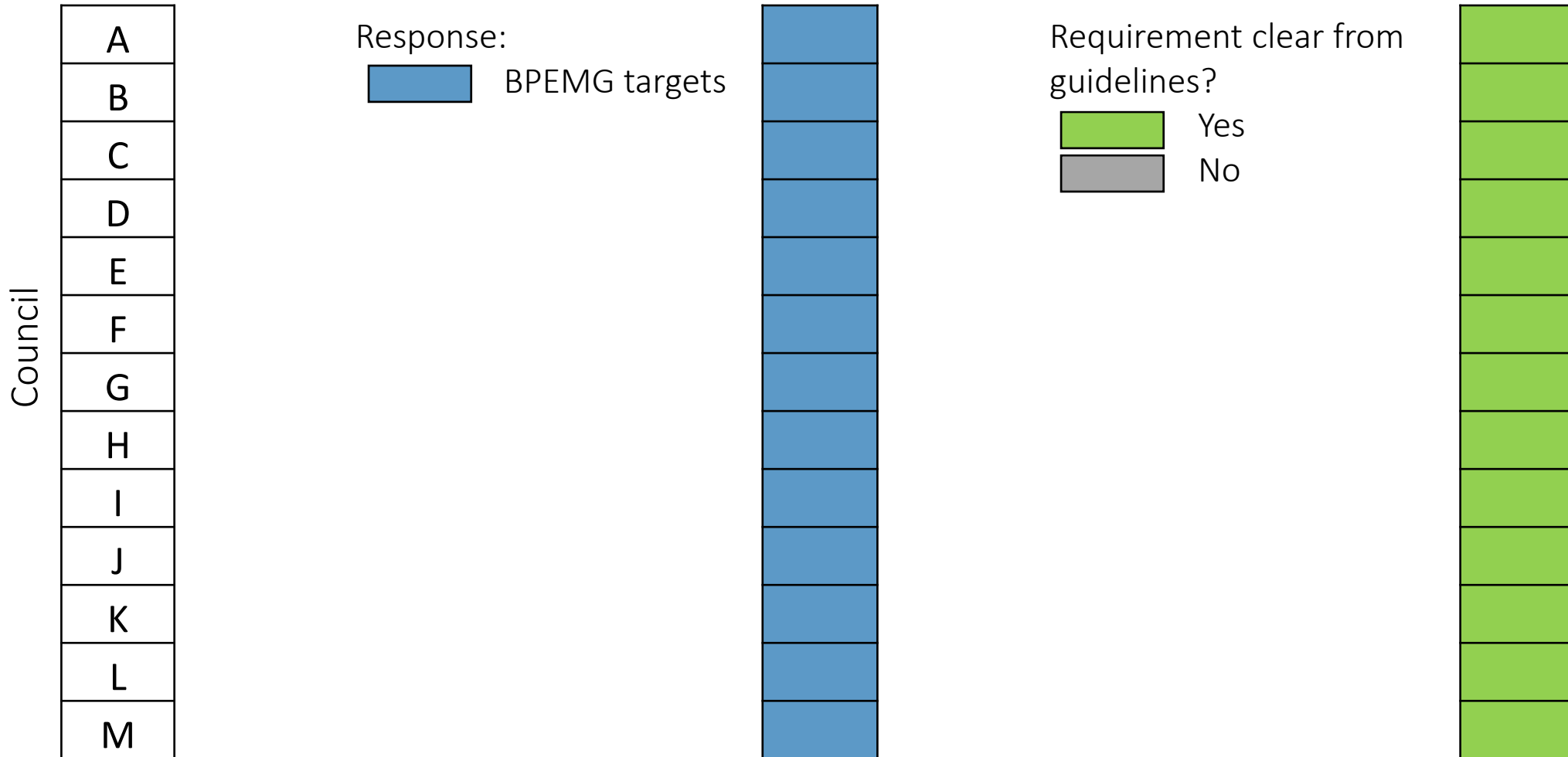


Responses received

