Environmental Functional Area

Environmental Support and Programmatic Outreach Group

LLNL-AR-411431-18-3

LLNL Experimental Test Site, Site 300 Compliance Monitoring Report for Waste Discharge Requirement (WDR) Order No. R5-2008-0148

Second Semester/Annual Report 2017

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- Field Tracking Forms
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Appendix B Cooling Tower Network

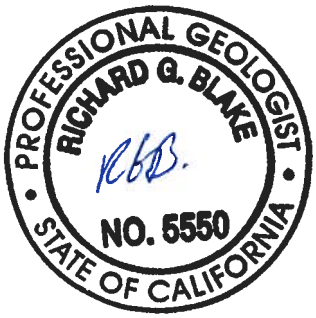
- Cooling Tower Blowdown Effluent Monitoring Network with Discharges to Percolation Pits (Bldgs. 801, 817A, 825, 826, 827A, and 851) and Cooling Tower Percolation Pit Inspection Forms

Appendix C Mechanical Equipment Room Network

- Mechanical Equipment Discharge Effluent Monitoring for Buildings 806A and 827A, 827C, 827D, and 827E Mechanical Equipment Room and Cooling Tower Percolation Pit Inspection Forms

Certification

I certify that the work presented in this report was performed under my supervision. To the best of my knowledge, the data contained herein are true and accurate, and the work was performed in accordance with professional standards.



Richard G. Blake 2/13/18

Richard G. Blake Date
California Professional Geologist
No. 5550
License expires: July 31, 2018

List of Abbreviations and Acronyms

3CMP	samples collected at Site 300 for Compliance Monitoring Program
3EMG	samples collected at Site 300 for the Environmental Support & Programmatic Outreach (ESPO) Group
3GIV	samples collected at Site 300 for site investigations
3VES	three casing volumes purged using an electric submersible pump
BCLABS-BAK	BC Laboratories, Inc. in Bakersfield, CA
BOD	biochemical oxygen demand
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CMP	Compliance Monitoring Program (conducted under CERCLA)
CMR	Compliance Monitoring Report (prepared under CERCLA)
CoC	chain-of-custody form
CVRWQCB	Central Valley Regional Water Quality Control Board
DO	dissolved oxygen
DSWP	sewage percolation pond influent sampling location
DTW	depth to (ground) water
EC	electrical conductivity, or specific conductance (SC)
EFA	Environmental Functional Area
ESWP	sampling location within sewage evaporation pond
GF	Grundfos pump
FRUITGROWL	FGL Environmental Laboratories in Stockton, CA
ft	feet
gal	gallons
gpm	gallons per minute (measurement of flow)
GWE	ground water elevation (above mean sea level)
HSU	hydrostratigraphic unit
ID	identification number
ISWP	sewage evaporation pond influent sampling location
LLNL	Lawrence Livermore National Laboratory
MCL	maximum contaminant level (for drinking water)
mL	Milliliters

List of Abbreviations and Acronyms (Continued)

MPN	most probable number
MRP	monitoring and reporting program
mV	millivolts (measure of oxidation-reduction potential)
NA	not applicable
ND	none detected, or not detected
NO_3	nitrate
NR	analysis not required by Permit at this sampling location
pH	measure of the acidity or alkalinity of a solution
OG	off gassing measured by scale of 1-5, 5 being high amounts of off gassing
OU	Operable Unit under CERCLA
Q	flow rate, or number of well volumes purged (according to context)
QA	Quality Assurance
Qal	Quaternary Age alluvial deposits
QC	quality control
Qt	Quaternary Age terrace deposits
RHWM	Radioactive and Hazardous Waste Management
SC	specific conductance, or electrical conductivity (same as EC)
SHO	short analytical holding time (such as samples for coliform bacteria analyses)
VOA	samples collected for analysis of volatile organic compounds
WDR	waste discharge requirements (Permit)

Executive Summary

Under authority of the State of California, and required by the Porter-Cologne Water Quality Control Act, the Central Valley Regional Water Quality Control Board (CVRWQCB) issued Order No. R5-2008-0148 for the Experimental Test Site (Site 300), to Lawrence Livermore National Laboratory (LLNL). Monitoring and Reporting Program (MRP) Number R5-2008-0148 was adopted in September 2008, and revised effective December 1, 2009. The revised MRP terms and conditions have been implemented in this report. Under the terms of this MRP, LLNL submits semiannual and annual monitoring reports detailing its Site 300 discharges of domestic and wastewater effluent to the sewage evaporation pond and percolation pond in the General Services Area, and cooling tower blowdown to percolation pits and septic systems, and mechanical equipment discharges to percolation pits located throughout the site.

This report contains all the elements required by Waste Discharge Requirement (WDR) Order R5-2008-0148 for the second semester of 2017 and updates the status of equipment and facilities since the adoption of R5-2008-0148. Proper operating conditions were met for all permitted networks. Compliance certification accompanies this report, as required by the permit.

1. Introduction

Site 300, operated by Lawrence Livermore National Security, LLC, is located in the Altamont Hills approximately 10.5 kilometers (6.5 miles) southwest of downtown Tracy, California. Required monitoring for specific Lawrence Livermore National Laboratory (LLNL) Site 300 monitoring networks is defined in the Monitoring and Reporting Program (MRP) Order Number R5-2008-0148, which was adopted in September 2008, and revised effective December 1, 2009. The revised MRP has been implemented in this report. Applicable reporting requirements are found in the Standard Provisions and Reporting Requirements specified in the Waste Discharge Requirements (WDR) Order R5-2008-0148 (CVRWQCB, 2008) permit and in the MRP R5-2008-0148.

This report provides a summary of monitoring in designated networks conducted during the second semester of 2017 under the revised MRP R5-2008-0148 (CVRWQCB, 2008). The report details the monitoring results of the three compliance networks and presents analytical data, field summary sheets, and inspection logs associated with discharges at the networks.

Compliance monitoring networks discussed in the report include:

- Sewage evaporation and percolation ponds wastewater and ground water monitoring (Sections 2.1 through 2.5).
- Cooling tower blowdown discharge monitoring and percolation pit inspections (Sections 3.1 through 3.4).
- Mechanical equipment effluent discharge monitoring and percolation pit inspections (Sections 4.1 through 4.4).
- Permit related summaries and updates.

BC Laboratories, Inc., Alpha Labs, and FGL Environmental Laboratory provided off-site analytical support for the monitoring networks.

This report summarizes the activities associated with these monitoring networks including: tabular summaries or data plots for all data for at least the last five years; ground water elevation contour map with well locations; identification of any data gaps or deficiencies; and a discussion of any changes to the monitoring program.

Figure 1 shows the locations of the wastewater systems permitted under WDR R5-2008-0148, including mechanical equipment percolation pits and the sewage oxidation and percolation ponds (sewage ponds) located in the General Services Area. None of the permitted mechanical equipment percolation pits overflowed during this monitoring period, and no standing water was observed within the Christy boxes. There were no detected impacts to ground water around the sewage ponds. Discharges from cooling towers and mechanical equipment were consistent with historic information provided in the previous Reports of Waste Discharge.

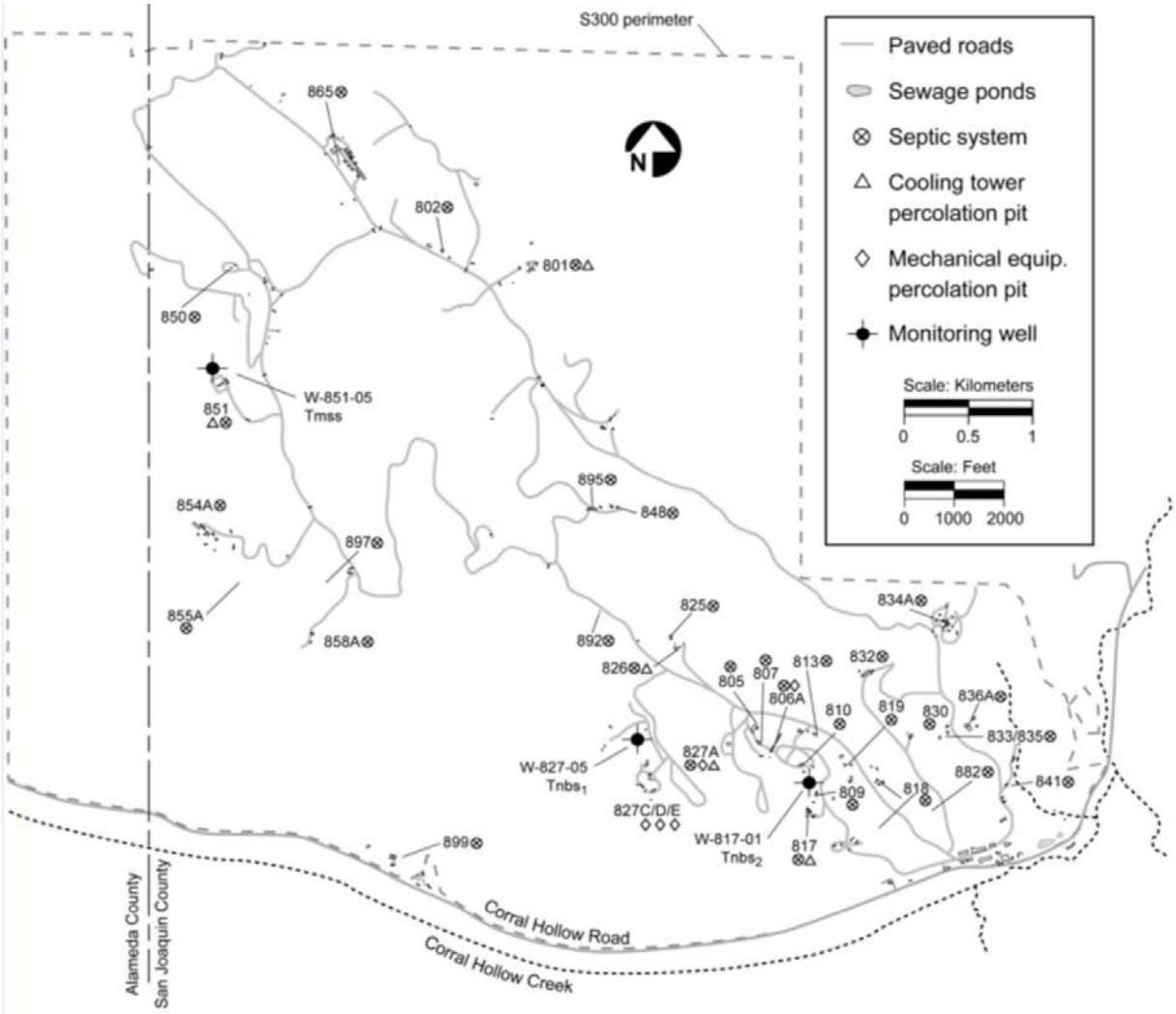


Figure 1. Locations of Site 300 facilities with septic systems and percolation pits.

2. Sewage Evaporation and Percolation Ponds

2.1. Effluent and Pond Compliance Monitoring Program

MRP R5-2008-0148 requires semi-annual and annual samples be collected of wastewater flowing into the sewage evaporation pond (sewage pond) for analysis. Sample collection is by grab sampling from a location west of the sewage pond (see sampling location ISWP in **Appendix A, Figure A-1** showing the Site 300 sewage evaporation and percolation ponds and ground water and wastewater compliance monitoring locations). Location ISWP is a port providing access to a section of pipe through which all waste streams flow before they flow into the sewage pond. The samples are analyzed for specific conductance (SC, or electrical conductivity), pH, and biochemical oxygen demand (BOD).

MRP R5-2008-0148 also requires samples be collected of wastewater within the sewage pond and wastewater discharging into the sewage percolation pond. Semiannual wastewater samples are collected by grab sampling from a dock at the eastern end of the sewage pond (sampling location ESWP) and analyzed for SC, pH, metals, dissolved oxygen (DO), BOD, and total and fecal coliform. Any discharge from the sewage pond to the sewage percolation pond (sampling location DSWP) is grab sampled and analyzed for the same constituents. Permit WDR R5-2008-0148 requires LLNL to operate the sewage pond with adequate freeboard to minimize the frequency of discharges to the sewage percolation pond.

Observations of the sewage pond are made and recorded at least monthly for freeboard, color, odor, and levee condition. **Appendix A** contains several second semester 2017 data sets including; field tracking forms, sewer pond inspection reports, ground water sampling data forms, historical data plots for the sewage evaporation pond and percolation pond network, and ground water well field observation forms for the sewage pond. Inspection reports indicate some animal burrows are observed in the levee from time to time. These burrows continue to be monitored by operations personnel to ensure that the integrity of the levee is not compromised.

Leak detection and monitoring compliance at the sewage evaporation and percolation ponds is accomplished by monitoring the shallow ground water beneath and adjacent to the ponds. Ground water monitoring includes semiannual sampling during the first and second semesters when ground water levels are the highest and lowest and analysis of the collected samples for SC, pH, total and fecal coliform, chloride, nitrate, sulfate, total dissolved solids, sodium, and metals. In addition, ground water elevations are routinely recorded and contoured (**Appendix A, Figure A-2**). A map showing the locations of the monitor wells (**Appendix A, Figure A-1**) with respect to the ponds, and tables of ground water specifications and elevations for the second semester of 2017 for each well are provided (**Appendix A, Tables A-1 and A-2**).

In addition to normal operation of the sewer evaporation pond, normally discharges to the sewer pond occur that are associated with the beneficial use of discharged water. These discharges were in preparation for potable water delivery to Site 300 from the San Francisco Public Utility District Hetch-Hetchy water system. During this operation, Hetch-Hetchy water is flushed from the line periodically to maintain sanitary conditions in the line. When a discharge to the sewage evaporation pond is scheduled, the chlorinated water in the Hetch-Hetchy line is analyzed for chlorine. When the water reaches a chlorine residual value at or below 1.0 mg/L, which

generally takes one or two weeks, the water is ready to flush. When flushing, a 4-inch hose is used to pump the water from the Hetch-Hetchy line to the sewer evaporation pond. Before the water is flushed, the residual chlorine concentration is adjusted and generally decreases to 1 mg/L or less; pH is also adjusted.

During the first and second semester of 2017, no discharges of evaporation loss makeup water to the sewage pond were conducted because the chlorine levels stayed above 1 mg/L. Normally, when flushing occurs, details of discharges are shown on **Table 1** below which provides the date of the discharge, the volume of water discharged, chlorine residual, and pH of the discharged water. During normal operation, these discharges are consistent with Waste Discharge Requirements Order Number R5-2008-0148 and the revised MRP (November 23, 2009).

Table 1. Summary water system pipeline flushing and pressure testing discharges at Site 300 during the first and second semesters of 2017.

Discharge Date	Volume Discharged (gallons)	Chlorine Residual (mg/L)	pH (units)	Comment
First Semester	-	-	-	No flushing occurred during this period
Second Semester				No flushing occurred during this period

2.2. Sewage Pond Wastewater Sampling and Analysis

For the sewage pond wastewater sampling and analysis, calibration is performed on DO, SC, and pH meters less than 12 hours before sampling. DO, SC, pH, and temperatures of the samples are measured and written on the field tracking forms (field logs) when the grab samples from ISWP, ESWP, and DSWP are collected. Chain-of-custody (CoC) forms are filled out appropriately and signed by the sampler for each analytical laboratory to which the samples are transferred; CoC numbers are also written on the field logs. Analytical methods used are appropriate EPA-approved Methods (U.S. Environmental Protection Agency, 2005) or Standard Methods (Clesceri et al., 1998).

The samples required under MRP R5-2008-0148 for locations ISWP and ESWP were collected on October 24, 2017. These samples, and all samples collected with results presented in this report, were collected, analyzed, and entered into the Environmental Functional Area (EFA) database according to a complete set of written protocols documented in the LLNL Environmental Functional Area's Environmental Monitoring Plan (Gallegos, 2012).

2.3. Sewage Pond Wastewater Monitoring Results

Results are summarized here for samples collected during the monitoring period as required under MRP R5-2008-0148. Monitoring data are found in **Appendix A**. Coliform, anion, BOD, DO, and specific conductance data summaries are presented in **Table A-3**. A metal data summary for the locations ESWP and DSWP are found in **Table A-4. Table A-5** provides a duplicate (QA) sampling data summary for the sewage pond's wastewater monitoring network. All results and observations were in compliance with the Permit's discharge specifications.

Adequate free board was provided to prevent any over-topping or erosion of the pond embankment. Field tracking forms indicate normal operations and are provided in **Appendix A**, which also contains the field logs, including field measurements. The CoCs and laboratory analytical results are stored at LLNL and are available upon request.

2.4. Ground Water Sampling and Analysis

Semiannual sampling of ground water from wells at the sewage evaporation and percolation ponds was performed during the second semester of 2017. Ground water samples were collected and analyzed, and results entered into the EFA database according to written protocol (Goodrich and Lorega, 2012). The monitor wells were purged and sampled during two phases, from August 21 through November 30, 2017, according to prescribed methods assigned to each monitor well. Information regarding the conditions during sampling, as well as field measurements taken at the time of sampling, is found in the ground water sampling data sheets located in **Appendix A**. The collected samples were transferred to an offsite analytical laboratory for physical parameters and analyses listed in **Section 2.1**. Following the initial sampling event, each well was treated with a pre-calculated dose of chlorine and pumped to circulate the chlorine throughout the water column. On the following day, wells were tested for residual chlorine and samples collected to be analyzed for total and fecal coliform bacteria at an offsite analytical laboratory. Wells that tested positive for chlorine were pumped until chlorine was not detected prior to sampling, according to the aforementioned written protocols.

2.5. Ground Water Monitoring Results

All monitored parameters were in compliance with the Permit limits; ground water data are presented in Tables found in **Appendix A**. Anion data are listed in **Table A-6**. Coliform data are found in **Table A-7**. **Table A-8** provides a summary of physical chemistry data and **Table A-9** lists metals data. QA data summaries for the monitoring network are located in **Table A-10**. During the second semester, none of the ground water wells detected fecal coliform above the <1.8 MPN/100mL detection limit. However, five wells detected total coliform, including upgradient wells, W-7ES (4.0 MPN/100Ml) and W-7PS (2.0 MPN/100Ml, one cross gradient well, W-35A-04 (11.o MPN/100Ml), and two down gradient wells, W-26R-05 (2.0 MPN/100Ml) and W-26R-11 (2.0 MPN/100Ml), (**Table A-7**). These values are not a concern because fecal coliform was not detected. LLNL will continue to monitor these wells.

Appendix A, Figure A-2 contains the ground water elevation contour map for the most shallow ground water zones (Hydrostratigraphic Units [HSUs]) in the sewage evaporation and percolation ponds area. This map reflects ground water elevation levels from July through November, 2017. The sewer pond ground water network map showing concentrations of nitrates is presented in **Appendix A, Figure A-3**. Nitrate data is also shown in **Table A-6**. All the detailed ground water data CoCs and laboratory analytical results are archived at LLNL and are available upon request.

3. Cooling Tower Network

3.1. Cooling Tower Compliance Monitoring Program

Monitoring required for the cooling tower blowdown is specified in MRP R5-2008-0148. LLNL implemented the cooling tower blowdown monitoring starting the fourth quarter of 2008. Applicable reporting requirements are found in the Standard Provisions and Reporting Requirements of WDR R5-2008-0148 and the MRP.

Cooling towers located at Site 300 will discharge either into percolation pits or into septic systems. Currently, there are five operating cooling towers. The cooling tower locations are identified in **Appendix B, Figure B-1**. The cooling tower located at Building 825 normally discharged to a septic system but was not operational during this last period and therefore no samples were collected. The remaining cooling towers located at Buildings 801, 817, 826, 827, and 851 all discharge to percolation pits and were operational this period. The two original cooling towers located at Building 851 were replaced in the second semester 2009 with a single new cooling tower. The two cooling towers located at Building 827 have blended cooling water and a combined discharge line and therefore only one sample is routinely collected to characterize the discharge of these cooling towers. As part of a facility upgrade, the cooling tower at B-826 was replaced with a new cooling tower unit in January 2017 and has been operating normally.

MRP R5-2008-0148 requires semi-annual sampling of the cooling tower blowdown. Grab samples are collected from the water circulating in the cooling tower, either at a valve or a drainpipe. The grab samples are collected directly into the containers specified by the laboratory. Samples are analyzed for metals, pH, sodium, SC, sulfate, total alkalinity, total dissolved solids, total hardness, and total phosphorus.

3.3. Cooling Tower Blowdown Monitoring Results

All cooling tower sample results are listed in Appendix B along with the Quality Assurance results, field tracking forms, and CoCs. **Table B-1** lists anion data, **Table B-2** lists metals results, and **Table B-3** provides data on the required physical characteristics. QC data from duplicate sampling is provided in **Table B-4**.

Analytical results for cooling tower blowdown samples collected this semester are compared to values shown in Attachment 16 of our permit (WDR Order No. R5-2008-0148).

- Copper concentrations in samples collected ranged from 24 µg/L to 130 µg/L, as compared to the maximum historical effluent concentrations summarized in the WDR Order Attachment 16 (2,400 µg/L). Cooling tower at Building 817A (130 µg/L) had the most elevated copper value (**Table B-2**) and was higher than the value reported last semester (3.9 µg/L).
- Molybdenum concentrations in samples collected ranged from <120 µg/L at cooling tower B-827A and B-817A to 260 µg/L at B-817A, as compared to the maximum historical effluent concentrations summarized in Attachment 16 (45 µg/L). Most of the molybdenum values at the cooling towers are similar to the values seen last semester.

- Zinc concentrations in samples collected ranged from <100 µg/L to 170 µg/L and were lower than the maximum historical effluent concentrations of data summarized in the WDR Attachment 16 (340 µg/L). The zinc value at the cooling tower at B-817A was 130 µg/L compared to 320 µg/L zinc concentration reported last semester.

Although some of the concentrations for copper, molybdenum, and zinc are occasionally slightly above the range in the appendix (Attachment 16) of the WDR, the discharge concentrations are well below the values calculated using the Designated Level Methodology (WDR Order Attachment 16) to impact ground water. LLNL will continue to evaluate future copper, molybdenum, and zinc analytical data.

3.2. Cooling Tower Blowdown Effluent Sampling and Analysis

Second semester 2017 routine cooling tower blowdown samples were collected October 17, 2017. For the cooling tower blowdown sampling and analysis, calibration is performed on SC and pH meters less than 12 hours before sampling. SC and pH data measured in the field are written down on field tracking forms. CoC forms are filled out appropriately and signed by the sampler for each analytical laboratory to which the samples are transferred; CoC numbers are also written on the field logs. Analytical methods used are appropriate EPA-approved Methods (U.S. Environmental Protection Agency, 2005) or Standard Methods (Clesceri et al., 1998).

3.4. Cooling Tower Percolation Pit Monthly Inspections

LLNL implements monthly visual inspections of the cooling tower percolation pits that are located at Buildings 801, 817A, 826, 827A, and 851 (**Appendix B**, **Figure B-1**), which collect effluent from the cooling towers as specified in MRP R5-2008-0148.

If standing water is present, the MRP requires the inspection frequency to be increased to weekly until standing water is no longer visible. Visual inspections are conducted to verify the percolation pits are working properly and do not have the potential to overflow. Copies of the inspection forms are found in **Appendix B**. Some standing water was observed in the cooling tower Christy Boxes. In general, water was observed from 5-7 inches in the Christy box at 827A from July through November. No standing water was seen in December. The Christy box at 851 showed six inches of standing water during the months of August, October, November, and December. None of the standing water in either of these Christy boxes was near the surface spill point and posed no potential threat to the environment.

4. Mechanical Equipment Effluent Monitoring

4.1. Mechanical Equipment Discharge Monitoring Program

Monitoring required for mechanical equipment discharge effluent to percolation pits is specified in the MRP R5-2008-0148. LLNL monitors the mechanical equipment systems located at Buildings 806A, 827A, 827C, 827D, and 827E. **Appendix C, Figure C-1** provides the locations of those systems.

4.2. Mechanical Equipment Effluent Sampling and Analysis

The results for the mechanical equipment room effluent monitoring are reported in **Appendix C**. Monitoring is performed using composite sampling from Christy boxes that allows an automatic sampler to be placed within the boxes, allowing composite samples to be collected during operations. During this sampling period, samples were taken from the Buildings 806A, 827A, 827C, 827D, and 827E.

For the sampling and analysis of mechanical equipment effluent, CoC forms are filled out appropriately and signed by the sampler for each analytical laboratory to which the samples are transferred; CoC numbers are also written on the field logs, provided in **Appendix C**. Analytical methods used are appropriate EPA-approved Methods (U.S. Environmental Protection Agency, 2005) or Standard Methods (Clesceri et al., 1998).

4.3. Mechanical Equipment Effluent Monitoring Results

Sample analytical results for this monitoring network are presented in **Appendix C**. Results are consistent with data found in Attachments 5 and 6 in the MRP R5-2008-0148. **Table C-1** lists anion data, **Table C-2** lists metals results and **Table C-3** provides data on the required physical characteristics. Data from duplicate sampling is provided in the data tables.

4.4. Mechanical Equipment Percolation Pit Monthly Inspections

MRP R5-2008-0148 requires monthly inspections of the five mechanical equipment percolation pits located at Buildings 806A, 827A, 827C, 827D, and 827E (**Appendix C, Figure C-1**). **Appendix C** contains the mechanical equipment percolation pit inspection checklists. If standing water is visible during the inspection, the inspection frequency for the percolation pit with the standing water is increased to weekly until no standing water is visible. During this period, no standing water was observed during several inspections at any of the mechanical equipment percolation pits and all facilities demonstrated normal operations.

5. Permit Related Summaries and Updates

5.1. Regulatory Correspondence

The following letters, verbal communication, or activities were conducted under the CVRWQCB WDR-R5-2008-0148 permit during the second semester of 2017:

- There was a Site 300 CVRWQCB inspection during the second semester on November 9, 2017. At the request of the CVRWQCB staff, this inspection was combined with the LLNL Environmental Restoration Department who presented their CERCLA activities. The only inspection stop relating to this report was a visit to the Sewage Evaporation and Sewage Percolation Ponds. No issues or action items were encountered at the site visit. The Water Board usually requests that an inspection be scheduled during the spring and fall each year.
- There was no discharge of water from the Hetch-Hetchy water line to the sewer evaporation pond during the first and second semesters of 2017. This flushing is

normally necessary to keep the water system delivery line clean and to minimize algae growth. An effort continues to begin the delivery of Hetch-Hetchy water to Site 300 and system upgrades and retrofits are ongoing. LLNL is targeting sometime in 2018 for full delivery of Hetch-Hetchy water to Site 300.

- Sewer Pond Maintenance
  The Site 300 Sewer Pond was constructed in 1959, with a total capacity of 1.5 million gallons. However, irregular maintenance has resulted in a significant collection of sludge. Excessive sludge buildup can cause multiple issues including bad odors as well as drastically reducing retention time and decreased treatment ability. To maintain use and capacity of the sewer pond, the project proposed to remove up to 135 dry tons of sludge and debris. Work began with equipment mobilization and training on 5 September. Contract period was for 18 days with 12 of actual operation. Sludge removal concluded 4 October. Further equipment demobilizing concluded 10 October.

  Biosolid material from the sewer pond was removed by a hydraulic suction dredge with gauge wheels that kept the pump head 6 inches off the pond bottom. The material was pumped to a mix tank that would feed the dewatering equipment. The dewatered sludge cake was conveyed directly into aluminum end dump trailers specially designed for the transport of biosolids.

  The project extracted, dewatered, transported and disposed of approximately 96 dry tons of domestic wastewater sludge, vegetation and debris from the Site 300 Stabilization (Oxidation) Pond to the Altamont Landfill.

  The project included the usage of the following pieces of equipment and vehicles:
  - Dredging equipment, holding tank, belt filter press or centrifuge, electric generator, conveyor and miscellaneous piping and water pumps for the operation.
  - Front-end loader to load trucks, a rough terrain forklift and standard passenger pick-up trucks on the job site.
  - All biosolid material hauled off from the site would be issued a manifest to include the description of the material and the tonnage.

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U.S. Environmental Protection Agency (2005), *Title 40 Code of Federal Regulations, Part 136*.

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Appendix A

Sewage Evaporation and Percolation Pond Network

- Sewer Pond Figures
- Sewer Pond Tables (well specifications)
- Field Tracking Forms/COC
- Sewer Pond Inspection Reports
- Ground Water Sampling Data Forms
- Historical Data Plots: Sewage Evaporation Pond and Percolation Pond Network (ISWP, ESWP, and Ground Water Wells) – Second Semester – Annual Report Only

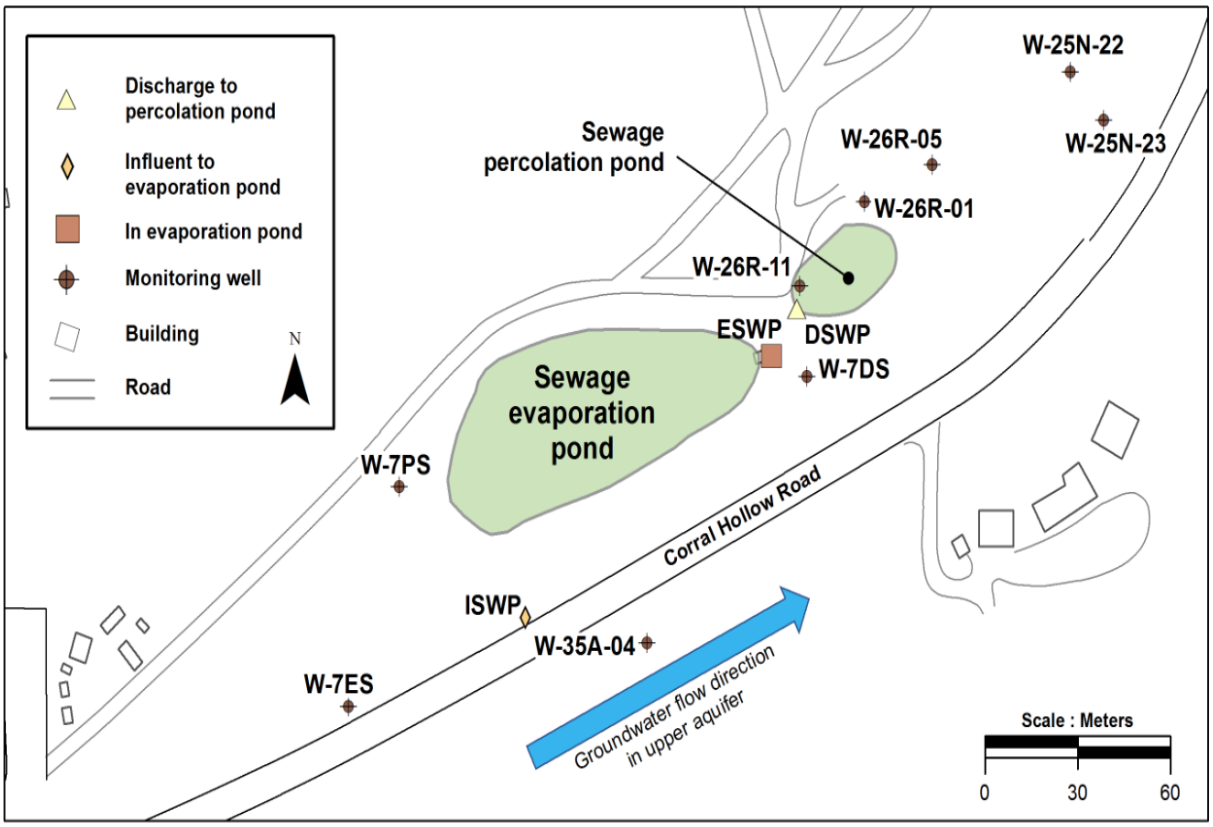

Figure A-1. Sewer pond wastewater and ground water monitoring network.

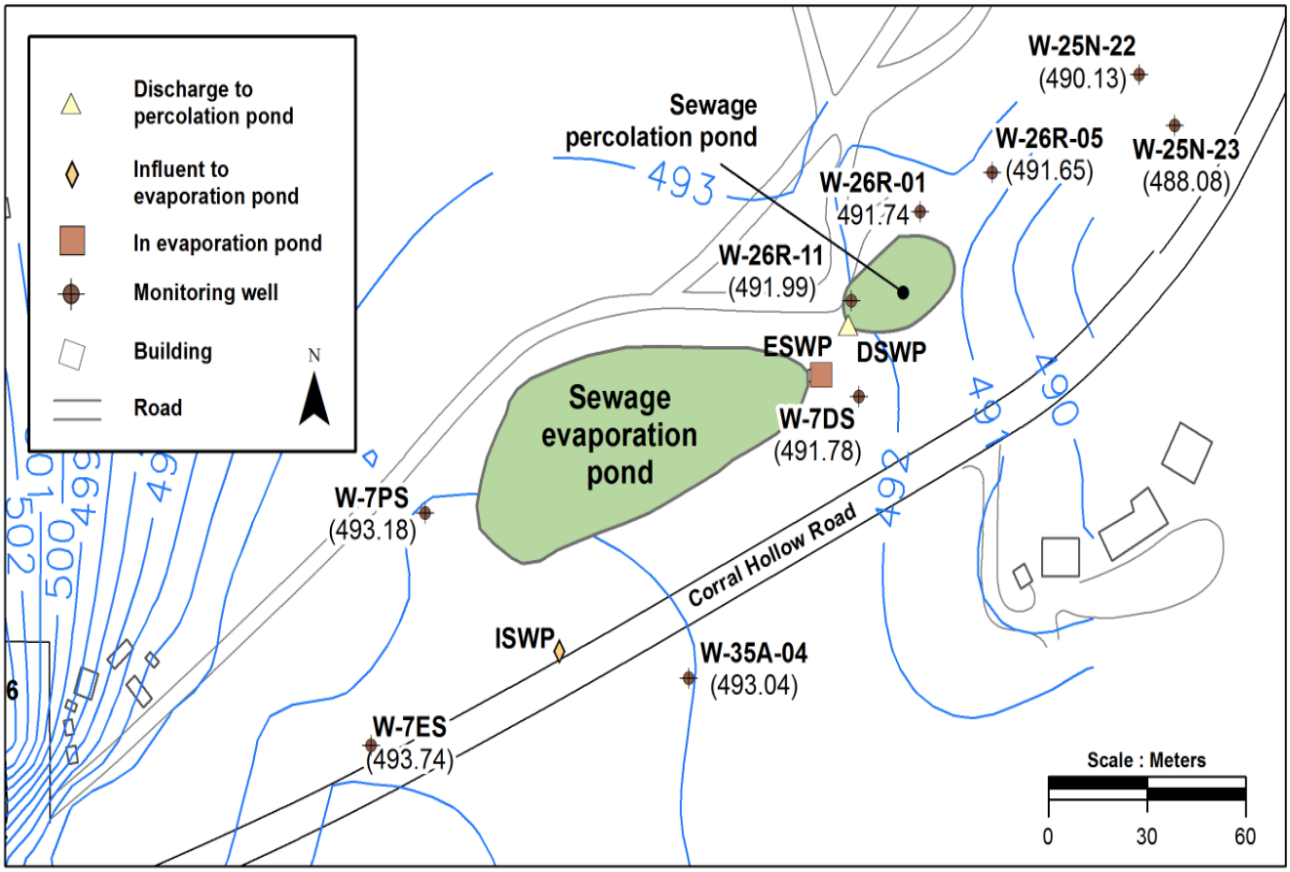

Figure A-2. Site 300 sewer pond wastewater and effluent monitoring network with groundwater elevations (ft-above mean sea level).

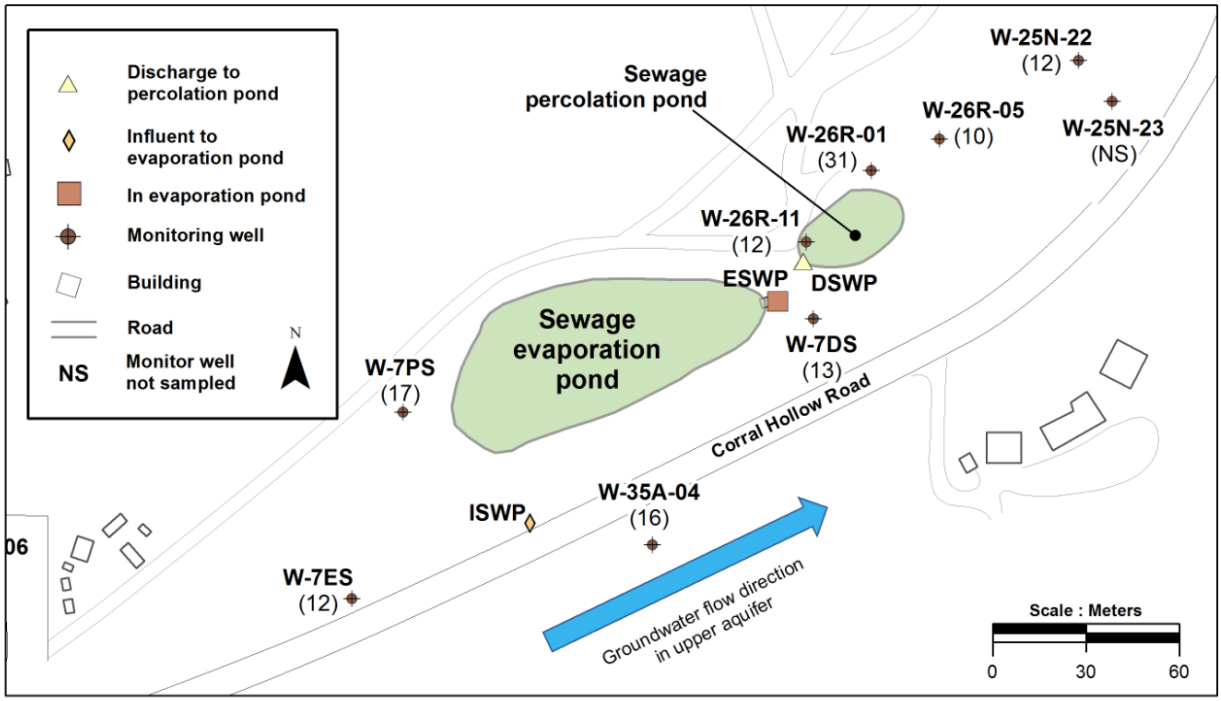

Figure A-3. Site 300 sewer pond wastewater and effluent monitoring network with nitrate (NO3) concentration (in mg/L)

Table A-1. Summary of Site 300 sewer pond well specifications.

Well	HSU	Easting	Northing	Ground surface elevation	Measuring point elevation	Screen top elevation	Screen bottom elevation	Bentonite top elevation	Filter pack top elevation	Well bottom elevation
W-7ES	Qal-$Tnbs_1$	1,711,719	414,586	506.41	509.71	491.41	481.41	496.41	495.41	479.61
W-7PS	Qal-$Tnbs_1$	1,711,773	414,782	506.10	508.78	489.60	486.60	494.10	492.10	486.60
W-35A-04	Qal-$Tnbs_1$	1,712,036	414,642	504.07	503.98	485.07	475.07	494.87	486.27	475.07
W-26R-01	Qal-$Tnbs_1$	1,712,267	415,036	506.74	509.71	486.94	481.94	494.24	490.74	476.94
W-26R-11	Qal-$Tnbs_1$	1,712,198	414,961	504.93	507.21	489.13	479.13	493.13	491.13	477.93
W-26R-05	Qal-$Tnbs_1$	1,712,339	415,070	511.31	513.11	491.11	486.11	500.81	498.81	485.81
W-25N-20*	Qal-$Tnbs_1$	1,712,371	414,923	502.11	504.94	490.11	475.11	494.61	492.61	474.11
W-7DS	Qal-$Tnbs_1$	1,712,206	414,880	503.30	506.60	487.80	477.80	491.80	489.80	476.30
W-25N-22	Qal-$Tnbs_1$	1,712,486	415,152	510.25	513.06	492.25	482.25	497.25	495.25	481.75
W-25N-23	Qal-$Tnbs_1$	1,712,521	415,109	507.58	510.39	488.58	473.58	495.08	493.08	472.28

Notes:

All measurements are made in feet; elevations are in feet above mean sea level.

HSU = Hydrostratigraphic unit.

Qal-$Tnbs_1$ = Miocene Neroly Formation Lower Blue Sandstone.

*Well W-25N-20 Abandoned

Table A-2. Site 300 sewer pond ground water monitoring network 2017 ground water elevation summary.

Well	Date sampled	Pre-sampling measurement	Ground water depth (ft.)	Ground water elevation (ft. above MSL)
W-7ES	Jan 19		15.4	494.3
W-7ES	Mar 13	PS	8.9	500.8
W-7ES	Mar 14	PS	8.9	500.8
W-7ES	Apr 4		9.2	500.5
W-7ES	May 22	PS	8.8	500.9
W-7ES	May 23	PS	8.8	500.9
W-7ES	Jul 20		11.4	498.3
W-7ES	Aug 21	PS	13.0	496.8
W-7ES	Aug 22	PS	13.1	496.6
W-7ES	Oct 23		16.0	493.7
W-7ES	Nov 27	PS	16.9	492.8
W-7ES	Nov 28	PS	16.9	492.8
W-7PS	Jan 19		15.1	493.7
W-7PS	Mar 13	PS	9.1	499.7
W-7PS	Mar 14	PS	9.1	499.7
W-7PS	Apr 4		9.3	499.5
W-7PS	May 9	PS	9.1	499.7
W-7PS	May 11	PS	9.1	499.7
W-7PS	Jul 20		11.3	497.5
W-7PS	Aug 21	PS	12.9	495.9
W-7PS	Aug 22	PS	13.0	495.8
W-7PS	Oct 23		15.6	493.2
W-7PS	Nov 8	PS	16.1	492.7
W-7PS	Nov 9	PS	16.1	492.7
W-35A-04	Jan 31		5.3	498.8
W-35A-04	Mar 13	PS	5.0	499.1
W-35A-04	Mar 14	PS	5.0	499.1
W-35A-04	Apr 13		5.0	499.1
W-35A-04	May 22	PS	5.4	498.7
W-35A-04	May 23	PS	5.4	498.7
W-35A-04	Jul 19		6.8	497.3
W-35A-04	Aug 23	PS	8.4	495.7
W-35A-04	Aug 24	PS	8.4	495.6
W-35A-04	Oct 18		11.0	493.0
W-35A-04	Nov 13	PS	12.0	492.1
W-35A-04	Nov 14	PS	12.0	492.1
W-25N-23	Jan 19		19.7	490.4
W-25N-23	Apr 4		15.0	495.1
W-25N-23	Jul 20		16.9	493.2
W-25N-23	Oct 23		22.0	488.1
W-25N-22	Jan 19		22.8	490.0
W-25N-22	Feb 13	PS	17.8	494.9
W-25N-22	Feb 14	PS	17.8	494.9
W-25N-22	Apr 4		18.7	494.1
W-25N-22	Jul 20		19.5	493.2
W-25N-22	Aug 21	PS	20.3	492.4
W-25N-22	Aug 22	PS	20.4	492.3
W-25N-22	Oct 23		22.6	490.1
W-26R-01	Jan 19		17.4	492.3
W-26R-01	Feb 13	PS	11.3	498.4
W-26R-01	Feb 14	PS	11.3	498.4

Table A-2. Site 300 sewer pond ground water monitoring network 2017 ground water elevation summary.

Well	Date sampled	Pre-sampling measurement	Ground water depth (ft.)	Ground water elevation (ft. above MSL)
W-26R-01	Apr 4		12.5	497.2
W-26R-01	May 8	PS	12.6	497.1
W-26R-01	May 9	PS	12.6	497.1
W-26R-01	Jul 20		14.0	495.8
W-26R-01	Aug 23	PS	15.4	494.3
W-26R-01	Aug 24	PS	14.5	495.2
W-26R-01	Oct 23		18.0	491.7
W-26R-01	Nov 8	PS	18.5	491.2
W-26R-01	Nov 9	PS	18.4	491.3
W-26R-05	Jan 19		21.4	491.7
W-26R-05	Feb 13	PS	15.2	497.9
W-26R-05	Mar 14	PS	15.2	497.9
W-26R-05	Apr 4		16.4	496.7
W-26R-05	May 8	PS	16.6	496.5
W-26R-05	May 11	PS	16.6	496.5
W-26R-05	Jul 20		17.8	495.3
W-26R-05	Aug 21	PS	19.0	494.1
W-26R-05	Aug 24	PS	19.4	493.7
W-26R-05	Oct 23		21.5	491.7
W-26R-05	Nov 27	PS	22.1	491.0
W-26R-05	Nov 30	PS	24.6	488.5
W-26R-11	Jan 19		14.7	492.5
W-26R-11	Feb 13	PS	8.5	498.7
W-26R-11	Feb 14	PS	8.5	498.7
W-26R-11	Apr 4		9.6	497.6
W-26R-11	May 8	PS	9.8	497.4
W-26R-11	May 9	PS	9.8	497.4
W-26R-11	Jul 20		11.2	496.1
W-26R-11	Aug 23	PS	12.6	494.6
W-26R-11	Aug 24	PS	13.2	494.0
W-26R-11	Oct 23		15.2	492.0
W-26R-11	Nov 8	PS	15.7	491.5
W-26R-11	Nov 9	PS	15.8	491.5
W-7DS	Jan 19		14.0	492.6
W-7DS	Mar 13	PS	8.7	497.9
W-7DS	Mar 14	PS	8.7	497.9
W-7DS	Apr 4		8.9	497.7
W-7DS	May 22	PS	9.0	497.3
W-7DS	May 23	PS	9.0	497.3
W-7DS	Jul 20		10.5	495.8
W-7DS	Aug 23	PS	11.9	494.4
W-7DS	Aug 24	PS	12.0	494.3
W-7DS	Oct 23		14.5	491.8
W-7DS	Nov 8	PS	15.0	491.3
W-7DS	Nov 9	PS	15.0	491.3

Table A-3. Site 300 sewer pond wastewater monitoring network 2017 coliform, anion, and physical characteristic data summary.

Well	Date	pH	Specific Conductance	Biochemical Oxygen Demand	Dissolved Oxygen	Fecal Coliform	Total Coliform	Sodium
3-DSWP-OW	Feb 10	10.0	4700	18	11	>1600	>1600	1300
3-DSWP-OW	Feb 22	9.6	4700	36	15	540	>1600	1300
3-ESWP-OW	Apr 25	9.2	5700	<100	14	>1600	>1600	1500
3-ESWP-OW	Oct 24	9.6	6600	54	21	>1600	>1600	1600
3-ISWP-OW	Apr 25	8.9	1900	82	-	-	-	-
3-ISWP-OW	Oct 24	8.4	1600	280	-	-	-	-

Note:
– = Analysis not required.

Table A-4. Site 300 sewer pond wastewater monitoring network 2017 metals data summary.

Analyte	Date	3-DSWP OW (µg/L)	3-ESWP-OW (µg/L)
Aluminum	Feb 10	290	-
	Feb 22	310	-
	Apr 25	-	<50
	Oct 24	-	<100
Arsenic	Feb 10	4.5	-
	Feb 22	3.7	-
	Apr 25	-	3.9
	Oct 24	-	8.5
Barium	Feb 10	75	-
	Feb 22	56	-
	Apr 25	-	<25
	Oct 24	-	130
Boron	Feb 10	5200	-
	Feb 22	5200	-
	Apr 25	-	6300
	Oct 24	-	7100
Cadmium	Feb 10	<50	-
	Feb 22	<50	-
	Apr 25	-	<50
	Oct 24	-	<50
Calcium	Feb 10	11000	-
	Feb 22	11000	-
	Apr 25	-	13000
	Oct 24	-	17000
Chromium	Feb 10	1.8	-
	Feb 22	2.0	-
	Apr 25	-	3.5
	Oct 24	-	3.1
Hexavalent Chromium	Feb 10	<1	-
	Feb 22	<1	-
	Apr 25	-	<1
	Oct 24	-	<1
Copper	Feb 10	1.2	-
	Feb 22	6.5	-
	Apr 25	-	17
	Oct 24	-	10
Iron	Feb 10	1300	-
	Feb 22	640	-

Table A-4. Site 300 sewer pond wastewater monitoring network 2017 metals data summary.

Analyte	Date	3-DSWP OW (µg/L)	3-ESWP-OW (µg/L)
	Apr 25	-	<100
	Oct 24	-	<200
Lead	Feb 10	<5	-
	Feb 22	<5	-
	Apr 25	-	<5
	Oct 24	-	<5
Magnesium	Feb 10	2200	-
	Feb 22	2200	-
	Apr 25	-	1400
	Oct 24	-	9300
Manganese	Feb 10	<60	-
	Feb 22	<60	-
	Apr 25	-	<30
	Oct 24	-	<60
Mercury	Feb 10	<0.2	-
	Feb 22	<0.2	-
	Apr 25	-	<0.2
	Oct 24	-	<0.2
Molybdenum	Feb 10	<50	-
	Feb 22	<50	-
	Apr 25	-	52
	Oct 24	-	220
Nickel	Feb 10	4.1	-
	Feb 22	3.6	-
	Apr 25	-	4.7
	Oct 24	-	6.2
Potassium	Feb 10	59000	-
	Feb 22	57000	-
	Apr 25	-	69000
	Oct 24	-	70000
Selenium	Feb 10	9.0	-
	Feb 22	6.6	-
	Apr 25	-	7.4
	Oct 24	-	8.5
Silver	Feb 10	<10	-
	Feb 22	<10	-
	Apr 25	-	<10
	Oct 24	-	<10

Table A-4. Site 300 sewer pond wastewater monitoring network 2017 metals data summary.

Analyte	Date	3-DSWP OW (µg/L)	3-ESWP-OW (µg/L)
Vanadium	Feb 10	<20	-
	Feb 22	<20	-
	Apr 25	-	<20
	Oct 24	-	<20
Zinc	Feb 10	<20	-
	Feb 22	<20	
	Apr 25		32
	Oct 24		32

Table A-5. Site 300 sewer pond wastewater monitoring network 2017 QA data.

Location	Date	Type	pH Units	Specific Conductance (µmhos/cm)	Biochemical Oxygen Demand (mg/L)	Dissolved Oxygen (mg/L)	Fecal Coliform (MPN/100mL)	Total Coliform (MPN/100mL)	Sodium (mg/L)
			Units	µmhos/cm	mg/L	mg/L	MPN/100mL	MPN/100mL	mg/L
3-ESWP-OW	Apr 25	Routine	9.2	5700	<100	14	>1600	>1600	1500
3-ESWP-OW	Apr 25	Duplicate	-	-	-	14	-	-	-
3-ISWP-OW	Oct 24	Routine	8.4	1600	280	-	-	-	-
3-ISWP-OW	Oct 24	Duplicate	-	-	260	-	-	-	-

Note:
– = Analysis not required.

Table A-6. Site 300 sewer pond ground water monitoring network 2017 anions data summary.

Well	Date	Sodium (mg/L)	Chloride (mg/L)	Nitrate (as NO3) (mg/L)	Sulfate (mg/L)	Fluoride (mg/L)
W-7ES	Mar 13	120	81	16	210	0.35
W-7ES	May 22	-	-	13	-	-
W-7ES	Aug 21	140	140	14	300	0.38
W-7ES	Nov 27	-	-	12	-	-
W-7PS	Mar 13	140	85	17	210	0.34
W-7PS	May 9	-	-	18	-	-
W-7PS	Aug 21	190	140	15	280	0.39
W-7PS	Nov 8	-	-	16	-	-
W-35A-04	Mar 13	140	94	18	240	0.37
W-35A-04	May 22	-	-	14	-	-
W-35A-04	Aug 23	140	140	18	290	0.38
W-35A-04	Nov 13	-	-	16	-	-
W-25N-22	Feb 13	240	170	16	550	0.29
W-25N-22	Aug 21	190	160	12	530	0.31
W-26R-01	Feb 13	220	150	21	230	0.22
W-26R-01	May 8	-	-	24	-	-
W-26R-01	Aug 23	190	140	21	240	0.29
W-26R-01	Nov 8	-	-	31	-	-
W-26R-05	Feb 13	210	130	19	230	0.21
W-26R-05	May 8	-	-	29	-	-
W-26R-05	Aug 21	190	140	20	240	0.32
W-26R-05	Nov 27	-	-	10	-	-
W-26R-11	Feb 13	170	96	15	200	0.30
W-26R-11	May 8	-	-	16	-	-
W-26R-11	Aug 23	160	140	13	280	0.35
W-26R-11	Nov 8	-	-	12	-	-
W-7DS	Mar 13	120	83	16	210	0.32
W-7DS	May 22	-	-	13	-	-
W-7DS	Aug 23	150	140	15	300	0.34
W-7DS	Nov 8	-	-	13	-	-

Note:
– = Analysis not required.

Table A-7. Site 300 sewer pond ground water monitoring network 2017 coliform data summary.

Well	Date	Fecal Coliform (MPN/100mL)	Total Coliform (MPN/100mL)
W-7ES	Mar 14	<1.8	<1.8
W-7ES	May 23	<1.8	4.0
W-7ES	Aug 22	<1.8	<1.8
W-7PS	Mar 14	<1.8	<1.8
W-7PS	May 11	<1.8	<1.8
W-7PS	Aug 22	<1.8	<1.8
W-7PS	Nov 9	<1.8	2.0
W-35A-04	Mar 14	<1.8	<1.8
W-35A-04	May 23	<1.8	<1.8
W-35A-04	Aug 24	<1.8	<1.8
W-35A-04	Nov 14	<1.8	11
W-25N-22	Feb 14	<1.8	<1.8
W-25N-22	Aug 22	<1.8	<1.8
W-26R-01	Feb 14	<1.8	<1.8
W-26R-01	May 9	<1.8	<1.8
W-26R-01	Aug 24	<1.8	<1.8
W-26R-01	Nov 9	<1.8	<1.8
W-26R-05	Mar 14	<1.8	2.0
W-26R-05	May 11	<1.8	<1.8
W-26R-05	Aug 24	<1.8	<1.8
W-26R-11	Feb 14	<1.8	2.0
W-26R-11	May 9	<1.8	<1.8
W-26R-11	Aug 24	<1.8	<1.8
W-26R-11	Nov 9	<1.8	<1.8
W-7DS	Mar 14	<1.8	<1.8
W-7DS	May 23	<1.8	<1.8
W-7DS	Aug 24	<1.8	<1.8
W-7DS	Nov 9	<1.8	<1.8

Table A-8. Site 300 sewer pond ground water monitoring network 2017 physical chemistry data.

Well	Date	pH	Specific Conductance (µmhos/cm)	Total Alkalinity (as CaCO3) (mg/L)	Total dissolved solids (mg/L)	Total Hardness (as CaCO3) (mg/L)	Total Phosphorus (as PO4) (mg/L)
W-7ES	Mar 13	8.1	1140	250	700	280	<1
W-7ES	May 22	7.8	1240	-	-	-	-
W-7ES	Aug 21	8.0	1460	280	1000	440	<1
W-7ES	Nov 27	8.0	1500	-	-	-	-
W-7PS	Mar 13	8.2	1170	260	720	260	<1
W-7PS	May 9	7.9	1300	-	-	-	-
W-7PS	Aug 21	7.8	1500	290	1000	350	<1
W-7PS	Nov 8	7.8	1550	-	-	-	-
W-35A-04	Mar 13	8.1	1280	270	800	320	<1
W-35A-04	May 22	8.2	1260	-	-	-	-
W-35A-04	Aug 23	7.9	1430	280	1100	430	<1
W-35A-04	Nov 13	8.0	1460	-	-	-	-
W-25N-22	Feb 13	8.0	1960	240	1400	660	<1
W-25N-22	Aug 21	7.8	1800	220	1400	550	<1
W-26R-01	Feb 13	8.1	1440	250	940	300	<1
W-26R-01	May 8	8.0	1410	-	-	-	-
W-26R-01	Aug 23	8.0	1400	270	940	250	<1
W-26R-01	Nov 8	7.8	1440	-	-	-	-
W-26R-05	Feb 13	8.1	1410	270	940	330	<1
W-26R-05	May 8	8.2	1430	-	-	-	-
W-26R-05	Aug 21	8.0	1380	250	920	280	<1
W-26R-05	Nov 27	8.2	1260	-	-	-	-
W-26R-11	Feb 13	8.0	1180	250	770	310	<1
W-26R-11	May 8	8.0	1240	-	-	-	-
W-26R-11	Aug 23	7.9	1410	270	930	370	<1
W-26R-11	Nov 8	7.8	1440	-	-	-	-
W-7DS	Mar 13	8.0	1150	250	760	280	<1
W-7DS	May 22	8.2	1220	-	-	-	-
W-7DS	Aug 23	7.9	1430	270	1100	440	<1
W-7DS	Nov 8	7.8	1470	-	-	-	-

Note:
– = Analysis not required.

Table A–9. Site 300 sewer pond ground water monitoring network 2017 metals data summary

Analyte (µg/L)	Month	W-7ES	W-7PS	W-35A-04	W-25N-22	W-26R-01	W-26R-05	W-26R-11	W-7DS
Aluminum	Feb	-	-	-	<50	<50	<50	<50	-
	Mar	<50	<50	<50	-	-	-	-	<50
	Aug	<50	<50	<50	<50	<50	<50	<50	<50
Arsenic	Feb	-	-	-	8.7	8.2	8.1	2.0	-
	Mar	2.7	2.3	4.8	-	-	-	-	2.6
	Aug	2.0	3.1	4.2	8.7	9.8	7.8	3.2	3.0
	Nov	-	-	<2	-	-	-	-	-
Barium	Feb	-	-	-	41	33	36	36	-
	Mar	32	44	34	-	-	-	-	33
	Aug	47	58	45	38	35	35	54	47
	Nov	-	-	41	-	-	-	-	-
Boron	Feb	-	-	-	2100	1700	1500	2000	-
	Mar	2200	2000	2900	-	-	-	-	2300
	Aug	2000	2100	2100	1200	1500	1300	2000	2000
Cadmium	Feb	-	-	-	<50	<50	<50	<50	-
	Mar	<50	<50	<50	-	-	-	-	<50
	Aug	<50	<50	<50	<50	<50	<50	<50	<50
	Nov	-	-	<0.5	-	-	-	-	-
Calcium	Feb	-	-	-	160000	77000	84000	71000	-
	Mar	65000	61000	75000	-	-	-	-	67000
	Aug	100000	81000	98000	130000	64000	69000	86000	100000
Chromium	Feb	-	-	-	<1	<1	<1	<1	-
	Mar	2.4	3.2	2.8	-	-	-	-	2.5
	Aug	<1	<1	1.0	<1	<1	1.2	<1	<1
	Nov	-	-	<1	-	-	-	-	-
Hexavalent Chromium	Feb	-	-	-	1.0	<1	<1	<1	-

Table A–9. Site 300 sewer pond ground water monitoring network 2017 metals data summary

Analyte (µg/L)	Month	W-7ES	W-7PS	W-35A-04	W-25N-22	W-26R-01	W-26R-05	W-26R-11	W-7DS
	Mar	1.3	1.3	1.9	-	-	-	-	1.2
	Aug	<1	<1	<1	<1	<1	1.5	<1	<1
Copper	Feb	-	-	-	3.9	2.4	2.4	1.8	-
	Mar	2.6	2.9	2.5	-	-	-	-	2.7
	Aug	1.3	1.0	1.5	1.7	2.0	1.4	1.3	1.8
	Nov	-	-	<10	-	-	-	-	-
Iron	Feb	-	-	-	<100	<100	<100	<100	-
	Mar	<100	<100	<100	-	-	-	-	<100
	Aug	<100	<100	<100	<100	<100	<100	<100	<100
Lead	Feb	-	-	-	<5	<5	<5	<5	-
	Mar	<5	<5	<5	-	-	-	-	<5
	Aug	<5	<5	<5	<5	<5	<5	<5	<5
	Nov	-	-	<2	-	-	-	-	-
Magnesium	Feb	-	-	-	64000	27000	31000	31000	-
	Mar	28000	27000	33000	-	-	-	-	28000
	Aug	45000	35000	46000	52000	22000	25000	38000	45000
Manganese	Feb	-	-	-	<30	<30	<30	<30	-
	Mar	<30	<30	<30	-	-	-	-	<30
	Aug	<30	<30	<30	<30	<30	<30	<30	<30
Mercury	Feb	-	-	-	<0.2	<0.2	<0.2	<0.2	-
	Mar	<0.2	<0.2	<0.2	-	-	-	-	<0.2
	Aug	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Nov	-	-	<0.2	-	-	-	-	-
Molybdenum	Feb	-	-	-	<25	<25	<25	<25	-
	Mar	<25	<25	<25	-	-	-	-	<25
	Aug	<25	<25	<25	<25	<25	<25	<25	<25
	Nov	-	-	<25	-	-	-	-	-

Table A–9. Site 300 sewer pond ground water monitoring network 2017 metals data summary

Analyte (µg/L)	Month	W-7ES	W-7PS	W-35A-04	W-25N-22	W-26R-01	W-26R-05	W-26R-11	W-7DS
Nickel	Feb	-	-	-	3.7	<2	<2	2.1	-
	Mar	2.2	2.8	2.6	-	-	-	-	4.2
	Aug	<2	<2	2.6	3.4	<2	<2	3.6	2.6
	Nov	-	-	<5	-	-	-	-	-
Potassium	Feb	-	-	-	15000	12000	12000	5500	-
	Mar	3500	4100	4100	-	-	-	-	3800
	Aug	4900	5300	5200	12000	9900	10000	5600	5200
	Nov	-	-	4800	-	-	-	-	-
Selenium	Feb	-	-	-	10	8.9	6.8	7.3	-
	Mar	4.5	6.0	6.0	-	-	-	-	4.8
	Aug	3.6	7.3	6.2	4.3	9.1	5.5	8.2	5.8
	Nov	-	-	5.2	-	-	-	-	-
Silver	Feb	-	-	-	<10	<10	<10	<10	-
	Mar	<10	<10	<10	-	-	-	-	<10
	Aug	<10	<10	<10	<10	<10	<10	<10	<10
	Nov	-	-	<0.5	-	-	-	-	-
Vanadium	Feb	-	-	-	<20	<20	<20	<20	-
	Mar	<20	<20	<20	-	-	-	-	<20
	Aug	<20	<20	<20	<20	<20	<20	<20	<20
	Nov	-	-	<10	-	-	-	-	-
Zinc	Feb	-	-	-	<20	<20	<20	<20	-
	Mar	<20	<20	<20	-	-	-	-	<20
	Aug	<20	<20	<20	<20	<20	<20	<20	<20
	Nov	-	-	<20	-	-	-	-	-

Table A-10. Site 300 sewer pond ground water monitoring network second semester 2017 QA data.

Constituent	Units	W-7PS Nov 8 Routine	W-7PS Nov 8 Duplicate	W-7PS Nov 9 Routine	W-7PS Nov 9 Duplicate	W-26R-11 Nov 8 Routine	W-26R-11 Nov 8 Duplicate	W-26R-11 Nov 9 Routine	W-26R-11 Nov 9 Duplicate
pH	Units	7.8	7.8	-	-	7.8	7.8	-	-
Specific Conductance	µmhos/cm	1550	1550	-	-	1440	1440	-	-
Fecal Coliform	MPN/100mL	-	-	<1.8	<1.8	-	-	<1.8	<1.8
Total Coliform	MPN/100mL	-	-	2.0	<1.8	-	-	<1.8	<1.8
Nitrate (as NO3)	mg/L	16	17	-	-	12	12	-	-

FIELD TRACKING FORM

INFLUENT TO SITE 300 SEWAGE POND

Lab	Alpha Lab
CoC #	73912
Ship It #	

DATE: 10/24/17 **TIME:** 09:35

Special Instructions: **Semi-Annual Sampling in 2nd and 4th Quarters (April & Oct)**
Samples should be taken after 1 p.m. during higher flow.
Print collection time on sample bottles.
BOD Hold Time 48hr. Conductivity/pH Hold Time 24hr.

pH meter calibrated	10/24/17
Conductivity meter calibrated	↓
DO meter calibrated	↓

Location	Field Measurements				Comments	Initials	Samples for Lab Analysis
	pH	COND	DO (PPM)	Temp (˚C)			Analytical Codes:
3-ISWP-01-OW (Influent to Sewage Pond)	8.76	1481 µS	3.68	26.4		KS	**E120.1A & E150.1A** (Conductivity/pH) *(2 X 250-mL poly)* ✓
3-WSWP-01-OW *duplicate of* 3-ISWP-01-OW						KS	**SM5210B-A** (BOD) *(1 X 1 Liter poly)* ✓✓

2Q2017 Duplicate **See ESWP Field Tracking Form**
4Q2017 Duplicate **SM5210B-A**

☑ Copy to Analysts, Rick Blake

Revised 11/14/13

FIELD TRACKING FORM

EAST END OF SITE 300 SEWAGE POND

Lab	Alpha	BC
CoC #	73912	73913
Ship It #	224462	224461

DATE: 10/24/17 **TIME:** 10:00

Special Instructions: **Semi-Annual Sampling in 2nd and 4th Quarters (April & Oct)**
Samples should be taken after 1 p.m.
Print collection time on sample bottles.
DO/conductivity/pH hold time 24 hr.

pH meter calibrated 10/24/17
Conductivity meter calibrated ↓
DO meter calibrated ↓

Location	Field Measurements					Comments	Initials	Samples for Lab Analysis
	pH	COND	Depth	DO (PPM)	Temp (˚C)			Analytical Codes:
3-ESWP-01-OW (East end of Sewage Pond)	10.09	6.92 mS	,'	22.81	17.1		145	**Alpha LAB** **E360.1** *DO (1x300mL PET Poly with glass stopper)* ✓ **E120.1A & E150.1A** *Conductivity/pH (2x250-mL poly)* ✓ **SM9221** *Total, Fecal Coliform (1x125mL sterilized poly) 6hr hold* ✓ **SM5210B-A** *BOD (1x1 Liter poly)* ✓
3-WSWP-01-OW *duplicate of* 3-ESWP-01-OW							~~183~~	**BC Labs** **S3METALS (1X500mL Poly)** ✓

2Q2017 Duplicate **E360.1**
4Q2017 Duplicate **See ISWP Field Tracking Form**

☑ Copy to Analysts, Rick Blake

Revised 11/14/13

Chain of Custody

EFA Data Management Team
Lawrence Livermore National Laboratory
P.O. Box 808 L-627
Livermore, CA 94551

Work Authorized By: EFA
TRR Approver: Della Burruss
Project Info:

Access/COC #: 73913
Document Control #: 73913
Requester/LLNL Analyst: R. Blake
Organization / Sampler: EFA / brunckhorst2
PCI Project #: 44497
PCI Task #: ES&H Bills and Taxes
Email: efa-dmt@llnl.gov
DMT Additional Copies:

Analytical Lab : BCLABS-BAK
TAT: 20d
Analytical Lab Log #:
Project/Network: WDRPOND
ShipIt Release #: 224461
Add'l Email:

Additional Instructions:

Sample ID	Sampled Date/Time	Matrix	Cont. Type	Cont. Count	Study Area	Req. Analysis	Analysis Detail	Lab Instructions
3-ESWP-01-OW	10/24/2017 10:00	SW	P	1	WDR	S3METALS	ALL	

Relinquished Signature	Company	Date	Time	Received Signature	Company	Date	Time
1 [illegible]	LLNL/EFA	10/24/2017	1340	2 [illegible]	BC lab	102417	1630
2				3			
3				4			
4				5			

Revision Printed: 11/24/2015/13/04/05

Signature Order - 1: Sampler, 2: Courier, 3: Lab, 4: Analyst, 5: DMT

Chain of Custody

EFA Data Management Team
Lawrence Livermore National Laboratory
P.O. Box 808 L-627
Livermore, CA 94551

Work Authorized By: EFA
TRR Approver: Della Burruss
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Access/COC #: 73912
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Organization / Sampler: EFA / brunckhorst2
PCI Project #: 44497
PCI Task #: ES&H Bills and Taxes
Email: efa-dmt@llnl.gov
DMT Additional Copies:

Analytical Lab : ALPHAANAL
TAT: 20d
Analytical Lab Log #:
Project/Network: WDRPOND
ShipIt Release #: 224462
Add'l Email:

Additional Instructions:
3.8°C
Livermore

Sample ID	Sampled Date/Time	Matrix	Cont. Type	Cont. Count	Study Area	Req. Analysis	Analysis Detail	Lab Instructions
3-ESWP-01-OW	10/24/2017 10:00	SW	P	1	WDR	E120.1A	ALL	
3-ESWP-01-OW	10/24/2017 10:00	SW	P	0	WDR	E150.1A	ALL	
3-ESWP-01-OW	10/24/2017 10:00	SW	G	1	WDR	E360.1	ALL	
3-ESWP-01-OW	10/24/2017 10:00	SW	PO	1	WDR	SM5210B-A	ALL	
3-ESWP-01-OW	10/24/2017 10:00	SW	P	1	WDR	SM9221	ALL	
3-ISWP-01-OW	10/24/2017 09:35	SW	P	1	WDR	E120.1A	ALL	
3-ISWP-01-OW	10/24/2017 09:35	SW	P	0	WDR	E150.1A	ALL	
3-ISWP-01-OW	10/24/2017 09:35	SW	PO	1	WDR	SM5210B-A	ALL	
3-WSWP-01-OW	10/24/2017 09:35	SW	PO	1	WDR	SM5210B-A	ALL	

	Relinquished Signature	Company	Date	Time		Received Signature	Company	Date	Time
1	[signature]	LLNL/EFA	10/24/2017	11:05	2	[signature]	ALPHA	10/24/17	11:05
2					3				
3					4				
4					5				

Revision Printed: 11/24/2015/13/04/05

Signature Order - 1: Sampler, 2: Courier, 3: Lab, 4: Analyst, 5: DMT

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area	
Water Temperature	24.9	Water Temperature	26.9
Dissolved Oxygen	11.64	Dissolved Oxygen	17.50
PH	9.48	PH	9.75
Time	10:20	Time	10:40

DO Target 5 to 18

PH Target 7 to 10

Pond Color-Circle 1 (Green) Green/Brown Brown/Green Brown

Water Level 3 Air Temp 89° Wind Direction E to W Weather Conditions Clear

Note Any Animal Burrows, Erosion and (Weeds) Some

Water Added 32,950 Meter- Current 461110 Previous 428160

Odor none Insects Some Visible Solids none Scum / Algae none

Aerators On

1.____ 2.____ 3.____

Overflow Basin

Water Level - 125 Overall Condition Fair

Note Any Animal Burrows, Erosion and Weeds Some

Inspected By Roekstead Date 7-11-17

Operator Review ____ Date ____

Comments ____

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area	
Water Temperature	30.7	Water Temperature	29.9
Dissolved Oxygen	16.45	Dissolved Oxygen	11.11
PH	9.49	PH	9.62
Time	15:00	Time	15:25

DO Target 5 to 18

PH Target 7 to 10

Pond Color-Circle 1 (Green) Green/Brown Brown/Green Brown

Water Level 3" Air Temp 99° Wind Direction None Weather Conditions Warm/Clear

Note Any Animal Burrows, Erosion and Weeds (Some)

Water Added 22,570 Meter- Current 428160 Previous 405590

Odor Slight Insects Some Visible Solids None Scum / Algae Some

Aerators On

1. ✓ 2. ____ 3. ✓

Overflow Basin

Water Level ____ Overall Condition Fair

Note Any Animal Burrows, Erosion and Weeds (Some)

Inspected By David Rockstead / D. Graham Date 7-6-17

Operator Review ____ Date ____

Comments ____

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area	
Water Temperature	29.2	Water Temperature	28
Dissolved Oxygen	22.0	Dissolved Oxygen	18
PH	9.73	PH	9.84
Time	14:30	Time	15:00

DO Target 5 to 18

PH Target 7 to 10

Pond Color-Circle 1 (Green) Green/Brown Brown/Green Brown

Water Level____ Air Temp 105° Wind Direction W to E Weather Conditions Clear / Hot

Note Any Animal Burrows, Erosion and Weeds Some

Water Added 42,360 Meter- Current 503,470 Previous 461,110

Odor None Insects Some Visible Solids None Scum / Algae Some

Aerators On

1. ✓ 2.____ 3. ✓

Overflow Basin

Water Level Less than 4" Overall Condition Fair

Note Any Animal Burrows, Erosion and Weeds Some

Inspected By Jason Graham Date 7/14/17

Operator Review____ Date____

Comments____

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area	
Water Temperature	28.2	Water Temperature	29.3
Dissolved Oxygen	13.5	Dissolved Oxygen	15.20
PH	10.04	PH	10.07
Time	1500	Time	15:20

DO Target 5 to 18

PH Target 7 to 10

Pond Color-Circle 1 (Green) Green/Brown Brown/Green Brown

Water Level 3" Air Temp 89° Wind Direction E to W Weather Conditions Clear

Note Any Animal Burrows, Erosion and (Weeds) Some

Water Added 48380 Meter- Current 551850 Previous 503470

Odor Slight Insects None Visible Solids None Scum / Algae Some

Aerators On

1. ✓ 2. ____ 3. ✓

Overflow Basin

Water Level +2" Overall Condition Fair

Note Any Animal Burrows, Erosion and Weeds Some

Inspected By Jason Graham Date 7/24/17

Operator Review David Rockstead Date 7-24-17

Comments

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area	
Water Temperature	30.6	Water Temperature	28.7
Dissolved Oxygen	18.1	Dissolved Oxygen	19.19
PH	9.98	PH	9.99
Time	1400	Time	1415

DO Target 5 to 18

PH Target 7 to 10

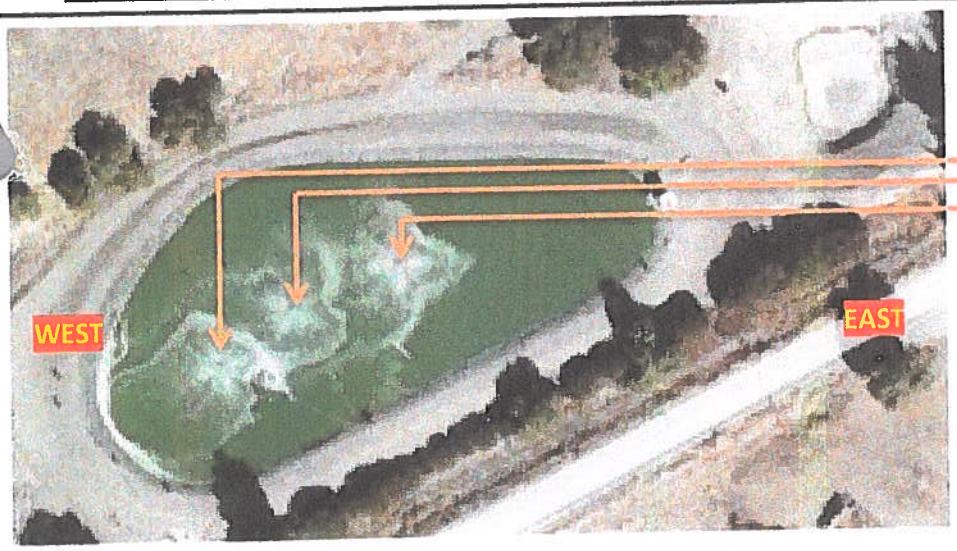
Pond Color-Circle 1 (Green) Green/Brown Brown/Green Brown

Water Level 3" Air Temp 101° Wind Direction W to E Weather Conditions Sunny (101°)

Note Any Animal Burrows, Erosion and Weeds weed are dry and dead.

Water Added 27,550 Meter- Current 579400 Previous 551850

Odor None Insects Some Visible Solids None Scum / Algae very little.



Aerators On

1. ON 2. OFF 3. ON

Overflow Basin

Water Level 6 Overall Condition Fair

Note Any Animal Burrows, Erosion and Weeds some

Inspected By Jason Graham Date 7/28/17

Operator Review David Rockstead Date 7-28-17

Comments

LLNL Site 300 Sewer / Waste Water Evaporation Pond
Weekly Inspection / Monitoring Report

East Area

Water Temperature 28.8

Dissolved Oxygen 15.5

PH 10.11

Time 1530

West Area

Water Temperature 28.4

Dissolved Oxygen 13.05

PH 10.06

Time 1550

DO Target 5 to 18

PH Target 7 to 10

Pond Color-Circle 1 Green Green/Brown Brown/Green Brown

Water Level 3" Air Temp 103° Wind Direction W to E Weather Conditions Sunny

Note Any Animal Burrows, Erosion and Weeds very little.

Water Added 21,030 Meter- Current 600430 Previous 579400

Odor NO Insects some Visible Solids NO Scum / Algae some

Aerators On

1. ON 2. OFF 3. ON

Overflow Basin

Water Level 3" Overall Condition fair

Note Any Animal Burrows, Erosion and Weeds some

Inspected By Jason Graham Date 7/31/17

Operator Review David Rockstead Date 7-31-17

Comments

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area

Water Temperature 30.5

Dissolved Oxygen 17.80

PH 10.05

Time 15:00

West Area

Water Temperature 25.6

Dissolved Oxygen 11.23

PH 9.97

Time

DO Target 5 to 18

PH Target 7 to 10

Pond Color-Circle 1 (Green) Green/Brown Brown/Green Brown

Water Level 3" Air Temp 89 Wind Direction W to E Weather Conditions Clear/Breeze

Note Any Animal Burrows, Erosion and (Weeds) Some

Water Added 48.850 Meter- Current 649280 Previous 600430

Odor Slight Insects None Visible Solids None (Scum / Algae) Some

Aerators On

1. ✓ 2. 3. ✓

Overflow Basin

Water Level Less than 4" Overall Condition Fair

Note Any Animal Burrows, (Erosion and Weeds) Some

Inspected By Jason Graham Date 8/7/17

Operator Review Date

Comments

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area	
Water Temperature	26.5	Water Temperature	26.0
Dissolved Oxygen	11.95	Dissolved Oxygen	10.12
PH	10.01	PH	13.79
Time	15:00	Time	15:30

DO Target 5 to 18

PH Target 7 to 10

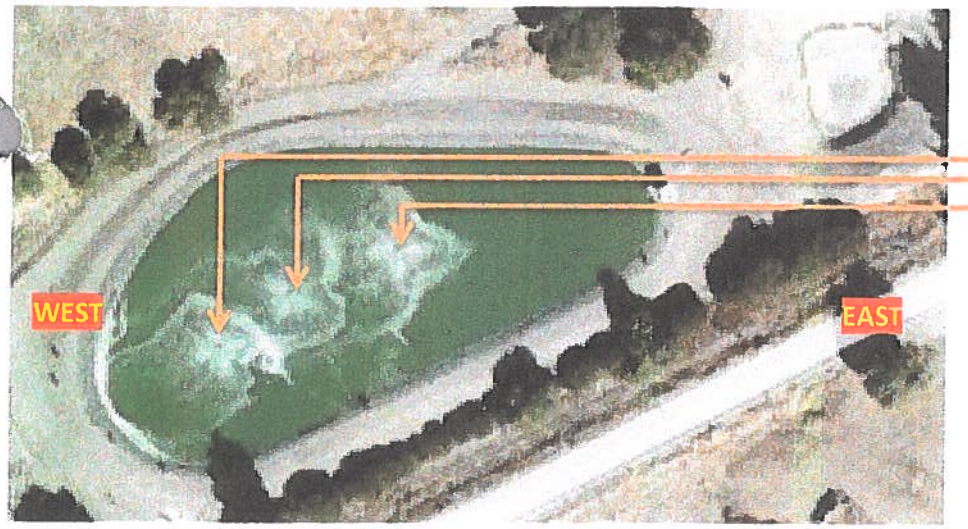
Pond Color-Circle 1 (Green) Green/Brown Brown/Green Brown

Water Level 3" Air Temp 82 Wind Direction W to E Weather Conditions Clear & Windy

Note Any Animal Burrows, Erosion and (Weeds) Some

Water Added 27,870 Meter- Current 698100 Previous 670238

Odor None Insects Some Visible Solids None (Scum) / Algae Some



Aerators On

1. ✓ 2. ____ 3. ✓

Overflow Basin

Water Level Less than 4" Overall Condition Fair

Note Any Animal Burrows, Erosion and Weeds Some

Inspected By J Graham Date 8-14-17

Operator Review ____ Date ____

Comments ____

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area

Water Temperature 28.5

Dissolved Oxygen 17.0

PH 10.10

Time 1540

West Area

Water Temperature 26.9

Dissolved Oxygen 15.8

PH 10.16

Time 1515

DO Target 5 to 18

PH Target 7 to 10

Pond Color-Circle 1 Green Green/Brown Brown/Green Brown

Water Level 3" Air Temp 89 Wind Direction W to E Weather Conditions sunny

Note Any Animal Burrows, Erosion and Weeds some.

Water Added 21,210 Meter- Current 719310 Previous 698100

Odor NONE Insects some (Flies) Visible Solids none Scum / Algae some.

Aerators On

1. ON 2. OFF 3. ON.

Overflow Basin

Water Level 3" Overall Condition Fair

Note Any Animal Burrows, Erosion and Weeds

Inspected By Jason Graham Date 8/16/17

Operator Review Date

Comments

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area		
Water Temperature	26.9	Water Temperature	27.5	
Dissolved Oxygen	17.02	Dissolved Oxygen	13.6	DO Target 5 to 18
PH	9.76	PH	9.95	PH Target 7 to 10
Time	15:00	Time	15:20	

Pond Color-Circle 1 (Green) Green/Brown Brown/Green Brown

Water Level 3" Air Temp 85 Wind Direction None Weather Conditions Clear

Note Any Animal Burrows, Erosion and (Weeds) Some

Water Added 20,950 Meter- Current 670230 Previous 649280

Odor Slight Insects None Visible Solids None Scum / Algae None

Aerators On

1. ✓ 2. ____ 3. ✓

Overflow Basin

Water Level Less than 4" Overall Condition Fair

Note Any Animal Burrows, Erosion and Weeds Some

Inspected By J Graham Date 8-18-17

Operator Review ____ Date ____

Comments ____

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area		
Water Temperature	24.2	Water Temperature	23.9	
Dissolved Oxygen	16.22	Dissolved Oxygen	13.75	DO Target 5 to 18
PH	9.94	PH	10.0	PH Target 7 to 10
Time	1130	Time	1140	

Pond Color-Circle 1 Green Green/Brown Brown/Green Brown

Water Level 3 1/2" Air Temp 81° Wind Direction S to N Weather Conditions sunny.

Note Any Animal Burrows, Erosion and Weeds

Water Added 26,830 Meter- Current 746140 Previous 719310

Odor NO Insects some Visible Solids NO Scum / Algae some

Aerators On

1. ON 2. OFF 3. ON

Overflow Basin

Water Level 3" Overall Condition Fair

Note Any Animal Burrows, Erosion and Weeds a lot of all

Inspected By Jason Graham Date 8/21/17

Operator Review Date

Comments

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area		
Water Temperature	20.5	Water Temperature	19.2 °C	
Dissolved Oxygen	4.70	Dissolved Oxygen	7.40	DO Target 5 to 18
PH	10.21	PH	10.12	PH Target 7 to 10
Time	0830	Time		

Pond Color-Circle 1 Green (Green/Brown) Brown/Green Brown

Water Level 3.5" Air Temp 64°F Wind Direction E to W Weather Conditions Sunny

Note Any Animal Burrows, Erosion and Weeds (Weeds) some

Water Added 16,690 Meter- Current 702830 Previous 746140

Odor NONE Insects very little Visible Solids None Scum / (Algae)

Aerators On

1. OFF 2. OFF 3. OFF

Overflow Basin

Water Level 3" Overall Condition fair.

Note Any Animal Burrows, (Erosion) and (Weeds) a lot

Inspected By Jason Graham Date 8/25/17

Operator Review Date

Comments Aerators and water turned off for Testing.

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area

Water Temperature 28.6

Dissolved Oxygen 19.11

PH 10.02

Time 1535

West Area

Water Temperature 27.9

Dissolved Oxygen 15.5

PH 9.97

Time 1545

DO Target 5 to 18

PH Target 7 to 10

Pond Color-Circle 1 Green Green/Brown Brown/Green Brown

Water Level 2" Air Temp ____ Wind Direction W to E Weather Conditions sunny.

Note Any Animal Burrows, Erosion and Weeds some.

Water Added ~~10 gal~~ water off Meter- Current 762,830 Previous 762830

Odor slight. Insects some Visible Solids NONE Scum / Algae some.

Aerators On

1. ON 2. OFF 3. ON

Overflow Basin

Water Level 3" Overall Condition Poor.

Note Any Animal Burrows, Erosion and Weeds has them all.

Inspected By Jason Graham Date 8/30/17

Operator Review ____ Date ____

Comments Water and Aerators are back online.

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area	
Water Temperature	26.5	Water Temperature	26.1
Dissolved Oxygen	18.01	Dissolved Oxygen	10.01
PH	10.0	PH	10.2
Time	1155	Time	1200

DO Target 5 to 18

PH Target 7 to 10

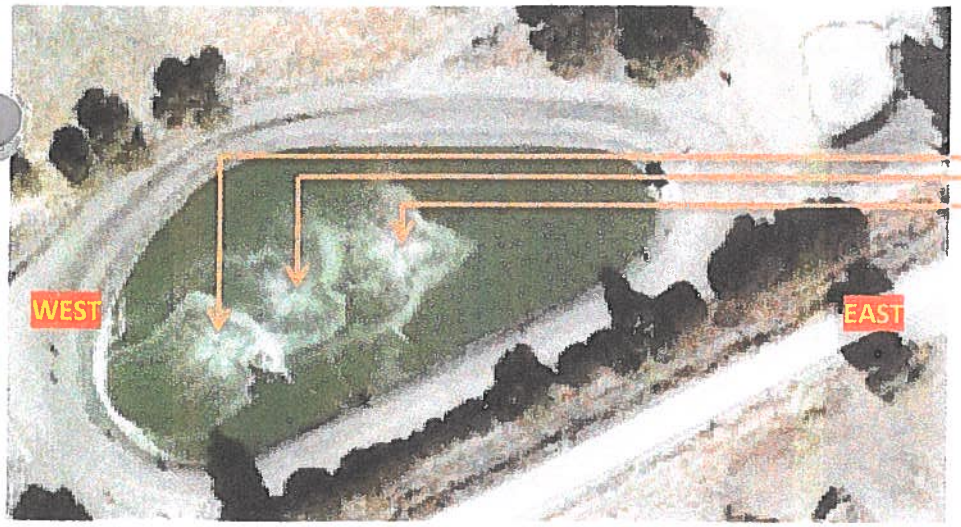
Pond Color-Circle 1 Green (Green/Brown) Brown/Green Brown

Water Level 2.75" Air Temp 103° Wind Direction W to E. Weather Conditions sunny.

Note Any Animal Burrows, Erosion and Weeds some

Water Added 14,290 Meter- Current 777120 Previous 762830

Odor NONE Insects some Visible Solids NONE Scum / Algae some



Aerators On

1. ON 2. OFF 3. ON

Overflow Basin

Water Level 3" Overall Condition poor.

Note Any Animal Burrows, Erosion and Weeds has all present

Inspected By Jason Graham Date 9/1/17

Operator Review _____ Date _____

Comments _____

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area	
Water Temperature	24.9	Water Temperature	25.1
Dissolved Oxygen	5.43	Dissolved Oxygen	7.50
PH	9.96	PH	9.98
Time	0930	Time	0945

DO Target 5 to 18

PH Target 7 to 10

Pond Color-Circle 1 Green Green/Brown Brown/Green Brown

Water Level 4" Air Temp 76° Wind Direction W to E Weather Conditions Sunny

Note Any Animal Burrows, Erosion and Weeds

Water Added 63,850 Meter- Current 840970 Previous 777120

Odor None Insects some Visible Solids None Scum / Algae None.

Aerators On

1. ON 2. OFF 3. ON.

Overflow Basin

Water Level 3" Overall Condition Poor

Note Any Animal Burrows, Erosion and Weeds some of all

Inspected By Jason Graham Date 9/4/17

Operator Review Date

Comments

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area	
Water Temperature	28.4	Water Temperature	31.2
Dissolved Oxygen	12.30	Dissolved Oxygen	15.2
PH	9.65	PH	9.96
Time	1351	Time	1408

DO Target 5 to 18

PH Target 7 to 10

Pond Color-Circle 1 Green (Green/Brown) ~~Brown/Green~~ Brown

Water Level 5" Air Temp 89° Wind Direction E to W Weather Conditions sunny

Note Any (Animal Burrows), Erosion and (Weeds) some.

Water Added 11,520 Meter- Current 852490 Previous 846970

Odor NONE Insects SOME Visible Solids NONE (Scum / Algae) very little.

Aerators On

1. off 2. off 3. off

Aerators turned off to remove sludge.

Overflow Basin

Water Level 3" Overall Condition Poor / Fair.

Note Any (Animal Burrows), (Erosion) and (Weeds) some of all

Inspected By Jason Graham Date 9/6/17

Operator Review _____ Date _____

Comments Turned water down since water is at 5"

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area		
Water Temperature	21.6°	Water Temperature	22.6	
Dissolved Oxygen	1.78	Dissolved Oxygen	1.94	DO Target 5 to 18
PH	9.98	PH	9.95	PH Target 7 to 10
Time	0735	Time	0750	

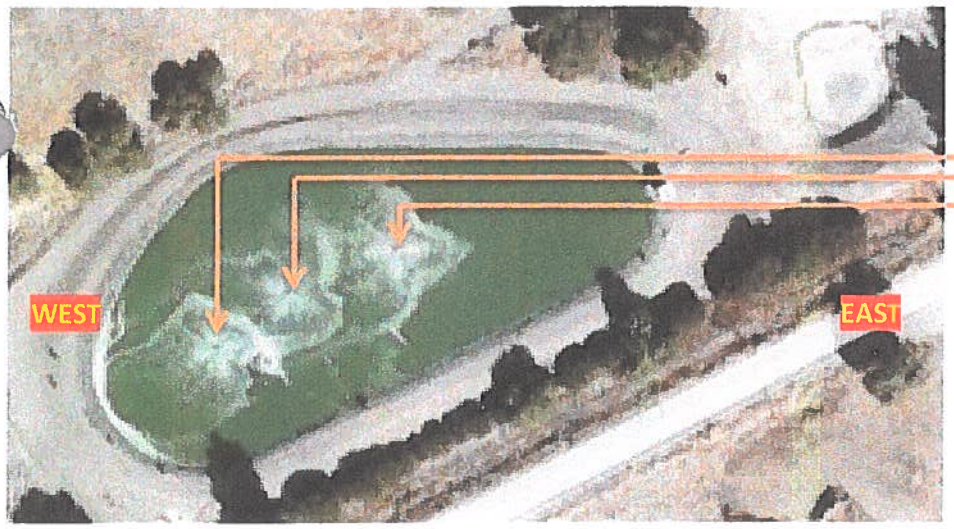
Pond Color-Circle 1 Green (Green/Brown) Brown/Green Brown

Water Level 4" Air Temp 67° Wind Direction W to E Weather Conditions sunny

Note Any Animal Burrows, Erosion and Weeds some.

Water Added 14,110 Meter- Current 855,080 Previous 840970

Odor some Insects some Visible Solids none Scum / Algae



Aerators On

1. off 2. OFF 3. OFF

Overflow Basin

Water Level 3" Overall Condition poor / Fair.

Note Any Animal Burrows, Erosion and Weeds All present!

Inspected By Jason Graham Date 9/8/17

Operator Review Date

Comments

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area	
Water Temperature	26.9	Water Temperature	29.9
Dissolved Oxygen	1.05	Dissolved Oxygen	1.15
PH	9.35	PH	9.77
Time	1400	Time	1330

DO Target 5 to 18

PH Target 7 to 10

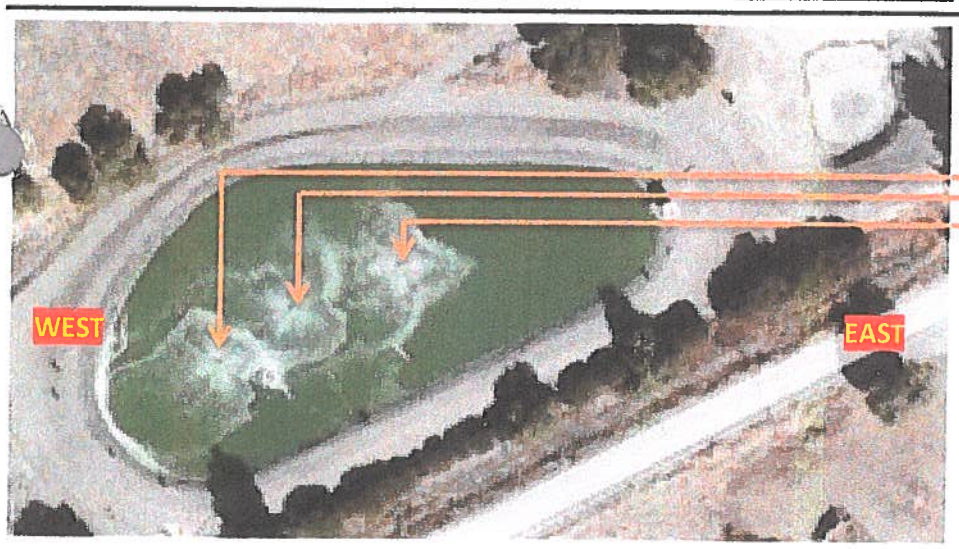
Pond Color-Circle 1 Green Green/Brown Brown/Green Brown

Water Level 3" Air Temp 90° Wind Direction E to W Weather Conditions Sunny

Note Any Animal Burrows, Erosion and Weeds some

Water Added NO Meter- Current 855,080 Previous 855080

Odor some Insects No Visible Solids No Scum / Algae some.



Aerators On

1. OFF 2. OFF 3. OFF

Overflow Basin

Water Level 3" Overall Condition Fair / Poor.

Note Any Animal Burrows, Erosion and Weeds some of all.

Inspected By Jason Graham Date 9/11/17

Operator Review Date

Comments Water turned on.

LLNL Site 300 Sewer / Waste Water Evaporation Pond
Weekly Inspection / Monitoring Report

East Area

Water Temperature 22.8

Dissolved Oxygen 6.82

PH 9.82

Time 1000

West Area

Water Temperature 23.7

Dissolved Oxygen 6.12

PH 9.73

Time 1030

DO Target 5 to 18

PH Target 7 to 10

Pond Color-Circle 1 (Green) Green/Brown Brown/Green Brown

Water Level 3" Air Temp 71° Wind Direction N to S Weather Conditions Sunny

Note Any Animal Burrows, Erosion and (Weeds) some.

Water Added NO Meter- Current 850,080 Previous 850,080

Odor some. Insects some. Visible Solids YES (Scum) / Algae some.

Aerators On

1. OFF 2. OFF 3. OFF

Overflow Basin

Water Level 2" Overall Condition Fair / Poor

Note Any (Animal Burrows), (Erosion and Weeds) 911

Inspected By Jason Graham Date 9/13/17

Operator Review _____ Date _____

Comments _____

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area

Water Temperature 17.9

Dissolved Oxygen 9.98

PH 9.78

Time 0900

West Area

Water Temperature 18.8

Dissolved Oxygen 8.25

PH 9.75

Time 0925

DO Target 5 to 18

PH Target 7 to 10

Pond Color-Circle 1 Green (Green/Brown) Brown/Green Brown

Water Level 2" Air Temp 71° Wind Direction W to E Weather Conditions sunny

Note Any Animal Burrows, Erosion and (Weeds) some

Water Added NO Meter- Current 858080 Previous 858080

Odor some Insects some Visible Solids X (Scum) / Algae some

Aerators On

1. OFF 2. OFF 3. OFF

Turned off Monday Morning 9/18/17

Overflow Basin

Water Level Ø

Overall Condition Fair / Poor

Note Any (Animal Burrows), (Erosion and) (Weeds) has oil

Inspected By Jason Graham Date 9/18/17

Operator Review Date

Comments Water Turned on

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area	
Water Temperature	26.1	Water Temperature	26.9
Dissolved Oxygen	5.58	Dissolved Oxygen	5.23
PH	9.97	PH	9.80
Time	1525	Time	1500

DO Target 5 to 18

PH Target 7 to 10

Pond Color-Circle 1 (Green) Green/Brown Brown/Green Brown

Water Level 3" Air Temp 81° Wind Direction E & W Weather Conditions sunny with cloud.

Note Any Animal Burrows, Erosion and Weeds some

Water Added 1919 yes Meter- Current 864,880 Previous 858,080

Odor some Insects flys Visible Solids some Scum / Algae some

Aerators On

1. OFF 2. OFF 3. OFF

Overflow Basin

Water Level 0 Overall Condition Fair / Poor

Note Any Animal Burrows, Erosion and Weeds All present

Inspected By Jason Graham Date 9/20/17

Operator Review Date

Comments

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area		
Water Temperature	16.2	Water Temperature	17.8	
Dissolved Oxygen	6.81	Dissolved Oxygen	5.64	DO Target 5 to 18
PH	9.62	PH	10.01	PH Target 7 to 10
Time	1030	Time	1051	

Pond Color-Circle 1 Green (Green/Brown) Brown/Green Brown

Water Level 3" Air Temp 71° Wind Direction N to S Weather Conditions Sunny

Note Any Animal Burrows, Erosion and (Weeds) some

Water Added 5780 Meter- Current 865,780 Previous 859,999

Odor some Insects some Visible Solids some (Scum)/ Algae some.

Aerators On

1. OFF 2. OFF 3. OFF

water will be turned on at 4pm today.

Overflow Basin

Water Level Ø Overall Condition Fair/Poor.

Note Any (Animal Burrows), (Erosion) and (Weeds) ALL.

Inspected By Jason Graham. Date 9/22/17

Operator Review _____ Date _____

Comments _____

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area	
Water Temperature	15.7	Water Temperature	18.6
Dissolved Oxygen	4.86	Dissolved Oxygen	8.01
PH	9.47	PH	9.66
Time	0930	Time	0945

DO Target 5 to 18

PH Target 7 to 10

Pond Color-Circle 1 Green (Green)/Brown Brown/Green Brown

Water Level 3" Air Temp 70° Wind Direction E to W Weather Conditions Sunny

Note Any Animal Burrows, Erosion and (Weeds) some

Water Added 8670 Meter- Current 865,780 Previous 859,999

Odor None Insects some Visible Solids some (Scum)/ Algae some

Aerators On

1. OFF 2. OFF 3. OFF

Overflow Basin

Water Level Ø Overall Condition Fair / Poor.

Note Any (Animal Burrows), (Erosion and Weeds) All

Inspected By Jason Graham Date 9/25/17

Operator Review _____ Date _____

Comments _____

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area

Water Temperature 18.6

Dissolved Oxygen 4.80

PH 9.64

Time 0909

West Area

Water Temperature 20.1

Dissolved Oxygen 5.11

PH 9.61

Time 0930

DO Target 5 to 18

PH Target 7 to 10

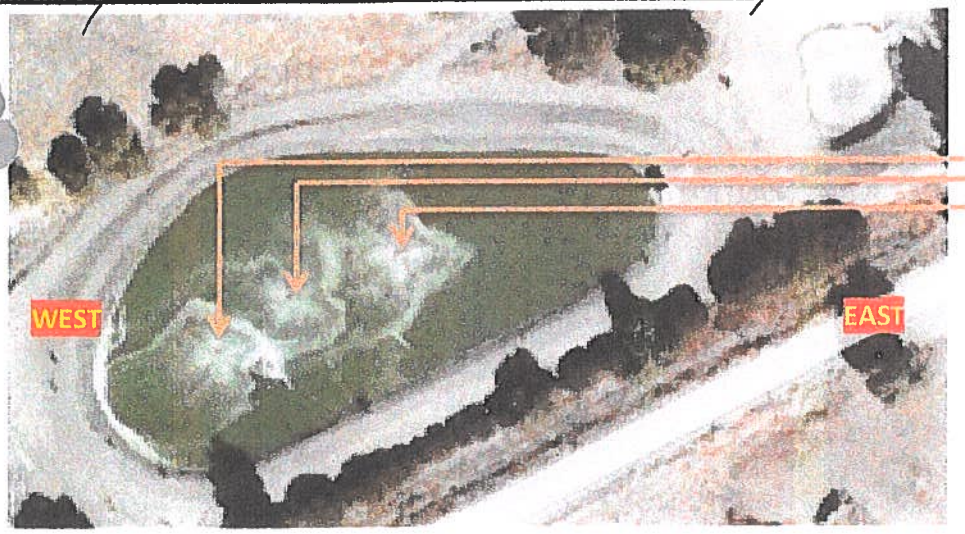
Pond Color-Circle 1 Green Green/Brown Brown/Green Brown

Water Level 3" Air Temp 68° Wind Direction W to E Weather Conditions sunny

Note Any Animal Burrows, Erosion and Weeds some

Water Added 13,440 Meter- Current 879220 Previous 865,780

Odor YES Insects some Visible Solids YES Scum/Algae



Aerators On

1. off 2. off 3. off

Overflow Basin

Water Level Ø Overall Condition Poor/Fair

Note Any Animal Burrows, Erosion and Weeds ALL

Inspected By Jason Graham Date 9/27/17

Operator Review Date

Comments

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area	
Water Temperature	17.7	Water Temperature	17.1
Dissolved Oxygen	10.12	Dissolved Oxygen	2.02
PH	9.78	PH	9.62
Time	0915	Time	0940

DO Target 5 to 18

PH Target 7 to 10

Pond Color-Circle 1 Green (Green/Brown) Brown/Green Brown

Water Level 3" Air Temp 68° Wind Direction W to E Weather Conditions Sunny

Note Any (Animal Burrows), Erosion and (Weeds) some

Water Added 12,060 Meter- Current 891,280 Previous 879,220

Odor NO Insects some Visible Solids yes (Scum/Algae) some.

Aerators On

1. OFF 2. OFF 3. OFF

Aerators turned off Sunday 3:00pm.

Overflow Basin

Water Level Ø Overall Condition Poor / Fair.

Note Any (Animal Burrows), (Erosion and (Weeds) ALL.

Inspected By Jason Date 10/2/17

Operator Review _____ Date _____

Comments _____

0

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area	
Water Temperature	17.1	Water Temperature	18.5
Dissolved Oxygen	8.01	Dissolved Oxygen	5.88
PH	9.68	PH	9.58
Time	0809	Time	0801

DO Target 5 to 18

PH Target 7 to 10

Pond Color-Circle 1 Green (Green/Brown) Brown/Green Brown

Water Level 3" Air Temp 71° Wind Direction W to E Weather Conditions Sunny

Note Any Animal Burrows, Erosion and Weeds

Water Added 5,000 Meter- Current 896280 Previous 891,280

Odor Some Insects Some Visible Solids YES (Scum / Algae) Some.

Aerators On

1. OFF 2. OFF 3. OFF

Overflow Basin

Water Level Ø Overall Condition Fair / Poor.

Note Any Animal Burrows, Erosion and Weeds ALL

Inspected By Jason Graham Date 10/4/17

Operator Review Date

Comments

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area	
Water Temperature	16.4	Water Temperature	16.6
Dissolved Oxygen	4.32	Dissolved Oxygen	3.01
PH	9.59	PH	9.68
Time	0855	Time	0910

DO Target 5 to 18

PH Target 7 to 10

Pond Color-Circle 1 (Green) Green/Brown Brown/Green Brown

Water Level 3" Air Temp 62° Wind Direction N/A. Weather Conditions sunny

Note Any Animal Burrows, Erosion and Weeds

Water Added 4440 Meter- Current 900720 Previous 896280

Odor NO Insects some Visible Solids no Scum (Algae)

Aerators On

1. OFF 2. ON 3. OFF

Overflow Basin

Water Level Ø Overall Condition Poor/Fair.

Note Any (Animal Burrows, Erosion and Weeds) ALL

Inspected By Jason Date 10/6/17

Operator Review Date

Comments Freeboard is 2.5'

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area	
Water Temperature	15.7	Water Temperature	14.5
Dissolved Oxygen	7.60	Dissolved Oxygen	4.06
PH	9.82	PH	~~8.05~~ 9.58
Time	0715	Time	0730

DO Target 5 to 18

PH Target 7 to 10

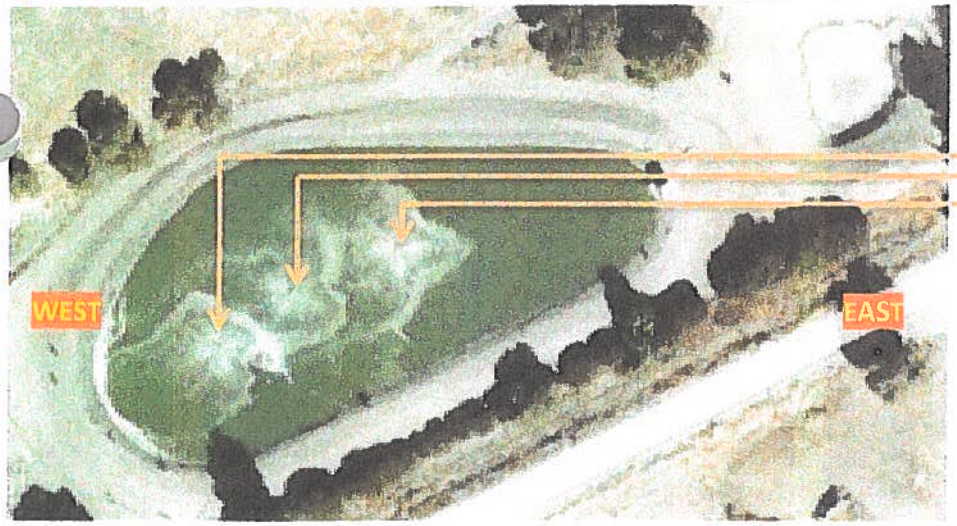
Pond Color-Circle 1 (Green) Green/Brown Brown/Green Brown

Water Level 3" Air Temp 52° Wind Direction N to S Weather Conditions clear

Note Any Animal Burrows, Erosion and (Weeds) some

Water Added _____ Meter- Current 907,690 Previous _____

Odor NO Insects NO Visible Solids NO Scum / (Algae) some



Aerators On

1. OFF 2. ON 3. OFF

Overflow Basin

Water Level Ø Overall Condition Fair/Poor

Note Any Animal Burrows, Erosion and Weeds ALL.

Inspected By Jason Graham Date 10/9/17

Operator Review _____ Date _____

Comments _____

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area	
Water Temperature	16.5	Water Temperature	16.6
Dissolved Oxygen	15.3	Dissolved Oxygen	3.81
PH	9.85	PH	9.63
Time	0905	Time	0925

DO Target 5 to 18

PH Target 7 to 10

Pond Color-Circle 1 (Green) Green/Brown Brown/Green Brown

Water Level 3" Air Temp 61° Wind Direction W to E Weather Conditions windy / clear

Note Any Animal Burrows, Erosion and Weeds very little.

Water Added _____ Meter- Current 912650 Previous _____

Odor NO Insects some Visible Solids no Scum / Algae some.

Aerators On

1. OFF 2. ON 3. OFF

Overflow Basin

Water Level Ø Overall Condition Poor / Fair.

Note Any Animal Burrows, Erosion and Weeds ALL

Inspected By Jason Graham Date 10/11/17

Operator Review _____ Date _____

Comments: 2 feet of Freeboard

LLNL Site 300 Sewer / Waste Water Evaporation Pond

Weekly Inspection / Monitoring Report

East Area		West Area	
Water Temperature	16.4	Water Temperature	16.7
Dissolved Oxygen	10.33	Dissolved Oxygen	8.01
PH	9.71	PH	9.65
Time	0839	Time	0857

DO Target 5 to 18

PH Target 7 to 10

Pond Color-Circle 1 (Green) Green/Brown Brown/Green Brown

Water Level 3" Air Temp 57° Wind Direction N/A Weather Conditions sunny / clear

Note Any Animal Burrows, Erosion and (Weeds) very little.

Water Added _____ Meter- Current 912660 Previous _____

Odor NO Insects some Visible Solids NO Scum / (Algae) some

Aerators On

1. ON 2. ON 3. ON

Overflow Basin

Water Level Ø Overall Condition Poor / fair.

Note Any Animal Burrows, Erosion and Weeds ALL.

Inspected By Jason Graham Date 10/13/7

Operator Review _____ Date _____

Comments Water is off.

LLNL Site 300 Sewer / Wastewater Evaporation Pond
Weekly Inspection & Monitoring Report

YEAR 2017 MONTH Oct.

		Treatment POND 1 3X per week									Observations									
			Pond East				Pond West				Color									
Day	Op. Ini	Fbd. ft	Time	D.O. mg/L	pH	Temp	Time	D.O. mg/L	pH	Temp	Green	Brown Green	Brown	Air temp	Wind	Odor Yes/No	Solids Yes/No	Insects Yes/No	Scum Yes/No	Algae Yes/No
16	JG	1.5	1430	14.05	9.85	17.1	1450	15.20	9.92	17.3	yes			75°	N to S	NO	NO	some	NO	yes
18	JG	1.5	0900	14.01	9.62	15.8	0930	13.22	9.75	16.1	yes			65°	W to E	No	NO	NO	NO	yes
20	JG	1.5	0940	13.53	9.45	16.5	0950	12.25	9.68	16.0	yes			64°	W to E	NO	NO	NO	some	yes
23	JG	1.5	0900	14.0	9.70	15.5	0925	14.14	9.7	15.6	yes			63°	N/A	NO	NO	some	some	yes
25	JG	1.5	0945	12.21	9.90	17.5	1000	8.33	9.82	16.6	yes			66°	N to S	No	No	some	NO	yes
27	JG	1.5	1009	12.02	9.83	19.5	1020	8.10	9.78	17.5	yes			69°	W to E	NO	NO	yes	NO	yes

LLNL Site 300 Sewer / Wastewater Evaporation Pond
Weekly Inspection & Monitoring Report

YEAR 2017 MONTH Nov.

		Treatment POND 1 3X per week									Observations									
			Pond East				Pond West				Color									
Day	Op. Ini	Fbd. ft	Time	D.O. mg/L	pH	Temp	Time	D.O. mg/L	pH	Temp	Green	Brown Green	Brown	Air temp	Wind	Odor Yes/No	Solids Yes/No	Insects Yes/No	Scum Yes/No	Algae Yes/No
1	JG	1.5	0845	8.40	9.82	13.7	0900	8.18	9.78	14.2	YES			59	W to E	NO	NO	YES	NO	YES
3	JG	1.5	1210	9.33	9.70	15.1	1230	8.44	9.60	15.9	YES			61°	W to E	NO	NO	YES	NO	YES.
6	JG	1.5	1000	10.57	9.79	12.5	1025	12.85	9.77	13.2	YES			62°	E to W	NO	NO	YES	NO	YES
8	JG	1.5	1100	15.45	9.82	12.8	1125	18.89	9.79	13.3	YES			57°	N/A	NO	NO	YES	NO	YES
10	JG	1.5	0930	13.20	9.81	13.2	0950	10.54	9.77	13.3	YES			62°	N/A	NO	NO	YES	NO	YES
12	JG	1.5	0810	8.02	9.80	12.3	0830	6.01	9.78	12.2	YES			52°	W to E	NO	NO	YES	NO	YES.
14	JG	1.5	0945	5.73	9.80	14.4	0915	14.03	9.79	15.0	YES			55°	E to W	NO	NO	YES	NO	YES.
16	JG	1.5	0911	8.21	9.79	12.8	0930	8.43	9.77	12.1	YES			53°	N/A	NO	NO	YES	NO	YES.
19	JG	1.3	0830	9.28	9.85	12.0	0900	10.11	9.80	11.8	YES			51°	N-S	NO	NO	YES	NO	YES.
21	JG	1.3	1045	10.26	9.84	14.5	1110	12.93	9.81	14.6	YES			55°	E to W	NO	NO	YES	NO	YES
26	JG	1.5	0830	6.07	9.81	14.9	0900	6.15	9.79	15.1	YES			56°	E to W	NO	NO	YES	NO	YES
28	JG	1.5	0930	5.66	9.82	12.5	1000	6.01	9.81	12.7	YES			53°	N/A	NO	NO	YES	NO	YES
30	JG	1.5	1000	10.88	9.79	12.1	1025	10.01	9.85	11.6	YES			57°	E to W	NO	NO	YES	NO	YES.

LLNL Site 300 Sewer / Wastewater Evaporation Pond
Weekly Inspection & Monitoring Report

YEAR 2017 MONTH Nov.

		Flow			Aerators		
Day	Op. Ini	Previous Meter	Current Meter	Meter Total	1 On/Off	2 On/Off	3 On/Off
1	JG	9126800	9126800	Ø	ON	ON	ON
	✓	✓	✓		✓	✓	✓
3	✓	✓	✓		✓	✓	✓
	✓	✓	✓		✓	✓	✓
6	✓	✓	✓		✓	✓	✓
	✓	✓	✓		✓	✓	✓
8	✓	✓	✓		✓	✓	✓
	✓	✓	✓		✓	✓	✓
10	✓	✓	✓		✓	✓	✓
	✓	✓	✓		✓	✓	✓
12	✓	✓	✓		✓	✓	✓
	✓	✓	✓		✓	✓	✓
14	✓	✓	✓		✓	✓	✓
	✓	✓	✓		✓	✓	✓
16	✓	✓	✓		✓	✓	✓
	✓	✓	✓		✓	✓	✓
19	✓	✓	✓		✓	✓	✓
	✓	✓	✓		✓	✓	✓
21		✓	✓		✓	✓	✓
	✓	✓	✓		✓	✓	✓
26	✓	✓	✓		✓	✓	✓
	✓	✓	✓		✓	✓	✓
28	✓	✓	✓		OFF	OFF	OFF
30	JG	9126800	9126800		ON	ON	ON

Over Flow Basin		
Water Level	Overall Condition Poor/Fair	Note any animal burrows, erosion or weeds
1.5"	Fair	
1.5"	✓	
1.5"	✓	
1.0"	✓	
1.0"	✓	
1.0"	✓	
1.0"	✓	
1.0"	✓	
2.0"	✓	
2"	✓	
2"	✓	
2"	✓	Power off all Day.
2"	Fair	

LLNL Site 300 Sewer / Wastewater Evaporation Pond
Weekly Inspection & Monitoring Report

YEAR 2017 MONTH Dec

		Treatment POND 1 3X per week									Observations										
			Pond East				Pond West				Color										
Day	Op. Ini	Fbd. ft	Time	D.O. mg/L	pH	Temp	Time	D.O. mg/L	pH	Temp	Green	Brown Green	Brown	Air temp	Wind	Odor Yes/No	Solids Yes/No	Insects Yes/No	Scum Yes/No	Algae Yes/No
3	JG	1.5	0830	9.41	9.47	9.6	0900	9.11	9.39	10.0		✓		50°	W to E	NO	NO	NO	NO	YES.
5	JG	1.5	0840	11.0	12.15	7.7	0920	11.0	12.11	7.9		✓		51°	N/A	NO	NO	YES	NO	YES.
11	JG	1.5	1001	9.0	7.23	7.8	1030	8.00	7.41	8.7		✓		50°	W to E	NO	NO	YES	NO	YES
13	JG	1.5	1109	10.0	8.01	8.1	1130	10.0	8.22	8.6		✓		52°	N/A	NO	NO	YES	NO	YES
16	JG	1.5	1200	10.0	8.28	9.22	1230	10.0	8.09	9.01		✓		51°	W to E	NO	NO	YES	NO	YES
20	JG	1.5	1112	8.0	9.29	6.1	1140	8.0	9.52	6.0		✓		52°	W to E	NO	NO	NO	NO	NO
22	JG	1.5	1100	10.0	10.29	6.5	1130	8.0	10.26	6.5		✓		51°	E to W	NO	NO	YES	NO	NO
24	JG	1.5	0830	10.0	10.30	6.4	0900	10.0	10.27	6.6		✓		51°	N/A	NO	NO	YES	NO	NO
26	JG	1.5	0815	8.0	7.79	5.7	0840	8.0	8.01	5.7		✓		53°	W to E	NO	NO	YES	NO	NO
28	JG	1.5	0830	8.0	7.83	6.1	0850	8.0	8.06	6.99		✓		52°	W to E	NO	NO	YES	NO	NO
31	JG	1.5	1000	8.0	7.96	6.7	1020	8.0	8.01	7.0		✓		55°	E to W	NO	NO	YES	NO	NO

YEAR 2017 MONTH Dec

LLNL Site 300 Sewer / Wastewater Evaporation Pond
Weekly Inspection & Monitoring Report

		Flow			Aerators		
Day	Op. Ini	Previous Meter	Current Meter	Meter Total	1 On/Off	2 On/Off	3 On/Off
3	JG	9126800	9126800	Ø	ON	ON	ON
5		✓	✓	✓	✓	✓	✓
11		✓	✓	✓	✓	✓	✓
13		✓	✓	✓	✓	✓	✓
16							
20		✓	✓	✓	✓	✓	✓
22		✓	912720	40	✓	✓	✓
24		✓	✓	Ø	✓	✓	✓
26		✓	✓	✓	✓	✓	✓
28		✓	✓	✓	✓	✓	✓
31		912720	912720	Ø	ON	ON	ON

Over Flow Basin		
Water Level	Overall Condition Poor/Fair	Note any animal burrows, erosion or weeds
1.5	Fair	
✓	✓	
✓	✓	
✓	✓	
✓	✓	
✓	✓	
✓	✓	
✓	✓	
✓	✓	
✓	✓	
✓	✓	
1.5	Fair	

All Ground Water Sampling Data

Target Sample Date: 21-AUG-2017 Month: Norm Qtr: 3 Norm Year: 2017

WELL ID: W-7ES AREA INFO: S300/GSA/CGSA

DATE: 21-Aug-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34040

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: NO3-11

SCREENED INTERVAL (ft-bmp): 18.30 - 28.30 PUMP INTAKE DEPTH: 26.30

CASING DEPTH(installed/sounded)(ft-bmp): 26.80 / 30.10 on 21-JAN-87 CASING VOL (Gal/Time): 17.34 14.1

DEPTH TO WATER(ft-bmp): 8.81 on 23-MAY-17 12.95 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 20.99 17.15 CASING DIAMETER/TCASING HT(in): 4.5 / 3.00

TIME PUMP ON: 1018 INITIAL FLOW RATE (Q=GPM): 2.0

TIME PUMP OFF: 1105 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1025		14.1	1	7.80	21.1	1501	120	1	13.19
1039		28.2	2	7.78	21.1	1503	137	1	~~13.05~~ 13.05
1053		42.3	3	7.72	20.9	1499	138	1	13.09
1055				7.76	20.9	1487	135	1	
1057				7.75	20.8	1485	133		

METER	SERIAL #	CALIBRATED
pH :	G217417	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3MRP

SAMPLE PRESERVATION/AMT of REAGENT: NA

PURGE VOL/EXCESS H2O DEST: 52.03 / S300-DRUM

TF LOCATION: S300

QC SAMPLE ID: W-75Y CGSAFB QC LAB(S): BCLABS-BAK, ALPHAANAL QC SAMPLE TIME: 1518

SAMPLE ID (VERIFY): W-7ES / 3VES TIME COLLECTED: 1105

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
BB	W-75Y	S3ANIONS	1	250 ml P	
BB	CGSAFB	S3ANIONS	1	250 ml P	
BB	W-7ES	S3ANIONS	1	250 ml P	
BB	W-75Y	S3METALS	1	500ml P	
BB	CGSAFB	S3METALS	1	500ml P	
BB	W-7ES	S3METALS	1	500ml P	
BB	CGSAFB	S3METALS:FILTER	0	O	
BB	W-7ES	S3METALS:FILTER	0	O	
BB	W-75Y	S3METALS:FILTER	0	O	
BB	CGSAFB	S3WETCHEM	2	500ml P	
BB	W-7ES	S3WETCHEM	2	500ml P	
BB	W-75Y	S3WETCHEM	2	500ml P	
~~AA~~	~~CGSAFB~~	~~SM9221~~	1	~~250 ml P~~	
~~AA~~	~~W-7ES~~	~~SM9221~~	1	~~250 ml P~~	
~~AA~~	~~W-75Y~~	~~SM9221~~	1	~~250 ml P~~	

added 02 of CL to well

All Ground Water Sampling Data

Target Sample Date: 22-AUG-2017 Month: Norm Qtr: 3 Norm Year: 2017

WELL ID: W-7ES AREA INFO: S300/GSA/CGSA

DATE: 22-Aug-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34040 1

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: NO3-11

SCREENED INTERVAL (ft-bmp): 18.30 - 28.30 PUMP INTAKE DEPTH: 26.30

CASING DEPTH(installed/sounded)(ft-bmp): 26.80 / 30.10 on 21-JAN-87 CASING VOL (Gal/Time): 17.34 14 x 3 CV = 420

DEPTH TO WATER(ft-bmp): 8.81 on 23-MAY-17 13.13 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 20.99 16.97 CASING DIAMETER/TCASING HT(in): 4.5 / 3.00

TIME PUMP ON: 0905 INITIAL FLOW RATE (Q=GPM): 1.1

TIME PUMP OFF: 0952 MEASURED BY:FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0918		14	1	7.39	22.1	1515	198	1	13.18
0931		28	2	7.82	22.5	1505	147	1	13.29
0944		42	3	7.44	22.7	1499	117	1	13.32
0946				7.42	22.6	1500	112	1	
0948				7.42	22.7	1499	110		

METER SERIAL # CALIBRATED

pH : 6217417 YES/NO

SC : YES/NO

mV : YES/NO

H2O: YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3MRP

SAMPLE PRESERVATION/AMT of REAGENT: NA

PURGE VOL/EXCESS H2O DEST: 52.03 / S300-DRUM

TF LOCATION: S300

QC SAMPLE ID: CGSAFB W-75Y QC LAB(S): ALPHAANAL, BCLABS-BAK QC SAMPLE TIME: 1400

SAMPLE ID (VERIFY): W-7ES / 3VES TIME COLLECTED: 0952

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
~~BB~~	~~W-75Y~~	~~S3ANIONS~~	1	~~250 ml P~~	
~~BB~~	~~CGSAFB~~	~~S3ANIONS~~	1	~~250 ml P~~	
~~BB~~	~~W-7ES~~	~~S3ANIONS~~	1	~~250 ml P~~	
~~BB~~	~~W-75Y~~	~~S3METALS~~	1	~~500ml P~~	
~~BB~~	~~CGSAFB~~	~~S3METALS~~	1	~~500ml P~~	
~~BB~~	~~W-7ES~~	~~S3METALS~~	1	~~500ml P~~	
~~BB~~	~~CGSAFB~~	~~S3METALS:FILTER~~	0	~~0~~	
~~BB~~	~~W-7ES~~	~~S3METALS:FILTER~~	0	~~0~~	
~~BB~~	~~W-75Y~~	~~S3METALS:FILTER~~	0	~~0~~	
~~BB~~	~~CGSAFB~~	~~S3WETCHEM~~	2	~~500ml P~~	
~~BB~~	~~W-7ES~~	~~S3WETCHEM~~	2	~~500ml P~~	
~~BB~~	~~W-75Y~~	~~S3WETCHEM~~	2	~~500ml P~~	
AA	CGSAFB	SM9221	1	250 ml P	
AA	W-7ES	SM9221	1	250 ml P	
AA	W-75Y	SM9221	1	250 ml P	

Evacuated all CL

All Ground Water Sampling Data

Target Sample Date: 21-AUG-2017 Month: Norm Qtr: 3 Norm Year: 2017

WELL ID: W-7PS AREA INFO: S300/GSA/CGSA

DATE: 21-Aug-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34040

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: TCE-3/NO3-17

SCREENED INTERVAL (ft-bmp): 19.48 - 22.48 INTAKE DEPTH: 0.00

CASING DEPTH(installed/sounded)(ft-bmp): 19.50 / 22.48 on 12-APR-94 CASING VOL (Gal/Time): 10.80 7.9 Gal x 3cv = 23.7G

DEPTH TO WATER(ft-bmp): 9.11 on 11-MAY-17 12.86 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 13.07 9.62 CASING DIAMETER/TCASING HT(in): 4.5 / 2.68

TIME PUMP ON: 1110 INITIAL FLOW RATE (Q=GPM): .9 GP

TIME PUMP OFF: 1147 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1119		7.9	1	7.42	22.8	1547	174	1	13.03
1128		15.8	2	7.55	22.9	1541	142	1	13.07
1137		23.7	3	7.49	23.3	1540	129	1	13.09
1139				7.47	22.8	1532	115	1	
1141				7.48	22.8	1530	112	1	

METER	SERIAL #	CALIBRATED
pH :	6217417	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER/EMPLOYER: silva90
PROJECT: 3MRP
SAMPLE PRESERVATION/AMT of REAGENT: NA
PURGE VOL/EXCESS H2O DEST: 32.40 / S300-DRUM
TF LOCATION: S300

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-7PS / 3VES TIME COLLECTED: 1147

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
BB	W-7PS	E245.1	1	1 L P	
BB	W-7PS	S3ANIONS	1	250 ml P	
BB	W-7PS	S3METALS	1	500ml P	
BB	W-7PS	S3METALS:FILTER	0	O	
BB	W-7PS	S3WETCHEM	2	500ml P	
~~AA~~	~~W-7PS~~	~~SM9221~~	~~1~~	~~250 ml~~ P	

Added on of CC

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 23.7900009 gal.
Revision: 10/28/2015

All Ground Water Sampling Data

Target Sample Date: 22-AUG-2017 Month: Norm Qtr: 3 Norm Year: 2017

WELL ID: W-7PS AREA INFO: S300/GSA/CGSA

DATE: 22-Aug-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34046

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: TCE-3/NO3-17

SCREENED INTERVAL (ft-bmp): 19.48 - 22.48 INTAKE DEPTH: 0.00

CASING DEPTH(installed/sounded)(ft-bmp): 19.50 / 22.48 on 12-APR-94 CASING VOL (Gal/Time): 10.80 7.9 X 3 CV = 23.6

DEPTH TO WATER(ft-bmp): 9.11 on 11-MAY-17 12.95 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 13.07 9.53 CASING DIAMETER/TCASING HT(in): 4.5 / 2.68

TIME PUMP ON: 1000 INITIAL FLOW RATE (Q=GPM): 1.15

TIME PUMP OFF: 1034 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1007		7.9	1	7.57	23.3	1552	130	1	13.04
1014		15.8	2	7.58	22.4	1552	136	1	13.1
1021		23.6	3	7.20	23.0	1559	142	1	13.13
				7.55	22.9	1561	144	1	
				7.56	22.8	1555	142	1	

METER	SERIAL #	CALIBRATED
pH :	6217417	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER/EMPLOYER: silva90
PROJECT: 3MRP
SAMPLE PRESERVATION/AMT of REAGENT:
PURGE VOL/EXCESS H2O DEST: 32.40 / S300-DRUM
TF LOCATION: S300

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-7PS / 3VES TIME COLLECTED: 1034

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
~~BB~~	~~W-7PS~~	~~E245.1~~	~~1~~	~~1 L P~~	
~~BB~~	~~W-7PS~~	~~S3ANIONS~~	~~1~~	~~250 ml P~~	
~~BB~~	~~W-7PS~~	~~S3METALS~~	~~1~~	~~500ml P~~	
~~BB~~	~~W-7PS~~	~~S3METALS;FILTER~~	0	~~0~~	
~~BB~~	~~W-7PS~~	~~S3WETCHEM~~	~~2~~	~~500ml P~~	
AA	W-7PS	SM9221	1	250 ml P	

Evacuated all CL

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 23.7900009 gal.
Revision: 10/28/2015

All Ground Water Sampling Data

Target Sample Date: 24-AUG-2017 Month: Norm Qtr: 3 Norm Year: 2017

WELL ID: W-35A-04 AREA INFO: S300/GSA/CGSA

DATE: 24-Aug-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34042

PURGE METHOD/SAMPLE METHOD: Grunfos / 3VES CONTAMINANT PRESENT: ND

SCREENED INTERVAL (ft-bmp): 19.30 - 29.30 PUMP INTAKE DEPTH: 26.28

CASING DEPTH(installed/sounded)(ft-bmp): 29.00 / 28.57 on 14-DEC-09 CASING VOL (Gal/Time): 19.49

DEPTH TO WATER(ft-bmp): 5.41 on 23-MAY-17 8.45 VOLUME FACTOR: 0.826 19.3x3CV = 57.8

WATER IN CASING (ft): 23.59 20.12 CASING DIAMETER/TCASING HT(in): 4.5 / 0.00

TIME PUMP ON: 1143 INITIAL FLOW RATE (Q=GPM): 2.94

TIME PUMP OFF: 1207 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1150		19.3	1	7.35	20.8	1473	190	1	8.66
1157		38.6	2	7.24	20.8	1493	163	1	8.60
1204		57.8	3	7.22	20.5	1483	162	1	8.67
1206				7.20	20.5	1479	149	1	
1208				7.21	20.4	1477	144	1	

METER SERIAL # CALIBRATED

pH : 621 7417 YES/NO

SC : YES/NO

mV : YES/NO

H2O: YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3MRP

SAMPLE PRESERVATION/AMT of REAGENT: NA

PURGE VOL/EXCESS H2O DEST: 58.47 / None

TF LOCATION: Collect

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: 1207

SAMPLE ID (VERIFY): W-35A-04 TIME COLLECTED: 1207

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
~~BB~~	~~W-35A-04~~	~~S3ANIONS~~	1	~~250 ml~~ P	
~~BB~~	~~W-35A-04~~	S3METALS	1	~~500ml~~ P	
~~BB~~	W-35A-04	~~S3METALS:FILTER~~	0	~~0~~	
~~BB~~	~~W-35A-04~~	~~S2WETCHEM~~	2	~~500ml~~ P	
AA	W-35A-04	SM9221	1	250 ml P	

Evacuated all CL

All Ground Water Sampling Data

Target Sample Date: 23-AUG-2017 Month: Norm Qtr: 3 Norm Year: 2017

WELL ID: W-35A-04 AREA INFO: S300/GSA/CGSA

DATE: 23-Aug-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34042

PURGE METHOD/SAMPLE METHOD: Grunfos / 3VES CONTAMINANT PRESENT: ND

SCREENED INTERVAL (ft-bmp): 19.30 - 29.30 PUMP INTAKE DEPTH: 26.28

CASING DEPTH(installed/sounded)(ft-bmp): 29.00 / 28.57 on 14-DEC-09 CASING VOL (Gal/Time): 19.49 ~~20.17~~ 16.6 x3CV =50

DEPTH TO WATER(ft-bmp): 5.41 on 23-MAY-17 8.40 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 23.59 20.17 CASING DIAMETER/TCASING HT(in): 4.5 / 0.00

TIME PUMP ON: 1144 INITIAL FLOW RATE (Q=GPM): 3 gal

TIME PUMP OFF: 1210 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1150		16.6	1	7.99	21.9	1481	173	1	8.55
1156		33.2	2	7.89	21.5	1489	146	1	8.50
1201		50	3	7.79	21.2	1484	173	1	8.65
1203				7.77	20.9	1486	176	1	
1205				7.76	20.9	1486	175		

METER SERIAL # CALIBRATED

pH : 6217417 YES/NO

SC : YES/NO

mV : YES/NO

H2O: YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3MRP

SAMPLE PRESERVATION/AMT of REAGENT: na

PURGE VOL/EXCESS H2O DEST: 58.47 / None

TF LOCATION: Collect

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-35A-04 / 3VES TIME COLLECTED: 1210

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
BB	W-35A-04	S3ANIONS	1	250 ml P	
BB	W-35A-04	S3METALS	1	500ml P	
BB	W-35A-04	S3METALS:FILTER	0	O	
BB	W-35A-04	S3WETCHEM	2	500ml P	
~~AA~~	~~W-35A-04~~	~~SM9221~~	~~1~~	~~250 ml P~~	

Added on of CC

All Ground Water Sampling Data

Target Sample Date: 23-AUG-2017 Month: Norm Qtr: 3 Norm Year: 2017

WELL ID: W-26R-01 AREA INFO: S300/GSA/EGSA

DATE: 23-Aug-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34042

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: *TCE-15/NO3-40

SCREENED INTERVAL (ft-bmp): 22.72 - 27.72 PUMP INTAKE DEPTH: 29.00

CASING DEPTH(installed/sounded)(ft-bmp): 29.80 / 30.00 on 16-NOV-88 CASING VOL (Gal/Time): 16.42 / 7.0 x 3w = 36 Gal

DEPTH TO WATER(ft-bmp): 12.60 on 09-MAY-17 15.39 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 19.87 14.61 CASING DIAMETER/TCASING HT(in): 4.5 / 2.67

TIME PUMP ON: 1030 INITIAL FLOW RATE (Q=GPM): 1.1 Q

TIME PUMP OFF: 1112 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1041		12	1	8.31	21.9	1442	152	1	16.91
1052		24	2	8.29	21.8	1439	150	1	18.83
1103		36	3	8.33	21.5	1450	145	1	18.90
1105				8.31	21.4	1438	141	1	
1107				8.30	21.4	1435	139	1	

METER	SERIAL #	CALIBRATED
pH :	6217417	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3MRP

SAMPLE PRESERVATION/AMT of REAGENT: N/A

PURGE VOL/EXCESS H2O DEST: 49.25 / TF-834

TF LOCATION: 834

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-26R-01 / 3VES TIME COLLECTED: 1112

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
BB	W-26R-01	S3ANIONS	1	250 ml P	
BB	W-26R-01	S3METALS	1	500ml P	
BB	W-26R-01	S3METALS:FILTER	0	O	
BB	W-26R-01	S3WETCHEM	2	500ml P	
~~AA~~	~~W-26R-01~~	~~SM9221~~	~~1~~	~~250 ml P~~	

Added 02 of CL

All Ground Water Sampling Data

Target Sample Date: 24-AUG-2017 Month: Norm Qtr: 3 Norm Year: 2017

WELL ID: W-26R-01 AREA INFO: S300/GSA/EGSA

DATE: 24-Aug-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34042

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: *TCE-15/NO3-40

SCREENED INTERVAL (ft-bmp): 22.72 - 27.72 PUMP INTAKE DEPTH: 29.00

CASING DEPTH(installed/sounded)(ft-bmp): 29.80 / 30.00 on 16-NOV-88 CASING VOL (Gal/Time): 16.42 12.81x3CV = 38.4

DEPTH TO WATER(ft-bmp): 12.60 on 09-MAY-17 14.49 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 19.87 15.51 CASING DIAMETER/TCASING HT(in): 4.5 / 2.67

TIME PUMP ON: 1234 INITIAL FLOW RATE (Q=GPM): .35

TIME PUMP OFF: 1320 MEASURED BY (FLOW METER) GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1242		12.81	1	7.67	21.6	1441	324	1	19.05
1252		25.62	2	7.54	21.3	1451	302	1	19.21
1301		38.4	3	7.50	21.3	1456	267	1	19.23
1311				7.52	21.3	1453	253	1	
1313				7.51	21.3	1449	250	1	
1315									

METER SERIAL # CALIBRATED

pH : 6217417 YES/NO

SC : YES/NO

mV : YES/NO

H2O: YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3MRP

SAMPLE PRESERVATION/AMT of REAGENT: na

PURGE VOL/EXCESS H2O DEST: 49.25 / TF-834

TF LOCATION: 834

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-26R-01 TIME COLLECTED: 1320

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
~~BB~~	~~W-26R-01~~	~~S3ANIONS~~	1	~~250 ml~~ P	
~~BB~~	~~W-26R-01~~	~~S3METALS~~	1	~~500ml P~~	
~~BB~~	~~W-26R-01~~	~~S3METALS:FILTER~~	0	~~O~~	
~~BB~~	~~W-26R-01~~	~~S3WETCHEM~~	2	~~500ml P~~	
AA	W-26R-01	SM9221	1	250 ml P	

Evacuated all CL

All Ground Water Sampling Data

Target Sample Date: 23-AUG-2017 Month: Norm Qtr: 3 Norm Year: 2017

WELL ID: W-26R-11 AREA INFO: S300/GSA/EGSA

DATE: 23-Aug-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34042

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: TCE-1.6/NO3-14

SCREENED INTERVAL (ft-bmp): 18.08 - 28.08 PUMP INTAKE DEPTH: 31.08

CASING DEPTH(installed/sounded)(ft-bmp): 27.00 / 29.28 on 17-MAR-92 CASING VOL (Gal/Time): 15.84 13.8x3cv= 41.4gal

DEPTH TO WATER(ft-bmp): 9.81 on 09-MAY-17 12.60 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 19.17 16.68 CASING DIAMETER/TCASING HT(in): 4.5 / 1.98

TIME PUMP ON: 0905 INITIAL FLOW RATE (Q=GPM): 1.20 Q

TIME PUMP OFF: 0953 MEASURED BY:FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0917		13.8	1	7.59	22.1	1456	179	1	12.68
0929		27.6	2	7.26	22.8	1471	112	1	12.70
0941		41.4	3	7.33	22.7	1469	110	1	12.74
0943				7.35	22.7	1463	108	1	
0945				7.33	22.6	1457	100	1	

METER	SERIAL #	CALIBRATED
pH :	6217417	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3MRP

SAMPLE PRESERVATION/AMT of REAGENT: NA

PURGE VOL/EXCESS H2O DEST: 47.51 / S300-DRUM

TF LOCATION: S300

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-26R-11/3VES TIME COLLECTED: 0953

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
BB	W-26R-11	S3ANIONS	1	250 ml P	
BB	W-26R-11	S3METALS	1	500ml P	
BB	W-26R-11	S3METALS:FILTER	0	0	
BB	W-26R-11	S3WETCHEM	2	500ml P	
~~AA~~	~~W-26R-11~~	~~SM9221~~	~~1~~	~~250 ml P~~	

Added 02 of CL

All Ground Water Sampling Data

Target Sample Date: 21-AUG-2017 Month: Norm Qtr: 3 Norm Year: 2017

WELL ID: W-26R-05 AREA INFO: S300/GSA/EGSA

DATE: 21-Aug-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34040

PURGE METHOD/SAMPLE METHOD: PB / 90BA CONTAMINANT PRESENT: TCE-3.3/NO3-53

SCREENED INTERVAL (ft-bmp): 22.05 - 27.05 INTAKE DEPTH: 0.00

CASING DEPTH(installed/sounded)(ft-bmp): 25.50 / 26.68 on 10-FEB-91 CASING VOL (Gal/Time): 8.60 6.9 gal @ 90%

DEPTH TO WATER(ft-bmp): 16.59 on 11-MAY-17 19.04 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 10.41 7.64 CASING DIAMETER/TCASING HT(in): 4.5 / 1.50

TIME PUMP ON: — INITIAL FLOW RATE (Q=GPM): —

TIME PUMP OFF: — MEASURED BY:FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0945		6.9 @ 90%	90%	7.82	18.6	1411	231	1	22.12

METER SERIAL # CALIBRATED

pH : 62174417 YES/NO

SC : YES/NO

mV : YES/NO

H2O: YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3MRP

SAMPLE PRESERVATION/AMT of REAGENT: na

PURGE VOL/EXCESS H2O DEST: 7.74 / 8300-DRUM

TF LOCATION: S300

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-26R-05/90BA TIME COLLECTED: 1008

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
BB	W-26R-05	S3ANIONS	1	250 ml P	
BB	W-26R-05	S3METALS	1	500ml P	
BB	W-26R-05	S3METALS:FILTER	0	O	
BB	W-26R-05	S3WETCHEM	2	500ml P	
~~AA~~	~~W-26R-05~~	~~SM9221~~	~~1~~	~~250 ml P~~	

add 02 of CL to well

NOTE:

Purge rate/time: N/A since est_sus_flow = 0

Purge Volume: 10 gal.

