Delta Turbidity ANN Model (DASM-T) Development Using DSM-2: Phase 2 Results

Appendices

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APPENDIX A: FLOW-TURBIDITY RELATIONSHIPS AT BOUNDARY LOCATIONS

A.1 SACRAMENTO RIVER AT FREEPORT

Define three flow-turbidity relationships that are approximately based on an RMA analysis of suspended sediment data from USGS for Sacramento River at Freeport (RMA, 2013). Assume linear interpolation to provide continuous turbidity values as a function of flow.

Flow Range cfs	Low (50%)	Mid (75%)	High (90%)
< 10,000	15	20	40
10,000-20,000	25	30	60
20,000-30,000	40	60	130
30,000-40,000	75	120	310
40,000-50,000	100	140	360
50,000-60,000	100	150	360
60,000-70,000	100	150	280
>70,0000	100	150	250

A.2 SAN JOAQUIN RIVER AT VERNALIS

Define two flow-turbidity relationships that are loosely based on an RMA analysis of suspended sediment data from USGS for San Joaquin River at Vernalis (RMA, 2013). Assume linear interpolation to provide continuous turbidity values as a function of flow.

Flow Range cfs	Low (50%)	High
<3,000	20	80
3,000-4,000	20	90
4,000-5,000	20	110
5,000-6,000	20	110
6,000-10,000	20	110
10,000-20,000	20	80
>20,000	15	50

A.3 YOLO BYPASS

Define three flow-turbidity relationships that are loosely based on an RMA analysis that is based on a WARMF simulation of water years 1975-2012 (RMA, 2013). Assume linear interpolation to provide continuous turbidity values as a function of flow.

Flow Range cfs	Low	Mid	High
<100	25	35	75
100-1,000	40	50	110
1,000-10,000	50	85	370
10,000-30,000	50	90	250
>30,000	70	110	210

A.4 COSUMNES RIVER

Define three flow-turbidity relationships that are loosely based on an RMA analysis that is based on a WARMF model historical simulation of water years 1975-2012 (RMA, 2013). Assume linear interpolation to provide continuous turbidity values as a function of flow.

Flow Range cfs	Low	Mid	High
<100	10	10	10
100-300	10	10	40
300-500	10	10	70
500-1,000	10	20	80
1,000-3,000	20	40	110
3,000-5,000	50	70	120
>5,000	80	100	150

A.5 MOKELUMNE RIVER

Define the following flow-turbidity relationship that is loosely based on an RMA analysis that is based on a WARMF simulation of water years 1975-2012 (RMA, 2013). Assume linear interpolation to provide continuous turbidity values as a function of flow.

Flow Range cfs	Low	Mid	High
<100	2	3	4
100-1,000	3	5	7
>1,000	4	7	10

A.6 CALAVERAS RIVER

Define three flow-turbidity relationships that are loosely based on an RMA analysis that is based on a WARMF simulation of water years 1975- 2012 (RMA, 2013). Assume linear interpolation to provide continuous turbidity values as a function of flow.

Flow Range cfs	Low	Mid	High
<100	10	20	40
100-400	10	20	50
400-1000	20	40	80
>1000	30	60	100

APPENDIX B: FLOW-TURBIDITY RELATIONSHIPS AT BOUNDARY LOCATIONS

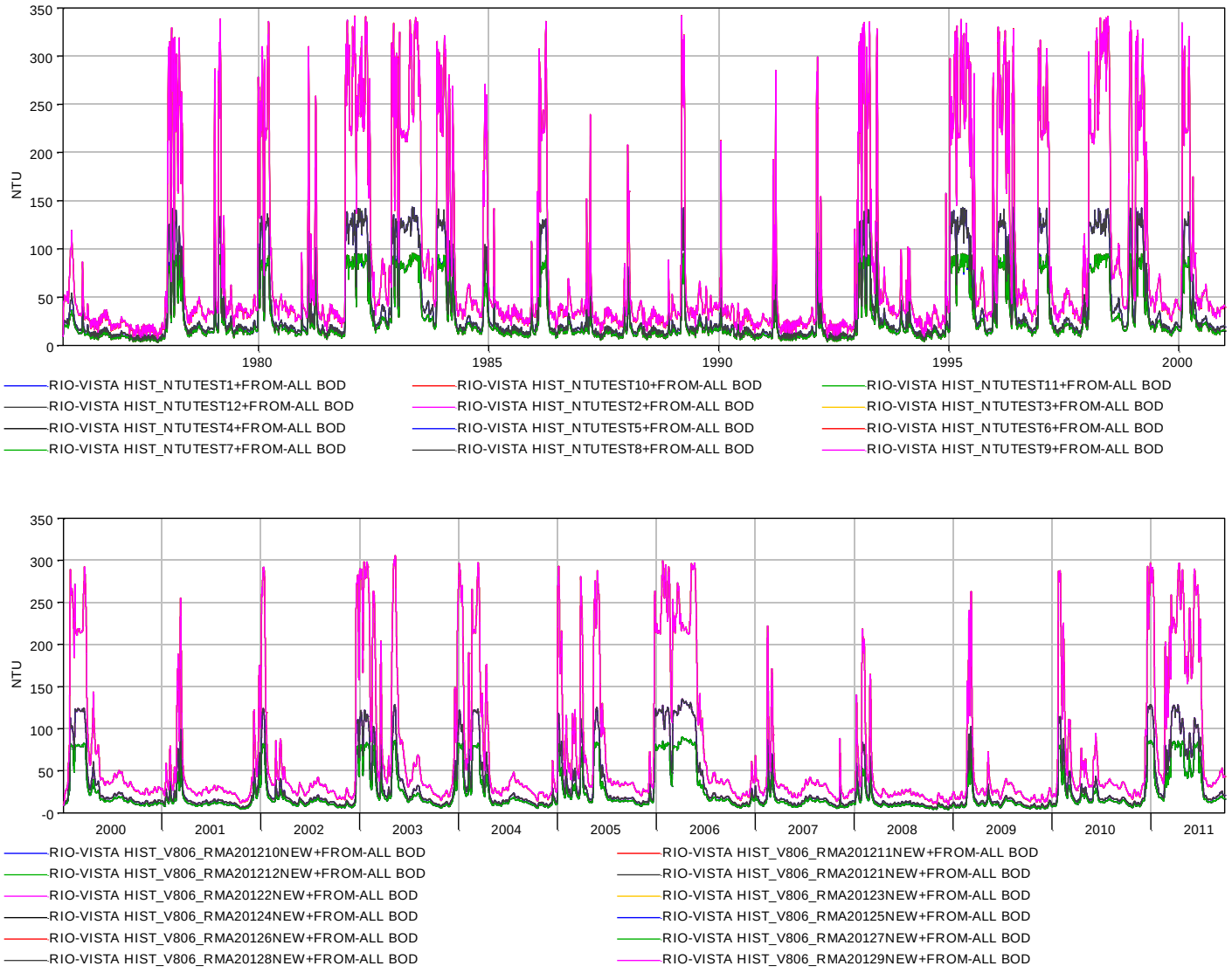


Figure B-1 *DSM2 simulated turbidity under twelve boundary conditions at Sacramento River at Rio Vista. Each line in this plot corresponds to a single boundary condition in Table 2-1.*

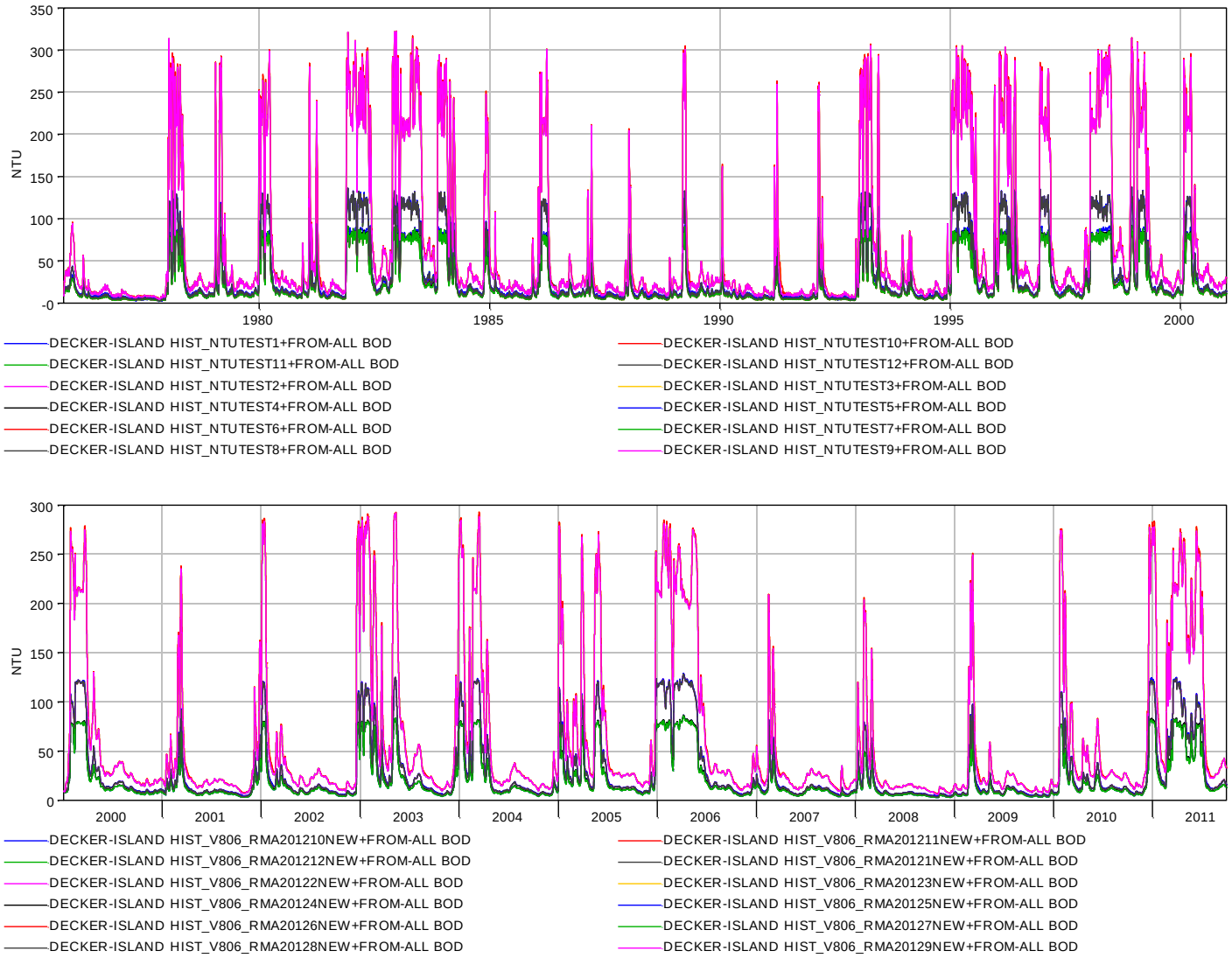


Figure B-2 DSM2 simulated turbidity under twelve boundary conditions at San Joaquin River at Decker Island

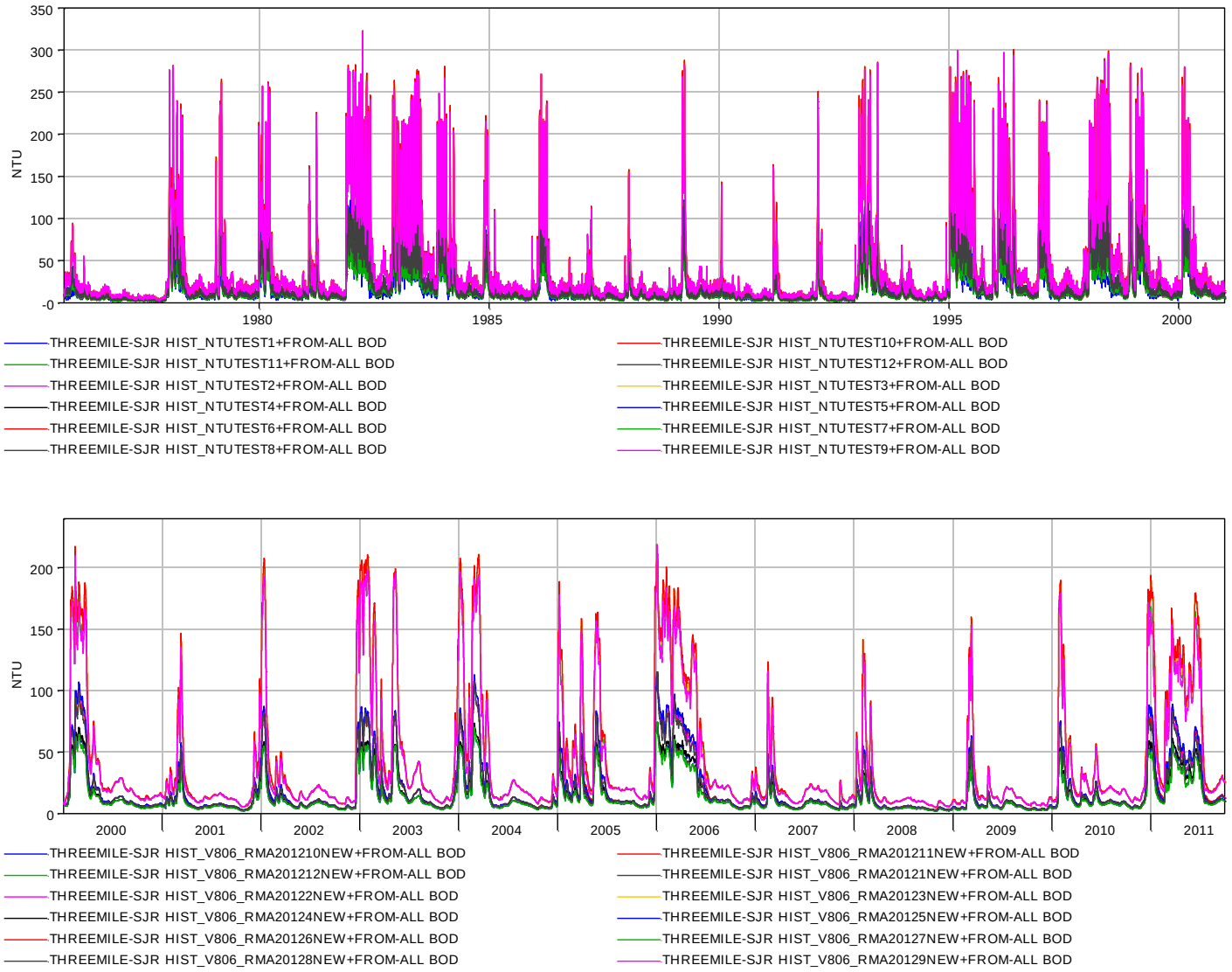


Figure B-3 DSM2 simulated turbidity under twelve boundary conditions at San Joaquin River at three mile Slough

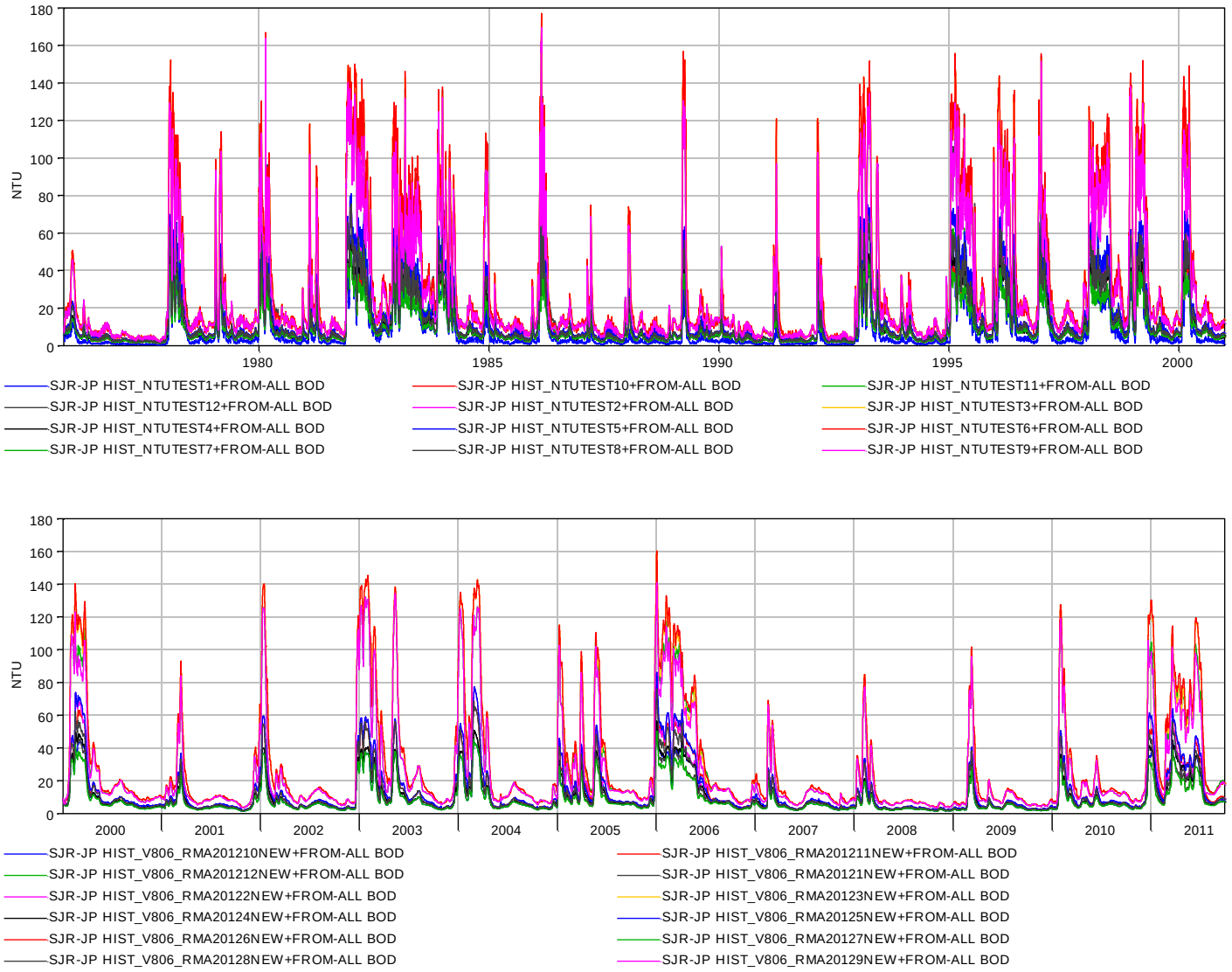


Figure B-4 DSM2 simulated turbidity under twelve boundary conditions at San Joaquin river at Jersey Point

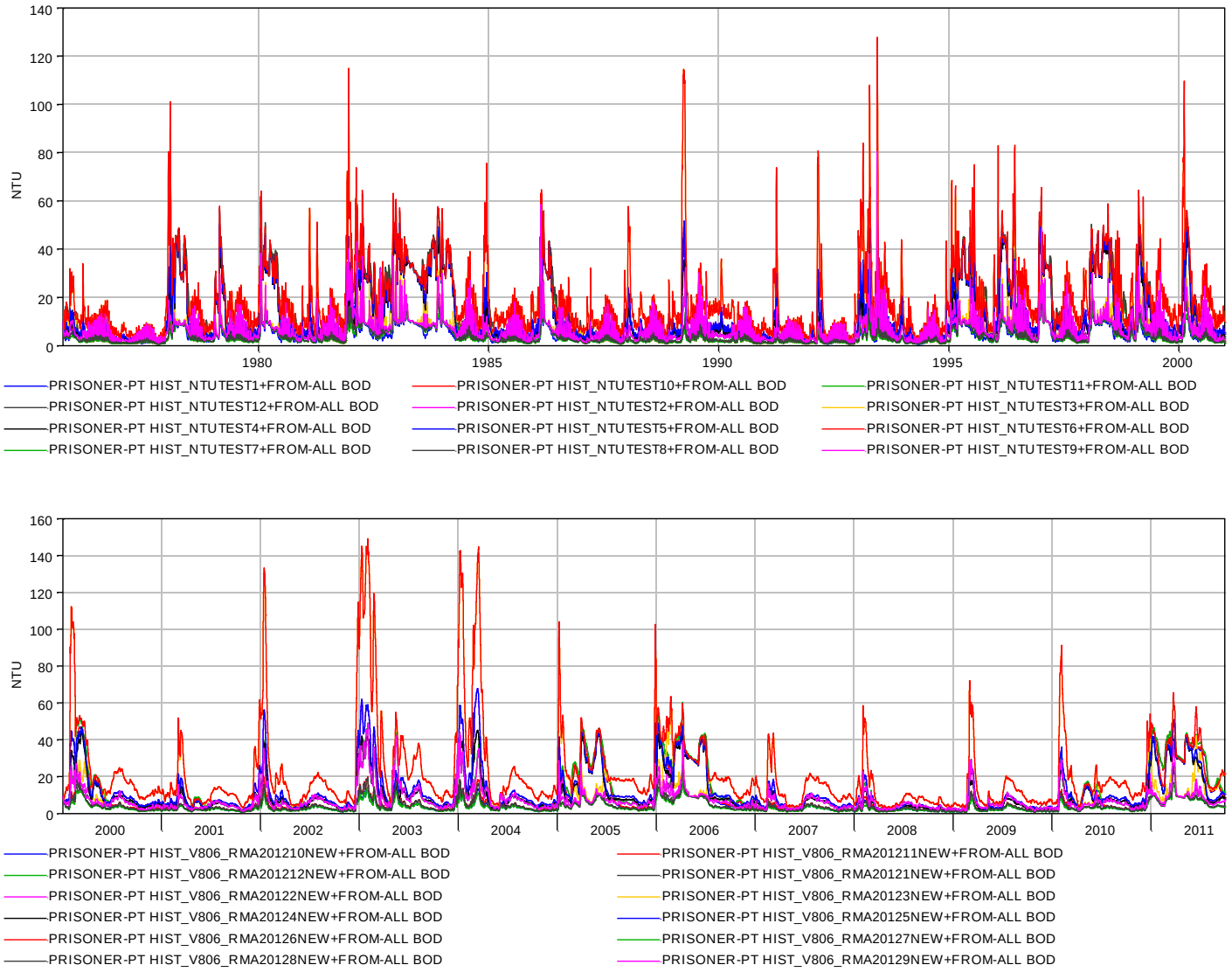


Figure B-5 DSM2 simulated turbidity under twelve boundary conditions at San Joaquin River at Prisoner's Point

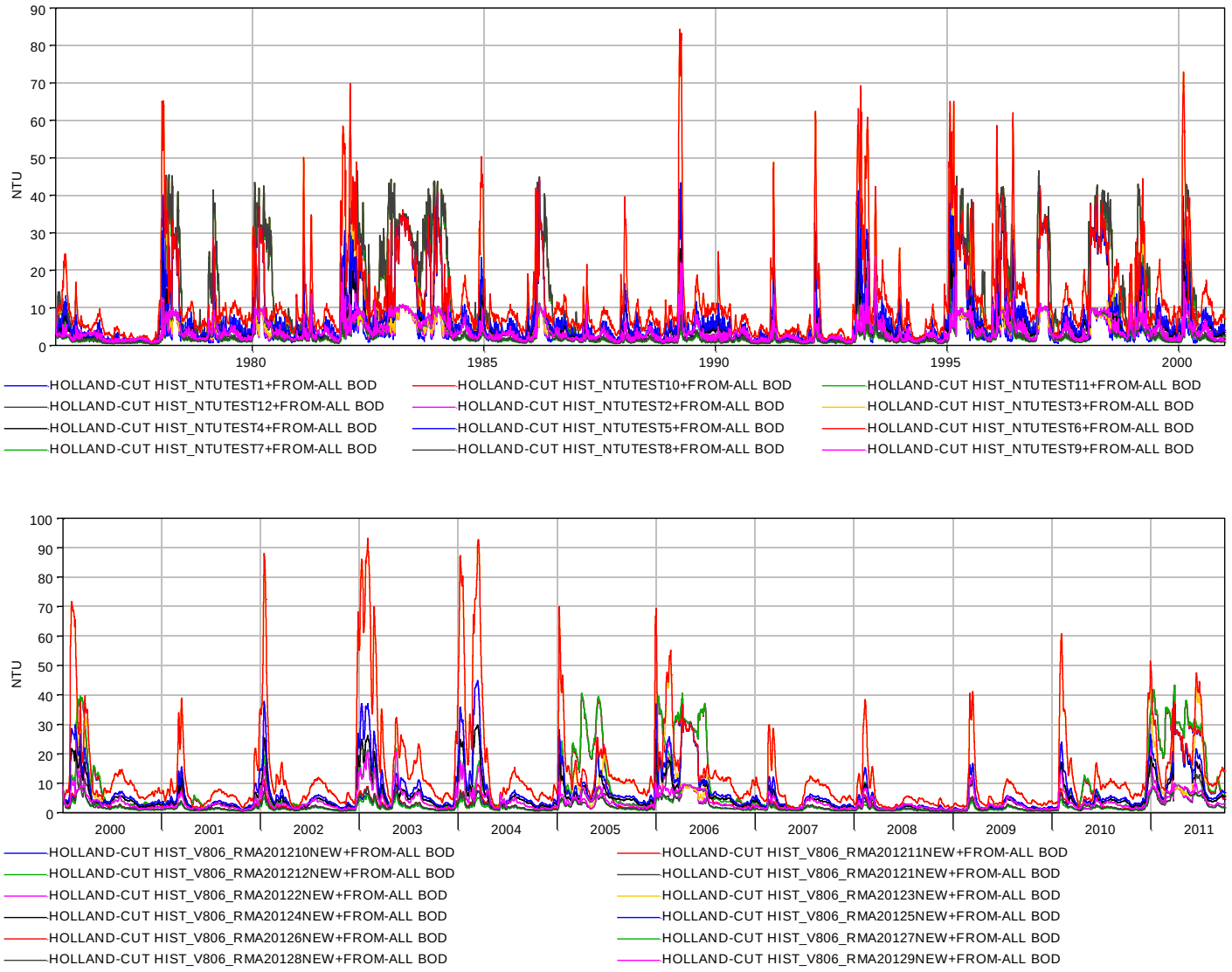


Figure B-6 DSM2 simulated turbidity under twelve boundary conditions at Old River at Holland

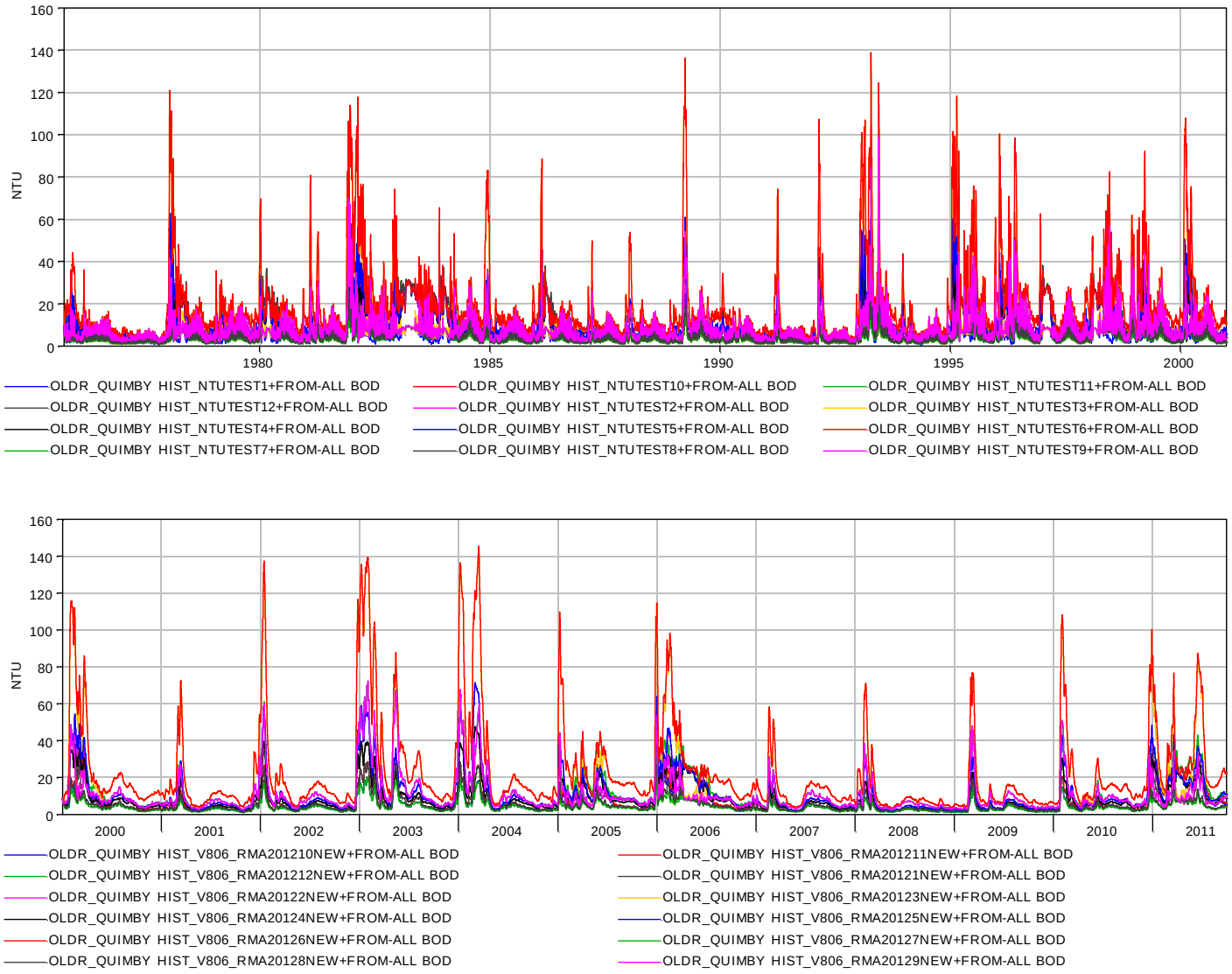


Figure B-7 DSM2 simulated turbidity under twelve boundary conditions at Old River at Quimby Island

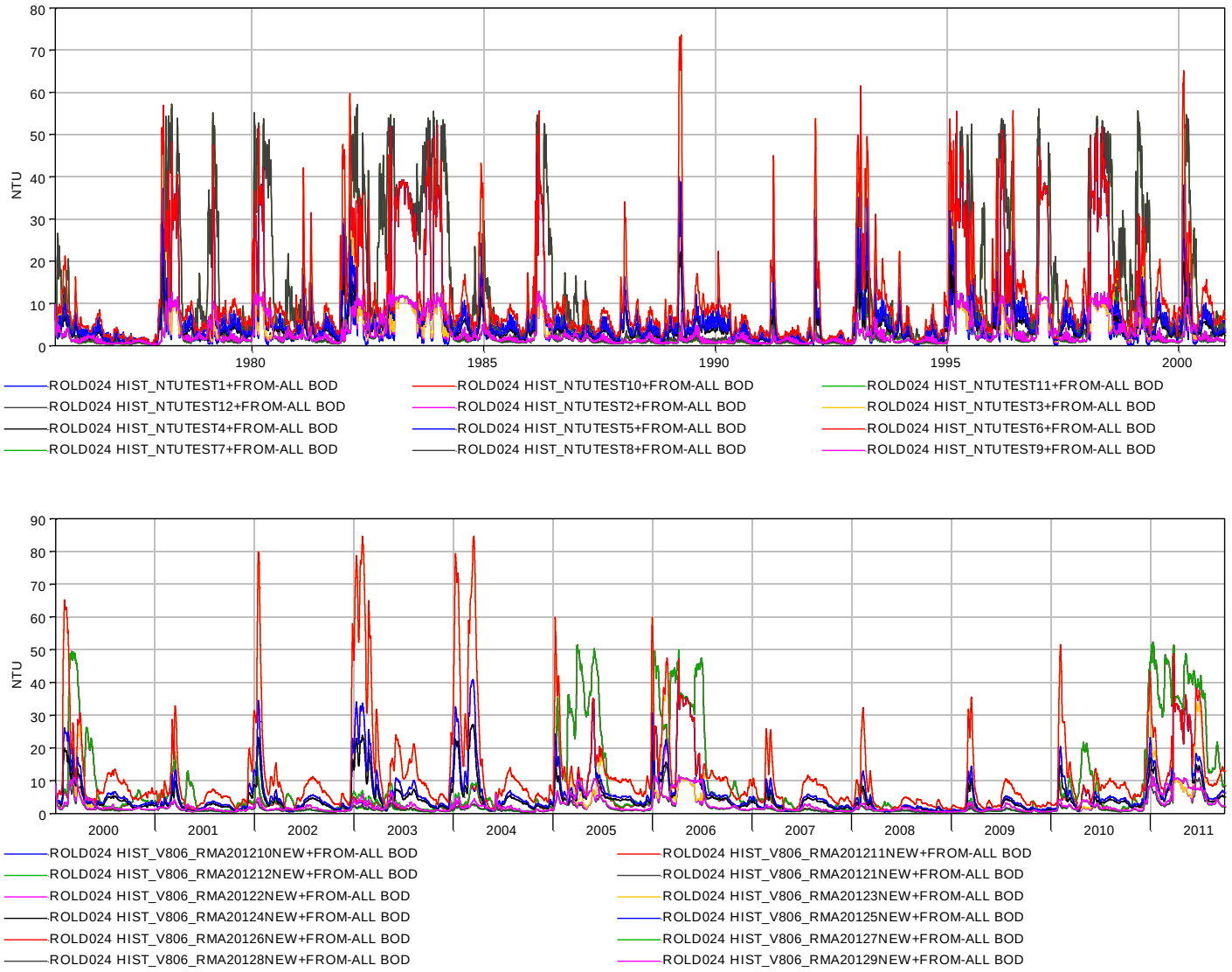


Figure B-8 DSM2 simulated turbidity under twelve boundary conditions at Old River at Bacon Island

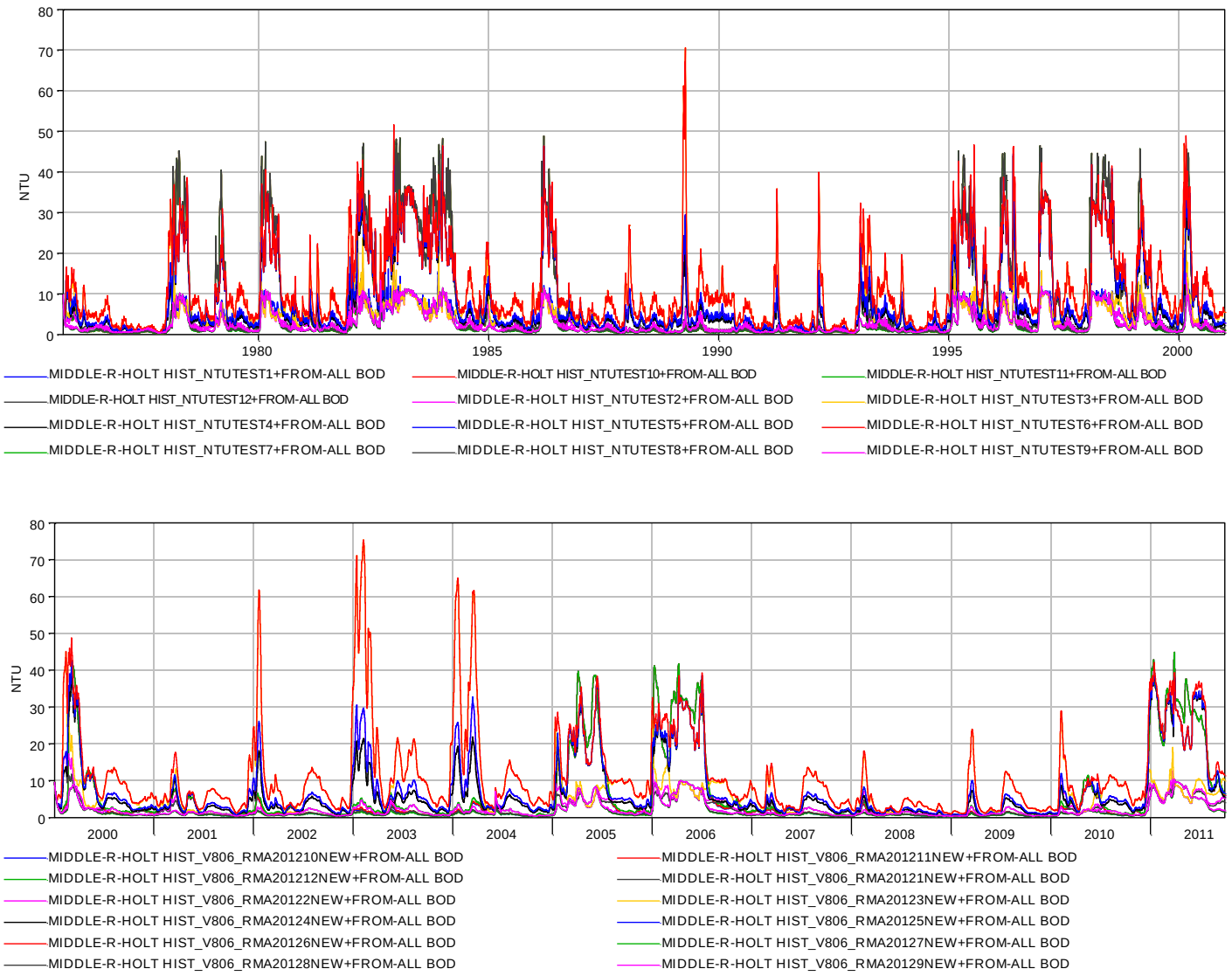


Figure B-9 DSM2 simulated turbidity under twelve boundary conditions at Middle River at Holt

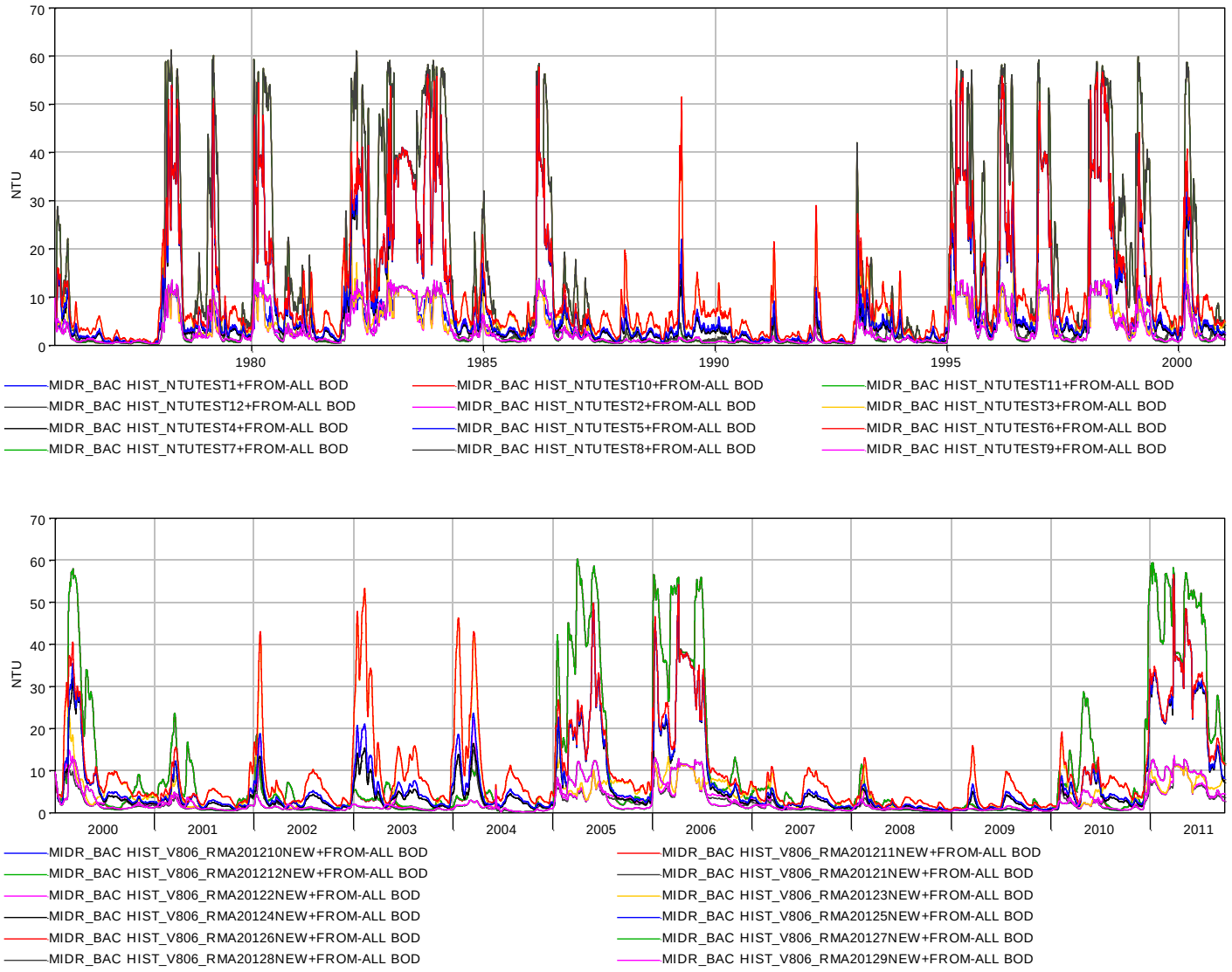


Figure B-10 DSM2 simulated turbidity under twelve boundary conditions at Middle River at Bacon Island

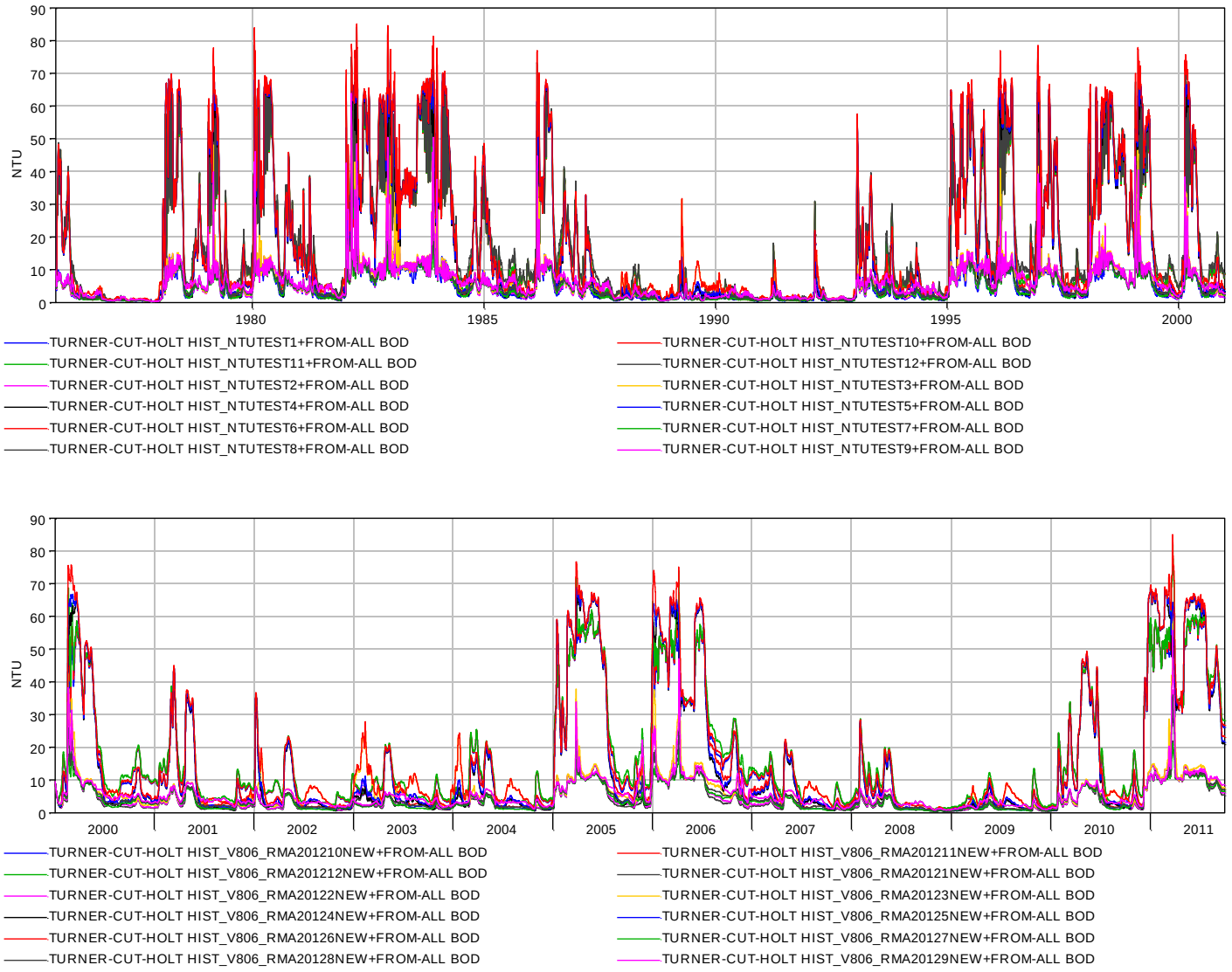


Figure B-11 DSM2 simulated turbidity under twelve boundary conditions at Turner Cut at Holt

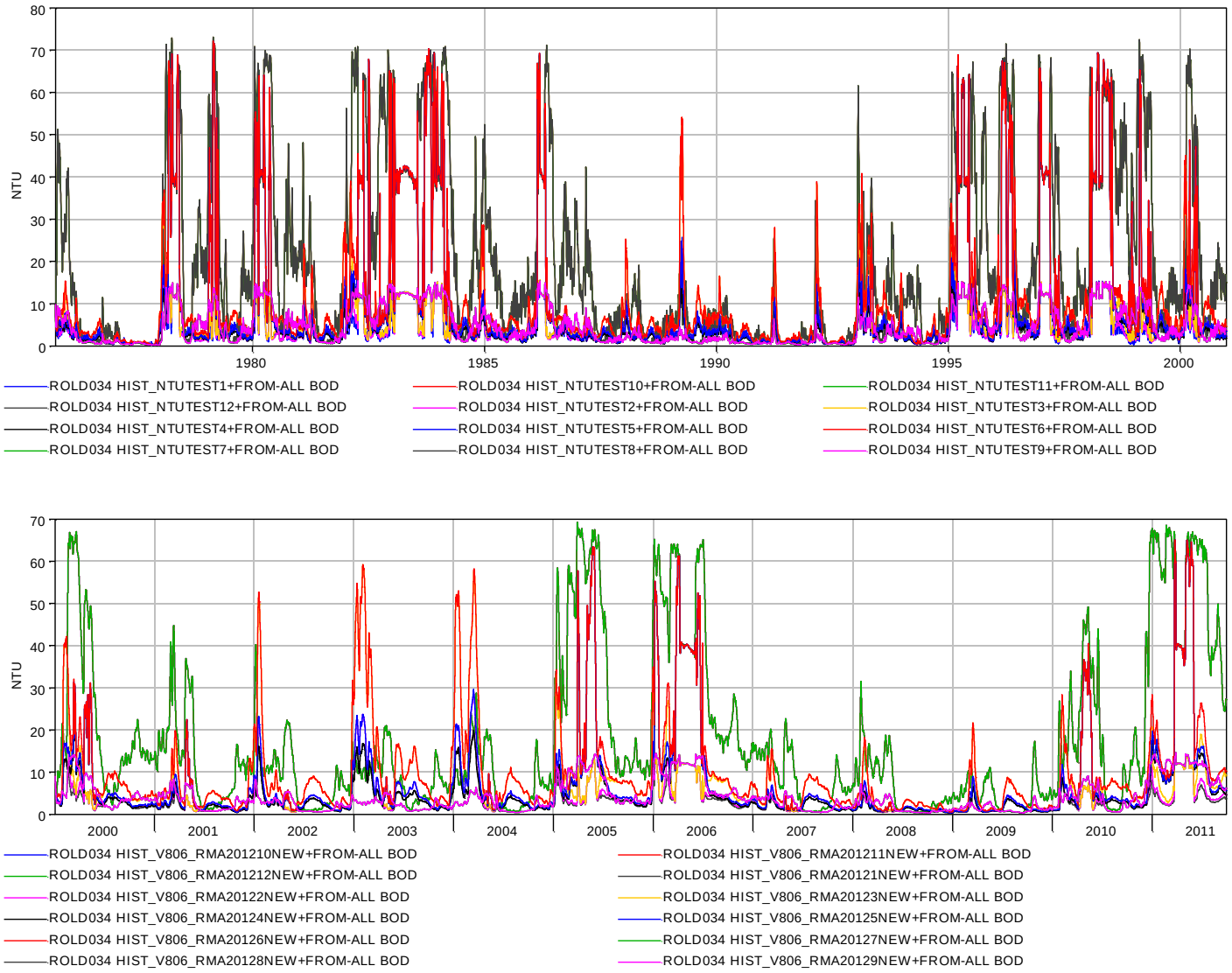


Figure B-12 DSM2 simulated turbidity under twelve boundary conditions at Old River at Hwy 4

