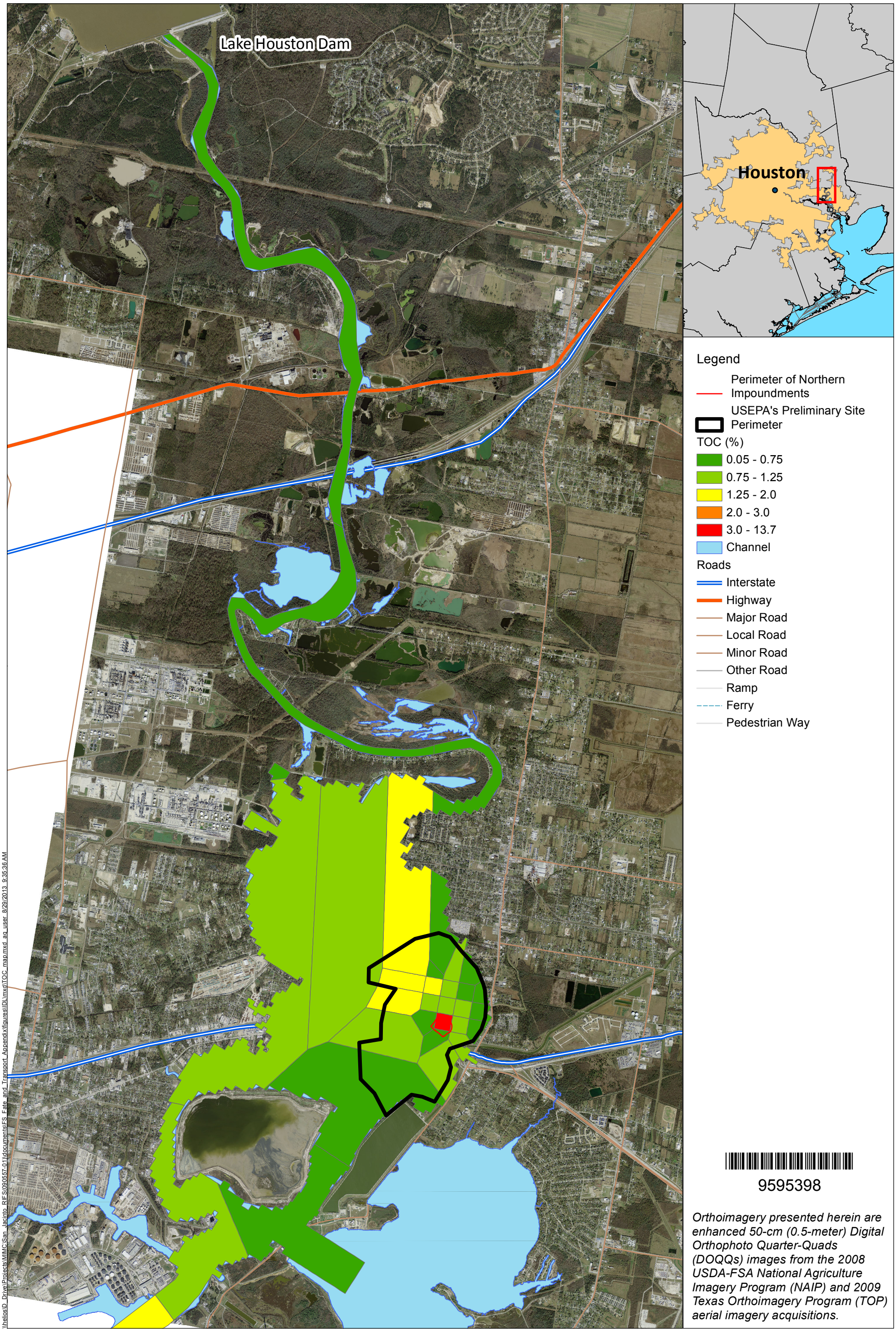
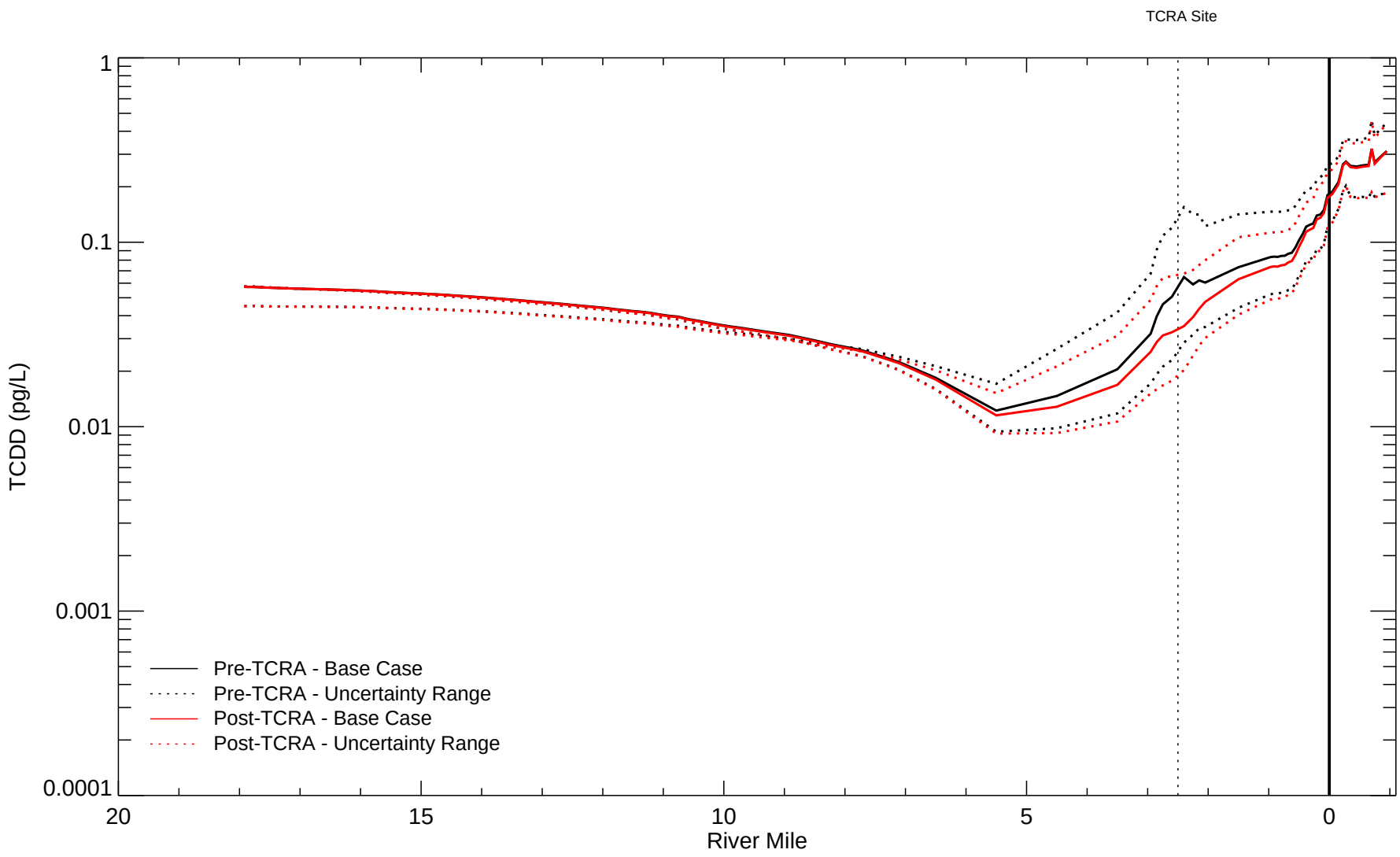


ANCHOR QEA

Figure 3-13
Thiessen Polygons of Total Organic Carbon
Feasibility Study
San Jacinto River Waste Pits Superfund Site

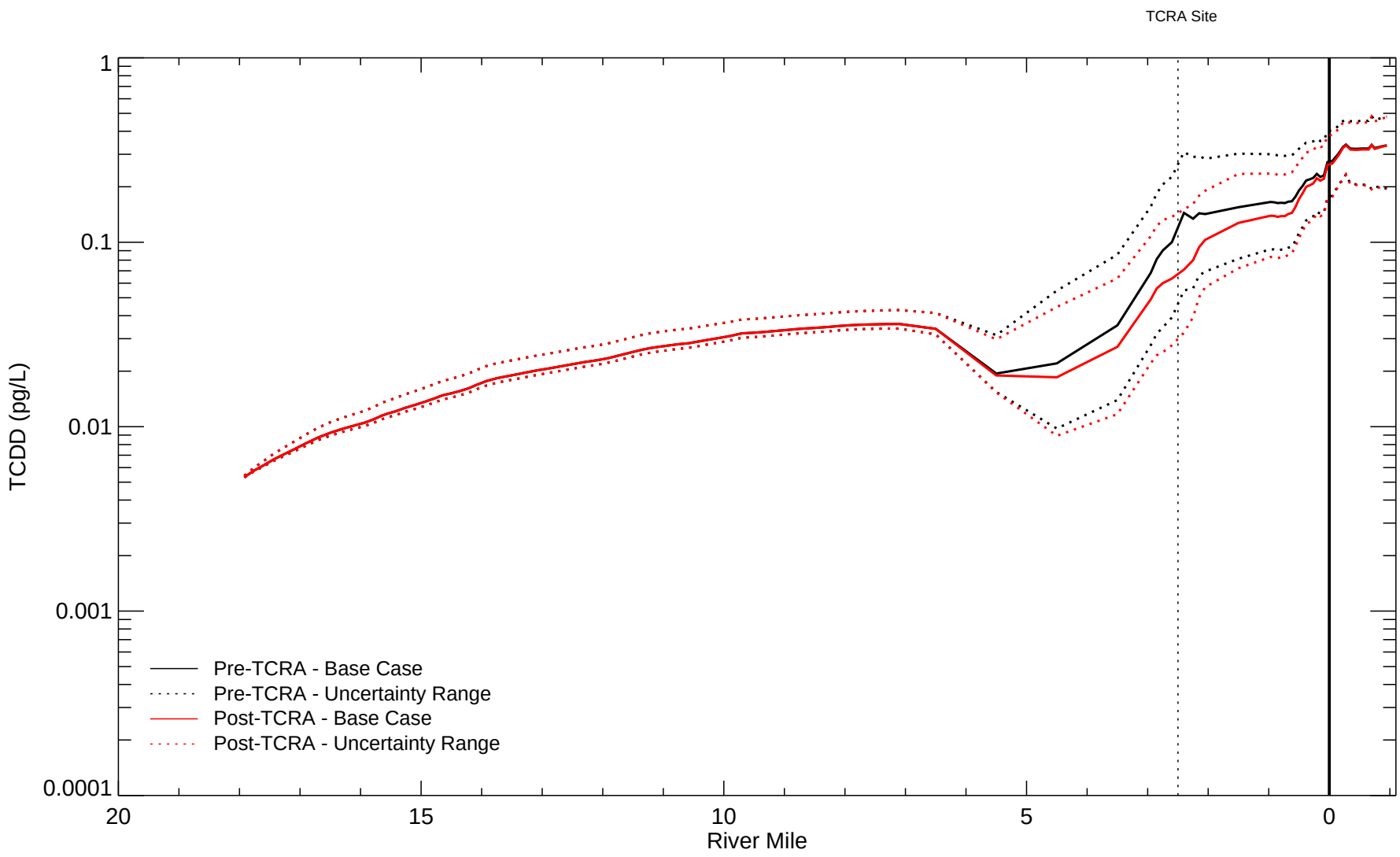


Model Run: SJR_PROJ1_BC_TCDD_1301-03, SJR_PROJ1_SENS1_TCDD_1305-41, SJR_PROJ1_SENS2_TCDD_1305-38, SJR_PROJ2_BC_TCDD_1301-06, SJR_PROJ2_SENS1_TCDD_1305-29, SJR_PROJ2_SENS2_TCDD_1305-26

Figure 3-14a

Spatial Profiles of Model-Predicted Annual Average Water Column TCDD Concentrations (Model Year 11)
Feasibility Study
San Jacinto River Waste Pits Superfund Site

