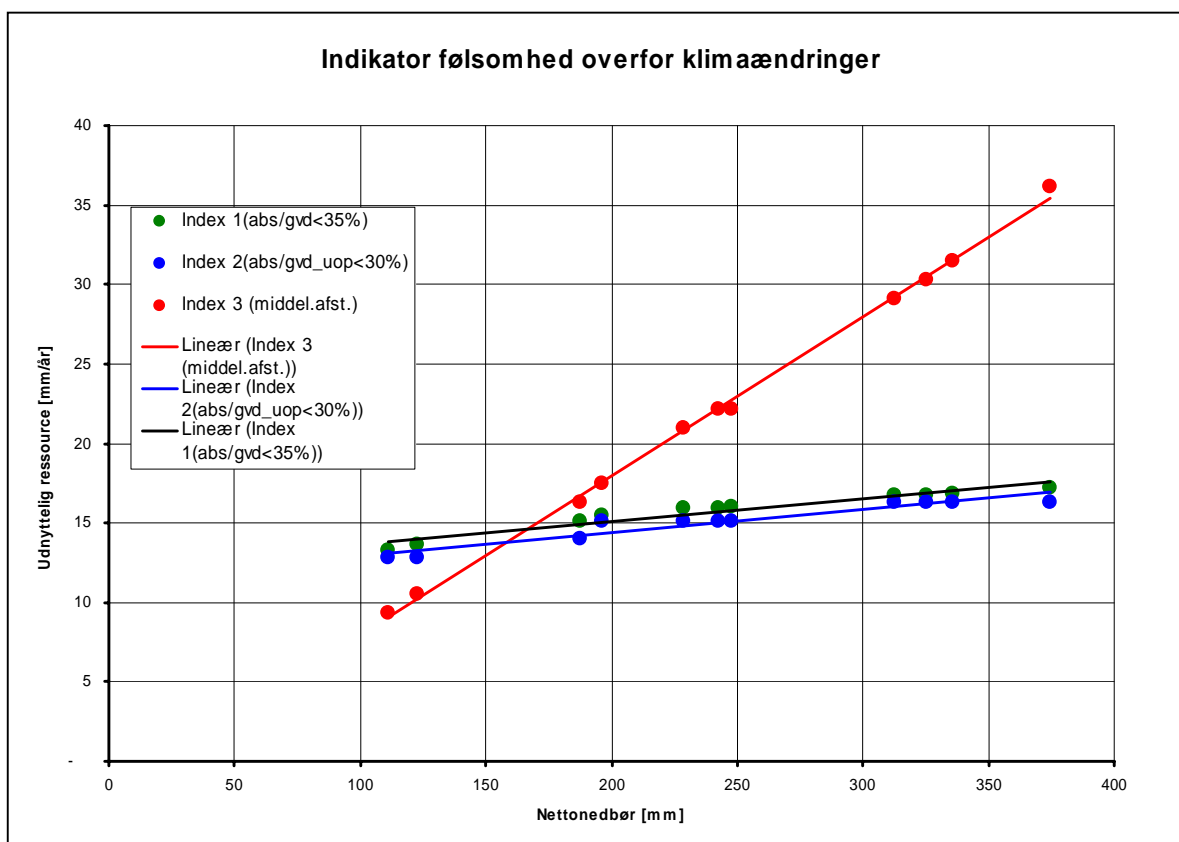


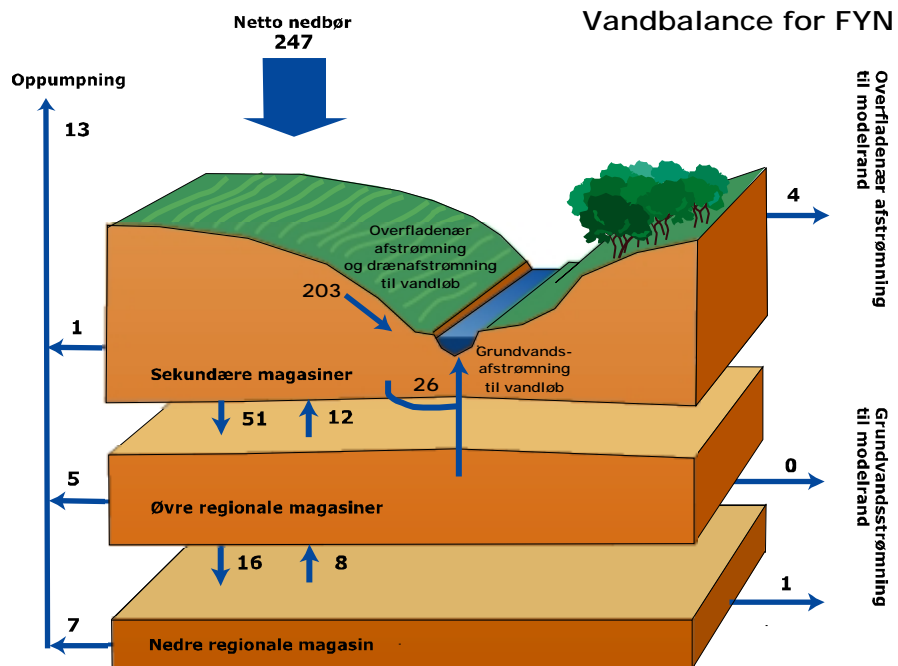
Bilag 1 Delopland Fyn

Område	Opgørelse af grundvandsdannelse Indikator 1 og 2						
	fyn	OSD	fyn-vp1	fyn-vp2	fyn-vp3	fyn-vp4	fyn-vp5
Basis parametre for områderne							
Nedbør [mm/år]	248	247	237	259	250	268	224
Areal [km ²]	2945	1904	311	458	1038	530	608
Ref-abs [mm/år]	11.7	15.4	13.0	6.7	18.2	6.7	7.9
Ref-abs [Mm ³ /år]	34.3	29.3	4.0	3.1	18.9	3.5	4.8
Indvinding [% af ref-abs]	Resulterende grundvandsdannelse som følge af ændret indvinding [mm/år]						
0%	11.5	13.3	8.3	9.6	9.1	11.7	18.4
50%	13.3	15.5	9.6	10.4	12.5	12.1	19.6
80%	14.6	17.2	10.6	11.0	15.2	12.4	20.4
100%	15.6	18.4	11.2	11.4	17.3	12.6	20.9
120%	16.7	19.7	11.9	11.8	19.5	12.9	21.5
150%	18.4	21.6	13.1	12.6	22.9	13.2	22.4
	%vis ændring af grundvandsdannelsen i forhold til den upåvirkede situation						
50%	16%	17%	16%	9%	38%	4%	7%
80%	28%	30%	27%	14%	68%	6%	11%
100%	36%	39%	35%	19%	91%	8%	14%
120%	46%	48%	43%	23%	115%	10%	17%
150%	61%	63%	58%	31%	153%	13%	22%
	Resulterende udnyttelsesgrad (Indikator 2) (abs/gvd)						
50%	44%	50%	67%	32%	73%	27%	20%
80%	64%	72%	98%	49%	96%	43%	31%
100%	75%	84%	116%	59%	105%	53%	38%
120%	84%	94%	130%	68%	112%	62%	44%
150%	95%	107%	148%	80%	119%	76%	53%
	Udnyttelses potentiale ved udnyttelsesgrad på 35% (Indikator 1) (abs/gvd_upåvirket)						
Teoretisk udnyttelse [%]	34%	30%	22%	50%	17%	61%	81%
Pot.abs [Mm ³ /år]	11.8	8.8	0.9	1.5	3.3	2.2	3.9



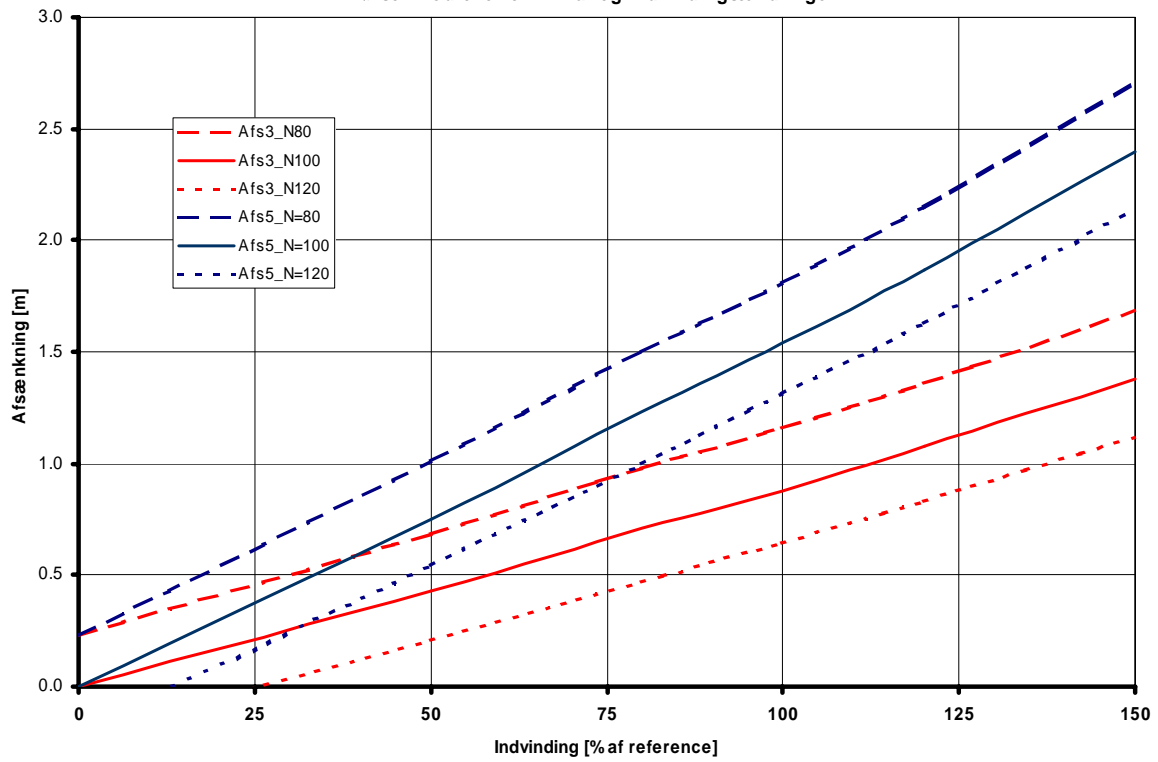
Opgørelse af vandførings Indikator 3 og 4

	Samlet afs	Minimums vandføring efter vandløbskrav					
	med.min	A	B1	B2	B3	CE	X
fyn							
Areal	2945 km ²	4%	45%	0%	39%	13%	0%
Afstrømning [%]	4.17 m ³ /s	11%	57%	0%	28%	5%	0%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	7%	2%	7%	-	8%	9%	-
abs_100%	11%	3%	11%	-	13%	15%	-
abs_150%	18%	6%	18%	-	21%	23%	-
fyn-drik1							
Areal	1904 km ²	4%	47%	0%	37%	12%	0%
Afstrømning [%]	2.22 m ³ /s	11%	58%	0%	27%	3%	0%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	8%	2%	10%	-	8%	12%	-
abs_100%	14%	4%	16%	-	13%	19%	-
abs_150%	21%	7%	24%	-	21%	26%	-
fyn-vp1							
Areal	311 km ²	9%	46%	0%	32%	13%	0%
Afstrømning [%]	0.59 m ³ /s	23%	44%	0%	24%	9%	0%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	5%	2%	6%	-	5%	12%	-
abs_100%	9%	3%	10%	-	9%	22%	-
abs_150%	16%	7%	17%	-	16%	35%	-
fyn-vp2							
Areal	458 km ²	5%	50%	0%	37%	8%	0%
Afstrømning [%]	0.93 m ³ /s	12%	55%	0%	31%	3%	0%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	4%	2%	4%	-	6%	2%	-
abs_100%	6%	3%	4%	-	10%	1%	-
abs_150%	13%	5%	12%	-	19%	7%	-
fyn-vp3							
Areal	1038 km ²	1%	47%	0%	40%	12%	0%
Afstrømning [%]	1.17 m ³ /s	1%	67%	0%	27%	6%	0%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	14%	13%	13%	-	15%	11%	-
abs_100%	23%	24%	23%	-	24%	18%	-
abs_150%	33%	39%	32%	-	34%	26%	-
fyn-vp4							
Areal	530 km ²	2%	39%	0%	43%	16%	0%
Afstrømning [%]	0.64 m ³ /s	2%	40%	0%	52%	6%	0%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	3%	4%	3%	-	3%	3%	-
abs_100%	6%	7%	6%	-	6%	6%	-
abs_150%	10%	11%	9%	-	10%	9%	-
fyn-vp5							
Areal	608 km ²	7%	44%	0%	36%	13%	0%
Afstrømning [%]	0.83 m ³ /s	21%	67%	0%	10%	1%	0%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	3%	1%	2%	-	11%	16%	-
abs_100%	6%	2%	4%	-	20%	27%	-
abs_150%	9%	4%	7%	-	29%	37%	-



WBL	Lag	Nettonedbør	Rand-ind	Rand-ud	Storage	GVD	Indvinding	Dræn	Baseflow	Error
fyn-grd-dyn 1991 - 2000	1	-237.6	0.0	4.0	-1.8	0.0	0.4	199.0	12.9	0.0
	2	0.1	0.0	0.1	-1.3	53.9	0.5	0.0	4.6	0.0
	3	0.0	0.0	0.6	-0.1	51.5	4.3	0.0	4.8	0.0
	4	0.0	0.0	0.0	-0.1	16.4	0.6	0.0	0.8	0.0
	5	0.0	0.0	0.3	0.0	15.6	6.1	0.0	0.0	0.0
	6	0.0	0.0	0.0	0.0	4.8	0.1	0.0	0.1	0.0
	7	0.0	0.0	0.6	-0.1	4.4	0.9	0.0	0.2	0.0
fyn-grd-stat 1991 - 2000	1	-247.1	0.0	4.0	0.0	0.0	0.4	202.5	15.6	0.0
	2	0.0	0.0	0.1	0.0	54.8	0.4	0.0	4.8	0.0
	3	0.0	0.0	0.6	0.0	51.3	4.3	0.0	4.7	0.0
	4	0.0	0.0	0.0	0.0	16.4	0.6	0.0	0.7	0.0
	5	0.0	0.0	0.4	0.0	15.6	6.1	0.0	0.1	0.0
	6	0.0	0.0	0.0	0.0	4.7	0.1	0.0	0.1	0.0
	7	0.0	0.0	0.6	0.0	4.5	0.9	0.0	0.2	0.0
1991	1	-187.0	0.0	3.7	0.0	0.0	0.4	146.7	12.8	0.0
	2	0.0	0.0	0.1	0.0	51.5	0.4	0.0	4.3	0.0
	3	0.0	0.0	0.5	0.0	48.4	4.3	0.0	4.3	0.0
	4	0.0	0.0	0.0	0.0	16.0	0.6	0.0	0.6	0.0
	5	0.0	0.0	0.3	0.0	15.3	6.1	0.0	0.1	0.0
	6	0.0	0.0	0.0	0.0	4.5	0.1	0.0	0.1	0.0
	7	0.0	0.0	0.6	0.0	4.3	0.9	0.0	0.2	0.0

Afsænkinger følsomhed overfor klima- og indvindingsændringer

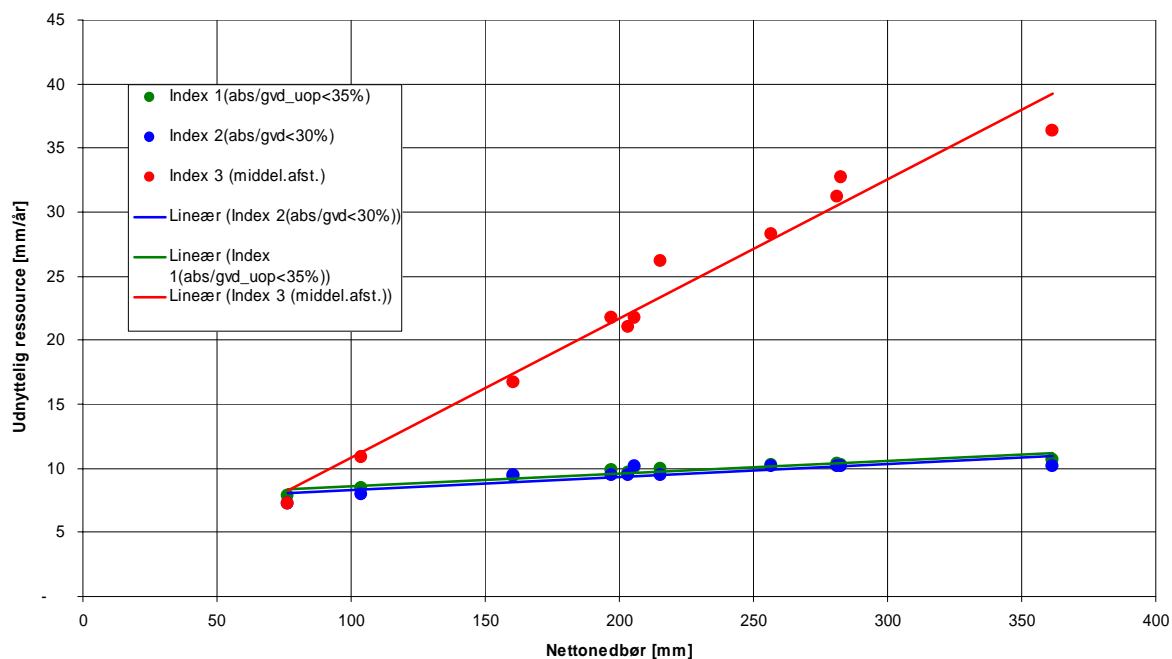


Bilag 2 Delopland Vestsjælland

Opgørelse af grundvandsdannelse Indikator 1 og 2

Område	sjv	OSD	vps1	vps2	vps3	vps4
Nedbør [mm/år]	215	223	214	209	216	225
Areal [km ²]	3281	1688	744	1037	684	804
Ref-abs [mm/år]	7.3	10.0	5.9	4.3	9.4	10.3
Ref-abs [Mm ³ /år]	23.8	16.9	4.4	4.4	6.4	8.2
Indvinding [% af ref-abs]	Resulterende grundvandsdannelse som følge af ændret indvinding [mm/år]					
0%	28.4	28.6	46.2	26.9	20.6	20.2
50%	29.9	30.8	47.1	28.1	22.3	22.6
80%	31.0	32.4	47.7	29.1	23.4	24.2
100%	31.8	33.6	48.1	29.6	24.6	25.4
120%	32.6	34.7	48.9	30.2	25.2	26.6
150%	33.2	35.6	49.1	30.1	26.2	28.4
	%vis ændring af grundvandsdannelsen i forhold til den upåvirkede situation					
50%	6%	8%	2%	4%	8%	12%
80%	9%	13%	3%	8%	14%	20%
100%	12%	17%	4%	10%	20%	26%
120%	15%	21%	6%	12%	22%	32%
150%	17%	25%	6%	12%	27%	41%
	Resulterende udnyttelsesgrad (Indikator 2) (abs/gvd)					
50%	12%	16%	6%	8%	21%	23%
80%	19%	25%	10%	12%	32%	34%
100%	23%	30%	12%	14%	38%	40%
120%	27%	35%	15%	17%	45%	46%
150%	33%	42%	18%	21%	54%	54%
	Udnyttelses potentiale ved udnyttelsesgrad på 35% (Indikator 1) (abs/gvd_upåvirket)					
Teoretisk udnyttelse [%]	137%	100%	273%	222%	77%	69%
Pot.abs [Mm ³ /år]	32.6	16.9	12.0	9.8	4.9	5.7

