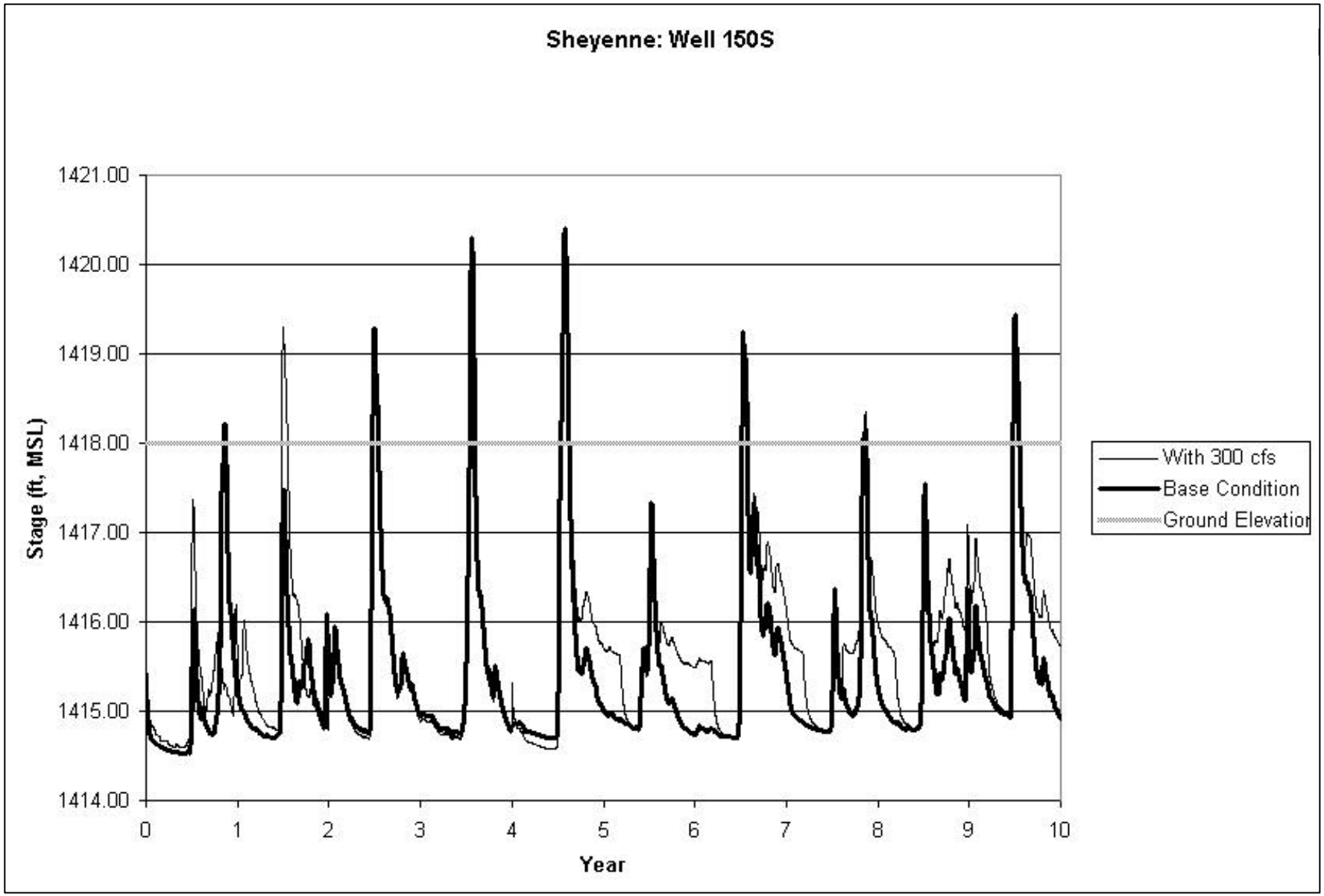
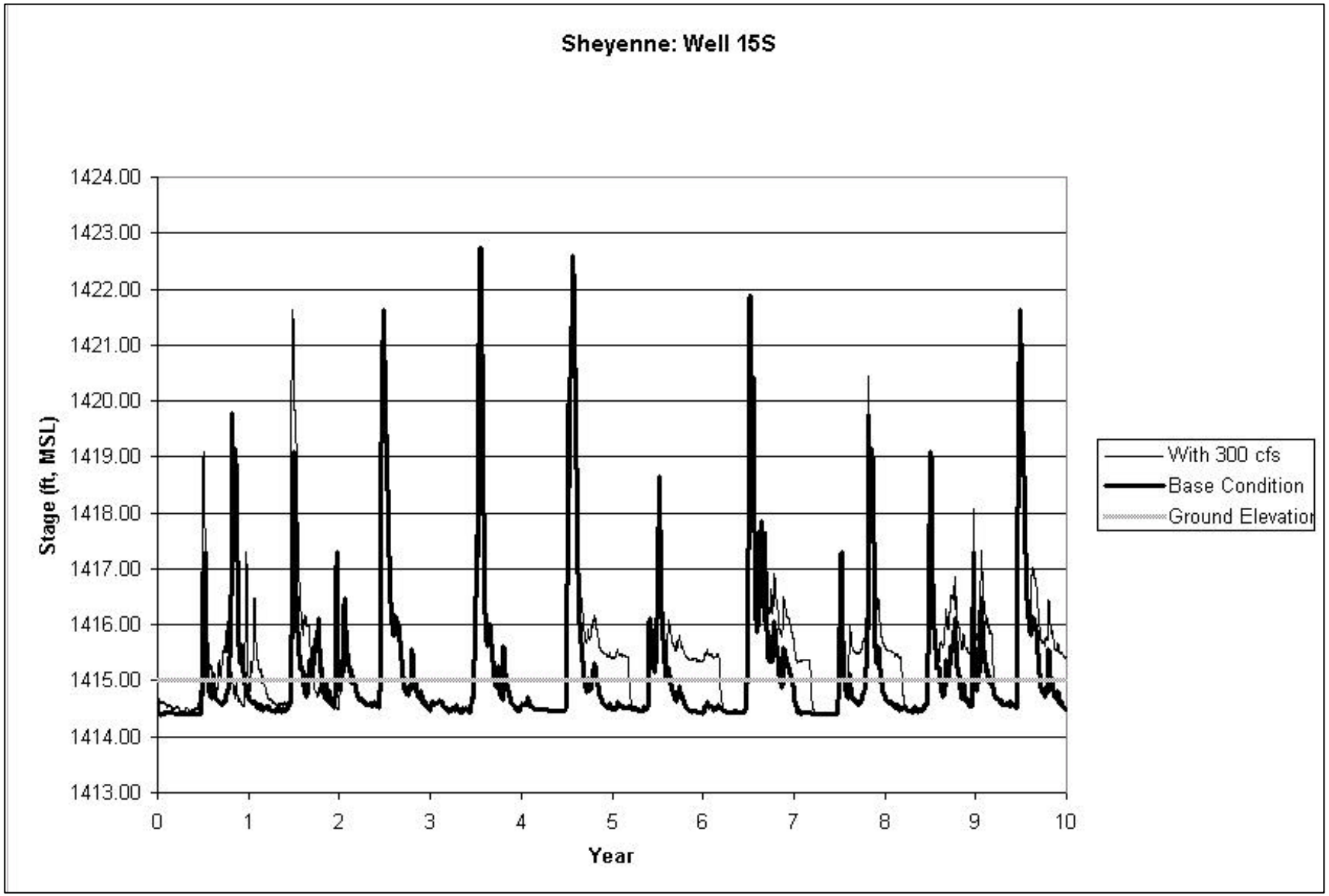
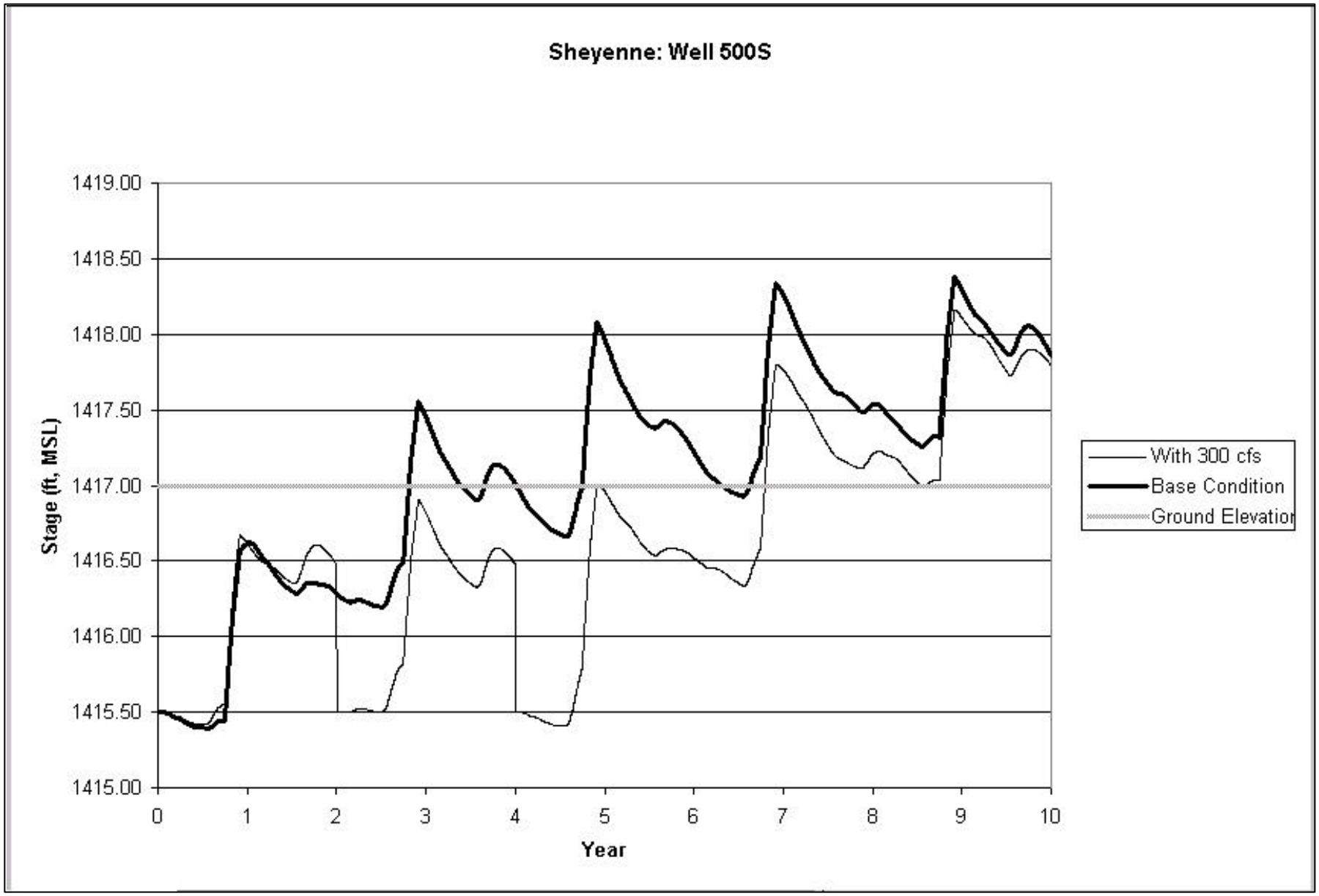
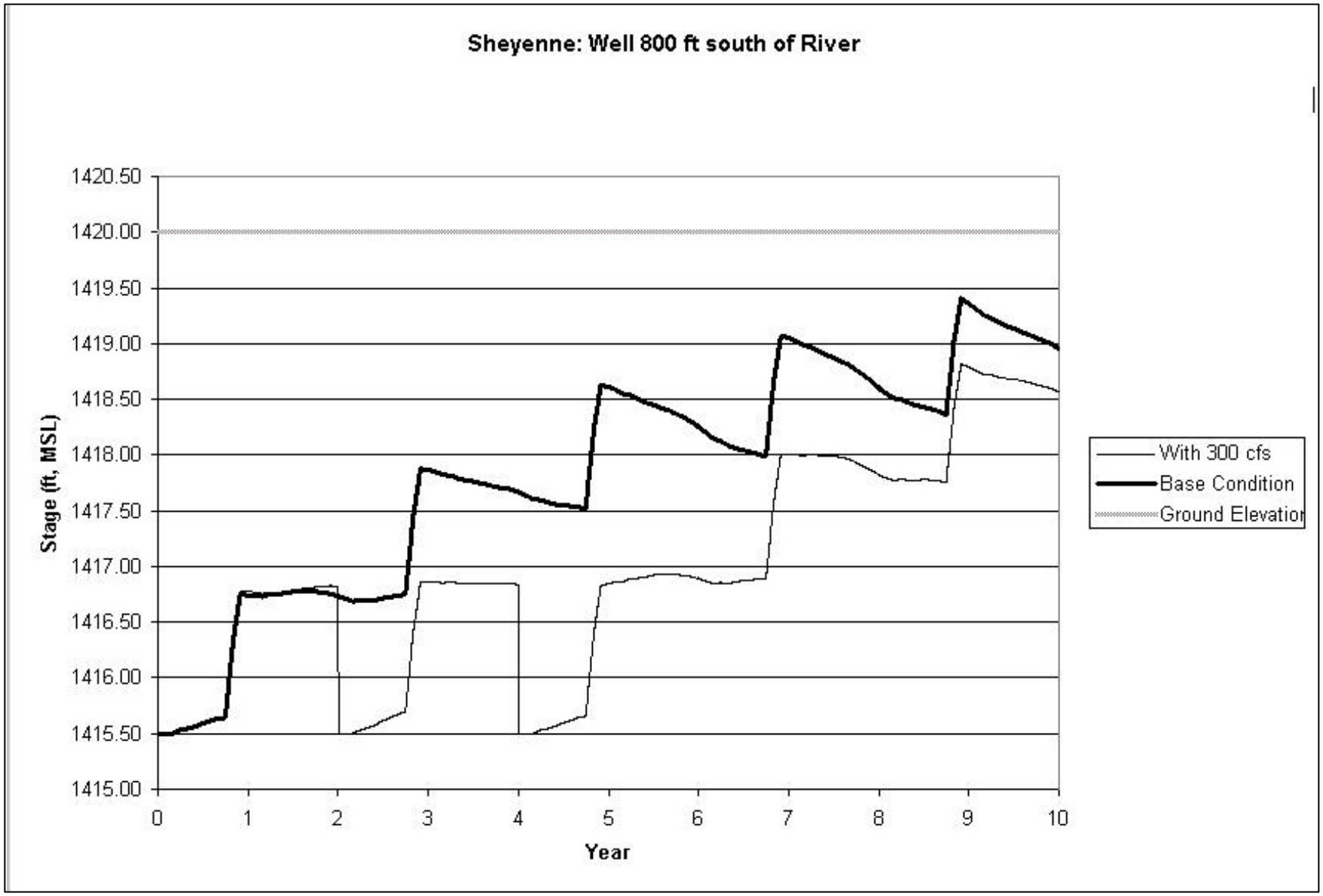
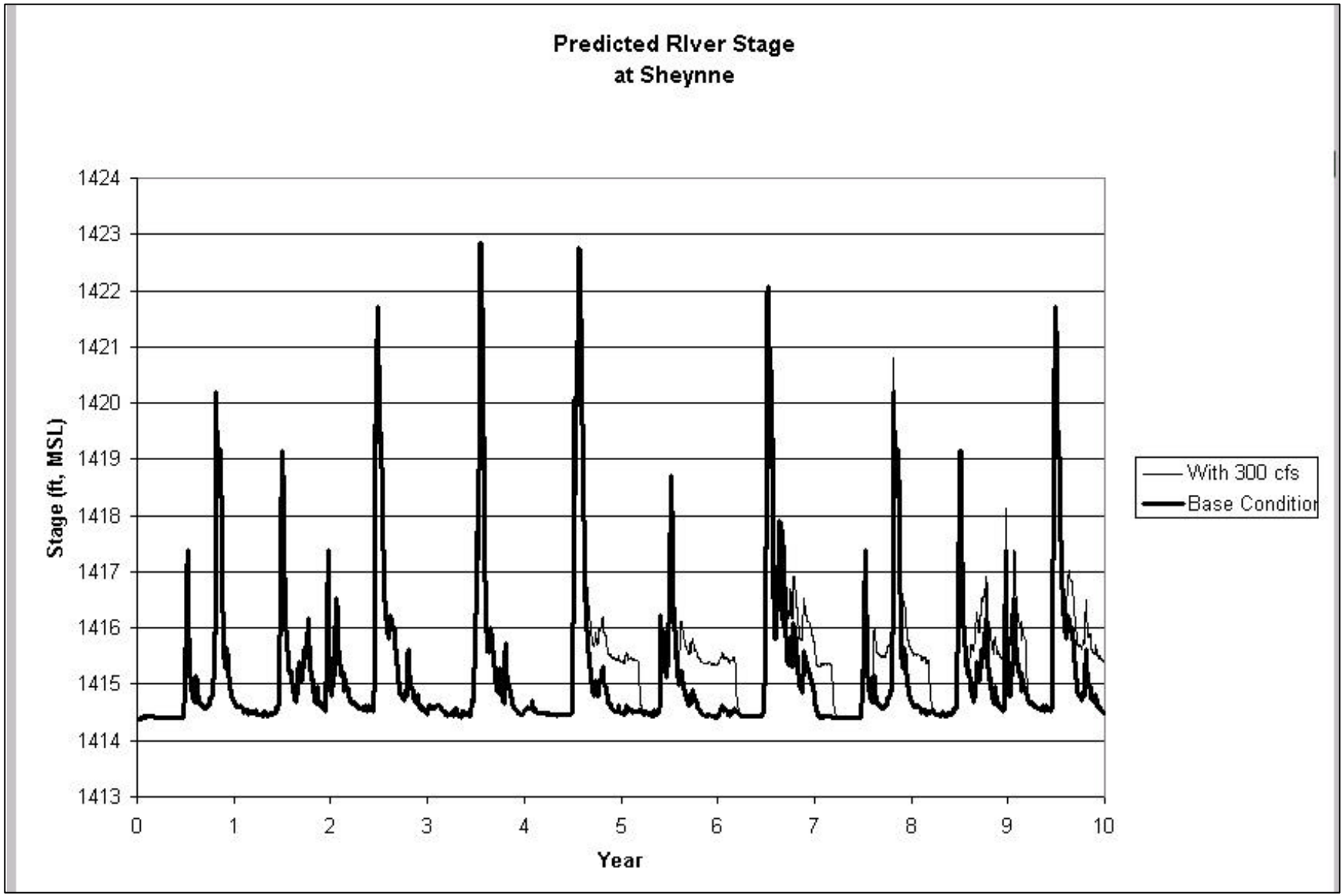
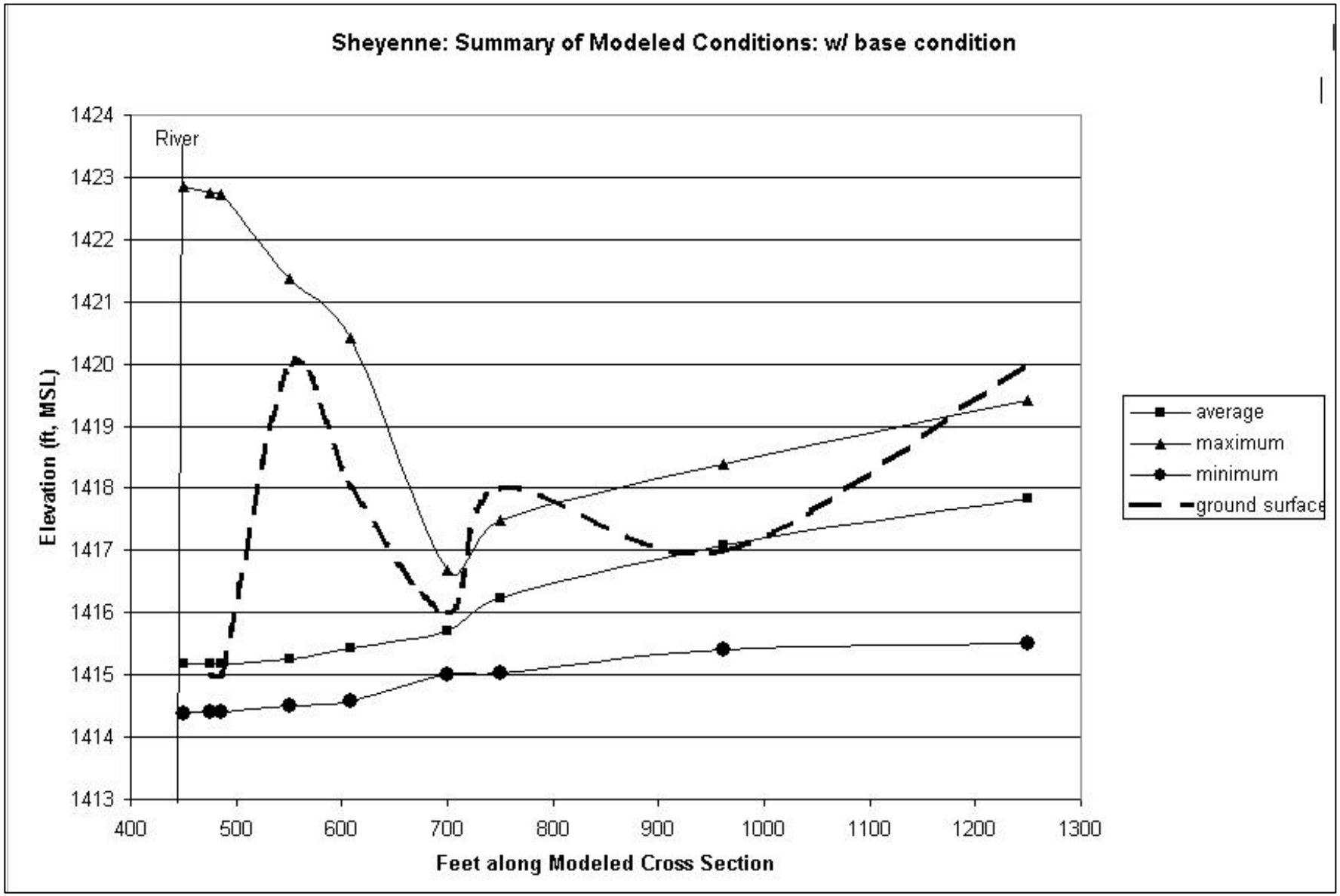

Sheyenne: Well 150S
1421.00
1420.00
1419.00
1418.00
1417.00
1416.00
1415.00
1414.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevation

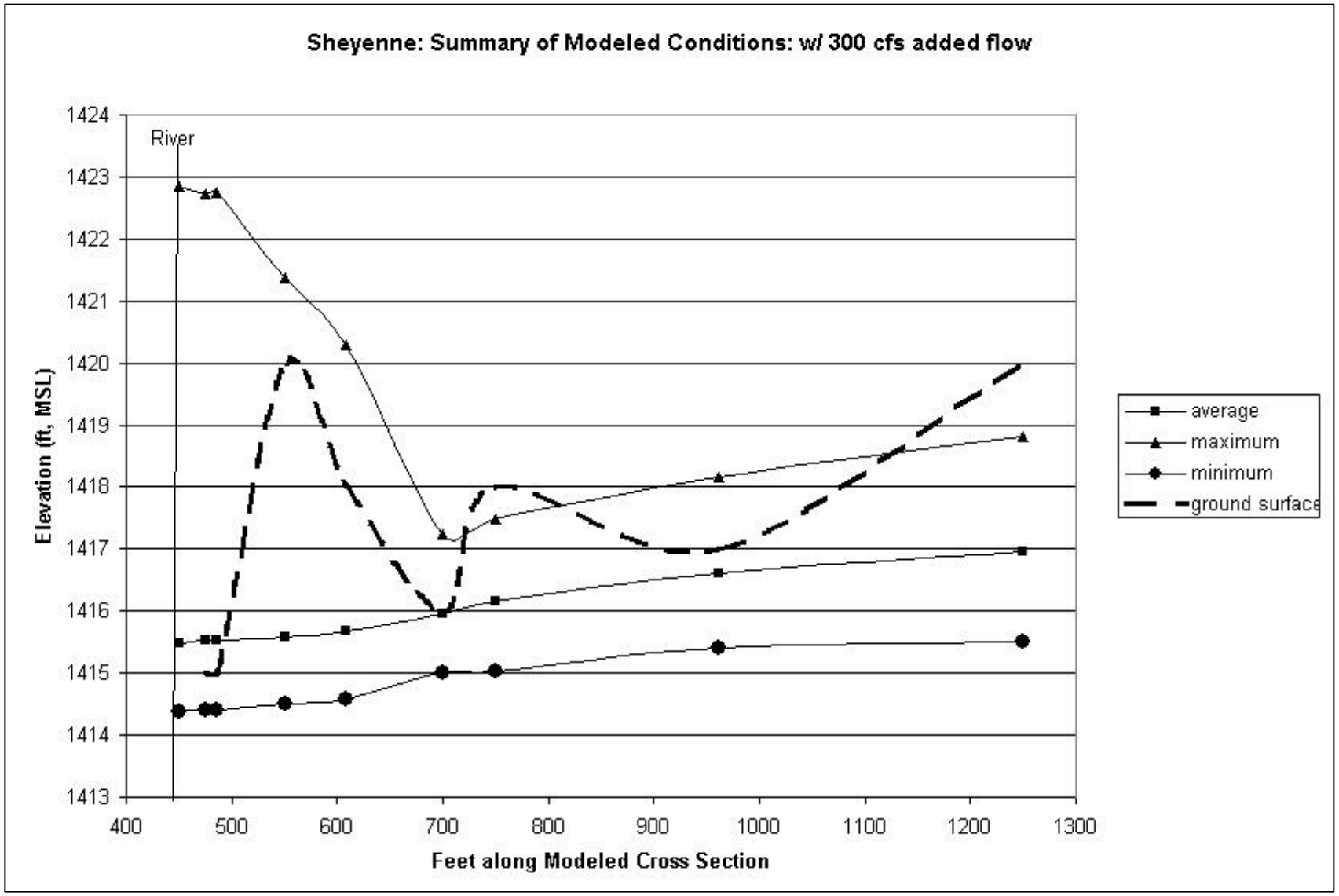

Sheyenne: Well 15S
1424.00
1423.00
1422.00
1421.00
1420.00
1419.00
1418.00
1417.00
1416.00
1415.00
1414.00
1413.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

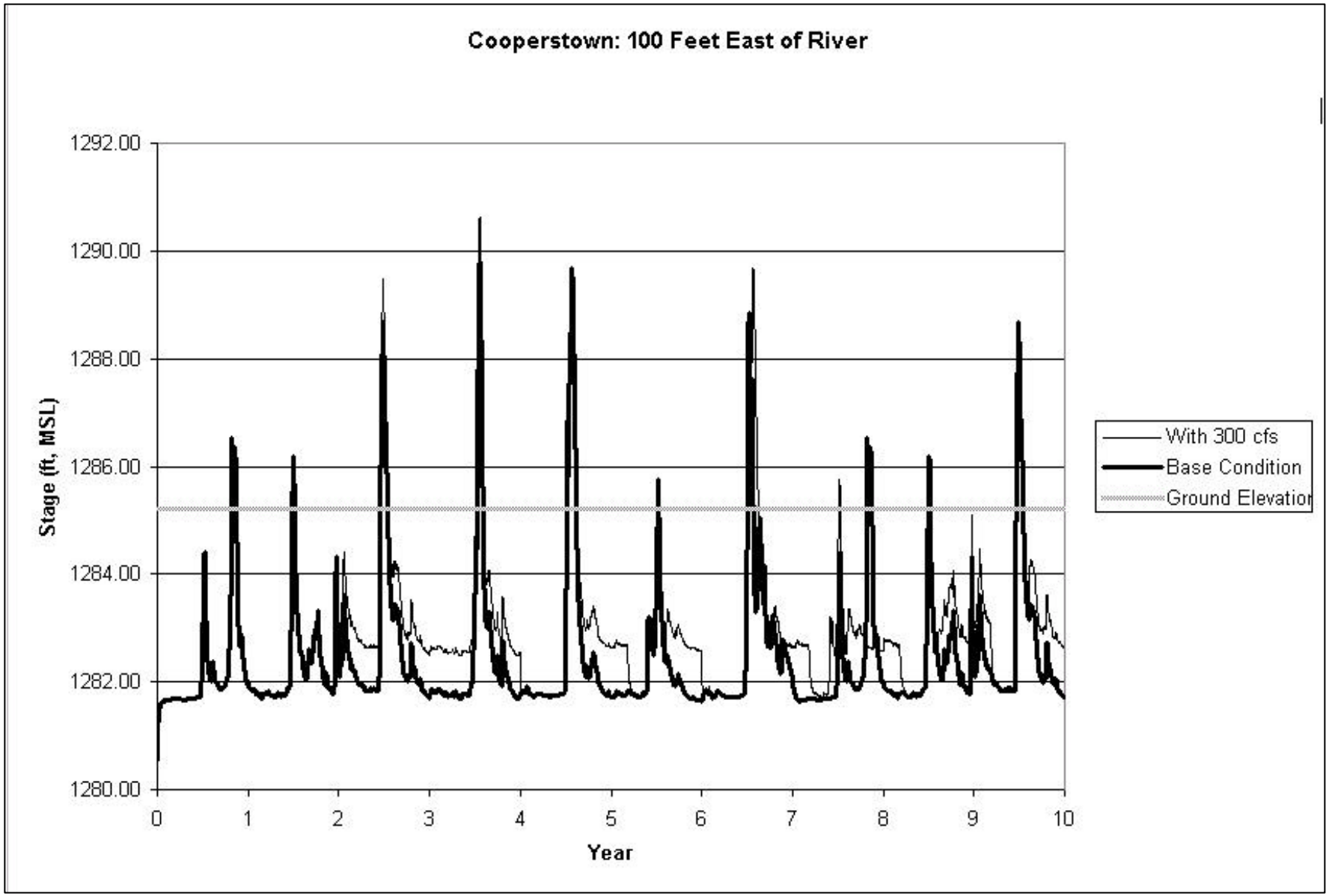

Sheyenne: Well 500S
1419.00
1418.50
1418.00
1417.50
1417.00
1416.50
1416.00
1415.50
1415.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

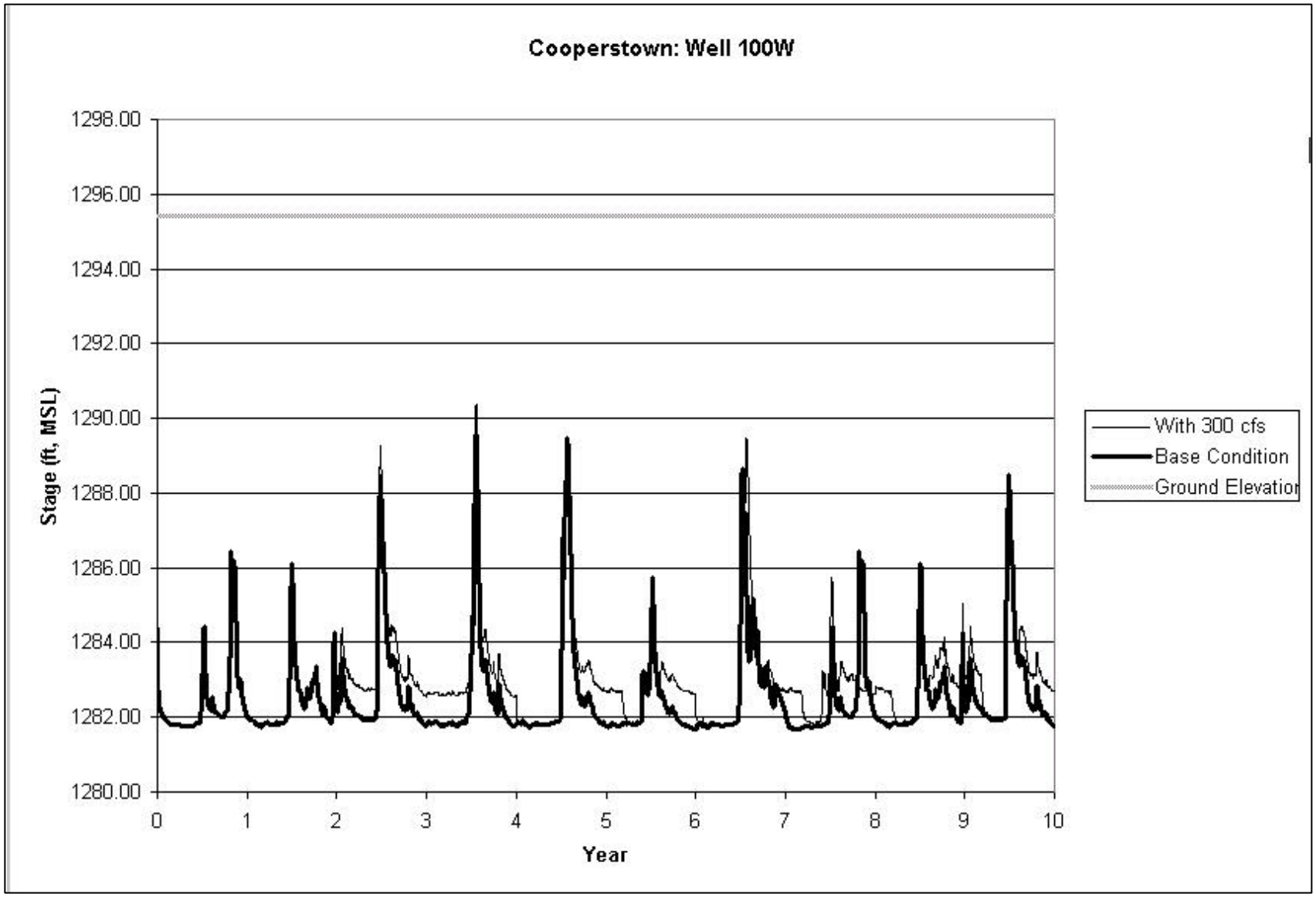

Sheyenne: Well 800 ft south of River
Stage (ft, MSL)
1420.50
1420.00
1419.50
1419.00
1418.50
1418.00
1417.50
1417.00
1416.50
1416.00
1415.50
1415.00
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