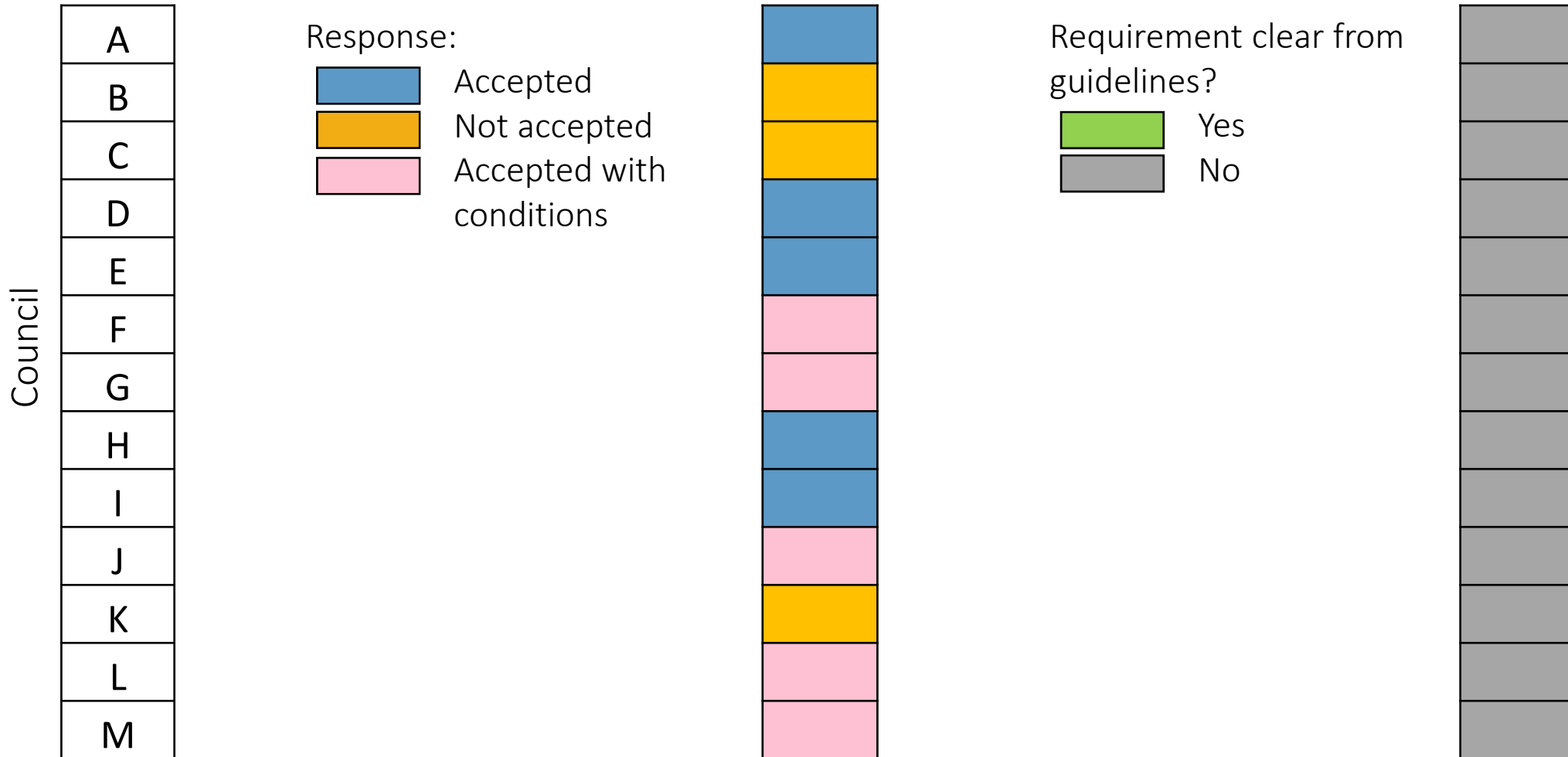


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