ANCHOR QEA

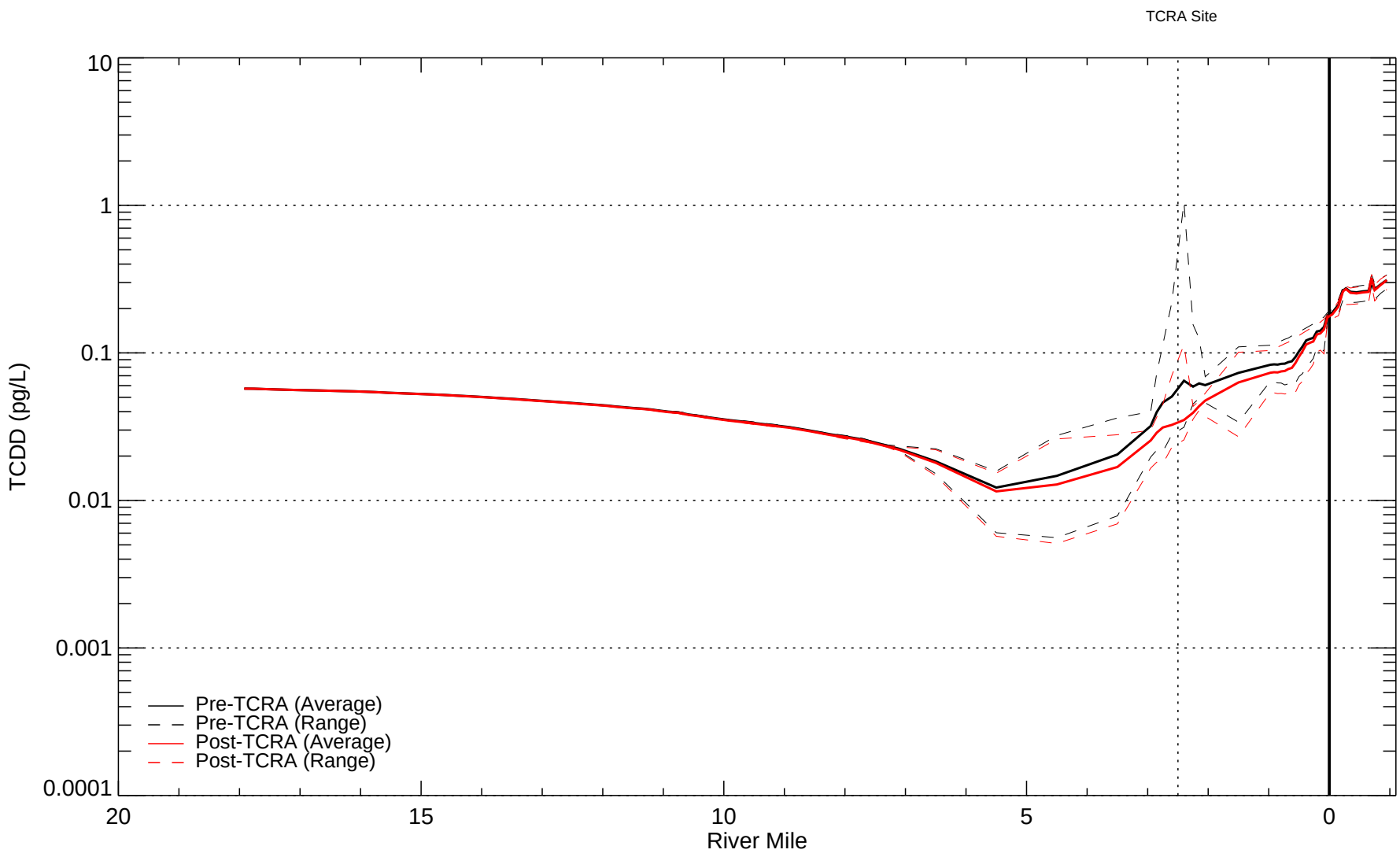


Model Run: SJR_PROJ1_BC_TCDD_1301-03, SJR_PROJ1_SENS1_TCDD_1305-41, SJR_PROJ1_SENS2_TCDD_1305-38, SJR_PROJ2_BC_TCDD_1301-06, SJR_PROJ2_SENS1_TCDD_1305-29, SJR_PROJ2_SENS2_TCDD_1305-26

Figure 3-14b

Spatial Profiles of Model-Predicted Annual Average Water Column TCDD Concentrations (Model Year 7)
Feasibility Study
San Jacinto River Waste Pits Superfund Site

ANCHOR QEA

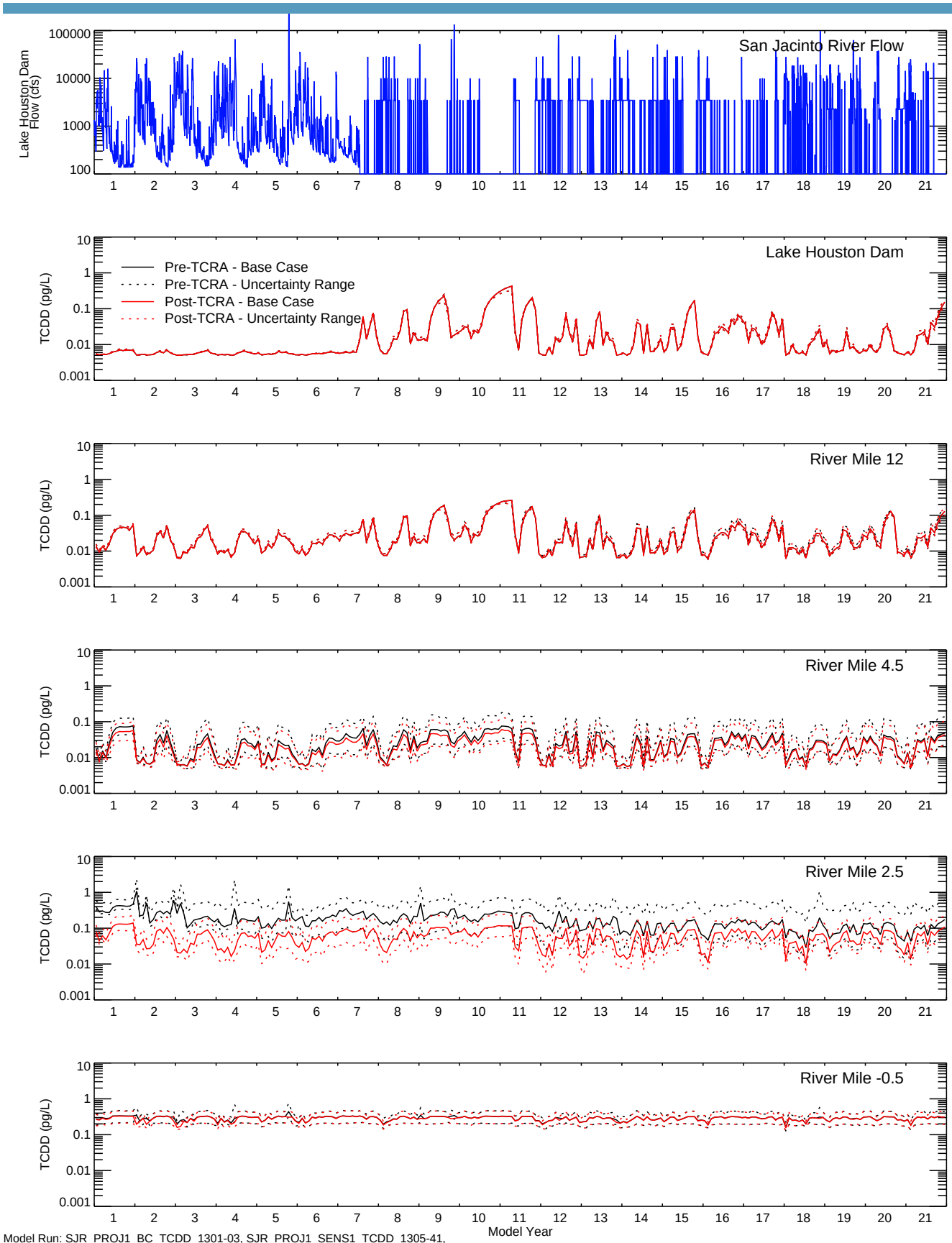


Model Run: SJR_PROJ1_BC_TCDD_1301-03, SJR_PROJ2_BC_TCDD_1301-06

Figure 3-15

Spatial Profiles of Model-Predicted Annual Average Pre- and Post-TCRA Water Column TCDD Concentrations Including Range (Model Year 11)
Feasibility Study
San Jacinto River Waste Pits Superfund Site

ANCHOR QEA



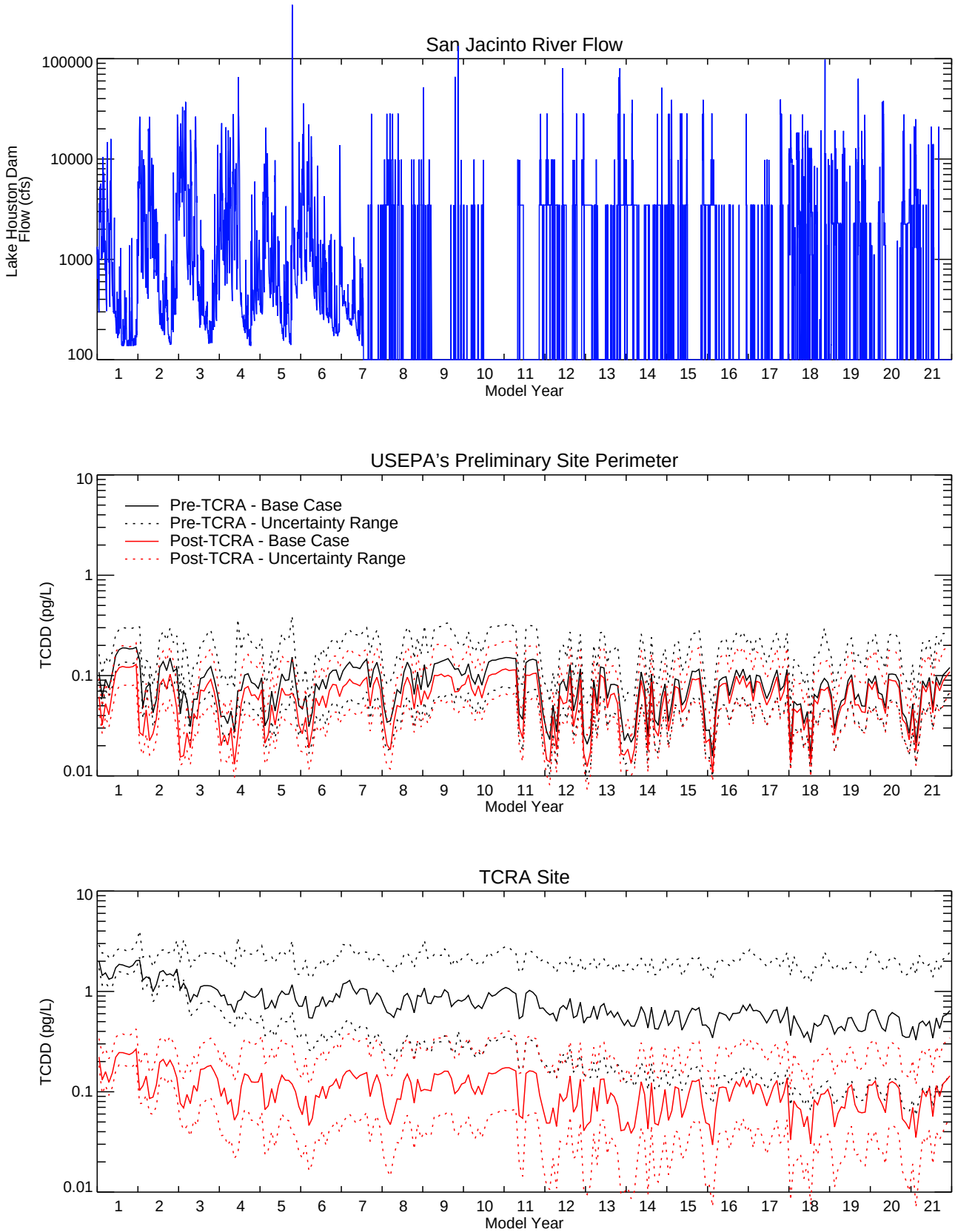
Model Run: SJR_PROJ1_BC_TCDD_1301-03, SJR_PROJ1_SENS1_TCDD_1305-41, SJR_PROJ1_SENS2_TCDD_1305-38, SJR_PROJ2_BC_TCDD_1301-06, SJR_PROJ2_SENS1_TCDD_1305-29, SJR_PROJ2_SENS2_TCDD_1305-26

Figure 3-16

Time Series of Model-Predicted Water Column TCDD Concentrations at Select Transects
Feasibility Study
San Jacinto River Waste Pits Superfund Site

Note: Flow less than 100 cfs plotted at 100 cfs.