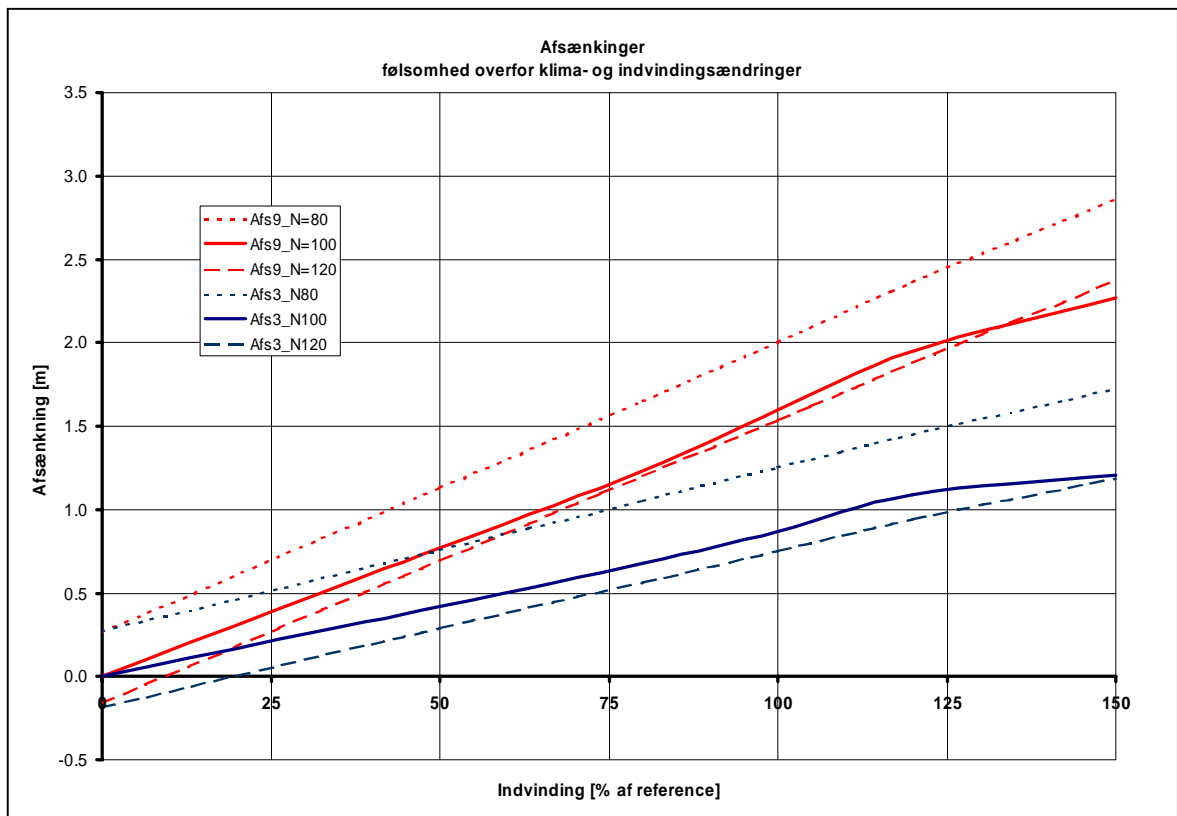
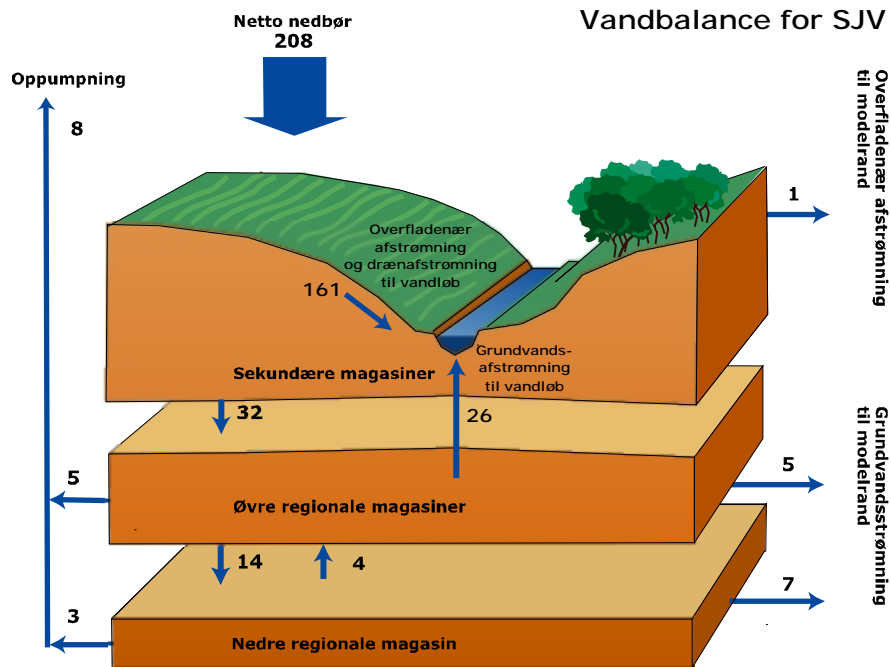
Indikator følsomhed overfor klimaændringer



Opgørelse af vandførings Indikator 3 og 4

Samlet afstrømning Minimums afstrømning efter vandløbskrav

SJV	med.min	middel	A	B1	B2	B3	CE	X
Areal	3281 km ²		9%	32%	3%	37%	12%	7%
Afstrømning [%]	4.29 m ³ /s	20.43 m ³ /s	13%	28%	5%	40%	9%	5%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]								
abs_50%	4%	1%	2%	4%	6%	4%	3%	3%
abs_100%	8%	3%	4%	9%	11%	8%	6%	6%
abs_150%	11%	4%	6%	12%	15%	11%	9%	8%
OSD	med.min	middel	A	B1	B2	B3	CE	X
Areal	1688 km ²		8%	37%	4%	35%	10%	6%
Afstrømning [%]	2.57 m ³ /s	10.80 m ³ /s	7%	36%	7%	40%	6%	4%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]								
abs_50%	4%	2%	2%	5%	6%	5%	4%	3%
abs_100%	9%	4%	3%	9%	11%	10%	9%	6%
abs_150%	12%	5%	5%	12%	15%	13%	12%	9%
VPS1	med.min	middel	A	B1	B2	B3	CE	X
Areal	744 km ²		5%	32%	1%	37%	12%	13%
Afstrømning [%]	0.90 m ³ /s	4.20 m ³ /s	0%	35%	0%	39%	18%	7%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]								
abs_50%	3%	1%	5%	3%	8%	3%	3%	2%
abs_100%	6%	2%	11%	7%	15%	6%	5%	3%
abs_150%	9%	3%	13%	9%	22%	9%	8%	5%
VPS2	med.min	middel	A	B1	B2	B3	CE	X
Areal	1037 km ²		10%	33%	2%	43%	8%	4%
Afstrømning [%]	1.01 m ³ /s	6.09 m ³ /s	10%	35%	1%	50%	2%	3%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]								
abs_50%	3%	1%	2%	4%	8%	3%	7%	2%
abs_100%	6%	2%	5%	8%	17%	6%	13%	3%
abs_150%	9%	3%	6%	10%	23%	8%	17%	4%
VPS3	med.min	middel	A	B1	B2	B3	CE	X
Areal	684 km ²		3%	39%	5%	37%	7%	9%
Afstrømning [%]	0.67 m ³ /s	4.48 m ³ /s	6%	39%	12%	39%	0%	4%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]								
abs_50%	6%	2%	1%	6%	6%	6%	8%	-
abs_100%	12%	3%	2%	13%	13%	11%	16%	-
abs_150%	16%	5%	3%	18%	16%	16%	19%	-
VPS4	med.min	middel	A	B1	B2	B3	CE	X
Areal	804 km ²		16%	24%	4%	31%	19%	6%
Afstrømning [%]	1.70 m ³ /s	5.61 m ³ /s	25%	17%	6%	36%	12%	5%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]								
abs_50%	4%	2%	2%	5%	5%	5%	3%	1%
abs_100%	8%	4%	4%	9%	9%	10%	7%	3%
abs_150%	11%	6%	6%	13%	13%	14%	10%	4%

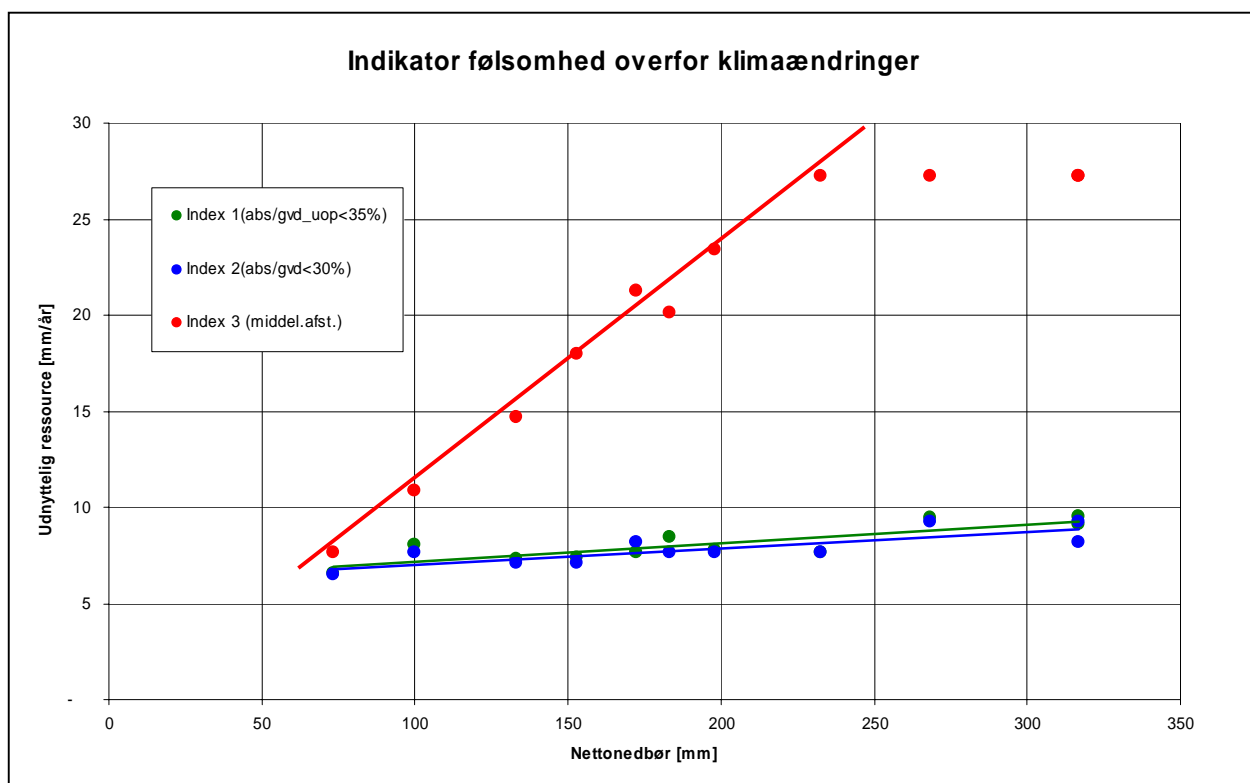


Vandbalance opsummeret										
	Lag	Nettonedbør	Rand-ind	Rand-ud	Storage	GVD	Indvinding	Dræn	Baseflow	Vandføring
Dynamisk	samlet	207.9	0.7	2.4	-0.9	37.5	7.9	160.8	26.4	187.2
	3		0.1	4.7	0.0	33.2	4.7			
	9		0.4	7.8	0.0	13.8	3.2			
Stationært	samlet	212.7	0.5	15.6	0.0	32.1	7.1	177.0	13.6	190.6
	3		0.1	5.2	0.0	31.7	3.9			
	9		0.4	8.5	0.0	14.1	3.2			
WBL	Lag	Nettonedbør	Rand-ind	Rand-ud	Storage	GVD	Indvinding	Dræn	Baseflow	Error
sjv-grd-dyn										
1991 - 2000	1	-208.1	0.7	2.2	-1.3	0.0	0.0	160.8	15.1	0.0
	2	0.2	0.0	0.2	0.3	37.5	0.0	0.0	4.9	0.0
	3	0.0	0.0	1.4	0.0	33.2	1.6	0.0	4.5	0.0
	4	0.0	0.0	0.0	0.0	21.7	0.0	0.0	1.9	0.0
	5	0.0	0.1	2.4	0.0	20.7	2.7	0.0	0.0	0.0
	6	0.0	0.0	0.1	0.0	15.5	0.0	0.0	0.0	0.0
	7	0.0	0.0	0.6	0.0	15.2	0.5	0.0	0.0	0.0
	8	0.0	0.0	0.1	0.0	14.0	0.0	0.0	0.0	0.0
	9	0.0	0.4	7.8	0.0	13.8	3.2	0.0	0.0	0.0
sjv-grd-stat										
1991 - 2000	1	-212.7	0.0	1.6	0.0	0.0	0.0	177.0	9.2	-0.1
	2	0.0	0.0	0.2	0.0	32.1	0.0	0.0	0.3	0.1
	3	0.0	0.0	1.6	0.0	31.7	1.5	0.0	4.1	0.0
	4	0.0	0.0	0.0	0.0	20.7	0.0	0.0	0.0	0.0
	5	0.0	0.1	2.7	0.0	20.6	1.9	0.0	0.0	0.0
	6	0.0	0.0	0.1	0.0	15.7	0.0	0.0	0.0	0.0
	7	0.0	0.0	0.7	0.0	15.5	0.5	0.0	0.0	0.0
	8	0.0	0.0	0.1	0.0	14.2	0.0	0.0	0.0	0.0
	9	0.0	0.4	8.5	0.0	14.1	3.2	0.0	0.0	0.0
1991	1	-200.5	0.0	1.4	0.0	0.0	0.0	165.0	9.1	0.0
	2	0.0	0.0	0.2	0.0	31.9	0.0	0.0	0.3	0.0
	3	0.0	0.0	1.5	0.0	31.3	1.5	0.0	4.0	0.0
	4	0.0	0.0	0.0	0.0	20.7	0.0	0.0	0.0	0.0
	5	0.0	0.1	2.5	0.0	20.5	2.7	0.0	0.0	0.0
	6	0.0	0.0	0.1	0.0	15.3	0.0	0.0	0.0	0.0
	7	0.0	0.0	0.6	0.0	15.0	0.5	0.0	0.0	0.0
	8	0.0	0.0	0.1	0.0	13.8	0.0	0.0	0.0	0.0
	9	0.0	0.4	8.1	0.0	13.7	3.2	0.0	0.0	0.0

Bilag 3 Delopland Sydsjælland

Opgørelse af grundvandsdannelse Indikator 1 og 2

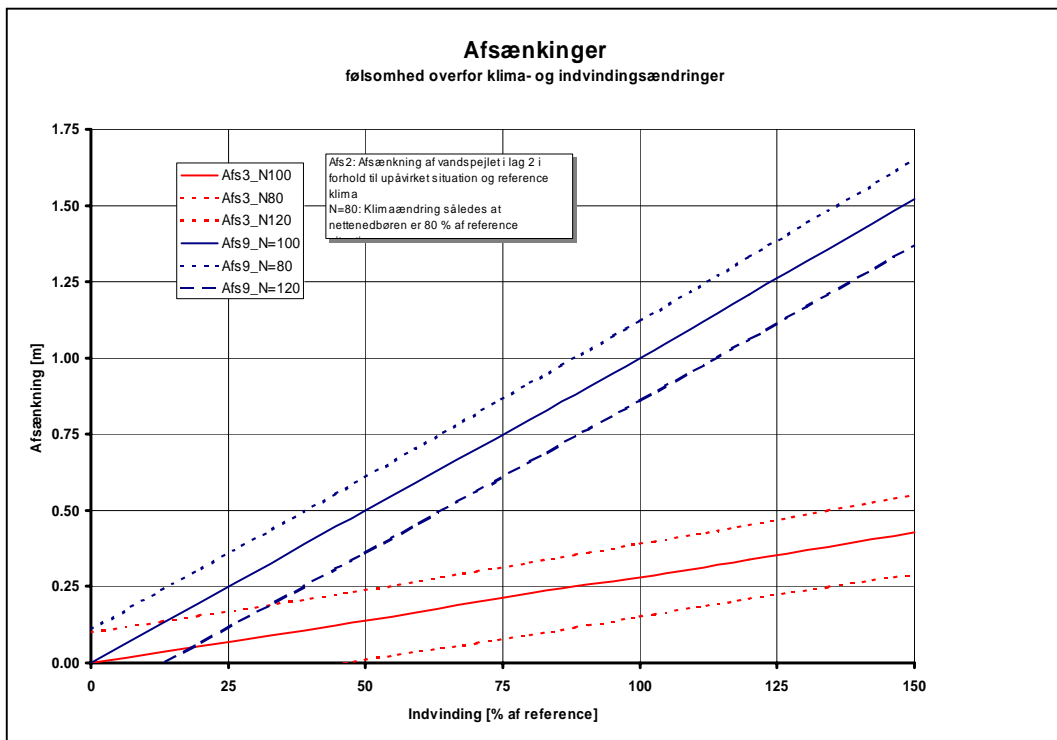
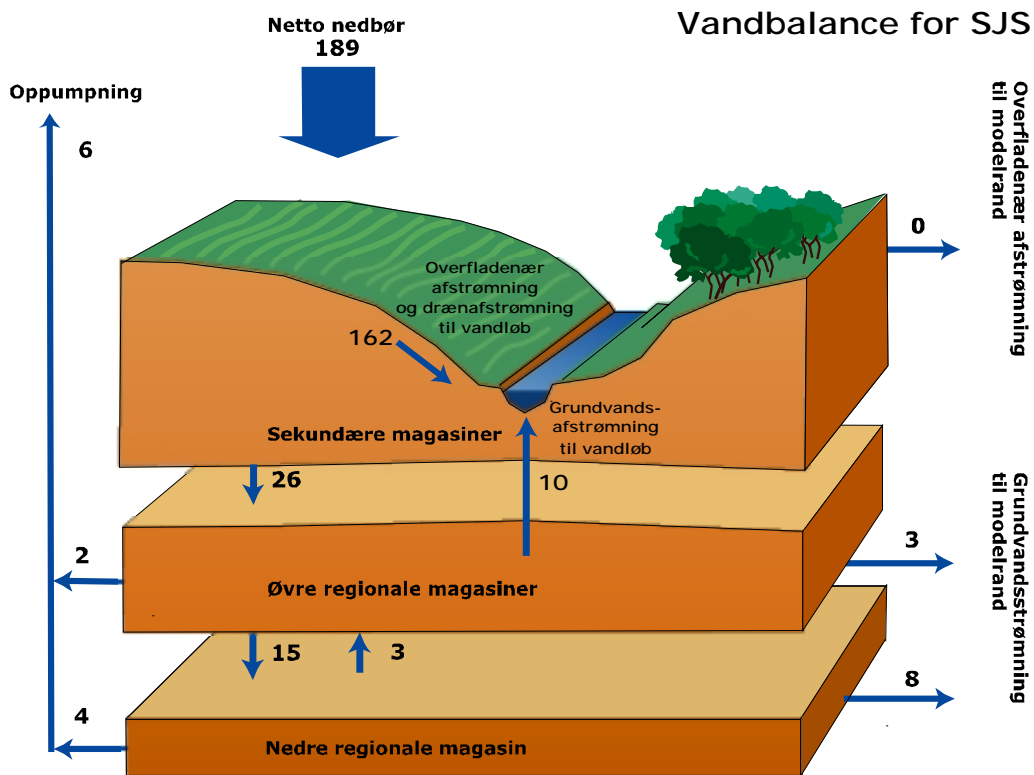
Område	sjs	OSD	vps8	vps9	vps10	vps11	vps12
Basis parametre for områderne							
Nedbør [mm/år]	198	211	218	196	198	193	193
Areal [km ²]	3207	1324	588	567	245	519	1253
Ref-abs [mm/år]	5.5	11.0	7.2	6.4	3.3	6.7	4.2
Ref-abs [Mm ³ /år]	17.5	14.6	4.2	3.6	0.8	3.5	5.3
Resulterende grundvandsdannelse som følge af ændret indvinding [mm/år]							
Indvinding [% af ref-abs]							
0%	22.3	31.0	39.1	22.4	43.5	20.7	11.4
50%	23.7	33.1	41.1	23.5	44.3	22.3	12.6
80%	24.5	34.4	42.4	24.1	44.2	23.3	13.4
100%	25.0	35.3	43.2	24.6	43.4	24.0	13.9
120%	25.5	36.2	44.0	25.1	42.9	24.7	14.5
150%	26.4	37.5	45.3	25.8	43.7	25.7	15.3
%vis ændring af grundvandsdannelsen i forhold til den upåvirkede situation							
50%	6%	7%	5%	5%	2%	8%	10%
80%	10%	11%	8%	8%	2%	13%	17%
100%	12%	14%	11%	10%	0%	16%	22%
120%	14%	17%	13%	12%	-1%	19%	27%
150%	18%	21%	16%	15%	0%	24%	34%
Resulterende udnyttelsesgrad (Indikator 2) (abs/gvd)							
50%	12%	17%	9%	14%	4%	15%	17%
80%	18%	26%	14%	21%	6%	23%	25%
100%	22%	31%	17%	26%	8%	28%	30%
120%	26%	37%	20%	31%	9%	33%	35%
150%	31%	44%	24%	37%	11%	39%	41%
Udnyttelses potentiale ved udnyttelsesgrad på 35% (Indikator 1) (abs/gvd_upåvirket)							
Teoretisk udnyttelse [%]	143%	98%	191%	122%	465%	108%	95%
Pot.abs [Mm ³ /år]	25.1	14.3	8.0	4.4	3.7	3.8	5.0



