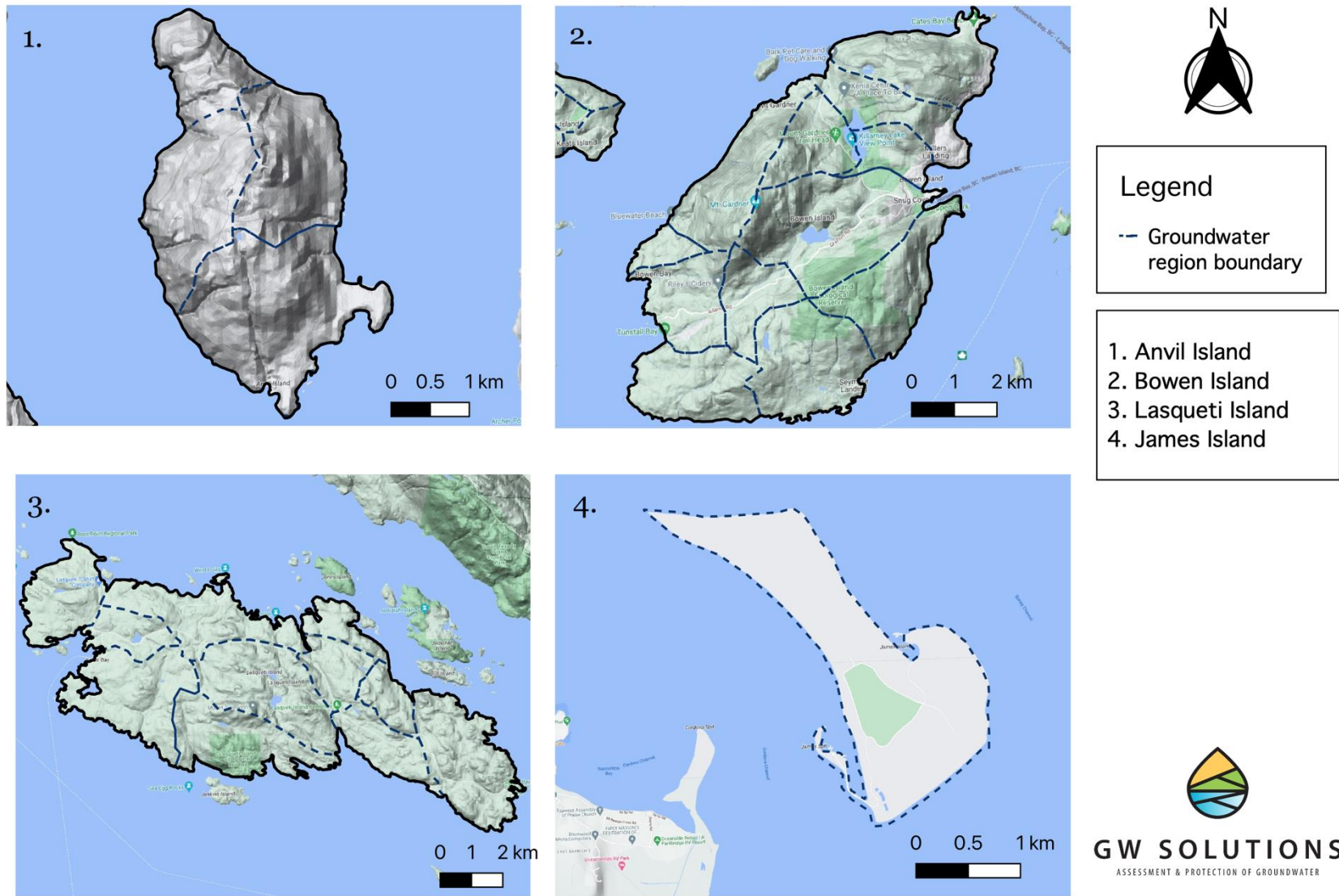
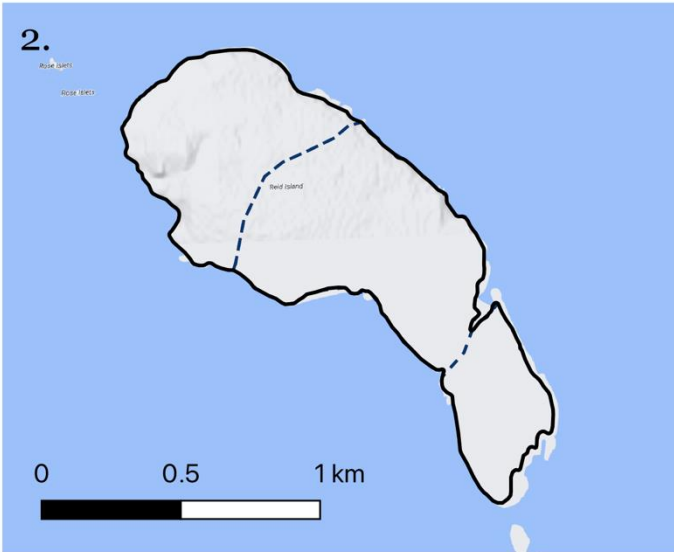
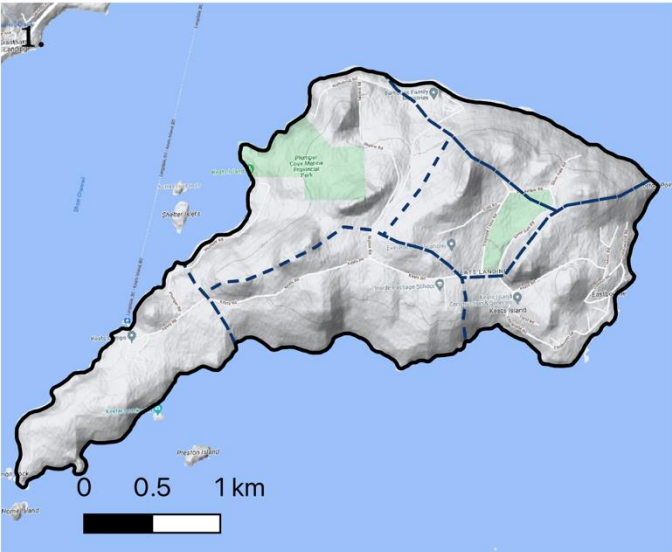


APPENDIX 2: MAPS OF GROUNDWATER REGIONS

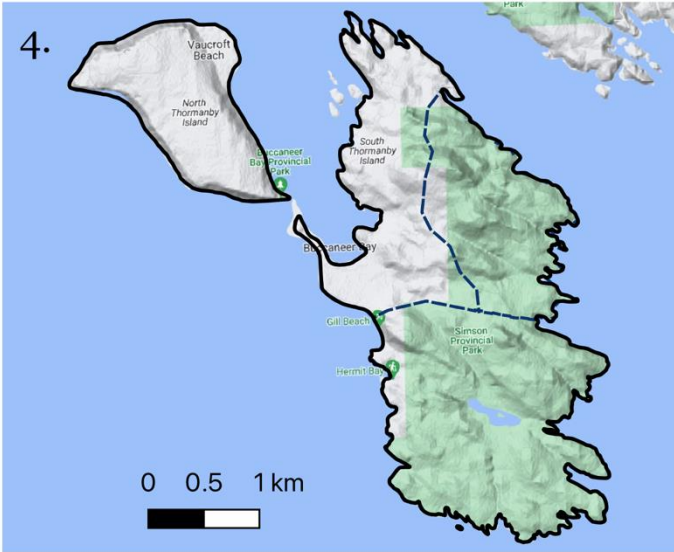
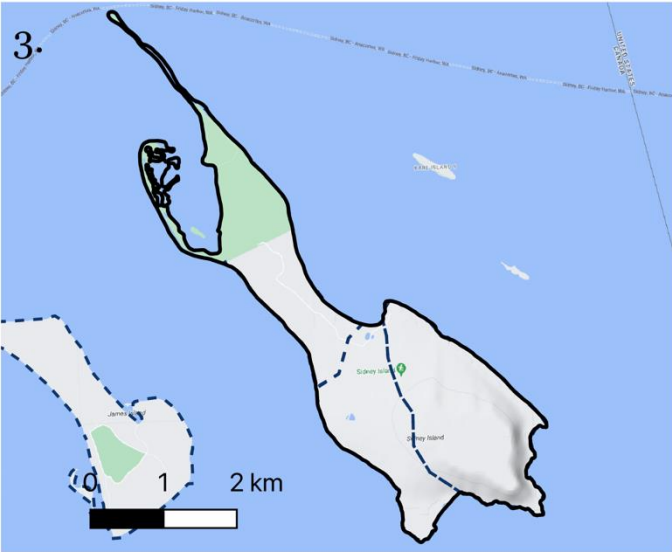




Legend

-- Groundwater region boundary

- 1. Keats Island
- 2. Reid Island
- 3. Sidney Island
- 4. Thormanby Islands

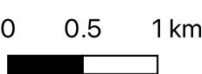
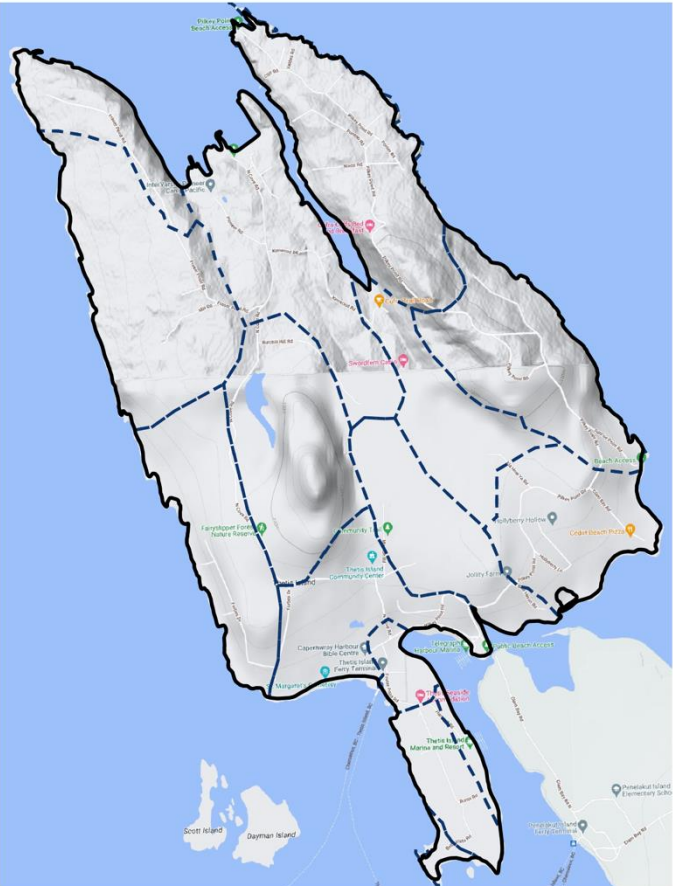


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1.



2.



Legend

- Groundwater region boundary
- Watershed boundary

- 1. Salt Spring Island
- 2. Thetis Island

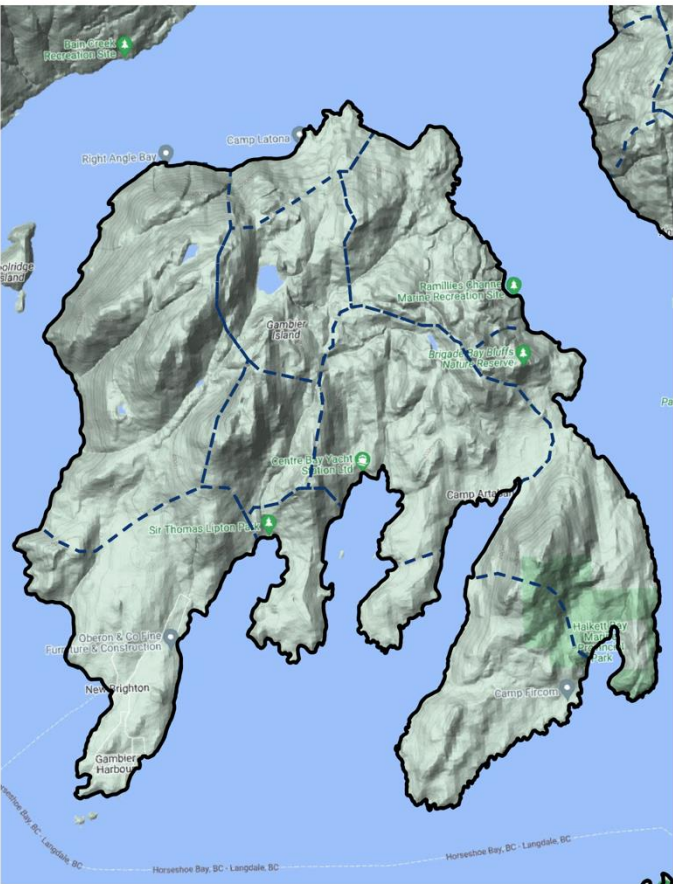


GW SOLUTIONS
ASSESSMENT & PROTECTION OF GROUNDWATER

1.



2.



Legend

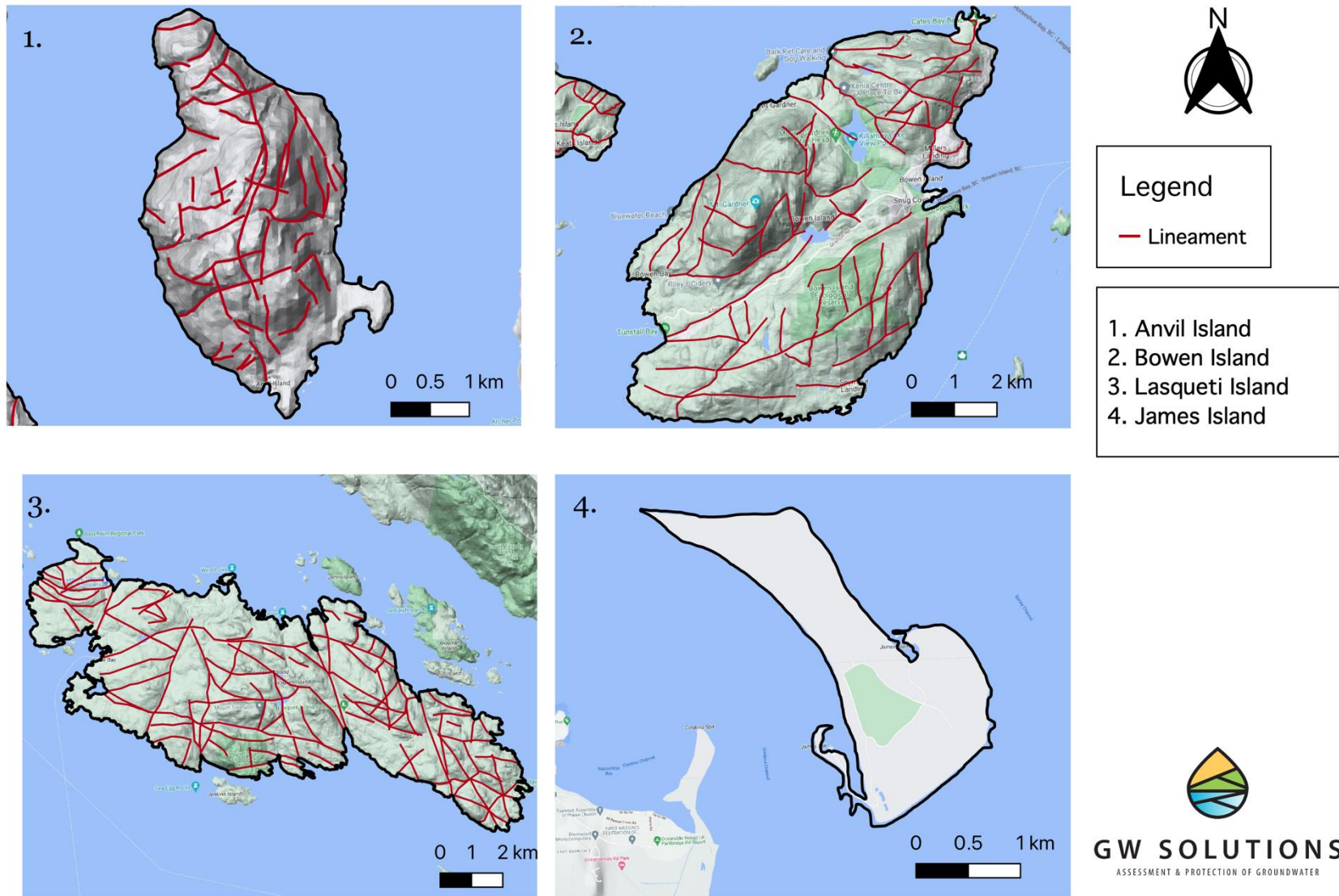
— Groundwater region boundary

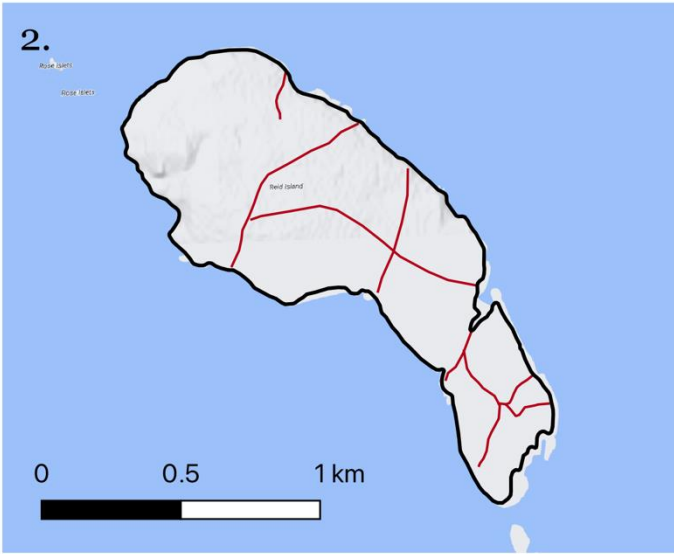
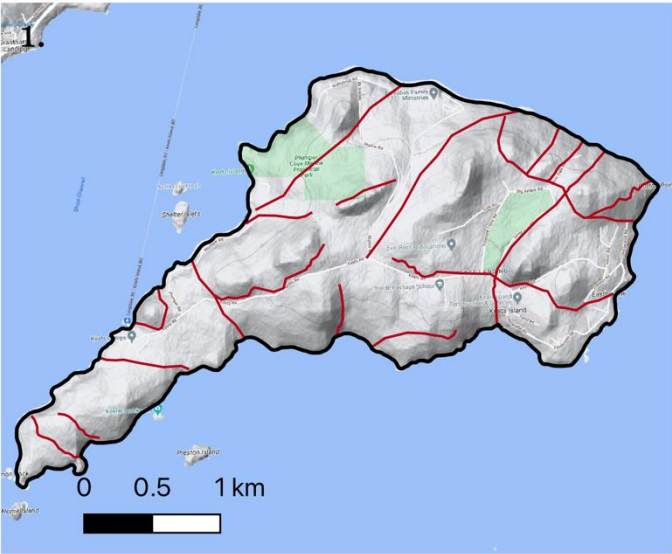
- 1. Valdes Island
- 2. Gambier Island



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APPENDIX 3: MAPS OF LINEAMENTS

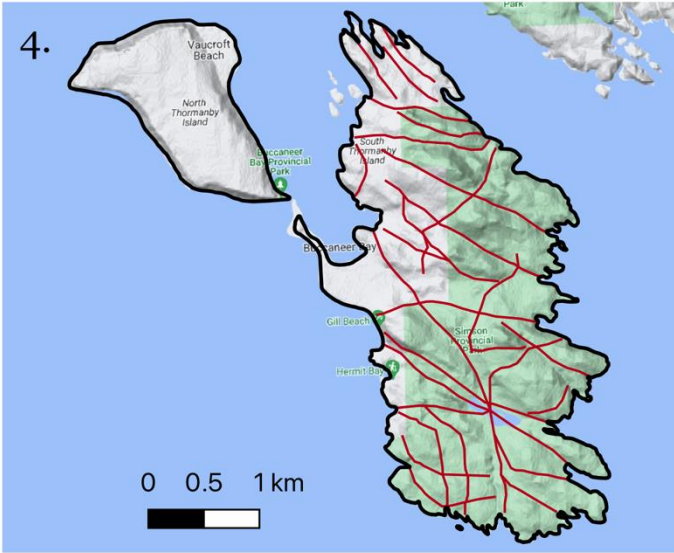
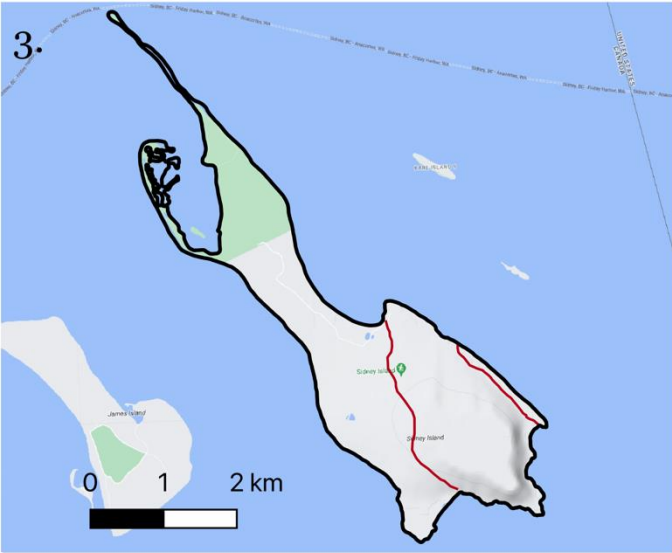




Legend

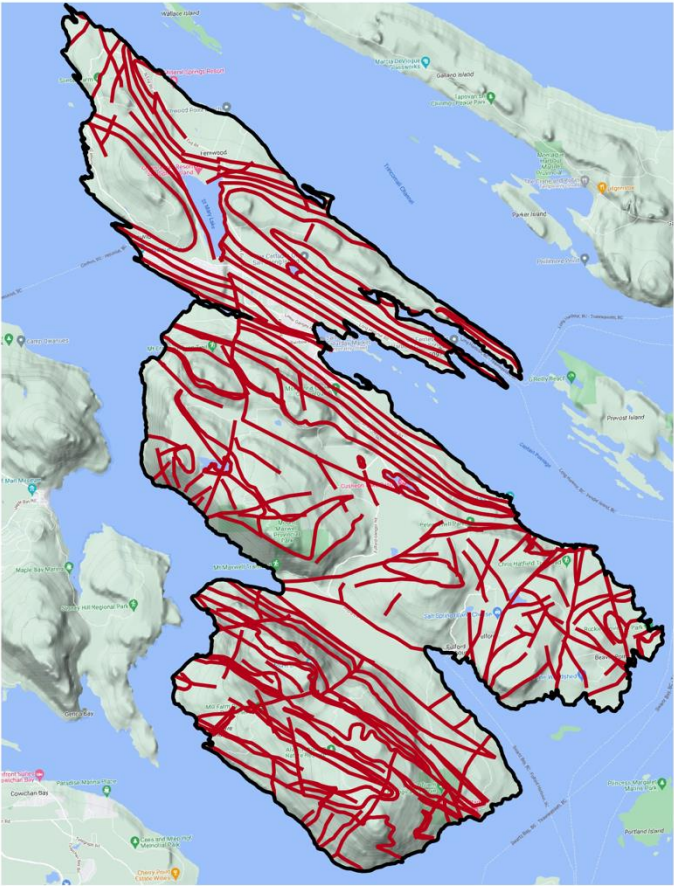
— Lineament

- 1. Keats Island
- 2. Reid Island
- 3. Sidney Island
- 4. Thormanby Islands

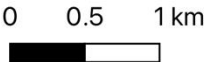
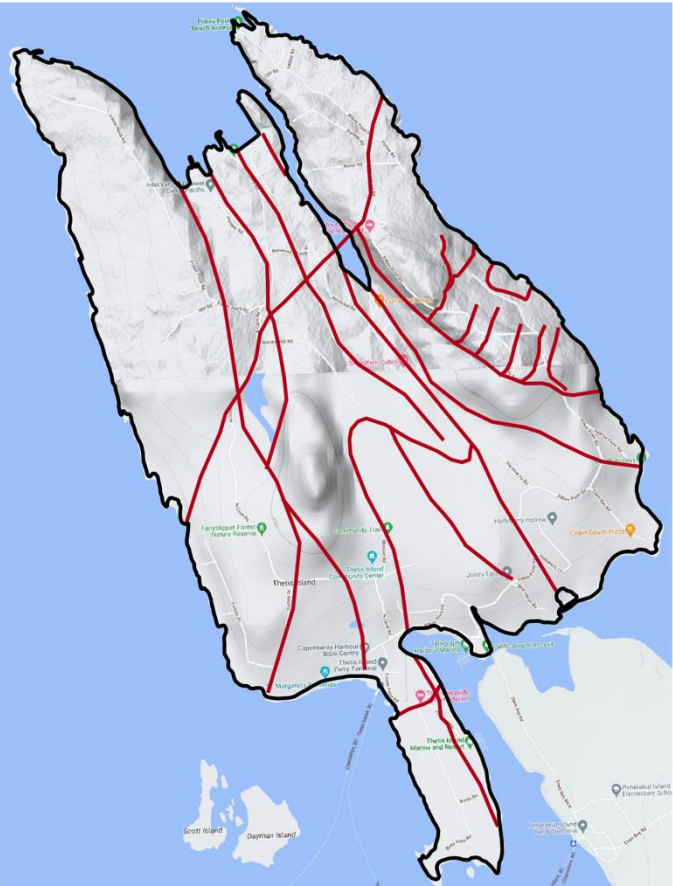


GW SOLUTIONS
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1.



