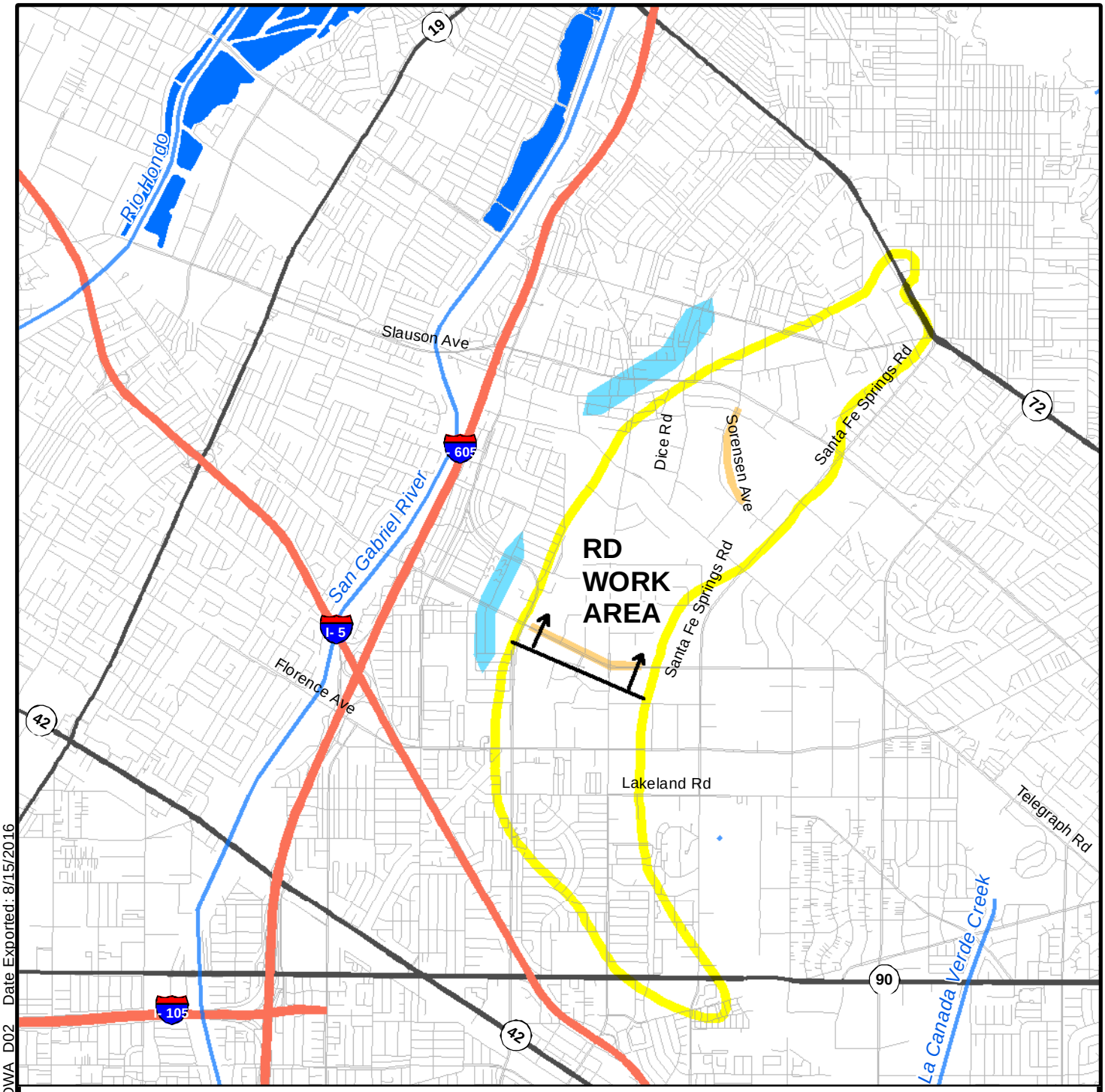
APPENDIX A FIGURES

DRAFT



Spreading Basin
OU2 Boundary (2011 ROD)
River (Lined)
Remedial Design Work Area
Potential Reinjection Areas
Potential Locations of NE/CE Area Extraction Wells

NOTES:

Remedial Design Work Area (RDWA) includes Northern Extraction (NE) and Central Extraction (CE) areas. Also includes the following end uses for treated groundwater:

1) Shallow reinjection (illustrated above as potential reinjection areas)
2) Spreading basin recharge (illustrated above as spreading basin)
3) Reclaimed use (non-potable, not illustrated)
4) Deep reinjection (not illustrated)

0 0.25 0.5 1 1.5 2 Miles

N

Document Name: 1217_DG_FigA01_RDWA_D02 Date Exported: 8/15/2016

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FIGURE A-1. REMEDIAL DESIGN WORK AREA

DRAFT

WRD__WHT2_6
170

Sorensen Ave

72

Norwalk Blvd

EPA__MW13B
133

EPA__MW24D
178

Pioneer Blvd

Slauson Ave

EPA__MW8D
120

EPA__MW4C
99

Santa Fe Springs Rd

605

EPA__MW23D
185

Los Nietos Rd

EPA__MW16C
164

EPA__MW25D
209

Dice Rd

EPA__MW18C
161

EPA__MW17C
182

EPA__MW26D
205

RD
WORK
AREA

Telegraph Rd

EPA__MW20C
190

SFS_Hawkins_1a_1
490

Telegraph Rd

Florence Ave

SFS_Koontz_1a_1
491

Lakeland Rd

Lakeland Rd

LEGEND

Spreading Basin

OU2 Boundary (ROD)

EPA_MW26D
205

Wells with Geophysical Logs
Well Depth (feet)

N

0 750 1,500 3,000 4,500 6,000
Feet

Document Name: FigA-2a_1217_OU2_Geologs_D00 Date Exported: 8/5/2016

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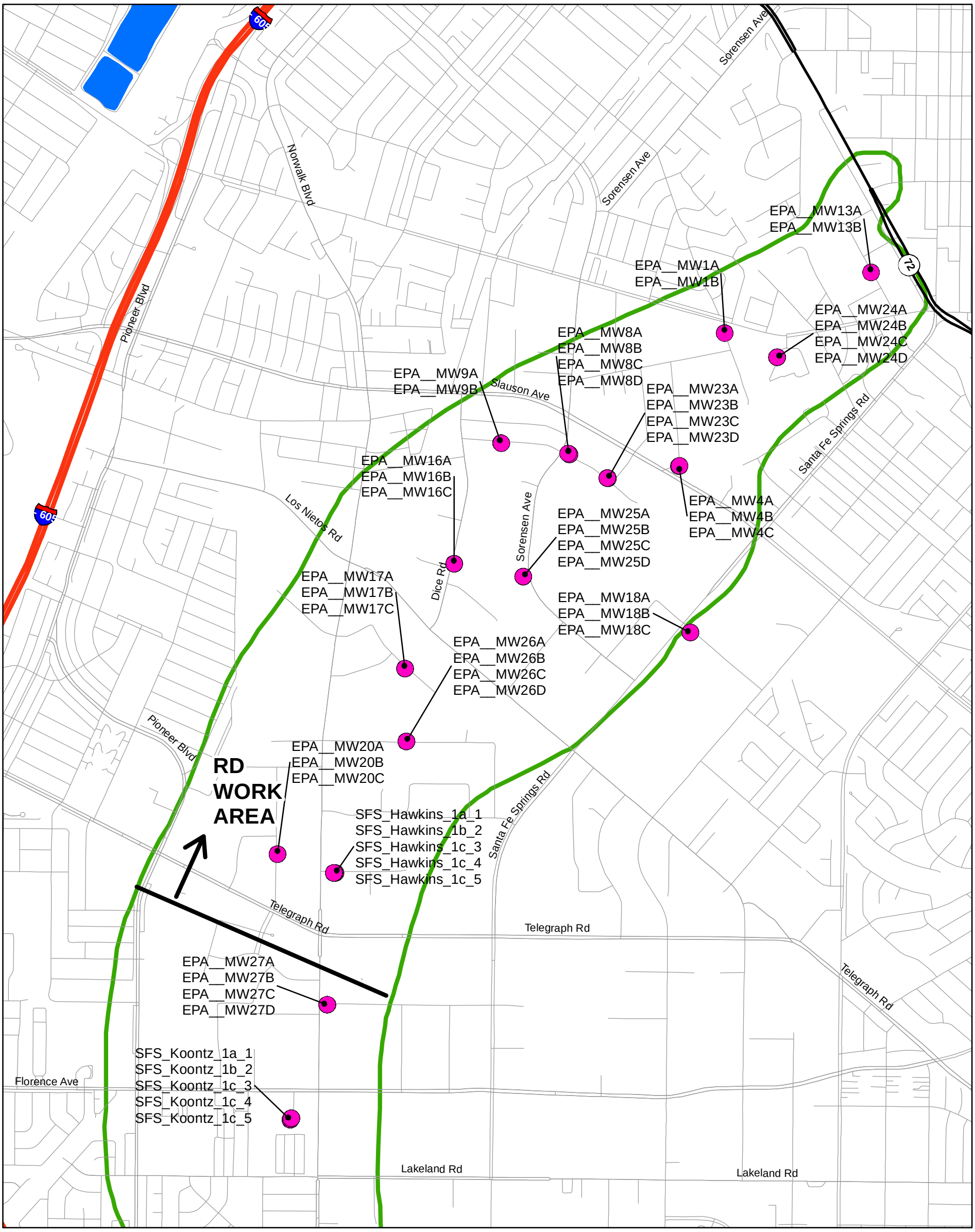
FIGURE A-2A. REMEDIAL DESIGN WORK AREA: WELLS WITH GEOPHYSICAL LOGS

DRAFT



LEGEND

- Spreading Basin
- OU2 Boundary (ROD)
- EPA and Water Replenishment District Cluster Wells

N

0 750 1,500 3,000 4,500 6,000 Feet

Document Name: FigA-2b_1217_EPAWRDwells_D00 Date Exported: 8/5/2016

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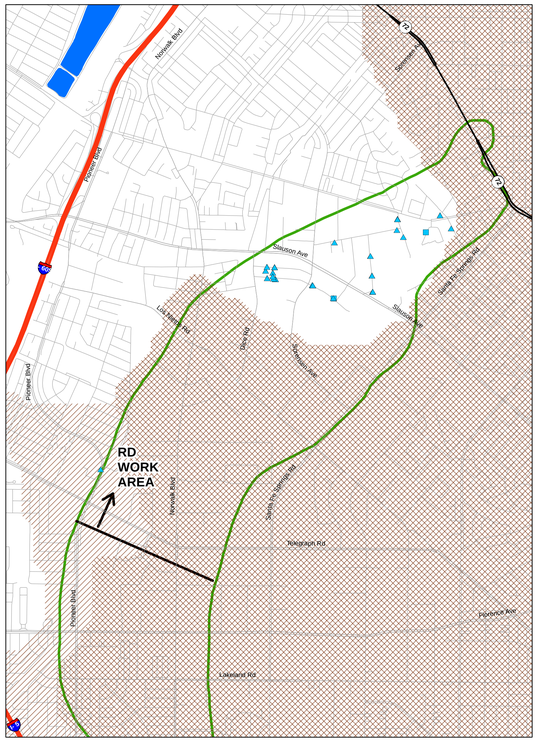
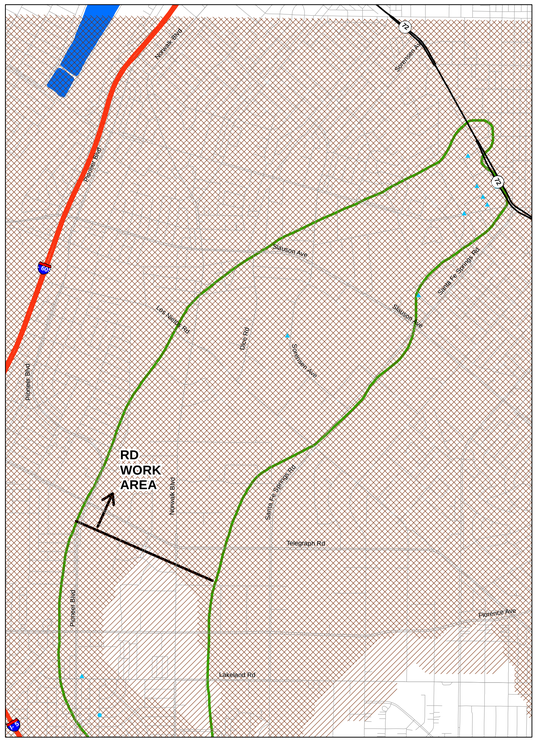
FIGURE A-2B. REMEDIAL DESIGN WORK AREA: EPA AND WATER REPLENISHMENT DISTRICT CLUSTER WELLS

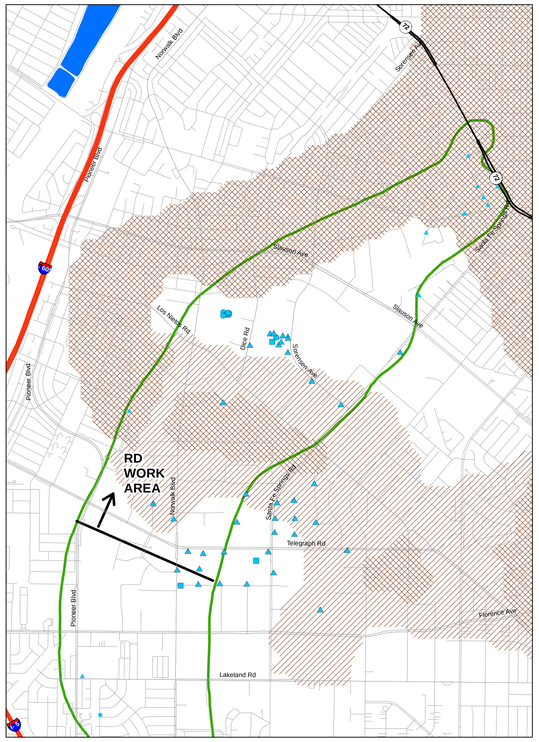
DRAFT



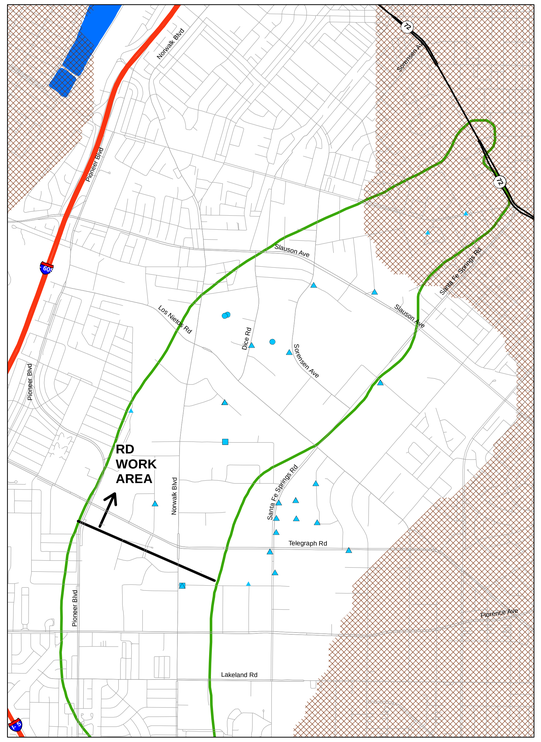
GASPUR AQUIFER



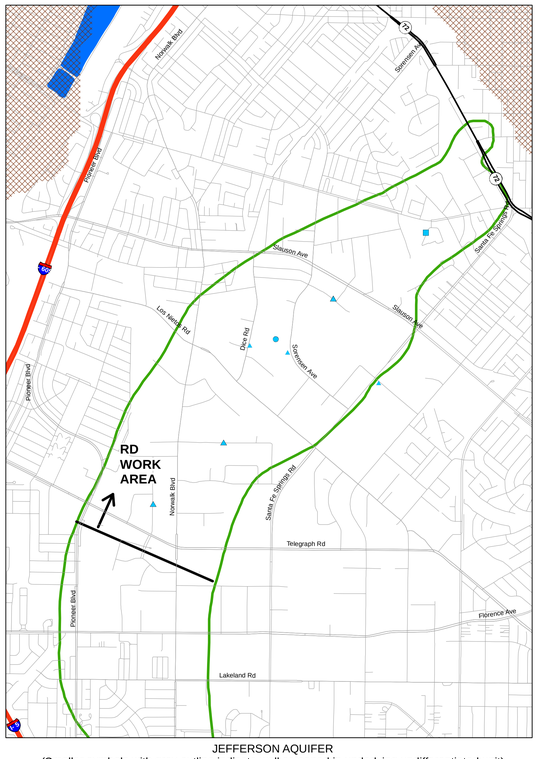
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate well screened in underlying undifferentiated unit)



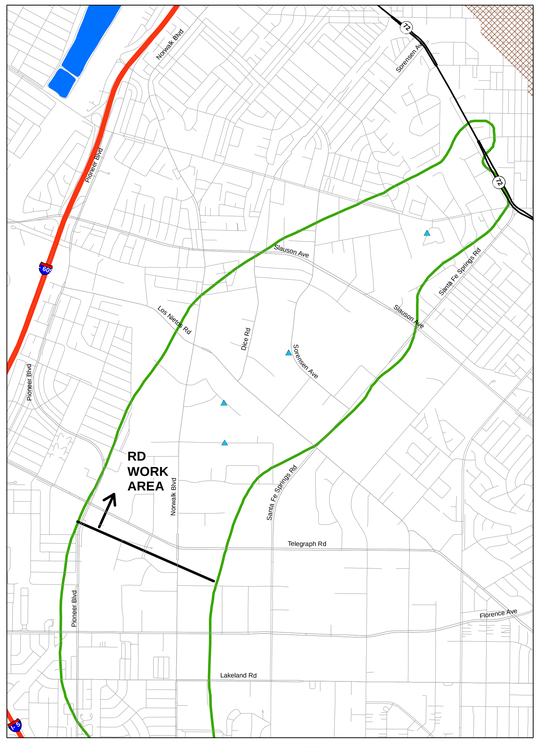
GAGE AQUIFER
(Smaller symbols with gray outline indicate well screened in overlying or underlying undifferentiated unit)



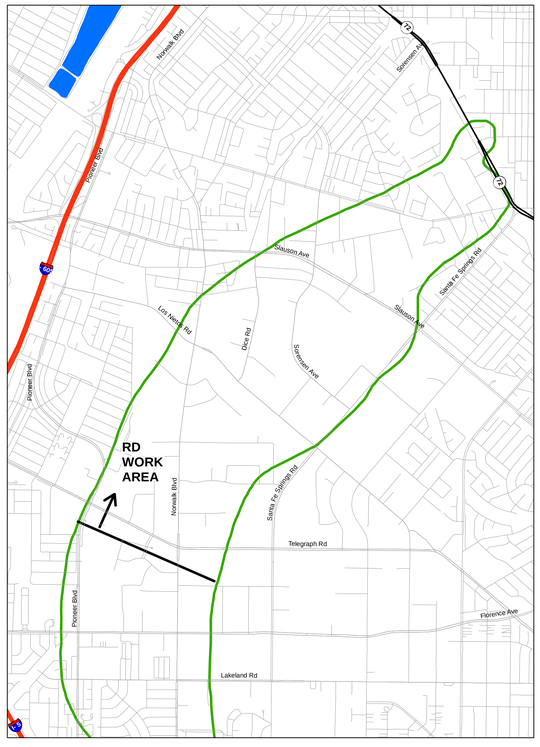
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate well screened in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate well screened in underlying undifferentiated unit)



LYNWOOD AQUIFER



DEEPER AQUIFER(s)

LEGEND

- Constant Rate Aquifer Test Location
- Constant Rate Aquifer Test and Slug Test Location
- Slug Test Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

NOTES:

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: Fig3a_1212_OU2_AQTests_B104_000 Date Exported: 8/3/2016

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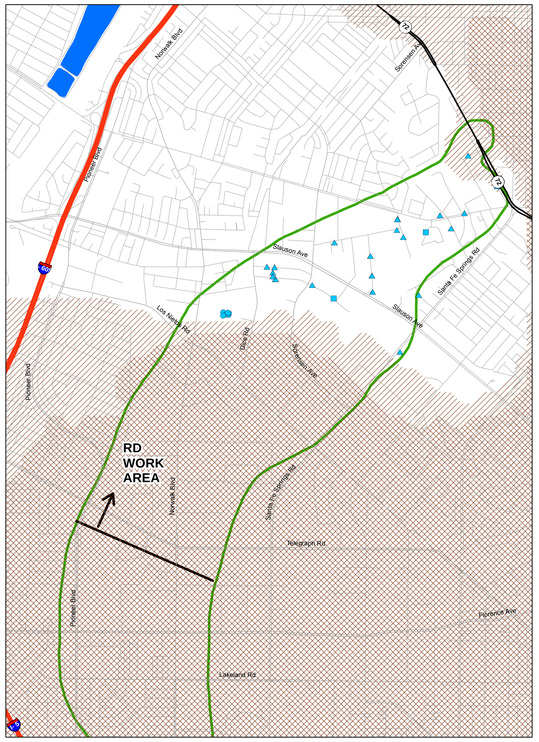
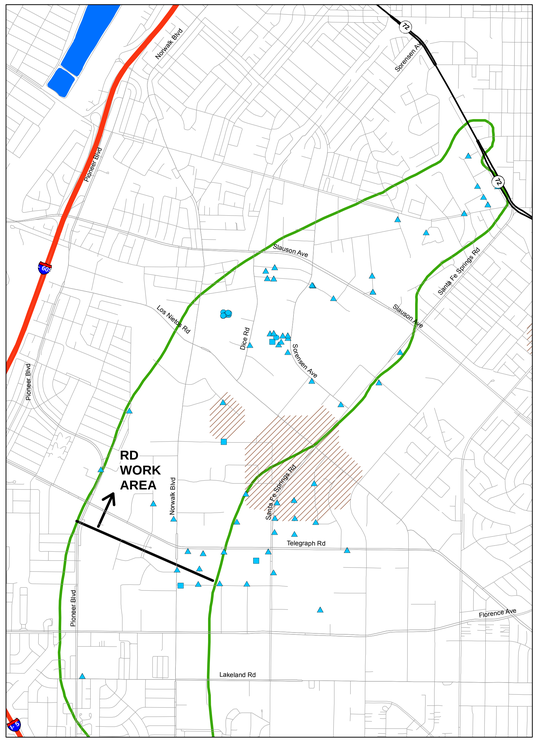
FIGURE A-3A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AQUIFER TESTING LOCATIONS, BULLETIN 104 STRATIGRAPHIC UNITS

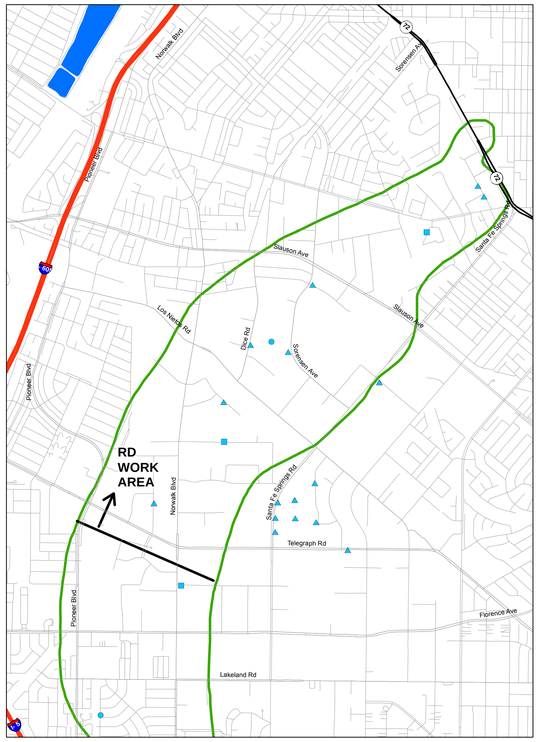
DRAFT



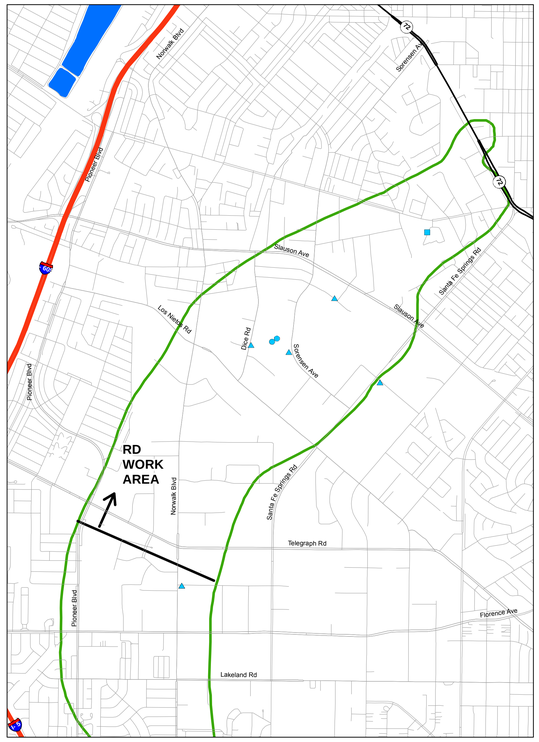
EPA STRATIGRAPHIC UNIT 2



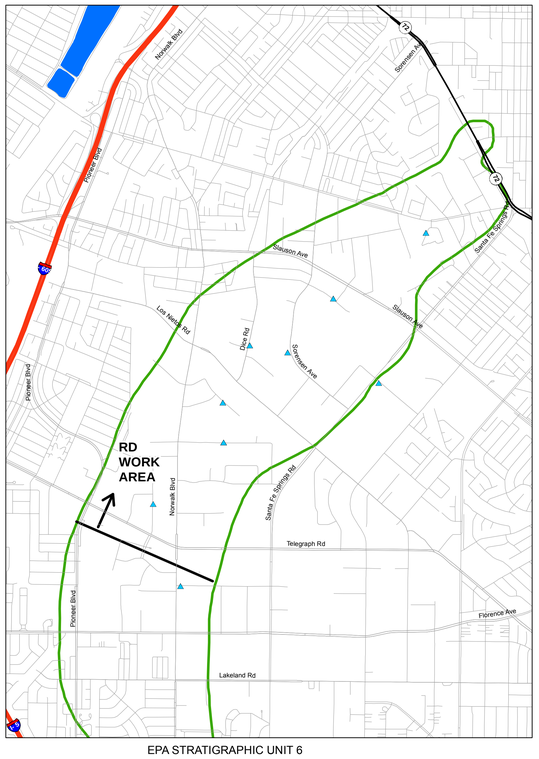
EPA STRATIGRAPHIC UNIT 3



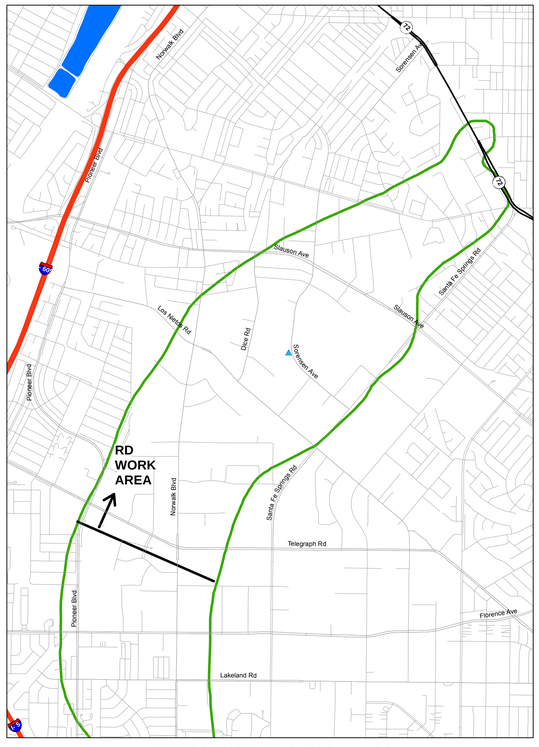
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6

LEGEND

- Constant Rate Aquifer Test Location
- Constant Rate Aquifer Test and Slug Test Location
- Slug Test Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

NOTES:

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: Fig3b_1212_OU2_AQTests_SB_000 Date Exported: 8/5/2016

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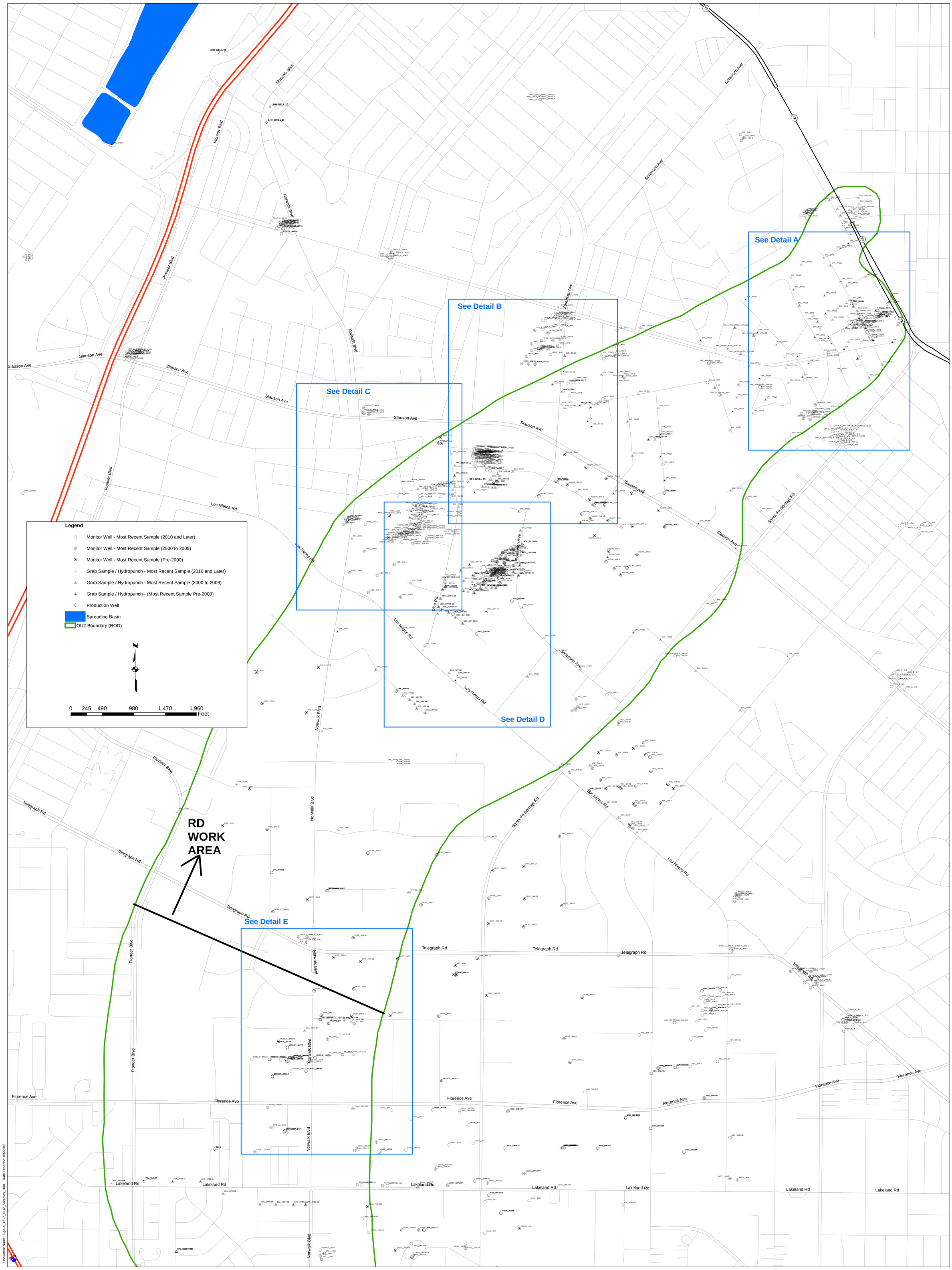
Hydrogeology/Engineering

FIGURE A-3B. REMEDIAL DESIGN WORK AREA: SUMMARY OF AQUIFER TESTING LOCATIONS, EPA STRATIGRAPHIC UNITS

DRAFT

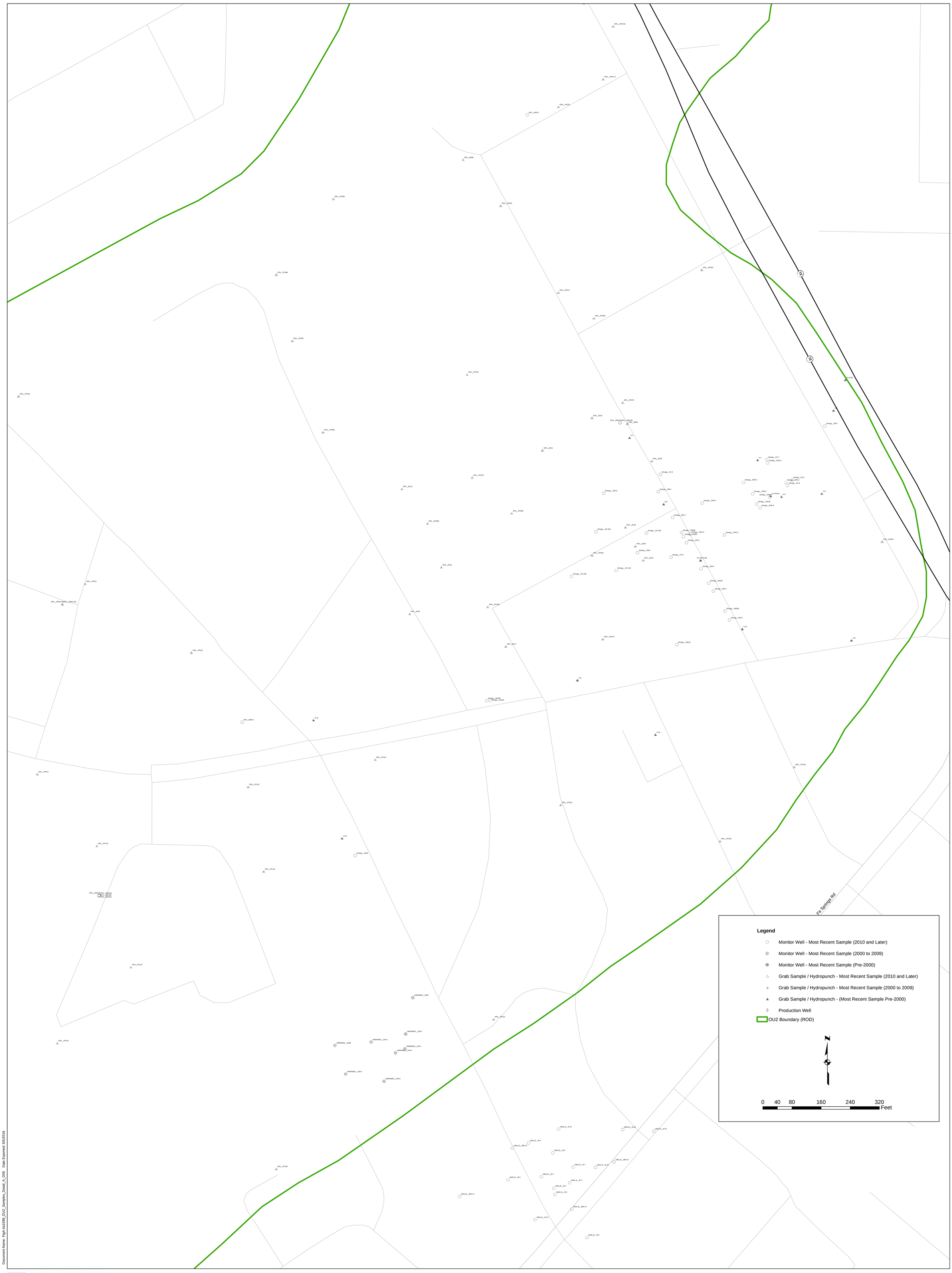


Document Name: Fig4-4_1217_OU2_Samples_D00 Date Exported: 8/5/2016

HARGIS + ASSOCIATES, INC
Hydrogeology/Engineering

FIGURE A-4. REMEDIAL DESIGN WORK AREA: GROUNDWATER SAMPLE LOCATIONS

DRAFT



Document Name: FigA-4a1098_OU2_Samples_Detail_A_D00 Date Exported: 8/5/2016

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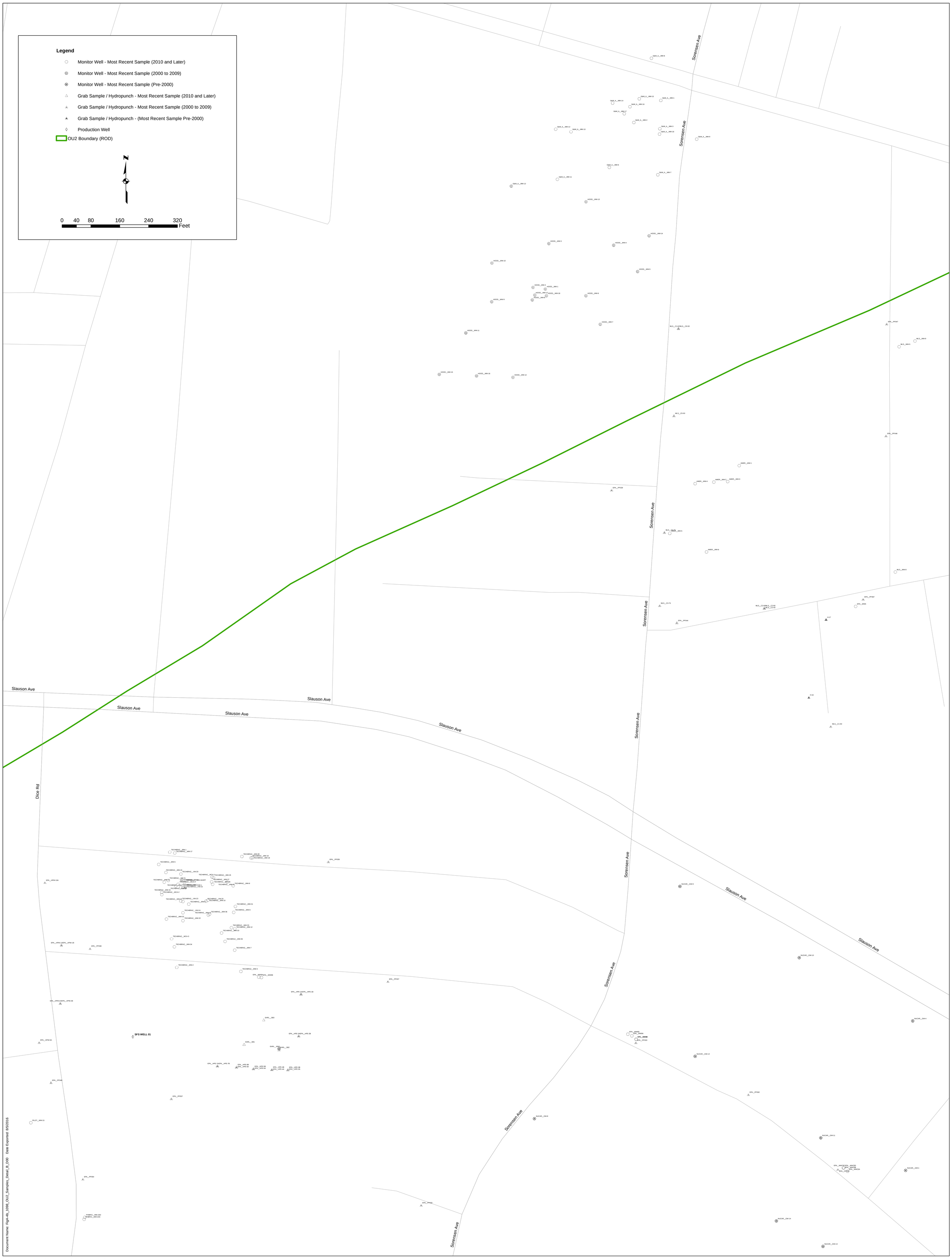
FIGURE A-4A. REMEDIAL DESIGN WORK AREA: GROUNDWATER SAMPLE LOCATIONS - DETAIL A

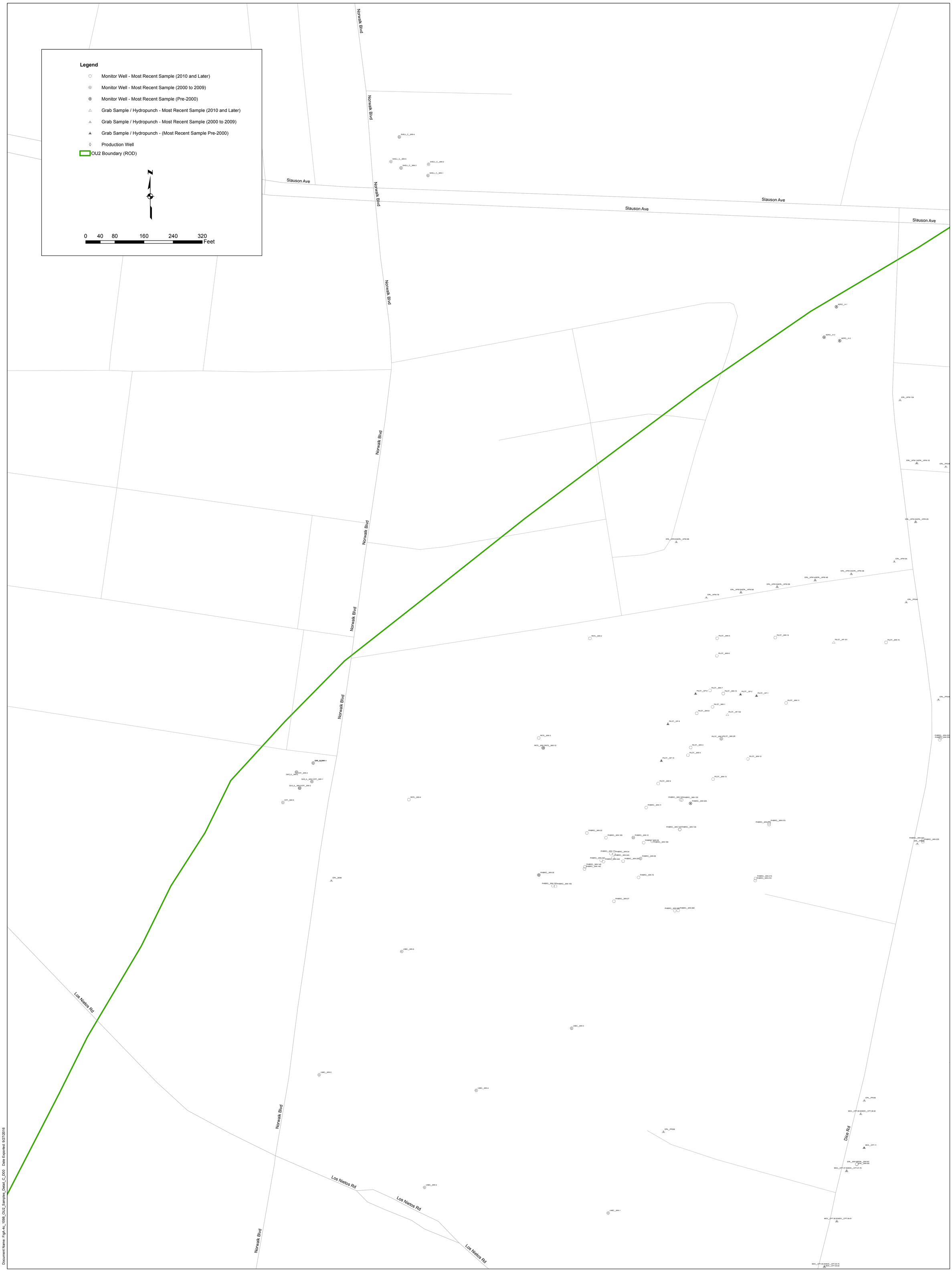
DRAFT



Document Name: FigA-4b_1098_OU2_Samples_Detail_B_D00 Date Exported: 8/5/2016

HARGIS + ASSOCIATES, INC.
Hydrogeology/Engineering

FIGURE A-4B. REMEDIAL DESIGN WORK AREA: GROUNDWATER SAMPLE LOCATIONS - DETAIL B



Document Name: FigA-4c_1098_OU2_Samples_Detail_C_D00 Date Exported: 9/27/2016

HARGIS + ASSOCIATES, INC.
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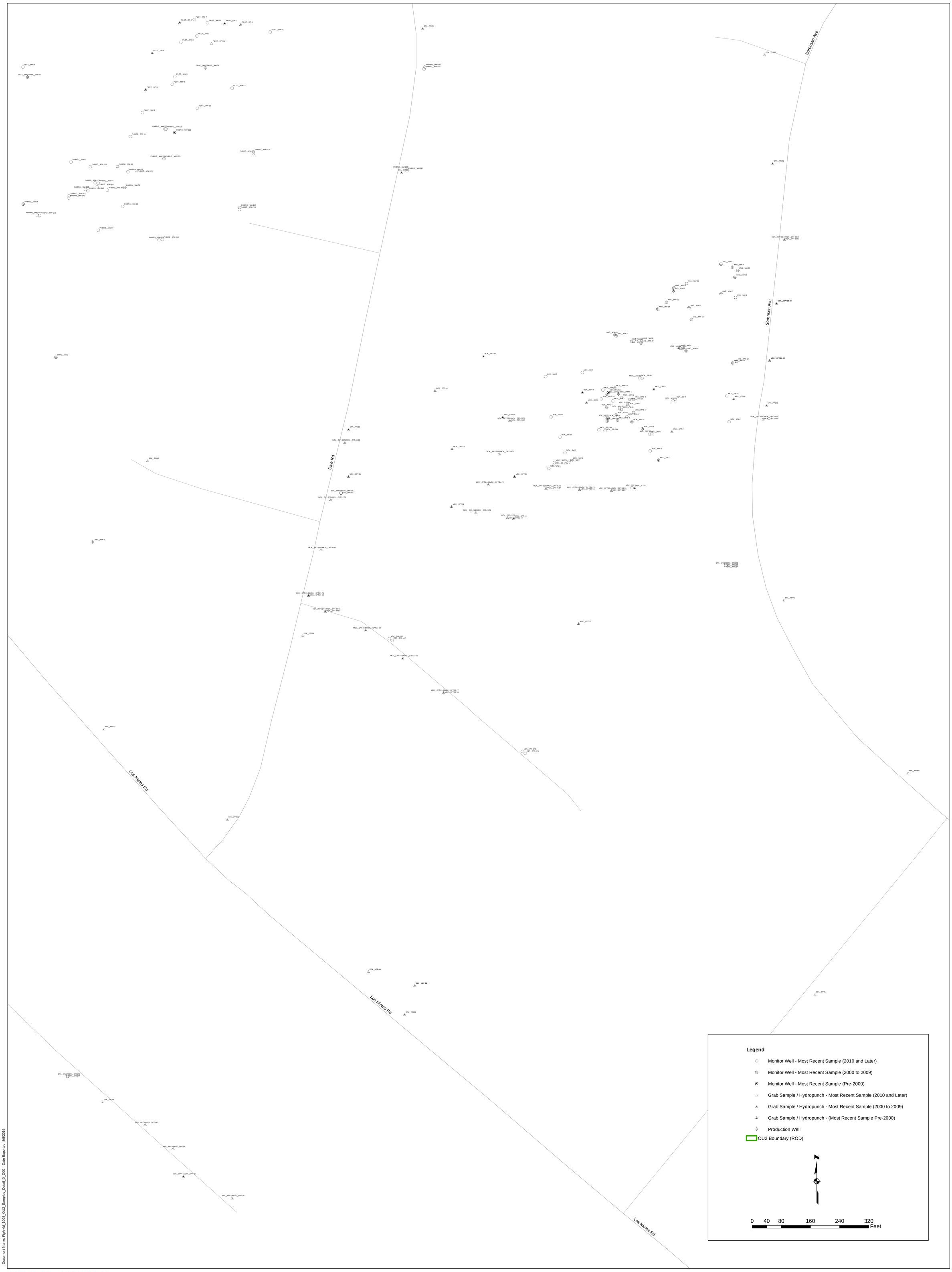
FIGURE A-4C. REMEDIAL DESIGN WORK AREA: GROUNDWATER SAMPLE LOCATIONS - DETAIL C

DRAFT



Document Name: FigA-4d_1098_OU2_Samples_Detail_D_D00 Date Exported: 8/5/2016

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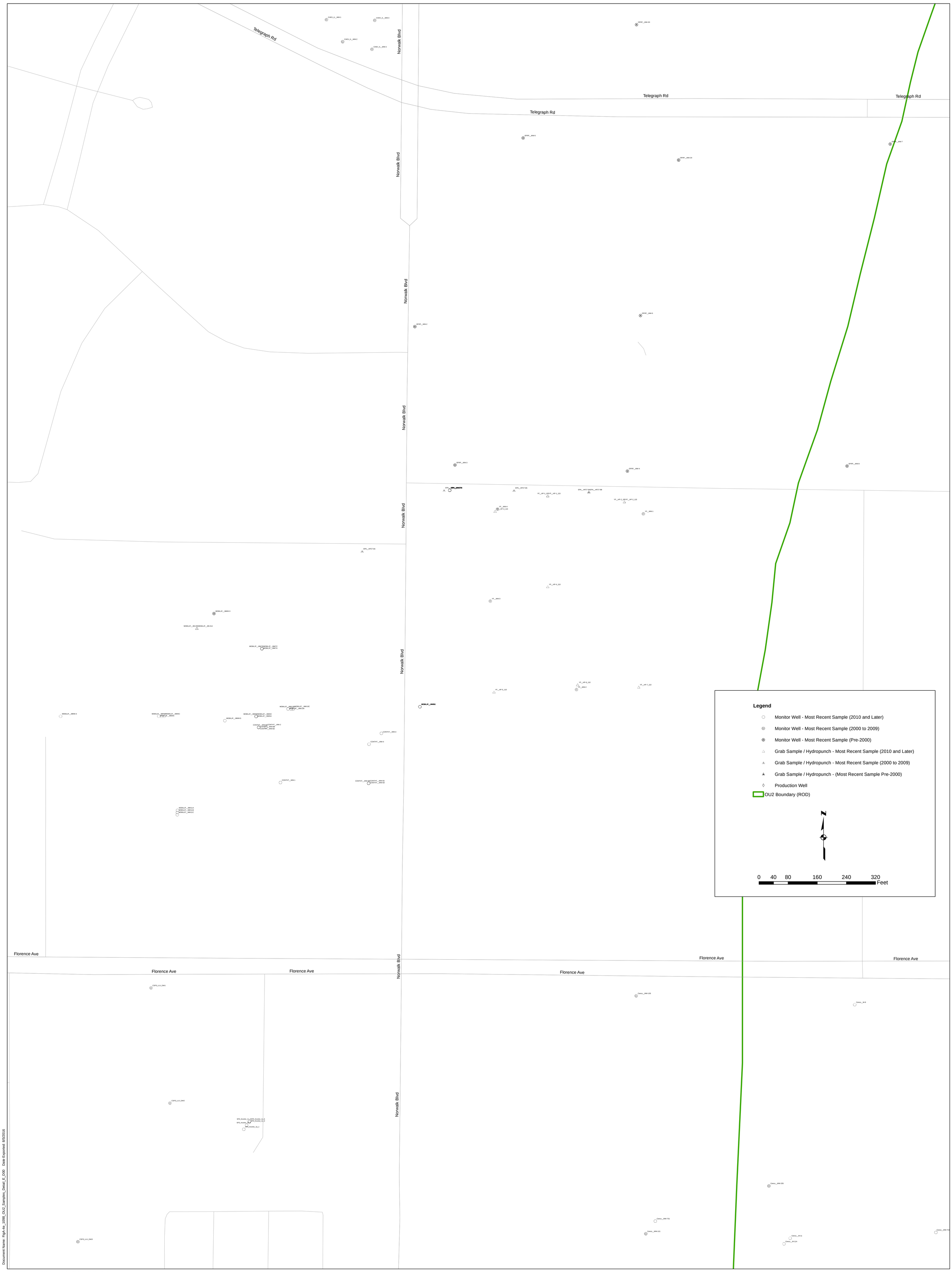
FIGURE A-4D. REMEDIAL DESIGN WORK AREA: GROUNDWATER SAMPLE LOCATIONS - DETAIL D

DRAFT



Document Name: FigA-4e_1098_OU2_Samples_Detail_E_D00 Date Exported: 8/5/2016

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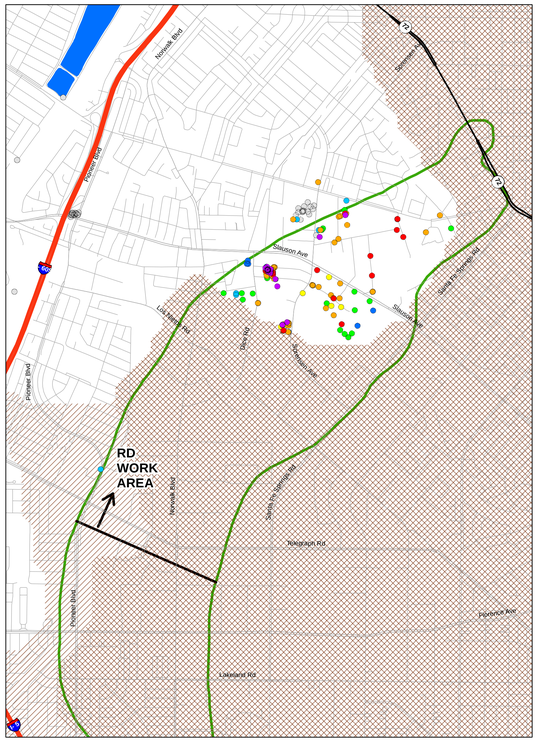
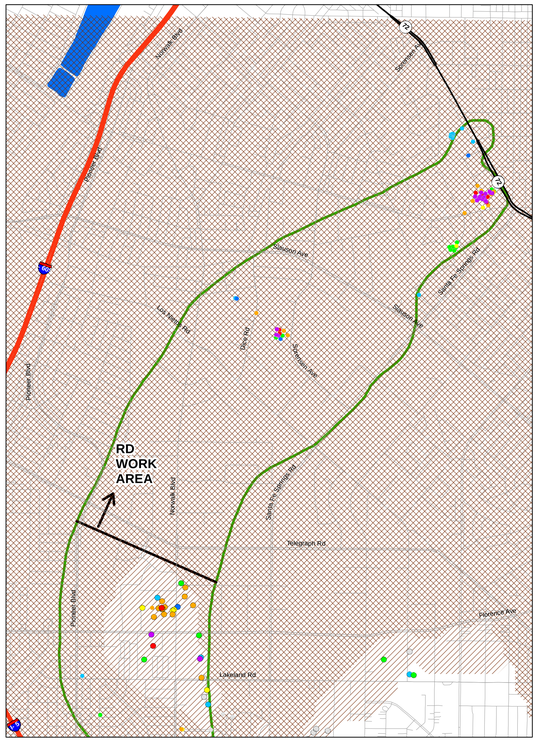
Hydrogeology/Engineering

FIGURE A-4E. REMEDIAL DESIGN WORK AREA: GROUNDWATER SAMPLE LOCATIONS - DETAIL E

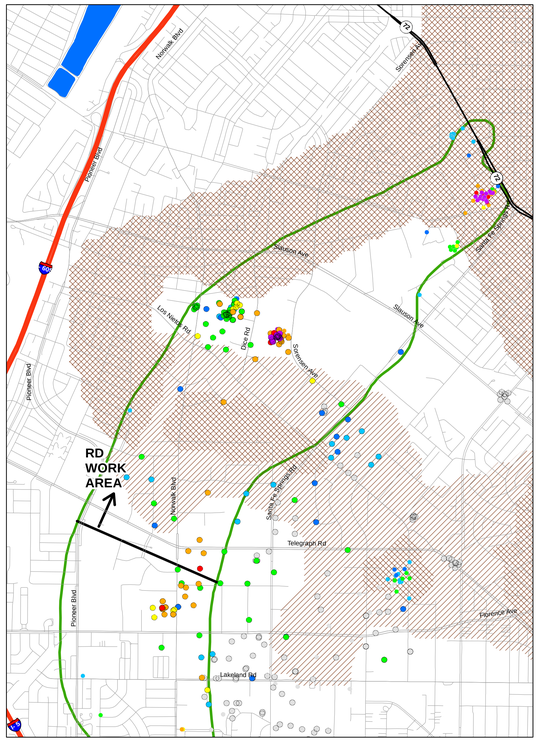
DRAFT



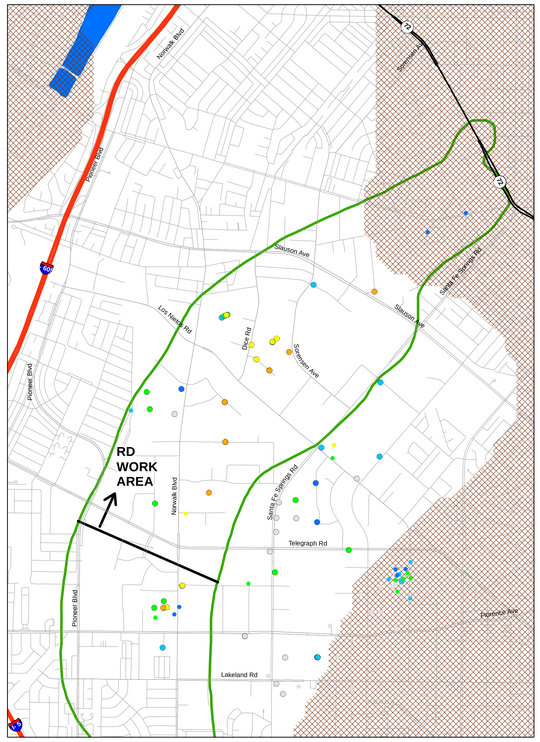
GASPUR AQUIFER



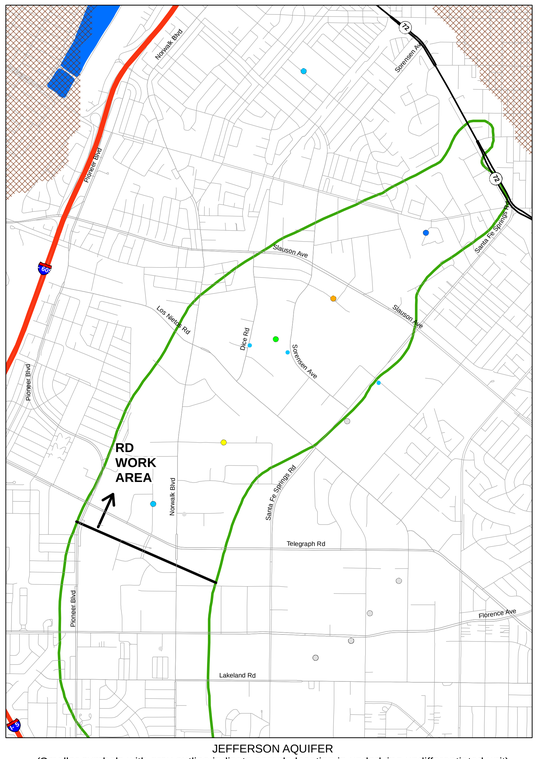
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



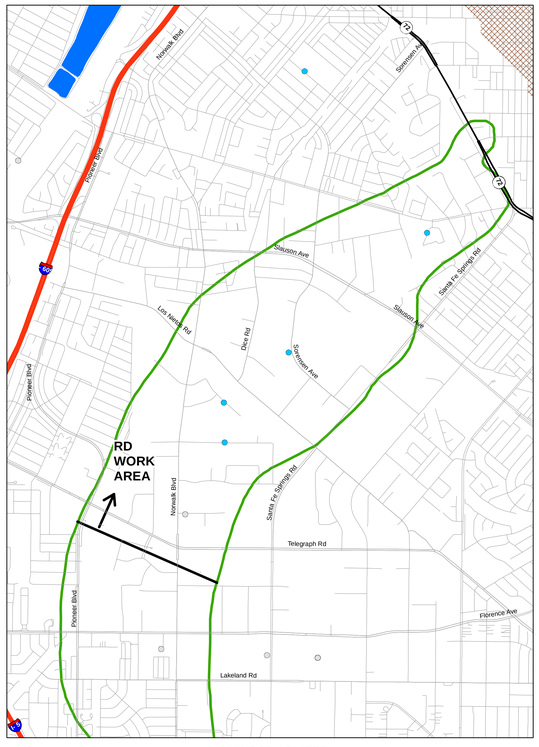
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



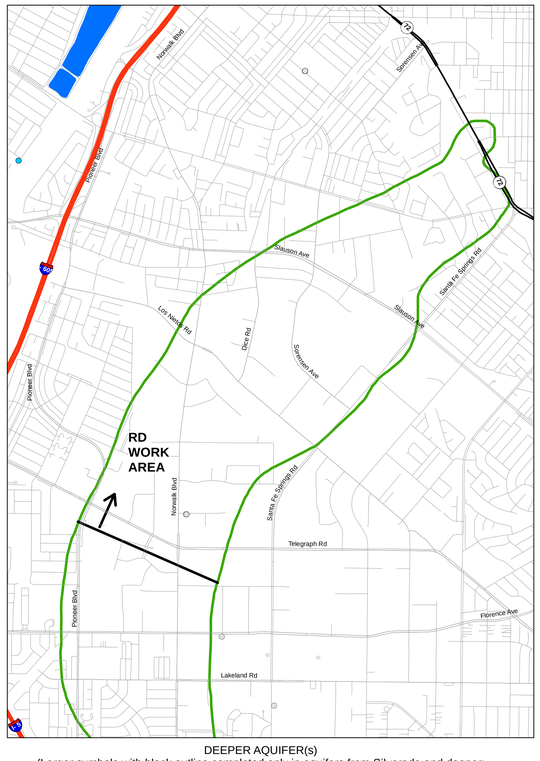
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 5ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

0 850 1,700 3,400 5,100 6,800 Feet

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FIGURE A-5A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF TETRACHLOROETHYLENE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

Document Name: 1212_DO_EnvPhx_60WA_PCE_B104_Ave_DDD Date Exported: 8/31/2016

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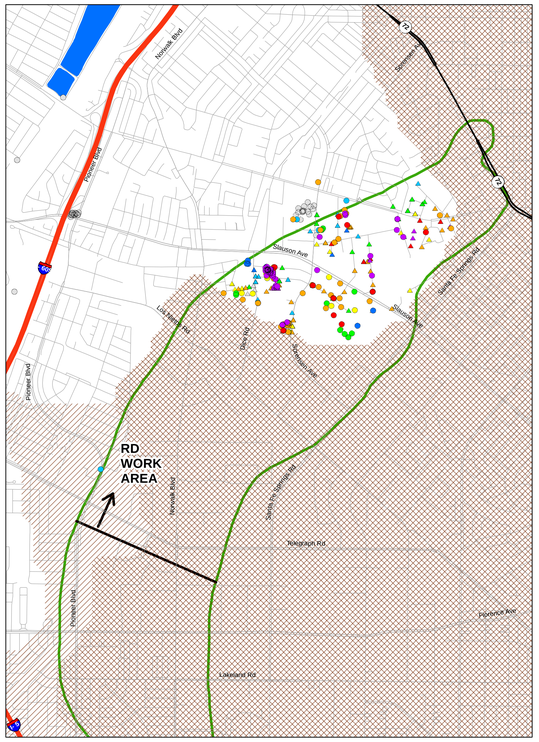
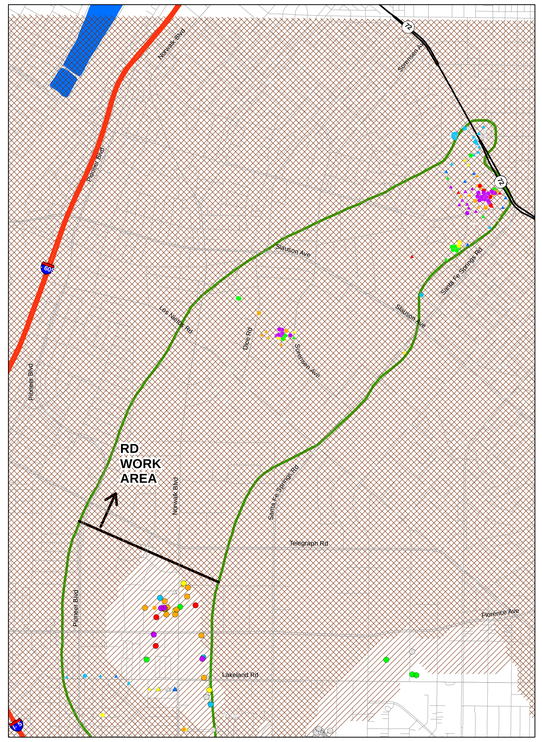
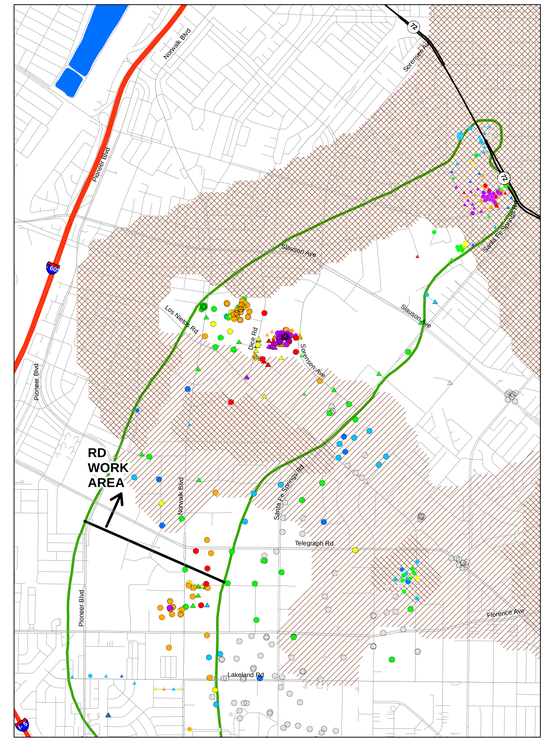


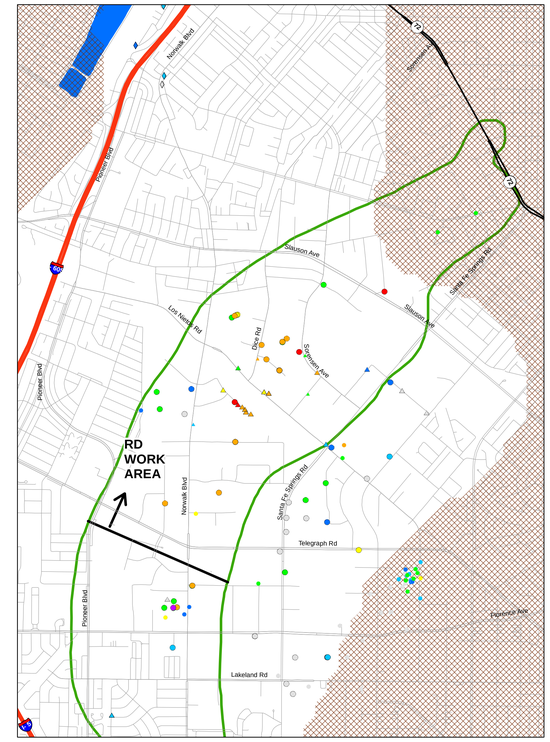
GASPUR AQUIFER



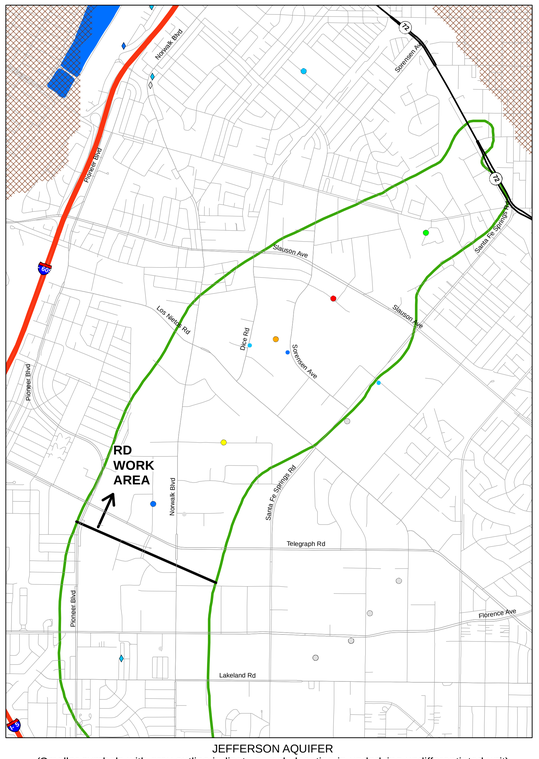
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



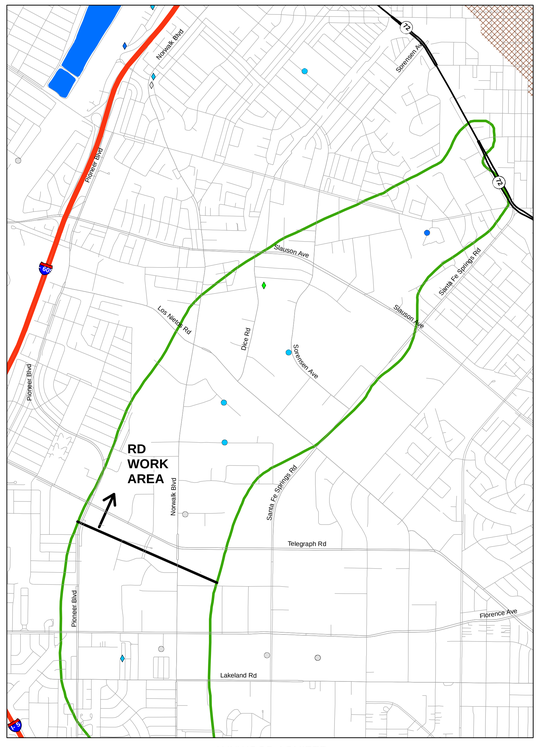
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



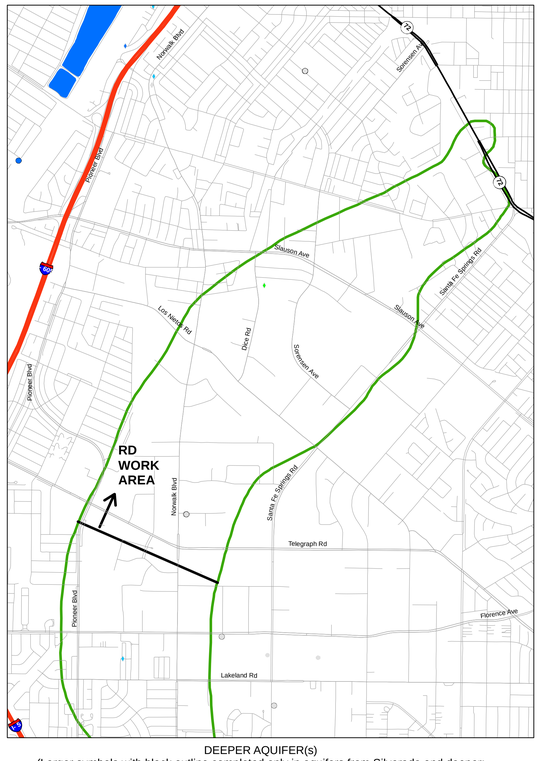
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2007 (approximate)
- Unit not present or unsaturated in 2015 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 5ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_OU_EvalAlts_RDWA_RPE_B104_Max_RDD Date Exported: 8/31/2016

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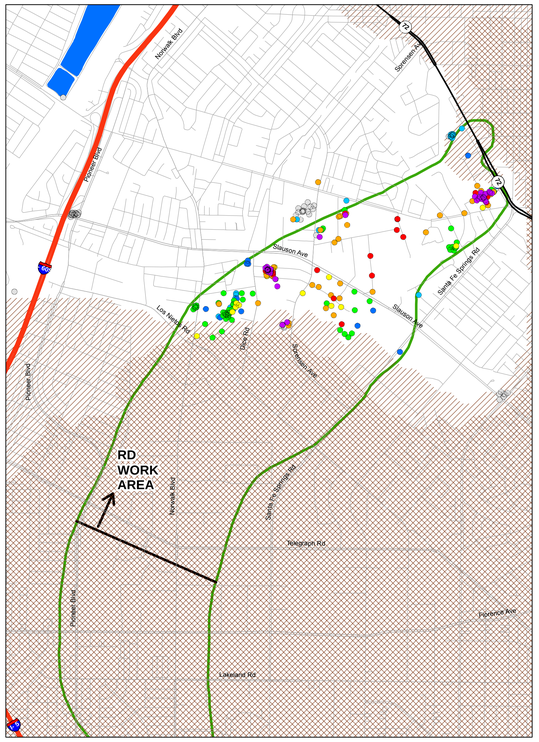
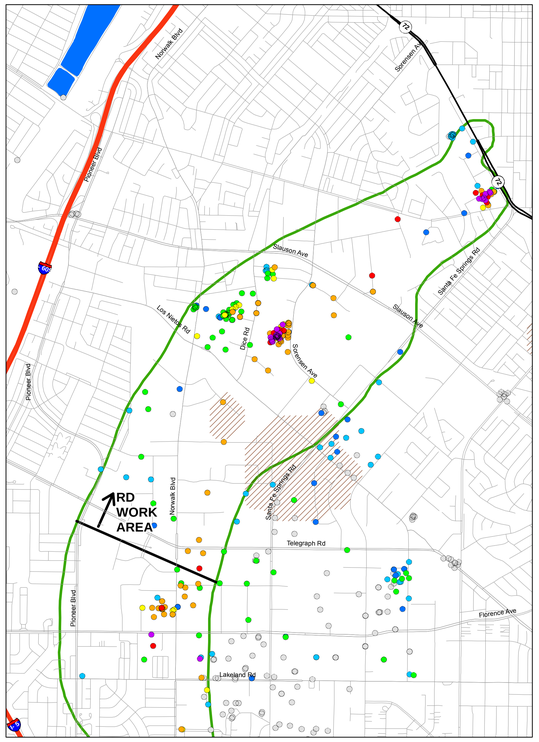
FIGURE A-5B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF TETRACHLOROETHYLENE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

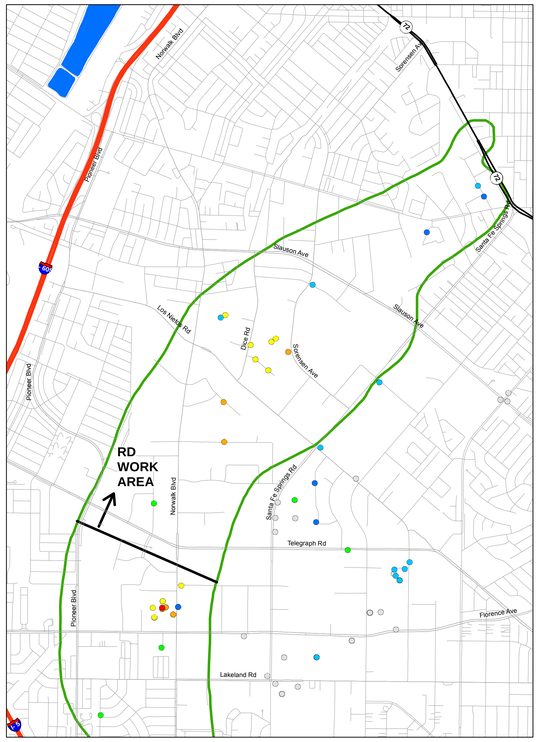
DRAFT



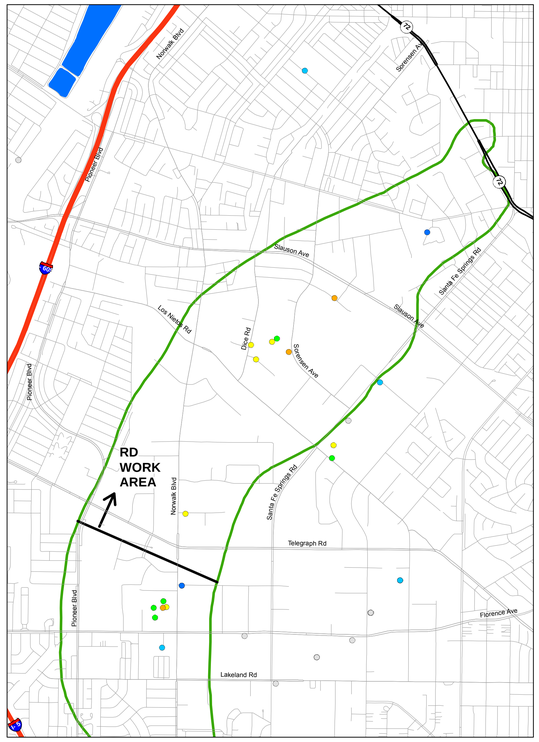
EPA STRATIGRAPHIC UNIT 2



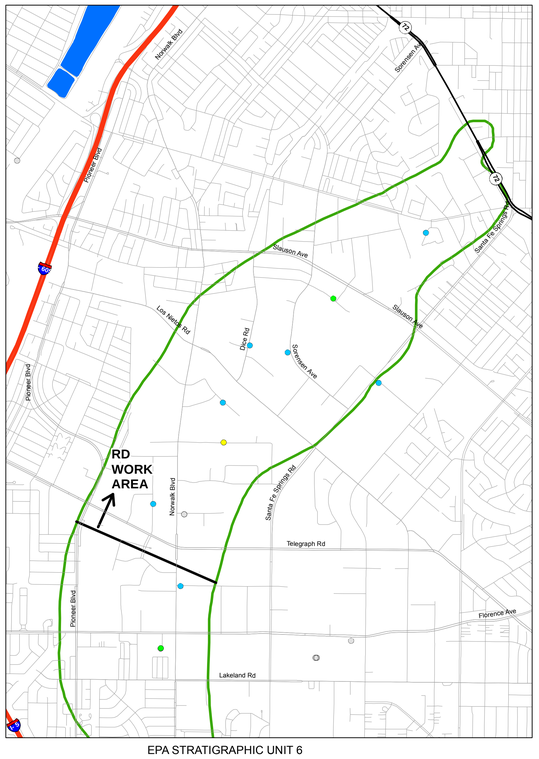
EPA STRATIGRAPHIC UNIT 3



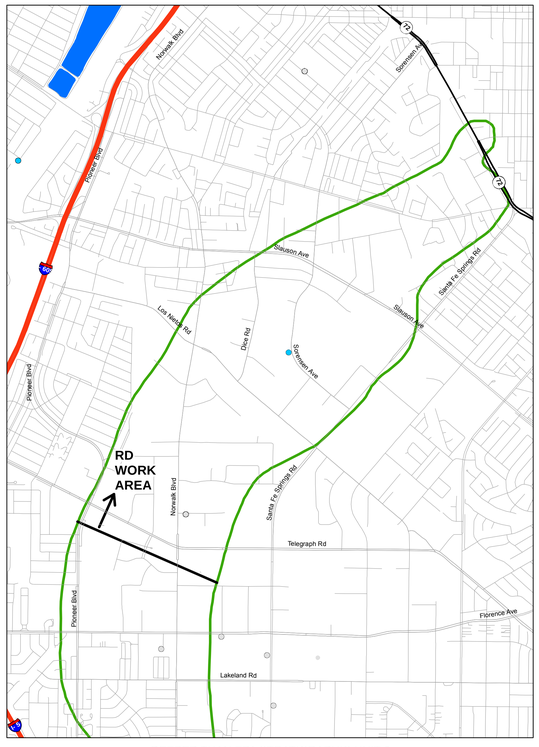
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 5ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 2312_DO_FinMSc_ROVA_PCE_SB_Ave_D00 Date Exported: 8/31/2016

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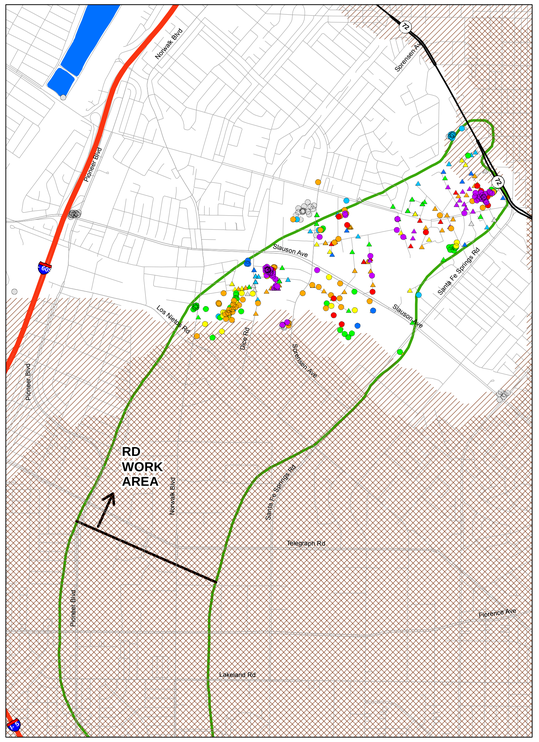
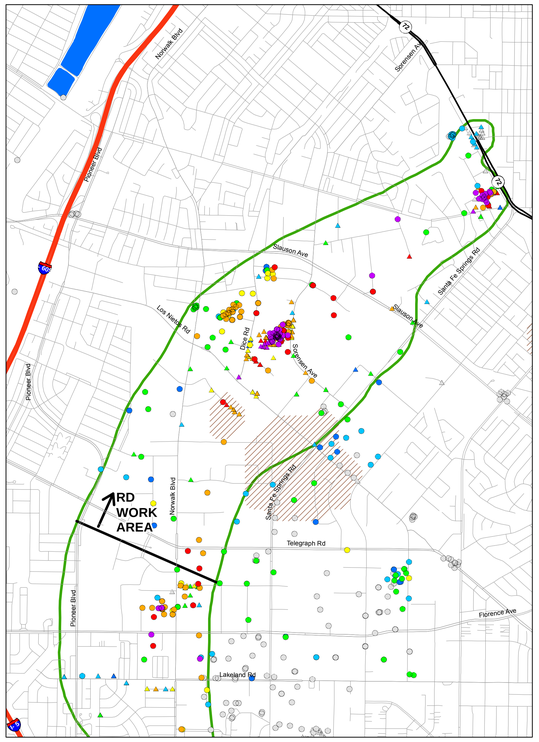
FIGURE A-5C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF TETRACHLOROETHYLENE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

DRAFT



EPA STRATIGRAPHIC UNIT 2



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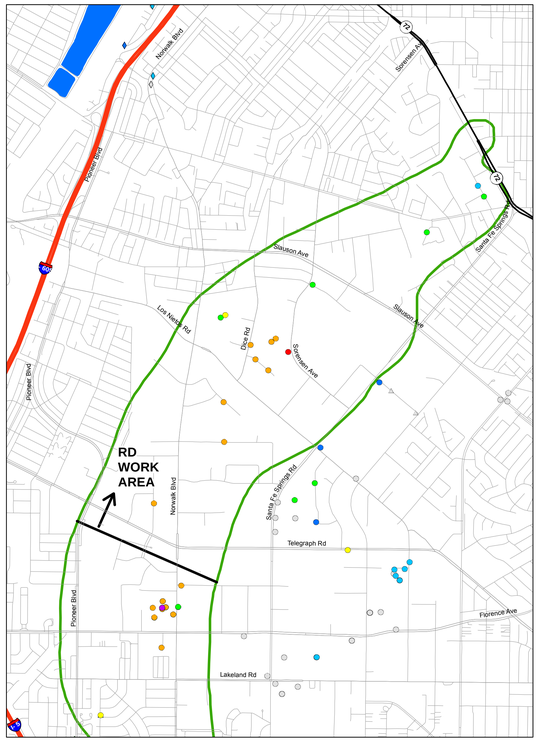
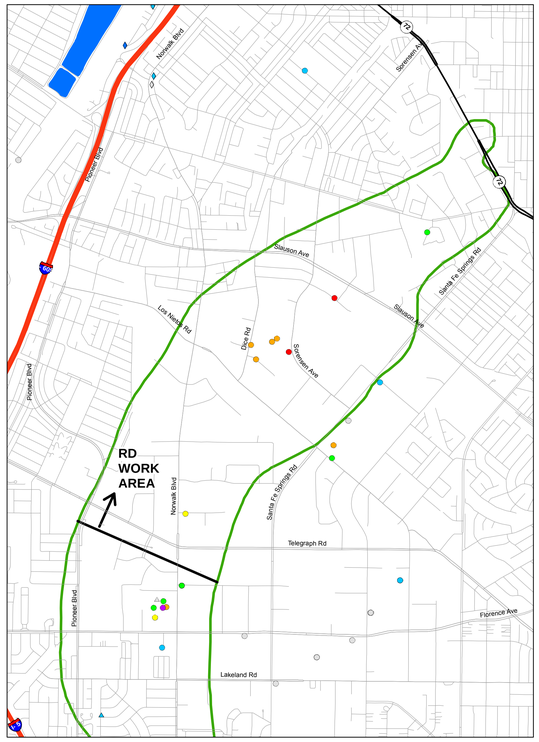
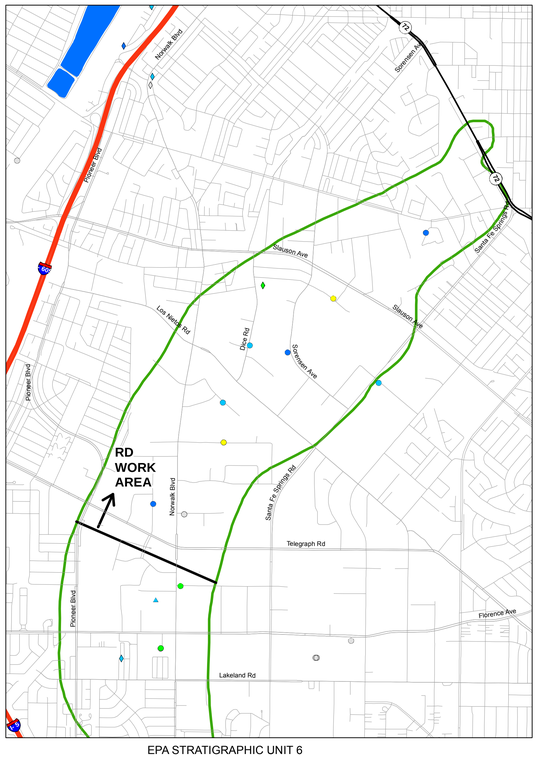


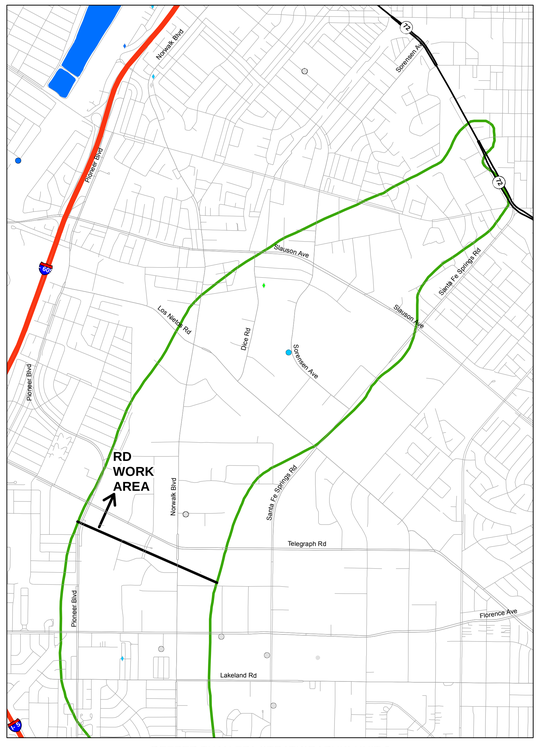
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2007 (approximate)
- Unit not present or unsaturated in 2015 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 5ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (TableA-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: c217_OU_EpMXd_60VA_PCE_SB_Mar_000 Date Exported: 8/31/2016

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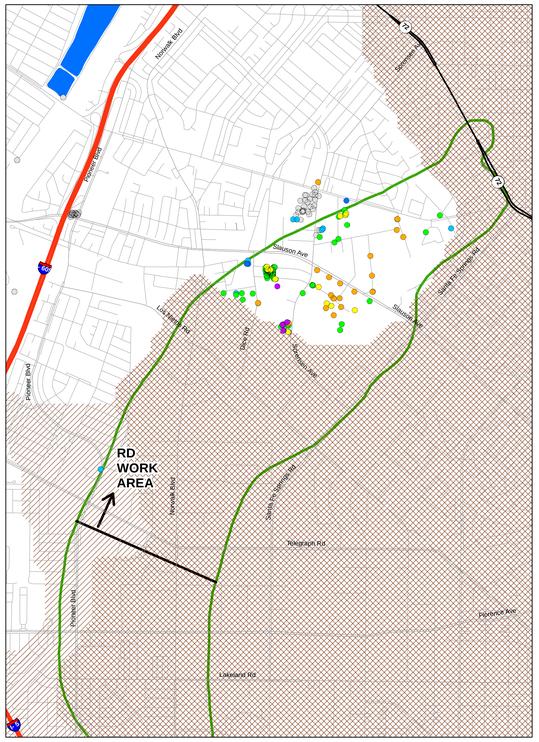
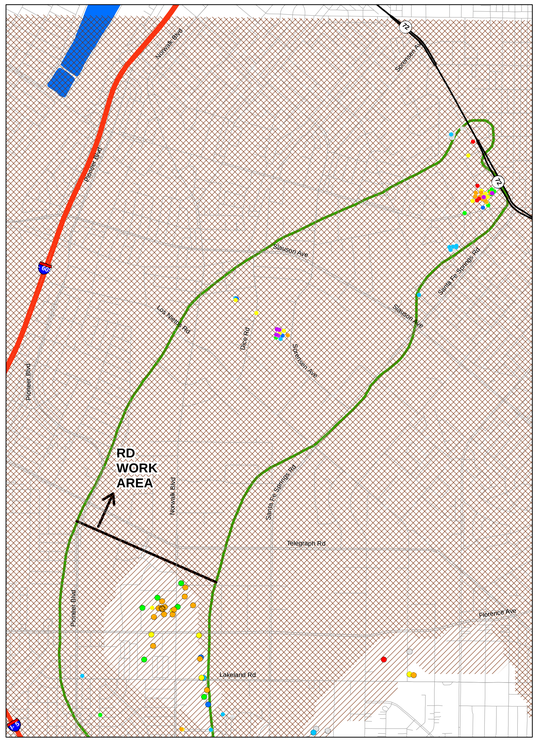
FIGURE A-5D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF TETRACHLOROETHYLENE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

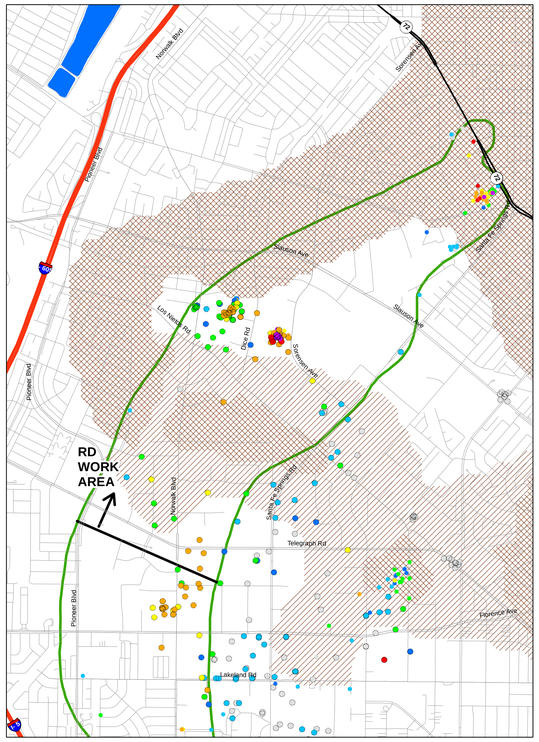
DRAFT



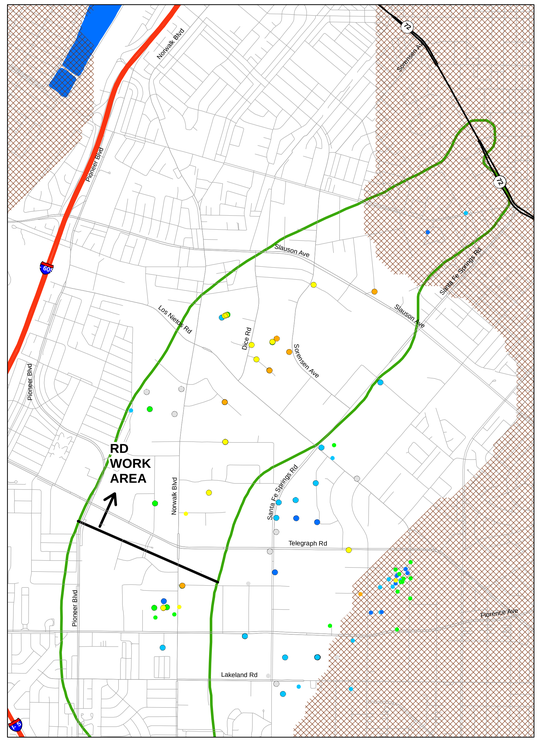
GASPUR AQUIFER



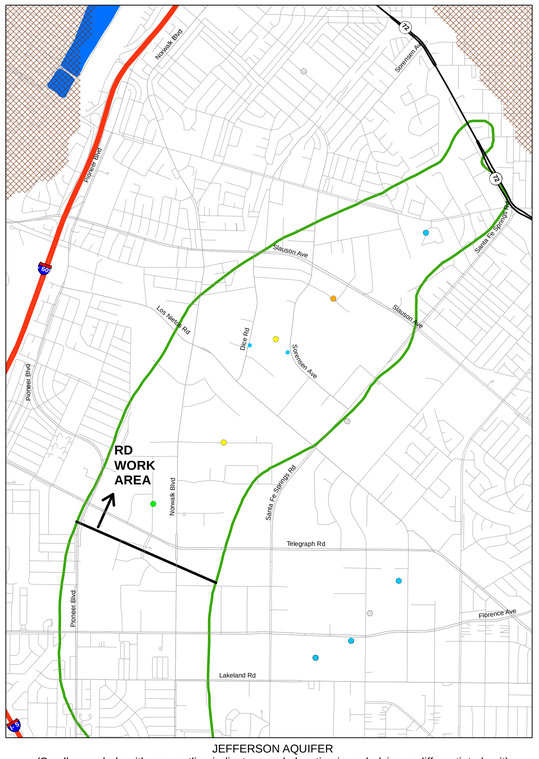
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



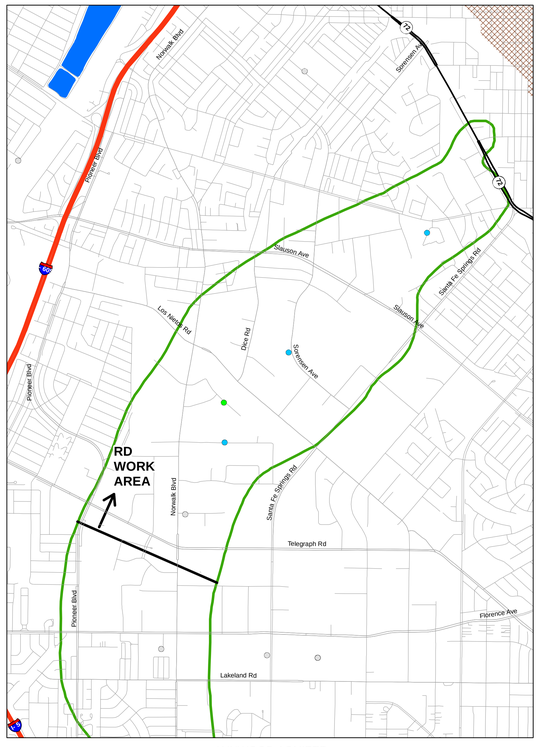
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



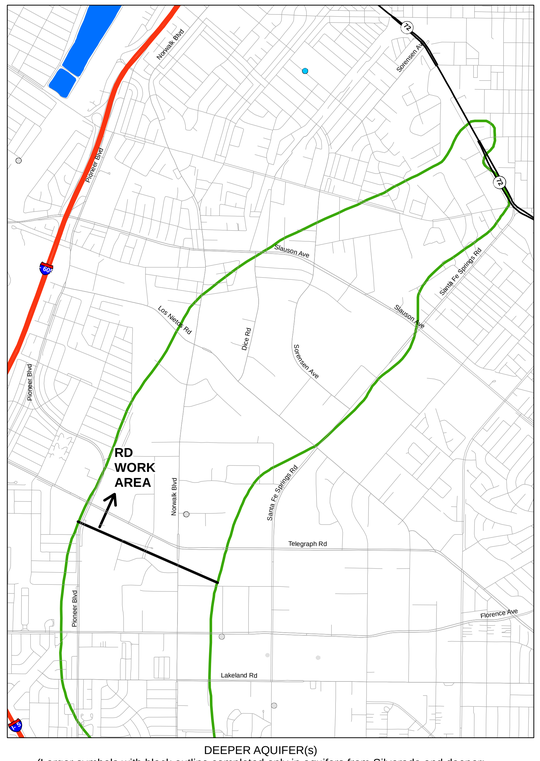
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 5ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_EnSAOs_RDWA_TCE_B104_Ave_D00 Date Exported: 8/31/2016

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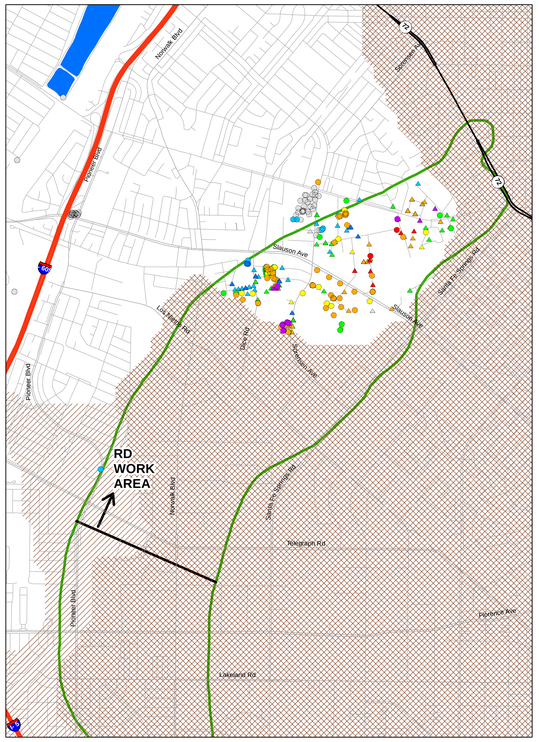
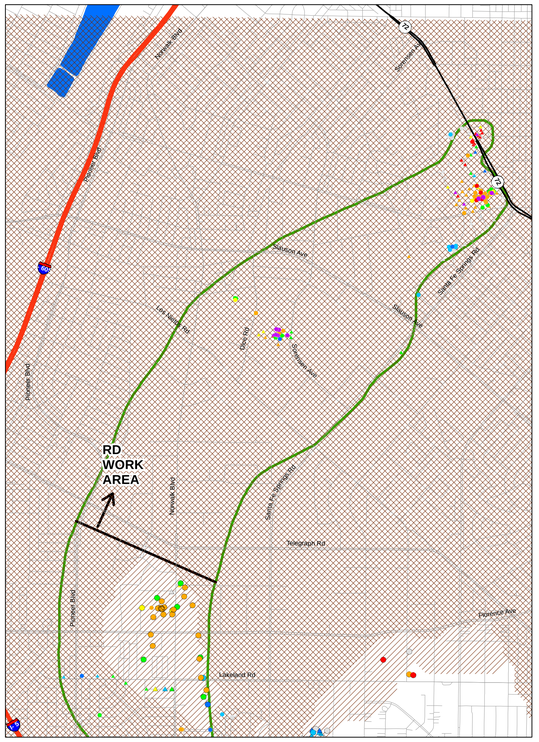
FIGURE A-6A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF TRICHLOROETHYLENE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

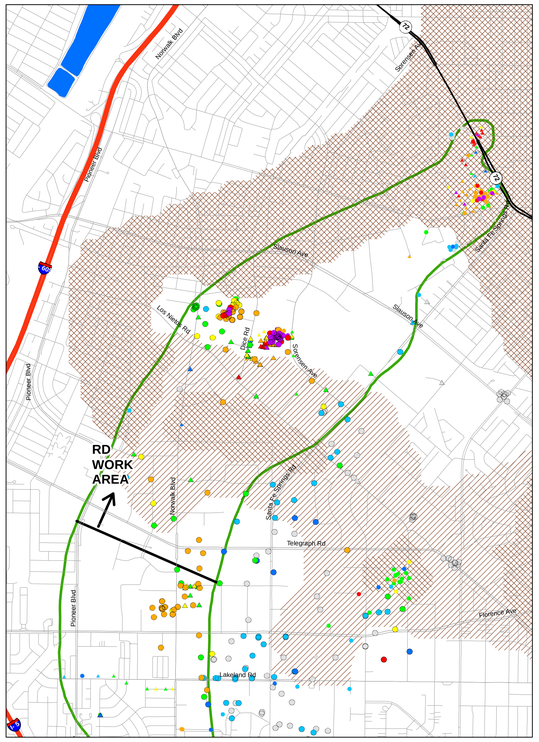
DRAFT



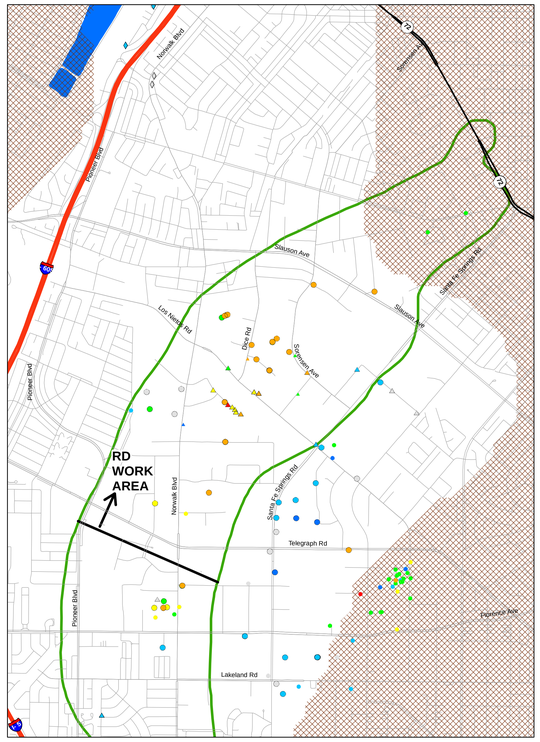
GASPUR AQUIFER



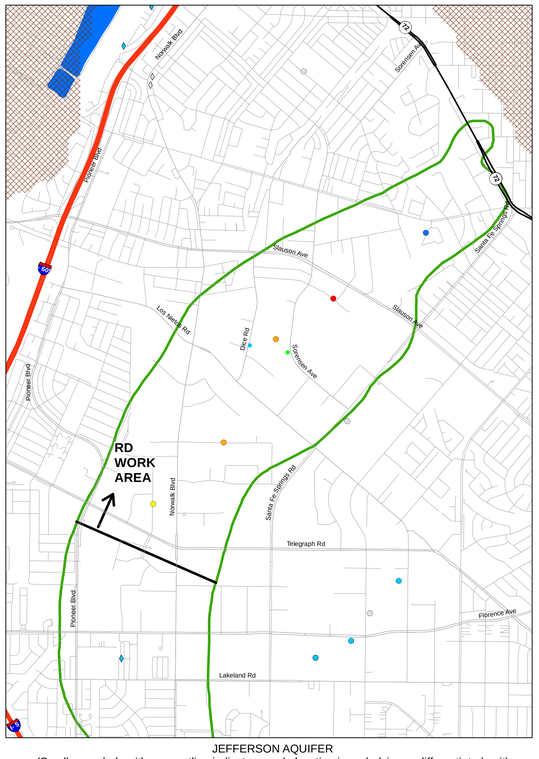
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



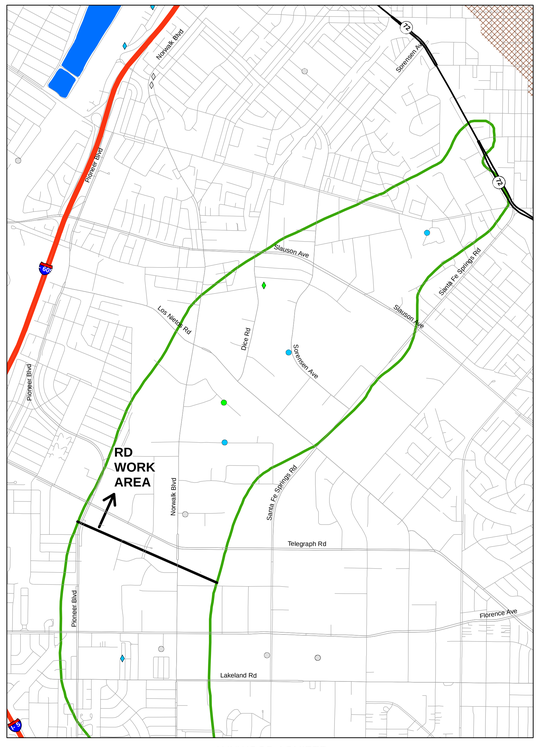
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



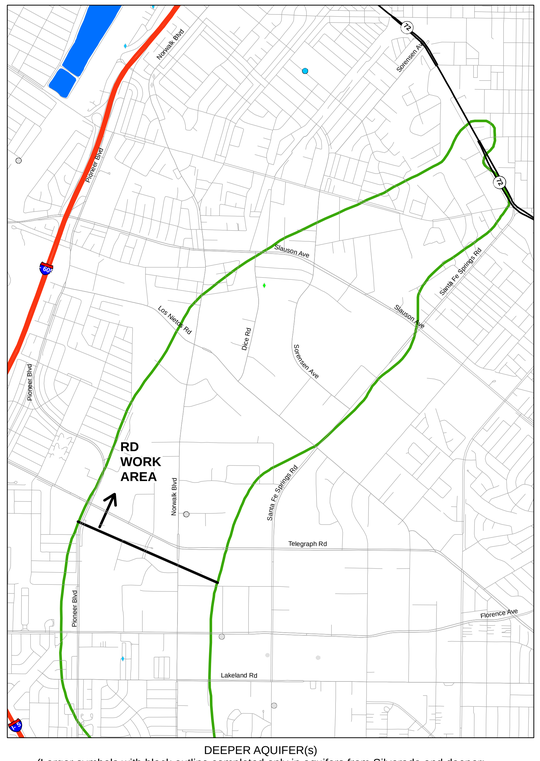
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 5ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent resultS were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_DO_EsAOPs_RDWA_TCE_B104_Map_DOD Date Exported: 8/31/2016

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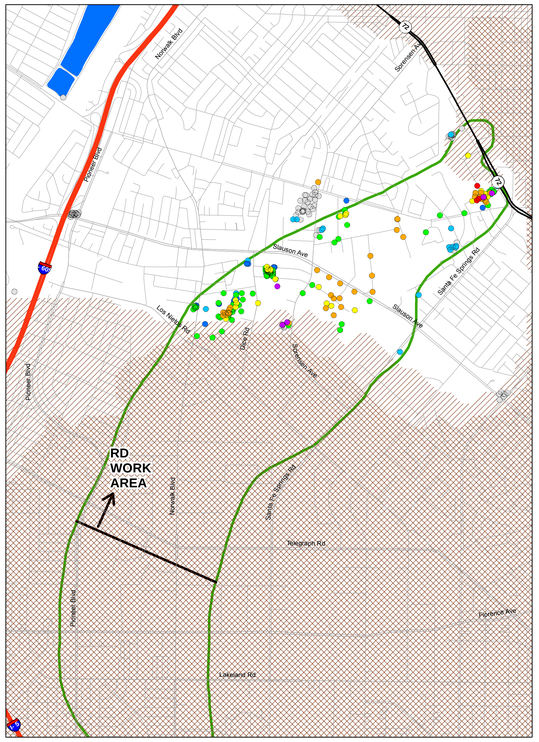
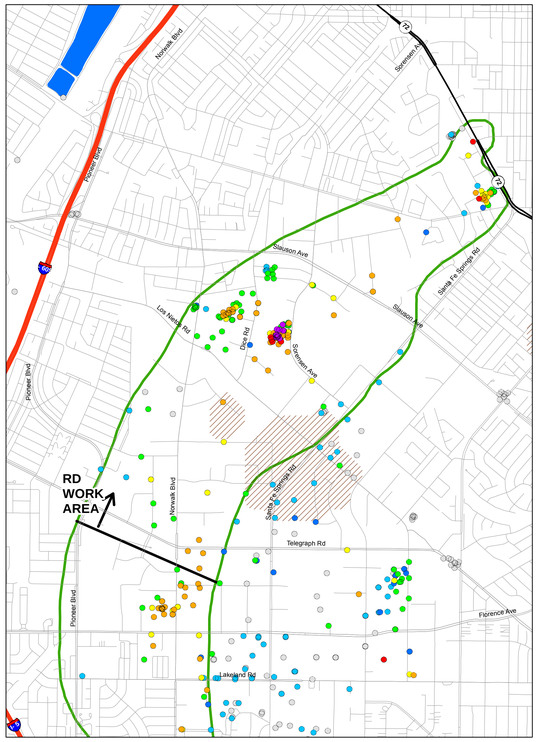
FIGURE A-6B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF TRICHLOROETHYLENE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