Opgørelse af vandførings Indikator 3 og 4

Samlet afstrømning Minimums vandføring efter vandløbskrav

SJS	med.min	middel	A	B1	B2	B3	CE	X
Areal	3207 km ²		1%	10%	5%	34%	47%	3%
Afstrømning [%]	1.67 m ³ /s	18.40 m ³ /s	1%	24%	10%	40%	23%	1%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]								
abs_50%	5%	1%	2%	3%	6%	5%	6%	8%
abs_100%	10%	2%	4%	6%	11%	10%	12%	16%
abs_150%	13%	3%	6%	9%	15%	14%	16%	22%
OSD	med.min	middel	A	B1	B2	B3	CE	X
Areal	1324 km ²		1%	14%	7%	29%	46%	3%
Afstrømning [%]	0.73 m ³ /s	7.61 m ³ /s	0%	26%	14%	36%	23%	0%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]								
abs_50%	5%	2%	0%	4%	7%	5%	5%	16%
abs_100%	10%	3%	0%	8%	13%	11%	11%	33%
abs_150%	14%	5%	0%	11%	17%	15%	14%	40%
vps8	med.min	middel	A	B1	B2	B3	CE	X
Areal	588 km ²		2%	23%	12%	27%	34%	2%
Afstrømning [%]	0.52 m ³ /s	3.50 m ³ /s	3%	32%	11%	47%	6%	0%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]								
abs_50%	4%	2%	2%	3%	9%	4%	6%	14%
abs_100%	9%	3%	4%	7%	17%	8%	12%	27%
abs_150%	12%	5%	5%	9%	22%	12%	16%	35%
vps9	med.min	middel	A	B1	B2	B3	CE	X
Areal	567 km ²		2%	27%	10%	32%	26%	4%
Afstrømning [%]	0.54 m ³ /s	3.22 m ³ /s	1%	42%	14%	29%	12%	2%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]								
abs_50%	4%	1%	2%	3%	3%	4%	6%	5%
abs_100%	7%	2%	5%	6%	7%	8%	13%	9%
abs_150%	11%	3%	7%	8%	10%	12%	18%	13%
vps10	med.min	middel	A	B1	B2	B3	CE	X
Areal	245 km ²		2%	2%	0%	36%	60%	0%
Afstrømning [%]	0.15 m ³ /s	1.26 m ³ /s	0%	0%	0%	54%	46%	0%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]								
abs_50%	2%	0%	-	-	-	1%	2%	-
abs_100%	3%	1%	-	-	-	2%	4%	-
abs_150%	4%	1%	-	-	-	3%	5%	-
vps11	med.min	middel	A	B1	B2	B3	CE	X
Areal	519 km ²		0%	2%	4%	36%	54%	3%
Afstrømning [%]	0.19 m ³ /s	2.94 m ³ /s	0%	3%	11%	30%	55%	1%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]								
abs_50%	5%	1%	4%	4%	8%	6%	4%	11%
abs_100%	9%	3%	7%	9%	15%	12%	7%	22%
abs_150%	13%	4%	11%	13%	22%	16%	10%	31%
vps12	med.min	middel	A	B1	B2	B3	CE	X
Areal	1253 km ²		0%	1%	1%	37%	56%	5%
Afstrømning [%]	0.26 m ³ /s	7.31 m ³ /s	0%	0%	7%	49%	41%	2%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]								
abs_50%	10%	1%	-	3%	2%	11%	11%	12%
abs_100%	20%	2%	-	6%	5%	22%	22%	23%
abs_150%	27%	3%	-	9%	7%	29%	29%	32%



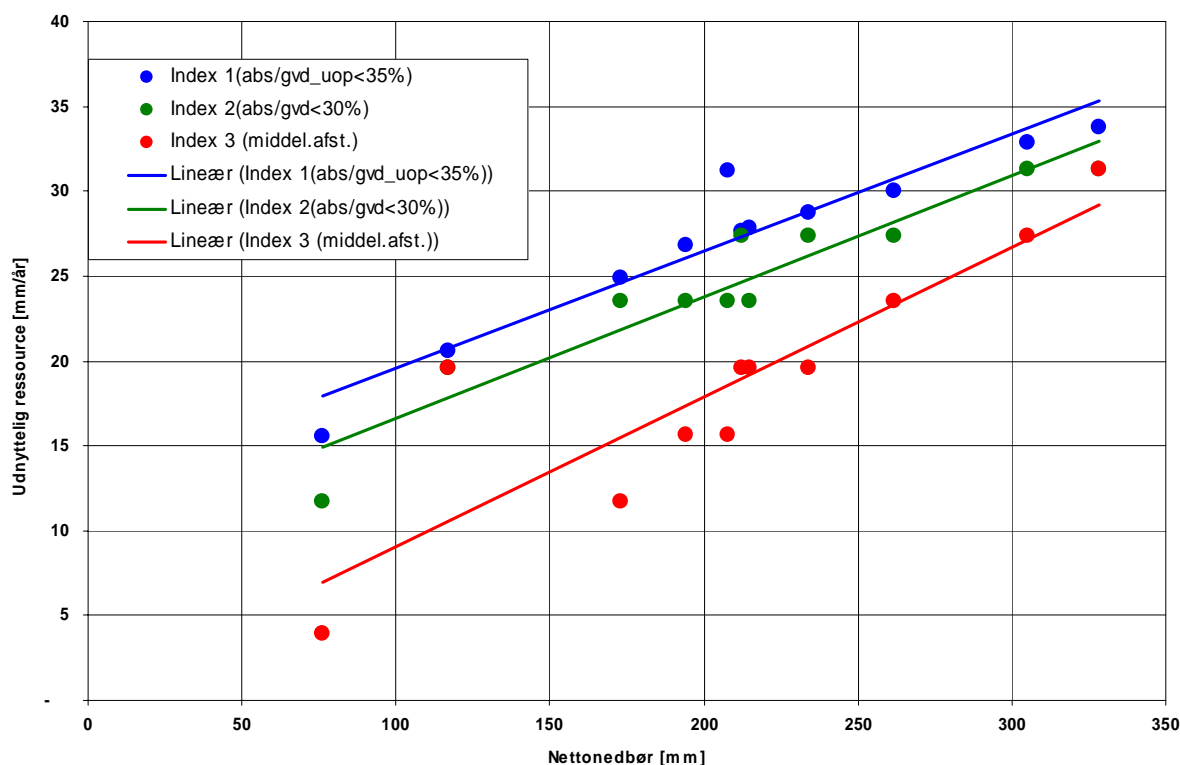
Vandbalance opsummeret											
	Lag	Nettonedbør	Rand-ind	Rand-ud	Storage	GVD	Indvinding	Dræn	Baseflow	Vandføring	
Dynamisk	samlet	188.9	0.2	1.9	-1.9	27.6	5.5	162.8	9.7	172.5	
	3		0.2	3.5	0.0	25.9	1.4				
	9		0.8	8.5	0.0	14.9	4.1				
Stationært	samlet	196.0	0.9	15.0	0.0	24.9	5.5	172.4	4.2	176.7	
	3		0.1	3.8	0.0	25.0	1.3				
	9		0.8	9.2	0.0	15.0	4.1				
WBL	Lag	Nettonedbør	Rand-ind	Rand-ud	Storage	GVD	Indvinding	Dræn	Baseflow	Error	
sjs-grd-dyn											
1991 - 2000	1	-189.0	0.2	1.7	-1.9	0.0	0.0	162.8	4.3	0.0	0.0
	2	0.1	0.0	0.2	0.0	27.6	0.0	0.0	1.5	0.0	0.0
	3	0.0	0.0	0.8	0.0	25.9	0.1	0.0	2.2	0.0	0.0
	4	0.0	0.0	0.1	0.0	20.8	0.0	0.0	0.9	0.0	0.0
	5	0.0	0.1	2.2	0.0	20.1	0.1	0.0	0.3	0.0	0.0
	6	0.0	0.0	0.0	0.0	16.6	0.0	0.0	0.2	0.0	0.0
	7	0.0	0.0	0.5	0.0	16.5	1.2	0.0	0.1	0.0	0.0
	8	0.0	0.0	0.0	0.0	15.0	0.0	0.0	0.1	0.0	0.0
	9	0.0	0.8	8.5	0.0	14.9	4.1	0.0	0.3	0.0	0.0
sjs-grd-stat											
1991 - 2000	1	-196.0	0.0	1.8	0.0	0.0	0.0	172.4	2.1	0.2	0.2
	2	0.0	0.0	0.2	0.0	24.9	0.0	0.0	0.1	0.5	0.5
	3	0.0	0.0	0.8	0.0	25.0	0.0	0.0	1.6	-0.4	-0.4
	4	0.0	0.0	0.1	0.0	20.2	0.0	0.0	0.0	-0.1	-0.1
	5	0.0	0.1	2.3	0.0	20.1	0.1	0.0	0.2	0.0	0.0
	6	0.0	0.0	0.0	0.0	16.6	0.0	0.0	0.0	-0.2	-0.2
	7	0.0	0.0	0.5	0.0	16.4	1.2	0.0	0.0	2.3	2.3
	8	0.0	0.0	0.0	0.0	17.2	0.0	0.0	0.0	-2.1	-2.1
	9	0.0	0.8	9.2	0.0	15.0	4.1	0.0	0.1	0.0	0.0
1991	1	-181.0	0.0	1.7	0.0	0.0	0.0	157.7	2.1	0.2	0.2
	2	0.0	0.0	0.2	0.0	24.5	0.0	0.0	0.1	0.4	0.4
	3	0.0	0.0	0.8	0.0	24.5	0.0	0.0	1.6	-0.2	-0.2
	4	0.0	0.0	0.1	0.0	20.1	0.0	0.0	0.0	-0.1	-0.1
	5	0.0	0.1	2.3	0.0	19.9	0.1	0.0	0.2	1.0	1.0
	6	0.0	0.0	0.0	0.0	17.5	0.0	0.0	0.0	-0.8	-0.8
	7	0.0	0.0	0.5	0.0	16.6	1.2	0.0	0.0	-0.2	-0.2
	8	0.0	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0

Bilag 4 Delopland Nordsjælland

Opgørelse af grundvandsdannelse Indikator 1 og 2

Område	SJN	OSD	vp-sj-5	vp-sj-6	vp-sj-7
Nedbør [mm/år]	212	212	235	199	194
Areal [km ²]	2831	1787	1195	484	1112
Ref-abs [mm/år]	39.1	52.4	23.3	54.5	50.6
Ref-abs [Mm ³ /år]	110.8	93.6	27.9	26.4	56.3
Indvinding [% af ref-abs]	Resulterende grundvandsdannelse som følge af ændret indvinding [mm/år]				
0%	79.0	86.2	105.5	102.9	40.6
50%	87.7	97.1	109.1	112.8	54.1
80%	92.6	103.3	110.7	115.5	63.3
100%	96.7	108.5	112.3	119.1	70.3
120%	100.7	113.4	113.9	121.1	77.9
150%	105.8	118.6	116.2	124.9	86.4
	%vis ændring af grundvandsdannelsen i forhold til den upåvirkede situation				
50%	11%	13%	3%	10%	33%
80%	17%	20%	5%	12%	56%
100%	22%	26%	6%	16%	73%
120%	27%	32%	8%	18%	92%
150%	34%	38%	10%	21%	113%
	Resulterende udnyttelsesgrad (Indikator 2) (abs/gvd)				
50%	22%	27%	11%	24%	47%
80%	34%	41%	17%	38%	64%
100%	40%	48%	21%	46%	72%
120%	47%	55%	25%	54%	78%
150%	56%	66%	30%	65%	88%
	Udnyttelses potentiale ved udnyttelsesgrad på 35% (Indikator 1) (abs/gvd_upåvirket)				
Teoretisk udnyttelse [%]	71%	58%	158%	66%	28%
Pot.abs [Mm ³ /år]	78.3	53.9	44.1	17.4	15.8

Indikator følsomhed overfor klimaændringer

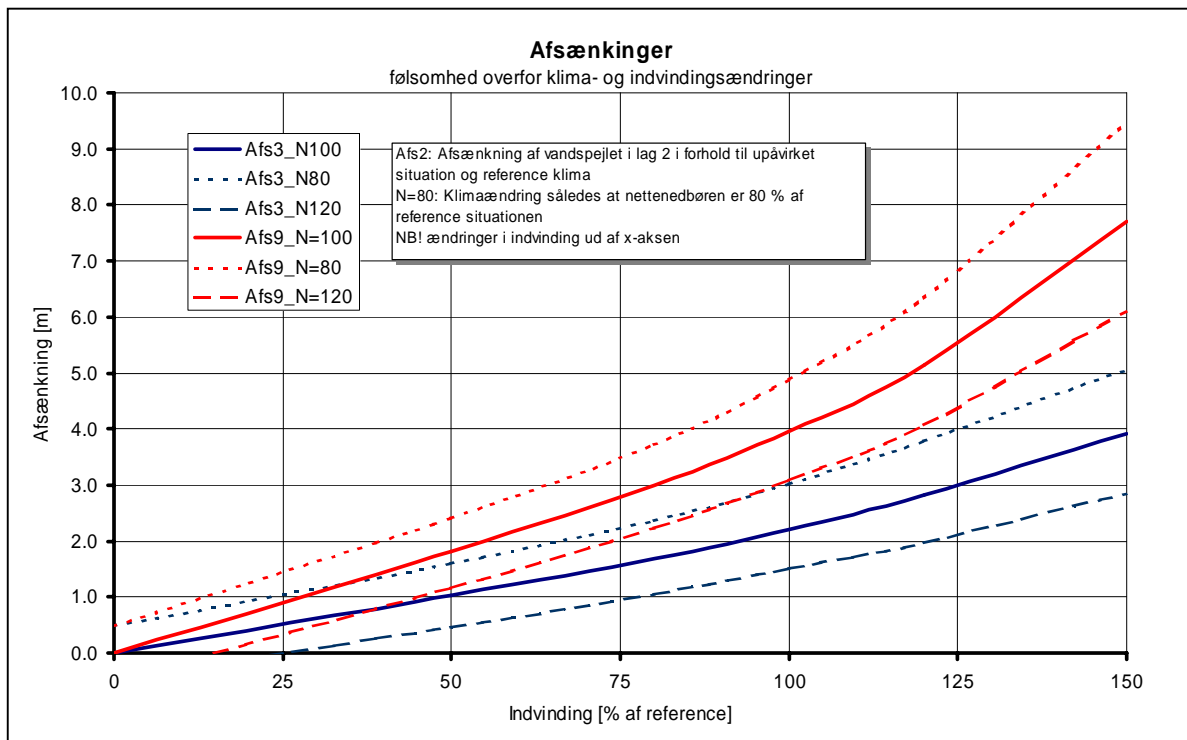
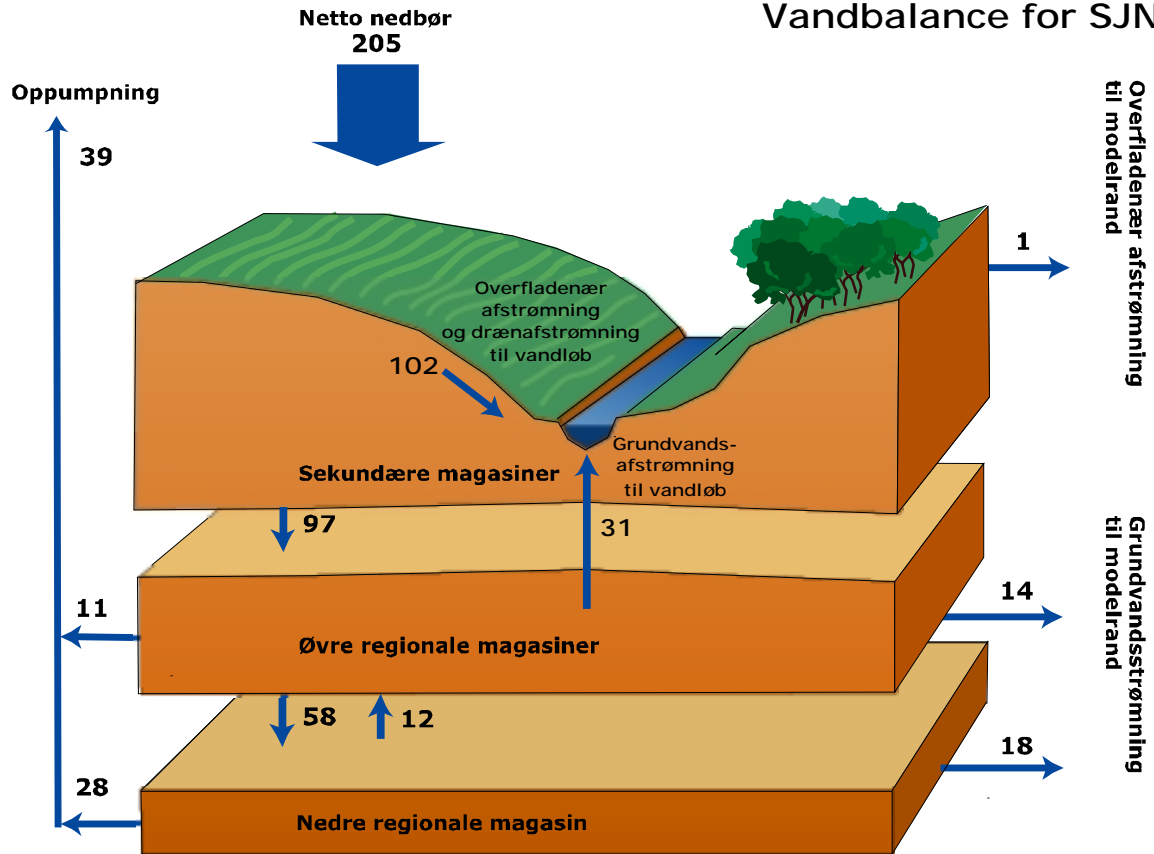


Opgørelse af vandførings Indikator 3 og 4

Samlet vandføring Minimums vandføring efter vandløbsmålsætninger

sjn		A	B1	B2	B3	CE	X
Areal	2831 km ²	4%	24%	5%	21%	26%	21%
Afstrømning [%]	5.42 m ³ /s	5%	27%	9%	23%	16%	21%
%-vis ændring ved ændret indvinding (abs)							
abs_50%	17%	12%	14%	14%	19%	22%	16%
abs_100%	29%	23%	25%	27%	32%	36%	28%
abs_150%	39%	36%	33%	42%	43%	47%	37%
sjn-drik1		A	B1	B2	B3	CE	X
Areal	1787 km ²	5%	26%	6%	20%	29%	13%
Afstrømning [%]	3.46 m ³ /s	8%	28%	11%	22%	18%	13%
%-vis ændring ved ændret indvinding (abs)							
abs_50%	21%	13%	18%	14%	25%	23%	26%
abs_100%	35%	24%	32%	27%	42%	37%	42%
abs_150%	47%	37%	41%	41%	55%	48%	55%
sjn-vp5		A	B1	B2	B3	CE	X
Areal	1195 km ²	3%	30%	4%	24%	16%	23%
Afstrømning [%]	2.43 m ³ /s	2%	31%	5%	21%	13%	28%
%-vis ændring ved ændret indvinding (abs)							
abs_50%	9%	3%	12%	8%	7%	16%	6%
abs_100%	16%	5%	20%	16%	12%	24%	11%
abs_150%	23%	8%	28%	25%	18%	36%	17%
sjn-vp6		A	B1	B2	B3	CE	X
Areal	484 km ²	10%	25%	7%	21%	20%	16%
Afstrømning [%]	1.13 m ³ /s	13%	27%	9%	25%	8%	18%
%-vis ændring ved ændret indvinding (abs)							
abs_50%	23%	11%	6%	24%	36%	15%	43%
abs_100%	40%	23%	11%	45%	61%	28%	69%
abs_150%	55%	42%	19%	68%	77%	43%	85%
sjn-vp7		A	B1	B2	B3	CE	X
Areal	1112 km ²	3%	15%	5%	17%	38%	21%
Afstrømning [%]	1.83 m ³ /s	5%	21%	14%	24%	24%	13%
%-vis ændring ved ændret indvinding (abs)							
abs_50%	23%	20%	24%	13%	22%	29%	23%
abs_100%	40%	34%	46%	25%	37%	46%	42%
abs_150%	51%	42%	55%	39%	50%	56%	55%

