

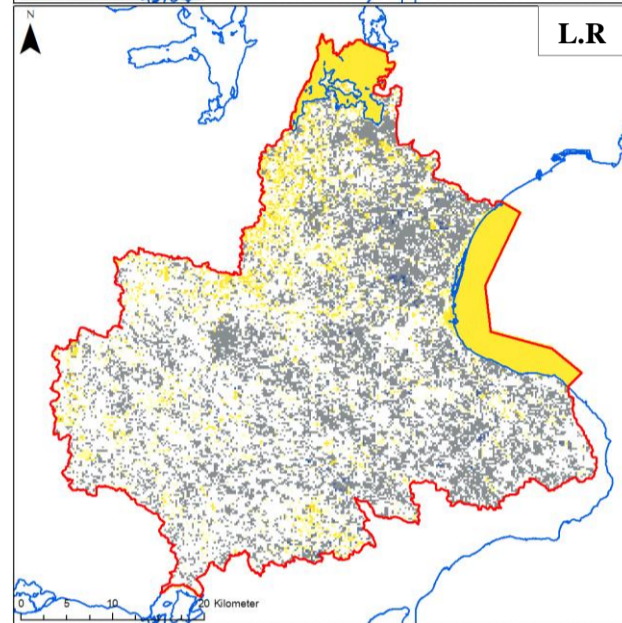
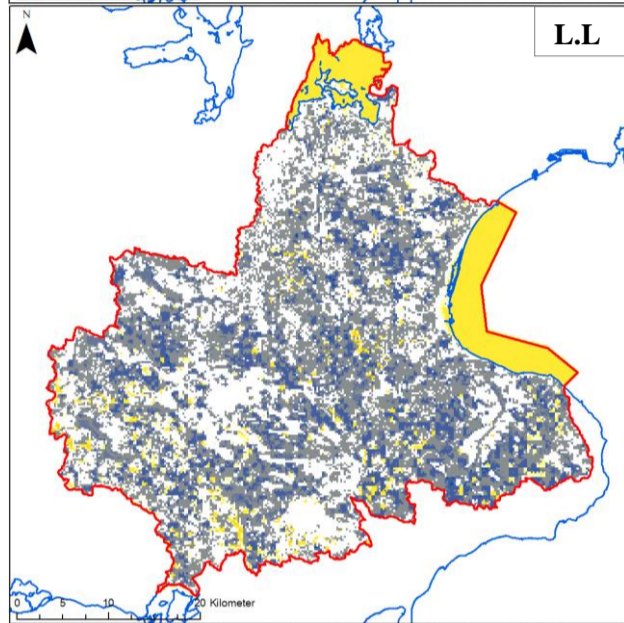
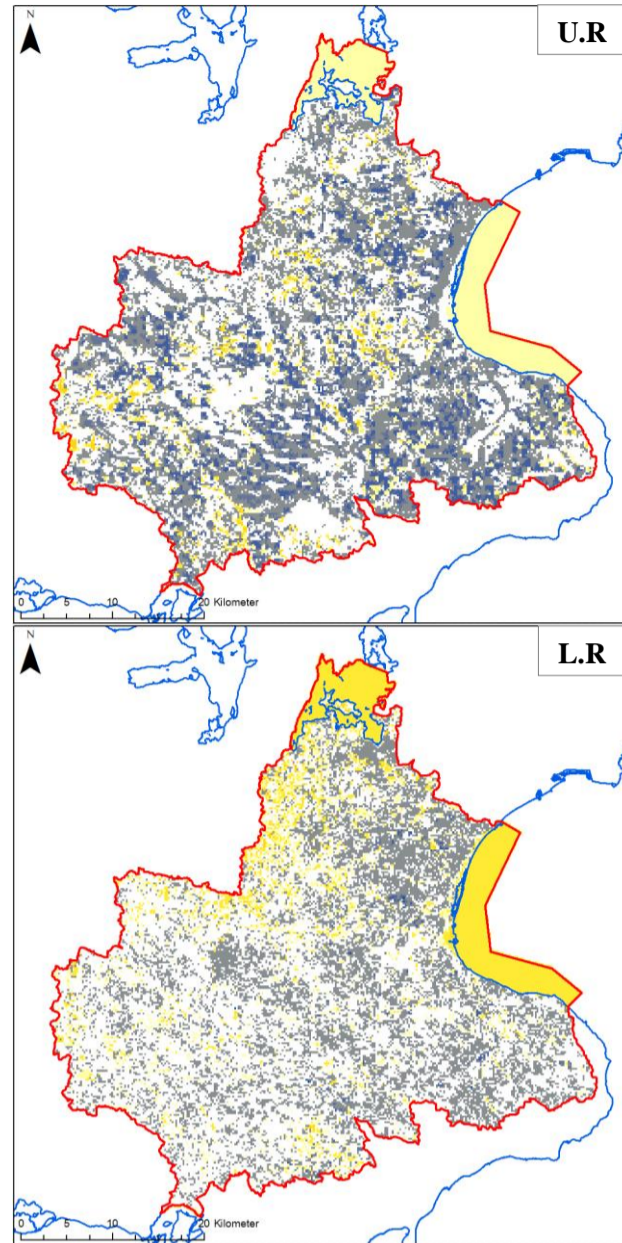
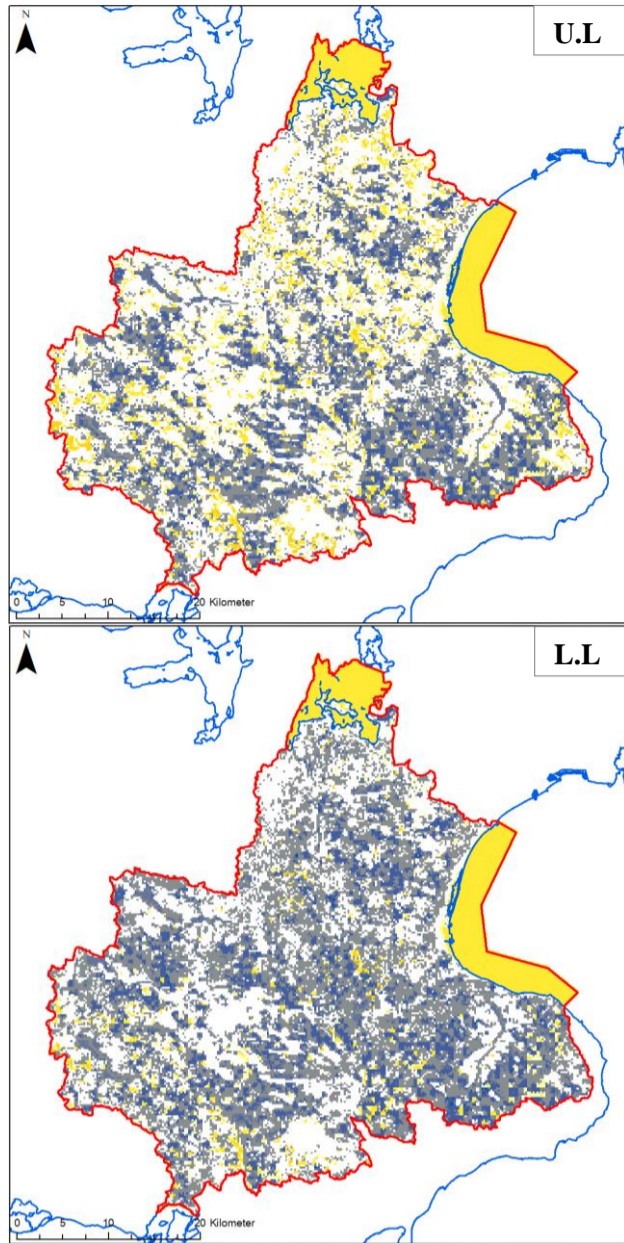
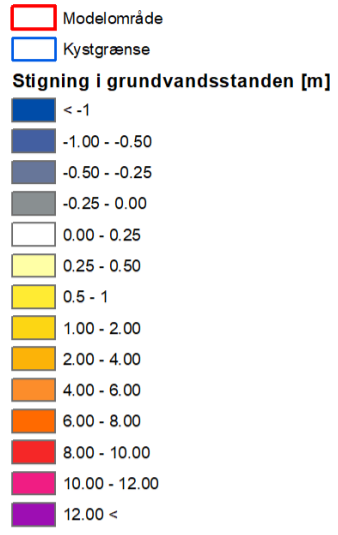
Appendix A Del 2 af 2

Processerede data og klimafremskrivninger

A12. Change in T=30yr minimum groundwater levels from reference period to future period for 4 scenarios

Mid-zealand

Signaturforklaring



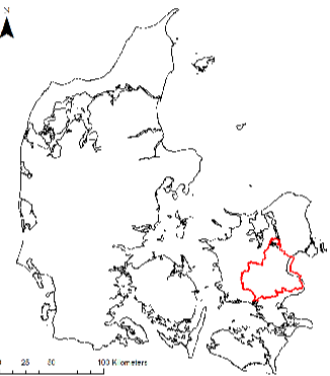
Maps showing the changes in the minimum groundwater levels from the historical period to the future period in the **uppermost layer (2m)** of the model for the four climate scenarios:

U.L: RCP 8.5 Wet climate model

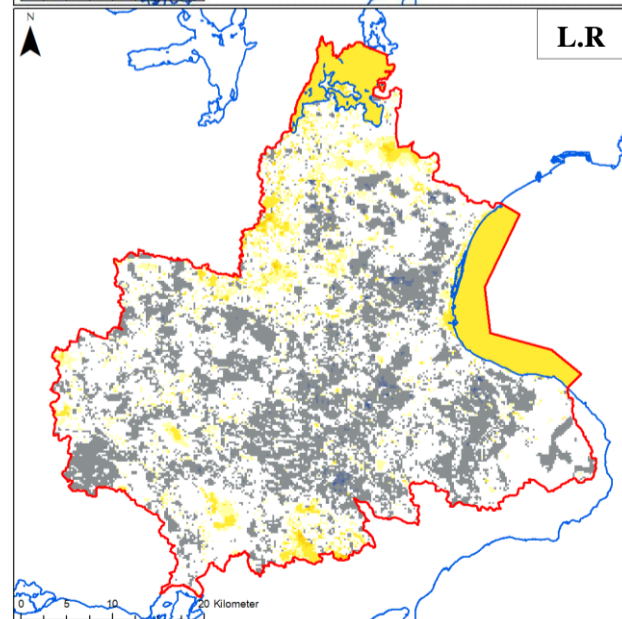
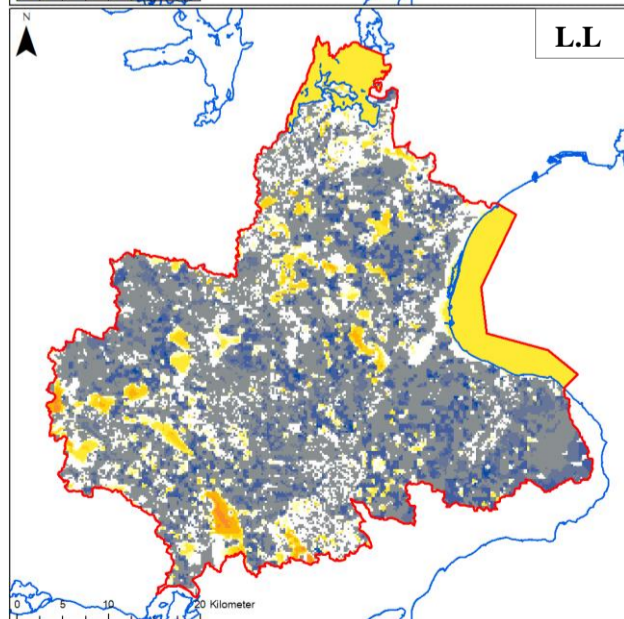
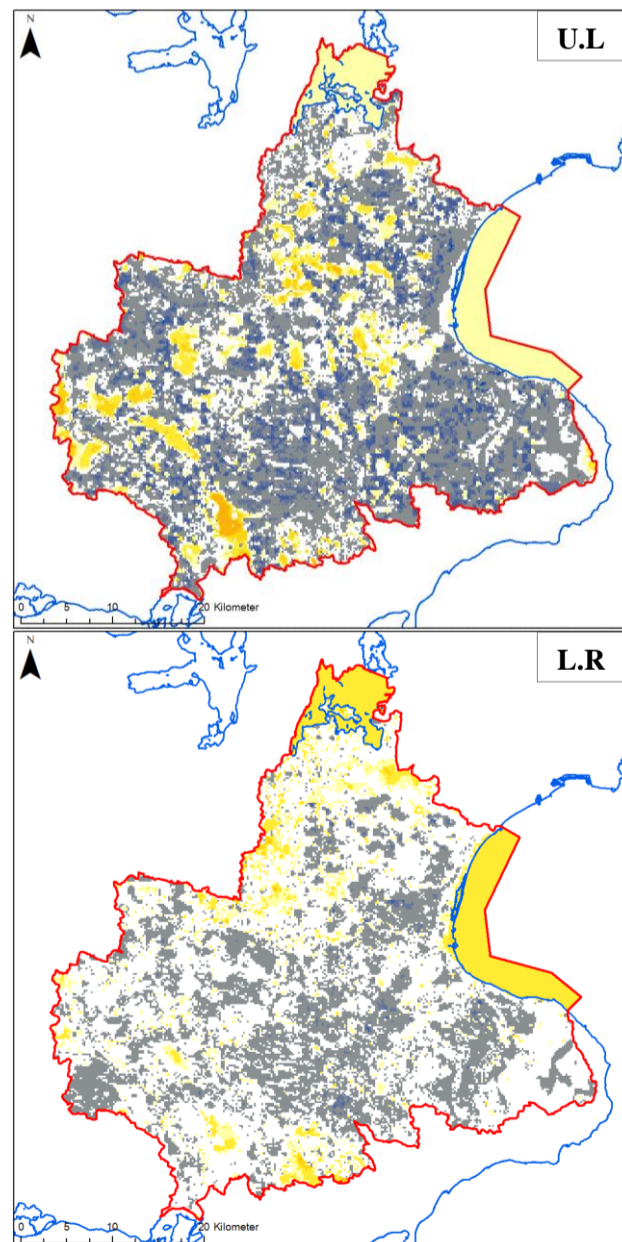
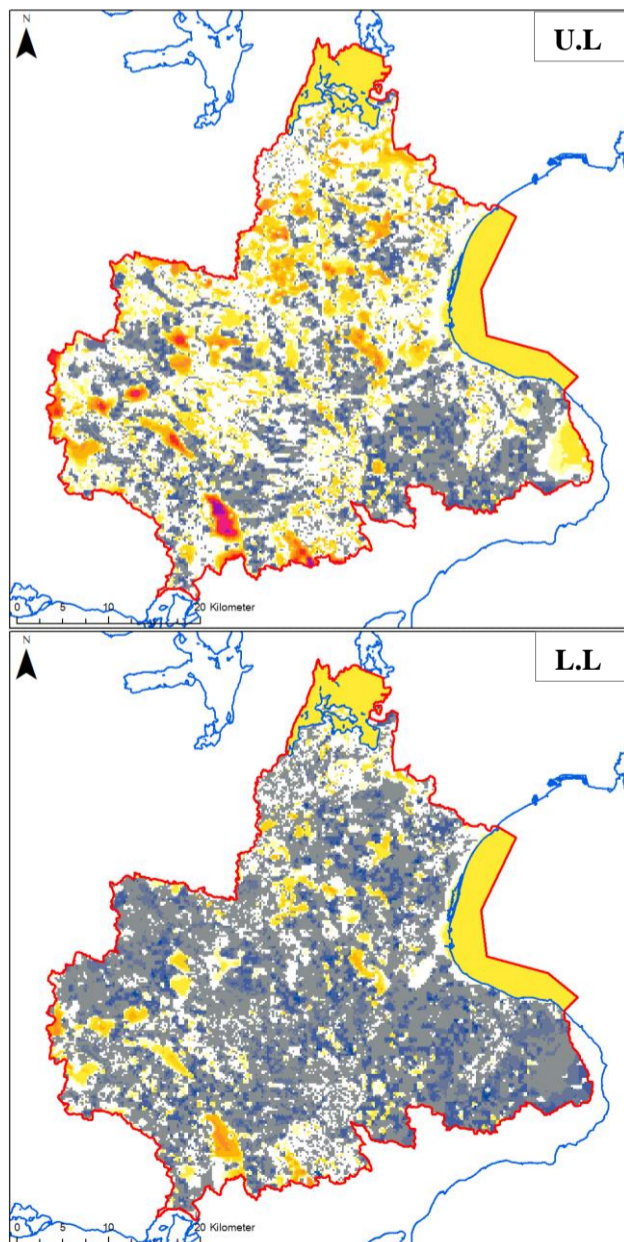
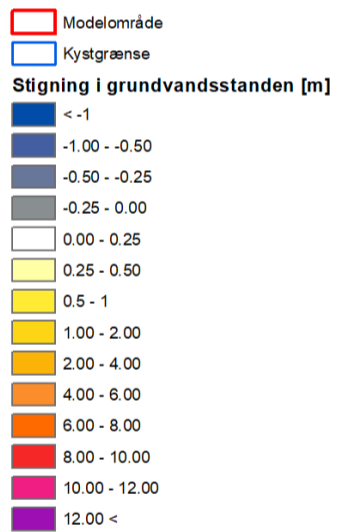
U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model



Signaturforklaring



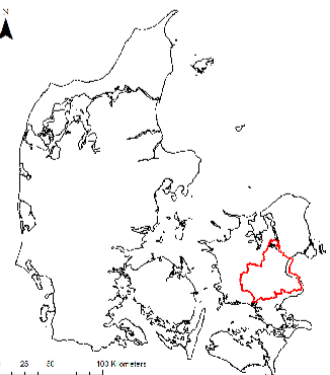
Maps showing the changes in the minimum groundwater levels from the historical period to the future period in the **Quaternary layer (KS1)** of the model for the four climate scenarios:

U.L: RCP 8.5 Wet climate model

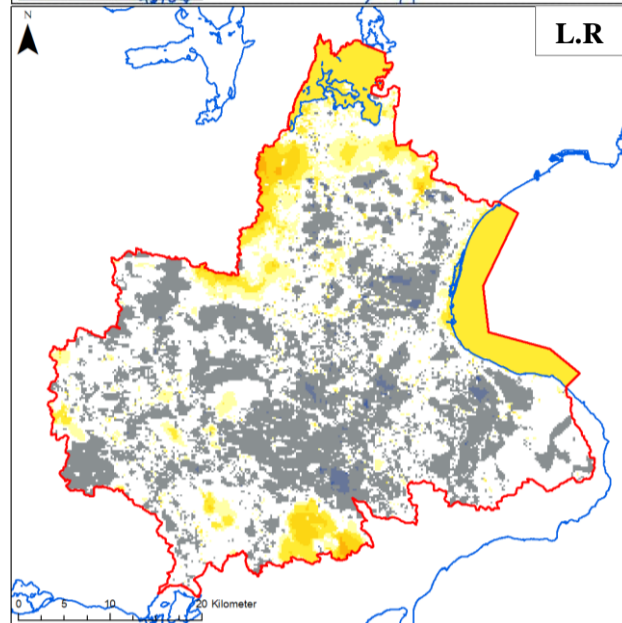
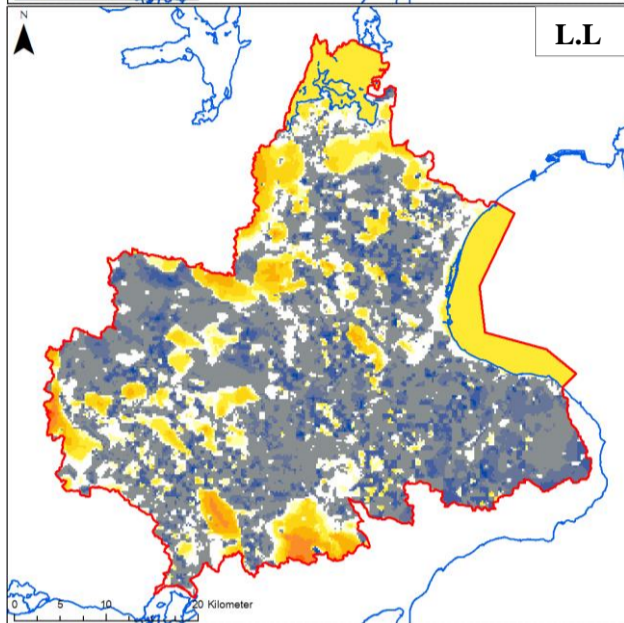
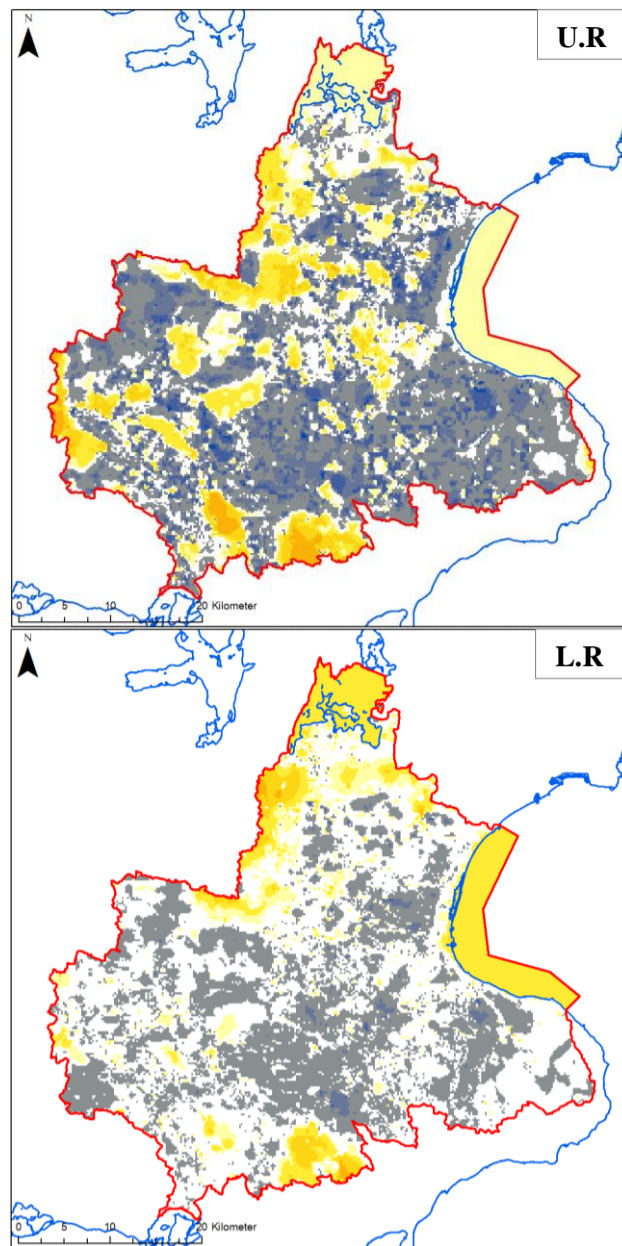
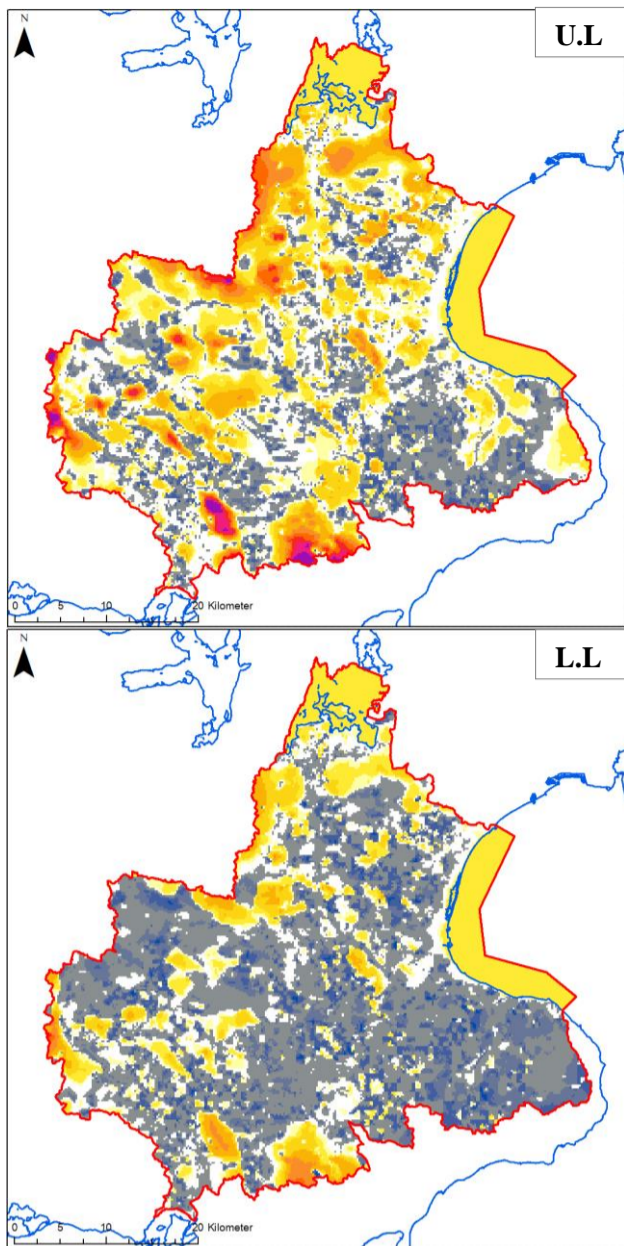
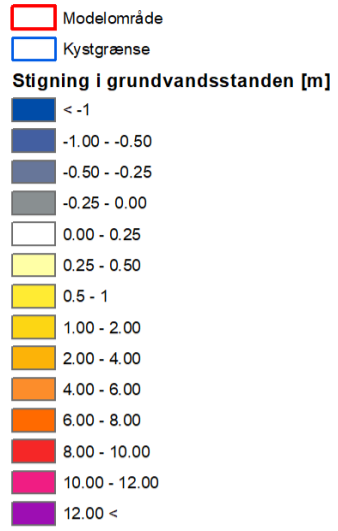
U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model



Signaturforklaring



Maps showing the changes in the minimum groundwater levels from the historical period to the future period in the **Quaternary layer (KS2)** of the model for the four climate scenarios:

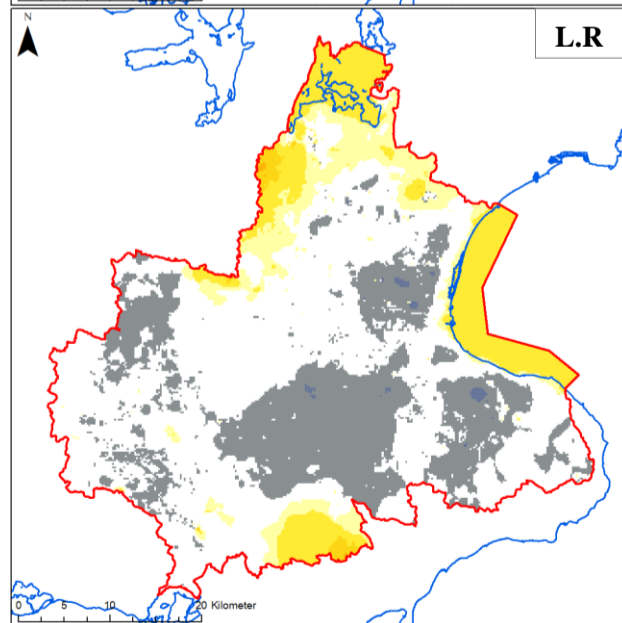
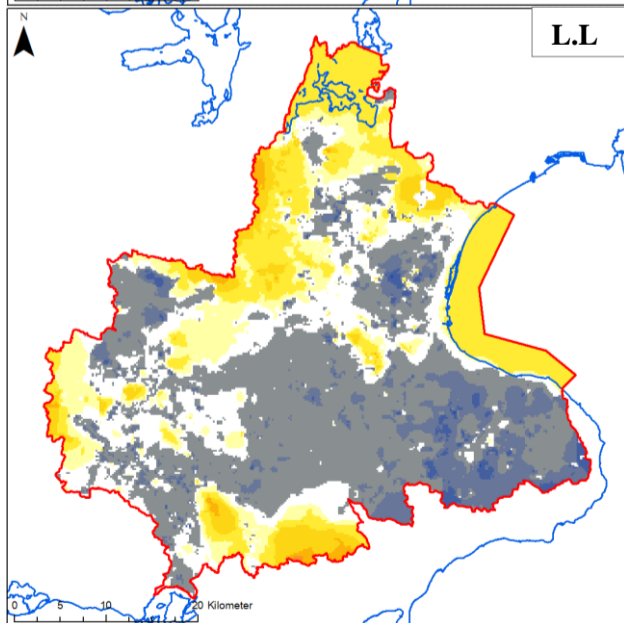
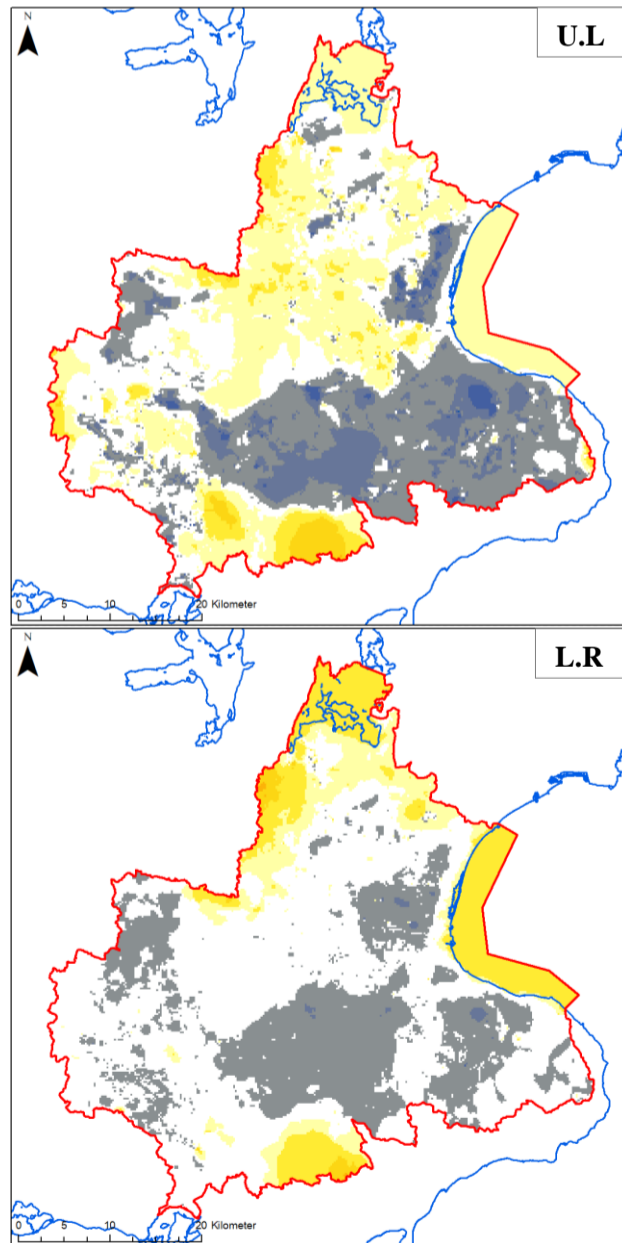
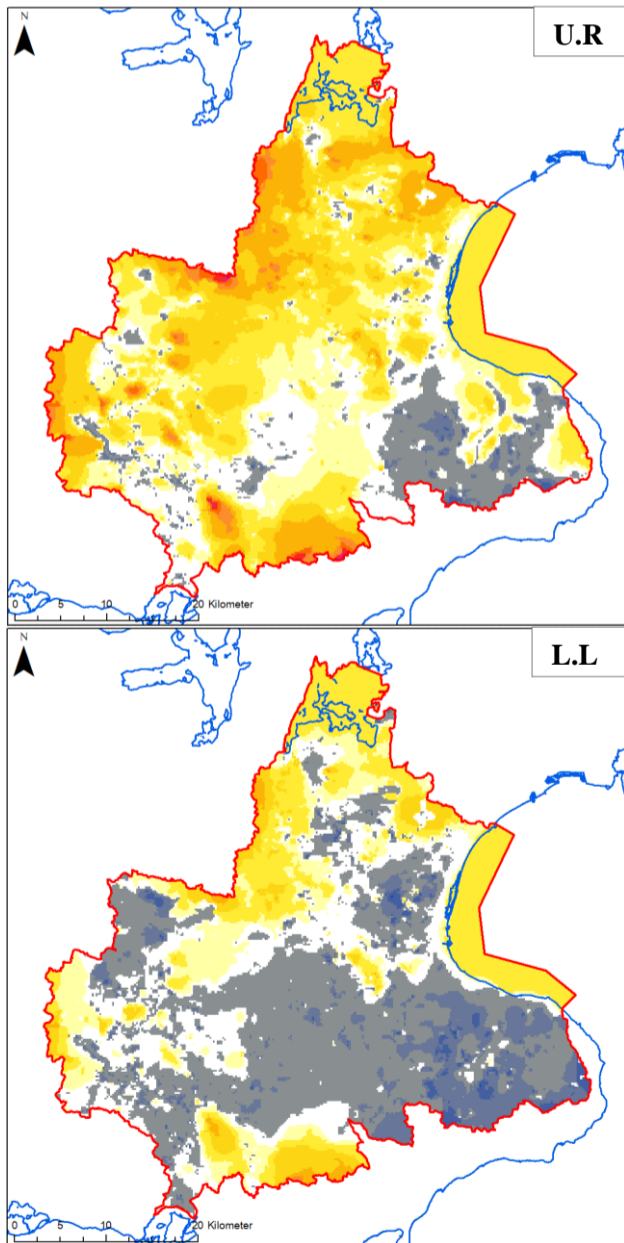
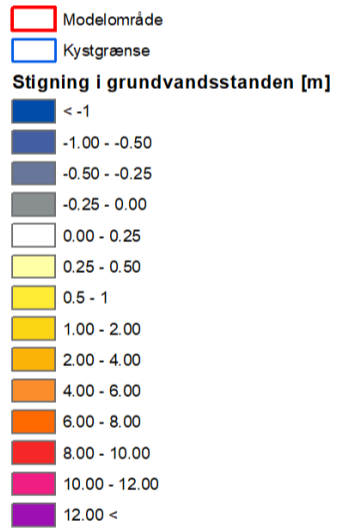
U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model

Signaturforklaring



Maps showing the changes in the minimum groundwater levels from the historical period to the future period in the **Quaternary layer (KS3)** of the model for the four climate scenarios:

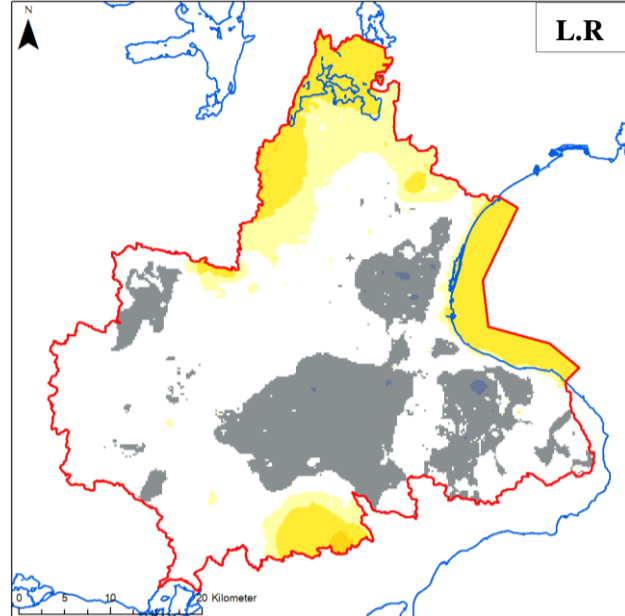
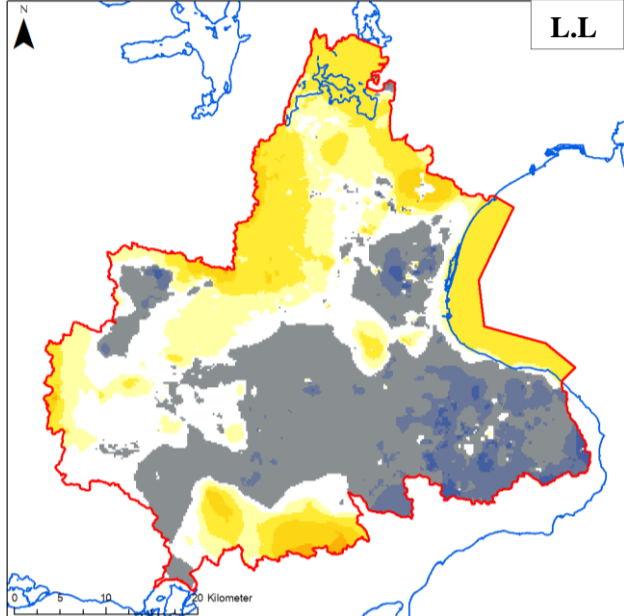
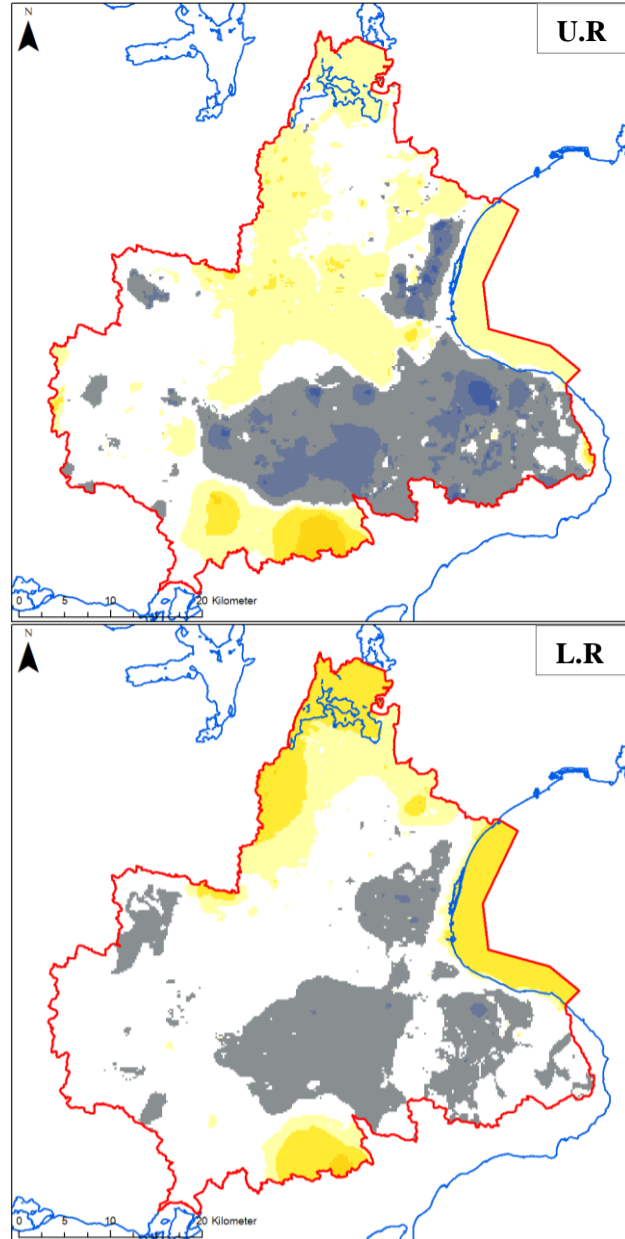
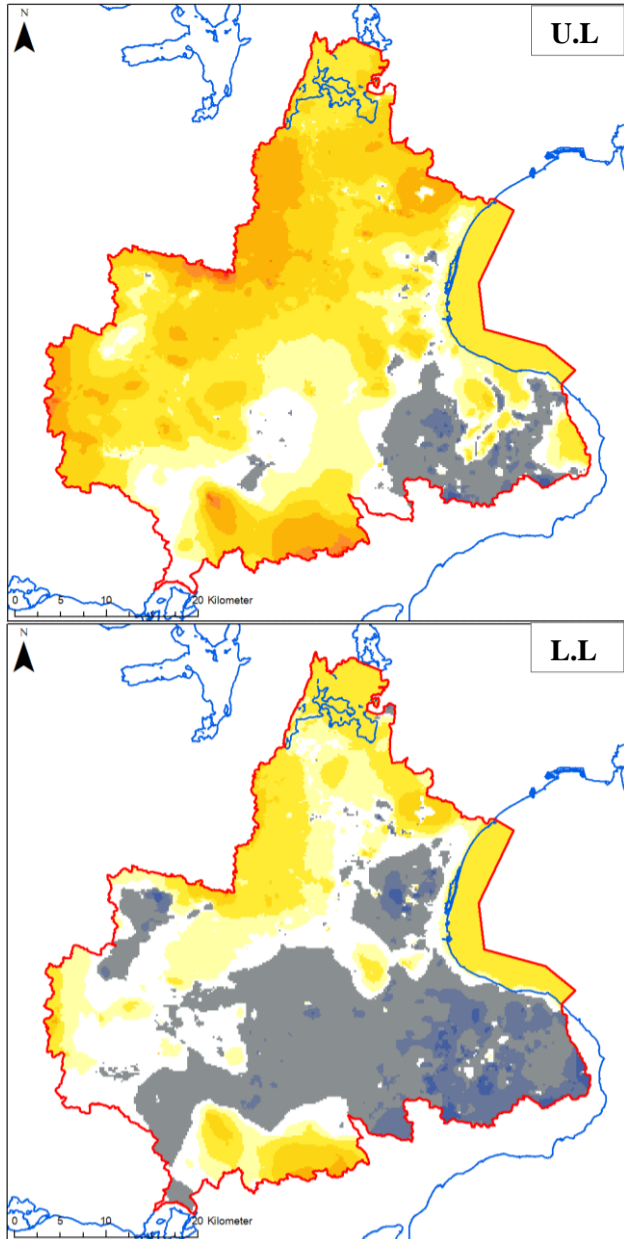
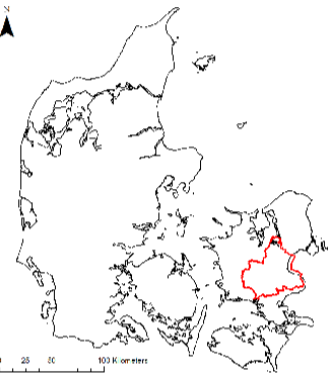
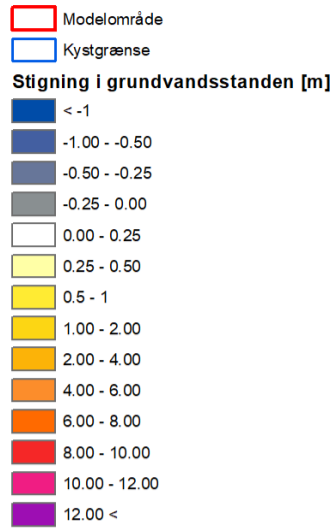
U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model

Signaturforklaring



Maps showing the changes in the minimum groundwater levels from the historical period to the future period in the uppermost **Quaternary layer (KS4)** of the model for the four climate scenarios:

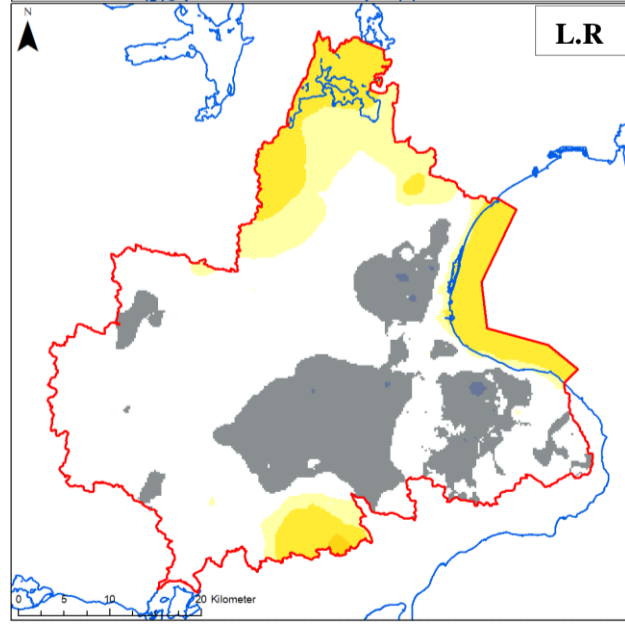
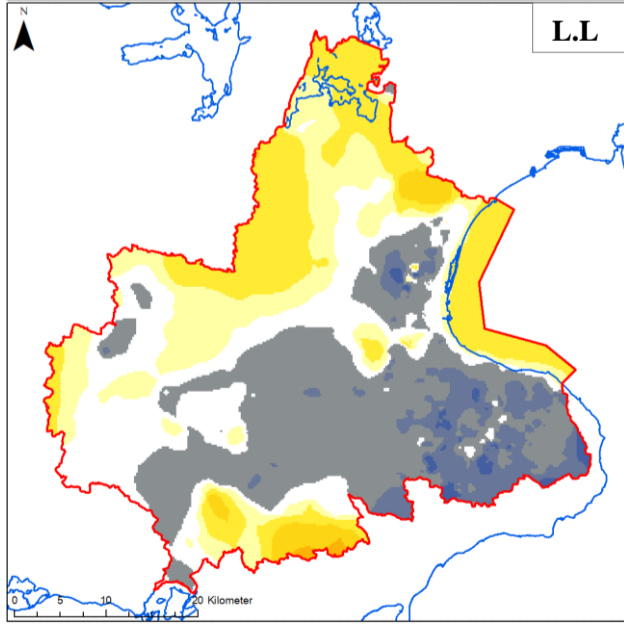
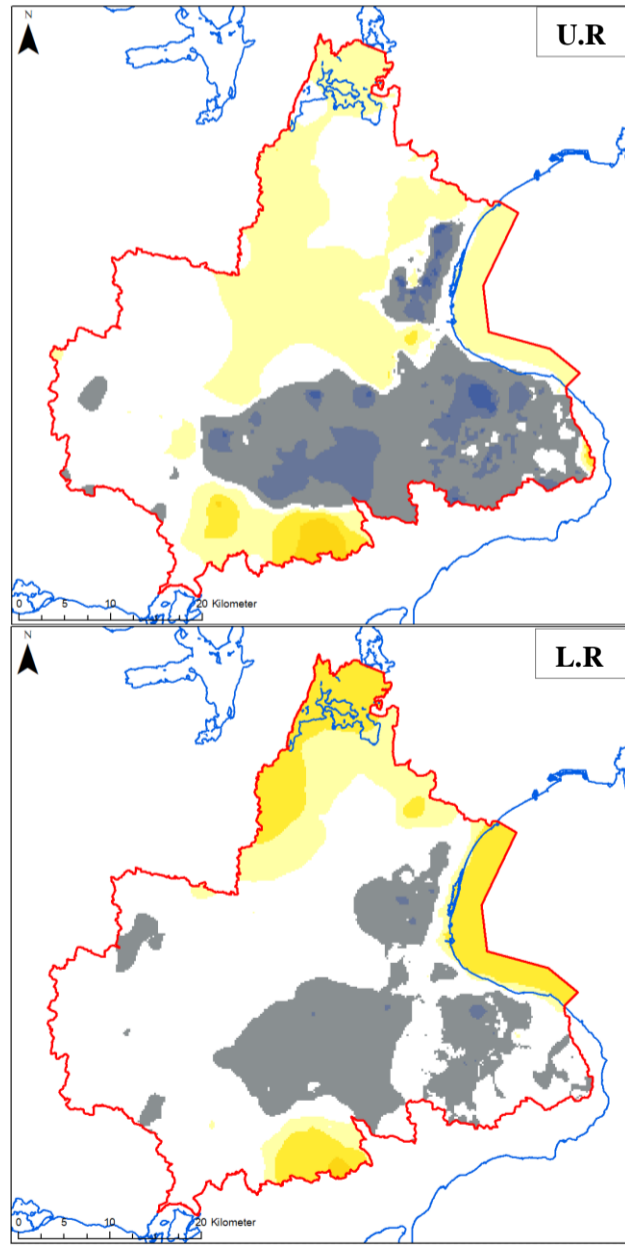
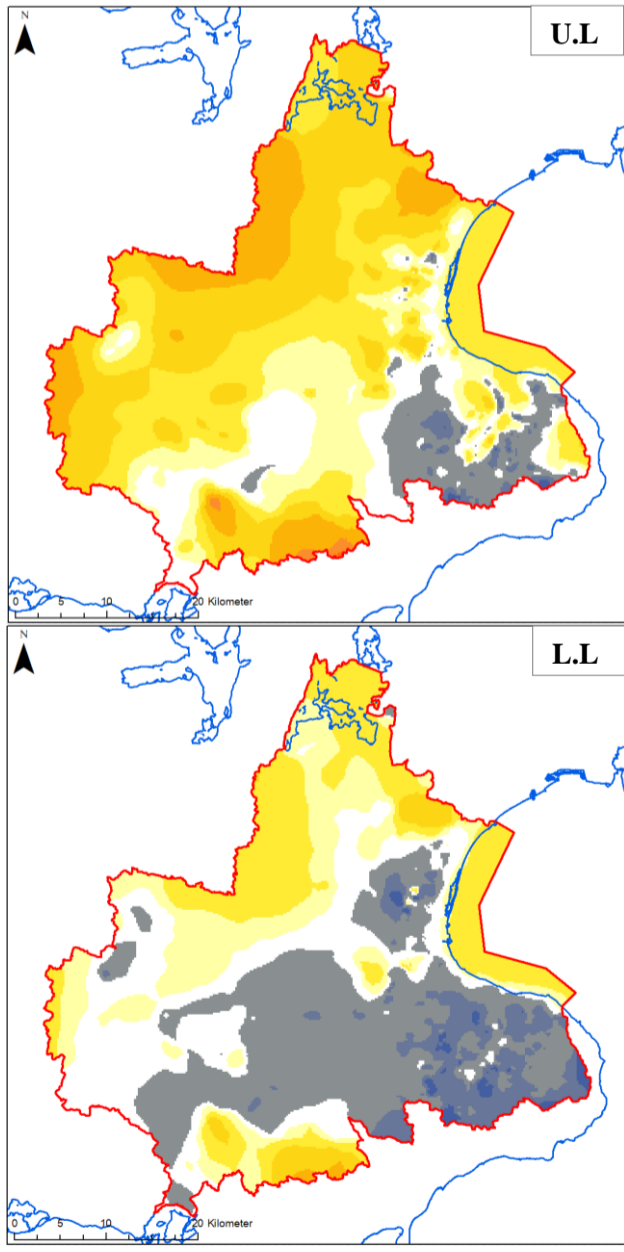
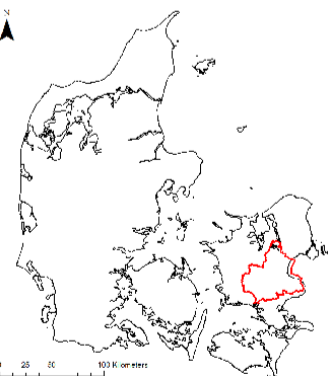
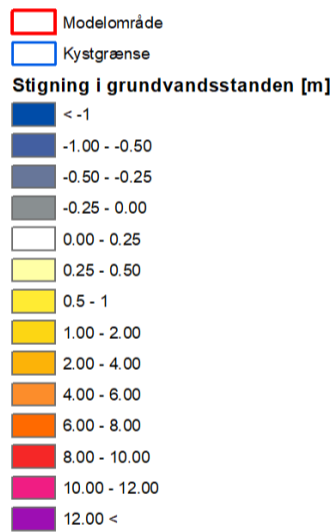
U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model

Signaturforklaring



Maps showing the changes in the minimum groundwater levels from the historical period to the future period in the **chalk layer** of the model for the four climate scenarios:

U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model

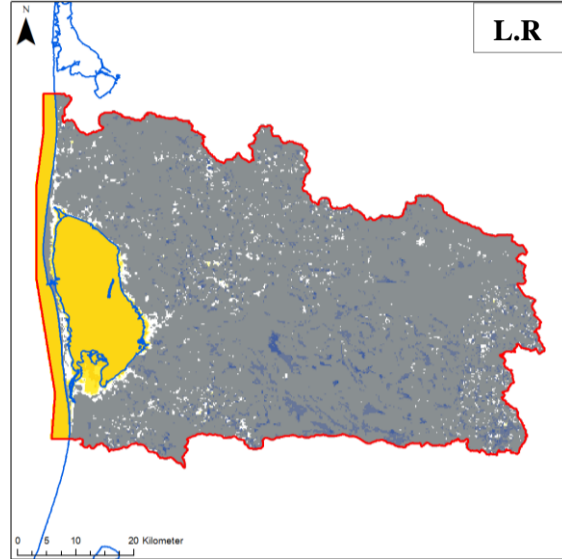
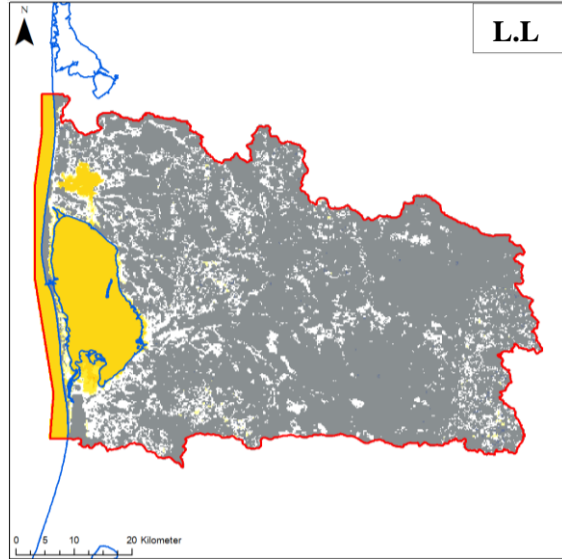
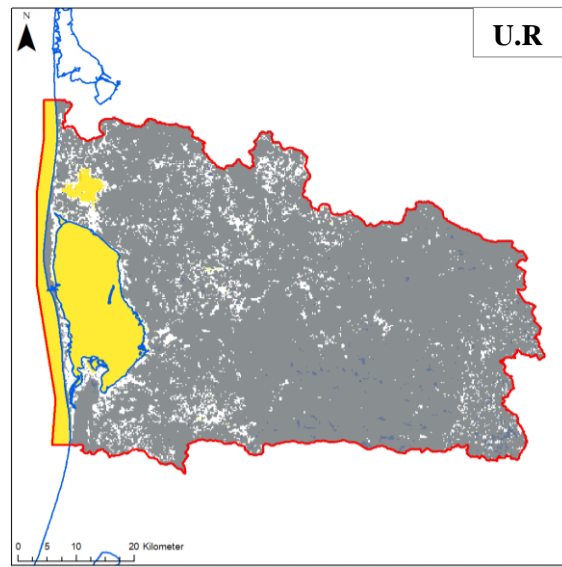
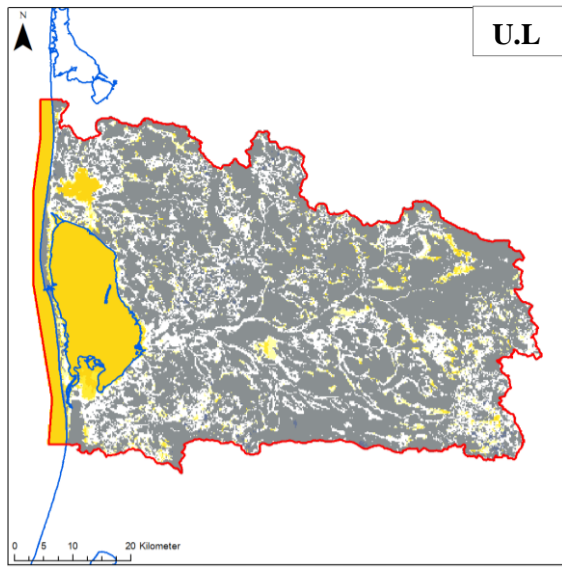
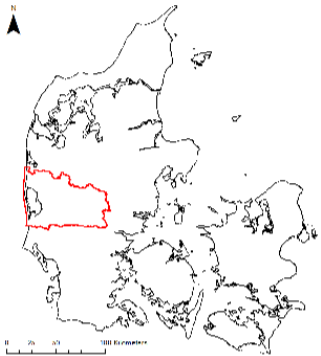
Ringkøbing fjord catchment