2.



Legend

— Lineament

1. Salt Spring Island
2. Thetis Island

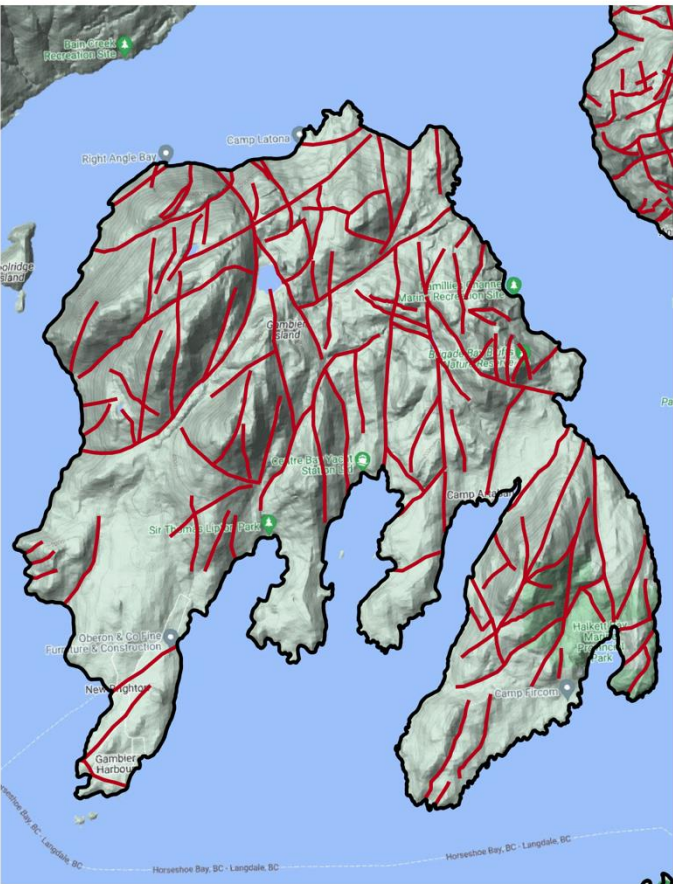


GW SOLUTIONS
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1.



2.



Legend

— Lineament

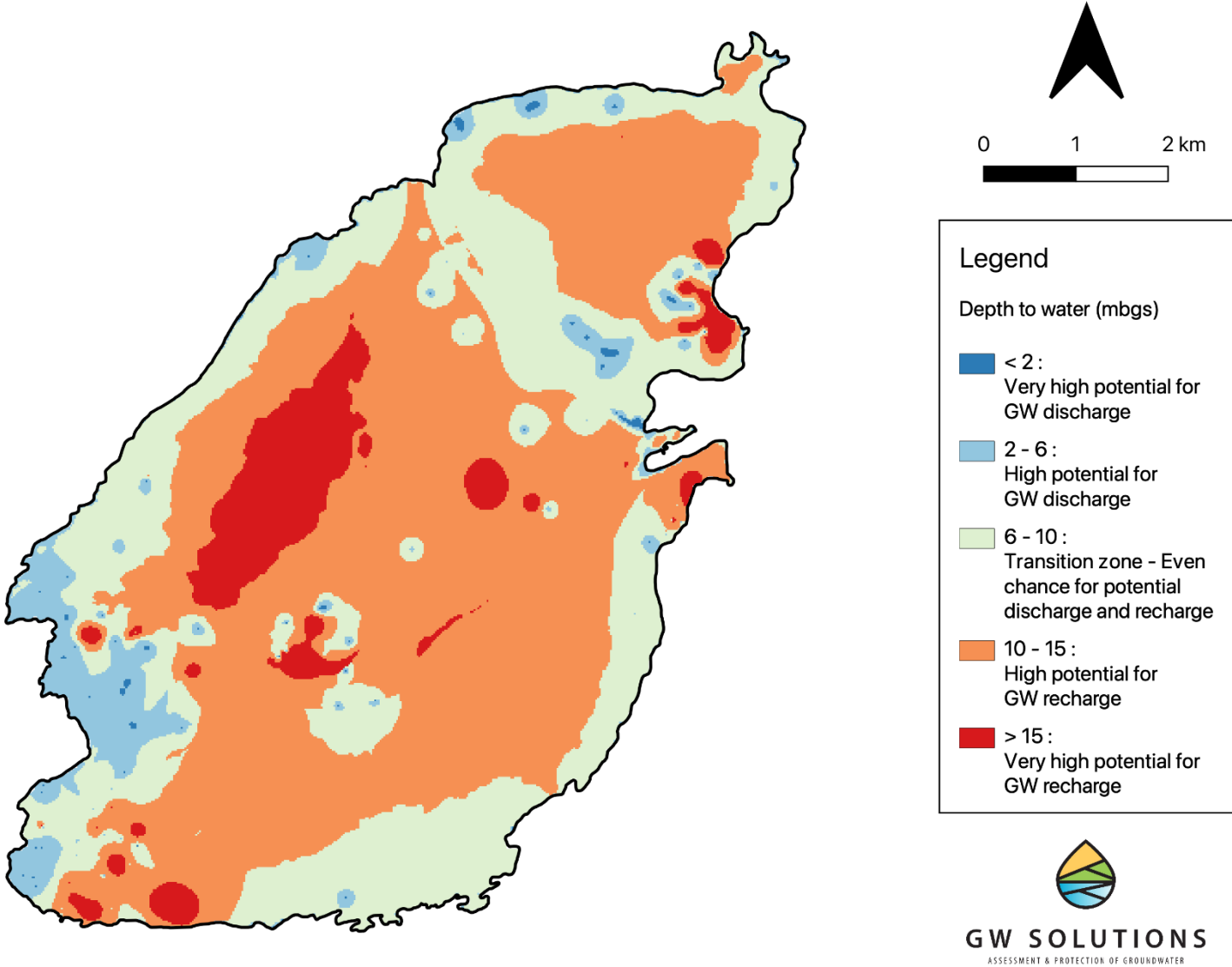
1. Valdes Island
2. Gambier Island



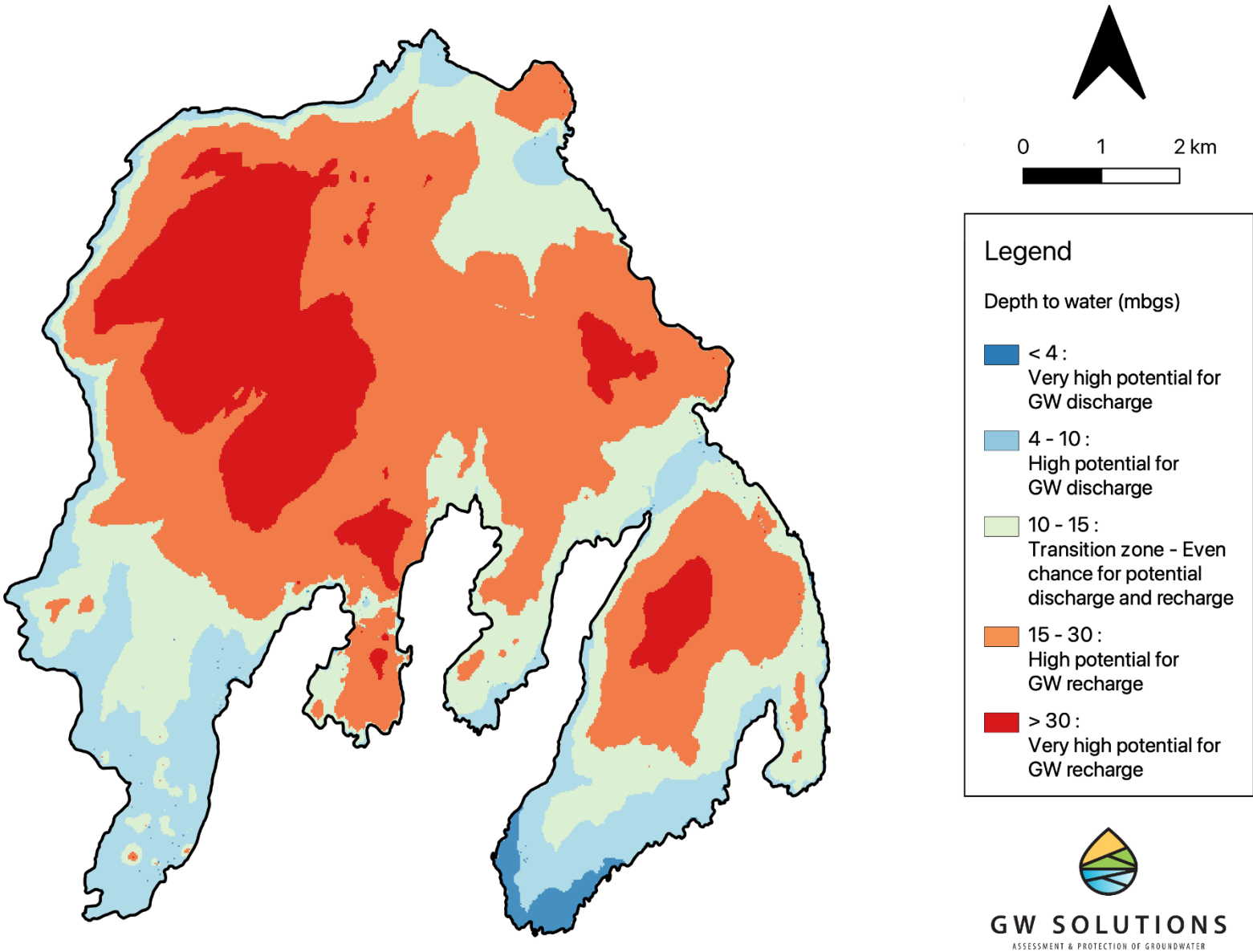
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APPENDIX 4: MAPS OF GROUNDWATER DISCHARGE/RECHARGE POTENTIAL BASED ON DEPTH TO WATER

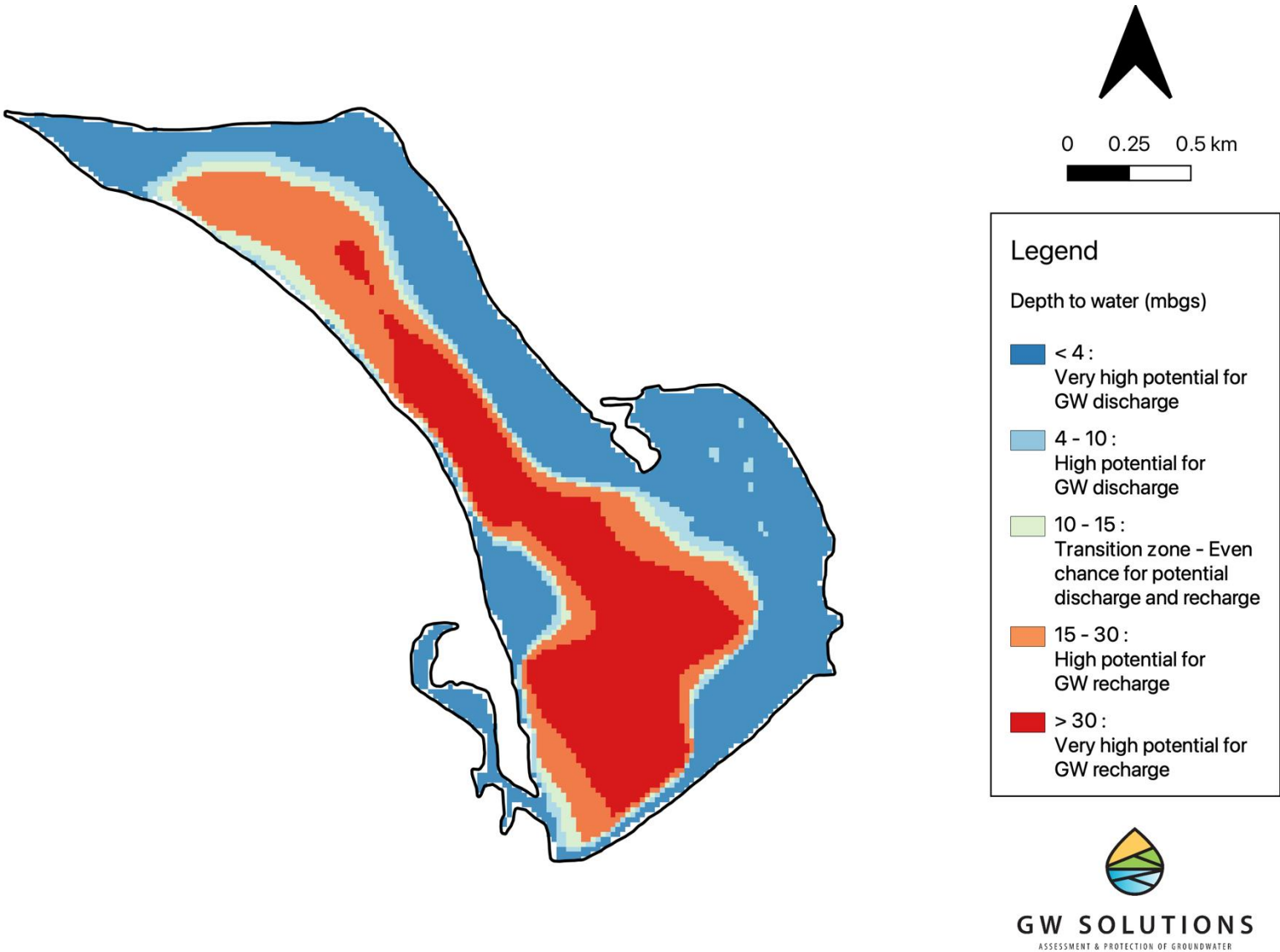
Bowen Island



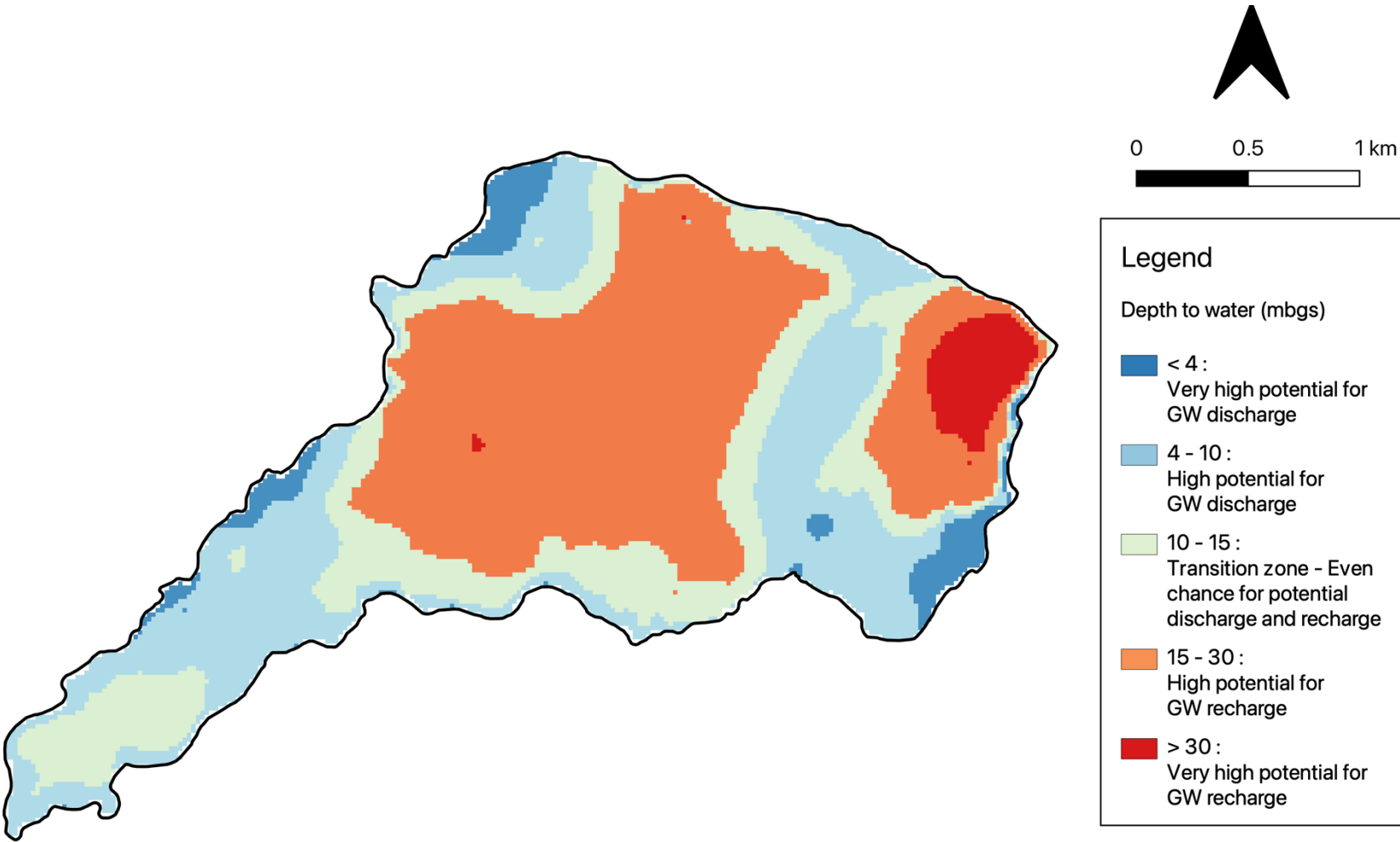
Gambier Island



James Island

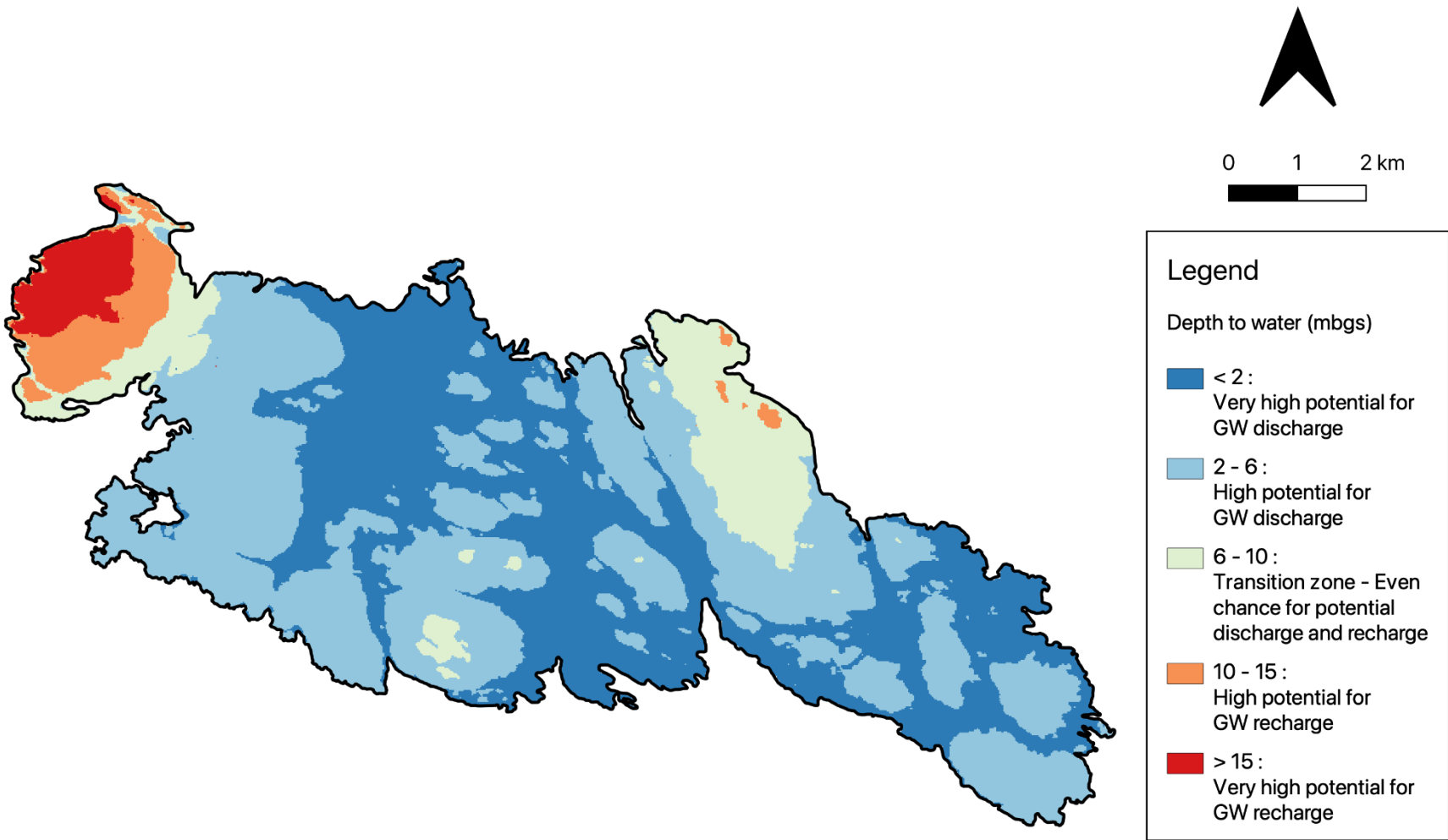


Keats Island



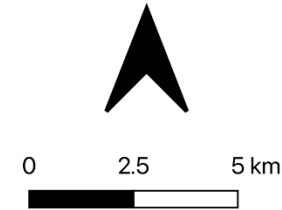
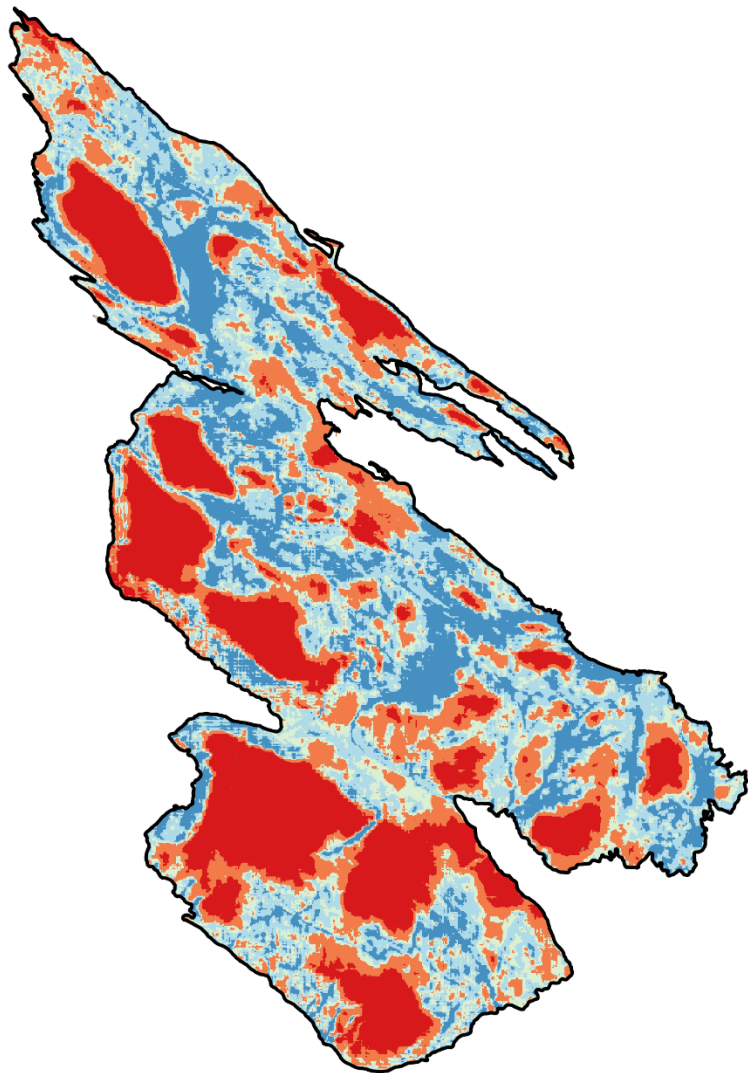
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Lasqueti Island