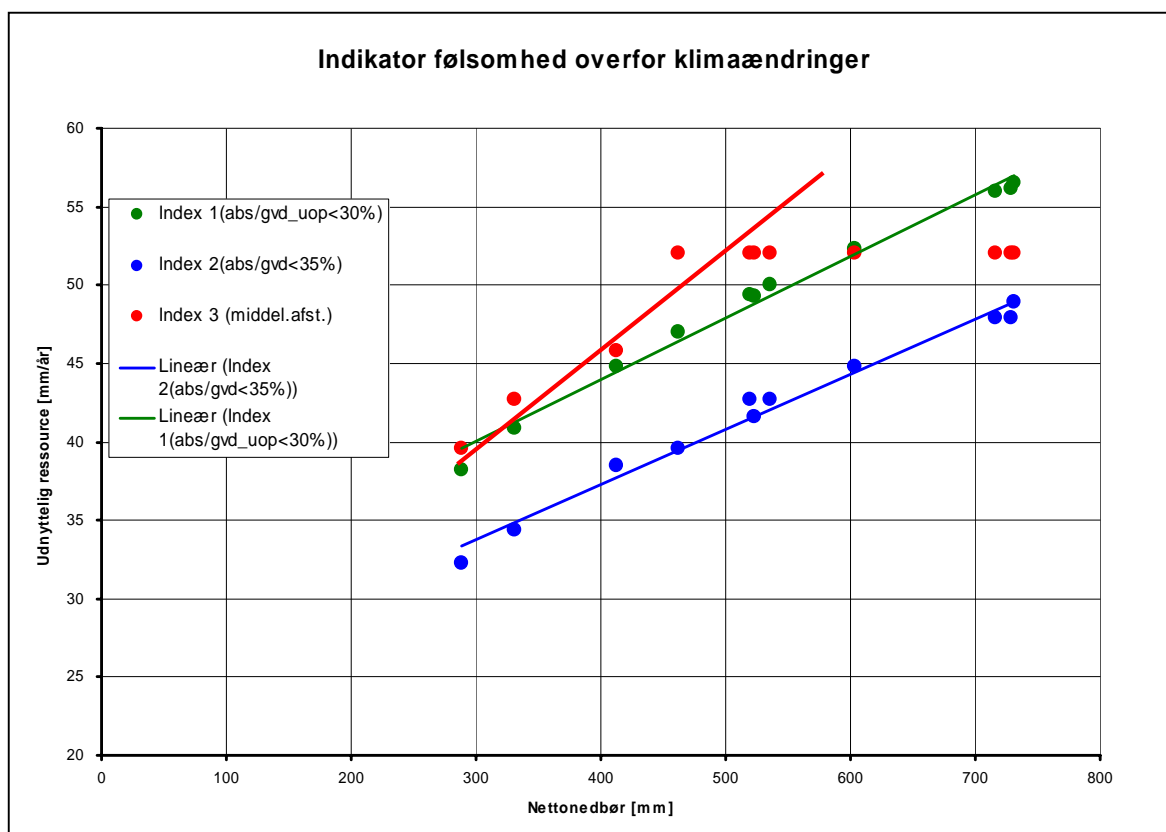
Vandbalance for SJN



Vandbalance opsummeret											
	Lag	Nettonedbør	Rand-ind	Rand-ud	Storage	GVD	Indvinding	Dræn	Baseflow	Vandføring	
Dynamisk	samlet	204.9	0.0	1.2	-0.8	103.0	39.2	101.8	31.6	133.4	
	3		0.2	14.2	0.3	97.2	10.8				
	9		2.2	20.2	0.1	57.9	28.4				
Stationært	samlet	201.9	0.0	1.2	0.0	65.5	39.1	109.0	18.7	127.6	
	3		0.2	15.0	0.0	65.2	10.7				
	9		2.4	21.6	0.0	60.2	28.5				
WBL	Lag	Nettonedbør	Rand-ind	Rand-ud	Storage	GVD	Indvinding	Dræn	Baseflow	Error	
sjn-grd-dyn 1991 - 2000	1	-205.9	0.0	1.0	-1.4	0.0	0.0	101.8	11.6	0.0	
	2	1.0	0.0	0.2	0.1	103.0	0.0	0.0	7.1	0.0	
	3	0.0	0.0	1.0	0.3	97.2	0.9	0.0	11.3	0.0	
	4	0.0	0.0	0.2	0.0	79.1	0.0	0.0	1.4	0.0	
	5	0.0	0.1	8.1	0.0	77.8	1.3	0.0	0.1	0.0	
	6	0.0	0.0	0.2	0.0	65.5	0.0	0.0	0.0	0.0	
	7	0.0	0.1	4.5	0.0	65.2	8.7	0.0	0.0	0.0	
	8	0.0	0.0	0.1	0.0	58.0	0.0	0.0	0.0	0.0	
	9	0.0	2.2	20.2	0.1	57.9	28.4	0.0	0.0	0.0	
sjn-grd-stat 1991 - 2000	1	-201.9	0.0	1.0	0.0	0.0	0.0	109.0	9.5	0.0	
	2	0.0	0.0	0.2	0.0	97.8	0.0	0.0	1.0	0.0	
	3	0.0	0.0	1.1	0.0	96.7	0.7	0.0	8.0	-0.2	
	4	0.0	0.0	0.3	0.0	79.9	0.0	0.0	0.0	-0.6	
	5	0.0	0.1	8.6	0.0	78.9	1.3	0.0	0.1	-0.5	
	6	0.0	0.0	0.2	0.0	65.8	0.0	0.0	0.0	1.6	
	7	0.0	0.1	4.7	0.0	67.1	8.7	0.0	0.0	-0.3	
	8	0.0	0.0	0.1	0.0	59.2	0.0	0.0	0.0	1.0	
	9	0.0	2.4	21.6	0.0	60.2	28.5	0.0	0.0	-1.0	
1991	1	-202.9	0.0	1.0	0.0	0.0	0.0	110.0	9.4	-0.1	
	2	0.0	0.0	0.2	0.0	98.0	0.0	0.0	1.0	-1.1	
	3	0.0	0.0	1.1	0.0	95.7	0.7	0.0	8.0	1.2	
	4	0.0	0.0	0.3	0.0	80.1	0.0	0.0	0.0	0.0	
	5	0.0	0.1	8.7	0.0	79.7	1.3	0.0	0.1	0.0	
	6	0.0	0.0	0.2	0.0	66.9	0.0	0.0	0.0	0.1	
	7	0.0	0.1	4.9	0.0	66.8	8.7	0.0	0.0	1.3	
	8	0.0	0.0	0.1	0.0	60.4	0.0	0.0	0.0	-1.2	
	9	0.0	2.4	21.5	0.0	59.1	28.5	0.0	0.0	-0.1	

Bilag 5 Delopland Sydjylland

Opgørelse af grundvandsdannelse Indikator 1 og 2								
Område	jsy	OSD	jsy-vp1	jsy-vp2	jsy-vp3	jsy-vp4	jsy-vp5	jsy-vp6
Basis parametre for områderne								
Nedbør [mm/år]	535	524	557	572	594	609	420	427
Areal [km ²]	4500	1337	1138	855	967	309	512	719
Ref-abs [mm/år]	10.4	11.5	12.1	8.6	10.8	6.4	6.6	13.8
Ref-abs [Mm ³ /år]	46.8	15.4	13.8	7.4	10.4	2.0	3.4	9.9
Resulterende grundvandsdannelse som følge af ændret indvinding [mm/år]								
Indvinding [% af ref-abs]								
0%	142.9	206.2	167.5	165.1	139.9	95.0	93.7	137.3
50%	143.3	206.5	167.4	165.6	139.7	95.5	94.3	138.9
80%	143.6	206.8	167.3	165.8	139.6	95.9	94.7	140.0
100%	143.7	207.0	167.3	166.0	139.6	96.2	94.8	140.7
120%	143.9	207.1	167.3	166.2	139.6	96.5	95.0	141.3
150%	143.9	206.7	167.3	166.5	139.5	97.0	95.4	141.0
%vis ændring af grundvandsdannelsen i forhold til den upåvirkede situation								
50%	0%	0%	0%	0%	0%	1%	1%	1%
80%	0%	0%	0%	0%	0%	1%	1%	2%
100%	1%	0%	0%	1%	0%	1%	1%	3%
120%	1%	0%	0%	1%	0%	2%	1%	3%
150%	1%	0%	0%	1%	0%	2%	2%	3%
Resulterende udnyttelsesgrad (Indikator 2) (abs/gvd)								
50%	4%	3%	4%	3%	4%	3%	3%	5%
80%	6%	4%	6%	4%	6%	5%	6%	8%
100%	7%	6%	7%	5%	8%	7%	7%	10%
120%	9%	7%	9%	6%	9%	8%	8%	12%
150%	11%	8%	11%	8%	12%	10%	10%	15%
Udnyttelses potentiale ved udnyttelsesgrad på 35% (Indikator 1) (abs/gvd_upåvirket)								
Teoretisk udnyttelse [%]	481%	628%	485%	671%	453%	519%	497%	348%
Pot.abs [Mm ³ /år]	225.1	96.5	66.7	49.4	47.3	10.3	16.8	34.5

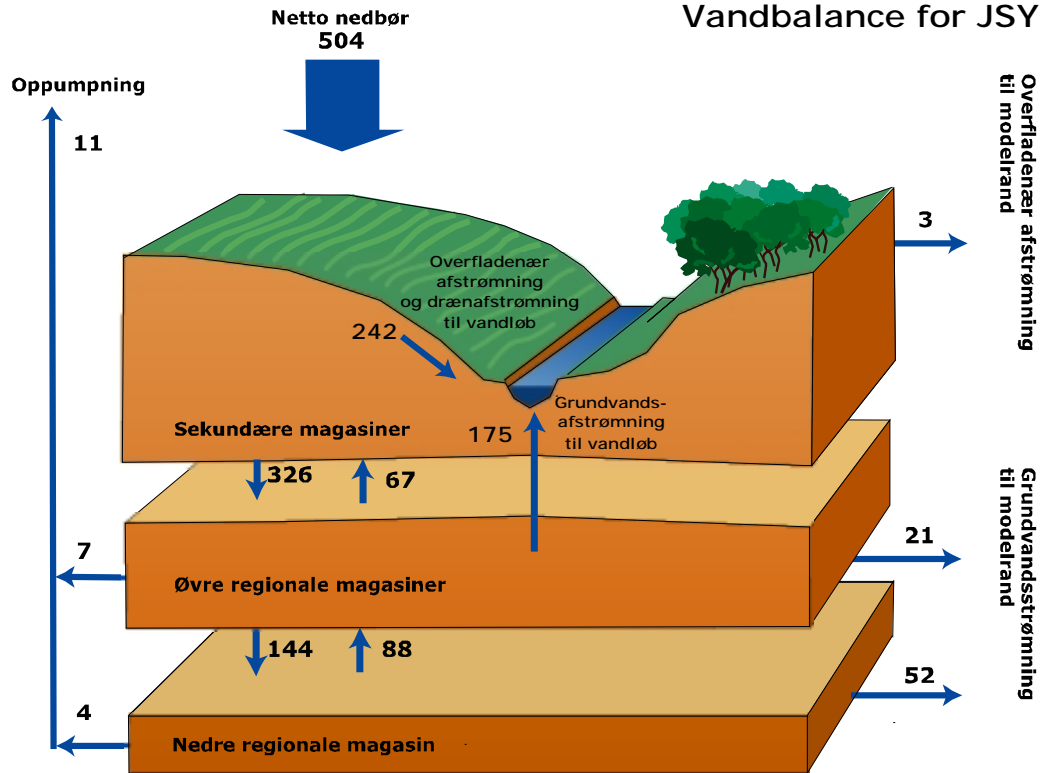


Opgørelse af vandførings Indikator 3 og 4

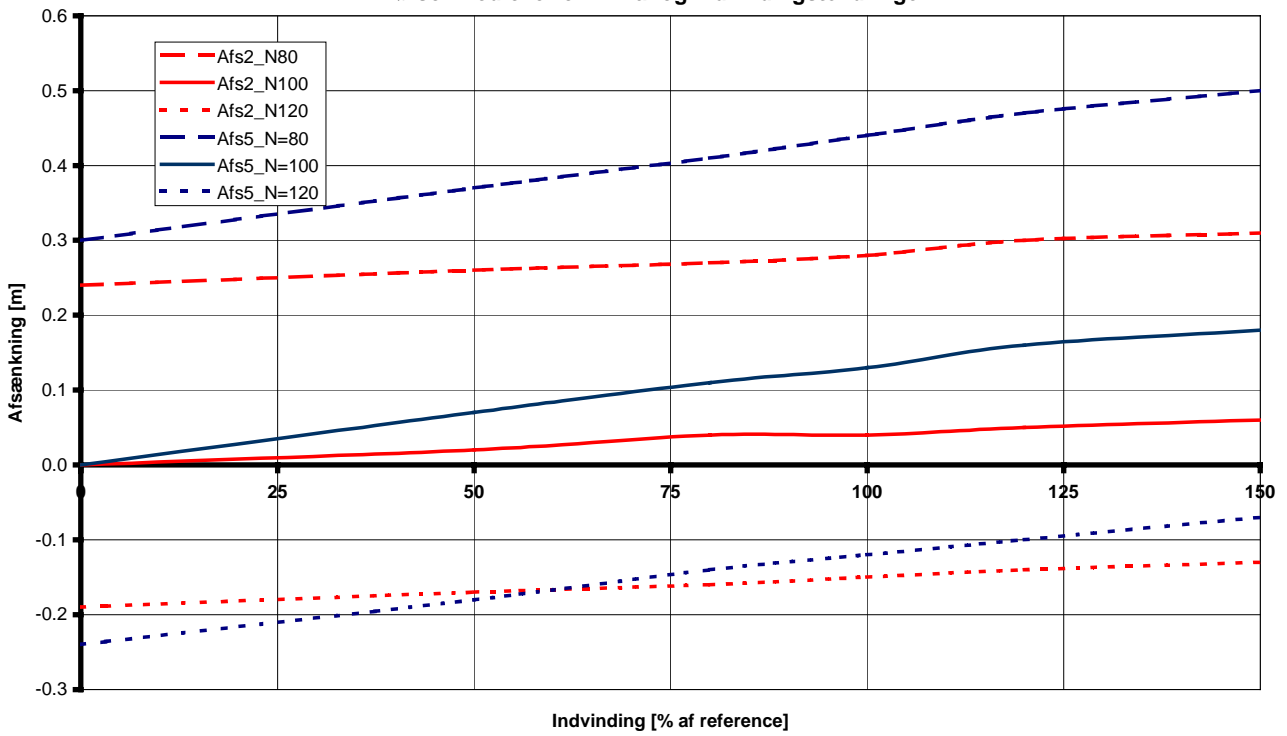
Samlet afstrømning Minimums vandføring efter vandløbskrav

jsy	med.min	A	B1	B2	B3	CE	X
Areal	4500 km ²	6%	35%	18%	38%	3%	1%
Afstrømning [%]	35.07 m ³ /s	4%	30%	36%	29%	1%	0%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	1%	1%	1%	1%	2%	2%	0%
abs_100%	3%	2%	3%	3%	3%	3%	1%
abs_150%	4%	3%	4%	4%	5%	5%	1%
OSD	med.min	A	B1	B2	B3	CE	X
Areal	1337 km ²	7%	34%	12%	42%	4%	1%
Afstrømning [%]	3.76 m ³ /s	2%	38%	31%	29%	1%	0%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	2%	1%	3%	1%	3%	4%	-
abs_100%	4%	3%	4%	3%	6%	8%	-
abs_150%	6%	4%	6%	4%	8%	12%	-
jsy-vp1	med.min	A	B1	B2	B3	CE	X
Areal	1138 km ²	7%	13%	14%	61%	4%	0%
Afstrømning [%]	9.79 m ³ /s	5%	18%	28%	48%	1%	0%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	2%	1%	2%	1%	2%	2%	-
abs_100%	3%	3%	3%	3%	4%	5%	-
abs_150%	5%	4%	5%	4%	6%	7%	-
jsy-vp2	med.min	A	B1	B2	B3	CE	X
Areal	855 km ²	2%	20%	20%	54%	3%	1%
Afstrømning [%]	6.48 m ³ /s	1%	19%	37%	41%	2%	0%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	1%	1%	1%	1%	1%	1%	-
abs_100%	2%	2%	3%	2%	2%	1%	-
abs_150%	4%	3%	4%	3%	4%	2%	-
jsy-vp3	med.min	A	B1	B2	B3	CE	X
Areal	967 km ²	8%	30%	32%	27%	4%	0%
Afstrømning [%]	9.68 m ³ /s	3%	18%	64%	14%	1%	0%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	2%	1%	2%	1%	2%	2%	-
abs_100%	3%	3%	3%	3%	3%	5%	-
abs_150%	4%	4%	4%	4%	5%	7%	-
jsy-vp4	med.min	A	B1	B2	B3	CE	X
Areal	309 km ²	0%	70%	22%	2%	0%	5%
Afstrømning [%]	4.00 m ³ /s	0%	81%	18%	0%	0%	1%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	1%	-	1%	2%	4%	-	0%
abs_100%	2%	-	1%	4%	6%	-	1%
abs_150%	3%	-	2%	5%	10%	-	1%
jsy-vp5	med.min	A	B1	B2	B3	CE	X
Areal	512 km ²	9%	63%	11%	14%	1%	1%
Afstrømning [%]	3.04 m ³ /s	13%	52%	16%	20%	0%	0%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	2%	1%	2%	1%	1%	0%	-
abs_100%	3%	1%	3%	2%	2%	1%	-
abs_150%	3%	2%	4%	3%	3%	1%	-
jsy-vp6	med.min	A	B1	B2	B3	CE	X
Areal	719 km ²	5%	60%	2%	29%	4%	0%
Afstrømning [%]	2.07 m ³ /s	1%	55%	1%	42%	0%	0%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	2%	1%	2%	1%	1%	1%	-
abs_100%	3%	2%	3%	2%	2%	2%	-
abs_150%	4%	3%	5%	3%	3%	3%	-

Vandbalance for JSY



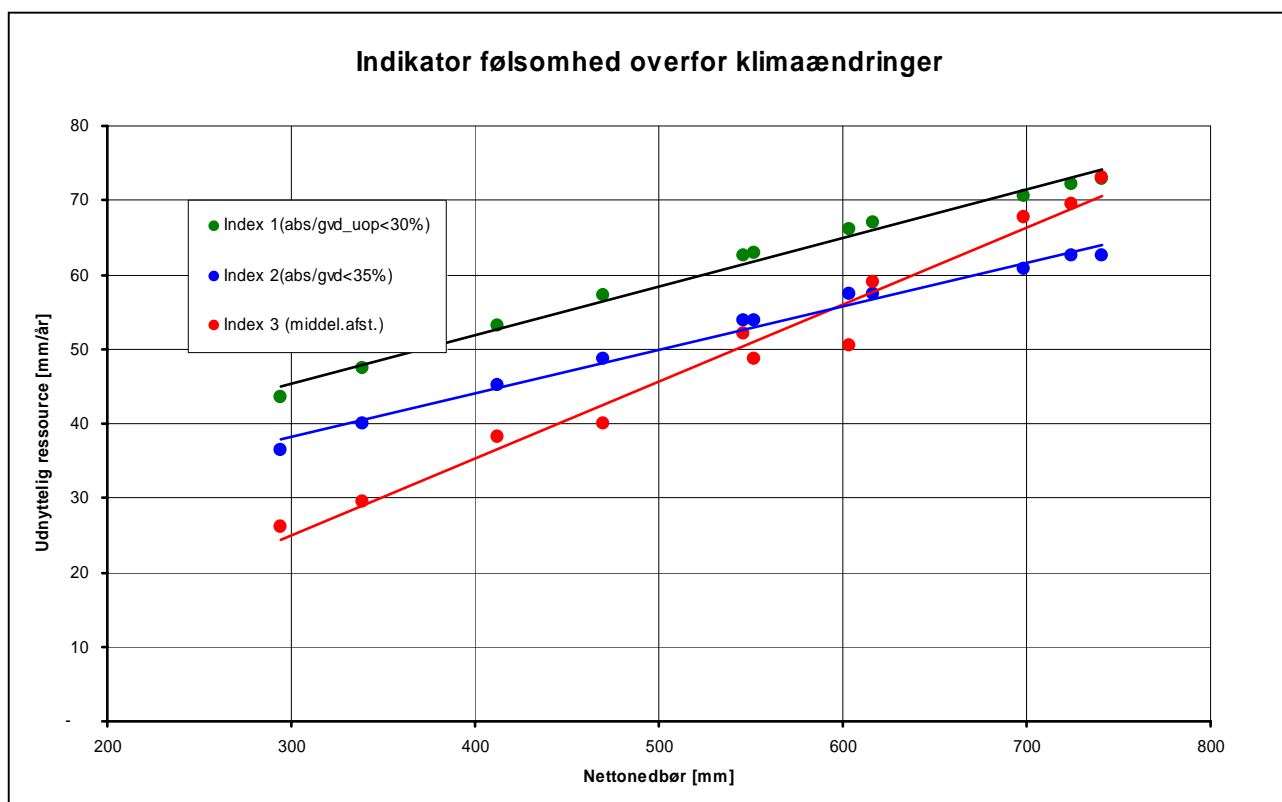
Afsænkinger følsomhed overfor klima- og indvindingsændringer



Vandbalance opsummeret										
	Lag	Nettonedbør	Rand-ind	Rand-ud	Storage	GVD	Indvinding	Dræn	Baseflow	Vandføring
Dynamisk	Samlet	513.1	0.0	2.7	-1.2	0.0	10.6	216.4	216.8	433.2
	2		0.7	20.7	-0.3	391.2	6.7			
	5		5.4	56.4	0.1	142.5	3.9			
Stationært	Samlet	503.7	0.0	2.7	0.0	0.0	10.4	242.2	175.2	417.4
	2		0.6	21.3	0.0	326.0	6.5			
	5		5.3	57.8	0.0	143.7	3.9			
WBL	Lag	Nettonedbør	Rand-ind	Rand-ud	Storage	GVD	Indvinding	Dræn	Baseflow	Error
jsy-grd-dyn 1991 - 2000	1	-516.0	0.0	2.7	-1.2	0.0	0.0	216.4	31.7	37.0
	2	2.9	0.0	8.5	-0.2	391.2	0.3	0.0	109.5	-31.7
	3	0.0	0.2	4.9	-0.1	273.0	2.3	0.0	73.6	-2.4
	4	0.0	0.5	7.3	0.0	186.5	4.1	0.0	1.7	0.0
	5	0.0	0.2	10.8	0.0	142.5	0.8	0.0	0.3	0.0
	6	0.0	0.2	9.6	0.0	108.1	0.6	0.0	0.0	0.0
	7	0.0	0.4	7.2	0.0	84.4	1.2	0.0	0.0	0.0
	8	0.0	1.8	7.1	0.0	66.5	0.4	0.0	0.0	0.0
	9	0.0	1.5	10.6	0.0	55.1	0.2	0.0	0.0	0.0
	10	0.0	0.2	3.1	0.0	39.5	0.1	0.0	0.0	0.0
	11	0.0	0.1	2.0	0.0	31.7	0.0	0.0	0.0	0.0
	12	0.0	0.0	1.6	0.0	25.0	0.1	0.0	0.0	0.0
	13	0.0	0.3	0.5	0.0	19.2	0.1	0.0	0.0	0.0
	14	0.0	0.3	1.6	0.1	14.7	0.1	0.0	0.0	0.0
	15	0.0	0.1	0.6	0.1	7.2	0.1	0.0	0.0	0.0
	16	0.0	0.3	1.3	0.0	4.7	0.1	0.0	0.0	0.0
	17	0.0	0.0	0.4	-0.2	1.3	0.1	0.0	0.0	0.0
jsy-grd-stat 1991 - 2000	1	-503.7	0.0	2.7	0.0	0.0	0.0	242.2	59.1	0.6
	2	0.0	0.0	8.5	0.0	326.0	0.3	0.0	77.0	-0.1
	3	0.0	0.2	5.2	0.0	259.1	2.2	0.0	38.1	-0.5
	4	0.0	0.4	7.6	0.0	187.5	4.0	0.0	0.7	0.0
	5	0.0	0.2	11.3	0.0	143.7	0.8	0.0	0.1	0.0
	6	0.0	0.1	9.8	0.0	109.2	0.6	0.0	0.0	0.0
	7	0.0	0.4	7.4	0.0	85.2	1.2	0.0	0.0	0.0
	8	0.0	1.8	7.2	0.0	67.2	0.4	0.0	0.0	0.0
	9	0.0	1.5	10.8	0.0	55.8	0.2	0.0	0.0	0.0
	10	0.0	0.2	3.1	0.0	39.9	0.1	0.0	0.0	0.0
	11	0.0	0.1	2.1	0.0	31.9	0.0	0.0	0.0	0.0
	12	0.0	0.0	1.7	0.0	25.0	0.1	0.0	0.0	0.0
	13	0.0	0.3	0.5	0.0	19.0	0.1	0.0	0.0	0.0
	14	0.0	0.3	1.6	0.0	14.4	0.1	0.0	0.0	0.0
	15	0.0	0.1	0.6	0.0	6.7	0.1	0.0	0.0	0.0
	16	0.0	0.3	1.3	0.0	4.0	0.1	0.0	0.0	0.0
	17	0.0	0.0	0.4	0.0	0.8	0.1	0.0	0.0	0.0