ANCHOR QEA

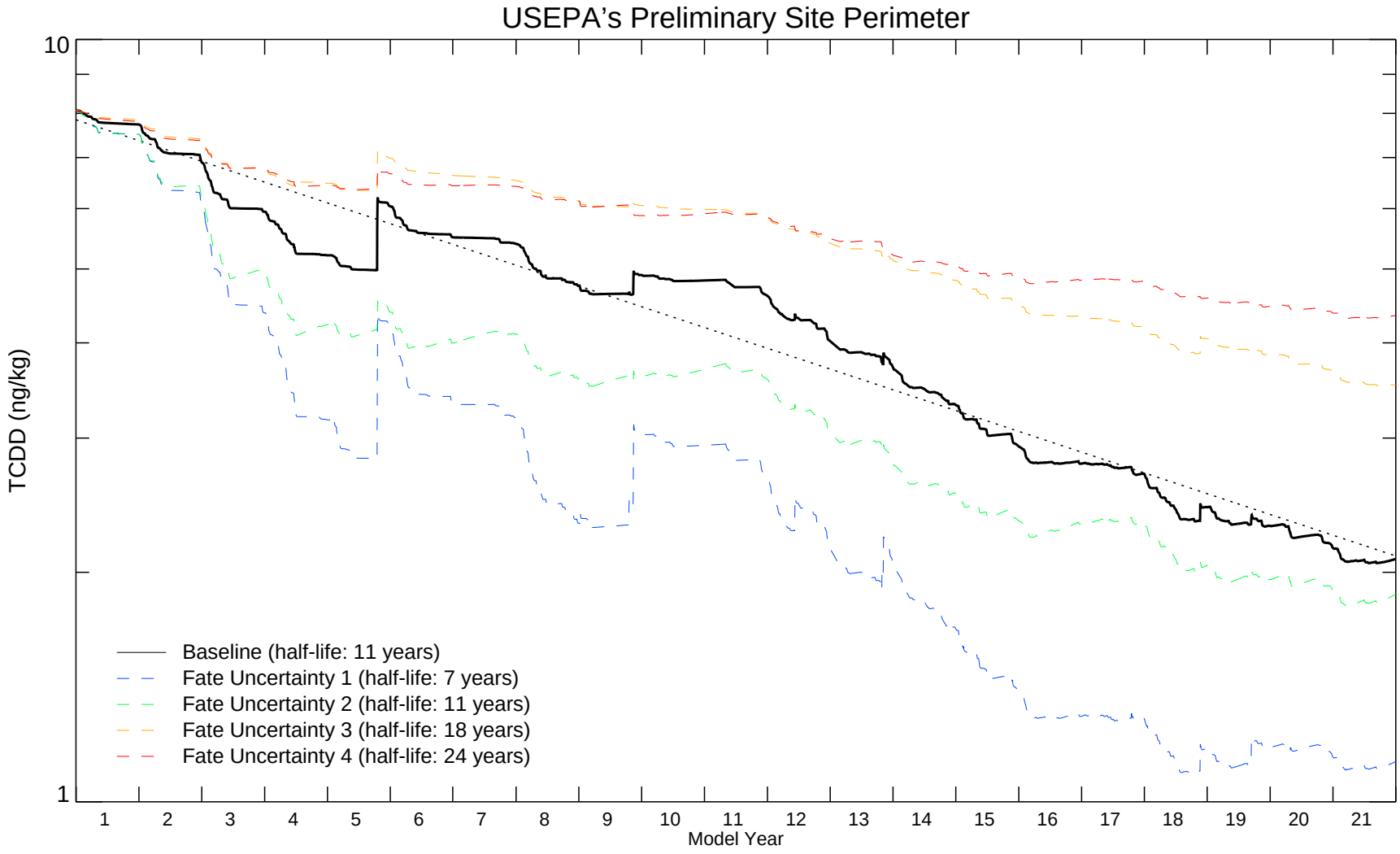


Model Run: SJR_PROJ1_BC_TCDD_1301-03, SJR_PROJ1_SENS1_TCDD_1305-41, SJR_PROJ1_SENS2_TCDD_1305-38, SJR_PROJ2_BC_TCDD_1301-06, SJR_PROJ2_SENS1_TCDD_1305-29, SJR_PROJ2_SENS2_TCDD_1305-26

Figure 3-17

Time Series of Model-Predicted Water Column TCDD Concentrations within the USEPA's Preliminary Site Perimeter and TCRA Site
Feasibility Study
San Jacinto River Waste Pits Superfund Site

Note: Flow less than 100 cfs plotted at 100 cfs.



Model Run: SJR_PROJ2_BC_TCDD_1301-06, SJR_PROJ2_SENS1_TCDD_1305-29, SJR_PROJ2_SENS4_TCDD_1305-21, SJR_PROJ2_SENS3_TCDD_1305-22, SJR_PROJ2_SENS2_TCDD_1305-26

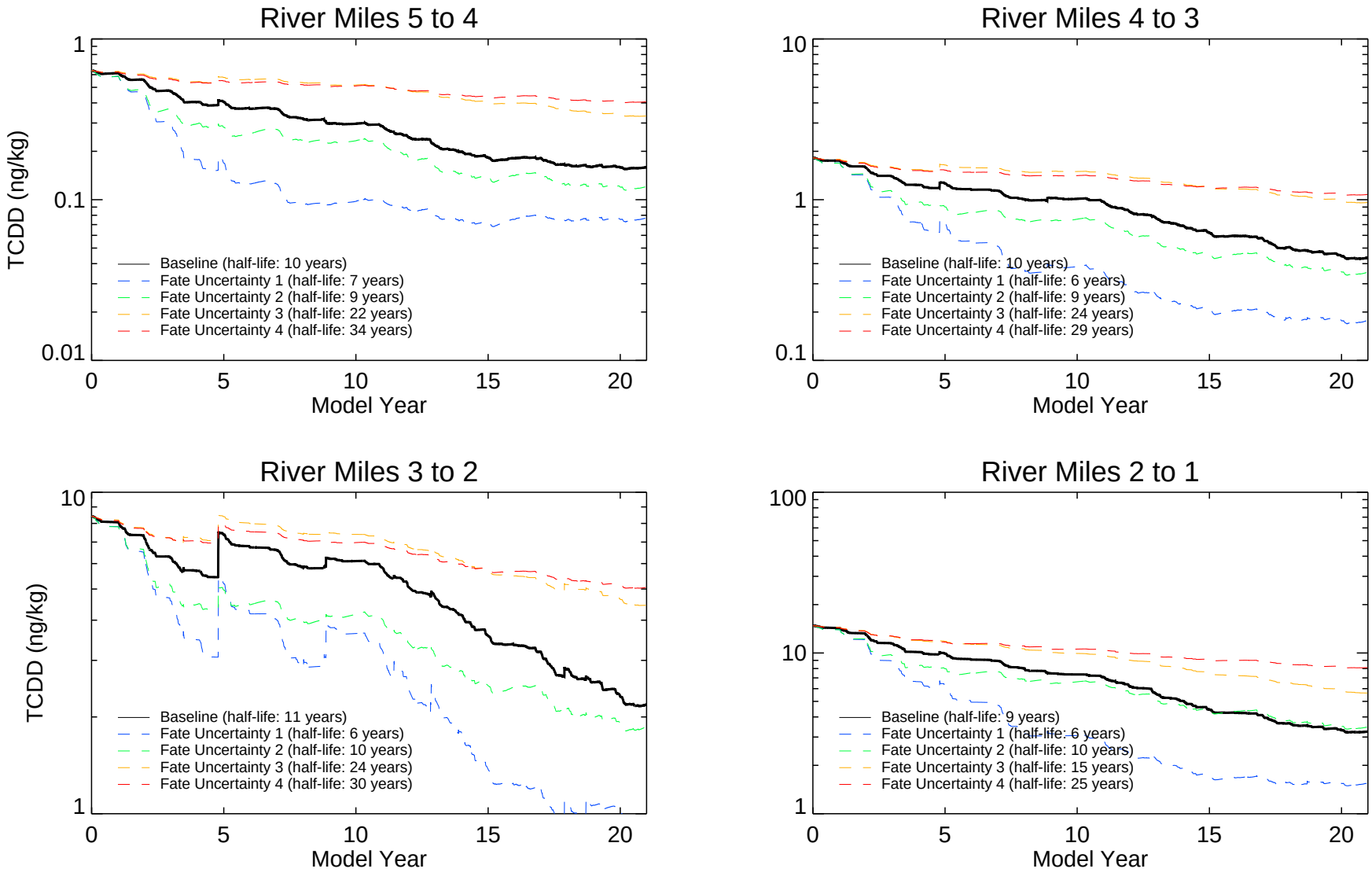
Figure 3-18

Time Series of Model-Predicted Post-TCRA Surface Sediment (top 6 inches) TCDD Concentrations Averaged within the USEPA's Preliminary Site Perimeter

Feasibility Study

San Jacinto River Waste Pits Superfund Site

Note: Dotted line represents an exponential decay curve fit to the model results.

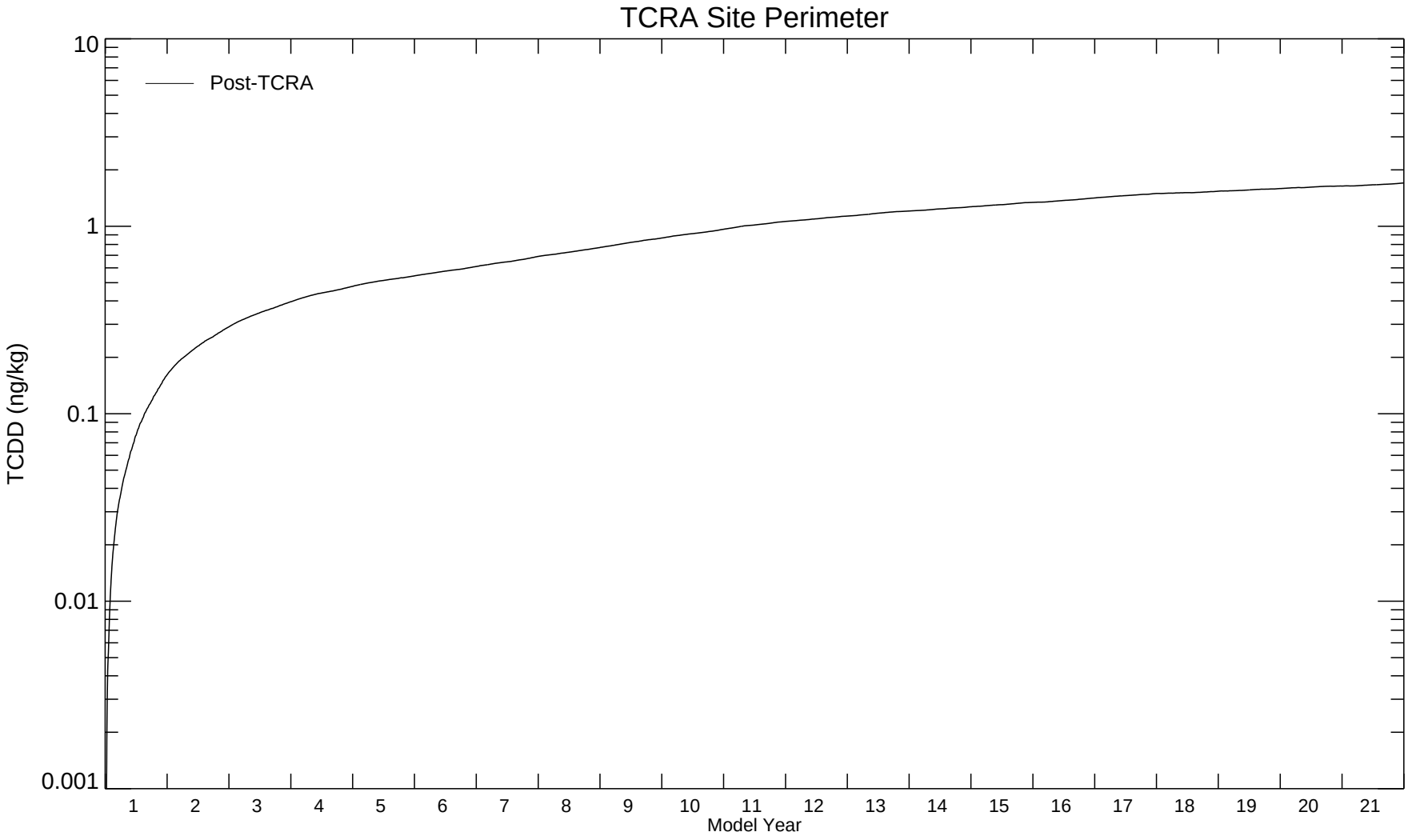


Model Run: SJR_PROJ2_BC_TCDD_1301-06, SJR_PROJ2_SENS1_TCDD_1305-29, SJR_PROJ2_SENS4_TCDD_1305-21, SJR_PROJ2_SENS3_TCDD_1305-22, SJR_PROJ2_SENS2_TCDD_1305-26

Figure 3-19

Time Series of Model-Predicted Post-TCRA Surface Sediment (top 6 inches) TCDD Concentrations Averaged by River Mile
Feasibility Study
San Jacinto River Waste Pits Superfund Site