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Salt Spring Island



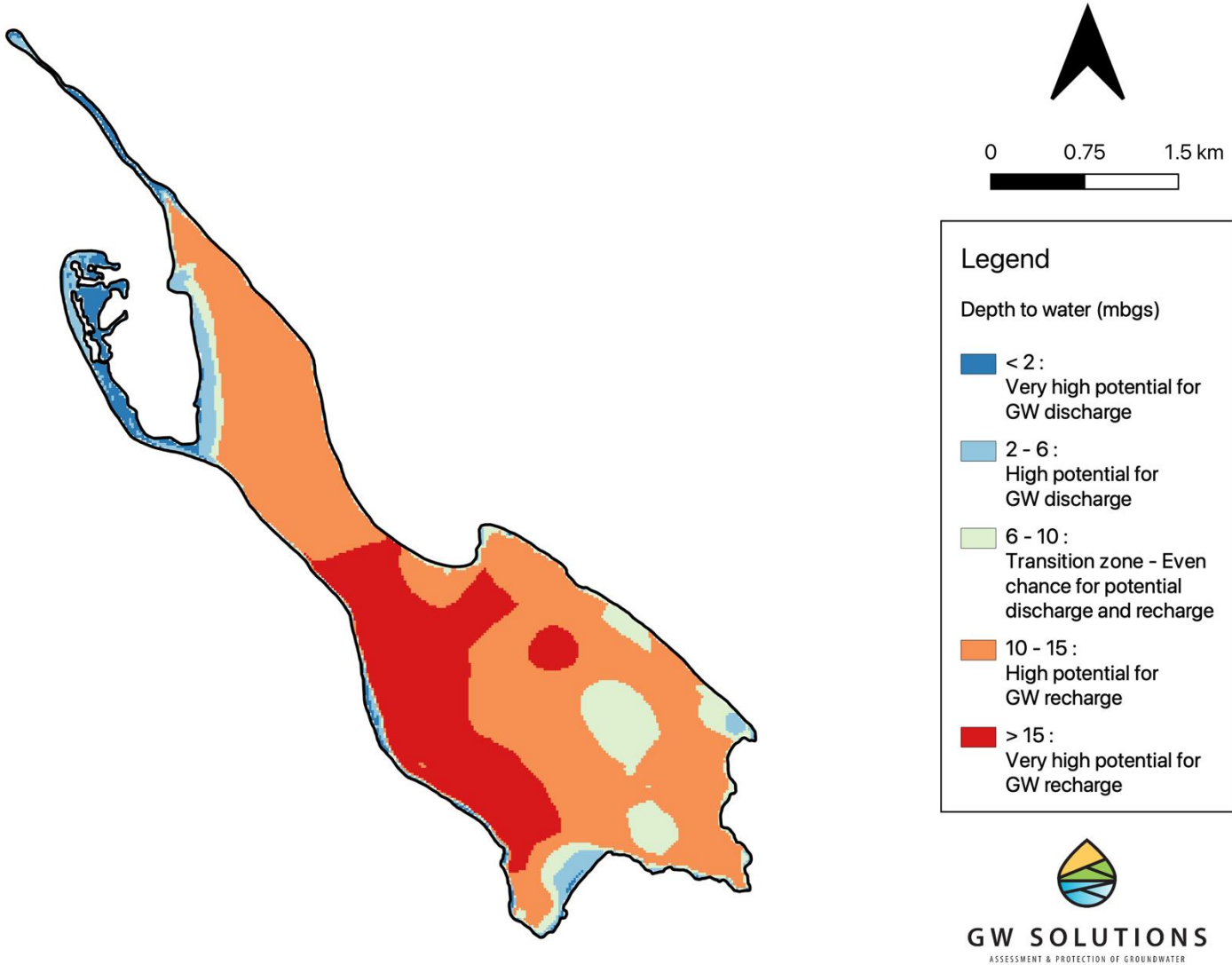
Legend

Depth to water (mbgs)

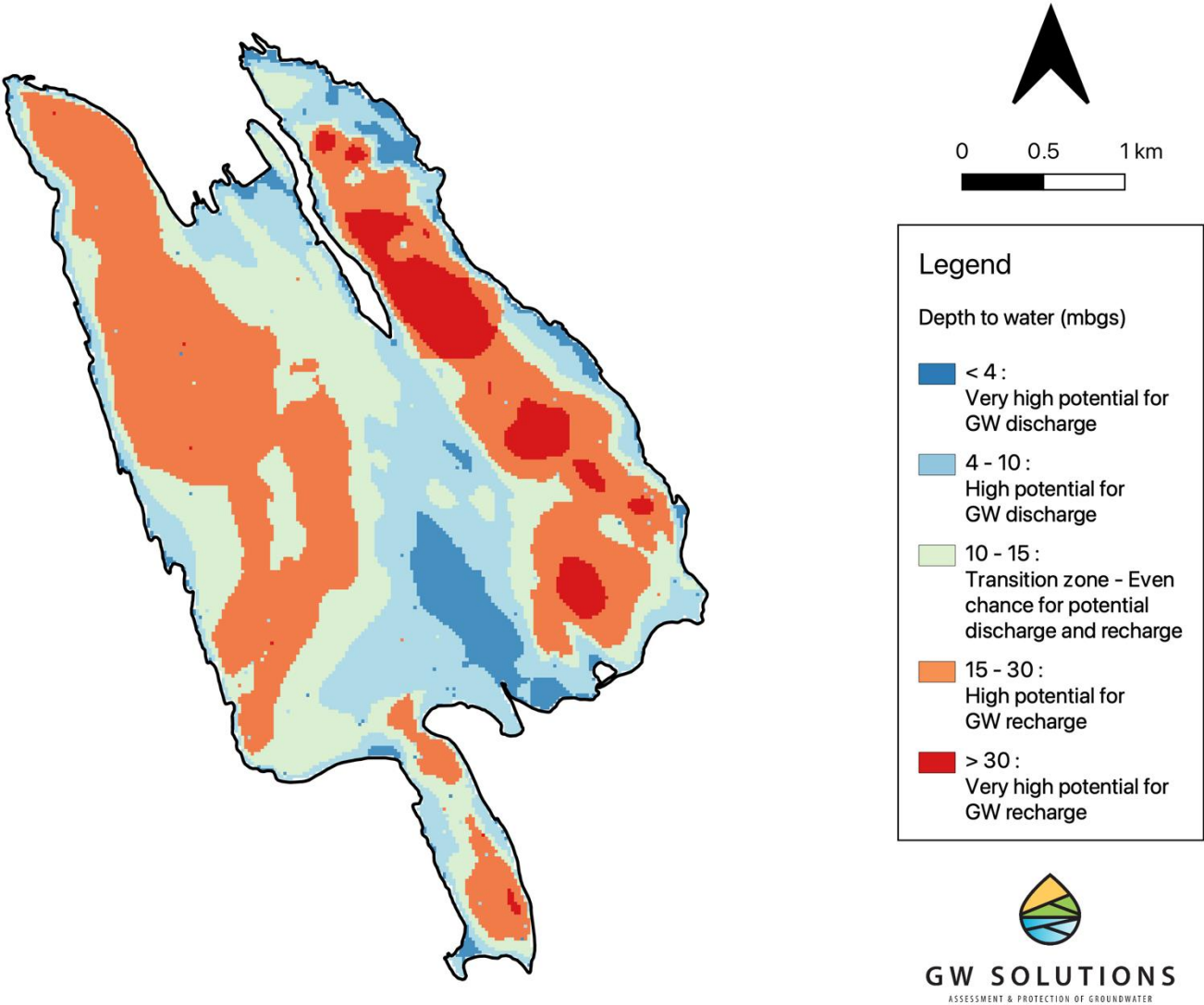
- < 4 :
Very high potential for
GW discharge
- 4 - 10 :
High potential for
GW discharge
- 10 - 15 :
Transition zone - Even
chance for potential
discharge and recharge
- 15 - 30 :
High potential for
GW recharge
- > 30 :
Very high potential for
GW recharge



Sidney Island

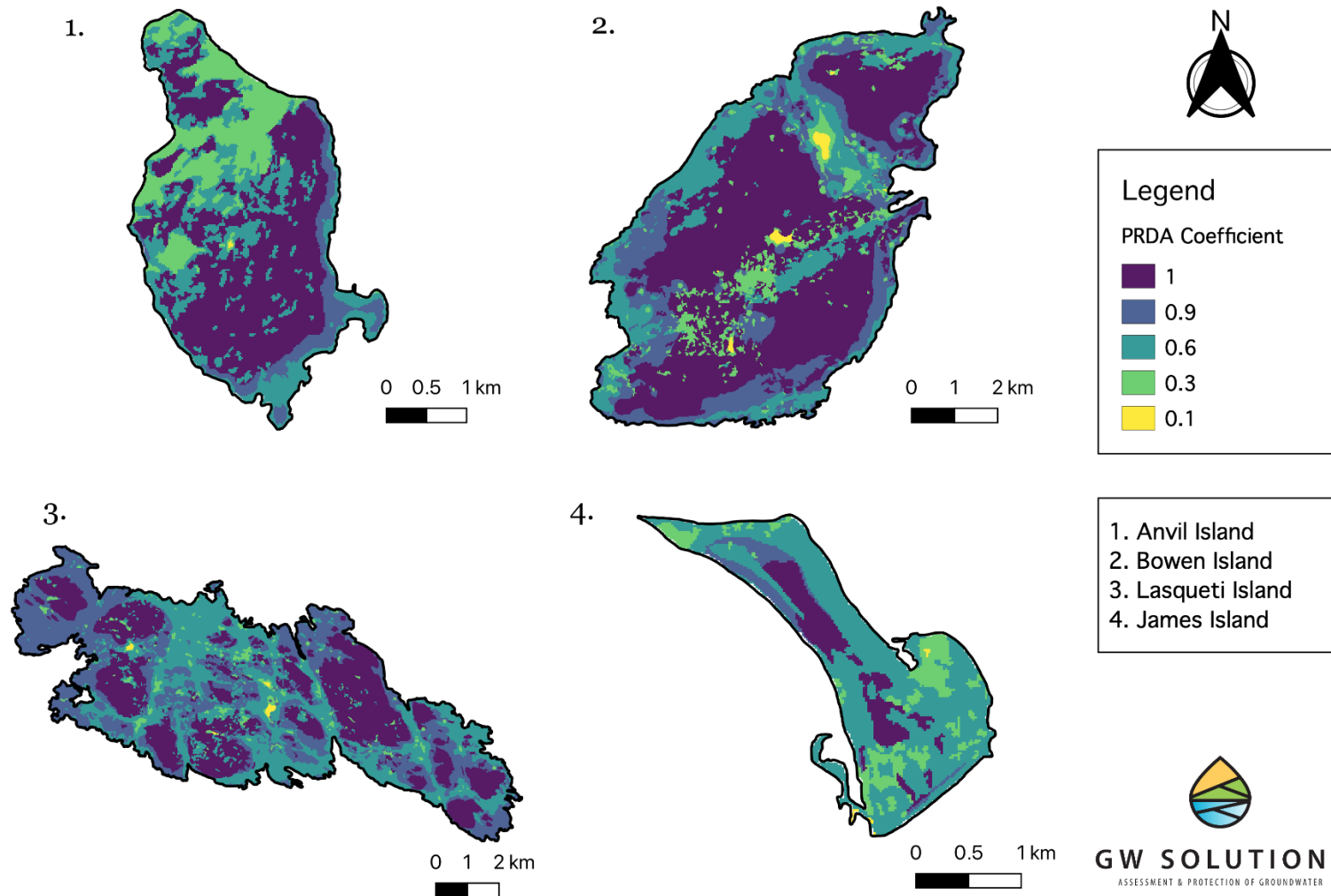


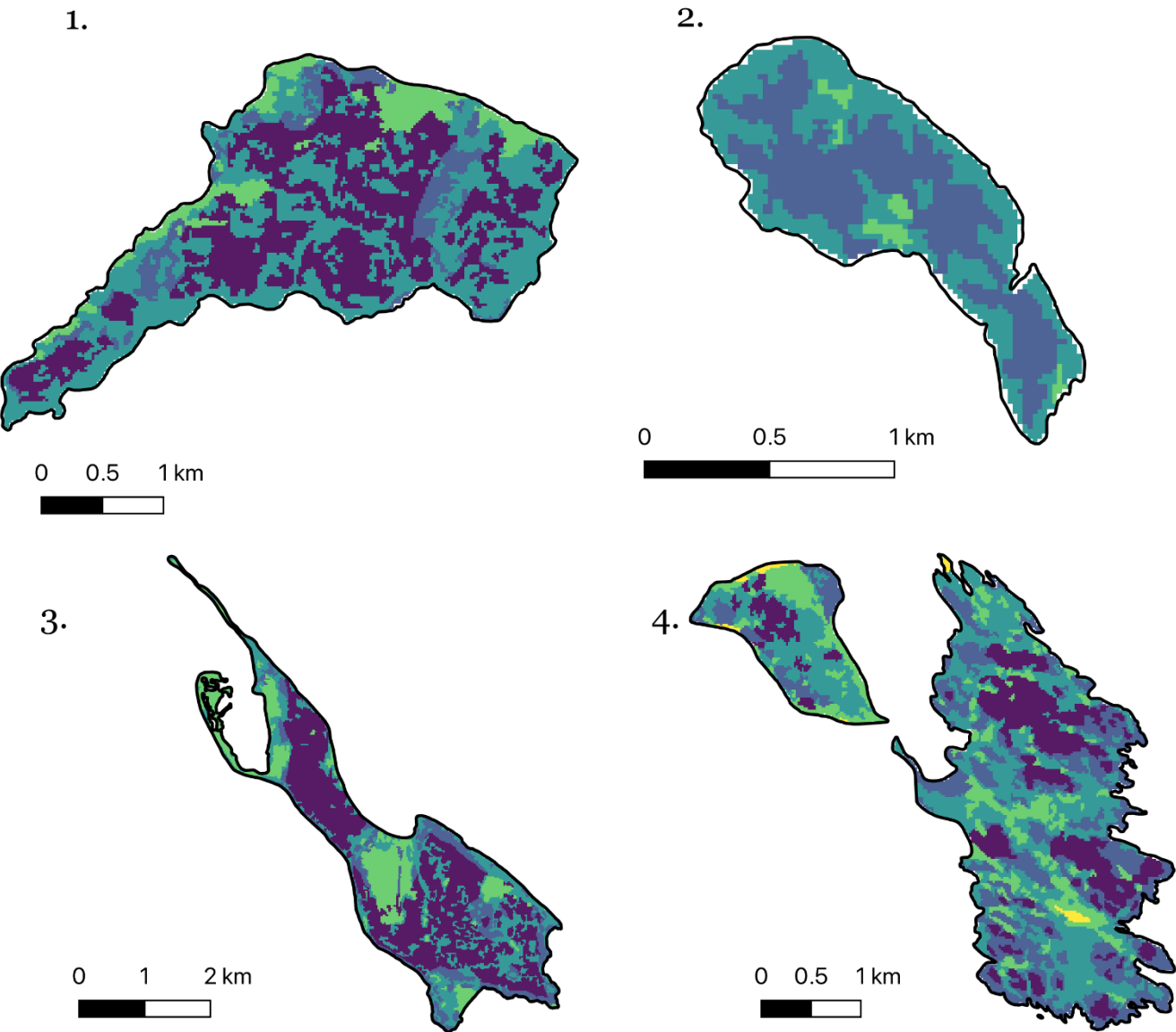
Thetis Island



APPENDIX 5: MAPS OF GROUNDWATER RECHARGE FACTORS /COEFFICIENTS ACROSS THE STUDY ISLANDS (GROUNDWATER RECHARGE POTENTIAL INPUTS)

1- Preferential recharge/discharge factor



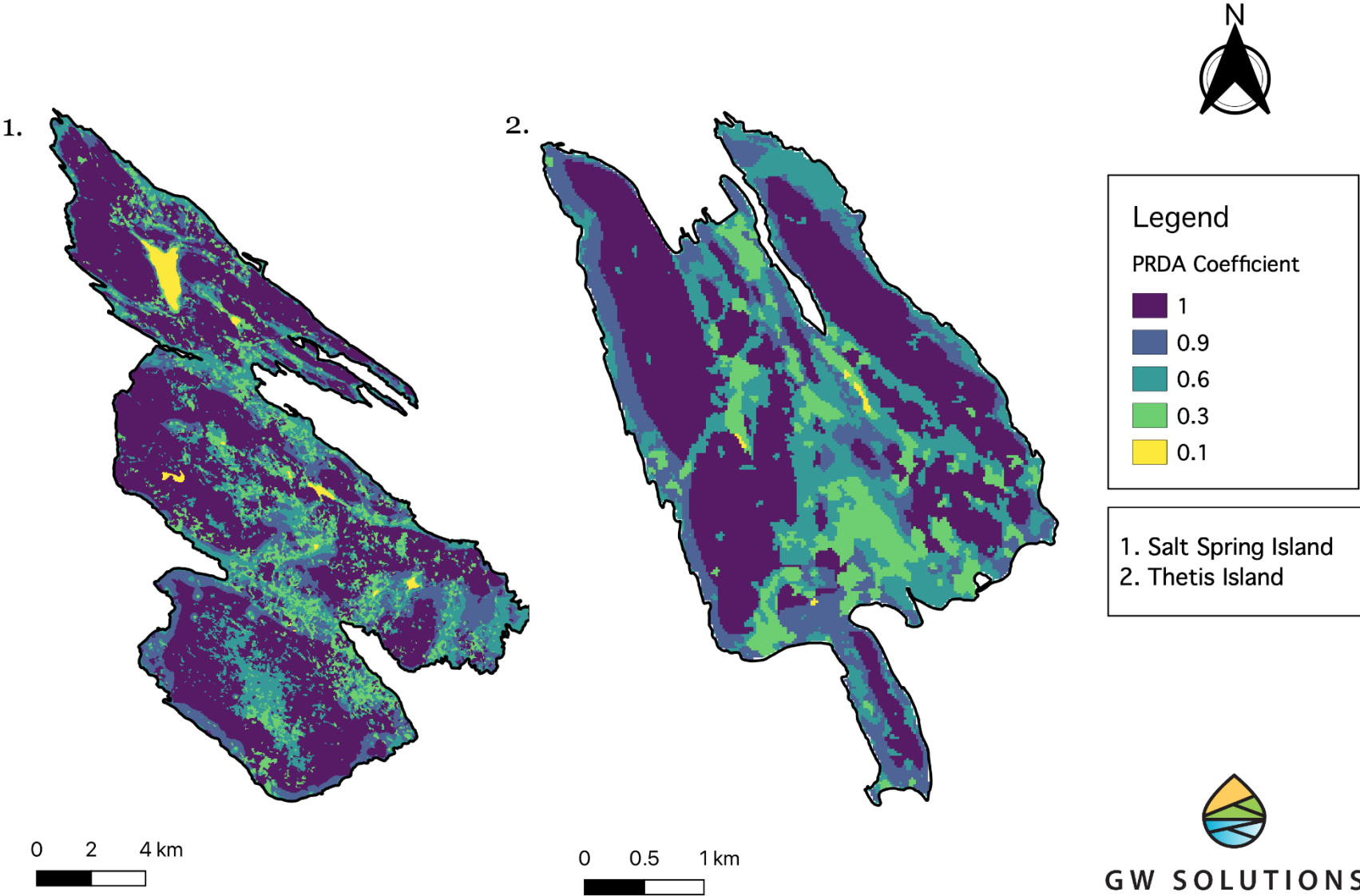


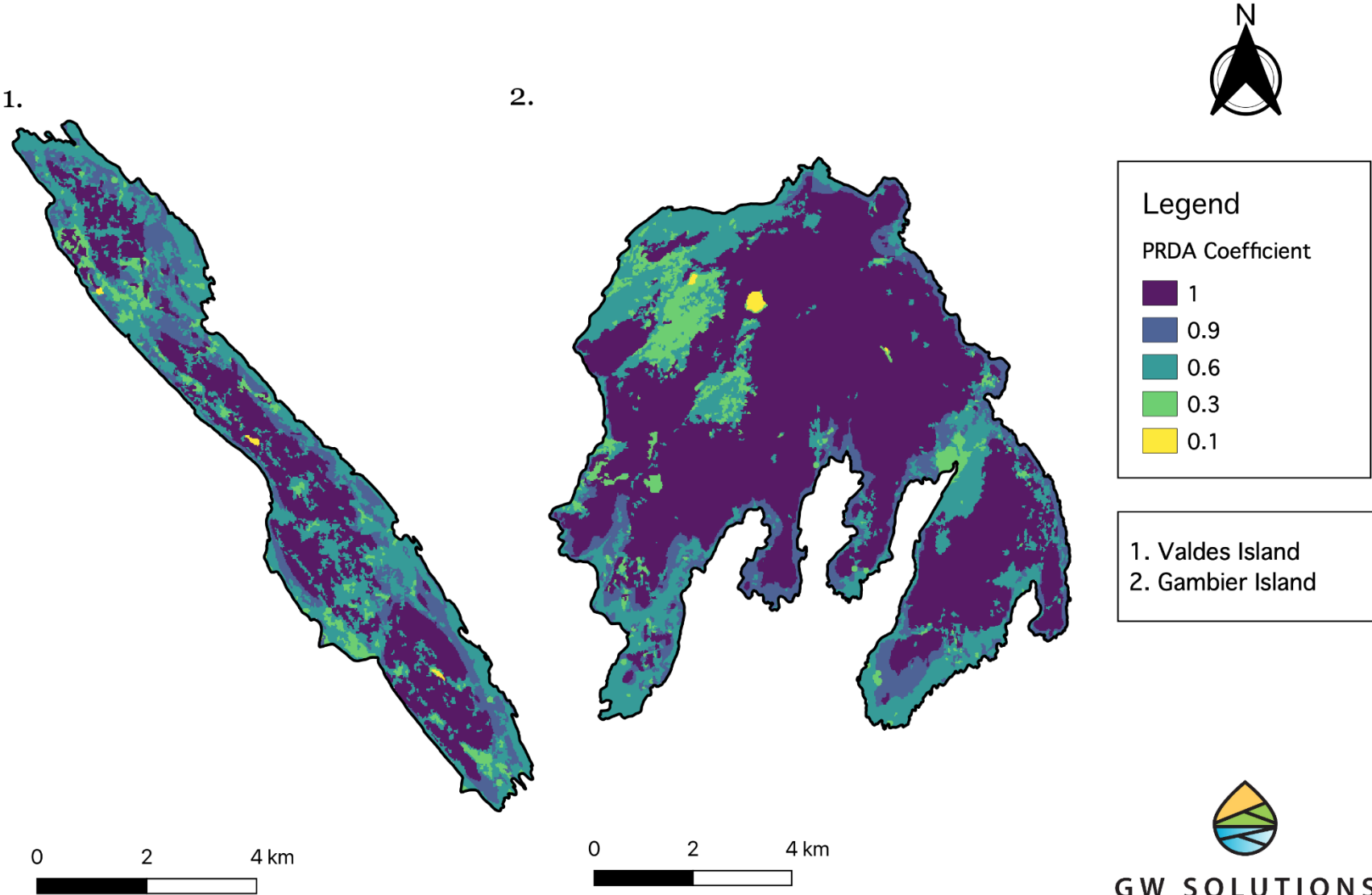
- Legend
- PRDA Coefficient
- 1
 - 0.9
 - 0.6
 - 0.3
 - 0.1