Bilag 6 Delopland Sydvestjylland

Område	Opgørelse af grundvandsdannelse Indikator 1 og 2					
	jsv	OSD	jsv-vp1	jsv-vp2	jsv-vp3	jsv-vp4
Basis parametre for områderne						
Nedbør [mm/år]	546	573	543	558	569	528
Areal [km ²]	5263	1167	2477	1101	633	1052
Ref-abs [mm/år]	17.4	20.3	19.4	20.6	17.8	9.0
Ref-abs [Mm ³ /år]	91.5	23.7	48.0	22.7	11.3	9.5
Indvinding [% af ref-abs]	Resulterende grundvandsdannelse som følge af ændret indvinding [mm/år]					
0%	178.9	214.9	171.0	170.2	144.4	227.4
50%	179.4	215.3	171.7	170.0	144.5	228.4
80%	179.8	215.6	172.3	170.0	144.6	229.0
100%	180.1	215.9	172.7	170.1	144.6	229.4
120%	180.4	216.0	172.9	170.7	144.6	229.8
150%	180.9	216.4	173.5	170.9	144.7	230.4
%vis ændring af grundvandsdannelsen i forhold til den upåvirkede situation						
50%	0%	0%	0%	0%	0%	0%
80%	0%	0%	1%	0%	0%	1%
100%	1%	1%	1%	0%	0%	1%
120%	1%	1%	1%	0%	0%	1%
150%	1%	1%	1%	0%	0%	1%
Resulterende udnyttelsesgrad (Indikator 2) (abs/gvd)						
50%	5%	5%	6%	6%	6%	2%
80%	8%	8%	9%	10%	10%	3%
100%	10%	9%	11%	12%	12%	4%
120%	12%	11%	13%	14%	15%	5%
150%	14%	14%	17%	18%	18%	6%
Udnyttelses potentiale ved udnyttelsesgrad på 35% (Indikator 1) (abs/gvd_upåvirket)						
Teoretisk udnyttelse [%]	360%	371%	309%	289%	284%	882%
Pot.abs [Mm ³ /år]	329.6	87.8	148.2	65.6	32.0	83.7



Opgørelse af vandførings Indikator 3 og 4

Samlet afstrømning

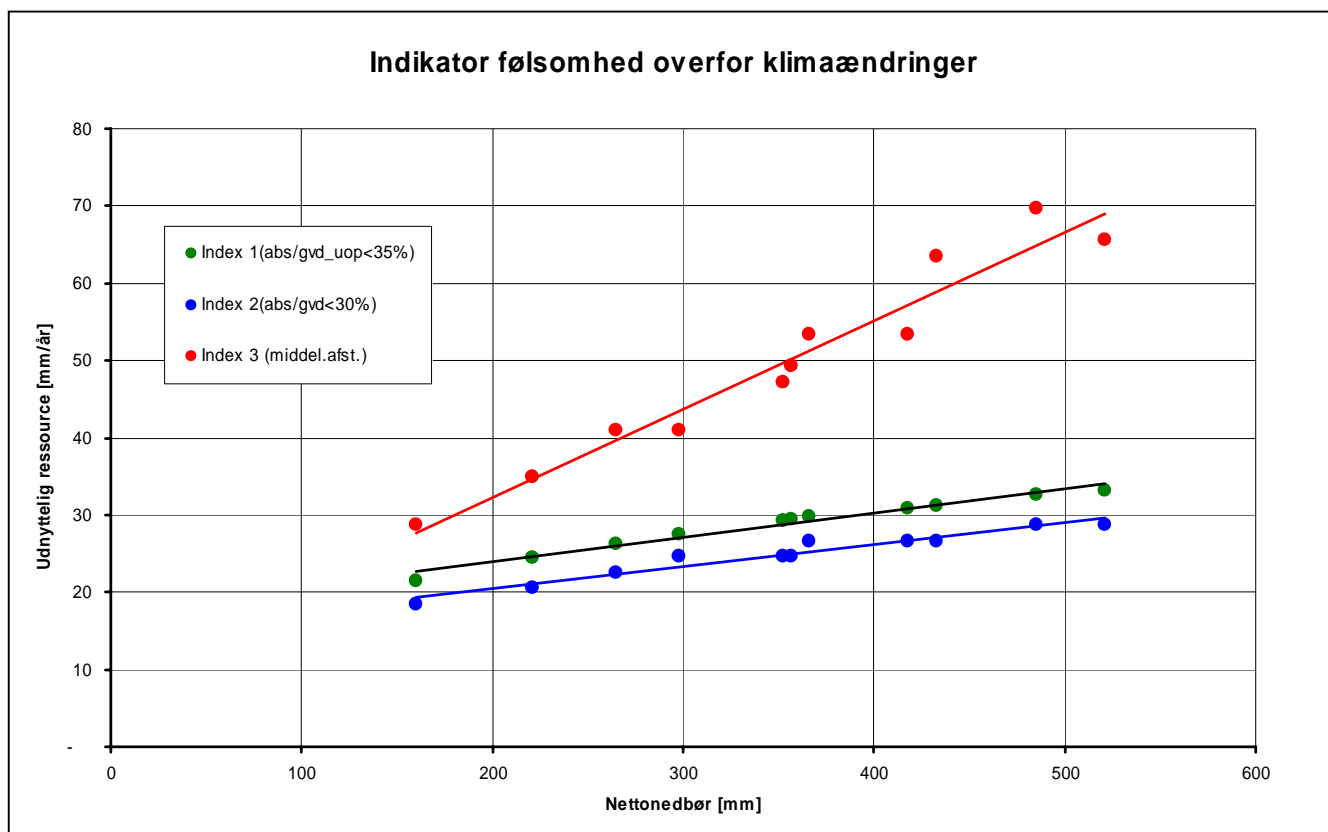
Minimums vandføring efter vandløbskrav

jsv	med.min	A	B1	B2	B3	CE	X
Areal	5263 km ²	2%	24%	38%	19%	5%	12%
Afstrømning [%]	55.37 m ³ /s	3%	19%	59%	11%	1%	7%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	2%	1%	2%	2%	2%	2%	2%
abs_100%	4%	2%	4%	4%	4%	5%	4%
abs_150%	6%	3%	6%	6%	6%	7%	6%
OSD	med.min	A	B1	B2	B3	CE	X
Areal	1167 km ²	1%	36%	31%	12%	8%	11%
Afstrømning [%]	6.14 m ³ /s	15%	23%	62%	10%	1%	3%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	2%	1%	2%	2%	3%	3%	1%
abs_100%	4%	3%	4%	4%	5%	6%	3%
abs_150%	6%	4%	6%	6%	8%	10%	4%
jsv-vp1	med.min	A	B1	B2	B3	CE	X
Areal	2477 km ²	2%	26%	43%	13%	4%	12%
Afstrømning [%]	29.89 m ³ /s	4%	23%	55%	7%	1%	9%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	2%	1%	2%	2%	3%	3%	2%
abs_100%	4%	1%	4%	3%	7%	6%	4%
abs_150%	5%	2%	6%	5%	9%	9%	6%
jsv-vp2	med.min	A	B1	B2	B3	CE	X
Areal	1101 km ²	1%	30%	43%	12%	8%	6%
Afstrømning [%]	13.34 m ³ /s	4%	18%	70%	6%	1%	1%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	2%	1%	3%	2%	2%	1%	1%
abs_100%	4%	2%	6%	4%	4%	1%	2%
abs_150%	6%	3%	8%	6%	6%	1%	2%
jsv-vp3	med.min	A	B1	B2	B3	CE	X
Areal	633 km ²	1%	29%	56%	5%	5%	4%
Afstrømning [%]	6.49 m ³ /s	0%	11%	83%	6%	1%	0%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	2%	-	2%	2%	0%	1%	5%
abs_100%	4%	-	4%	4%	1%	2%	9%
abs_150%	6%	-	5%	6%	1%	3%	14%
jsv-vp4	med.min	A	B1	B2	B3	CE	X
Areal	1052 km ²	0%	10%	11%	48%	6%	25%
Afstrømning [%]	5.65 m ³ /s	5%	5%	27%	50%	1%	16%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	2%	2%	3%	2%	2%	2%	2%
abs_100%	5%	5%	5%	8%	3%	3%	6%
abs_150%	7%	8%	8%	11%	5%	5%	8%

Vandbalance opsummeret										
	Lag	Nettonedbør	Rand-ind	Rand-ud	Storage	GVD	Indvinding	Dræn	Baseflow	Vandføring
Dynamisk	samlet	557.5	0.2	1.5	-7.8	0.0	23.7	183.4	320.5	503.9
	2		0.7	9.0	-1.9	337.0	13.1			
	5		2.3	33.8	-1.3	188.7	9.2			
Stationært	samlet	545.4	0.2	1.6	0.0	0.0	17.4	196.1	289.6	485.7
	2		0.7	9.0	0.0	297.6	8.9			
	5		2.3	34.3	0.0	180.1	7.5			
WBL	Lag	Nettonedbør	Rand-ind	Rand-ud	Storage	GVD	Indvinding	Dræn	Baseflow	Error
jsv-grd-dyn 1991 - 2000	1	-557.5	0.2	1.5	-7.8	0.0	1.4	183.4	169.9	0.3
	2	0.0	0.2	2.9	-1.8	337.0	4.7	0.0	138.0	-0.1
	3	0.0	0.2	3.1	-0.1	252.2	5.4	0.0	12.5	0.0
	4	0.0	0.2	2.9	-0.1	215.5	3.1	0.0	0.0	0.0
	5	0.0	0.3	3.4	-0.1	188.7	2.6	0.0	0.0	0.0
	6	0.0	0.2	5.1	-0.1	163.9	1.7	0.0	0.0	0.0
	7	0.0	0.2	4.8	0.0	139.2	1.0	0.0	0.0	0.0
	8	0.0	0.2	3.4	-0.1	115.6	0.7	0.0	0.0	0.0
	9	0.0	0.3	2.4	-0.1	96.9	0.5	0.0	0.0	0.0
	10	0.0	0.2	1.7	-0.1	83.4	0.8	0.0	0.0	0.0
	11	0.0	0.5	3.3	-0.1	71.0	0.5	0.0	0.0	0.0
	12	0.0	0.2	3.1	-0.1	47.9	1.0	0.0	0.0	0.0
	13	0.0	0.1	2.0	-0.1	29.0	0.5	0.0	0.0	0.0
	14	0.0	0.1	1.8	-0.1	16.8	0.0	0.0	0.0	0.0
	15	0.0	0.0	2.4	-0.3	9.8	0.0	0.0	0.0	0.0
	16	0.0	0.0	0.2	-0.3	3.0	0.0	0.0	0.0	0.0
jsv-grd-stat 1991 - 2000	1	-545.4	0.2	1.6	0.0	0.0	0.9	196.1	190.6	2.3
	2	0.0	0.2	2.9	0.0	297.6	3.1	0.0	92.7	-2.5
	3	0.0	0.2	3.1	0.0	236.8	3.7	0.0	6.3	-0.1
	4	0.0	0.2	2.9	0.0	205.0	2.1	0.0	0.0	0.0
	5	0.0	0.3	3.4	0.0	180.1	2.0	0.0	0.0	0.0
	6	0.0	0.2	5.1	0.0	156.5	1.2	0.0	0.0	0.0
	7	0.0	0.2	4.8	0.0	133.1	0.7	0.0	0.0	0.0
	8	0.0	0.2	3.4	0.0	110.7	0.5	0.0	0.0	0.0
	9	0.0	0.2	2.4	0.0	93.0	0.4	0.0	0.0	-0.1
	10	0.0	0.2	1.8	0.0	80.0	0.7	0.0	0.0	0.0
	11	0.0	0.5	3.4	0.0	68.2	0.5	0.0	0.0	0.0
	12	0.0	0.2	3.2	0.0	45.9	1.0	0.0	0.0	-0.1
	13	0.0	0.0	2.1	0.0	27.3	0.5	0.0	0.0	0.0
	14	0.0	0.1	1.9	0.0	15.2	0.0	0.0	0.0	0.0
	15	0.0	0.0	2.5	0.0	8.4	0.0	0.0	0.0	0.0
	16	0.0	0.0	0.2	0.0	2.2	0.0	0.0	0.0	0.0

Bilag 7 Delopland Sydøstjylland

Opgørelse af grundvandsdannelse Indikator 1 og 2							
Område	jso	OSD	jso-vp1	jso-vp2	jso-vp3	jso-vp4	jso-vp5
Basis parametre for områderne							
Nedbør [mm/år]	357	369	365	288	378	370	374
Areal [km ²]	4705	1476	2142	733	616	728	486
Ref-abs [mm/år]	20.5	34.6	12.8	32.1	17.8	33.6	21.0
Ref-abs [Mm ³ /år]	96.5	51.1	27.4	23.5	10.9	24.5	10.2
Indvinding [% af ref-abs]	Resulterende grundvandsdannelse som følge af ændret indvinding [mm/år]						
0%	84.0	102.6	76.1	64.4	80.9	100.9	127.4
50%	85.7	105.8	76.7	68.2	82.4	103.4	129.1
80%	86.8	108.0	77.1	71.2	83.4	105.0	130.1
100%	87.6	109.5	77.4	73.2	84.1	106.0	130.8
120%	88.3	111.0	77.6	75.2	84.8	107.2	131.6
150%	89.6	113.5	78.1	78.2	85.8	109.2	132.8
	%vis ændring af grundvandsdannelsen i forhold til den upåvirkede situation						
50%	2%	3%	1%	6%	2%	3%	1%
80%	3%	5%	1%	11%	3%	4%	2%
100%	4%	7%	2%	14%	4%	5%	3%
120%	5%	8%	2%	17%	5%	6%	3%
150%	7%	11%	3%	21%	6%	8%	4%
	Resulterende udnyttelsesgrad (Indikator 2) (abs/gvd)						
50%	12%	16%	8%	24%	11%	16%	8%
80%	19%	26%	13%	36%	17%	26%	13%
100%	23%	32%	16%	44%	21%	32%	16%
120%	28%	37%	20%	51%	25%	38%	19%
150%	34%	46%	25%	62%	31%	46%	24%
	Udnyttelses potentiale ved udnyttelsesgrad på 35% (Indikator 1) (abs/gvd_upåvirket)						
Teoretisk udnyttelse [%]	143%	104%	209%	70%	160%	105%	212%
Pot.abs [Mm ³ /år]	138.4	53.0	57.1	16.5	17.4	25.7	21.7

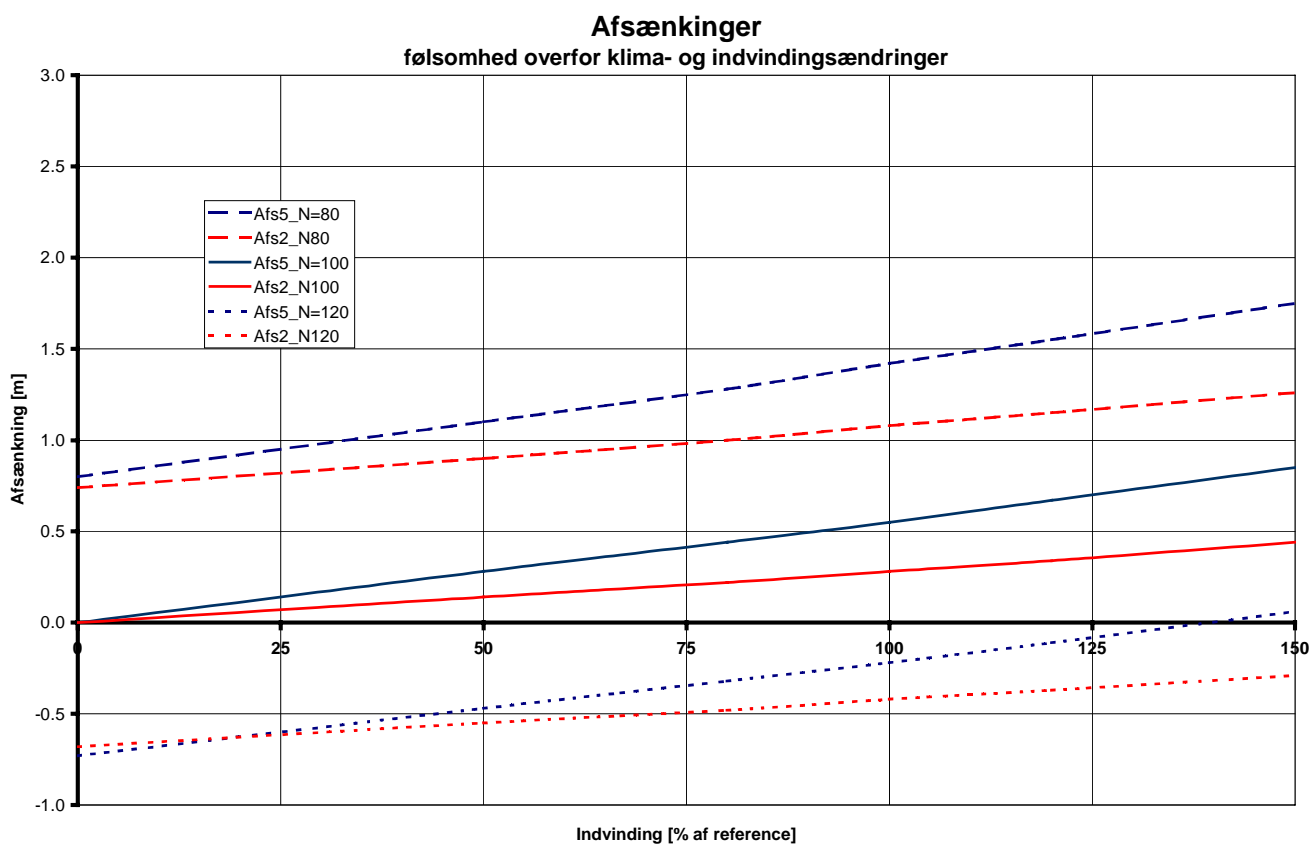
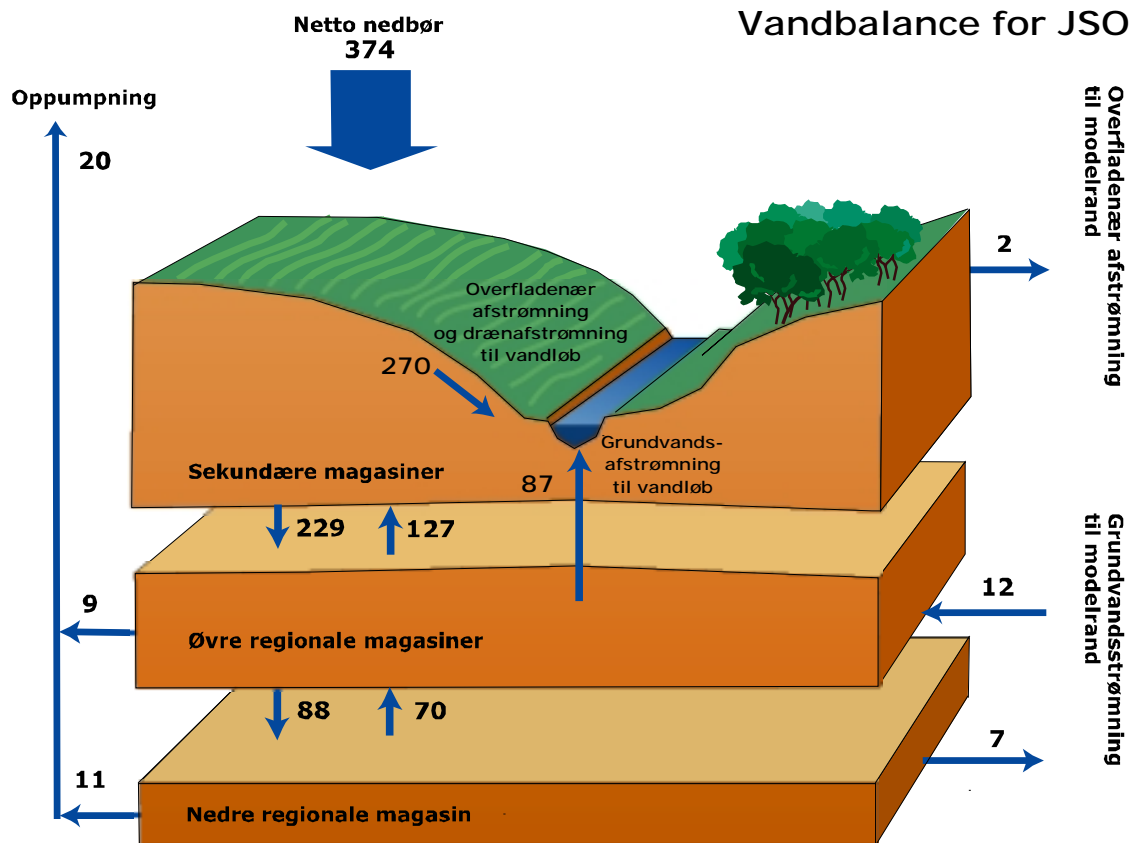