ANCHOR QEA

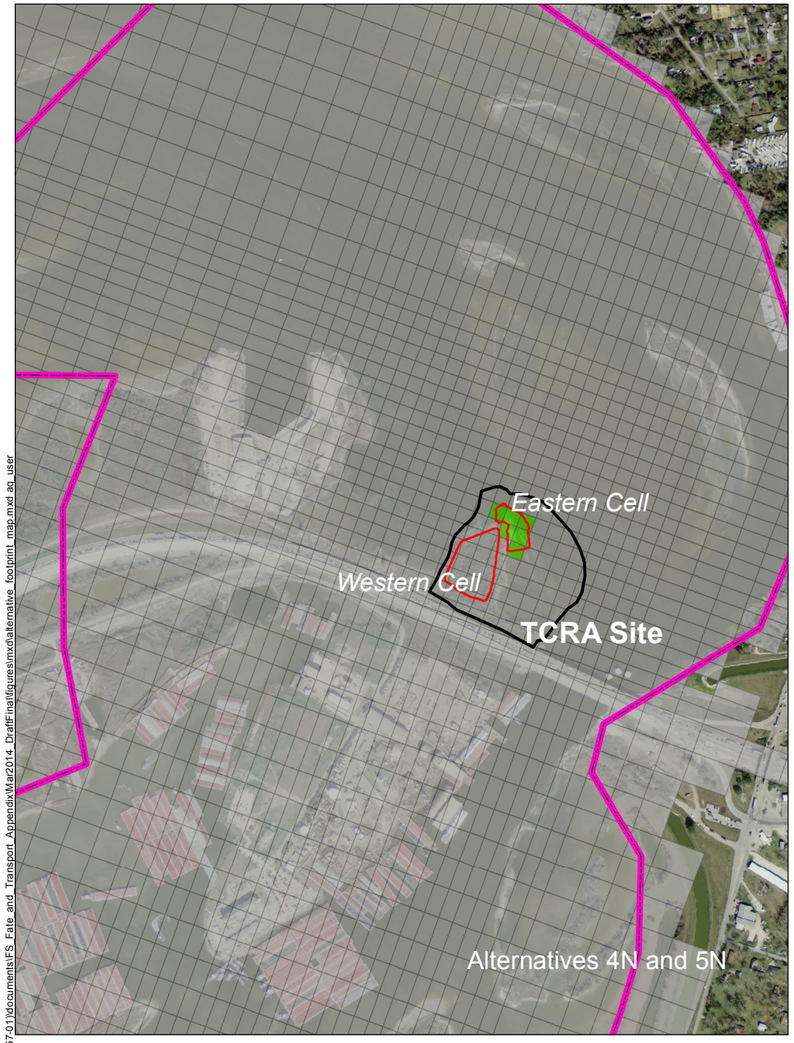


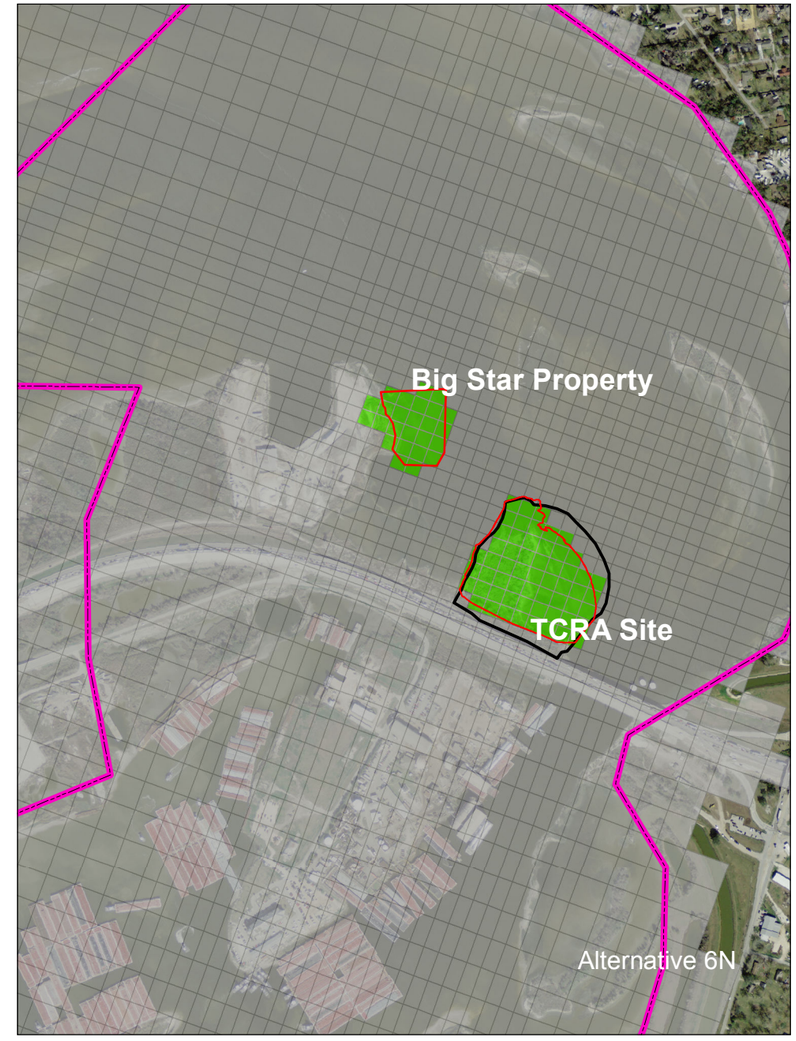
Model Run: SJR_PROJ2_BC_TCDD_1301-06

Figure 3-20

Time Series of Model-Predicted Post-TCRA Sediment TCDD Concentration on the Surface of the Armored Cap
Feasibility Study
San Jacinto River Waste Pits Superfund Site

ANCHOR QEA





LEGEND

- USEPA's Preliminary Site Perimeter
- Perimeter of Northern Impoundments
- Remediation Footprint
- Model Grid
- Remediation Footprint Represented in Model

NOTES:
Orthoimagery presented herein are enhanced 50-cm (0.5-meter) Digital Orthophoto Quarter-Quads (DOQQs) images from the 2008 USDA-FSA National Agriculture Imagery Program (NAIP) and 2009 Texas Orthoimagery Program (TOP) aerial imagery acquisitions.

0 0.5 1 Miles

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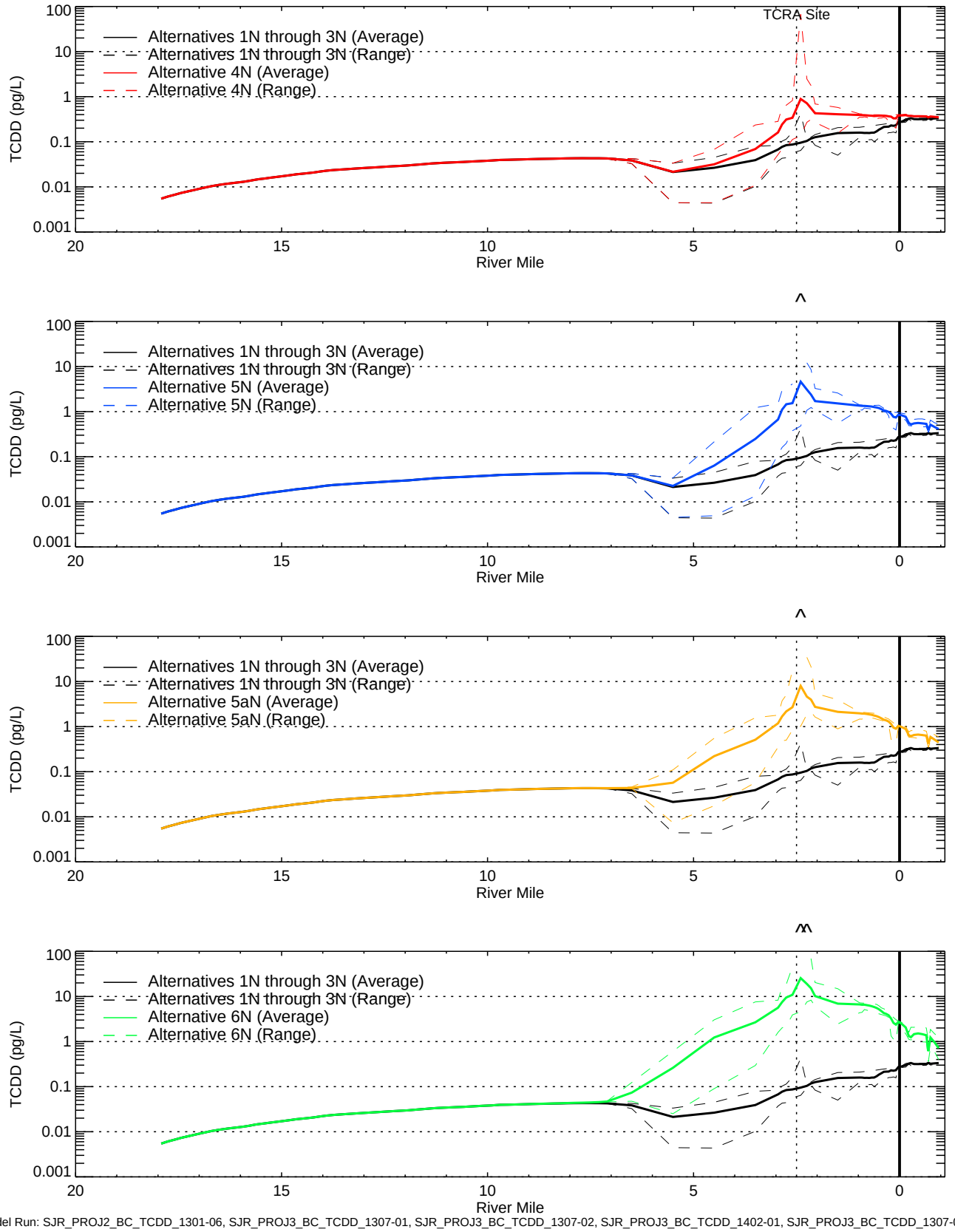
ANCHOR QEA

Figure 4-1
Alternatives 4N, 5N, 5aN, and 6N Remediation Footprints
Feasibility Study
San Jacinto River Waste Pits Superfund Site

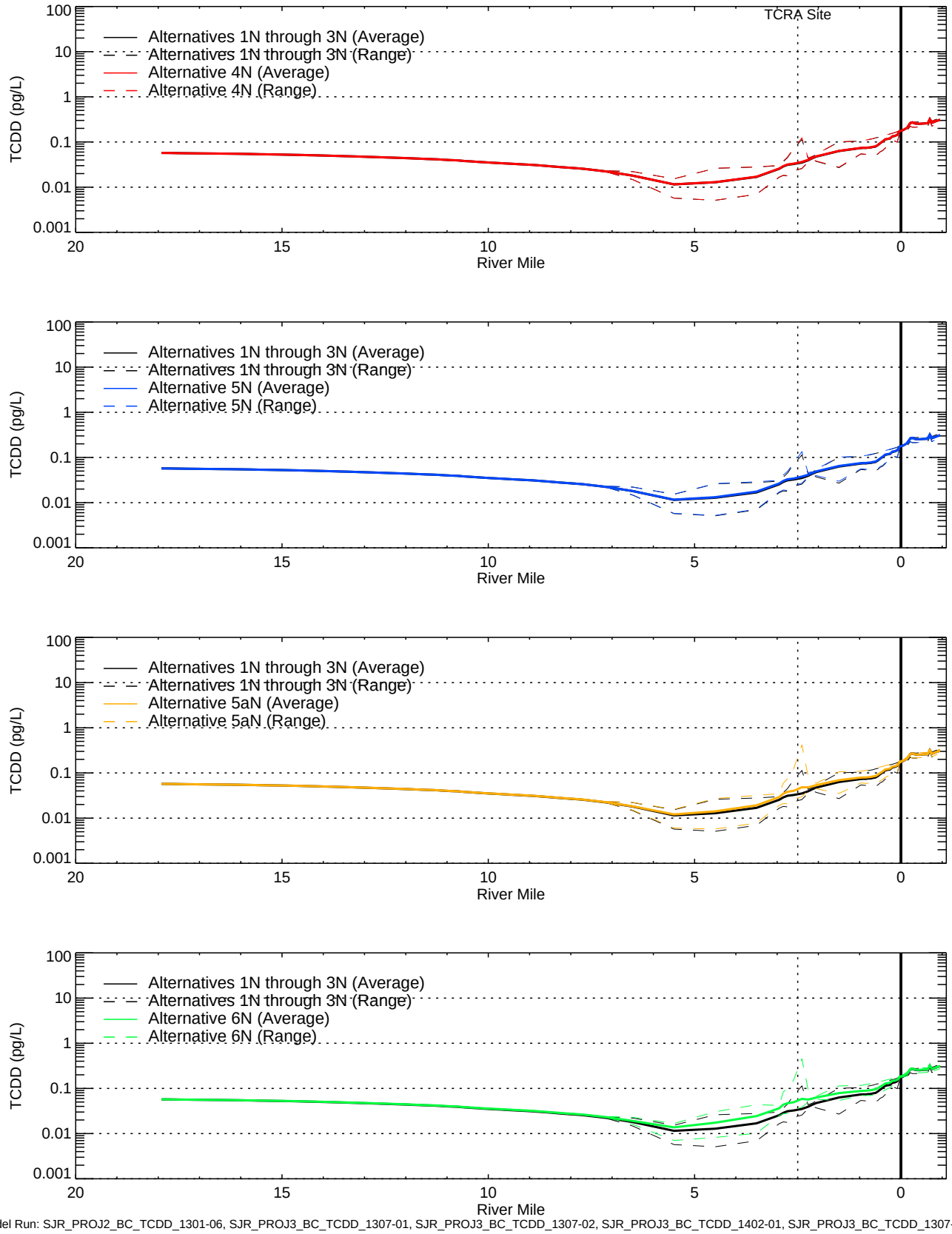


Model Run: SJR_PROJ2_BC_TCDD_1301-06, SJR_PROJ3_BC_TCDD_1307-01, SJR_PROJ3_BC_TCDD_1307-02, SJR_PROJ3_BC_TCDD_1402-01, SJR_PROJ3_BC_TCDD_1307-03