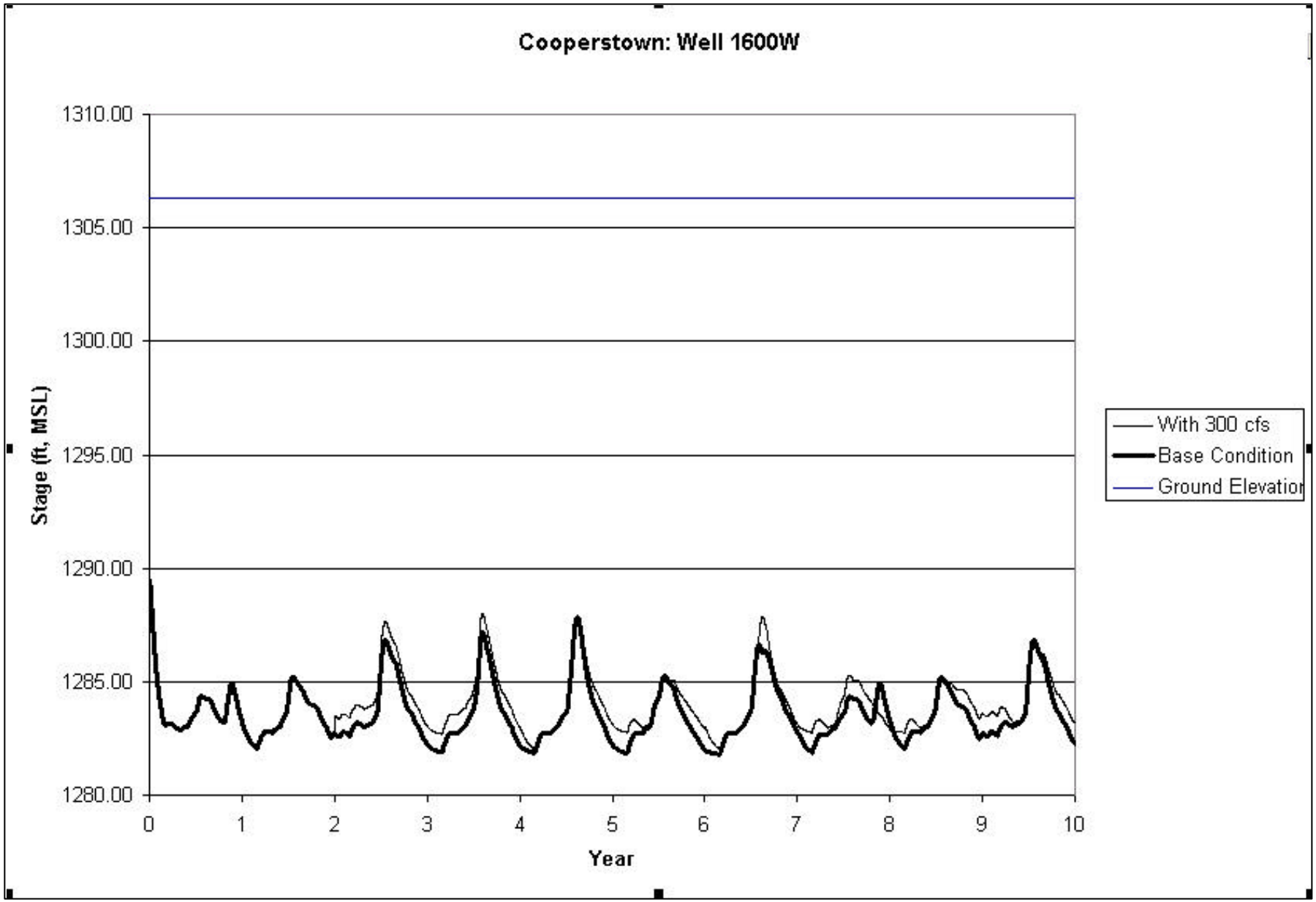

Predicted RIver Stage
at Sheynne
Stage (ft, MSL)
1424
1423
1422
1421
1420
1419
1418
1417
1416
1415
1414
1413
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition

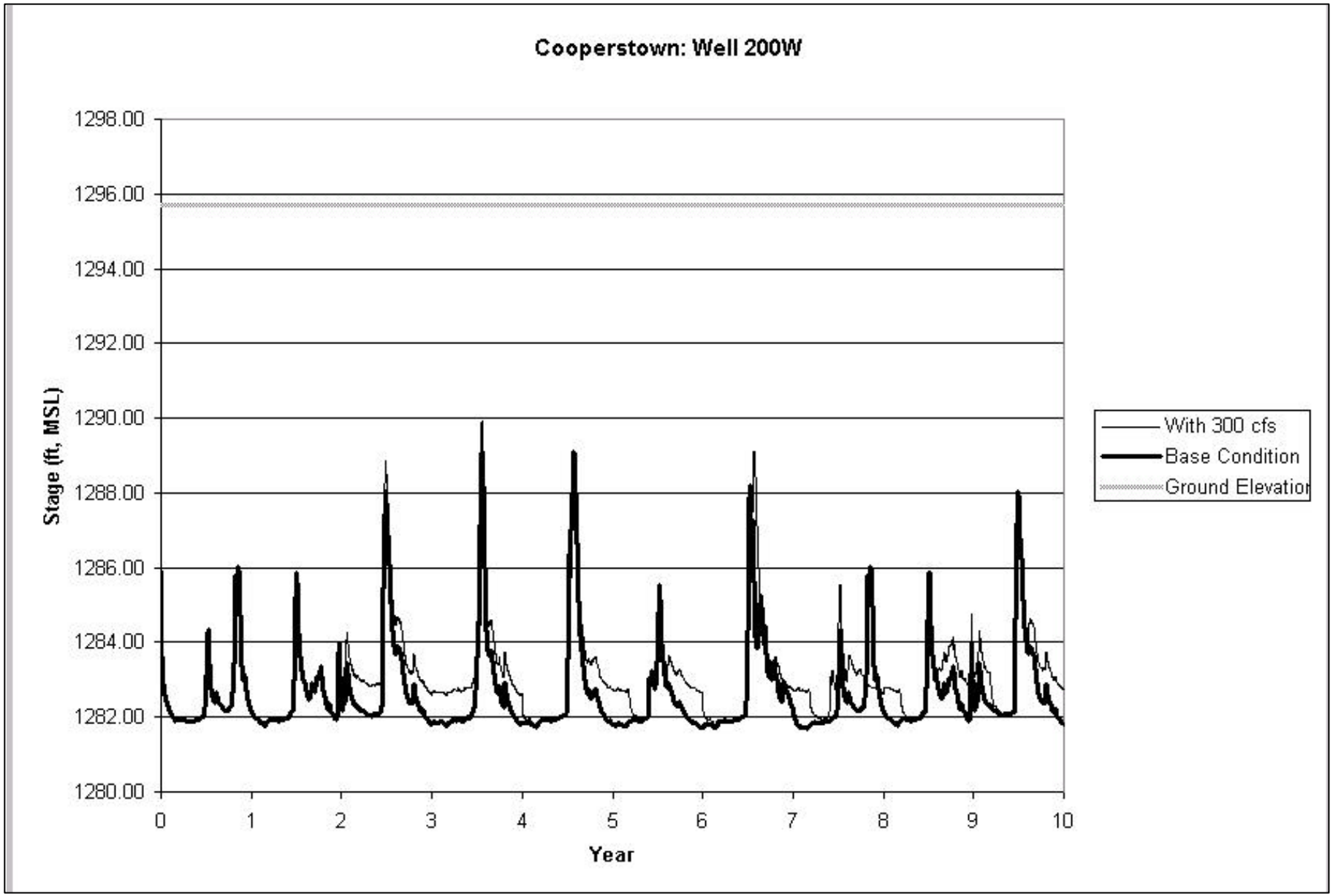

Sheyenne: Summary of Modeled Conditions: w/ base condition
River
1424
1423
1422
1421
1420
1419
1418
1417
1416
1415
1414
1413
Elevation (ft, MSL)
400
500
600
700
800
900
1000
1100
1200
1300
Feet along Modeled Cross Section
average
maximum
minimum
ground surface

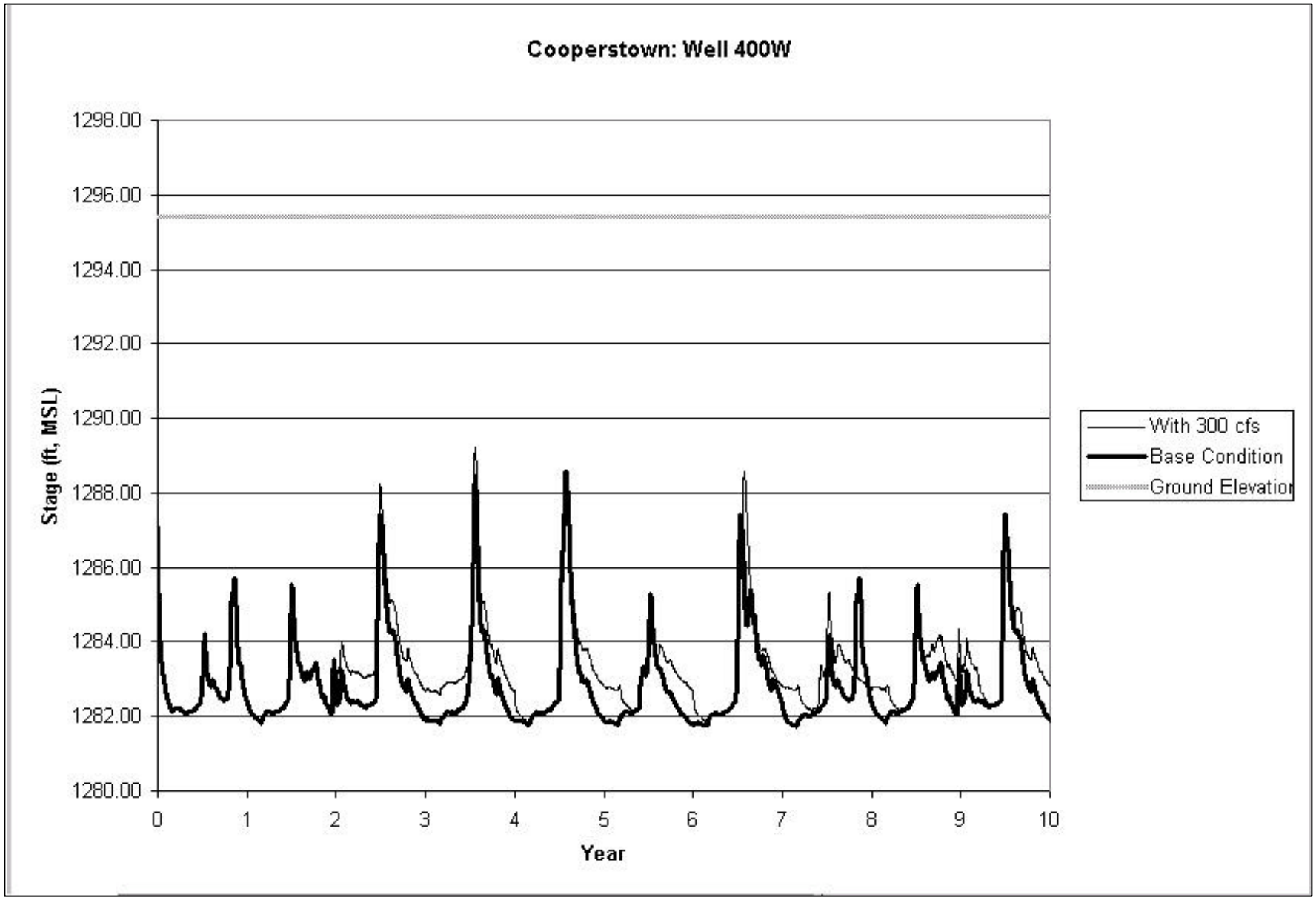

Sheyenne: Summary of Modeled Conditions: w/ 300 cfs added flow
River
1424
1423
1422
1421
1420
1419
1418
1417
1416
1415
1414
1413
Elevation (ft, MSL)
400
500
600
700
800
900
1000
1100
1200
1300
Feet along Modeled Cross Section
average
maximum
minimum
ground surface

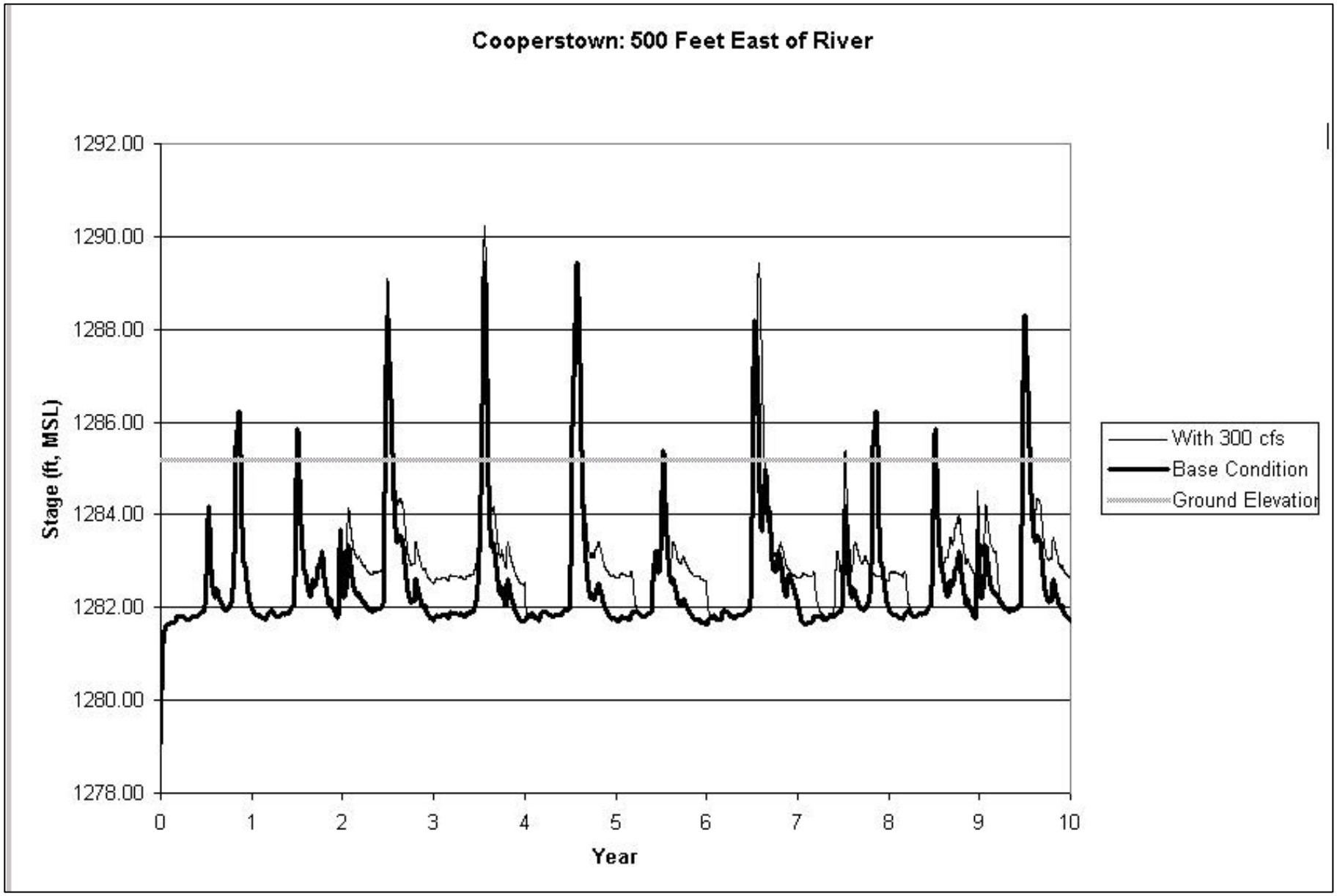

Cooperstown: 100 Feet East of River
1292.00
1290.00
1288.00
1286.00
1284.00
1282.00
1280.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

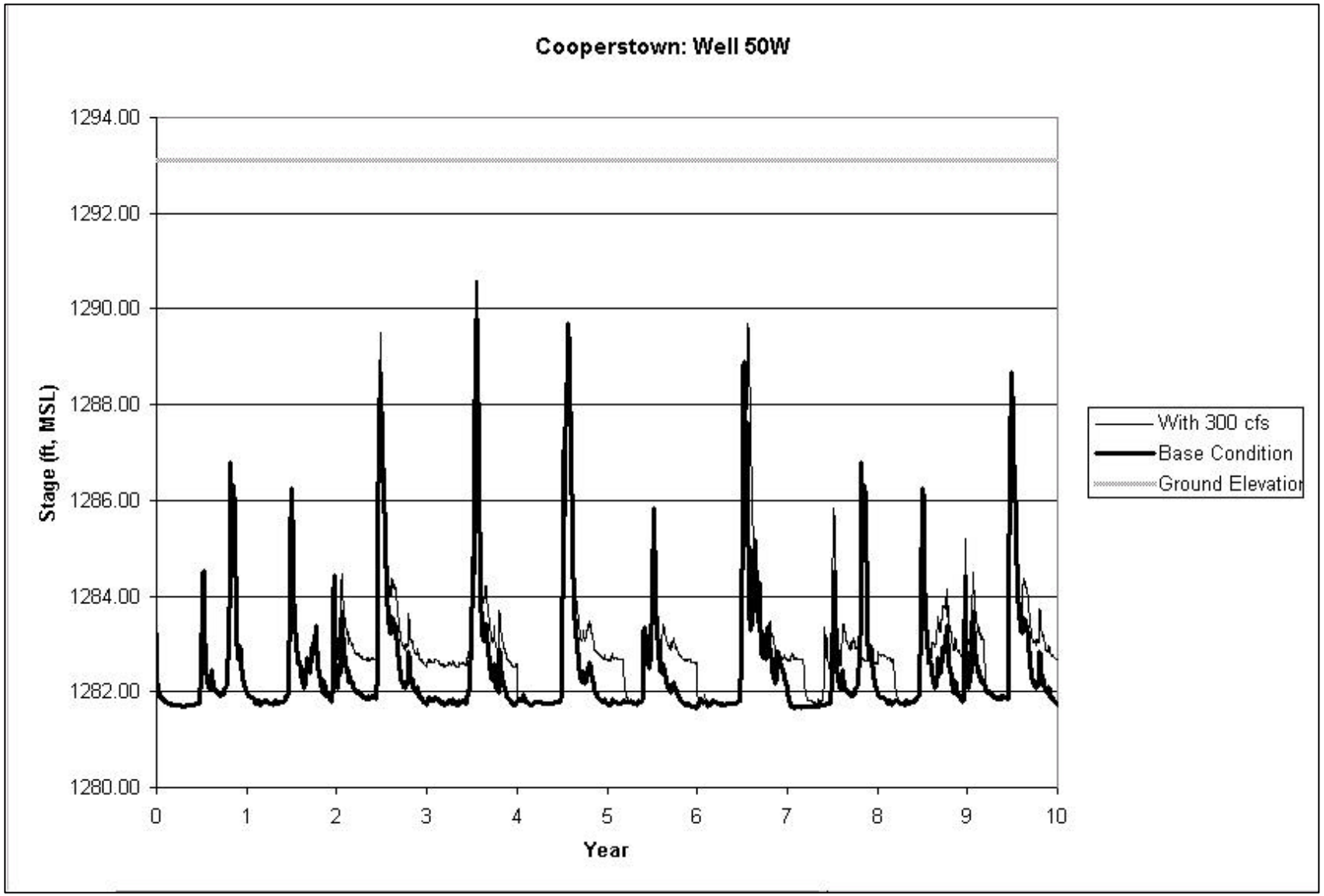

Cooperstown: Well 100W
1298.00
1296.00
1294.00
1292.00
1290.00
1288.00
1286.00
1284.00
1282.00
1280.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

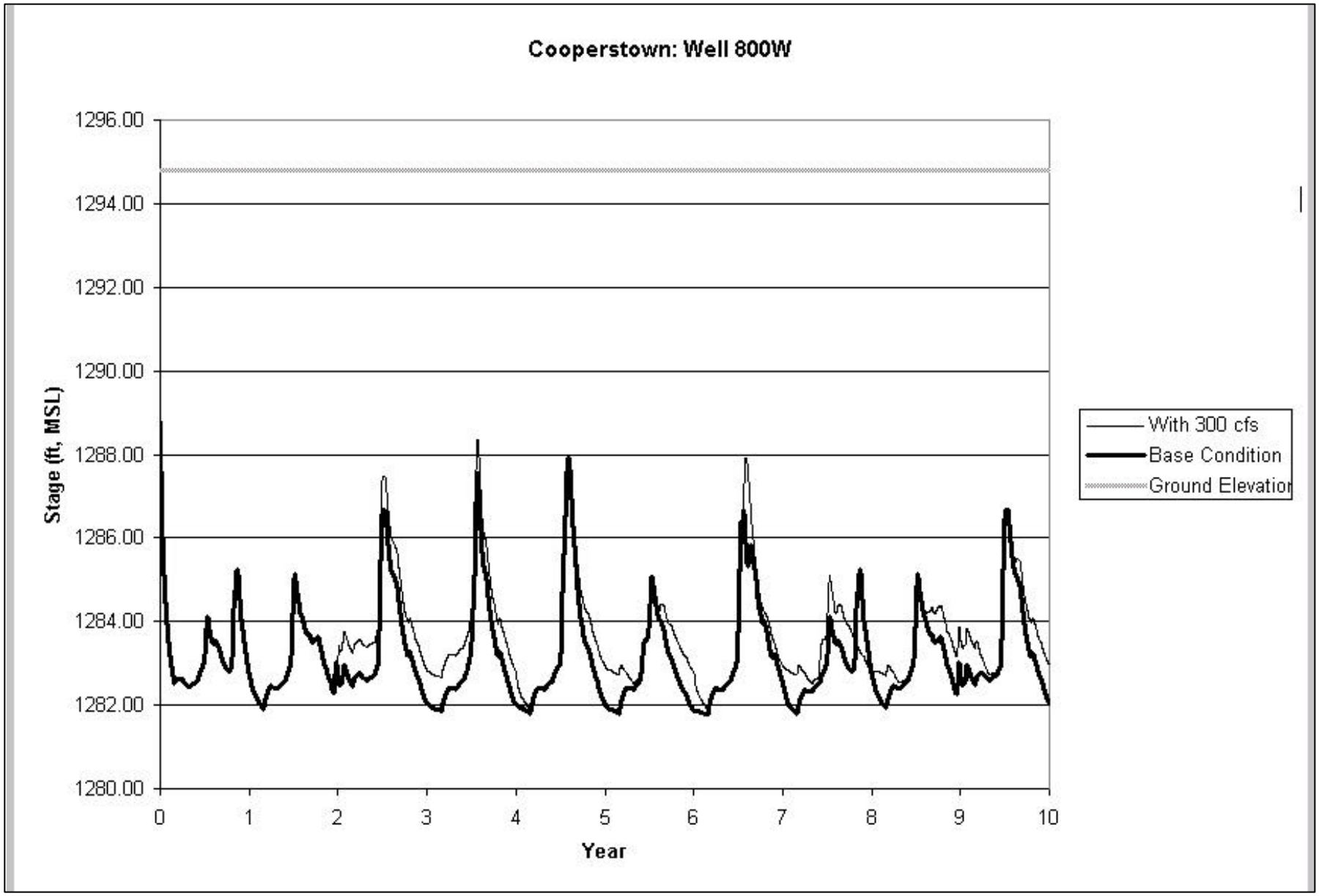

Cooperstown: Well 1600W
1310.00
1305.00
1300.00
1295.00
1290.00
1285.00
1280.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

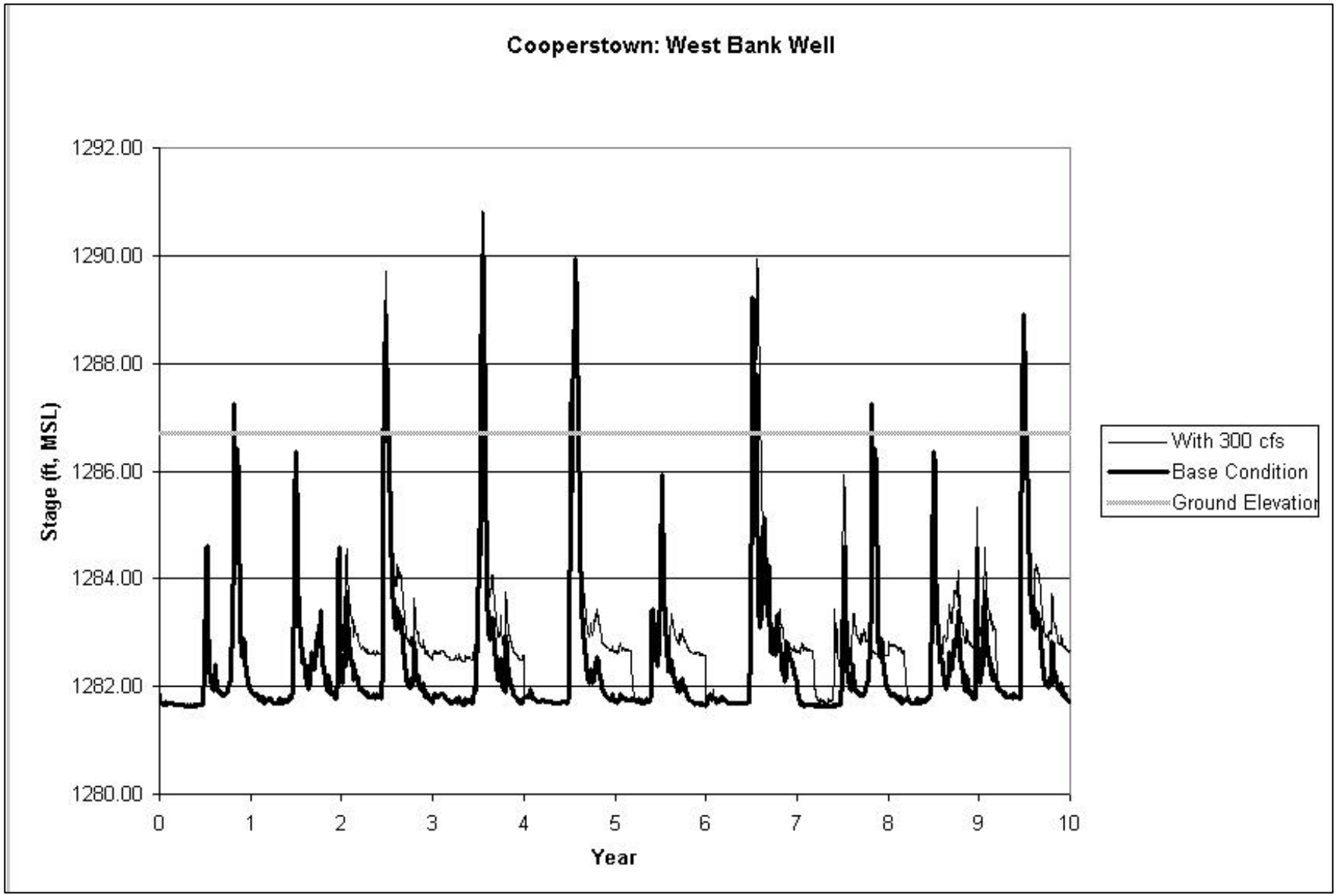

Cooperstown: Well 200W
1298.00
1296.00
1294.00
1292.00
1290.00
1288.00
1286.00
1284.00
1282.00
1280.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

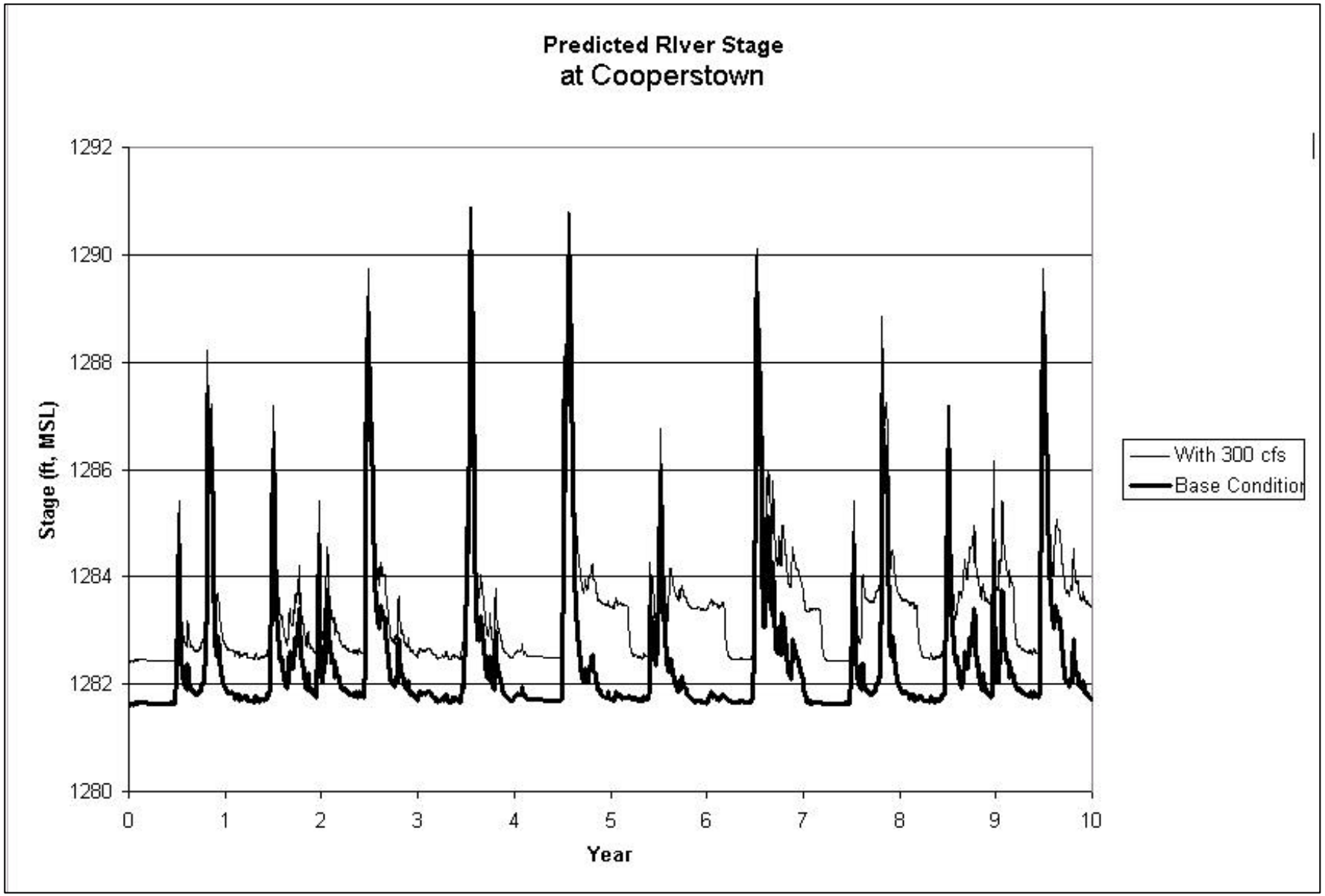

Cooperstown: Well 400W
1298.00
1296.00
1294.00
1292.00
1290.00
1288.00
1286.00
1284.00
1282.00
1280.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatio

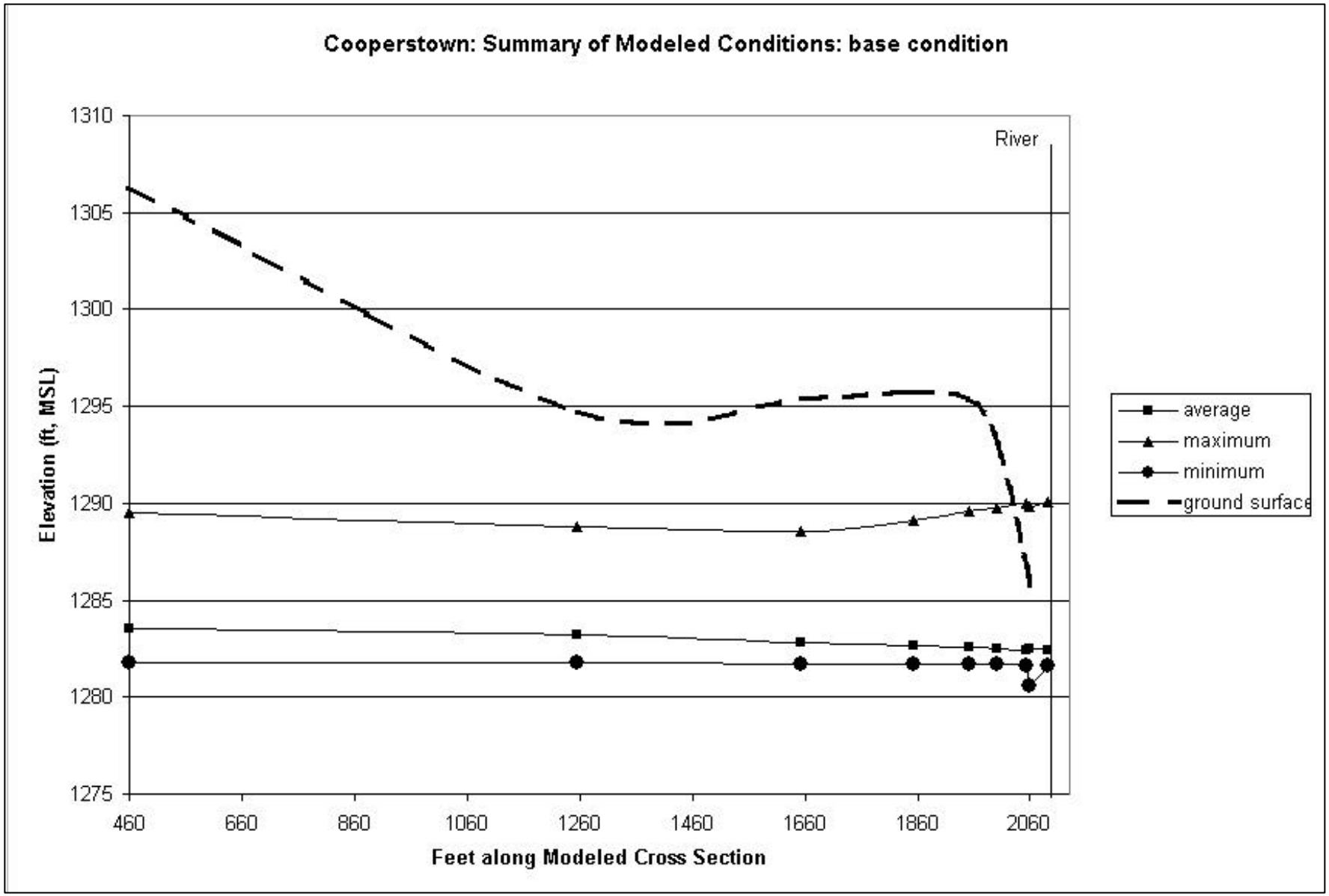

Cooperstown: 500 Feet East of River
1292.00
1290.00
1288.00
1286.00
1284.00
1282.00
1280.00
1278.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevation

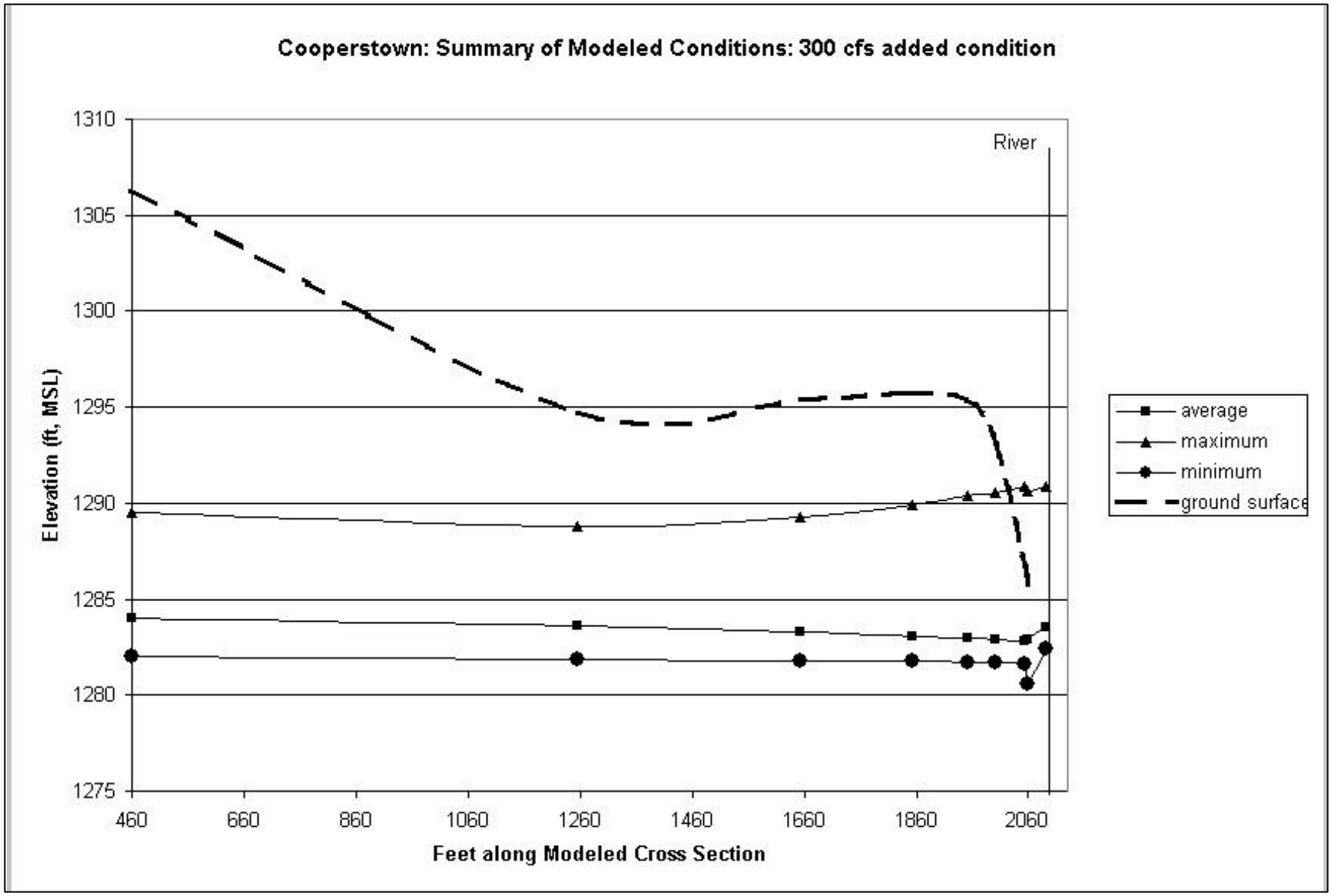

Cooperstown: Well 50W
1294.00
1292.00
1290.00
1288.00
1286.00
1284.00
1282.00
1280.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