DRAFT



EPA STRATIGRAPHIC UNIT 2



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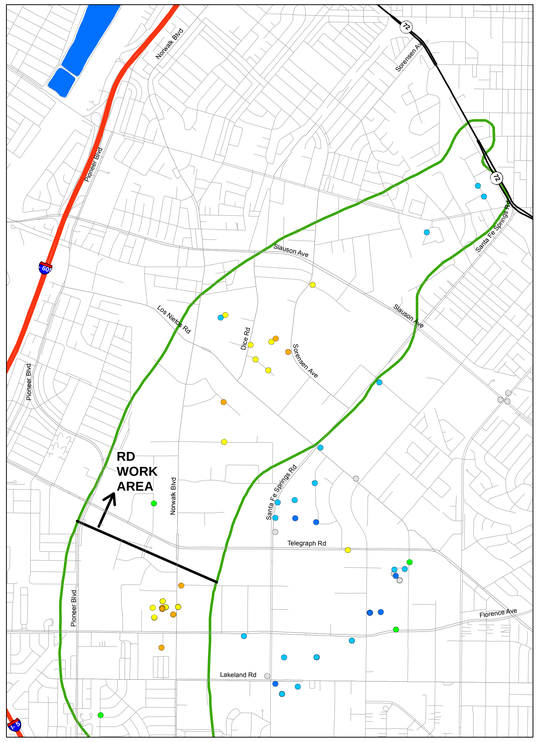
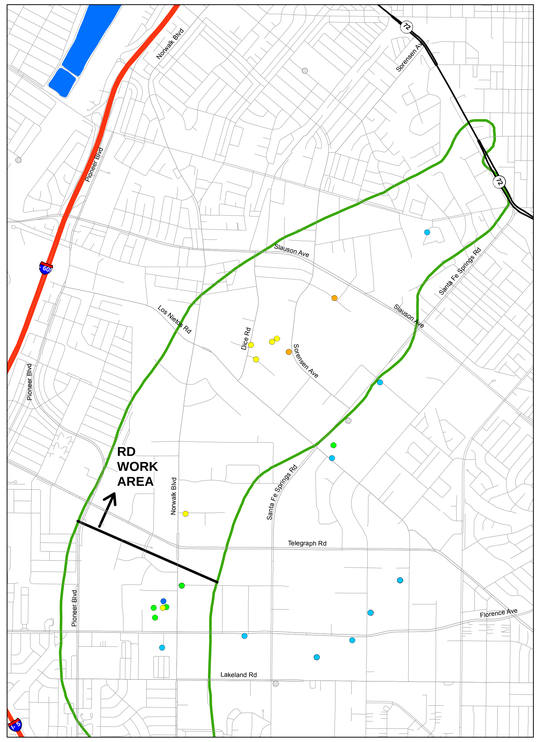


EPA STRATIGRAPHIC UNIT 4



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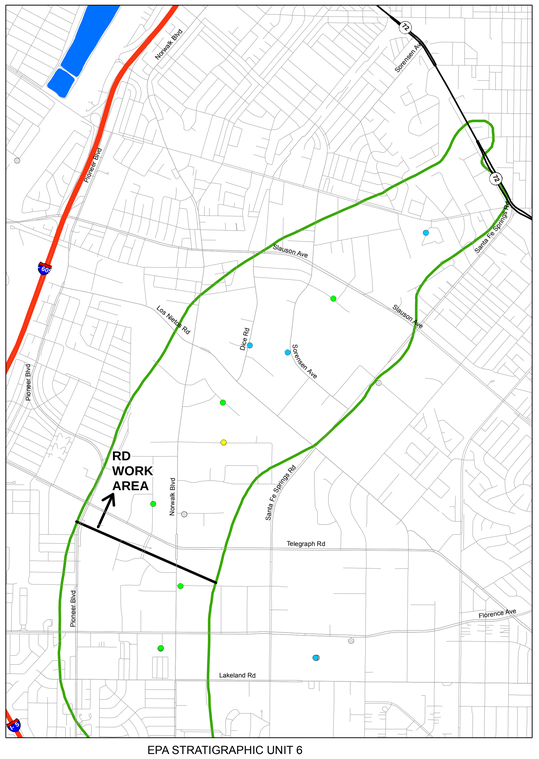
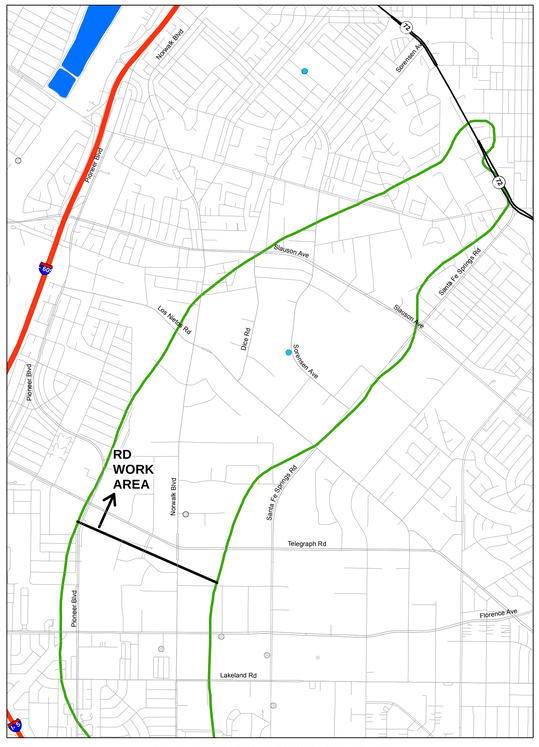


EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 5ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DO_FigA06c_8OVA_TCE_SB_Ave_D00 Date Exported: 8/31/2016

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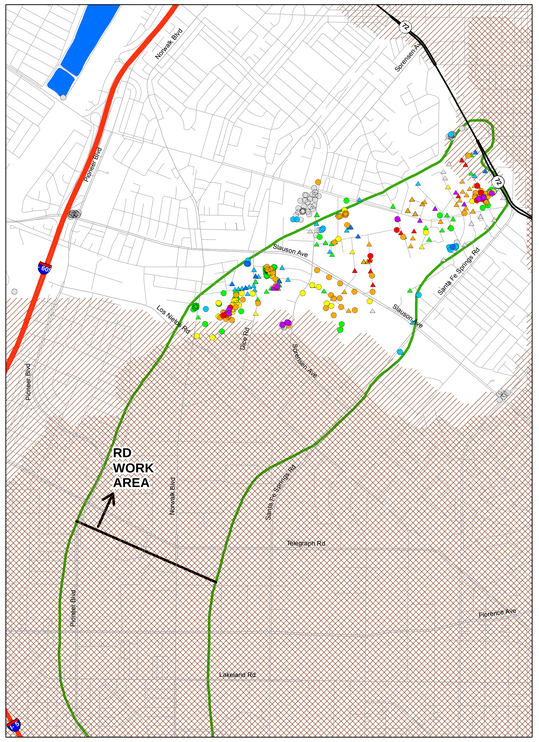
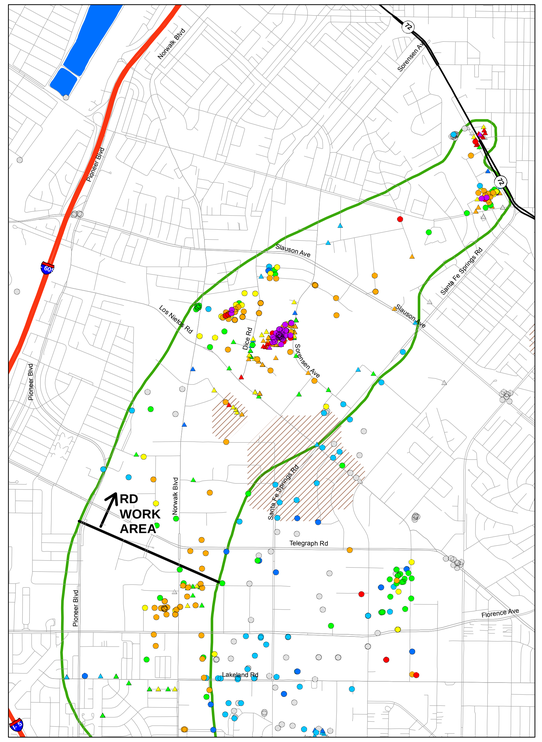
Hydrogeology/Engineering

FIGURE A-6C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF TRICHLOROETHYLENE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

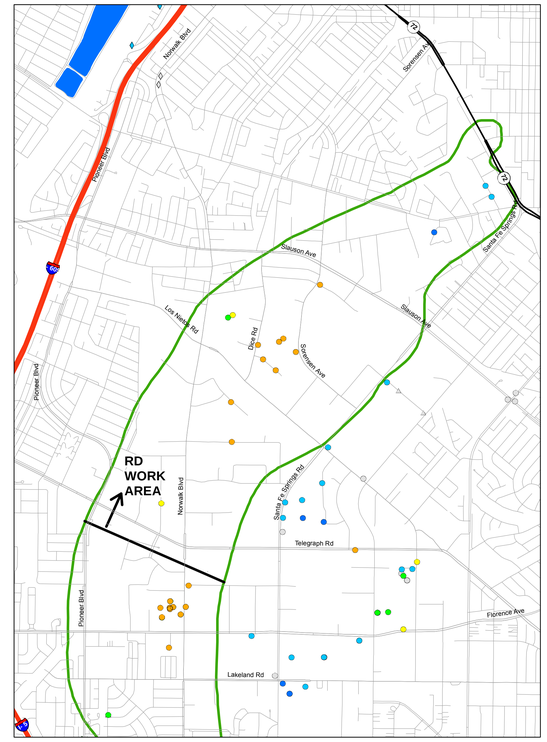
DRAFT



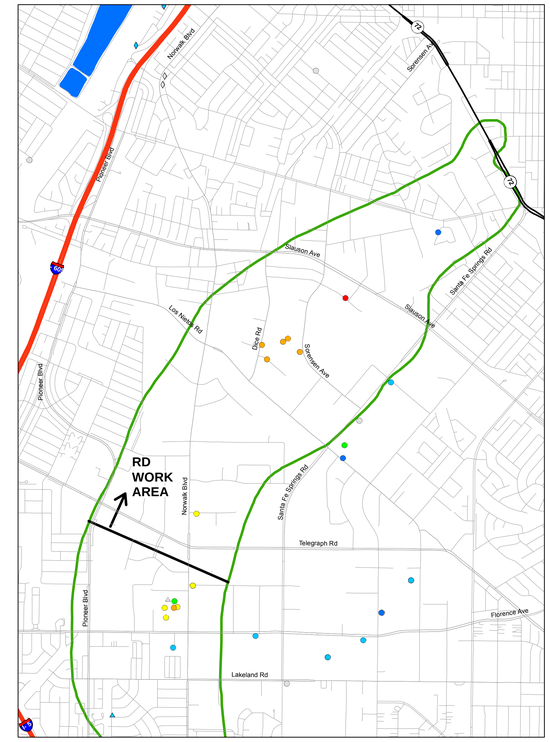
EPA STRATIGRAPHIC UNIT 2



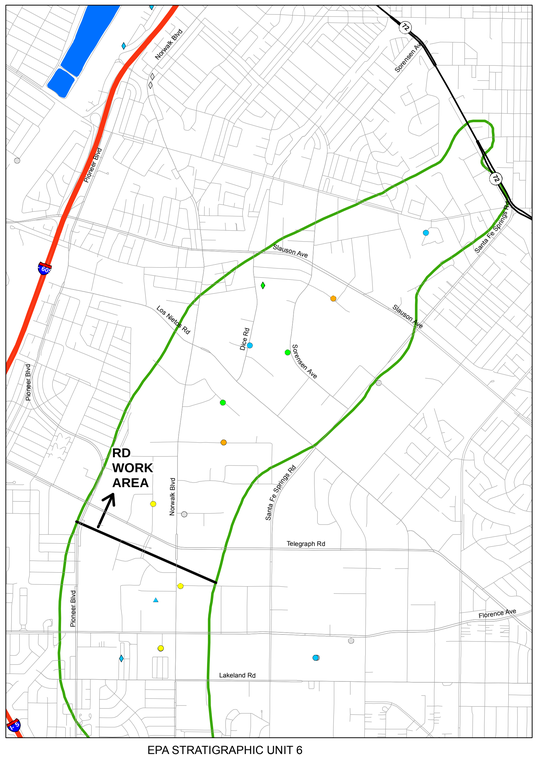
EPA STRATIGRAPHIC UNIT 3



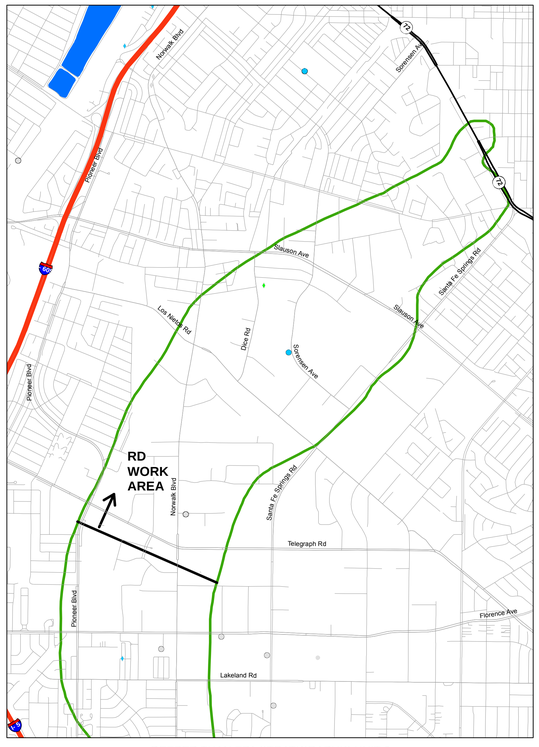
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 5ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 2212_DQ_Exh06d_60WA_TCE_SB_Mar_000 Date Exported: 8/10/2016

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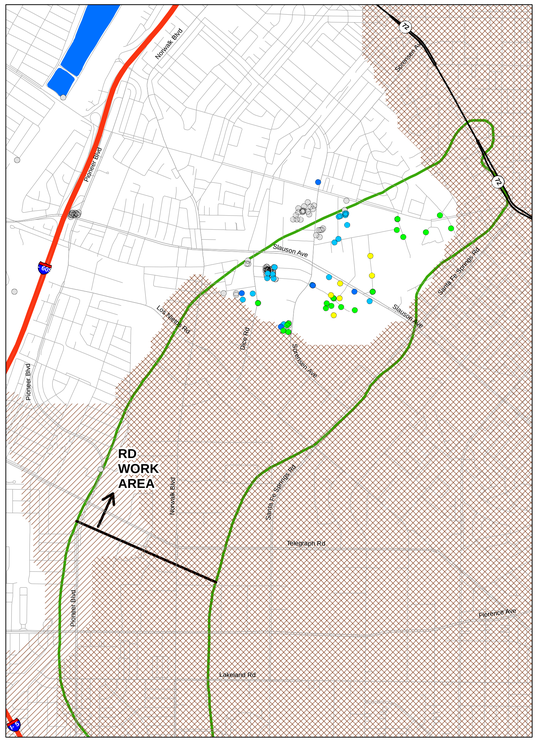
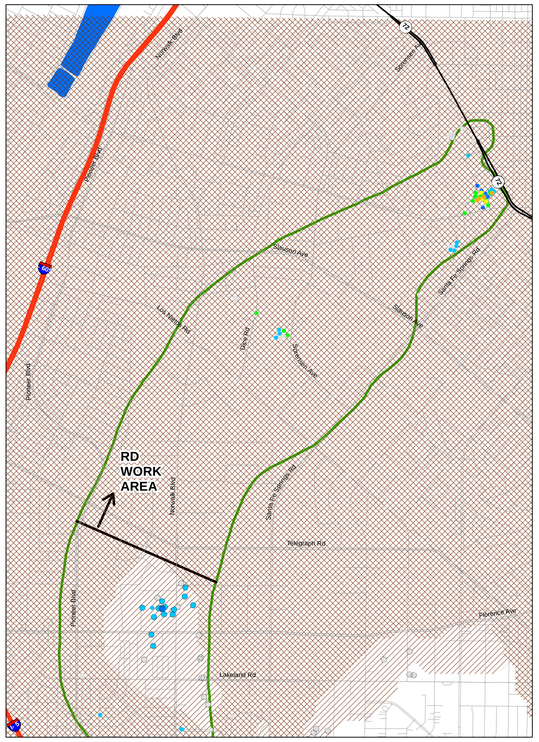
FIGURE A-6D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF TRICHLOROETHYLENE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

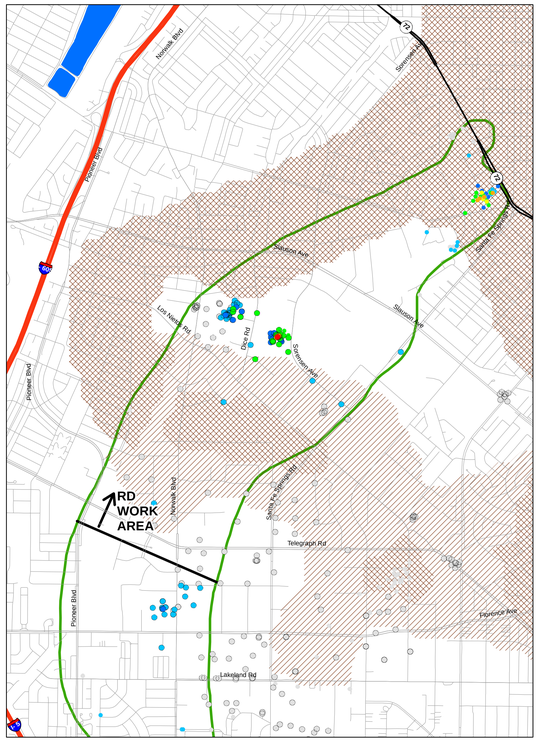
DRAFT



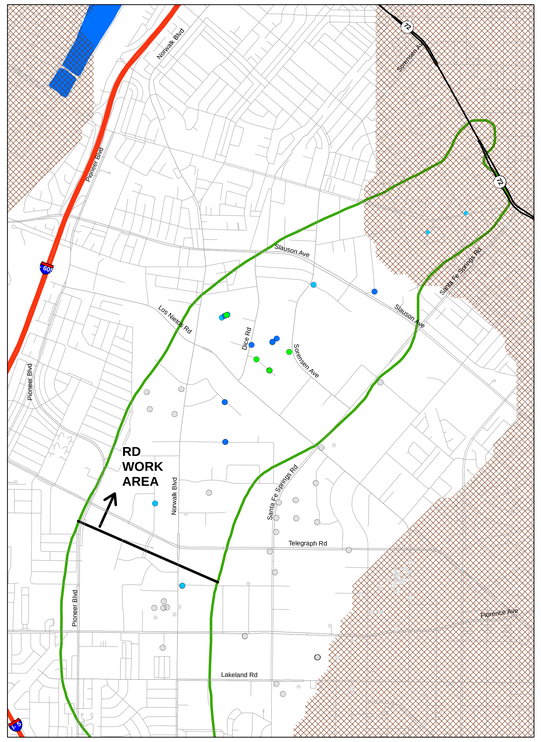
GASPUR AQUIFER



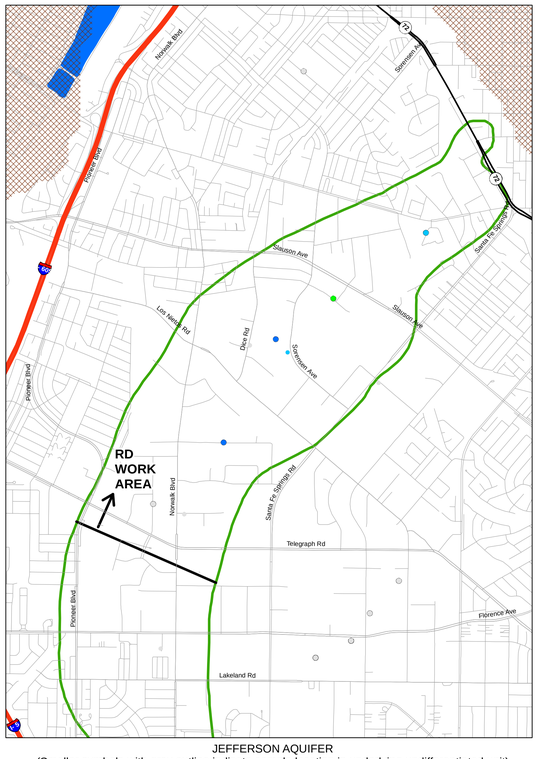
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



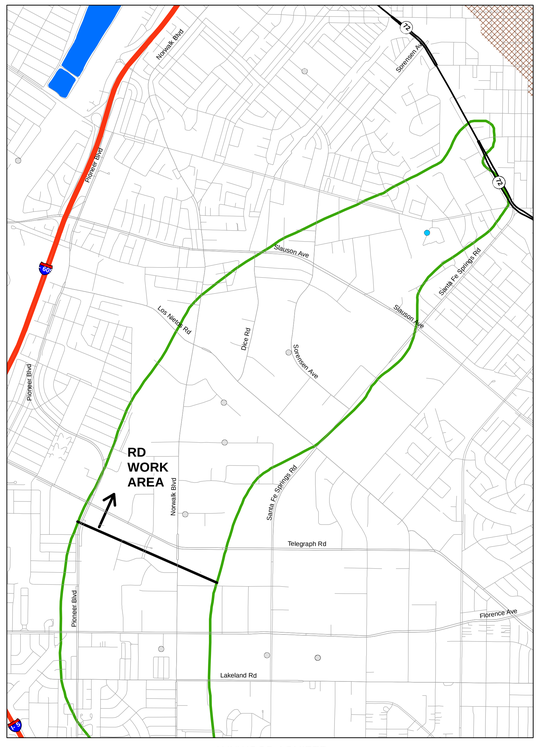
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



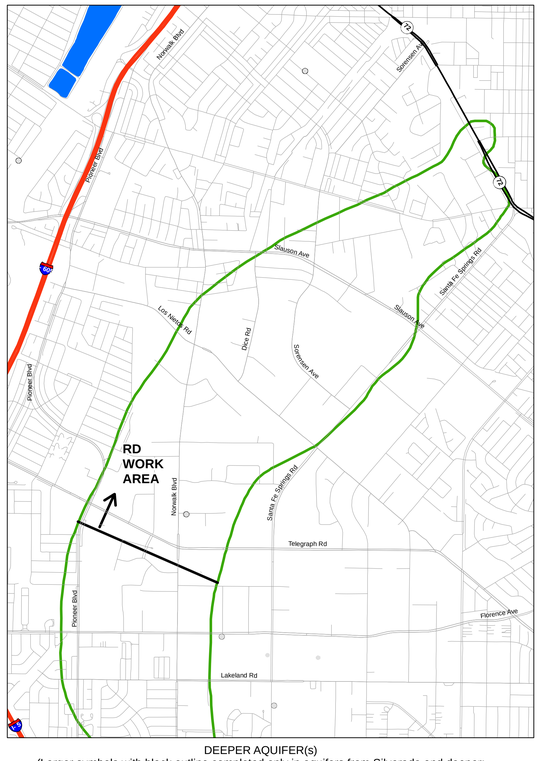
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 15 ug/l
- >15 to 30 ug/l
- >30 to 150 ug/l
- >150 to 300 ug/l
- >300 to 1,500 ug/l
- >1,500 to 3,000 ug/l
- >3,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_DO_Exh07a_60WA_ES_B104_Arc_DO0 Date Exported: 8/31/2016

HARGIS + ASSOCIATES, INC
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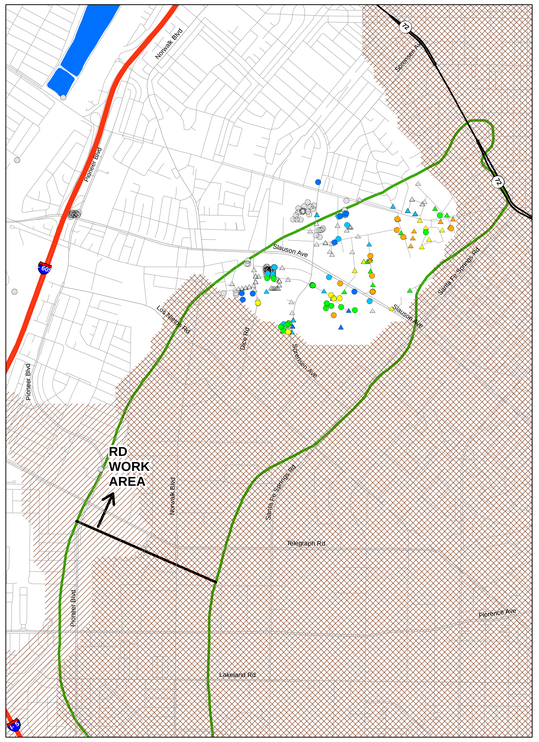
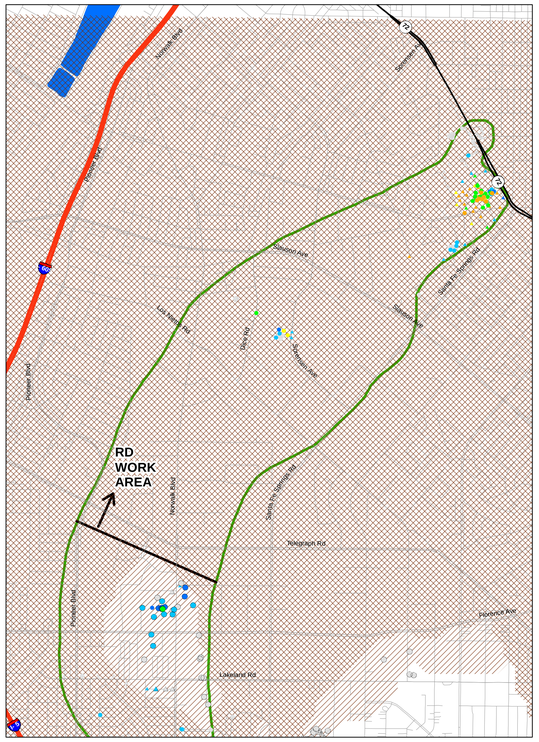
FIGURE A-7A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF FREON 11 IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

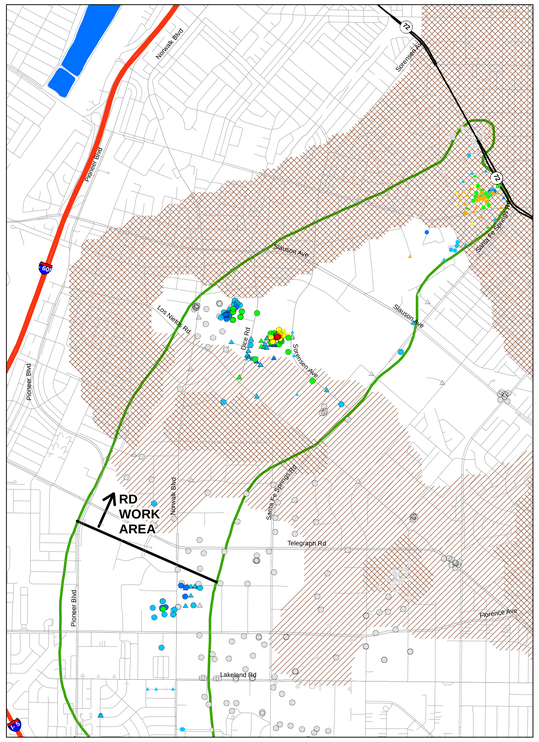
DRAFT



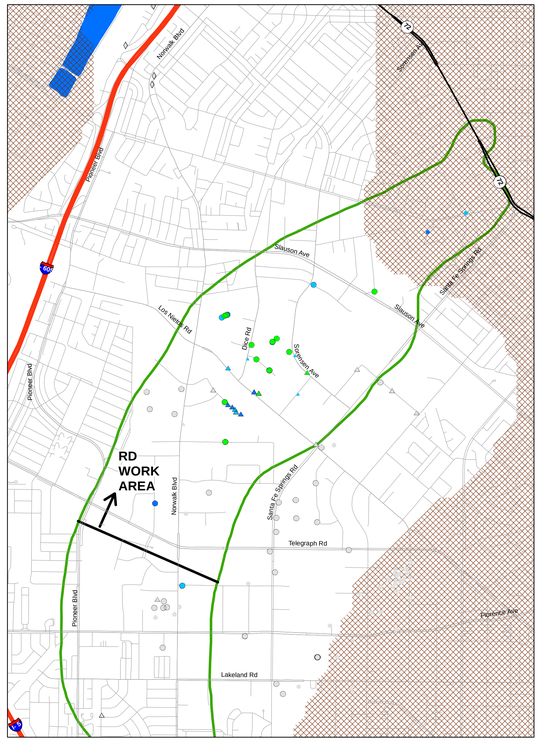
GASPUR AQUIFER



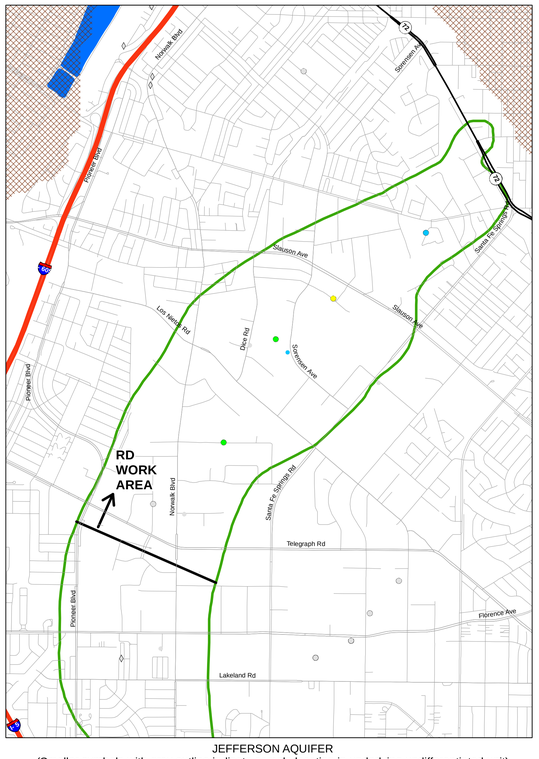
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



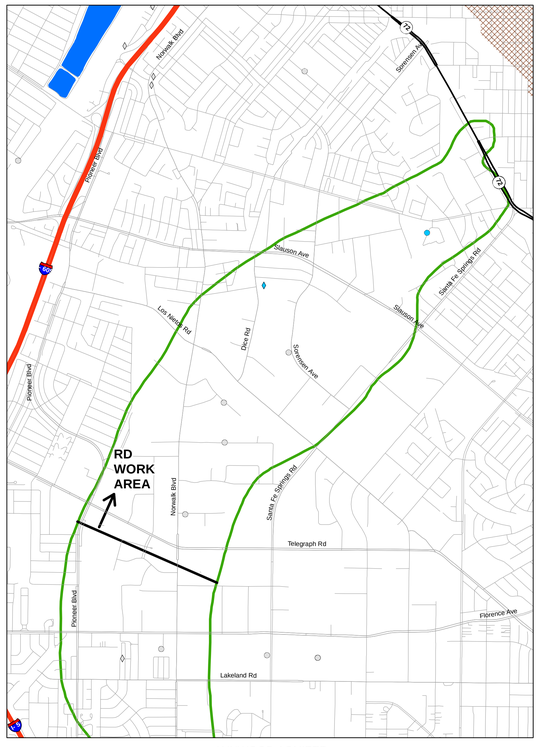
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



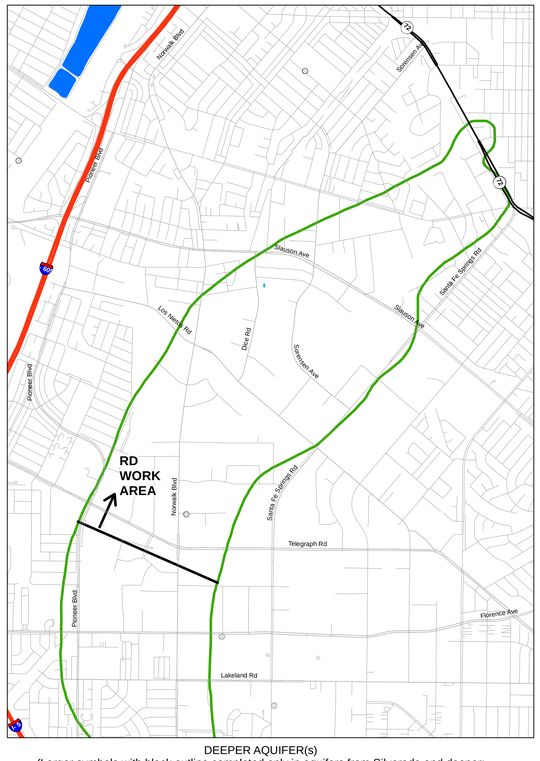
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 15 ug/l
- >15 to 30 ug/l
- >30 to 150 ug/l
- >150 to 300 ug/l
- >300 to 1,500 ug/l
- >1,500 to 3,000 ug/l
- >3,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_DO_EvaOfSi_RDWA_F31_B104_Mix_ODD Date Exported: 8/31/2016

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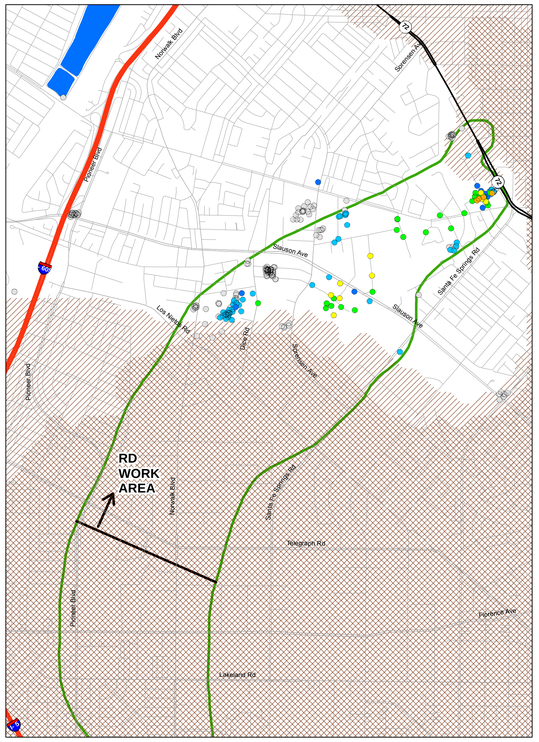
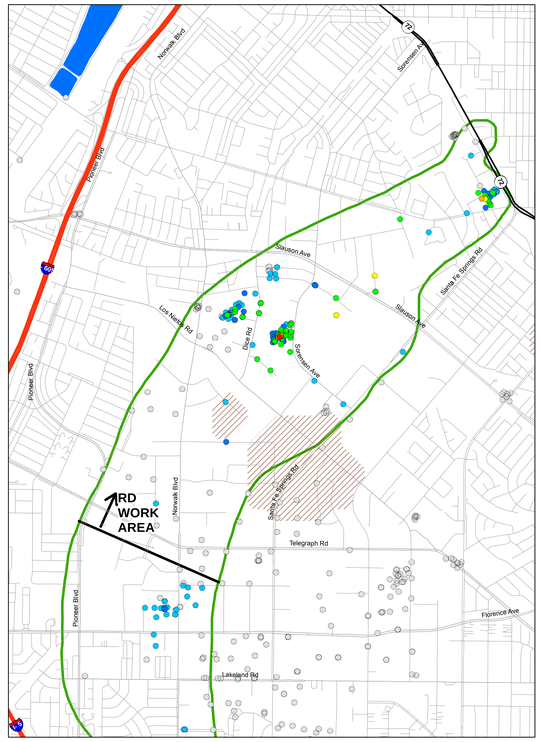
FIGURE A-7B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF FREON 11 IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

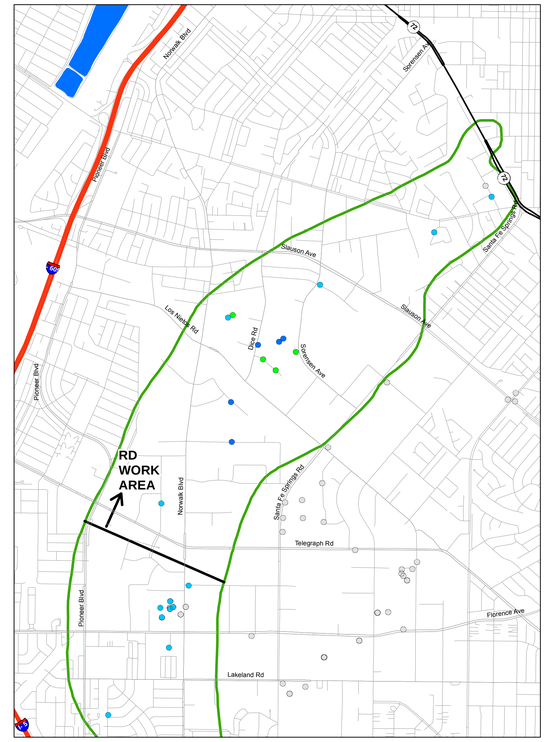
DRAFT



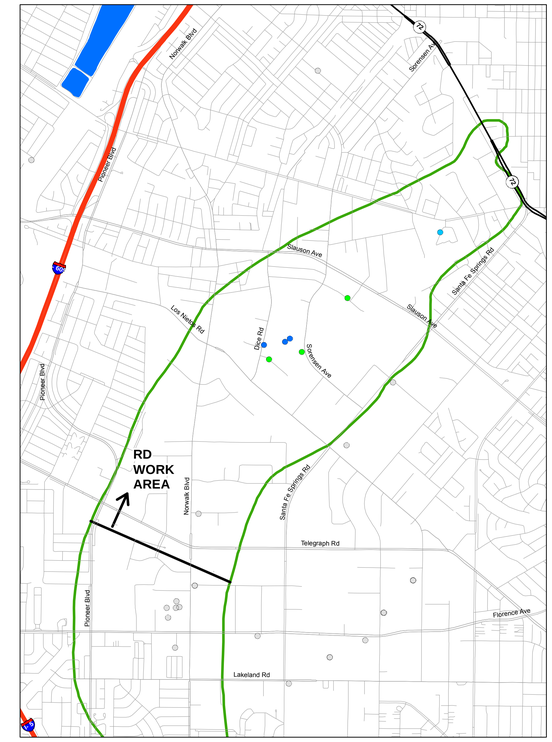
EPA STRATIGRAPHIC UNIT 2



EPA STRATIGRAPHIC UNIT 3



EPA STRATIGRAPHIC UNIT 4



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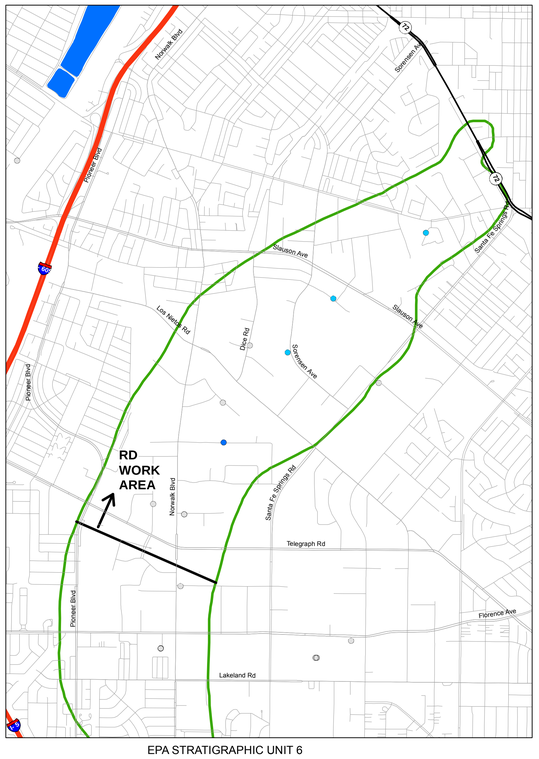
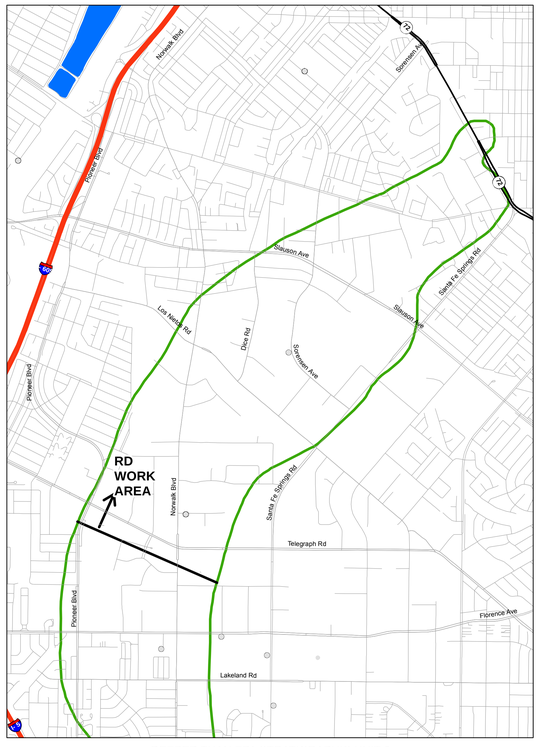


EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 15 ug/l
- >15 to 30 ug/l
- >30 to 150 ug/l
- >150 to 300 ug/l
- >300 to 1,500 ug/l
- >1,500 to 3,000 ug/l
- >3,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 2017_DQ_Fig07c_ROWA_F11_SB_Ave_DQO Date Exported: 8/31/2016

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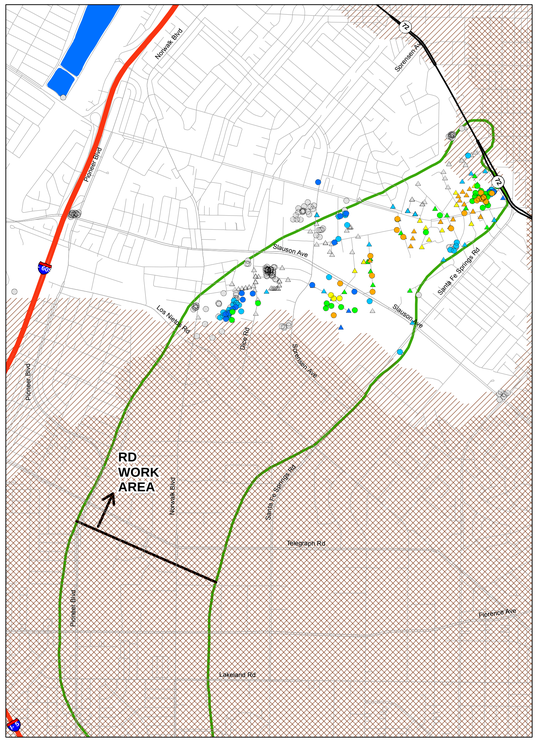
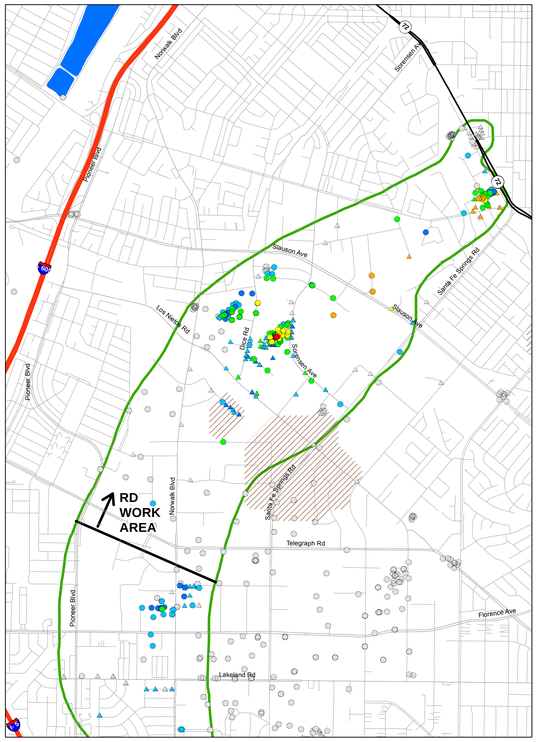
FIGURE A-7C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF FREON 11 IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

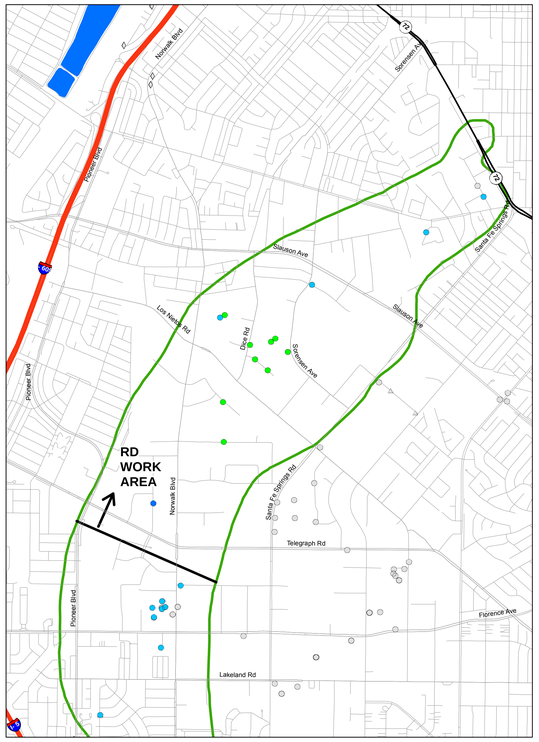
DRAFT



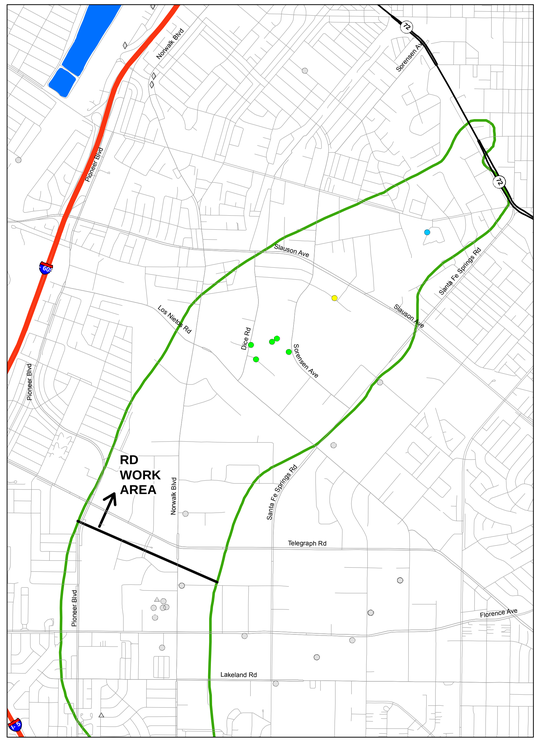
EPA STRATIGRAPHIC UNIT 2



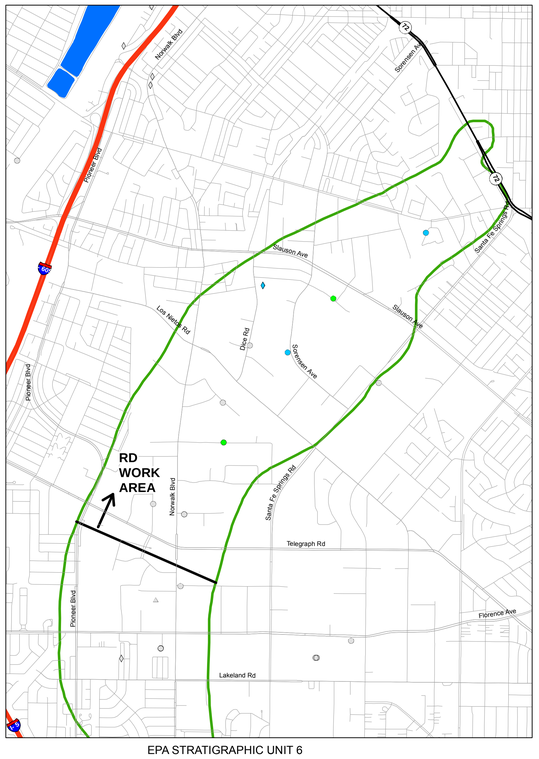
EPA STRATIGRAPHIC UNIT 3



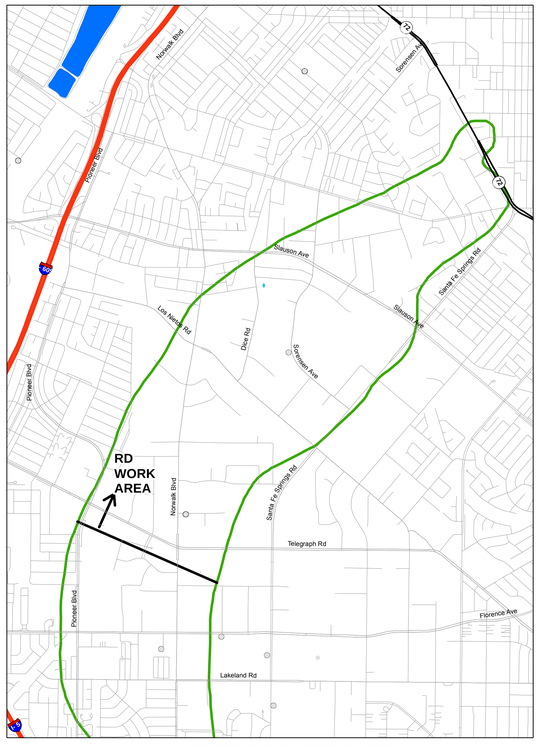
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 15 ug/l
- >15 to 30 ug/l
- >30 to 150 ug/l
- >150 to 300 ug/l
- >300 to 1,500 ug/l
- >1,500 to 3,000 ug/l
- >3,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

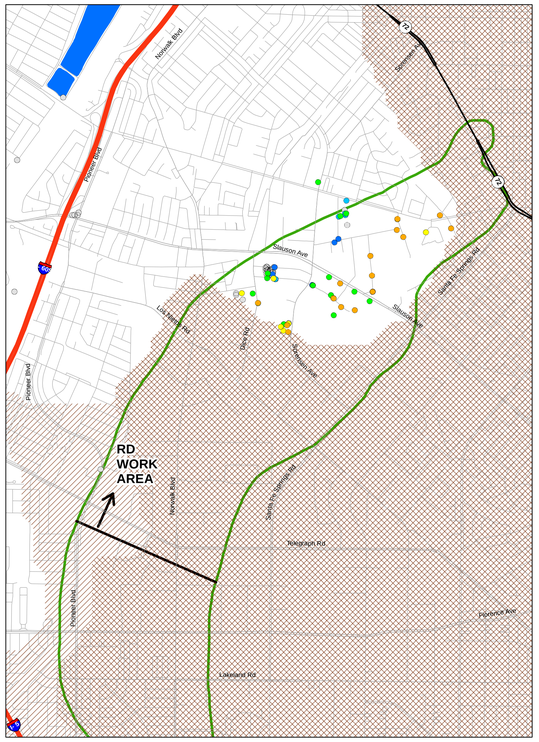
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 2317_OU_EvaNOV_60WA_F11_SB_Mix_D00 Date Exported: 8/31/2016

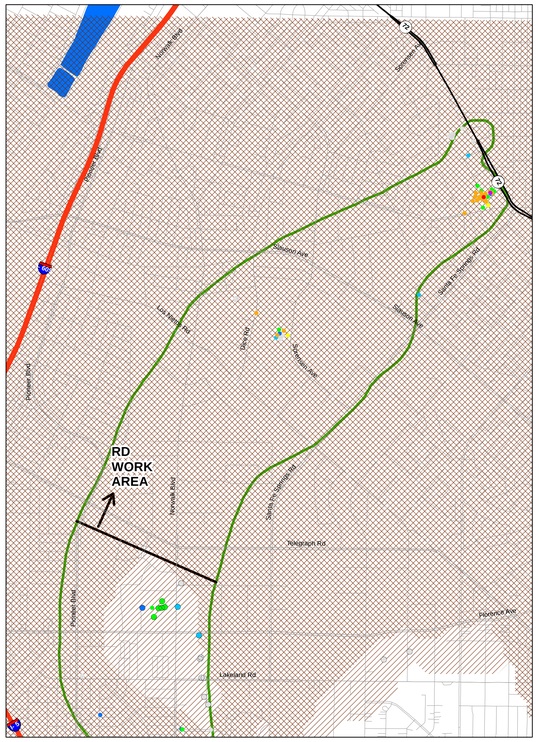
HARGIS + ASSOCIATES, INC
Hydrogeology/Engineering

FIGURE A-7D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF FREON 11 IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

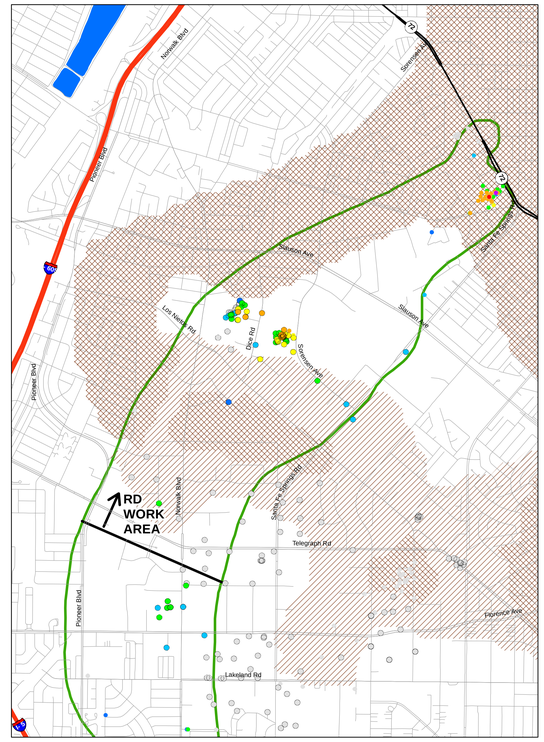
DRAFT



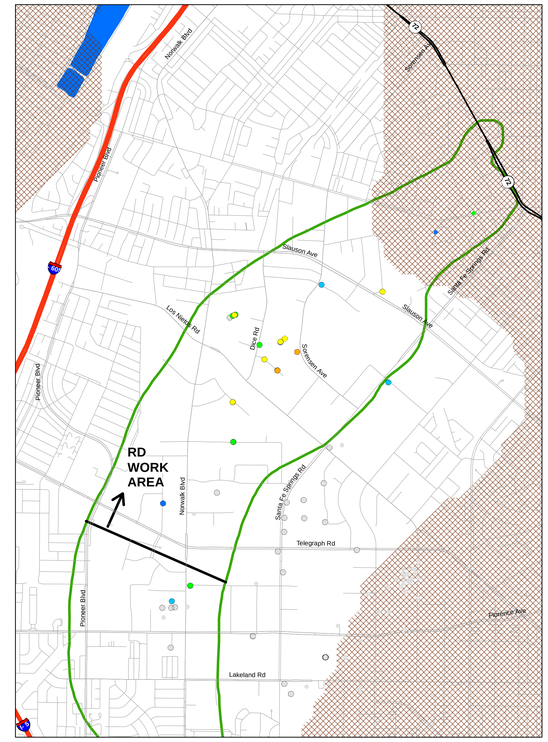
GASPUR AQUIFER



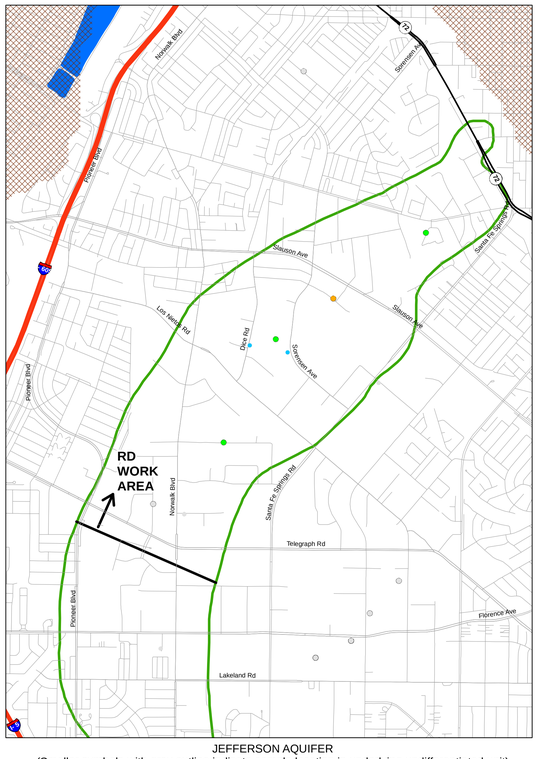
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



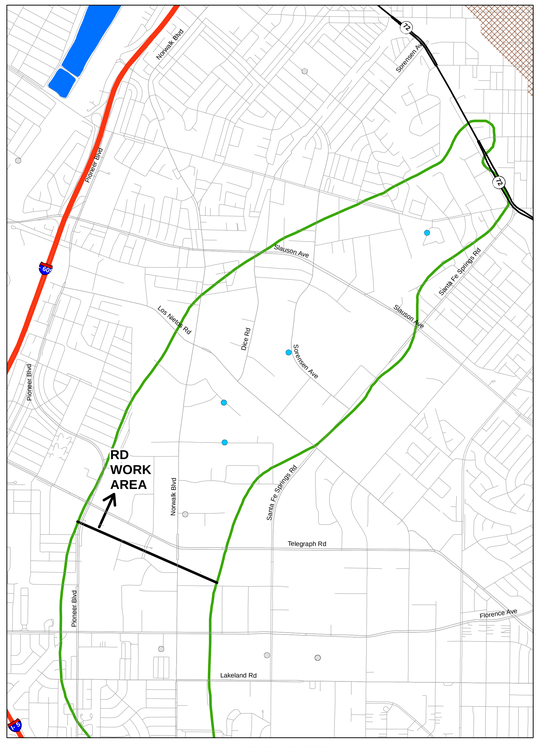
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



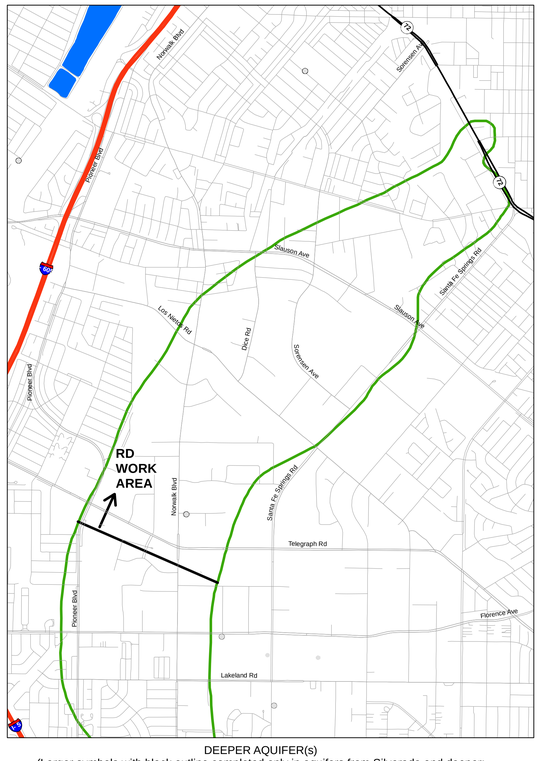
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 6 ug/l
- >6 to12 ug/l
- >12 to 60 ug/l
- >60 to120 ug/l
- >120 to1,200 ug/l
- >1,200 to2,400 ug/l
- >2,400 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_DO_FigA8a_8200A_E113_B104_Ave_DOD Date Exported: 8/31/2016

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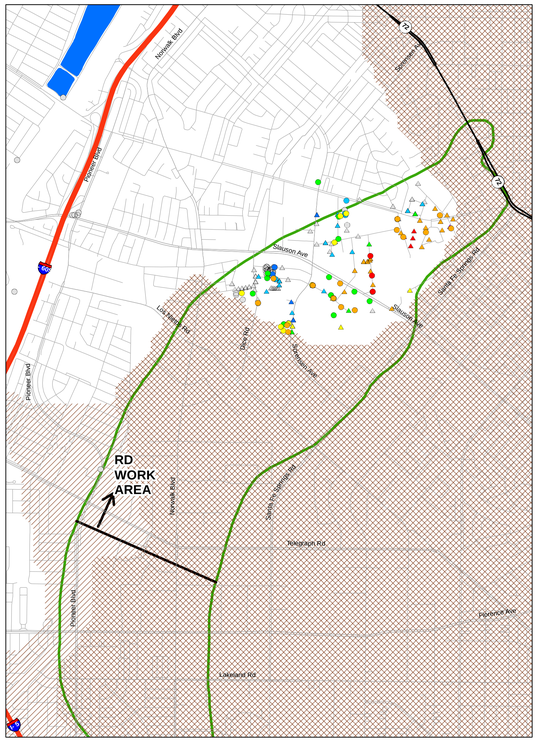
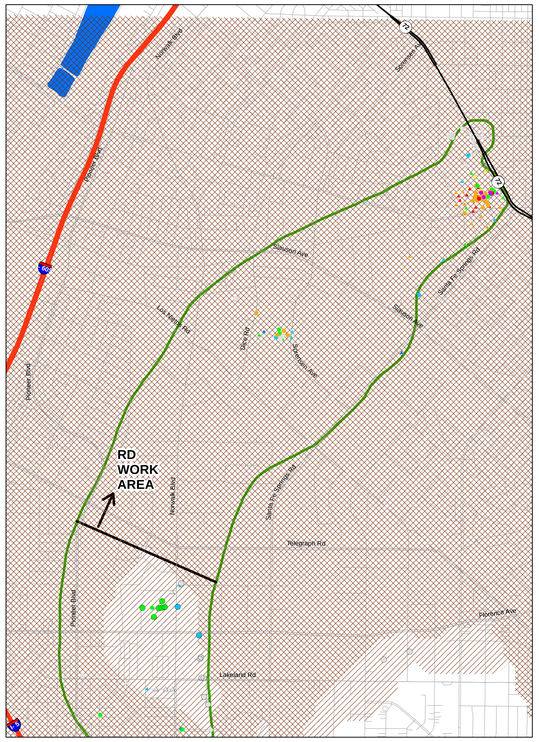
FIGURE A-8A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF FREON 113 IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

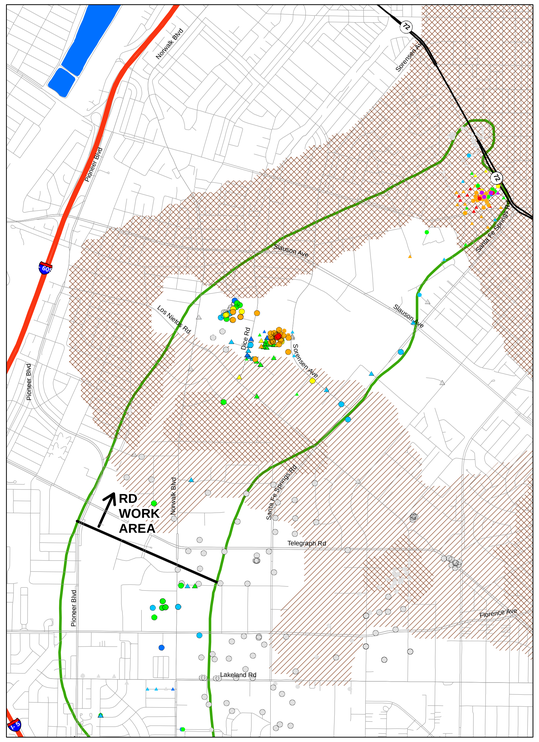
DRAFT



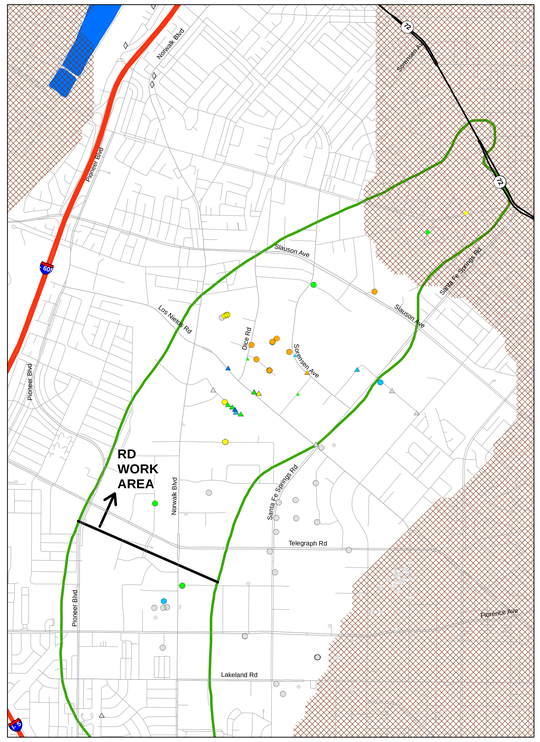
GASPUR AQUIFER



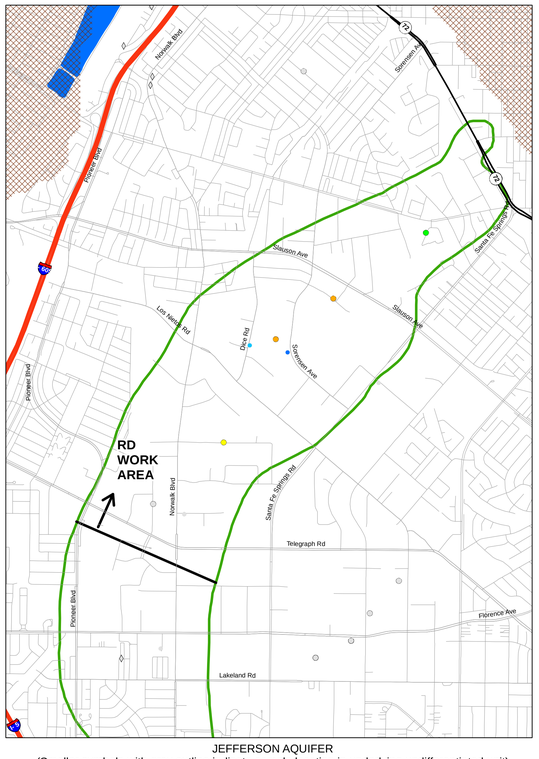
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



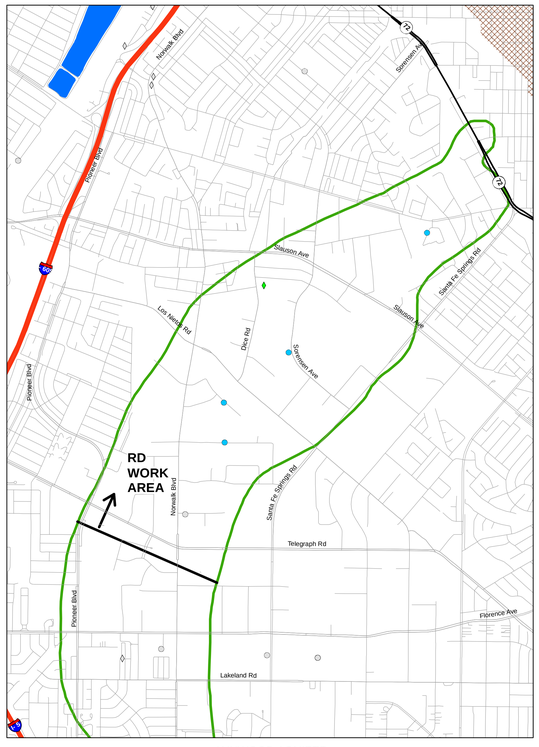
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



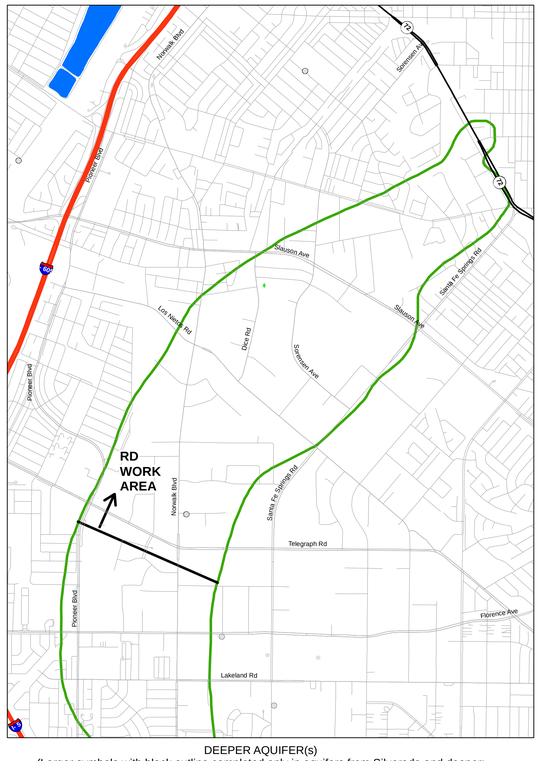
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 6 ug/l
- >6 to12 ug/l
- >12 to 60 ug/l
- >60 to120 ug/l
- >120 to1,200 ug/l
- >1,200 to2,400 ug/l
- >2,400 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

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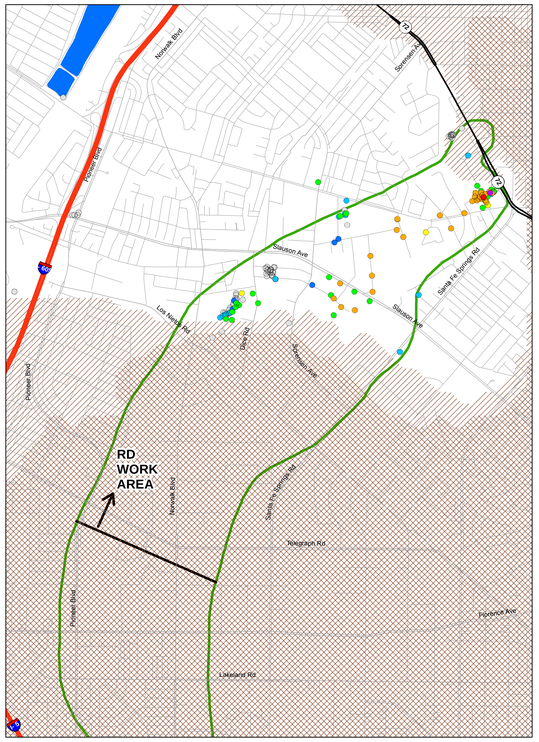
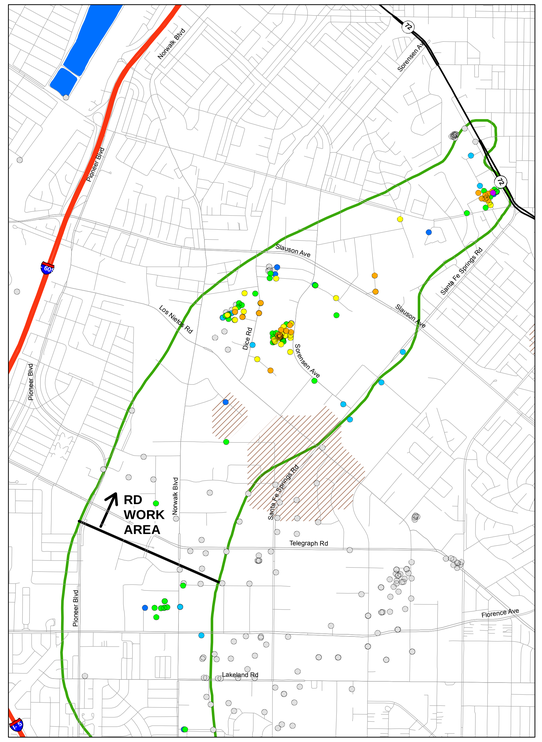
FIGURE A-8B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF FREON 113 IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

Document Name: 1212_OU_EndNfb_RDWA_F113_B104.Mxd, RDD Date Exported: 8/31/2016

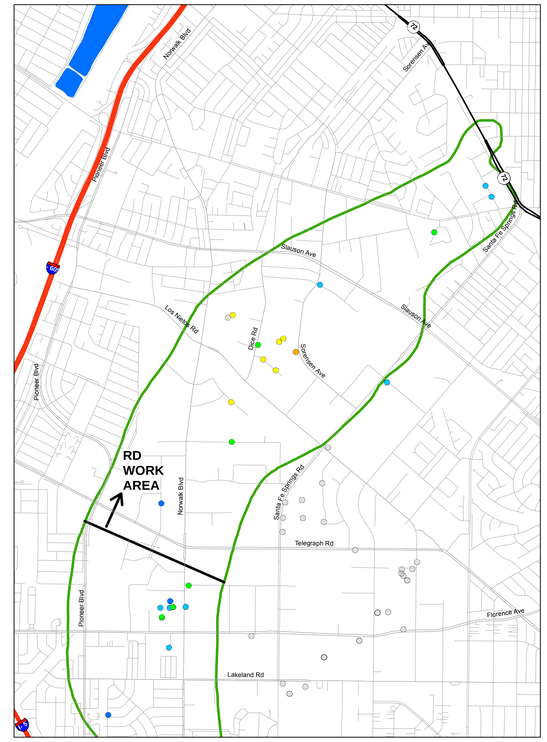
DRAFT



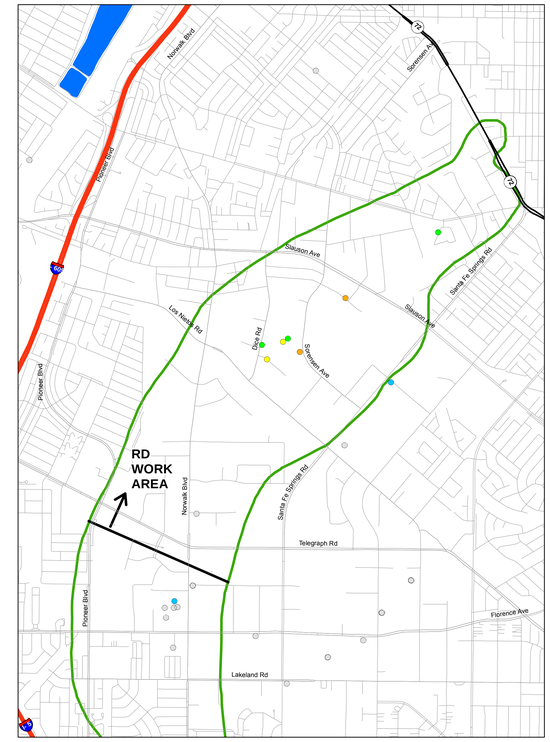
EPA STRATIGRAPHIC UNIT 2



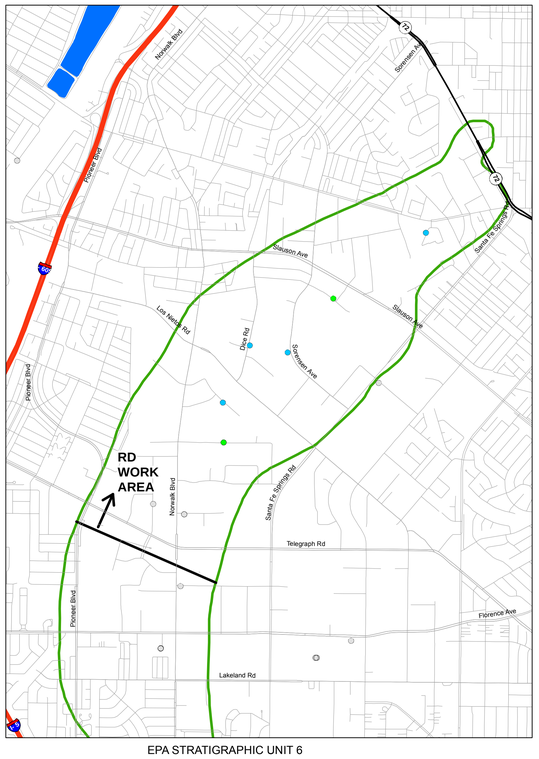
EPA STRATIGRAPHIC UNIT 3



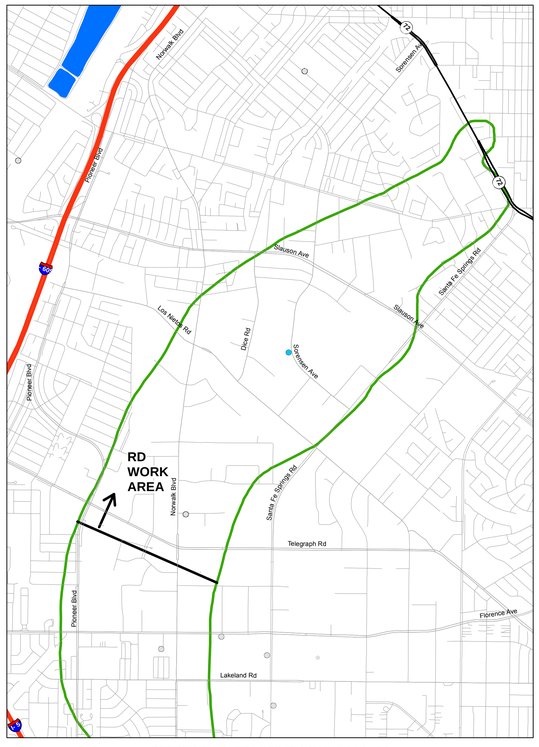
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 6 ug/l
- >6 to12 ug/l
- >12 to 60 ug/l
- >60 to120 ug/l
- >120 to1,200 ug/l
- >1,200 to2,400 ug/l
- >2,400 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: c212_OU_FigA8c_8OVA_f113_SB_Ave_000 Date Exported: 8/10/2016

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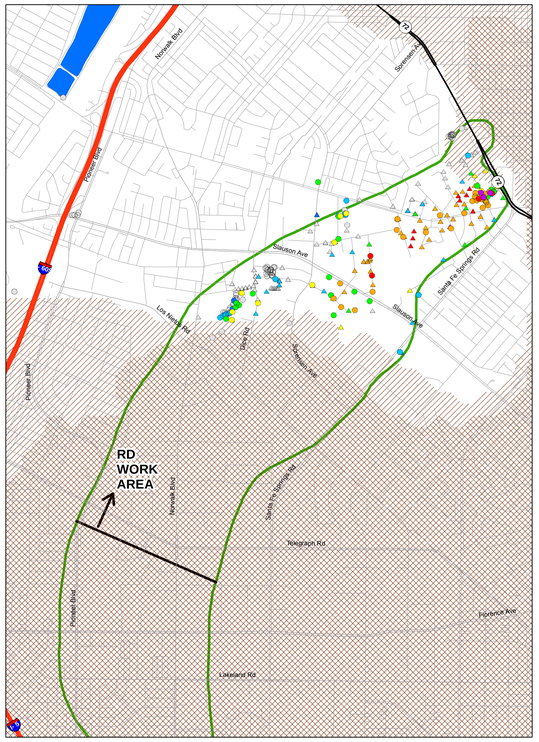
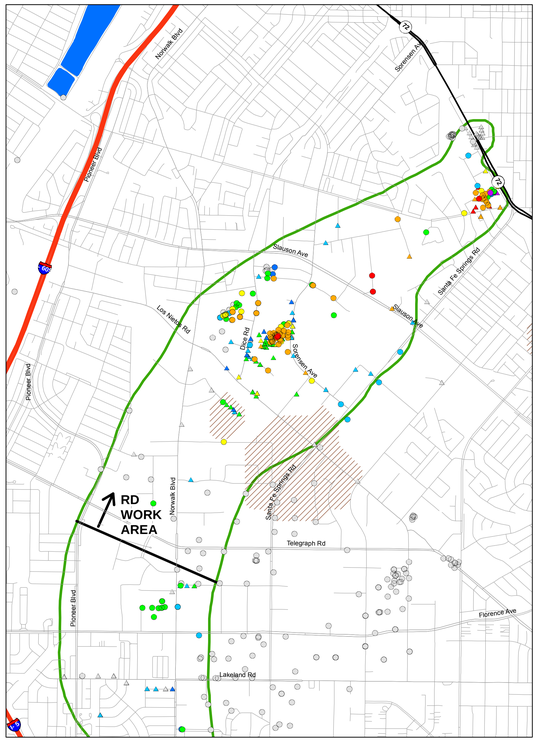
FIGURE A-8C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF FREON 113 IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

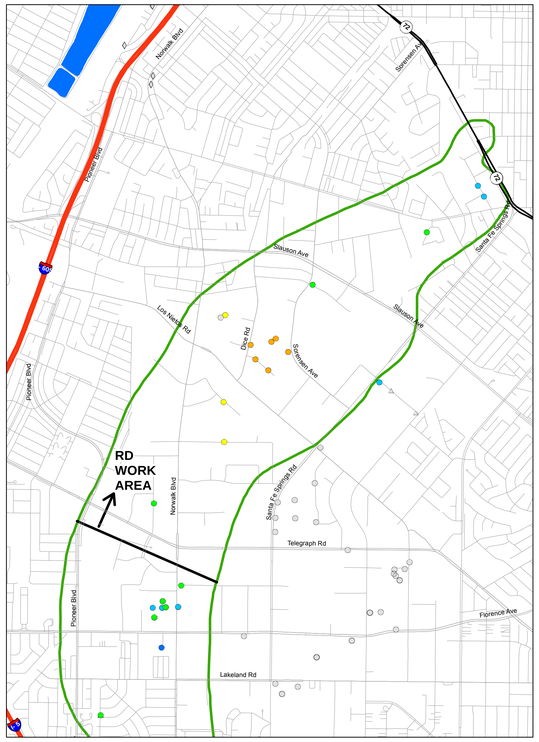
DRAFT



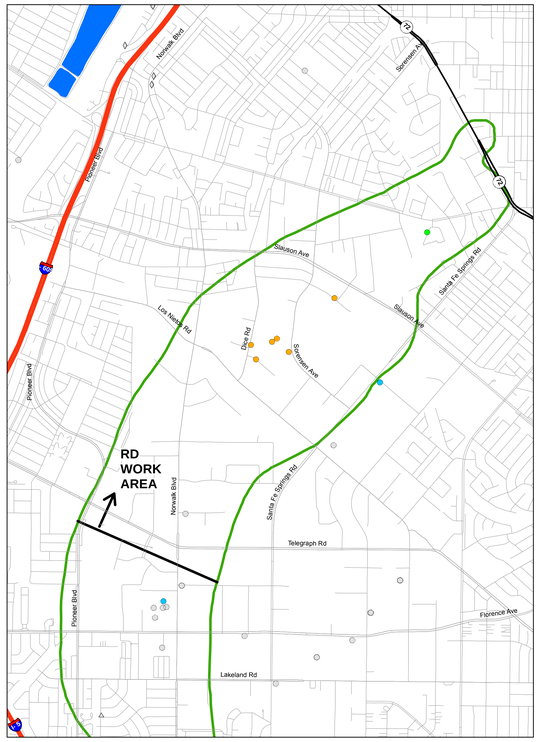
EPA STRATIGRAPHIC UNIT 2



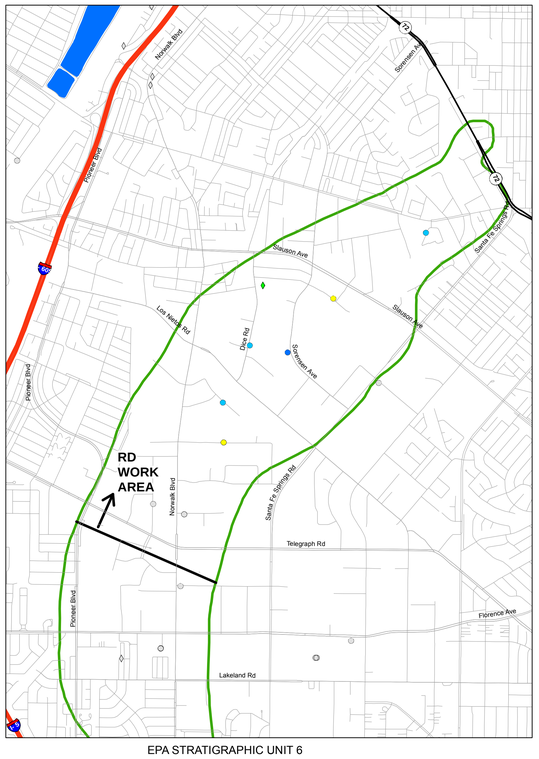
EPA STRATIGRAPHIC UNIT 3



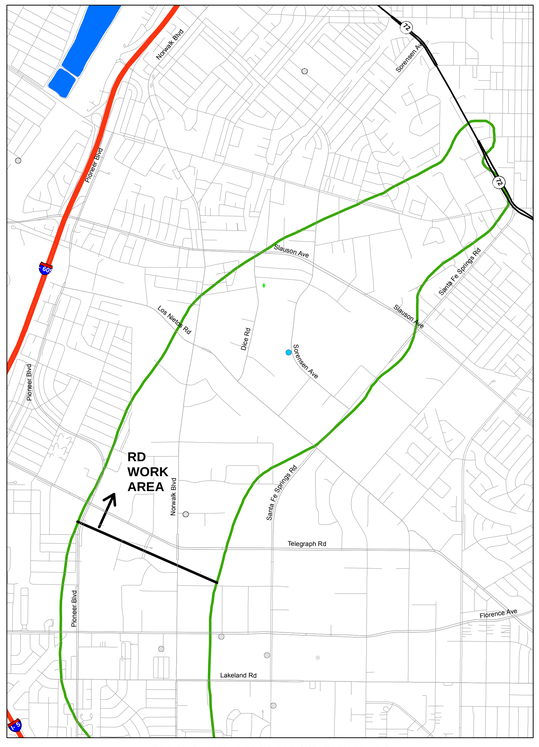
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 6 ug/l
- >6 to12 ug/l
- >12 to 60 ug/l
- >60 to120 ug/l
- >120 to1,200 ug/l
- >1,200 to2,400 ug/l
- >2,400 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: c217_OU_EvaR09_RDWA_F113_SB_Map.DWG Date Exported: 8/31/2016

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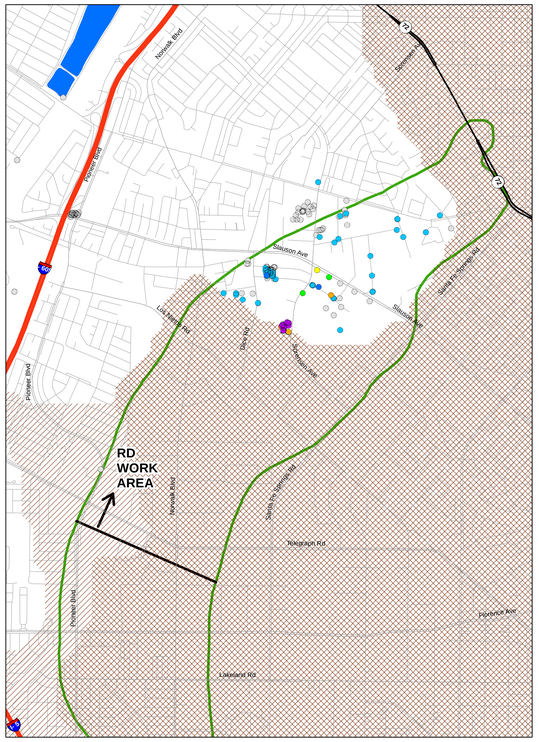
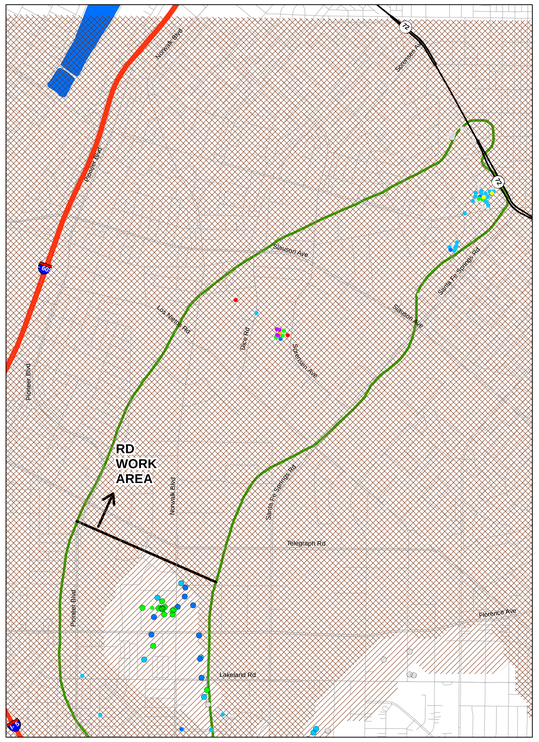
Hydrogeology/Engineering

FIGURE A-8D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF FREON 113 IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

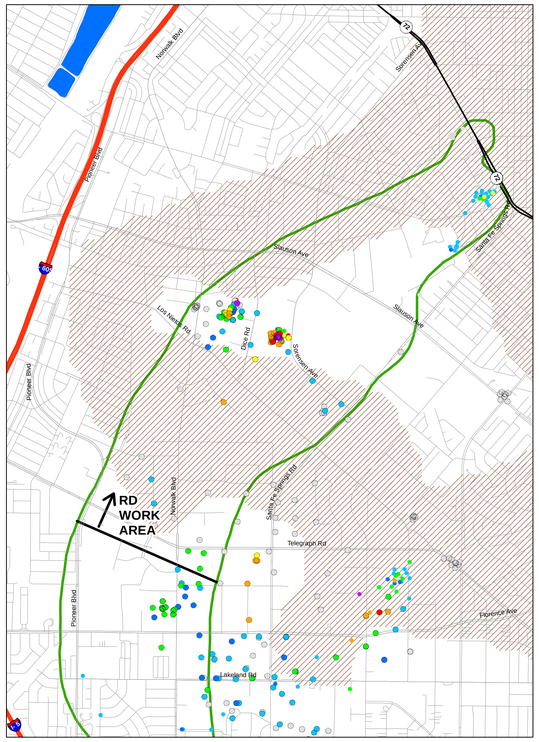
DRAFT



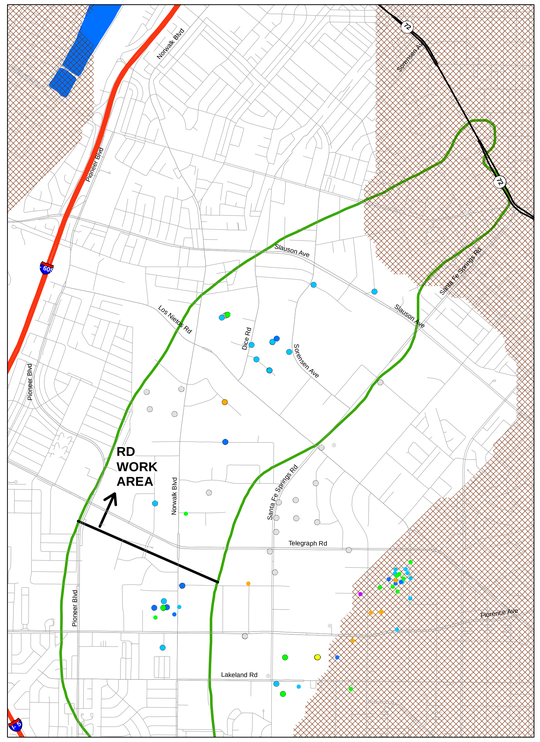
GASPUR AQUIFER



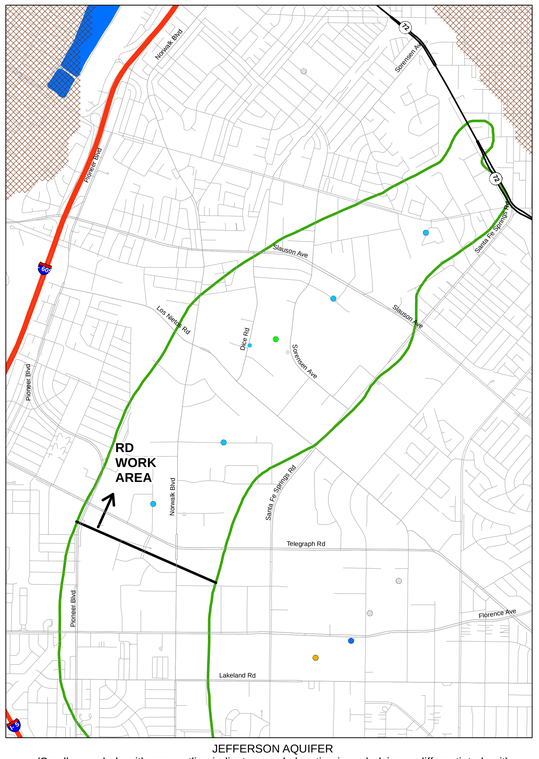
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



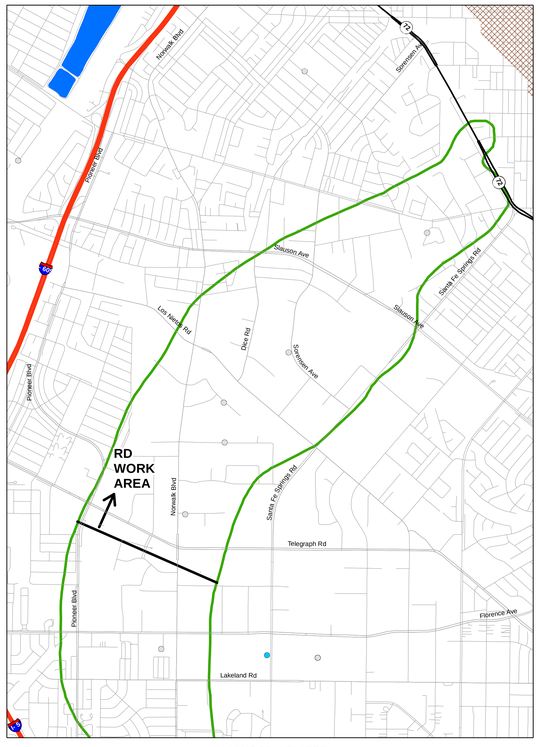
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



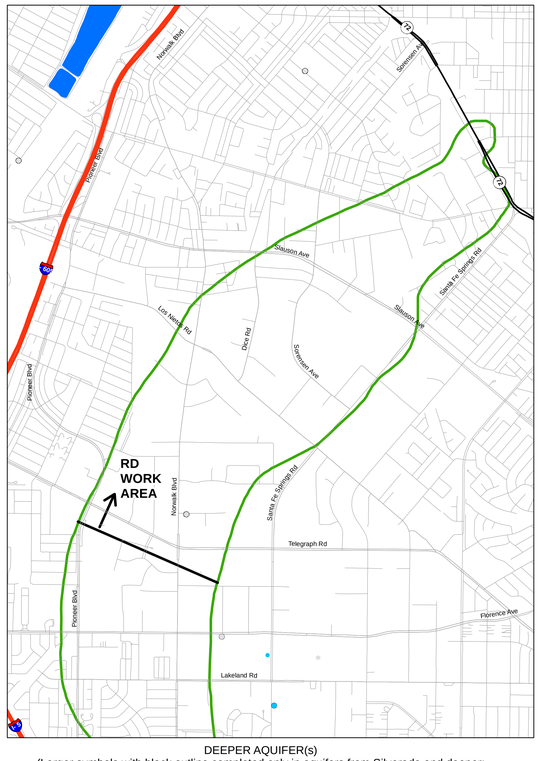
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 5ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_DO_EndOfq_8200A_1100A_8104_Ave_D00 Date Exported: 8/1/2016

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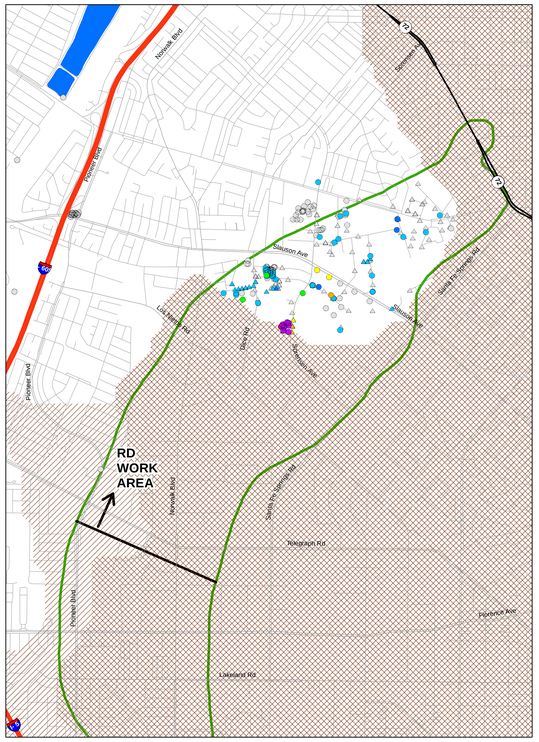
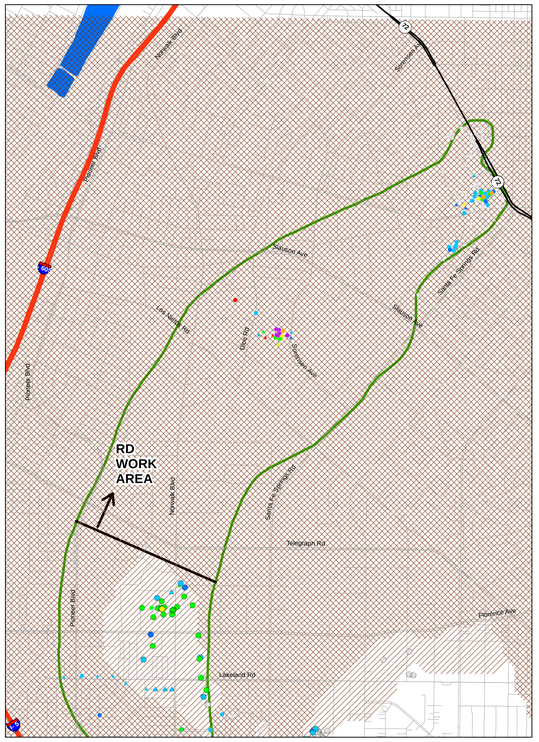
FIGURE A-9A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF 1,1-DICHLOROETHANE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

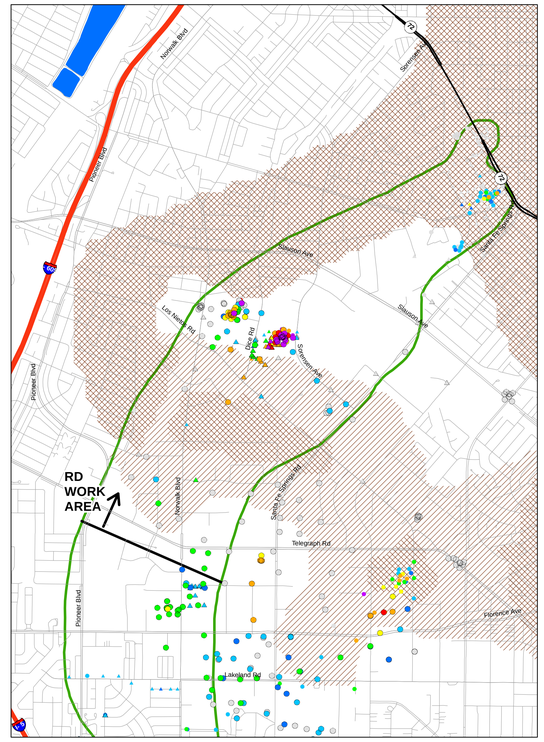
DRAFT



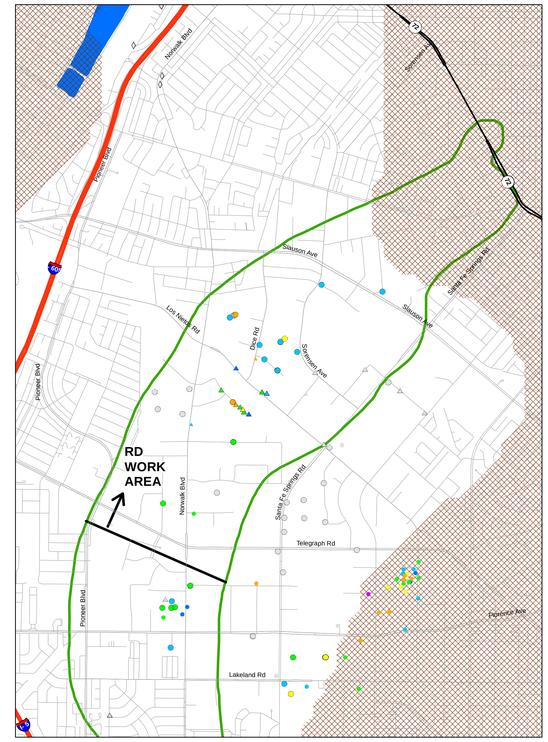
GASPUR AQUIFER



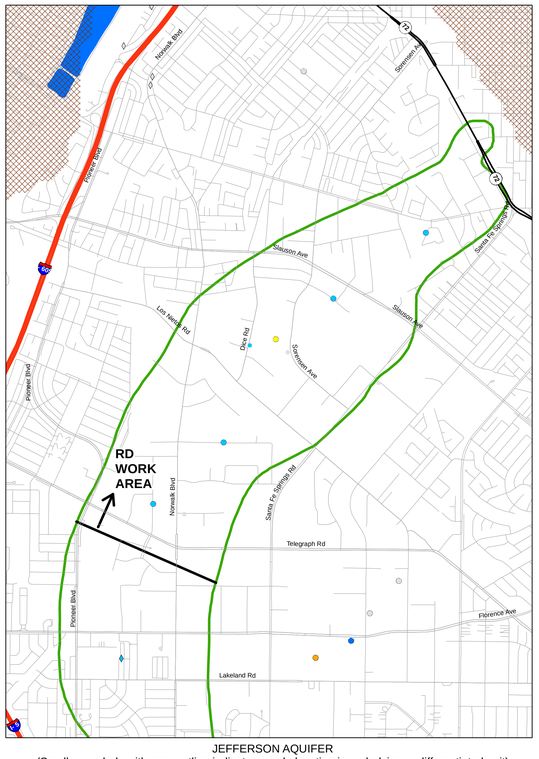
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



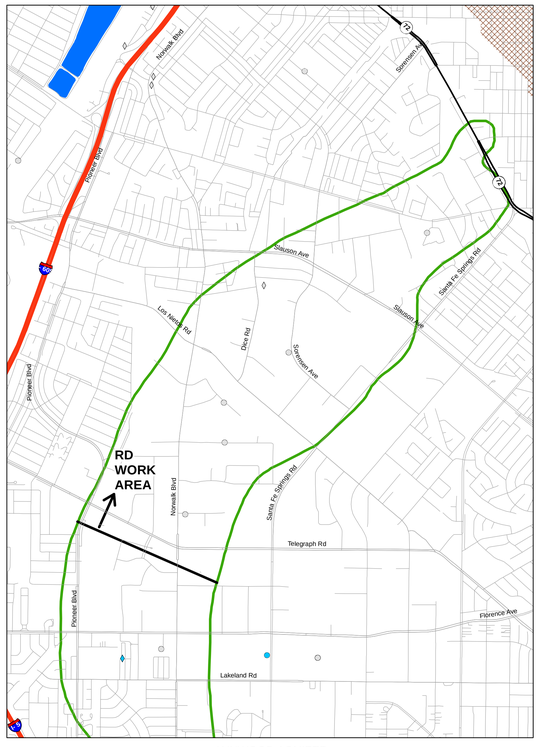
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



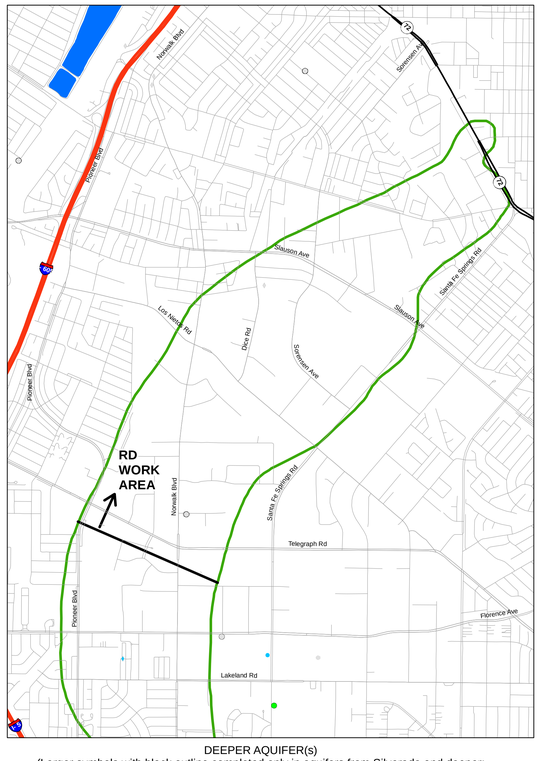
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 5ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

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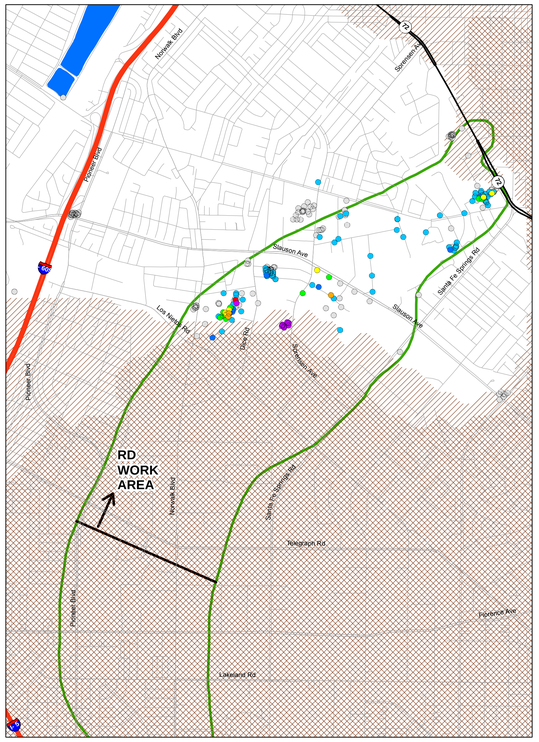
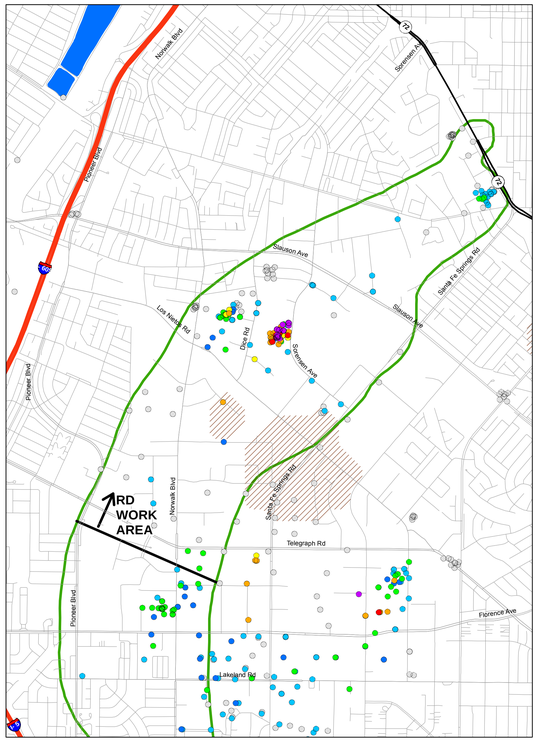
FIGURE A-9B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF 1,1-DICHLOROETHANE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