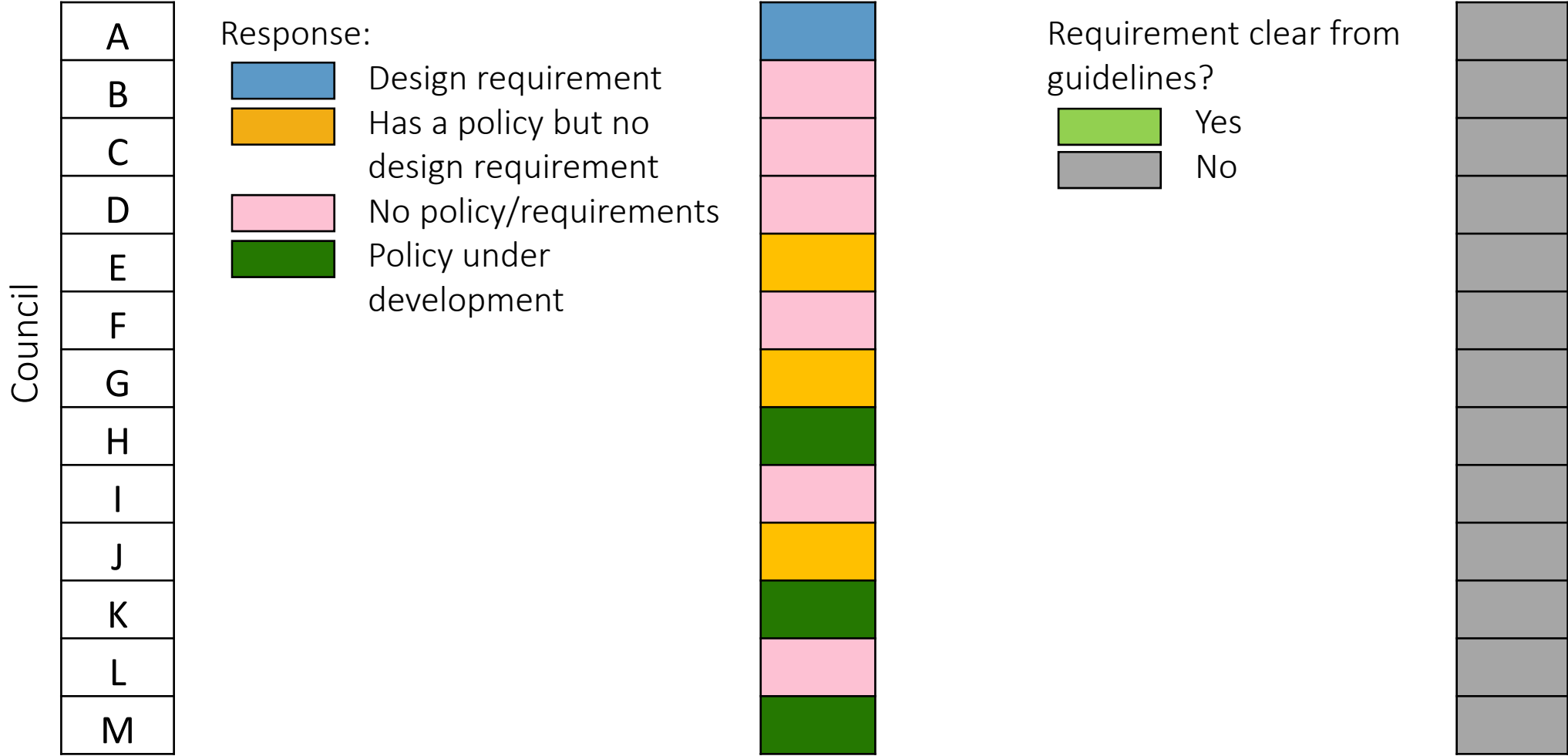
Targets for stormwater quality