Signaturforklaring

- Modelområde
- Kystgrænse

Stigning i grundvandsstanden [m]

- < -1
- 1.00 - -0.50
- 0.50 - -0.25
- 0.25 - 0.00
- 0.00 - 0.25
- 0.25 - 0.50
- 0.5 - 1
- 1.00 - 2.00
- 2.00 - 4.00
- 4.00 - 6.00
- 6.00 - 8.00
- 8.00 - 10.00
- 10.00 - 12.00
- 12.00 <



Maps showing the changes in the minimum groundwater levels from the historical period to the future period in **the uppermost layer (2m)** of the model for the four climate scenarios:

U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

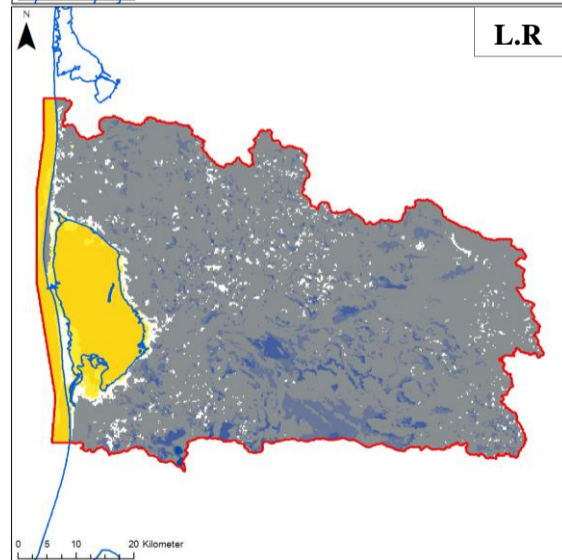
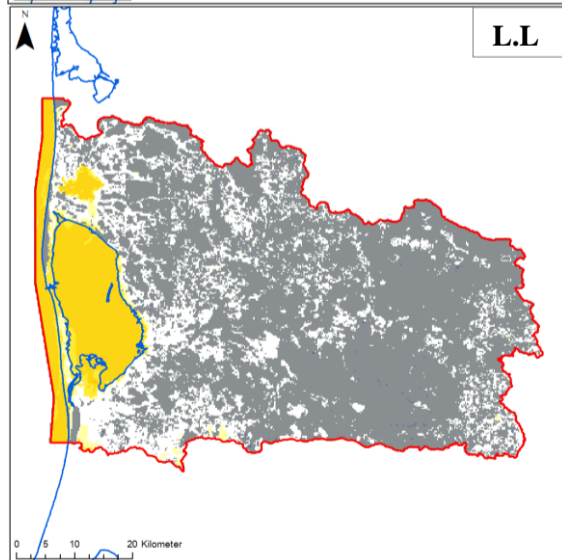
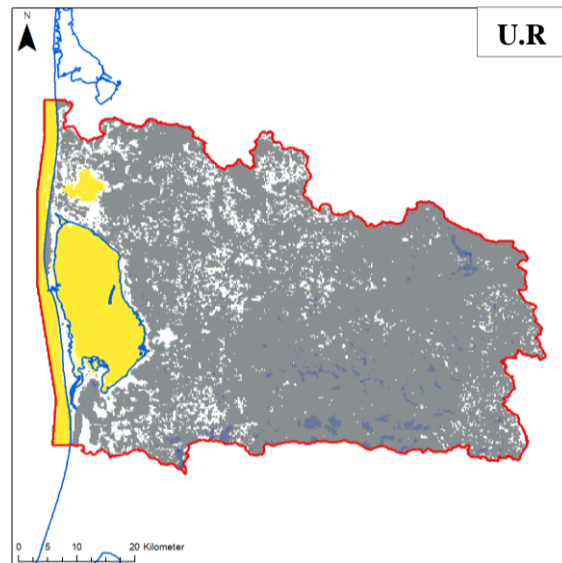
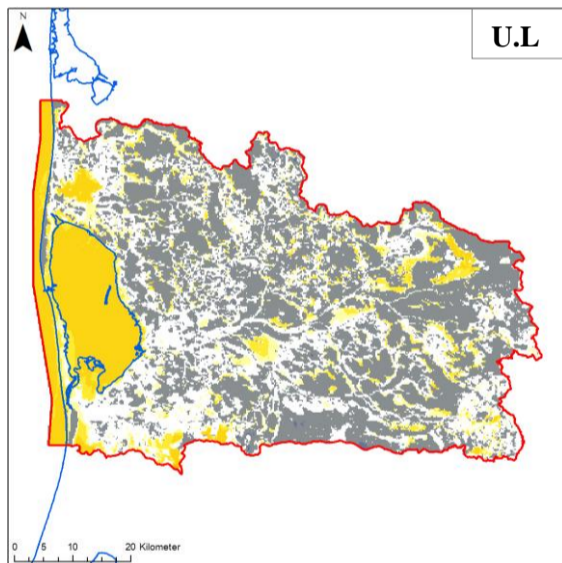
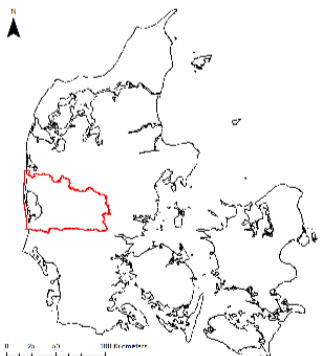
L.R: RCP 8.5 Dry climate model

Signaturforklaring

- Modelområde
- Kystgrænse

Stigning i grundvandsstanden [m]

- < -1
- 1.00 - -0.50
- 0.50 - -0.25
- 0.25 - 0.00
- 0.00 - 0.25
- 0.25 - 0.50
- 0.5 - 1
- 1.00 - 2.00
- 2.00 - 4.00
- 4.00 - 6.00
- 6.00 - 8.00
- 8.00 - 10.00
- 10.00 - 12.00
- 12.00 <



Maps showing the changes in the minimum groundwater levels from the historical period to the future period in **the coherent Quaternary layers (KS1 and KS2)** of the model for the four climate scenarios:

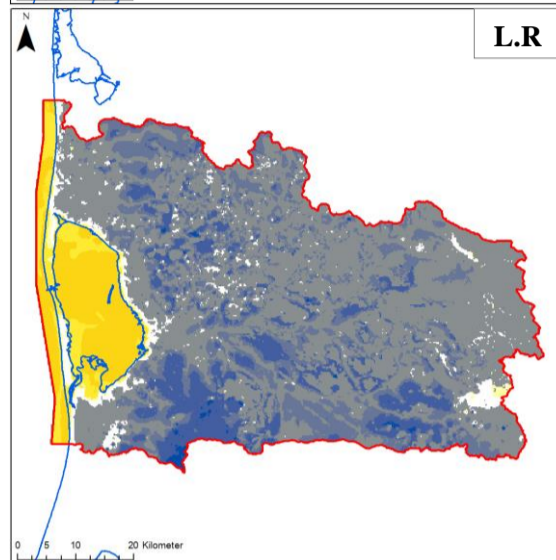
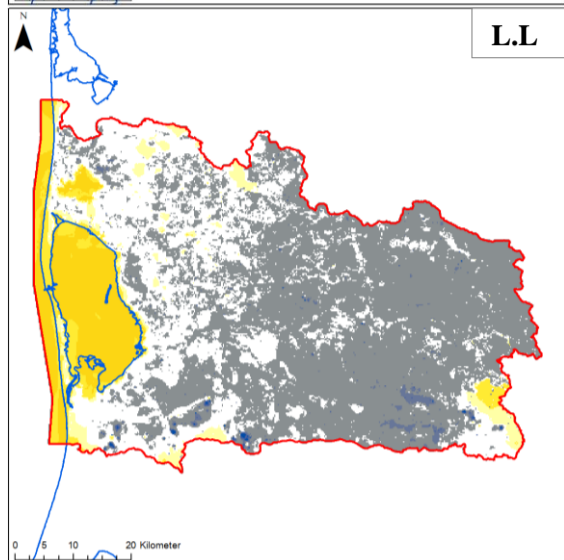
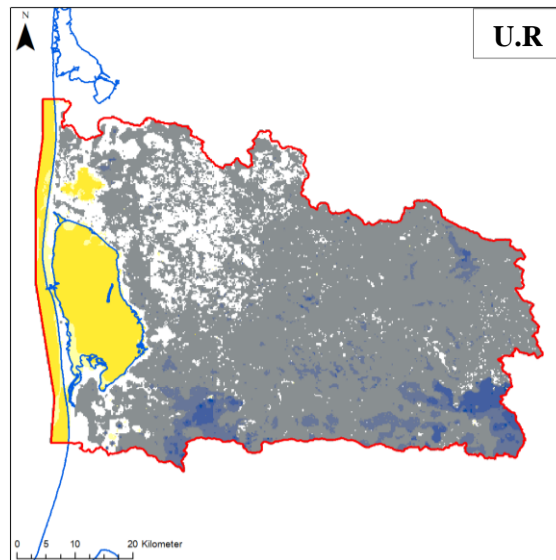
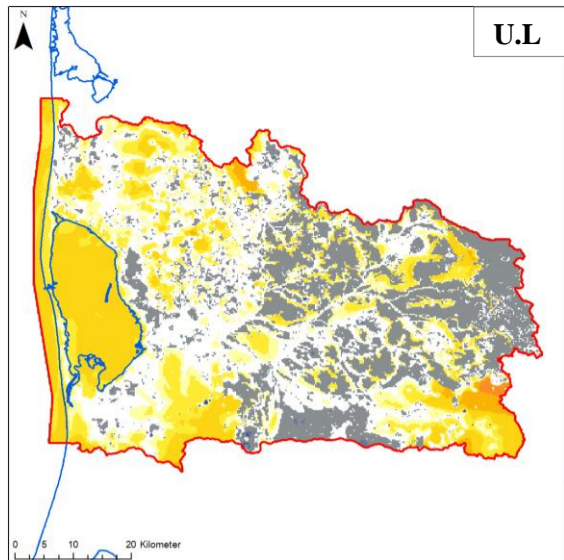
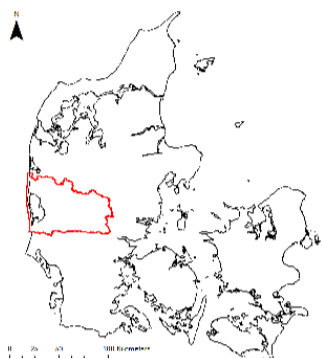
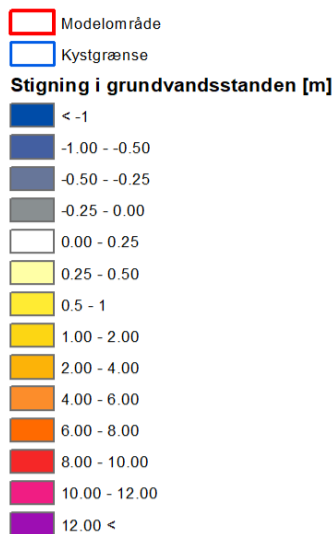
U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate

Signaturforklaring



Maps showing the changes in the minimum groundwater levels from the historical period to the future period in the **Quaternary layer (KS3)** of the model for the four climate scenarios:

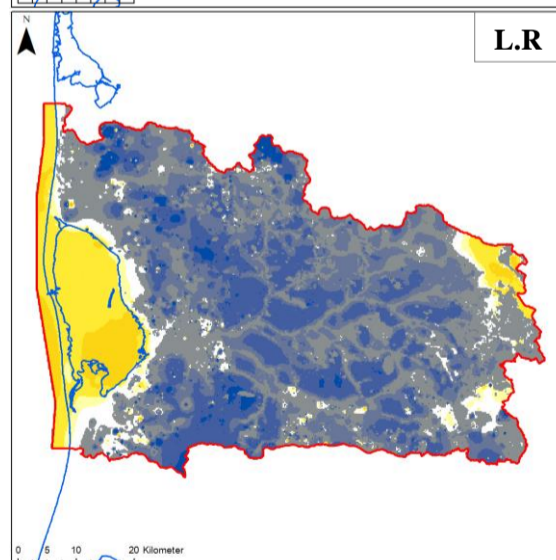
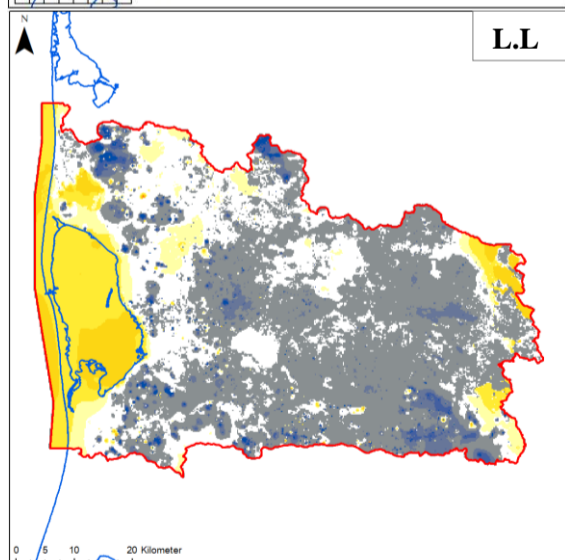
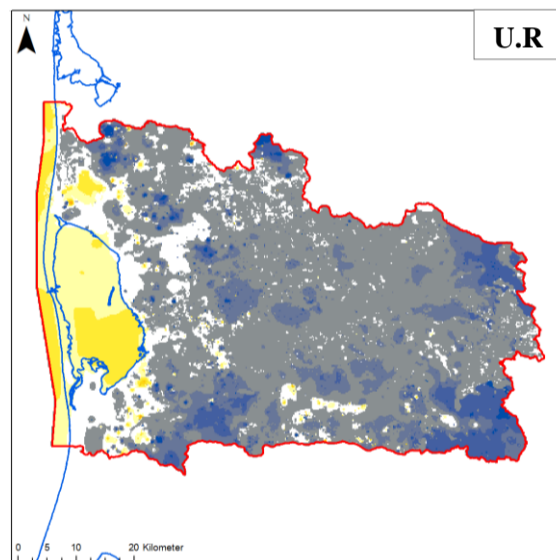
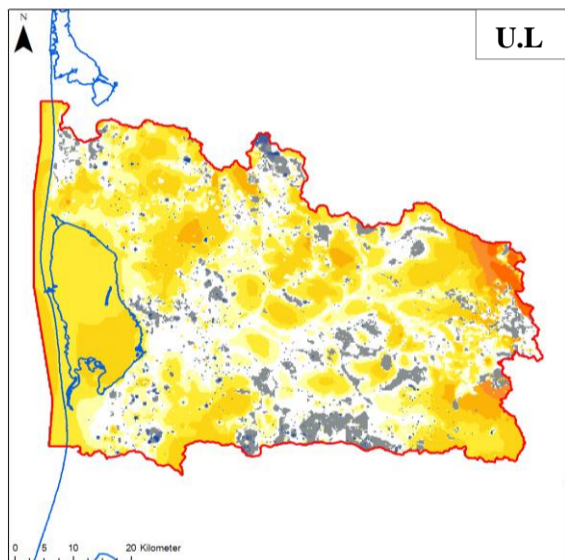
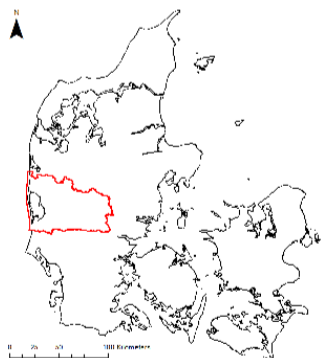
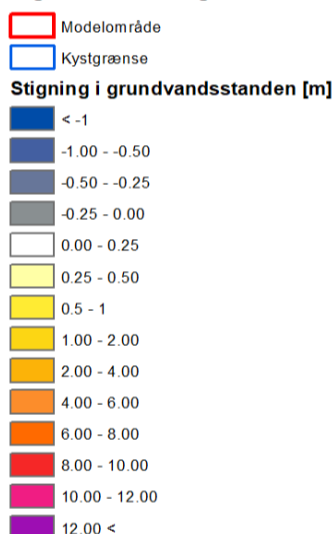
U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model

Signaturforklaring



Maps showing the changes in the minimum groundwater levels from the historical period to the future period in the **Quaternary layer (KS4)** of the model for the four climate scenarios:

U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

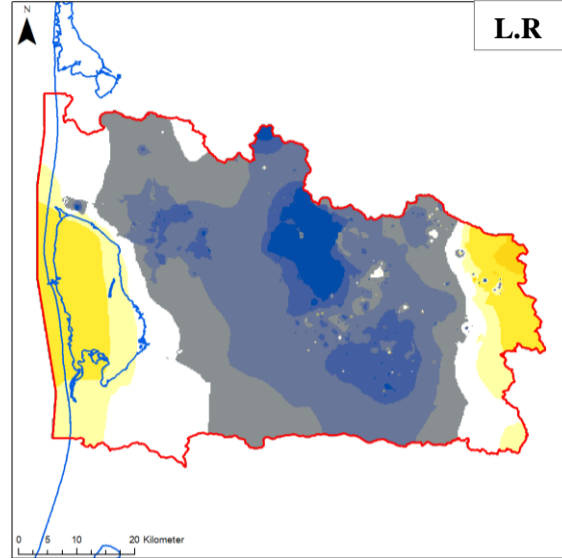
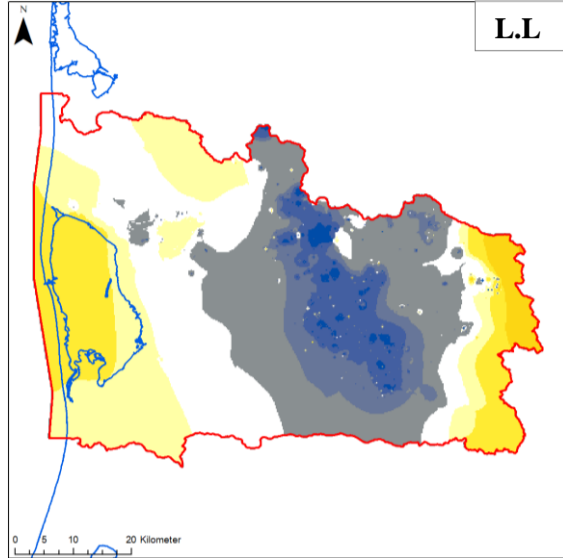
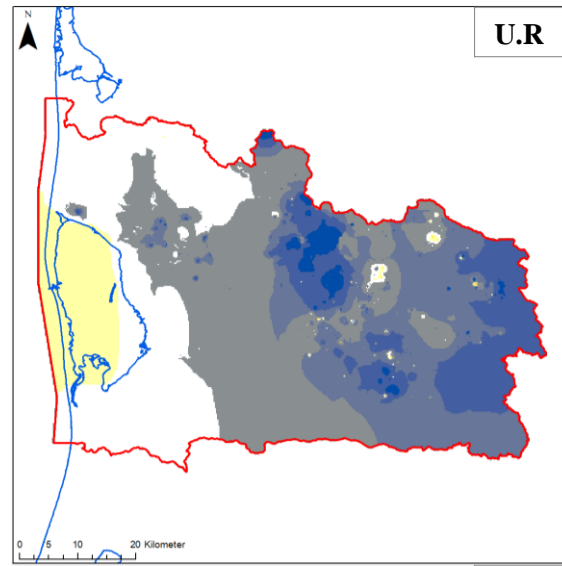
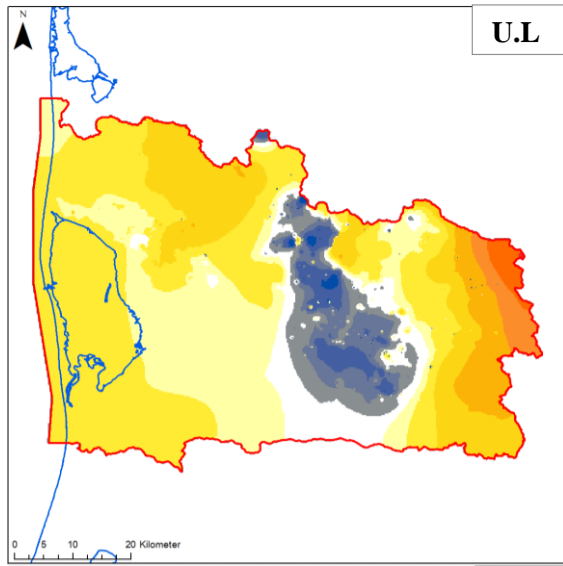
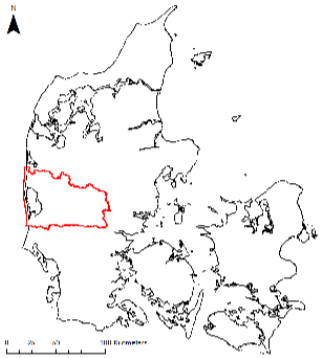
L.R: RCP 8.5 Dry climate model

Signaturforklaring

- Modelområde
- Kystgrænse

Stigning i grundvandsstanden [m]

- < -1
- 1.00 - -0.50
- 0.50 - -0.25
- 0.25 - 0.00
- 0.00 - 0.25
- 0.25 - 0.50
- 0.5 - 1
- 1.00 - 2.00
- 2.00 - 4.00
- 4.00 - 6.00
- 6.00 - 8.00
- 8.00 - 10.00
- 10.00 - 12.00
- 12.00 <



Maps showing the changes in the minimum groundwater levels from the historical period to the future period in the **prequaternary layer (PS4)** of the model for the four climate scenarios:

U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

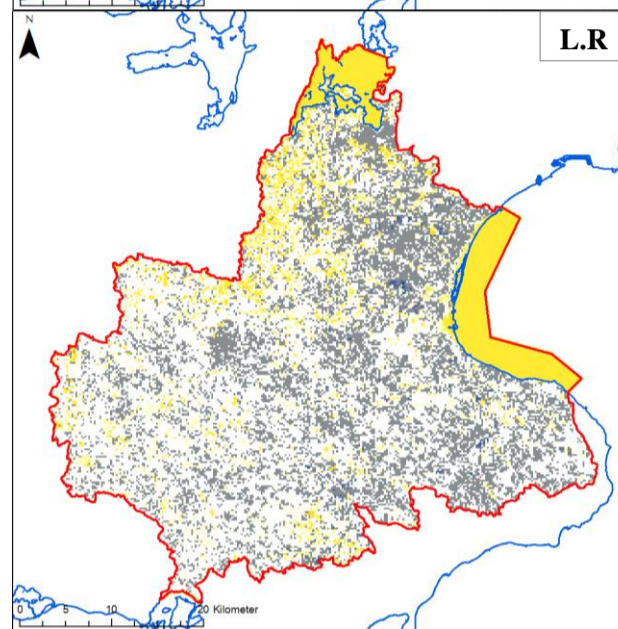
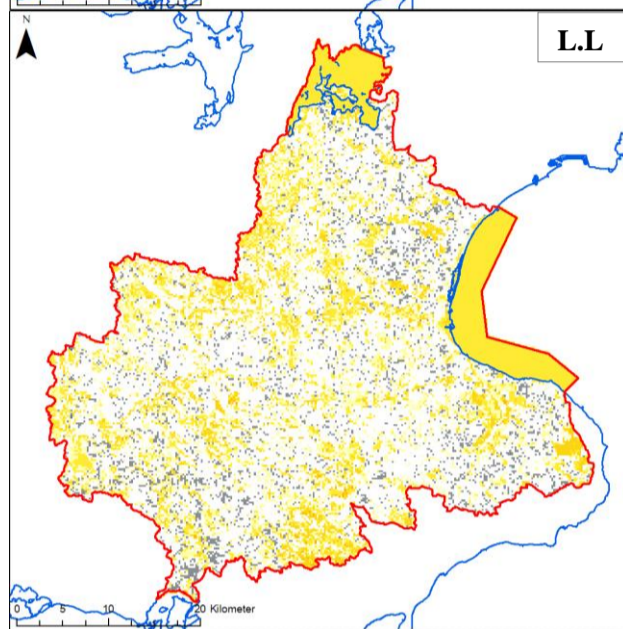
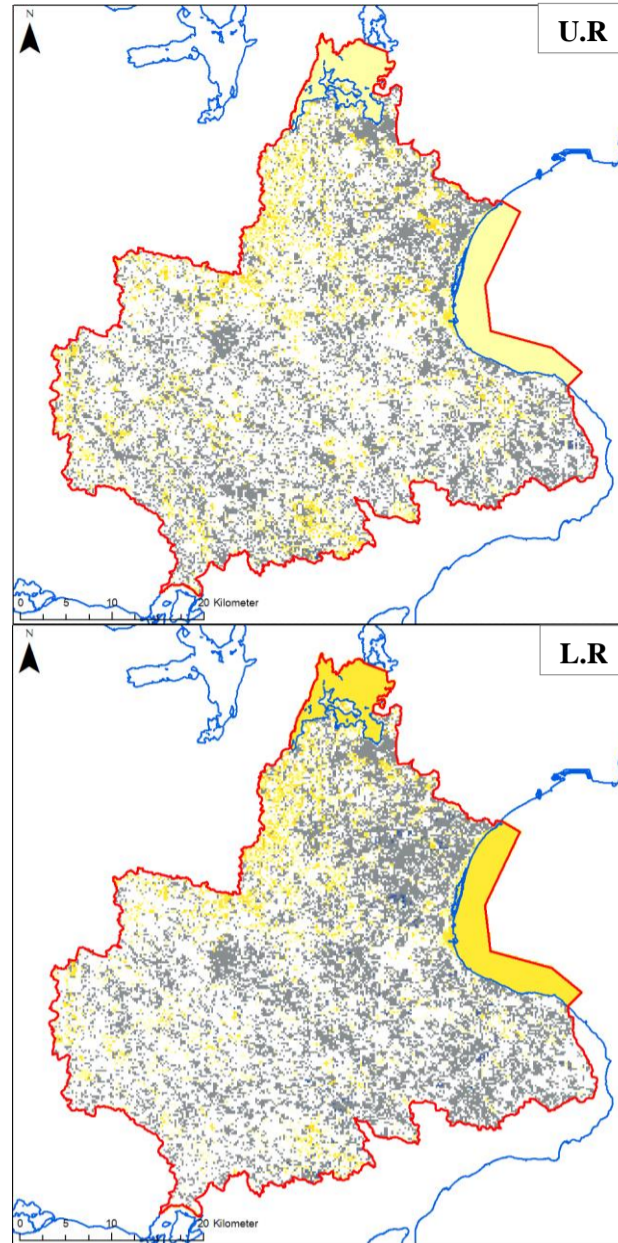
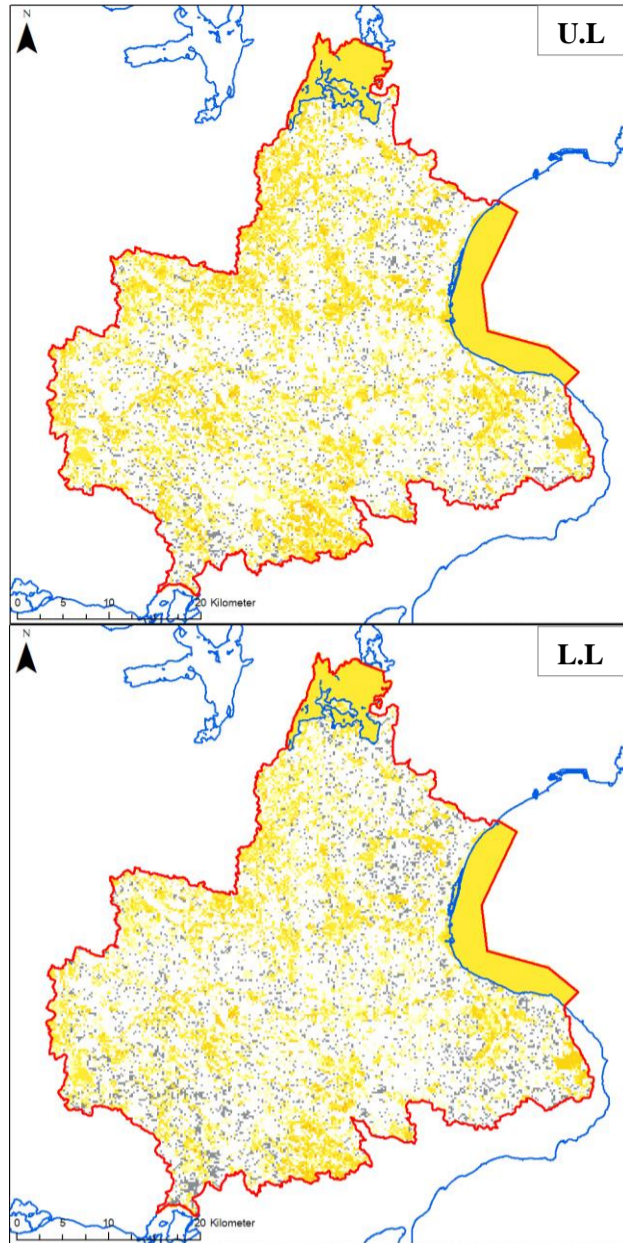
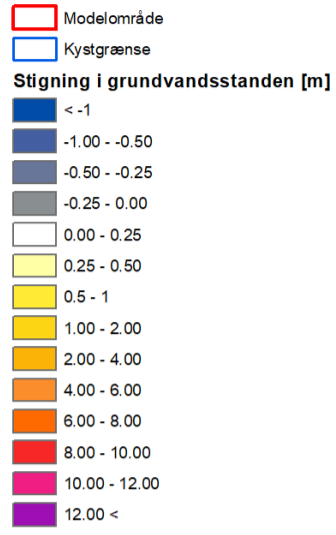
L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model

A13. Change in T=30yr maximum groundwater levels from reference period to future period for 4 scenarios

Mid-zealand catchment

Signaturforklaring



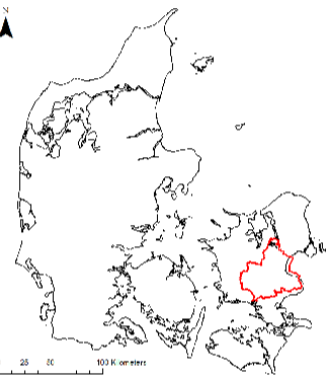
Maps showing the changes in the maximum groundwater levels from the historical period to the future period in the uppermost layer (2m) of the model for the four climate scenarios:

U.L: RCP 8.5 Wet climate model

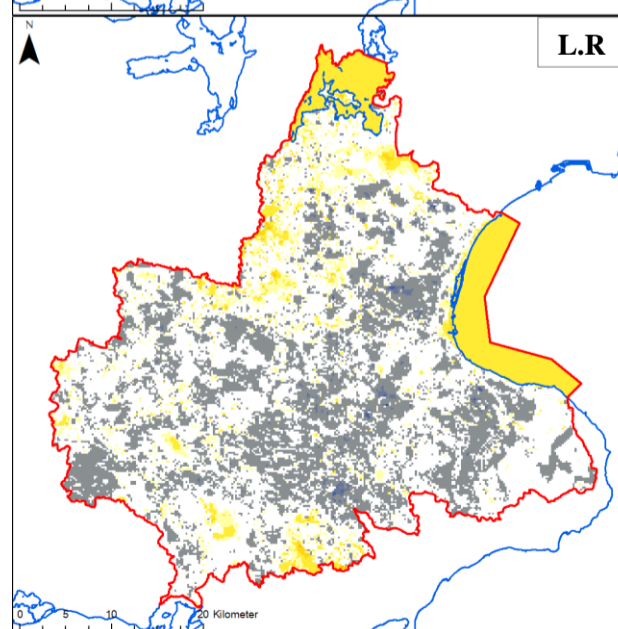
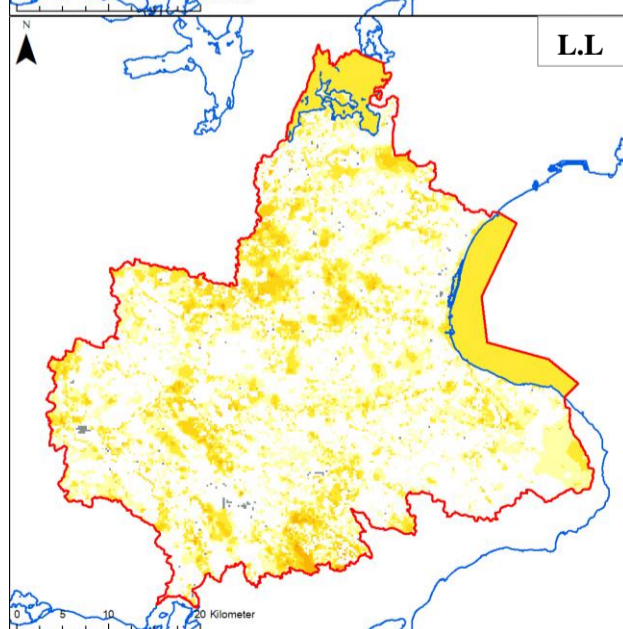
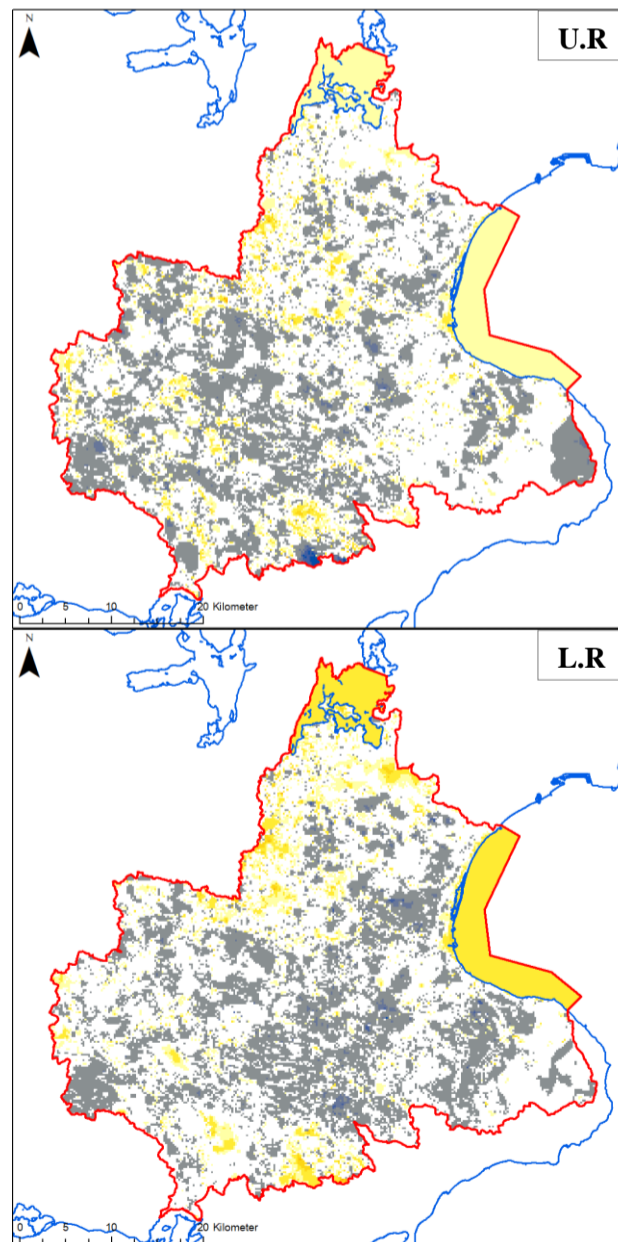
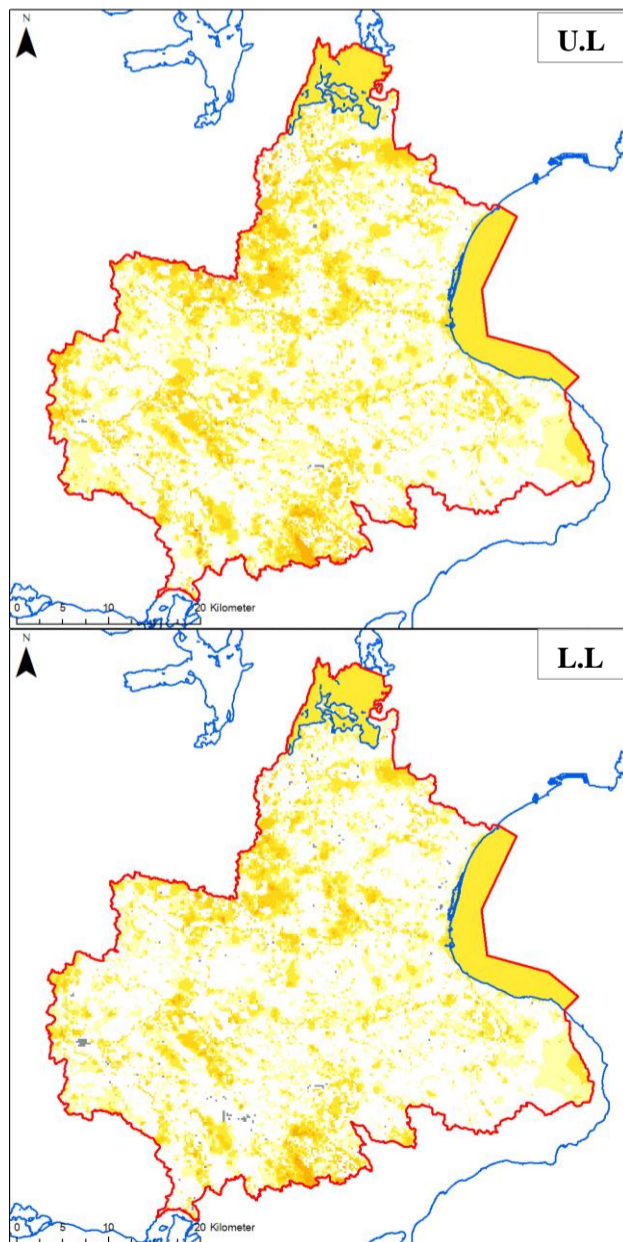
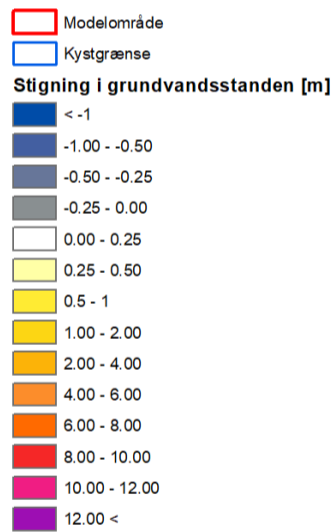
U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model



Signaturforklaring



Maps showing the changes in the maximum groundwater levels from the historical period to the future period in the uppermost **Quarternary layer (KS1)** of the model for the four climate scenarios:

U.L: RCP 8.5 Wet climate model

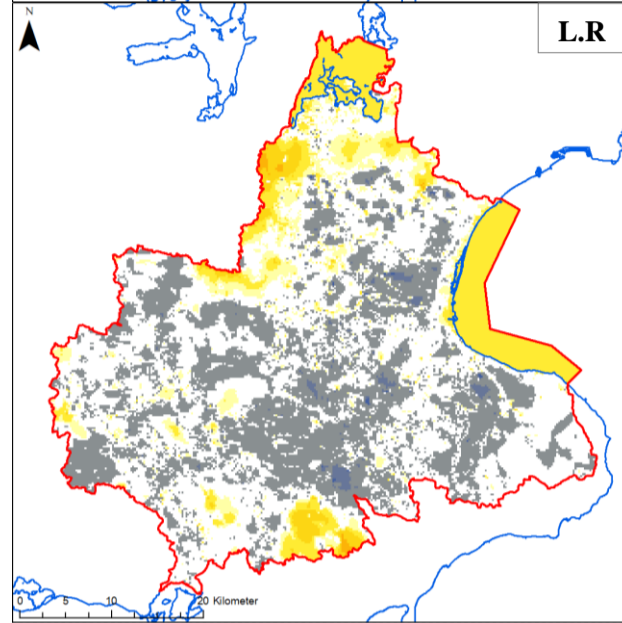
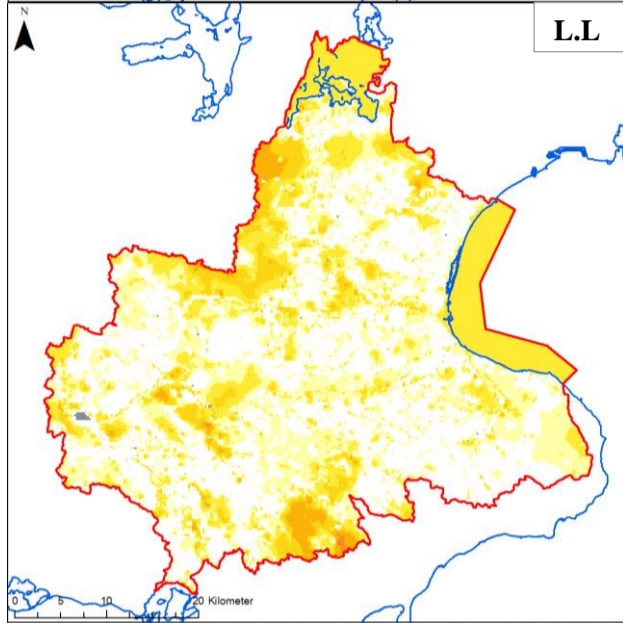
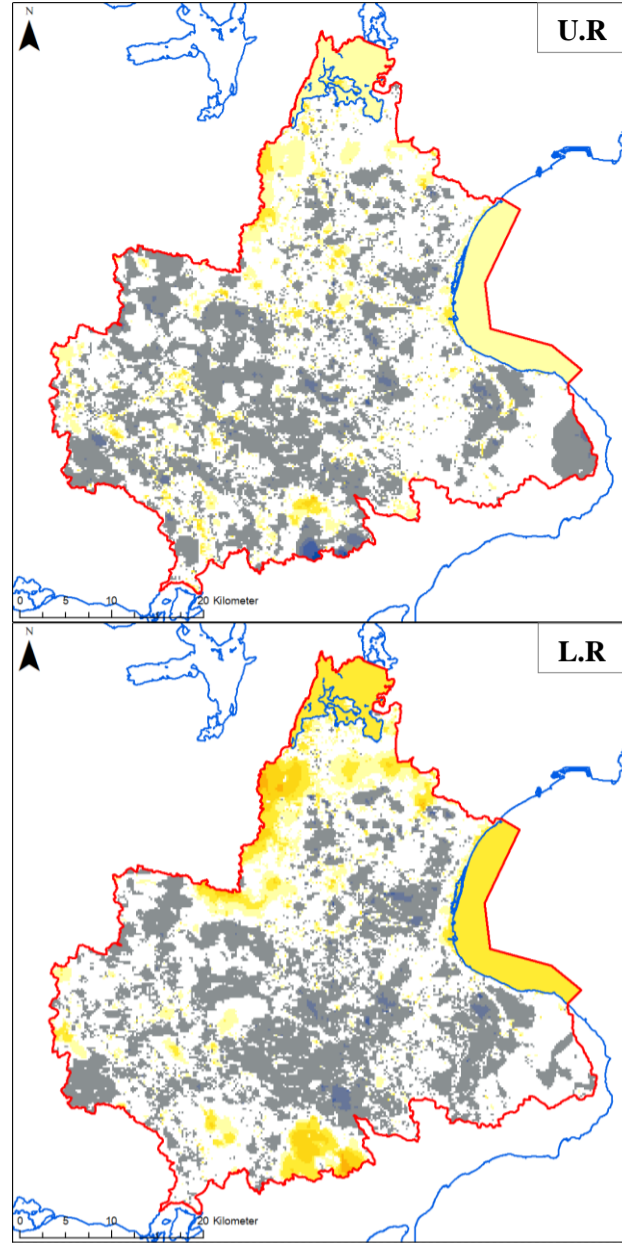
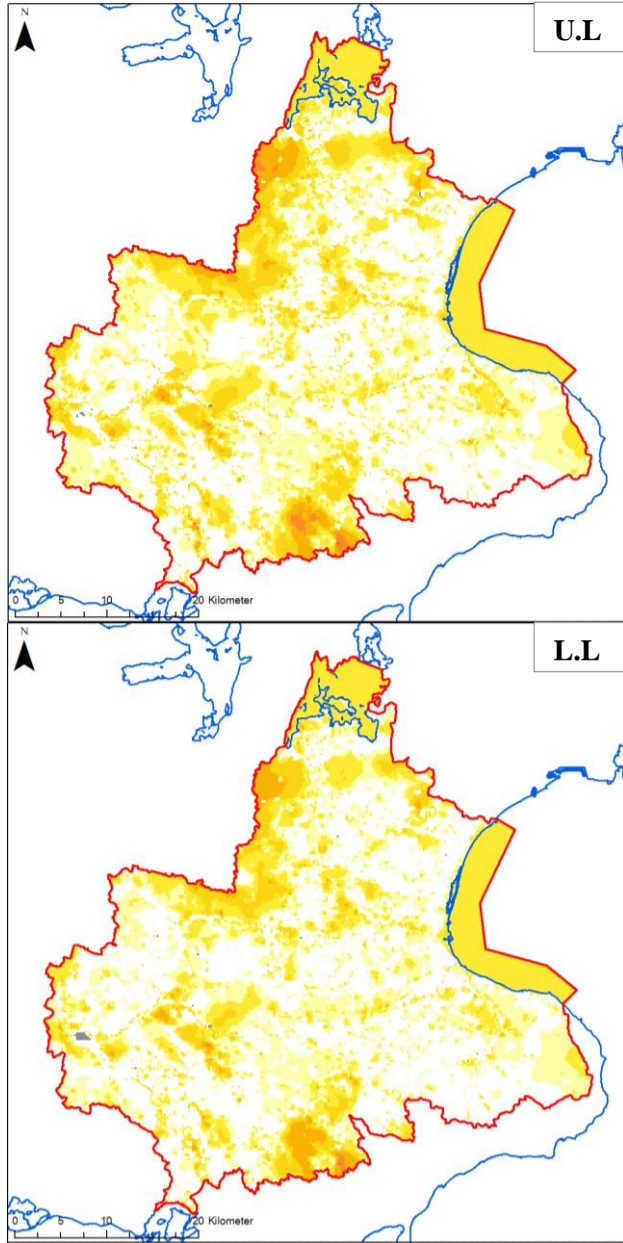
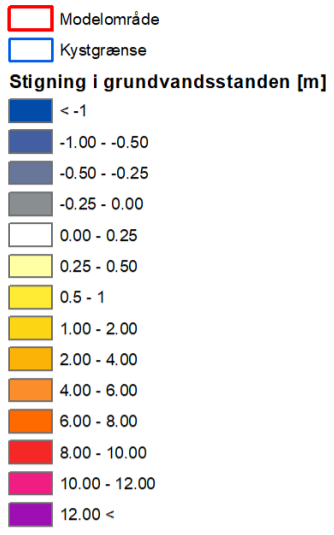
U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model



Signaturforklaring



Maps showing the changes in the maximum groundwater levels from the historical period to the future period in the **Quaternary layer (KS2)** of the model for the four climate scenarios:

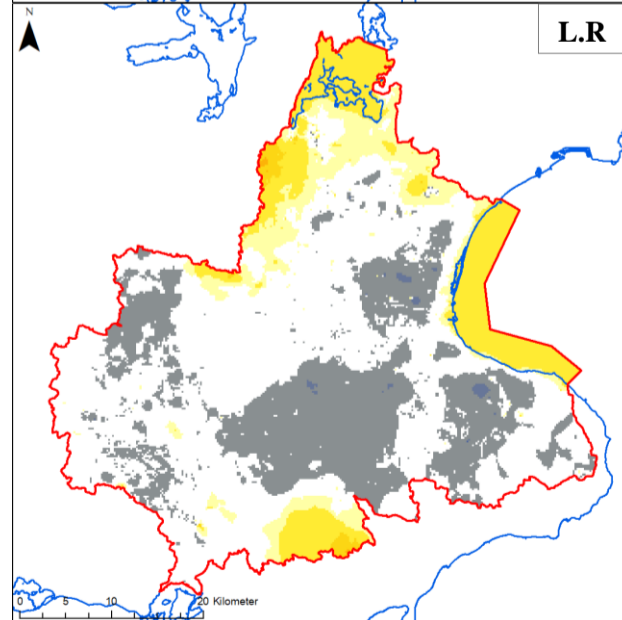
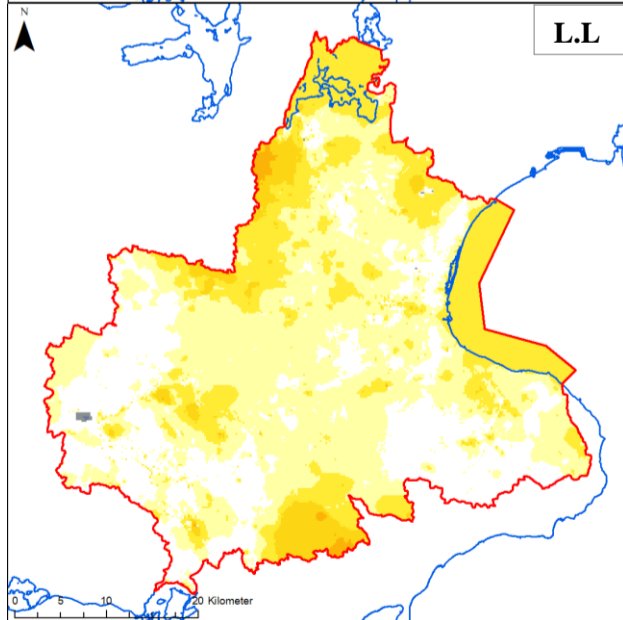
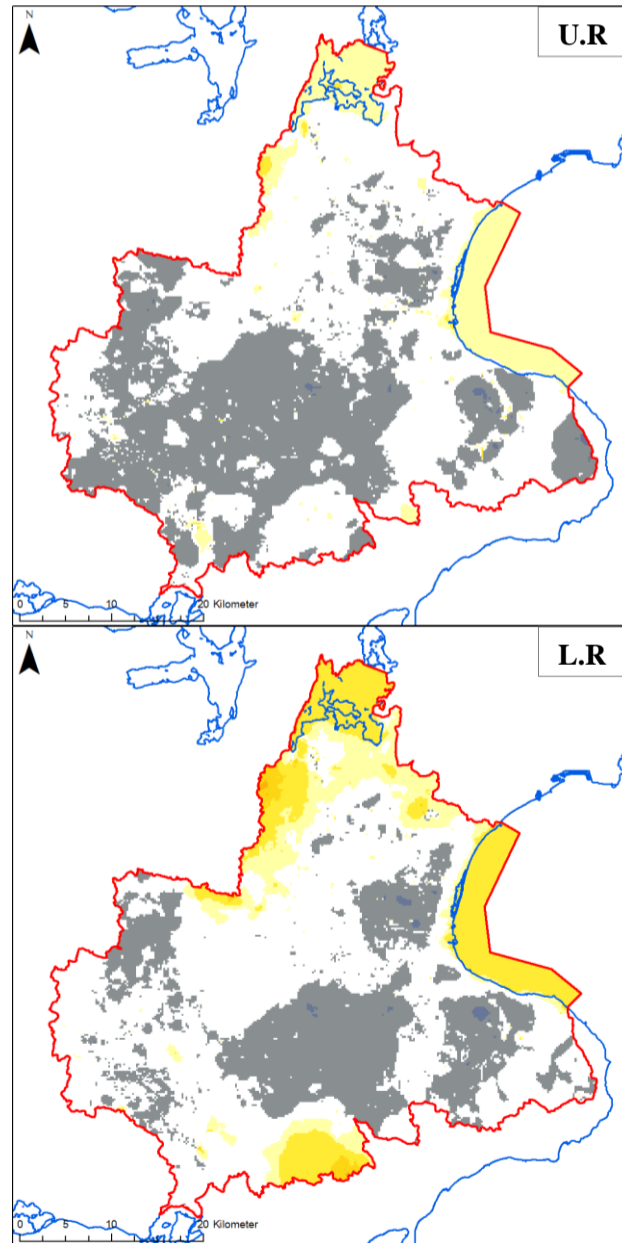
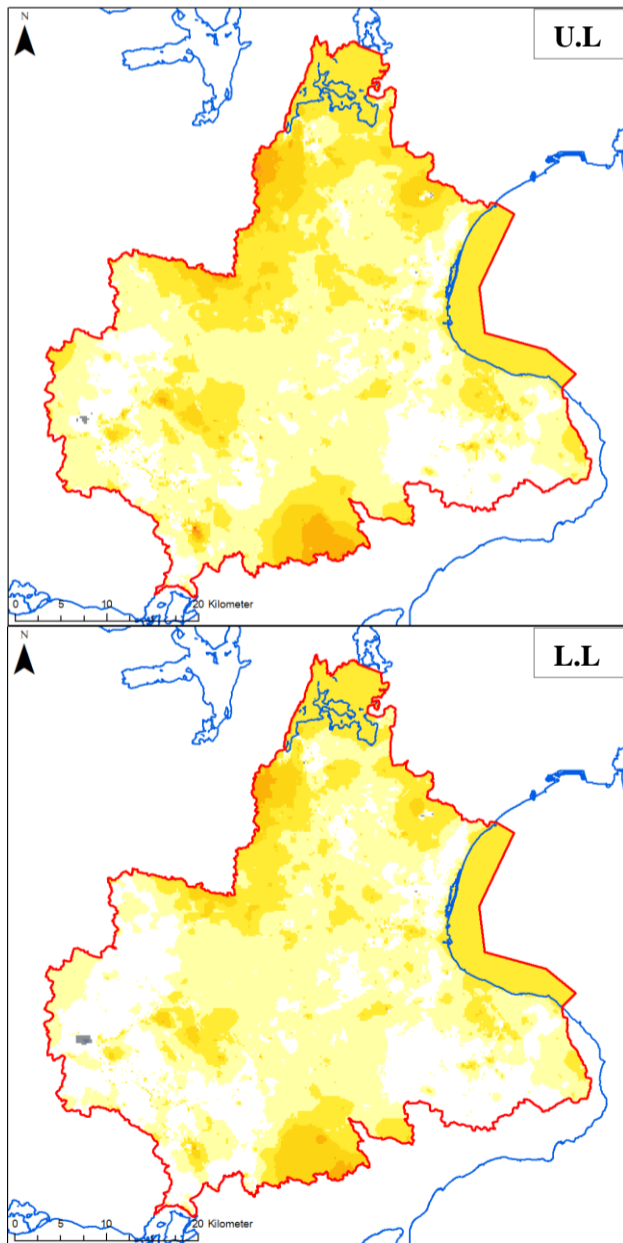
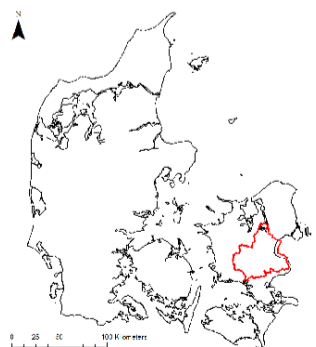
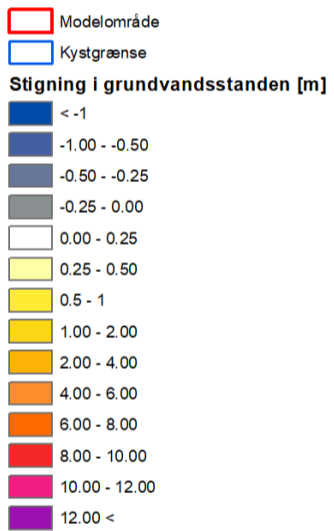
U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model