Document Name: 1212_DQ_FinA09b_R09A_110UCA_B104_Max_DQD Date Exported: 9/1/2016

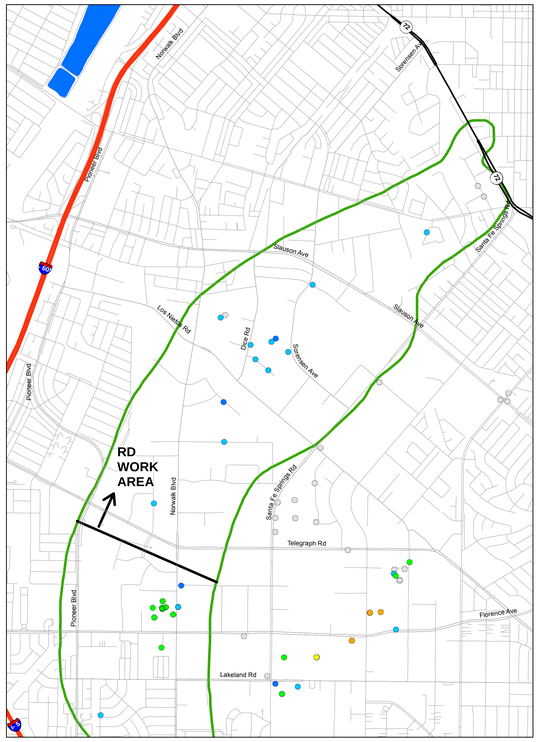
DRAFT



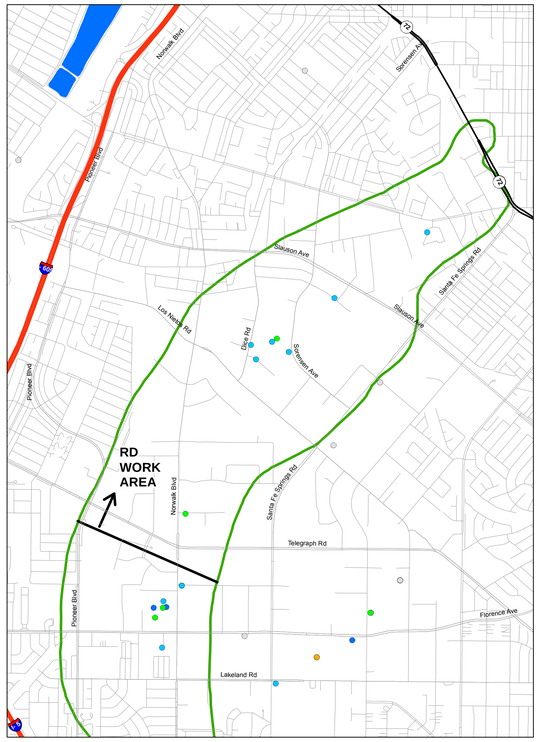
EPA STRATIGRAPHIC UNIT 2



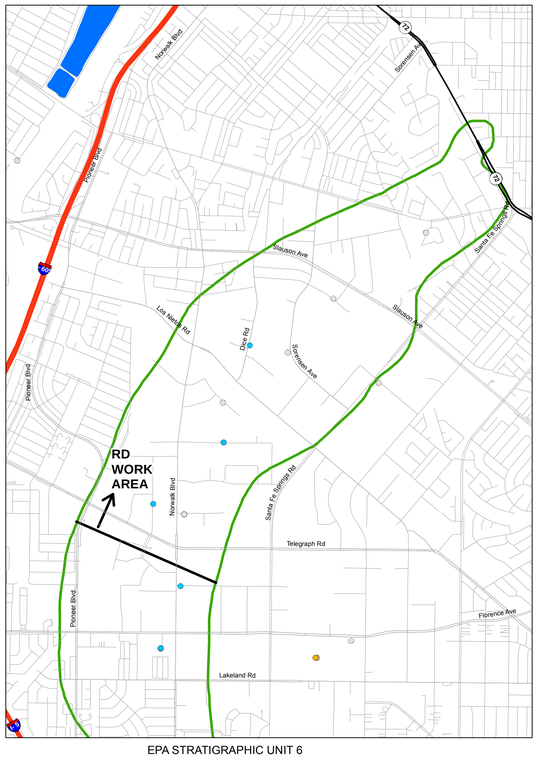
EPA STRATIGRAPHIC UNIT 3



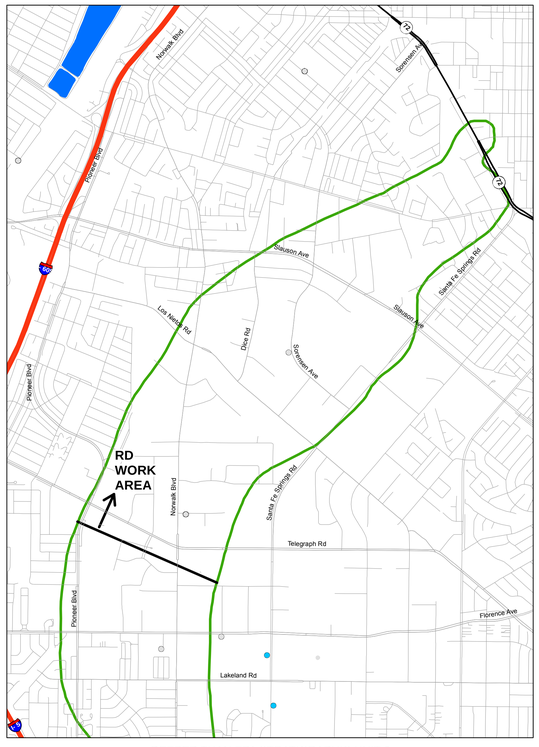
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 5ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

0 800 1,600 3,200 4,800 6,400 Feet

Document Name: c217_OU_EpA09c_8DVA_U10C4_SB_Ave_D00 Date Exported: 9/1/2016

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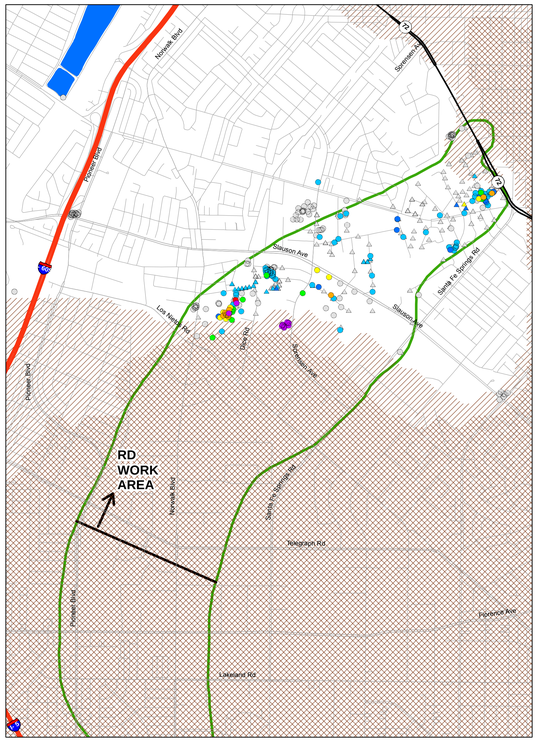
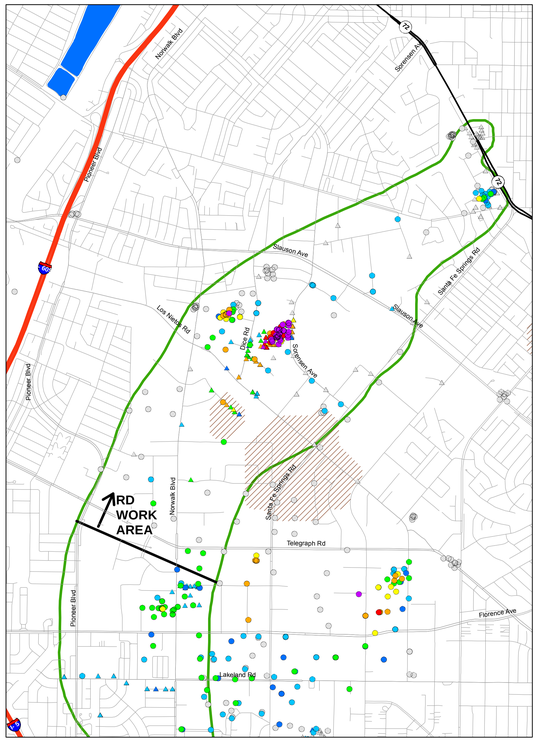
FIGURE A-9C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF 1,1-DICHLOROETHANE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

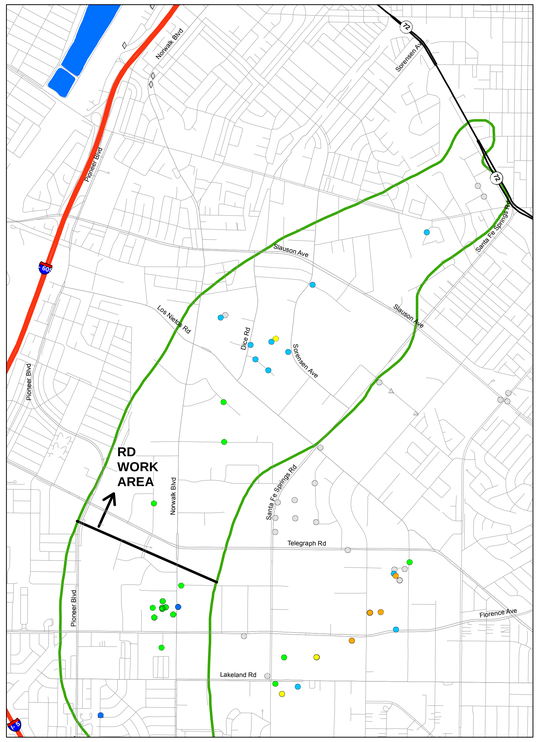
DRAFT



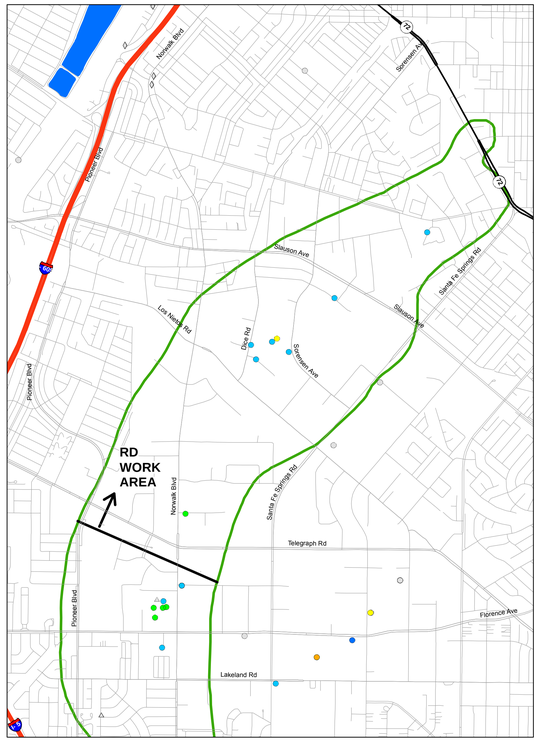
EPA STRATIGRAPHIC UNIT 2



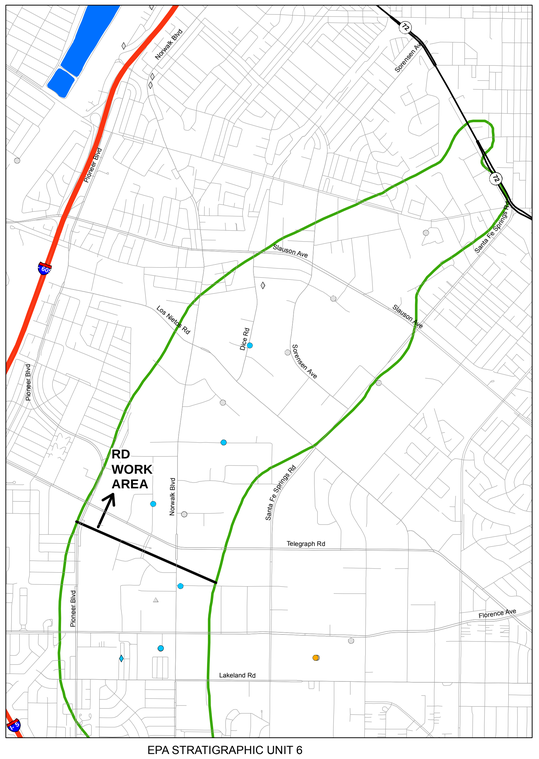
EPA STRATIGRAPHIC UNIT 3



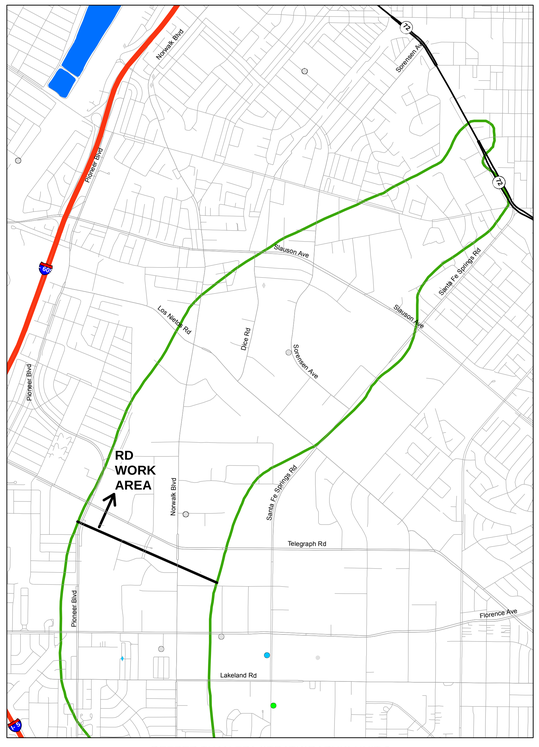
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 5ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: c217_OU_EvaNoD_RDWA_110CA_SB_Mar_D00 Date Exported: 8/3/2016

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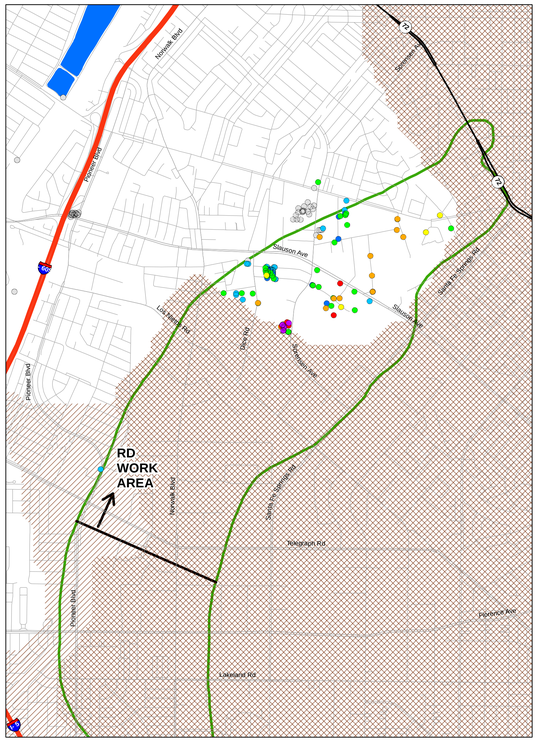
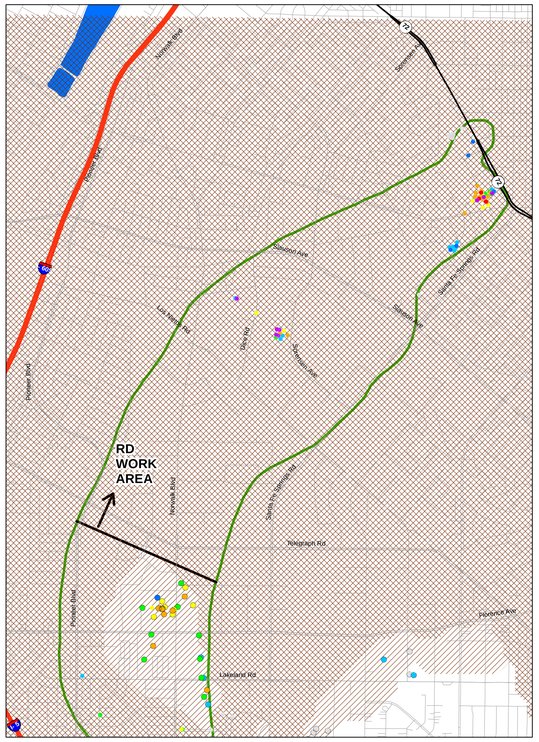
FIGURE A-9D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF 1,1-DICHLOROETHANE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

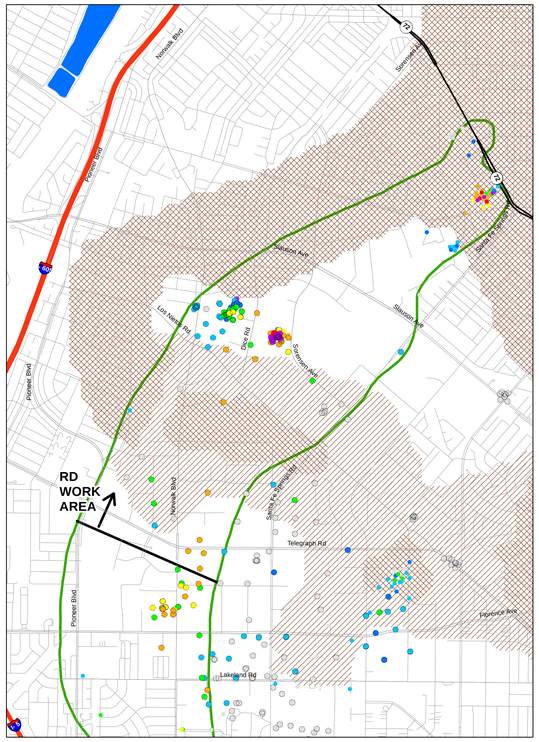
DRAFT



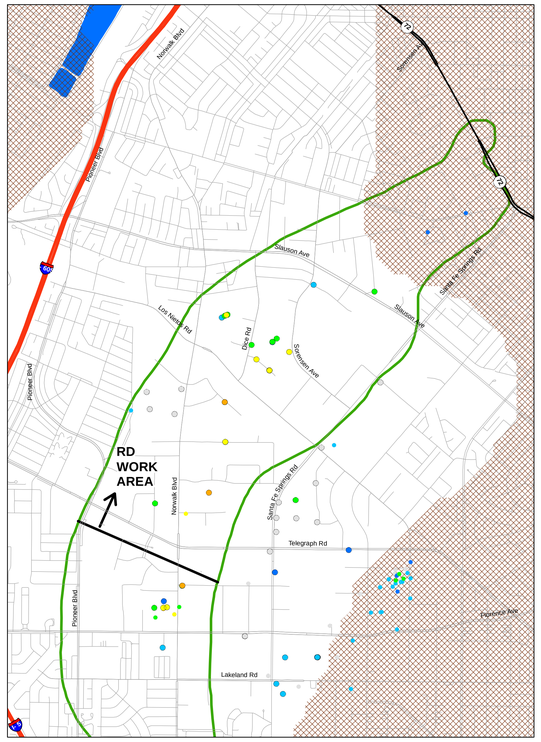
GASPUR AQUIFER



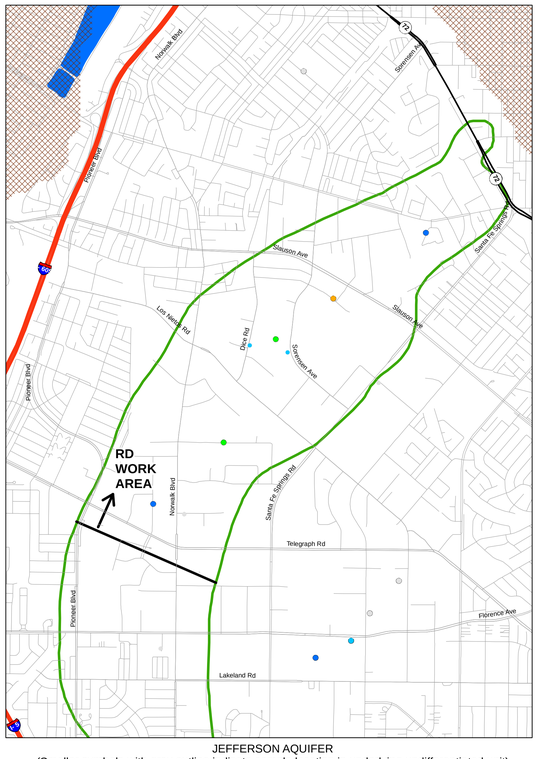
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



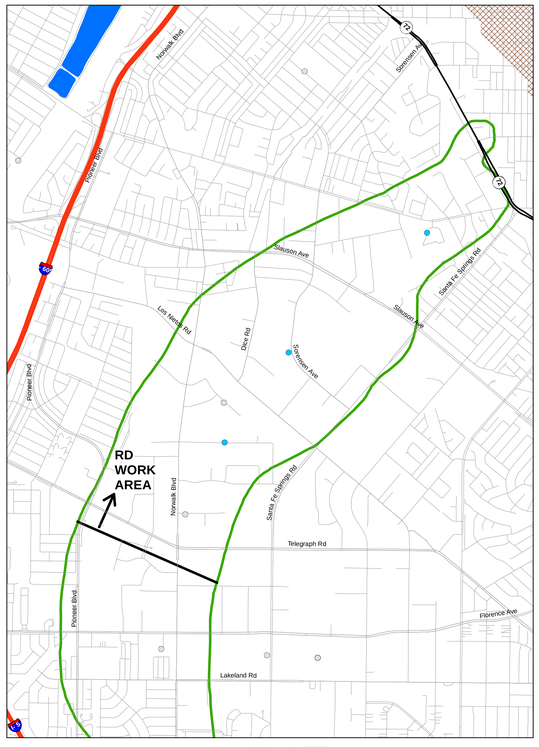
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



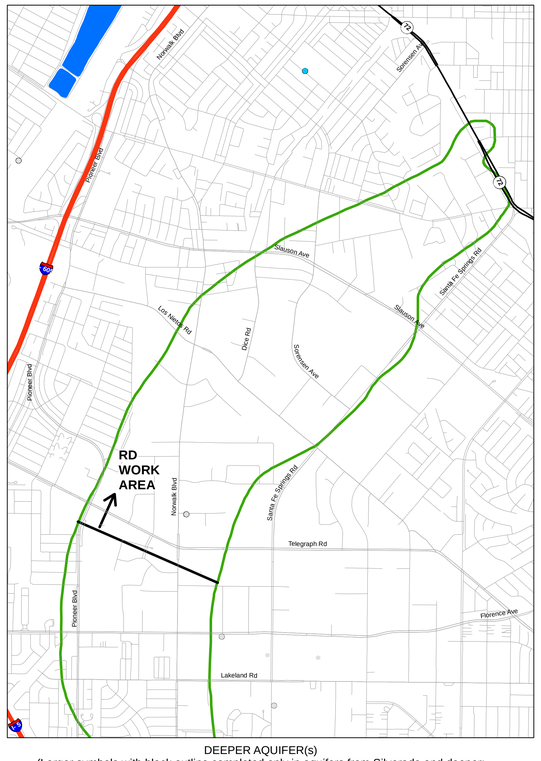
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 6 ug/l
- >6 to 12 ug/l
- >12 to 60 ug/l
- >60 to 120 ug/l
- >120 to 600 ug/l
- >600 to 1,200 ug/l
- >1,200 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_DQ_EvaAlts_ROWA_110CE_B104_Ave_DQ0 Date Exported: 8/1/2016

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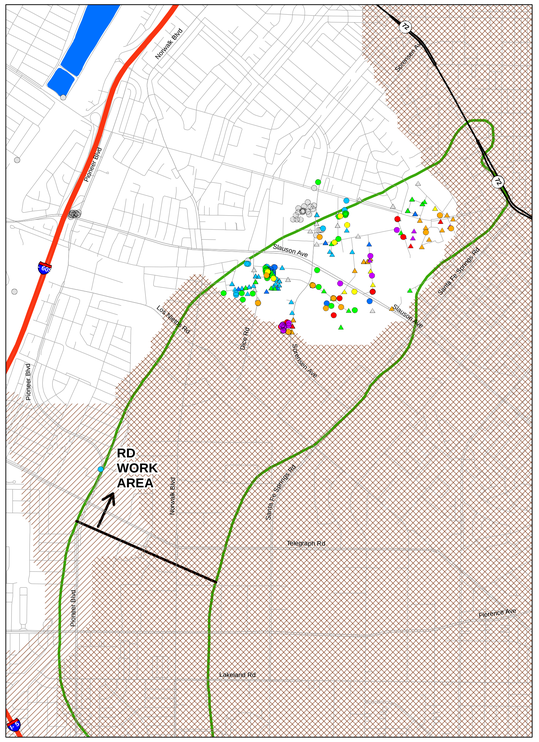
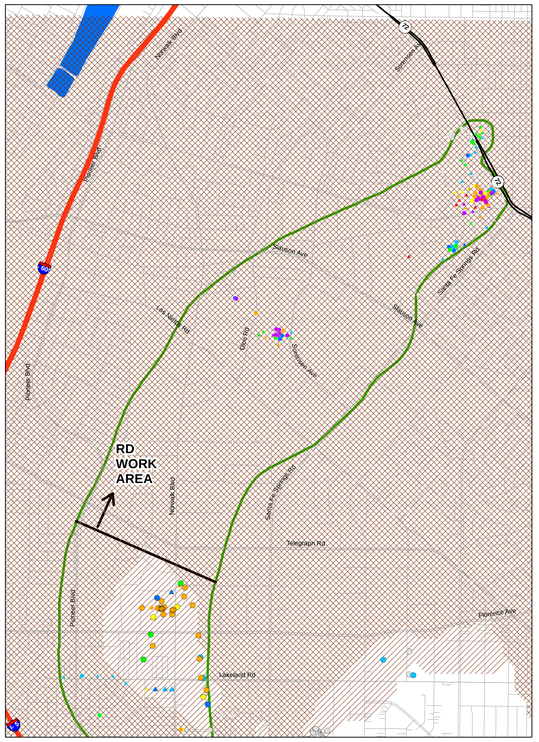
FIGURE A-10A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF 1,1-DICHLOROETHYLENE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

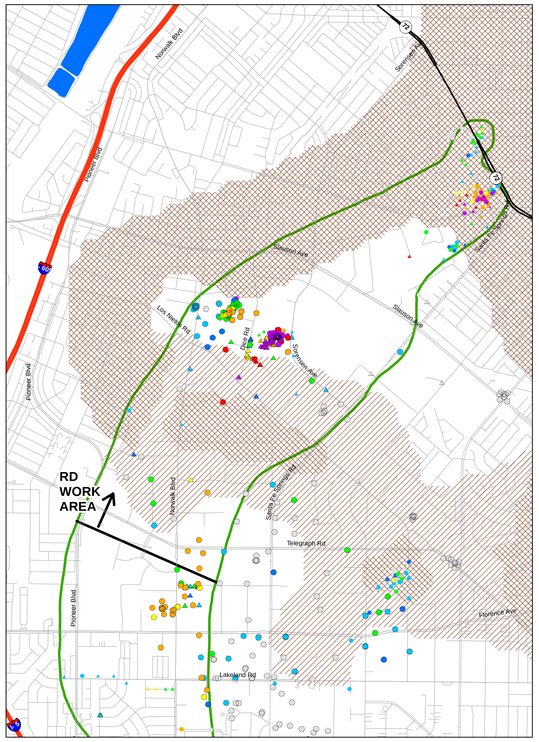
DRAFT



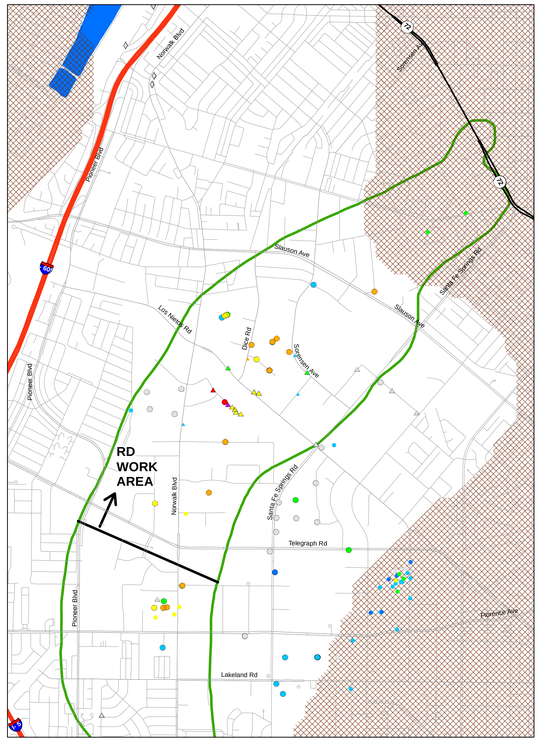
GASPUR AQUIFER



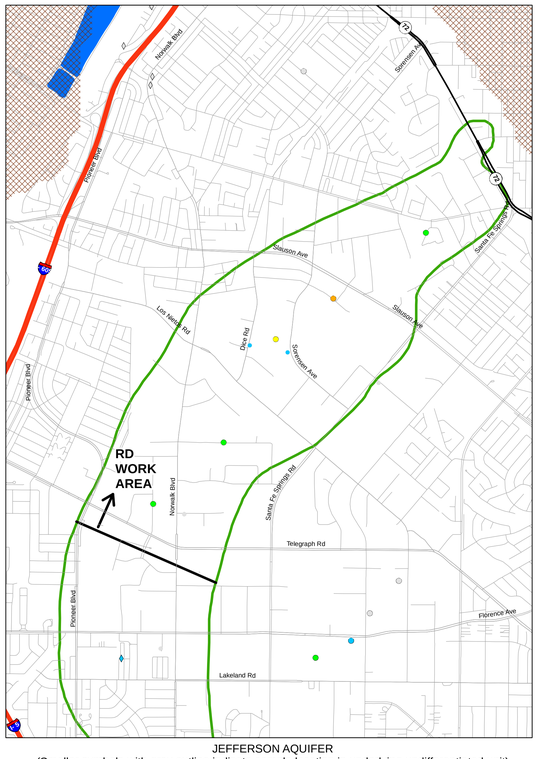
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



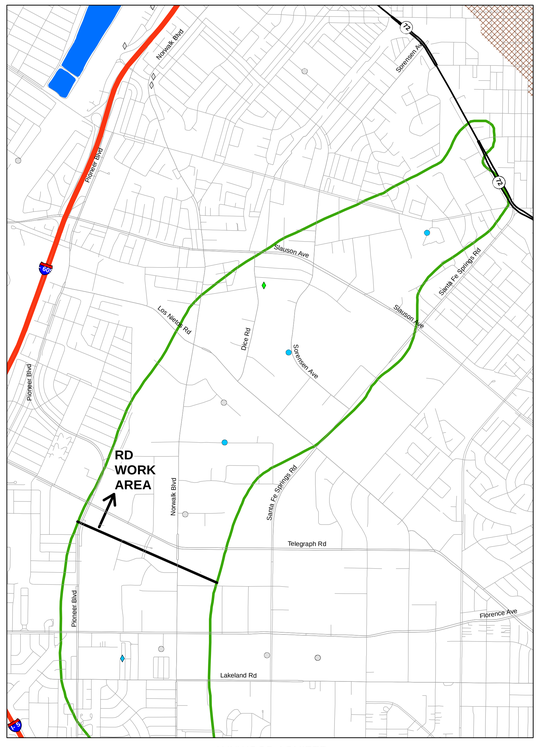
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



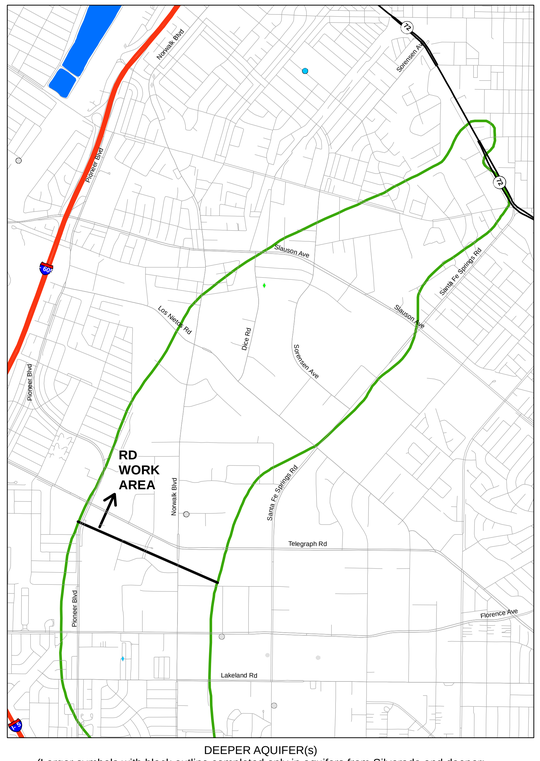
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 6 ug/l
- >6 to 12 ug/l
- >12 to 60 ug/l
- >60 to 120 ug/l
- >120 to 600 ug/l
- >600 to 1,200 ug/l
- >1,200 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_OU_EndStte_RDWA_110UCE_B104_Max_DOD Date Exported: 9/7/2016

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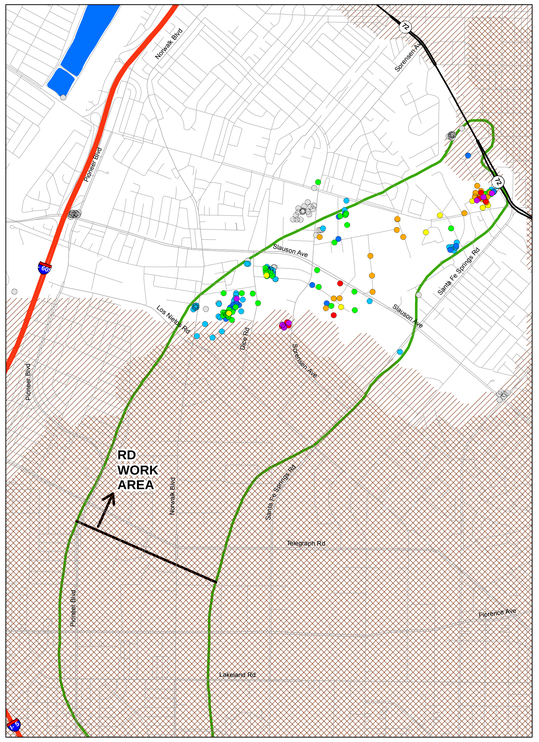
FIGUER A-10B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF 1,1-DICHLOROETHYLENE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

DRAFT



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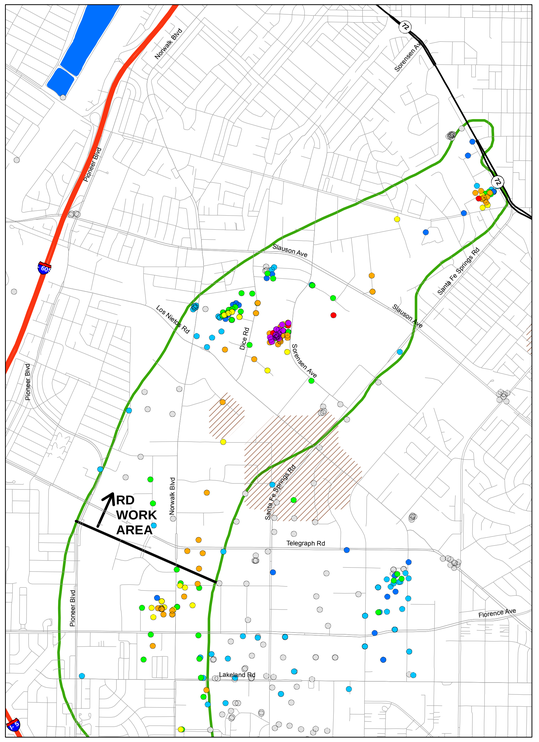

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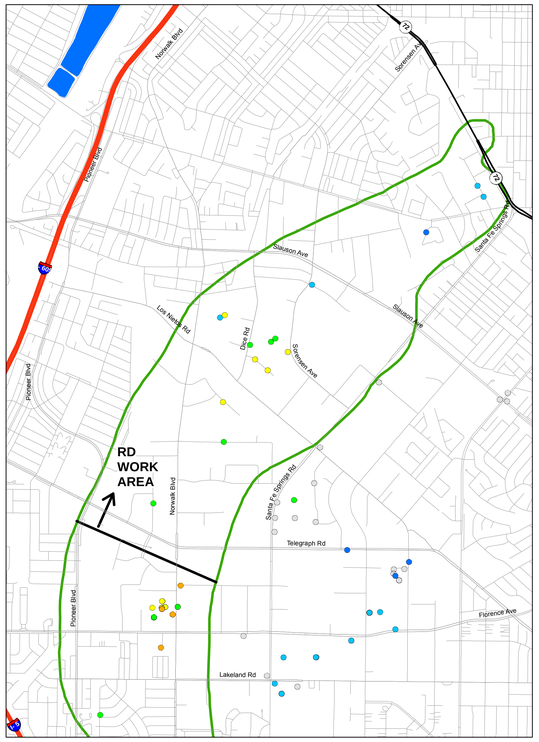
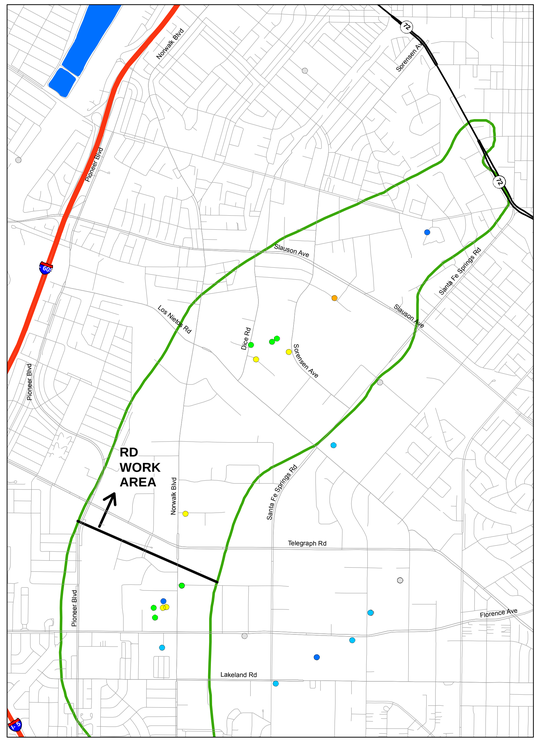
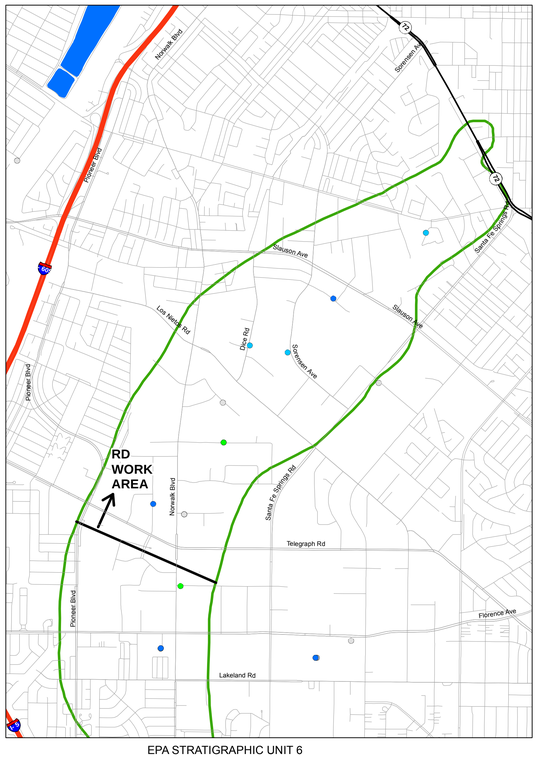


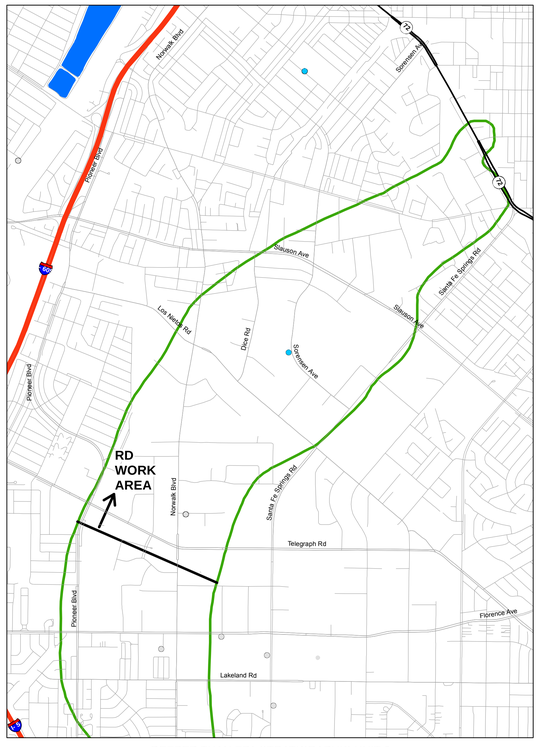
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 6 ug/l
- >6 to 12 ug/l
- >12 to 60 ug/l
- >60 to 120 ug/l
- >120 to 600 ug/l
- >600 to 1,200 ug/l
- >1,200 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3.).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: c217_DO_EpA10c_ROWA_11OCE_SB_Ave_D00 Date Exported: 9/1/2016

HARGIS + ASSOCIATES, INC
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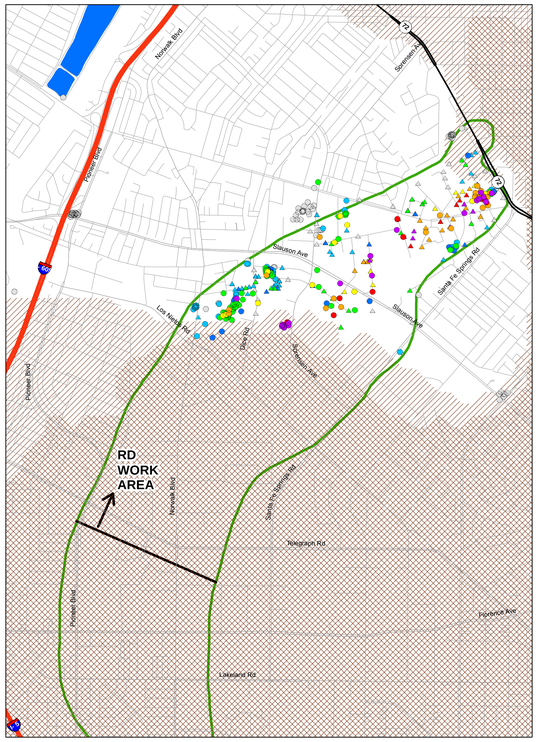
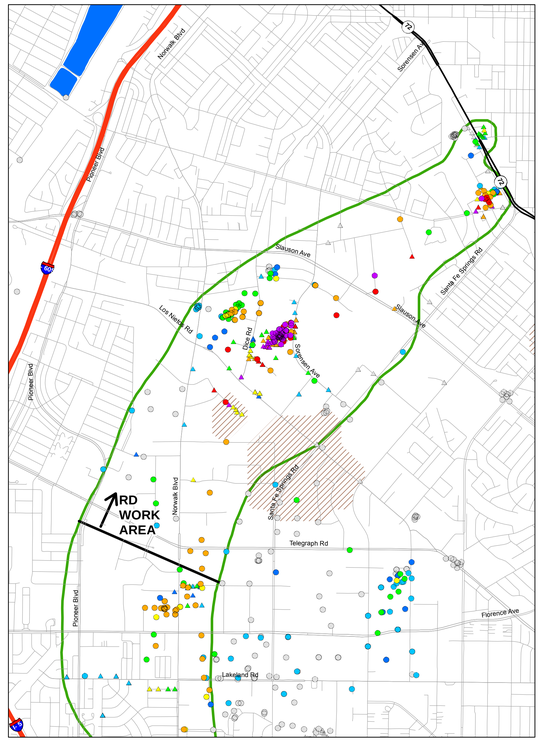
FIGURE A-10C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF 1,1-DICHLOROETHYLENE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

DRAFT



EPA STRATIGRAPHIC UNIT 2



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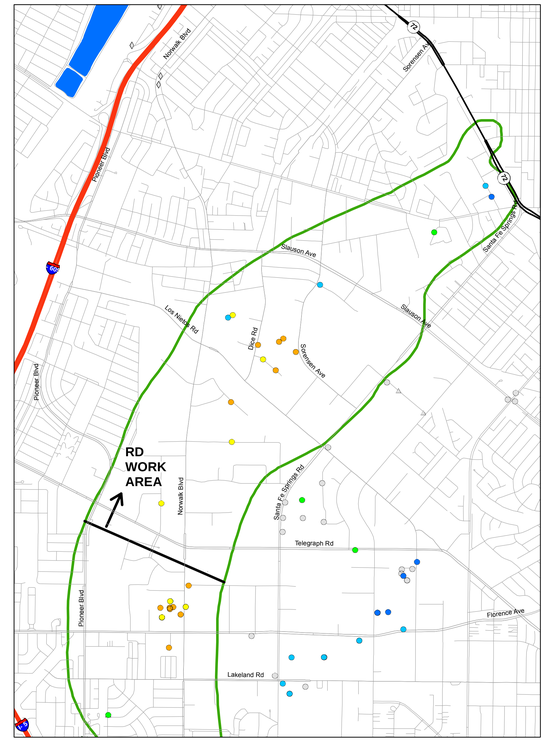
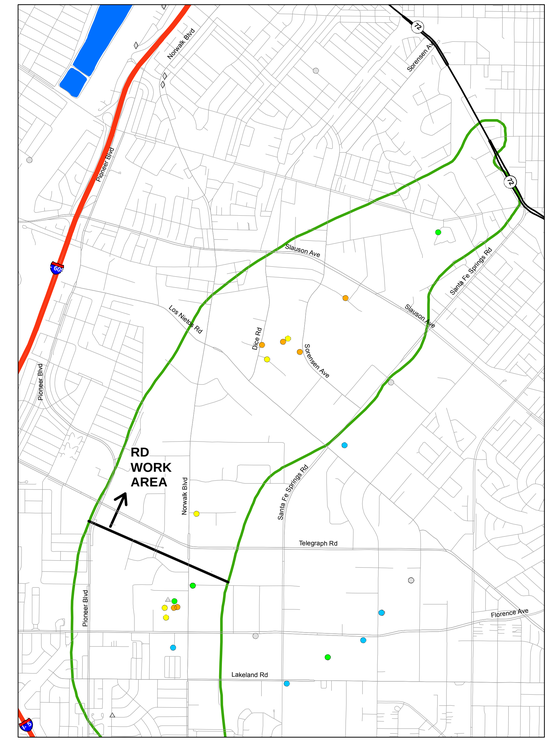
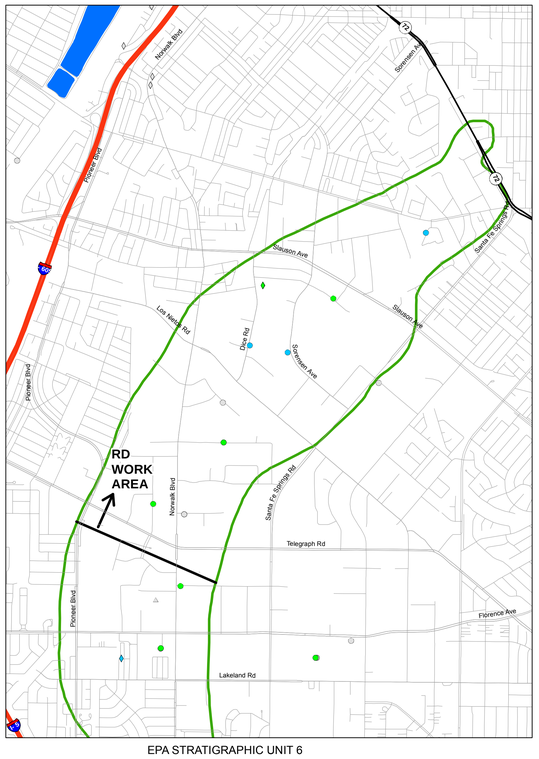


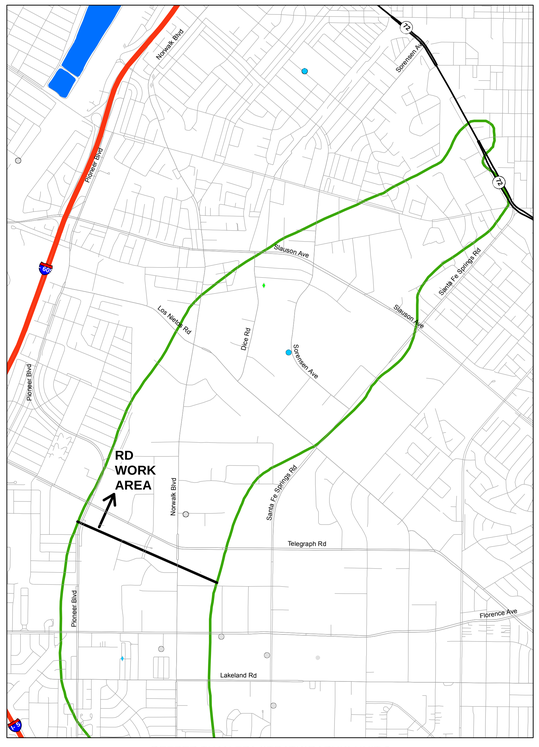
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 6 ug/l
- >6 to 12 ug/l
- >12 to 60 ug/l
- >60 to 120 ug/l
- >120 to 600 ug/l
- >600 to 1,200 ug/l
- >1,200 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: c217_OU_EvA100_RDWA_11DCE_SS_Map_D00 Date Exported: 8/3/2016

HARGIS + ASSOCIATES, INC
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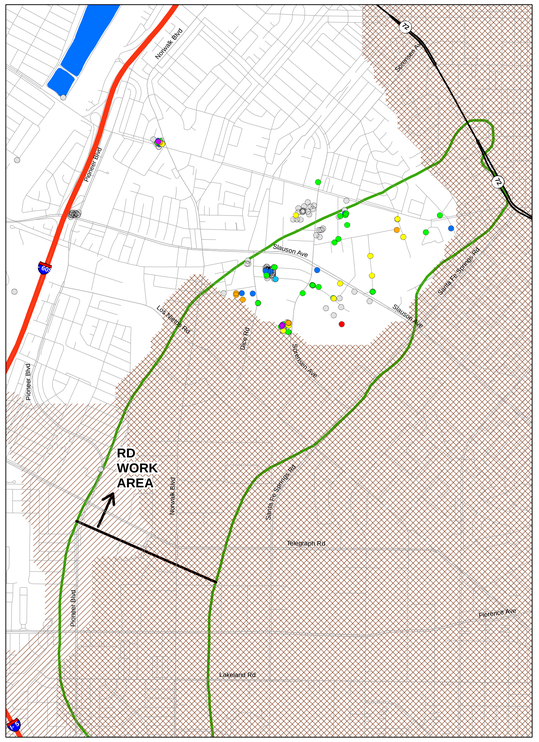
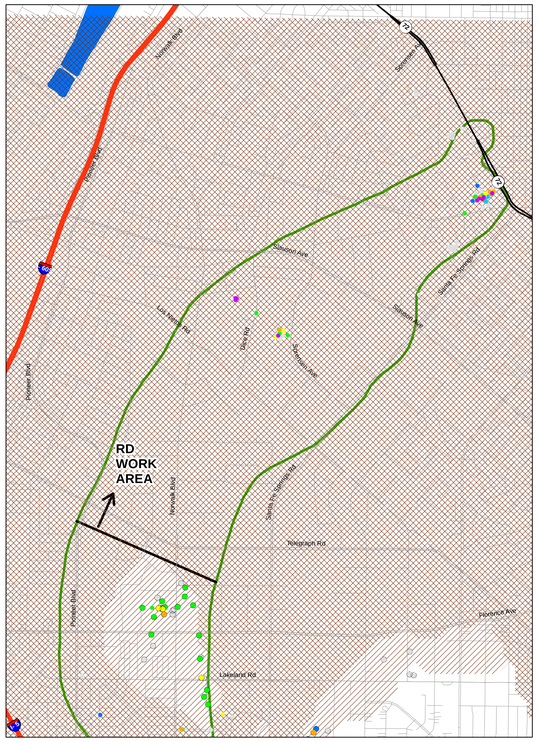
FIGURE A-10D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF 1,1-DICHLOROETHYLENE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

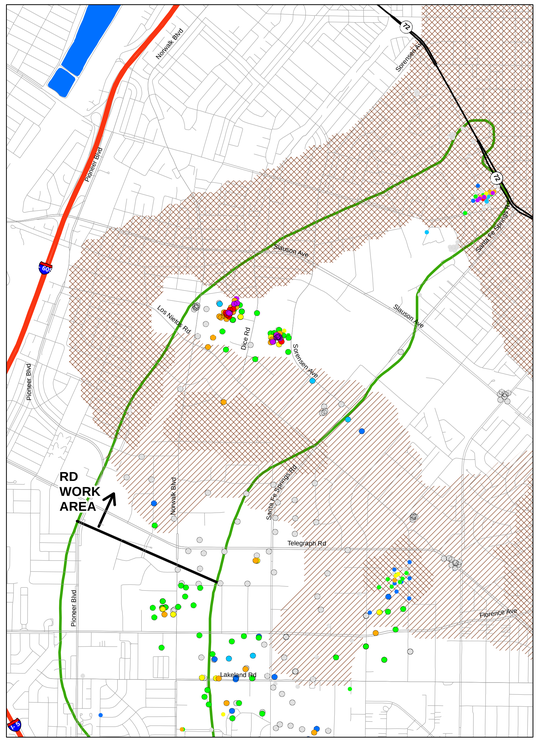
DRAFT



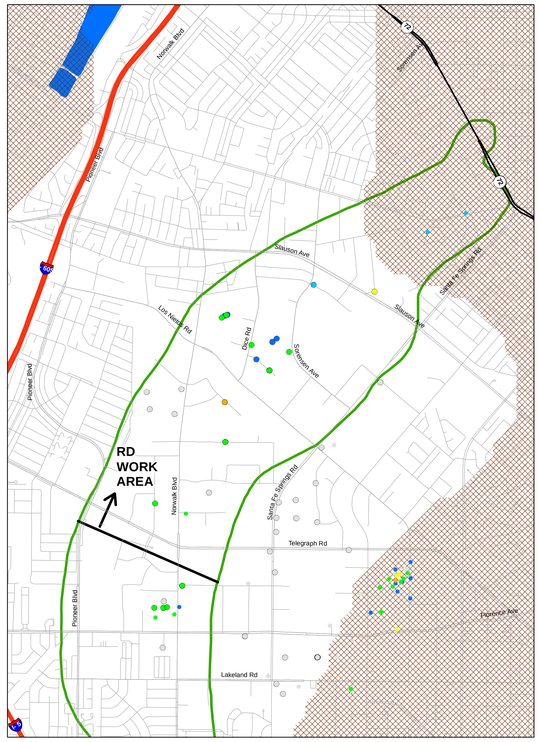
GASPUR AQUIFER



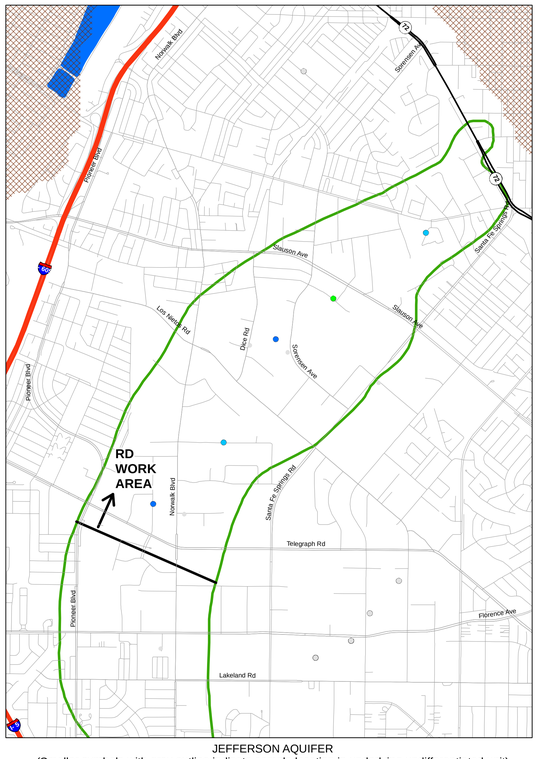
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



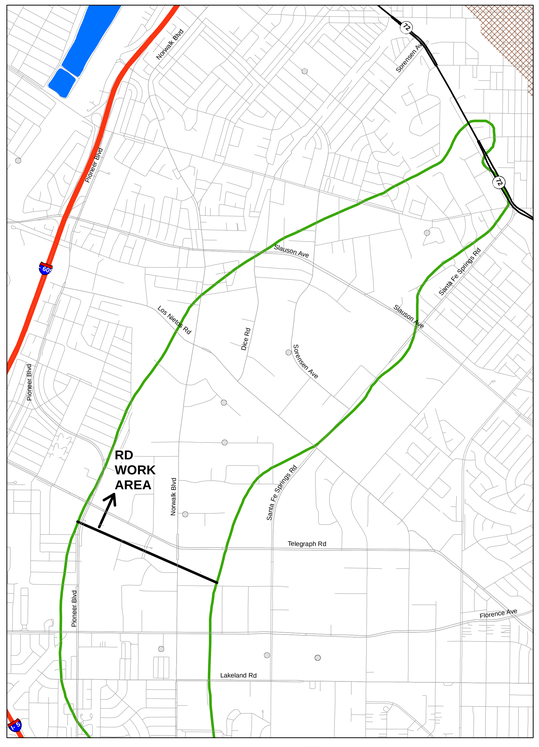
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



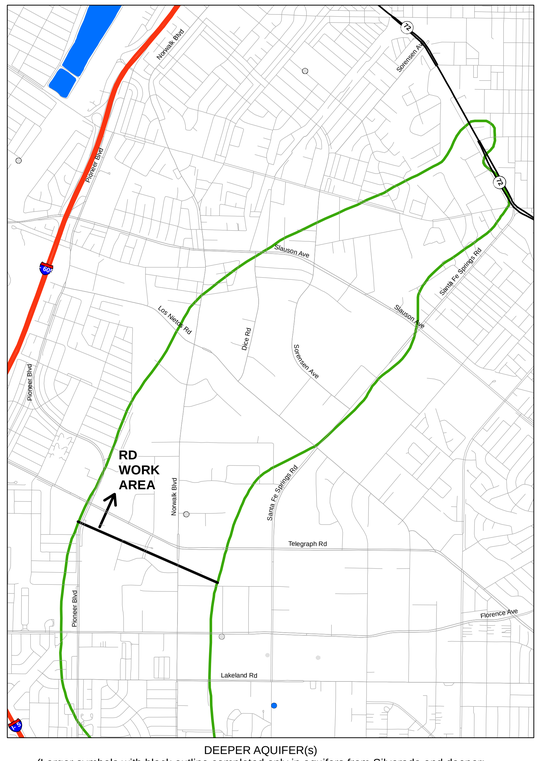
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 0.5 ug/l
- >0.5 to 1 ug/l
- >1 to 5 ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3)..

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

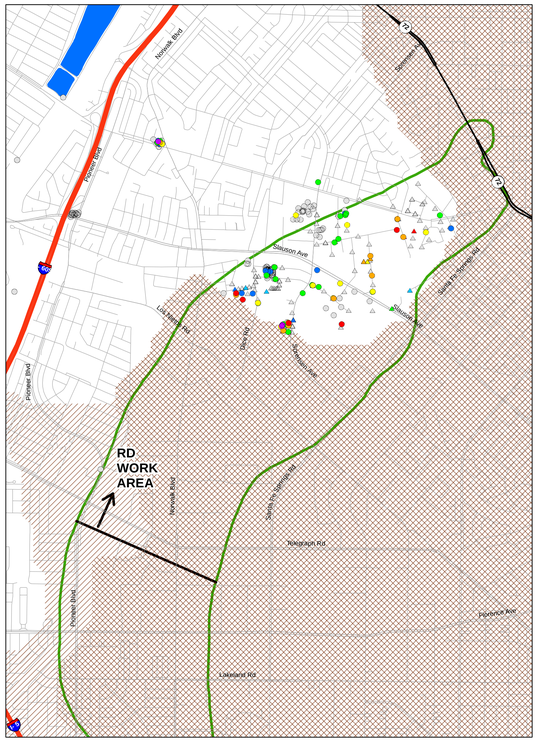
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_DO_Fig11a_60WA_1200A_8104 Ave_000 Date Exported: 8/1/2016

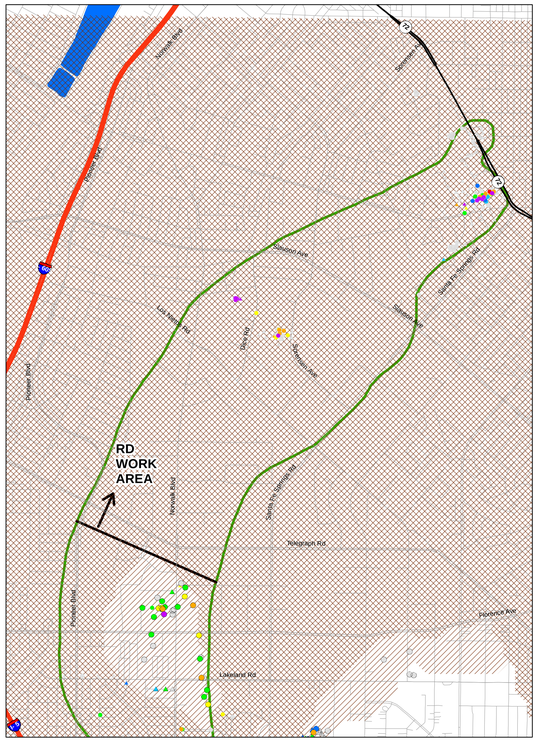
HARGIS + ASSOCIATES, INC
Hydrogeology/Engineering

FIGURE A-11A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF 1,2-DICHLOROETHANE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

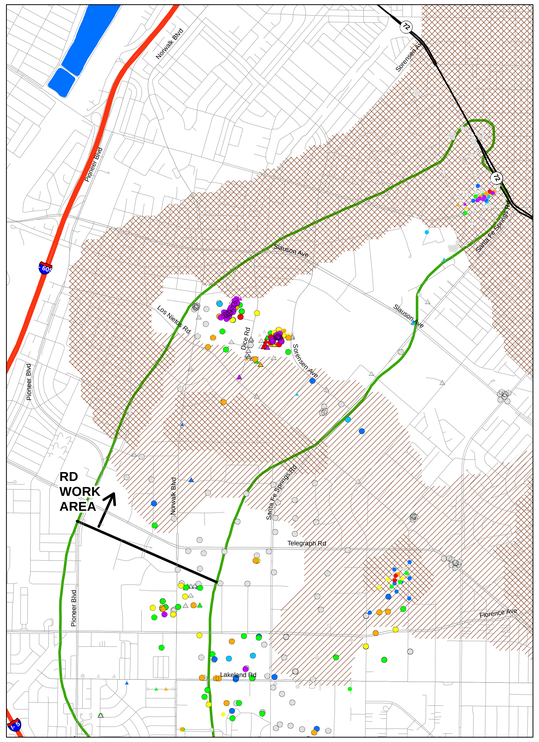
DRAFT



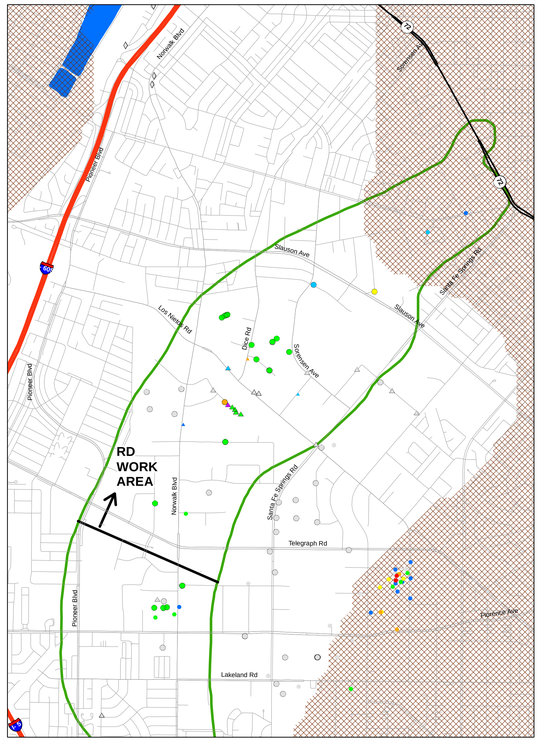
GASPUR AQUIFER



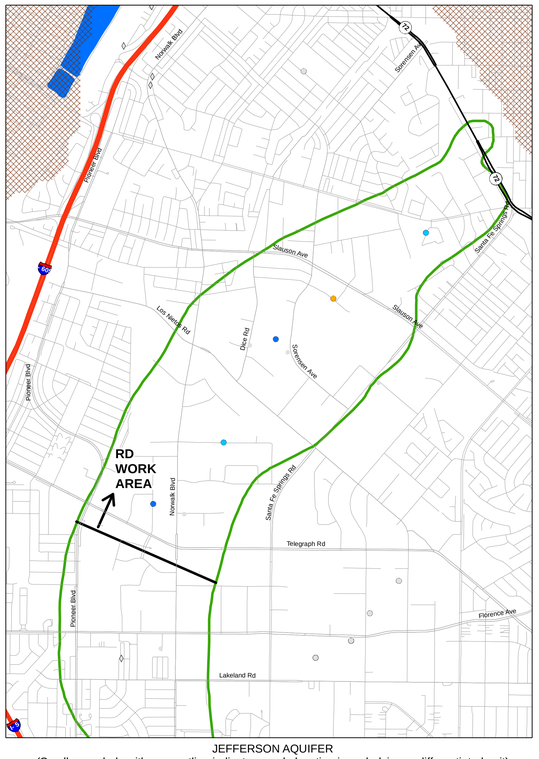
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



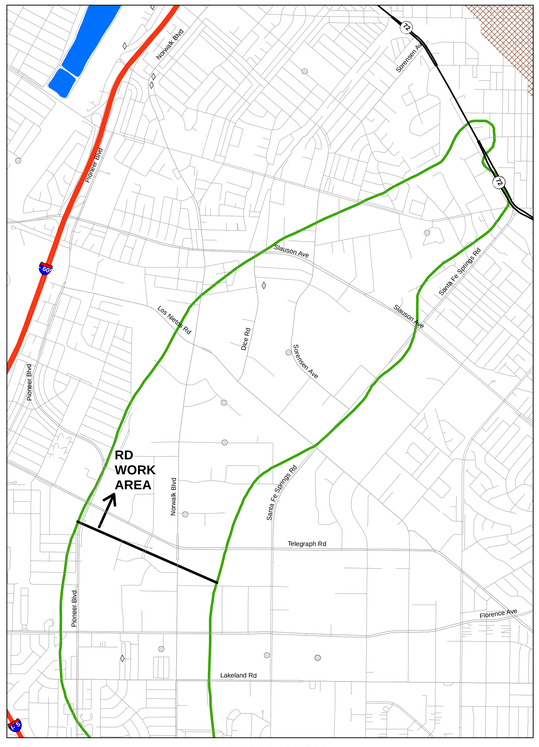
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



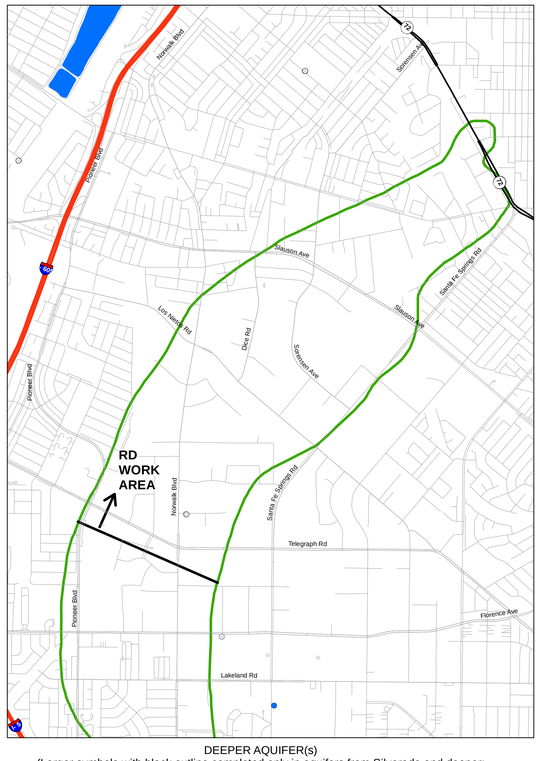
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 0.5 ug/l
- >0.5 to 1 ug/l
- >1 to 5 ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

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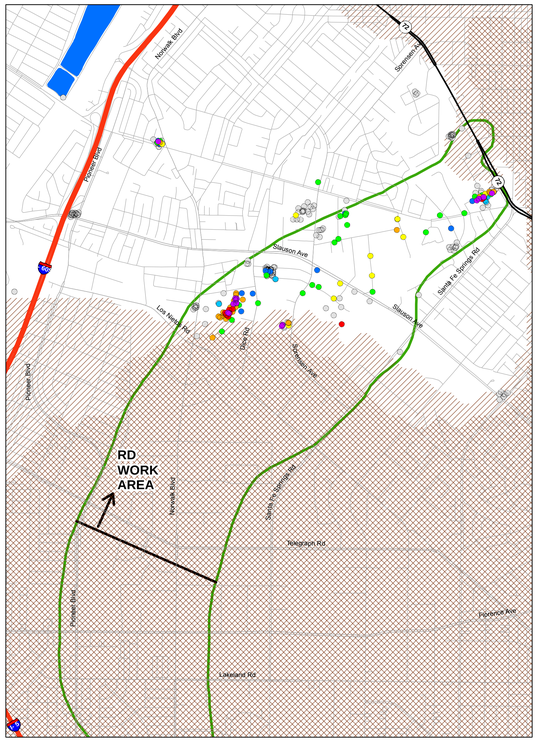
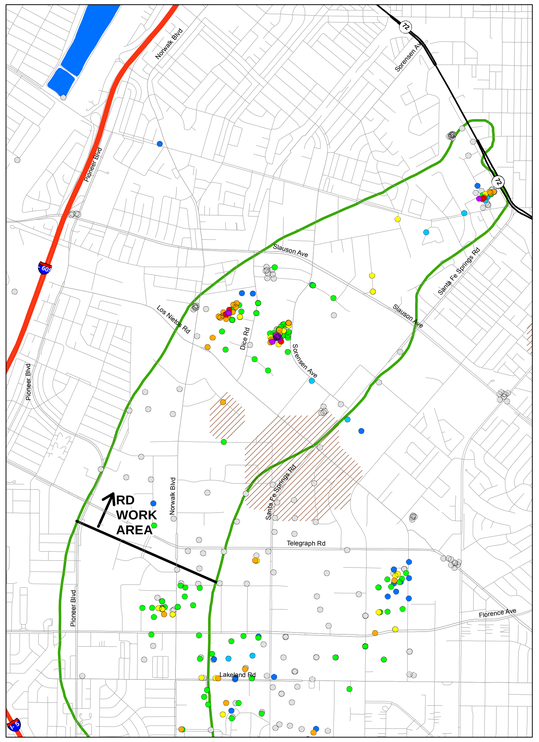
FIGURE A-11B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF 1,2-DICHLOROETHANE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

Document Name: 1212_DO_EnA11B_BDWA_1200A_B104_Max_DDD Date Exported: 5/12/2016

DRAFT



EPA STRATIGRAPHIC UNIT 2



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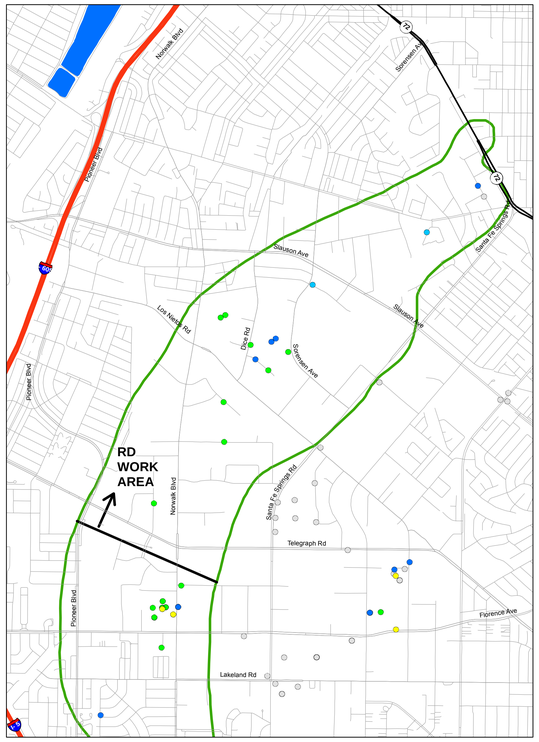

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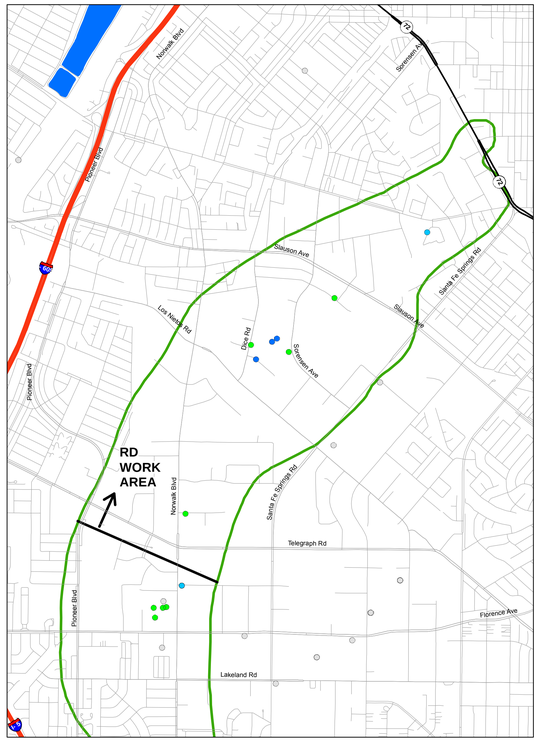

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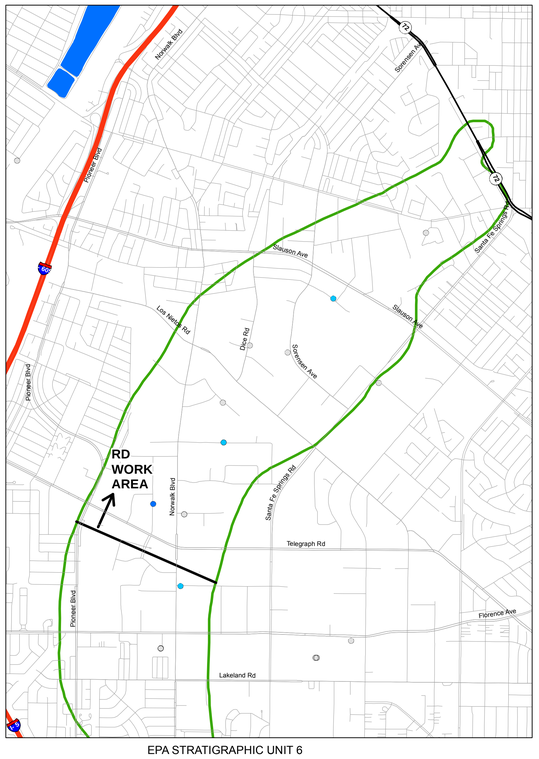
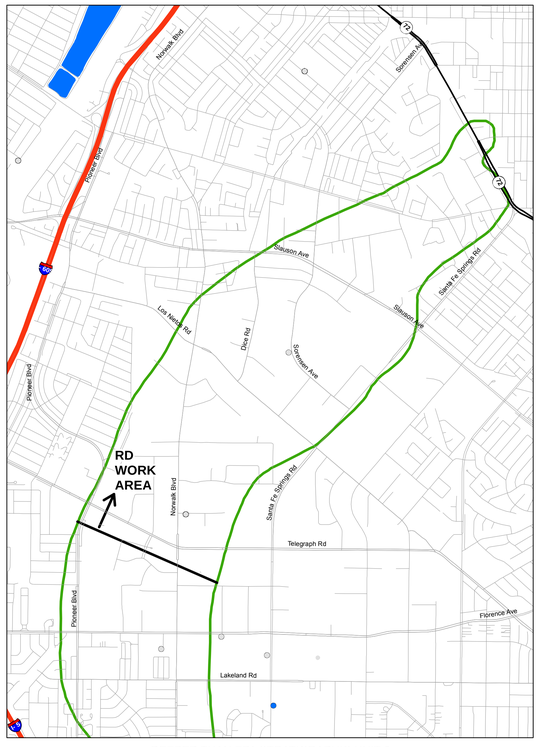


EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 0.5 ug/l
- >0.5 to 1 ug/l
- >1 to 5 ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

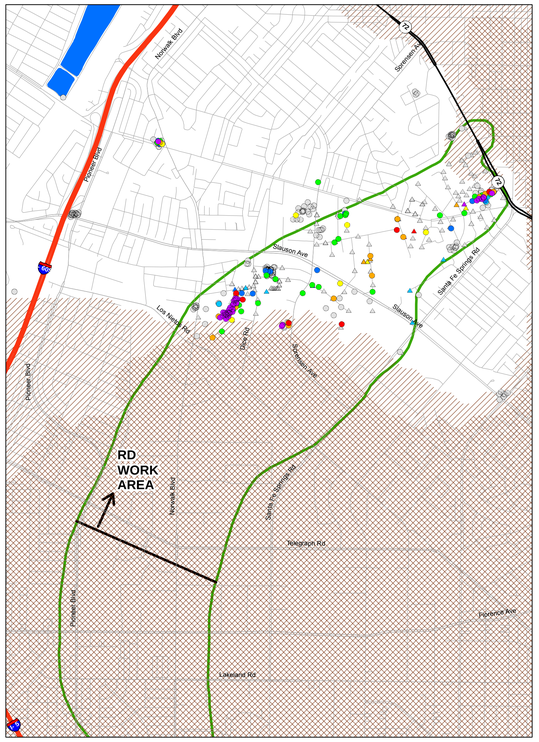
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_FigA11c_RDWA_120CA_SB_Ave_D00 Date Exported: 9/1/2016

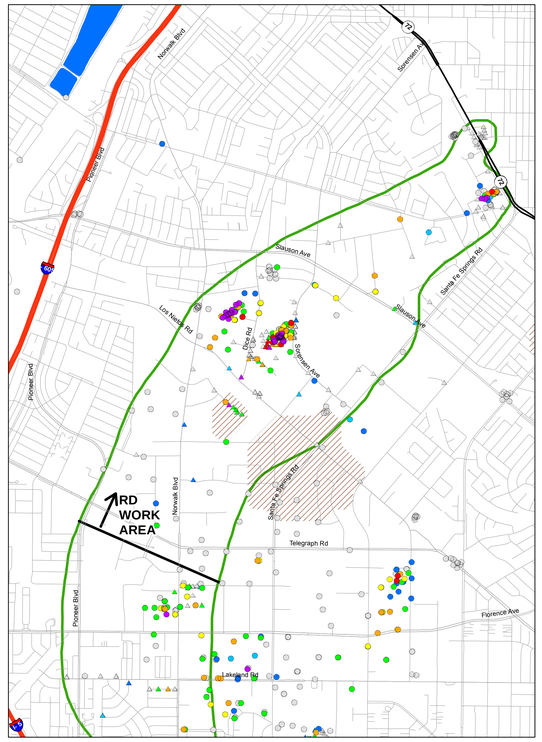
HARGIS + ASSOCIATES, INC.
Hydrogeology/Engineering

FIGURE A-11C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF 1,2-DICHLOROETHANE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

DRAFT



EPA STRATIGRAPHIC UNIT 2



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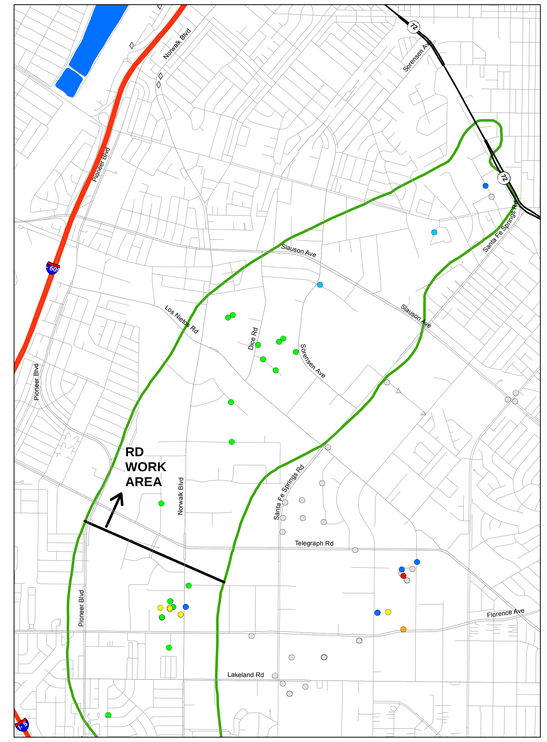

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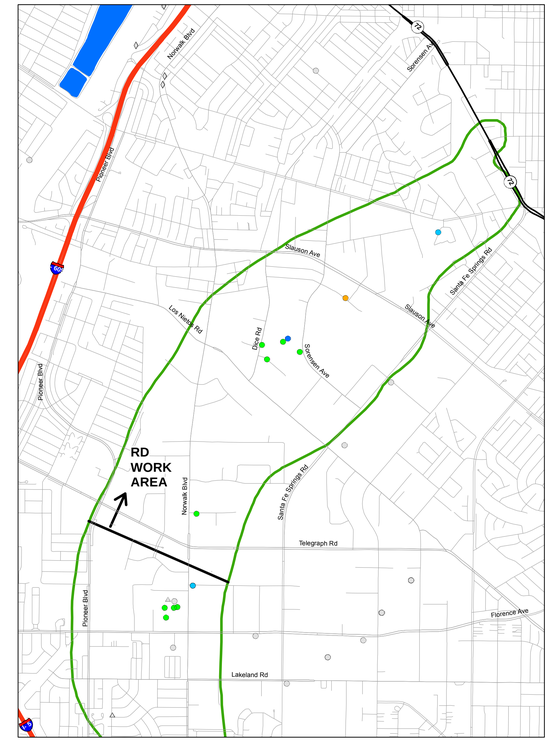
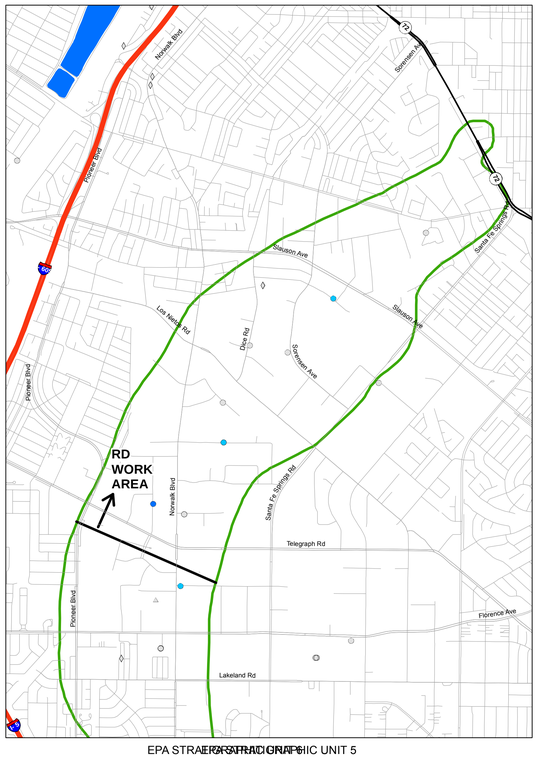
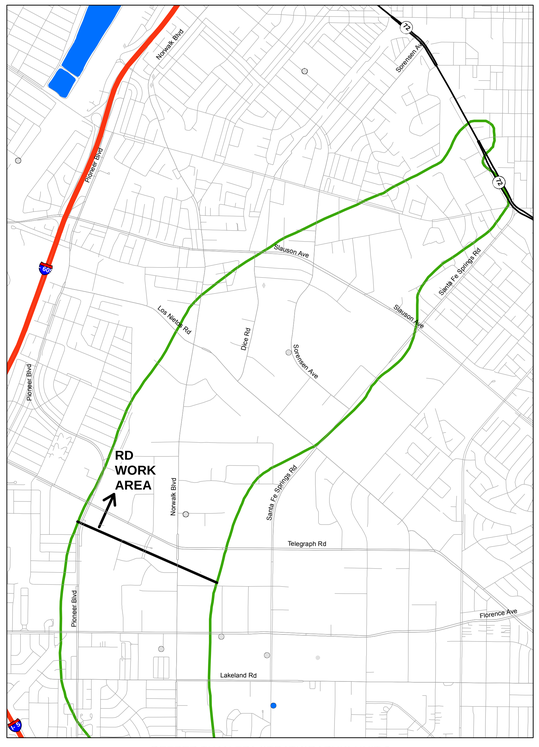




EPA STRATIGRAPHIC UNIT 5



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 0.5 ug/l
- >0.5 to 1 ug/l
- >1 to 5 ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

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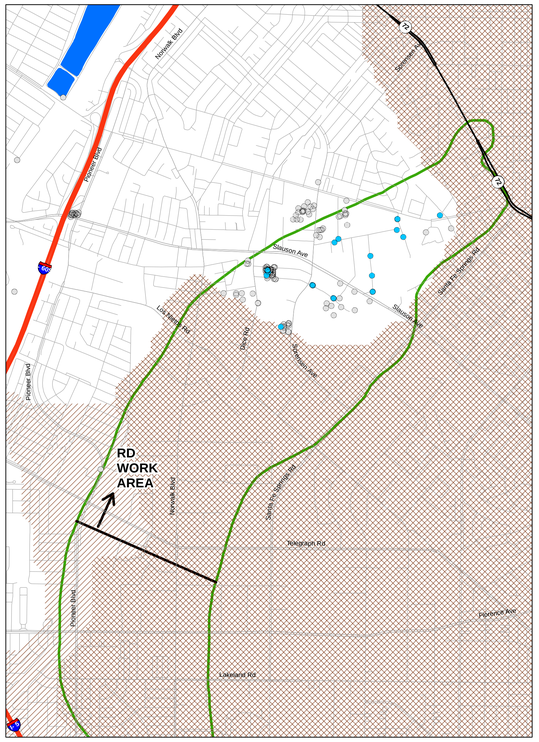
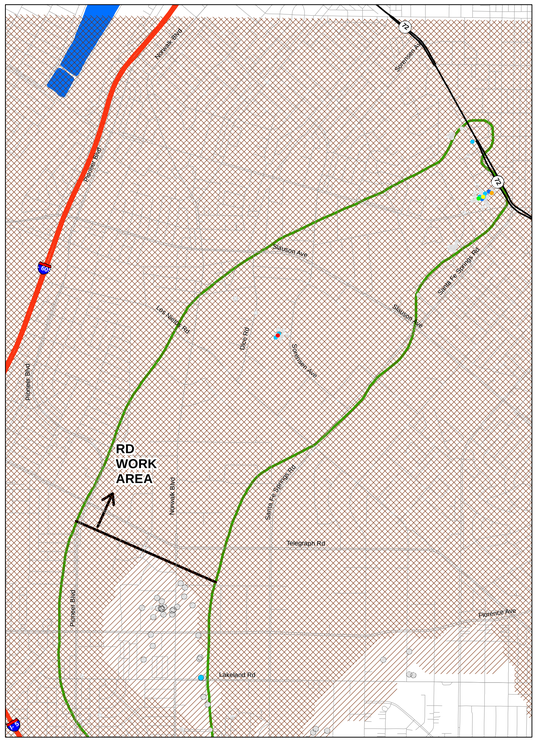
FIGURE A-11D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF 1,2-DICHLOROETHANE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

Document Name: 1217_OU_EpA110_8DWA_120CA_SB_Map_D00 Date Exported: 8/3/2016

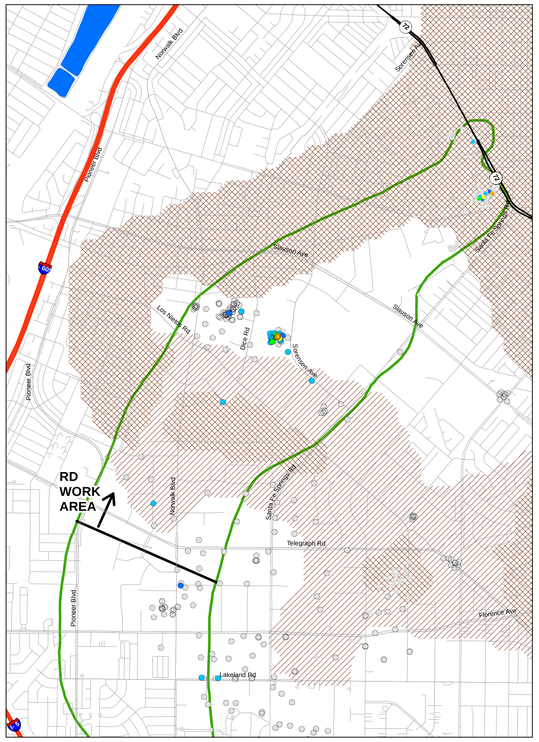
DRAFT



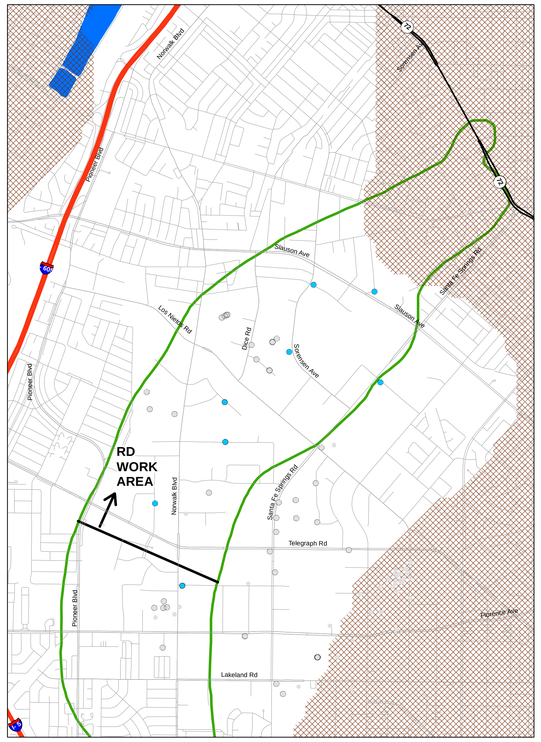
GASPUR AQUIFER



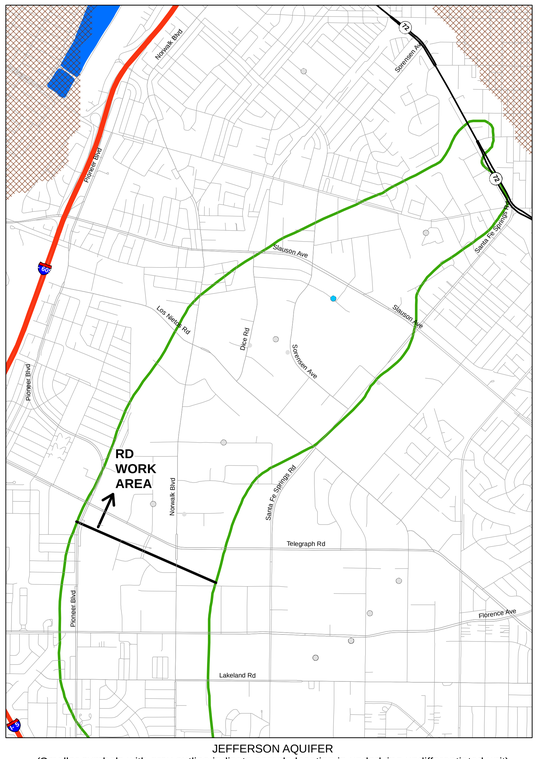
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



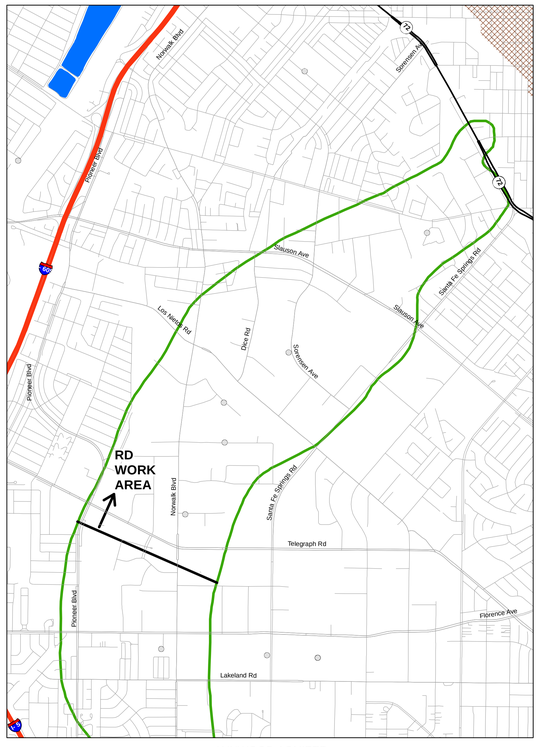
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



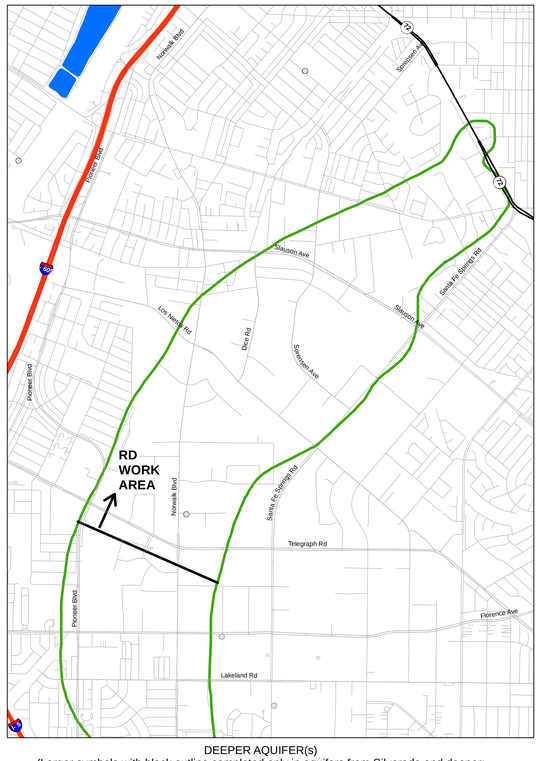
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 5ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 2212_DQ_Fig12a_ROWA_U123CA_B104_Ave_DQ0 Date Exported: 9/12/2016

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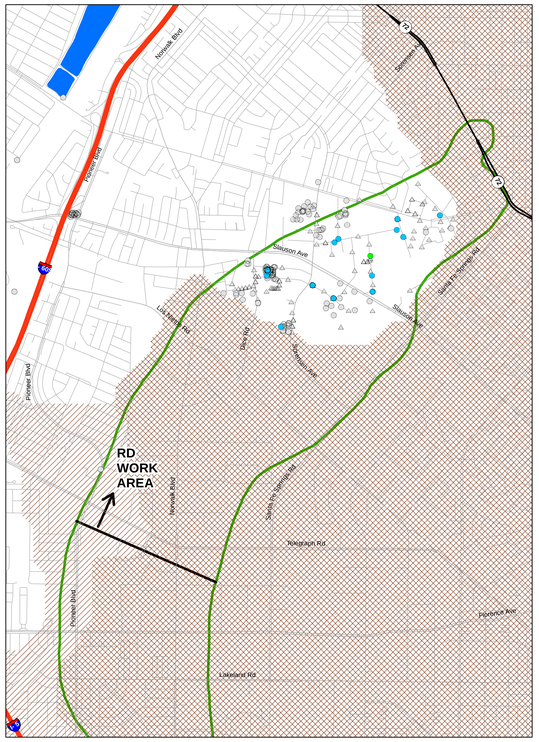
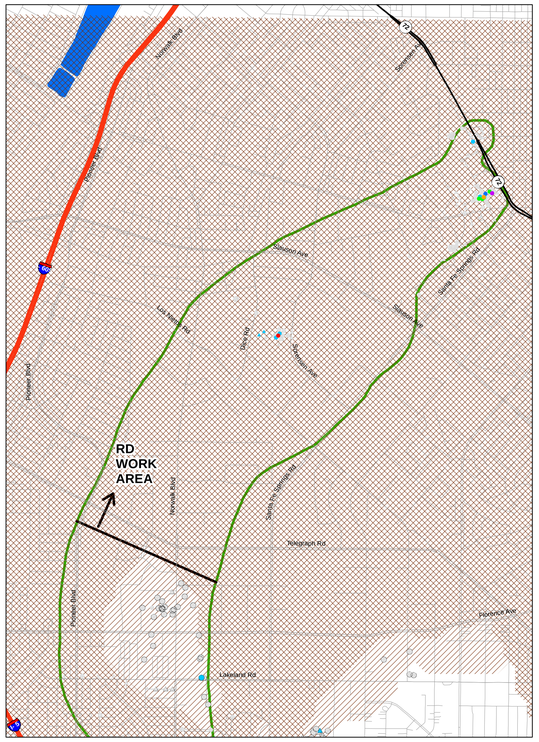
FIGURE A-12A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF 1,1,2-TRICHLOROETHANE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

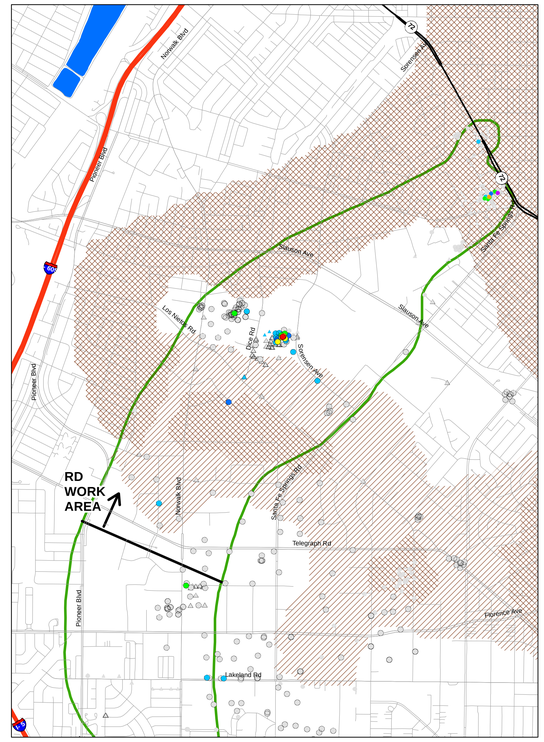
DRAFT



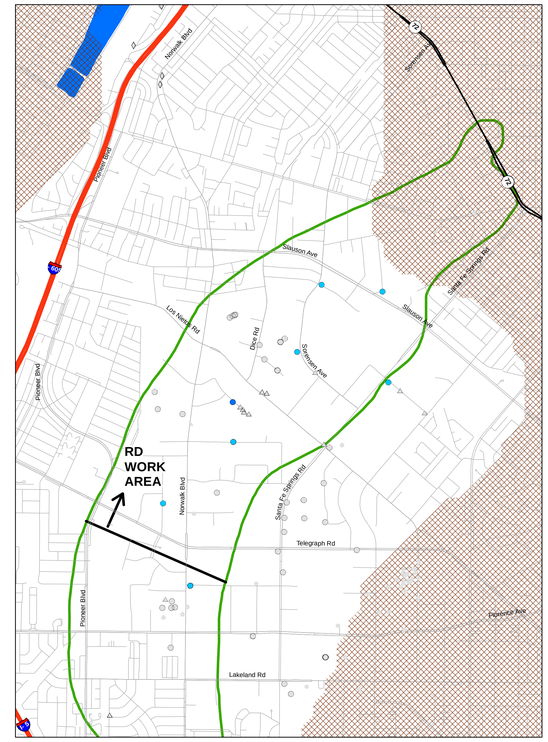
GASPUR AQUIFER



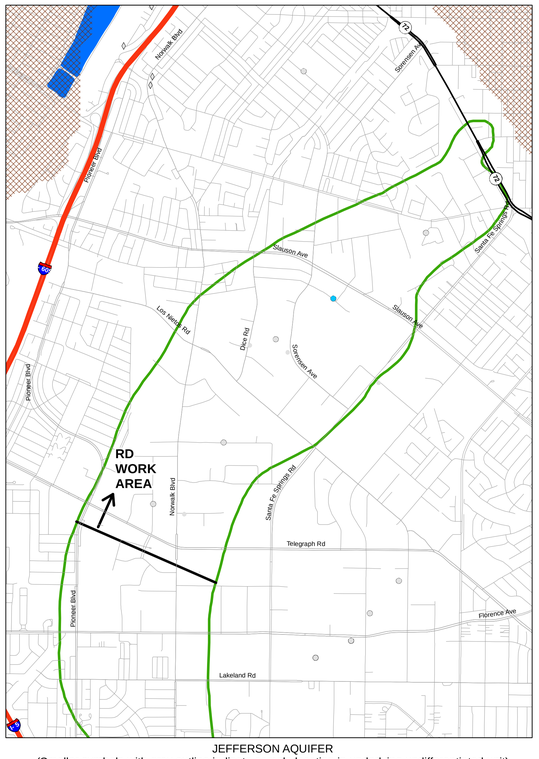
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



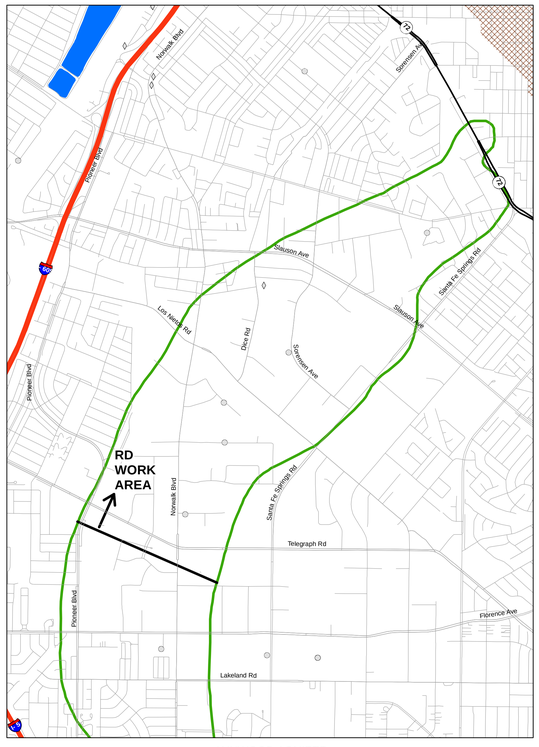
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



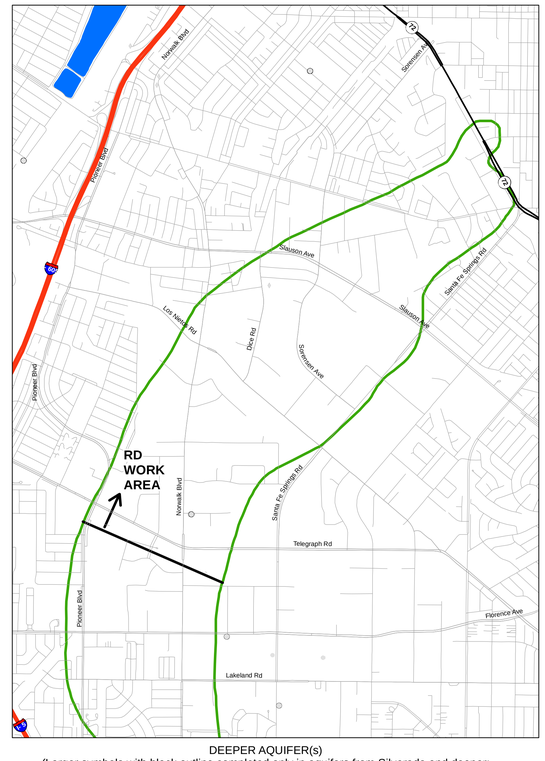
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 5ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_OU_EvaLTM_RDWA_1122CA_B104.Mxd, OOD: Date Exported: 9/12/2016

HARGIS + ASSOCIATES, INC
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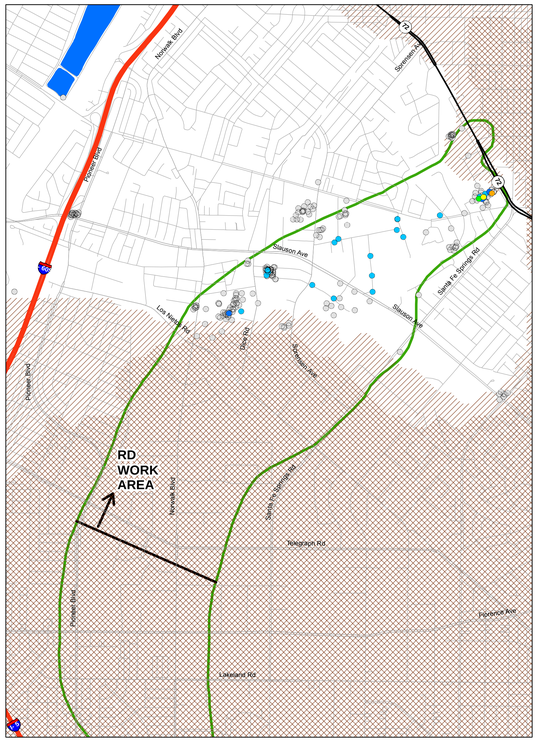
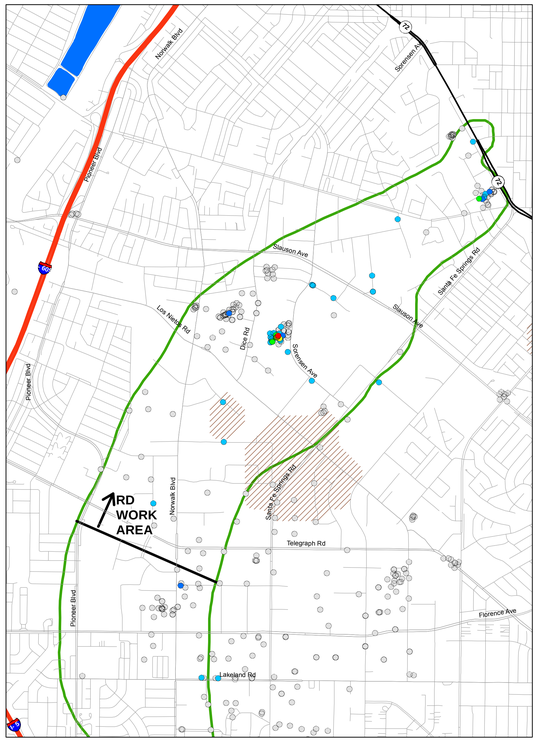
FIGURE A-12B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF 1,1,2-TRICHLOROETHANE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