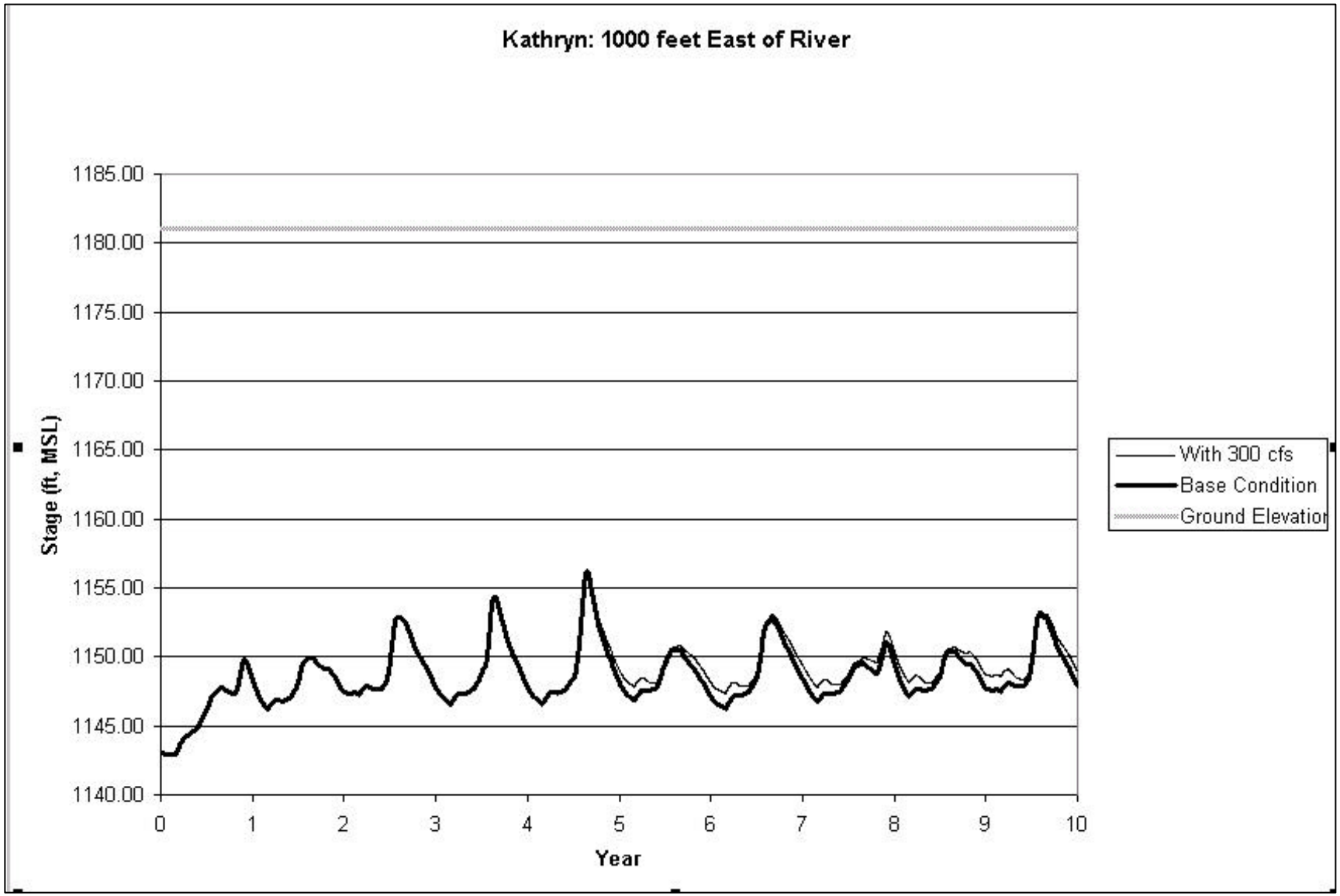

Cooperstown: Well 800W
1296.00
1294.00
1292.00
1290.00
1288.00
1286.00
1284.00
1282.00
1280.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

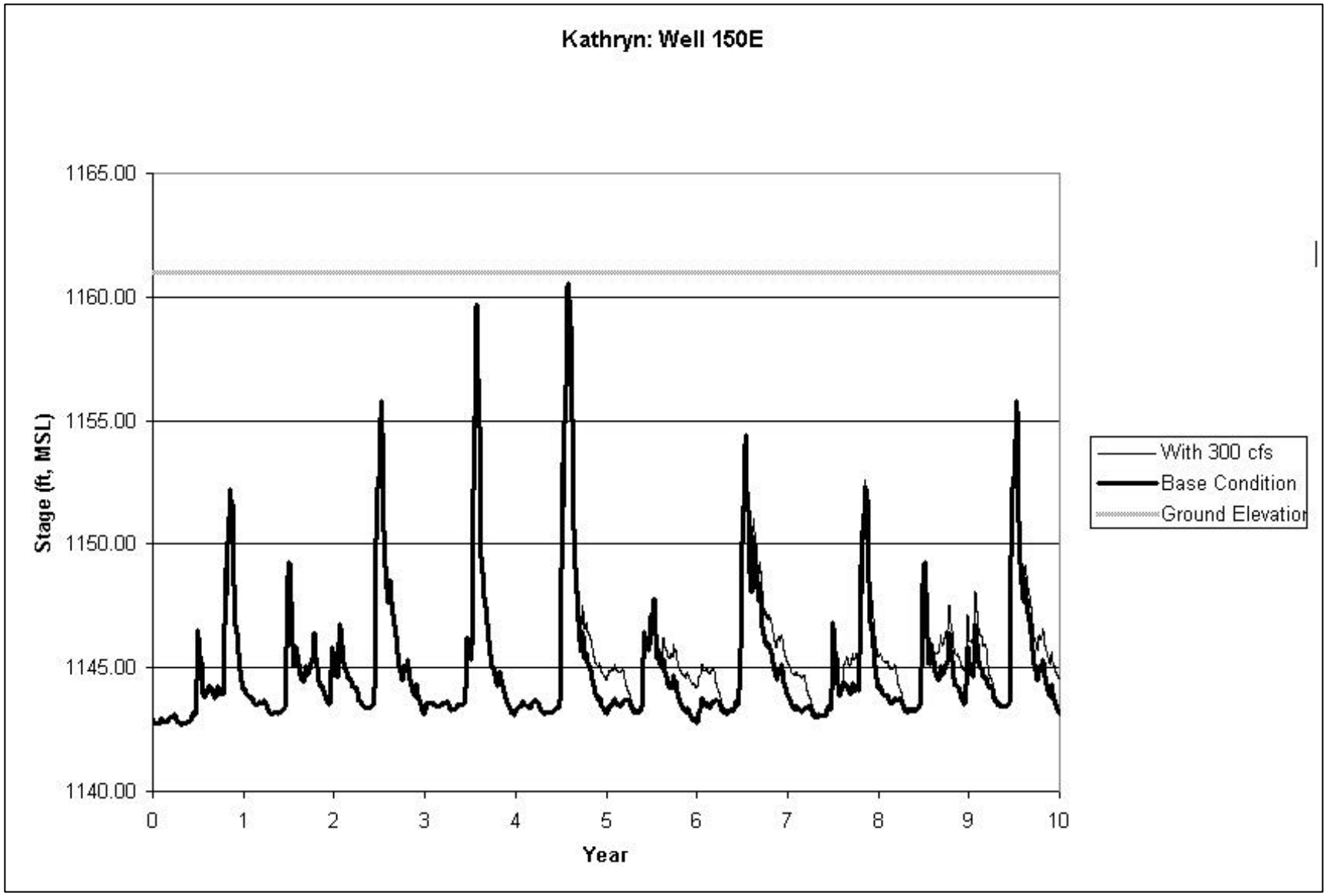

Cooperstown: West Bank Well
1292.00
1290.00
1288.00
1286.00
1284.00
1282.00
1280.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

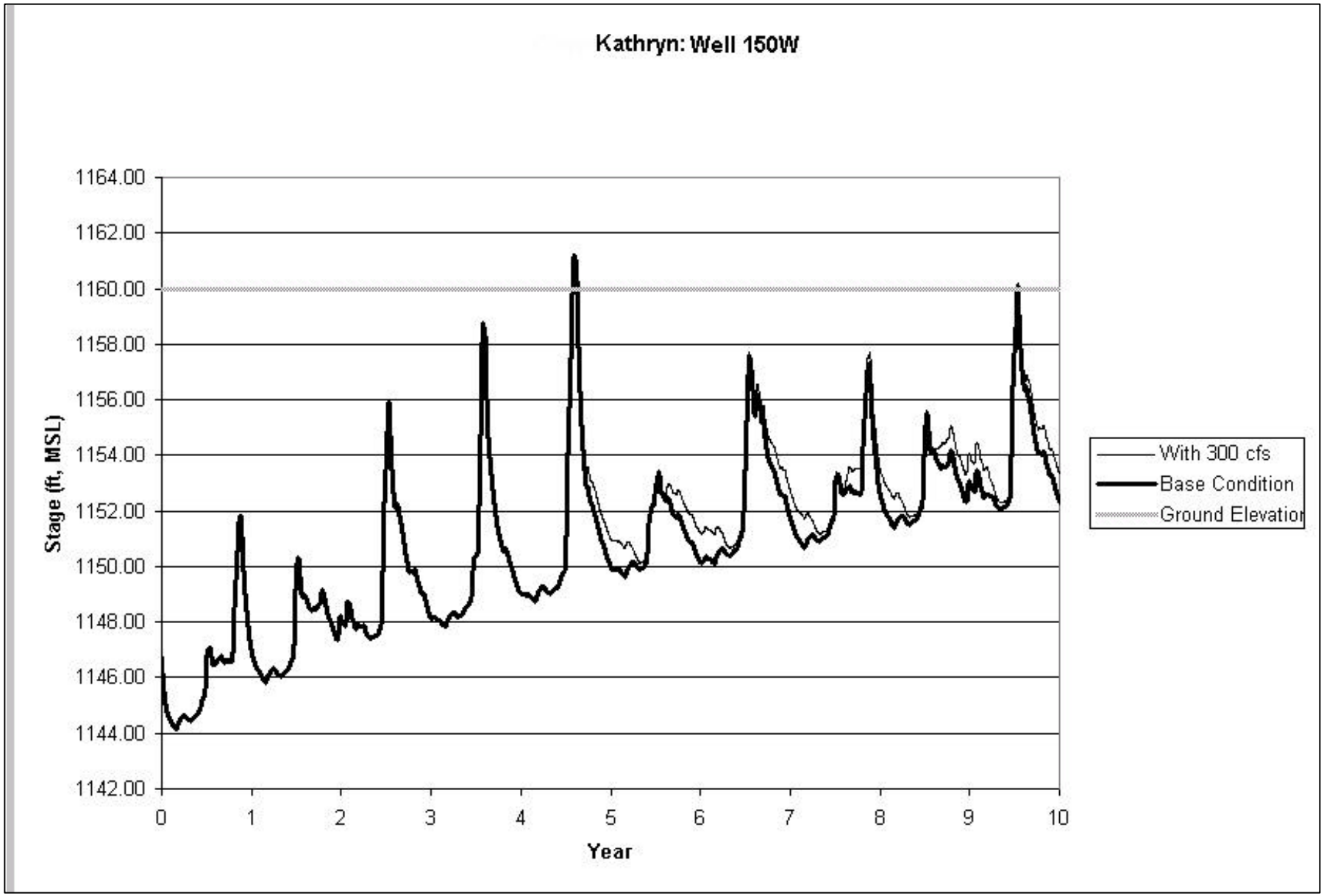

Predicted RIver Stage
at Cooperstown
Stage (ft, MSL)
1292
1290
1288
1286
1284
1282
1280
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition

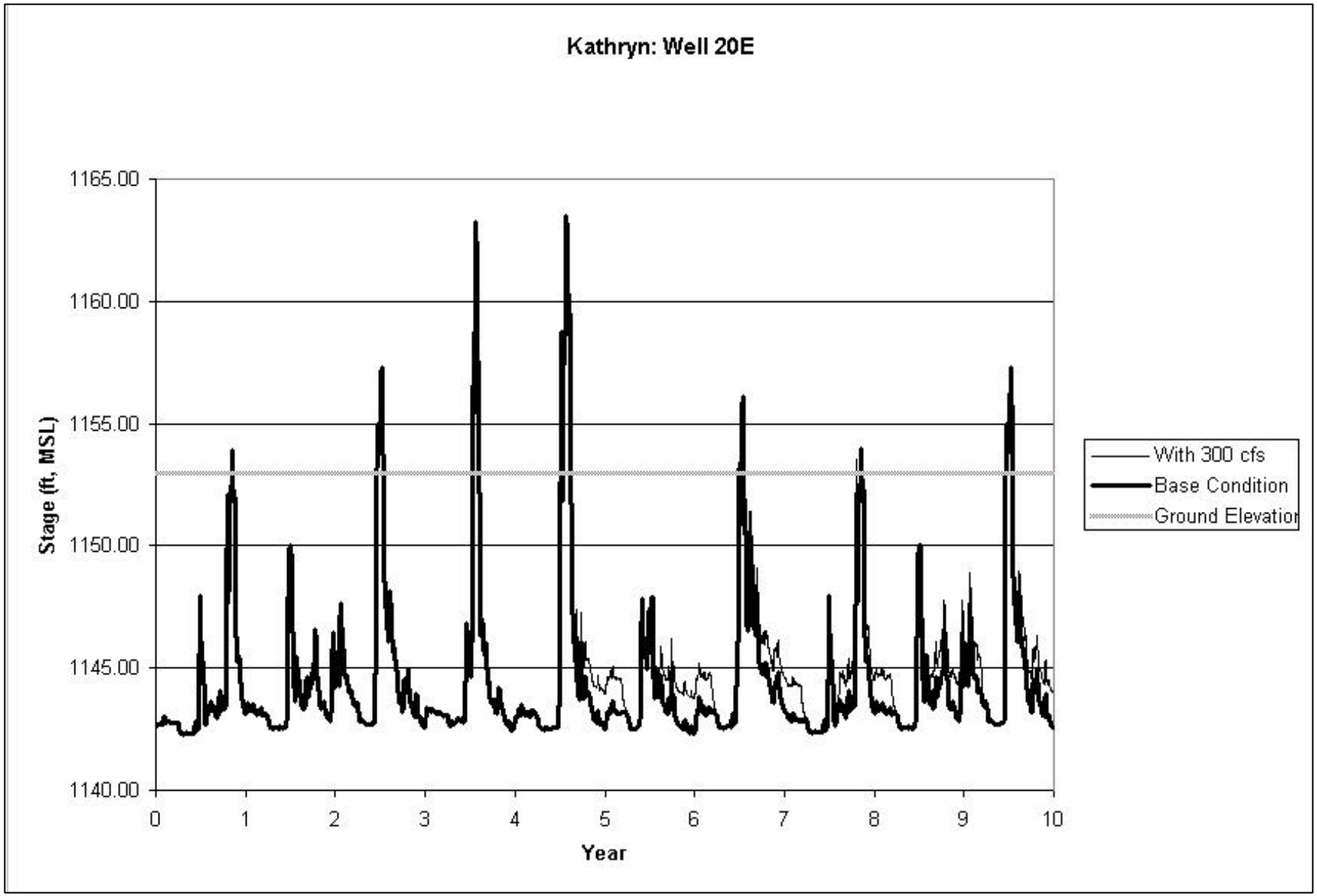

Cooperstown: Summary of Modeled Conditions: base condition
River
1310
1305
1300
1295
1290
1285
1280
1275
Elevation (ft, MSL)
460
660
860
1060
1260
1460
1660
1860
2060
Feet along Modeled Cross Section
average
maximum
minimum
ground surface

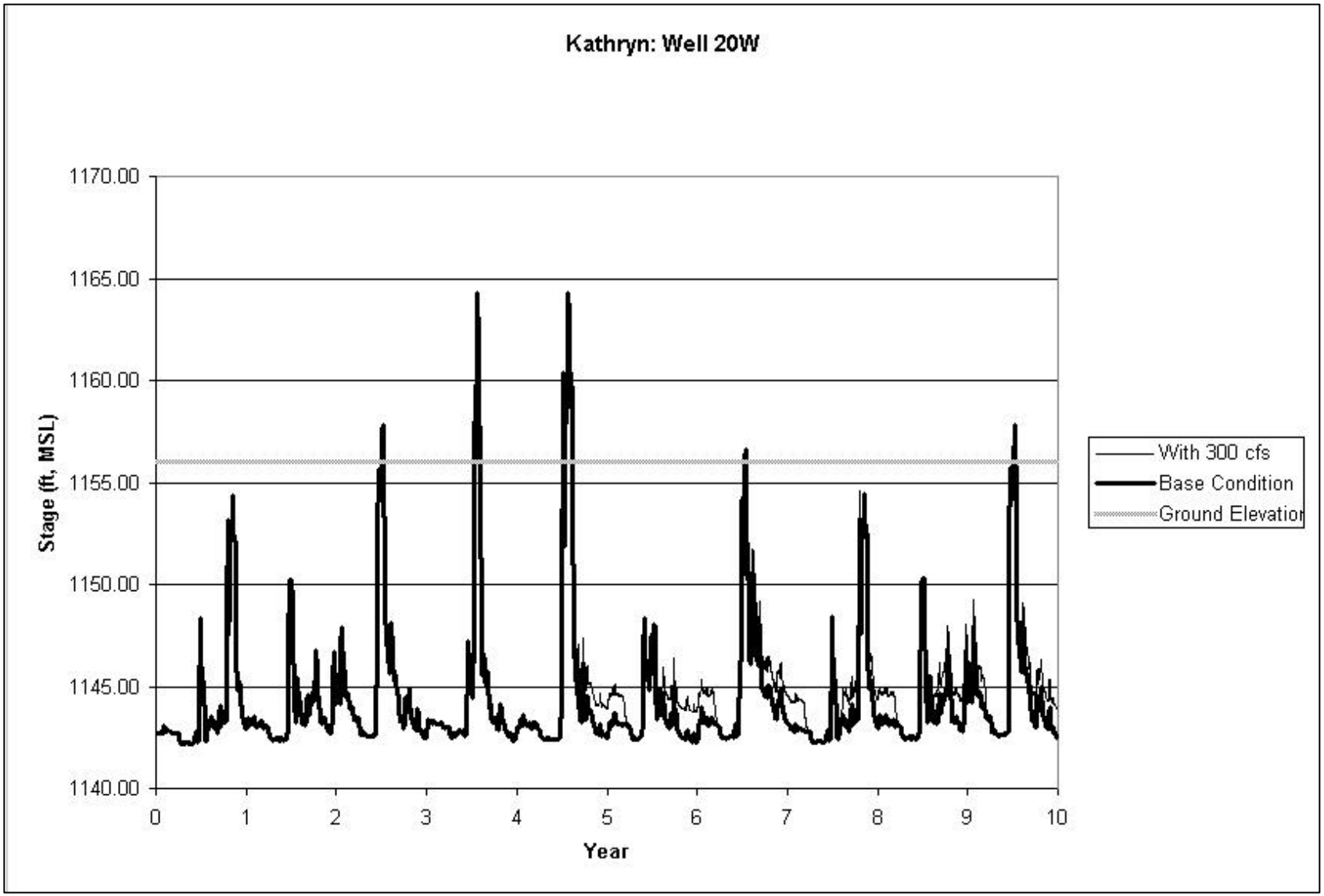

Cooperstown: Summary of Modeled Conditions: 300 cfs added condition
Elevation (ft, MSL)
1310
1305
1300
1295
1290
1285
1280
1275
460
660
860
1060
1260
1460
1660
1860
2060
Feet along Modeled Cross Section
River
average
maximum
minimum
ground surface

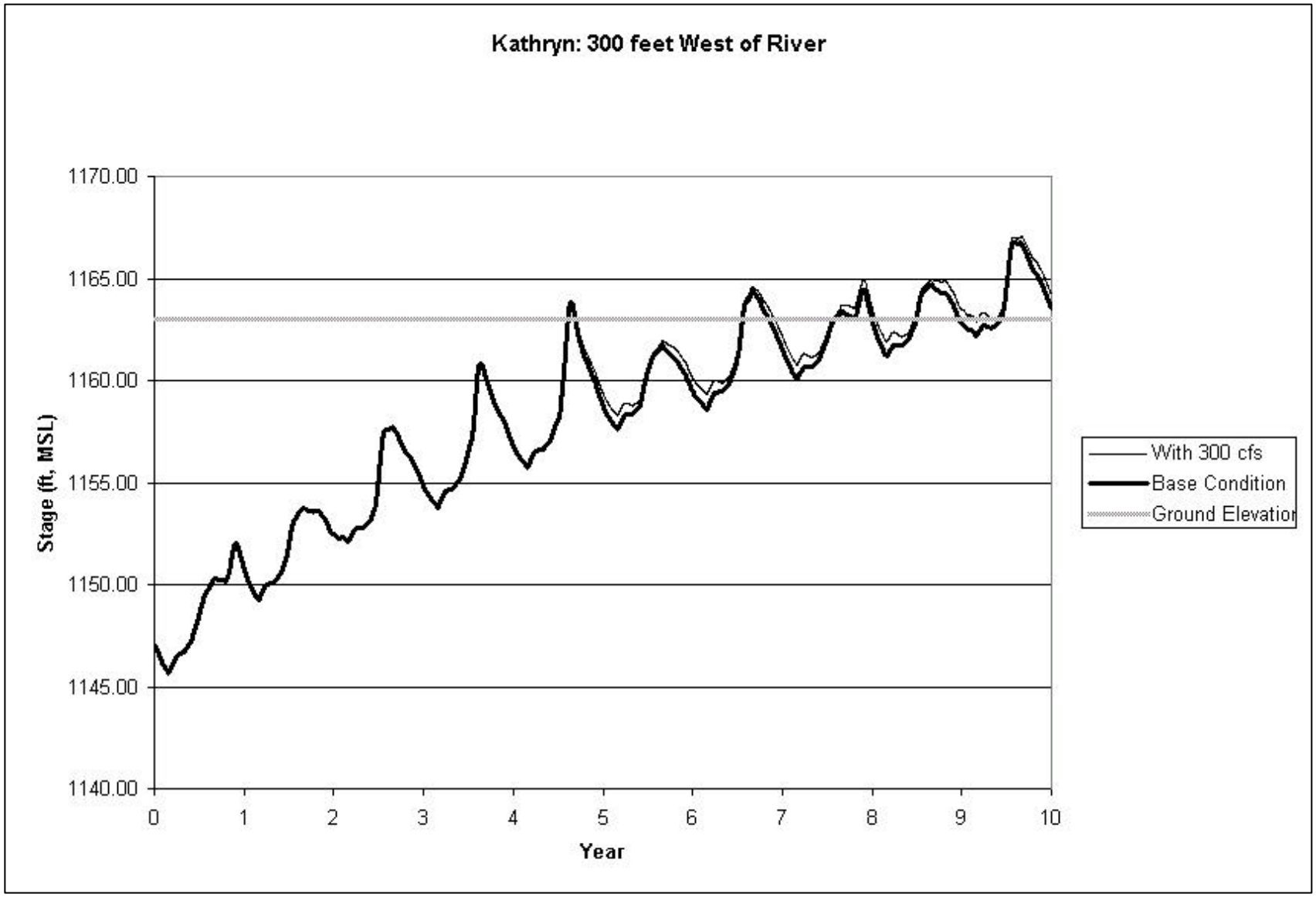

Kathryn: 1000 feet East of River
1185.00
1180.00
1175.00
1170.00
1165.00
1160.00
1155.00
1150.00
1145.00
1140.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevation

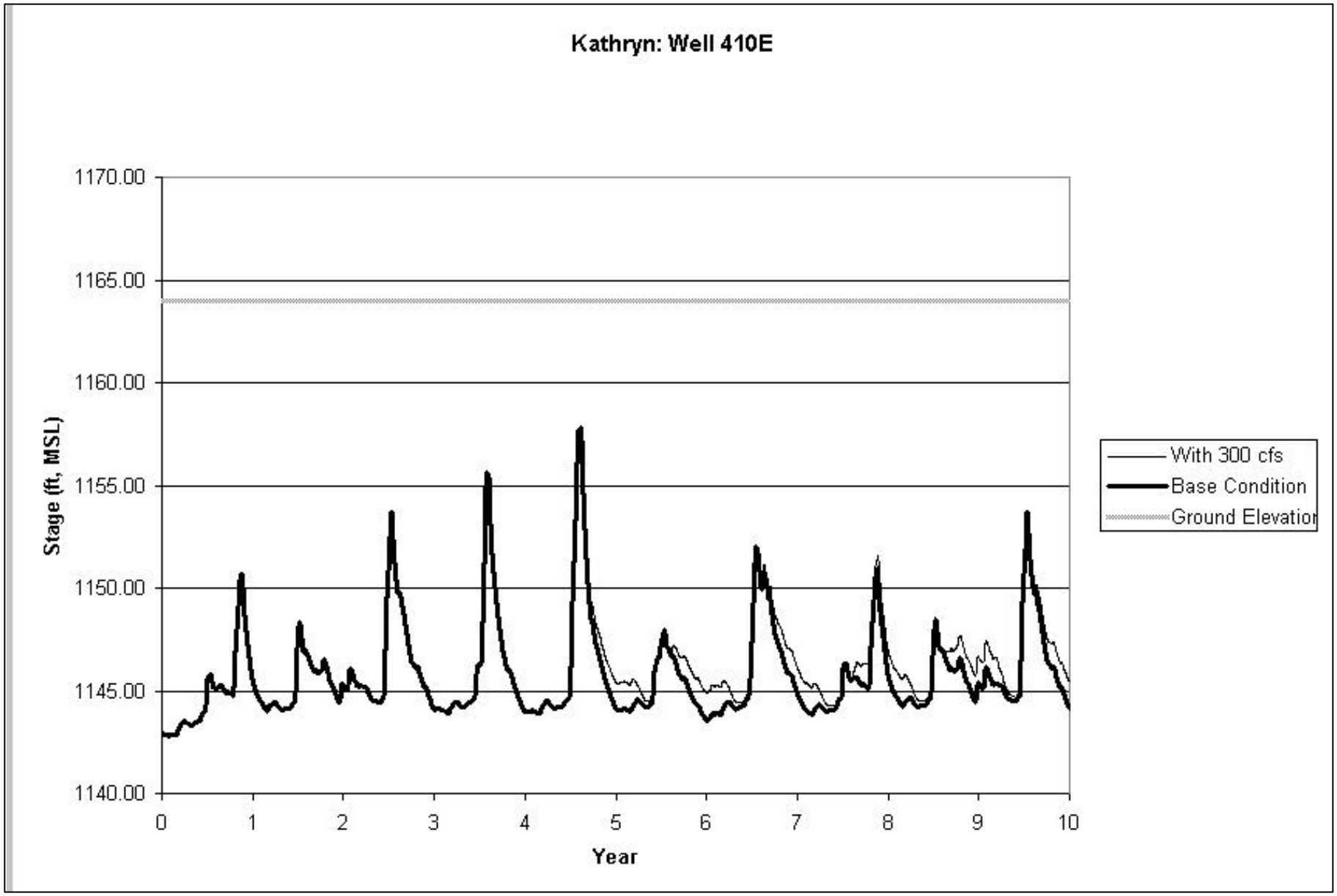

Kathryn: Well 150E
1165.00
1160.00
1155.00
1150.00
1145.00
1140.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevation

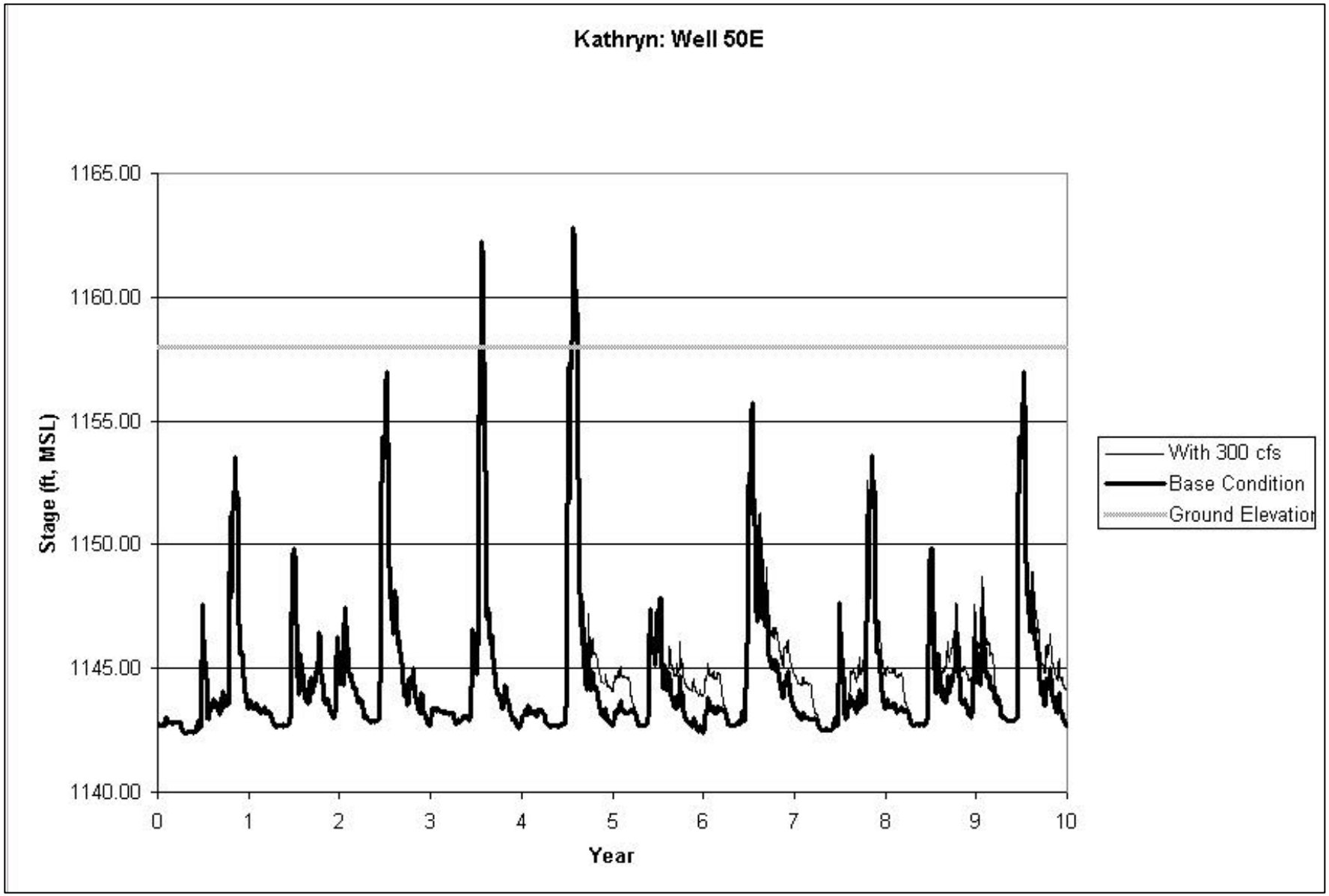

Kathryn: Well 150W
1164.00
1162.00
1160.00
1158.00
1156.00
1154.00
1152.00
1150.00
1148.00
1146.00
1144.00
1142.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatio

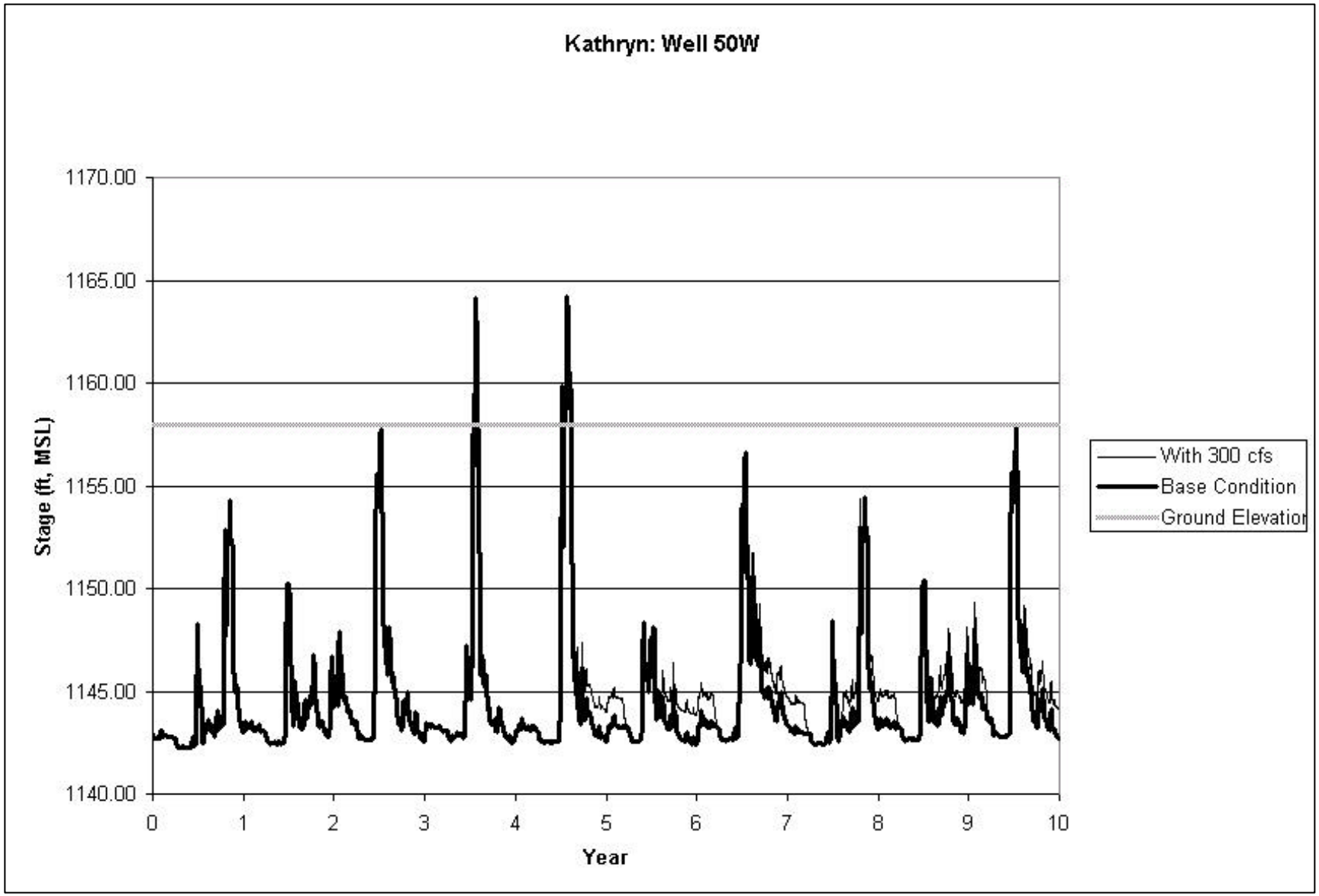

Kathryn: Well 20E
1165.00
1160.00
1155.00
1150.00
1145.00
1140.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