Revision: 10/28/2015

All Ground Water Sampling Data

Target Sample Date: 24-AUG-2017 Month: Norm Qtr: 3 Norm Year: 2017

WELL ID: W-26R-05 AREA INFO: S300/GSA/EGSA

DATE: 24-Aug-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34040

PURGE METHOD/SAMPLE METHOD: PB / 90BA CONTAMINANT PRESENT: TCE-3.3/NO3-53

SCREENED INTERVAL (ft-bmp): 22.05 - 27.05 INTAKE DEPTH: 0.00

CASING DEPTH(installed/sounded)(ft-bmp): 25.50 / 26.68 on 10-FEB-91 CASING VOL (Gal/Time): 8.60 6.02 x 90% = 5.4

DEPTH TO WATER(ft-bmp): 16.59 on 11-MAY-17 19.39 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 10.41 7.29 CASING DIAMETER/TCASING HT(in): 4.5 / 1.50

TIME PUMP ON: — INITIAL FLOW RATE (Q=GPM):

TIME PUMP OFF: — MEASURED BY:FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1035		5.4	90%	7.82	19.2	1473	224	1.	—

METER SERIAL # CALIBRATED

pH : 6217417 YES/NO

SC : YES/NO

mV : YES/NO

H2O: YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3MRP

SAMPLE PRESERVATION/AMT of REAGENT: Na

PURGE VOL/EXCESS H2O DEST: 7.74 / S300-DRUM

TF LOCATION: S300

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-26R-05 TIME COLLECTED: 1044

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
~~DB~~	~~W-26R-05~~	~~S3ANIONS~~	1	~~250 ml P~~	
~~DB~~	~~W-26R-05~~	~~S3METALS~~	1	~~500ml P~~	
~~BB~~	~~W-26R-05~~	~~S3METALS-FILTER~~	0	~~O~~	
~~BB~~	~~W-26R-05~~	~~S3WETCHEM~~	2	~~500ml P~~	
AA	W-26R-05	SM9221	1	250 ml P	

Evacuated all cc

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 10 gal.
Revision: 10/28/2015

All Ground Water Sampling Data

Target Sample Date: 24-AUG-2017 Month: Norm Qtr: 3 Norm Year: 2017

WELL ID: W-26R-11 AREA INFO: S300/GSA/EGSA

DATE: 24-Aug-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34042

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: TCE-1.6/NO3-14

SCREENED INTERVAL (ft-bmp): 18.08 - 28.08 PUMP INTAKE DEPTH: 31.08 13.3

CASING DEPTH(installed/sounded)(ft-bmp): 27.00 / 29.28 on 17-MAR-92 CASING VOL (Gal/Time): 15.84 ~~16.09~~ X 3 = ~~48~~ gal 39.9

DEPTH TO WATER(ft-bmp): 9.81 on 09-MAY-17 13.19 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 19.17 16.09 CASING DIAMETER/TCASING HT(in): 4.5 / 1.98

TIME PUMP ON: ~~1055~~ 0955 INITIAL FLOW RATE (Q=GPM): 0.94

TIME PUMP OFF: 1053 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

	TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1010	~~1110~~		13.3	1	7.53	23	1454	209	1	13
1025	~~1125~~		26.6	2	7.35	24.7	1472	130	1	12.8
1040	~~1140~~		39.9	3	7.22	22.4	1460	120	1	12.86
	1042				7.20	22.3	1461	118	1	
	1044				7.20	22.4	1464	115	1	

METER	SERIAL #	CALIBRATED
pH :	6217417	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER/EMPLOYER: silva90
PROJECT: 3MRP
SAMPLE PRESERVATION/AMT of REAGENT: na
PURGE VOL/EXCESS H2O DEST: 47.51 / S300 DRUM
TF LOCATION: S300

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-26R-11 TIME COLLECTED: ~~1054~~ 1053

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
~~BB~~	~~W-26R-11~~	~~S3ANIONS~~	~~1~~	~~250 ml P~~	
~~BB~~	~~W-26R-11~~	~~S3METALS~~	~~1~~	~~500ml P~~	
~~BB~~	~~W-26R-11~~	~~S3METALS:FILTER~~	~~0~~	~~0~~	
~~BB~~	~~W-26R-11~~	~~S3WETCHEM~~	~~2~~	~~500ml P~~	
AA	W-26R-11	SM9221	1	250 ml P	

Evacuated all cl

All Ground Water Sampling Data

Target Sample Date: 23-AUG-2017 Month: Norm Qtr: 3 Norm Year: 2017

WELL ID: W-7DS AREA INFO: S300/GSA/EGSA

DATE: 23-Aug-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34042

PURGE METHOD/SAMPLE METHOD: Grundfos / 3VES CONTAMINANT PRESENT: ND

SCREENED INTERVAL (ft-bmp): 18.80 - 28.80 PUMP INTAKE DEPTH: 27.80

CASING DEPTH(installed/sounded)(ft-bmp): 27.00 / 30.30 on 17-MAY-17 CASING VOL (Gal/Time): 17.35 15.19 x 3 = 45.5

DEPTH TO WATER(ft-bmp): 9.00 on 23-MAY-17 11.9 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 21.00 18.4 CASING DIAMETER/TCASING HT(in): 4.5 / 3.00

TIME PUMP ON: 12:30 INITIAL FLOW RATE (Q=GPM): 2.41

TIME PUMP OFF: 1300 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
12:37		15.19	1	7.53	22.0	1470	142	1	11.92
1244		30.38	2	7.31	22.0	1480	118	1	11.94
1250		45.57	3	7.21	23.8	1473	134	1	11.95
1252				7.20	23.8	1473	132	1	
1254				7.19	23.7	1470	130	1	

METER	SERIAL #	CALIBRATED
pH :	62174417	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3MRP

SAMPLE PRESERVATION/AMT of REAGENT: na

PURGE VOL/EXCESS H2O DEST: 52.05 / S300-DRUM

TF LOCATION: S300

QC SAMPLE ID: W-26R-42Y EGSAFB QC LAB(S): BCLABS-BAK, ALPHAANAL QC SAMPLE TIME: 1430

SAMPLE ID (VERIFY): W-7DS TIME COLLECTED: 1300

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
BB	EGSAFB	S3ANIONS	1	250 ml P	
BB	W-26R-42Y	S3ANIONS	1	250 ml P	
BB	W-7DS	S3ANIONS	1	250 ml P	
BB	EGSAFB	S3METALS	1	500ml P	
BB	W-26R-42Y	S3METALS	1	500ml P	
BB	W-7DS	S3METALS	1	500ml P	
BB	W-26R-42Y	S3METALS:FILTER	0	O	
BB	W-7DS	S3METALS:FILTER	0	O	
BB	EGSAFB	S3METALS:FILTER	0	O	
BB	W-26R-42Y	S3WETCHEM	2	500ml P	
BB	W-7DS	S3WETCHEM	2	500ml P	
BB	EGSAFB	S3WETCHEM	2	500ml P	
~~AA~~	~~W-26R-42Y~~	~~SM9221~~	~~1~~	~~250 ml P~~	
~~AA~~	~~W-7DS~~	~~SM9221~~	~~1~~	~~250 ml P~~	
~~AA~~	~~EGSAFB~~	~~SM9221~~	~~1~~	~~250 ml P~~	

Added 02 of CL

All Ground Water Sampling Data

Target Sample Date: 24-AUG-2017 Month: Norm Qtr: 3 Norm Year: 2017

WELL ID: W-7DS AREA INFO: S300/GSA/EGSA

DATE: 24-Aug-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34042

PURGE METHOD/SAMPLE METHOD: Grundfos / 3VES CONTAMINANT PRESENT: ND

SCREENED INTERVAL (ft-bmp): 18.80 - 28.80 PUMP INTAKE DEPTH: 27.80

CASING DEPTH(installed/sounded)(ft-bmp): 27.00 / 30.30 on 17-MAY-17 CASING VOL (Gal/Time): 17.35

DEPTH TO WATER(ft-bmp): 9.00 on 23-MAY-17 12.03 VOLUME FACTOR: 0.826 15.09 X 3CV = 45.2

WATER IN CASING (ft): 21.00 18.27 CASING DIAMETER/TCASING HT(in): 4.5 / 3.00

TIME PUMP ON: ~~1055~~ 1120 INITIAL FLOW RATE (Q=GPM): 2.34

TIME PUMP OFF: 1130 MEASURED BY FLOW METER GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1107		15.09	1	7.20	21.9	1481	141	1	12.10
1115		30.18	2	7.21	22	1477	120	1	12.12
1122		45.27	3	7.11	21.2	1483	129	1	2.15
1124				7.10	21.1	1480	121	1	
1126				7.09	21.1	1478	118	1	

METER	SERIAL #	CALIBRATED
pH :	6217417	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER/EMPLOYER: silva90
PROJECT: 3MRP
SAMPLE PRESERVATION/AMT of REAGENT: NA
PURGE VOL/EXCESS H2O DEST: 52.05 / S300 DRUM
TF LOCATION: S300

QC SAMPLE ID: EGSAFB W-26R-42Y QC LAB(S): BCLABS-BAK, ALPHAANAL QC SAMPLE ~~TIME~~: 1515

SAMPLE ID (VERIFY): W-7DS / 3VES TIME COLLECTED: 1130

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
~~BB~~	~~EGSAFB~~	~~S3ANIONS~~	~~1~~	~~250 ml~~ P	
~~BB~~	~~W-26R-42Y~~	~~S3ANIONS~~	~~1~~	~~250 ml P~~	
~~BB~~	~~W-7DS~~	~~S3ANIONS~~	~~1~~	~~250 ml P~~	
~~BB~~	~~EGSAFB~~	~~S3METALS~~	~~1~~	~~500ml~~ P	
~~BB~~	~~W-26R-42Y~~	~~S3METALS~~	~~1~~	~~500ml P~~	
~~BB~~	~~W-7DS~~	~~S3METALS~~	~~1~~	~~500ml P~~	
~~BB~~	~~W-26R-42Y~~	~~S3METALS:FILTER~~	~~0~~	~~0~~	
~~BB~~	~~W-7DS~~	~~S3METALS:FILTER~~	~~0~~	~~0~~	
~~BB~~	~~EGSAFB~~	~~S3METALS:FILTER~~	~~0~~	~~0~~	
~~BB~~	~~W-26R-42Y~~	~~S3WETCHEM~~	~~2~~	~~500ml P~~	
~~BB~~	~~W-7DS~~	~~S3WETCHEM~~	~~2~~	~~500ml P~~	
~~BB~~	~~EGSAFB~~	~~S3WETCHEM~~	~~2~~	~~500ml P~~	
AA	W-26R-42Y	SM9221	1	250 ml P	
AA	W-7DS	SM9221	1	250 ml P	
AA	EGSAFB	SM9221	1	250 ml P	

Evacuated all CL from well

All Ground Water Sampling Data

Target Sample Date: 21-AUG-2017 Month: Norm Qtr: 3 Norm Year: 2017

WELL ID: W-25N-22 AREA INFO: S300/GSA/EGSA

DATE: 21-Aug-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34040

PURGE METHOD/SAMPLE METHOD: Grundfos / 3VES CONTAMINANT PRESENT: TCE-1.2

SCREENED INTERVAL (ft-bmp): 20.80 - 30.80 PUMP INTAKE DEPTH: 31.05

CASING DEPTH(installed/sounded)(ft-bmp): 28.50 / 32.50 on 09-JAN-12 CASING VOL (Gal/Time): 10.18 / 10.0 x 3x0 = 30

DEPTH TO WATER(ft-bmp): 18.68 on 04-APR-17 ~~19.07~~ 20.34 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 12.32 12.16 CASING DIAMETER/TCASING HT(in): 4.5 / 2.50

TIME PUMP ON: 1157 INITIAL FLOW RATE (Q=GPM): 1.2 Q

TIME PUMP OFF: 1234 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1206		10.	1	7.22	21.3	1808	48	1	21.50
1214		20.	2	7.21	21.3	1823	79	1	21.55
1222		30.	3	7.33	22.6	1845	103	1	21.68
1224				7.31	22.0	1843	101	1	
1226				7.29	21.9	1850	111		

METER	SERIAL #	CALIBRATED
pH :	6217417	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3MRP

SAMPLE PRESERVATION/AMT of REAGENT: NA

PURGE VOL/EXCESS H2O DEST: 30.54 / S300-DRUM

TF LOCATION: S300

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-25N-22 | 3VES TIME COLLECTED: 1234

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
BB	W-25N-22	S3ANIONS	1	250 ml P	
BB	W-25N-22	S3METALS	1	500ml P	
BB	W-25N-22	S3METALS:FILTER	0	O	
BB	W-25N-22	S3WETCHEM	2	500ml P	
~~AA~~	~~W-25N-22~~	~~8M9221~~	~~1~~	~~250 ml P~~	

called on of CL

All Ground Water Sampling Data

Target Sample Date: 22-AUG-2017 Month: Norm Qtr: 3 Norm Year: 2017

WELL ID: W-25N-22 AREA INFO: S300/GSA/EGSA

DATE: 22-Aug-2017 LOG BOOK (DOCUMENT CONTROL) #: ~~AA34040 4~~ AA34041

PURGE METHOD/SAMPLE METHOD: Grundfos / 3VES CONTAMINANT PRESENT: TCE-1.2

SCREENED INTERVAL (ft-bmp): 20.80 - 30.80 PUMP INTAKE DEPTH: 31.05

CASING DEPTH(installed/sounded)(ft-bmp): 28.50 / 32.50 on 09-JAN-12 CASING VOL (Gal/Time): 10.18 10.3 x 3 cv = 31

DEPTH TO WATER(ft-bmp): 18.68 on 04-APR-17 20.45 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 12.32 12.05 CASING DIAMETER/TCASING HT(in): 4.5 / 2.50

TIME PUMP ON: 1059 INITIAL FLOW RATE (Q=GPM): 1.24

TIME PUMP OFF: 1139 MEASURED BY: FLOW METER / GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1107		10.3	1	8.03	23.6	1809	188	1	21.60
1115		20.6	2	7.51	22.0	1830	176	1	21.64
1123		30.9	3	7.61	21.8	1837	162	1	21.7
1125				7.59	21.8	1833	160	1	
1127				7.58	21.8	1827	155	1	

METER	SERIAL #	CALIBRATED
pH :	6217417	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3MRP

SAMPLE PRESERVATION/AMT of REAGENT: NA

PURGE VOL/EXCESS H2O DEST: 30.54 / S300 DRUM

TF LOCATION: S300

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-25N-22/3Ves TIME COLLECTED: 1139

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
~~BB~~	~~W-25N-22~~	~~S3ANIONS~~	~~1~~	~~250 ml P~~	
~~BB~~	~~W-25N-22~~	~~S3METALS~~	~~1~~	~~500ml P~~	
~~BB~~	~~W-25N-22~~	~~S3METALS.FILTBR~~	~~0~~	~~0~~	
~~BB~~	~~W-25N-22~~	~~S3WBTCHEM~~	~~2~~	~~500ml P~~	
AA	W-25N-22	SM9221	1	250 ml P	

Evacuated all CL

All Ground Water Sampling Data

Target Sample Date: 21-AUG-2017 Month: Norm Qtr: 3 Norm Year: 2017

WELL ID: W-25N-23 AREA INFO: S300/GSA/EGSA

DATE: 21-Aug-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34040

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: *TCE-6.0

SCREENED INTERVAL (ft-bmp): 21.80 - 36.80 PUMP INTAKE DEPTH: 35.70

CASING DEPTH(installed/sounded)(ft-bmp): 35.30 / 37.15 on 09-JAN-12 CASING VOL (Gal/Time): 18.86 15.9x3w=

DEPTH TO WATER(ft-bmp): 14.97 on 04-APR-17 17.90 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 22.83 19.25 CASING DIAMETER/TCASING HT(in): 4.5 / 2.50

TIME PUMP ON: INITIAL FLOW RATE (Q=GPM):

TIME PUMP OFF: MEASURED BY:FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW

METER	SERIAL #	CALIBRATED
pH :		YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3MRP

SAMPLE PRESERVATION/AMT of REAGENT:

PURGE VOL/EXCESS H2O DEST: 56.59 / S300-DRUM

TF LOCATION: S300

QC SAMPLE ID: QC LAB(S): QC SAMPLE TIME:

SAMPLE ID (VERIFY): TIME COLLECTED:

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
BB	W-25N-23	S3ANIONS	1	250 ml P	
BB	W-25N-23	S3METALS	1	500ml P	
BB	W-25N-23	S3METALS:FILTER	0	O	
BB	W-25N-23	S3WETCHEM	2	500ml P	
AA	W-25N-23	SM9221	1	250 ml P	

Possible Problems with pump will try again this week.

All Ground Water Sampling Data

Target Sample Date: 27-NOV-2017 Month: Norm Qtr: 4 Norm Year: 2017

WELL ID: W-7ES AREA INFO: S300/GSA/CGSA

DATE: 27-Nov-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34077

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: NO3-11

SCREENED INTERVAL (ft-bmp): 18.30 - 28.30 PUMP INTAKE DEPTH: 26.30

CASING DEPTH(installed/sounded)(ft-bmp): 26.80 / 30.10 on 21-JAN-87 CASING VOL (Gal/Time): 11.43

DEPTH TO WATER(ft-bmp): 15.97 on 23-OCT-17 16.92 VOLUME FACTOR: 0.826 10.88 x 3 = 32.6 gal

WATER IN CASING (ft): 13.83 13.18 CASING DIAMETER/TCASING HT(in): 4.5 / 3.00

TIME PUMP ON: 1158 INITIAL FLOW RATE ~~(Q-GPM)~~: 1.10 gpm

TIME PUMP OFF: 1240 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1208		10.88	1	7.60	22.5	1529	-6	1	17.00
1218		21.78	2	7.62	22.7	1505	31	1	17.12
1228		32.6	3	7.64	22.4	1515	36	1	17.15
1230				7.61	22.3	1510	33	1	
1232				7.67	22.4	1570	30	1	

METER SERIAL # CALIBRATED

pH : 610084 YES/NO

SC : YES/NO

mV : YES/NO

H2O: YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3CMP 3EMG

SAMPLE PRESERVATION/AMT of REAGENT:

PURGE VOL/EXCESS H2O DEST: 34.28 / S300-DRUM

TF LOCATION: S300

QC SAMPLE ID: CGSAFB QC LAB(S): ALPHAANAL, BCLABS-BAK QC SAMPLE TIME: 1240

SAMPLE ID (VERIFY): W-7ES/3VES TIME COLLECTED: 1240

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
BB	CGSAFB	E300.0:NO3	1	250 ml P	
BB	W-7ES	E300.0:NO3	1	250 ml P	
BB	CGSAFB	E624MOD	3	40 mL V	
BB	W-7ES	E624MOD	3	40 mL V	
BB	CGSAFB	SM2510B	1	250 ml P	
BB	W-7ES	SM2510B	1	250 ml P	
BB	CGSAFB	SM4500PH	1	250 ml P	
BB	W-7ES	SM4500PH	1	250 ml P	
~~AA~~	~~CGSAFB~~	~~SM9221~~	1	~~250 ml P~~	
~~AA~~	~~W-7ES~~	~~SM9221~~	1	~~250 ml P~~	

Nellal 02 of CL

All Ground Water Sampling Data

Target Sample Date: 28-NOV-2017 Month: Norm Qtr: 4 Norm Year: 2017

WELL ID: W-7ES AREA INFO: S300/GSA/CGSA

DATE: 28-Nov-2017 LOG BOOK (DOCUMENT CONTROL) #: AA3407~~7~~8

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: NO3-11

SCREENED INTERVAL (ft-bmp): 18.30 - 28.30 PUMP INTAKE DEPTH: 26.30

CASING DEPTH(installed/sounded)(ft-bmp): 26.80 / 30.10 on 21-JAN-87 CASING VOL (Gal/Time): 11.43 10.88 x 3 ed =32.6 Gal

DEPTH TO WATER(ft-bmp): 15.97 on 23-OCT-17 16.92 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 13.83 13.18 CASING DIAMETER/TCASING HT(in): 4.5 / 3.00

TIME PUMP ON: 1123 INITIAL FLOW RATE (Q=GPM): 1.13 Q

TIME PUMP OFF: 1202 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1133		10.9	1	7.63	22.1	1499	336	1	17.03
1143		21.8	2	7.60	22.0	1491	271	1	17.23
1153		32.7	3	7.61	22.3	1497	210	1	17.31
1155				7.61	22.3	1495	186	1	
1157				7.59	22.2	1490	110	1	

METER	SERIAL #	CALIBRATED
pH :	610084	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER/EMPLOYER: silva90
PROJECT: 3CMP 3EMG
SAMPLE PRESERVATION/AMT of REAGENT: NA
PURGE VOL/EXCESS H2O DEST: 34.28 / S300-DRUM
TF LOCATION: S300

QC SAMPLE ID: CGSAFB QC LAB(S): ALPHAANAL, BCLABS-BAK QC SAMPLE TIME: 1202

SAMPLE ID (VERIFY): W-7ES/3VES TIME COLLECTED: 1202

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
~~BB~~	~~CGSAFB~~	~~E300.0:NO3~~	~~1~~	~~250 ml P~~	
~~BB~~	~~W-7ES~~	~~E300.0:NO3~~	~~1~~	~~250 ml P~~	
~~BB~~	~~CGSAFB~~	~~E624MOD~~	~~3~~	~~40 mL V~~	
~~BB~~	~~W-7ES~~	~~E624MOD~~	~~3~~	~~40 mL V~~	
~~BB~~	~~CGSAFB~~	~~SM2510B~~	~~1~~	~~250 ml P~~	
~~BB~~	~~W-7ES~~	~~SM2510B~~	~~1~~	~~250 ml P~~	
~~BB~~	~~CGSAFB~~	~~SM4500PH~~	~~1~~	~~250 ml P~~	
~~BB~~	~~W-7ES~~	~~SM4500PH~~	~~1~~	~~250 ml P~~	
AA	CGSAFB	SM9221	1	250 ml P	
AA	W-7ES	SM9221	1	250 ml P	

Evacuated all CL from well

All Ground Water Sampling Data

Target Sample Date: 09-NOV-2017 Month: Norm Qtr: 4 Norm Year: 2017

WELL ID: W-7PS AREA INFO: S300/GSA/CGSA

DATE: 09-Nov-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34071

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: TCE-3/NO3-17

SCREENED INTERVAL (ft-bmp): 19.48 - 22.48 INTAKE DEPTH: 0.00

CASING DEPTH(installed/sounded)(ft-bmp): 19.50 / 22.48 on 12-APR-94 CASING VOL (Gal/Time): 7.63 5.26 x 3

DEPTH TO WATER(ft-bmp): 12.95 on 22-AUG-17 16.11 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 9.23 6.37 CASING DIAMETER/TCASING HT(in): 4.5 / 2.68 15.78 gal

TIME PUMP ON: 1218 INITIAL FLOW RATE (Q=GPM): 0.8 gpm

TIME PUMP OFF: 1246 MEASURED BY: FLOW METER / GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1225		5.26	1	7.53	24.00	1574	63	1	16.23
1231		10.52	2	7.41	25.3	1562	48	1	16.25
1238		15.78	3	7.37	25.4	1564	45	1	16.27
1240				7.39	25.1	1562	44	1	
1242				7.40	25.0	1561	48	1	

METER SERIAL # CALIBRATED

pH : 610084 YES/NO

SC : YES/NO

mV : YES/NO

H2O: YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3EMG 3CMP

SAMPLE PRESERVATION/AMT of REAGENT: N/A

PURGE VOL/EXCESS H2O DEST: 22.88 / S300-DRUM

TF LOCATION: S300

QC SAMPLE ID: W-75Y QC LAB(S): BCLABS-BAK, ALPHAANAL, TALSAC SAMPLE TIME: 1315

SAMPLE ID (VERIFY): W-7PS | 3VES TIME COLLECTED: 1246

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
~~BB~~	~~W-75Y~~	~~E300.0:NO3~~	1	~~250 ml P~~	
~~BB~~	~~W-7PS~~	~~E300.0:NO3~~	1	~~250 ml P~~	
~~TS~~	~~W-75Y~~	~~E624MOD~~	3	~~40 mL V~~	
~~TS~~	~~W-7PS~~	~~E624MOD~~	3	~~40 mL V~~	
~~BB~~	~~W-75Y~~	~~SM2510B~~	1	~~250 ml P~~	
~~BB~~	~~W-7PS~~	~~SM2510B~~	1	~~250 ml P~~	
~~BB~~	~~W-75Y~~	~~SM4500PH~~	1	~~250 ml P~~	
~~BB~~	~~W-7PS~~	~~SM4500PH~~	1	~~250 ml P~~	
AA	W-75Y	SM9221	1	250 ml P	
AA	W-7PS	SM9221	1	250 ml P	

Evacuated all CL from well

Two barrels have trash in them.

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 23.7900009 gal.
Revision: 10/28/2015

All Ground Water Sampling Data

Target Sample Date: 08-NOV-2017 Month: Norm Qtr: 4 Norm Year: 2017

WELL ID: W-7PS AREA INFO: S300/GSA/CGSA

DATE: 08-Nov-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34071

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: TCE-3/NO3-17

SCREENED INTERVAL (ft-bmp): 19.48 - 22.48 INTAKE DEPTH: 0.00

CASING DEPTH(installed/sounded)(ft-bmp): 19.50 / 22.48 on 12-APR-94 CASING VOL (Gal/Time): 7.63

DEPTH TO WATER(ft-bmp): 12.95 on 22-AUG-17 16.12 VOLUME FACTOR: 0.826 5.25 x 3

WATER IN CASING (ft): 9.23 6.36 CASING DIAMETER/TCASING HT(in): 4.5 / 2.68 = 15.7 gal

TIME PUMP ON: 1205 INITIAL FLOW RATE (Q=GPM): 0.8 gpm

TIME PUMP OFF: 1234 MEASURED BY:FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1211		5.25	1	7.55	23.5	1572	15	1	16.24
1217		10.51	2	7.43	23.8	1565	5	1	16.25
1224		15.76	3	7.47	24.0	1564	7	1	16.24
1226				7.48	24.1	1570	22		
1228				7.44	24.1	1568	18		

METER SERIAL # CALIBRATED

pH : 610084 YES/NO

SC : YES/NO

mV : YES/NO

H2O: YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3CMP 3EMG

SAMPLE PRESERVATION/AMT of REAGENT: NA

PURGE VOL/EXCESS H2O DEST: 22.88 / S300-DNUM

TF LOCATION: S300

QC SAMPLE ID: W-75Y QC LAB(S): BCLABS-BAK, ALPHAANAL, TALSAC SAMPLE TIME: 1315

SAMPLE ID (VERIFY): W-7PS 3VES TIME COLLECTED: 1234

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
BB	W-75Y	E300.0:NO3	1	250 ml P	
BB	W-7PS	E300.0:NO3	1	250 ml P	
TS	W-75Y	E624MOD	3	40 mL V	
TS	W-7PS	E624MOD	~~3~~ 9	40 mL V	
BB	W-75Y	SM2510B	1	250 ml P	
BB	W-7PS	SM2510B	1	250 ml P	
BB	W-75Y	SM4500PH	1	250 ml P	
BB	W-7PS	SM4500PH	1	250 ml P	
AA	~~W-75Y~~	~~SM9221~~	1	~~250 ml~~ P	
AA	~~W-7PS~~	~~SM9221~~	1	~~250 ml P~~	

Added on QCL

NOTE:

Purge rate/time: N/A since est_sus_flow = 0

Purge Volume: 23.7900009 gal.

Revision: 10/28/2015

All Ground Water Sampling Data

Target Sample Date: 14-NOV-2017 Month: Norm Qtr: 4 Norm Year: 2017

WELL ID: W-35A-04 AREA INFO: S300/GSA/CGSA

DATE: 14-Nov-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34073 4

PURGE METHOD/SAMPLE METHOD: Grunfos / 3VES CONTAMINANT PRESENT: ND

SCREENED INTERVAL (ft-bmp): 19.30 - 29.30 PUMP INTAKE DEPTH: 26.28

CASING DEPTH(installed/sounded)(ft-bmp): 29.00 / 28.57 on 14-DEC-09 CASING VOL (Gal/Time): 16.98 13.7 x 3 = 41.1 Gal

DEPTH TO WATER(ft-bmp): 8.45 on 23-AUG-17 11.99 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 20.55 16.58 CASING DIAMETER/TCASING HT(in): 4.5 / 0.00

TIME PUMP ON: ~~1037~~ 1037 INITIAL FLOW RATE (Q=GPM): 1.2 Q

TIME PUMP OFF: 1124 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1050		13.7	1	7.73	22.0	1488	425	1	12.15
1103		27.4	2	7.71	22.0	1485	371	1	12.30
1116		41.1	3	7.69	22.1	1481	318	1	12.38
1118				7.69	22.1	1486	290	1	
1120				7.67	22.1	1483	273	1	

METER	SERIAL #	CALIBRATED
pH :		YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3CMP 3EMG

SAMPLE PRESERVATION/AMT of REAGENT: N/A

PURGE VOL/EXCESS H2O DEST: 50.94 / None

TF LOCATION: Collect

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-35A-04/3VES TIME COLLECTED: 1124

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
~~GE~~	~~W-35A-04~~	~~AS:FILTER~~	0	O	
~~GE~~	W-35A-04	AS:UISO	2	1L P	
~~BB~~	~~W-35A-04~~	E200.7:FILTER	0	O	
~~BB~~	~~W-35A-04~~	~~E200.7:K~~	1	500 mL P	
~~BB~~	~~W-35A-04~~	~~E300.0:NO3~~	1	250 ml P	
~~BB~~	~~W-35A-04~~	E300.0:PERC	1	250 ml P	1/3-1/2 headspace, & agitate
~~BB~~	~~W-35A-04~~	~~E524.2MOD~~	6	40 mL V	
~~TS~~	~~W-35A-04~~	~~E624MOD~~	3	40 mL V	
~~BB~~	~~W-35A-04~~	E8330:R+H	3	1L A	
~~GE~~	~~W-35A-04~~	~~E900~~	1	1L P	
~~GE~~	~~W-35A-04~~	~~E900:FILTER~~	0	O	
~~GE~~	~~W-35A-04~~	~~E906~~	1	250 ml GA	
~~BB~~	~~W-35A-04~~	~~SM2510B~~	1	250 ml P	
~~BB~~	~~W-35A-04~~	~~SM4500PH~~	1	250 ml P	
AA	W-35A-04	SM9221	1	250 ml P	
~~BB~~	~~W-35A-04~~	~~WGMGMET3~~	1	1L P	
~~BB~~	~~W-35A-04~~	~~WGMGMET3:FILTER~~	0	O	

Evacuated all CL from well

All Ground Water Sampling Data

Target Sample Date: 09-NOV-2017 Month: Norm Qtr: 4 Norm Year: 2017

WELL ID: W-26R-01 AREA INFO: S300/GSA/EGSA

DATE: 09-Nov-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34071

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: *TCE-15/NO3-40

SCREENED INTERVAL (ft-bmp): 22.72 - 27.72 PUMP INTAKE DEPTH: 29.00

CASING DEPTH(installed/sounded)(ft-bmp): 29.80 / 30.00 on 16-NOV-88 CASING VOL (Gal/Time): 14.86 9.58

DEPTH TO WATER(ft-bmp): 14.49 on 23-AUG-17 18.39 VOLUME FACTOR: 0.826 x3=

WATER IN CASING (ft): 17.98 11.61 CASING DIAMETER/TCASING HT(in): 4.5 / 2.67 28.7 gal

TIME PUMP ON: 1013 INITIAL FLOW RATE (Q=GPM): 1 gpm

TIME PUMP OFF: 1054 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1023		9.58	1	7.87	22.4	1487	507	1	21.14
1032		19.18	2	7.68	22.8	1464	537	1	21.39
1041		28.7	3	7.66	22.8	1460	468	1	21.50
1051				7.70	22.6	1457	302	1	21.63

METER SERIAL # CALIBRATED

pH : 610084 YES/NO

SC : YES/NO

mV : YES/NO

H2O: YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3EMG

SAMPLE PRESERVATION/AMT of REAGENT: NA

PURGE VOL/EXCESS H2O DEST: 44.57 / TF-834

TF LOCATION: 834

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-26R-01 / 3VES TIME COLLECTED: 1054

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
~~BB~~	~~W-26R-01~~	~~E300.0:NO3~~	1	~~250 ml P~~	
~~BB~~	~~W-26R-01~~	~~SM2510B~~	1	~~250 ml P~~	
~~BB~~	~~W-26R-01~~	~~SM4500PH~~	1	~~250 ml P~~	
AA	W-26R-01	SM9221	1	250 ml P	

Evacuated all CL from Well.

All Ground Water Sampling Data

Target Sample Date: 08-NOV-2017 Month: Norm Qtr: 4 Norm Year: 2017

WELL ID: W-26R-01 AREA INFO: S300/GSA/EGSA

DATE: 08-Nov-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34071

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: *TCE-15/NO3-40

SCREENED INTERVAL (ft-bmp): 22.72 - 27.72 PUMP INTAKE DEPTH: 29.00

CASING DEPTH(installed/sounded)(ft-bmp): 29.80 / 30.00 on 16-NOV-88 CASING VOL (Gal/Time): 14.86 9.49

DEPTH TO WATER(ft-bmp): 14.49 on 23-AUG-17 18.5 VOLUME FACTOR: 0.826 X 3 = 28.4 gal

WATER IN CASING (ft): 17.98 11.5 CASING DIAMETER/TCASING HT(in): 4.5 / 2.67

TIME PUMP ON: 0932 INITIAL FLOW RATE (Q=GPM): 1 gpm

TIME PUMP OFF: ~~1000~~ 1010 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0941		9.49	1	7.80	21.0	1474	89	1	23.44
0950		19	2	7.66	21.9	1457	40	1	24.43
0959		28.49	3	7.70	21.7	1452	24	1	24.87
1001				7.70	21.6	1450	20		
1008				7.69	21.6	1448	22		

METER SERIAL # CALIBRATED

pH : 610084 YES/NO

SC : YES/NO

mV : YES/NO

H2O: YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3EMG

SAMPLE PRESERVATION/AMT of REAGENT: NA

PURGE VOL/EXCESS H2O DEST: 44.57 / TF-834

TF LOCATION: 834

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-26R-01 / 3VES TIME COLLECTED: ~~1000~~ 1010

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
BB	W-26R-01	E300.0:NO3	1	250 ml P	
BB	W-26R-01	SM2510B	1	250 ml P	
BB	W-26R-01	SM4500PH	1	250 ml P	
~~AA~~	~~W-26R-01~~	~~SM9221~~	~~1~~	~~250 ml P~~	

Bubbles on ODCL

All Ground Water Sampling Data

Target Sample Date: 08-NOV-2017 Month: Norm Qtr: 4 Norm Year: 2017

WELL ID: W-26R-11 AREA INFO: S300/GSA/EGSA

DATE: 08-Nov-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34071

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: TCE-1.6/NO3-14

SCREENED INTERVAL (ft-bmp): 18.08 - 28.08 PUMP INTAKE DEPTH: 31.08

CASING DEPTH(installed/sounded)(ft-bmp): 27.00 / 29.28 on 17-MAR-92 CASING VOL (Gal/Time): 13.05 11.21

DEPTH TO WATER(ft-bmp): 13.19 on 23-AUG-17 15.7 VOLUME FACTOR: 0.826 x 3 =

WATER IN CASING (ft): 15.79 13.58 CASING DIAMETER/TCASING HT(in): 4.5 / 1.98 33.65 gal

TIME PUMP ON: 1022 INITIAL FLOW RATE (Q=GPM): 1 gpm

TIME PUMP OFF: 1107 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1034		11.21	1	7.72	21.7	1467	-35	1	15.89
1045		22.44	2	7.61	22.8	1475	~~-535~~ -52	1	15.90
1056		33.65	3	7.71	22.8	1464	-14	1	15.82
1058				7.70	22.9	1458	-24		
1100				7.68	22.9	1460	-21		

METER SERIAL # CALIBRATED

pH : 610084 YES/NO

SC : YES/NO

mV : YES/NO

H2O: YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3EMG 3GIV

SAMPLE PRESERVATION/AMT of REAGENT: NA

PURGE VOL/EXCESS H2O DEST: 39.14 / S300-DRUM

TF LOCATION: S300

QC SAMPLE ID: W-26R-49Y QC LAB(S): ALPHAANAL, BCLABS-BAK QC SAMPLE TIME: ~~1107~~ 1409

SAMPLE ID (VERIFY): W-26R-11 / 3VES TIME COLLECTED: 1107

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
BB	W-26R-11	E300.0:NO3	1	250 ml P	
BB	W-26R-49Y	E300.0:NO3	1	250 ml P	
BB	W-26R-11	E624MOD	3	40 mL V	
BB	W-26R-49Y	E624MOD	3	40 mL V	
BB	W-26R-11	SM2510B	1	250 ml P	
BB	W-26R-49Y	SM2510B	1	250 ml P	
BB	W-26R-11	SM4500PH	1	250 ml P	
BB	W-26R-49Y	SM4500PH	1	250 ml P	
~~AA~~	~~W-26R-11~~	~~SM9221~~	~~1~~	~~250 ml P~~	
~~AA~~	~~W-26R-49Y~~	~~SM9221~~	~~1~~	~~250 ml P~~	

Added .02 of CL

All Ground Water Sampling Data

Target Sample Date: 09-NOV-2017 Month: Norm Qtr: 4 Norm Year: 2017

WELL ID: W-26R-11 AREA INFO: S300/GSA/EGSA

DATE: 09-Nov-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34071

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: TCE-1.6/NO3-14

SCREENED INTERVAL (ft-bmp): 18.08 - 28.08 PUMP INTAKE DEPTH: 31.08

CASING DEPTH(installed/sounded)(ft-bmp): 27.00 / 29.28 on 17-MAR-92 CASING VOL (Gal/Time): 13.05

DEPTH TO WATER(ft-bmp): 13.19 on 23-AUG-17 15.75 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 15.79 13.53 CASING DIAMETER/TCASING HT(in): 4.5 / 1.98

TIME PUMP ON: 1107 INITIAL FLOW RATE ~~(Q-GPM)~~: 1.0 Q

TIME PUMP OFF: MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

11.17 X 3 = 33.5 gal

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1118		11.17	1	7.72	21.9	1458	74	1	15.79
1130		22.35	2	7.58	22.7	1460	-12	1	15.80
1141		33.5	3	7.74	22.7	1460	-30	1	15.81
1143				7.70	22.7	1465	-33	1	
1145				7.70	22.8	1459	-37		

METER SERIAL # CALIBRATED

pH : 610084 YES/NO

SC : YES/NO

mV : YES/NO

H2O: YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3GIV 3EMG

SAMPLE PRESERVATION/AMT of REAGENT: na

PURGE VOL/EXCESS H2O DEST: 39.14 / S300-DRUM

TF LOCATION: S300

QC SAMPLE ID: W-26R-49Y QC LAB(S): BCLABS-BAK, ALPHAANAL QC SAMPLE TIME: 1000

SAMPLE ID (VERIFY): W-26R11 / 3VES TIME COLLECTED: 1148

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
BB	~~W-26R-11~~	~~B300.0:NO3~~	1	~~250 ml P~~	
BB	~~W-26R-49Y~~	~~B300.0:NO3~~	1	~~250 ml P~~	
BB	W-26R-11	~~E624MOD~~	3	~~40 mL V~~	
BB	W-26R-49Y	~~E624MOD~~	3	~~40 mL~~ V	
BB	~~W-26R-11~~	SM2510B	1	~~250 ml~~ P	
BB	~~W-26R-49Y~~	~~SM2510B~~	1	~~250 ml~~ P	
BB	~~W-26R-11~~	~~SM4500PH~~	1	~~250 ml P~~	
BB	~~W-26R-49Y~~	~~SM4500PH~~	1	~~250 ml P~~	
AA	W-26R-11	SM9221	1	250 ml P	
AA	W-26R-49Y	SM9221	1	250 ml P	

Evacuated all CL from well

All Ground Water Sampling Data

Target Sample Date: 27-NOV-2017 Month: Norm Qtr: 4 Norm Year: 2017

WELL ID: W-26R-05 AREA INFO: S300/GSA/EGSA

DATE: 27-Nov-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34077

PURGE METHOD/SAMPLE METHOD: PB / 90BA CONTAMINANT PRESENT: TCE-3.3/NO3-53

SCREENED INTERVAL (ft-bmp): 22.05 - 27.05 INTAKE DEPTH: 0.00

CASING DEPTH(installed/sounded)(ft-bmp): 25.50 / 26.68 on 10-FEB-91 CASING VOL (Gal/Time): 4.58 3.7 x 90% = 3.3 Gal

DEPTH TO WATER(ft-bmp): 21.46 on 23-OCT-17 22.11 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 5.54 4.47 CASING DIAMETER/TCASING HT(in): 4.5 / 1.50

TIME PUMP ON: — INITIAL FLOW RATE (Q=GPM):

TIME PUMP OFF: MEASURED BY:FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0937		3.3Gal	90BA	8.01	19.3	1268	104	1	25

METER	SERIAL #	CALIBRATED
pH :	G10084	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3EMG

SAMPLE PRESERVATION/AMT of REAGENT: N/A

PURGE VOL/EXCESS H2O DEST: 4.12 / S300-DRUM

TF LOCATION: S300

QC SAMPLE ID: EGSAFB QC LAB(S): ALPHAANAL, BCLABS-BAK QC SAMPLE TIME: 0950

SAMPLE ID (VERIFY): W-26R-05 / 90BA TIME COLLECTED: 0950

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
BB	EGSAFB	E300.0:NO3	1	250 ml P	
BB	W-26R-05	E300.0:NO3	1	250 ml P	
BB	EGSAFB	SM2510B	1	250 ml P	
BB	W-26R-05	SM2510B	1	250 ml P	
BB	EGSAFB	SM4500PH	1	250 ml P	
BB	W-26R-05	SM4500PH	1	250 ml P	
~~AA~~	~~EGSAFB~~	~~SM9221~~	1	~~250 ml P~~	
~~AA~~	~~W-26R-05~~	~~SM9221~~	1	~~250 ml P~~	

Added 02 of CL

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 10 gal.
Revision: 10/28/2015

All Ground Water Sampling Data

Target Sample Date: 30-NOV-2017 Month: Norm Qtr: 4 Norm Year: 2017

WELL ID: W-26R-05 AREA INFO: S300/GSA/EGSA

DATE: 30-Nov-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34077

PURGE METHOD/SAMPLE METHOD: PB / 90BA CONTAMINANT PRESENT: TCE-3.3/NO3-53

SCREENED INTERVAL (ft-bmp): 22.05 - 27.05 INTAKE DEPTH: 0.00

CASING DEPTH(installed/sounded)(ft-bmp): 25.50 / 26.68 on 10-FEB-91 CASING VOL (Gal/Time): 4.58 1.7Gal x 90% = 1.53Gal

DEPTH TO WATER(ft-bmp): 21.46 on 23-OCT-17 24.6 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 5.54 2.08 CASING DIAMETER/TCASING HT(in): 4.5 / 1.50

TIME PUMP ON: — INITIAL FLOW RATE (Q=GPM): —

TIME PUMP OFF: — MEASURED BY:FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0940		1.53	90BA	7.91	20.3	1226	126	1	25.2

METER	SERIAL #	CALIBRATED
pH :	610054	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER/EMPLOYER: silva90
PROJECT: 3EMG
SAMPLE PRESERVATION/AMT OF REAGENT: N/A
PURGE VOL/EXCESS H2O DEST: 4.12 / S300-DRUM
TF LOCATION: S300

QC SAMPLE ID: EGSAFB QC LAB(S): ALPHAANAL, BCLABS-BAK QC SAMPLE TIME: 0947

SAMPLE ID (VERIFY): W-26R-05 / 90BA TIME COLLECTED: 0947

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
~~BB~~	~~EGSAFB~~	~~E300.0:NO3~~	1	~~250 ml P~~	
~~BB~~	~~W-26R-05~~	~~E300.0:NO3~~	1	~~250 ml P~~	
~~BB~~	~~EGSAFB~~	~~SM2510B~~	1	~~250 ml P~~	
~~BB~~	~~W-26R-05~~	~~SM2510B~~	1	~~250 ml P~~	
~~BB~~	~~EGSAFB~~	~~SM4500PH~~	1	~~250 ml P~~	
~~BB~~	~~W-26R-05~~	~~SM4500PH~~	1	~~250 ml P~~	
AA	EGSAFB	SM9221	1	250 ml P	
AA	W-26R-05	SM9221	1	250 ml P	

Evacuated all CL from wells after bailing Well Dry on 5/28 and unsuccesfully getting CL out of well, Bailed Dry again on 5/29.

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 10 gal.
Revision: 10/28/2015

All Ground Water Sampling Data

Target Sample Date: 09-NOV-2017 Month: Norm Qtr: 4 Norm Year: 2017

WELL ID: W-7DS AREA INFO: S300/GSA/EGSA

DATE: 09-Nov-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34071

PURGE METHOD/SAMPLE METHOD: Grundfos / 3VES CONTAMINANT PRESENT: ND

SCREENED INTERVAL (ft-bmp): 18.80 - 28.80 PUMP INTAKE DEPTH: 27.80

CASING DEPTH(installed/sounded)(ft-bmp): 27.00 / 30.30 on 17-MAY-17 CASING VOL (Gal/Time): 14.95

DEPTH TO WATER(ft-bmp): 11.90 on 23-AUG-17 15.03 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 18.10 15.27 CASING DIAMETER/TCASING HT(in): 4.5 / 3.00

TIME PUMP ON: 1150 INITIAL FLOW RATE (Q=GPM): 2 gpm

TIME PUMP OFF: 1218 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

12.61 x 3 = 37.8 gal

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1157		12.61	1	7.58	22.2	1488	6	1	15.12
1203		25.22	2	7.46	22.4	1484	23	1	15.14
1210		37.8	3	7.47	22.6	1483	30	1	15.10
1212				7.45	22.4	1480	31	1	
1214				7.42	22.4	1479	30	1	

METER SERIAL # CALIBRATED

pH : 610084 YES/NO

SC : YES/NO

mV : YES/NO

H2O: YES/NO

SAMPLER/EMPLOYER: silva90

PROJECT: 3CMP 3EMG

SAMPLE PRESERVATION/AMT of REAGENT: N/A

PURGE VOL/EXCESS H2O DEST: 44.86 / S300-DRUM

TF LOCATION: S300

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-7DS / 3VES TIME COLLECTED: 1218

LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
~~BB~~	~~W-7DS~~	~~E300.0:NO3~~	1	~~250 ml P~~	
~~BB~~	~~W-7DS~~	~~E624MOD~~	3	~~40 mL V~~	
~~BB~~	~~W-7DS~~	~~SM2510B~~	1	~~250 ml P~~	
~~BB~~	~~W-7DS~~	~~SM4500PH~~	1	~~250 ml P~~	
AA	W-7DS	SM9221	1	250 ml P	

Evacuated all CL from well

All Ground Water Sampling Data

Target Sample Date: 08-NOV-2017 Month: Norm Qtr: 4 Norm Year: 2017

WELL ID: W-7DS AREA INFO: S300/GSA/EGSA

DATE: 08-Nov-2017 LOG BOOK (DOCUMENT CONTROL) #: AA34071

PURGE METHOD/SAMPLE METHOD: Grundfos / 3VES CONTAMINANT PRESENT: ND

SCREENED INTERVAL (ft-bmp): 18.80 - 28.80 PUMP INTAKE DEPTH: 27.80

CASING DEPTH(installed/sounded)(ft-bmp): 27.00 / 30.30 on 17-MAY-17 CASING VOL (Gal/Time): 14.95

DEPTH TO WATER(ft-bmp): 11.90 on 23-AUG-17 15.00 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 18.10 15.3 CASING DIAMETER/TCASING HT(in): 4.5 / 3.00

TIME PUMP ON: 1125 INITIAL FLOW RATE (Q=GPM): 2 gpm

TIME PUMP OFF: 1157 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

12.63 x3 = 37.9 gal

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1132		12.63	1	7.71	21.0	1498	18	1	15.01
1137		25.28	2	7.54	21.6	1485	12	1	15.03
1144		37.90	3	7.60	21.3	1493	21	1	15.04
1146				7.62	21.4	1483	22		
1148				7.59	21.4	1485	21		

METER SERIAL # CALIBRATED
pH : 610084 YES/NO
SC : YES/NO
mV : YES/NO
H2O: YES/NO

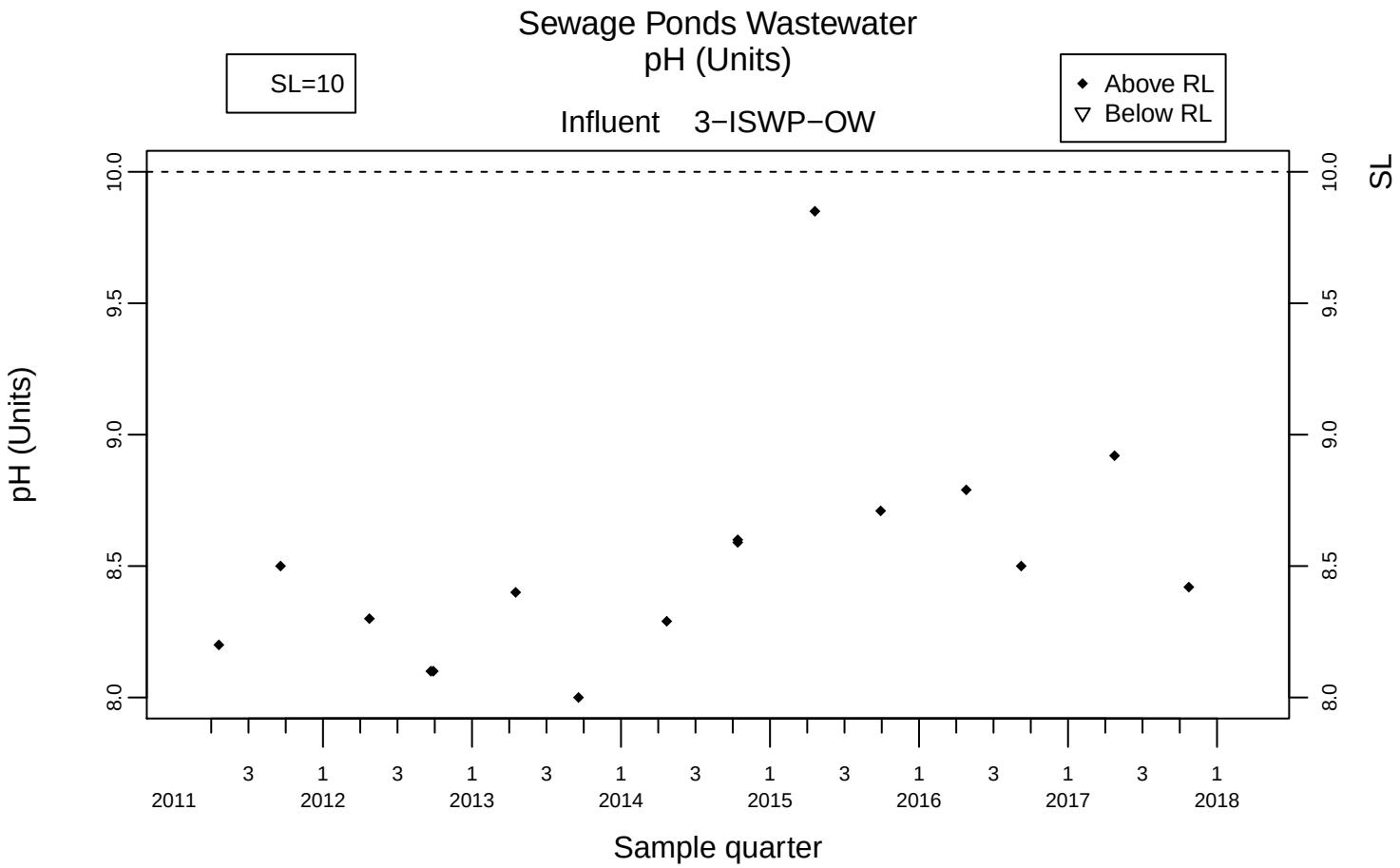
SAMPLER/EMPLOYER: silva90
PROJECT: 3EMG 3CMP
SAMPLE PRESERVATION/AMT of REAGENT: NA
PURGE VOL/EXCESS H2O DEST: 44.86 / S300-DRUM
TF LOCATION: S300

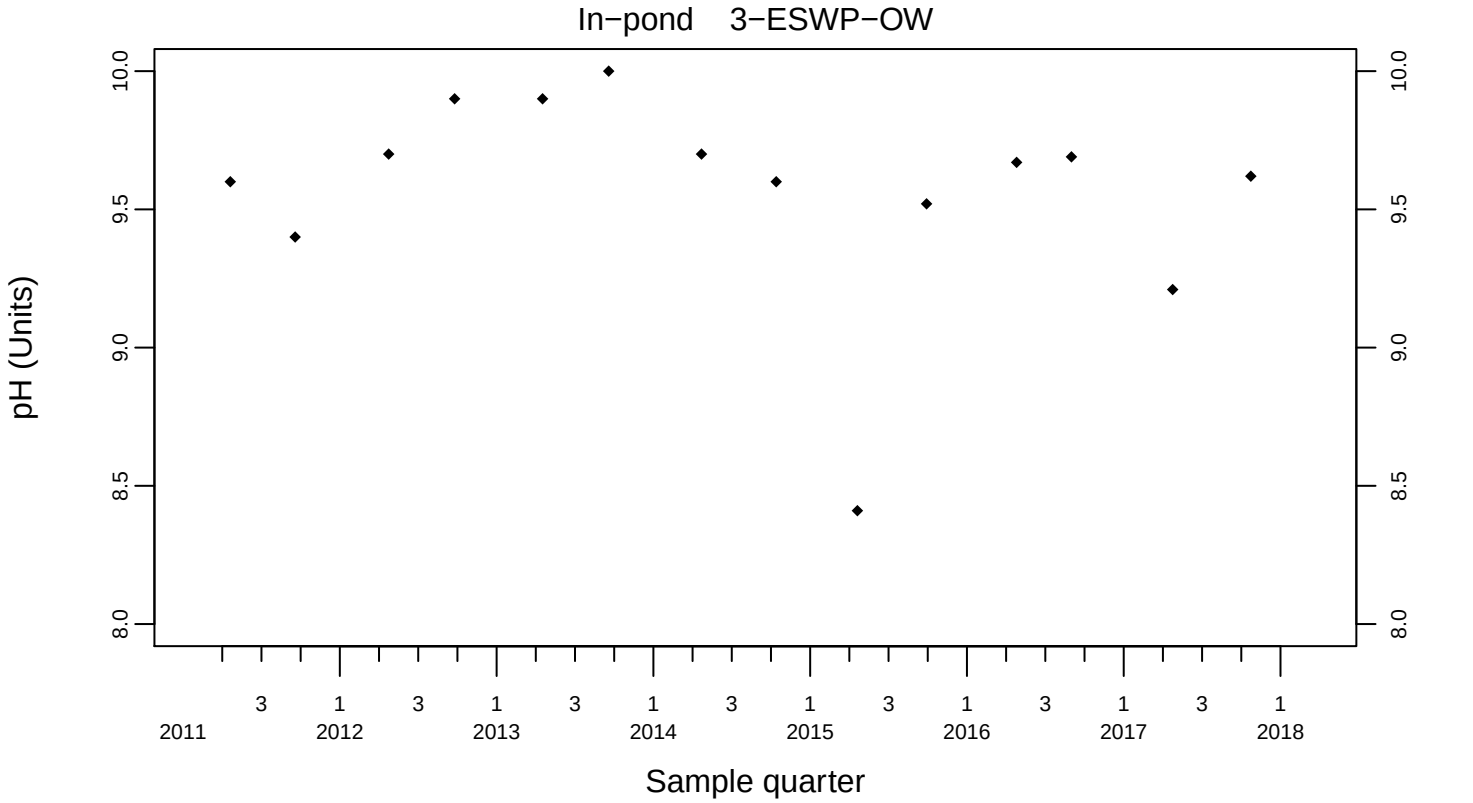
QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

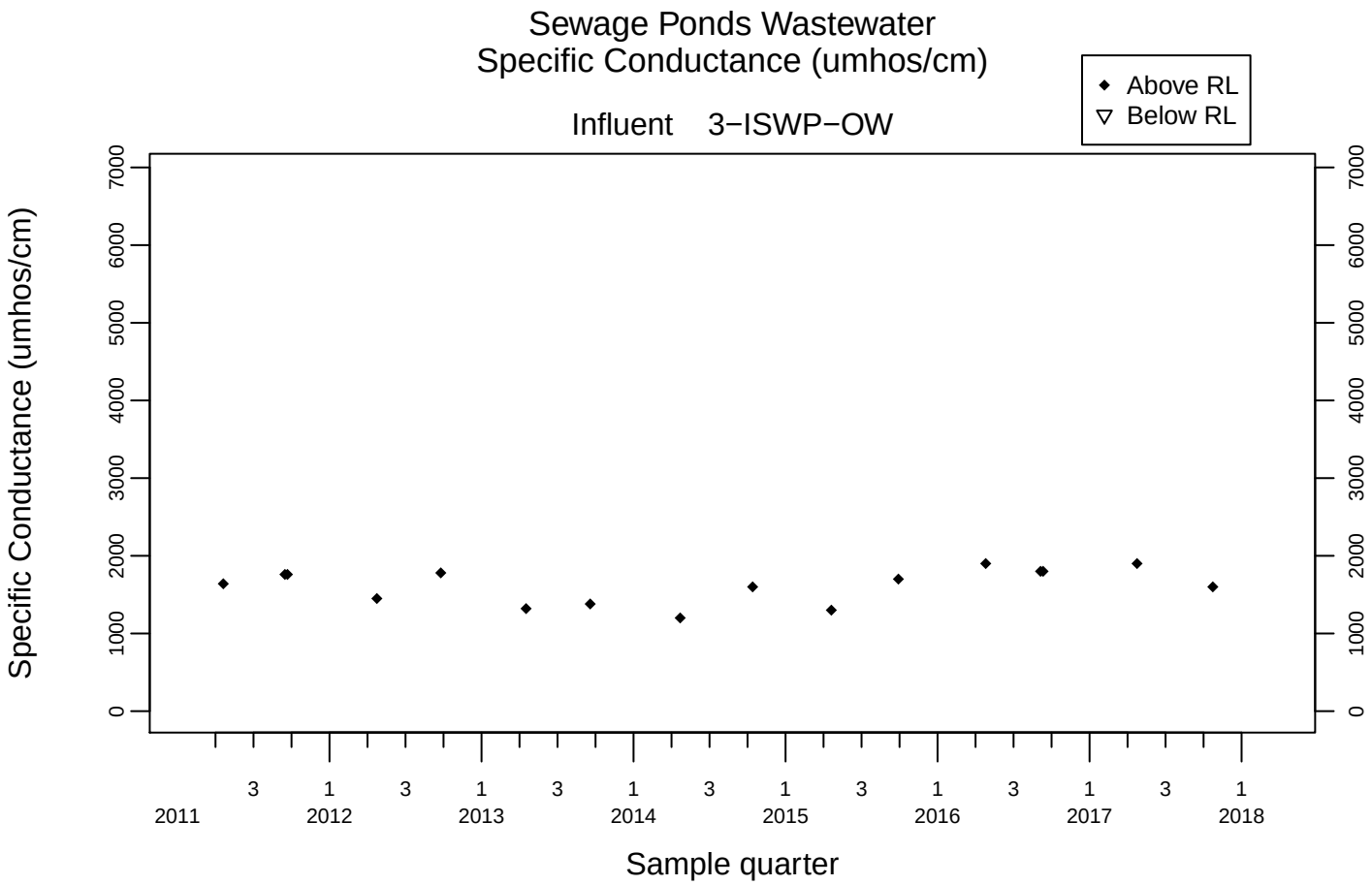
SAMPLE ID (VERIFY): W-7DS / 3VES TIME COLLECTED: 1157

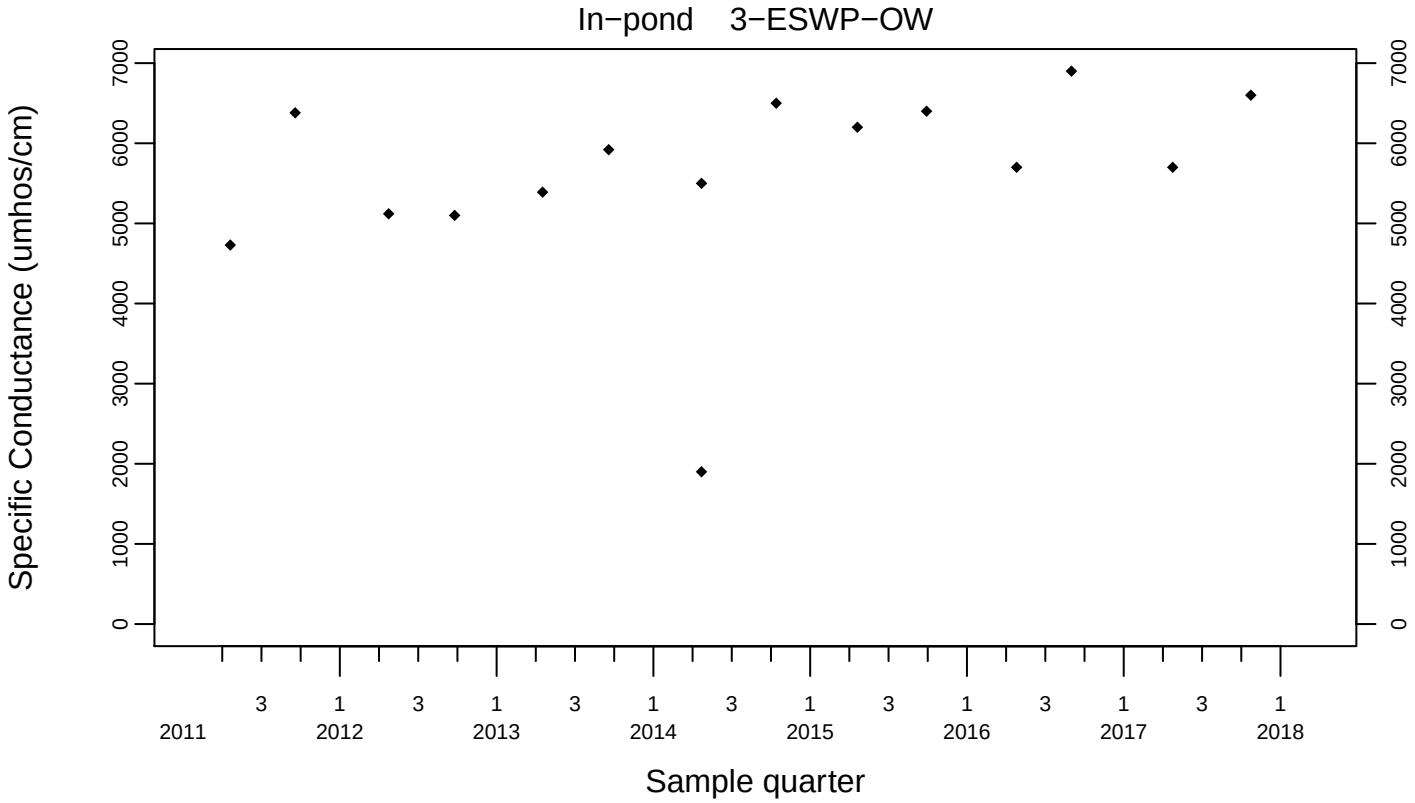
LAB	LAB_LOC_NAME	REQUESTED ANALYSIS	#	TYPE	SAMPLER_REMARKS
BB	W-7DS	E300.0:NO3	1	250 ml P	
BB	W-7DS	E624MOD	3	40 mL V	
BB	W-7DS	SM2510B	1	250 ml P	
BB	W-7DS	SM4500PH	1	250 ml P	
~~AA~~	~~W-7DS~~	~~SM9221~~	~~1~~	~~250 ml P~~	

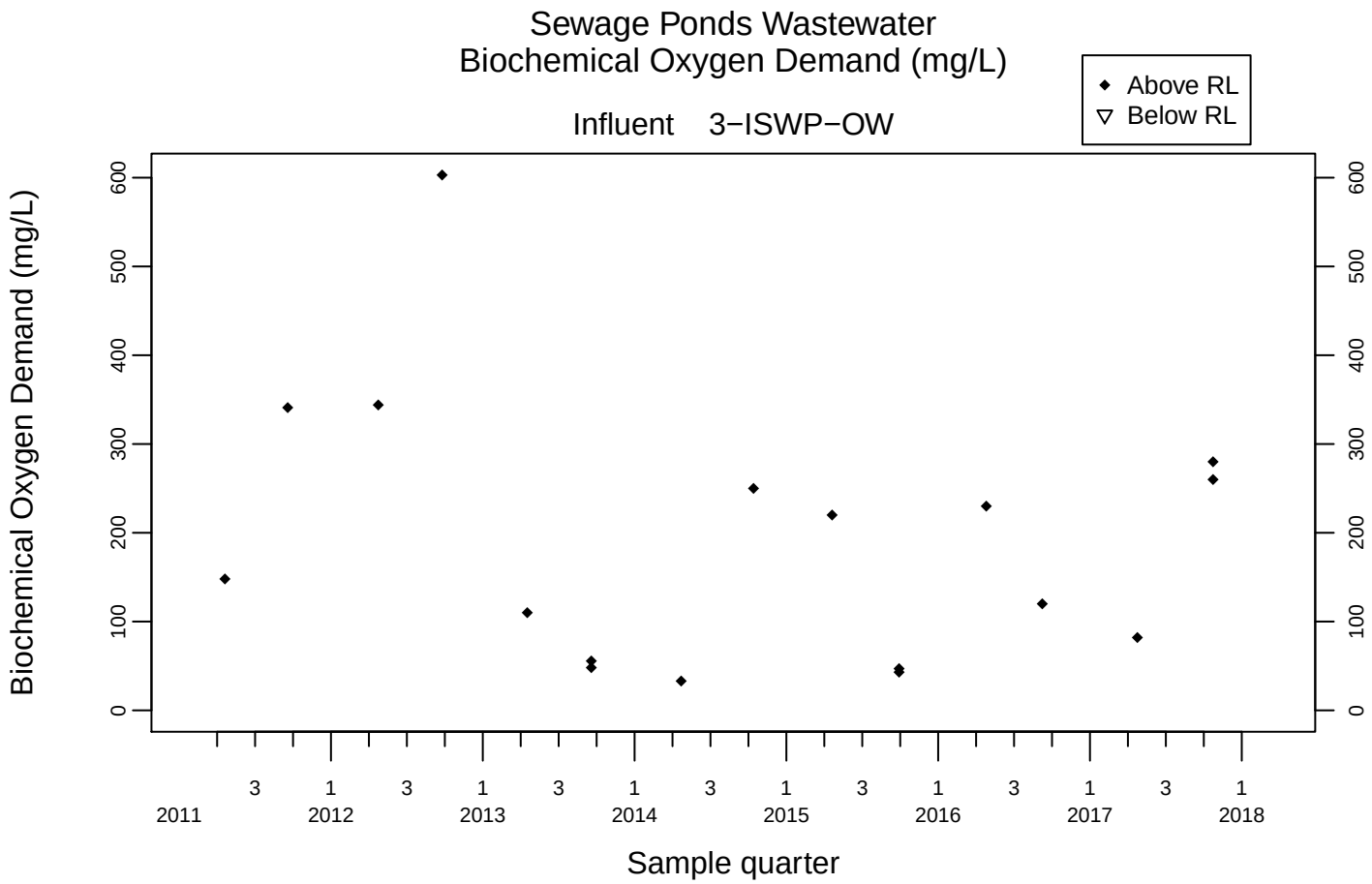
Added 02 of CC

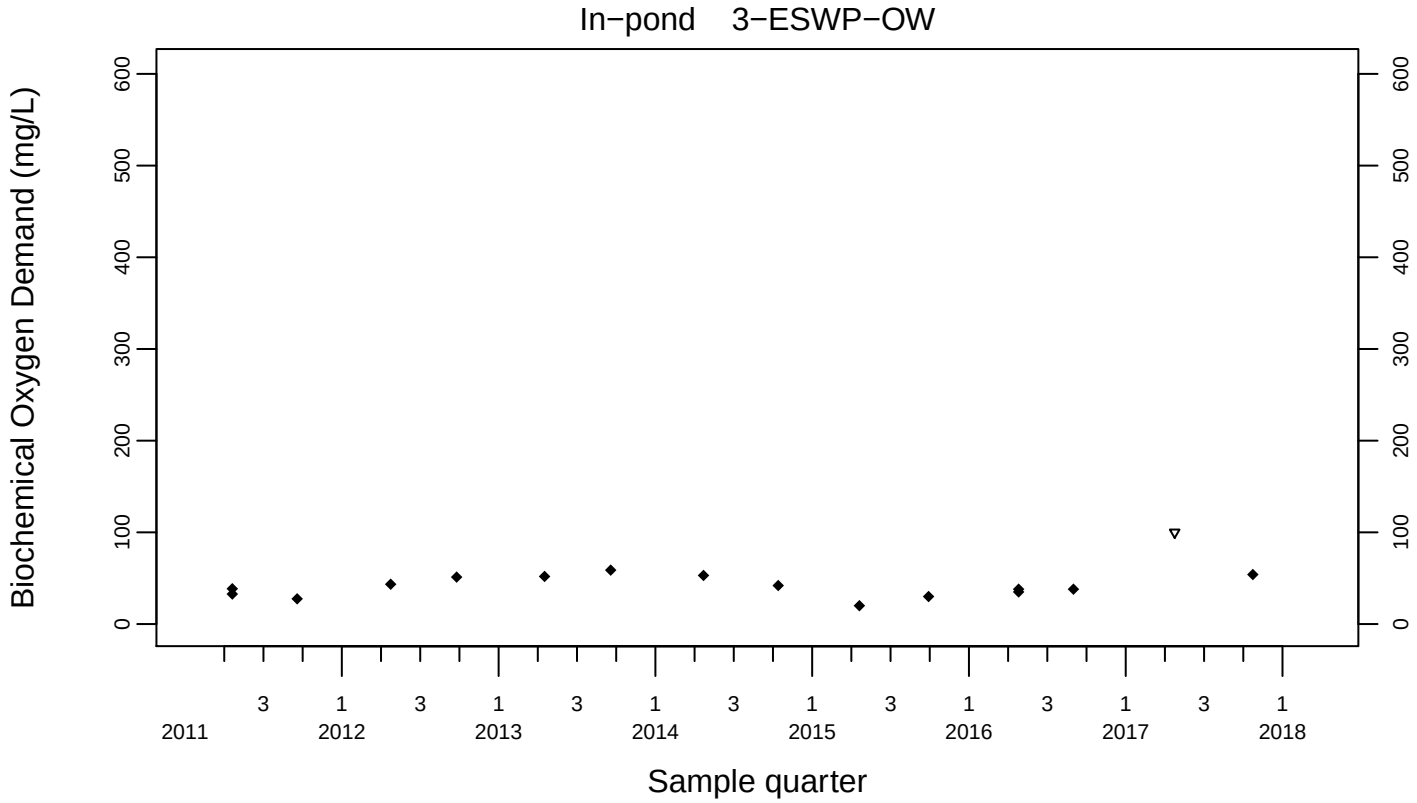

Sewage Ponds Wastewater
pH (Units)
SL=10
Above RL
Below RL
Influent 3−ISWP−OW
SL
pH (Units)
10.0
9.5
9.0
8.5
8.0
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

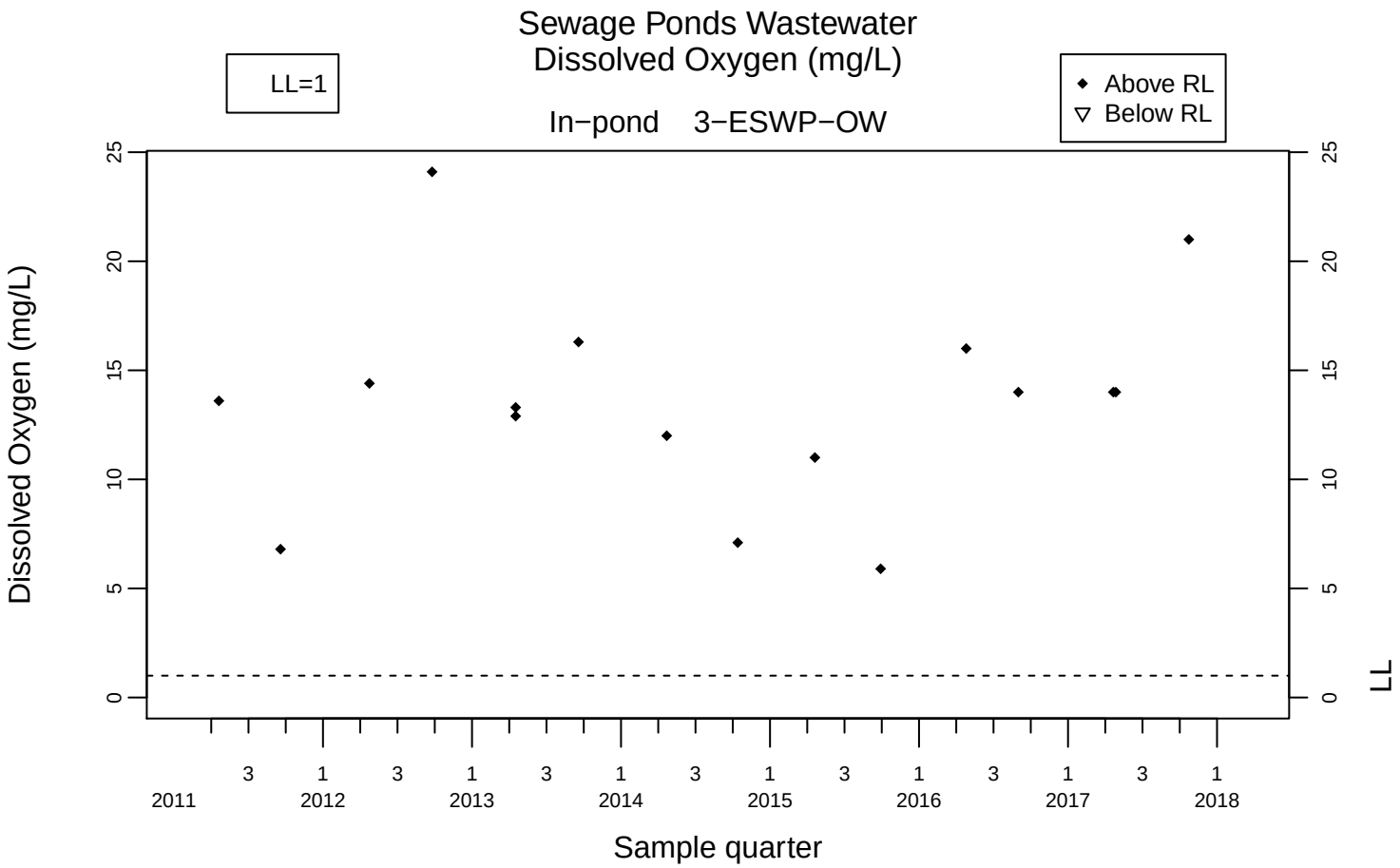

In−pond 3−ESWP−OW
pH (Units)
10.0
9.5
9.0
8.5
8.0
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

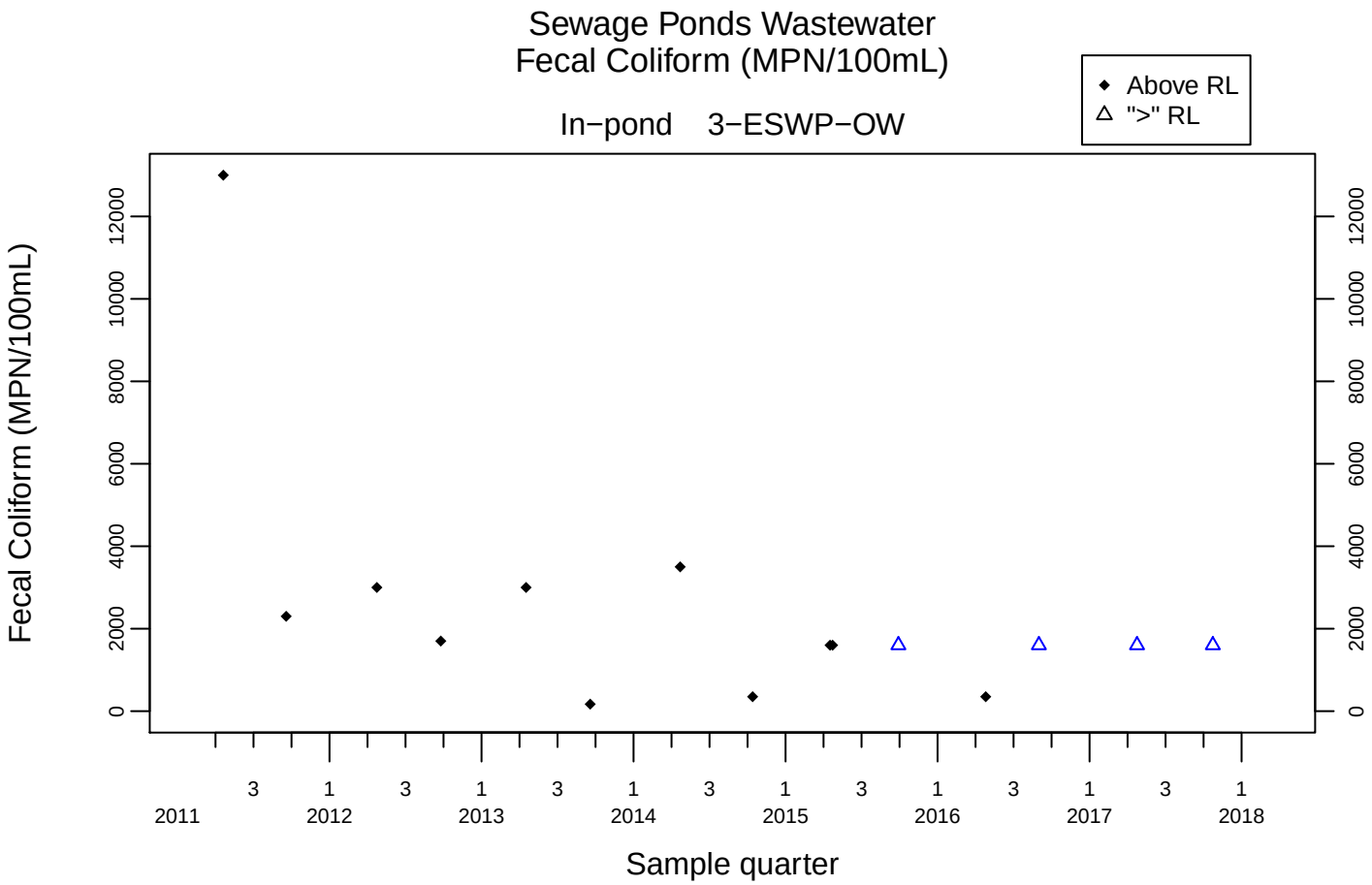

Sewage Ponds Wastewater
Specific Conductance (umhos/cm)
Above RL
Below RL
Influent 3−ISWP−OW
Specific Conductance (umhos/cm)
0
1000
2000
3000
4000
5000
6000
7000
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

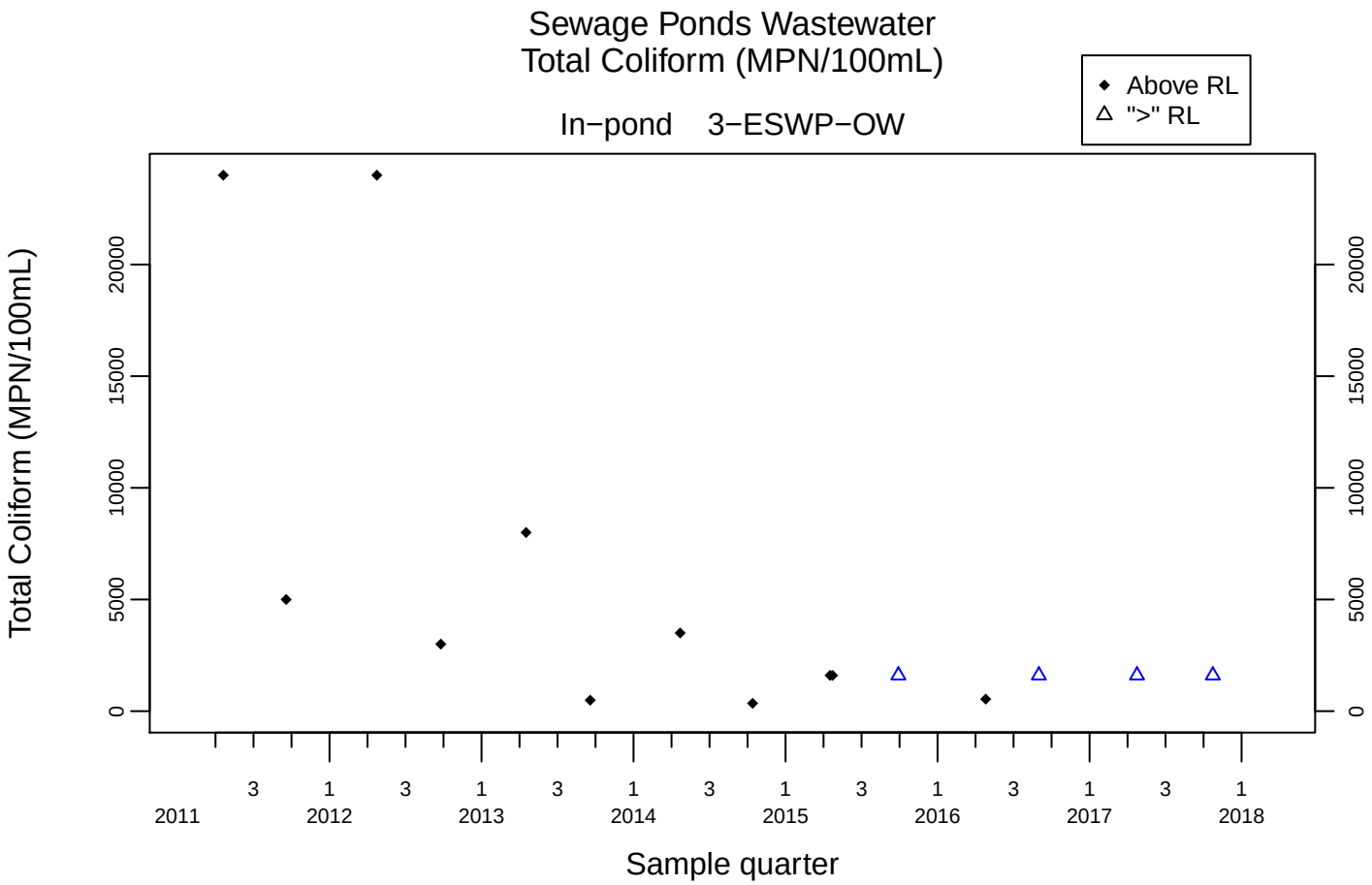

In−pond 3−ESWP−OW
Specific Conductance (umhos/cm)
0
1000
2000
3000
4000
5000
6000
7000
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

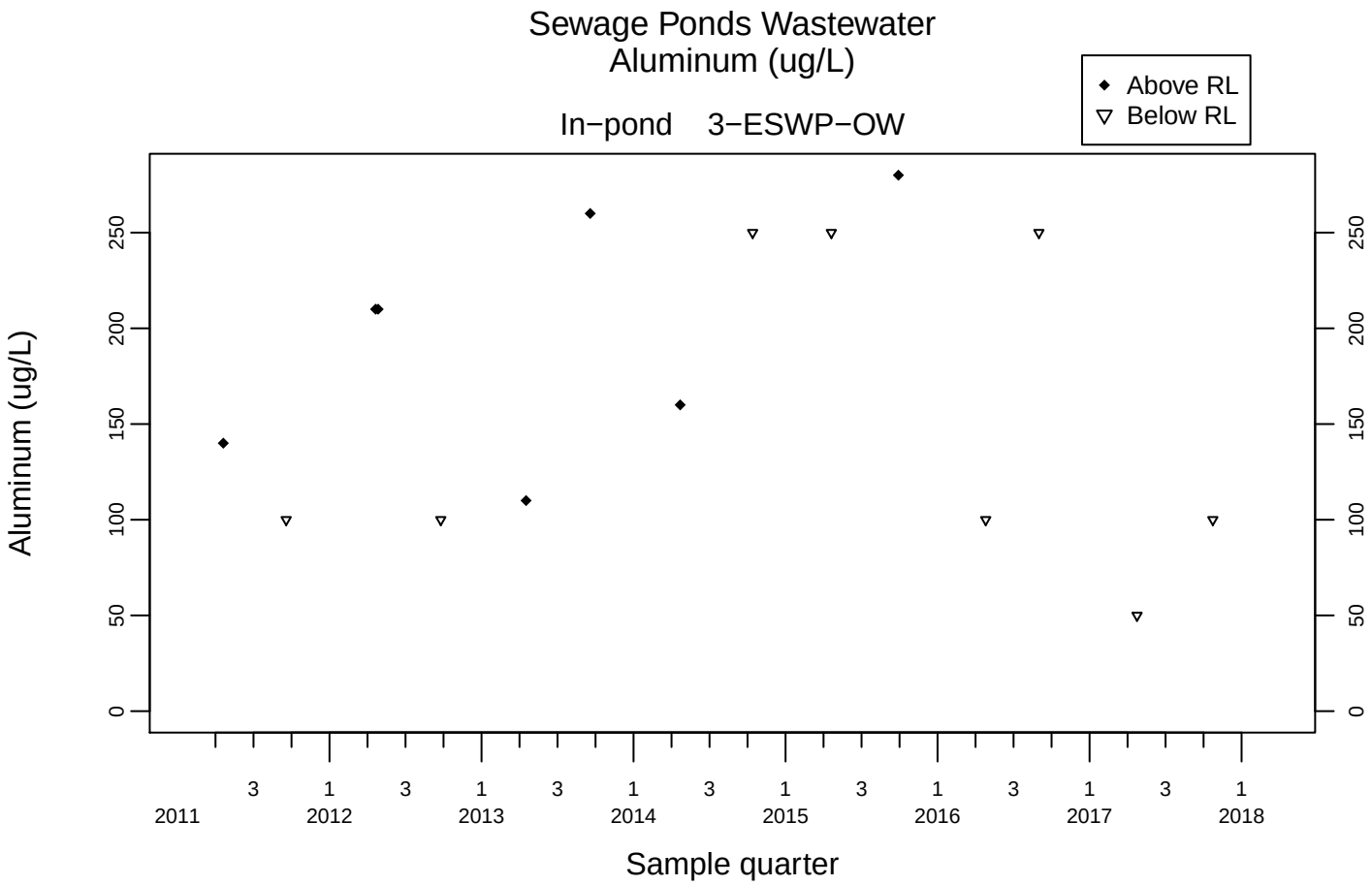

Sewage Ponds Wastewater
Biochemical Oxygen Demand (mg/L)
Influent 3−ISWP−OW
Above RL
Below RL
Biochemical Oxygen Demand (mg/L)
0
100
200
300
400
500
600
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

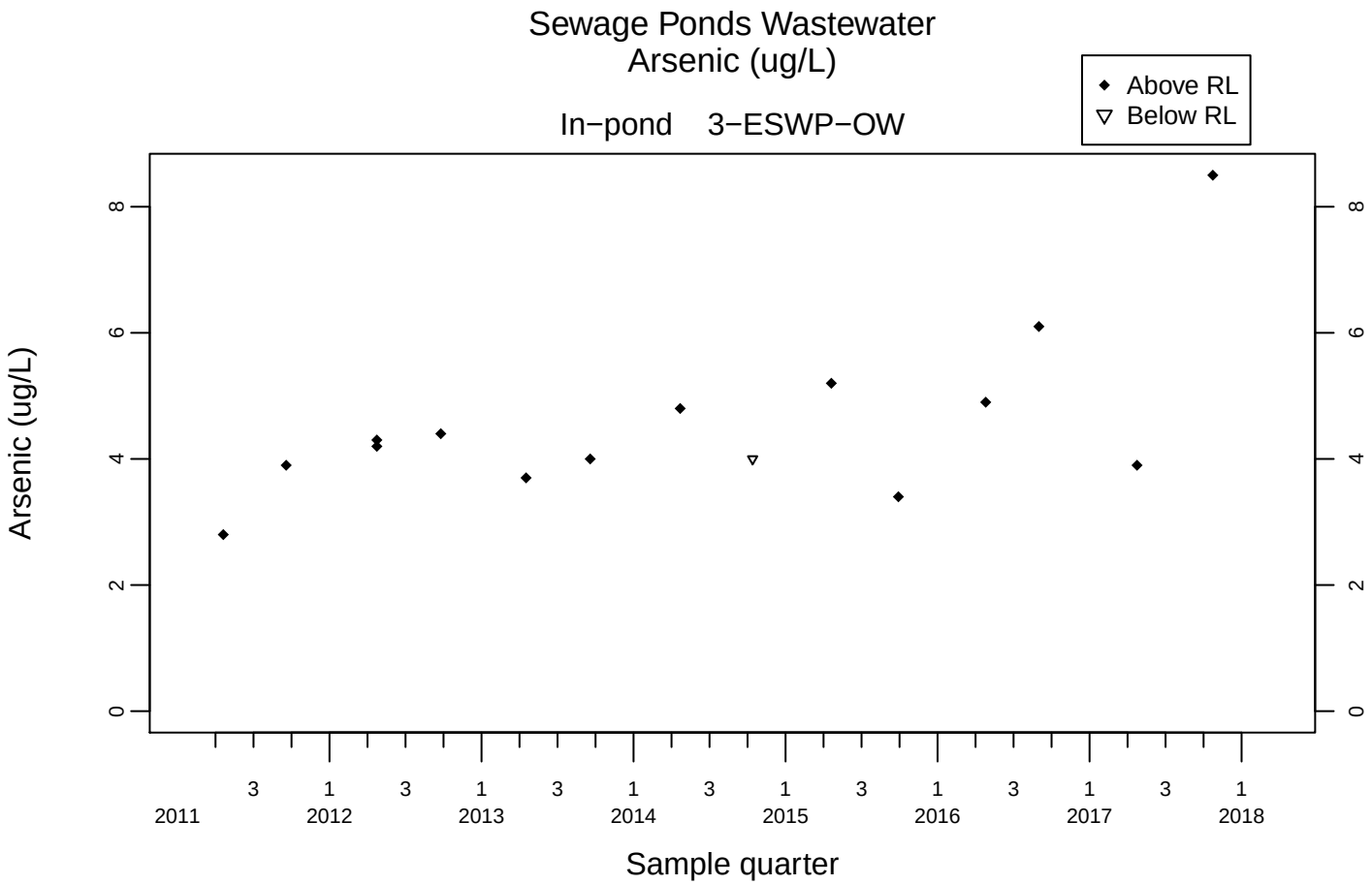

In−pond 3−ESWP−OW
Biochemical Oxygen Demand (mg/L)
0
100
200
300
400
500
600
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

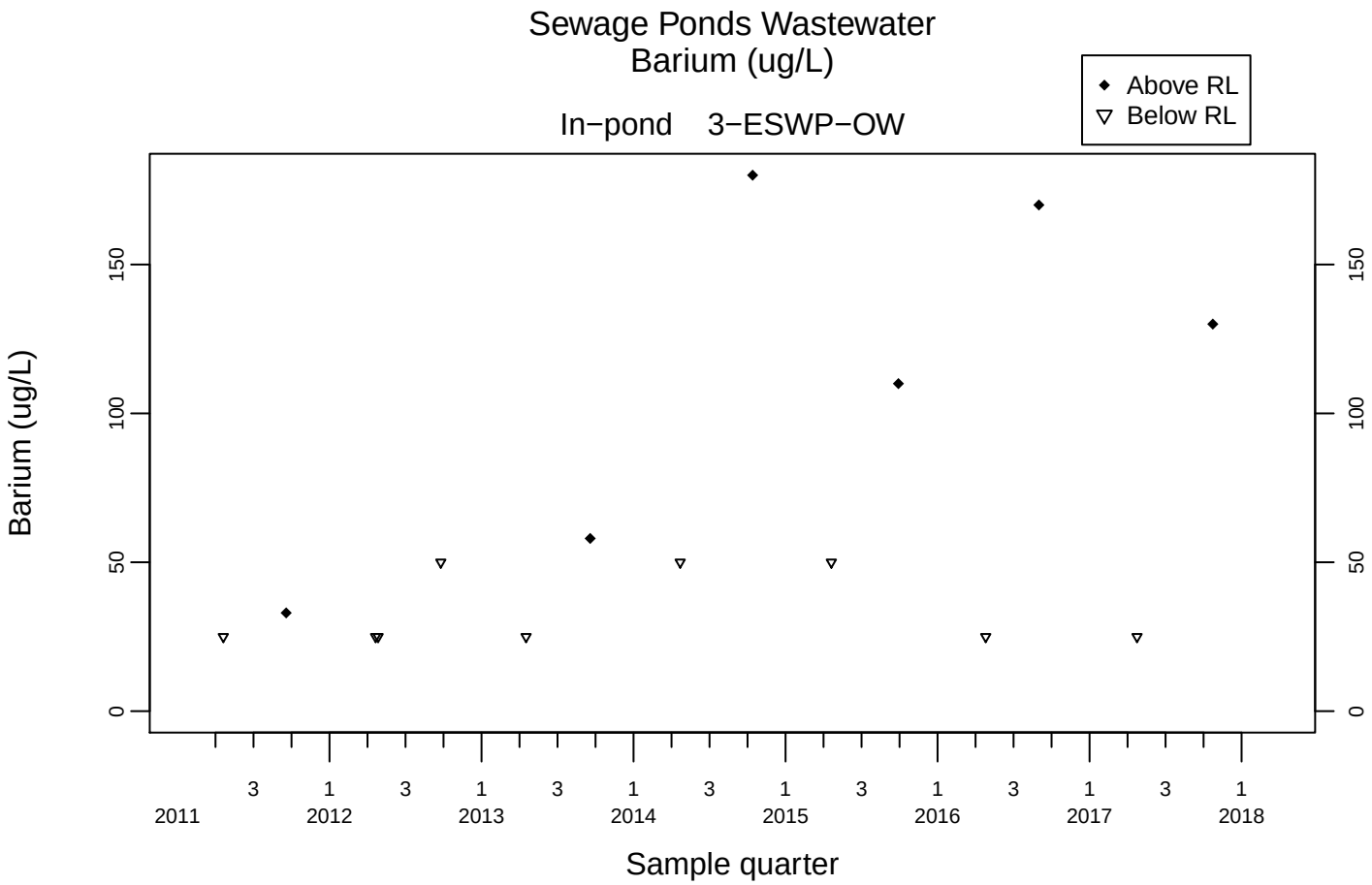

Sewage Ponds Wastewater
Dissolved Oxygen (mg/L)
In−pond 3−ESWP−OW
LL=1
Above RL
Below RL
Dissolved Oxygen (mg/L)
LL
Sample quarter
0
5
10
15
20
25
3
1
2011
2012
2013
2014
2015
2016
2017
2018

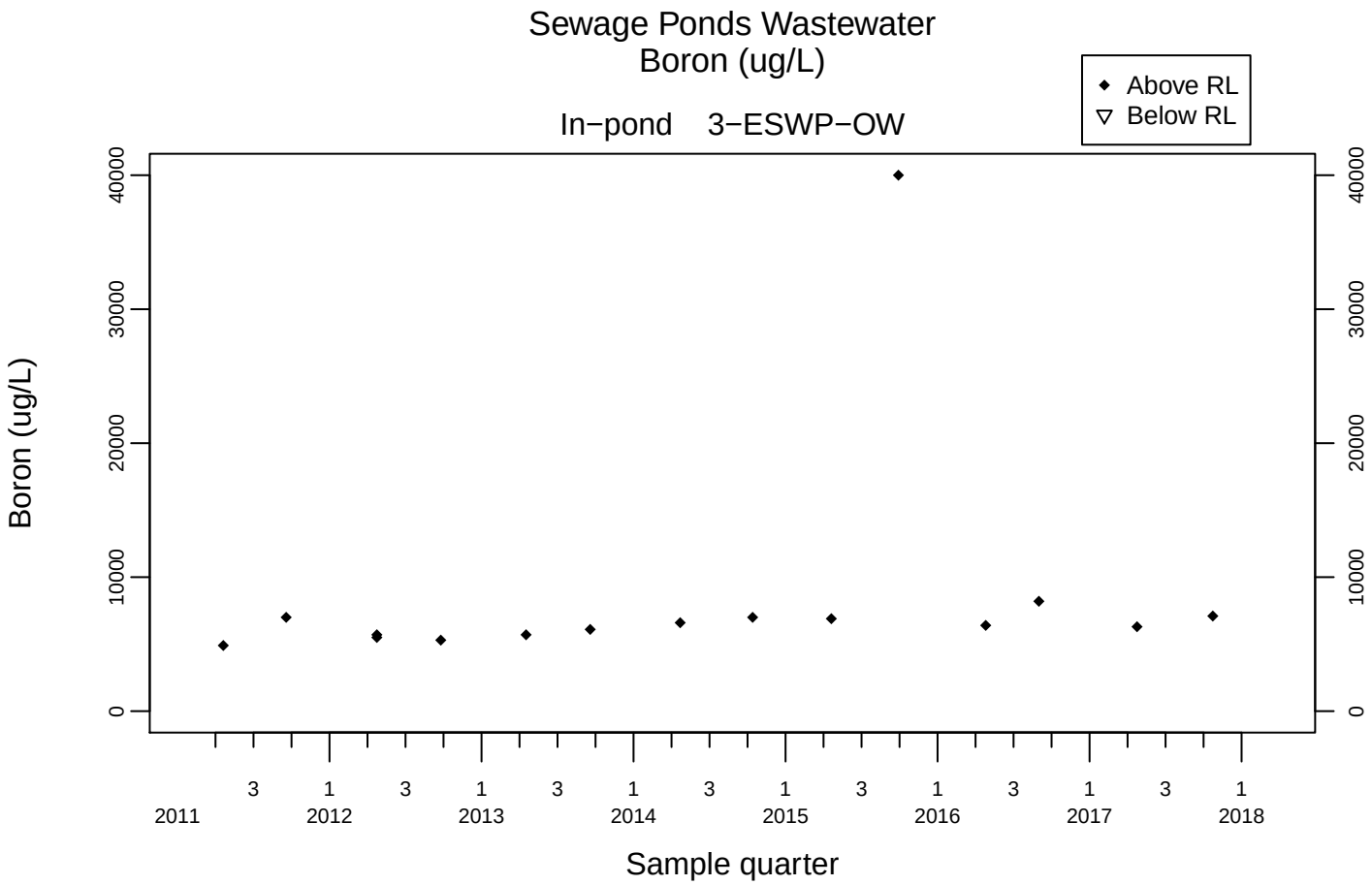

Sewage Ponds Wastewater
Fecal Coliform (MPN/100mL)
In−pond 3−ESWP−OW
Above RL
">" RL
Fecal Coliform (MPN/100mL)
0
2000
4000
6000
8000
10000
12000
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

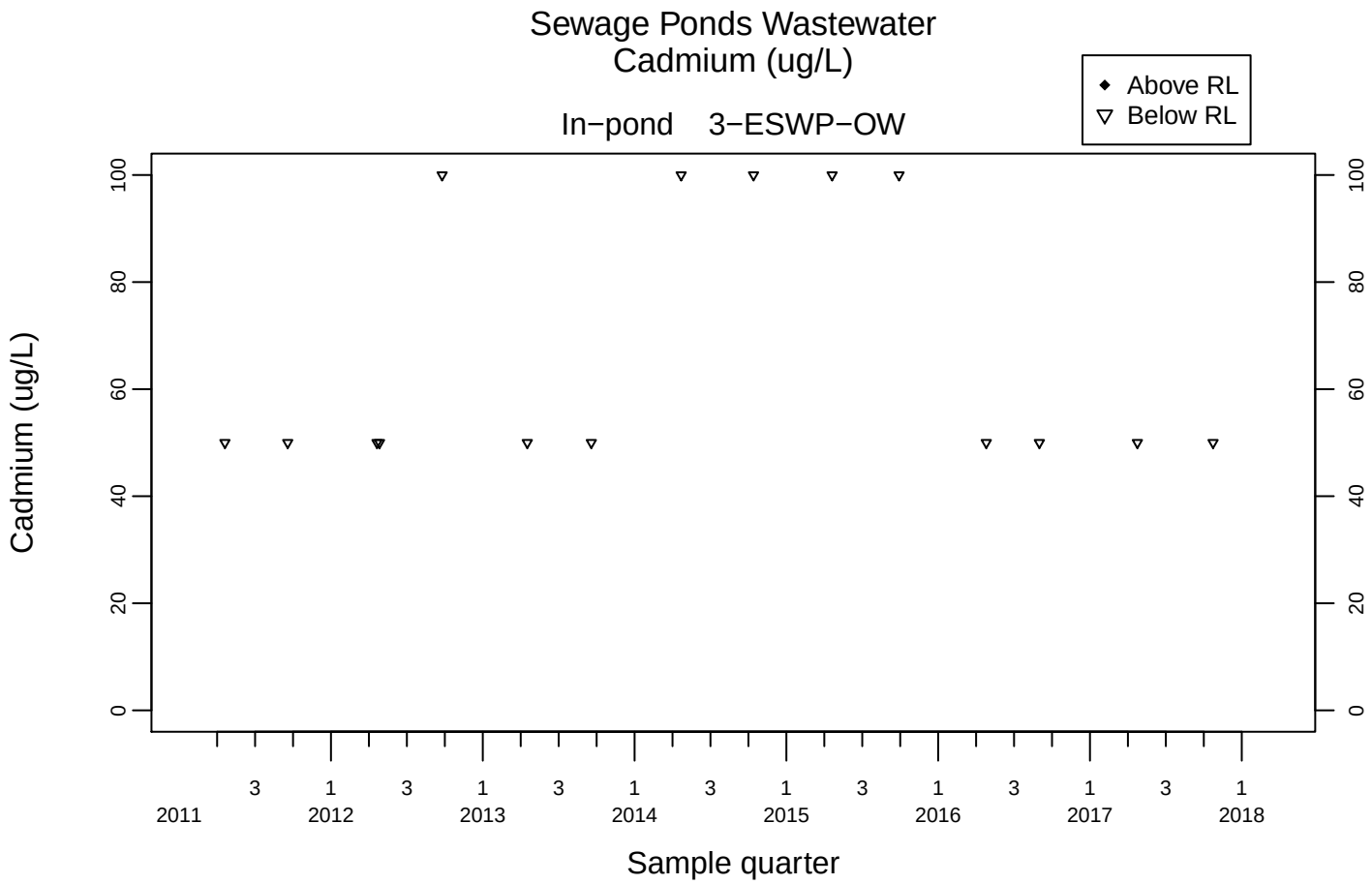

Sewage Ponds Wastewater
Total Coliform (MPN/100mL)
In−pond 3−ESWP−OW
Above RL
">" RL
Total Coliform (MPN/100mL)
0
5000
10000
15000
20000
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

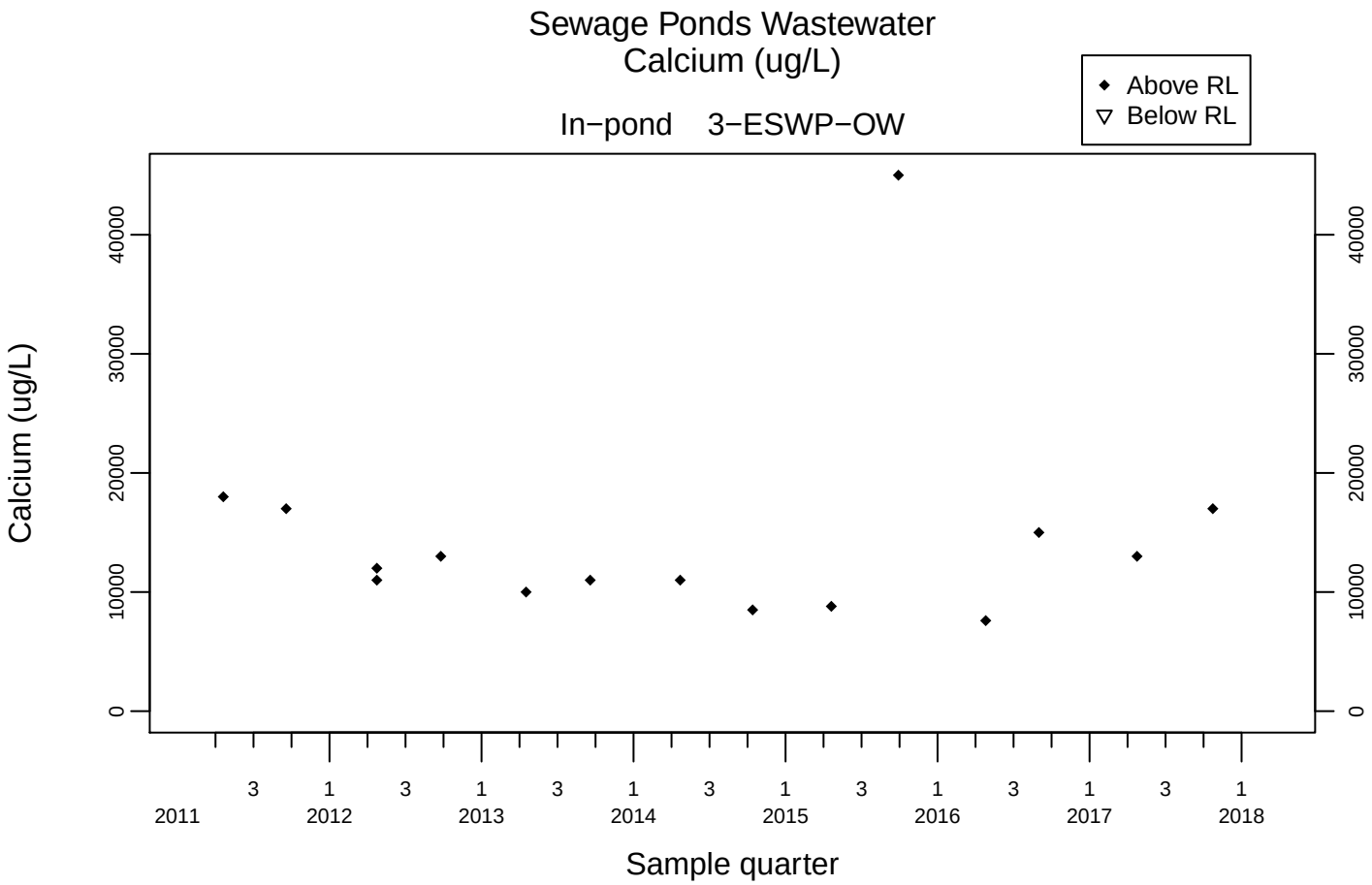

Sewage Ponds Wastewater
Aluminum (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Aluminum (ug/L)
0
50
100
150
200
250
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

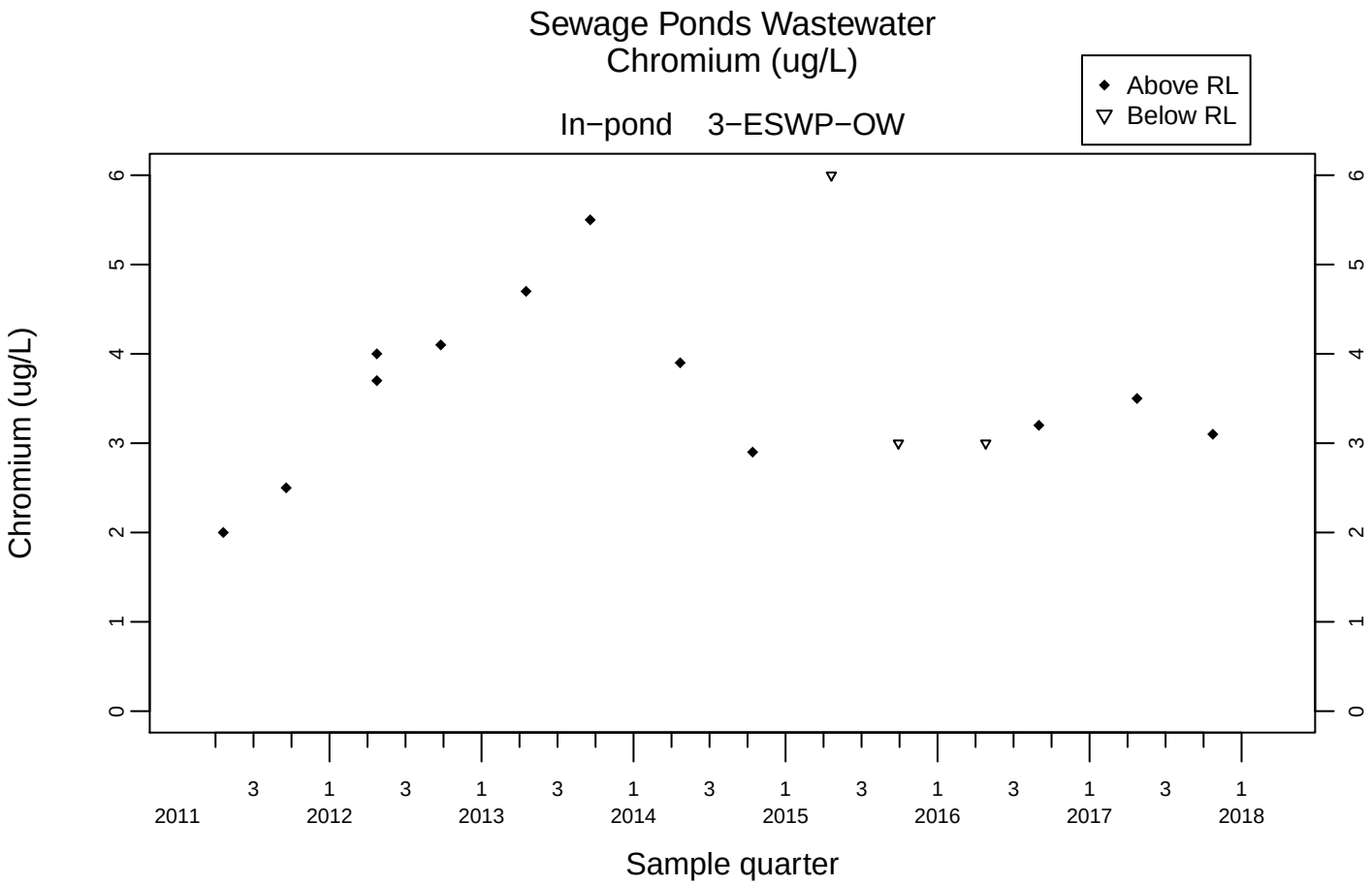

Sewage Ponds Wastewater
Arsenic (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Arsenic (ug/L)
0
2
4
6
8
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

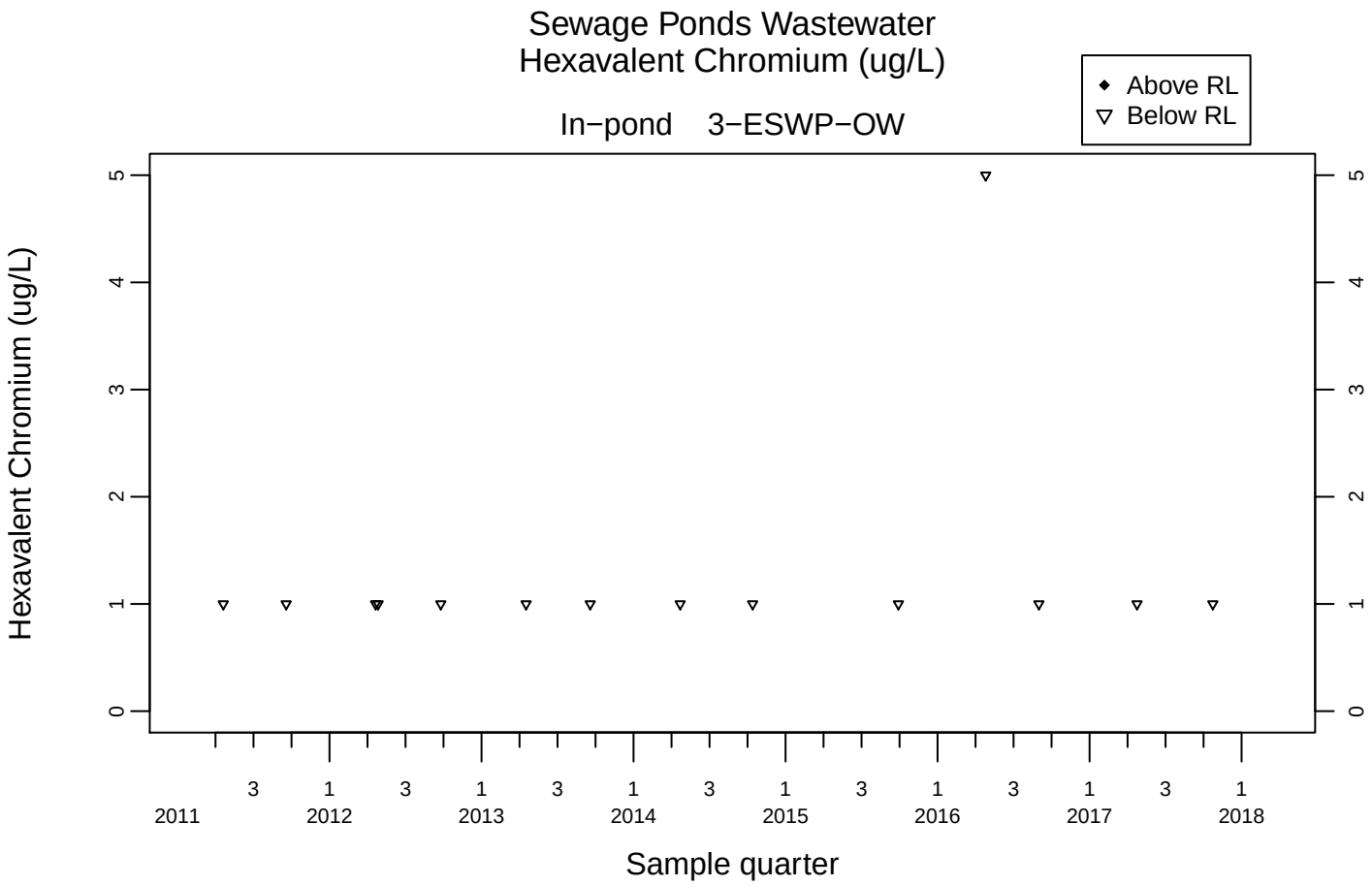

Sewage Ponds Wastewater
Barium (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Barium (ug/L)
0
50
100
150
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

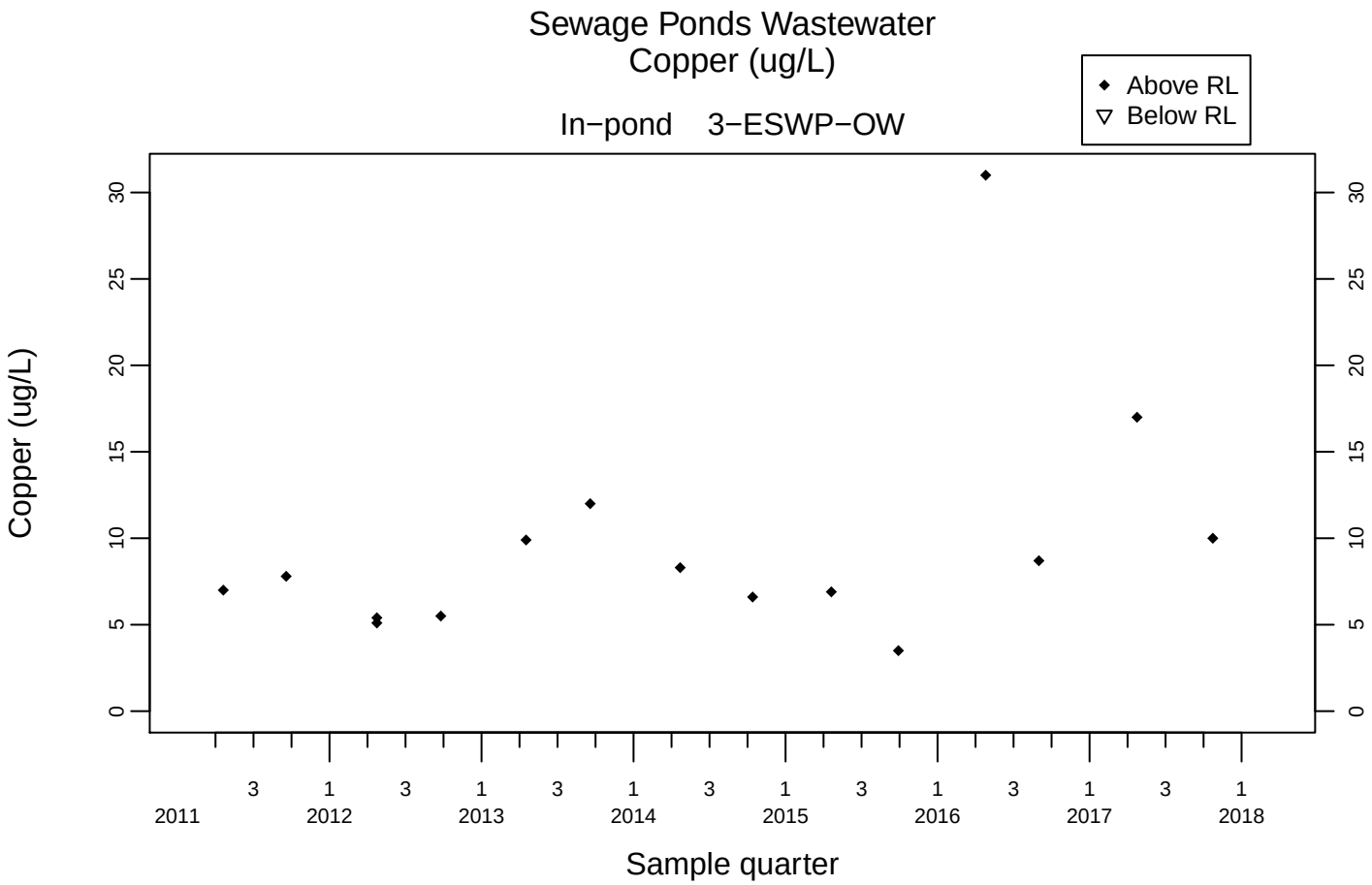

Sewage Ponds Wastewater
Boron (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Boron (ug/L)
0
10000
20000
30000
40000
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

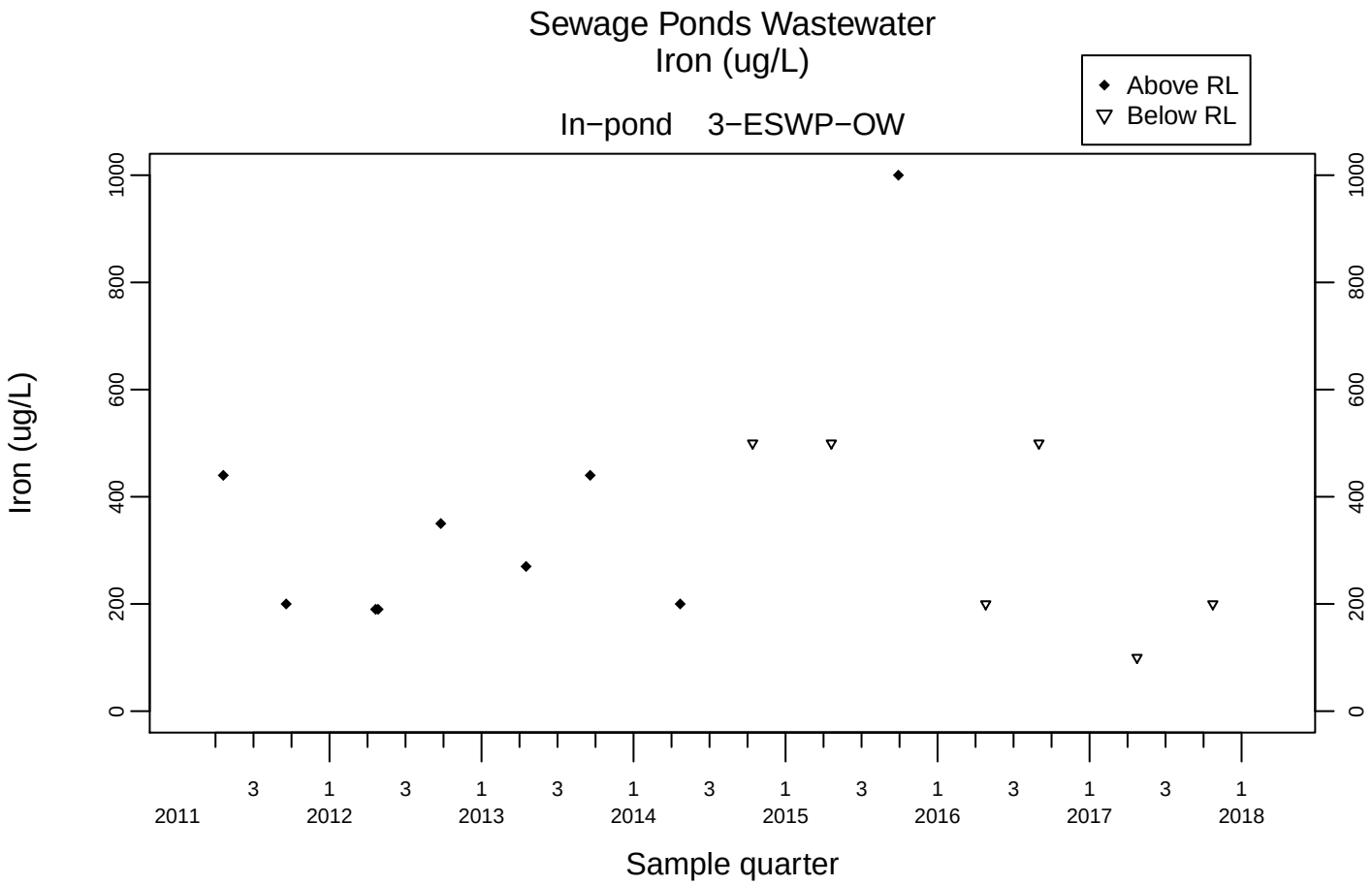

Sewage Ponds Wastewater
Cadmium (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Cadmium (ug/L)
0
20
40
60
80
100
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