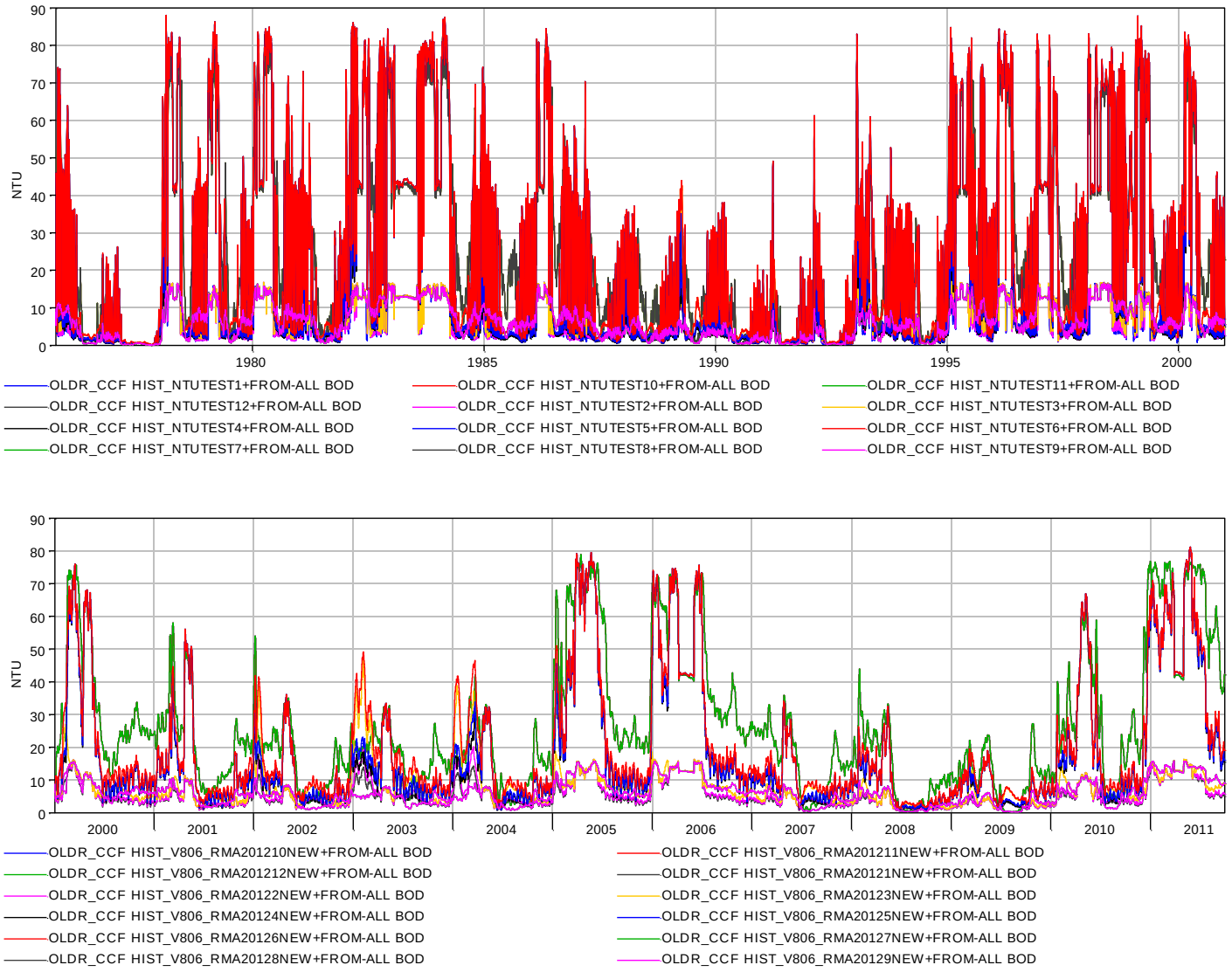


Figure B-13 DSM2 simulated turbidity under twelve boundary conditions at Old River at Clifton Court Intake

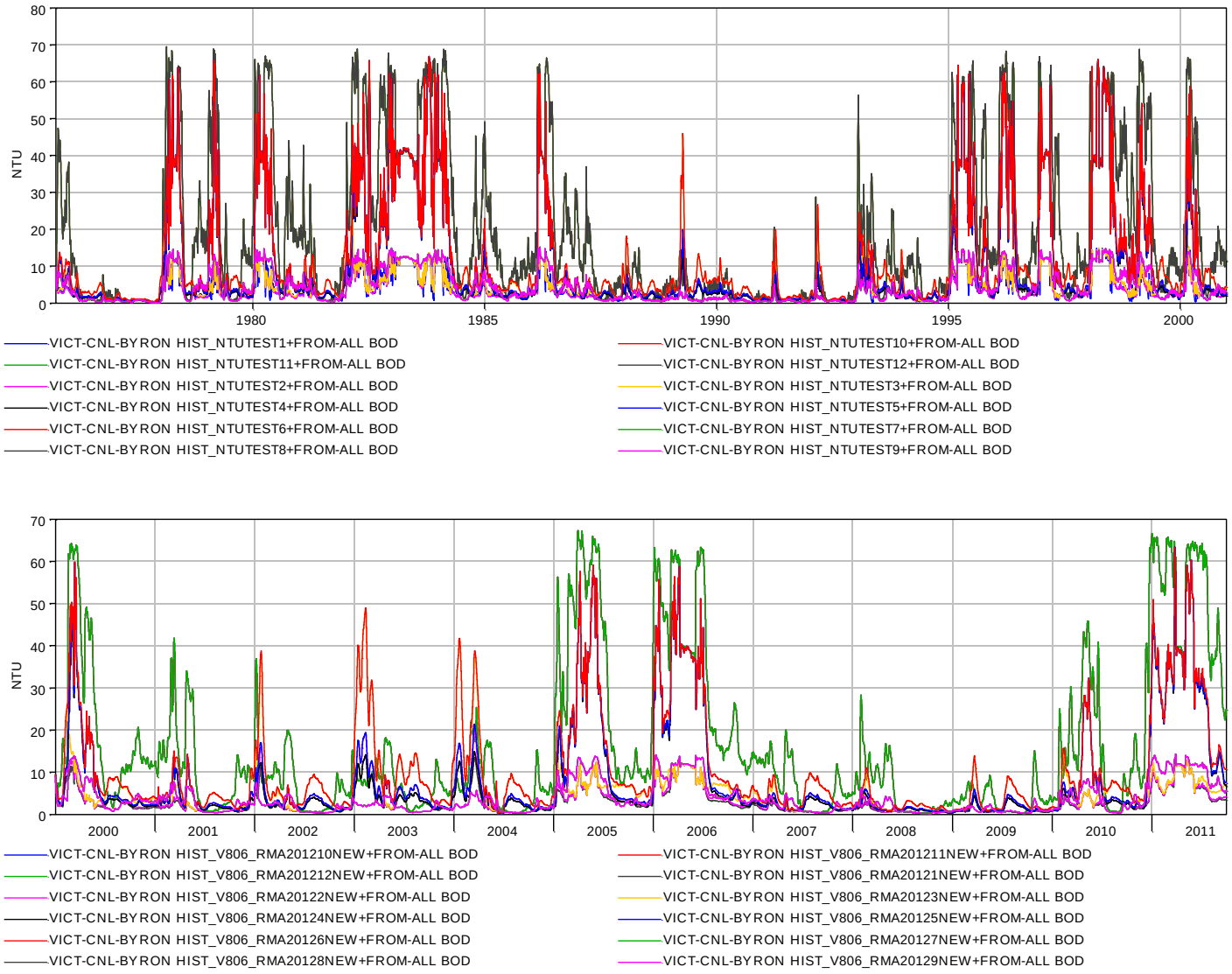


Figure B-14 DSM2 simulated turbidity under twelve boundary conditions at Victoria Canal

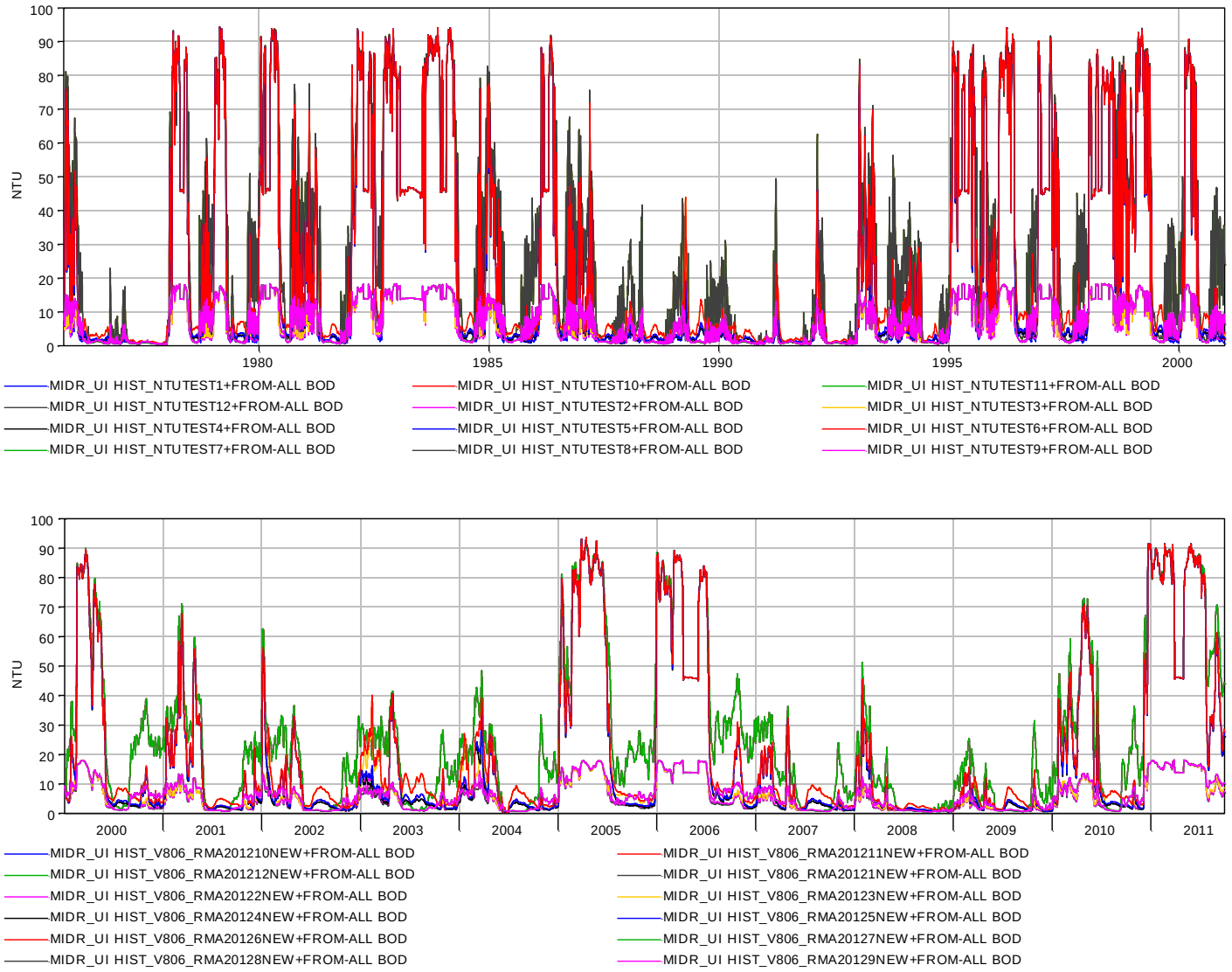


Figure B-15 DSM2 simulated turbidity under twelve boundary conditions at Middle River at Union Point

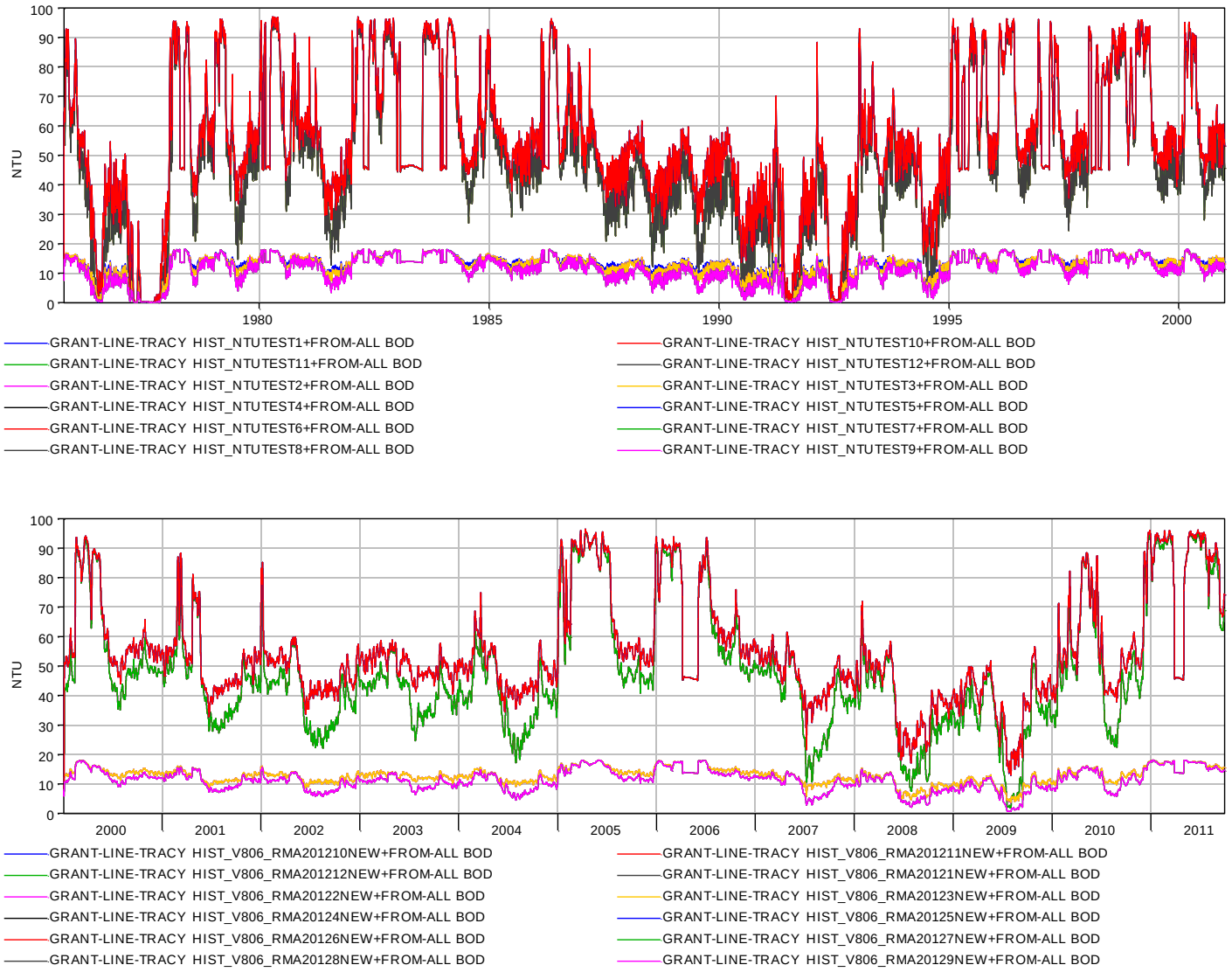


Figure B-16 DSM2 simulated turbidity under twelve boundary conditions at Grant Line Canal at Tracy

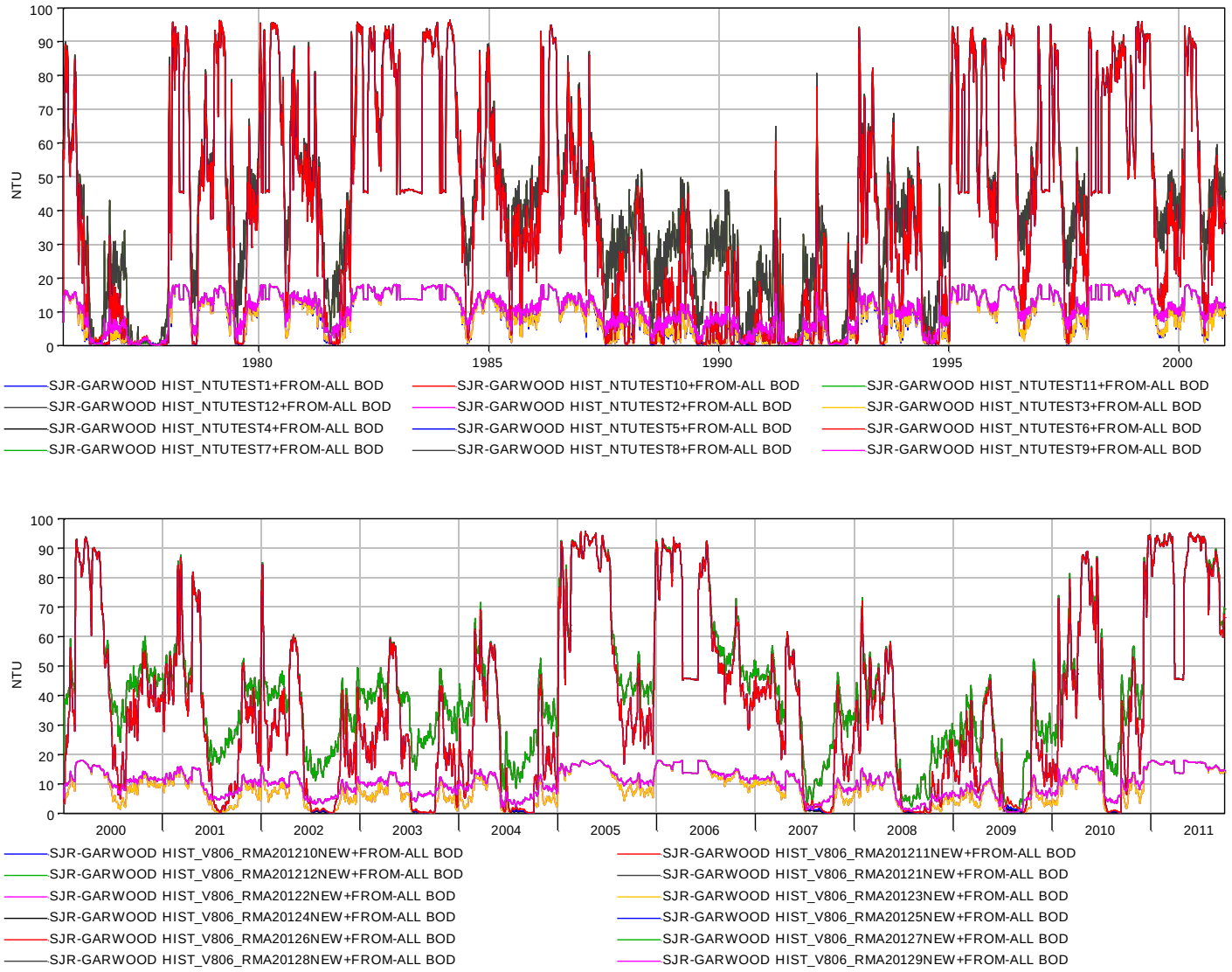


Figure B-17 DSM2 simulated turbidity under twelve boundary conditions at San Joaquin River at Garwood

APPENDIX C: COMPARISON OF ANN AND DSM2 SIMULATED TURBIDITY AT 16 TARGET LOCATIONS FOR FEED-FORWARD NETWORKS

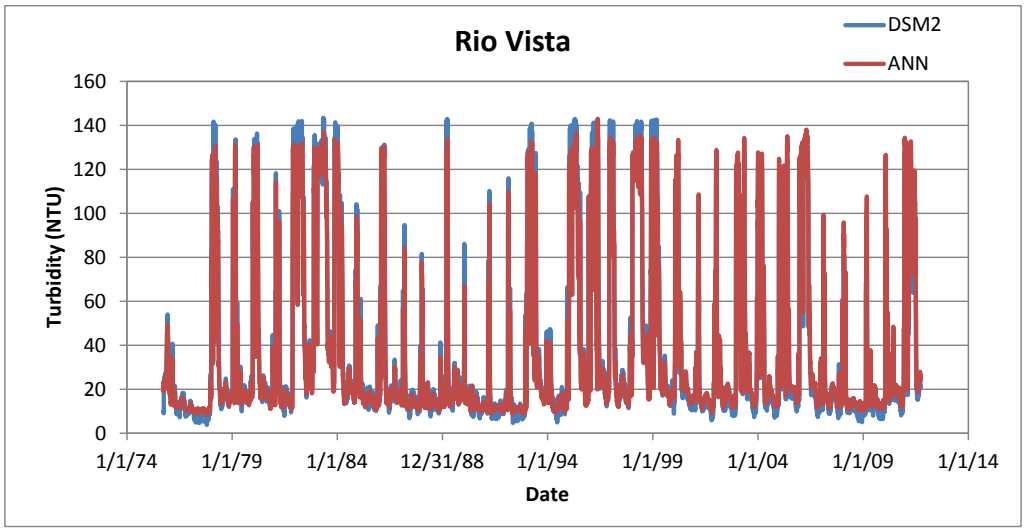


Figure C-1 *DSM2 and ANN simulated time-series turbidity at Sacramento River at Rio Vista (scenario 5)*

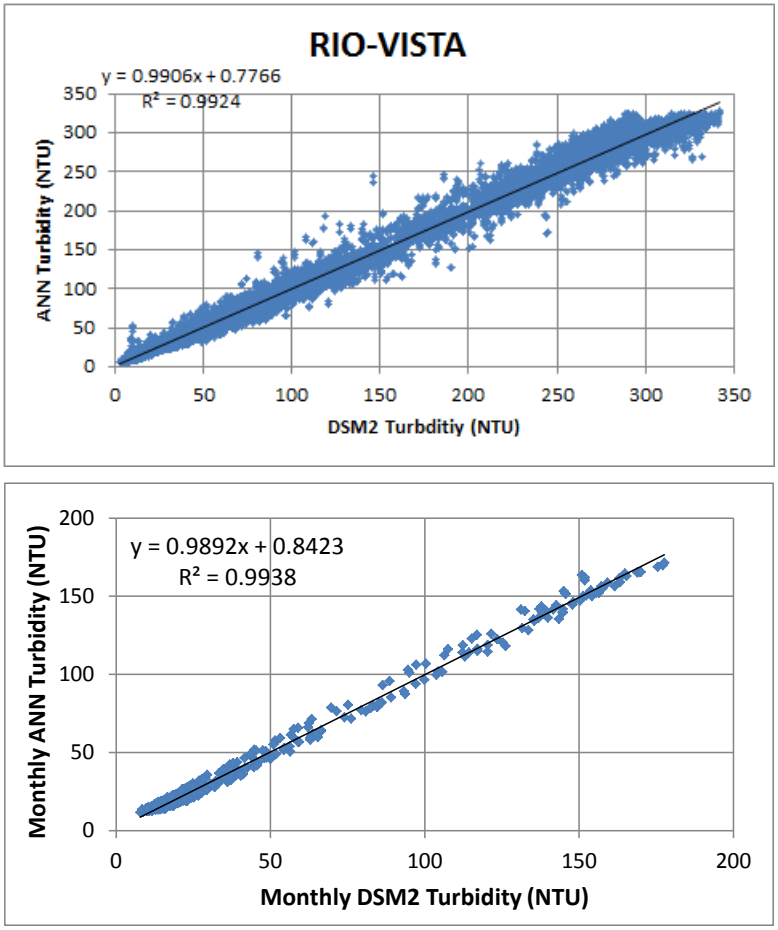


Figure C-2 *DSM2 and ANN simulated daily and monthly turbidity at Sacramento River at Rio Vista (all data).*

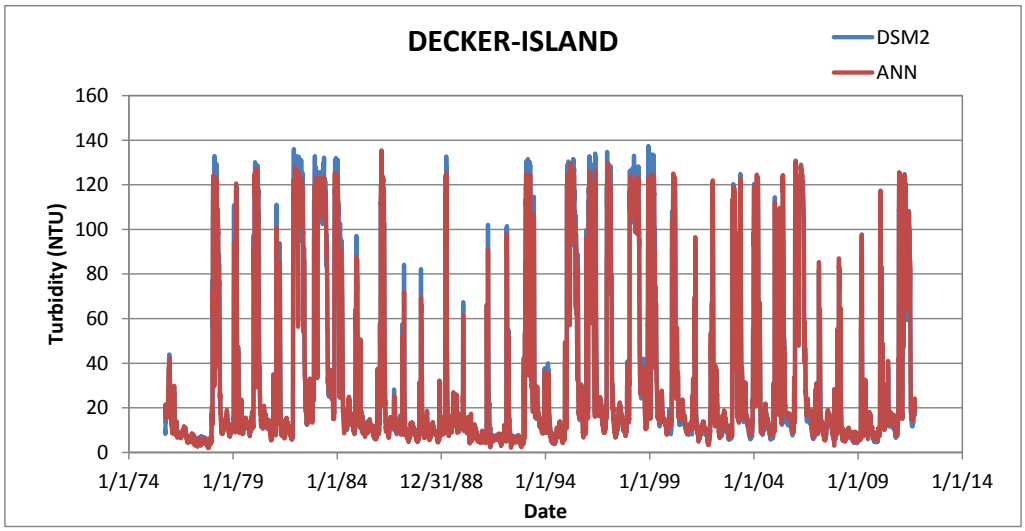


Figure C-3 DSM2 and ANN simulated turbidity at Decker Island (scenario 5)

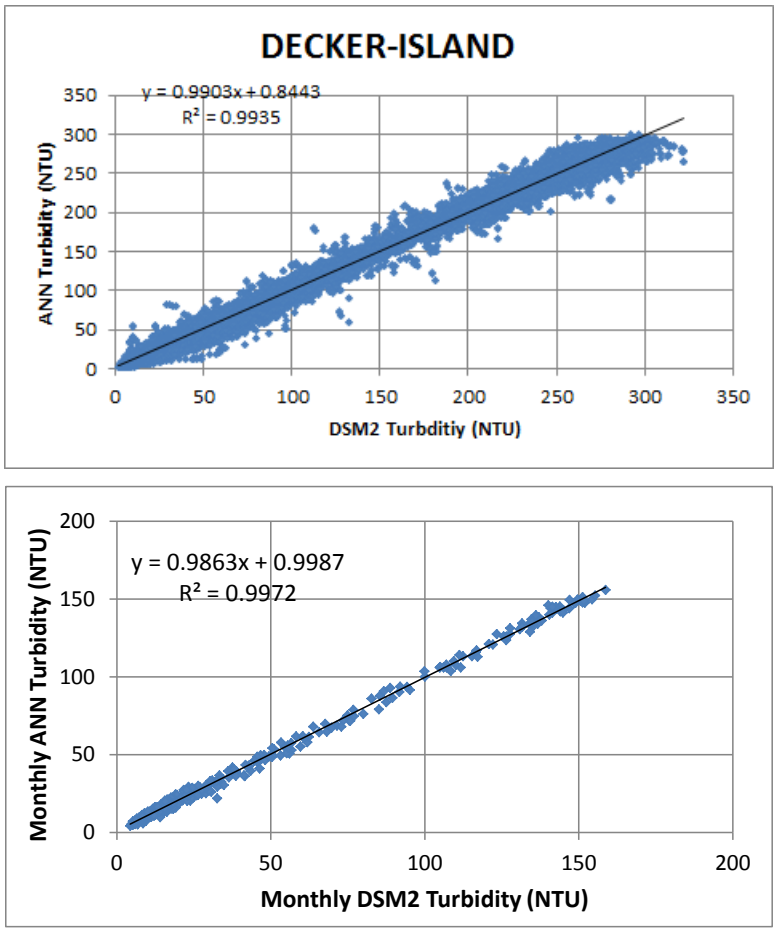


Figure C-4 DSM2 and ANN simulated daily and monthly turbidity at Decker Island (all data).

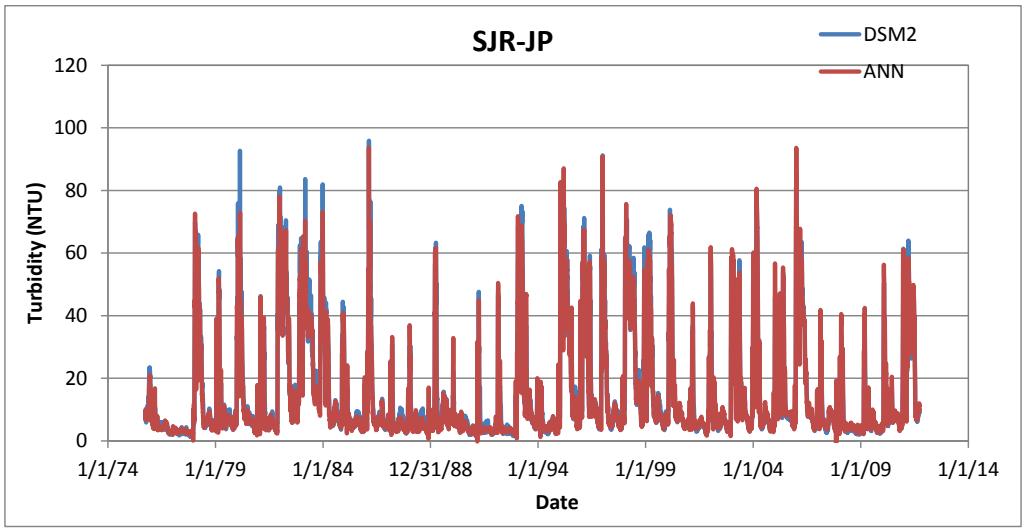


Figure C-5 DSM2 and ANN simulated turbidity at San Joaquin River at Jersey Point (scenario 5)

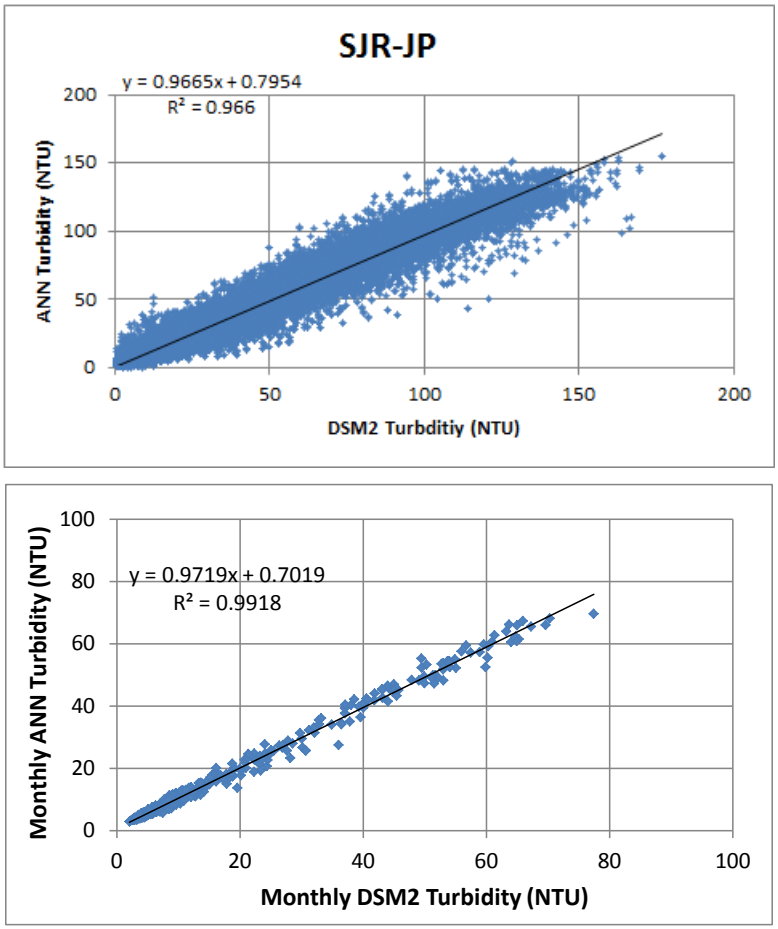


Figure C-6 DSM2 and ANN simulated daily and monthly turbidity at San Joaquin River at Jersey Point (all data).

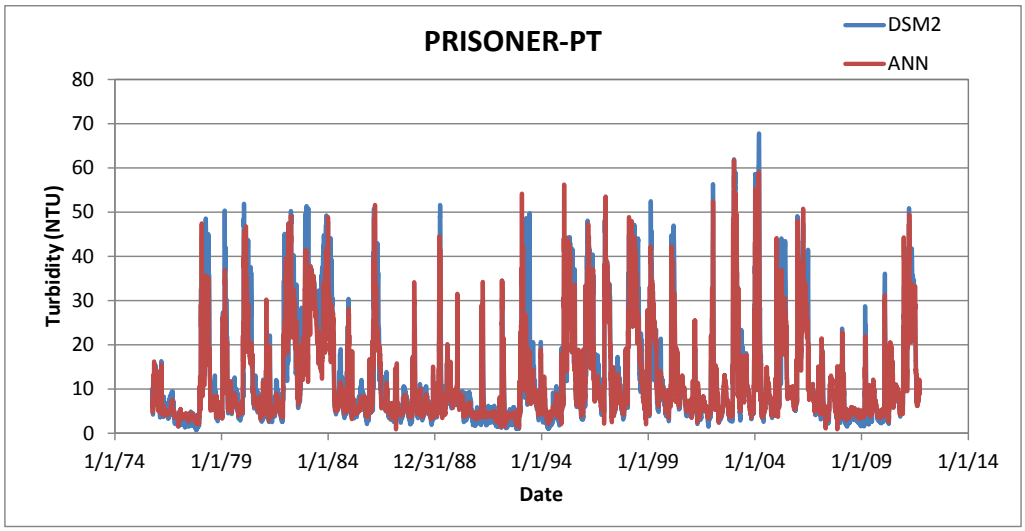


Figure C-7 *DSM2 and ANN simulated turbidity at San Joaquin River at Prisoner's Point (scenario 5)*

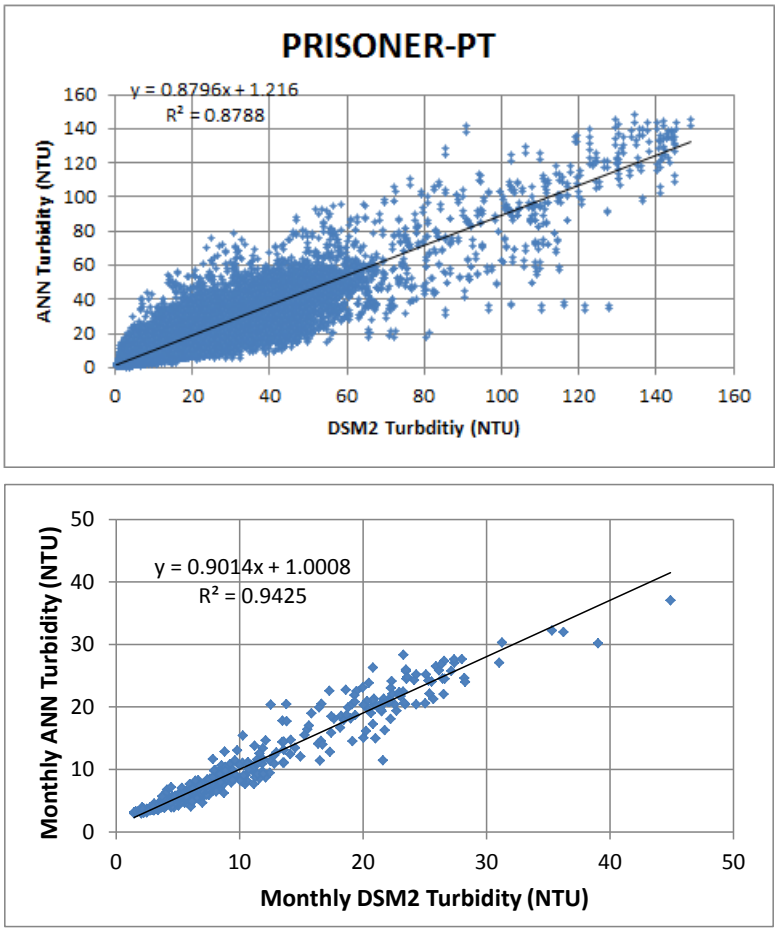


Figure C-8 *DSM2 and ANN simulated daily and monthly turbidity at San Joaquin River at Prisoner's Point (all data).*

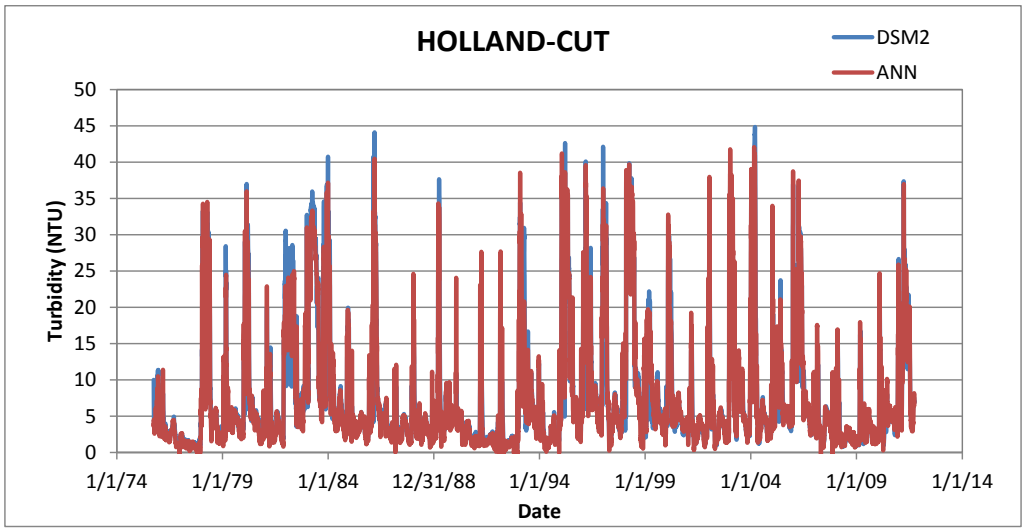


Figure C-9 *DSM2 and ANN simulated turbidity at Old River @ Holland Cut (scenario 5)*

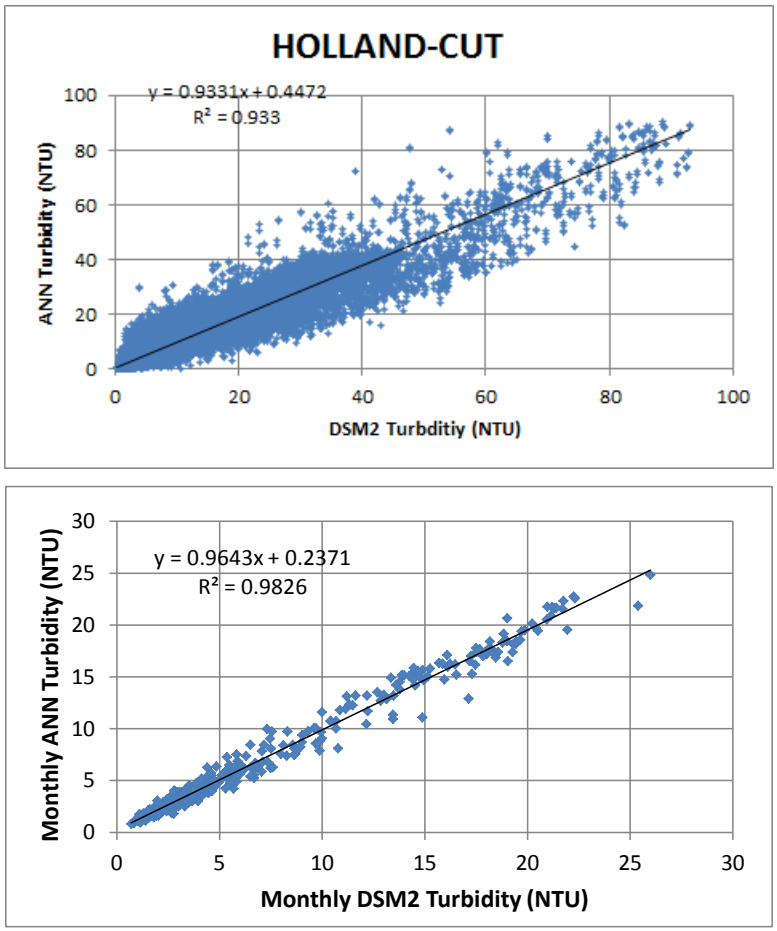


Figure C-10 *DSM2 and ANN simulated daily and monthly turbidity at Old River at Holland Cut (all data).*

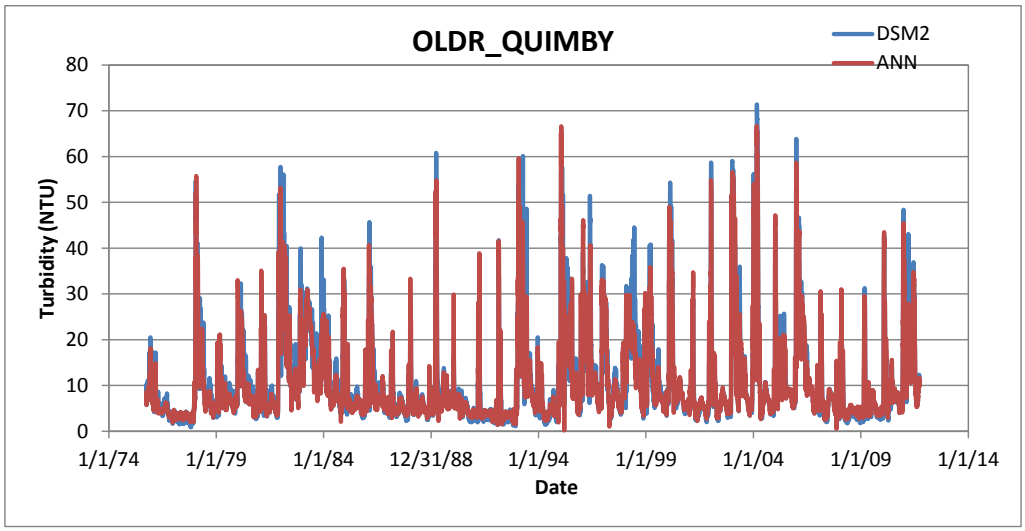


Figure C-11 DSM2 and ANN simulated turbidity at Old River at Quimby Island (scenario 5)

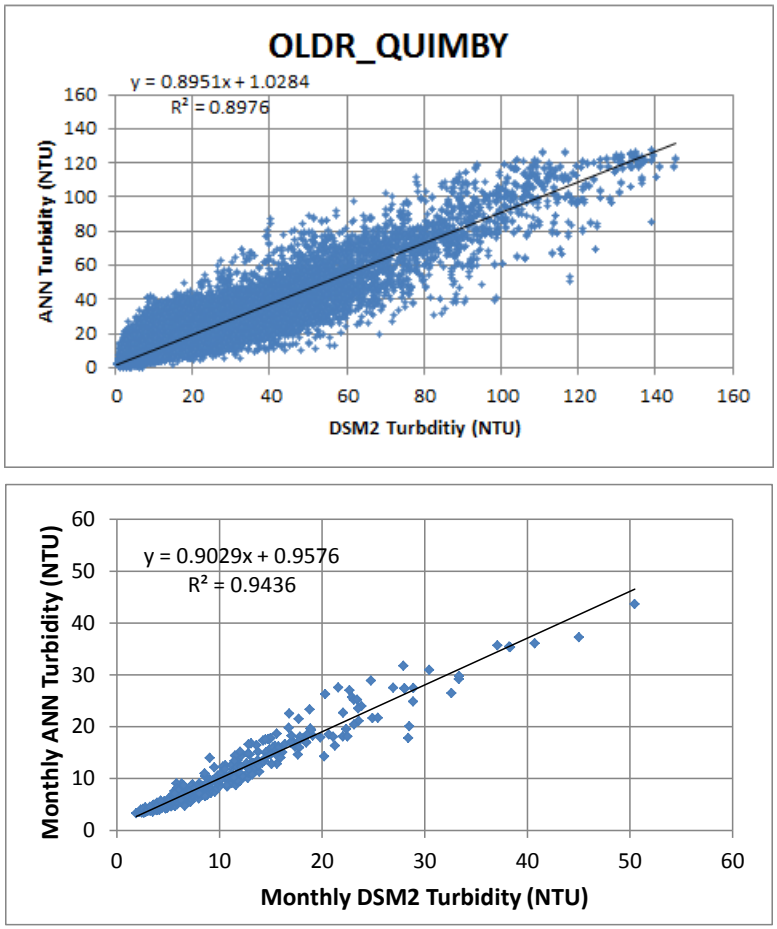


Figure C-12 DSM2 and ANN simulated turbidity at Old River at Quimby Island (all data)

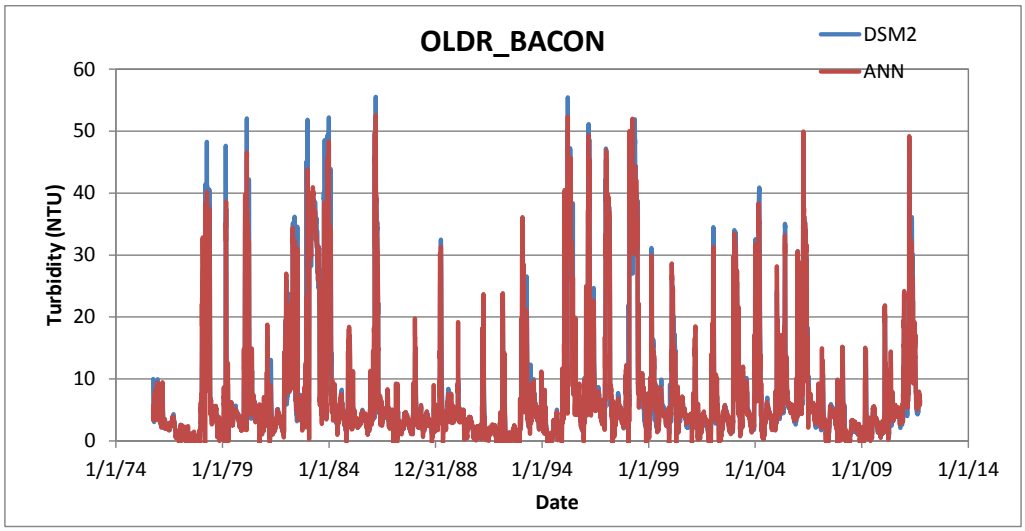
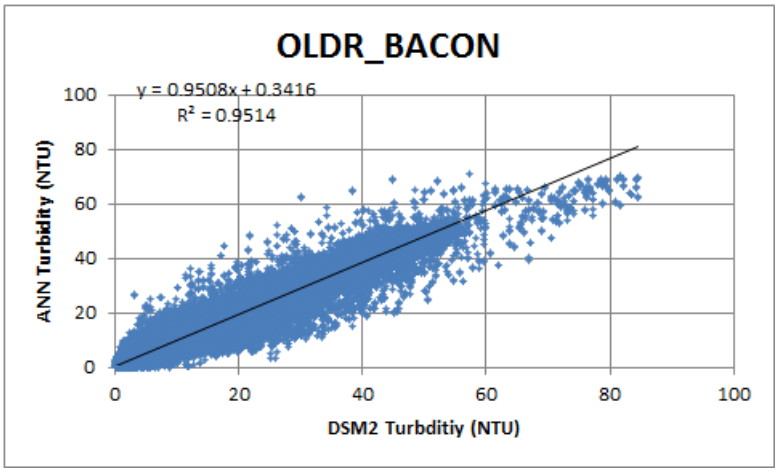


Figure C-13 DSM2 and ANN simulated turbidity at Old River at Bacon Island (scenario 5)