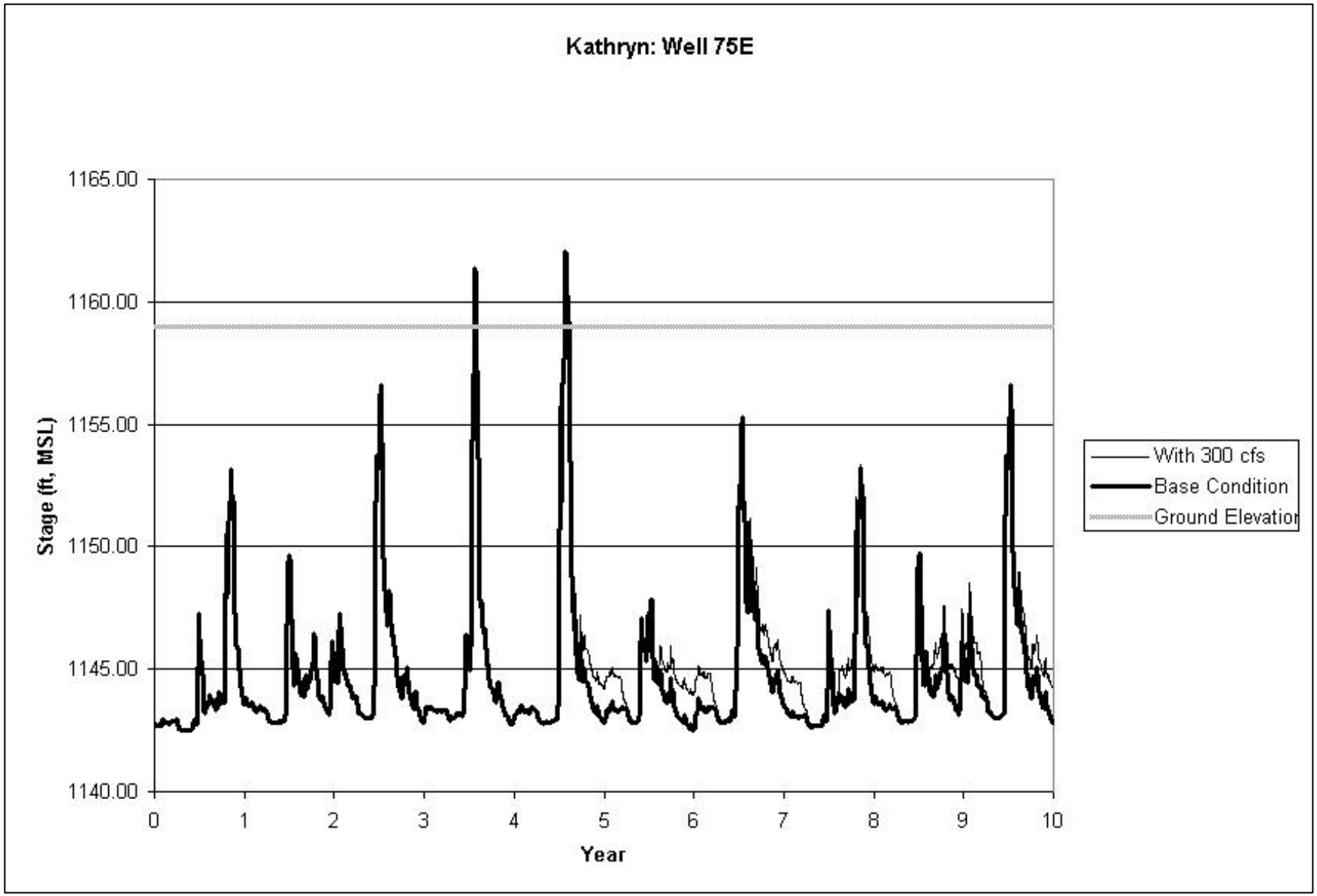

Kathryn: Well 20W
1170.00
1165.00
1160.00
1155.00
1150.00
1145.00
1140.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

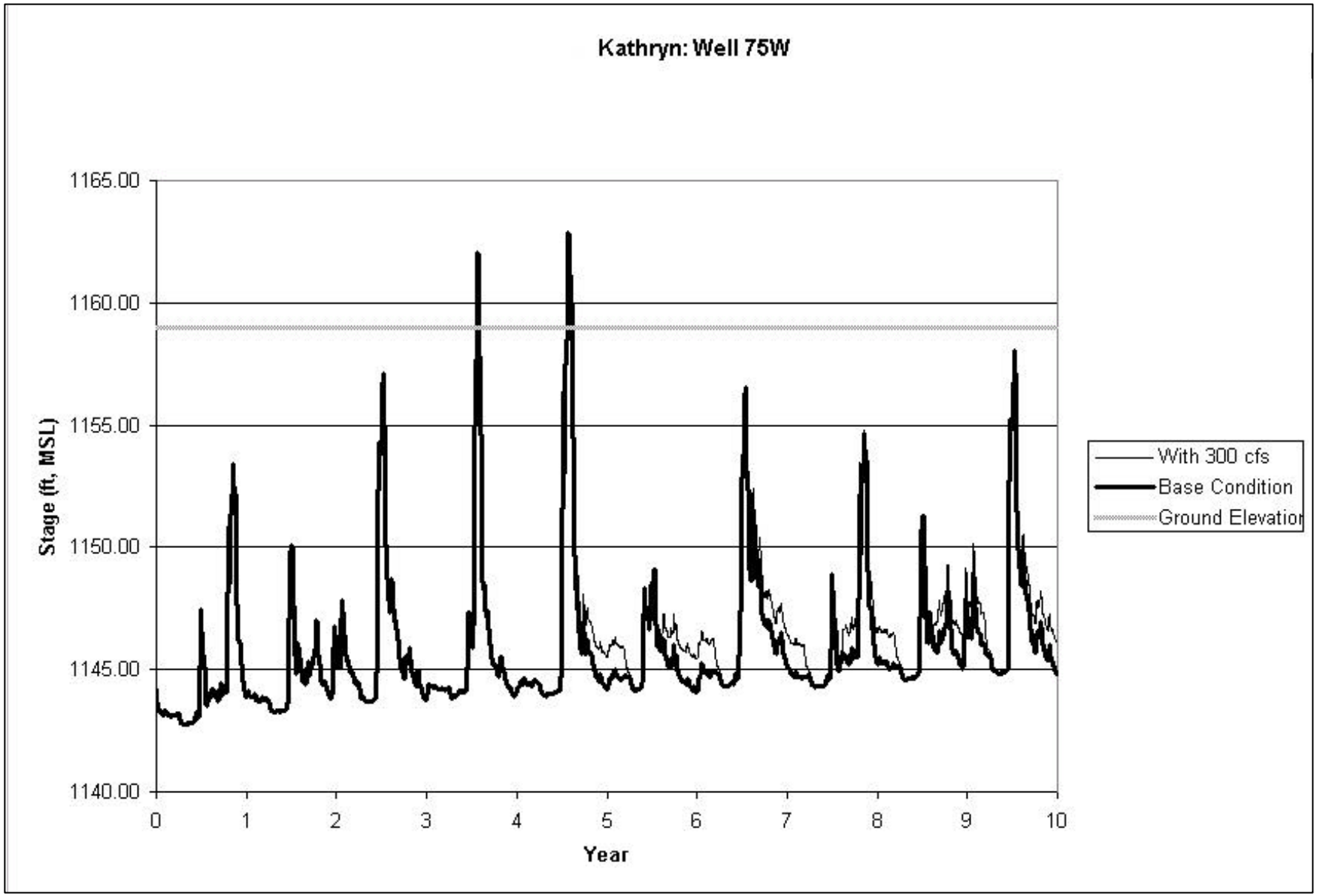

Kathryn: 300 feet West of River
1170.00
1165.00
1160.00
1155.00
1150.00
1145.00
1140.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

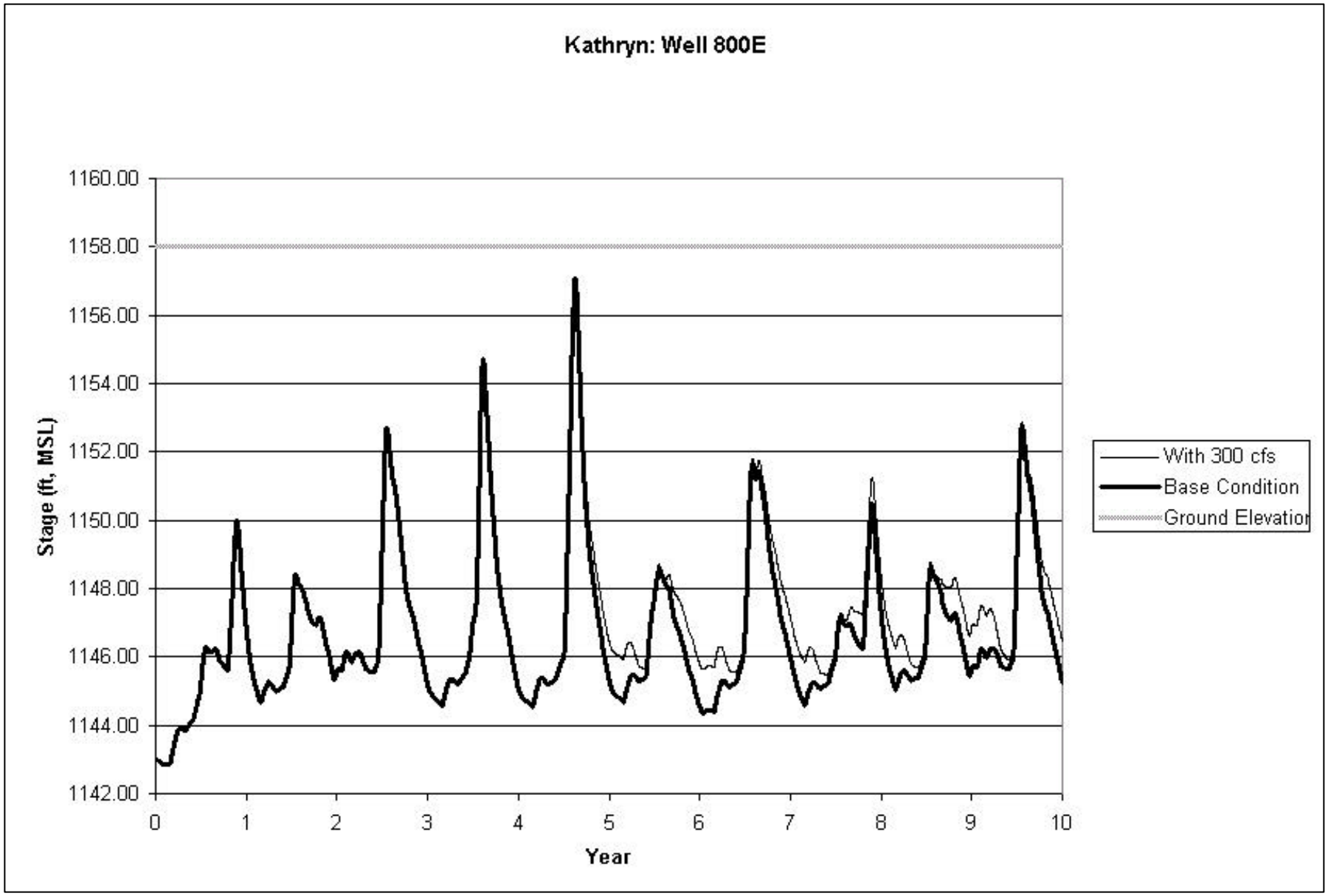

Kathryn: Well 410E
1170.00
1165.00
1160.00
1155.00
1150.00
1145.00
1140.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatio

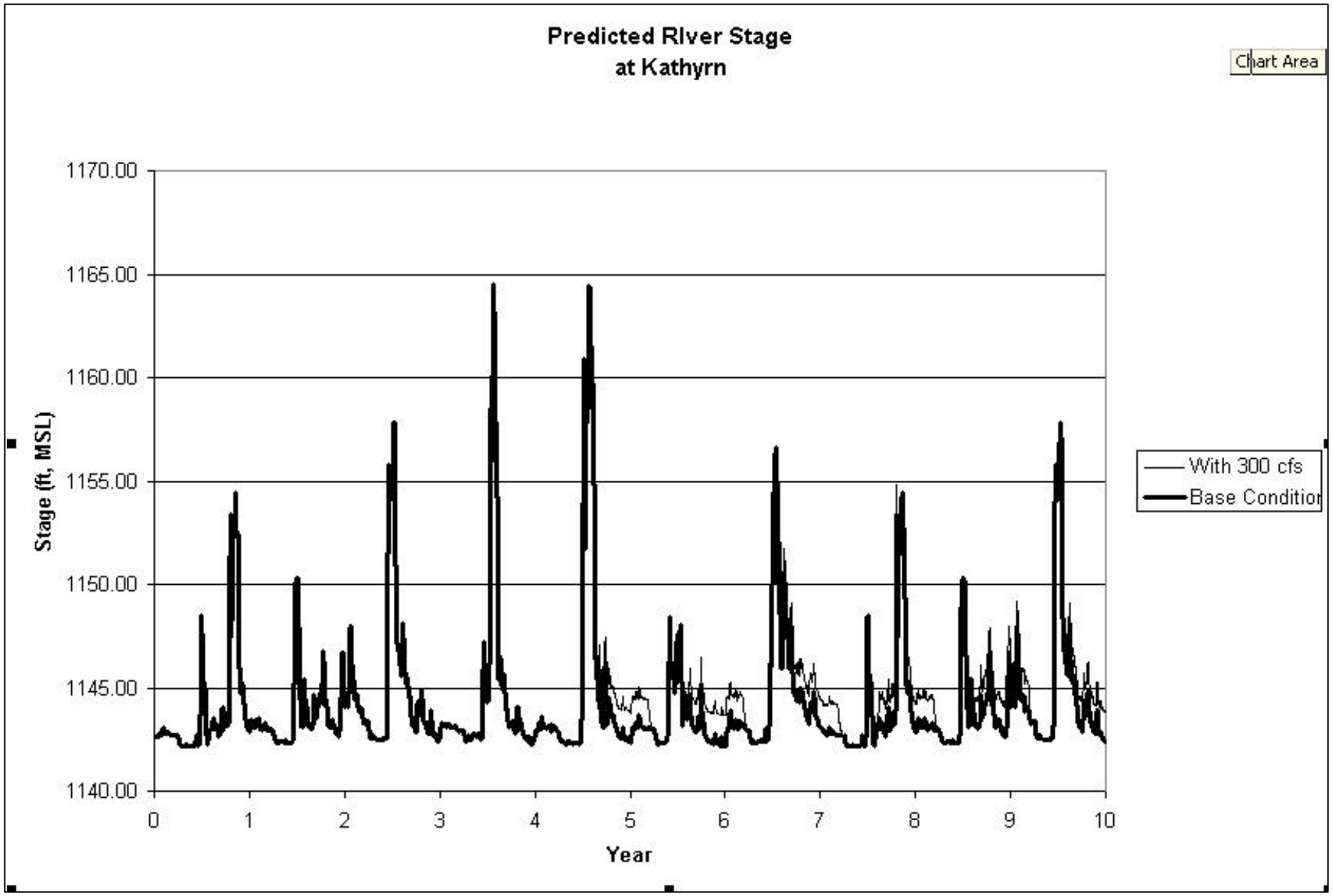

Kathryn: Well 50E
1165.00
1160.00
1155.00
1150.00
1145.00
1140.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

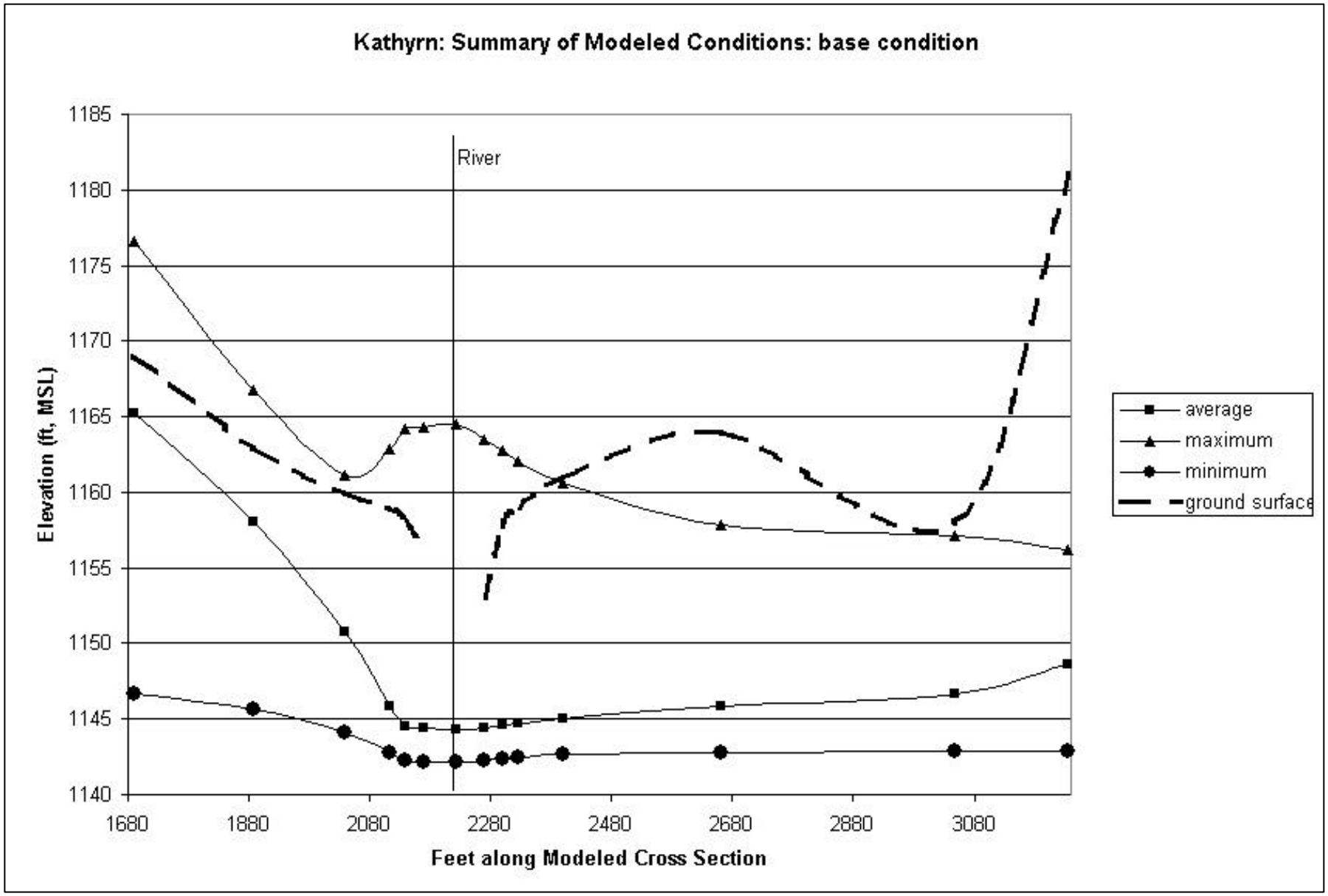

Kathryn: Well 50W
1170.00
1165.00
1160.00
1155.00
1150.00
1145.00
1140.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

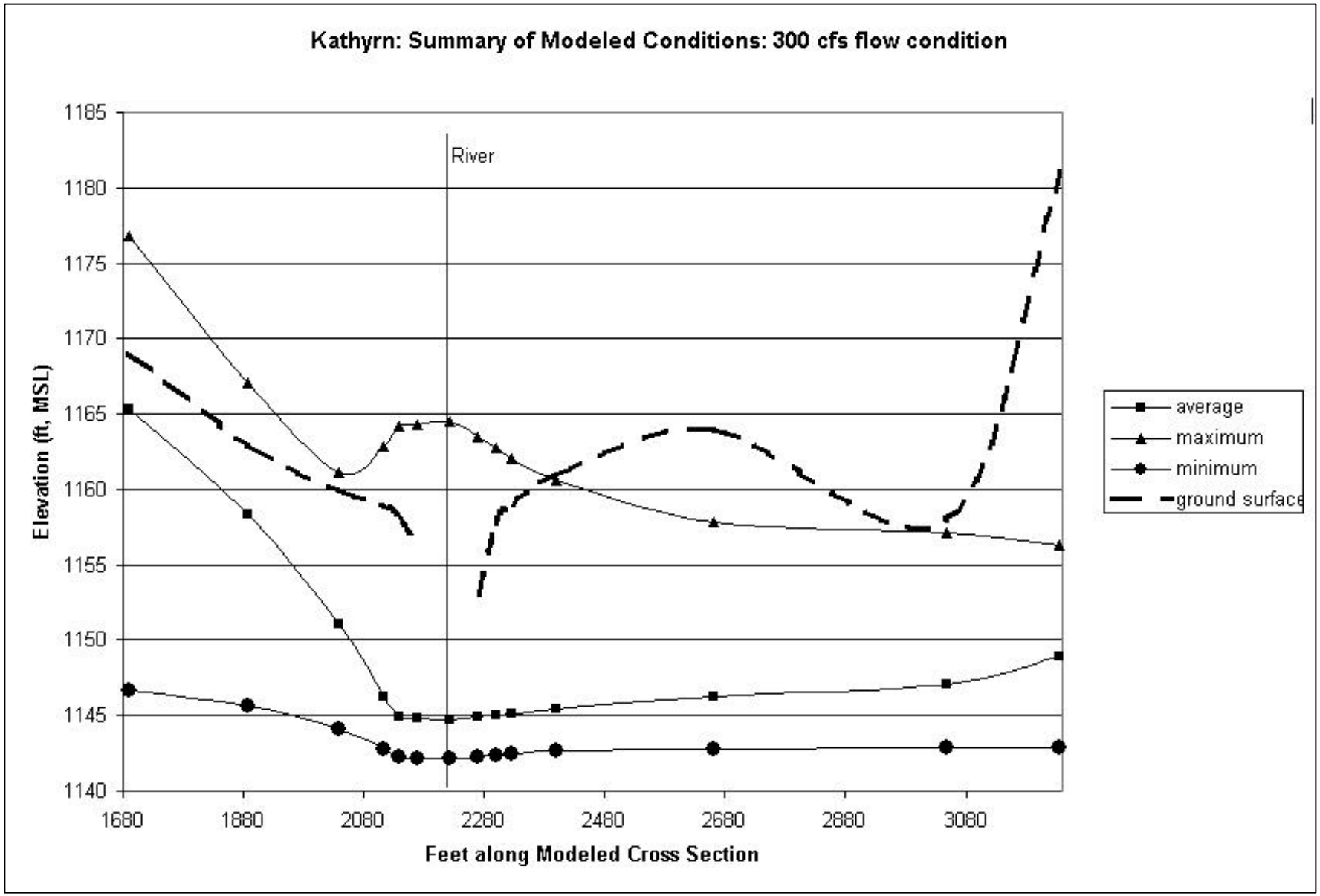

Kathryn: Well 75E
1165.00
1160.00
1155.00
1150.00
1145.00
1140.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

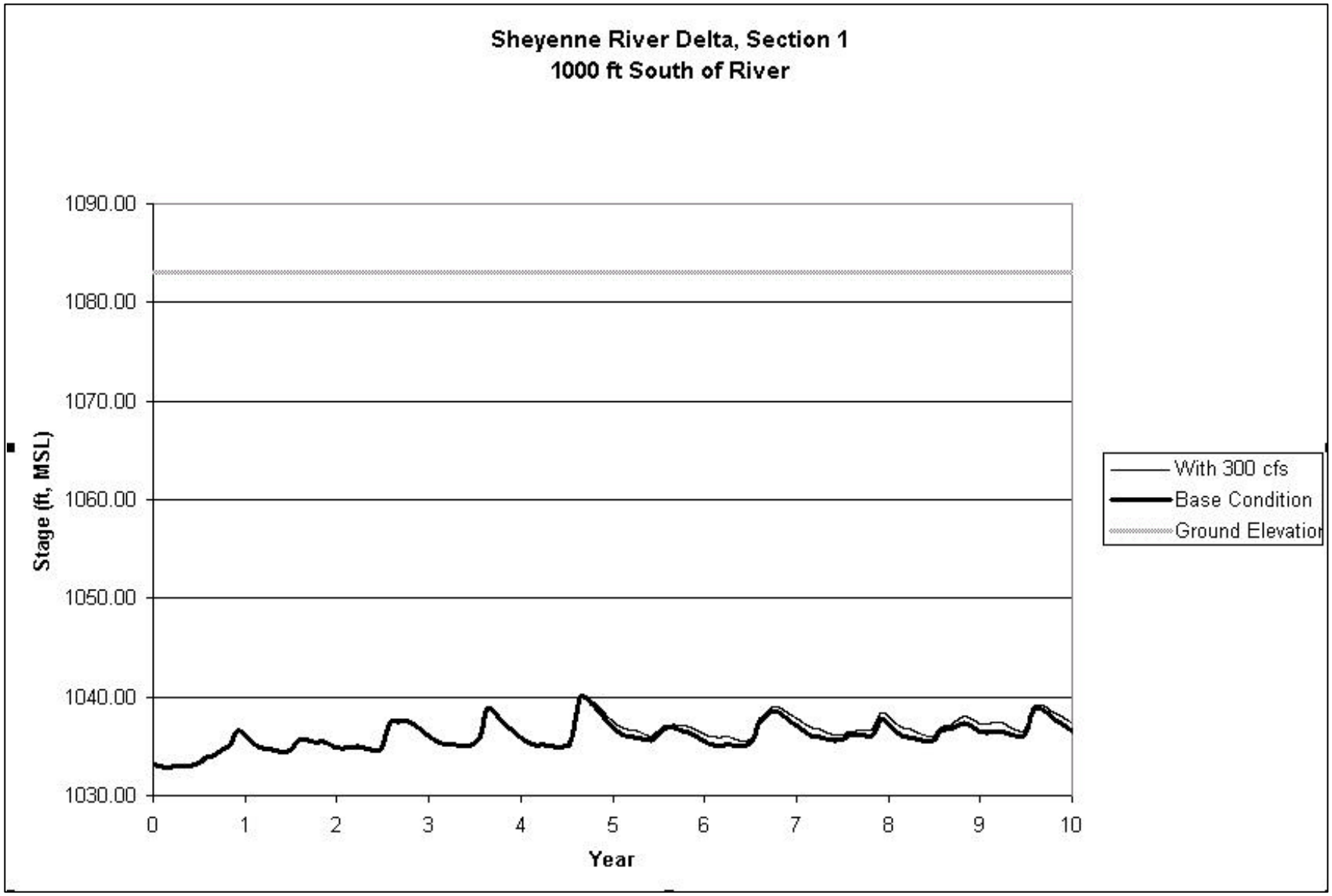

Kathryn: Well 75W
1165.00
1160.00
1155.00
1150.00
1145.00
1140.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

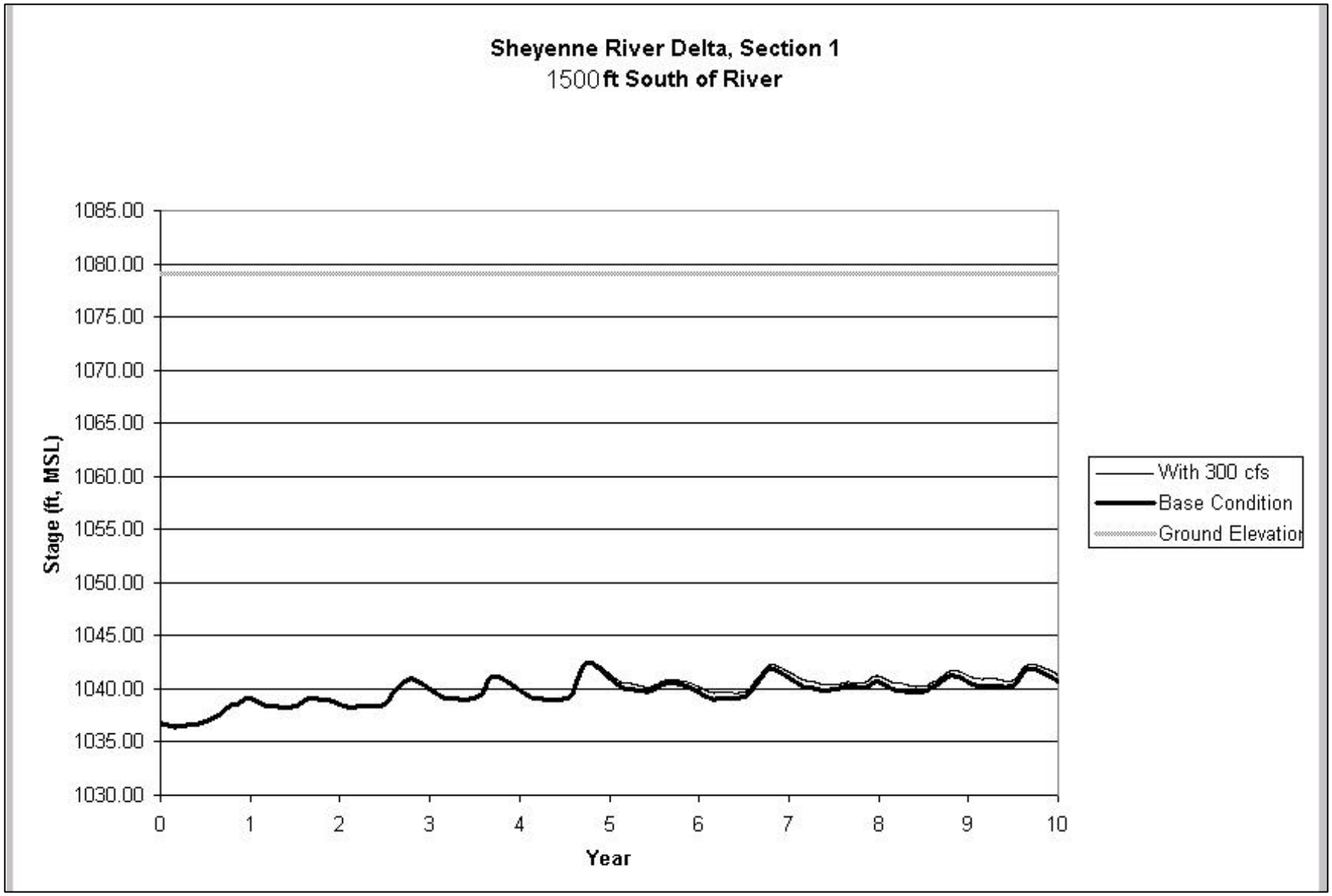

Kathryn: Well 800E
1160.00
1158.00
1156.00
1154.00
1152.00
1150.00
1148.00
1146.00
1144.00
1142.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

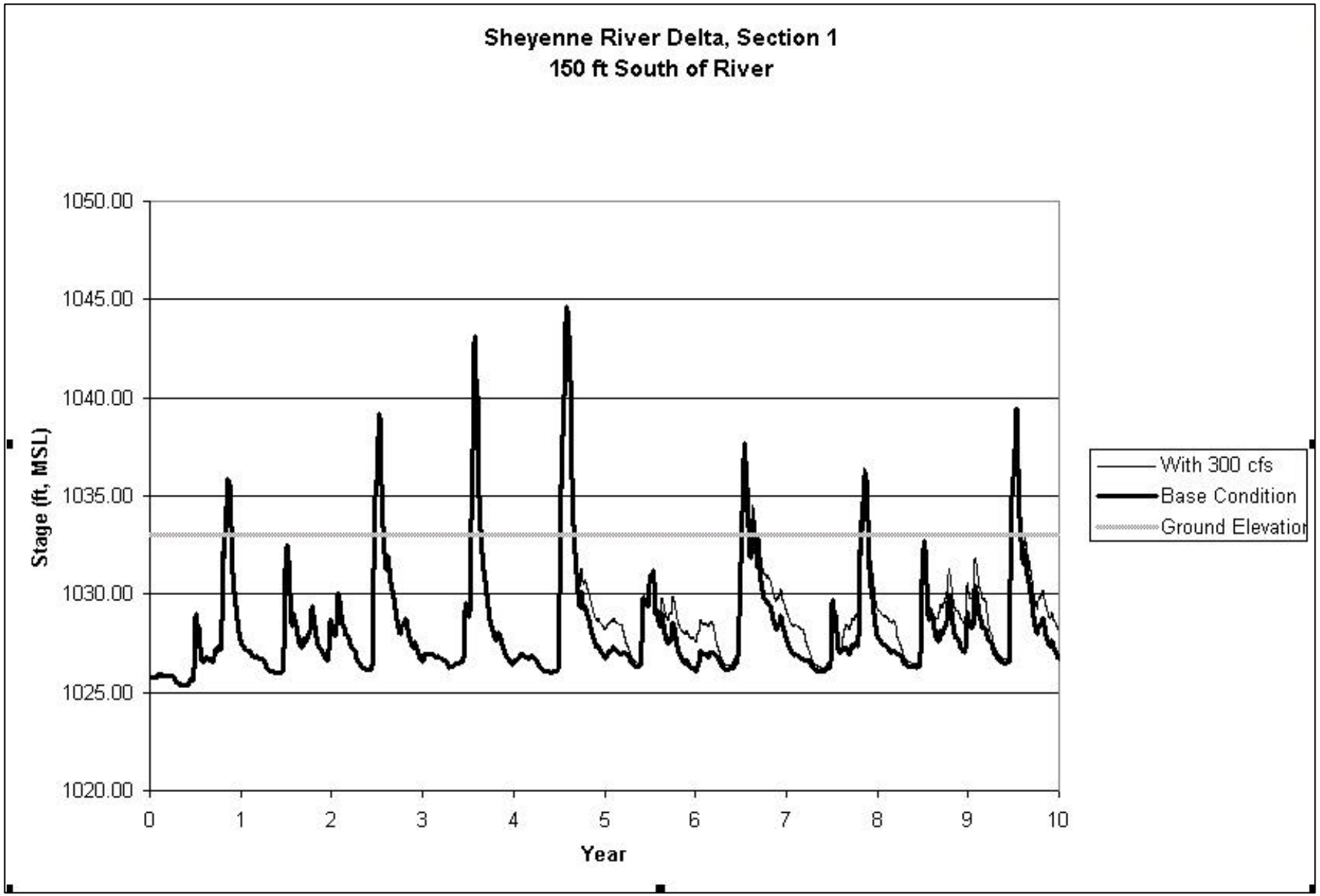

Predicted RIver Stage
at Kathyrn
Chart Area
1170.00
1165.00
1160.00
1155.00
1150.00
1145.00
1140.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Conditior