Signaturforklaring



Maps showing the changes in the maximum groundwater levels from the historical period to the future period in the **Quaternary layer (KS3)** of the model for the four climate scenarios:

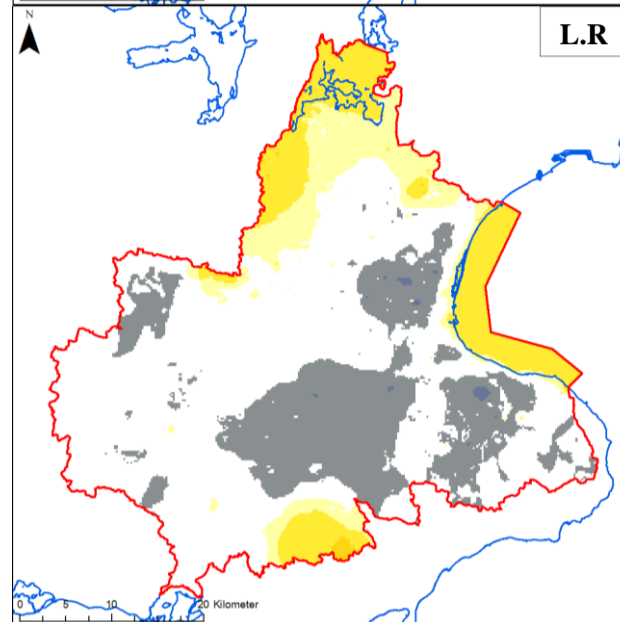
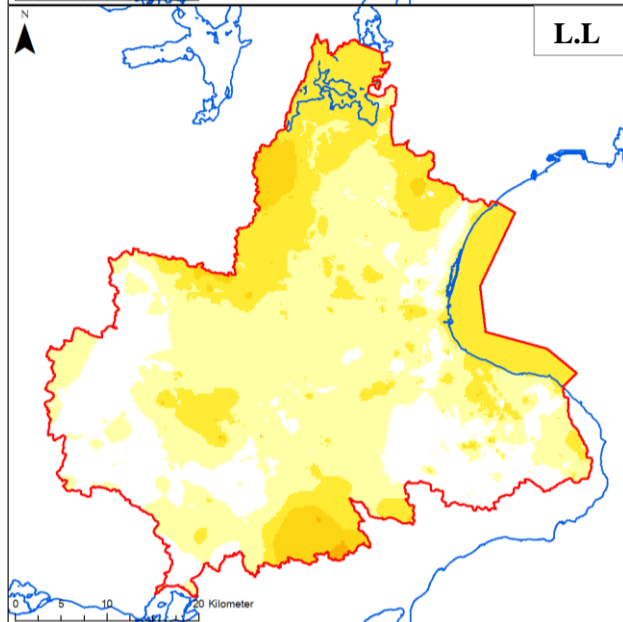
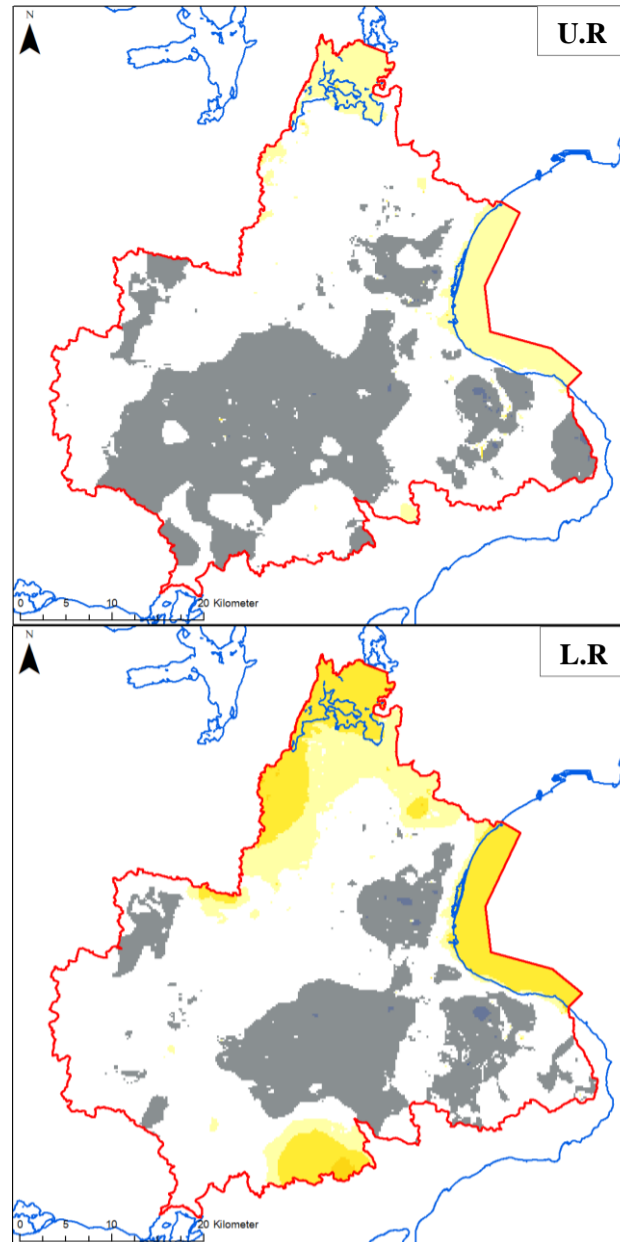
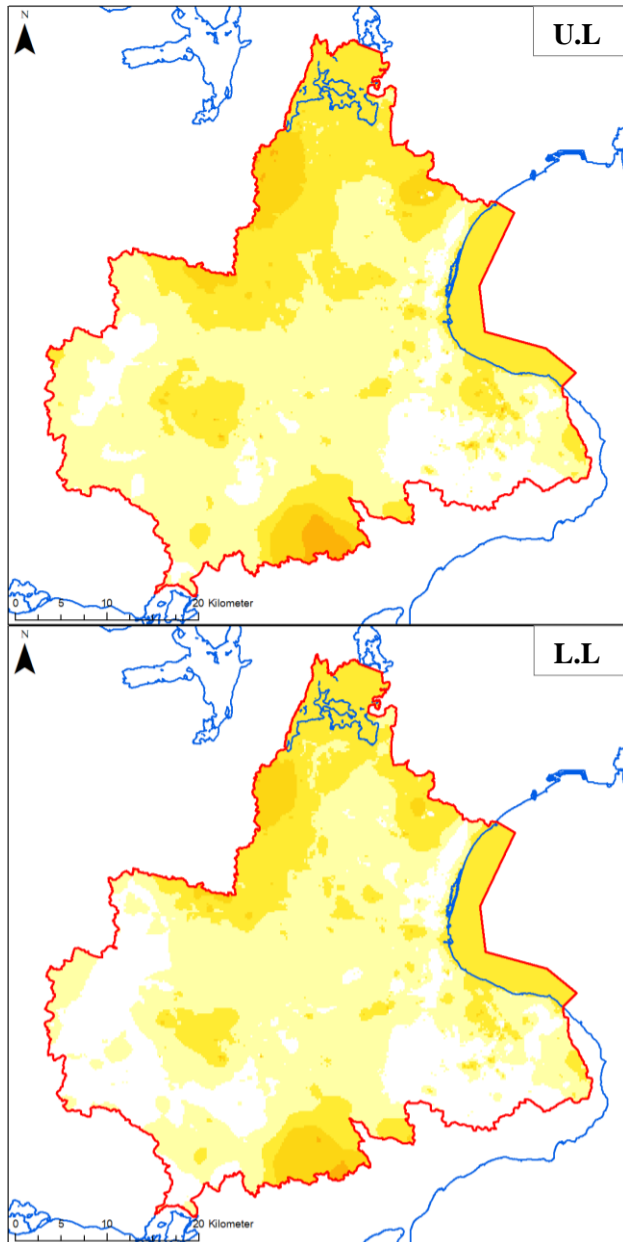
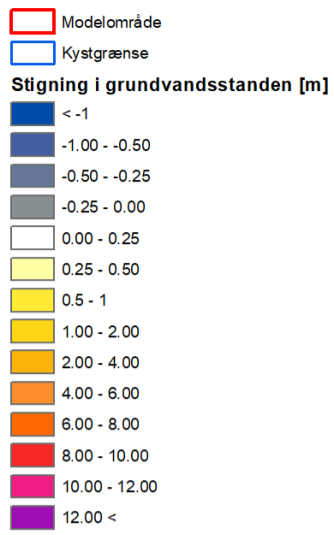
U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model

Signaturforklaring



Maps showing the changes in the maximum groundwater levels from the historical period to the future period in the uppermost **Quaternary layer (KS4)** of the model for the four climate scenarios:

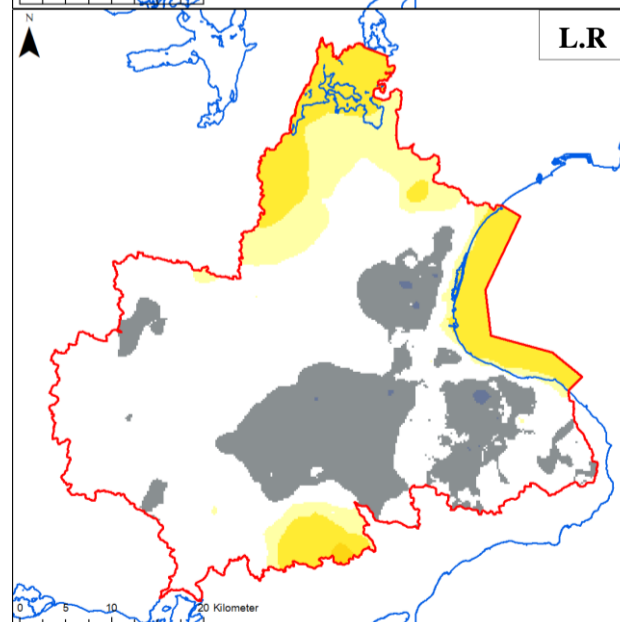
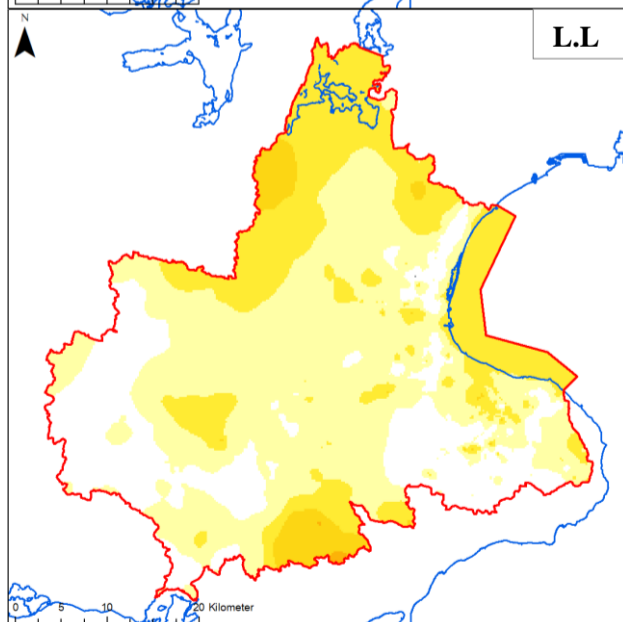
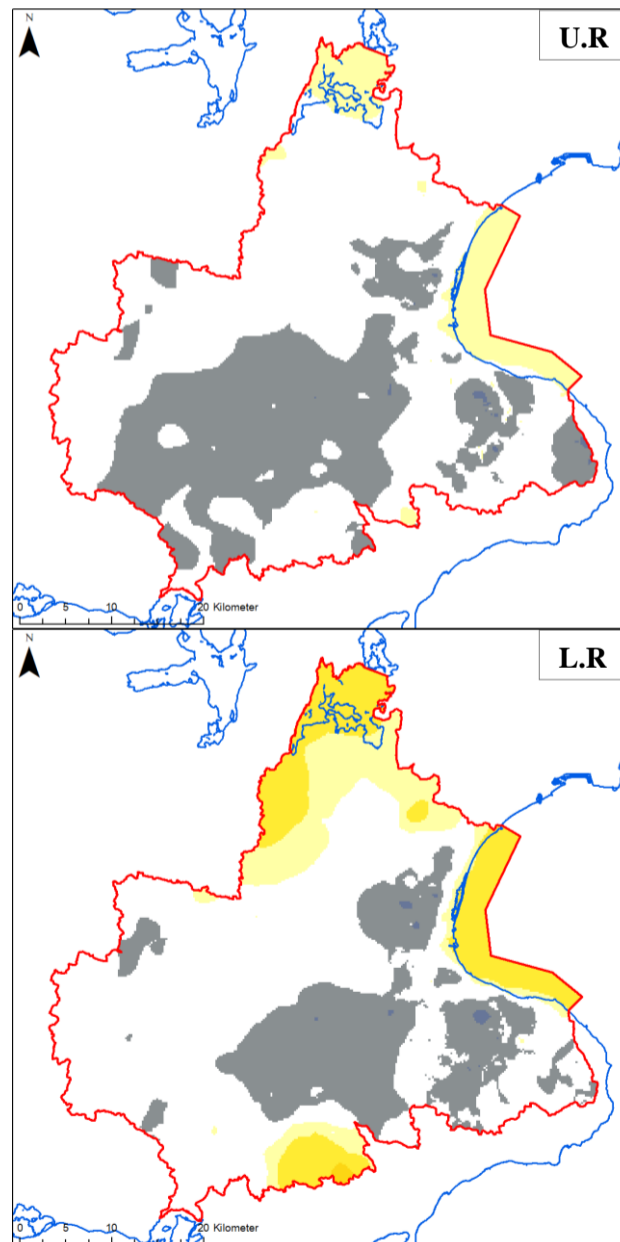
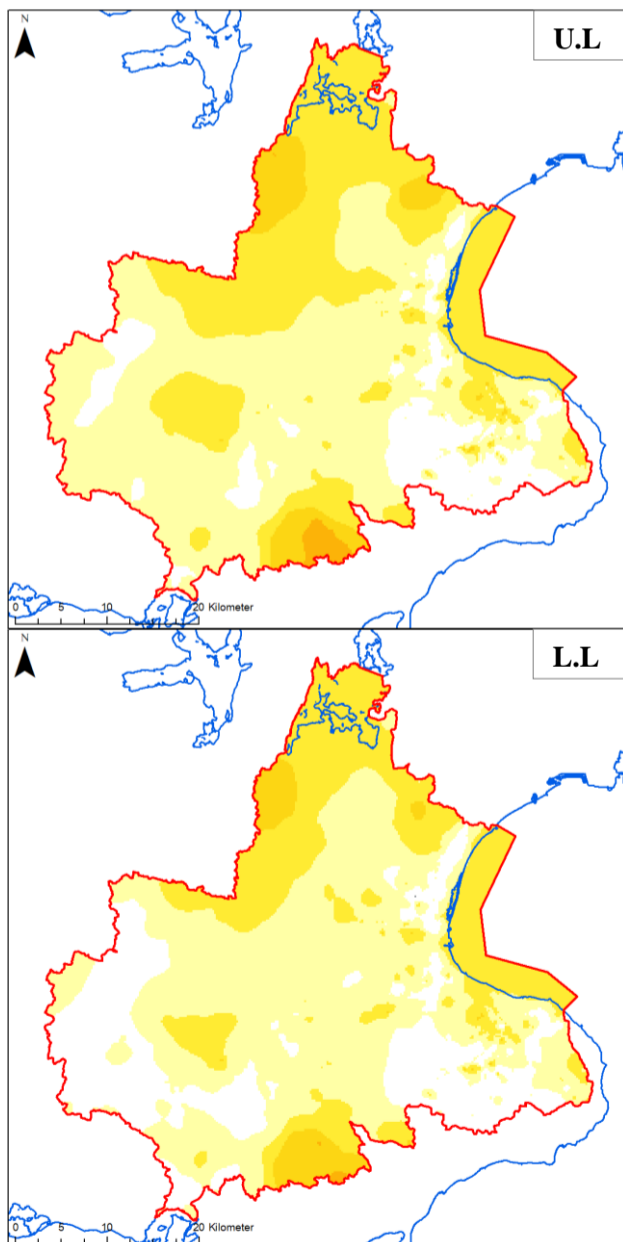
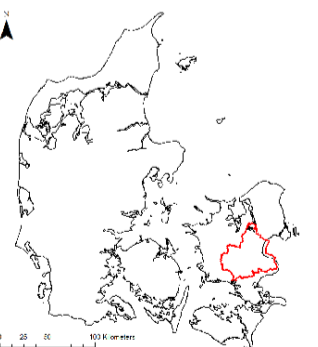
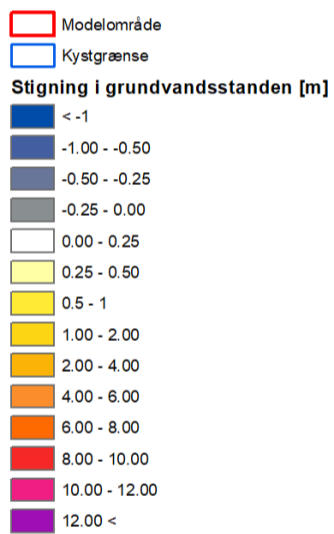
U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model

Signaturforklaring



Maps showing the changes in the maximum groundwater levels from the historical period to the future period in the **chalk layer** of the model for the four climate scenarios:

U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model

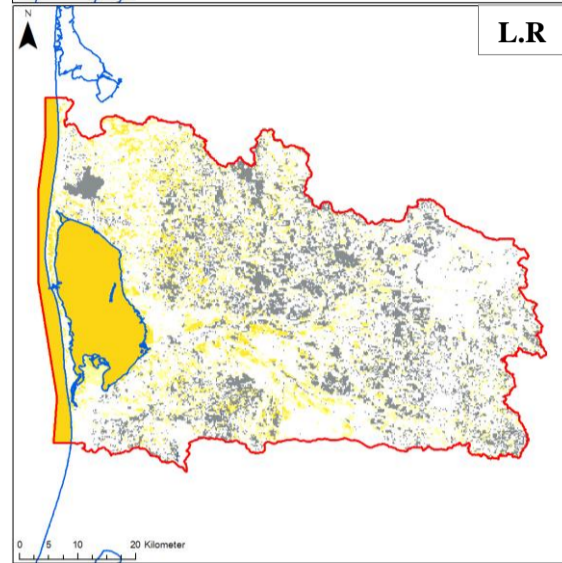
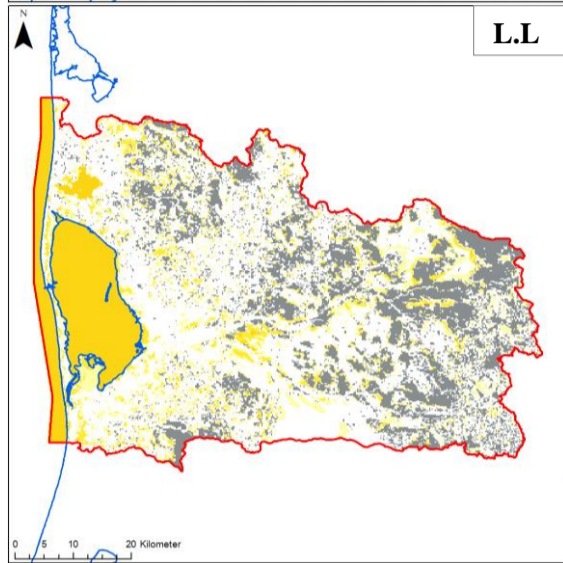
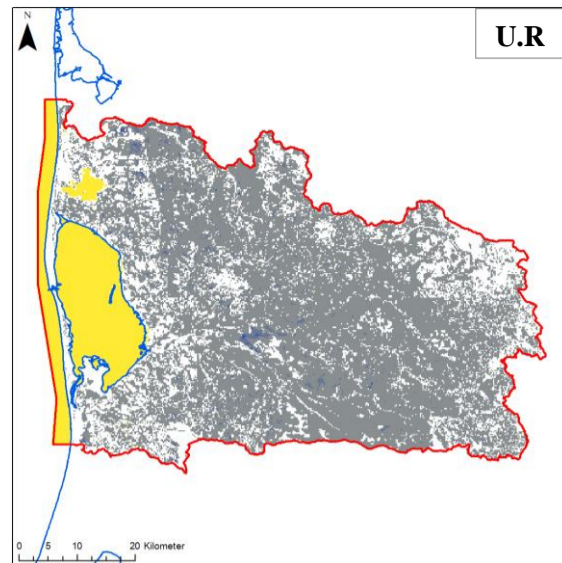
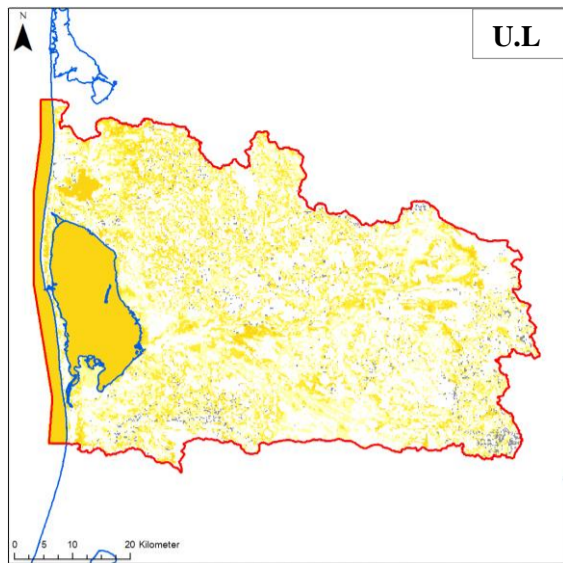
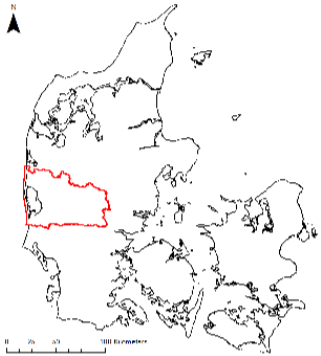
Ringkøbing fjord catcment

Signaturforklaring

- Modelområde
- Kystgrænse

Stigning i grundvandsstanden [m]

- < -1
- 1.00 - -0.50
- 0.50 - -0.25
- 0.25 - 0.00
- 0.00 - 0.25
- 0.25 - 0.50
- 0.5 - 1
- 1.00 - 2.00
- 2.00 - 4.00
- 4.00 - 6.00
- 6.00 - 8.00
- 8.00 - 10.00
- 10.00 - 12.00
- 12.00 <



Maps showing the changes in the maximum groundwater levels from the historical period to the future period in **the uppermost layer (2m)** of the model for the four climate scenarios:

U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

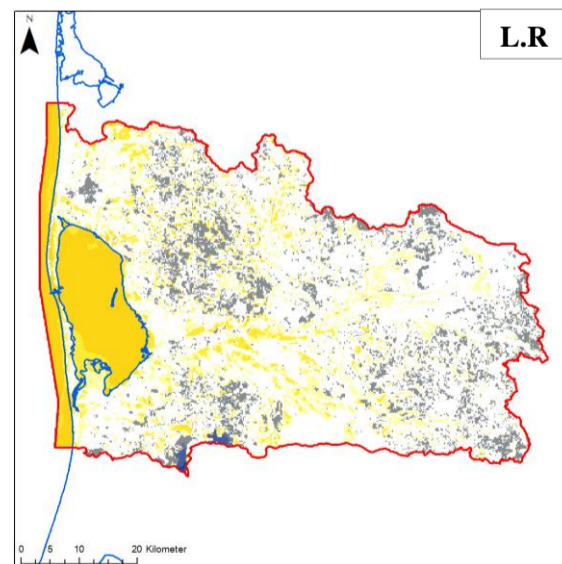
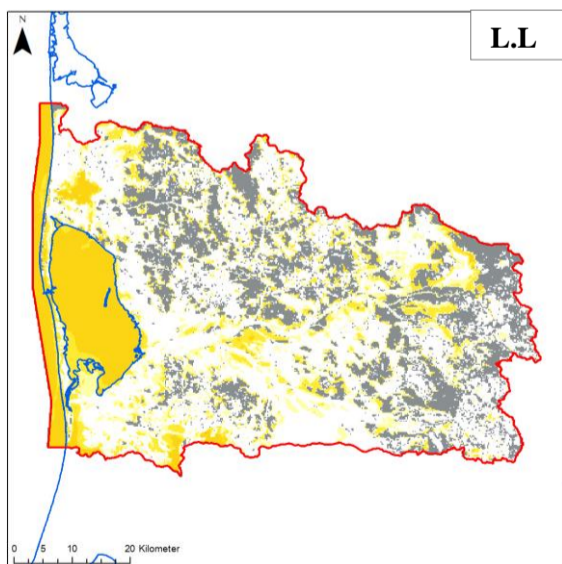
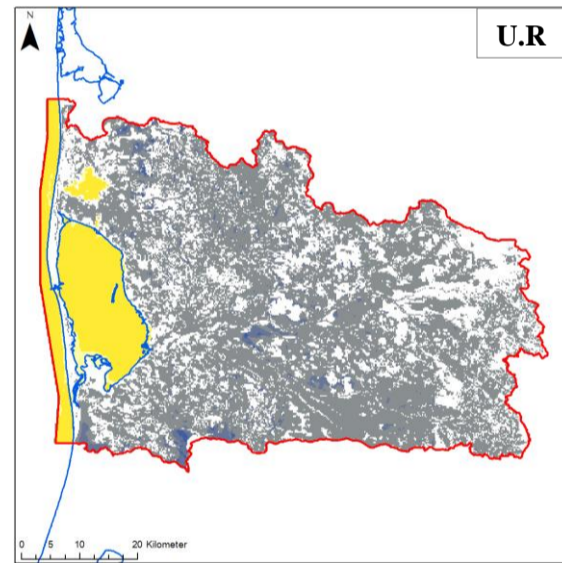
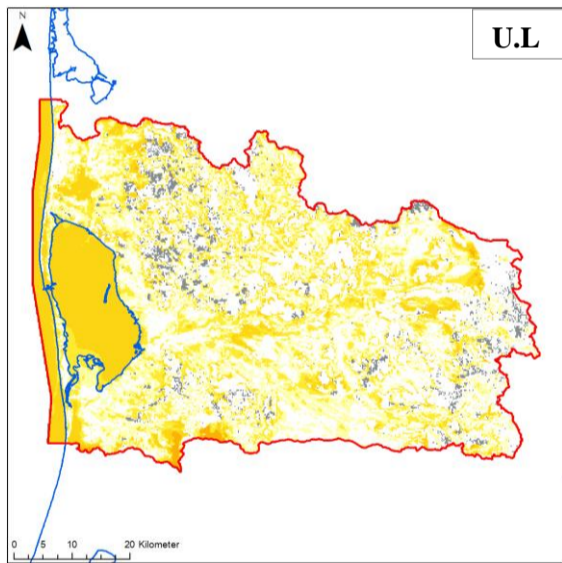
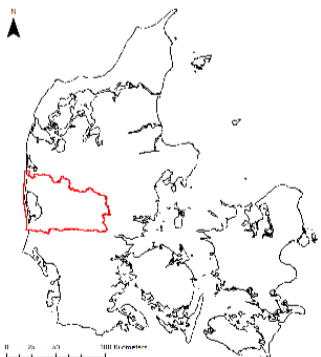
L.R: RCP 8.5 Dry climate model

Signaturforklaring

- Modelområde
- Kystgrænse

Stigning i grundvandsstanden [m]

- < -1
- 1.00 - -0.50
- 0.50 - -0.25
- 0.25 - 0.00
- 0.00 - 0.25
- 0.25 - 0.50
- 0.5 - 1
- 1.00 - 2.00
- 2.00 - 4.00
- 4.00 - 6.00
- 6.00 - 8.00
- 8.00 - 10.00
- 10.00 - 12.00
- 12.00 <



Maps showing the changes in the maximum groundwater levels from the historical period to the future period in the coherent **Quaternary layers (KS1 and KS2)** of the model for the four climate scenarios:

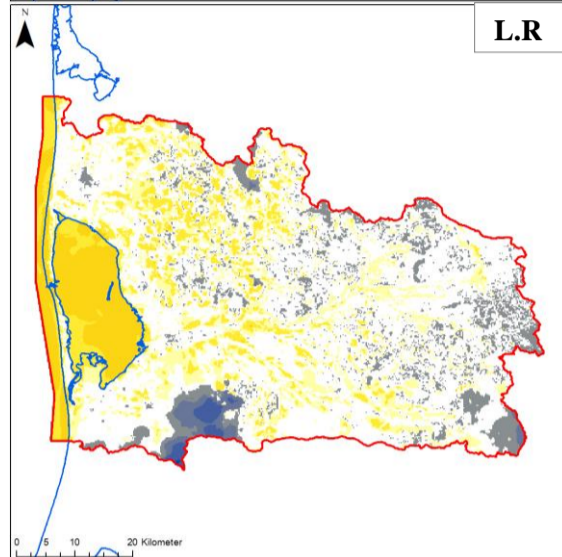
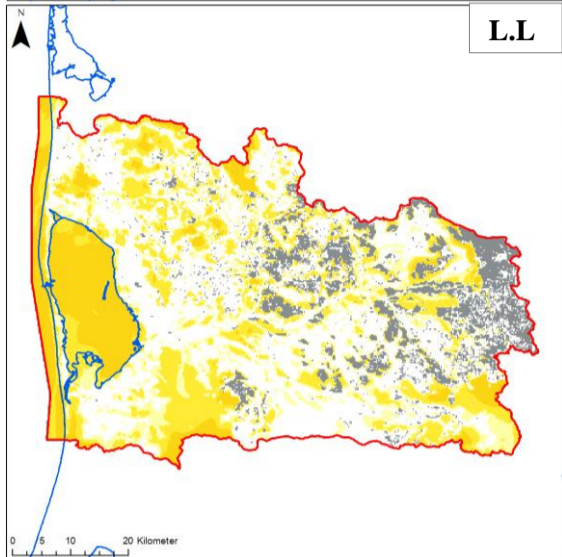
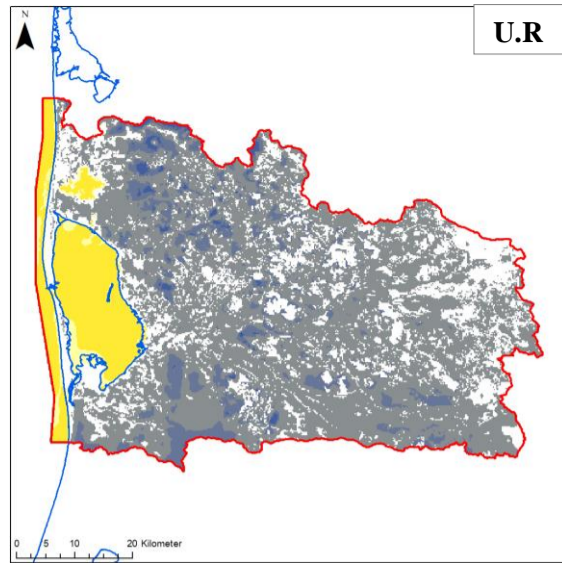
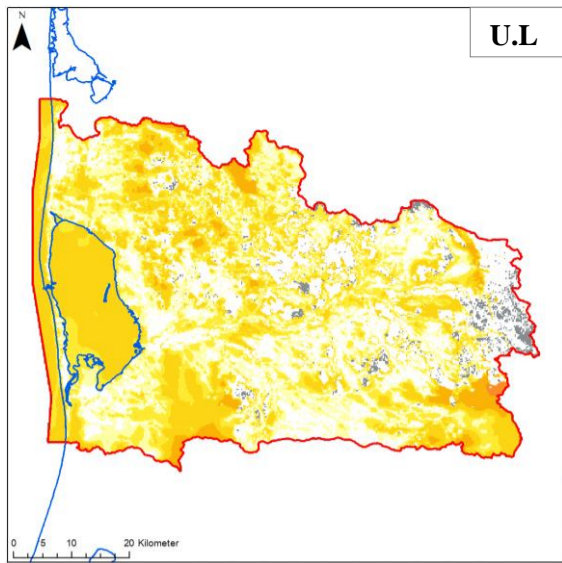
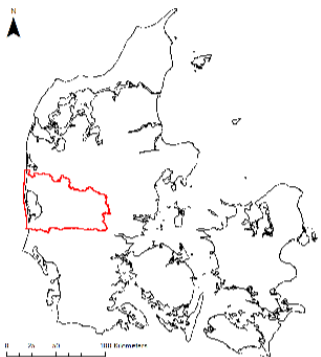
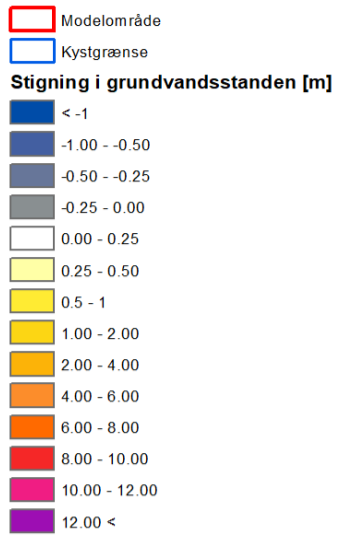
U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model

Signaturforklaring



Maps showing the changes in the maximum groundwater levels from the historical period to the future period in the **Quaternary layer (KS3)** of the model for the four clima scenarios:

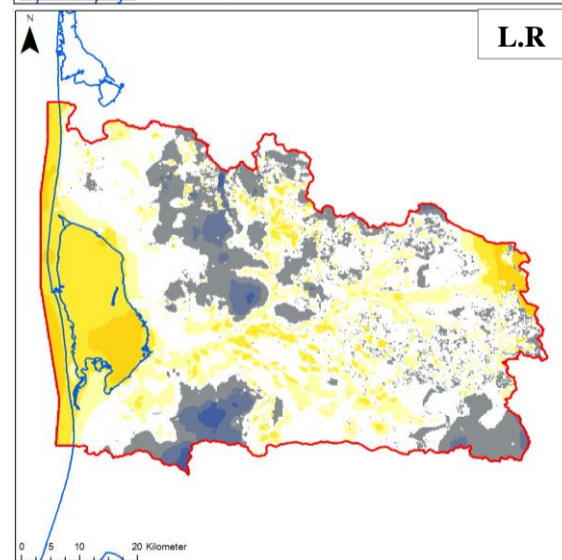
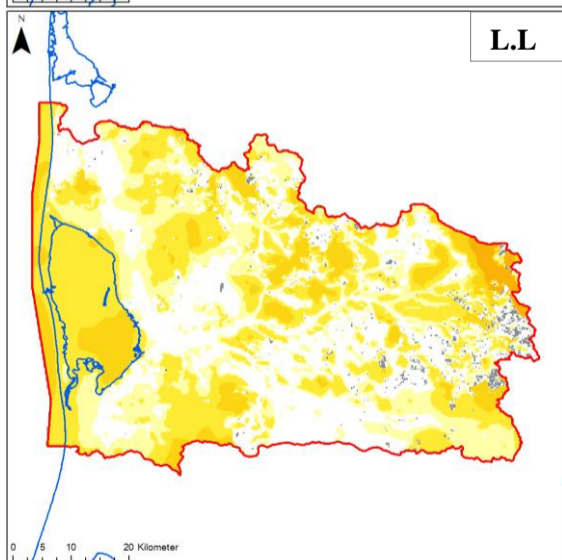
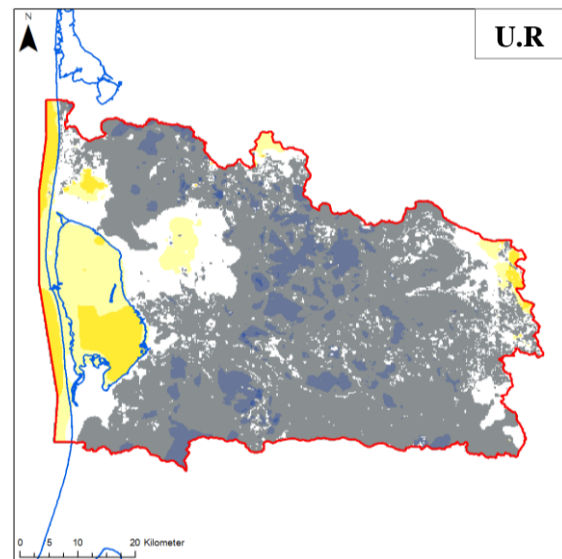
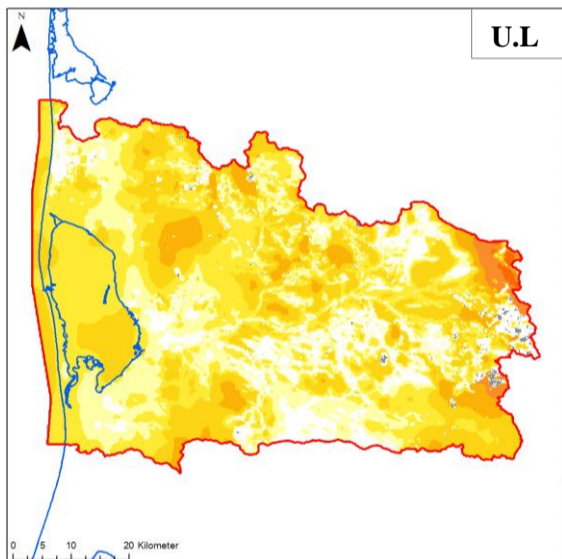
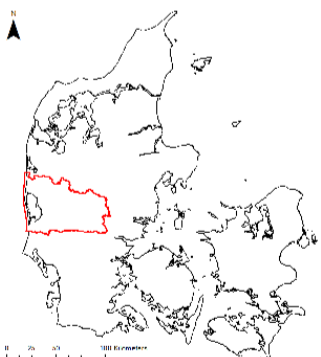
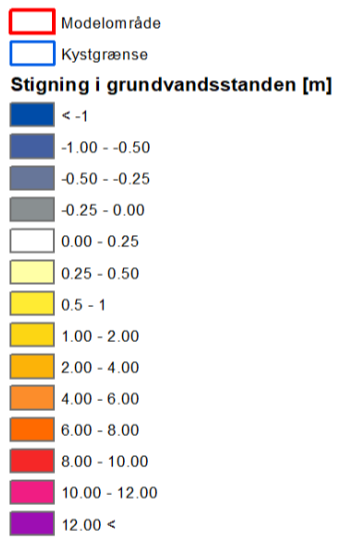
U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model

Signaturforklaring



Maps showing the changes in the maximum groundwater levels from the historical period to the future period in the **Quaternary layer (KS4)** of the model for the four clima scenarios:

U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

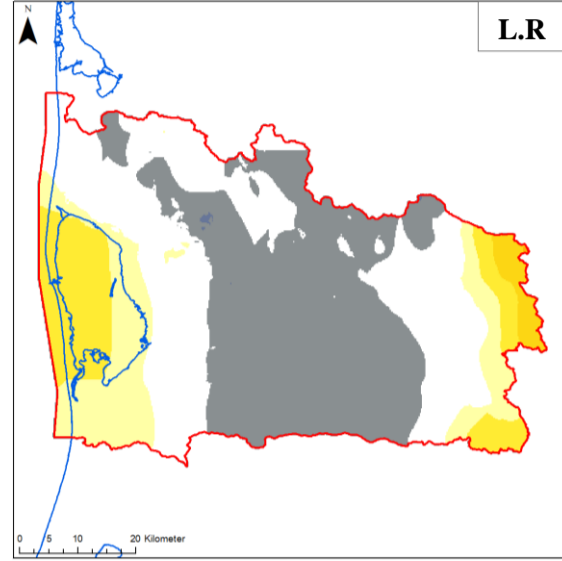
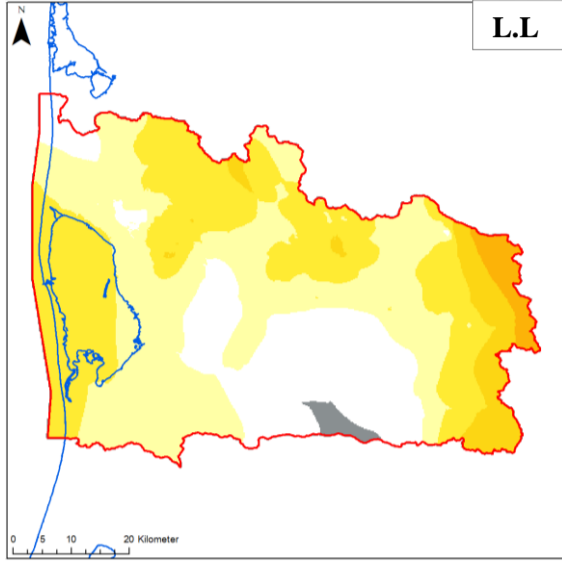
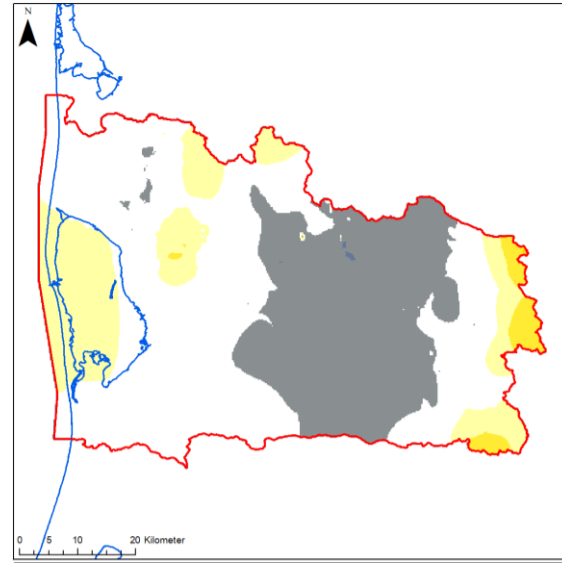
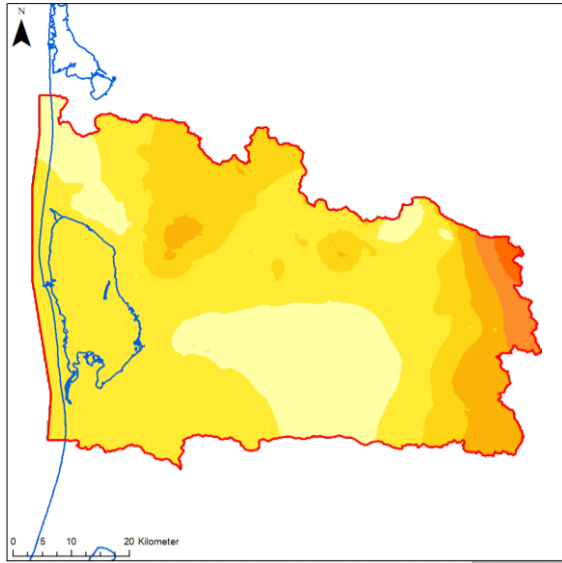
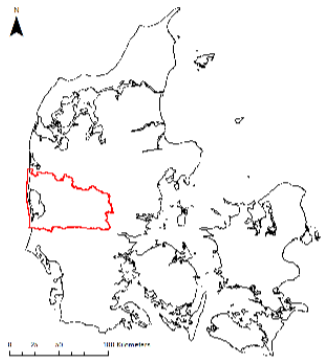
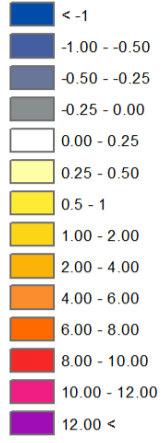
L.R: RCP 8.5 Dry climate model

Signaturforklaring

Modelområde

Kystgrænse

Stigning i grundvandsstanden [m]



Maps showing the changes in the maximum groundwater levels from the historical period to the future period in the **Prequaternary layer (PS4)** of the model for the four climate scenarios

U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

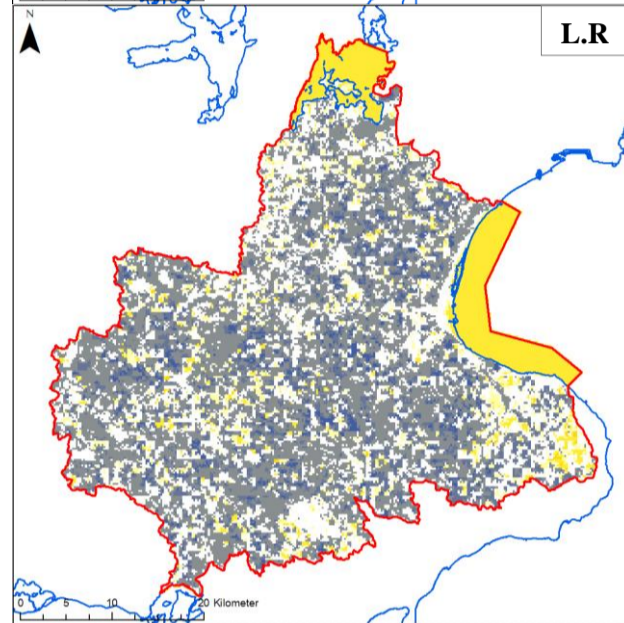
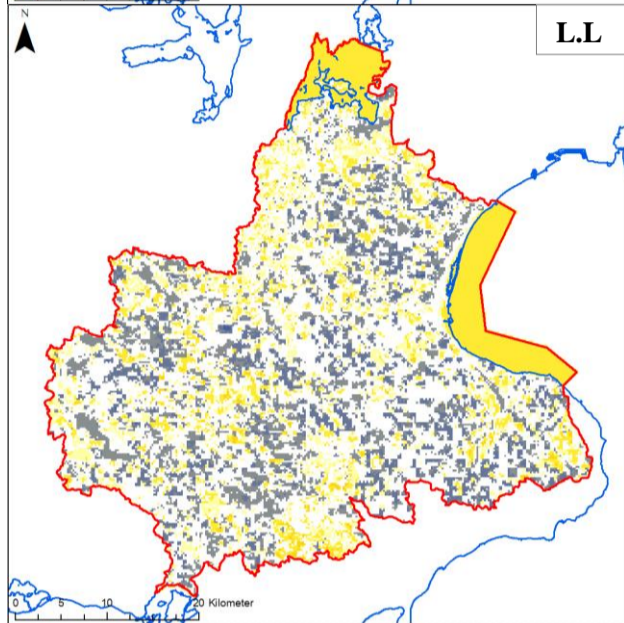
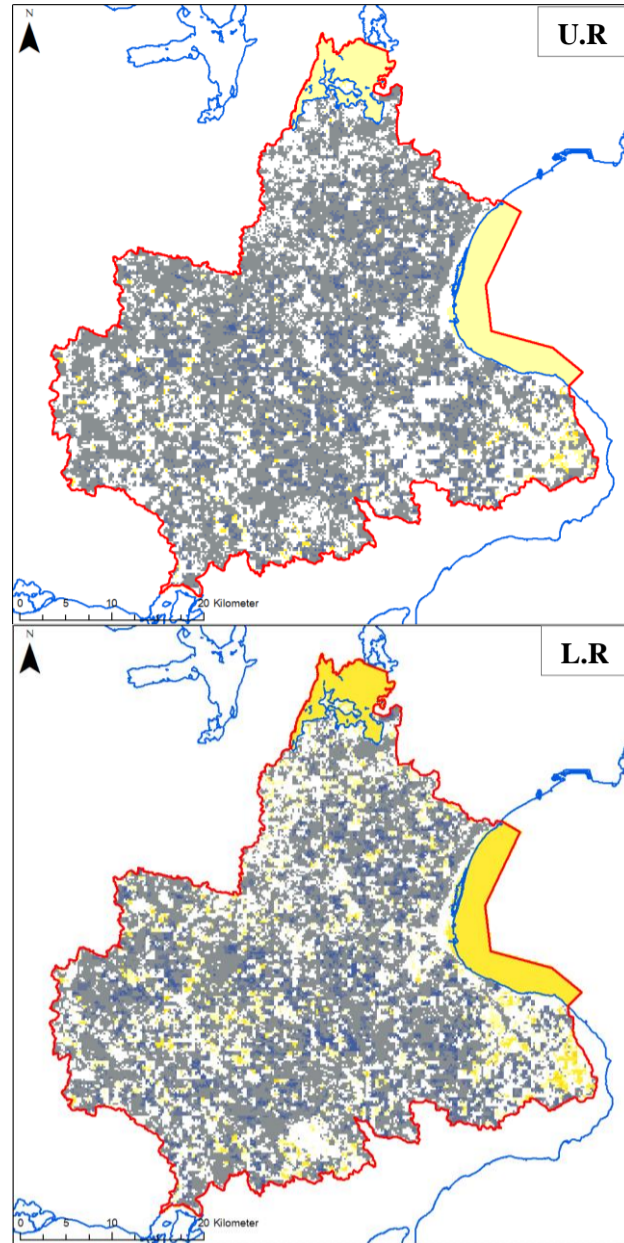
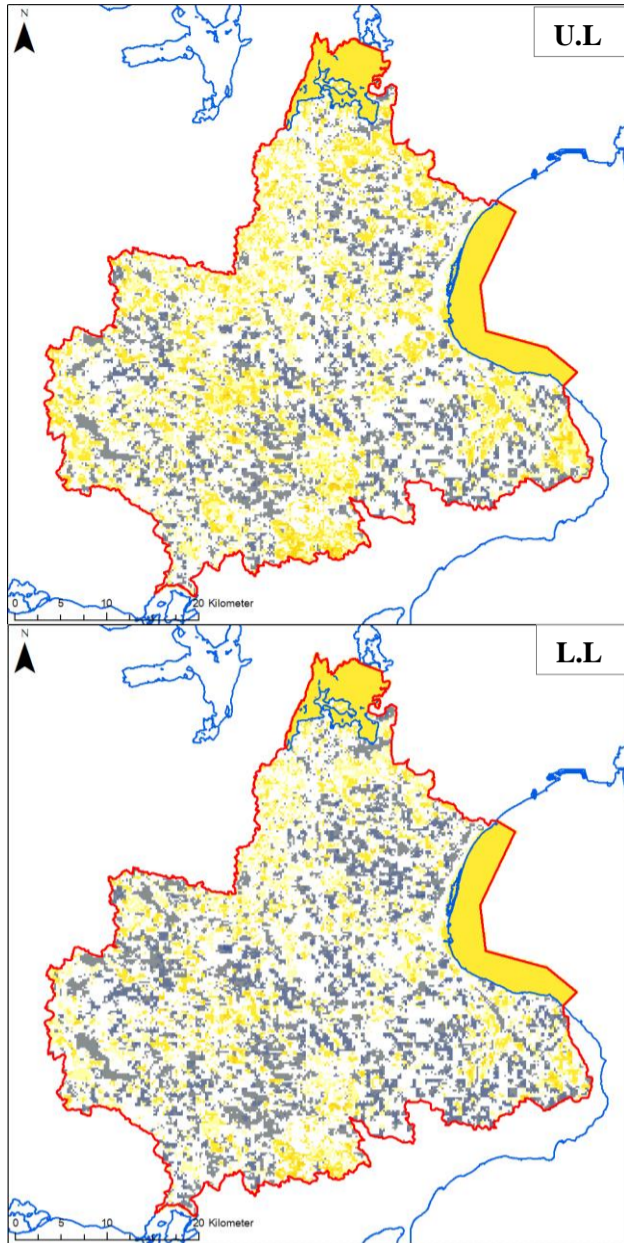
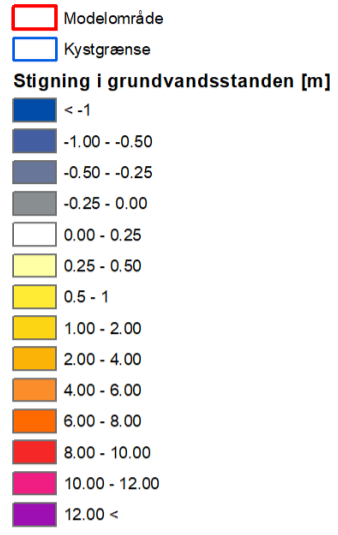
L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model

A14. Change in T=30yr mean groundwater levels from reference period to future period for 4 scenarios

Mid-zealand catchment

Signaturforklaring



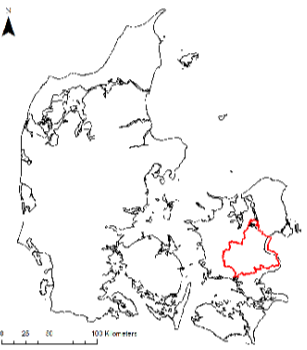
Maps showing the changes in the mean groundwater levels from the historical period to the future period in the **uppermost layer (2m)** of the model for the four climate scenarios:

U.L: RCP 8.5 Wet climate model

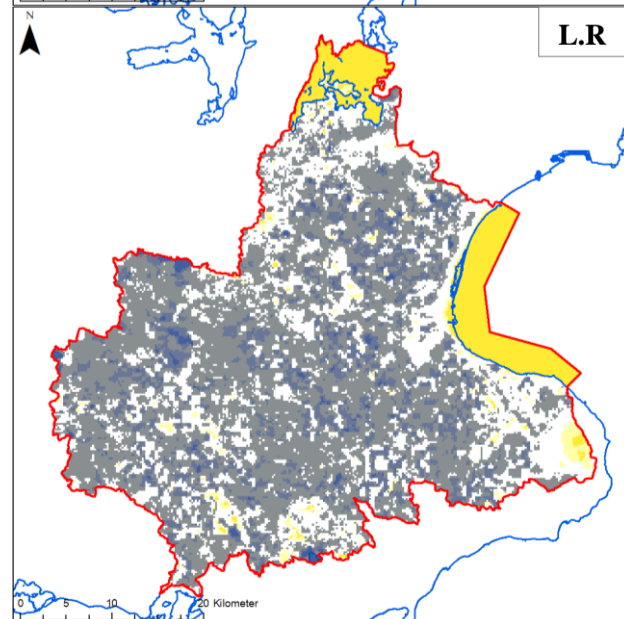
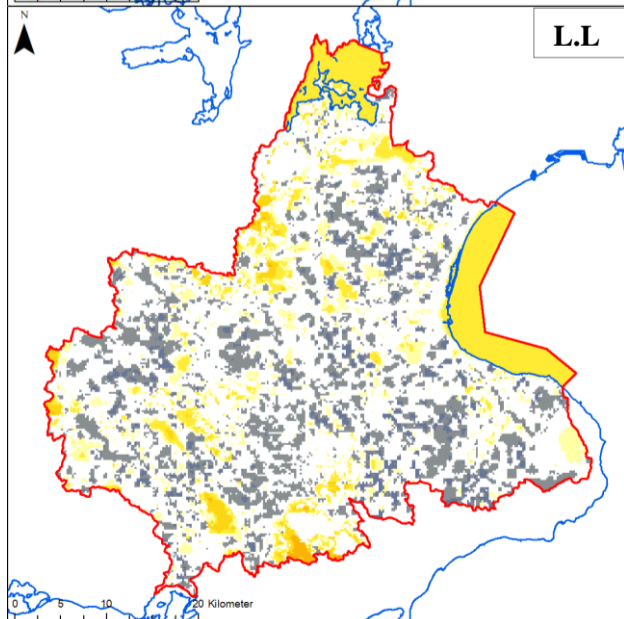
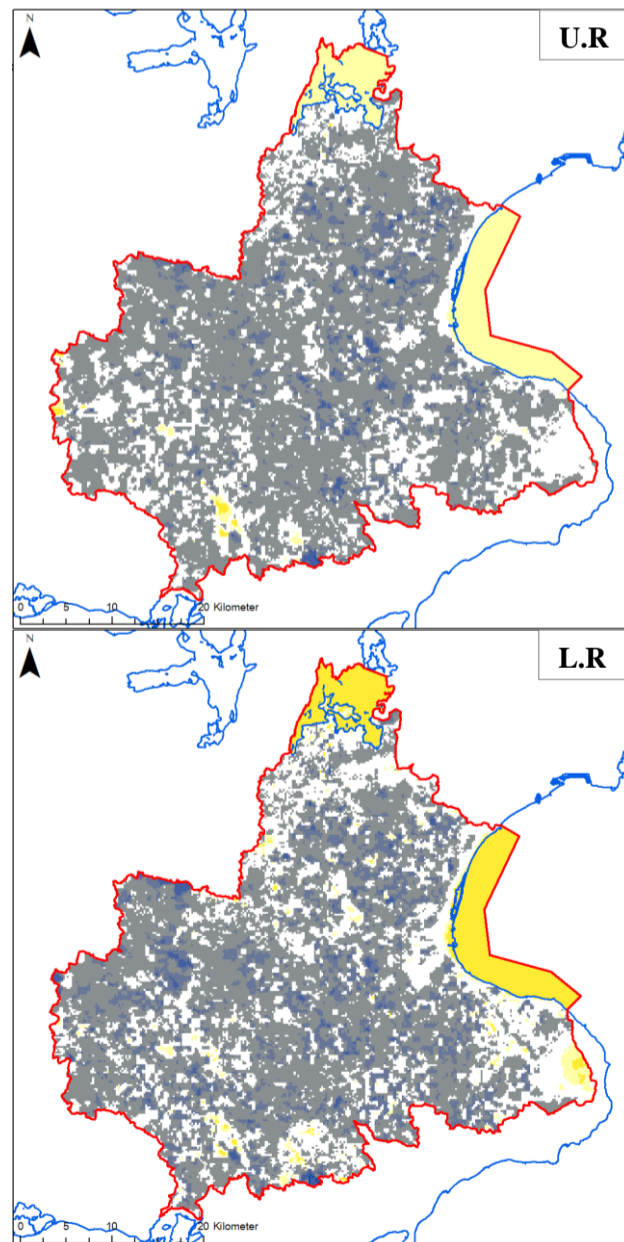
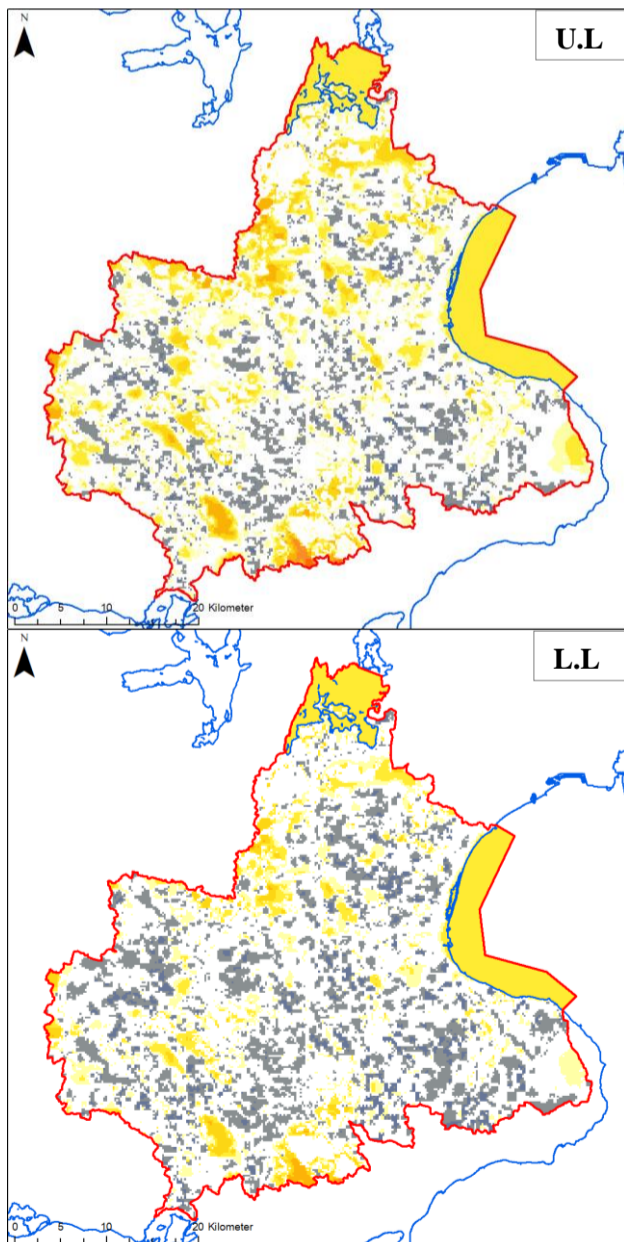
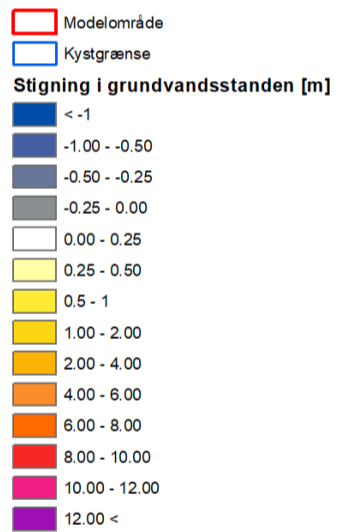
U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model



Signaturforklaring

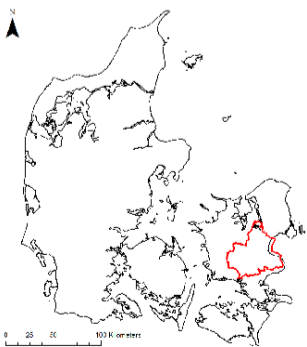


Maps showing the changes in the mean groundwater levels from the historical period to the future period in the **uppermost Quaternary layer (KSI)** of the model for the four climate scenarios:

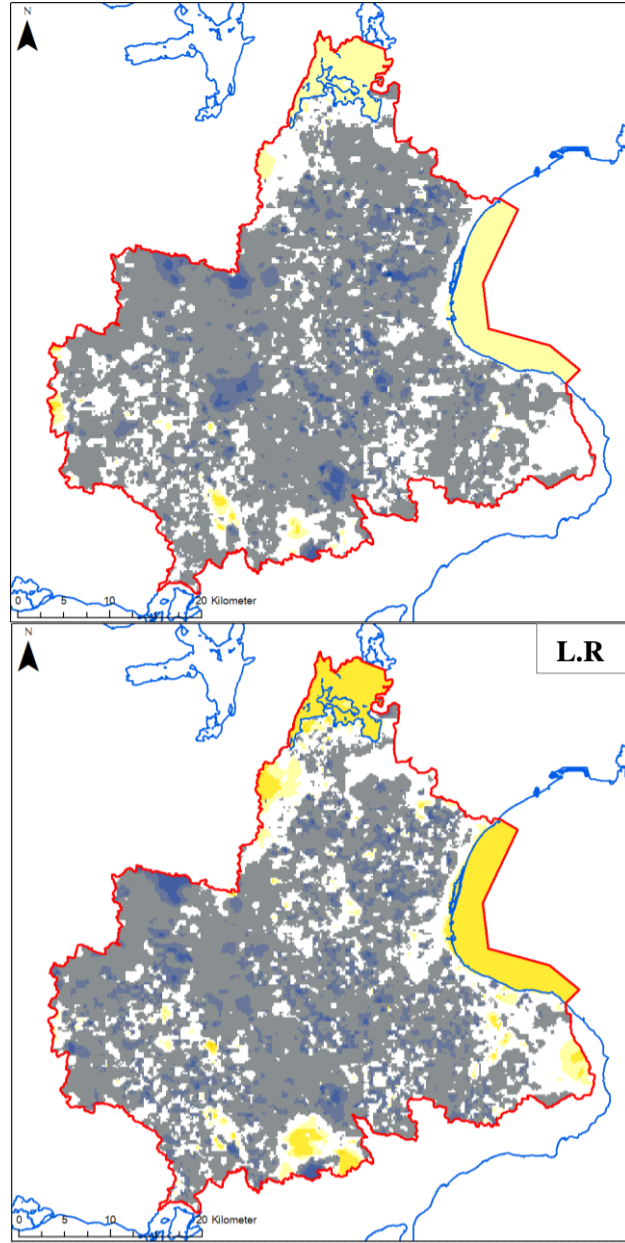
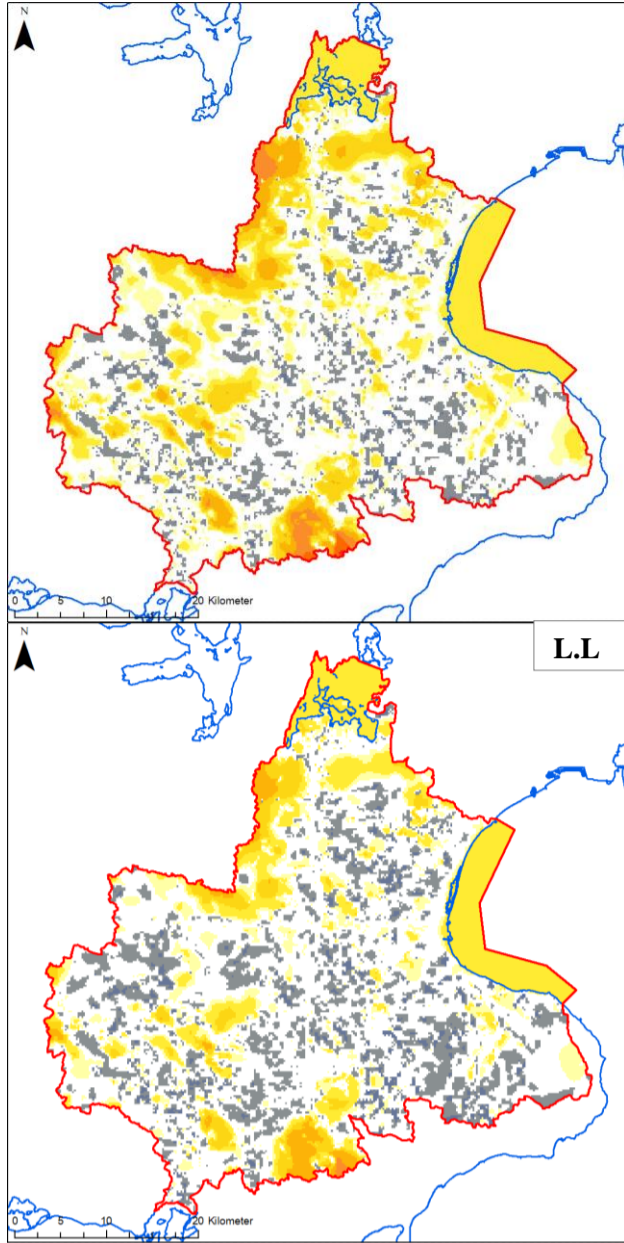
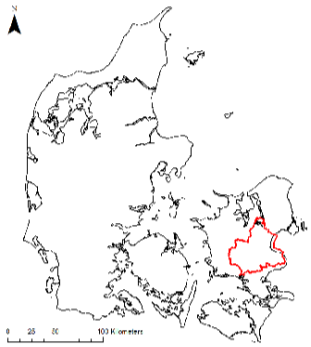
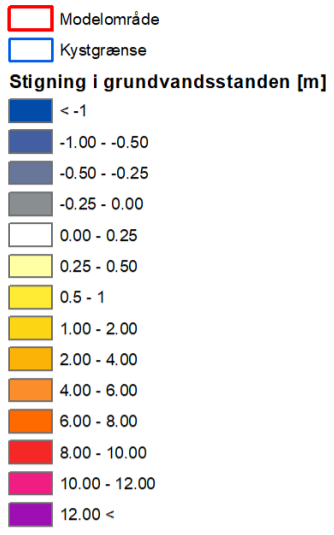
U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model



Signaturforklaring



Maps showing the changes in the mean groundwater levels from the historical period to the future period in the **Quaternary layer (KS2)** of the model for the four climate scenarios:

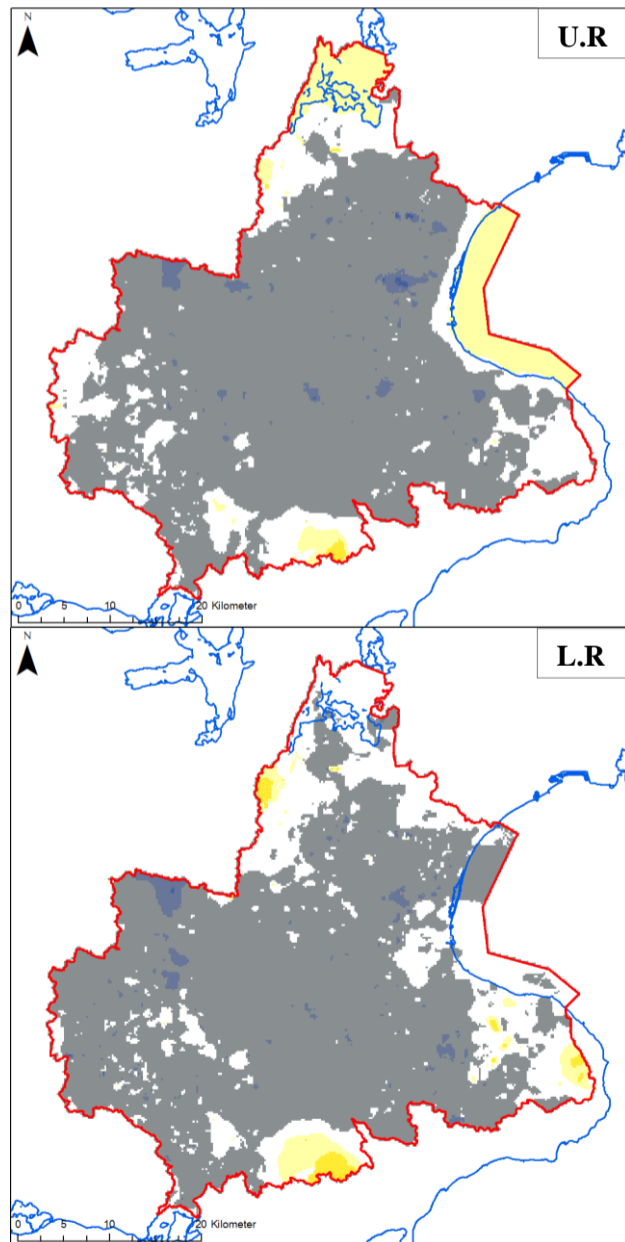
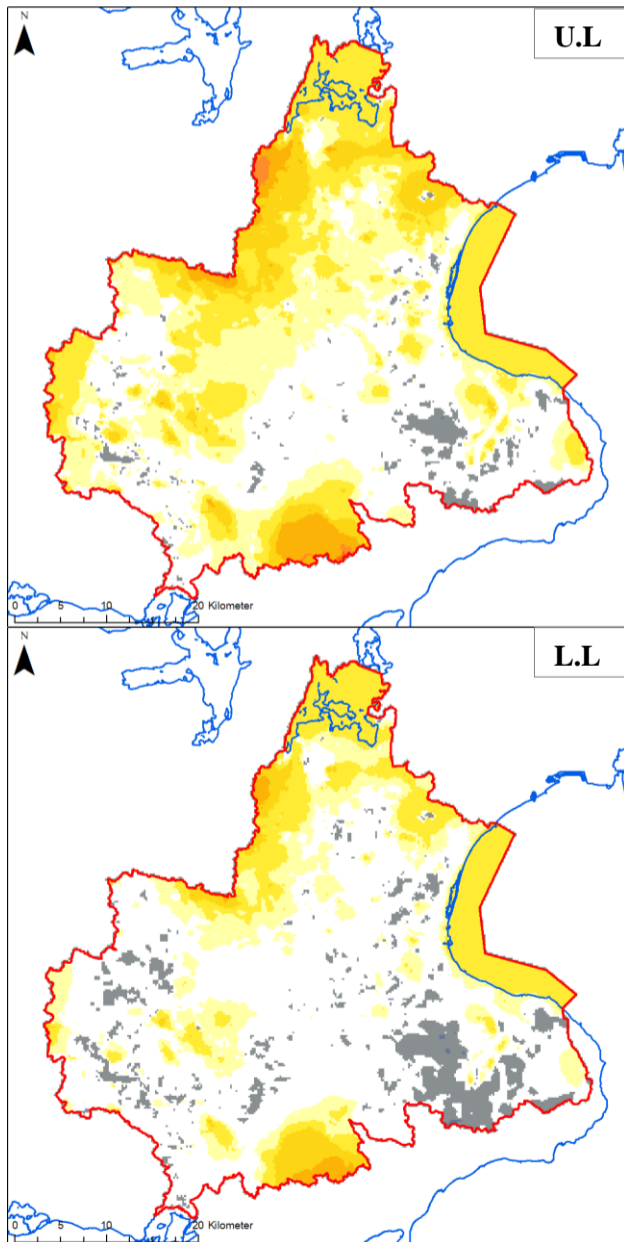
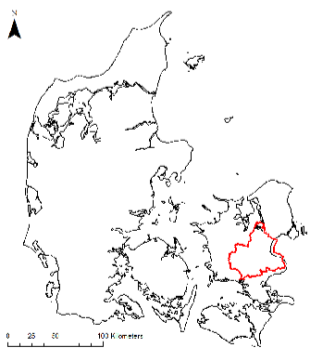
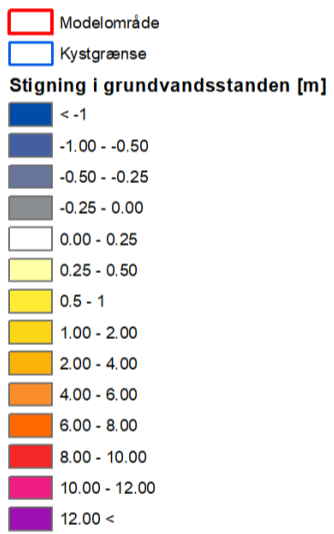
U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model

Signaturforklaring



Maps showing the changes in the mean groundwater levels from the historical period to the future period in the **Quaternary layer (KS3)** of the model for the four climate scenarios:

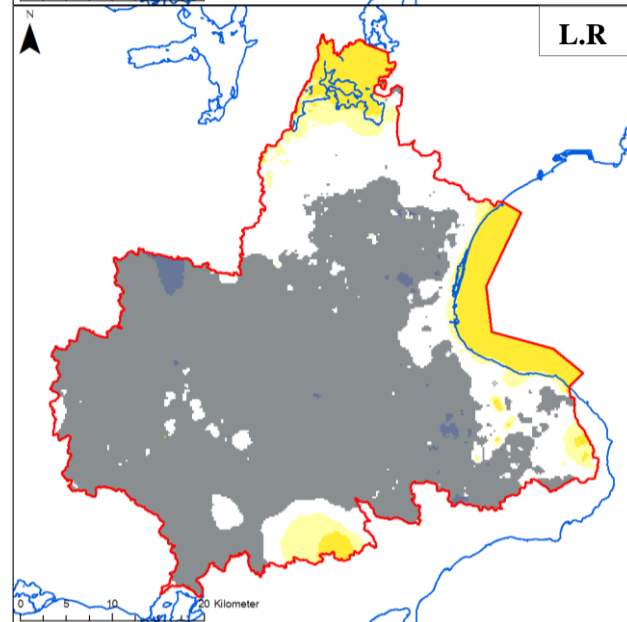
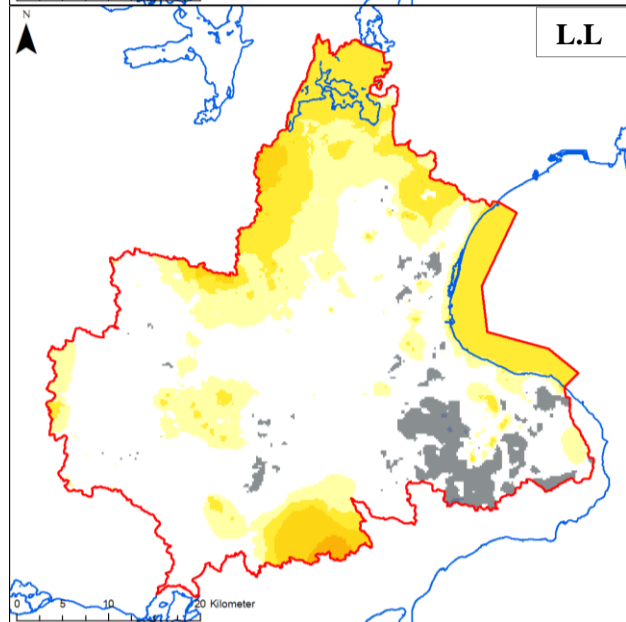
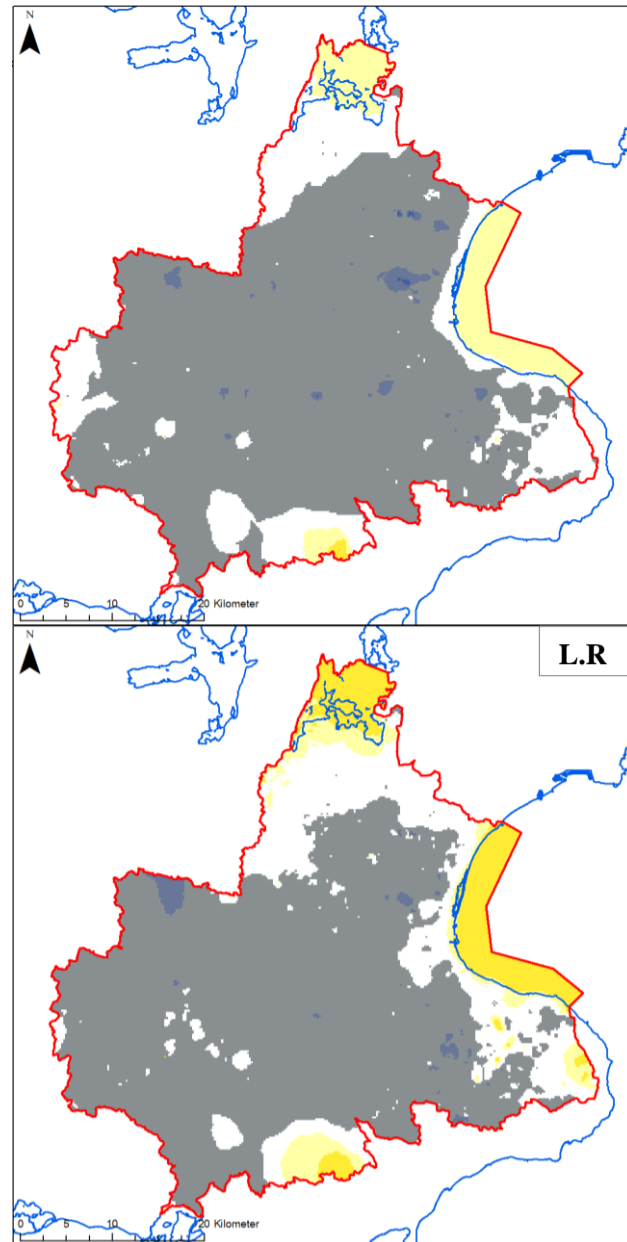
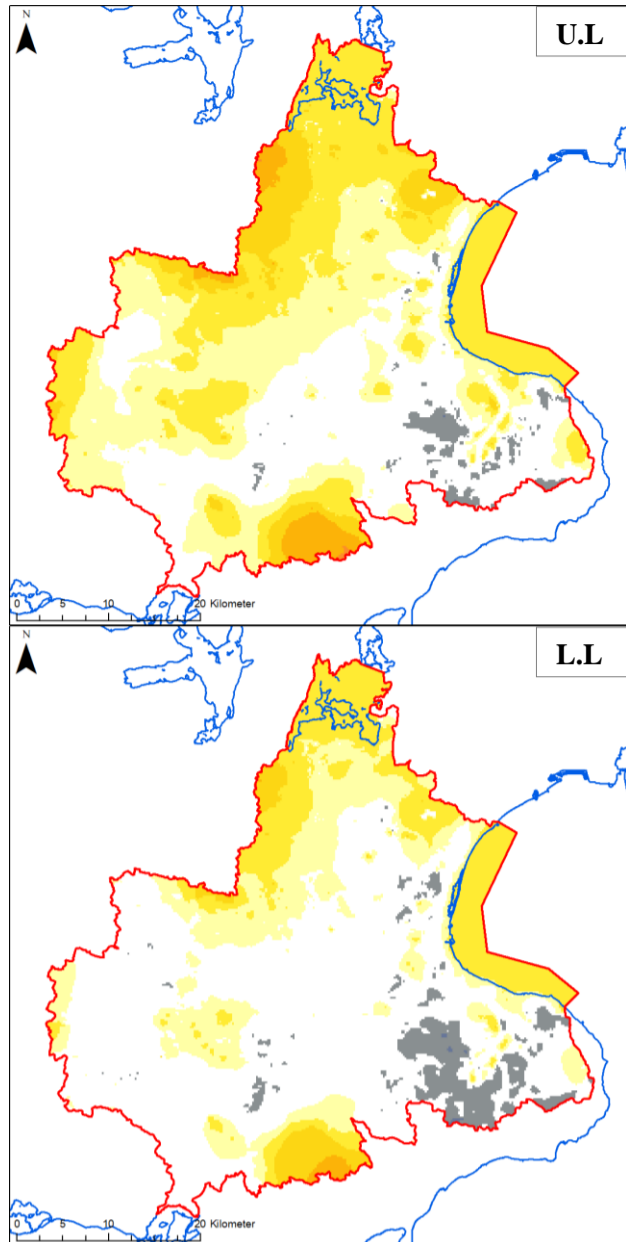
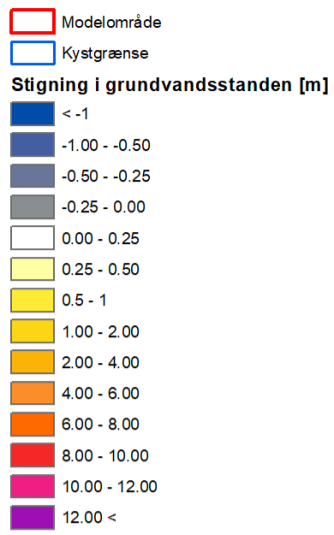
U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model

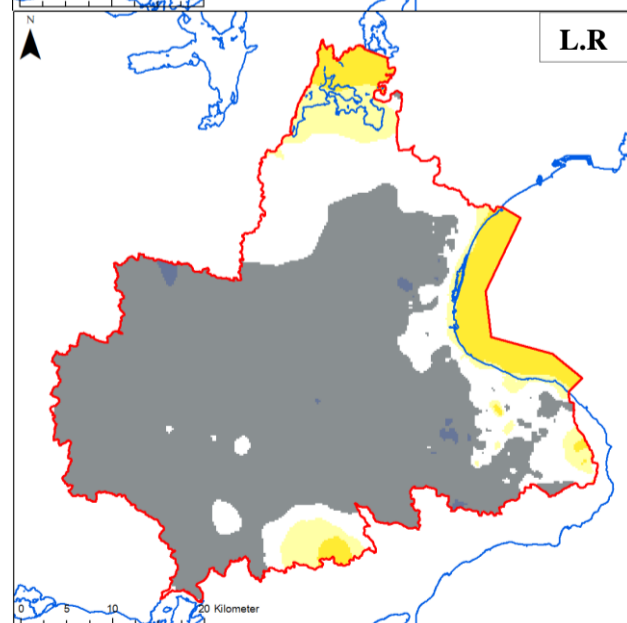
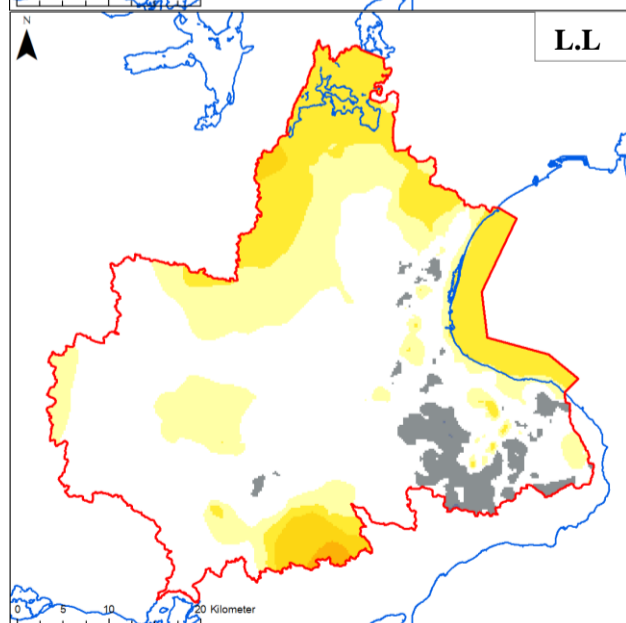
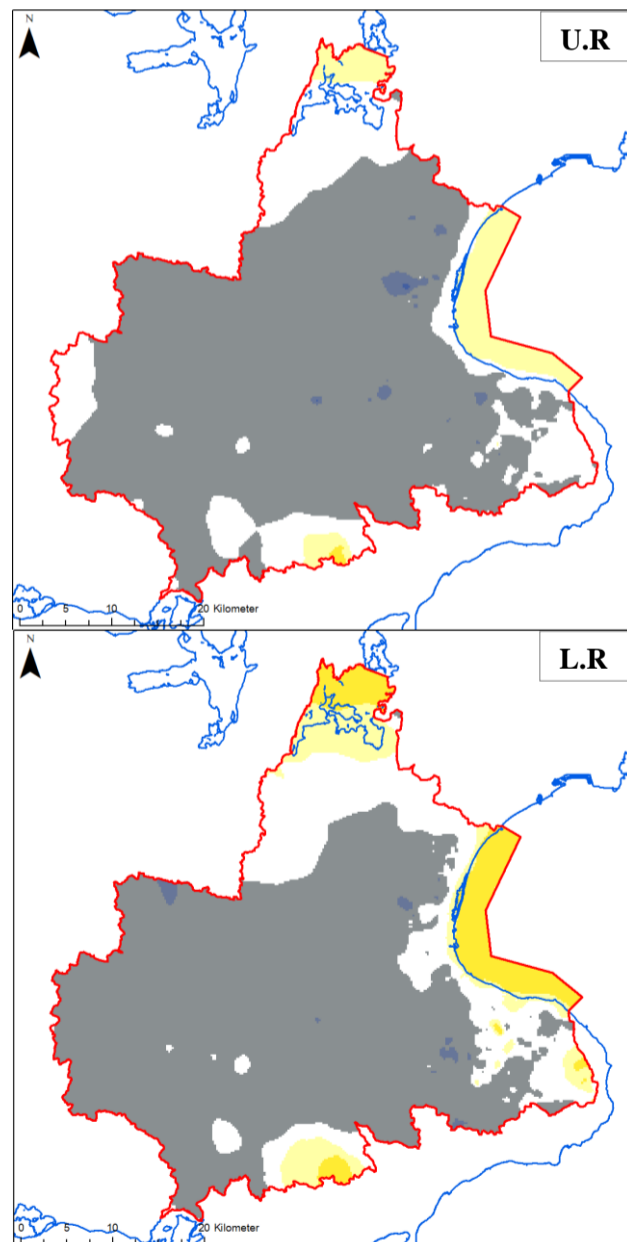
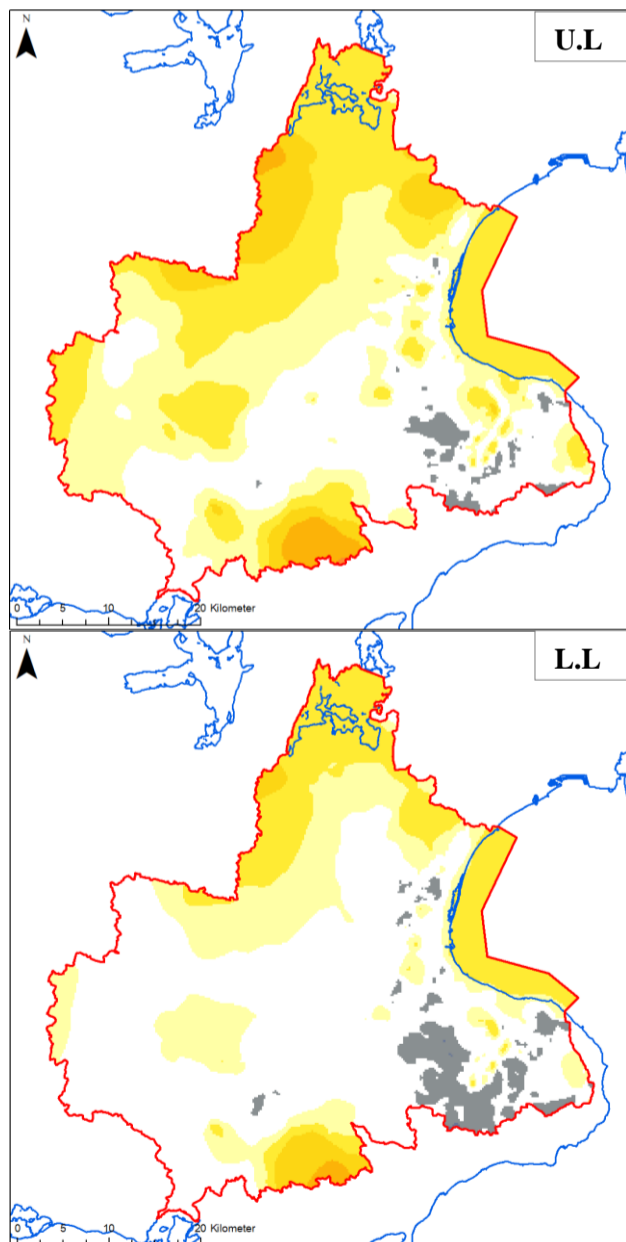
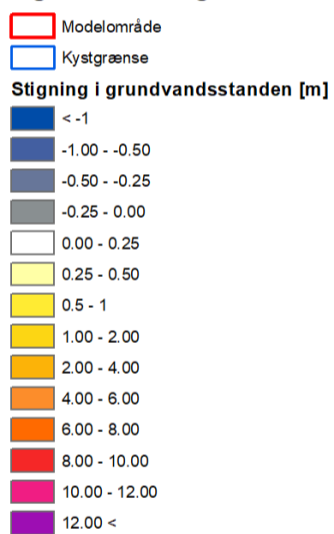
Signaturforklaring



Maps showing the changes in the mean groundwater levels from the historical period to the future period in the **Quarternary layer (KS4)** of the model for the four clima scenarios:

- U.L:** RCP 8.5 Wet climate model
- U.R:** RCP 4.5 climate model
- L.L:** RCP 8.5 Median climate model
- L.R:** RCP 8.5 Dry climate model

Signaturforklaring

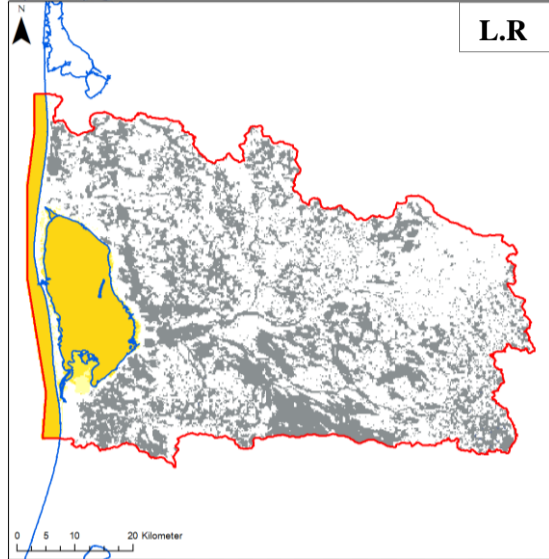
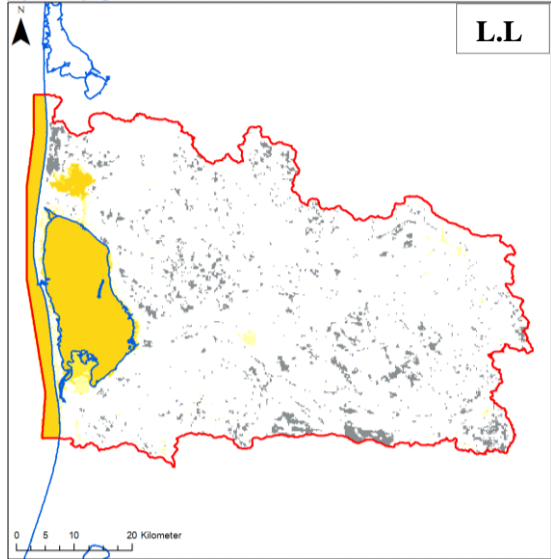
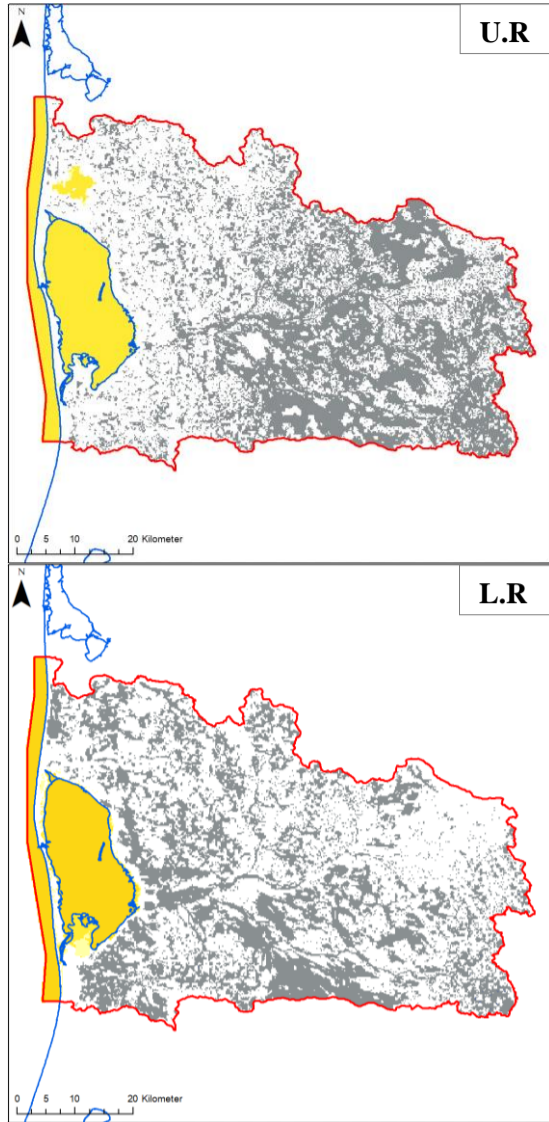
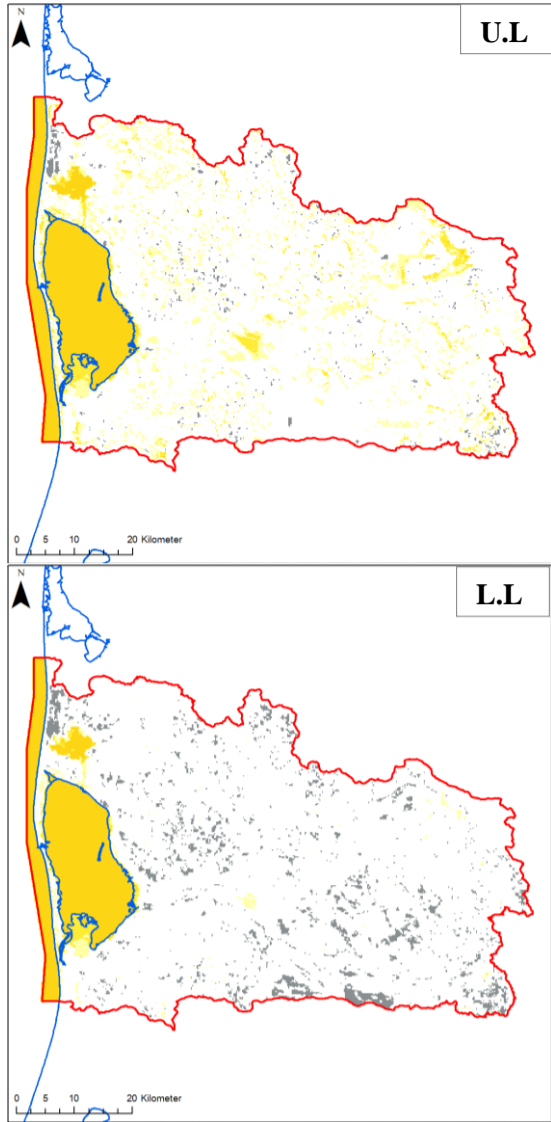
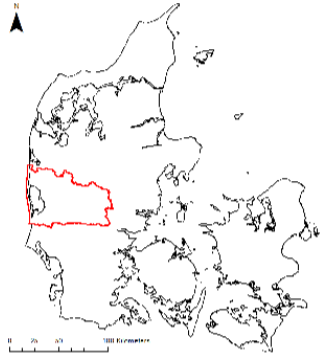
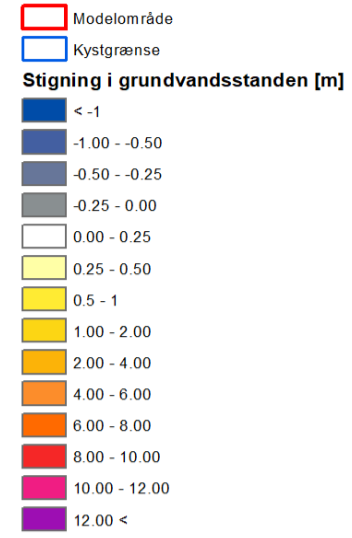


Maps showing the changes in the mean groundwater levels from the historical period to the future period in the **chalk layer** of the model for the four clima scenarios:

- U.L:** RCP 8.5 Wet climate model
- U.R:** RCP 4.5 climate model
- L.L:** RCP 8.5 Median climate model
- L.R:** RCP 8.5 Dry climate model

Ringkøbing fjord catchment

Signaturforklaring



Maps showing the changes in the mean groundwater levels from the historical period to the future period in the **uppermost layer (2m)** of the model for the four climate scenarios:

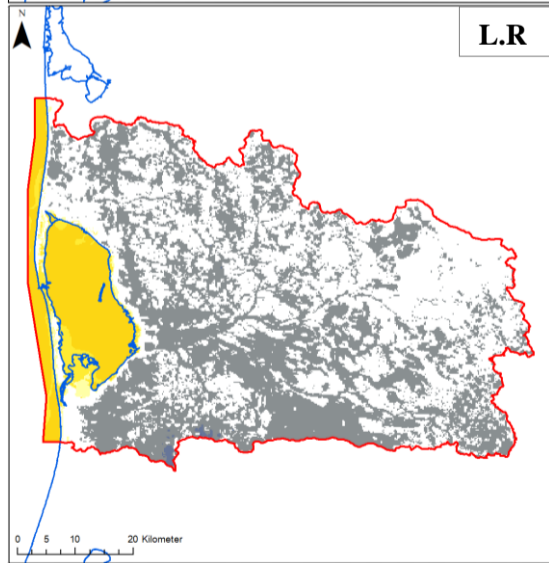
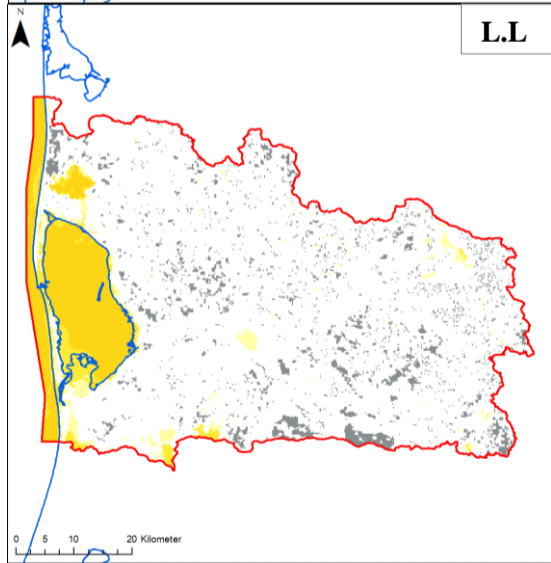
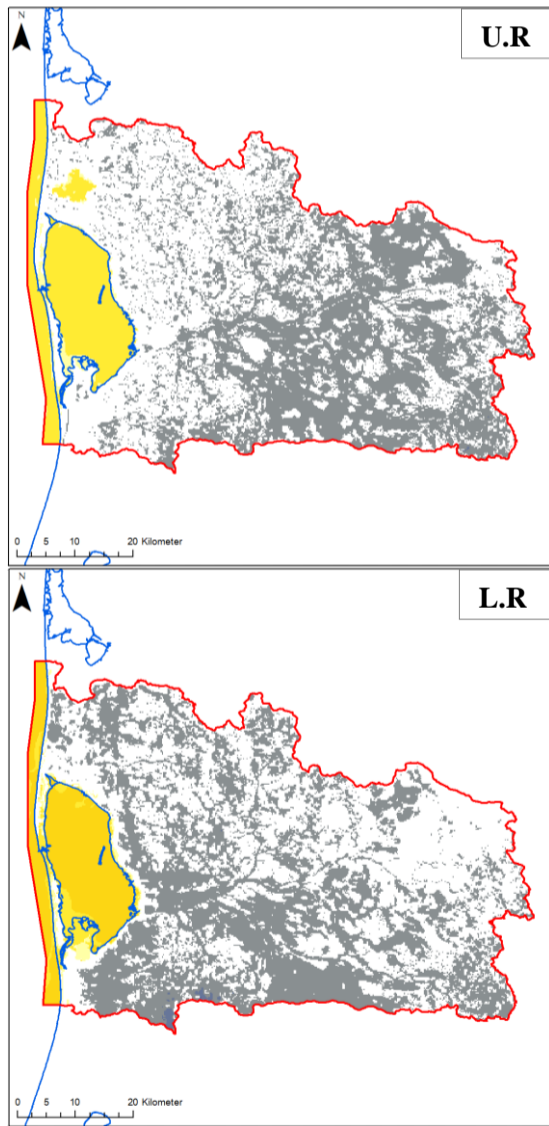
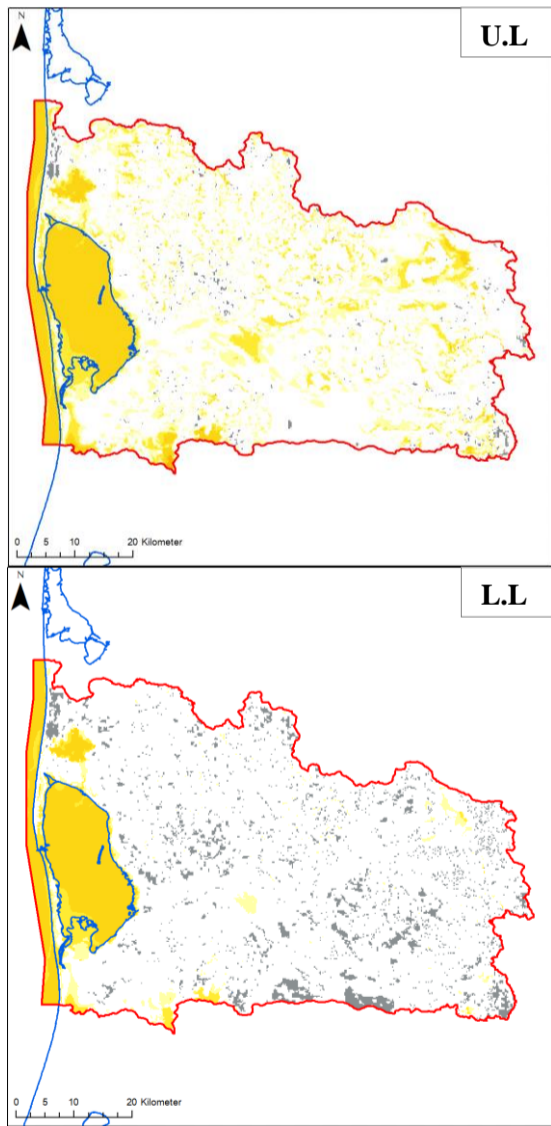
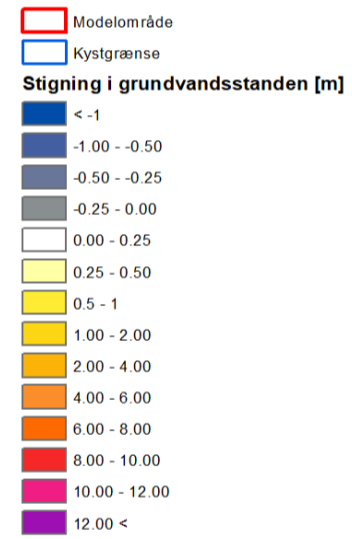
U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model

Signaturforklaring



Maps showing the changes in the mean groundwater levels from the historical period to the future period in the coherent **Quaternary layers (KS1 and KS2)** of the model for the four climate scenarios:

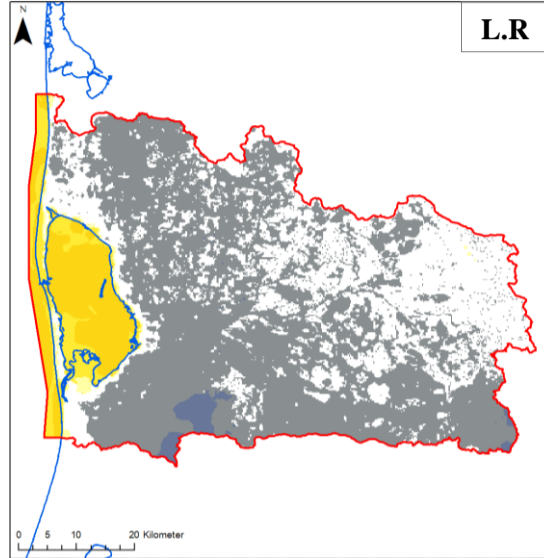
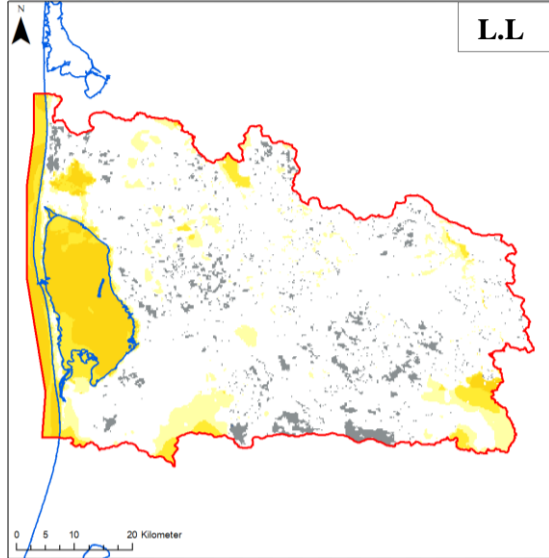
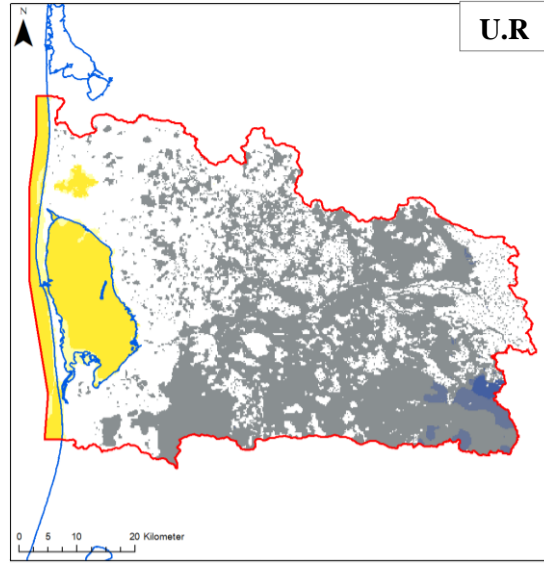
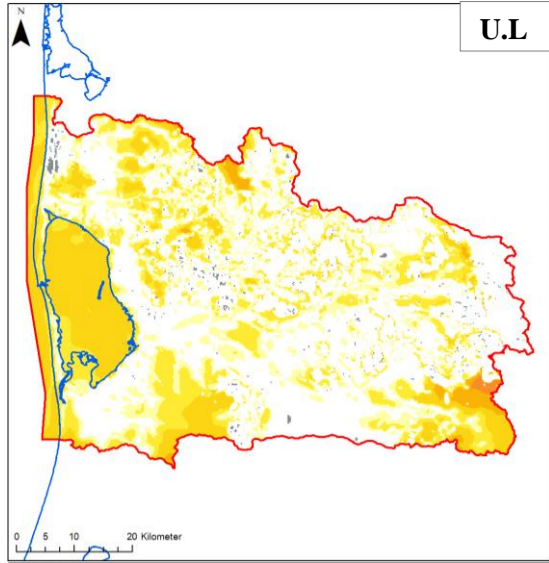
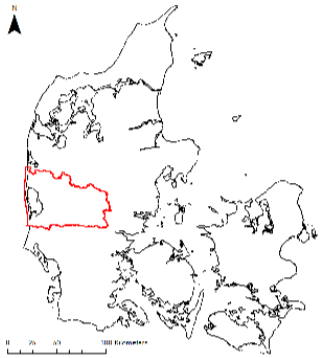
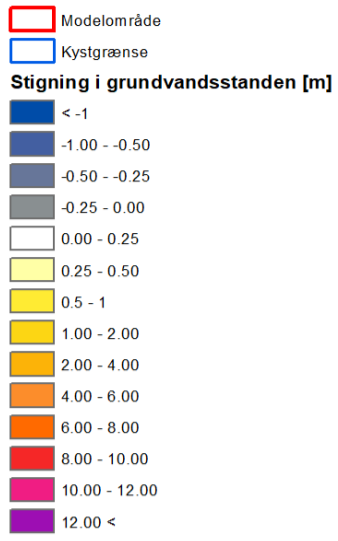
U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model