Opgørelse af vandførings Indikator 3 og 4

Samlet afstrømning

Minimums vandføring efter vandløbskrav

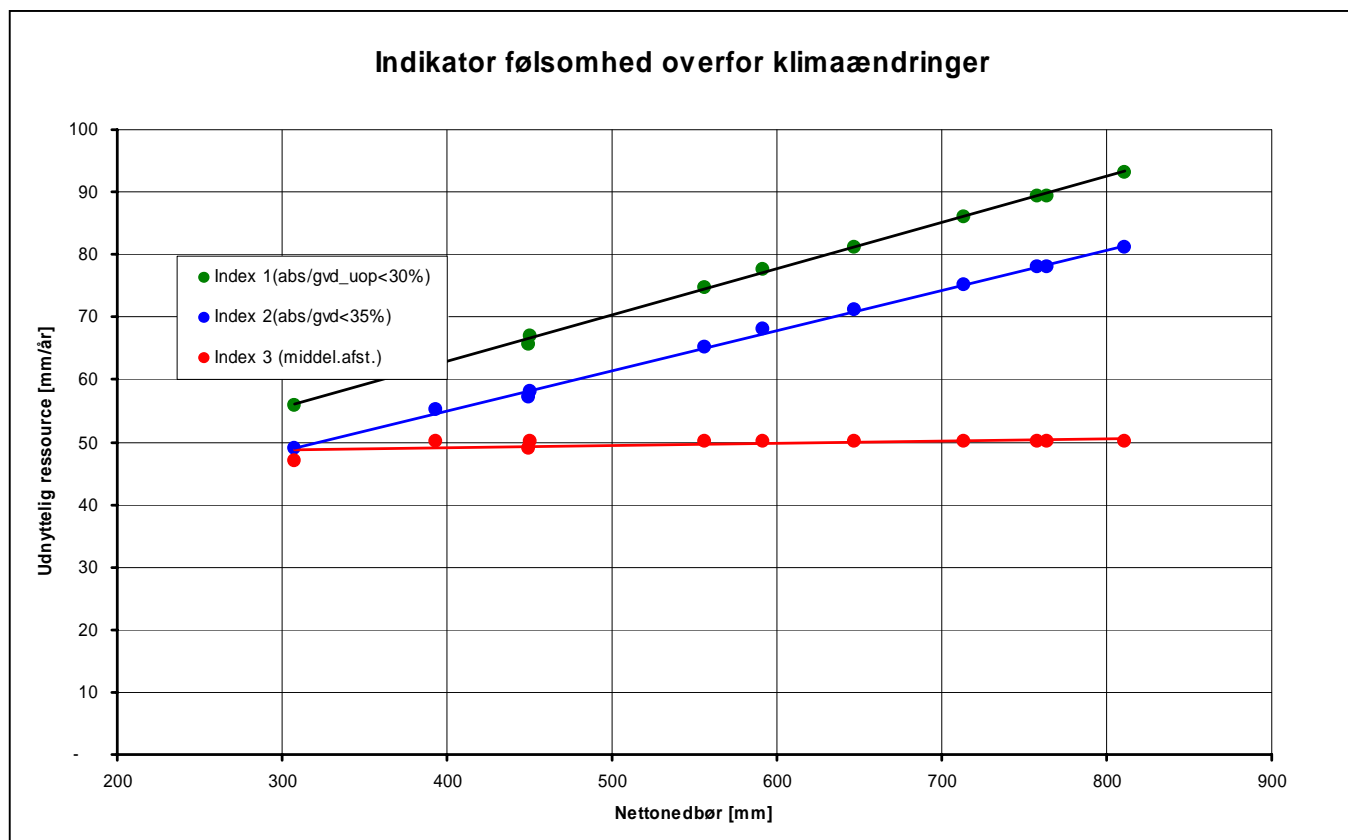
JSO	med.min	A	B1	B2	B3	CE	X
Areal	4705 km ²	9%	43%	12%	17%	4%	15%
Afstrømning [%]	34.79 m ³ /s	13%	37%	24%	9%	1%	16%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	2%	1%	3%	2%	5%	3%	2%
abs_100%	7%	5%	7%	5%	11%	12%	5%
abs_150%	7%	5%	8%	6%	14%	19%	5%
OSD	med.min	A	B1	B2	B3	CE	X
Areal	1476 km ²	9%	45%	9%	20%	3%	14%
Afstrømning [%]	7.03 m ³ /s	17%	46%	18%	12%	0%	6%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	4%	1%	4%	3%	10%	18%	8%
abs_100%	10%	5%	9%	6%	23%	38%	19%
abs_150%	12%	4%	11%	8%	30%	48%	23%
jso-vp1	med.min	A	B1	B2	B3	CE	X
Areal	2142 km ²	15%	41%	60%	33%	35%	136%
Afstrømning [%]	20.28 m ³ /s	17%	36%	95%	20%	5%	323%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	1%	1%	2%	1%	2%	7%	1%
abs_100%	5%	5%	5%	3%	7%	18%	3%
abs_150%	4%	4%	5%	3%	7%	22%	3%
jso-vp2	med.min	A	B1	B2	B3	CE	X
Areal	733 km ²	4%	34%	9%	25%	5%	23%
Afstrømning [%]	3.24 m ³ /s	7%	36%	13%	29%	2%	13%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	6%	3%	6%	3%	7%	-8%	7%
abs_100%	14%	7%	15%	7%	16%	3%	18%
abs_150%	17%	8%	17%	8%	20%	26%	22%
jso-vp3	med.min	A	B1	B2	B3	CE	X
Areal	616 km ²	3%	50%	13%	20%	8%	7%
Afstrømning [%]	2.49 m ³ /s	3%	40%	41%	10%	3%	4%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	3%	3%	3%	3%	5%	2%	5%
abs_100%	7%	7%	6%	6%	13%	8%	15%
abs_150%	10%	9%	8%	9%	17%	5%	16%
jso-vp4	med.min	A	B1	B2	B3	CE	X
Areal	728 km ²	5%	53%	16%	14%	1%	11%
Afstrømning [%]	6.33 m ³ /s	6%	45%	39%	4%	0%	6%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	4%	2%	5%	3%	11%	10%	3%
abs_100%	9%	4%	11%	7%	24%	24%	7%
abs_150%	12%	5%	14%	9%	33%	29%	9%
jso-vp5	med.min	A	B1	B2	B3	CE	X
Areal	486 km ²	5%	40%	20%	26%	3%	7%
Afstrømning [%]	2.44 m ³ /s	15%	22%	48%	11%	1%	3%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	3%	1%	3%	3%	2%	2%	2%
abs_100%	6%	3%	7%	6%	4%	5%	6%
abs_150%	8%	4%	9%	8%	5%	7%	7%



Vandbalance opsummeret										
	Lag	Nettonedbør	Rand-ind	Rand-ud	Storage	GVD	Indvinding	Dræn	Baseflow	Vandføring
Dynamisk	samlet	351.2	0.0	1.6	-0.9	0.0	19.6	214.3	117.9	332.2
	2		19.7	6.9	4.4	237.7	8.6			
	5		12.9	18.9	1.1	87.0	10.5			
Stationært	samlet	373.8	0.0	1.7	0.0	0.0	20.5	270.4	87.2	357.6
	2		19.8	7.3	0.0	228.9	9.3			
	5		13.0	19.5	0.0	87.6	10.7			
WBL	Lag	Nettonedbør	Rand-ind	Rand-ud	Storage	GVD	Indvinding	Dræn	Baseflow	Error
jso-grd-dyn										
1991 - 2000	1	-352.8	0.0	1.6	-0.9	0.0	0.5	214.3	16.1	0.4
	2	1.6	6.5	2.4	2.8	237.7	1.8	0.0	56.5	-0.2
	3	0.0	7.4	2.6	1.4	183.0	3.8	0.0	34.7	0.0
	4	0.0	5.9	1.9	0.2	125.6	3.1	0.0	10.2	0.0
	5	0.0	4.7	1.9	0.1	87.0	2.7	0.0	0.4	0.0
	6	0.0	2.3	4.1	0.0	62.0	1.9	0.0	0.0	0.0
	7	0.0	1.5	3.6	0.0	47.1	2.0	0.0	0.0	0.0
	8	0.0	0.7	2.0	0.0	35.4	1.2	0.0	0.0	0.0
	9	0.0	0.9	1.2	0.0	29.0	1.6	0.0	0.0	0.0
	10	0.0	0.3	0.5	0.0	23.1	0.4	0.0	0.0	0.0
	11	0.0	0.6	0.3	0.0	20.2	0.5	0.0	0.0	0.0
	12	0.0	0.4	0.2	0.0	18.2	0.2	0.0	0.0	0.0
	13	0.0	1.4	0.5	0.1	16.3	0.1	0.0	0.0	0.0
	14	0.0	0.2	4.6	0.7	13.7	0.0	0.0	0.0	0.0
jso-grd-stat										
1991 - 2000	1	-373.8	0.0	1.7	0.0	0.0	0.5	270.4	19.5	1.1
	2	0.0	6.5	2.6	0.0	228.9	2.0	0.0	39.2	0.7
	3	0.0	7.4	2.7	0.0	179.1	4.1	0.0	22.7	-1.7
	4	0.0	5.9	2.0	0.0	124.8	3.2	0.0	5.8	0.0
	5	0.0	4.7	1.9	0.0	87.6	2.8	0.0	0.1	0.0
	6	0.0	2.3	4.3	0.0	62.2	1.9	0.0	0.0	0.0
	7	0.0	1.5	3.7	0.0	46.9	2.0	0.0	0.0	0.0
	8	0.0	0.7	2.0	0.0	35.1	1.2	0.0	0.0	0.0
	9	0.0	0.9	1.2	0.0	28.6	1.6	0.0	0.0	0.0
	10	0.0	0.3	0.6	0.0	22.6	0.4	0.0	0.0	0.0
	11	0.0	0.6	0.3	0.0	19.8	0.6	0.0	0.0	0.0
	12	0.0	0.4	0.2	0.0	17.8	0.2	0.0	0.0	0.0
	13	0.0	1.4	0.5	0.0	15.8	0.1	0.0	0.0	0.0
	14	0.0	0.2	4.7	0.0	13.3	0.0	0.0	0.0	0.0

Bilag 8 Delopland Vestjylland

Opgørelse af grundvandsdannelse Indikator 1 og 2								
Område	jve	OSD	jve-vp1	jve-vp2	jve-vp3	jve-vp4	jve-vp5	jve-vp6
Basis parametre for områderne								
Nedbør [mm/år]	591	600	655	683	609	532	496	522
Areal [km ²]	5291	1318	1628	515	811	1047	453	837
Ref-abs [mm/år]	10.0	18.5	14.8	9.0	9.8	5.8	5.8	9.1
Ref-abs [Mm ³ /år]	53.0	24.4	24.1	4.6	8.0	6.1	2.6	7.6
Indvinding [% af ref-abs] og tilsvarende ændret indvinding [mm/år]								
0%	222.0	284.4	230.5	232.3	184.7	277.8	208.5	173.1
50%	223.1	286.3	232.2	233.4	185.1	278.4	208.8	174.4
80%	223.8	287.5	233.4	234.0	185.3	278.8	209.0	175.2
100%	224.2	288.3	234.1	234.4	185.5	279.1	209.1	175.8
120%	224.7	289.2	234.9	234.9	185.7	279.4	209.2	176.4
150%	225.4	290.5	236.1	235.5	186.0	279.9	209.4	177.2
Procentvis ændring af grundvandsdannelsen i forhold til den upåvirkede situation								
50%	0%	1%	1%	0%	0%	0%	0%	1%
80%	1%	1%	1%	1%	0%	0%	0%	1%
100%	1%	1%	2%	1%	0%	0%	0%	2%
120%	1%	2%	2%	1%	1%	1%	0%	2%
150%	2%	2%	2%	1%	1%	1%	0%	2%
Resulterende udnyttelsesgrad (Indikator 2) (abs/gvd)								
50%	2%	3%	3%	2%	3%	1%	1%	3%
80%	4%	5%	5%	3%	4%	2%	2%	4%
100%	4%	6%	6%	4%	5%	2%	3%	5%
120%	5%	8%	8%	5%	6%	2%	3%	6%
150%	7%	10%	9%	6%	8%	3%	4%	8%
Teoretiske potentiale ved udnyttelsesgrad på 35% (Indikator 1) (abs/gvd_upåvirket)								
Teoretisk udnyttelse [%]	776%	538%	546%	904%	658%	1679%	1252%	665%
Pot.abs [Mm ³ /år]	411.2	131.2	131.3	41.9	52.4	101.8	33.1	50.7



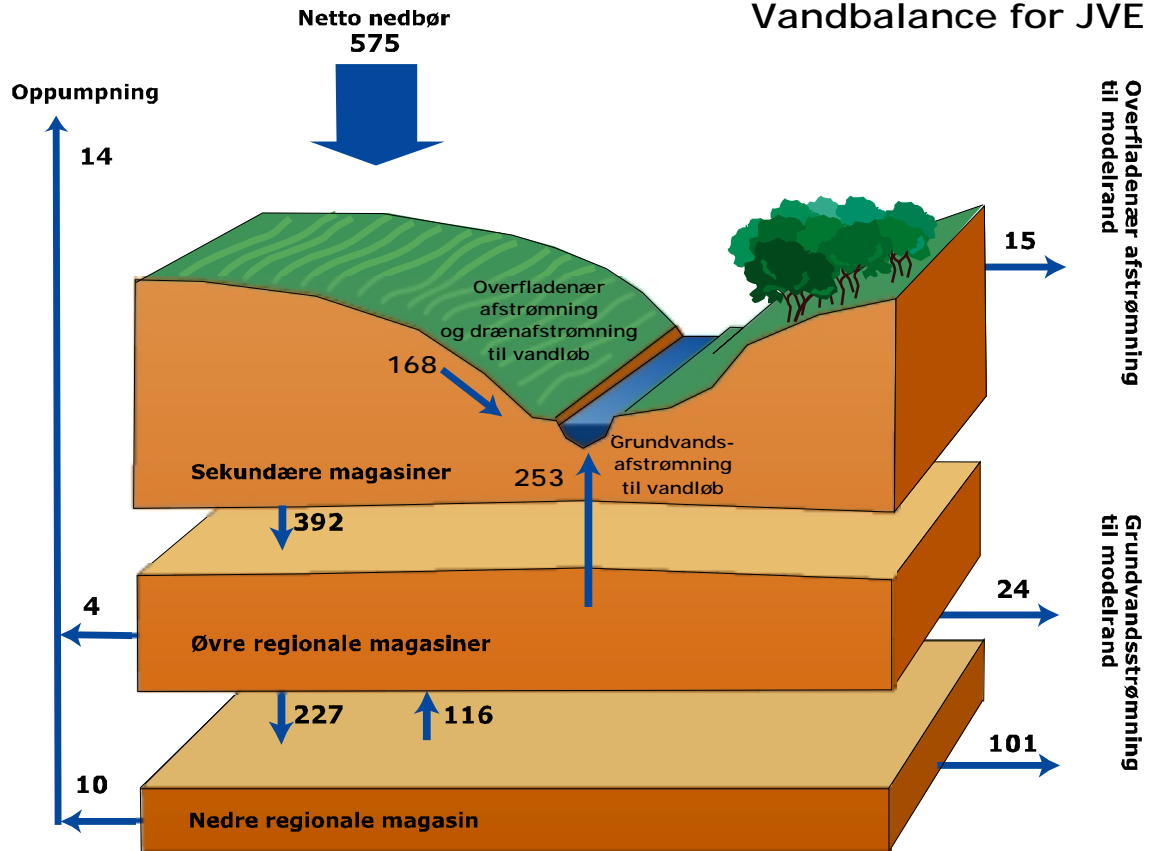
Opgørelse af vandførings Indikator 3 og 4

Samlet afstrøm

Minimums vandføring efter vandløbskrav

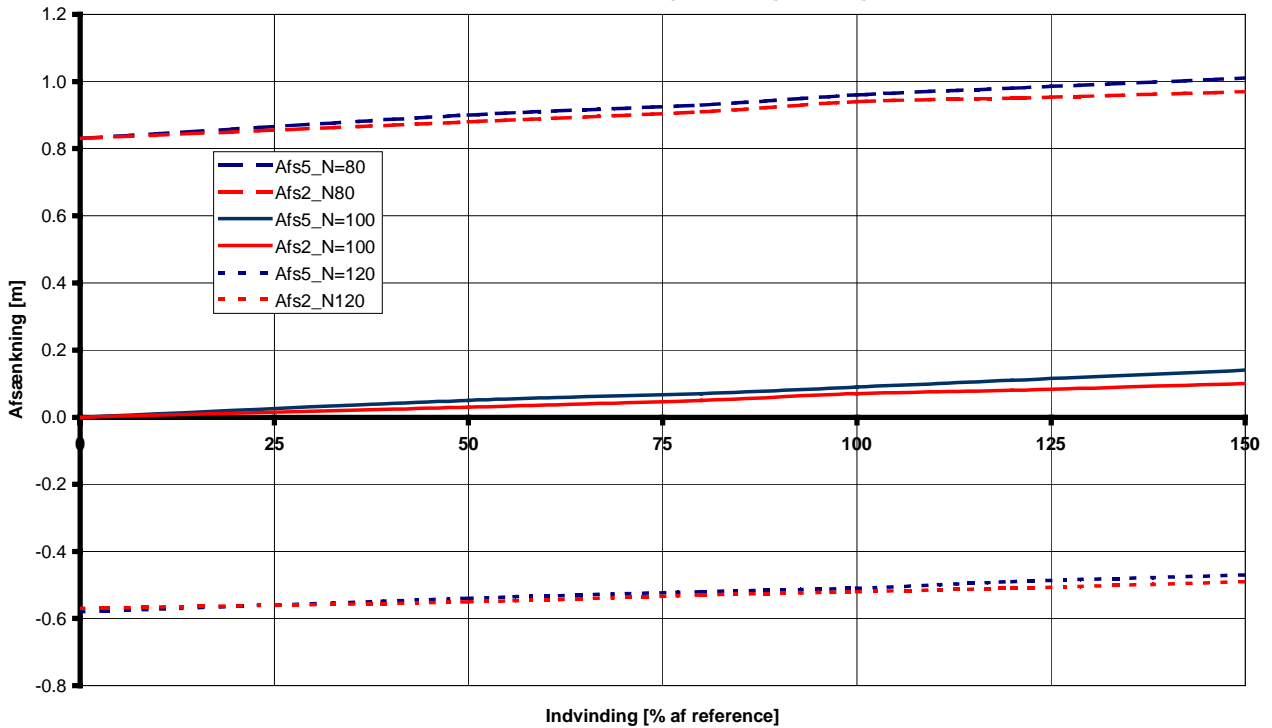
	med.min	A	B1	B2	B3	CE	X
jve							
Areal	5291 km ²	4%	31%	17%	23%	9%	16%
Afstrømning [%]	45.08 m ³ /s	10%	27%	32%	12%	4%	16%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	2%	2%	2%	2%	2%	3%	1%
abs_100%	4%	3%	3%	3%	4%	6%	3%
abs_150%	5%	5%	5%	5%	7%	9%	4%
OSD							
Areal	1318 km ²	6%	40%	12%	22%	8%	12%
Afstrømning [%]	4.95 m ³ /s	8%	39%	25%	15%	2%	10%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	3%	3%	2%	3%	4%	5%	4%
abs_100%	5%	6%	4%	5%	7%	9%	7%
abs_150%	8%	9%	6%	8%	11%	14%	10%
jve-vp1							
Areal	1628 km ²	7%	27%	23%	18%	15%	10%
Afstrømning [%]	17.76 m ³ /s	10%	26%	40%	12%	4%	7%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	2%	2%	2%	2%	3%	5%	2%
abs_100%	5%	4%	4%	4%	6%	10%	5%
abs_150%	7%	6%	6%	6%	9%	15%	8%
jve-vp2							
Areal	515 km ²	2%	21%	23%	12%	11%	30%
Afstrømning [%]	5.92 m ³ /s	2%	20%	40%	9%	5%	24%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	1%	3%	2%	1%	2%	1%	1%
abs_100%	3%	6%	4%	3%	3%	1%	1%
abs_150%	4%	9%	7%	4%	5%	2%	2%
jve-vp3							
Areal	811 km ²	7%	47%	16%	12%	8%	11%
Afstrømning [%]	10.73 m ³ /s	22%	33%	25%	4%	2%	15%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	2%	1%	2%	2%	3%	3%	2%
abs_100%	3%	3%	4%	4%	6%	5%	3%
abs_150%	5%	4%	6%	6%	9%	9%	5%
jve-vp4							
Areal	1047 km ²	4%	17%	13%	38%	6%	22%
Afstrømning [%]	5.12 m ³ /s	3%	13%	23%	24%	4%	33%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	1%	1%	1%	0%	2%	1%	1%
abs_100%	2%	2%	2%	1%	3%	2%	2%
abs_150%	3%	3%	3%	1%	5%	3%	3%
jve-vp5							
Areal	453 km ²	0%	38%	10%	32%	7%	13%
Afstrømning [%]	1.22 m ³ /s	0%	43%	15%	32%	5%	5%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	1%	-	1%	1%	1%	1%	1%
abs_100%	2%	-	1%	2%	2%	1%	2%
abs_150%	2%	-	2%	3%	3%	2%	3%
jve-vp6							
Areal	837 km ²	-	40%	10%	26%	3%	21%
Afstrømning [%]	4.33 m ³ /s	-	33%	23%	19%	1%	24%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	1%	2%	1%	1%	1%	1%	1%
abs_100%	2%	5%	2%	2%	3%	2%	3%
abs_150%	4%	8%	3%	3%	4%	2%	5%