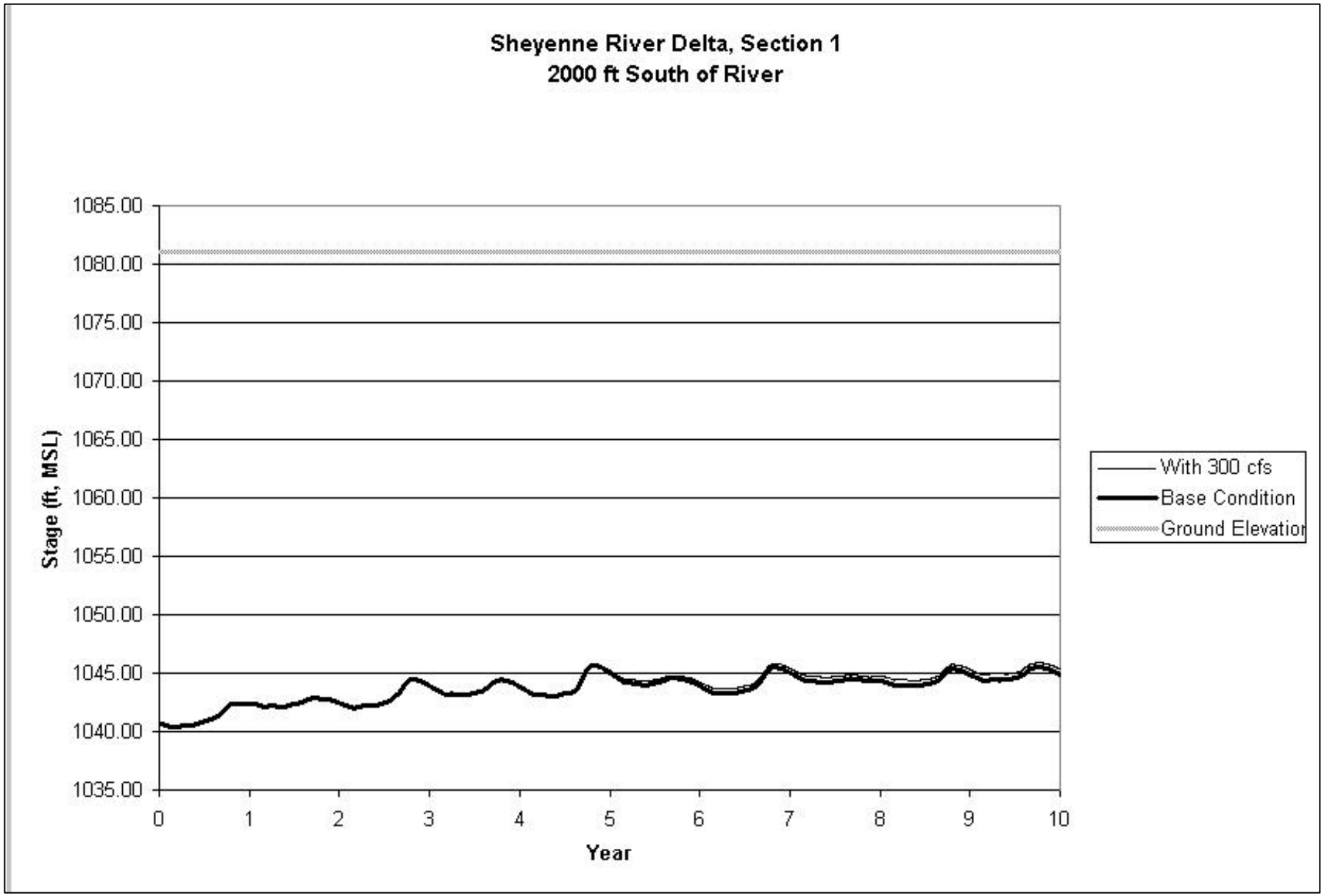

Kathyrn: Summary of Modeled Conditions: base condition
River
Elevation (ft, MSL)
1185
1180
1175
1170
1165
1160
1155
1150
1145
1140
1680
1880
2080
2280
2480
2680
2880
3080
Feet along Modeled Cross Section
average
maximum
minimum
ground surface

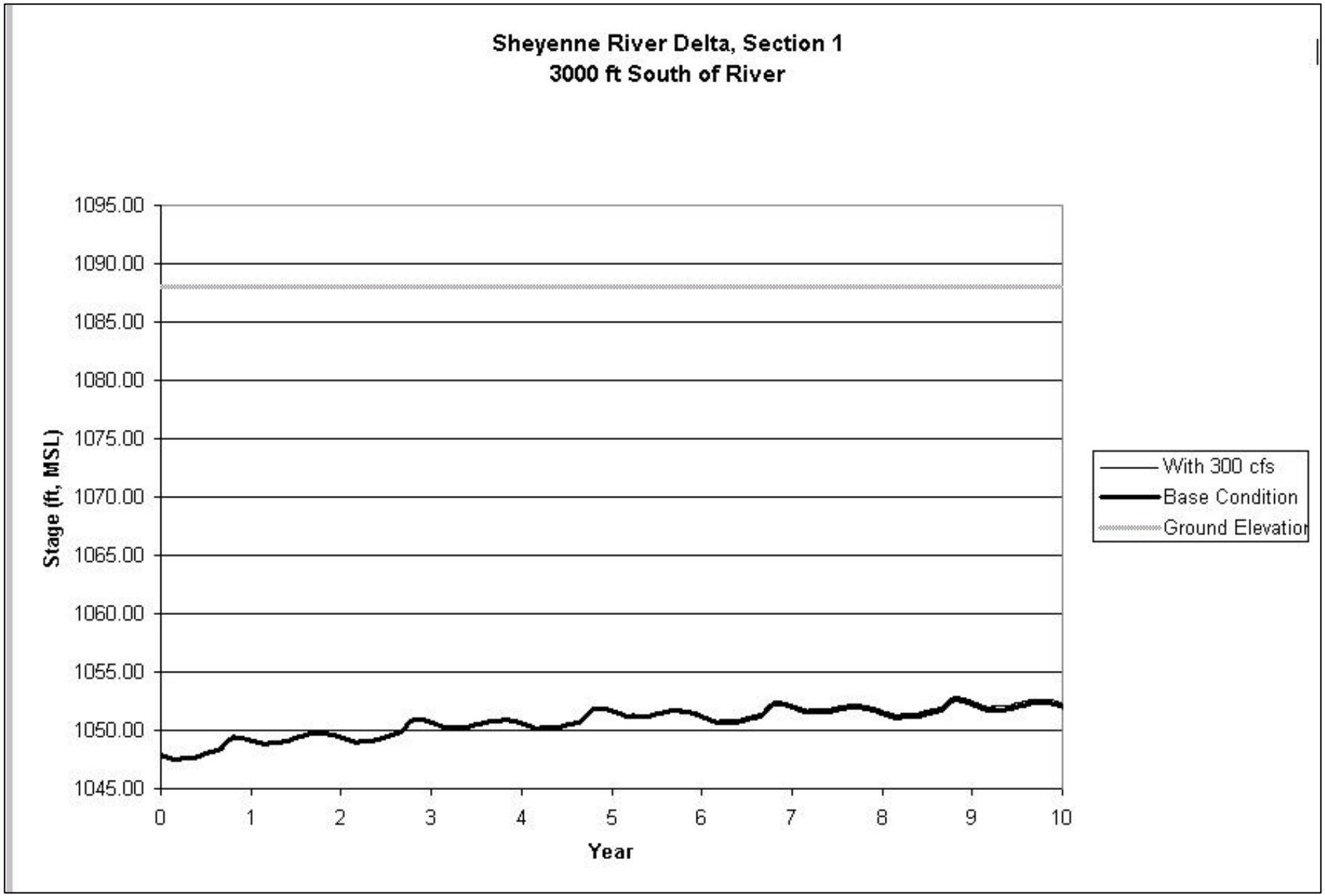

Kathyrn: Summary of Modeled Conditions: 300 cfs flow condition
River
Elevation (ft, MSL)
1185
1180
1175
1170
1165
1160
1155
1150
1145
1140
1680
1880
2080
2280
2480
2680
2880
3080
Feet along Modeled Cross Section
average
maximum
minimum
ground surface

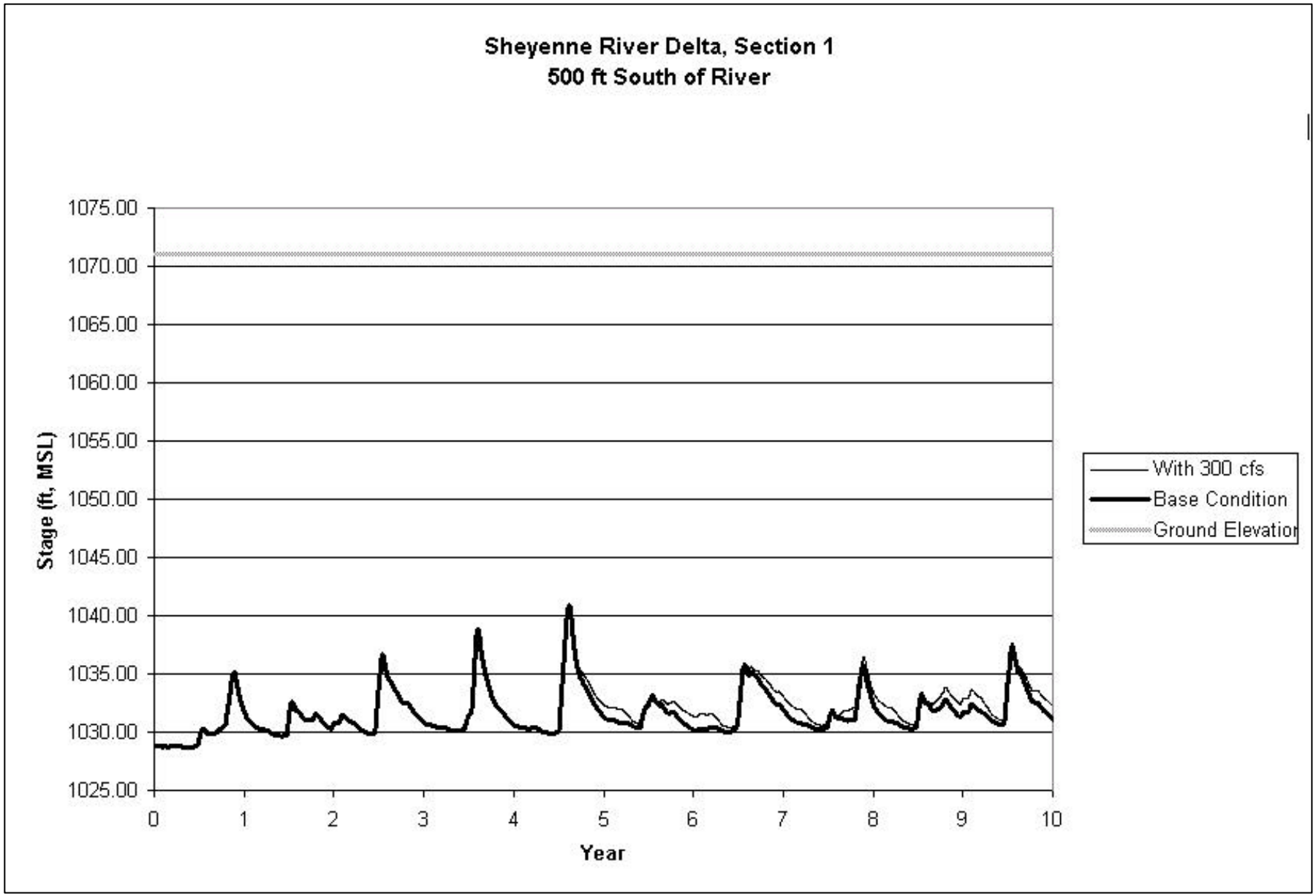

Sheyenne River Delta, Section 1
1000 ft South of River
1090.00
1080.00
1070.00
1060.00
1050.00
1040.00
1030.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

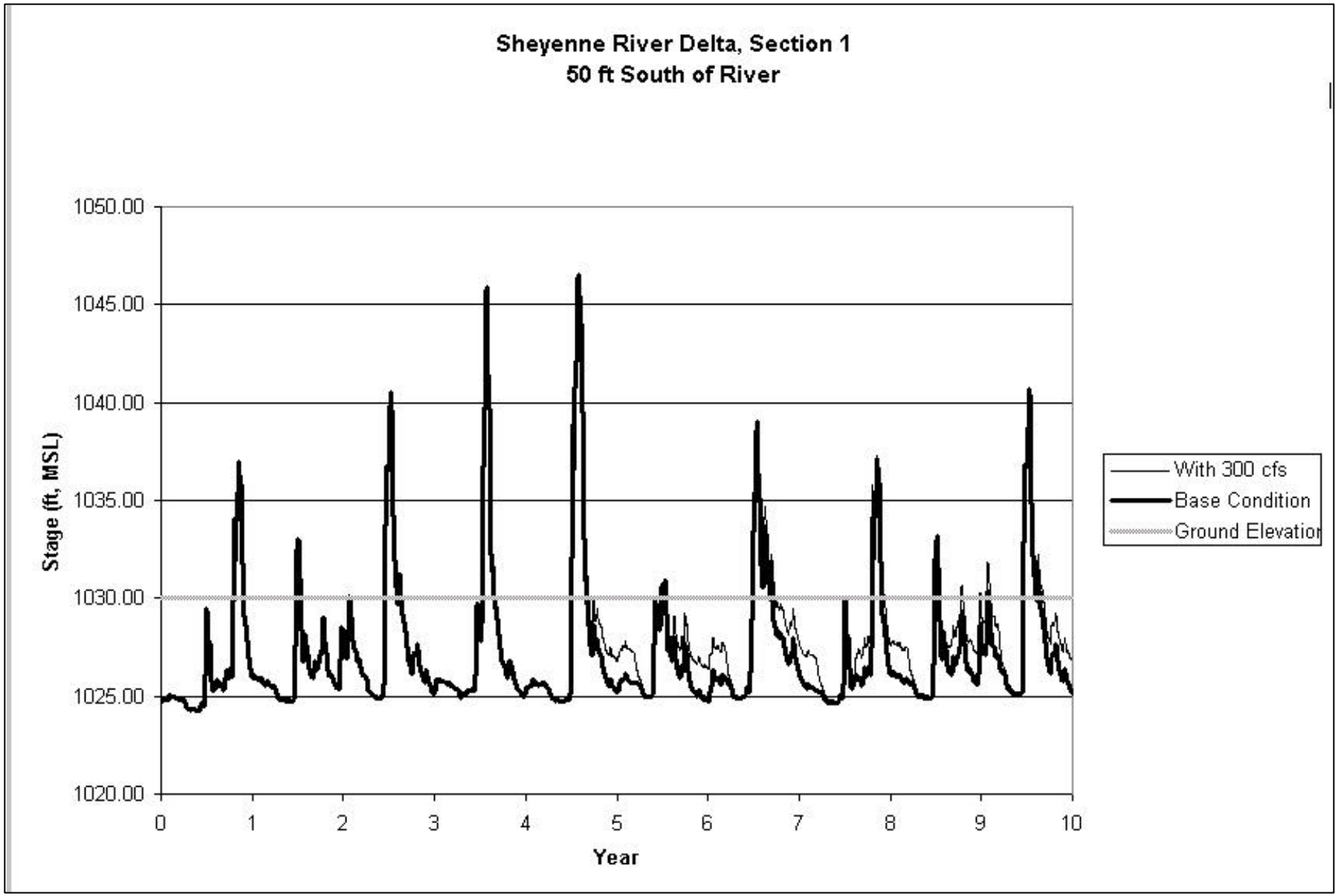

Sheyenne River Delta, Section 1
1500 ft South of River
1085.00
1080.00
1075.00
1070.00
1065.00
1060.00
1055.00
1050.00
1045.00
1040.00
1035.00
1030.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevation

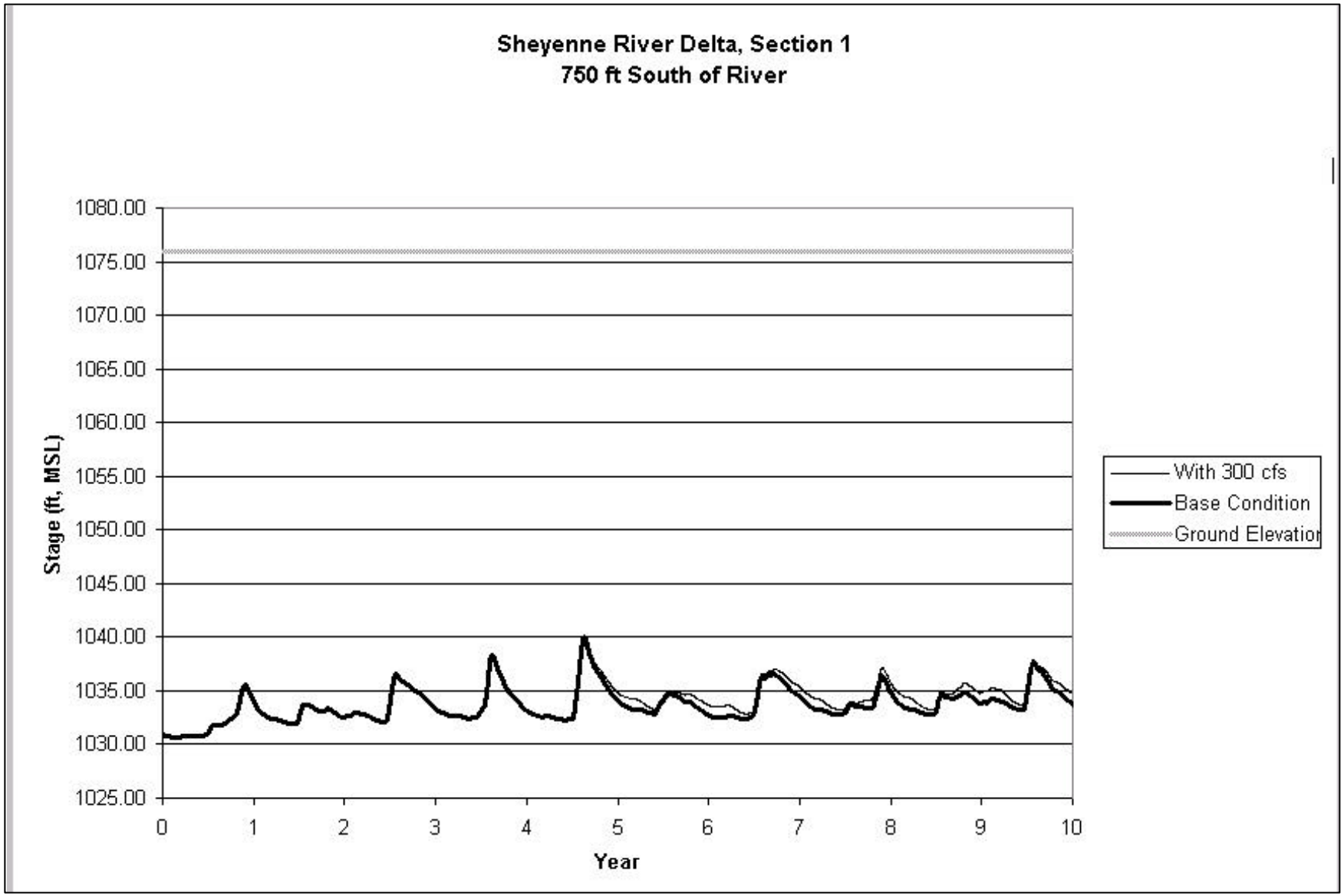

Sheyenne River Delta, Section 1
150 ft South of River
1050.00
1045.00
1040.00
1035.00
1030.00
1025.00
1020.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

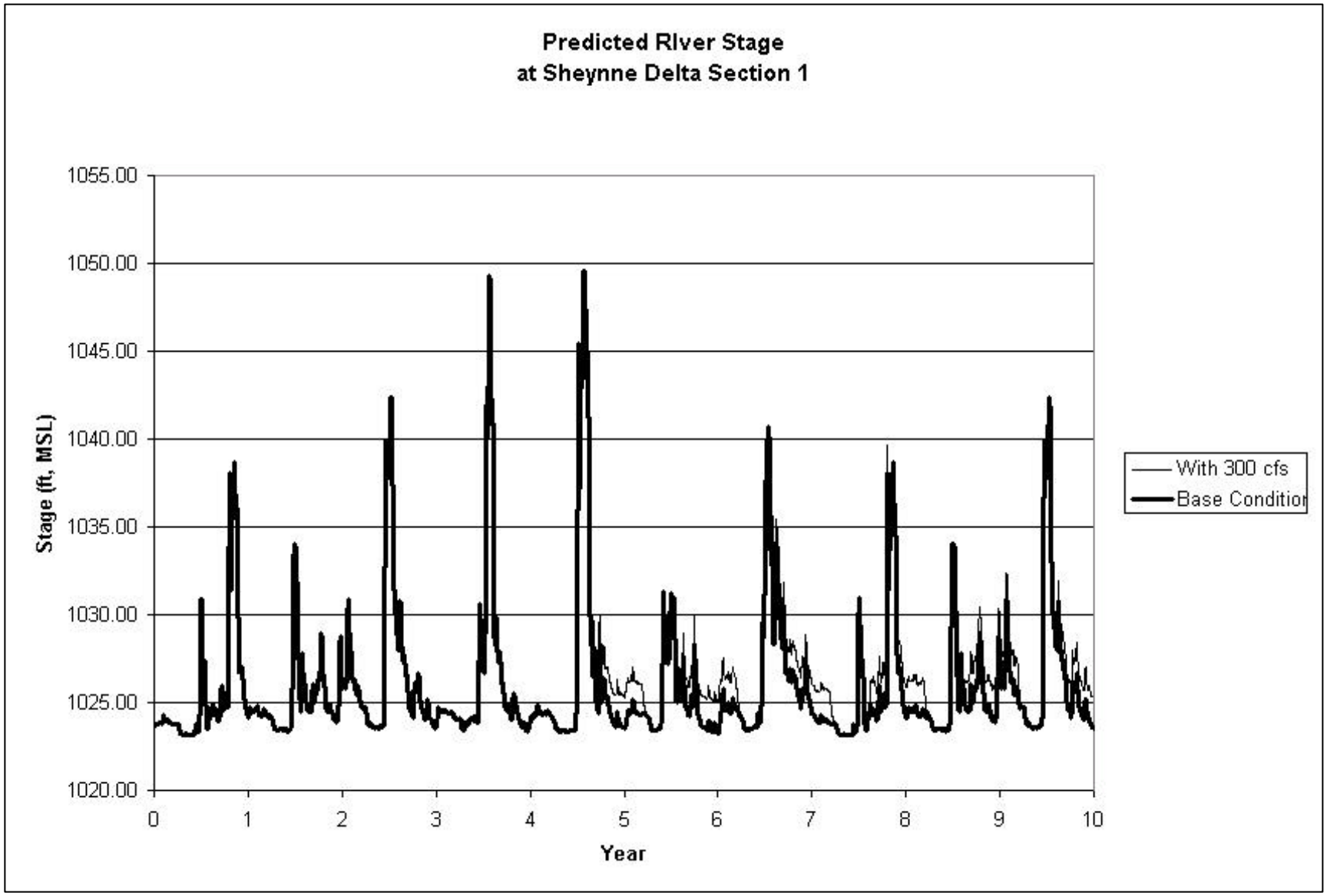

Sheyenne River Delta, Section 1
2000 ft South of River
1085.00
1080.00
1075.00
1070.00
1065.00
1060.00
1055.00
1050.00
1045.00
1040.00
1035.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

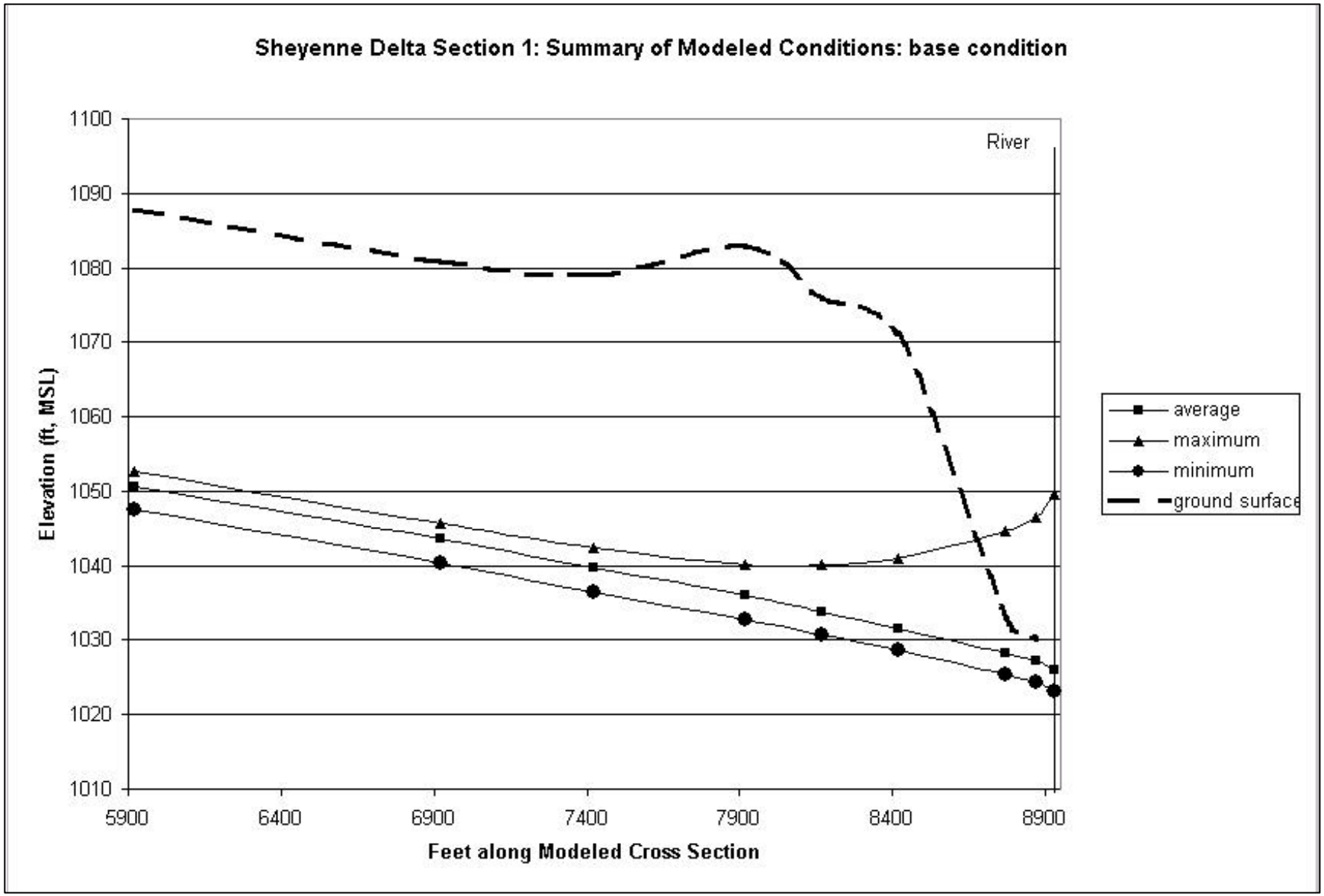

Sheyenne River Delta, Section 1
3000 ft South of River
Stage (ft, MSL)
1095.00
1090.00
1085.00
1080.00
1075.00
1070.00
1065.00
1060.00
1055.00
1050.00
1045.00
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

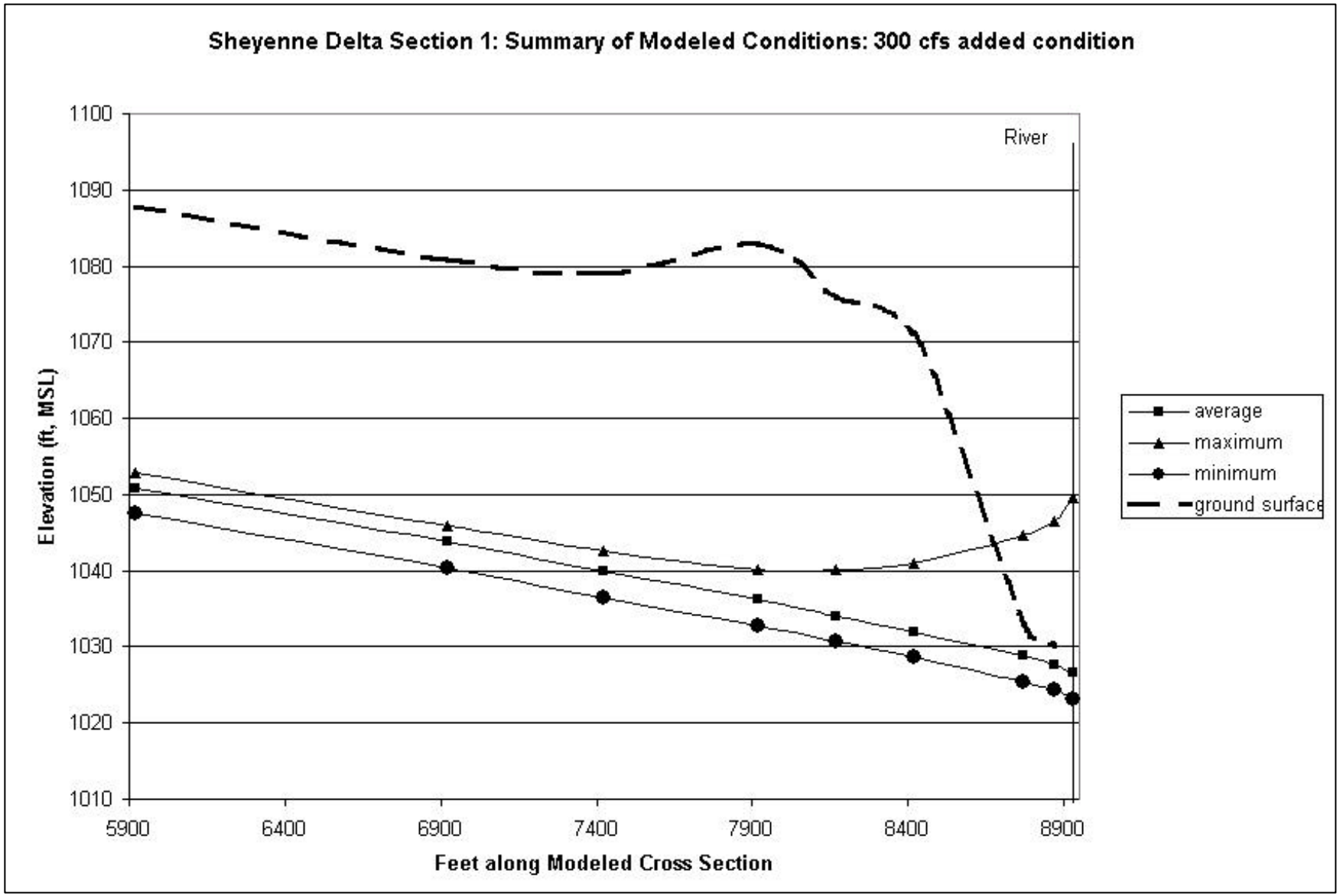

Sheyenne River Delta, Section 1
500 ft South of River
1075.00
1070.00
1065.00
1060.00
1055.00
1050.00
1045.00
1040.00
1035.00
1030.00
1025.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

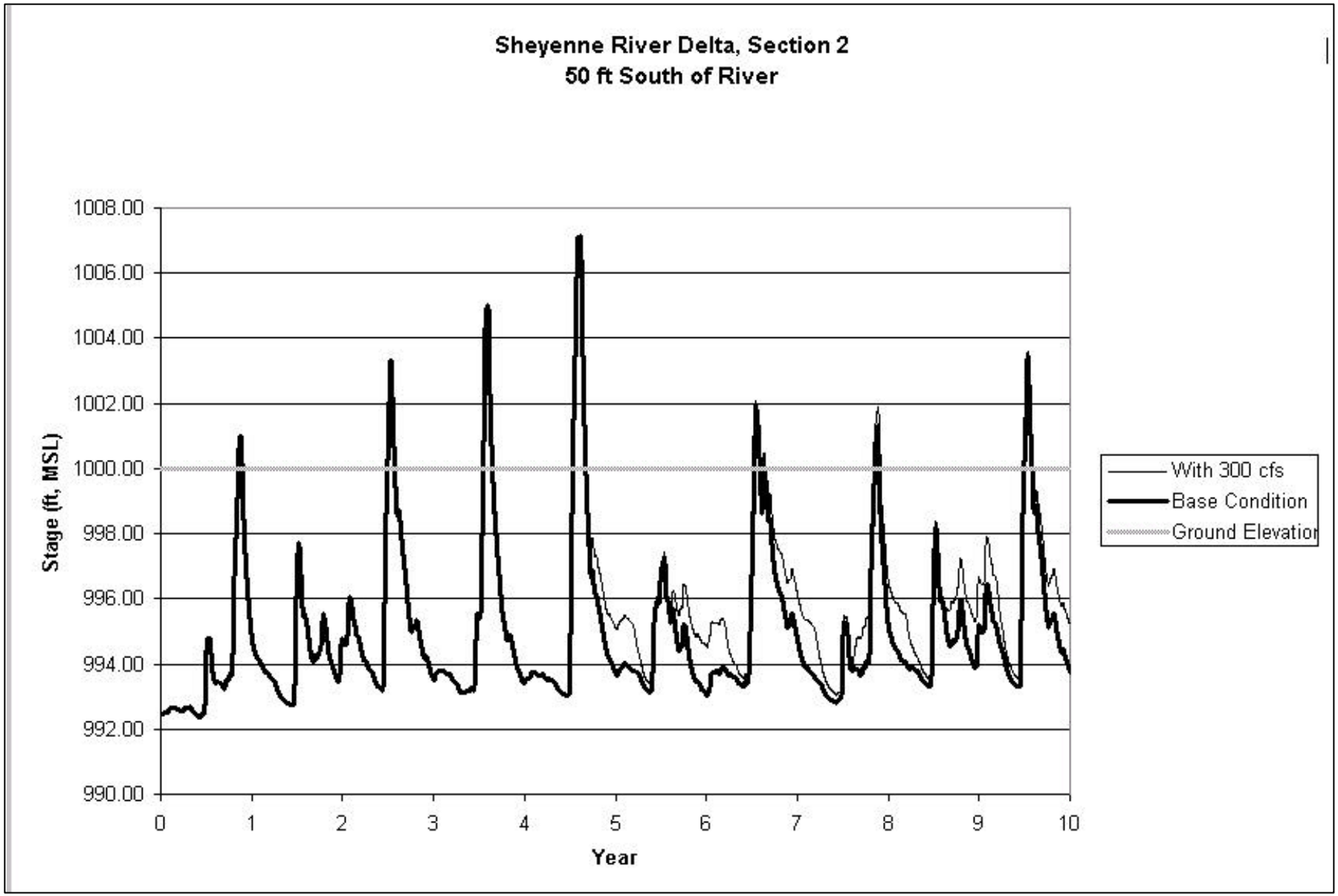

Sheyenne River Delta, Section 1
50 ft South of River
Stage (ft, MSL)
1050.00
1045.00
1040.00
1035.00
1030.00
1025.00
1020.00
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