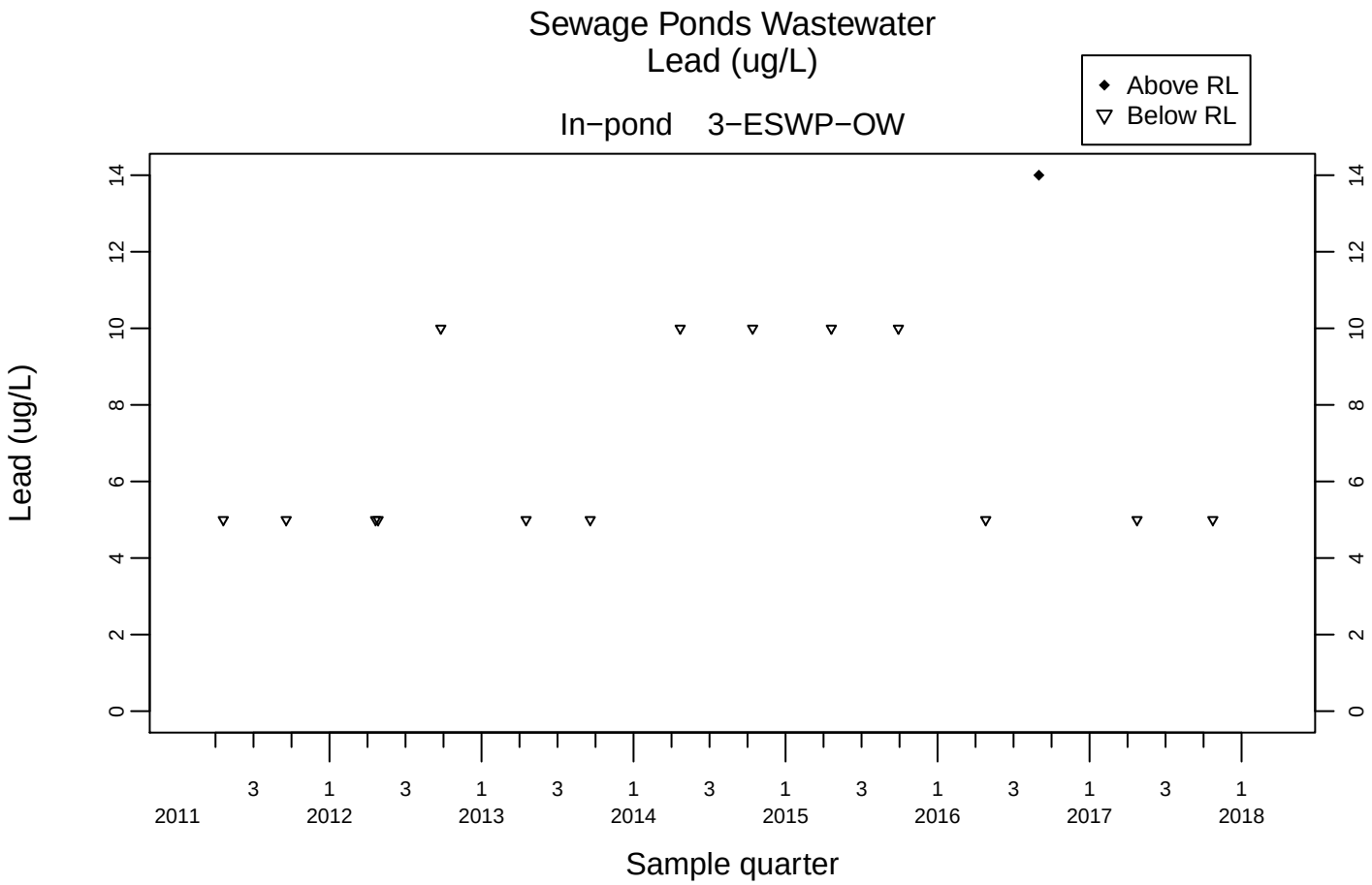

Sewage Ponds Wastewater
Calcium (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Calcium (ug/L)
0
10000
20000
30000
40000
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

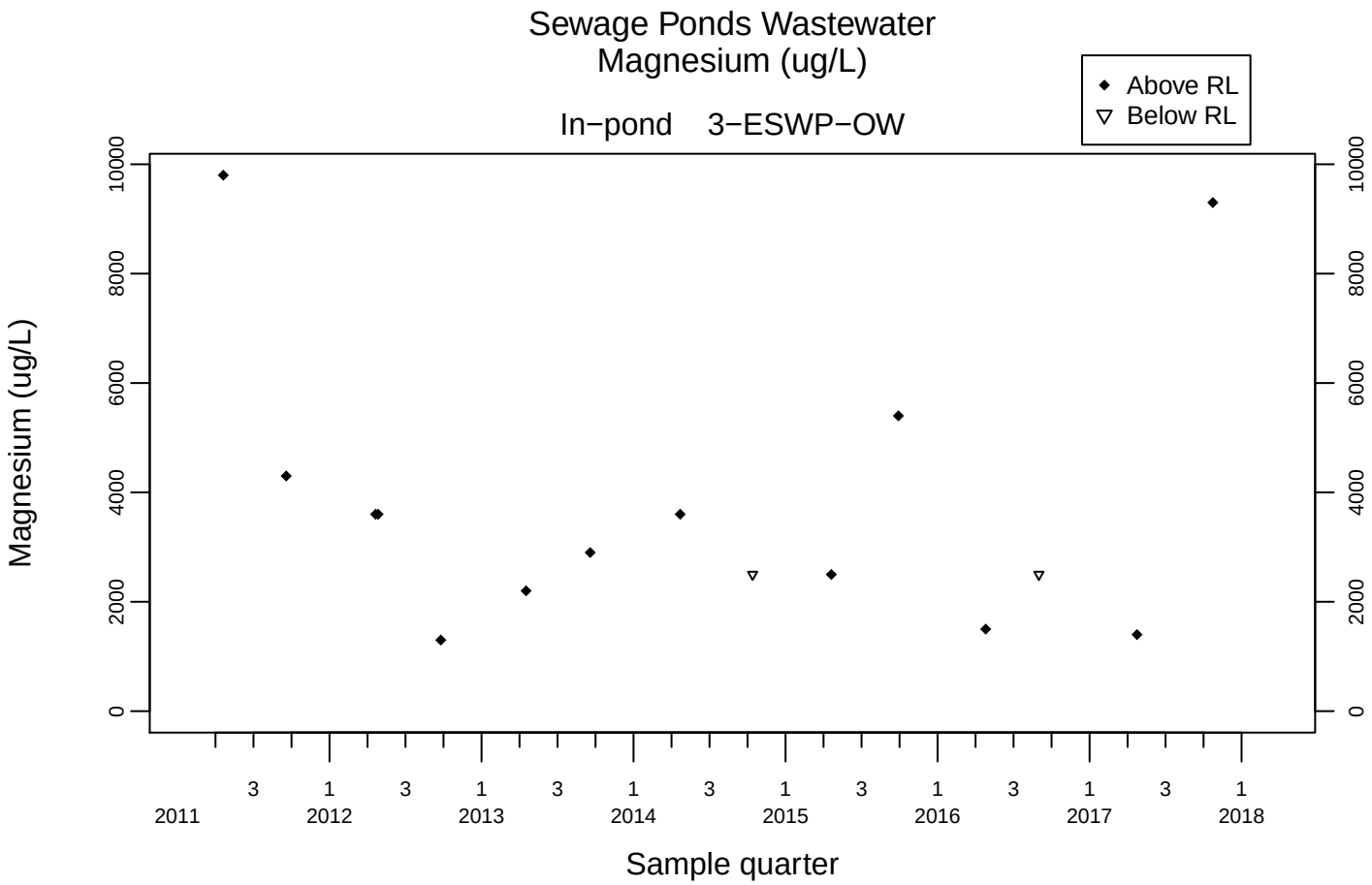

Sewage Ponds Wastewater
Chromium (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Chromium (ug/L)
0
1
2
3
4
5
6
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

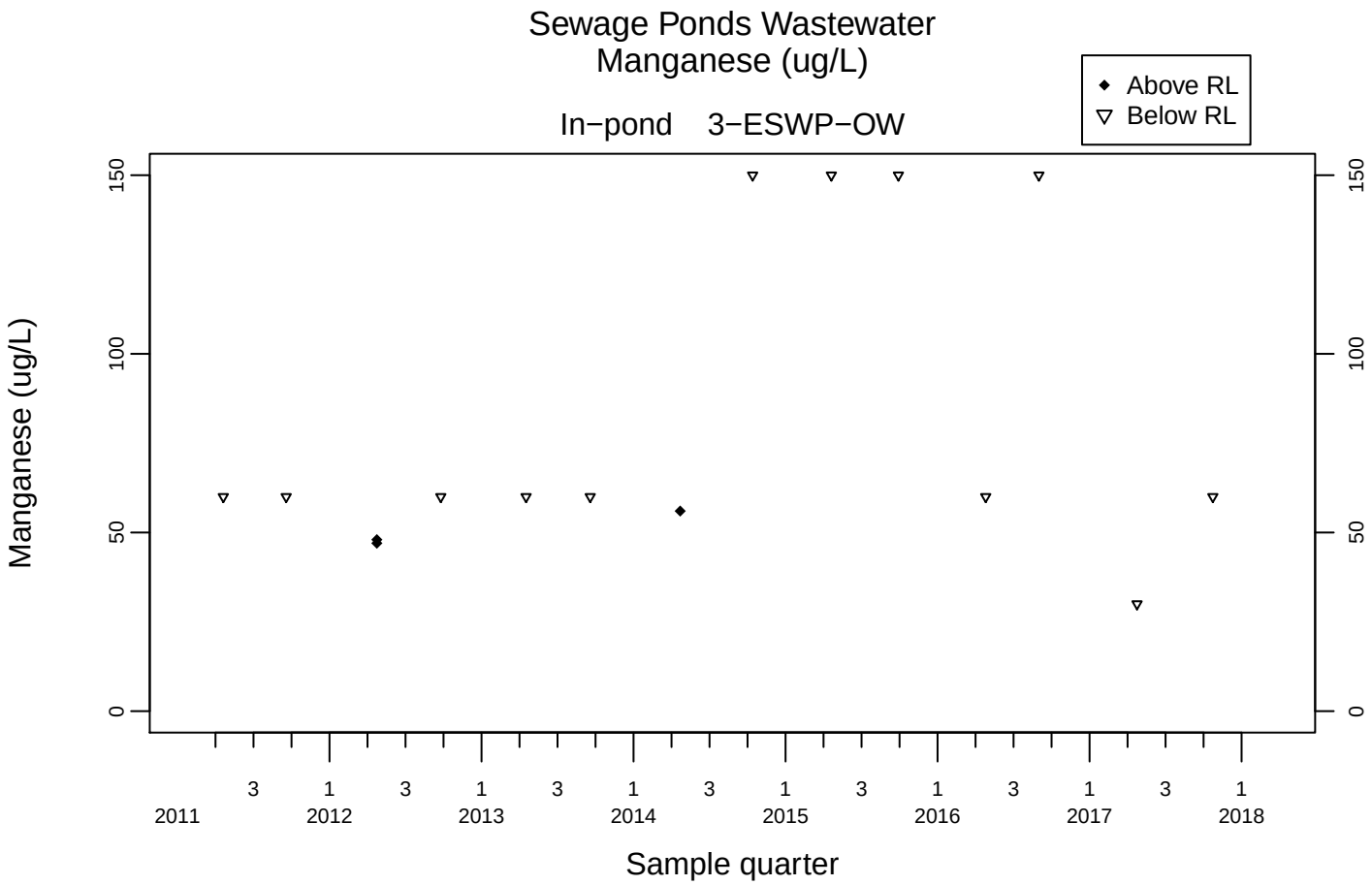

Sewage Ponds Wastewater
Hexavalent Chromium (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Hexavalent Chromium (ug/L)
0
1
2
3
4
5
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

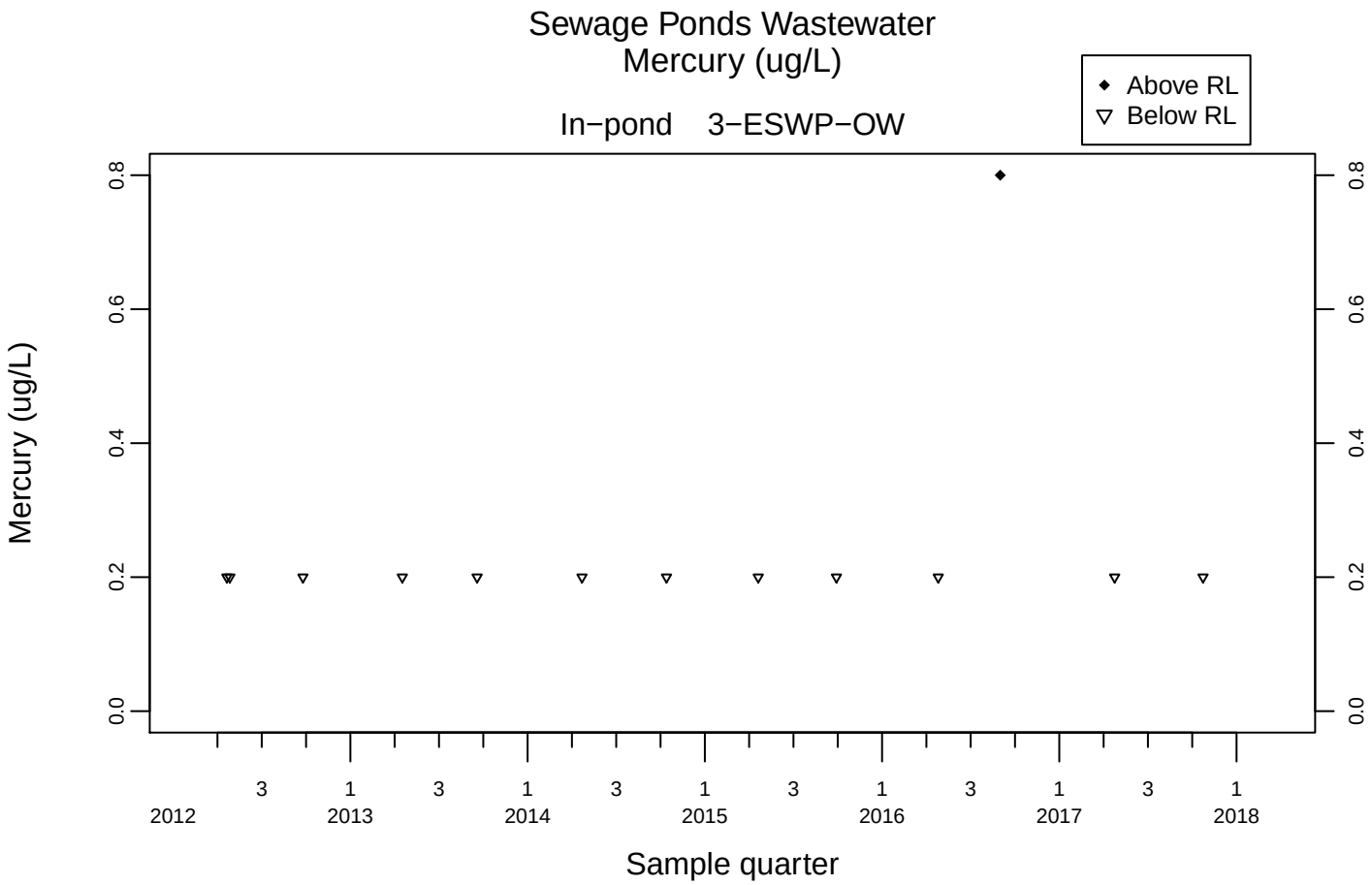

Sewage Ponds Wastewater
Copper (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Copper (ug/L)
0
5
10
15
20
25
30
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

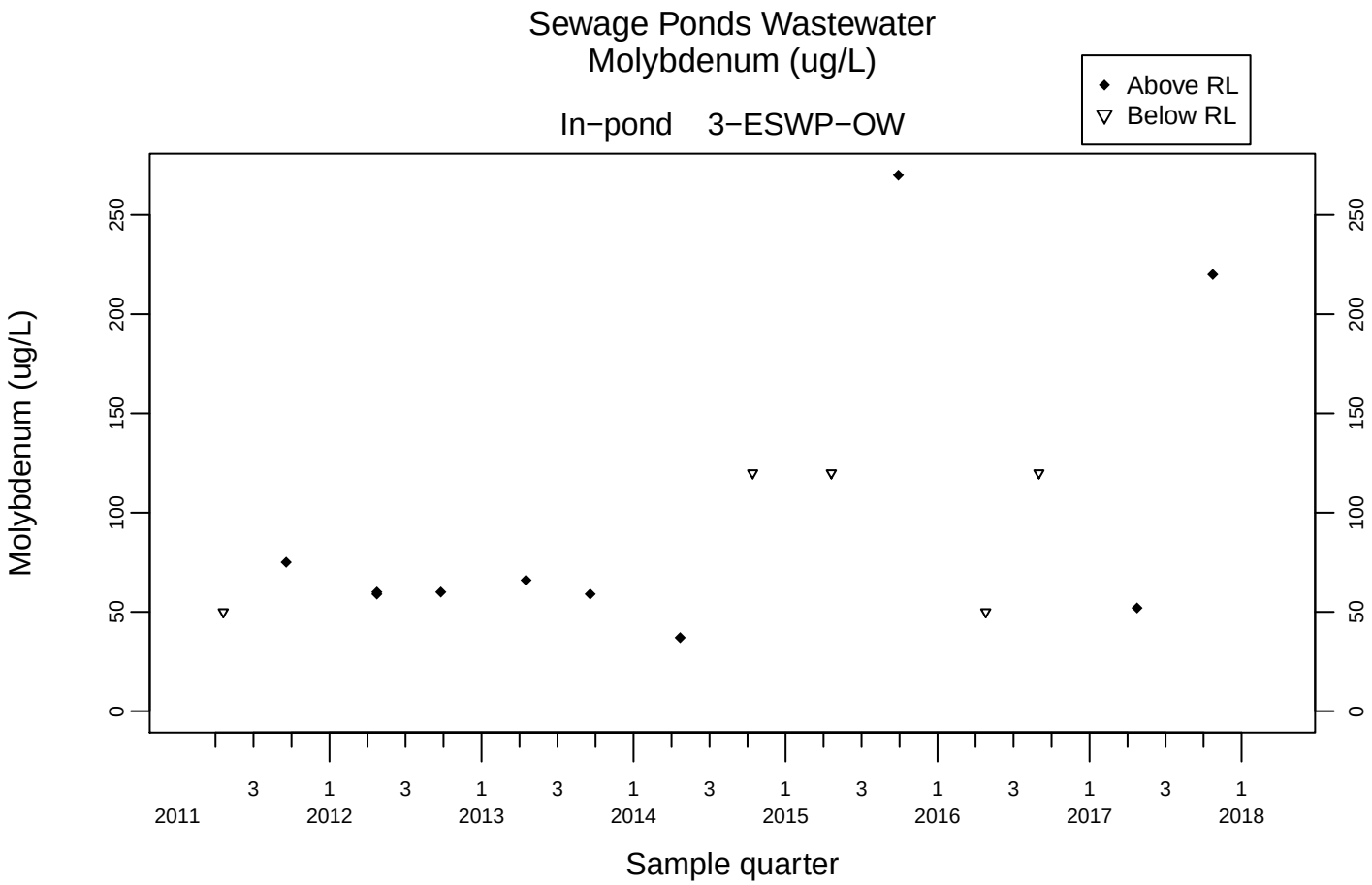

Sewage Ponds Wastewater
Iron (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Iron (ug/L)
0
200
400
600
800
1000
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

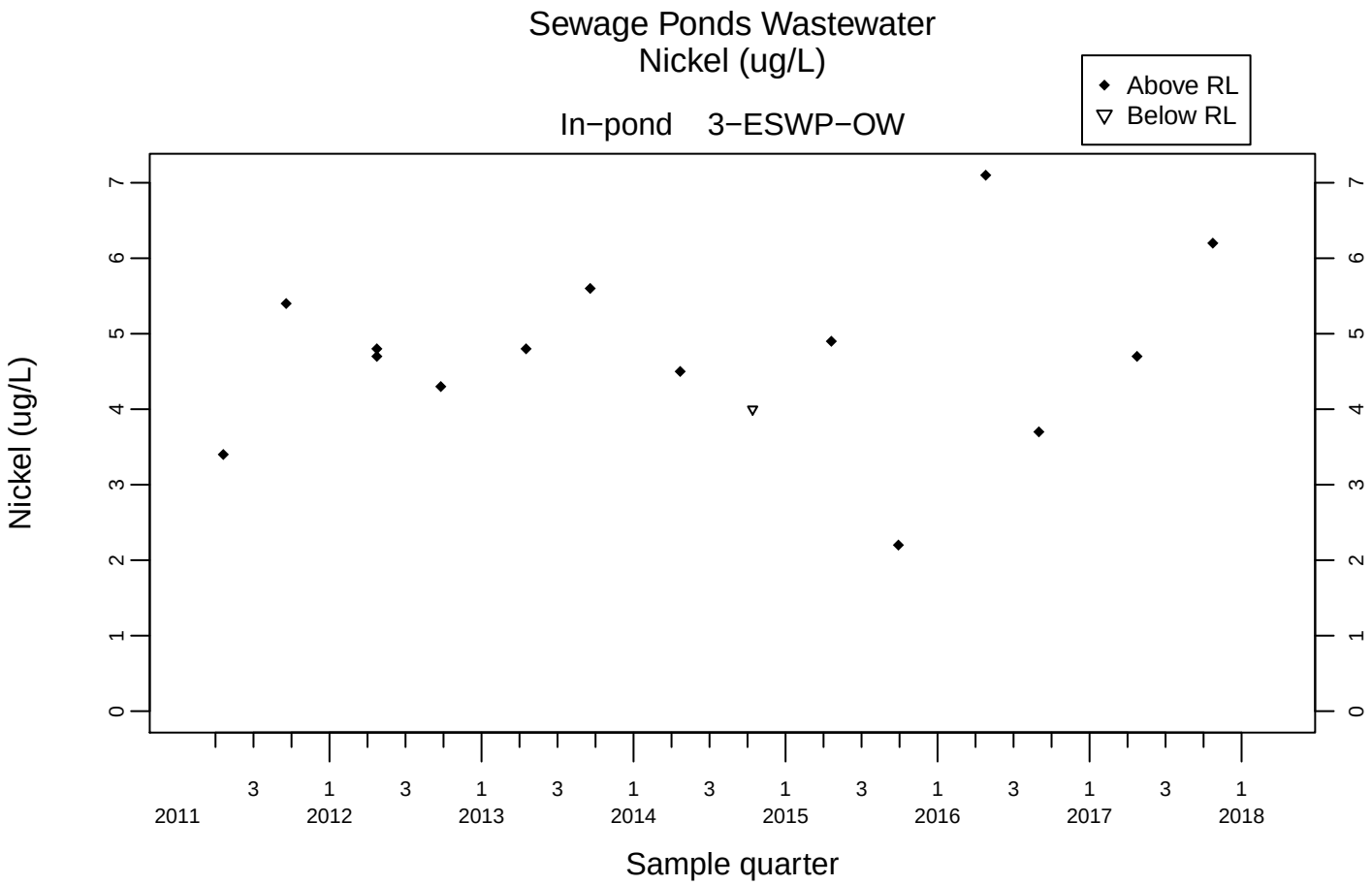

Sewage Ponds Wastewater
Lead (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Lead (ug/L)
0
2
4
6
8
10
12
14
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

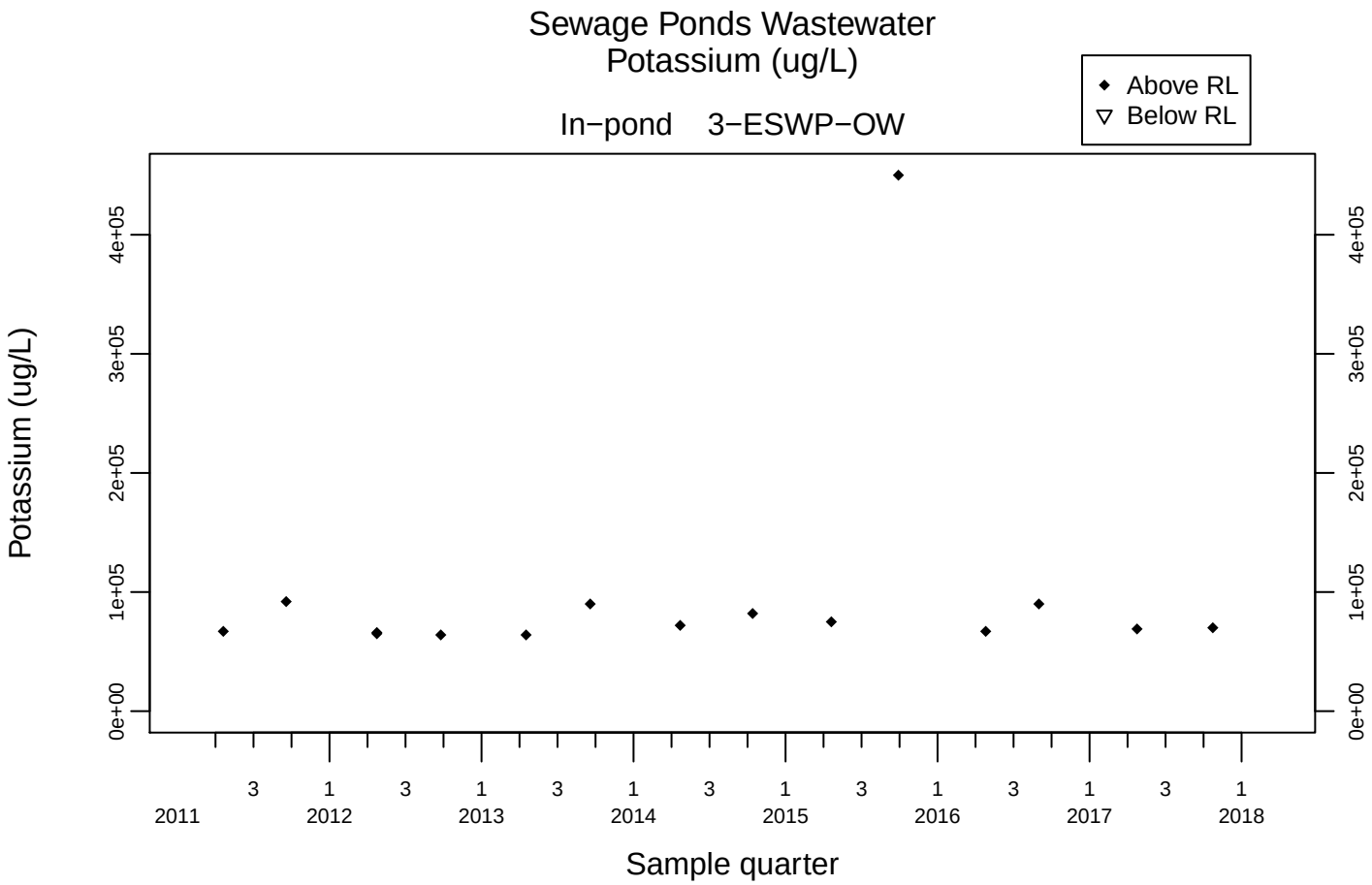

Sewage Ponds Wastewater
Magnesium (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Magnesium (ug/L)
0
2000
4000
6000
8000
10000
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

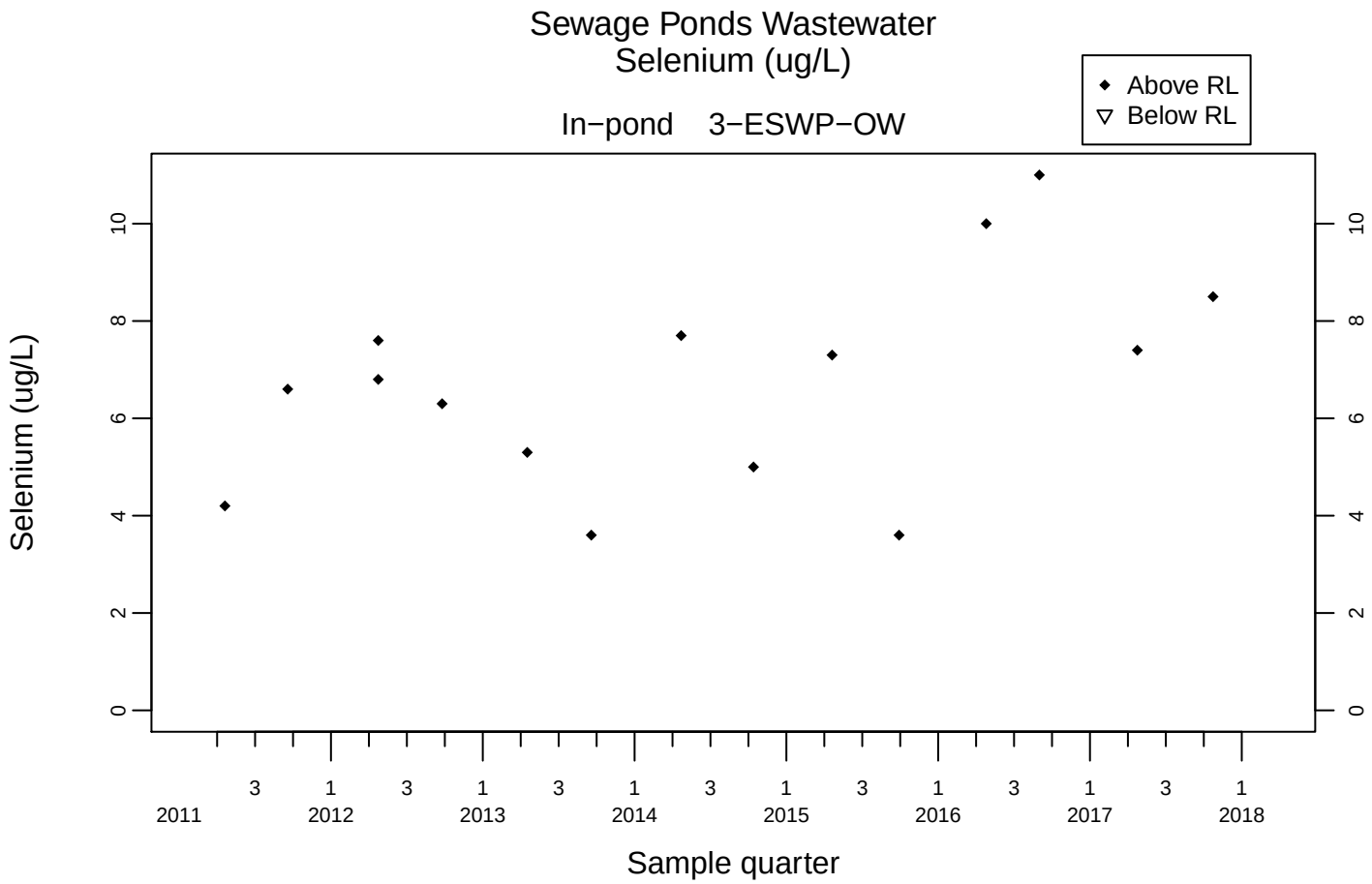

Sewage Ponds Wastewater
Manganese (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Manganese (ug/L)
0
50
100
150
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

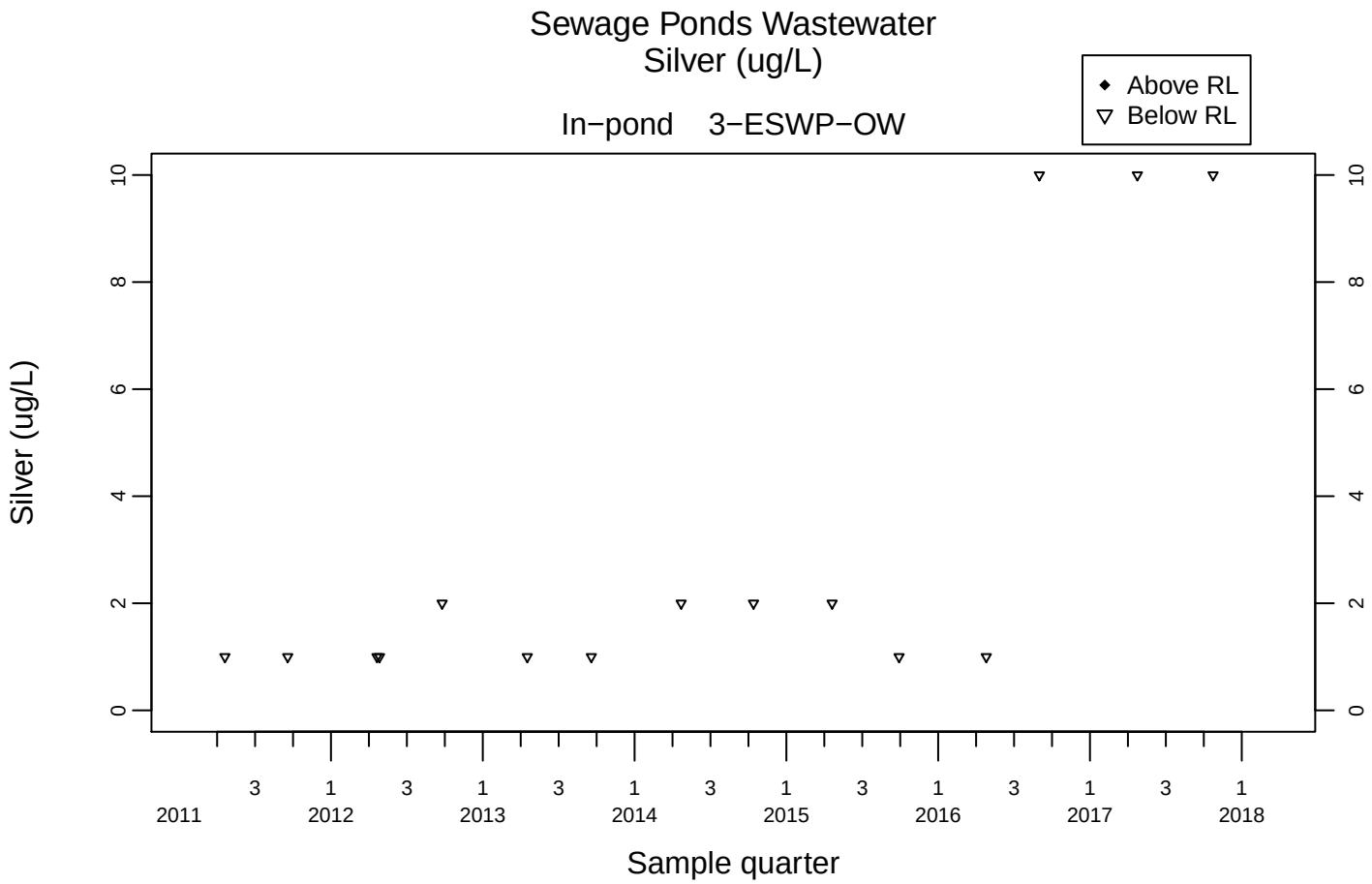

Sewage Ponds Wastewater
Mercury (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Mercury (ug/L)
0.0
0.2
0.4
0.6
0.8
3
1
2012
2013
2014
2015
2016
2017
2018
Sample quarter

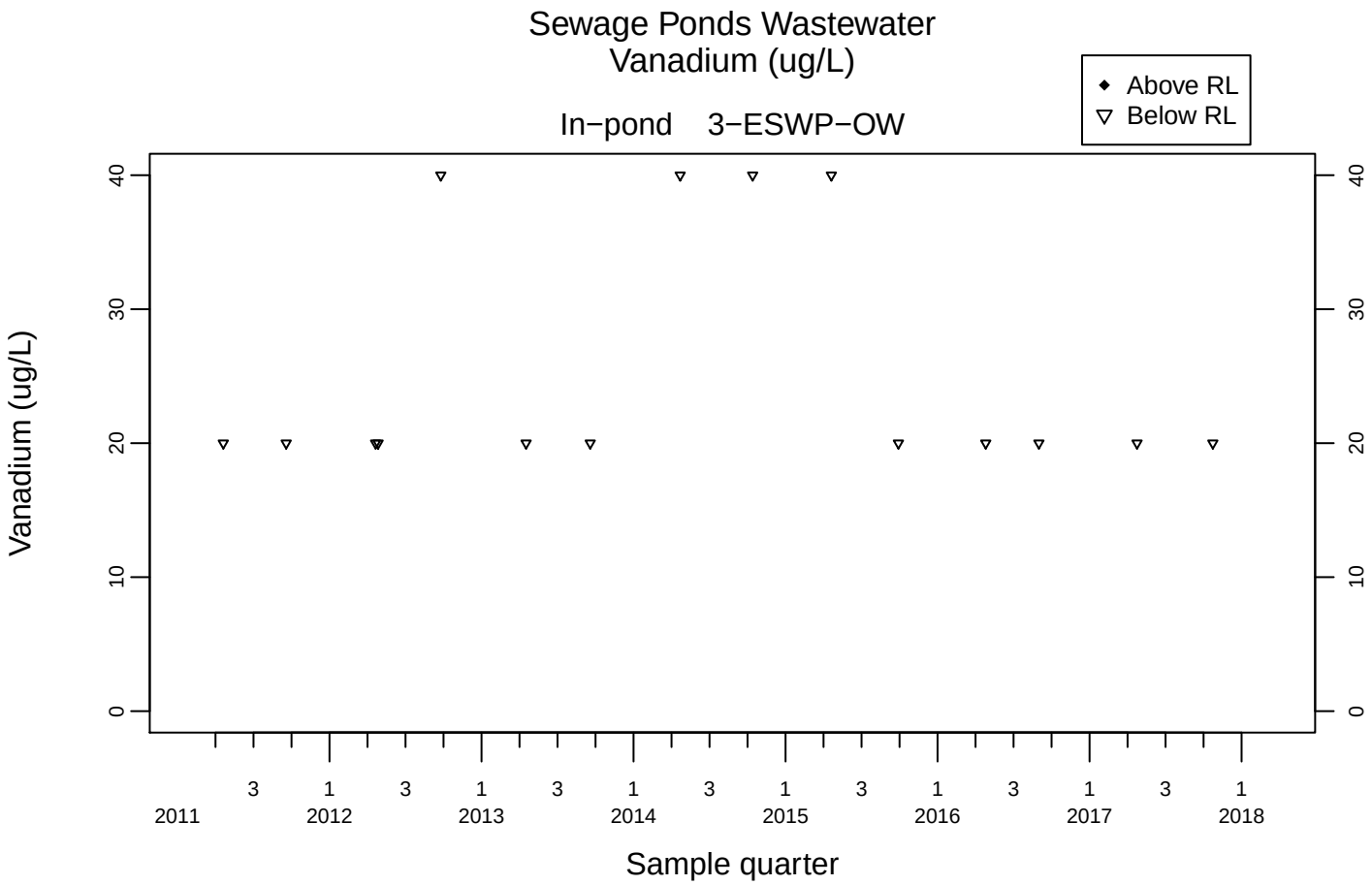

Sewage Ponds Wastewater
Molybdenum (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Molybdenum (ug/L)
0
50
100
150
200
250
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

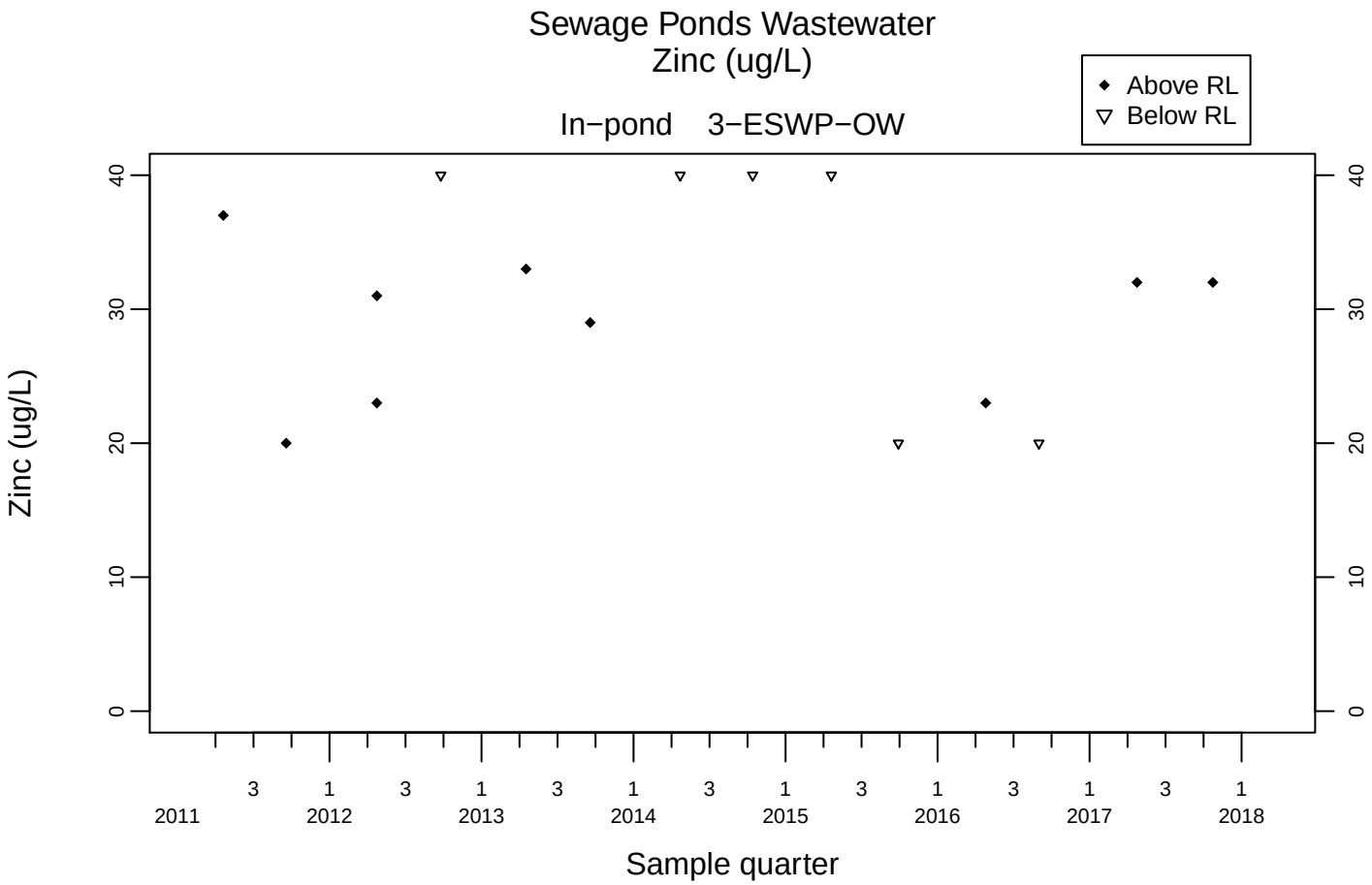

Sewage Ponds Wastewater
Nickel (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Nickel (ug/L)
0
1
2
3
4
5
6
7
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

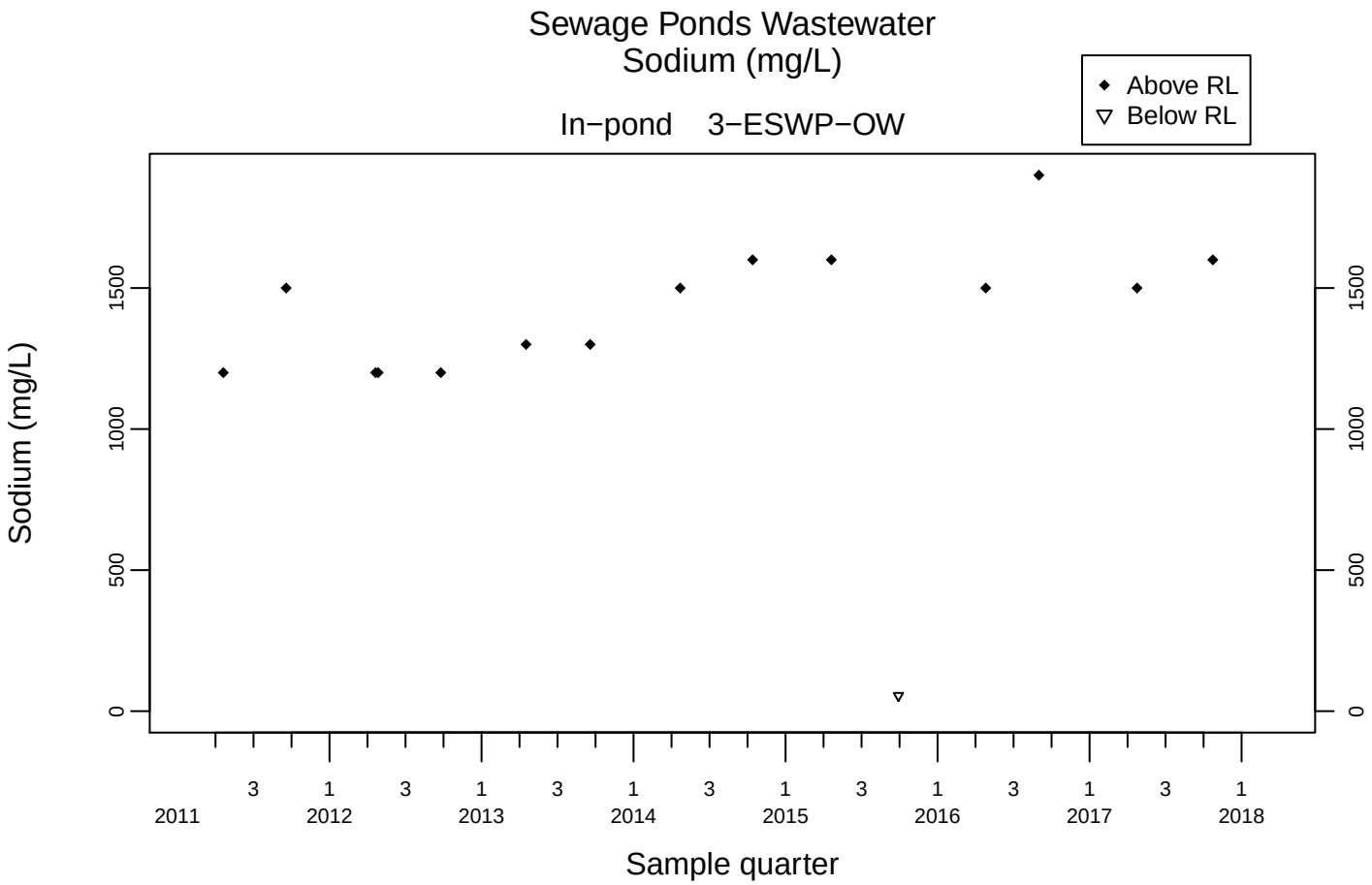

Sewage Ponds Wastewater
Potassium (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Potassium (ug/L)
0e+00
1e+05
2e+05
3e+05
4e+05
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

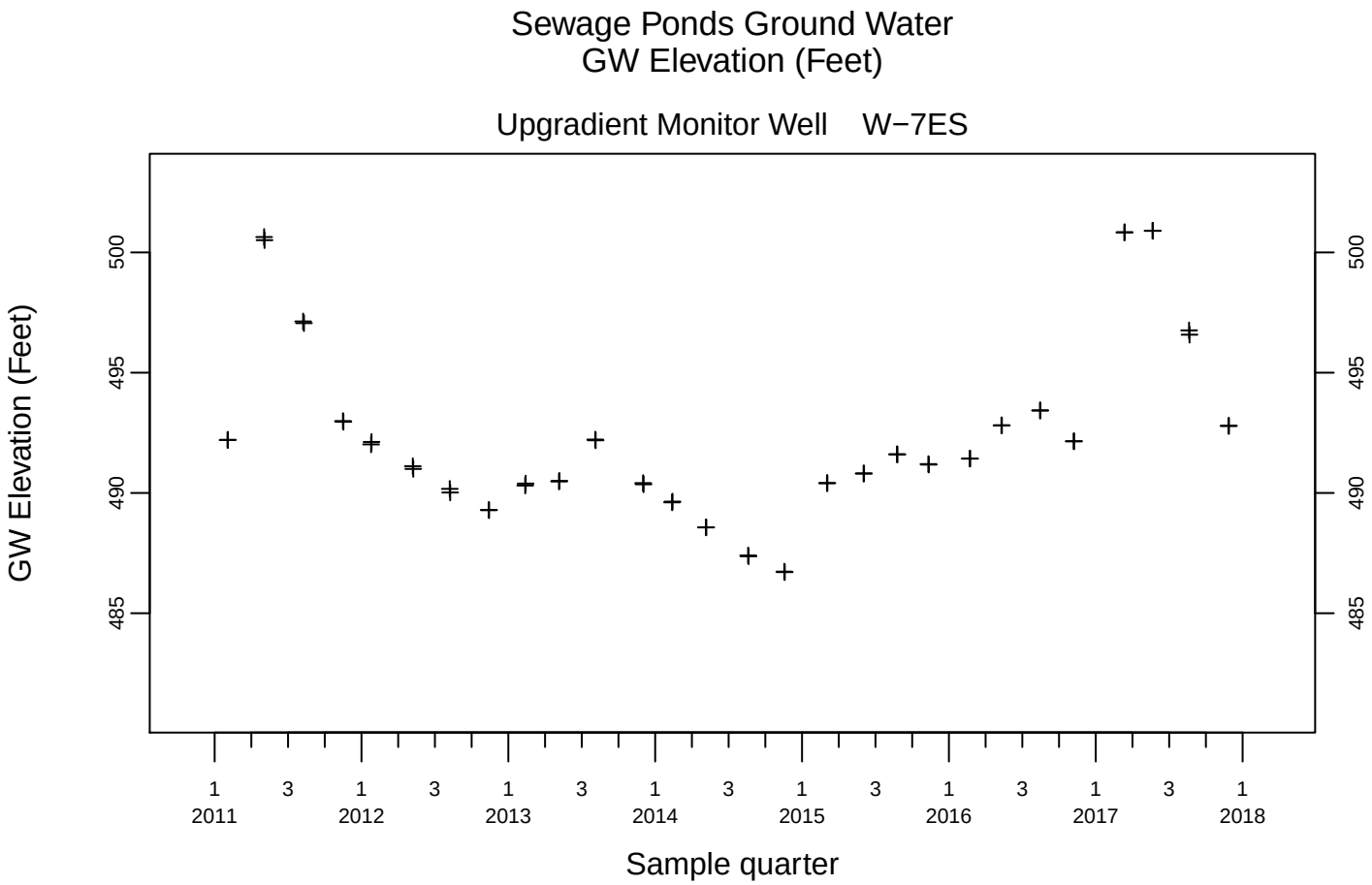

Sewage Ponds Wastewater
Selenium (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Selenium (ug/L)
0
2
4
6
8
10
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

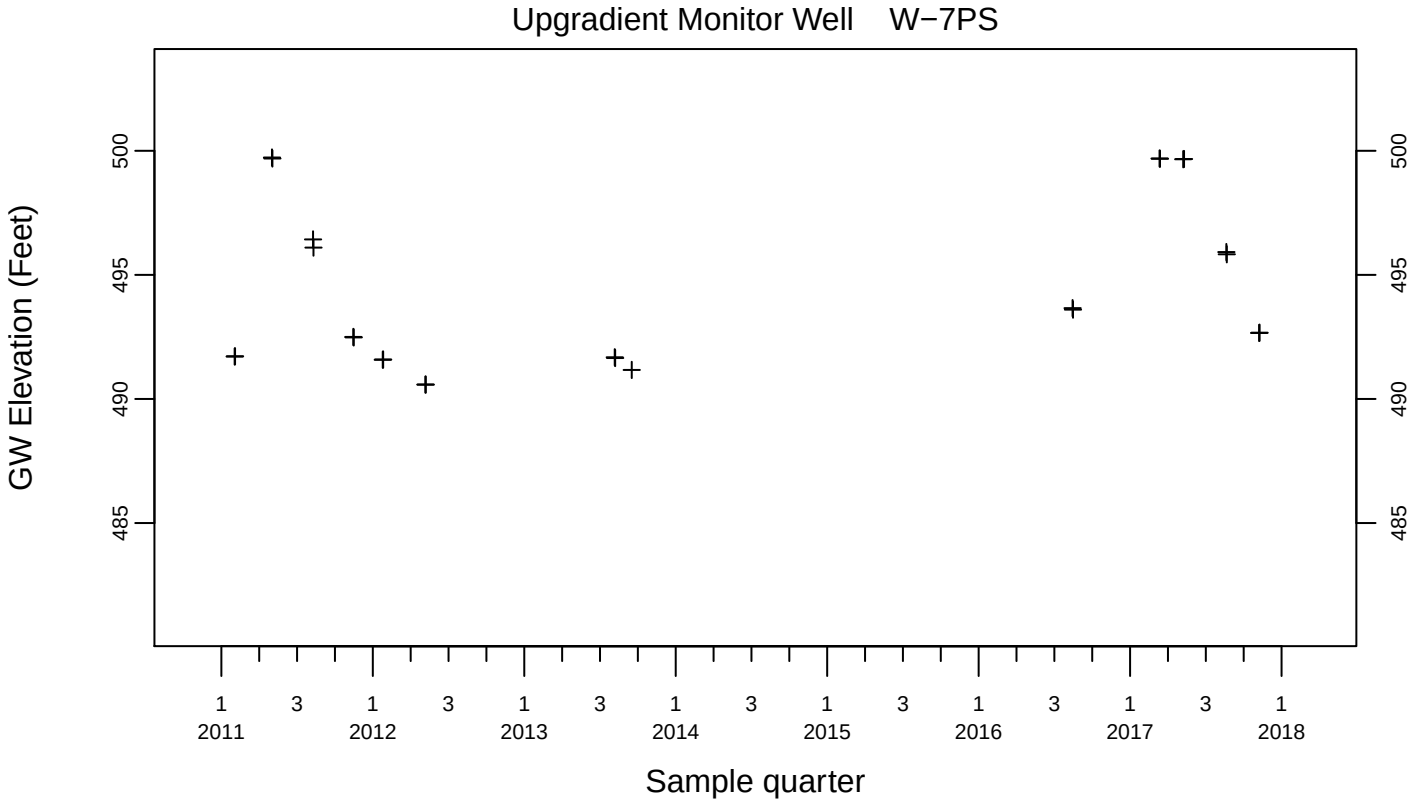

Sewage Ponds Wastewater
Silver (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Silver (ug/L)
0
2
4
6
8
10
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter


Sewage Ponds Wastewater
Vanadium (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Vanadium (ug/L)
0
10
20
30
40
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

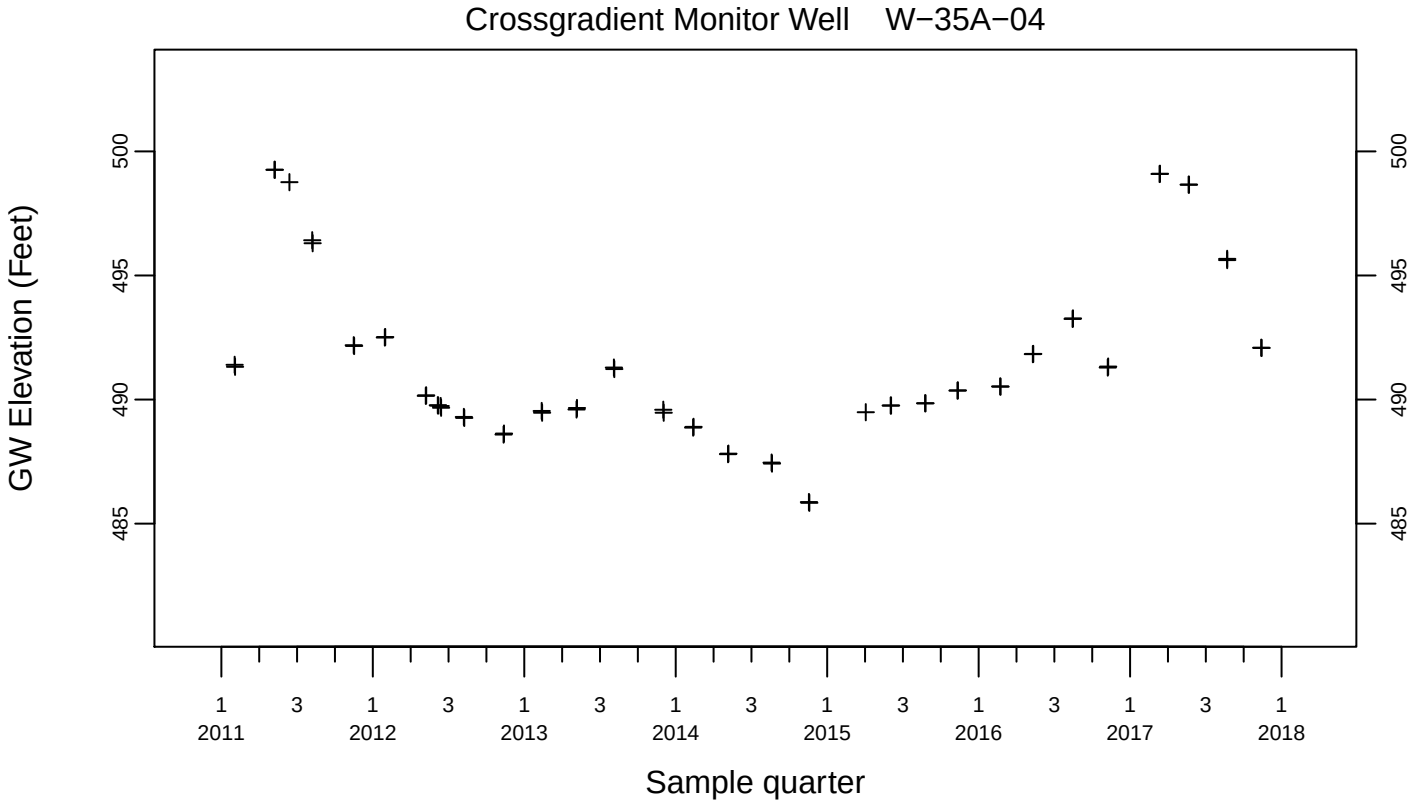

Sewage Ponds Wastewater
Zinc (ug/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Zinc (ug/L)
0
10
20
30
40
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter

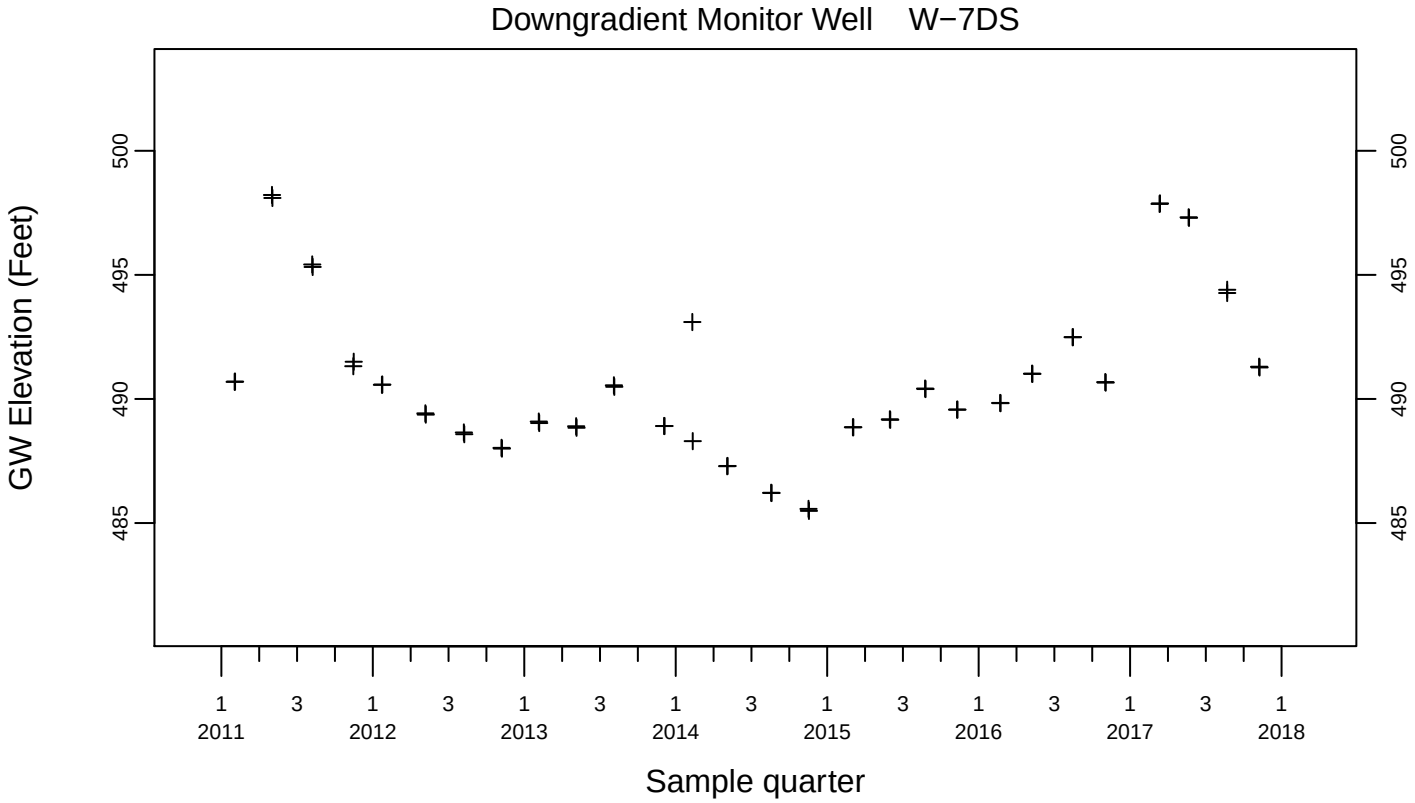

Sewage Ponds Wastewater
Sodium (mg/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Sodium (mg/L)
0
500
1000
1500
3
1
2011
2012
2013
2014
2015
2016
2017
2018
Sample quarter


Sewage Ponds Ground Water
GW Elevation (Feet)
Upgradient Monitor Well W−7ES
GW Elevation (Feet)
485
490
495
500
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

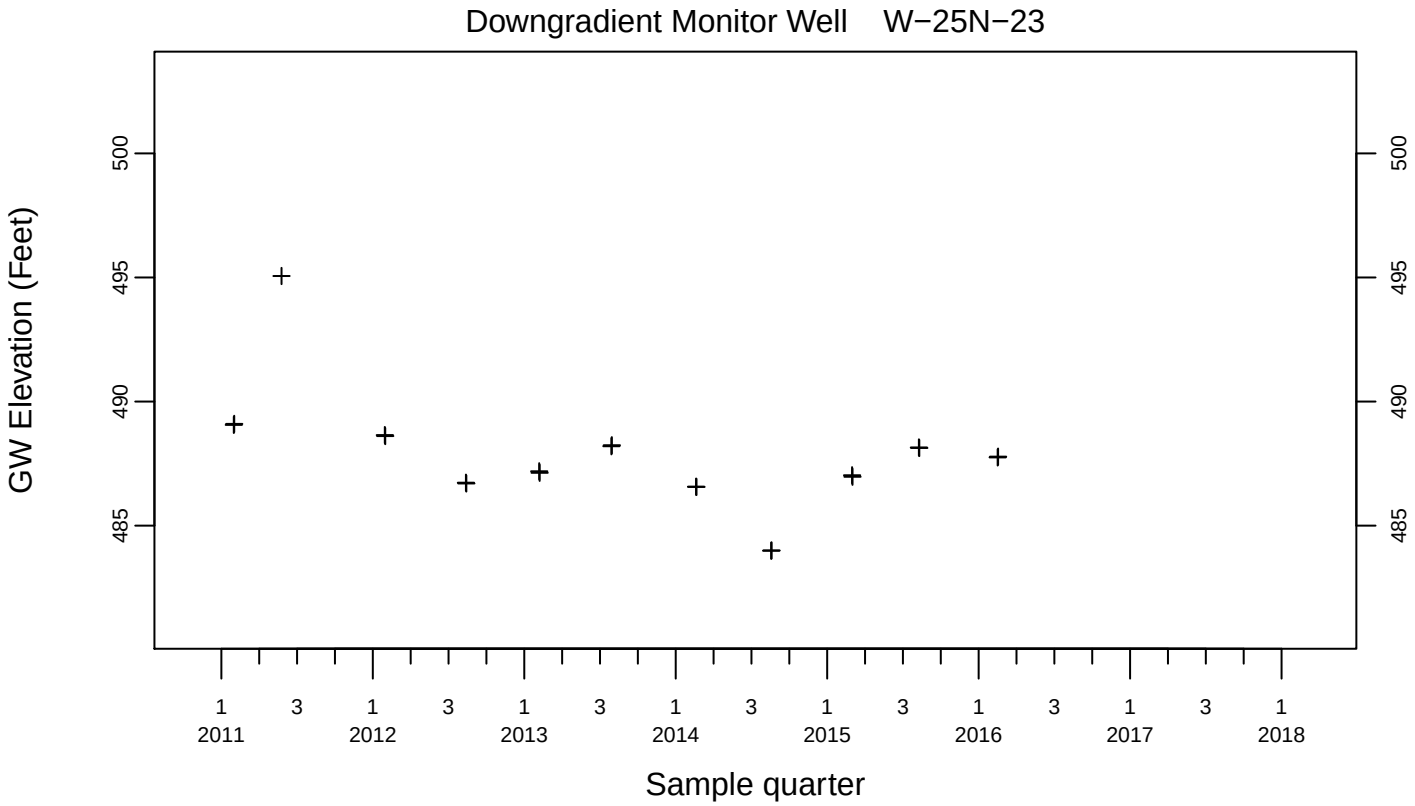

Upgradient Monitor Well W−7PS
GW Elevation (Feet)
485
490
495
500
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

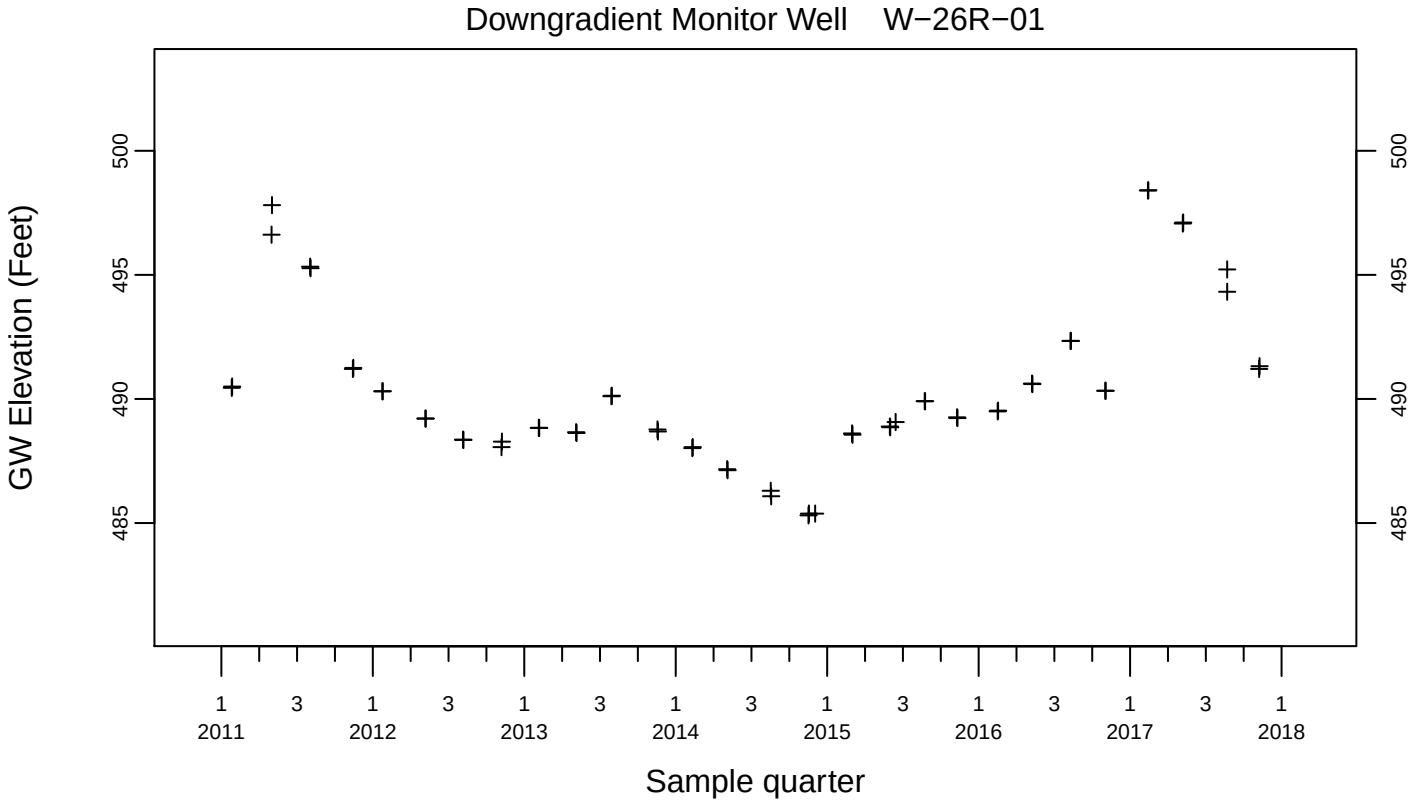
Sewage Ponds Ground Water
GW Elevation (Feet)



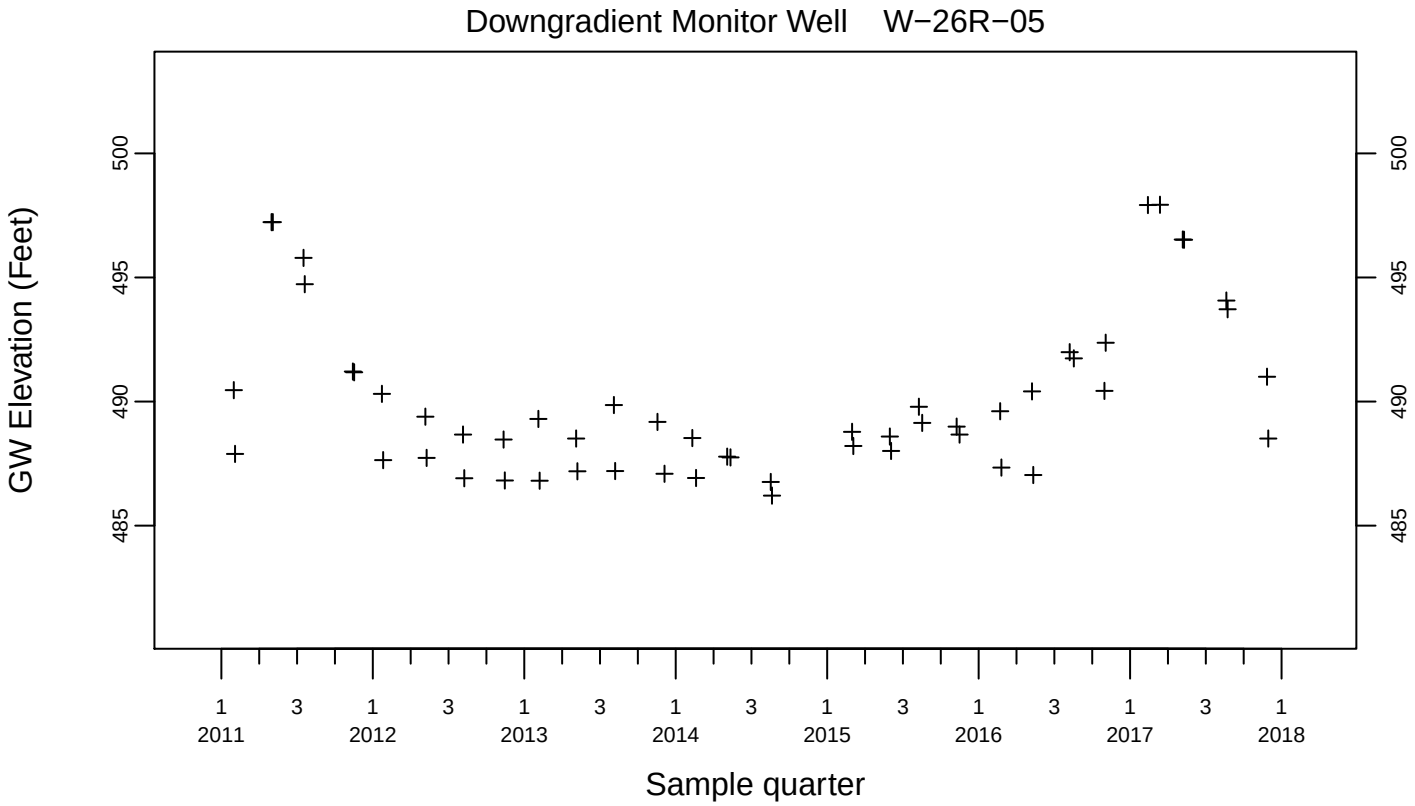


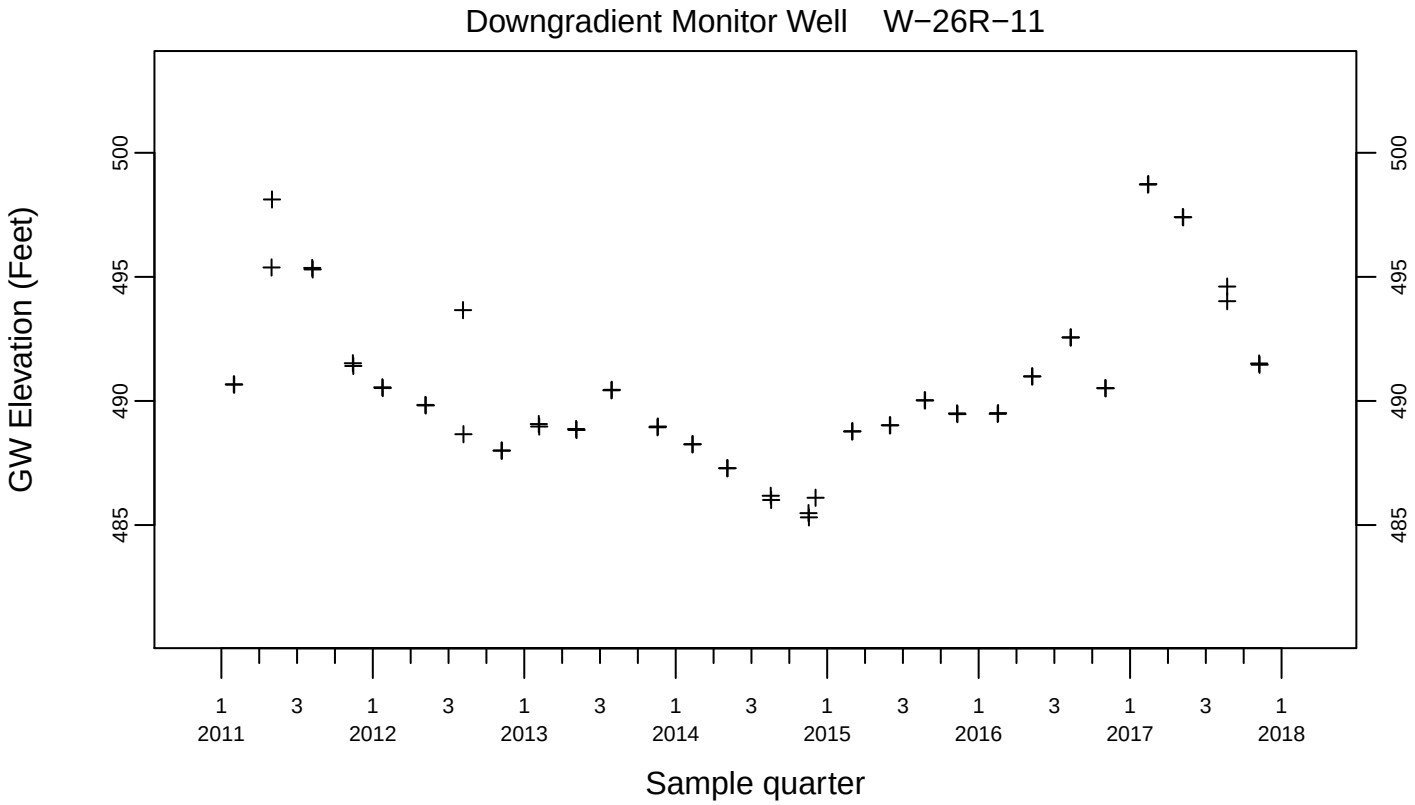
Sewage Ponds Ground Water
GW Elevation (Feet)

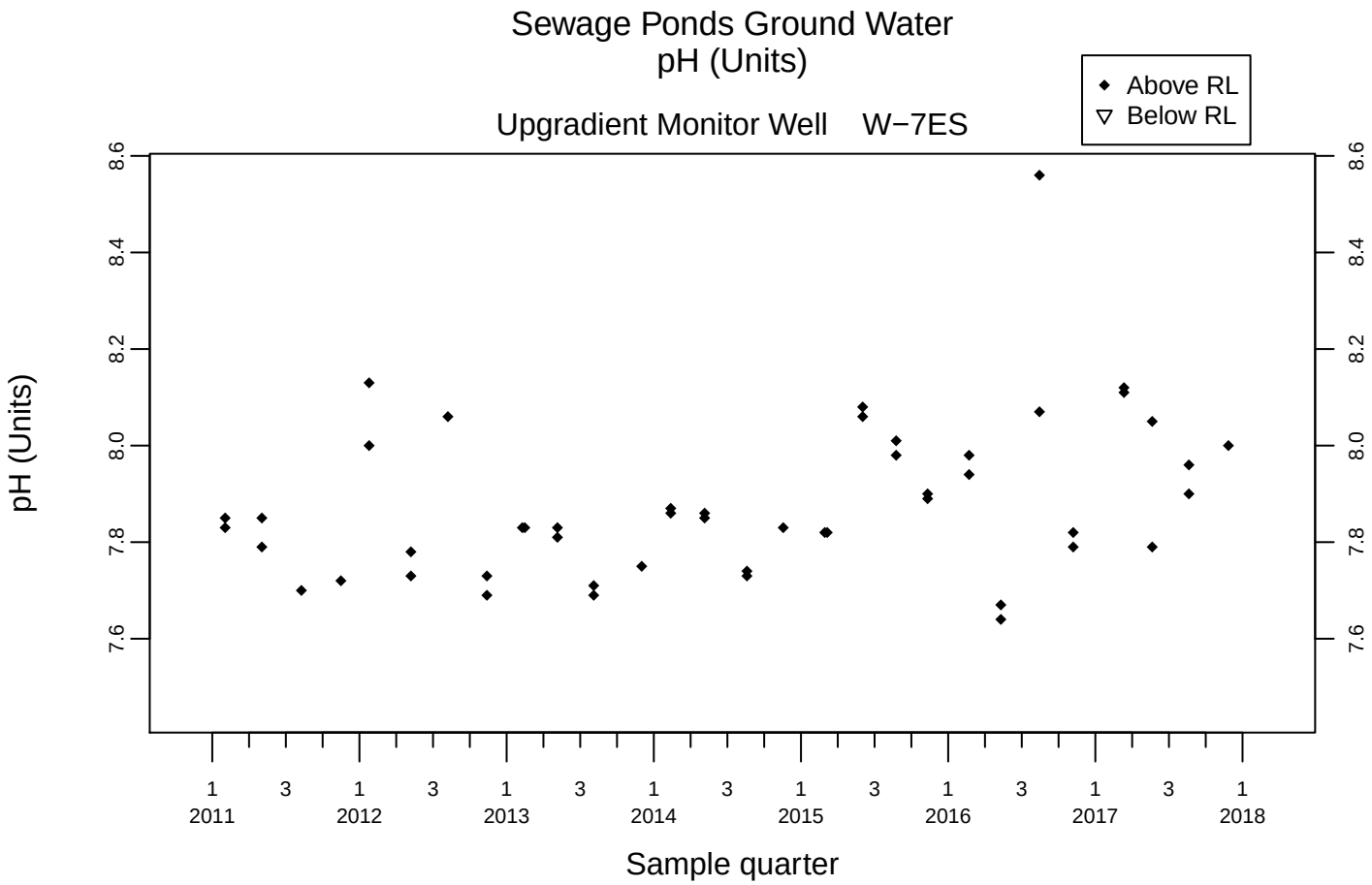


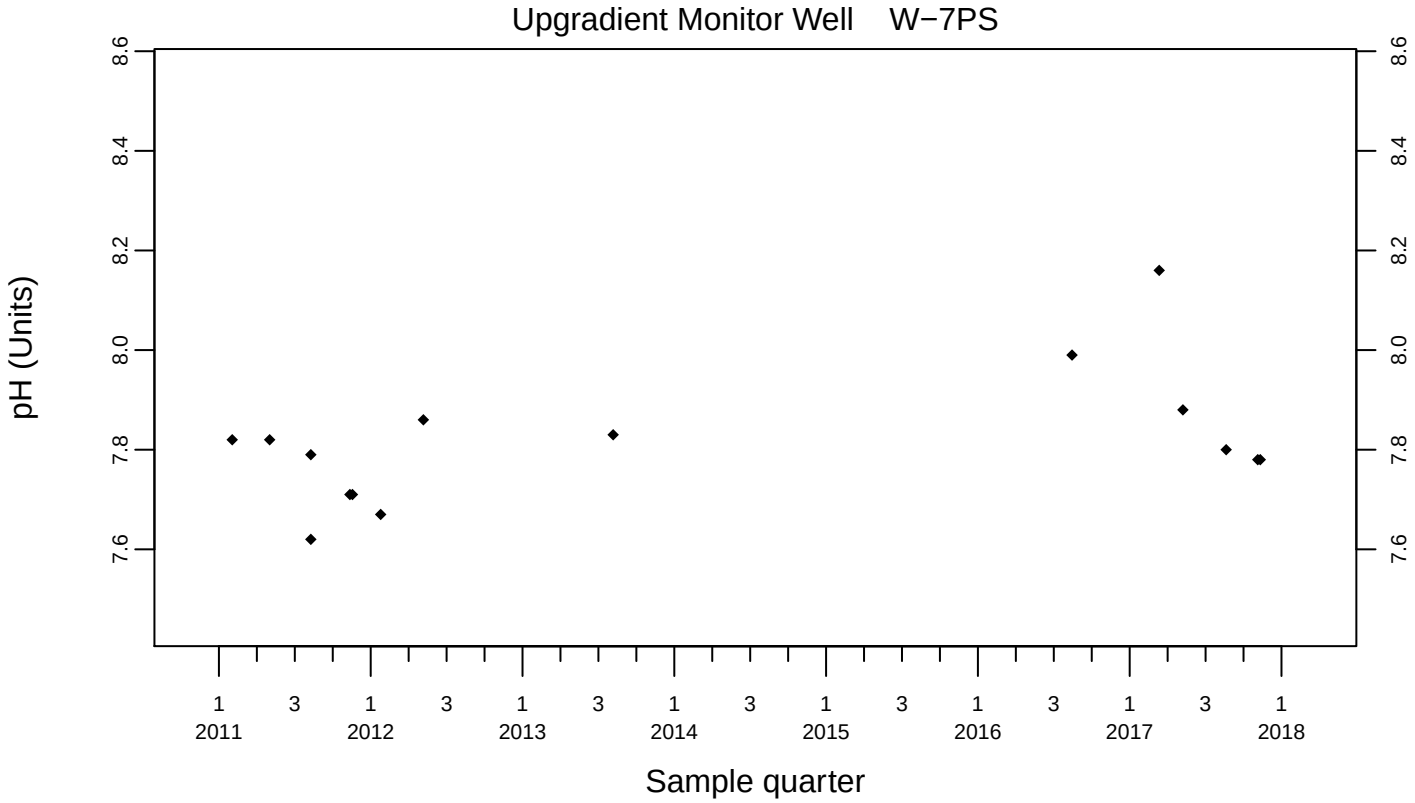


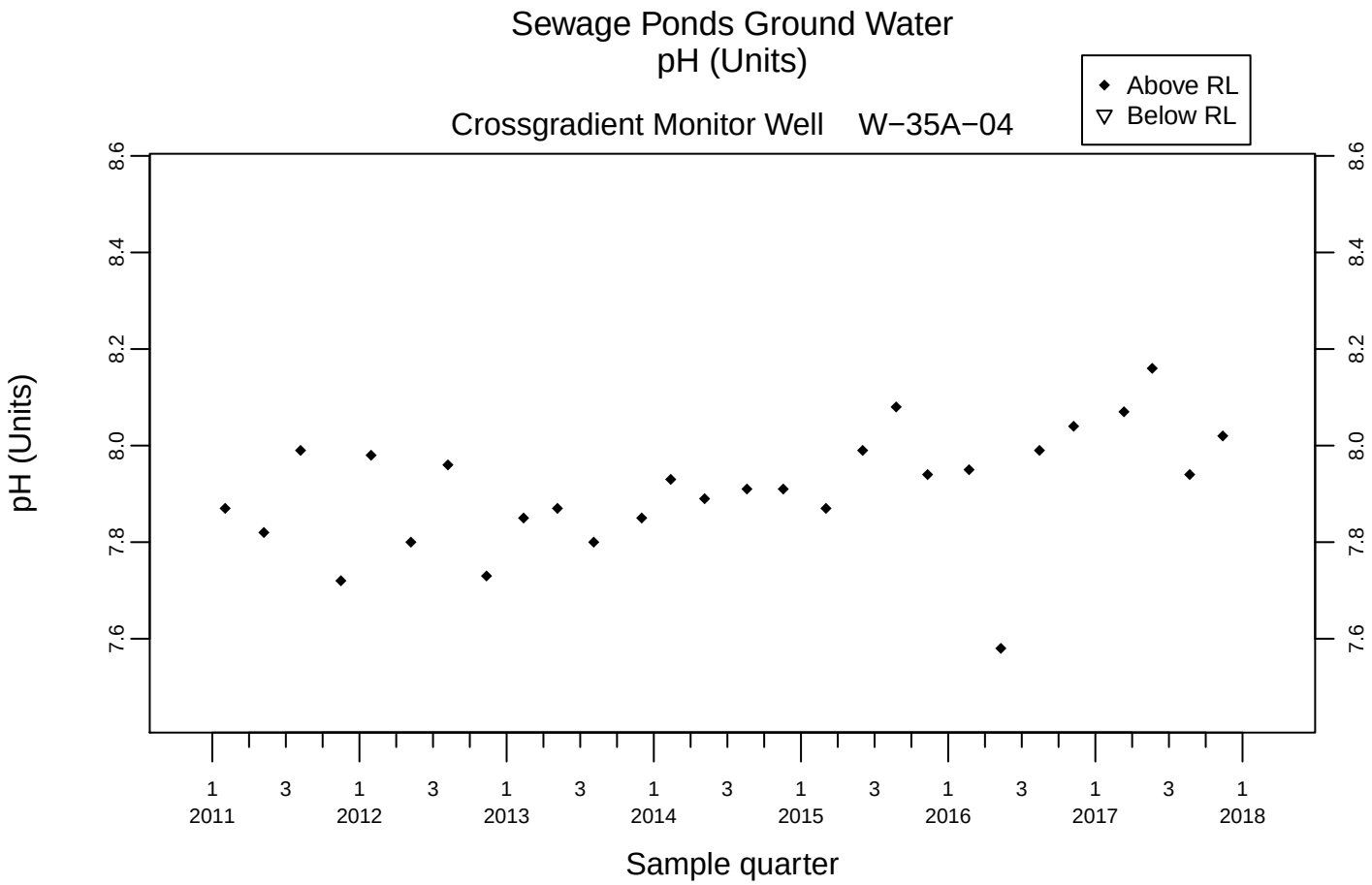
Sewage Ponds Ground Water
GW Elevation (Feet)

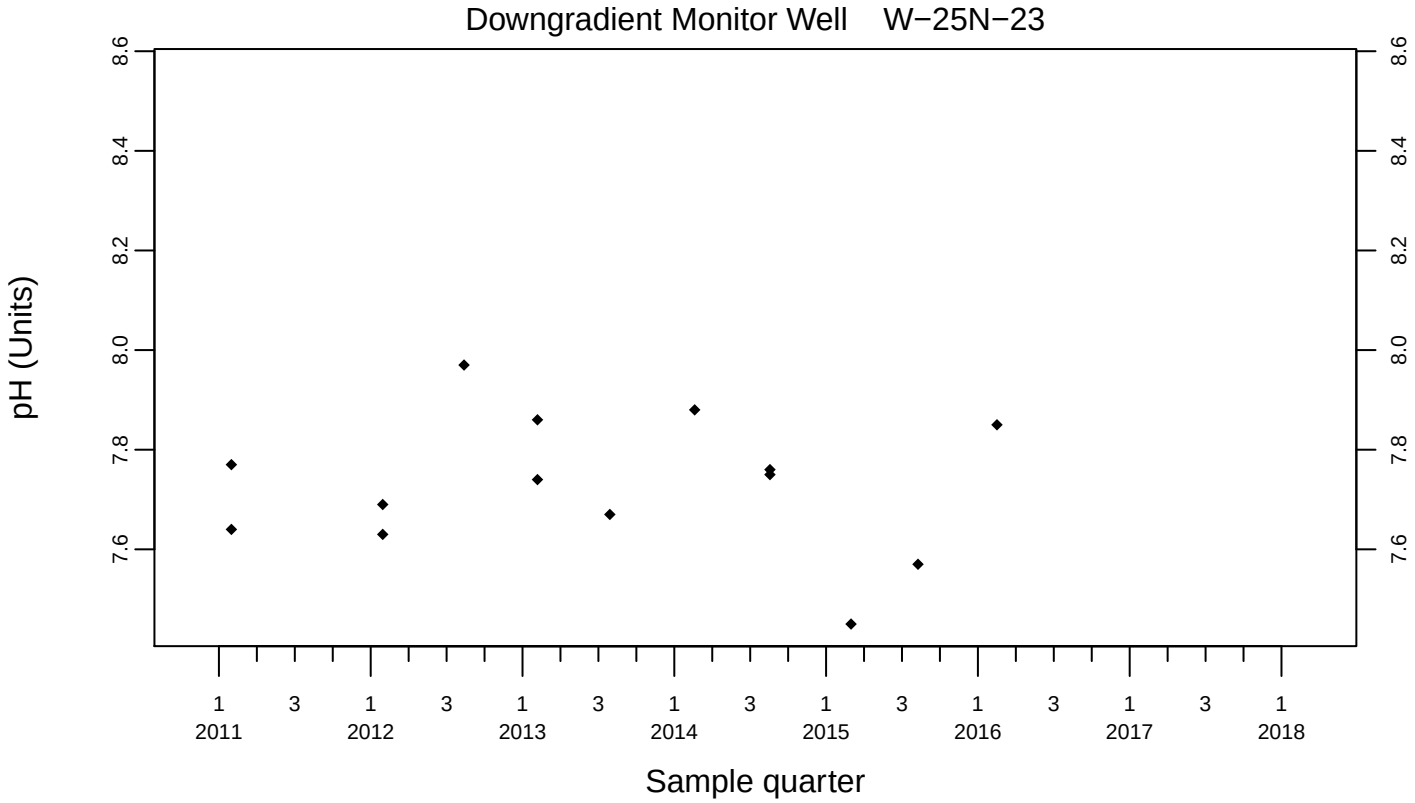


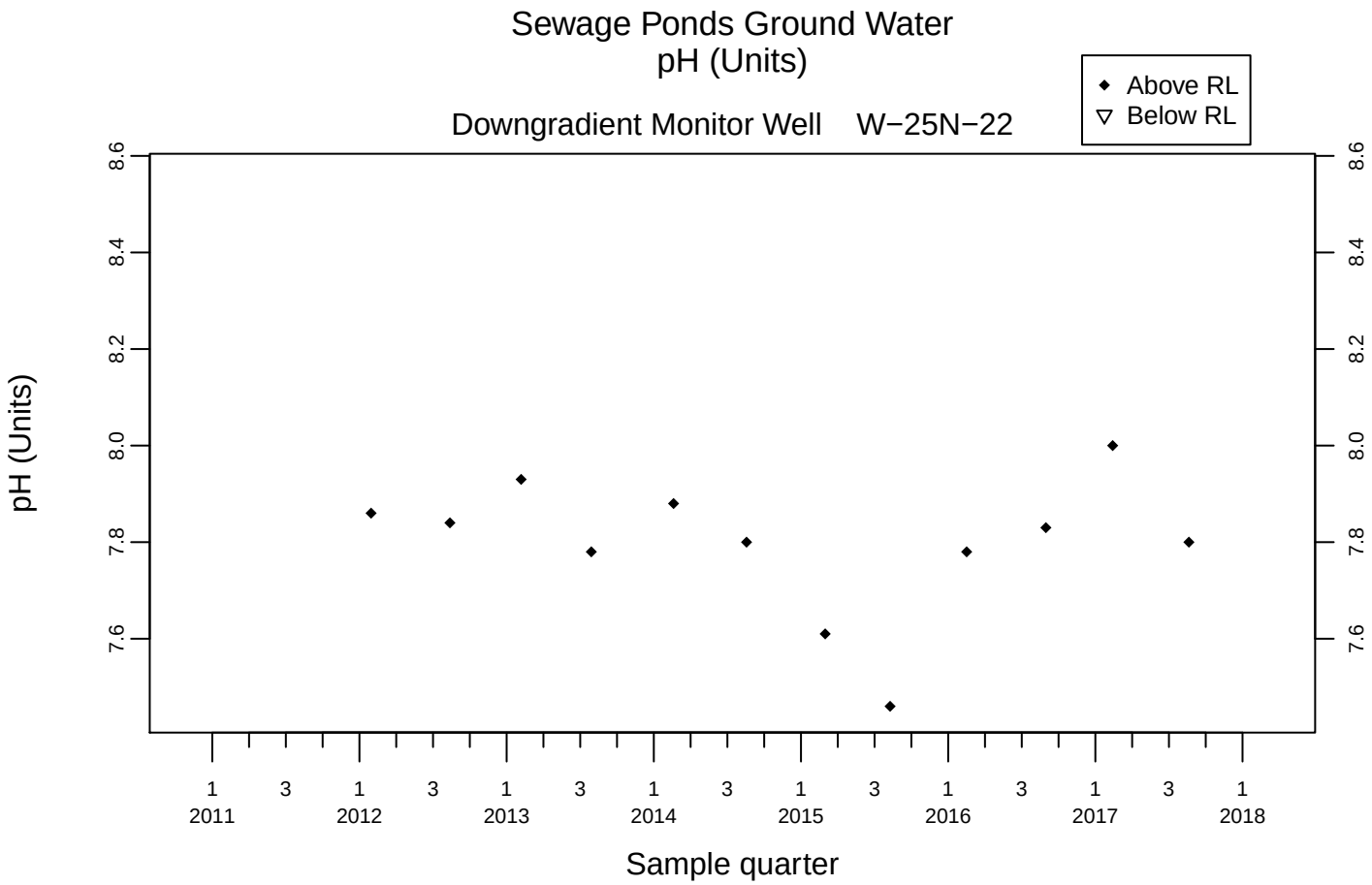


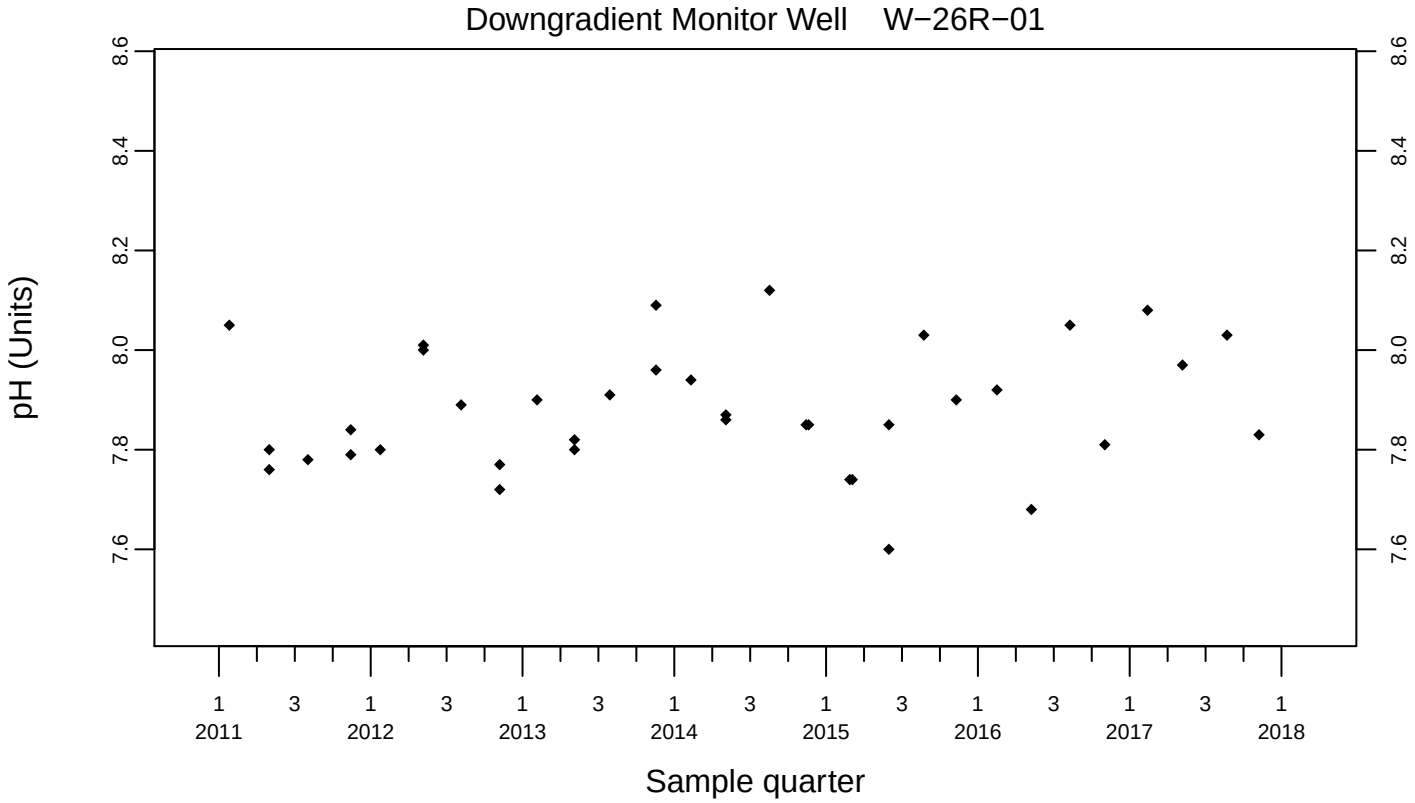

Sewage Ponds Ground Water
pH (Units)
Above RL
Below RL
Upgradient Monitor Well W−7ES
pH (Units)
8.6
8.4
8.2
8.0
7.8
7.6
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

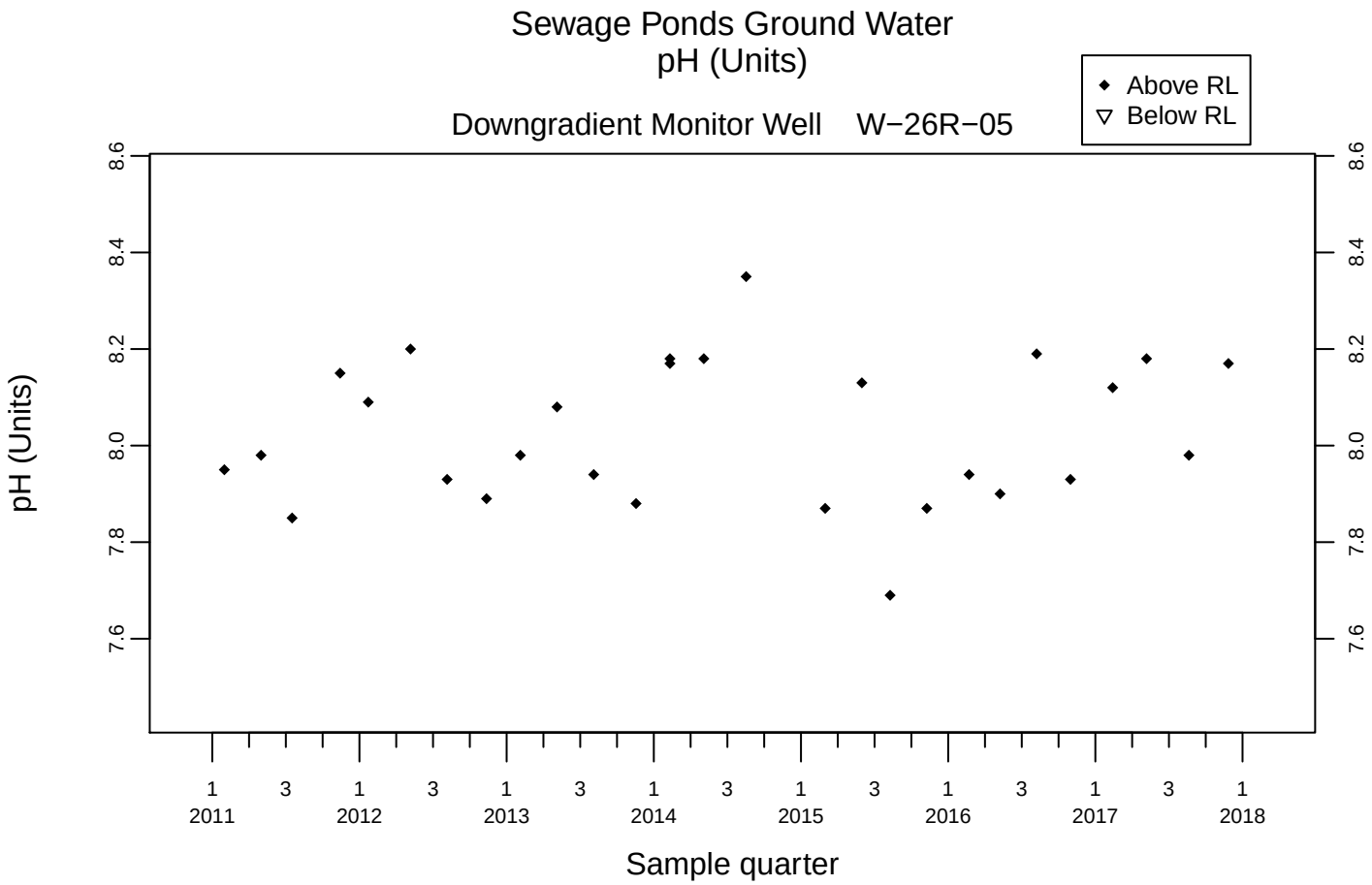

Upgradient Monitor Well W−7PS
pH (Units)
8.6
8.4
8.2
8.0
7.8
7.6
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

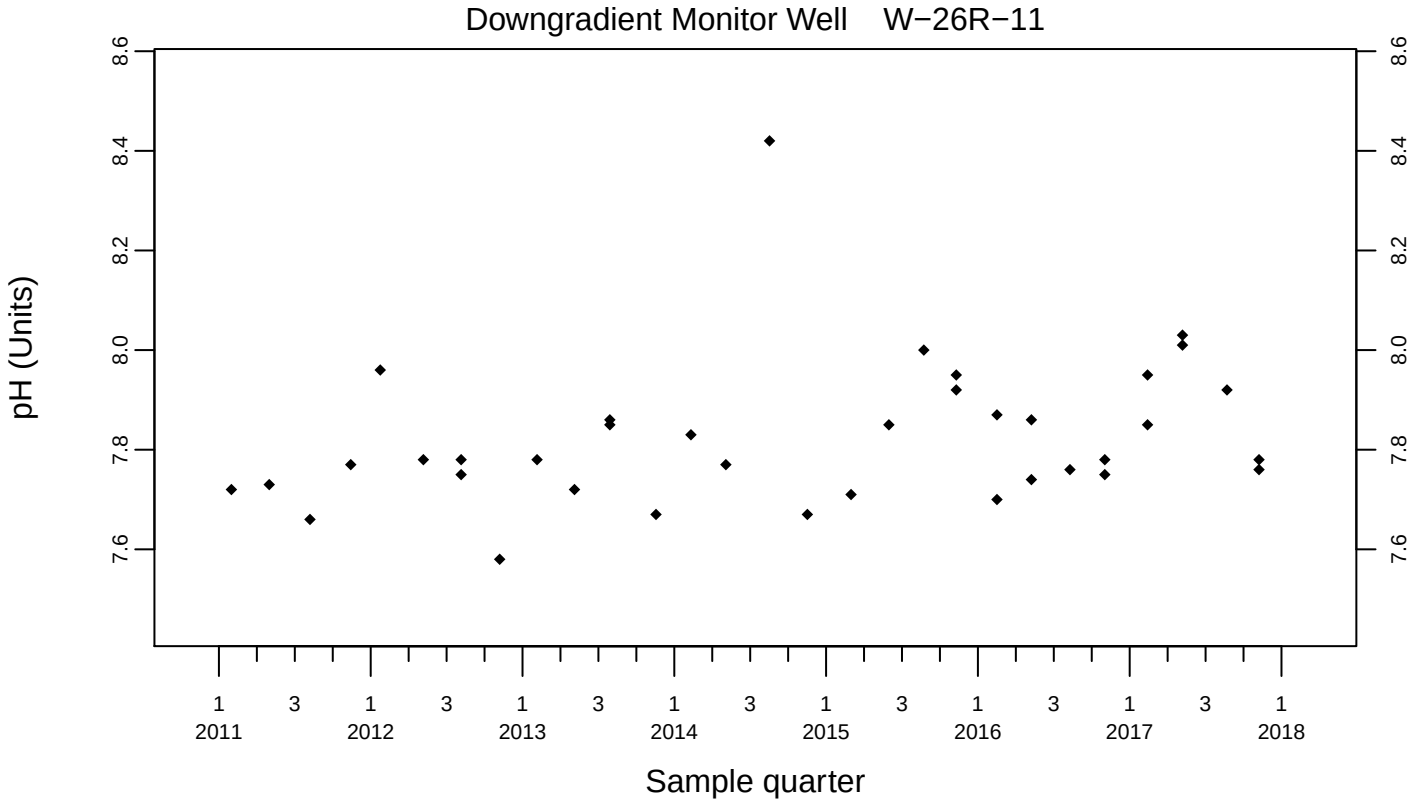

Sewage Ponds Ground Water
pH (Units)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
pH (Units)
8.6
8.4
8.2
8.0
7.8
7.6
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

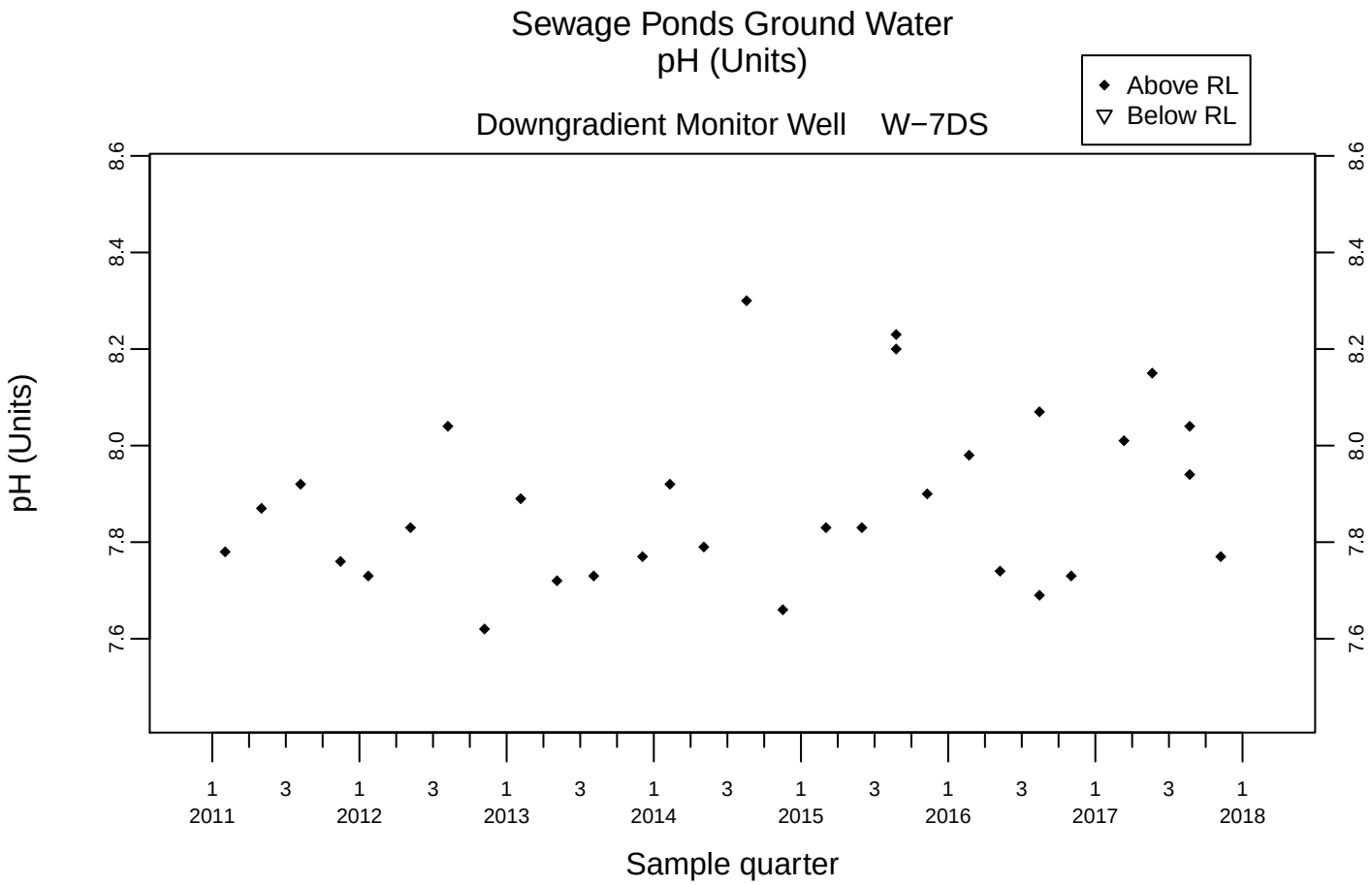

Downgradient Monitor Well W−25N−23
pH (Units)
8.6
8.4
8.2
8.0
7.8
7.6
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

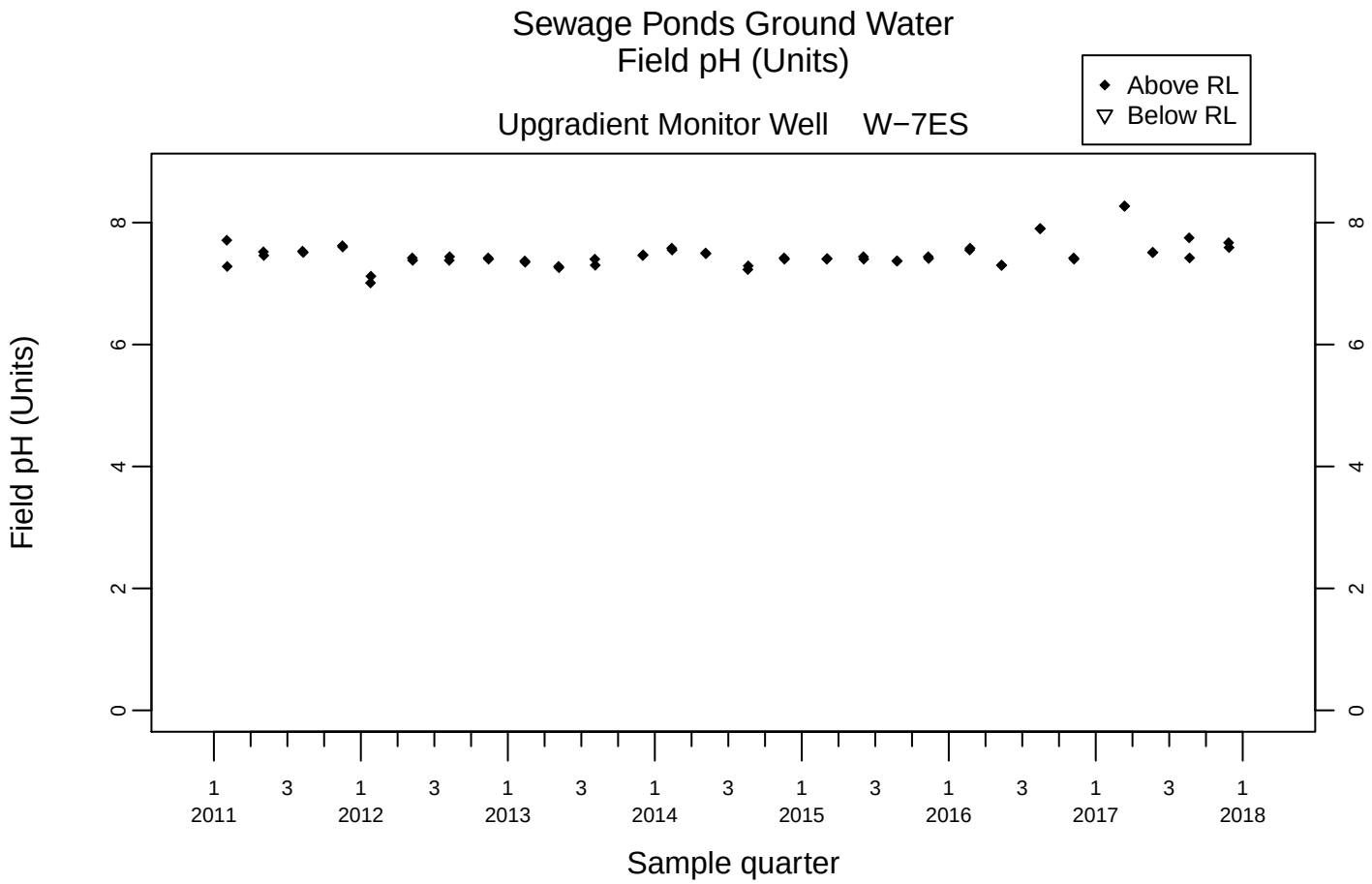

Sewage Ponds Ground Water
pH (Units)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
pH (Units)
8.6
8.4
8.2
8.0
7.8
7.6
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

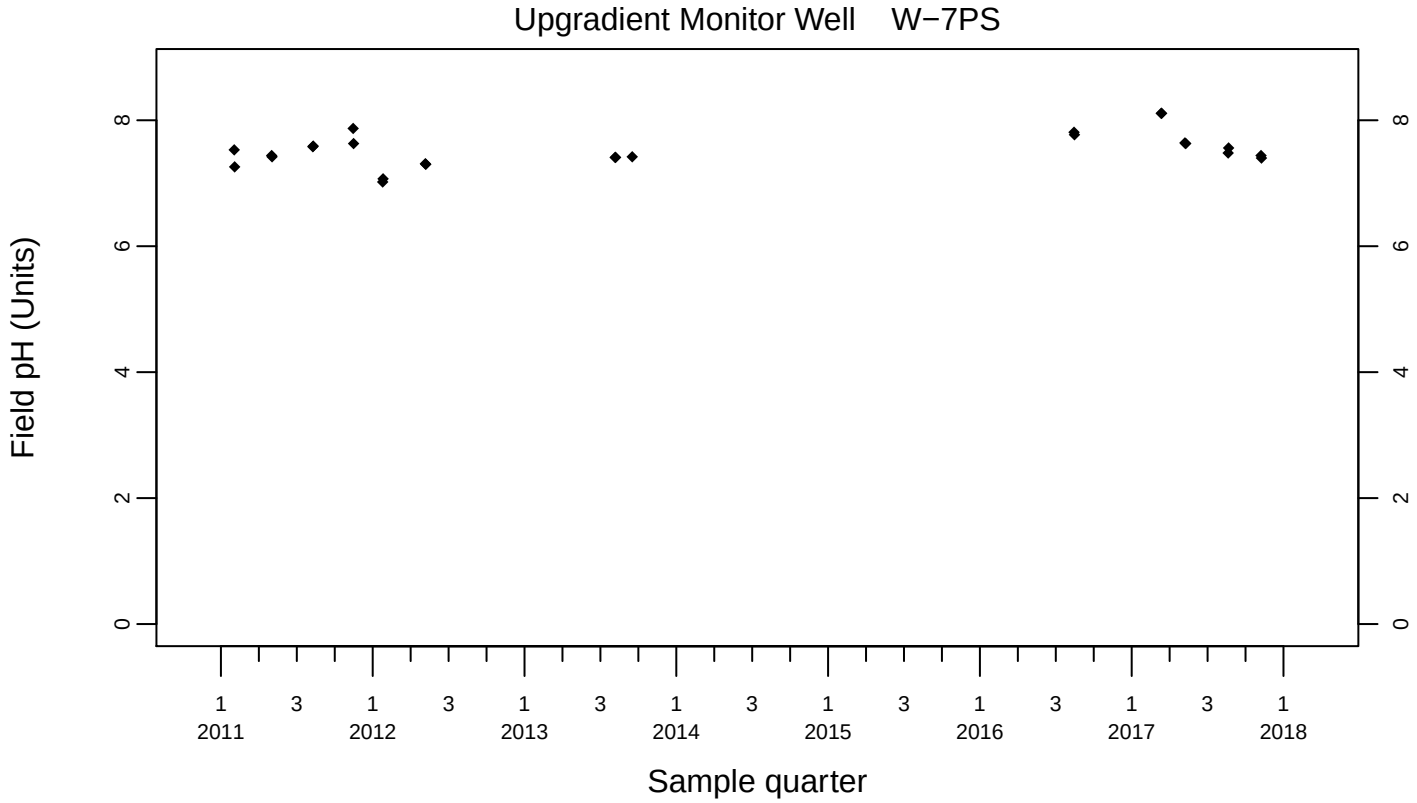

Downgradient Monitor Well W−26R−01
pH (Units)
8.6
8.4
8.2
8.0
7.8
7.6
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

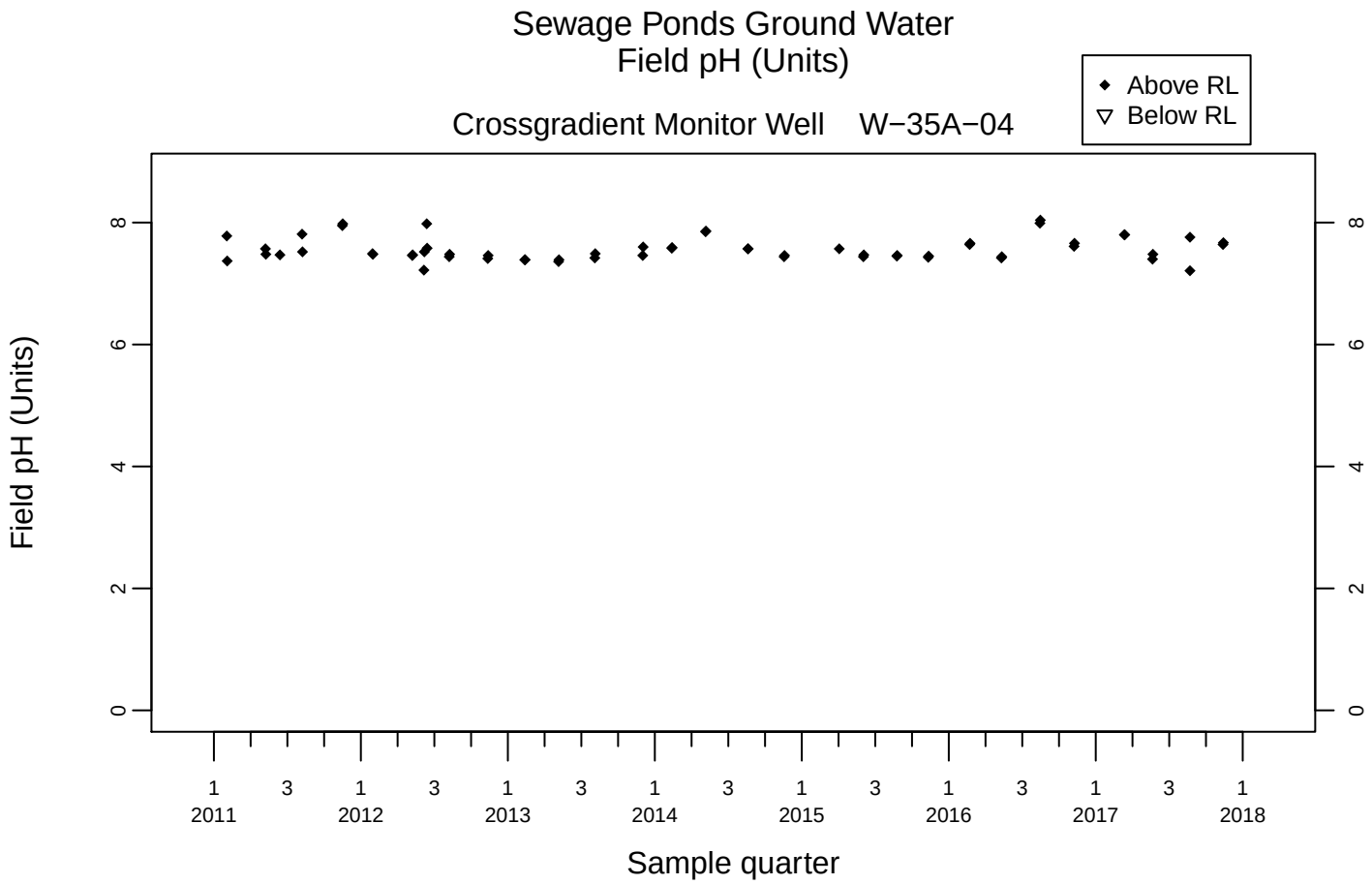

Sewage Ponds Ground Water
pH (Units)
Above RL
Below RL
Downgradient Monitor Well W−26R−05
pH (Units)
8.6
8.4
8.2
8.0
7.8
7.6
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

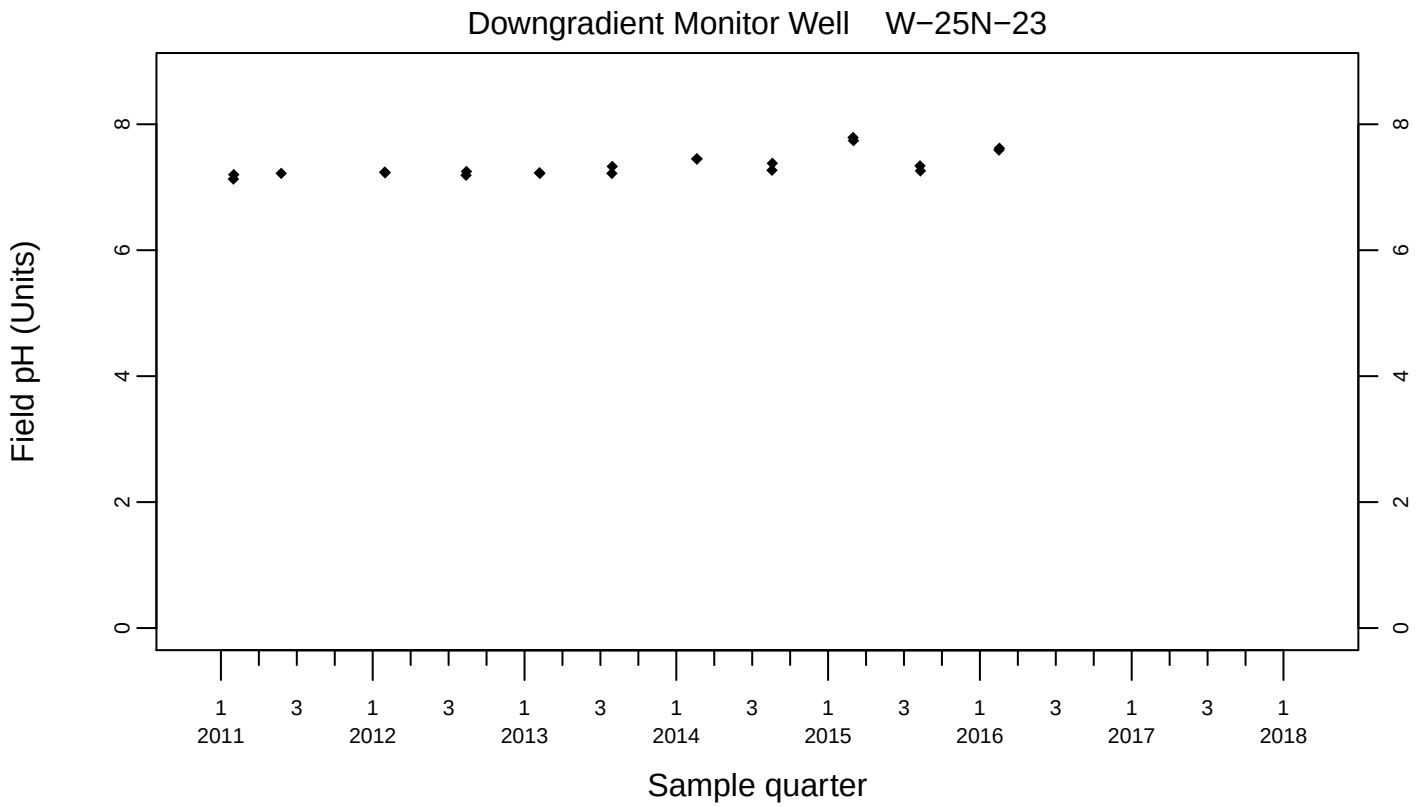

Downgradient Monitor Well W−26R−11
pH (Units)
8.6
8.4
8.2
8.0
7.8
7.6
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

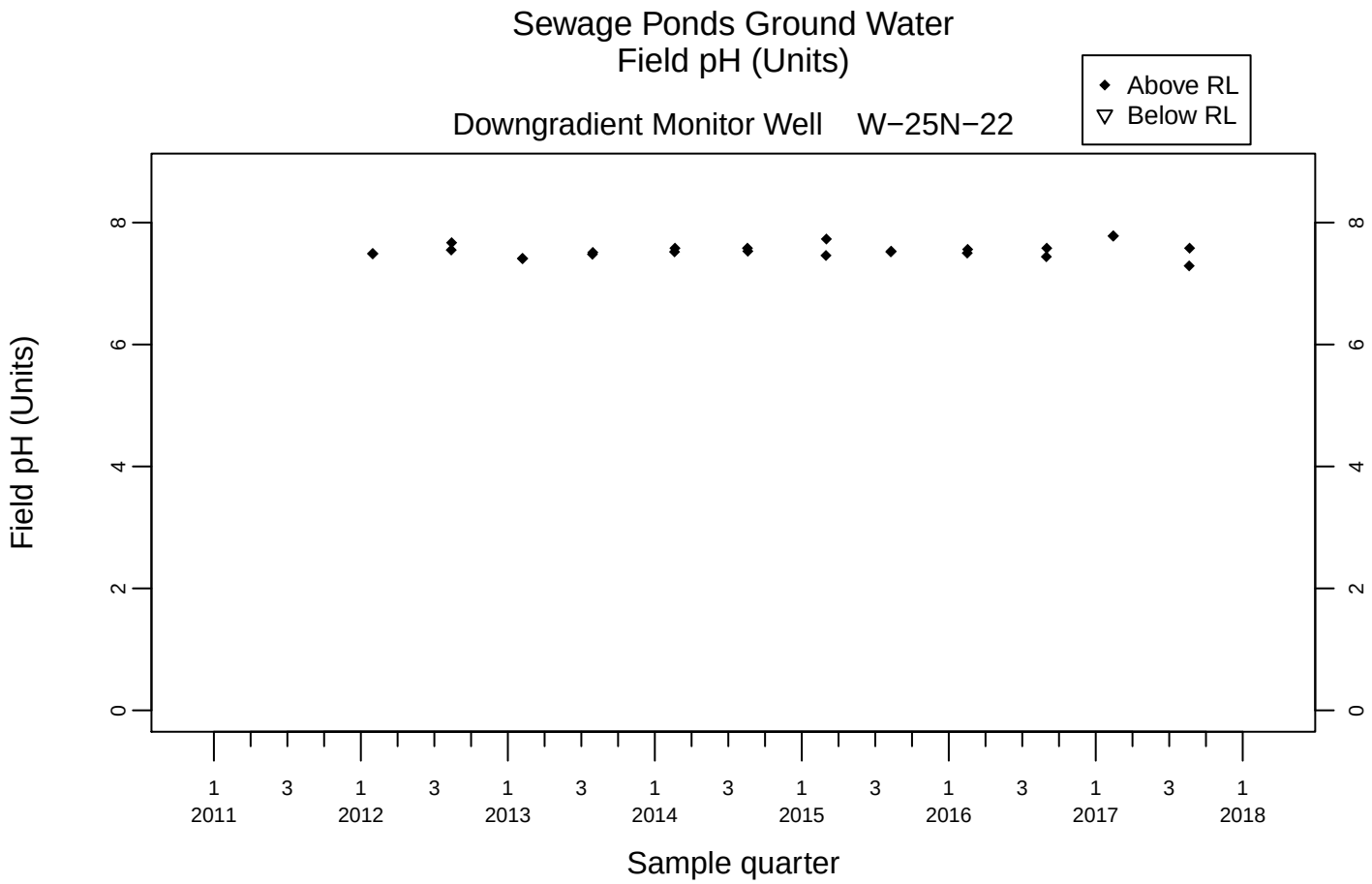

Sewage Ponds Ground Water
pH (Units)
Downgradient Monitor Well W−7DS
Above RL
Below RL
pH (Units)
8.6
8.4
8.2
8.0
7.8
7.6
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

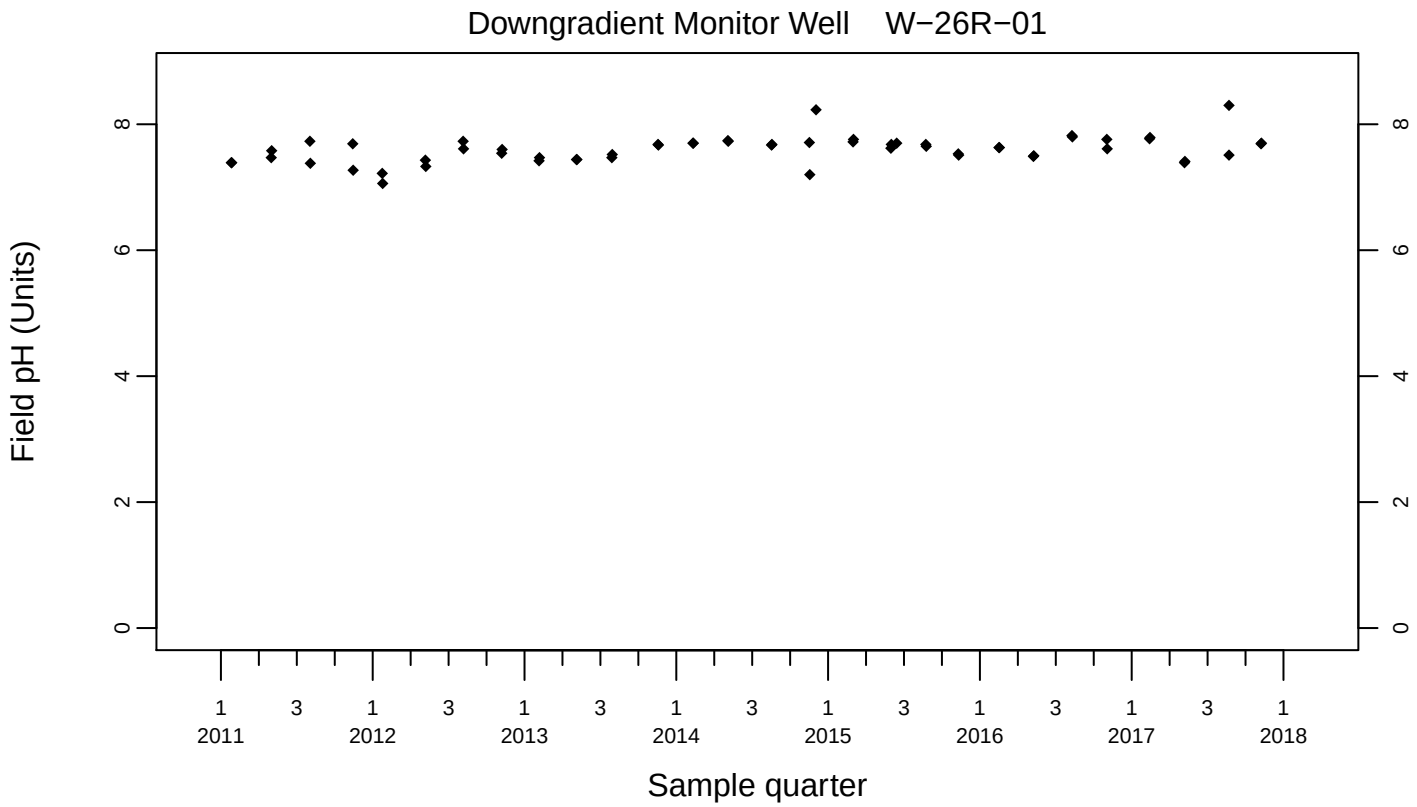

Sewage Ponds Ground Water
Field pH (Units)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Field pH (Units)
0
2
4
6
8
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