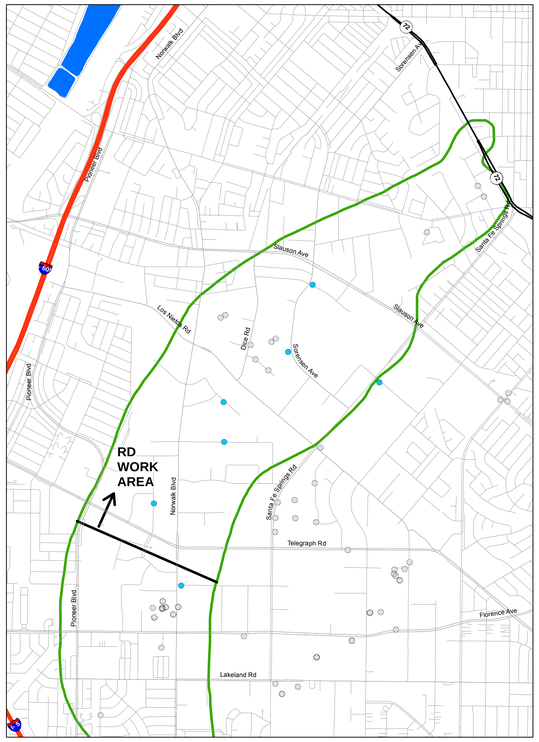
DRAFT



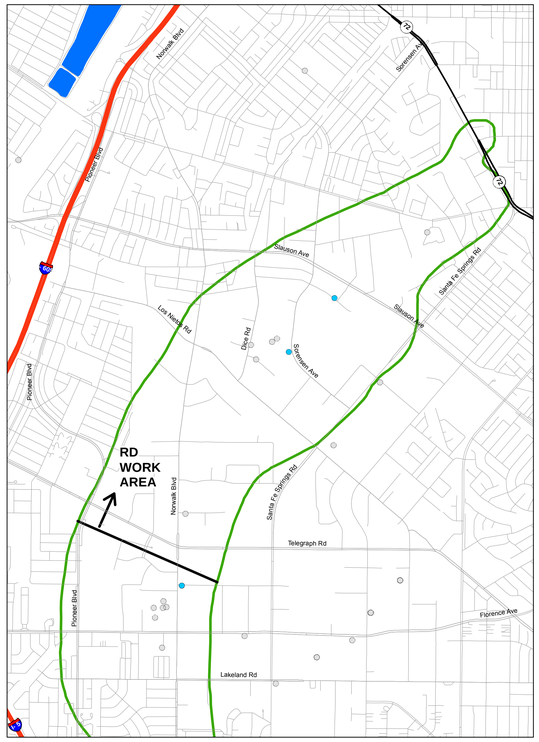
EPA STRATIGRAPHIC UNIT 2



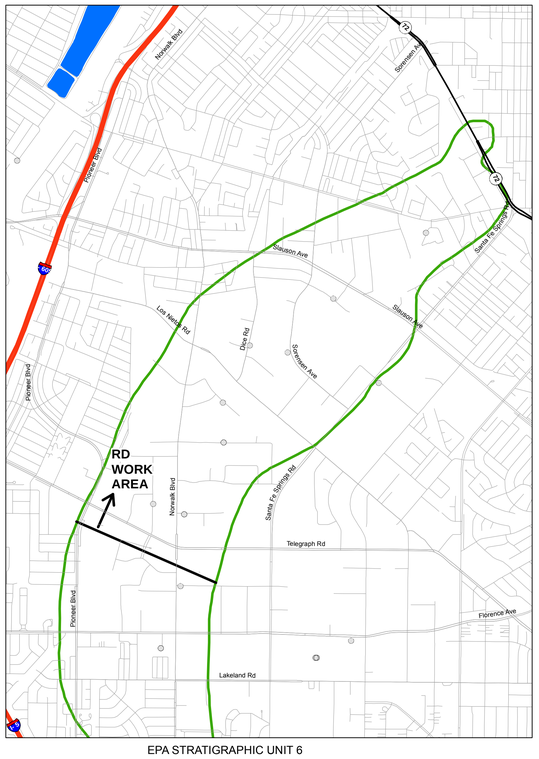
EPA STRATIGRAPHIC UNIT 3



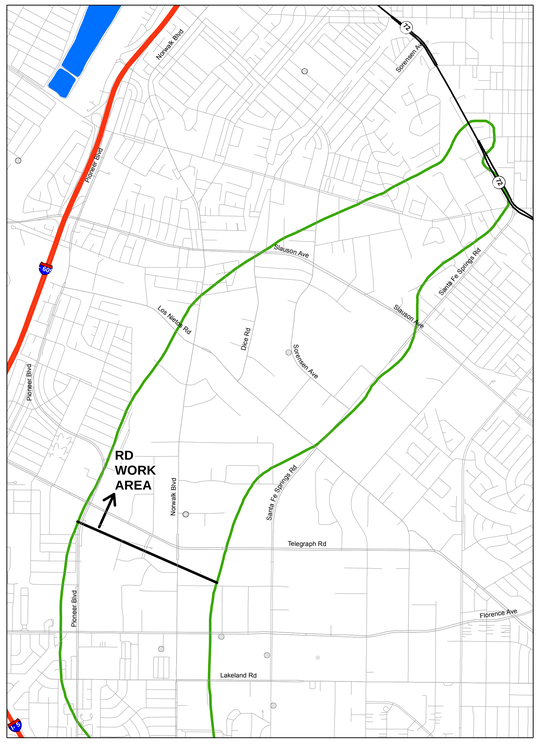
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 5ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

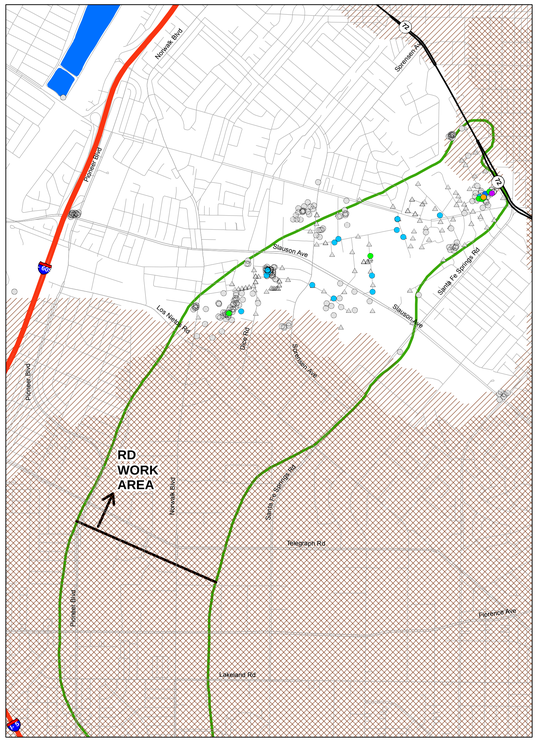
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_OU_EpA12c_ROWA_1123CA_SB_Ave_R00 Date Exported: 9/12/2016

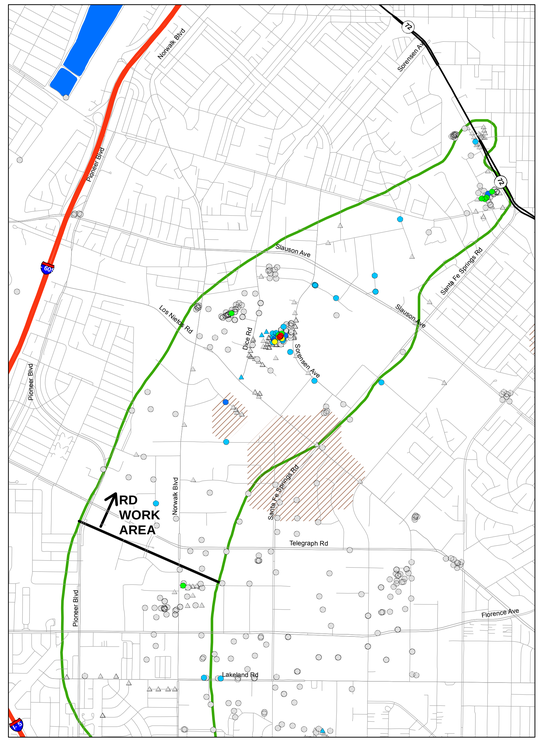
HARGIS + ASSOCIATES, INC
Hydrogeology/Engineering

FIGURE A-12C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF 1,1,2-TRICHLOROETHANE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

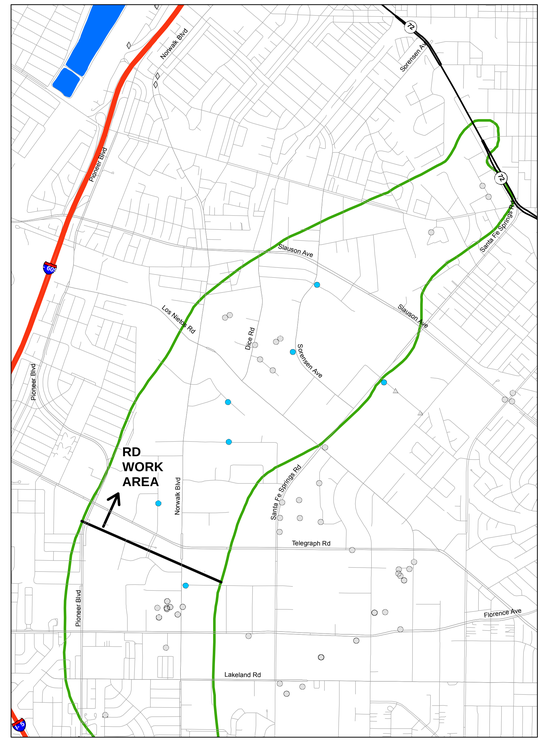
DRAFT



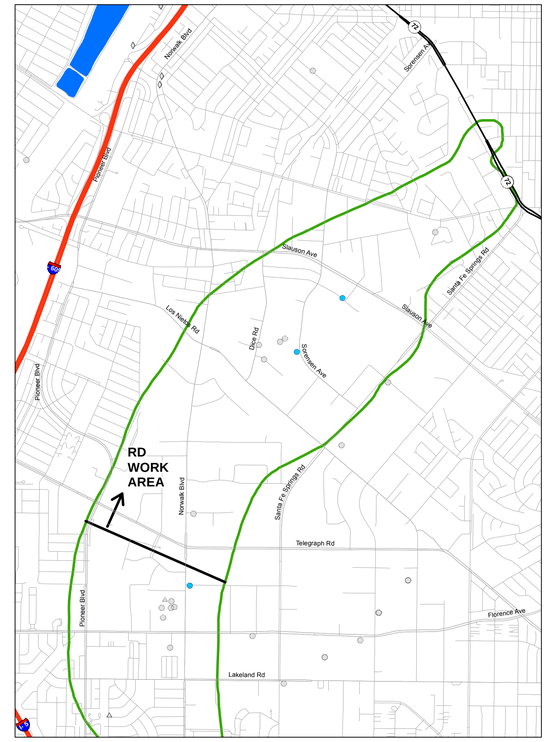
EPA STRATIGRAPHIC UNIT 2



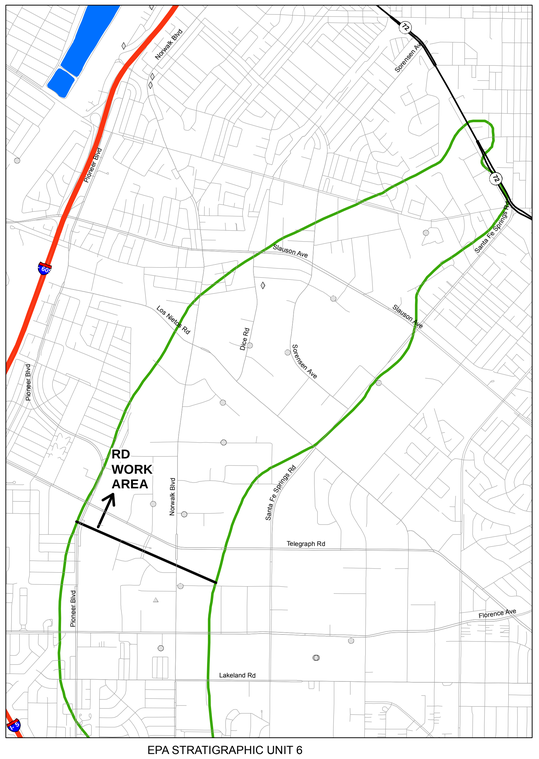
EPA STRATIGRAPHIC UNIT 3



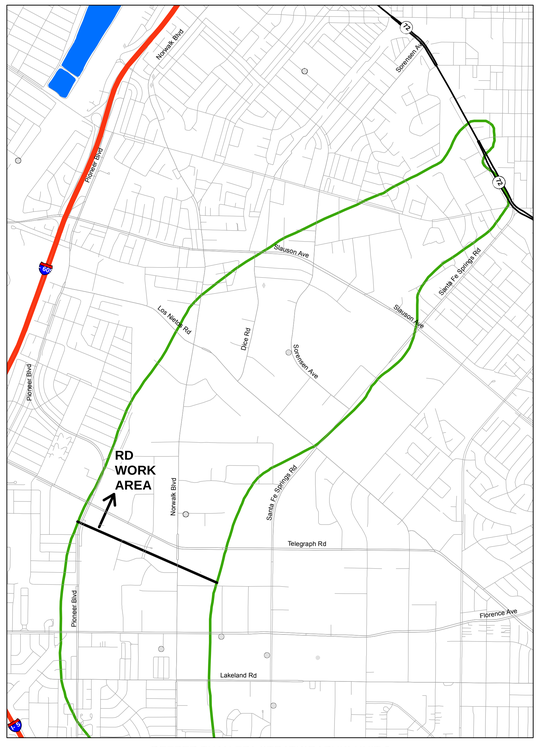
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 5ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_OU_EvA120_RDWA_1122CA_SB_Mta_D00 Date Exported: 8/1/2016

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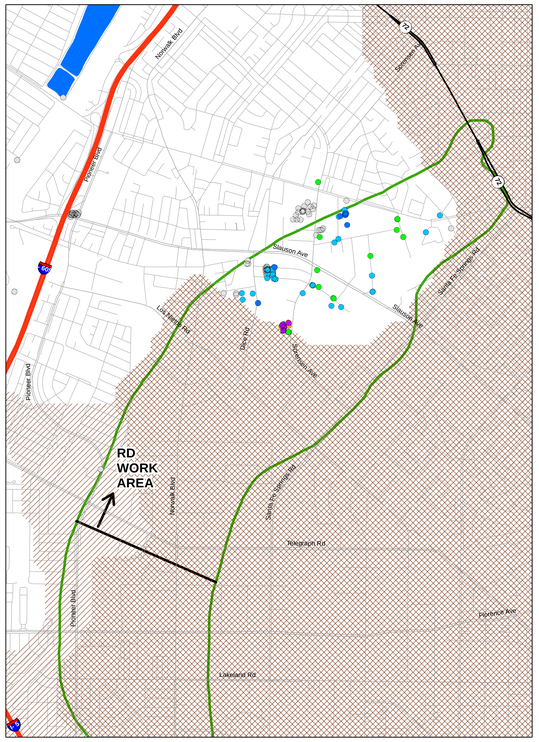
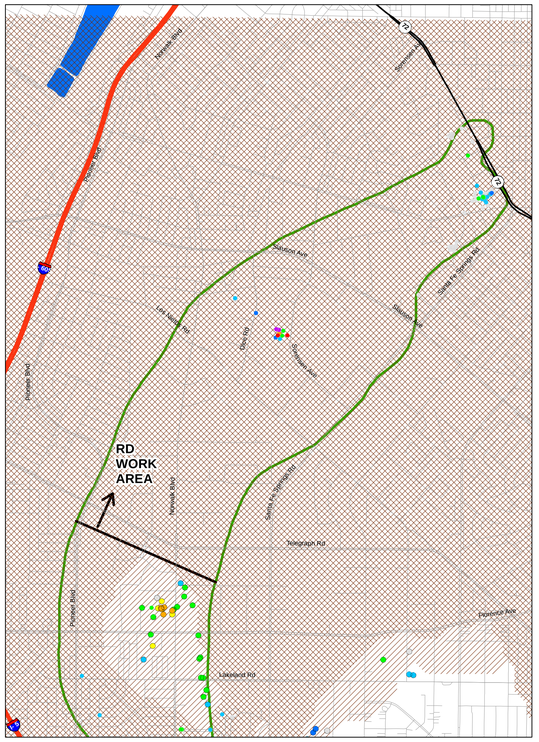
FIGURE A-12D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF 1,1,2-TRICHLOROETHANE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

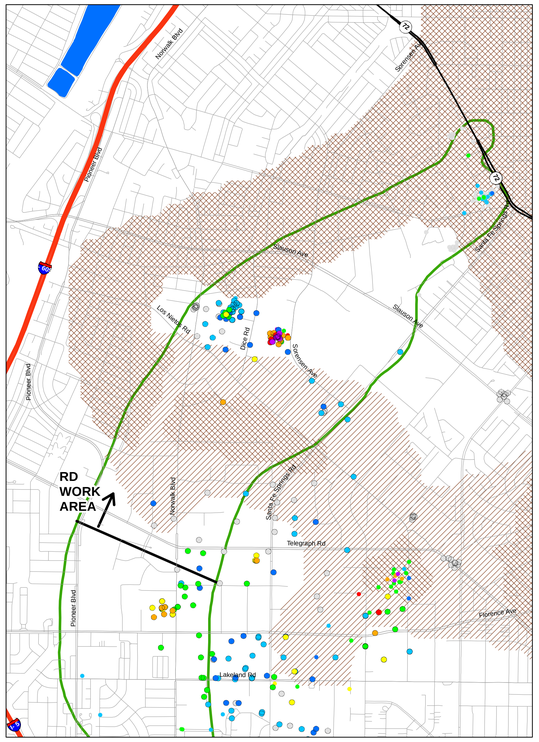
DRAFT



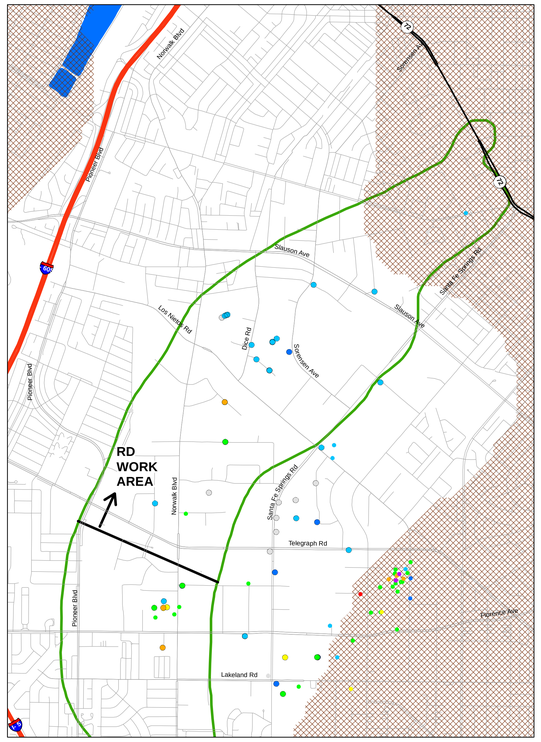
GASPUR AQUIFER



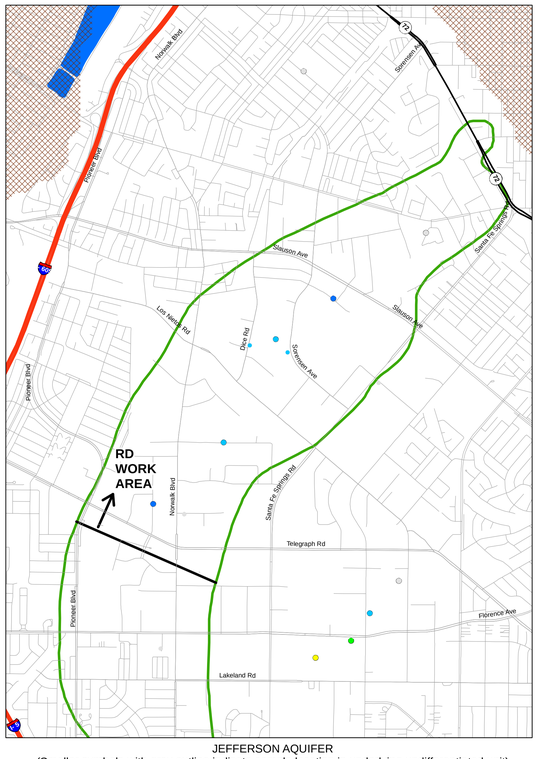
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



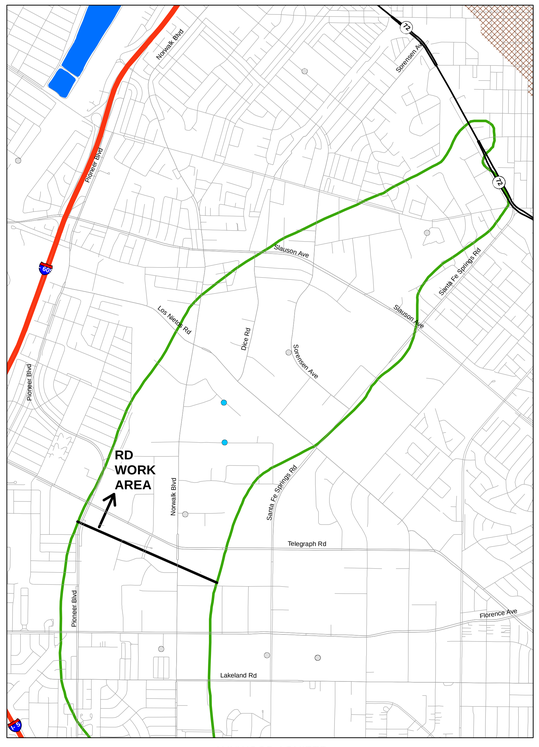
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



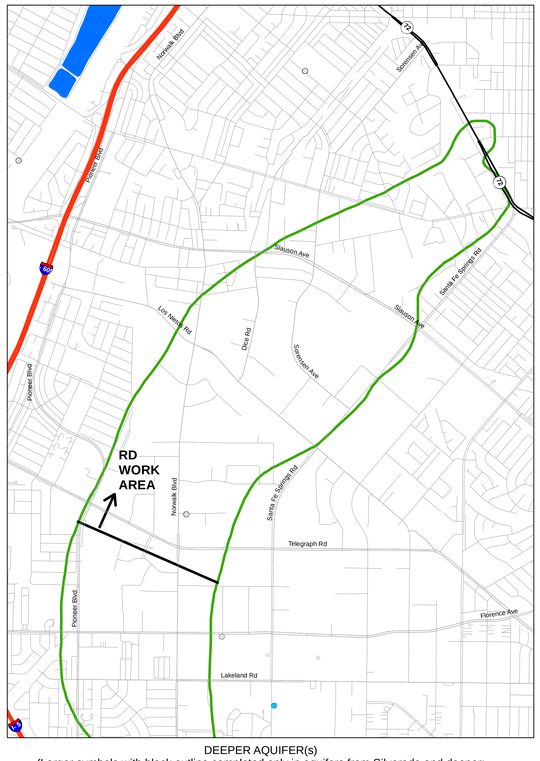
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 6 ug/l
- >6 to 12 ug/l
- >12 to 60 ug/l
- >60 to 120 ug/l
- >120 to 600 ug/l
- >600 to 1,200 ug/l
- >1,200 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

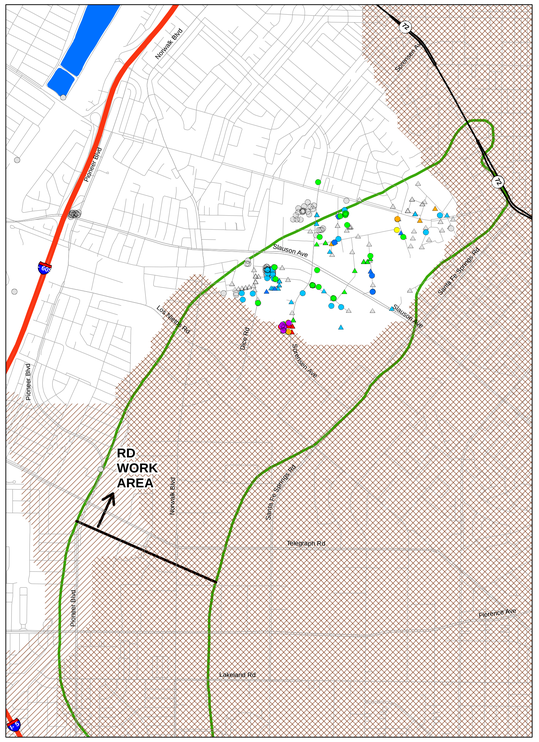
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_FinA13a_RDWA_C12OCE_B104_Ave_DG0 Date Exported: 9/1/2016

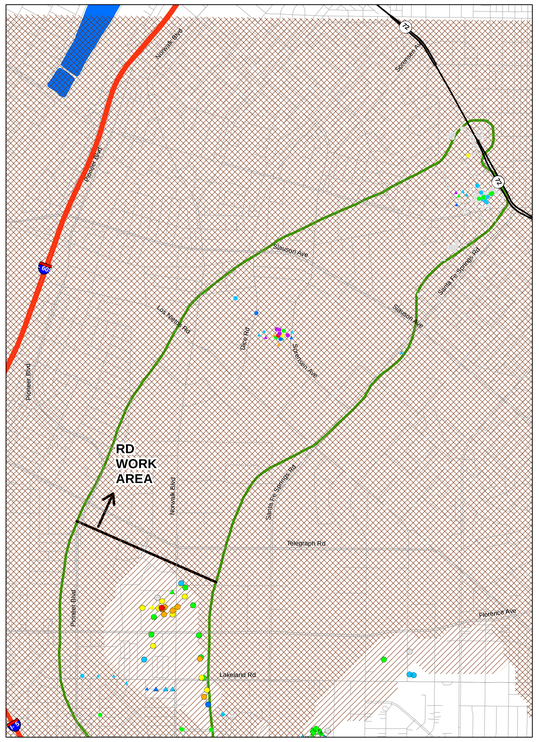
HARGIS + ASSOCIATES, INC.
Hydrogeology/Engineering

FIGURE A-13A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF CIS-1,2-DICHLOROETHYLENE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

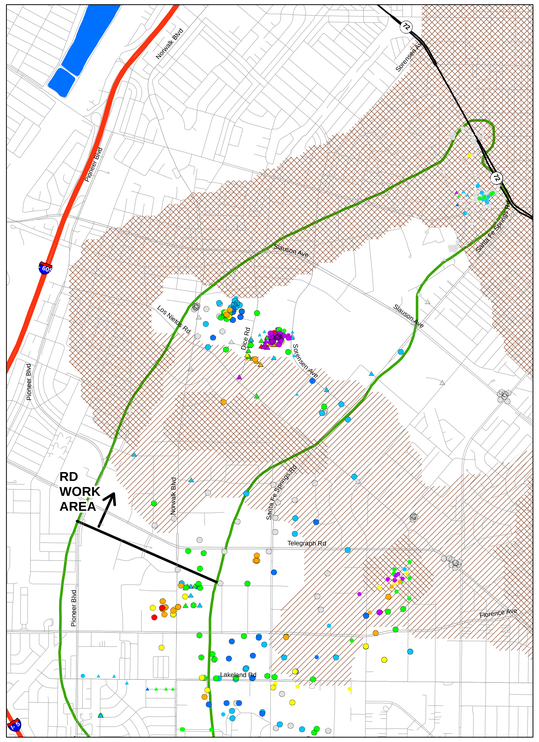
DRAFT



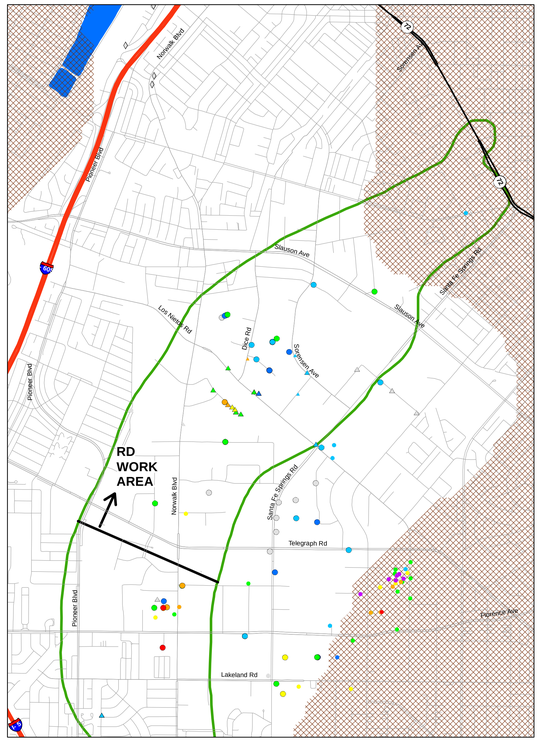
GASPUR AQUIFER



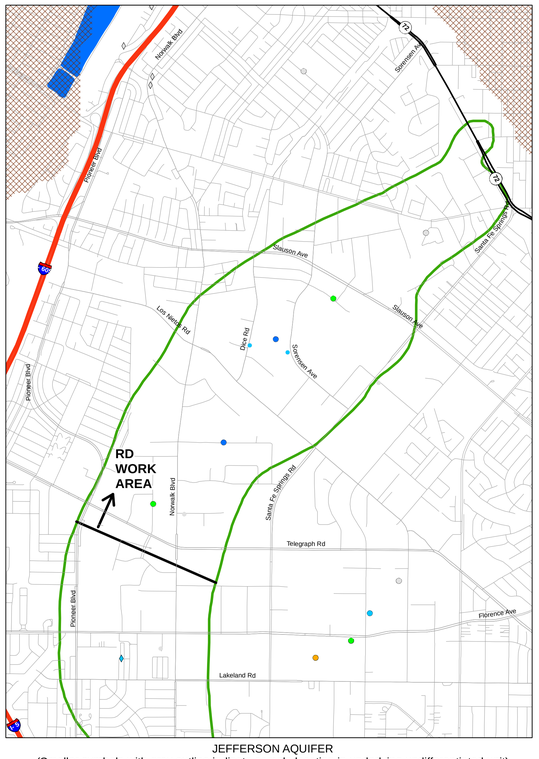
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



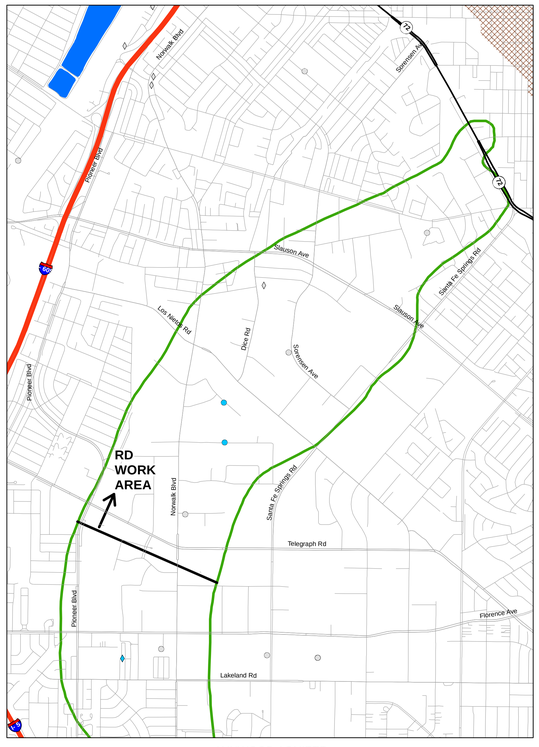
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



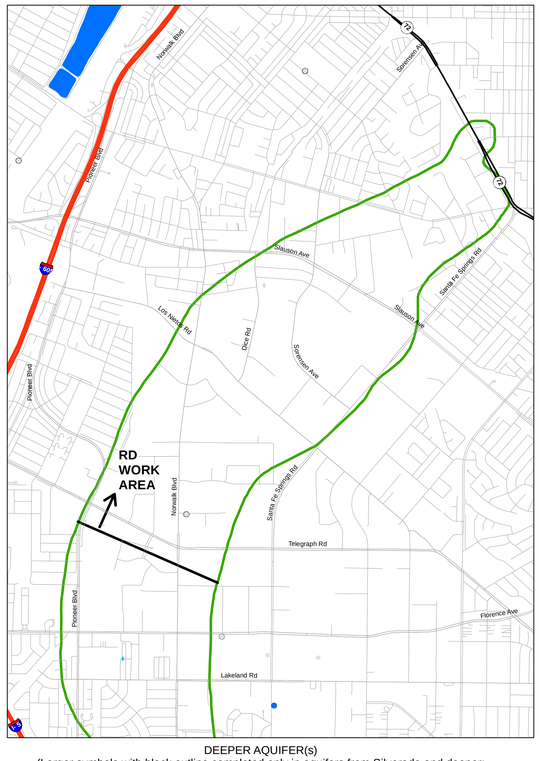
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 6 ug/l
- >6 to 12 ug/l
- >12 to 60 ug/l
- >60 to 120 ug/l
- >120 to 600 ug/l
- >600 to 1,200 ug/l
- >1,200 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_Fig4-13b_RDWA_C12OCE_B104_Max_D00 Date Exported: 9/1/2016

HARGIS + ASSOCIATES, INC
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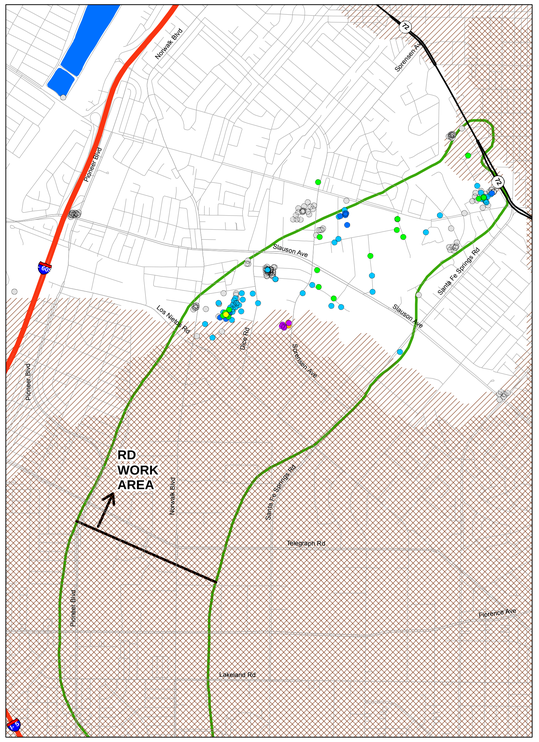
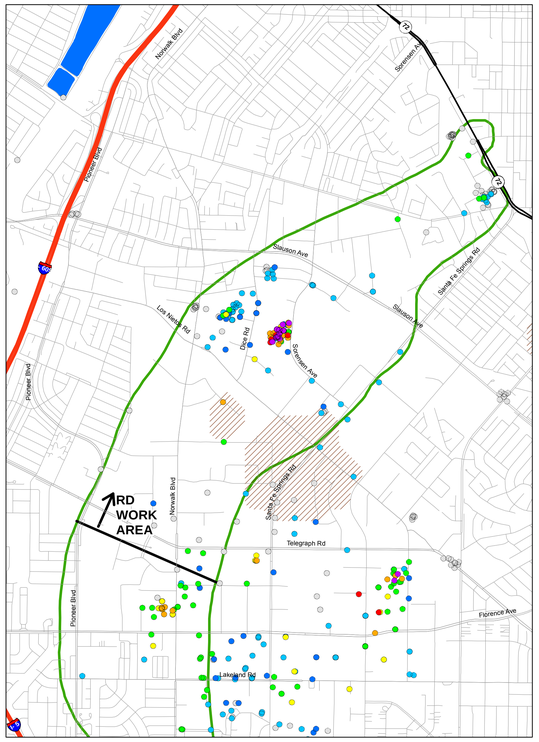
FIGURE A-13B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF CIS-1,2-DICHLOROETHYLENE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

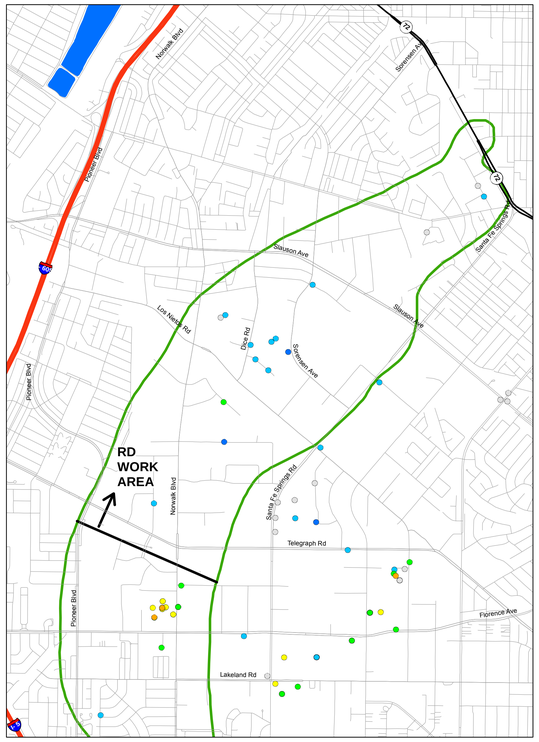
DRAFT



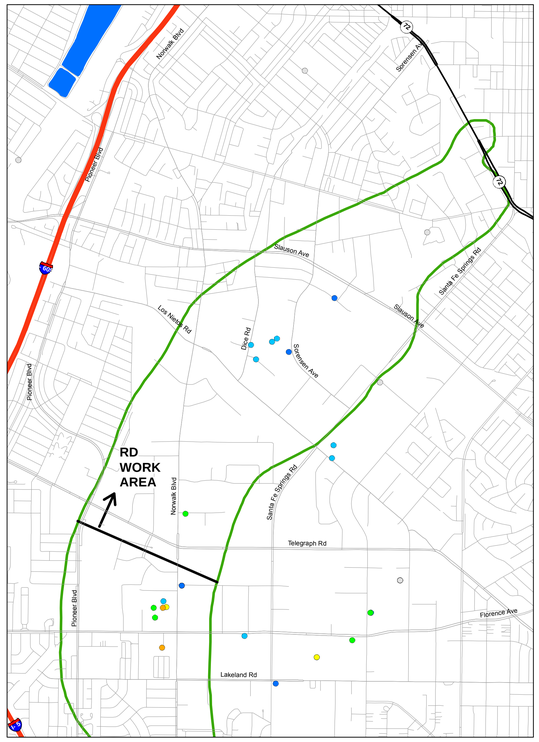
EPA STRATIGRAPHIC UNIT 2



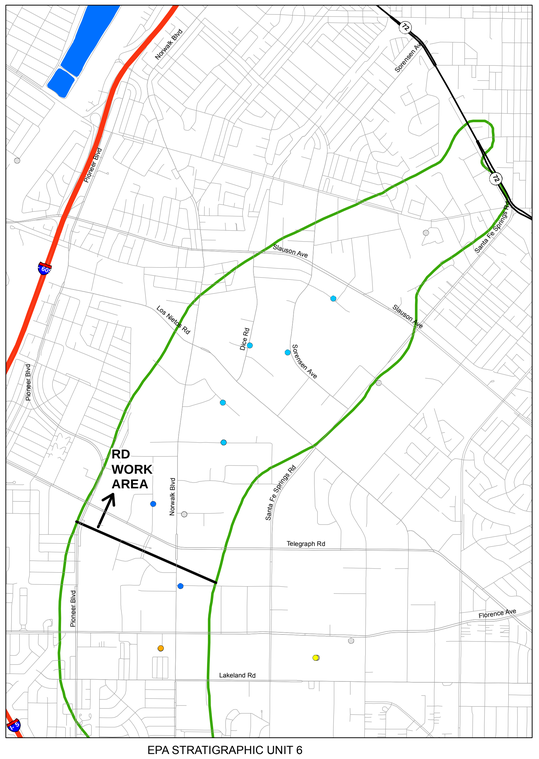
EPA STRATIGRAPHIC UNIT 3



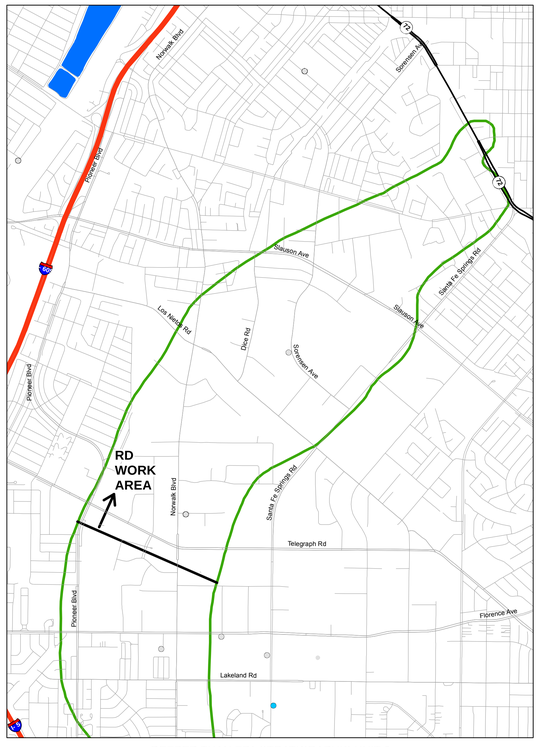
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 6 ug/l
- >6 to 12 ug/l
- >12 to 60 ug/l
- >60 to 120 ug/l
- >120 to 600 ug/l
- >600 to 1,200 ug/l
- >1,200 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 2017_DQ_EpA13c_8DVA_C120CE_SB_Ave_000 Date Exported: 9/1/2016

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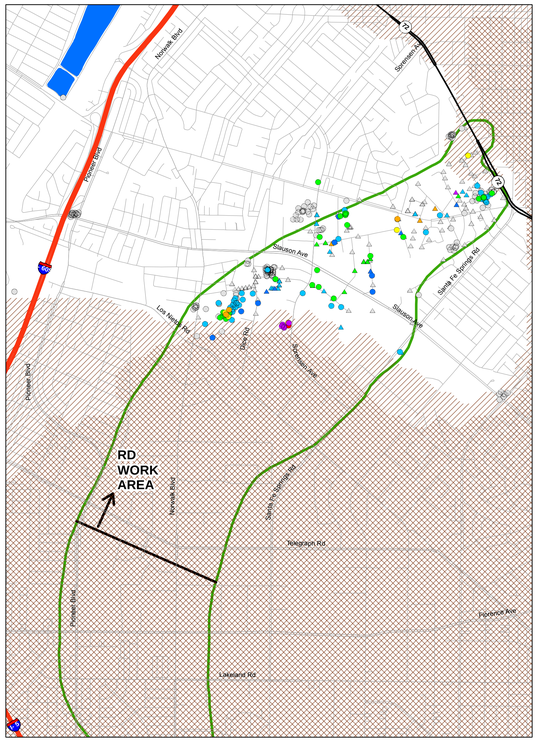
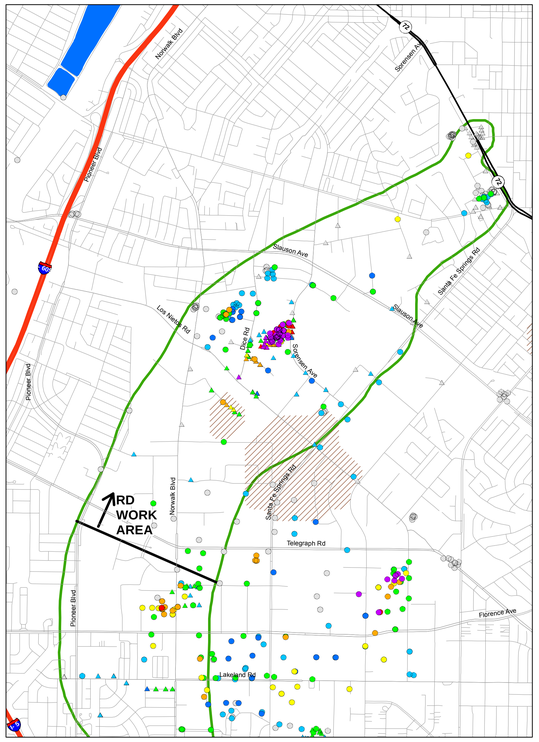
FIGURE A-13C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF CIS-1,2-DICHLOROETHYLENE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

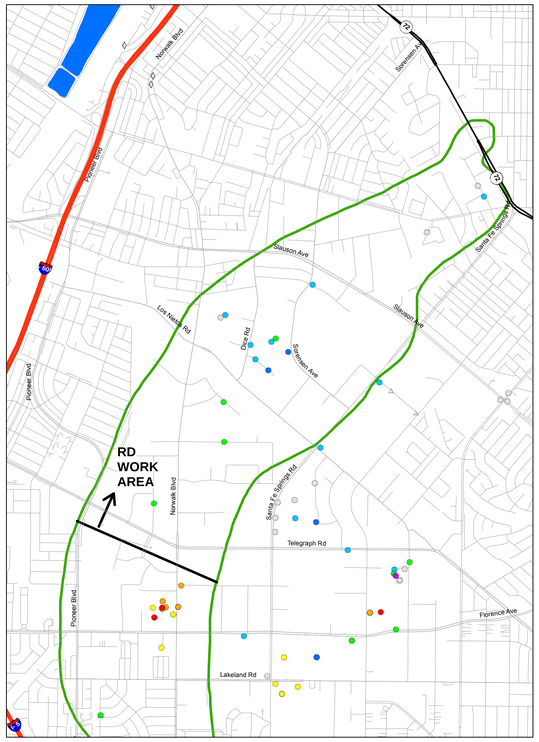
DRAFT



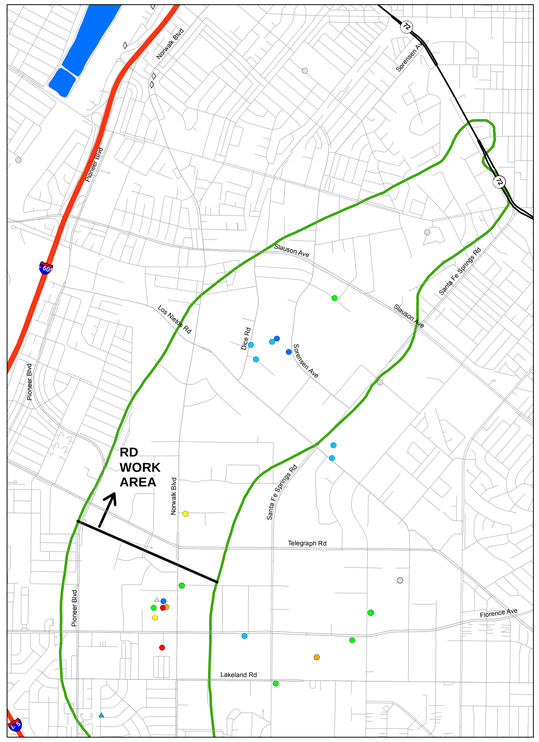
EPA STRATIGRAPHIC UNIT 2



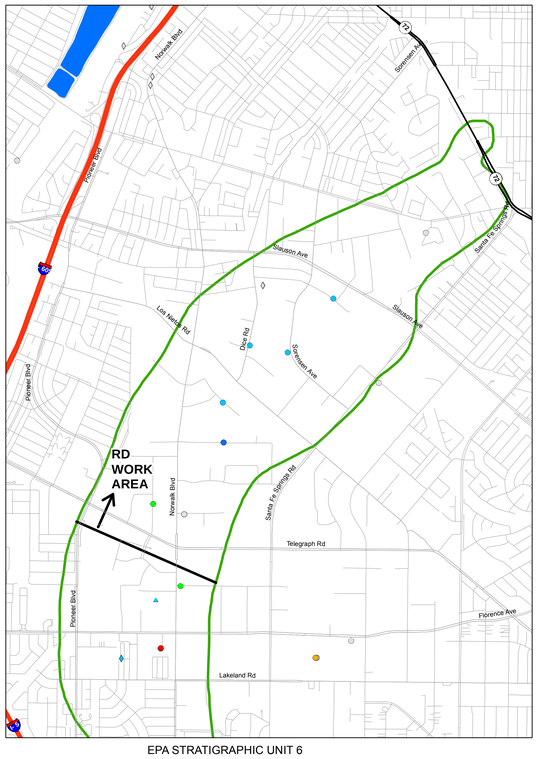
EPA STRATIGRAPHIC UNIT 3



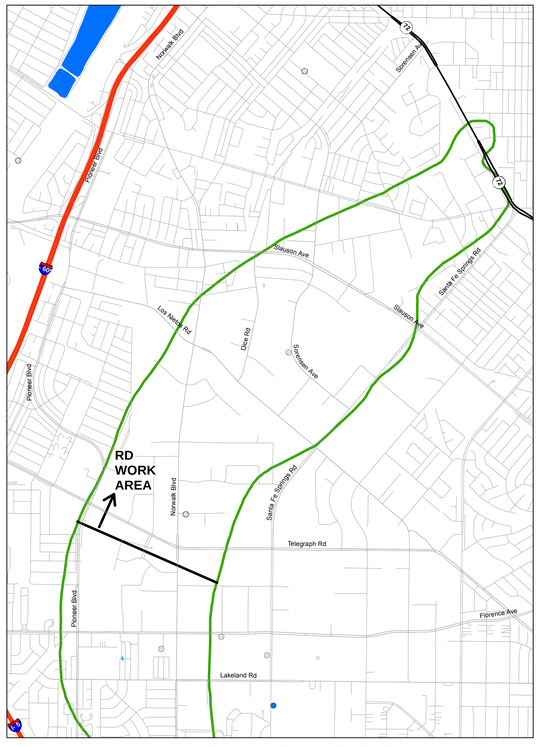
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 6 ug/l
- >6 to 12 ug/l
- >12 to 60 ug/l
- >60 to 120 ug/l
- >120 to 600 ug/l
- >600 to 1,200 ug/l
- >1,200 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

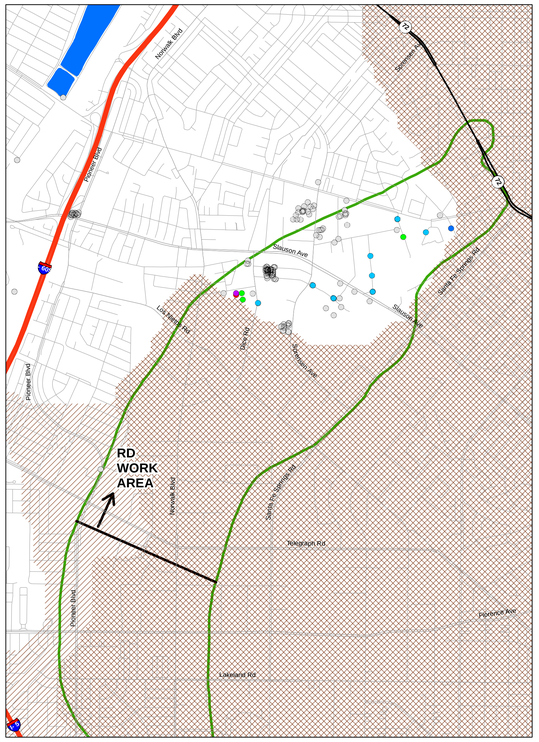
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: c212_OU2_Eval130_REWA C12DCE SB Mxx_O00 Date Exported: 9/12/2016

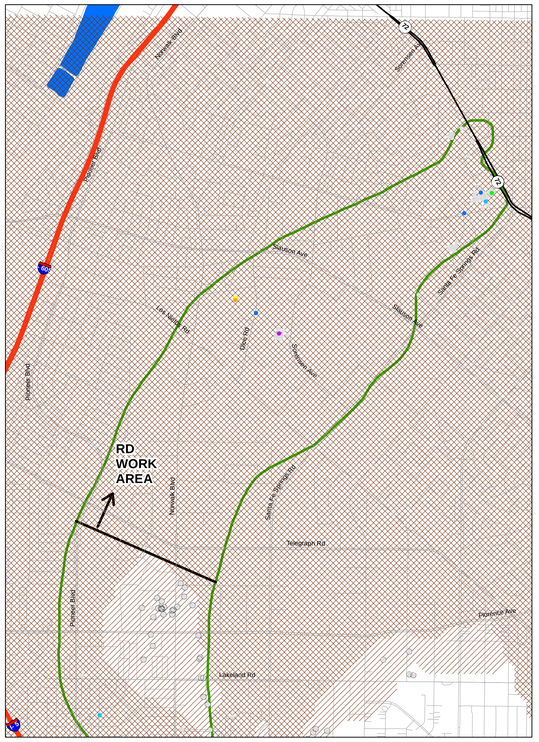
HARGIS + ASSOCIATES, INC
Hydrogeology/Engineering

FIGURE A-13D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF CIS-1,2-DICHLOROETHYLENE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

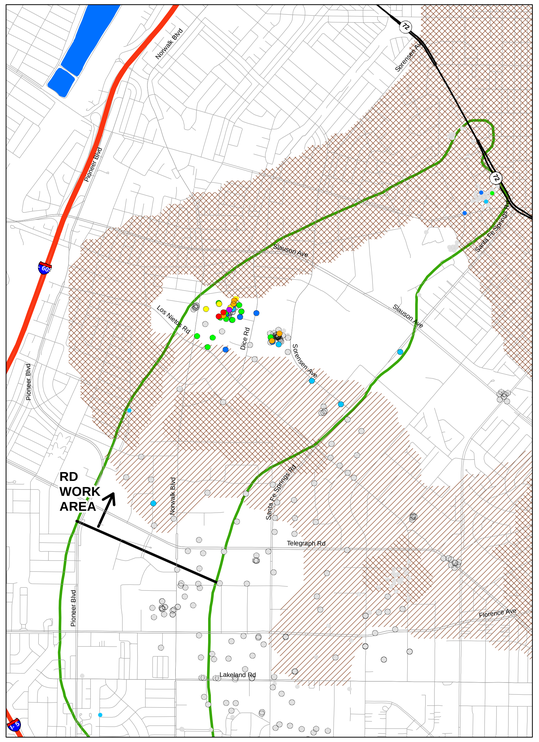
DRAFT



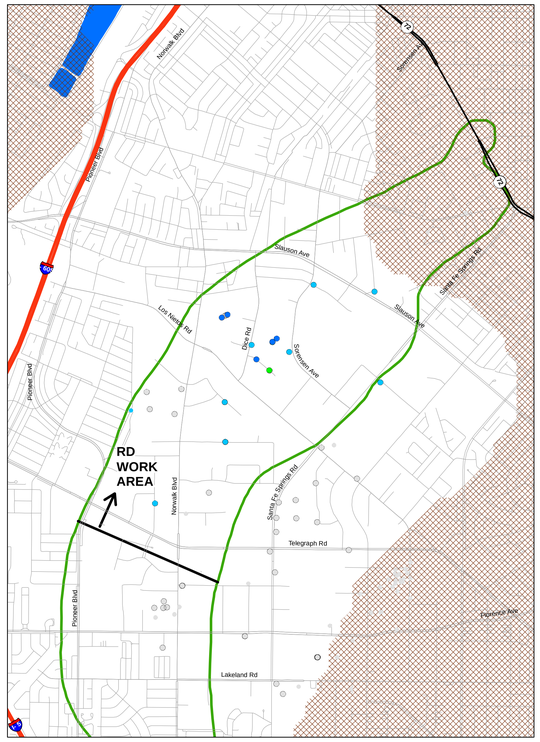
GASPUR AQUIFER



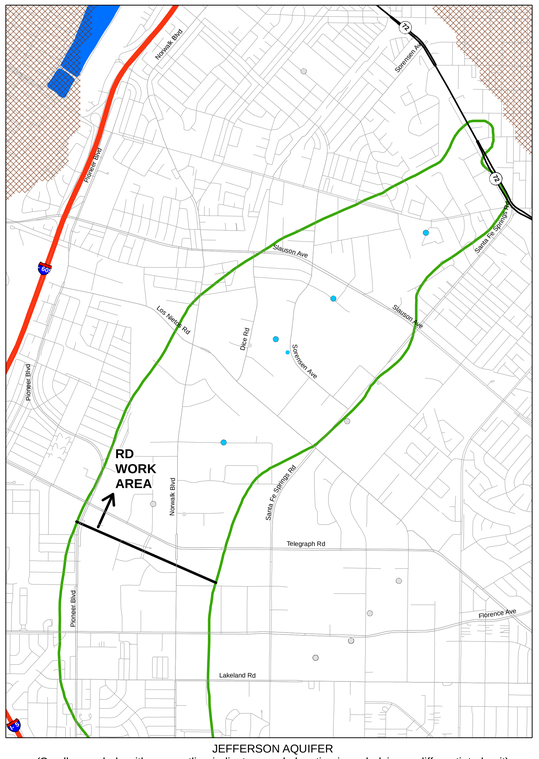
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



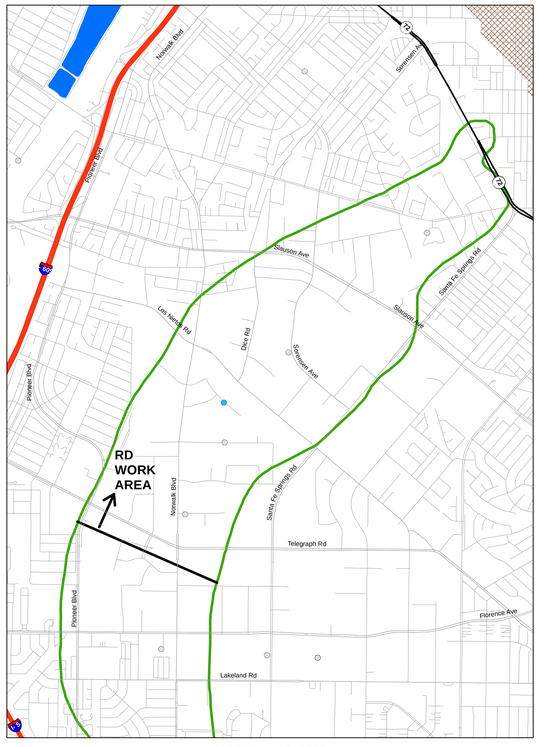
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



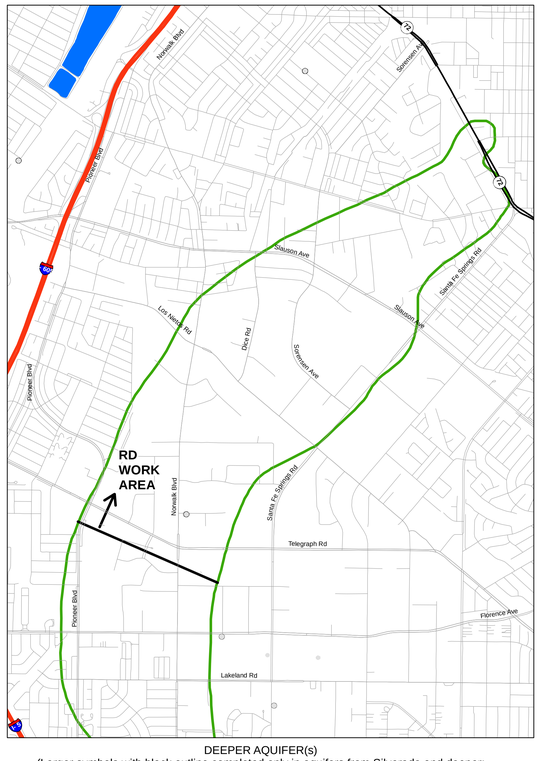
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 0.5 ug/l
- >0.5 to 1 ug/l
- >1 to 5 ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

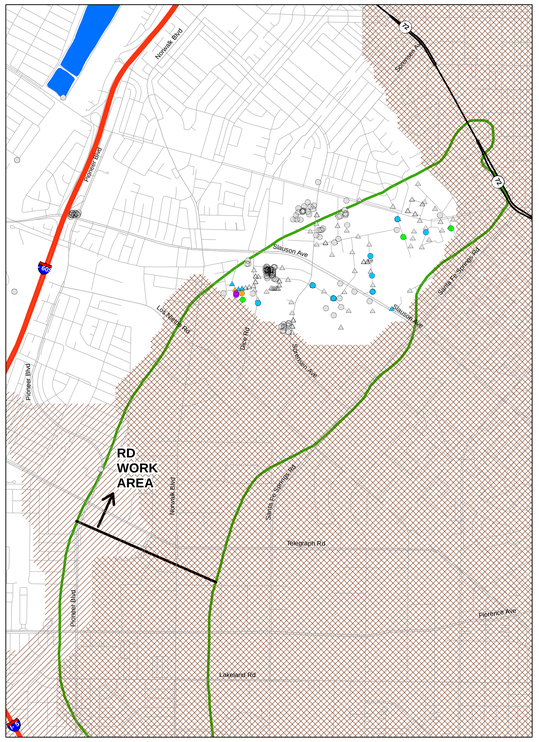
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_DQ_EnMAs_60WA_CTET_B104_Ave_DQO Date Exported: 9/1/2016

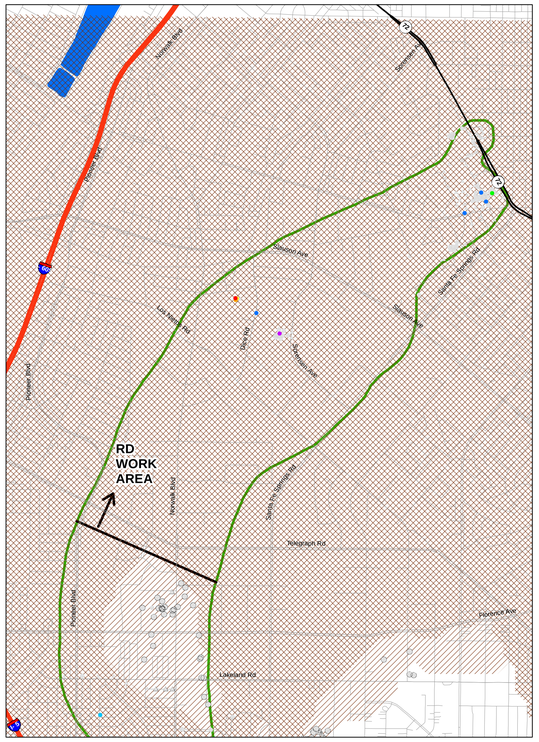
HARGIS + ASSOCIATES, INC
Hydrogeology/Engineering

FIGURE A-14A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF CARBON TETRACHLORIDE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

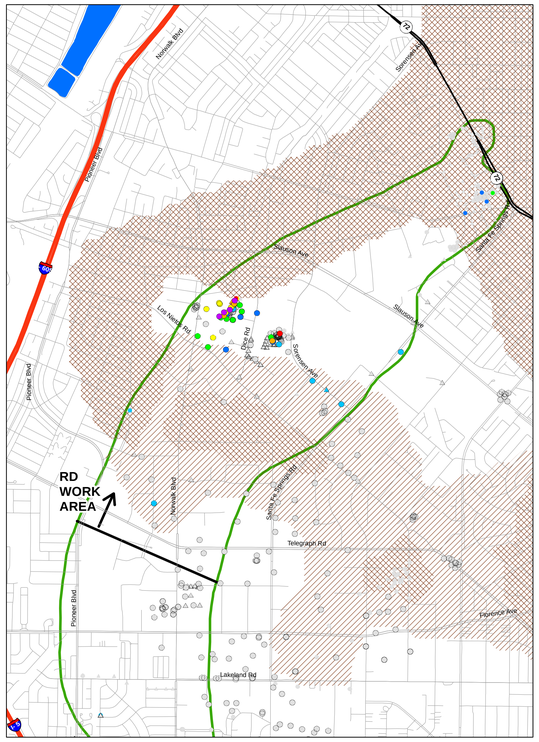
DRAFT



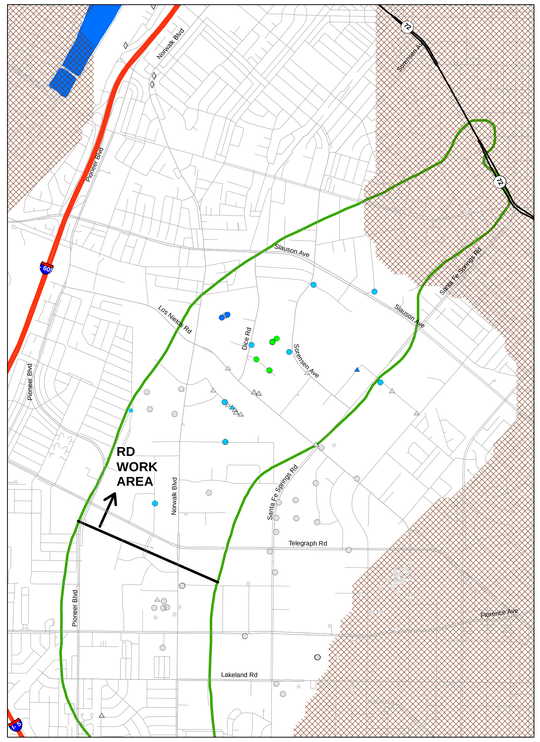
GASPUR AQUIFER



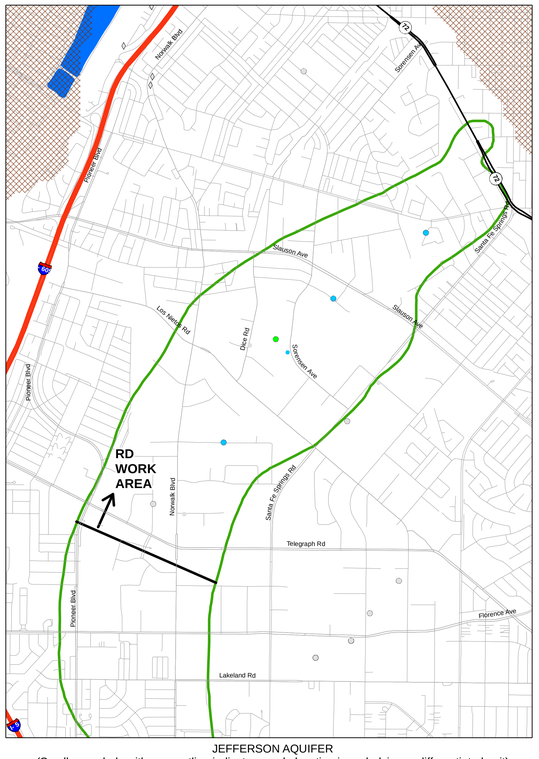
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



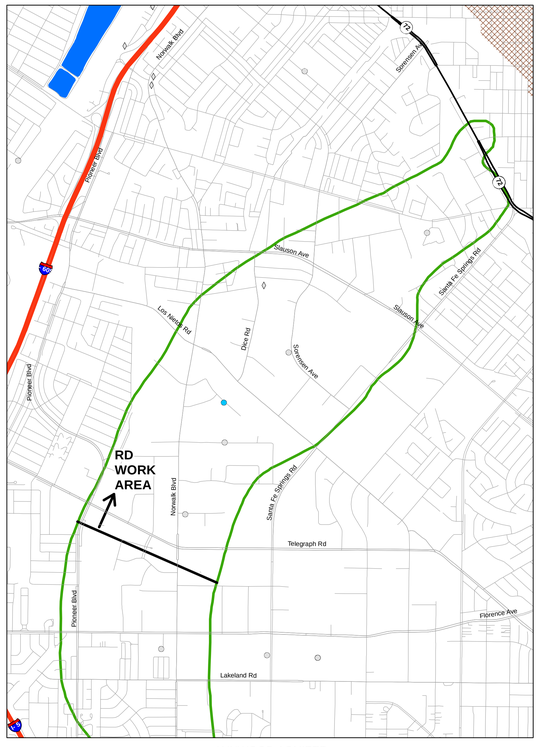
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



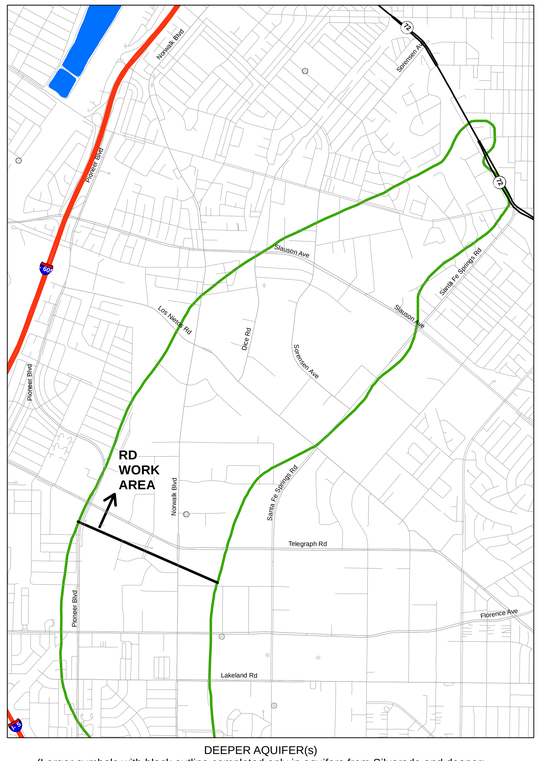
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 0.5 ug/l
- >0.5 to 1 ug/l
- >1 to 5 ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

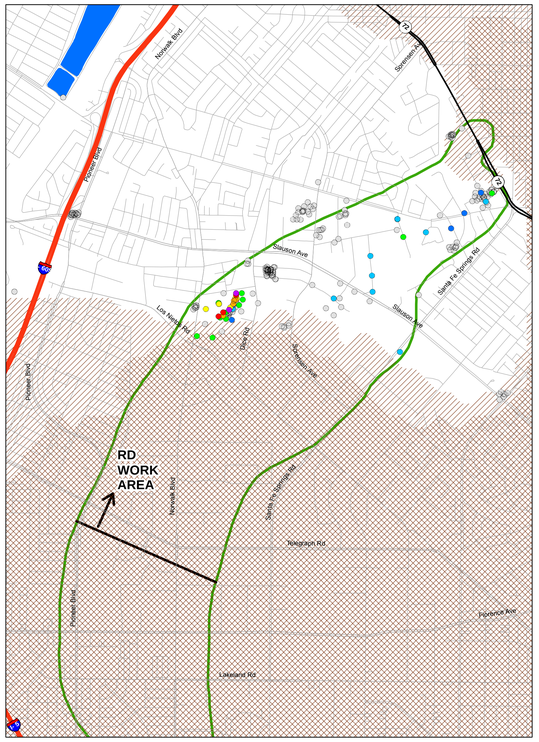
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_DQ_EsAA1B_RDWA_CTET_B104_Mxs_DQO Date Exported: 9/3/2016

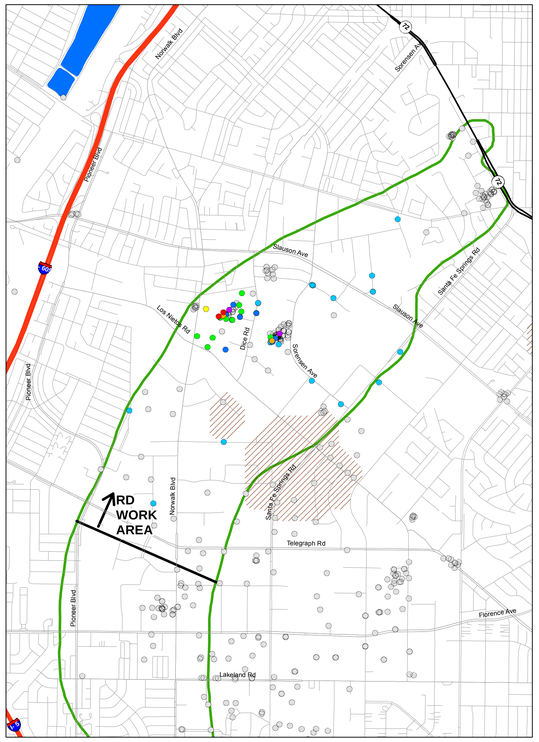
HARGIS + ASSOCIATES, INC
Hydrogeology/Engineering

FIGURE A-14B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF CARBON TETRACHLORIDE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

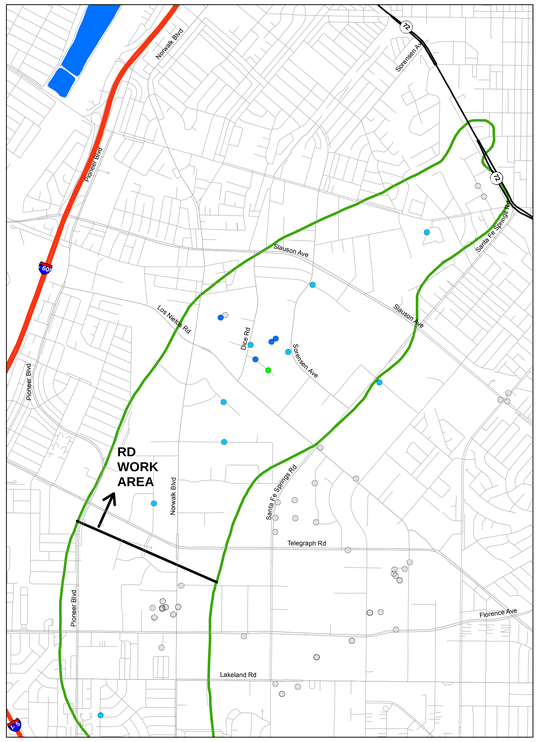
DRAFT



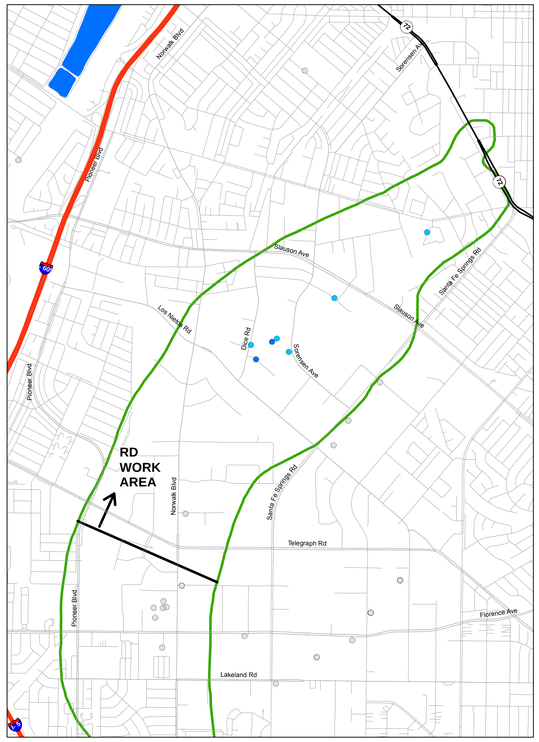
EPA STRATIGRAPHIC UNIT 2



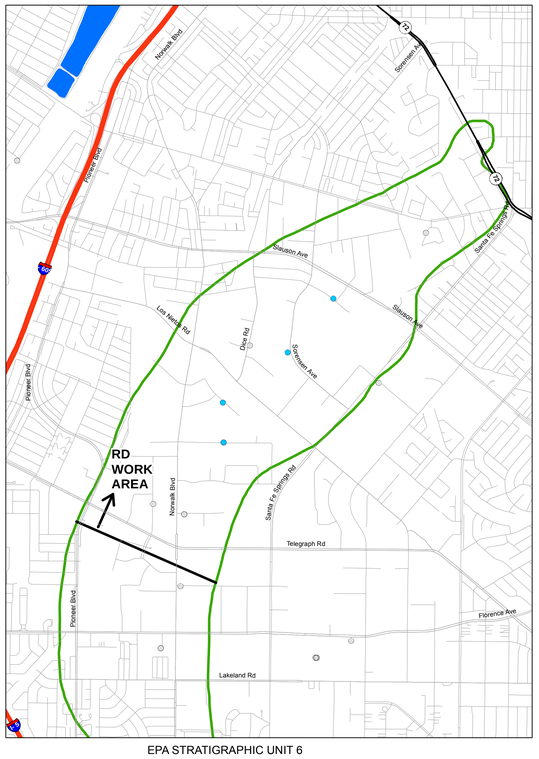
EPA STRATIGRAPHIC UNIT 3



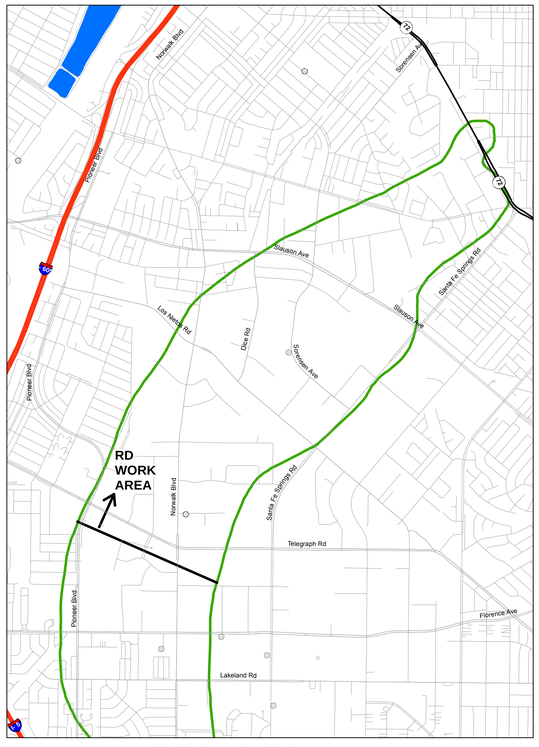
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 0.5 ug/l
- >0.5 to 1 ug/l
- >1 to 5 ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 2312_DO_EsMe_ROVA_CTET_SB_Ave_DO0 Date Exported: 9/12/2016

HARGIS + ASSOCIATES, INC
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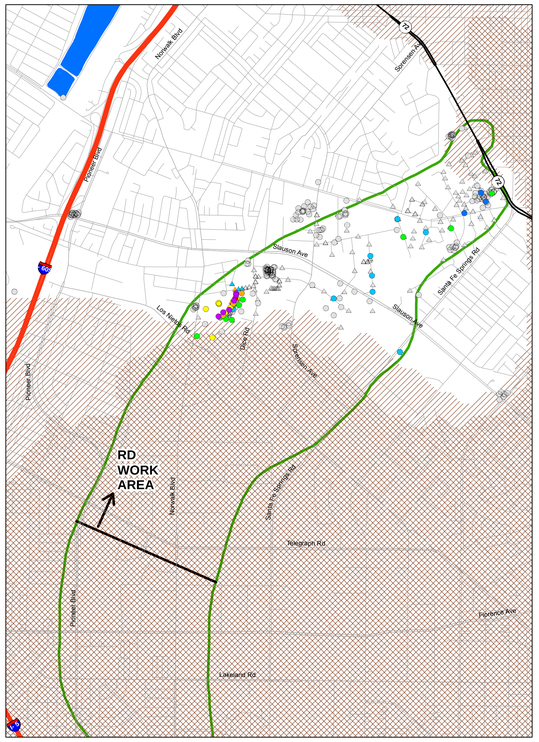
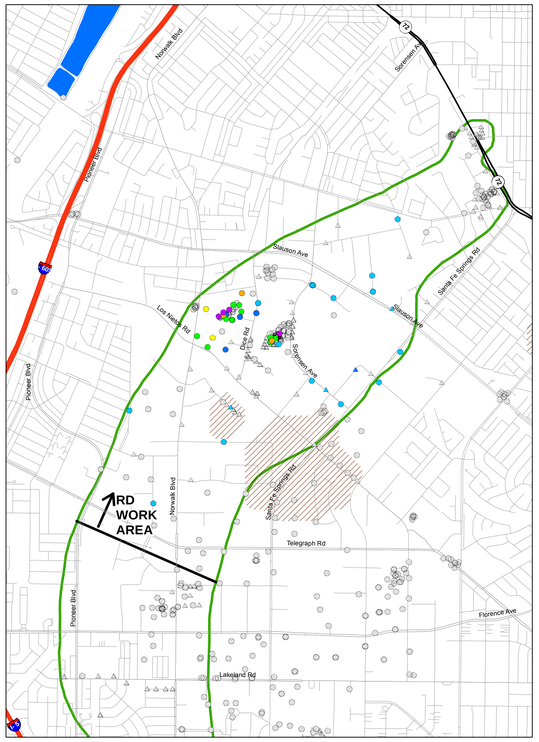
FIGURE A-14C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF CARBON TETRACHLORIDE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

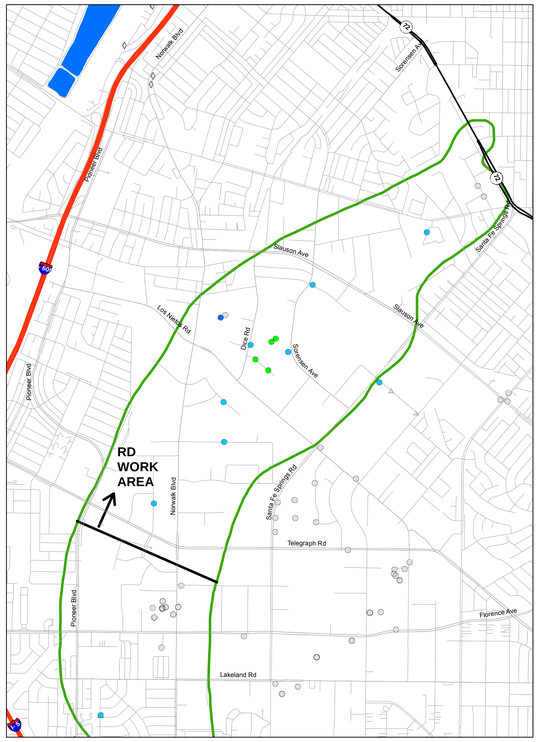
DRAFT



EPA STRATIGRAPHIC UNIT 2



EPA STRATIGRAPHIC UNIT 3



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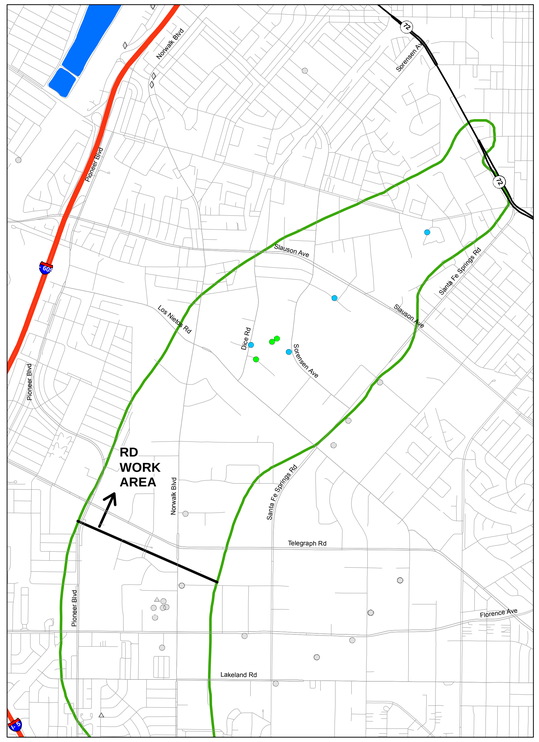
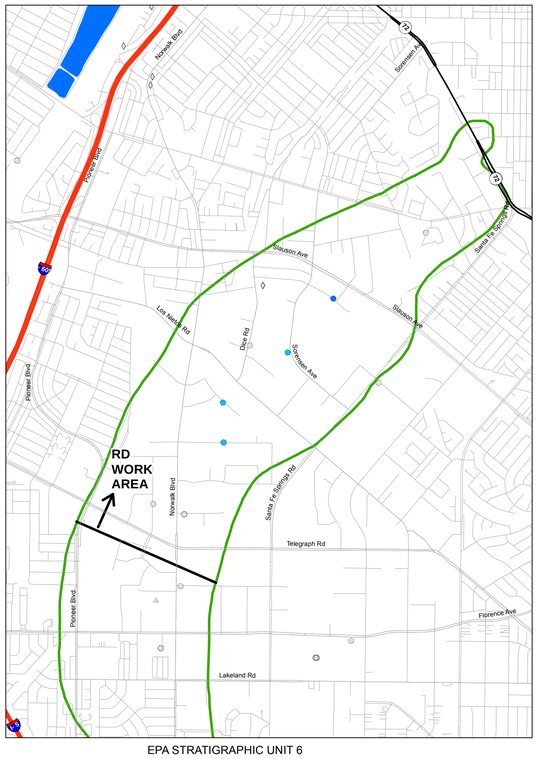
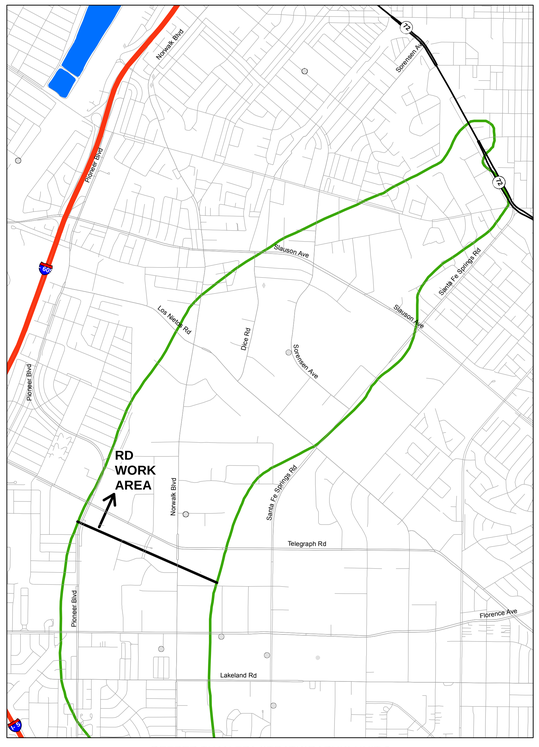


EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 0.5 ug/l
- >0.5 to 1 ug/l
- >1 to 5 ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

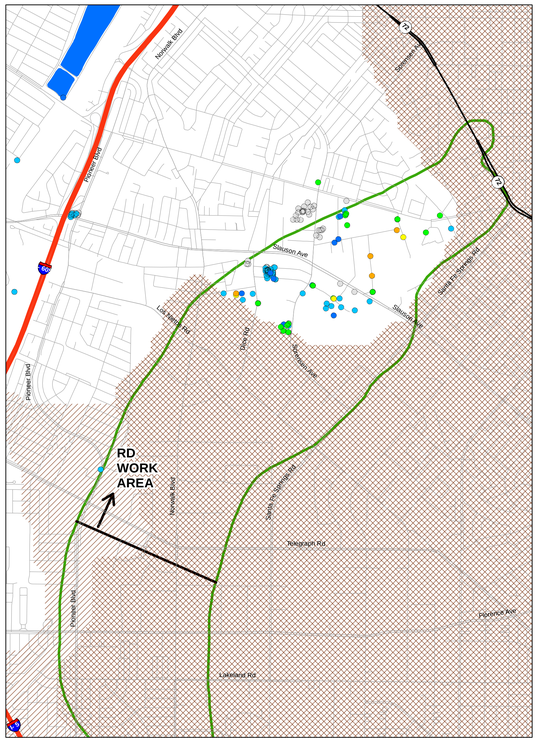
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DO_EvaMD_ROWA_CTET_SB_Map_D00 Date Exported: 9/1/2016

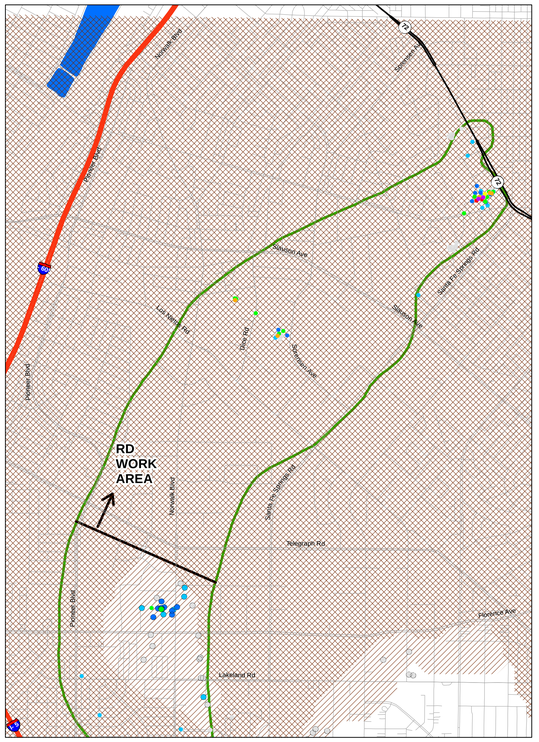
HARGIS + ASSOCIATES, INC
Hydrogeology/Engineering

FIGURE A-14D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF CARBON TETRACHLORIDE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

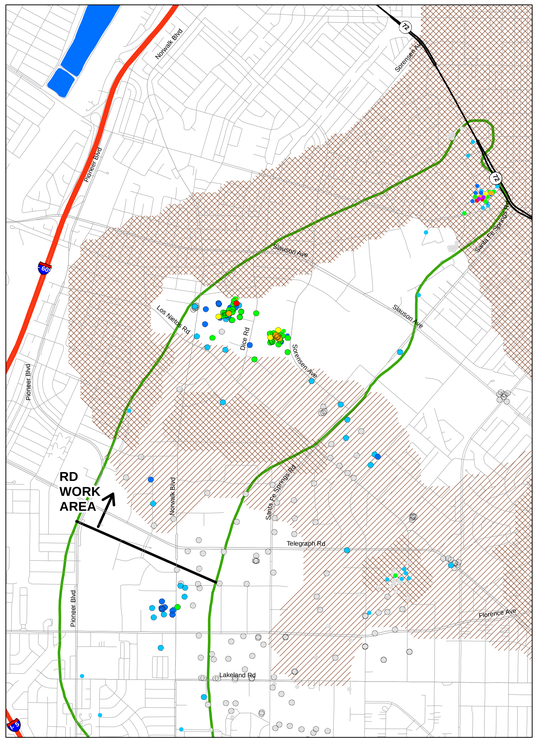
DRAFT



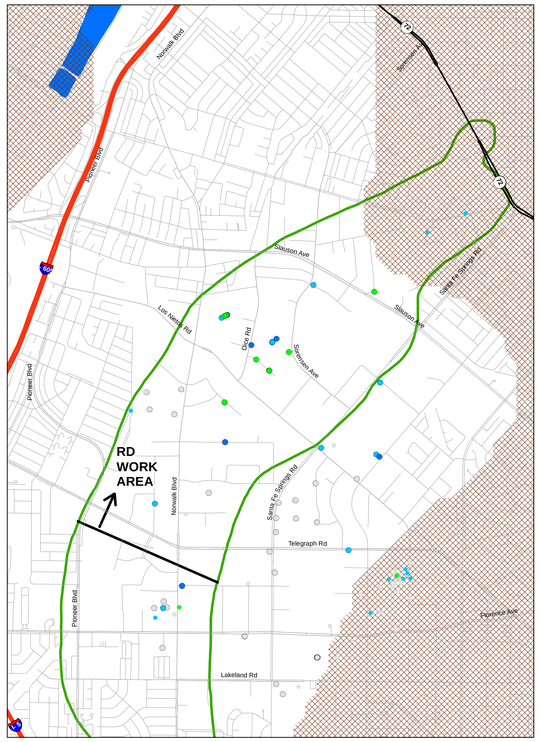
GASPUR AQUIFER



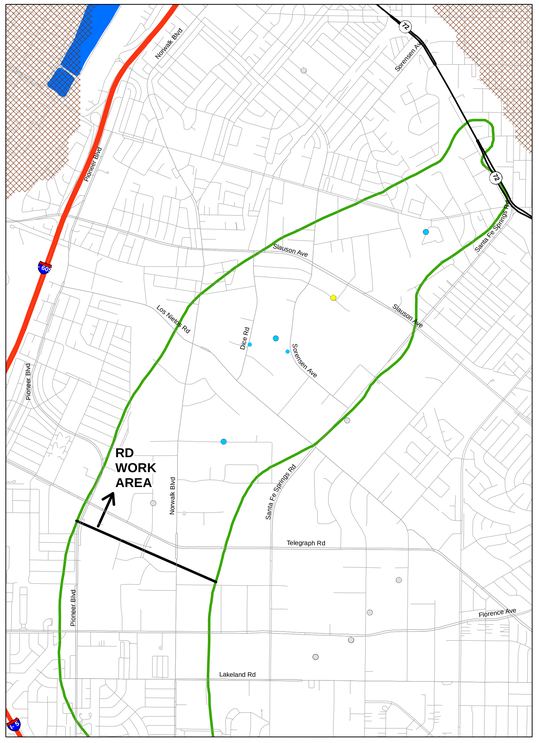
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



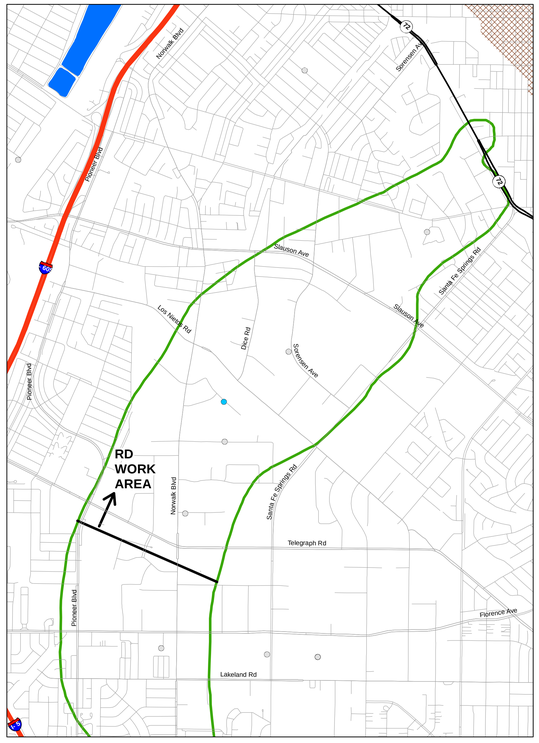
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



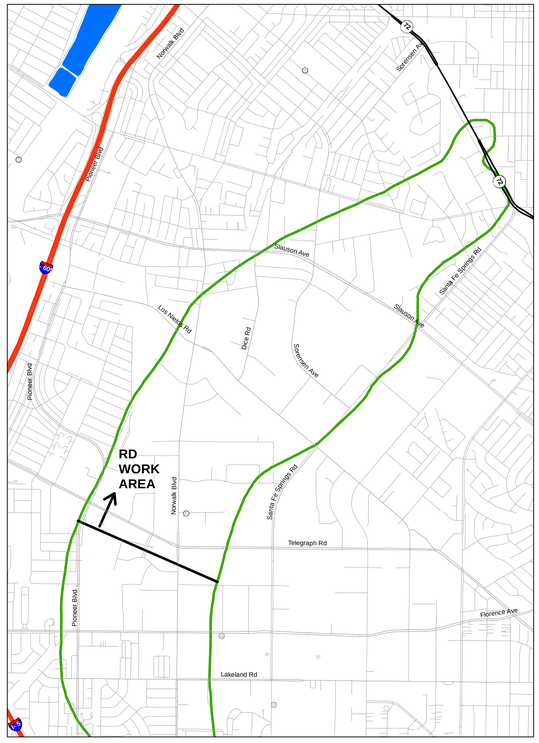
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 4 ug/l
- >4 to 8 ug/l
- >8 to 40 ug/l
- >40 to 80 ug/l
- >80 to 400 ug/l
- >400 to 800 ug/l
- >800 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations includes: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

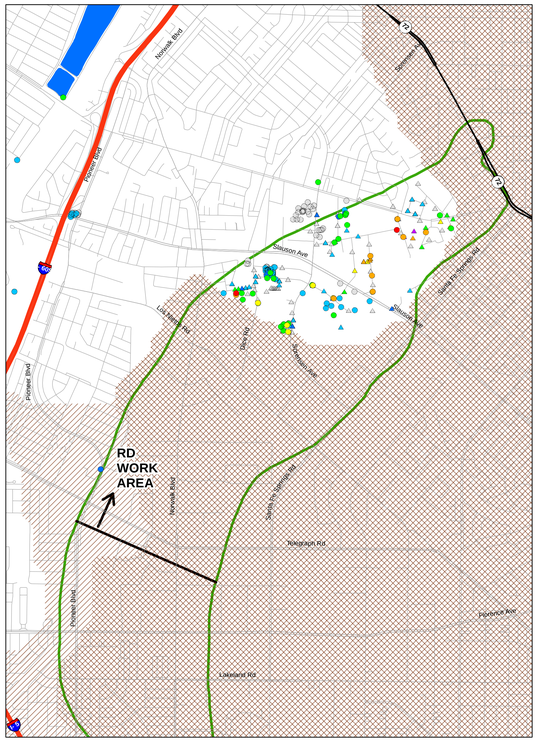
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 217_DO_Fig15a_BWA Chlfm B104 Ave DQO Date Exported: 9/3/2016

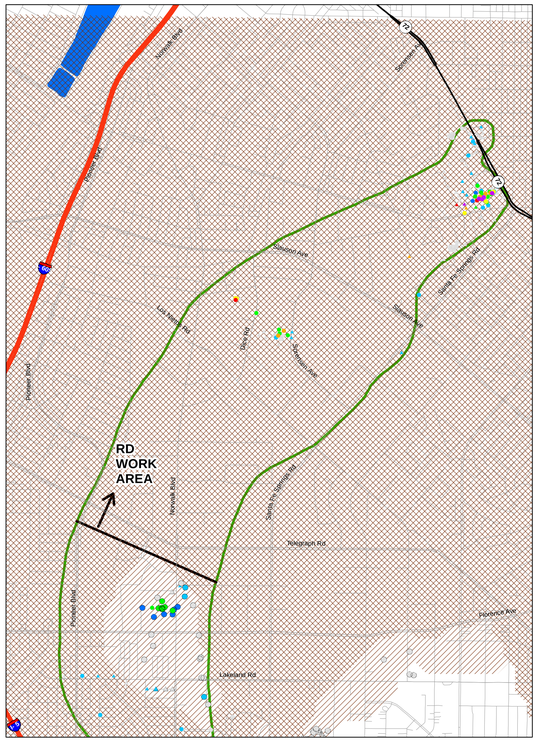
[redacted]

FIGURE A-15A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF CHLOROFORM IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

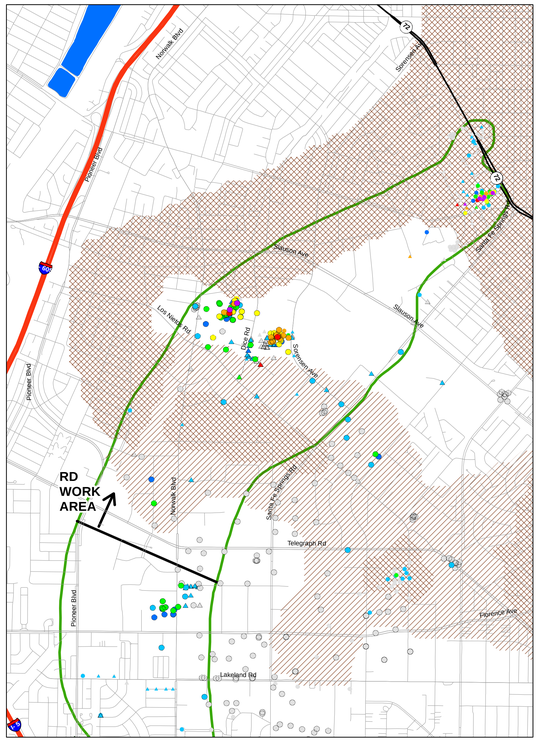
DRAFT



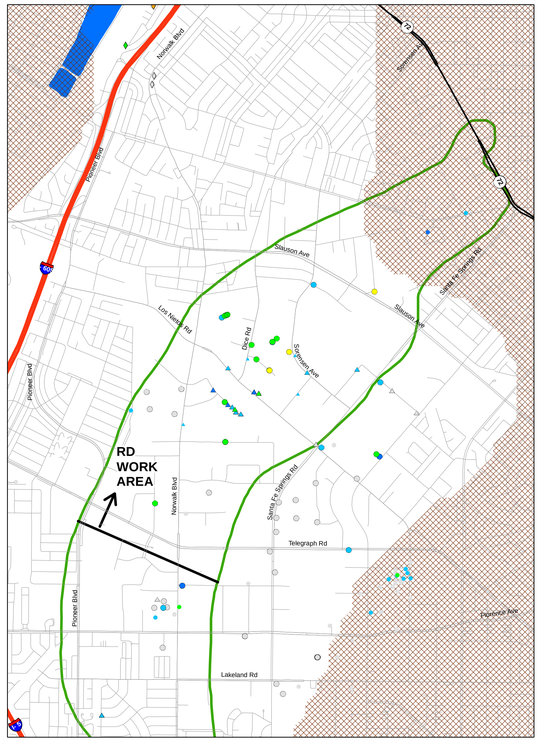
GASPUR AQUIFER



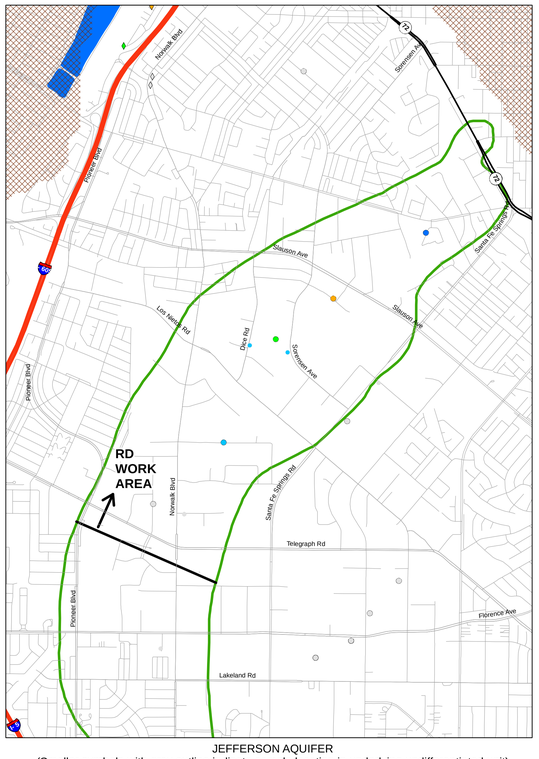
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



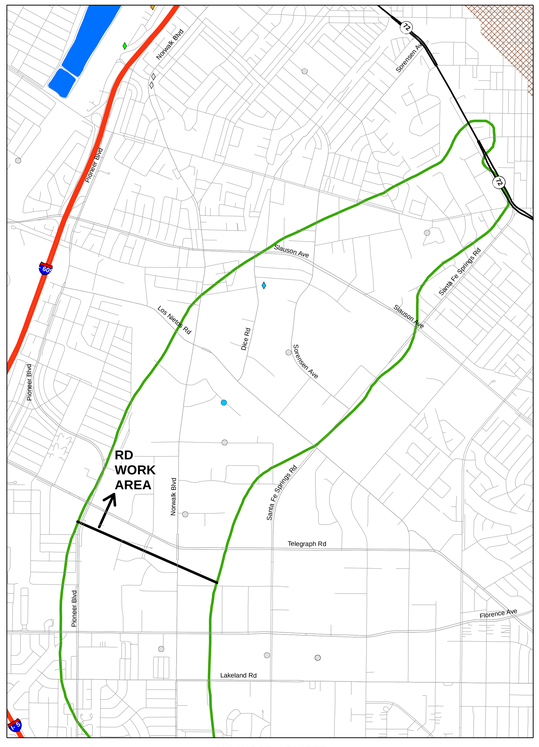
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



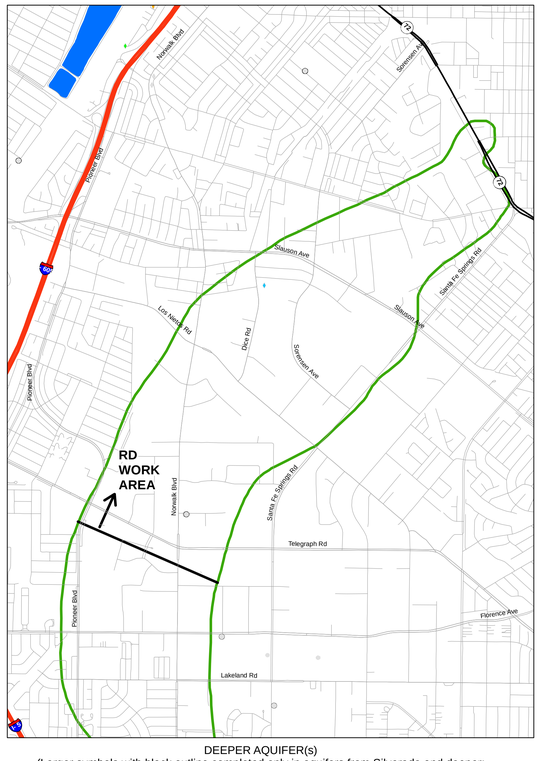
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 4 ug/l
- >4 to 8 ug/l
- >8 to 40 ug/l
- >40 to 80 ug/l
- >80 to 400 ug/l
- >400 to 800 ug/l
- >800 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

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Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_DQ_Fig15b_BDWA_Chlfm_B104_Mxs_DQO Date Exported: 9/3/2016

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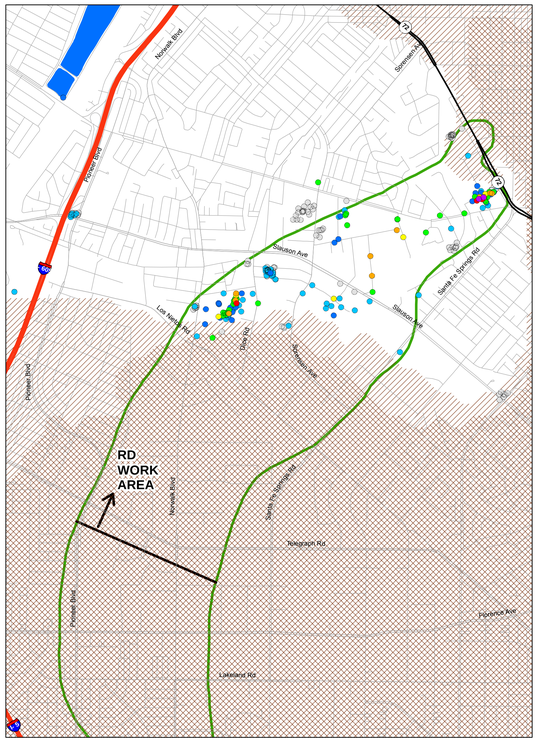
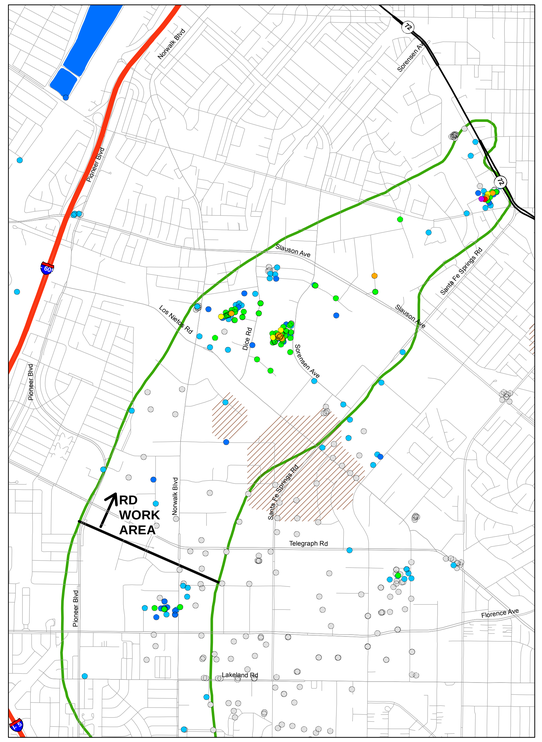
FIGURE A-15B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF CHLOROFORM IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

DRAFT



EPA STRATIGRAPHIC UNIT 2



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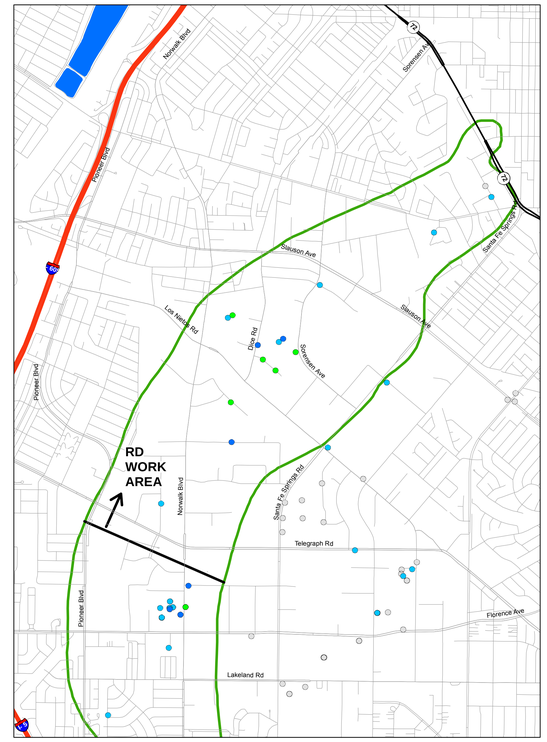