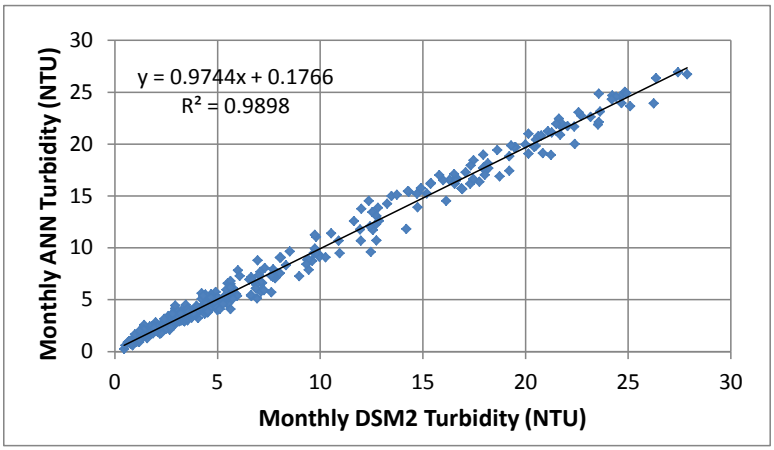


Figure C-14 DSM2 and ANN simulated turbidity at Old River at Bacon Island (all data)

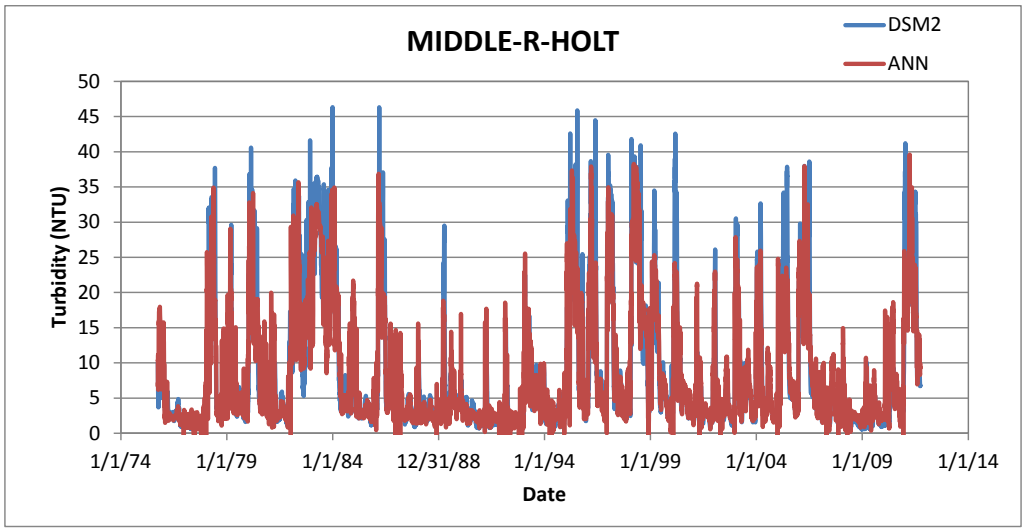


Figure C-15 DSM2 and ANN simulated turbidity at Middle River at Holt (scenario 5)

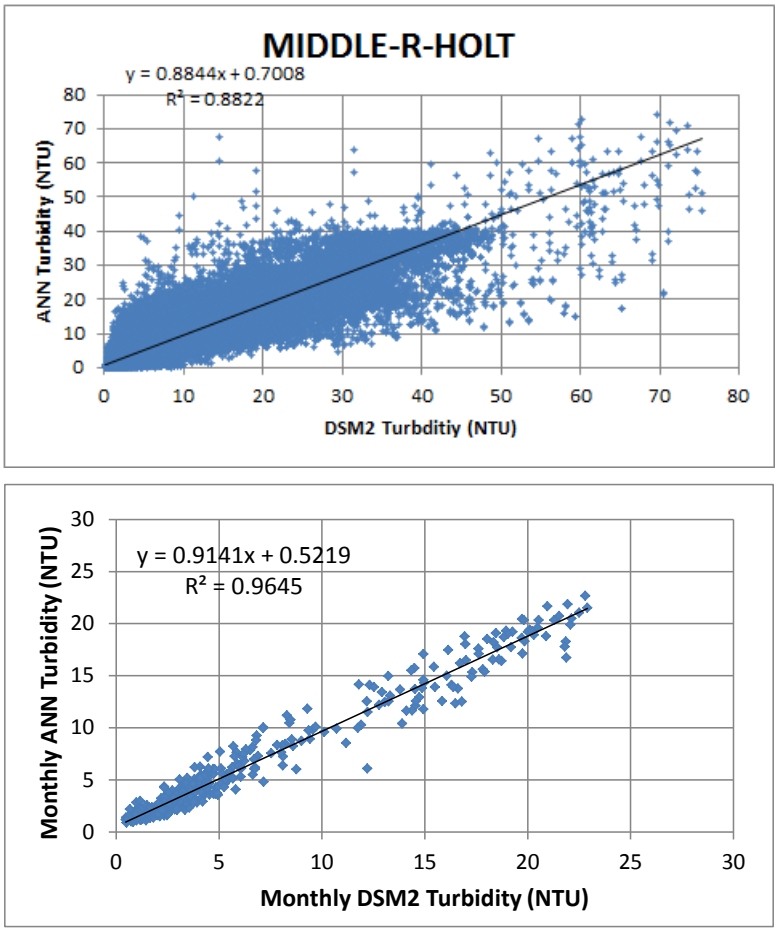


Figure C-16 DSM2 and ANN simulated turbidity at Middle River at Holt (all data)

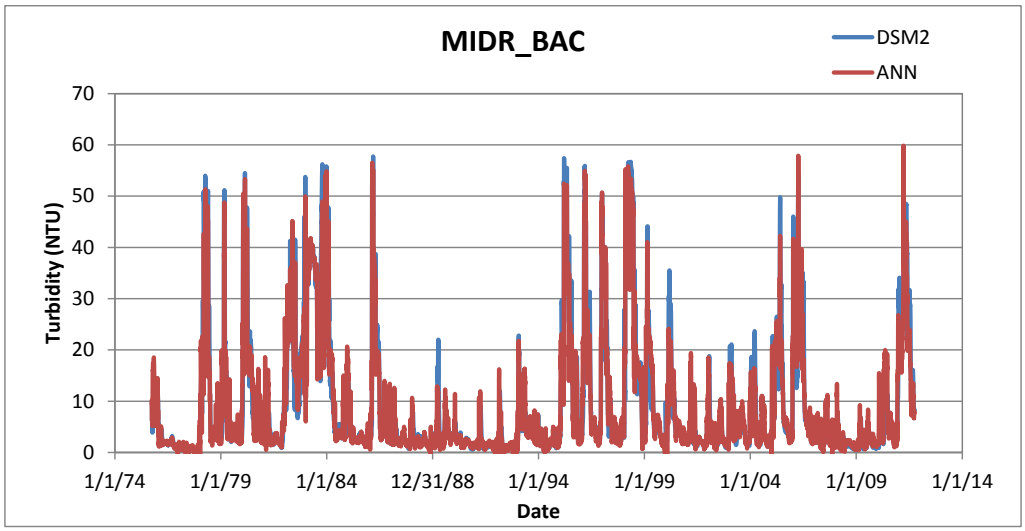


Figure C-17 DSM2 and ANN simulated turbidity at Middle River at Bacon Island (scenario 5)

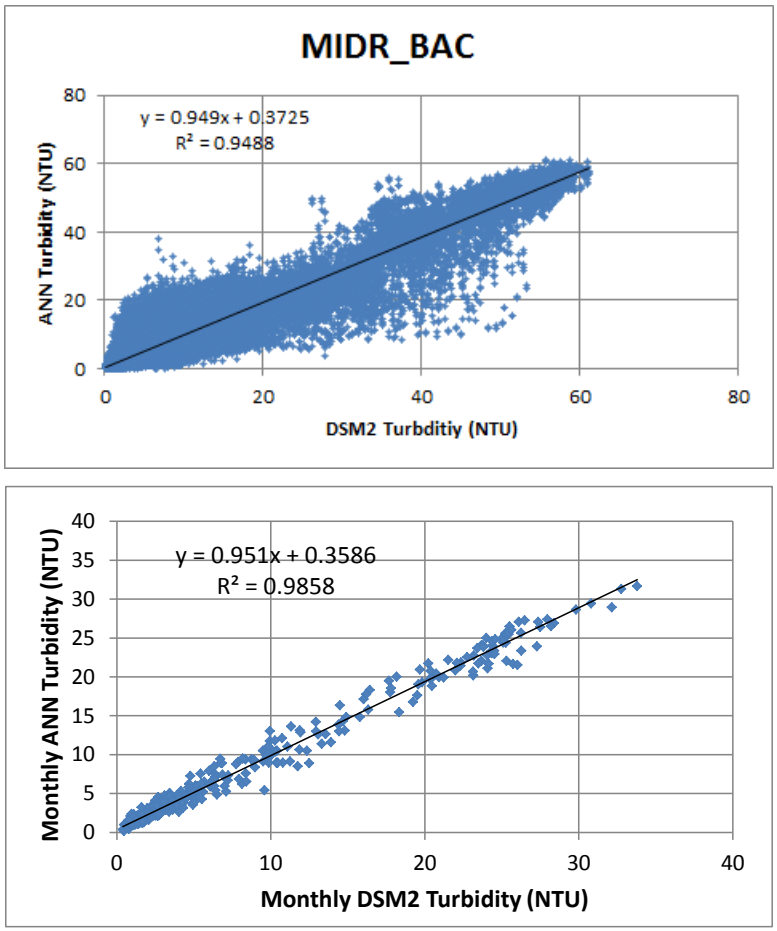


Figure C-18 DSM2 and ANN simulated turbidity at Middle River at Bacon Island (all data)

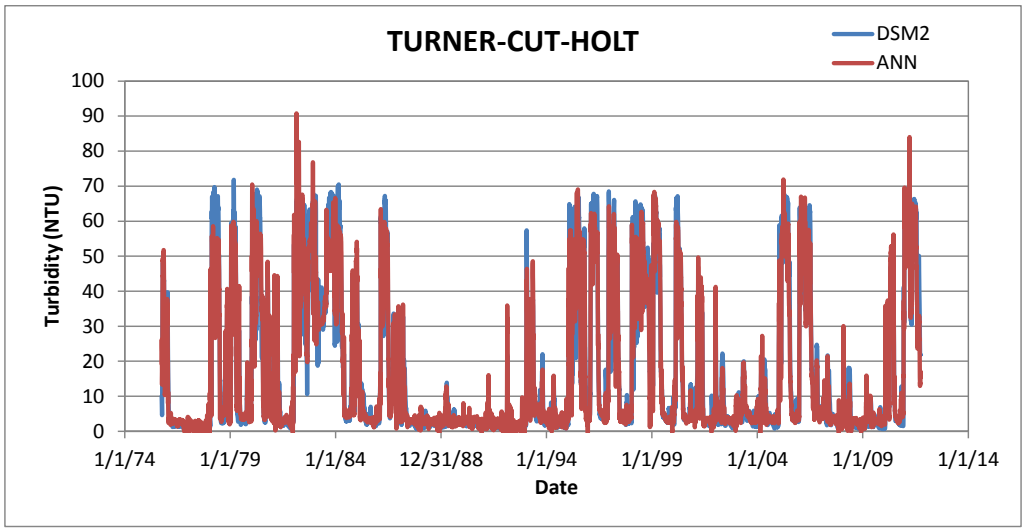


Figure C-19 DSM2 and ANN simulated turbidity at Turner Cut at Holt (scenario 5)

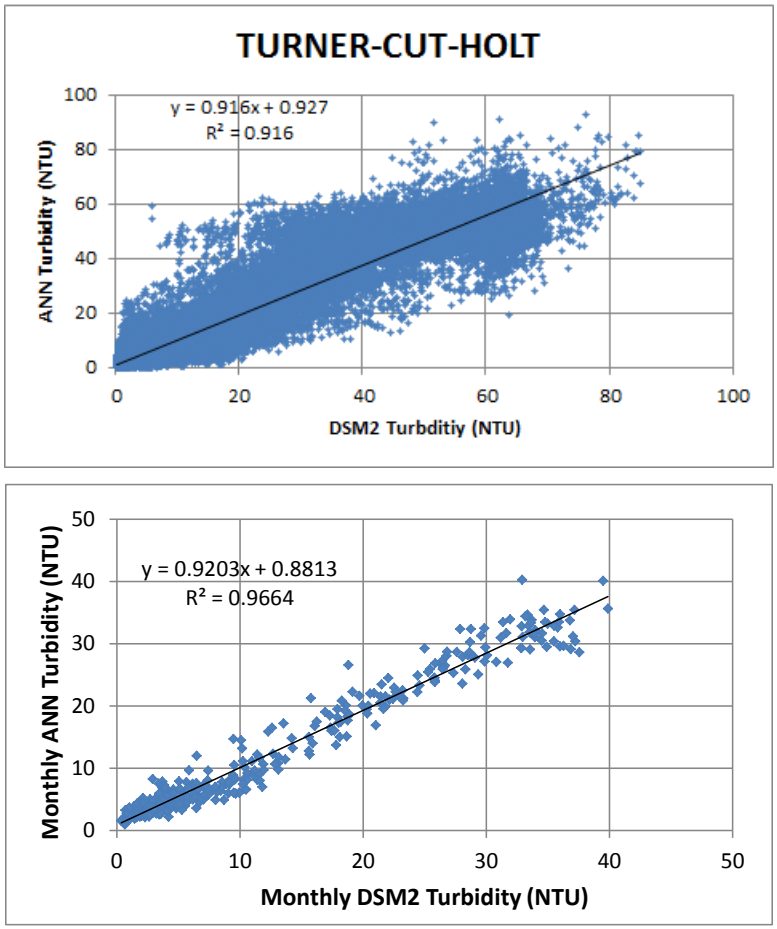


Figure C-20 DSM2 and ANN simulated turbidity at Turner Cut at Holt (all data)

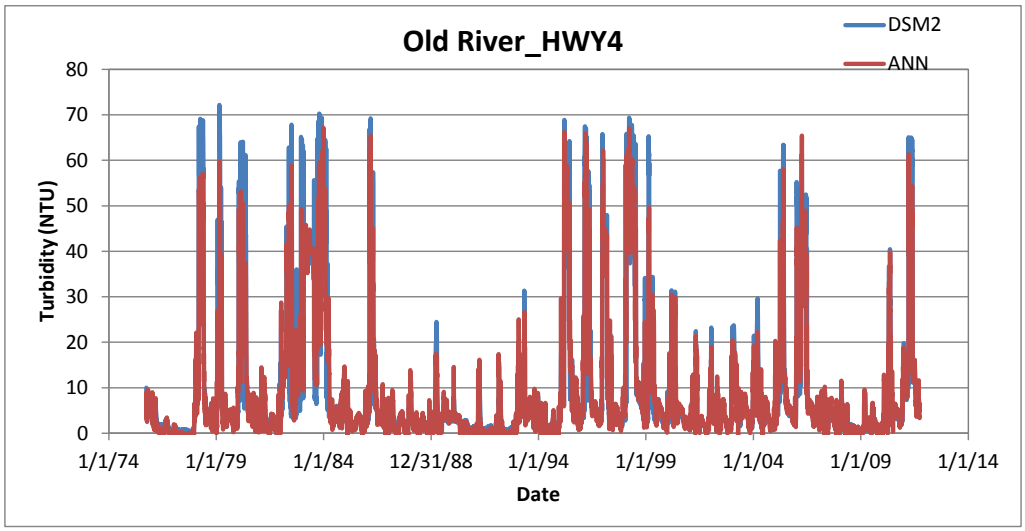


Figure C-21 DSM2 and ANN simulated turbidity at Old River at Highway 4 (scenario 5)

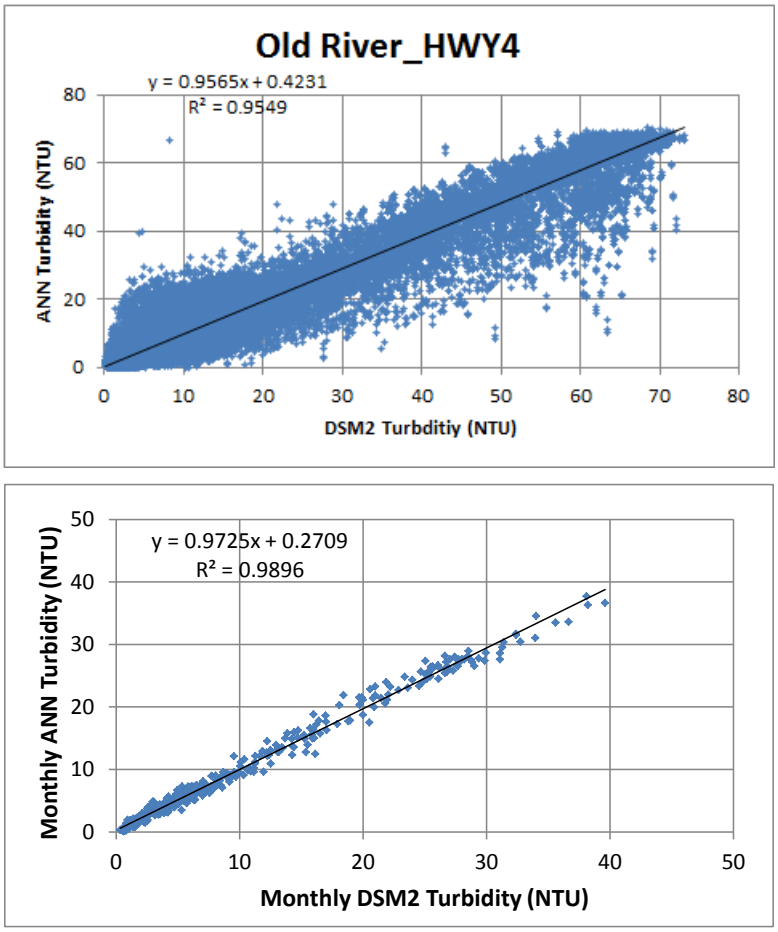


Figure C-22 DSM2 and ANN simulated turbidity at Old River at Highway 4 (all data)

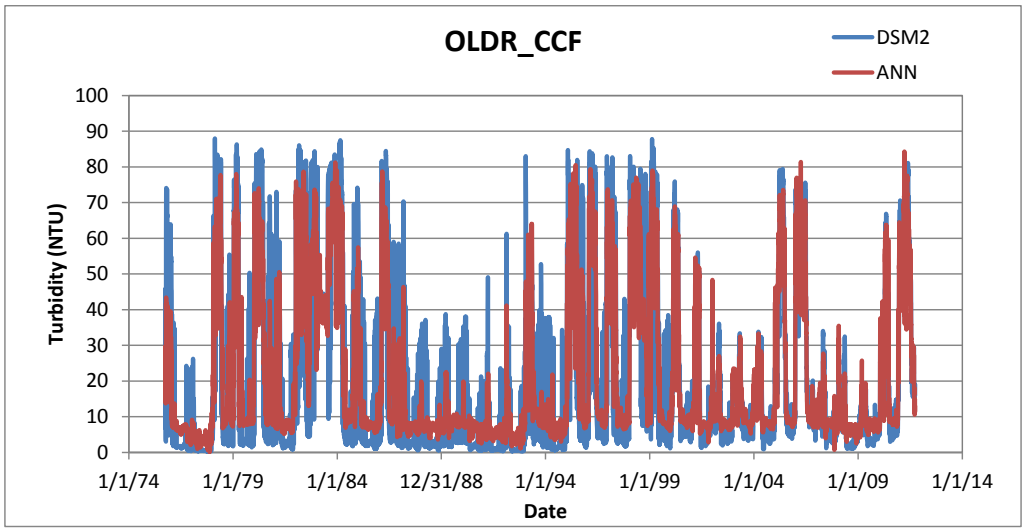


Figure C-23 DSM2 and ANN simulated turbidity at Old River at Clifton Court Intake (scenario 5)

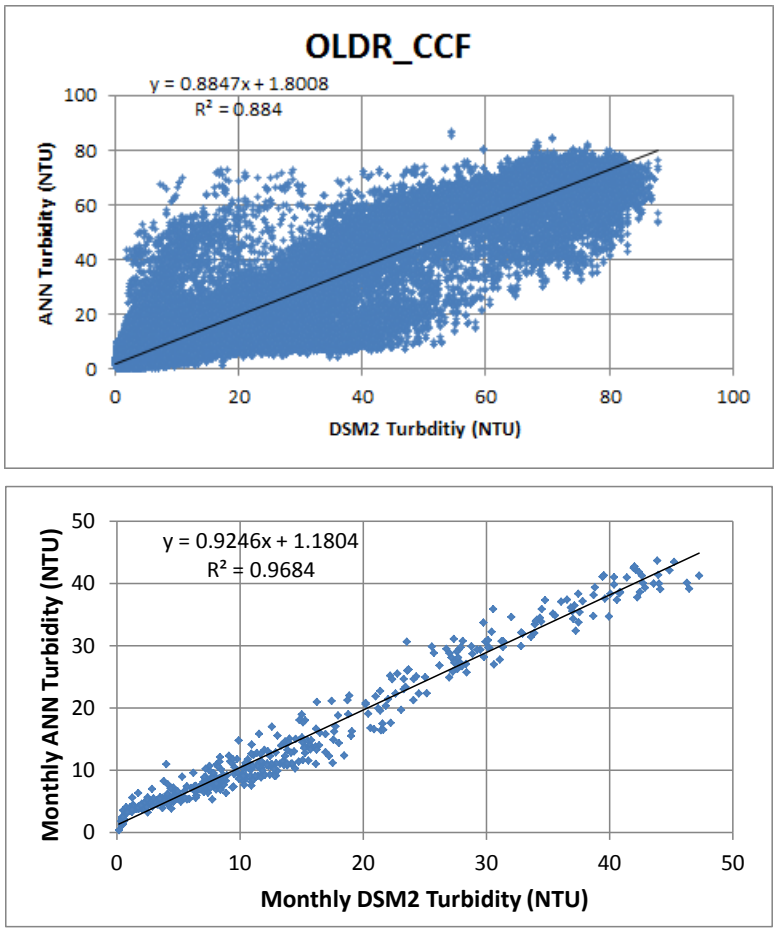


Figure C-24 DSM2 and ANN simulated turbidity at Old River at Clifton Court Intake (all data)

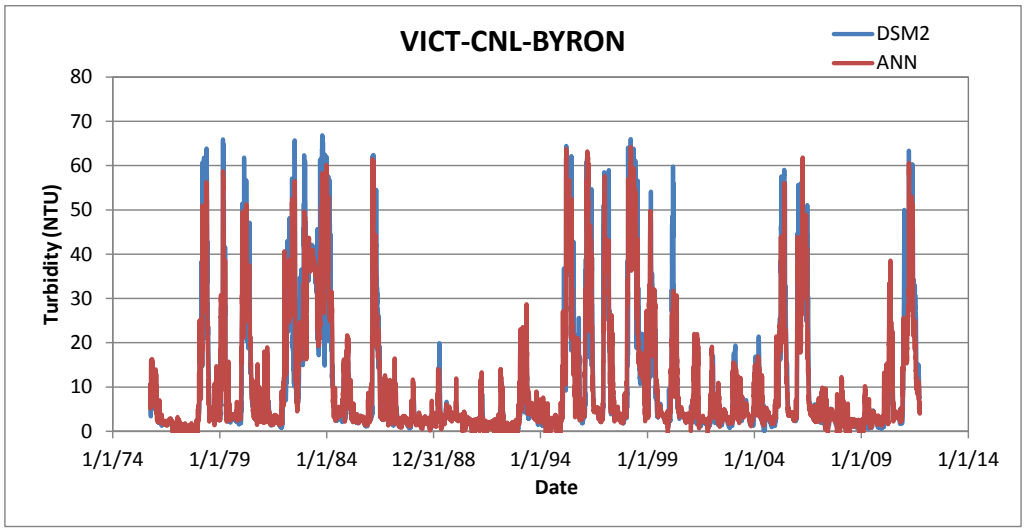
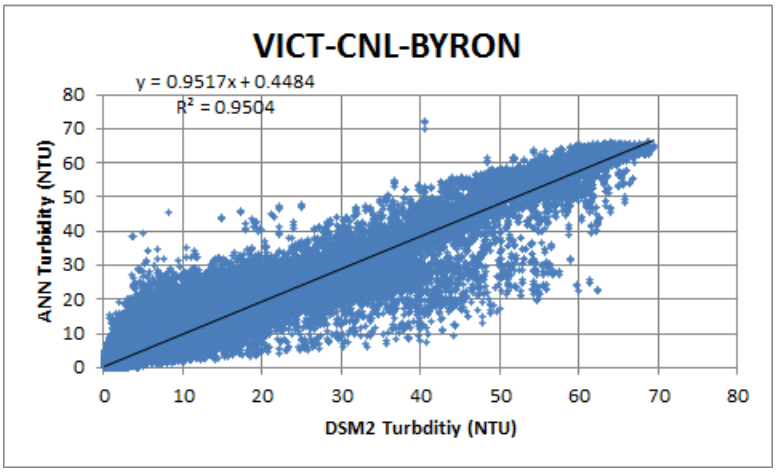


Figure C-25 DSM2 and ANN simulated turbidity at Victoria Canal (scenario 5)



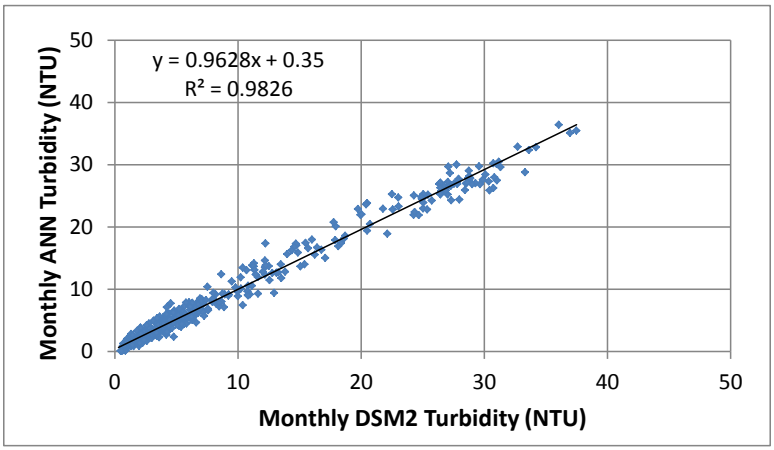


Figure C-26 DSM2 and ANN simulated turbidity at Victoria Canal (all data)

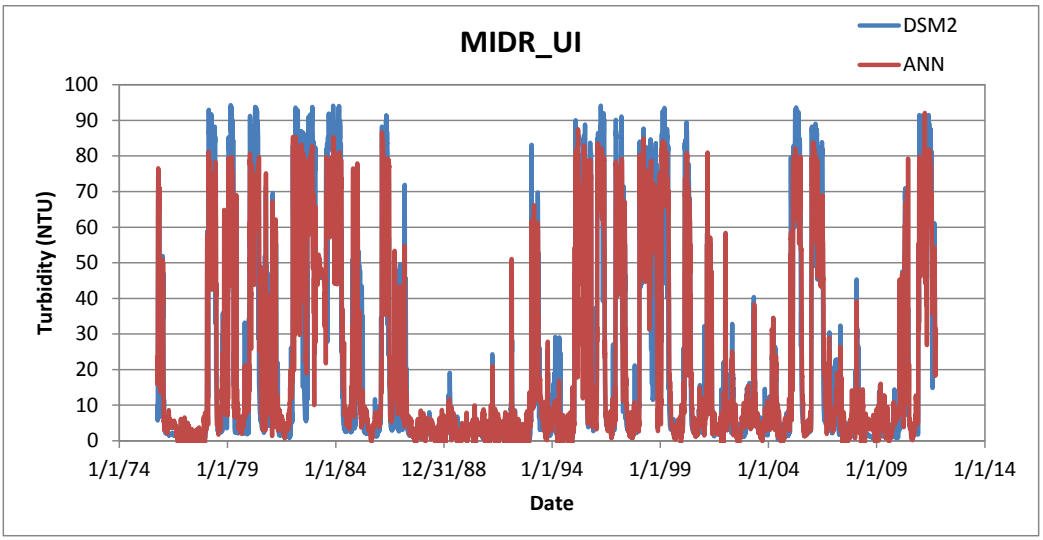


Figure C-27 DSM2 and ANN simulated turbidity at Middle River at Union Point (scenario 5)

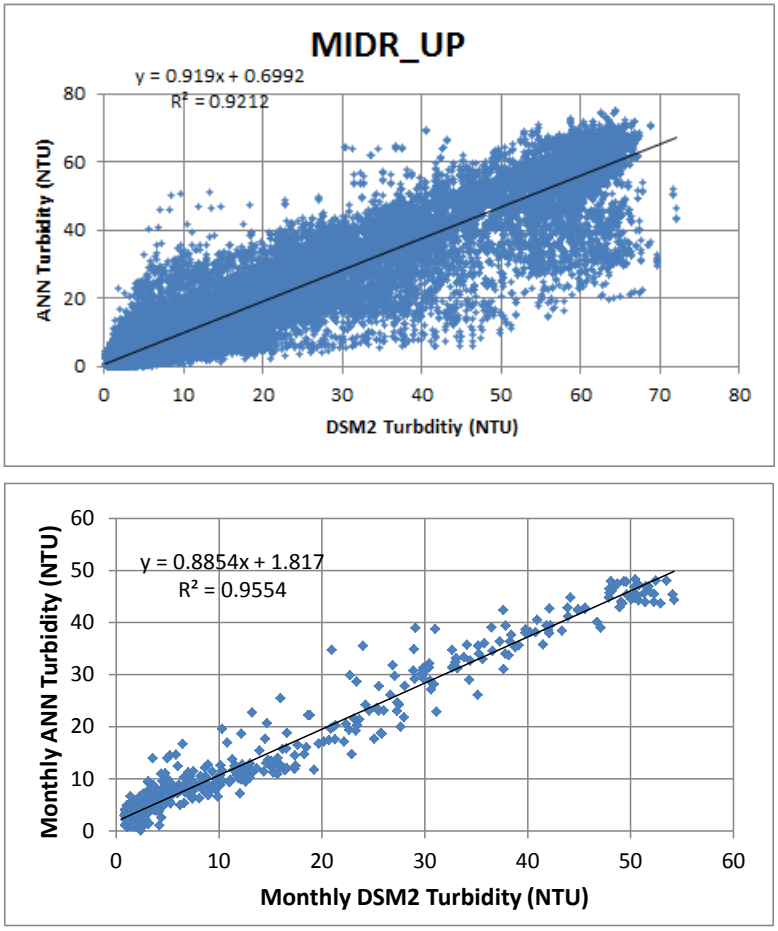


Figure C-28 DSM2 and ANN simulated turbidity at Middle River at Union Point (all data)

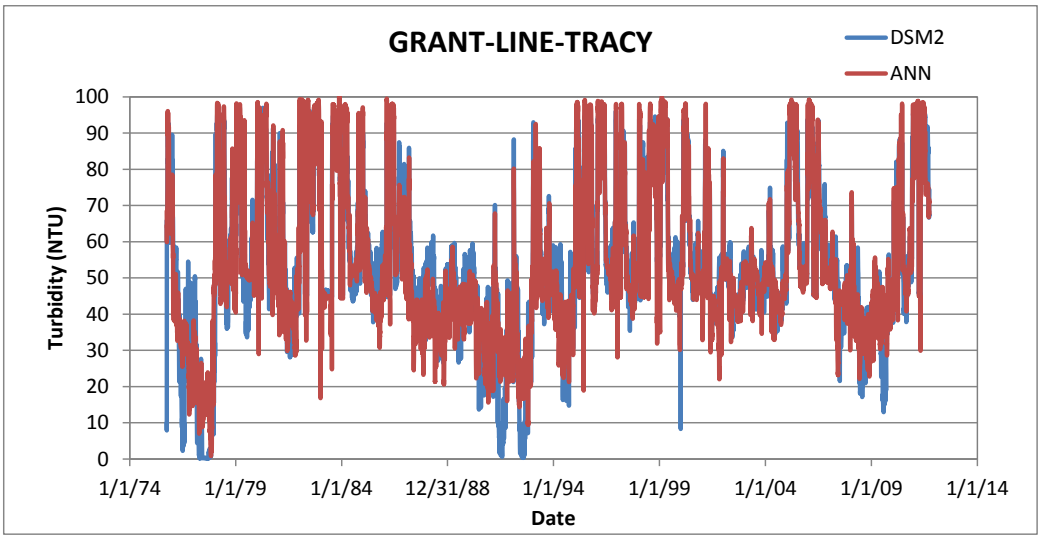


Figure C-29 DSM2 and ANN simulated turbidity at Grant Line Canal at Tracy (scenario 5)

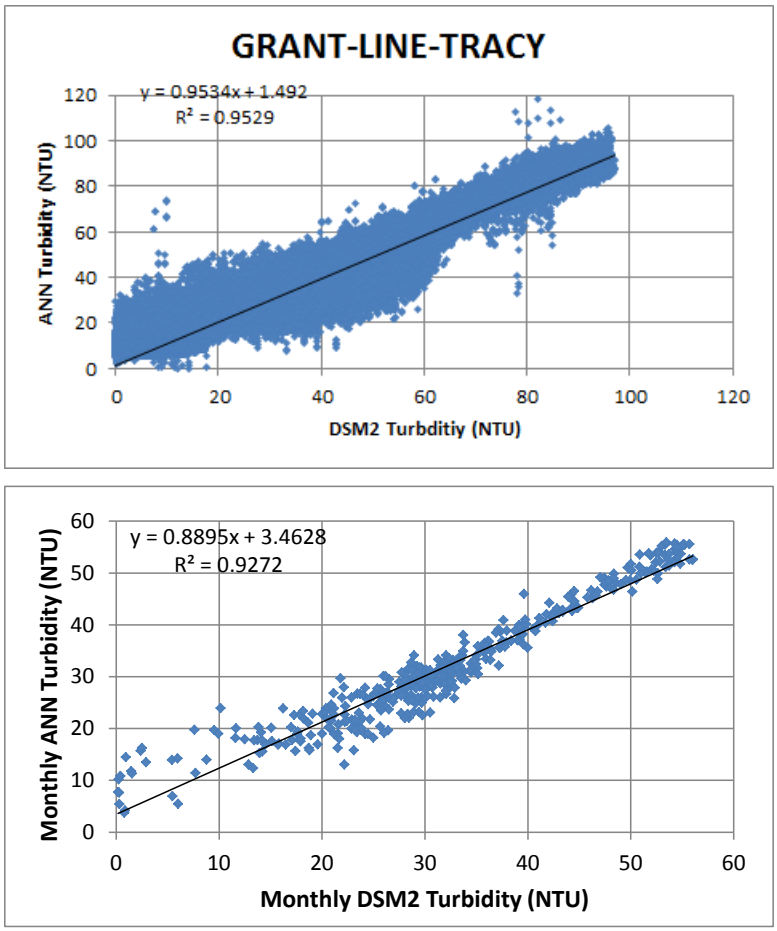


Figure C-30 DSM2 and ANN simulated turbidity at Grant Line Canal at Tracy (all data)

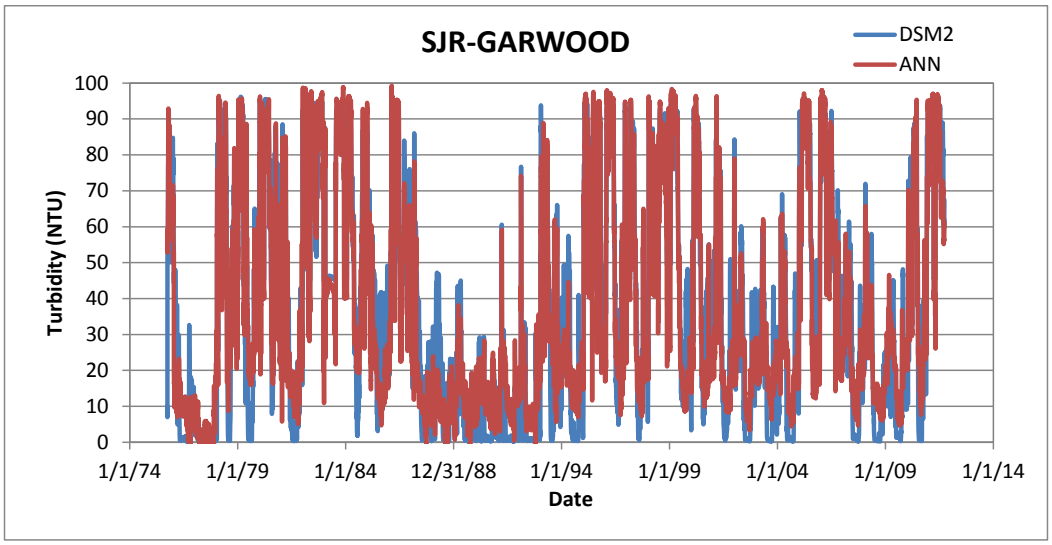


Figure C-31 DSM2 and ANN simulated turbidity at San Joaquin River at Garwood (scenario 5)

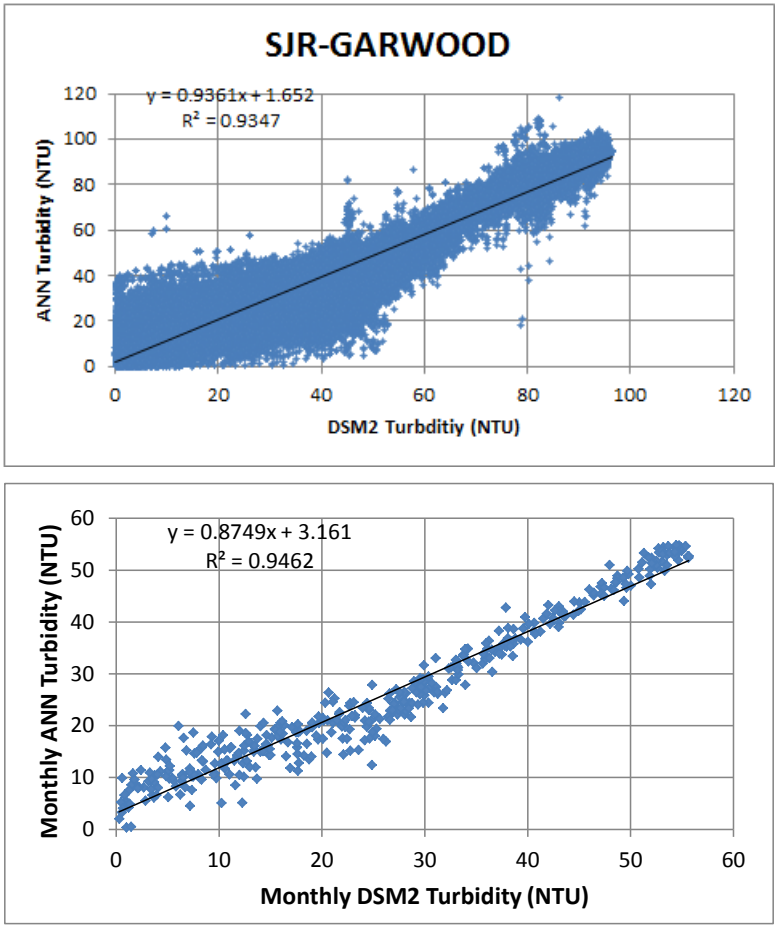


Figure C-32 DSM2 and ANN simulated turbidity at San Joaquin River at Garwood (all data)

APPENDIX D: COMPARISON OF ANN AND DSM2 SIMULATED TURBIDITY AT 16 TARGET LOCATIONS FOR NARX MODEL

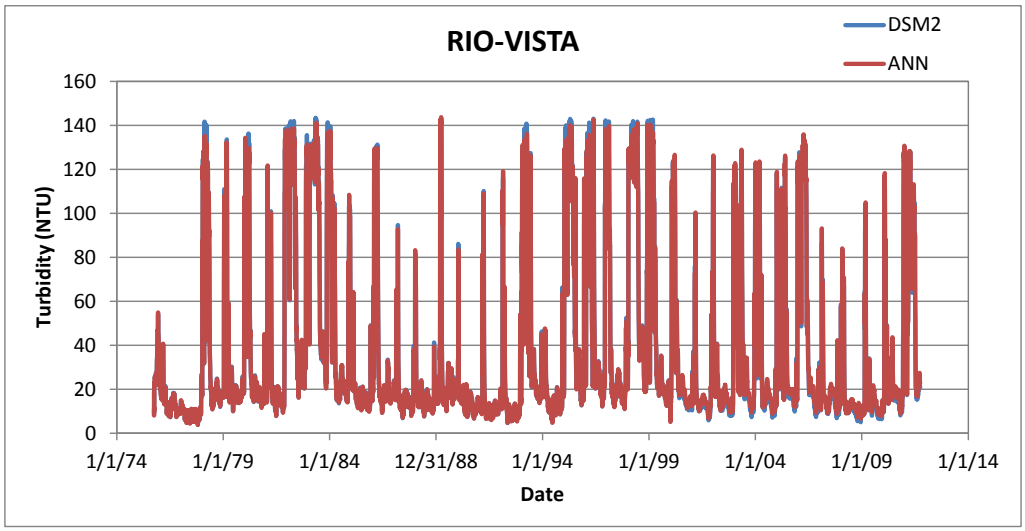


Figure D-1 *DSM2 and ANN simulated time-series turbidity at Sacramento River at Rio Vista (scenario 5)*

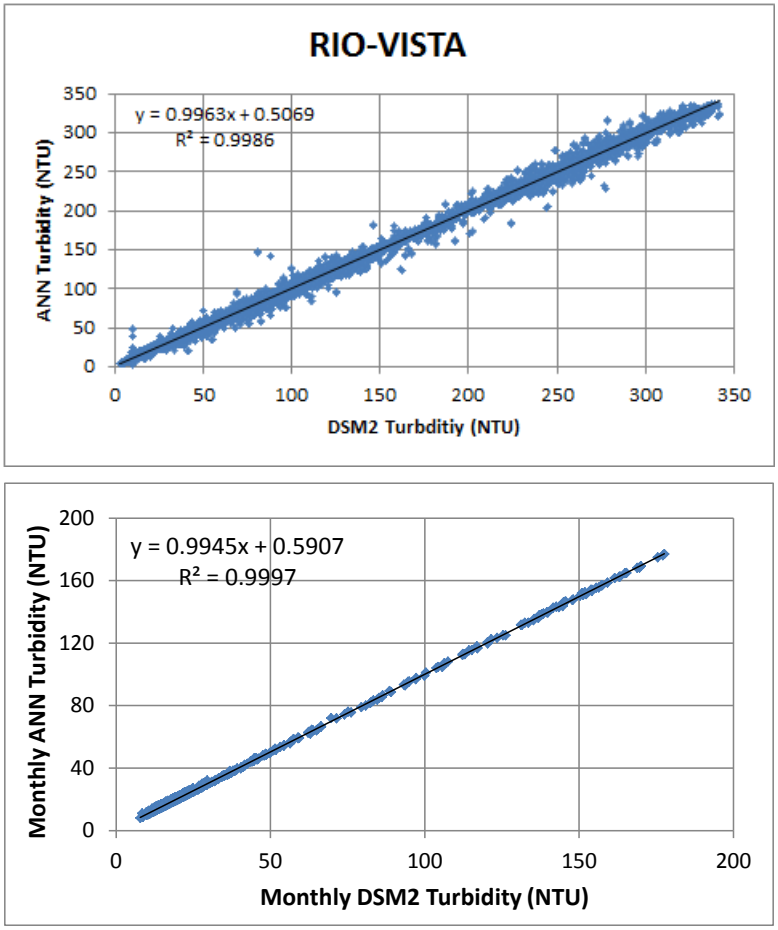


Figure D-2 *DSM2 and ANN simulated daily and monthly turbidity at Sacramento River at Rio Vista (all data).*

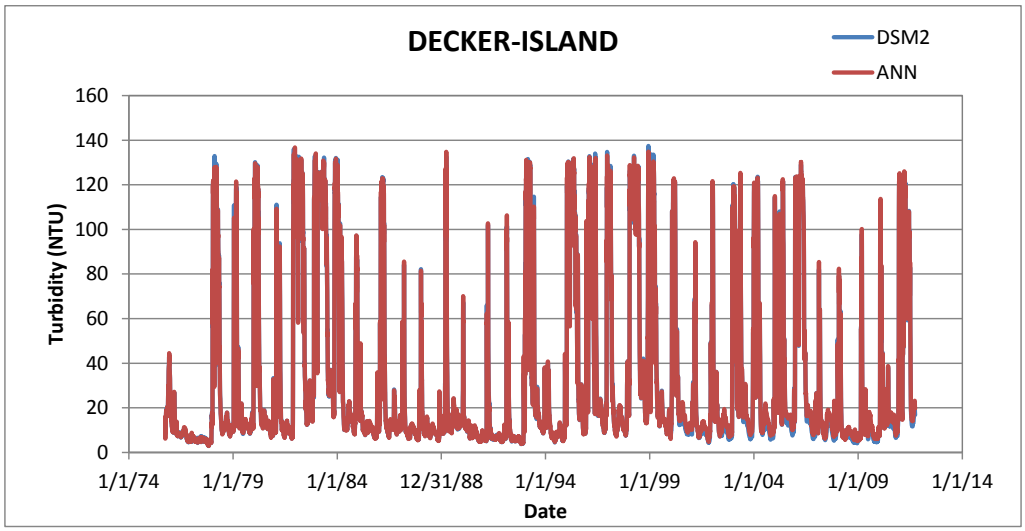


Figure D-3 DSM2 and ANN simulated turbidity at Decker Island (scenario 5)

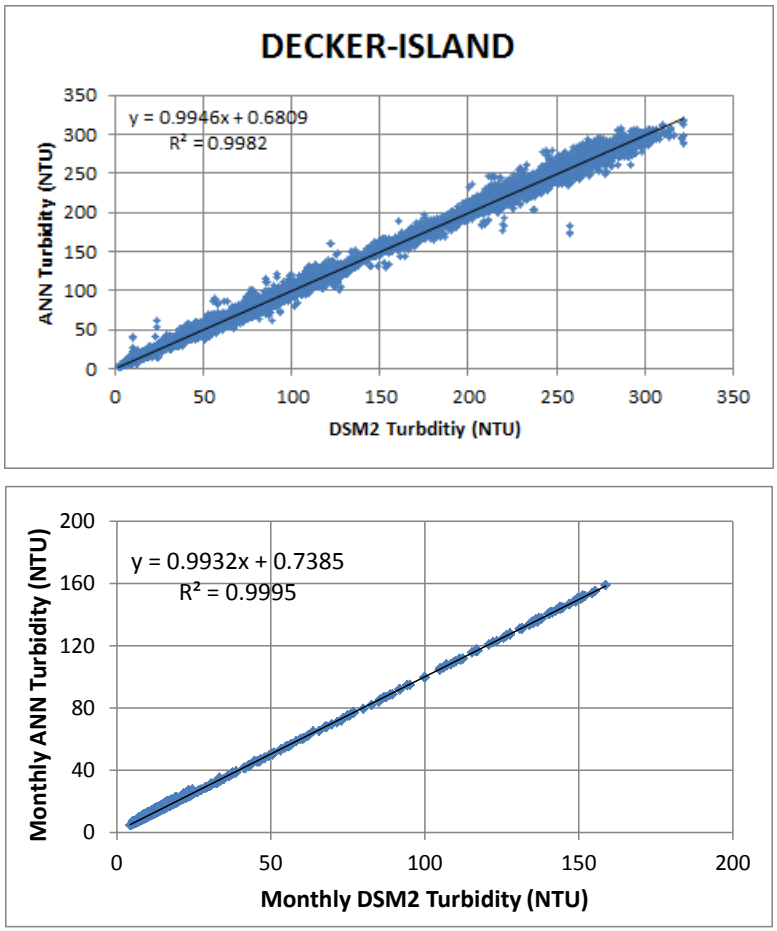


Figure D-4 DSM2 and ANN simulated daily and monthly turbidity at Decker Island (all data).