- 1. Keats Island
- 2. Reid Island
- 3. Sidney Island
- 4. Thormanby Islands

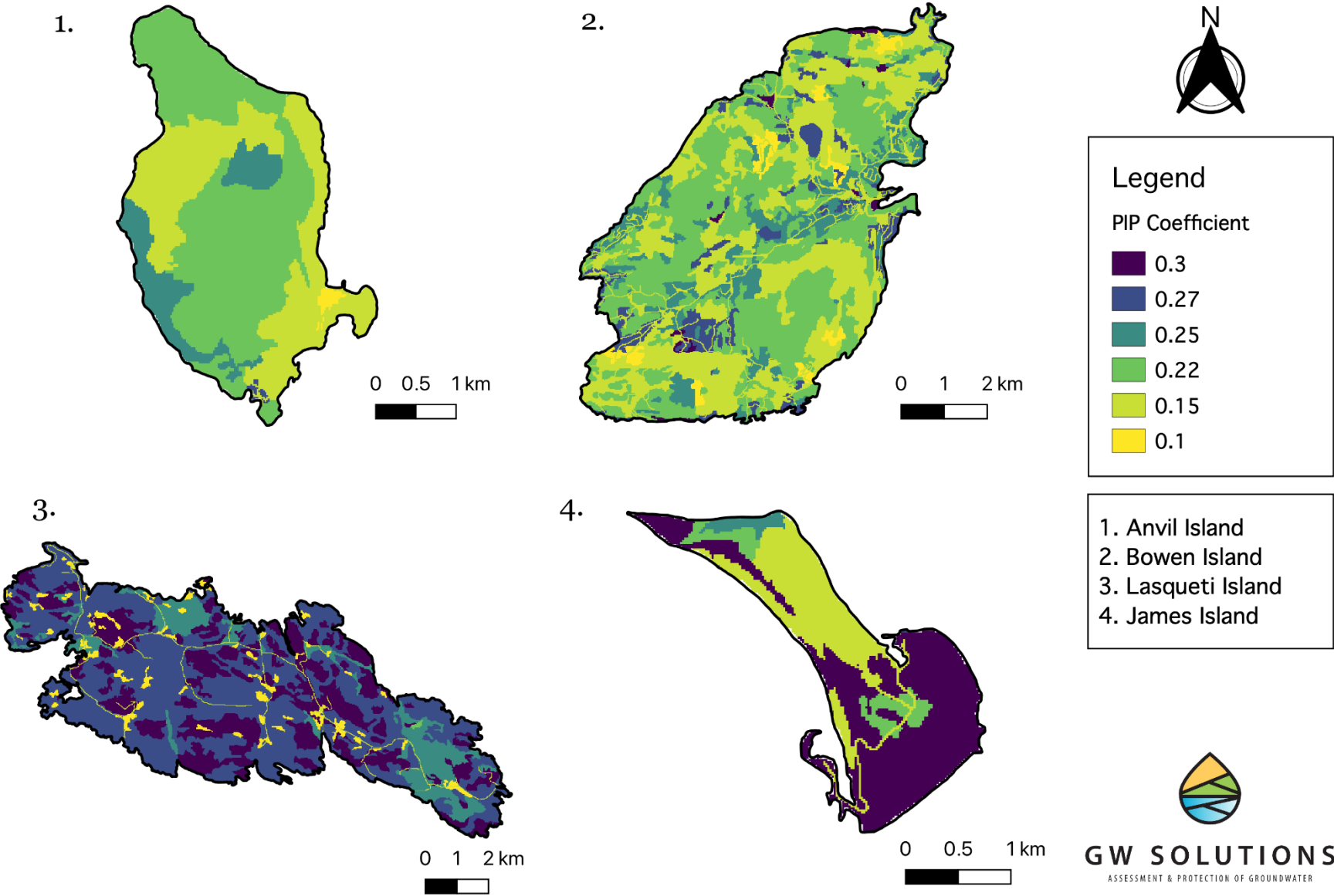


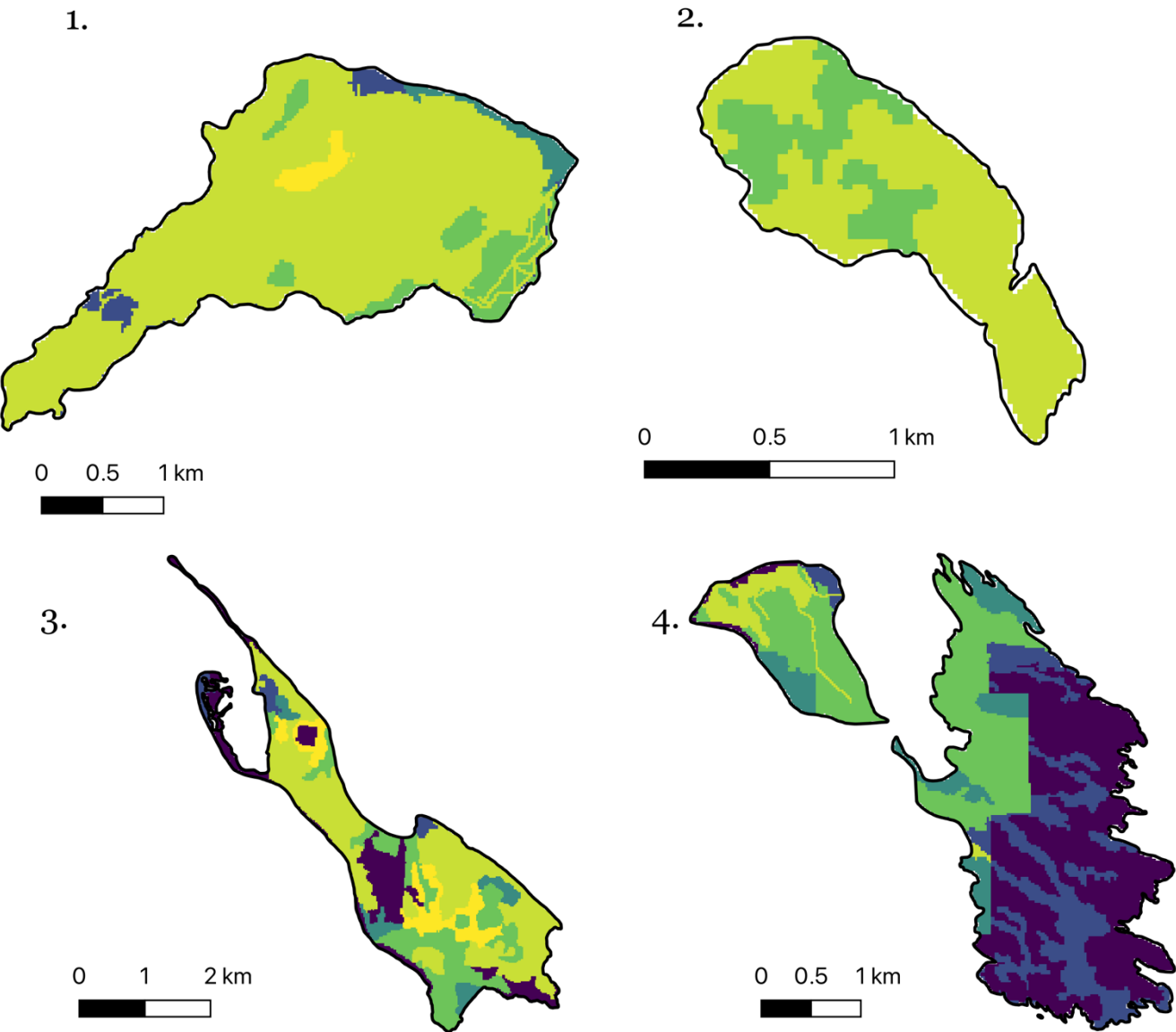
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2- Water retention potential factor



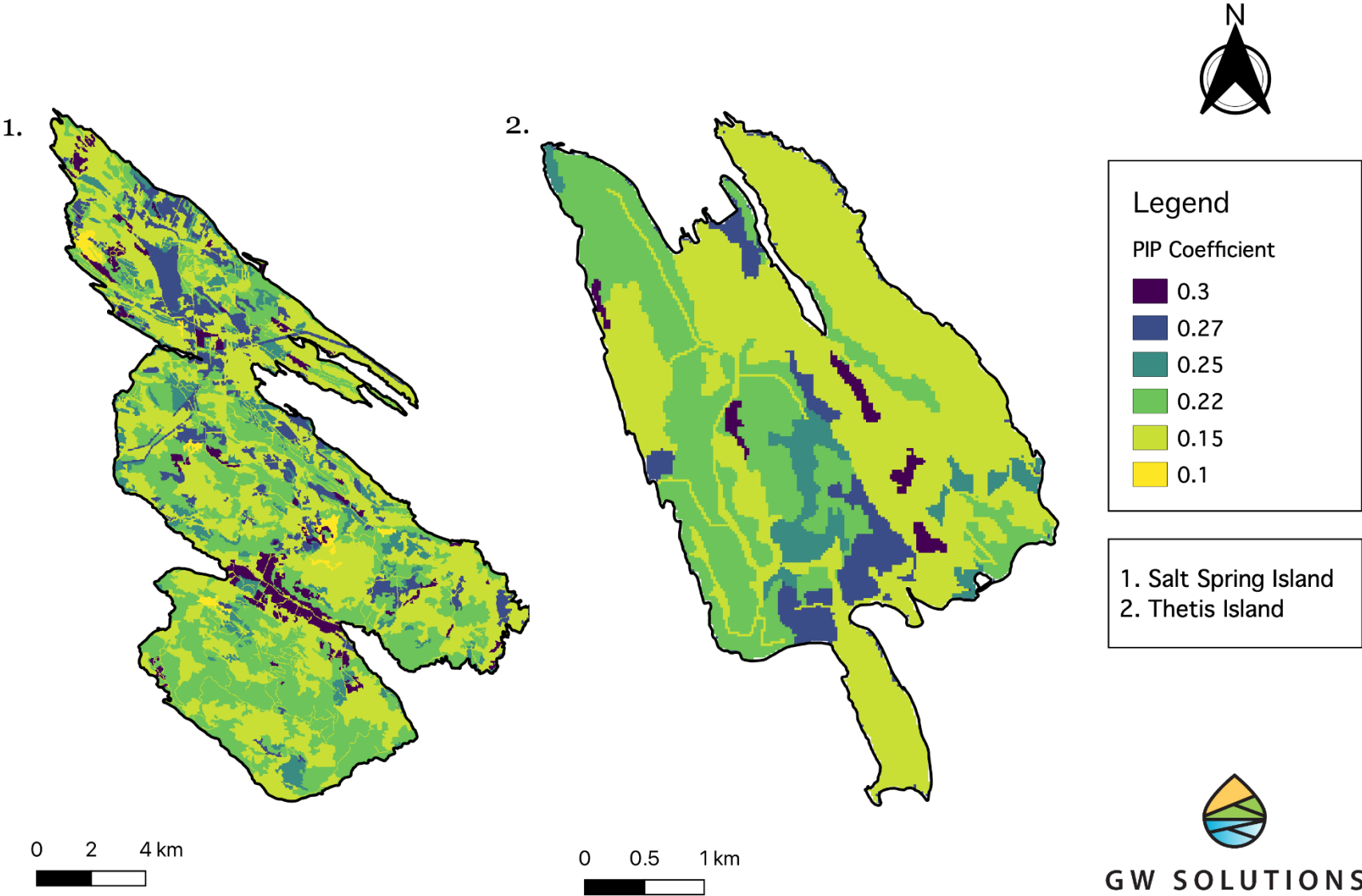


Legend

PIP Coefficient

- 0.3
- 0.27
- 0.25
- 0.22
- 0.15
- 0.1

1. Keats Island
2. Reid Island
3. Sidney Island
4. Thormanby Islands



1.

2.

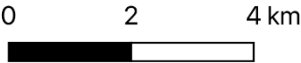
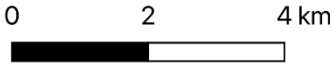


Legend

PIP Coefficient

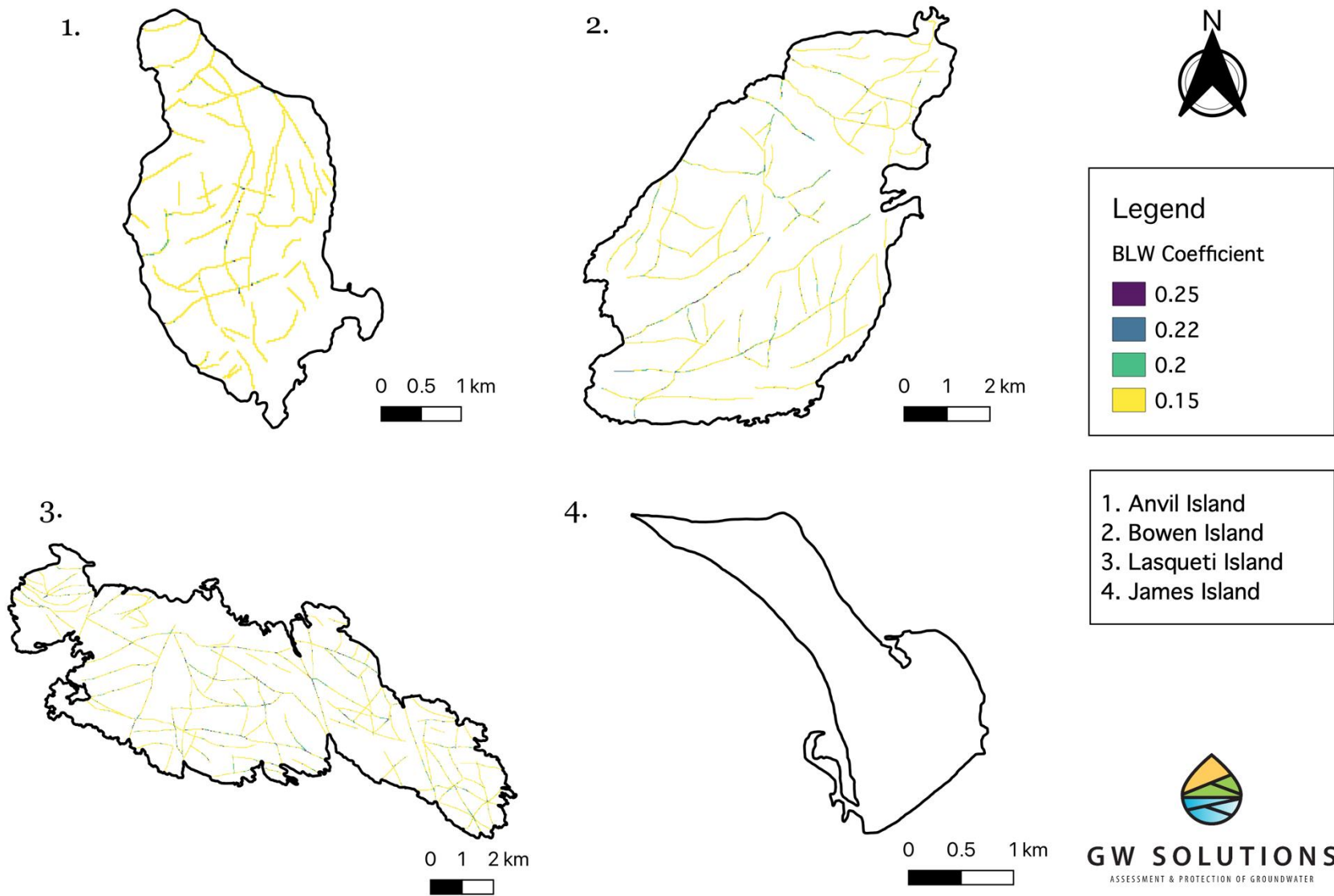
- 0.3
- 0.27
- 0.25
- 0.22
- 0.15
- 0.1

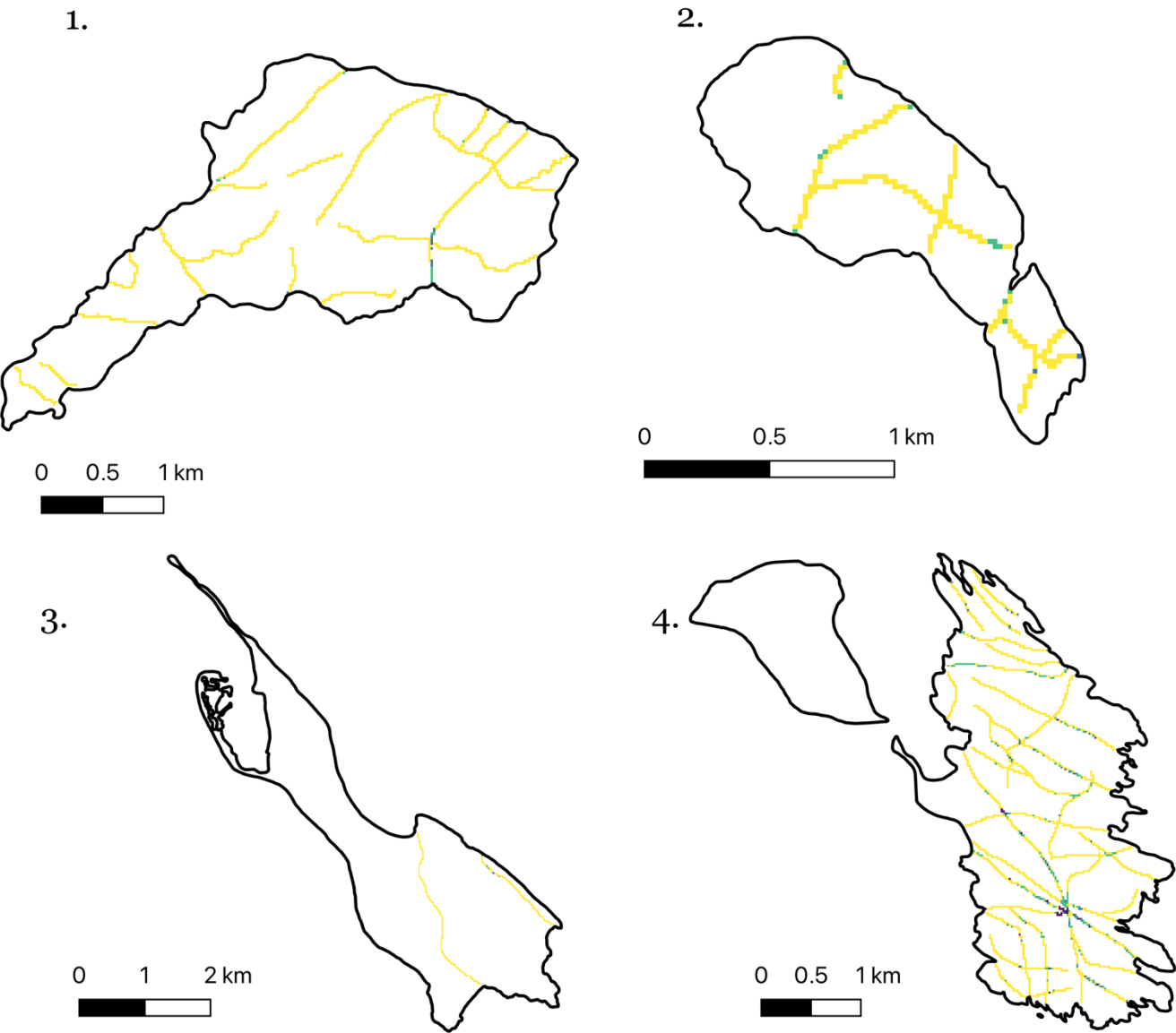
- 1. Valdes Island
- 2. Gambier Island



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3- Bedrock lineament wetness factor