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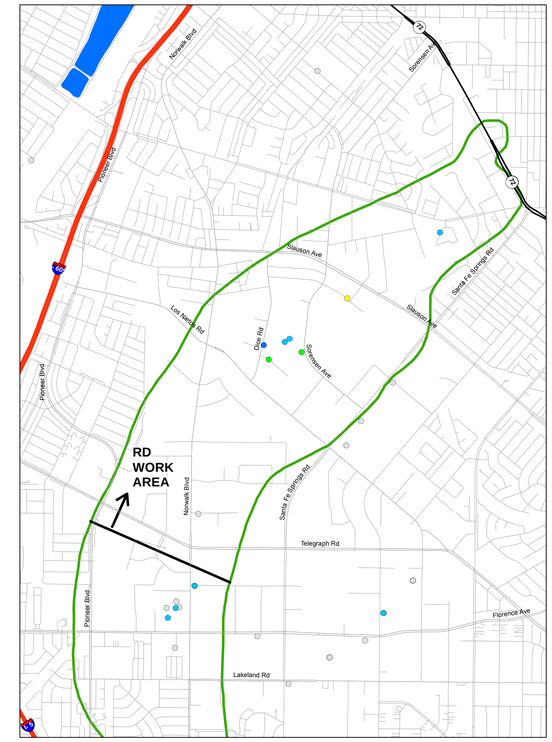

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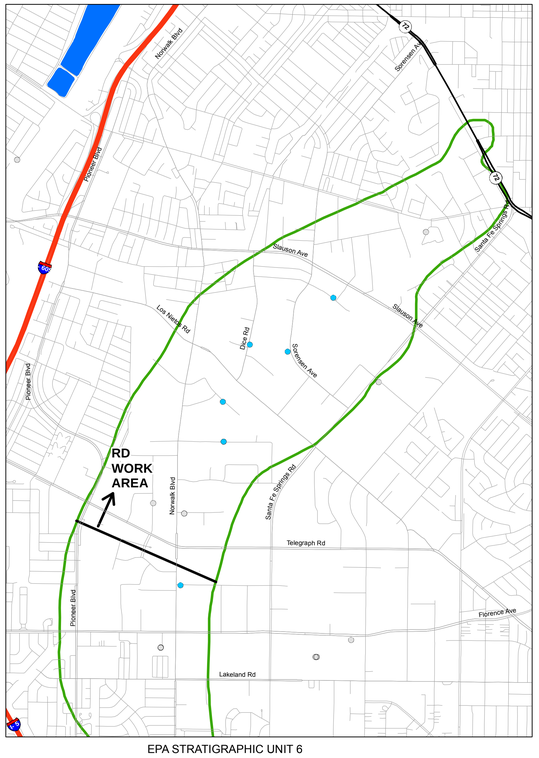
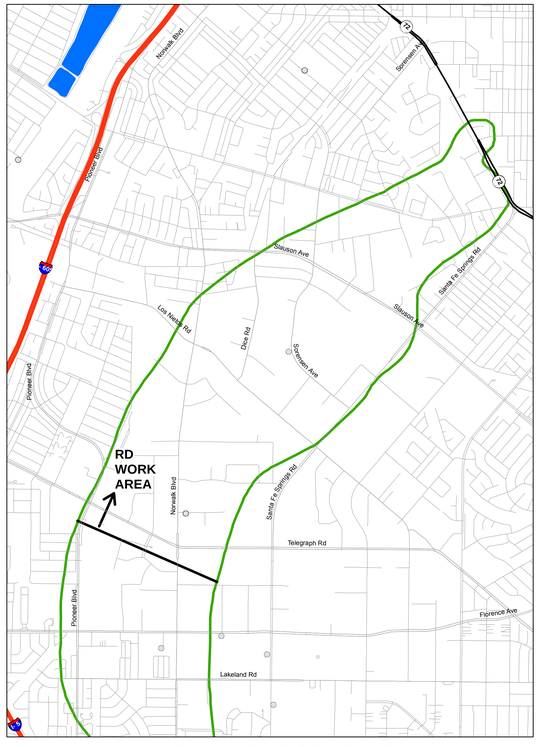


EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 4 ug/l
- >4 to 8 ug/l
- >8 to 40 ug/l
- >40 to 80 ug/l
- >80 to 400 ug/l
- >400 to 800 ug/l
- >800 ug/l

NOTES:

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The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

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ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations includes: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

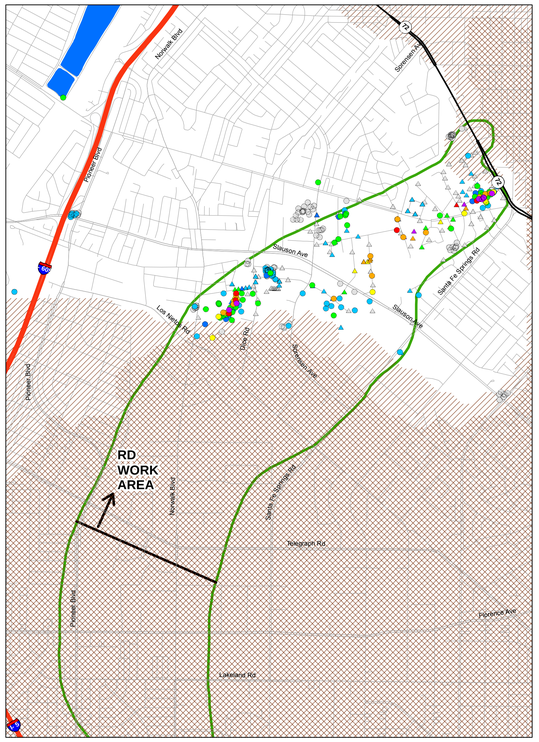
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 217_DD_FIG15c_60WA_Chlfm_SB_Ave_DDD Date Exported: 8/1/2016

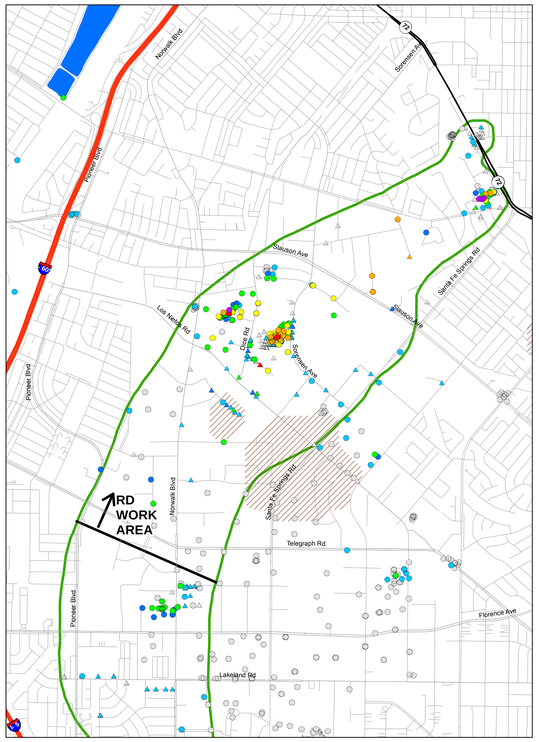
HARGIS + ASSOCIATES, INC
Hydrogeology/Engineering

FIGURE A-15C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF CHLOROFORM IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

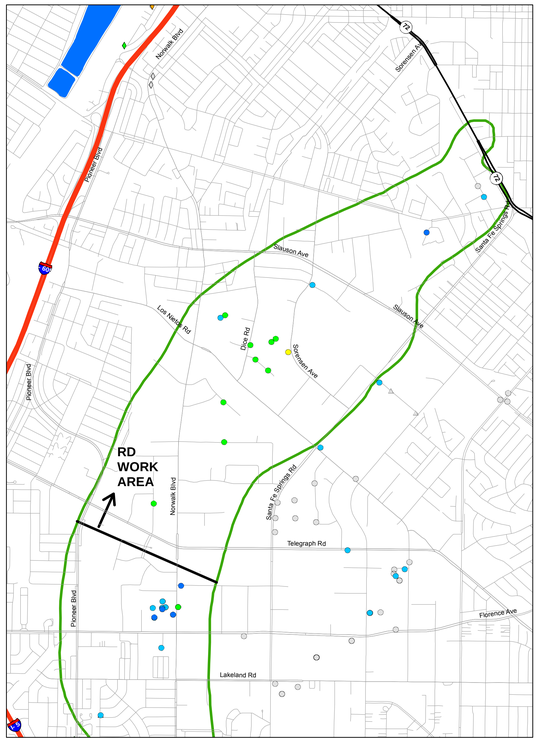
DRAFT



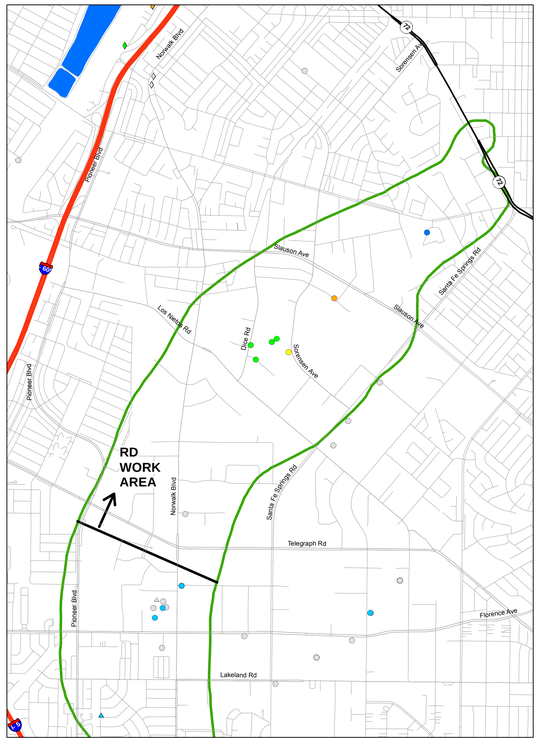
EPA STRATIGRAPHIC UNIT 2



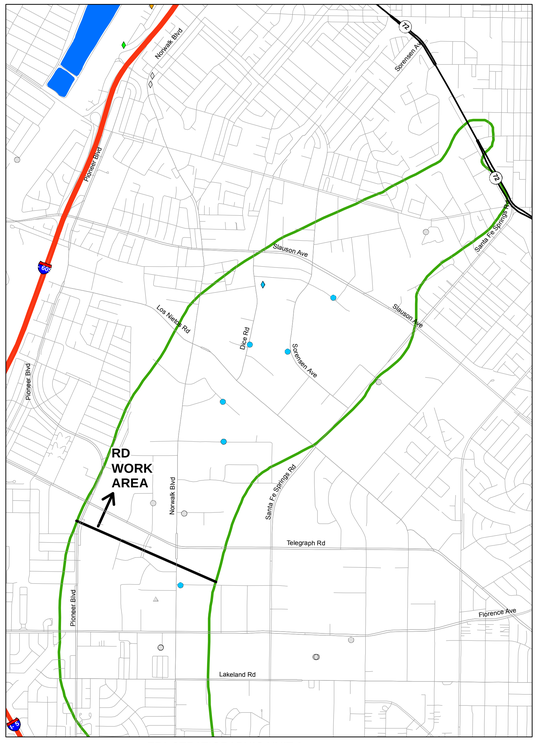
EPA STRATIGRAPHIC UNIT 3



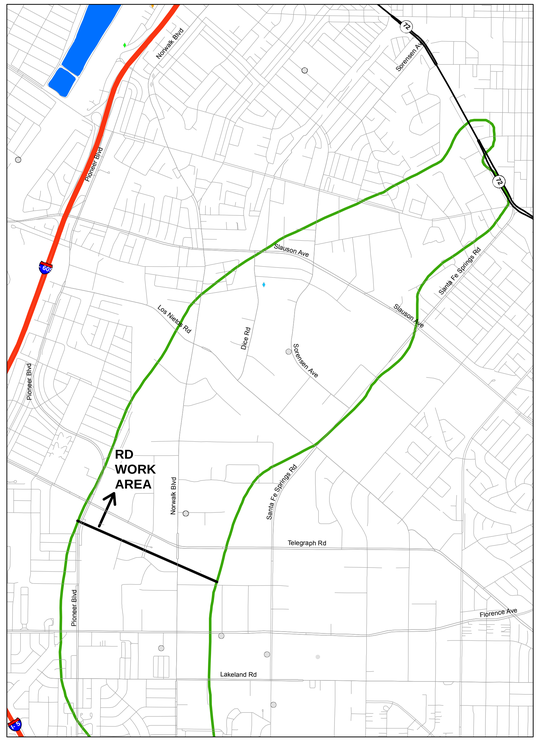
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 4 ug/l
- >4 to 8 ug/l
- >8 to 40 ug/l
- >40 to 80 ug/l
- >80 to 400 ug/l
- >400 to 800 ug/l
- >800 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_Fig4-15D_RDWA_Chlfm_SB_Max_D00 Date Exported: 9/1/2016

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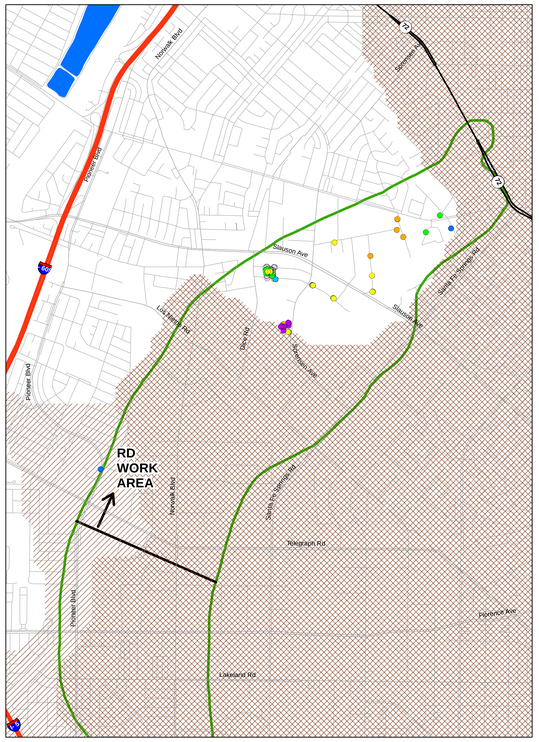
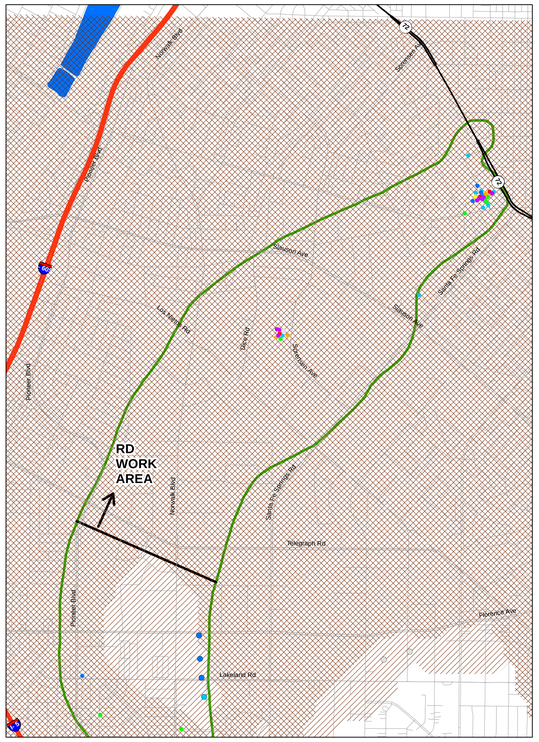
Hydrogeology/Engineering

FIGURE A-15D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF CHLOROFORM IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

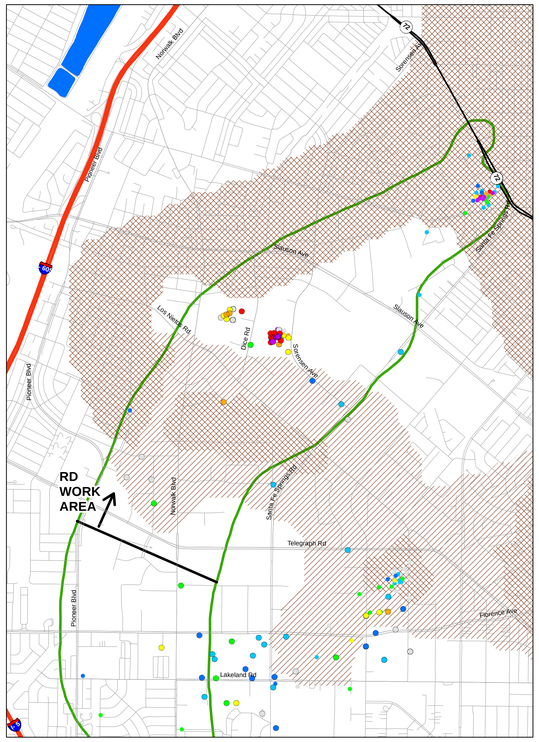
DRAFT



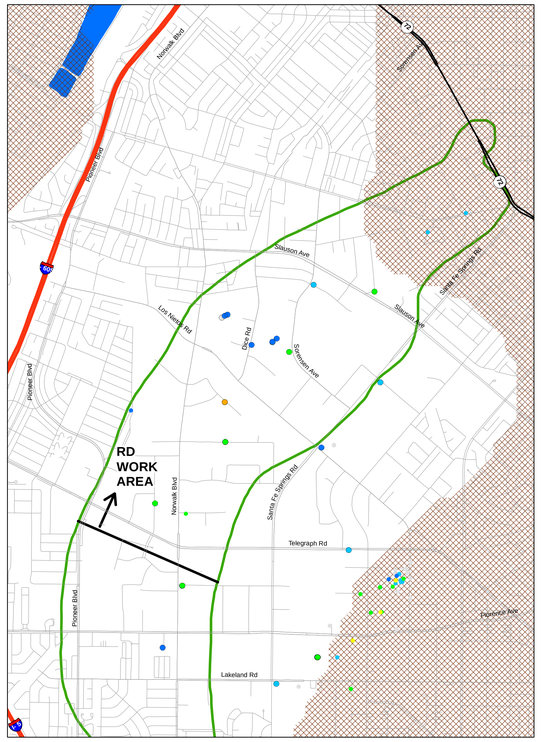
GASPUR AQUIFER



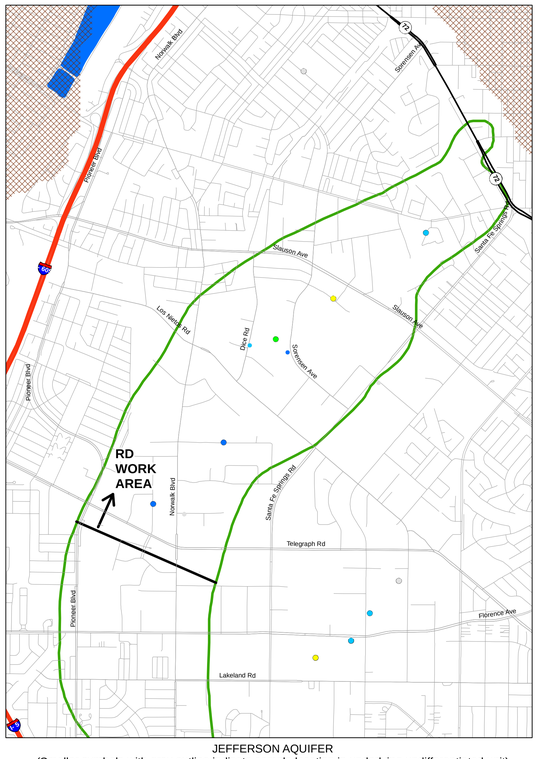
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



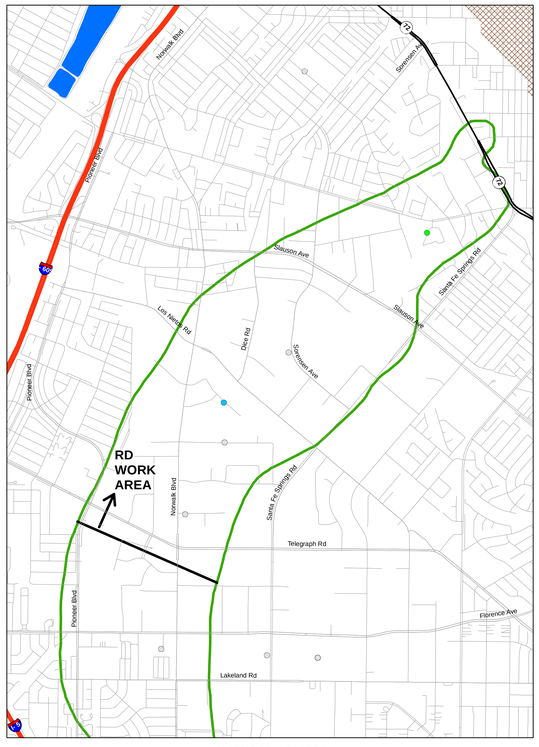
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



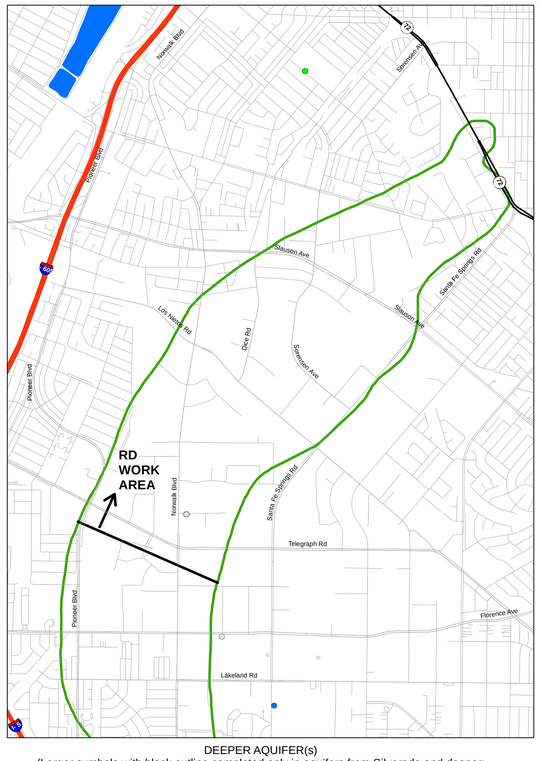
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 1 ug/l
- >1 to 3 ug/l
- >3 to 10 ug/l
- >10 to 30 ug/l
- >30 to 100 ug/l
- >100 to 300 ug/l
- >300 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

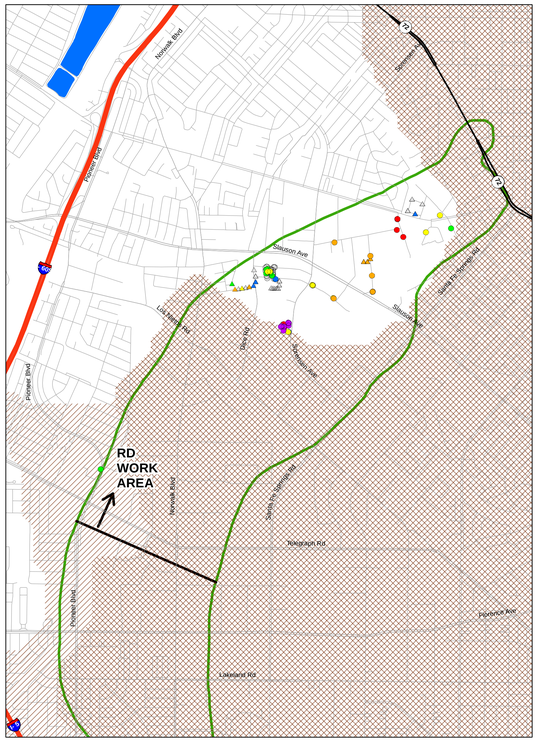
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_DO_EnMa_60WA_MD_B104_Are_DOD Date Exported: 9/1/2016

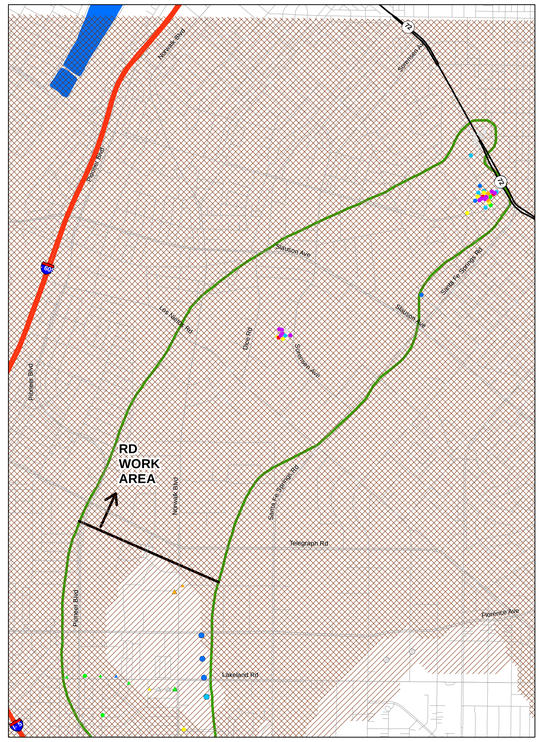
HARGIS + ASSOCIATES, INC
Hydrogeology/Engineering

FIGURE A-16A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF 1,4-DIOXANE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

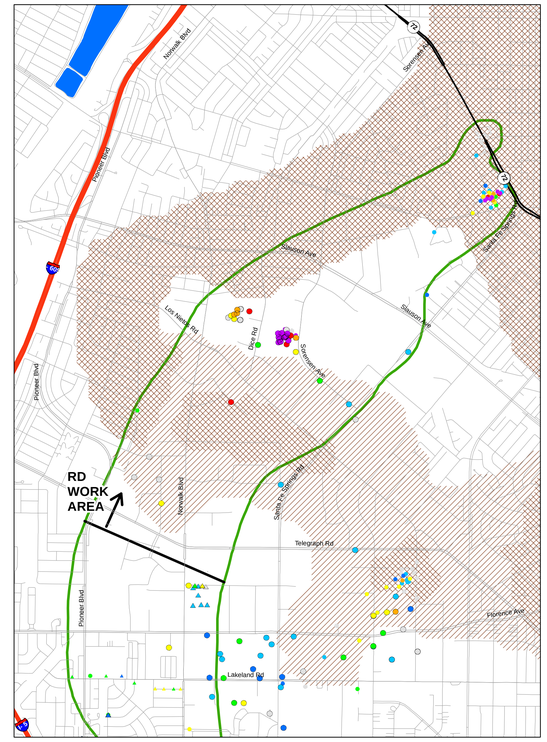
DRAFT



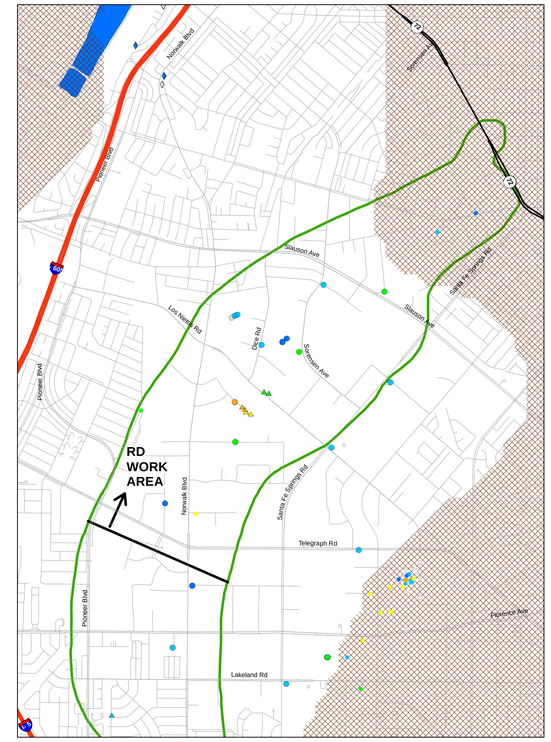
GASPUR AQUIFER



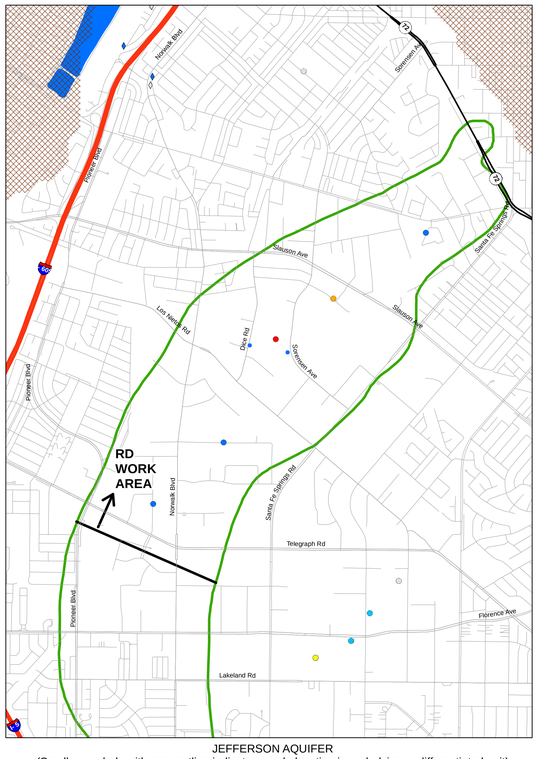
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



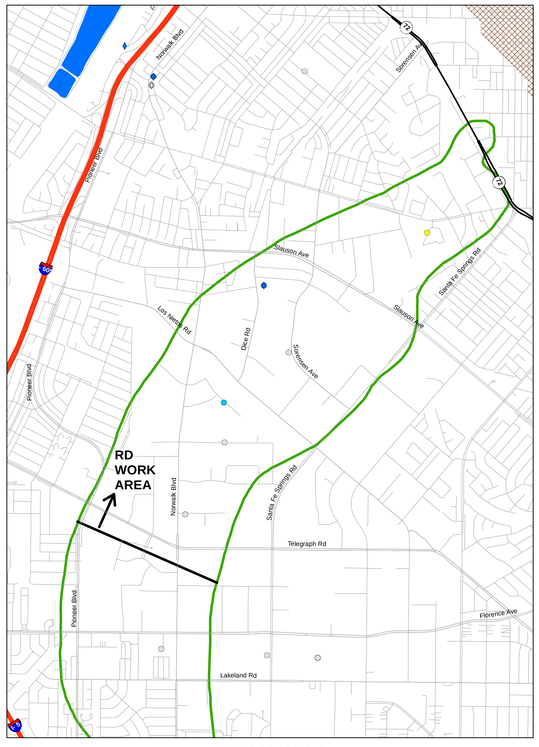
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



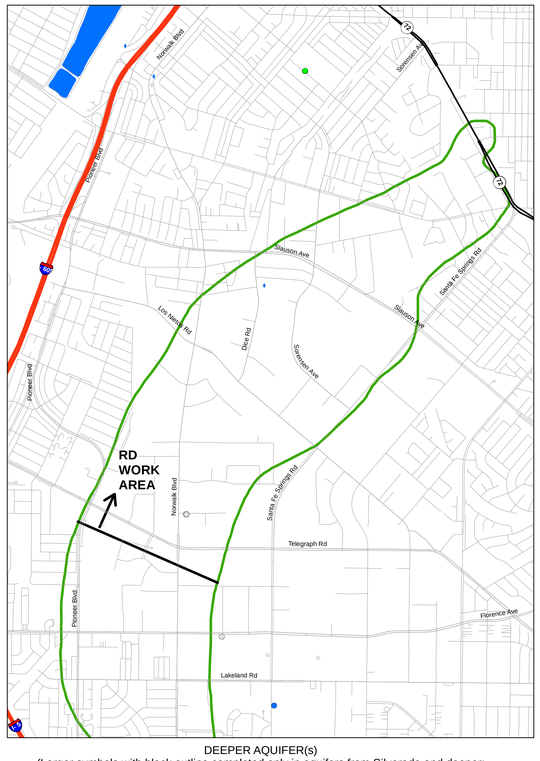
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 1 ug/l
- >1 to 3 ug/l
- >3 to 10 ug/l
- >10 to 30 ug/l
- >30 to 100 ug/l
- >100 to 300 ug/l
- >300 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

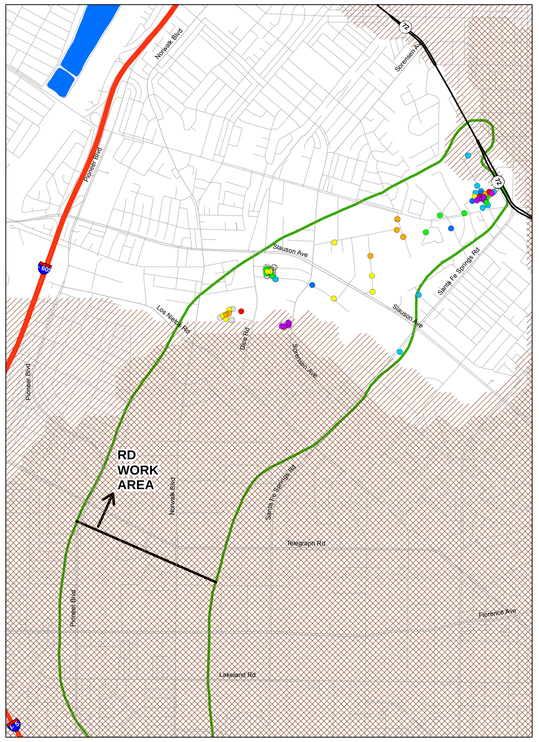
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_DO_EnAlts_RDWA_MD_B104_Map_D00 Date Exported: 9/1/2016

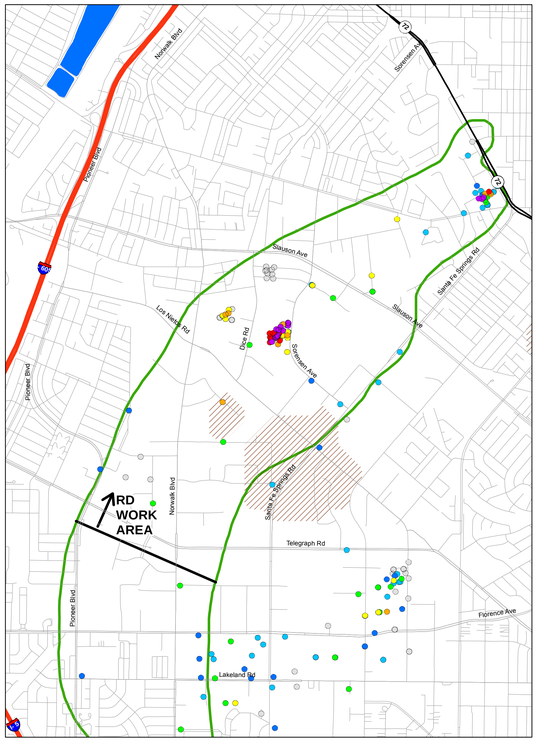
HARGIS + ASSOCIATES, INC
Hydrogeology/Engineering

FIGURE A-16B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF 1,4-DIOXANE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

DRAFT



EPA STRATIGRAPHIC UNIT 2



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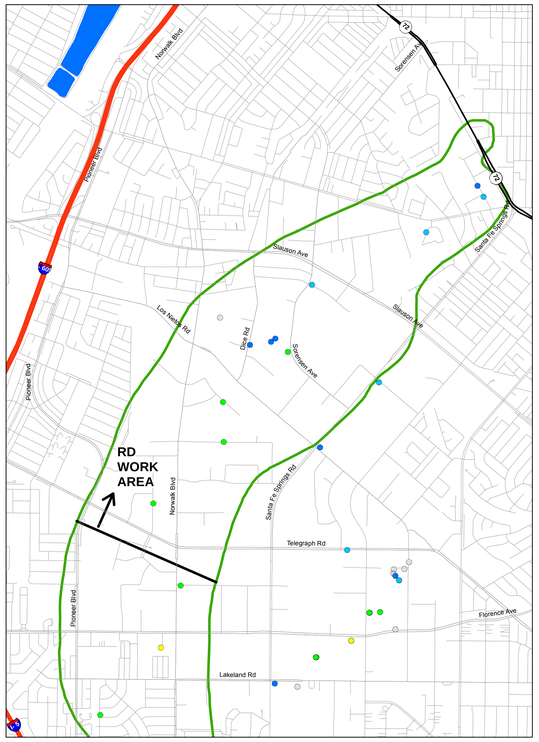

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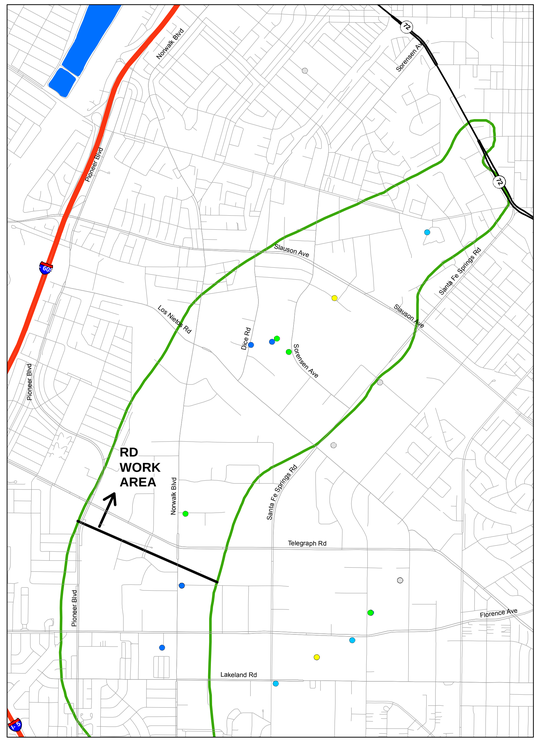

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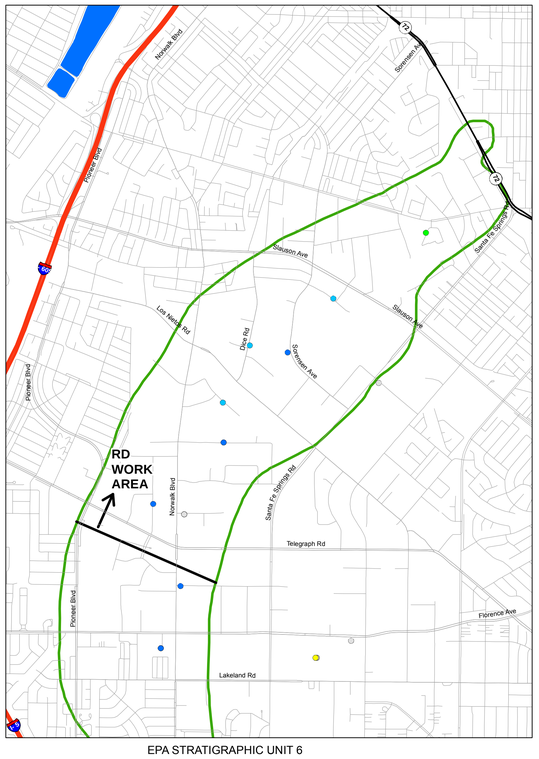
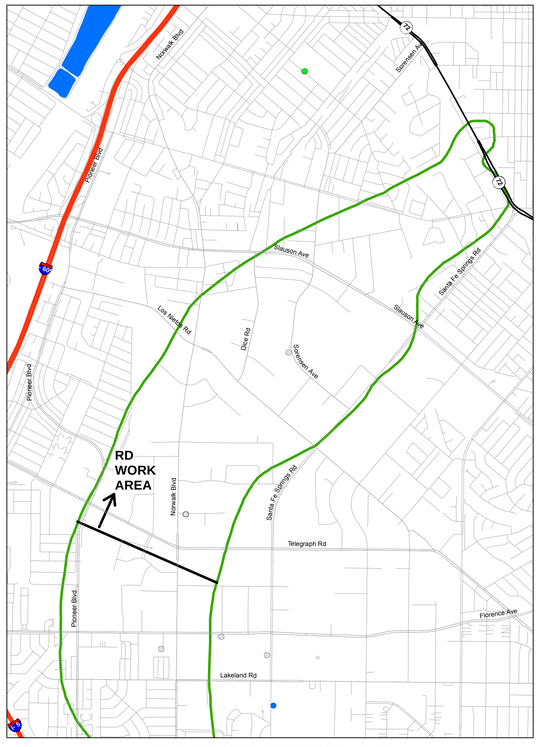


EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 1 ug/l
- >1 to 3 ug/l
- >3 to 10 ug/l
- >10 to 30 ug/l
- >30 to 100 ug/l
- >100 to 300 ug/l
- >300 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

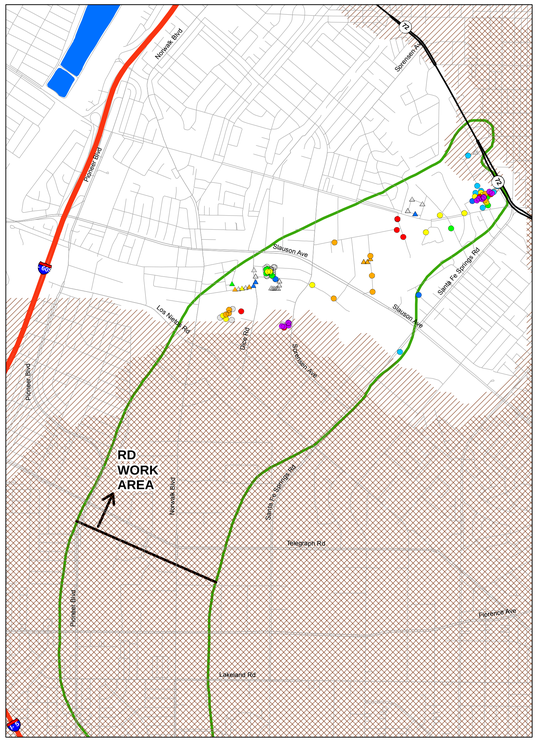
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 2317_DO_EvaMx_80VOA_14D_SB_Ave_D00 Date Exported: 8/1/2016

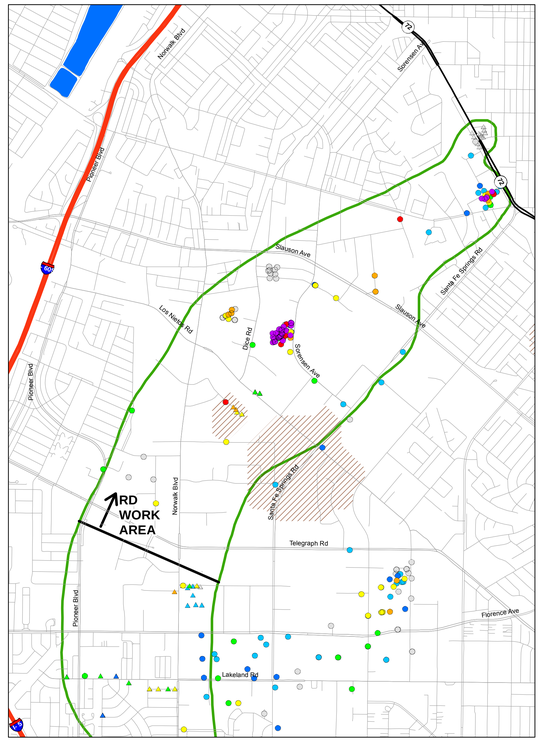
HARGIS + ASSOCIATES, INC
Hydrogeology/Engineering

FIGURE A-16C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF 1,4-DIOXANE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

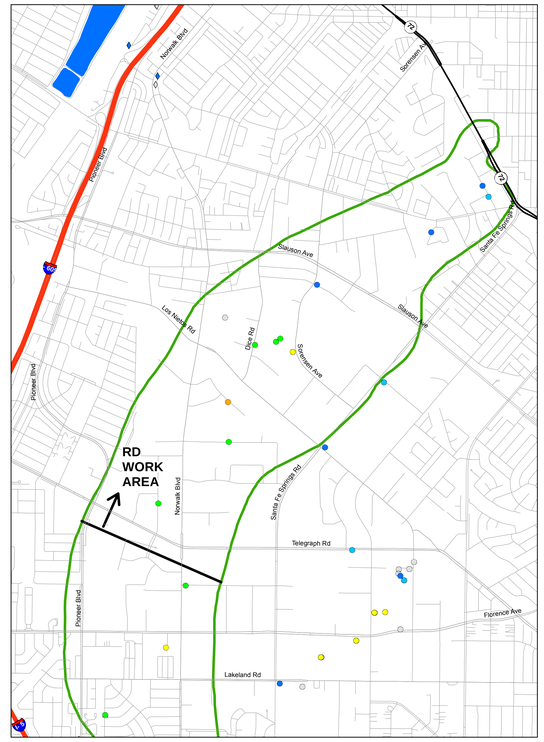
DRAFT



EPA STRATIGRAPHIC UNIT 2



EPA STRATIGRAPHIC UNIT 3



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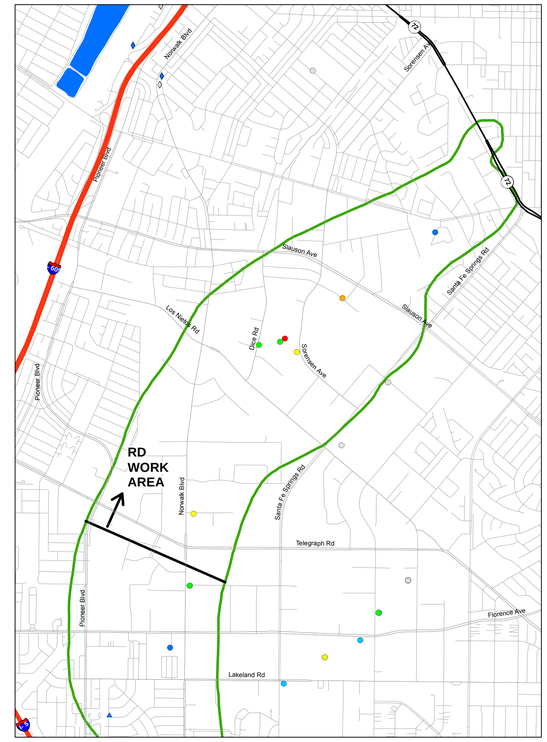

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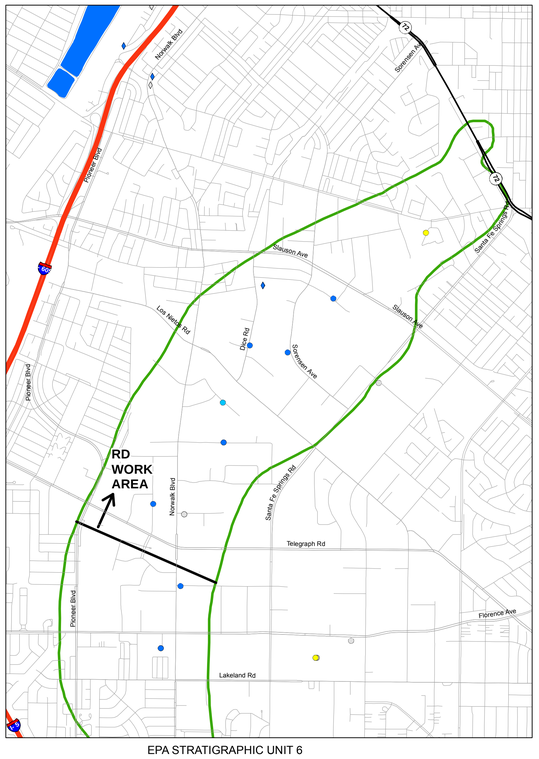
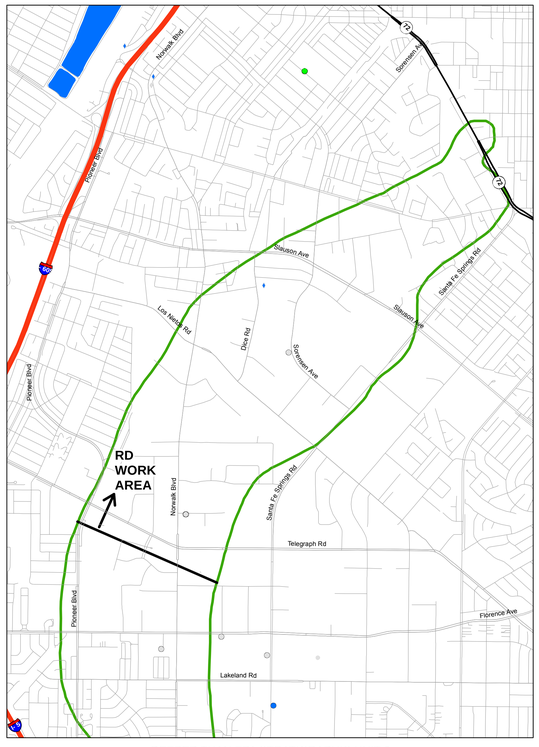


EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 1 ug/l
- >1 to 3 ug/l
- >3 to 10 ug/l
- >10 to 30 ug/l
- >30 to 100 ug/l
- >100 to 300 ug/l
- >300 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 2317_OU_EvA100_ROWA_MD_SB_Map_000 Date Exported: 9/1/2016

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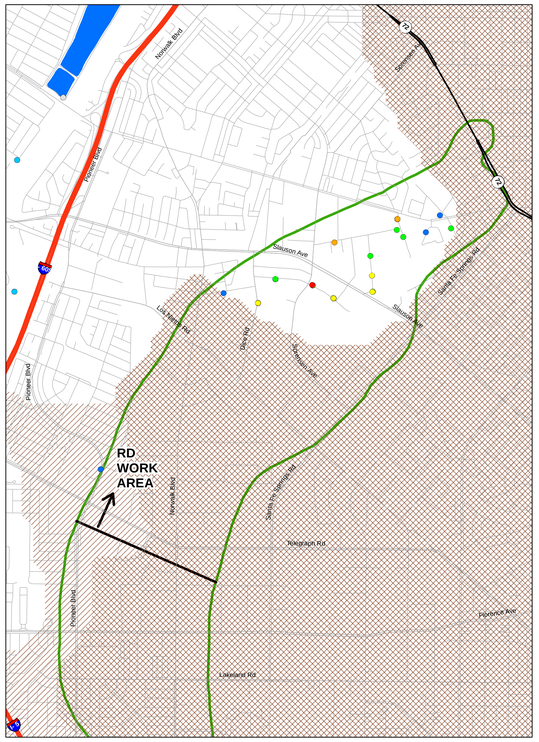
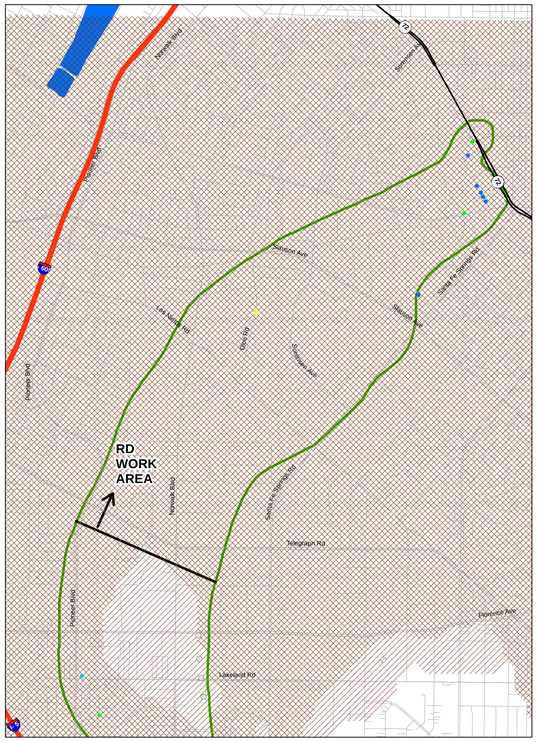
Hydrogeology/Engineering

FIGURE A-16D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF 1,4-DIOXANE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

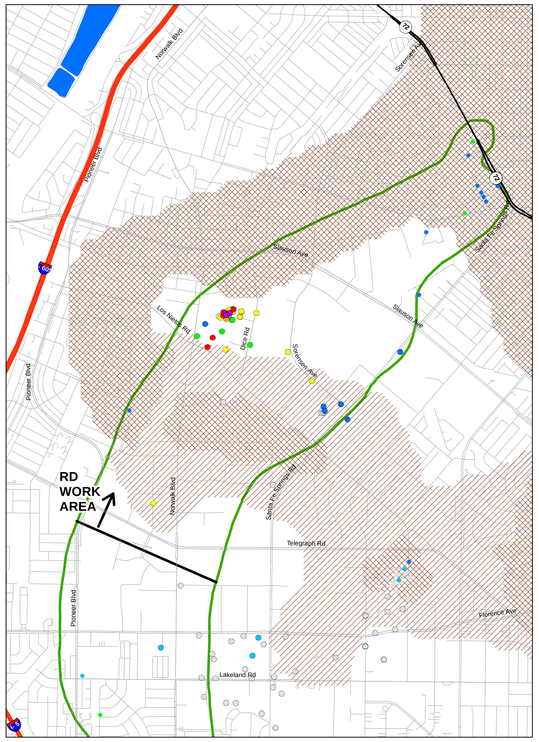
DRAFT



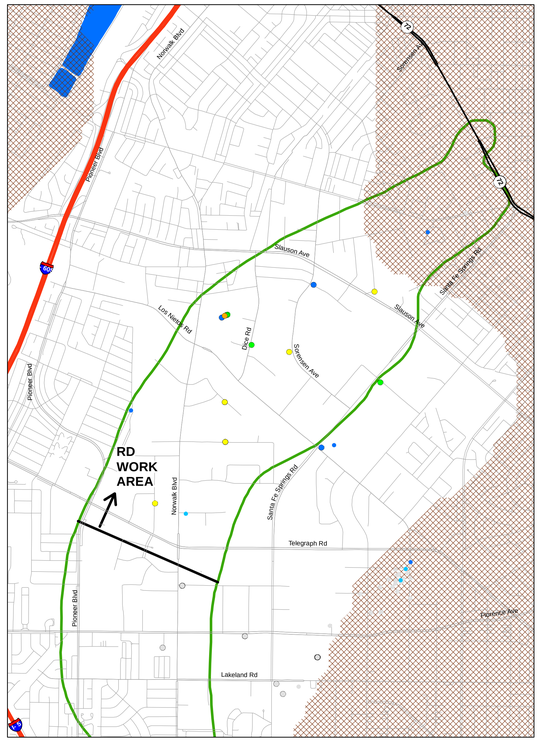
GASPUR AQUIFER



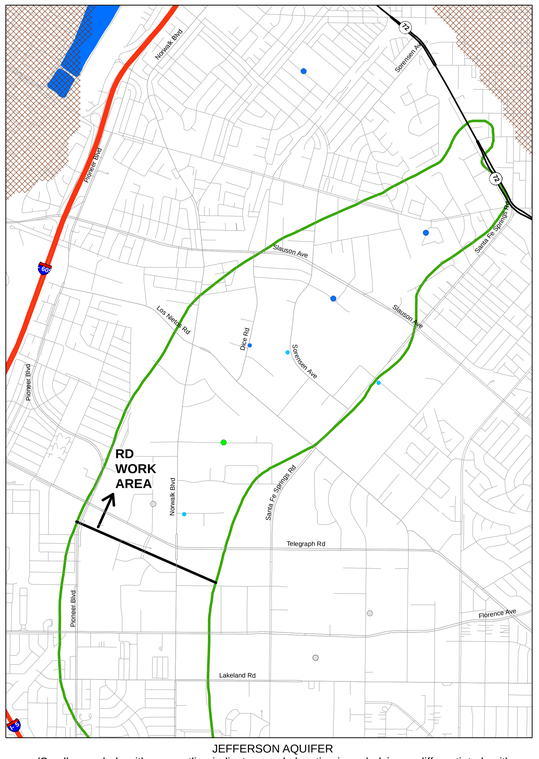
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



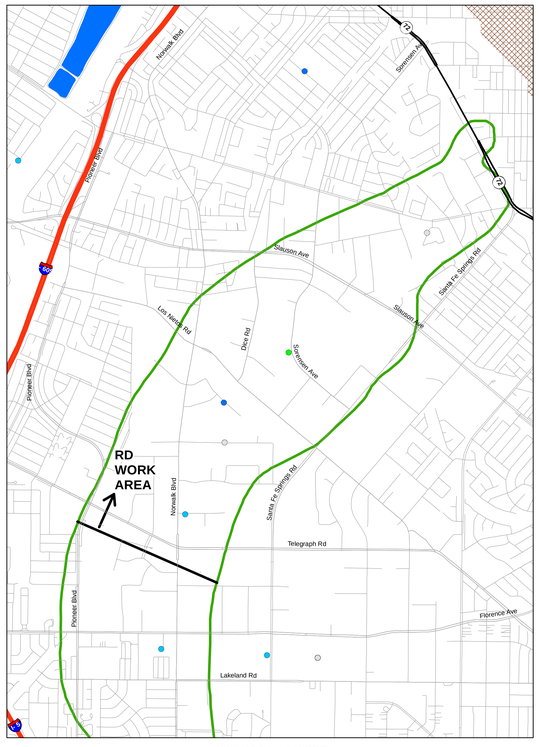
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



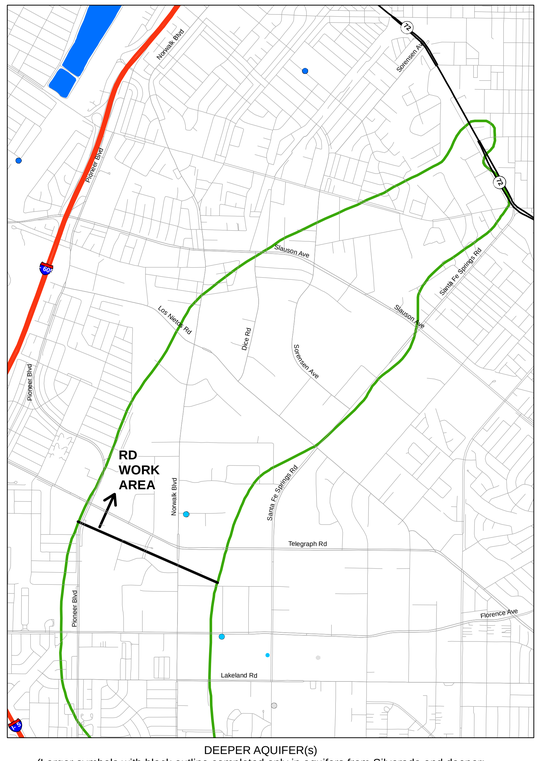
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 1 ug/l
- >1 to 5 ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

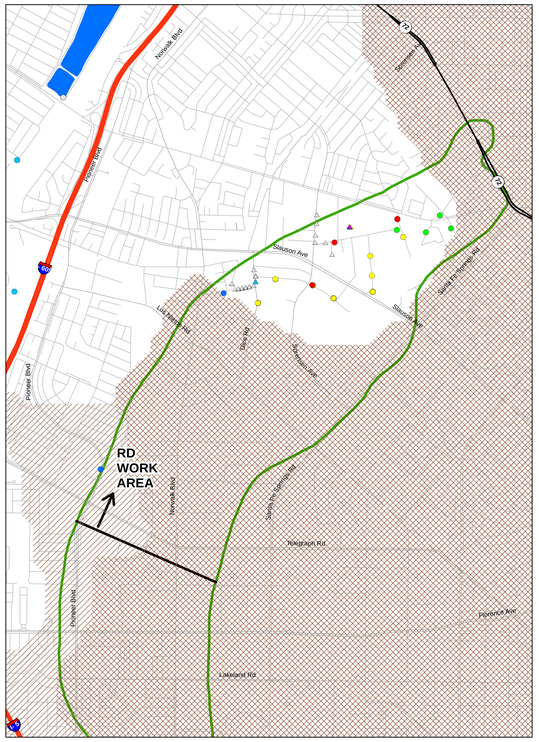
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_Fig-A17a_RDWA_CR6_B104_Ave_D00 Date Exported: 9/1/2016

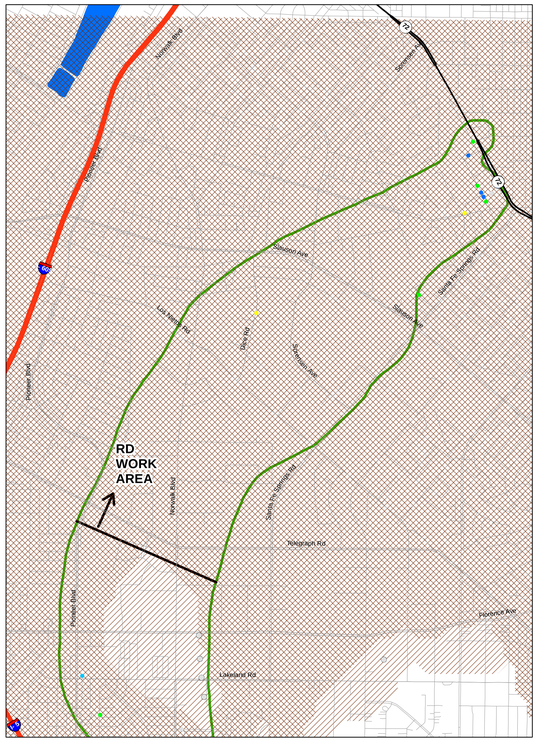
HARGIS + ASSOCIATES, INC
Hydrogeology/Engineering

FIGURE A-17A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF HEXAVALENT CHROMIUM IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

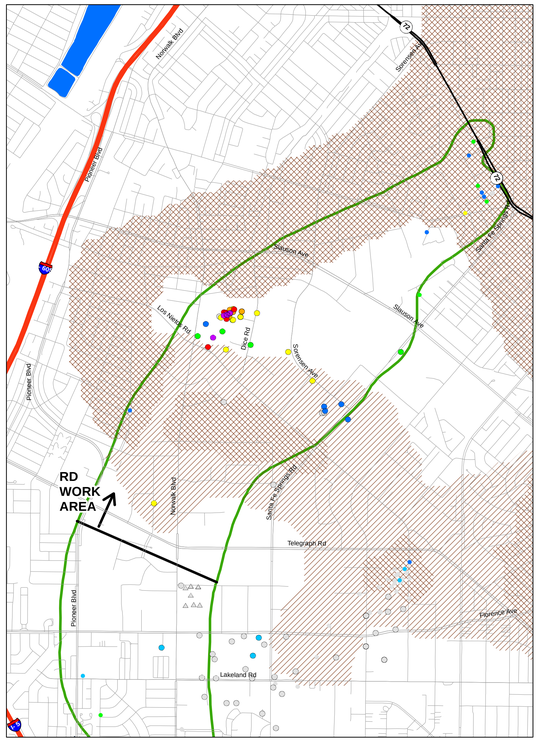
DRAFT



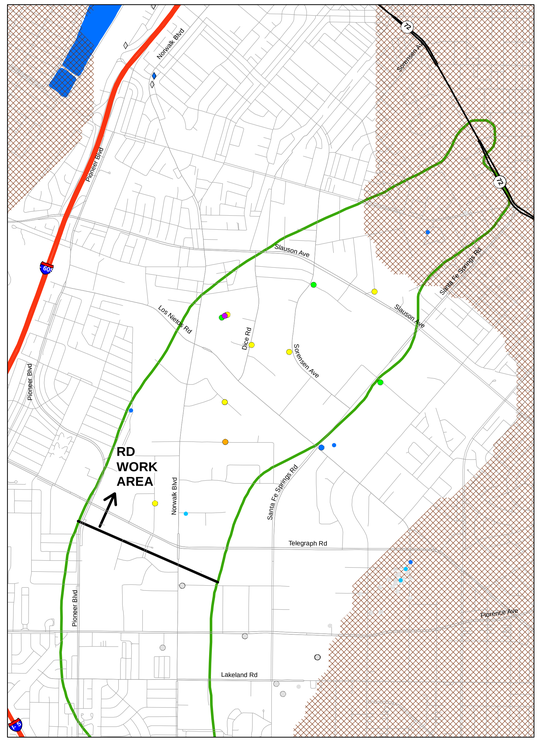
GASPUR AQUIFER



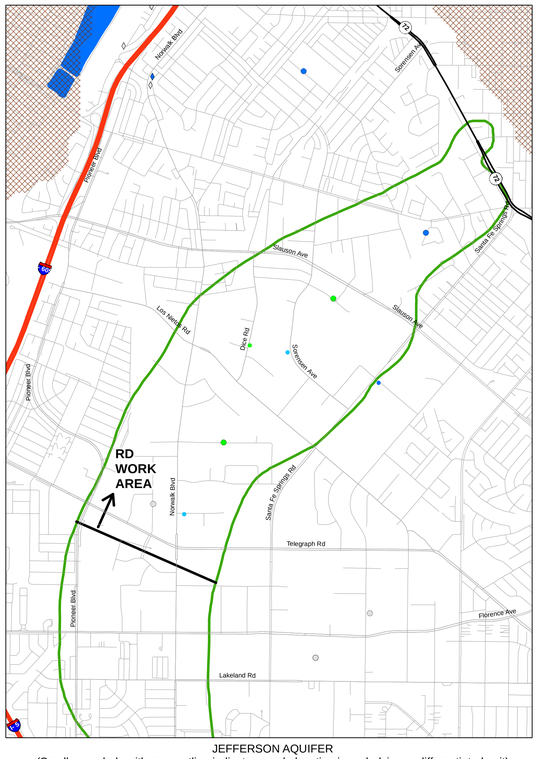
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



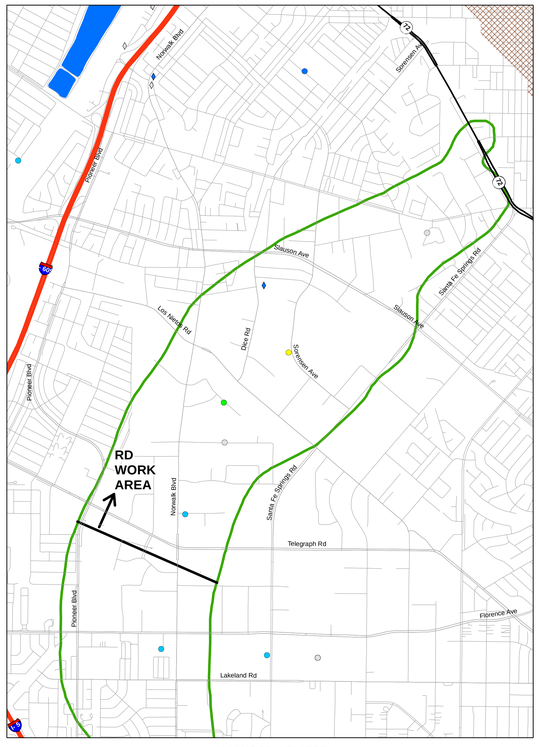
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



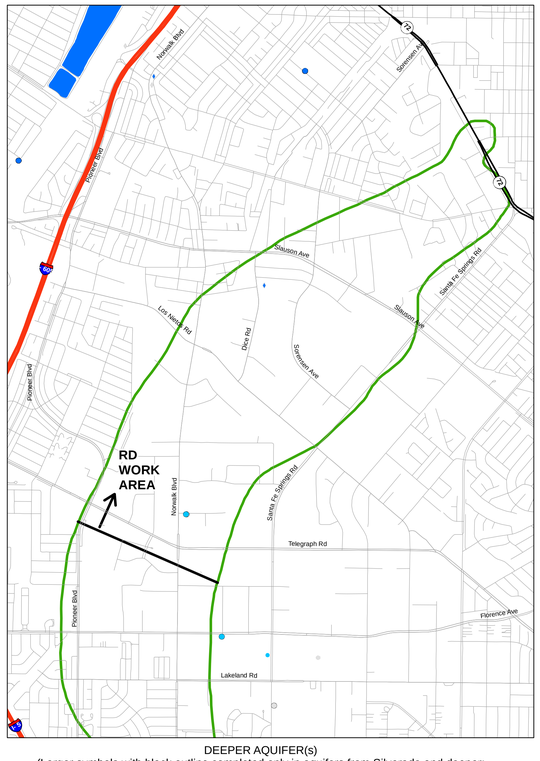
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 1 ug/l
- >1 to 5 ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_Fig-A17b_RDWA_CR6_B104_Mxx_DQ0 Date Exported: 9/1/2016

HARGIS + ASSOCIATES, INC.
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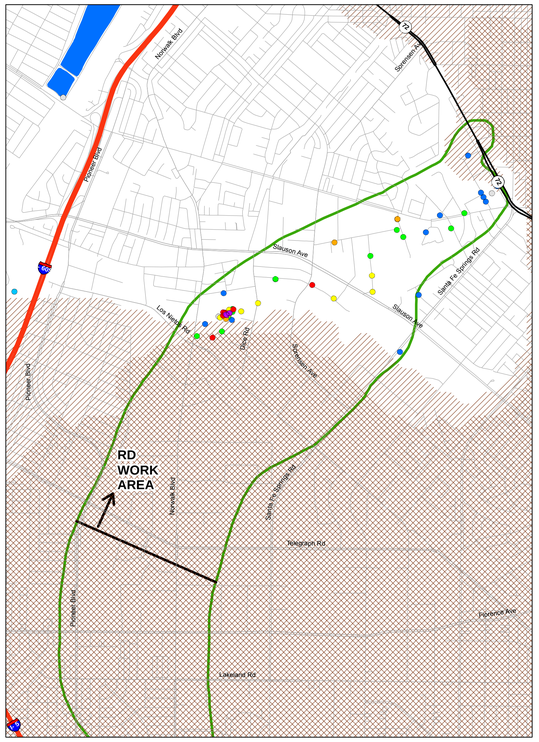
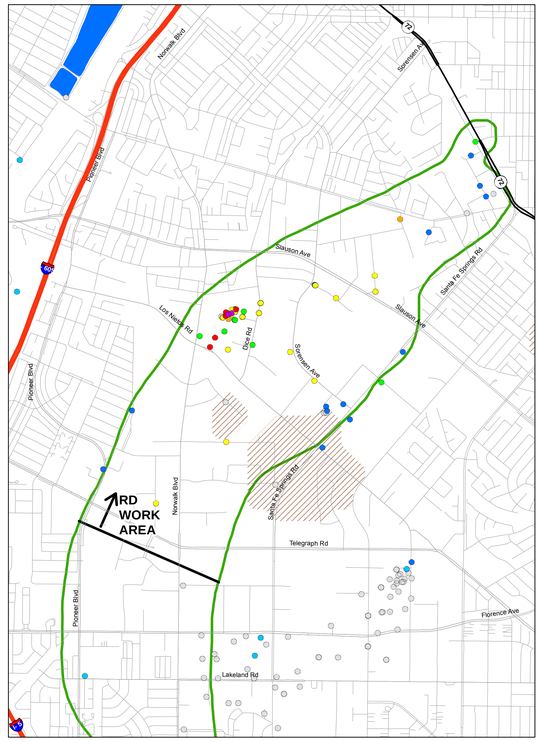
FIGURE A-17B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF HEXAVALENT CHROMIUM IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

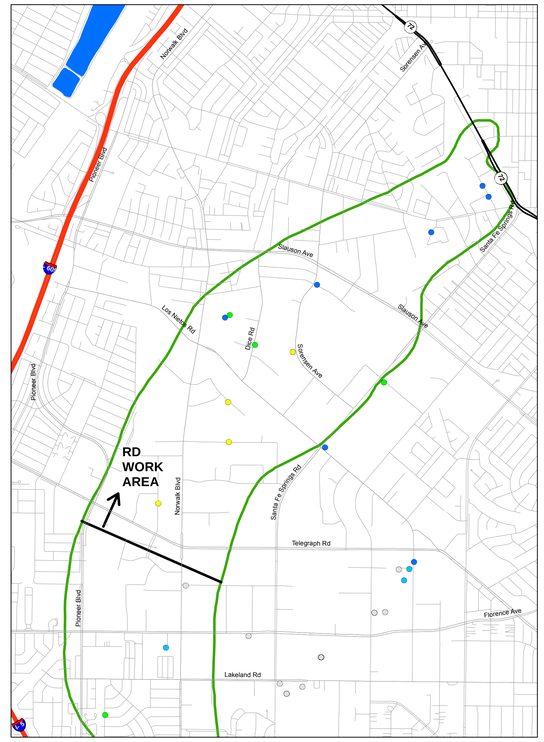
DRAFT



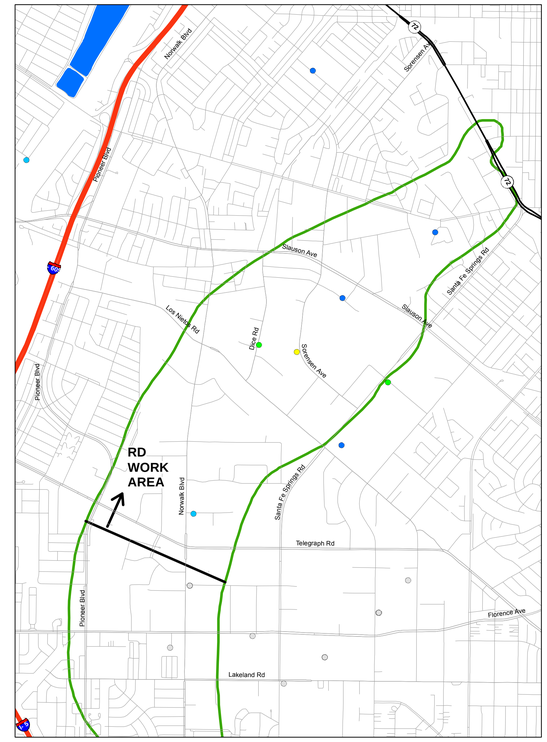
EPA STRATIGRAPHIC UNIT 2



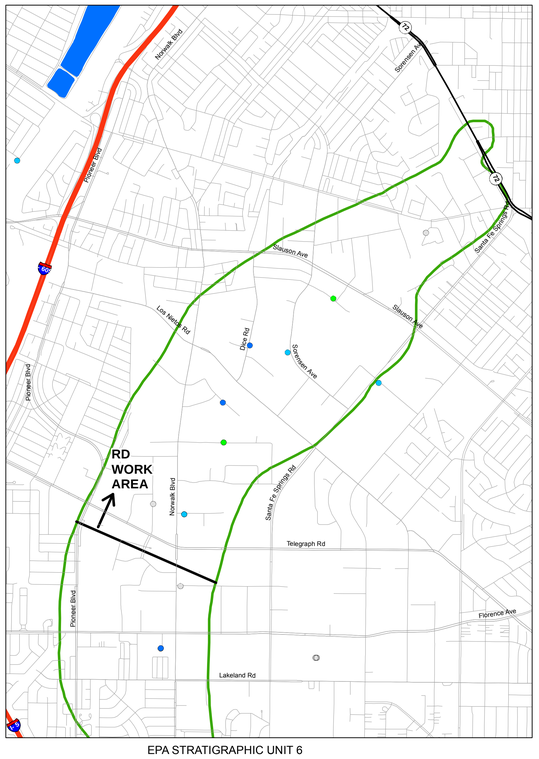
EPA STRATIGRAPHIC UNIT 3



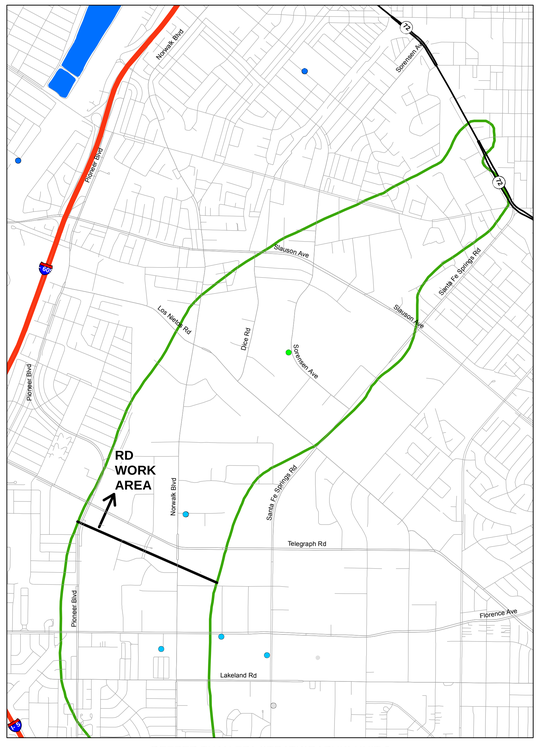
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 1 ug/l
- >1 to 5 ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 2317_DO_Fig17c_ROVA_CRS_SB_Ave_D00 Date Exported: 8/1/2016

HARGIS + ASSOCIATES, INC
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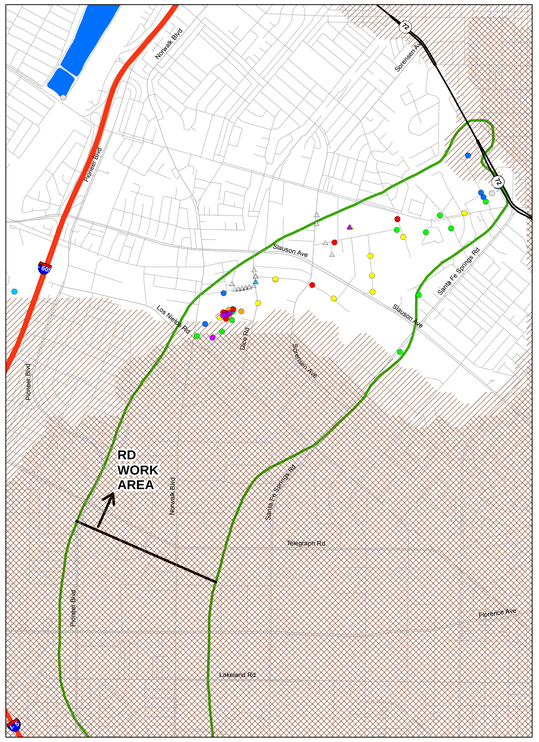
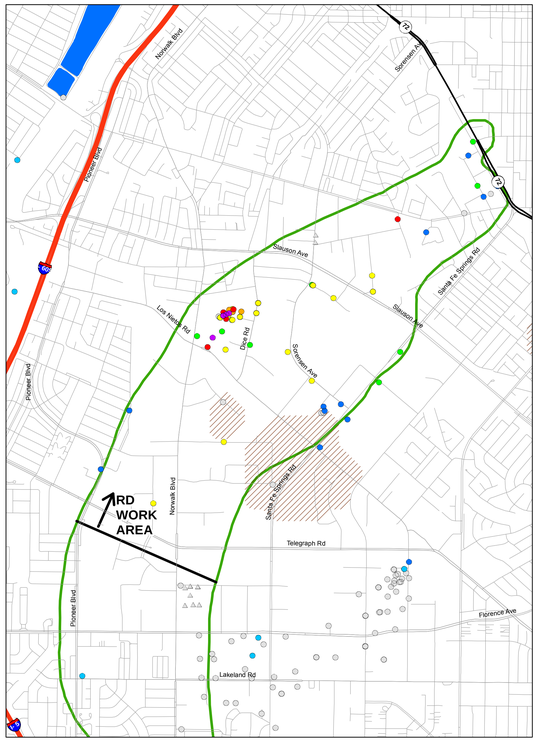
FIGURE A-17C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF HEXAVALENT CHROMIUM IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

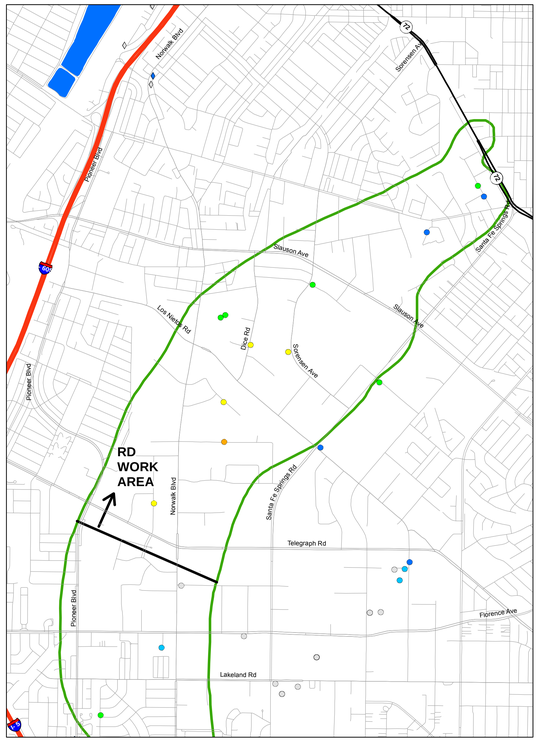
DRAFT



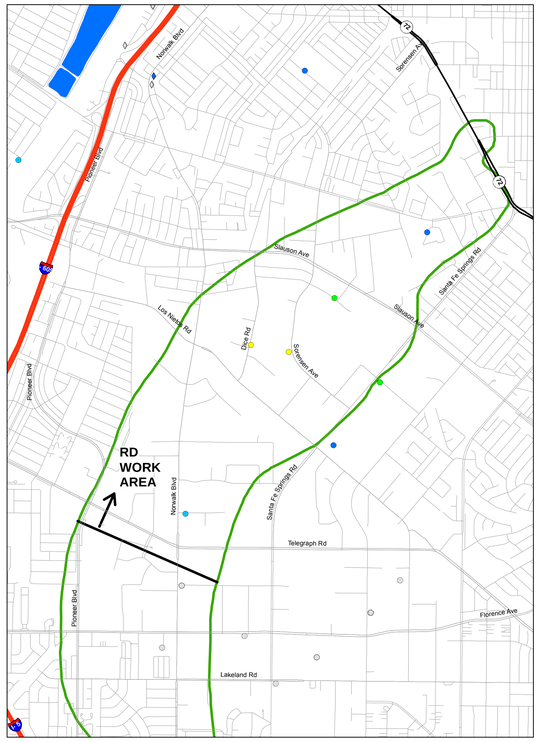
EPA STRATIGRAPHIC UNIT 2



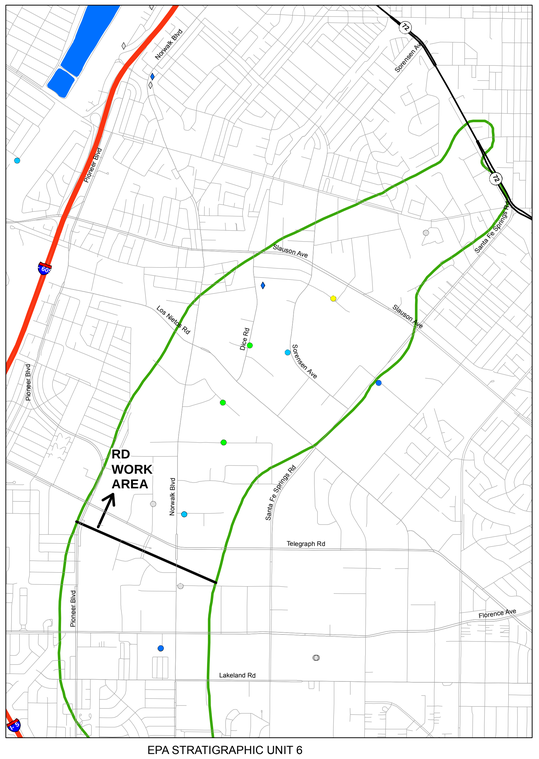
EPA STRATIGRAPHIC UNIT 3



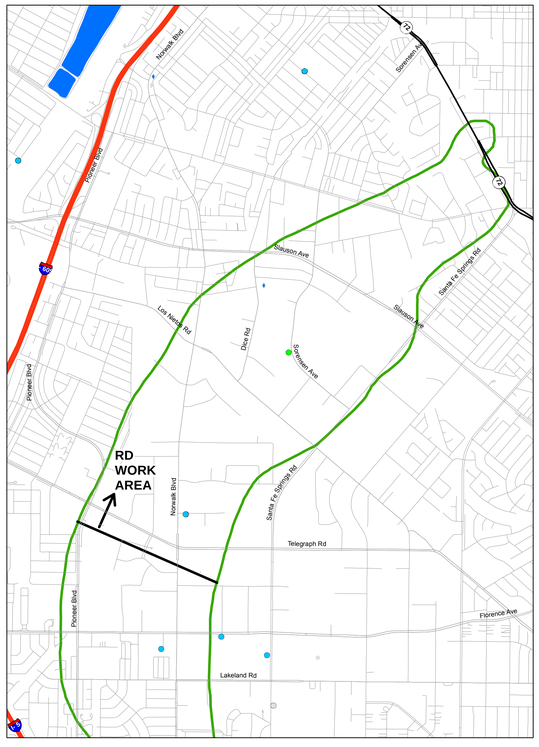
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 1 ug/l
- >1 to 5 ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_EpA17D_RDWA_CR6_SB_Max_D00 Date Exported: 9/1/2016

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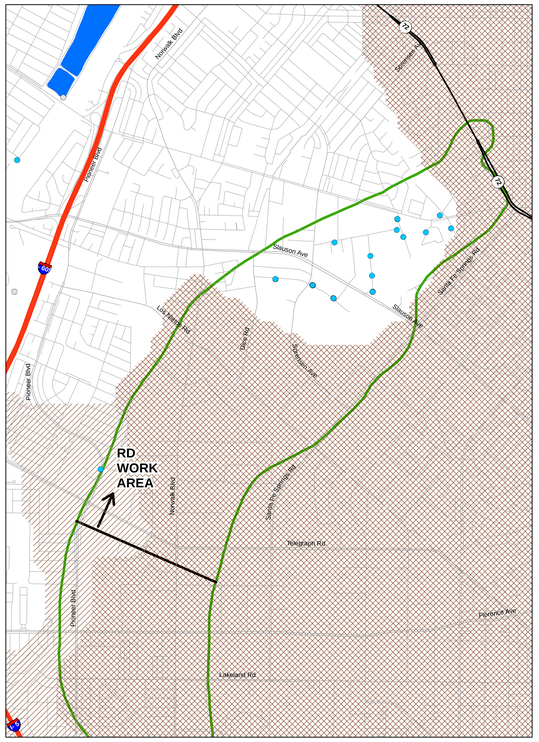
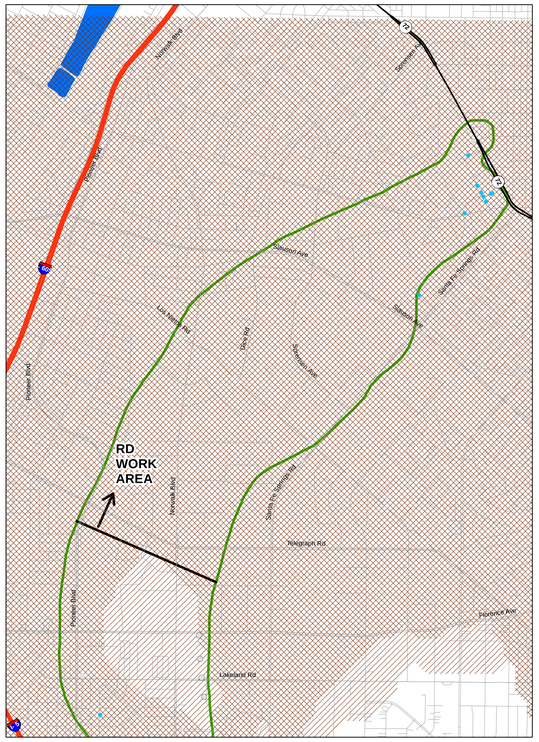
FIGURE A-17D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF HEXAVALENT CHROMIUM IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

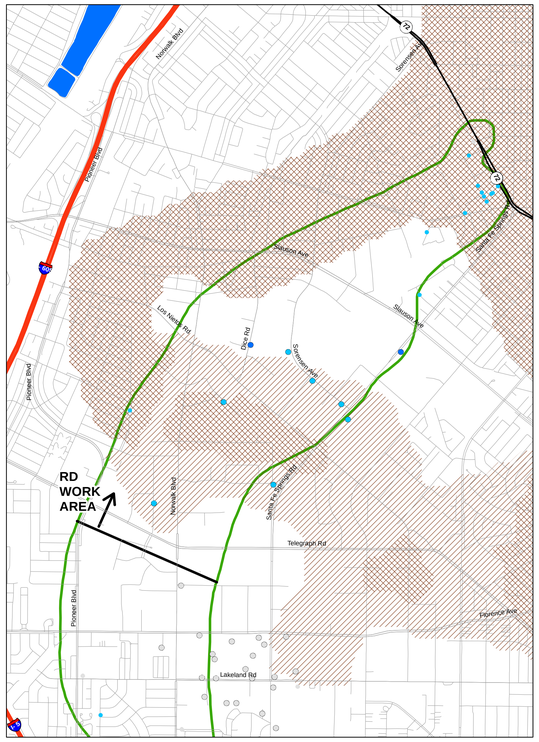
DRAFT



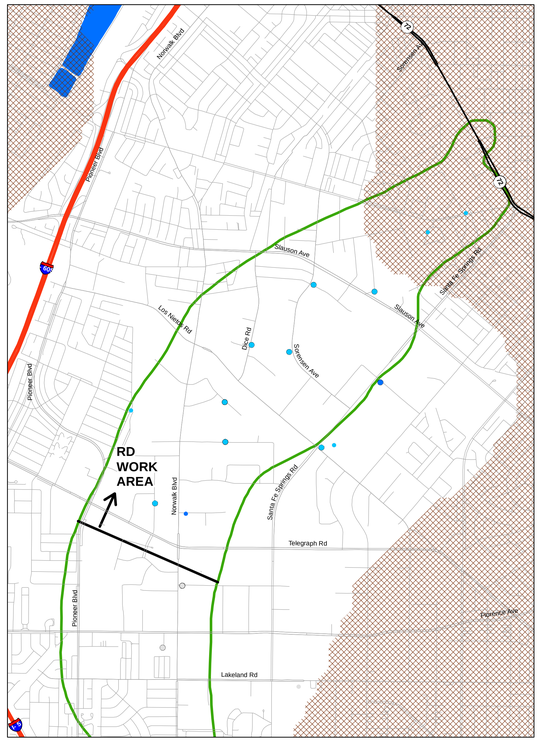
GASPUR AQUIFER



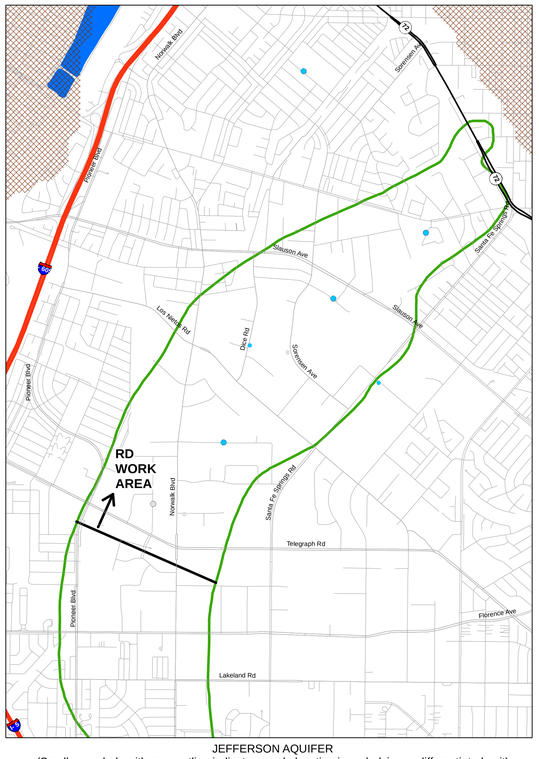
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



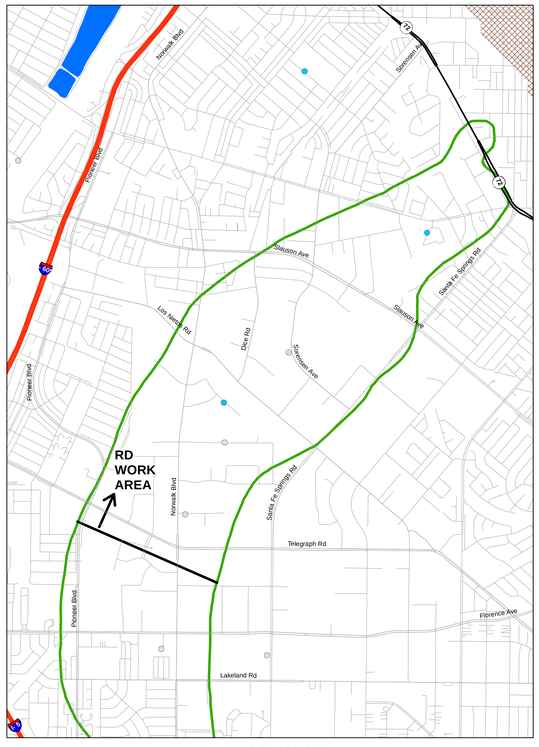
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



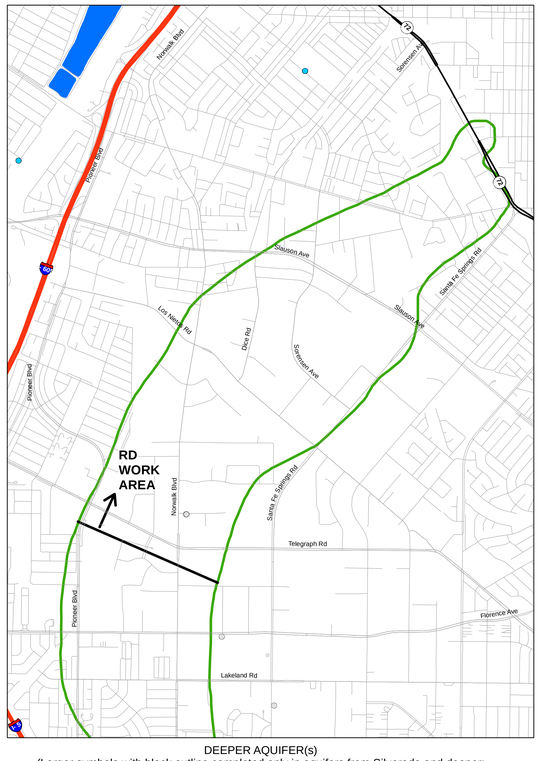
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 6 ug/l
- >6 to 12 ug/l
- >12 to 60 ug/l
- >60 to 120 ug/l
- >120 to 600 ug/l
- >600 to 1,200 ug/l
- >1,200 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

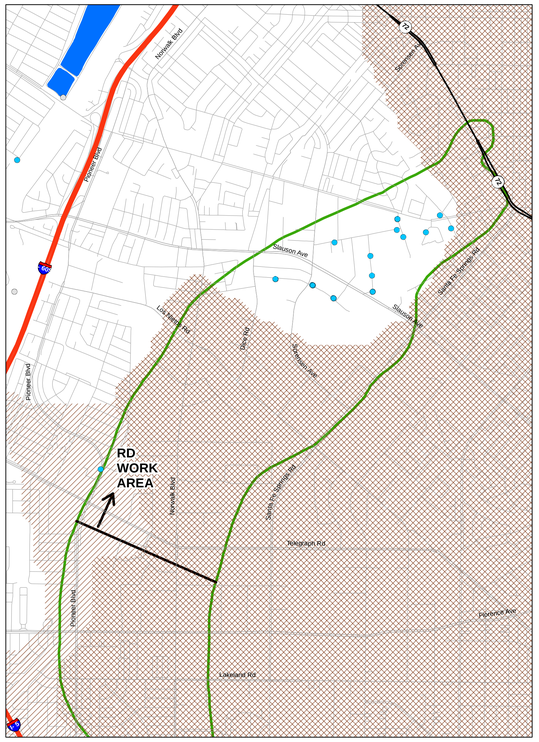
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_DQ_EnkMa_60WA_GUA_B104_Ave_ROD Date Exported: 9/7/2016

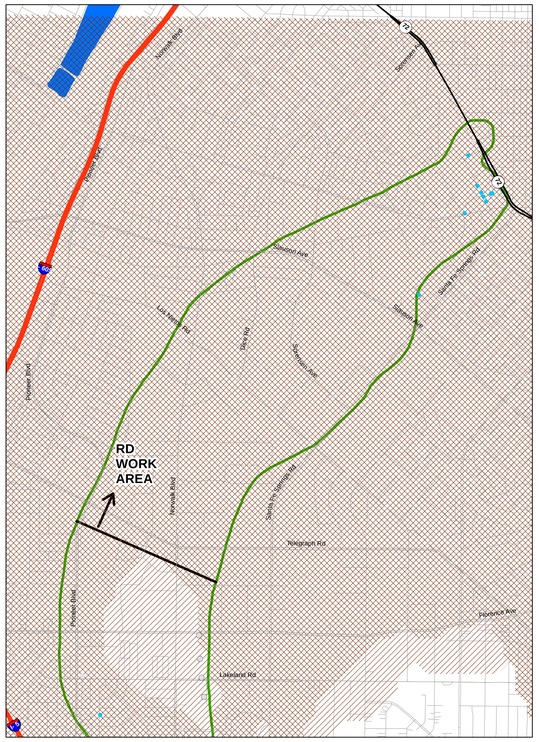
HARGIS + ASSOCIATES, INC
Hydrogeology/Engineering

FIGURE A-18A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF PERCHLORATE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

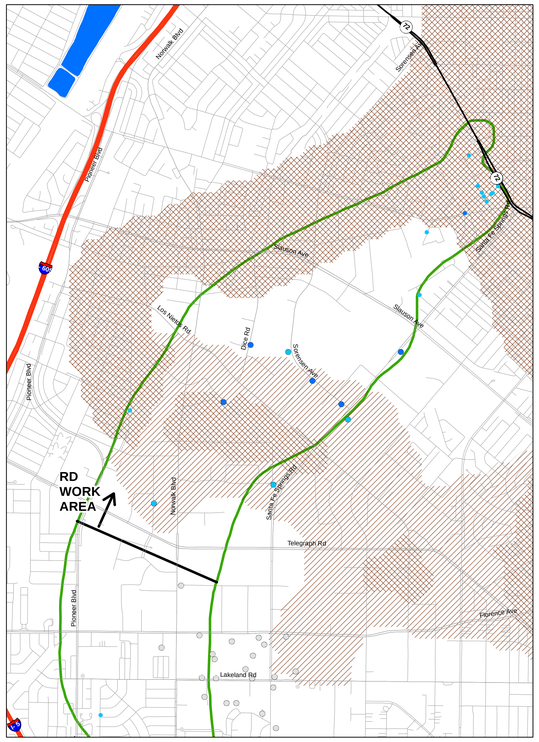
DRAFT



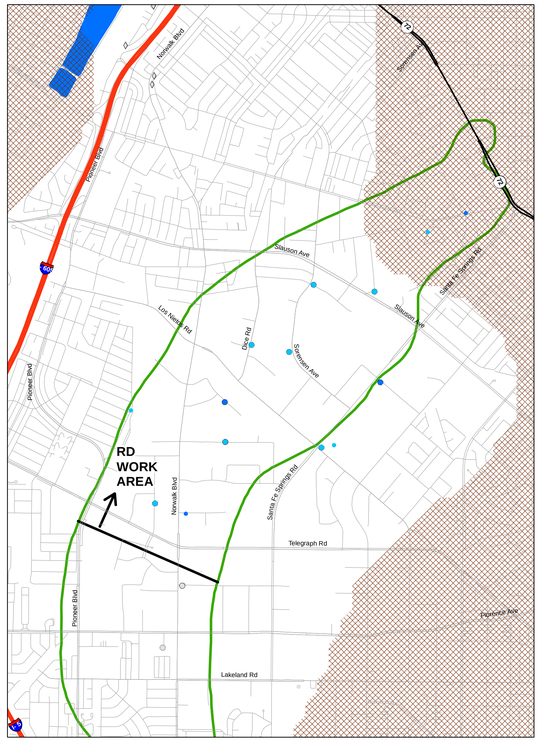
GASPUR AQUIFER



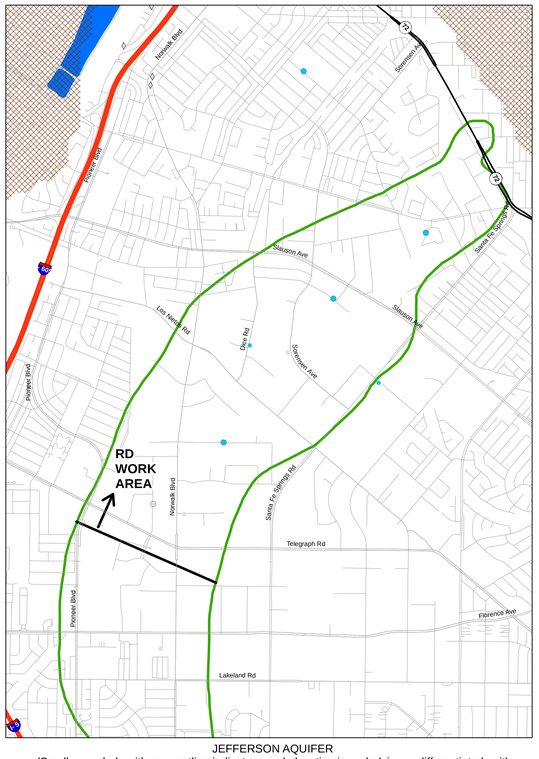
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



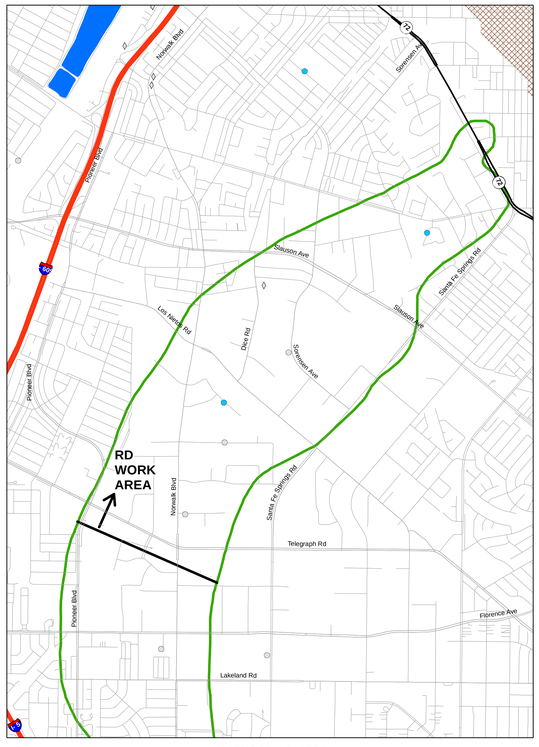
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



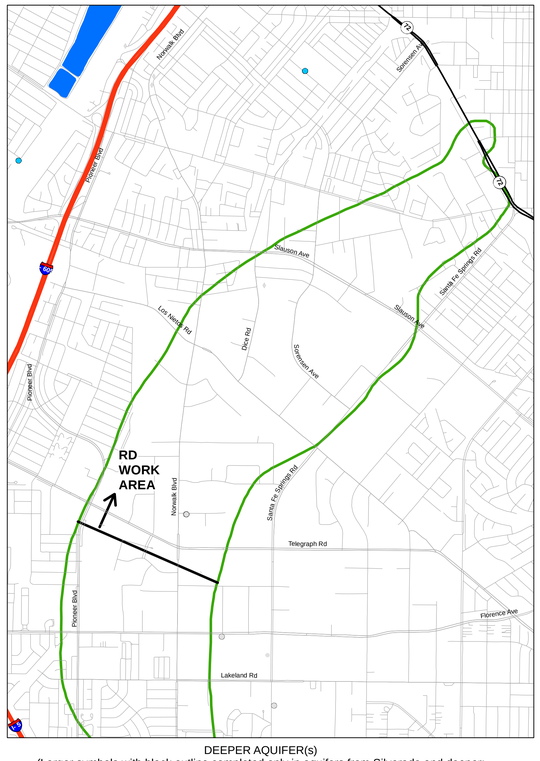
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 6 ug/l
- >6 to 12 ug/l
- >12 to 60 ug/l
- >60 to 120 ug/l
- >120 to 600 ug/l
- >600 to 1,200 ug/l
- >1,200 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_DO_Fig18B_RDWA_CLOA_B104_Mxs_DD1 Date Exported: 9/3/2016

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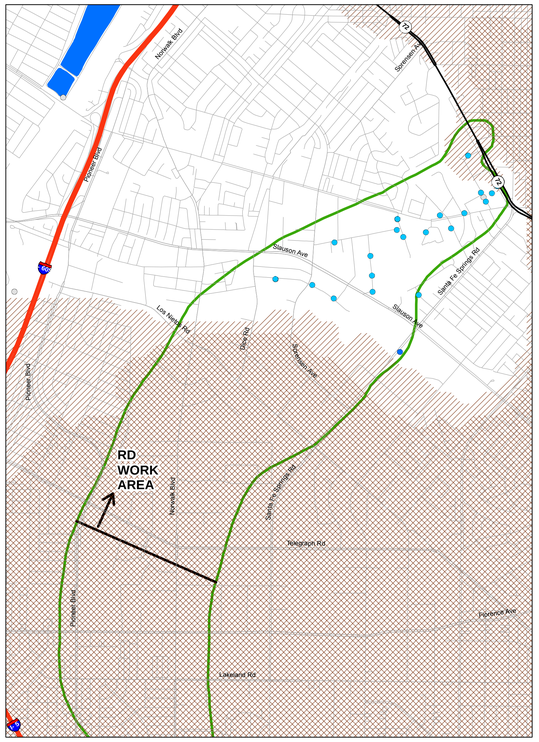
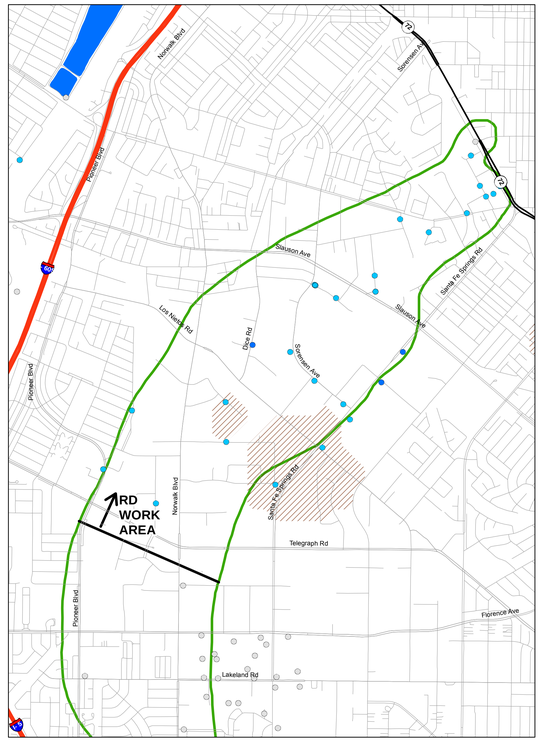
FIGURE A-18B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF PERCHLORATE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