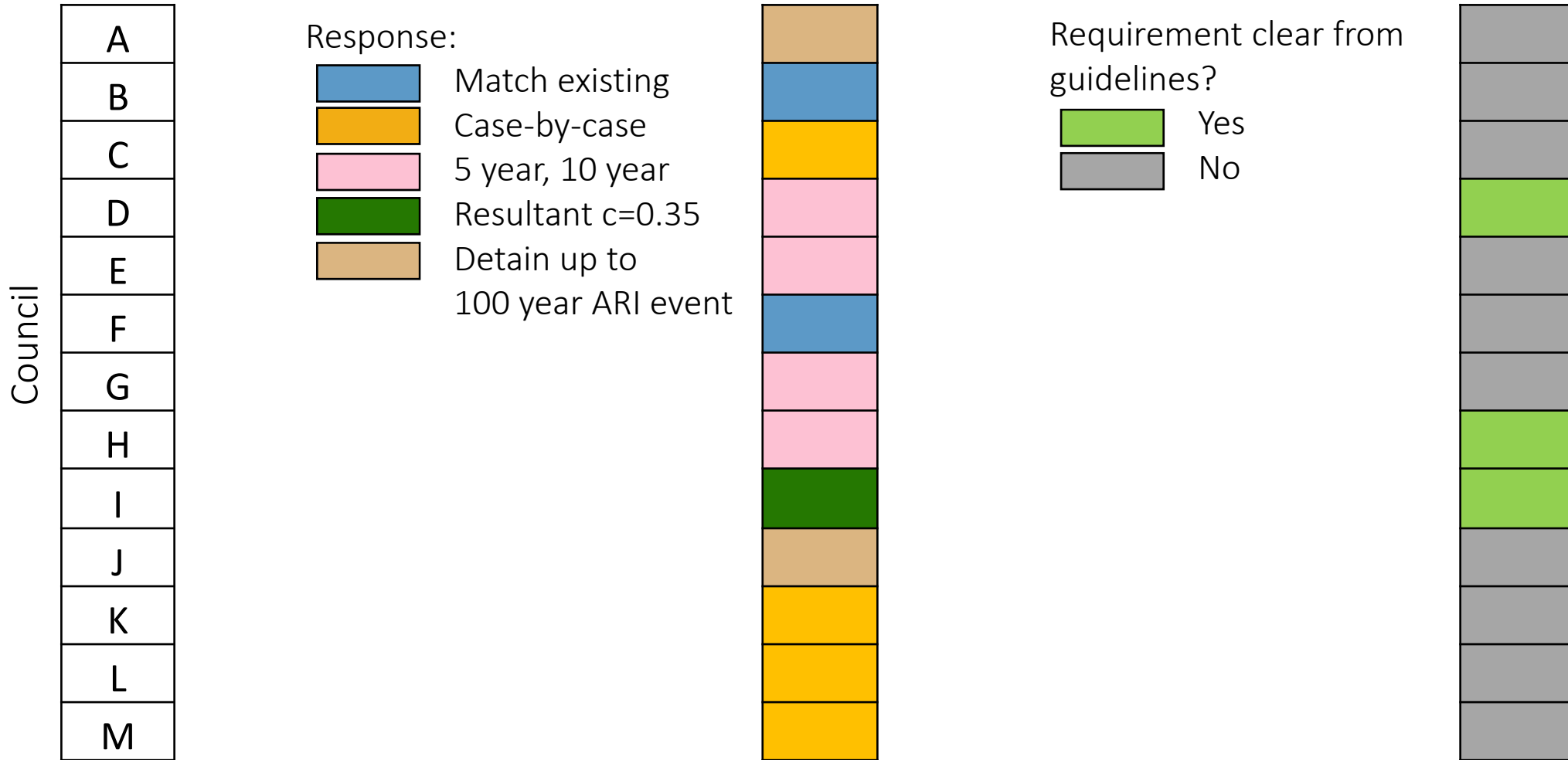
Use of proprietary products



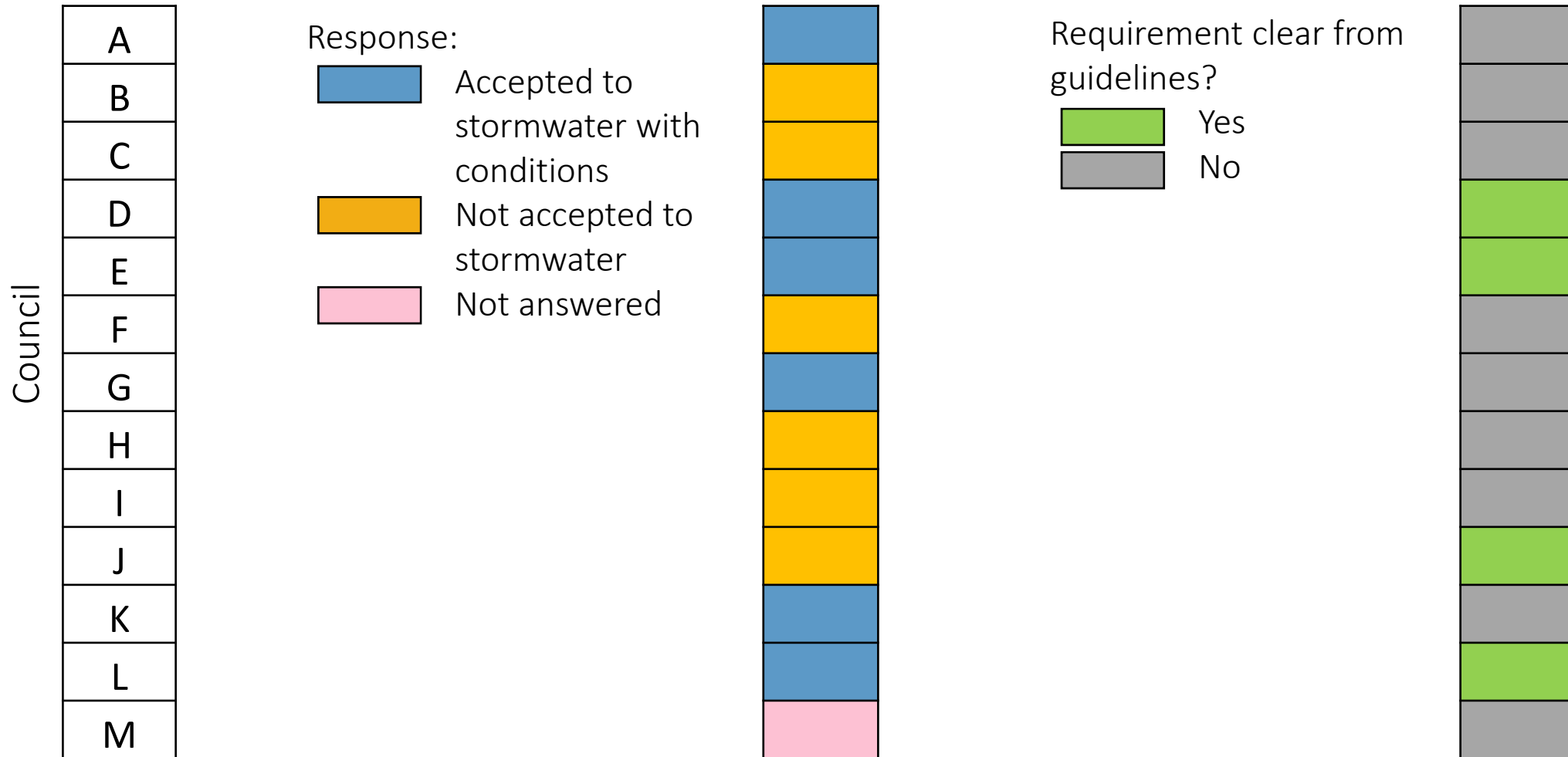
Allowance for climate change



Detention requirements



Groundwater discharge



Offset scheme



Council

A
B
C
D
E
F
G
H
I
J
K
L
M

Response:



Has a scheme



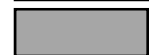
Does not have a scheme



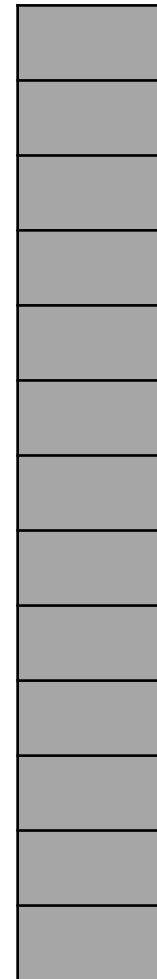
Requirement clear from guidelines?