Figure 4-2a

Spatial Profiles of Model-Predicted Annual Average Water Column TCDD Concentrations for Alternatives 1N through 3N and Alternatives 4N, 5N, 5aN, and 6N Simulations (Model Year 1)
Feasibility Study
San Jacinto River Waste Pits Superfund Site

ANCHOR QEA

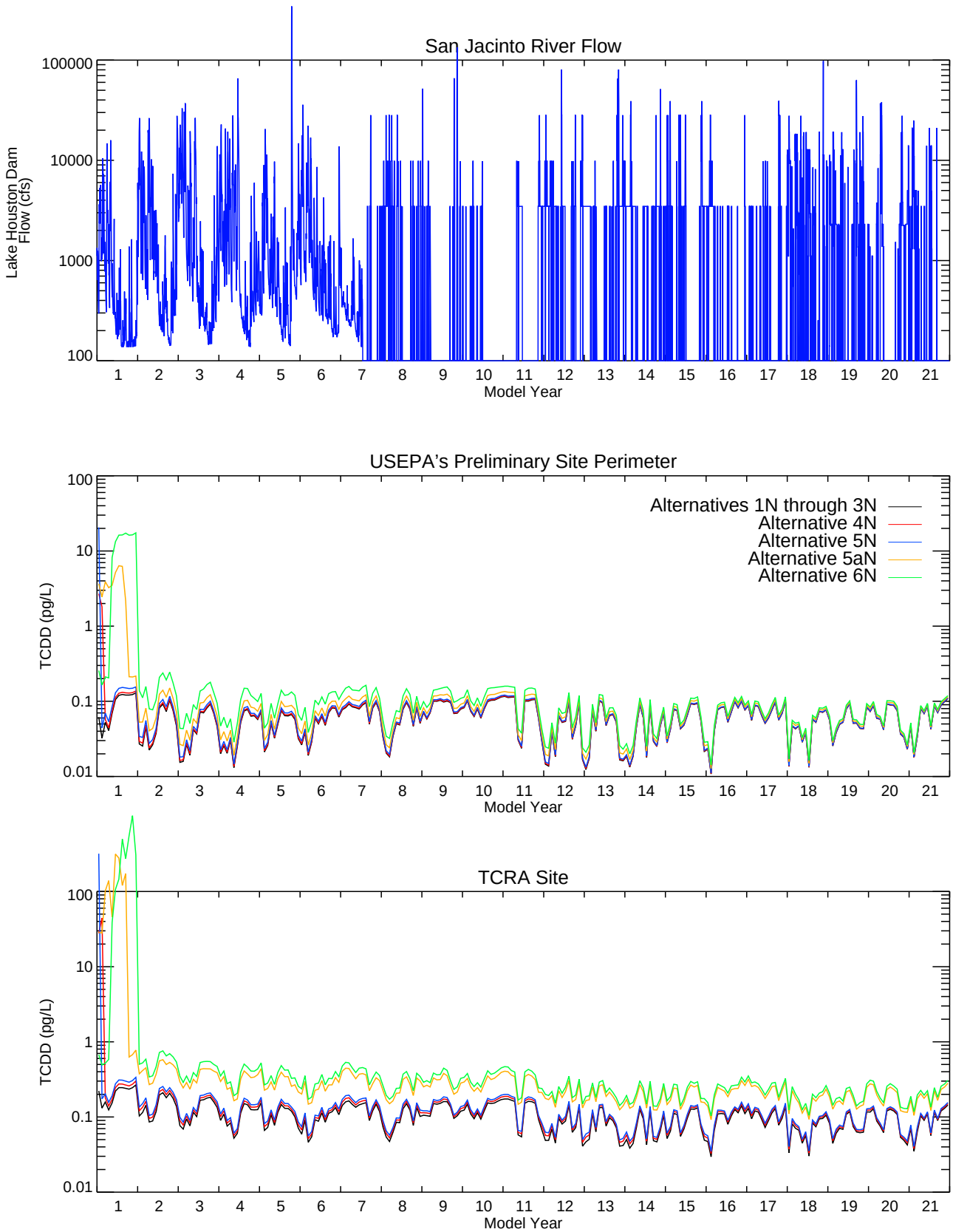


Model Run: SJR_PROJ2_BC_TCDD_1301-06, SJR_PROJ3_BC_TCDD_1307-01, SJR_PROJ3_BC_TCDD_1307-02, SJR_PROJ3_BC_TCDD_1402-01, SJR_PROJ3_BC_TCDD_1307-03

Figure 4-2b

Spatial Profiles of Model-Predicted Annual Average Water Column TCDD Concentrations for Alternatives 1N through 3N and Alternatives 4N, 5N, 5aN, and 6N Simulations (Model Year 11)
Feasibility Study
San Jacinto River Waste Pits Superfund Site

ANCHOR QEA

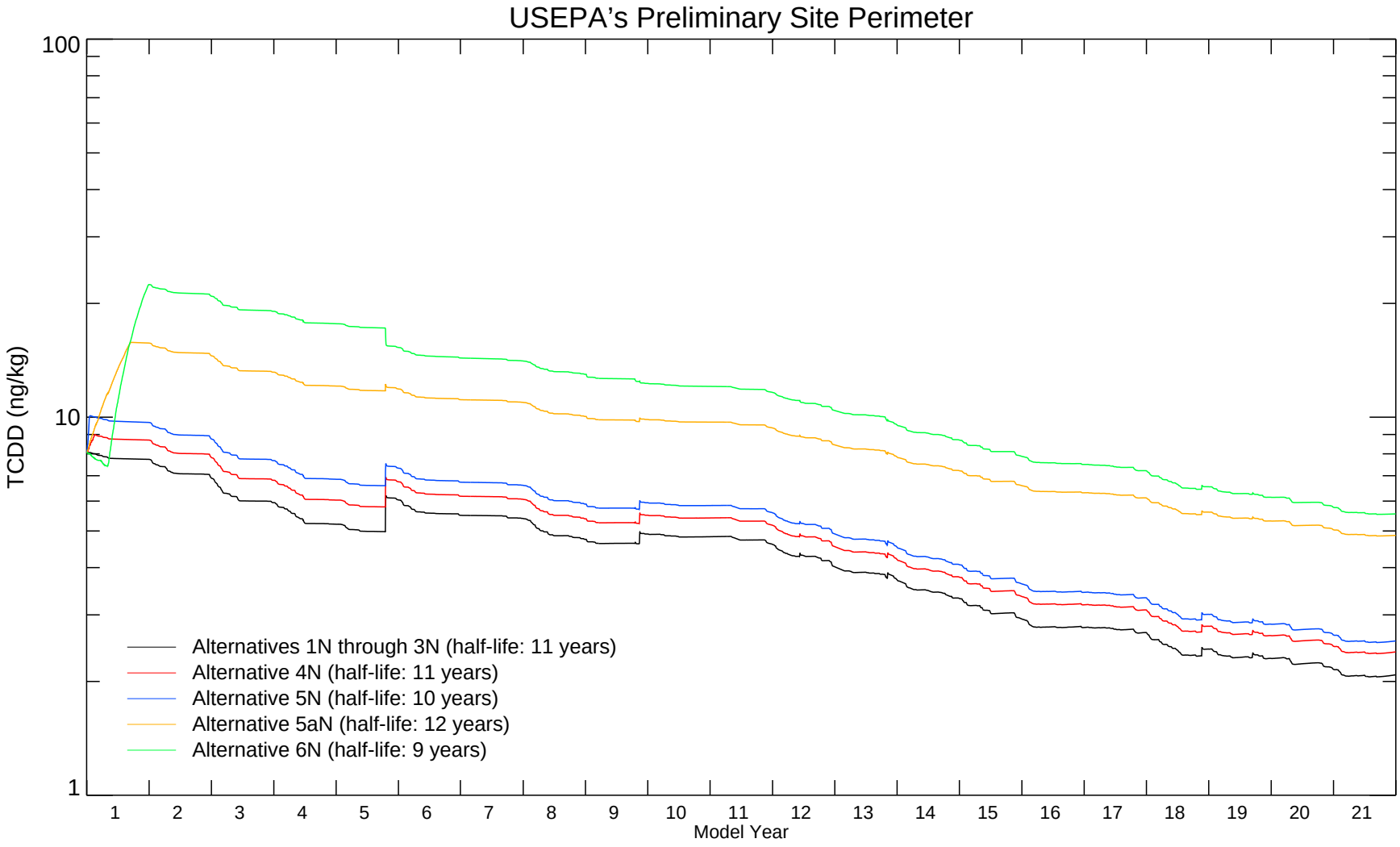


Model Run: SJR_PROJ2_BC_TCDD_1301-06, SJR_PROJ3_BC_TCDD_1307-01, SJR_PROJ3_BC_TCDD_1307-02, SJR_PROJ3_BC_TCDD_1402-01, SJR_PROJ3_BC_TCDD_1307-03

Figure 4-3

Time Series of Model-Predicted Water Column TCDD Concentrations Averaged within the USEPA's Preliminary Site Perimeter and TCRA Site for Alternatives 1N through 3N and Alternatives 4N, 5N, 5aN, and 6N Simulations
Feasibility Study
San Jacinto River Waste Pits Superfund Site

Note: Flow less than 100 cfs plotted at 100 cfs.



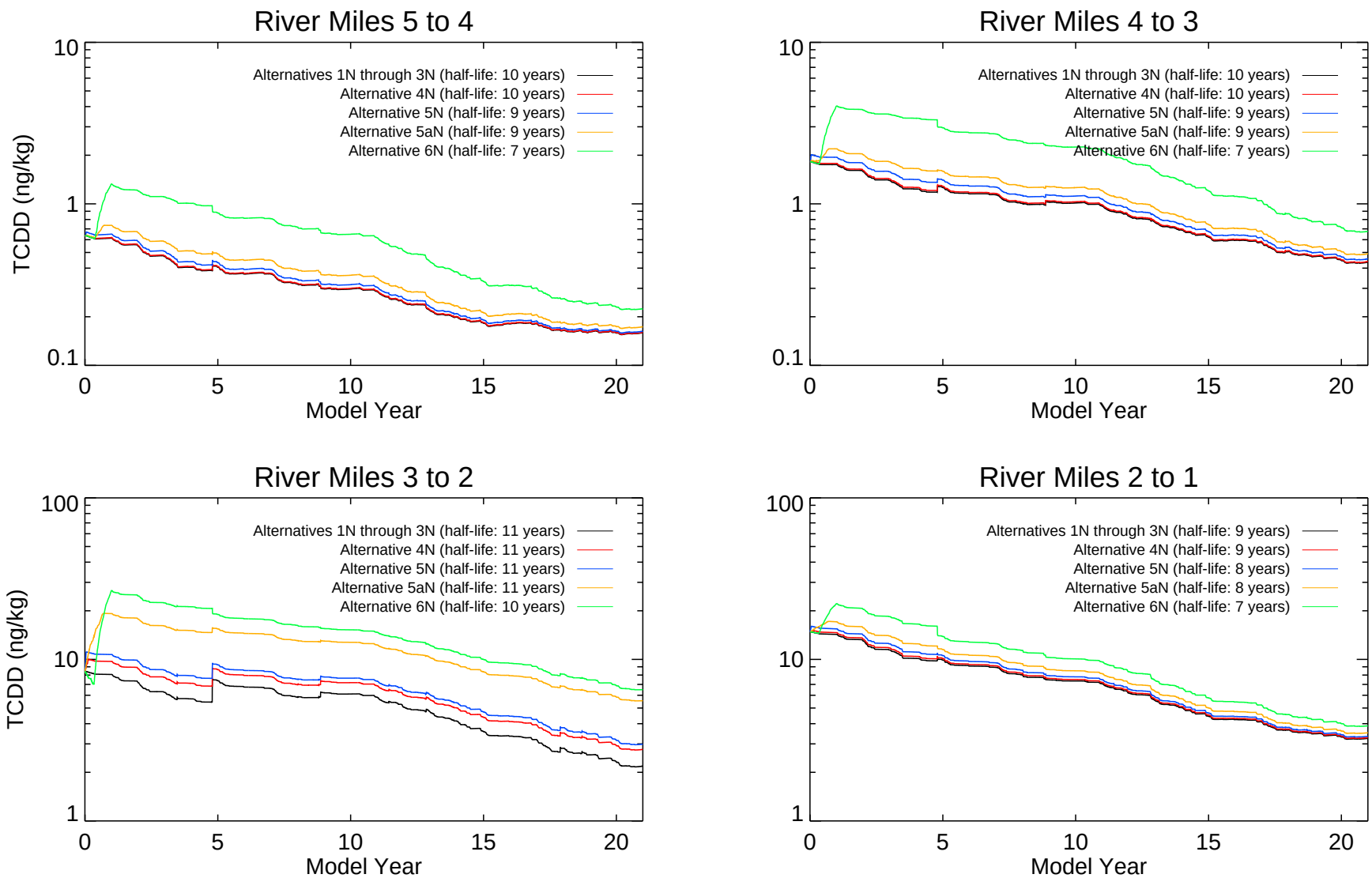
* The remediation year (year 1) is excluded from the half-life calculation for all the simulations on this plot.