Signaturforklaring



Maps showing the changes in the mean groundwater levels from the historical period to the future period in the **Quaternary layer (KS3)** of the model for the four climate scenarios:

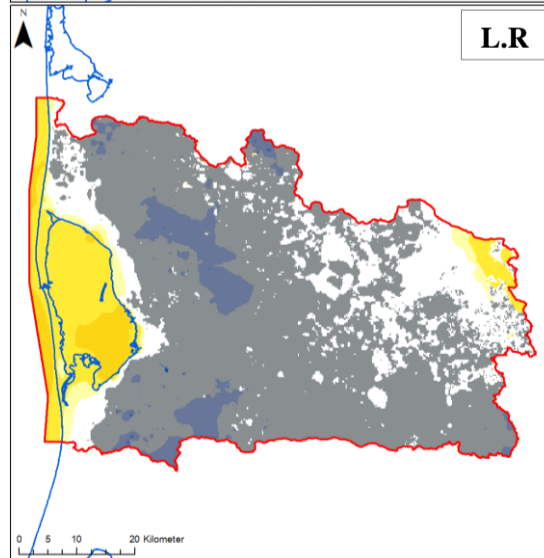
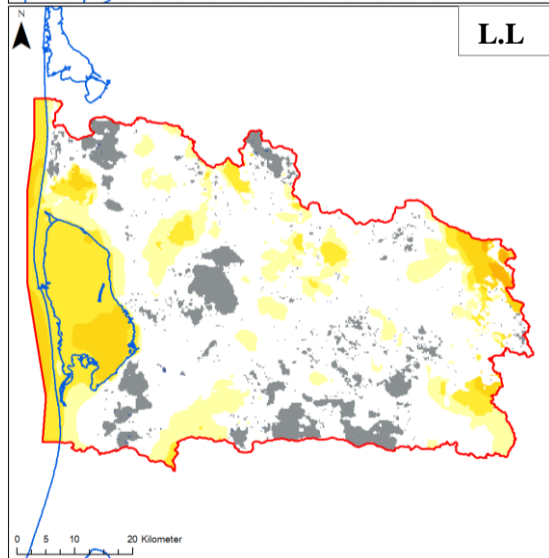
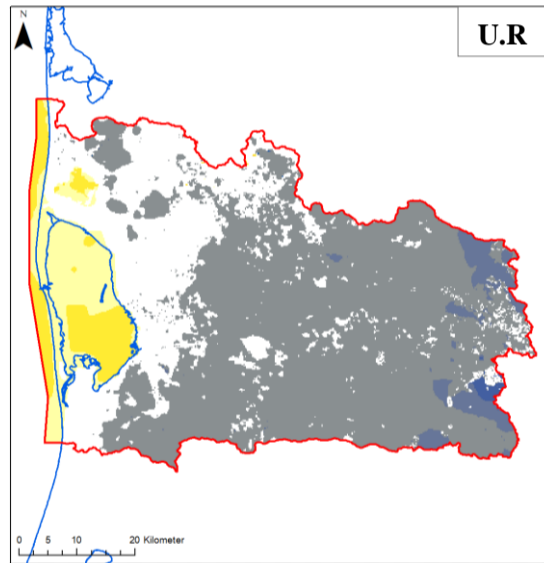
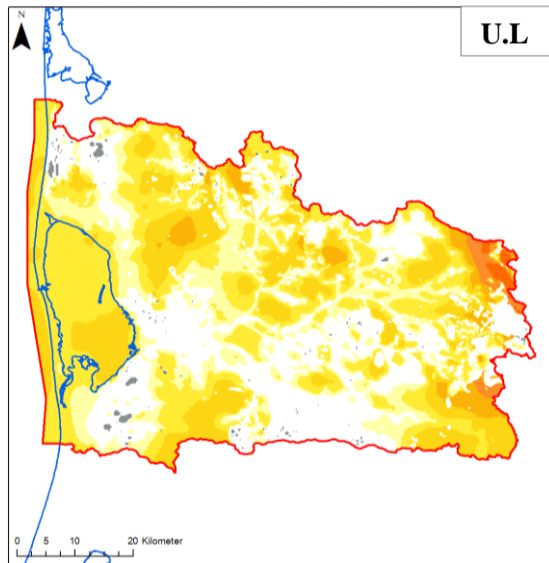
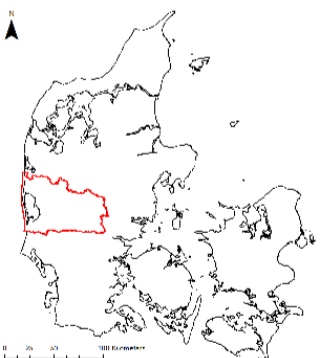
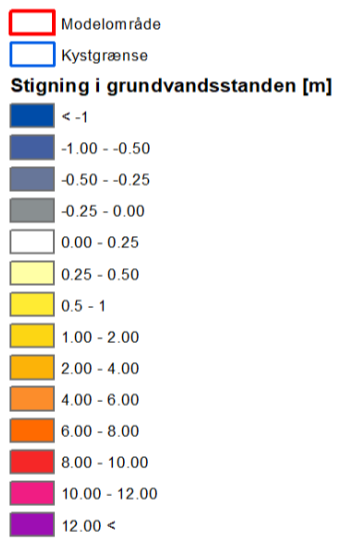
U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model

Signaturforklaring



Maps showing the changes in the mean groundwater levels from the historical period to the future period in the **Quaternary layer (KS4)** of the model for the four climate scenarios:

U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

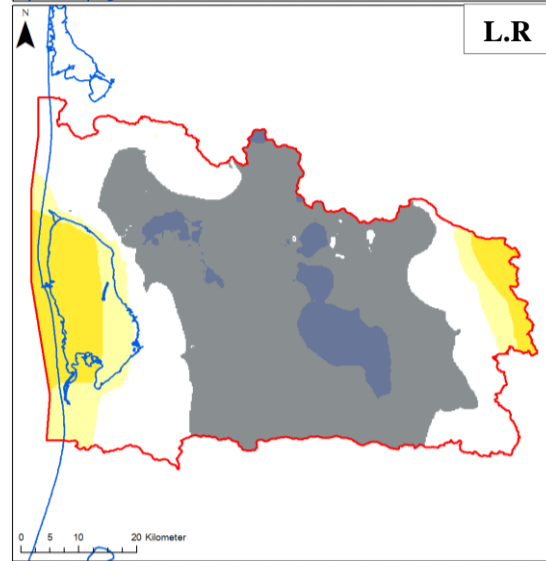
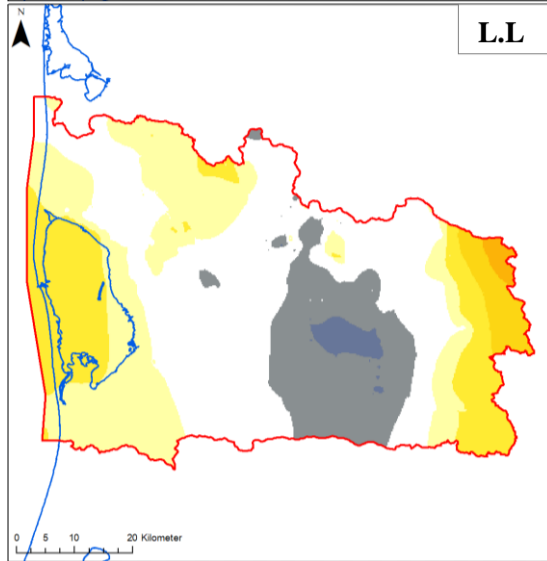
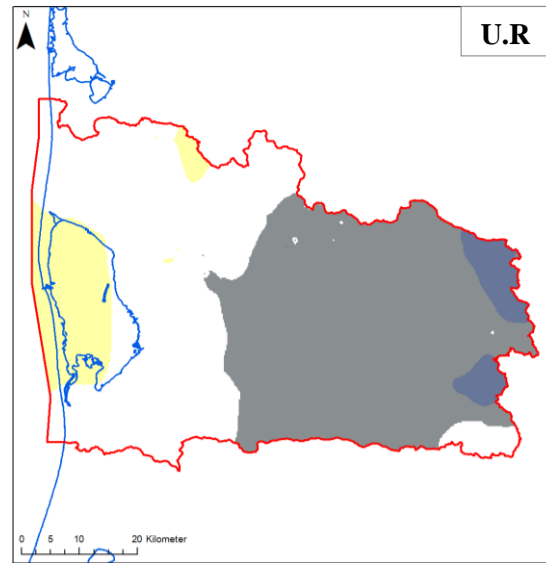
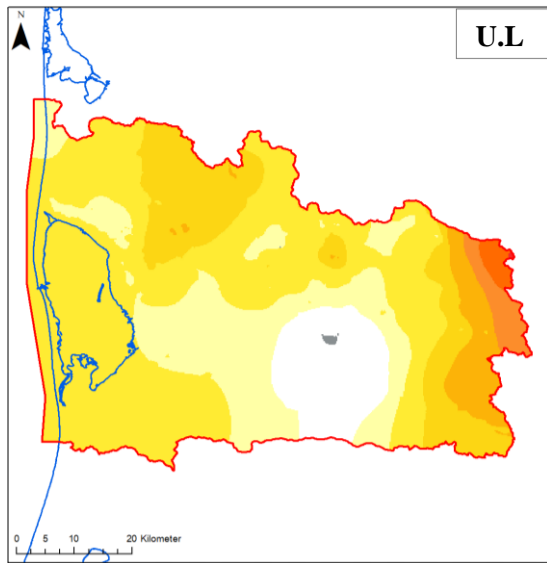
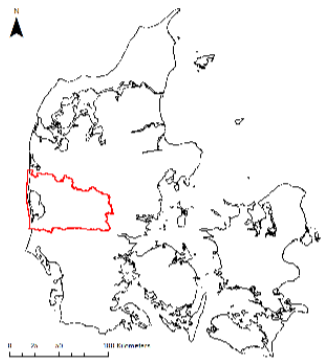
L.R: RCP 8.5 Dry climate model

Signaturforklaring

- Modelområde
- Kystgrænse

Stigning i grundvandsstanden [m]

- < -1
- 1.00 - -0.50
- 0.50 - -0.25
- 0.25 - 0.00
- 0.00 - 0.25
- 0.25 - 0.50
- 0.5 - 1
- 1.00 - 2.00
- 2.00 - 4.00
- 4.00 - 6.00
- 6.00 - 8.00
- 8.00 - 10.00
- 10.00 - 12.00
- 12.00 <



Maps showing the changes in the mean groundwater levels from the historical period to the future period in the **Prequarternary layer (PS4)** of the model for the four climate scenarios

U.L: RCP 8.5 Wet climate model

U.R: RCP 4.5 climate model

L.L: RCP 8.5 Median climate model

L.R: RCP 8.5 Dry climate model

A15. Flow duration curves / Fractile plots of daily flow

Mid-zealand catchment

RCP 8.5 Wet model

RCP 8.5 Dry climate model

RCP 8.5 Median climate model

RCP 4.5 HIRHAM

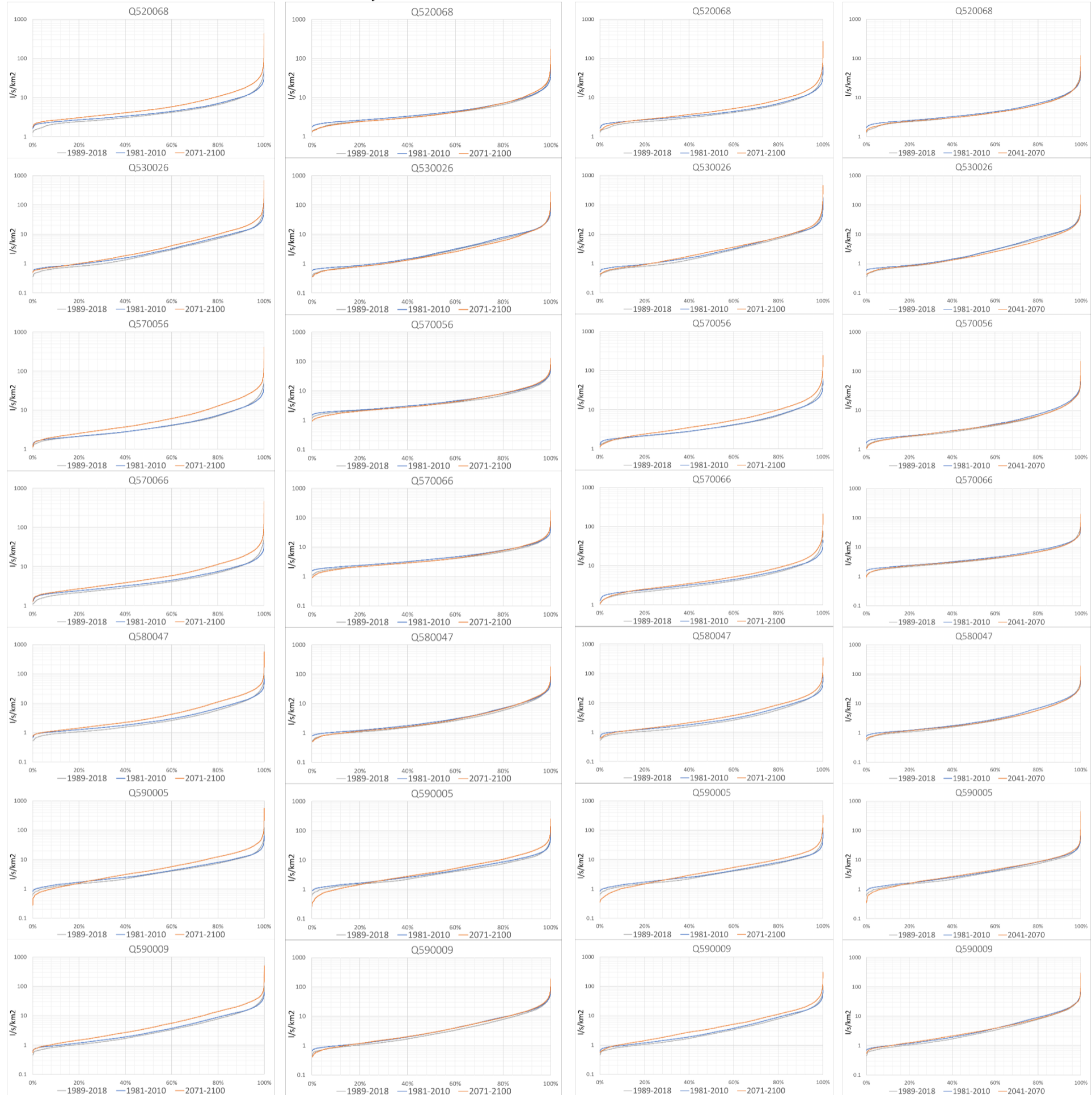


Figure A15.1 The figure shows Flow duration curves/fractile plots (ranked according to size) of daily flows 2071-2100/2041-2070 versus 1981-2010 for four climate scenarios in Mid-Zealand at selected discharge stations. The grey lines represent the historical model run in the period 1989-2018, where the blue lines represent the simulated flow for the three climate models in the period 1981-2010, whereas the orange lines represent the simulated discharge for the three climate models in the period 2071-2100/2041-2070.

Ringkøbing fjord catchment

RCP 8.5 Wet model

RCP 8.5 Dry climate model

RCP 8.5 Median climate model

RCP 4.5 HIRHAM

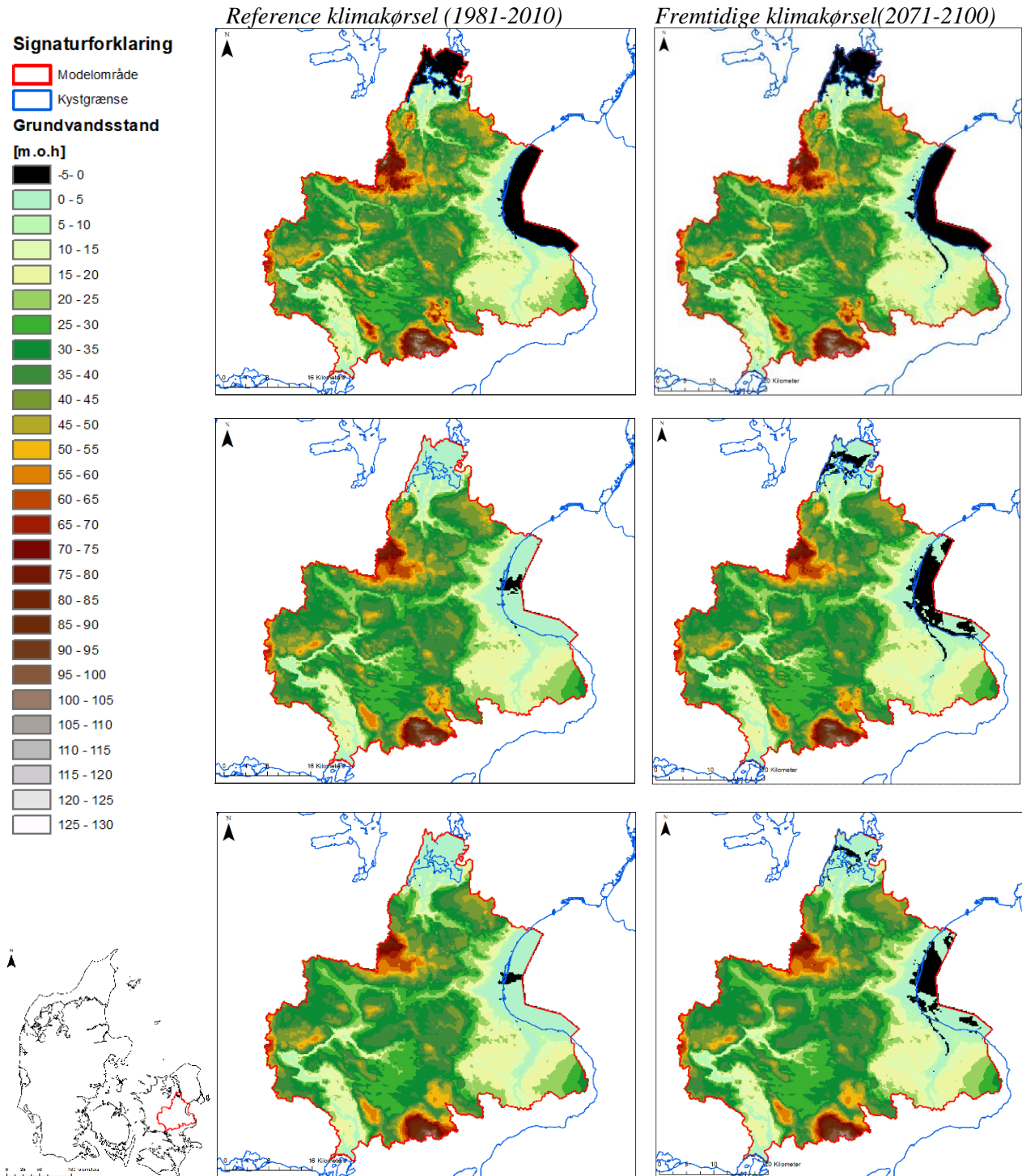


Figure A15.2: The figure shows flow duration curves/fractile plots (ranked according to size) of daily flows 2071-2100/2041-2070 versus 1981-2010 for three climate scenarios in Ringkøbing fjord catchment at selected discharge stations. The grey lines represent the historical model run in the period 1989-2018, where the blue lines represent the simulated flow for the four climate models in the period 1981-2010, whereas the orange lines represent the simulated discharge for the three climate models in the period 2071-2100.

A16: Areas with potential salt water intrusion (areas with groundwater head below present and future sea level) – Ringkøbing fjord / Midtsjælland for 4 scenarios

Mid-Zeland catchment

RCP 8.5 wet climate model (IPSL-RCA) – Mid-zeland

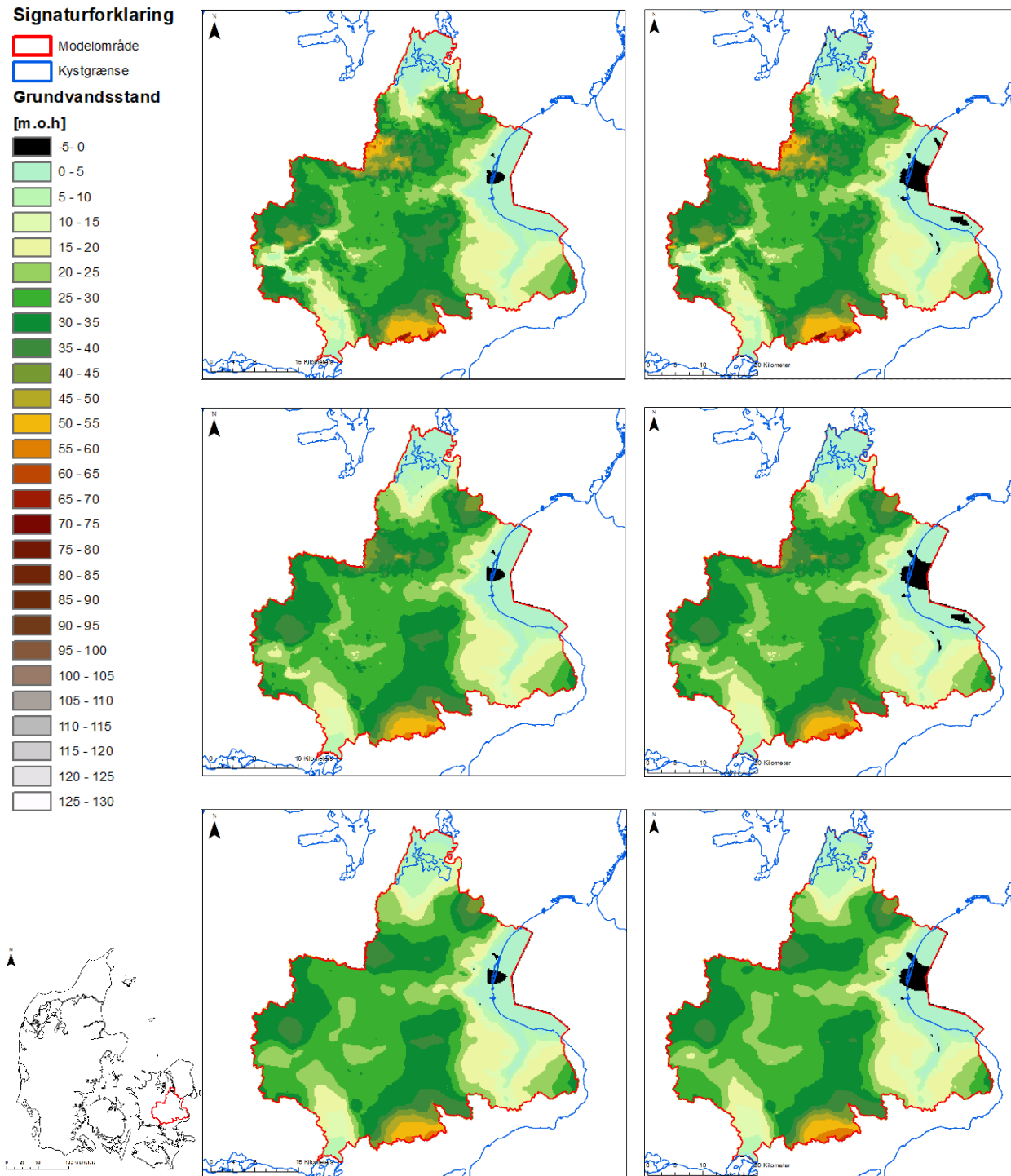


Figur A16-1: Areas with potential salt water intrusion risk (areas with groundwater head below present and future sea level). The maps in the rows shows the water level above sealevel for the periods 1981-2010 (T.L) and 2071-2100(T.H) for the climate scenario RCP 8.5 wet climate model (IPSL-RCA). The top row shows the uppermost layer (2m), the second row shows the uppermost Quaternary sand layer (KS1), and the third row shows the secondary Quaternary sand layer (KS2) in the DK-model. The areas marked with black shows where the model simulates that the sealevel is above the groundwater level, and therefore areas with potential salt water intrusion risks.

RCP 8.5 wet climate model (IPSL-RCA) – Mid-Zealand

Reference klimakørsel (Nutidige)

Fremtidige klimakørsel



Figur A16-2: Areas with potential salt water intrusion risk (areas with groundwater head below present and future sea level). The maps in the rows shows the water level above sealevel for the periods 1981-2010 (T.L) and 2071-2100(T.H) for the climate scenario RCP 8.5 wet climate model (IPSL-RCA). The top row shows the third Quaternary sand layer(KS3), whereas the second row shows the fourth Quaternary sand layer and the third row shows the secondary Quaternary sand layer(KS2) in the DK-model. The areas marked with black shows where the model simulates that the sealevel is above the groundwater level, and therefore areas with potential salt water intrusion risks.

RCP4.5 HIRHAM – Mid-Zealand

Reference klimakørsel (Nutidige)

Fremtidige klimakørsel

Signaturforklaring

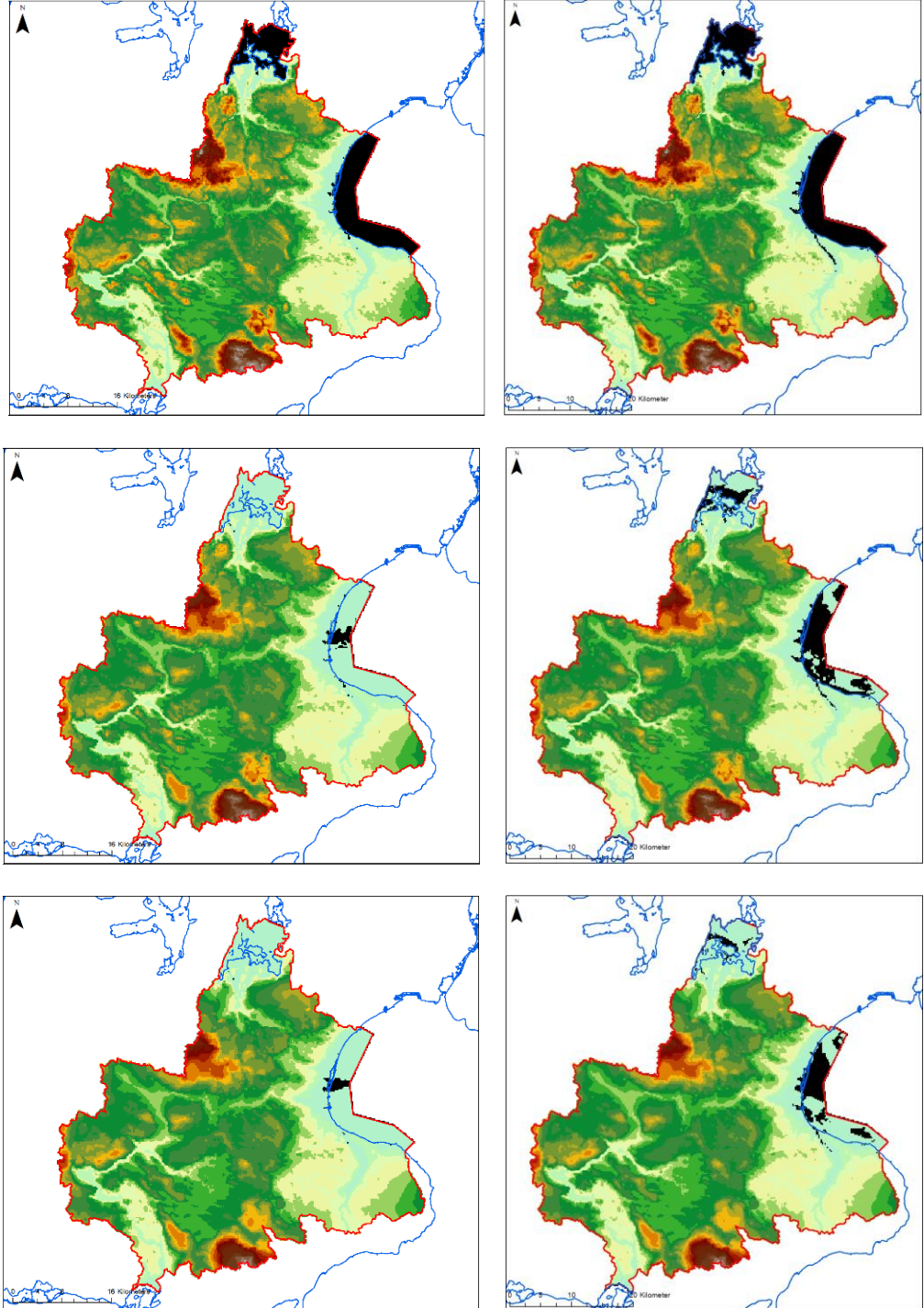
Modelområde

Kystgrænse

Grundvandsstand

[m.o.h]

- -5 - 0
- 0 - 5
- 5 - 10
- 10 - 15
- 15 - 20
- 20 - 25
- 25 - 30
- 30 - 35
- 35 - 40
- 40 - 45
- 45 - 50
- 50 - 55
- 55 - 60
- 60 - 65
- 65 - 70
- 70 - 75
- 75 - 80
- 80 - 85
- 85 - 90
- 90 - 95
- 95 - 100
- 100 - 105
- 105 - 110
- 110 - 115
- 115 - 120
- 120 - 125
- 125 - 130



Figur A16-3: Areas with potential salt water intrusion risk (areas with groundwater head below present and future sea level). The maps in the rows shows the water level above sealevel for the periods 1981-2010 (T.L) and 2041-2070(T.H) for the climate scenario RCP4.5 HIRHAM. The top row shows the uppermost layer (2m), thereas the second row shows the uppermost Quaternary sand layer (KS1), and the third row shows the secondary Quaternary sand layer(KS2) in the DK-model. The areas marked with black shows where the model simulates that the sealevel is above the groundwater level, and therefore areas with potential salt water intrusion risks.

RCP4.5 HIRHAM – Mid-Zealand

Reference klimakørsel (Nuidige)

Fremtidige klimakørsel

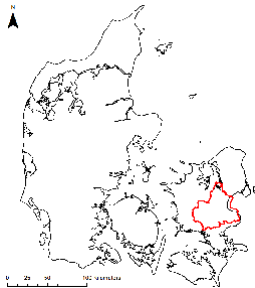
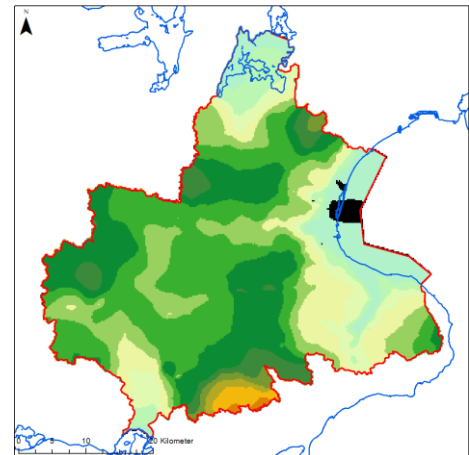
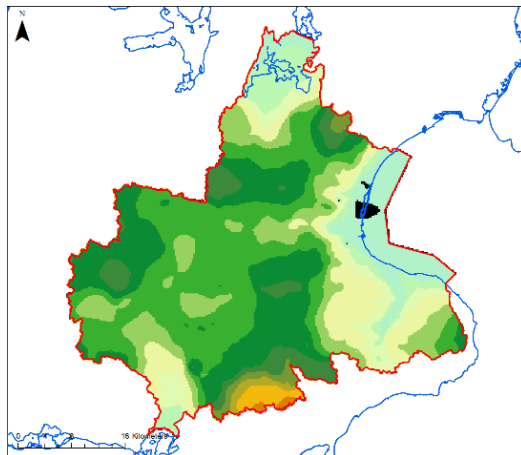
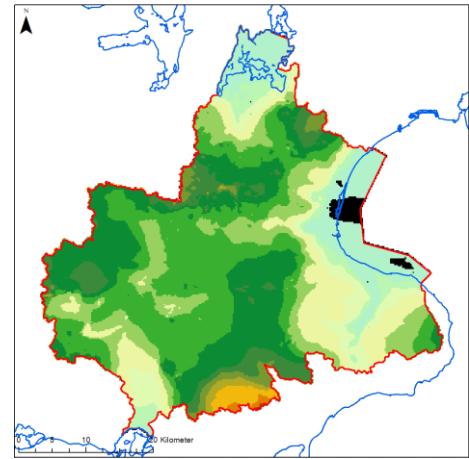
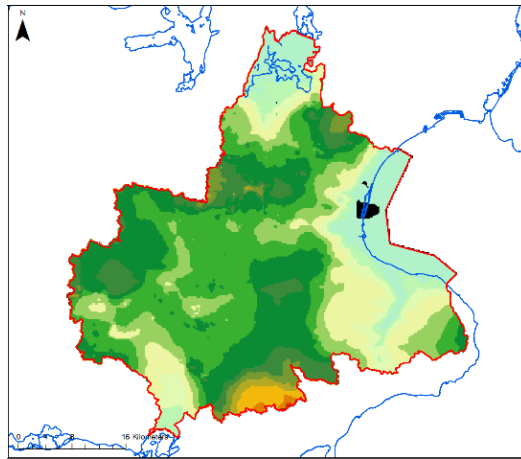
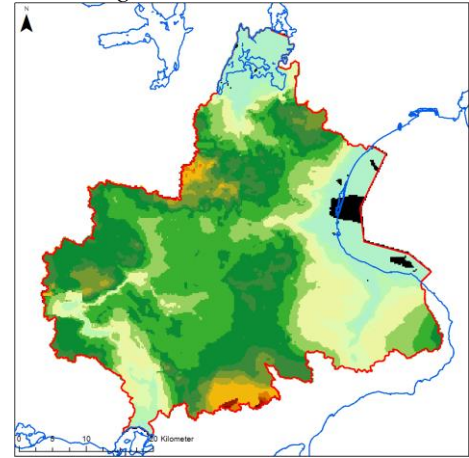
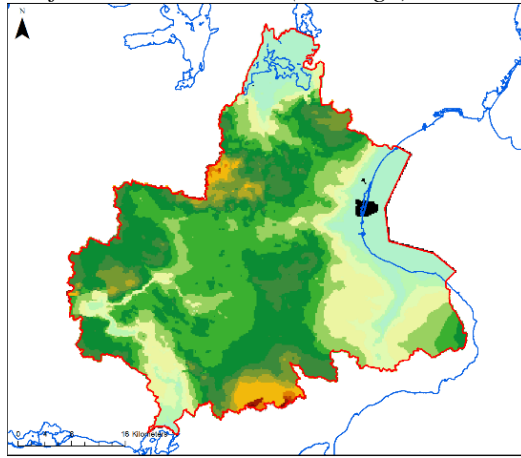
Signaturforklaring

- Modelområde
- Kystgrænse

Grundvandsstand

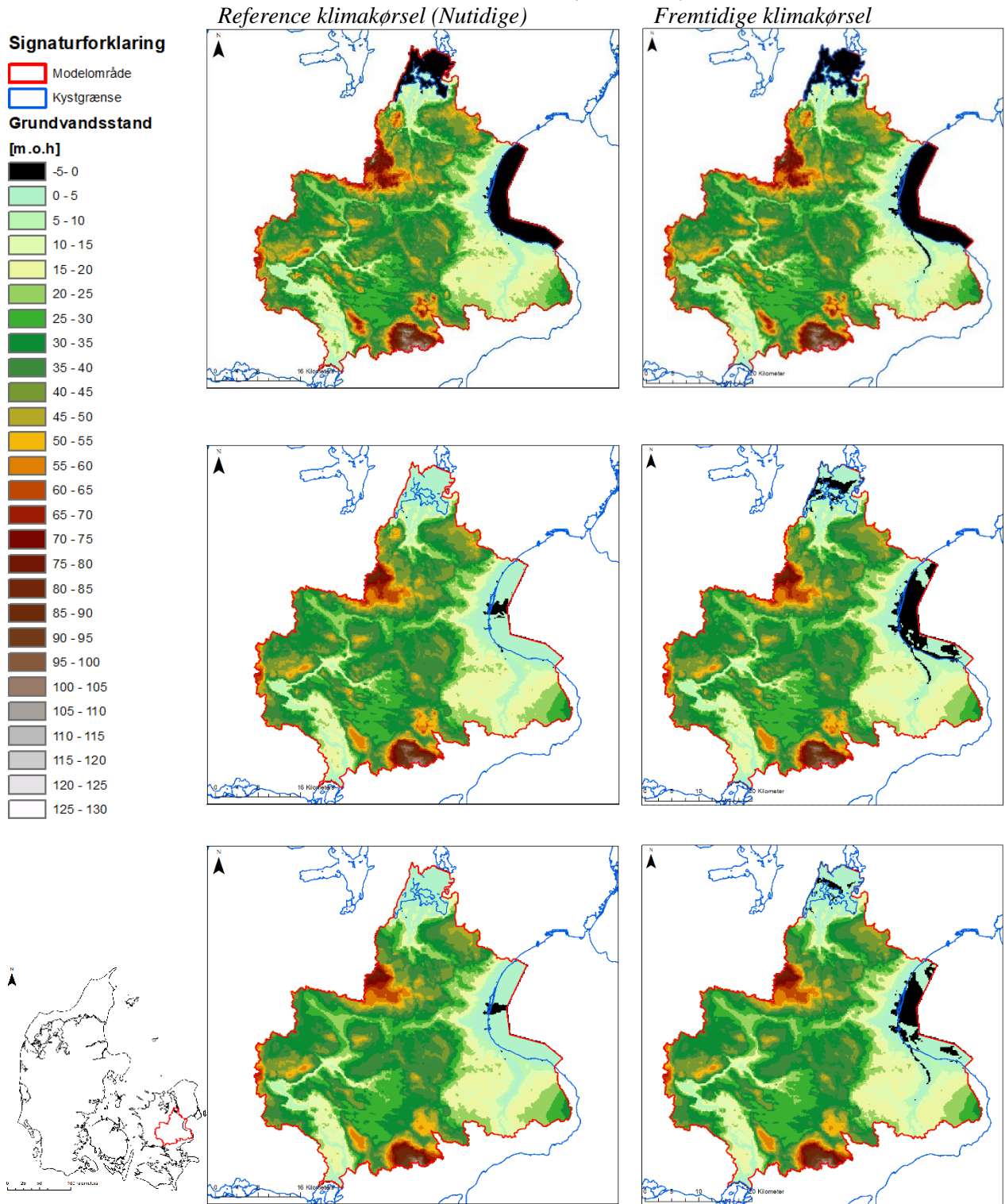
[m. o. h.]

- 5 - 0
- 0 - 5
- 5 - 10
- 10 - 15
- 15 - 20
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- 25 - 30
- 30 - 35
- 35 - 40
- 40 - 45
- 45 - 50
- 50 - 55
- 55 - 60
- 60 - 65
- 65 - 70
- 70 - 75
- 75 - 80
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- 100 - 105
- 105 - 110
- 110 - 115
- 115 - 120
- 120 - 125
- 125 - 130



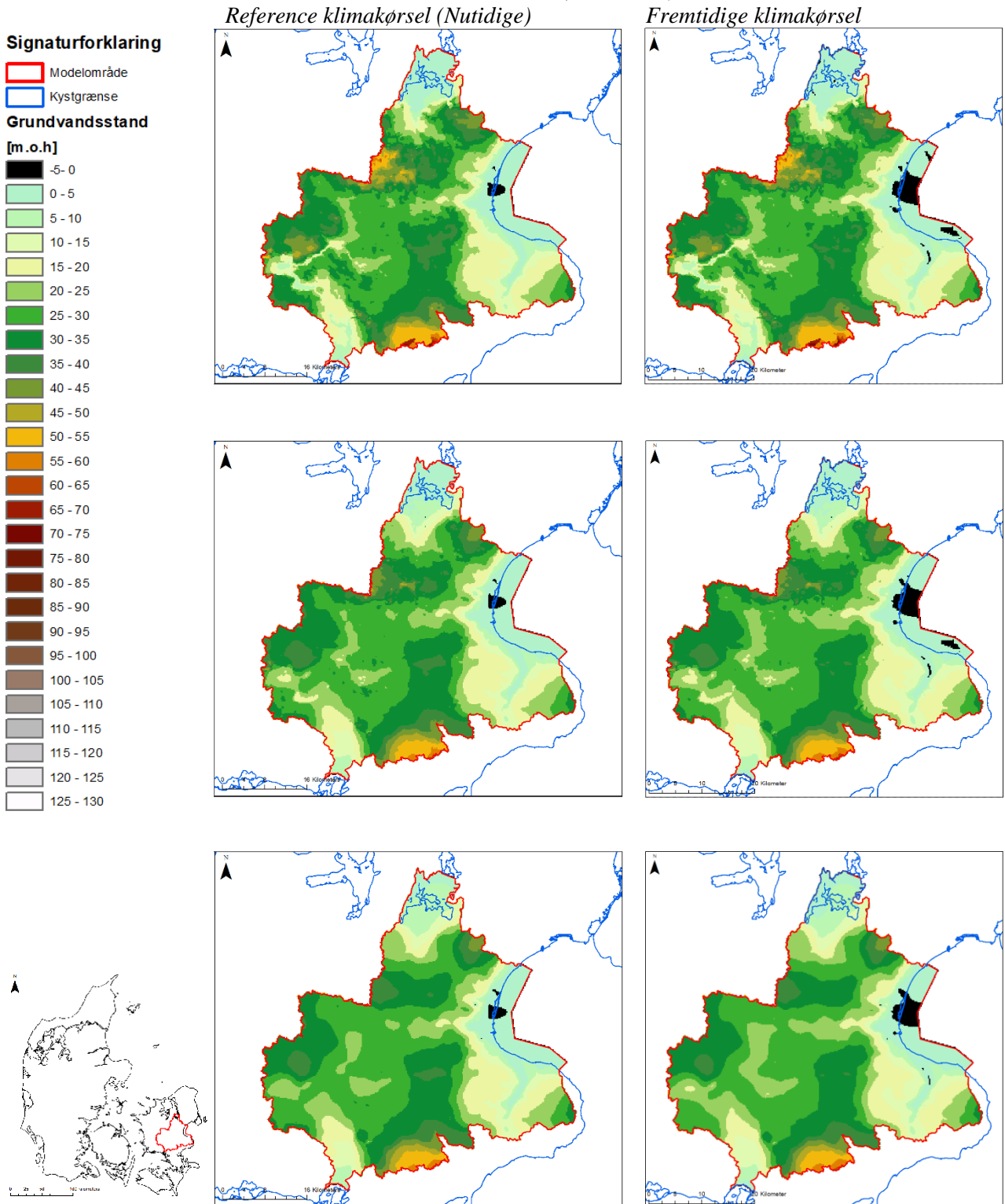
Figur A16-4: Areas with potential salt water intrusion risk (areas with groundwater head below present and future sea level). The maps in the rows shows the water level above sealevel for the periods 1981-2010 (T.L) and 2071-2100(T.H) for the climate scenario RCP4.5 HIRHAM. The top row shows the third Quaternary sand layer(KS3), whereas the second row shows the fourth Quaternary sand layer and the third row shows the secondary Quaternary sand layer(KS2) in the DK-model. The areas marked with black shows where the model simulates that the sealevel is above the groundwater level, and therefore areas with potential salt water intrusion risks.

RCP 8.5 median climate model (KNMI) – Mid-Zealand



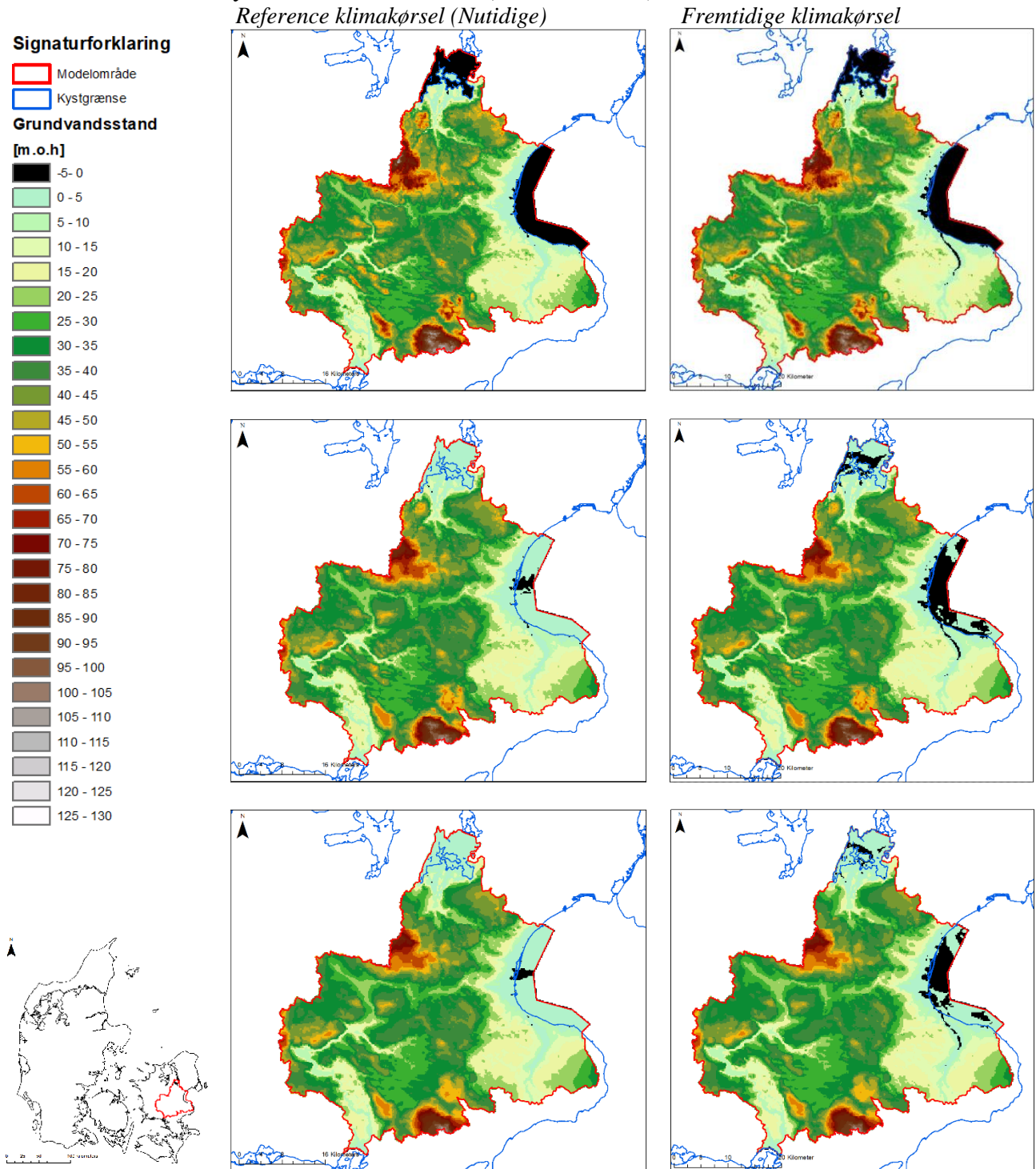
Figur A16-5: Areas with potential salt water intrusion risk (areas with groundwater head below present and future sea level). The maps in the rows shows the water level above sealevel for the periods 1981-2010 (T.L) and 2071-2100(T.H) for the climate scenario RCP 8.5 median climate model (KNMI). The top row shows the uppermost layer (2m), theas the second row shows the uppermost Quaternary sand layer (KS1), and the third row shows the secondary Quaternary sand layer(KS2) in the DK-model. The areas marked with black shows where the model simulates that the sealevel is above the groundwater level, and therefore areas with potential salt water intrusion risks.

RCP 8.5 Median climate model (KNMI) – Mid-Zealand



Figur A16-6: Areas with potential salt water intrusion risk (areas with groundwater head below present and future sea level). The maps in the rows shows the water level above sealevel for the periods 1981-2010 (T.L) and 2071-2100(T.H) for the climate scenario RCP 8.5 median climate model (KNMI). The top row shows the third Quaternary sand layer(KS3), whereas the second row shows the fourth Quaternary sand layer and the third row shows the secondary Quaternary sand layer(KS2) in the DK-model. The areas marked with black shows where the model simulates that the sealevel is above the groundwater level, and therefore areas with potential salt water intrusion risks.

RCP 8.5 dry climate model (HIRHAM) – Mid-Zealand



Figur A16-7 Areas with potential salt water intrusion risk (areas with groundwater head below present and future sea level). The maps in the rows show the water level above sealevel for the periods 1981-2010 (T.L) and 2071-2100(T.H) for the climate scenario RCP 8.5 dry climate model (HIRHAM). The top row shows the uppermost layer (2m), the second row shows the uppermost Quaternary sand layer (KS1), and the third row shows the secondary Quaternary sand layer (KS2) in the DK-model. The areas marked with black shows where the model simulates that the sealevel is above the groundwater level, and therefore areas with potential salt water intrusion risks.

RCP 8.5 dry climate model (HIRHAM) – Mid-Zealand

Reference klimakørsel (Nuidige)

Fremtidige klimakørsel

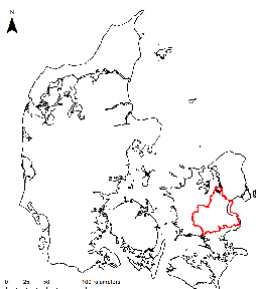
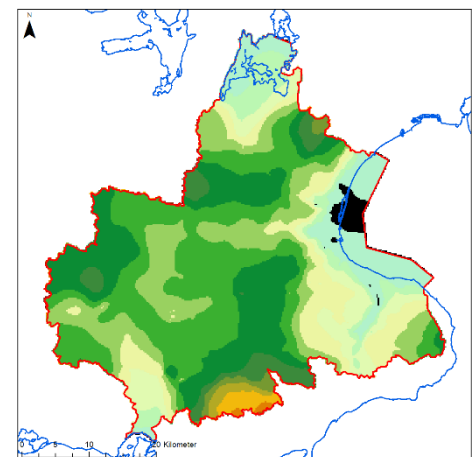
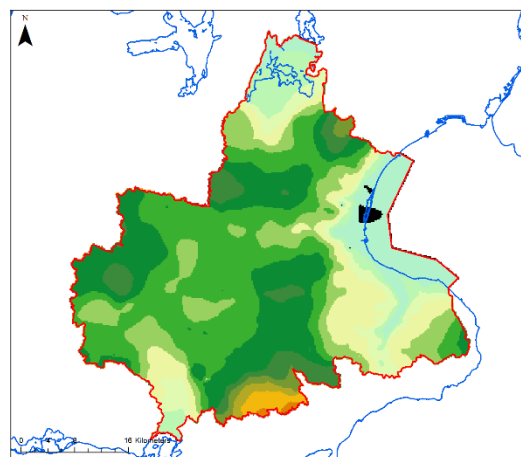
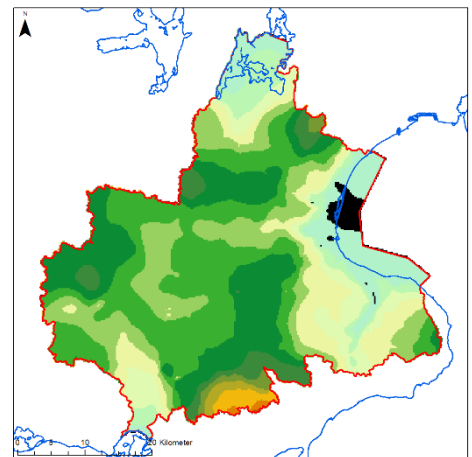
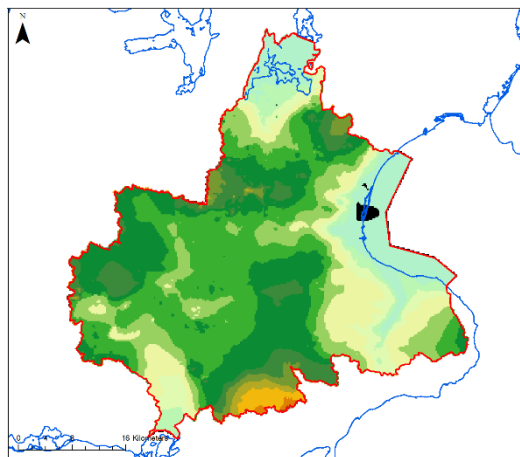
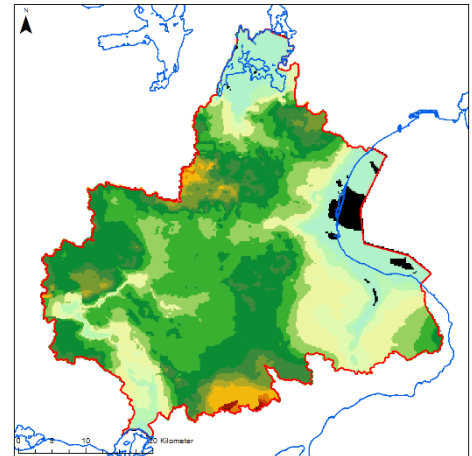
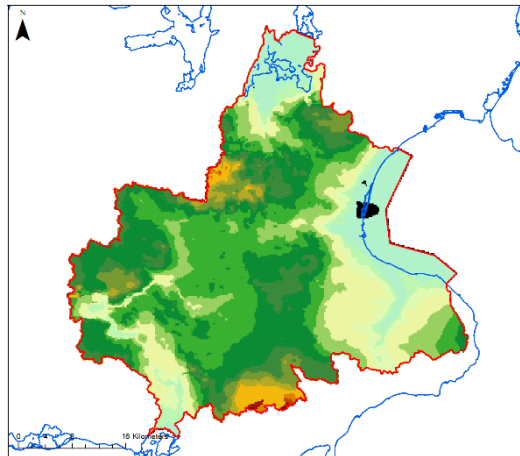
Signaturforklaring

- Modelområde
- Kystgrænse

Grundvandsstand

[m.o.h]

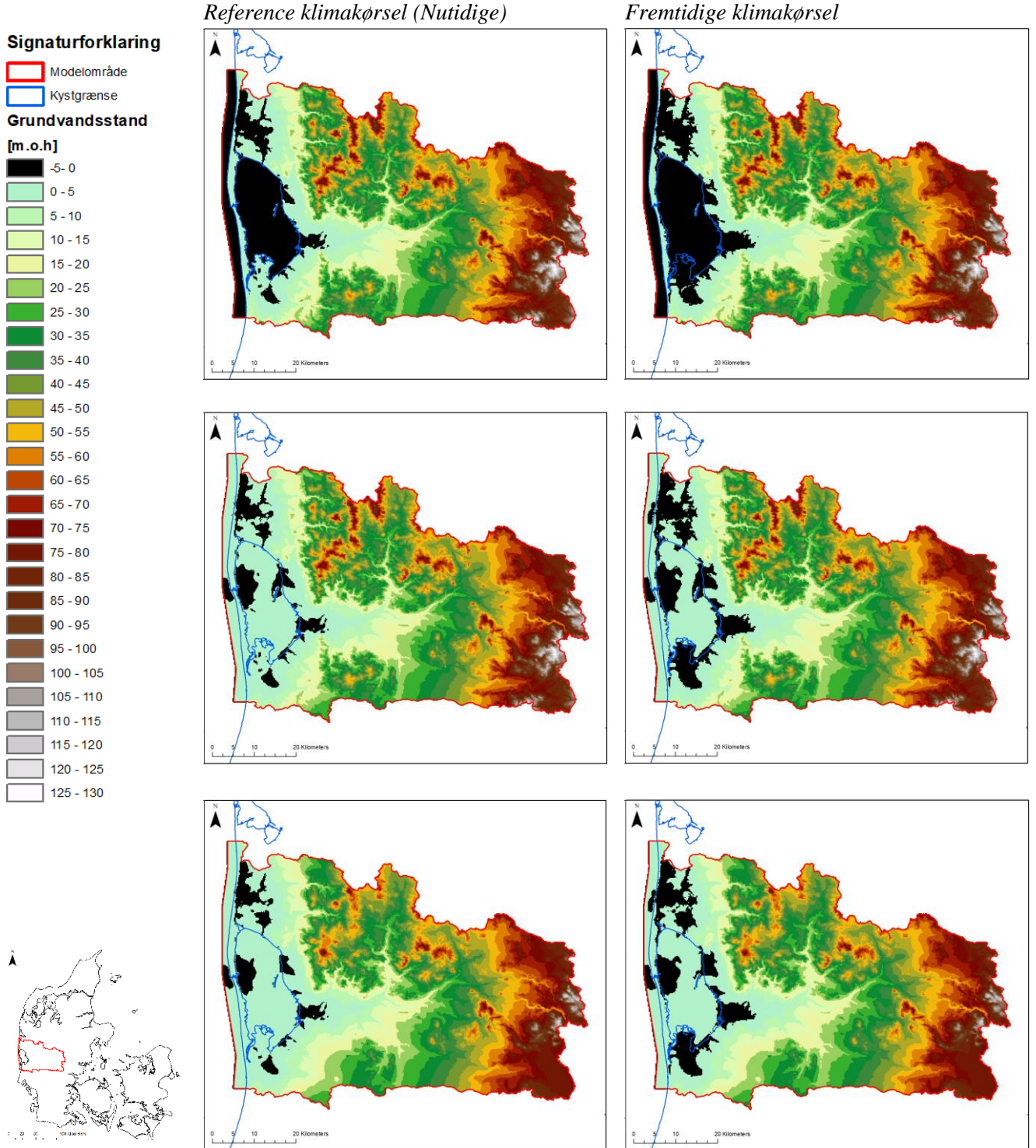
- 5 - 0
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- 55 - 60
- 60 - 65
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- 80 - 85
- 85 - 90
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- 95 - 100
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Figur A16-8 Areas with potential salt water intrusion risk (areas with groundwater head below present and future sea level). The maps in the rows shows the water level above sealevel for the periods 1981-2010 (T.L) and 2071-2100(T.H) for the climate scenario RCP 8.5 dry climate model (HIRHAM)The top row shows the third Quaternary sand layer(KS3), the second row shows the fourth Quaternary sand layer(KS4) and the third row shows the secondary Quaternary sand layer(KS2) in the DK-model. The areas marked with black shows where the model simulates that the sealevel is above the groundwater level, and therefore areas with potential salt water intrusion risks.