Vandbalance for JVE



Afsænkinger

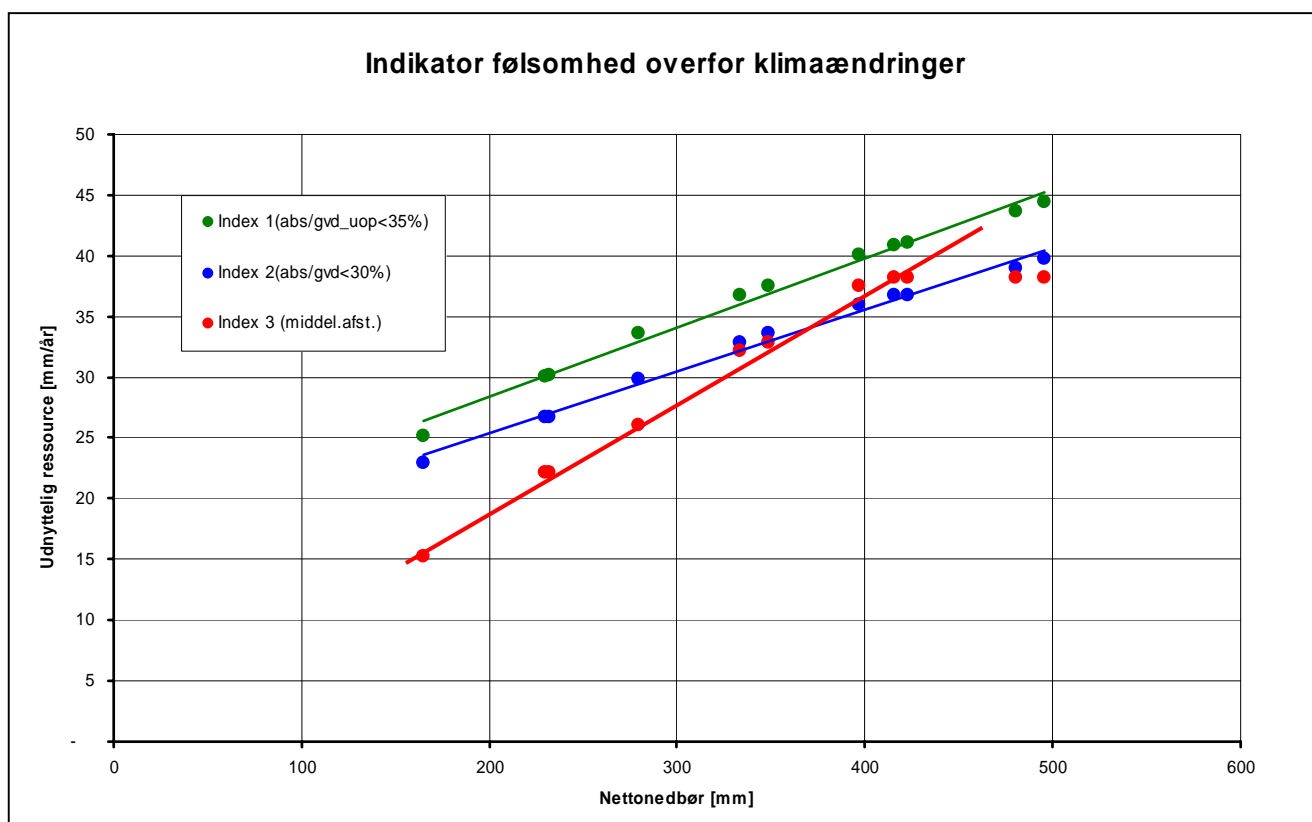
følsomhed overfor klima- og indvindingsændringer



Vandbalance opsummeret										
	Lag	Nettonedbør	Rand-ind	Rand-ud	Storage	GVD	Indvinding	Dræn	Baseflow	Vandføring
Dynamisk	samlet	574.6	0.0	15.3	-1.9	0.0	14.4	167.3	254.6	421.9
	2		0.0	24.2	-0.7	392.2	4.6			
	5		7.8	109.5	-0.1	227.3	9.7			
Stationært	samlet	568.4	0.0	16.5	0.0	0.0	10.0	193.0	214.4	407.4
	2		0.0	25.3	0.0	370.2	2.7			
	5		7.8	117.0	0.0	224.2	7.3			
WBL	Lag	Nettonedbør	Rand-ind	Rand-ud	Storage	GVD	Indvinding	Dræn	Baseflow	Error
jve-grd-dyn 1991 - 2000	1	-579.8	0.0	15.3	-1.9	0.0	0.0	167.3	80.4	0.4
	2	5.2	0.0	7.3	-0.6	392.2	1.4	0.0	130.9	-0.3
	3	0.0	0.0	8.8	0.0	302.8	1.7	0.0	41.8	0.0
	4	0.0	0.0	8.1	0.0	253.6	1.6	0.0	1.6	0.0
	5	0.0	0.0	9.7	0.0	227.3	1.8	0.0	0.0	0.0
	6	0.0	0.2	18.4	0.0	201.0	2.0	0.0	0.0	0.0
	7	0.0	0.4	12.3	0.0	162.4	1.7	0.0	0.0	0.0
	8	0.0	0.2	8.4	0.0	138.2	1.4	0.0	0.0	0.0
	9	0.0	0.4	8.0	0.0	119.0	0.8	0.0	0.0	0.0
	10	0.0	0.5	7.2	0.0	101.0	0.8	0.0	0.0	0.0
	11	0.0	1.3	13.0	0.0	87.0	0.7	0.0	0.0	0.0
	12	0.0	1.3	8.8	0.0	60.2	0.4	0.0	0.0	0.0
	13	0.0	1.6	8.3	0.0	42.8	0.1	0.0	0.0	0.0
	14	0.0	1.6	8.8	0.0	28.7	0.0	0.0	0.0	0.0
	15	0.0	0.3	6.5	0.0	14.6	0.0	0.0	0.0	0.0
jve-grd-stat 1991 - 2000	1	-568.4	0.0	16.5	0.0	0.0	0.0	193.0	99.4	9.0
	2	0.0	0.0	7.8	0.0	370.2	0.7	0.0	94.3	-8.9
	3	0.0	0.0	9.1	0.0	287.8	1.0	0.0	20.3	0.0
	4	0.0	0.0	8.4	0.0	248.8	0.9	0.0	0.4	0.0
	5	0.0	0.0	10.1	0.0	224.2	1.2	0.0	0.0	0.0
	6	0.0	0.1	19.7	0.0	198.3	1.4	0.0	0.0	0.0
	7	0.0	0.4	13.2	0.0	160.3	1.3	0.0	0.0	0.0
	8	0.0	0.2	9.1	0.0	136.5	1.1	0.0	0.0	0.0
	9	0.0	0.4	8.7	0.0	117.4	0.6	0.0	0.0	0.0
	10	0.0	0.5	7.8	0.0	99.6	0.7	0.0	0.0	0.0
	11	0.0	1.3	13.9	0.0	85.6	0.6	0.0	0.0	0.0
	12	0.0	1.3	9.6	0.0	58.8	0.3	0.0	0.0	0.0
	13	0.0	1.6	8.8	0.0	41.5	0.1	0.0	0.0	0.0
	14	0.0	1.7	9.3	0.0	27.3	0.0	0.0	0.0	0.0
	15	0.0	0.3	6.8	0.0	13.8	0.0	0.0	0.0	0.0

Bilag 9 Delopland Østjylland

Område	Opgørelse af grundvandsdannelse Indikator 1 og 2					
	joe	OSD	joe-vp1	joe-vp2	joe-vp3	joe-vp4
Basis parametre for områderne						
Nedbør [mm/år]	348	354	395	359	324	314
Areal [km ²]	4418	1328	1332	722	1202	1162
Ref-abs [mm/år]	7.7	11.1	7.0	5.7	9.5	7.8
Ref-abs [Mm ³ /år]	33.8	14.7	9.3	4.1	11.4	9.0
Indvinding [% af ref-abs]	Resulterende grundvandsdannelse som følge af ændret indvinding [mm/år]					
0%	107.3	140.9	104.6	104.4	100.6	119.1
50%	108.3	142.6	105.6	105.2	101.8	120.0
80%	109.0	143.8	106.3	105.7	102.6	120.8
100%	109.5	144.7	106.8	106.0	103.2	121.3
120%	110.0	145.5	107.4	106.4	103.7	121.9
150%	110.8	146.7	108.1	106.9	104.5	122.7
	%'vis ændring af grundvandsdannelsen i forhold til den upåvirkede situation					
50%	1%	1%	1%	1%	1%	1%
80%	2%	2%	2%	1%	2%	1%
100%	2%	3%	2%	2%	2%	2%
120%	3%	3%	3%	2%	3%	2%
150%	3%	4%	3%	2%	4%	3%
	Resulterende udnyttelsesgrad (Indikator 2) (abs/gvd)					
50%	4%	4%	3%	3%	5%	3%
80%	6%	6%	5%	4%	7%	5%
100%	7%	8%	7%	5%	9%	6%
120%	8%	9%	8%	6%	11%	8%
150%	10%	11%	10%	8%	14%	9%
	Udnyttelses potentiale ved udnyttelsesgrad på 35% (Indikator 1) (abs/gvd_upåvirket)					
Teoretisk udnyttelse [%]	491%	445%	524%	644%	373%	536%
Pot.abs [Mm³/år]	165.9	65.5	48.8	26.4	42.3	48.4



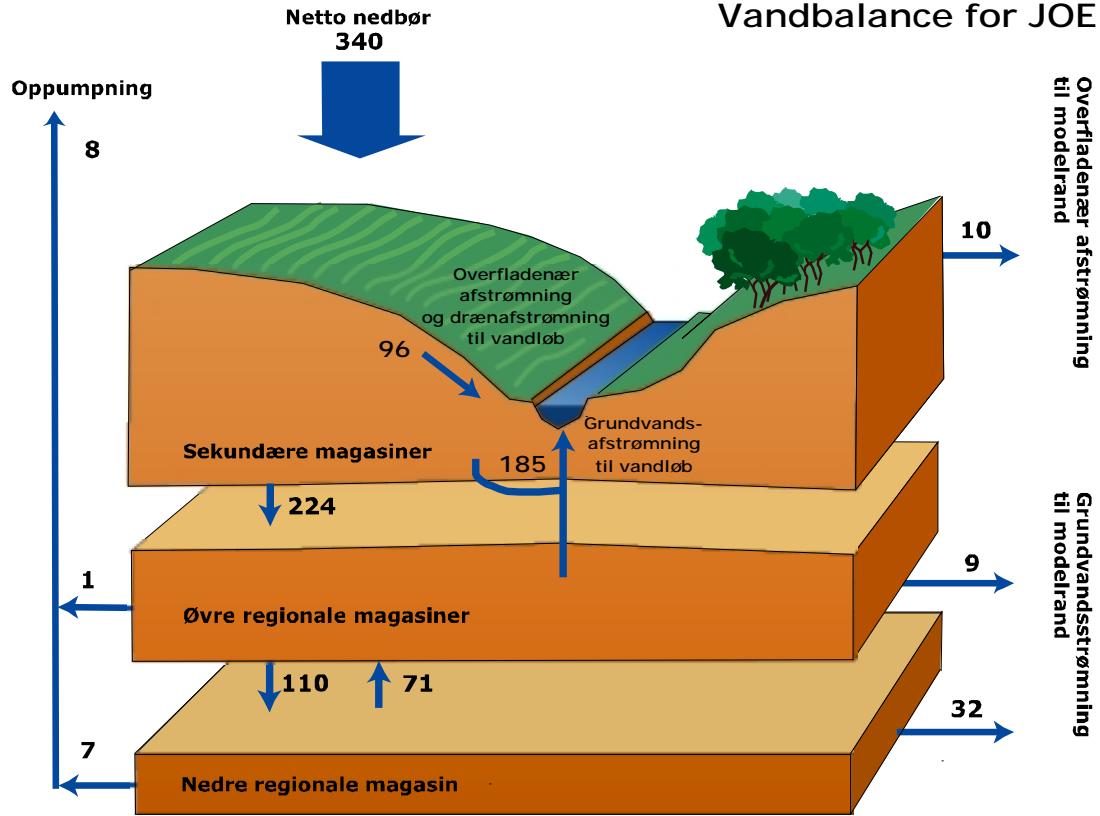
Opgørelse af vandførings Indikator 3 og 4

Samlet afstrømning

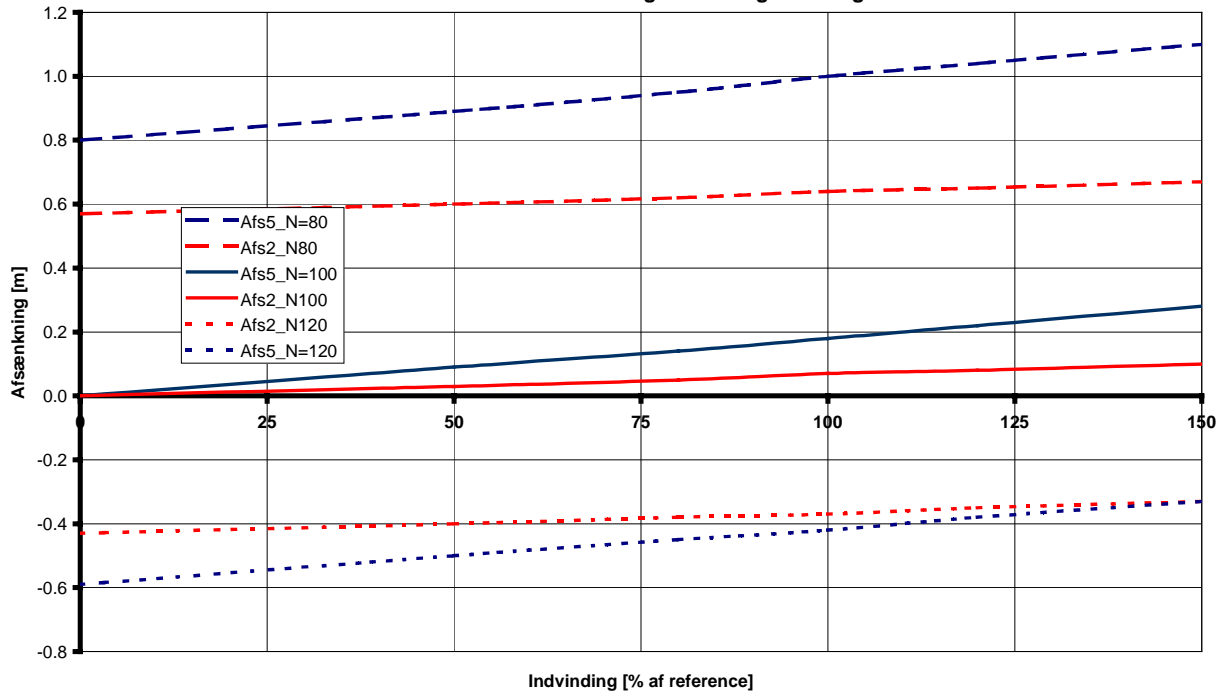
Minimums vandføring efter vandløbskrav

joe	med.min	A	B1	B2	B3	CE	X
Areal	4418 km ²	3%	40%	19%	16%	9%	13%
Afstrømning [%]	27.12 m ³ /s	2%	35%	39%	11%	5%	7%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	1%	0%	1%	1%	2%	3%	2%
abs_100%	3%	1%	2%	2%	5%	7%	4%
abs_150%	4%	2%	4%	3%	8%	10%	7%
OSD	med.min	A	B1	B2	B3	CE	X
Areal	1328 km ²	5%	52%	8%	15%	7%	14%
Afstrømning [%]	3.94 m ³ /s	5%	59%	11%	18%	2%	3%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	2%	1%	2%	3%	3%	1%	5%
abs_100%	5%	2%	4%	5%	8%	2%	10%
abs_150%	7%	3%	6%	5%	12%	3%	15%
joe-vp1	med.min	A	B1	B2	B3	CE	X
Areal	1332 km ²	3%	47%	21%	13%	4%	12%
Afstrømning [%]	10.60 m ³ /s	3%	37%	38%	12%	2%	8%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	1%	0%	1%	1%	3%	2%	1%
abs_100%	3%	1%	2%	2%	6%	4%	2%
abs_150%	4%	1%	4%	3%	9%	6%	3%
joe-vp2	med.min	A	B1	B2	B3	CE	X
Areal	722 km ²	2%	42%	12%	23%	8%	13%
Afstrømning [%]	3.47 m ³ /s	0%	54%	24%	17%	3%	1%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	1%	-	1%	1%	1%	1%	1%
abs_100%	2%	-	1%	3%	3%	2%	3%
abs_150%	3%	-	2%	3%	4%	2%	4%
joe-vp3	med.min	A	B1	B2	B3	CE	X
Areal	1202 km ²	4%	35%	23%	13%	14%	11%
Afstrømning [%]	7.62 m ³ /s	3%	30%	39%	8%	10%	10%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	2%	0%	1%	0%	4%	5%	4%
abs_100%	4%	1%	2%	2%	9%	10%	7%
abs_150%	6%	2%	4%	3%	11%	14%	11%
joe-vp4	med.min	A	B1	B2	B3	CE	X
Areal	1162 km ²	3%	37%	17%	18%	10%	15%
Afstrømning [%]	5.43 m ³ /s	3%	29%	48%	11%	4%	6%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	2%	1%	2%	1%	1%	2%	3%
abs_100%	3%	2%	4%	3%	4%	4%	5%
abs_150%	5%	3%	6%	4%	5%	5%	8%