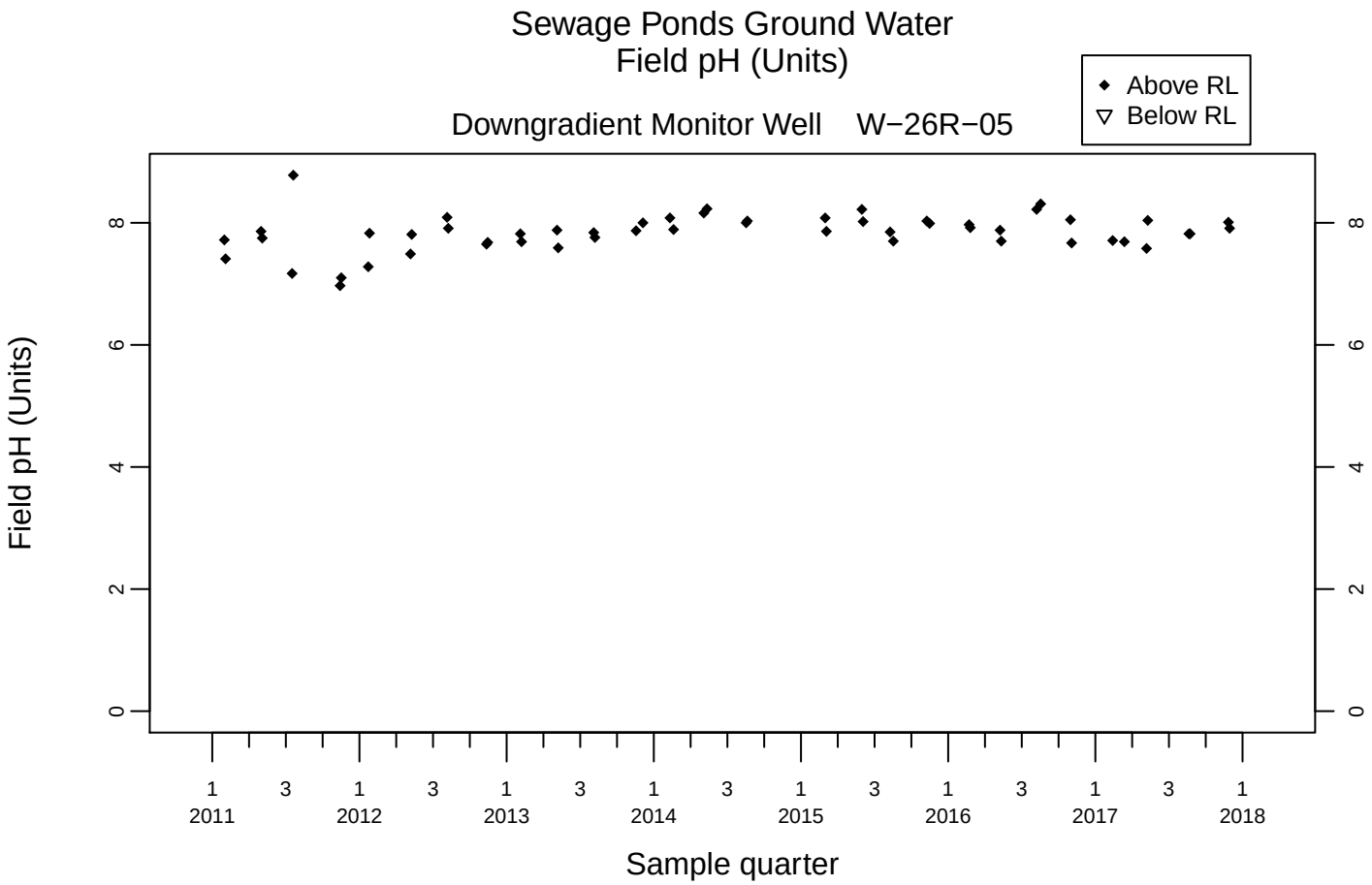

Upgradient Monitor Well W−7PS
Field pH (Units)
0
2
4
6
8
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

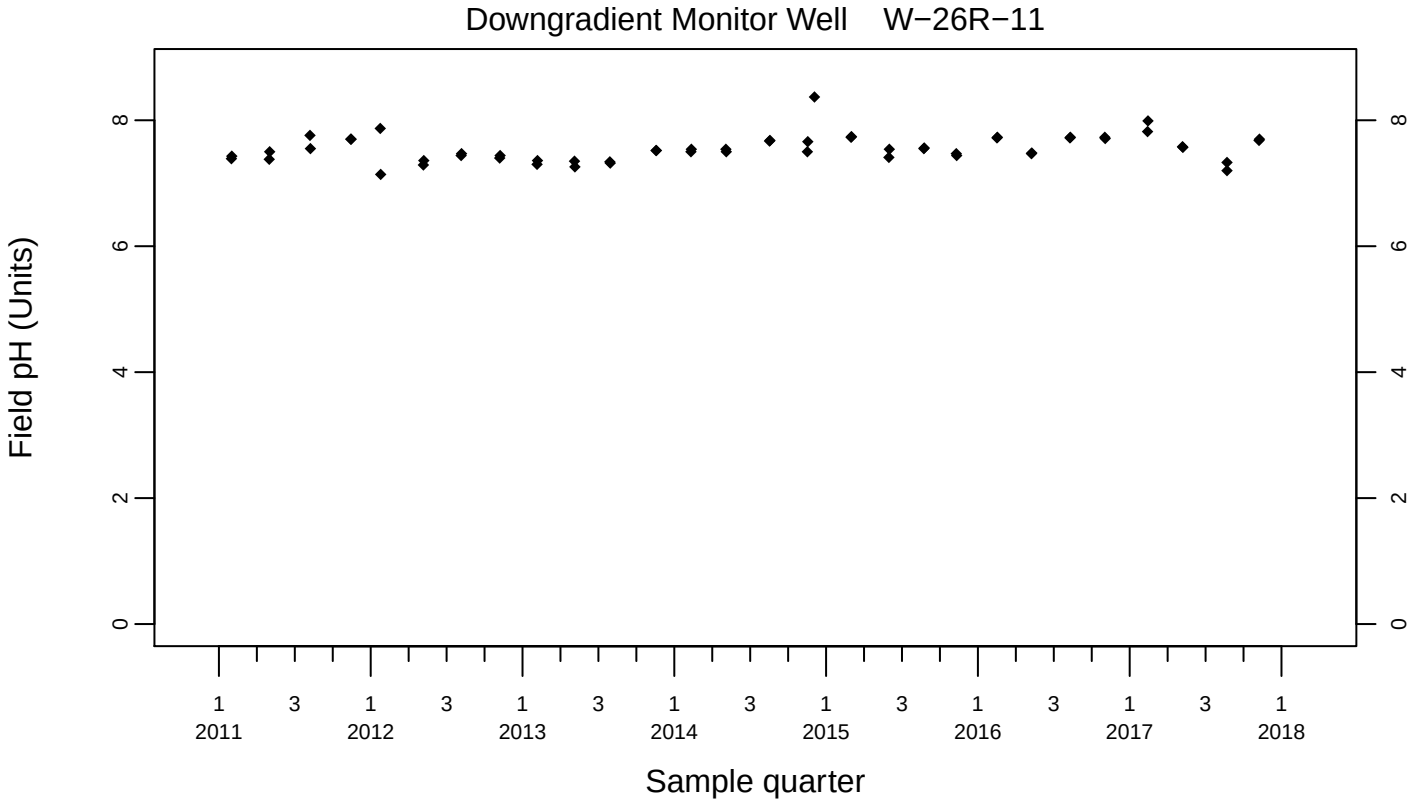

Sewage Ponds Ground Water
Field pH (Units)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Field pH (Units)
0
2
4
6
8
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

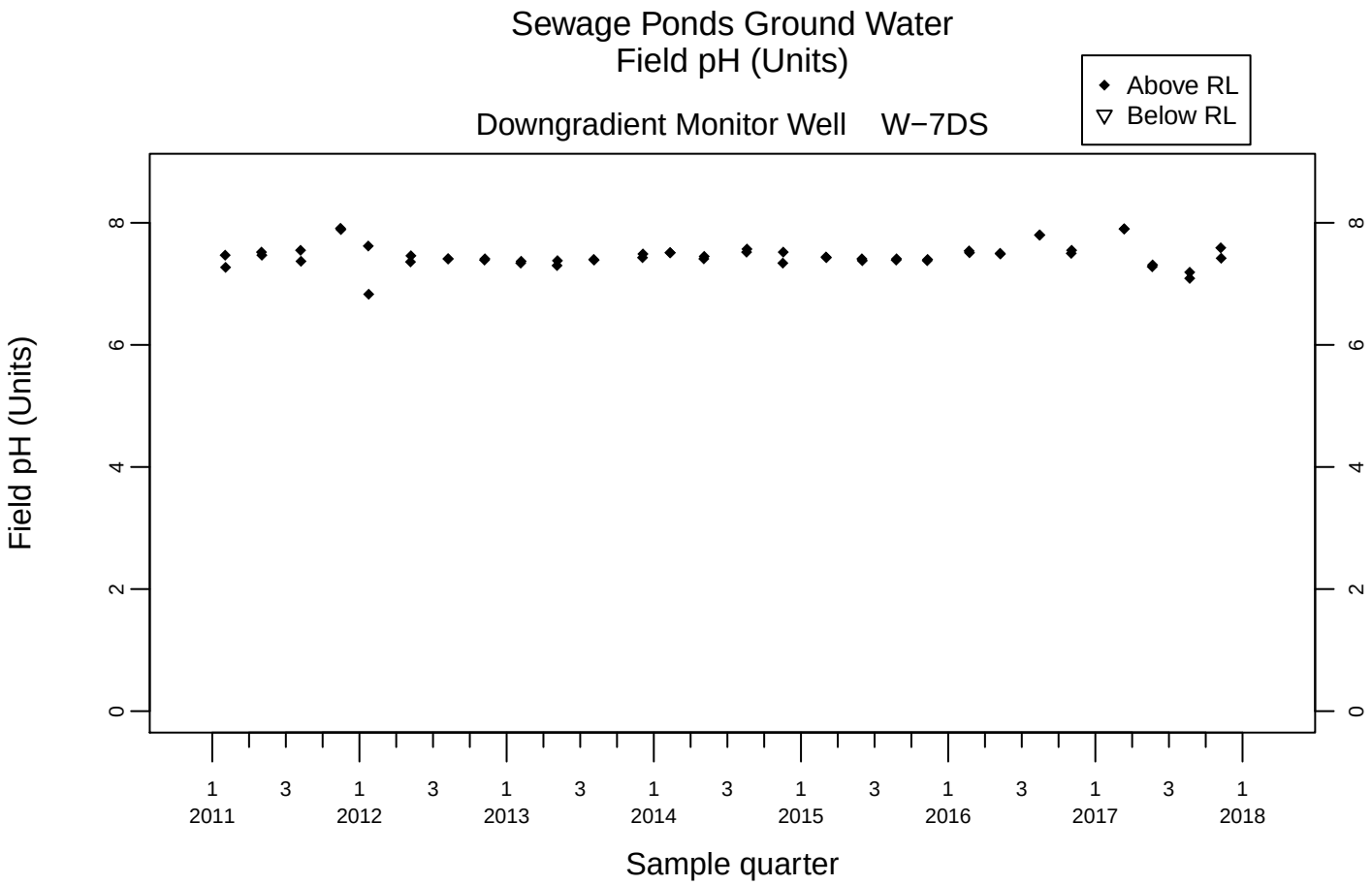

Downgradient Monitor Well W−25N−23
Field pH (Units)
0
2
4
6
8
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

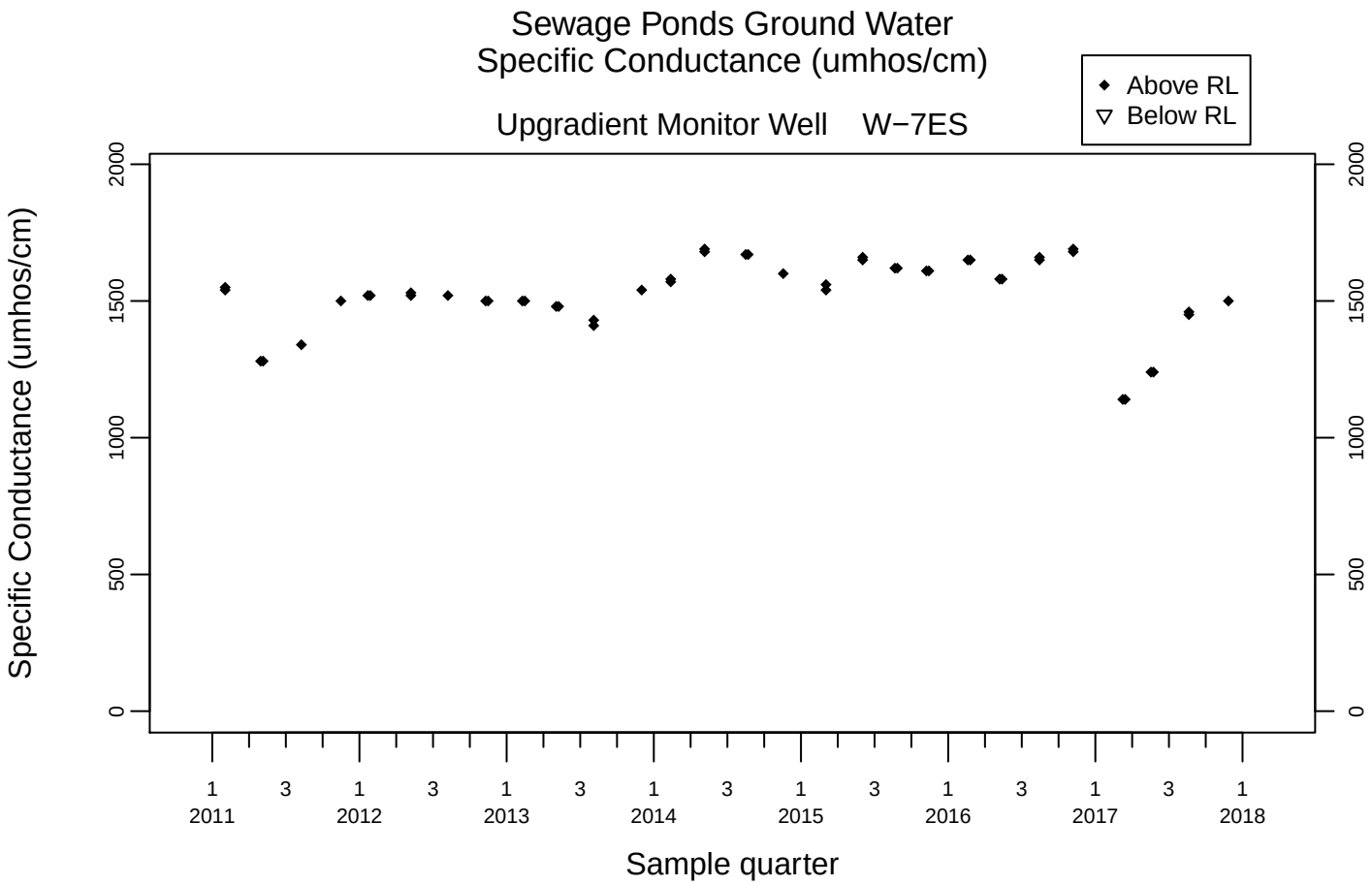

Sewage Ponds Ground Water
Field pH (Units)
Downgradient Monitor Well W−25N−22
Above RL
Below RL
Field pH (Units)
0
2
4
6
8
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

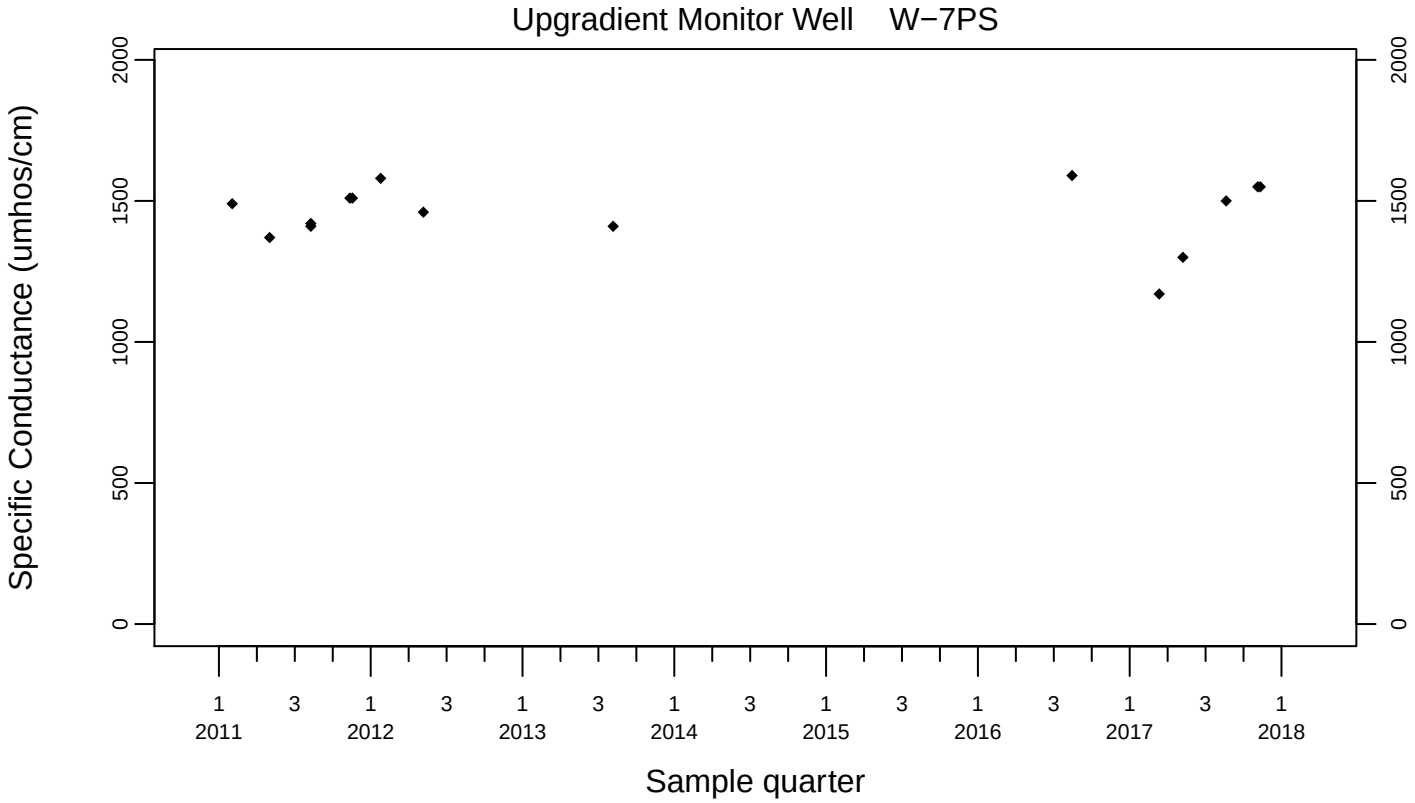

Downgradient Monitor Well W−26R−01
Field pH (Units)
0
2
4
6
8
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

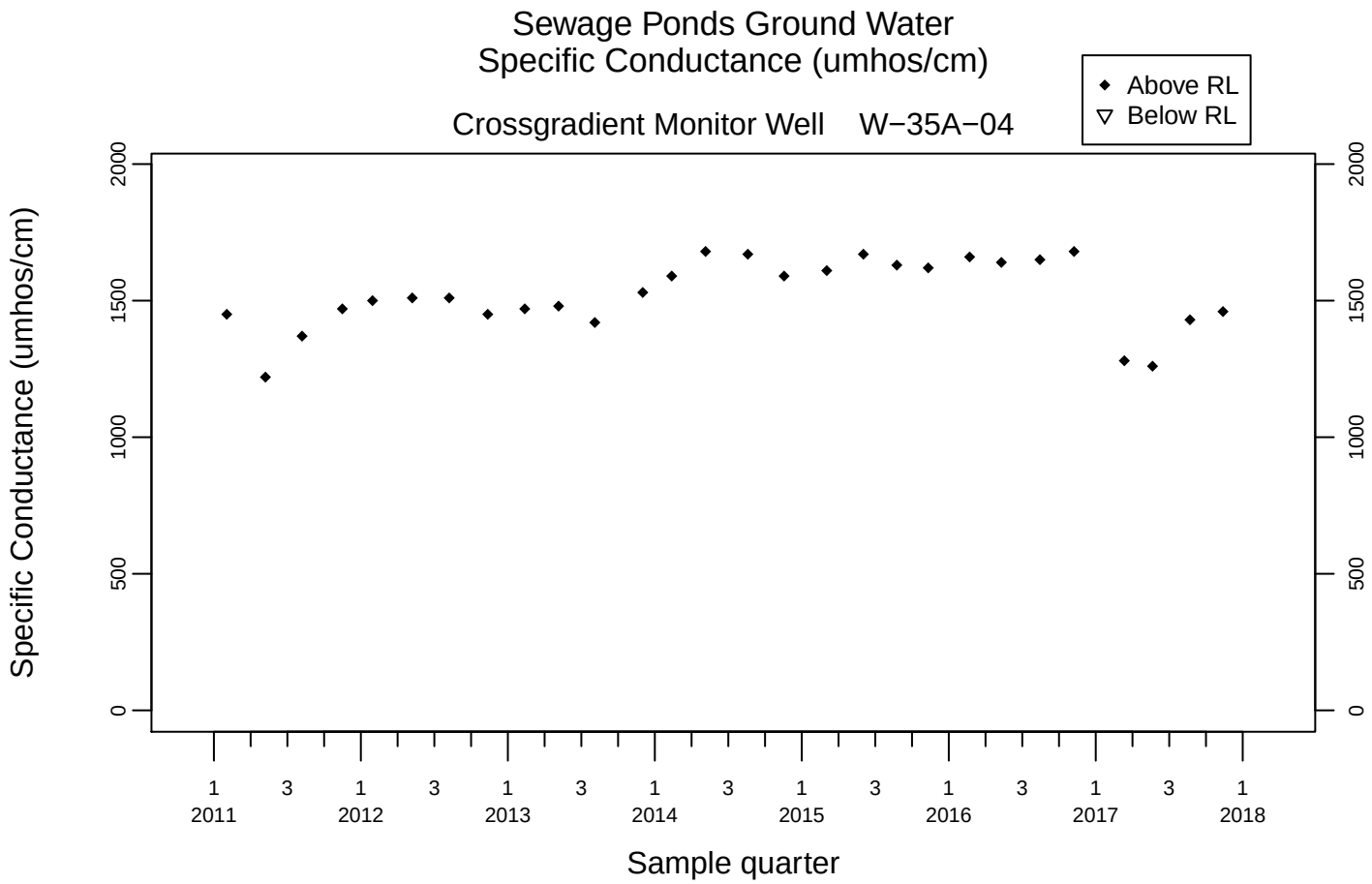

Sewage Ponds Ground Water
Field pH (Units)
Downgradient Monitor Well W−26R−05
Above RL
Below RL
Field pH (Units)
0
2
4
6
8
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

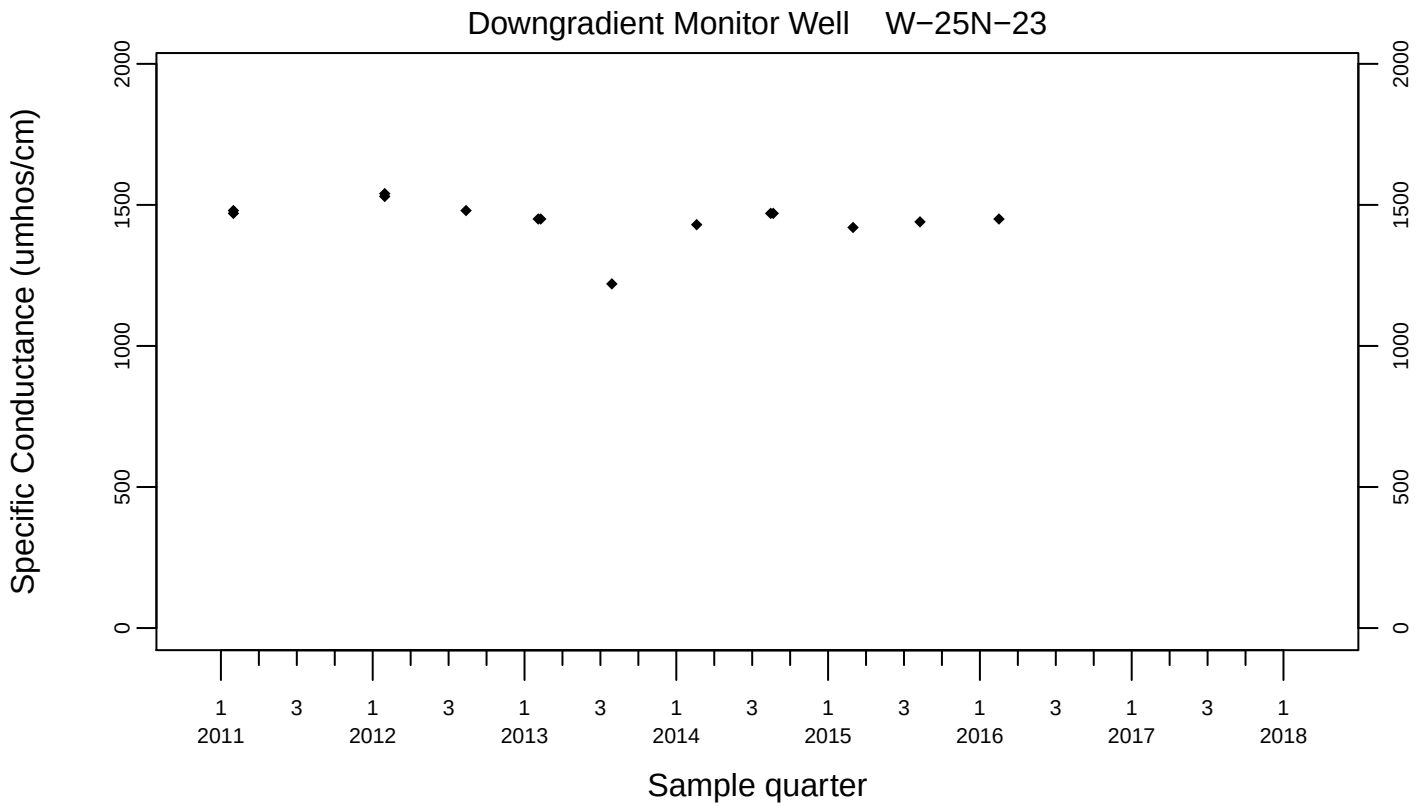

Downgradient Monitor Well W−26R−11
Field pH (Units)
0
2
4
6
8
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

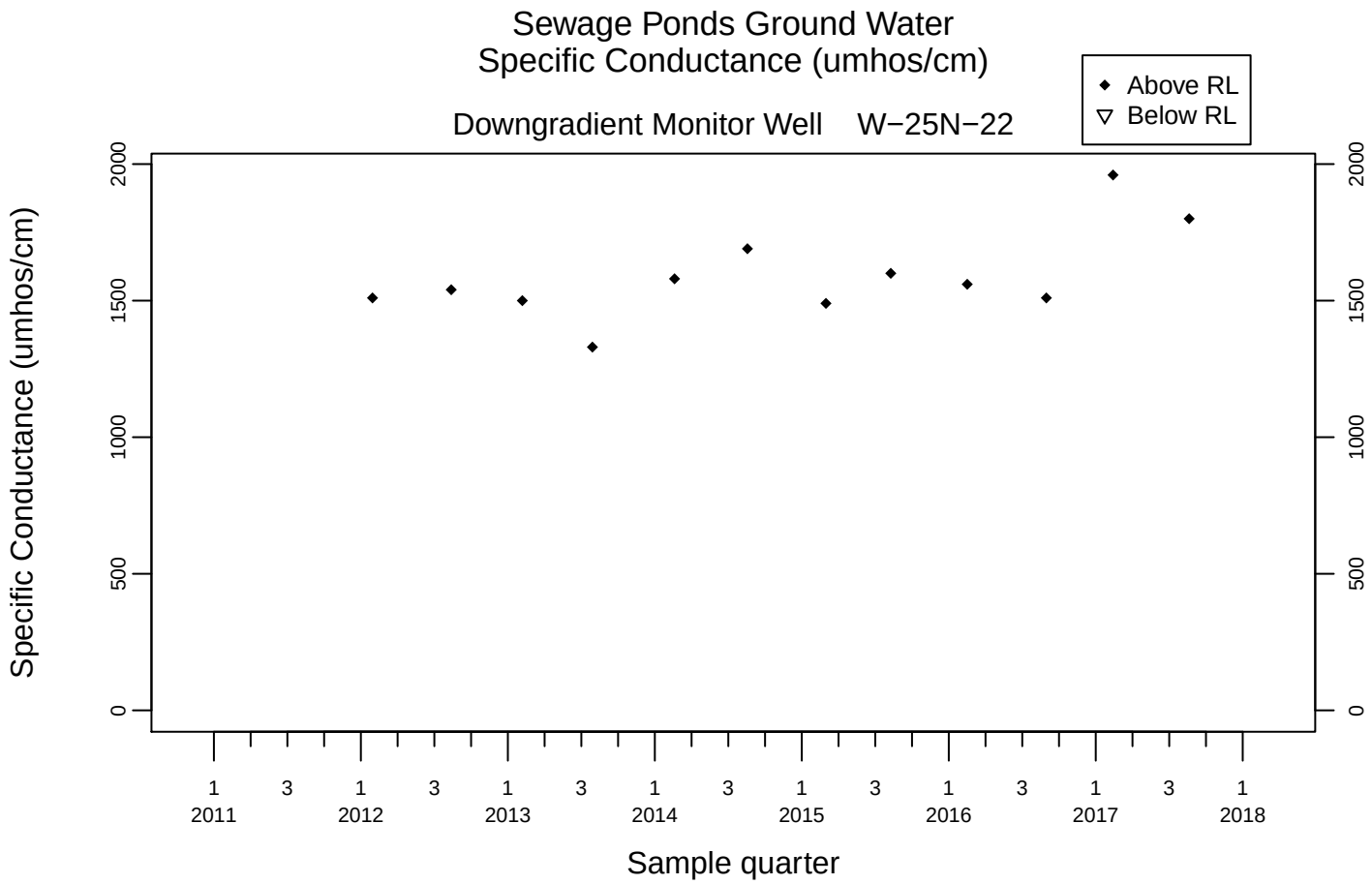

Sewage Ponds Ground Water
Field pH (Units)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Field pH (Units)
0
2
4
6
8
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

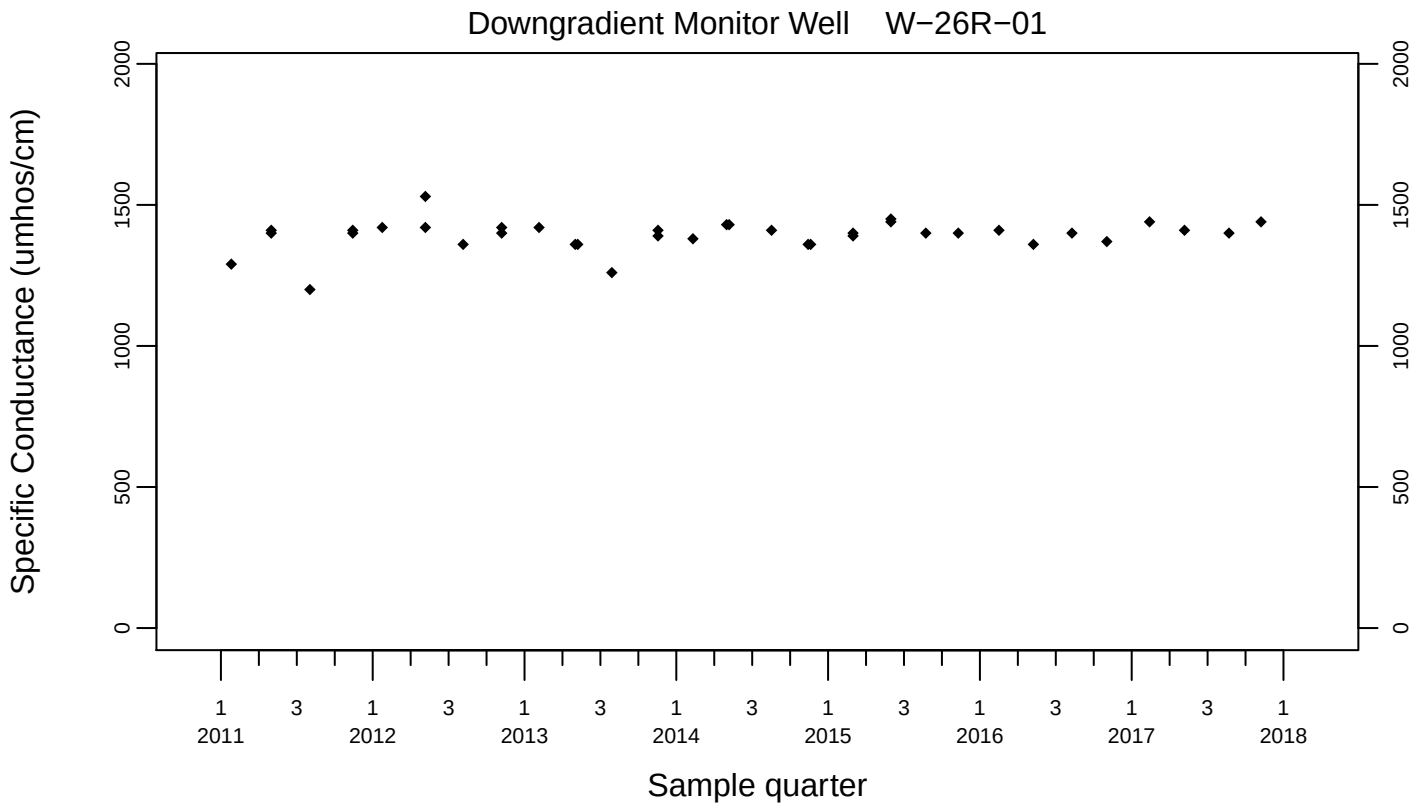

Sewage Ponds Ground Water
Specific Conductance (umhos/cm)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Specific Conductance (umhos/cm)
0
500
1000
1500
2000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

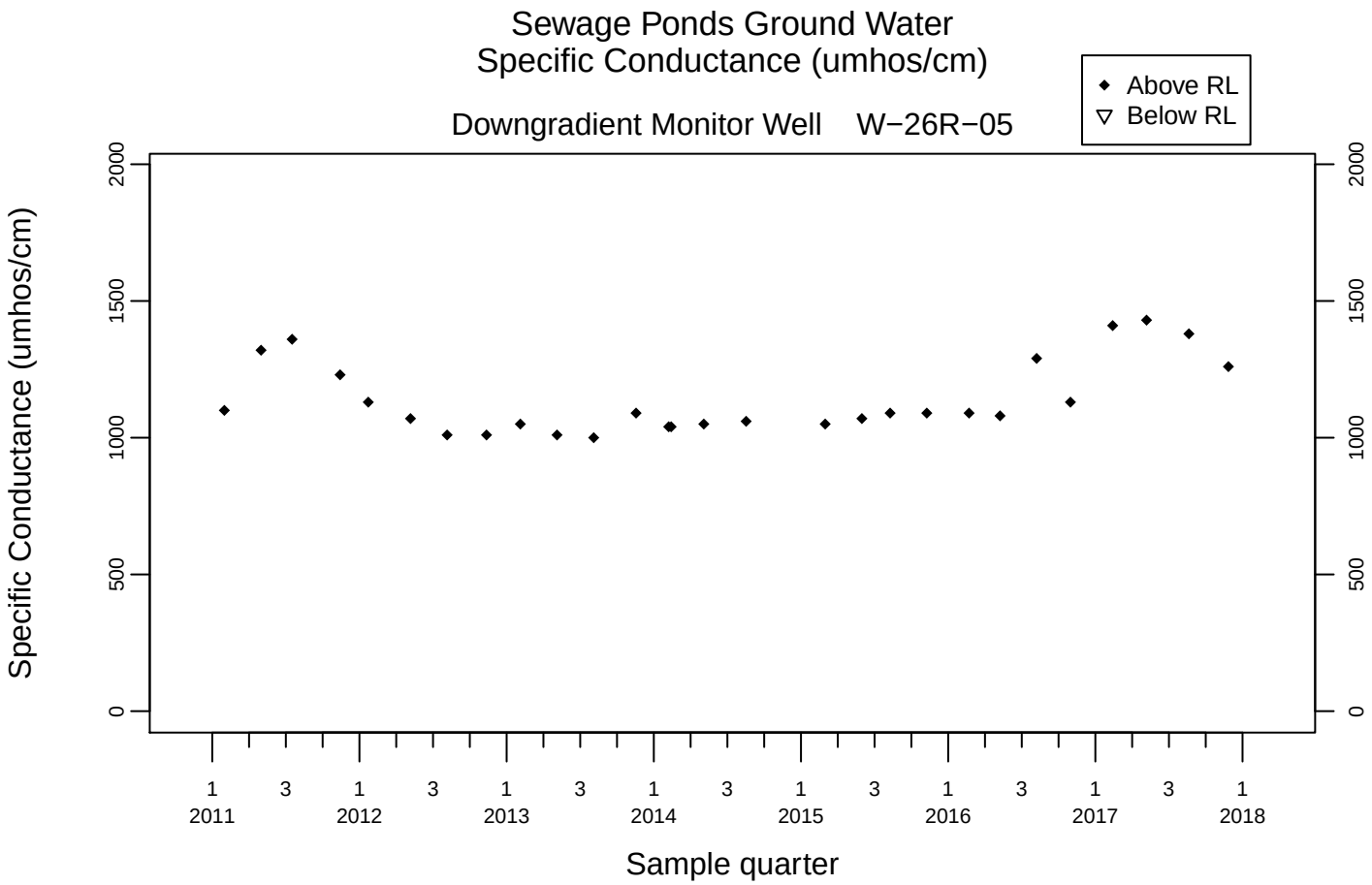

Upgradient Monitor Well W−7PS
Specific Conductance (umhos/cm)
0
500
1000
1500
2000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

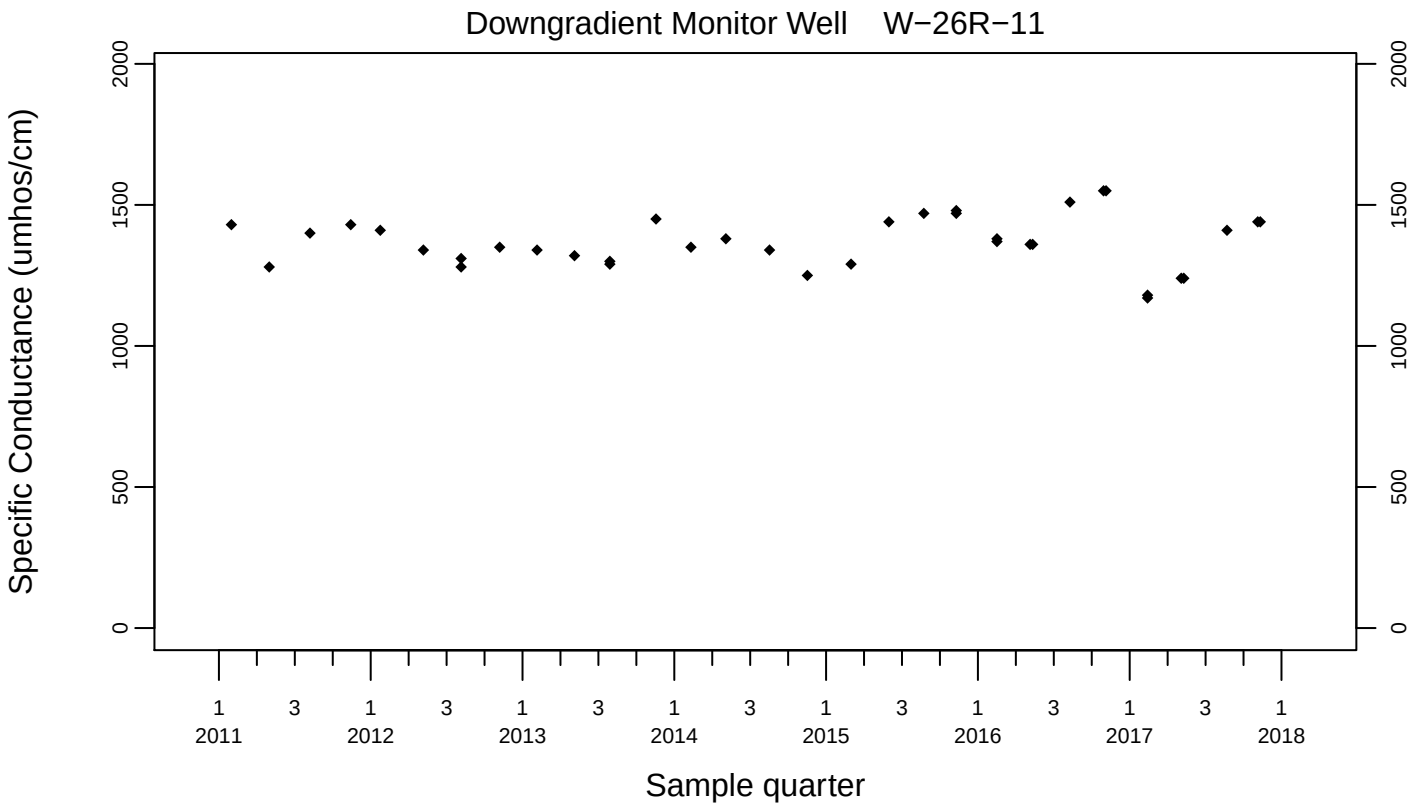

Sewage Ponds Ground Water
Specific Conductance (umhos/cm)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Specific Conductance (umhos/cm)
0
500
1000
1500
2000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

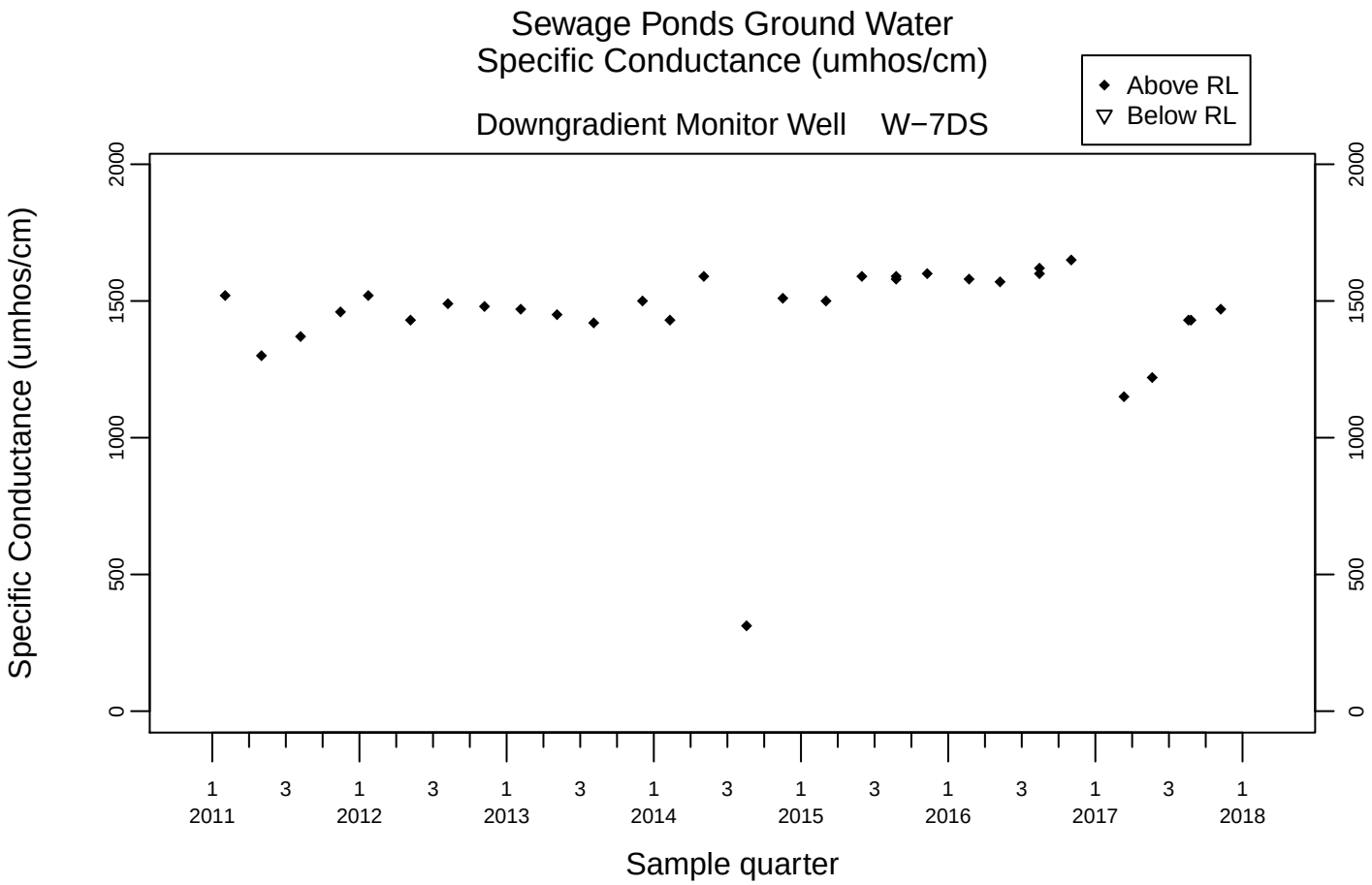

Downgradient Monitor Well W−25N−23
Specific Conductance (umhos/cm)
0
500
1000
1500
2000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

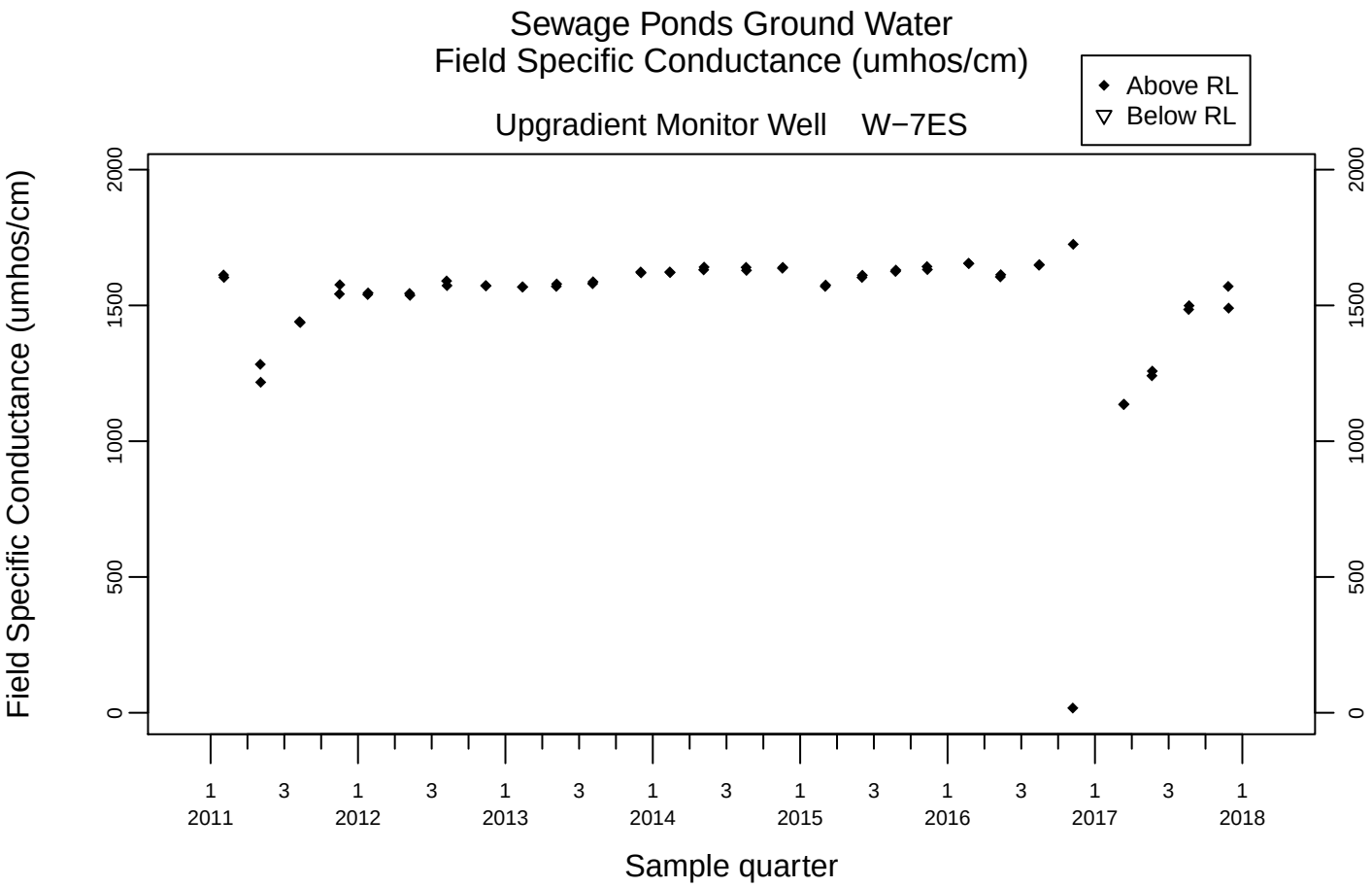

Sewage Ponds Ground Water
Specific Conductance (umhos/cm)
Downgradient Monitor Well W−25N−22
Above RL
Below RL
Specific Conductance (umhos/cm)
0
500
1000
1500
2000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

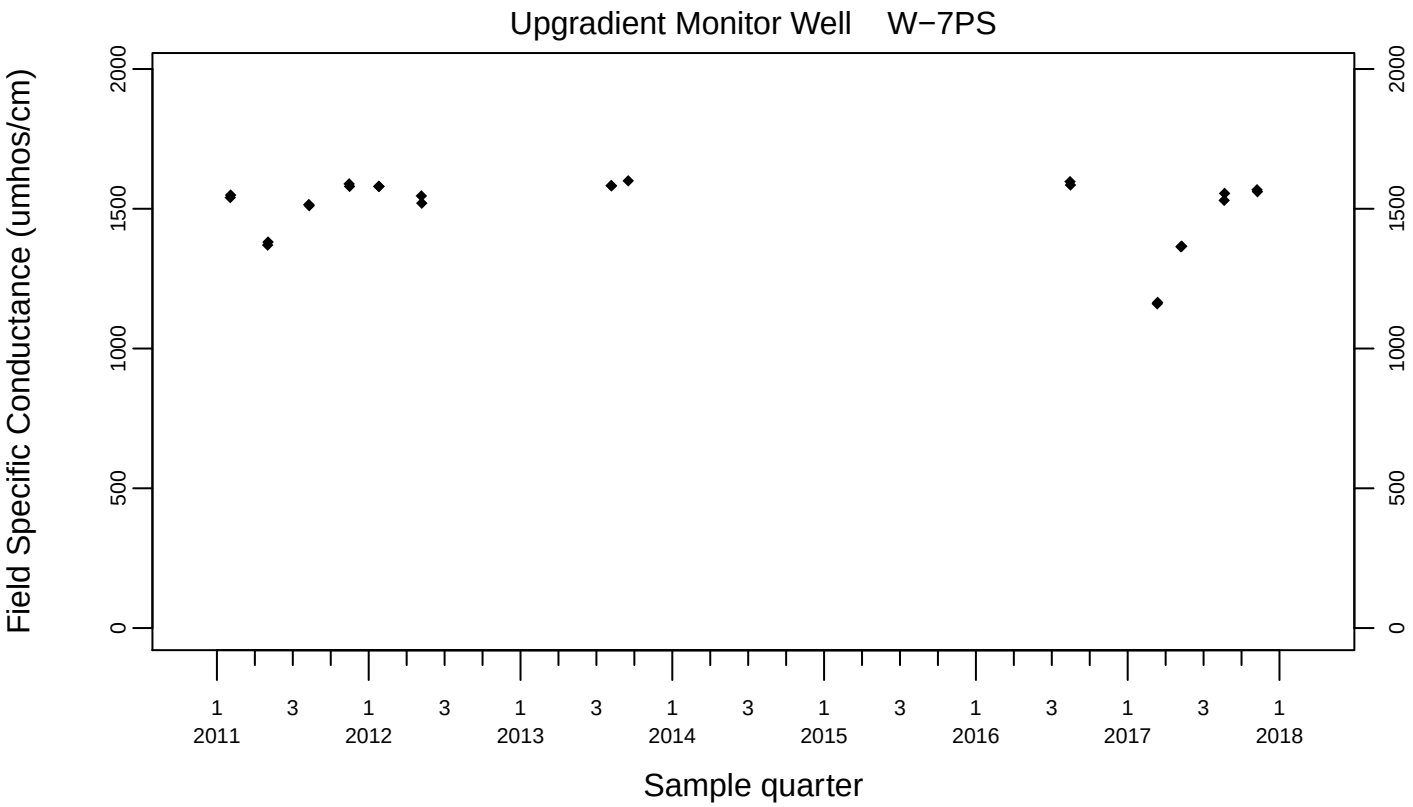

Downgradient Monitor Well W−26R−01
Specific Conductance (umhos/cm)
0
500
1000
1500
2000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

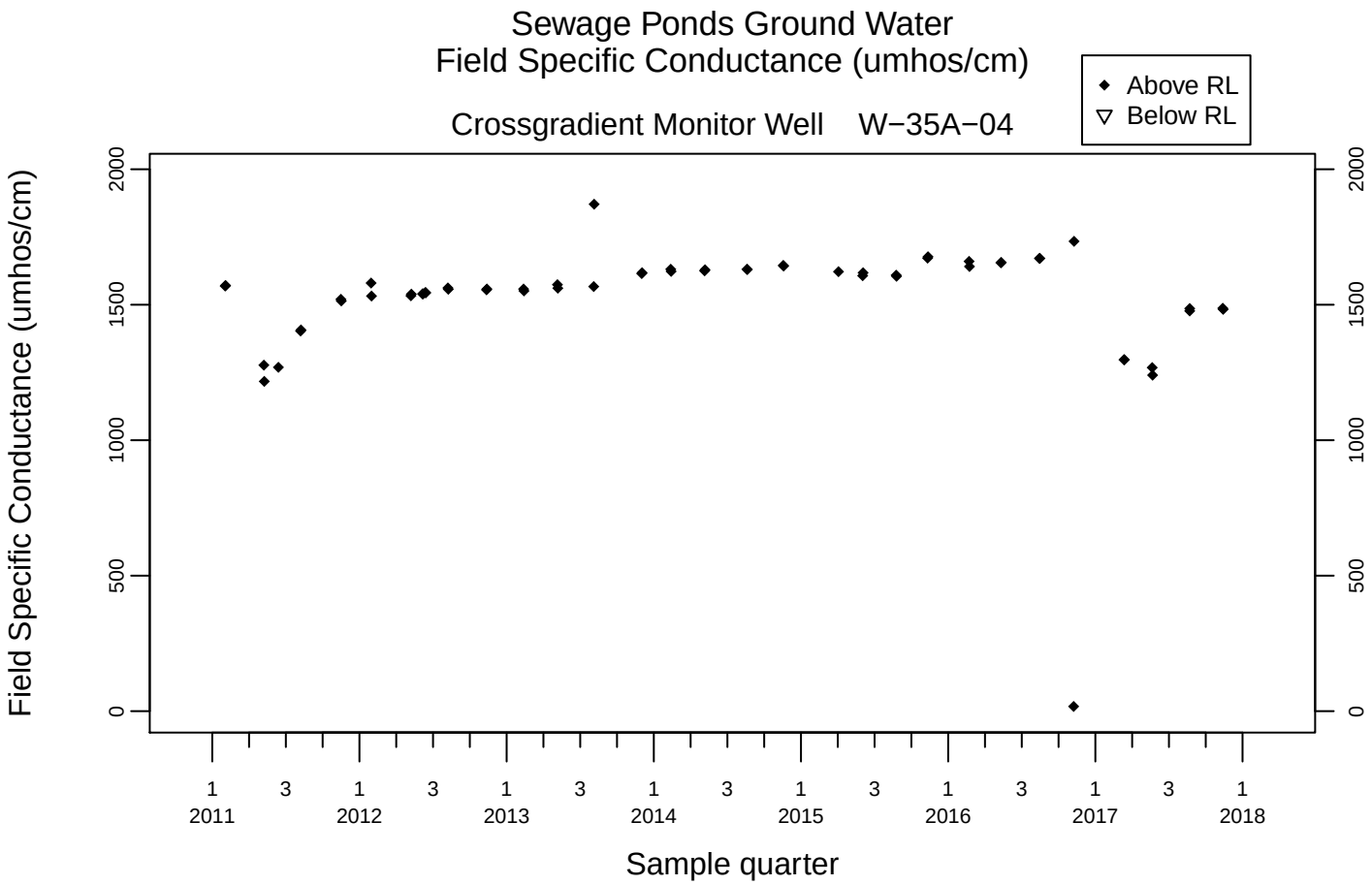

Sewage Ponds Ground Water
Specific Conductance (umhos/cm)
Above RL
Below RL
Downgradient Monitor Well W−26R−05
Specific Conductance (umhos/cm)
0
500
1000
1500
2000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

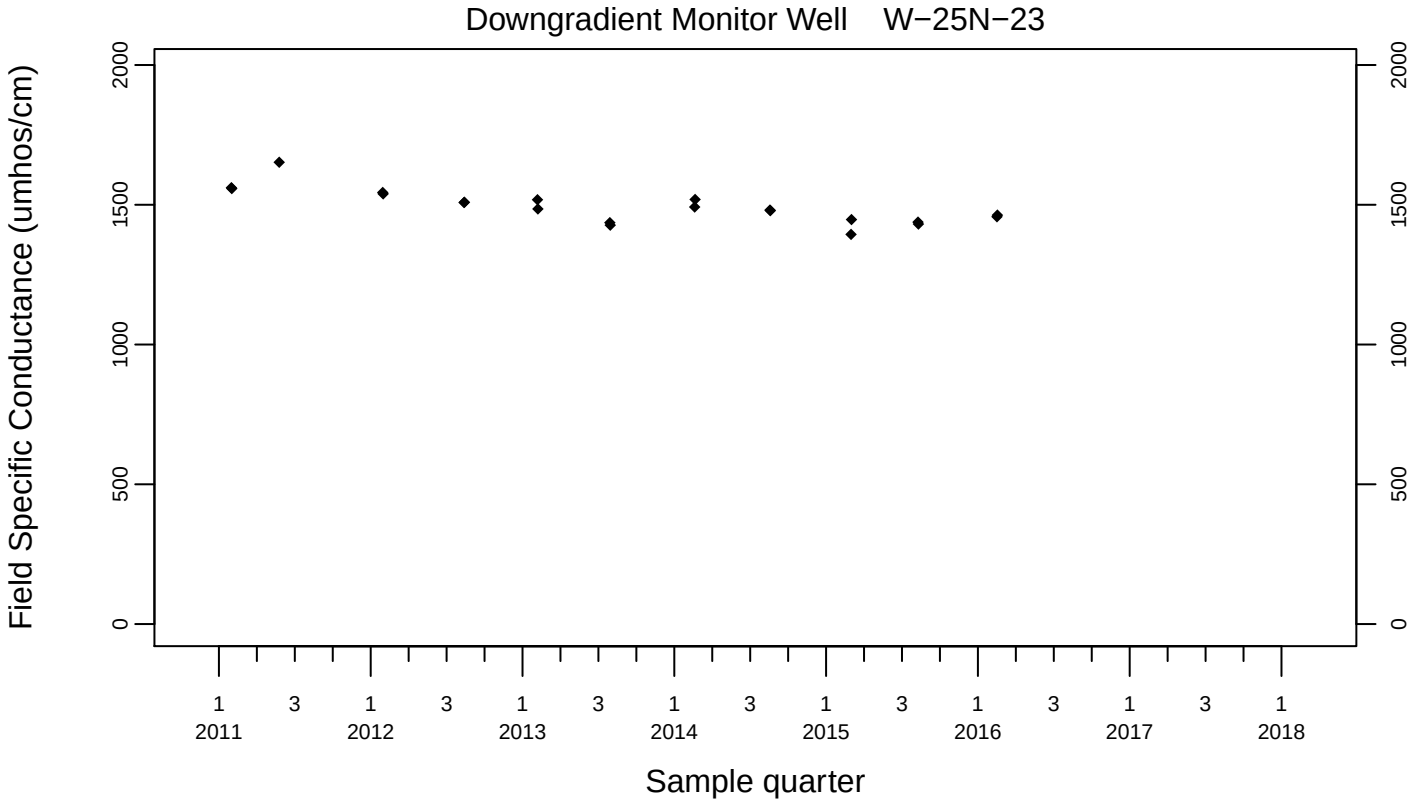

Downgradient Monitor Well W−26R−11
Specific Conductance (umhos/cm)
0
500
1000
1500
2000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

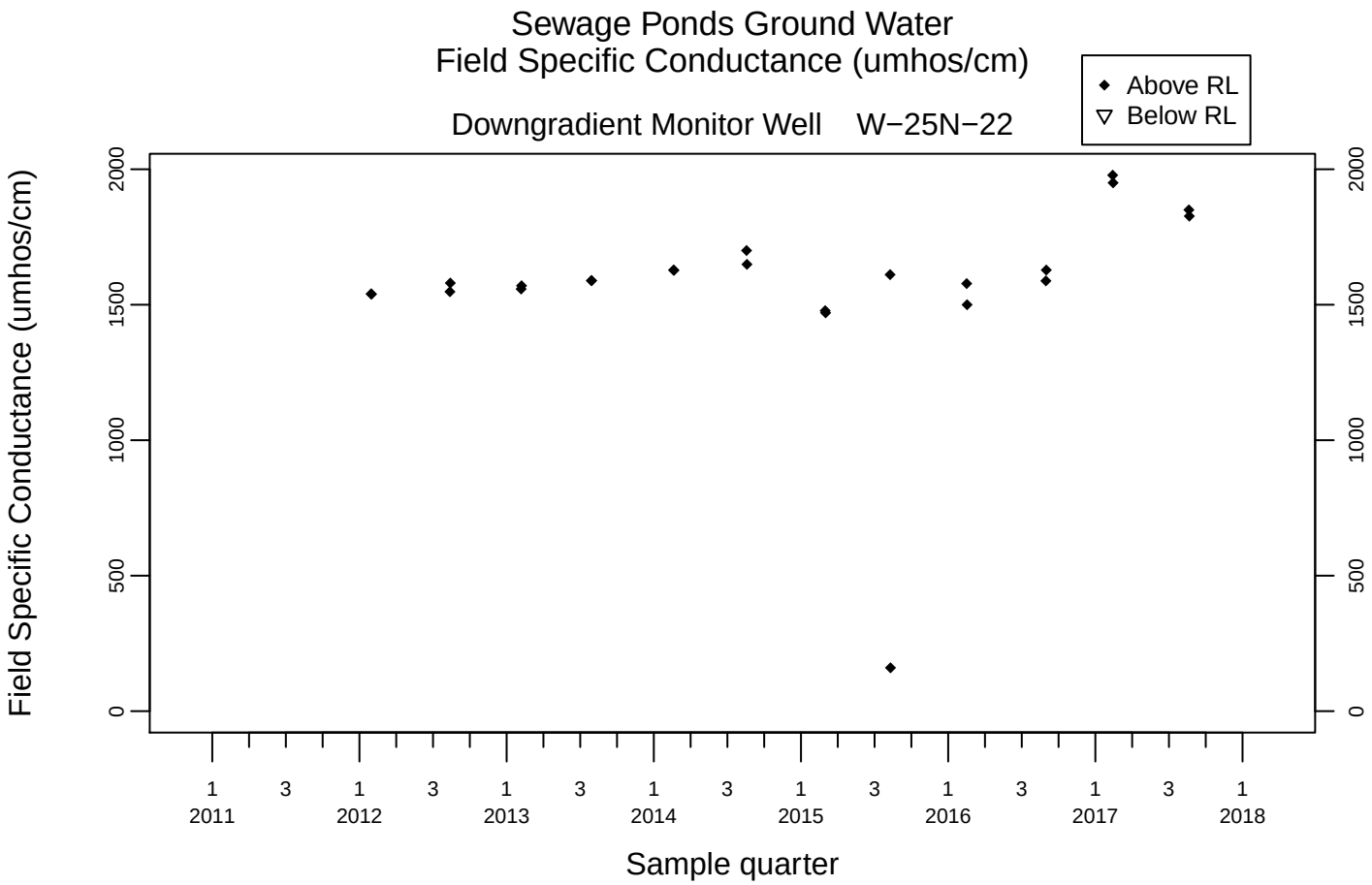

Sewage Ponds Ground Water
Specific Conductance (umhos/cm)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Specific Conductance (umhos/cm)
0
500
1000
1500
2000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

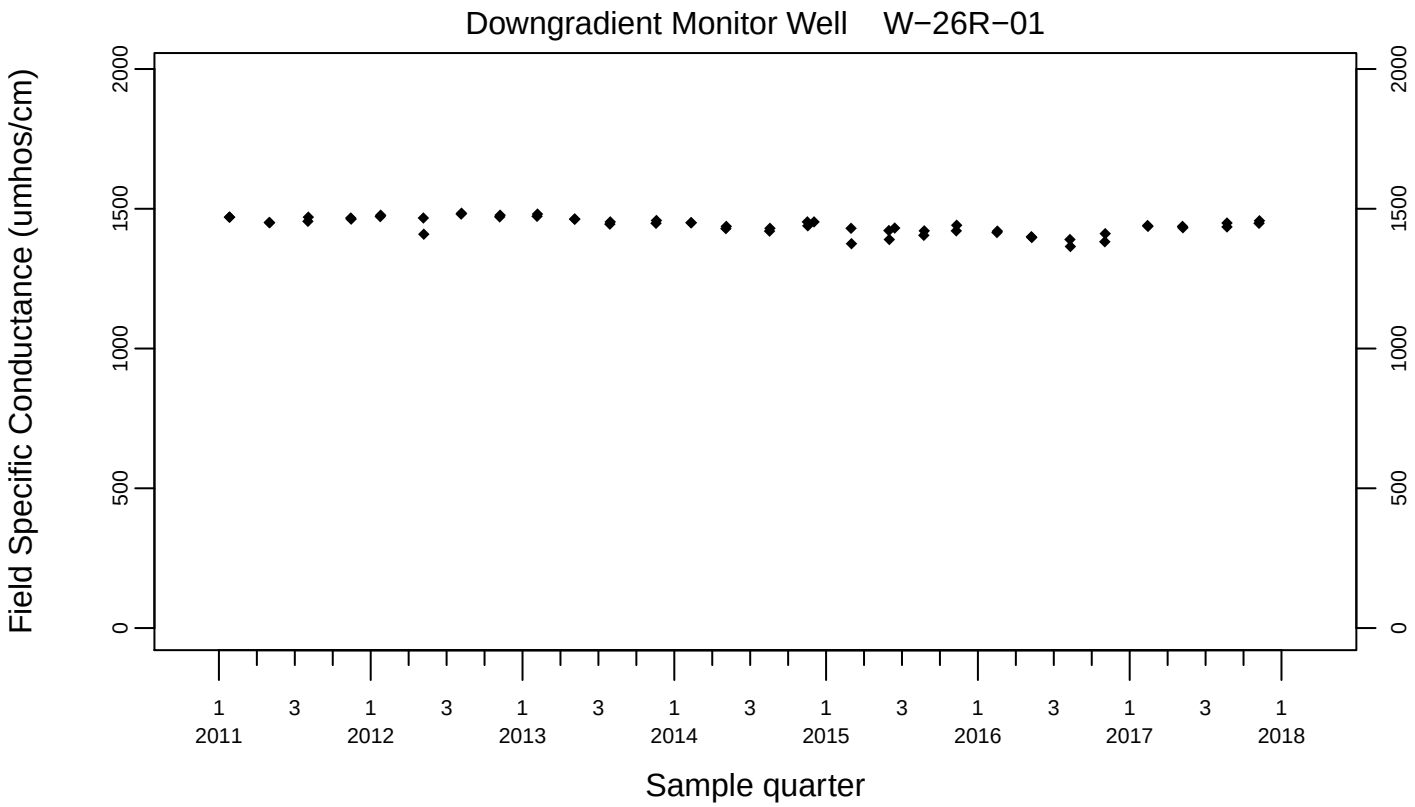

Sewage Ponds Ground Water
Field Specific Conductance (umhos/cm)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Field Specific Conductance (umhos/cm)
0
500
1000
1500
2000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

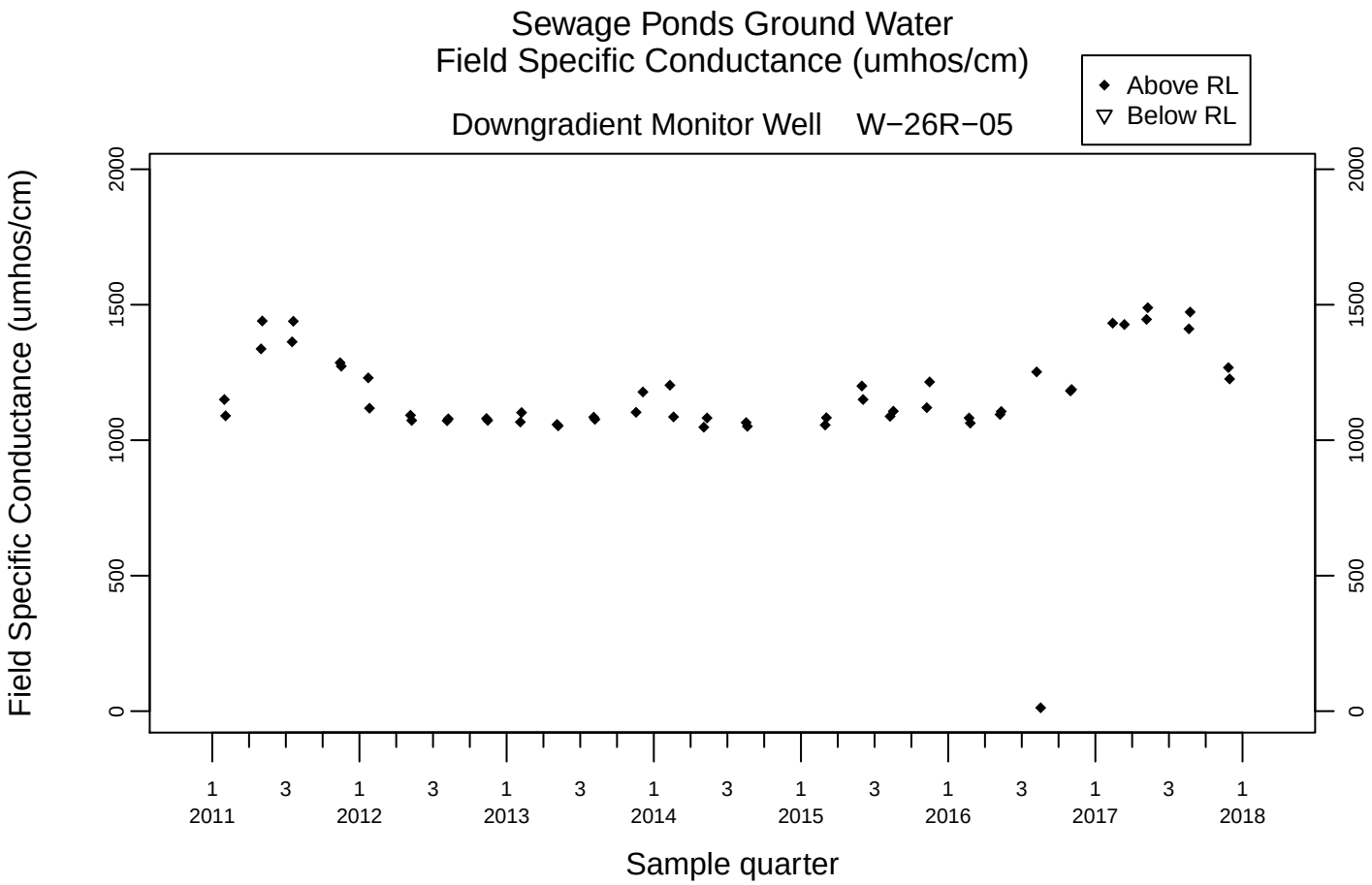

Upgradient Monitor Well W−7PS
Field Specific Conductance (umhos/cm)
0
500
1000
1500
2000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

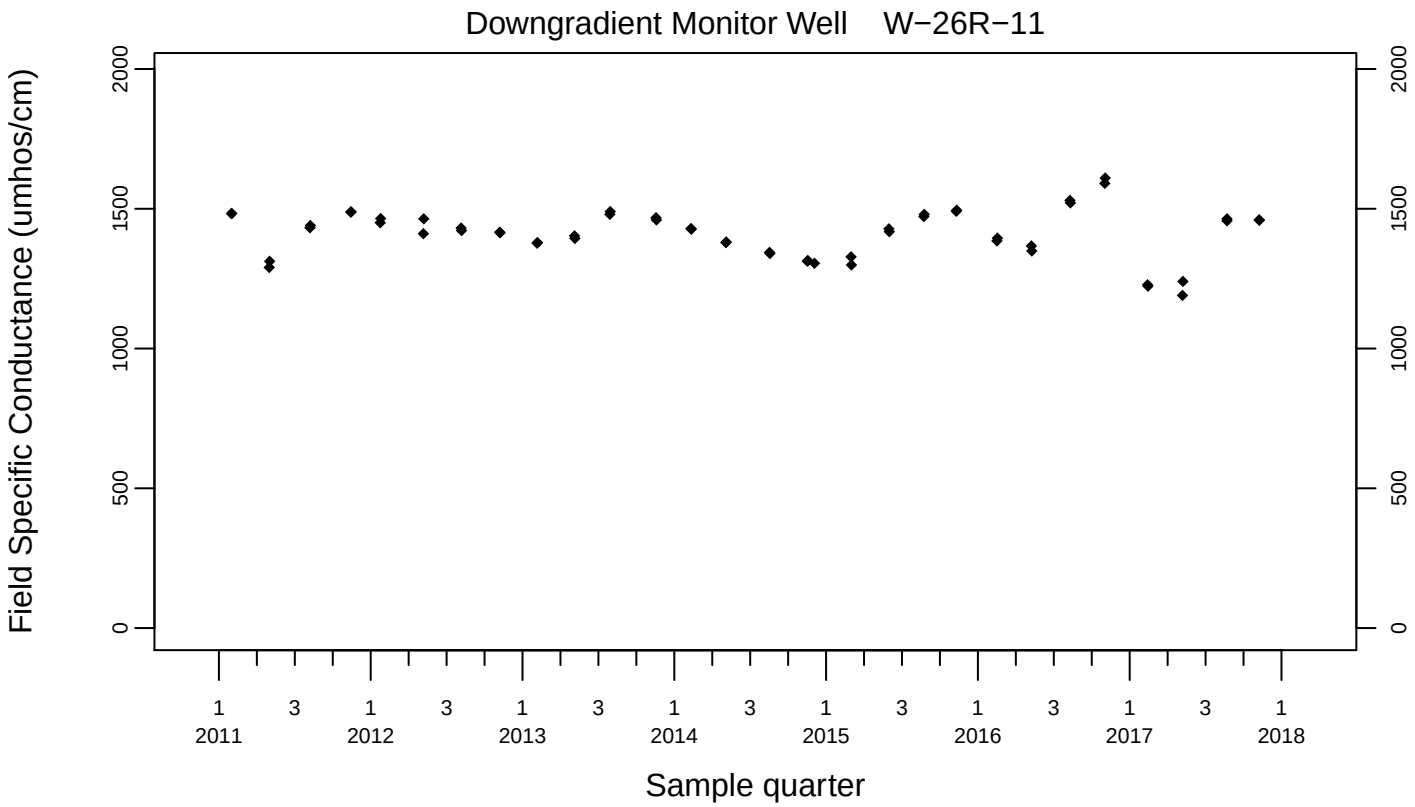

Sewage Ponds Ground Water
Field Specific Conductance (umhos/cm)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Field Specific Conductance (umhos/cm)
0
500
1000
1500
2000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

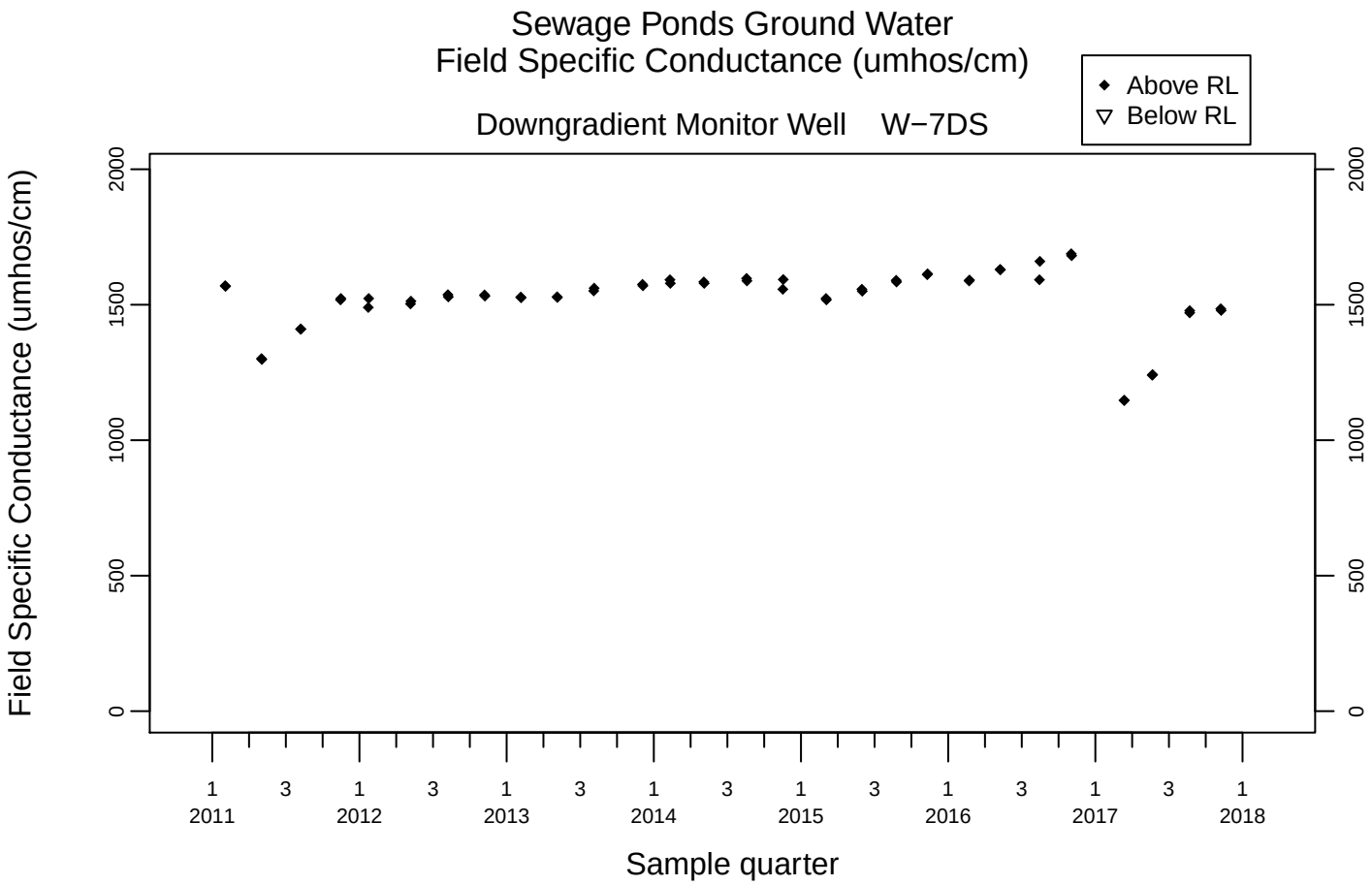

Downgradient Monitor Well W−25N−23
Field Specific Conductance (umhos/cm)
0
500
1000
1500
2000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

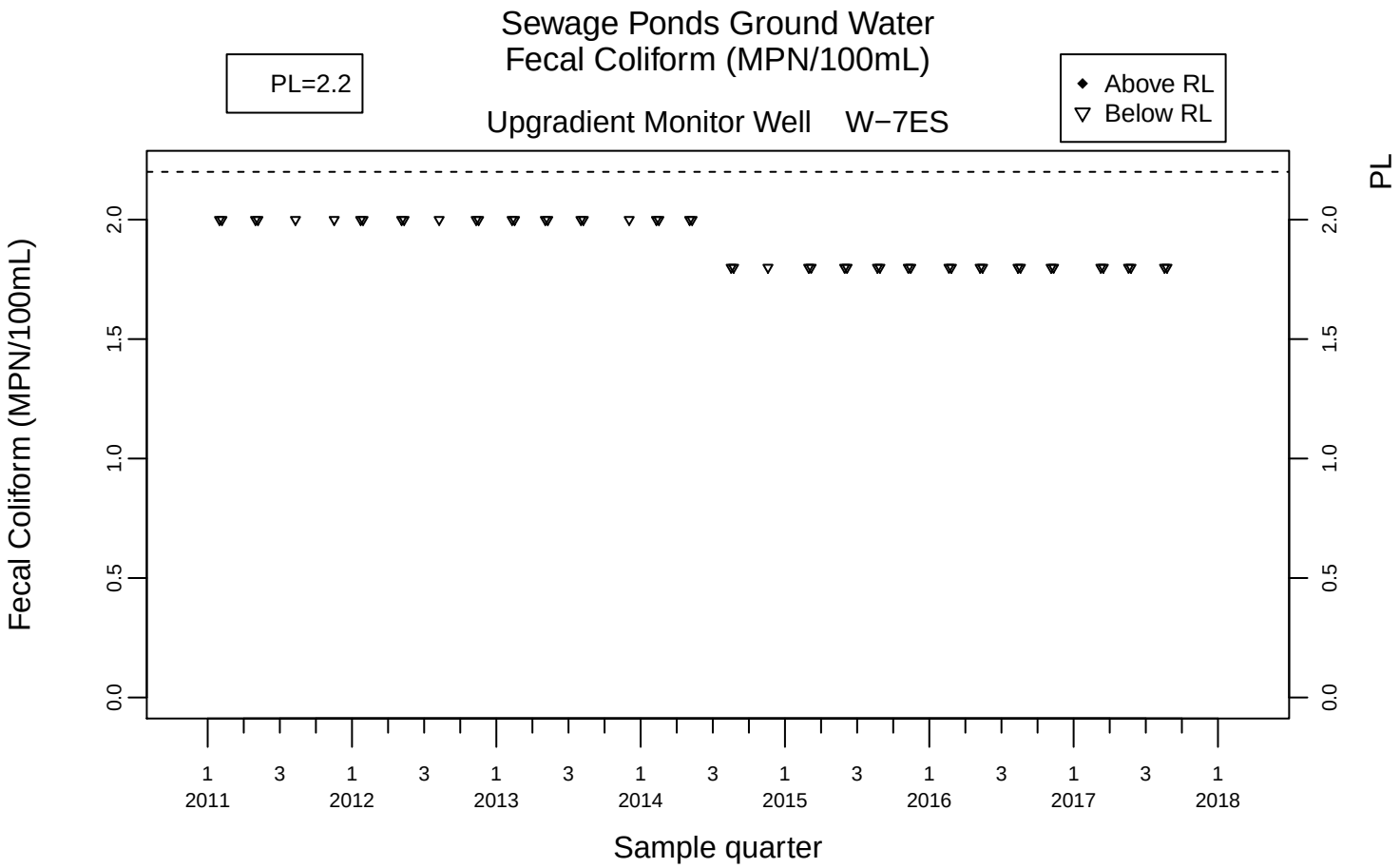

Sewage Ponds Ground Water
Field Specific Conductance (umhos/cm)
Downgradient Monitor Well W−25N−22
Above RL
Below RL
Field Specific Conductance (umhos/cm)
0
500
1000
1500
2000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

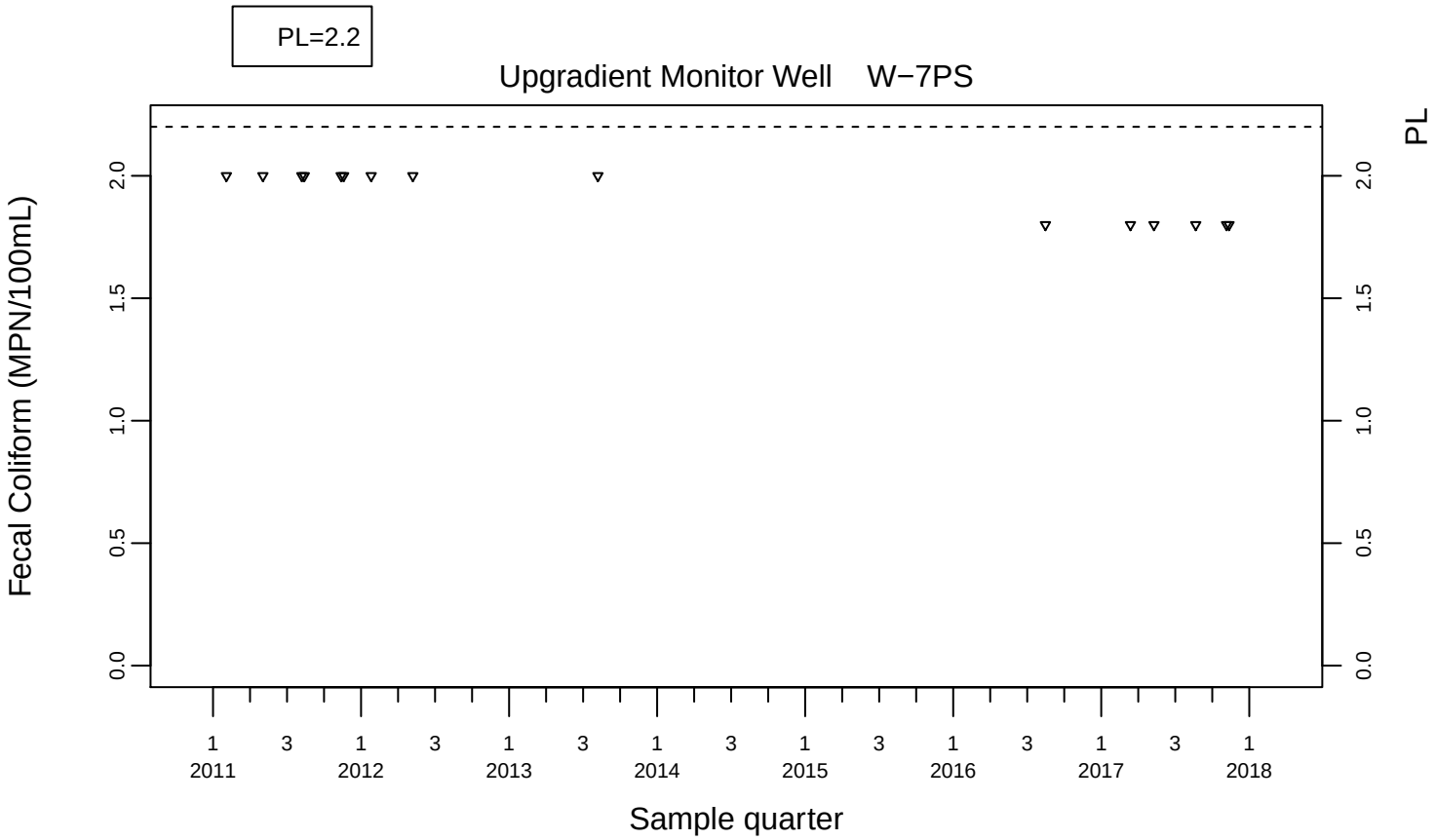

Downgradient Monitor Well W−26R−01
Field Specific Conductance (umhos/cm)
0
500
1000
1500
2000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

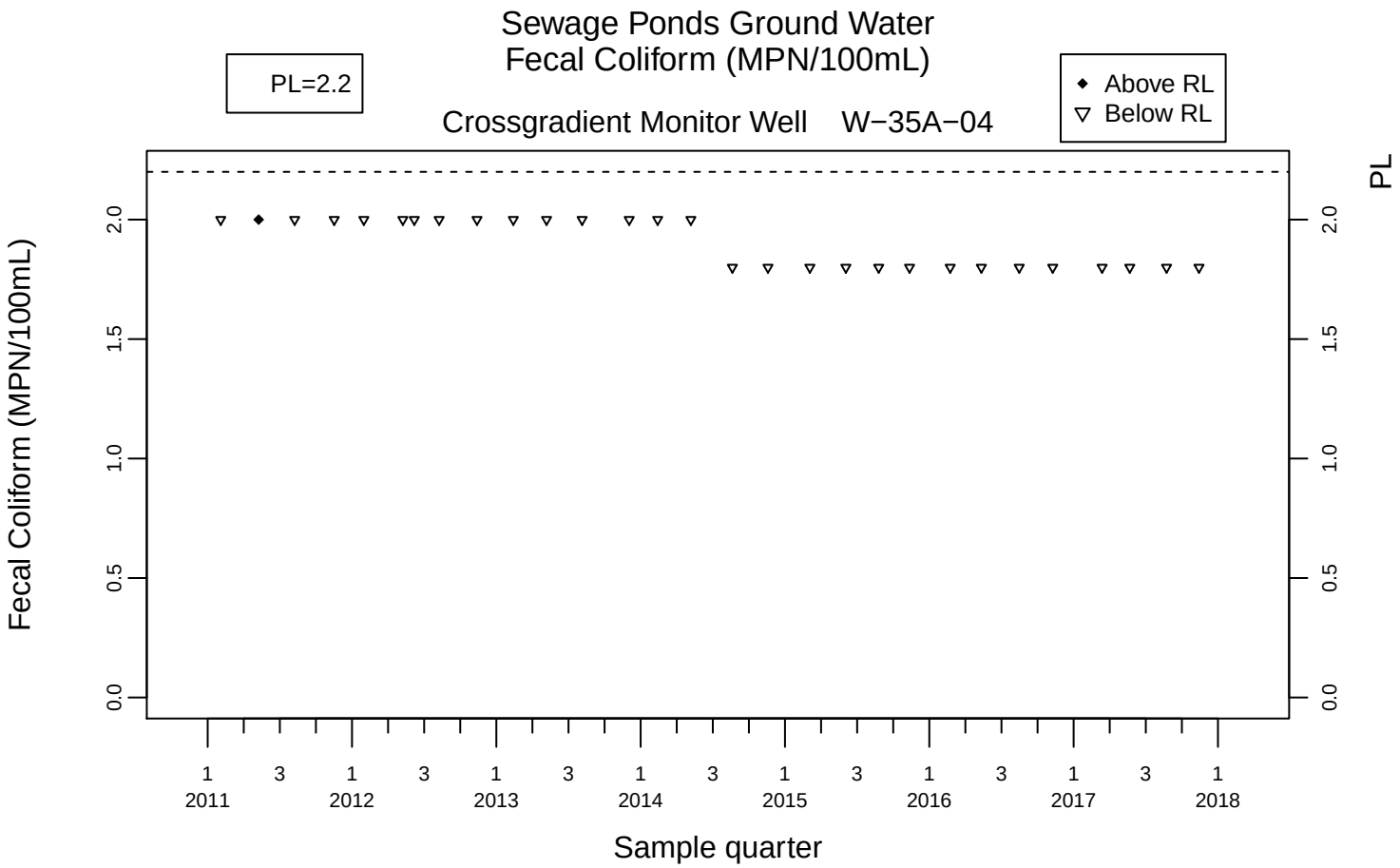

Sewage Ponds Ground Water
Field Specific Conductance (umhos/cm)
Downgradient Monitor Well W−26R−05
Above RL
Below RL
Field Specific Conductance (umhos/cm)
0
500
1000
1500
2000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

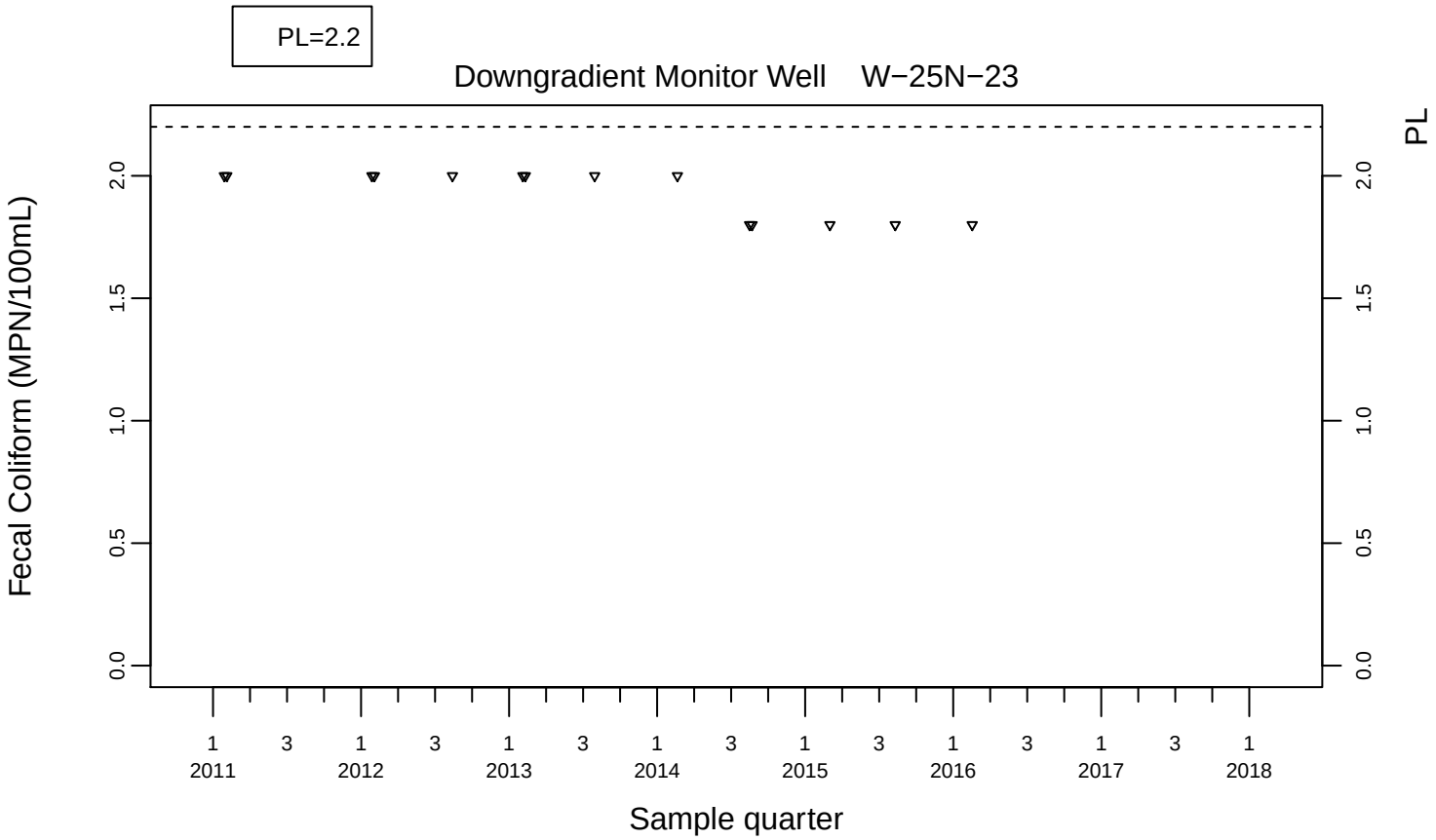

Downgradient Monitor Well W−26R−11
Field Specific Conductance (umhos/cm)
0
500
1000
1500
2000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

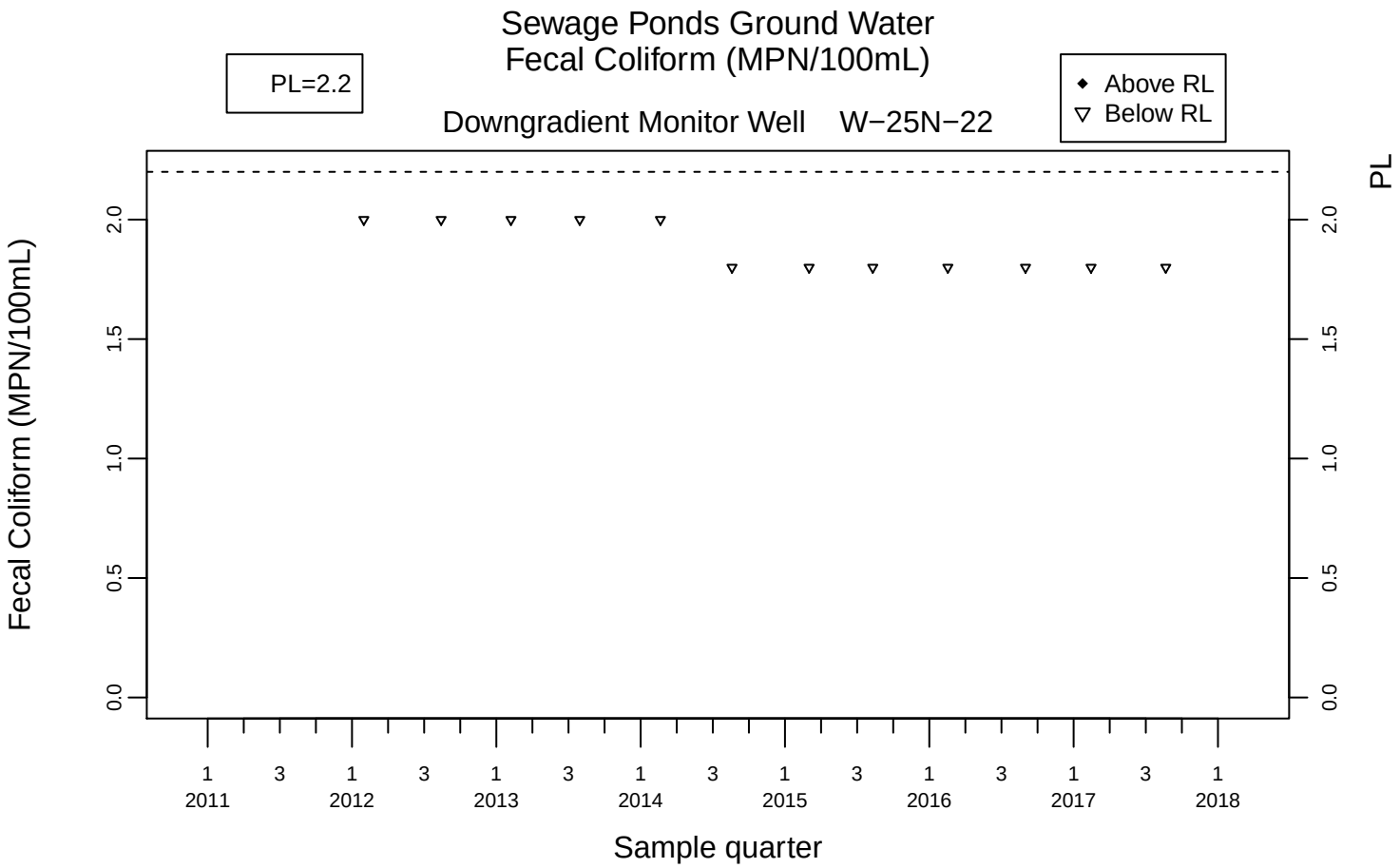

Sewage Ponds Ground Water
Field Specific Conductance (umhos/cm)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Field Specific Conductance (umhos/cm)
0
500
1000
1500
2000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

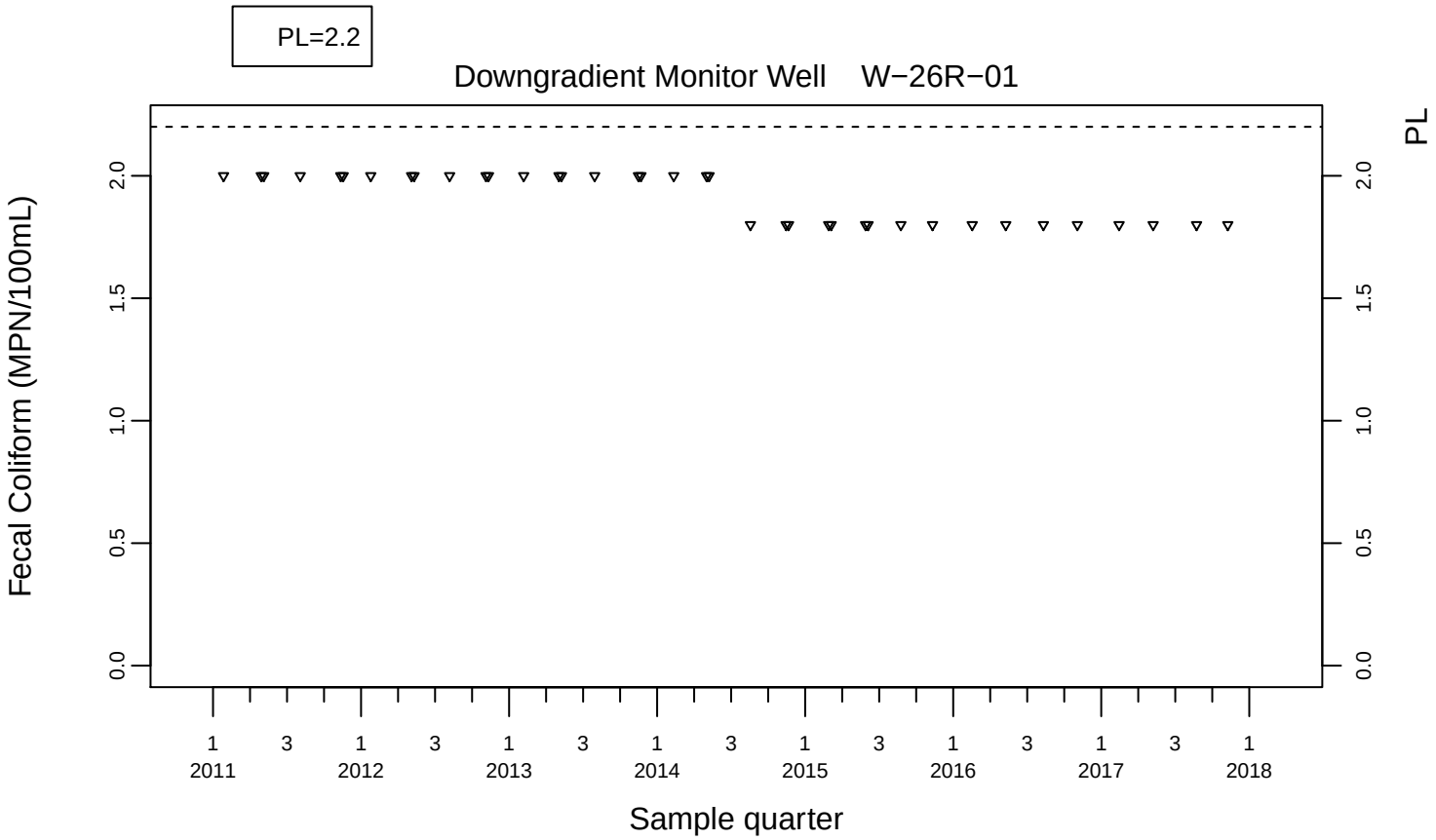

Sewage Ponds Ground Water
Fecal Coliform (MPN/100mL)
PL=2.2
Above RL
Below RL
Upgradient Monitor Well W−7ES
Fecal Coliform (MPN/100mL)
PL
0.0
0.5
1.0
1.5
2.0
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

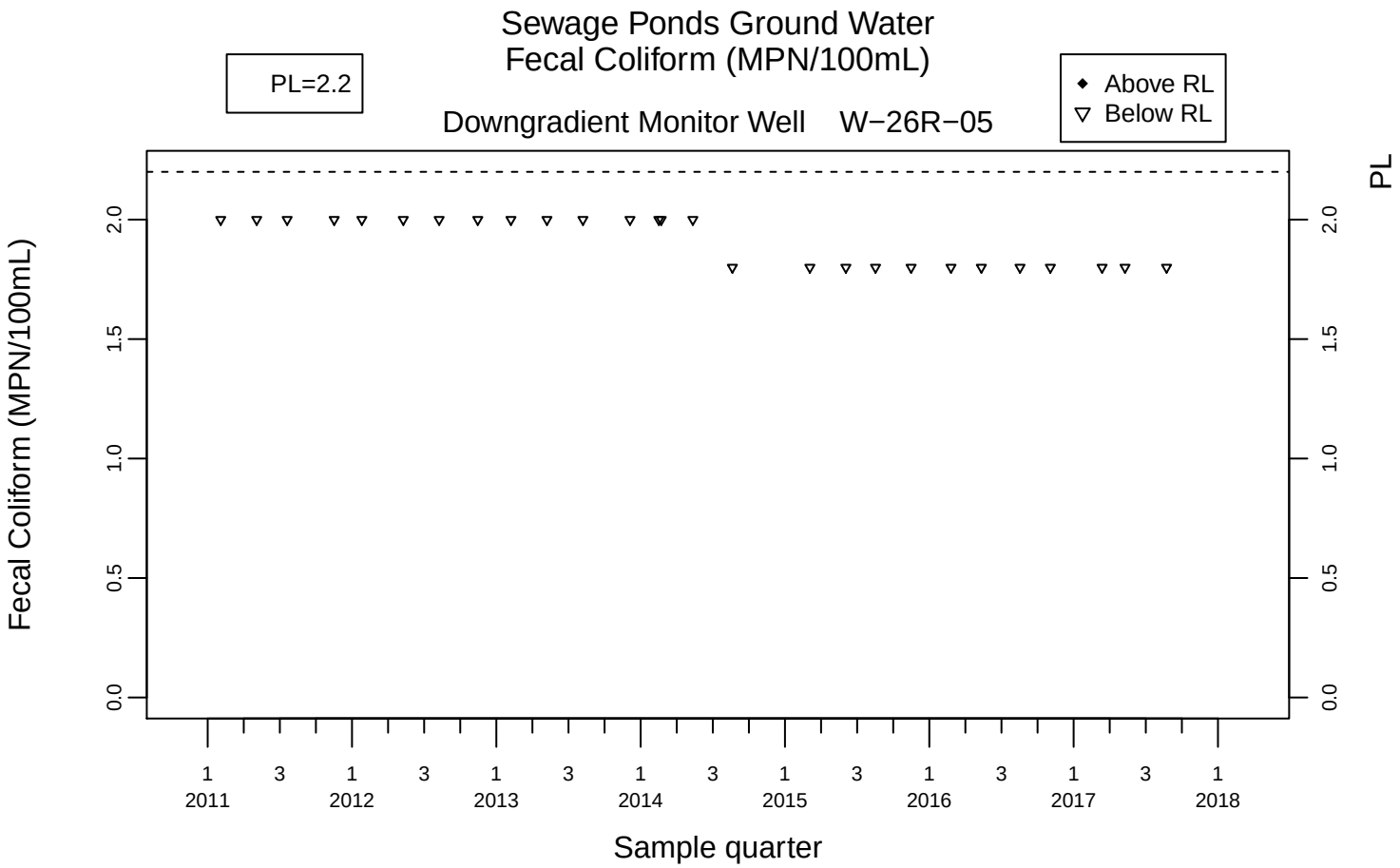

PL=2.2
Upgradient Monitor Well W−7PS
Fecal Coliform (MPN/100mL)
PL
0.0
0.5
1.0
1.5
2.0
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

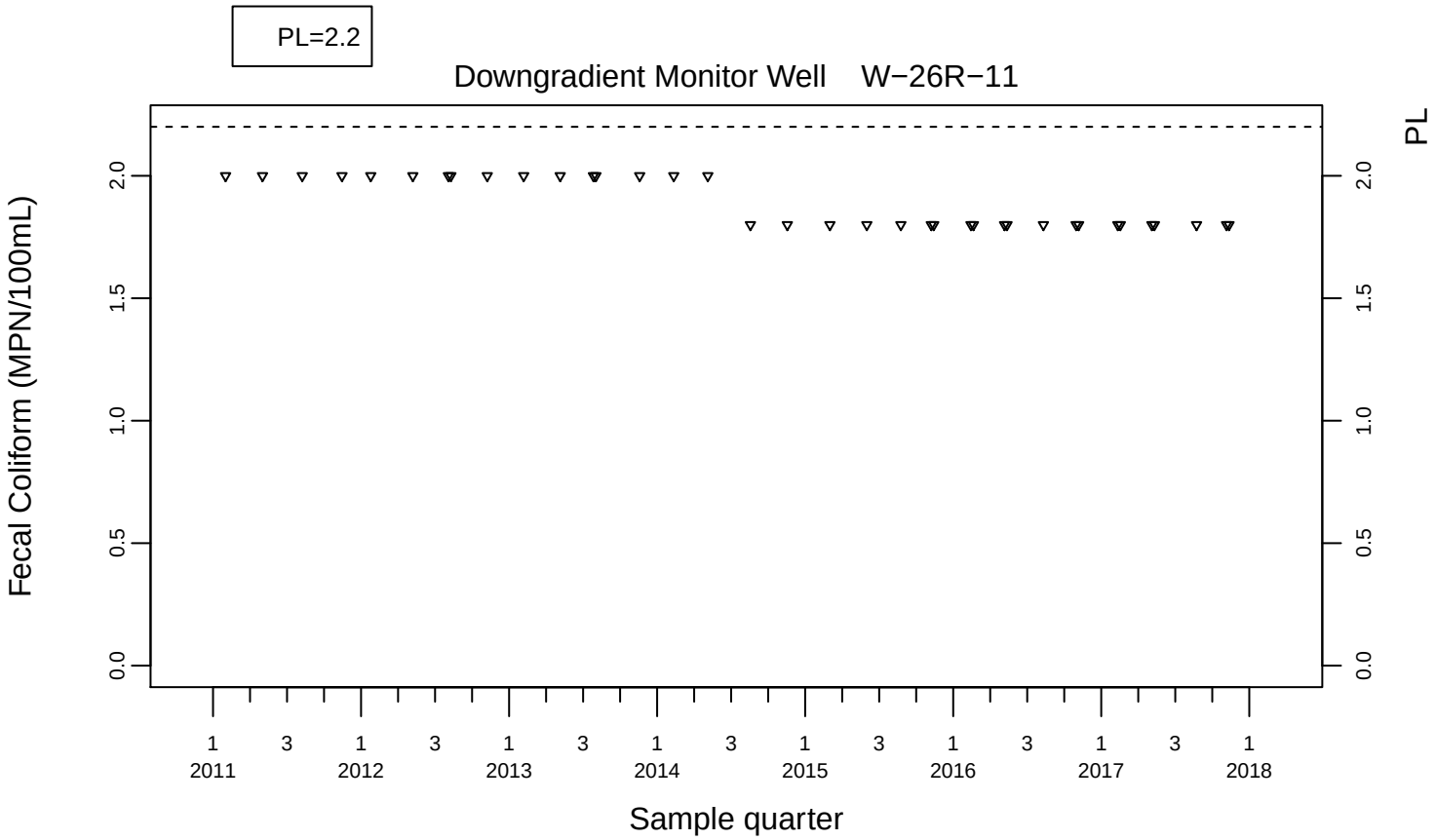

Sewage Ponds Ground Water
Fecal Coliform (MPN/100mL)
PL=2.2
Above RL
Below RL
Crossgradient Monitor Well W−35A−04
Fecal Coliform (MPN/100mL)
PL
0.0
0.5
1.0
1.5
2.0
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

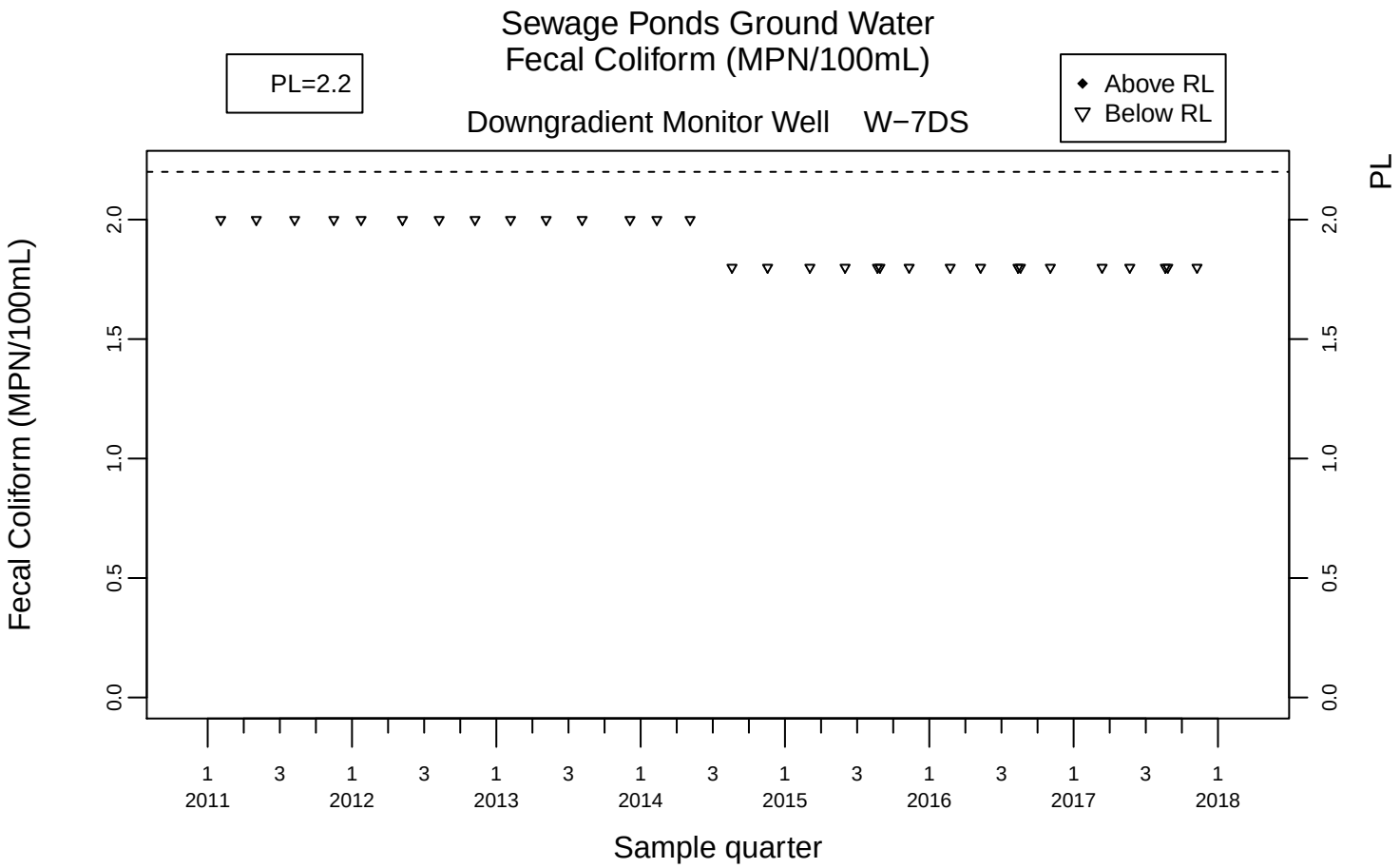

PL=2.2
Downgradient Monitor Well W−25N−23
Fecal Coliform (MPN/100mL)
PL
0.0
0.5
1.0
1.5
2.0
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

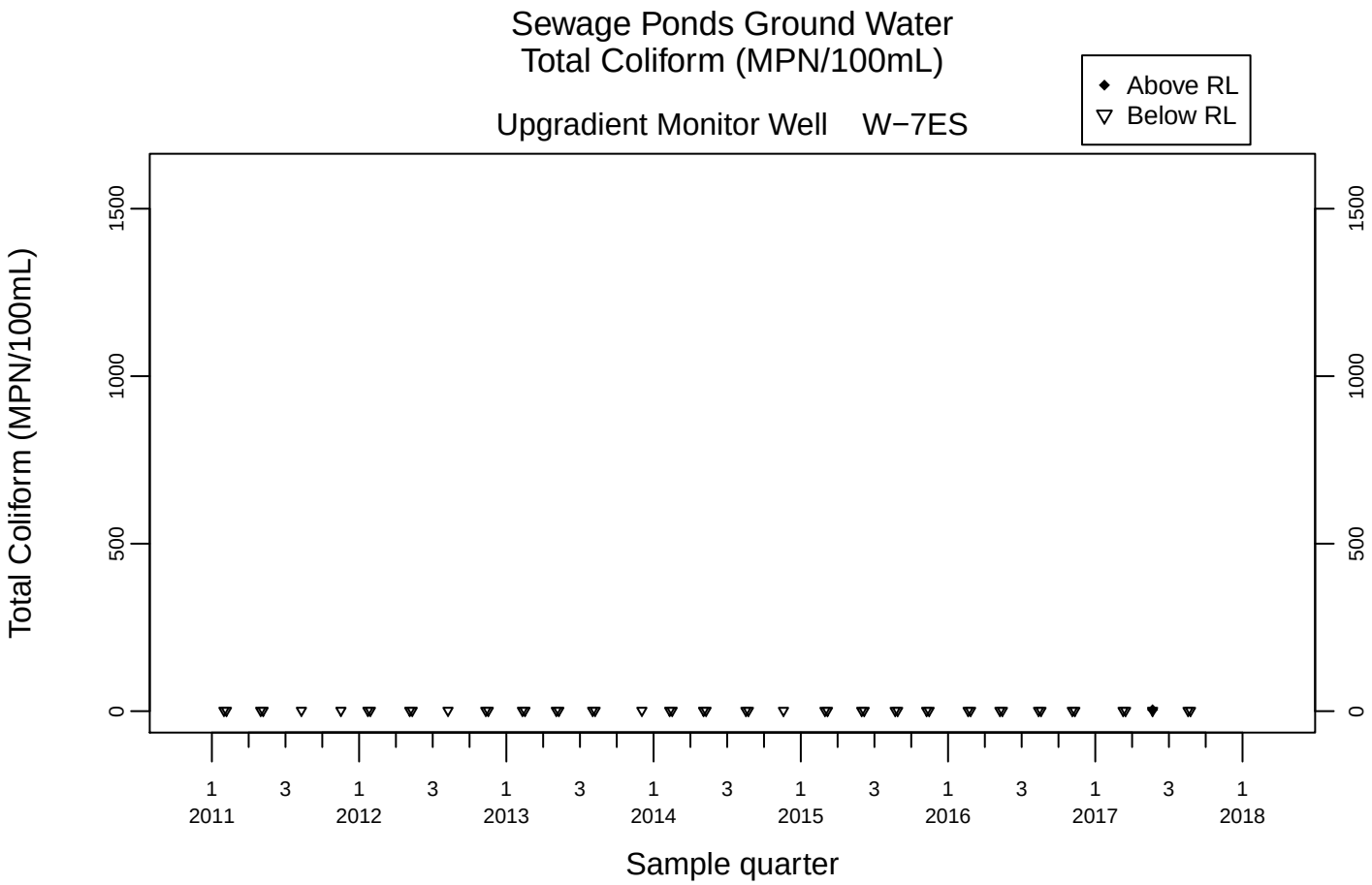

Sewage Ponds Ground Water
Fecal Coliform (MPN/100mL)
PL=2.2
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Fecal Coliform (MPN/100mL)
PL
0.0
0.5
1.0
1.5
2.0
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

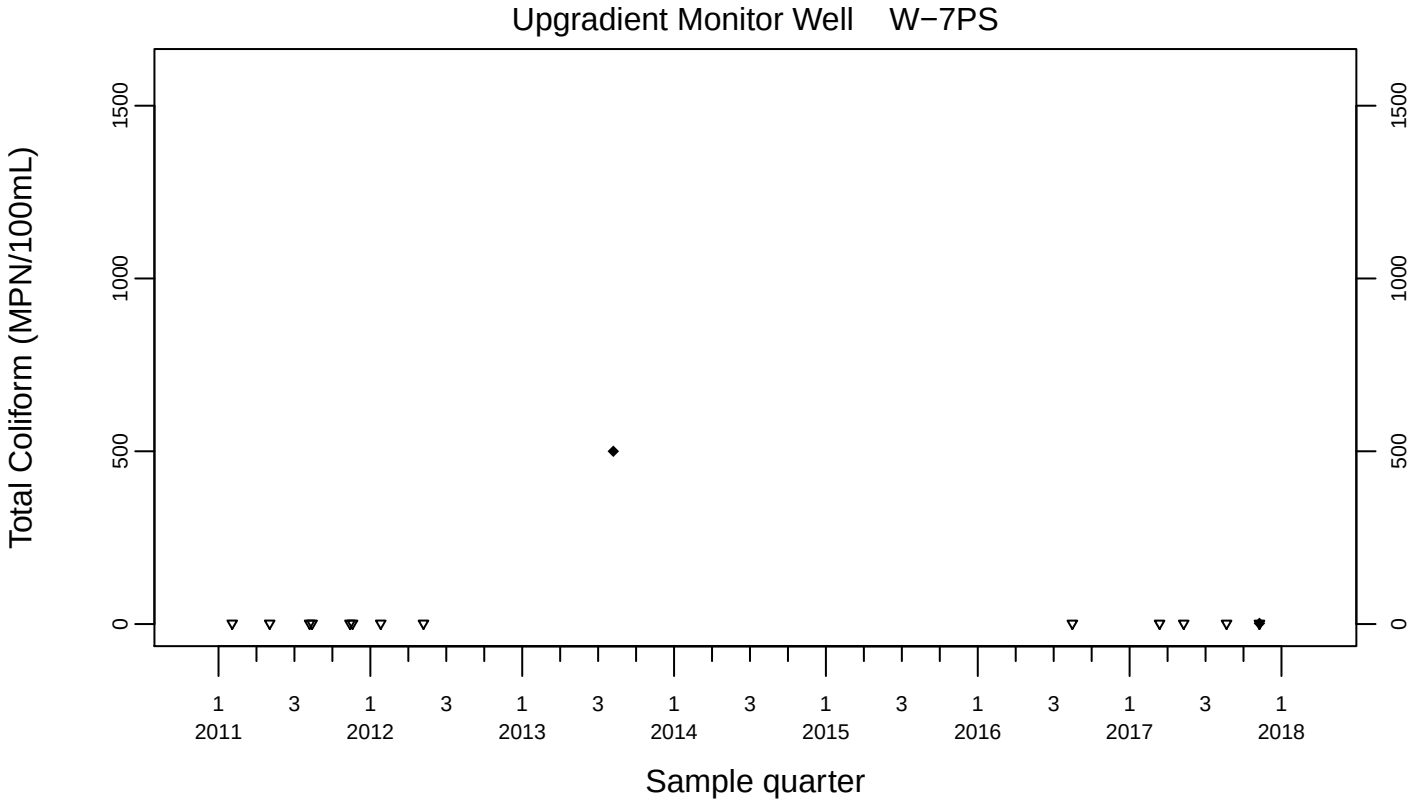

PL=2.2
Downgradient Monitor Well W−26R−01
Fecal Coliform (MPN/100mL)
PL
0.0
0.5
1.0
1.5
2.0
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

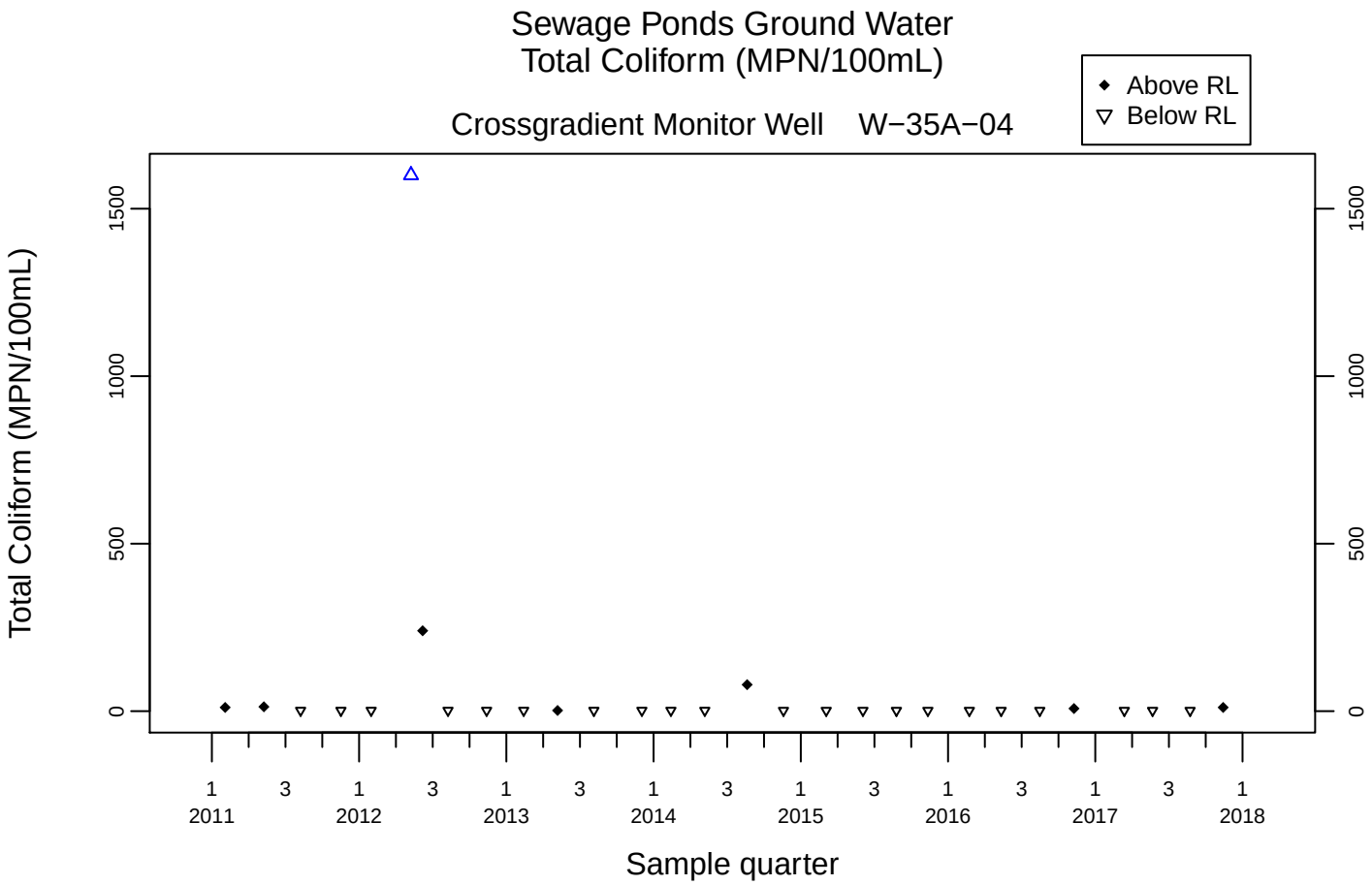

Sewage Ponds Ground Water
Fecal Coliform (MPN/100mL)
PL=2.2
Above RL
Below RL
Downgradient Monitor Well W−26R−05
Fecal Coliform (MPN/100mL)
PL
0.0
0.5
1.0
1.5
2.0
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

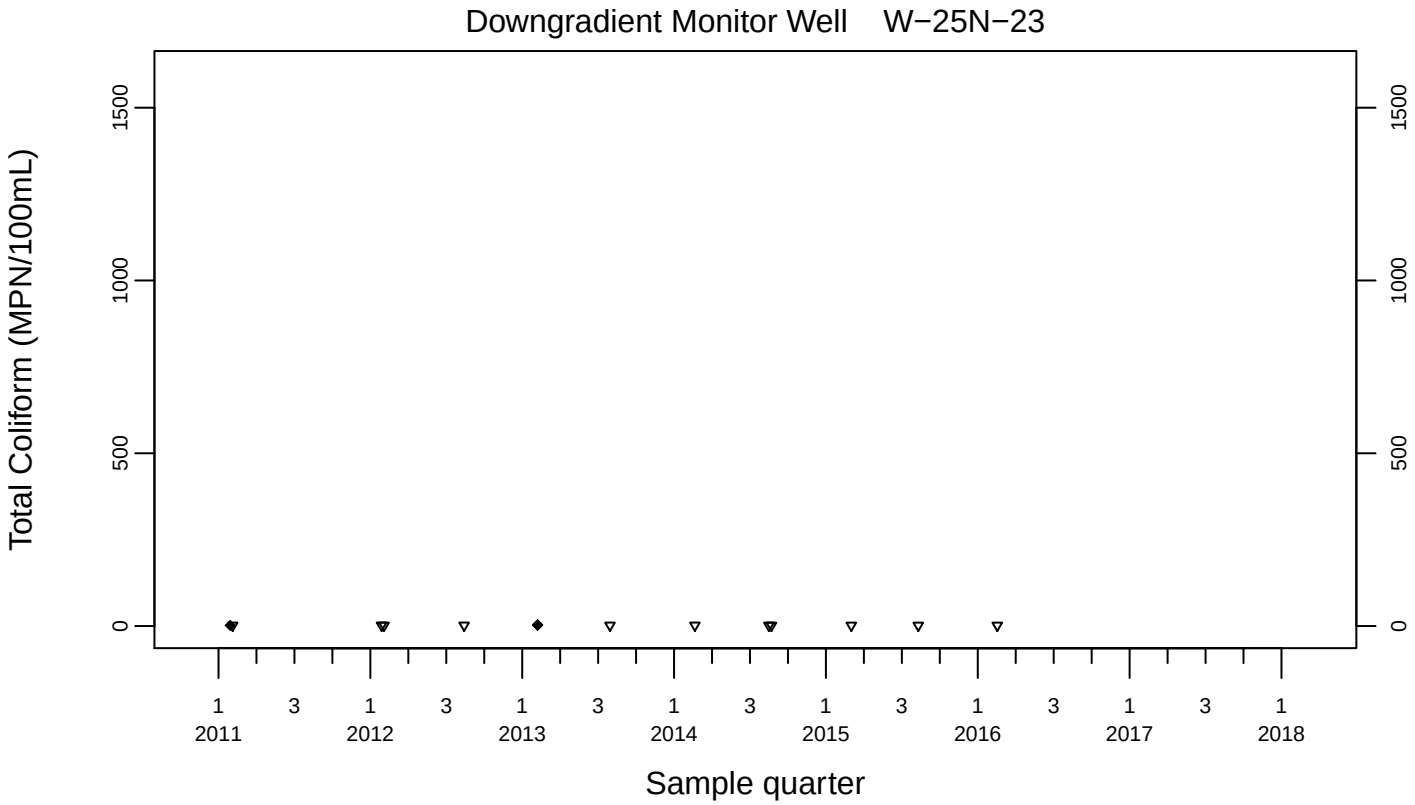

PL=2.2
Downgradient Monitor Well W−26R−11
Fecal Coliform (MPN/100mL)
PL
0.0
0.5
1.0
1.5
2.0
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