Ringkøbing fjord catchment

RCP 8.5 wet climate model (IPSL-RCA) – Ringkøbing Fjord



Figur A16-9: Areas with potential salt water intrusion risk (areas with groundwater head below present and future sea level). The maps in the rows shows the water level above sealevel for the periods 1981-2010 (T.L) and 2071-2100(T.H) for the climate scenario RCP 8.5 wet climate model (IPSL-RCA). The top row shows the uppermost layer (2m), whereas the second row shows the two coherent uppermost Quaternary sand layer (KS1 and KS2), and the third row shows the third Quaternary sand layer(KS3) in the DK-model. The areas marked with black shows where the model simulates that the sealevel is above the groundwater level, and therefore areas with potential salt water intrusion risks.

RCP 8.5 wet climate model (IPSL-RCA) – Ringkøbing Fjord

Reference klimakørsel (Nutidige) Fremtidige klimakørsel

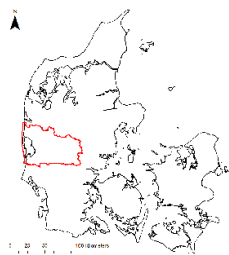
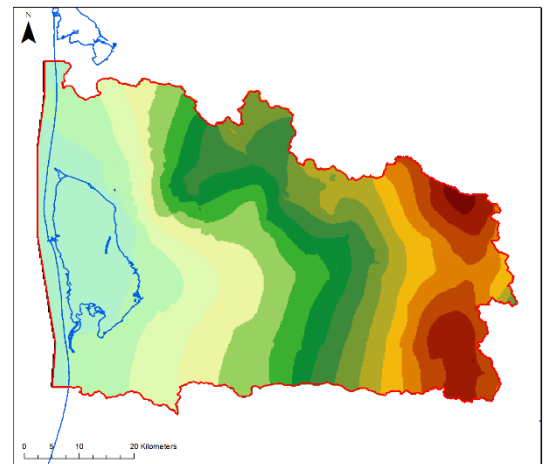
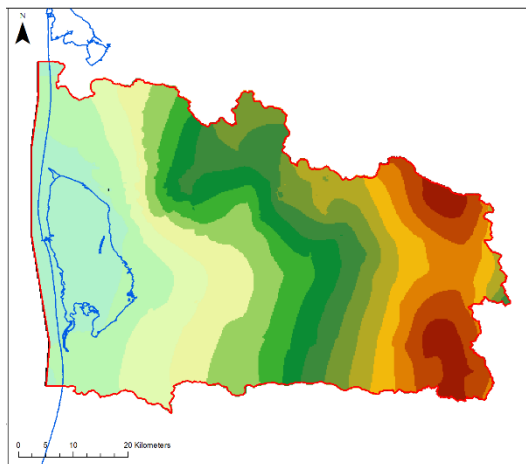
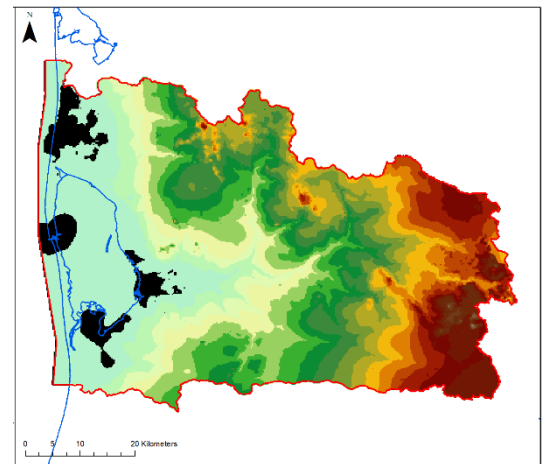
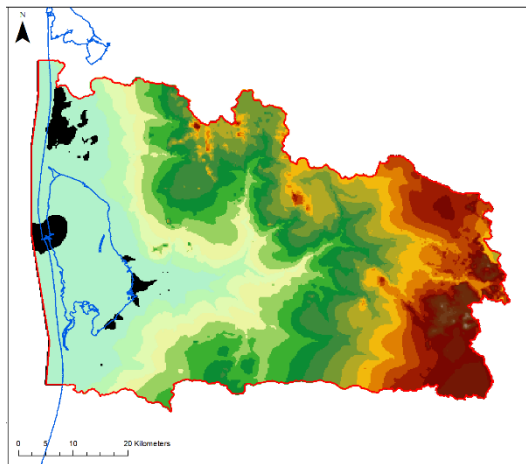
Signaturforklaring

- Modelområde
- Kystgrænse

Grundvandsstand

[m.o.h]

- 5 - 0
- 0 - 5
- 5 - 10
- 10 - 15
- 15 - 20
- 20 - 25
- 25 - 30
- 30 - 35
- 35 - 40
- 40 - 45
- 45 - 50
- 50 - 55
- 55 - 60
- 60 - 65
- 65 - 70
- 70 - 75
- 75 - 80
- 80 - 85
- 85 - 90
- 90 - 95
- 95 - 100
- 100 - 105
- 105 - 110
- 110 - 115
- 115 - 120
- 120 - 125
- 125 - 130



Figur A16-10: Areas with potential salt water intrusion risk (areas with groundwater head below present and future sea level). The maps in the rows shows the water level above sealevel for the periods 1981-2010 (T.L) and 2071-2100(T.H) for the climate scenario RCP 8.5 wet climate model (IPSL-RCA). The top row shows the fourth Quaternary sand layer(KS4), whereas the second row shows the uppermost Prequaternary sand layer in the DK-model. The areas marked with black shows where the model simulates that the sealevel is above the groundwater level, and therefore areas with potential salt water intrusion risks.

RCP4.5 HIRHAM– Ringkøbing Fjord

Reference klimakørsel (Nutidige)

Fremtidige klimakørsel

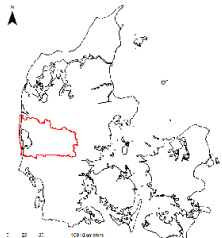
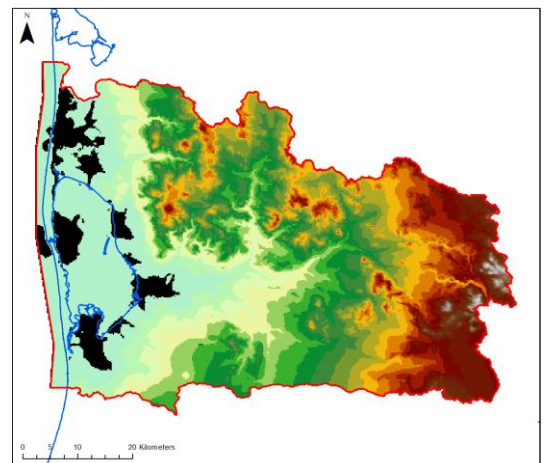
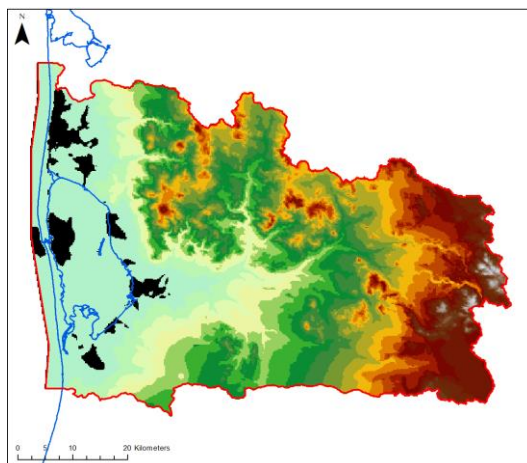
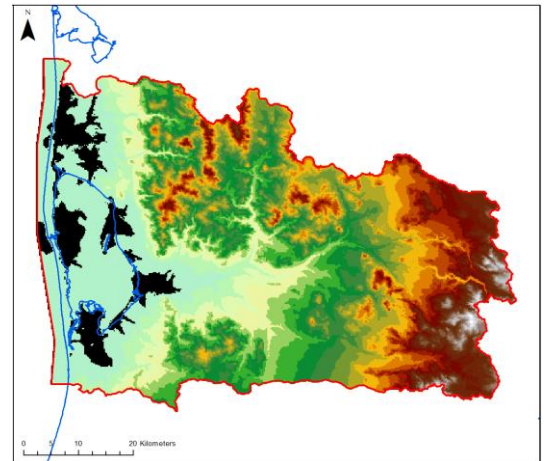
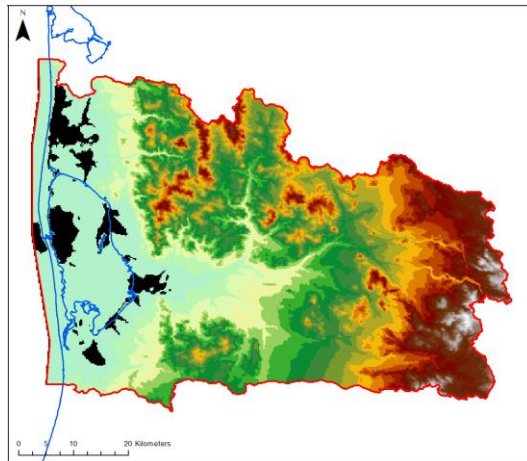
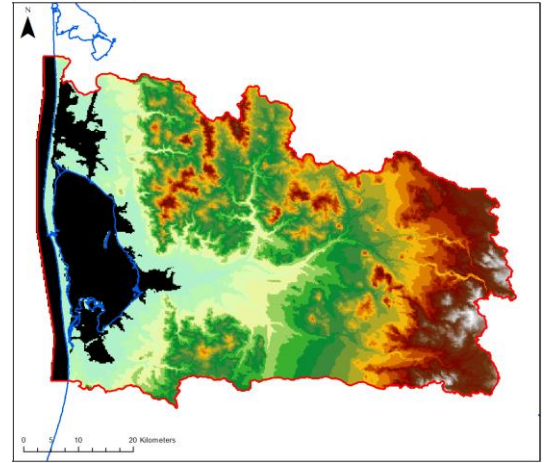
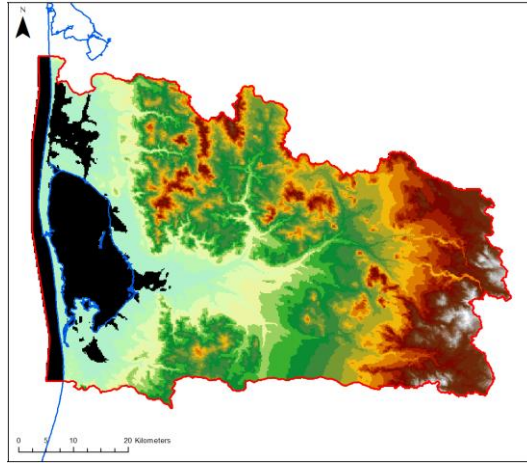
Signaturforklaring

- Modelområde
- Kystgrænse

Grundvandsstand

[m. o. h]

- 5 - 0
- 0 - 5
- 5 - 10
- 10 - 15
- 15 - 20
- 20 - 25
- 25 - 30
- 30 - 35
- 35 - 40
- 40 - 45
- 45 - 50
- 50 - 55
- 55 - 60
- 60 - 65
- 65 - 70
- 70 - 75
- 75 - 80
- 80 - 85
- 85 - 90
- 90 - 95
- 95 - 100
- 100 - 105
- 105 - 110
- 110 - 115
- 115 - 120
- 120 - 125
- 125 - 130



Figur A16-11: Areas with potential salt water intrusion risk (areas with groundwater head below present and future sea level). The maps in the rows shows the water level above sealevel for the periods 1981-2010 (T.L) and 2071-2100(T.H) for the climate scenario RCP4.5 HIRHAM. The top row shows the uppermost layer (2m), whereas the second row shows the two coherent uppermost Quarternary sand layer (KS1 and KS2), and the third row shows the third Quarternary sand layer(KS3) in the DK-model. The areas marked with black shows where the model simulates that the sealevel is above the groundwater level, and therefore areas with potential salt water intrusion risks.

RCP4.5 HIRHAM– Ringkøbing Fjord

Reference klimakørsel (Nutidige)

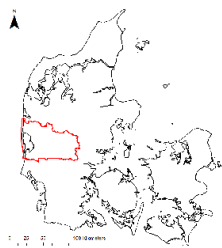
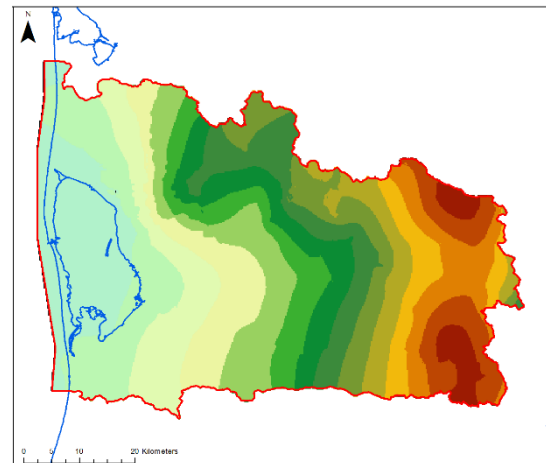
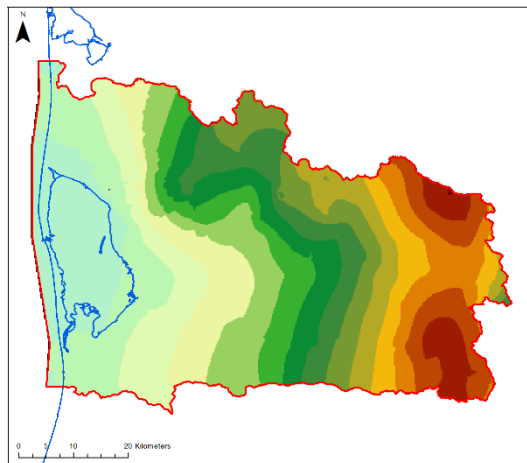
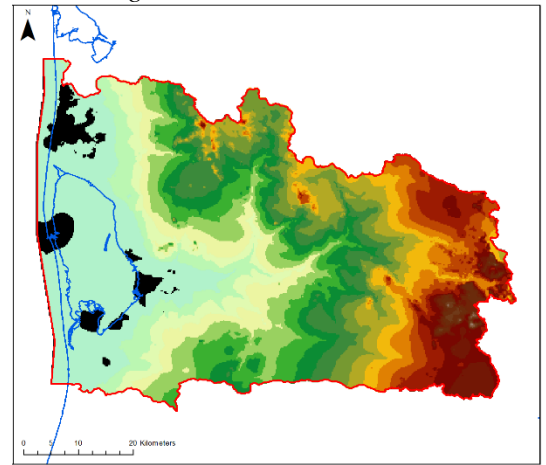
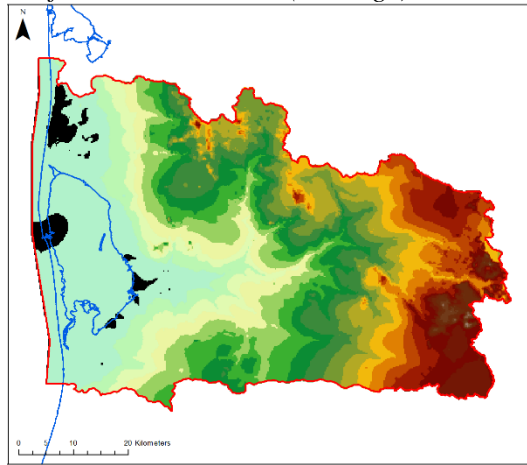
Fremtidige klimakørsel

Signaturforklaring

- Modelområde
- Kystgrænse

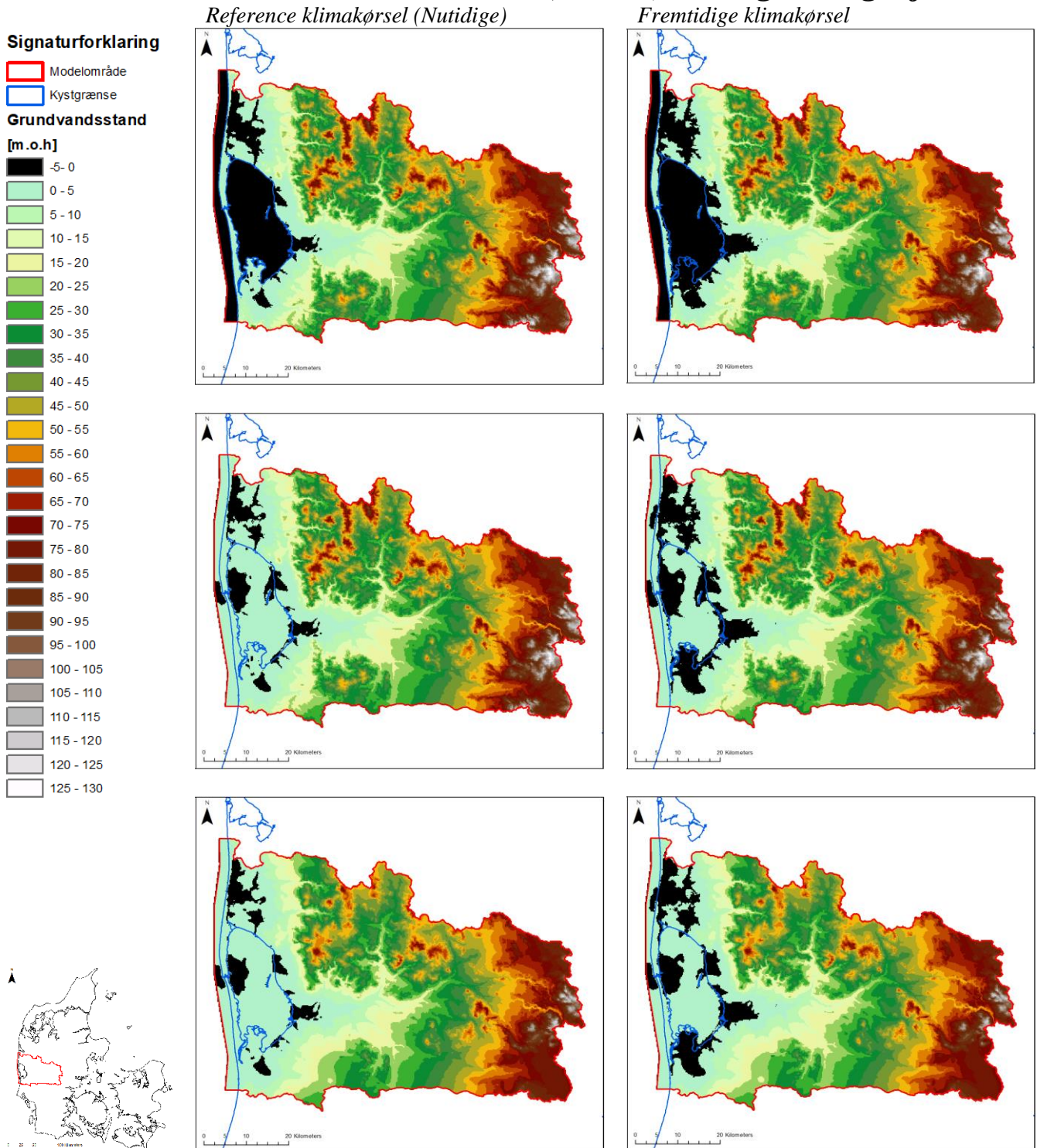
Grundvandsstand [m.o.h]

- 5 - 0
- 0 - 5
- 5 - 10
- 10 - 15
- 15 - 20
- 20 - 25
- 25 - 30
- 30 - 35
- 35 - 40
- 40 - 45
- 45 - 50
- 50 - 55
- 55 - 60
- 60 - 65
- 65 - 70
- 70 - 75
- 75 - 80
- 80 - 85
- 85 - 90
- 90 - 95
- 95 - 100
- 100 - 105
- 105 - 110
- 110 - 115
- 115 - 120
- 120 - 125
- 125 - 130



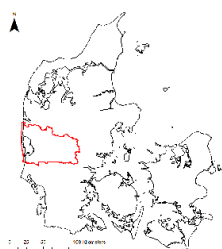
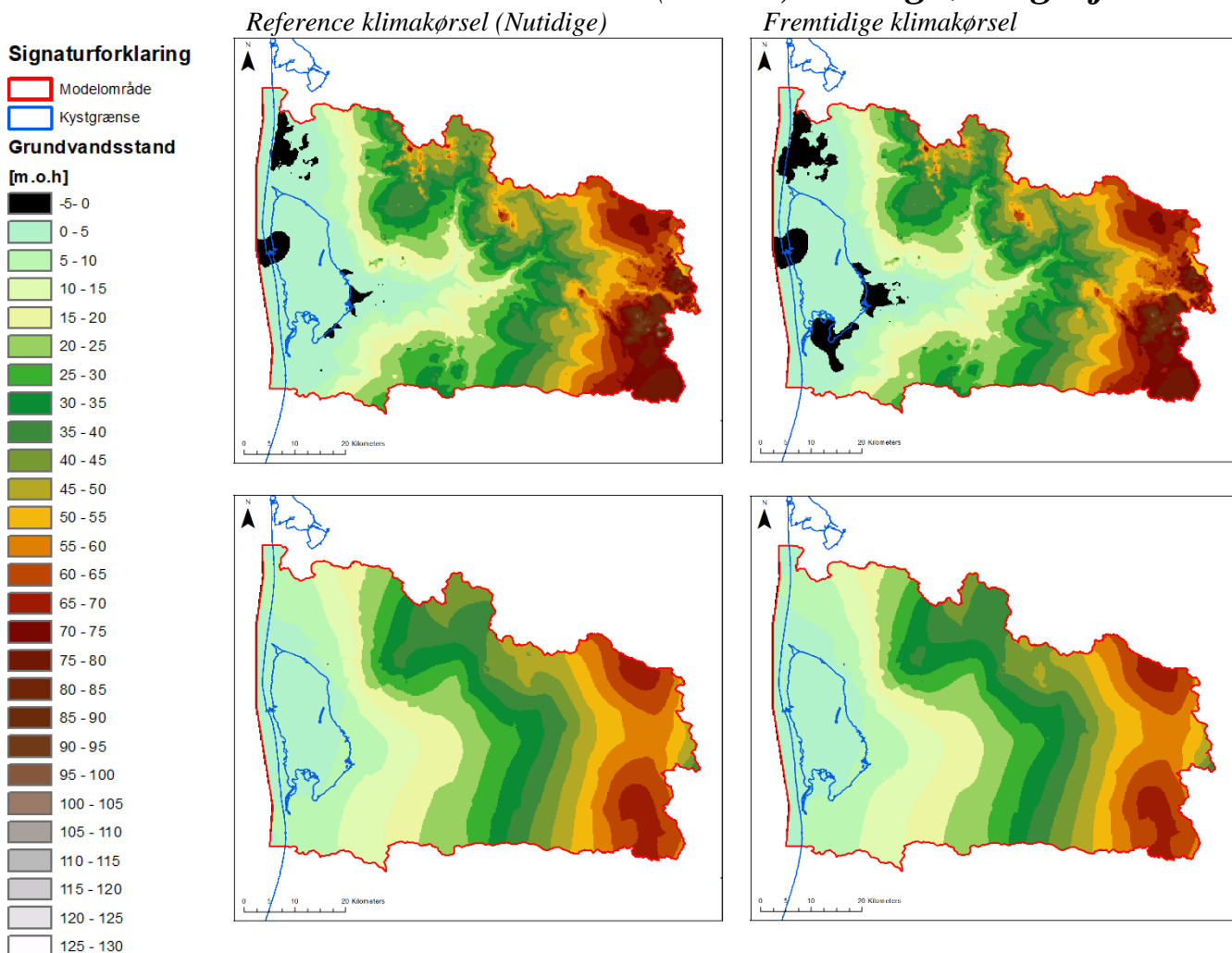
Figur A16-12: Areas with potential salt water intrusion risk (areas with groundwater head below present and future sea level). The maps in the rows shows the water level above sealevel for the periods 1981-2010 (T.L) and 2071-2100(T.H) for the climate scenario RCP4.5 HIRHAM. The top row shows the fourth Quaternary sand layer(KS4), whereas the second row shows the uppermost Prequaternary sand layer in the DK-model. The areas marked with black shows where the model simulates that the sealevel is above the groundwater level, and therefore areas with potential salt water intrusion risks.

RCP 8.5 median climate model (KNMI) – Ringkøbing Fjord



Figur A16-13: Areas with potential salt water intrusion risk (areas with groundwater head below present and future sea level). The maps in the rows shows the water level above sealevel for the periods 1981-2010 (T.L) and 2071-2100(T.H) for the climate scenario RCP 8.5 median climate model (KNMI). The top row shows the uppermost layer (2m), whereas the second row shows the two coherent uppermost Quaternary sand layer (KS1 and KS2), and the third row shows the third Quaternary sand layer(KS3) in the DK-model. The areas marked with black shows where the model simulates that the sealevel is above the groundwater level, and therefore areas with potential salt water intrusion risks.

RCP 8.5 median climate model (KNMI) – Ringkøbing Fjord



Figur A16-14: Areas with potential salt water intrusion risk (areas with groundwater head below present and future sea level). The maps in the rows shows the water level above sealevel for the periods 1981-2010 (T.L) and 2071-2100(T.H) for the climate scenario RCP 8.5 median climate model (KNMI). The top row shows the fourth Quaternary sand layer(KS4), whereas the second row shows the uppermost Prequaternary sand layer in the DK-model. The areas marked with black shows where the model simulates that the sealevel is above the groundwater level, and therefore areas with potential salt water intrusion risks.

RCP 8.5 dry climate model (HIRHAM) – Ringkøbing Fjord

Reference klimakørsel (Nutidige)

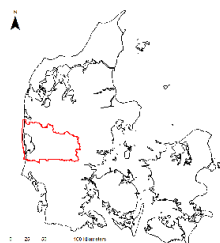
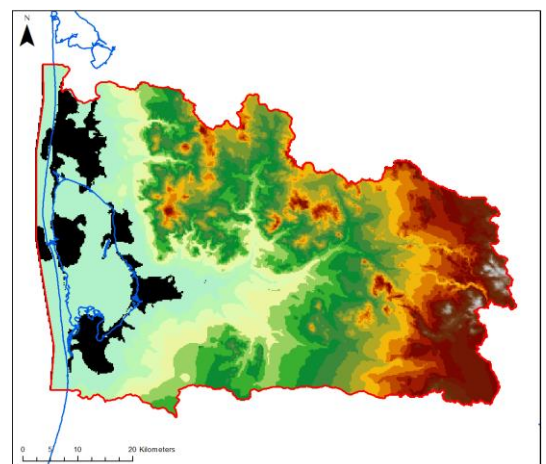
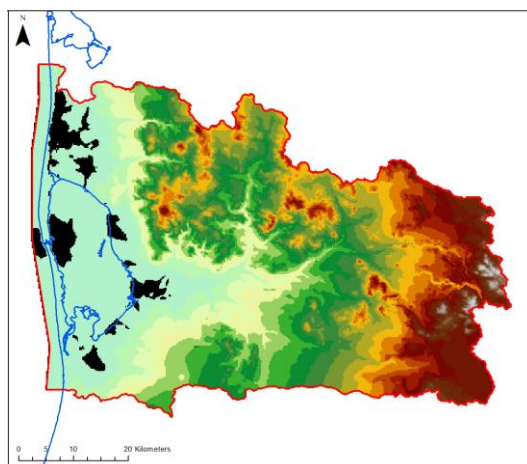
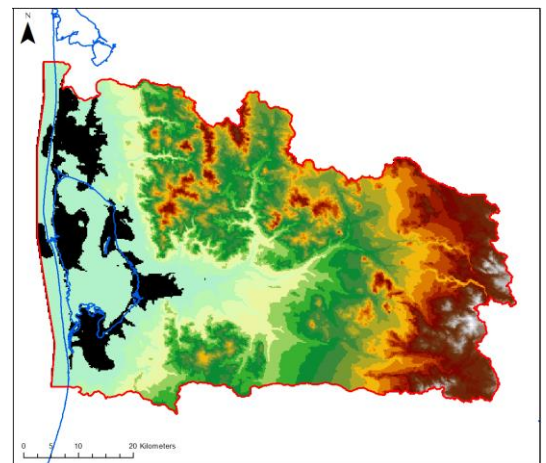
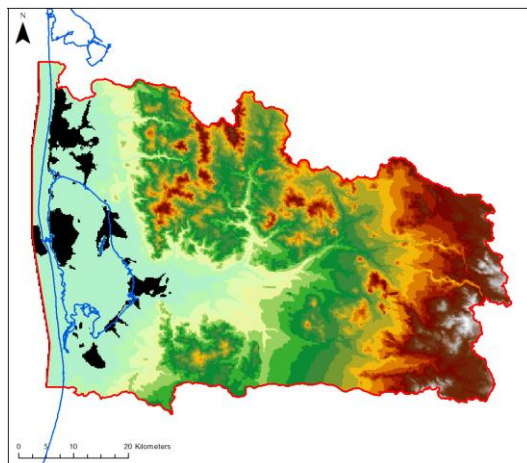
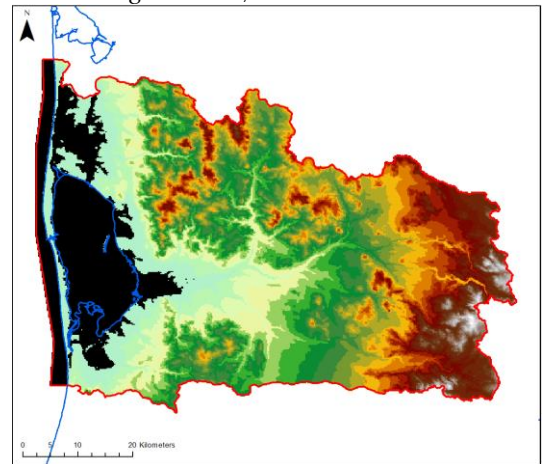
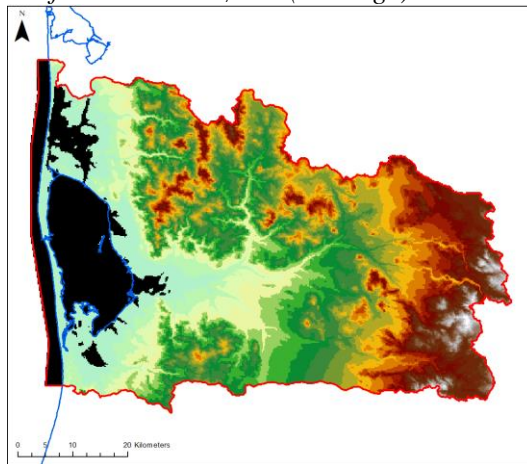
Fremtidige klimakørsel

Signaturforklaring

- Modelområde
- Kystgrænse

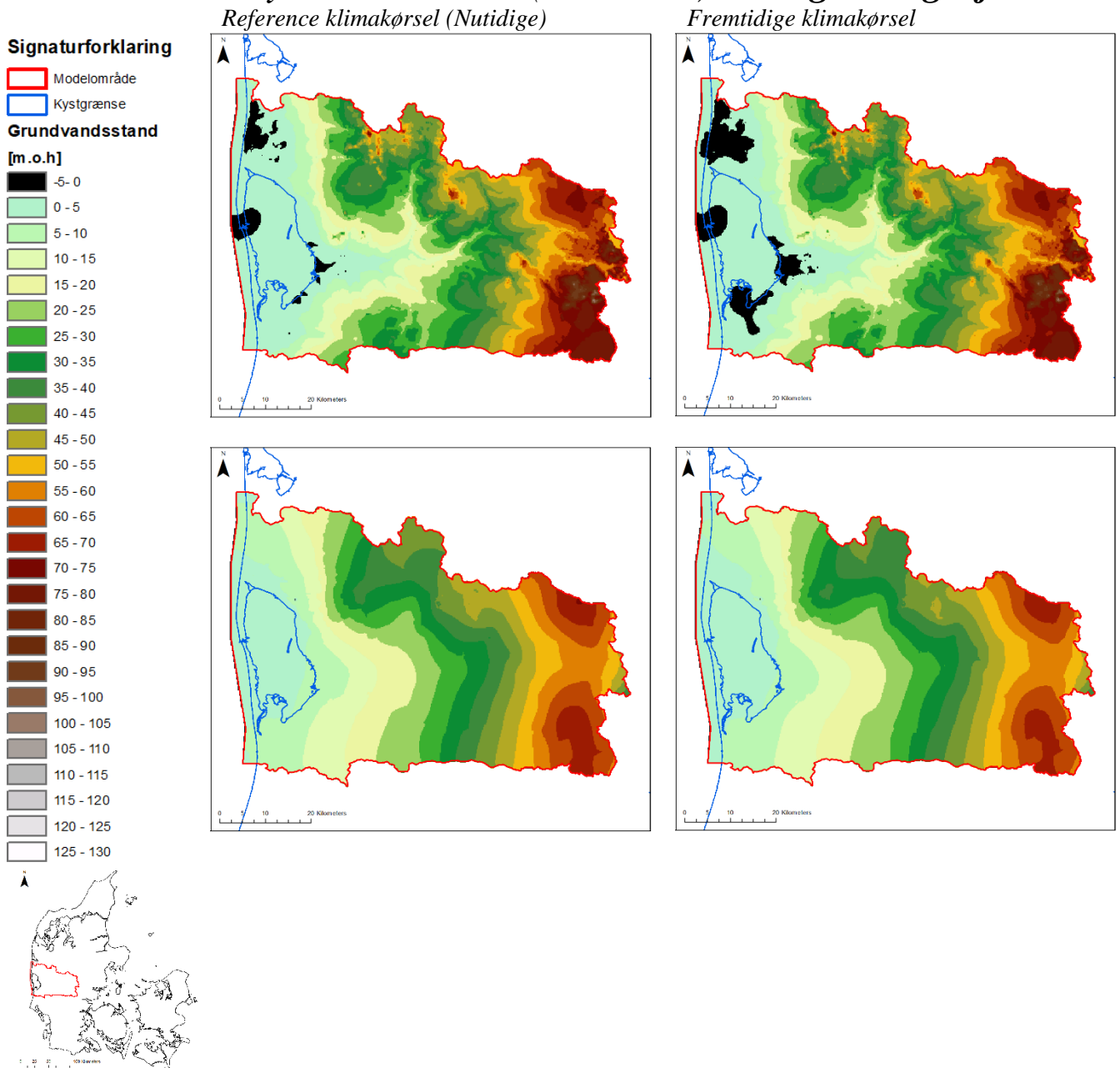
Grundvandsstand [m.o.h]

- 5 - 0
- 0 - 5
- 5 - 10
- 10 - 15
- 15 - 20
- 20 - 25
- 25 - 30
- 30 - 35
- 35 - 40
- 40 - 45
- 45 - 50
- 50 - 55
- 55 - 60
- 60 - 65
- 65 - 70
- 70 - 75
- 75 - 80
- 80 - 85
- 85 - 90
- 90 - 95
- 95 - 100
- 100 - 105
- 105 - 110
- 110 - 115
- 115 - 120
- 120 - 125
- 125 - 130



Figur A16-15: Areas with potential salt water intrusion risk (areas with groundwater head below present and future sea level). The maps in the rows shows the water level above sealevel for the periods 1981-2010 (T.L) and 2071-2100(T.H) for the climate scenario RCP 8.5 dry climate model (HIRHAM). The top row shows the uppermost layer (2m), whereas the second row shows the two coherent uppermost Quaternary sand layer (KS1 and KS2), and the third row shows the third Quaternary sand layer(KS3) in the DK-model. The areas marked with black shows where the model simulates that the sealevel is above the groundwater level, and therefore areas with potential salt water intrusion risks.

RCP 8.5 dry climate model (HIRHAM) – Ringkøbing Fjord



Figur A16-16: Areas with potential salt water intrusion risk (areas with groundwater head below present and future sea level). The maps in the rows shows the water level above sealevel for the periods 1981-2010 (T.L) and 2071-2100(T.H) for the climate scenario RCP 8.5 dry climate model (HIRHAM). The top row shows the forth Quaternary sand layer(KS4), thereas the second row shows the uppermost Prequaternay sand layer in the DK-model. The areas marked with black shows where the model simulates that the sealevel is above the groundwater level, and therefore areas with potential salt water intrusion risks.

Ringkøbing fjord catchment

Signaturforklaring

- RCP 8.5 Wet model (IPSL-RCA)
- RCP 4.5 HIRHAM
- RCP 8.5 Median climate model (KNMI)
- RCP 8.5 Dry climate model (HIRHAM)

Stigning i udnyttelse [%]

- > -5.00
- 5.00 - -4.00
- 4.00 - -3.00
- 3.00 - -2.00
- 2.00 - -1.00
- 1.00 - -0.50
- 0.50 - -0.25
- 0.25 - 0.00
- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- 2.00 - 3.00
- 3.00 - 4.00
- 4.00 - 5.00
- 5.00 - 6.00
- 6.00 - 7.00
- 7.00 - 8.00
- 8.00 - 9.00
- 9.00 - 10.00
- 10.00 - 20.00

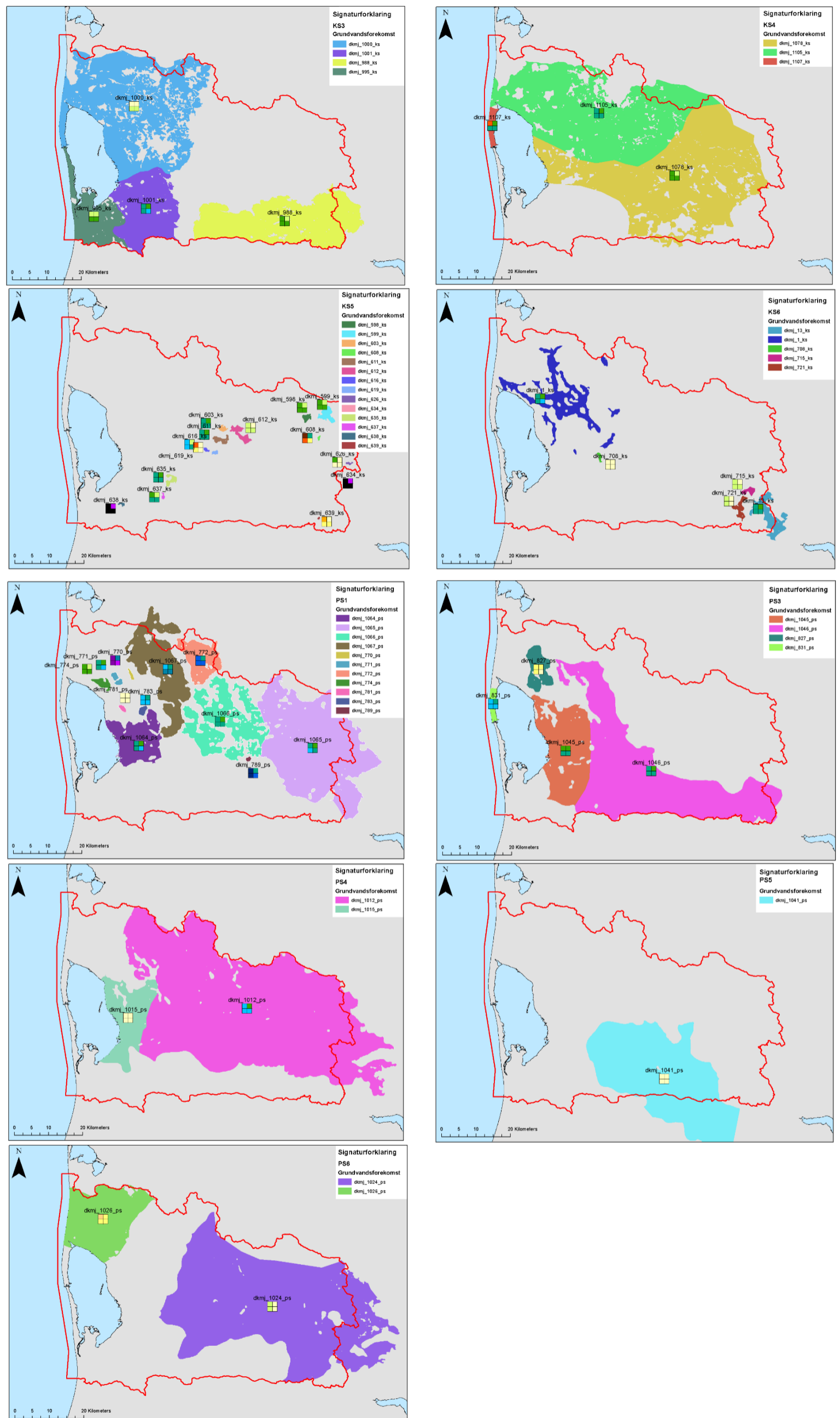


Figure A17-2: Map showing the rise of abstraction versus groundwater recharge for groundwater bodies for future and present climate in the Ringkøbing fjord catchment. Each box represent each of the different climate model(four smaller boxes inside): Upper left: RCP 8.5 Wet model; Upper right; RCP 4. 5 model; Lower left: RCP 8.5 Median climate model; Lower right: RCP 8.5 Dry climate model. The colour represent the increase in abstraction versus groundwater recharge for groundwater bodies in percent.



Figure A17-3 Graphs showing the the difference of abstraction versus groundwater recharge for groundwater bodies for future and present climate in the Ringkøbing fjord catchment(upper and center graph) and Mid-Zealand(Lower graph) in the RCP 8.5 wet climate model.

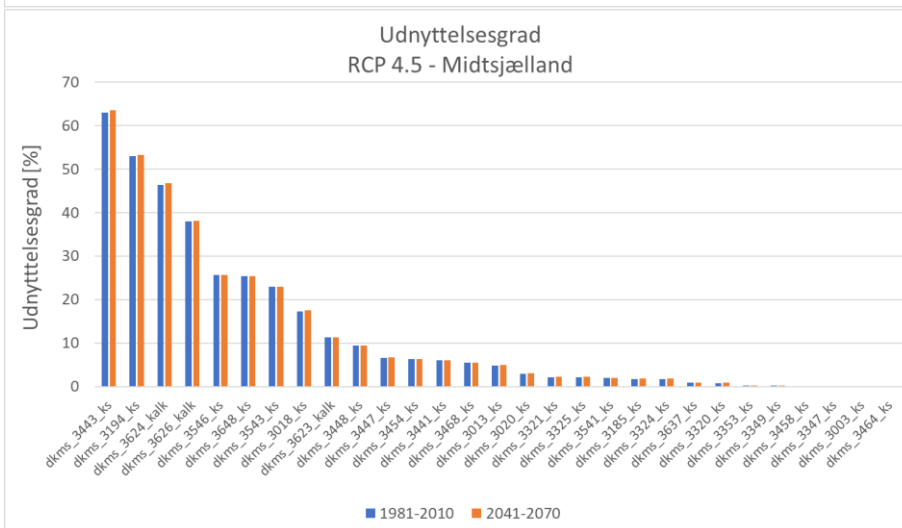
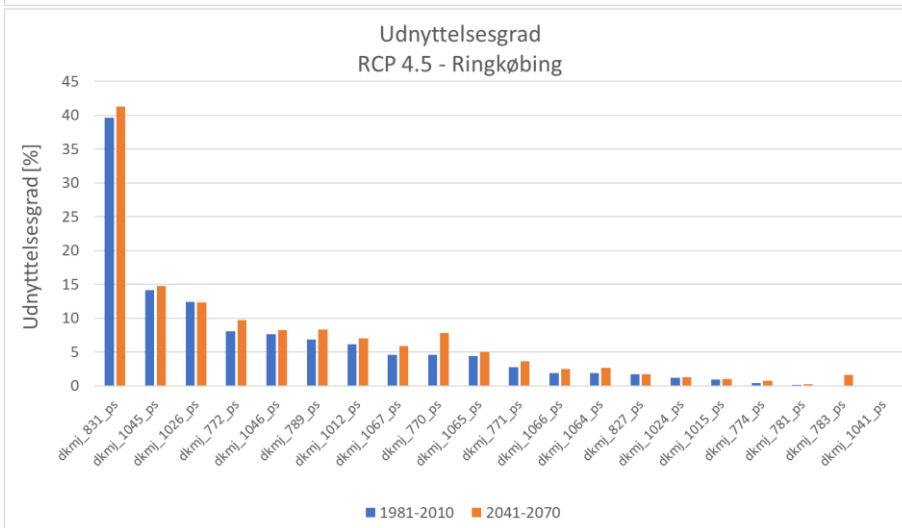
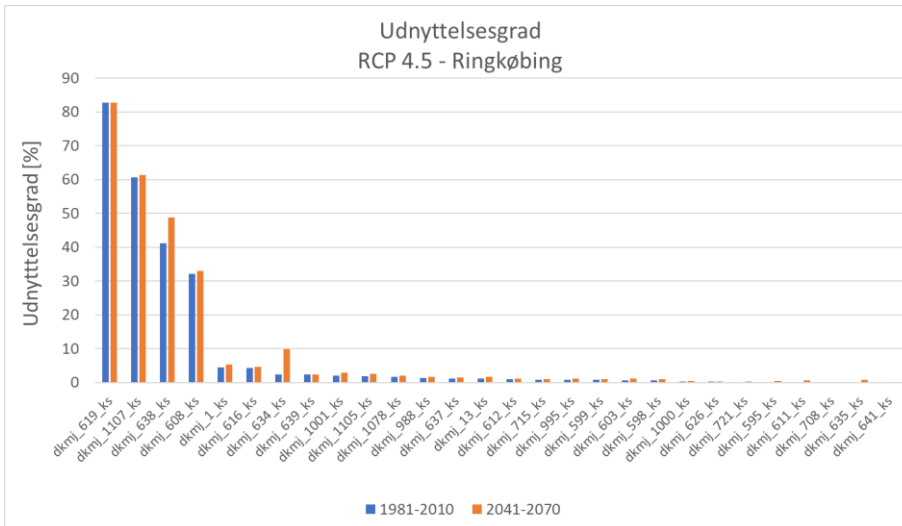


Figure A27-4 Graphs showing the the difference of abstraction versus groundwater recharge for groundwater bodies for future and present climate in the Ringkøbing fjord catchment(upper and center graph) and Mid-Zealand(Lower graph) in the RCP 4.5 climate model.



Figure A37-5 Graphs showing the the difference of abstraction versus groundwater recharge for groundwater bodies for future and present climate in the Ringkøbing fjord catchment(upper and center graph) and Mid-Zealand(Lower graph) in the RCP 8.5 median climate model.



Figure A47-6 Graphs showing the the difference of abstraction versus groundwater recharge for groundwater bodies for future and present climate in the Ringkøbing fjord catchment(upper and center graph) and Midt-Zealand(Lower graph) in the RCP 8.5 dry climate model.

A18 Change in Q95, Q01, Q75, Q25 (%) and EQR DFFVa for Qpoints for Ringkøbing fjord and Midtsjælland for 4 scenarios

Mid-zealand catchment

Change in Q95 for ecological flow, at 30-year period, for future and present climate

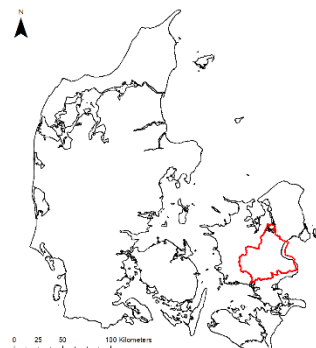
Signaturforklaring

- Modelområde
- Q-stationer

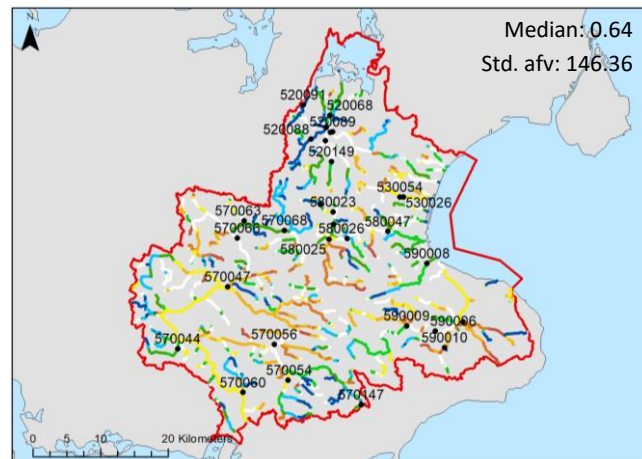
Stigning i Q95

[%]

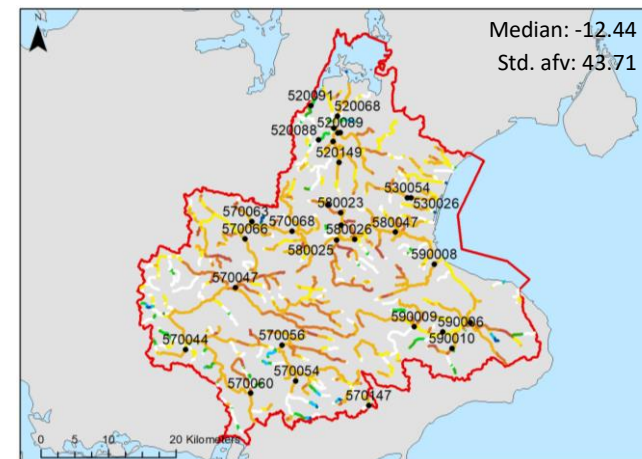
- < - 40.00
- -40.00 - -20.00
- -20.00 - -10.00
- -10.00 - -5.00
- -5.00 - 5.00
- 5.00 - 10.00
- 10.00 - 20.00
- 20.00 - 40.00
- 40.00 <



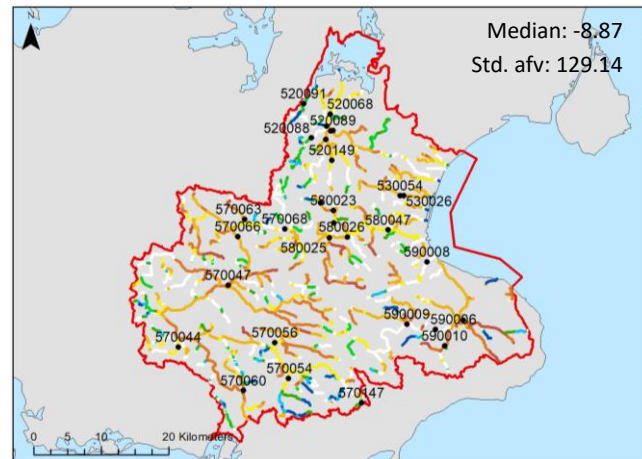
RCP 8.5 wet climate model



RCP4.5 HIRHAM



RCP 8.5 median climate model



RCP 8.5 dry climate model

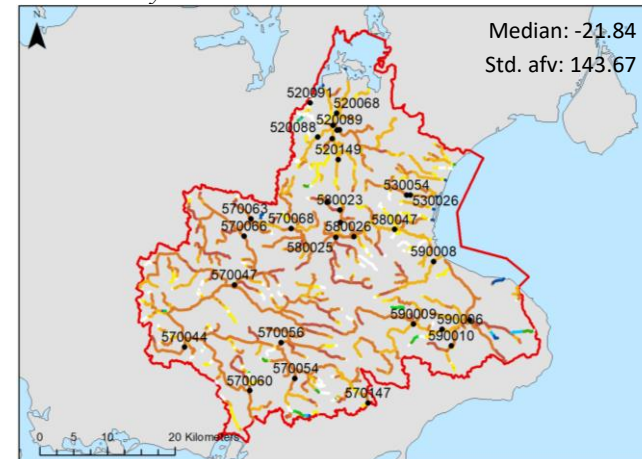


Figure A18-1: Changes in Q95 for ecological flow for Mid-Zealand catchment for the RCP 8.5 wet, median and dry climate model and RCP 4.5 climat model. The calculated median and standard deviation of the DFFVa for all Q-points is noted for each climate model.