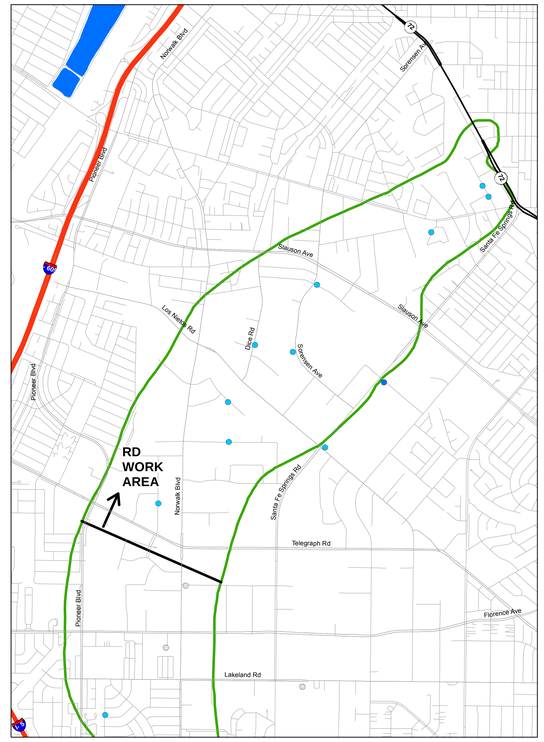
DRAFT



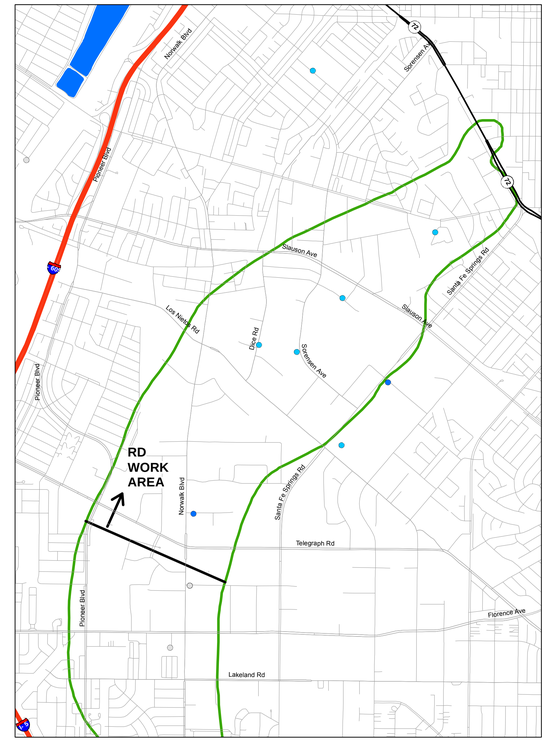
EPA STRATIGRAPHIC UNIT 2



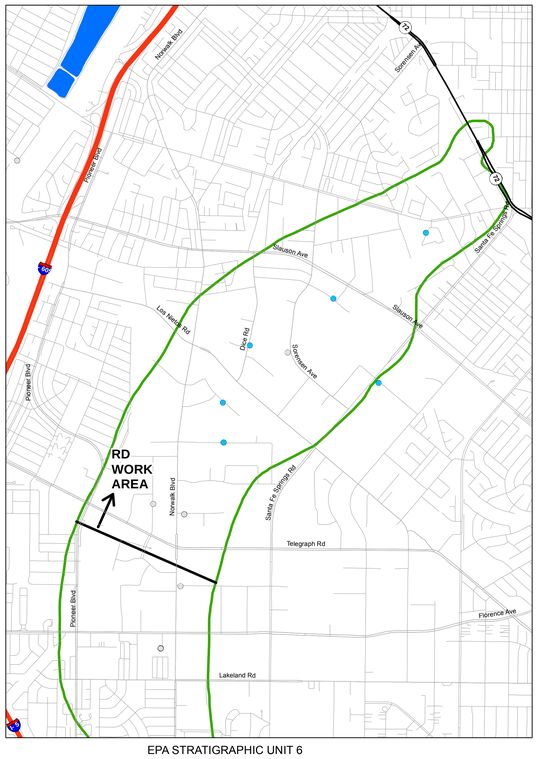
EPA STRATIGRAPHIC UNIT 3



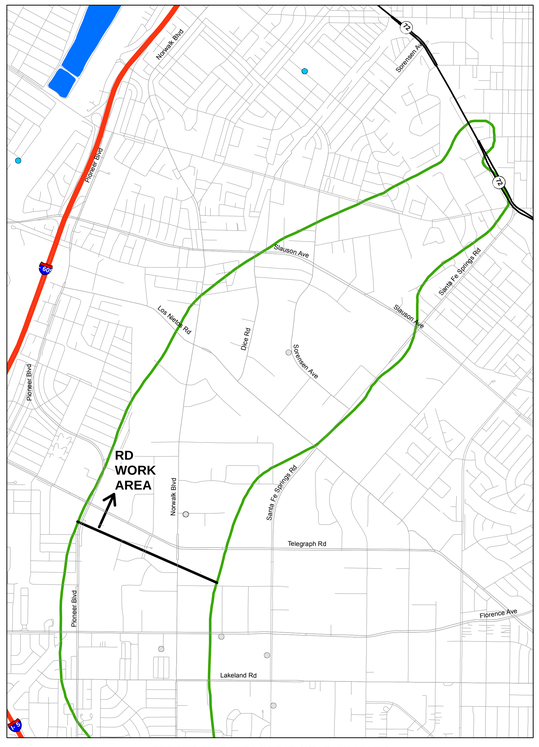
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 6 ug/l
- >6 to 12 ug/l
- >12 to 60 ug/l
- >60 to 120 ug/l
- >120 to 600 ug/l
- >600 to 1,200 ug/l
- >1,200 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: r217_DO_Fig18c_ROWA_OU4_SB_Ave_DDD Date Exported: 9/12/2016

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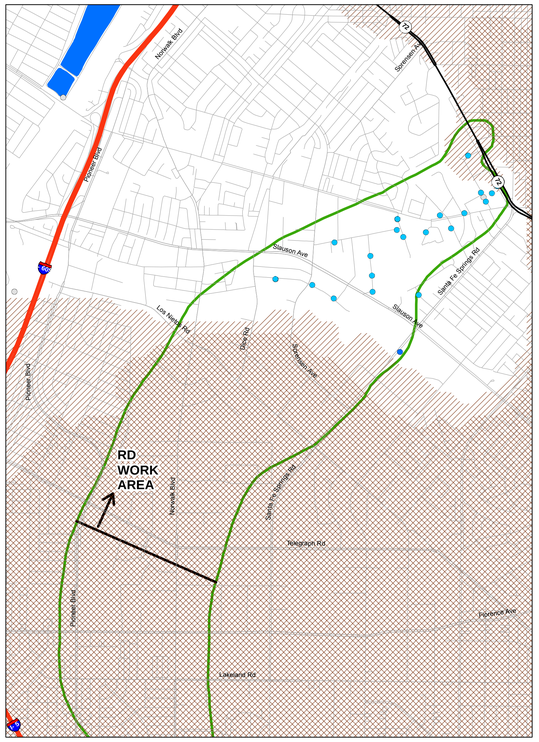
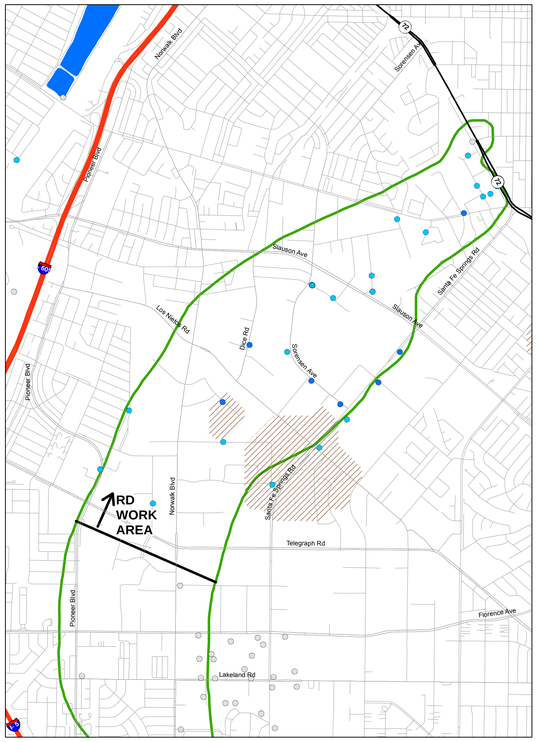
Hydrogeology/Engineering

FIGURE A-18C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF PERCHLORATE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

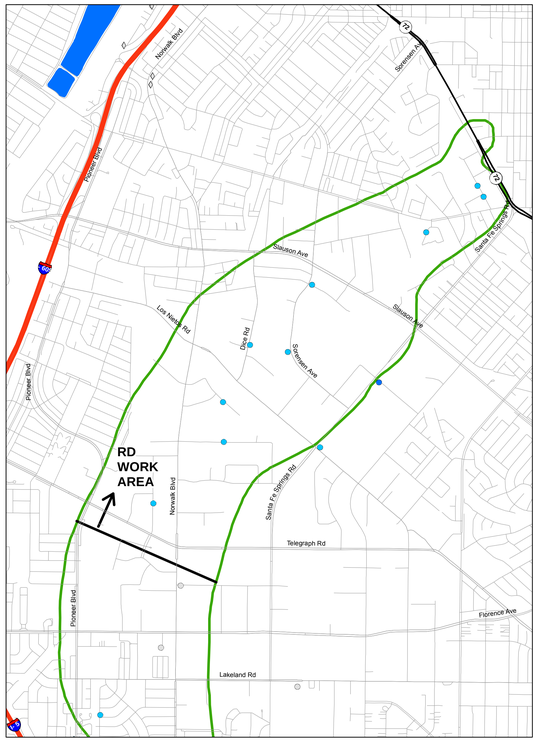
DRAFT



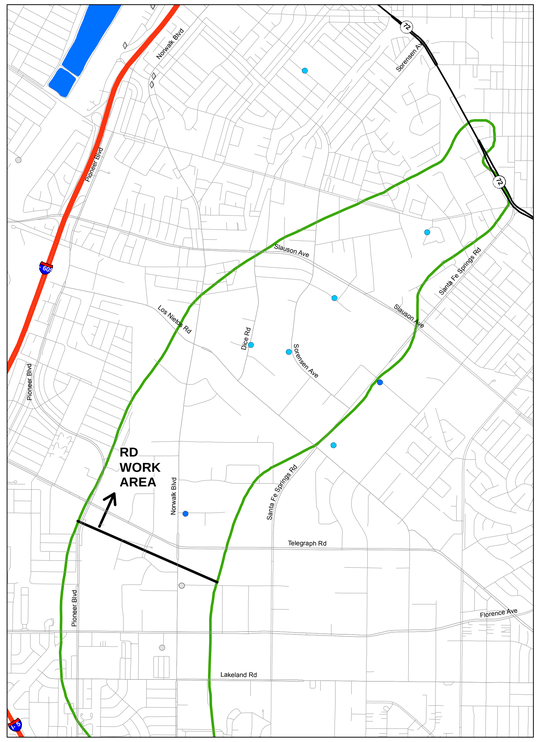
EPA STRATIGRAPHIC UNIT 2



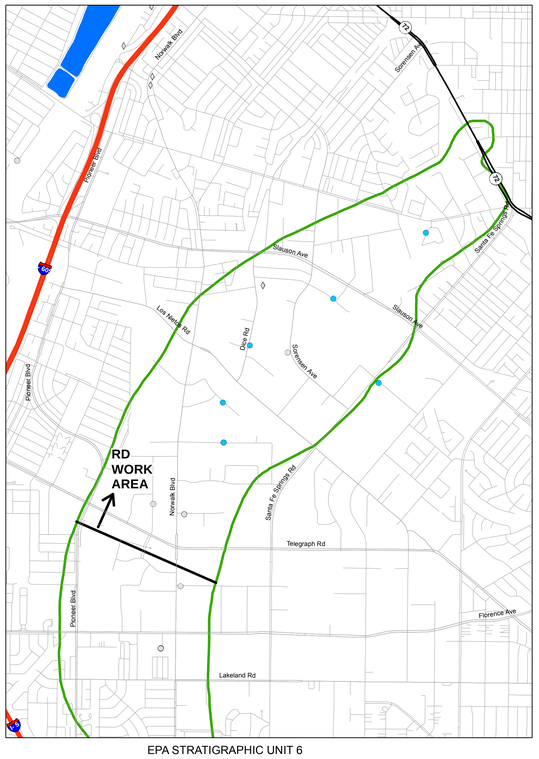
EPA STRATIGRAPHIC UNIT 3



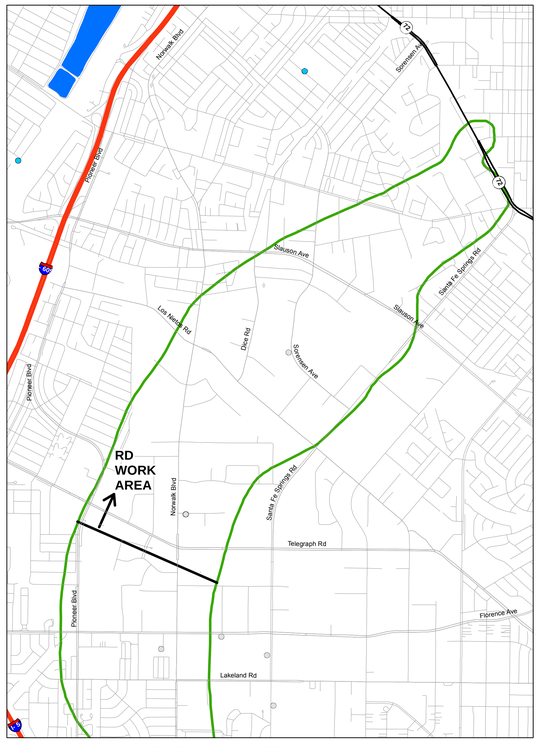
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 6 ug/l
- >6 to 12 ug/l
- >12 to 60 ug/l
- >60 to 120 ug/l
- >120 to 600 ug/l
- >600 to 1,200 ug/l
- >1,200 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

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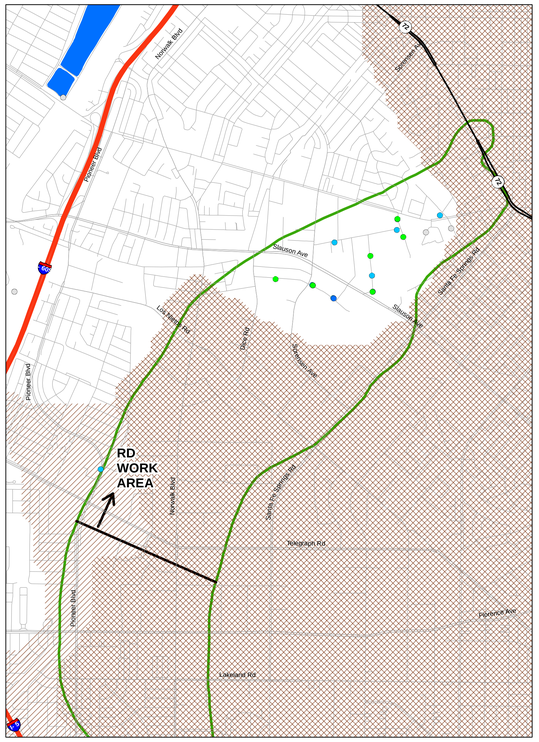
Hydrogeology/Engineering

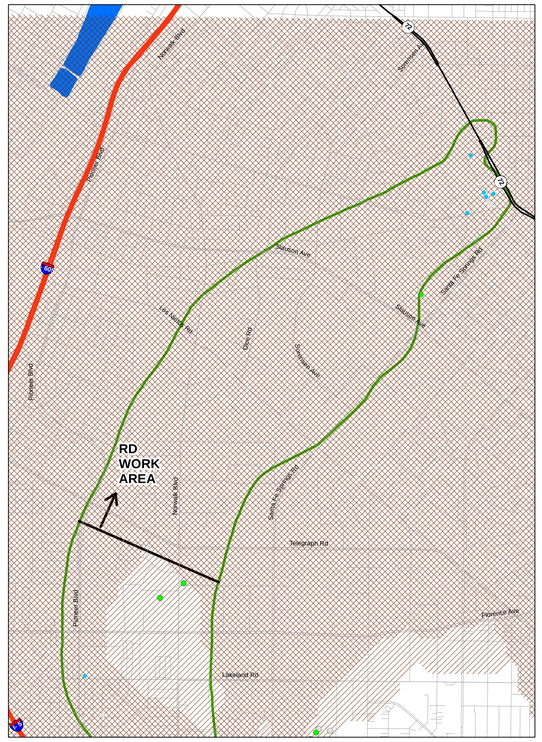
FIGURE A-18D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF PERCHLORATE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

Document Name: c217_OU_Fig4180_REWA_CLOA_SB_Max_ORD Date Exported: 9/1/2016

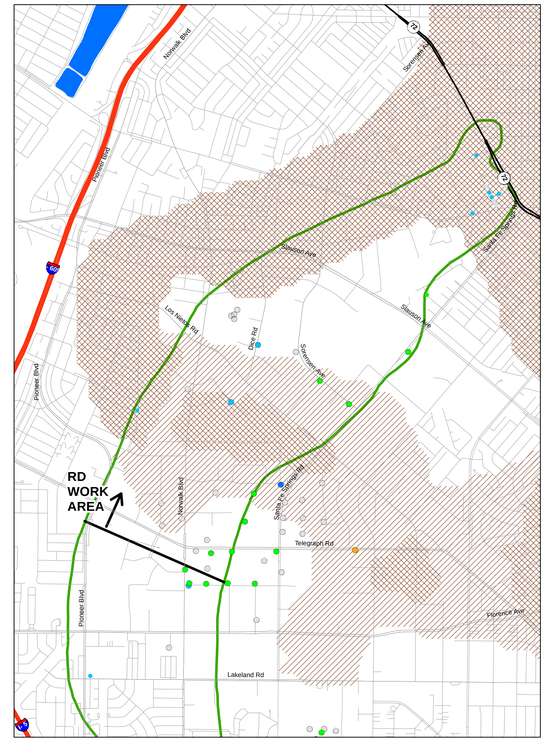
DRAFT



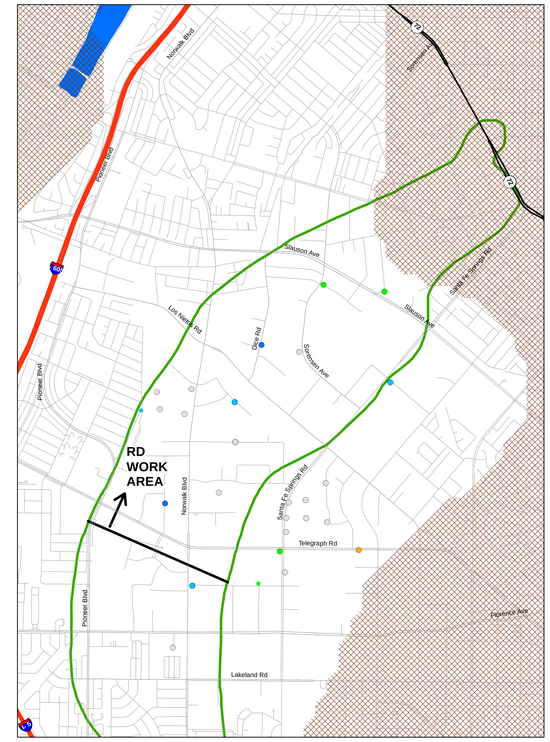
GASPUR AQUIFER



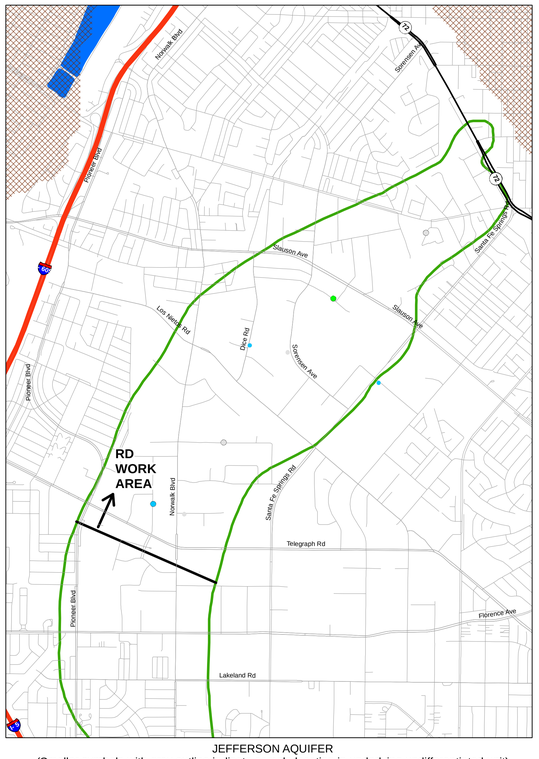
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



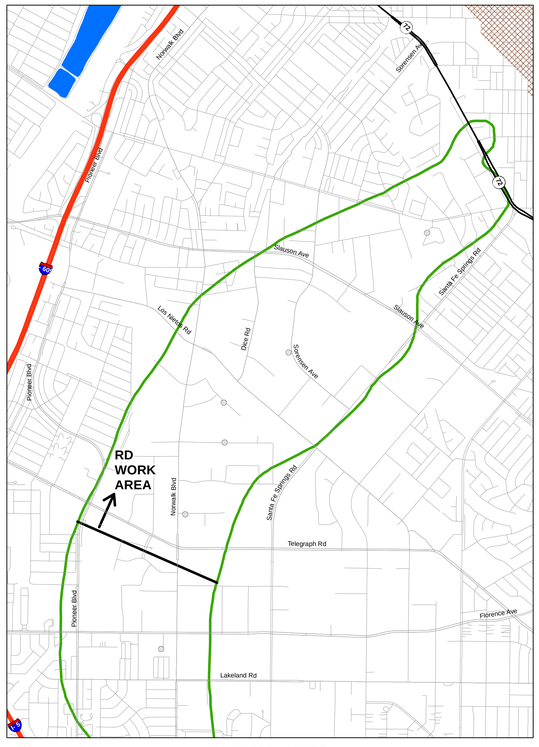
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



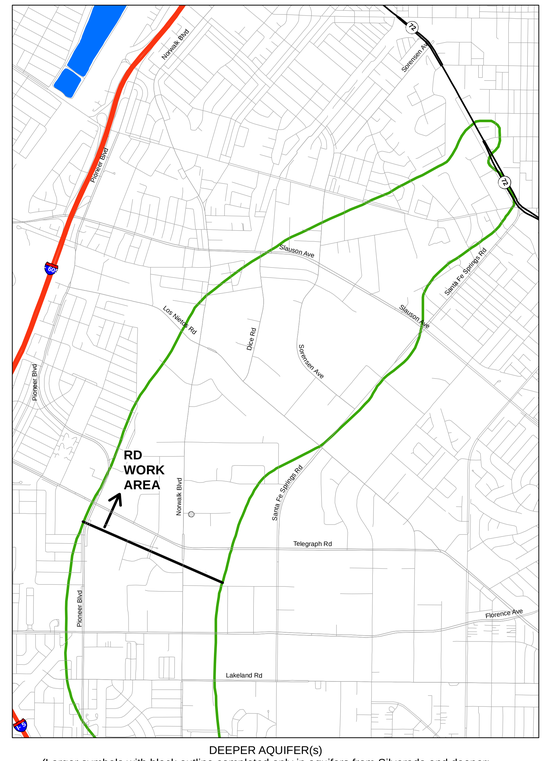
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 4 ug/l
- >4 to 8 ug/l
- >8 to 40 ug/l
- >40 to 80 ug/l
- >80 to 400 ug/l
- >400 to 800 ug/l
- >800 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_DO_Fig4-19a_8200A_Bis2_8104_Arts_DQO Date Exported: 9/1/2016

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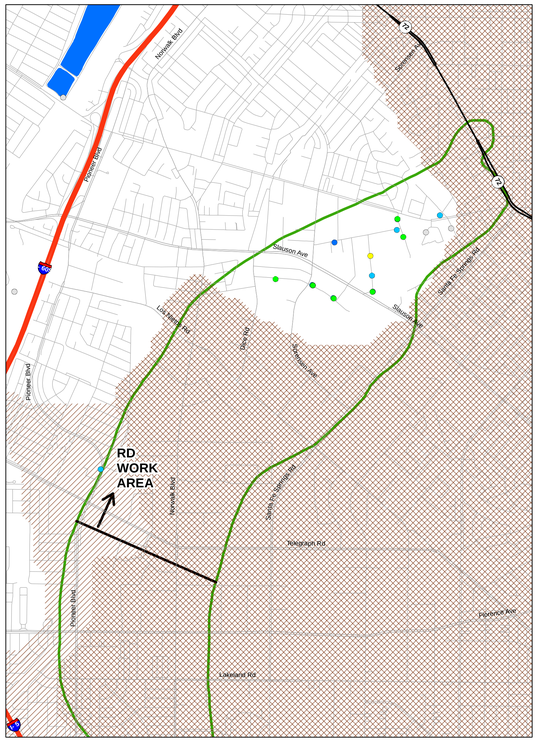
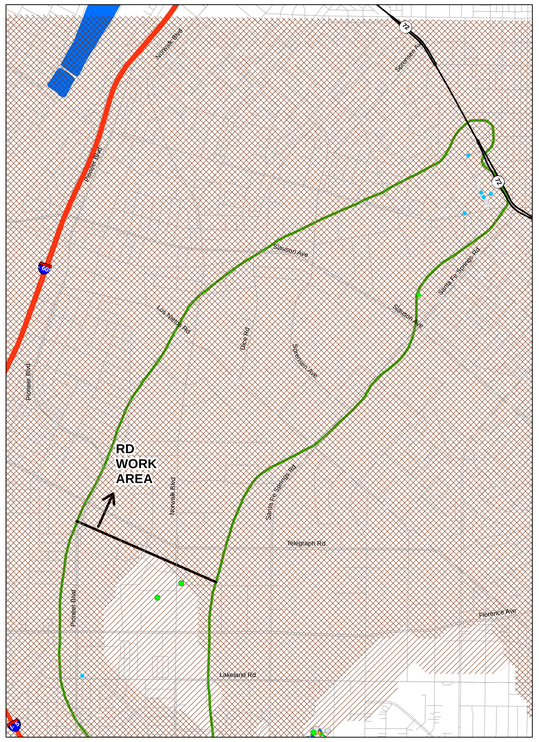
FIGURE A-19A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF BIS(2-CHLOROETHYL) ETHER IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

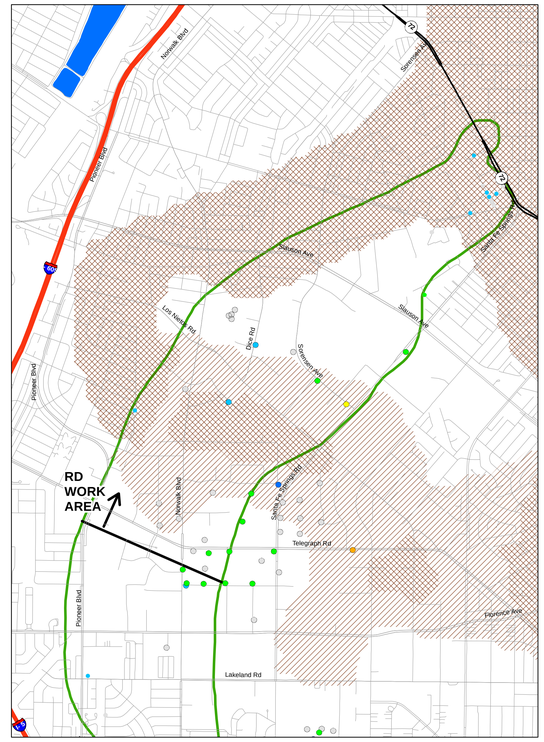
DRAFT



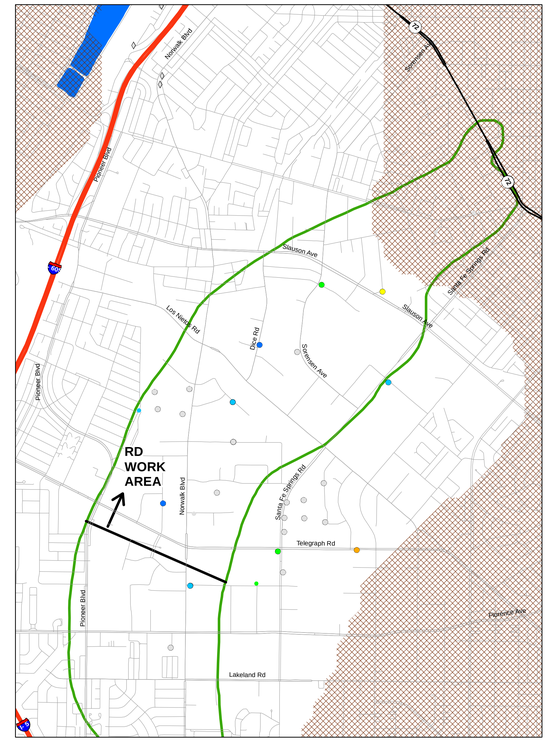
GASPUR AQUIFER



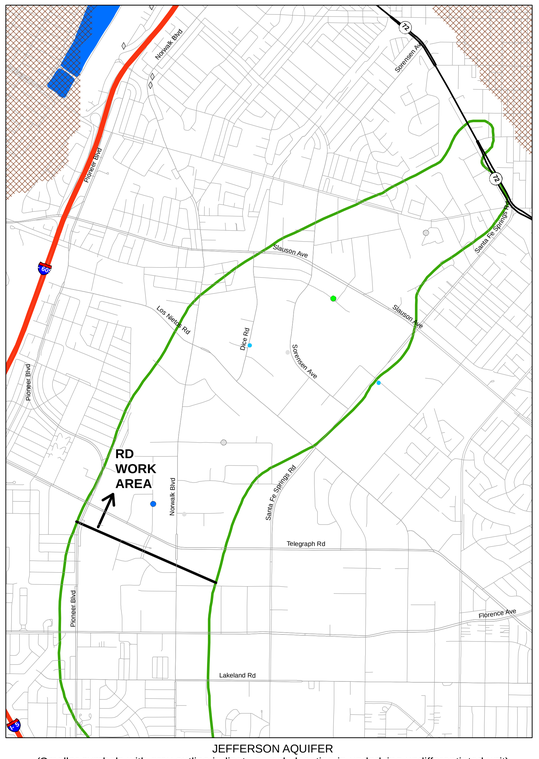
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



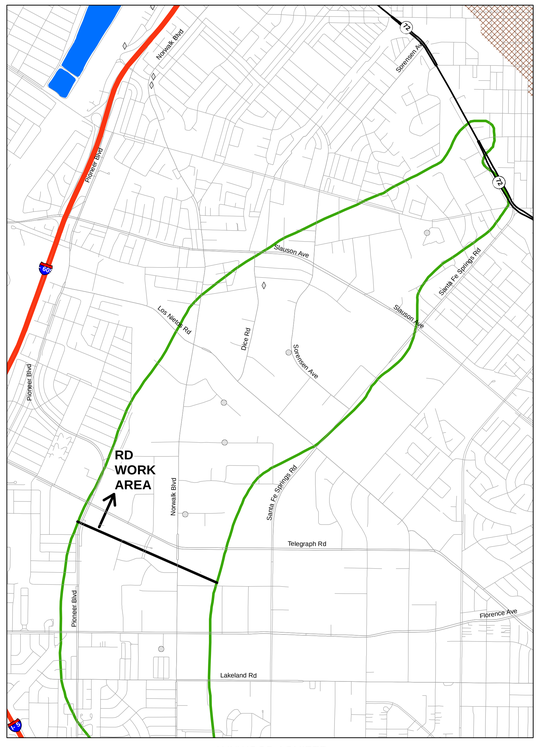
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



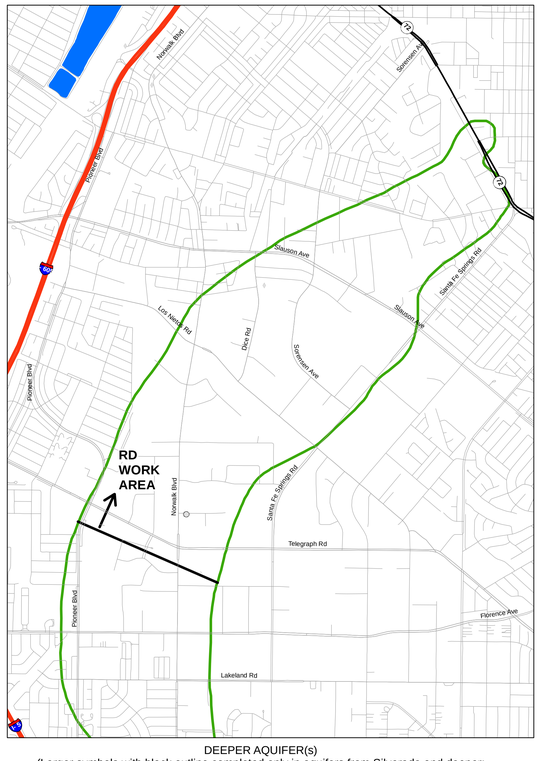
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 4 ug/l
- >4 to 8 ug/l
- >8 to 40 ug/l
- >40 to 80 ug/l
- >80 to 400 ug/l
- >400 to 800 ug/l
- >800 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_OU_EvaUtb_RDWA_Bin2_B104_Max_DQO Date Exported: 9/1/2016

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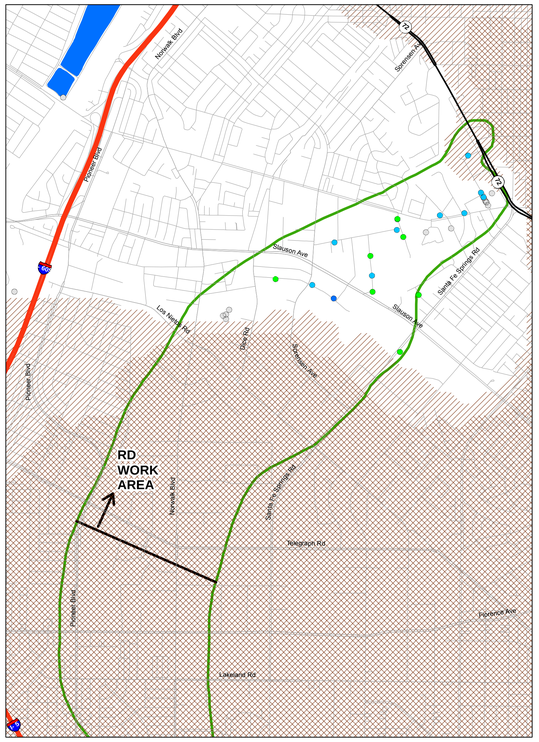
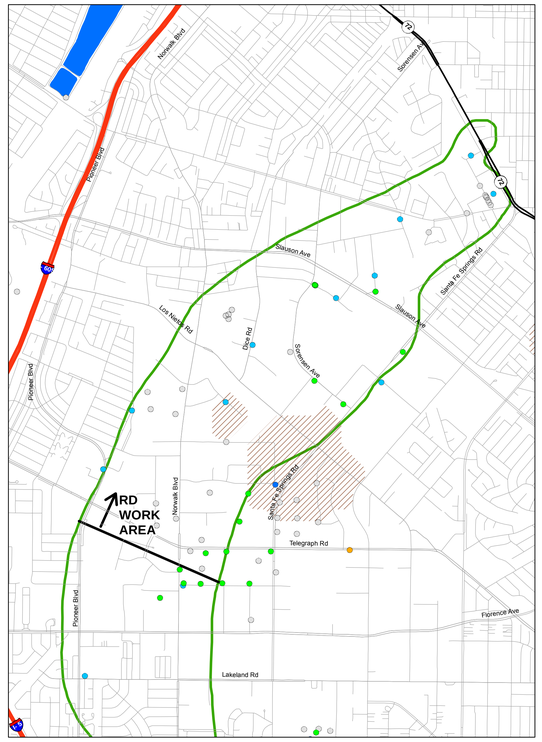
FIGURE A-19B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF BIS(2-CHLOROETHYL) ETHER IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

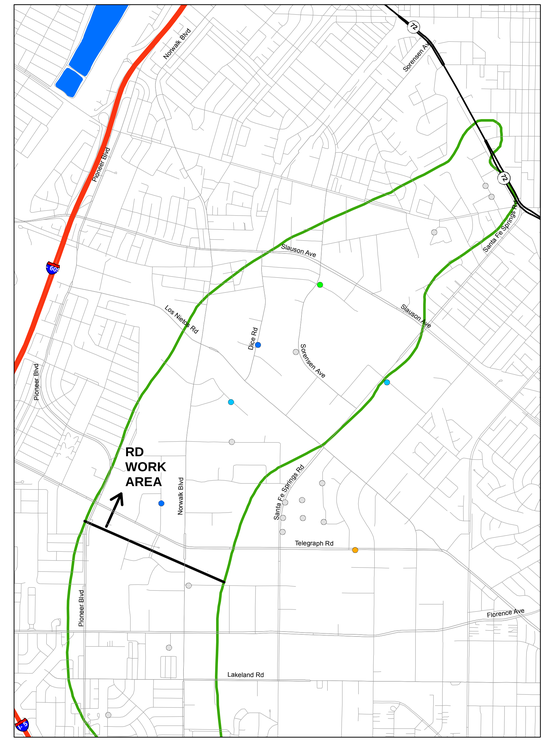
DRAFT



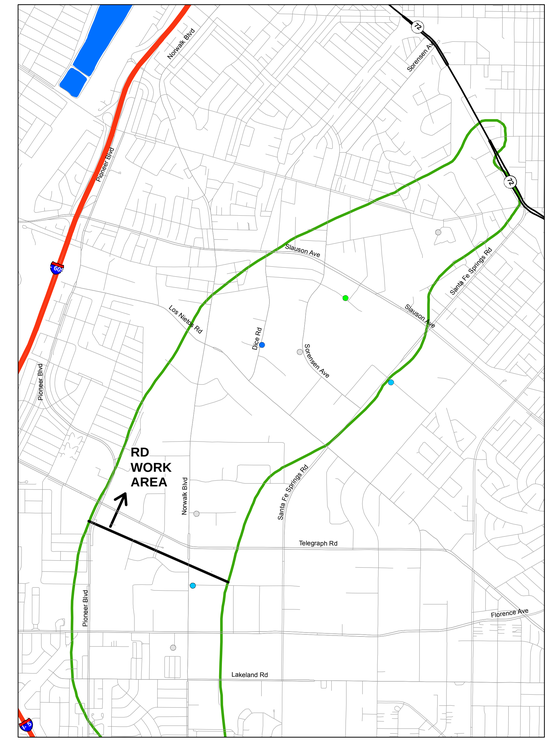
EPA STRATIGRAPHIC UNIT 2



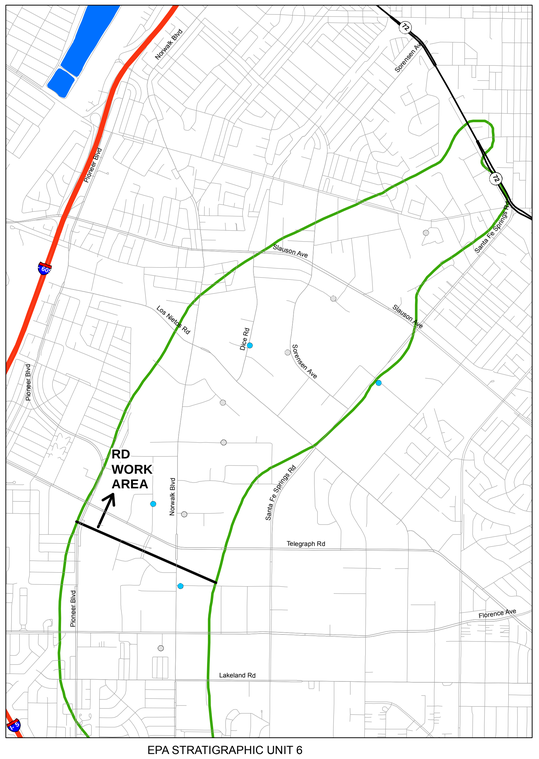
EPA STRATIGRAPHIC UNIT 3



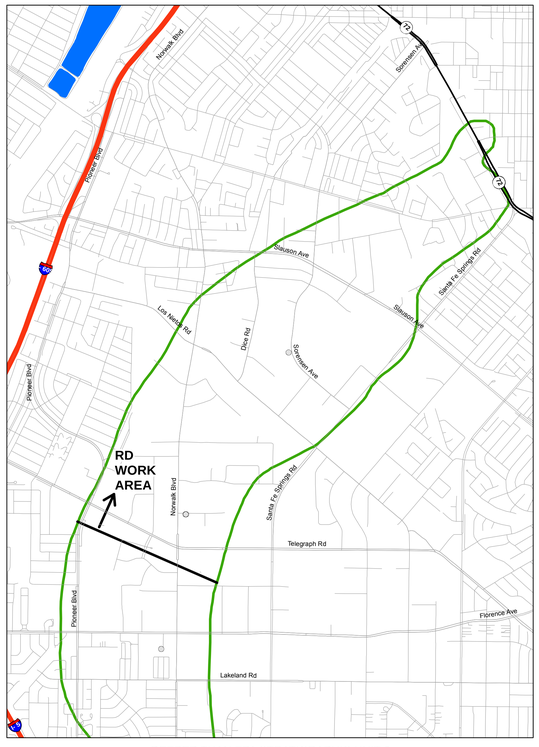
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 4 ug/l
- >4 to 8 ug/l
- >8 to 40 ug/l
- >40 to 80 ug/l
- >80 to 400 ug/l
- >400 to 800 ug/l
- >800 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

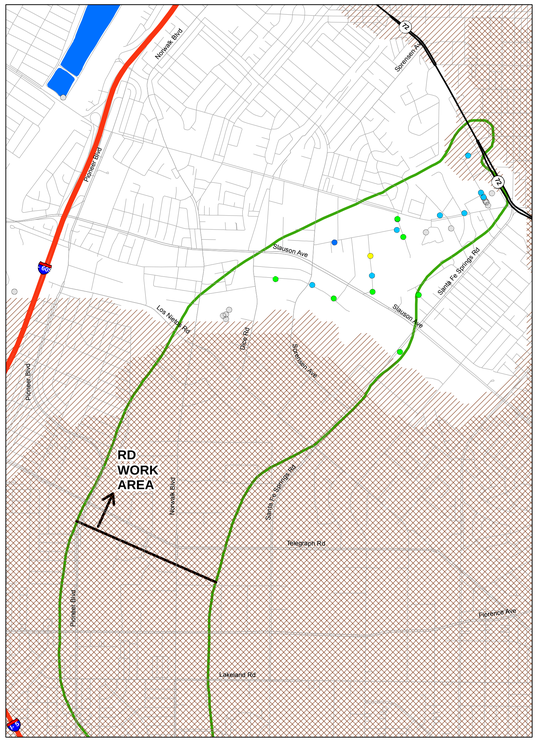
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DO_Fig19c_ROVA_Bis2_S8_Ave_D00 Date Exported: 8/1/2016

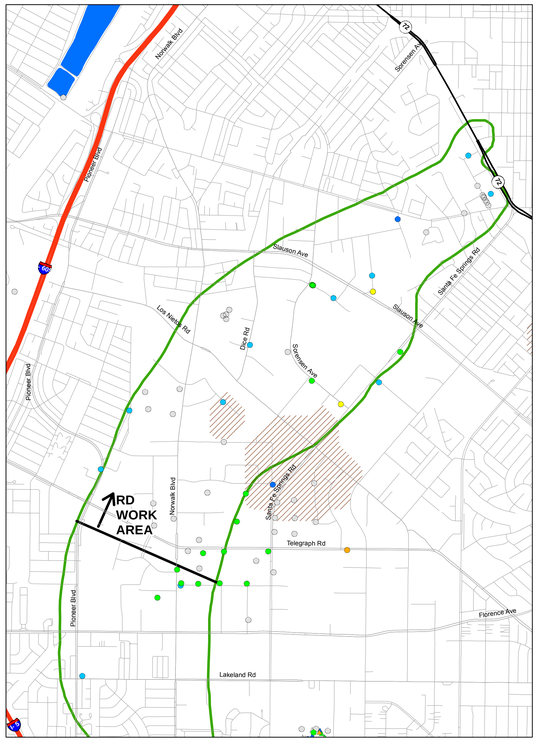
HARGIS + ASSOCIATES, INC
Hydrogeology/Engineering

FIGURE A-19C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF BIS(2-CHLOROETHYL) ETHER IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

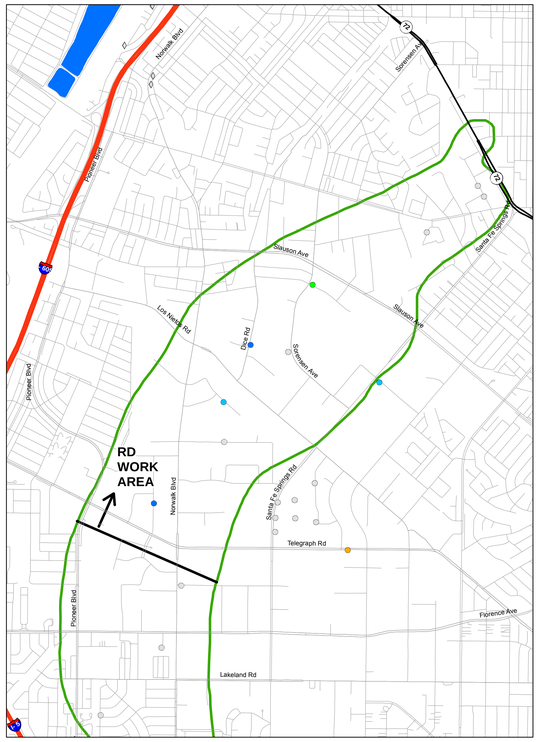
DRAFT



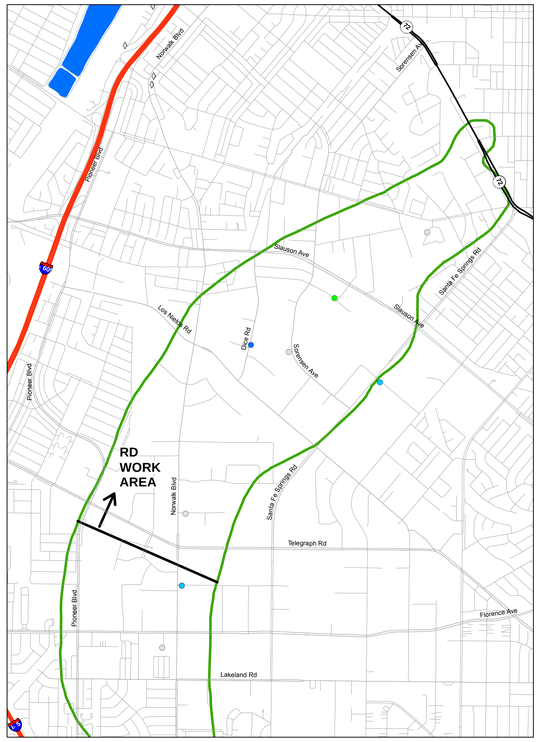
EPA STRATIGRAPHIC UNIT 2



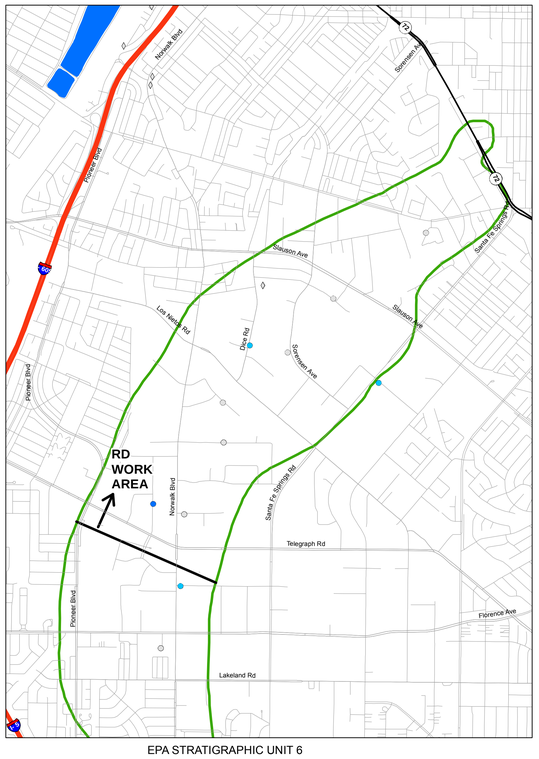
EPA STRATIGRAPHIC UNIT 3



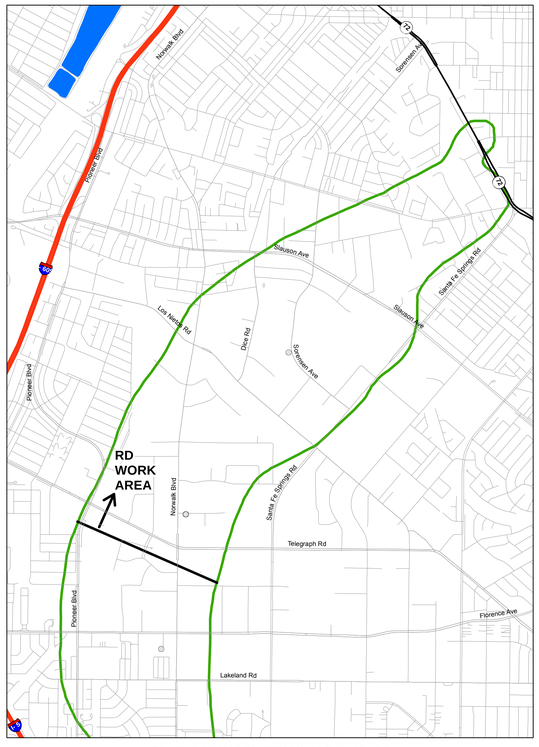
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 4 ug/l
- >4 to 8 ug/l
- >8 to 40 ug/l
- >40 to 80 ug/l
- >80 to 400 ug/l
- >400 to 800 ug/l
- >800 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

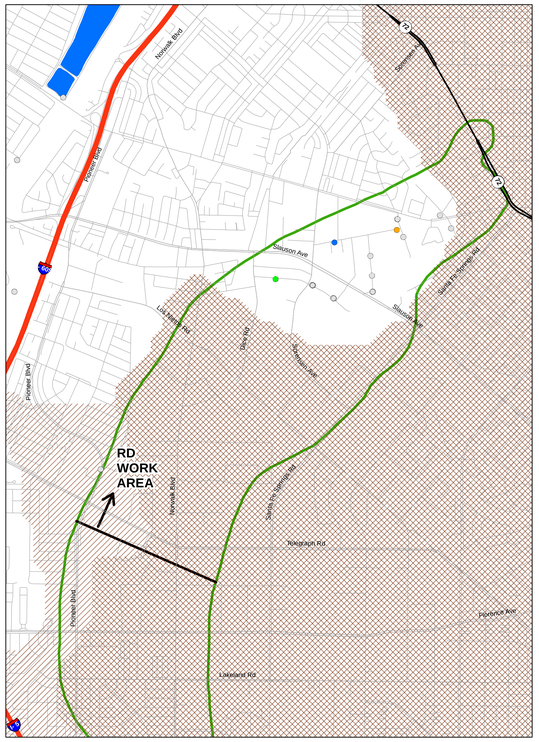
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: c217_OU_EvA100_RDWA_Bin2_SB_Map_DOD Date Exported: 9/1/2016

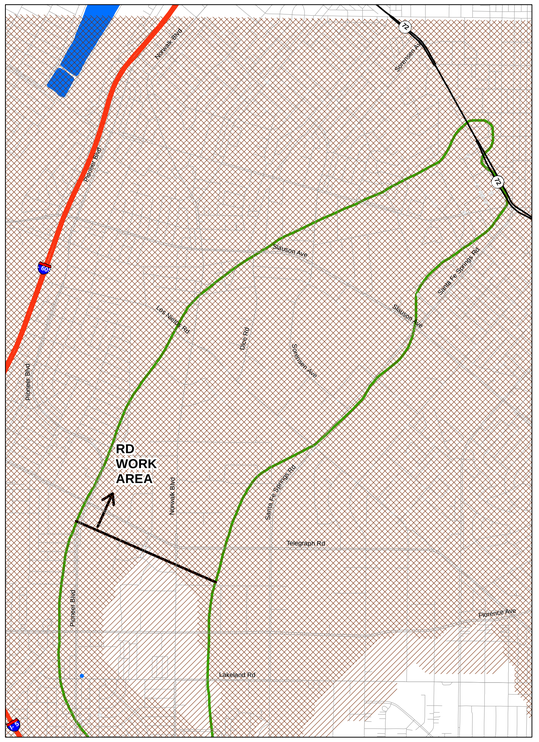
HARGIS + ASSOCIATES, INC
Hydrogeology/Engineering

FIGURE A-19D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF BIS(2-CHLOROETHYL) ETHER IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

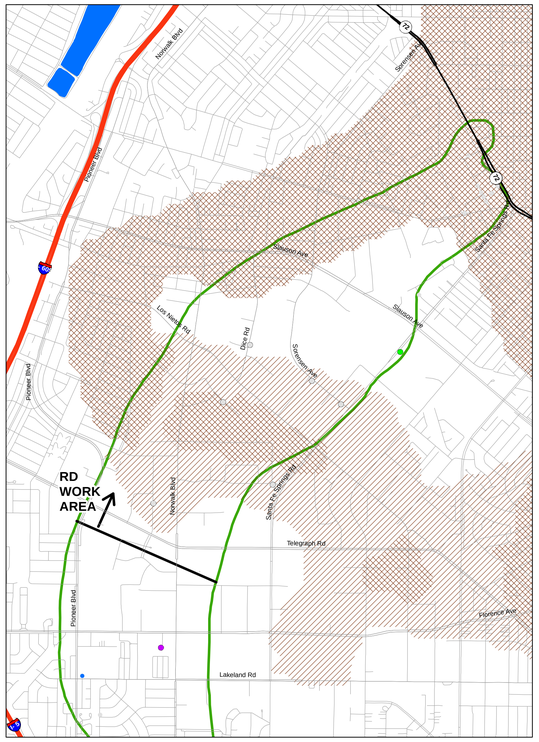
DRAFT



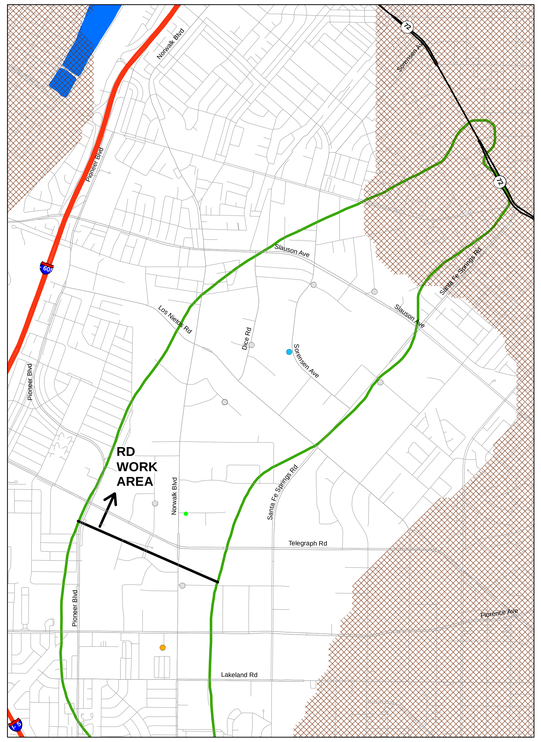
GASPUR AQUIFER



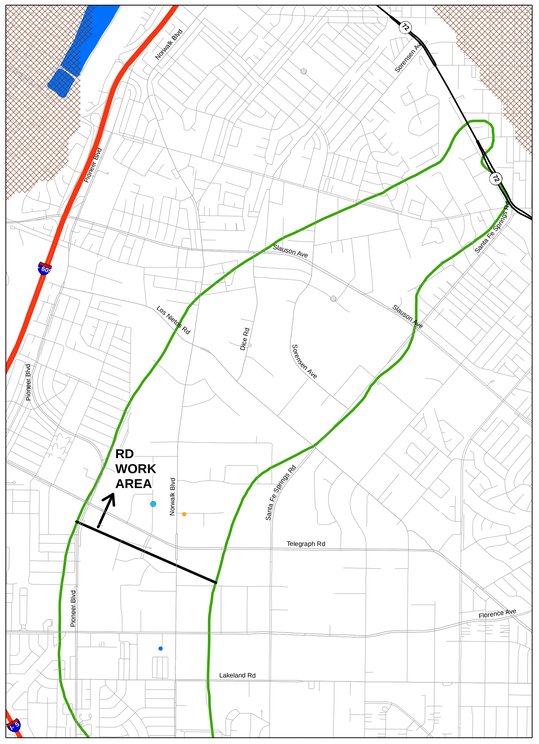
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



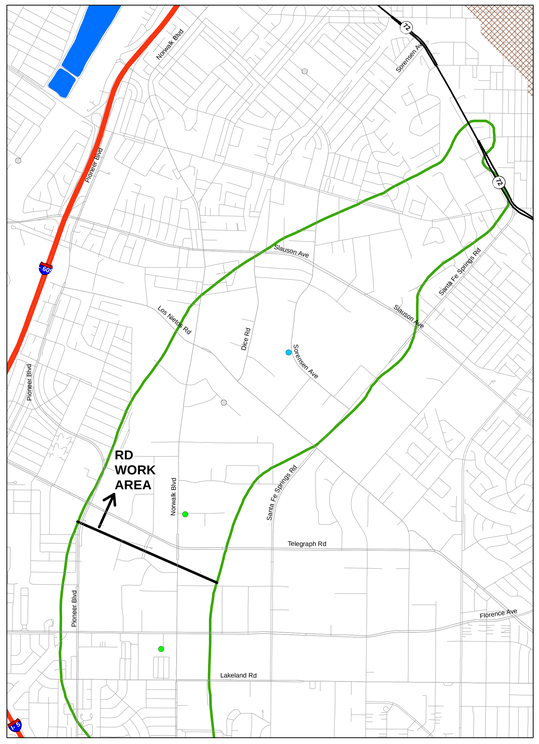
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



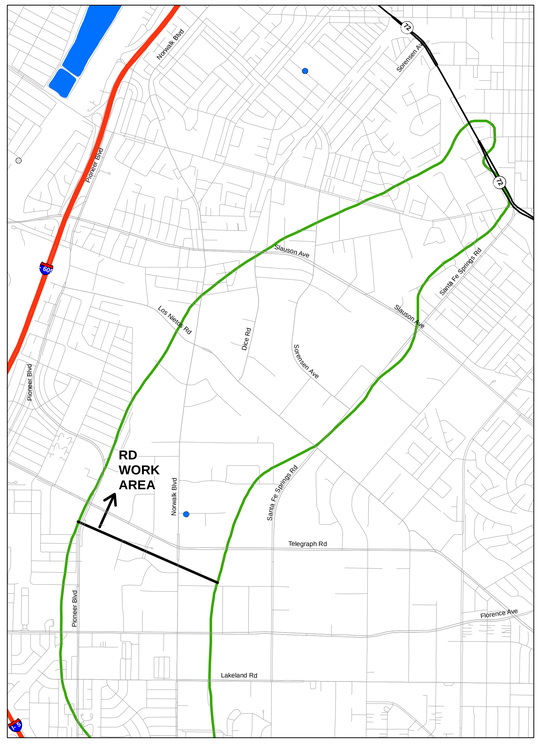
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 200 ug/l
- >200 to 400 ug/l
- >400 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

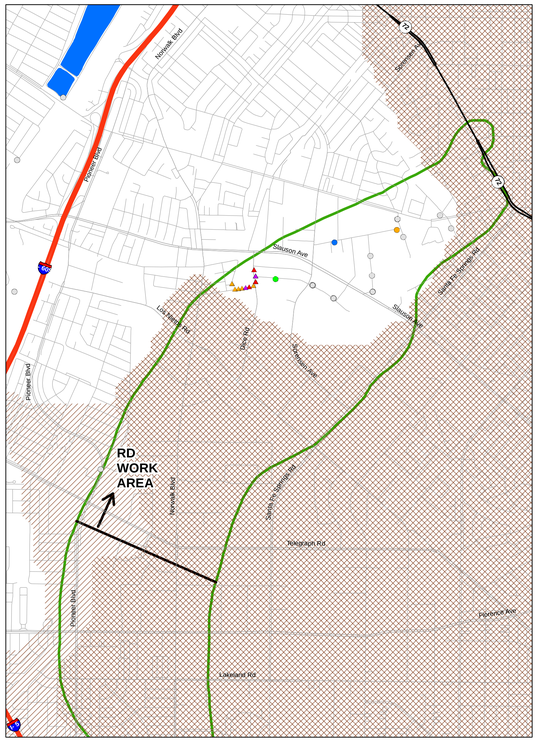
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_OU2_Fig30a_60WA_AI_B104_Avg_D00 Date Exported: 5/1/2016

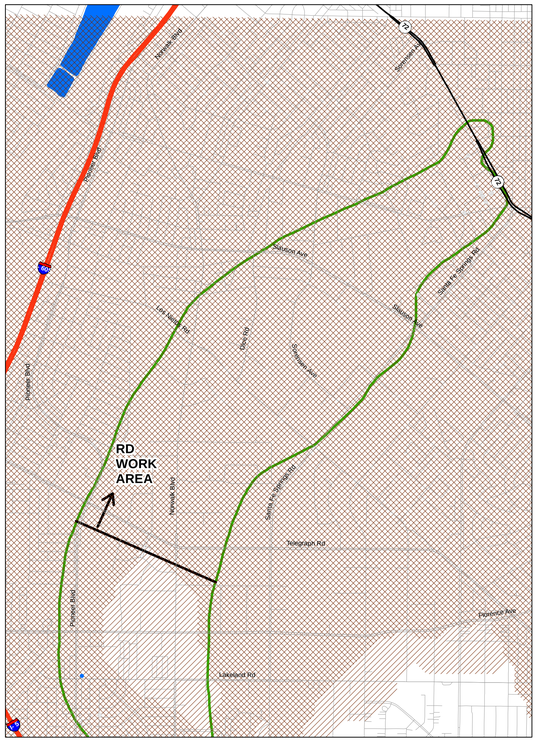
[redacted]

FIGURE A-20A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF ALUMINUM IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

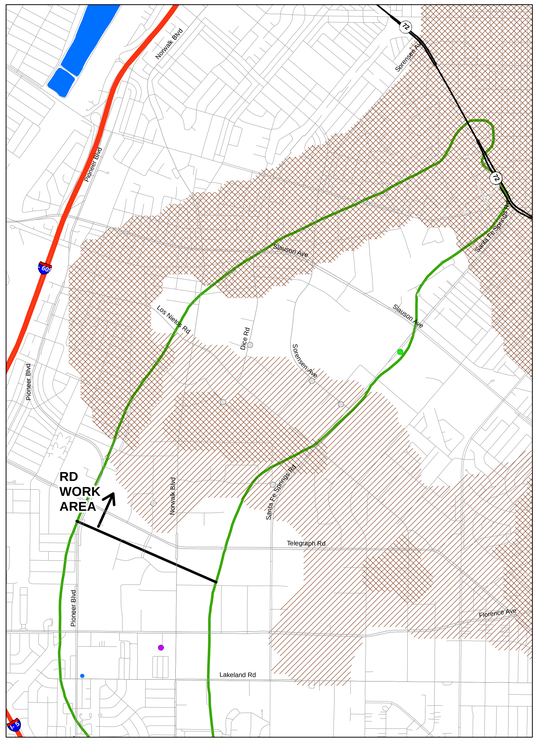
DRAFT



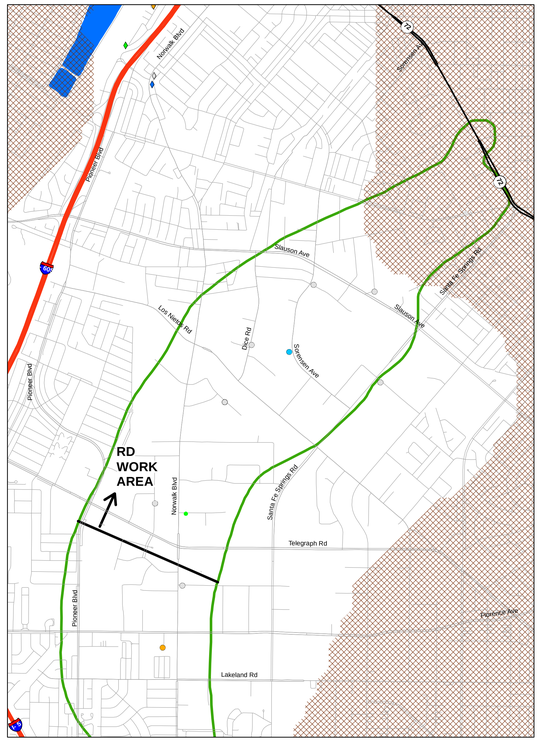
GASPUR AQUIFER



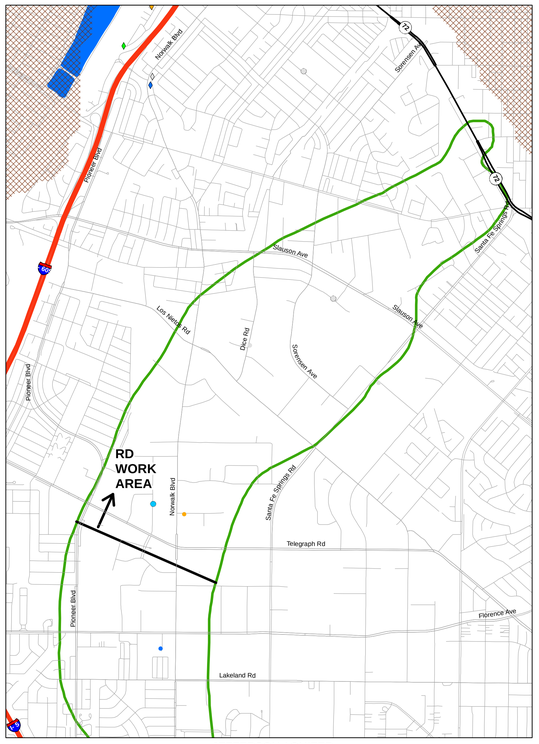
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



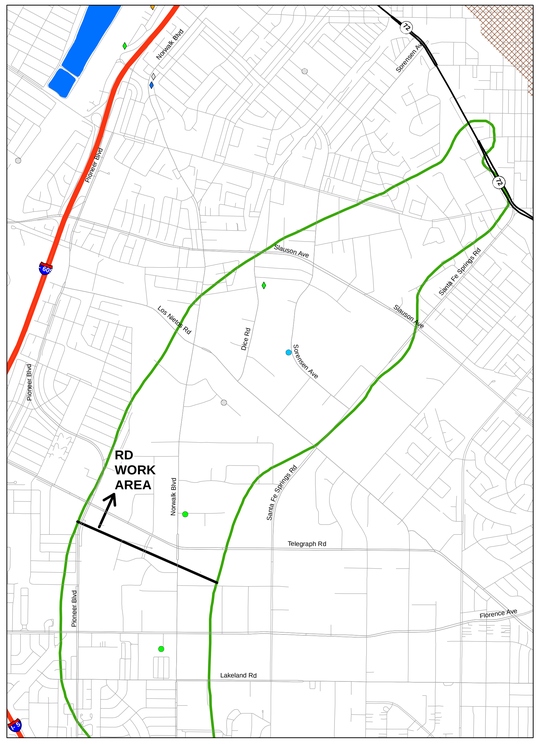
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



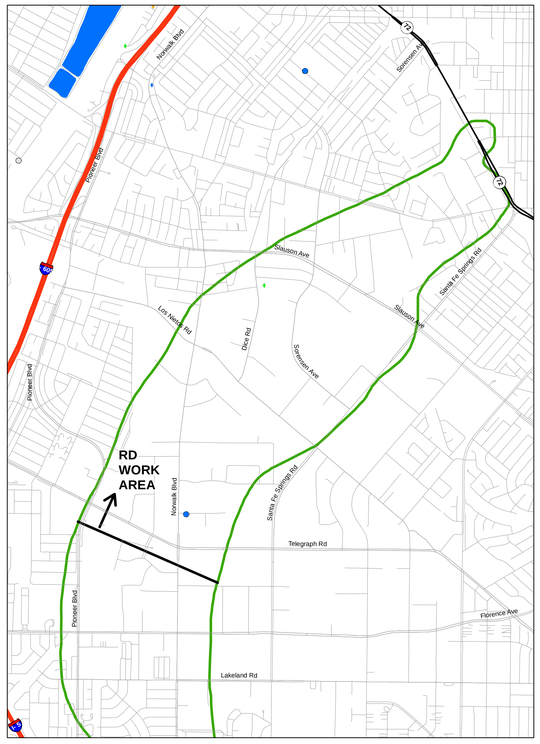
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 200 ug/l
- >200 to 400 ug/l
- >400 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

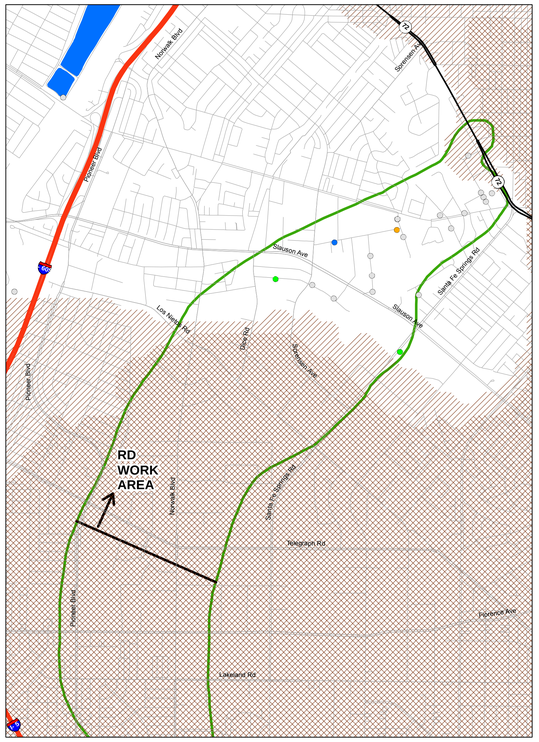
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_OU_EsA39b_RDWA_A1_B104_Mtx_000 Date Exported: 5/1/2016

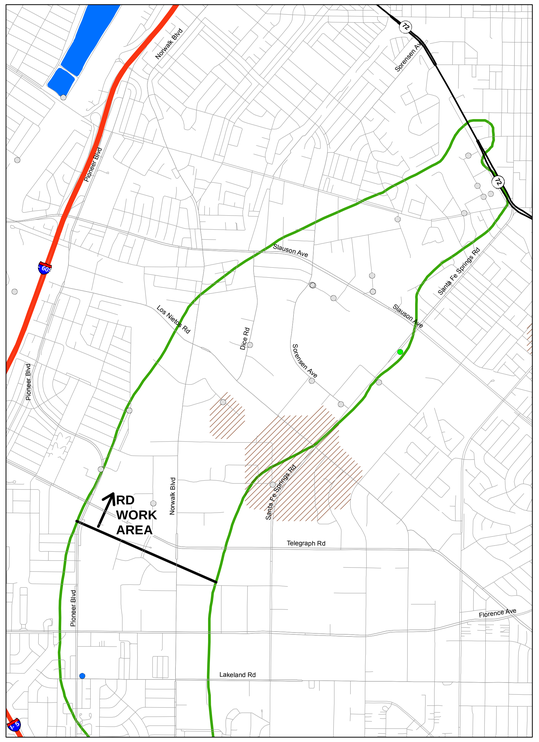
[redacted]

FIGURE A-20B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF ALUMINUM IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

DRAFT



EPA STRATIGRAPHIC UNIT 2



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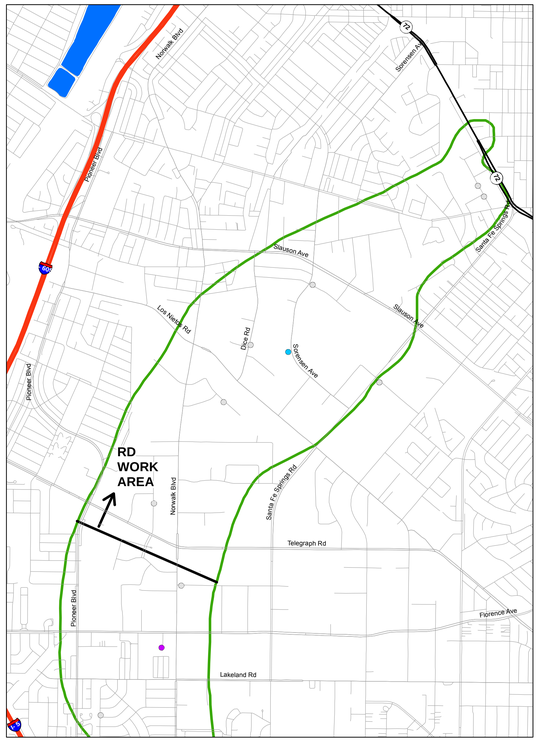
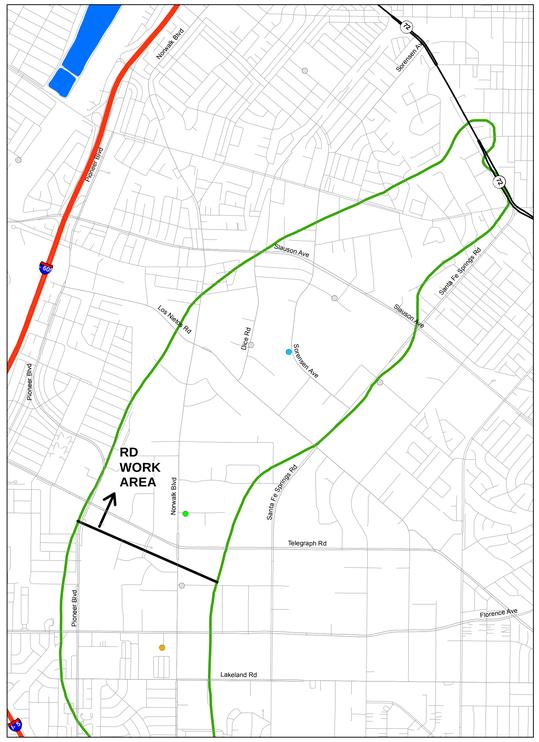


EPA STRATIGRAPHIC UNIT 4



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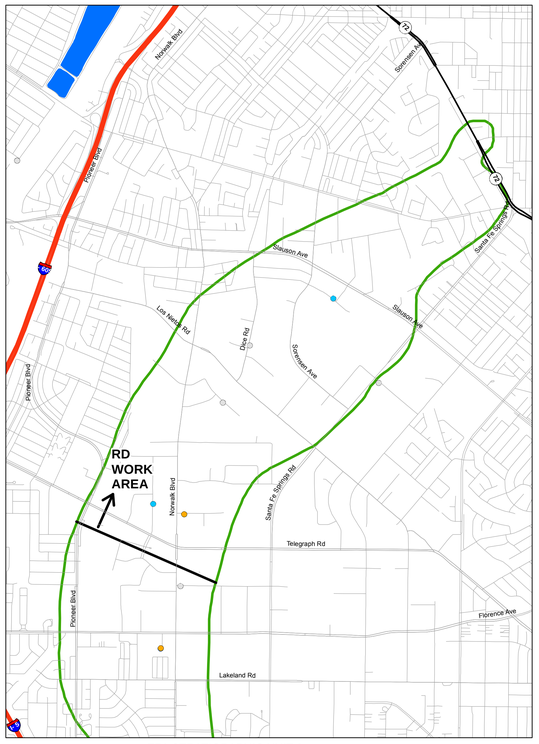
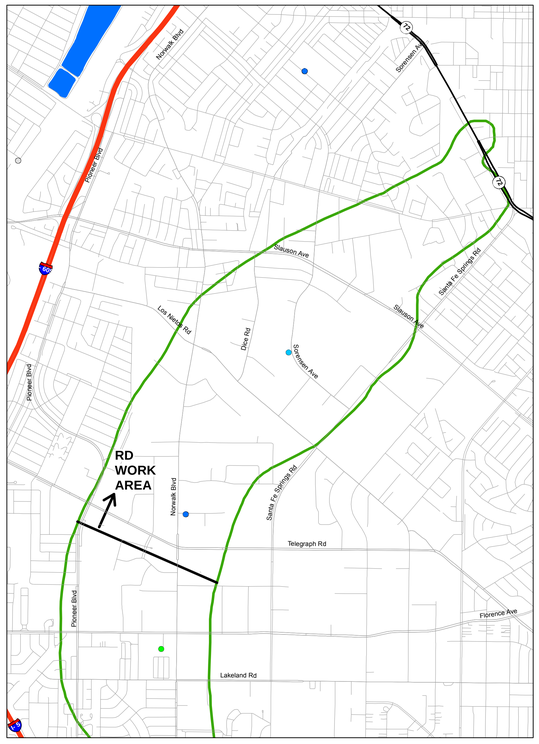


EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 200 ug/l
- >200 to 400 ug/l
- >400 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

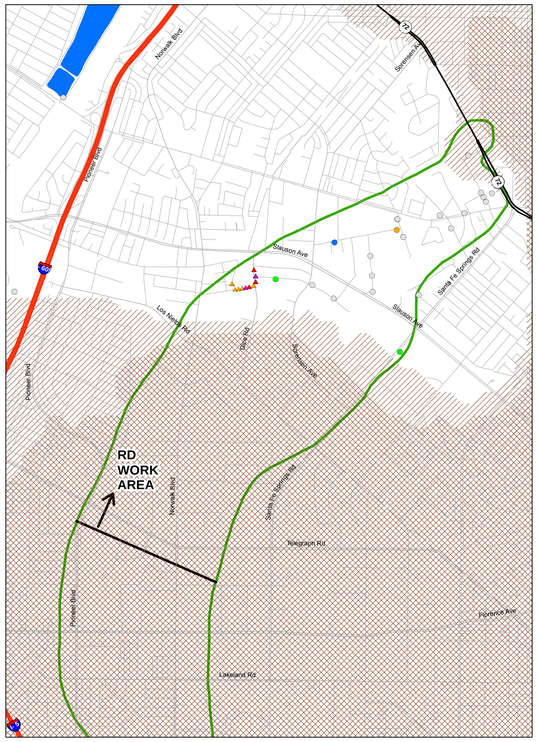
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: r212_OU_EpA20c_8DVIA_A_SB_Ave_D00 Date Exported: 9/1/2016

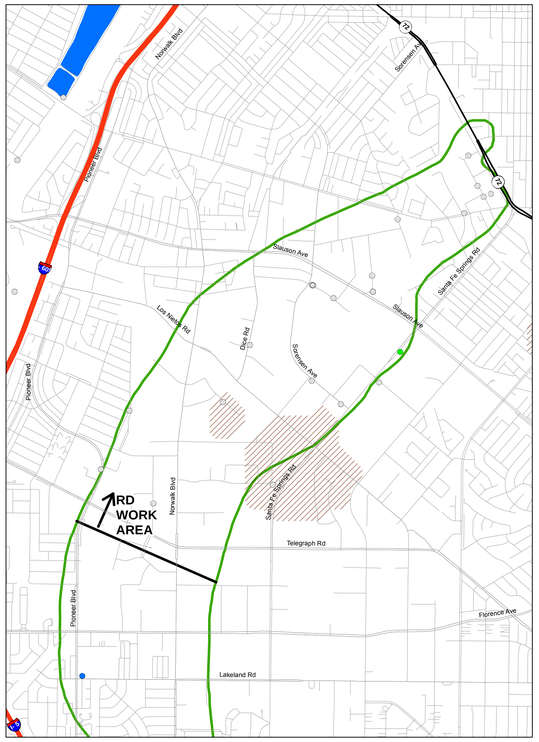
[redacted]

FIGURE A-20C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF ALUMINUM IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

DRAFT



EPA STRATIGRAPHIC UNIT 2



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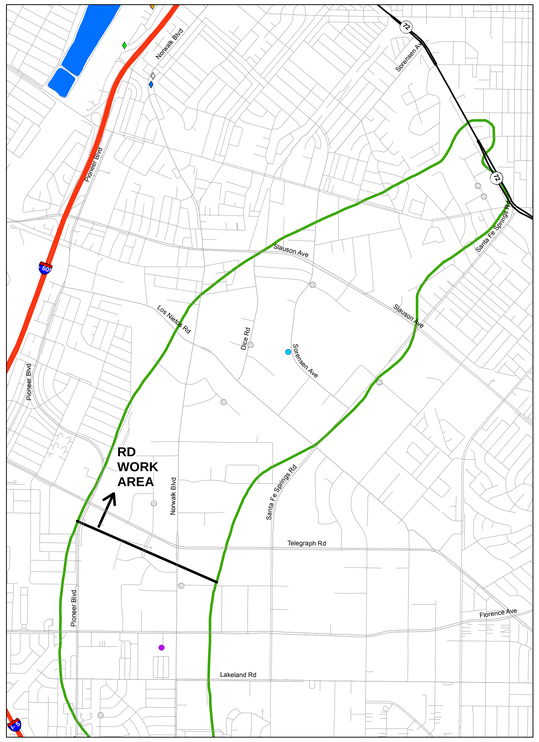
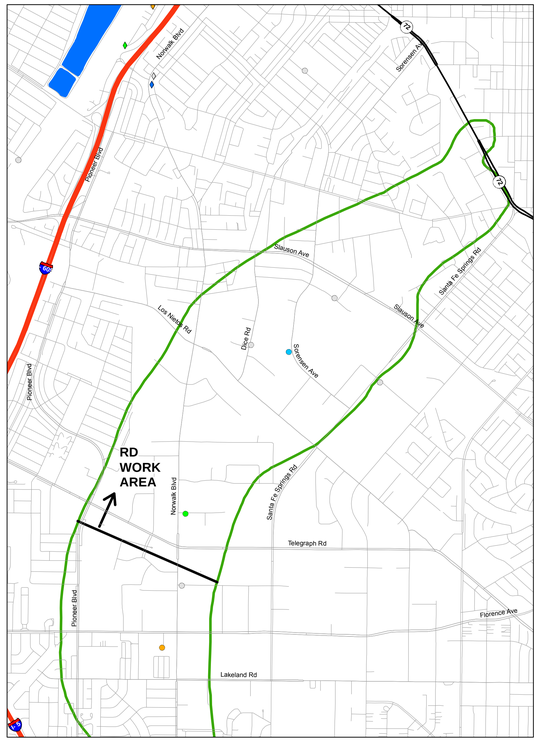
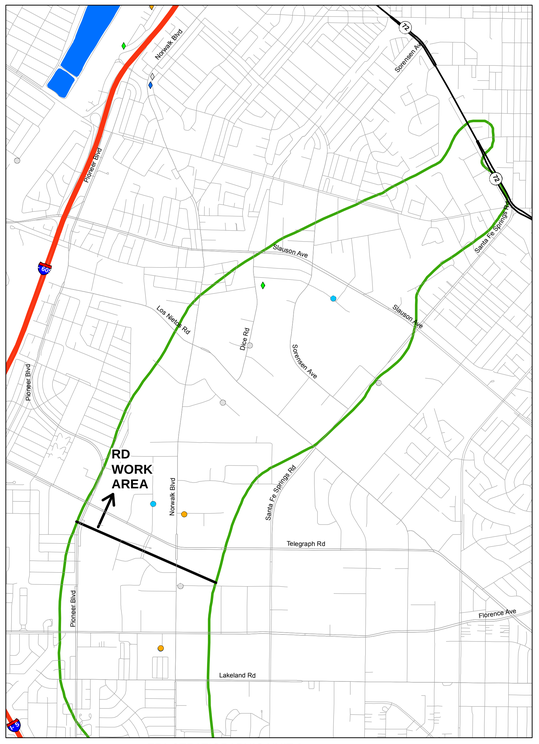


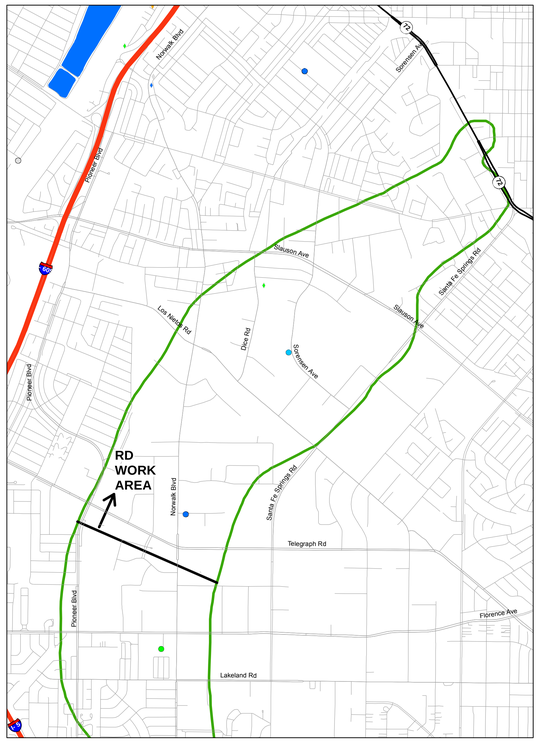
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 200 ug/l
- >200 to 400 ug/l
- >400 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

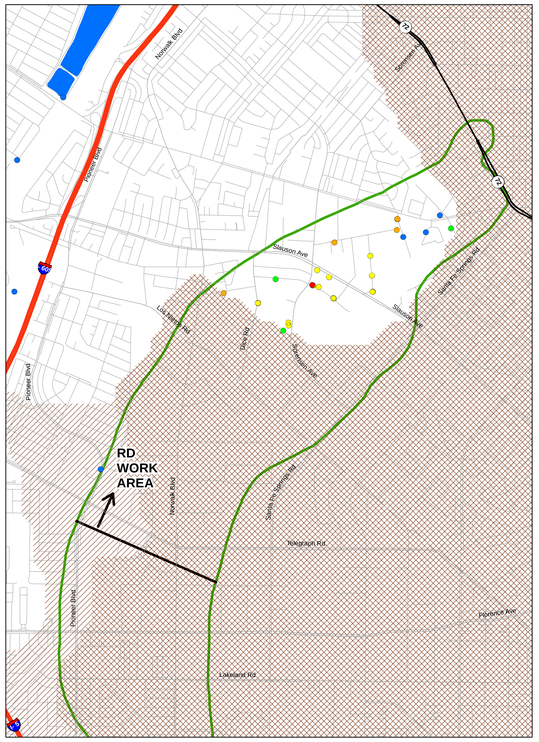
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: c212_OU_EvA300_RDWA_A1_SB_Max_DDD Date Exported: 6/1/2016

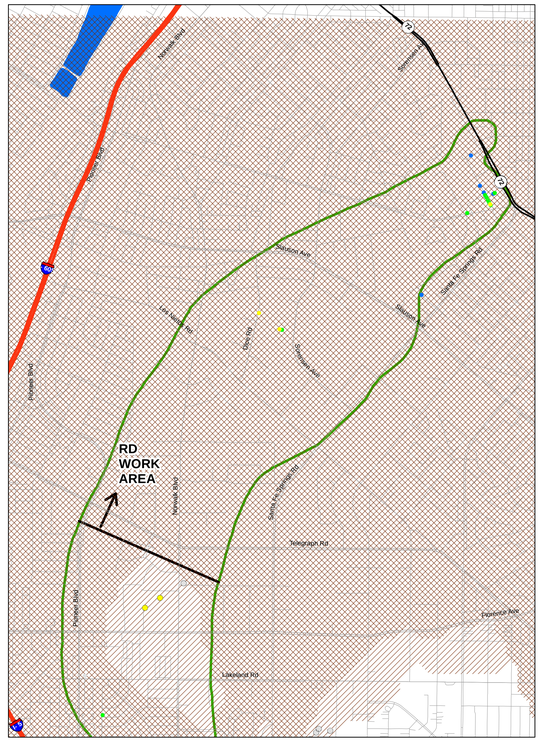
[redacted]

FIGURE A-20D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF ALUMINUM IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

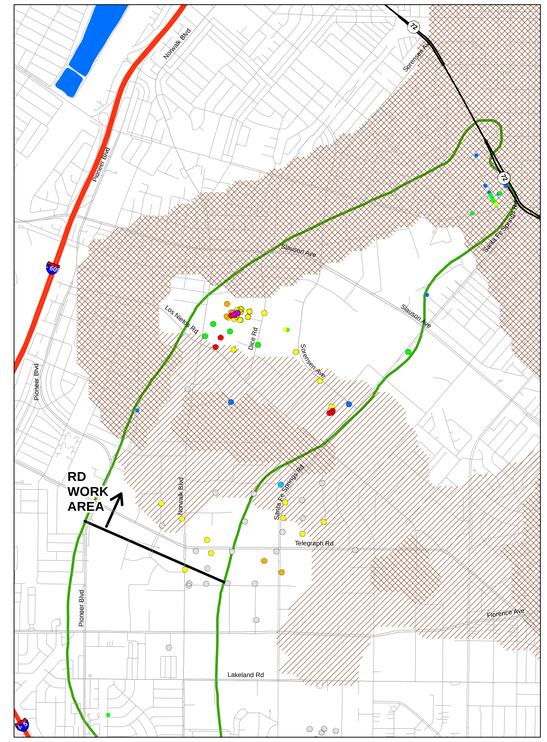
DRAFT



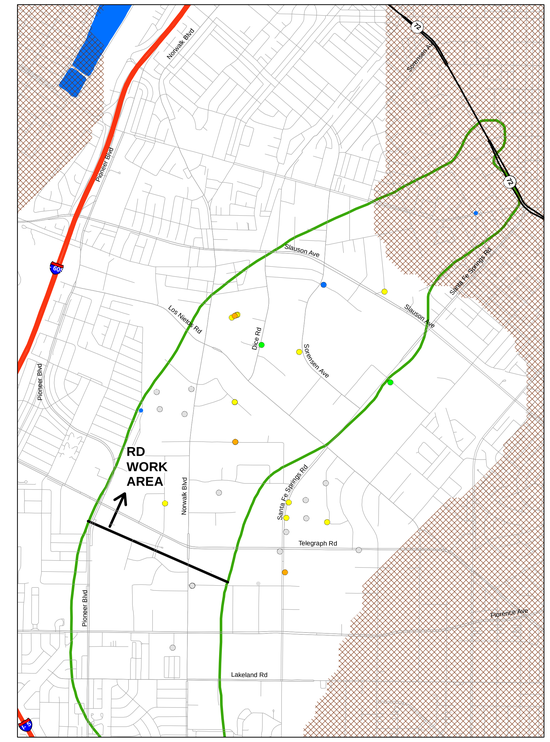
GASPUR AQUIFER



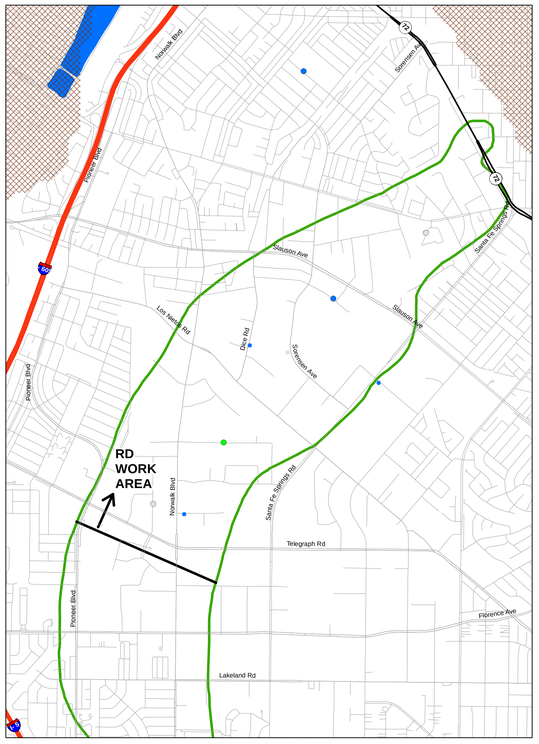
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



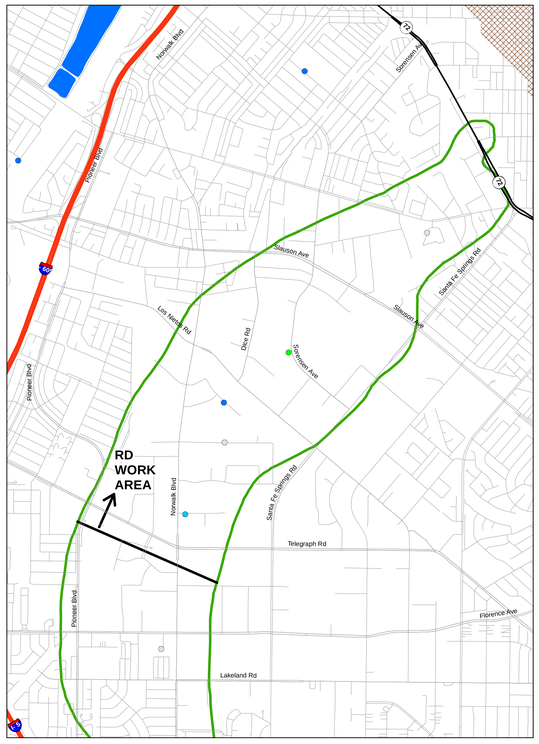
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



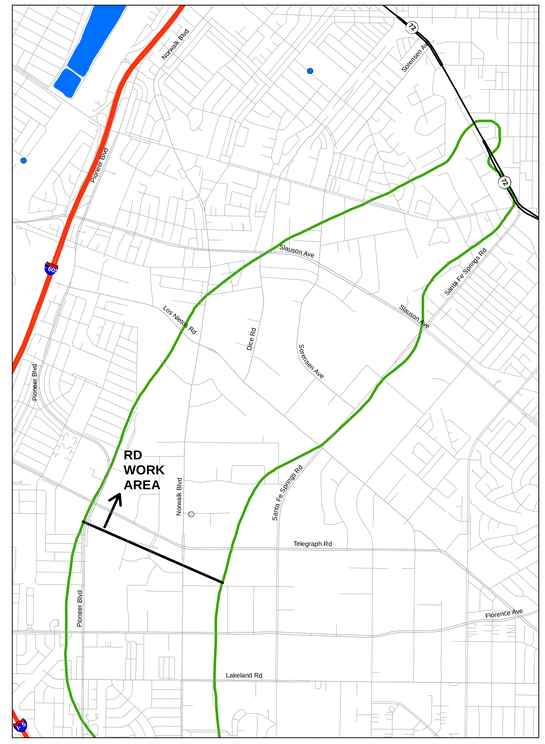
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 1 ug/l
- >1 to 5 ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

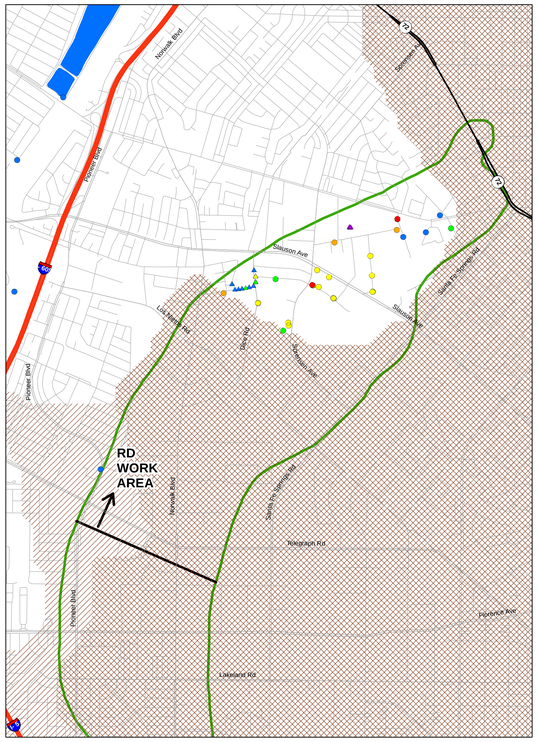
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_Fig-A21a_RDWA_CRT_B104_Ave_D00 Date Exported: 9/1/2016

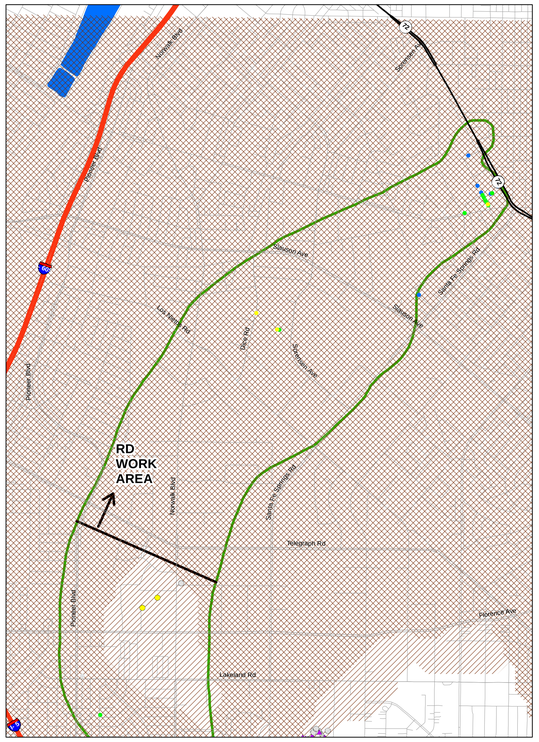
[redacted]

FIGURE A-21A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF TOTAL CHROMIUM IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

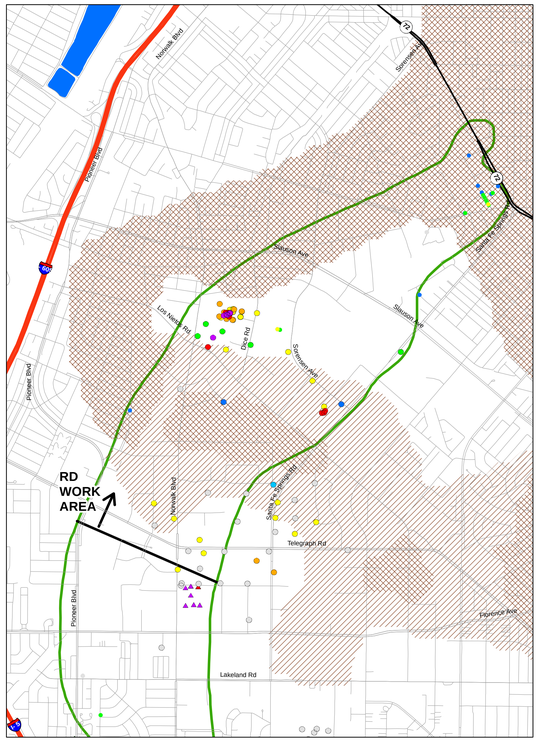
DRAFT



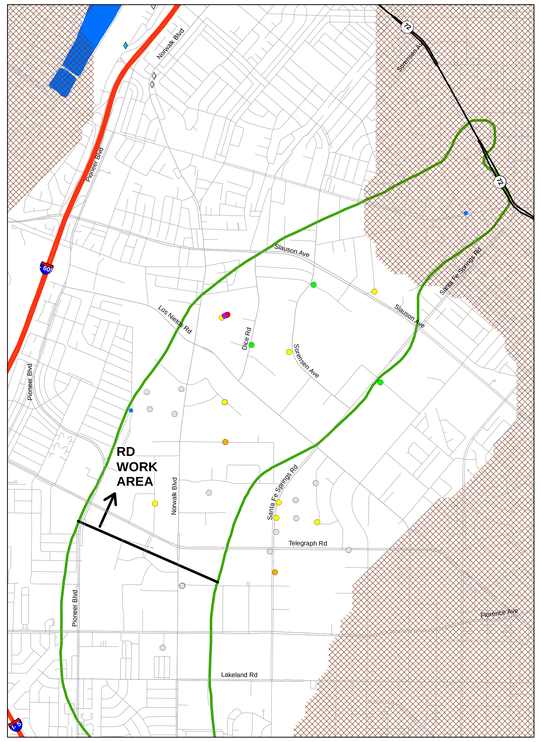
GASPUR AQUIFER



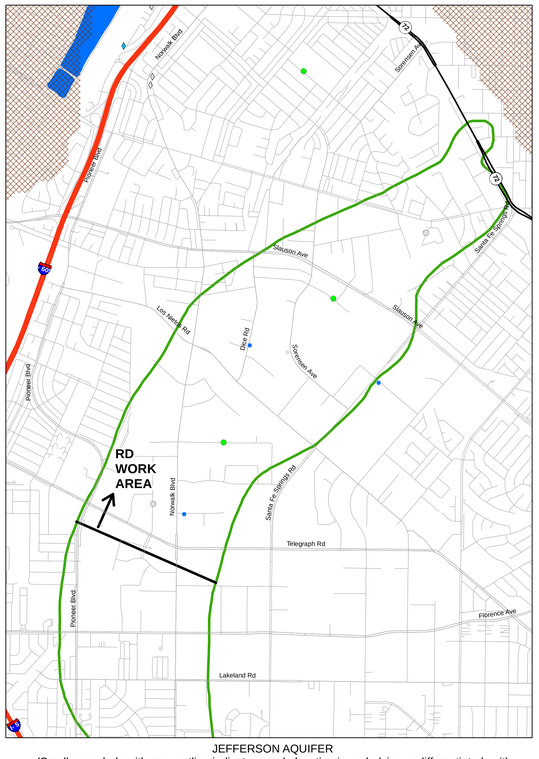
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



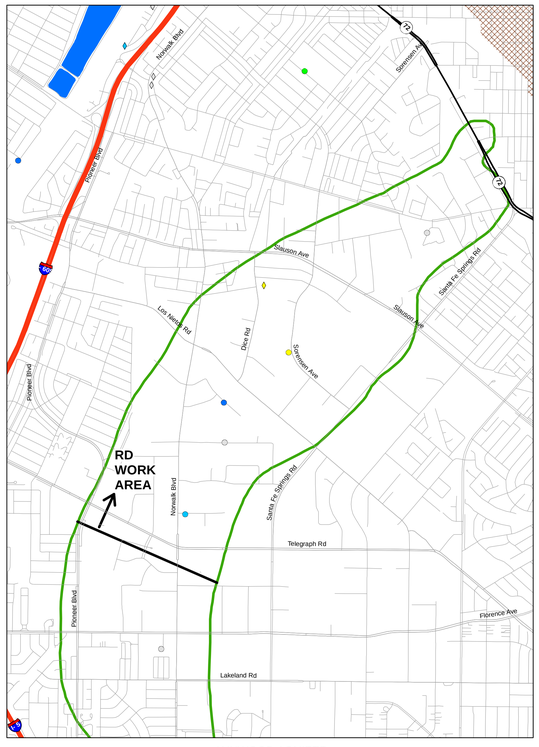
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



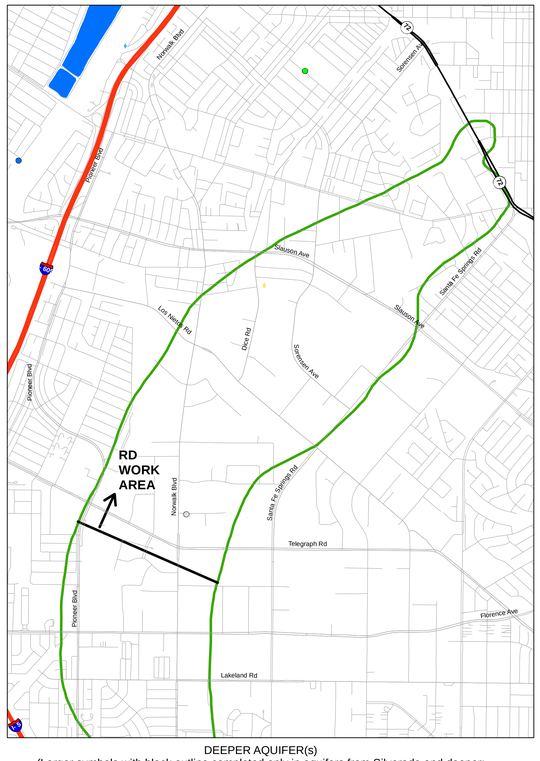
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 1 ug/l
- >1 to 5 ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

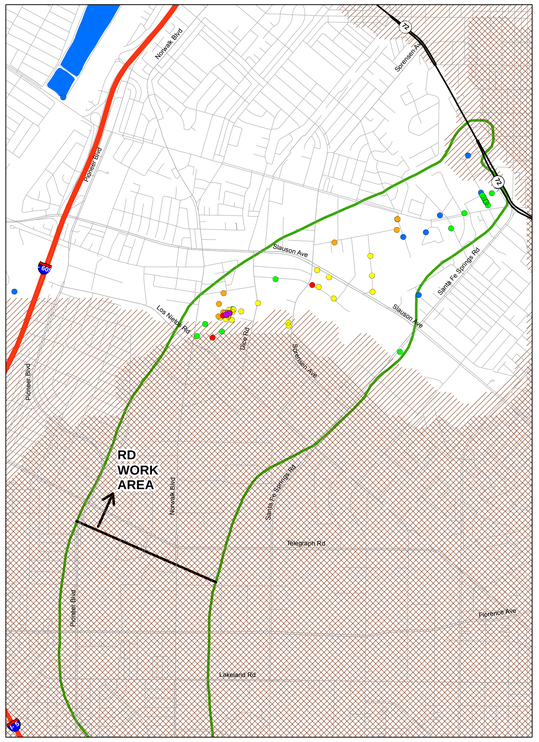
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_OU_EIA378_RDWA_CRT_B104_Mxx_DDD Date Exported: 9/1/2016

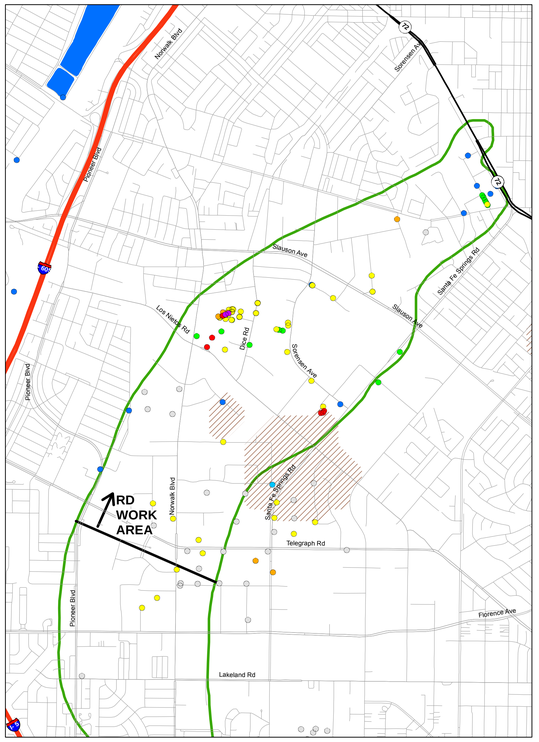
[redacted]

FIGURE A-21B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF TOTAL CHROMIUM IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

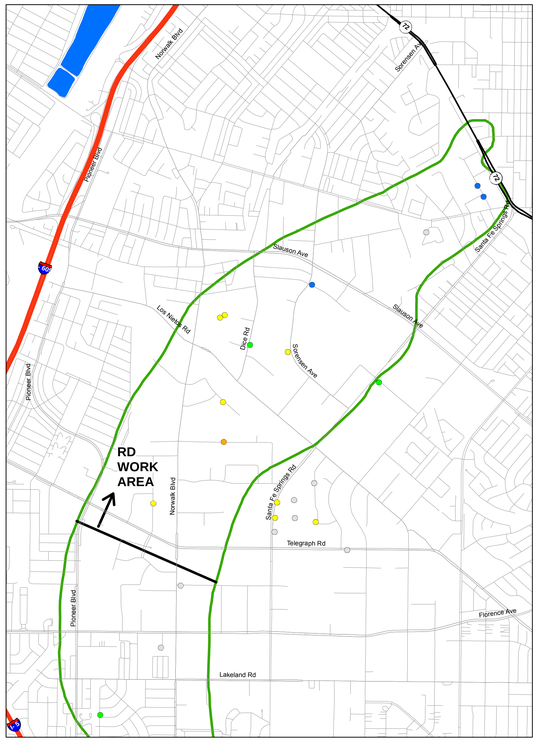
DRAFT



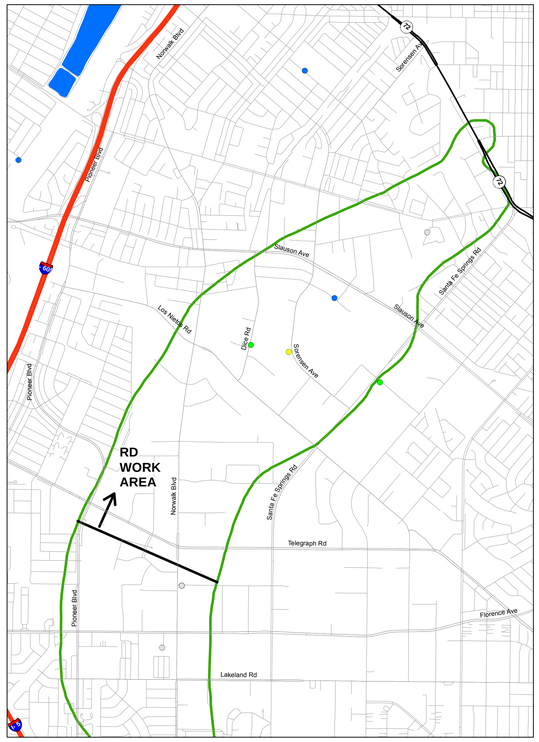
EPA STRATIGRAPHIC UNIT 2



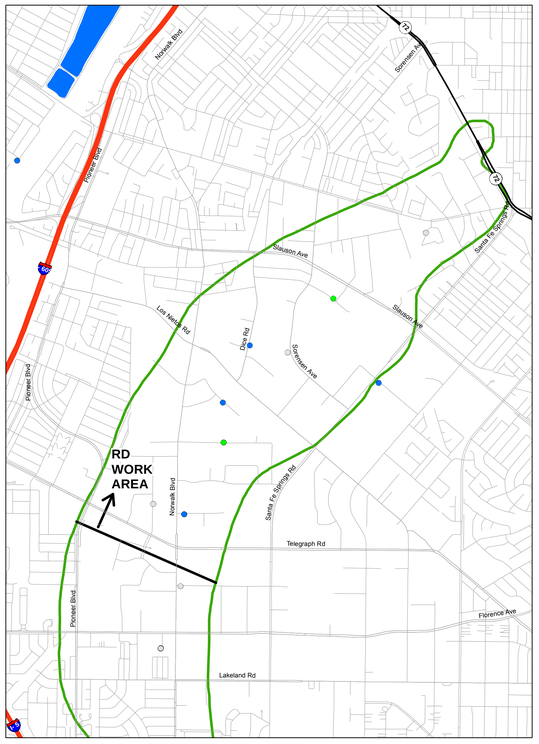
EPA STRATIGRAPHIC UNIT 3



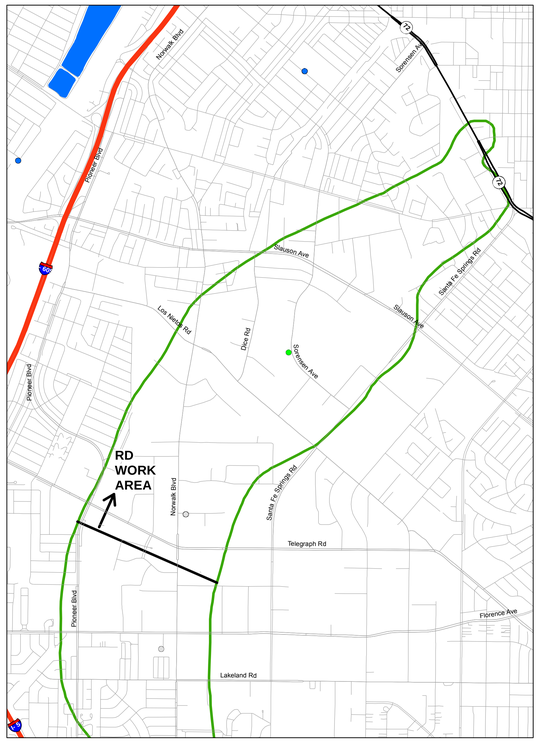
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 1 ug/l
- >1 to 5 ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