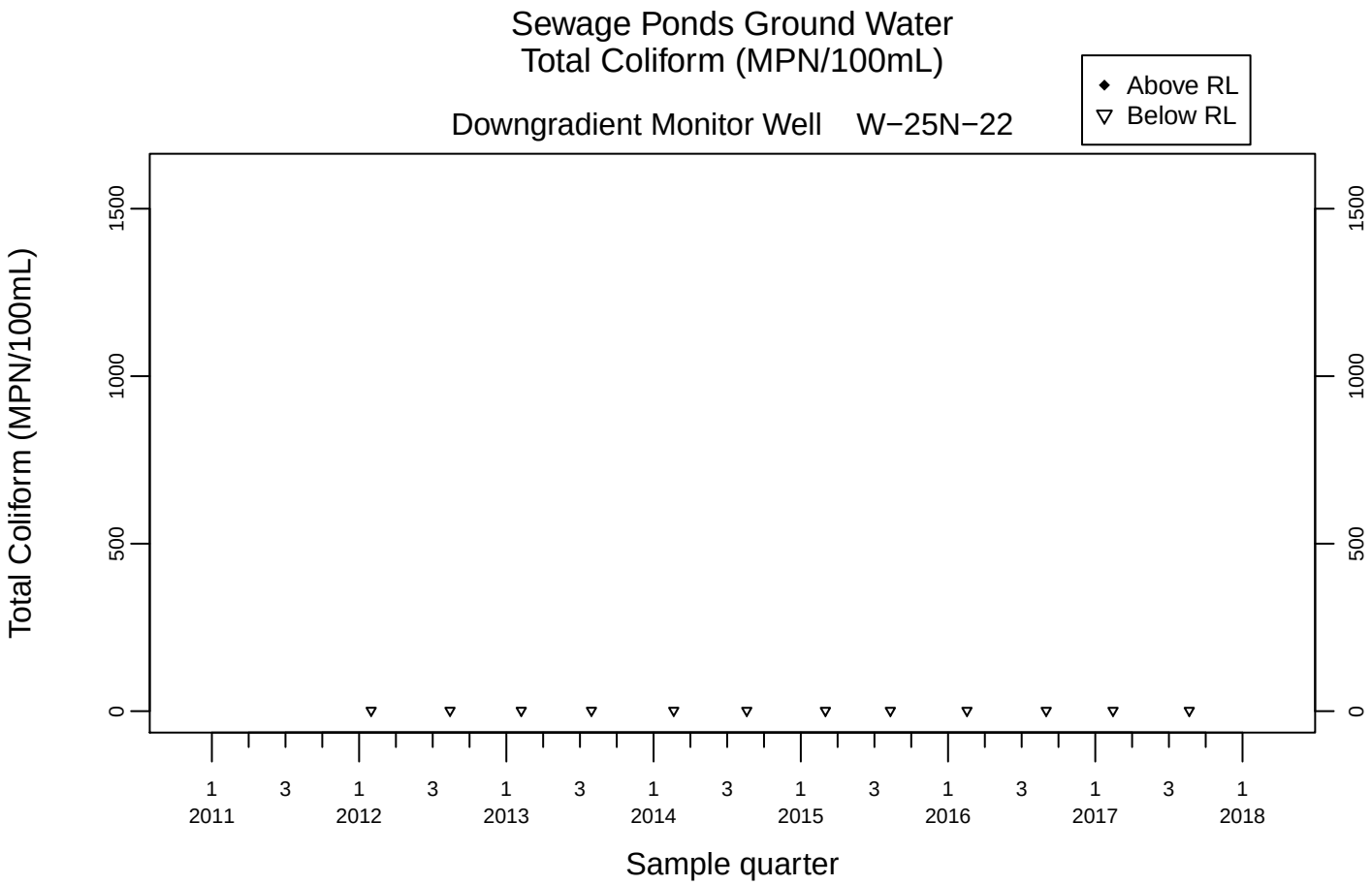

Sewage Ponds Ground Water
Fecal Coliform (MPN/100mL)
Downgradient Monitor Well W−7DS
PL=2.2
Above RL
Below RL
PL
Fecal Coliform (MPN/100mL)
0.0
0.5
1.0
1.5
2.0
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

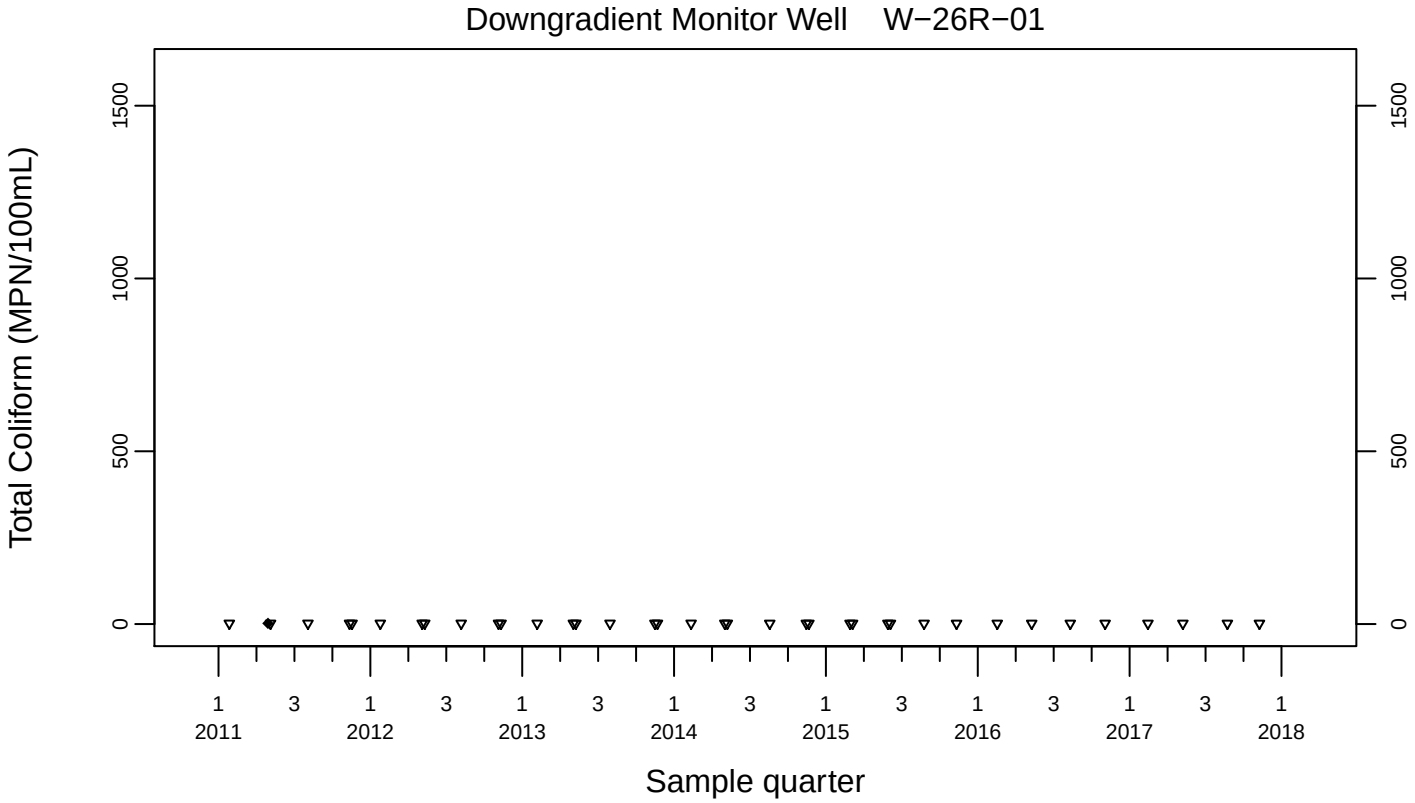

Sewage Ponds Ground Water
Total Coliform (MPN/100mL)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Total Coliform (MPN/100mL)
0
500
1000
1500
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

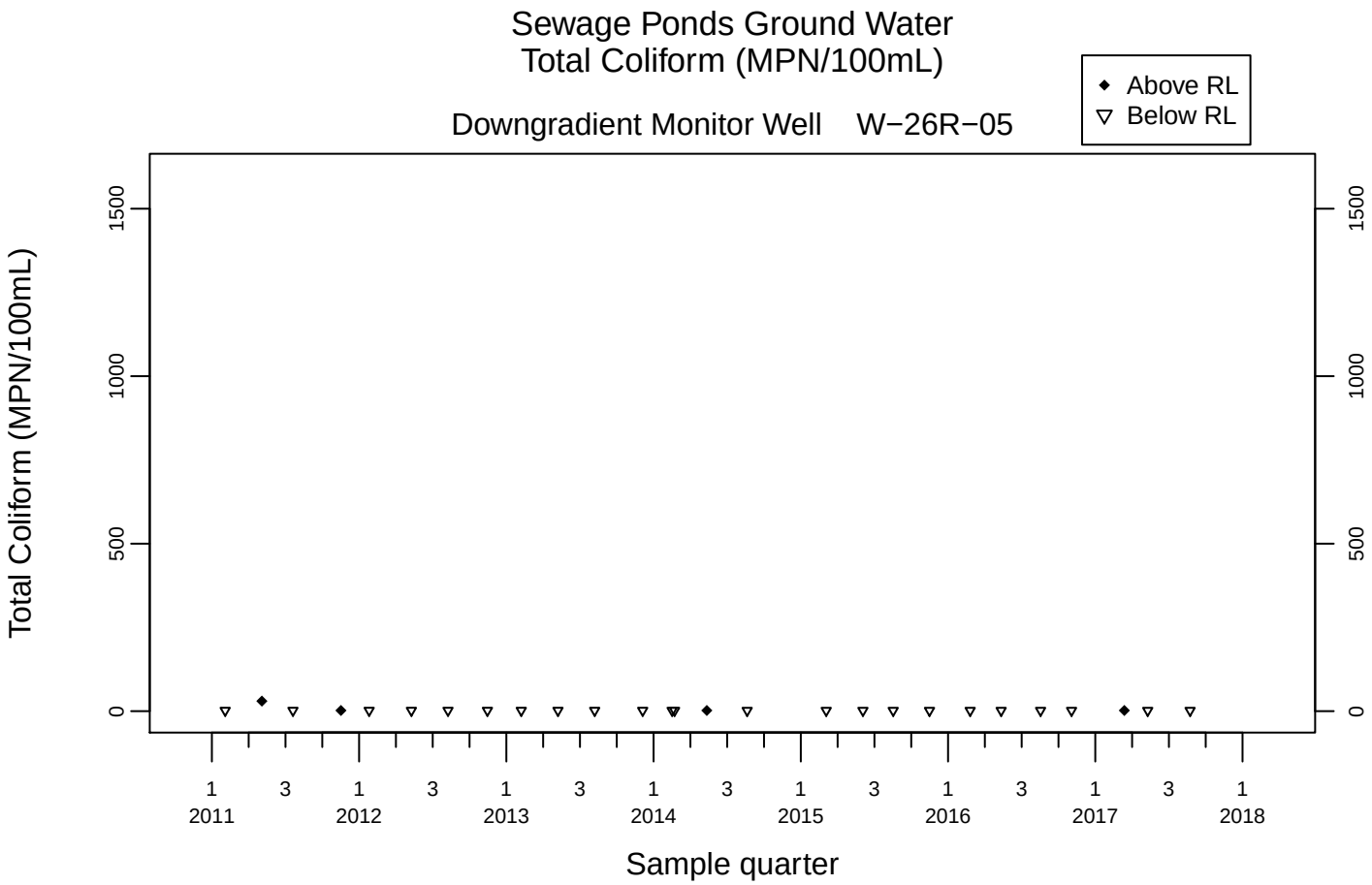

Upgradient Monitor Well W−7PS
Total Coliform (MPN/100mL)
0
500
1000
1500
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

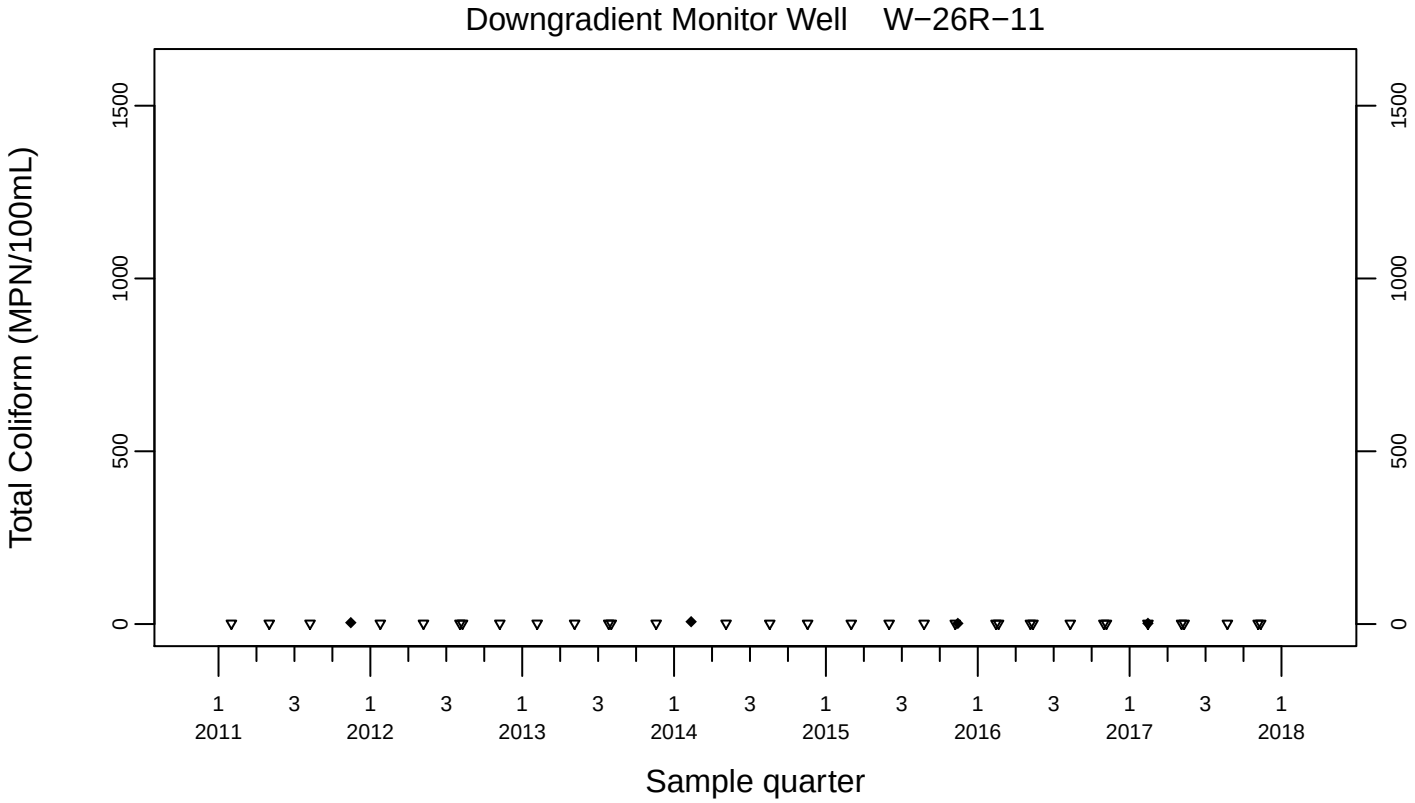

Sewage Ponds Ground Water
Total Coliform (MPN/100mL)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Total Coliform (MPN/100mL)
0
500
1000
1500
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

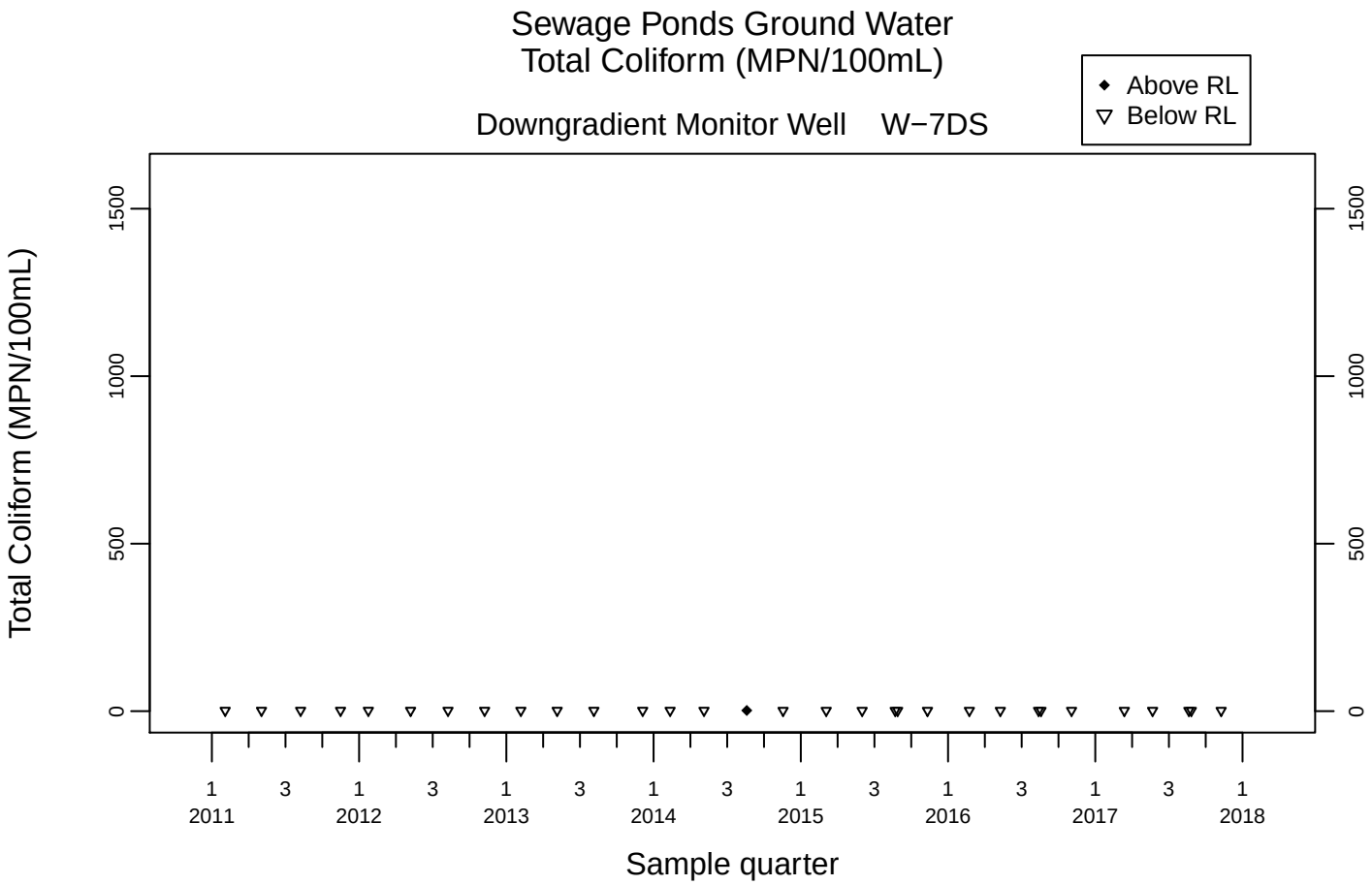

Downgradient Monitor Well W−25N−23
Total Coliform (MPN/100mL)
0
500
1000
1500
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

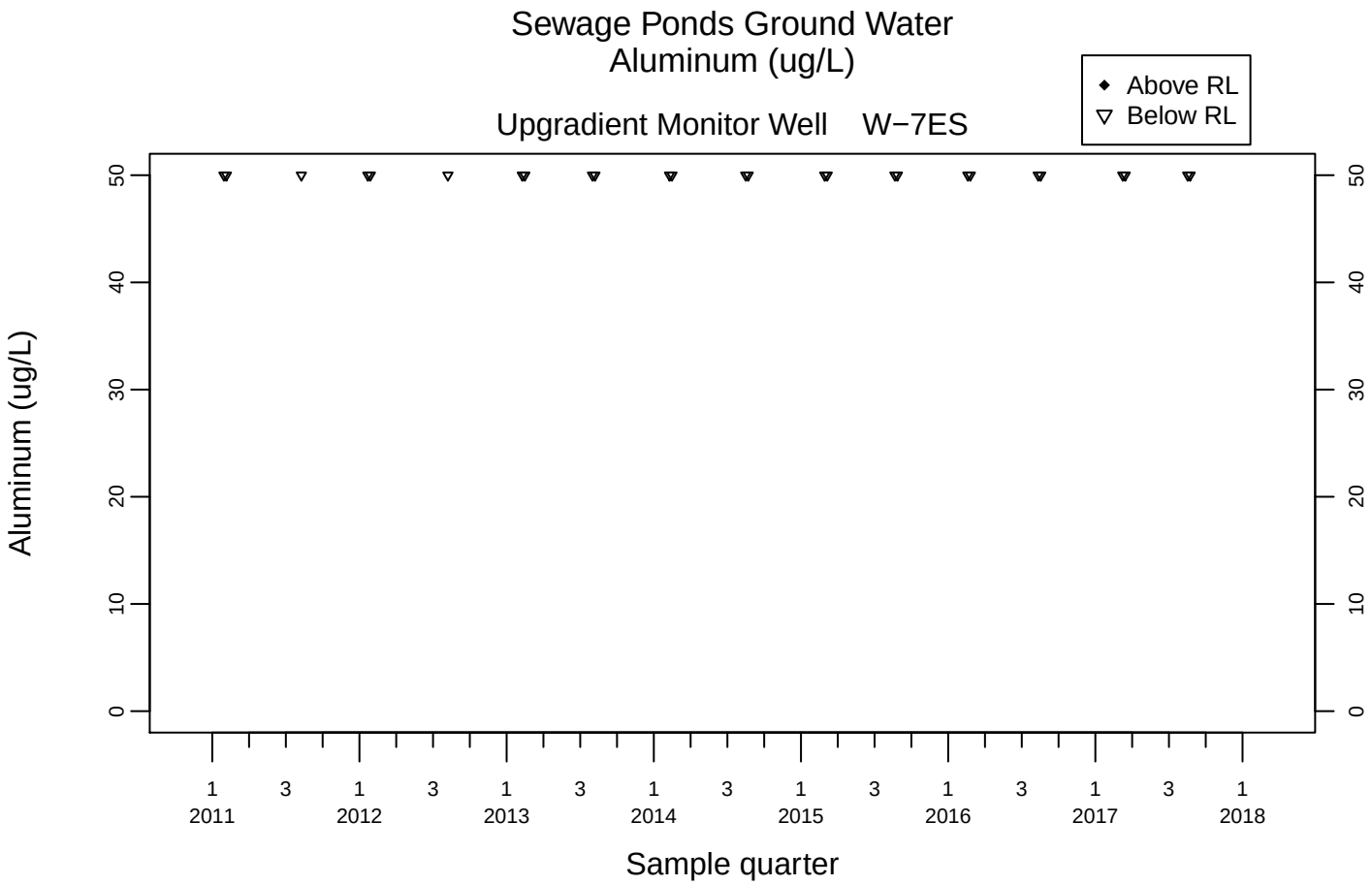

Sewage Ponds Ground Water
Total Coliform (MPN/100mL)
Downgradient Monitor Well W−25N−22
Above RL
Below RL
Total Coliform (MPN/100mL)
0
500
1000
1500
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

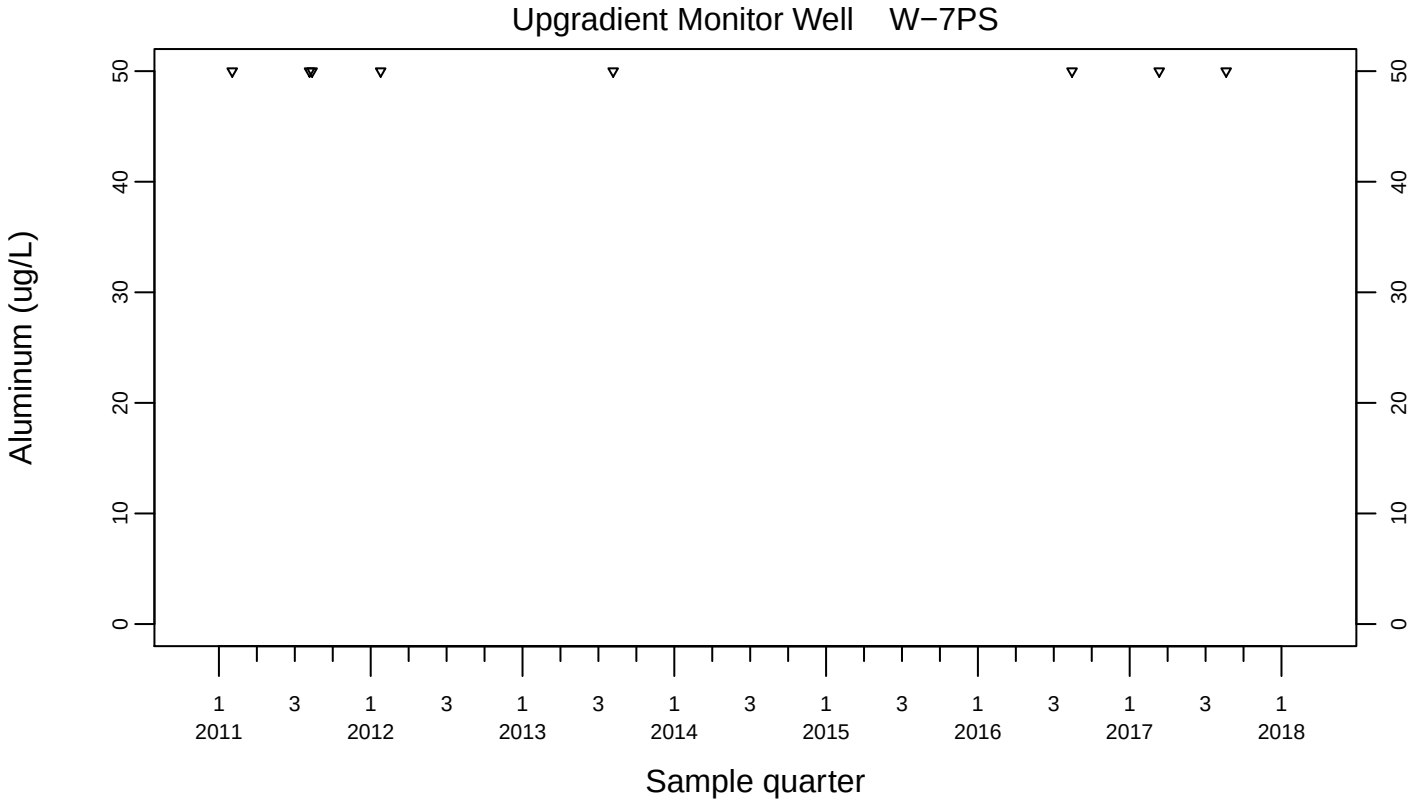

Downgradient Monitor Well W−26R−01
Total Coliform (MPN/100mL)
0
500
1000
1500
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

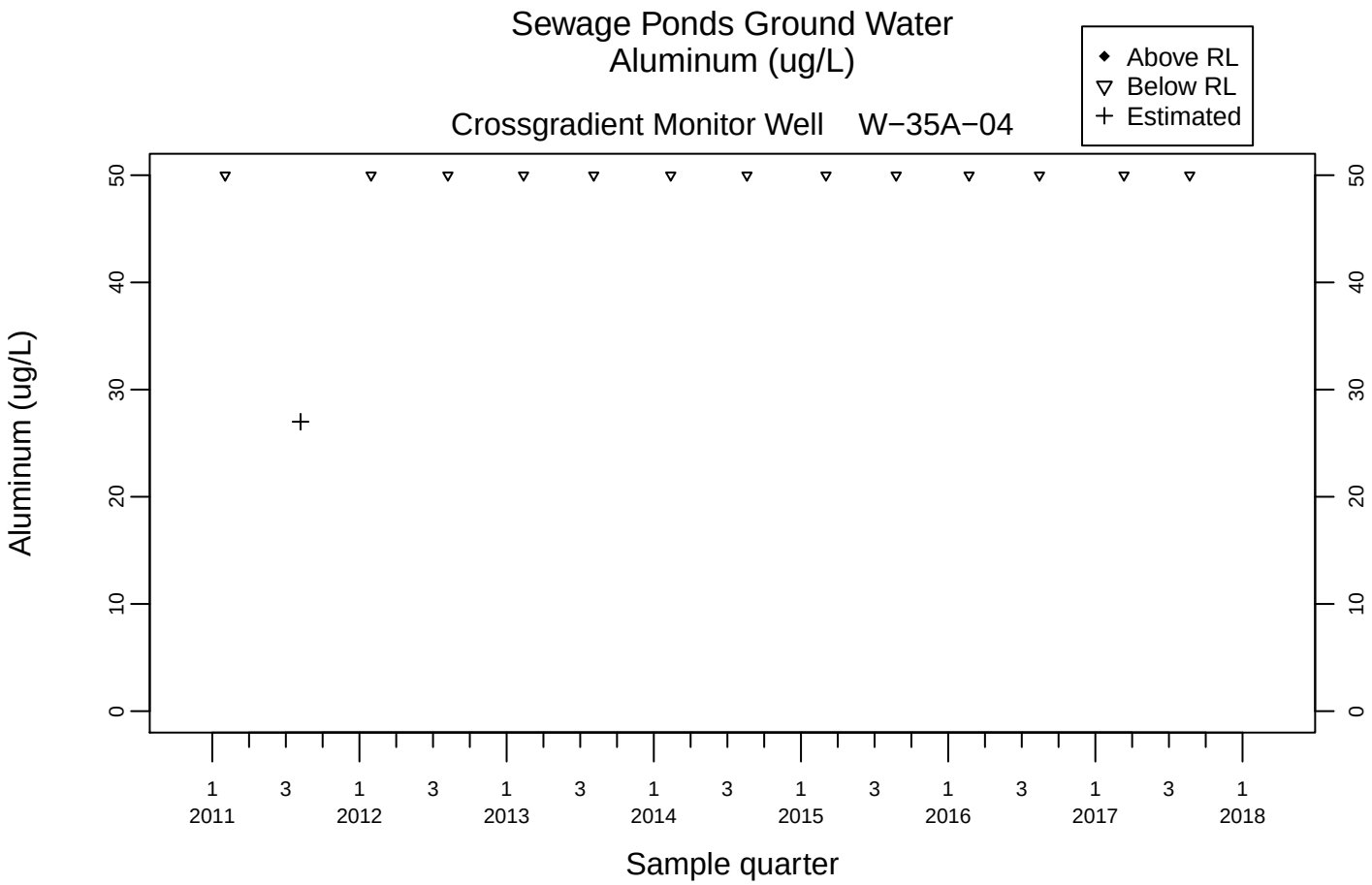

Sewage Ponds Ground Water
Total Coliform (MPN/100mL)
Above RL
Below RL
Downgradient Monitor Well W−26R−05
Total Coliform (MPN/100mL)
0
500
1000
1500
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

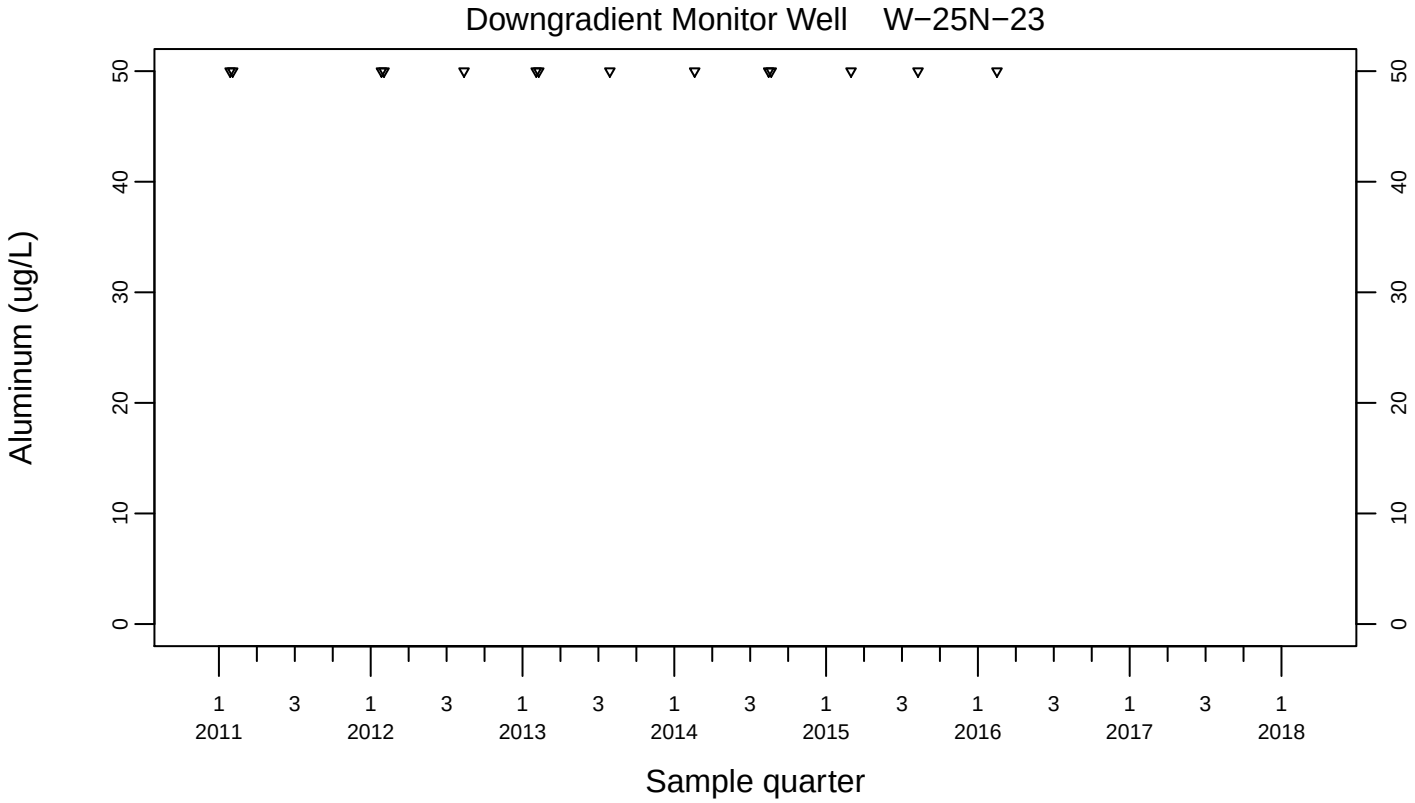

Downgradient Monitor Well W−26R−11
Total Coliform (MPN/100mL)
0
500
1000
1500
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

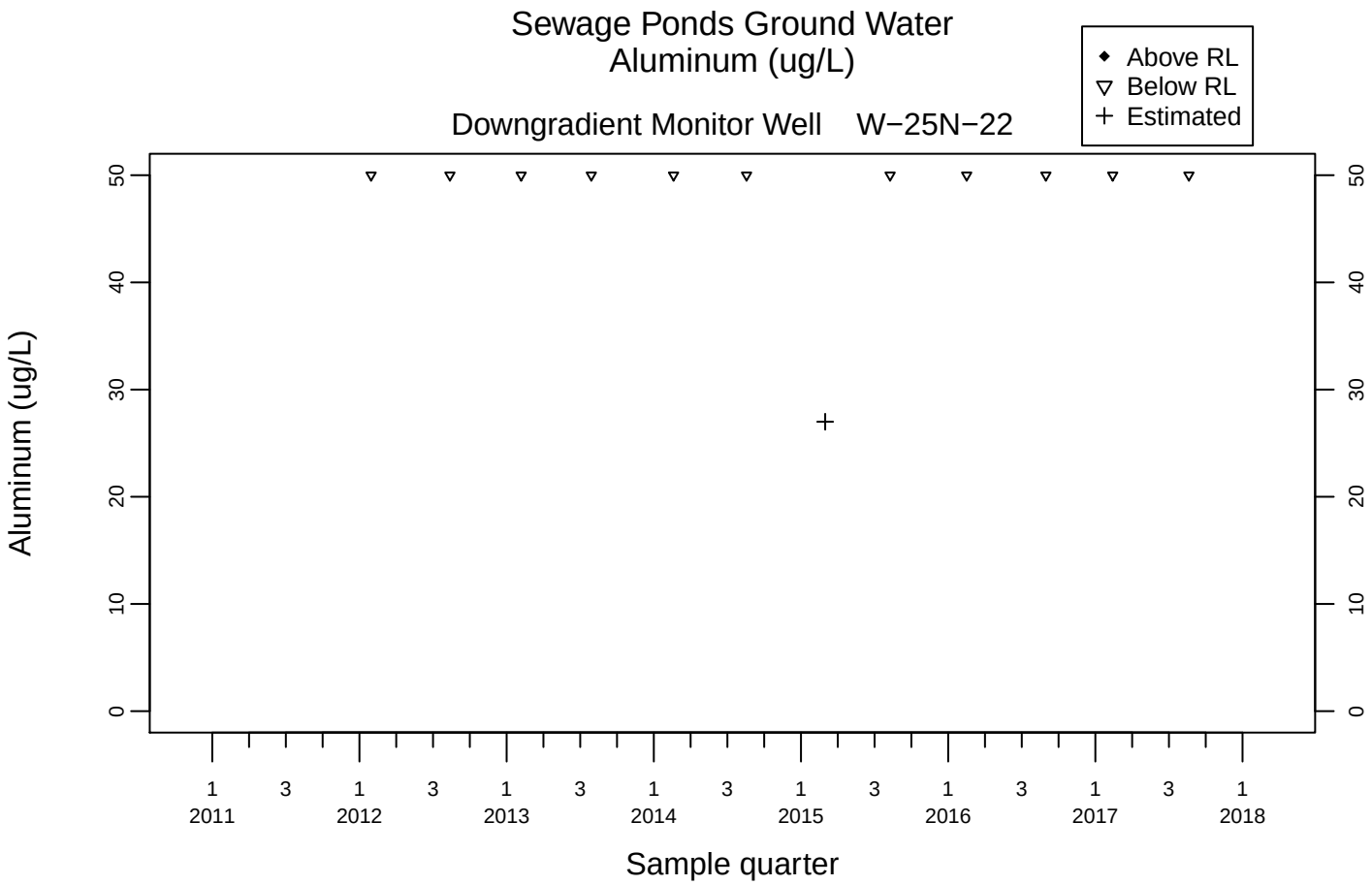

Sewage Ponds Ground Water
Total Coliform (MPN/100mL)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Total Coliform (MPN/100mL)
0
500
1000
1500
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

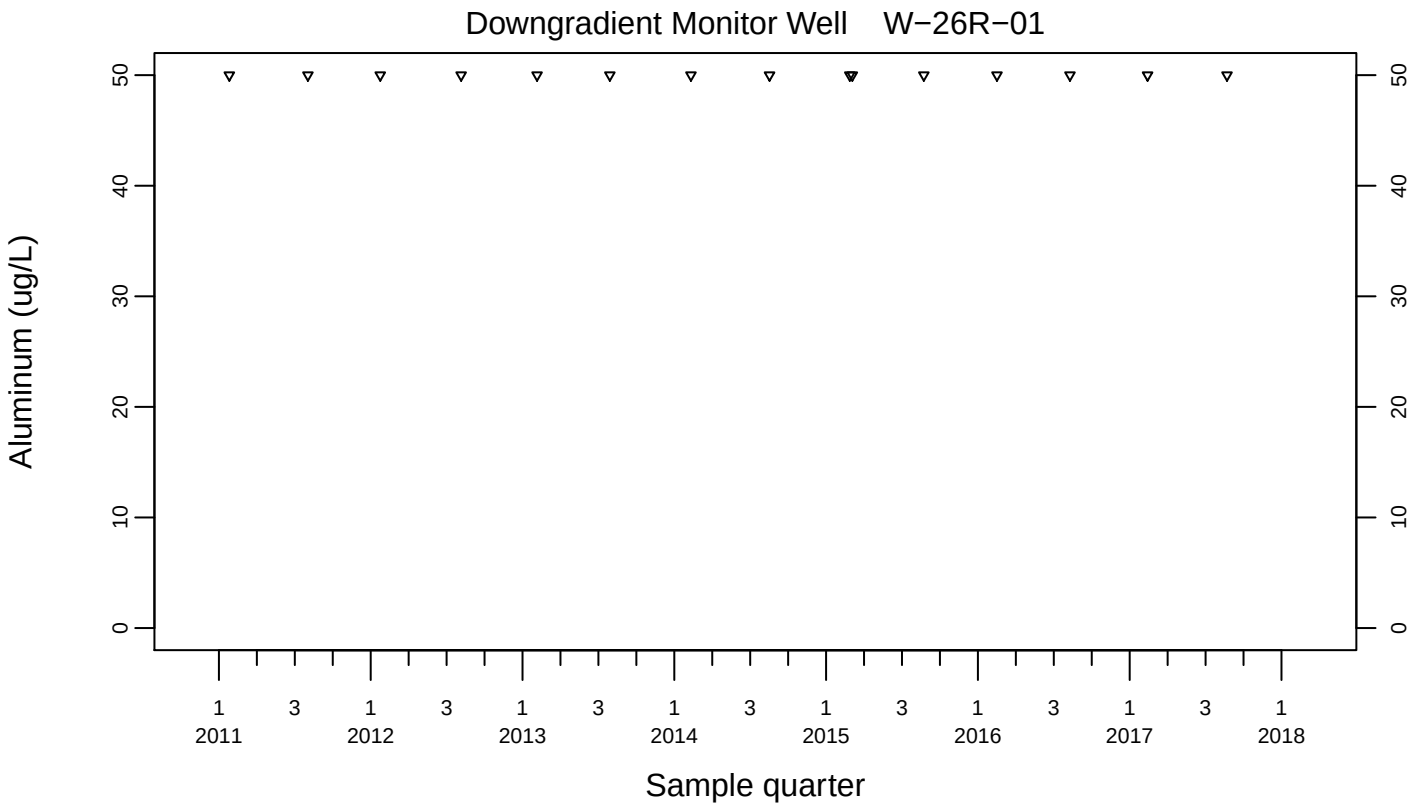

Sewage Ponds Ground Water
Aluminum (ug/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Aluminum (ug/L)
0
10
20
30
40
50
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

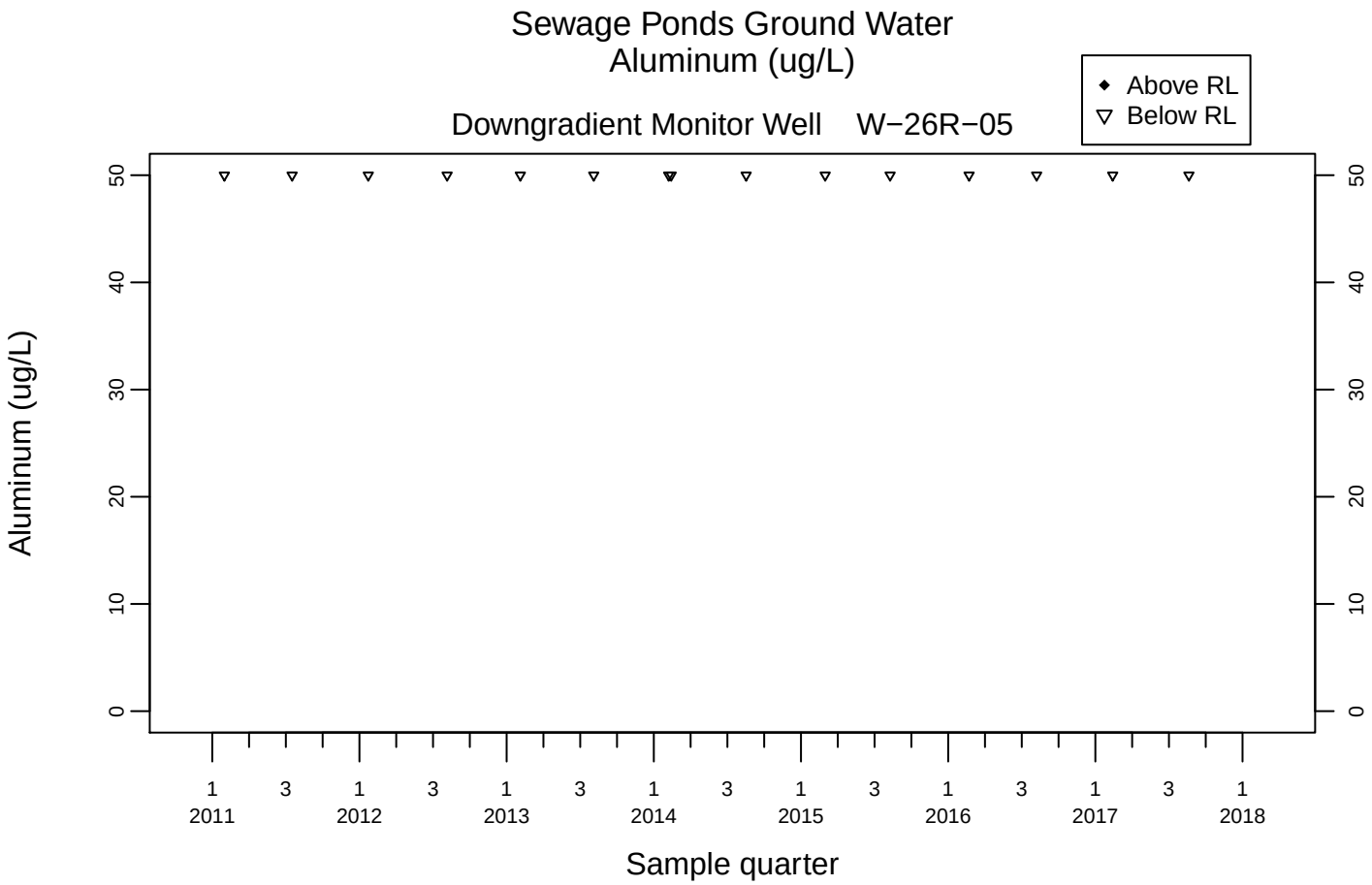

Upgradient Monitor Well W−7PS
Aluminum (ug/L)
0
10
20
30
40
50
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

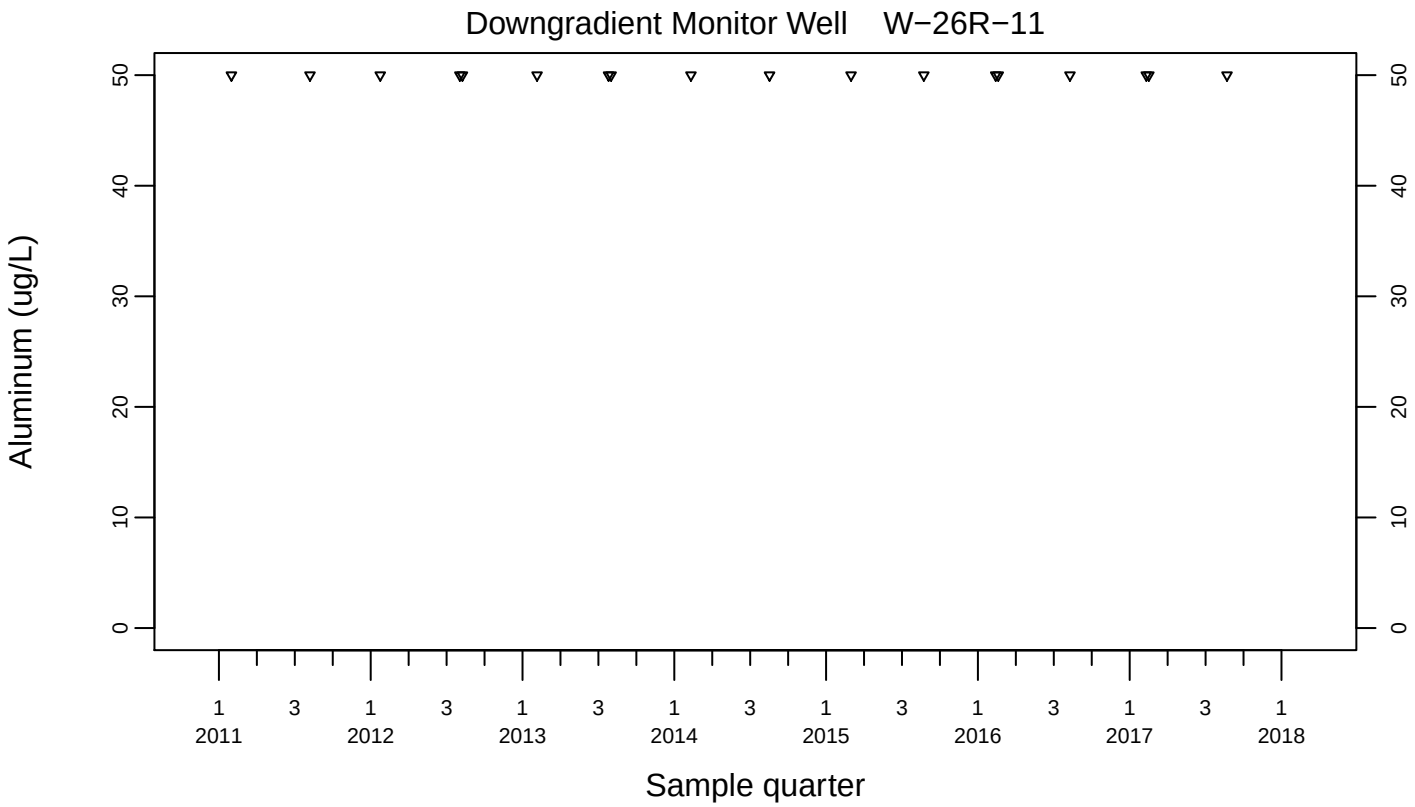

Sewage Ponds Ground Water
Aluminum (ug/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Estimated
Aluminum (ug/L)
0
10
20
30
40
50
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

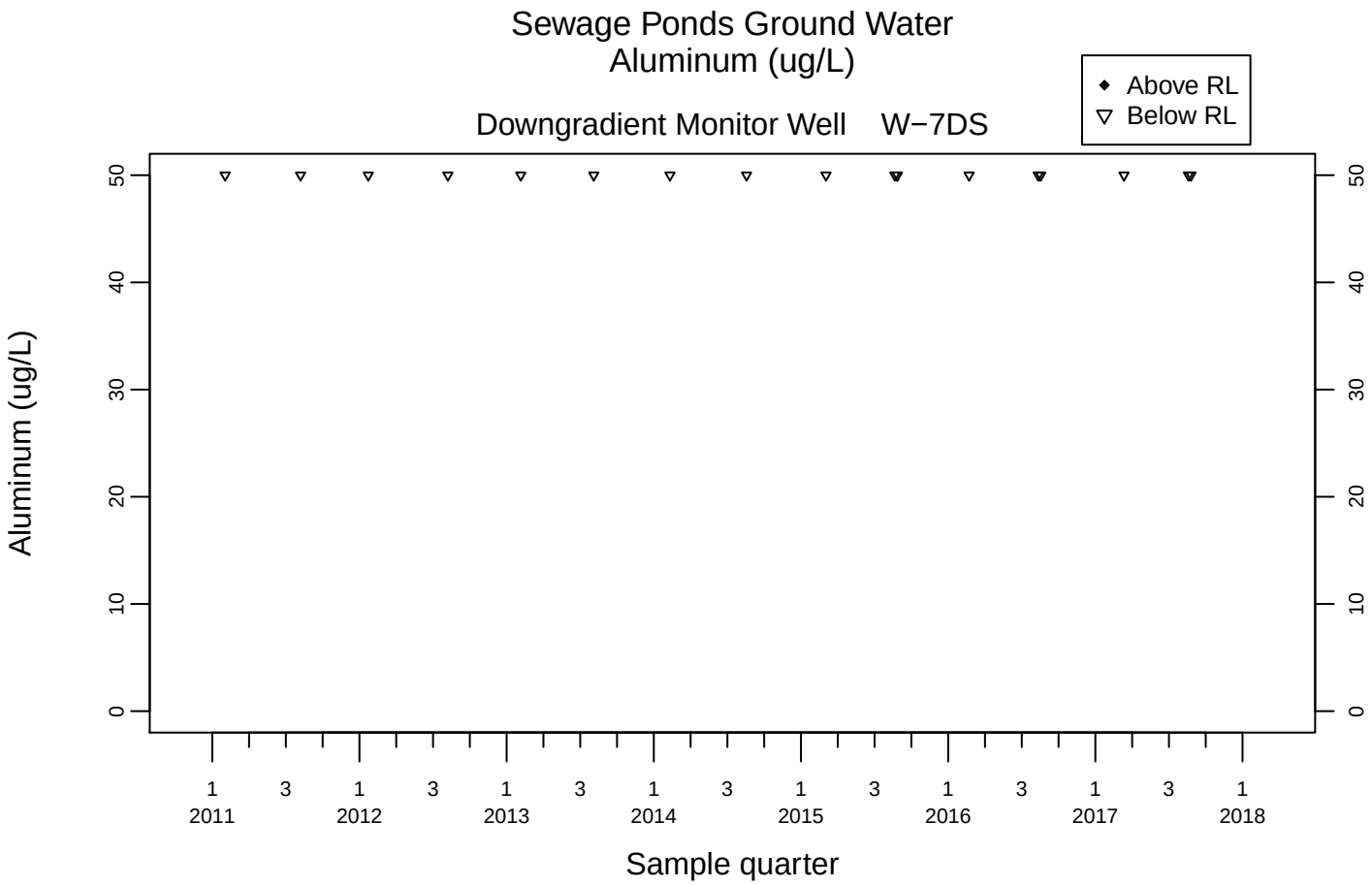

Downgradient Monitor Well W−25N−23
Aluminum (ug/L)
0
10
20
30
40
50
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

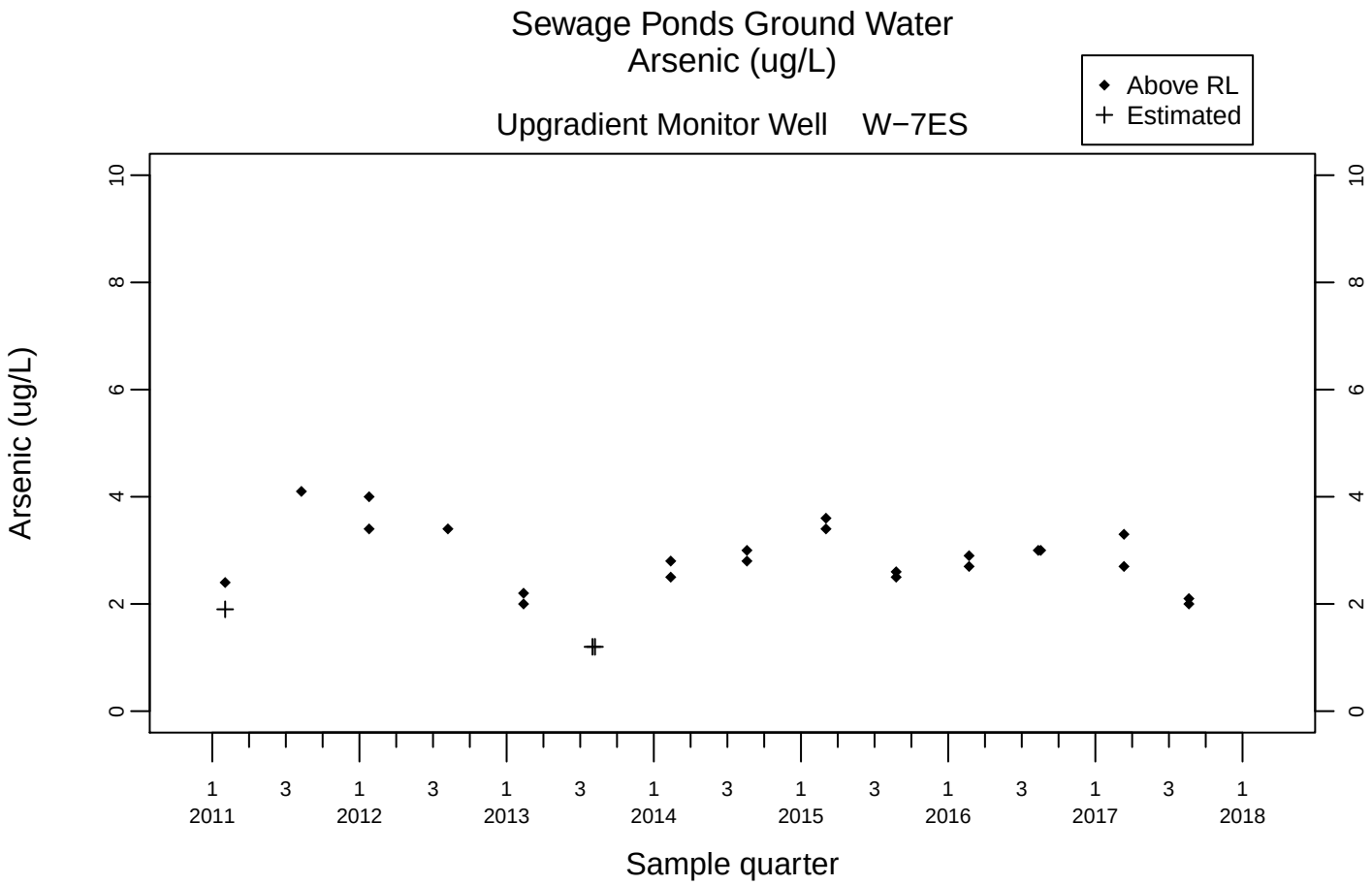

Sewage Ponds Ground Water
Aluminum (ug/L)
Downgradient Monitor Well W−25N−22
Above RL
Below RL
Estimated
Aluminum (ug/L)
0
10
20
30
40
50
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

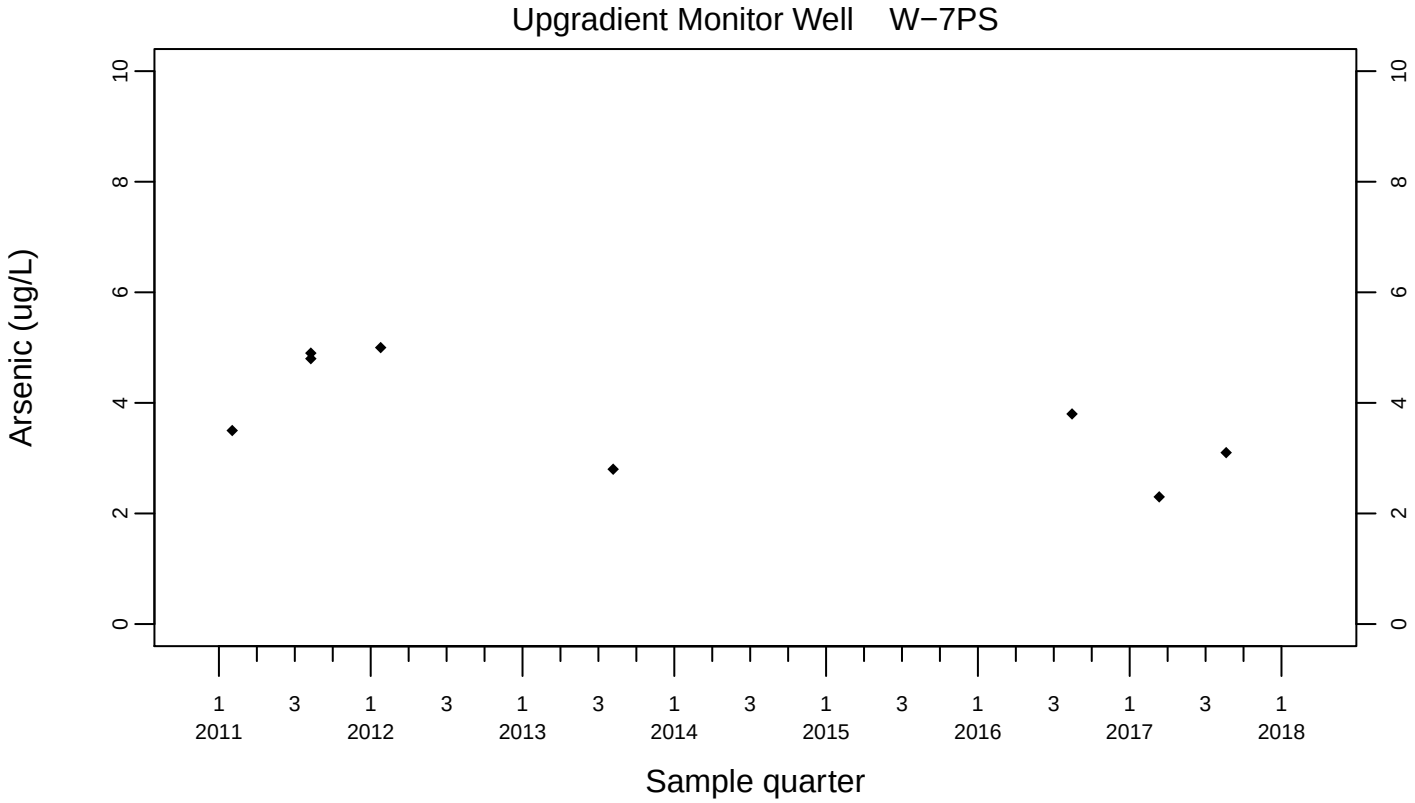

Downgradient Monitor Well W−26R−01
Aluminum (ug/L)
0
10
20
30
40
50
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

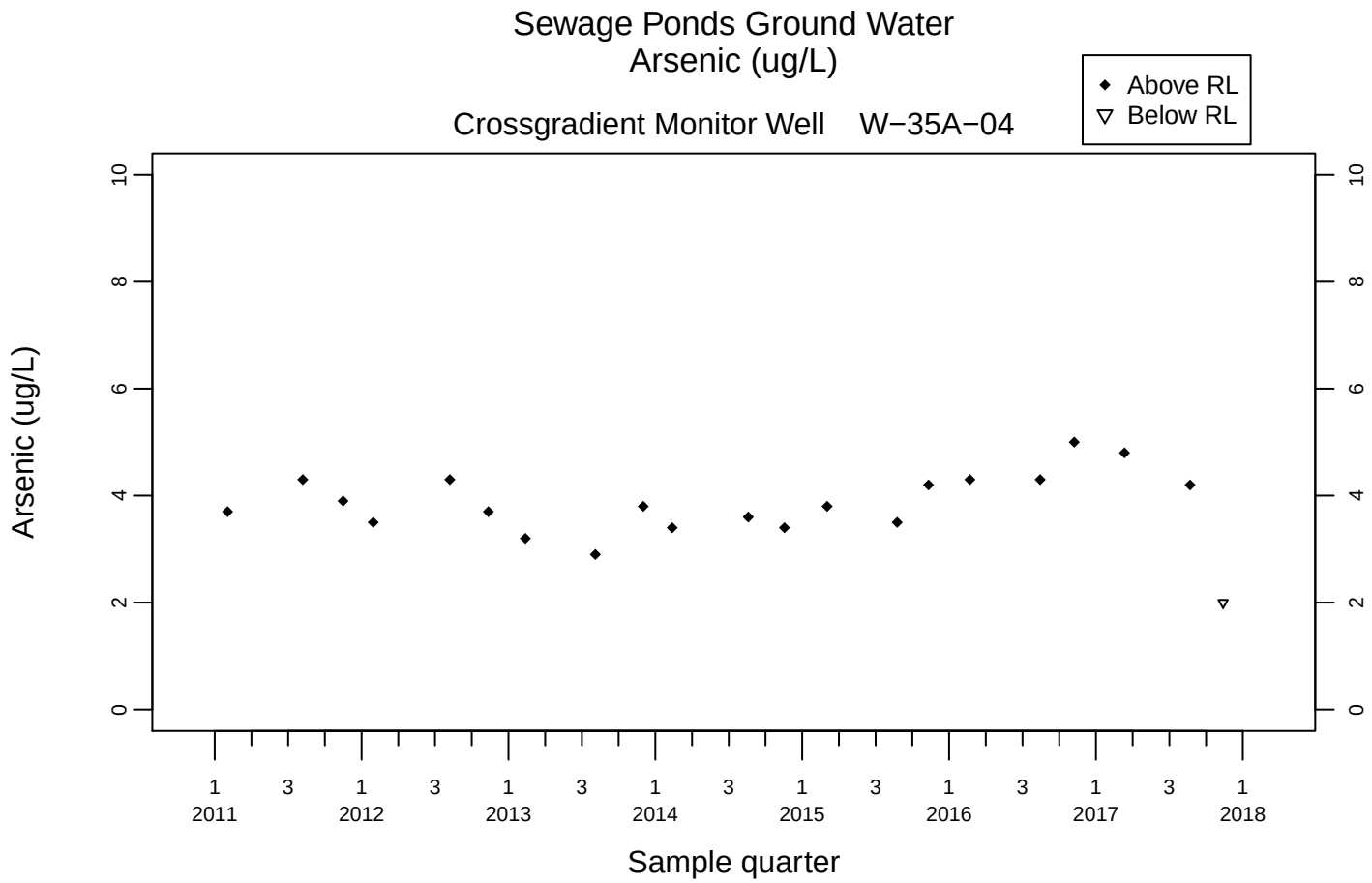

Sewage Ponds Ground Water
Aluminum (ug/L)
Downgradient Monitor Well W−26R−05
Above RL
Below RL
Aluminum (ug/L)
0
10
20
30
40
50
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

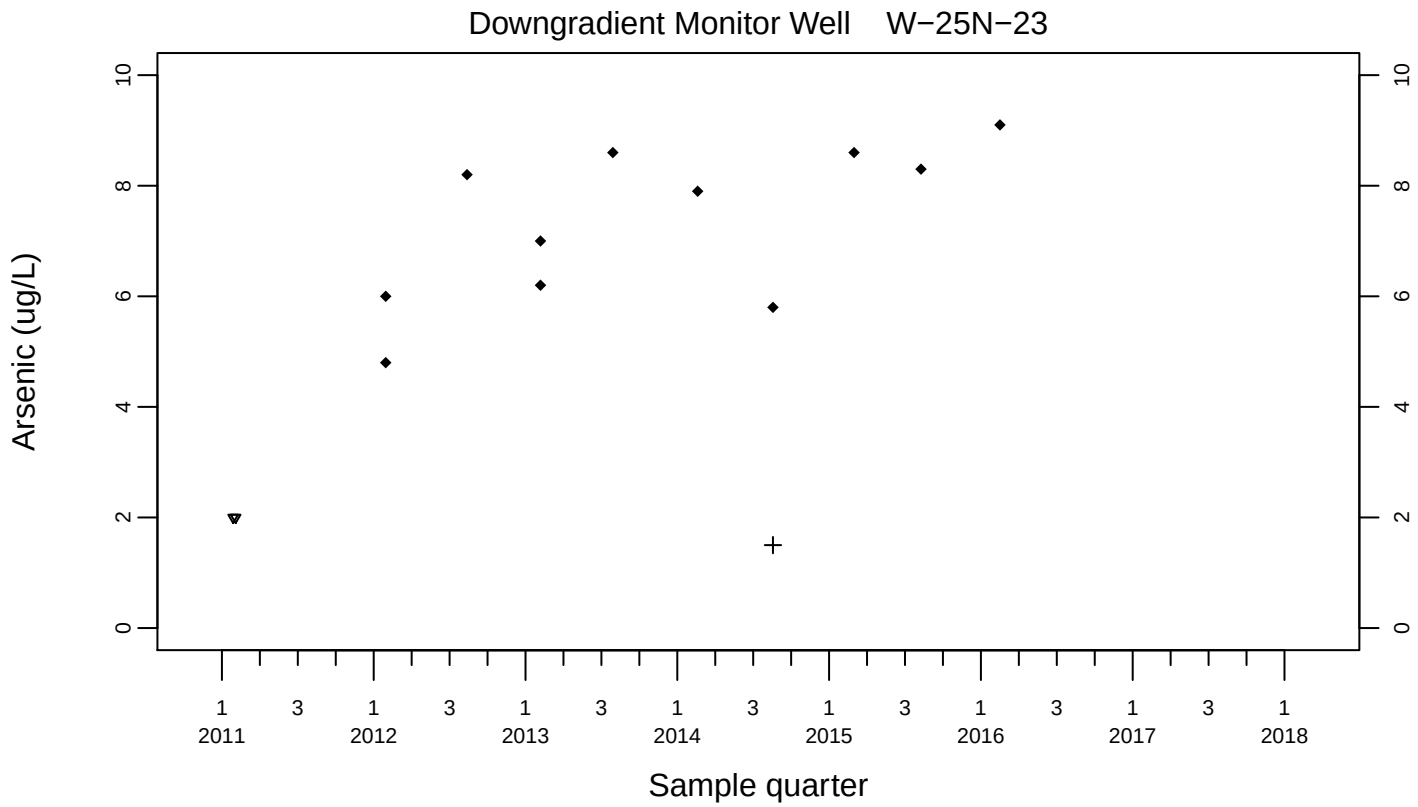

Downgradient Monitor Well W−26R−11
Aluminum (ug/L)
0
10
20
30
40
50
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

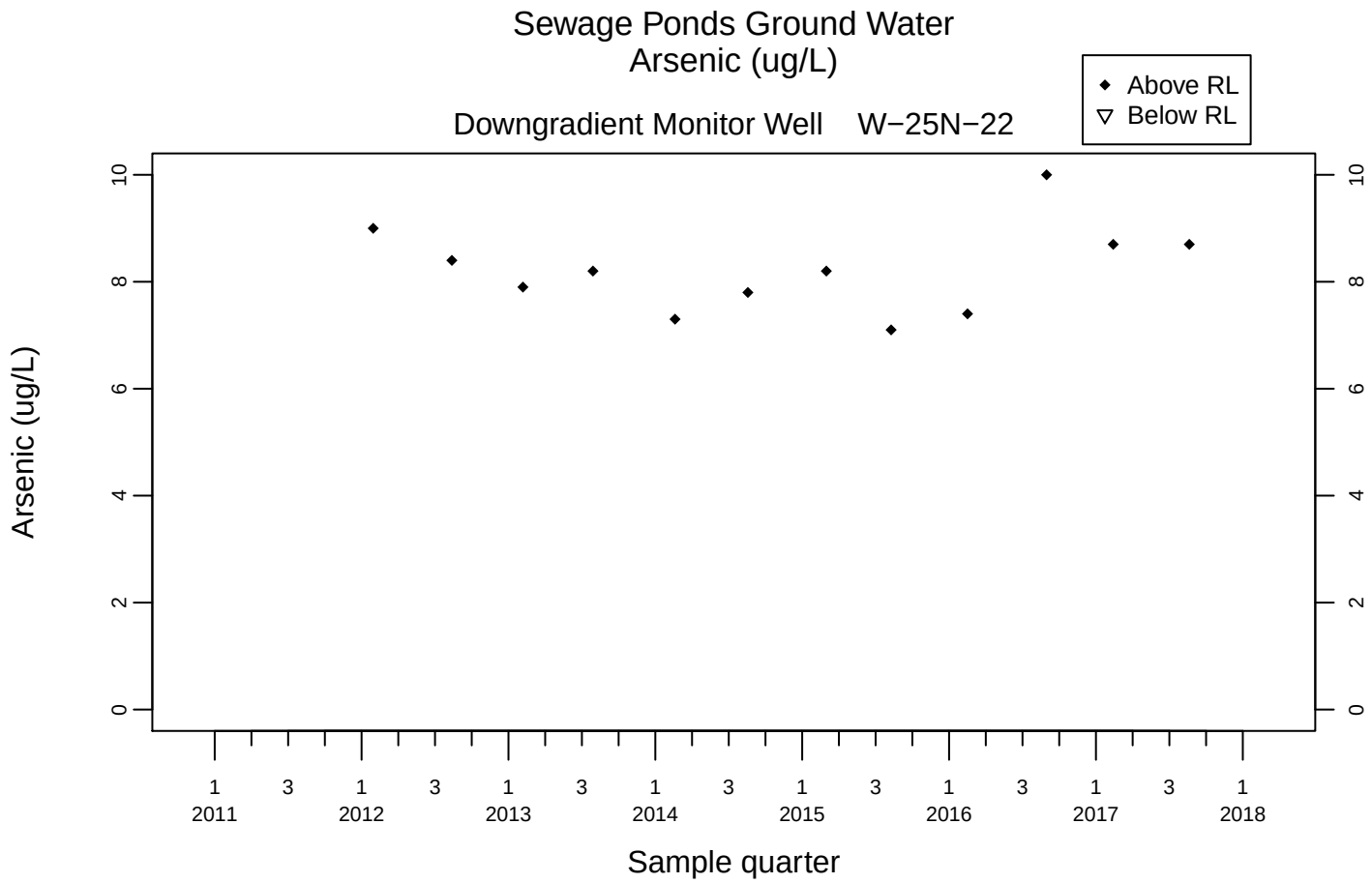

Sewage Ponds Ground Water
Aluminum (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Aluminum (ug/L)
0
10
20
30
40
50
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

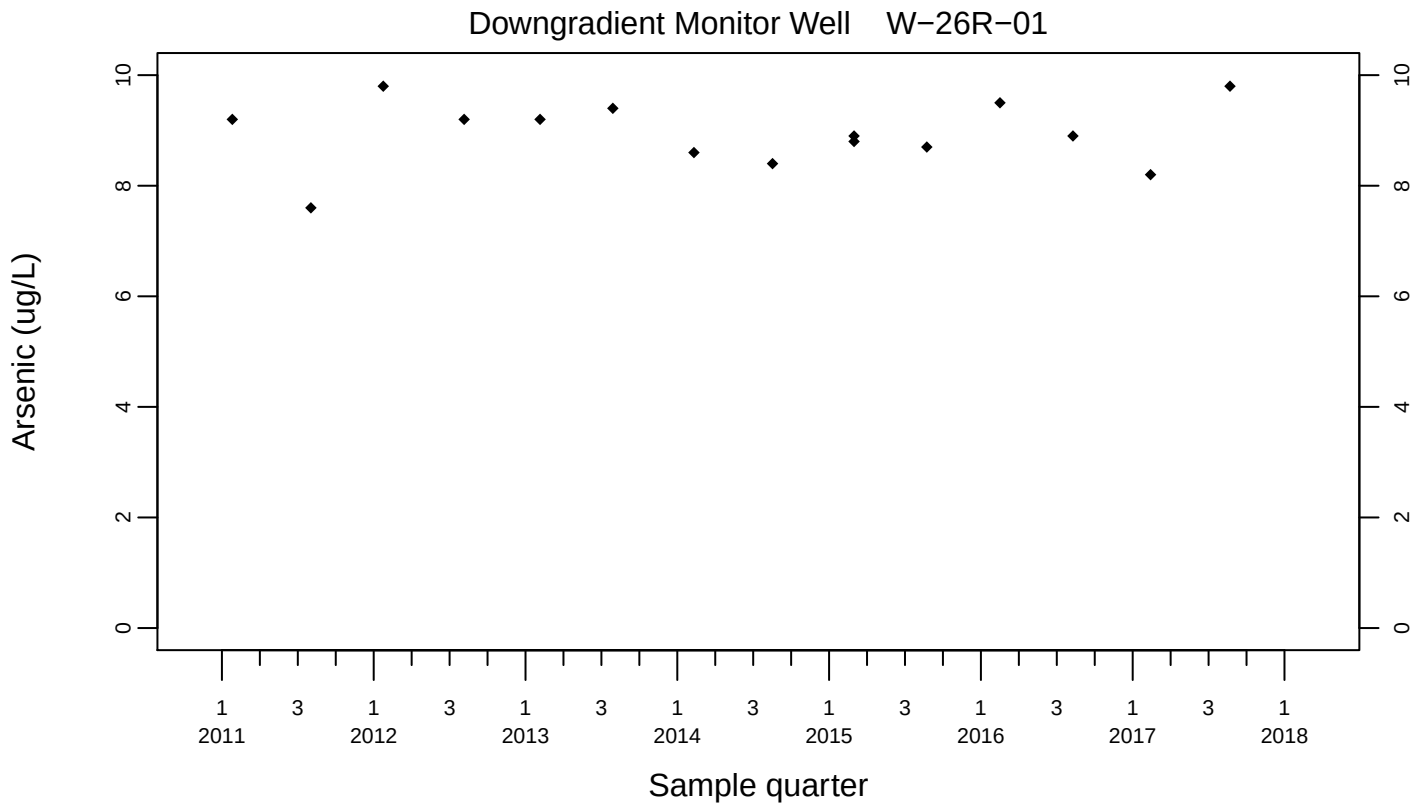

Sewage Ponds Ground Water
Arsenic (ug/L)
Upgradient Monitor Well W−7ES
Above RL
Estimated
Arsenic (ug/L)
0
2
4
6
8
10
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

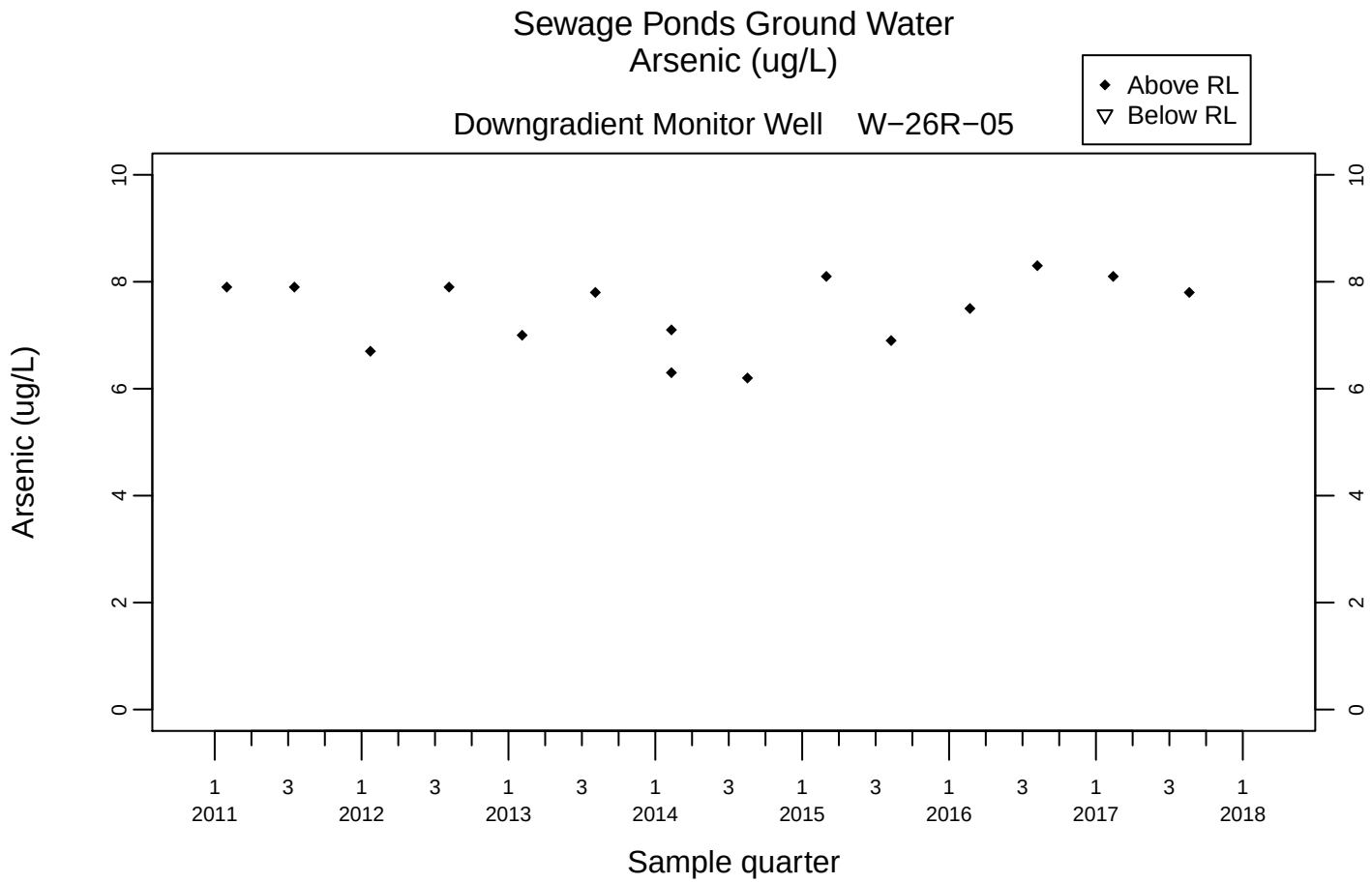

Upgradient Monitor Well W−7PS
Arsenic (ug/L)
0
2
4
6
8
10
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

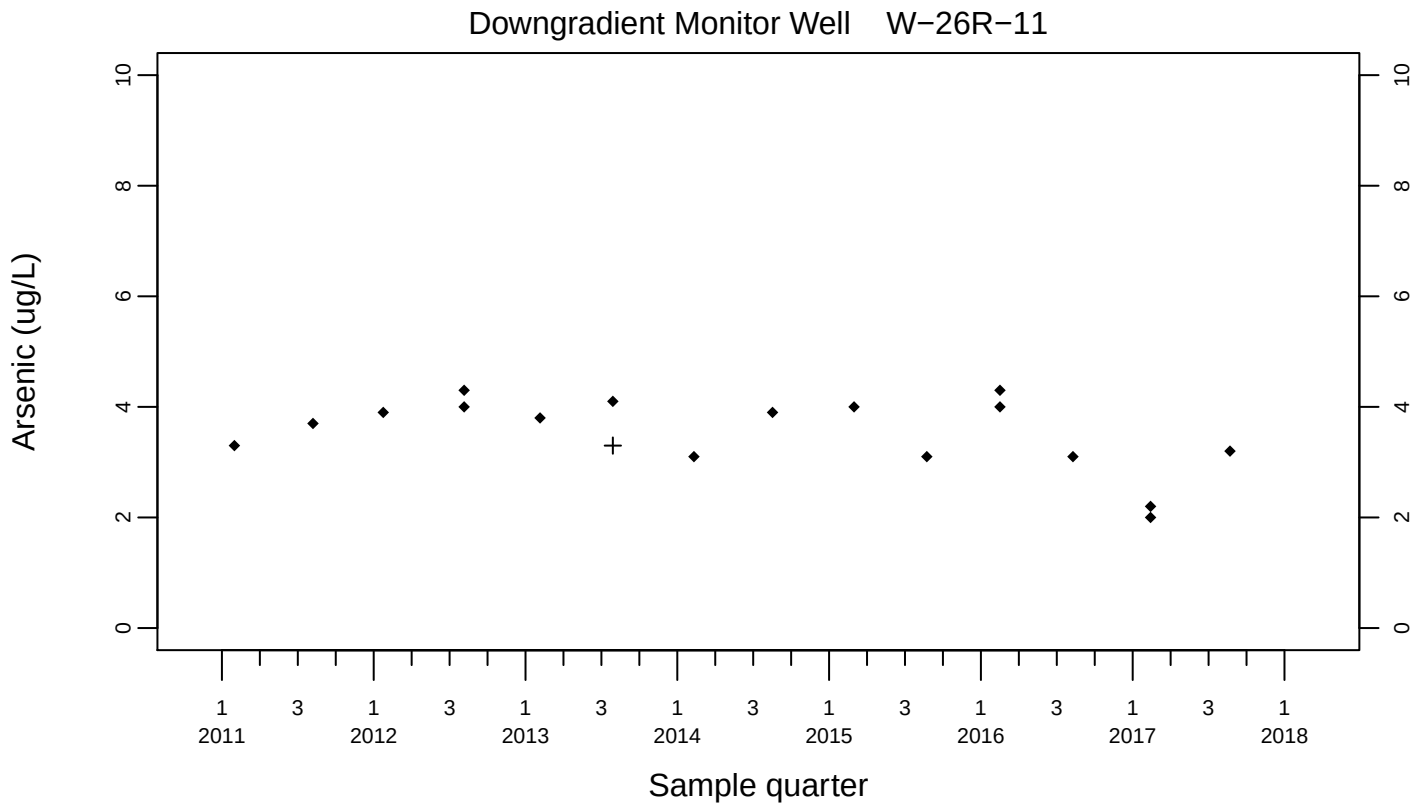

Sewage Ponds Ground Water
Arsenic (ug/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Arsenic (ug/L)
0
2
4
6
8
10
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

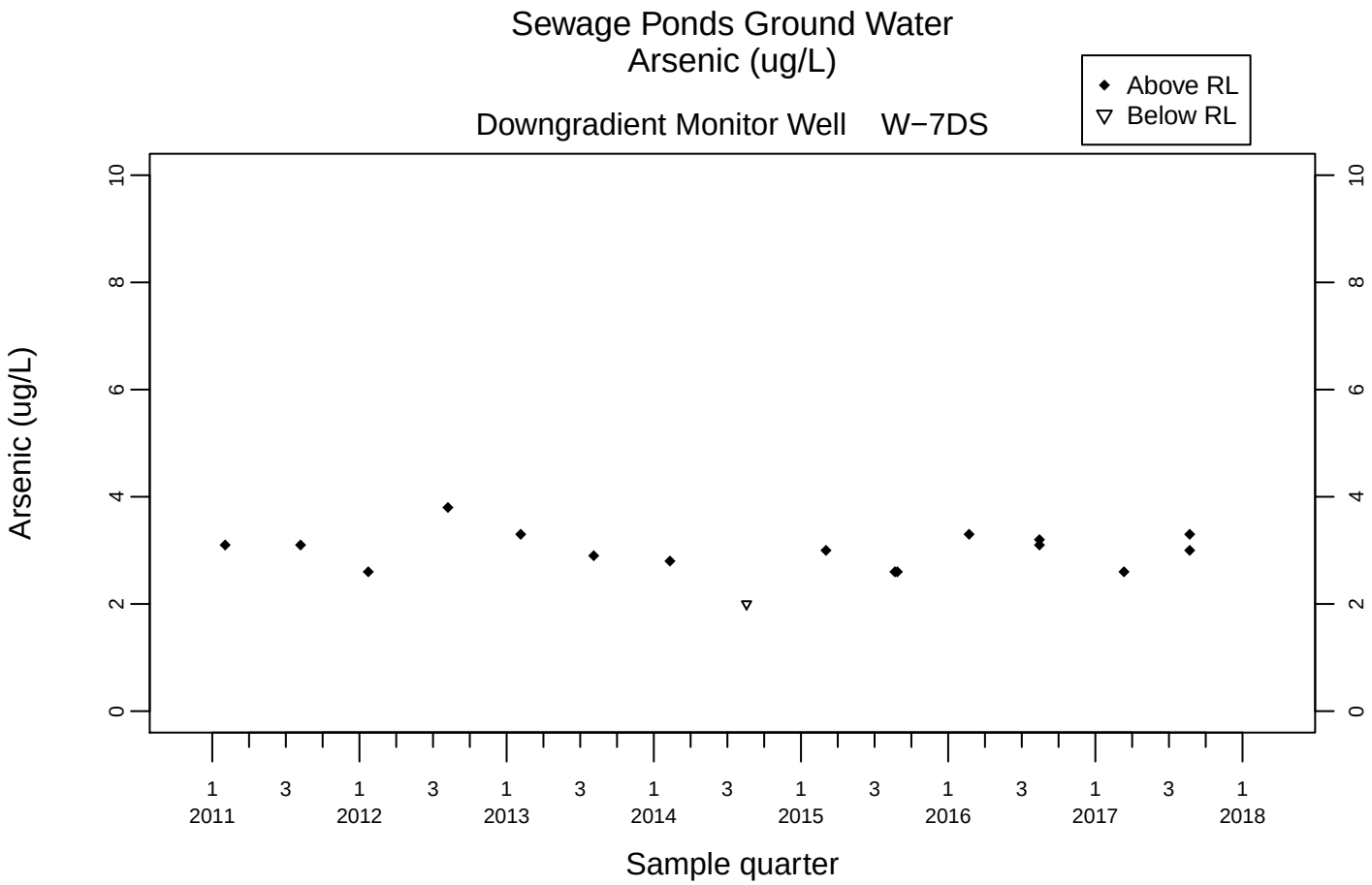

Downgradient Monitor Well W−25N−23
Arsenic (ug/L)
0
2
4
6
8
10
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

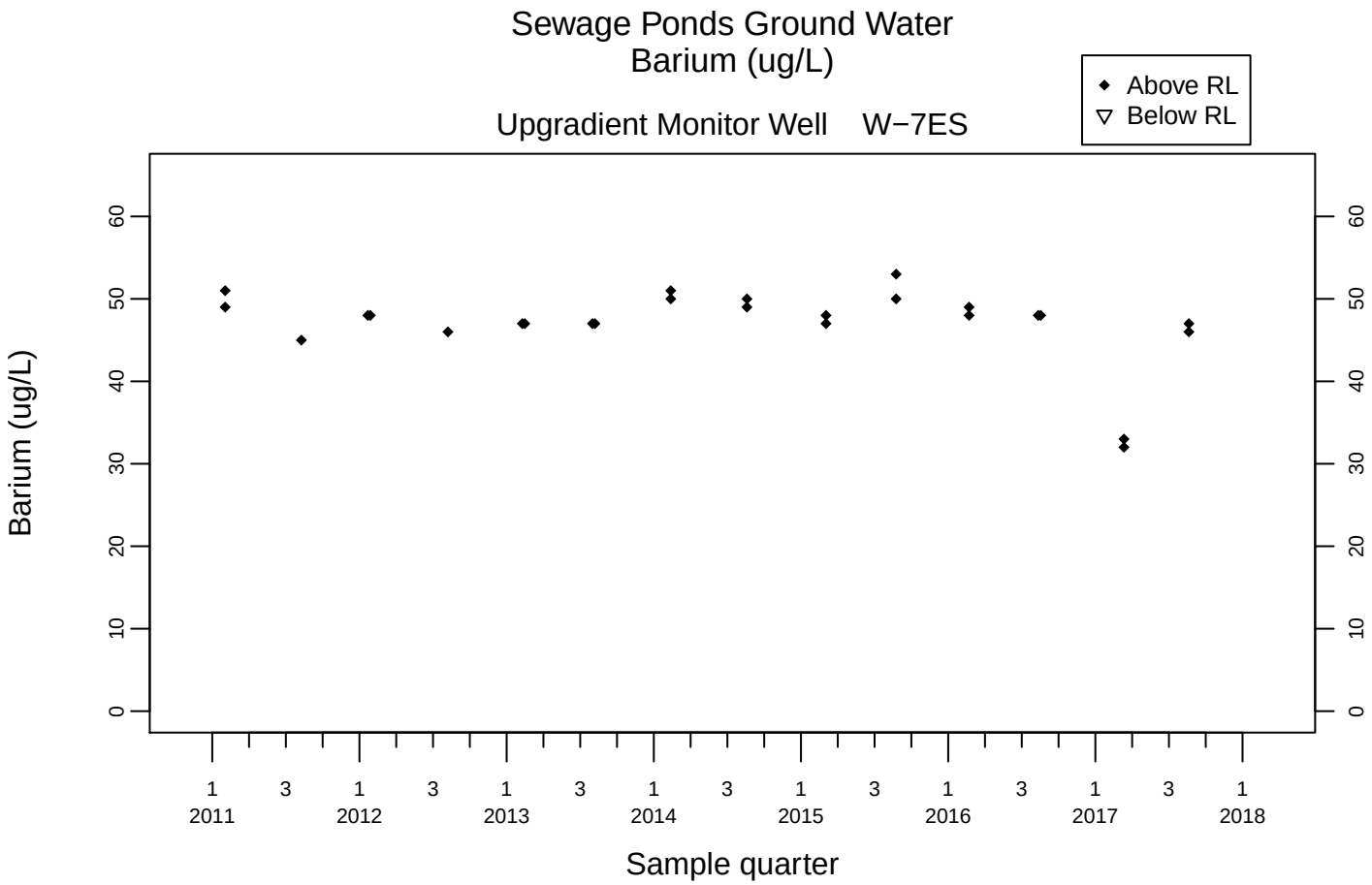

Sewage Ponds Ground Water
Arsenic (ug/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Arsenic (ug/L)
0
2
4
6
8
10
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

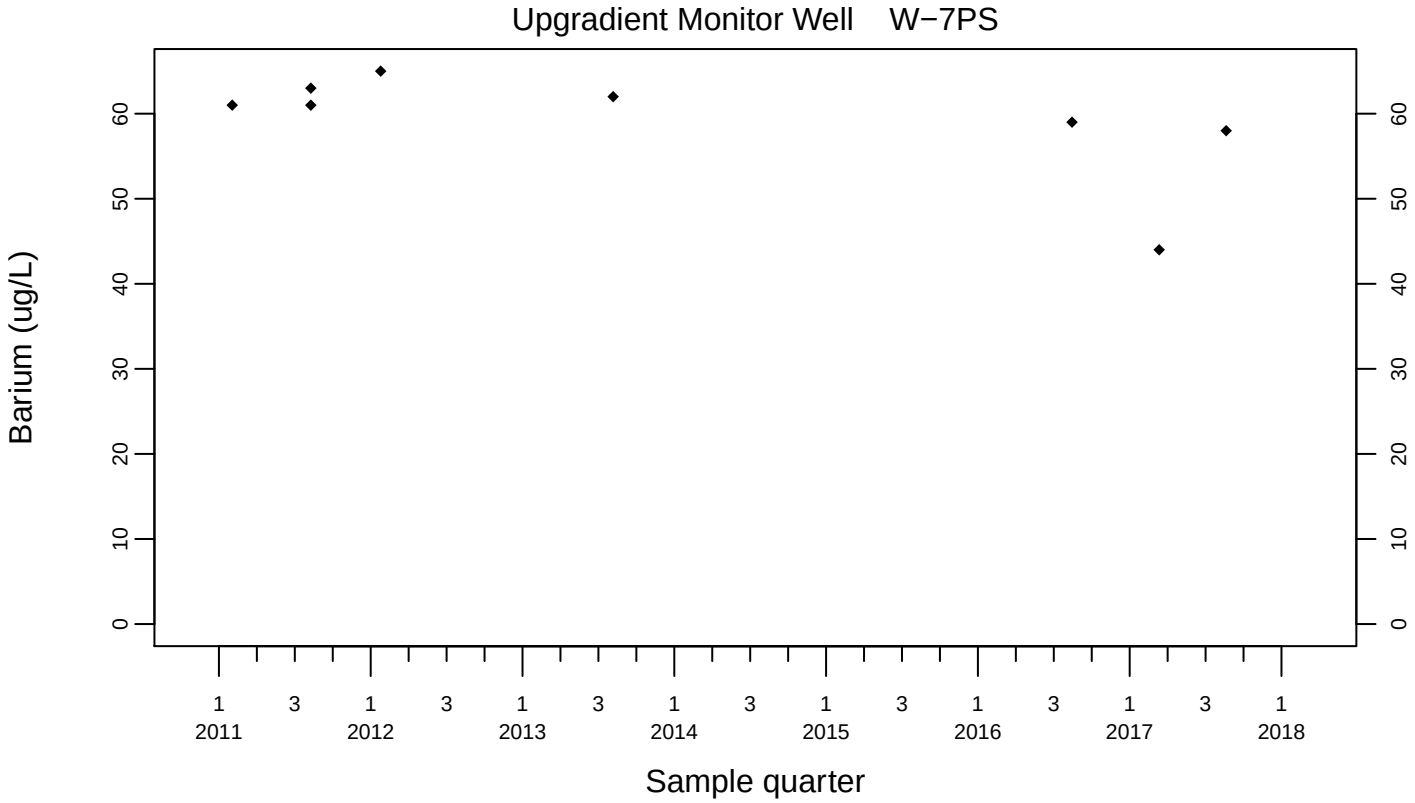

Downgradient Monitor Well W−26R−01
Arsenic (ug/L)
0
2
4
6
8
10
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

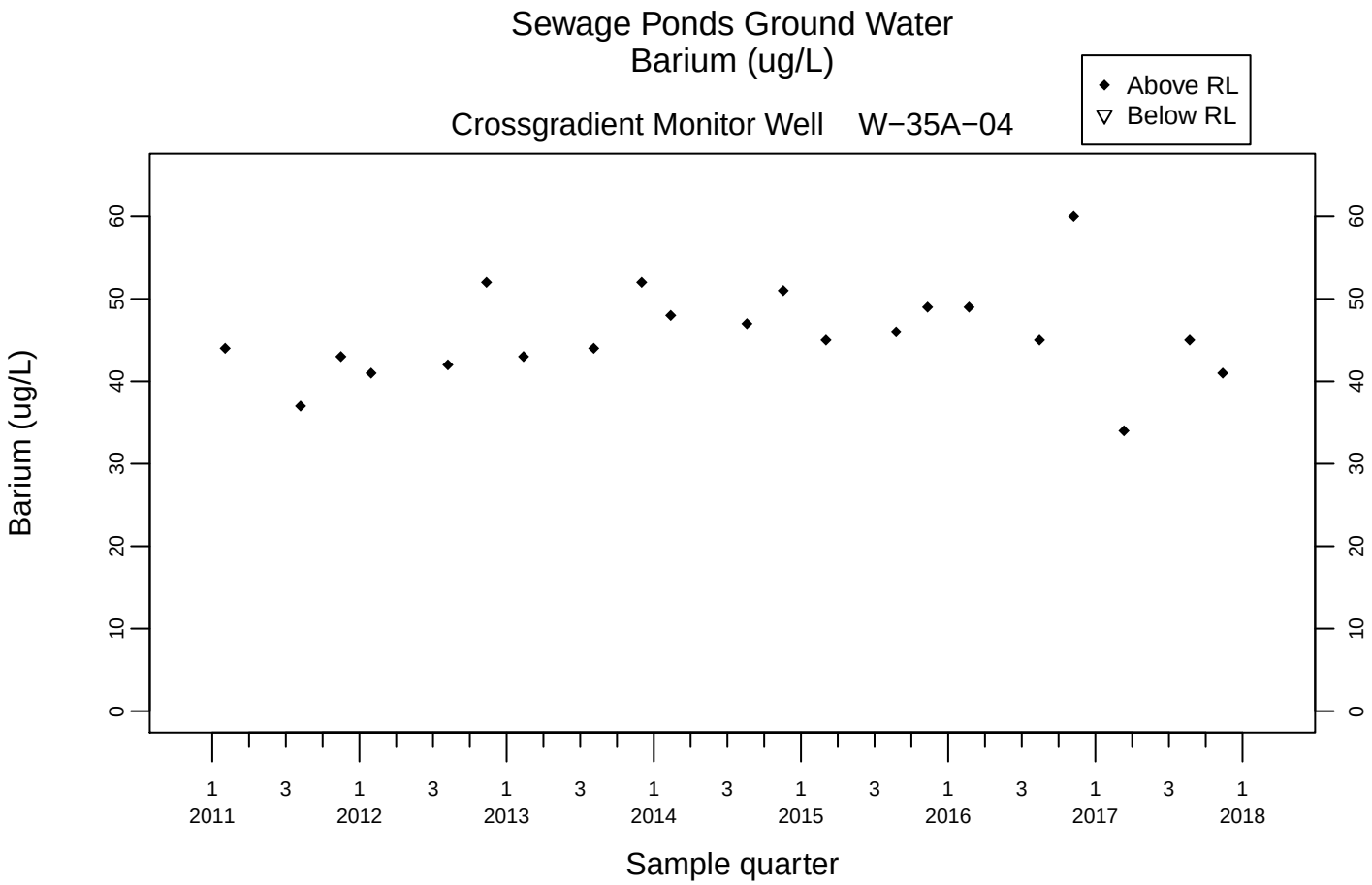

Sewage Ponds Ground Water
Arsenic (ug/L)
Downgradient Monitor Well W−26R−05
Above RL
Below RL
Arsenic (ug/L)
0
2
4
6
8
10
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

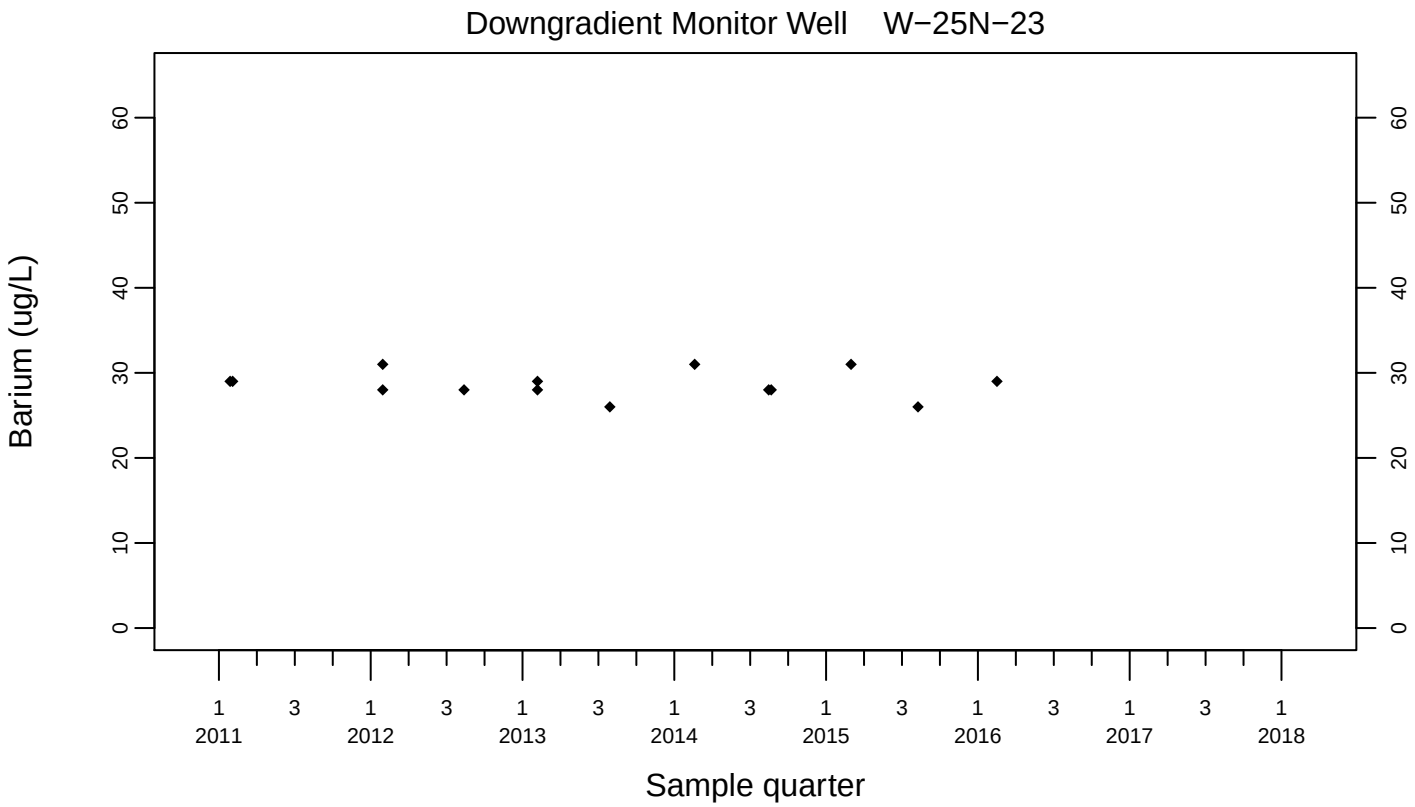

Downgradient Monitor Well W−26R−11
Arsenic (ug/L)
0
2
4
6
8
10
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

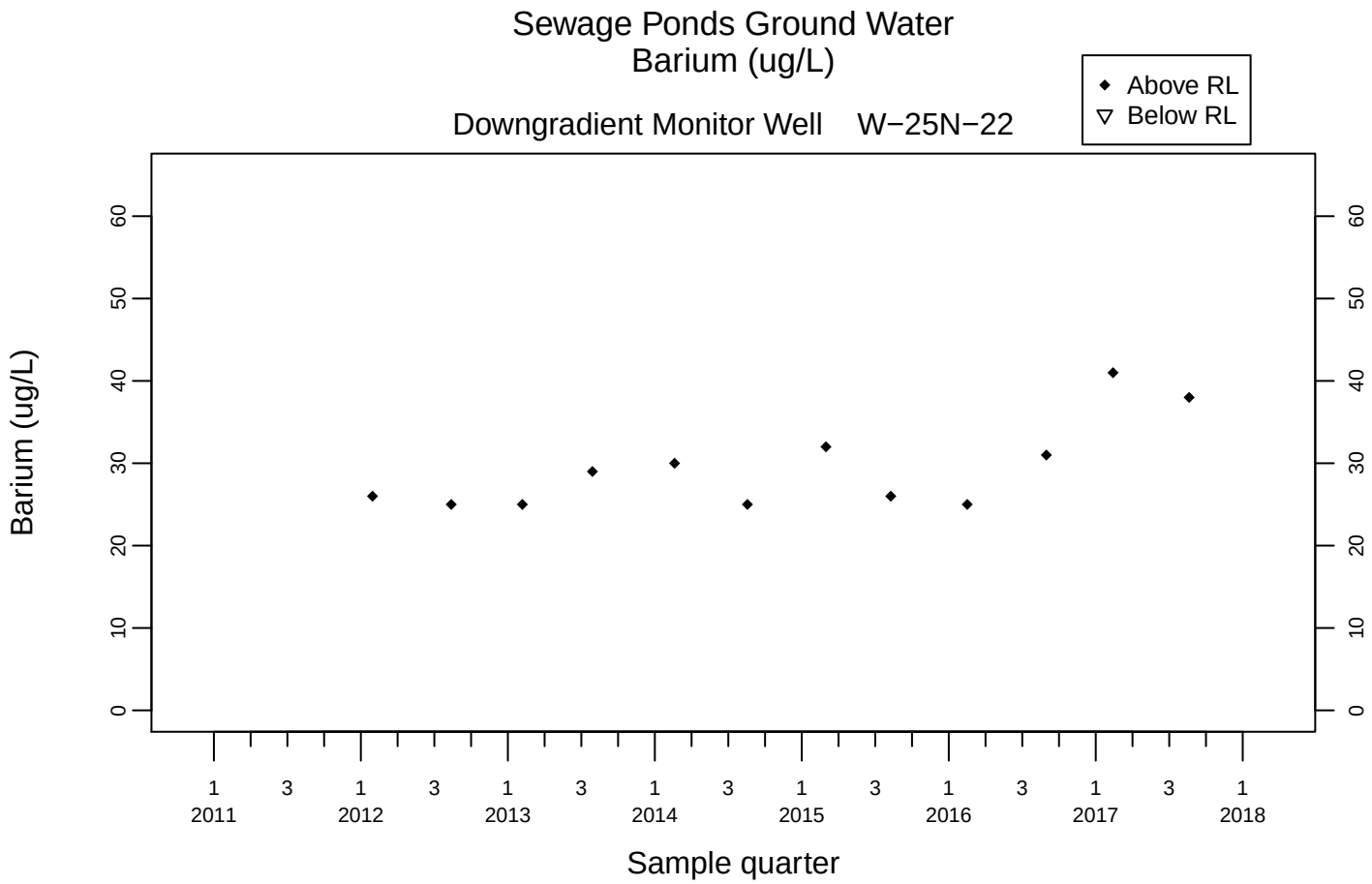

Sewage Ponds Ground Water
Arsenic (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Arsenic (ug/L)
0
2
4
6
8
10
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

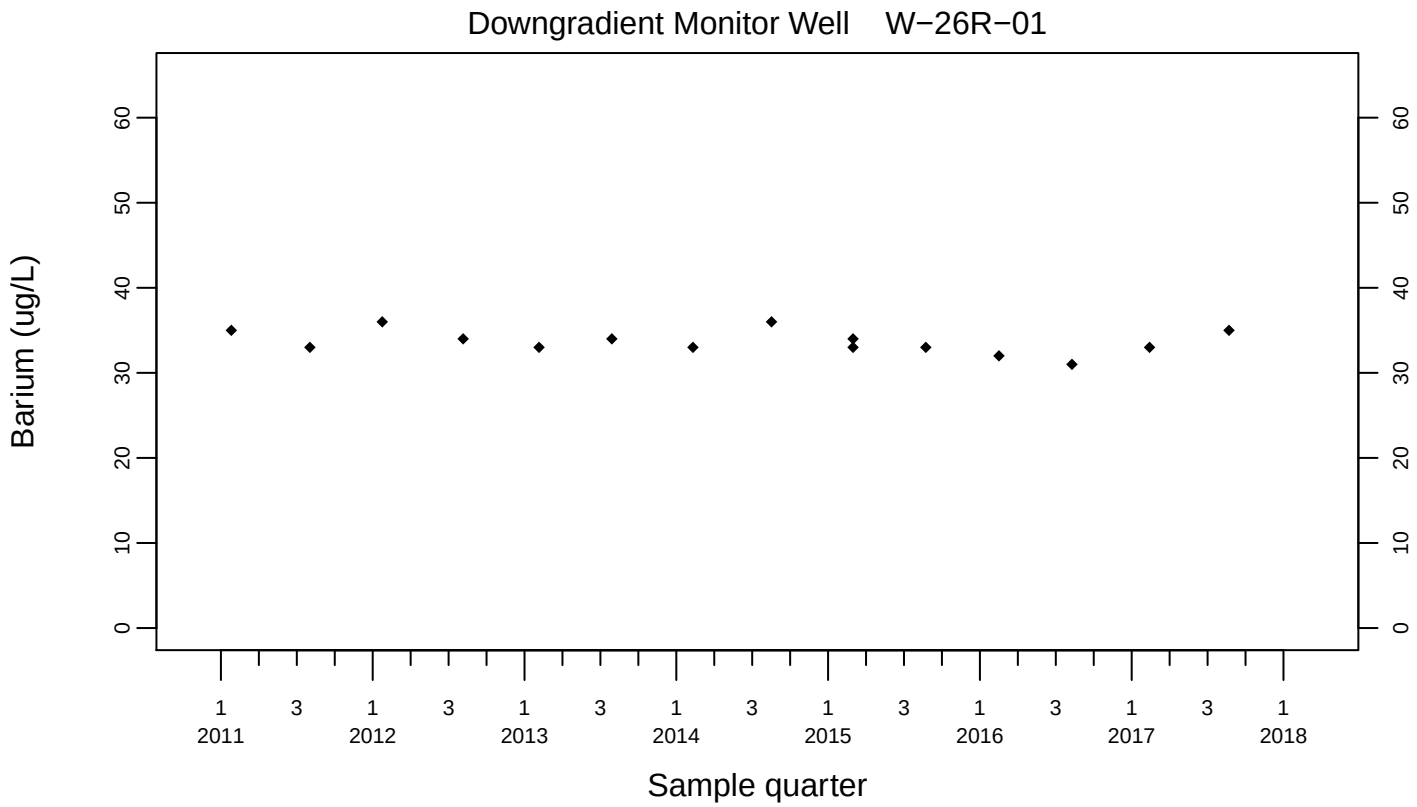

Sewage Ponds Ground Water
Barium (ug/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Barium (ug/L)
0
10
20
30
40
50
60
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

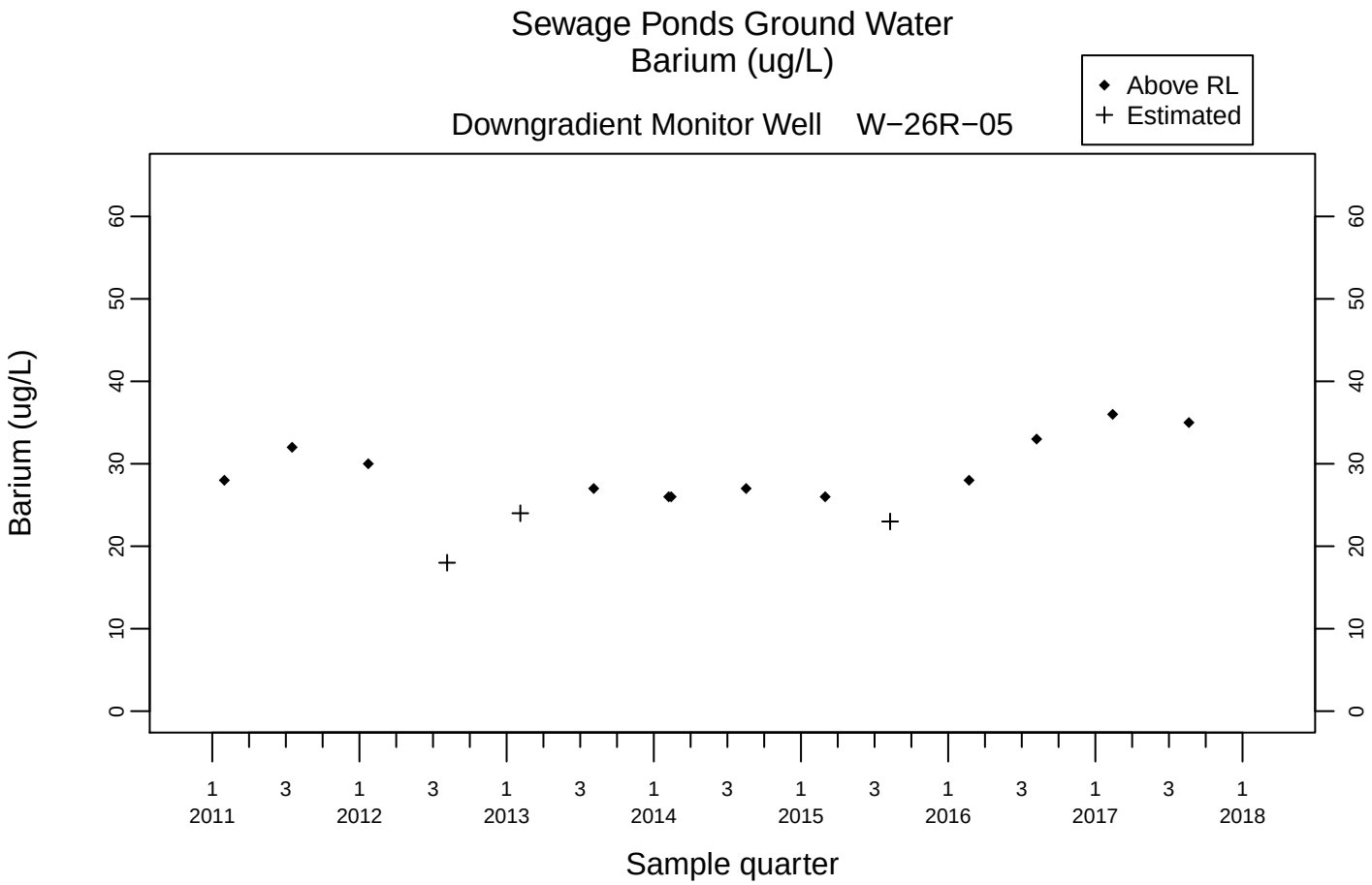

Upgradient Monitor Well W−7PS
Barium (ug/L)
0
10
20
30
40
50
60
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

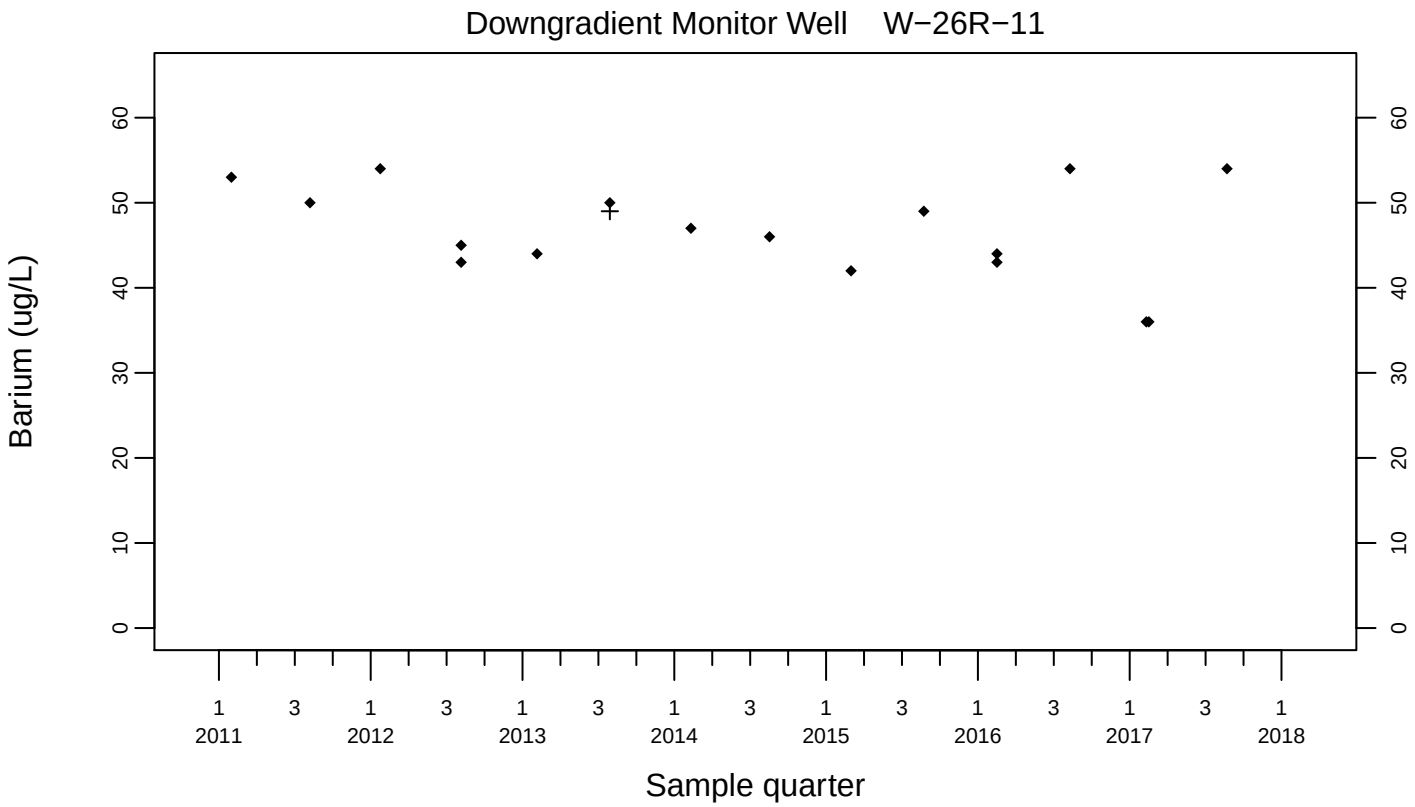

Sewage Ponds Ground Water
Barium (ug/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Barium (ug/L)
0
10
20
30
40
50
60
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

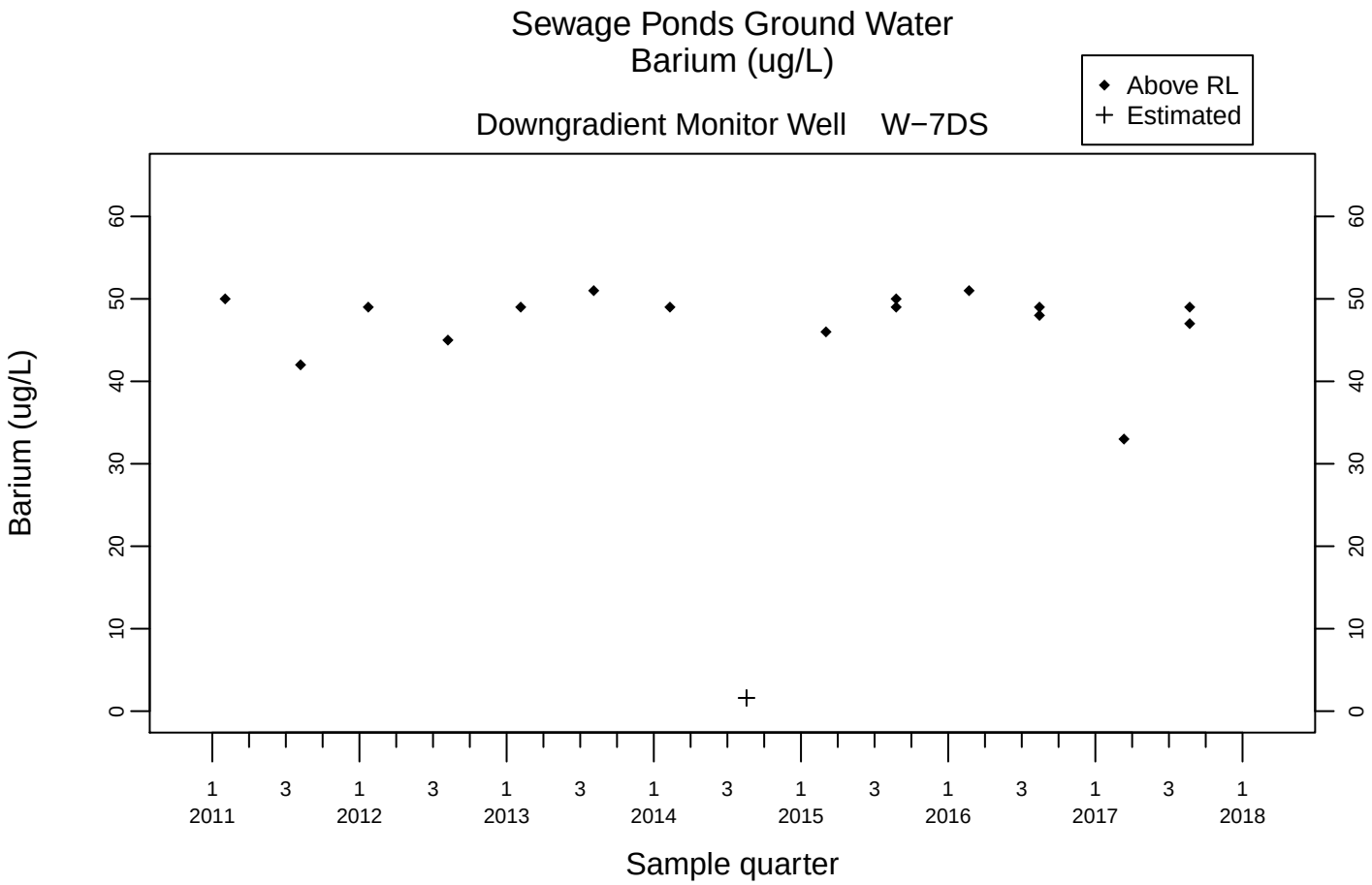

Downgradient Monitor Well W−25N−23
Barium (ug/L)
0
10
20
30
40
50
60
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

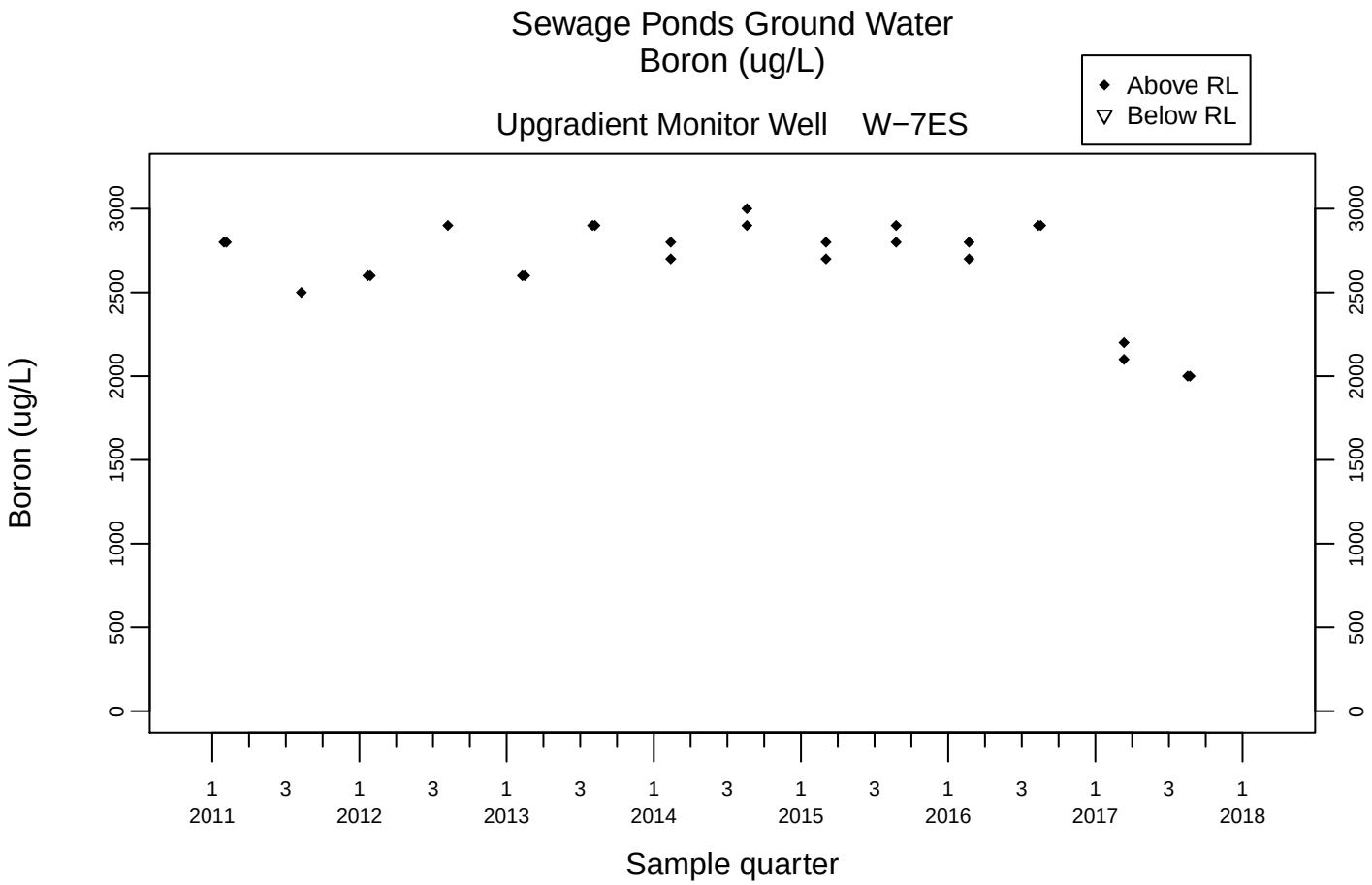

Sewage Ponds Ground Water
Barium (ug/L)
Downgradient Monitor Well W−25N−22
Above RL
Below RL
Barium (ug/L)
0
10
20
30
40
50
60
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

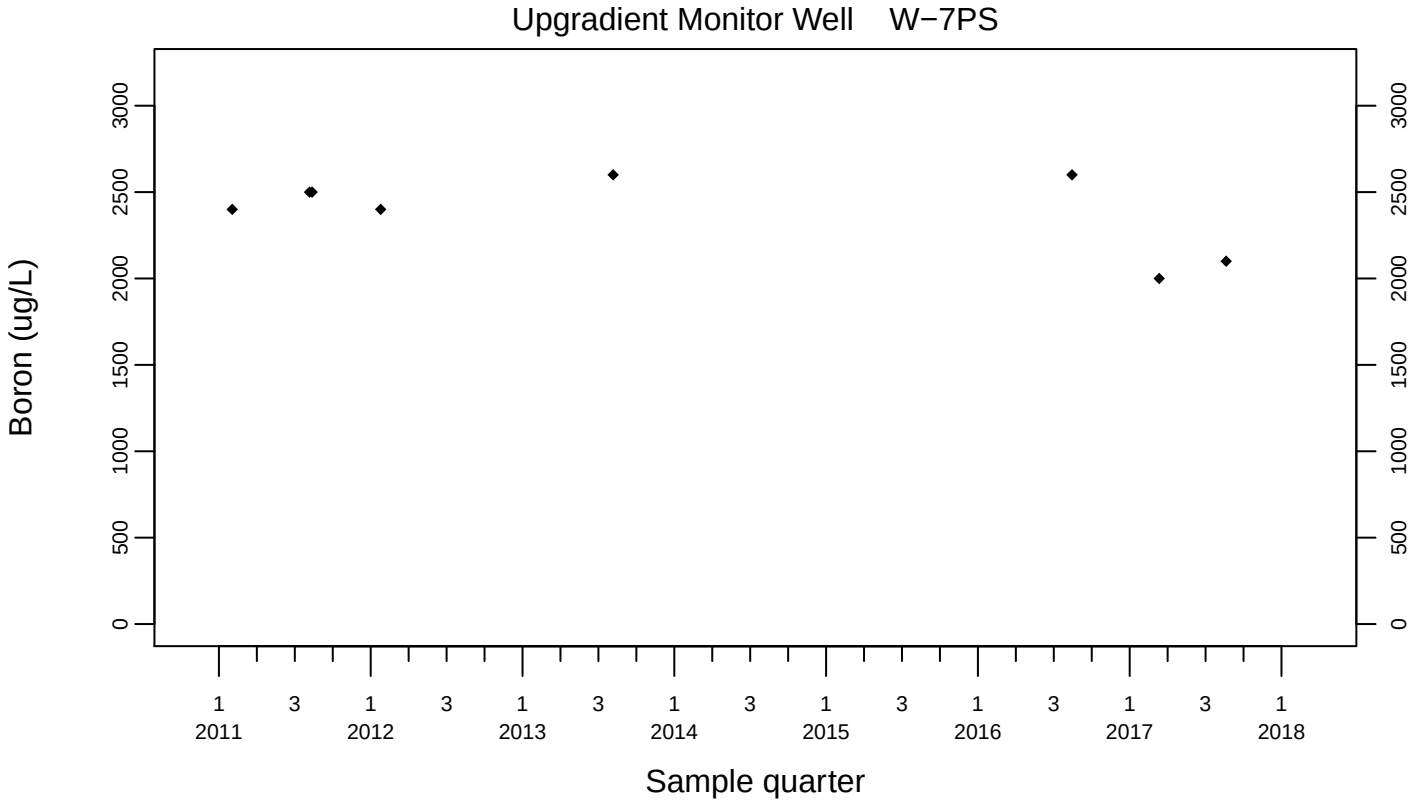

Downgradient Monitor Well W−26R−01
Barium (ug/L)
0
10
20
30
40
50
60
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

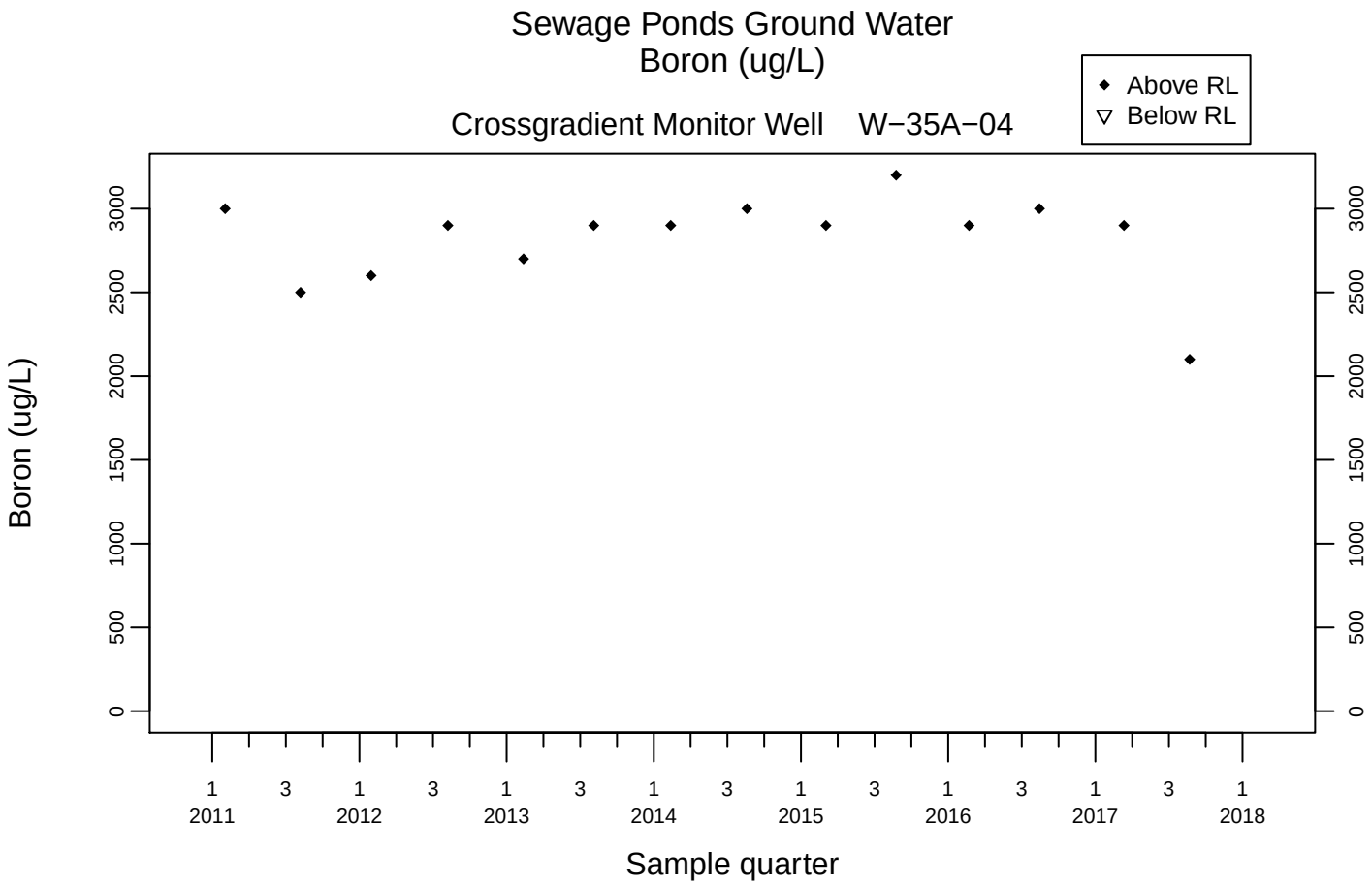

Sewage Ponds Ground Water
Barium (ug/L)
Above RL
Estimated
Downgradient Monitor Well W−26R−05
Barium (ug/L)
0
10
20
30
40
50
60
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