Yes



No



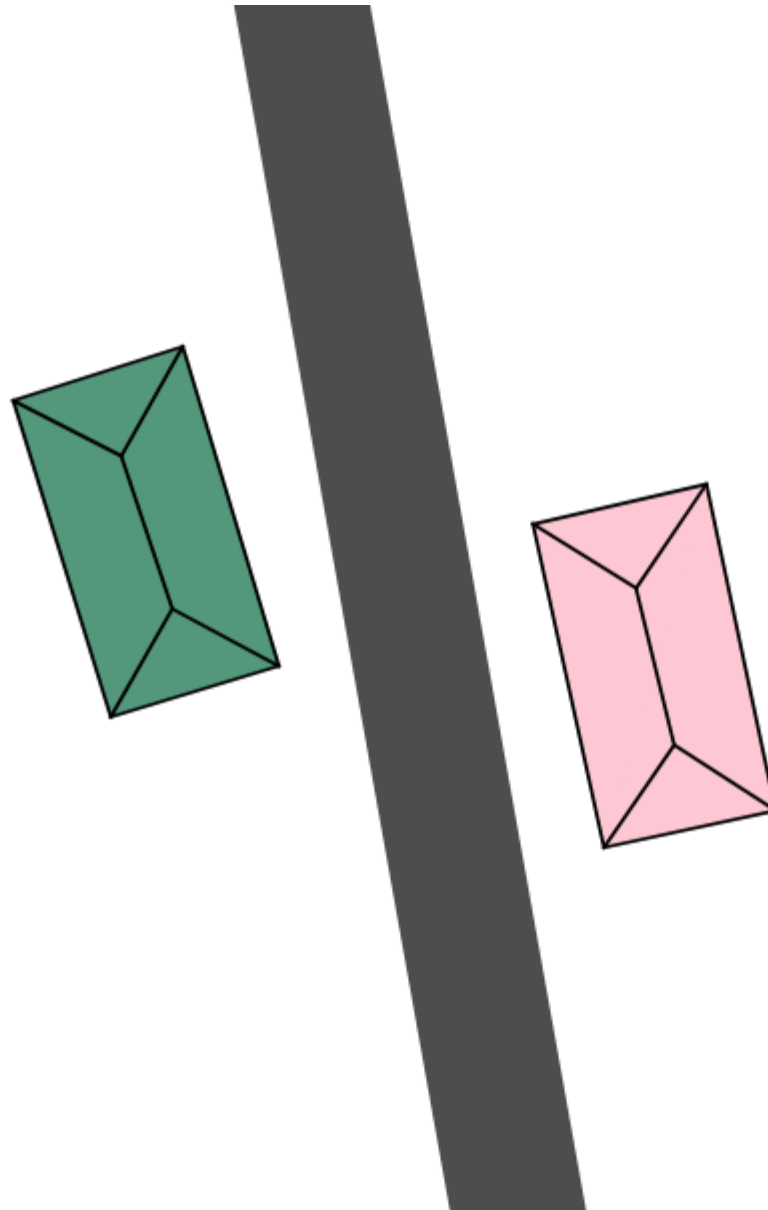


Key messages



Differences

	Q1	Q2	Q3	Q4	Q5	Q6
A	Blue	Blue	Blue	Tan	Blue	Blue
B	Blue	Yellow	Pink	Blue	Yellow	Yellow
C	Blue	Yellow	Pink	Yellow	Yellow	Yellow
D	Blue	Blue	Pink	Pink	Blue	Yellow
E	Blue	Blue	Yellow	Pink	Blue	Yellow
F	Blue	Pink	Pink	Blue	Yellow	Yellow
G	Blue	Pink	Yellow	Pink	Blue	Yellow
H	Blue	Blue	Green	Pink	Yellow	Yellow
I	Blue	Blue	Pink	Green	Yellow	Yellow
J	Blue	Pink	Yellow	Tan	Yellow	Yellow
K	Blue	Yellow	Green	Yellow	Blue	Yellow
L	Blue	Pink	Pink	Yellow	Blue	Blue
M	Blue	Pink	Green	Yellow	Pink	Yellow