Legend

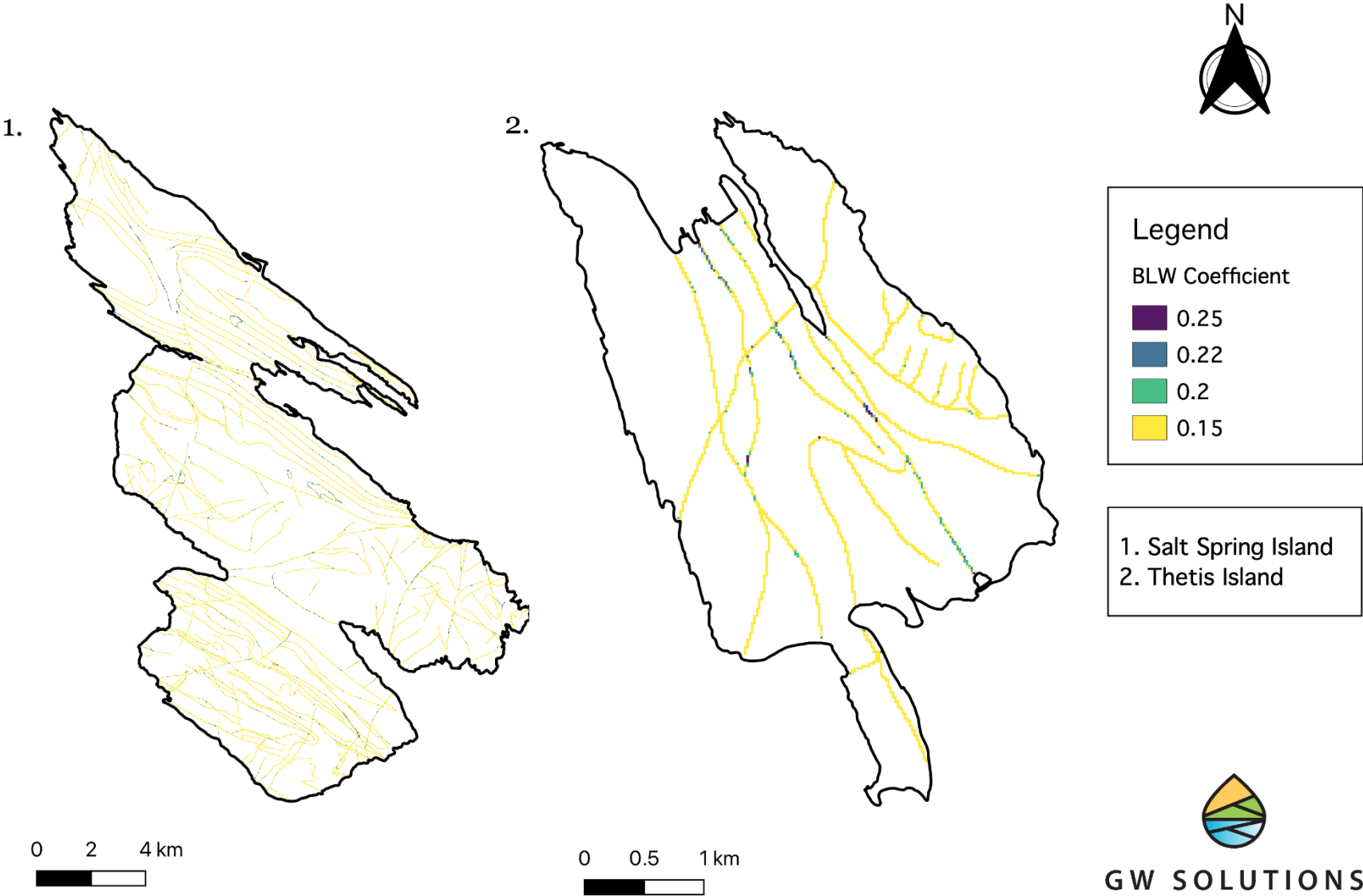
BLW Coefficient

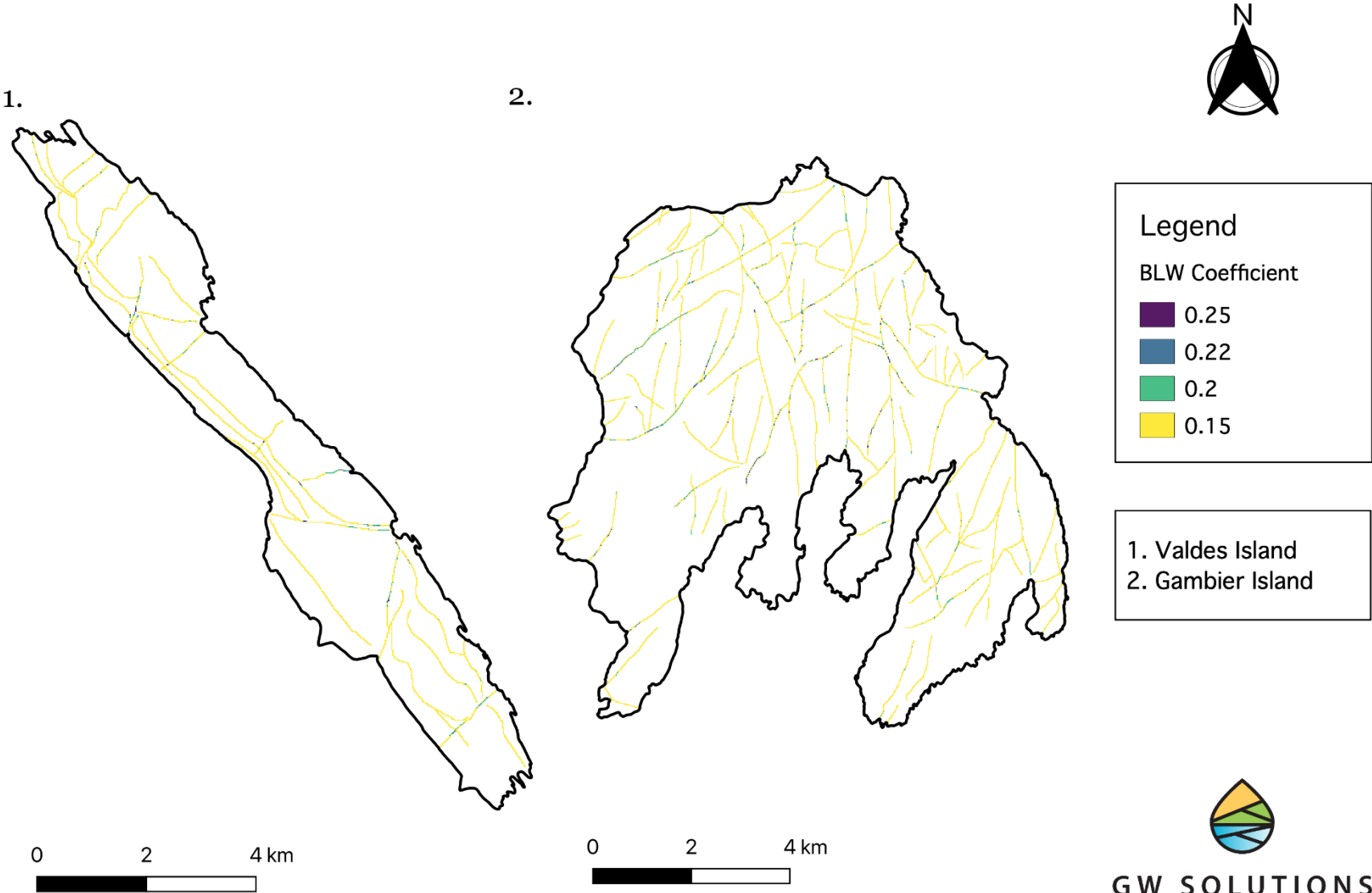
- 0.25
- 0.22
- 0.2
- 0.15

- 1. Keats Island
- 2. Reid Island
- 3. Sidney Island
- 4. Thormanby Islands

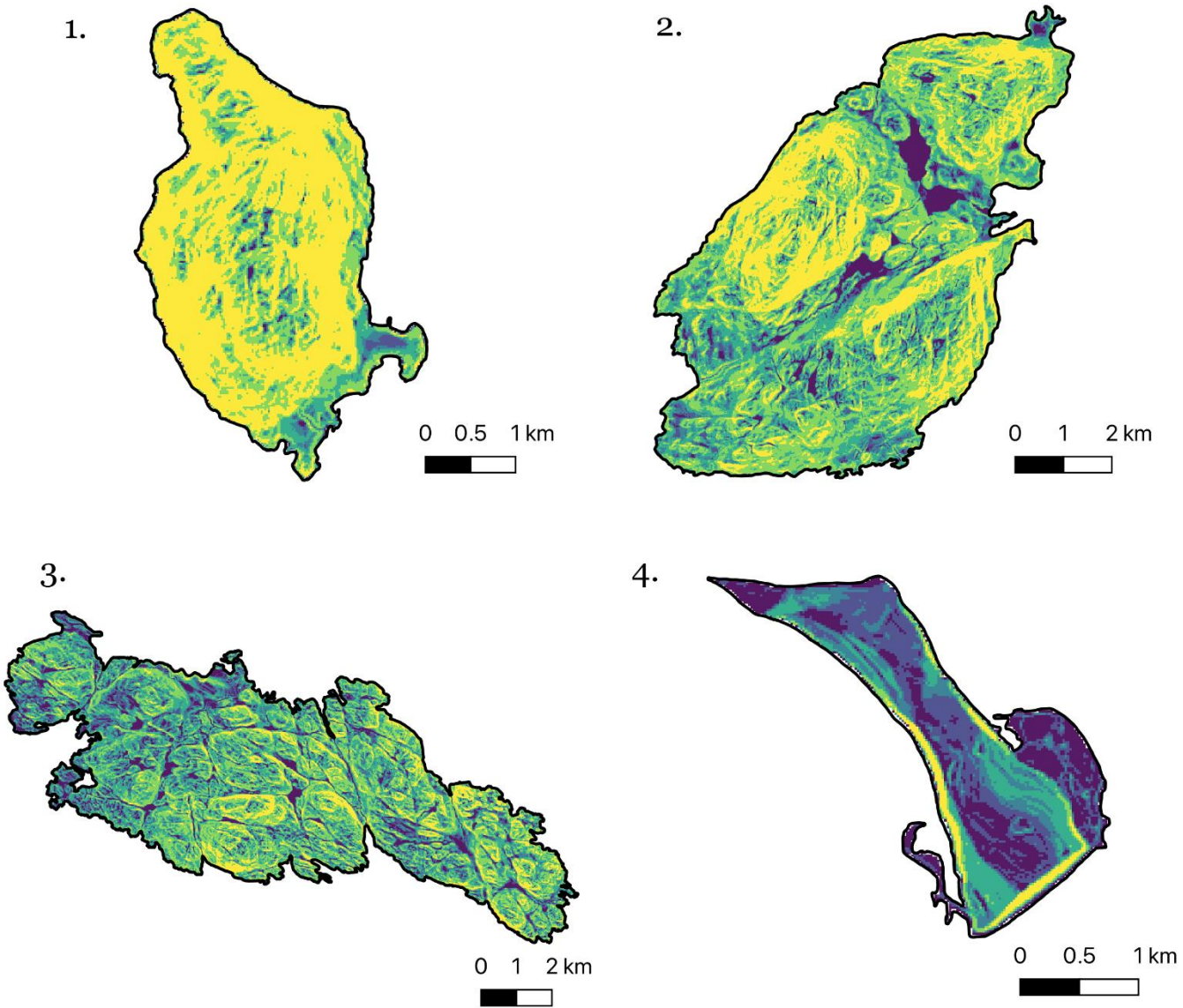


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4- Slope factor



Legend

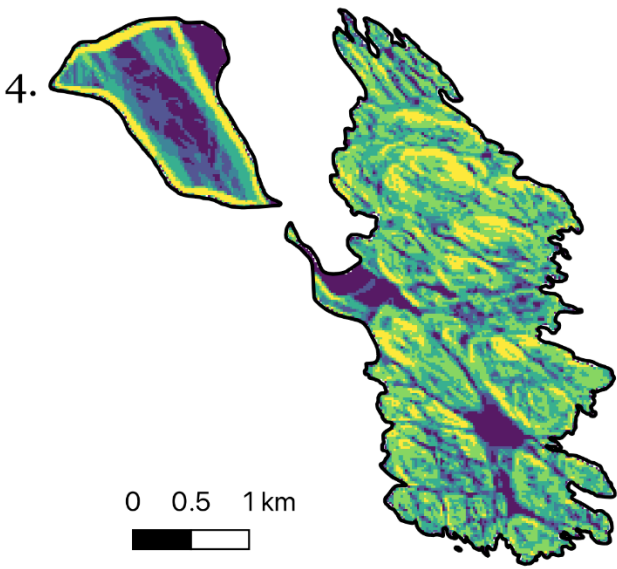
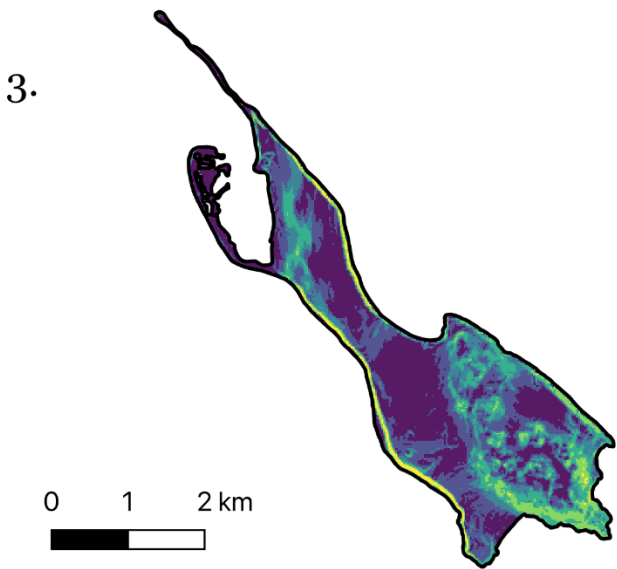
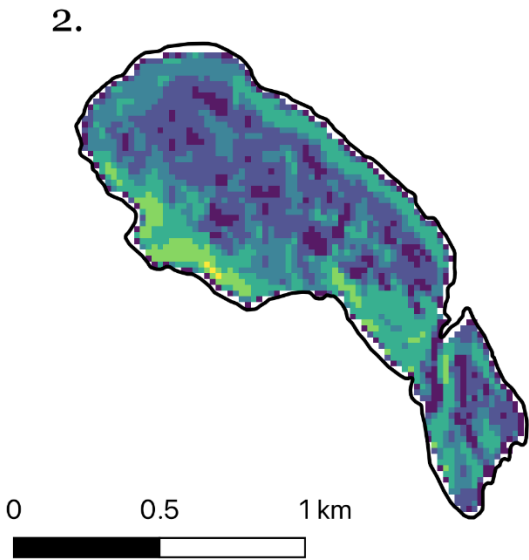
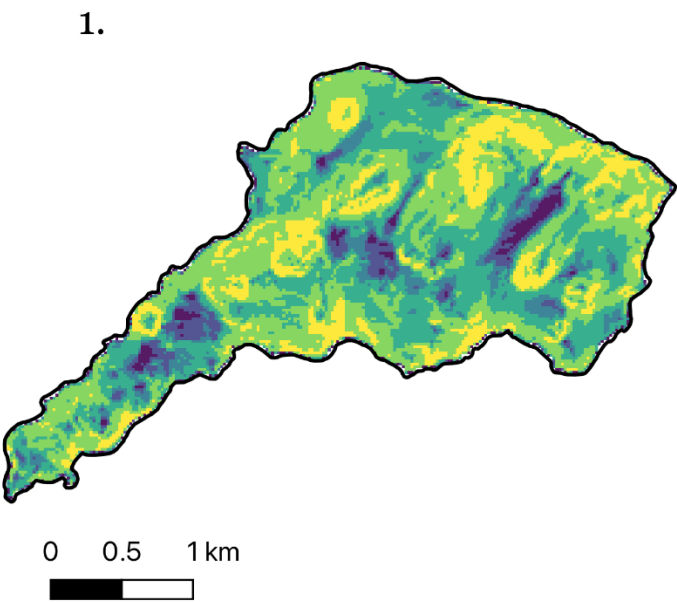
Slope Coefficient

- 0.20
- 0.18
- 0.15
- 0.10
- 0.06
- 0.03

1. Anvil Island
2. Bowen Island
3. Lasqueti Island
4. James Island



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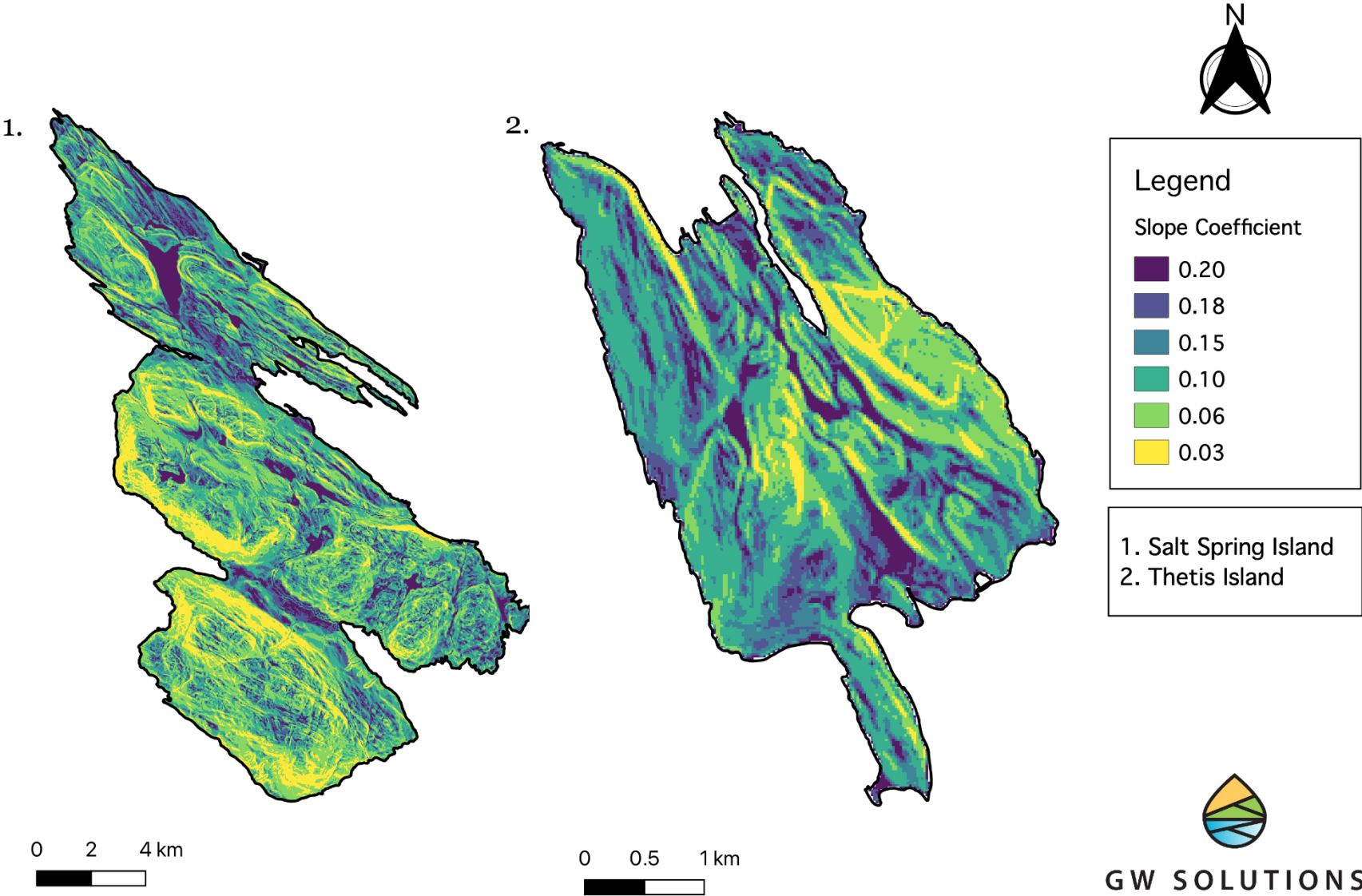
N