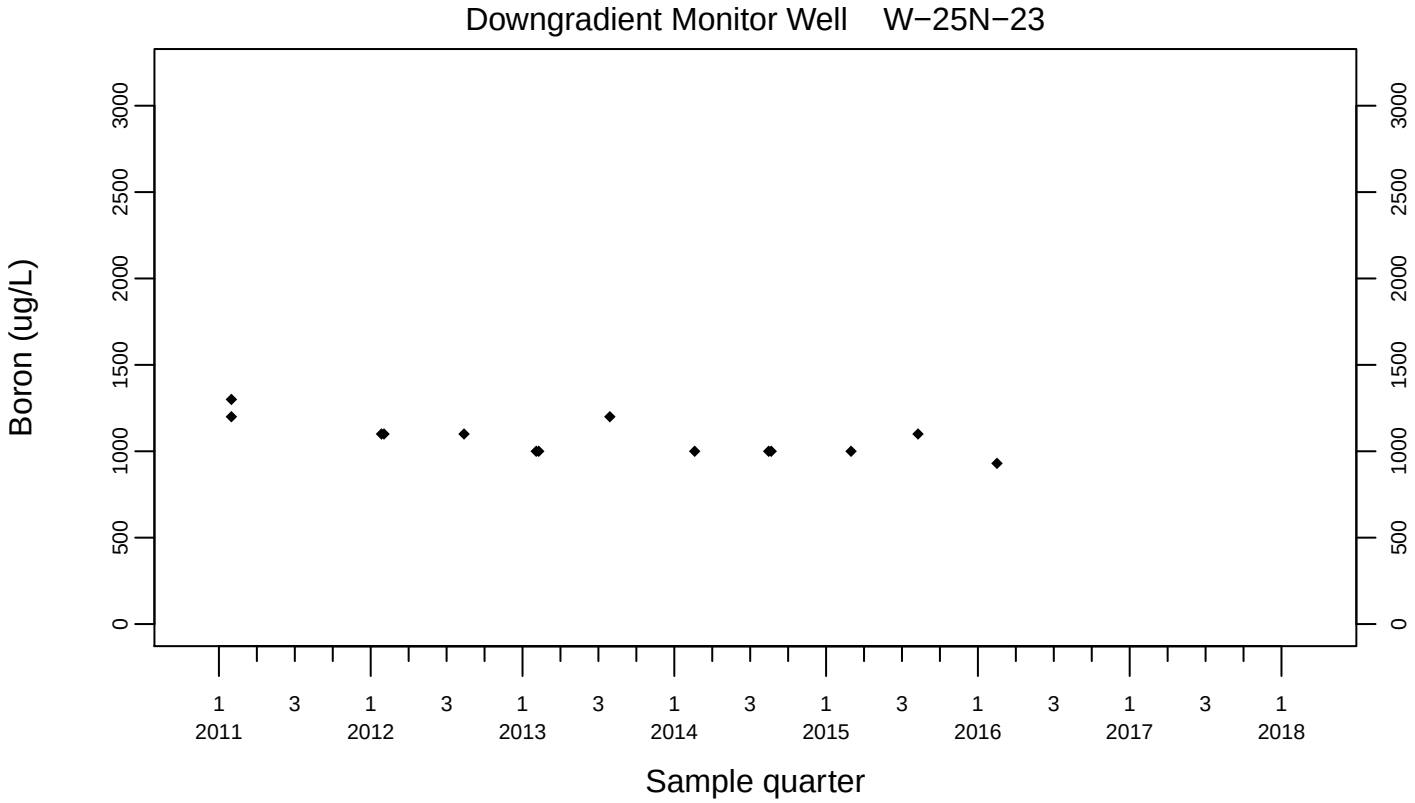

Downgradient Monitor Well W−26R−11
Barium (ug/L)
0
10
20
30
40
50
60
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

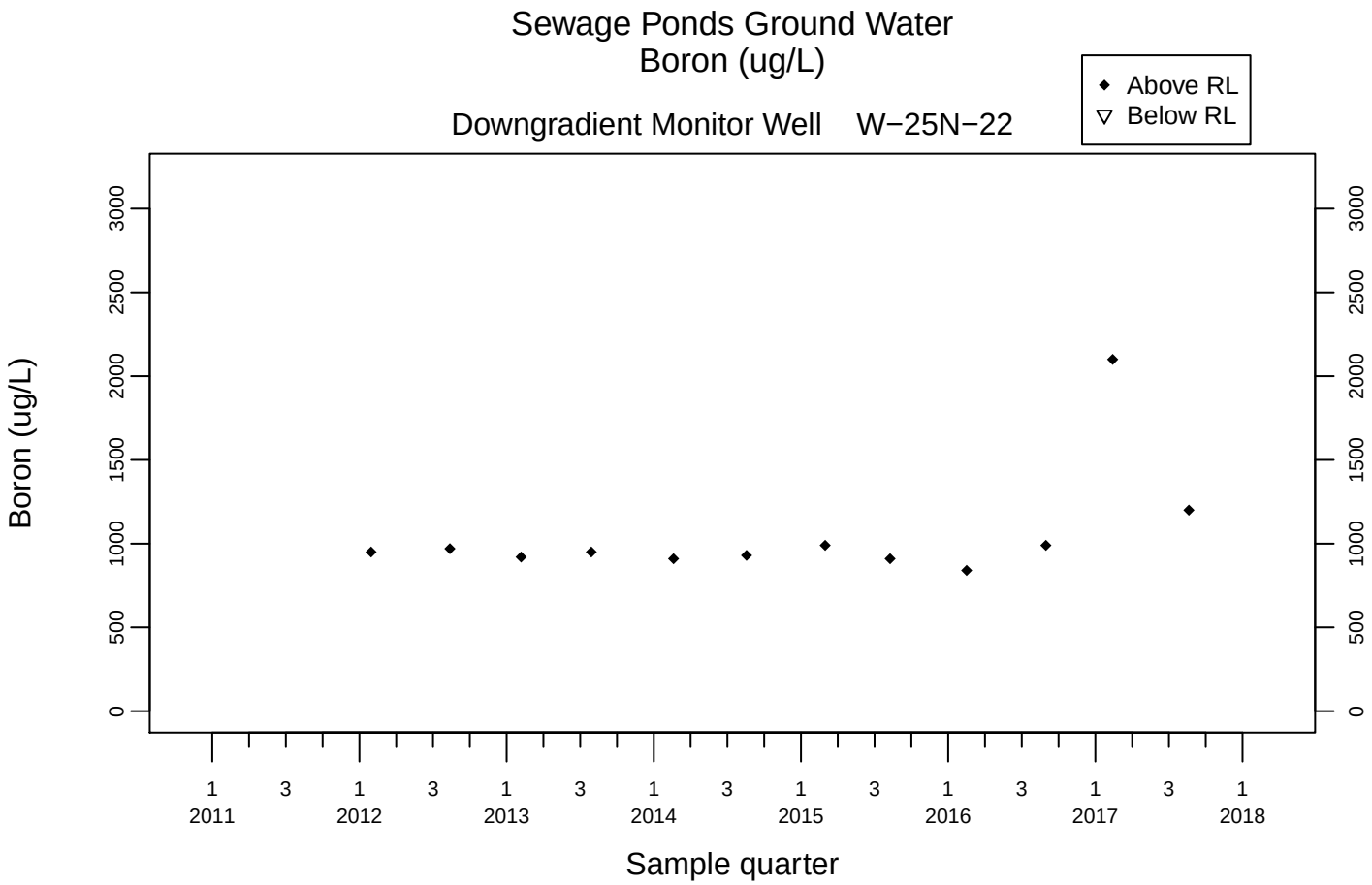

Sewage Ponds Ground Water
Barium (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Estimated
Barium (ug/L)
0
10
20
30
40
50
60
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

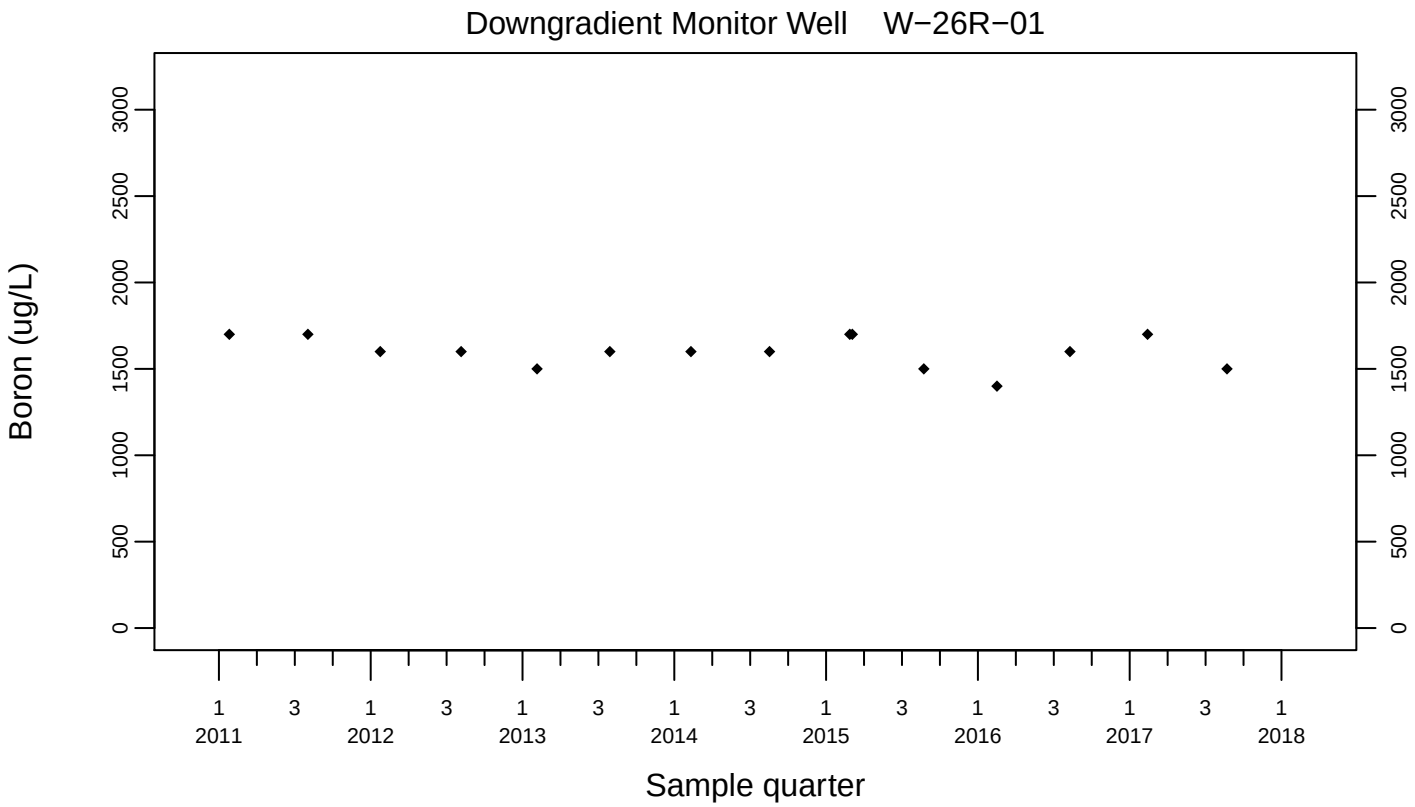

Sewage Ponds Ground Water
Boron (ug/L)
Above RL
Below RL
Upgradient Monitor Well W−7ES
Boron (ug/L)
0
500
1000
1500
2000
2500
3000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

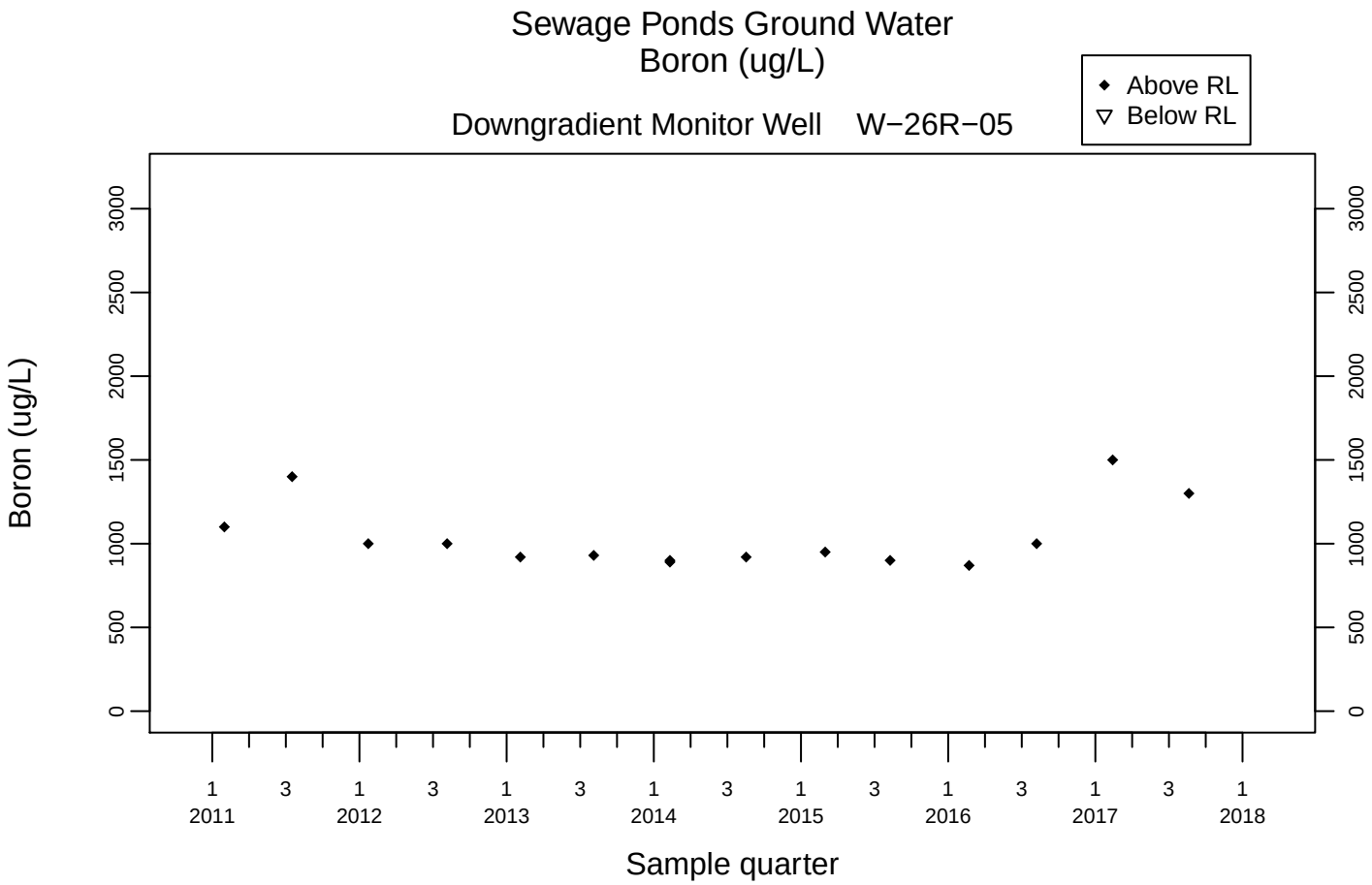

Upgradient Monitor Well W−7PS
Boron (ug/L)
0
500
1000
1500
2000
2500
3000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

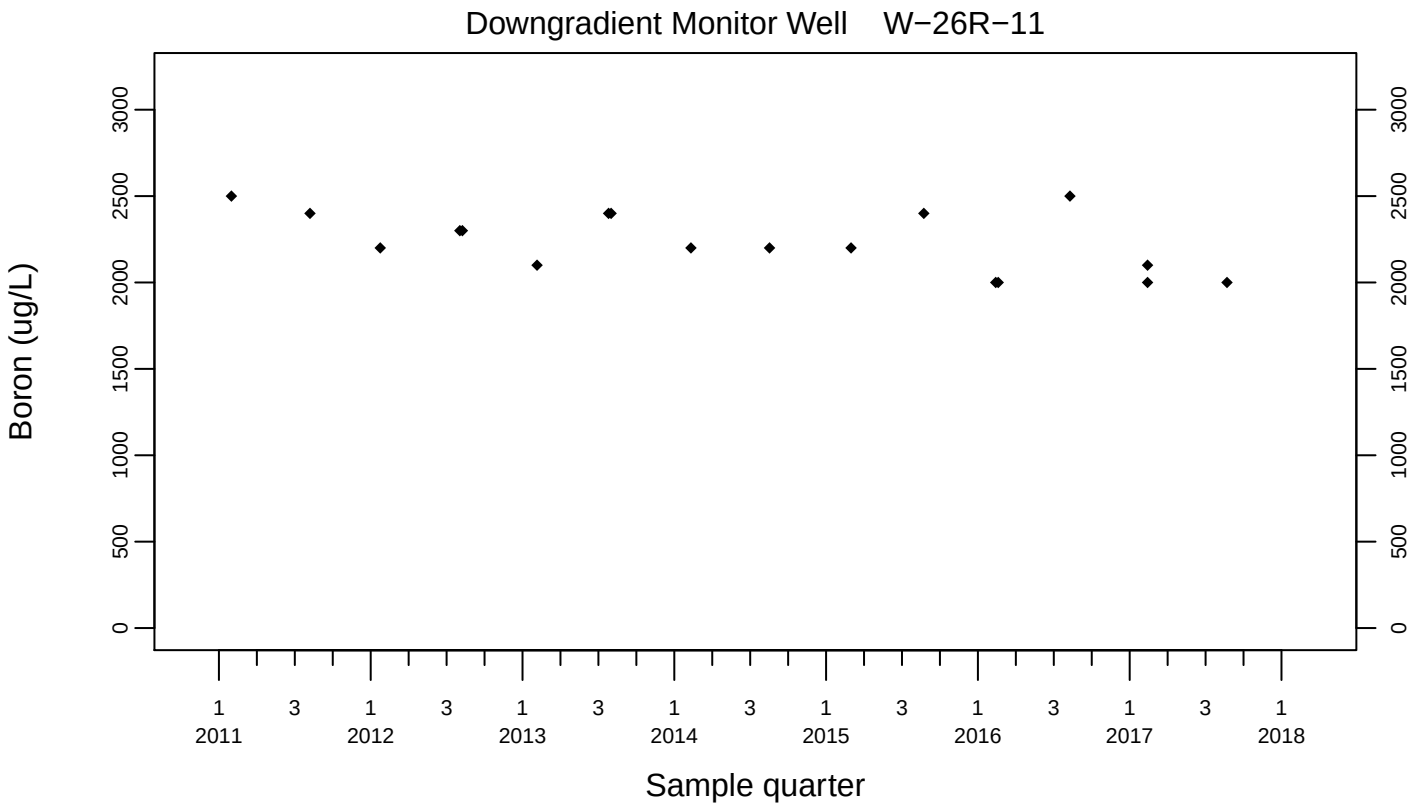

Sewage Ponds Ground Water
Boron (ug/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Boron (ug/L)
0
500
1000
1500
2000
2500
3000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

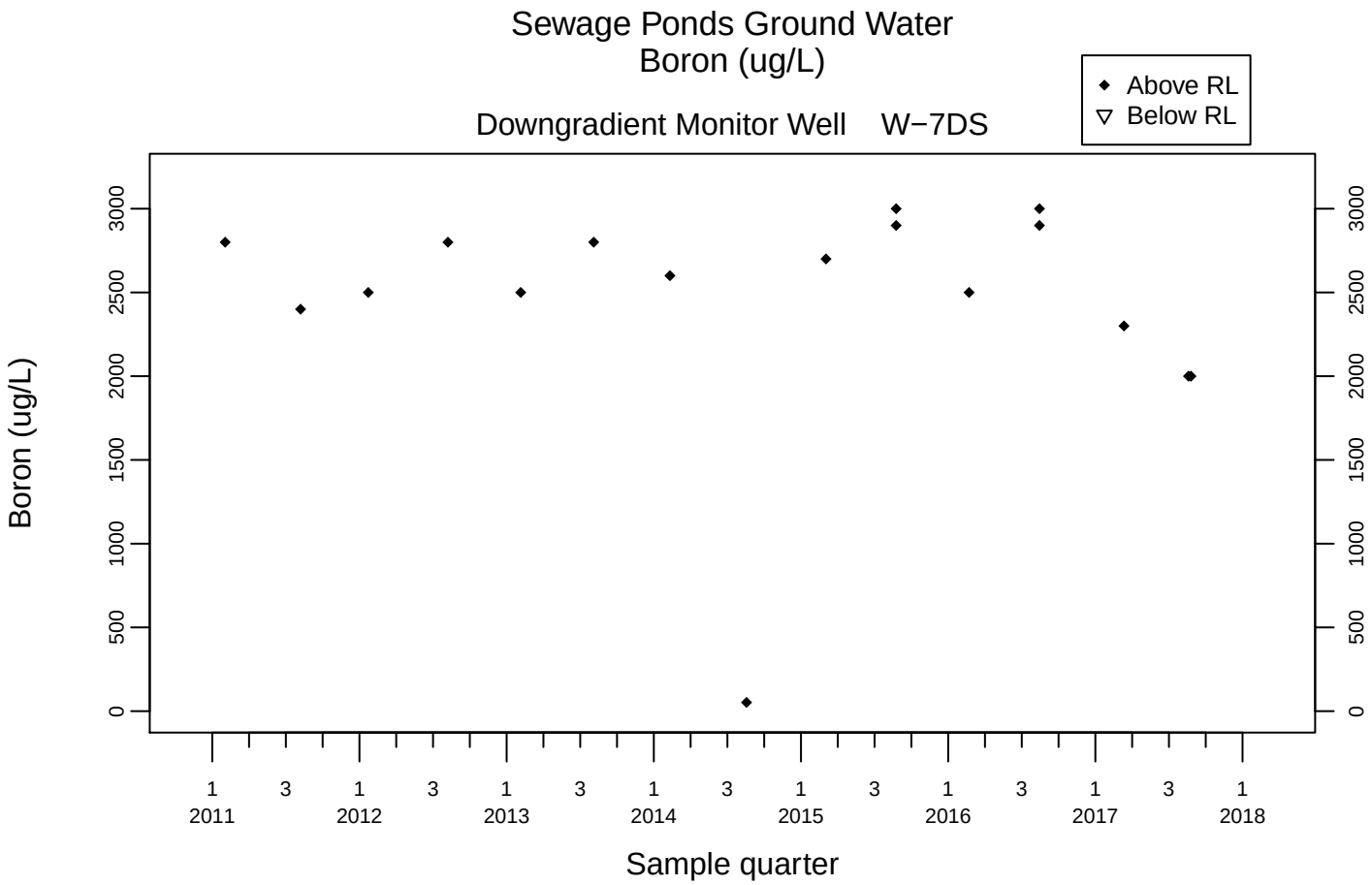

Downgradient Monitor Well W−25N−23
Boron (ug/L)
0
500
1000
1500
2000
2500
3000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

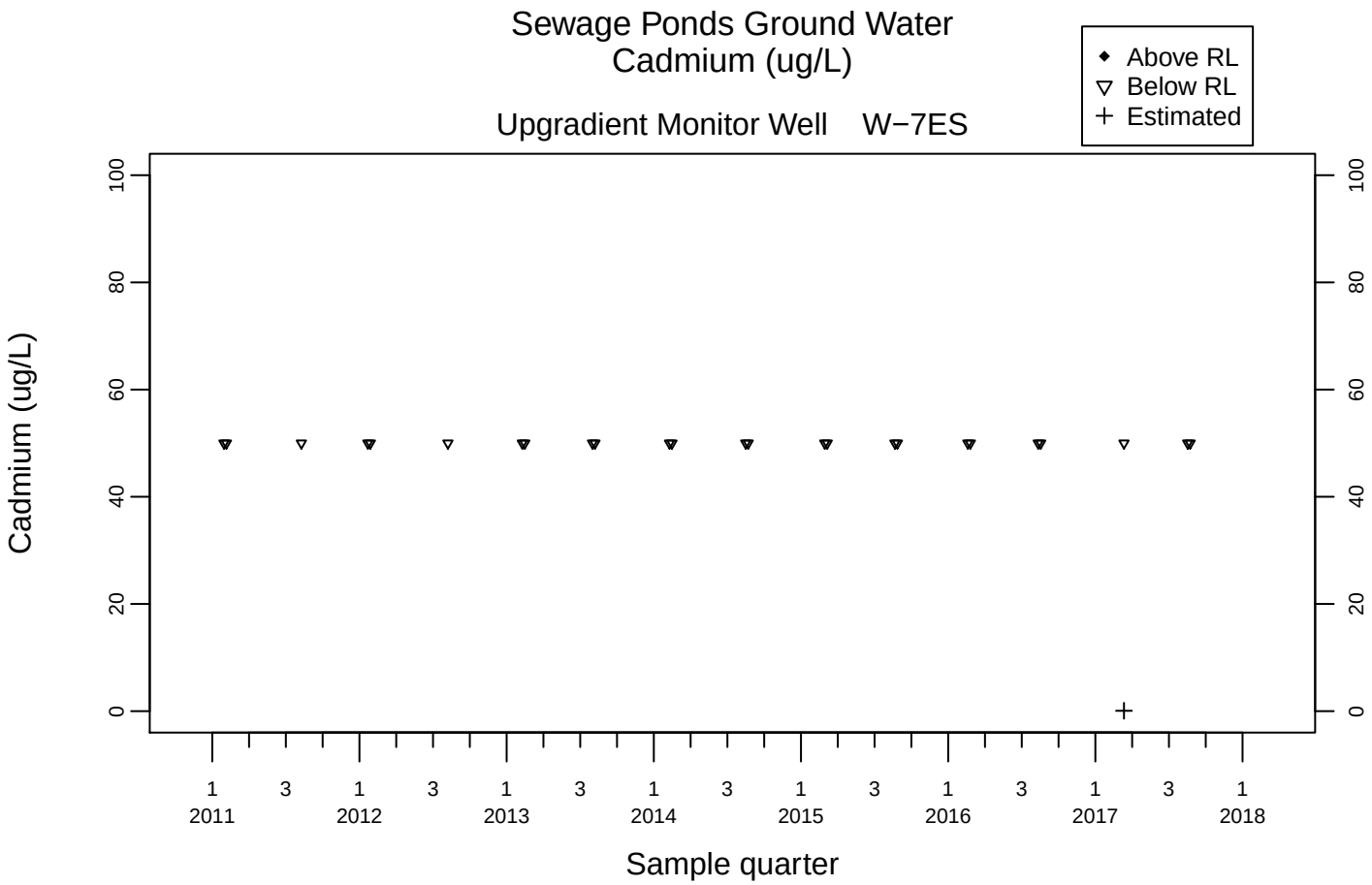

Sewage Ponds Ground Water
Boron (ug/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Boron (ug/L)
0
500
1000
1500
2000
2500
3000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

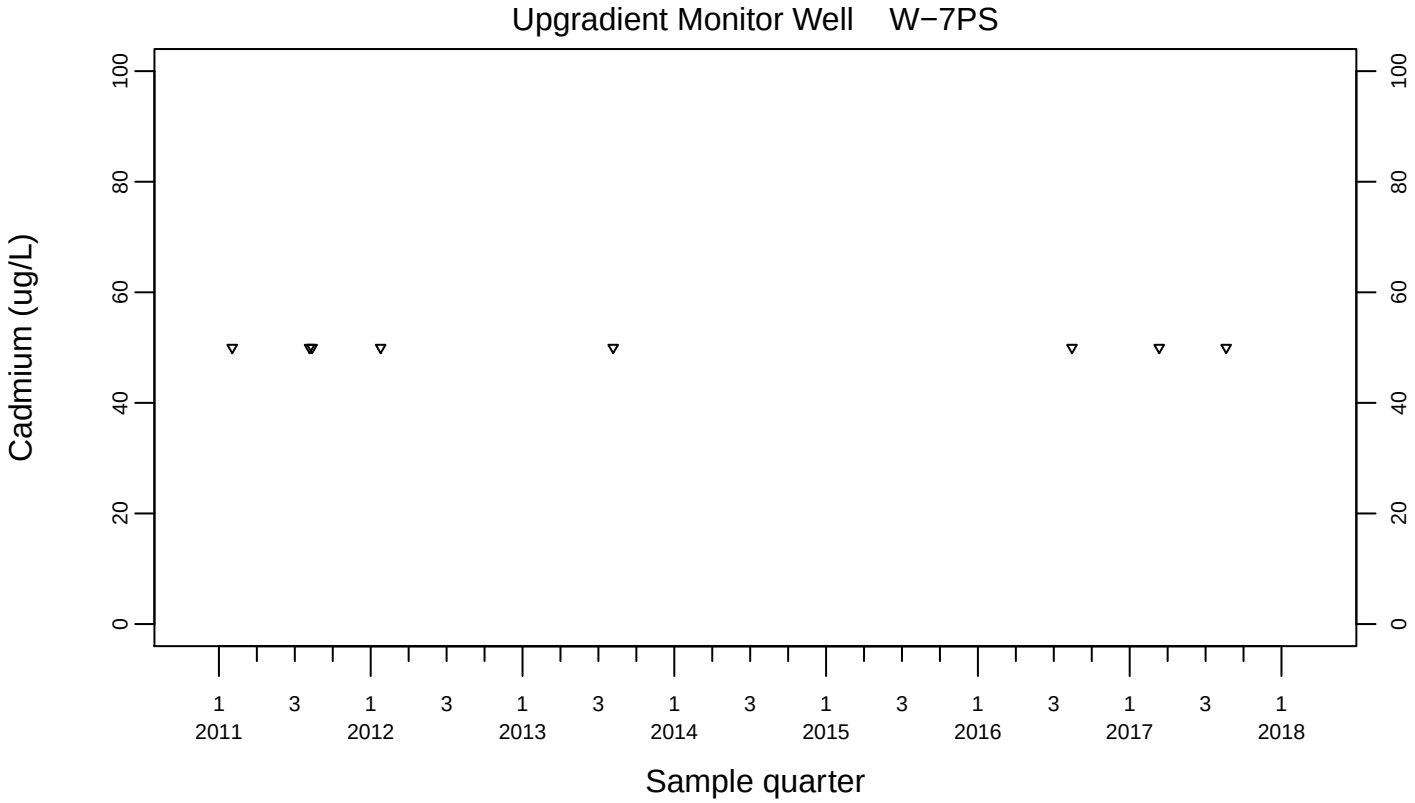

Downgradient Monitor Well W−26R−01
Boron (ug/L)
0
500
1000
1500
2000
2500
3000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

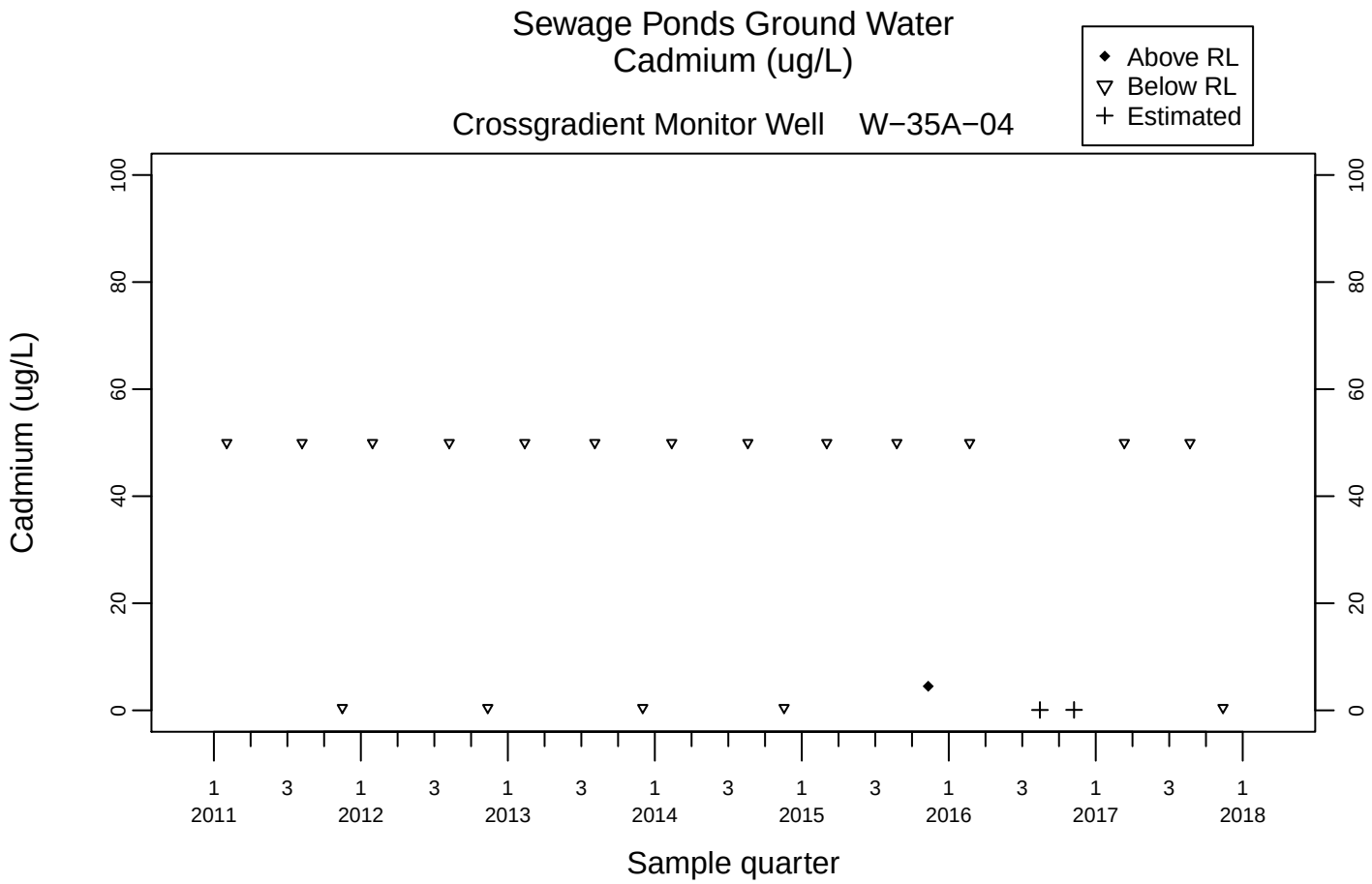

Sewage Ponds Ground Water
Boron (ug/L)
Downgradient Monitor Well W−26R−05
Above RL
Below RL
Boron (ug/L)
0
500
1000
1500
2000
2500
3000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

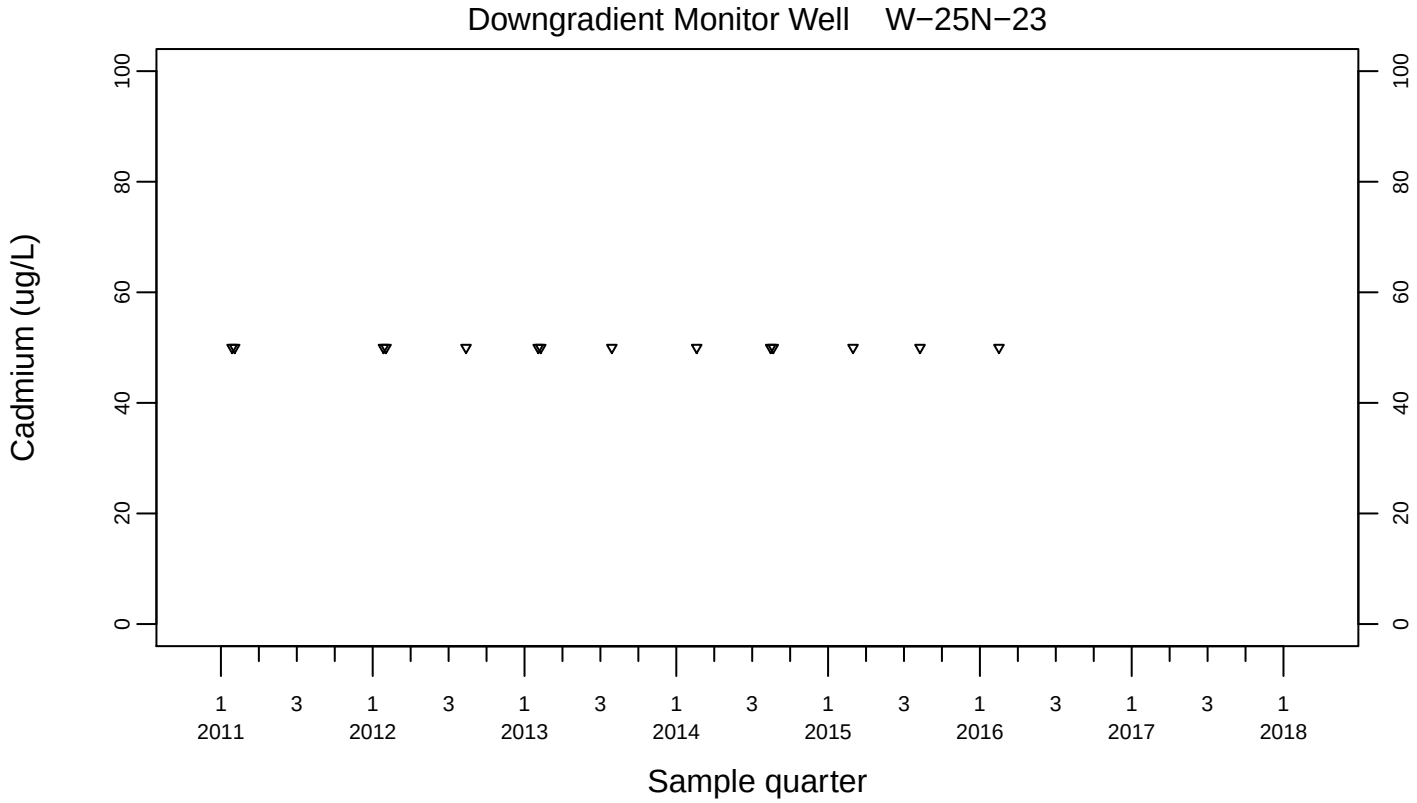

Downgradient Monitor Well W−26R−11
Boron (ug/L)
0
500
1000
1500
2000
2500
3000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

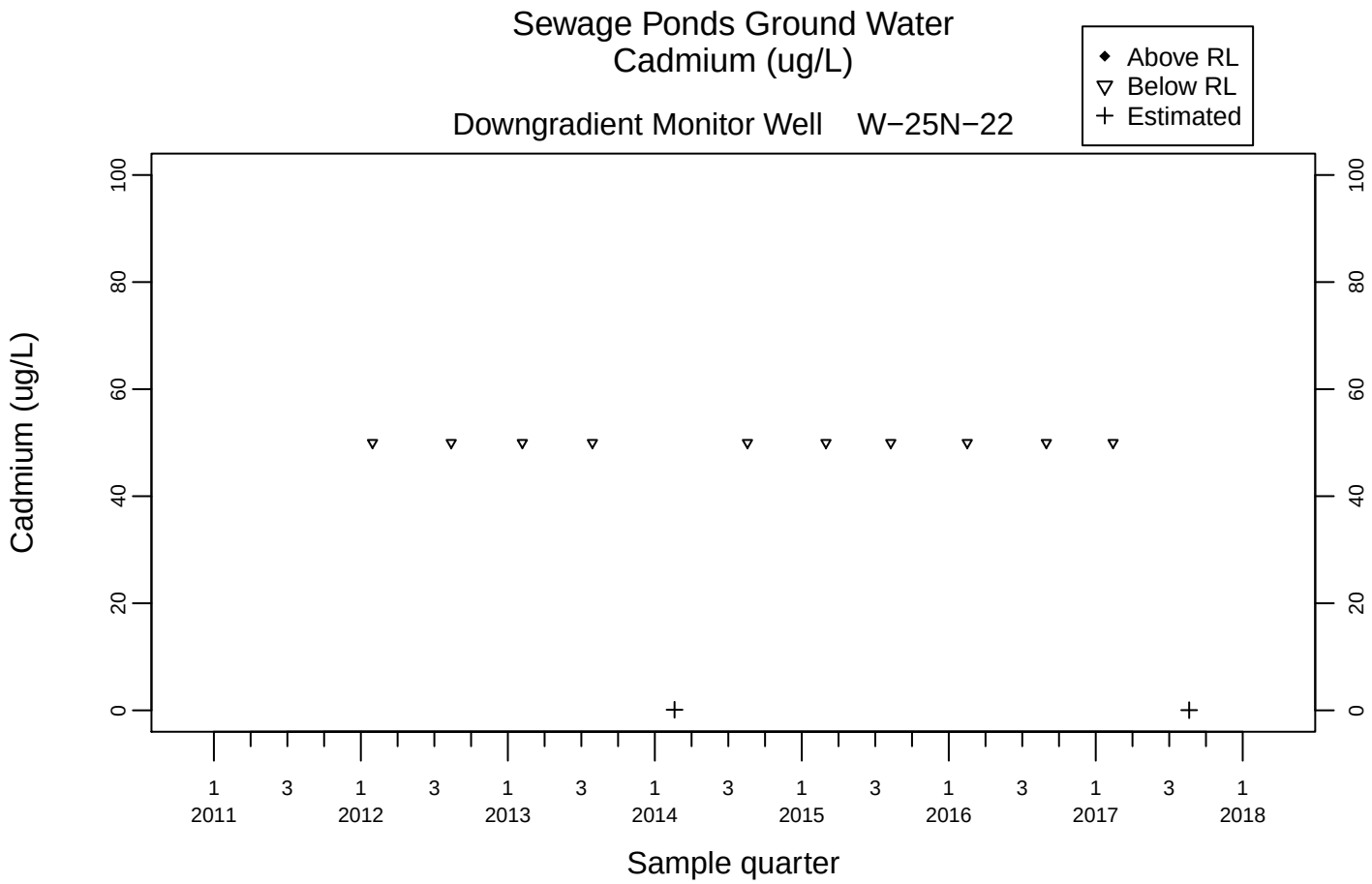

Sewage Ponds Ground Water
Boron (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Boron (ug/L)
0
500
1000
1500
2000
2500
3000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

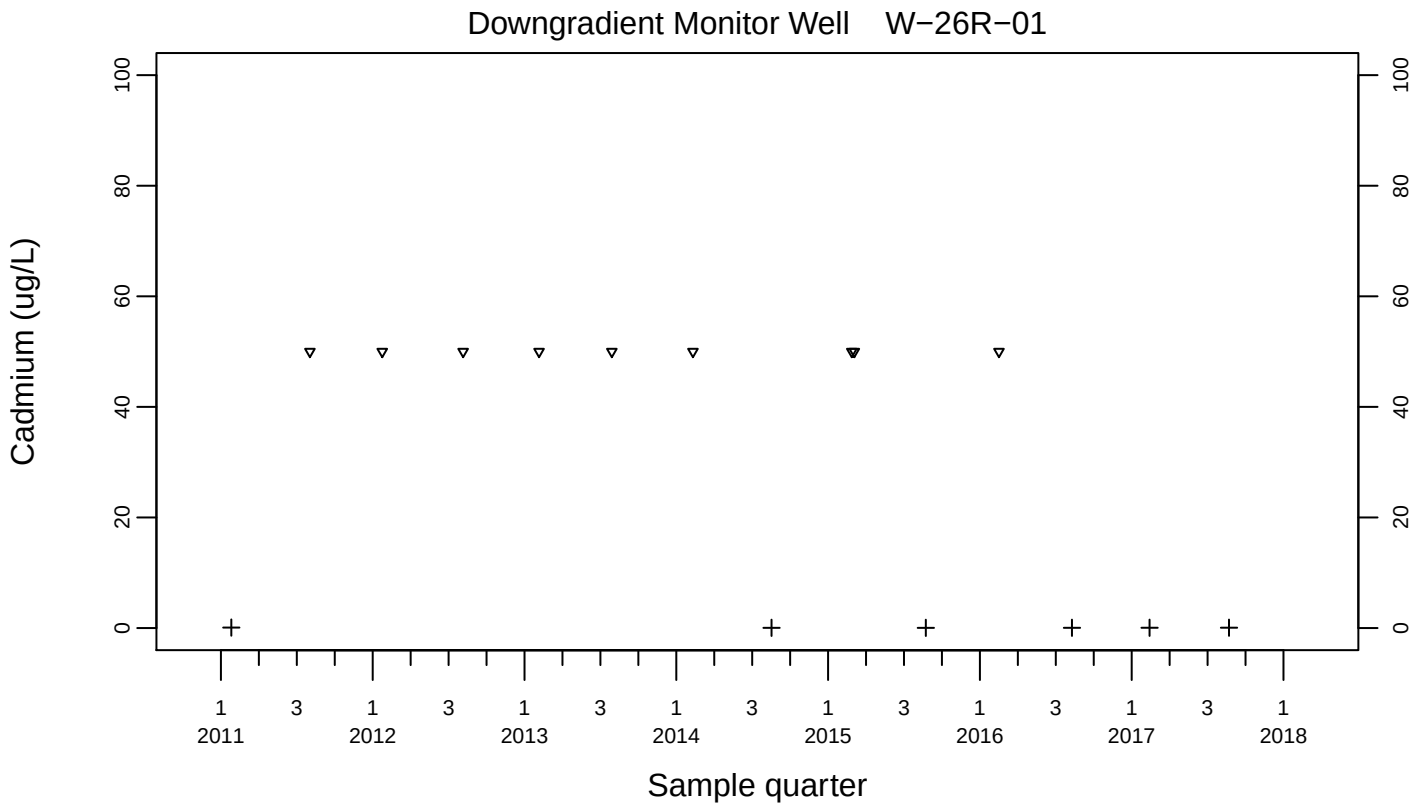

Sewage Ponds Ground Water
Cadmium (ug/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Estimated
Cadmium (ug/L)
0
20
40
60
80
100
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

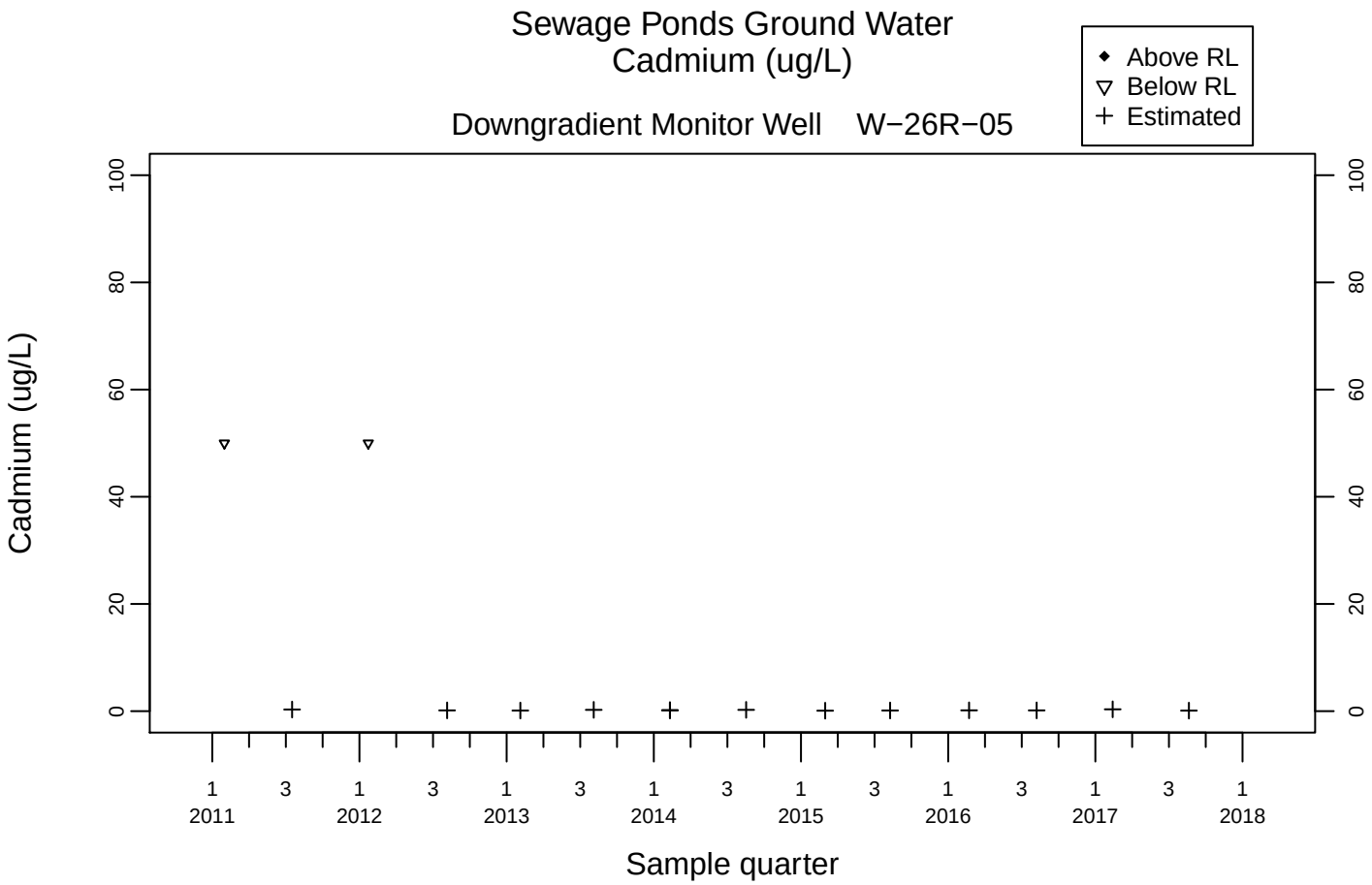

Upgradient Monitor Well W−7PS
Cadmium (ug/L)
0
20
40
60
80
100
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

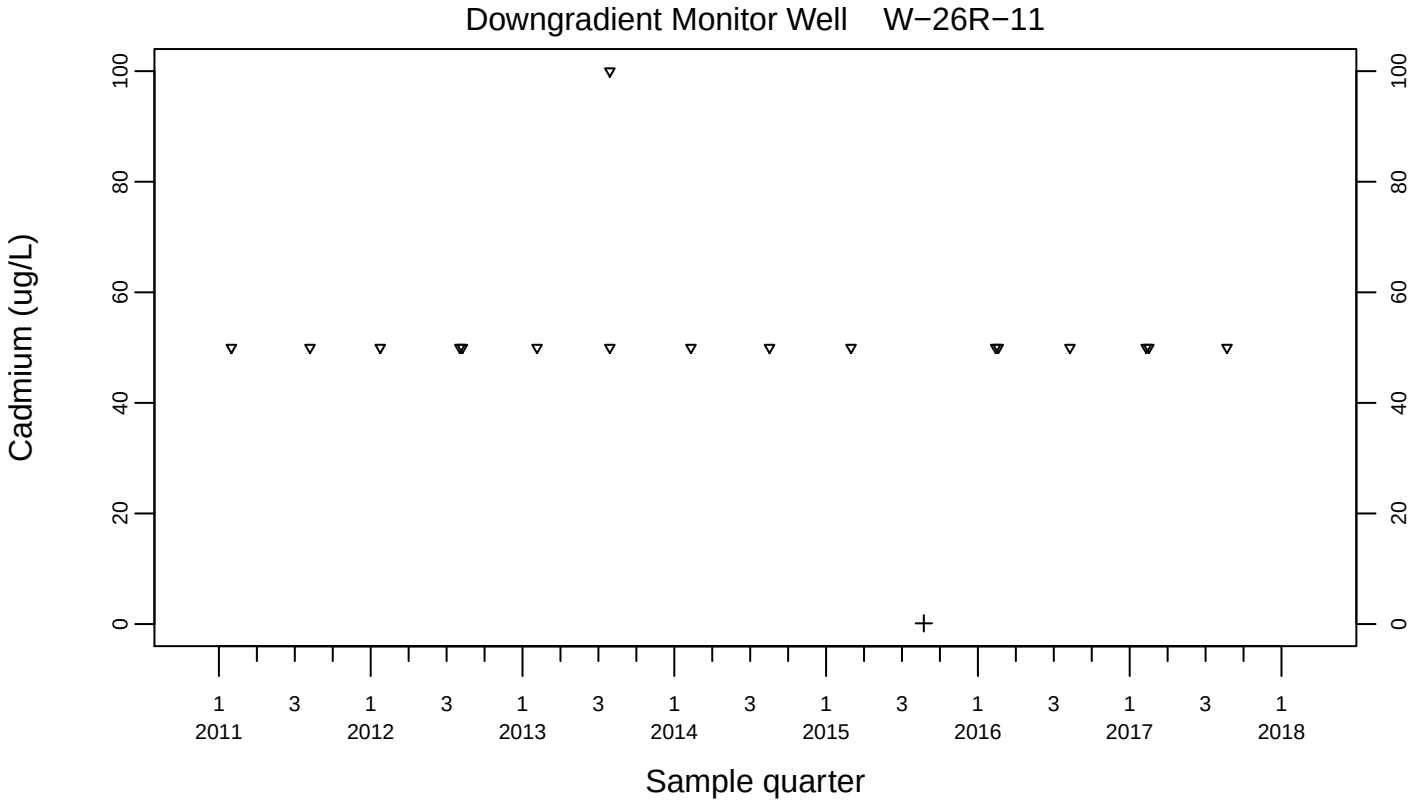

Sewage Ponds Ground Water
Cadmium (ug/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Estimated
Cadmium (ug/L)
0
20
40
60
80
100
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

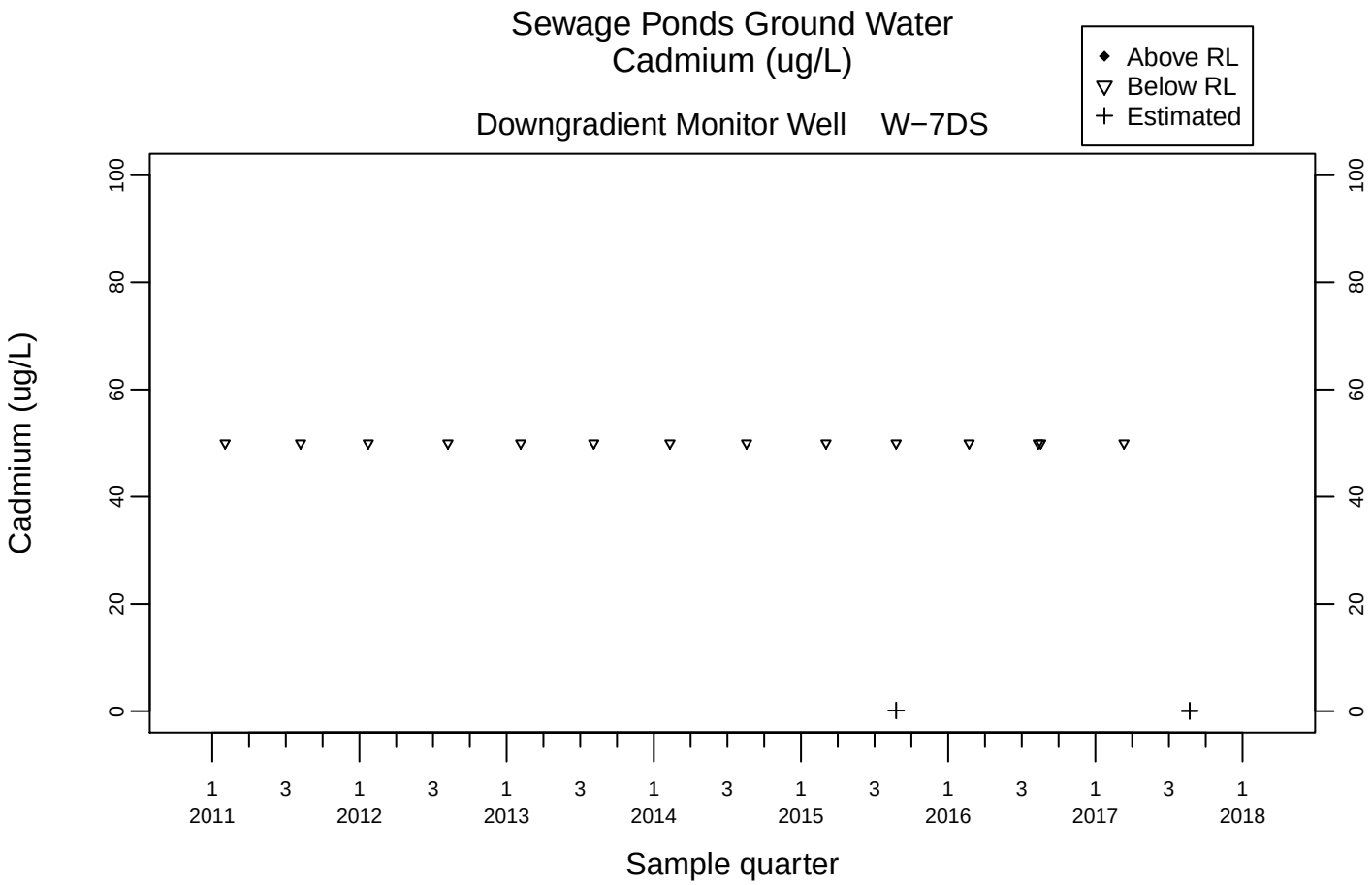

Downgradient Monitor Well W−25N−23
Cadmium (ug/L)
0
20
40
60
80
100
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

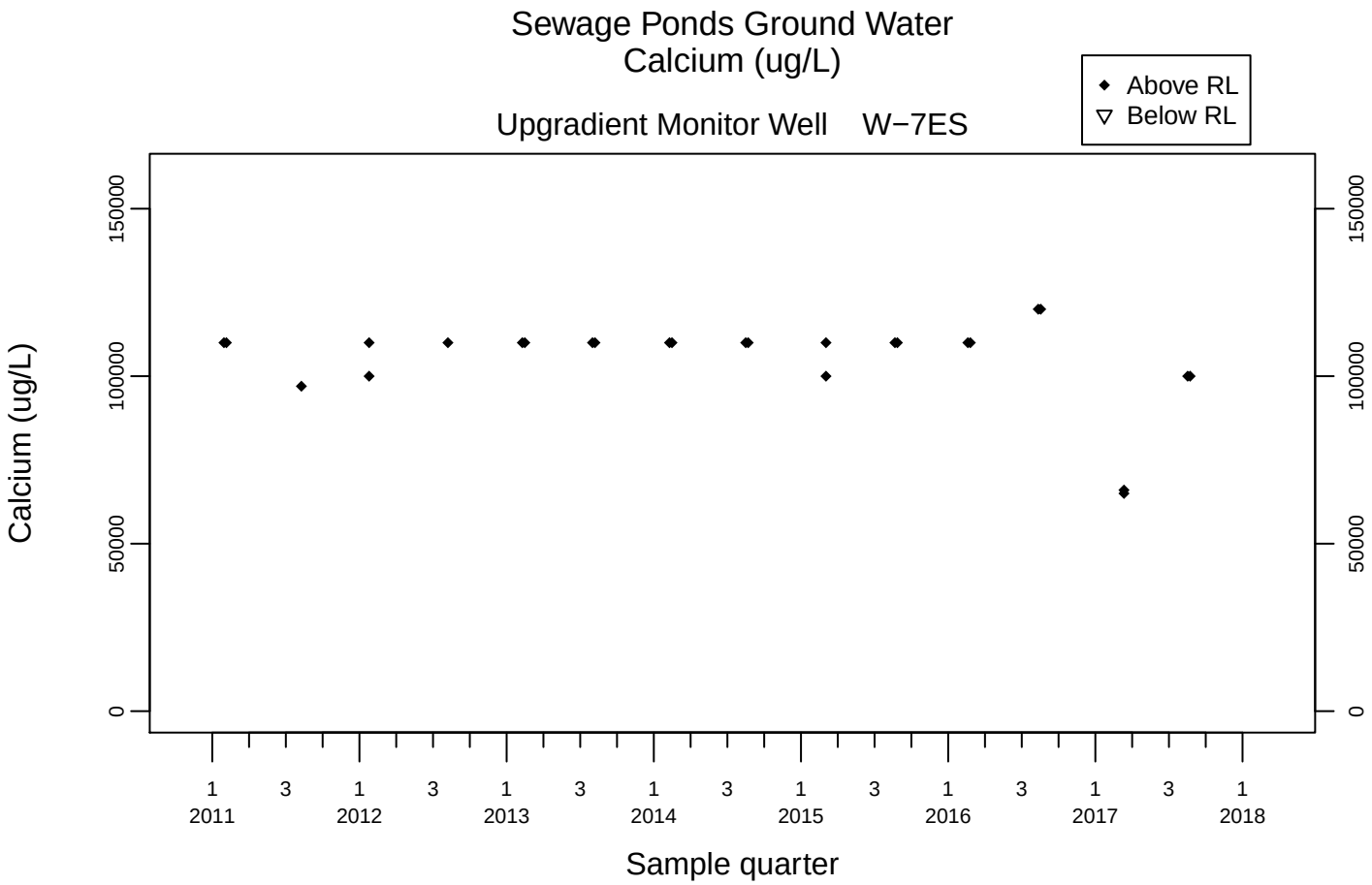

Sewage Ponds Ground Water
Cadmium (ug/L)
Above RL
Below RL
Estimated
Downgradient Monitor Well W−25N−22
Cadmium (ug/L)
0
20
40
60
80
100
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

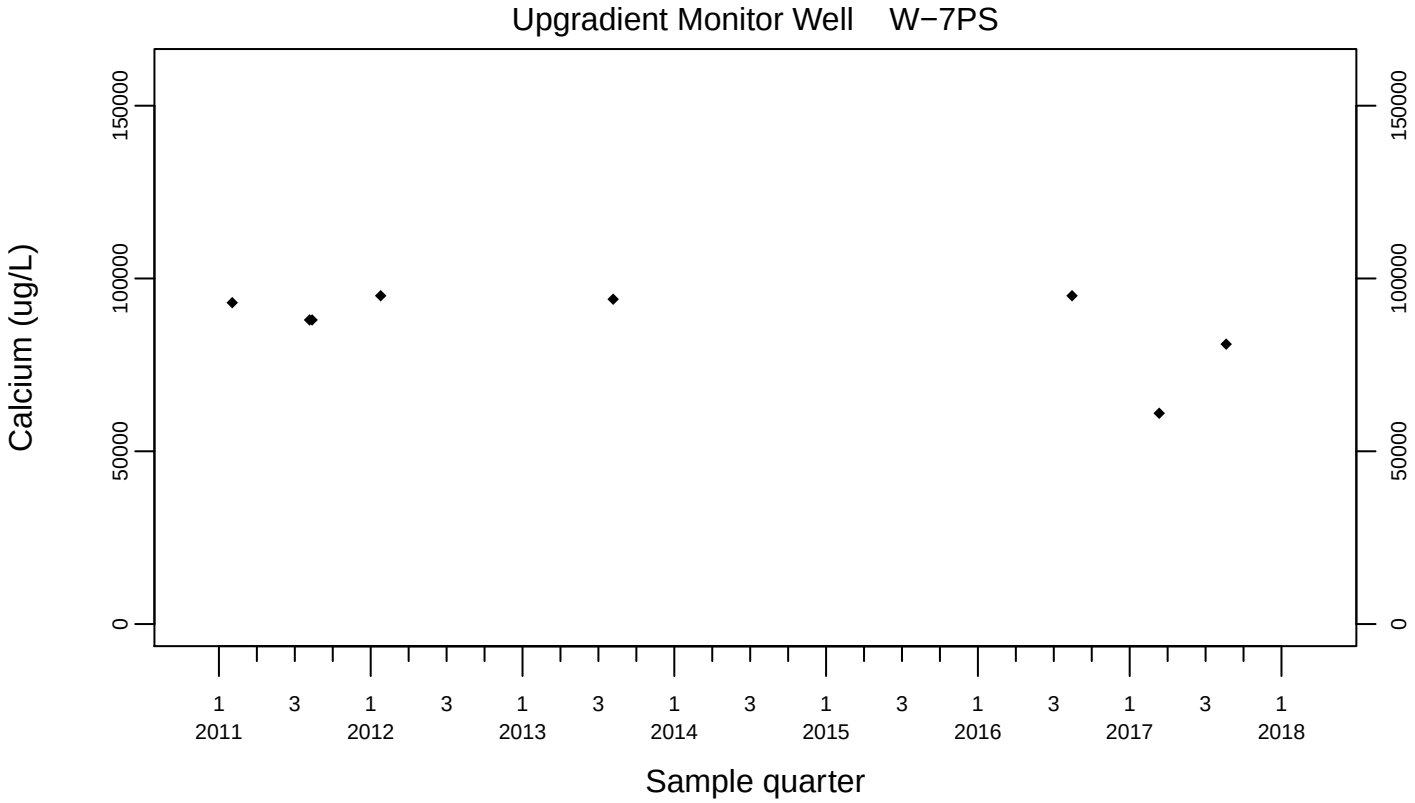

Downgradient Monitor Well W−26R−01
Cadmium (ug/L)
0
20
40
60
80
100
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

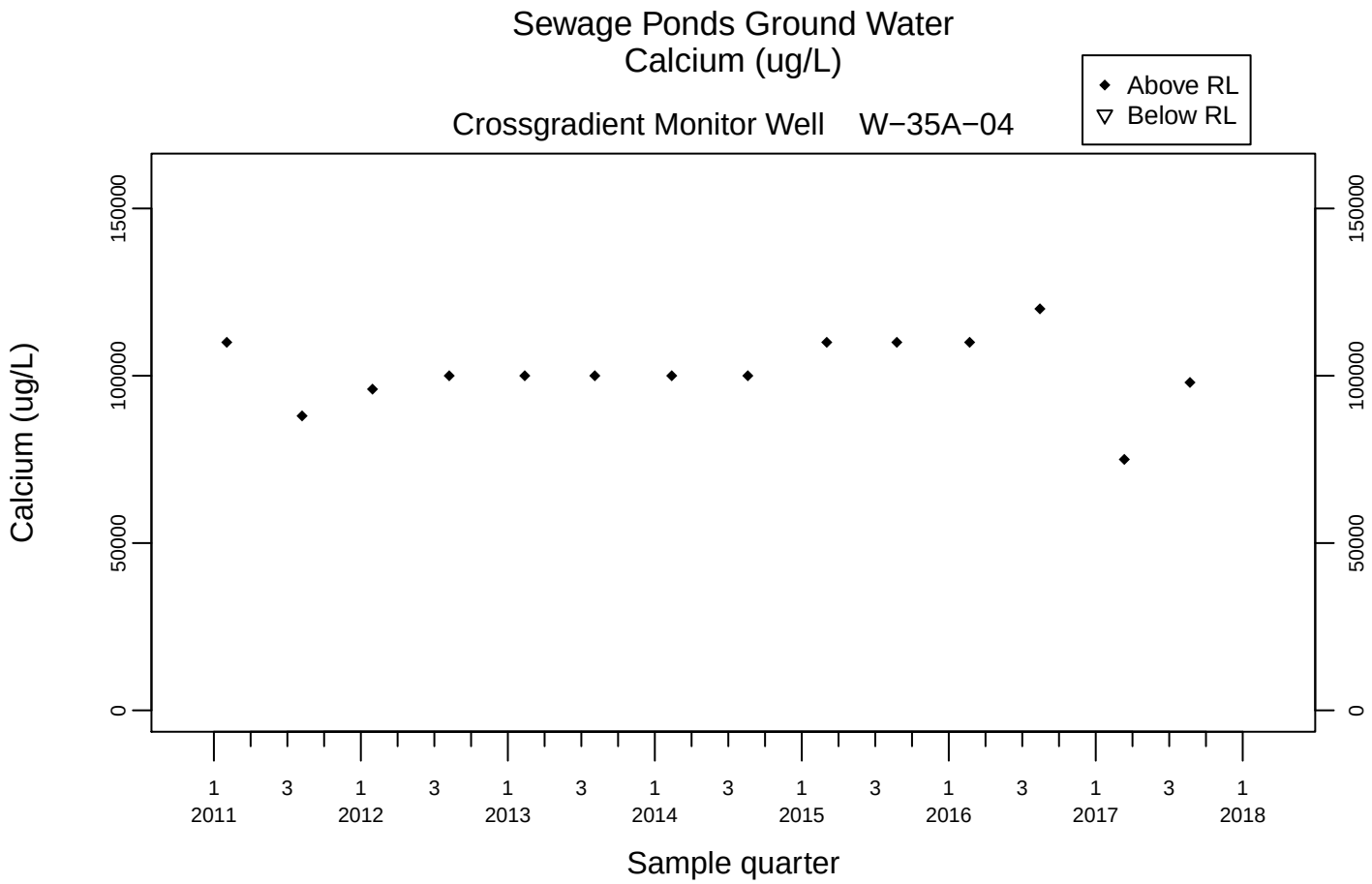

Sewage Ponds Ground Water
Cadmium (ug/L)
Above RL
Below RL
Estimated
Downgradient Monitor Well W−26R−05
Cadmium (ug/L)
0
20
40
60
80
100
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

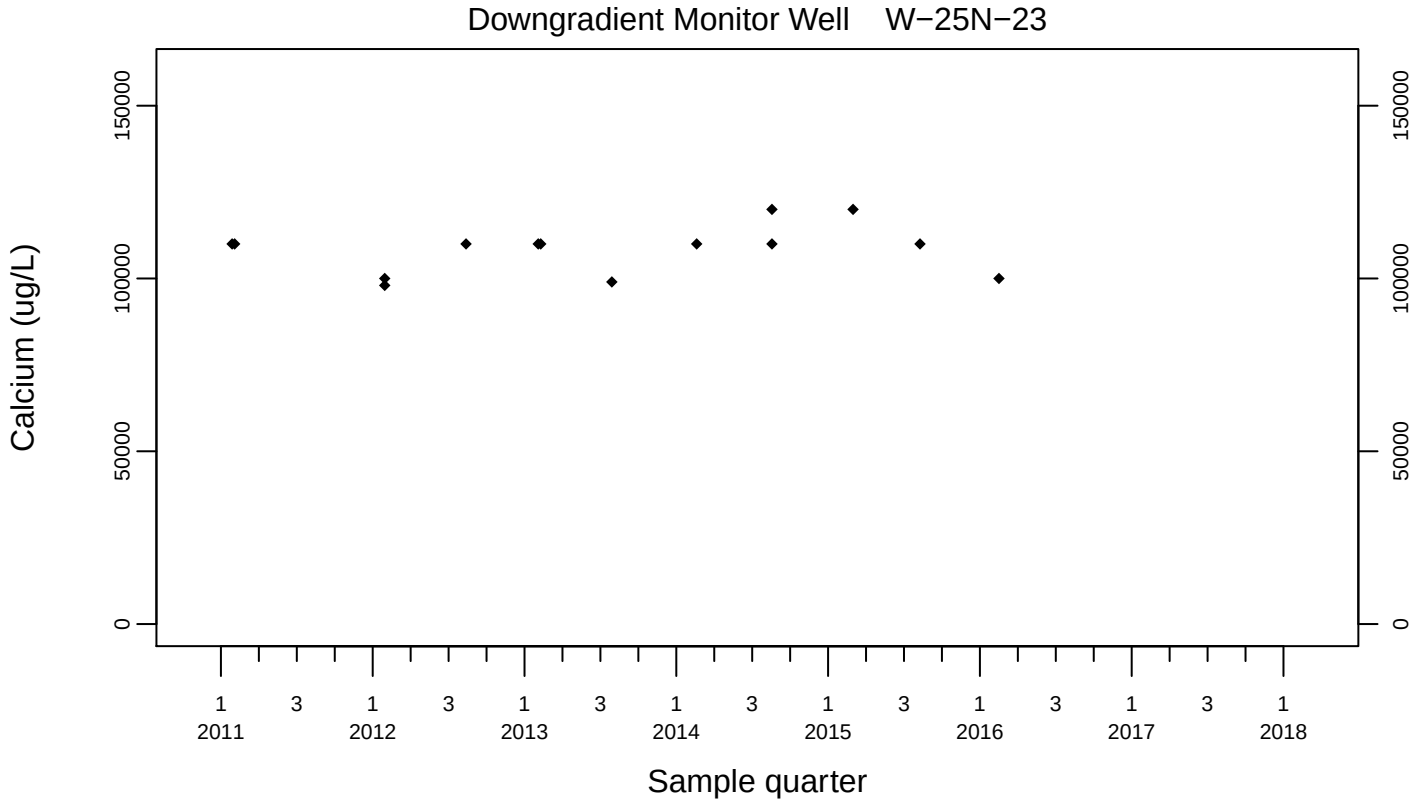

Downgradient Monitor Well W−26R−11
Cadmium (ug/L)
0
20
40
60
80
100
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

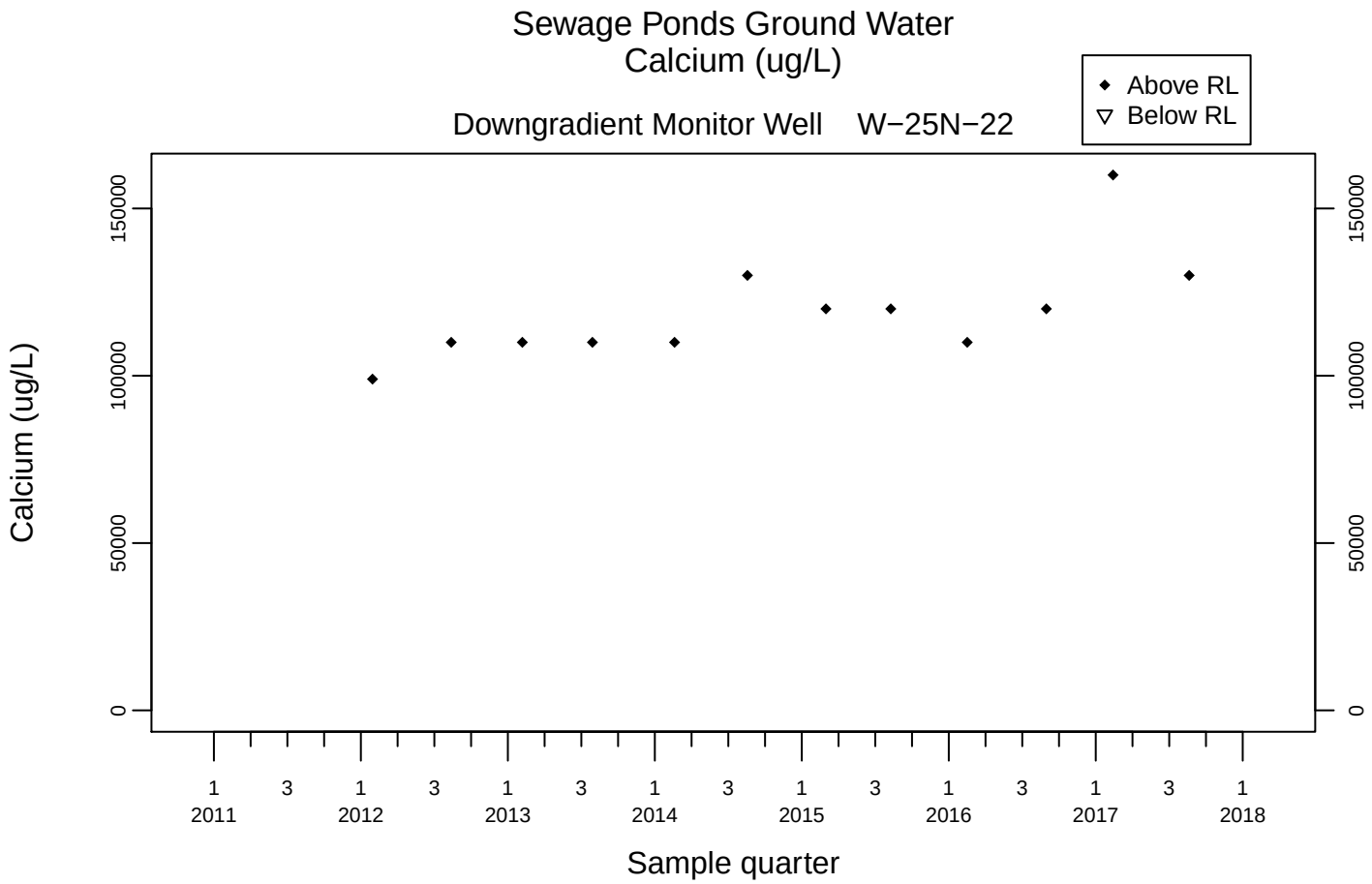

Sewage Ponds Ground Water
Cadmium (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Estimated
Cadmium (ug/L)
0
20
40
60
80
100
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

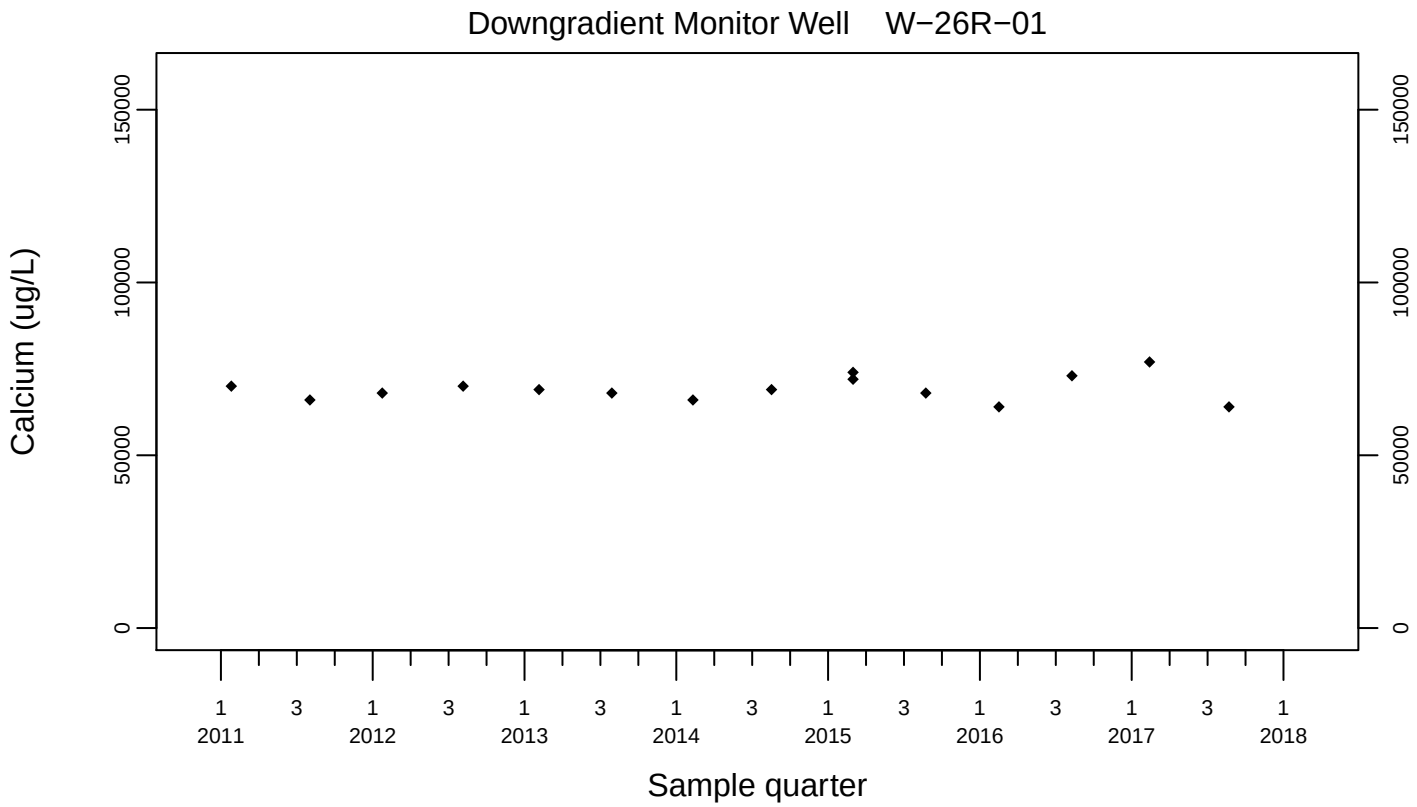

Sewage Ponds Ground Water
Calcium (ug/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Calcium (ug/L)
0
50000
100000
150000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

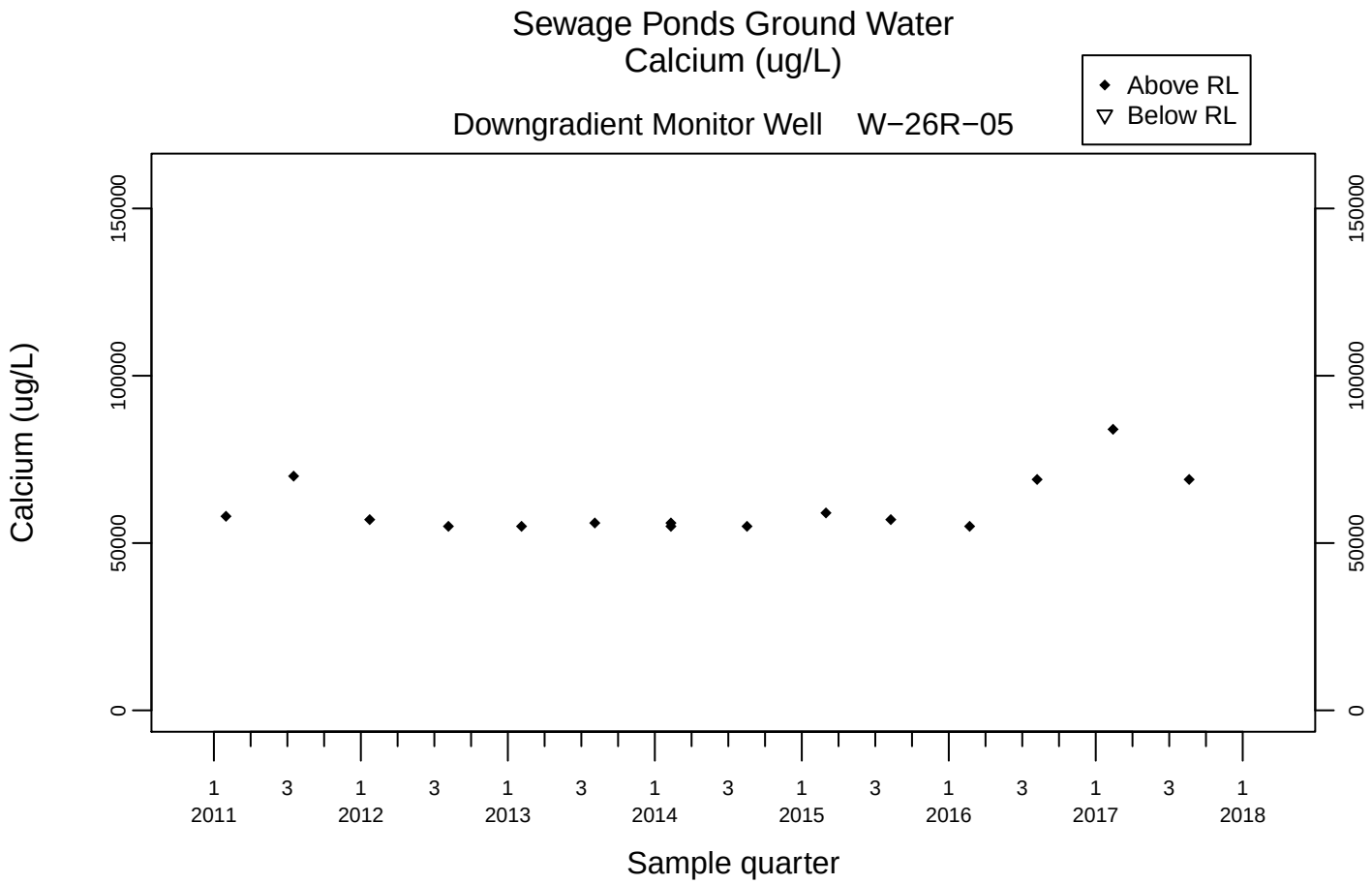

Upgradient Monitor Well W−7PS
Calcium (ug/L)
0
50000
100000
150000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

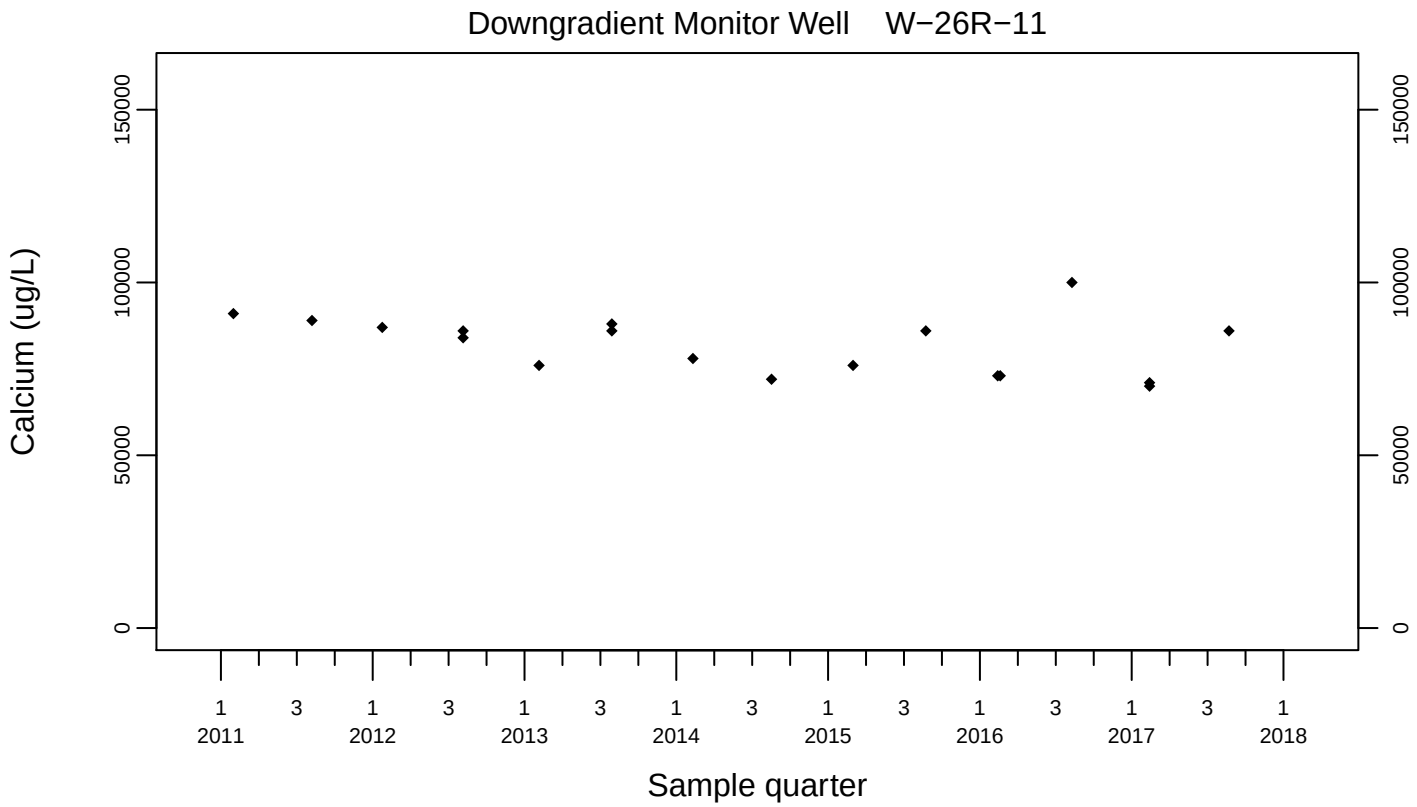

Sewage Ponds Ground Water
Calcium (ug/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Calcium (ug/L)
0
50000
100000
150000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

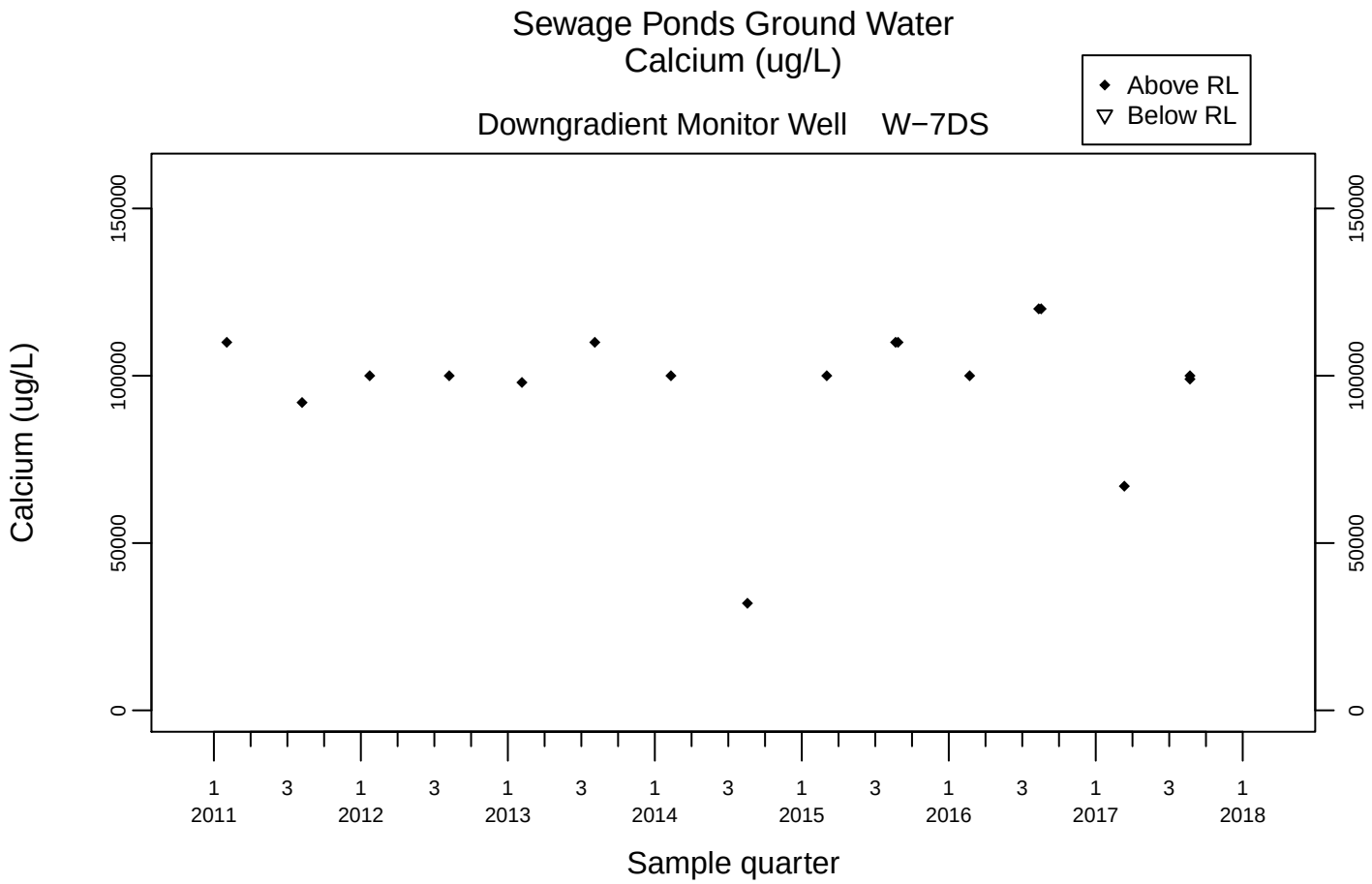

Downgradient Monitor Well W−25N−23
Calcium (ug/L)
0
50000
100000
150000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

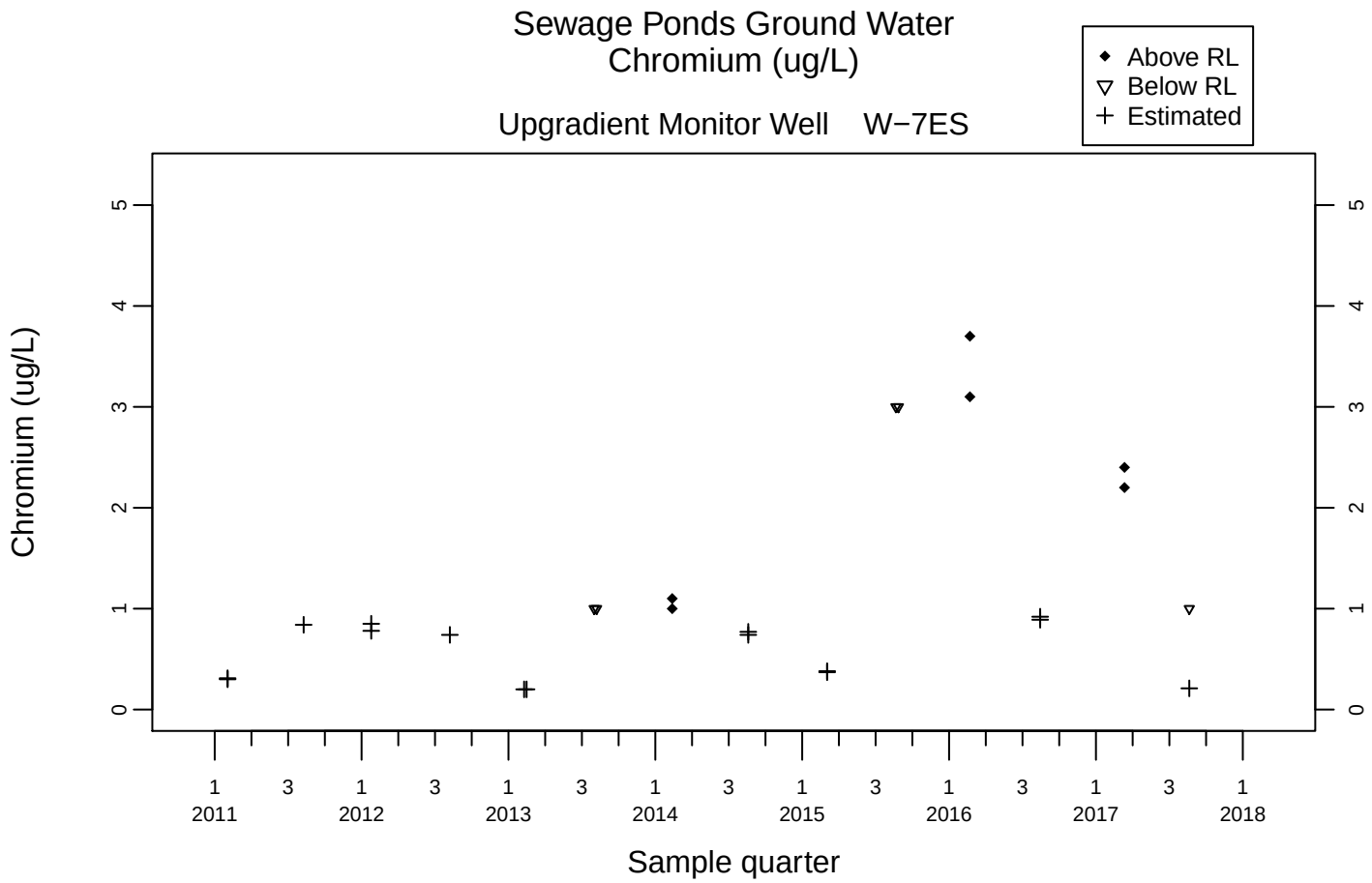

Sewage Ponds Ground Water
Calcium (ug/L)
Downgradient Monitor Well W−25N−22
Above RL
Below RL
Calcium (ug/L)
0
50000
100000
150000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

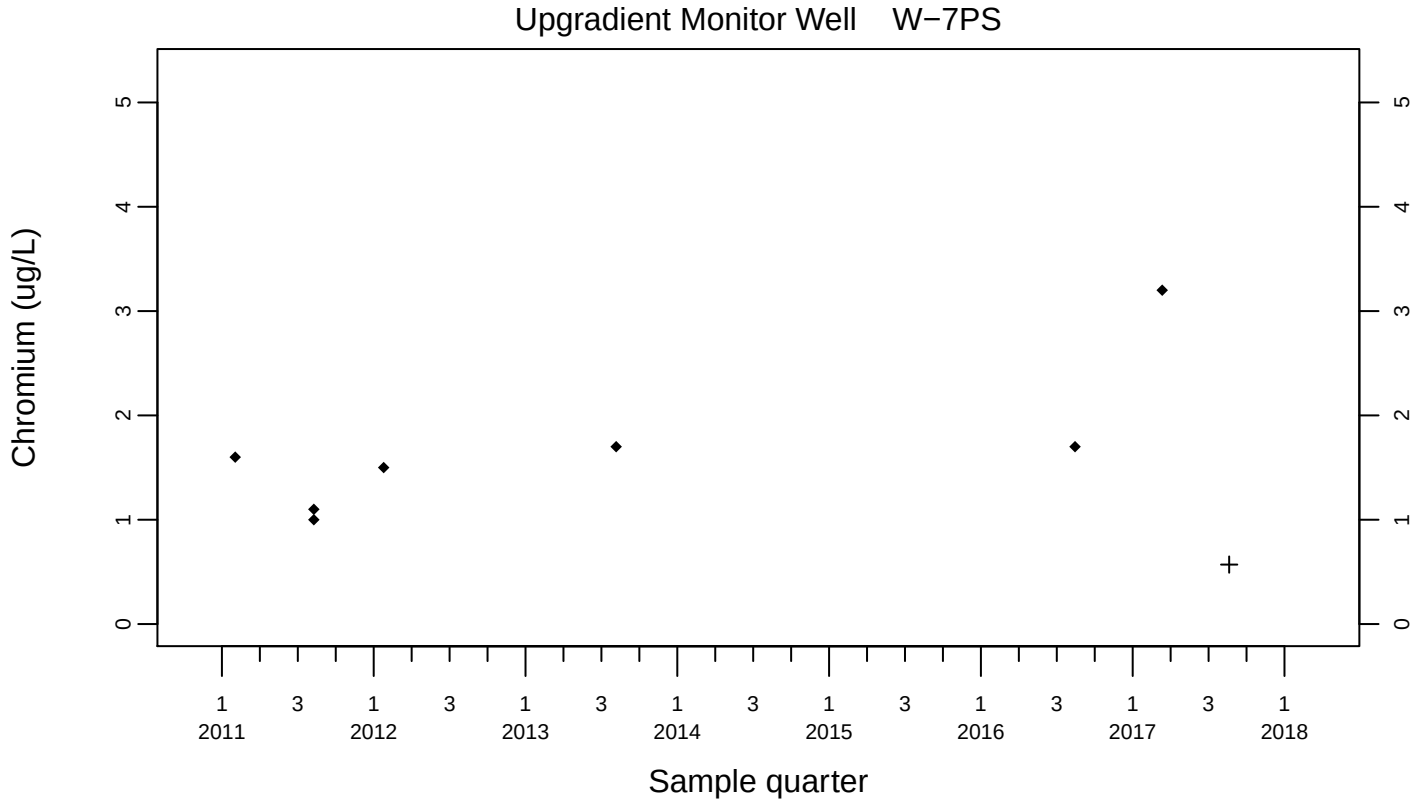

Downgradient Monitor Well W−26R−01
Calcium (ug/L)
0
50000
100000
150000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

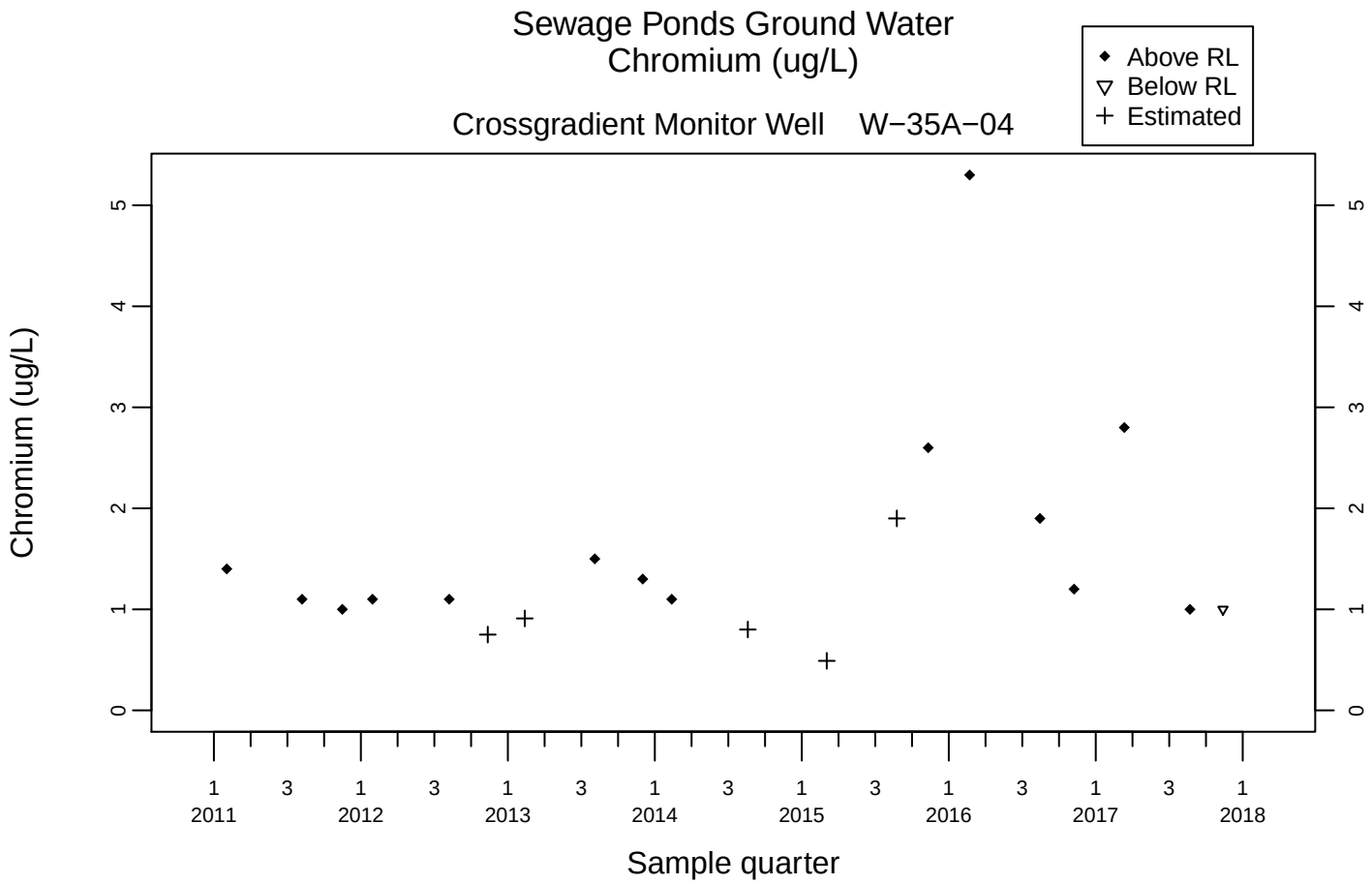

Sewage Ponds Ground Water
Calcium (ug/L)
Downgradient Monitor Well W−26R−05
Above RL
Below RL
Calcium (ug/L)
0
50000
100000
150000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

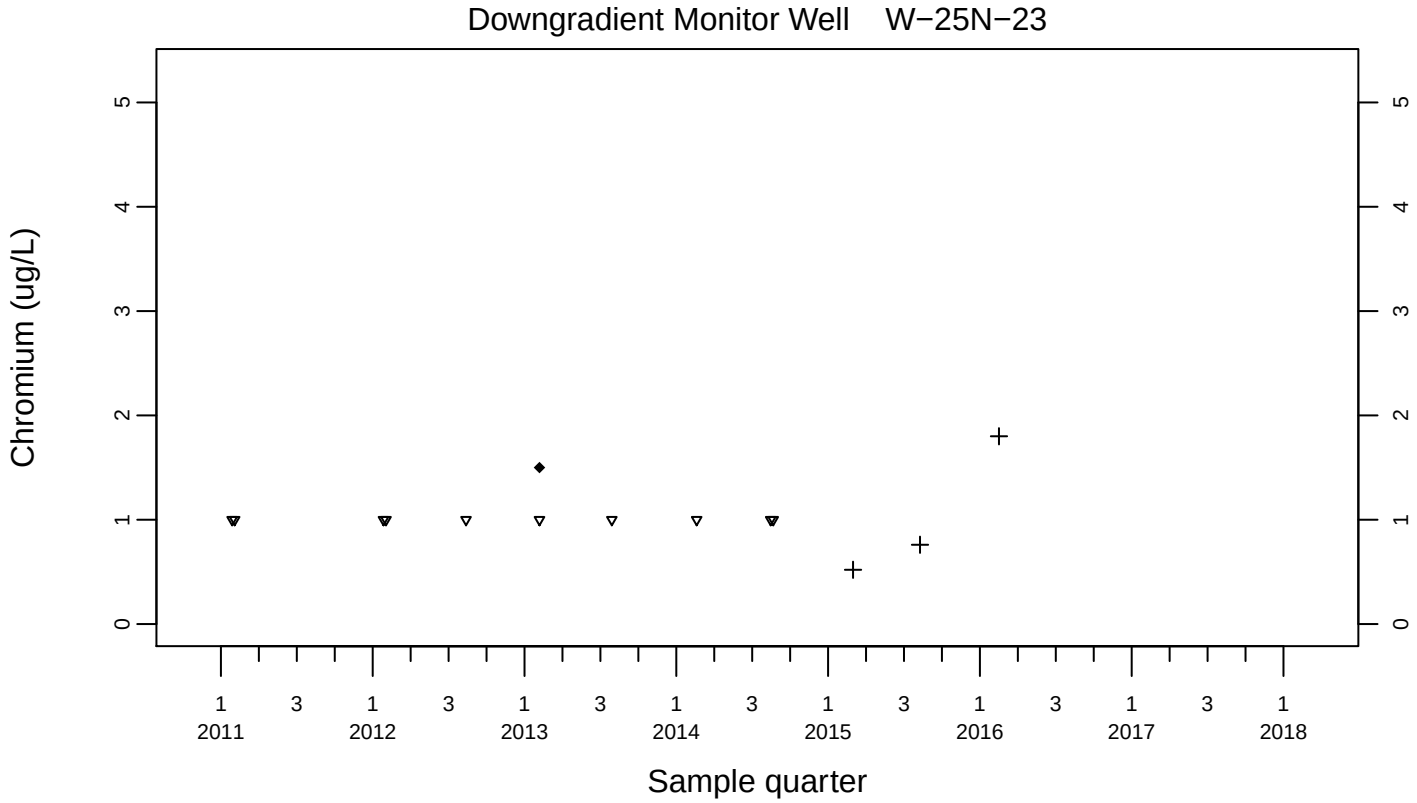

Downgradient Monitor Well W−26R−11
Calcium (ug/L)
0
50000
100000
150000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

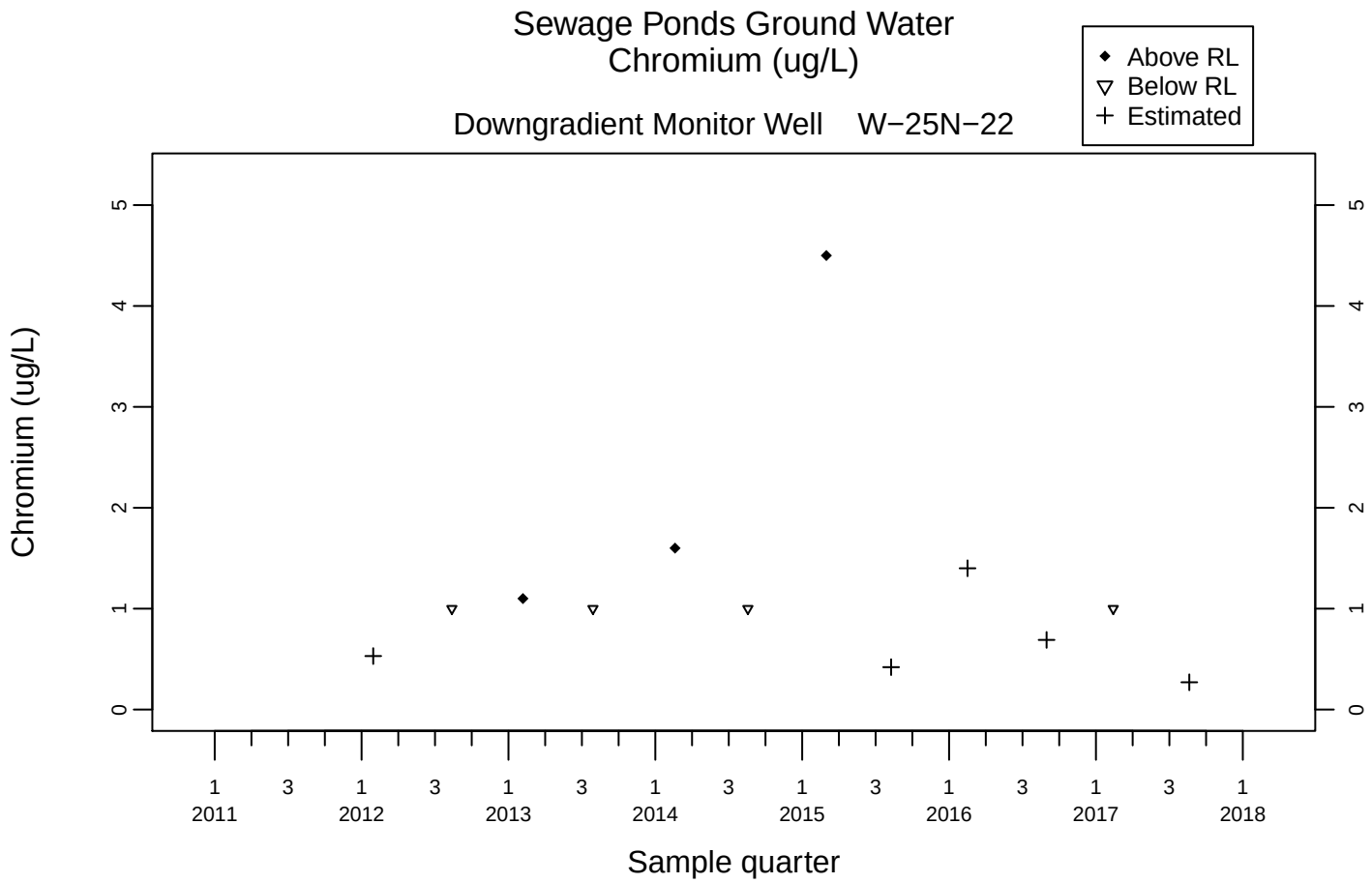

Sewage Ponds Ground Water
Calcium (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Calcium (ug/L)
0
50000
100000
150000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

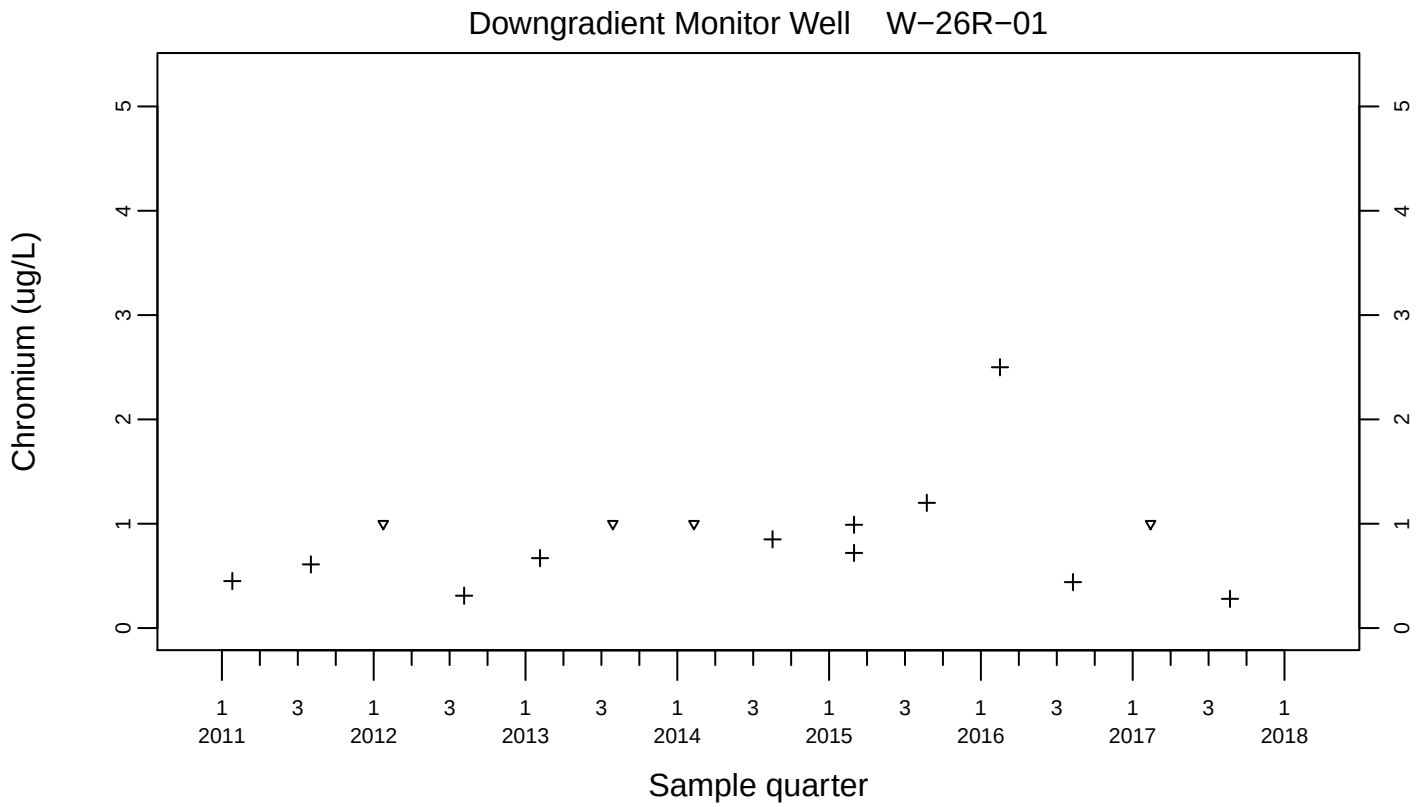

Sewage Ponds Ground Water
Chromium (ug/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Estimated
Chromium (ug/L)
Sample quarter
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
0
1
2
3
4
5

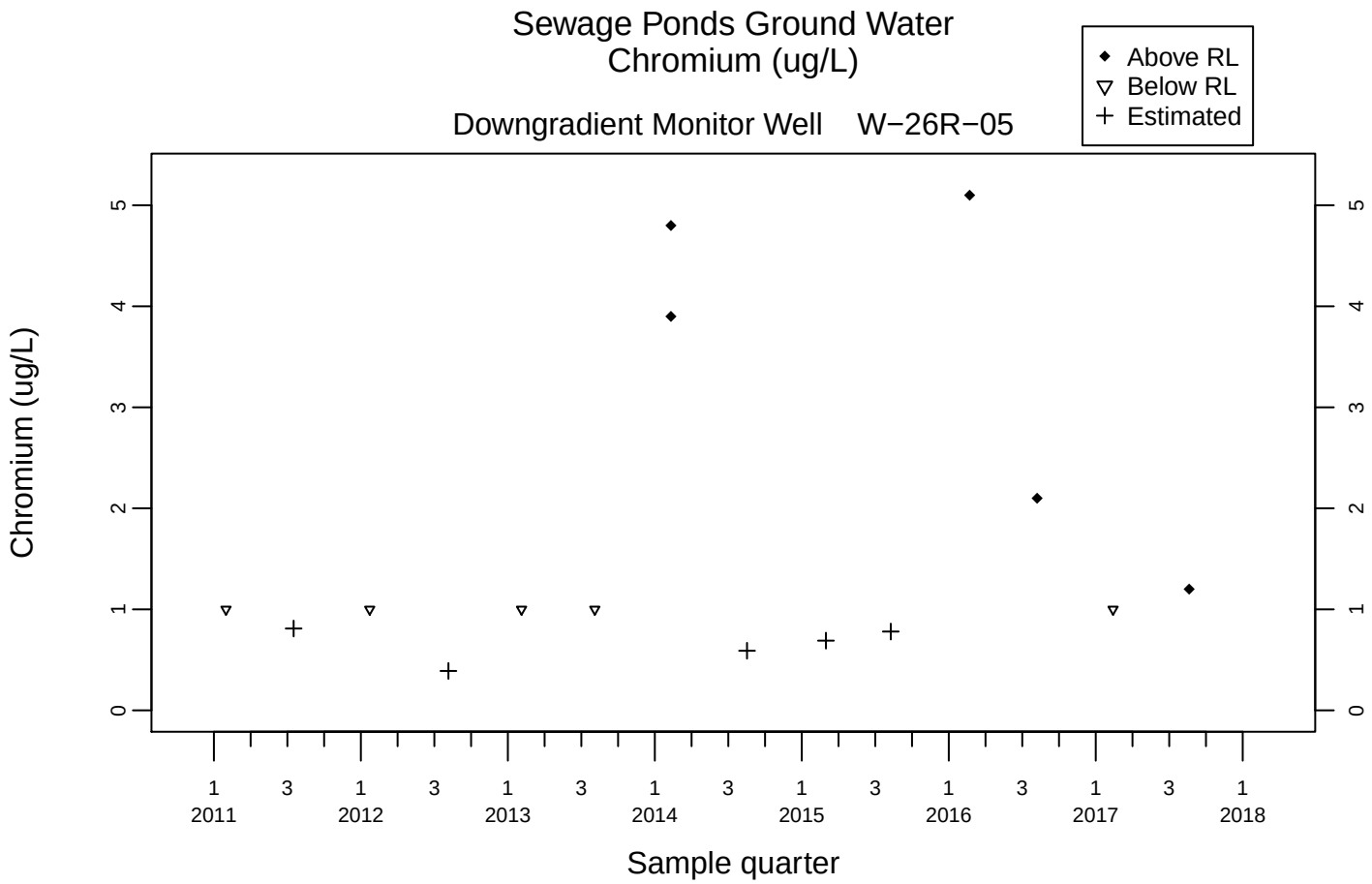

Upgradient Monitor Well W−7PS
Chromium (ug/L)
Sample quarter
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
0
1
2
3
4
5

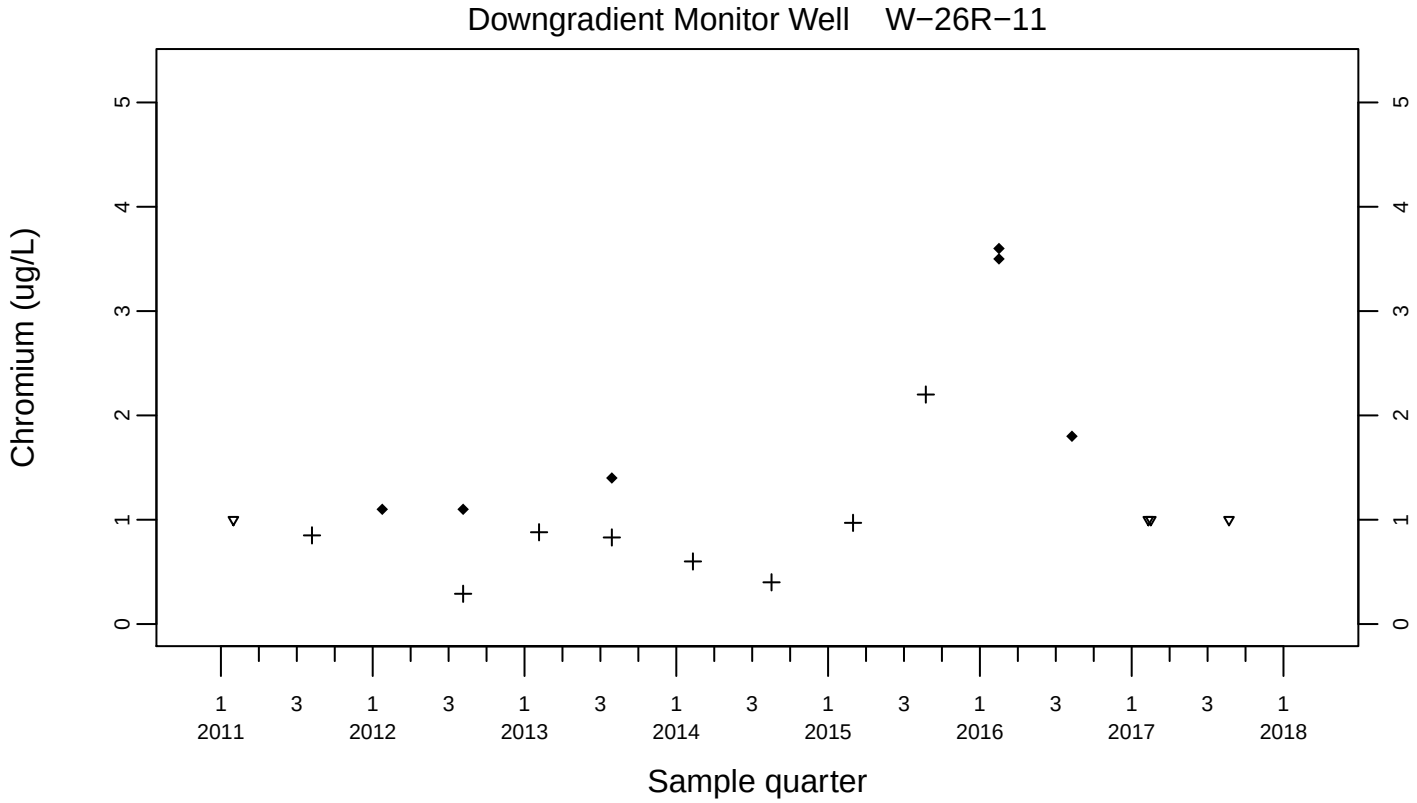

Sewage Ponds Ground Water
Chromium (ug/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Estimated
Chromium (ug/L)
0
1
2
3
4
5
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

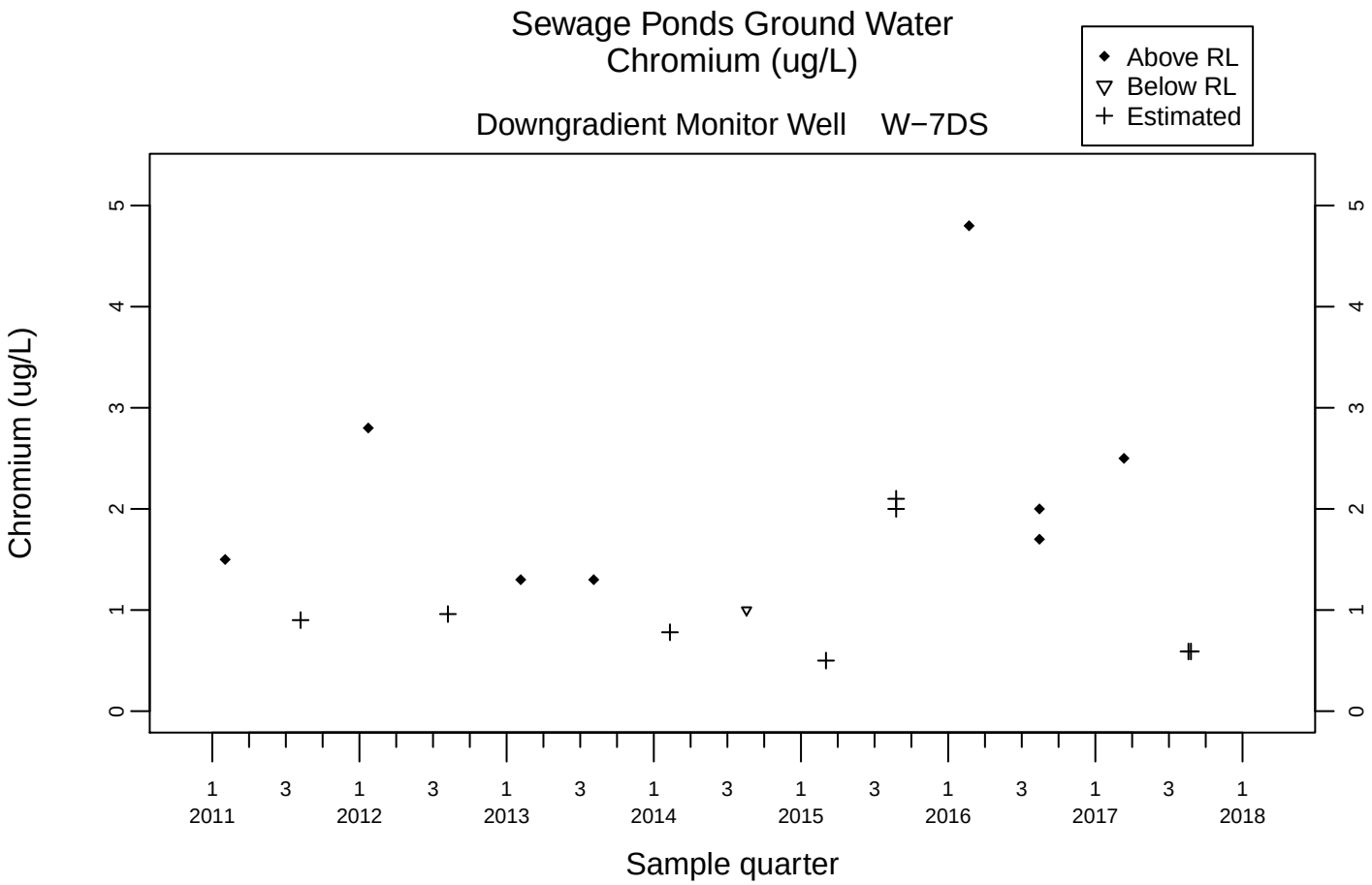

Downgradient Monitor Well W−25N−23
Chromium (ug/L)
0
1
2
3
4
5
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

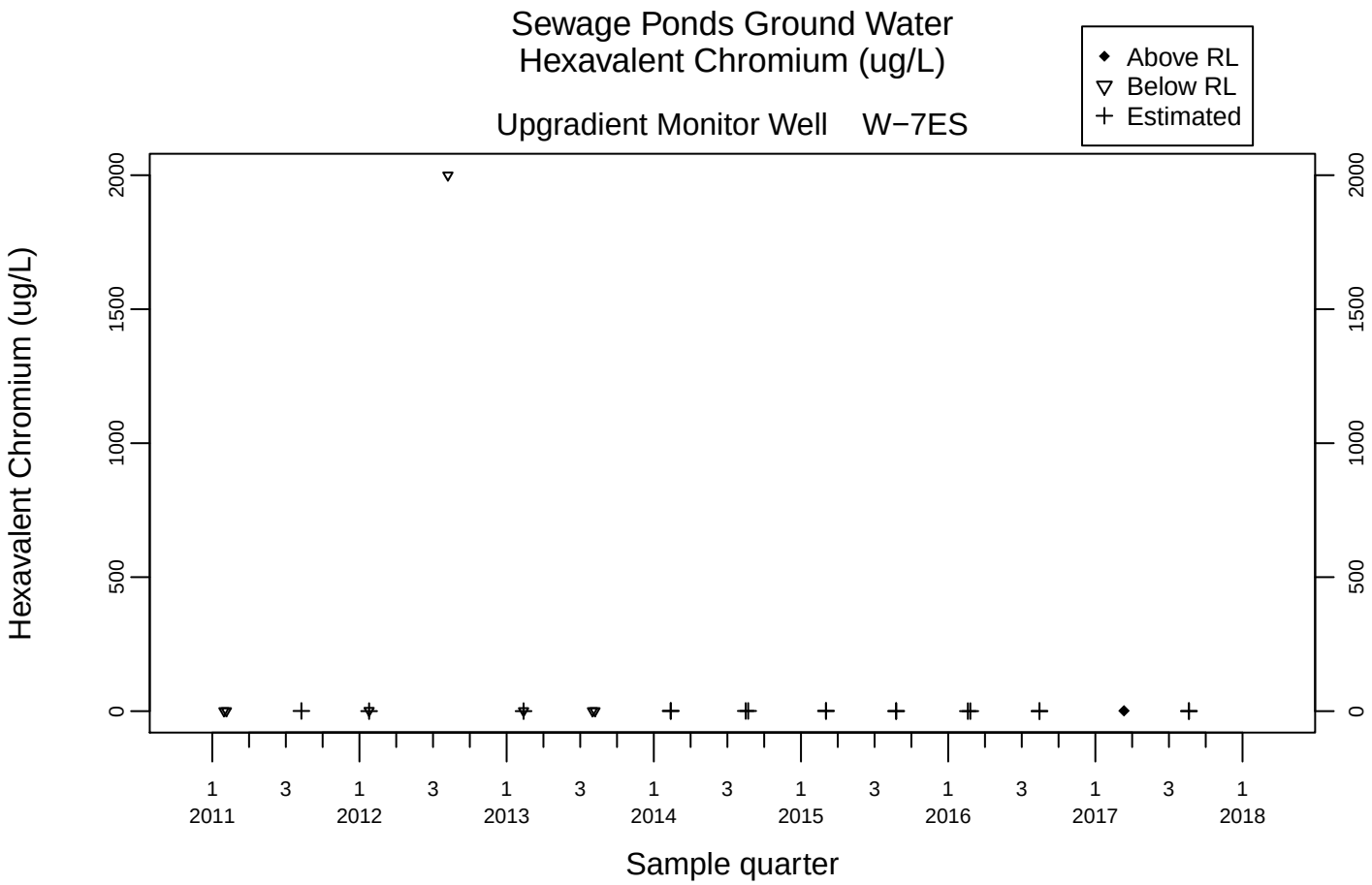

Sewage Ponds Ground Water
Chromium (ug/L)
Downgradient Monitor Well W−25N−22
Above RL
Below RL
Estimated
Chromium (ug/L)
0
1
2
3
4
5
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