Council A

- Accepts proprietary products for treatment
- Design to allow for climate change
- Detain flows up to the 100 year ARI
- Accepts groundwater to stormwater system
- Has an offset scheme

Council B

- Cannot use proprietary products for treatment
- Do not need to design for climate change
- Flow rates required to “match existing”
- Will not accept groundwater to stormwater system
- Does not have an offset scheme



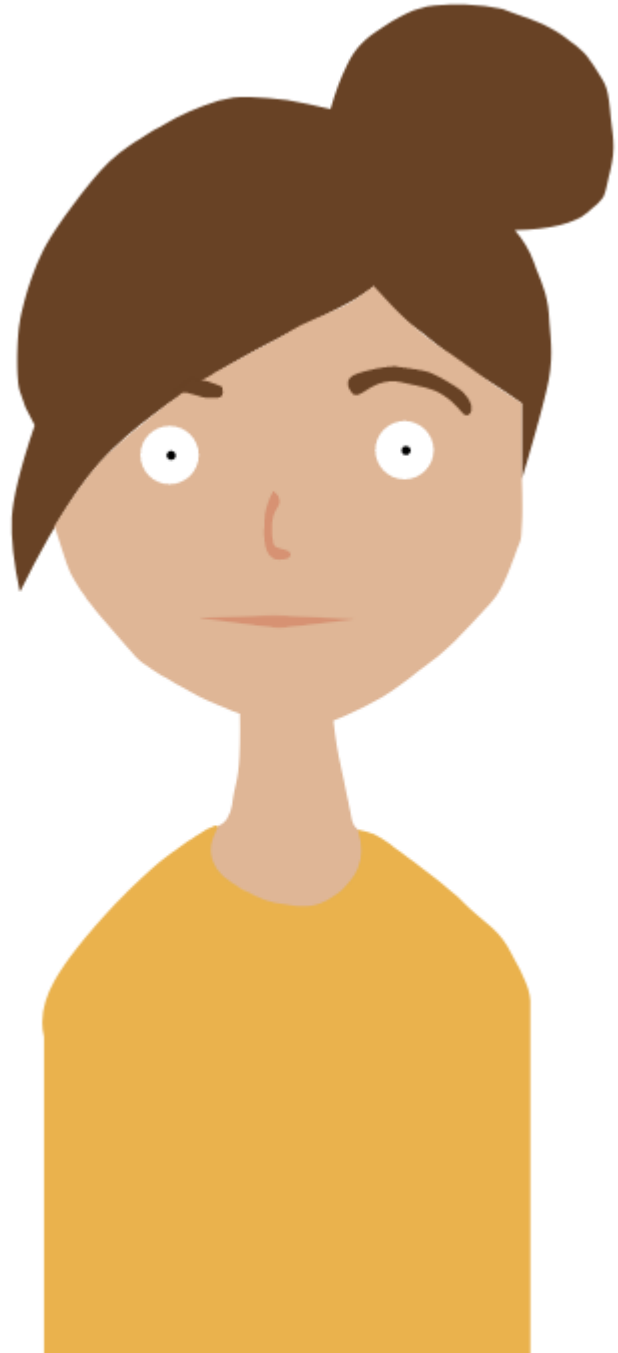
Communication

	Q1	Q2	Q3	Q4	Q5	Q6
A	Yes	No	No	No	No	No
B	Yes	No	No	No	No	No
C	Yes	No	No	No	No	No
D	Yes	No	No	Yes	No	Yes
E	Yes	No	No	No	No	Yes
F	Yes	No	No	No	No	No
G	Yes	No	No	No	No	No
H	Yes	No	No	Yes	No	No
I	Yes	No	No	Yes	No	No
J	Yes	No	No	No	No	Yes
K	Yes	No	No	No	No	No
L	Yes	No	No	No	No	Yes
M	Yes	No	No	No	No	No

Requirement clear from guidelines?

Yes

No



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Thank you

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