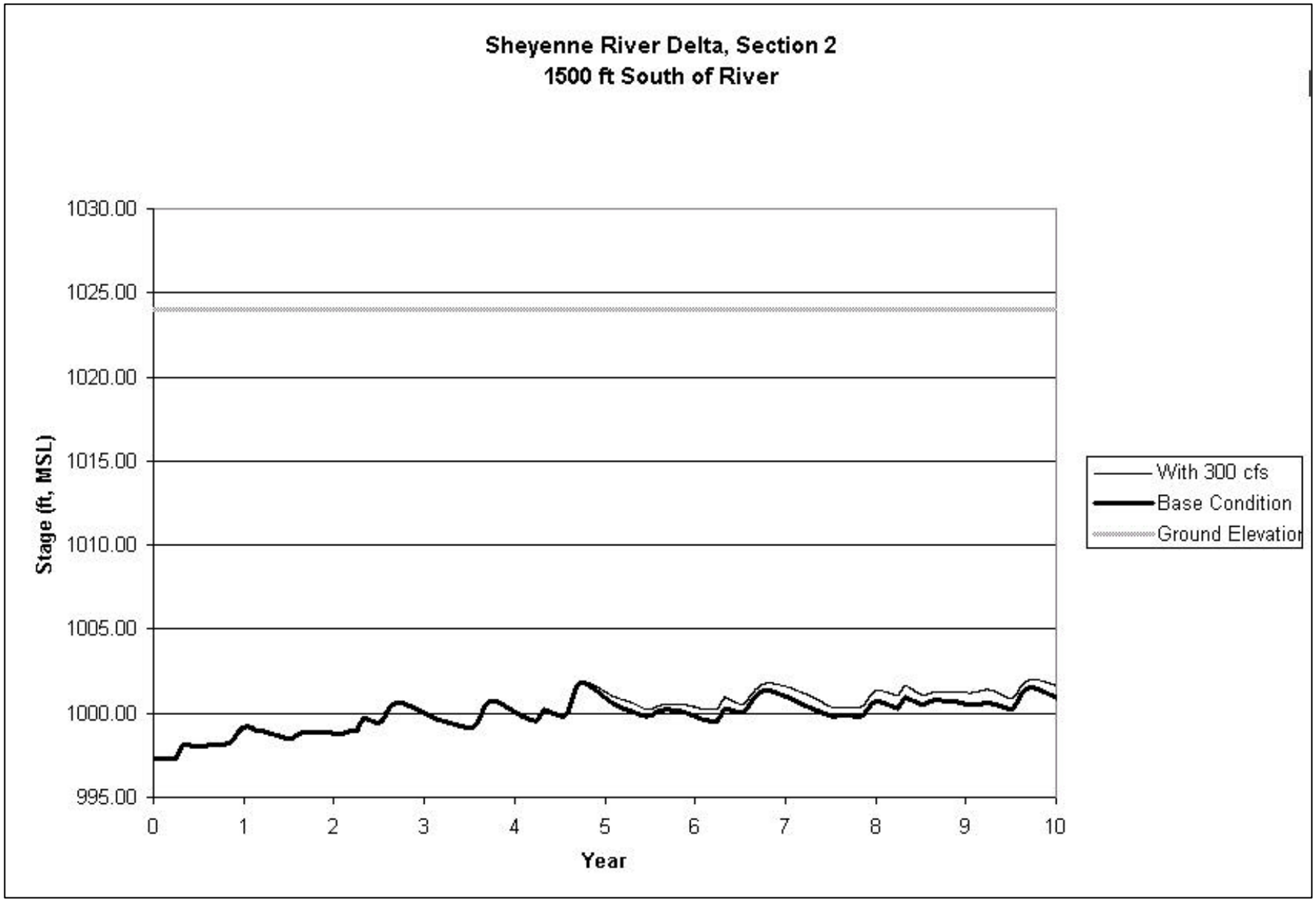

Sheyenne River Delta, Section 1
750 ft South of River
Stage (ft, MSL)
1080.00
1075.00
1070.00
1065.00
1060.00
1055.00
1050.00
1045.00
1040.00
1035.00
1030.00
1025.00
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

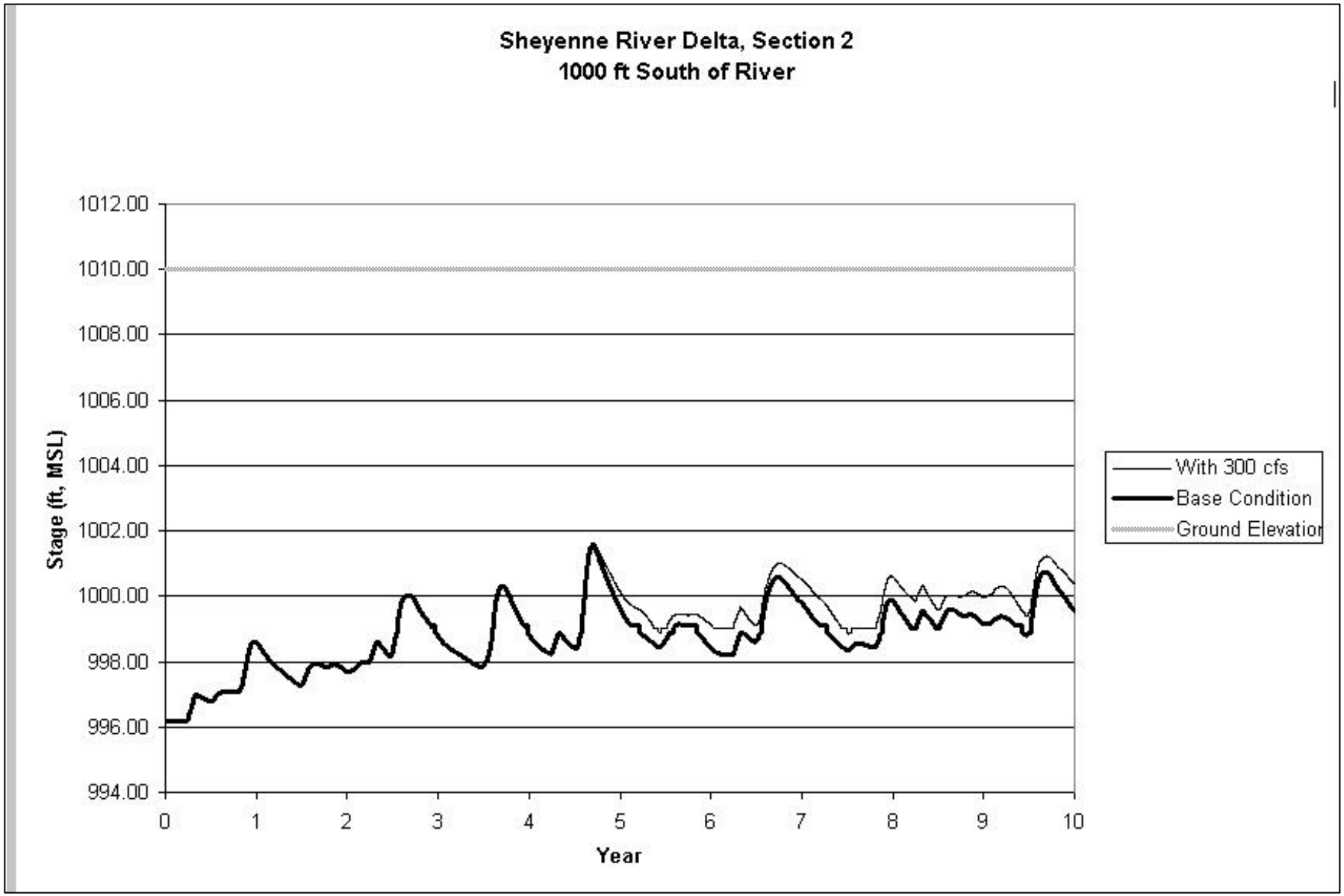

Predicted RIver Stage
at Sheynne Delta Section 1
1055.00
1050.00
1045.00
1040.00
1035.00
1030.00
1025.00
1020.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition

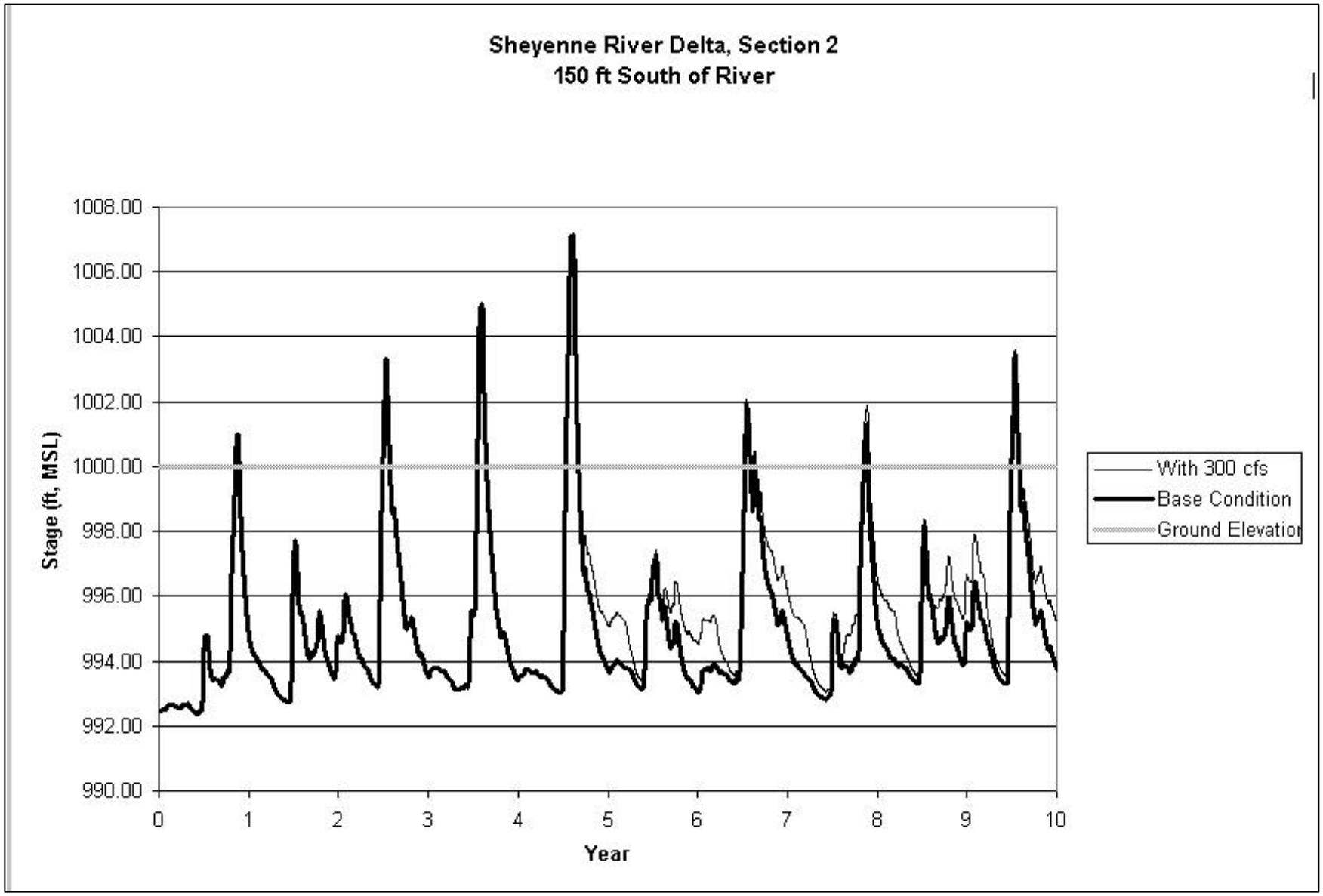

Sheyenne Delta Section 1: Summary of Modeled Conditions: base condition
River
1100
1090
1080
1070
1060
1050
1040
1030
1020
1010
Elevation (ft, MSL)
5900
6400
6900
7400
7900
8400
8900
Feet along Modeled Cross Section
average
maximum
minimum
ground surface

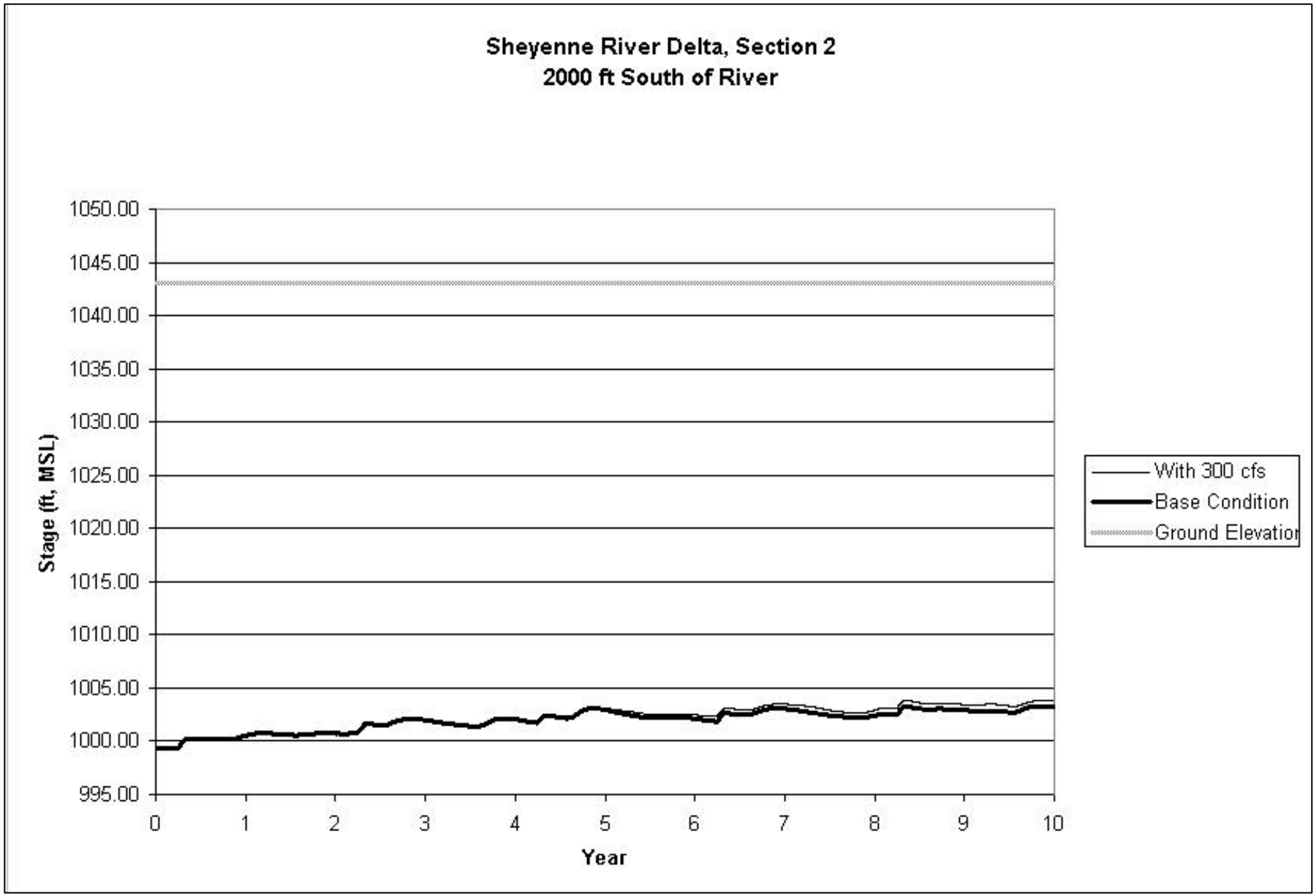

Sheyenne Delta Section 1: Summary of Modeled Conditions: 300 cfs added condition
River
1100
1090
1080
1070
1060
1050
1040
1030
1020
1010
Elevation (ft, MSL)
5900
6400
6900
7400
7900
8400
8900
Feet along Modeled Cross Section
average
maximum
minimum
ground surface

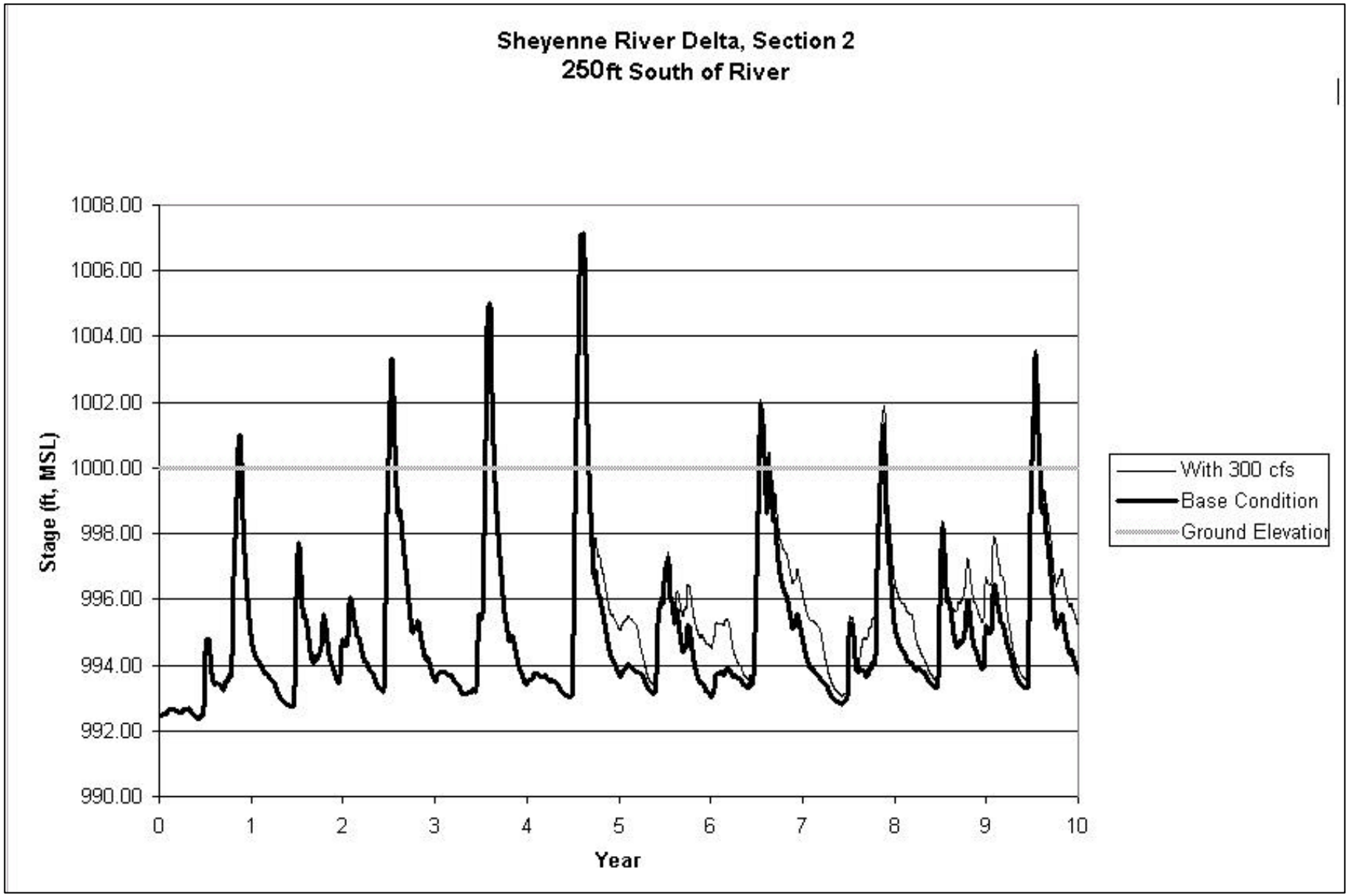

Sheyenne River Delta, Section 2
50 ft South of River
Stage (ft, MSL)
1008.00
1006.00
1004.00
1002.00
1000.00
998.00
996.00
994.00
992.00
990.00
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

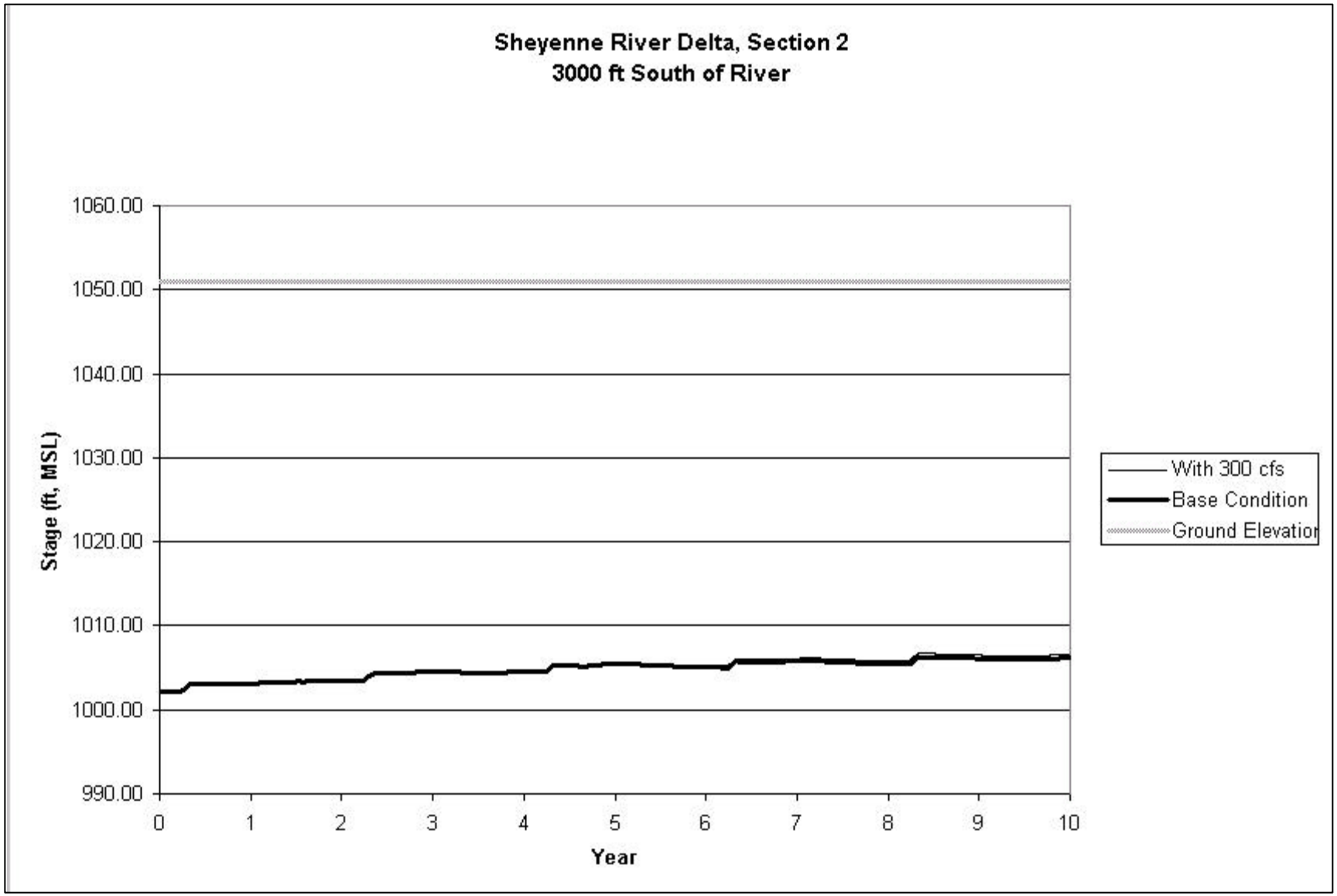

Sheyenne River Delta, Section 2
1500 ft South of River
Stage (ft, MSL)
1030.00
1025.00
1020.00
1015.00
1010.00
1005.00
1000.00
995.00
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevation

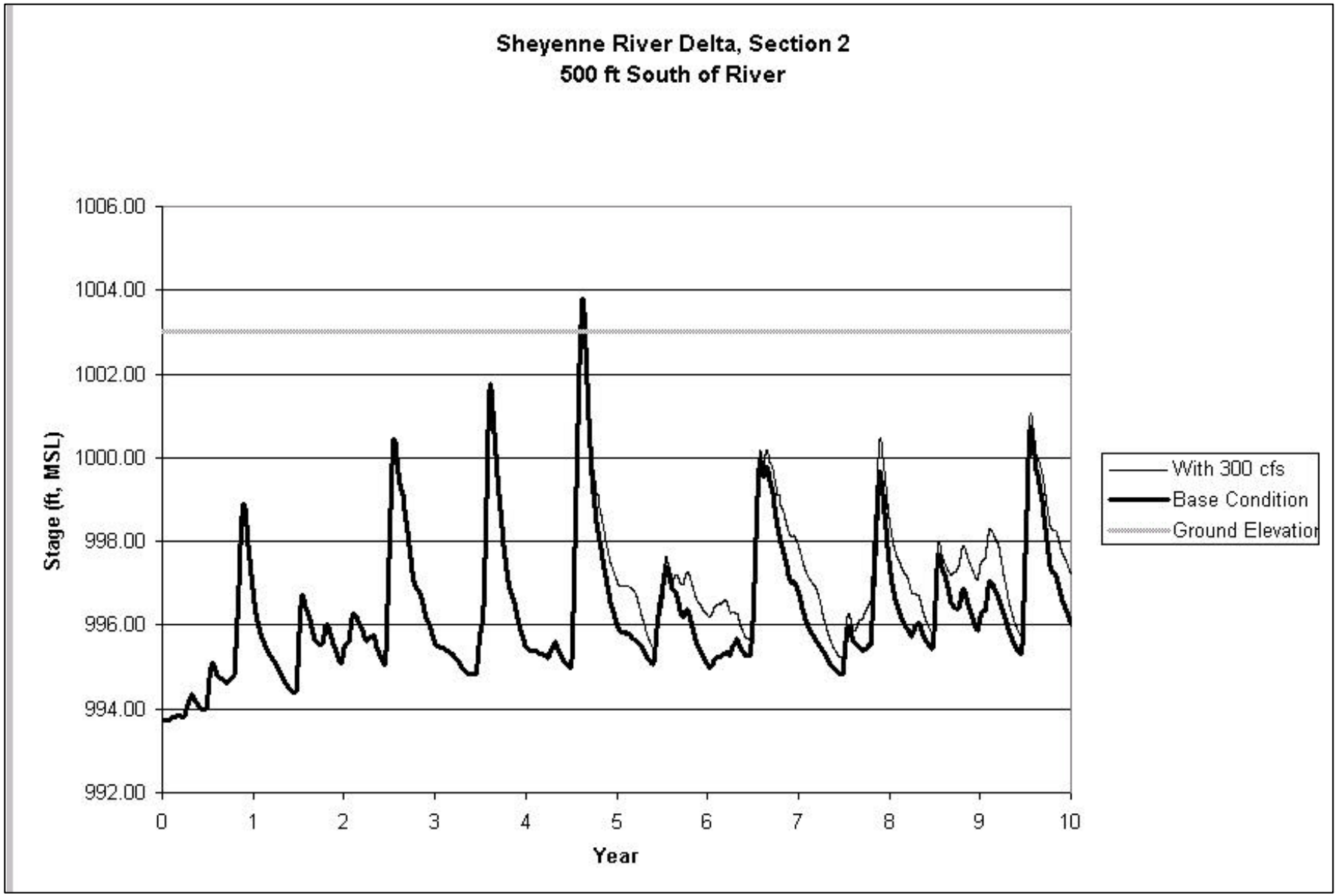

Sheyenne River Delta, Section 2
1000 ft South of River
Stage (ft, MSL)
1012.00
1010.00
1008.00
1006.00
1004.00
1002.00
1000.00
998.00
996.00
994.00
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevation

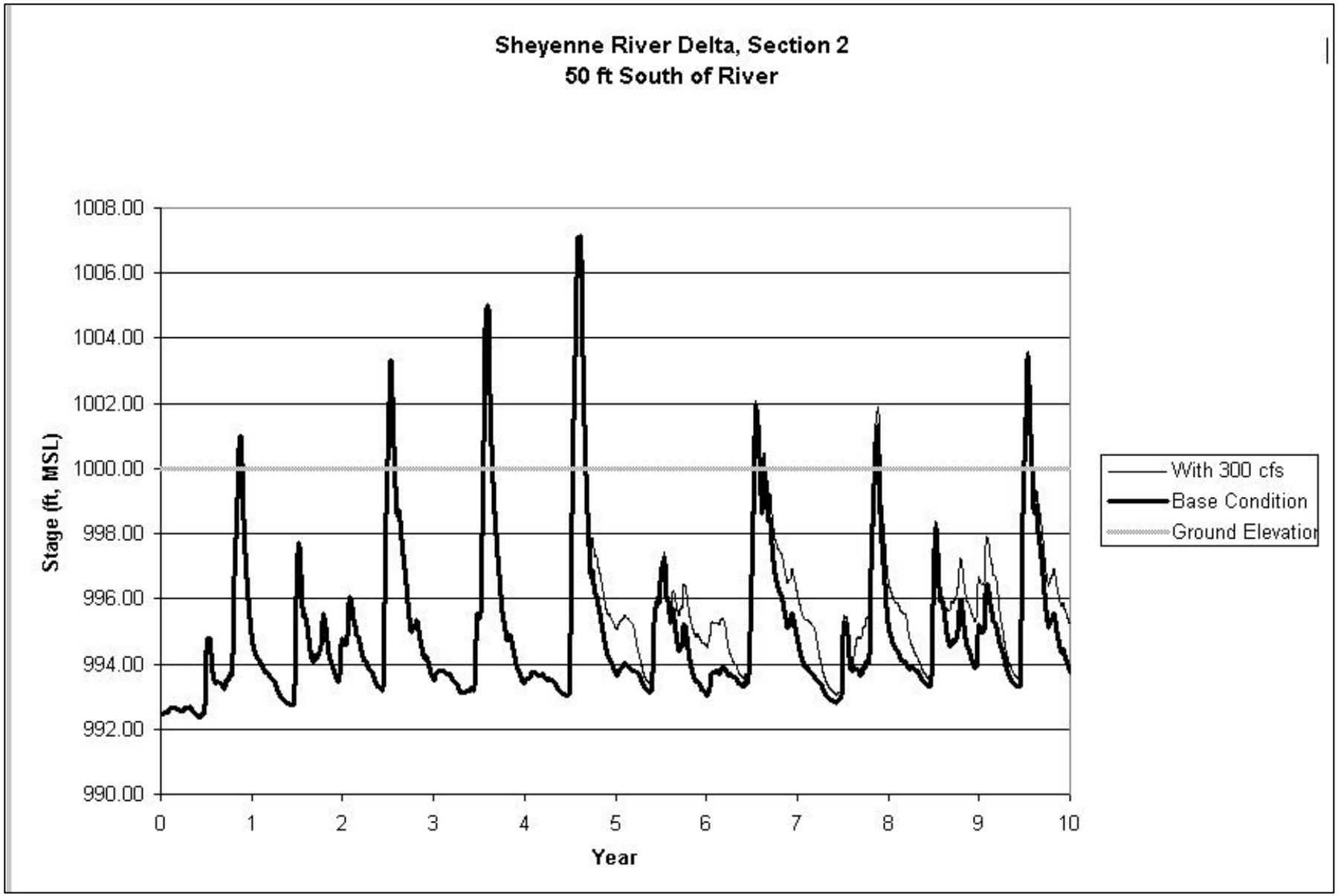

Sheyenne River Delta, Section 2
150 ft South of River
Stage (ft, MSL)
1008.00
1006.00
1004.00
1002.00
1000.00
998.00
996.00
994.00
992.00
990.00
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

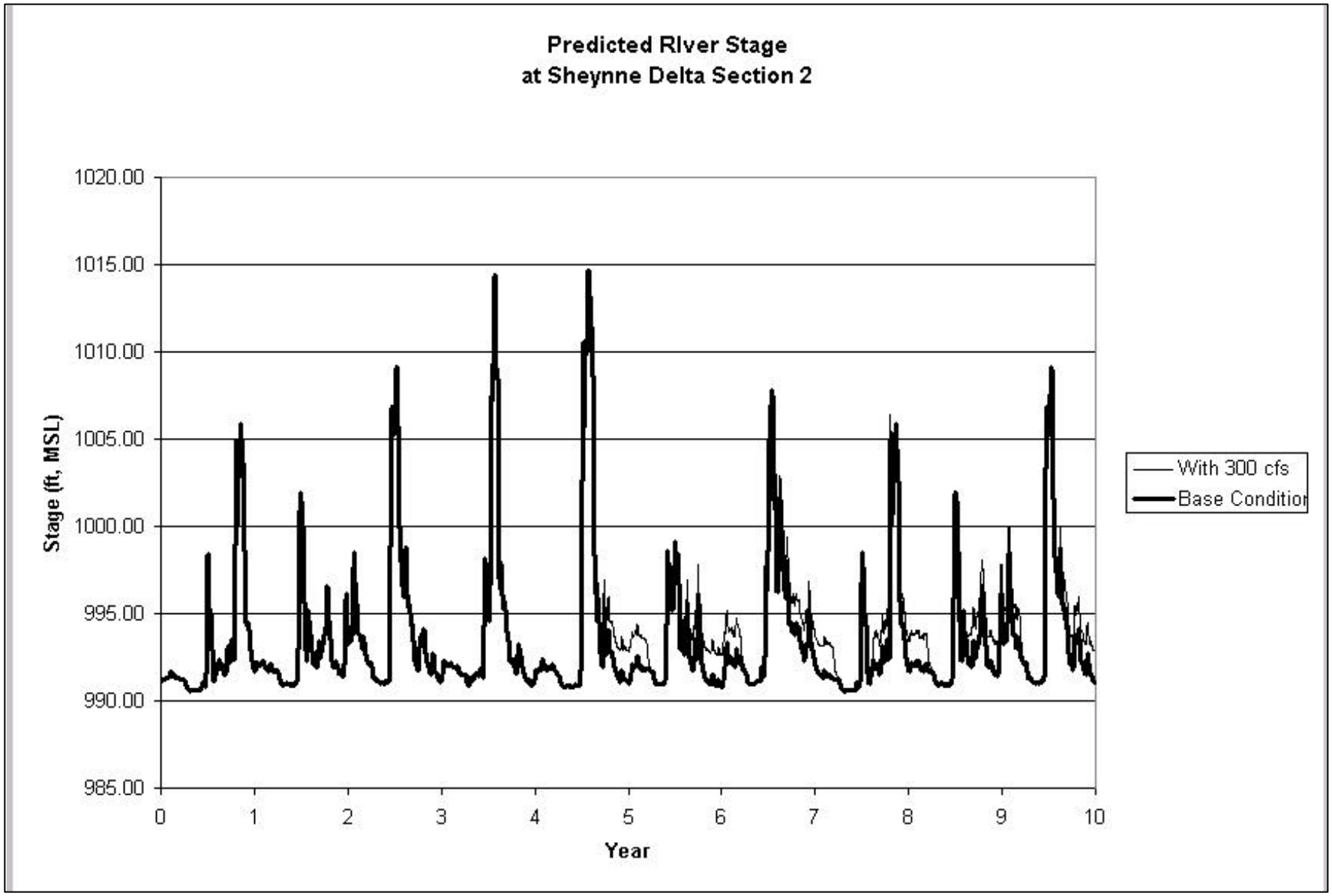

Sheyenne River Delta, Section 2
2000 ft South of River
1050.00
1045.00
1040.00
1035.00
1030.00
1025.00
1020.00
1015.00
1010.00
1005.00
1000.00
995.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

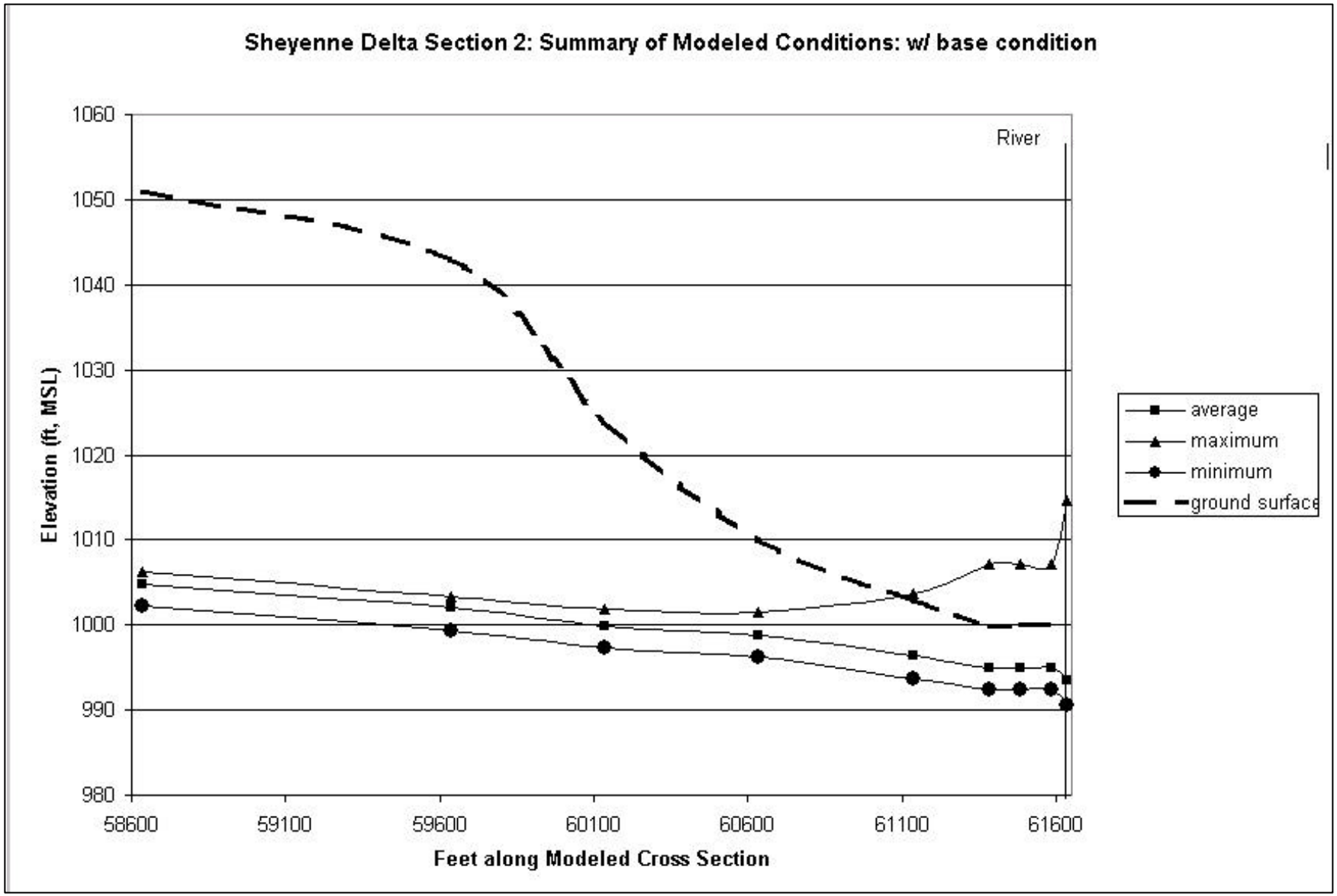

Sheyenne River Delta, Section 2
250ft South of River
1008.00
1006.00
1004.00
1002.00
1000.00
998.00
996.00
994.00
992.00
990.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatio

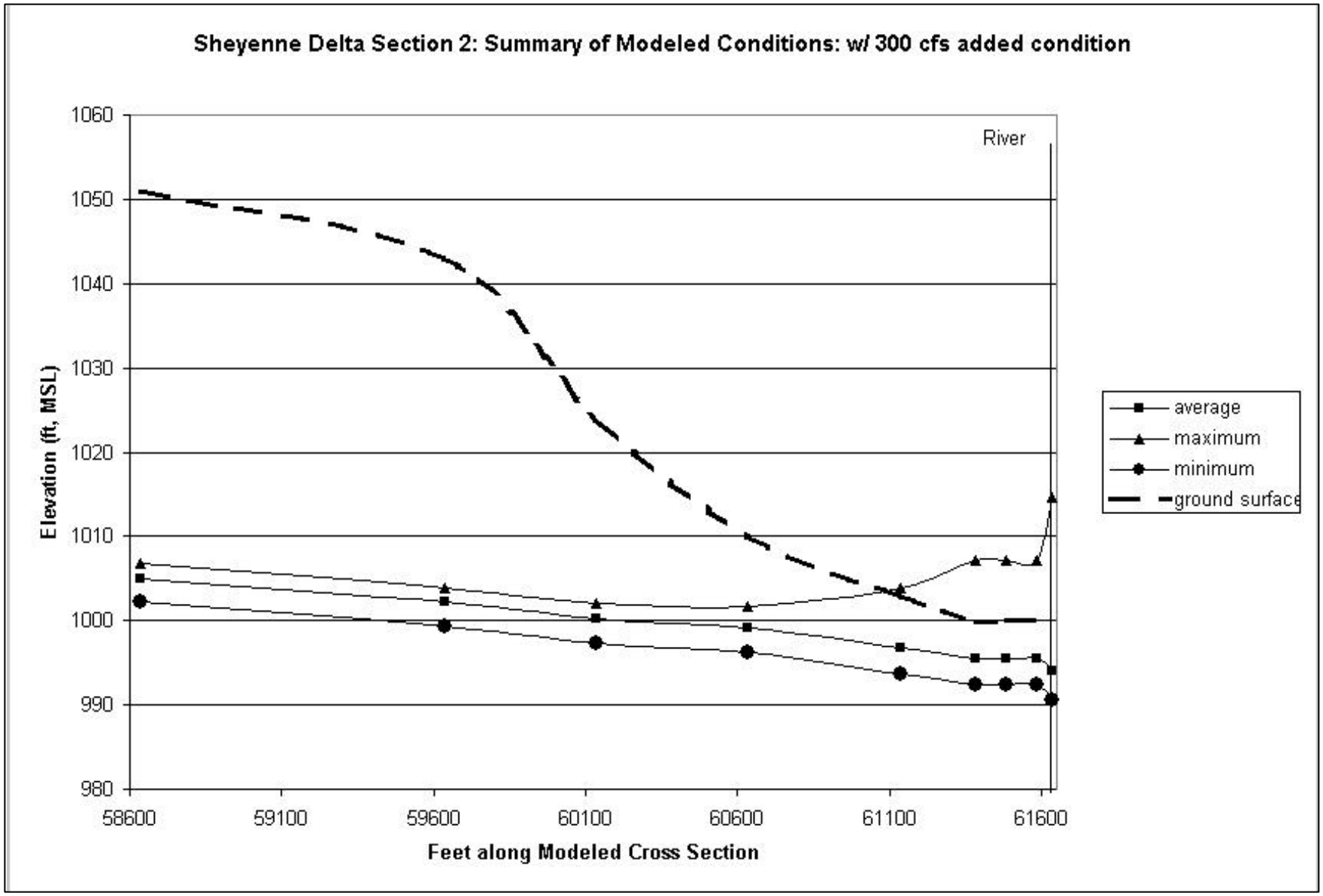

Sheyenne River Delta, Section 2
3000 ft South of River
1060.00
1050.00
1040.00
1030.00
1020.00
1010.00
1000.00
990.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

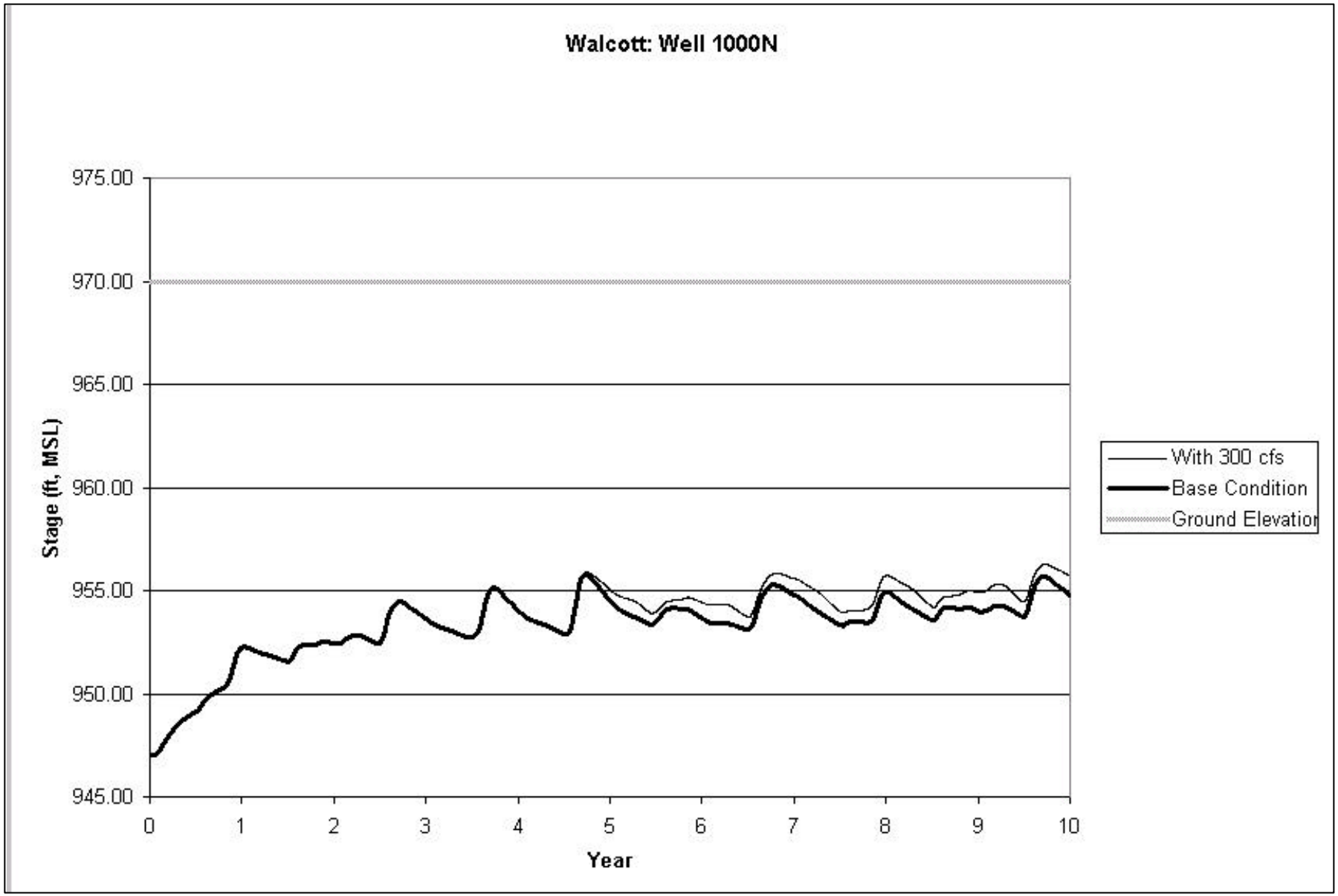

Sheyenne River Delta, Section 2
500 ft South of River
1006.00
1004.00
1002.00
1000.00
998.00
996.00
994.00
992.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

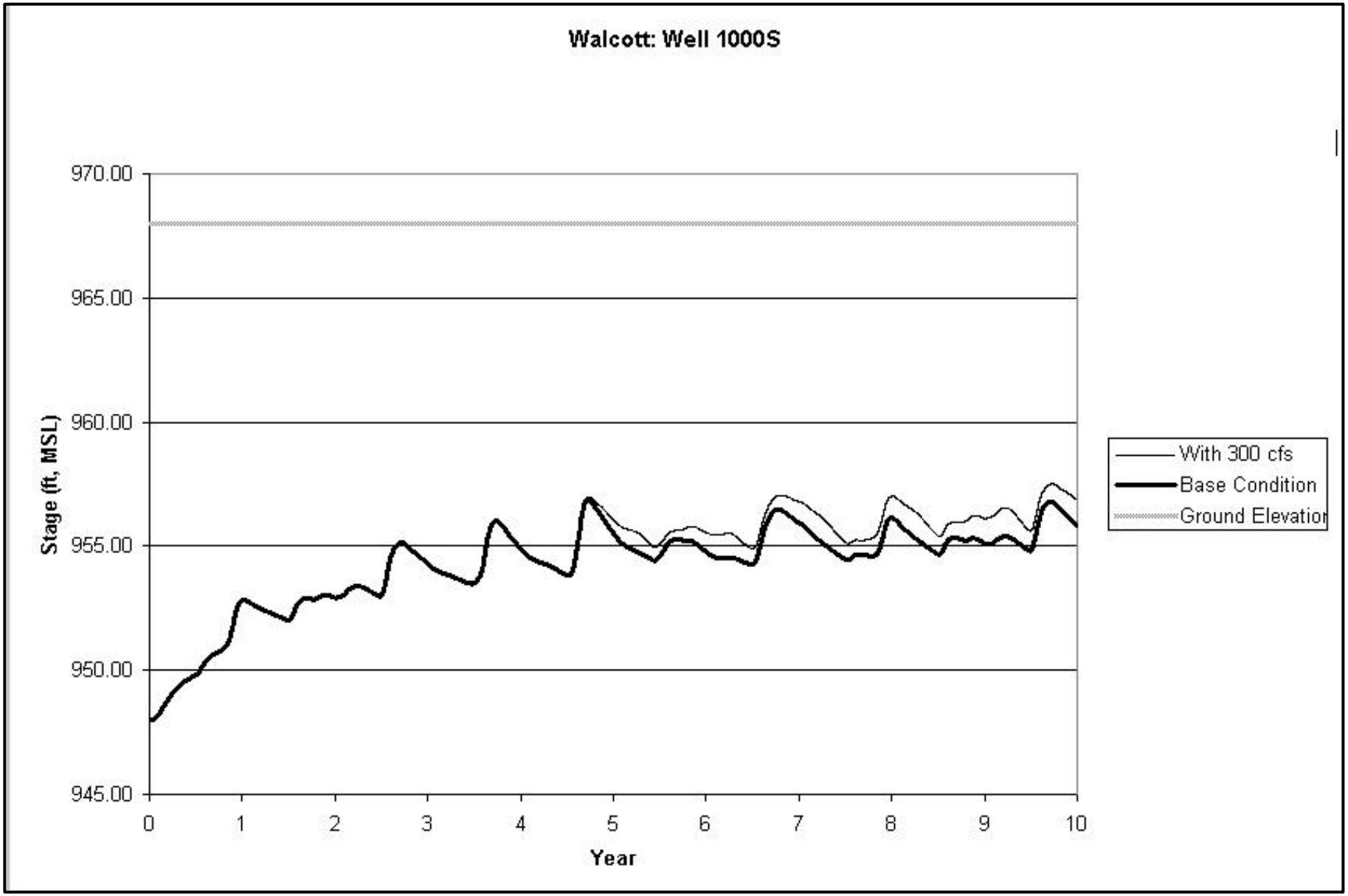

Sheyenne River Delta, Section 2
50 ft South of River
Stage (ft, MSL)
1008.00
1006.00
1004.00
1002.00
1000.00
998.00
996.00
994.00
992.00
990.00
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

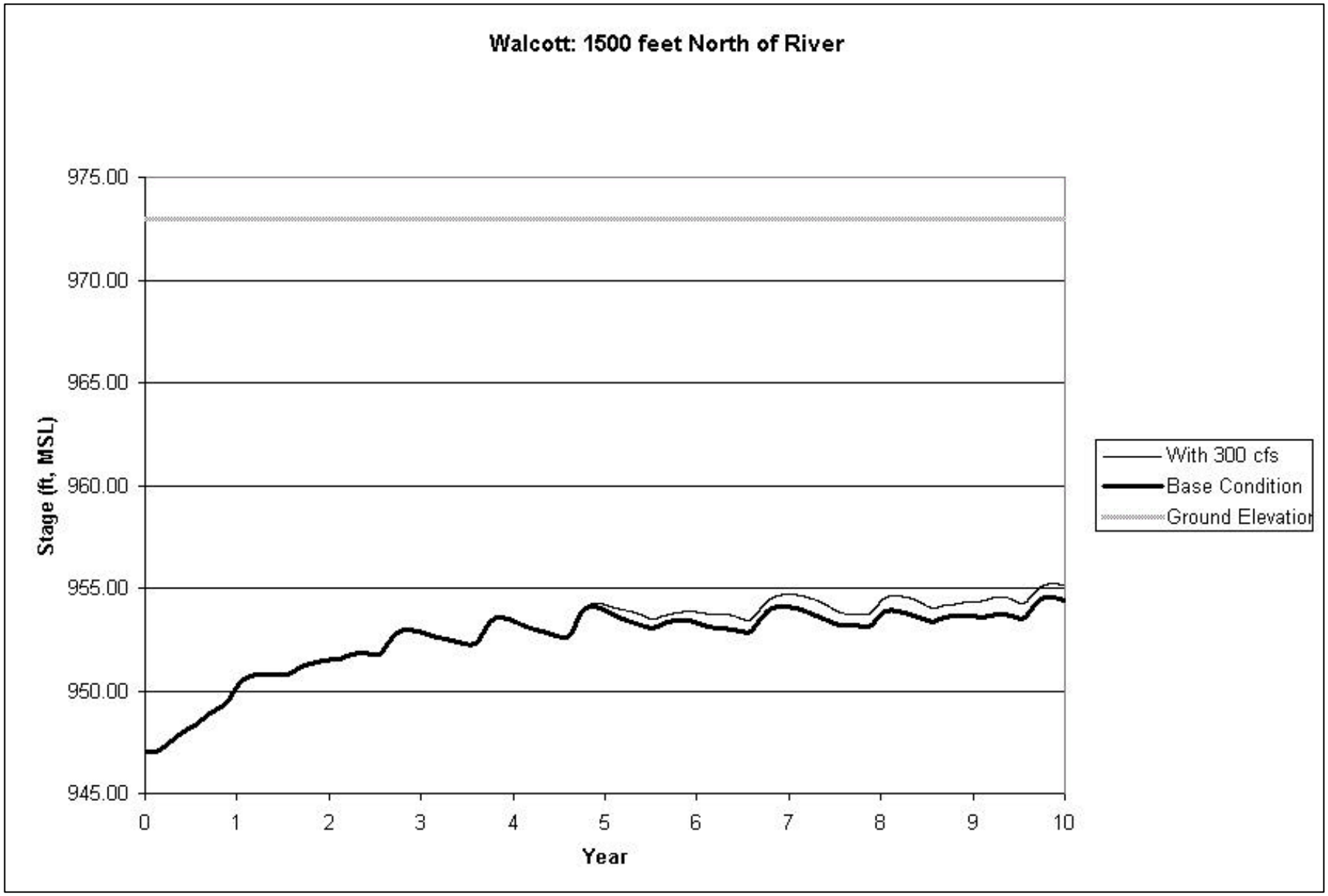

Predicted RIver Stage
at Sheynne Delta Section 2
1020.00
1015.00
1010.00
1005.00
1000.00
995.00
990.00
985.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition

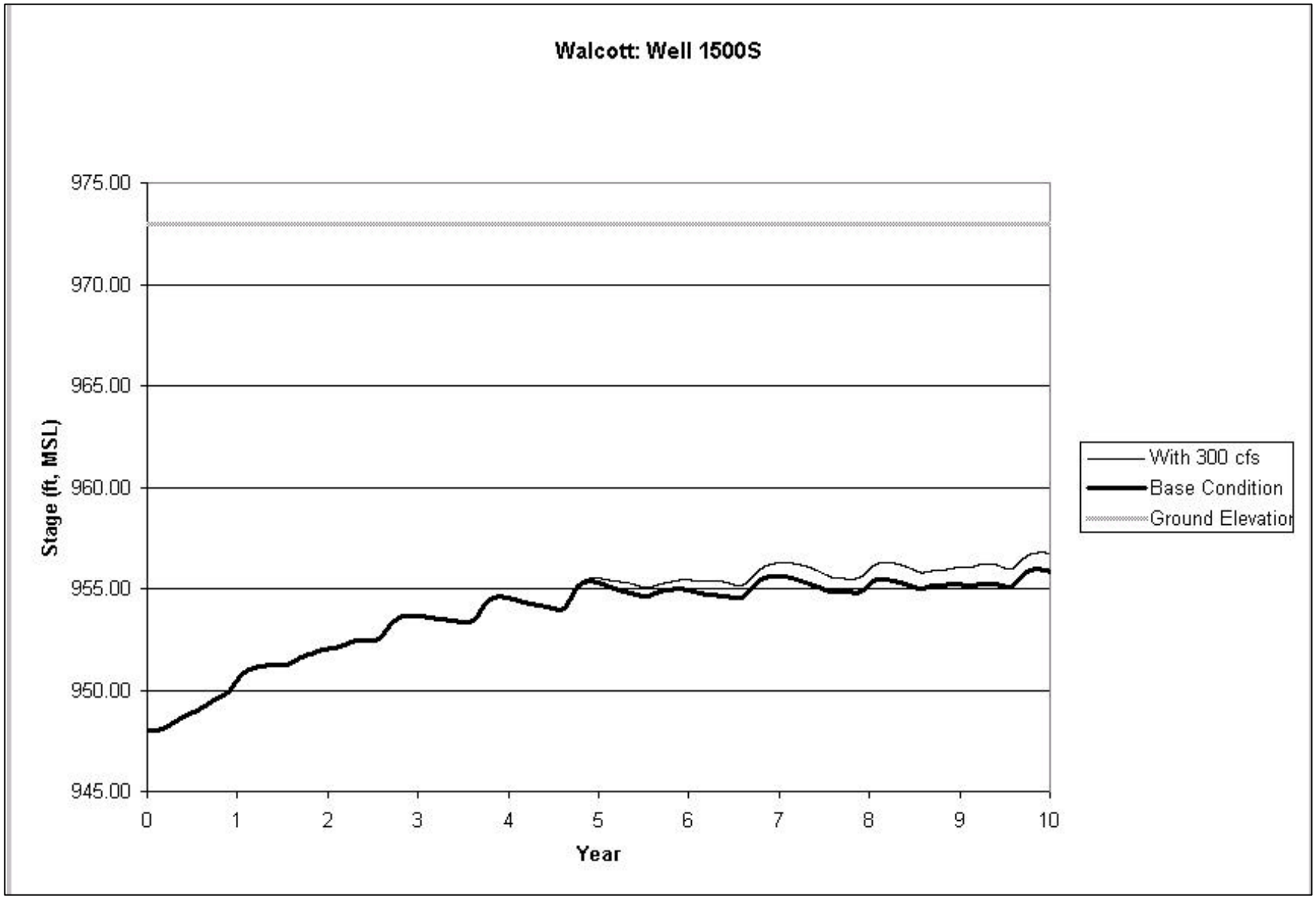

Sheyenne Delta Section 2: Summary of Modeled Conditions: w/ base condition
River
1060
1050
1040
1030
1020
1010
1000
990
980
Elevation (ft, MSL)
58600
59100
59600
60100
60600
61100
61600
Feet along Modeled Cross Section
average
maximum
minimum
ground surface

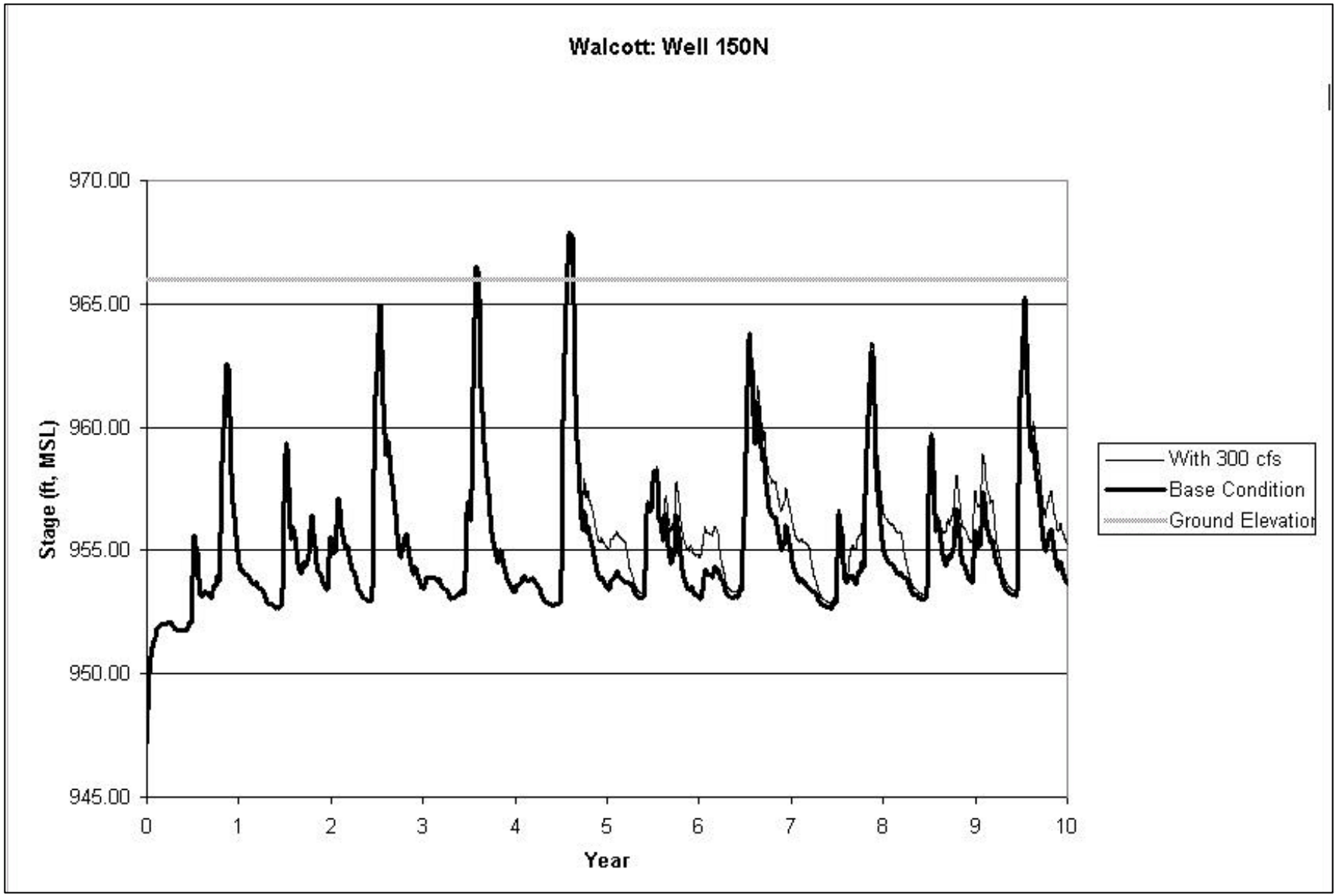

Sheyenne Delta Section 2: Summary of Modeled Conditions: w/ 300 cfs added condition
Elevation (ft, MSL)
1060
1050
1040
1030
1020
1010
1000
990
980
58600
59100
59600
60100
60600
61100
61600
Feet along Modeled Cross Section
River
average
maximum
minimum
ground surface

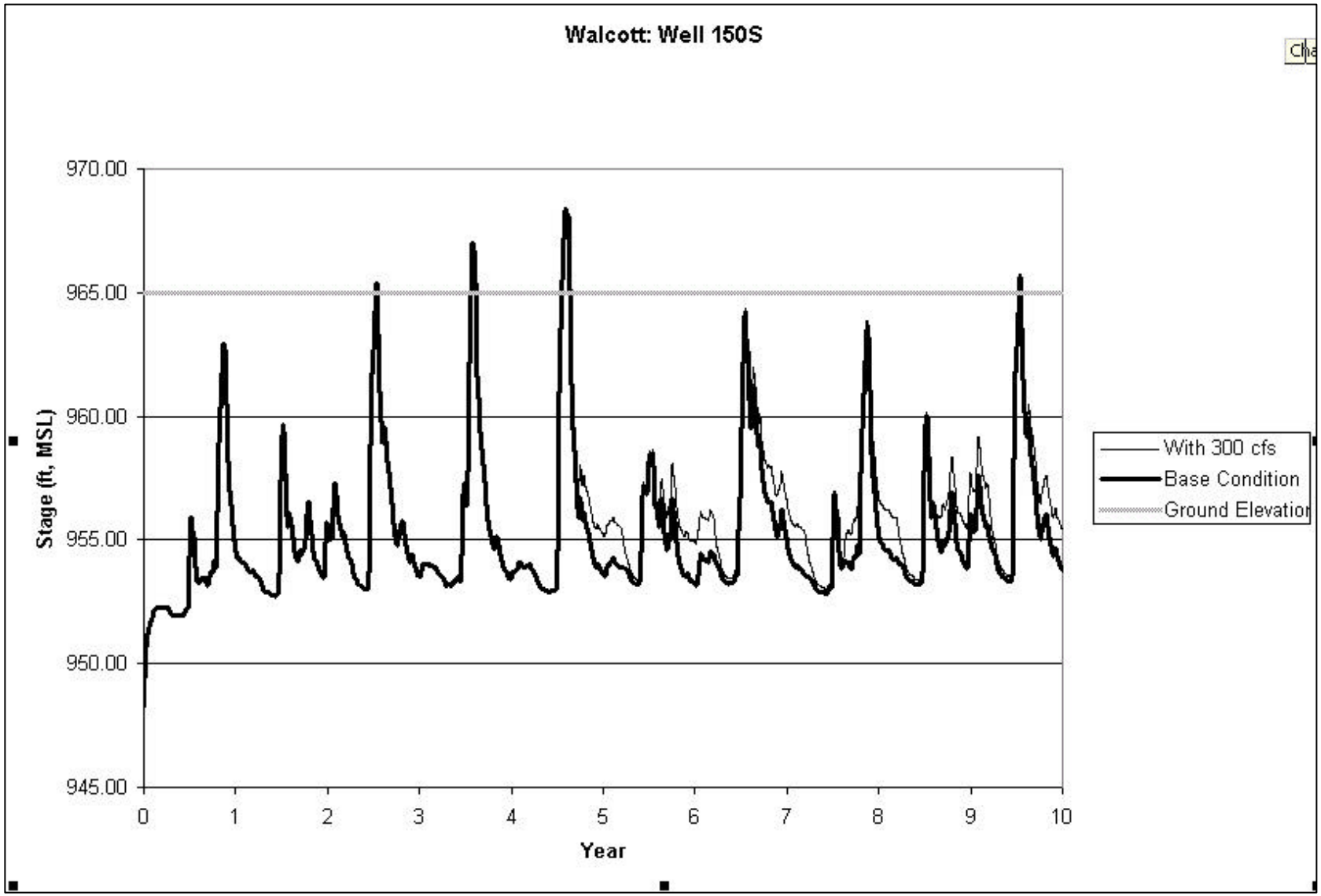

Walcott: Well 1000N
975.00
970.00
965.00
960.00
955.00
950.00
945.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

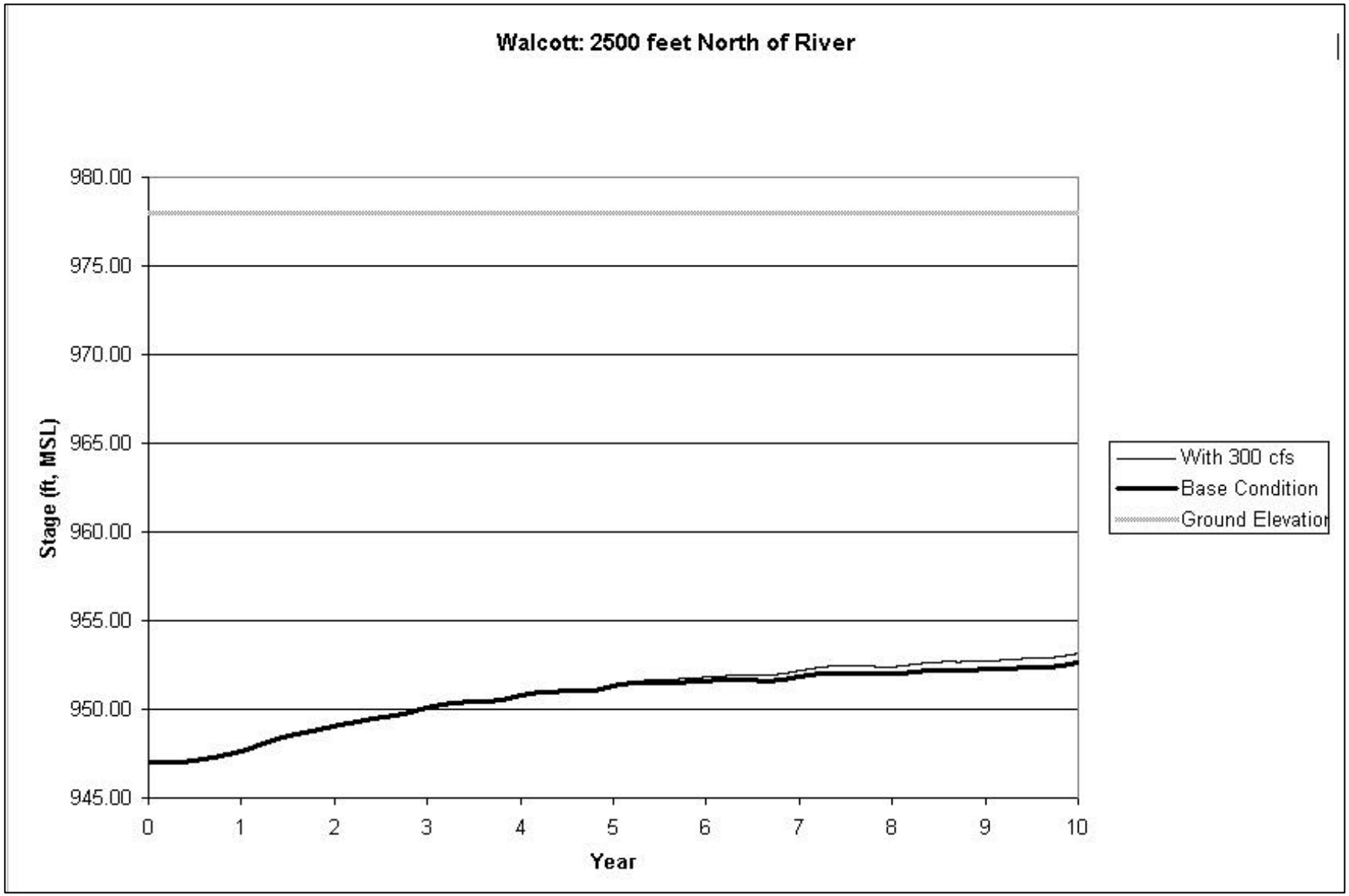

Walcott: Well 1000S
970.00
965.00
960.00
955.00
950.00
945.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

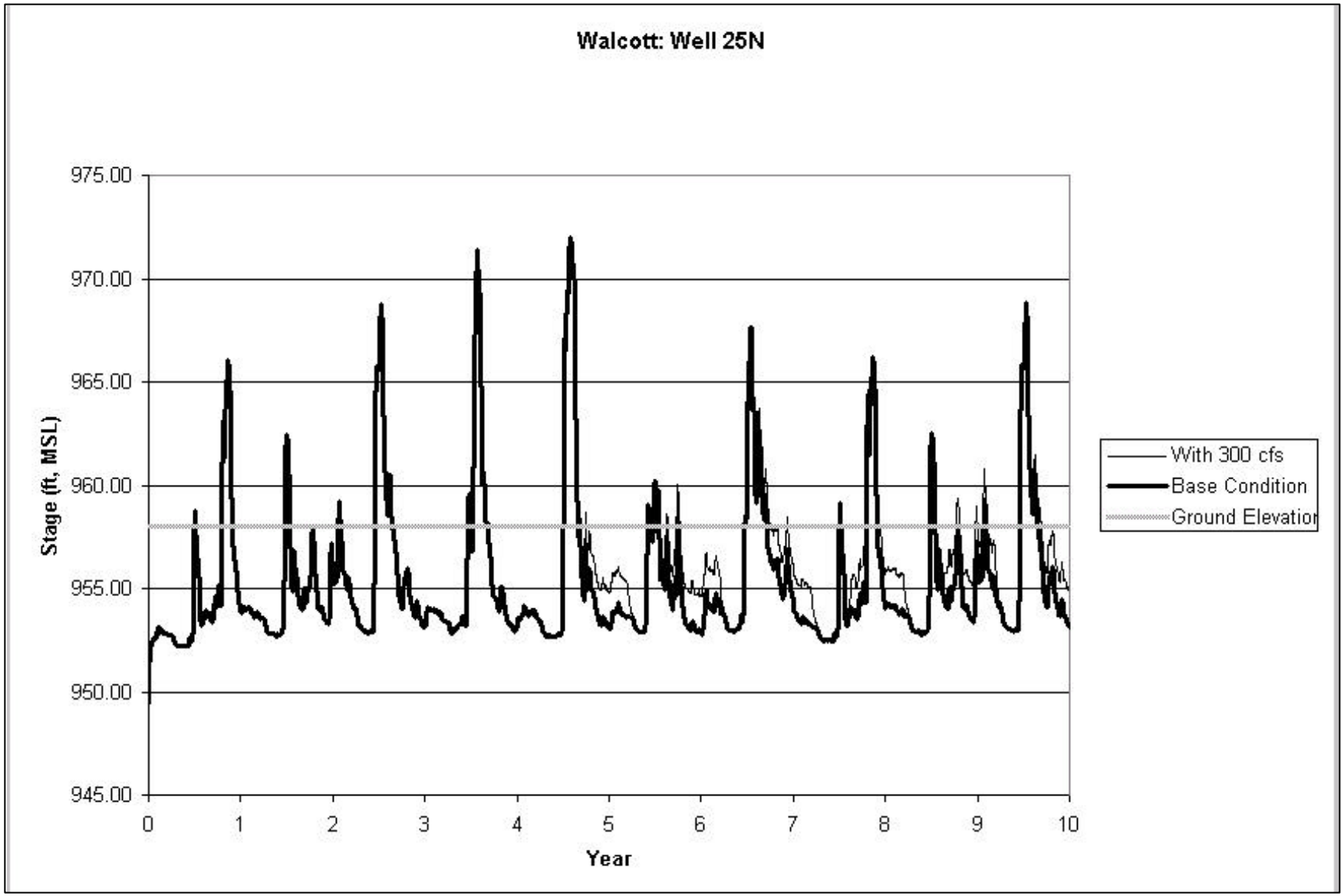

Walcott: 1500 feet North of River
975.00
970.00
965.00
960.00
955.00
950.00
945.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