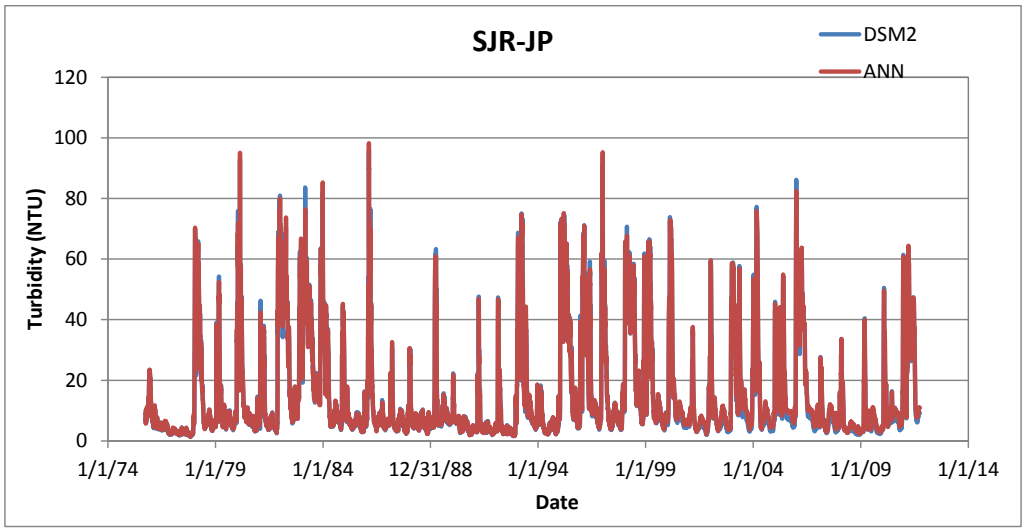


Figure D-5 DSM2 and ANN simulated turbidity at San Joaquin River at Jersey Point (scenario 5)

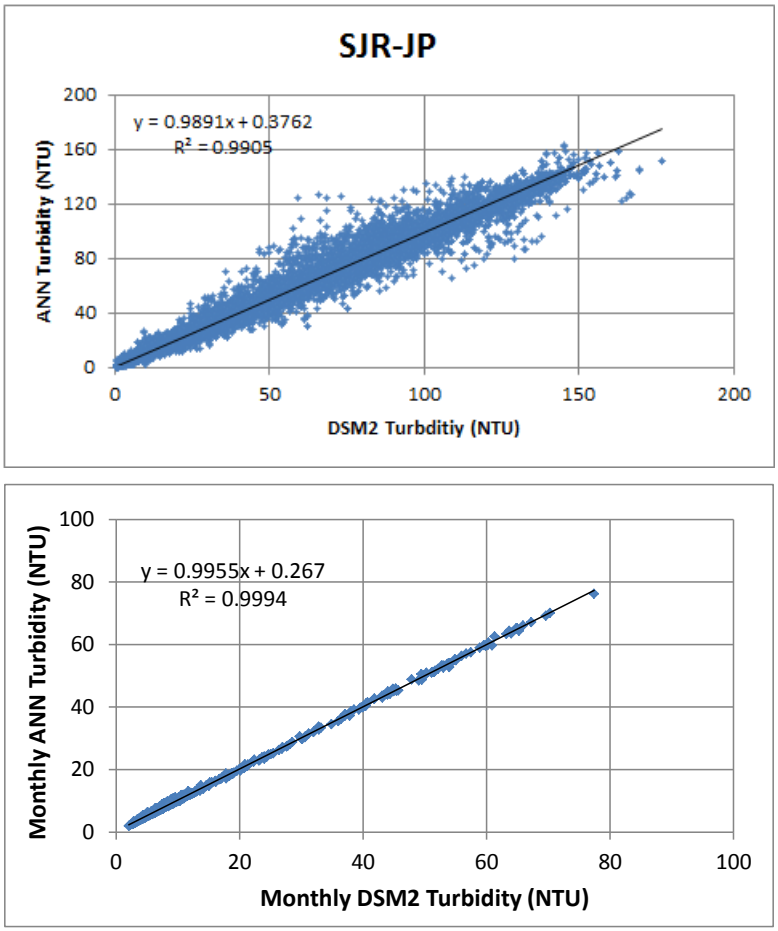


Figure D-6 DSM2 and ANN simulated daily and monthly turbidity at San Joaquin River at Jersey Point (all data).

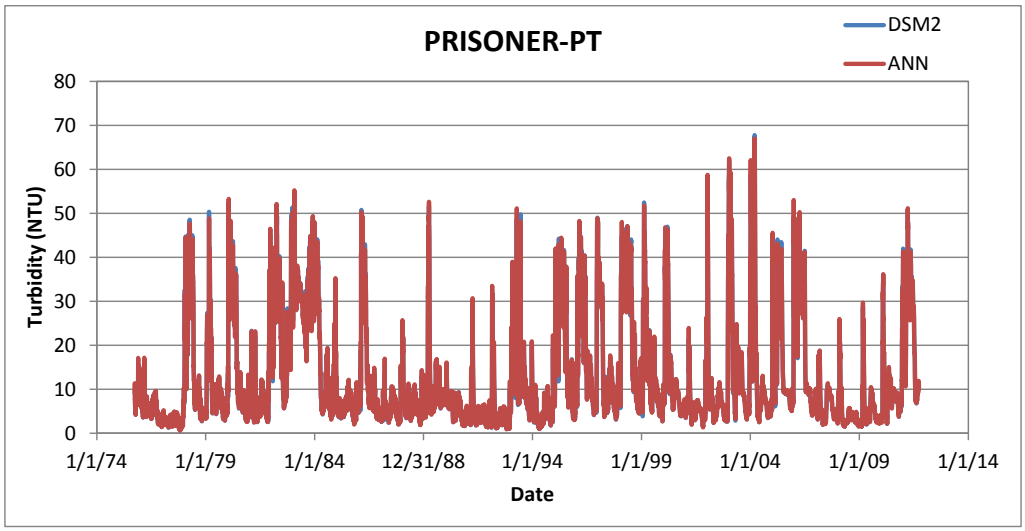


Figure D-7 DSM2 and ANN simulated turbidity at San Joaquin River at Prisoner's Point (scenario 5)

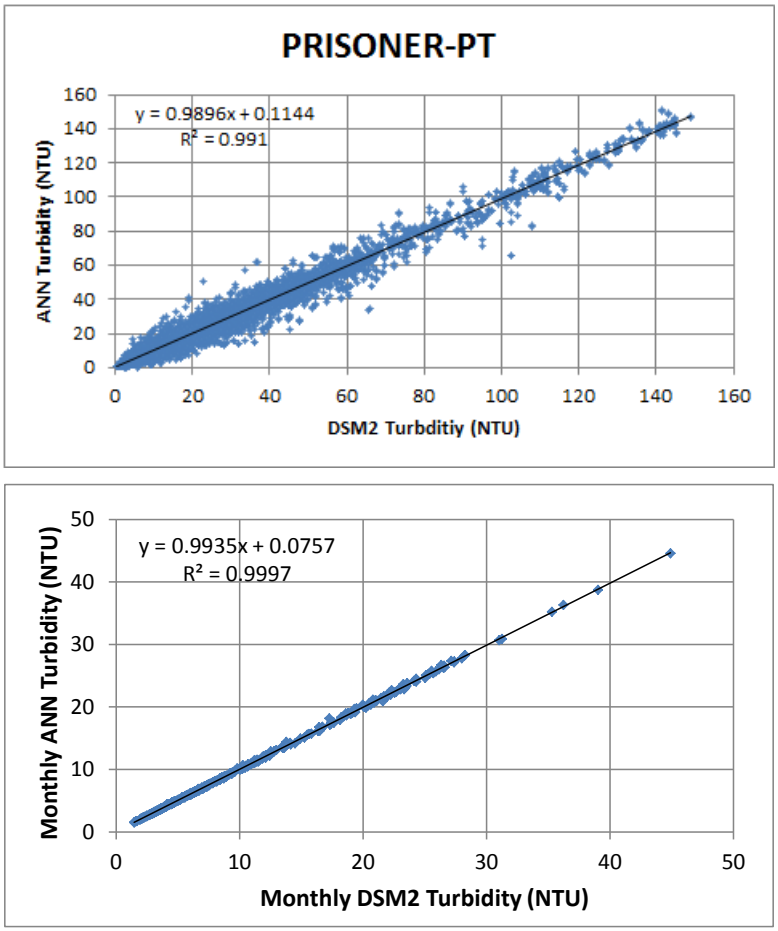


Figure D-8 DSM2 and ANN simulated daily and monthly turbidity at San Joaquin River at Prisoner's Point (all data).

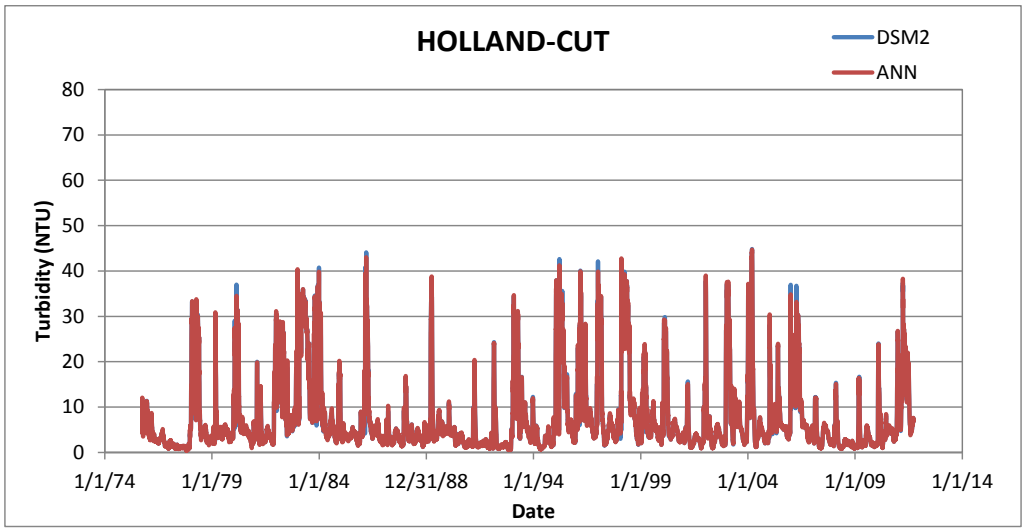
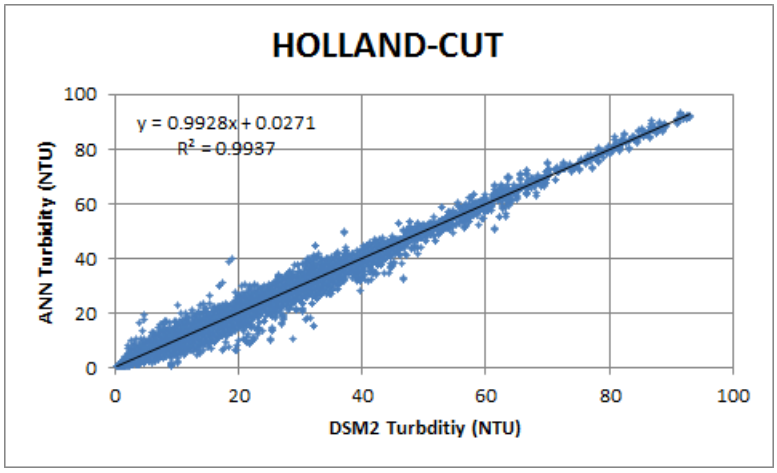


Figure D-9 DSM2 and ANN simulated turbidity at Old River @ Holland Cut (scenario 5)



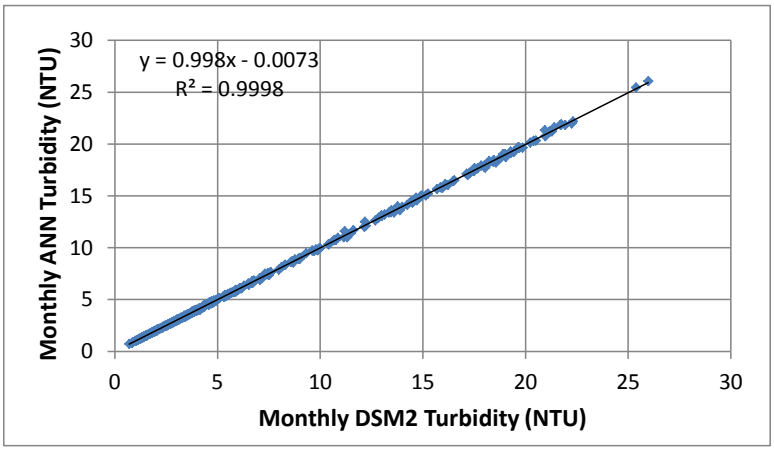


Figure D-10 DSM2 and ANN simulated daily and monthly turbidity at Old River at Holland Cut (all data).

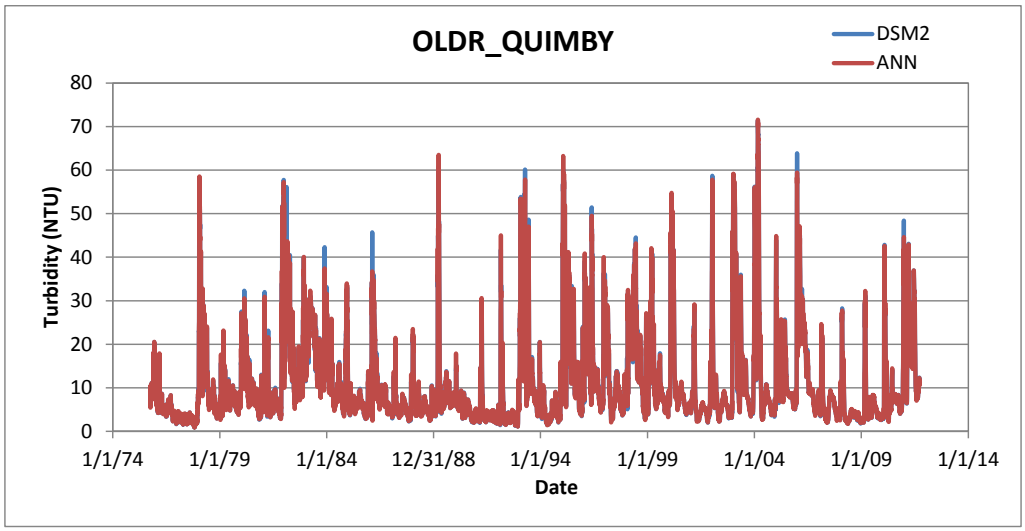


Figure D-11 DSM2 and ANN simulated turbidity at Old River at Quimby Island (scenario 5)

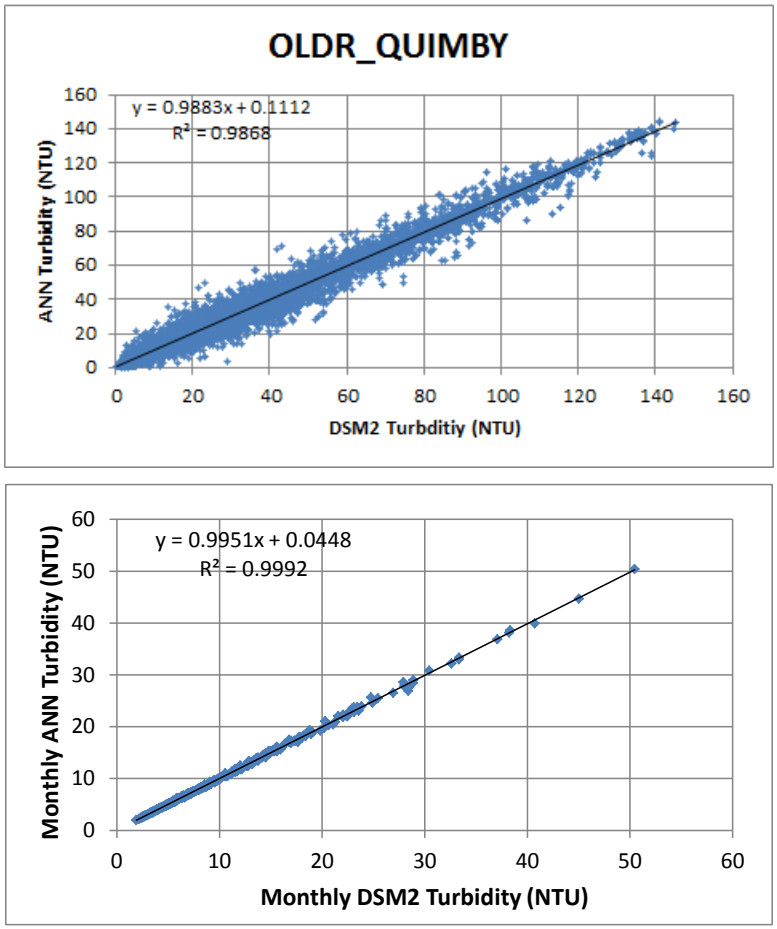


Figure D-12 DSM2 and ANN simulated turbidity at Old River at Quimby Island (all data)

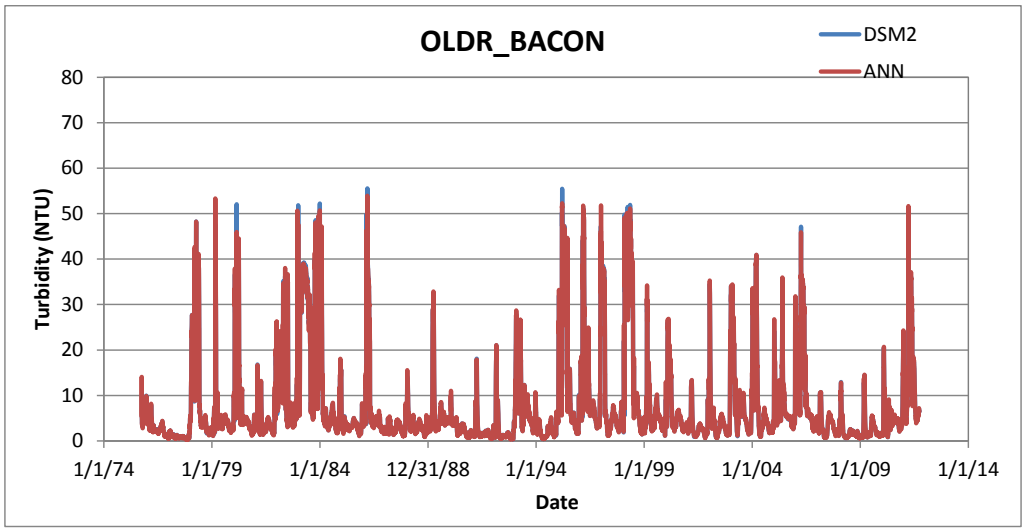


Figure D-13 DSM2 and ANN simulated turbidity at Old River at Bacon Island (scenario 5)

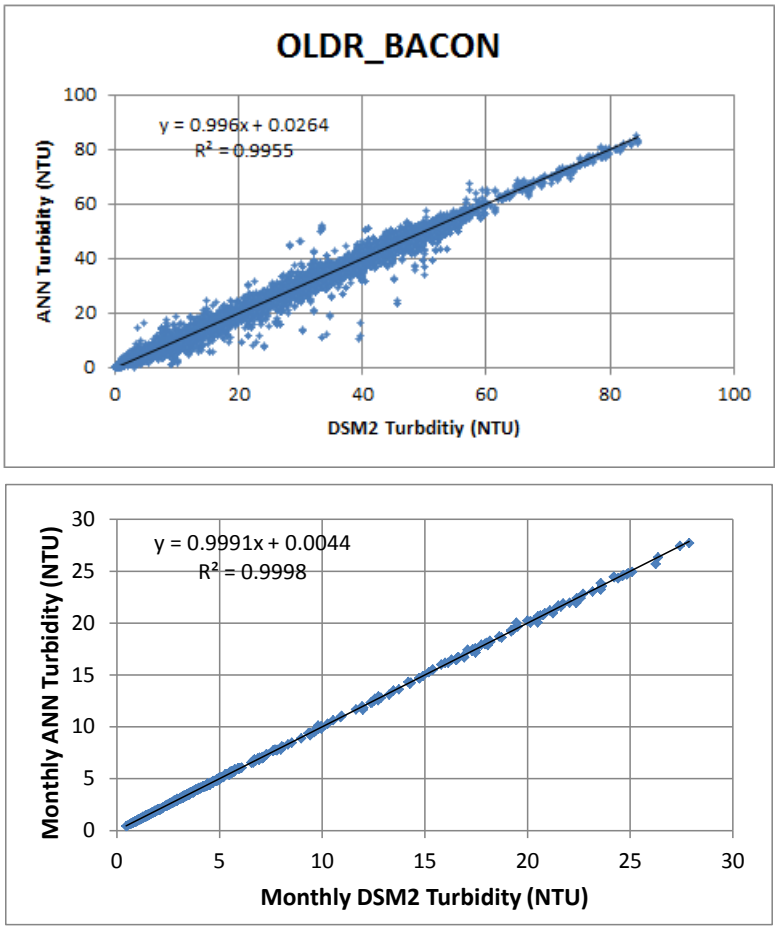


Figure D-14 DSM2 and ANN simulated turbidity at Old River at Bacon Island (all data)

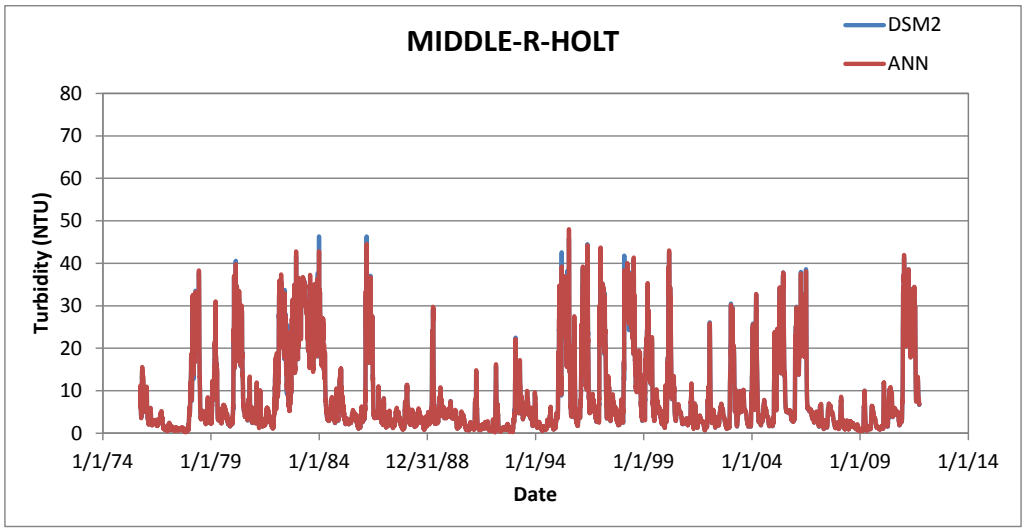


Figure D-15 DSM2 and ANN simulated turbidity at Middle River at Holt (scenario 5)

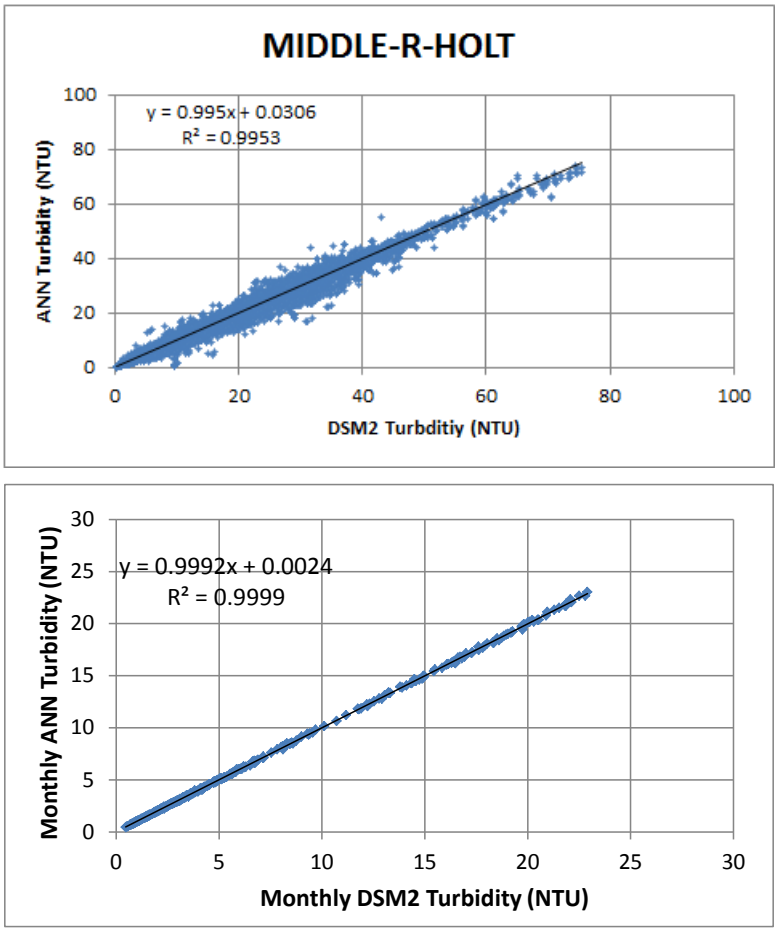


Figure D-16 DSM2 and ANN simulated turbidity at Middle River at Holt (all data)

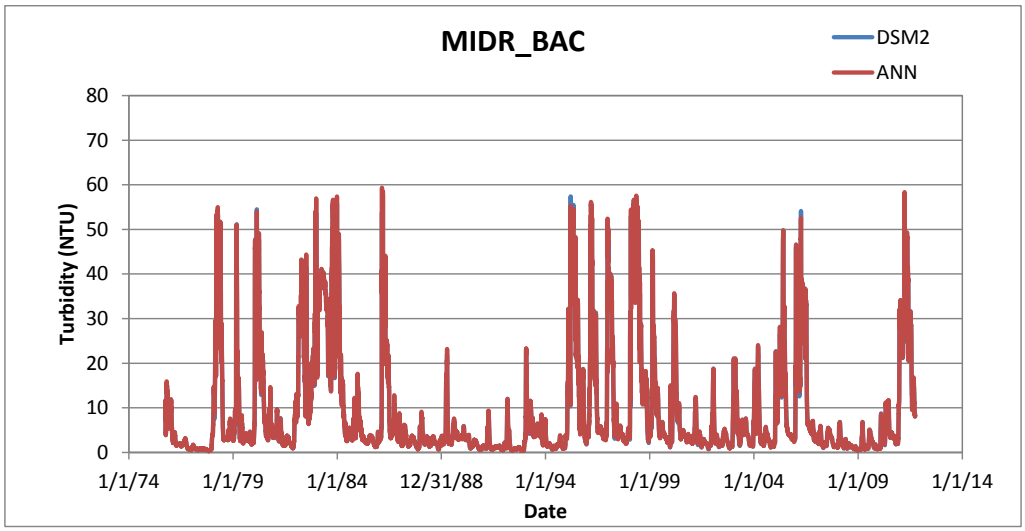
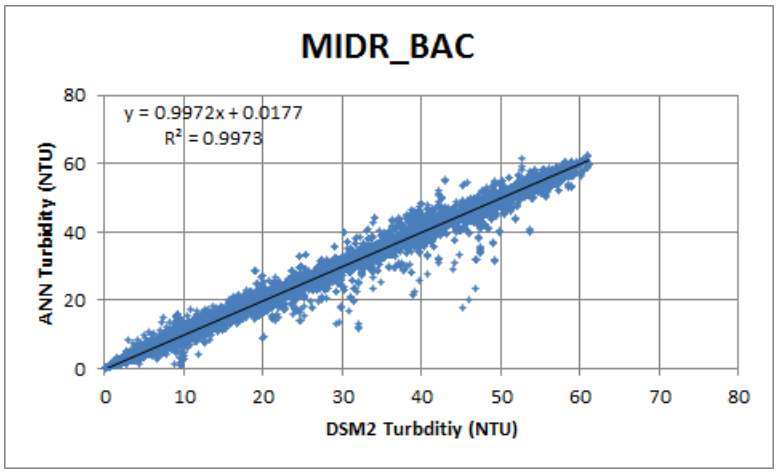


Figure D-17 DSM2 and ANN simulated turbidity at Middle River at Bacon Island (scenario 5)



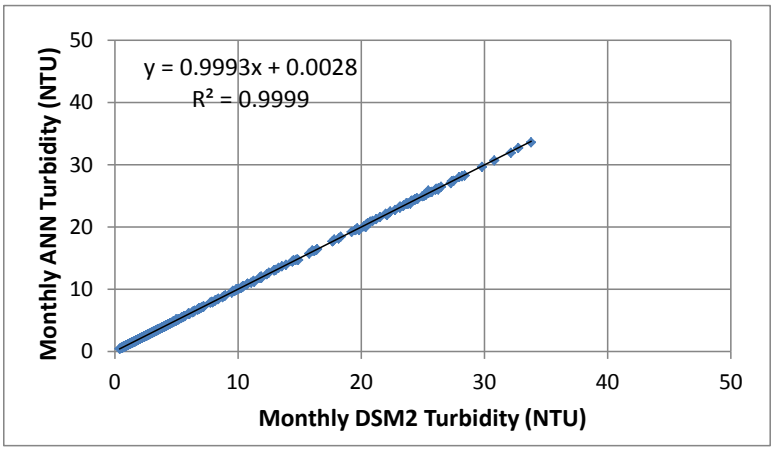


Figure D-18 DSM2 and ANN simulated turbidity at Middle River at Bacon Island (all data)

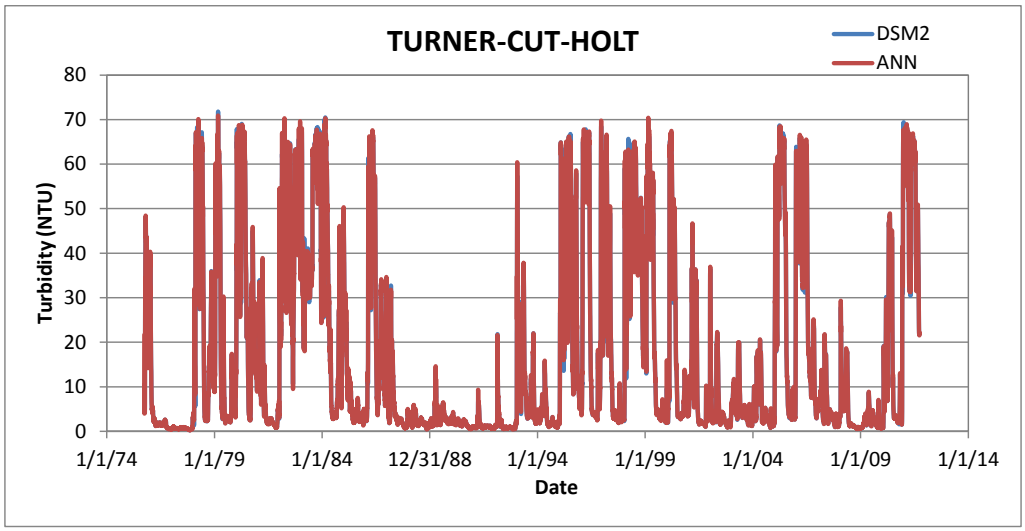
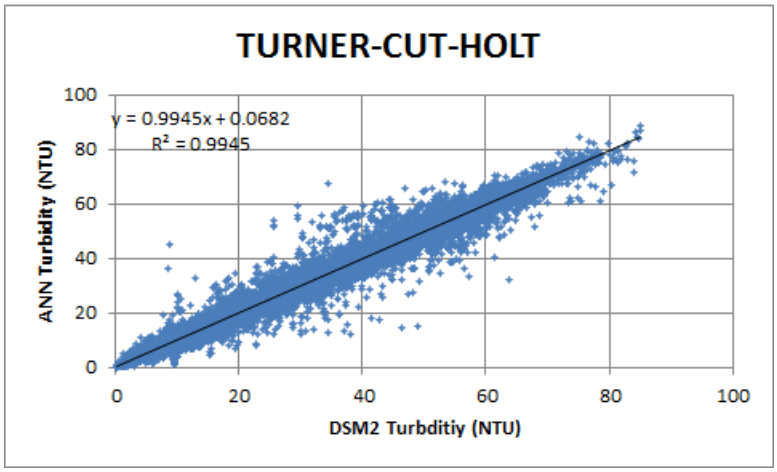


Figure D-19 DSM2 and ANN simulated turbidity at Turner Cut at Holt (scenario 5)



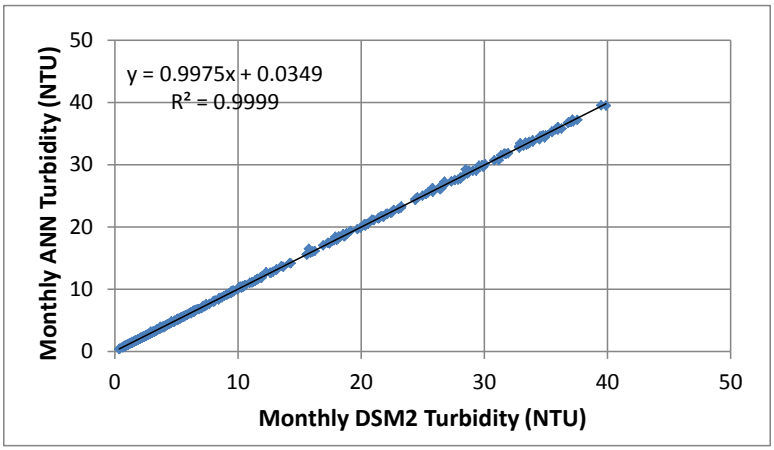


Figure D-20 DSM2 and ANN simulated turbidity at Turner Cut at Holt (all data)

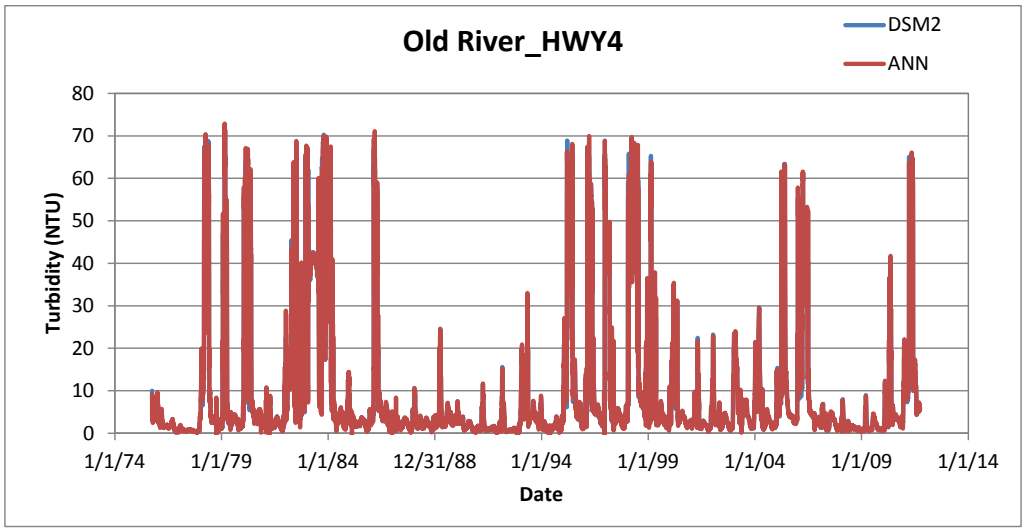


Figure D-21 DSM2 and ANN simulated turbidity at Old River at Highway 4 (scenario 5)

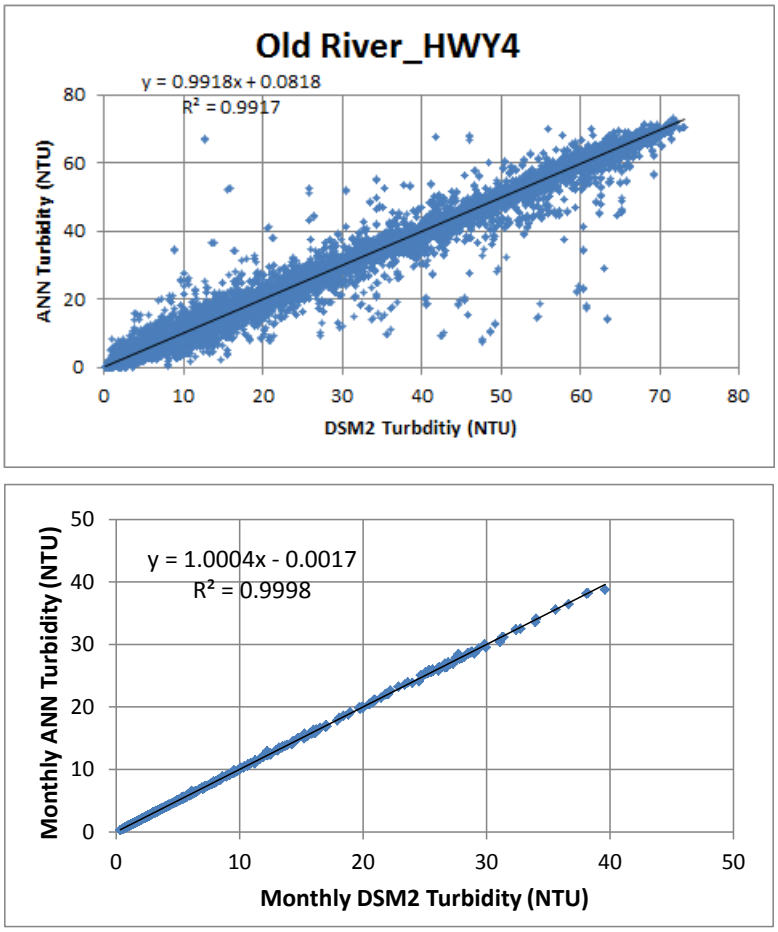


Figure D-22 DSM2 and ANN simulated turbidity at Old River at Highway 4 (all data)

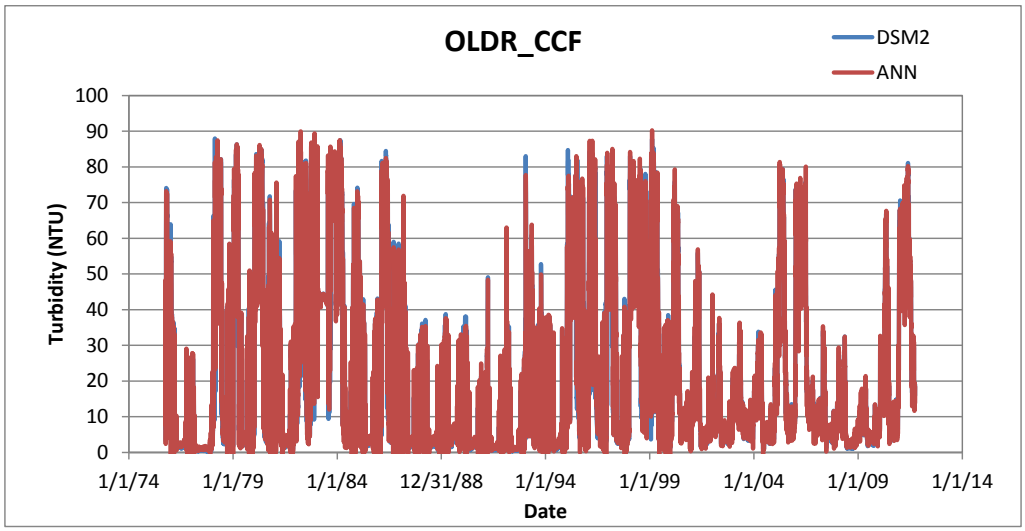


Figure D-23 DSM2 and ANN simulated turbidity at Old River at Clifton Court Intake (scenario 5)

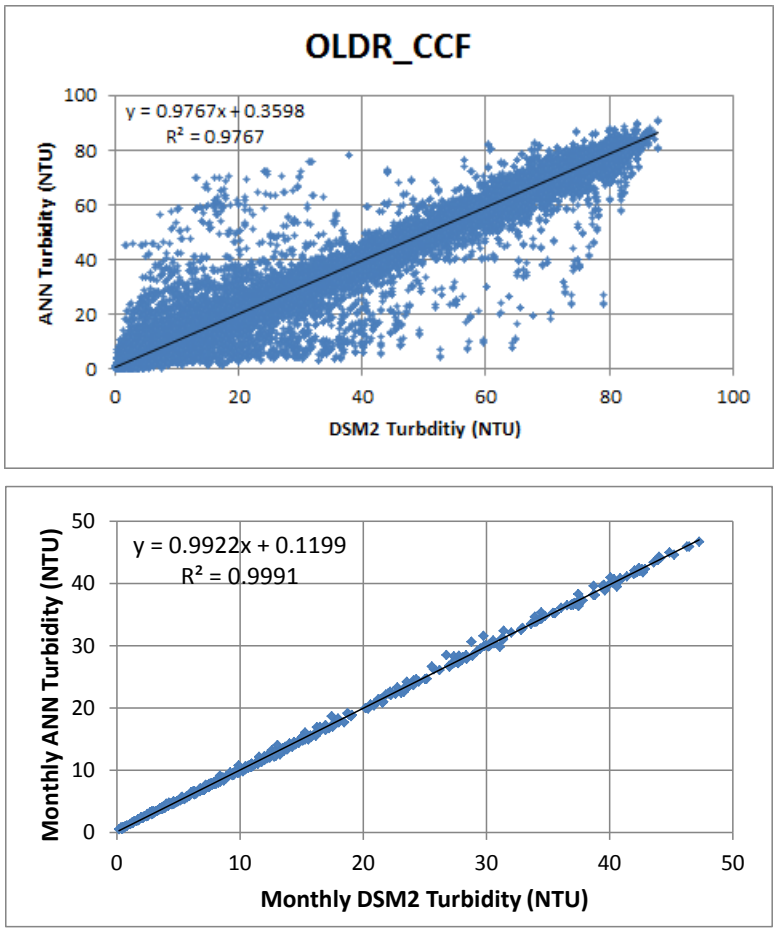


Figure D-24 DSM2 and ANN simulated turbidity at Old River at Clifton Court Intake (all data)

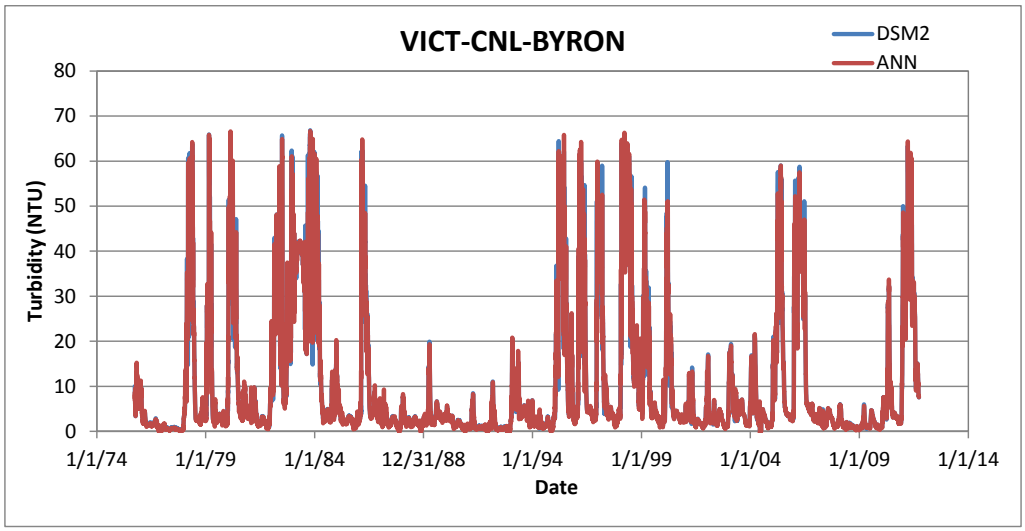


Figure D-25 DSM2 and ANN simulated turbidity at Victoria Canal (scenario 5)

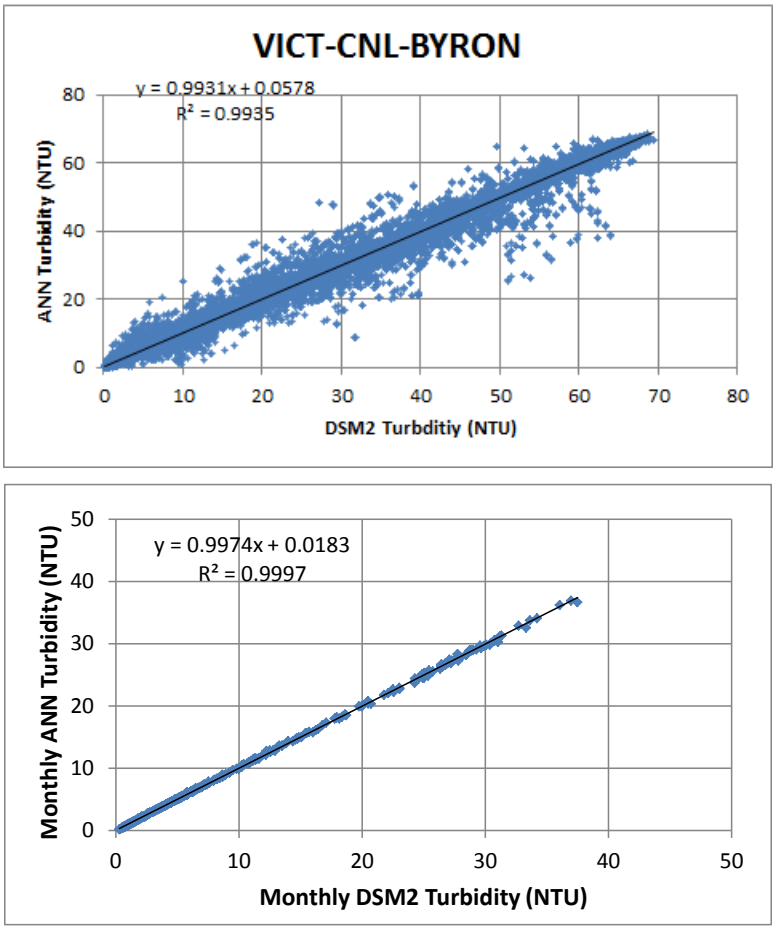


Figure D-26 DSM2 and ANN simulated turbidity at Victoria Canal (all data)

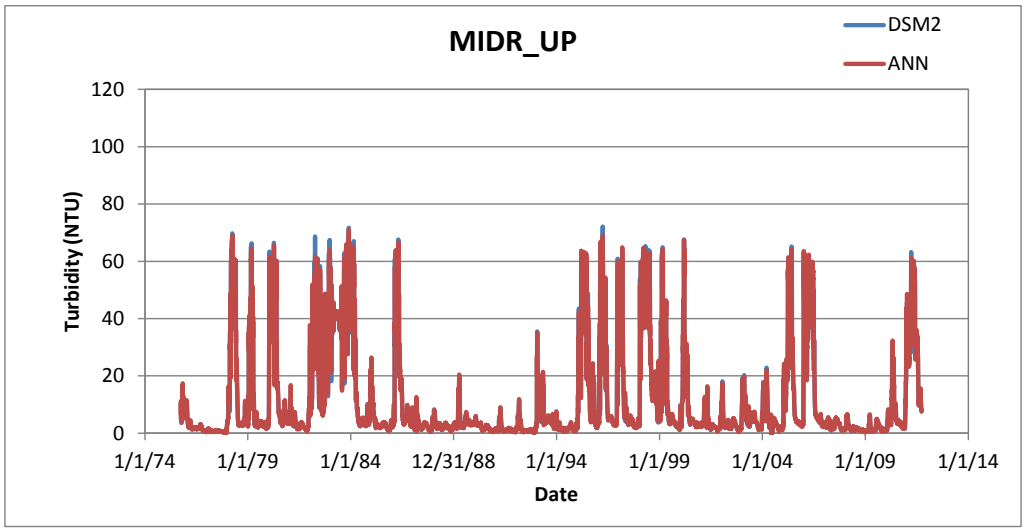
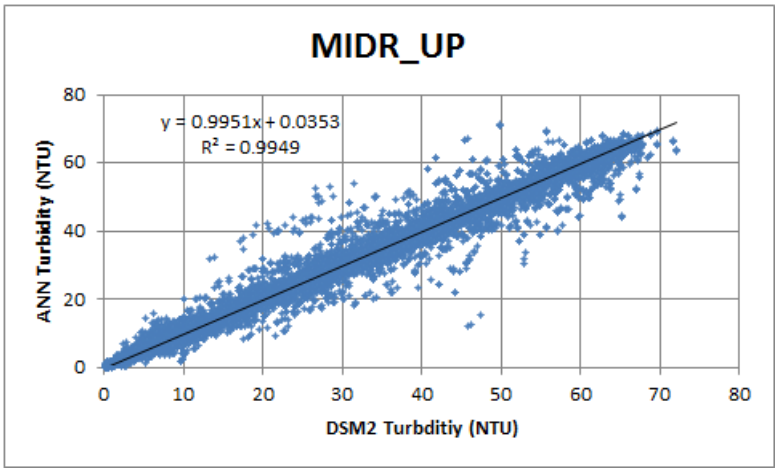