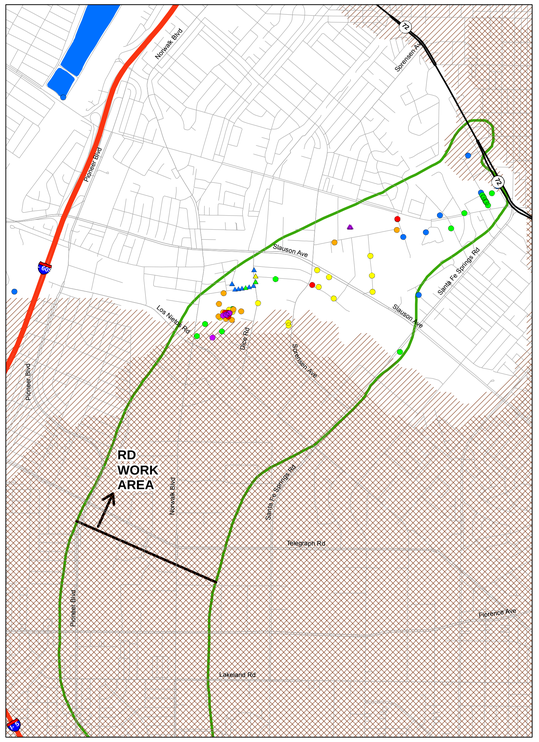
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 2317_DO_EvA21c_ROVA_CRT_SB_Ave_D00 Date Exported: 8/1/2016

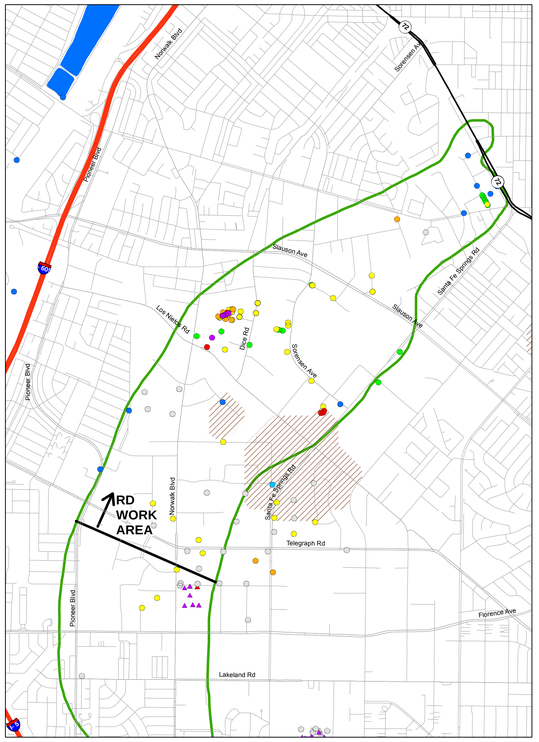
[redacted]

FIGURE A-21C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF TOTAL CHROMIUM IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

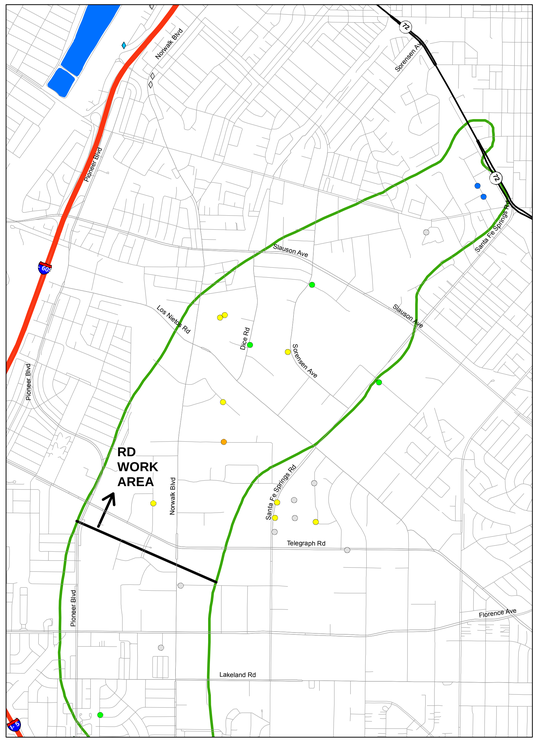
DRAFT



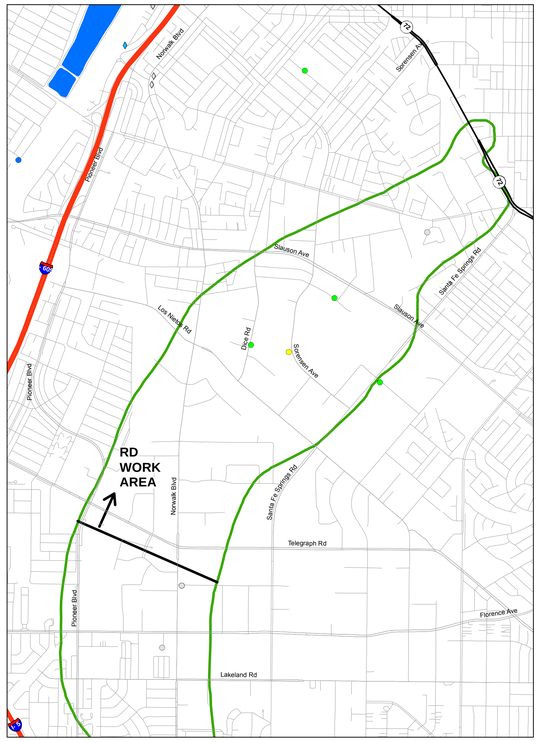
EPA STRATIGRAPHIC UNIT 2



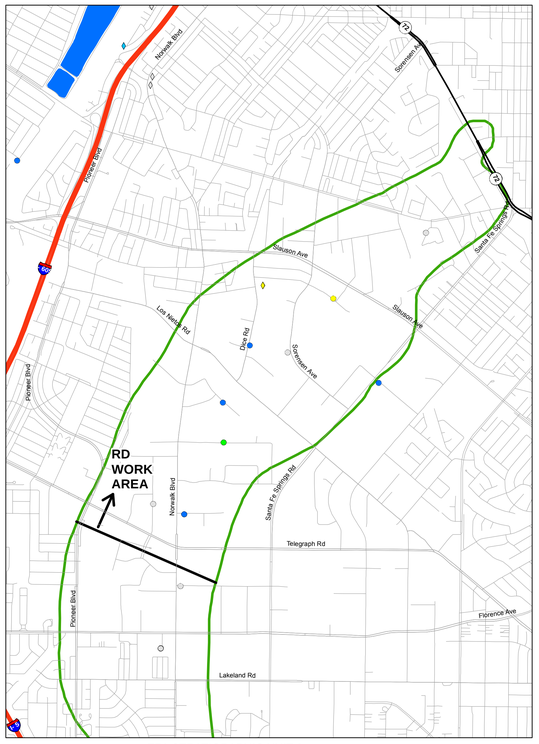
EPA STRATIGRAPHIC UNIT 3



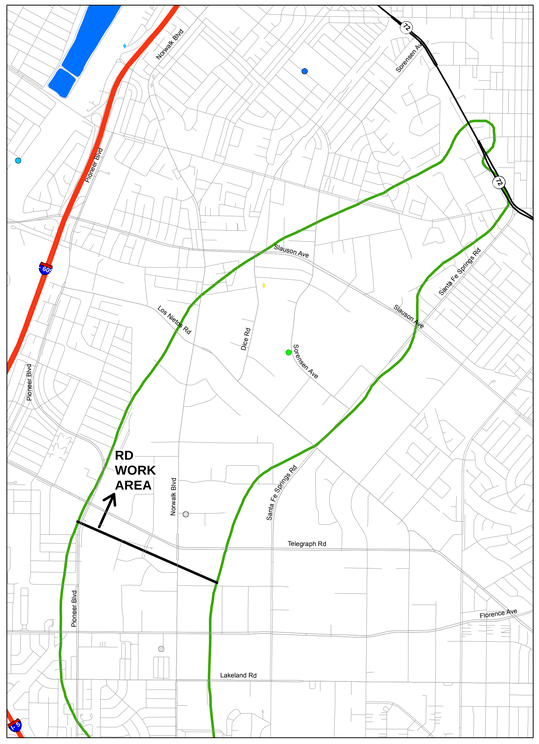
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 1 ug/l
- >1 to 5 ug/l
- >5 to 10 ug/l
- >10 to 50 ug/l
- >50 to 100 ug/l
- >100 to 500 ug/l
- >500 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

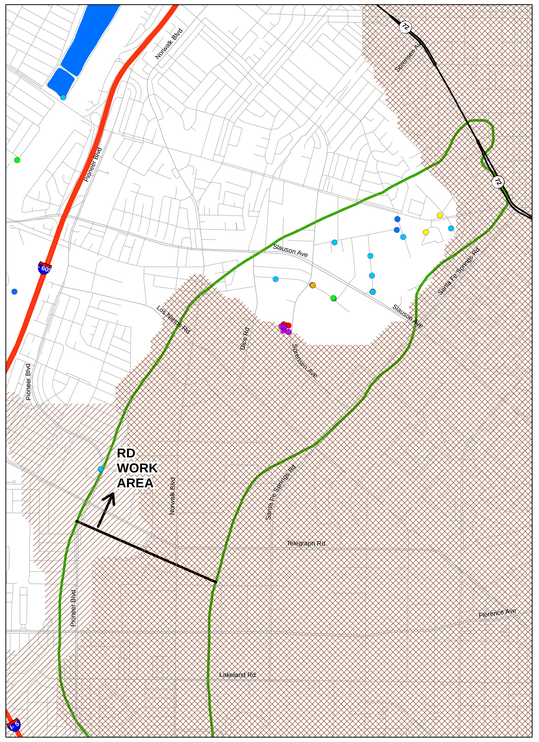
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_Fig4-21D_RDWA_CRT_SB_Max_D00 Date Exported: 9/1/2016

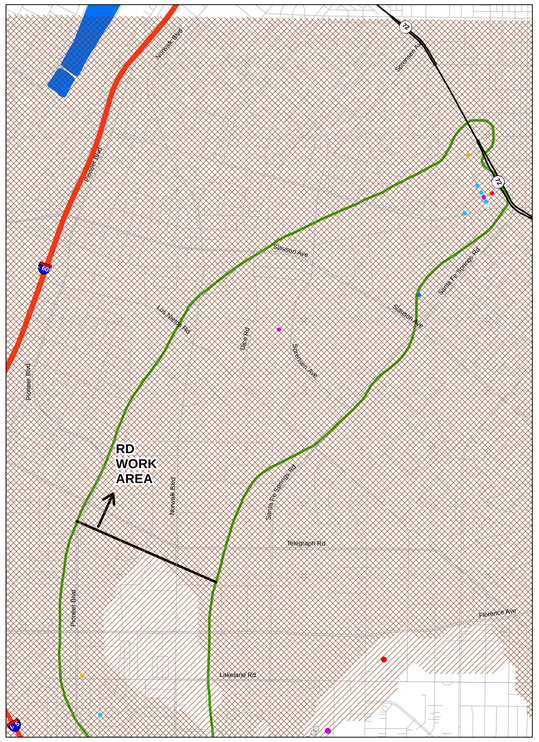
[redacted]

FIGURE A-21D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF TOTAL CHROMIUM IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

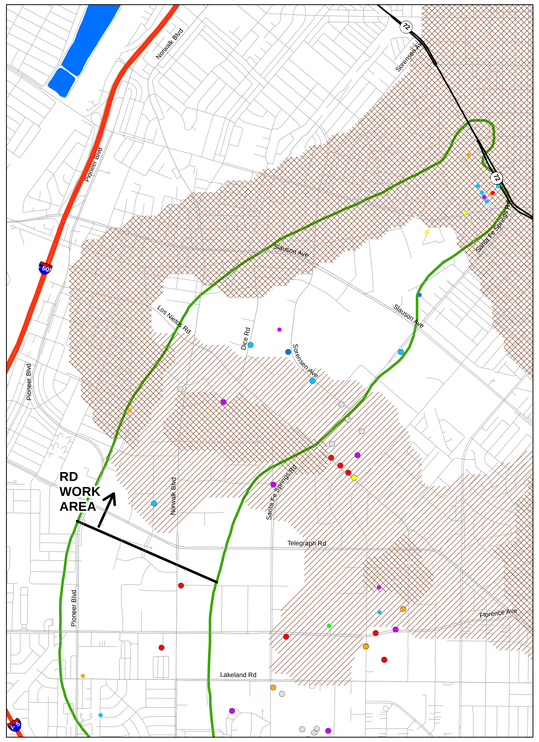
DRAFT



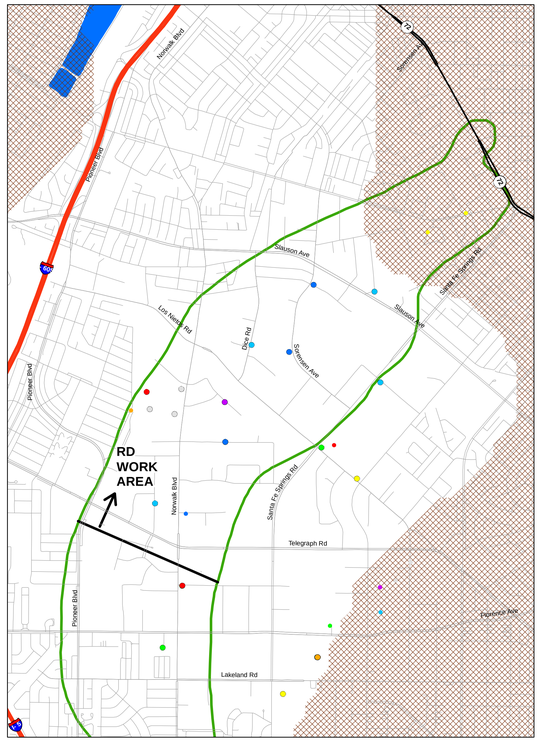
GASPUR AQUIFER



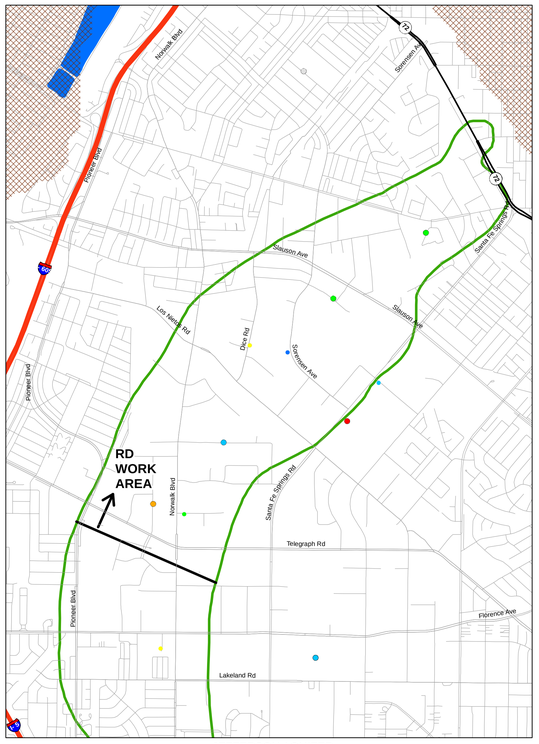
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



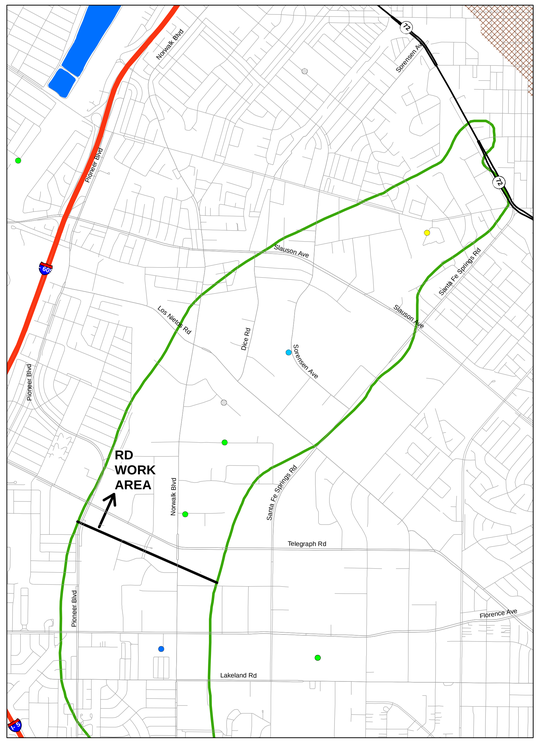
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



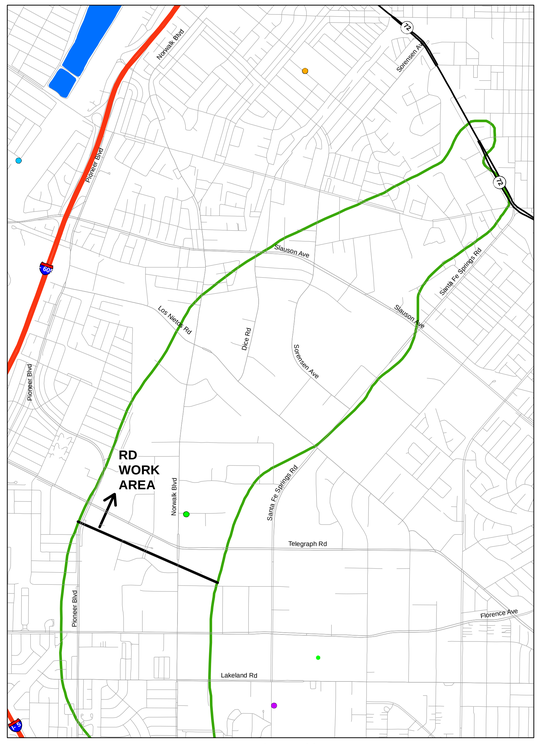
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 10 ug/l
- >10 to 25 ug/l
- >25 to 50 ug/l
- >50 to 100 ug/l
- >100 to 300 ug/l
- >300 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

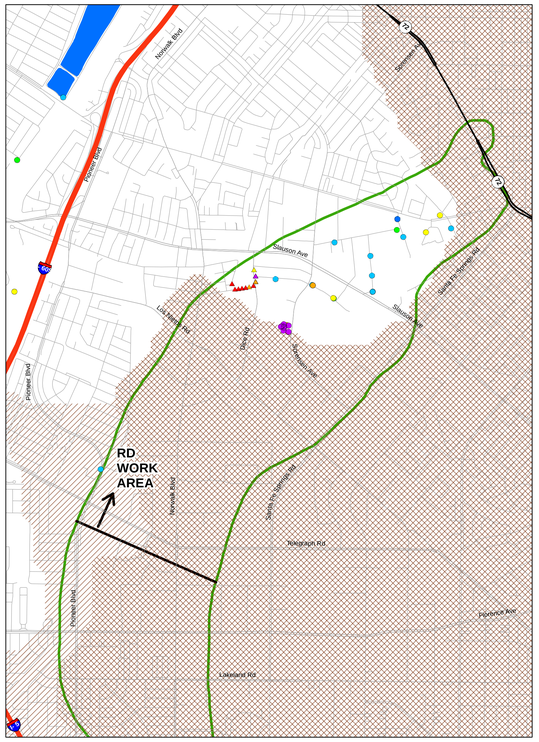
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_Fig-A22a_RDWA_Mn_B104_Ave_DOD Date Exported: 9/1/2016

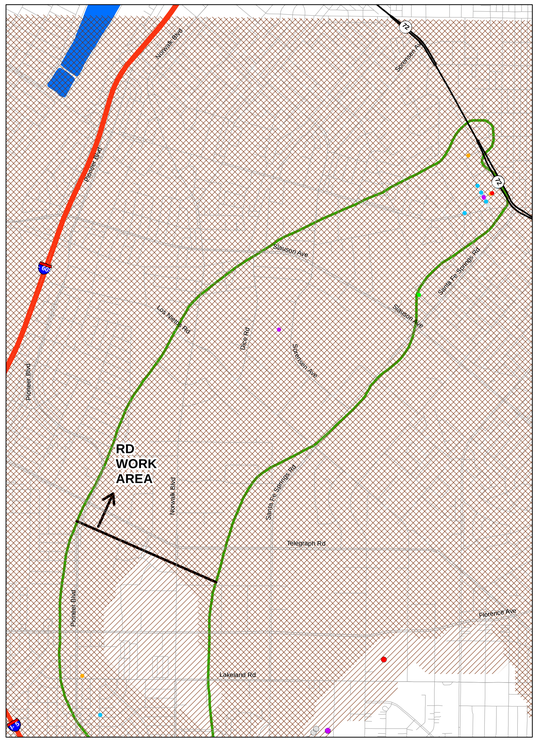
[redacted]

FIGURE A-22A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF MANGANESE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

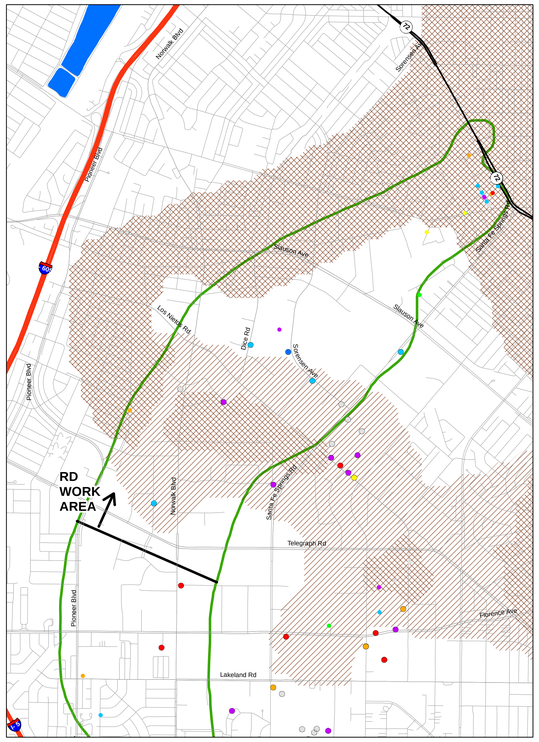
DRAFT



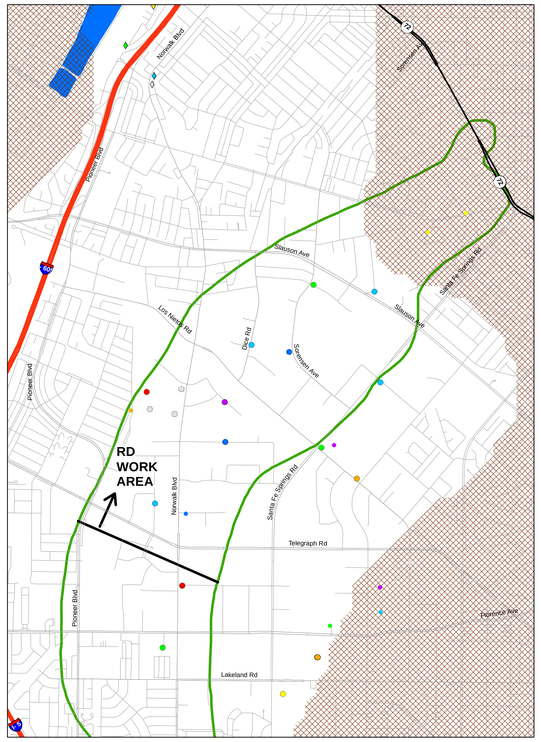
GASPUR AQUIFER



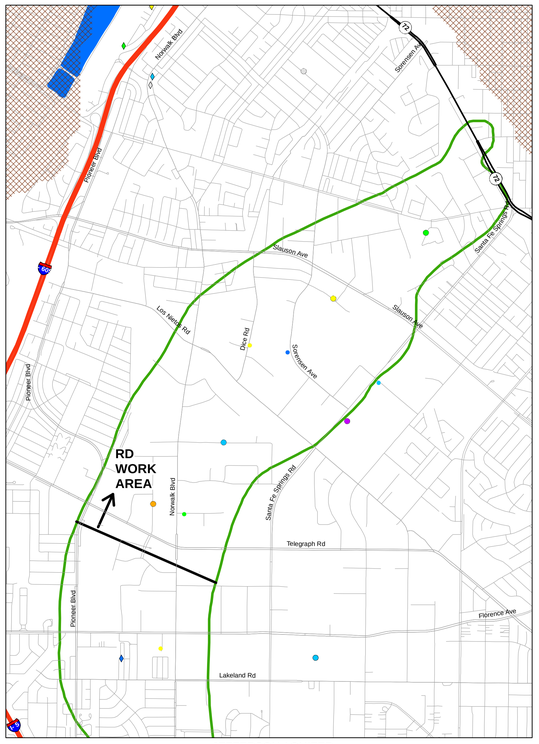
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



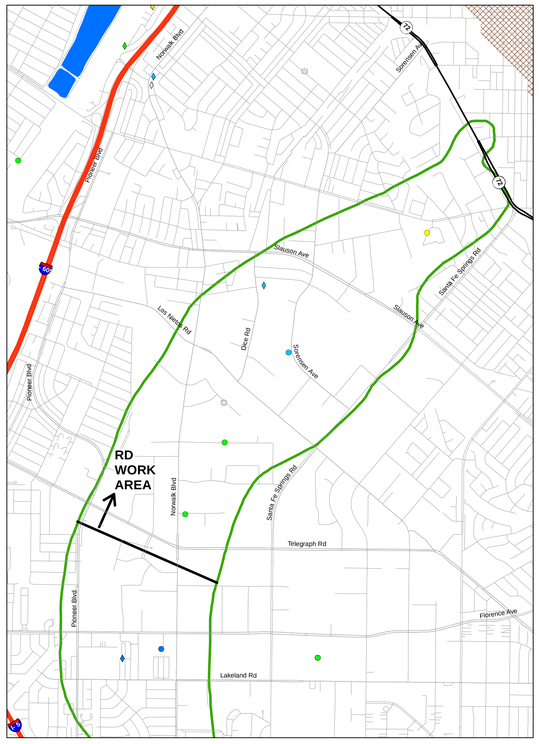
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



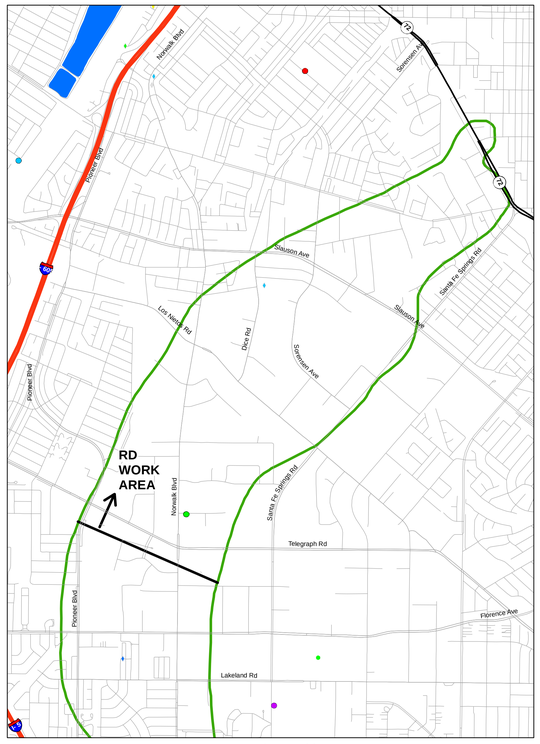
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 10 ug/l
- >10 to 25 ug/l
- >25 to 50 ug/l
- >50 to 100 ug/l
- >100 to 300 ug/l
- >300 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

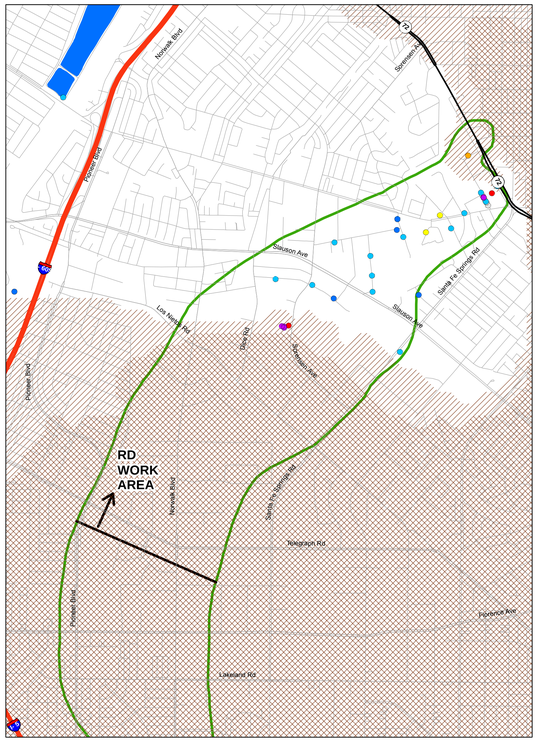
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_Fig4-22b_RDWA_Mn_B104_Mxx_DOD Date Exported: 9/1/2016

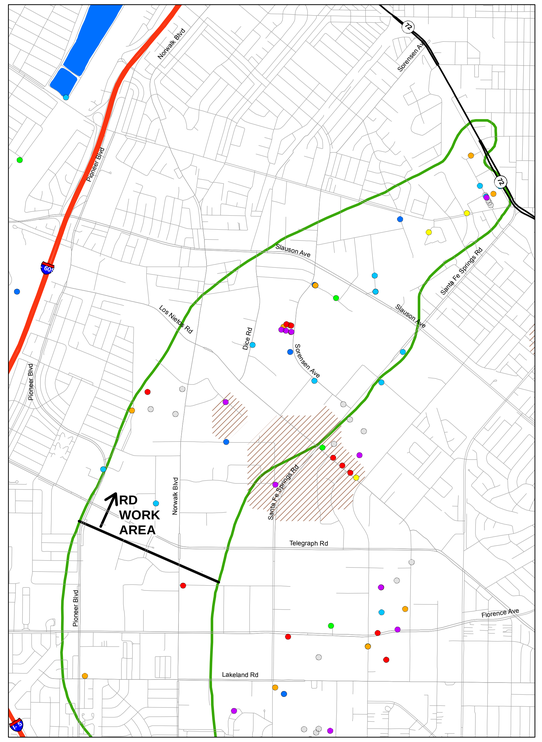
[redacted]

FIGURE A-22B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF MANGANESE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

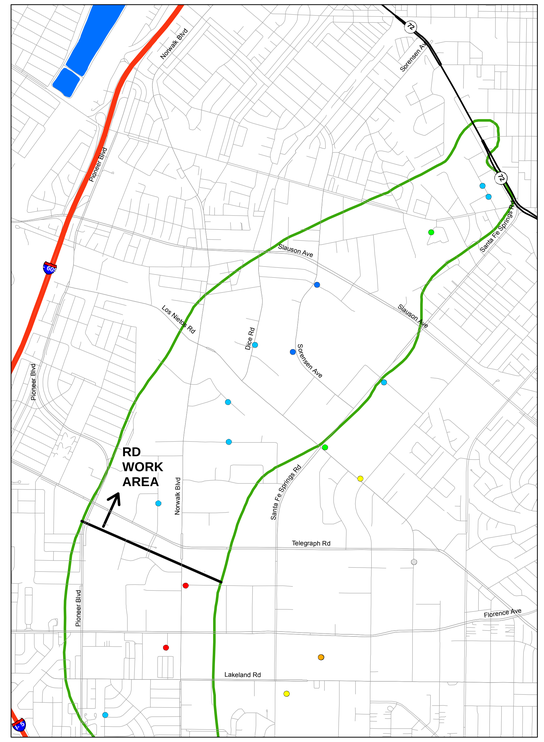
DRAFT



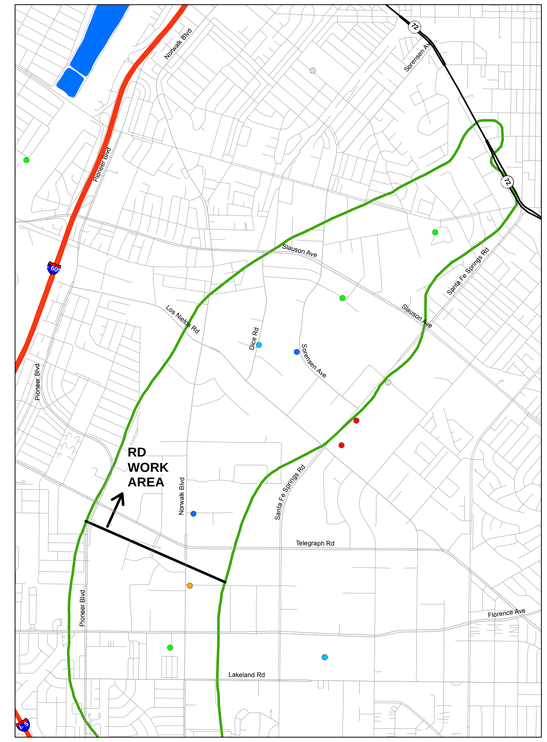
EPA STRATIGRAPHIC UNIT 2



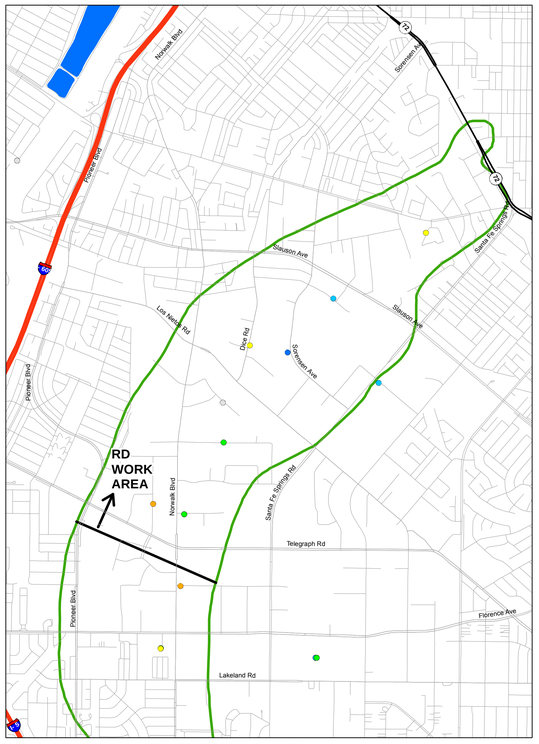
EPA STRATIGRAPHIC UNIT 3



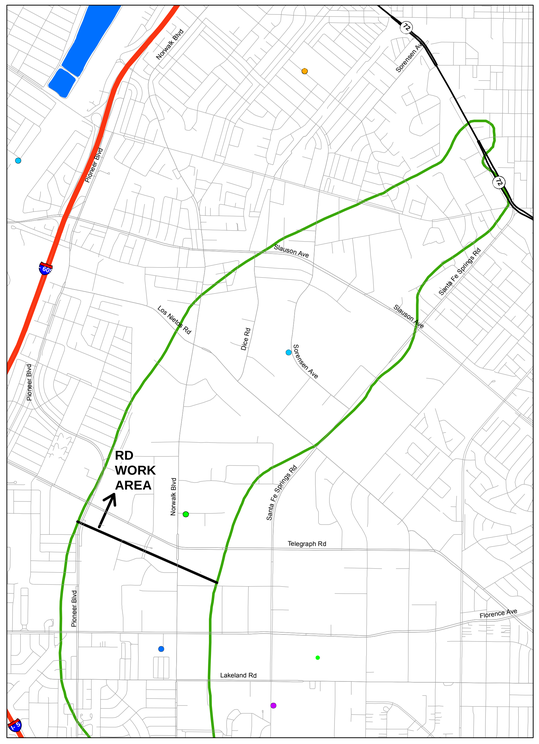
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 10 ug/l
- >10 to 25 ug/l
- >25 to 50 ug/l
- >50 to 100 ug/l
- >100 to 300 ug/l
- >300 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

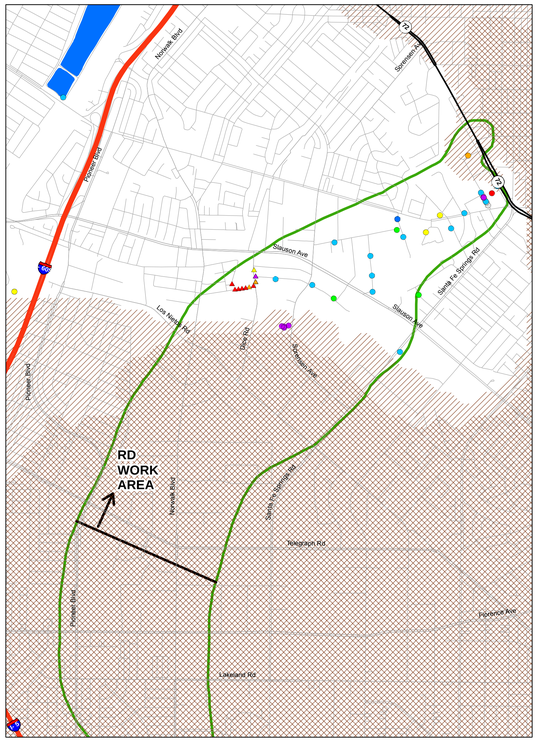
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_Fig4-22c_RDWA_Mn_SB_Ave_D00 Date Exported: 9/1/2016

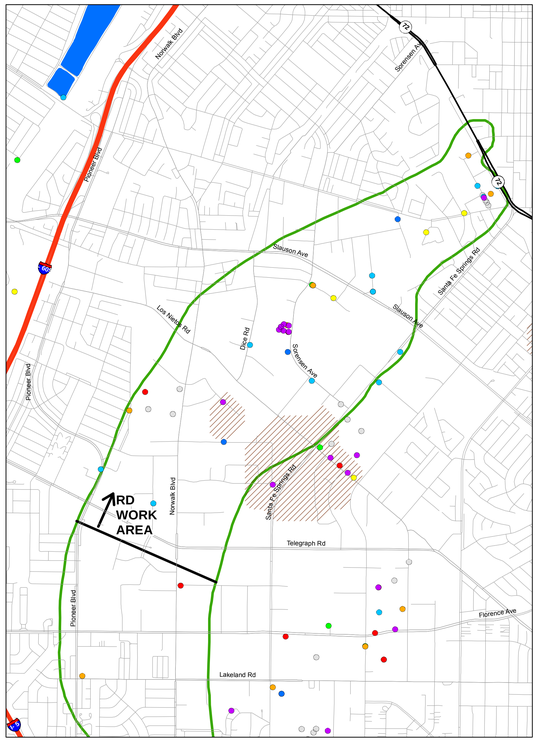
[redacted]

FIGURE A-22C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF MANGANESE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

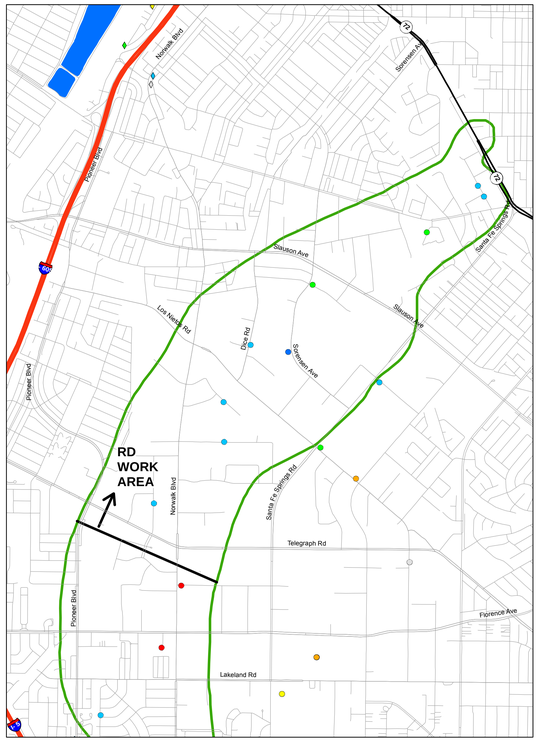
DRAFT



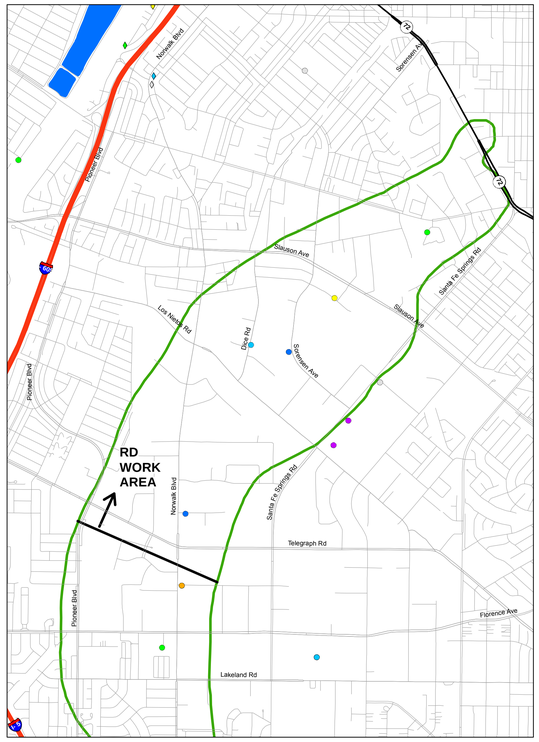
EPA STRATIGRAPHIC UNIT 2



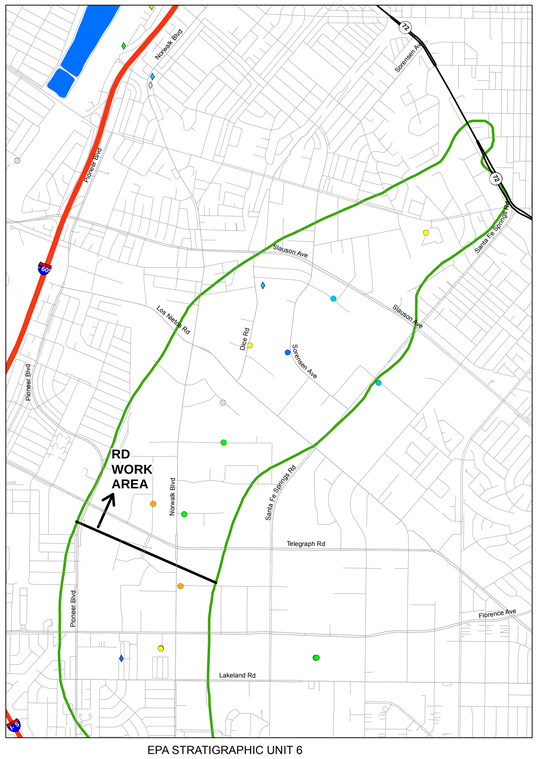
EPA STRATIGRAPHIC UNIT 3



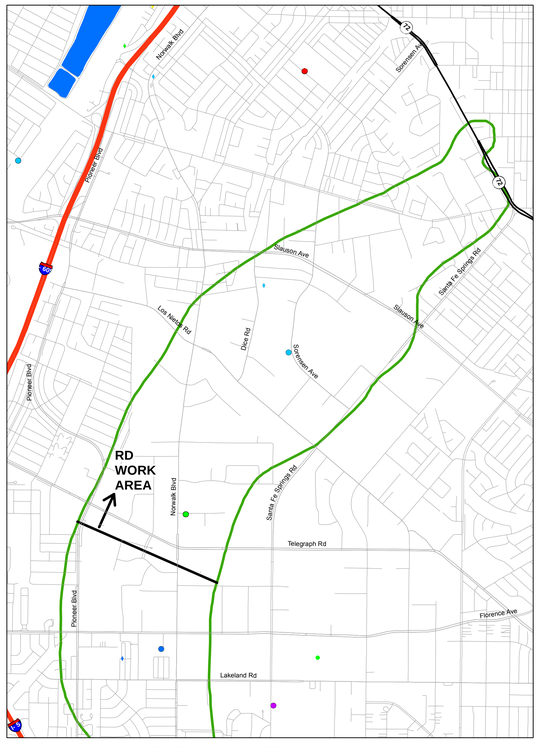
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 10 ug/l
- >10 to 25 ug/l
- >25 to 50 ug/l
- >50 to 100 ug/l
- >100 to 300 ug/l
- >300 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

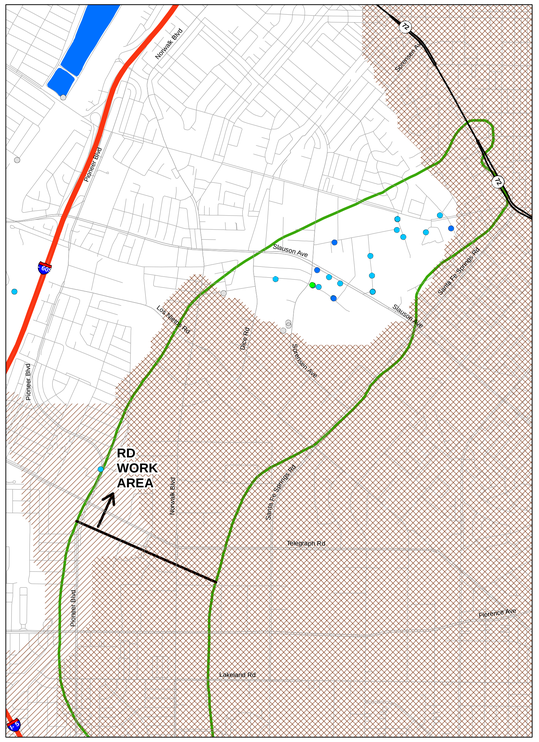
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 2317_OU_EvA320_RDWA_Mn_SB_Mtx_D00 Date Exported: 5/1/2016

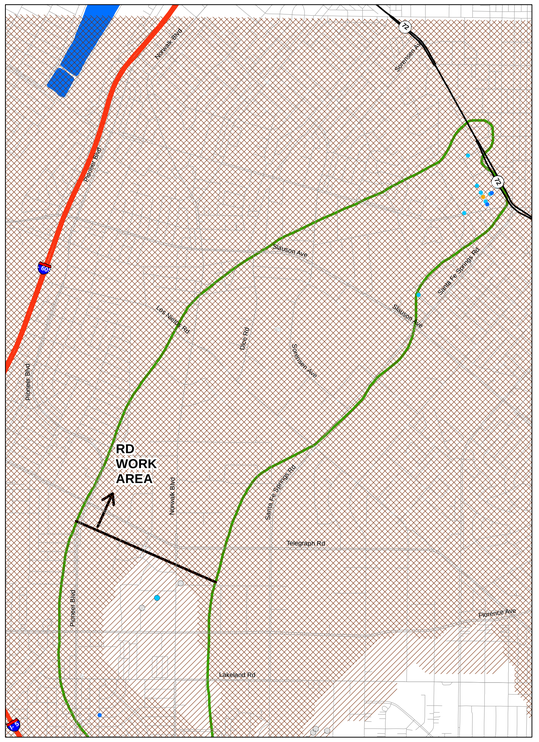
HARGIS + ASSOCIATES, INC
Hydrogeology/Engineering

FIGURE A-22D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF MANGANESE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

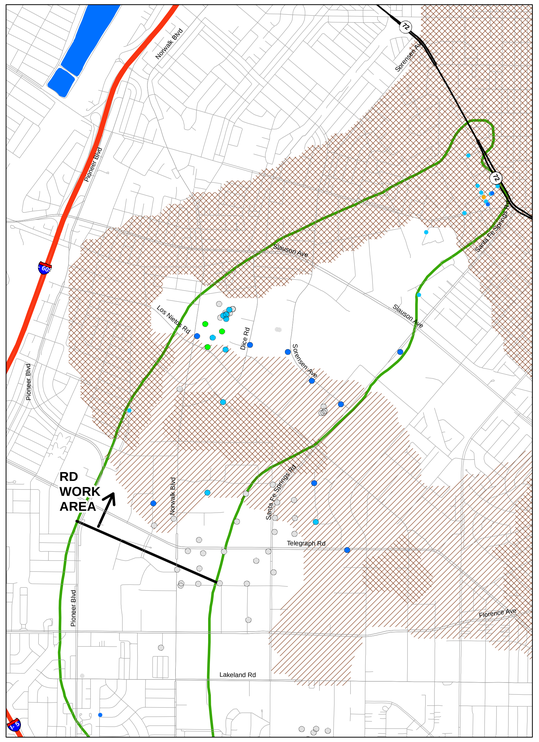
DRAFT



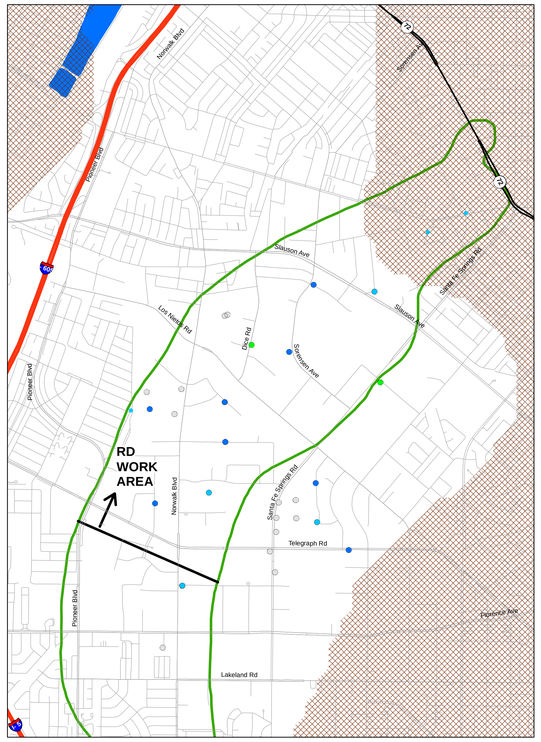
GASPUR AQUIFER



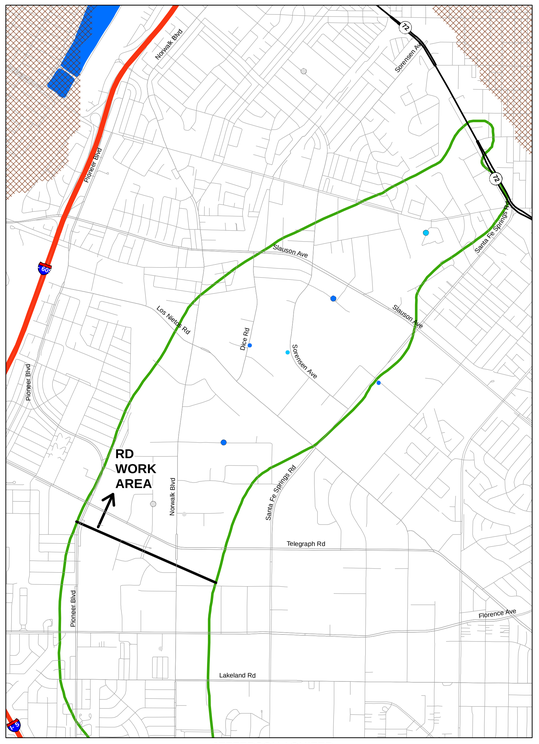
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



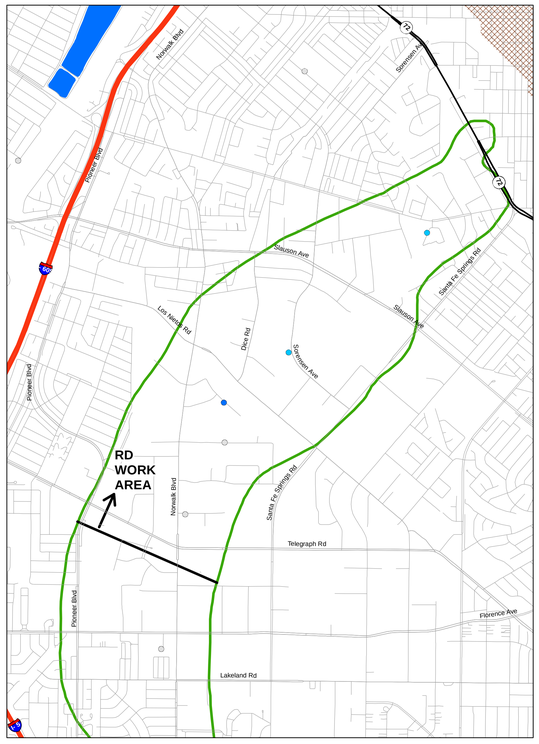
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



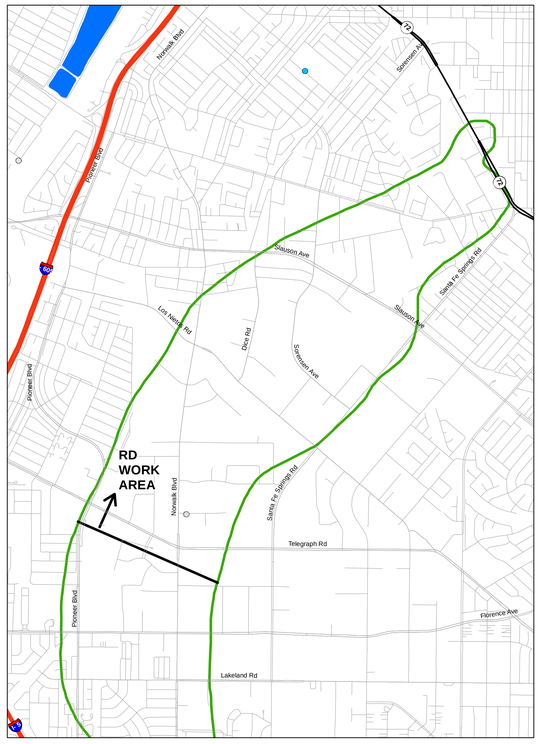
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 10 ug/l
- >10 to 25 ug/l
- >25 to 50 ug/l
- >50 to 100 ug/l
- >100 to 300 ug/l
- >300 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

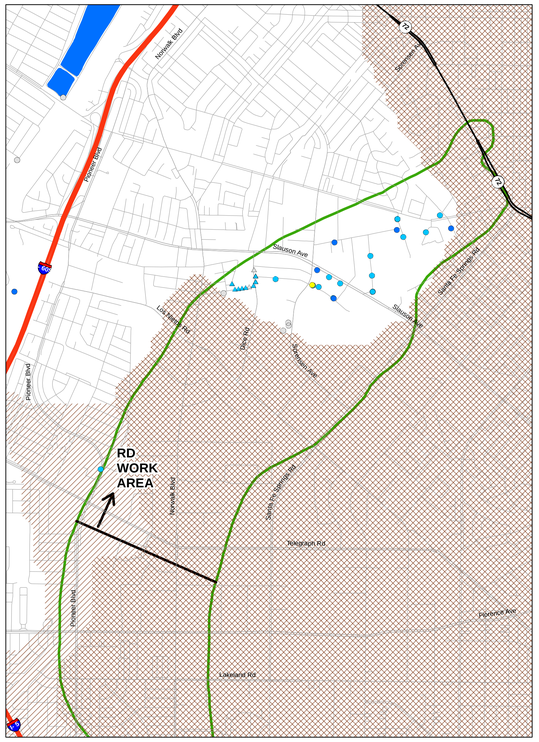
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_Fig-A23a_RDWA_Se_B104_Ave_D00 Date Exported: 9/1/2016

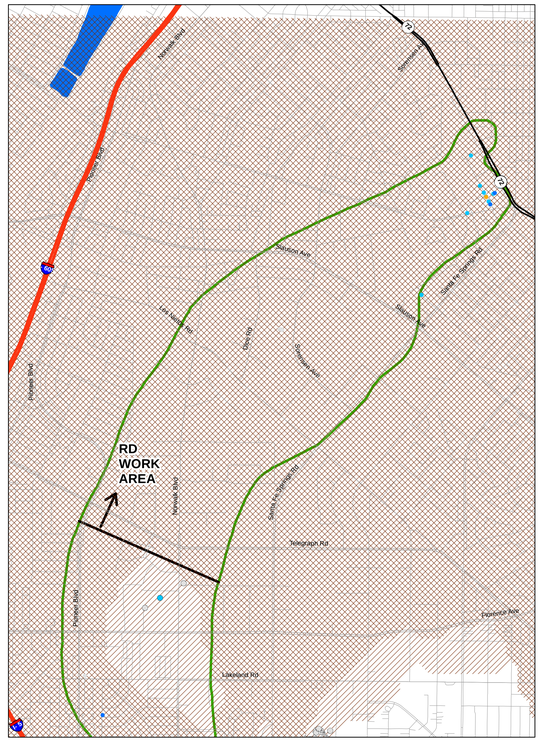
[redacted]

FIGURE A-23A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF SELENIUM IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

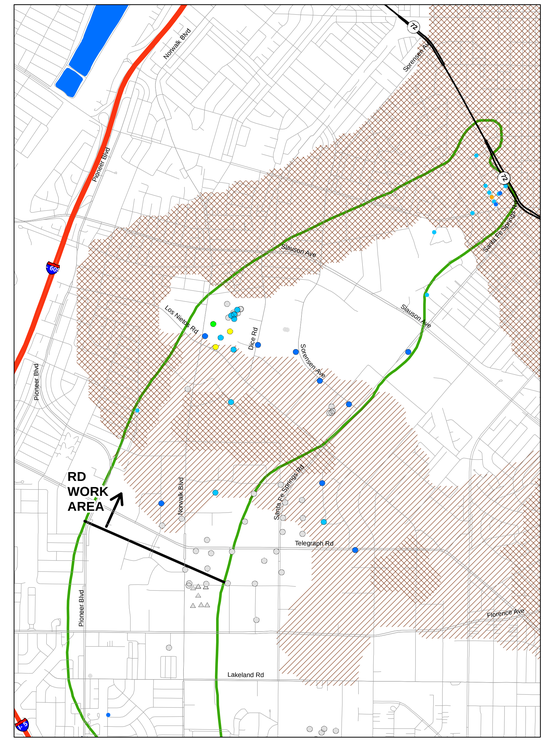
DRAFT



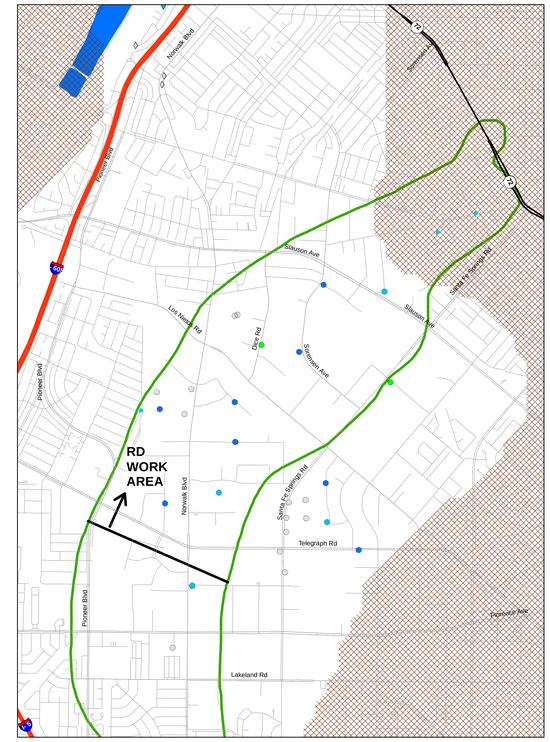
GASPUR AQUIFER



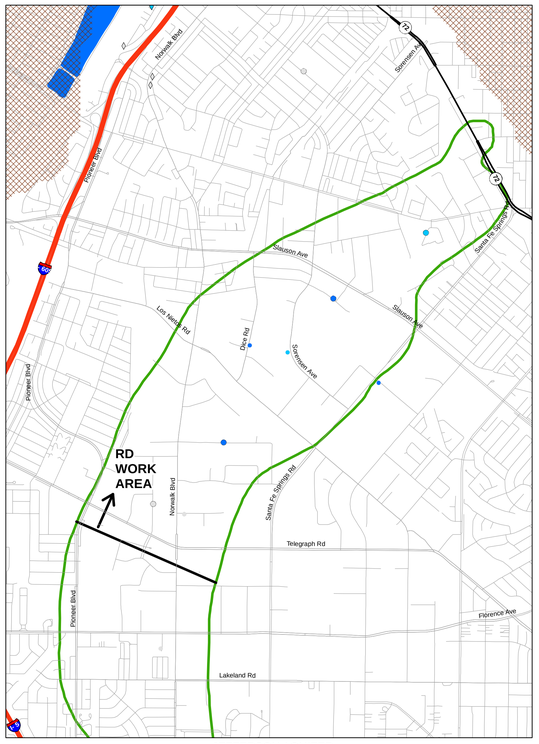
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



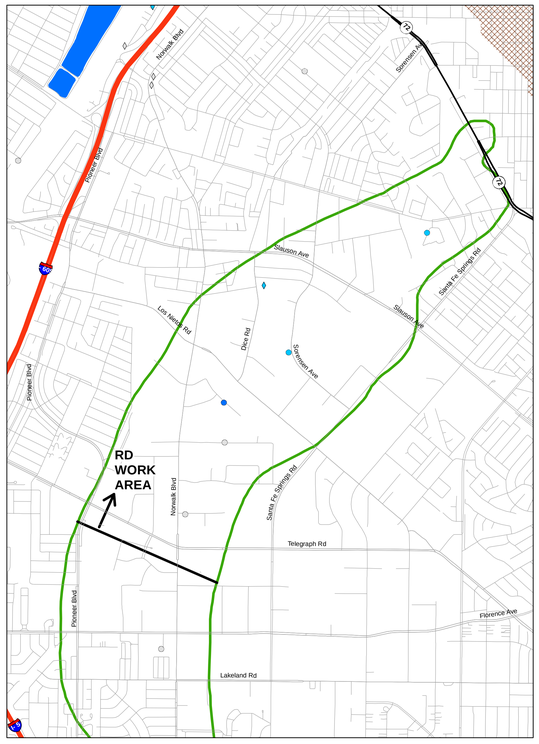
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



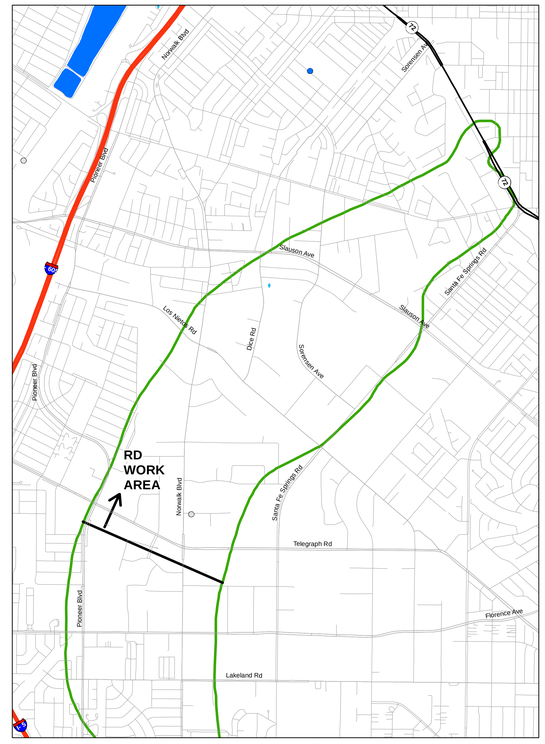
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND FOR MAXIMUM CONCENTRATION POSTING

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 10 ug/l
- >10 to 25 ug/l
- >25 to 50 ug/l
- >50 to 100 ug/l
- >100 to 300 ug/l
- >300 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

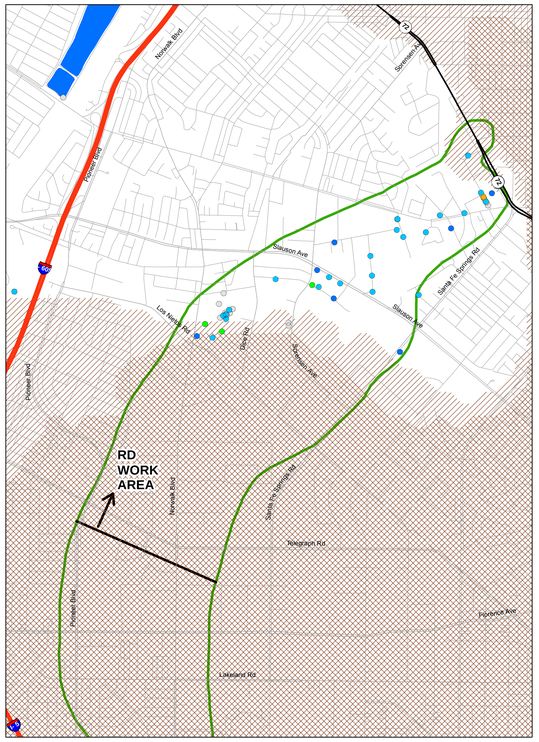
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_Fig4-23b_RDWA_Se_B104_Max_DOD Date Exported: 9/1/2016

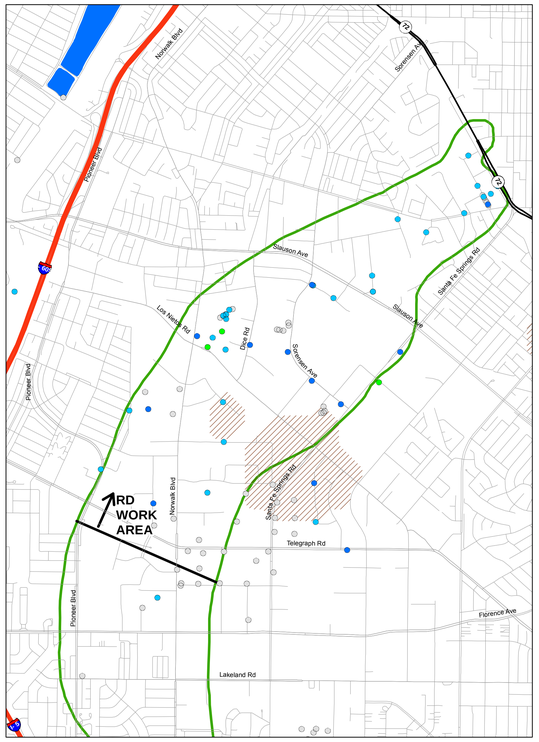
[redacted]

FIGURE A-23B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF SELENIUM IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

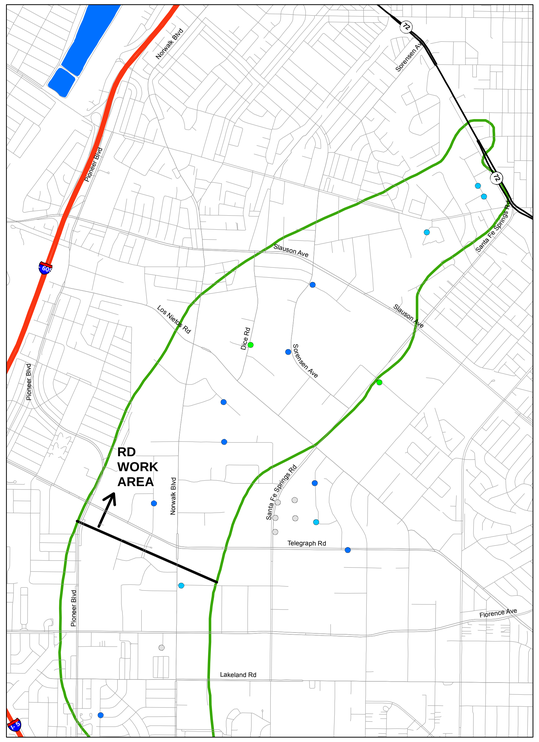
DRAFT



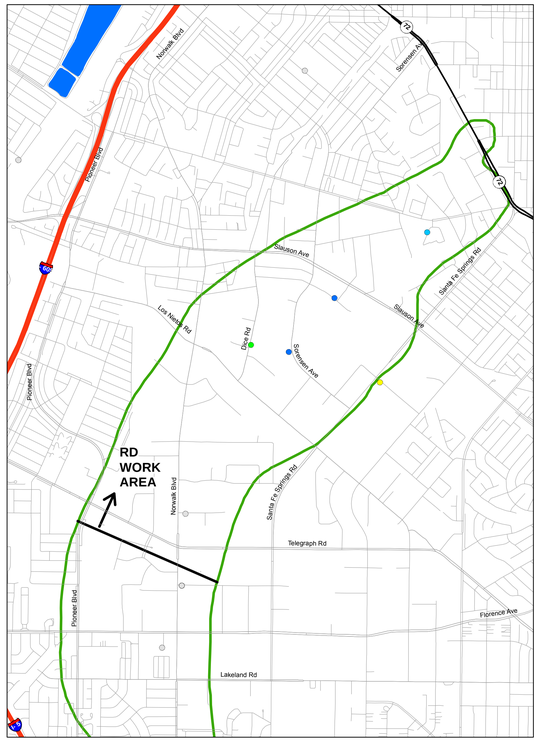
EPA STRATIGRAPHIC UNIT 2



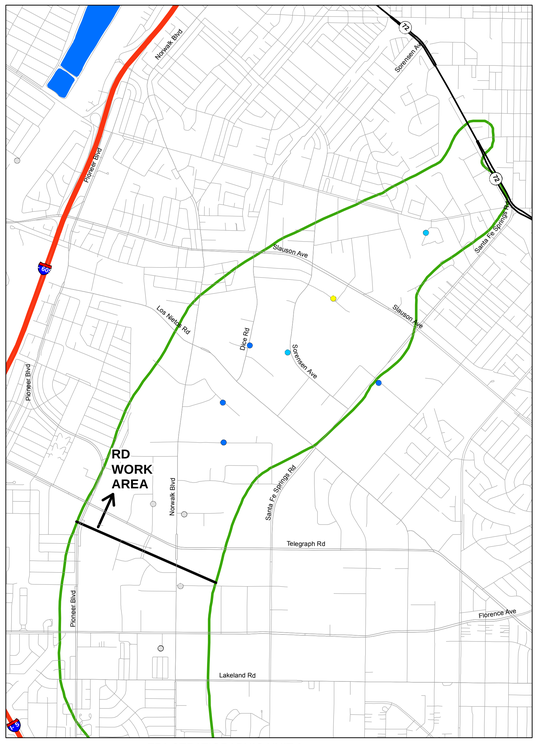
EPA STRATIGRAPHIC UNIT 3



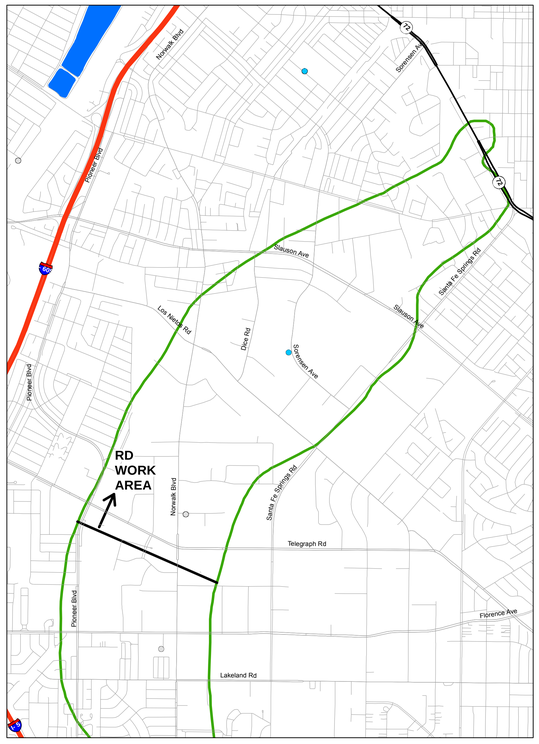
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 10 ug/l
- >10 to 25 ug/l
- >25 to 50 ug/l
- >50 to 100 ug/l
- >100 to 300 ug/l
- >300 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

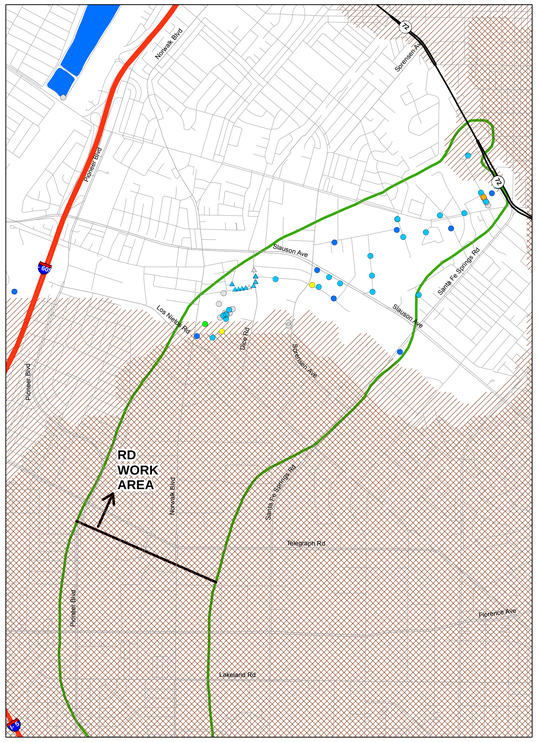
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_Fig4-23c_RDWA_Se_SB_Ave_D00 Date Exported: 9/1/2016

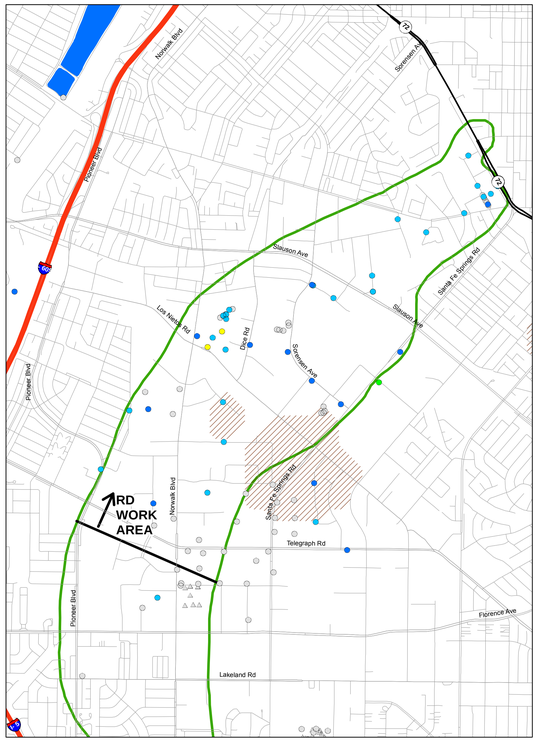
[redacted]

FIGURE A-23C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF SELENIUM IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

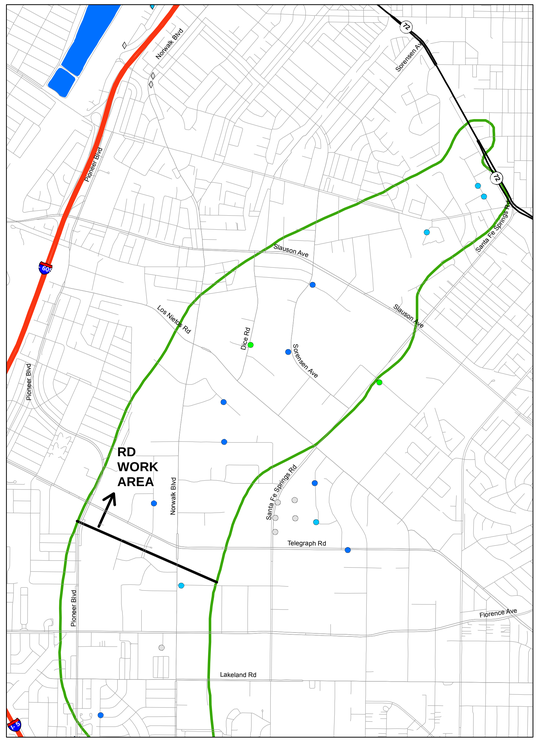
DRAFT



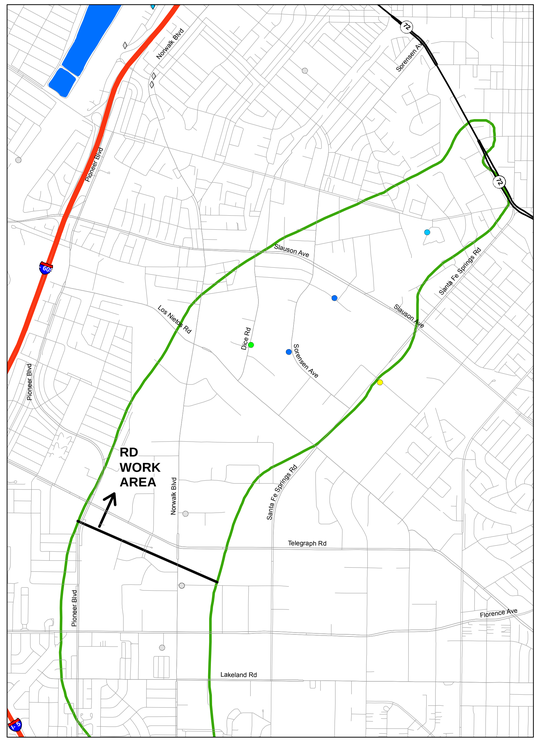
EPA STRATIGRAPHIC UNIT 2



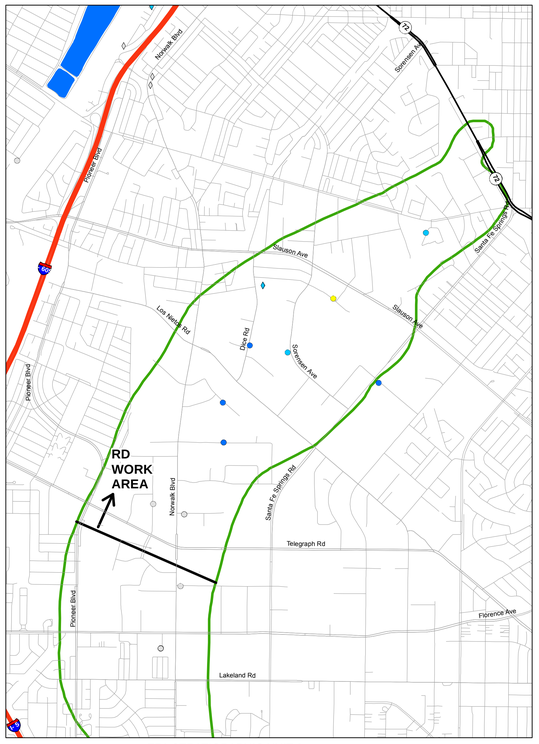
EPA STRATIGRAPHIC UNIT 3



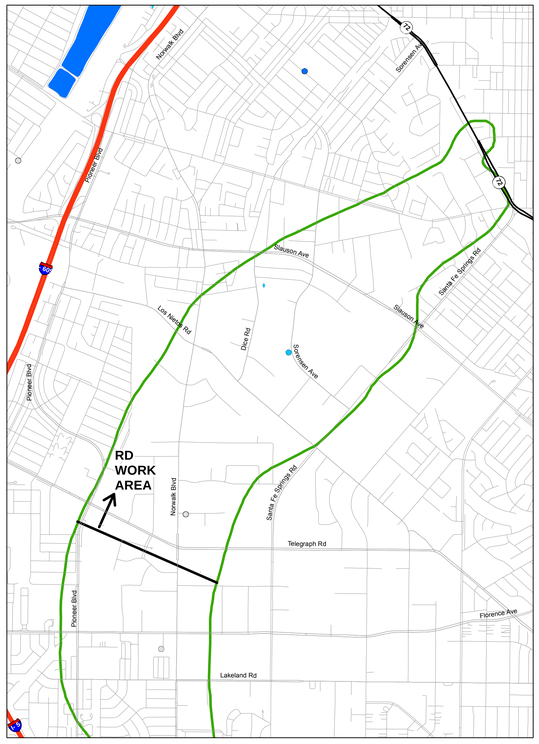
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 10 ug/l
- >10 to 25 ug/l
- >25 to 50 ug/l
- >50 to 100 ug/l
- >100 to 300 ug/l
- >300 to 1,000 ug/l
- >1,000 ug/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

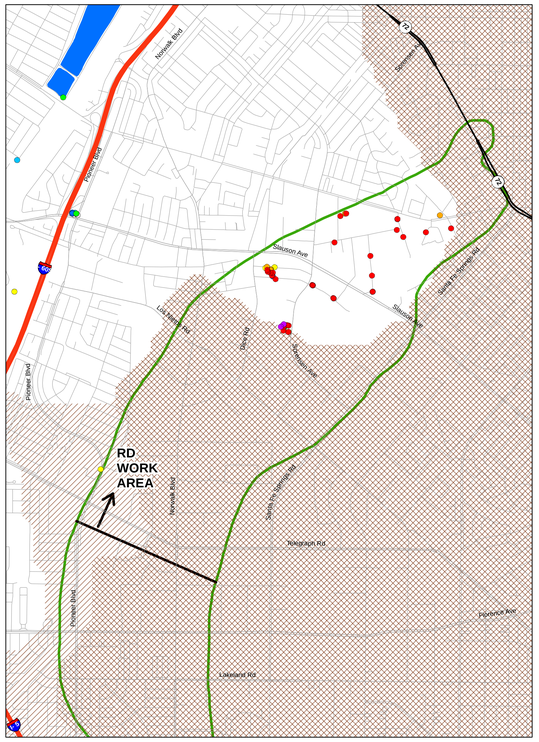
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 2317_OU_EvA320_RDWA_Se_SB_Max_DDD Date Exported: 9/1/2016

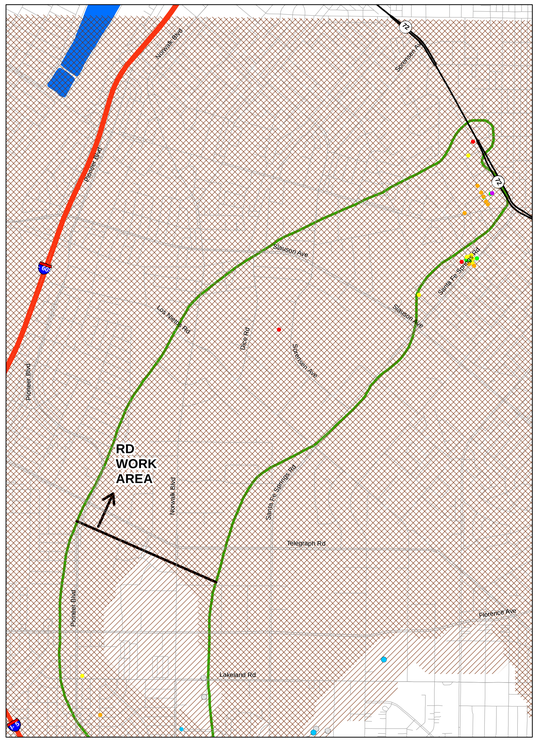
[redacted]

FIGURE A-23D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF SELENIUM IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

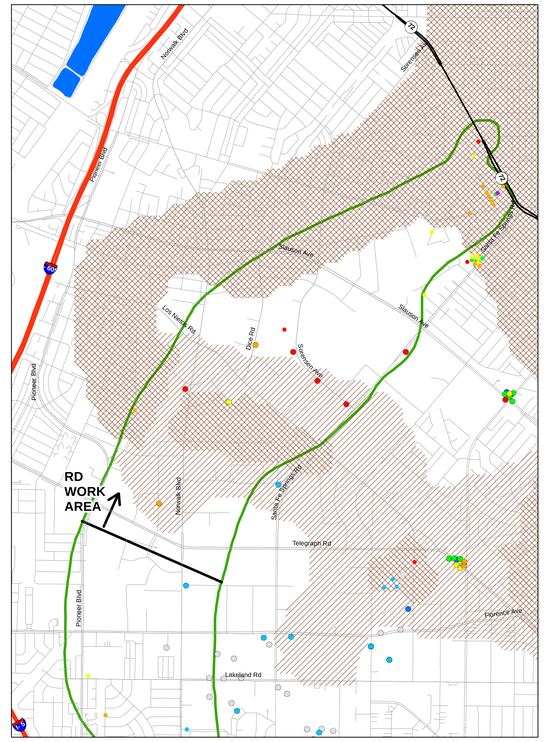
DRAFT



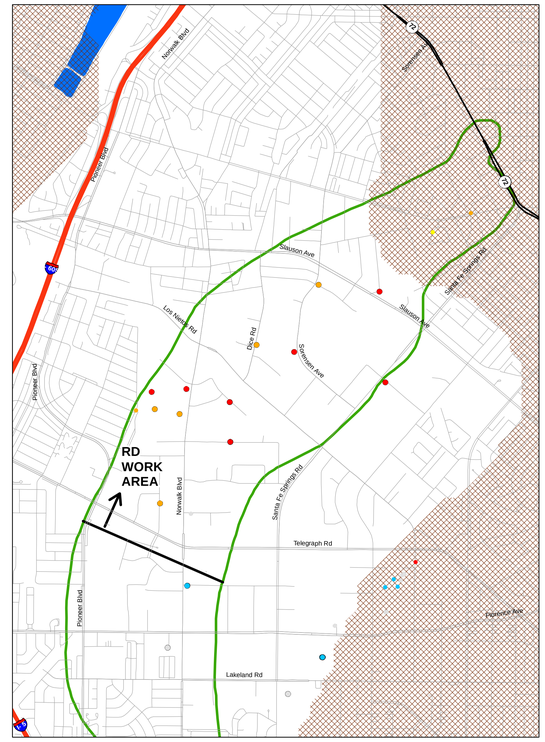
GASPUR AQUIFER



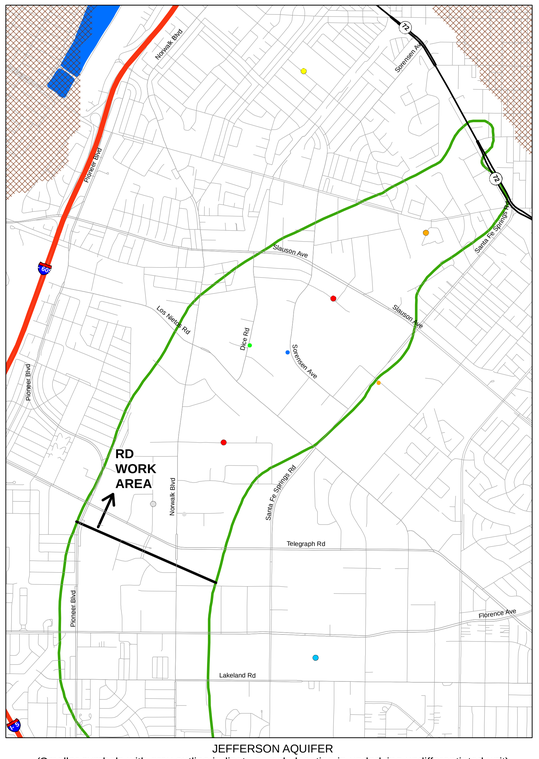
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



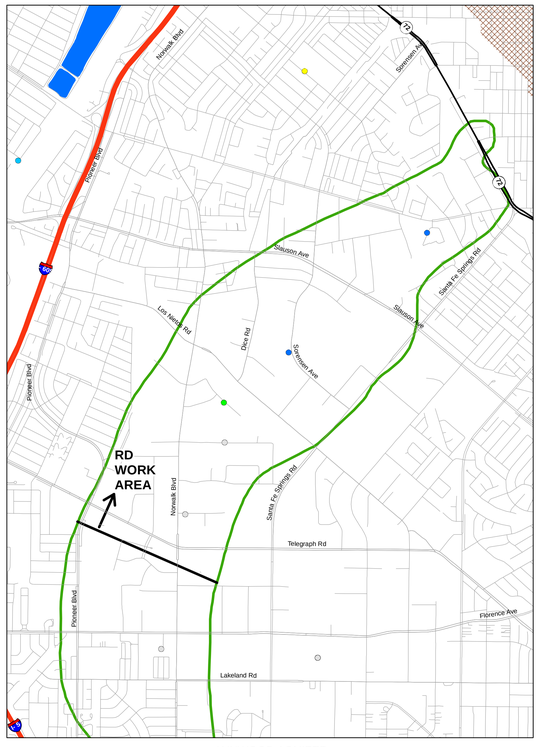
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



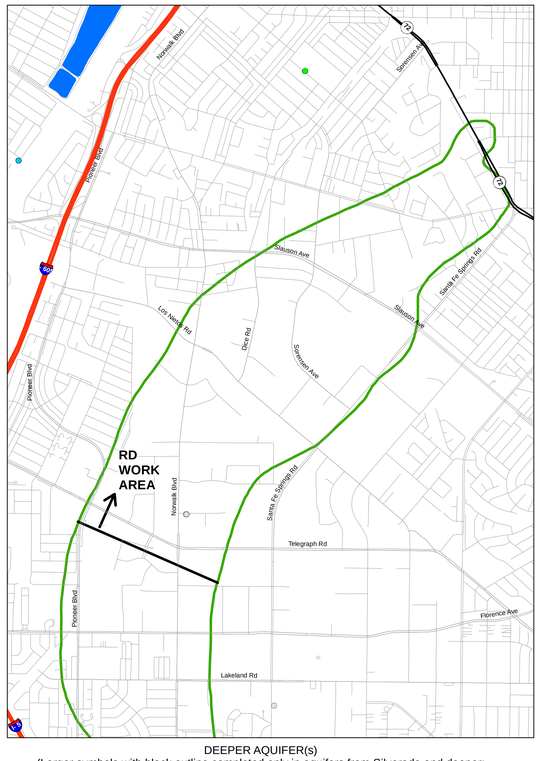
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 5 mg/l
- >5 to 10 mg/l
- >10 to 20 mg/l
- >20 to 30 mg/l
- >30 to 45 mg/l
- >45 to 90 mg/l
- >90 mg/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

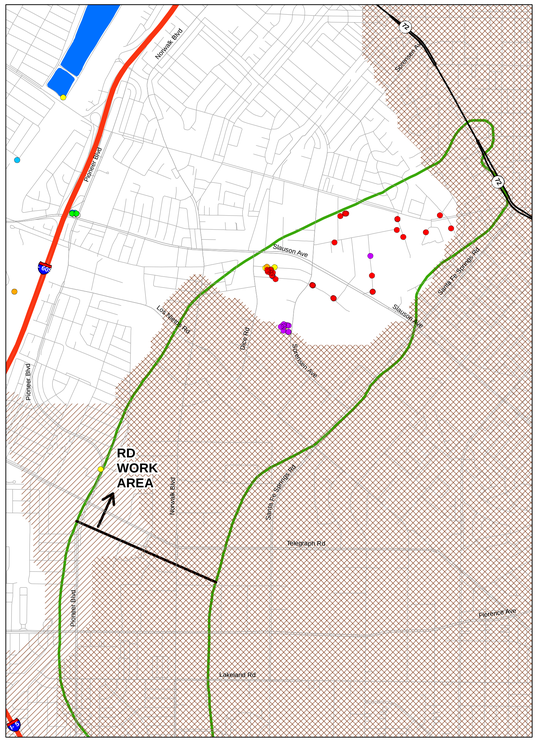
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_FIG-A24a_RDWA_NO3_B104_Ave_DOD Date Exported: 9/1/2016

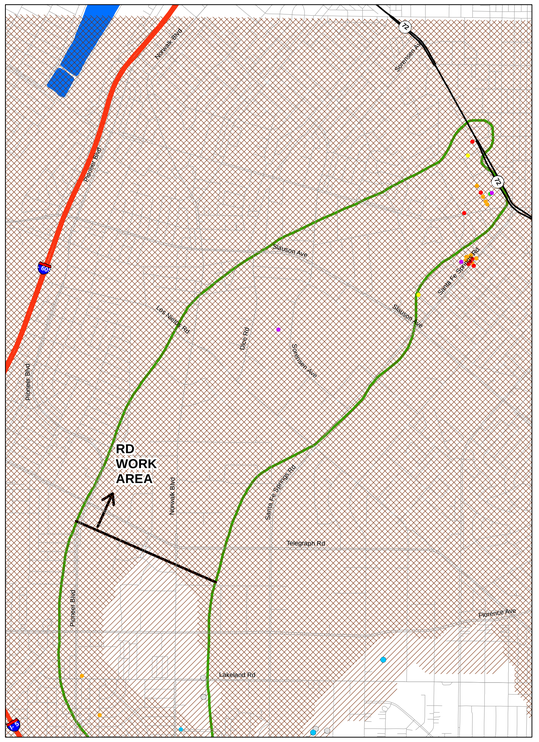
[redacted]

FIGURE A-24A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF NITRATE (AS NO3) IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

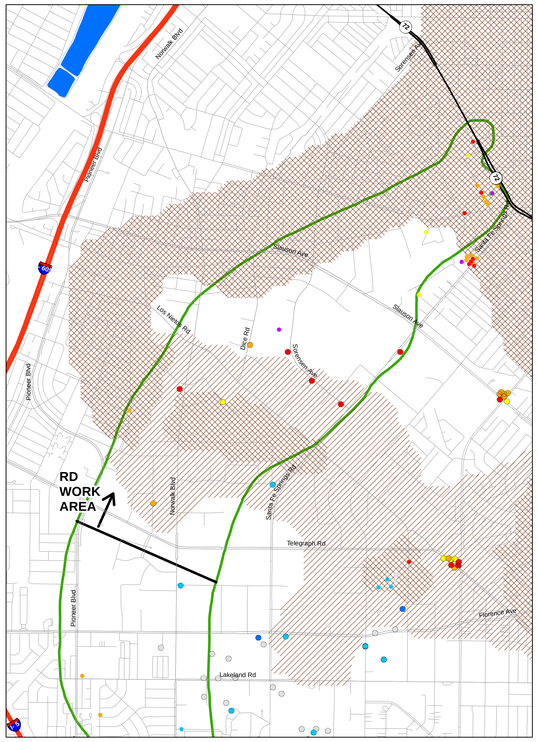
DRAFT



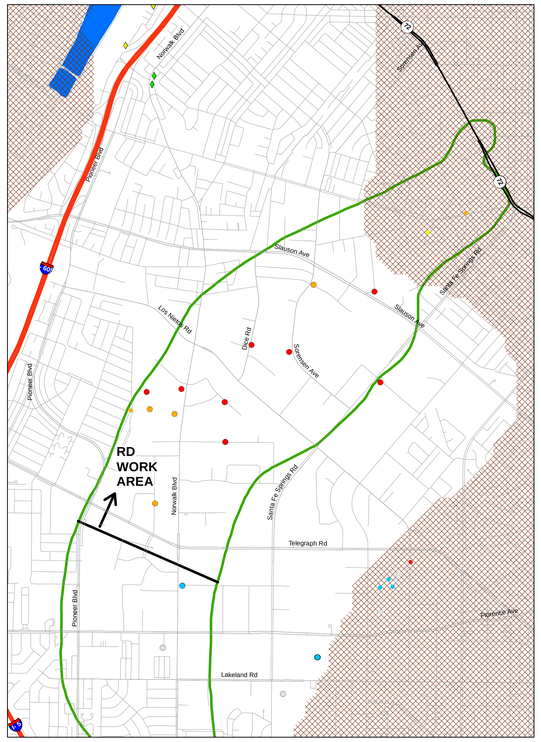
GASPUR AQUIFER



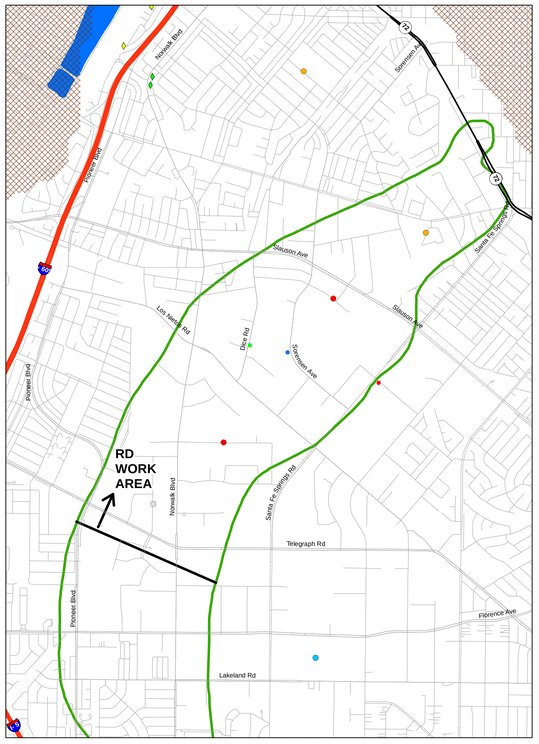
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



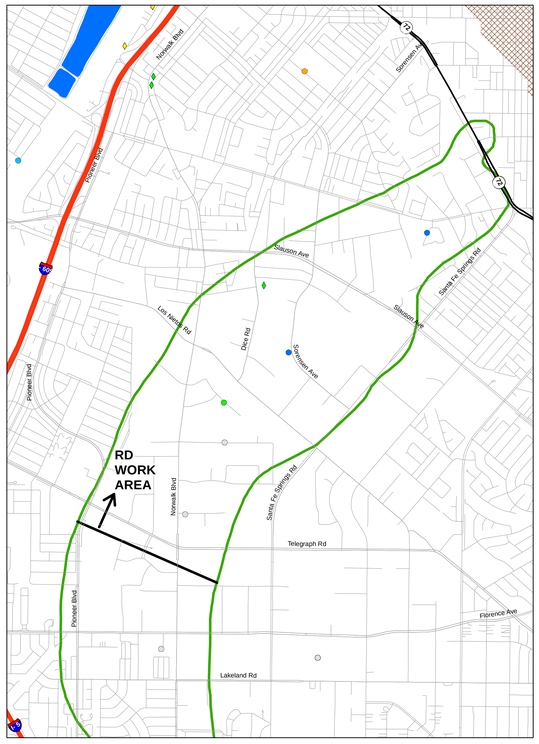
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



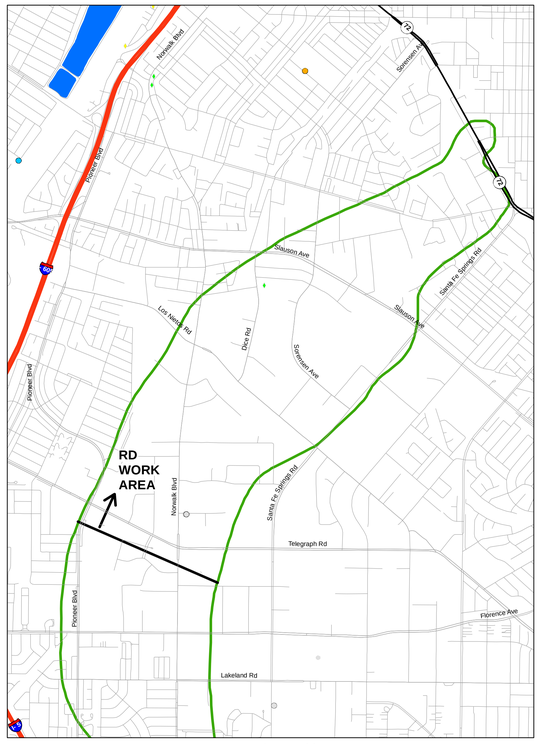
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 5 mg/l
- >5 to 10 mg/l
- >10 to 20 mg/l
- >20 to 30 mg/l
- >30 to 45 mg/l
- >45 to 90 mg/l
- >90 mg/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

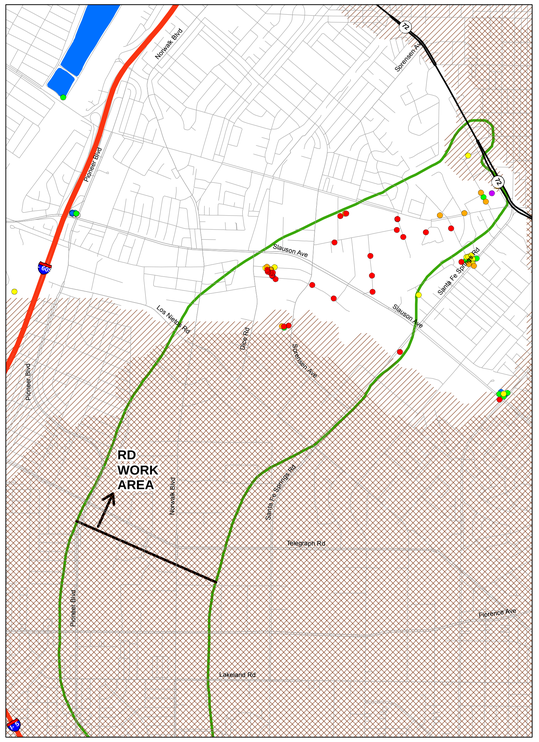
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_OU_EvA26_R20WA_NO3_B104_Max_RDD Date Exported: 9/1/2016

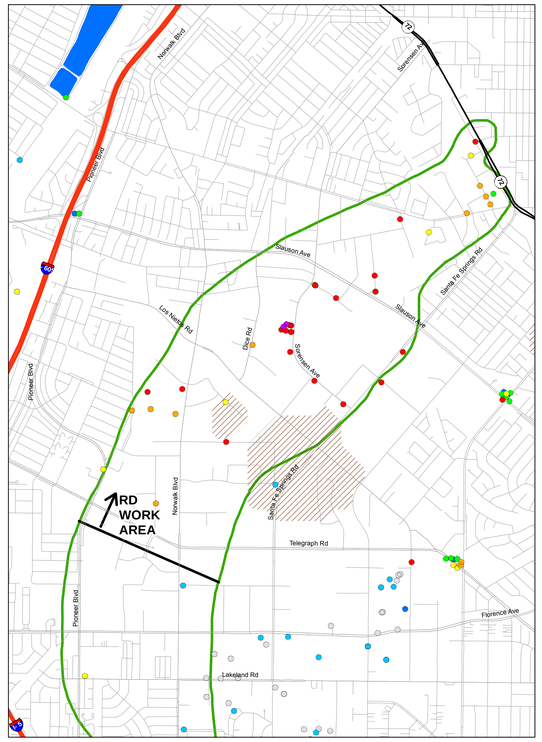
[redacted]

FIGURE A-24B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF NITRATE (AS NO3) IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

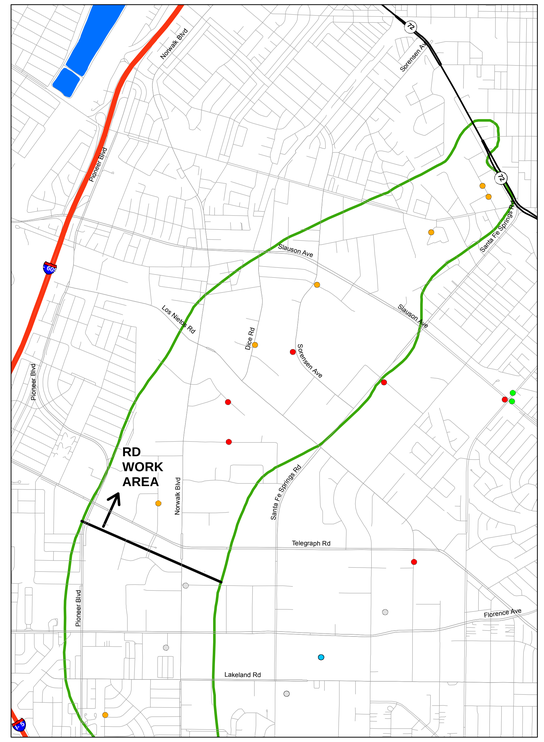
DRAFT



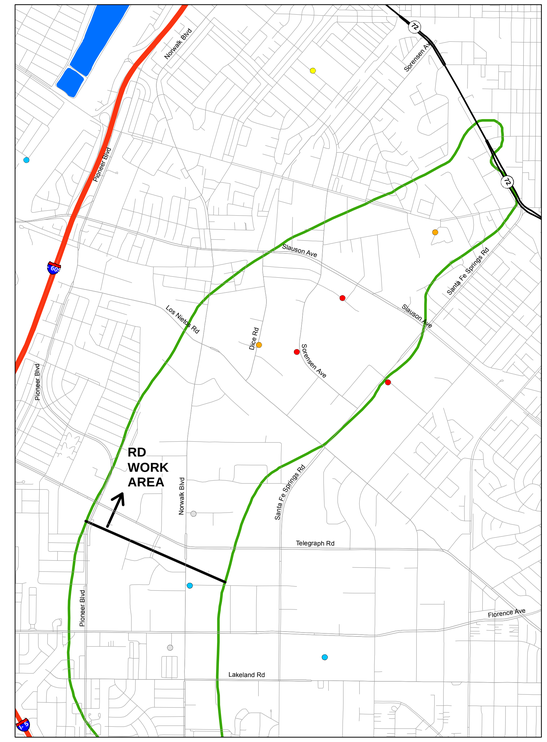
EPA STRATIGRAPHIC UNIT 2



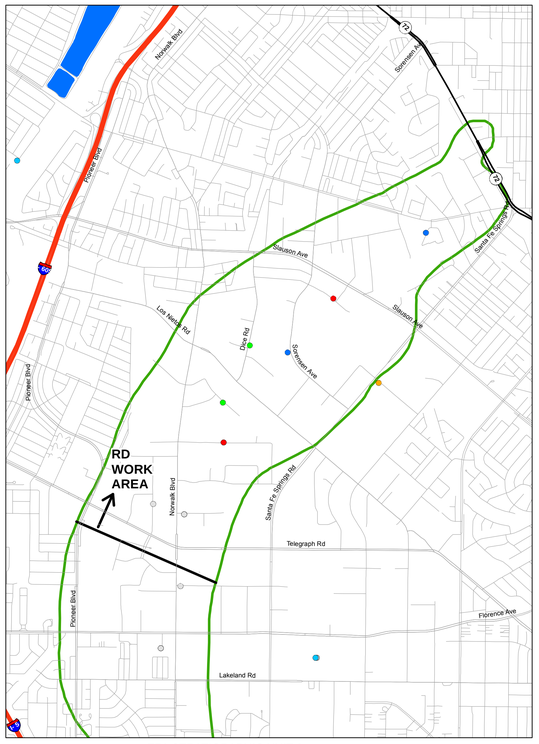
EPA STRATIGRAPHIC UNIT 3



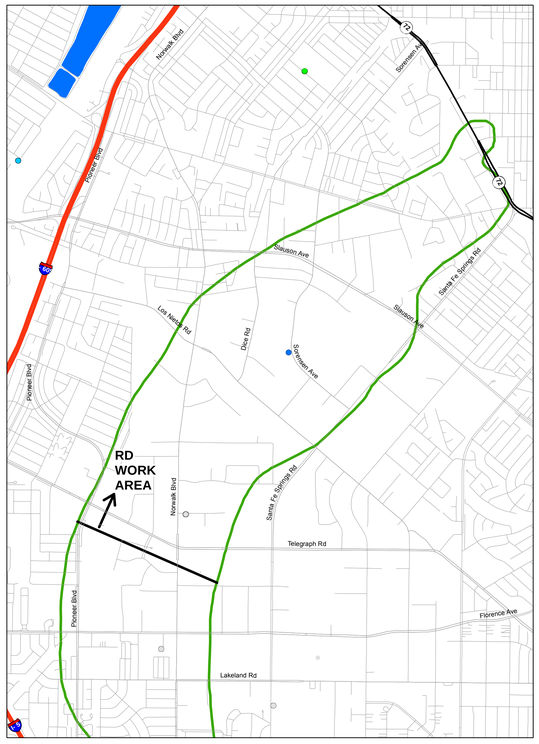
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 5 mg/l
- >5 to 10 mg/l
- >10 to 20 mg/l
- >20 to 30 mg/l
- >30 to 45 mg/l
- >45 to 90 mg/l
- >90 mg/l