Model Run: SJR_PROJ2_BC_TCDD_1301-06, SJR_PROJ3_BC_TCDD_1307-01, SJR_PROJ3_BC_TCDD_1307-02, SJR_PROJ3_BC_TCDD_1402-01, SJR_PROJ3_BC_TCDD_1307-03

Figure 4-4

Time Series of Model-Predicted Surface Sediment (top 6 inches) TCDD Concentrations Averaged within the USEPA's Preliminary Site Perimeter for Alternatives 1N through 3N and Alternatives 4N, 5N, 5aN, and 6N Simulations
Feasibility Study
San Jacinto River Waste Pits Superfund Site

ANCHOR QEA



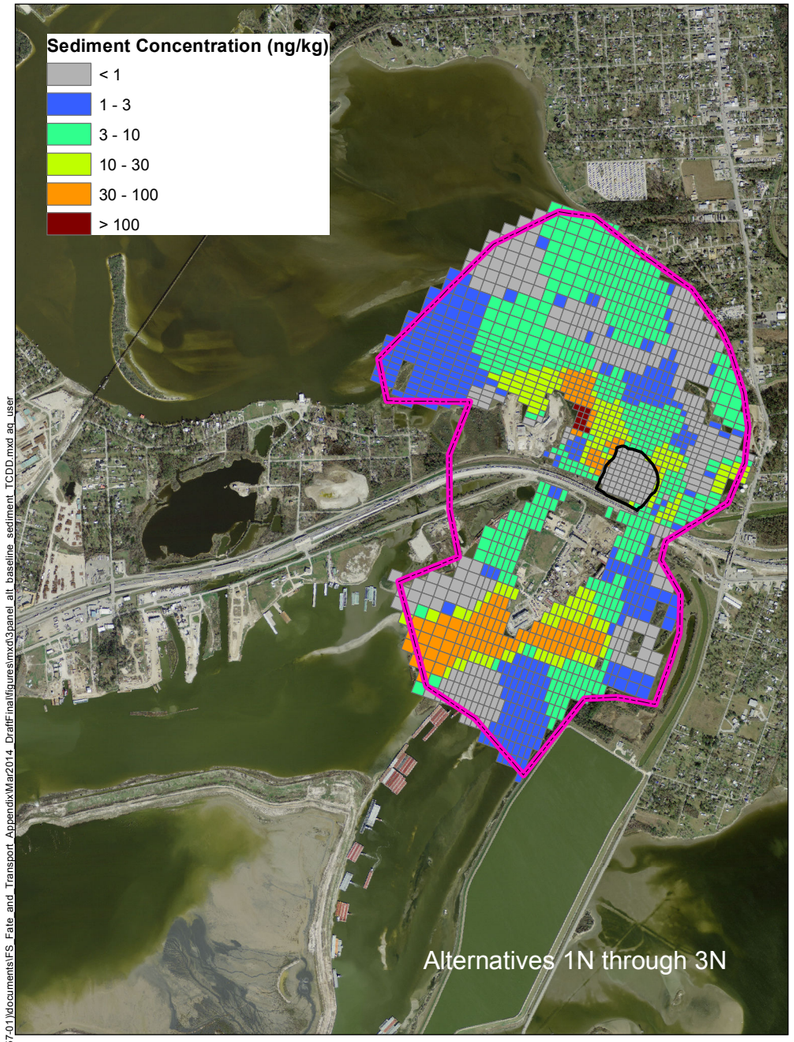
* The remediation year (year 1) is excluded from the half-life calculation for all the simulations on this plot.

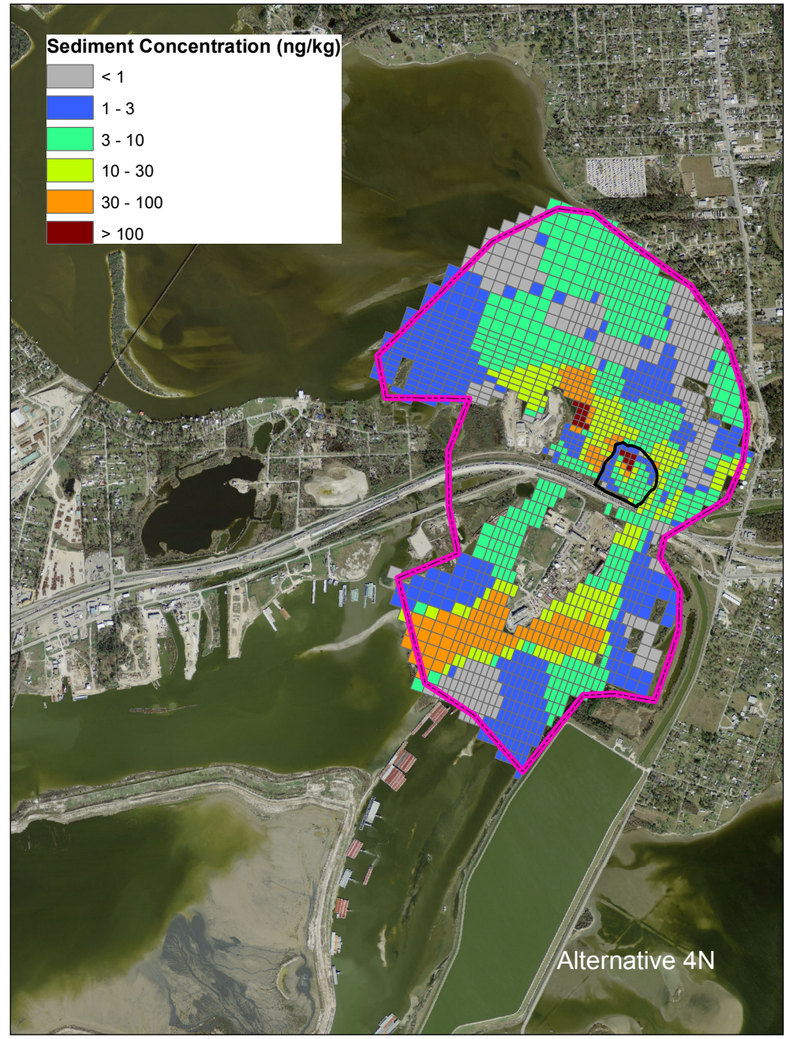
Model Run: SJR_PROJ2_BC_TCDD_1301-06, SJR_PROJ3_BC_TCDD_1307-01, SJR_PROJ3_BC_TCDD_1307-02, SJR_PROJ3_BC_TCDD_1402-01, SJR_PROJ3_BC_TCDD_1307-03

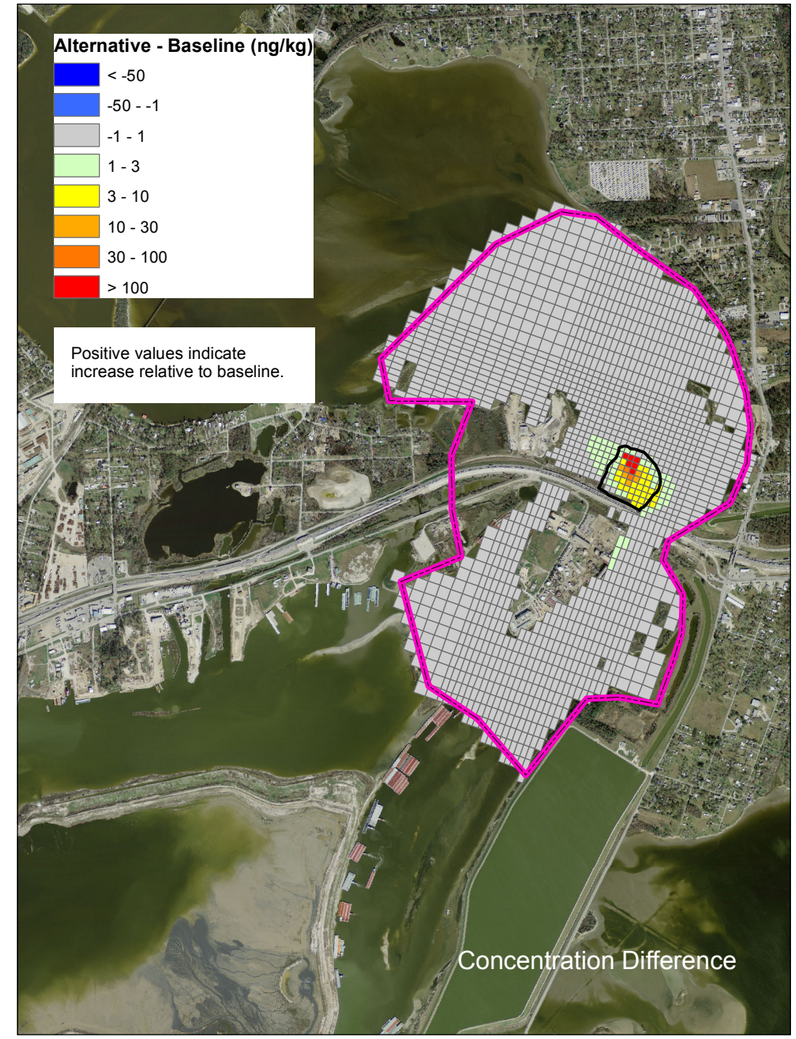
Figure 4-5

Time Series of Model-Predicted Surface Sediment (top 6 inches) TCDD Concentrations Averaged by River Mile for Alternatives 1N through 3N and Alternatives 4N, 5N, 5aN, and 6N Simulations
Feasibility Study
San Jacinto River Waste Pits Superfund Site

ANCHOR QEA







LEGEND

Perimeter of Northern Impoundments

USEPA's Preliminary Site Perimeter

NOTES:
Orthoimagery presented herein are enhanced 50-cm (0.5-meter) Digital Orthophoto Quarter-Quads (DOQQs) images from the 2008 USDA-FSA National Agriculture Imagery Program (NAIP) and 2009 Texas Orthoimagery Program (TOP) aerial imagery acquisitions.