Figure D-27 DSM2 and ANN simulated turbidity at Middle River at Union Point (scenario 5)



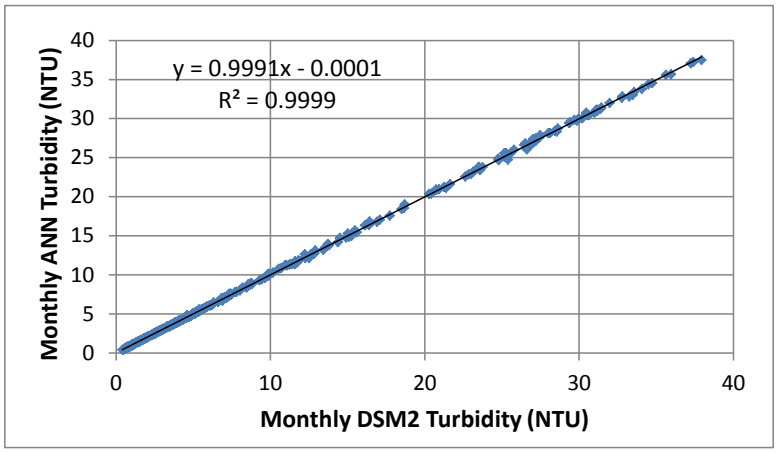


Figure D-28 DSM2 and ANN simulated turbidity at Middle River at Union Point (all data)

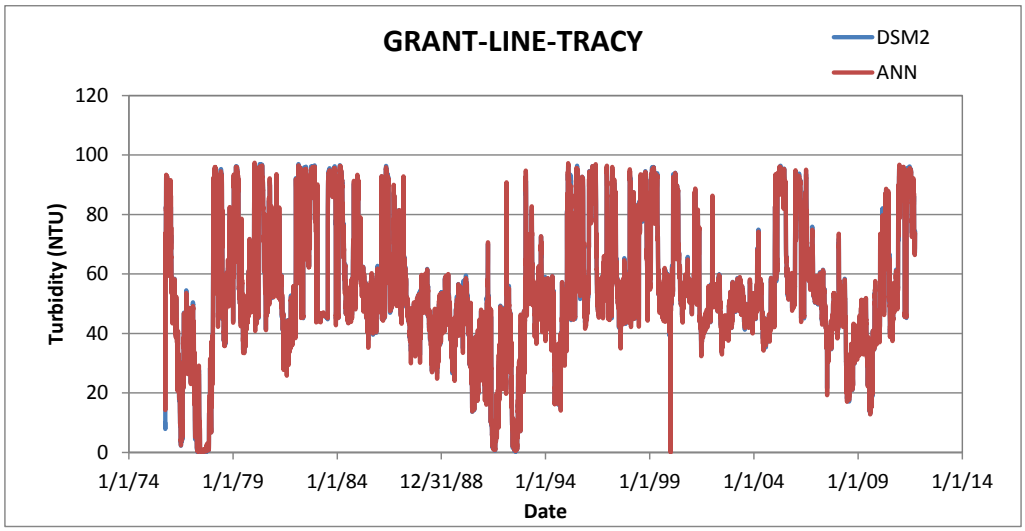


Figure D-29 DSM2 and ANN simulated turbidity at Grant Line Canal at Tracy (scenario 5)

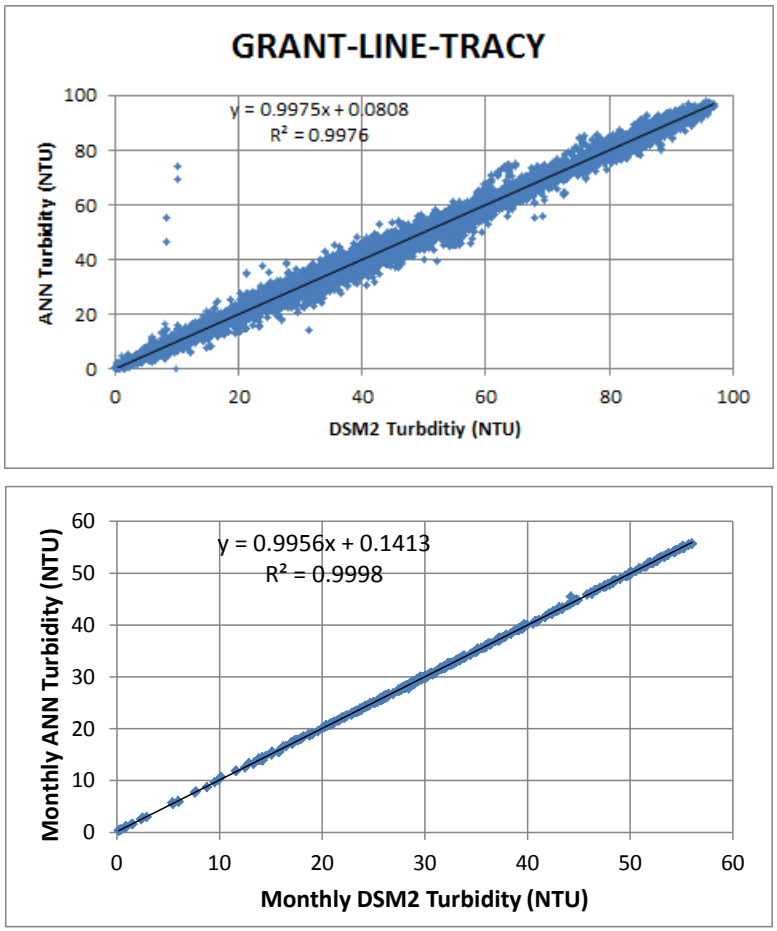


Figure D-30 DSM2 and ANN simulated turbidity at Grant Line Canal at Tracy (all data)

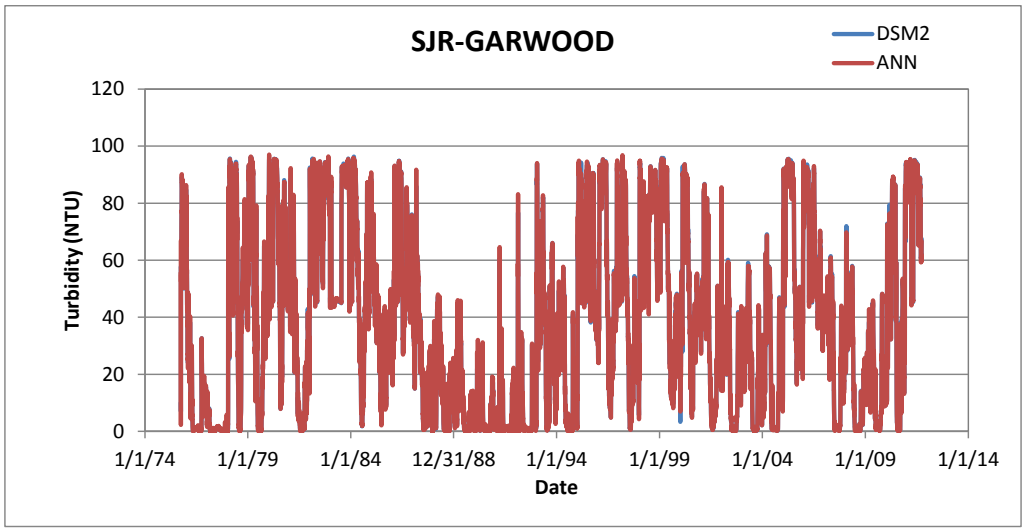


Figure D-31 DSM2 and ANN simulated turbidity at San Joaquin River at Garwood (scenario 5)

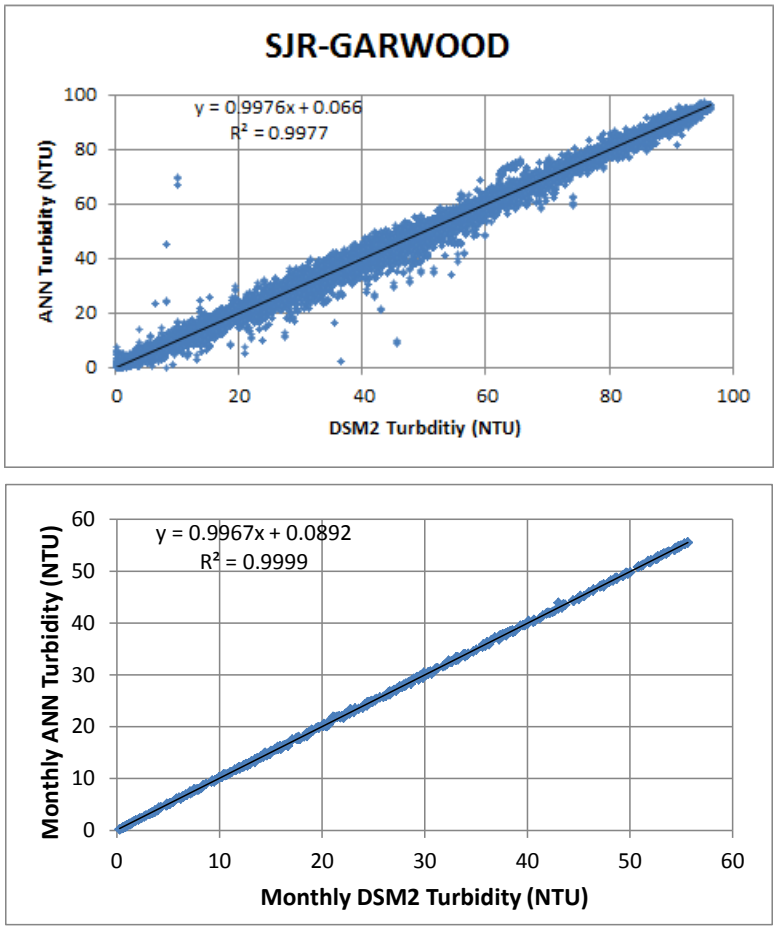


Figure D-32 DSM2 and ANN simulated turbidity at San Joaquin River at Garwood (all data)

APPENDIX E: RESIDUAL ANALYSIS FOR FEED-FORWARD NETWORKS

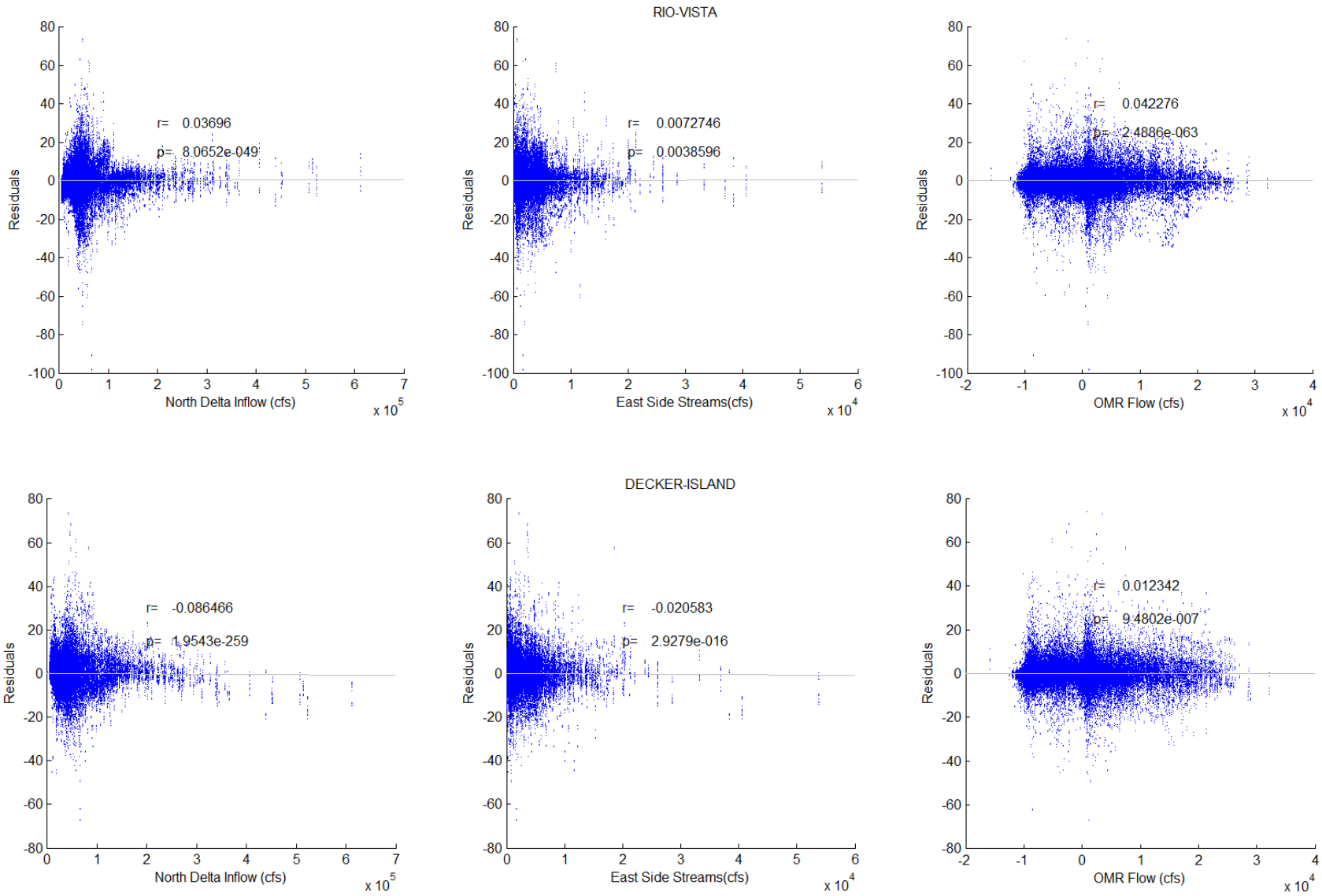


Figure E-1 Correlation between residuals and inputs of flow to the ANN model

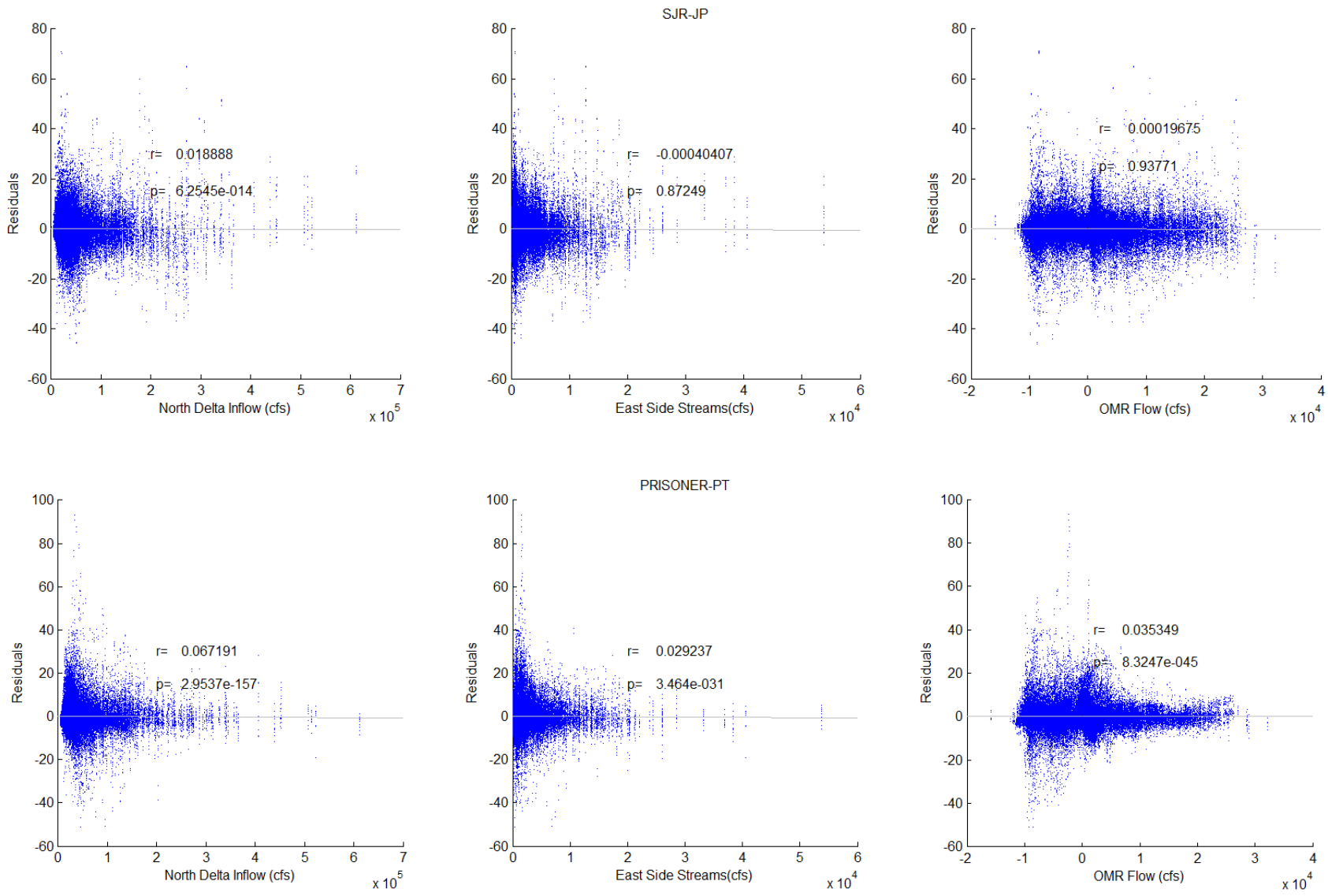


Figure E-1 (continued) Correlation between residuals and inputs of flow to the ANN model

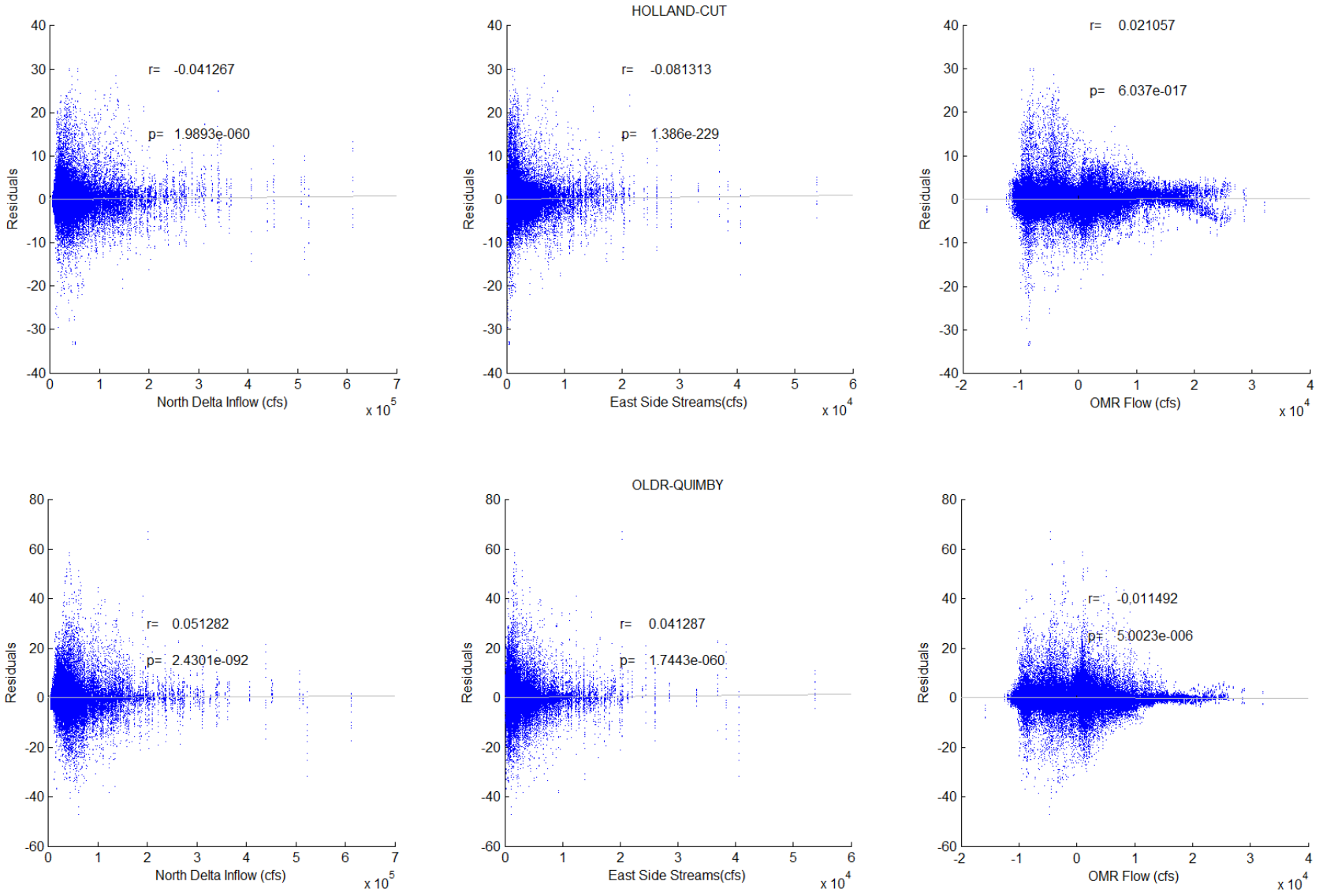


Figure E-1 (continued) Correlation between residuals and inputs of flow to the ANN model

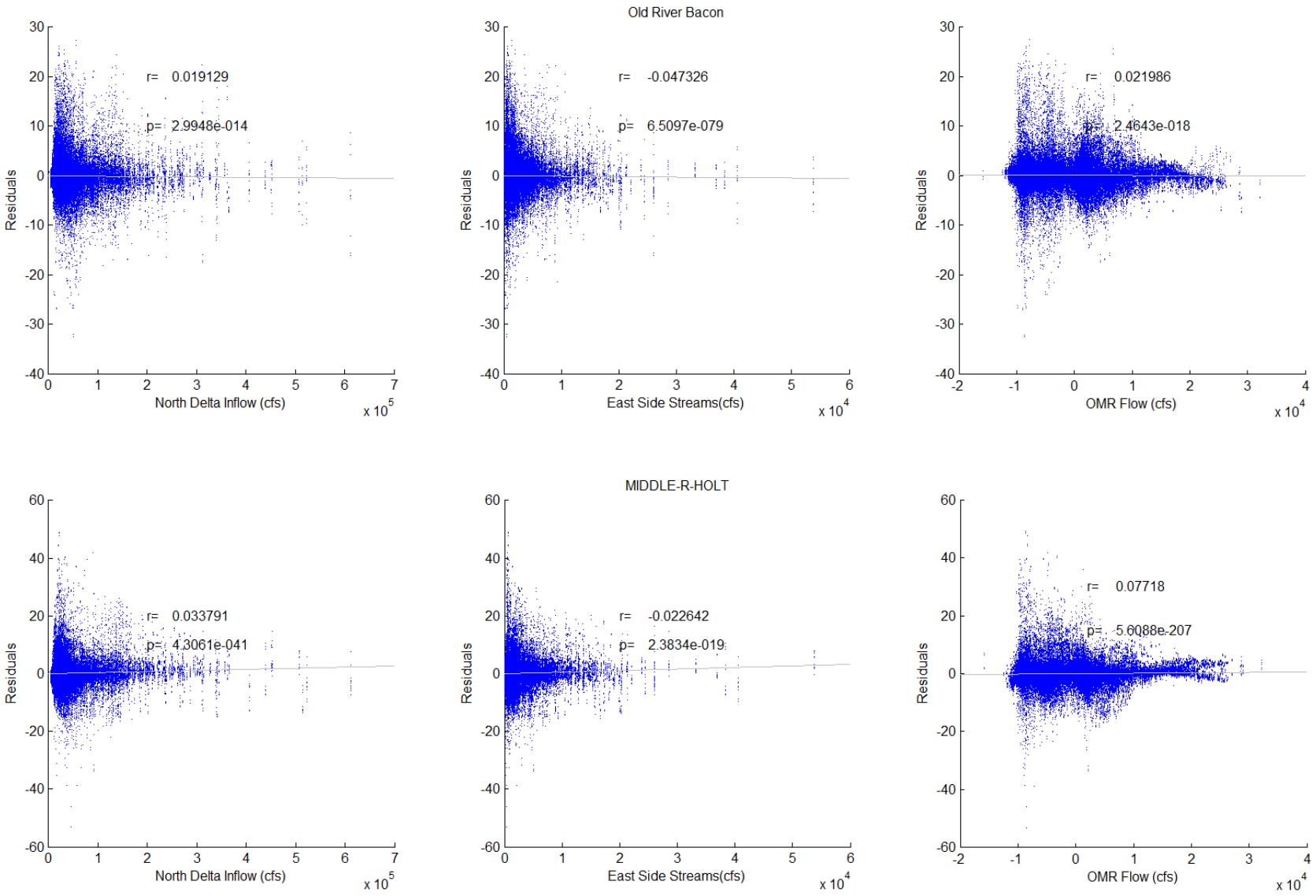


Figure E-1 (continued) Correlation between residuals and inputs of flow to the ANN model

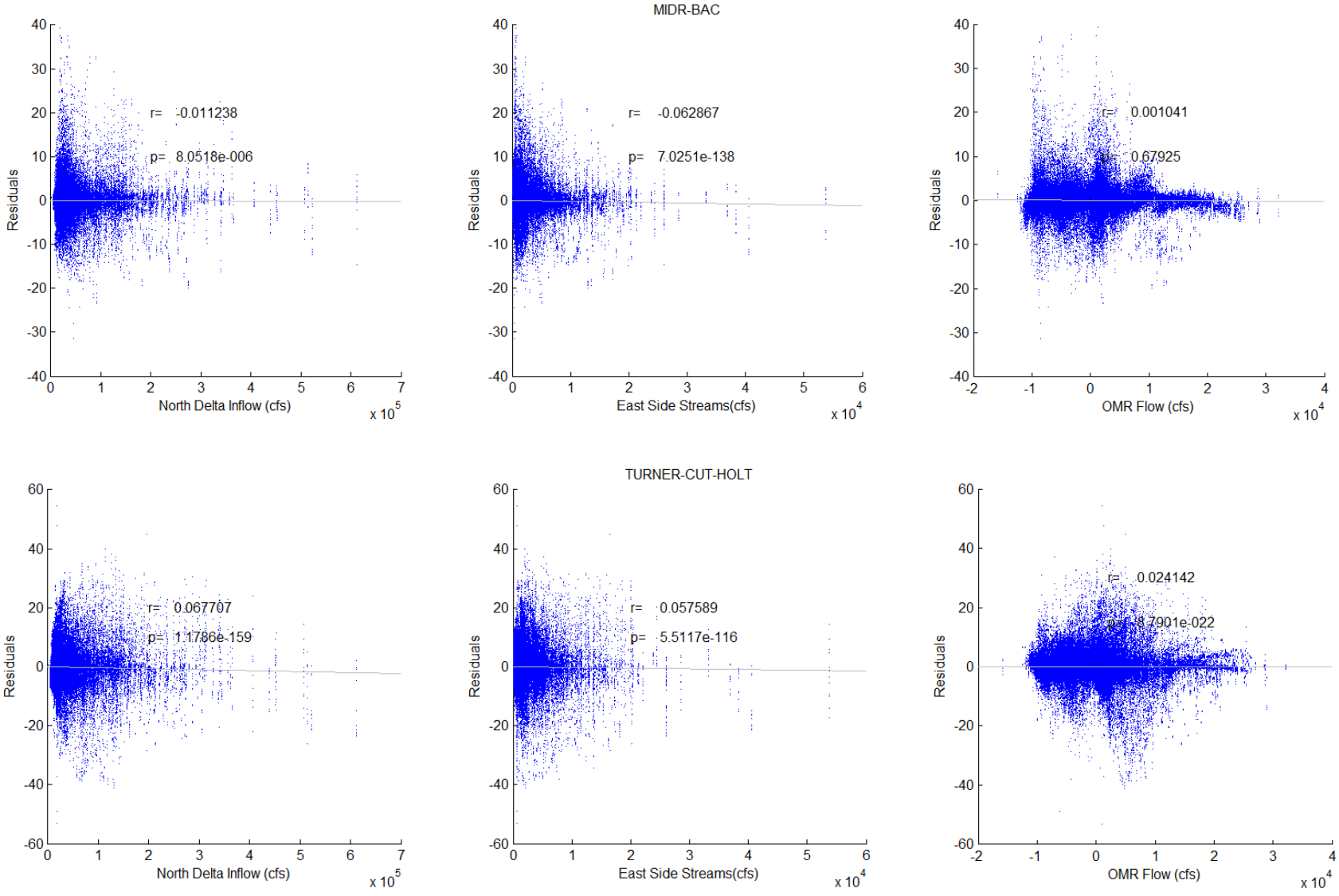


Figure E-1 (continued) Correlation between residuals and inputs of flow to the ANN model

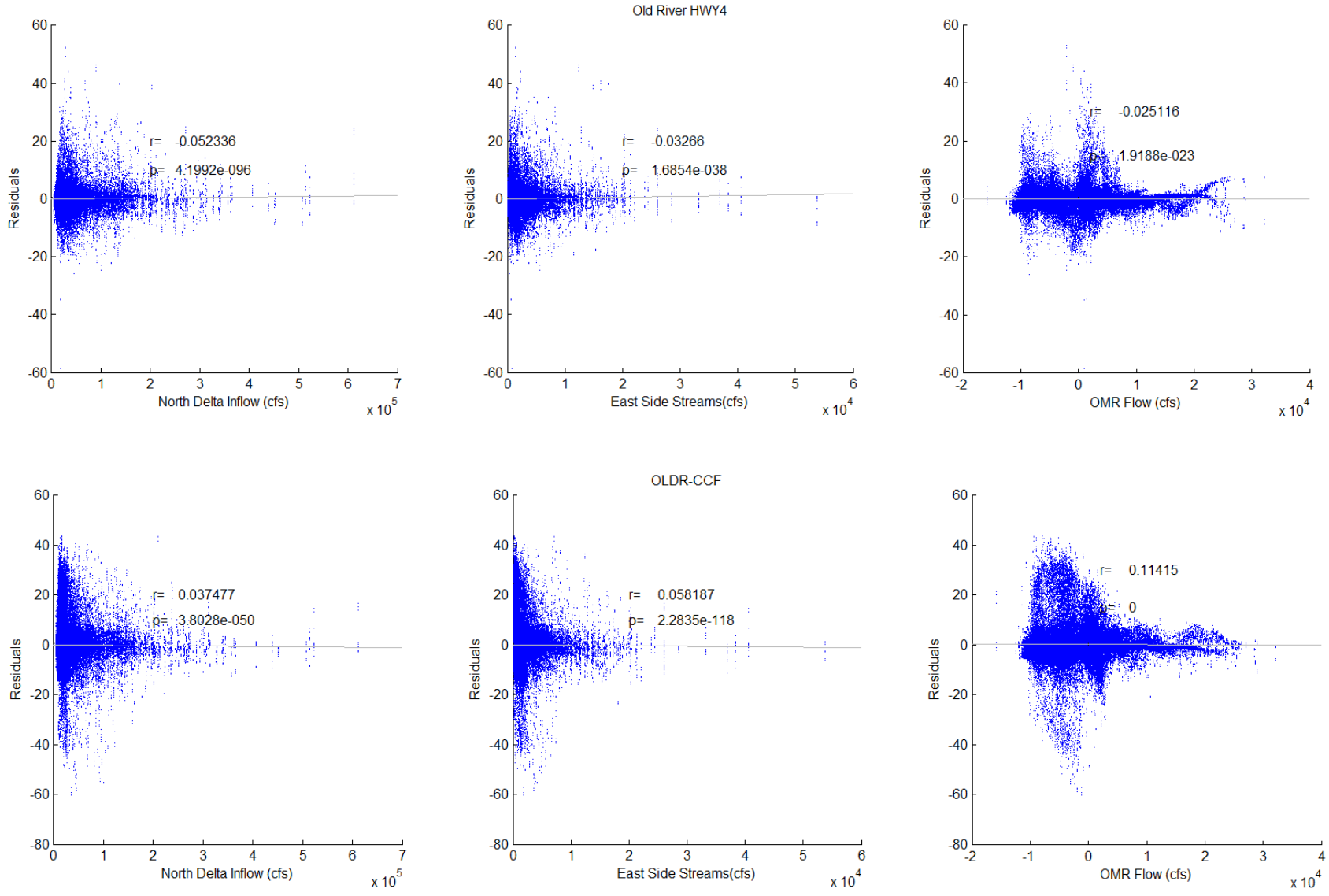


Figure E-1 (continued) Correlation between residuals and inputs of flow to the ANN model

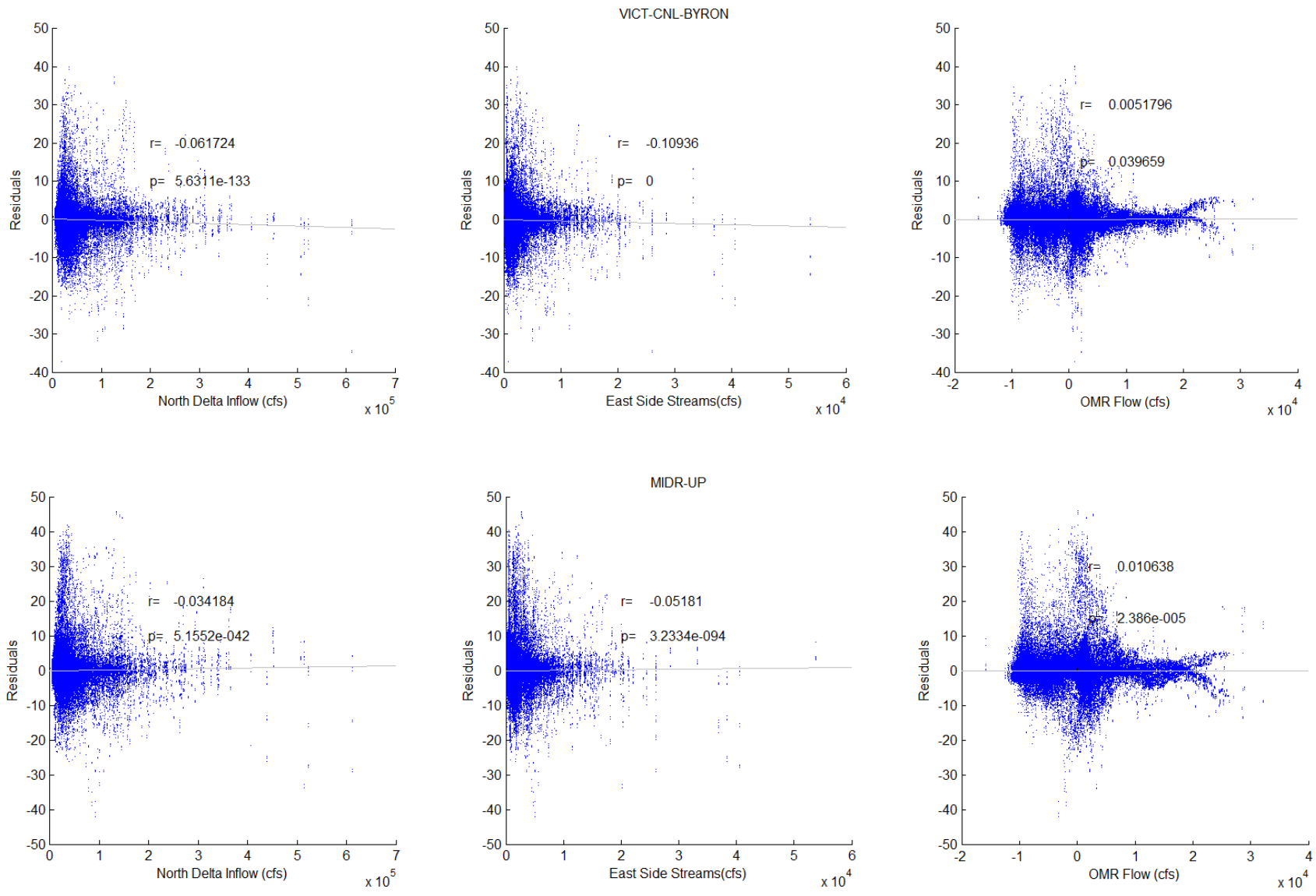


Figure E-1 (continued) Correlation between residuals and inputs of flow to the ANN model

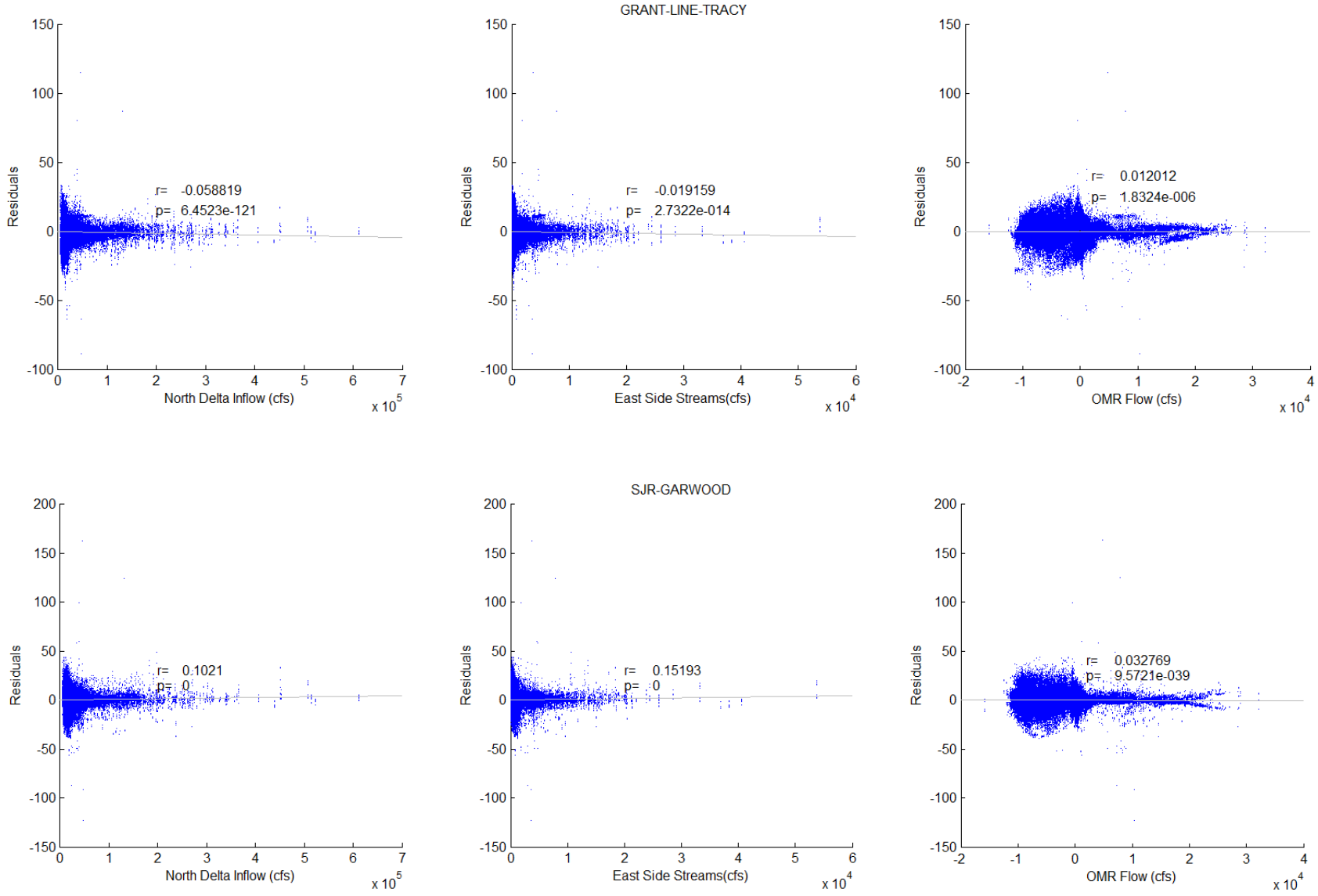


Figure E-1 (continued) Correlation between residuals and inputs of flow to the ANN model

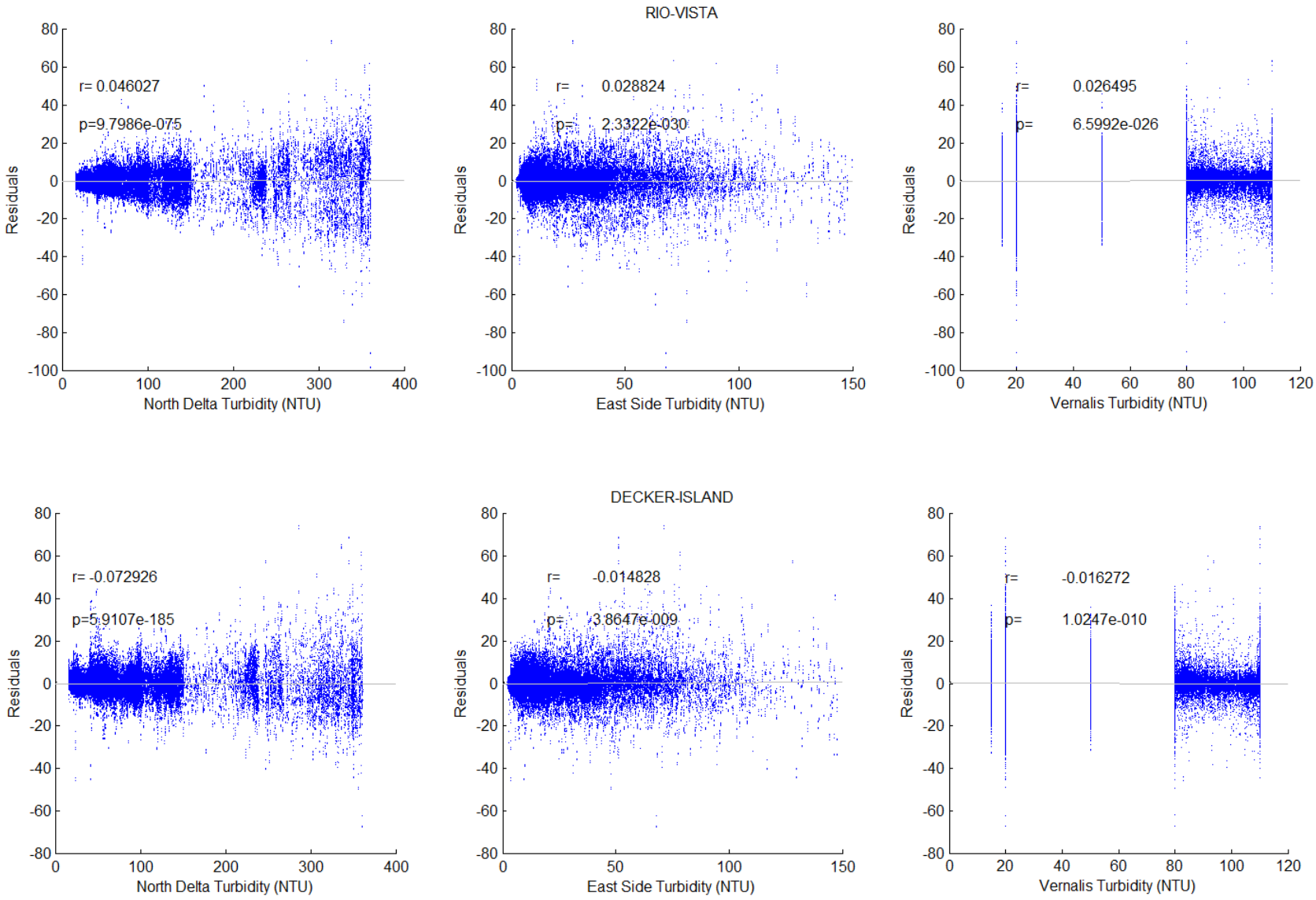


Figure E-2 Correlation between residuals and inputs of turbidity to the ANN mode

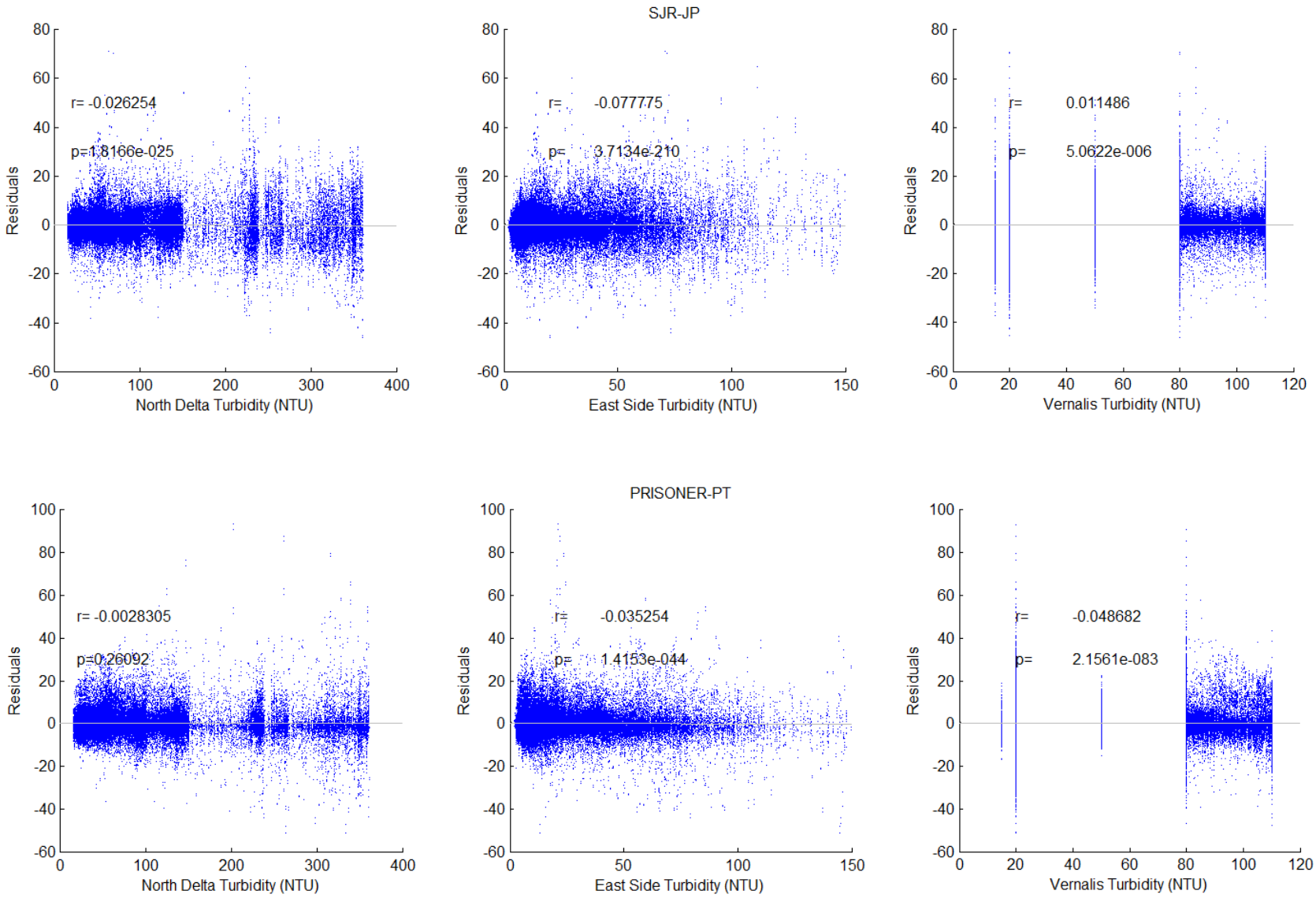


Figure E-2 (continued) Correlation between residuals and inputs of turbidity to the ANN mode