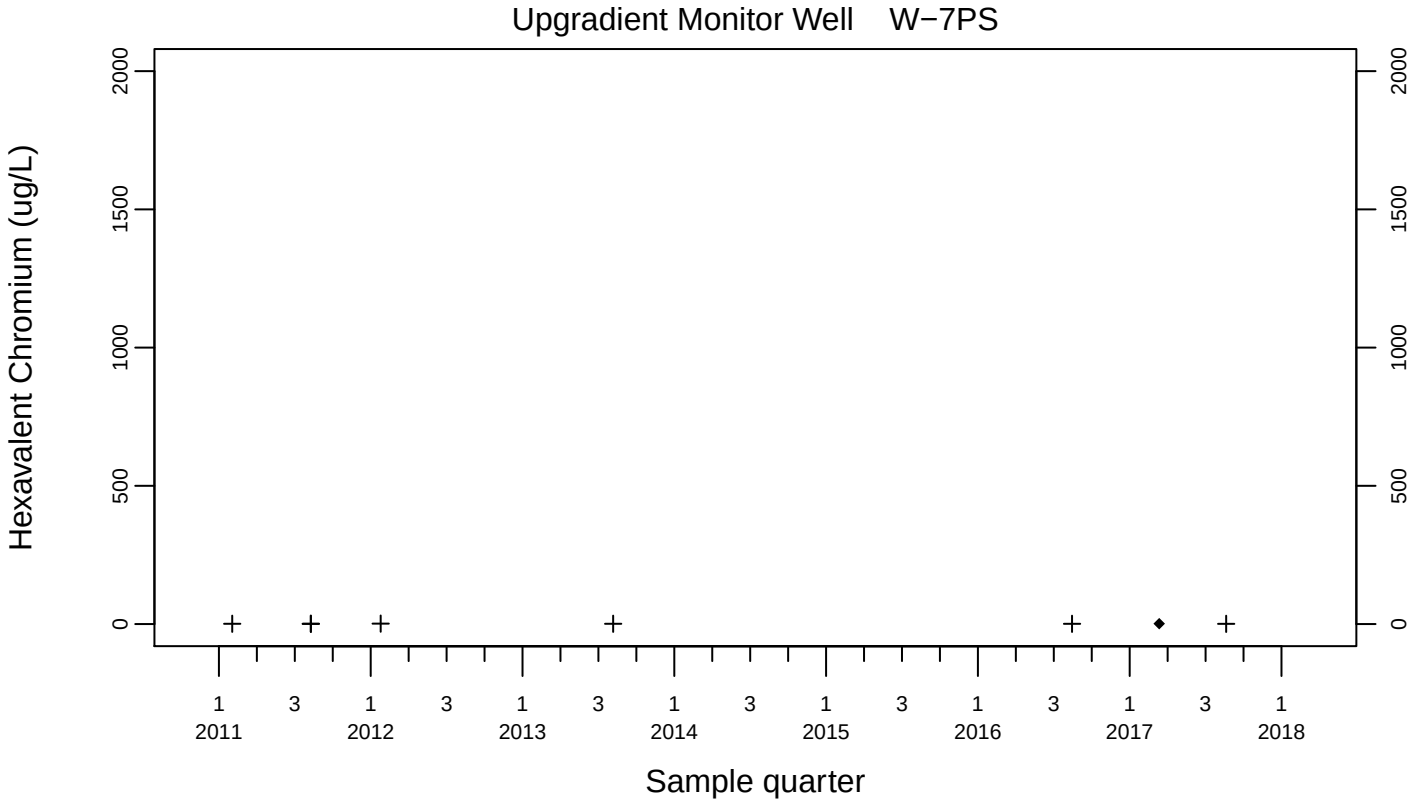

Downgradient Monitor Well W−26R−01
Chromium (ug/L)
0
1
2
3
4
5
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

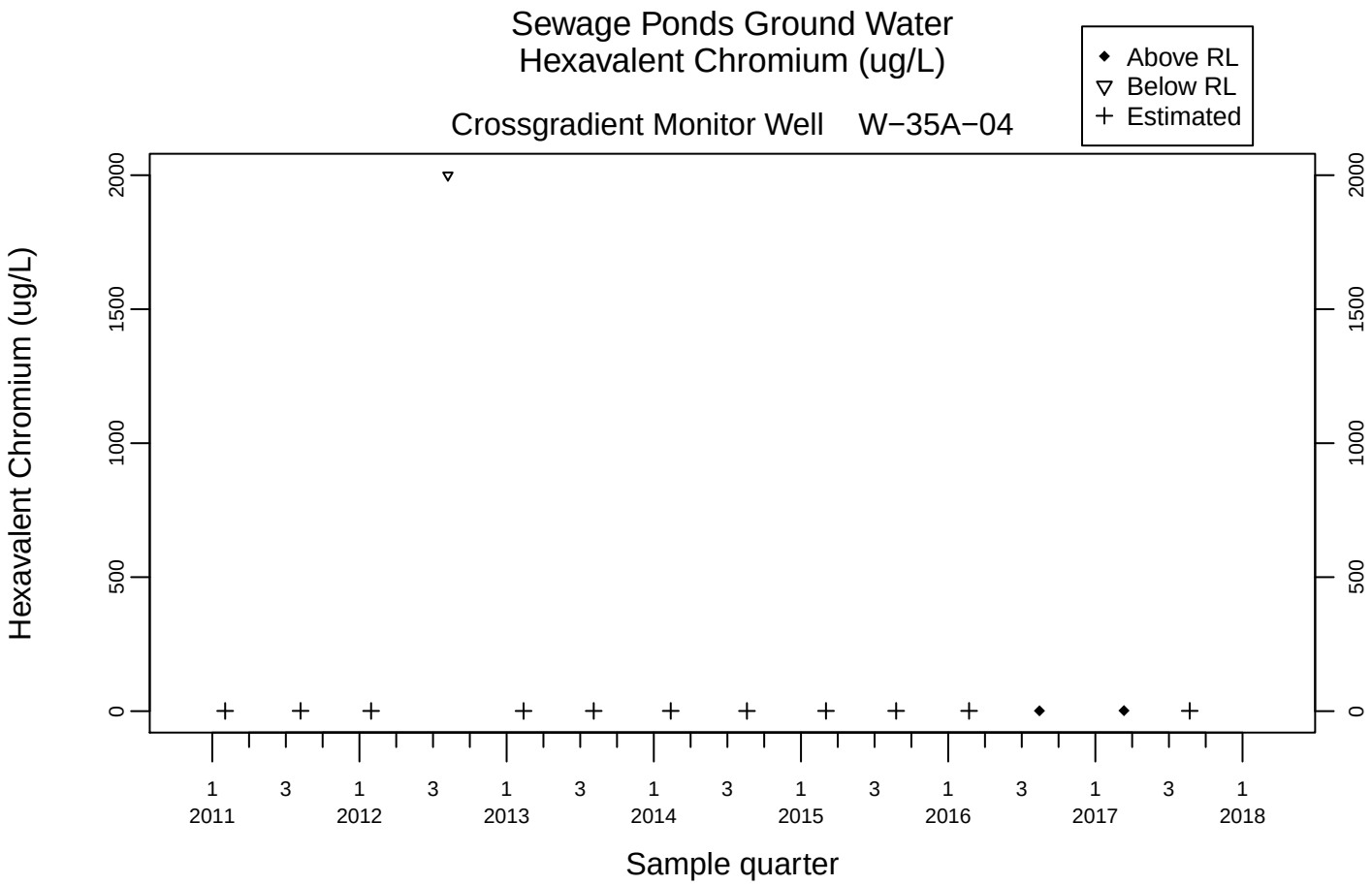

Sewage Ponds Ground Water
Chromium (ug/L)
Downgradient Monitor Well W−26R−05
Above RL
Below RL
Estimated
Chromium (ug/L)
Sample quarter
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018

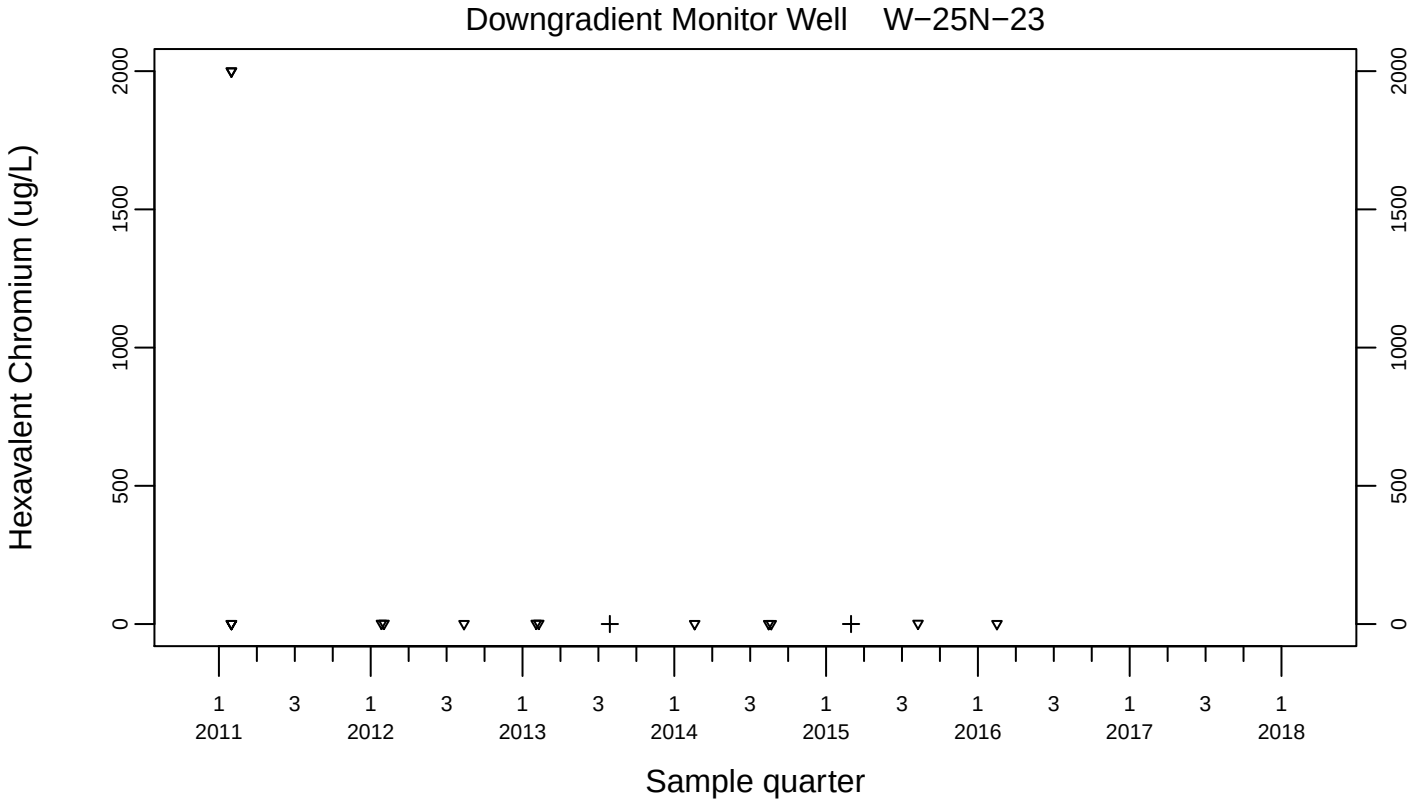

Downgradient Monitor Well W−26R−11
Chromium (ug/L)
Sample quarter
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018

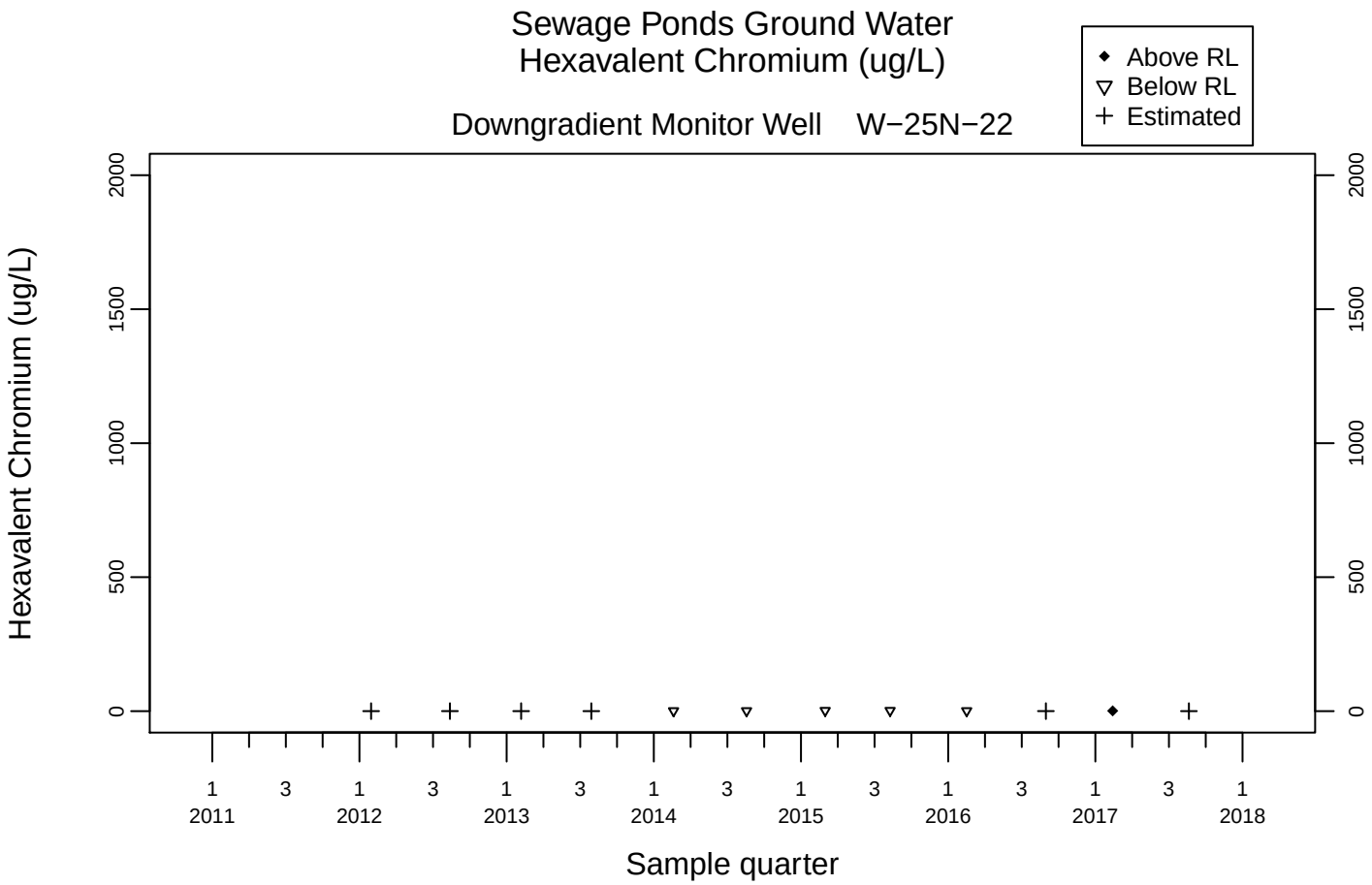

Sewage Ponds Ground Water
Chromium (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Estimated
Chromium (ug/L)
0
1
2
3
4
5
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

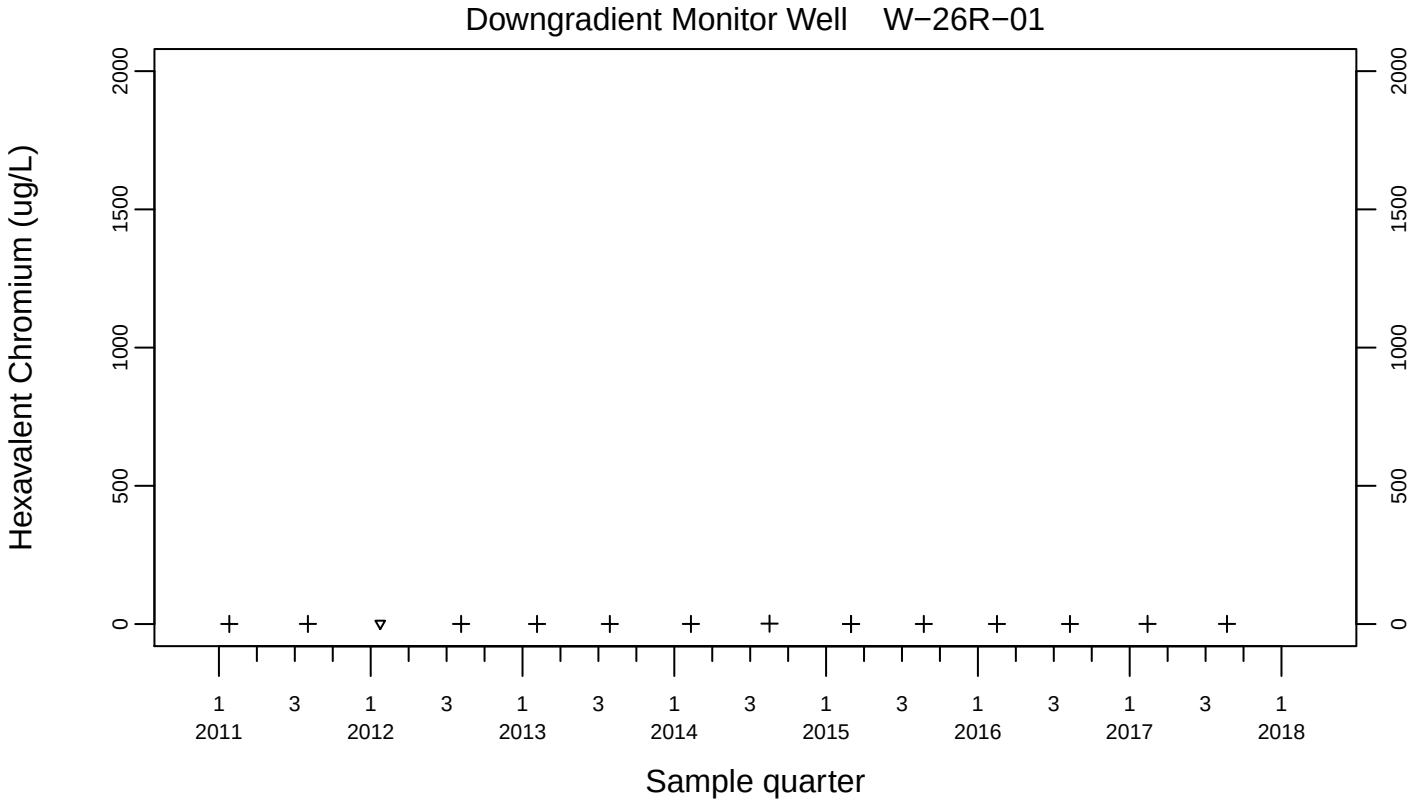

Sewage Ponds Ground Water
Hexavalent Chromium (ug/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Estimated
Hexavalent Chromium (ug/L)
0
500
1000
1500
2000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

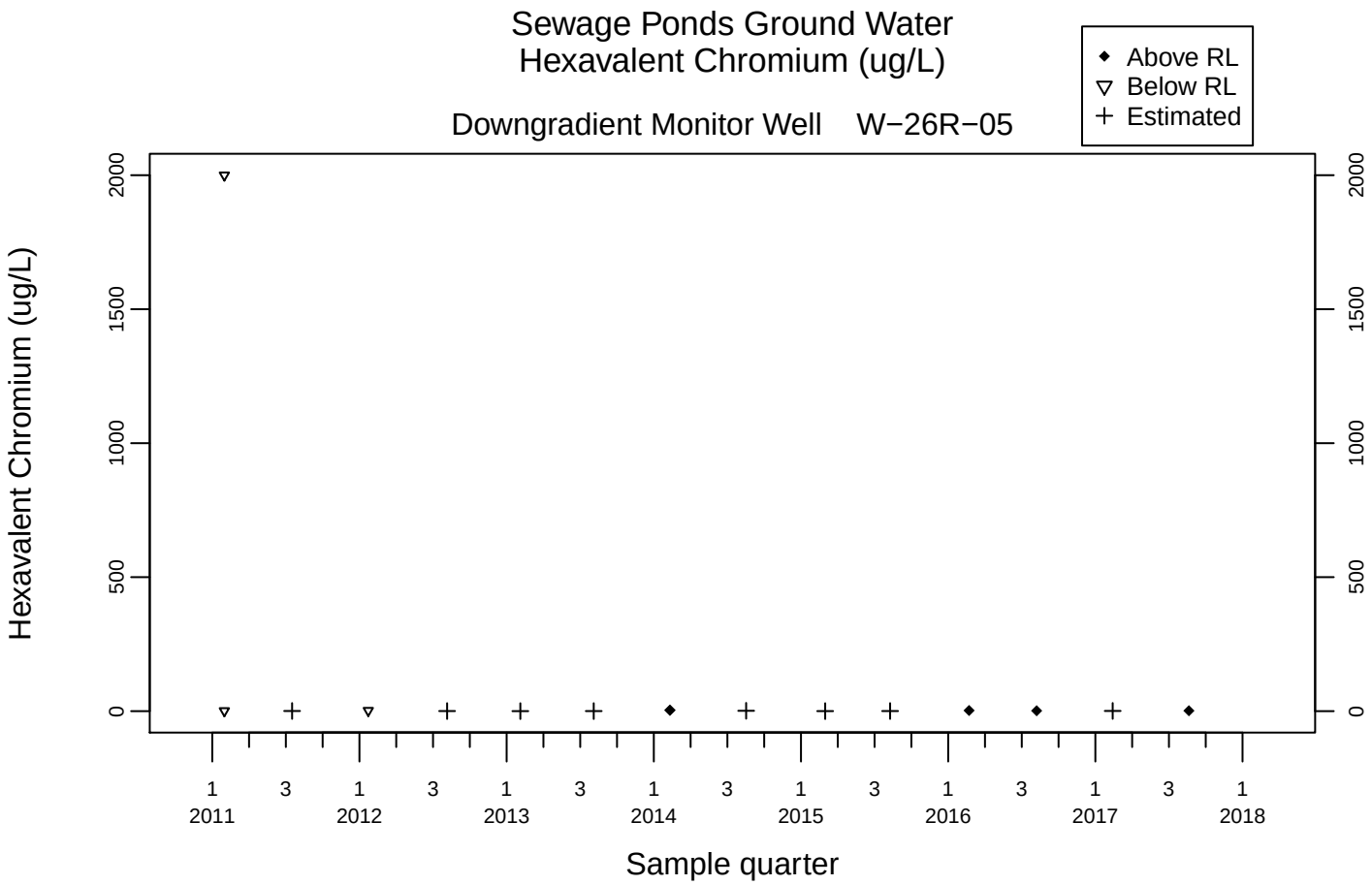

Upgradient Monitor Well W−7PS
Hexavalent Chromium (ug/L)
0
500
1000
1500
2000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

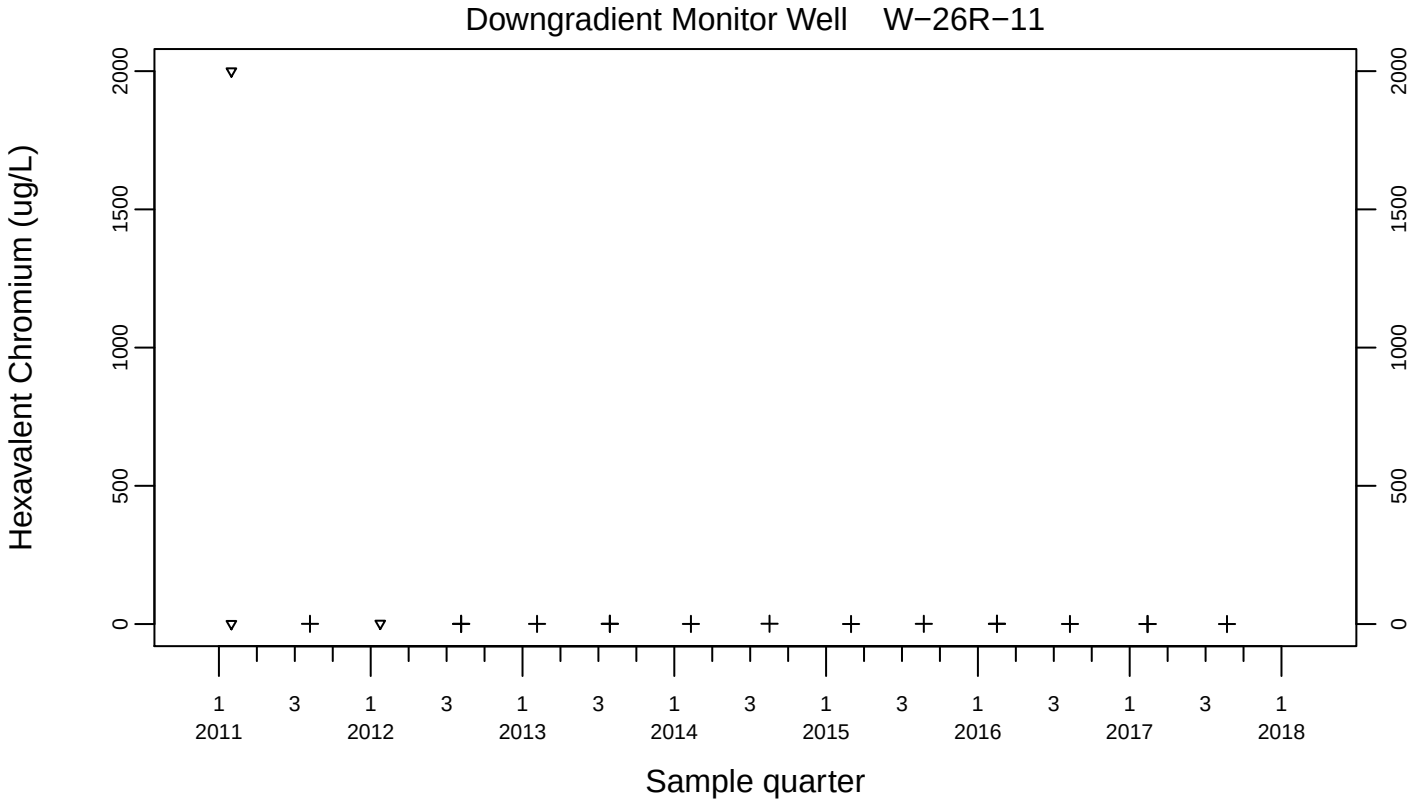

Sewage Ponds Ground Water
Hexavalent Chromium (ug/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Estimated
Hexavalent Chromium (ug/L)
0
500
1000
1500
2000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

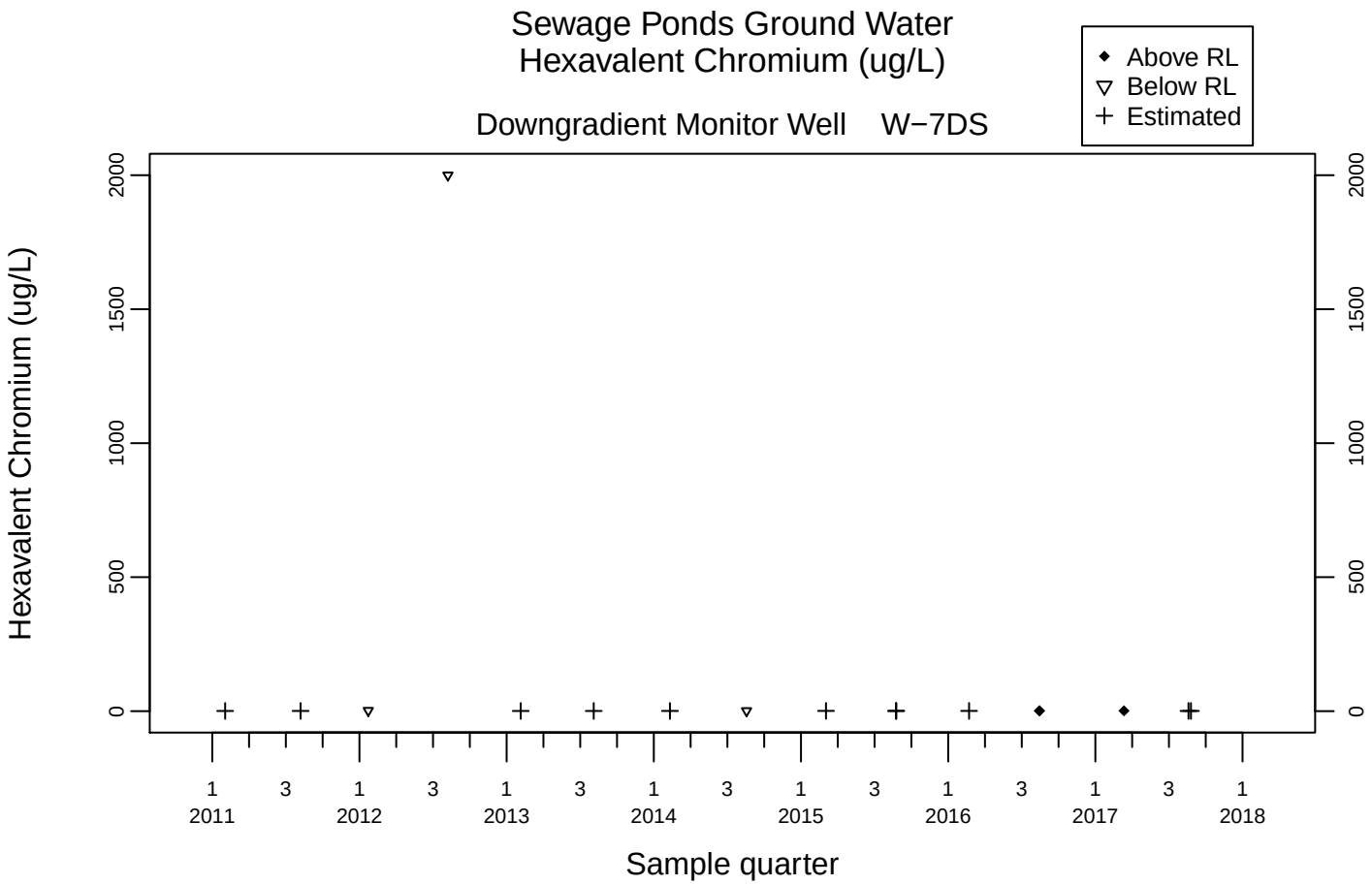

Downgradient Monitor Well W−25N−23
Hexavalent Chromium (ug/L)
0
500
1000
1500
2000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

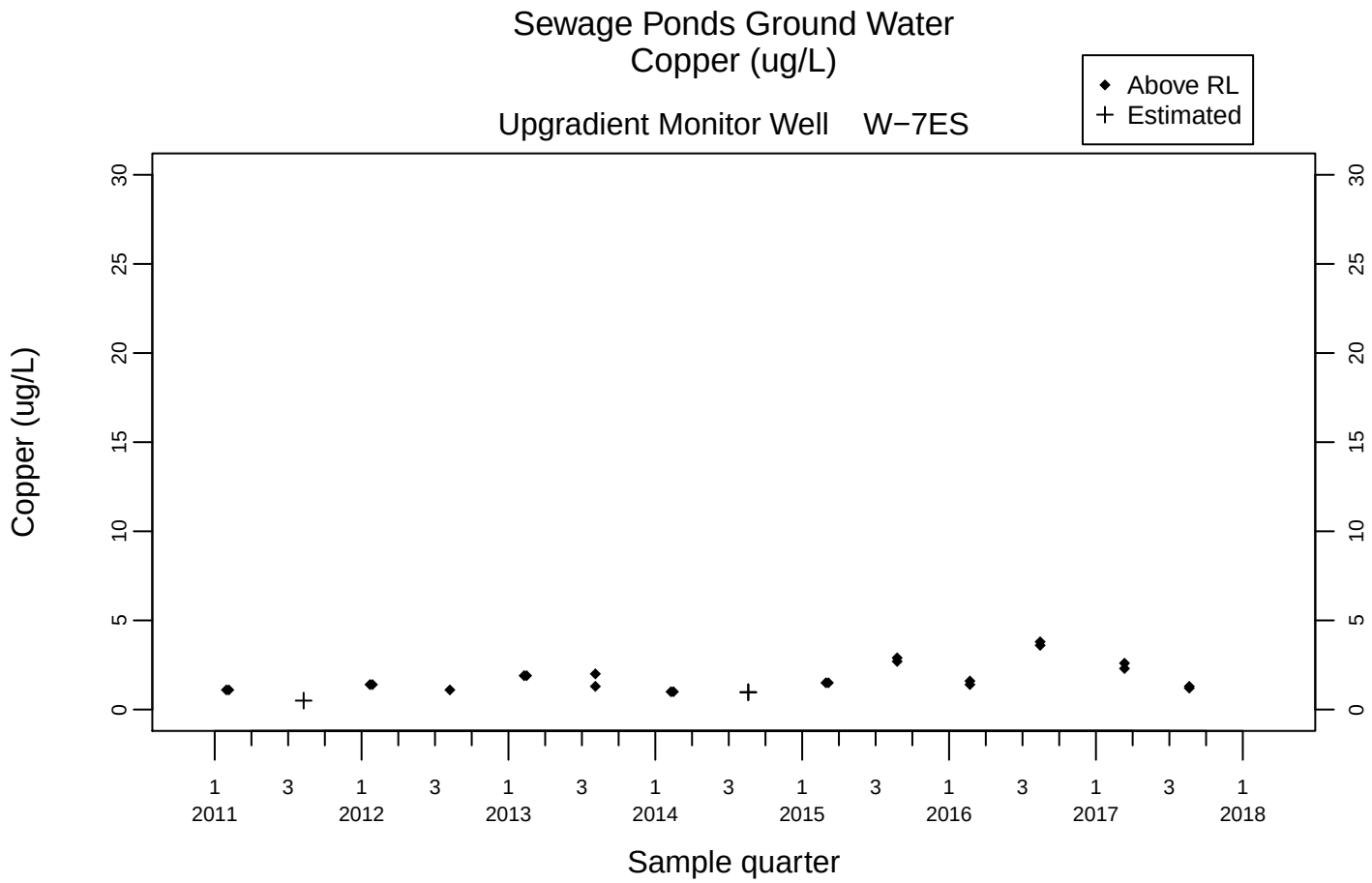

Sewage Ponds Ground Water
Hexavalent Chromium (ug/L)
Above RL
Below RL
Estimated
Downgradient Monitor Well W−25N−22
Hexavalent Chromium (ug/L)
0
500
1000
1500
2000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

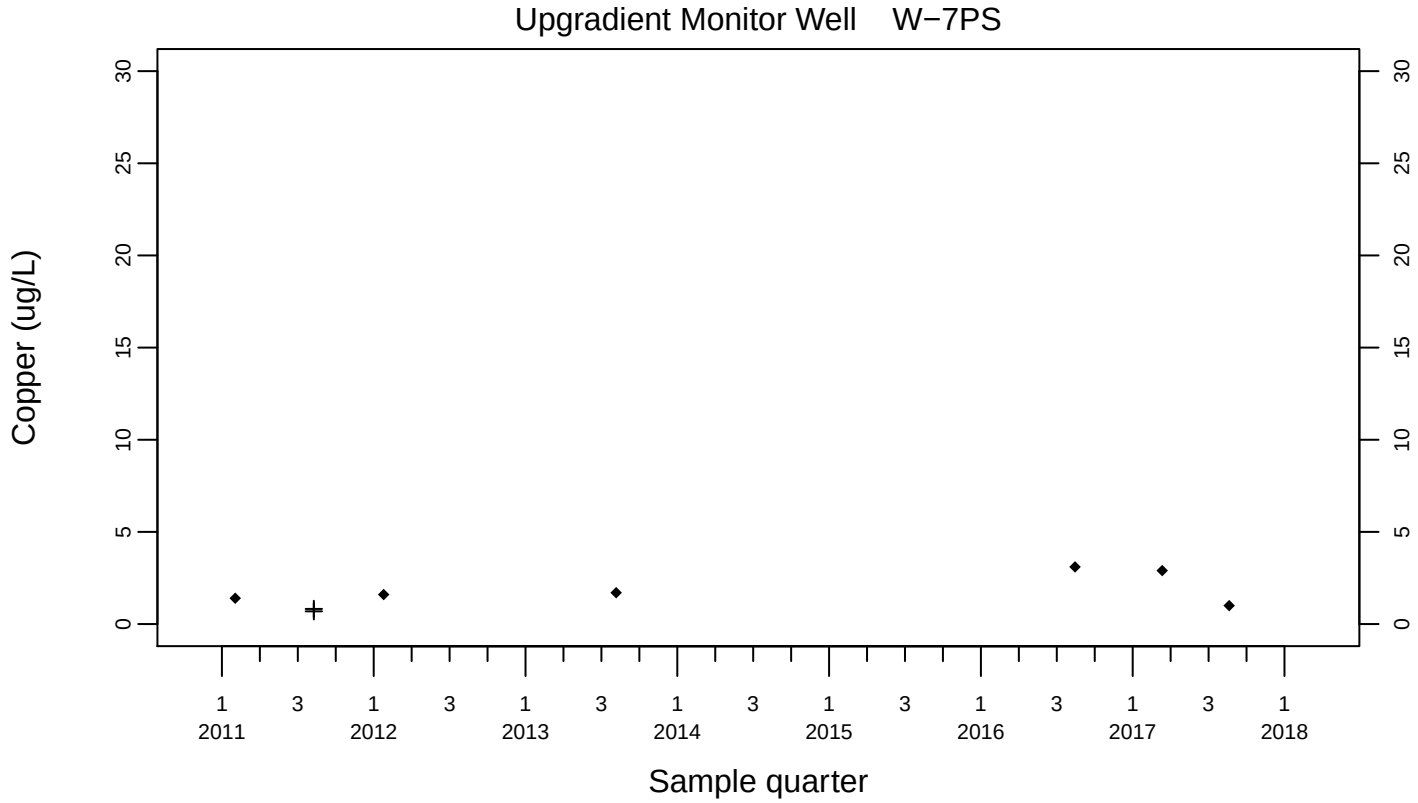

Downgradient Monitor Well W−26R−01
Hexavalent Chromium (ug/L)
0
500
1000
1500
2000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

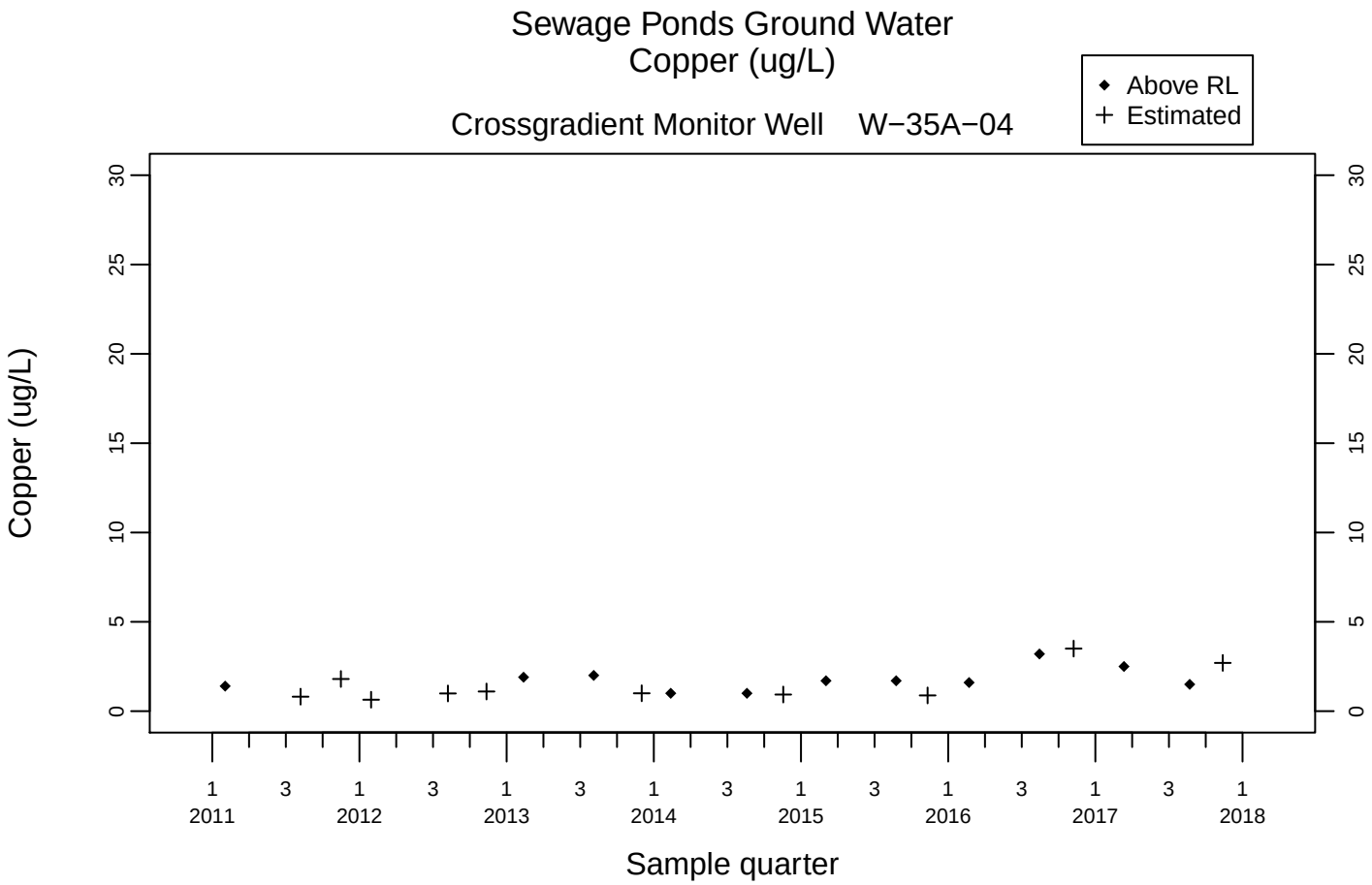

Sewage Ponds Ground Water
Hexavalent Chromium (ug/L)
Above RL
Below RL
Estimated
Downgradient Monitor Well W−26R−05
Hexavalent Chromium (ug/L)
0
500
1000
1500
2000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

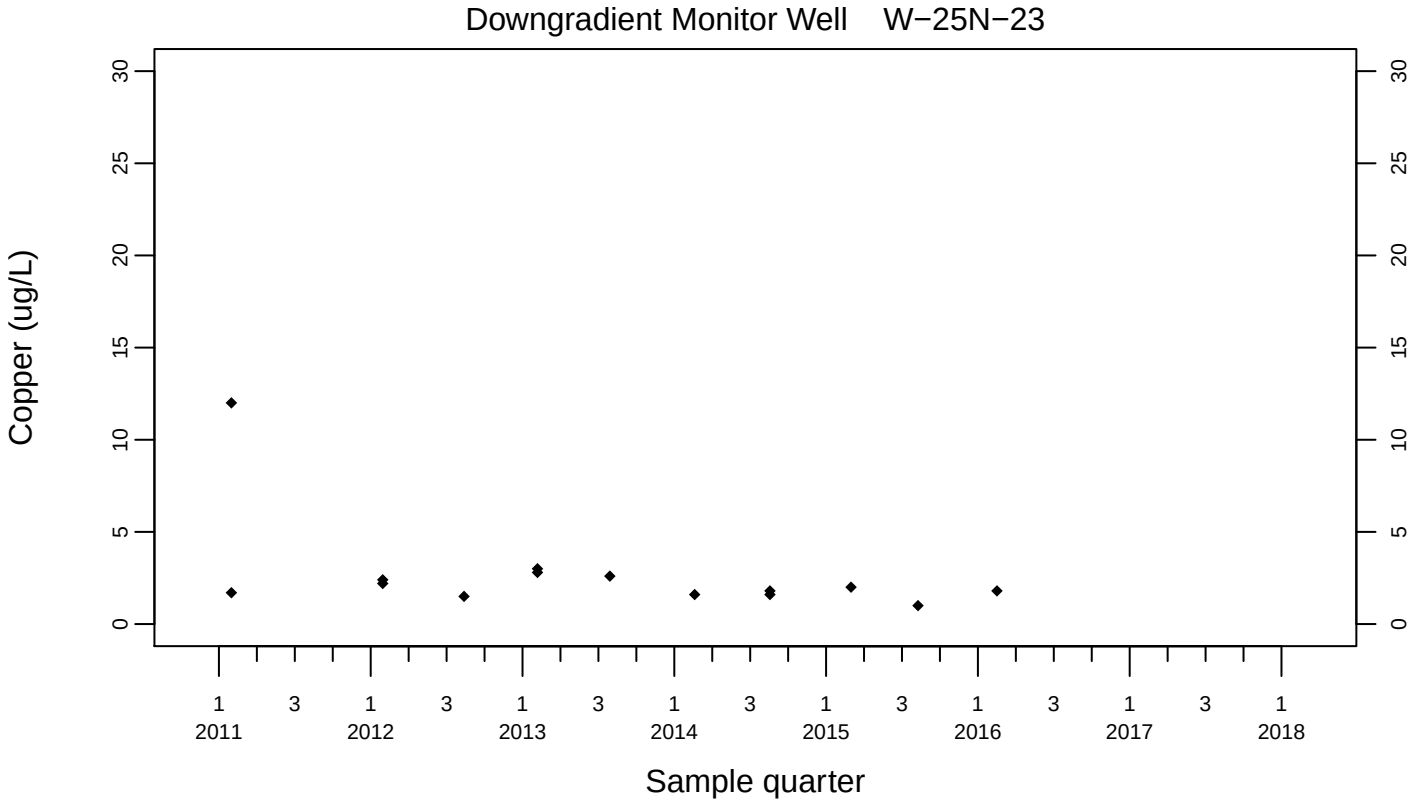

Downgradient Monitor Well W−26R−11
Hexavalent Chromium (ug/L)
0
500
1000
1500
2000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

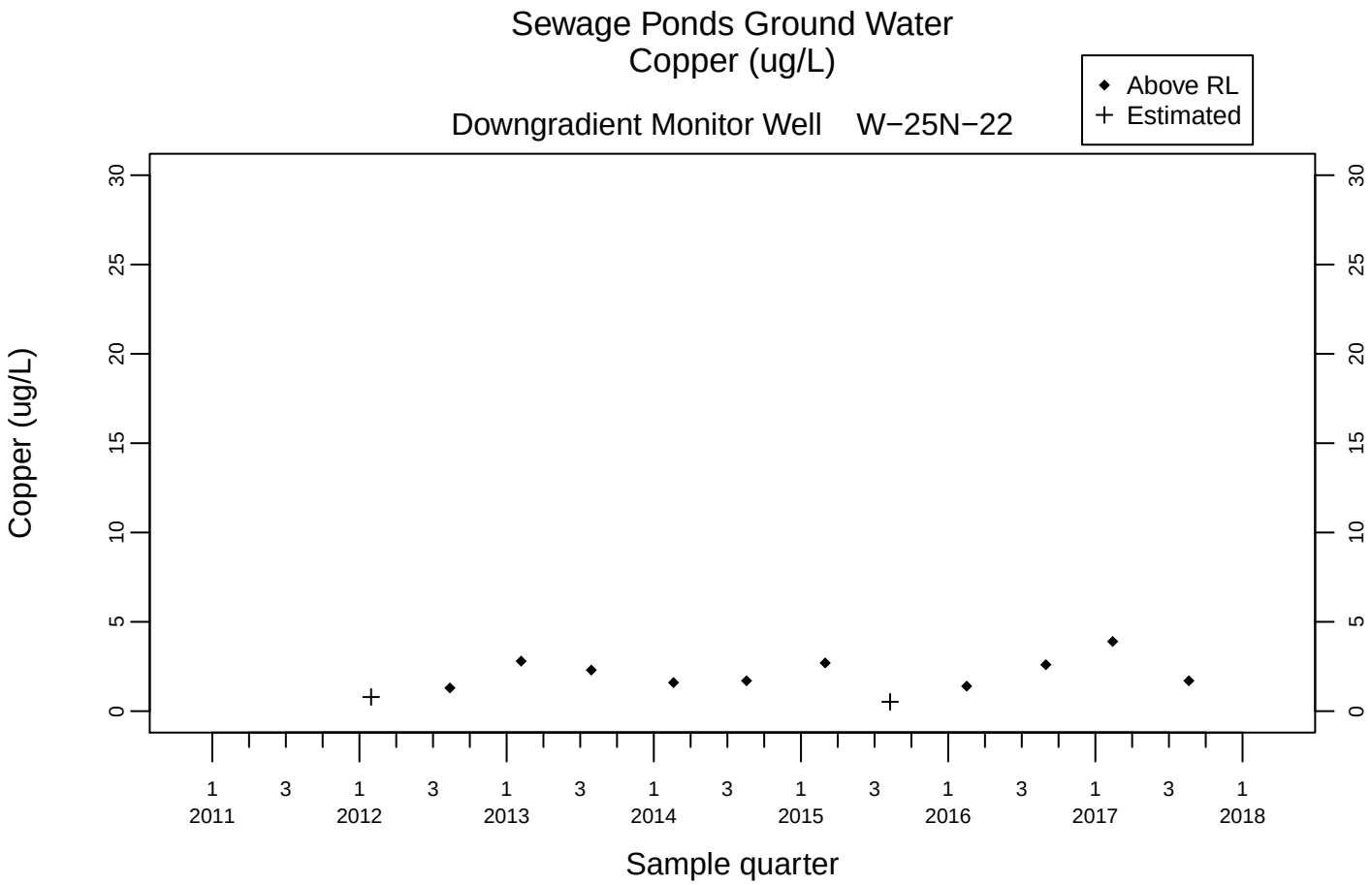

Sewage Ponds Ground Water
Hexavalent Chromium (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Estimated
Hexavalent Chromium (ug/L)
0
500
1000
1500
2000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

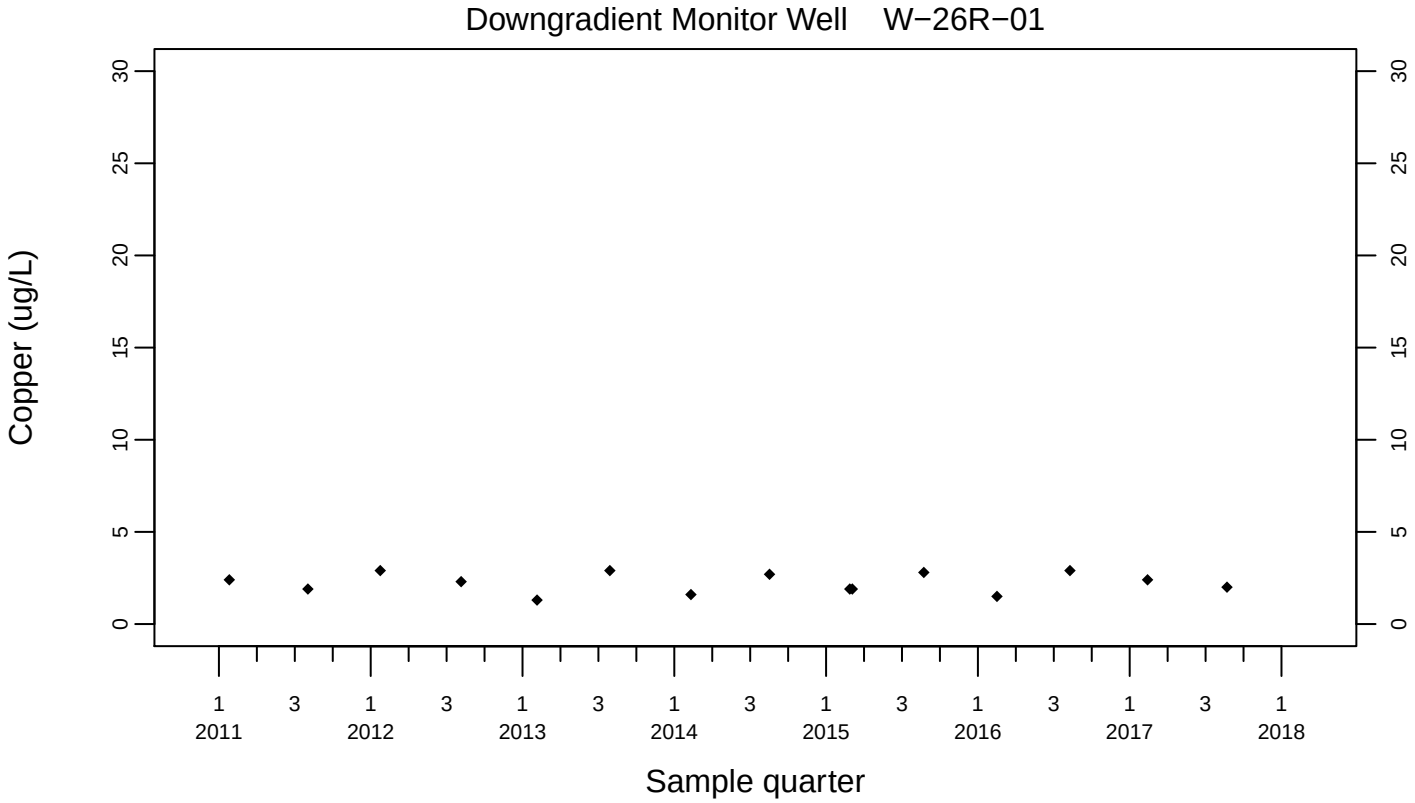

Sewage Ponds Ground Water
Copper (ug/L)
Above RL
Estimated
Upgradient Monitor Well W−7ES
Copper (ug/L)
0
5
10
15
20
25
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

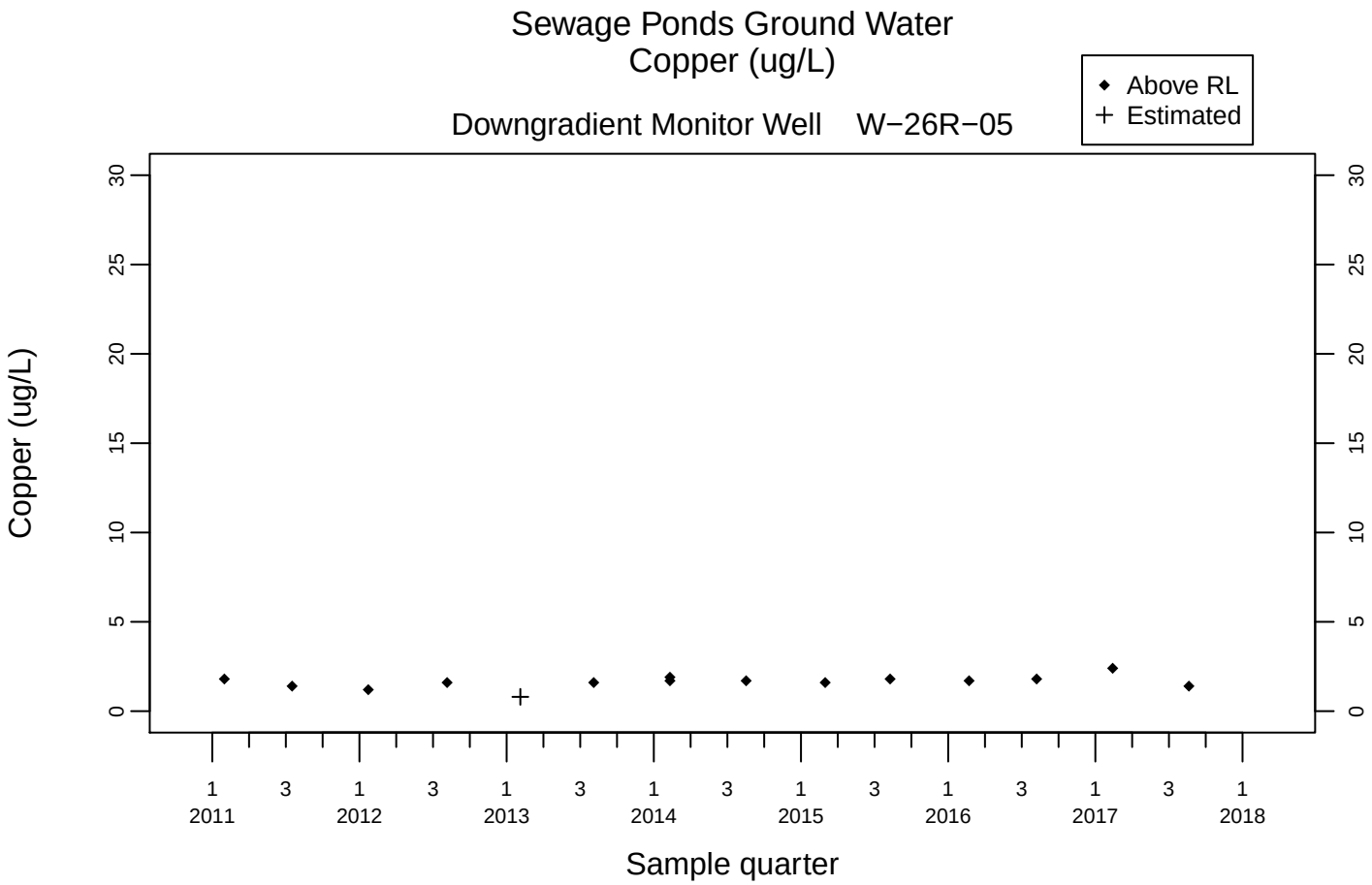

Upgradient Monitor Well W−7PS
Copper (ug/L)
0
5
10
15
20
25
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

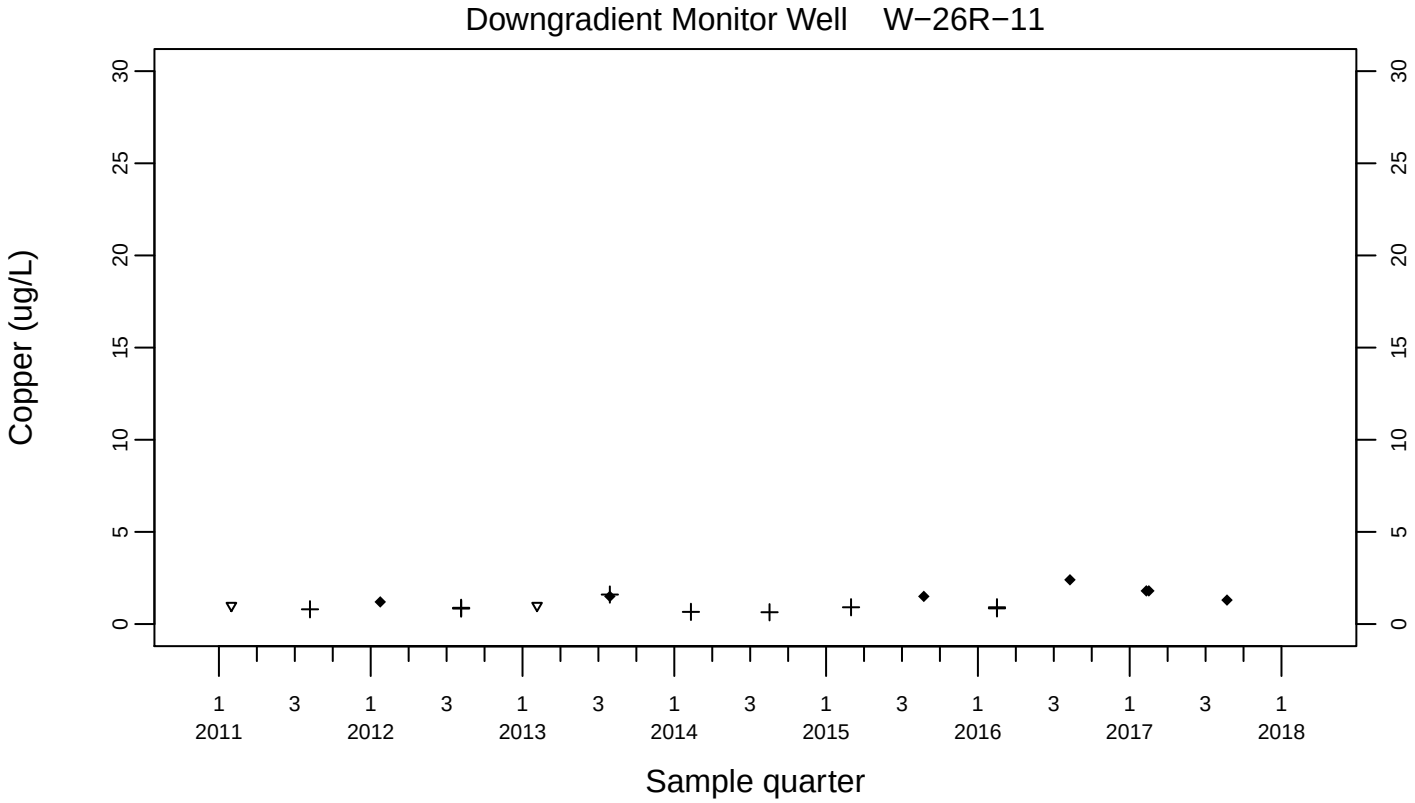

Sewage Ponds Ground Water
Copper (ug/L)
Crossgradient Monitor Well W−35A−04
Above RL
Estimated
Copper (ug/L)
0
5
10
15
20
25
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

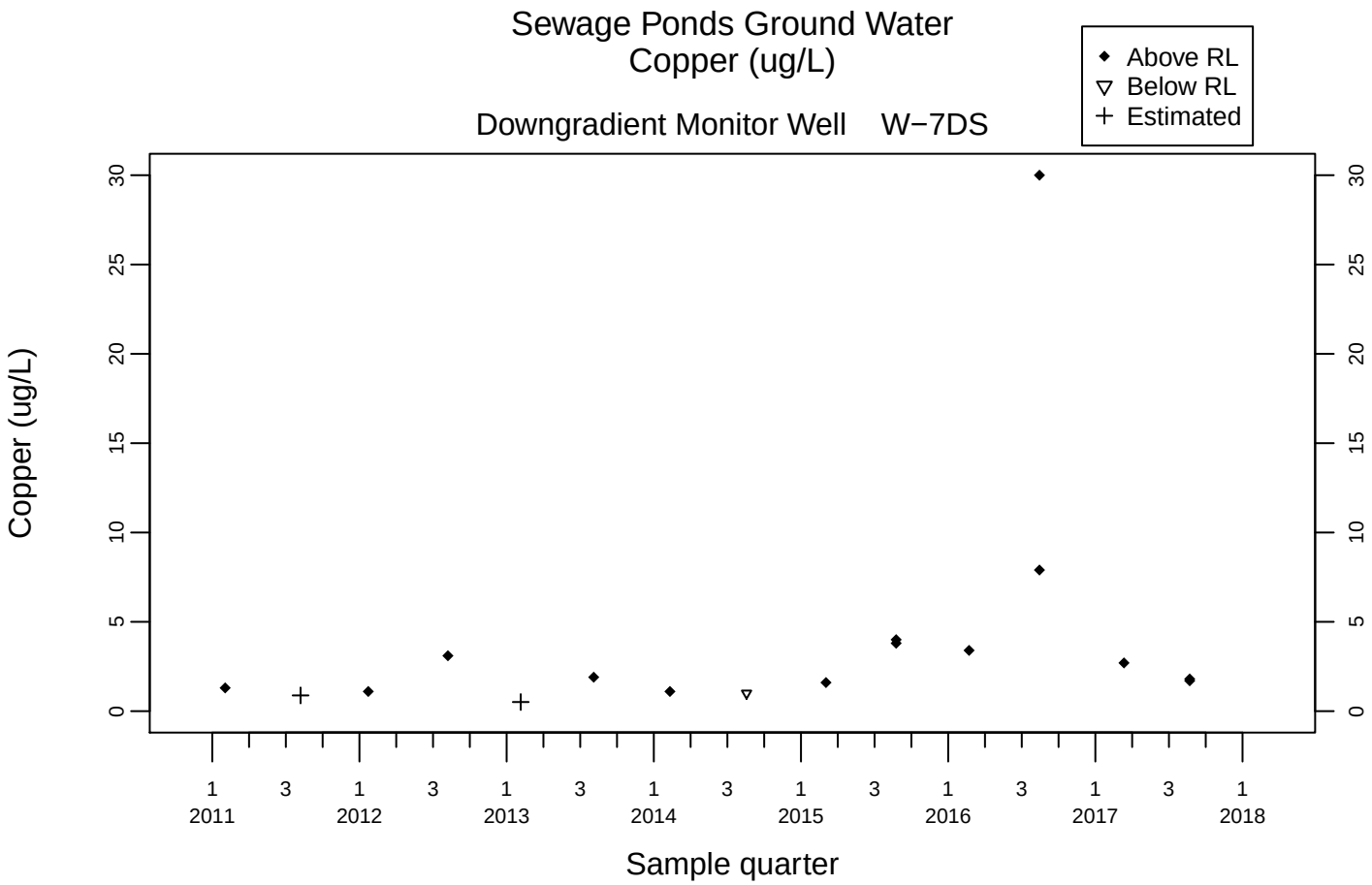

Downgradient Monitor Well W−25N−23
Copper (ug/L)
0
5
10
15
20
25
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

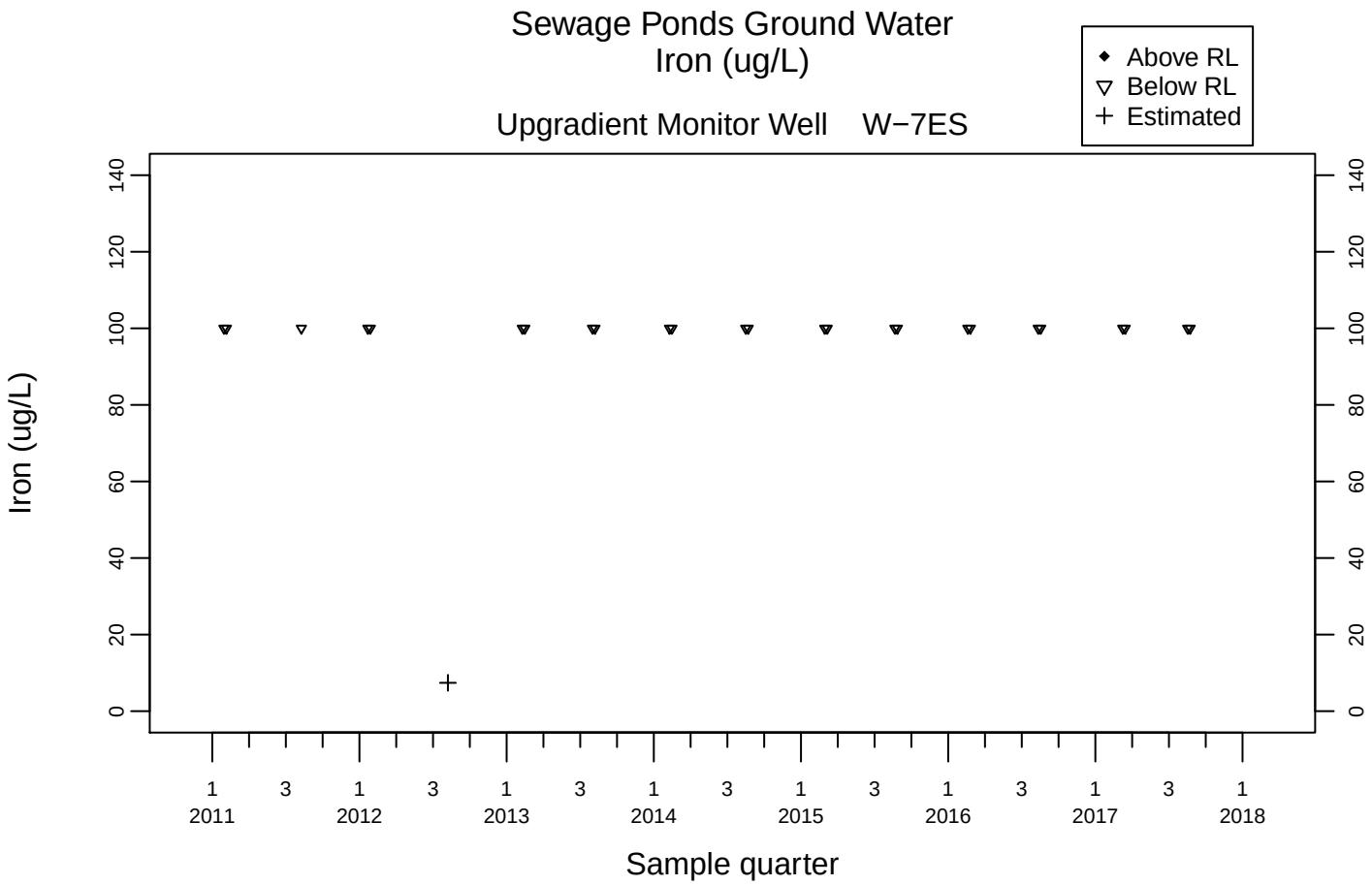

Sewage Ponds Ground Water
Copper (ug/L)
Above RL
Estimated
Downgradient Monitor Well W−25N−22
Copper (ug/L)
0
5
10
15
20
25
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

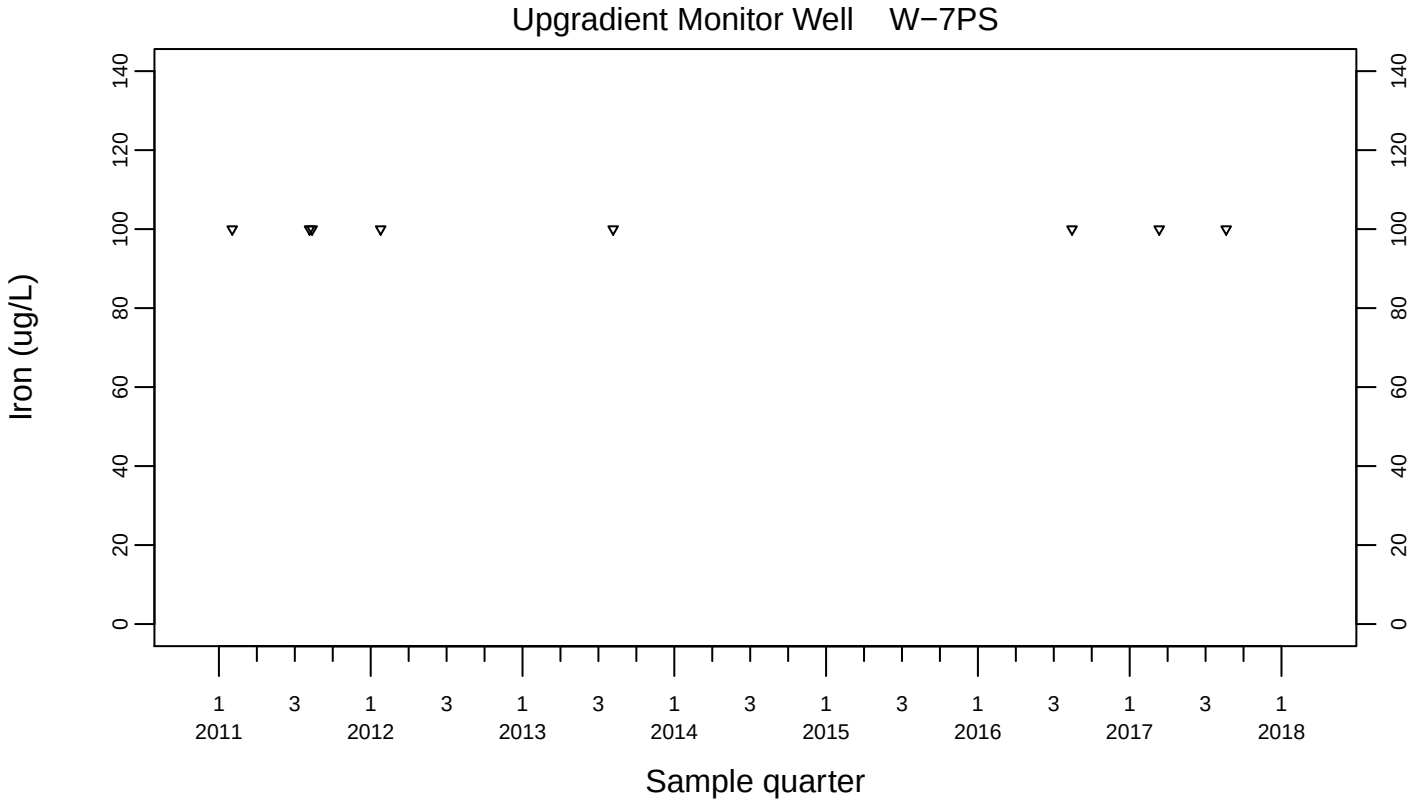

Downgradient Monitor Well W−26R−01
Copper (ug/L)
0
5
10
15
20
25
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

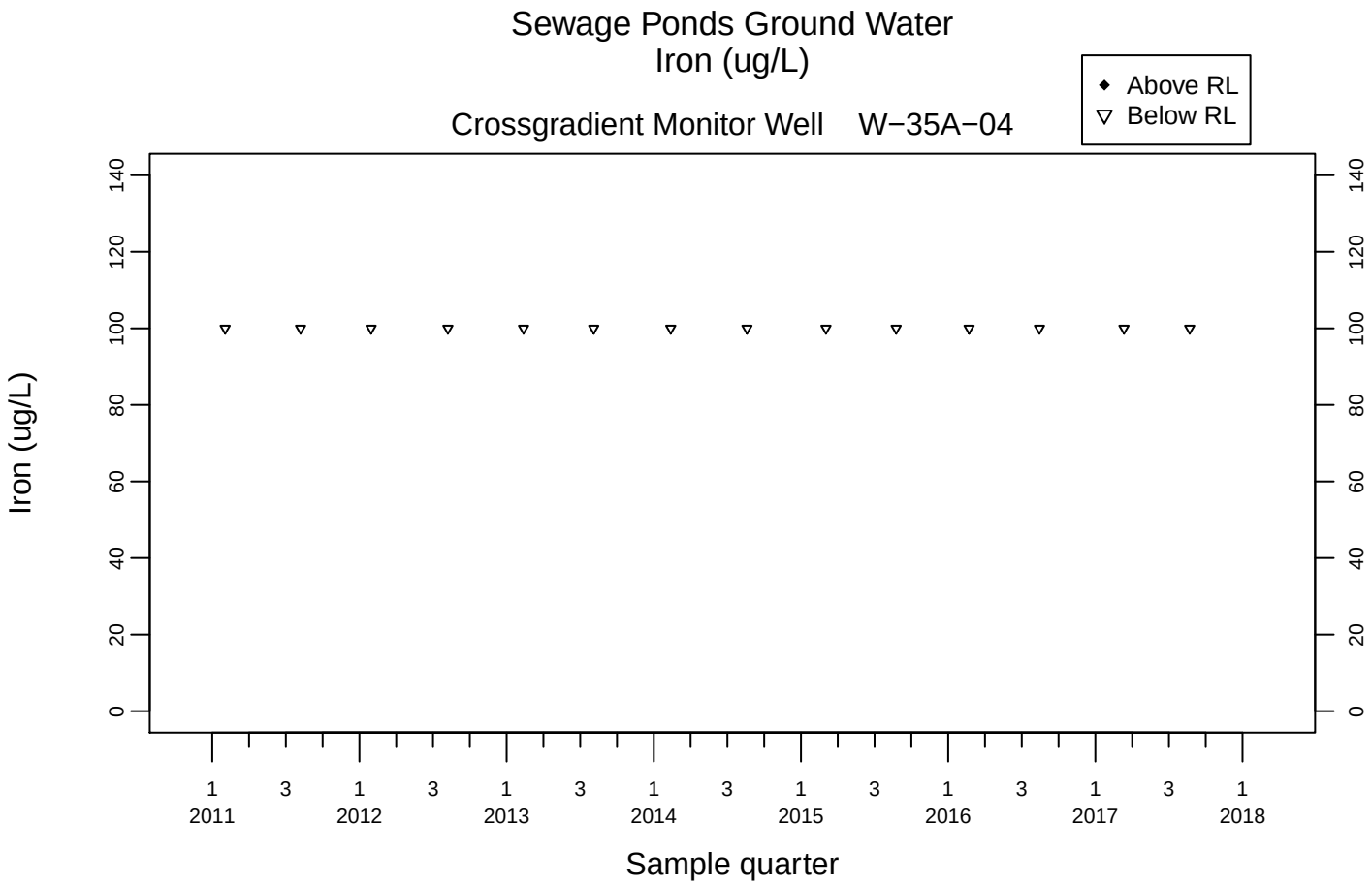

Sewage Ponds Ground Water
Copper (ug/L)
Above RL
Estimated
Downgradient Monitor Well W−26R−05
Copper (ug/L)
0
5
10
15
20
25
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

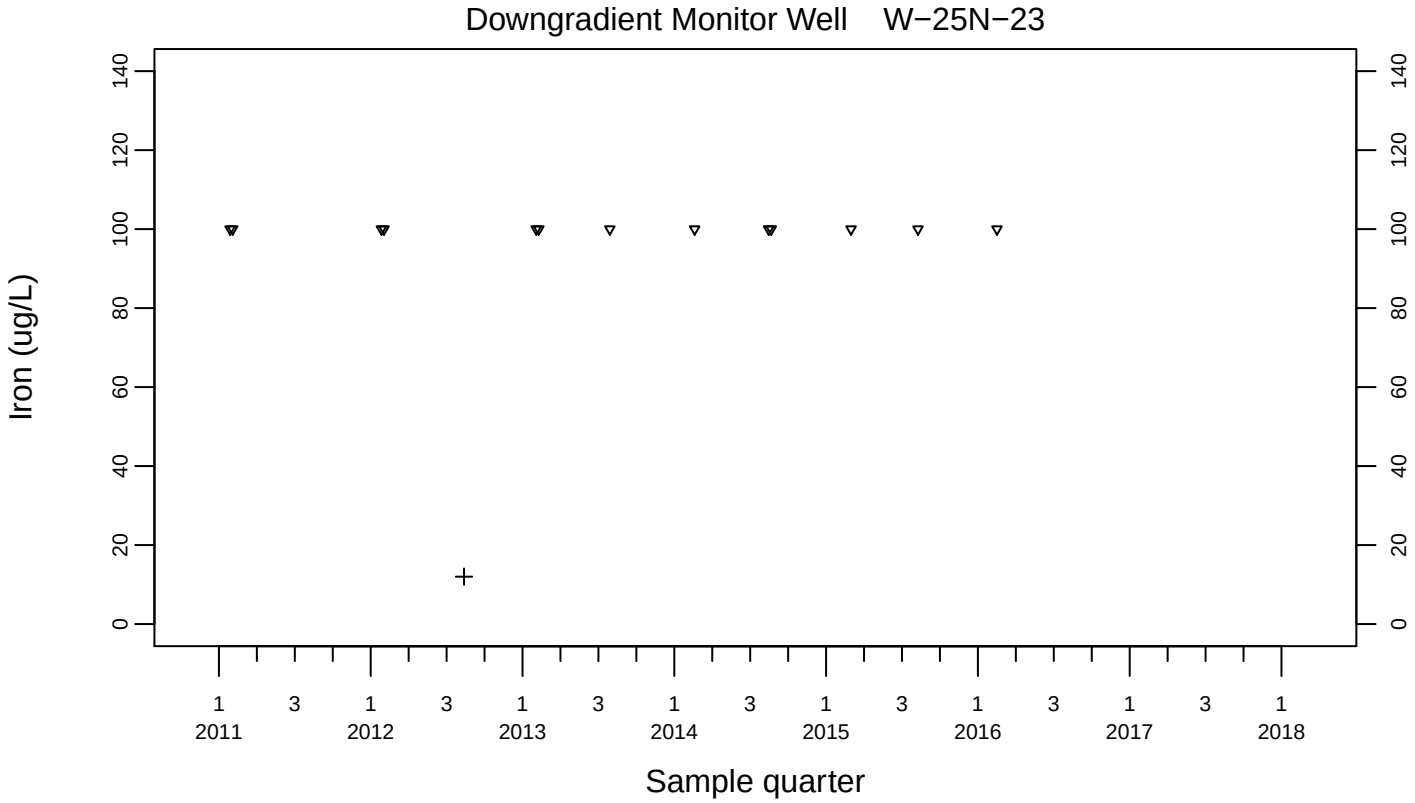

Downgradient Monitor Well W−26R−11
Copper (ug/L)
0
5
10
15
20
25
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

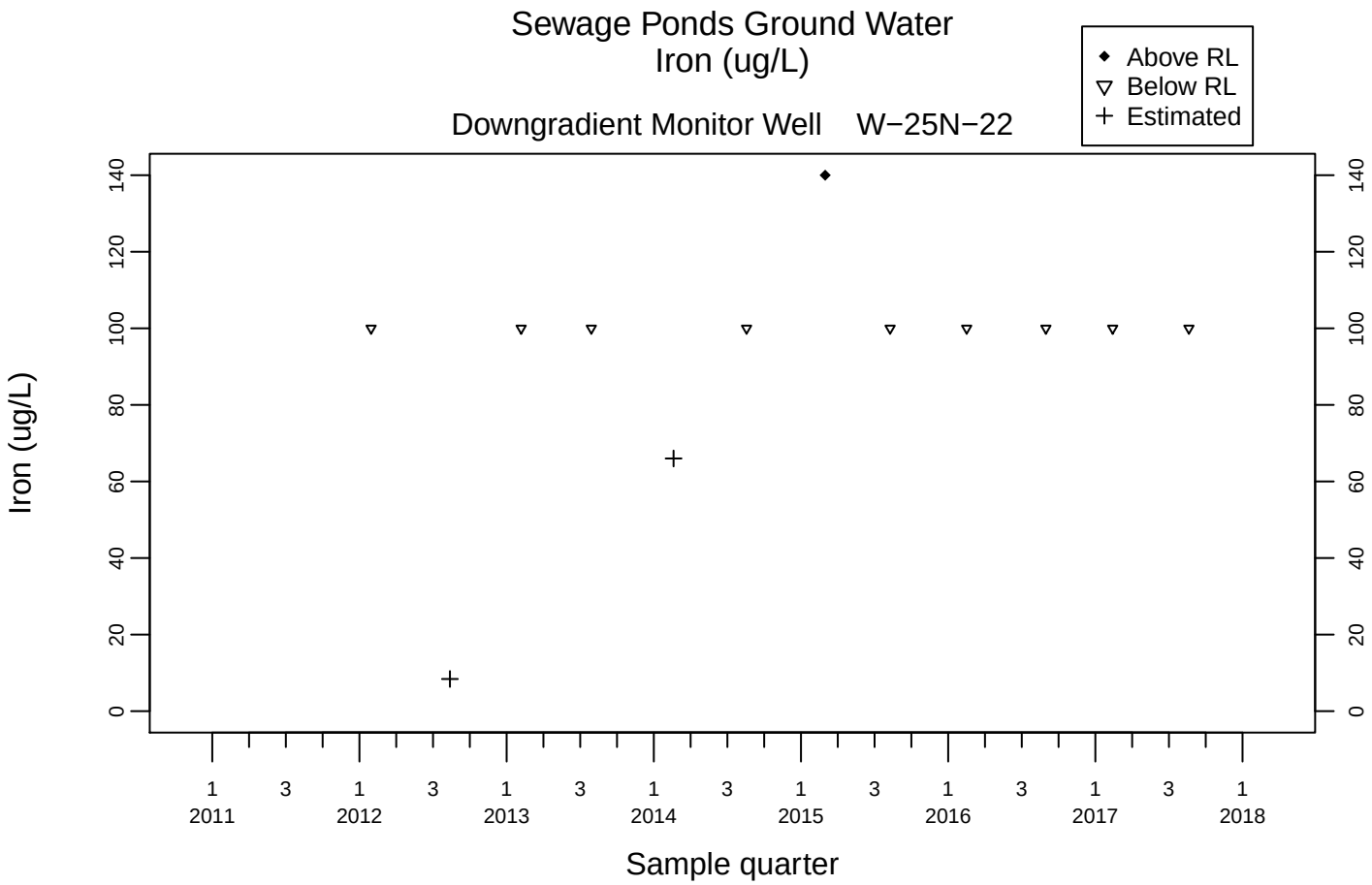

Sewage Ponds Ground Water
Copper (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Estimated
Copper (ug/L)
0
5
10
15
20
25
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

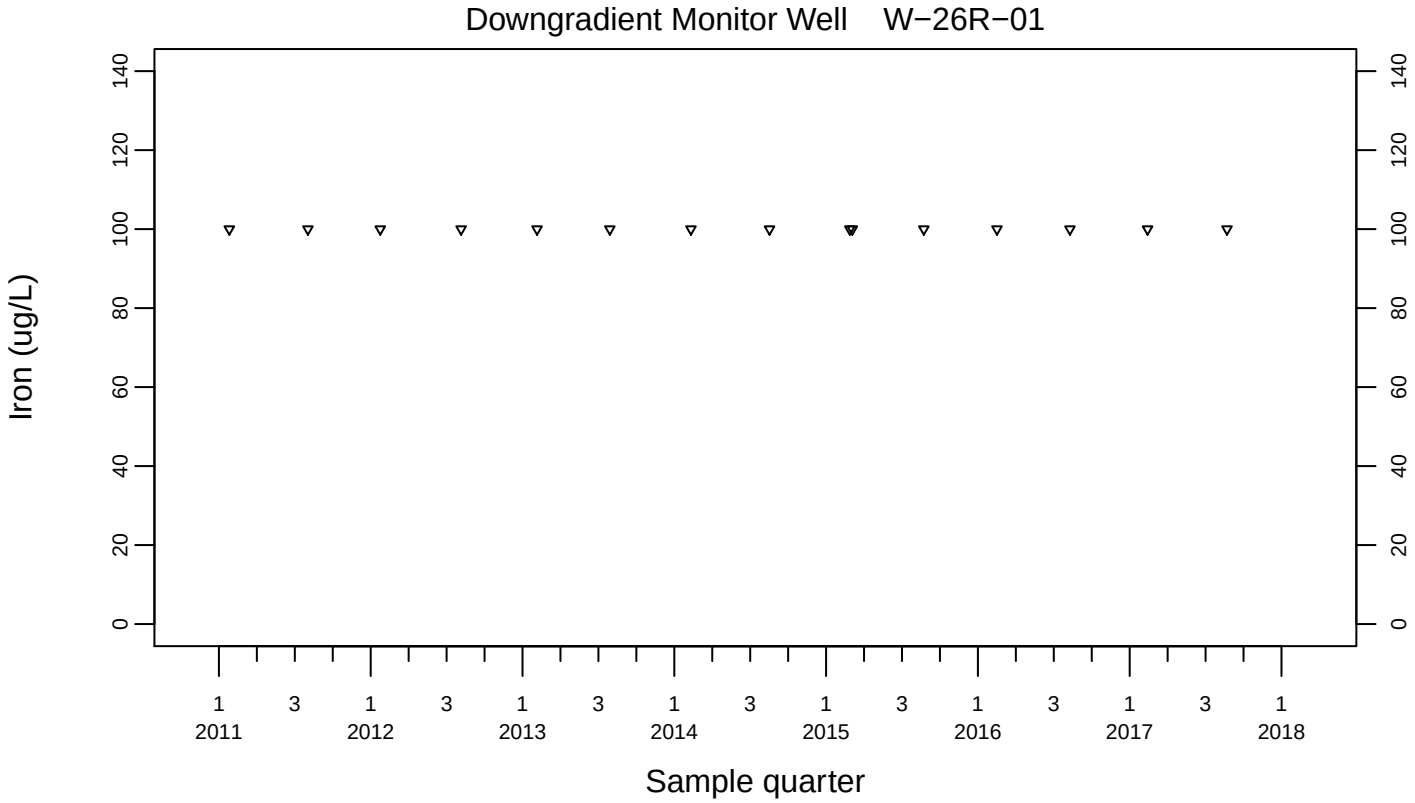

Sewage Ponds Ground Water
Iron (ug/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Estimated
Iron (ug/L)
0
20
40
60
80
100
120
140
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

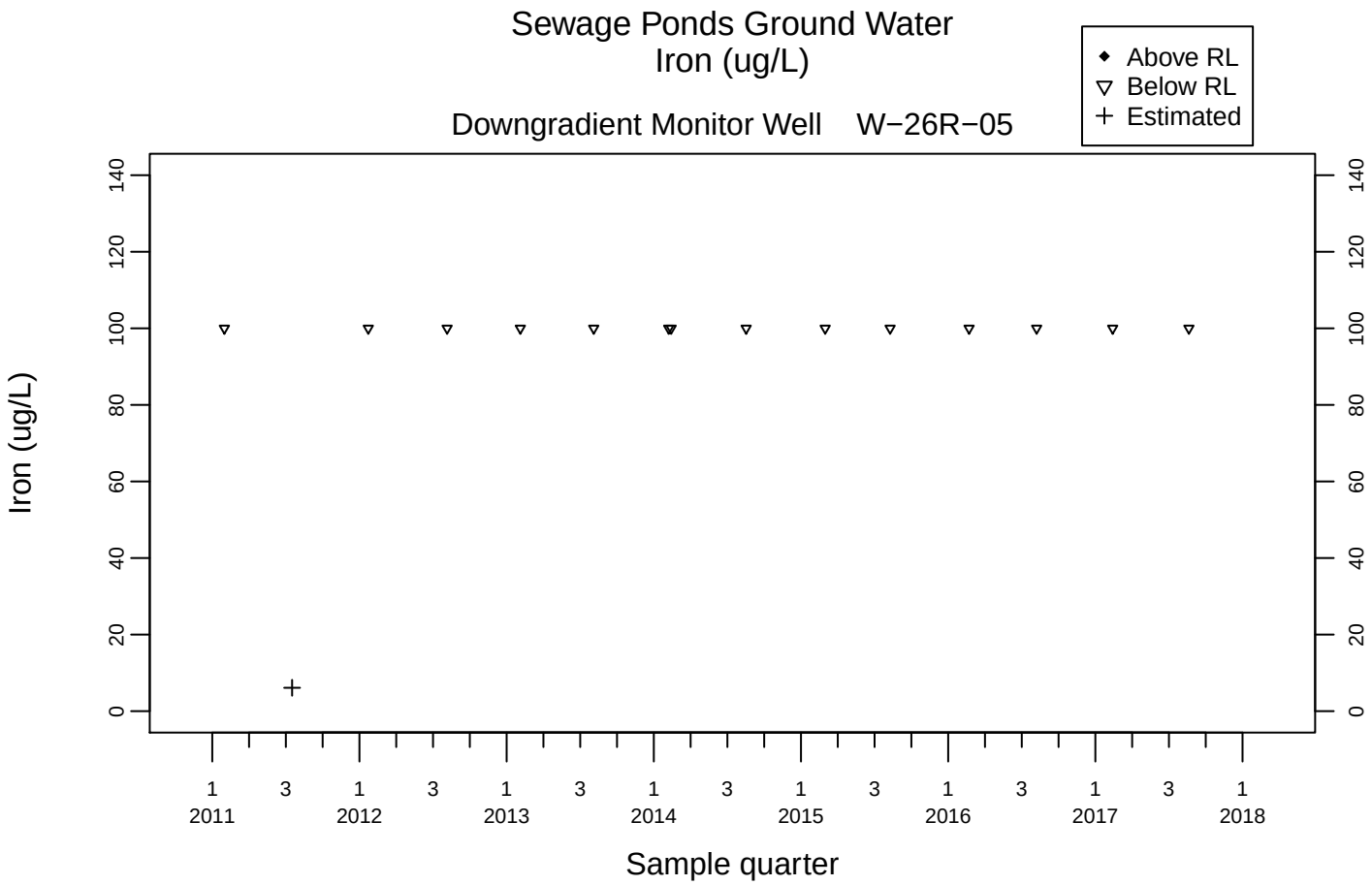

Upgradient Monitor Well W−7PS
Iron (ug/L)
0
20
40
60
80
100
120
140
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

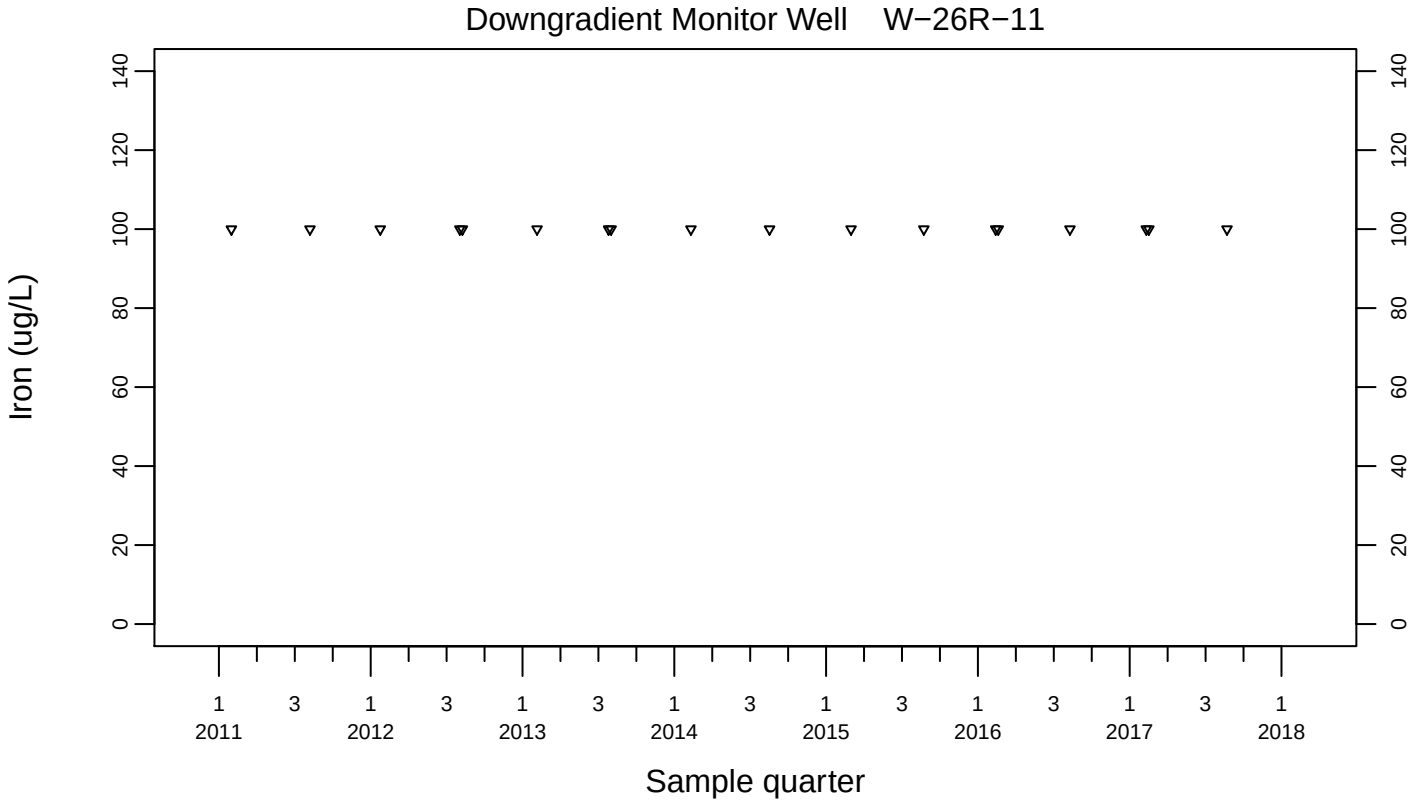

Sewage Ponds Ground Water
Iron (ug/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Iron (ug/L)
0
20
40
60
80
100
120
140
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

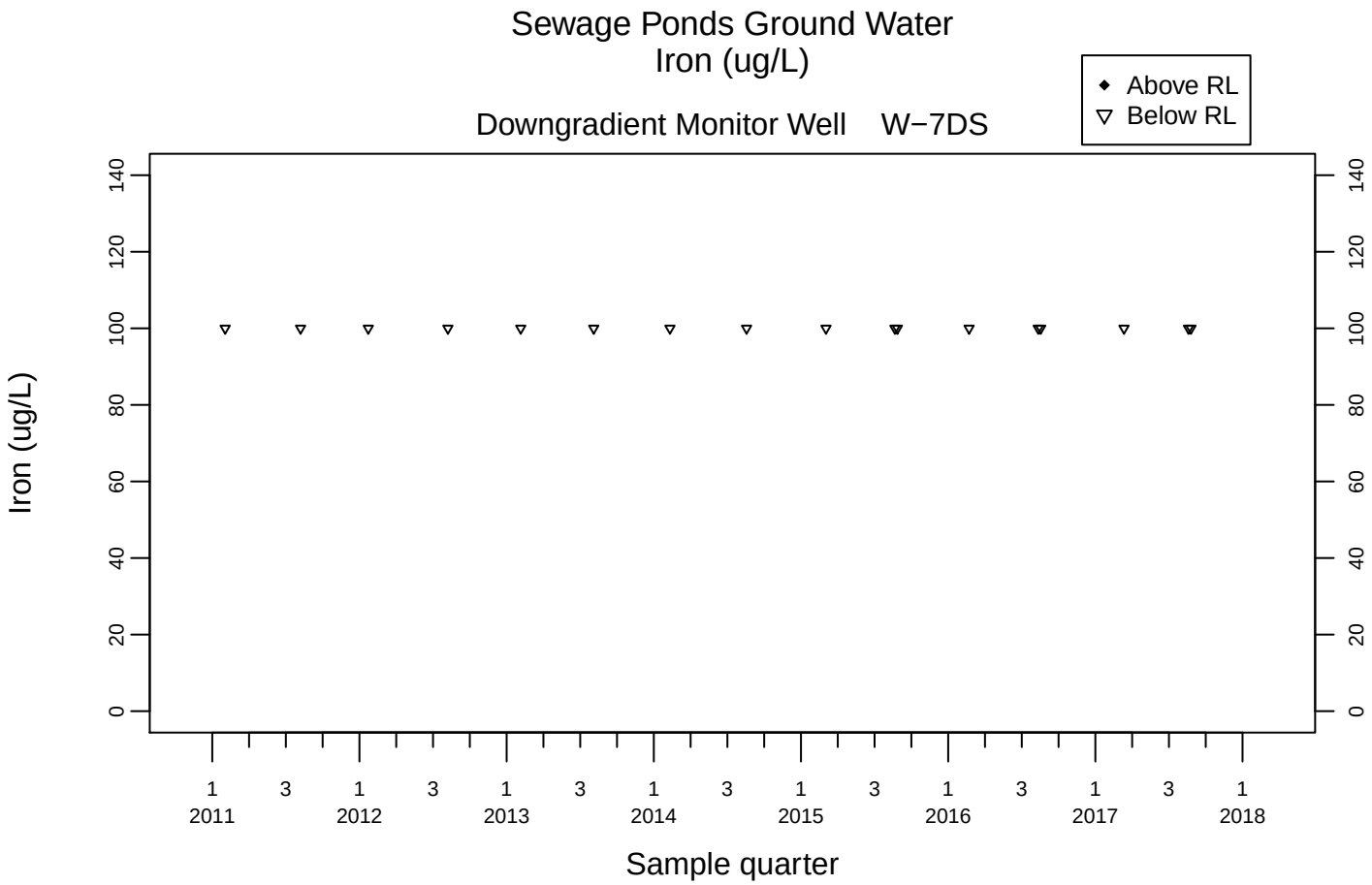

Downgradient Monitor Well W−25N−23
Iron (ug/L)
0
20
40
60
80
100
120
140
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

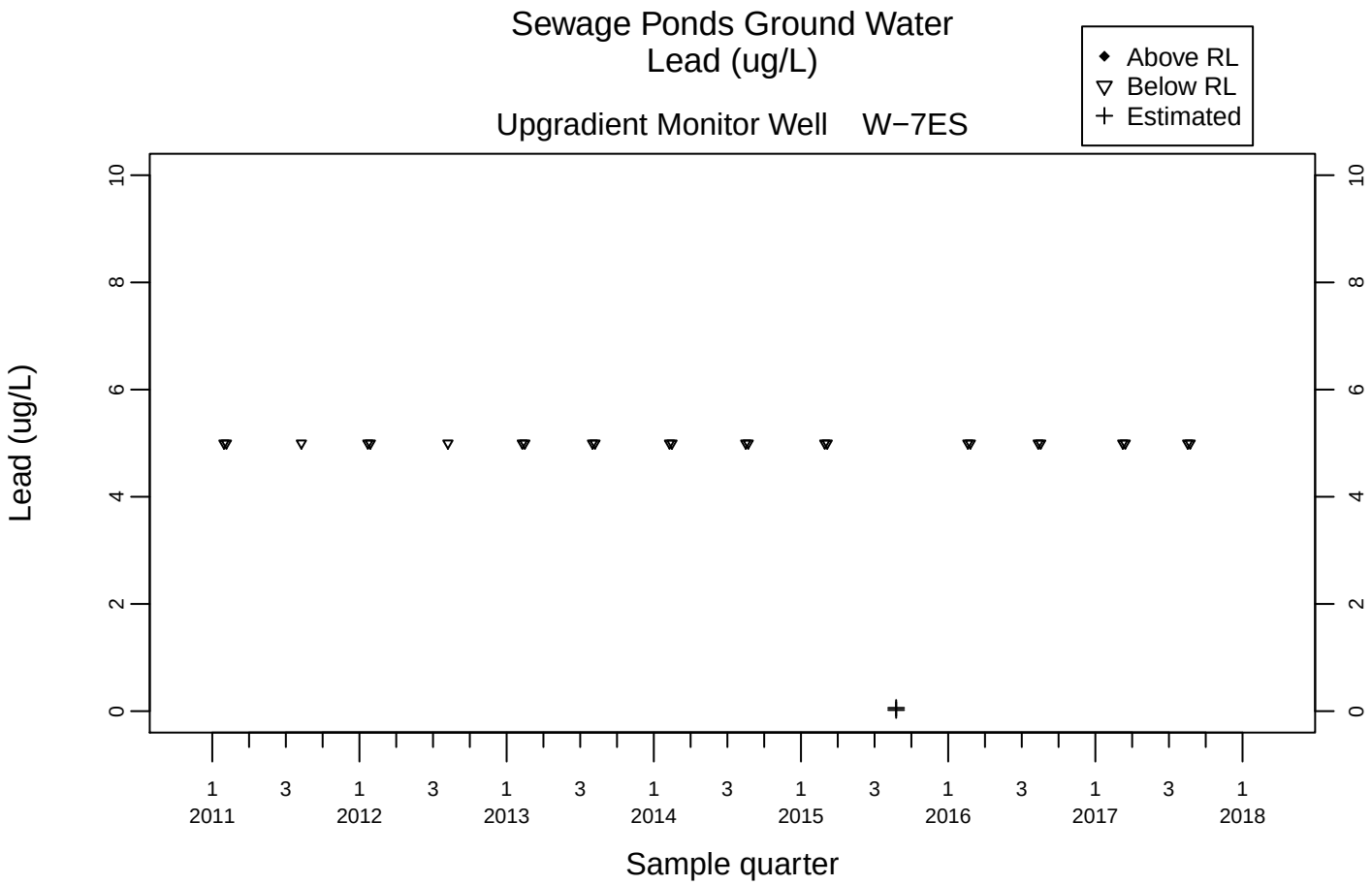

Sewage Ponds Ground Water
Iron (ug/L)
Downgradient Monitor Well W−25N−22
Above RL
Below RL
Estimated
Iron (ug/L)
0
20
40
60
80
100
120
140
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

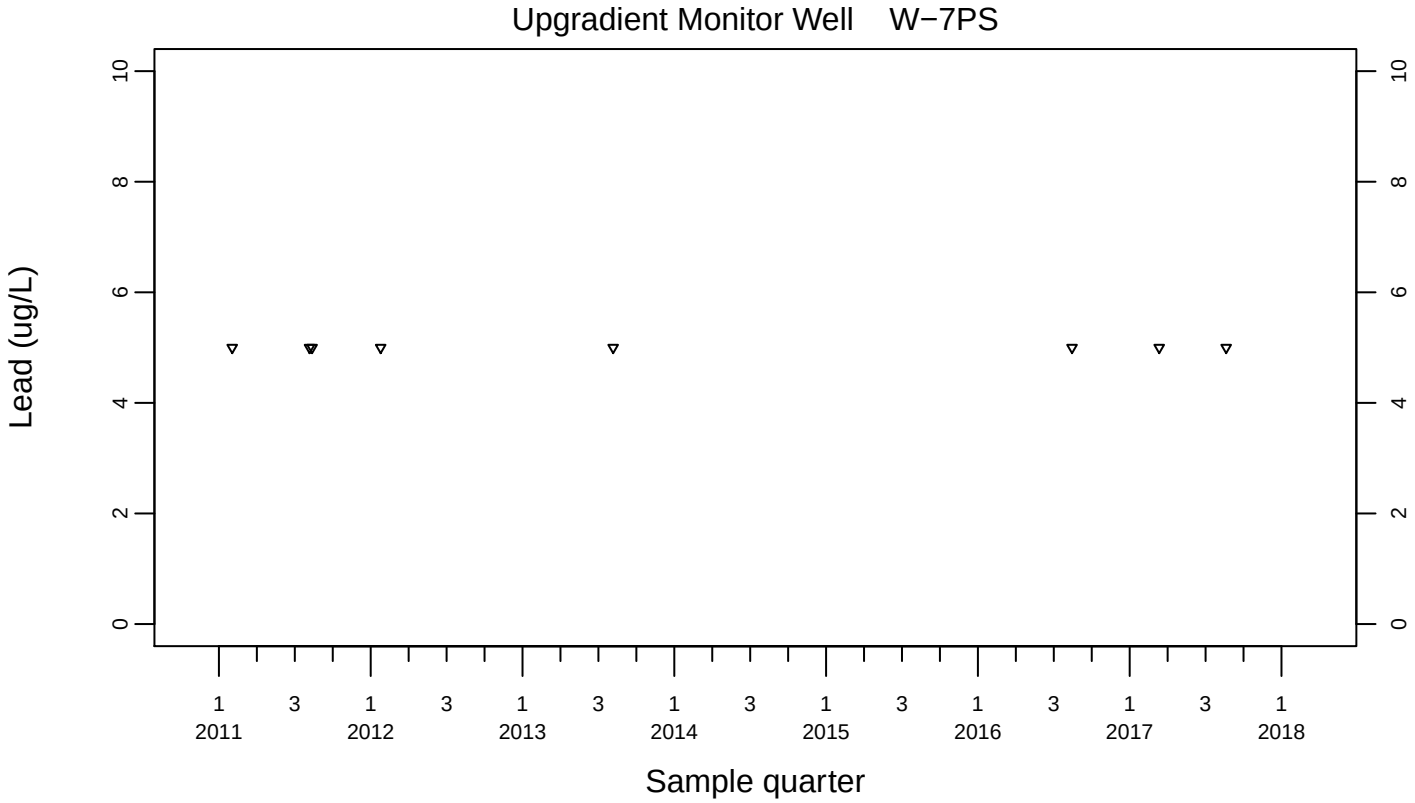

Downgradient Monitor Well W−26R−01
Iron (ug/L)
0
20
40
60
80
100
120
140
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

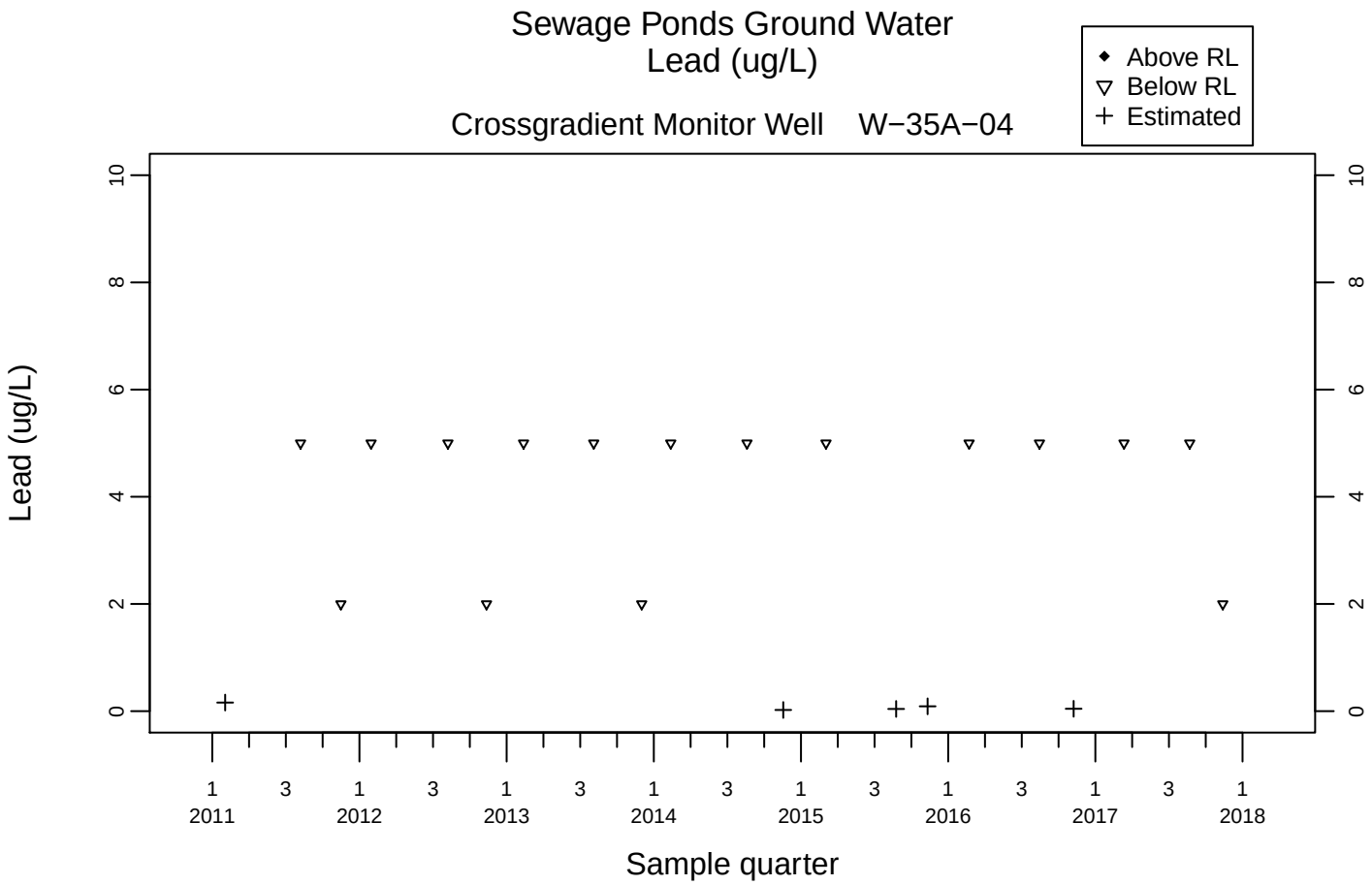

Sewage Ponds Ground Water
Iron (ug/L)
Above RL
Below RL
Estimated
Downgradient Monitor Well W−26R−05
Iron (ug/L)
0
20
40
60
80
100
120
140
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

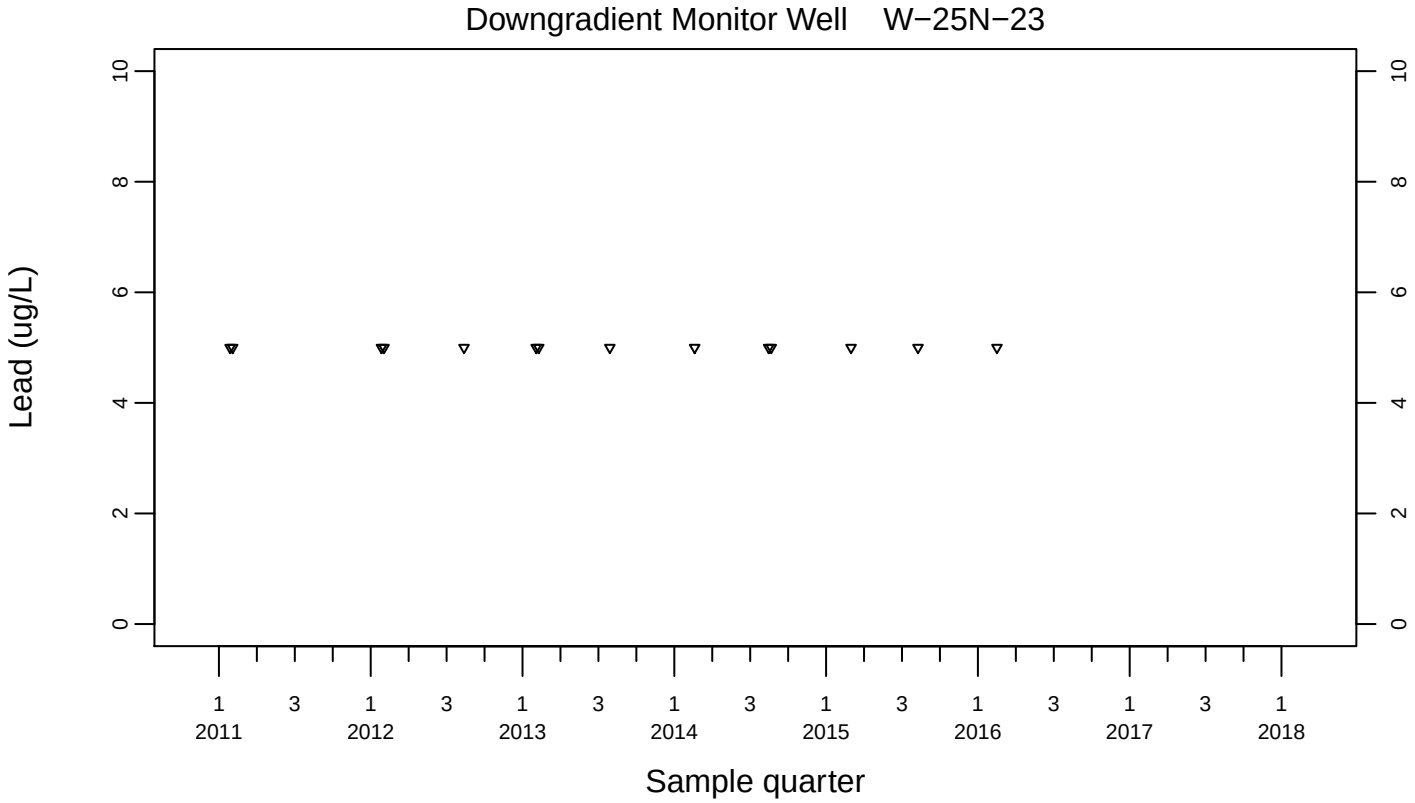

Downgradient Monitor Well W−26R−11
Iron (ug/L)
0
20
40
60
80
100
120
140
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

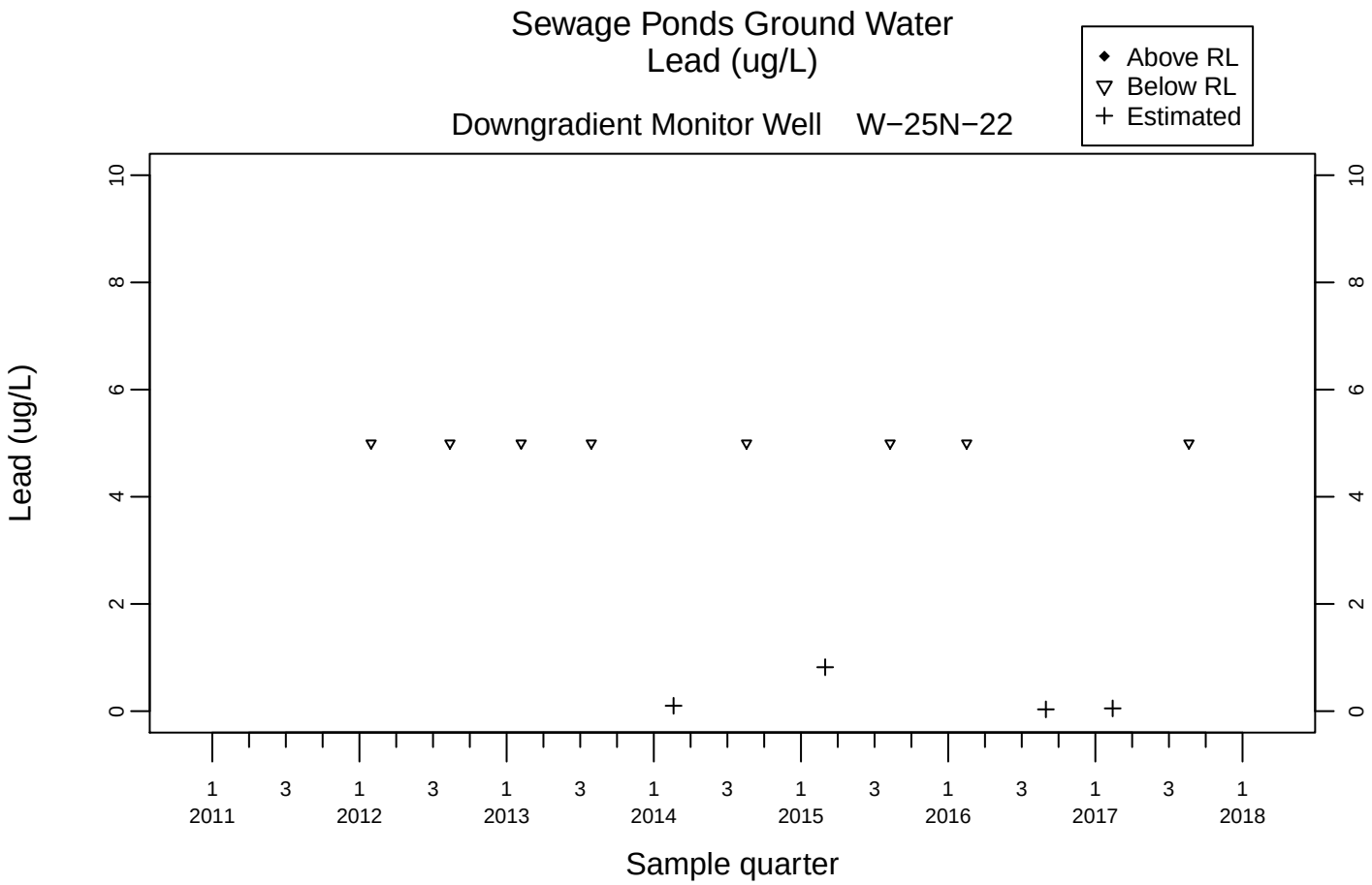

Sewage Ponds Ground Water
Iron (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Iron (ug/L)
0
20
40
60
80
100
120
140
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

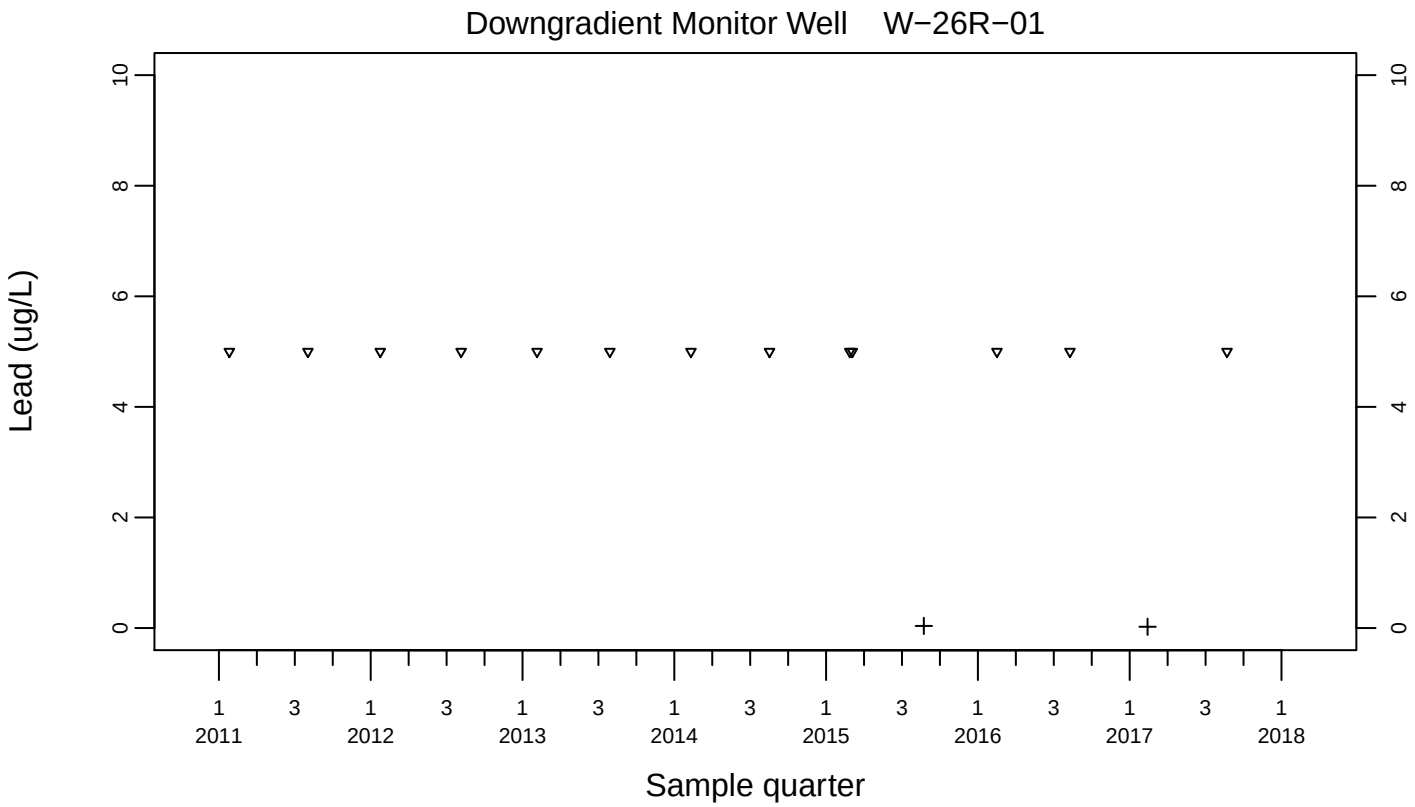

Sewage Ponds Ground Water
Lead (ug/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Estimated
Lead (ug/L)
0
2
4
6
8
10
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

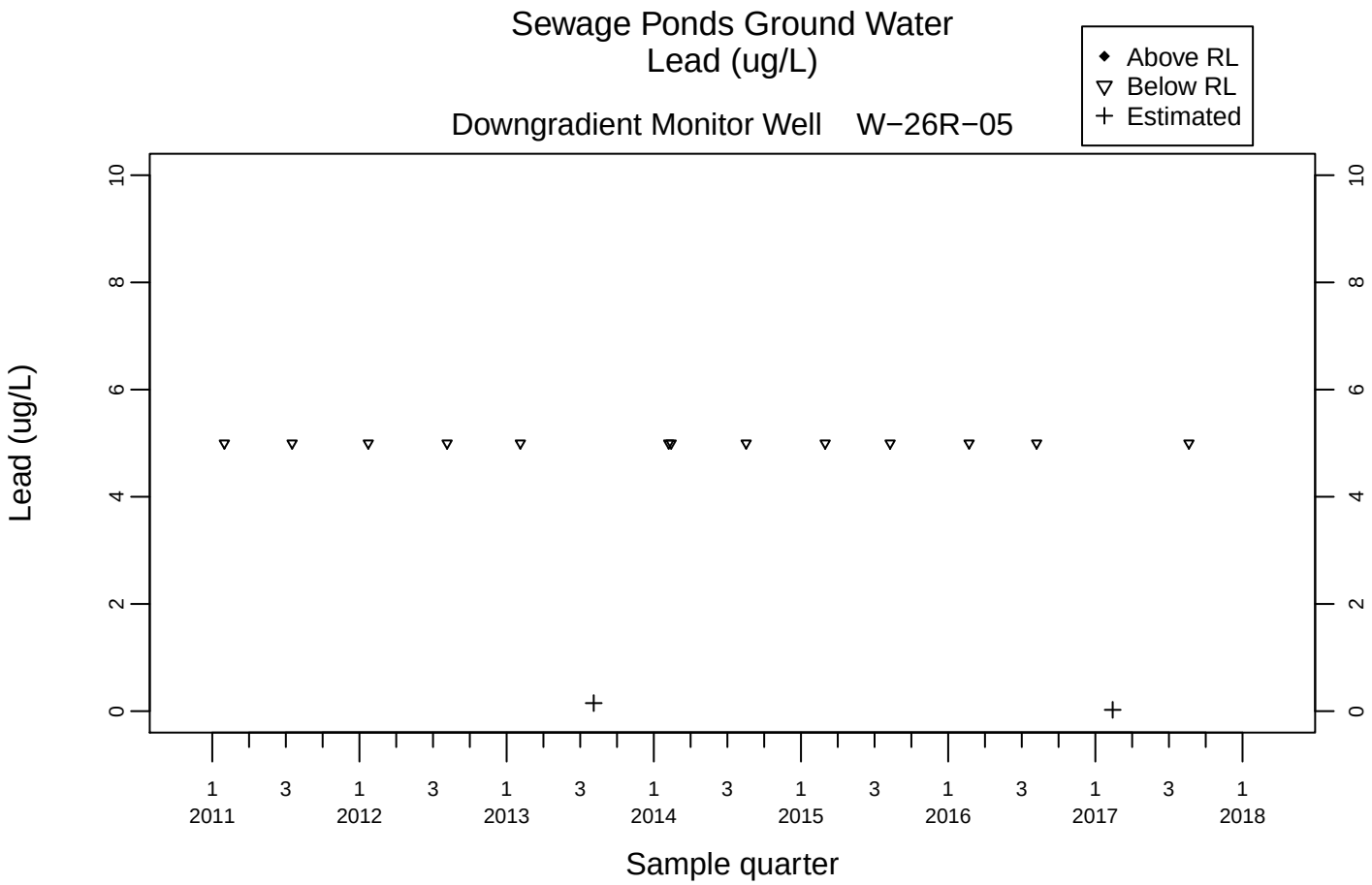

Upgradient Monitor Well W−7PS
Lead (ug/L)
0
2
4
6
8
10
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

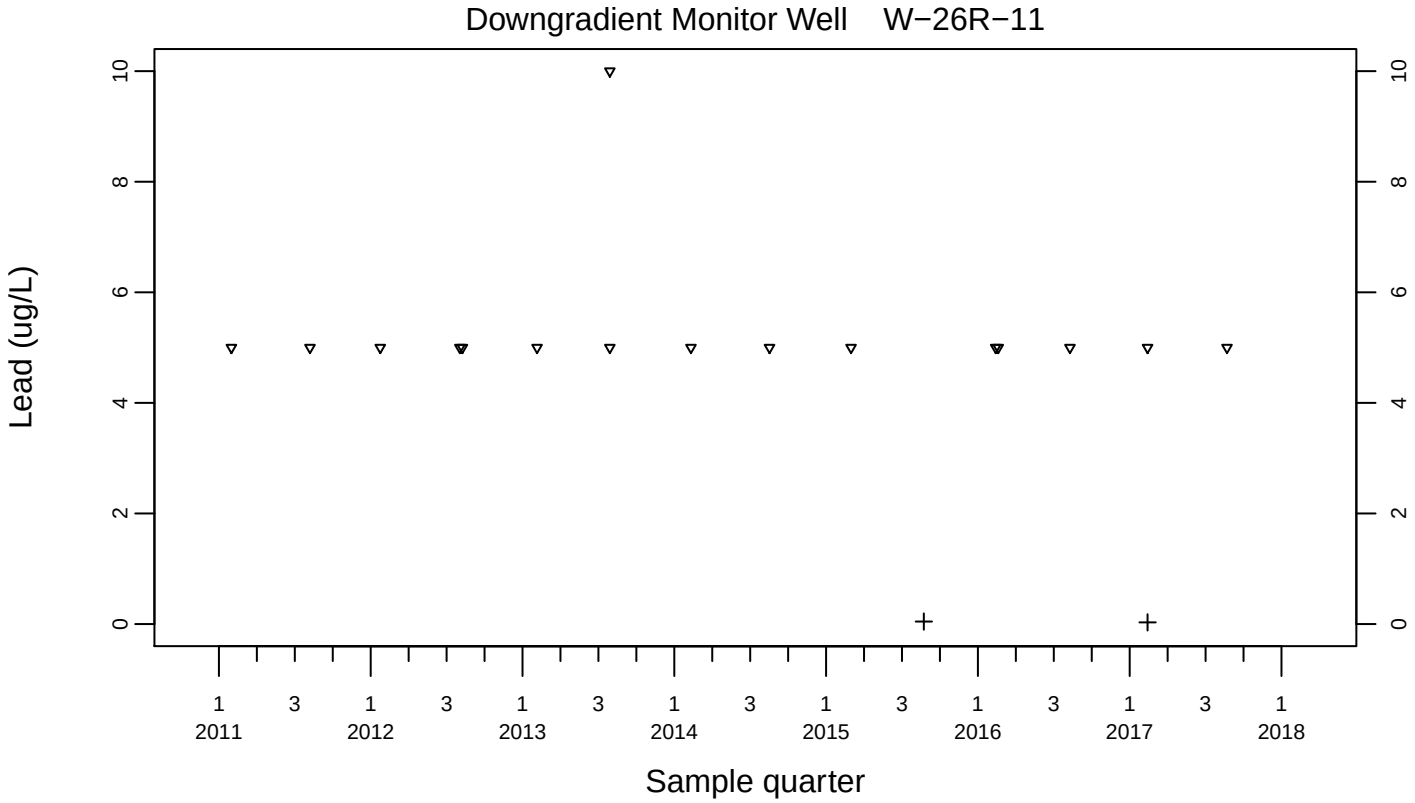

Sewage Ponds Ground Water
Lead (ug/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Estimated
Lead (ug/L)
0
2
4
6
8
10
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

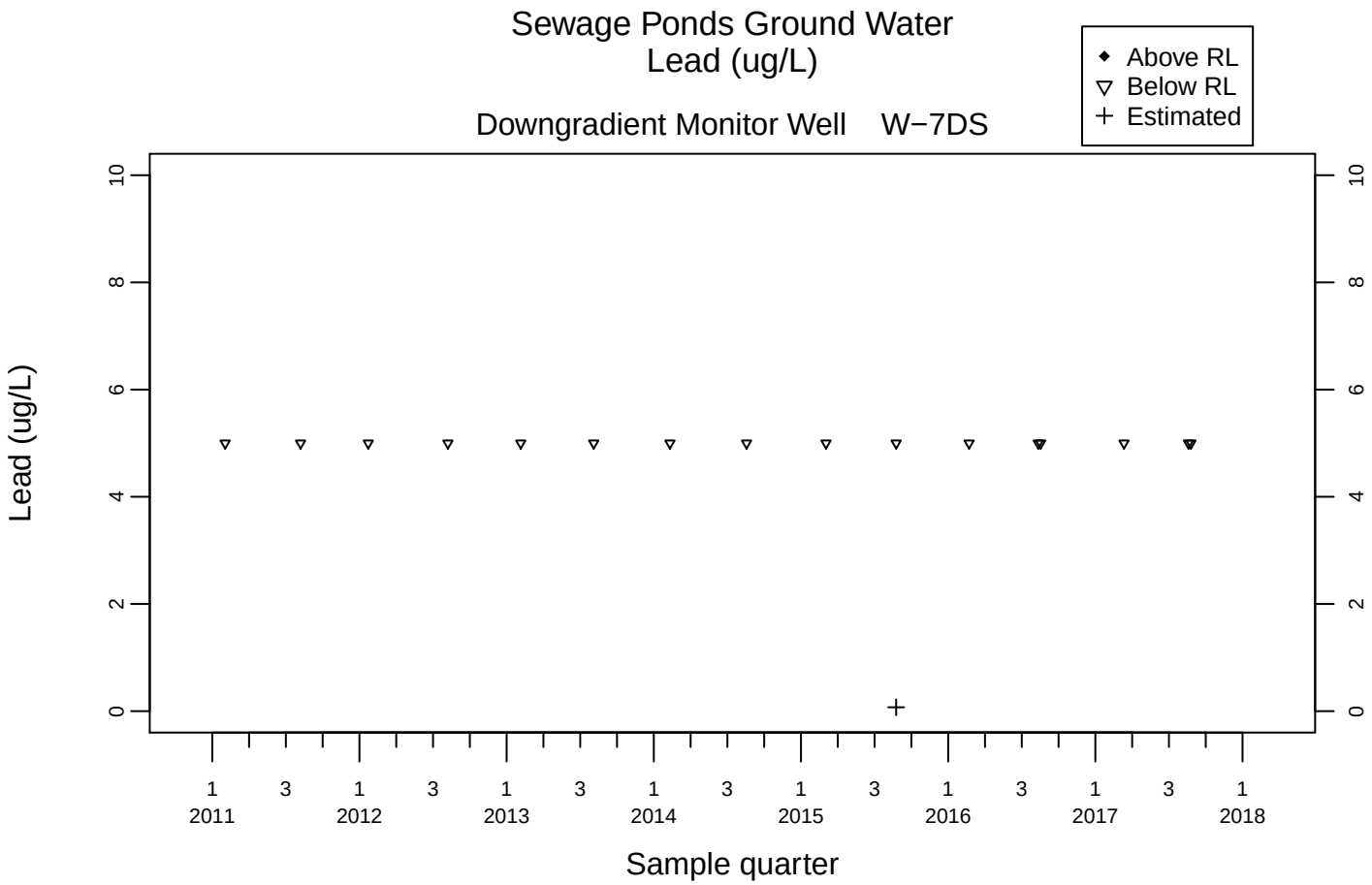

Downgradient Monitor Well W−25N−23
Lead (ug/L)
0
2
4
6
8
10
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