Change in Q01 for ecological flow, at 30-year period, for future and present climate

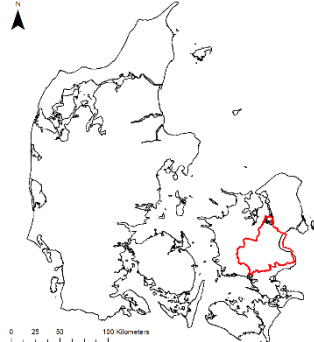
Signaturforklaring

- Modelområde
- Q-stationer

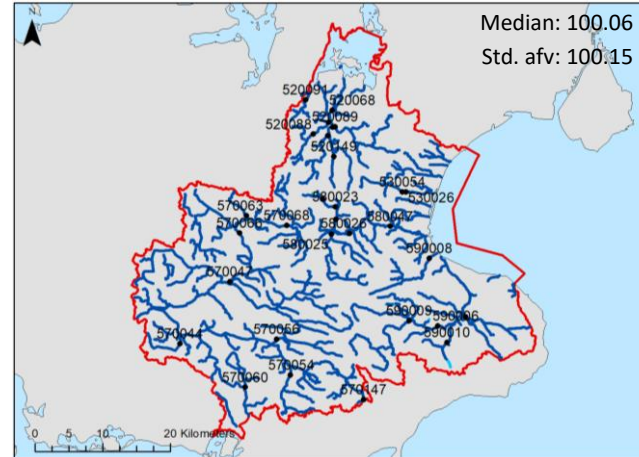
Stigning i Q01

[%]

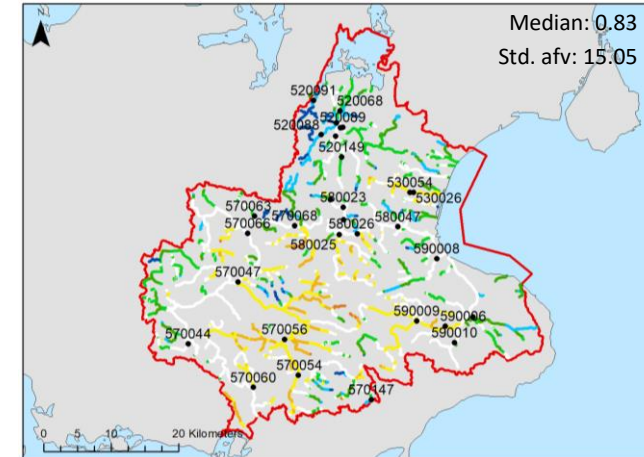
- < - 40.00
- -40.00 - -20.00
- -20.00 - -10.00
- -10.00 - -5.00
- -5.00 - 5.00
- 5.00 - 10.00
- 10.00 - 20.00
- 20.00 - 40.00
- 40.00 <



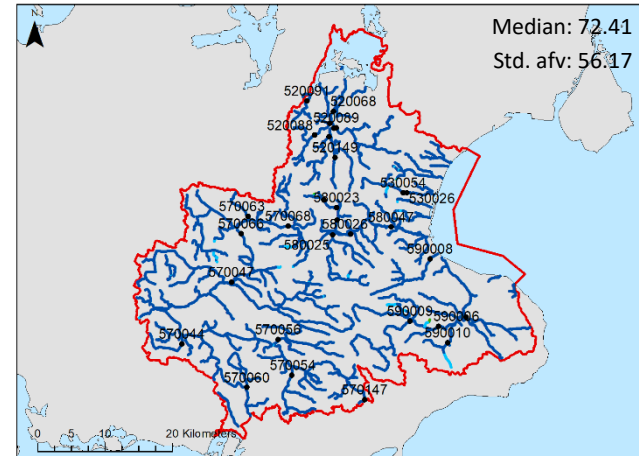
RCP 8.5 wet climate model



RCP4.5 HIRHAM



RCP 8.5 median climate model



RCP 8.5 dry climate model

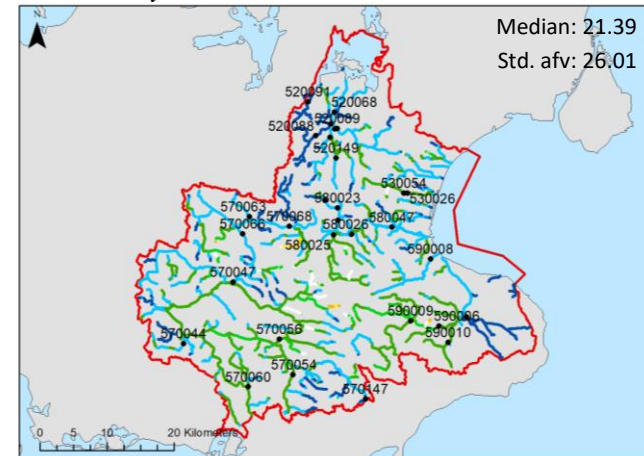


Figure A18-2: Changes in Q01 for ecological flow for Mid-Zealand catchment for the RCP 8.5 wet, median and dry climate model and RCP 4.5 climate model. The calculated median and standard deviation of the DFFVa for all Q-points is noted for each climate model.

Change in Q75 for ecological flow, at 30-year period, for future and present climate

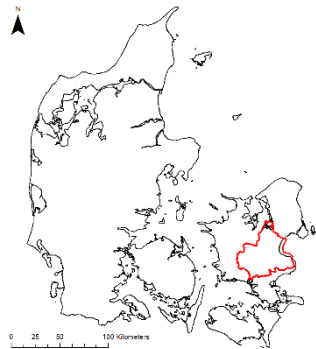
Signaturforklaring

- Modelområde
- Q-stationer

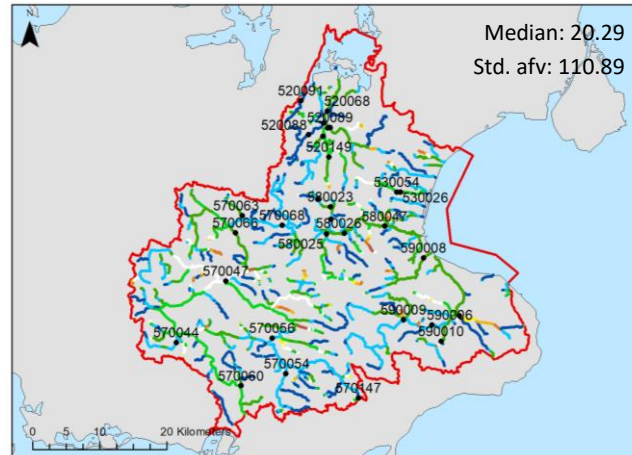
Stigning i Q75

[%]

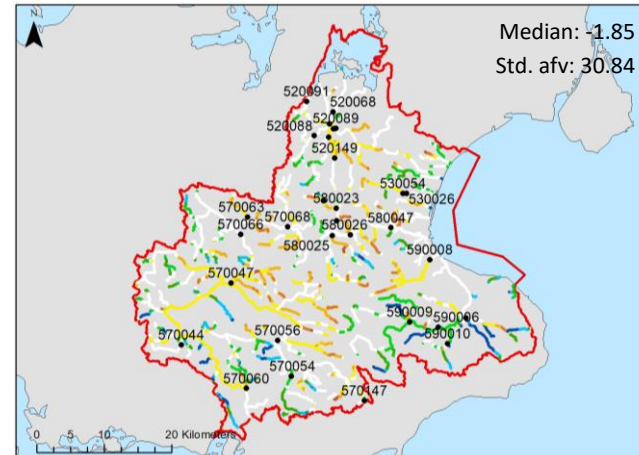
- < - 40.00
- -40.00 - -20.00
- -20.00 - -10.00
- -10.00 - -5.00
- -5.00- 5.00
- 5.00 - 10.00
- 10.00 - 20.00
- 20.00 - 40.00
- 40.00 <



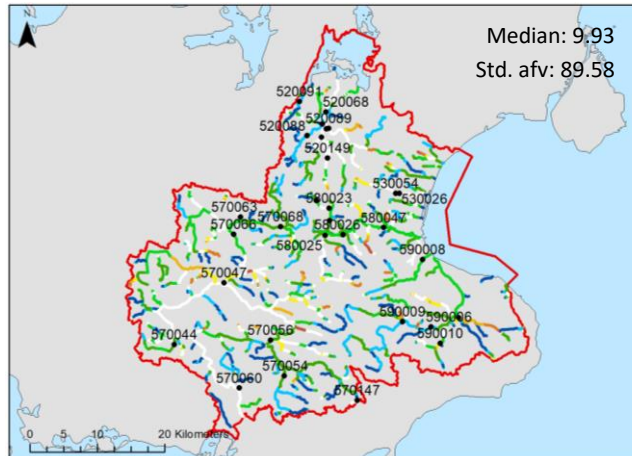
RCP 8.5 wet climate model



RCP4.5 HIRHAM



RCP 8.5 median climate model



RCP 8.5 dry climate model

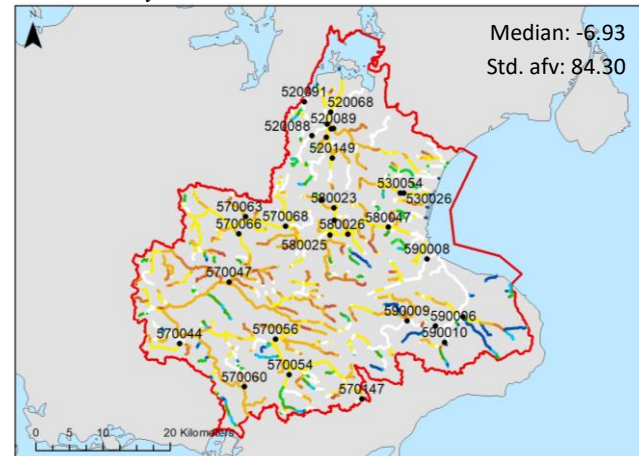


Figure A18-3: Changes in Q75 for ecological flow for Mid-Zeland catchment for the RCP 8.5 wet, median and dry climate model and RCP 4.5 climate model. The calculated median and standard deviation of the DFFVa for all Q-points is noted for each climate model.

Change in Q25 for ecological flow, at 30-year period, for future and present climate

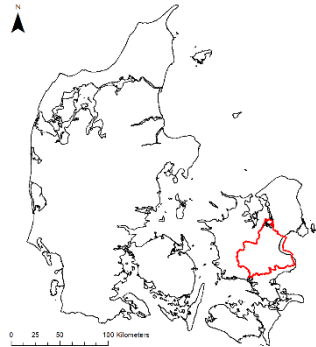
Signaturforklaring

- Modelområde
- Q-stationer

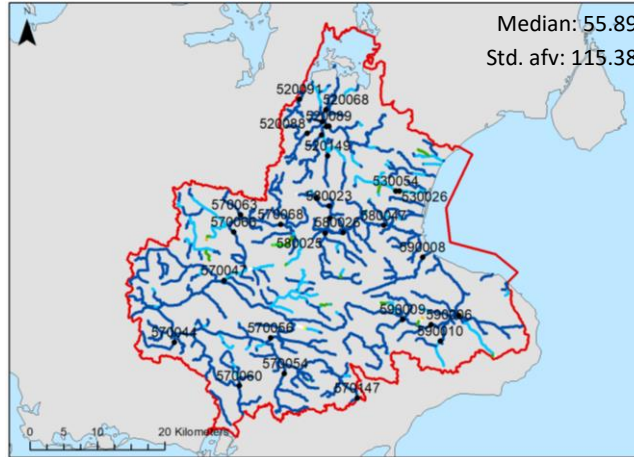
Stigning i Q25

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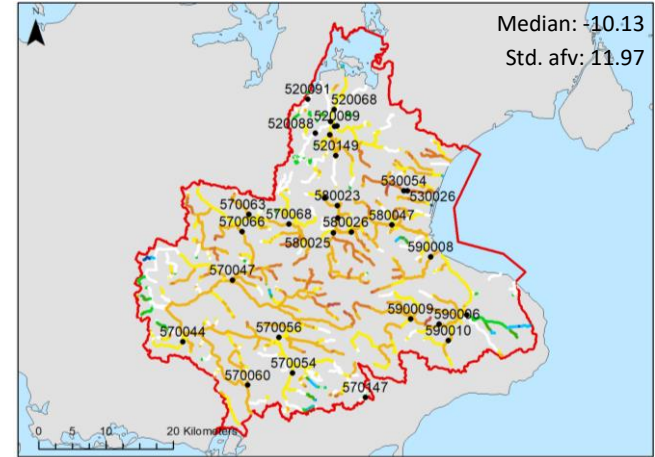
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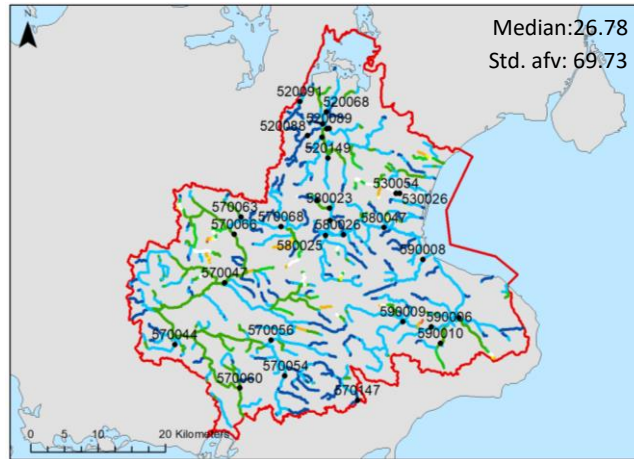
RCP 8.5 wet climate model



RCP4.5 HIRHAM



RCP 8.5 median climate model



RCP 8.5 dry climate model

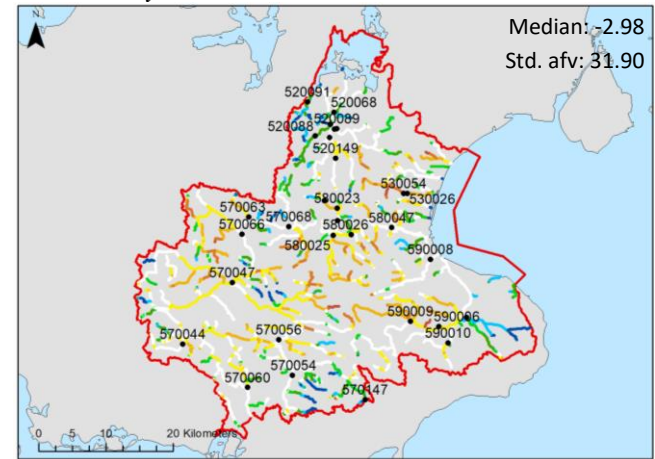


Figure A18-4: Changes in Q25 for ecological flow for Mid-Zealand catchment for the RCP 8.5 wet, median and dry climate model and RCP 4.5 climate model. The calculated median and standard deviation of the DFFVa for all Q-points is noted for each climate model.

Ringkøbing fjord catchment

Change in Q95 for ecological flow, at 30-year period, for future and present climate

Signaturforklaring

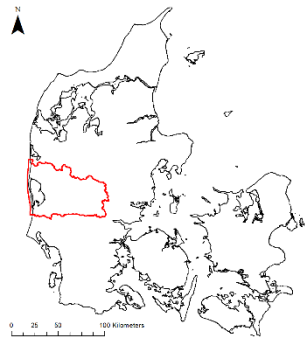
Modelområde

• Q-stationer

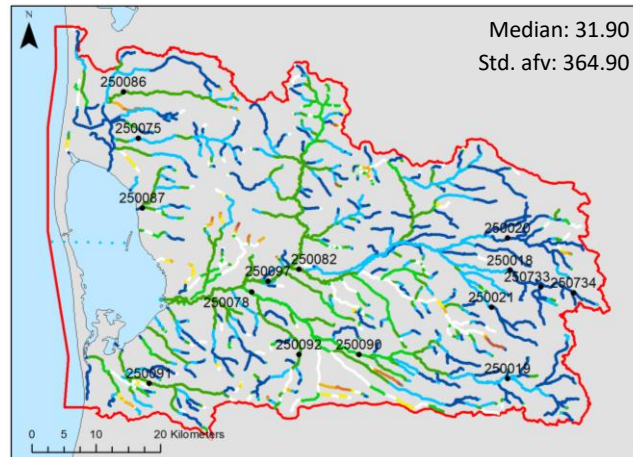
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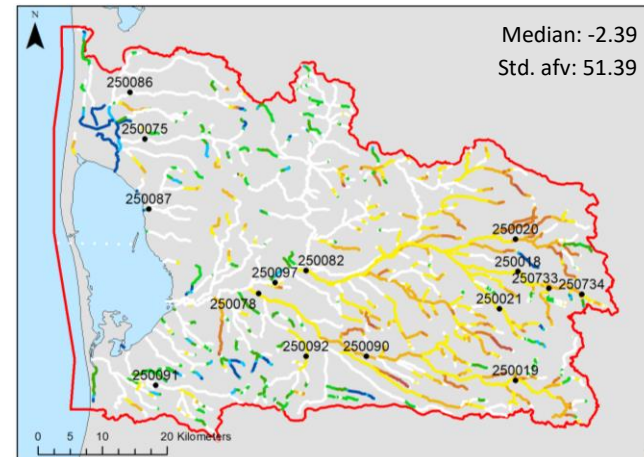
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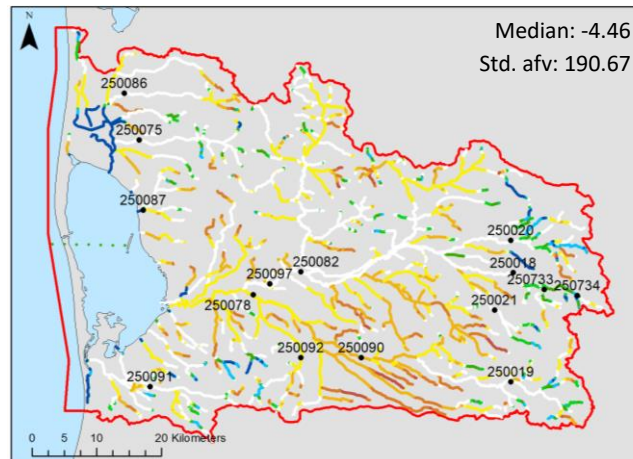
RCP 8.5 wet climate model



RCP4.5 HIRHAM



RCP 8.5 median climate model



RCP 8.5 dry climate model

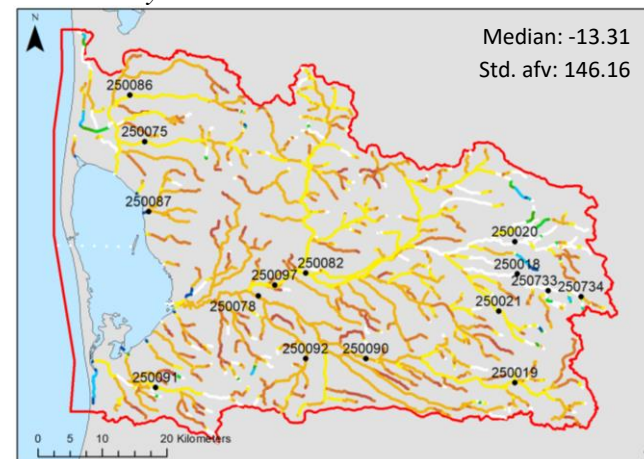


Figure A18-5: Changes in Q95 for ecological flow for Ringkøbing fjord catchment for the RCP 8.5 wet, median and dry climate model and RCP 4.5 climate model. The calculated median and standard deviation of the DFFVa for all Q-points is noted for each climate model.

Change in Q01 for ecological flow, at 30-year period, for future and present climate

Signaturforklaring

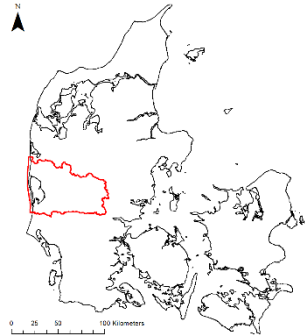
Modelområde

Q-stationer

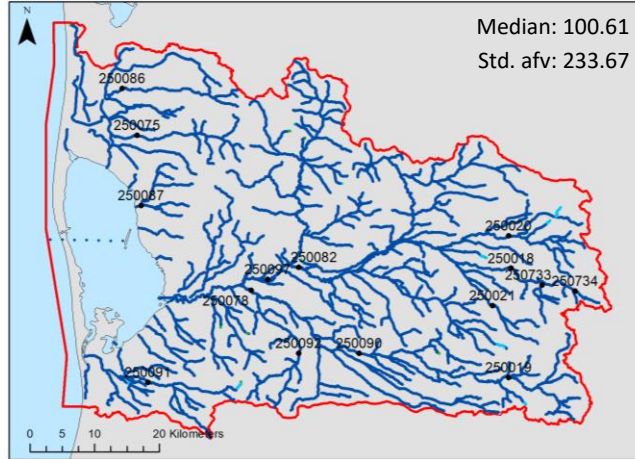
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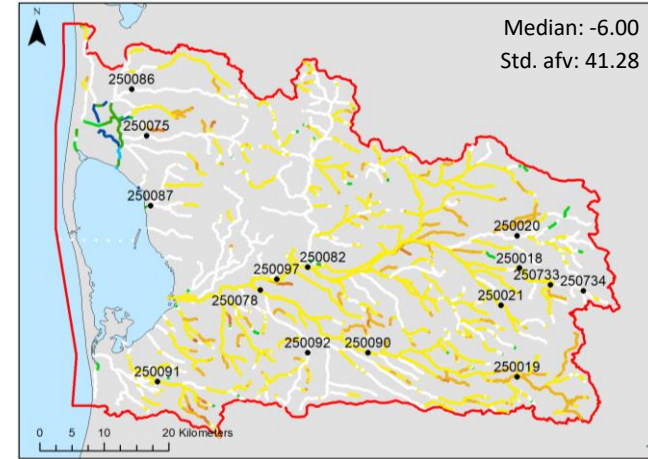
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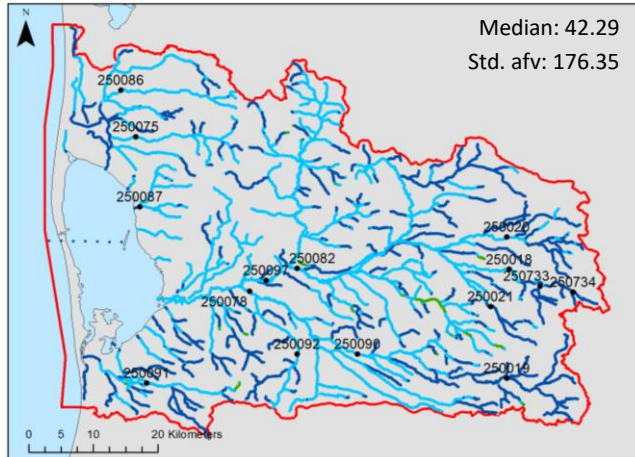
RCP 8.5 wet climate model



RCP4.5 HIRHAM



RCP 8.5 median climate model



RCP 8.5 dry climate model

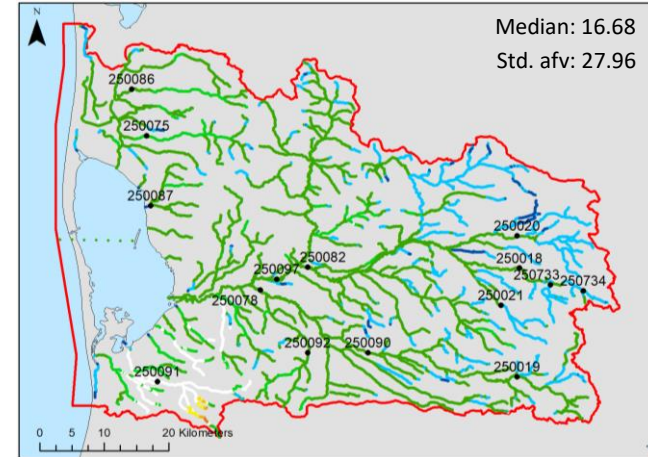


Figure A18-6: Changes in Q01 for ecological flow for Ringkøbing fjord catchment for the RCP 8.5 wet, median and dry climate model and RCP 4.5 climat model. The calculated median and standard deviation of the DFFVa for all Q-points is noted for each climate model.

Change in Q75 for ecological flow, at 30-year period, for future and present climate

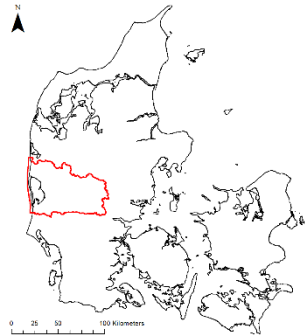
Signaturforklaring

- Modelområde
- Q-stationer

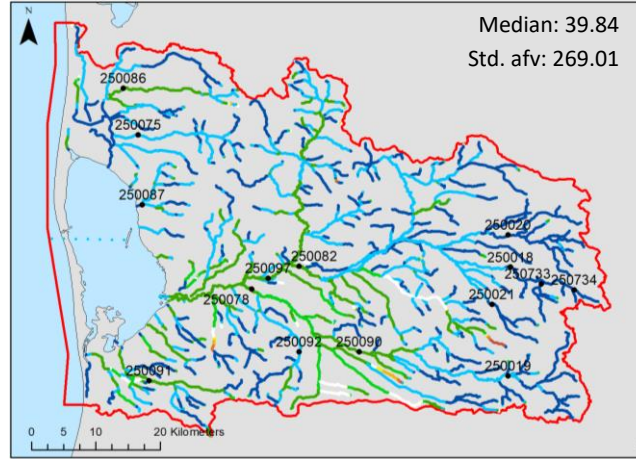
Stigning i Q75

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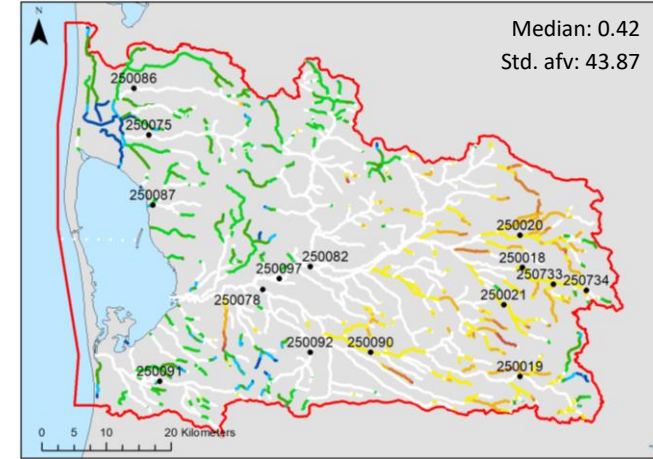
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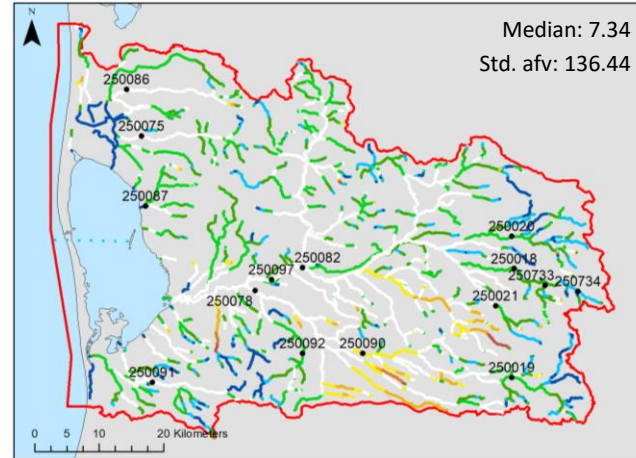
RCP 8.5 wet climate model



RCP4.5 HIRHAM



RCP 8.5 median climate model



RCP 8.5 dry climate model

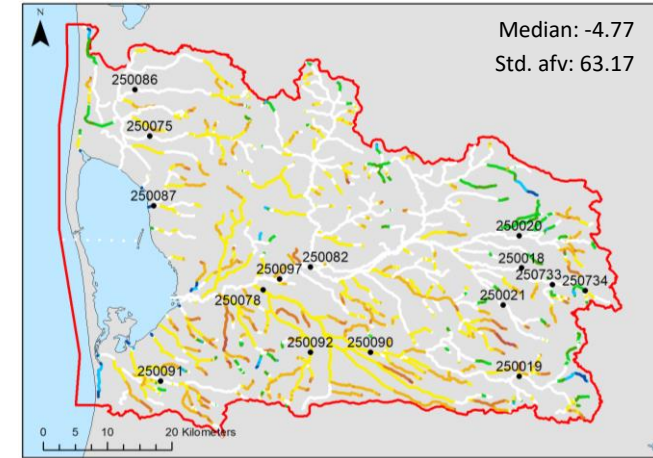


Figure A18-7: Changes in Q75 for ecological flow for Ringkøbing fjord catchment for the RCP 8.5 wet, median and dry climate model and RCP 4.5 climate model. The calculated median and standard deviation of the DFFVa for all Q-points is noted for each climate model.

Change in Q25 for ecological flow, at 30-year period, for future and present climate

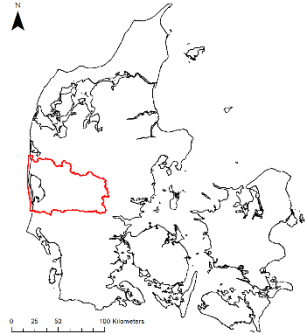
Signaturforklaring

- Modelområde
- Q-stationer

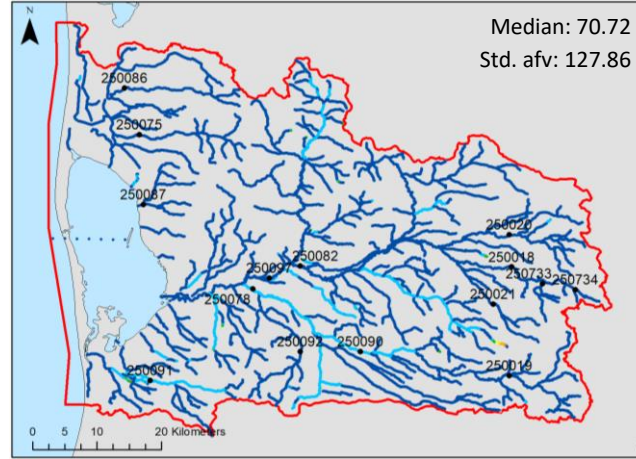
Stigning i Q25

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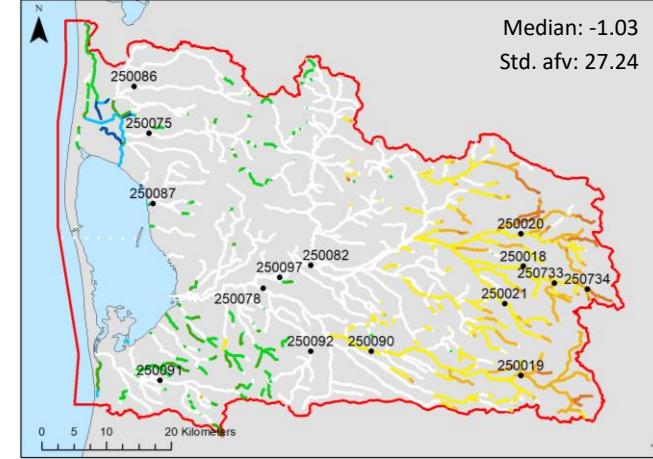
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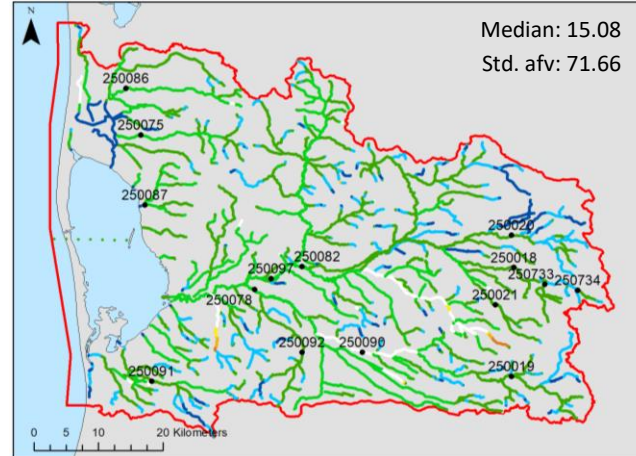
RCP 8.5 wet climate model



RCP4.5 HIRHAM



RCP 8.5 median climate model



RCP 8.5 dry climate model

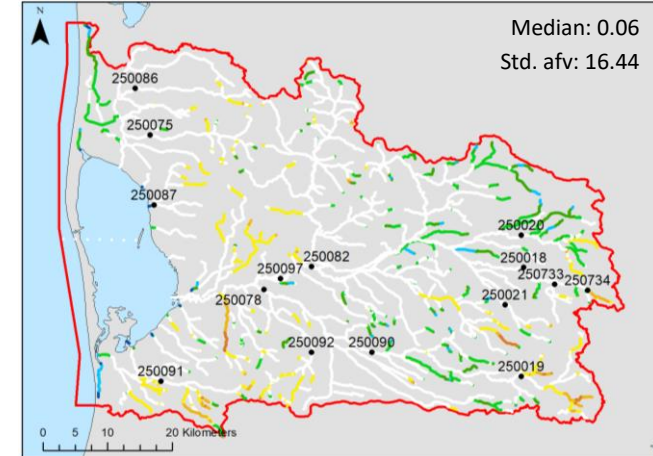


Figure A18-8: Changes in Q25 for ecological flow for Ringkøbing fjord catchment for the RCP 8.5 wet, median and dry climate model and RCP 4.5 climate model. The calculated median and standard deviation of the DFFVa for all Q-points is noted for each climate model.

Ecological Quality Ratios for 30-year periods - Increase in DFFVa - Mid-Zealand catchment

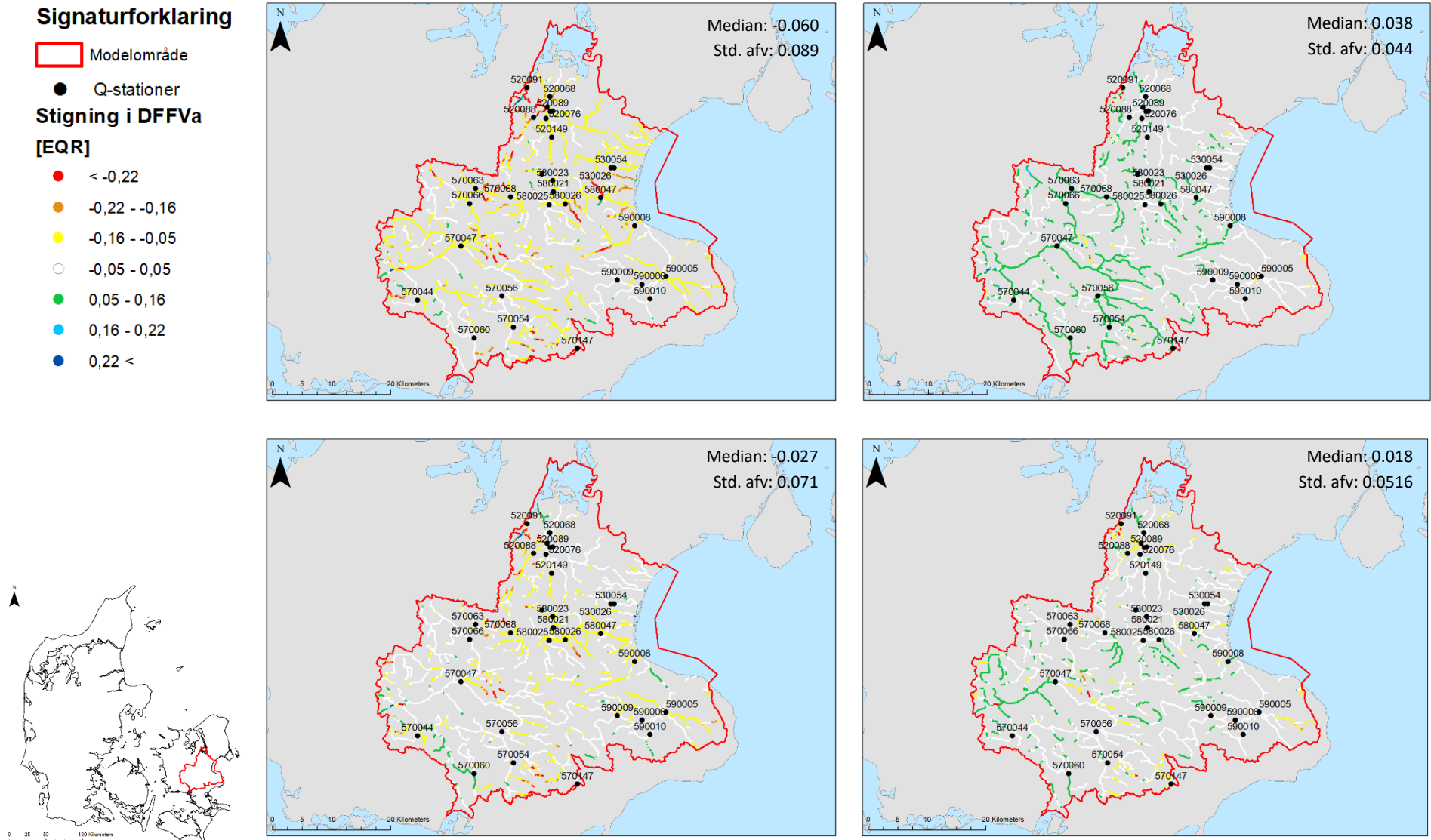


Figure A18-9: Changes in EQR for fish for Mid-Zealand catchment for the RCP 8.5 wet, median and dry climate model and RCP 4.5 climat model. The calculated median and standard deviation of the DFFVa for all Q-points is noted for each climate model.

Ecological Quality Ratios for 30-year periods - Increase in DFFVa - Ringkøbing fjord catchment

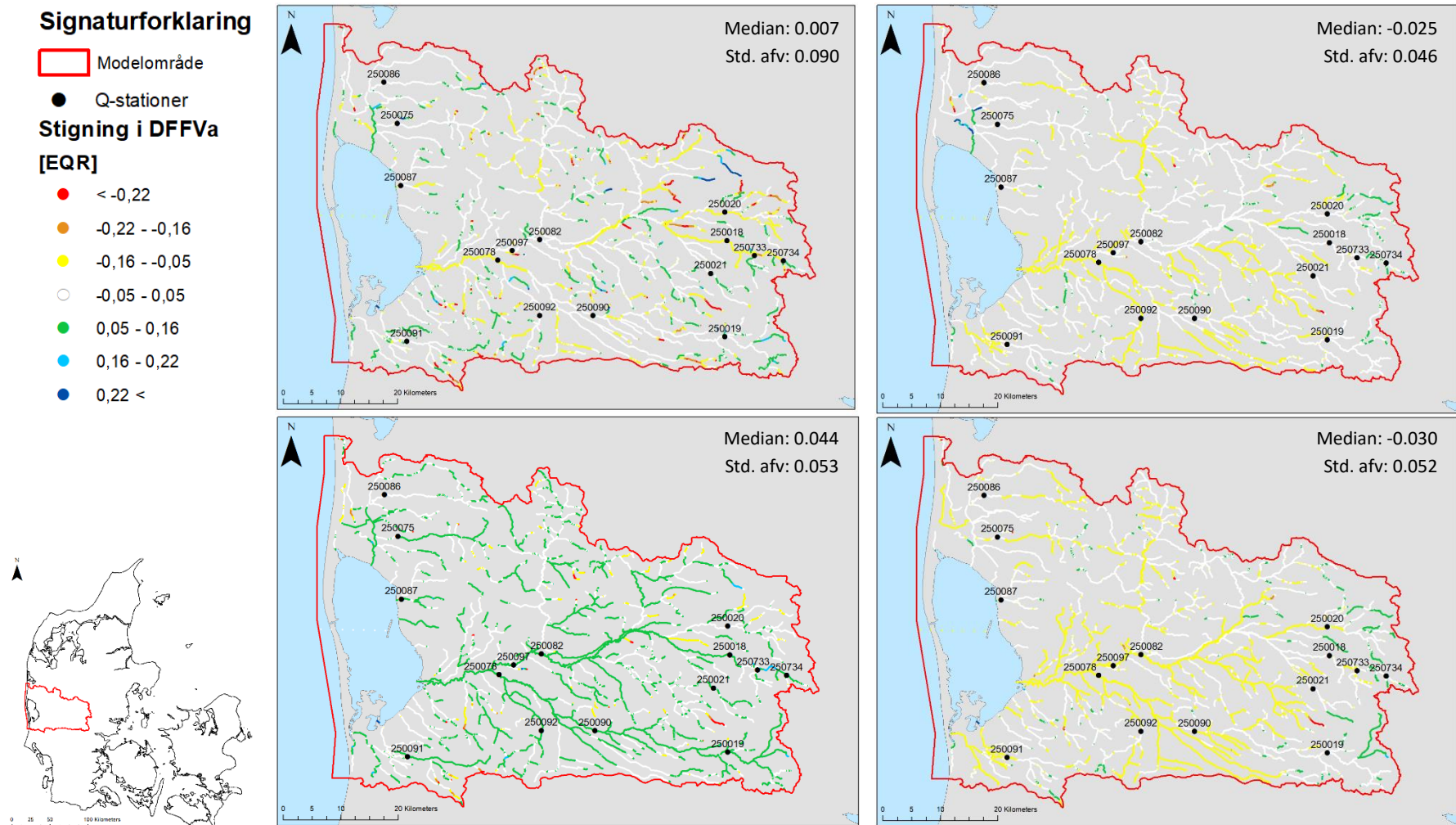


Figure A18-10: Changes in EQR for fish for Ringkøbing fjord catchment for the RCP 8.5 wet, median and dry climate model and RCP 4.5 climate model. The calculated median and standard deviation of the DFFVa for all Q-points is noted for each climate model.

Table A18-1 Change in flows (4%) and EQR

Station	Q1	Q25	Q75	Q95	EQR fish
Ringkøbing (RCP8.5 wet/RCP8.5 median/ RCP8.5 dry/RCP4.5 median)					
250086	++++/+++//+0	++++/+0/0	++/0/0/0	++ / -/ 0/ 0	0/0/0/0
250075	++++/+++//+0	++++/+0/0	+++/0/0/0	+++/ 0/-/0	0/+0/0/0
250087	++++/++++//+0	++++/+0/0	+++//+0/0	++/0/--/0	0/+0/0/0
200091	++++/+++//0/-/-	+++//+0/0	++/0/0/0	++/0/-/0	0/+/-/0
250078	++++/+++//+/-	+++//+0/0	++/0/-/0	+/-/--/-	-/+/-/-/
250097	++++/+++//+/-	++++/+0/0	++/0/0/0	++/0/-/0	0/+//+0
250092	++++/+++//+0	++++//+0/0	+++//+/-/0	++/-/--/-	0/+0/-/0
250090	++++/+++//+/-	+++//0/0/-	++/-/-/-	+/-/--/-	0/+/-/0
250082	++++/+++//+/-	++++/+0/0	++/0/0/0	++/0/-/-	0/+/-/0
250020	++++/+++//+0	++++//+0/0/-	++++//+0/0/-	++++//0/0/--	-/0/0/0
250018	++++/+++//+/-	++++//+0/0/-	++++//+0/0/-	++++//0/0/-	-/+0/0/0
250733	++++/++++//+/-	++++//+0/0--	++++//+0/0/-	++++//0/0/-	+0/0/0/0
250734	++++/++++//+0	++++//+0/0--	++++//+0/0/0	++++//+/-/0	+//+0/0/0
250021	++++/++++//+/-	++++//+0/0/-	++++//+0/0/-	++++//0/0/-	0/0/+0/0
250019	++++/++++//+/-	++++//+0/0--	+++//+0/0/0	+++//0/0/-	0/+0/0/0
Mid-Zealand					
520091	++++/++++//+//+//+//+	++++//+0/0	++++//+0/0/0	++++//+0/+	---/-/-/-
520068	++++/++++//+//+//+	++++//+0/0/-	++/0/-/0	++/-/--/-	0/0/0/0
520089	++++/++++//+0	++++//+0/0/-	++/0/--/0	0/--/---/-	-/0/0/0
520088	++++/++++//+//+//+//+	++++//+0/0	++++//+0/0/0	++++//+/-/0	---/-/-/0
520076	++++/++++//+0	++++//+0/0/-	++/0/--/0	0/--/---/-	-/-/0/0
520149	++++/++++//+//+//+	++++//+0/0/-	+0/0/-/0	0/--/---/-	-/-/0/+
530054	++++/++++//+/-	+++//0/---/---	+0/0/-/0	-/--/---/-	-/-/0/0
530026	++++/++++//+0	+++//0/---/---	+0/0/-/0	-/--/---/-	-/0/0/0
570063	++++/++++//+//+//+	++++//+0/0--	++/0/--/0	0/--/---/-	-/0/0/0
570066	++++/++++//+0	++++//+0/0--	++//+/-/0	0/--/---/-	-/0/0/+
570068	++++/++++//+0	++++//+0/0--	+++//+/-/0	++//+/-/0	-/-/0/+
570047	++++/++++//+0	+++//+/-/0--	0/0/--/0	--/---/---/---	-/0/0/+
570044	++++/++++//+0	++++//+0/0/-	+++//+0/0/+	+/-/---/-	0/0/0/0
570056	++++/++++//+/-	++++//+0/0/-	+++//+/-/0	0/-/---/-	0/0/0/+
570060	++++/++++//+/-	++++//+/-/0--	++/0/--/0	--/---/---/---	0/0/0/0
570054	++++/++++//+/-	++++//+0/0/-	+++//+/-/+	-/-/---/-	0/0/0/+
570147	++++/++++//+//+//+//+//+	++++//+0/0/+//+	++++//+0/0/+//+	+++//+//+//+	-/-/0/0
580019	++++/++++//+0	++++//+/-/0--	+++//+/-/0	+++//+/-/0--	-/-/0/+
580023	++++/++++//+0	++++//+/-/0--	++/0/--/0	-/--/---/-	-/-/0/0
580025	++++/++++//+/-	++++//+/-/0--	++/0/--/0	--/---/---/---	0/0/0/0
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580047	++++/++++//+0	++++//+0/0/---	++++//+/-/0	0/-/--/0	-/-/0/0
590008	++++/++++//+0	++++//+0/0/---	++//+0/0/-	+0/0/--/0	-/-/+//+
590009	++++/++++//+/-	++++//+0/0/-	+++//+0/0/+	-/0/--/0	0/0/0/0
590006	++++/++++//+/-	++++//+/-/0--	+++//+0/0/+	0/0/--/0	0/0/0/0
590005	++++/++++//+//+//+	++++//+0/0/+//+	0/-/0/0	---/---/---/---	-/0/0/0
590010	++++/++++//+0	++++//+0/0--	++/0/0/0	--/---/---/-	0/0/0/0

Table A18-2 Hydrological regime variables used in empirical formulas for biological quality element analysis for DVFI (macroinvertebrates), DVPI (macrophytes) and DFFVa (fish) based on symbolic regression/ EUREKA (Graeber, Wiberg-Larsen, Bøgestrand, & Baattrup-Pedersen, 2014; Riis, Suren, Clausen, & Sand-Jensen, 2008, Danapour 2020)

<i>Biological quality element</i>	<i>Empirical formula</i>	<i>Flow variables</i>
Macroinvertebrates (Ecological quality ratio, DVFI)	$\mathbf{DVFI_{EQR} = 0.217 + 0.103 * Sin + 0.020 * Q_{90s} * Fre_1}$ <p>(NSE= 0.44, n=122 stream sites)</p>	<p>Q_{90s} being the low flow below the 90th percentile of the flow-duration curve, divided (standardized) by median flow (Q_{50}).</p> <p>Fre_1 (year⁻¹) being the number of high-flow events, defined by annual average number of pulses above the median flow (Q_{50}).</p> <p>Sin being the class of sinuosity ($Sin=1$ for straight, $Sin=2$ for slightly sinuous, $Sin=3$ for sinuous and $Sin=4$ for meandering).</p>
Macrophytes (Ecological quality ratio, DVPI)	$\mathbf{DVPI_{EQR} = 0.546 + 0.020 * Fre_{25} - 0.019 * Dur_3 - 0.025 * Fre_{75}}$ <p>(NSE= 0.34, n=91 stream sites)</p>	<p>Fre_{25} (year⁻¹) being the number of high-flow events, defined by average number of pulses per year above the 25th percentile (Q_{25}) from the flow duration curve.</p> <p>DUR_3 (days) being the high-flow event duration, defined by the duration of high flow events larger than 3 times the median flow ($3 * Q_{50}$).</p> <p>Fre_{75} (year⁻¹) being the number of low-flow events per year, average number of the events per year below the 75th percentile (Q_{75}) of the flow duration curve.</p>
Fish (Ecological quality ration, DFFVa)	$\mathbf{DFFVa_{EQR} = 0.811 * BFI + 0.058 * Sin + 0.050 * Fre_{25} - 0.319 - 0.0413 * Fre_{75}}$ <p>(NSE =0.49, n=61 stream sites)</p>	<p>BFI (-) being the baseflow index (baseflow volume divided by total flow volume).</p> <p>Fre_{25} (year⁻¹) being the number of high-flow events, defined by average number of pulses per year above the 25th percentile (Q_{25}) from the flow duration curve.</p> <p>Fre_{75} (year⁻¹) being the number of low-flow events per year, average number of the events per year below the 75th percentile (Q_{75}) of the flow duration curve.</p> <p>Sin being the class of sinuosity.</p>
<i>Other hydrological regime flow variables</i>	<p>Q95, Q90, Q75, Q50 and Q25</p> <p>Q_{medmin}</p>	<p>$Q_{95}-Q_{25}$ being the flow percentiles of the flow-duration curve</p> <p>Median minimum (Q_{medmin}) flow e.g. daily low flow which occur in average once every second year (Henriksen et al., 2008).</p>

Table A18-3 Selected climate models

Climate model scenario	Climate factor precipitation October-March Ringkøbing / Sjælland	Climate factor Evapotranspiration April-September Ringkøbing / Sjælland
1 <i>Climate model SMHI-RCA wet RCP8.5 2071-2100 wet</i>	1.42 / 1.41	1.19 / 1.18
2 <i>Climate model KNMI-RACMO RCP8.5 2071-2100 median</i>	1.14 / 1.16	1.19 / 1.17
3 <i>Climate model DMI-HIRHAM RCP8.5 2071-2100 dry</i>	1.12 / 1.13	1.22 / 1.18
4 <i>Climate model DMI-HIRHAM RCP4.5 2041-2070 median</i>	1.08 / 1.07	1.10 / 1.10

A19. Table with regime variables changes (flow in % and EQR in absolut evalues) for daily flow for selected stations: min, max, average, Q95, Q90, Q75, Q50, Q25, Q10, Q05, Q01, Q001, Median min, DFFVa, DVFI and DVPI

Table A19-1 Table with regime variables (fractile statistics) for selected monitoring Q-stations for future and present climate (e.g. Q01, Q1, Q5, Q10, Q25, Q50, Q75, Q90, Q95, Q99) for future and present climate + DVFI, DVPI og DFFVa

SMHI-RCA wet RCP8.5 2071-2100 wet

Økologisk flow- Ringkøbing Fjord	Chainage	Min	Max	Average	Q95	Q90	Q75	Q50	Q25	Q10	Q05	Q01	Q001	MedianMin	DFFV EQR	DVFI EQR	DVPI EQR
	[m]	%	%	%	%	%	%	%	%	%	%	%	%	%	eqr ændring	eqr ændring	eqr ændring
Q250018 (SKJERN_AA)	-3774,2	38,9	139,5	52,7	40,9	41,6	42,4	46,4	56,7	62,5	65,1	80,4	113,4	36,4	-0,117	0,006	-0,086
Q250019 (SDR_OMME_AA)	-30499,5	23,9	162,1	62,6	28,9	30,6	36,5	46,7	66,9	80,4	79,7	98,7	148,5	24,9	-0,037	-0,011	0,006
Q250020 (HOLTUM_AA)	-3881,3	53,4	126,3	60,9	51,1	49,2	50,5	54,2	65,8	70,4	72,8	83,7	104,9	42,3	-0,090	-0,004	-0,070
Q250021 (BRANDE_AA)	4800,0	33,3	142,1	66,8	38,8	43,2	40,9	54,4	74,6	76,8	74,4	89,1	114,5	43,5	0,016	-0,009	0,008
Q250075 (HOVER_AA)	17291,6	24,0	202,1	38,9	20,4	20,8	23,3	31,2	41,6	51,6	58,8	82,4	115,6	17,5	0,030	-0,021	-0,032
Q250078 (SDR_OMME_AA)	26500,5	3,6	114,0	33,7	6,8	8,5	10,9	22,4	38,5	49,9	56,4	72,4	94,7	4,4	-0,081	-0,025	-0,068
Q250082 (SKJERN_AA)	53702,5	15,4	122,5	37,5	15,5	17,9	19,8	29,2	44,0	53,1	55,7	67,8	92,4	15,3	-0,042	-0,016	-0,044
Q250086 (TIM_AA)	18537,4	17,3	208,0	38,1	14,7	16,2	18,8	27,8	41,7	53,1	62,0	86,4	121,3	14,3	0,010	-0,022	-0,007
Q250087 (VENNER_AA)	4623,0	55,3	172,4	67,4	55,4	57,0	58,3	58,1	67,6	75,9	81,0	92,6	114,3	45,9	-0,112	-0,002	-0,085