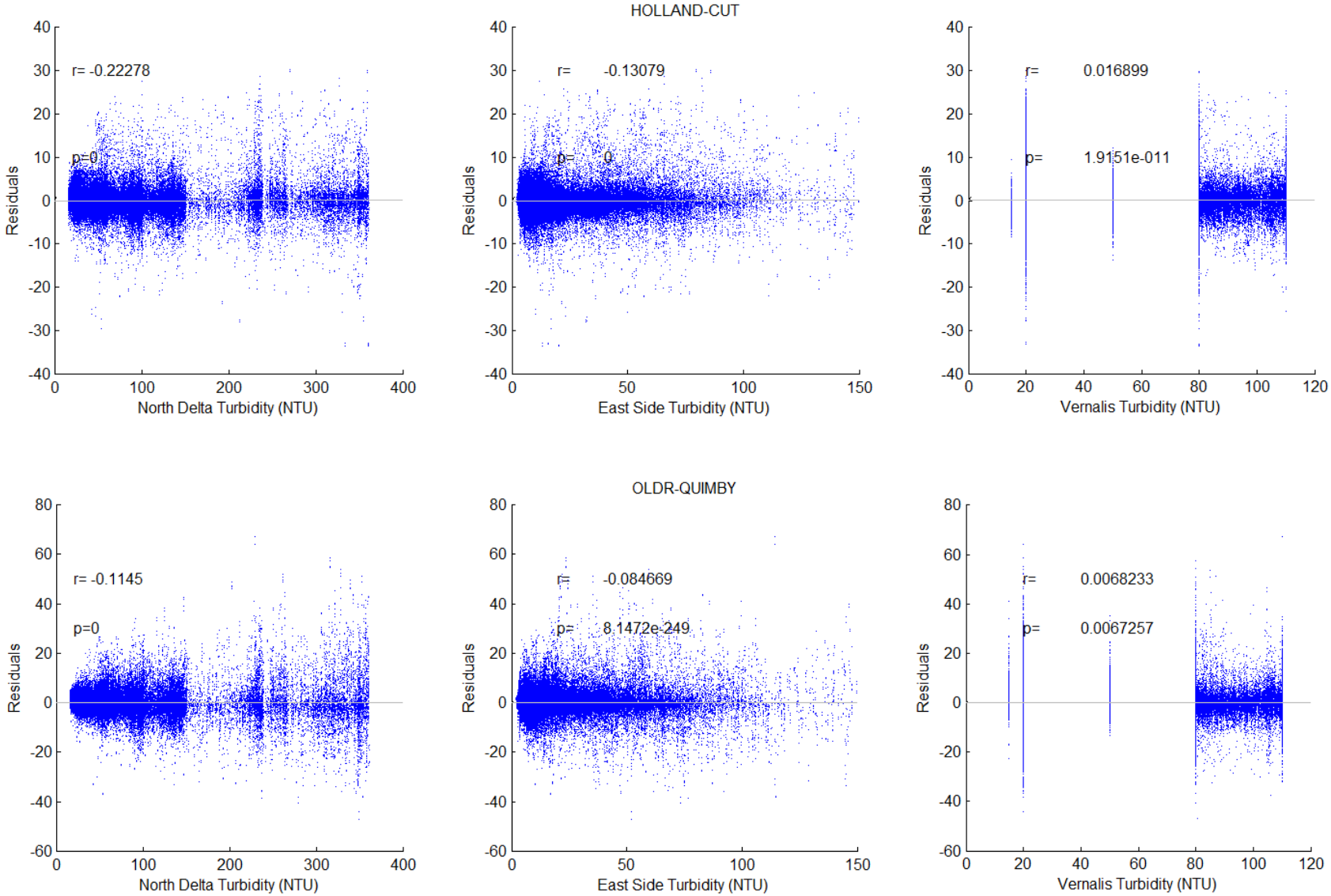


Figure E-2 (continued) Correlation between residuals and inputs of turbidity to the ANN mode

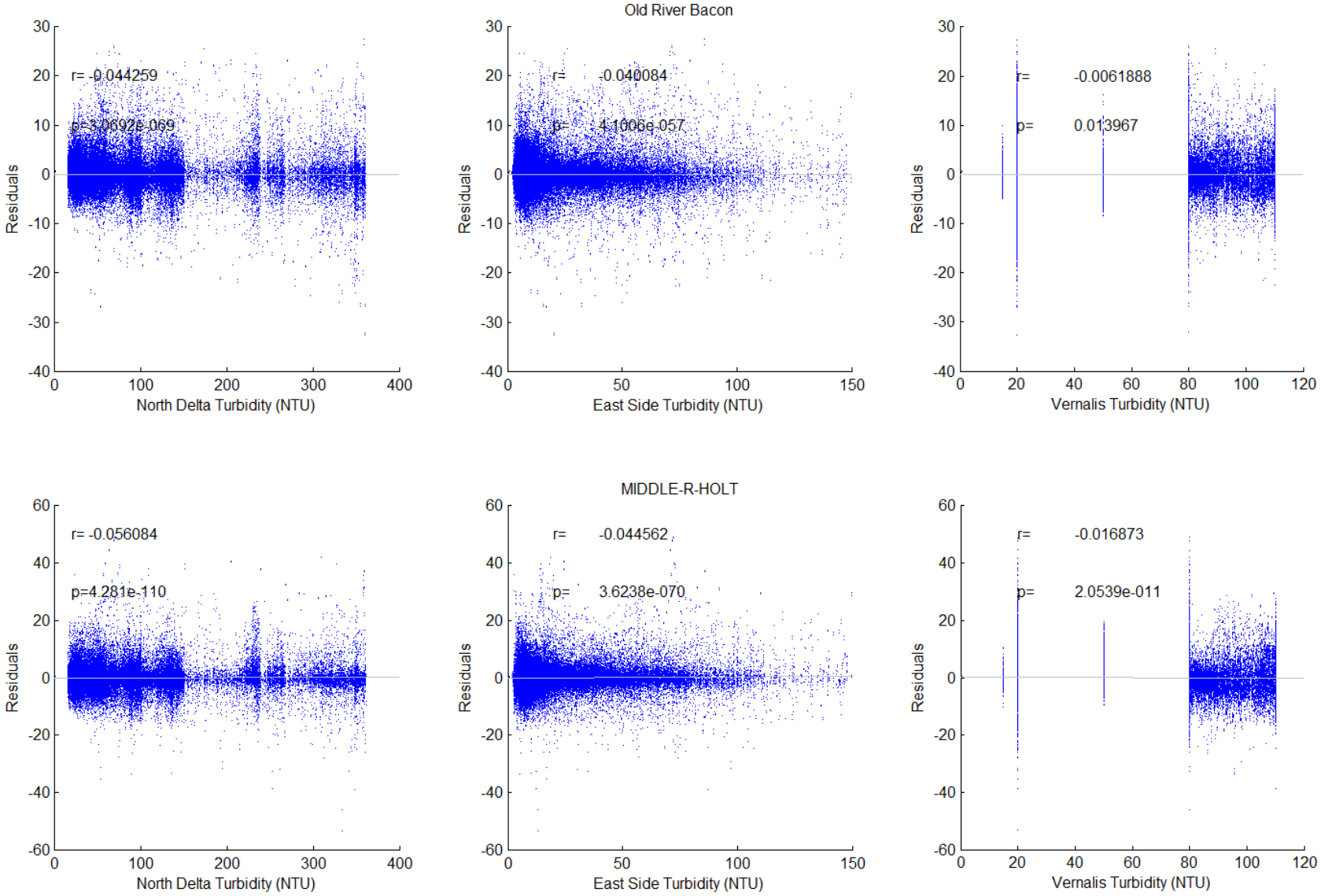


Figure E-2 (continued) Correlation between residuals and inputs of turbidity to the ANN mode

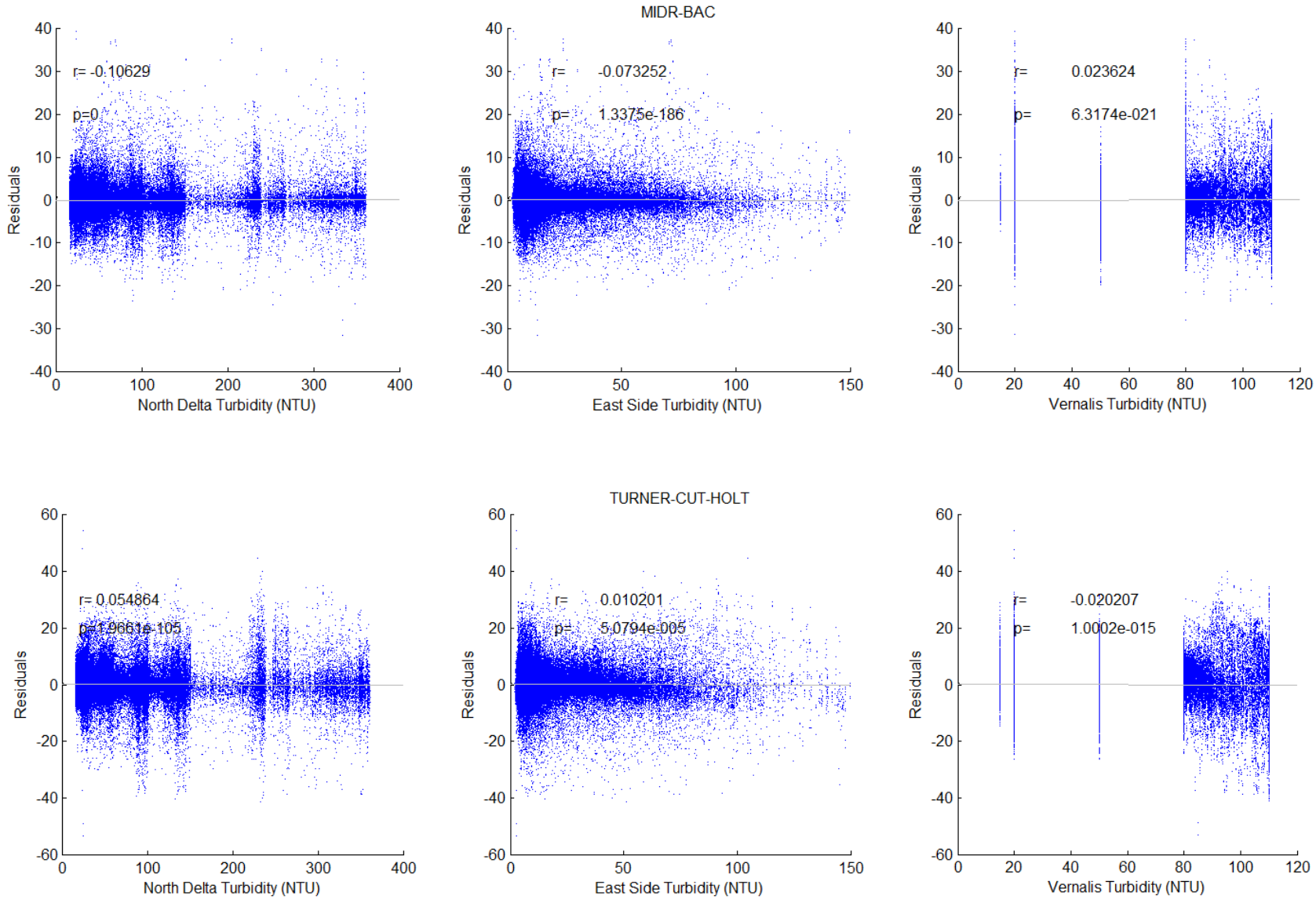


Figure E-2 (continued) Correlation between residuals and inputs of turbidity to the ANN mode

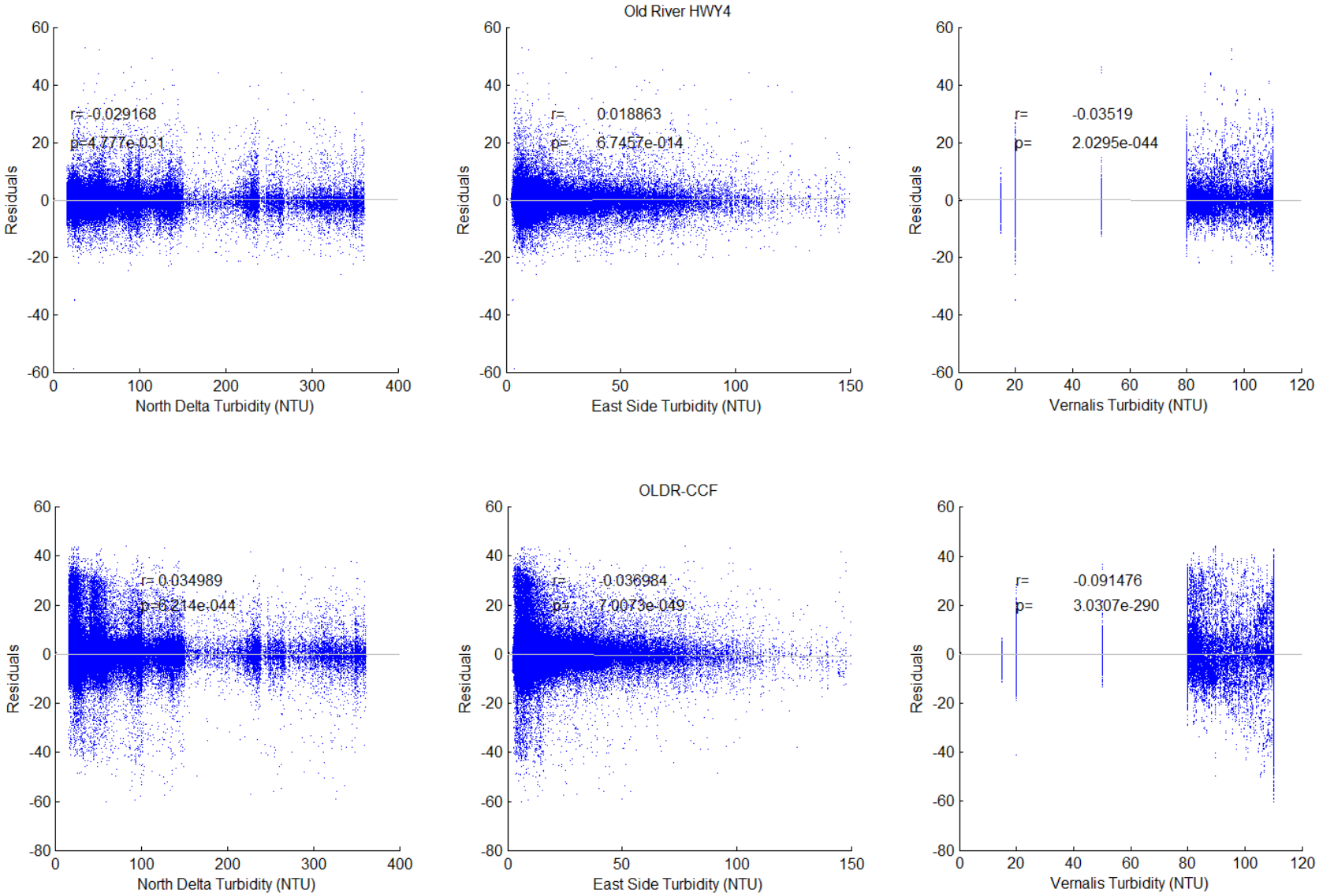


Figure E-2 (continued) Correlation between residuals and inputs of turbidity to the ANN mode

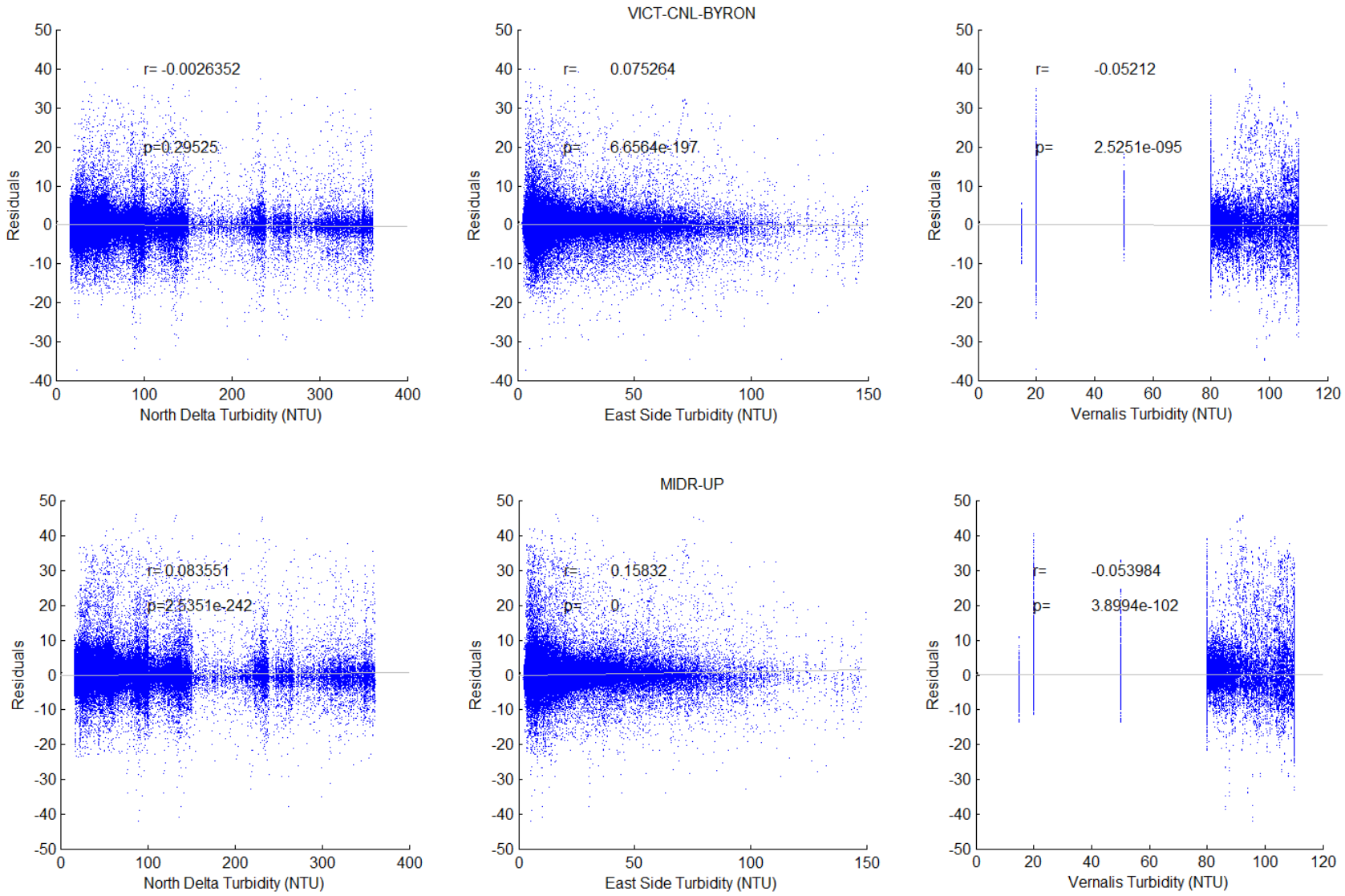


Figure E-2 (continued) Correlation between residuals and inputs of turbidity to the ANN mode

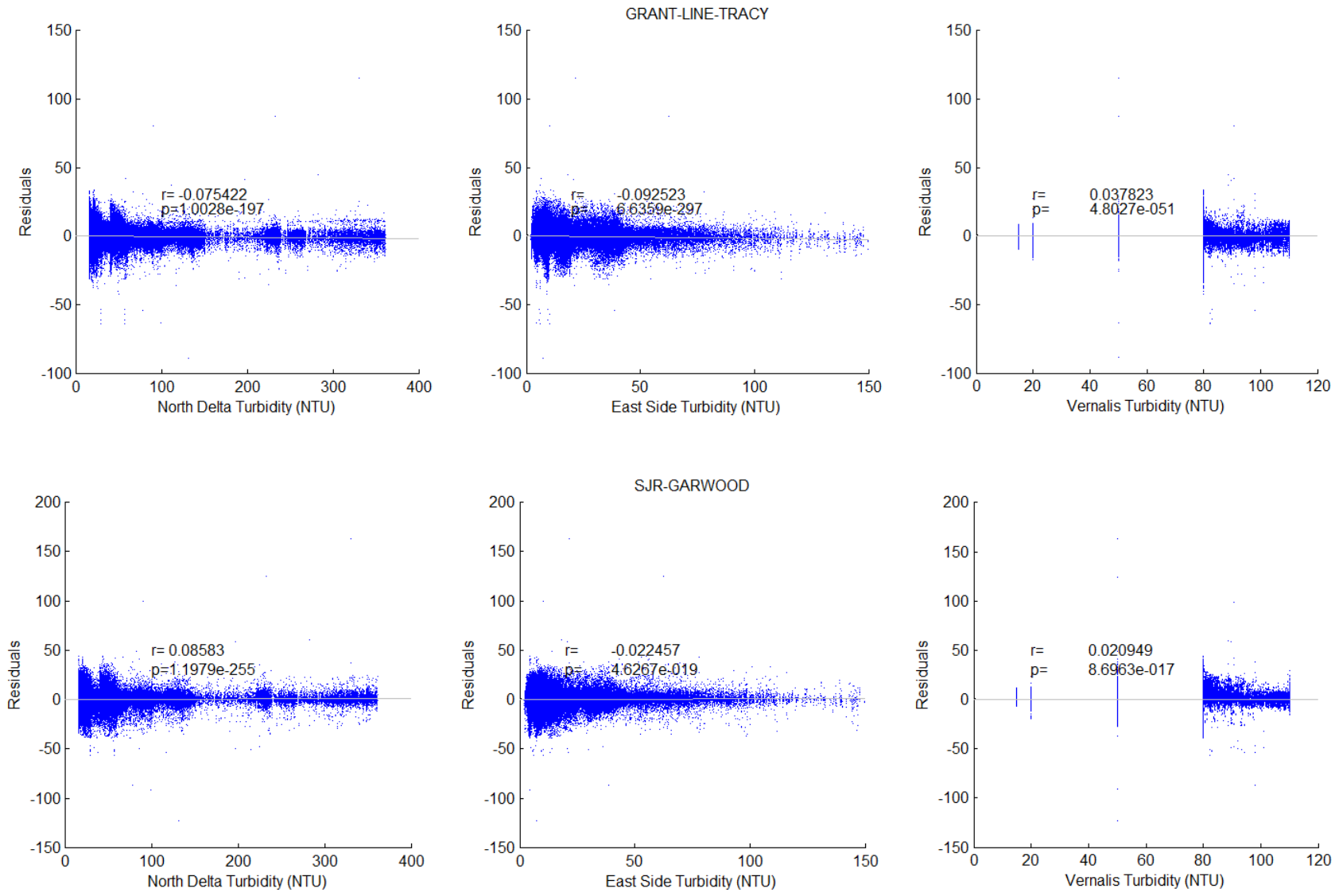


Figure E-2 (continued) Correlation between residuals and inputs of turbidity to the ANN mode

APPENDIX F: RESIDUAL ANALYSIS FOR NARX NETWORKS

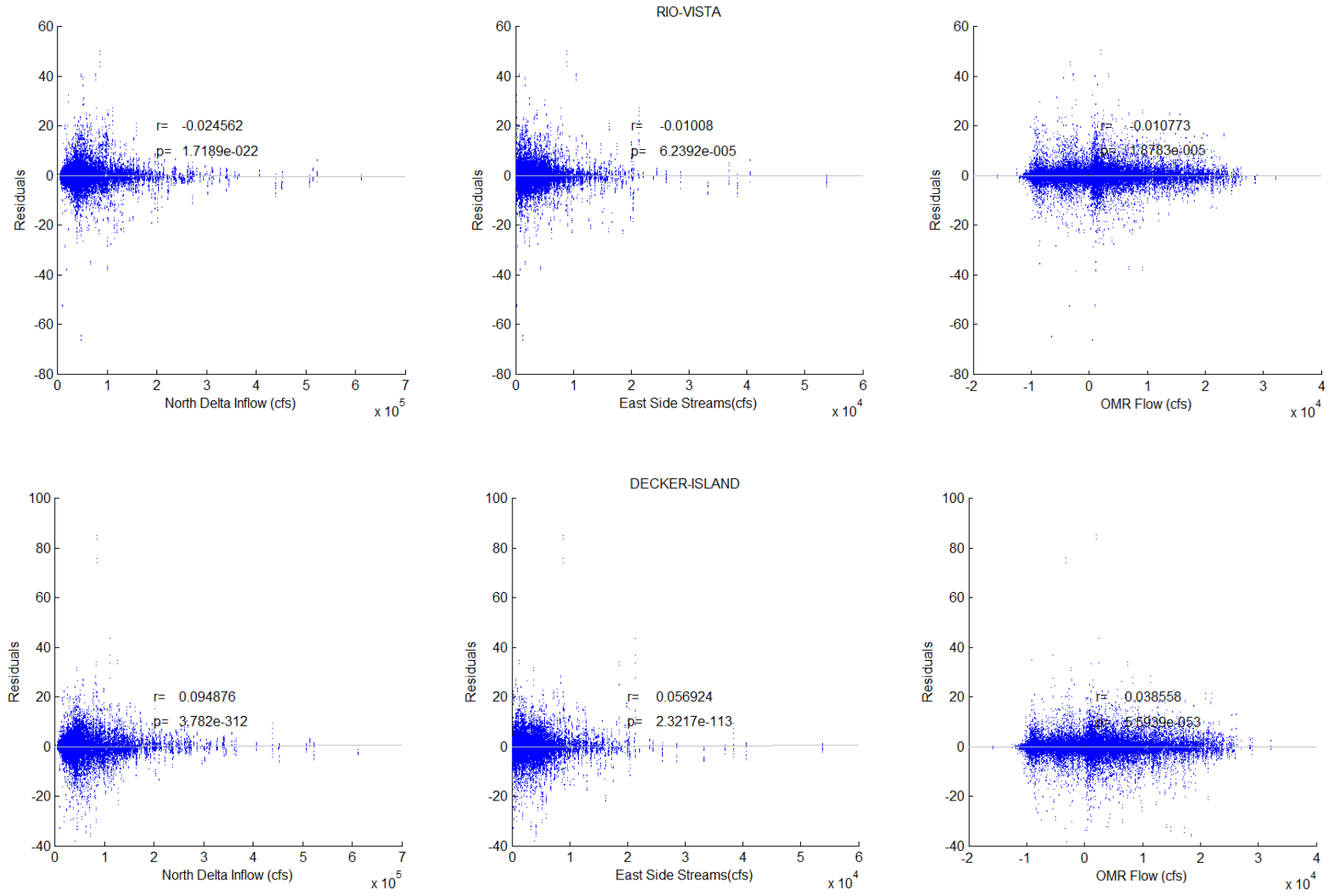


Figure F-1 Correlation between residuals and inputs of flow to the ANN model

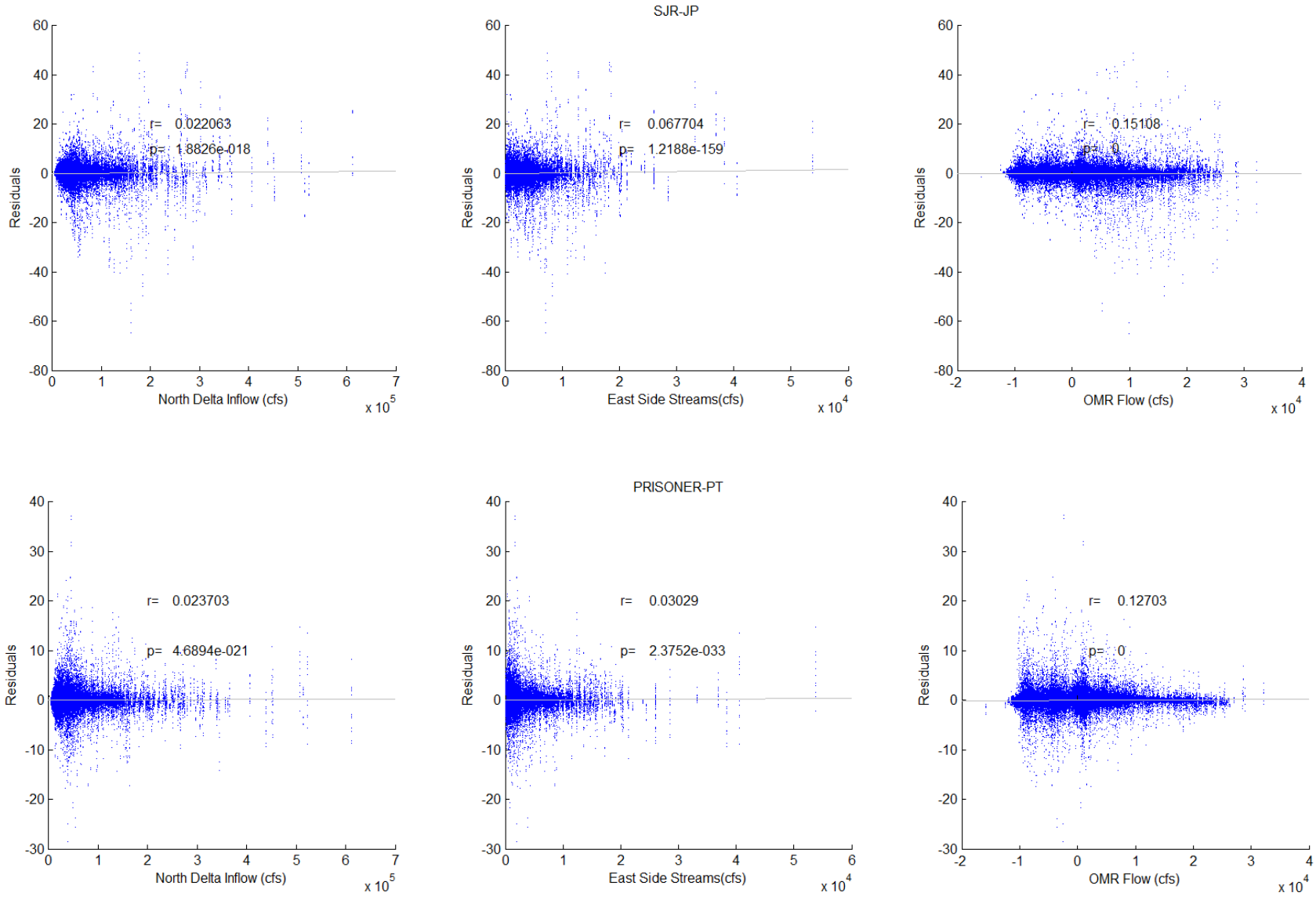


Figure F-1 (continued) Correlation between residuals and inputs of flow to the ANN model

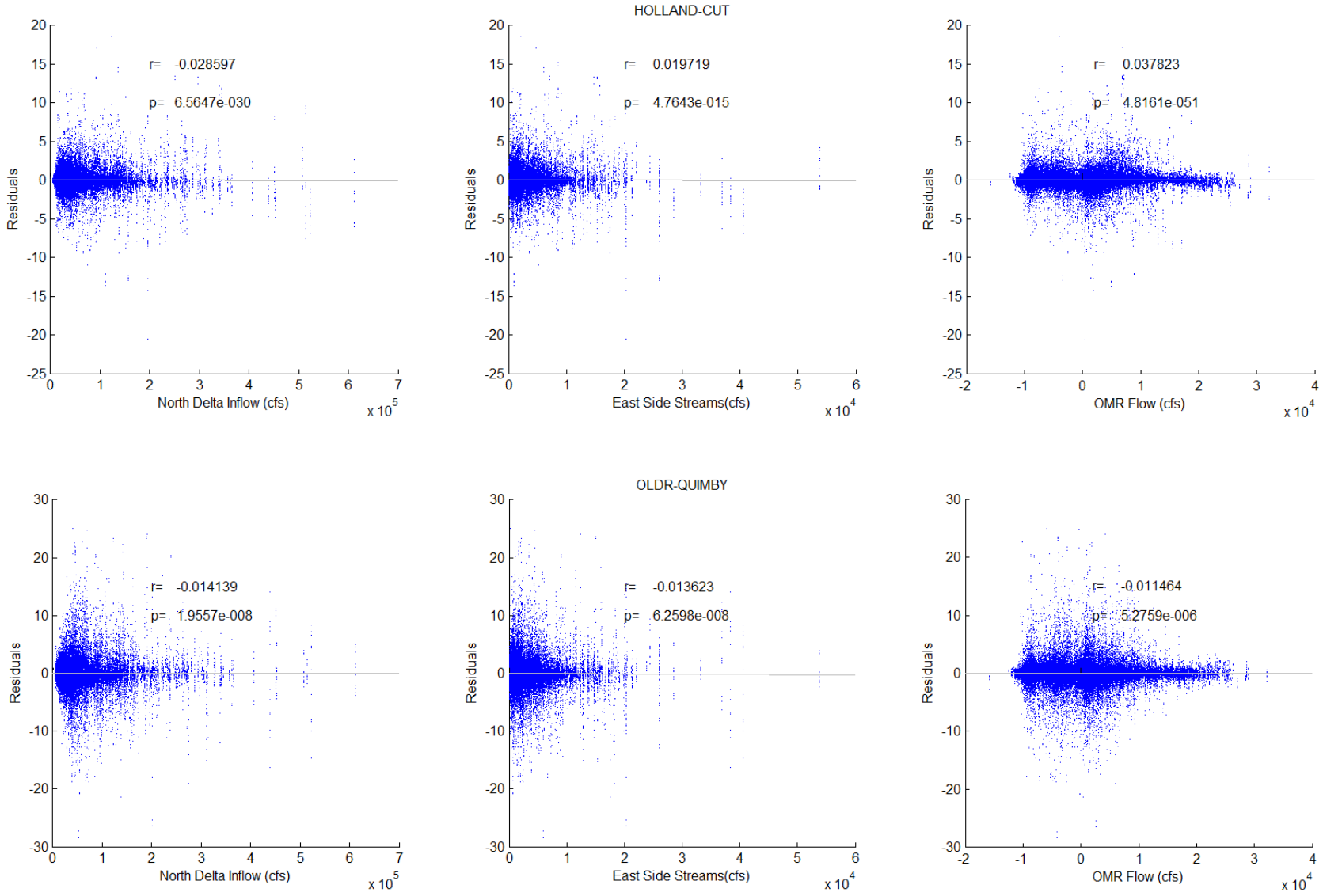


Figure F-1 (continued) Correlation between residuals and inputs of flow to the ANN model

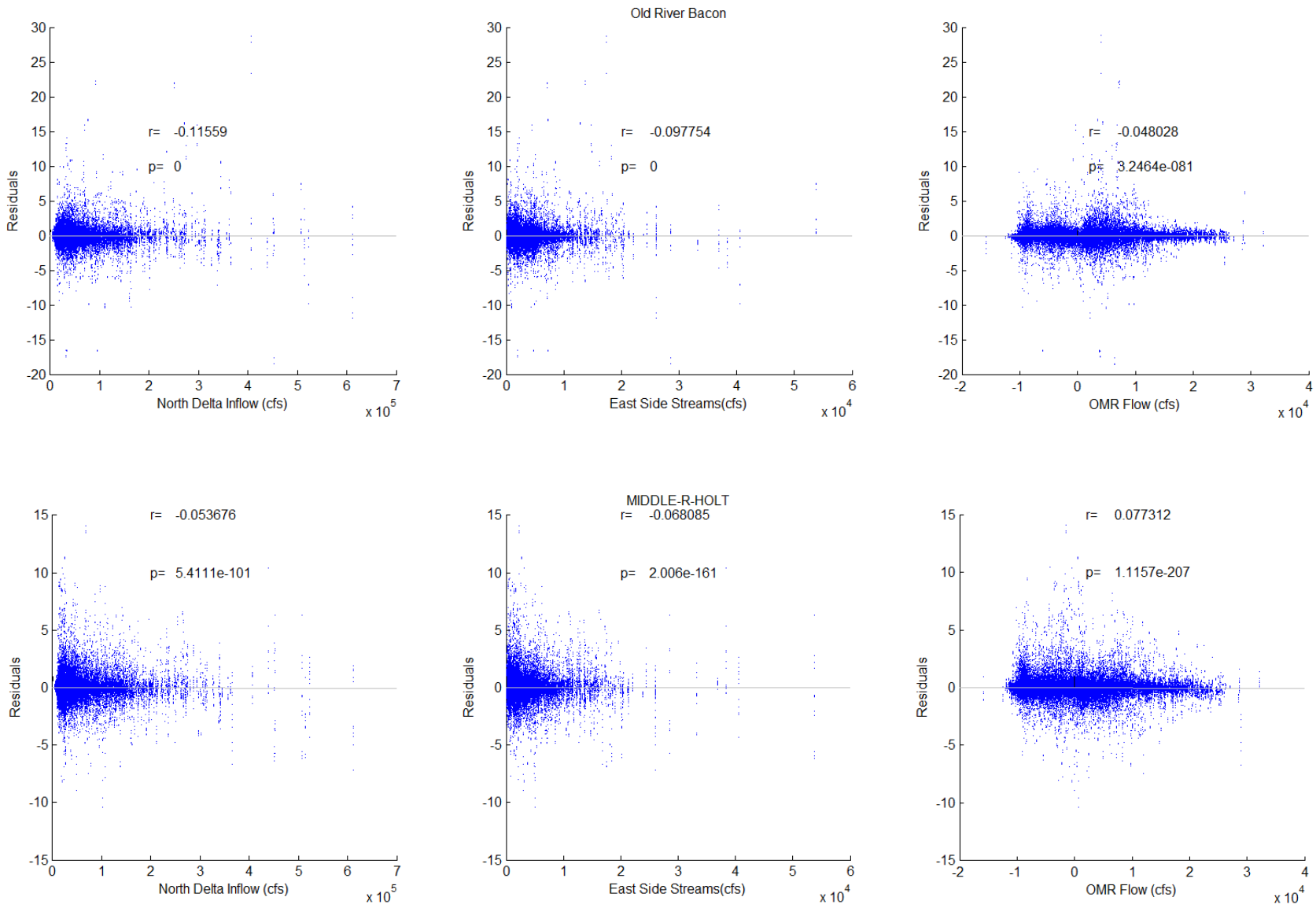


Figure F-1 (continued) Correlation between residuals and inputs of flow to the ANN model

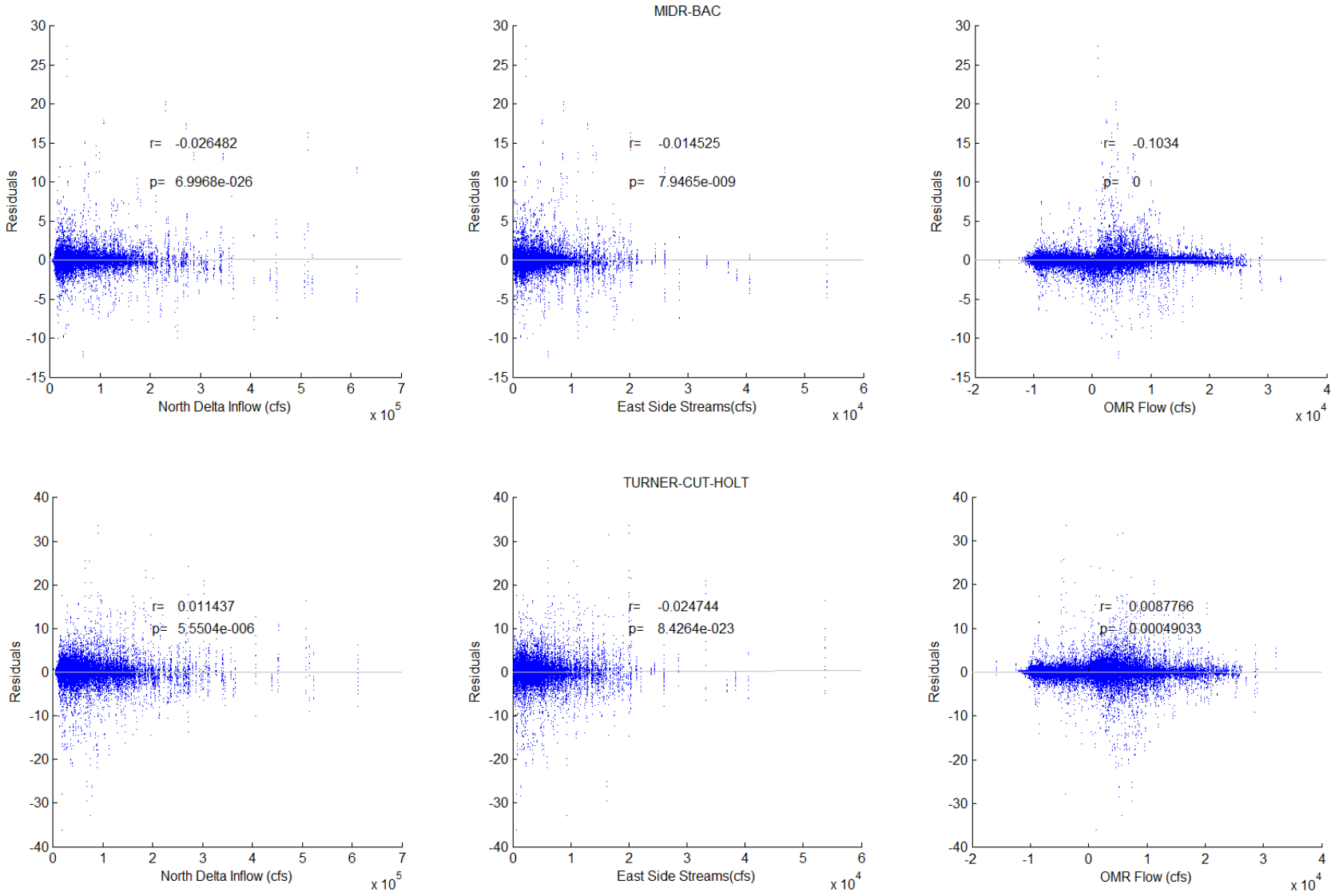


Figure F-1 (continued) Correlation between residuals and inputs of flow to the ANN model

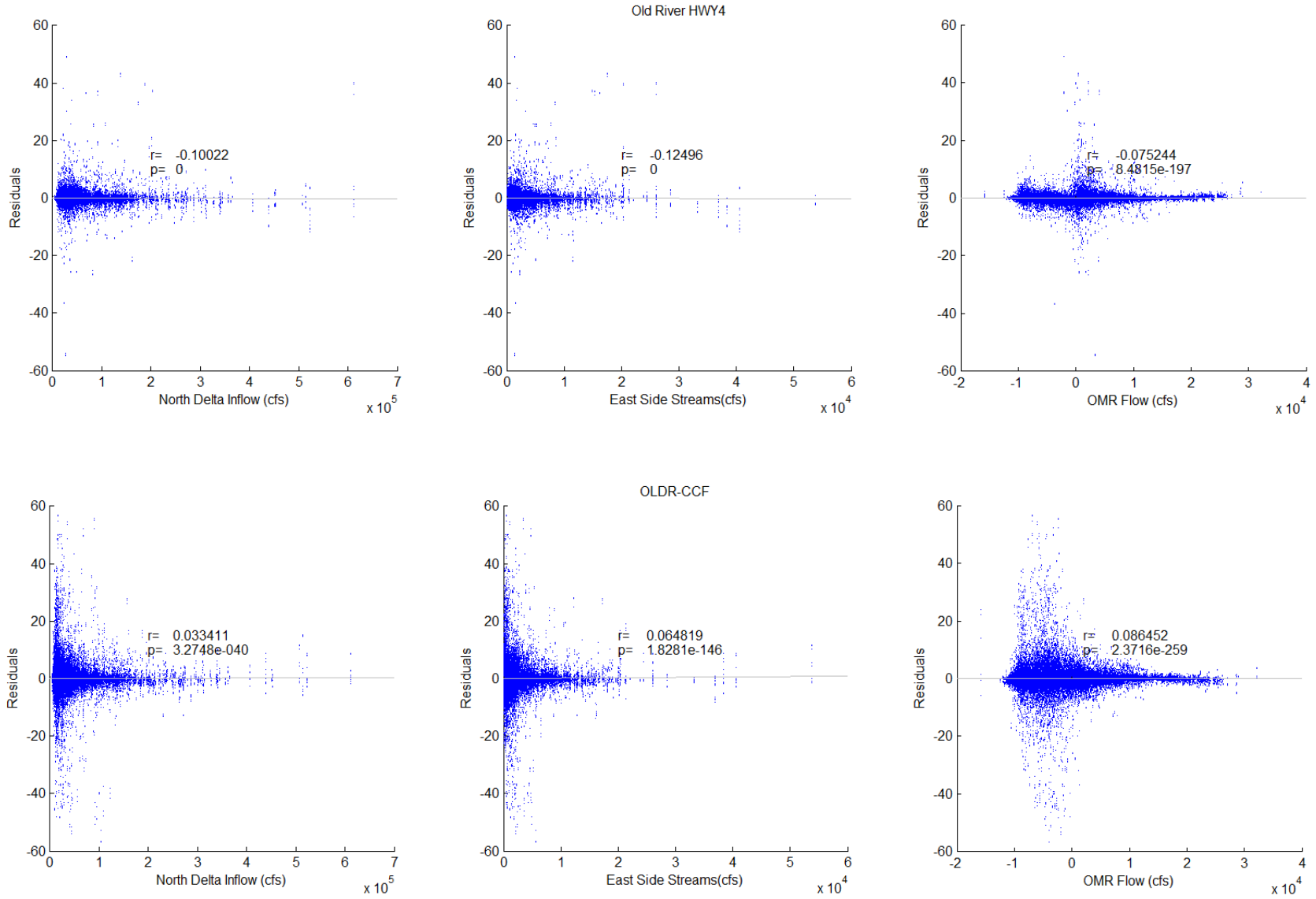


Figure F-1 (continued) Correlation between residuals and inputs of flow to the ANN model

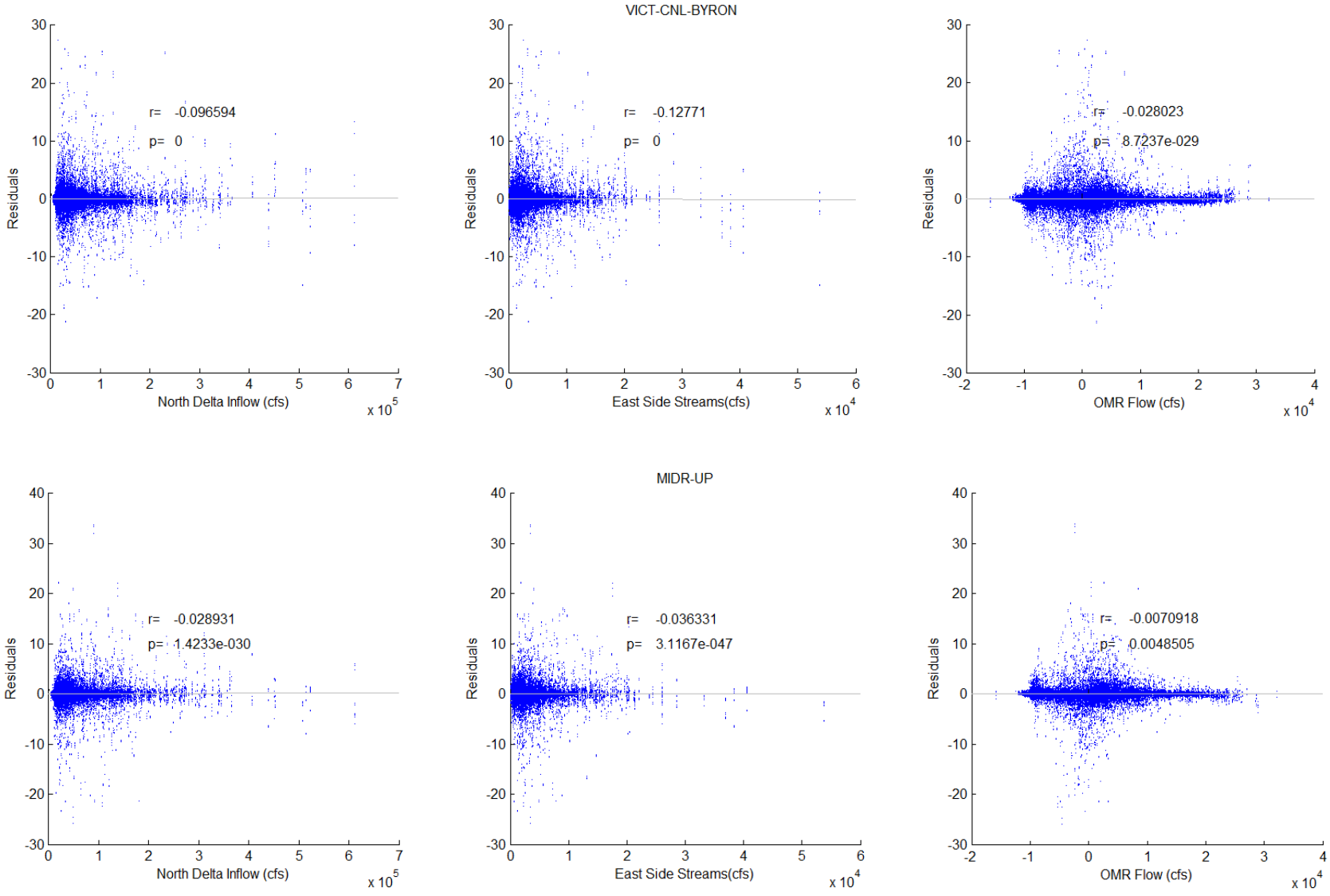


Figure F-1 (continued) Correlation between residuals and inputs of flow to the ANN model