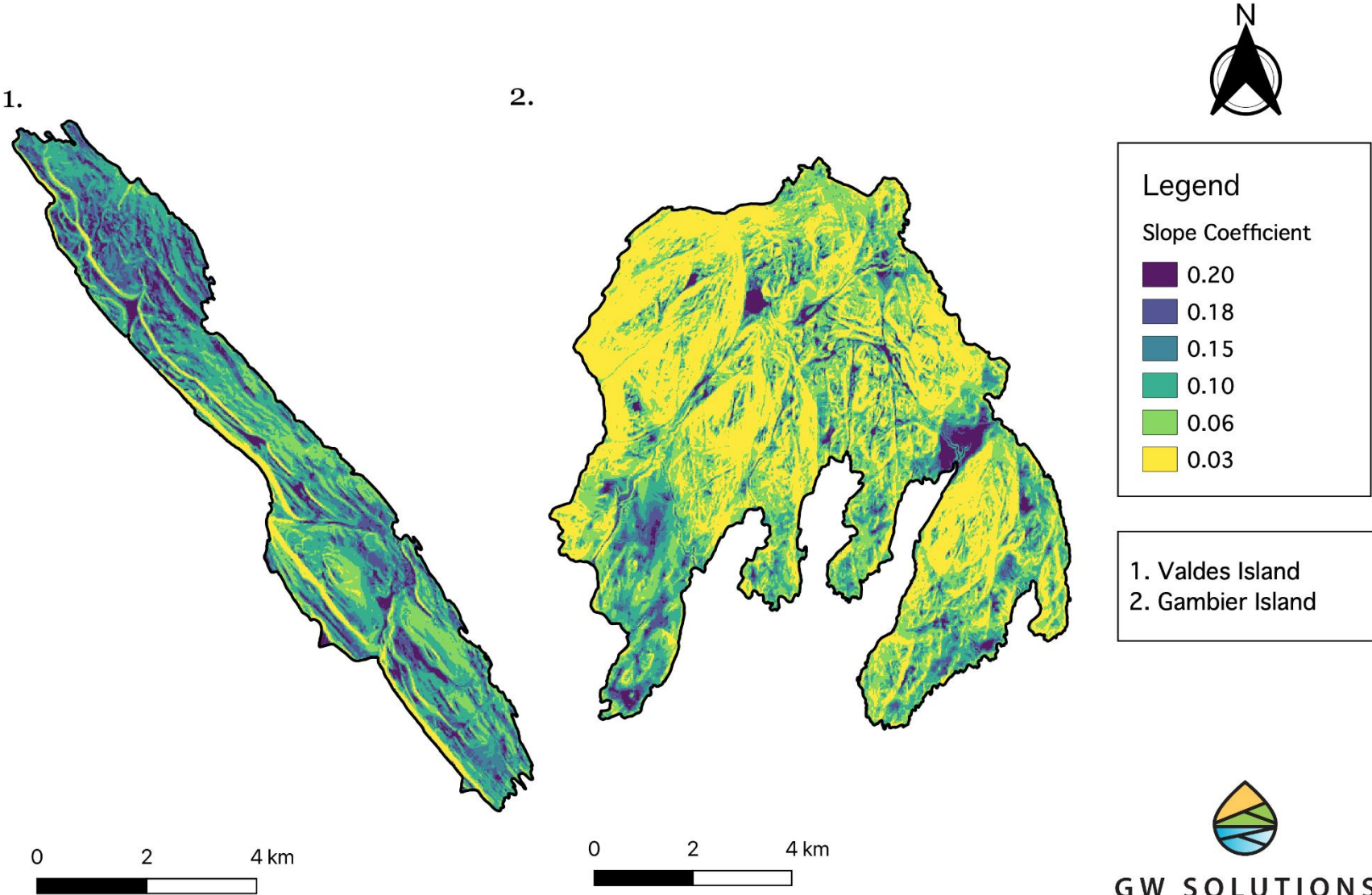
Legend

Slope Coefficient

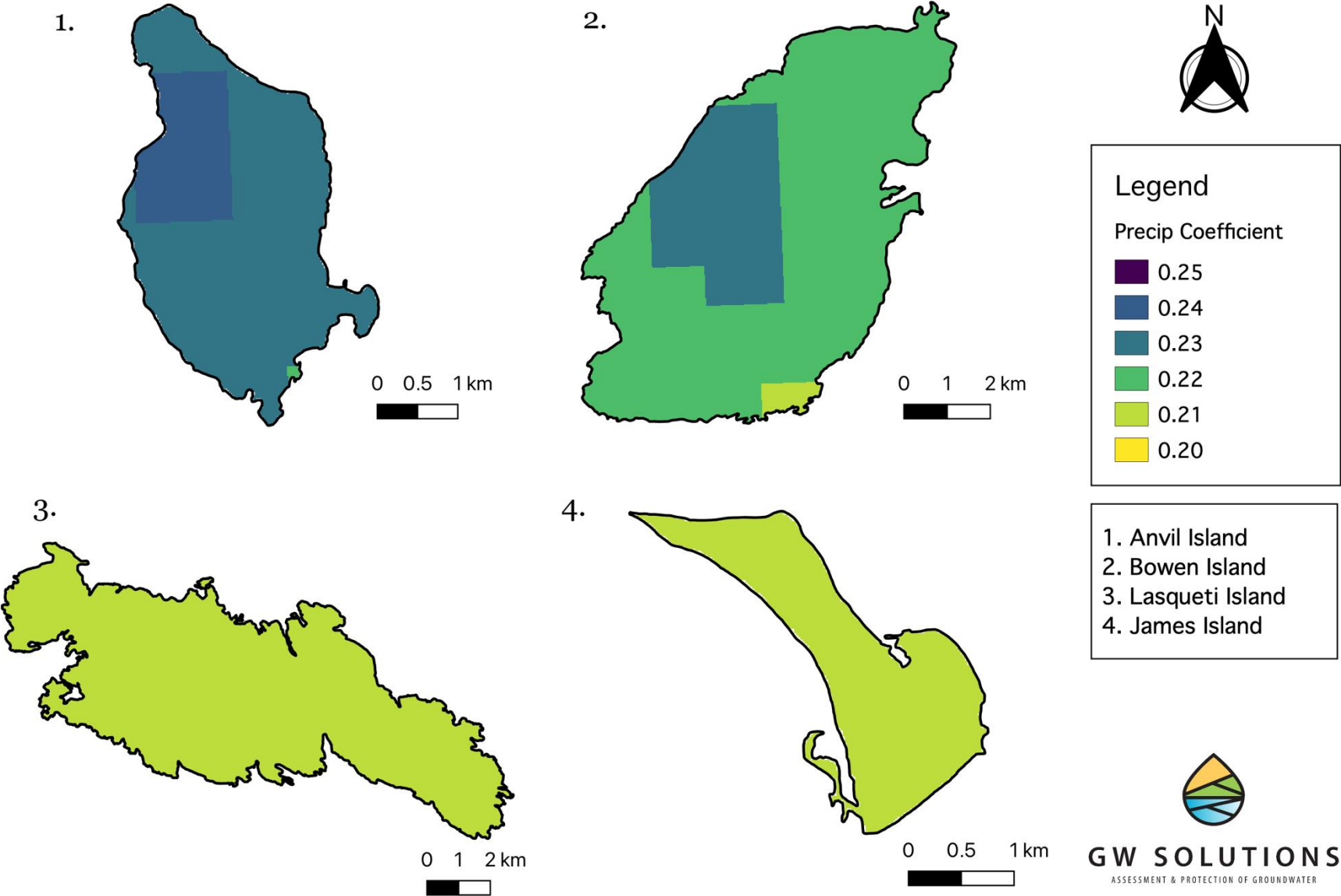
0.20
0.18
0.15
0.10
0.06
0.03

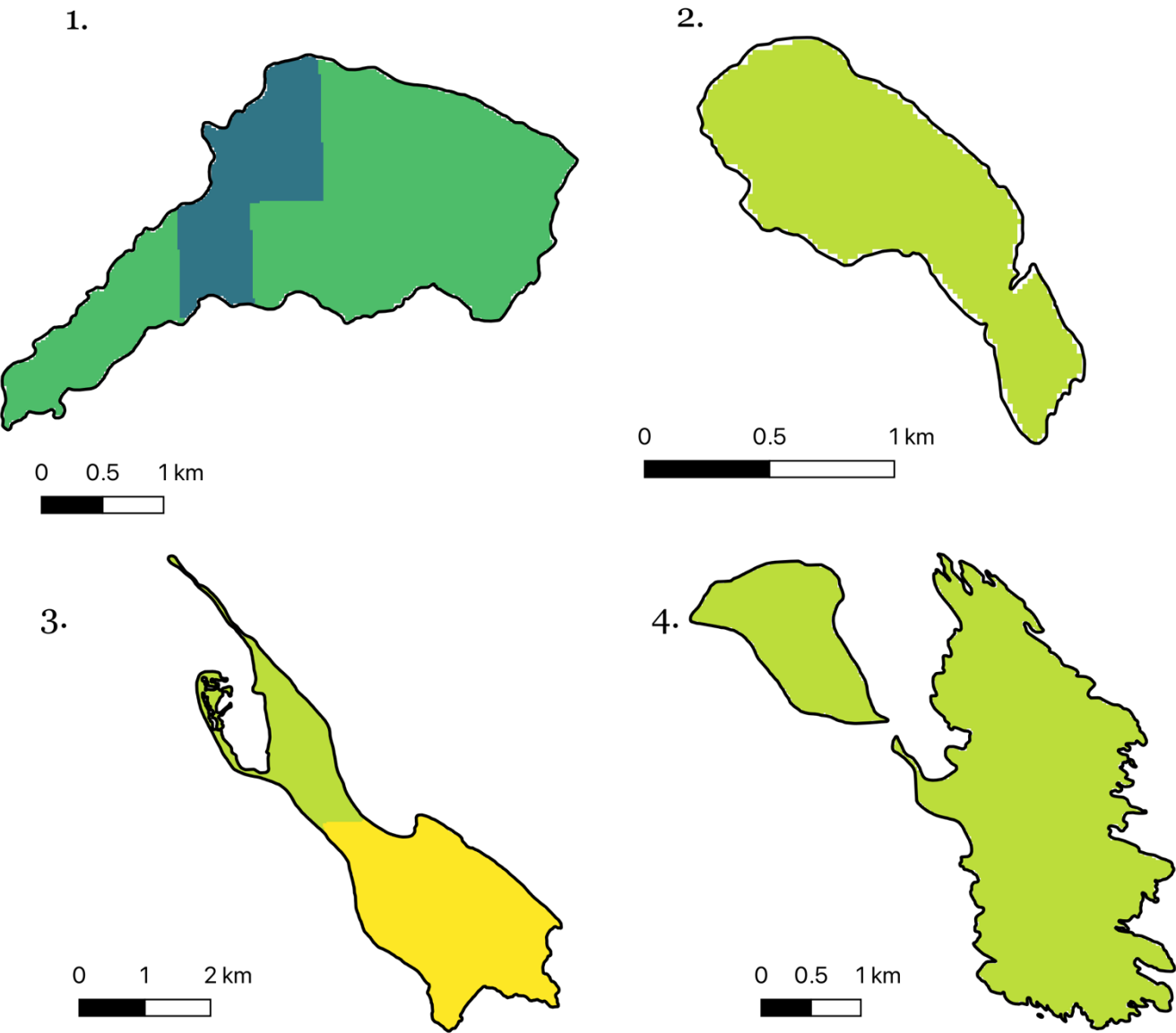
1. Keats Island
2. Reid Island
3. Sidney Island
4. Thormanby Islands