0 1 2 Miles

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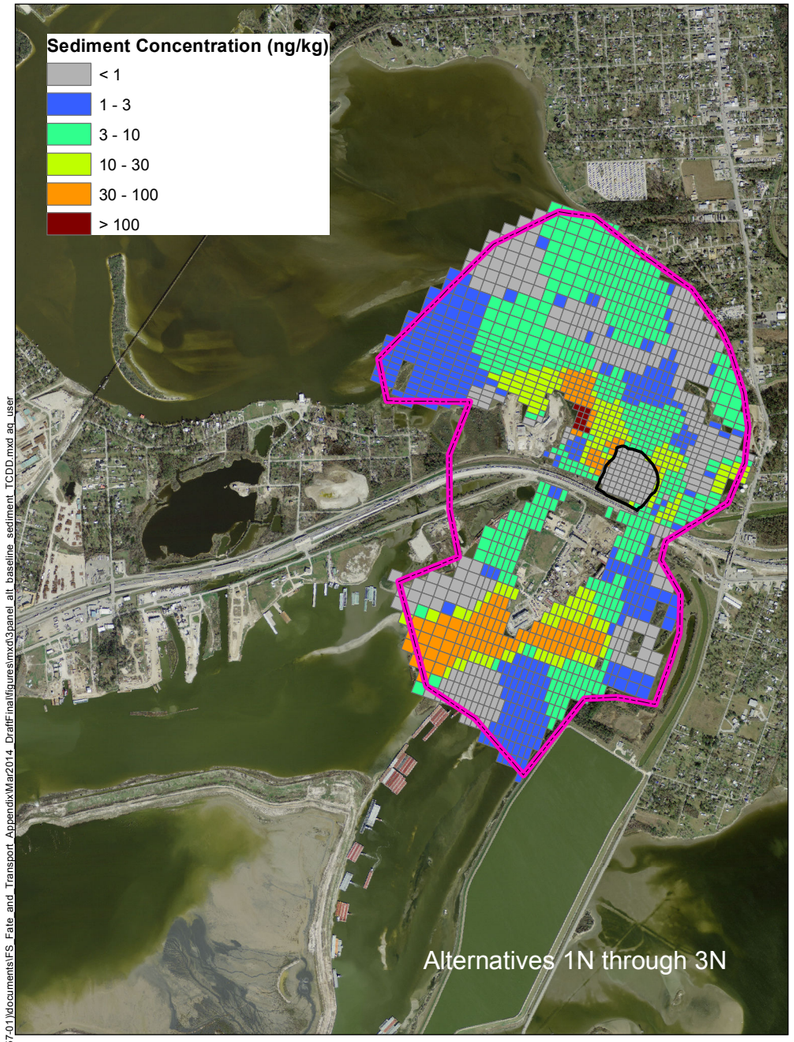
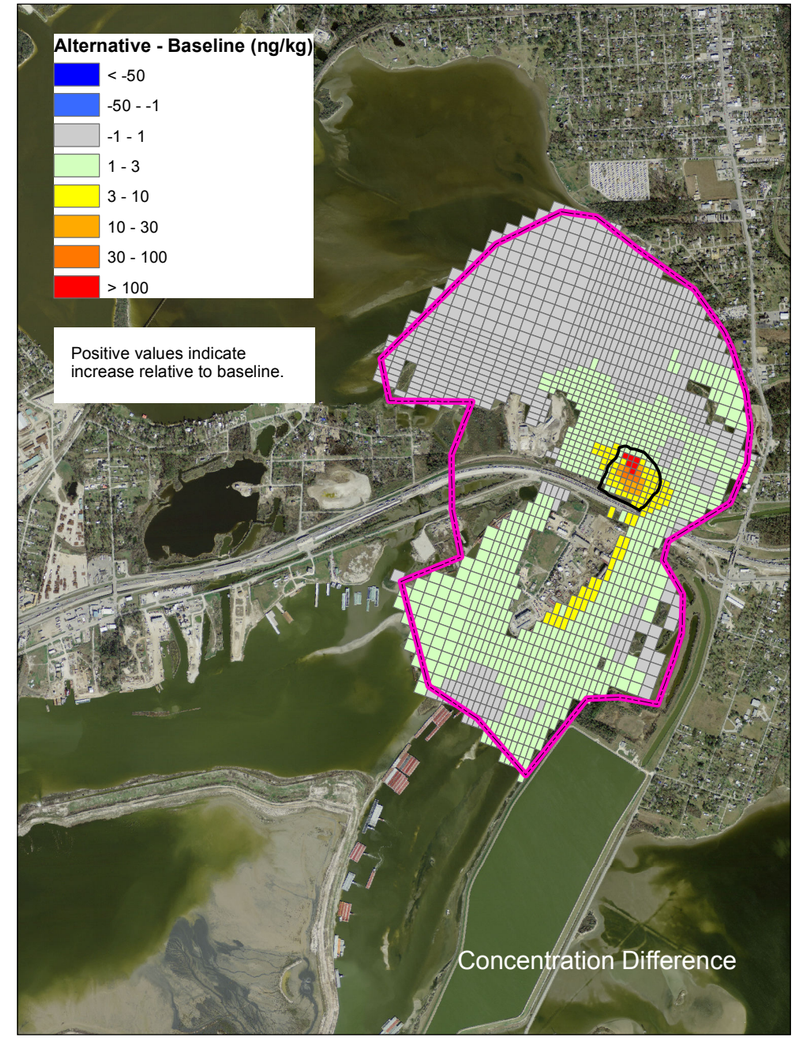
ANCHOR QEA

Figure 4-6a
Model-Predicted Surface Sediment (top 6 inches) TCDD Concentrations at the End of the First Model Year for Alternatives 1N through 3N and Alternative 4N Simulations
Feasibility Study
San Jacinto River Waste Pits Superfund Site





LEGEND

Perimeter of Northern Impoundments

USEPA's Preliminary Site Perimeter

NOTES:
Orthoimagery presented herein are enhanced 50-cm (0.5-meter) Digital Orthophoto Quarter-Quads (DOQQs) images from the 2008 USDA-FSA National Agriculture Imagery Program (NAIP) and 2009 Texas Orthoimagery Program (TOP) aerial imagery acquisitions.

0 1 2 Miles

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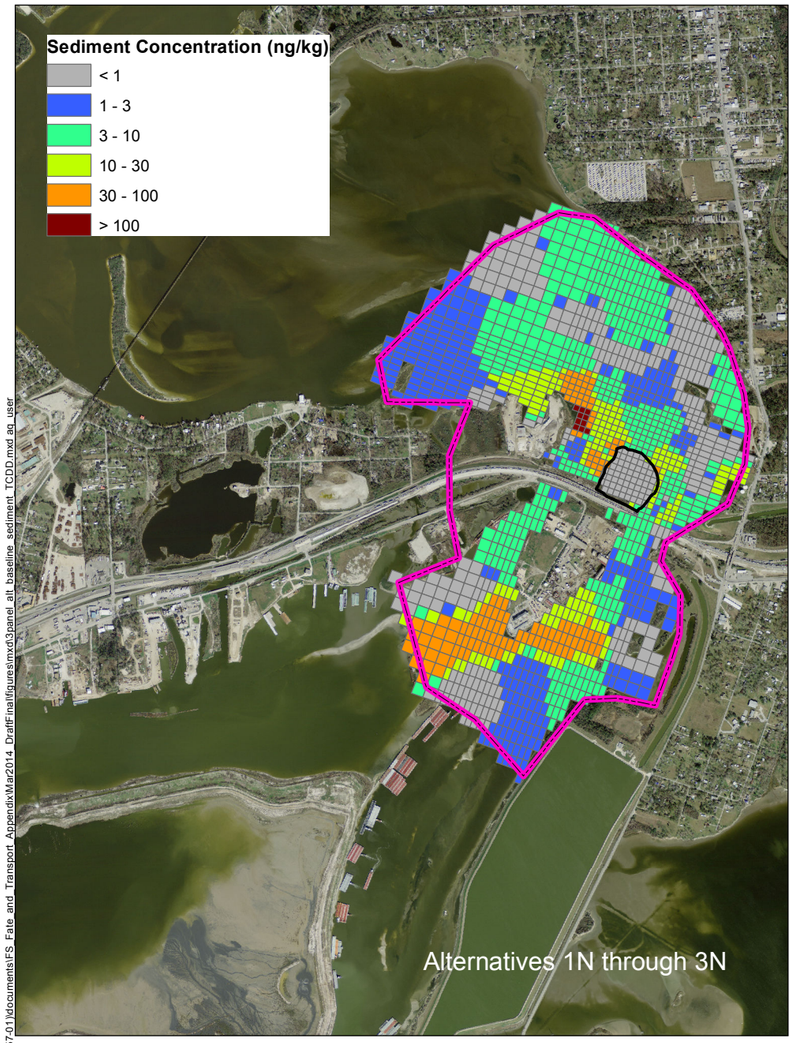
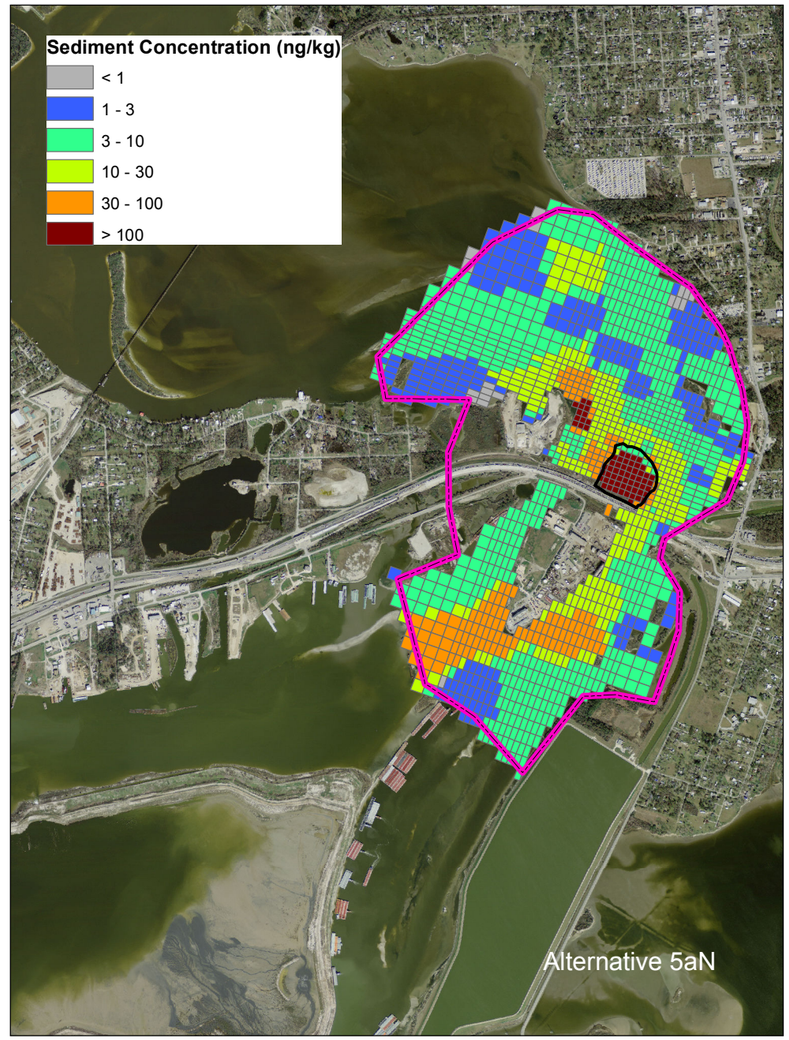
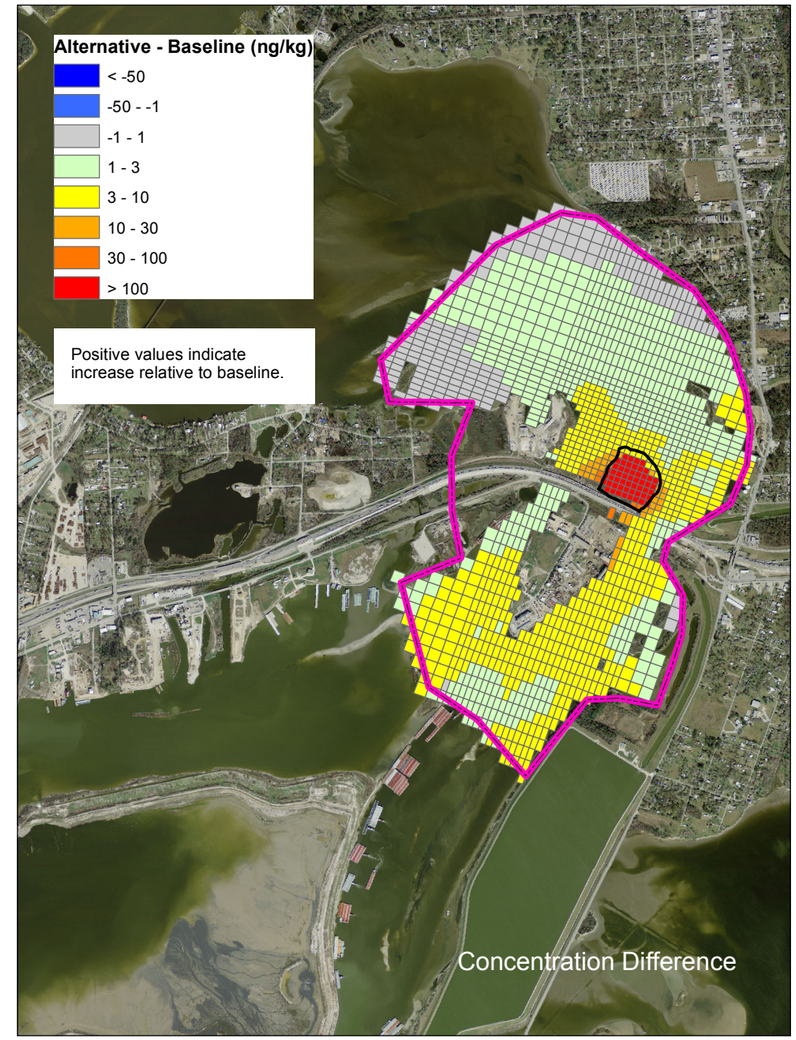
ANCHOR QEA

Figure 4-6b
Model-Predicted Surface Sediment (top 6 inches) TCDD Concentrations at the End of the First Model Year for Alternatives 1N through 3N and Alternative 5N Simulations
Feasibility Study
San Jacinto River Waste Pits Superfund Site







LEGEND

Perimeter of Northern Impoundments

USEPA's Preliminary Site Perimeter

NOTES:
Orthoimagery presented herein are enhanced 50-cm (0.5-meter) Digital Orthophoto Quarter-Quads (DOQQs) images from the 2008 USDA-FSA National Agriculture Imagery Program (NAIP) and 2009 Texas Orthoimagery Program (TOP) aerial imagery acquisitions.