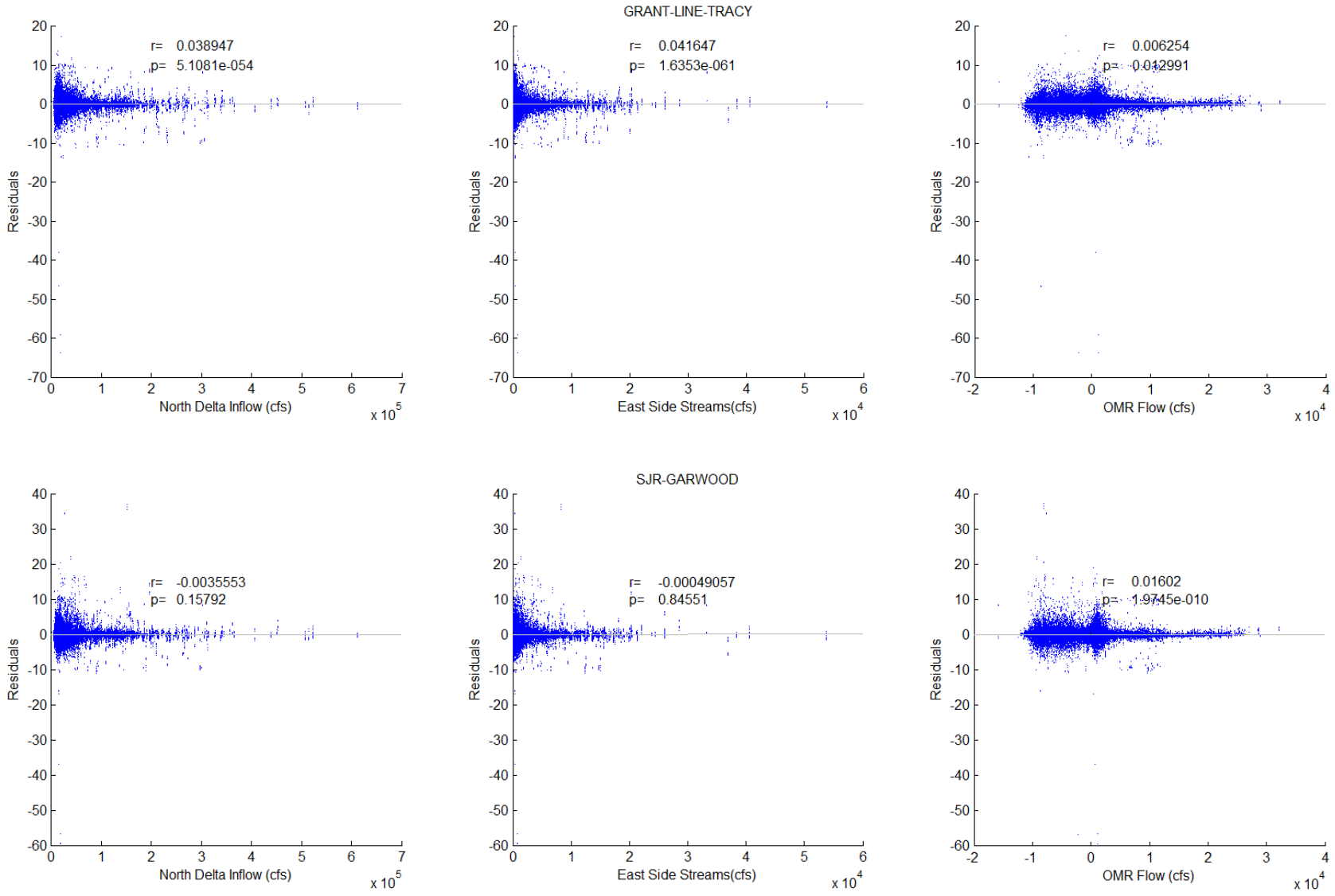


Figure F-1 (continued) Correlation between residuals and inputs of flow to the ANN model

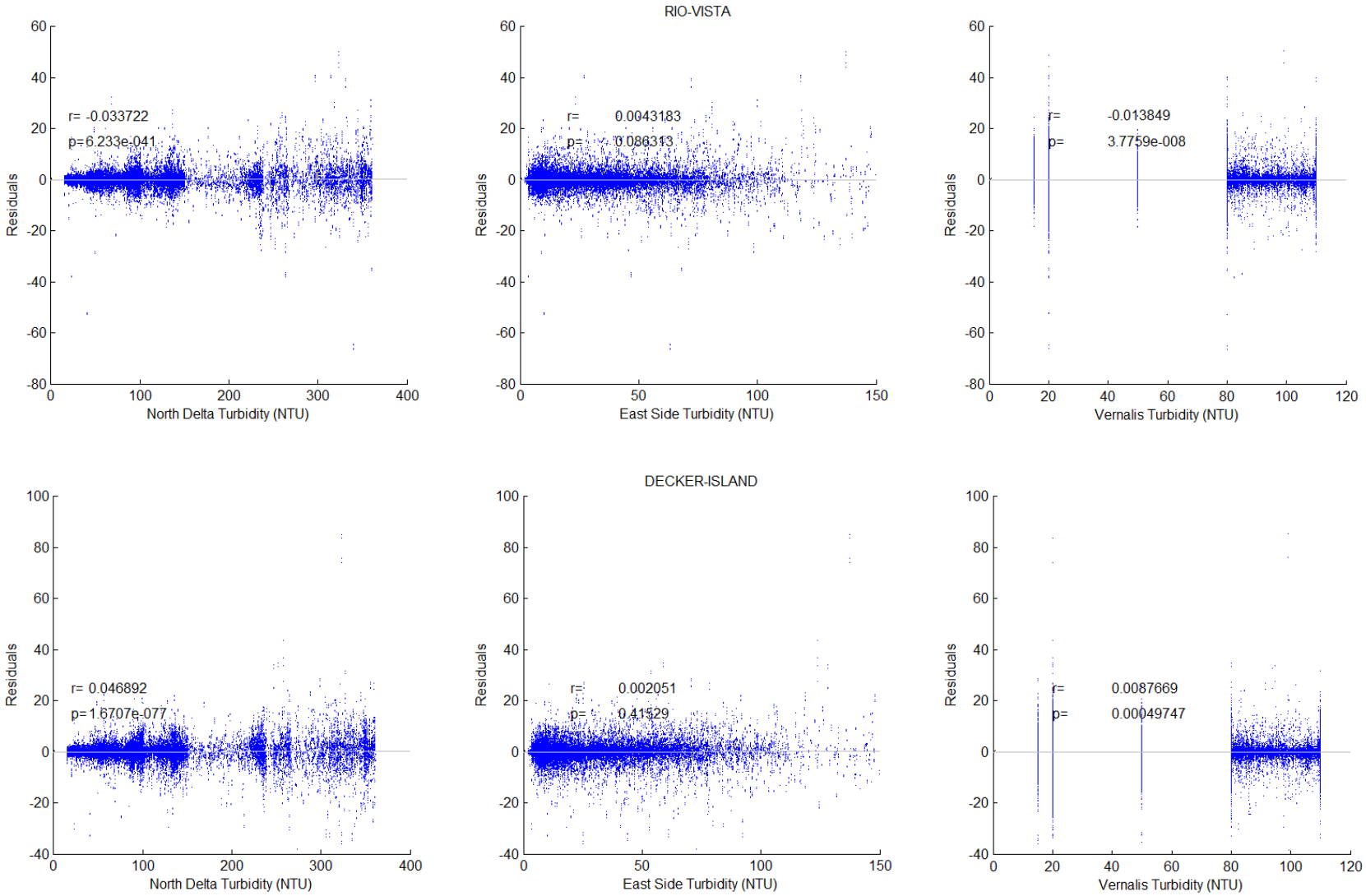


Figure F-2 Correlation between residuals and inputs of turbidity to the ANN model

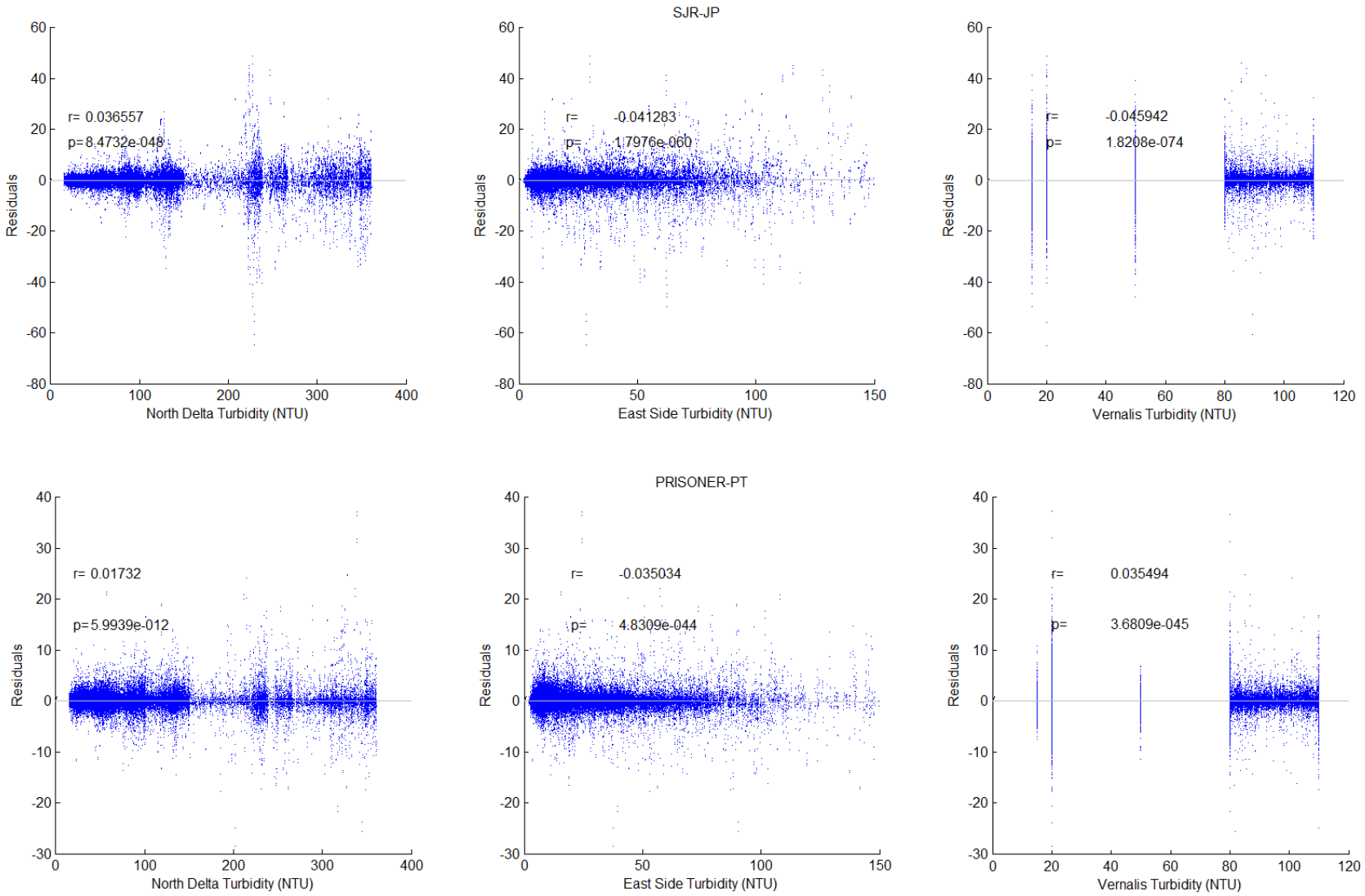


Figure F-2 (continued) Correlation between residuals and inputs of turbidity to the ANN model

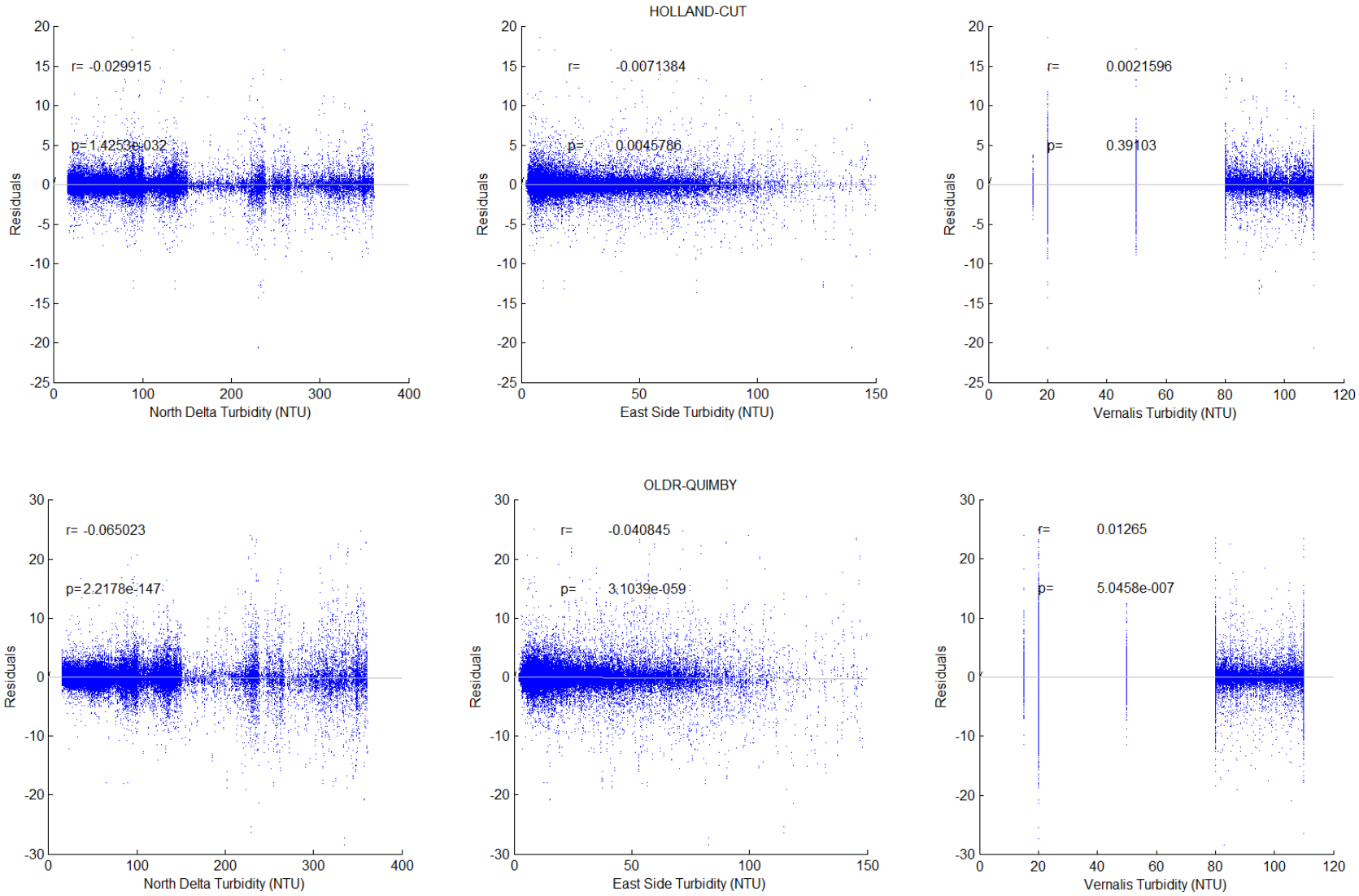


Figure F-2 (continued) Correlation between residuals and inputs of turbidity to the ANN model

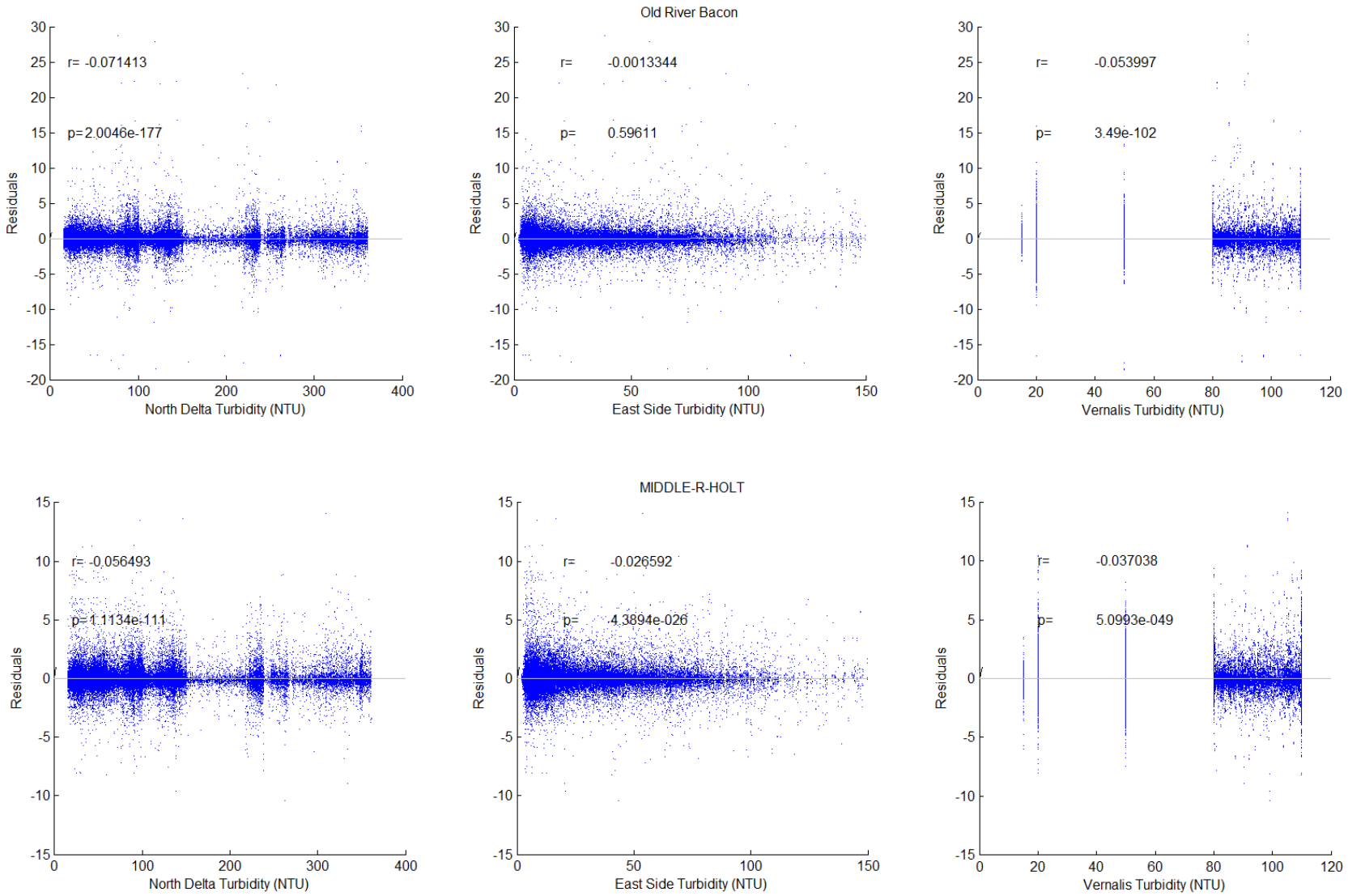


Figure F-2 (continued) Correlation between residuals and inputs of turbidity to the ANN model

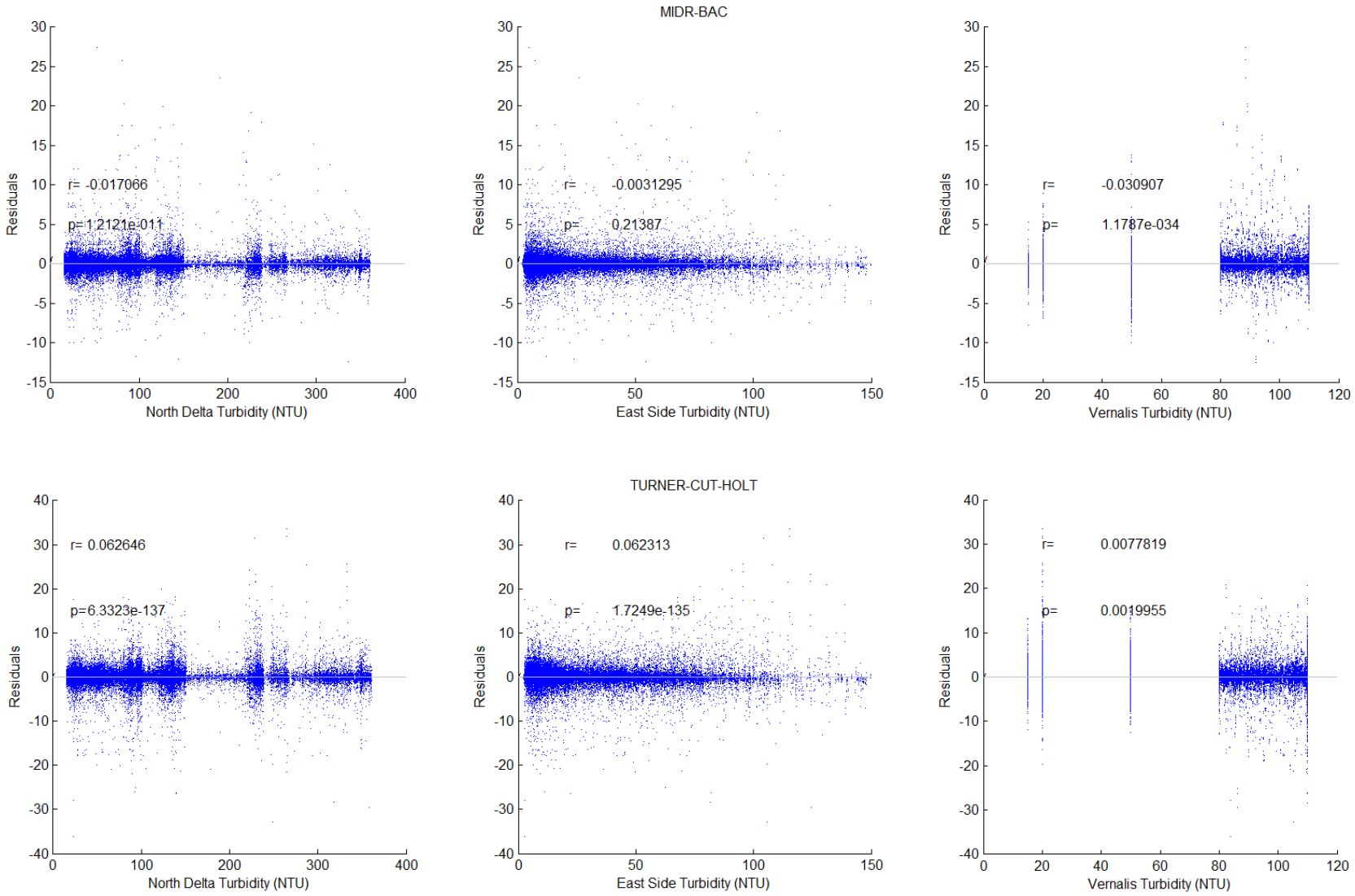


Figure F-2 (continued) Correlation between residuals and inputs of turbidity to the ANN model

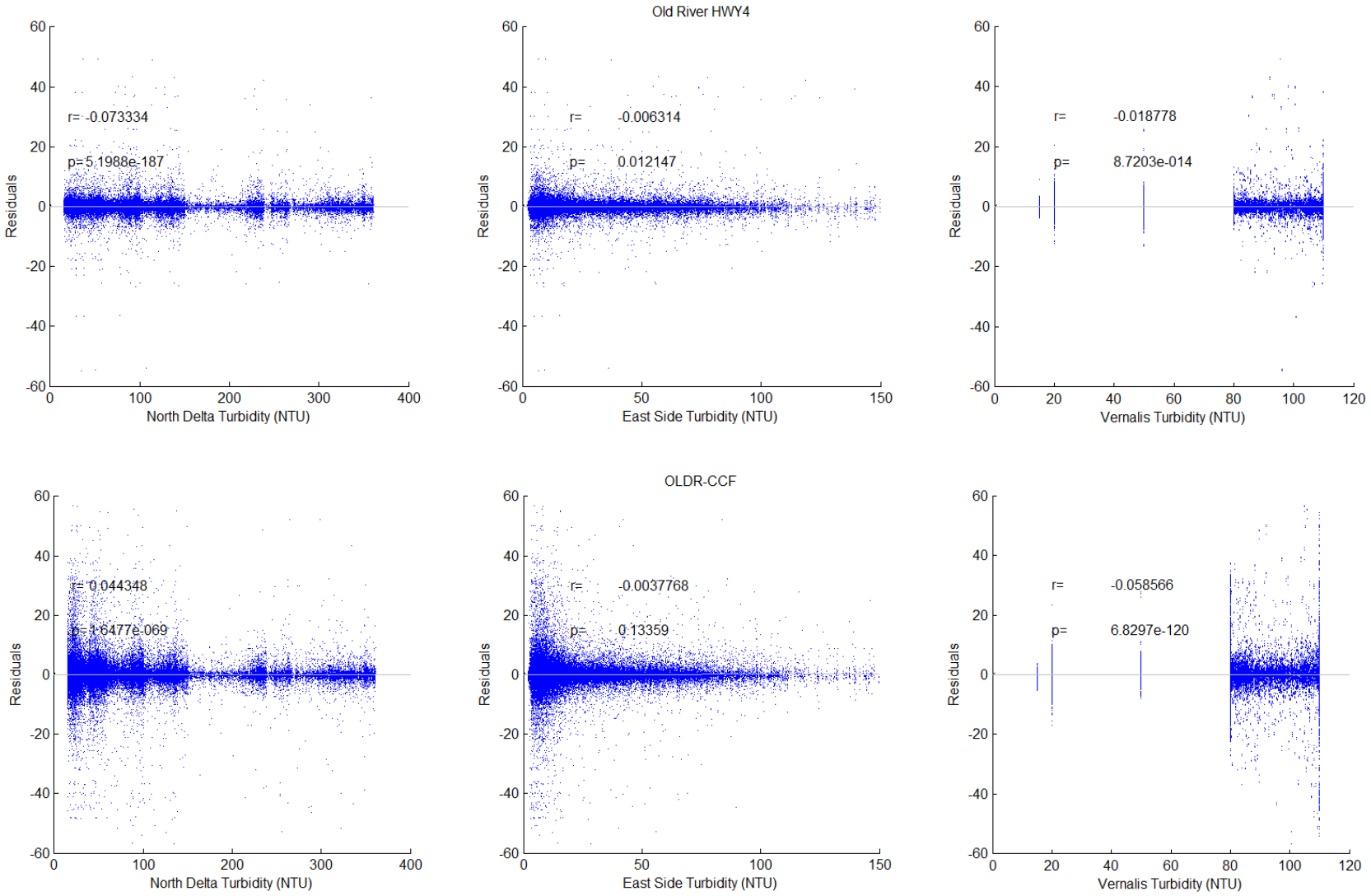


Figure F-2 (continued) Correlation between residuals and inputs of turbidity to the ANN model

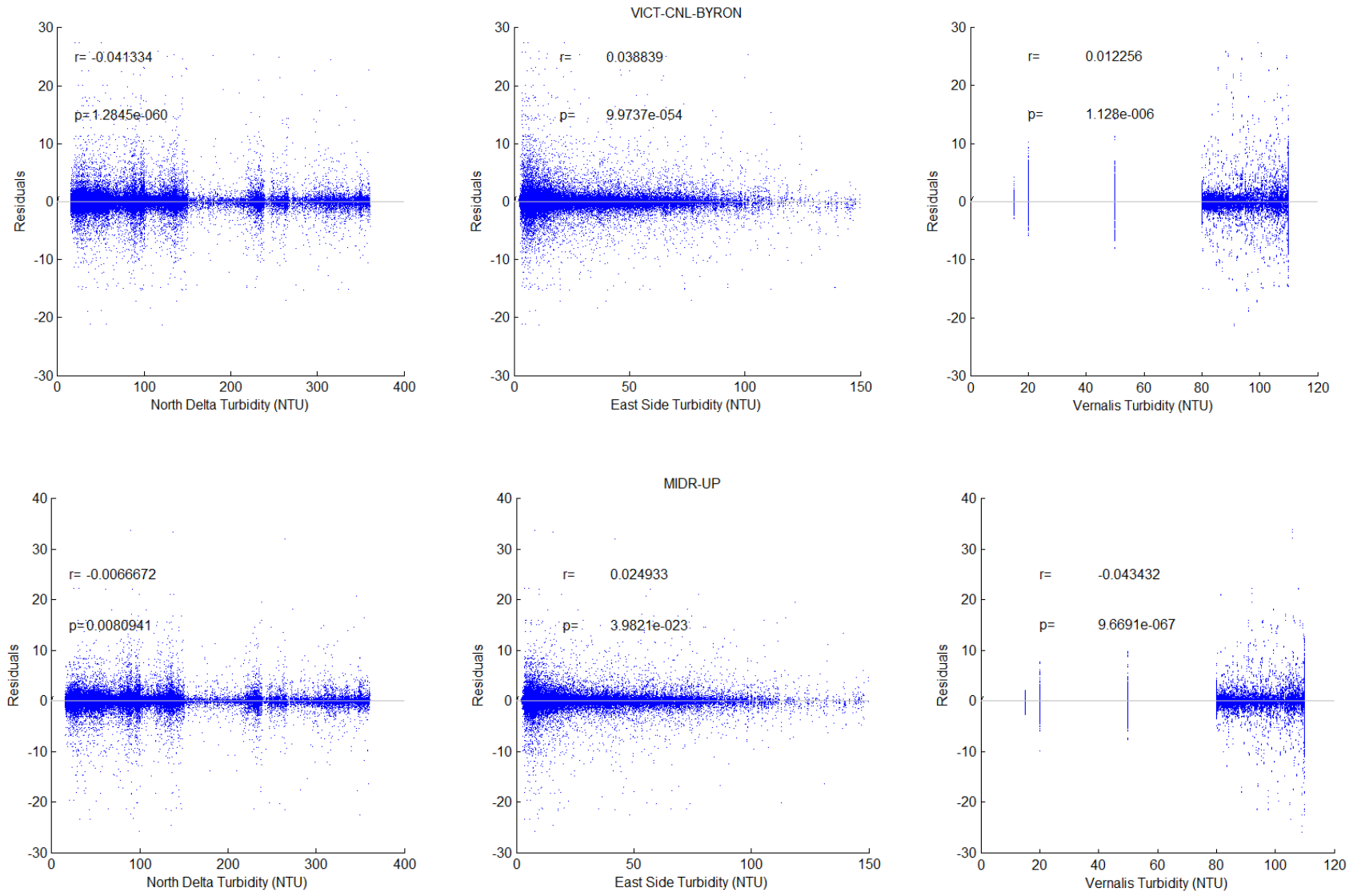


Figure F-2 (continued) Correlation between residuals and inputs of turbidity to the ANN model

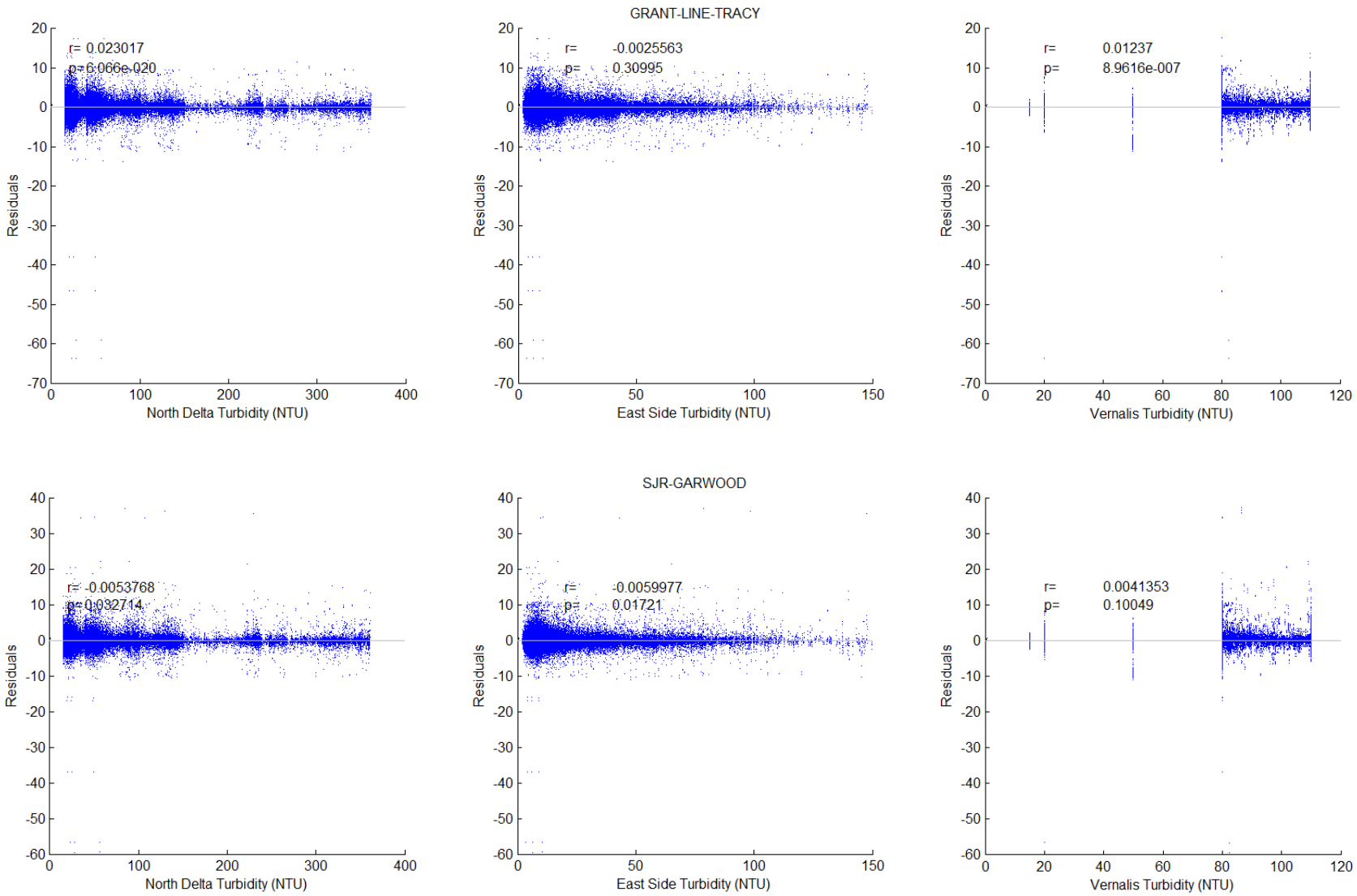
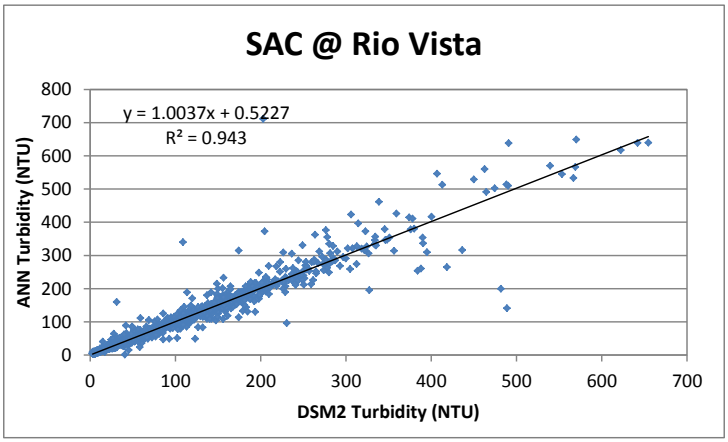
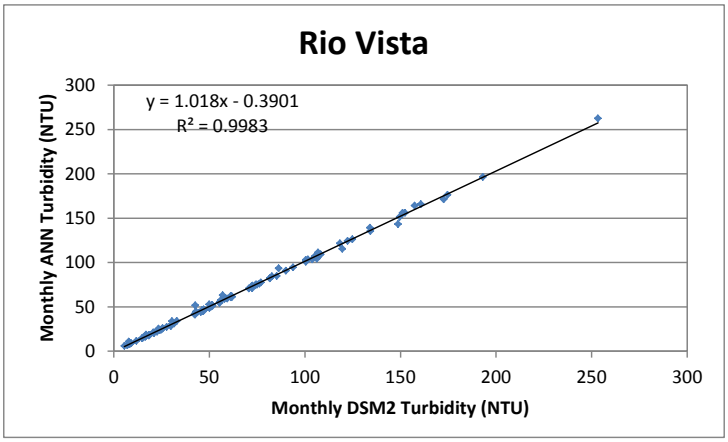
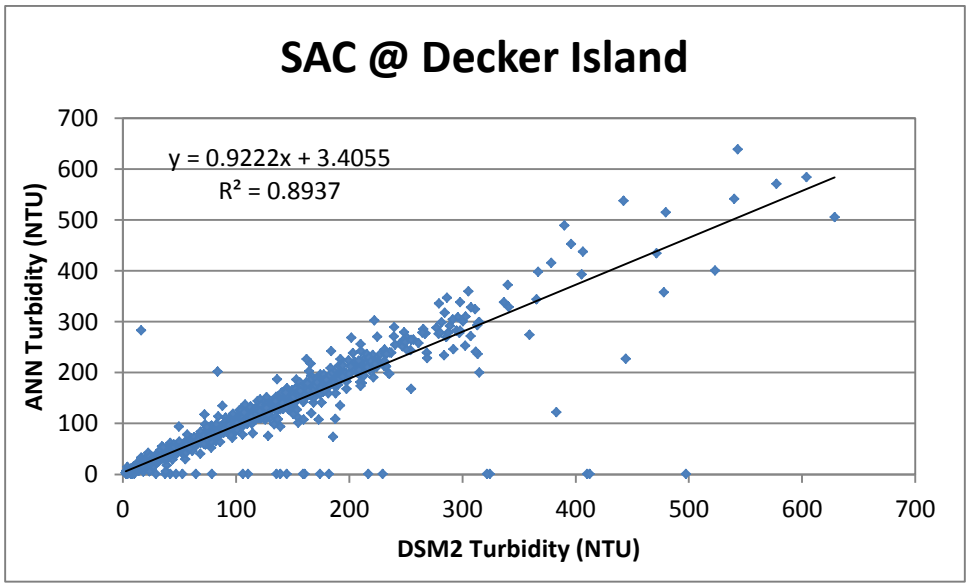


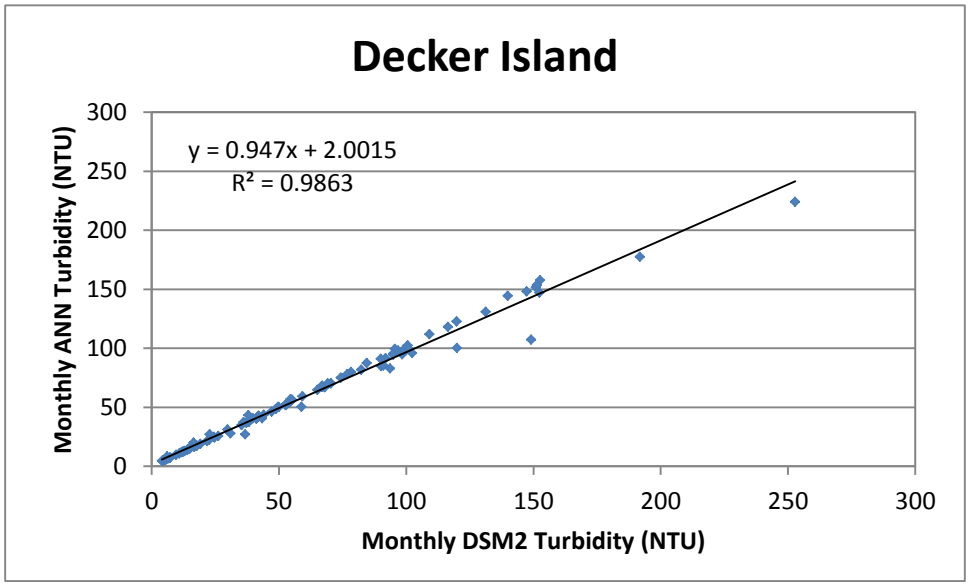
Figure F-2 (continued) Correlation between residuals and inputs of turbidity to the ANN model

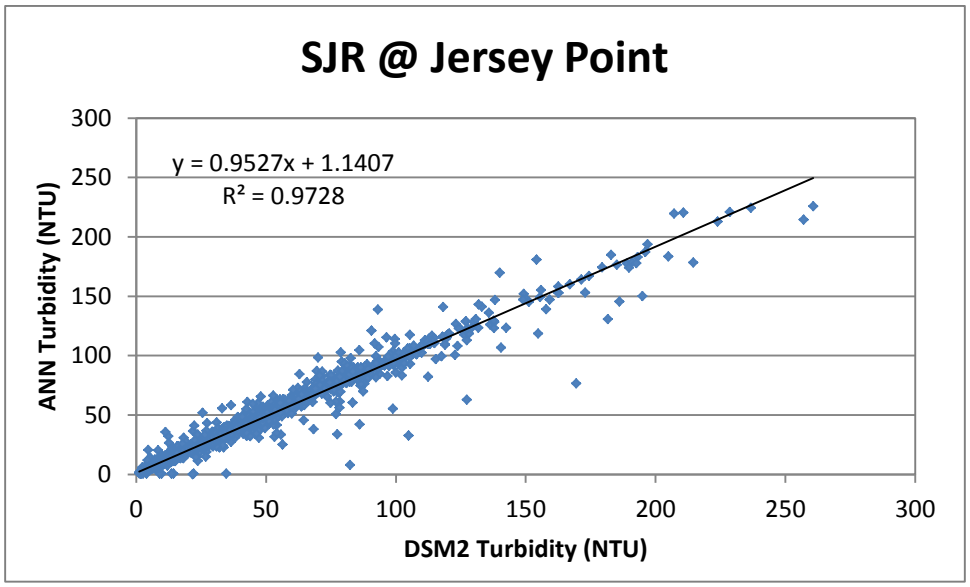
APPENDIX G: COMPARISON OF ANN SIMULATED AND DSM2 MULTIYEAR SIMULATION

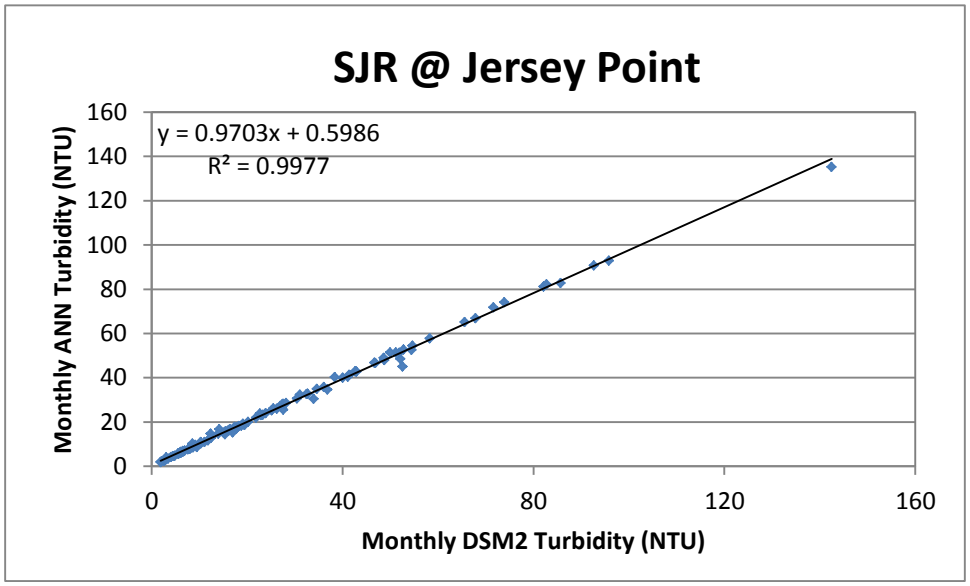


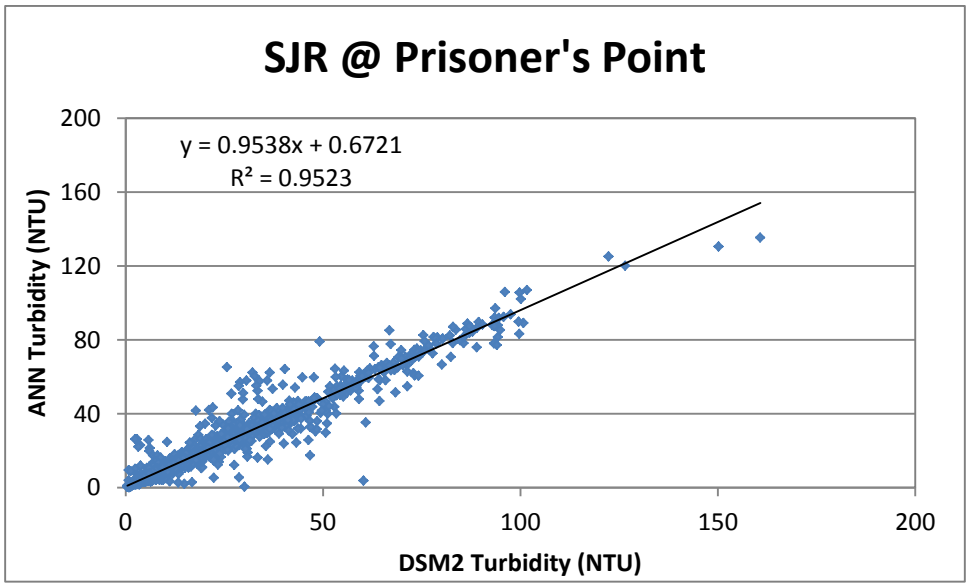


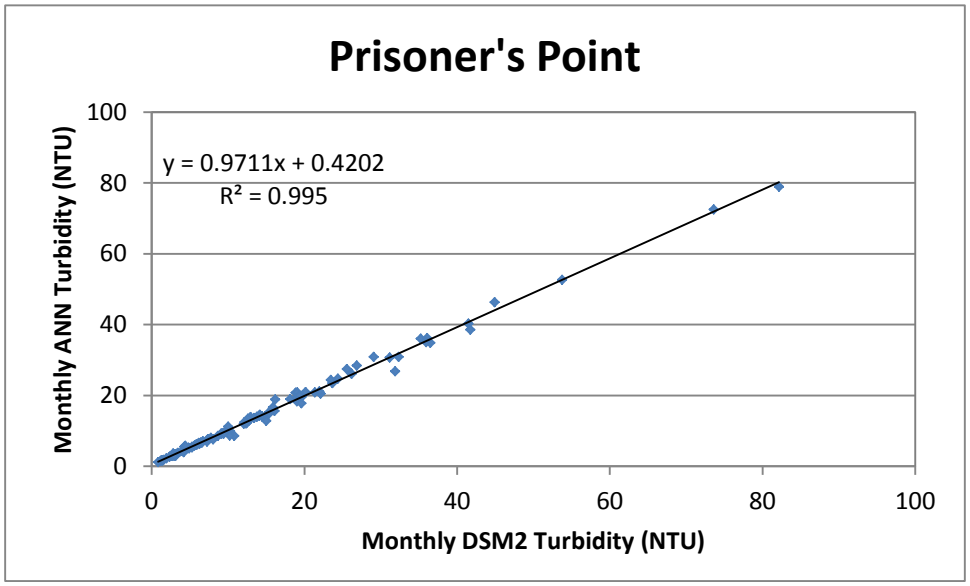

SAC @ Decker Island
y = 0.9222x + 3.4055
R² = 0.8937
ANN Turbidity (NTU)
DSM2 Turbidity (NTU)
0
100
200
300
400
500
600
700