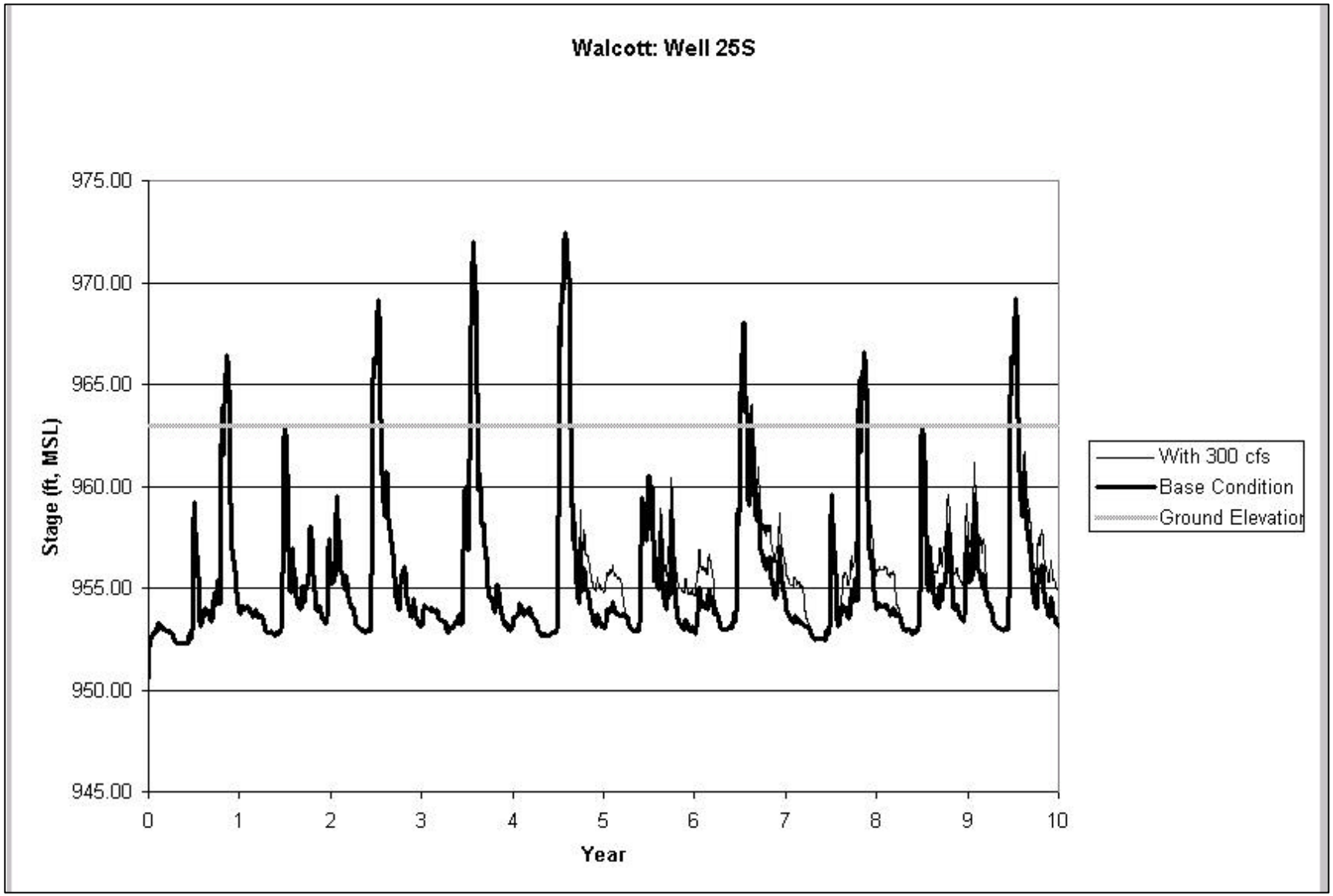

Walcott: Well 1500S
975.00
970.00
965.00
960.00
955.00
950.00
945.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

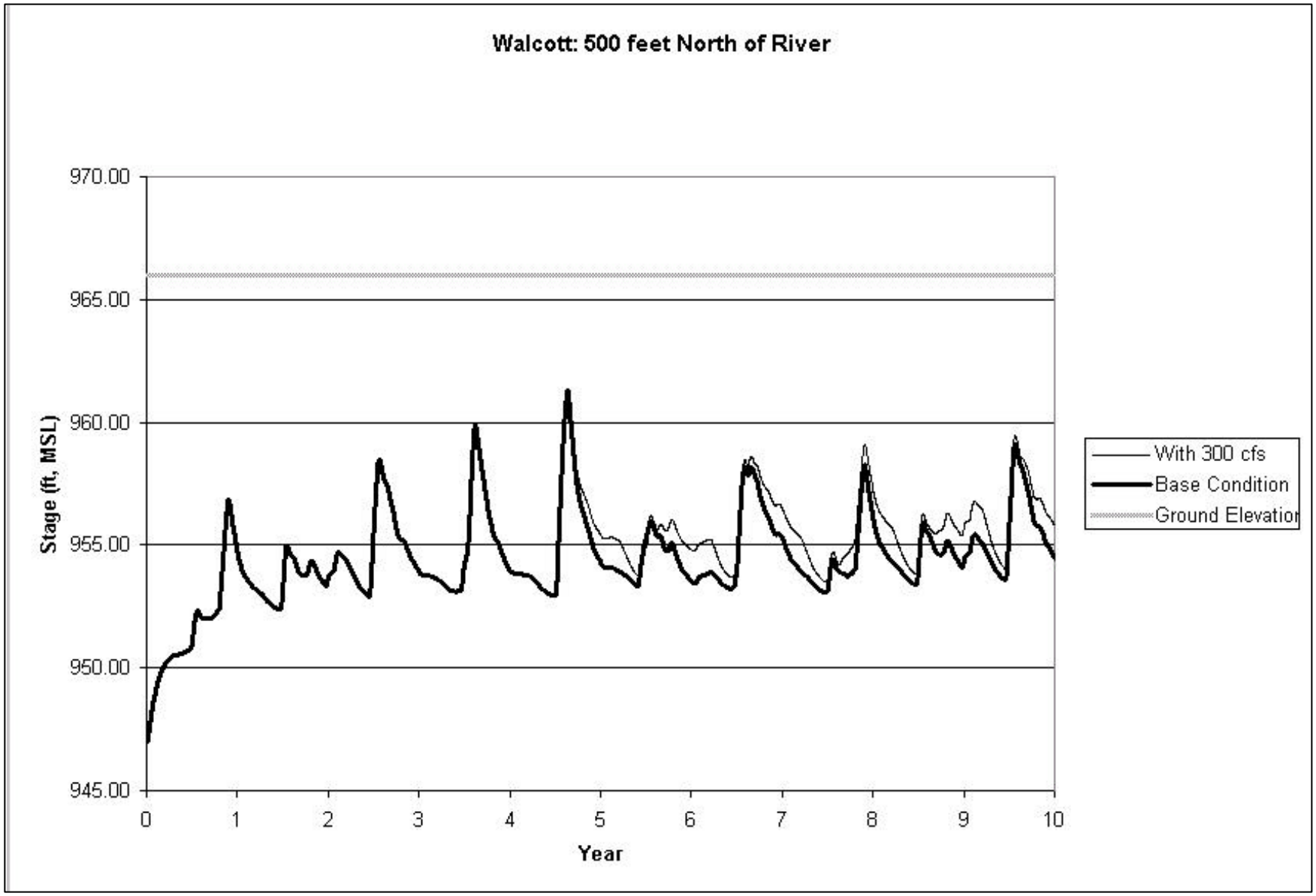

Walcott: Well 150N
970.00
965.00
960.00
955.00
950.00
945.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

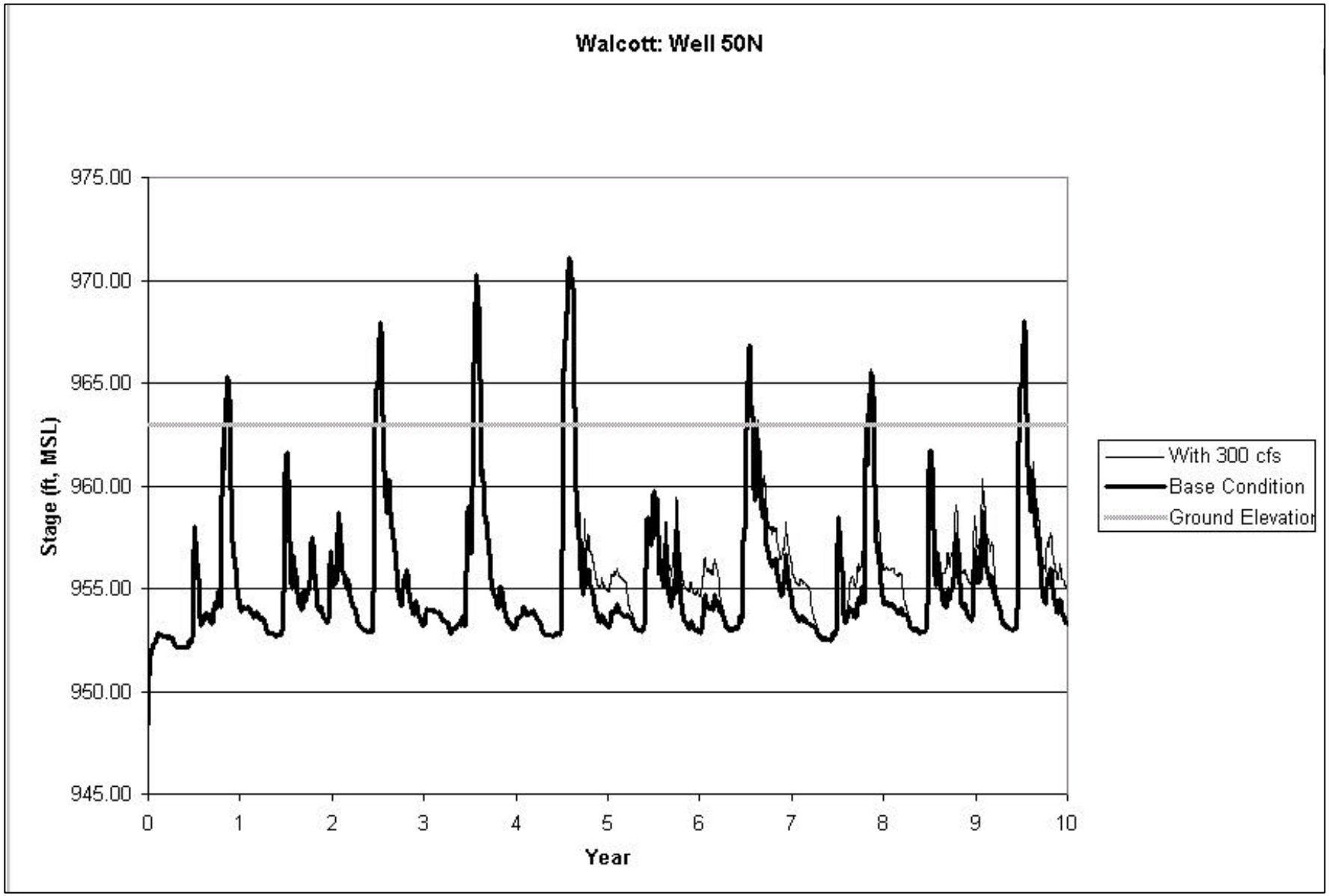

Walcott: Well 150S
970.00
965.00
960.00
955.00
950.00
945.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevation

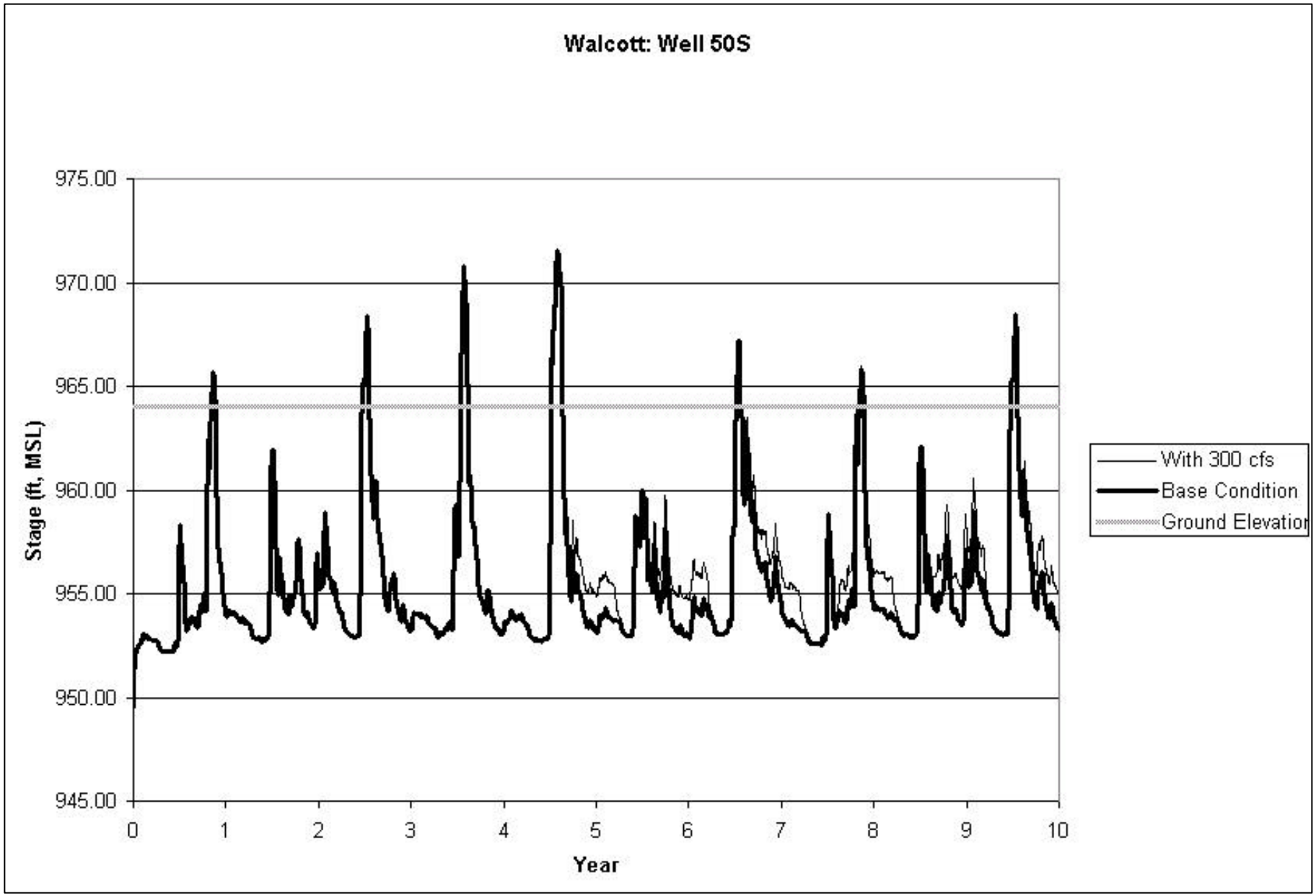

Walcott: 2500 feet North of River
980.00
975.00
970.00
965.00
960.00
955.00
950.00
945.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevation

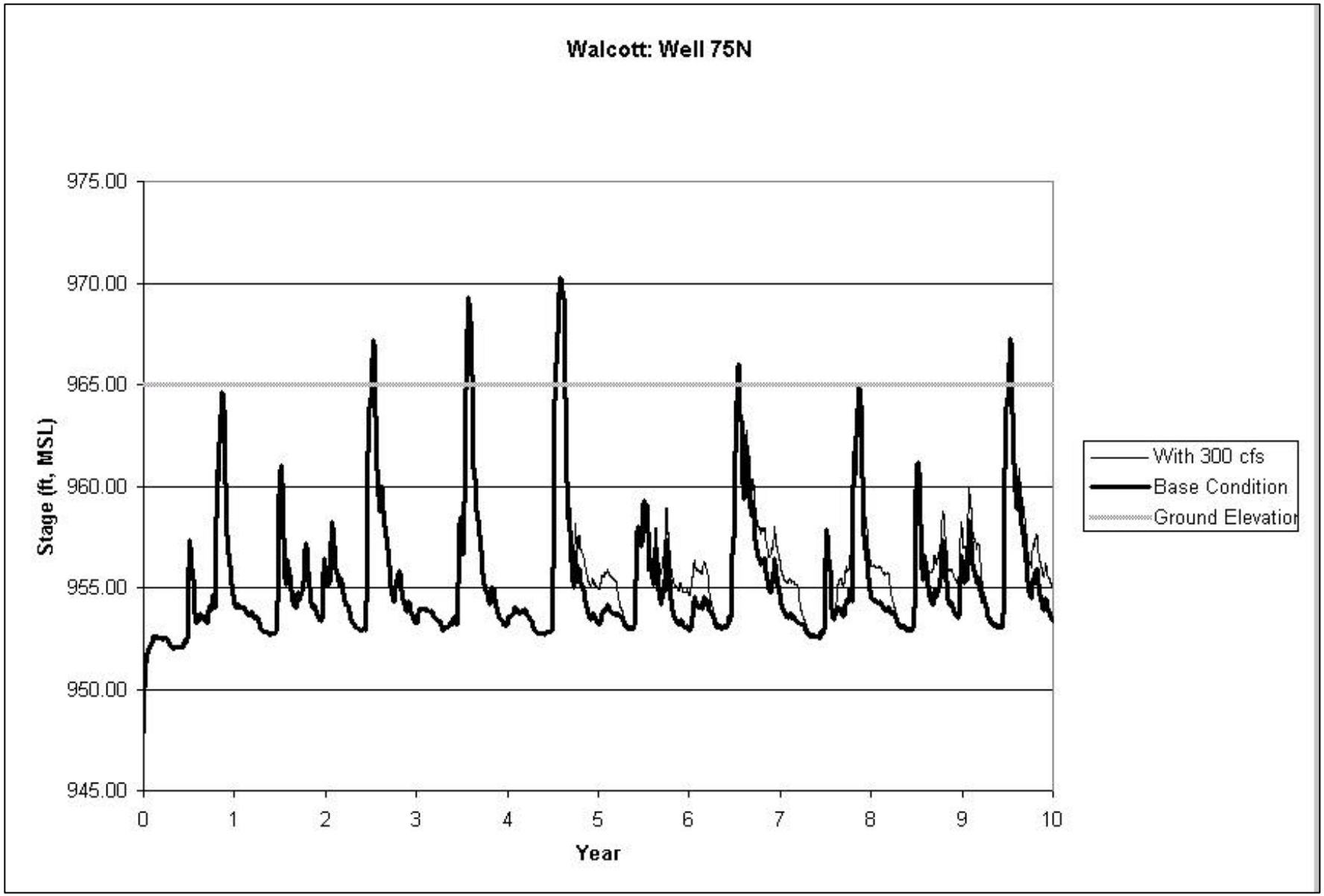

Walcott: Well 25N
975.00
970.00
965.00
960.00
955.00
950.00
945.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

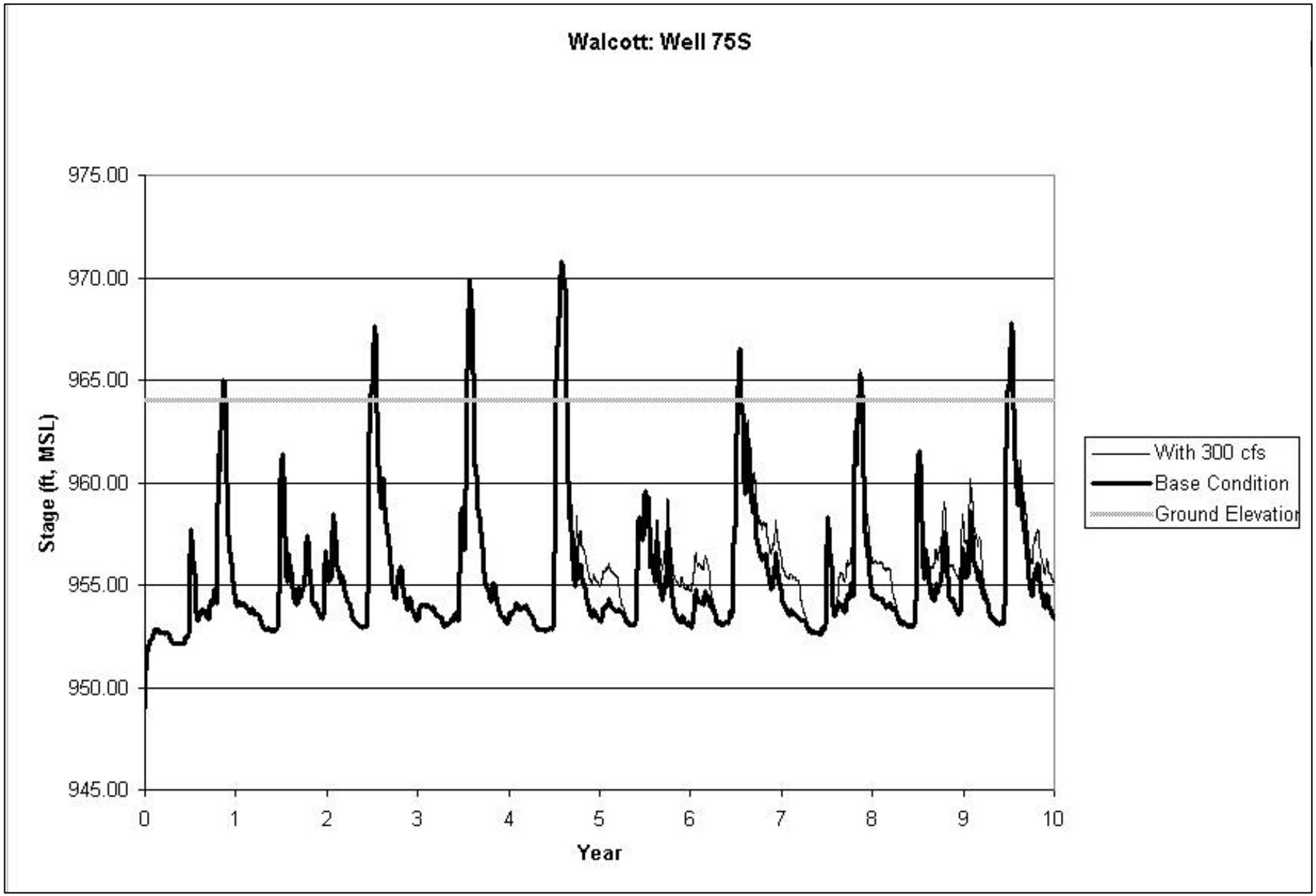

Walcott: Well 25S
975.00
970.00
965.00
960.00
955.00
950.00
945.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

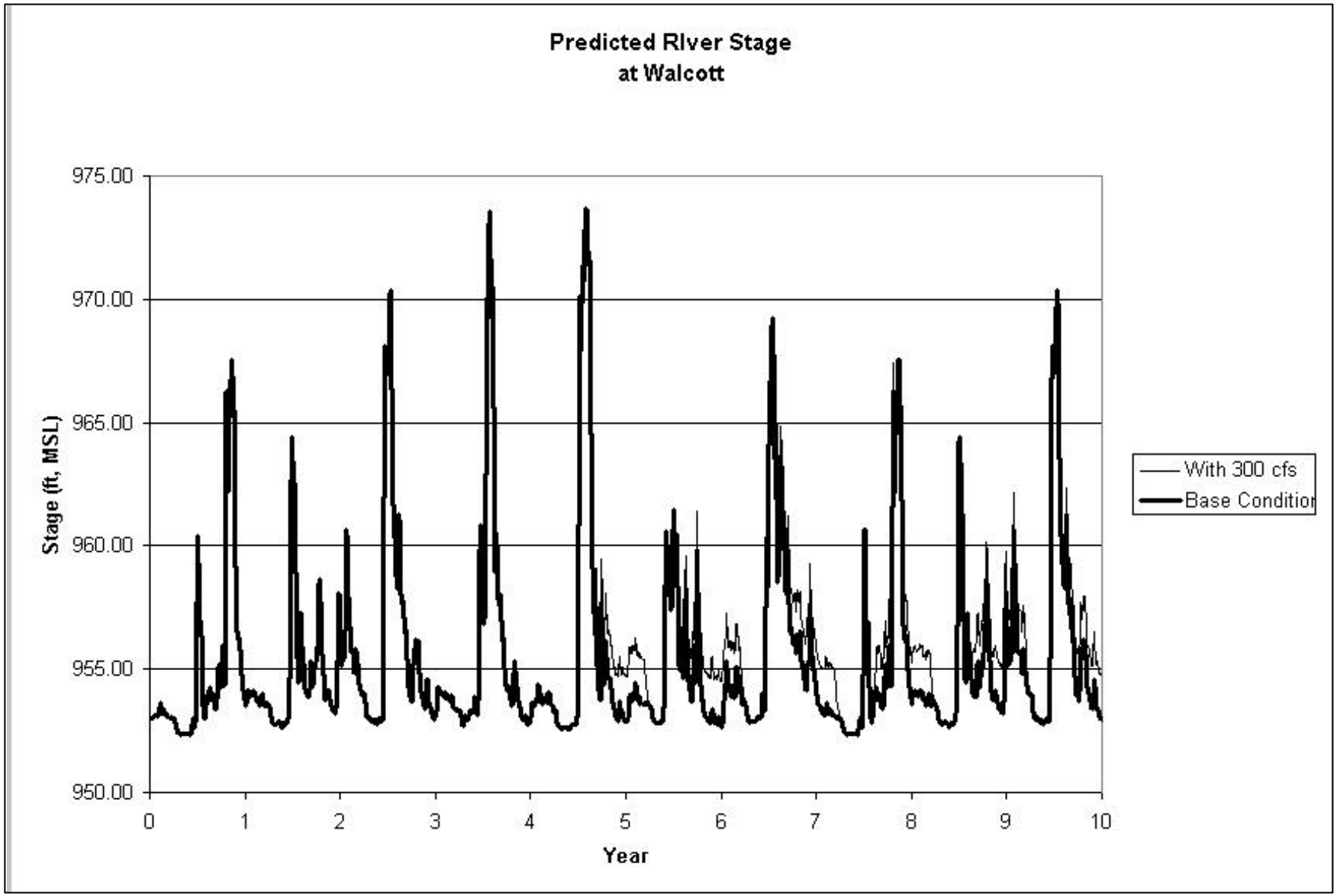

Walcott: 500 feet North of River
970.00
965.00
960.00
955.00
950.00
945.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior

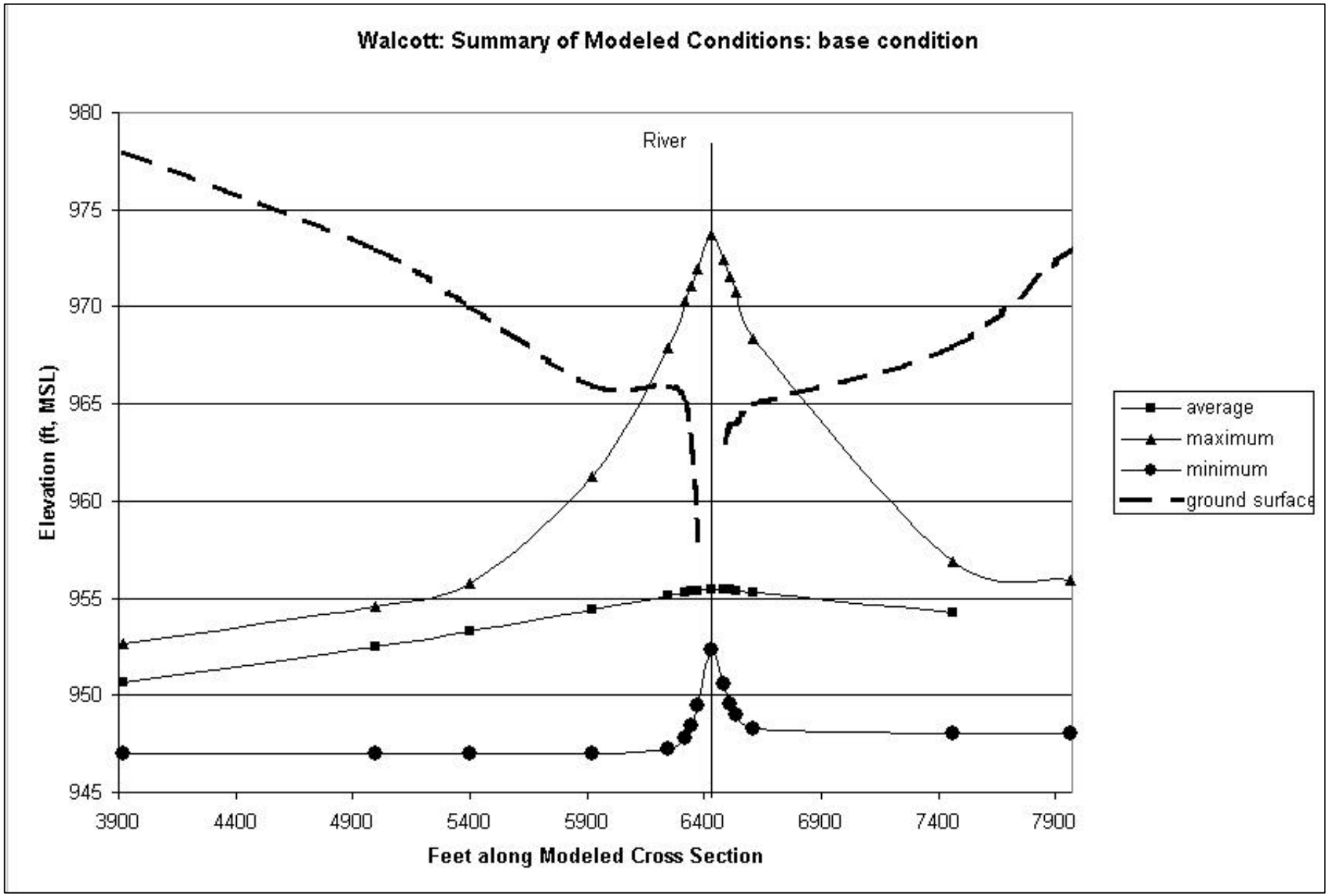

Walcott: Well 50N
975.00
970.00
965.00
960.00
955.00
950.00
945.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevation

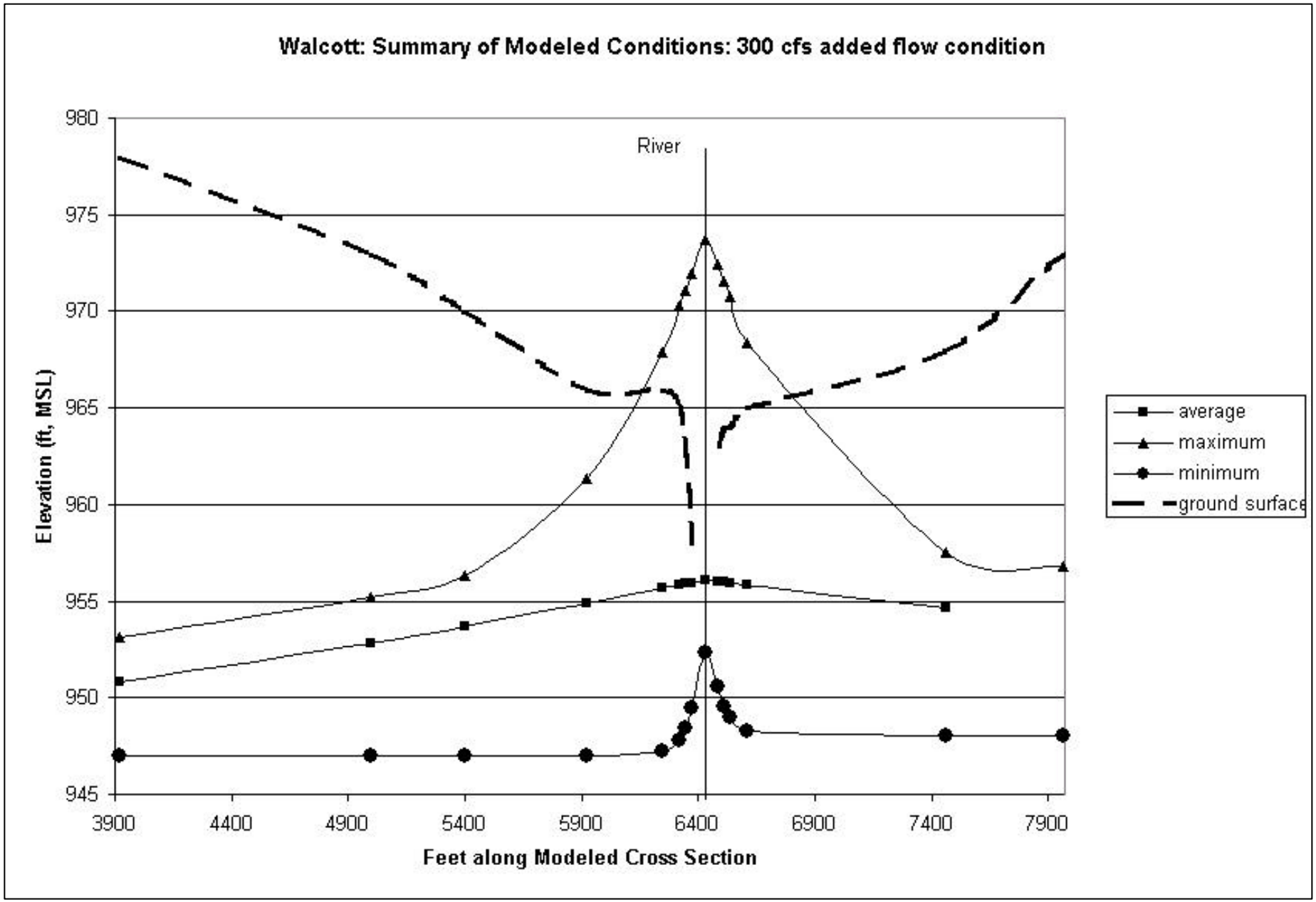

Walcott: Well 50S
975.00
970.00
965.00
960.00
955.00
950.00
945.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior


Walcott: Well 75N
975.00
970.00
965.00
960.00
955.00
950.00
945.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevation


Walcott: Well 75S
975.00
970.00
965.00
960.00
955.00
950.00
945.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition
Ground Elevatior


Predicted RIver Stage
at Walcott
975.00
970.00
965.00
960.00
955.00
950.00
Stage (ft, MSL)
0
1
2
3
4
5
6
7
8
9
10
Year
With 300 cfs
Base Condition


Walcott: Summary of Modeled Conditions: base condition
River
980
975
970
965
960
955
950
945
Elevation (ft, MSL)
3900
4400
4900
5400
5900
6400
6900
7400
7900
Feet along Modeled Cross Section
average
maximum
minimum
ground surface


Walcott: Summary of Modeled Conditions: 300 cfs added flow condition
River
980
975
970
965
960
955
950
945
Elevation (ft, MSL)
3900
4400
4900
5400
5900
6400
6900
7400
7900
Feet along Modeled Cross Section
average
maximum
minimum
ground surface