NOTES

Recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

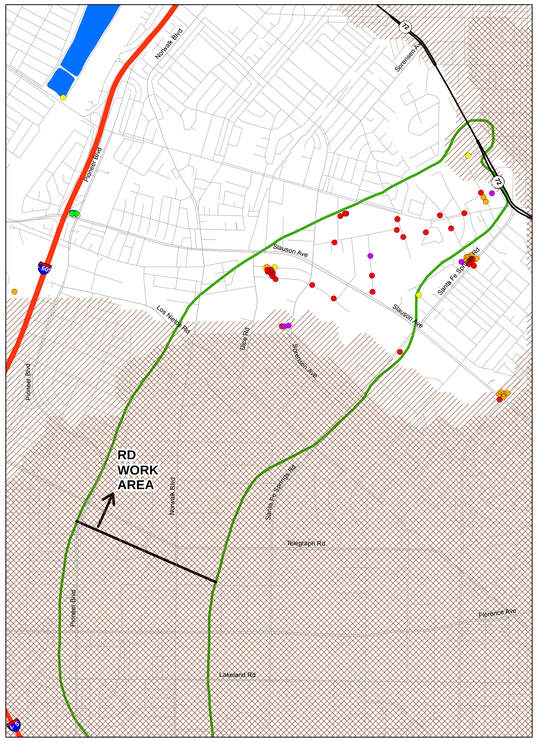
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_Fig24c_RDWA_NO3_SB_Ave_D00 Date Exported: 9/1/2016

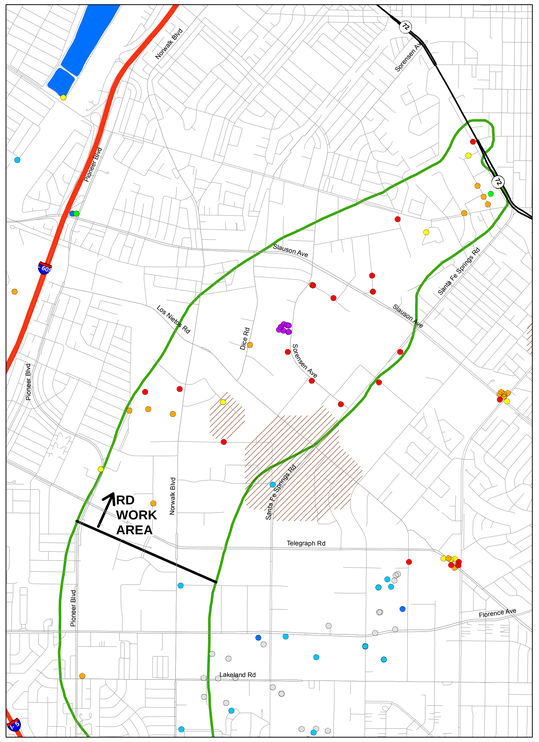
[redacted]

FIGURE A-24C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF NITRATE (AS NO3) IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

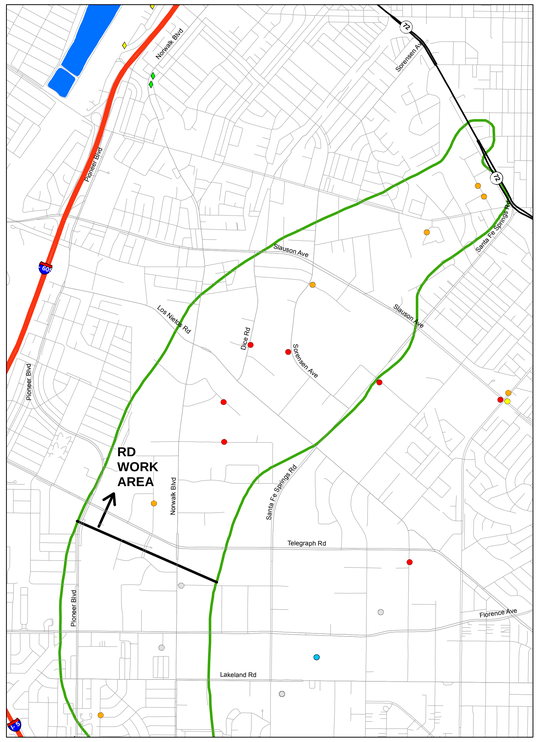
DRAFT



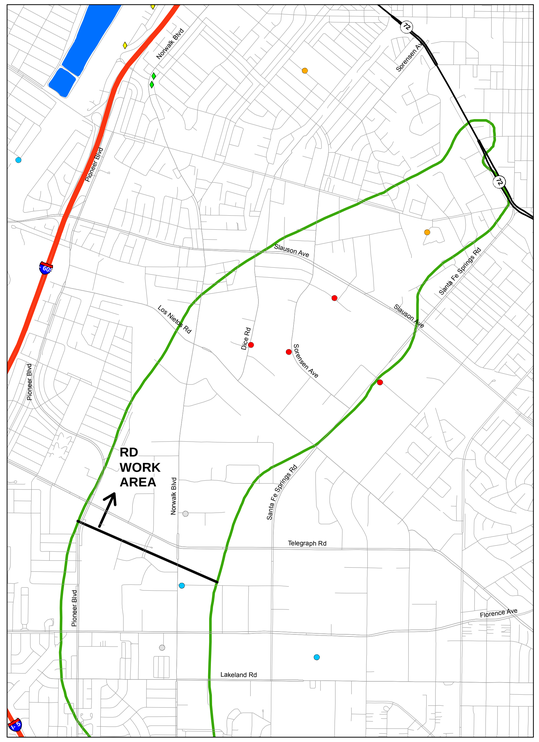
EPA STRATIGRAPHIC UNIT 2



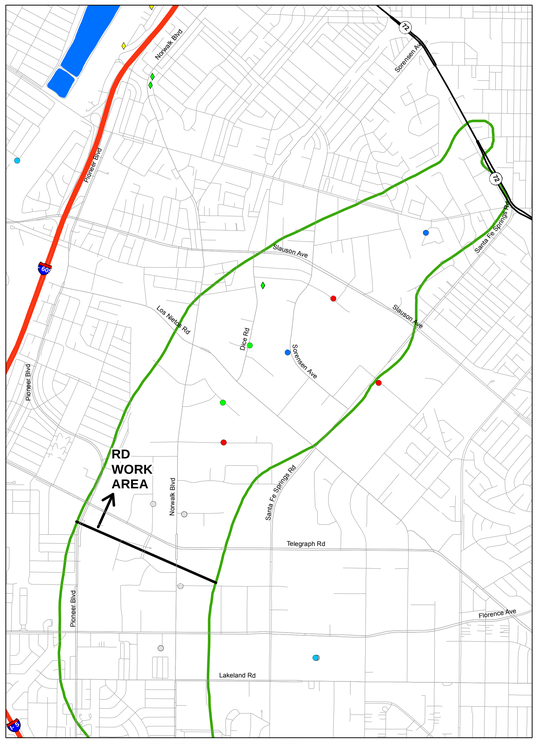
EPA STRATIGRAPHIC UNIT 3



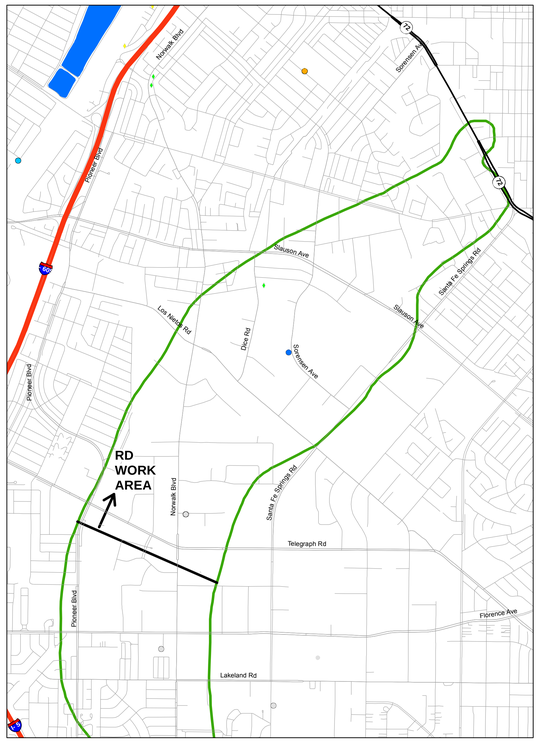
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 5 mg/l
- >5 to 10 mg/l
- >10 to 20 mg/l
- >20 to 30 mg/l
- >30 to 45 mg/l
- >45 to 90 mg/l
- >90 mg/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

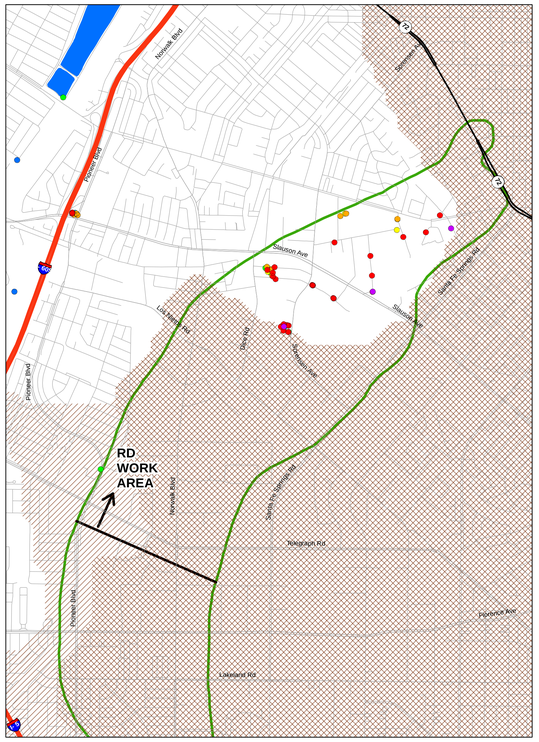
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_FigA24D_RDWA_NO3_SB_Max_D00 Date Exported: 9/1/2016

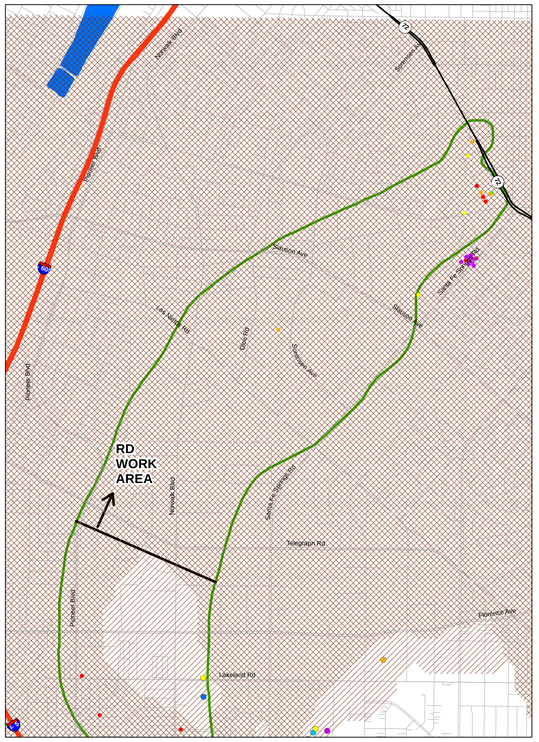
[redacted]

FIGURE A-24D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF NITRATE (AS NO3) IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

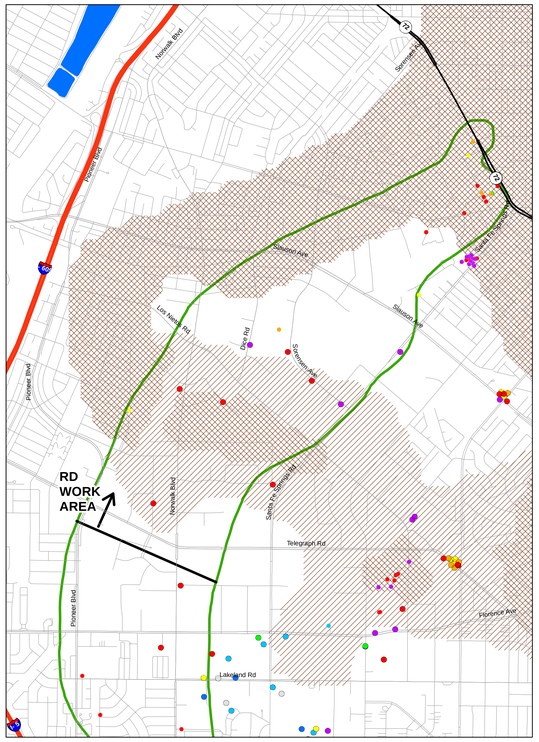
DRAFT



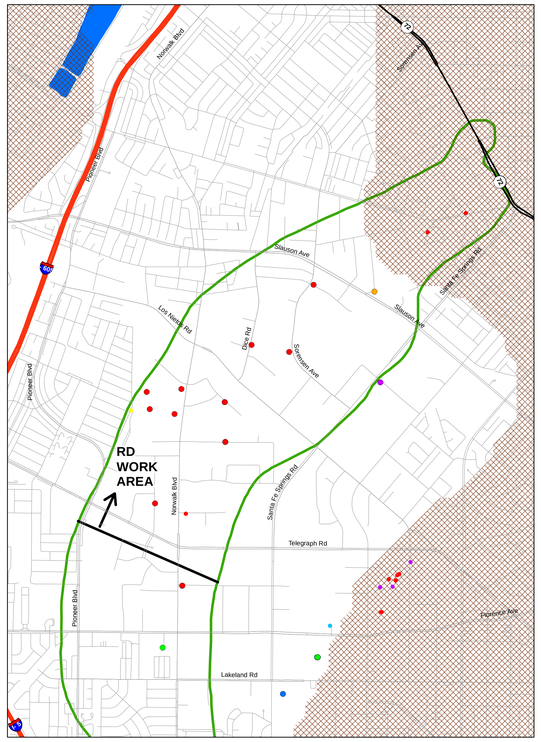
GASPUR AQUIFER



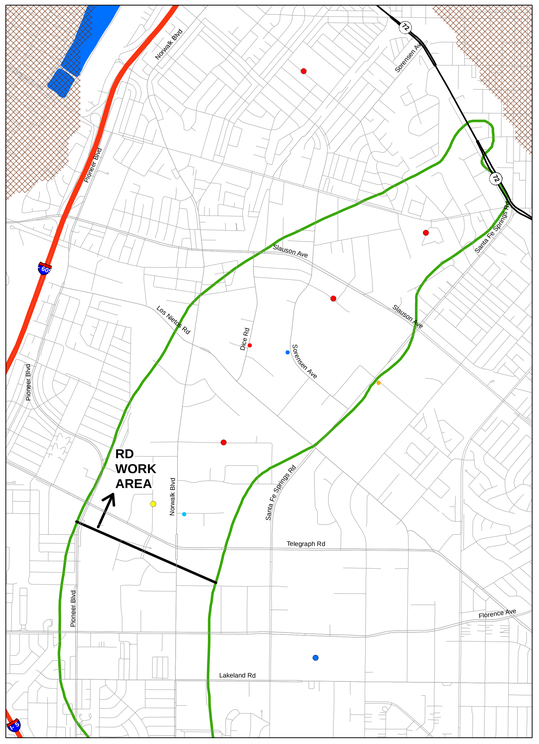
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



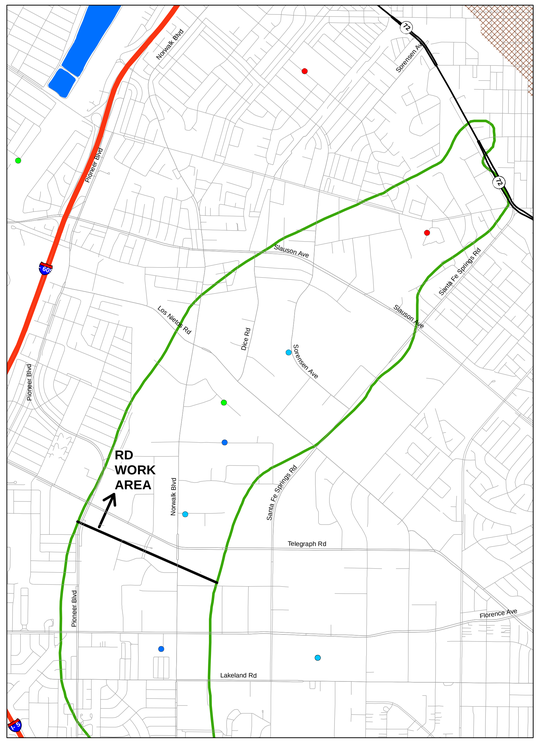
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



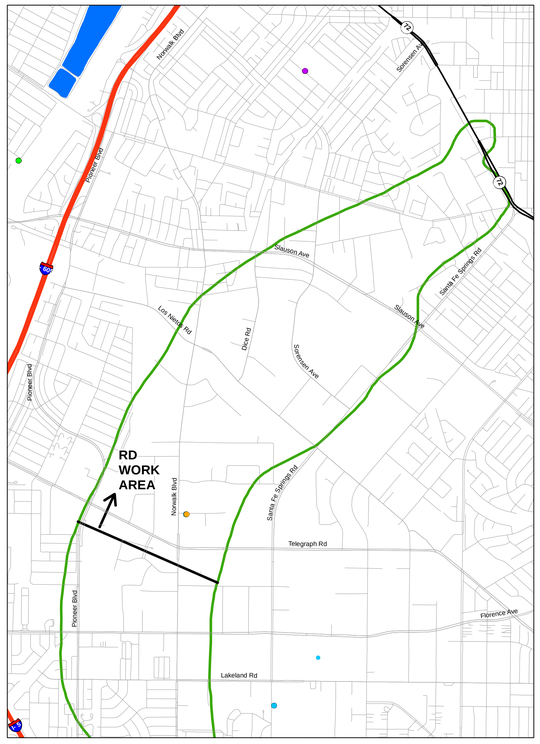
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 50 mg/l
- >50 to 100 mg/l
- >100 to 150 mg/l
- >150 to 200 mg/l
- >200 to 250 mg/l
- >250 to 500 mg/l
- >500 mg/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

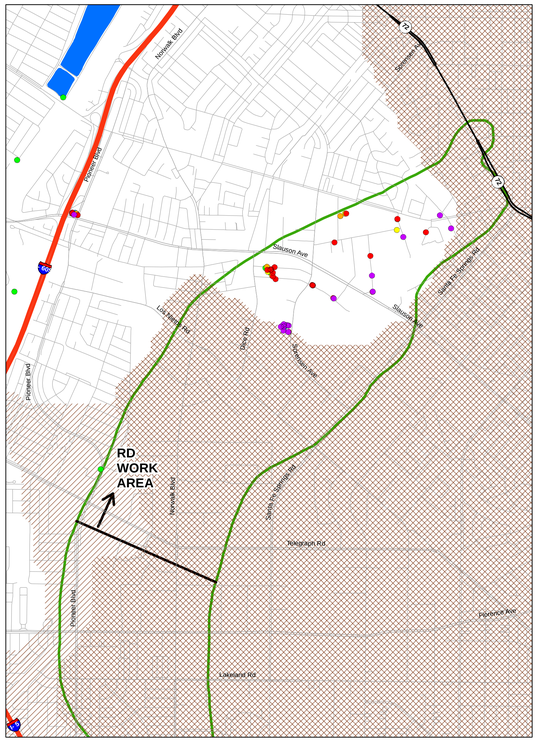
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_Fig-25a_RDWA_S04_B104_Ave_D00 Date Exported: 9/1/2016

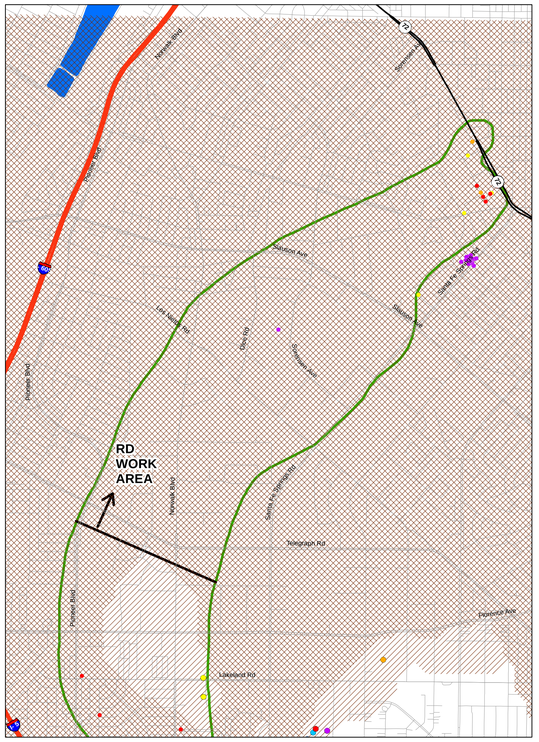
[redacted]

FIGURE A-25A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF SULFATE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

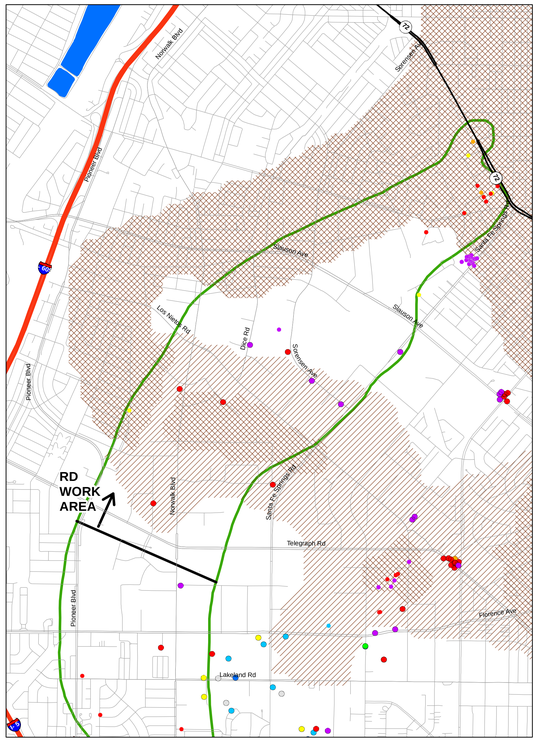
DRAFT



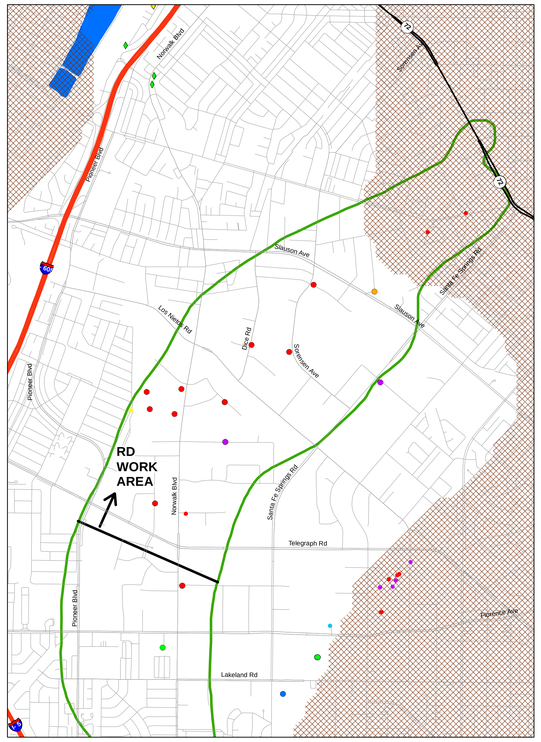
GASPUR AQUIFER



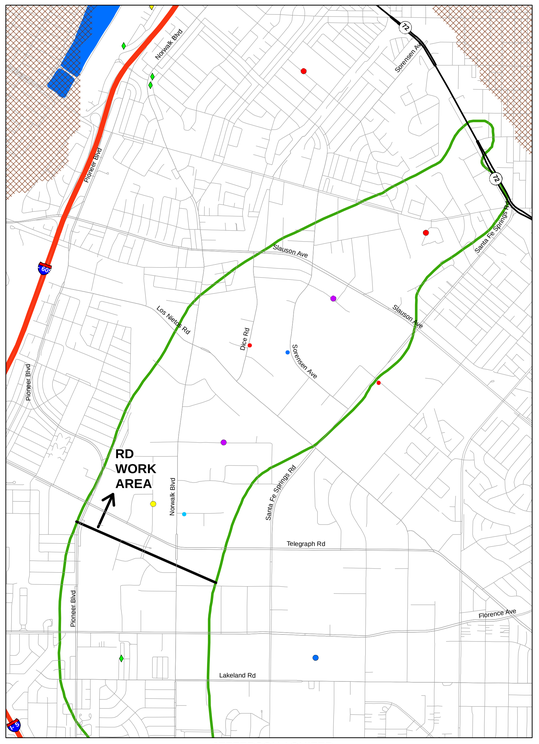
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



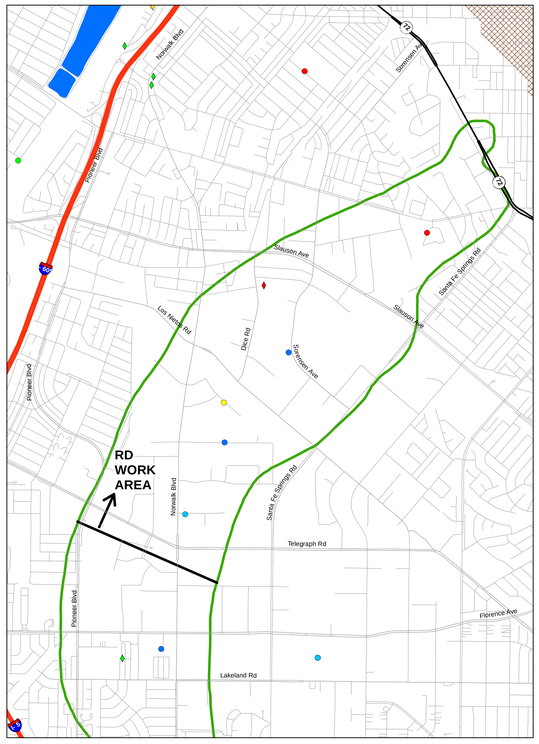
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



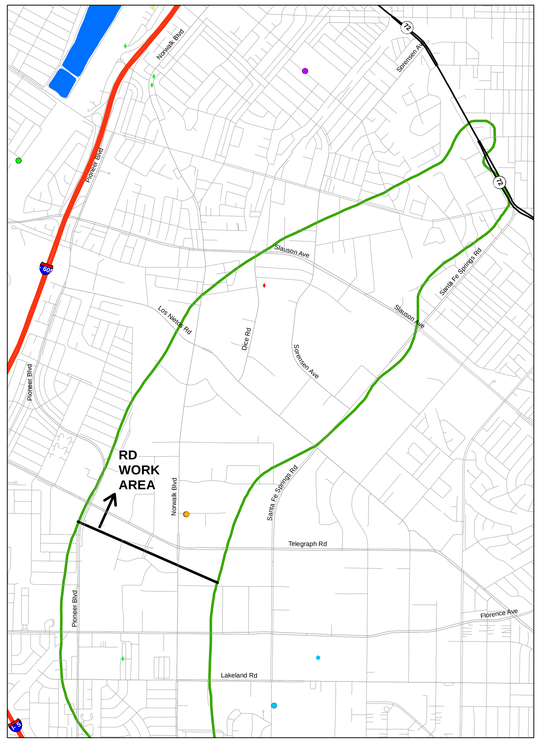
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 50 mg/l
- >50 to 100 mg/l
- >100 to 150 mg/l
- >150 to 200 mg/l
- >200 to 250 mg/l
- >250 to 500 mg/l
- >500 mg/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

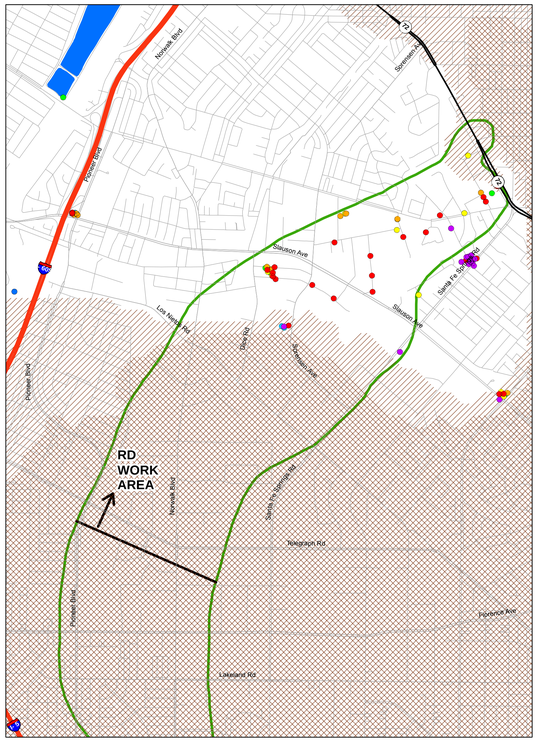
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_Fig4-25b_RDWA_SO4_B104_Max_DQ0 Date Exported: 9/1/2016

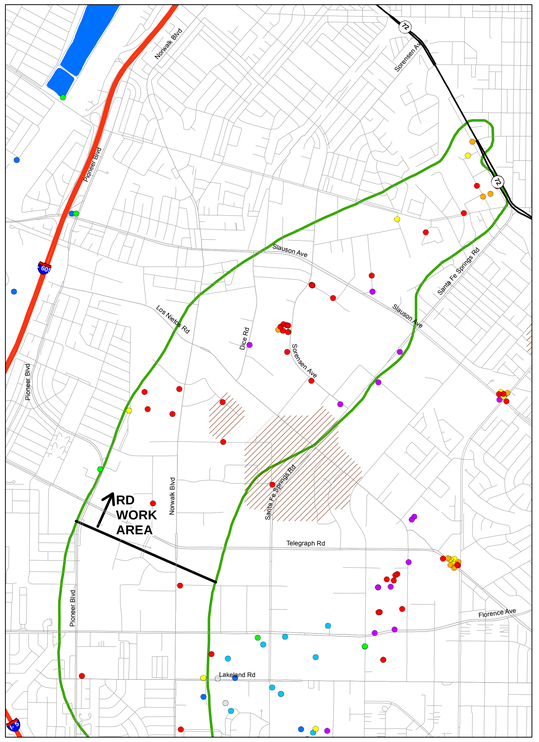
[redacted]

FIGURE A-25B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF SULFATE IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

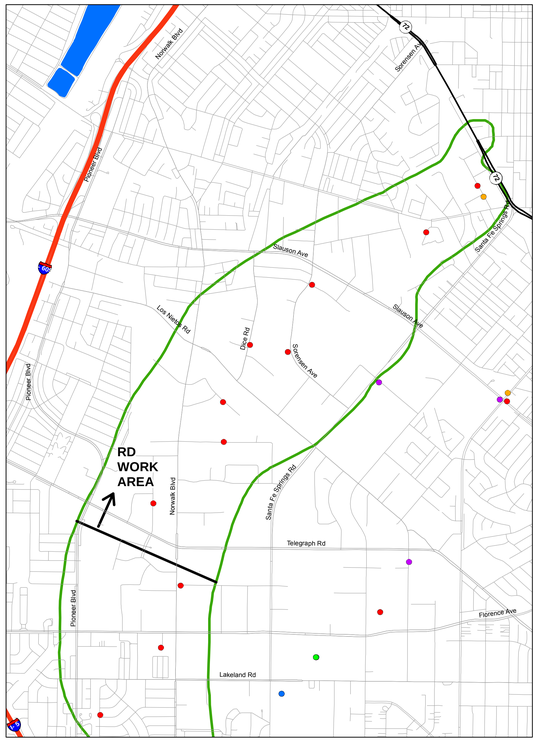
DRAFT



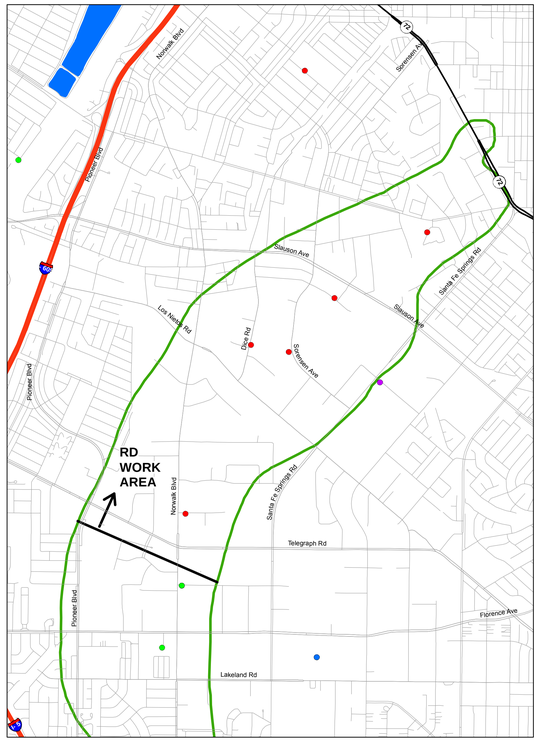
EPA STRATIGRAPHIC UNIT 2



EPA STRATIGRAPHIC UNIT 3



EPA STRATIGRAPHIC UNIT 4



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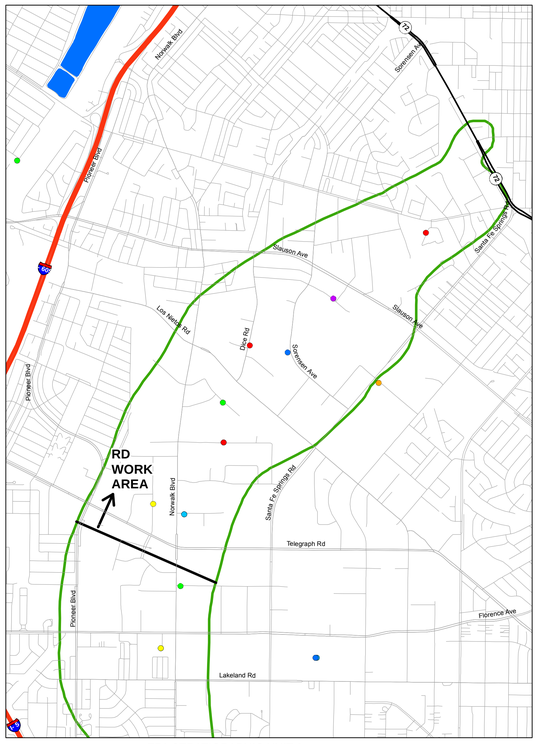
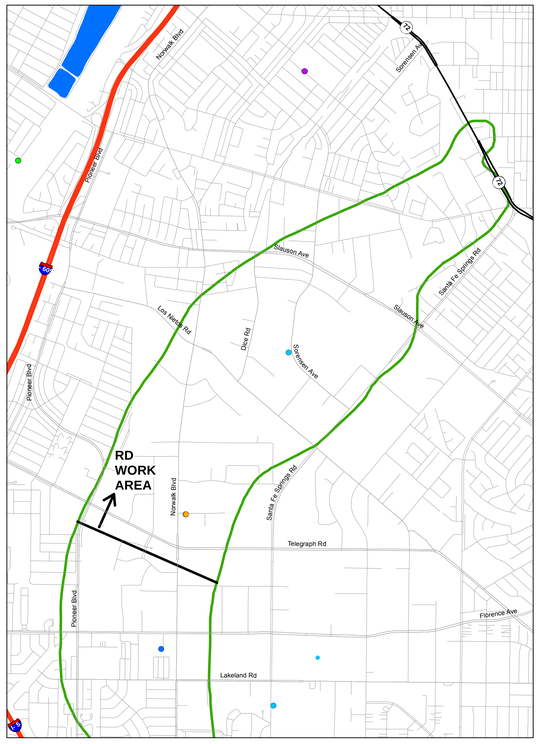


EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 50 mg/l
- >50 to 100 mg/l
- >100 to 150 mg/l
- >150 to 200 mg/l
- >200 to 250 mg/l
- >250 to 500 mg/l
- >500 mg/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

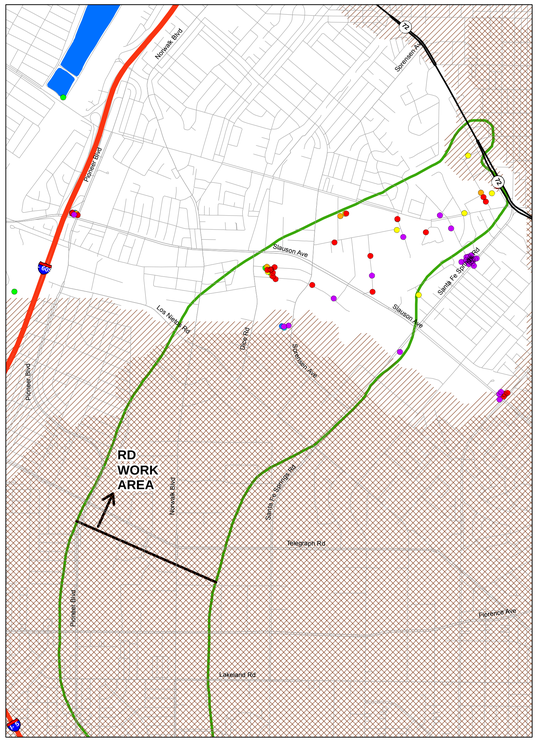
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 2212_DO_FigA25c_8DVA_SO4_SB_Ave_D00 Date Exported: 8/1/2016

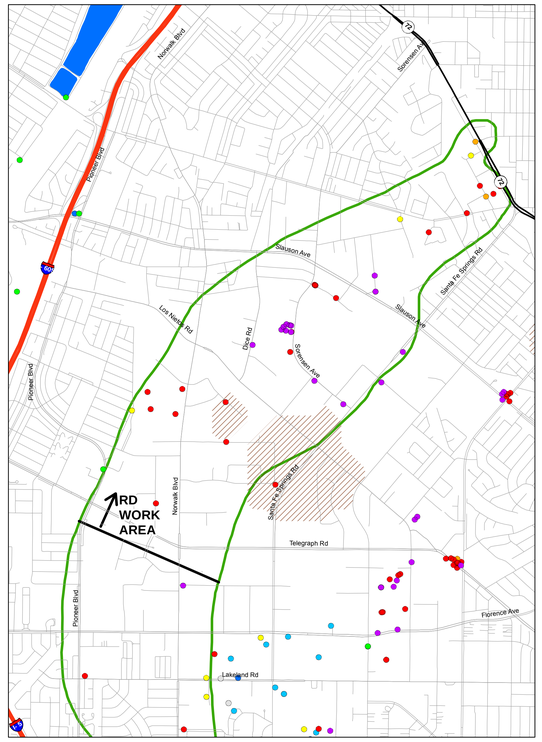
[redacted]

FIGURE A-25C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF SULFATE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

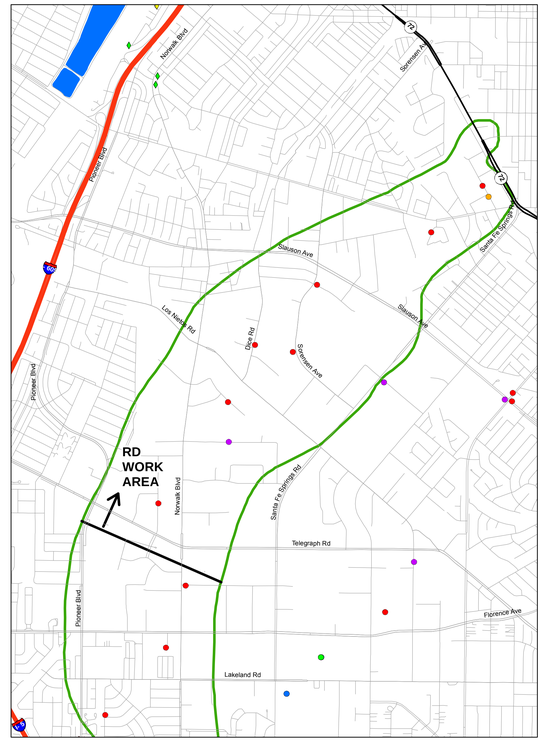
DRAFT



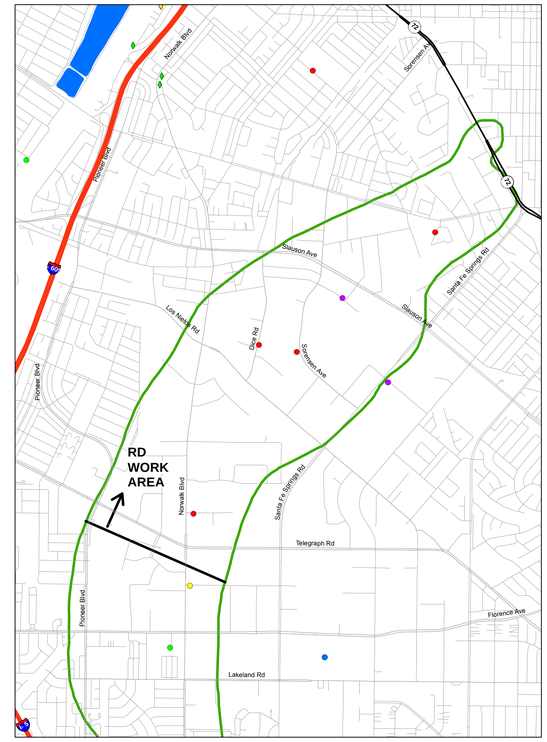
EPA STRATIGRAPHIC UNIT 2



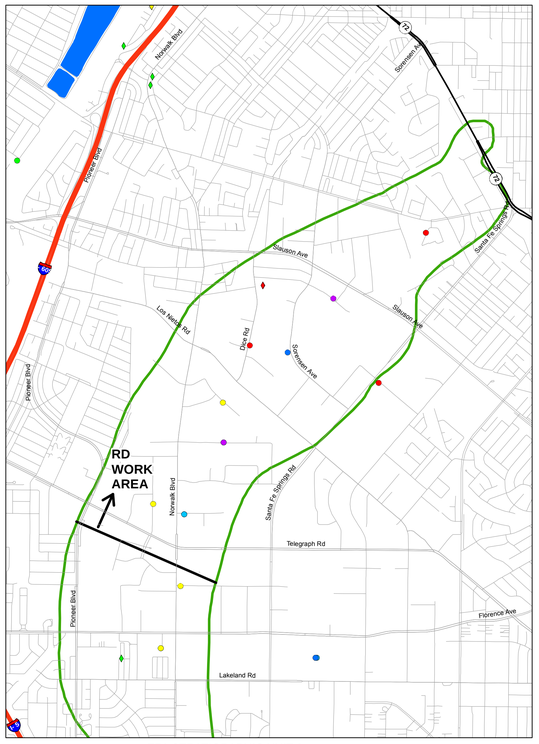
EPA STRATIGRAPHIC UNIT 3



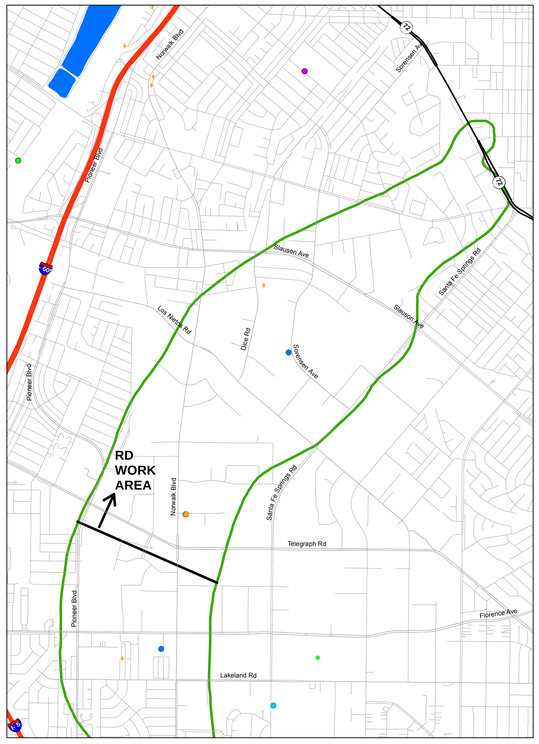
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2007 (approximate)
- Unit not present or unsaturated in 2015 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 50 mg/l
- >50 to 100 mg/l
- >100 to 150 mg/l
- >150 to 200 mg/l
- >200 to 250 mg/l
- >250 to 500 mg/l
- >500 mg/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

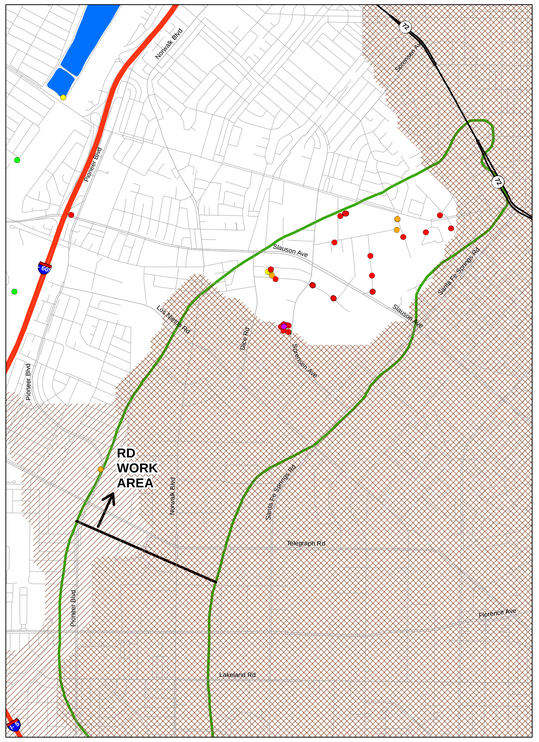
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_Fig4-25D_RDWA_SO4_SB_Max_D00 Date Exported: 9/1/2016

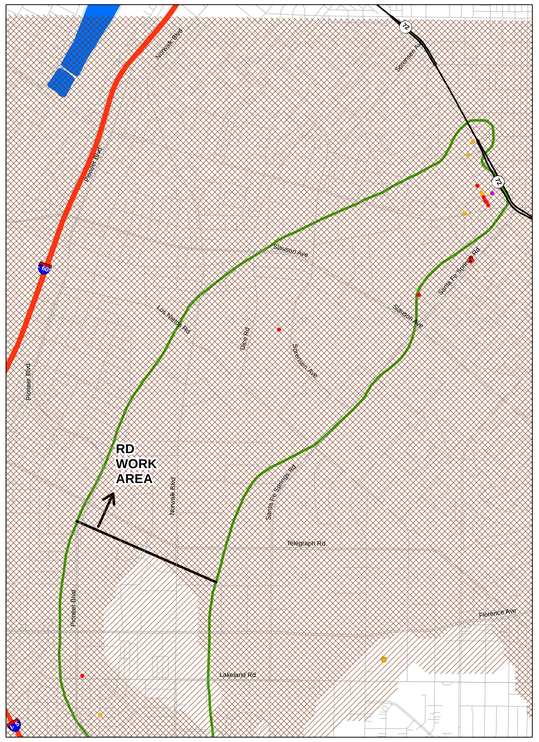
[redacted]

FIGURE A-25D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF SULFATE IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

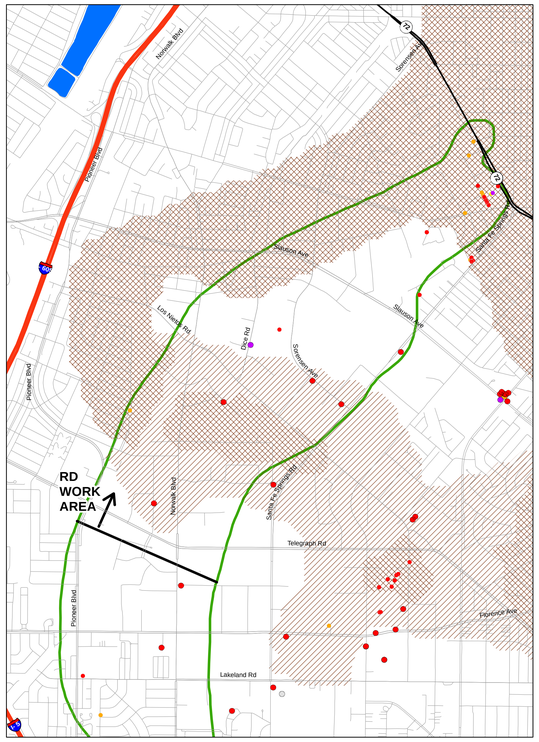
DRAFT



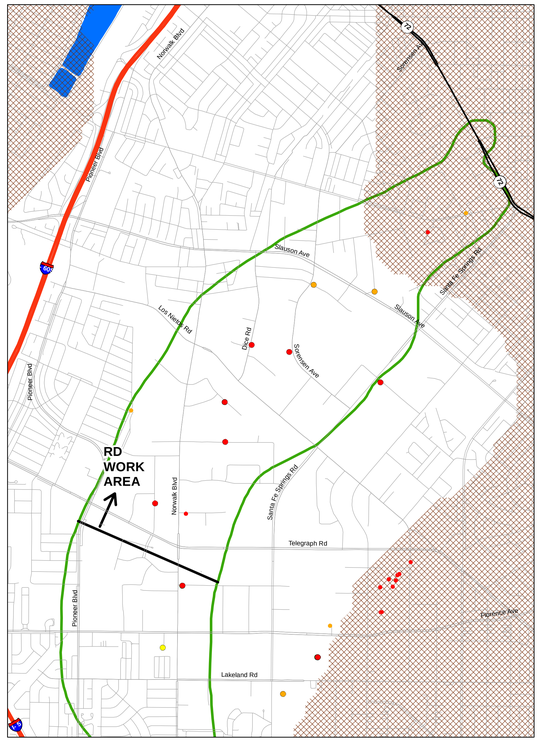
GASPUR AQUIFER



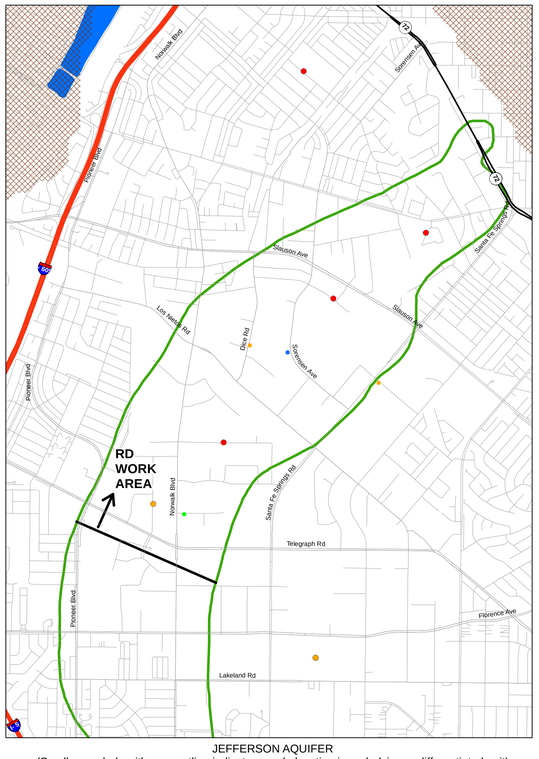
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



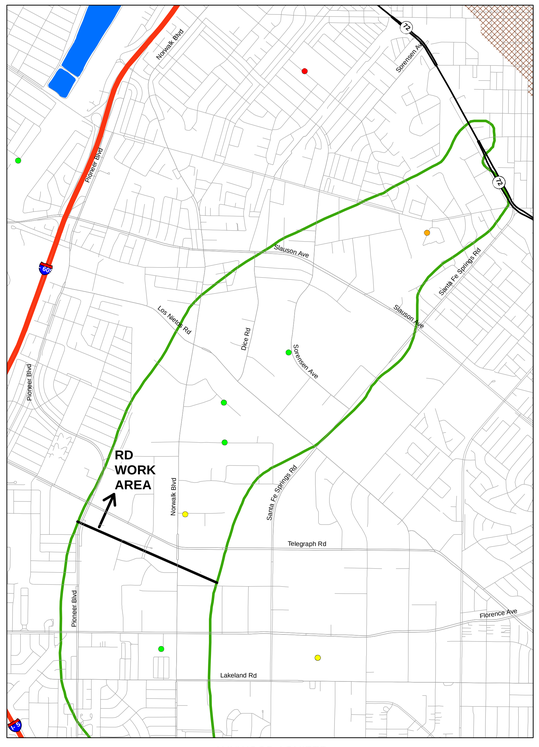
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



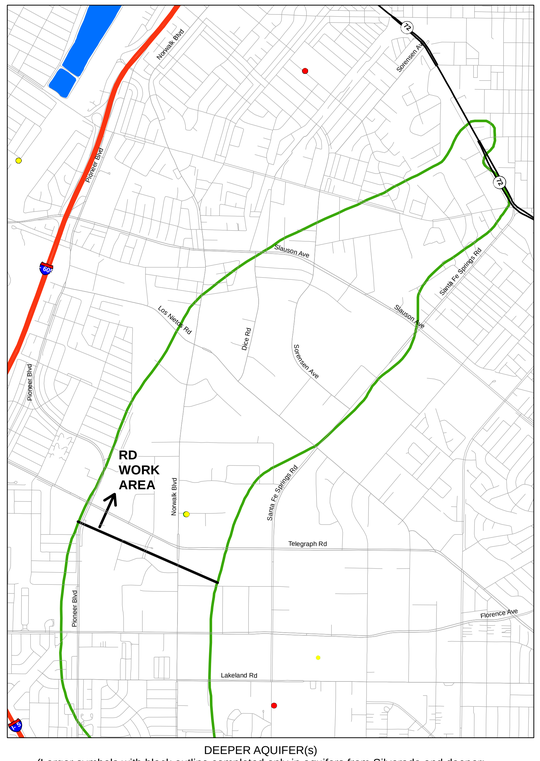
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 100 mg/l
- >100 to 250 mg/l
- >250 to 500 mg/l
- >500 to 750 mg/l
- >750 to 1,000 mg/l
- >1,000 to 2,000 mg/
- >2,000 mg/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

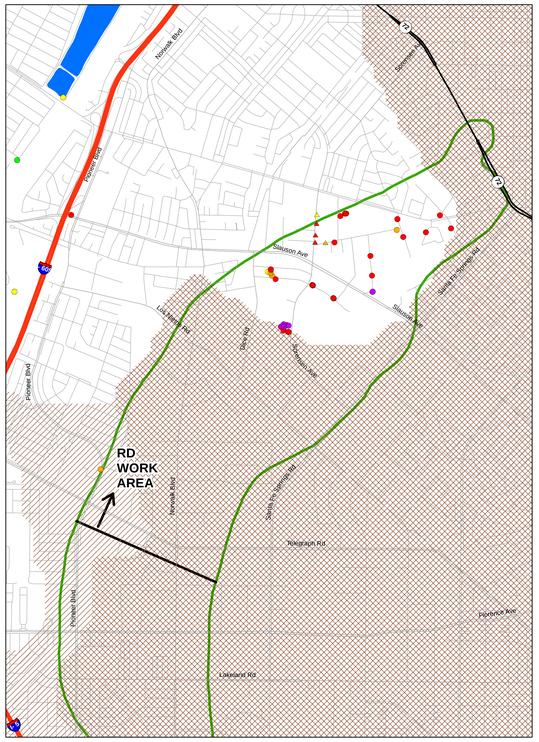
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_OU2_Fig26a_60WA_3TS_810A_Arc_D00 Date Exported: 9/1/2016

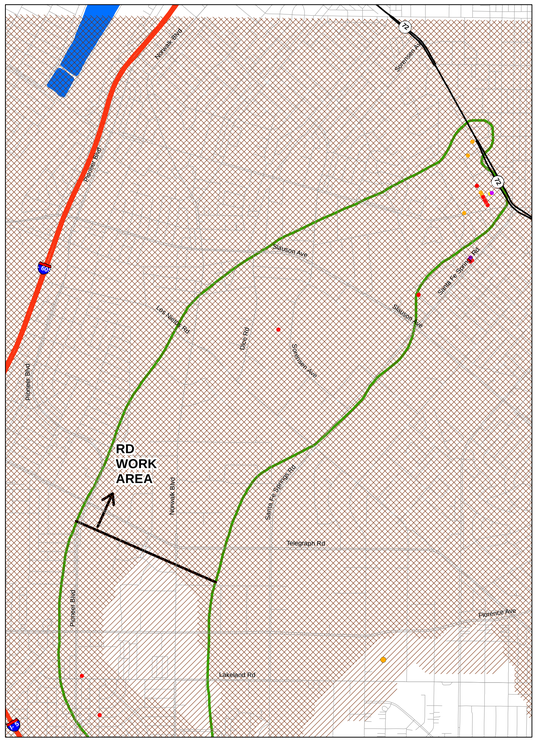
[redacted]

FIGURE A-26A. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF TOTAL DISSOLVED SOLIDS IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

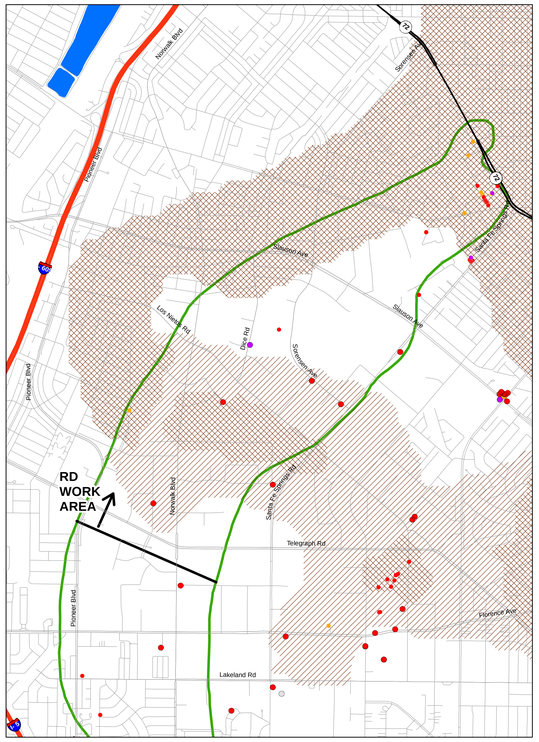
DRAFT



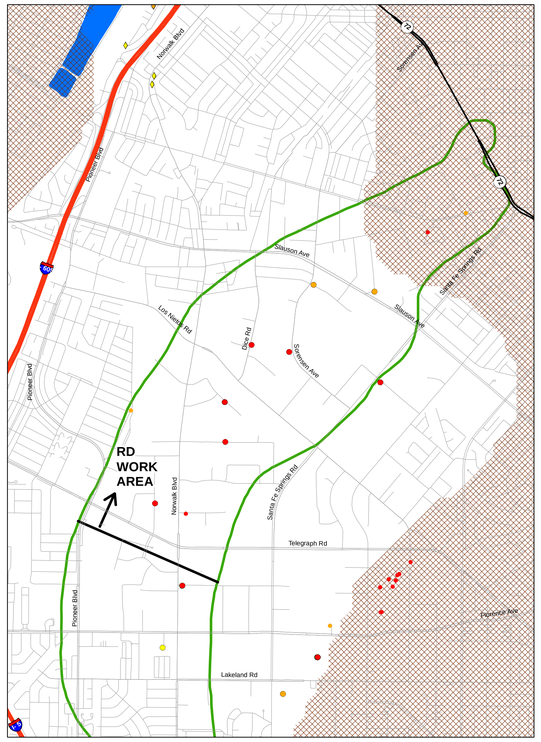
GASPUR AQUIFER



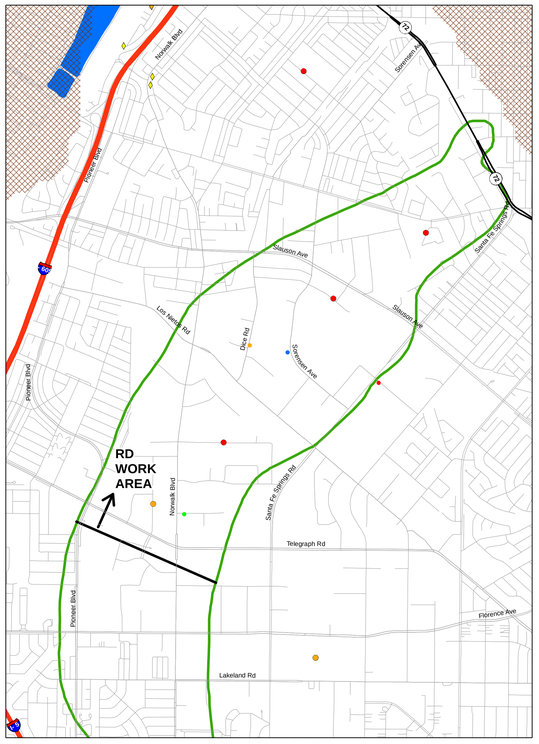
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



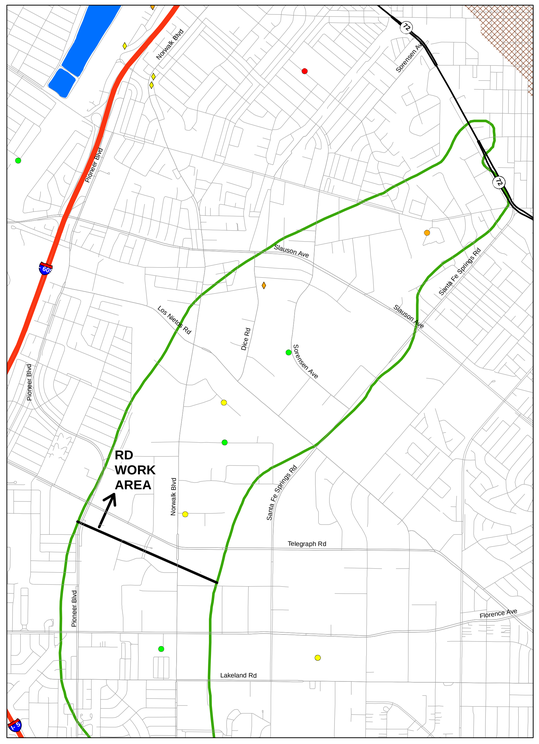
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



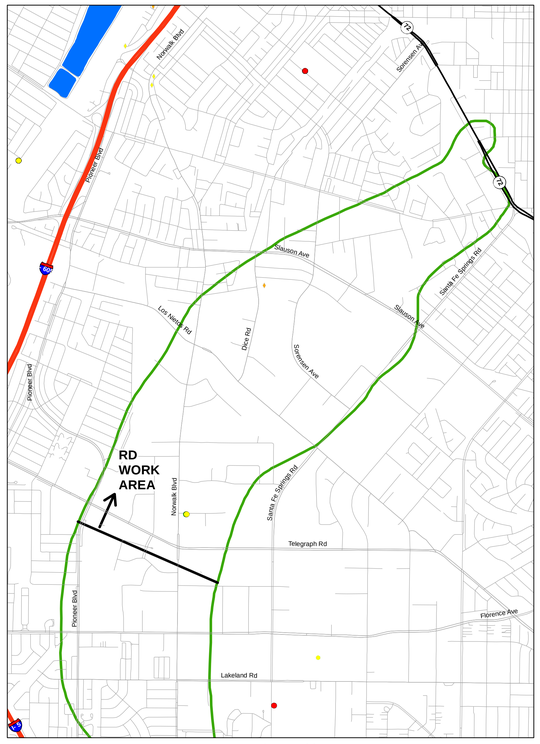
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper;
smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 100 mg/l
- >100 to 250 mg/l
- >250 to 500 mg/l
- >500 to 750 mg/l
- >750 to 1,000 mg/l
- >1,000 to 2,000 mg/
- >2,000 mg/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on figures published in California Department of Water Resources Bulletin 104.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

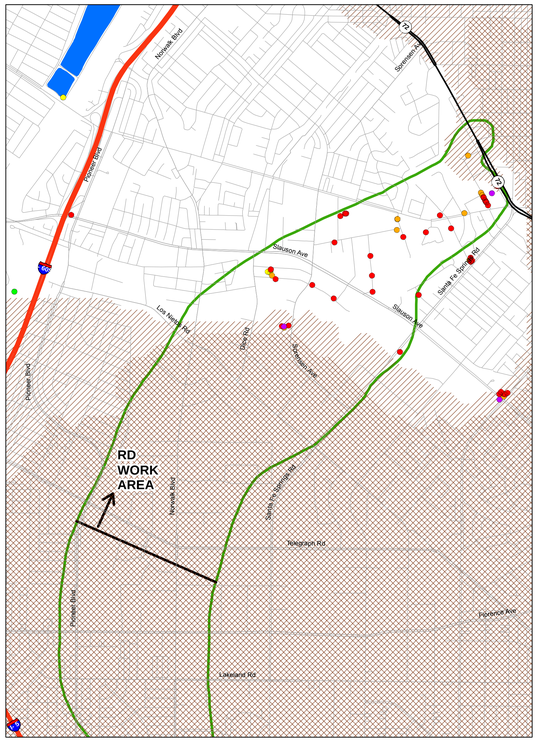
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1212_OU_EvA3Ds_RDWA_3TS_B104_Max_DDD Date Exported: 9/1/2016

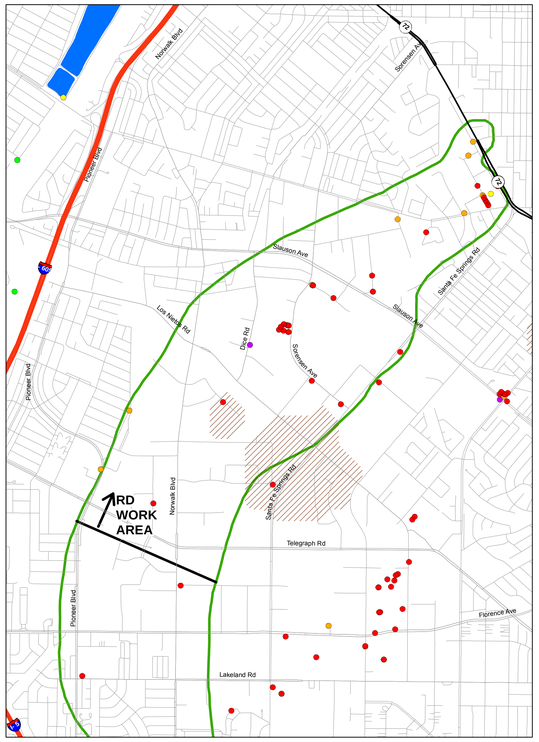
[redacted]

FIGURE A-26B. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF TOTAL DISSOLVED SOLIDS IN GROUNDWATER SAMPLES, BULLETIN 104 STRATIGRAPHIC UNITS

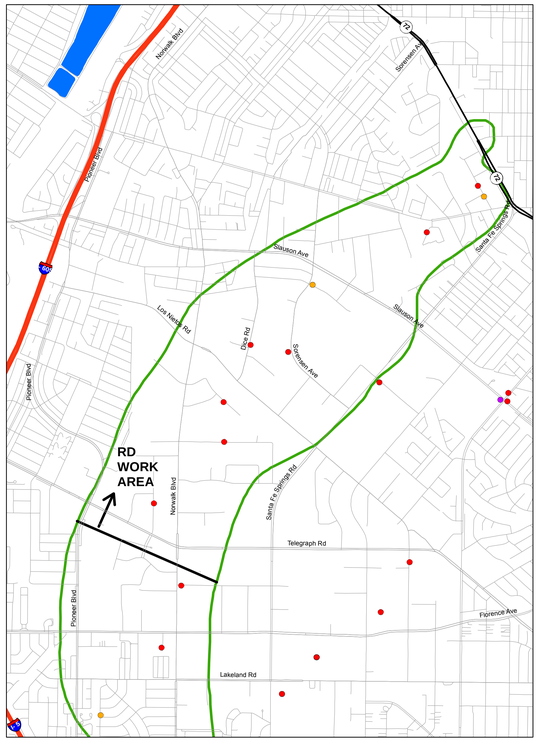
DRAFT



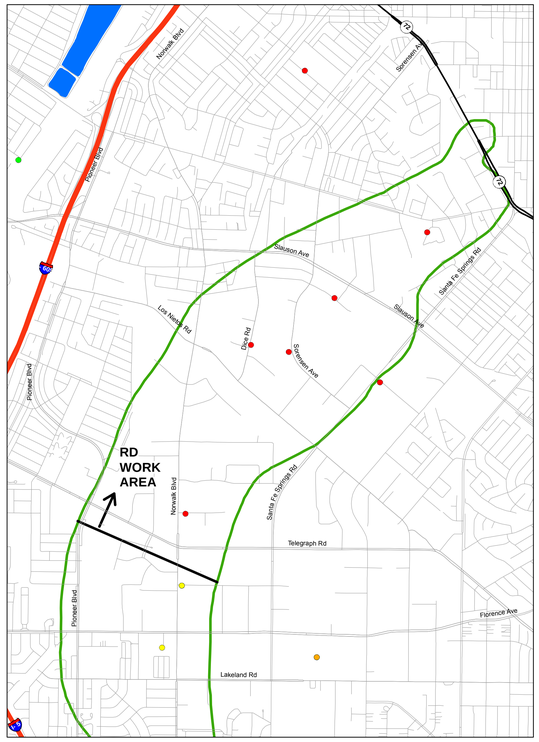
EPA STRATIGRAPHIC UNIT 2



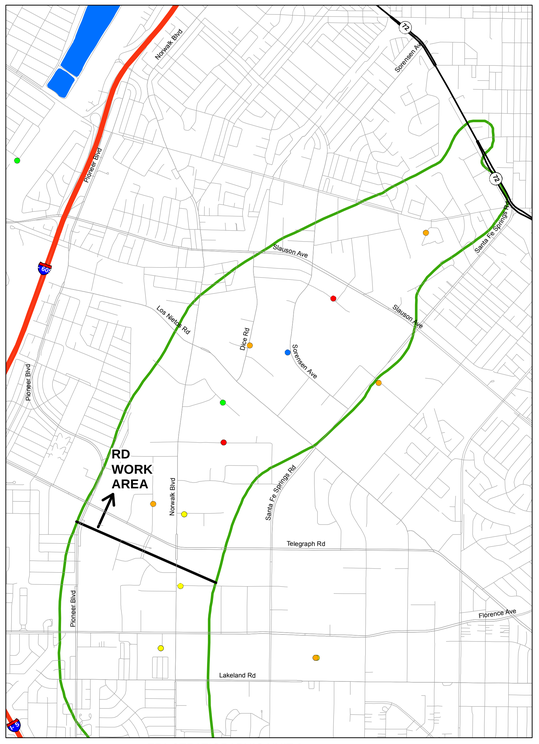
EPA STRATIGRAPHIC UNIT 3



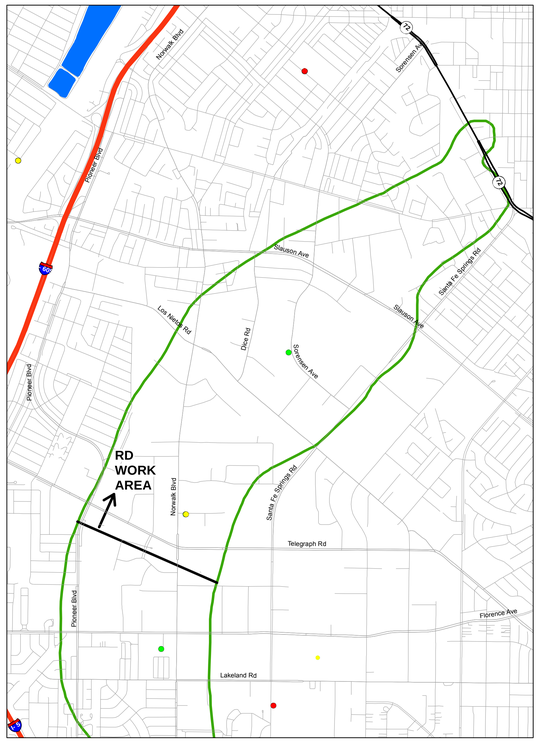
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Groundwater Sample Location
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 100 mg/l
- >100 to 250 mg/l
- >250 to 500 mg/l
- >500 to 750 mg/l
- >750 to 1,000 mg/l
- >1,000 to 2,000 mg/
- >2,000 mg/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Average concentrations calculated as follows: if one or more detections, average of detected concentrations; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
Groundwater sample locations include: monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc). Excludes: production wells and/or grab samples (hydropunch or similar).

N

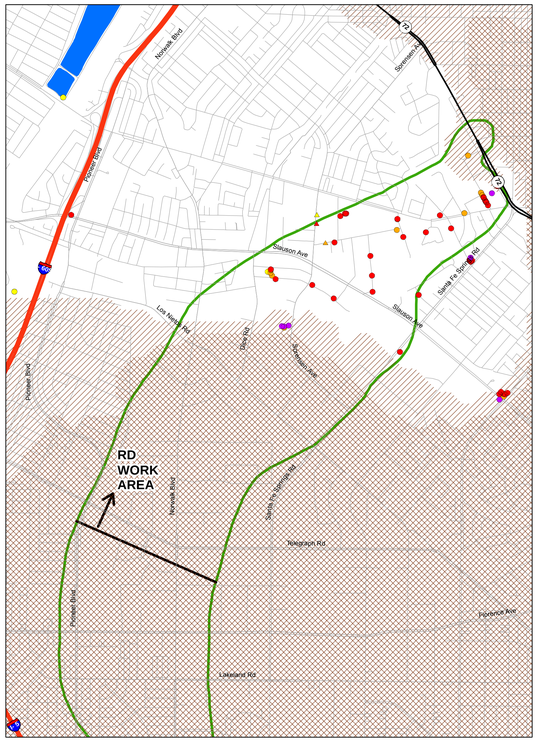
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_Fig4-26c_RDWA_TDS_SB_Ave_D00 Date Exported: 9/1/2016

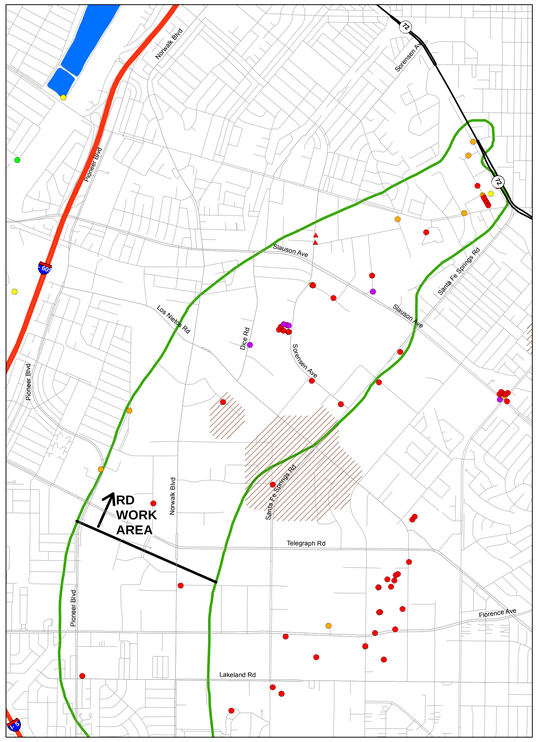
[redacted]

FIGURE A-26C. REMEDIAL DESIGN WORK AREA: SUMMARY OF AVERAGE DETECTION OF TOTAL DISSOLVED SOLIDS IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

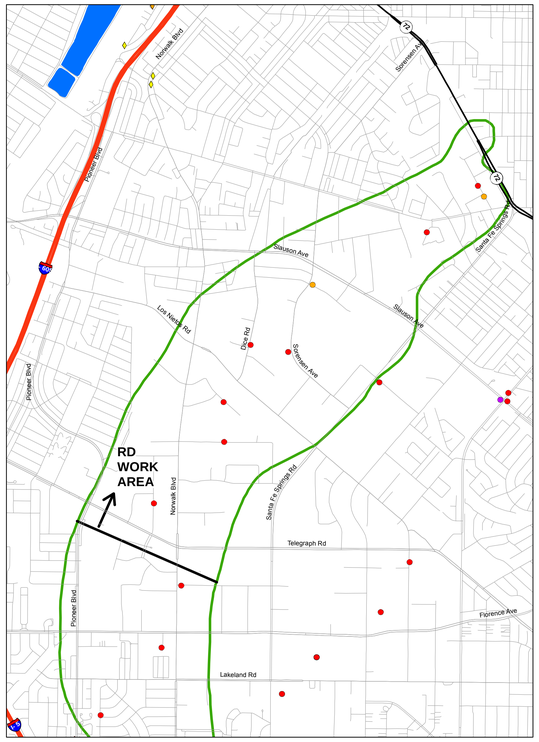
DRAFT



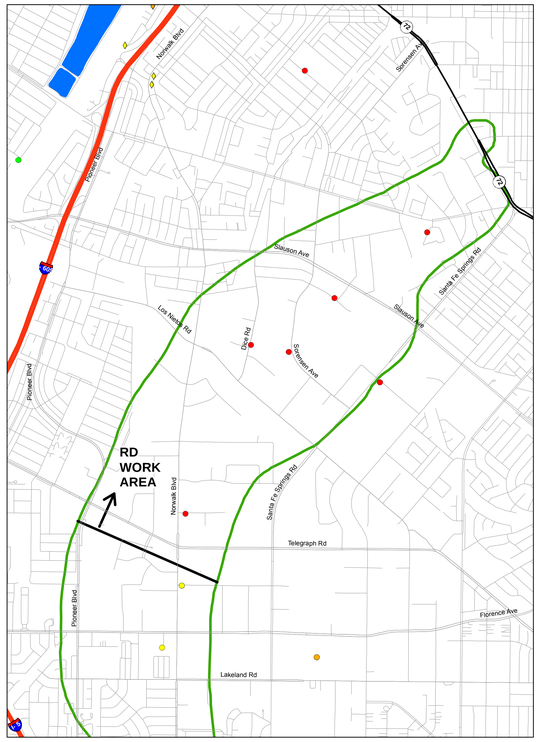
EPA STRATIGRAPHIC UNIT 2



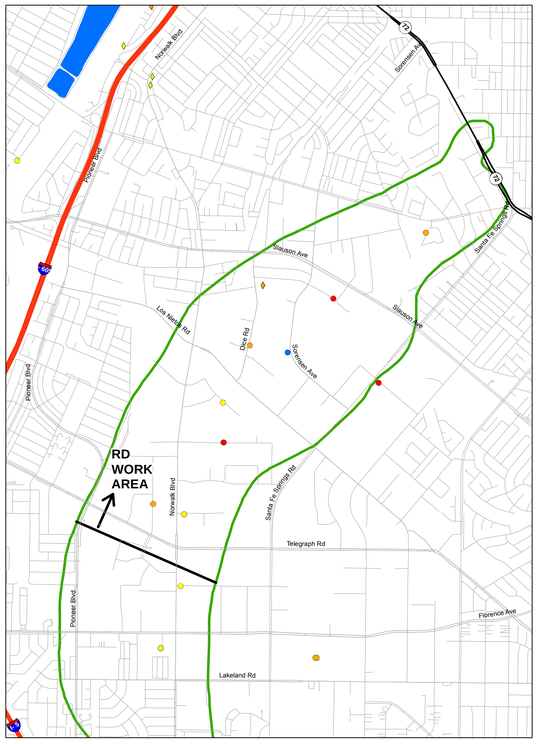
EPA STRATIGRAPHIC UNIT 3



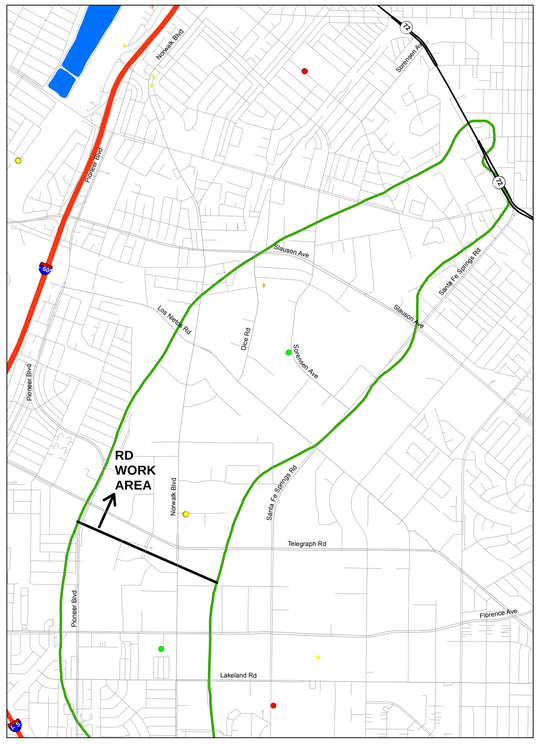
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- Monitor Well
- Production Well
- Grab Sample / Hydropunch
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Spreading Basin
- OU2 Boundary (ROD)

CONCENTRATION RANGES

- ND
- ND to 100 mg/l
- >100 to 250 mg/l
- >250 to 500 mg/l
- >500 to 750 mg/l
- >750 to 1,000 mg/l
- >1,000 to 2,000 mg/
- >2,000 mg/l

NOTES:

The most recent results were obtained from: (a) Geotracker database download in March 2016; (b) State Water Resources Control Board production well water quality database downloaded in April 2016; (c) ddms database download in March 2016; (d) selected reports downloaded from Geotracker and Envirostor Websites; and (e) selected reports from the Water Replenishment District of Southern California and the United States Geological Survey (Table A-3).

The hydrostratigrapic units are: (1) conceptual and will be evaluated, updated and/or revised based on data collected during Pre-Design Investigation and/or Leading Edge Investigation tasks; and (2) based on hydrostratigraphic units developed as part of the Remedial Investigation by EPA's contractor and extracted from EPA's contractor groundwater model files.

Maximum concentration based on maximum detected concentration from respective sample location; if all non-detect posted as non-detect.

ND = Non-detect

Units: ug/l = micrograms per liter; mg/l = milligrams per liter (refer to concentration ranges legend).

Sample Types:
- Grab sample/hydropunch - generally one time sample collected from borehole
- Monitor well - generally sampled from monitor wells, temporary wells, and/or remediation wells (eg soil vapor extraction, extraction, etc)
- Production well - generally municipal supply or irrigation supply

N

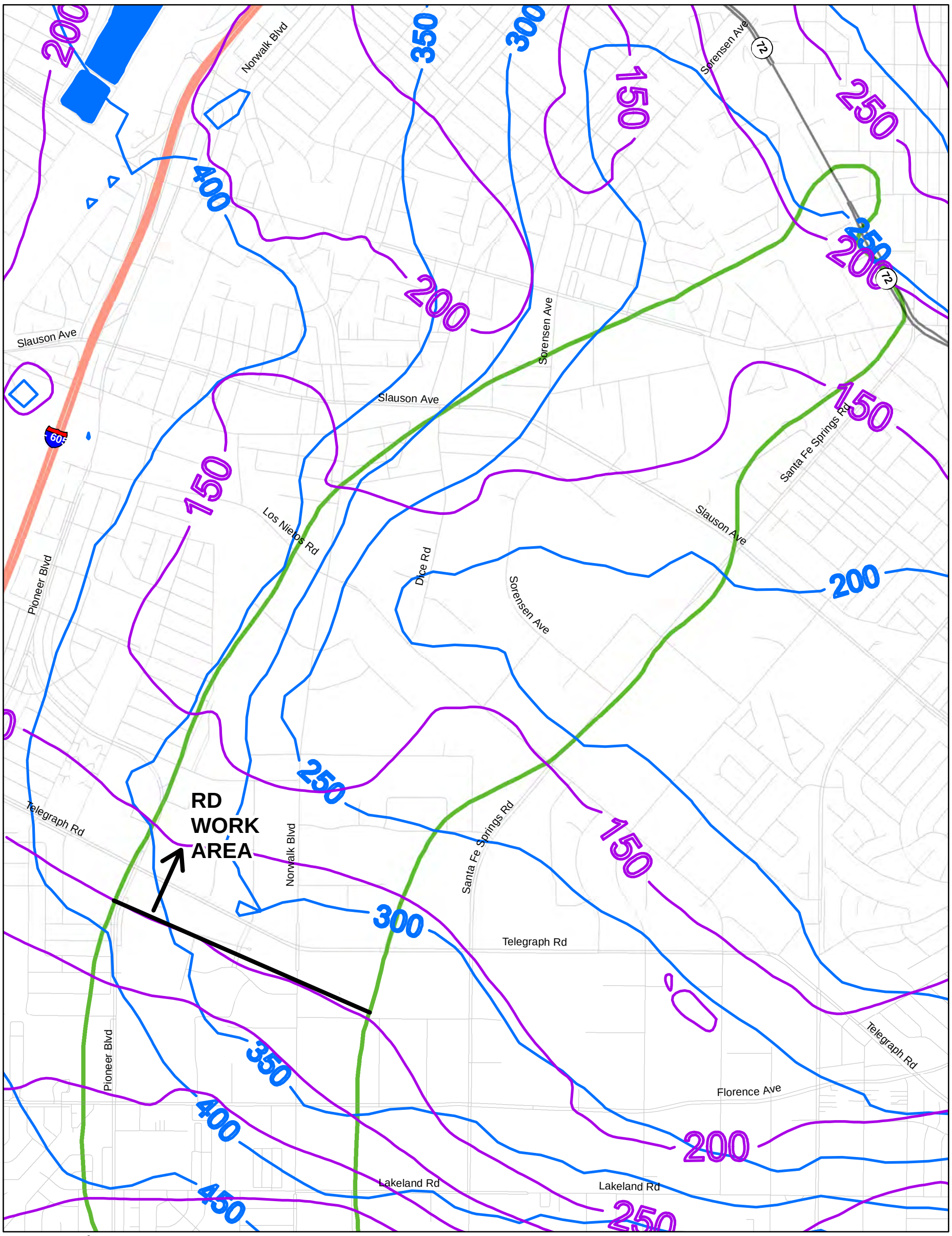
0 850 1,700 3,400 5,100 6,800 Feet

Document Name: 1217_DG_Fig4-26D_RDWA_TDS_SB_Max_D00 Date Exported: 9/1/2016

[redacted]

FIGURE A-26D. REMEDIAL DESIGN WORK AREA: SUMMARY OF MAXIMUM DETECTION OF TOTAL DISSOLVED SOLIDS IN GROUNDWATER SAMPLES, EPA STRATIGRAPHIC UNITS

DRAFT



Legend

- Depth to Bottom of Jefferson Aquifer
- Depth to Bottom of EPA Unit 6
- Spreading Basin
- OU2 Boundary (ROD)

N

0 600 1,200 2,400 3,600 4,800 Feet

The depths to bottom of EPA Stratigraphic Unit 6 and Jefferson Aquifer (based on Bulletin 104) are in feet below land surface and are approximate.

Document Name: FigA-27_1098_OU2_StratUnits_D00 Date Exported: 8/31/2016

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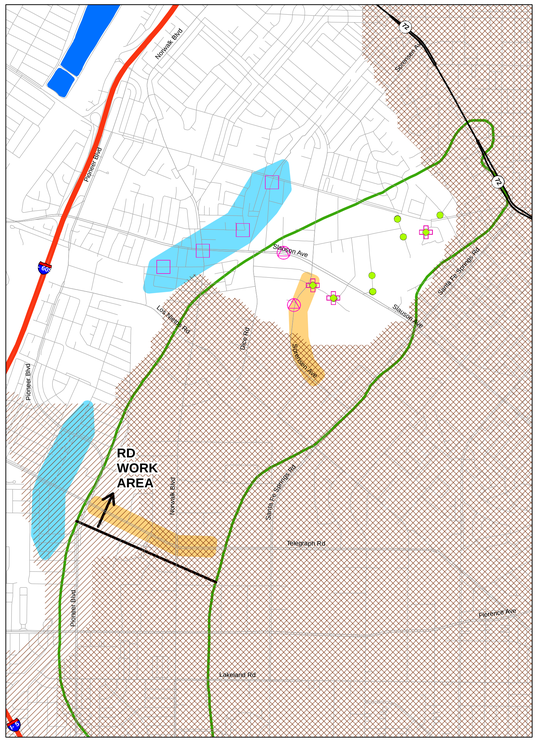
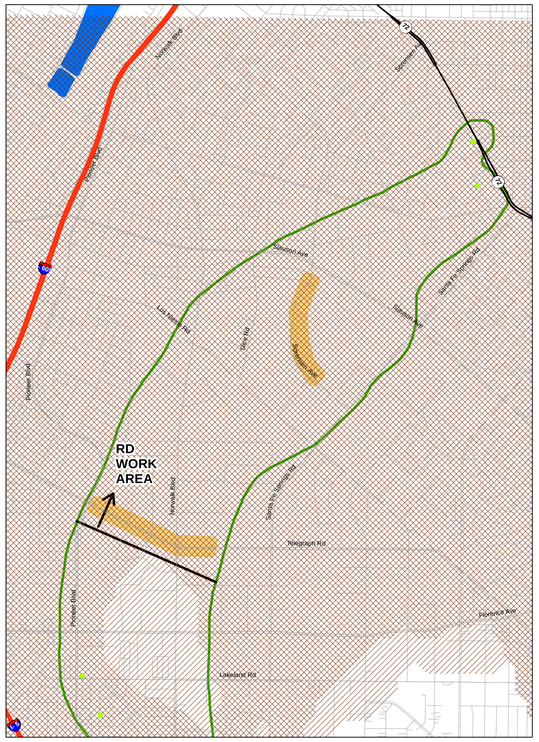
Hydrogeology/Engineering

FIGURE A-27. REMEDIAL DESIGN WORK AREA: DEPTH TO KEY STRATIGRAPHIC UNITS

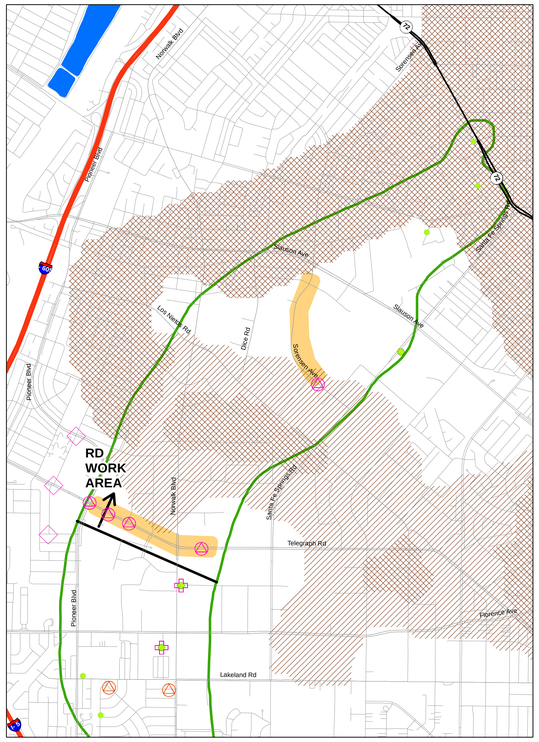
DRAFT



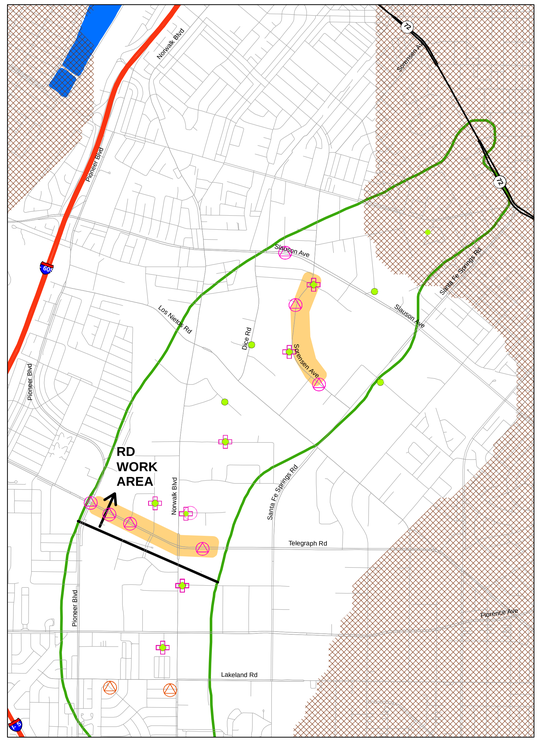
GASPUR AQUIFER



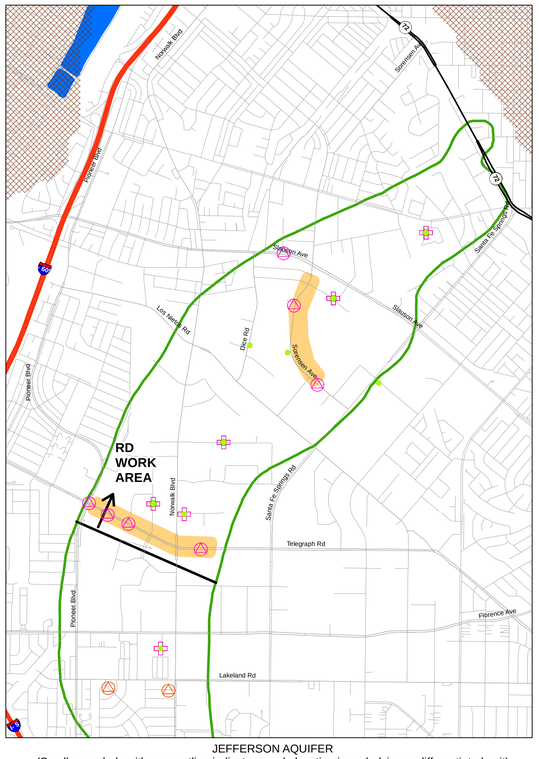
ARTESIA AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



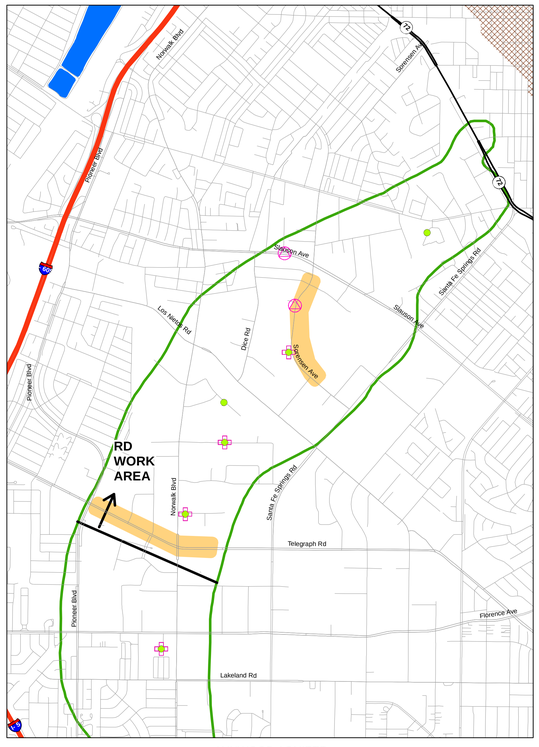
GAGE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



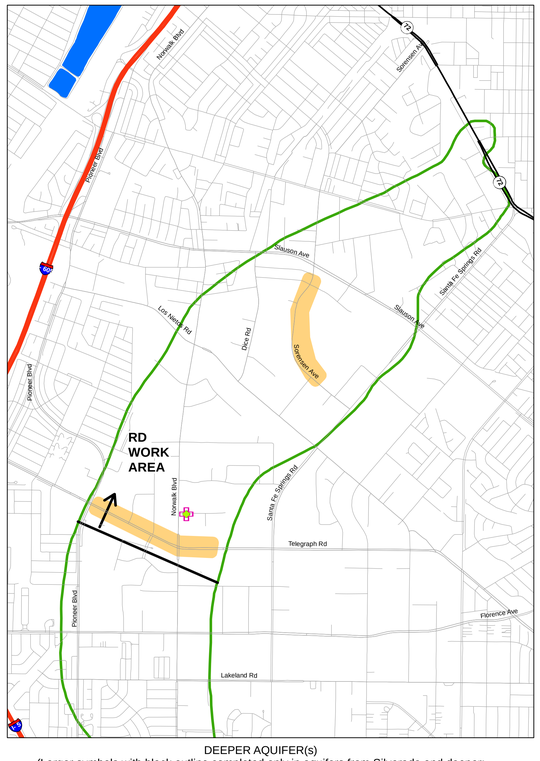
HOLLYDALE AQUIFER
(Smaller symbols with gray outline indicate sample location in overlying or underlying undifferentiated unit)



JEFFERSON AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



LYNWOOD AQUIFER
(Smaller symbols with gray outline indicate sample location in underlying undifferentiated unit)



DEEPER AQUIFER(s)
(Larger symbols with black outline completed only in aquifers from Silverado and deeper; smaller symbols with gray outline completed in shallower and deeper zones)

LEGEND

- PDI Candidate Reinjection Shallow MW
- PDI Contingency Candidate Reinjection Shallow MW
- PDI CE Shallow MW
- PDI NE/CE EB and MW Cluster
- PDI Early Transducer Well
- LEI EB and MW Cluster
- EPA or WRD Monitor Well with Recent Sample (2014+)
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- Potential Reinjection Areas
- NE/CE Area
- Spreading Basin
- OU2 Boundary (ROD)

NOTES:

Remedial Design (RD) Work Area is north of vicinity of Telegraph Road and includes Northern Extraction (NE) and Central Extraction (CE) areas. Also includes the following end uses for treated groundwater:

1) Shallow reinjection (illustrated above as potential reinjection areas)
2) Spreading basin recharge (partially illustrated above as spreading basin)
3) Reclaimed use (non-potable, not illustrated)
4) Deep reinjection (not illustrated)

MW = Monitor Well
EB = Exploratory Borehole
PDI = Pre-Design Investigation

N

0 850 1,700 3,400 5,100 6,800 Feet

Document Name: Fig4-28a_1217_OU2_PDI.MXD; B104_D00; Date Exported: 8/5/2016

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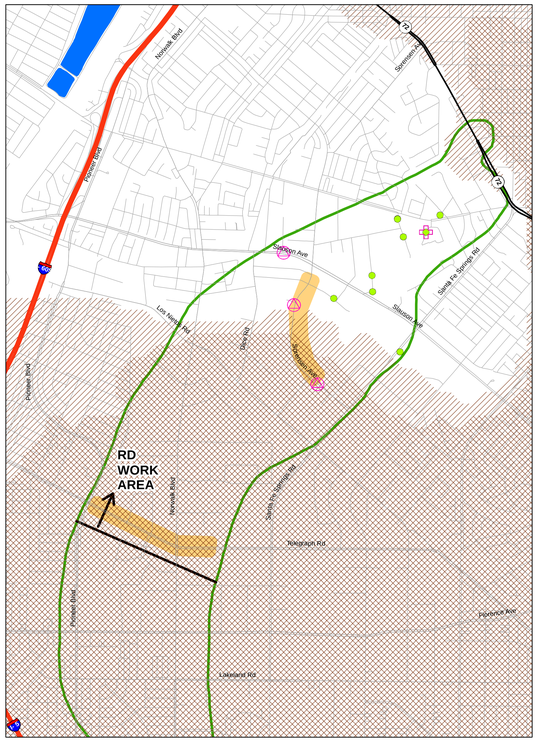
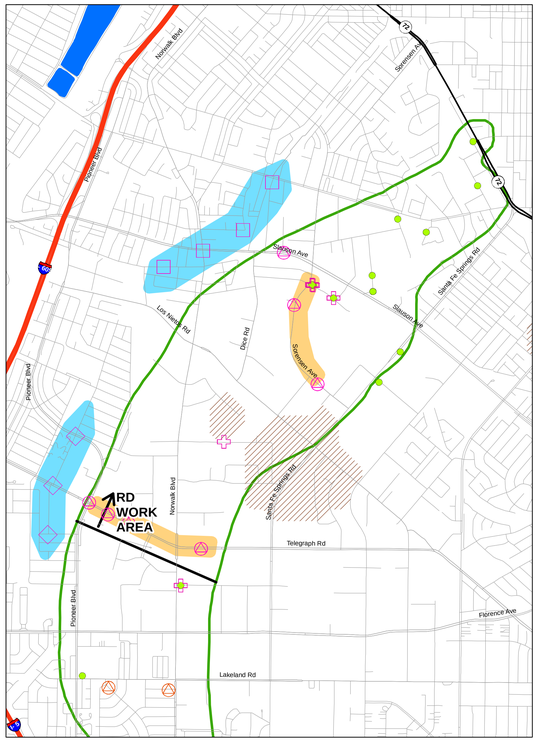
Hydrogeology/Engineering

FIGURE A-28A. REMEDIAL DESIGN WORK AREA: PRE-DESIGN INVESTIGATION MONITOR WELLS, BULLETIN 104 STRATIGRAPHIC UNITS

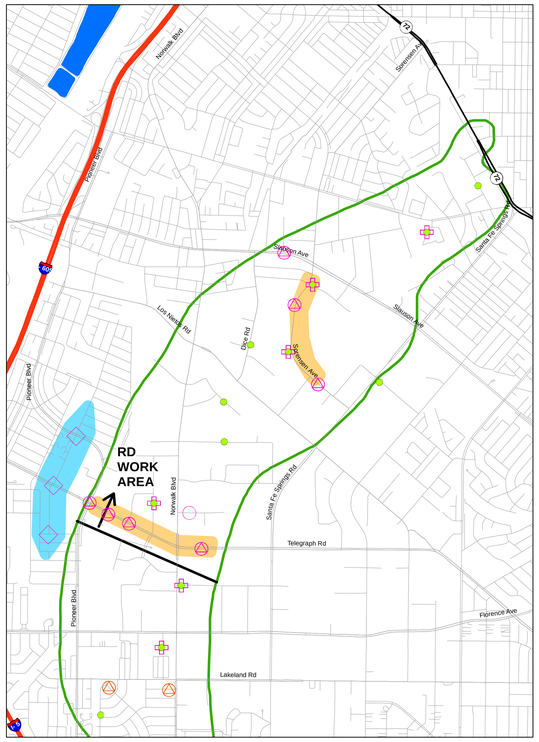
DRAFT



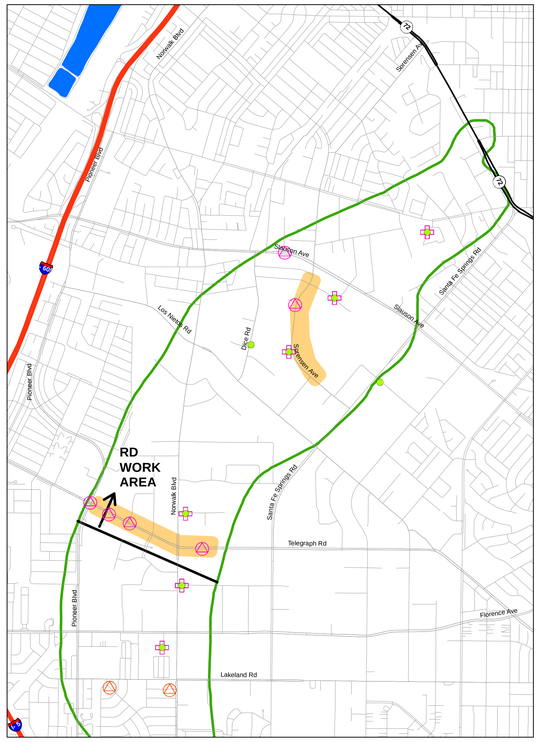
EPA STRATIGRAPHIC UNIT 2



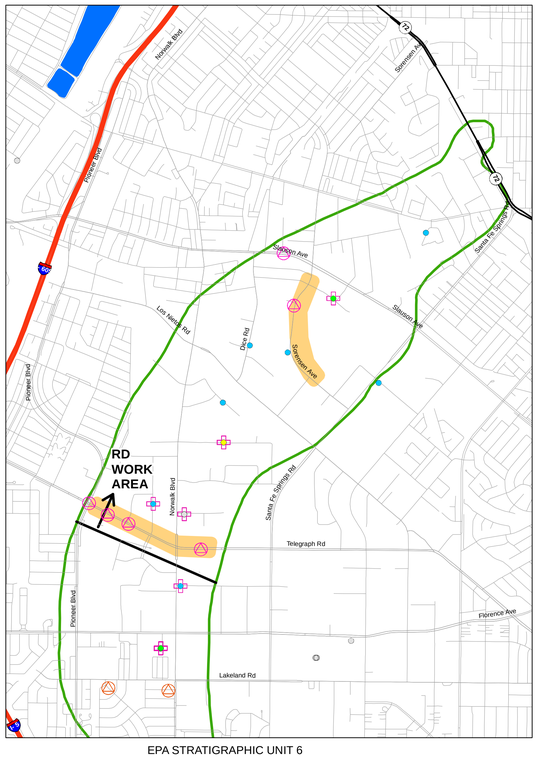
EPA STRATIGRAPHIC UNIT 3



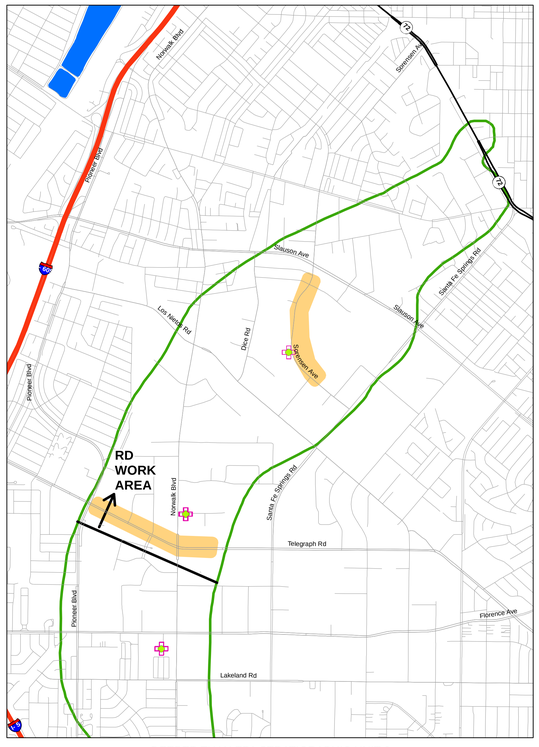
EPA STRATIGRAPHIC UNIT 4



EPA STRATIGRAPHIC UNIT 5



EPA STRATIGRAPHIC UNIT 6



DEEPER THAN EPA STRATIGRAPHIC UNIT 6
(Smaller symbols with gray outline indicate well screened in deeper and shallower units)

LEGEND

- PDI Candidate Reinjection Shallow MW
- PDI Contingency Candidate Reinjection Shallow MW
- PDI CE Shallow MW
- PDI NE/CE EB and MW Cluster
- PDI Early Transducer Well
- LEI EB and MW Cluster
- EPA or WRD Monitor Well with Recent Sample (2014+)
- Unit not present or unsaturated in 2015 (approximate)
- Unit not present or unsaturated in 2007 (approximate)
- NE/CE Area
- Spreading Basin
- OU2 Boundary (ROD)

NOTES:

Remedial Design (RD) Work Area is north of vicinity of Telegraph Road and includes Northern Extraction (NE) and Central Extraction (CE) areas. Also includes the following end uses for treated groundwater:

1) Shallow reinjection (illustrated above as potential reinjection areas)
2) Spreading basin recharge (partially illustrated above as spreading basin)
3) Reclaimed use (non-potable, not illustrated)
4) Deep reinjection (not illustrated)

MW = Monitor Well
EB = Exploratory Borehole
PDI = Pre-Design Investigation

N

0 850 1,700 3,400 5,100 6,800 Feet

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FIGURE A-28B REMEDIAL DESIGN WORK AREA: PRE-DESIGN INVESTIGATION MONITOR WELLS, EPA STRATIGRAPHIC UNITS