0 1 2 Miles

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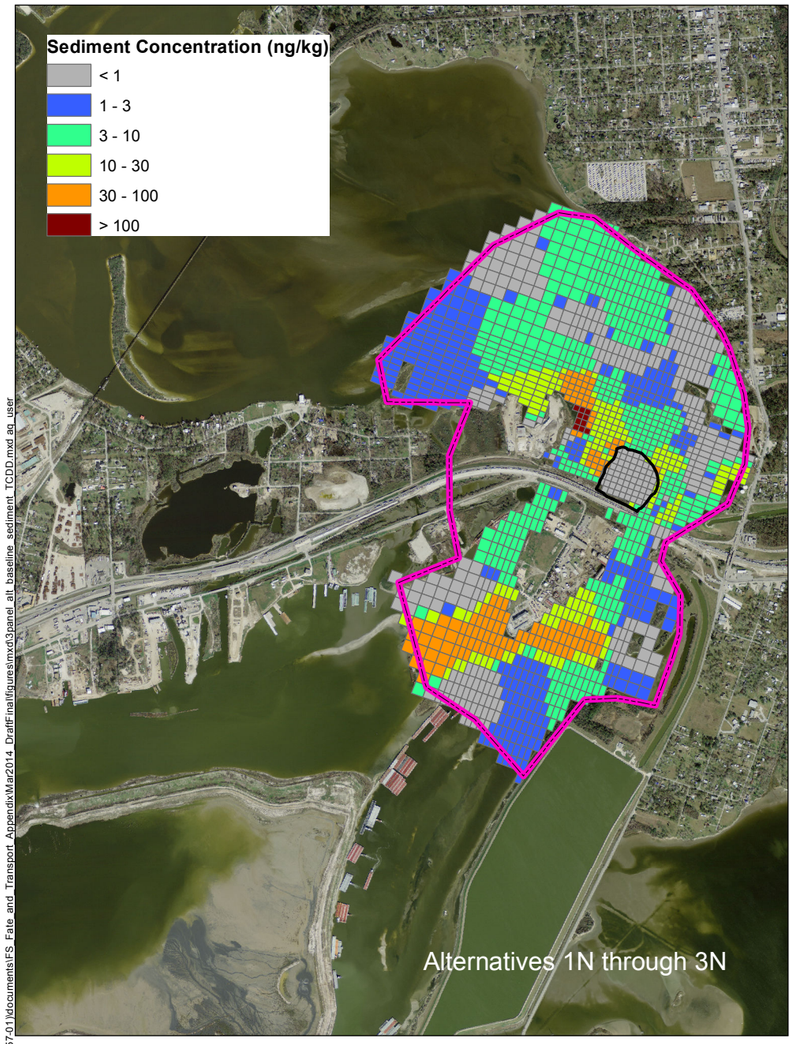
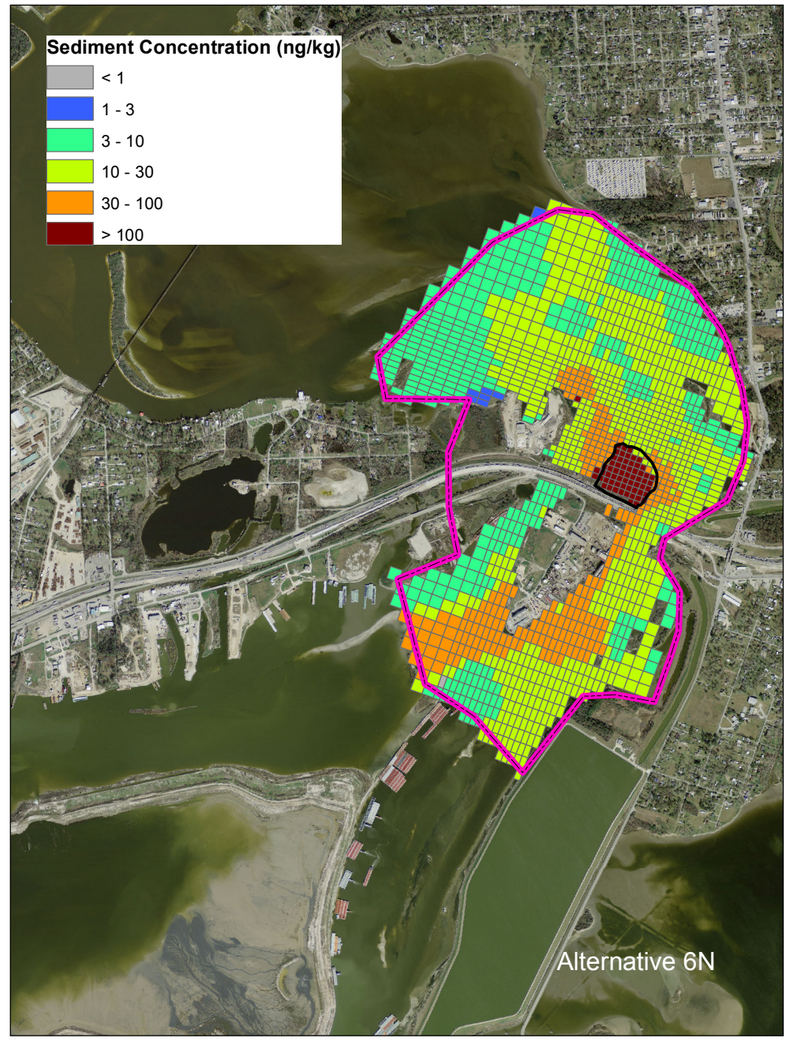
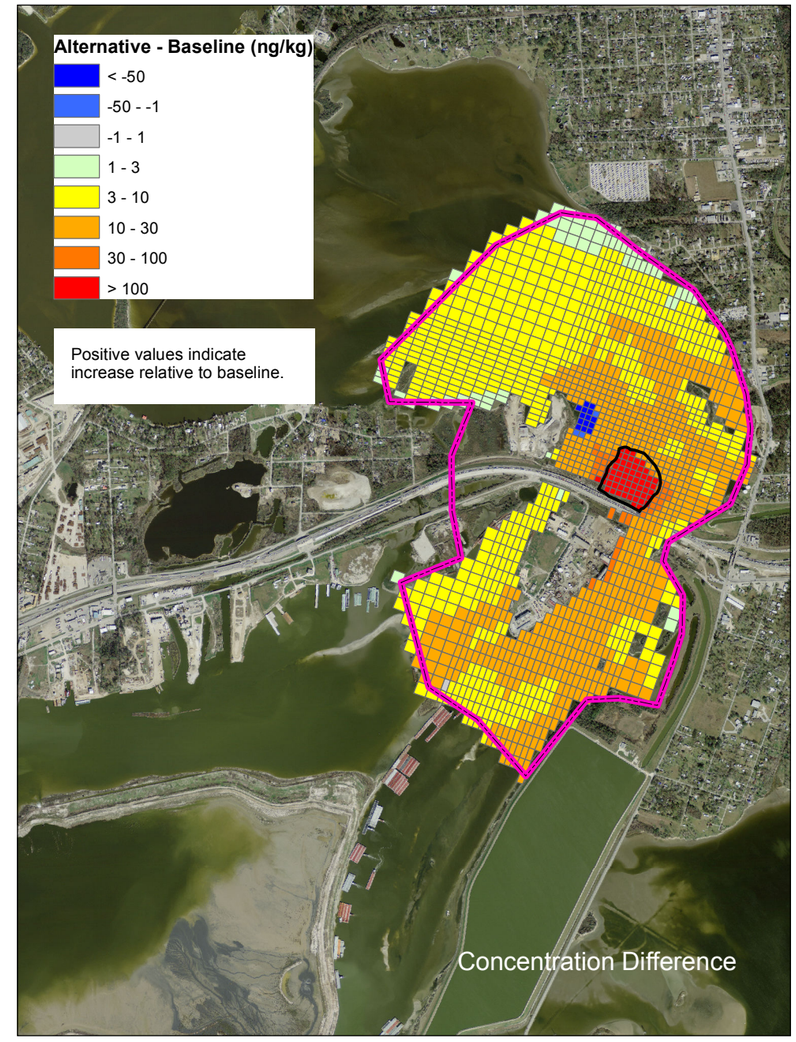
ANCHOR QEA

Figure 4-6c
Model-Predicted Surface Sediment (top 6 inches) TCDD Concentrations at the End of the First Model Year for Alternatives 1N through 3N and Alternative 5aN Simulations
Feasibility Study
San Jacinto River Waste Pits Superfund Site







LEGEND

Perimeter of Northern Impoundments

USEPA's Preliminary Site Perimeter

NOTES:
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0 1 2 Miles

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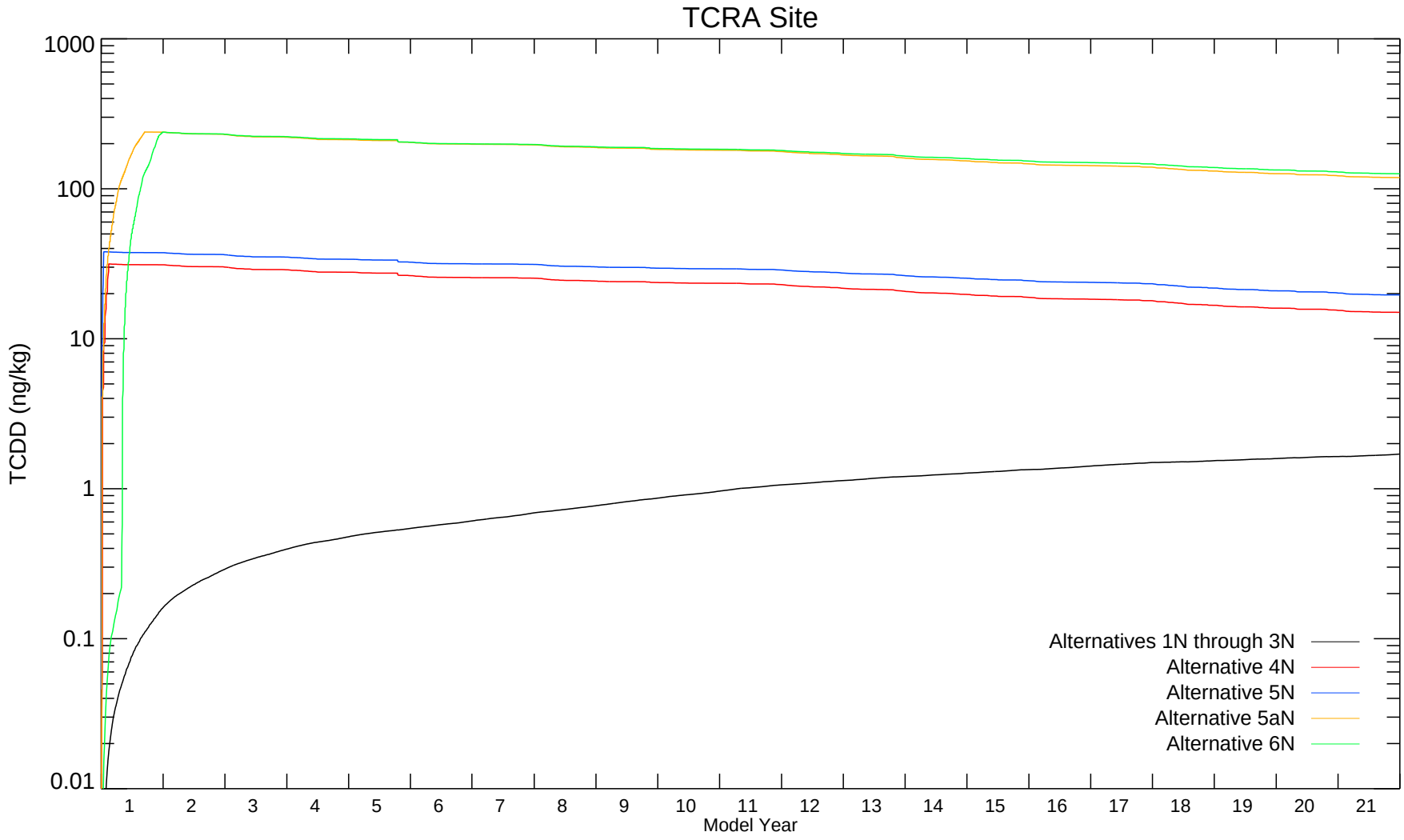
ANCHOR QEA

Figure 4-6d
Model-Predicted Surface Sediment (top 6 inches) TCDD Concentrations at the End of the First Model Year for Alternatives 1N through 3N and Alternative 6N Simulations
Feasibility Study
San Jacinto River Waste Pits Superfund Site



Model Run: SJR_PROJ2_BC_TCDD_1301-06, SJR_PROJ3_BC_TCDD_1307-01, SJR_PROJ3_BC_TCDD_1307-02, SJR_PROJ3_BC_TCDD_1402-01, SJR_PROJ3_BC_TCDD_1307-03

Figure 4-7

Time Series of Model-Predicted Surface Sediment (top 6 inches) TCDD Concentrations Averaged over the TCRA Site for Alternatives 1N through 3N and Alternatives 4N, 5N, 5aN, and 6N Simulations
Feasibility Study
San Jacinto River Waste Pits Superfund Site

ANCHOR QEA