Økologisk flow- Midtsjælland	Chainage	Min	Max	Average	Q95	Q90	Q75	Q50	Q25	Q10	Q05	Q01	Q001	MedianMin	DFFV EQR	DVFI EQR	DVPI EQR
	[m]	%	%	%	%	%	%	%	%	%	%	%	%	%	eqr ændring	eqr ændring	eqr ændring
Q520068 (LAVRINGE_AA_DK1)	10,7	12,0	720,3	42,0	2,2	4,4	8,3	16,8	41,3	56,4	65,0	85,8	224,6	-0,1	-0,12	-0,03	-0,08
Q530026 (SKENSVED_AA_DK1)	4314,0	-2,6	273,9	44,5	-7,1	-4,9	9,2	21,0	24,2	33,3	51,7	75,3	238,0	-12,0	-0,11	-0,01	0,01
Q570047 (RINGSTED_AA_DK1)	20320,0	-16,6	837,5	44,3	-10,5	-6,3	1,9	16,3	38,2	55,9	72,4	102,5	256,0	-12,0	-0,09	-0,03	-0,06
Q570056 (SUSAA_DK1)	17845,3	-9,7	609,6	69,9	2,6	9,2	23,0	39,9	65,4	83,2	95,7	107,4	207,3	-1,7	-0,01	-0,02	-0,07
Q580025 (SLUMMINGE_AA_DK1)	14739,0	-2,9	606,4	69,0	-12,3	-4,8	12,9	39,6	61,3	61,2	65,2	80,7	191,0	-16,0	-0,04	-0,02	-0,09
Q580047 (KOEGE_AA_DK1)	12787,0	10,0	614,6	63,9	3,4	6,1	16,0	29,7	57,3	63,5	71,1	89,7	221,5	-1,6	-0,08	-0,02	-0,13
Q590005 (KROGBAEK_DK1)	3507,4	-66,4	588,6	60,3	-27,3	-21,2	1,1	29,2	48,6	62,4	84,1	117,8	195,8	-32,5	-0,10	-0,02	-0,05
Q590009 (SAVL4_DK1)	12614,0	-13,2	613,7	59,9	-1,7	5,8	22,0	38,4	52,4	58,1	68,1	70,1	134,2	-7,2	-0,02	-0,01	-0,03

DMI-HIRHAM RCP4.5 2041-2070 median

Økologisk flow- Ringkøbing Fjord	Chainage	Min	Max	Average	Q95	Q90	Q75	Q50	Q25	Q10	Q05	Q01	Q001	MedianMin	DFFV EQR	DVFI EQR	DVPI EQR
	[m]	%	%	%	%	%	%	%	%	%	%	%	%	%	eqr ændring	eqr ændring	eqr ændring
Q250018 (SKJERN_AA)	-3774,2	-12,6	8,4	-6,6	-9,0	-6,9	-5,3	-6,3	-7,2	-6,5	-5,7	-5,2	-6,8	-4,8	0,016	0,016	0,011
Q250019 (SDR_OMME_AA)	-30499,5	-13,9	22,8	-8,8	-8,9	-5,0	-5,0	-8,0	-10,2	-10,1	-11,6	-11,6	-6,9	-4,7	0,009	0,019	-0,010
Q250020 (HOLTUM_AA)	-3881,3	-15,3	12,9	-7,5	-10,9	-8,2	-7,0	-7,5	-8,7	-7,8	-5,2	-4,2	2,4	-8,8	-0,007	0,027	-0,021
Q250021 (BRANDE_AA)	4800,0	-21,3	3,6	-7,9	-6,8	-2,1	-5,8	-11,3	-7,4	-8,7	-7,2	-7,7	-14,6	-3,0	-0,030	0,015	-0,021
Q250075 (HOVER_AA)	17291,6	-2,3	-13,9	0,2	-0,2	1,6	2,4	-0,9	1,3	-0,4	-1,9	-4,3	-8,8	2,8	-0,009	0,014	0,000
Q250078 (SDR_OMME_AA)	26500,5	-14,1	4,9	-3,9	-5,9	-3,8	-3,0	-6,1	-2,0	-2,9	-5,4	-6,2	-8,5	-3,5	-0,101	0,007	-0,043
Q250082 (SKJERN_AA)	53702,5	-11,9	1,2	-4,3	-6,3	-3,9	-3,4	-5,5	-3,5	-4,0	-4,0	-6,4	-6,3	-3,0	-0,020	0,007	0,001
Q250086 (TIM_AA)	18537,4	-7,5	14,0	0,6	0,8	2,2	3,0	-0,1	1,4	0,0	-1,5	-3,7	-8,1	-0,5	-0,049	0,006	-0,012
Q250087 (VENNER_AA)	4623,0	1,4	-4,8	8,1	10,8	15,8	13,9	8,6	7,3	6,4	4,7	3,0	2,5	14,4	0,006	0,007	0,013

Økologisk flow- Midtsjælland	Chainage	Min	Max	Average	Q95	Q90	Q75	Q50	Q25	Q10	Q05	Q01	Q001	MedianMin	DFFV EQR	DVFI EQR	DVPI EQR
	[m]	%	%	%	%	%	%	%	%	%	%	%	%	%	eqr ændring	eqr ændring	eqr ændring
Q520068 (LAVRINGE_AA_DK1)	10,7	-33,5	163,5	-3,5	-15,9	-11,9	-5,5	-4,9	-5,9	-6,9	-3,2	7,0	75,8	-8,4	0,015	-0,001	0,003
Q530026 (SKENSVED_AA_DK1)	4314,0	-27,1	40,8	-11,2	-13,8	-8,3	-5,4	-11,7	-24,1	-15,5	-9,7	-4,7	52,4	-7,4	0,032	0,010	0,181
Q570047 (RINGSTED_AA_DK1)	20320,0	-41,5	96,3	-8,4	-22,5	-16,9	-8,8	-10,0	-12,5	-11,7	-7,1	-0,6	51,6	-14,5	0,074	0,004	0,008
Q570056 (SUSAA_DK1)	17845,3	-25,9	147,2	-4,8	-14,2	-9,9	-1,1	-0,6	-7,7	-8,8	-6,9	-7,2	54,7	-6,5	0,082	-0,003	0,020
Q580025 (SLUMMINGE_AA_DK1)	14739,0	-35,2	132,7	-9,0	-19,6	-12,7	-5,1	-6,0	-17,9	-14,1	-9,5	-5,0	55,5	-11,1	0,044	-0,004	0,150
Q580047 (KOEGE_AA_DK1)	12787,0	-21,9	144,6	-5,8	-13,4	-6,6	-3,1	-7,4	-13,5	-10,3	-7,6	-0,7	55,3	-4,4	0,020	0,005	0,043
Q590005 (KROGBAEK_DK1)	3507,4	-59,9	167,1	8,4	-24,4	-18,8	4,2	8,5	2,6	4,6	9,7	11,6	61,2	-19,3	0,034	-0,012	0,054
Q590009 (SAVL4_DK1)	12614,0	-23,9	140,4	-3,3	-7,2	-4,7	9,0	5,9	-12,4	-9,2	-4,1	-5,3	53,1	-11,4	0,037	-0,002	0,217

KNMI-RACMO RCP8.5 2071-2100 median

Økologisk flow- Ringkøbing Fjord	Chainage	Min	Max	Average	Q95	Q90	Q75	Q50	Q25	Q10	Q05	Q01	Q001	MedianMin	DFFV EQR	DVFI EQR	DVPI EQR
	[m]	%	%	%	%	%	%	%	%	%	%	%	%	%	eqr ændring	eqr ændring	eqr ændring
Q250018 (SKJERN_AA)	-3774,2	1,8	1,6	12,1	2,2	3,9	7,4	10,2	12,7	15,5	19,7	35,0	35,0	3,2	0,108	-0,003	0,068
Q250019 (SDR_OMME_AA)	-30499,5	-7,1	10,1	15,6	-2,9	0,1	5,8	11,8	13,1	17,6	25,8	48,6	32,4	0,7	0,057	-0,018	0,014
Q250020 (HOLTUM_AA)	-3881,3	-8,7	59,0	13,6	0,1	2,3	7,5	11,9	15,9	18,5	24,0	37,1	41,6	0,3	0,015	-0,022	0,010
Q250021 (BRANDE_AA)	4800,0	-1,8	11,1	15,1	-3,2	-3,4	2,3	11,3	11,4	19,6	26,7	40,4	32,5	-2,5	0,057	-0,008	0,008
Q250075 (HOVER_AA)	17291,6	4,5	83,0	8,7	-1,9	-0,7	4,4	7,4	7,5	14,4	18,7	28,4	18,7	-0,2	0,046	-0,005	-0,001
Q250078 (SDR_OMME_AA)	26500,5	-10,2	32,8	7,5	-9,1	-8,2	-1,7	4,8	6,0	13,5	21,6	31,2	28,4	-7,6	0,116	-0,006	0,040
Q250082 (SKJERN_AA)	53702,5	-6,4	26,4	8,5	-4,7	-4,1	1,6	5,8	8,5	14,6	21,0	30,7	31,5	-5,3	0,086	0,000	0,041
Q250086 (TIM_AA)	18537,4	3,3	51,8	8,5	-2,6	-1,3	3,2	7,8	7,0	13,4	19,4	28,4	23,4	-0,6	0,017	-0,011	0,015
Q250087 (VENNER_AA)	4623,0	49,7	28,4	31,4	32,4	33,3	36,2	34,9	23,9	29,6	37,3	42,5	32,0	27,0	-0,027	0,029	-0,017

Økologisk flow- Midtsjælland	Chainage	Min	Max	Average	Q95	Q90	Q75	Q50	Q25	Q10	Q05	Q01	Q001	MedianMin	DFFV EQR	DVFI EQR	DVPI EQR
	[m]	%	%	%	%	%	%	%	%	%	%	%	%	%	eqr ændring	eqr ændring	eqr ændring
Q520068 (LAVRINGE_AA_DK1)	10,7	-9,5	556,3	22,1	-12,2	-6,3	1,8	10,2	20,1	25,0	33,5	62,2	169,4	-8,5	-0,078	-0,035	-0,026
Q530026 (SKENSVED_AA_DK1)	4314,0	-17,9	233,2	18,8	-14,4	-9,6	0,5	18,2	0,7	5,0	16,9	49,6	155,4	-16,9	-0,040	-0,007	0,190
Q570047 (RINGSTED_AA_DK1)	20320,0	-29,8	393,6	19,0	-22,9	-14,4	-4,8	4,4	13,5	20,4	33,1	72,9	181,6	-18,1	-0,039	-0,028	-0,018
Q570056 (SUSAA_DK1)	17845,3	-13,8	335,4	40,3	-9,0	1,2	13,4	26,9	35,9	36,5	48,5	83,8	197,9	-6,8	-0,024	-0,021	0,009
Q580025 (SLUMMINGE_AA_DK1)	14739,0	-25,9	385,1	38,2	-18,0	-9,6	4,2	29,5	29,7	22,2	31,3	65,3	162,4	-15,4	-0,045	-0,013	-0,026
Q580047 (KOEGE_AA_DK1)	12787,0	-7,9	435,2	35,9	-7,7	-1,0	6,5	20,6	27,9	26,8	36,1	69,7	185,1	-5,5	-0,064	-0,018	0,013
Q590005 (KROGBAEK_DK1)	3507,4	-58,0	345,9	36,2	-36,9	-25,1	-5,6	23,8	24,5	32,2	45,4	86,6	217,4	-33,9	-0,045	-0,020	0,045
Q590009 (SAVL4_DK1)	12614,0	-16,7	341,8	35,8	-4,3	0,9	21,0	34,4	27,0	24,0	34,4	61,6	156,3	-1,0	-0,021	-0,007	0,145

DMI-HIRHAM RCP8.5 2071-2100 dry

Økologisk flow- Ringkøbing Fjord	Chainage	Min	Max	Average	Q95	Q90	Q75	Q50	Q25	Q10	Q05	Q01	Q001	MedianMin	DFV EQR	DVFI EQR	DVPI EQR
	[m]	%	%	%	%	%	%	%	%	%	%	%	%	%	eqr ændring	eqr ændring	eqr ændring
Q250018 (SKJERN_AA)	-3774,2	-5,8	7,4	0,9	-2,9	-2,6	0,1	-2,3	-0,8	5,0	6,1	15,8	30,1	-4,2	-0,038	0,018	-0,028
Q250019 (SDR_OMME_AA)	-30499,5	-15,2	27,1	-0,6	-7,6	-5,6	-3,0	-7,3	-4,2	3,1	3,3	17,2	48,0	-5,9	0,022	0,015	-0,013
Q250020 (HOLTUM_AA)	-3881,3	-13,5	10,9	2,4	-3,9	-2,1	-0,6	-0,6	2,1	6,3	10,8	16,9	28,9	-6,5	-0,038	0,031	-0,039
Q250021 (BRANDE_AA)	4800,0	-21,0	45,0	1,9	-7,7	-3,9	-2,9	-7,5	-0,2	7,6	8,6	19,3	24,8	-2,8	-0,015	0,012	-0,024
Q250075 (HOVER_AA)	17291,6	-18,1	77,8	-2,3	-8,4	-6,8	-4,0	-4,7	-2,2	1,0	2,2	9,5	41,7	-4,9	-0,035	0,002	-0,106
Q250078 (SDR_OMME_AA)	26500,5	-24,3	41,3	-2,1	-12,5	-9,6	-6,7	-8,3	-1,0	5,0	4,4	14,4	37,3	-7,1	-0,129	0,007	-0,073
Q250082 (SKJERN_AA)	53702,5	-19,4	23,7	0,6	-8,6	-5,6	-2,5	-3,7	0,9	6,2	6,6	15,1	31,3	-3,7	-0,074	0,002	-0,047
Q250086 (TIM_AA)	18537,4	-11,7	86,3	-1,4	-6,0	-5,3	-3,0	-4,5	-1,3	1,1	2,4	11,1	37,5	-5,1	-0,039	-0,005	-0,042
Q250087 (VENNER_AA)	4623,0	9,8	101,8	19,0	22,8	26,3	25,2	17,6	14,5	17,9	21,1	24,3	50,8	25,9	-0,075	0,021	-0,047

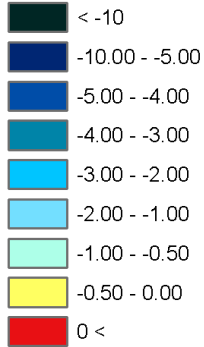
A20. Depth to phreatic surface Ringkøbing / Midtjylland for four scenarios

Mid-Zealand catchment

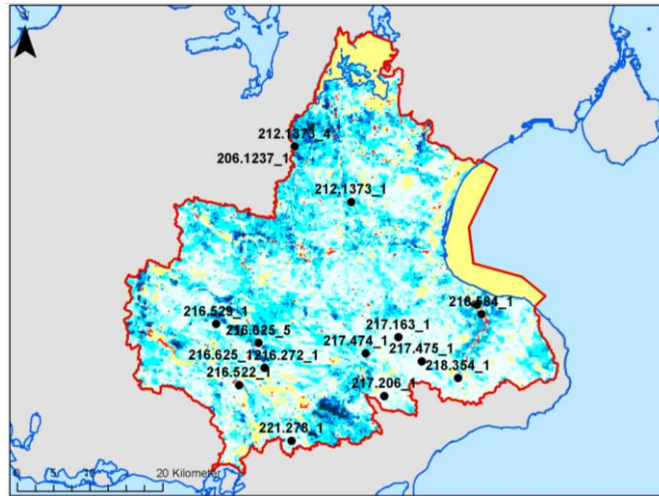
Signaturforklaring

Dybden til grundvandsstanden

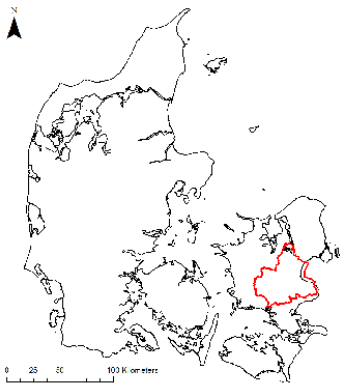
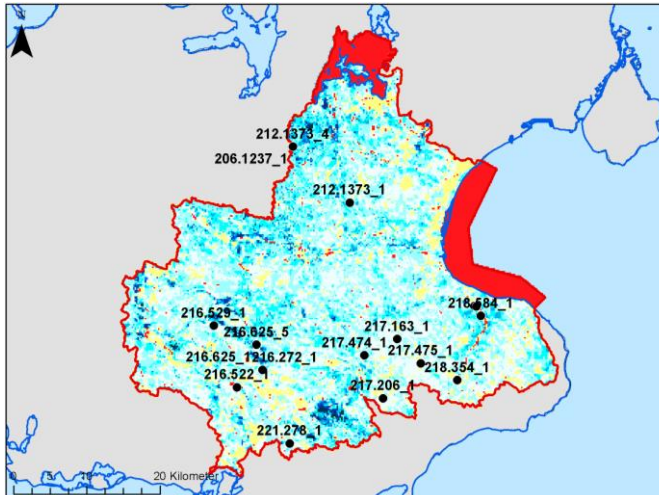
m.o.t.



RCP 8.5 wet climate model - 1981-2010



RCP 8.5 wet climate model - 2071-2100



Stigning i wet climate model

Signaturforklaring

Stigning i grundvandsstanden

[m]

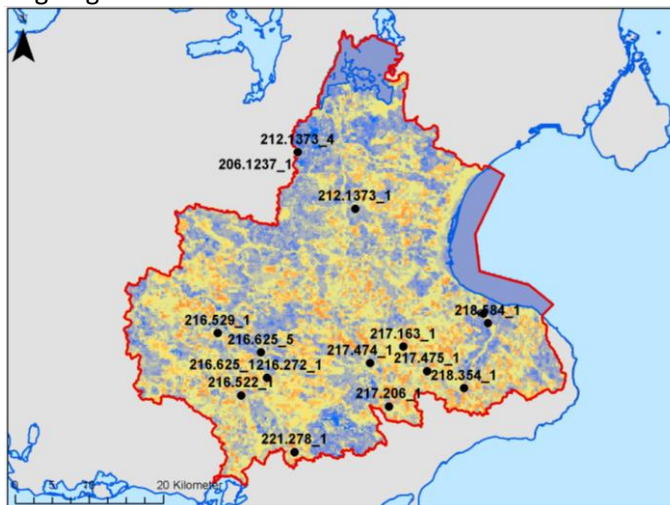
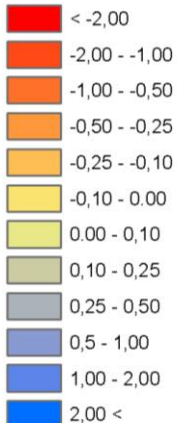
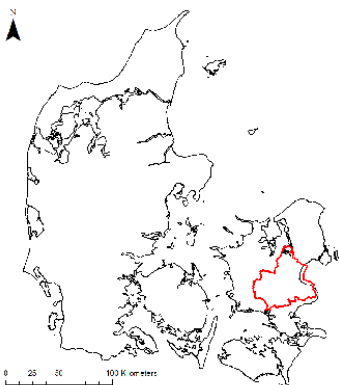
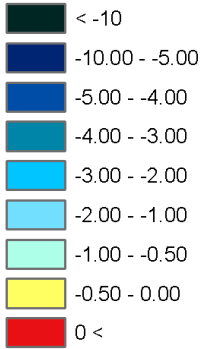


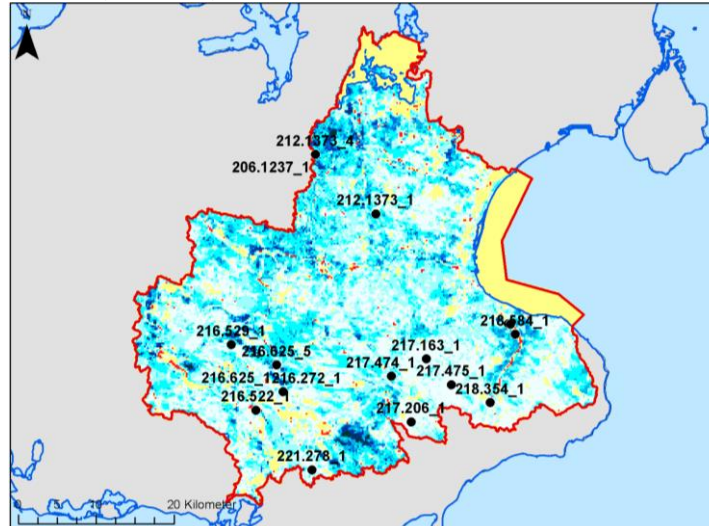
Figure A20-1: Mean depth to shallow groundwater table (Phreatic depth - m) for the wet model in Mid-Zealand catchment. Top: Mean depth to shallow groundwater table in 1981-2010. Median: Mean depth to shallow groundwater table 2071-2100. Bottom: Change in shallow groundwater level. In the projection to future climate a sea level rise of 1 m has been incorporated in the modelling of groundwater level and flow.

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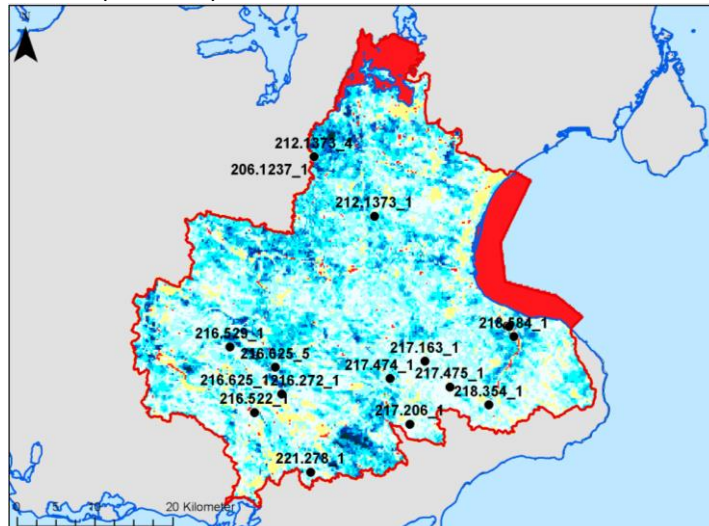
Dybden til grundvandsstanden m.o.t.



RCP4.5 (HIRHAM) - 1981-2010

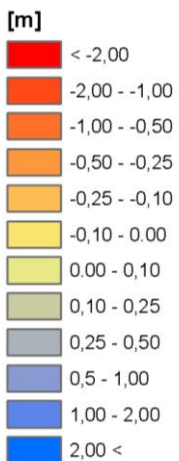


RCP4.5 (HIRHAM) - 2041-2070



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Stigning i grundvandsstanden [m]



Stigning i RCP4.5 (HIRHAM)

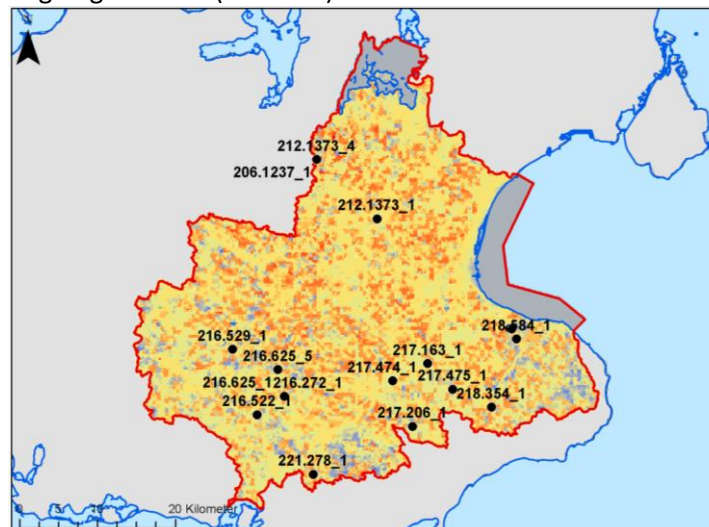
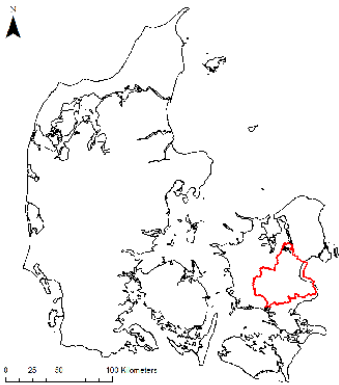
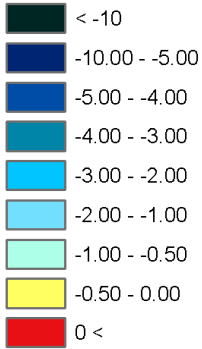


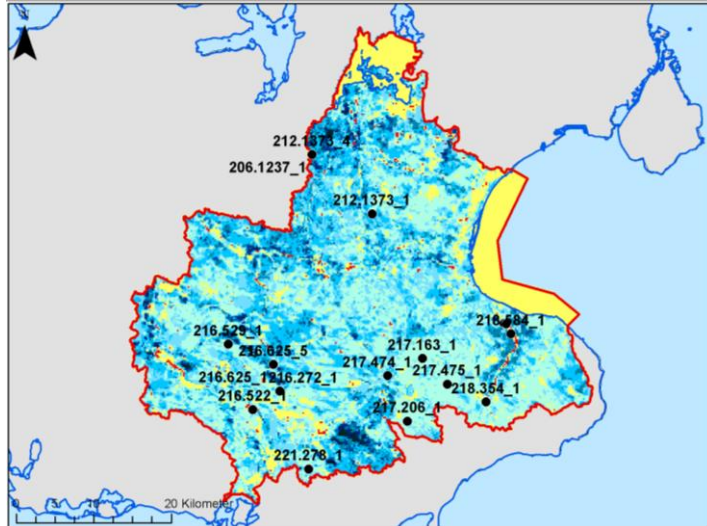
Figure A20-2: Mean depth to shallow groundwater table (Phreatic depth - m) for the RCP 4.5 climate model in Mid-Zealand catchment. Top: Mean depth to shallow groundwater table in 1981-2010. Median: Mean depth to shallow groundwater table 2071-2100. Bottom: Change in shallow groundwater level. In the projection to future climate a sea level rise of 0,5 m has been incorporated in the modelling of groundwater level and flow.

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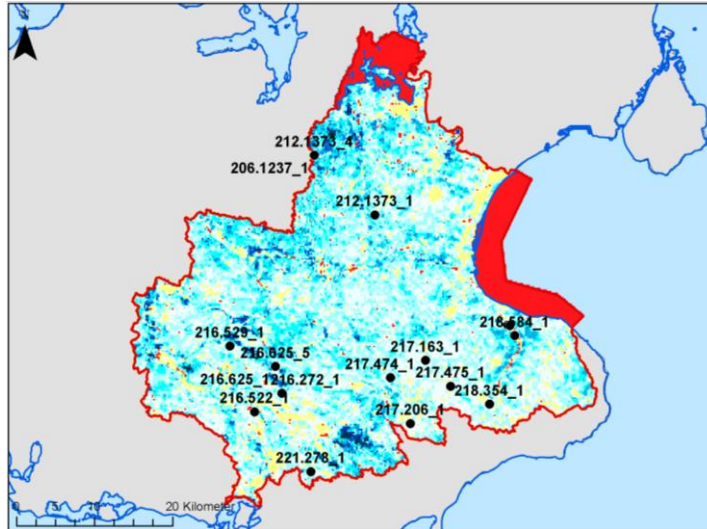
**Dybden til grundvandsstanden
m.o.t.**



RCP 8.5 median climate model - 1981-2010

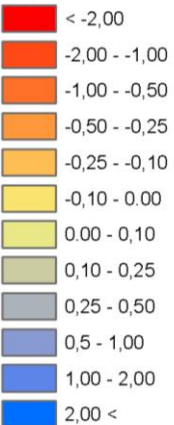


RCP 8.5 median climate model - 2071-2100



Signaturforklaring

**Stigning i grundvandsstanden
[m]**



Stigning i RCP 8.5 median climate model

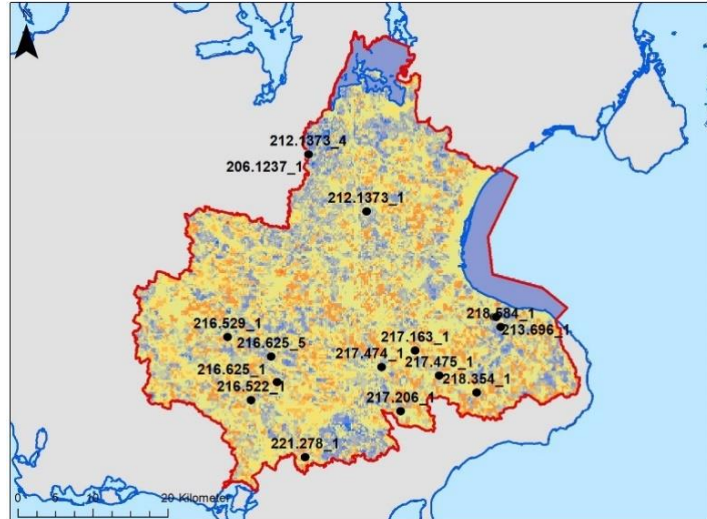
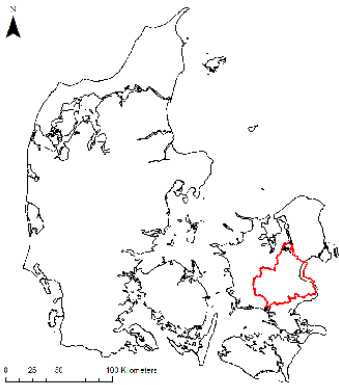
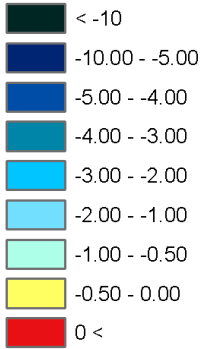


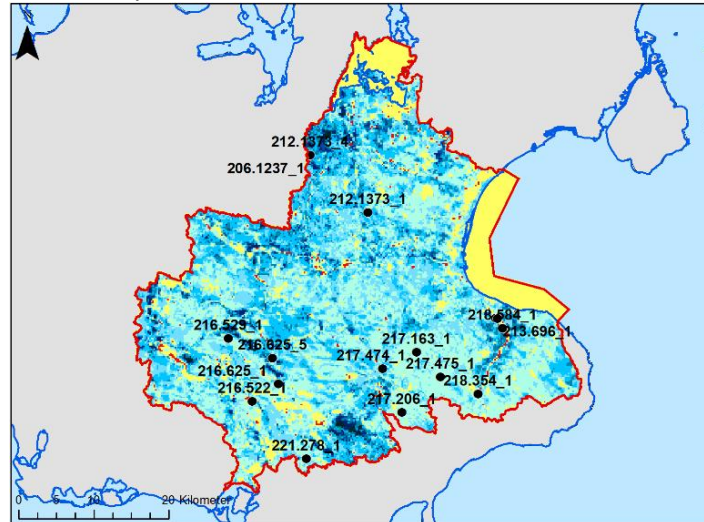
Figure A20-3: Mean depth to shallow groundwater table (Phreatic depth - m) for the median model in Mid-Zealand catchment. Top: Mean depth to shallow groundwater table in 1981-2010. Median: Mean depth to shallow groundwater table 2071-2100. Bottom: Change in shallow groundwater level. In the projection to future climate a sea level rise of 1 m has been incorporated in the modelling of groundwater level and flow.

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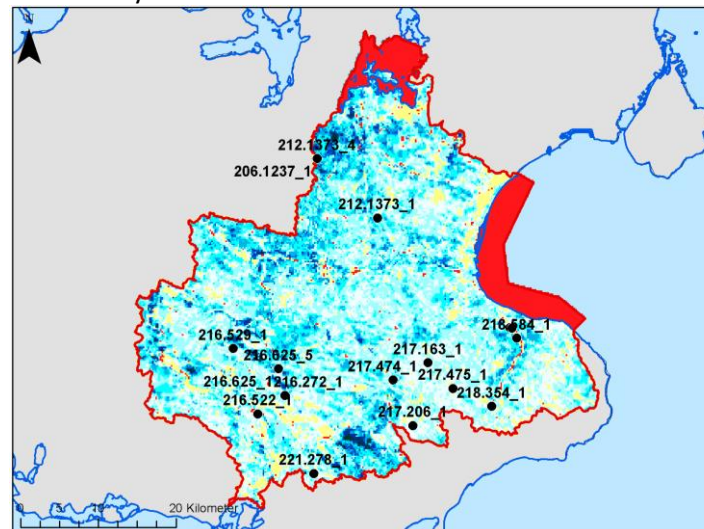
Dybden til grundvandsstanden m.o.t.



RCP 8.5 dry climate model - 1981-2010

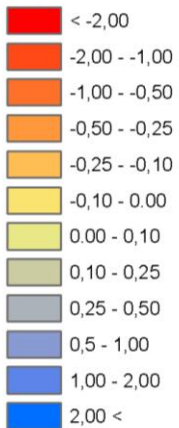


RCP 8.5 dry climate model - 2071-2100



Signaturforklaring

Stigning i grundvandsstanden [m]



Stigning i RCP 8.5 dry climate model

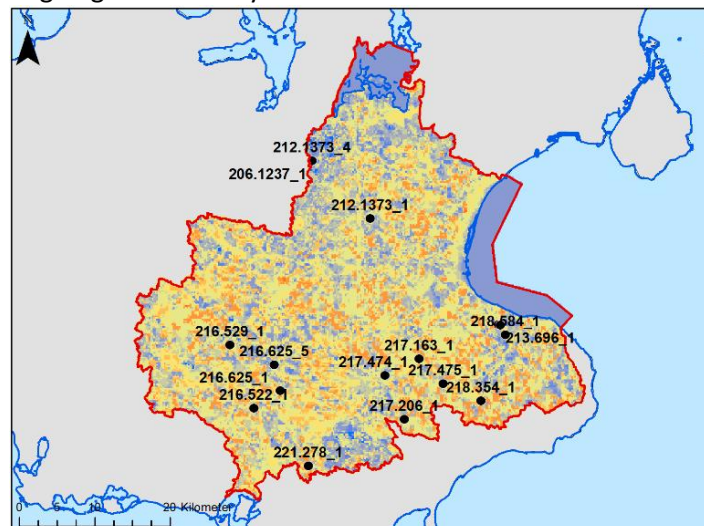
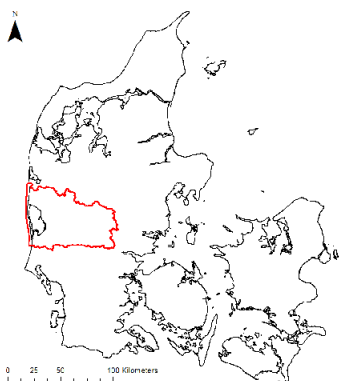
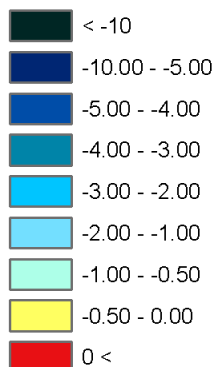


Figure A20-4: Mean depth to shallow groundwater table (Phreatic depth - m) for the dry model in Mid-Zealand catchment. Top: Mean depth to shallow groundwater table in 1981-2010. Median: Mean depth to shallow groundwater table 2071-2100. Bottom: Change in shallow groundwater level. In the projection to future climate a sea level rise of 1 m has been incorporated in the modelling of groundwater level and flow.

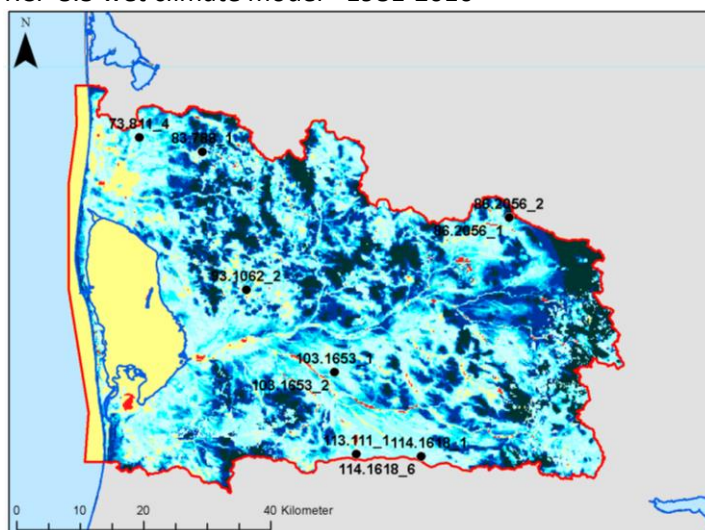
Ringkøbing fjord catchment

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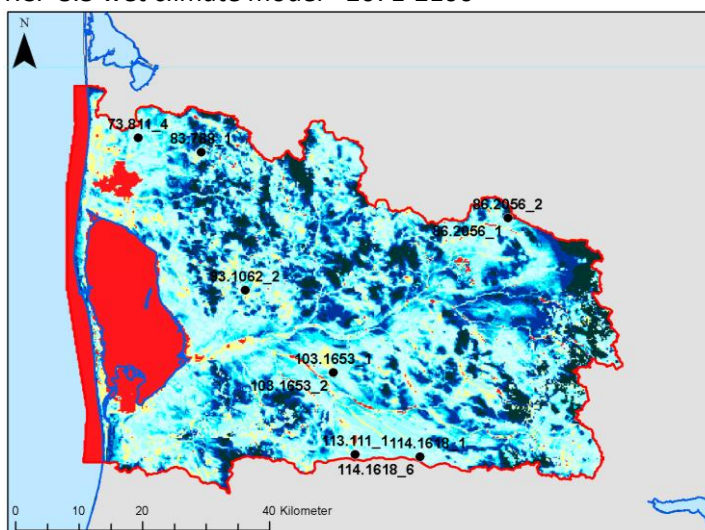
Dybden til grundvandsstanden m.o.t.



RCP 8.5 wet climate model - 1981-2010

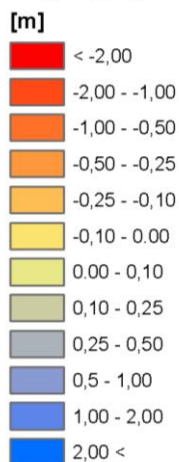


RCP 8.5 wet climate model - 2071-2100



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Stigning i grundvandsstanden [m]



Stigning i RCP 8.5 wet climate model

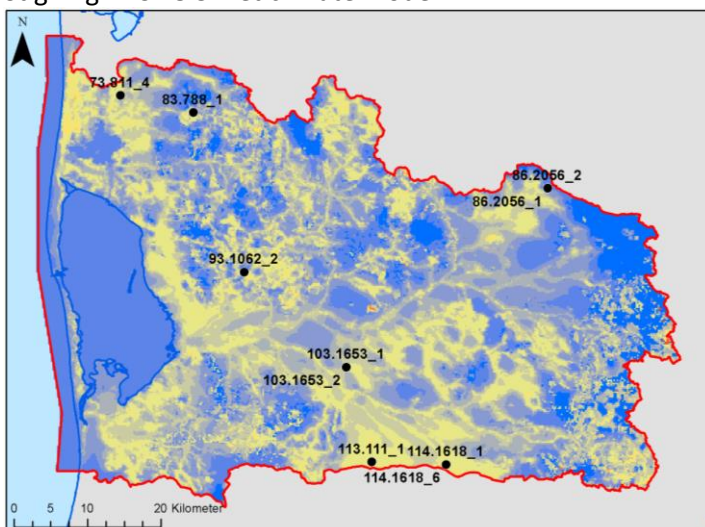
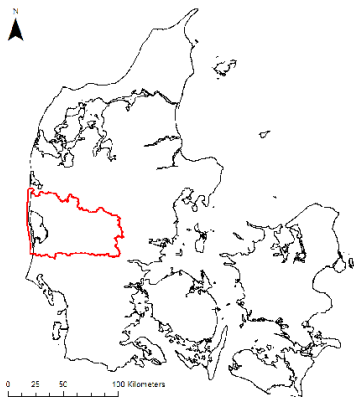
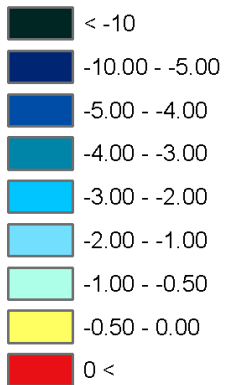


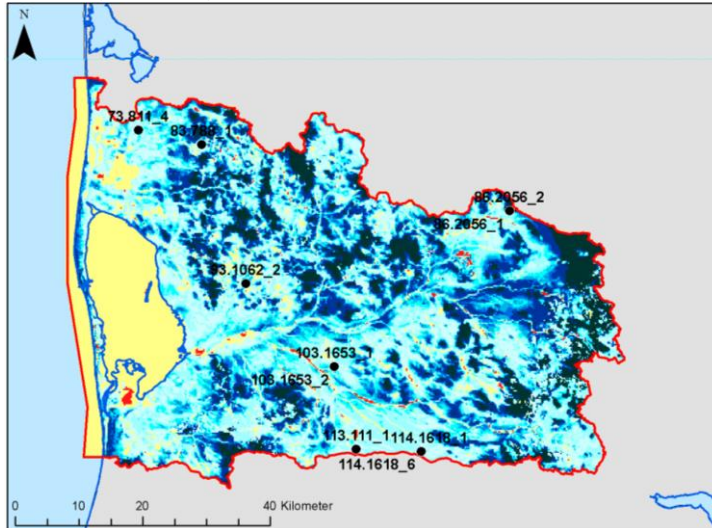
Figure A20-5: Mean depth to shallow groundwater table (Phreatic depth - m) for the wet model in Ringkøbing fjord catchment. Top: Mean depth to shallow groundwater table in 1981-2010. Median: Mean depth to shallow groundwater table 2071-2100. Bottom: Change in shallow groundwater level. In the projection to future climate a sea level rise of 1 m has been incorporated in the modelling of groundwater level and flow.

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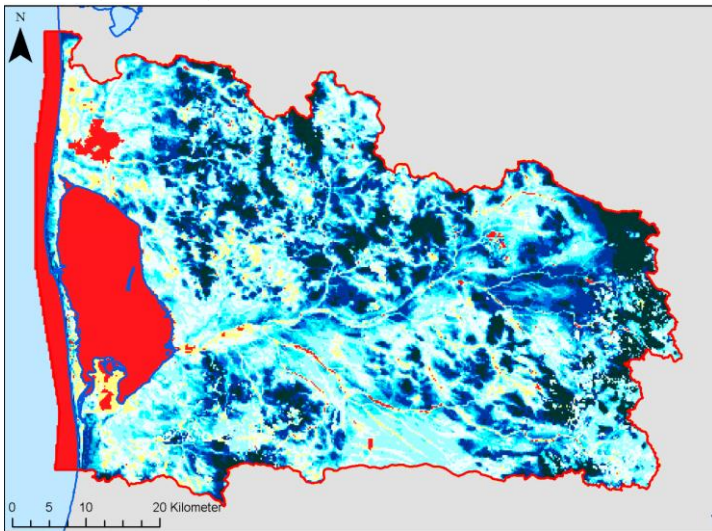
Dybden til grundvandsstanden m.o.t.



RCP4.5 (HIRHAM) - 1981-2010

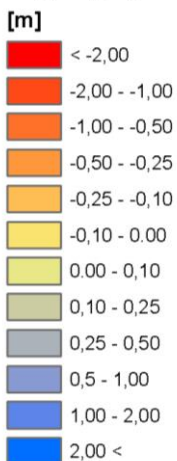


RCP4.5 (HIRHAM) - 2041-2070



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Stigning i grundvandsstanden [m]



Stigning i RCP4.5 (HIRHAM)

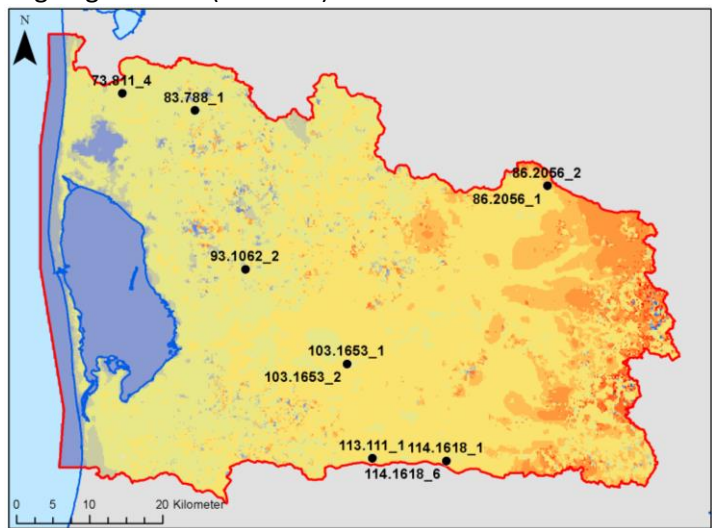
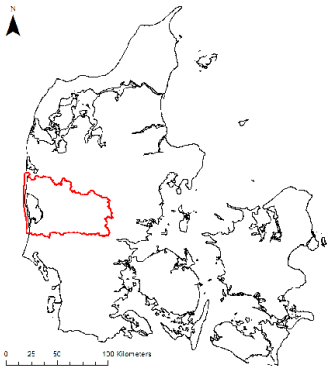
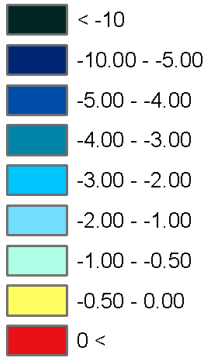


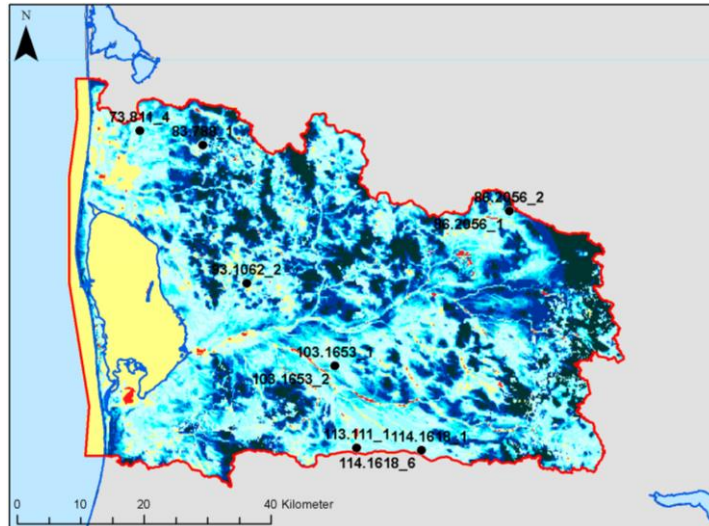
Figure A20-6: Mean depth to shallow groundwater table (Phreatic depth - m) for the RCP 4. 5 climate model in Ringkøbing fjord catchment. Top: Mean depth to shallow groundwater table in 1981-2010. Median: Mean depth to shallow groundwater table 2071-2100. Bottom: Change in shallow groundwater level. In the projection to future climate a sea level rise of 1 m has been incorporated in the modelling of groundwater level and flow.

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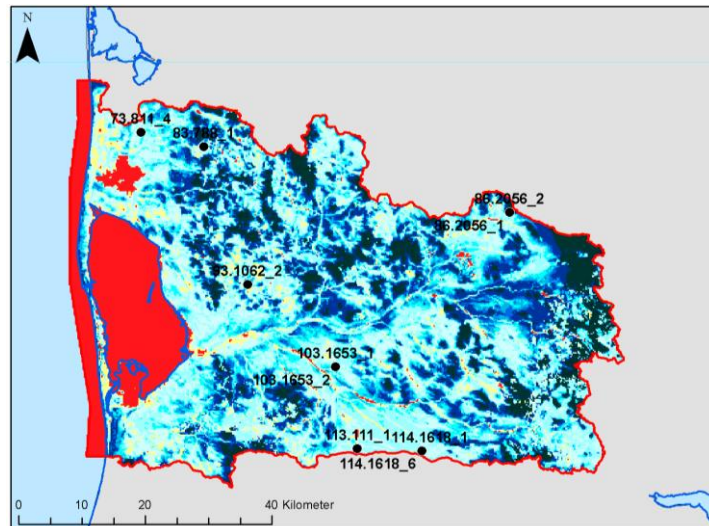
Dybden til grundvandsstanden
m.o.t.



RCP 8.5 median climate model - 1981-2010

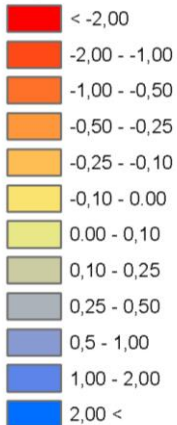


RCP 8.5 median climate model - 2071-2100



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Stigning i grundvandsstanden
[m]



Stigning i RCP 8.5 median

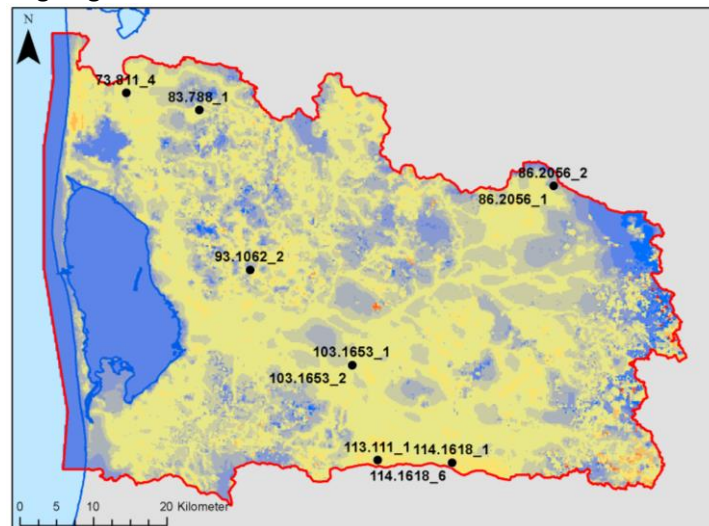
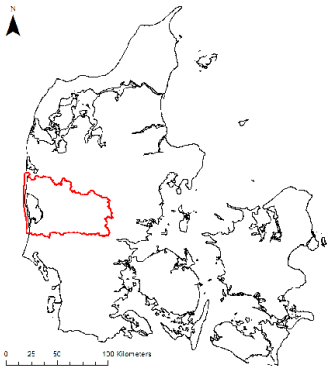
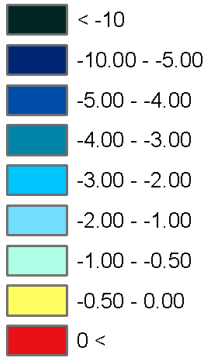


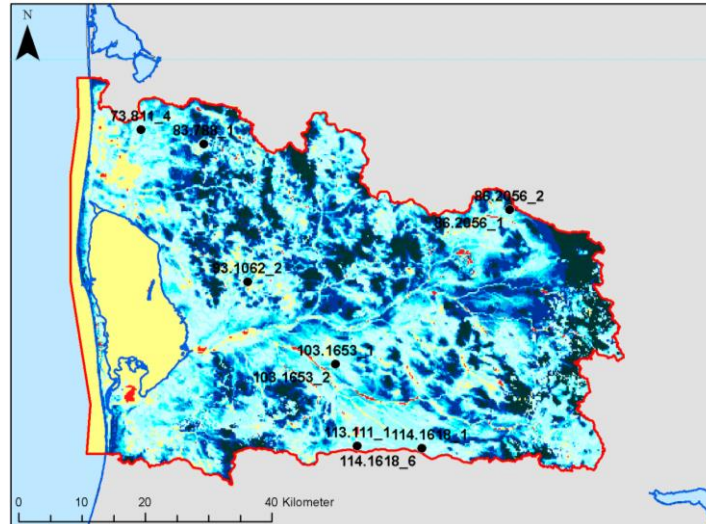
Figure A20-7: Mean depth to shallow groundwater table (Phreatic depth - m) for the median model in Ringkøbing fjord catchment. Top: Mean depth to shallow groundwater table in 1981-2010. Median: Mean depth to shallow groundwater table 2071-2100. Bottom: Change in shallow groundwater level. In the projection to future climate a sea level rise of 1 m has been incorporated in the modelling of groundwater level and flow.

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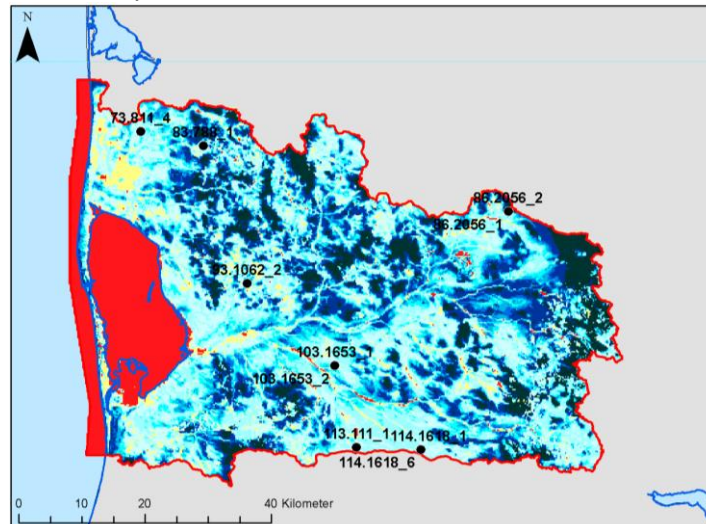
Dybden til grundvandsstanden
m.o.t.



RCP 8.5 dry climate model - 1981-2010

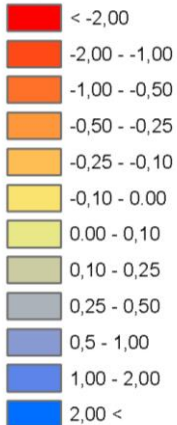


RCP 8.5 dry climate model - 2071-2100



Signaturforklaring

Stigning i grundvandsstanden
[m]



Stigning i RCP 8.5 dry climate model

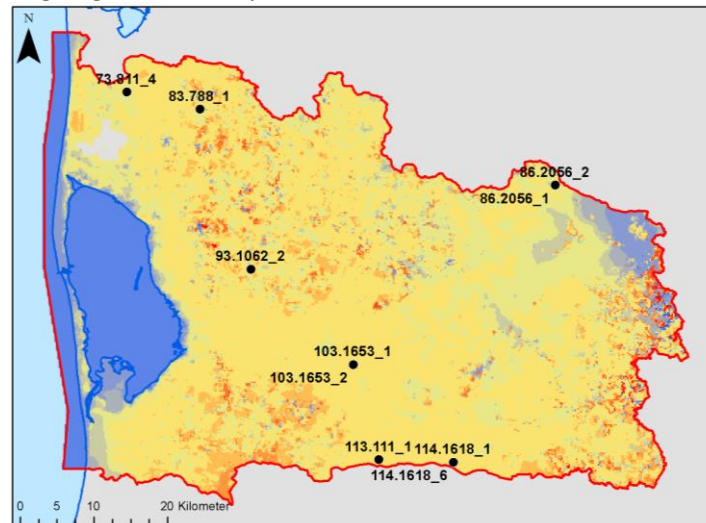


Figure A20-8: Mean depth to shallow groundwater table (Phreatic depth - m) for the dry model in Ringkøbing fjord catchment. Top: Mean depth to shallow groundwater table in 1981-2010. Median: Mean depth to shallow groundwater table 2071-2100. Bottom: Change in shallow groundwater level. In the projection to future climate a sea level rise of 1 m has been incorporated in the modelling of groundwater level and flow.