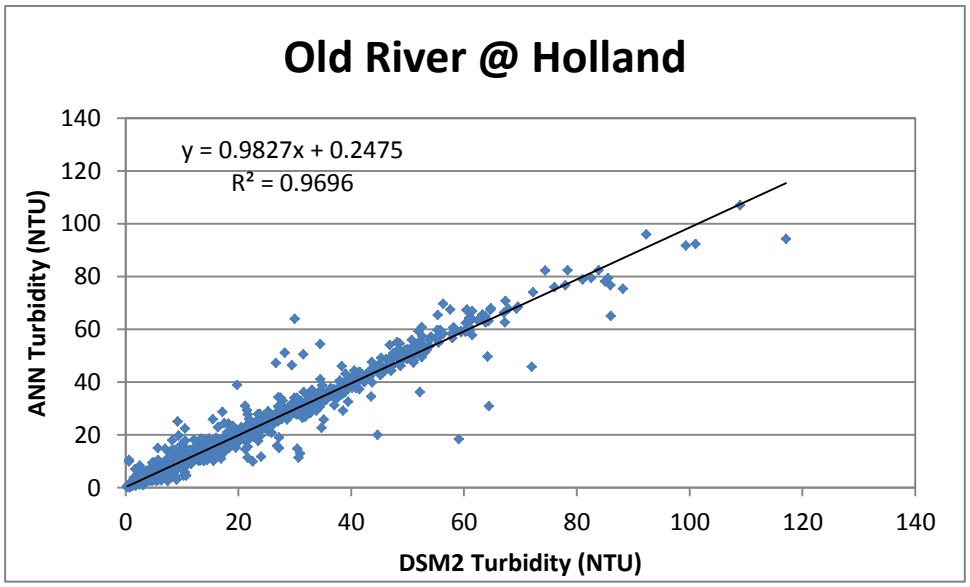

Decker Island
y = 0.947x + 2.0015
R² = 0.9863
Monthly ANN Turbidity (NTU)
Monthly DSM2 Turbidity (NTU)
0
50
100
150
200
250
300

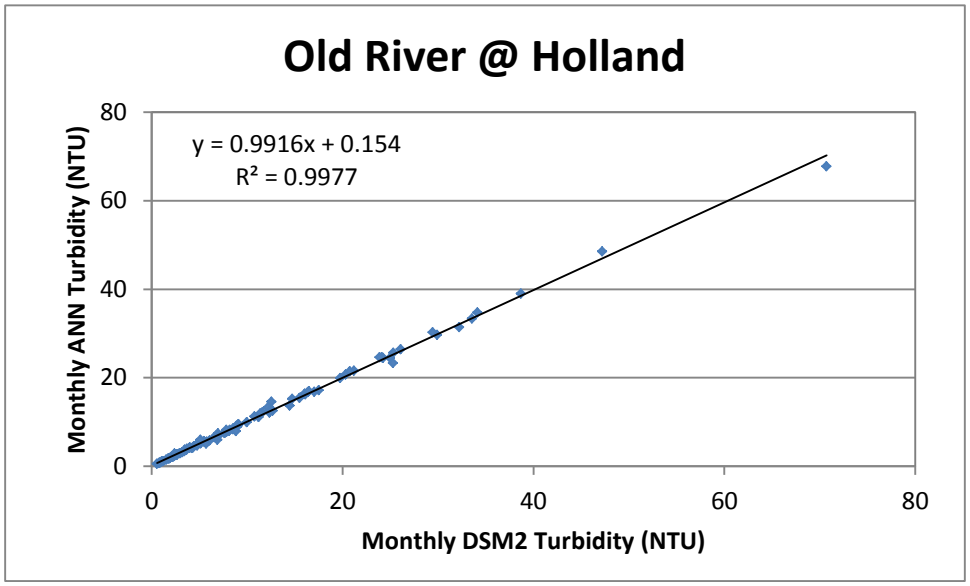

SJR @ Jersey Point
y = 0.9527x + 1.1407
R² = 0.9728
ANN Turbidity (NTU)
DSM2 Turbidity (NTU)
0
50
100
150
200
250
300

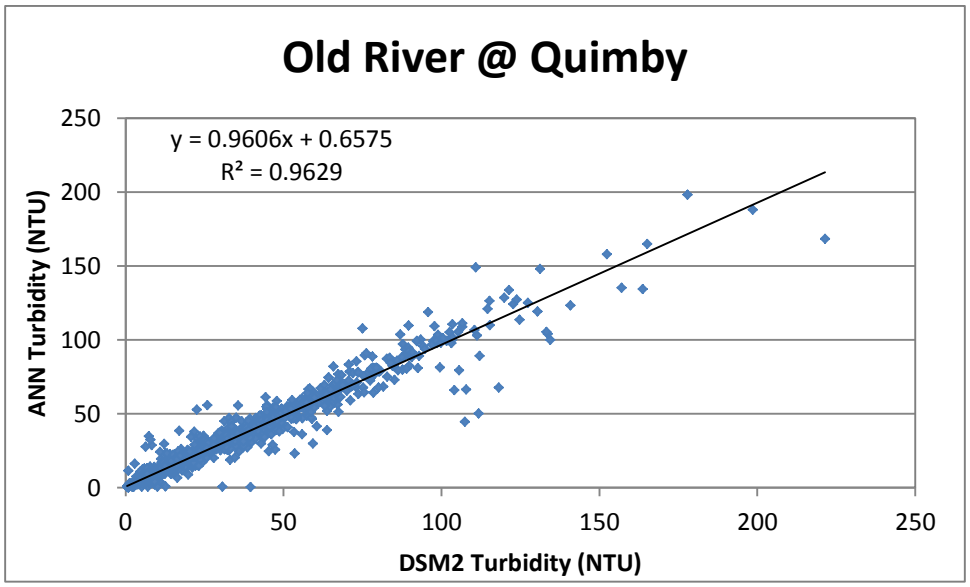

SJR @ Jersey Point
y = 0.9703x + 0.5986
R² = 0.9977
Monthly ANN Turbidity (NTU)
Monthly DSM2 Turbidity (NTU)
0
20
40
60
80
100
120
140
160

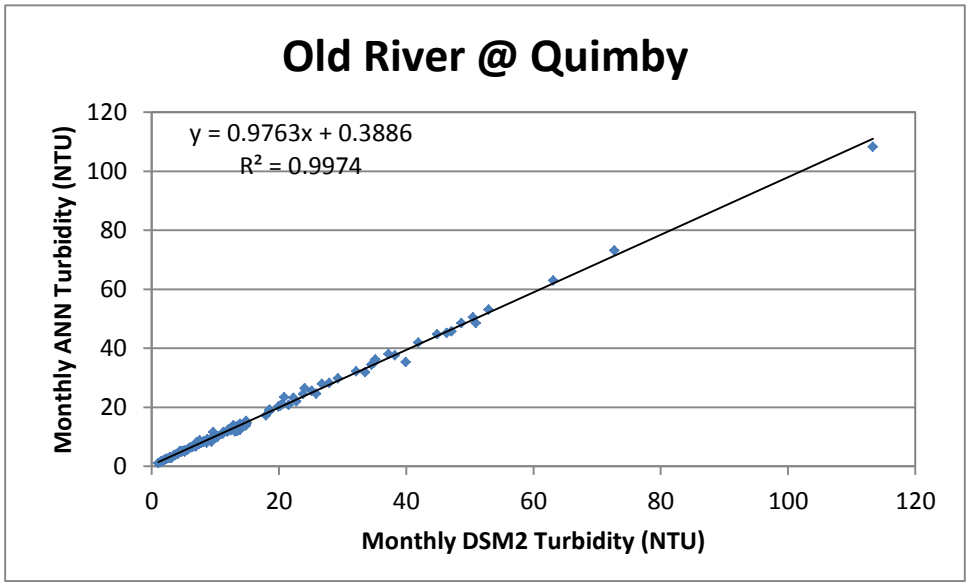

SJR @ Prisoner's Point
y = 0.9538x + 0.6721
R² = 0.9523
ANN Turbidity (NTU)
DSM2 Turbidity (NTU)
0
40
80
120
160
200
0
50
100
150
200

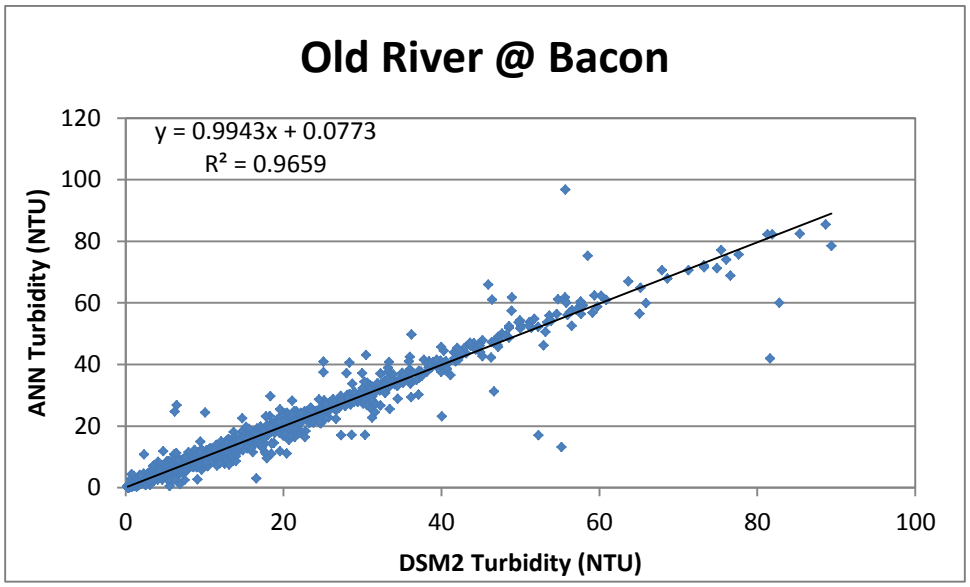

Prisoner's Point
y = 0.9711x + 0.4202
R² = 0.995
Monthly ANN Turbidity (NTU)
Monthly DSM2 Turbidity (NTU)
0
20
40
60
80
100
0
20
40
60
80
100

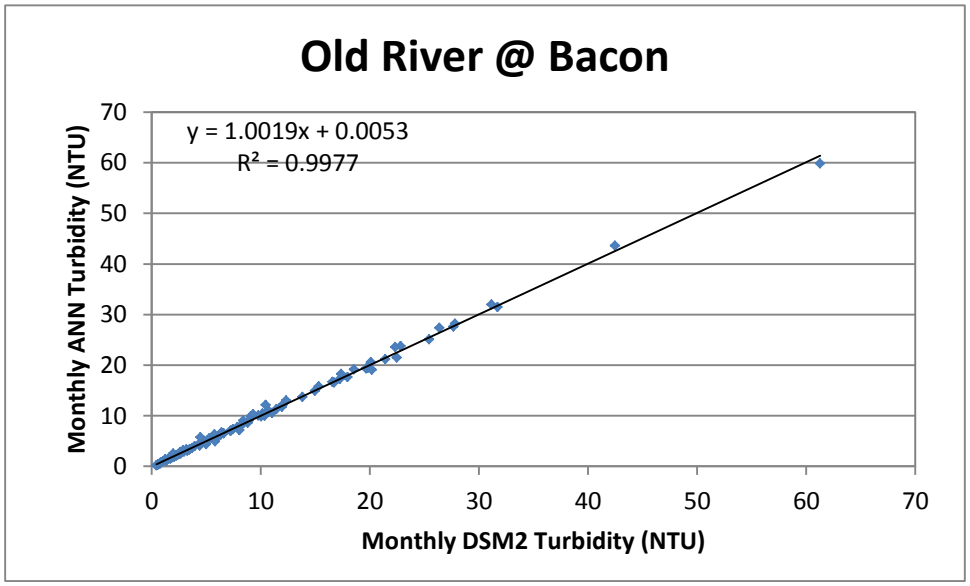

Old River @ Holland
y = 0.9827x + 0.2475
R² = 0.9696
ANN Turbidity (NTU)
DSM2 Turbidity (NTU)
0
20
40
60
80
100
120
140

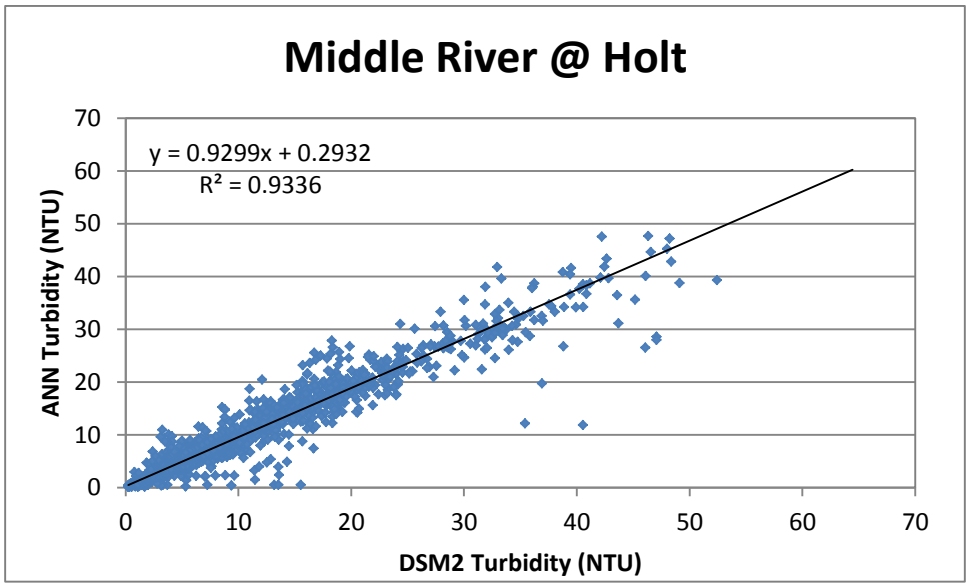

Old River @ Holland
y = 0.9916x + 0.154
R² = 0.9977
Monthly ANN Turbidity (NTU)
Monthly DSM2 Turbidity (NTU)
0
20
40
60
80

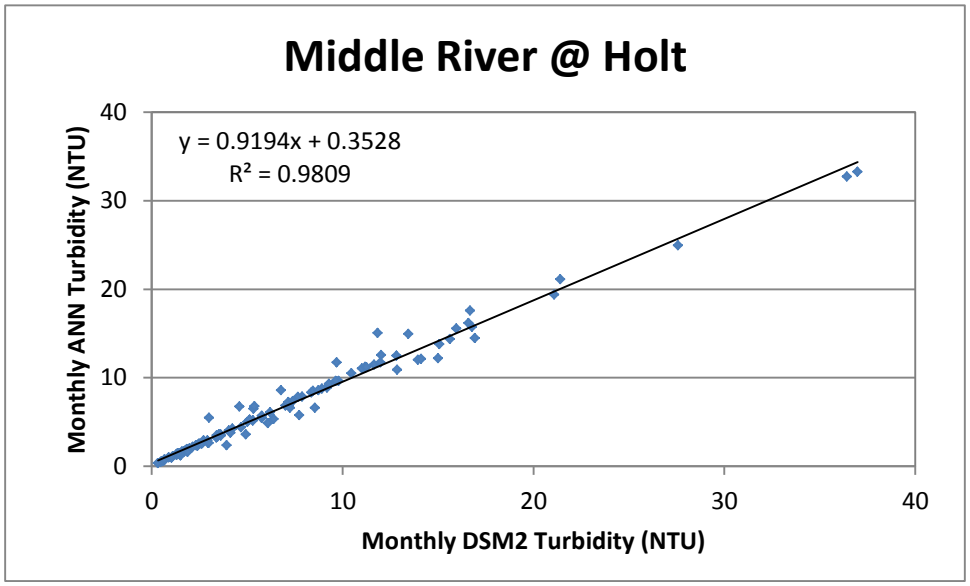

Old River @ Quimby
y = 0.9606x + 0.6575
R² = 0.9629
ANN Turbidity (NTU)
DSM2 Turbidity (NTU)
0
50
100
150
200
250

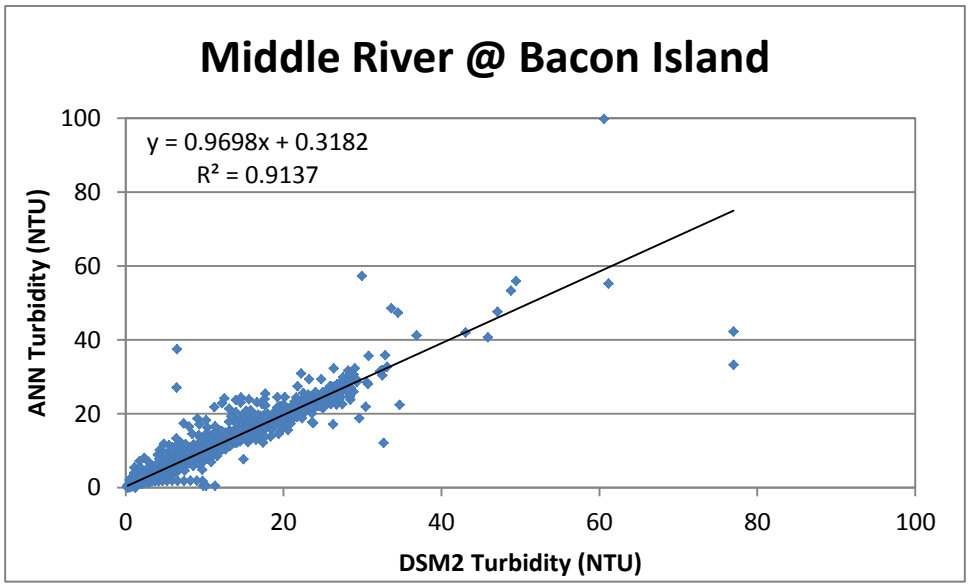

Old River @ Quimby
y = 0.9763x + 0.3886
R² = 0.9974
Monthly ANN Turbidity (NTU)
Monthly DSM2 Turbidity (NTU)
0
20
40
60
80
100
120

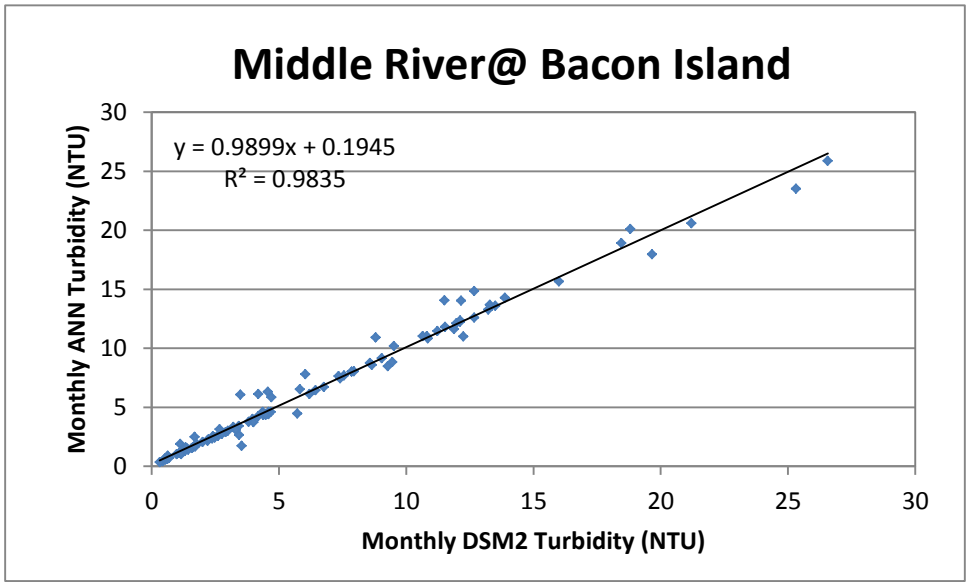

Old River @ Bacon
y = 0.9943x + 0.0773
R² = 0.9659
ANN Turbidity (NTU)
DSM2 Turbidity (NTU)
0
20
40
60
80
100
120

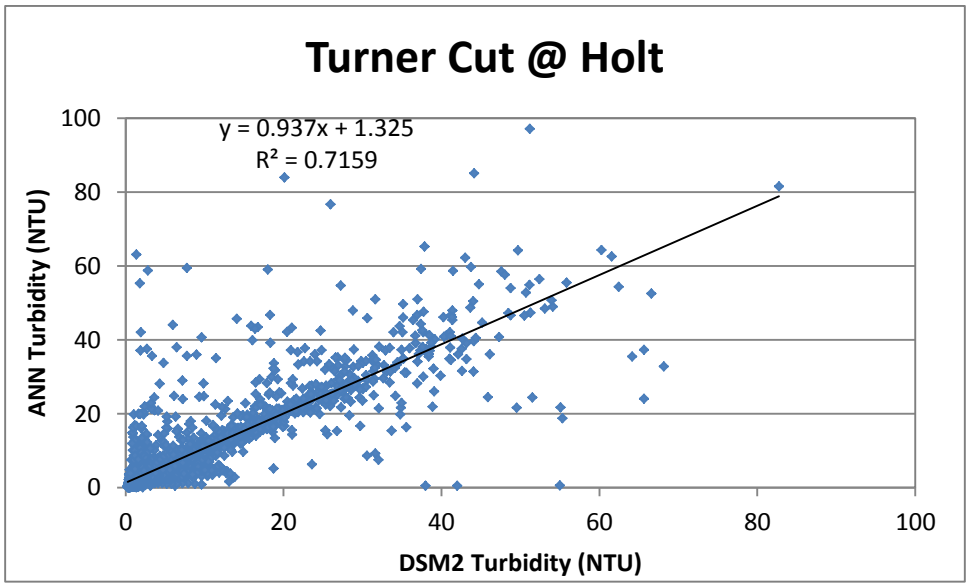

Old River @ Bacon
y = 1.0019x + 0.0053
R² = 0.9977
Monthly ANN Turbidity (NTU)
Monthly DSM2 Turbidity (NTU)
0
10
20
30
40
50
60
70

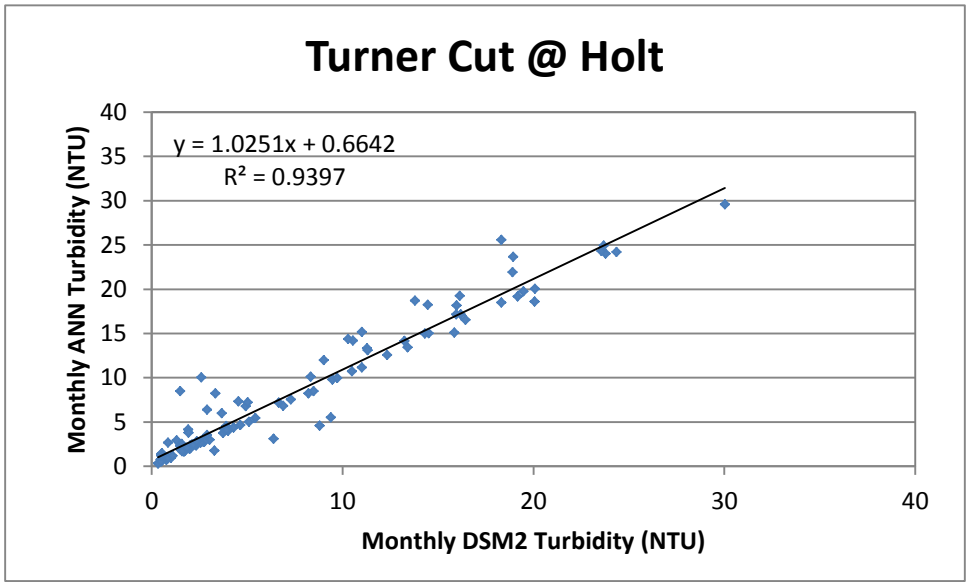

Middle River @ Holt
y = 0.9299x + 0.2932
R² = 0.9336
ANN Turbidity (NTU)
DSM2 Turbidity (NTU)
0
10
20
30
40
50
60
70

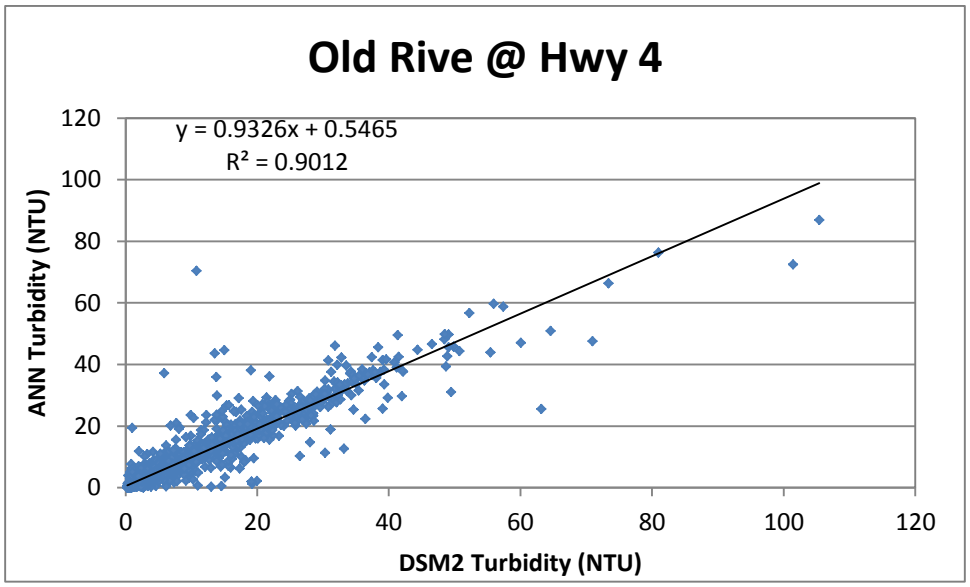

Middle River @ Holt
y = 0.9194x + 0.3528
R² = 0.9809
Monthly ANN Turbidity (NTU)
Monthly DSM2 Turbidity (NTU)
0
10
20
30
40

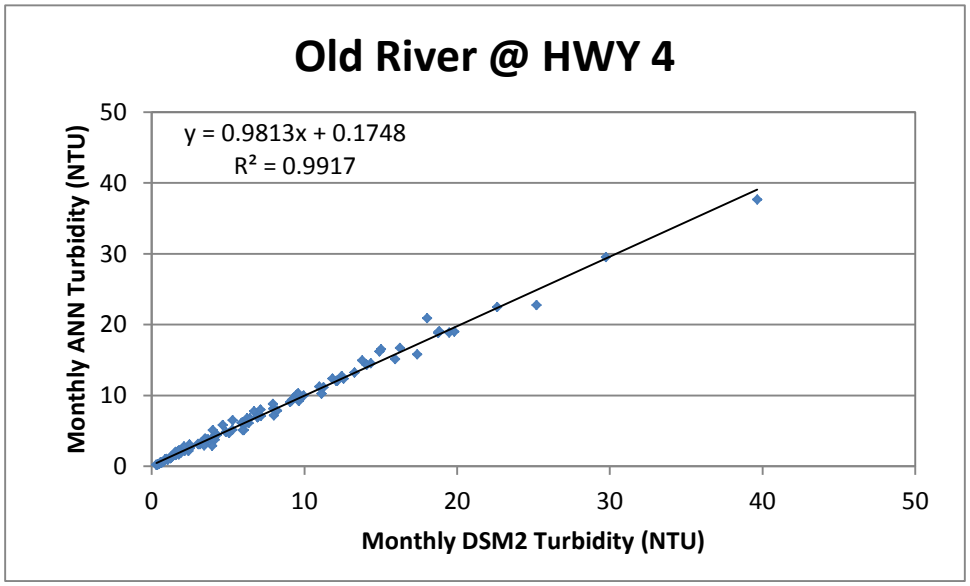

Middle River @ Bacon Island
y = 0.9698x + 0.3182
R² = 0.9137
ANN Turbidity (NTU)
DSM2 Turbidity (NTU)
0
20
40
60
80
100

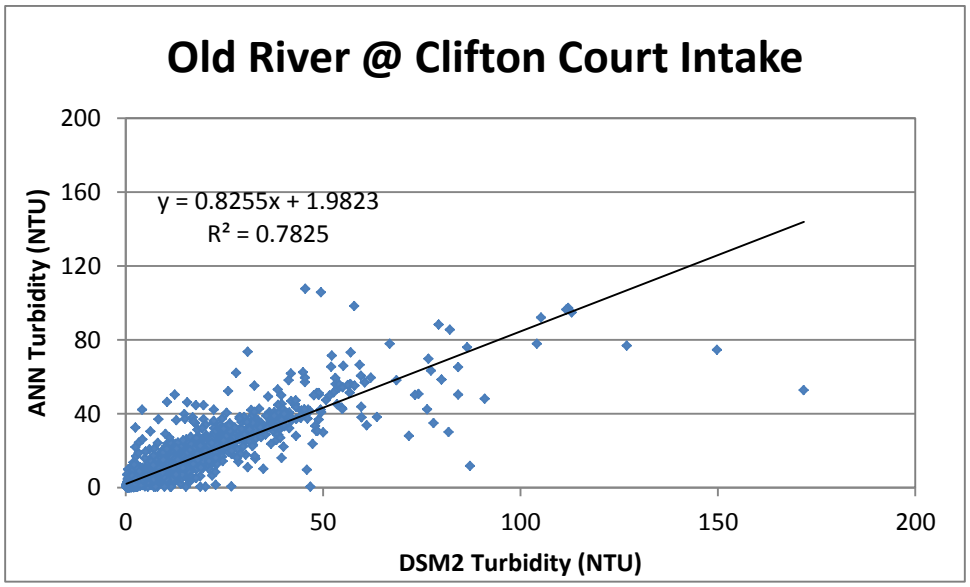

Middle River@ Bacon Island
y = 0.9899x + 0.1945
R² = 0.9835
Monthly ANN Turbidity (NTU)
Monthly DSM2 Turbidity (NTU)
0
5
10
15
20
25
30

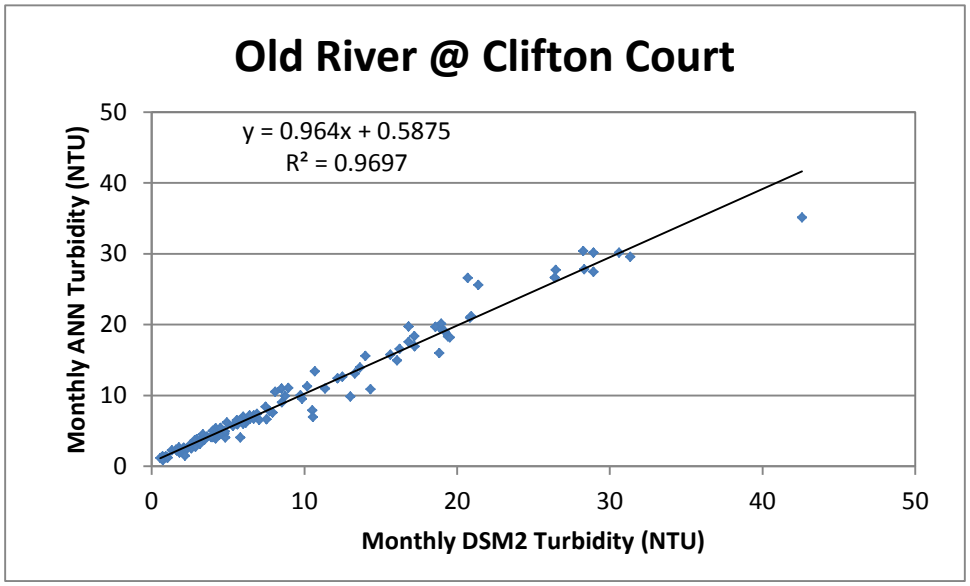

Turner Cut @ Holt
y = 0.937x + 1.325
R² = 0.7159
ANN Turbidity (NTU)
DSM2 Turbidity (NTU)
0
20
40
60
80
100

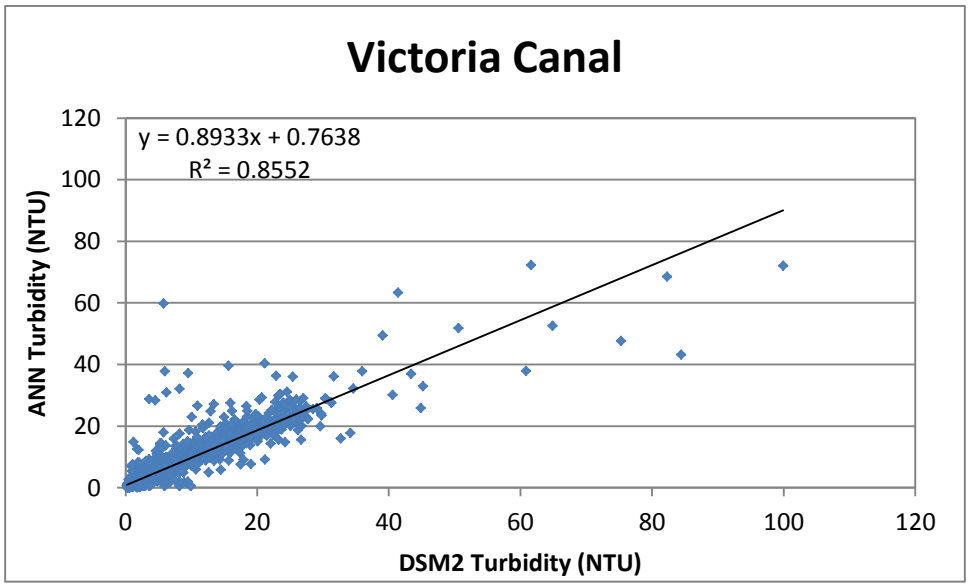

Turner Cut @ Holt
y = 1.0251x + 0.6642
R² = 0.9397
Monthly ANN Turbidity (NTU)
Monthly DSM2 Turbidity (NTU)
0
5
10
15
20
25
30
35
40

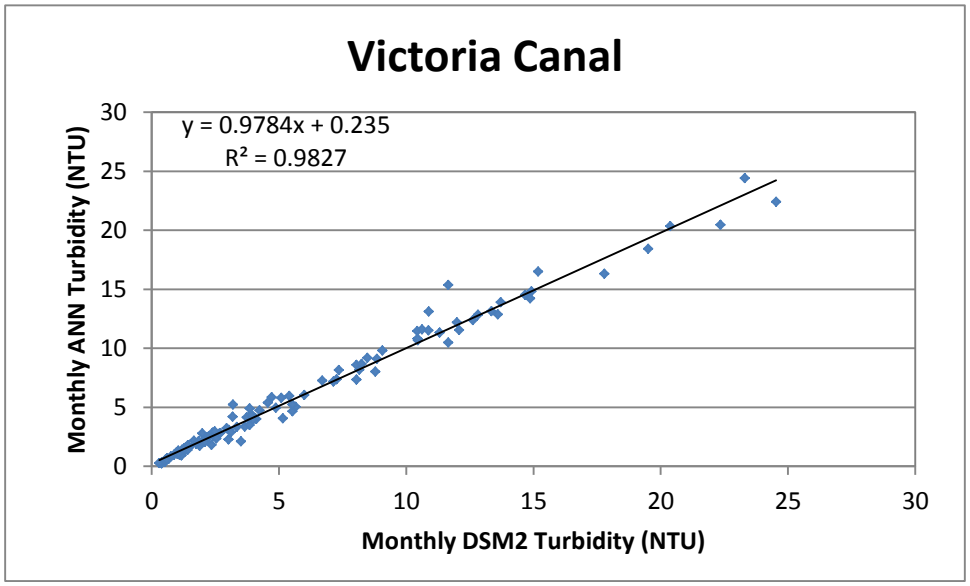

Old Rive @ Hwy 4
y = 0.9326x + 0.5465
R² = 0.9012
ANN Turbidity (NTU)
DSM2 Turbidity (NTU)
0
20
40
60
80
100
120

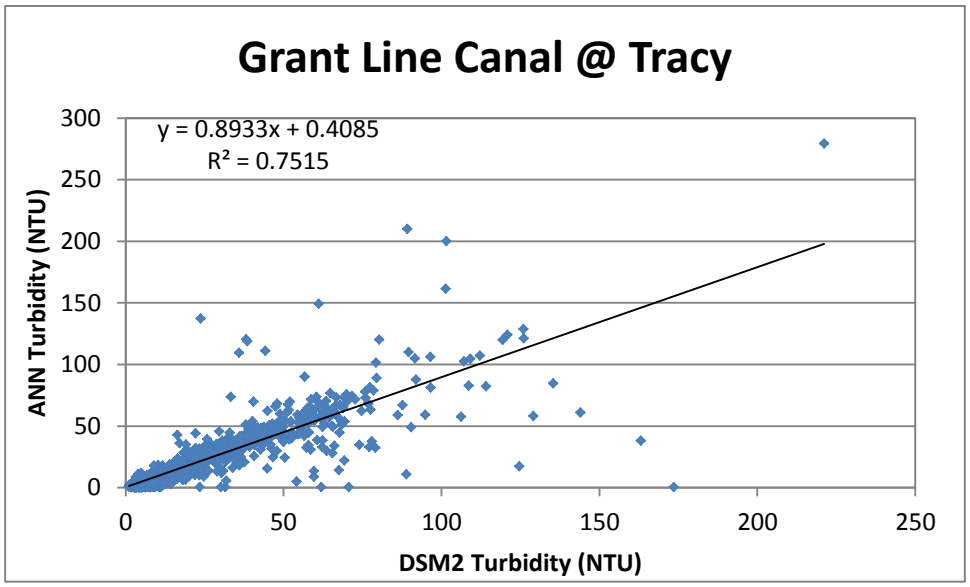

Old River @ HWY 4
y = 0.9813x + 0.1748
R² = 0.9917
Monthly ANN Turbidity (NTU)
Monthly DSM2 Turbidity (NTU)
0
10
20
30
40
50

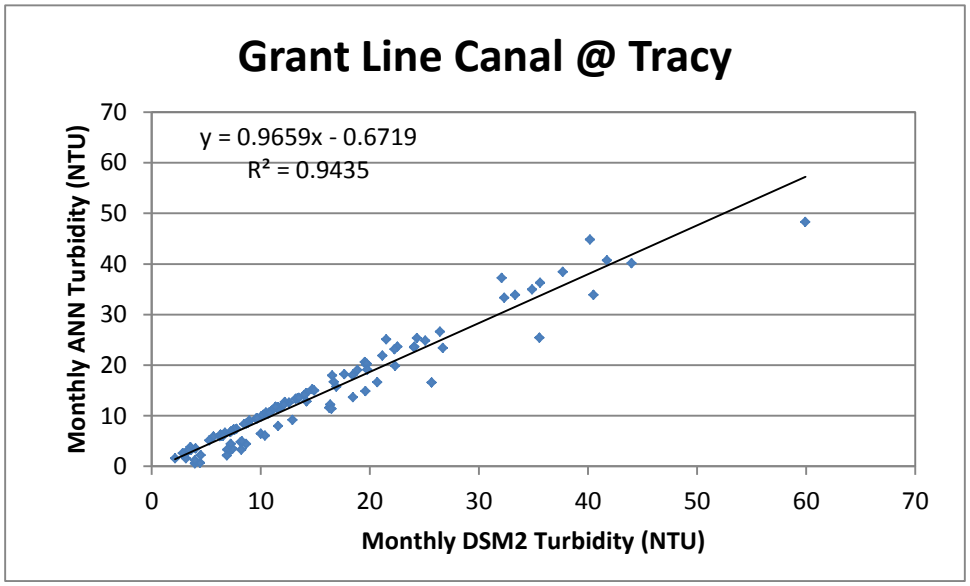

Old River @ Clifton Court Intake
y = 0.8255x + 1.9823
R² = 0.7825
ANN Turbidity (NTU)
DSM2 Turbidity (NTU)
0
40
80
120
160
200
0
50
100
150
200

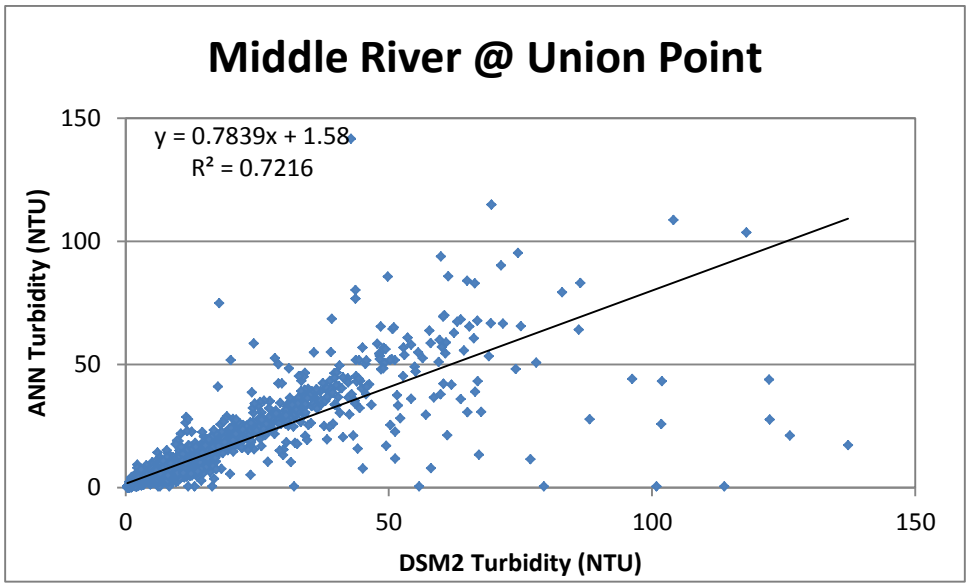

Old River @ Clifton Court
y = 0.964x + 0.5875
R² = 0.9697
Monthly ANN Turbidity (NTU)
Monthly DSM2 Turbidity (NTU)
0
10
20
30
40
50
0
10
20
30
40
50

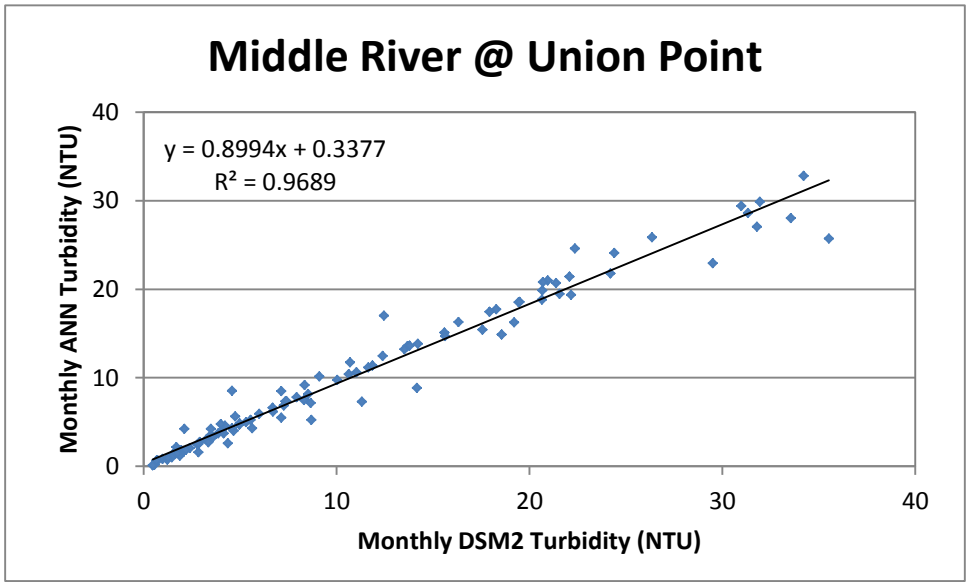

Victoria Canal
y = 0.8933x + 0.7638
R² = 0.8552
ANN Turbidity (NTU)
DSM2 Turbidity (NTU)
0
20
40
60
80
100
120


Victoria Canal
y = 0.9784x + 0.235
R² = 0.9827
Monthly ANN Turbidity (NTU)
Monthly DSM2 Turbidity (NTU)
0
5
10
15
20
25
30


Grant Line Canal @ Tracy
y = 0.8933x + 0.4085
R² = 0.7515
ANN Turbidity (NTU)
DSM2 Turbidity (NTU)
0
50
100
150
200
250
300


Grant Line Canal @ Tracy
y = 0.9659x - 0.6719
R² = 0.9435
Monthly ANN Turbidity (NTU)
Monthly DSM2 Turbidity (NTU)
0
10
20
30
40
50
60
70


Middle River @ Union Point
y = 0.7839x + 1.58
R² = 0.7216
ANN Turbidity (NTU)
DSM2 Turbidity (NTU)
0
50
100
150


Middle River @ Union Point
y = 0.8994x + 0.3377
R² = 0.9689
Monthly ANN Turbidity (NTU)
Monthly DSM2 Turbidity (NTU)
0
10
20
30
40

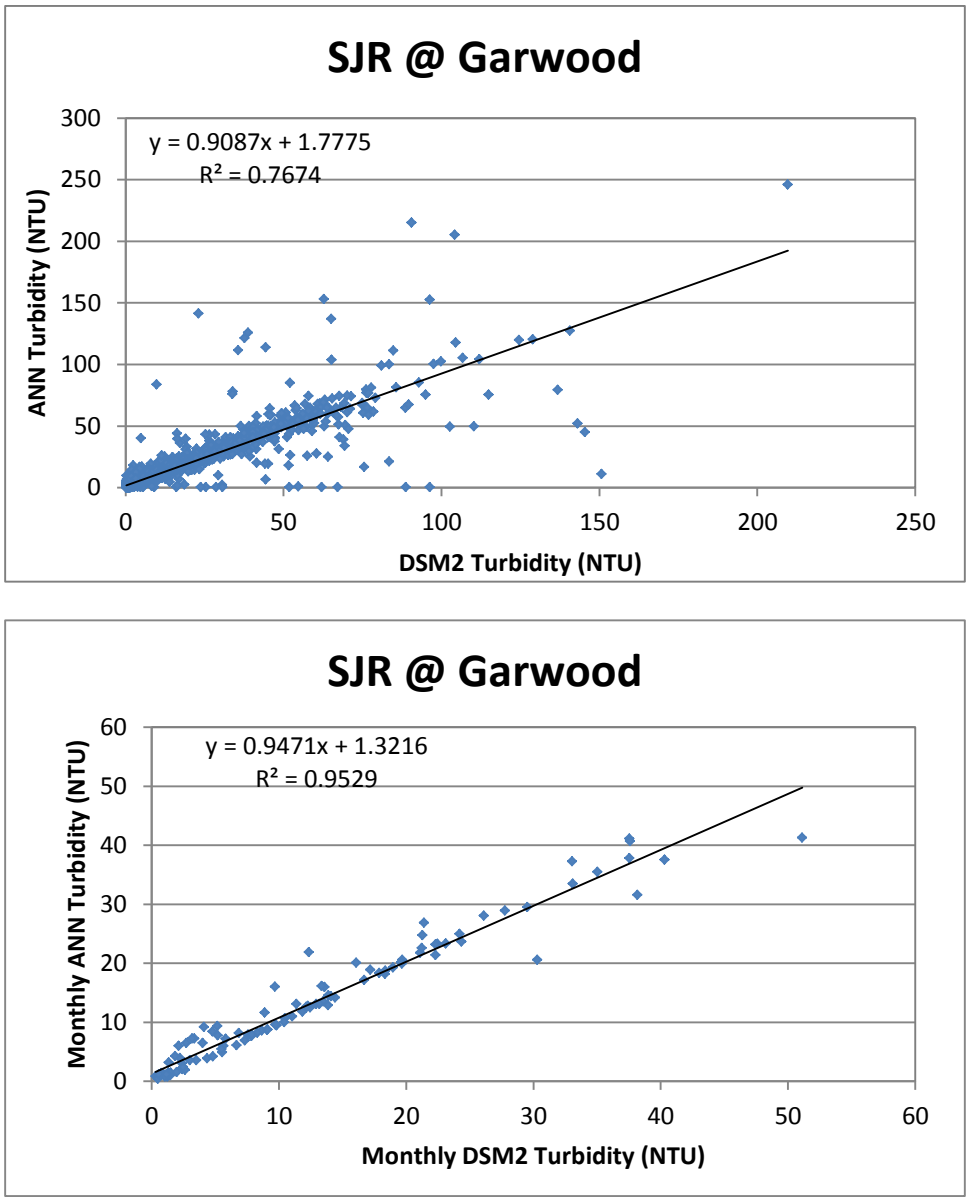


Figure G-G-1 Correlation between monthly averages of ANN and DSM2 simulated turbidity for the winter months (December – March) for the multi-year simulation.