Vandbalance for JOE



Afsænkinger følsomhed overfor klima- og indvindingsændringer



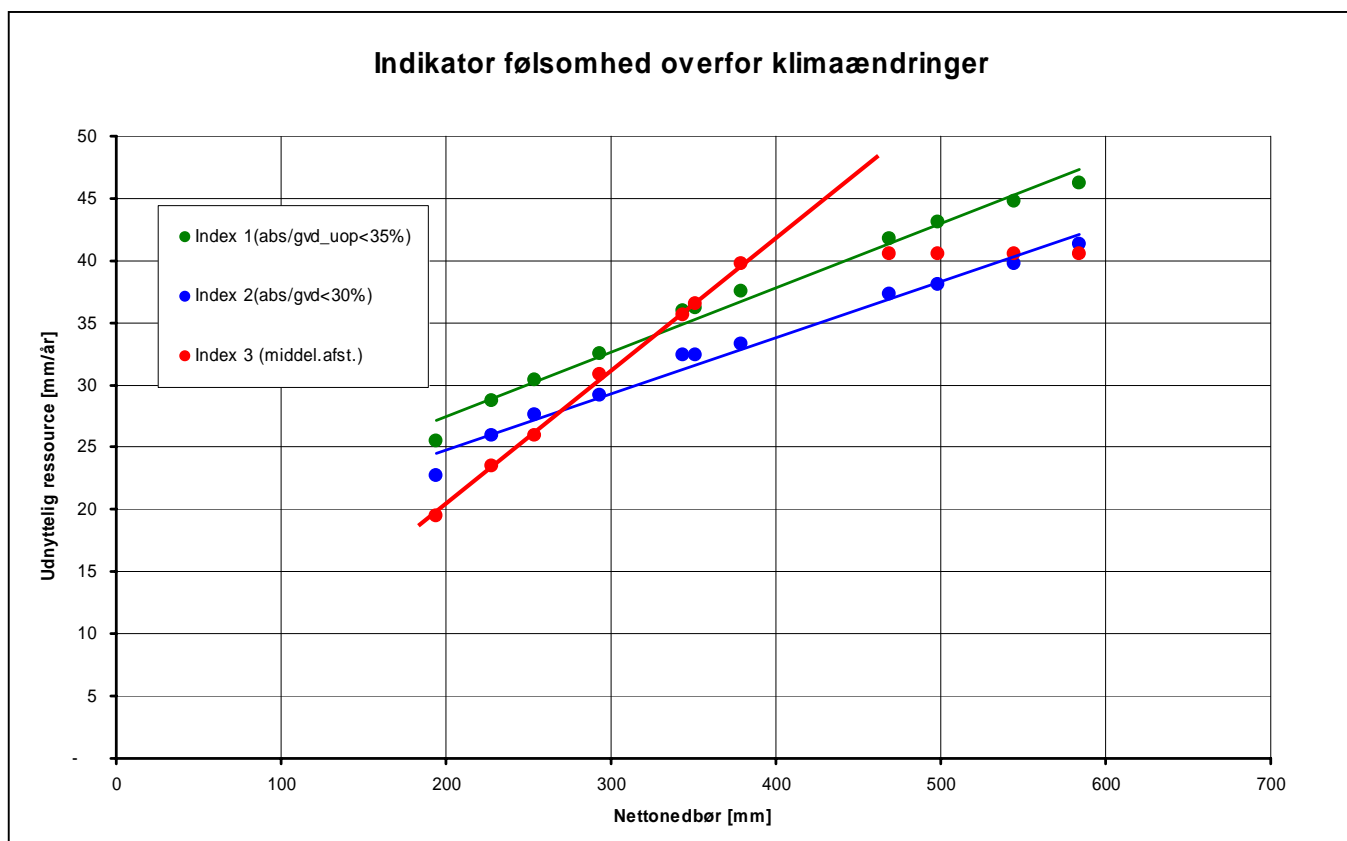
Vandbalance opsummeret										
	Lag	Nettonedbør	Rand-ind	Rand-ud	Storage	GVD	Indvinding	Dræn	Baseflow	Vandføring
Dynamisk	samlet	350.9	0.0	10.8	-0.7	0.0	7.6	107.1	186.4	293.5
	2		1.2	10.1	-0.3	237.6	1.0			
	5		3.3	34.6	0.0	110.2	6.6			
Stationært	samlet	340.5	0.1	10.3	0.0	0.0	7.7	95.9	185.1	281.1
	2		1.2	10.4	0.0	223.9	1.0			
	5		3.3	35.6	0.0	109.5	6.6			
WBL	Lag	Nettonedbør	Rand-ind	Rand-ud	Storage	GVD	Indvinding	Dræn	Baseflow	Error
joe-grd-dyn										
1991 - 2000	1	-355.5	0.0	10.8	-0.7	0.0	0.0	107.1	34.6	0.1
	2	3.8	0.3	2.5	-0.2	237.6	0.1	0.0	63.8	0.0
	3	0.7	0.5	3.4	-0.1	193.4	0.3	0.0	56.8	0.1
	4	0.0	0.4	4.2	0.0	147.0	0.6	0.0	30.3	0.0
	5	0.0	0.4	4.7	0.0	110.2	0.7	0.0	0.9	0.0
	6	0.0	0.2	8.2	0.0	88.2	1.1	0.0	0.0	0.0
	7	0.0	0.4	6.2	0.0	66.3	1.1	0.0	0.0	0.0
	8	0.0	0.3	4.9	0.0	50.9	1.3	0.0	0.0	0.0
	9	0.0	0.2	2.7	0.0	39.7	0.9	0.0	0.0	0.0
	10	0.0	0.2	1.5	0.0	31.8	0.6	0.0	0.0	0.0
	11	0.0	0.4	1.8	0.0	26.6	0.6	0.0	0.0	0.0
	12	0.0	0.3	1.2	0.0	19.8	0.2	0.0	0.0	0.0
	13	0.0	0.4	1.4	0.0	15.3	0.0	0.0	0.0	0.0
	14	0.0	0.3	1.0	0.0	10.5	0.0	0.0	0.0	0.0
	15	0.0	0.1	1.0	0.0	5.0	0.0	0.0	0.0	0.0
joe-grd-stat										
1991 - 2000	1	-340.5	0.1	10.3	0.0	0.0	0.0	95.9	55.4	0.4
	2	0.0	0.3	2.6	0.0	223.9	0.1	0.0	58.4	-0.5
	3	0.0	0.4	3.4	0.0	184.4	0.3	0.0	49.2	0.0
	4	0.0	0.4	4.3	0.0	141.9	0.6	0.0	21.4	0.0
	5	0.0	0.4	4.8	0.0	109.5	0.7	0.0	0.6	0.0
	6	0.0	0.2	8.4	0.0	87.9	1.1	0.0	0.0	0.0
	7	0.0	0.4	6.4	0.0	66.2	1.1	0.0	0.0	0.0
	8	0.0	0.3	5.1	0.0	51.0	1.3	0.0	0.0	0.0
	9	0.0	0.2	2.7	0.0	39.8	0.9	0.0	0.0	0.0
	10	0.0	0.2	1.5	0.0	31.9	0.6	0.0	0.0	0.0
	11	0.0	0.4	1.8	0.0	26.5	0.6	0.0	0.0	0.0
	12	0.0	0.3	1.2	0.0	19.7	0.2	0.0	0.0	0.0
	13	0.0	0.5	1.4	0.0	15.2	0.0	0.0	0.0	0.0
	14	0.0	0.3	1.1	0.0	10.4	0.0	0.0	0.0	0.0
	15	0.0	0.1	1.0	0.0	5.0	0.0	0.0	0.0	0.0

Bilag 10 Delopland Nordjylland

Opgørelse af grundvandsdannelse Indikator 1 og 2

Område	jno	OSD	jno-vp1	jno-vp2	jno-vp3	jno-vp4	jno-vp5	jno-vp6
Basis parametre for områderne								
Nedbør [mm/år]	379	372	368	353	391	372	387	409
Areal [km ²]	5478	1013	1128	758	985	1064	931	612
Ref-abs [mm/år]	8.1	20.7	6.4	13.3	7.3	6.4	11.8	3.8
Ref-abs [Mm ³ /år]	44.4	21.0	7.2	10.1	7.1	6.8	11.0	2.3
Resulterende grundvandsdannelse som følge af ændret indvinding [mm/år]								
Indvinding [% af ref-abs]								
0%	107.4	156.5	132.1	135.6	89.7	92.2	76.6	128.4
50%	108.5	158.4	133.1	137.5	90.9	93.0	77.9	128.7
80%	109.2	159.9	133.7	138.5	91.7	93.5	79.0	129.0
100%	109.7	161.0	134.1	139.4	92.2	93.9	79.8	129.2
120%	110.3	162.2	134.5	140.1	92.7	94.3	80.6	129.7
150%	111.1	163.8	135.1	141.4	93.5	94.8	82.0	130.1
%vis ændring af grundvandsdannelsen i forhold til den upåvirkede situation								
50%	1%	1%	1%	1%	1%	1%	2%	0%
80%	2%	2%	1%	2%	2%	1%	3%	0%
100%	2%	3%	1%	3%	3%	2%	4%	1%
120%	3%	4%	2%	3%	3%	2%	5%	1%
150%	3%	5%	2%	4%	4%	3%	7%	1%
Resulterende udnyttelsesgrad (Indikator 2) (abs/gvd)								
50%	4%	7%	2%	5%	4%	3%	8%	1%
80%	6%	10%	4%	8%	6%	5%	12%	2%
100%	7%	13%	5%	10%	8%	7%	15%	3%
120%	9%	15%	6%	11%	9%	8%	18%	4%
150%	11%	19%	7%	14%	12%	10%	22%	4%
Udnyttelses potentiale ved udnyttelsesgrad på 35% (Indikator 1) (abs/gvd_upåvirket)								
Teoretisk udnyttelse [%]	463%	265%	728%	356%	433%	508%	228%	1182%
Pot.abs [Mm ³ /år]	205.8	55.5	52.2	36.0	30.9	34.4	25.0	27.5

Indikator følsomhed overfor klimaændringer

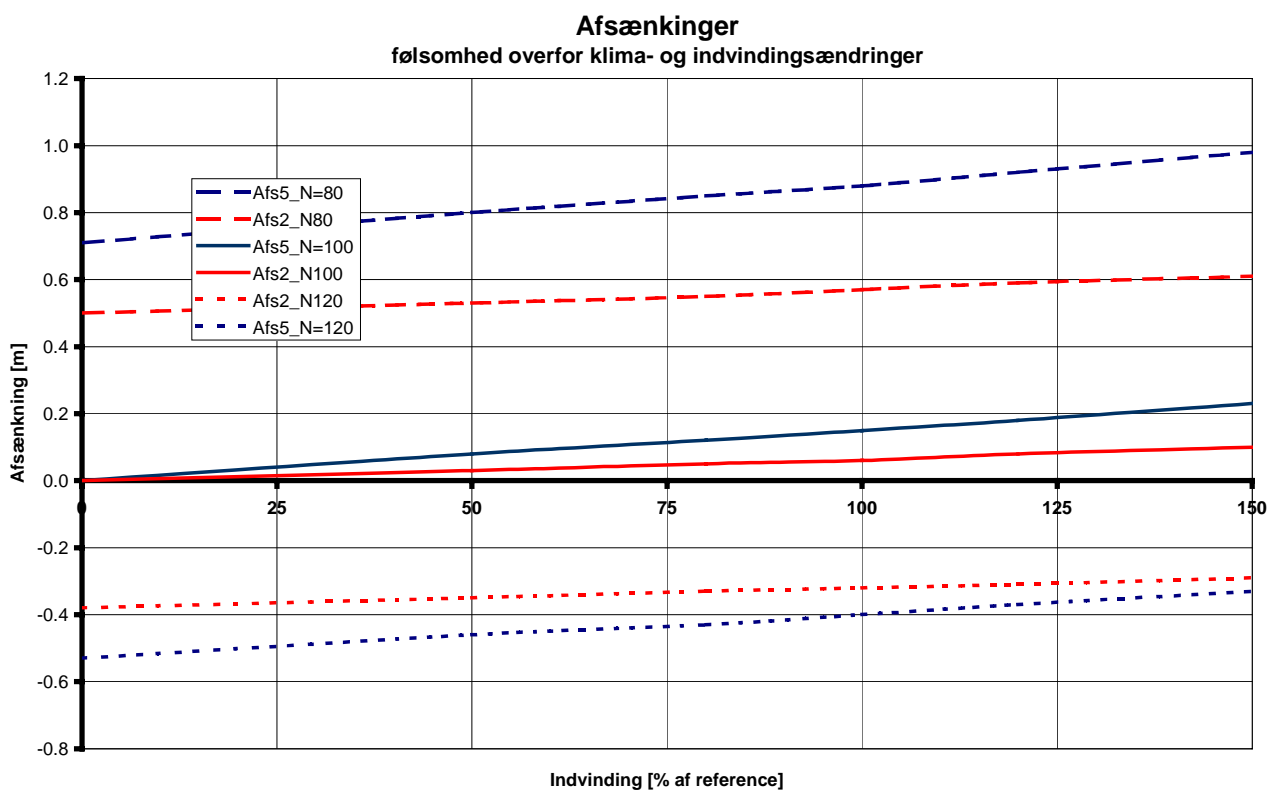
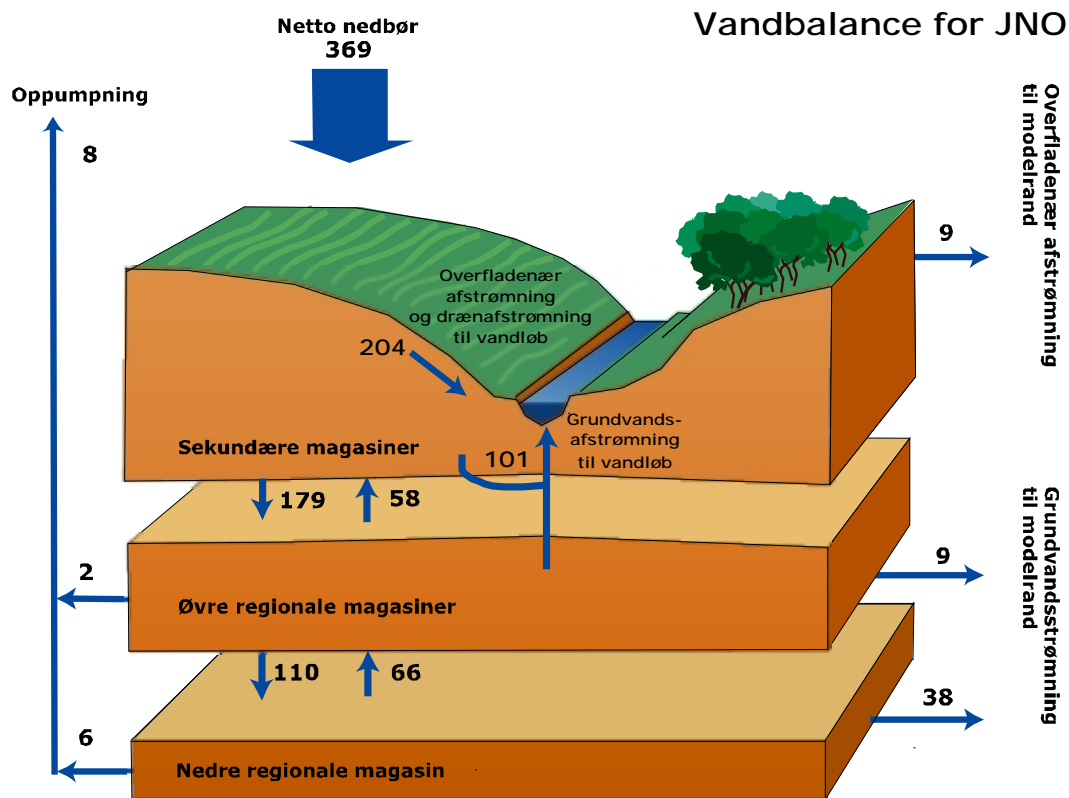


Opgørelse af vandførings Indikator 3 og 4

Samlet afstrømning

Minimums vandføring efter vandløbskrav

jno	med.min	A	B1	B2	B3	CE	X
Areal	5478 km ²	0%	36%	23%	23%	6%	13%
Afstrømning [%]	27.84 m ³ /s	0%	29%	42%	19%	4%	6%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	2%	-	2%	1%	2%	4%	1%
abs_100%	3%	-	3%	3%	4%	8%	2%
abs_150%	5%	-	5%	4%	6%	12%	4%
OSD	med.min	A	B1	B2	B3	CE	X
Areal	1013 km ²	0%	47%	18%	16%	7%	12%
Afstrømning [%]	3.15 m ³ /s	0%	48%	34%	10%	6%	1%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	3%	-	2%	2%	13%	5%	1%
abs_100%	6%	-	4%	5%	21%	10%	1%
abs_150%	9%	-	6%	7%	29%	15%	2%
jno-vp1	med.min	A	B1	B2	B3	CE	X
Areal	1128 km ²	0%	55%	24%	8%	6%	8%
Afstrømning [%]	6.62 m ³ /s	0%	48%	41%	6%	2%	4%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	1%	-	1%	1%	1%	4%	1%
abs_100%	2%	-	3%	2%	2%	8%	2%
abs_150%	3%	-	4%	2%	3%	13%	3%
jno-vp2	med.min	A	B1	B2	B3	CE	X
Areal	758 km ²	0%	34%	23%	21%	12%	10%
Afstrømning [%]	4.90 m ³ /s	0%	35%	42%	13%	7%	3%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	3%	-	1%	2%	7%	6%	4%
abs_100%	5%	-	2%	3%	12%	10%	6%
abs_150%	7%	-	3%	5%	17%	15%	8%
jno-vp3	med.min	A	B1	B2	B3	CE	X
Areal	985 km ²	0%	13%	28%	33%	9%	17%
Afstrømning [%]	5.64 m ³ /s	0%	10%	43%	29%	5%	12%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	1%	-	1%	1%	2%	2%	1%
abs_100%	3%	-	2%	2%	4%	4%	3%
abs_150%	4%	-	3%	3%	5%	6%	4%
jno-vp4	med.min	A	B1	B2	B3	CE	X
Areal	1064 km ²	0%	39%	24%	25%	4%	8%
Afstrømning [%]	5.12 m ³ /s	0%	29%	45%	19%	3%	4%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	2%	-	2%	1%	1%	7%	0%
abs_100%	3%	-	4%	3%	2%	15%	1%
abs_150%	5%	-	6%	4%	3%	22%	1%
jno-vp5	med.min	A	B1	B2	B3	CE	X
Areal	931 km ²	0%	43%	27%	15%	5%	10%
Afstrømning [%]	3.38 m ³ /s	0%	27%	56%	9%	2%	5%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	3%	-	4%	2%	3%	3%	2%
abs_100%	5%	-	8%	4%	6%	-1%	4%
abs_150%	8%	-	11%	6%	9%	5%	5%
jno-vp6	med.min	A	B1	B2	B3	CE	X
Areal	612 km ²	0%	22%	4%	43%	2%	29%
Afstrømning [%]	2.19 m ³ /s	0%	13%	10%	59%	2%	16%
Afstrømnings ændringer [% i forhold til situation uden oppumpning]							
abs_50%	1%	-	2%	2%	1%	1%	1%
abs_100%	1%	-	3%	3%	0%	1%	1%
abs_150%	3%	-	5%	5%	3%	2%	2%



Vandbalance opsummeret										
	Lag	Nettonedbør	Rand-ind	Rand-ud	Storage	GVD	Indvinding	Dræn	Baseflow	Vandføring
Dynamisk	Samlet	374.1	0.1	8.3	-0.3	0.0	8.2	204.9	107.5	312.5
	2		0.0	8.5	-0.2	185.2	1.8			
	5		1.6	39.1	0.0	108.5	6.3			
Stationært	Samlet	369.5	0.1	8.6	0.0	0.0	8.1	204.3	101.4	305.6
	2		0.0	8.8	0.0	179.2	1.8			
	5		1.7	40.3	0.0	109.7	6.2			
WBL	Lag	Nettonedbør	Rand-ind	Rand-ud	Storage	GVD	Indvinding	Dræn	Baseflow	Error
jno-grd-dyn 1991 - 2000	1	-376.9	0.1	8.3	-0.3	0.0	0.1	204.9	35.1	0.3
	2	2.6	0.0	2.4	-0.1	185.2	0.2	0.0	40.6	-0.1
	3	0.2	0.0	3.1	-0.1	147.3	0.7	0.0	18.6	0.0
	4	0.0	0.0	3.1	0.0	125.4	0.9	0.0	11.5	0.0
	5	0.0	0.0	3.9	0.0	108.5	1.1	0.0	1.7	0.0
	6	0.0	0.0	11.0	0.0	93.6	1.3	0.0	0.0	0.0
	7	0.0	0.1	4.9	0.0	73.1	1.3	0.0	0.0	0.0
	8	0.0	0.2	3.8	0.0	60.5	0.9	0.0	0.0	0.0
	9	0.0	0.1	2.6	0.0	51.7	0.6	0.0	0.0	0.0
	10	0.0	0.1	1.5	0.0	45.3	0.5	0.0	0.0	0.0
	11	0.0	0.2	2.2	0.0	40.7	0.3	0.0	0.0	0.0
	12	0.0	0.1	1.4	0.0	33.9	0.1	0.0	0.0	0.0
	13	0.0	0.2	1.8	0.0	29.2	0.1	0.0	0.0	0.0
	14	0.0	0.2	3.1	0.0	22.6	0.0	0.0	0.0	0.0
	15	0.0	0.3	2.9	0.0	10.8	0.0	0.0	0.0	0.0
jno-grd-stat 1991 - 2000	1	-369.5	0.1	8.6	0.0	0.0	0.1	204.3	41.2	0.1
	2	0.0	0.0	2.5	0.0	179.2	0.2	0.0	33.7	0.0
	3	0.0	0.0	3.2	0.0	146.2	0.7	0.0	16.0	0.0
	4	0.0	0.0	3.1	0.0	125.7	0.9	0.0	9.3	0.0
	5	0.0	0.0	4.0	0.0	109.7	1.1	0.0	1.1	0.0
	6	0.0	0.0	11.3	0.0	94.9	1.3	0.0	0.0	0.0
	7	0.0	0.1	5.0	0.0	73.9	1.3	0.0	0.0	0.0
	8	0.0	0.2	4.0	0.0	61.1	0.9	0.0	0.0	0.0
	9	0.0	0.1	2.7	0.0	52.2	0.6	0.0	0.0	0.0
	10	0.0	0.1	1.5	0.0	45.6	0.5	0.0	0.0	0.0
	11	0.0	0.2	2.3	0.0	40.9	0.3	0.0	0.0	0.0
	12	0.0	0.1	1.5	0.0	34.0	0.1	0.0	0.0	0.0
	13	0.0	0.2	1.9	0.0	29.3	0.1	0.0	0.0	0.0
	14	0.0	0.3	3.2	0.0	22.6	0.0	0.0	0.0	0.0
	15	0.0	0.3	2.9	0.0	10.8	0.0	0.0	0.0	0.0