5- Precipitation factor







Legend

Precip Coefficient

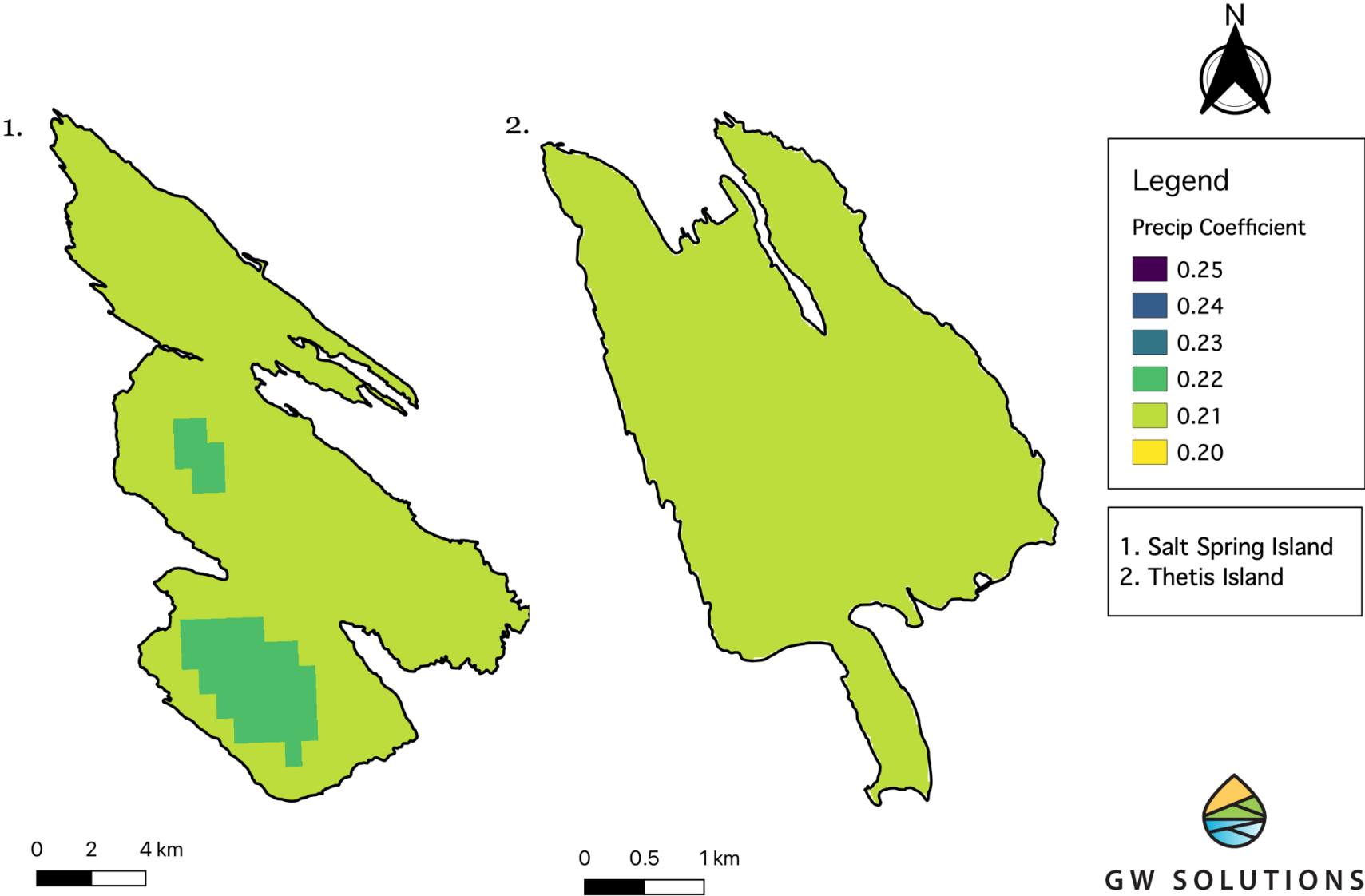
0.25
0.24
0.23
0.22
0.21
0.20

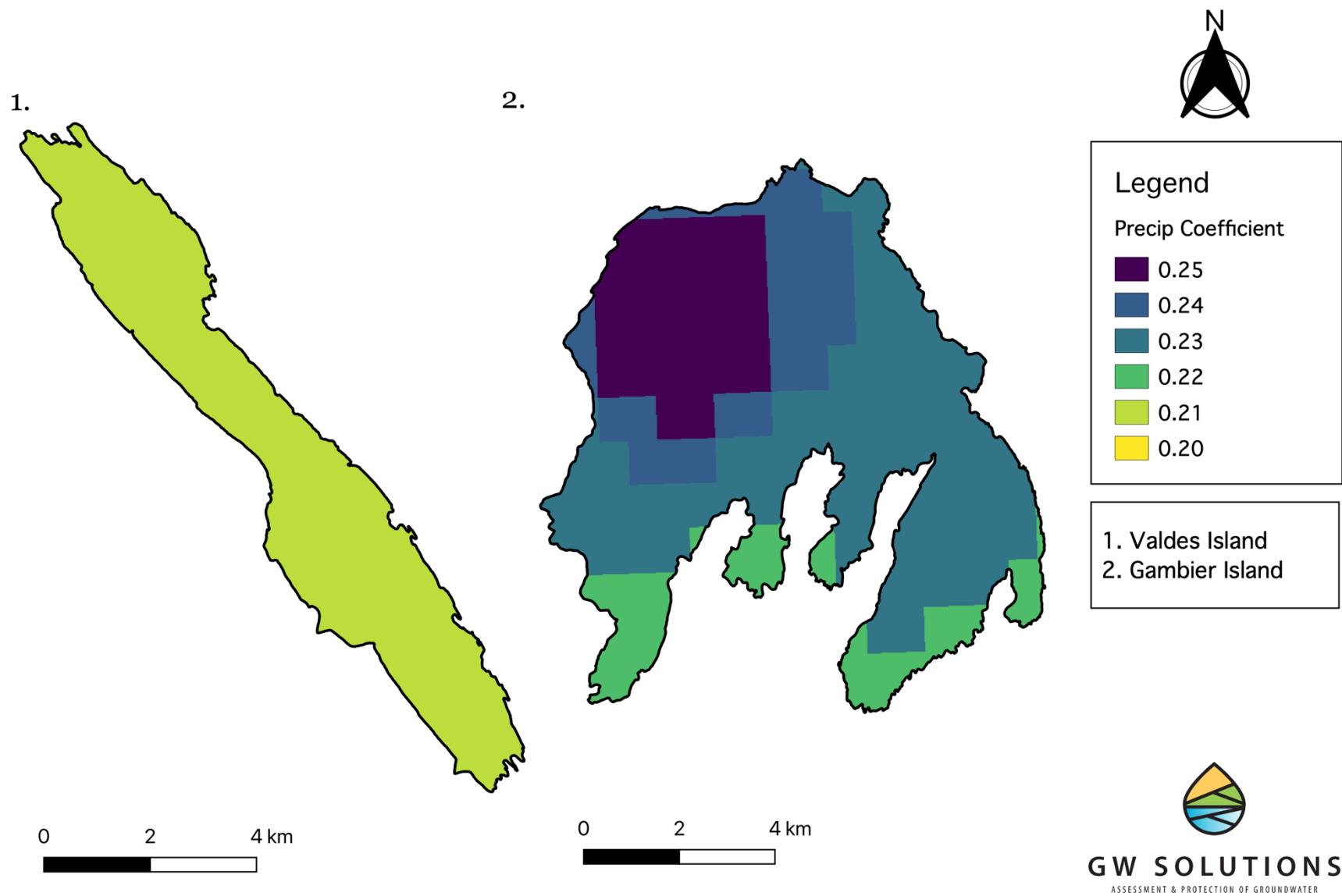
1. Keats Island

2. Reid Island

3. Sidney Island

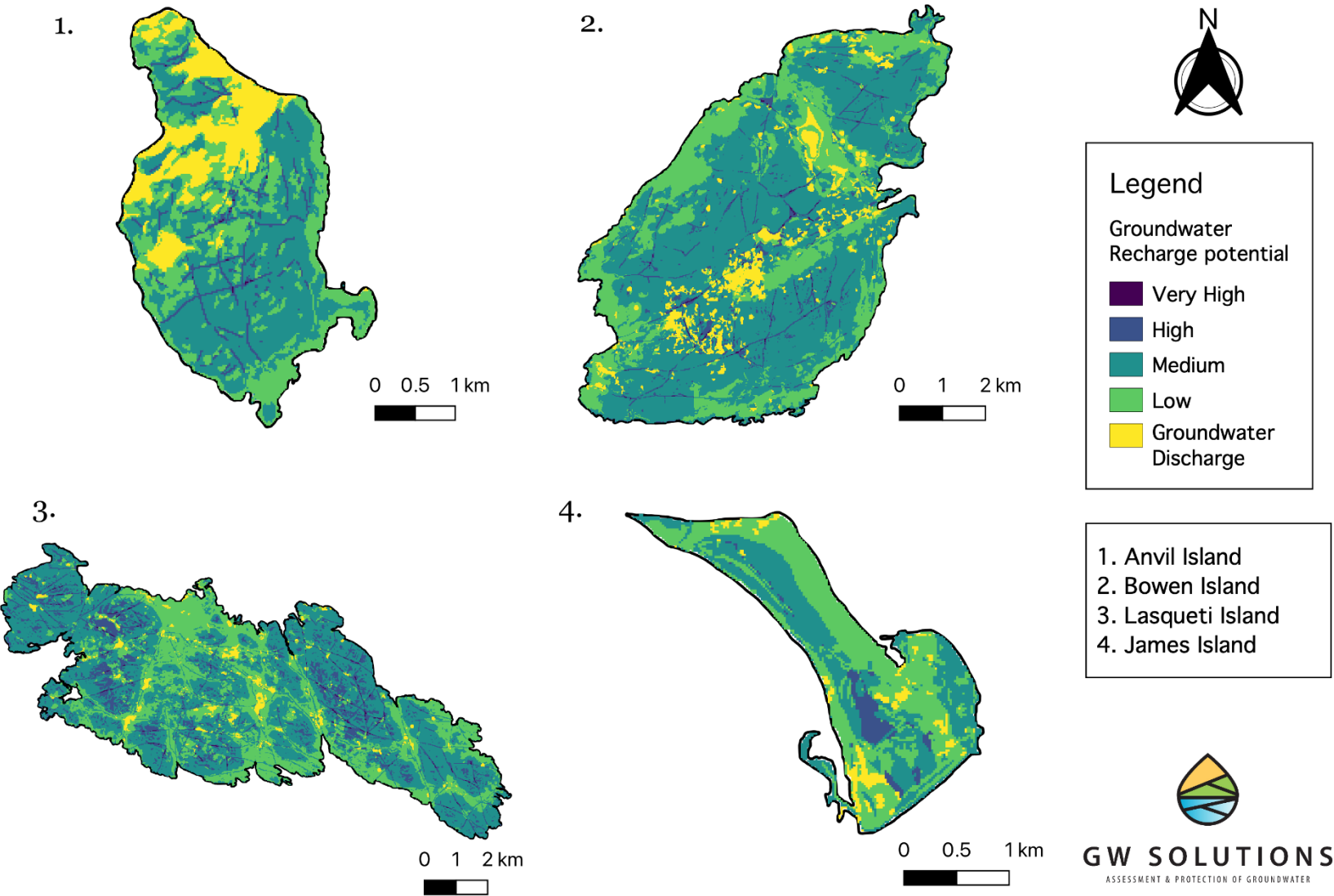
4. Thormanby Islands

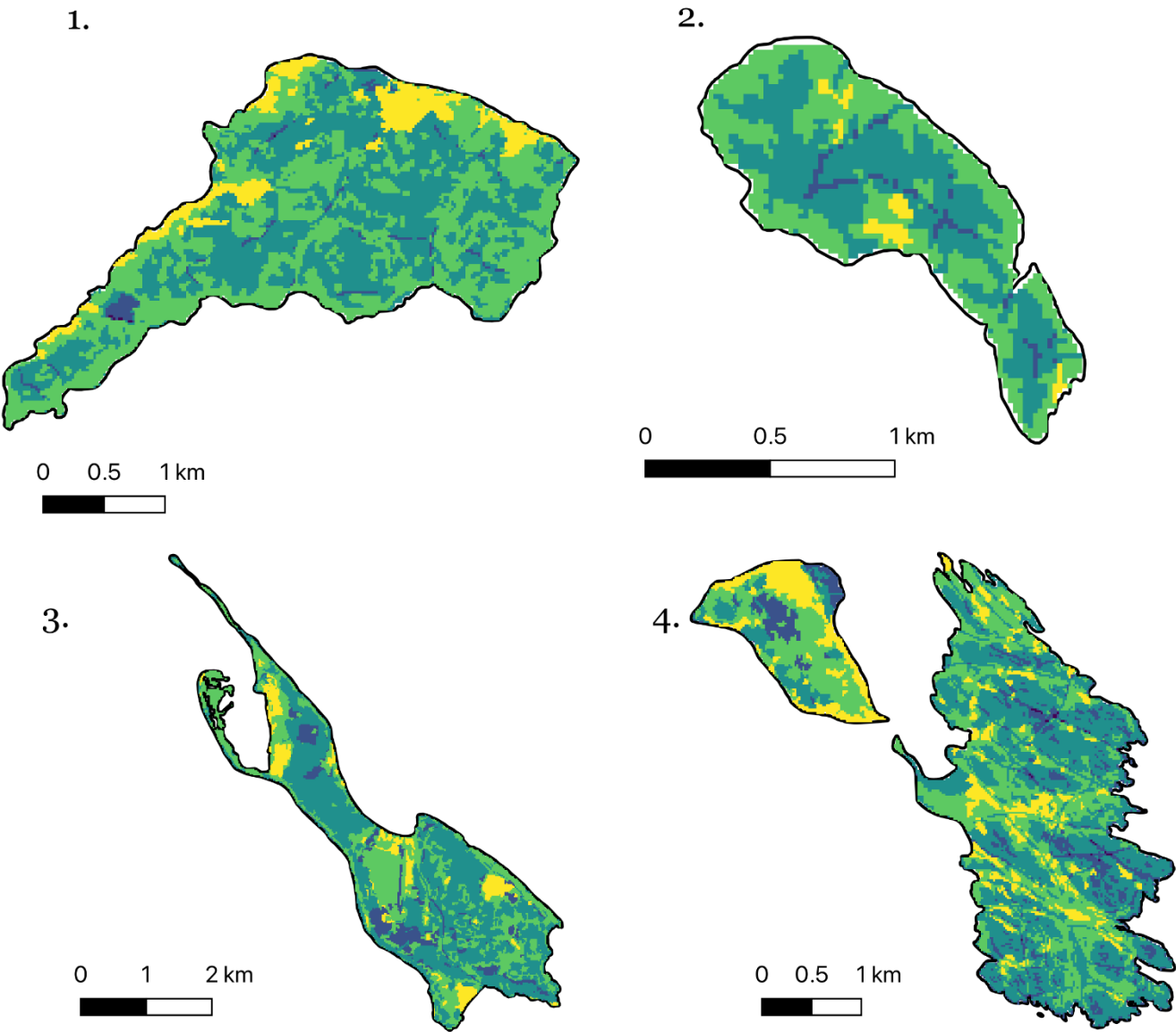




APPENDIX 6: MAPS OF GROUNDWATER RECHARGE POTENTIAL

1.1 Groundwater recharge potential





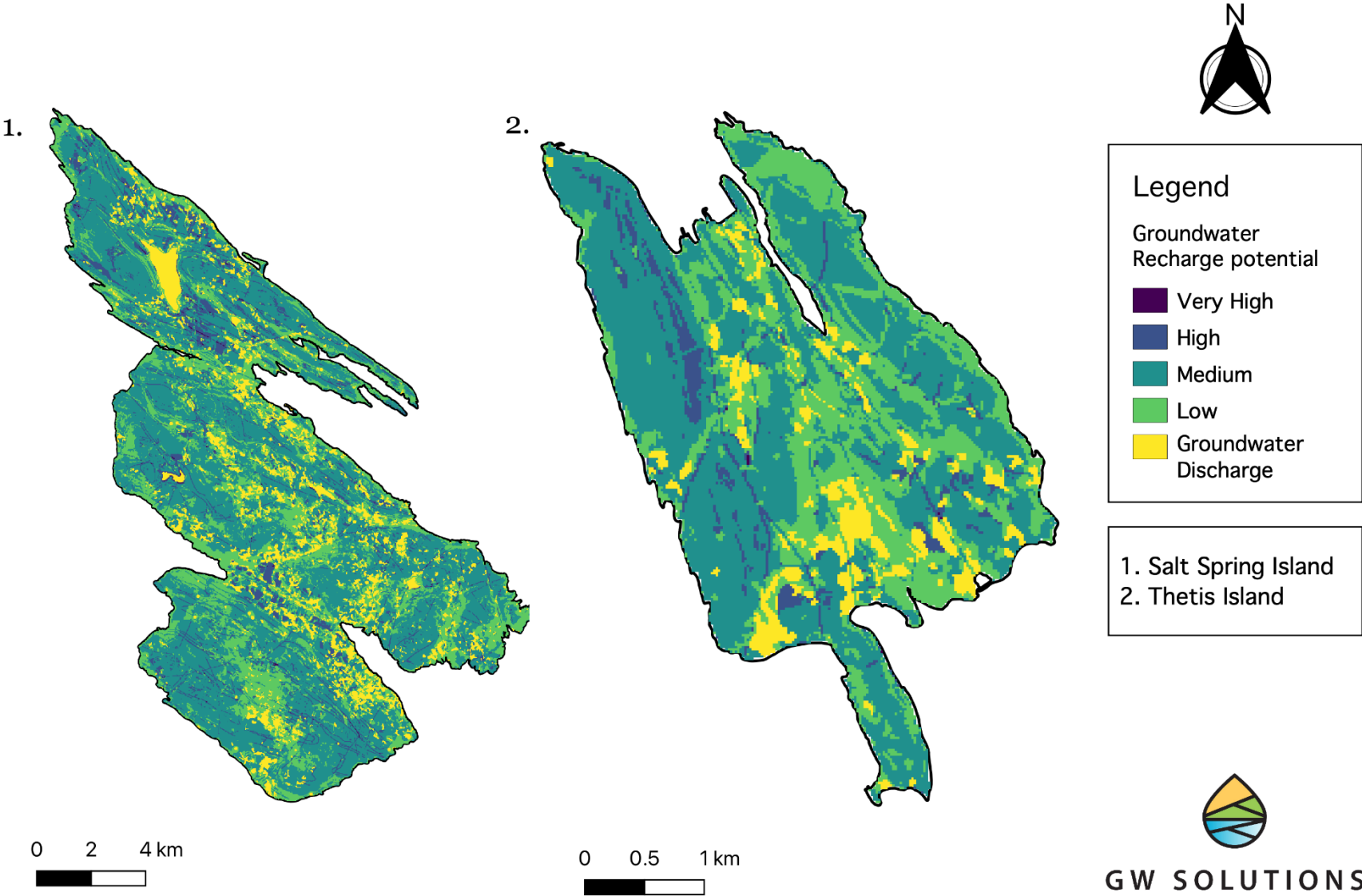


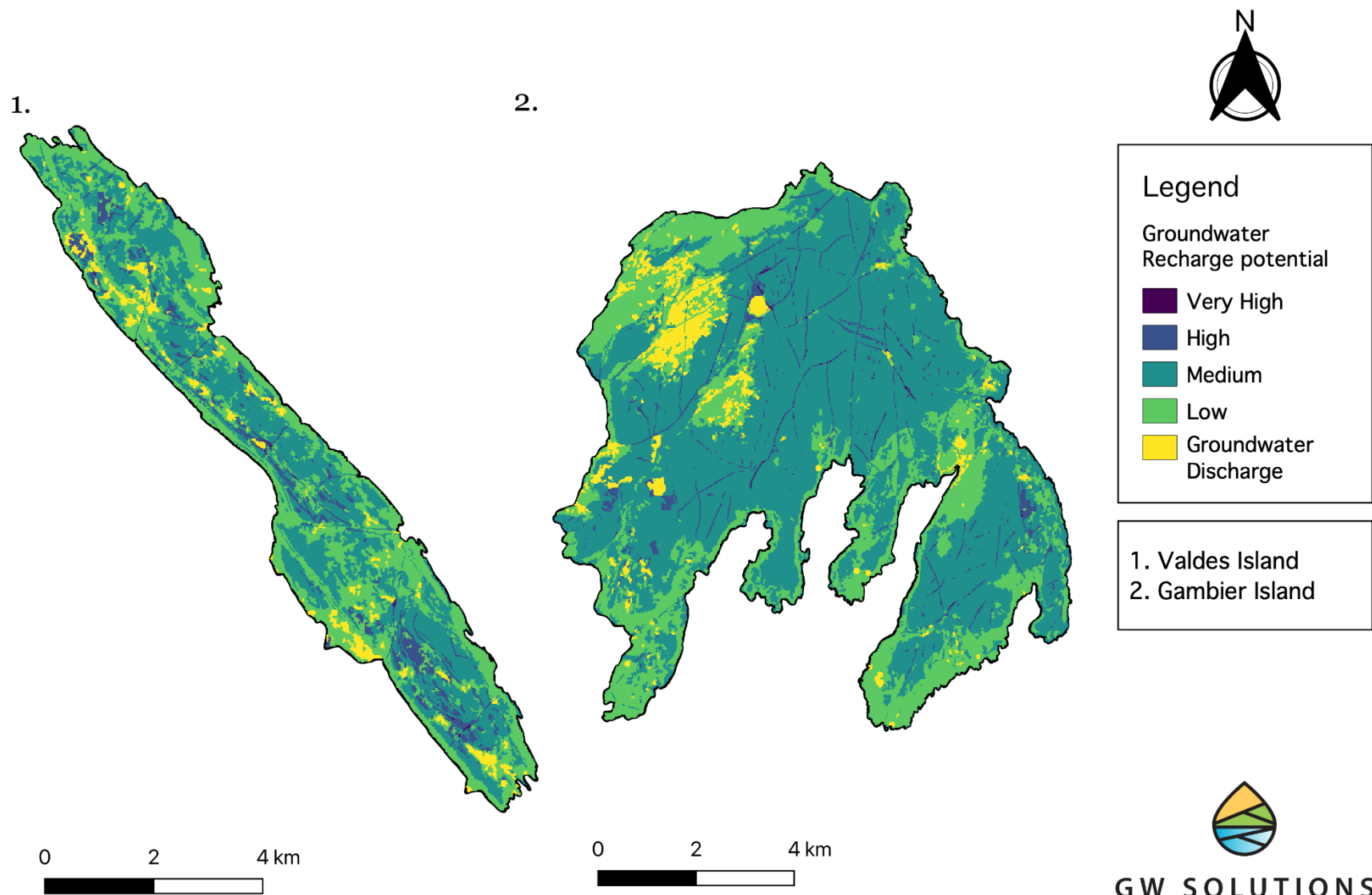
Legend

Groundwater Recharge potential

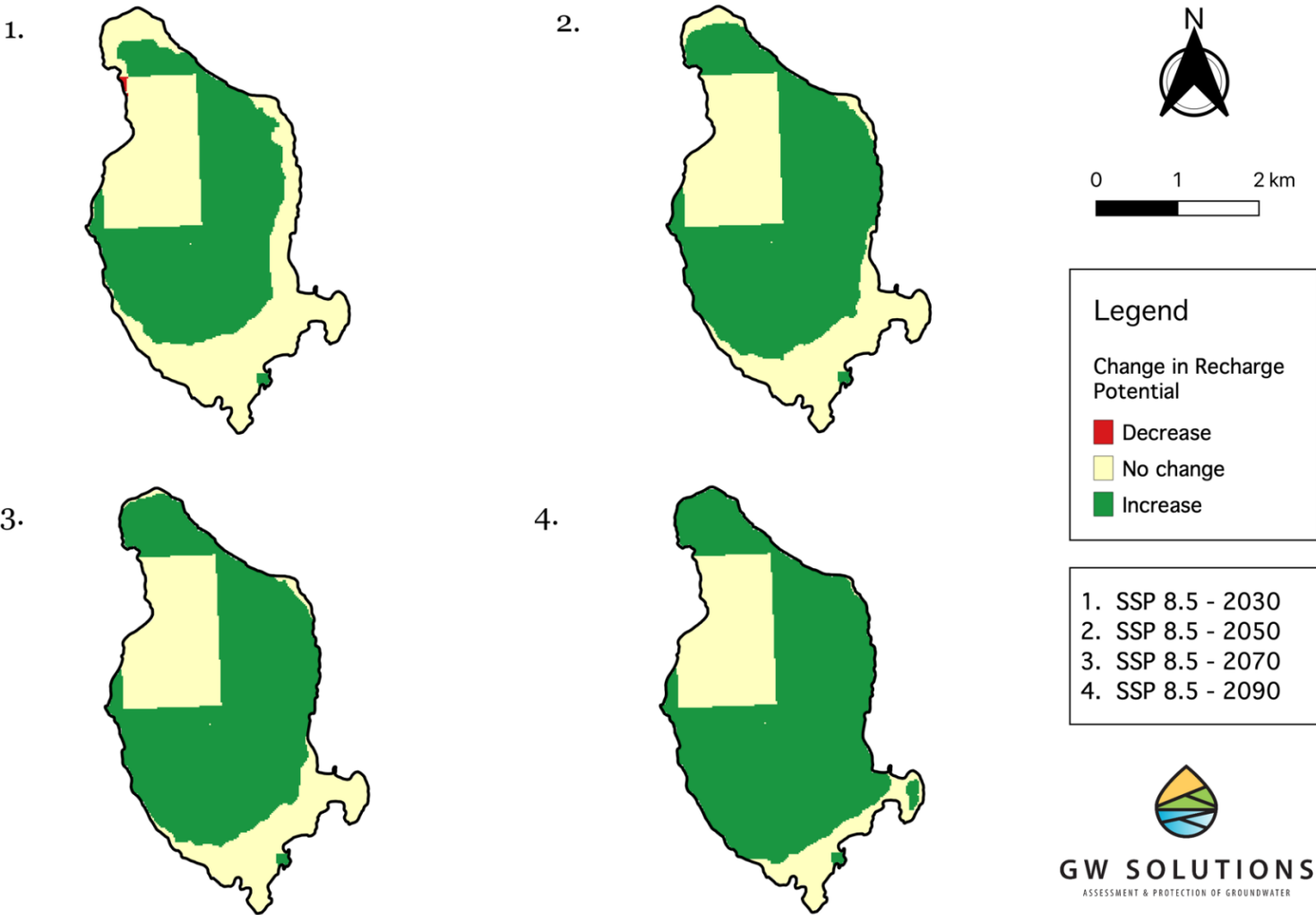
- Very High
- High
- Medium
- Low
- Groundwater Discharge

1. Keats Island
2. Reid Island
3. Sidney Island
4. Thormanby Islands

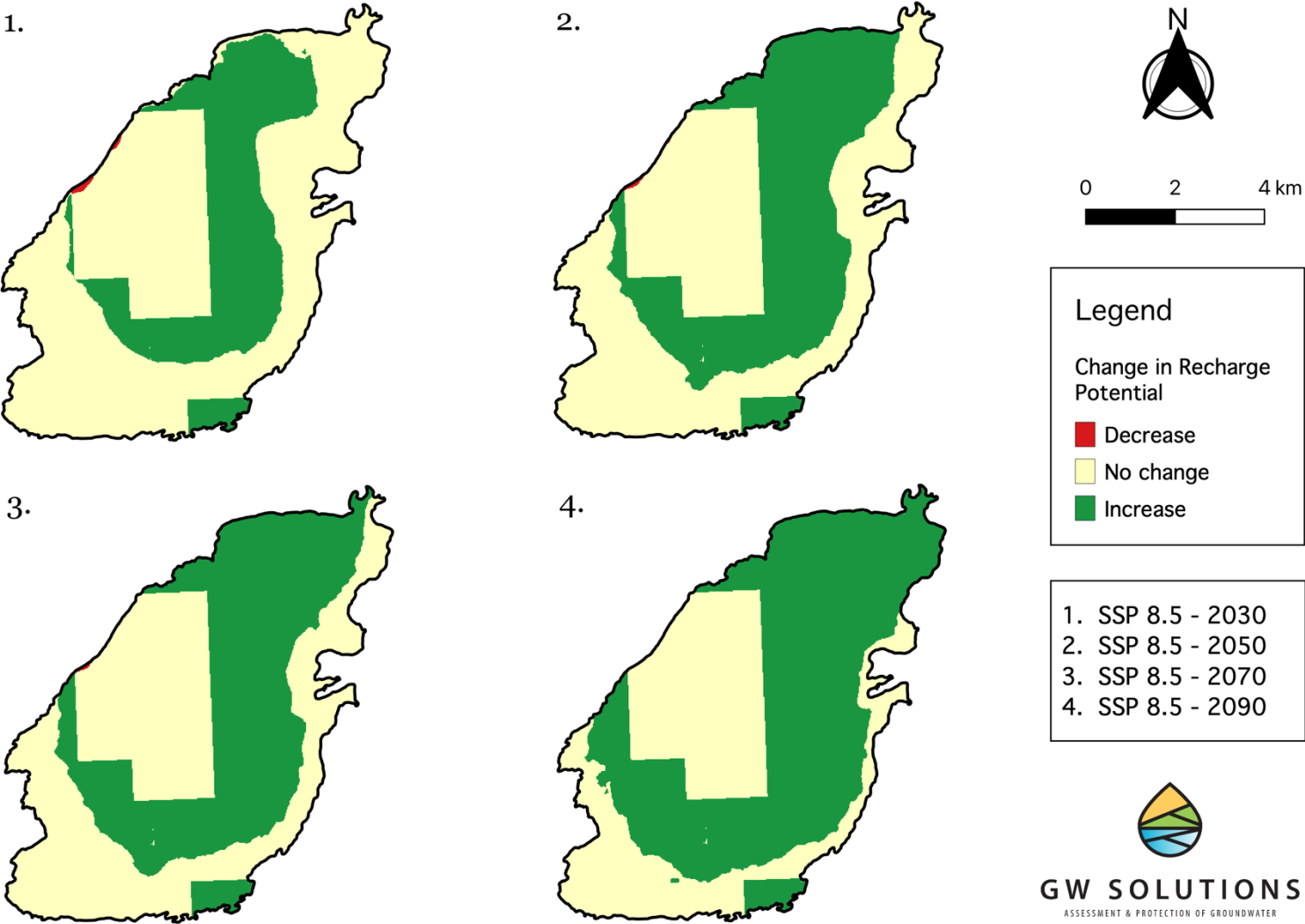




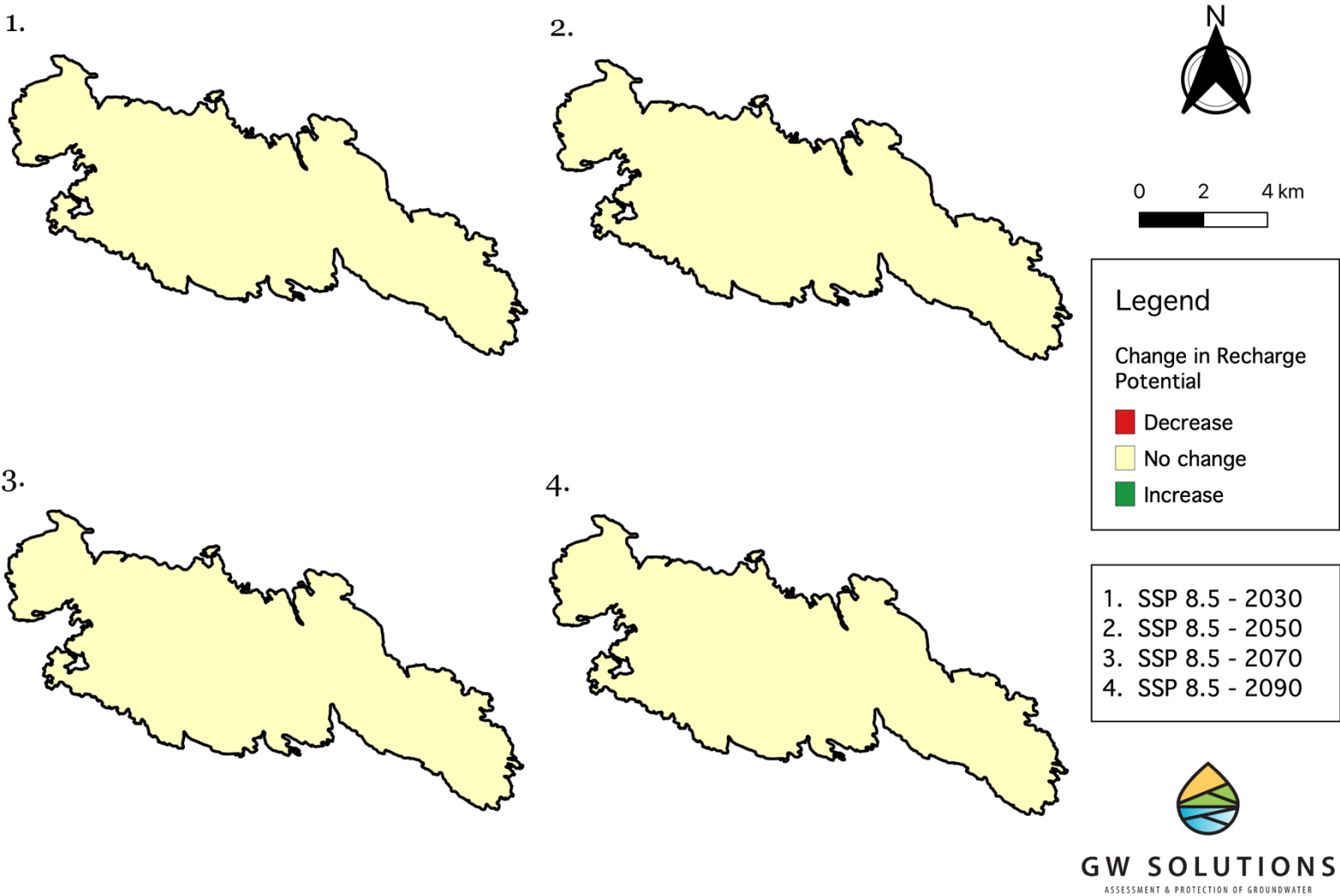
APPENDIX 7: SENSITIVITY ANALYSIS FOR GROUNDWATER RECHARGE POTENTIAL



Change in recharge potential under projected climate change (SSP 8.5) for Anvil Island



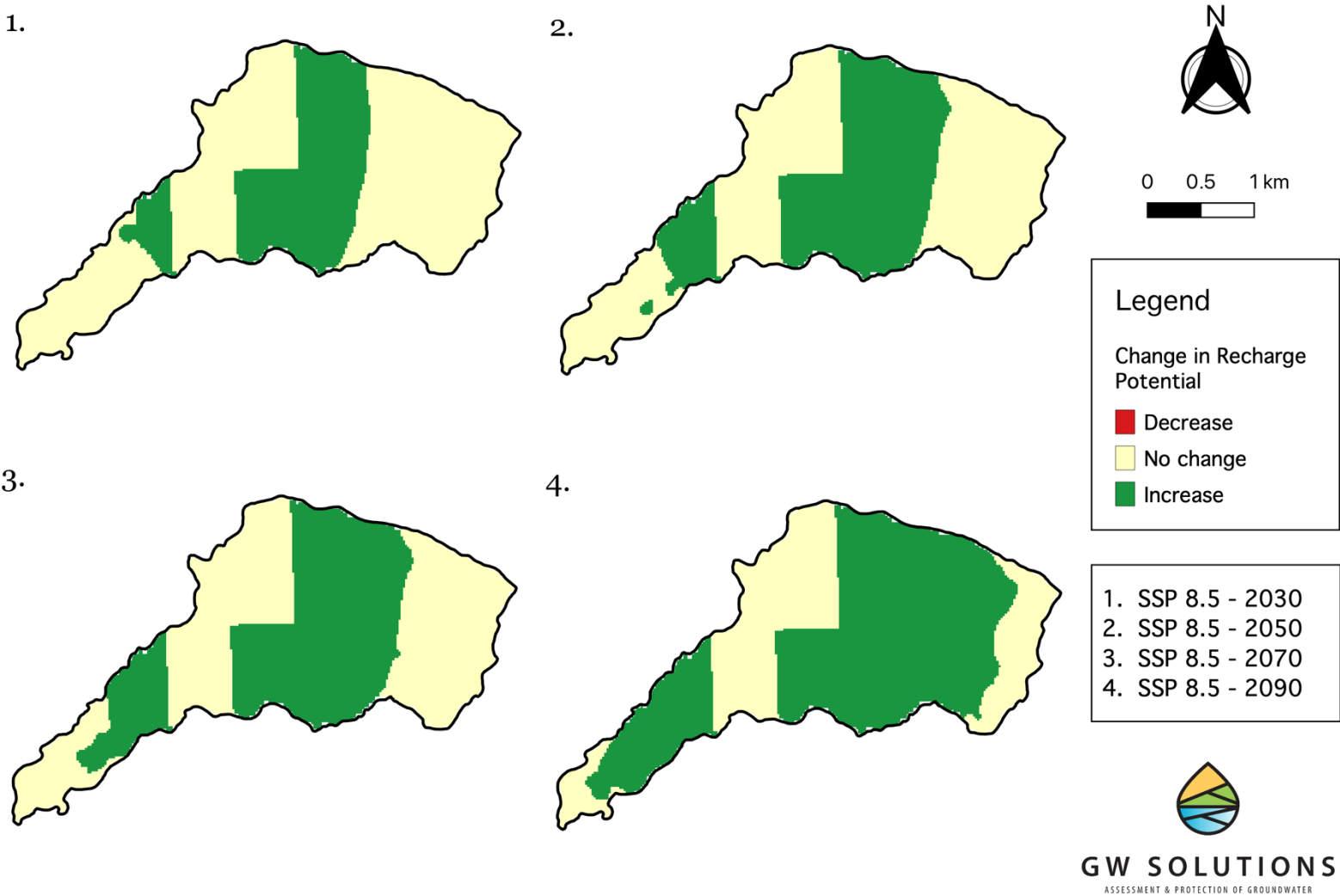
Change in recharge potential under projected climate change (SSP 8.5) for Bowen Island



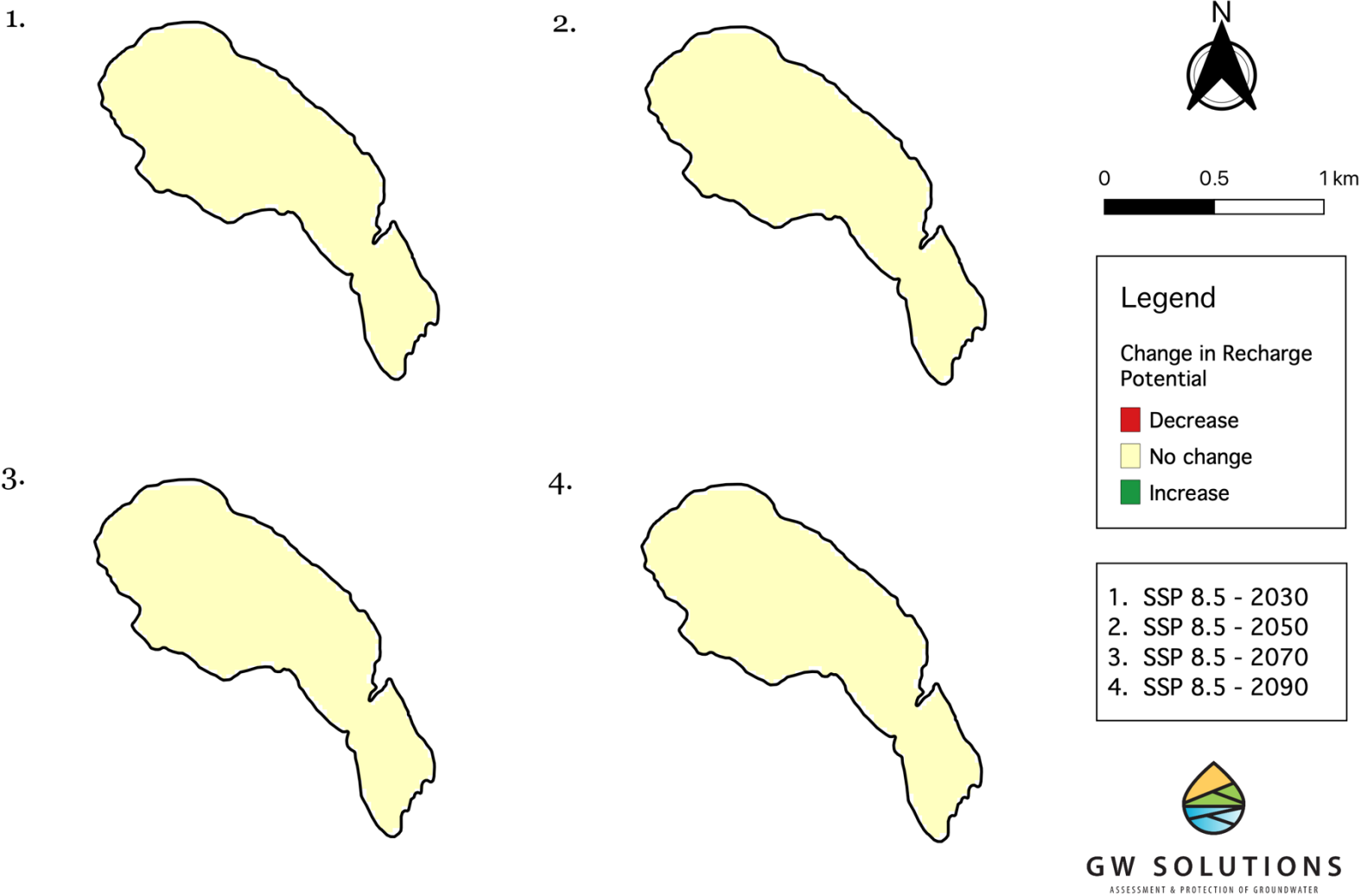
Change in recharge potential under projected climate change (SSP 8.5) for Lasqueti Island



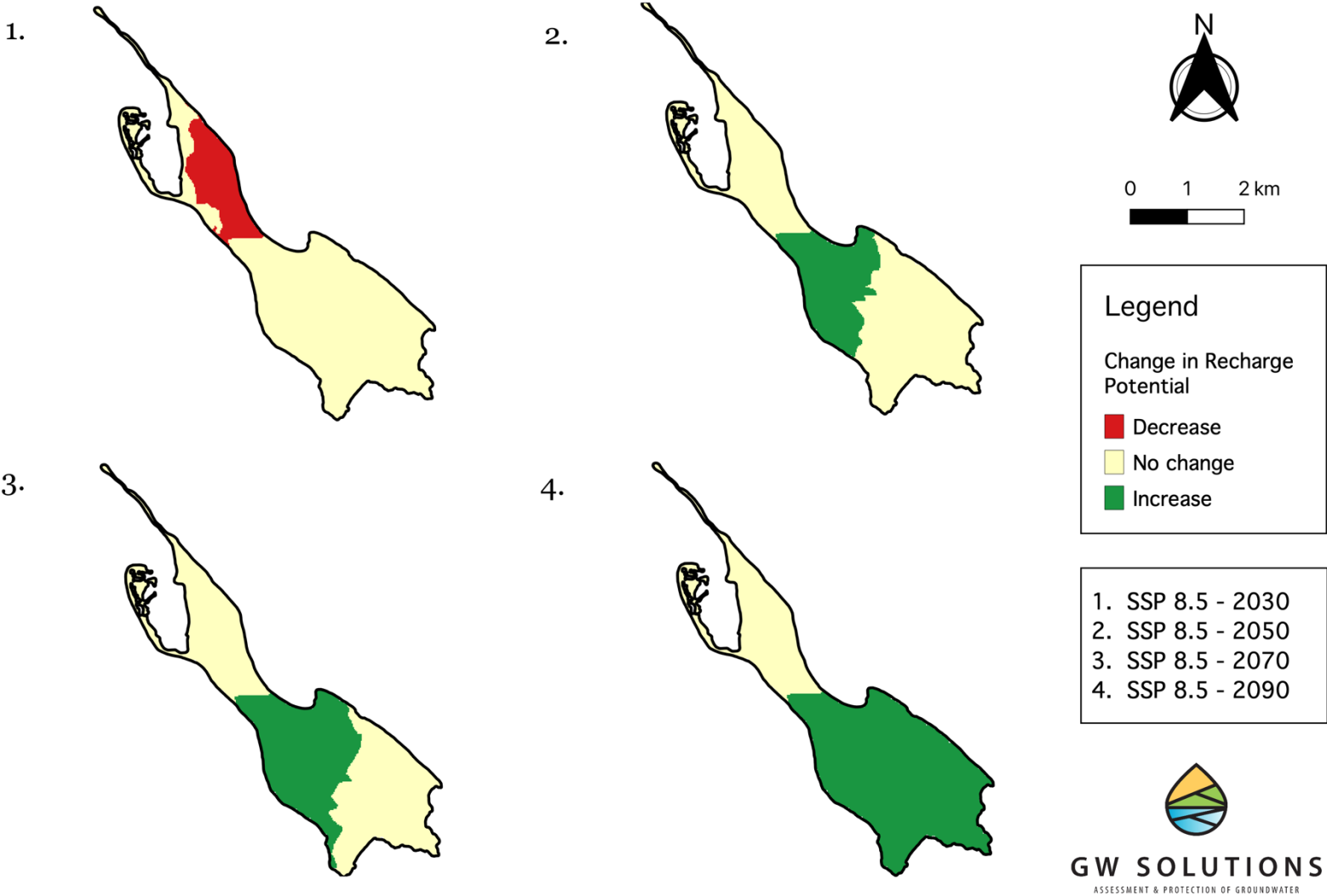
Change in recharge potential under projected climate change (SSP 8.5) for James Island



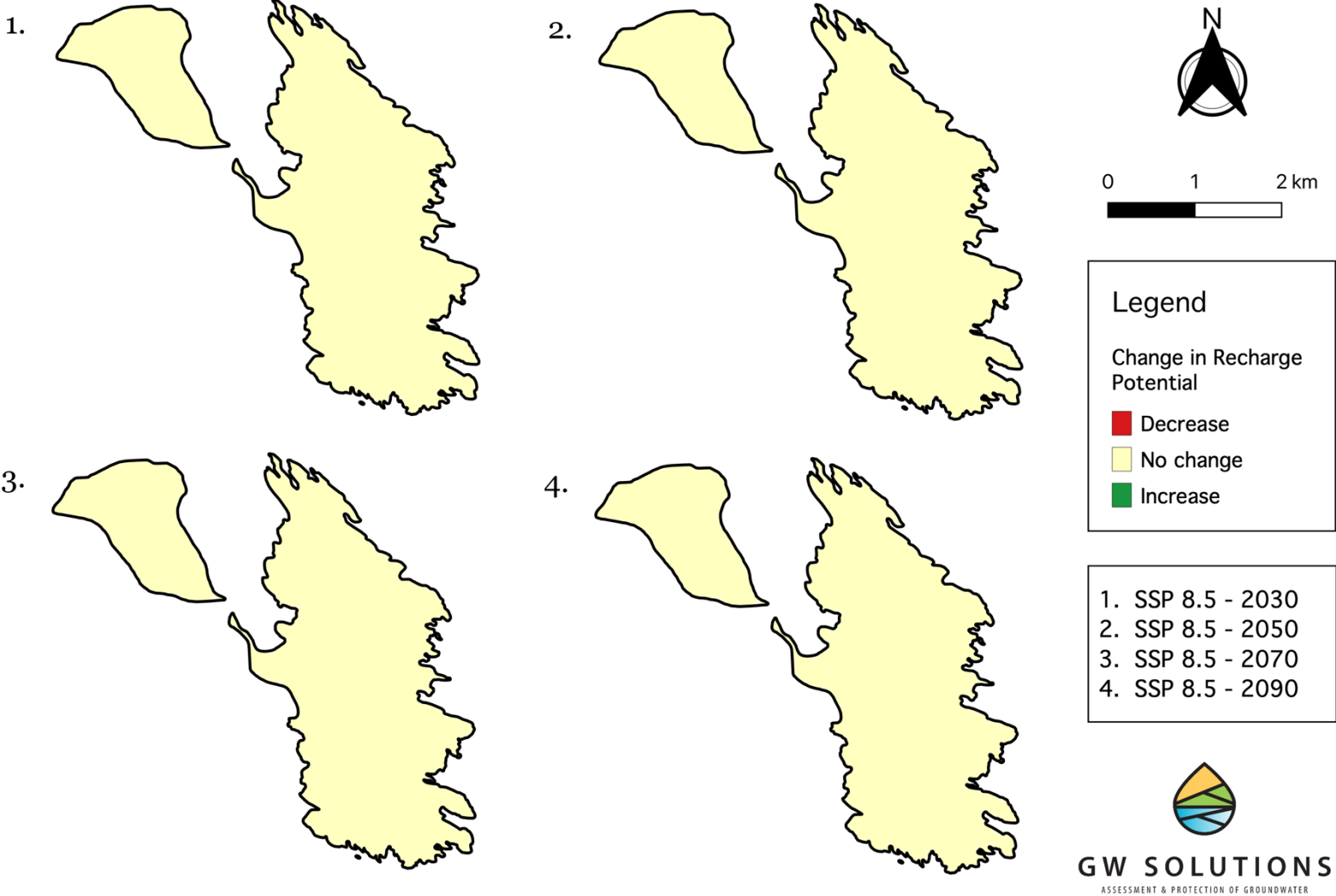
Change in recharge potential under projected climate change (SSP 8.5) for Keats Island



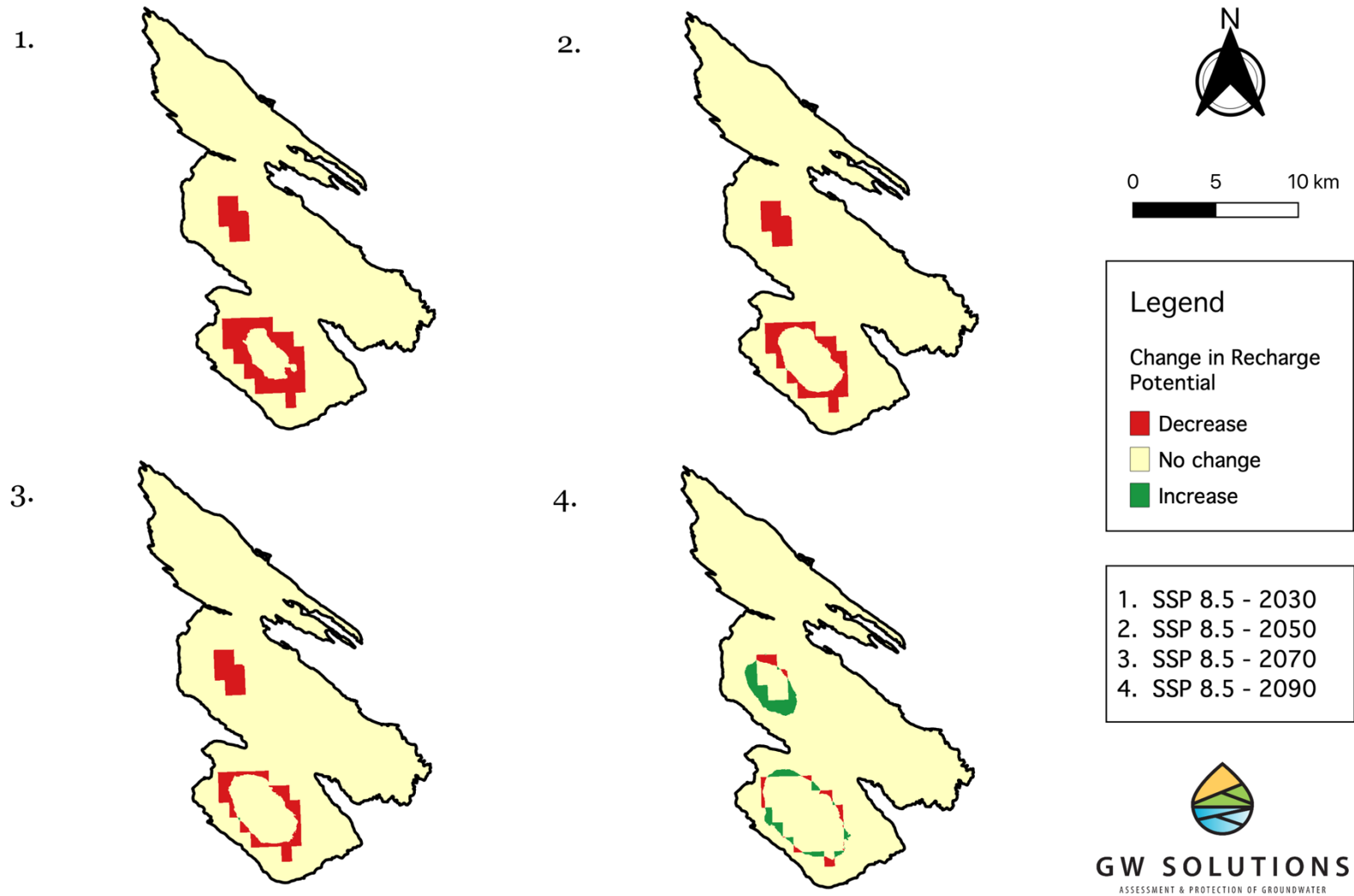
Change in recharge potential under projected climate change (SSP 8.5) for Reid Island



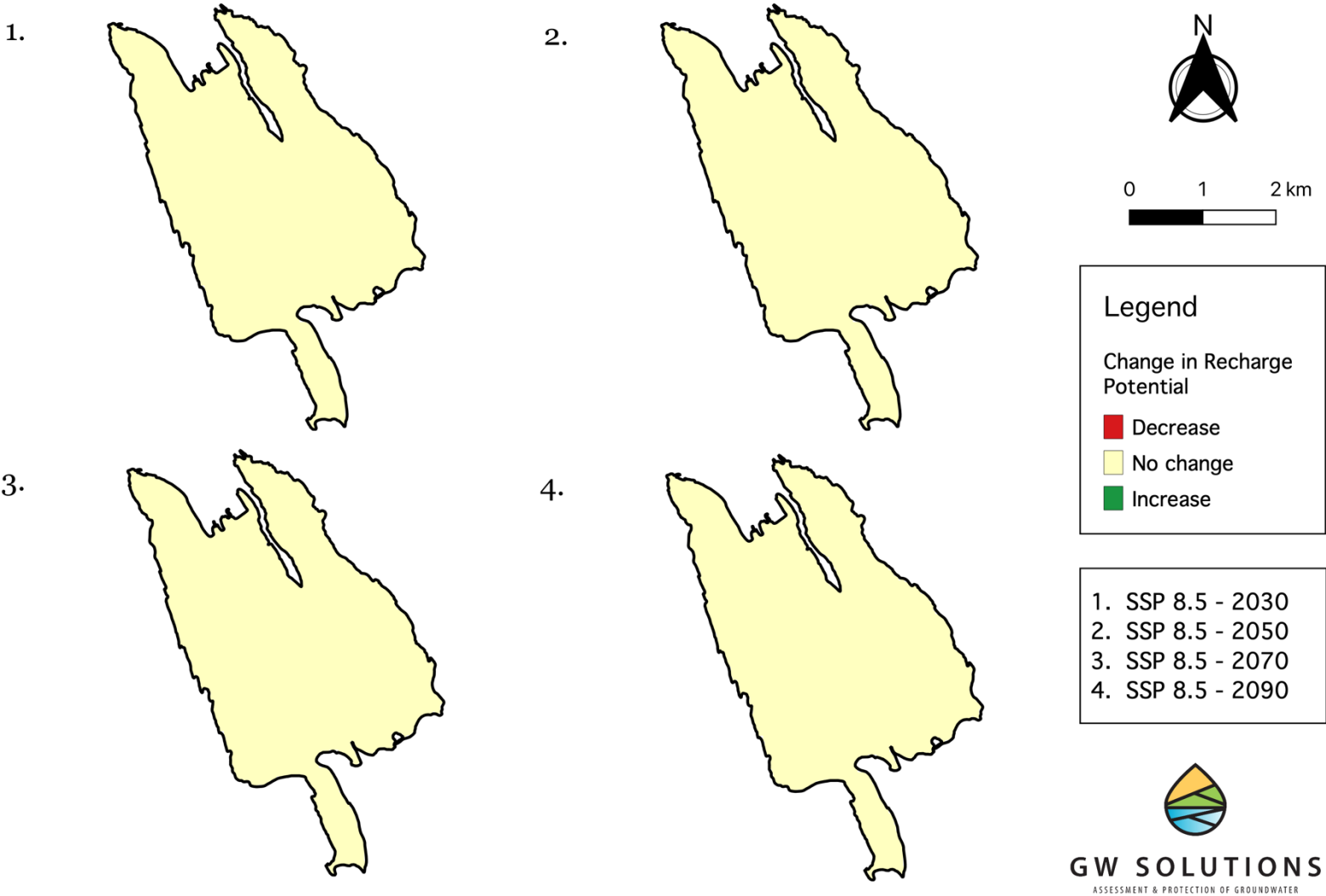
Change in recharge potential under projected climate change (SSP 8.5) for Sidney Island



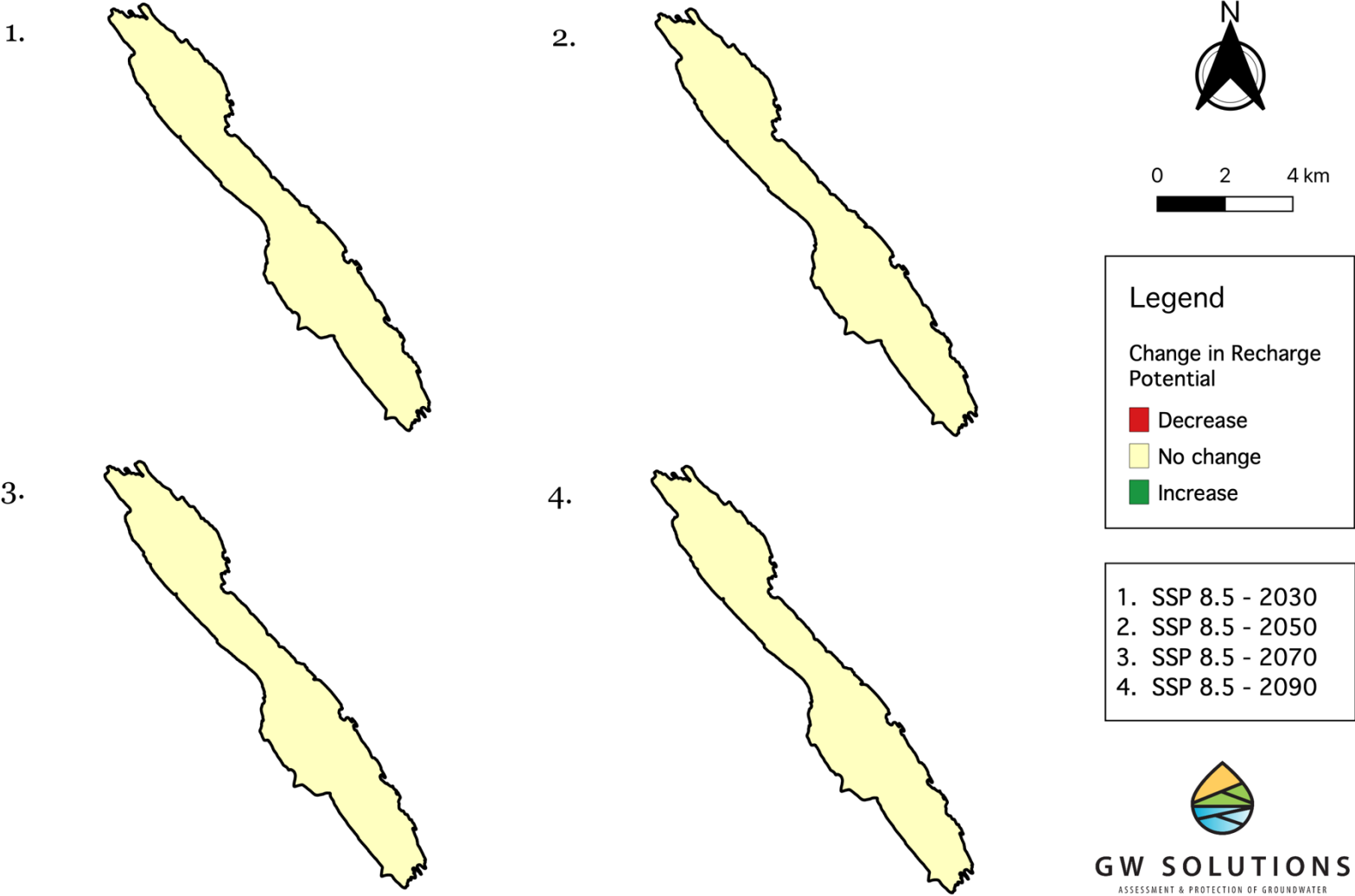
Change in recharge potential under projected climate change (SSP 8.5) for the Thormanby Islands



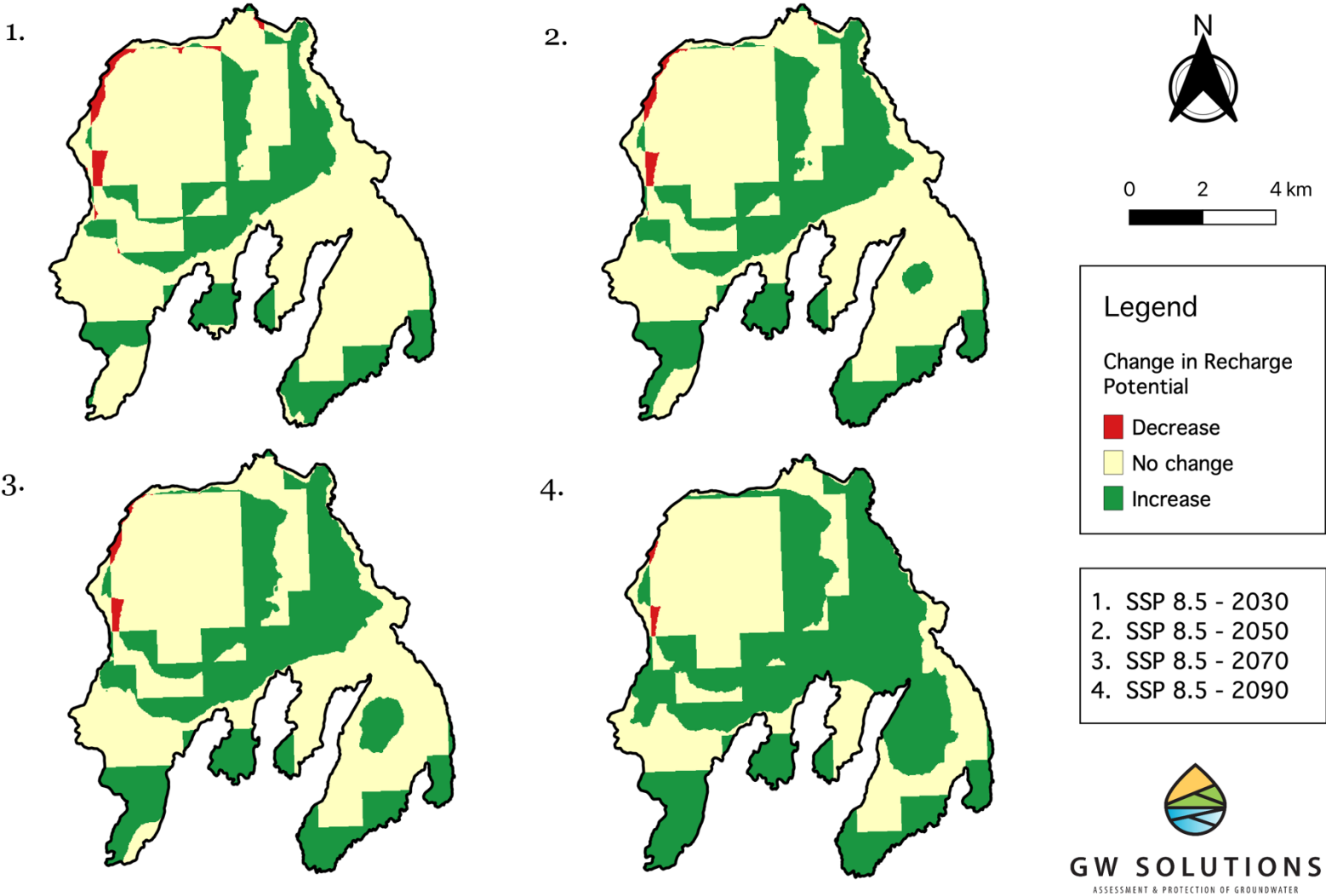
Change in recharge potential under projected climate change (SSP 8.5) for Salt Spring Island



Change in recharge potential under projected climate change (SSP 8.5) for Thetis Island



Change in recharge potential under projected climate change (SSP 8.5) for Valdes Island



Change in recharge potential under projected climate change (SSP 8.5) for Gambier Island

References

- Riahi, K., Rao, S., Krey, V., Cho, C., Chirkov, V., Fischer, G., Kindermann, G., Nakicenovic, N., & Rafaj, P. (2011). RCP 8.5—A scenario of comparatively high greenhouse gas emissions. *Climatic Change*, 109(1), 33. <https://doi.org/10.1007/s10584-011-0149-y>
- Wang, T., Hamann, A., Spittlehouse, D., & Carroll, C. (2016). Locally Downscaled and Spatially Customizable Climate Data for Historical and Future Periods for North America. *PLOS ONE*, 11(6), e0156720. <https://doi.org/10.1371/journal.pone.0156720>