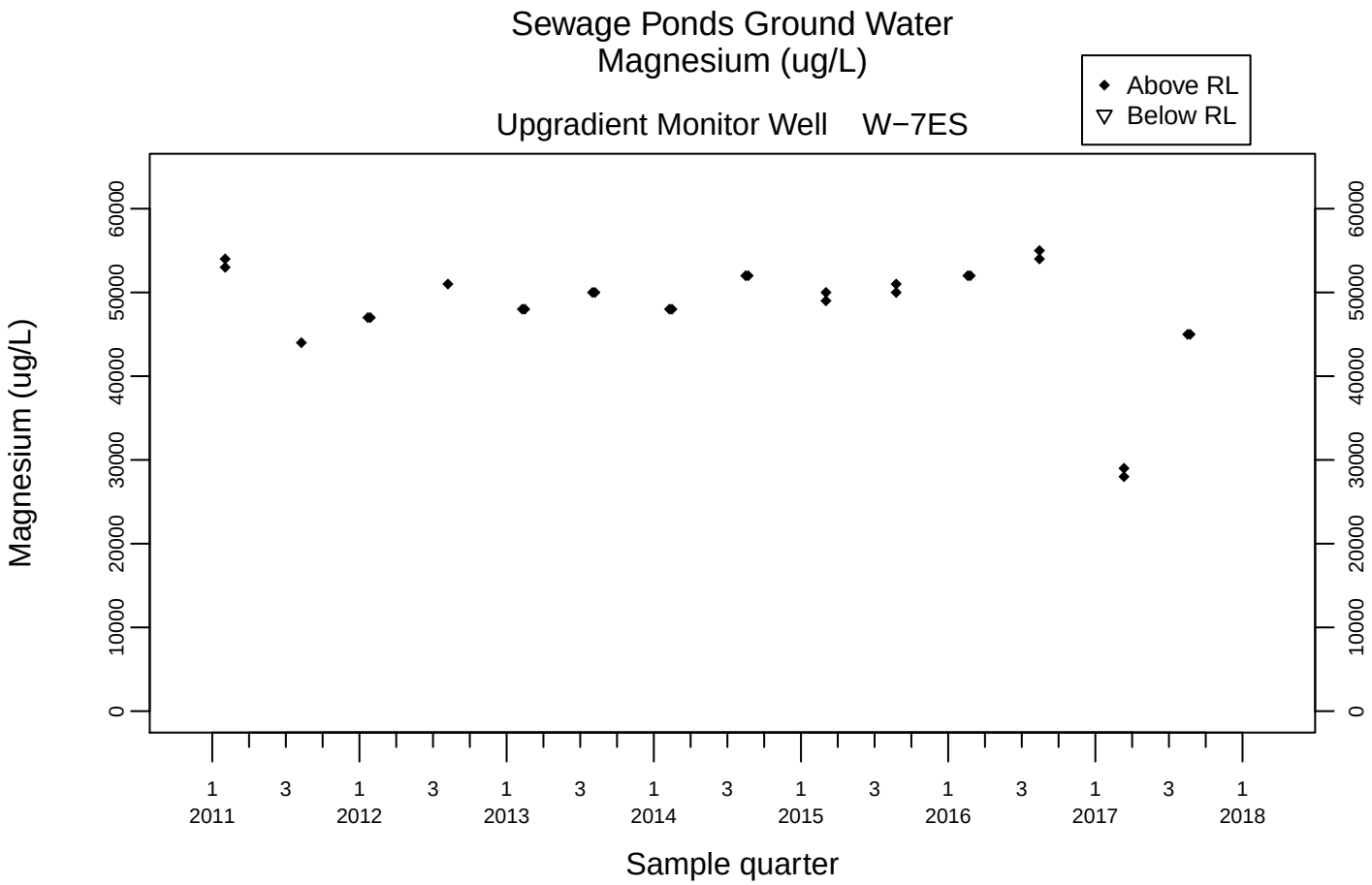

Sewage Ponds Ground Water
Lead (ug/L)
Above RL
Below RL
Estimated
Downgradient Monitor Well W−25N−22
Lead (ug/L)
0
2
4
6
8
10
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

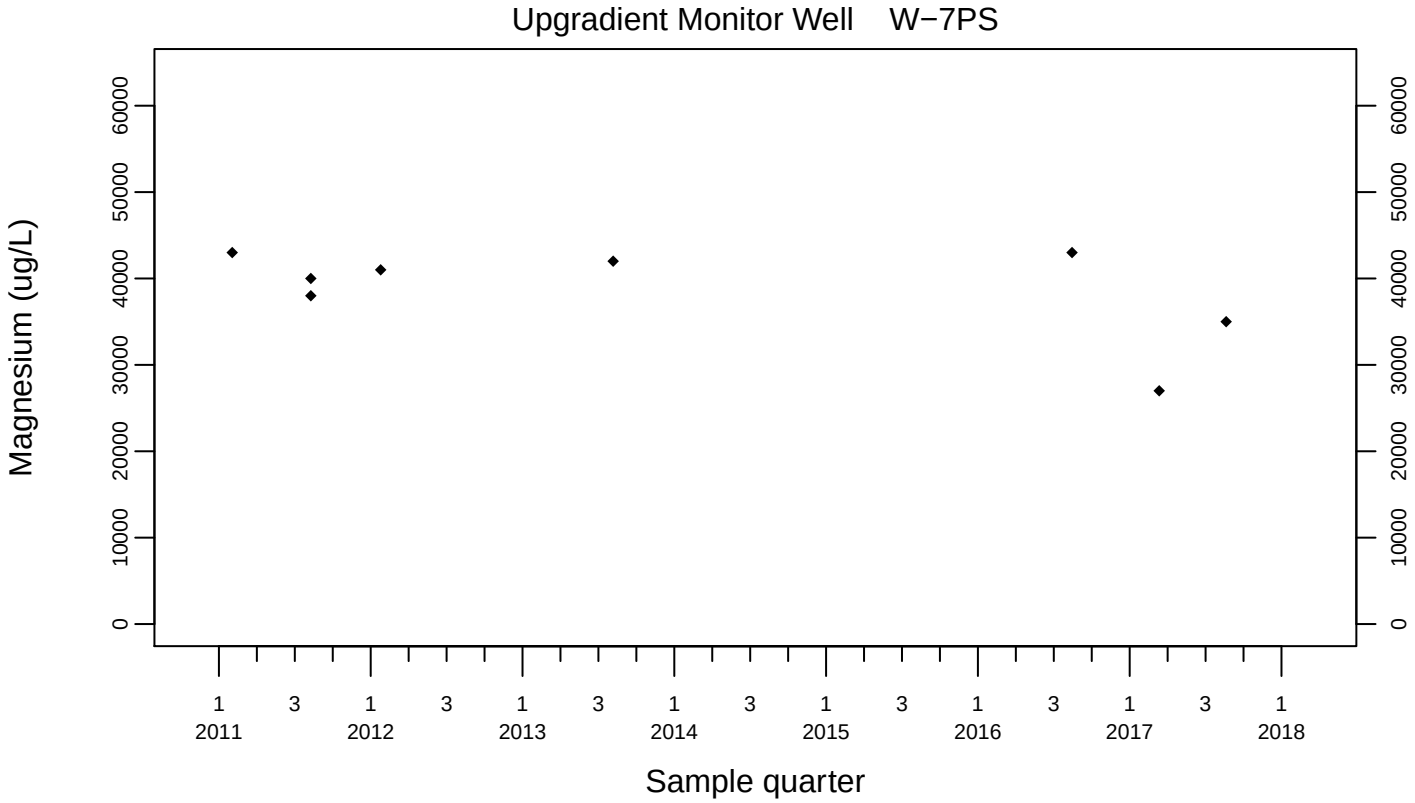

Downgradient Monitor Well W−26R−01
Lead (ug/L)
0
2
4
6
8
10
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

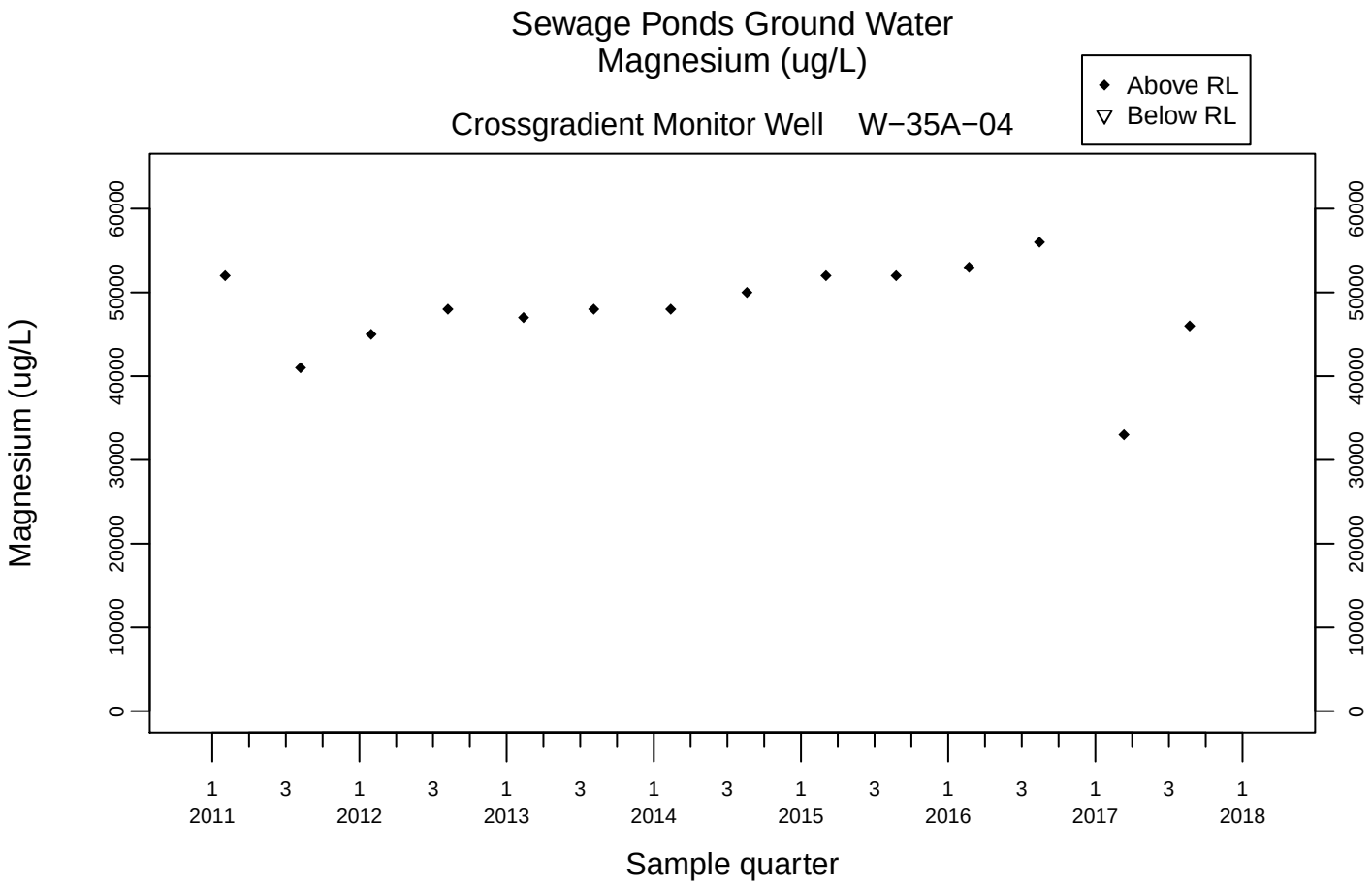

Sewage Ponds Ground Water
Lead (ug/L)
Above RL
Below RL
Estimated
Downgradient Monitor Well W−26R−05
Lead (ug/L)
0
2
4
6
8
10
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

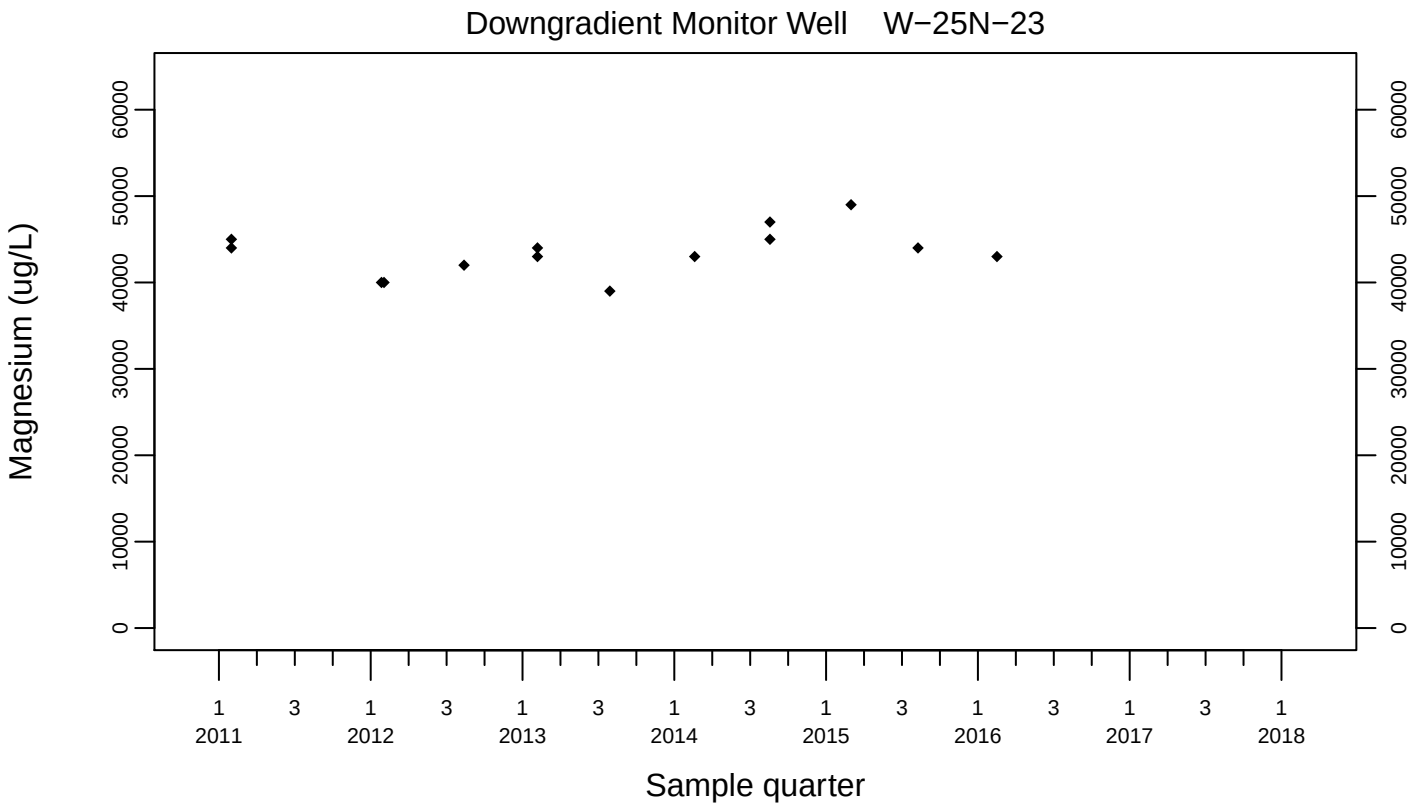

Downgradient Monitor Well W−26R−11
Lead (ug/L)
0
2
4
6
8
10
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

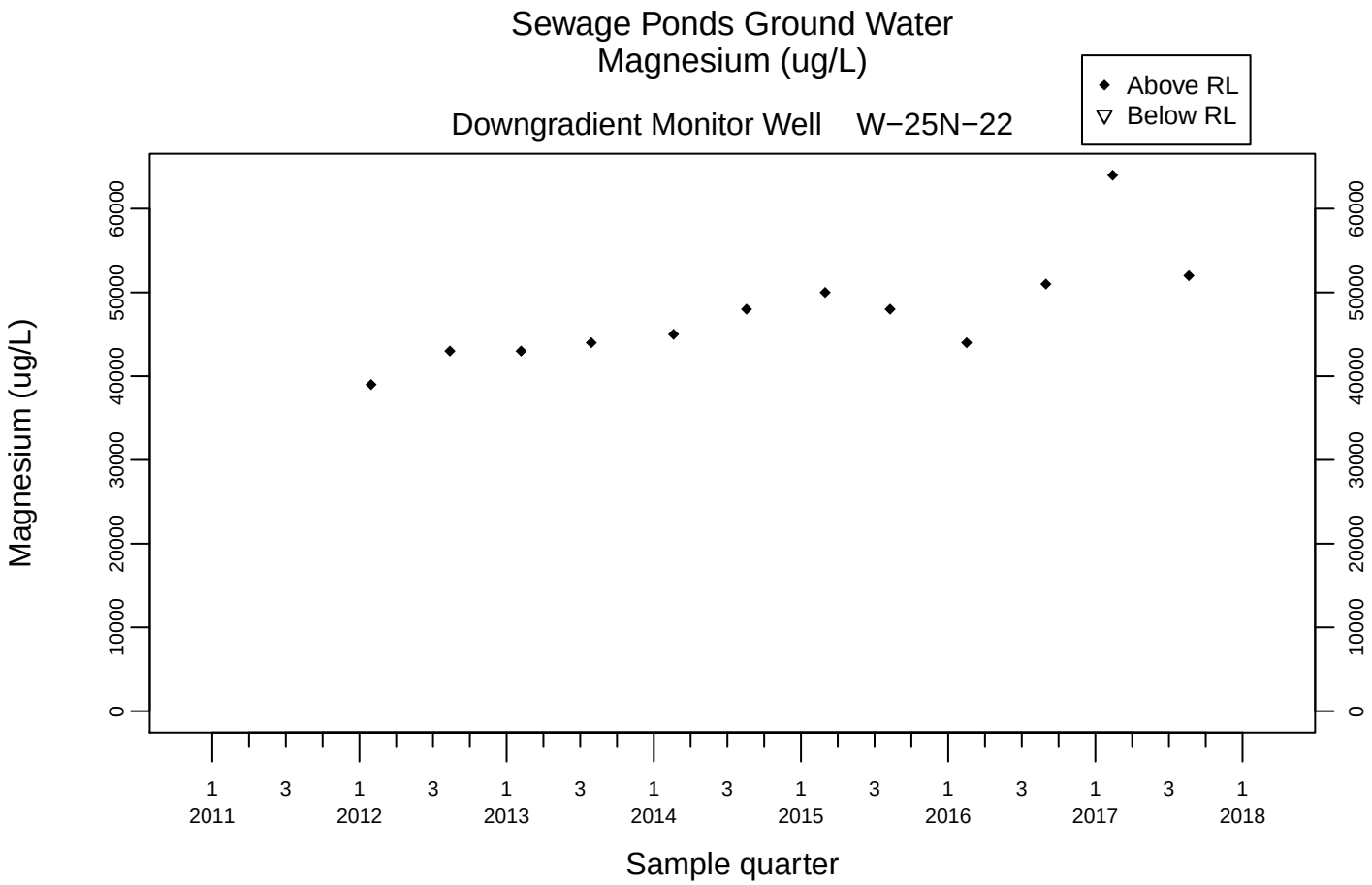

Sewage Ponds Ground Water
Lead (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Estimated
Lead (ug/L)
0
2
4
6
8
10
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

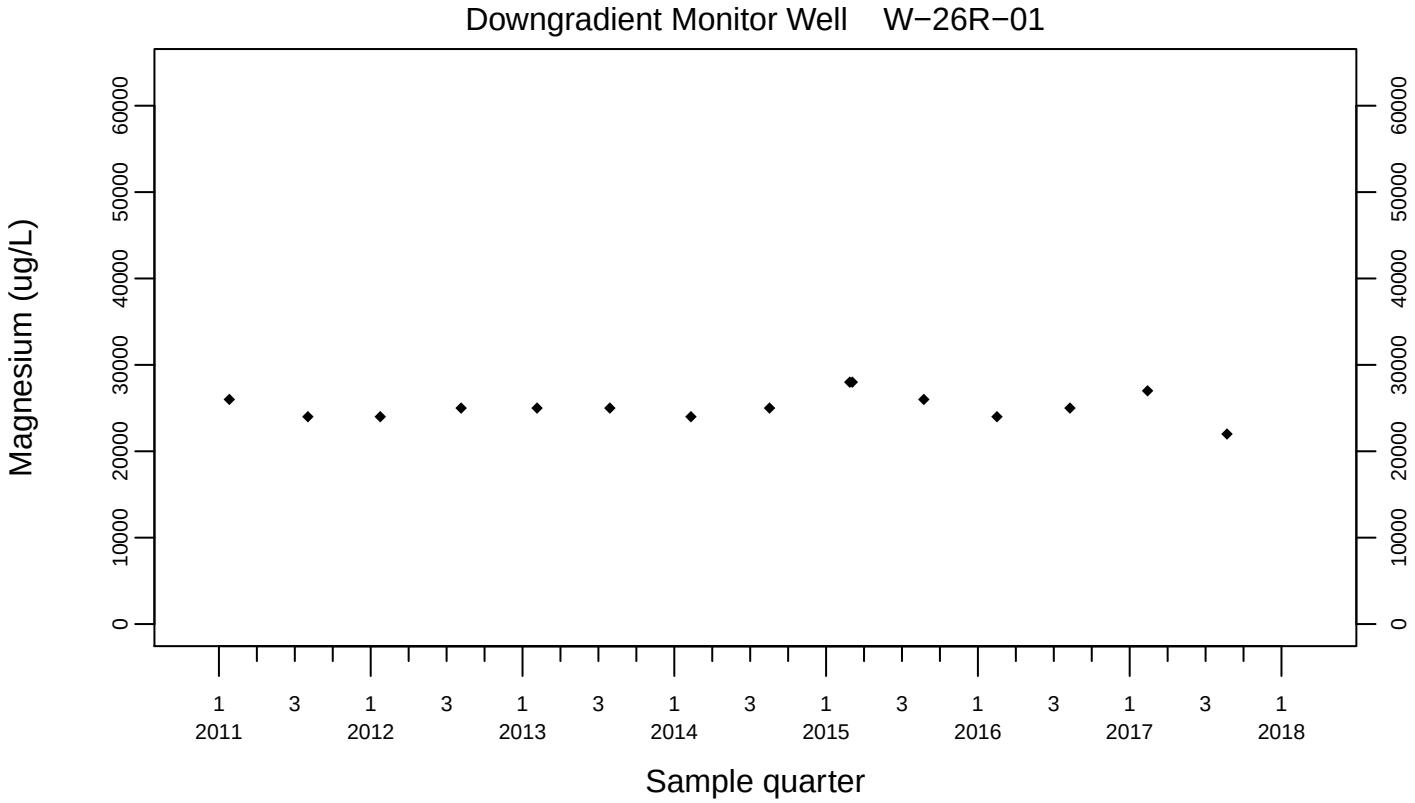

Sewage Ponds Ground Water
Magnesium (ug/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Magnesium (ug/L)
0
10000
20000
30000
40000
50000
60000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

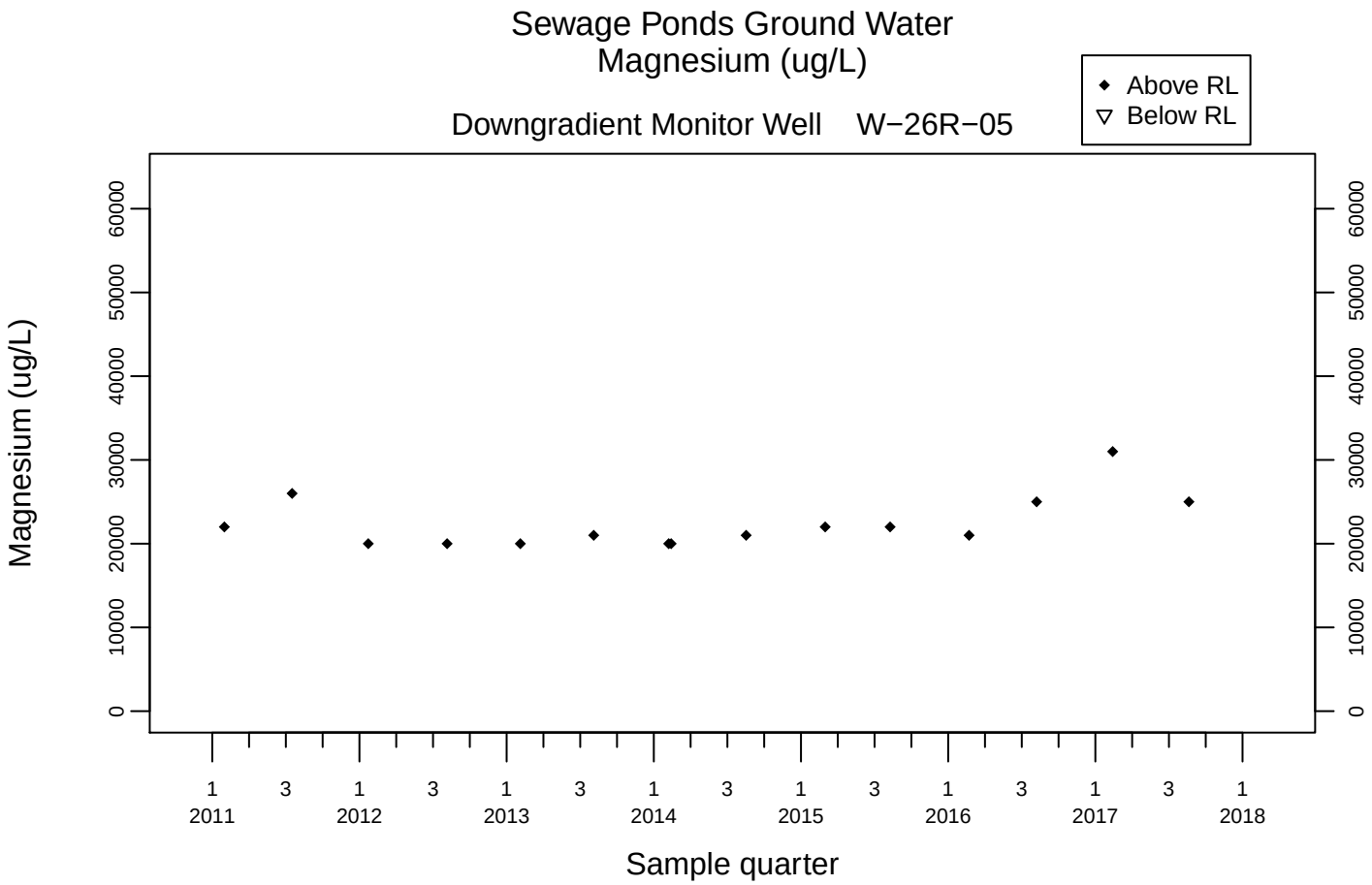

Upgradient Monitor Well W−7PS
Magnesium (ug/L)
0
10000
20000
30000
40000
50000
60000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

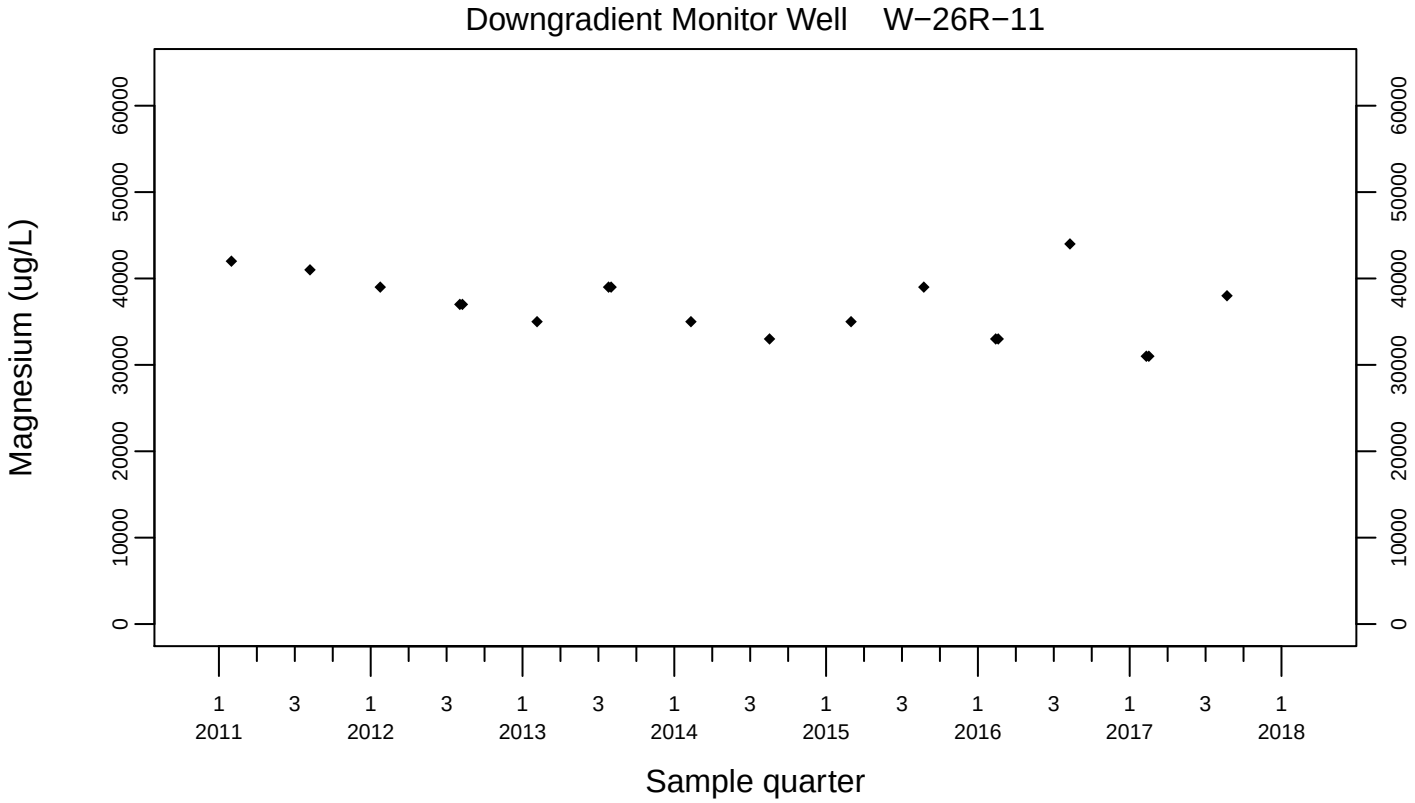

Sewage Ponds Ground Water
Magnesium (ug/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Magnesium (ug/L)
0
10000
20000
30000
40000
50000
60000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

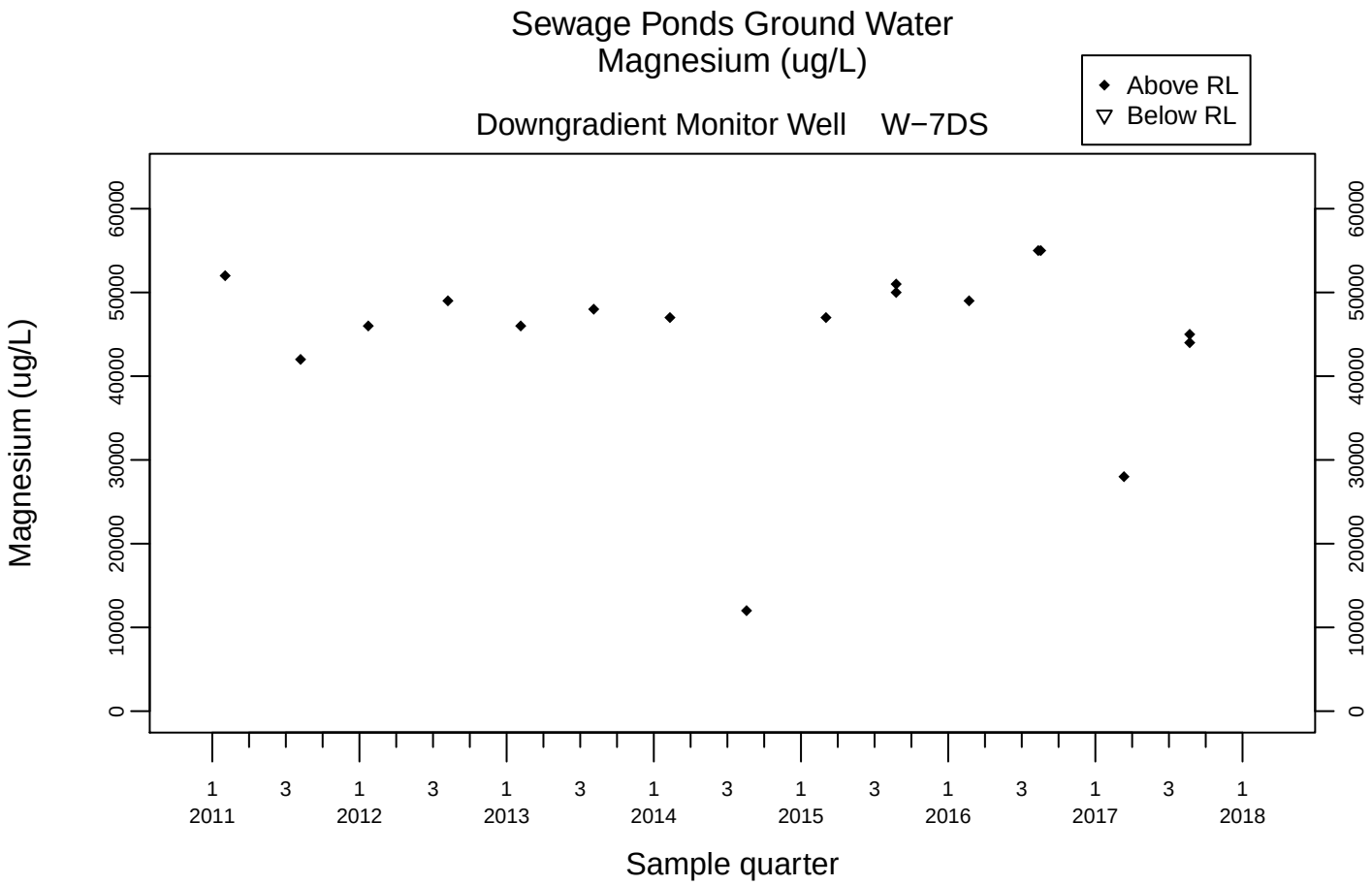

Downgradient Monitor Well W−25N−23
Magnesium (ug/L)
0
10000
20000
30000
40000
50000
60000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

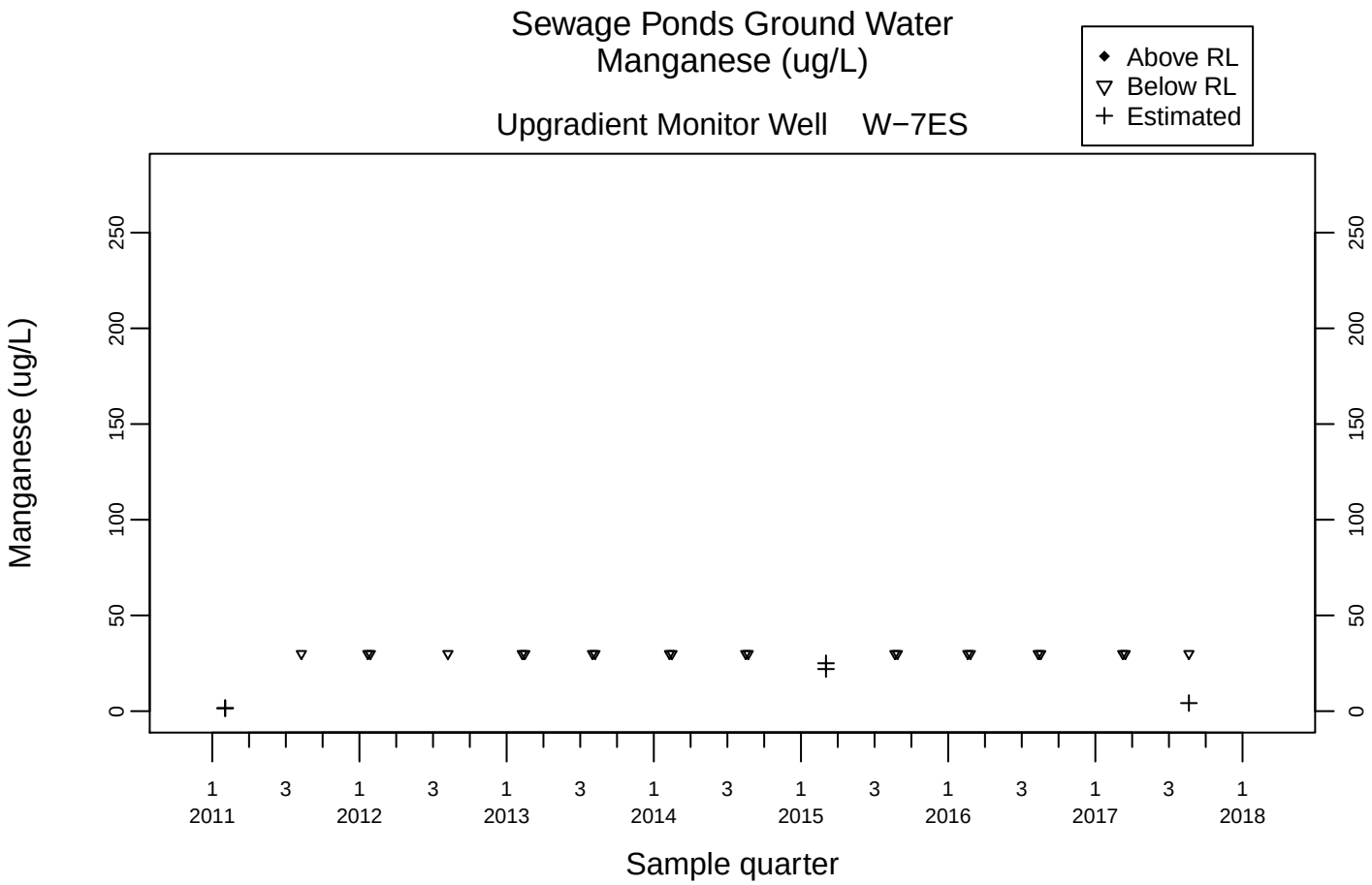

Sewage Ponds Ground Water
Magnesium (ug/L)
Downgradient Monitor Well W−25N−22
Above RL
Below RL
Magnesium (ug/L)
0
10000
20000
30000
40000
50000
60000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

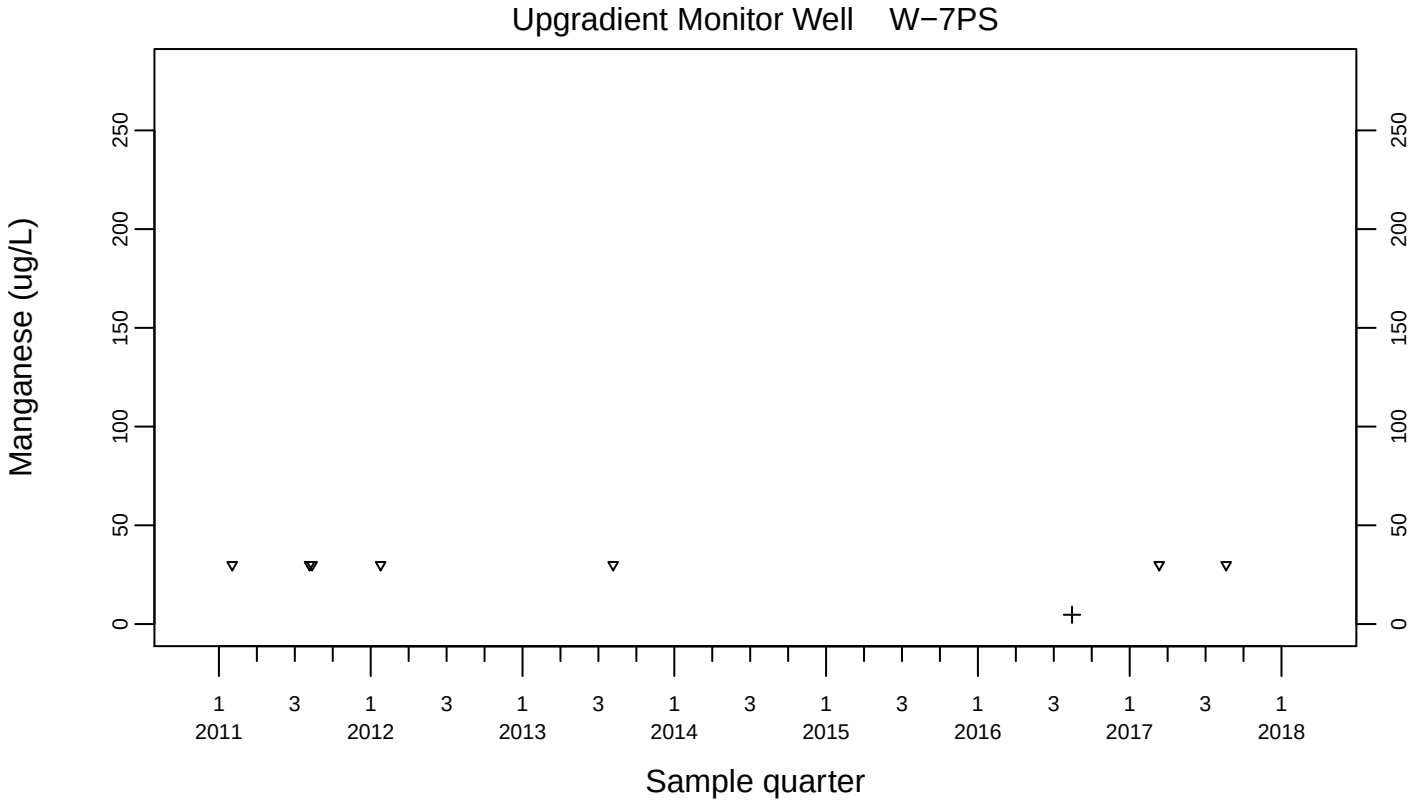

Downgradient Monitor Well W−26R−01
Magnesium (ug/L)
0
10000
20000
30000
40000
50000
60000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

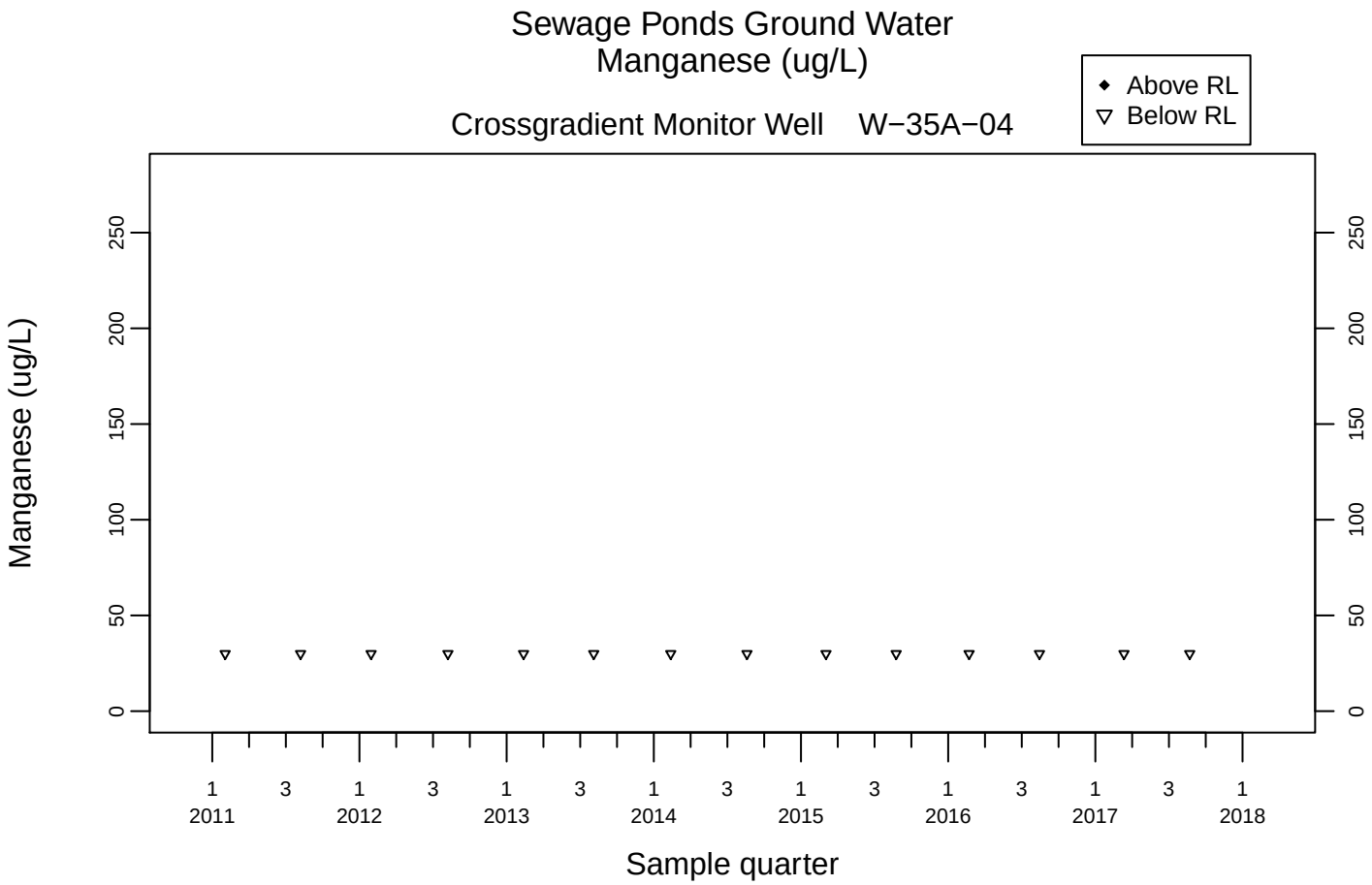

Sewage Ponds Ground Water
Magnesium (ug/L)
Downgradient Monitor Well W−26R−05
Above RL
Below RL
Magnesium (ug/L)
0
10000
20000
30000
40000
50000
60000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

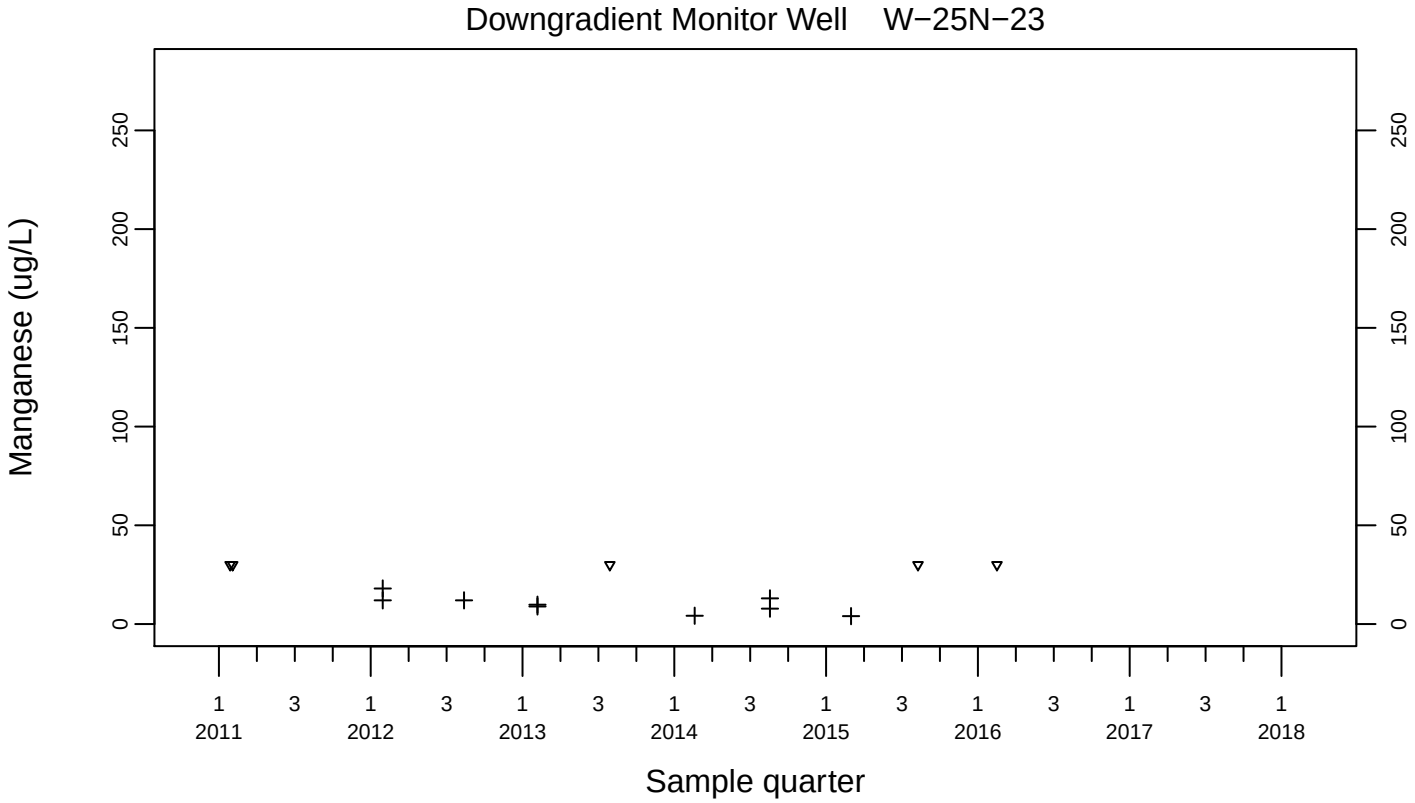

Downgradient Monitor Well W−26R−11
Magnesium (ug/L)
0
10000
20000
30000
40000
50000
60000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

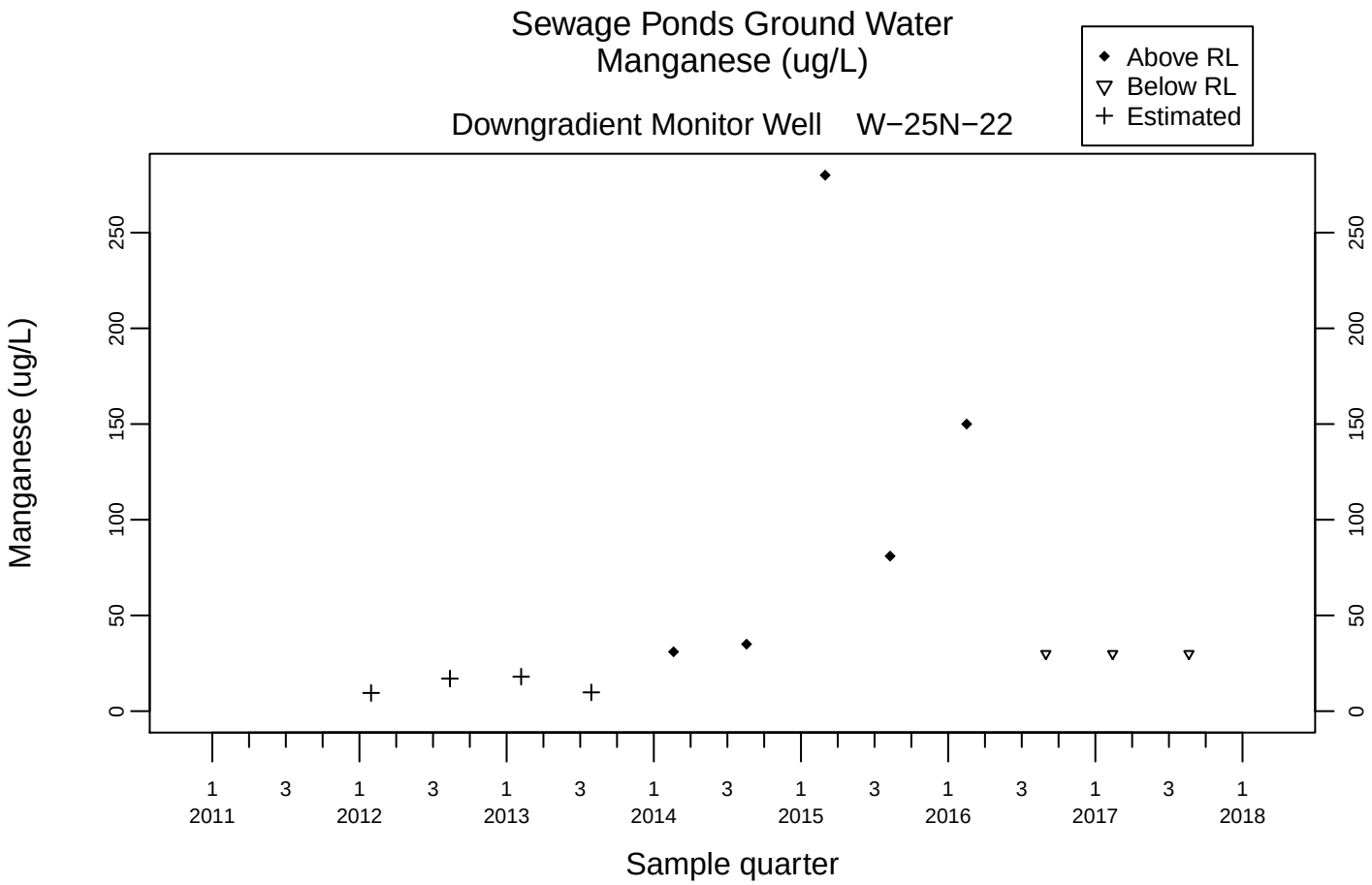

Sewage Ponds Ground Water
Magnesium (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Magnesium (ug/L)
0
10000
20000
30000
40000
50000
60000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

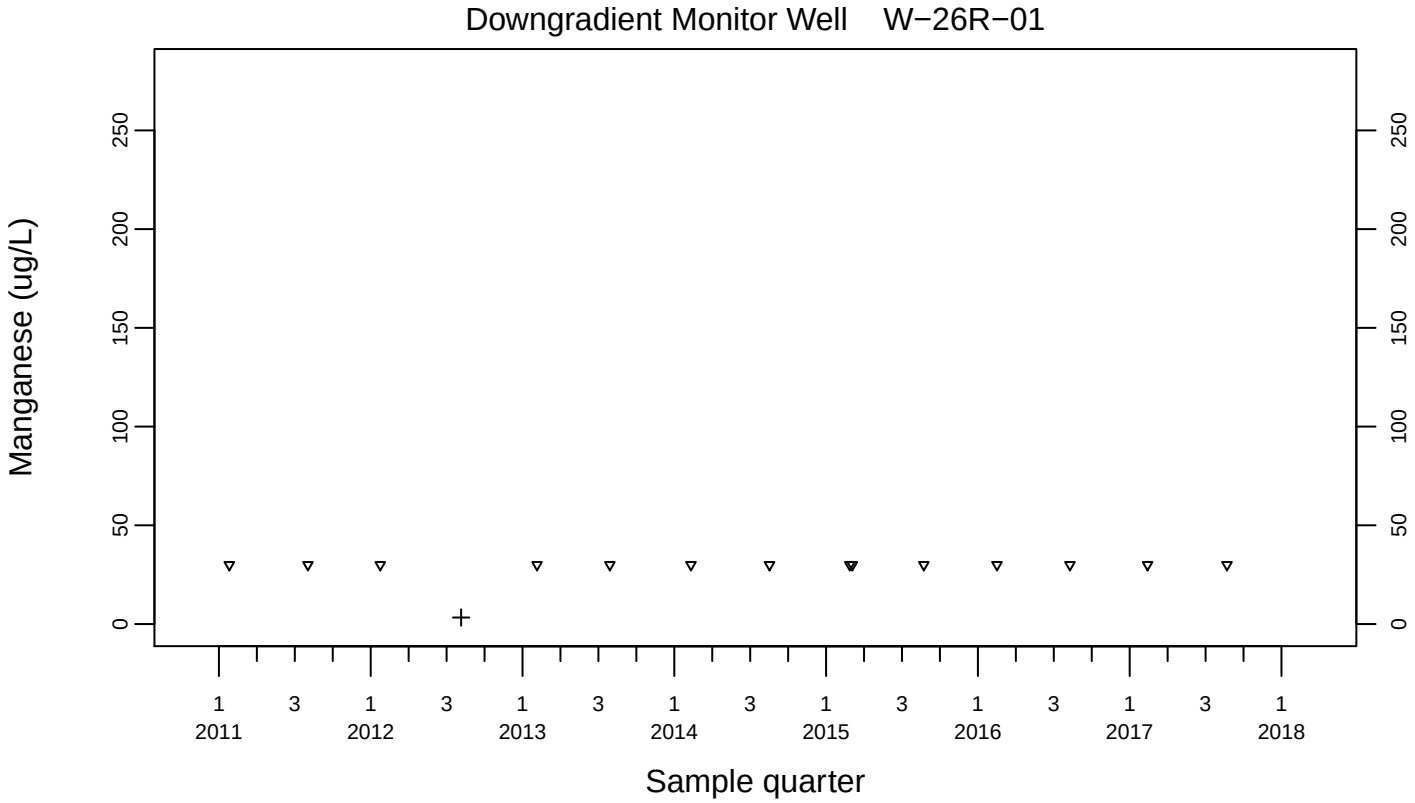

Sewage Ponds Ground Water
Manganese (ug/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Estimated
Manganese (ug/L)
0
50
100
150
200
250
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

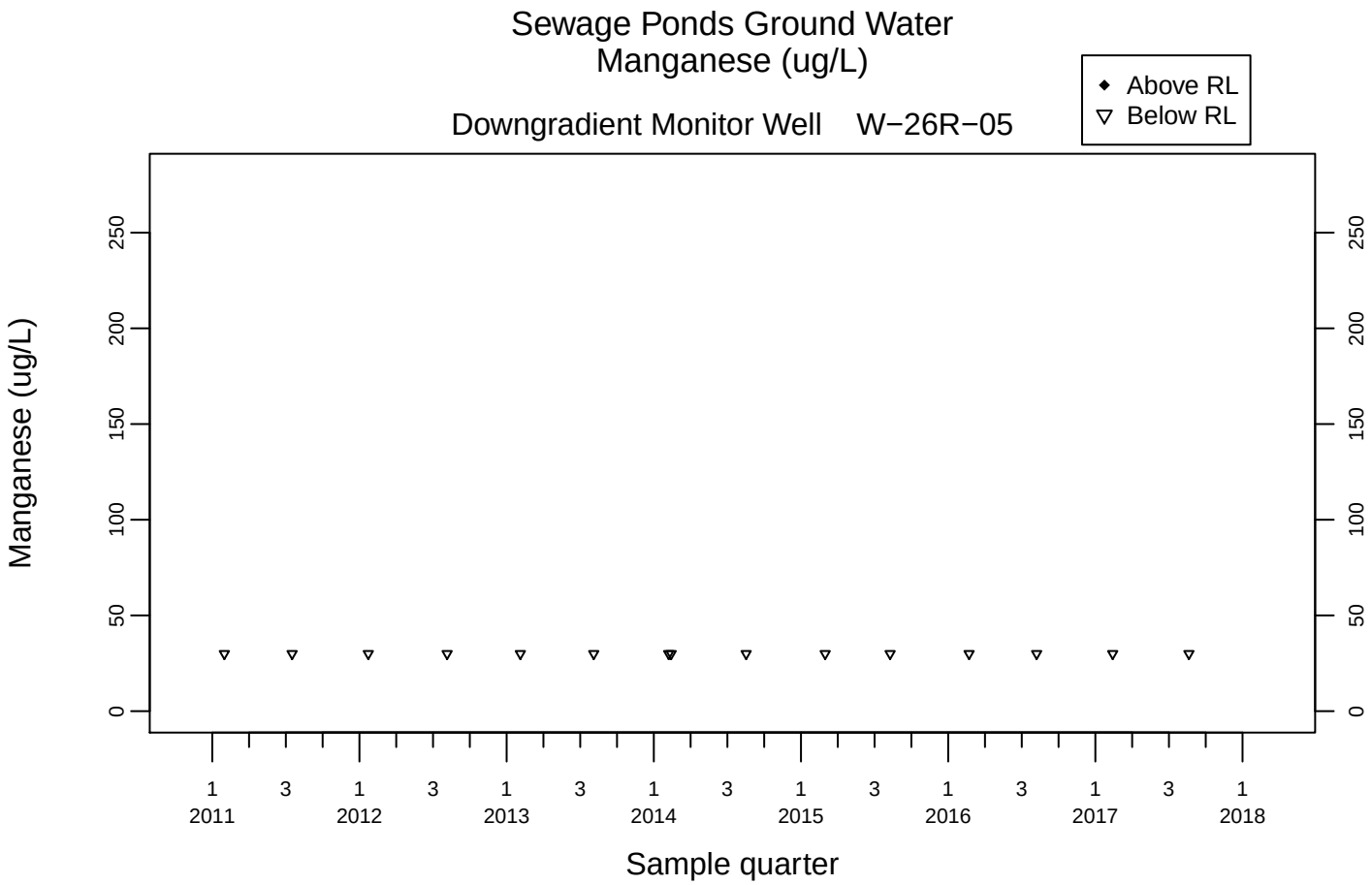

Upgradient Monitor Well W−7PS
Manganese (ug/L)
0
50
100
150
200
250
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

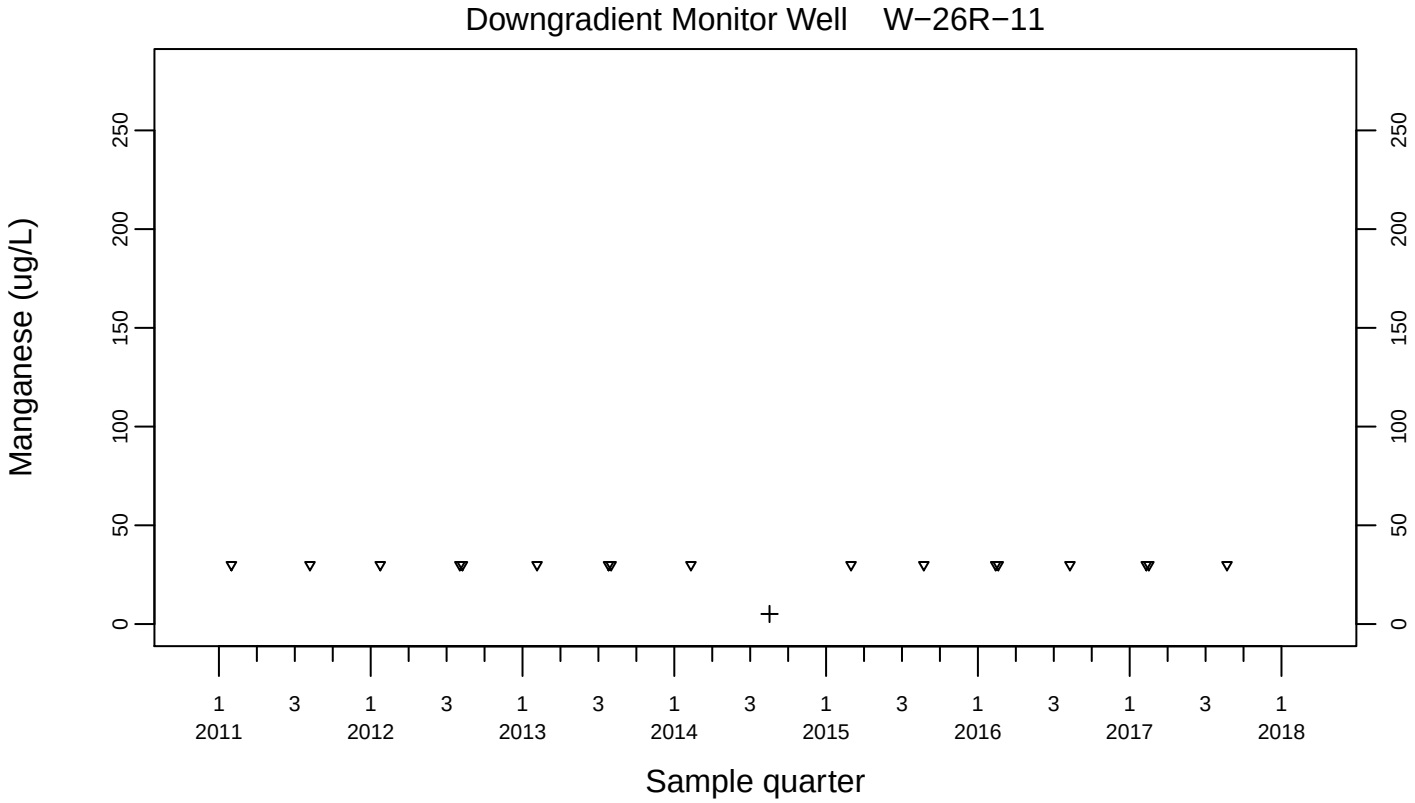

Sewage Ponds Ground Water
Manganese (ug/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Manganese (ug/L)
0
50
100
150
200
250
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

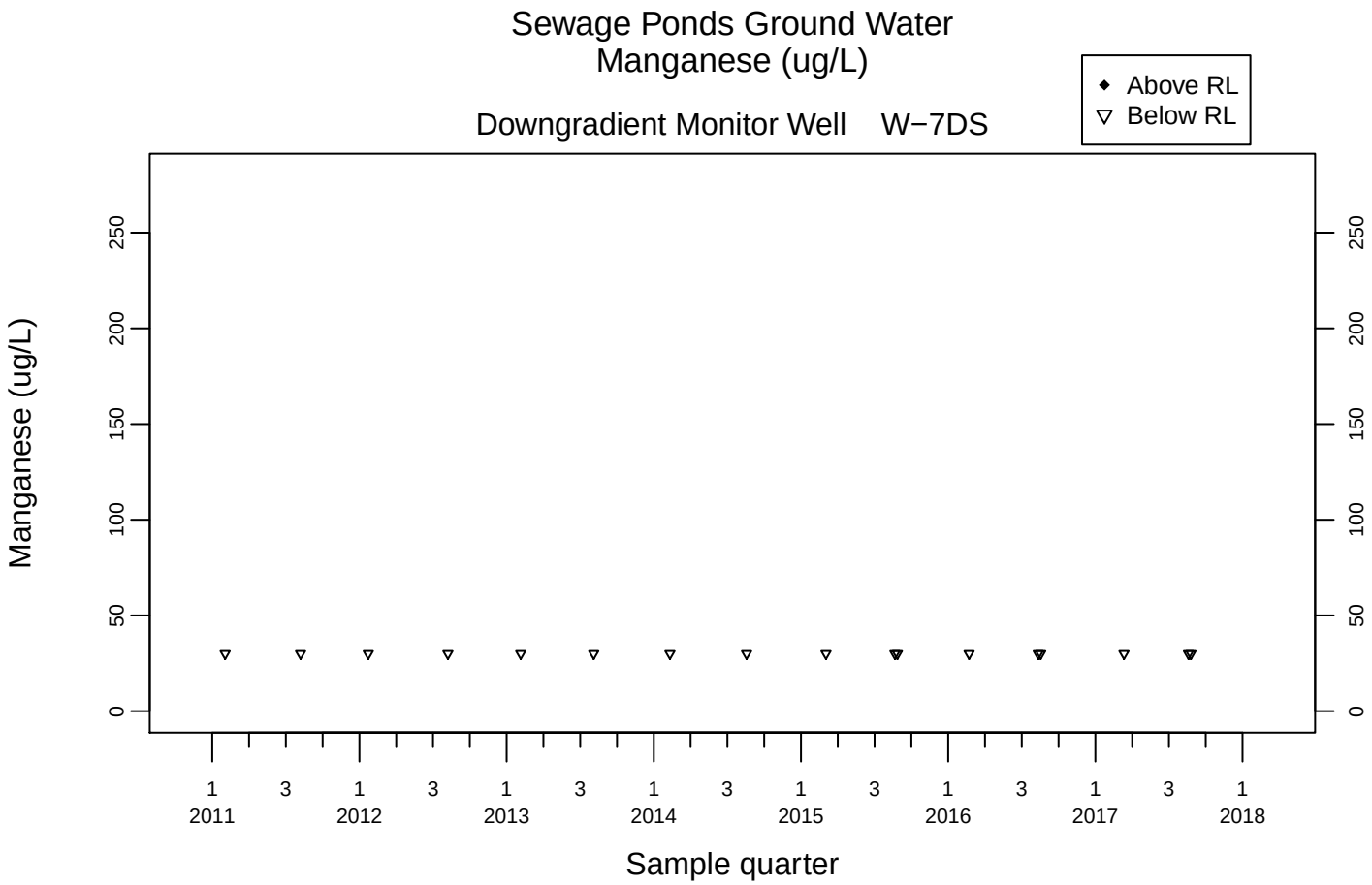

Downgradient Monitor Well W−25N−23
Manganese (ug/L)
0
50
100
150
200
250
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

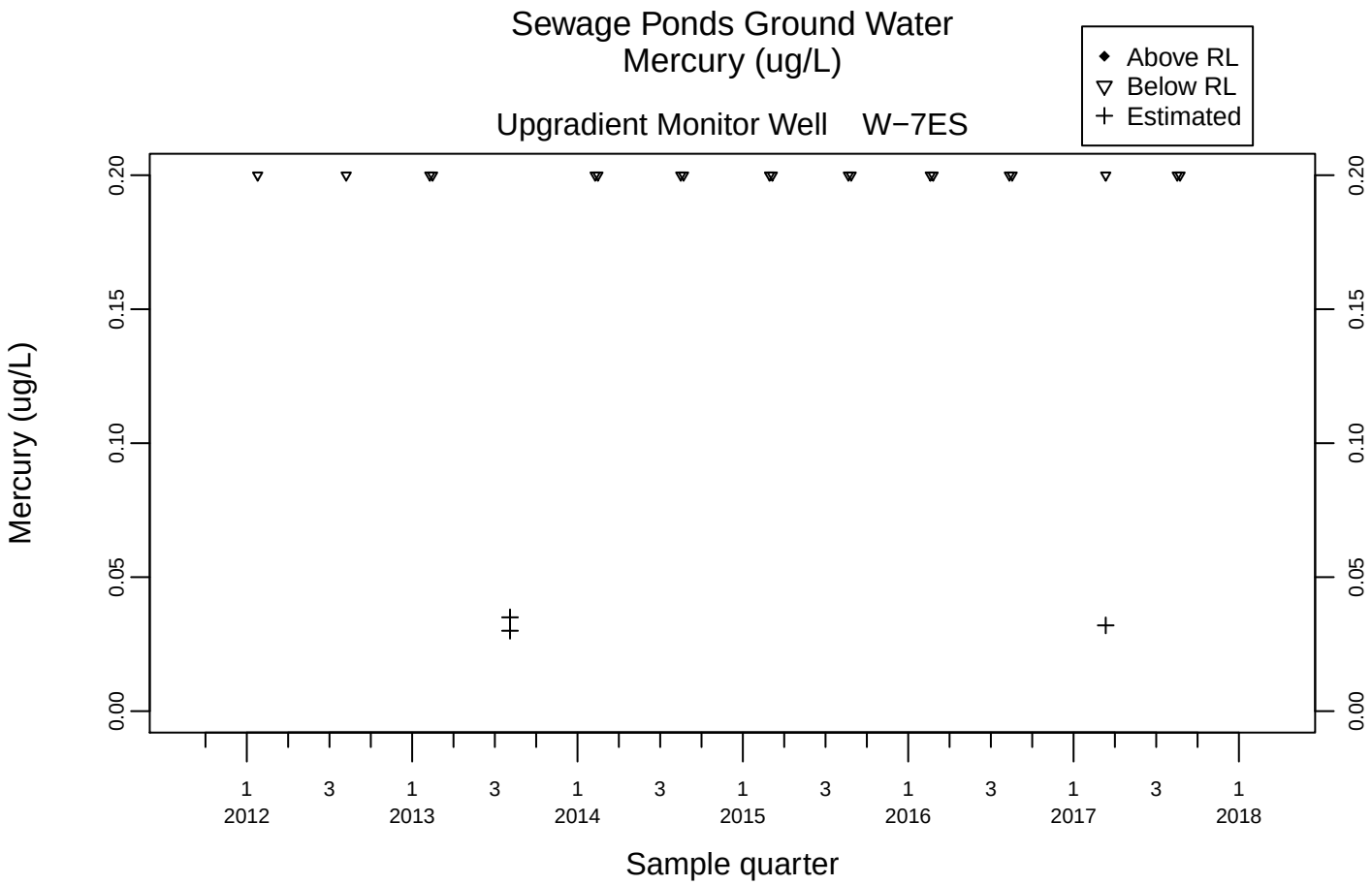

Sewage Ponds Ground Water
Manganese (ug/L)
Above RL
Below RL
Estimated
Downgradient Monitor Well W−25N−22
Manganese (ug/L)
0
50
100
150
200
250
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

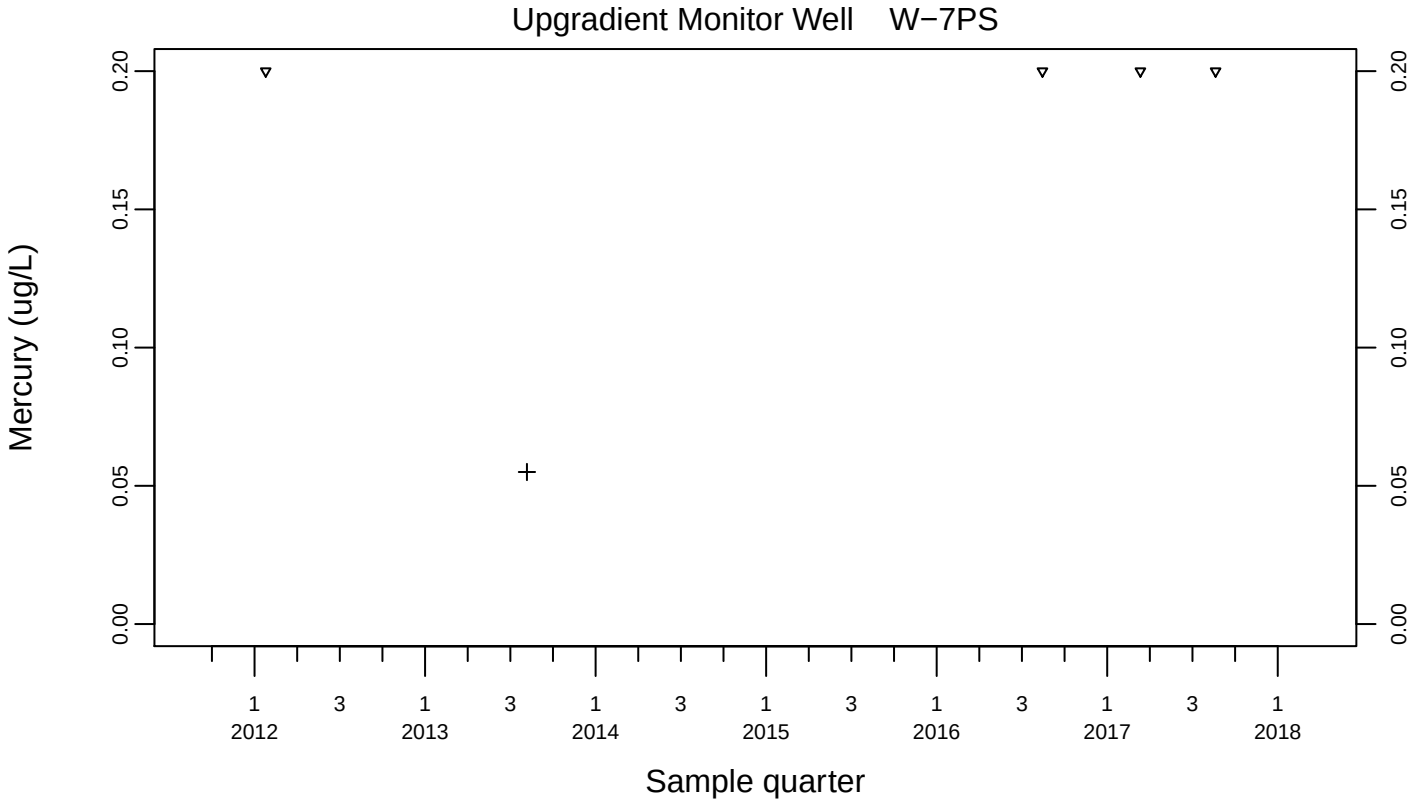

Downgradient Monitor Well W−26R−01
Manganese (ug/L)
0
50
100
150
200
250
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

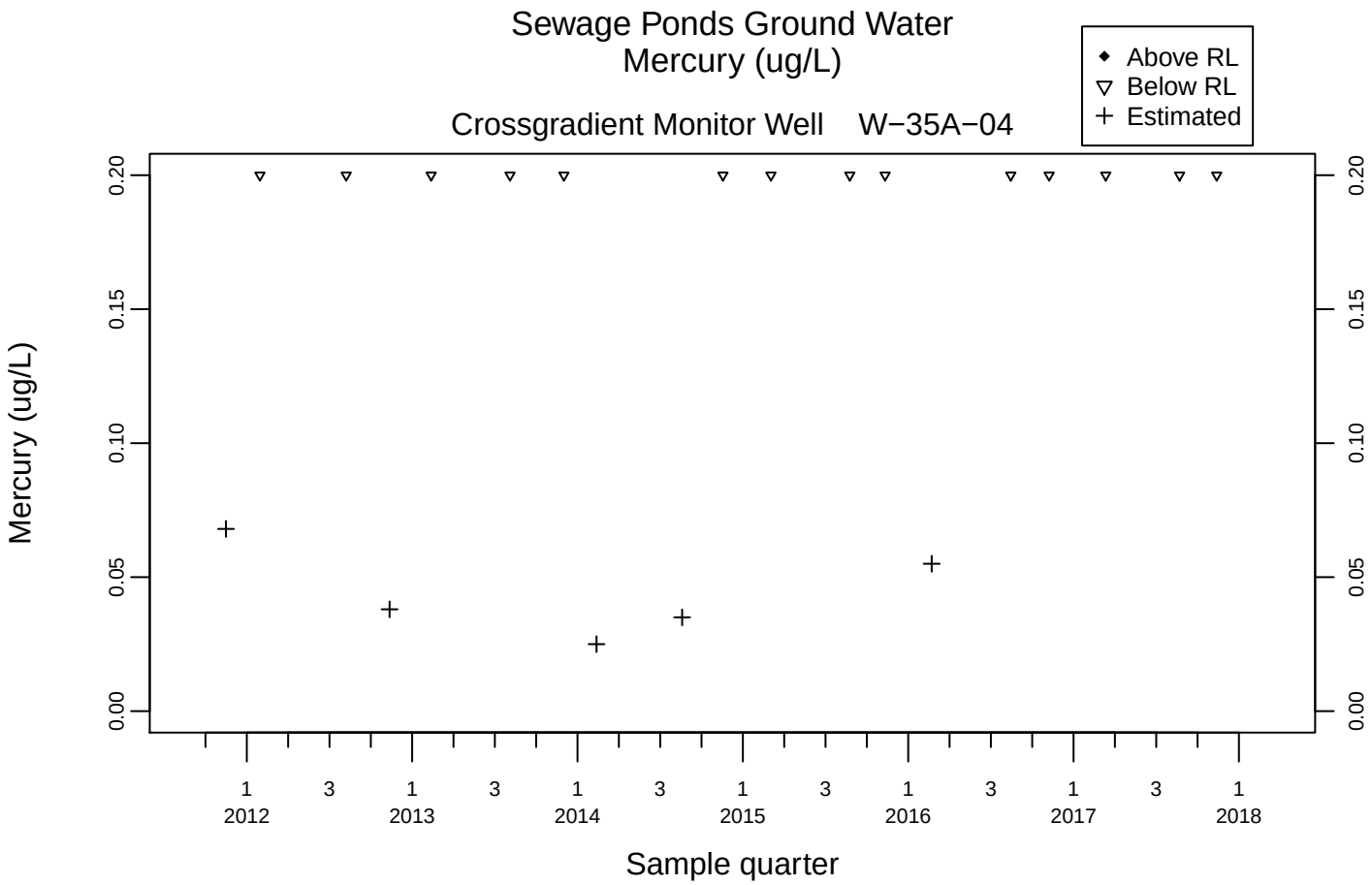

Sewage Ponds Ground Water
Manganese (ug/L)
Above RL
Below RL
Downgradient Monitor Well W−26R−05
Manganese (ug/L)
0
50
100
150
200
250
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

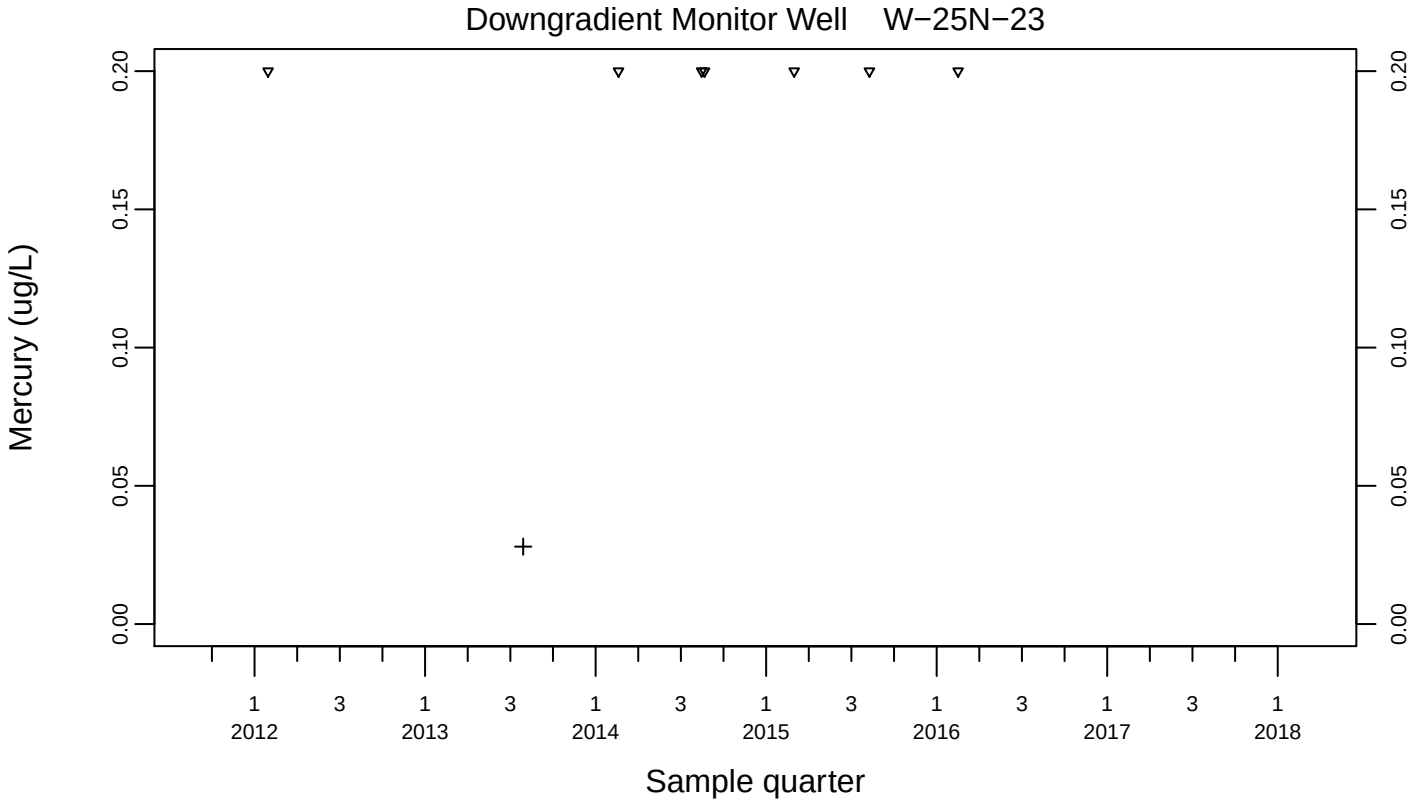

Downgradient Monitor Well W−26R−11
Manganese (ug/L)
0
50
100
150
200
250
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

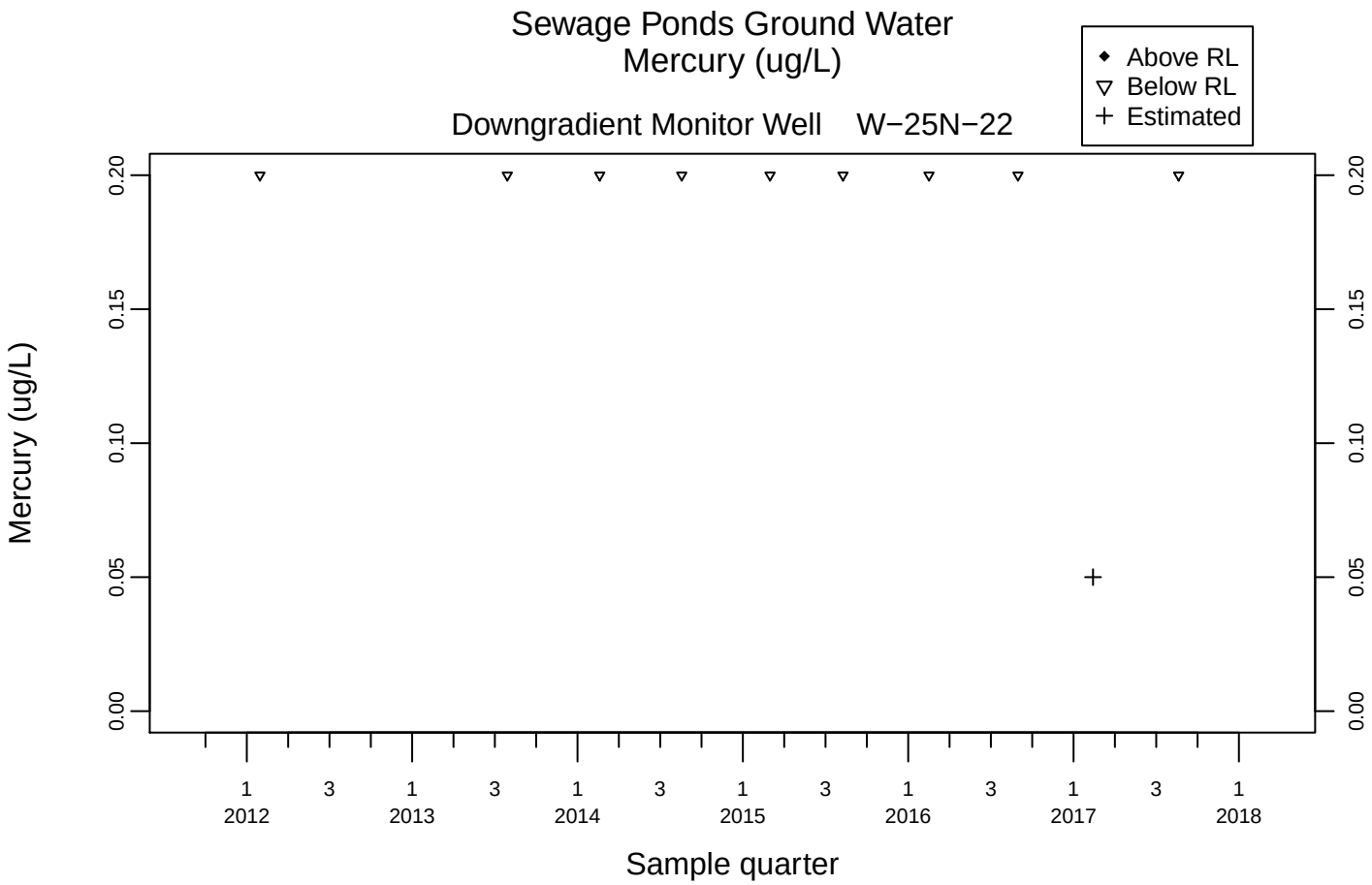

Sewage Ponds Ground Water
Manganese (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Manganese (ug/L)
0
50
100
150
200
250
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

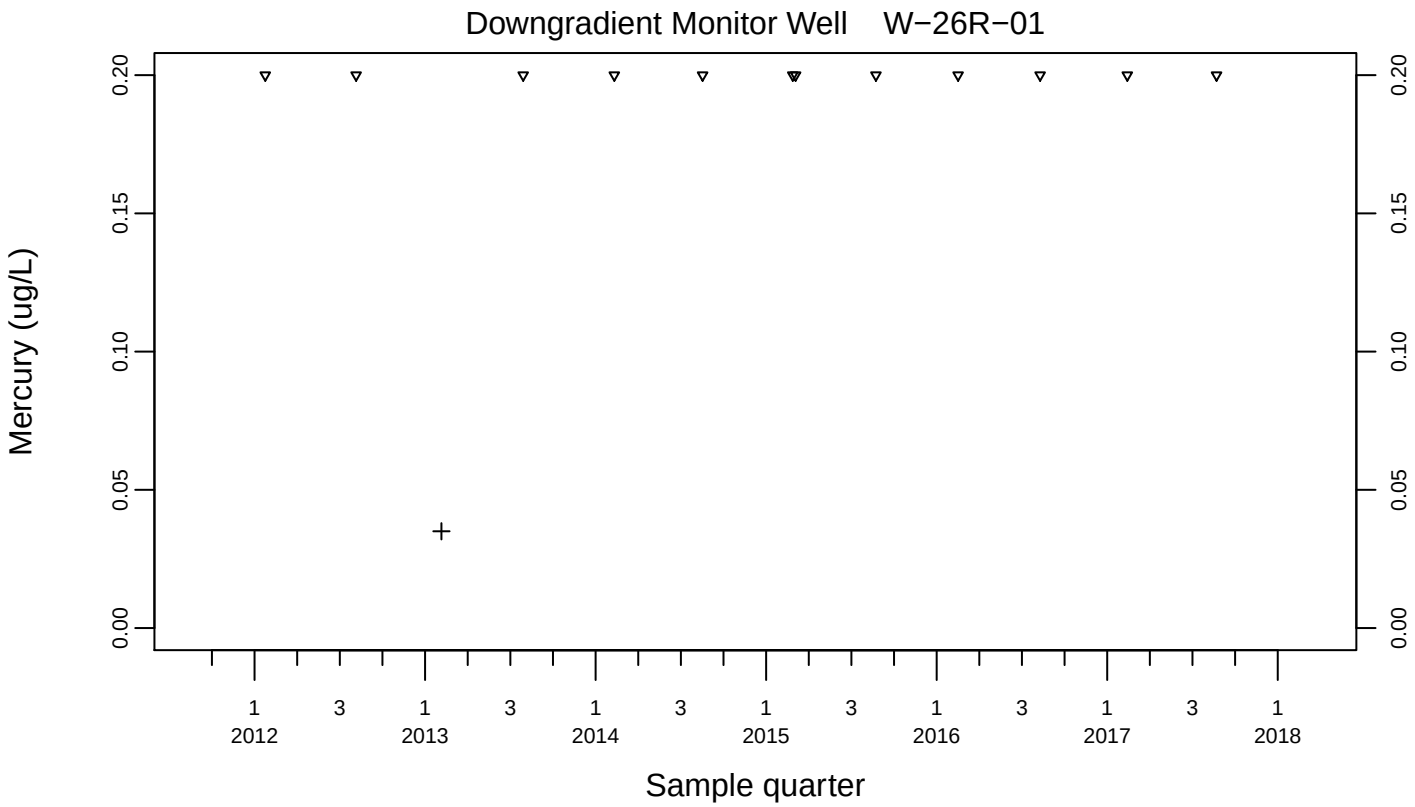

Sewage Ponds Ground Water
Mercury (ug/L)
Above RL
Below RL
Estimated
Upgradient Monitor Well W−7ES
Mercury (ug/L)
0.00
0.05
0.10
0.15
0.20
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

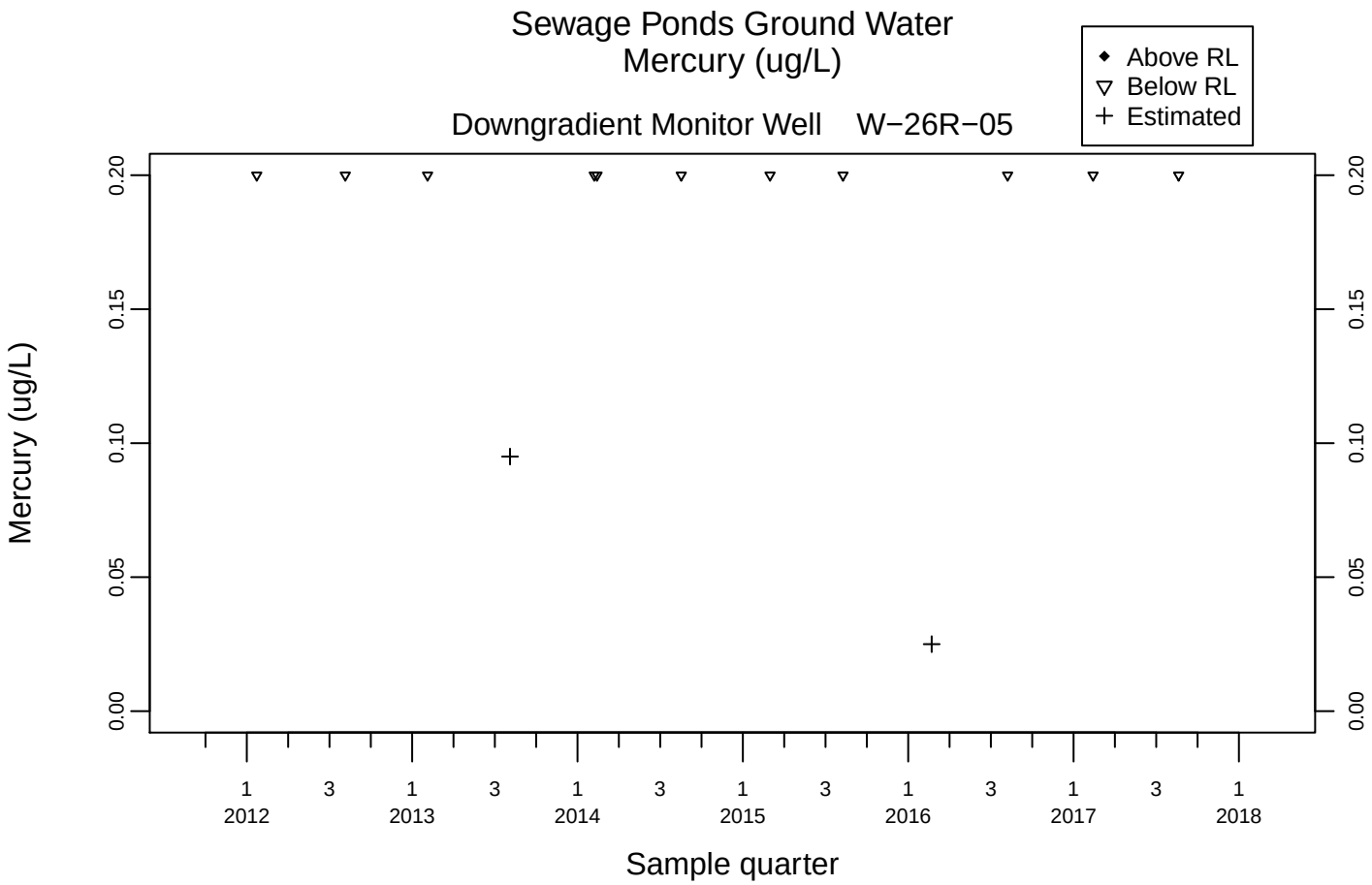

Upgradient Monitor Well W−7PS
Mercury (ug/L)
0.00
0.05
0.10
0.15
0.20
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

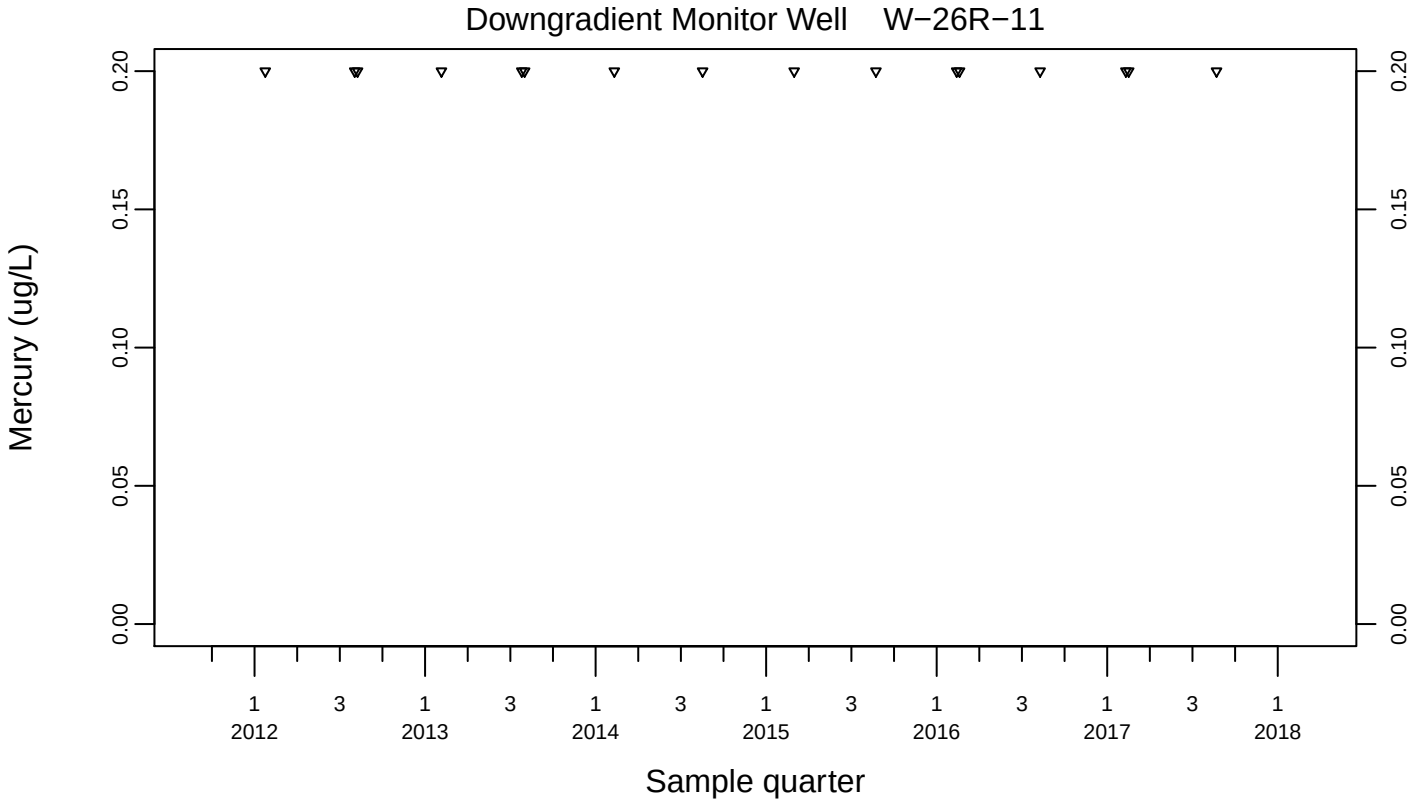

Sewage Ponds Ground Water
Mercury (ug/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Estimated
Mercury (ug/L)
0.00
0.05
0.10
0.15
0.20
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

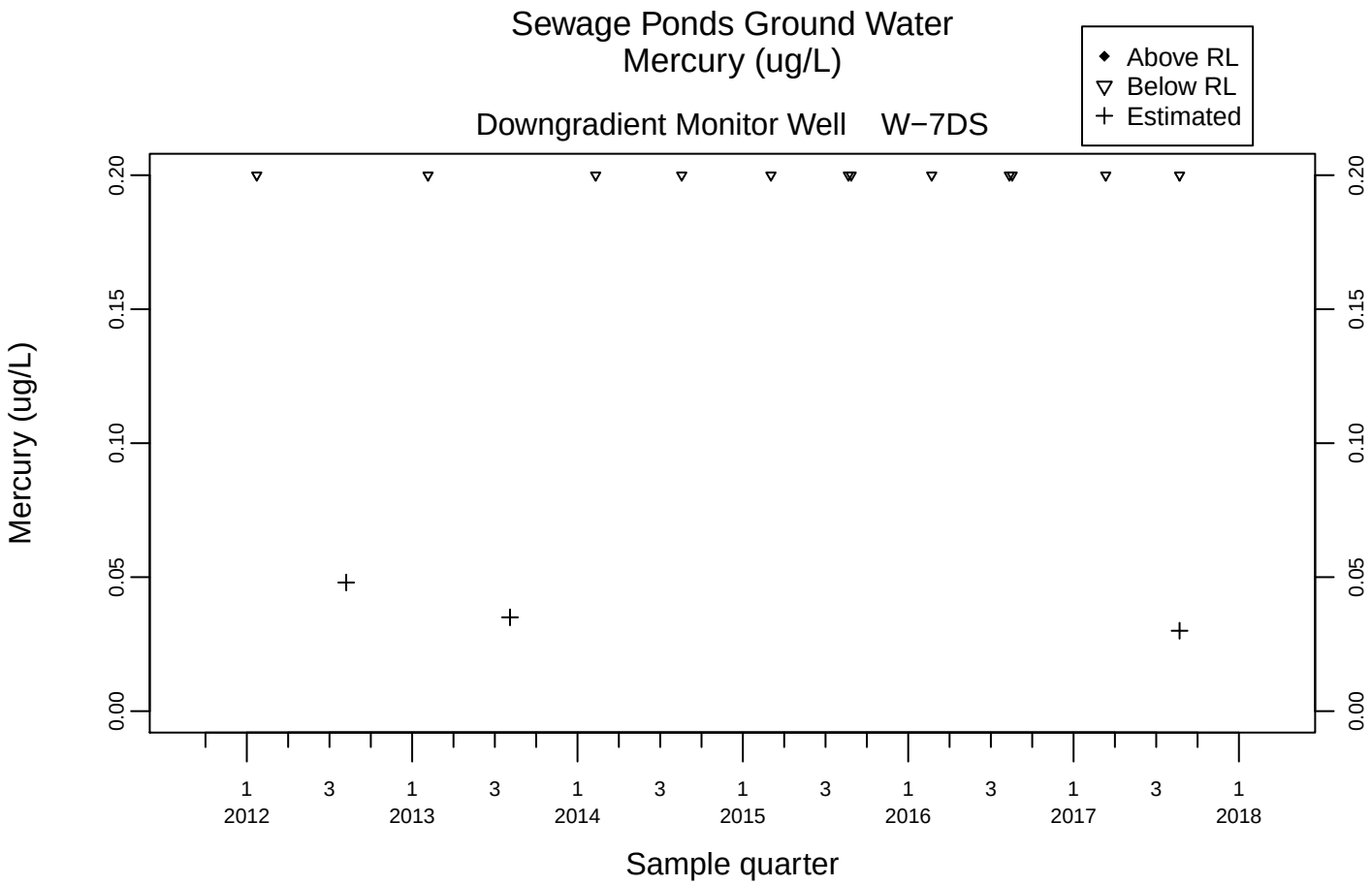

Downgradient Monitor Well W−25N−23
Mercury (ug/L)
0.00
0.05
0.10
0.15
0.20
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

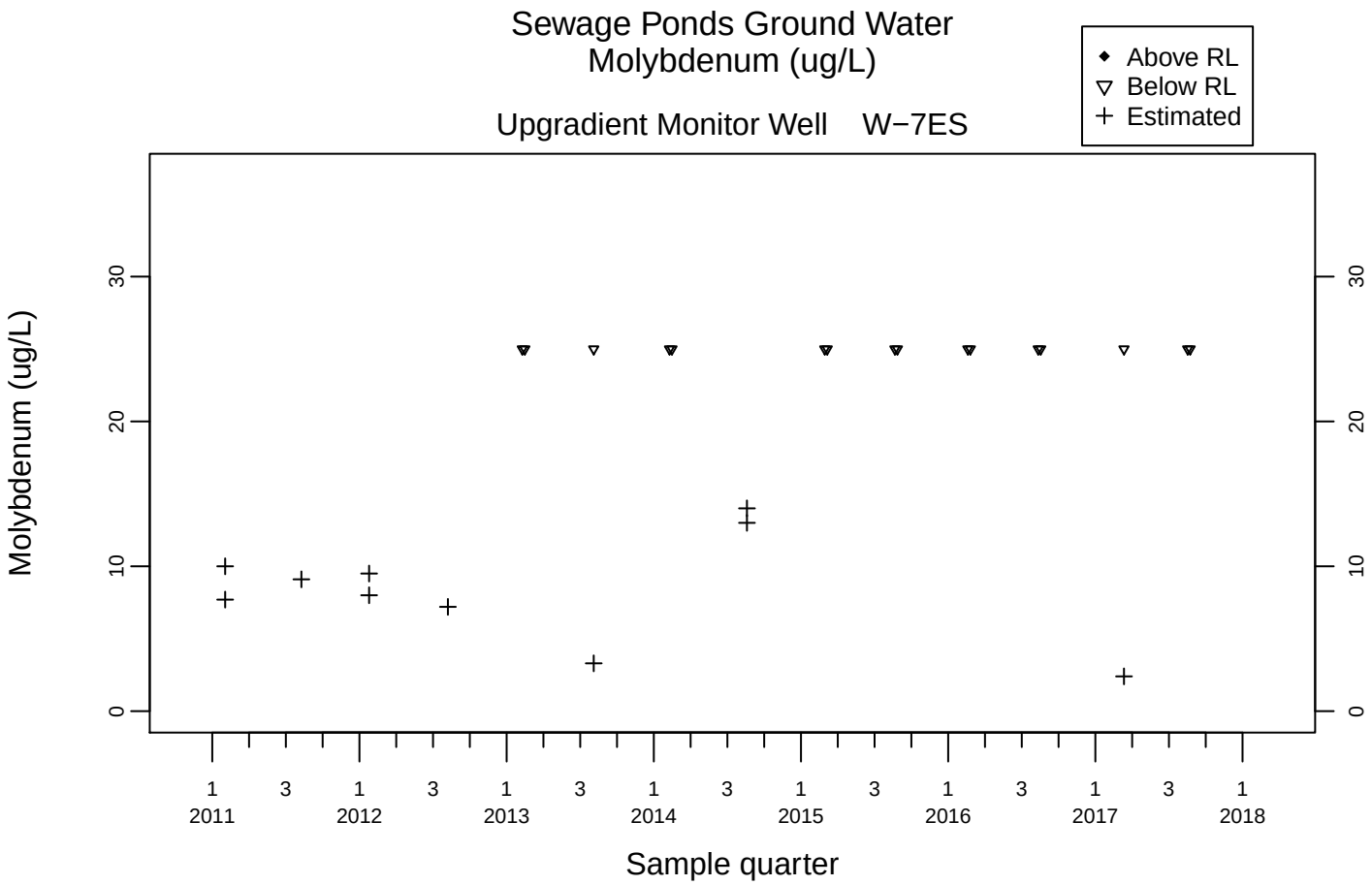

Sewage Ponds Ground Water
Mercury (ug/L)
Above RL
Below RL
Estimated
Downgradient Monitor Well W−25N−22
Mercury (ug/L)
0.00
0.05
0.10
0.15
0.20
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

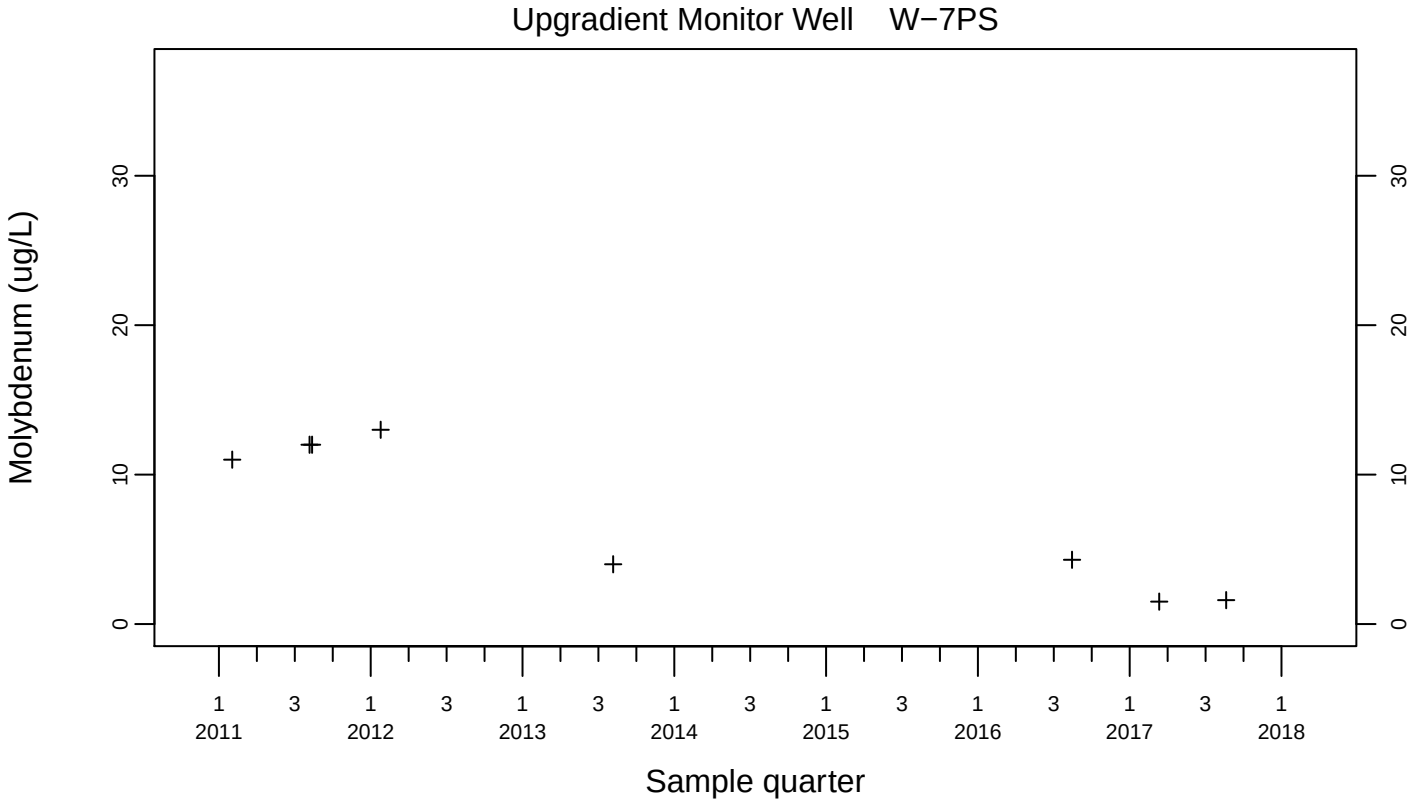

Downgradient Monitor Well W−26R−01
Mercury (ug/L)
0.00
0.05
0.10
0.15
0.20
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

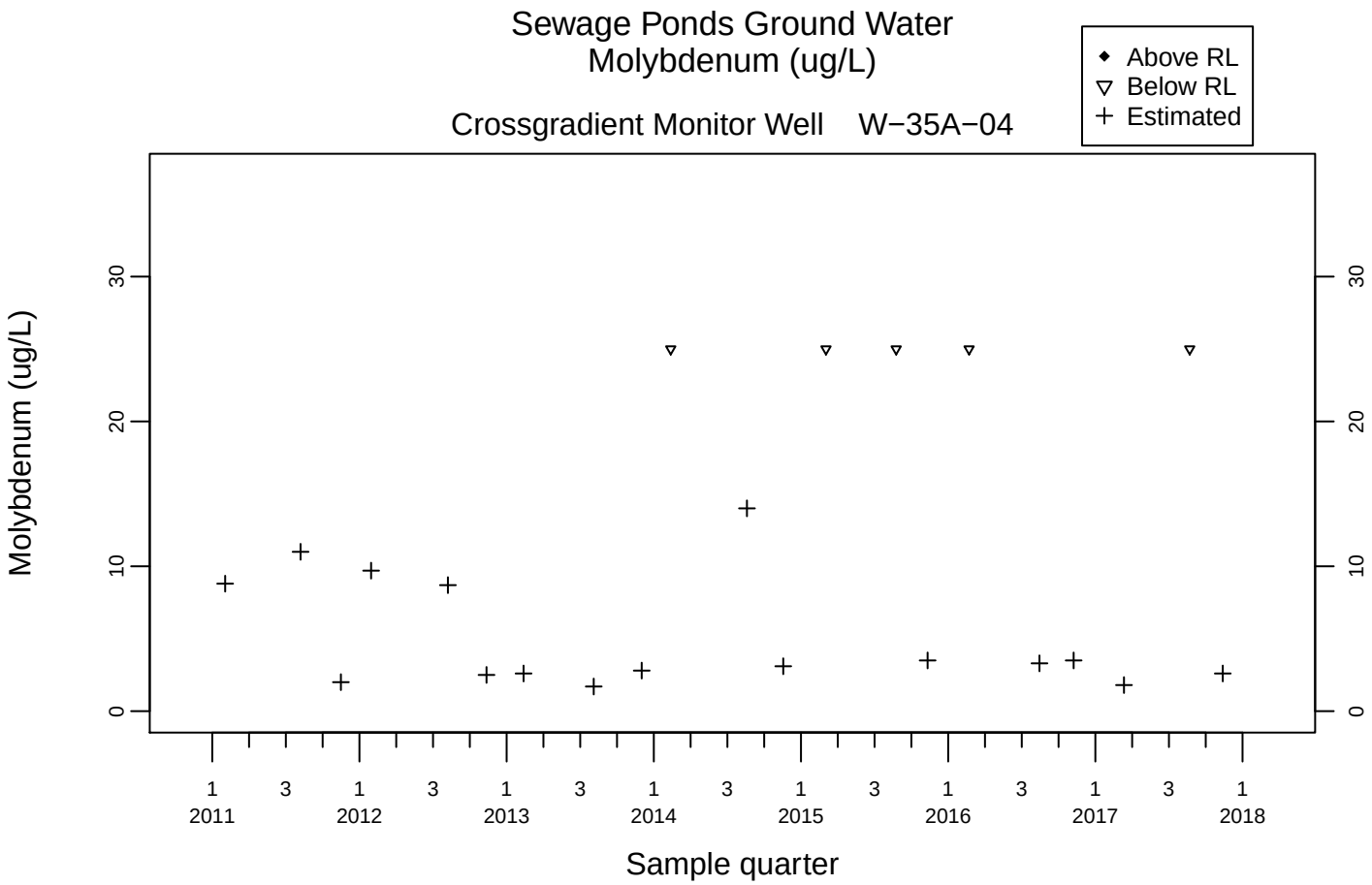

Sewage Ponds Ground Water
Mercury (ug/L)
Above RL
Below RL
Estimated
Downgradient Monitor Well W−26R−05
Mercury (ug/L)
0.00
0.05
0.10
0.15
0.20
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

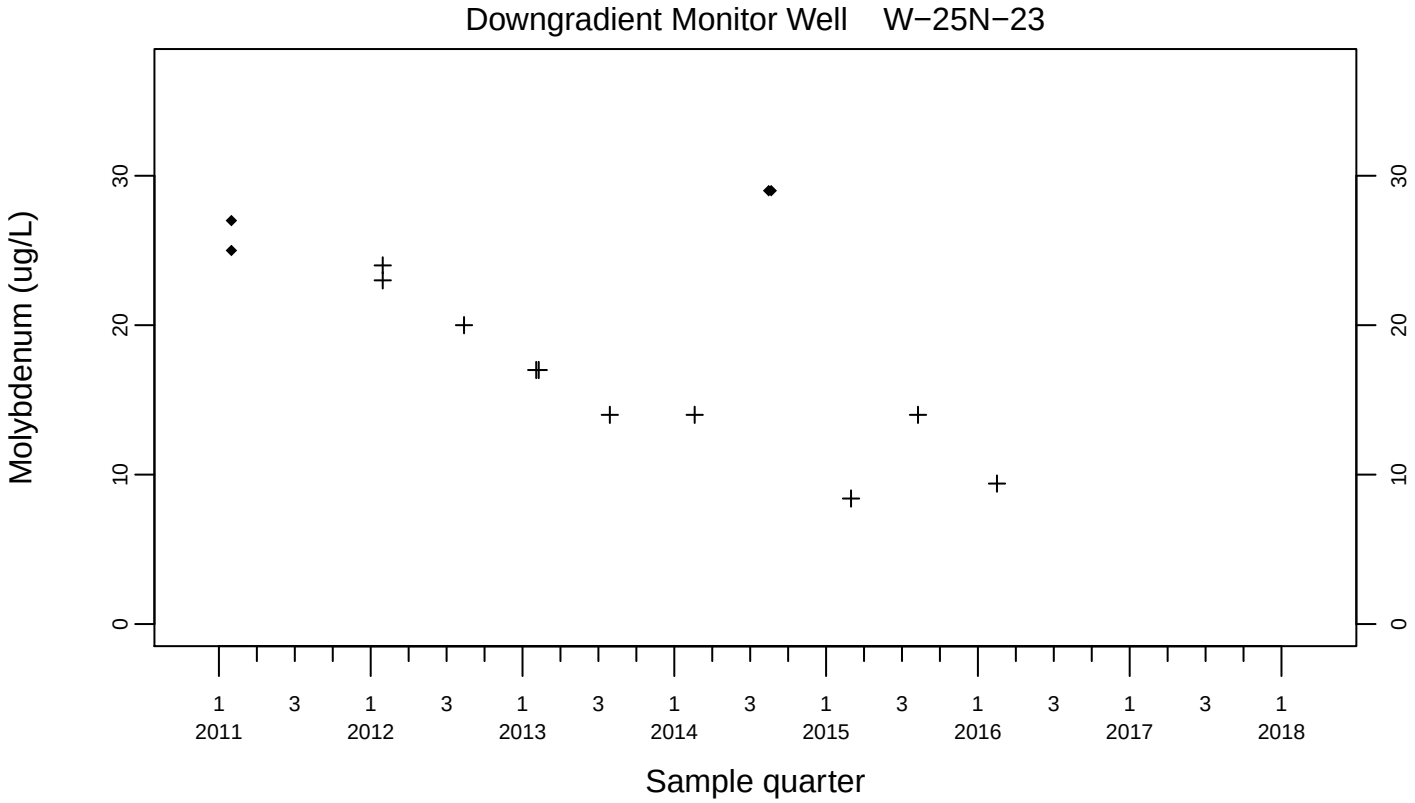

Downgradient Monitor Well W−26R−11
Mercury (ug/L)
0.00
0.05
0.10
0.15
0.20
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

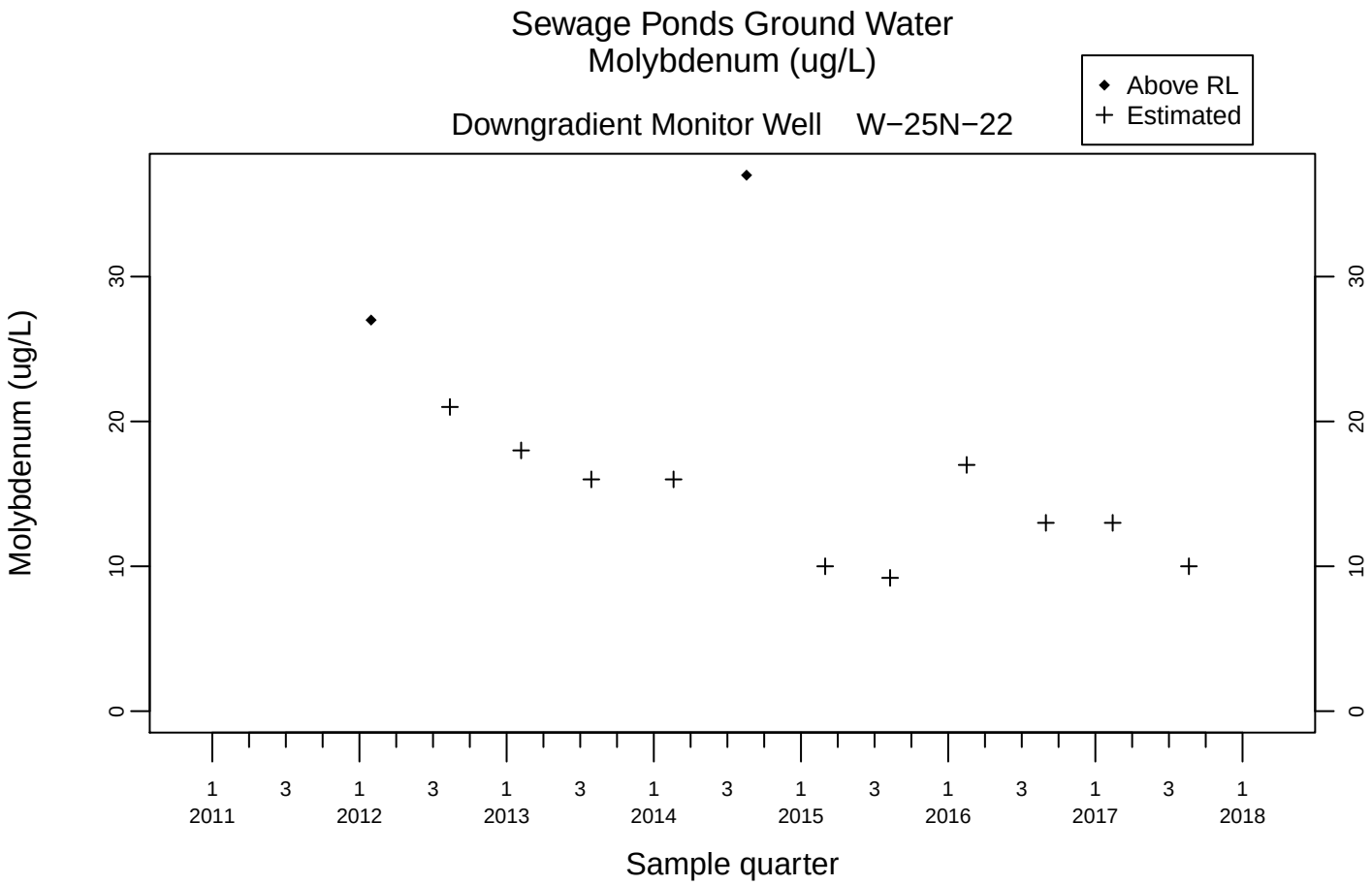

Sewage Ponds Ground Water
Mercury (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Estimated
Mercury (ug/L)
0.00
0.05
0.10
0.15
0.20
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

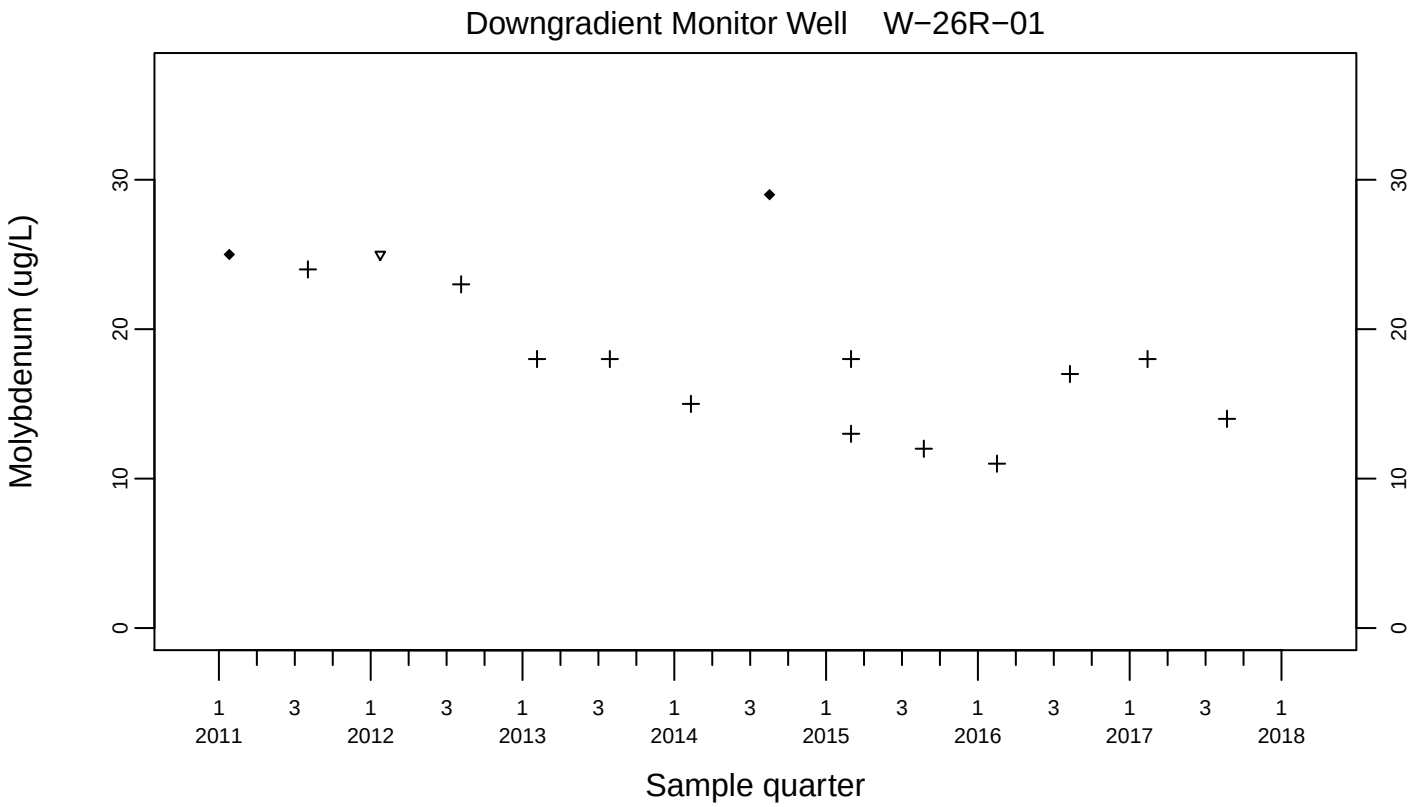

Sewage Ponds Ground Water
Molybdenum (ug/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Estimated
Molybdenum (ug/L)
0
10
20
30
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

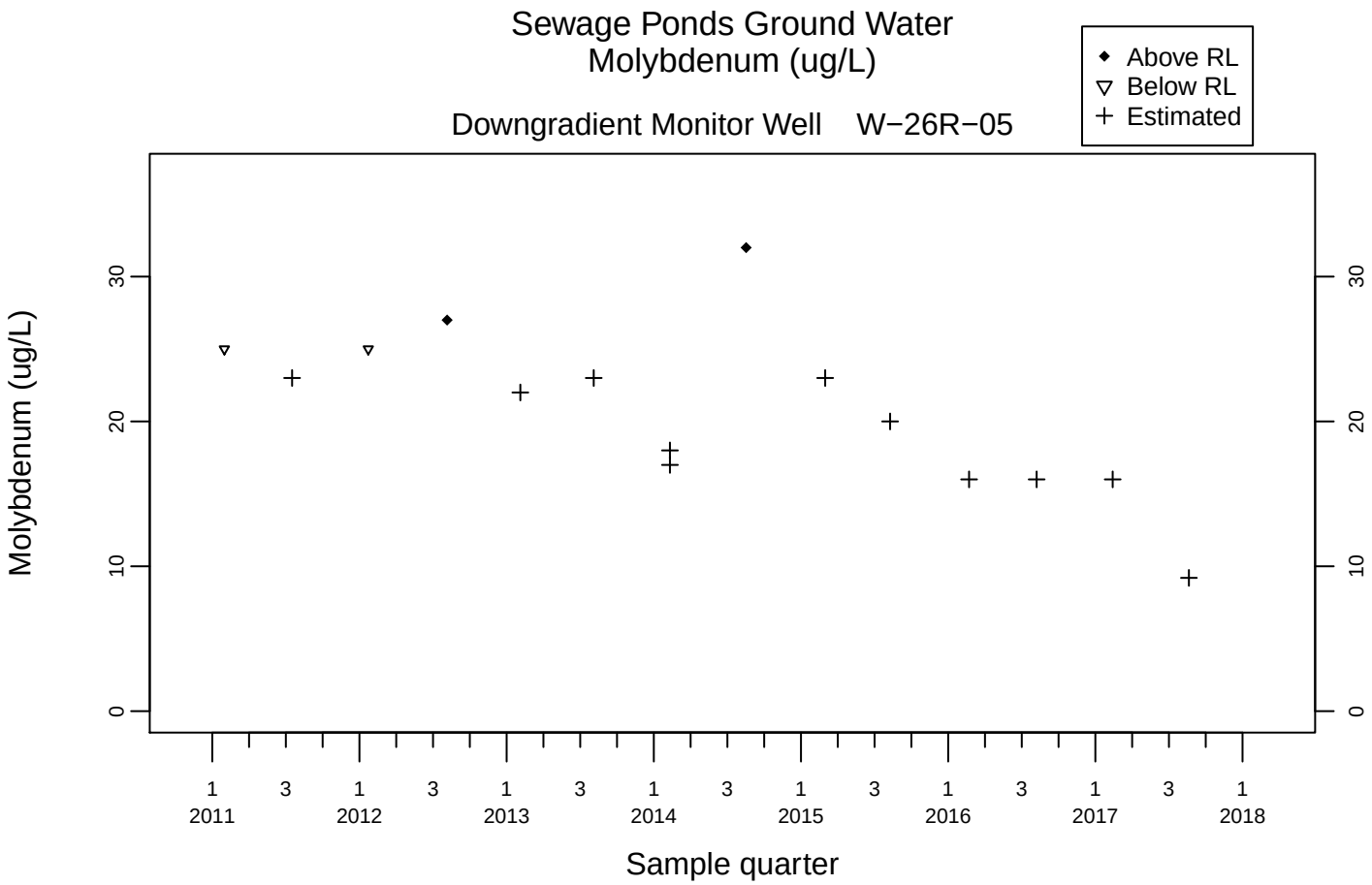

Upgradient Monitor Well W−7PS
Molybdenum (ug/L)
0
10
20
30
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

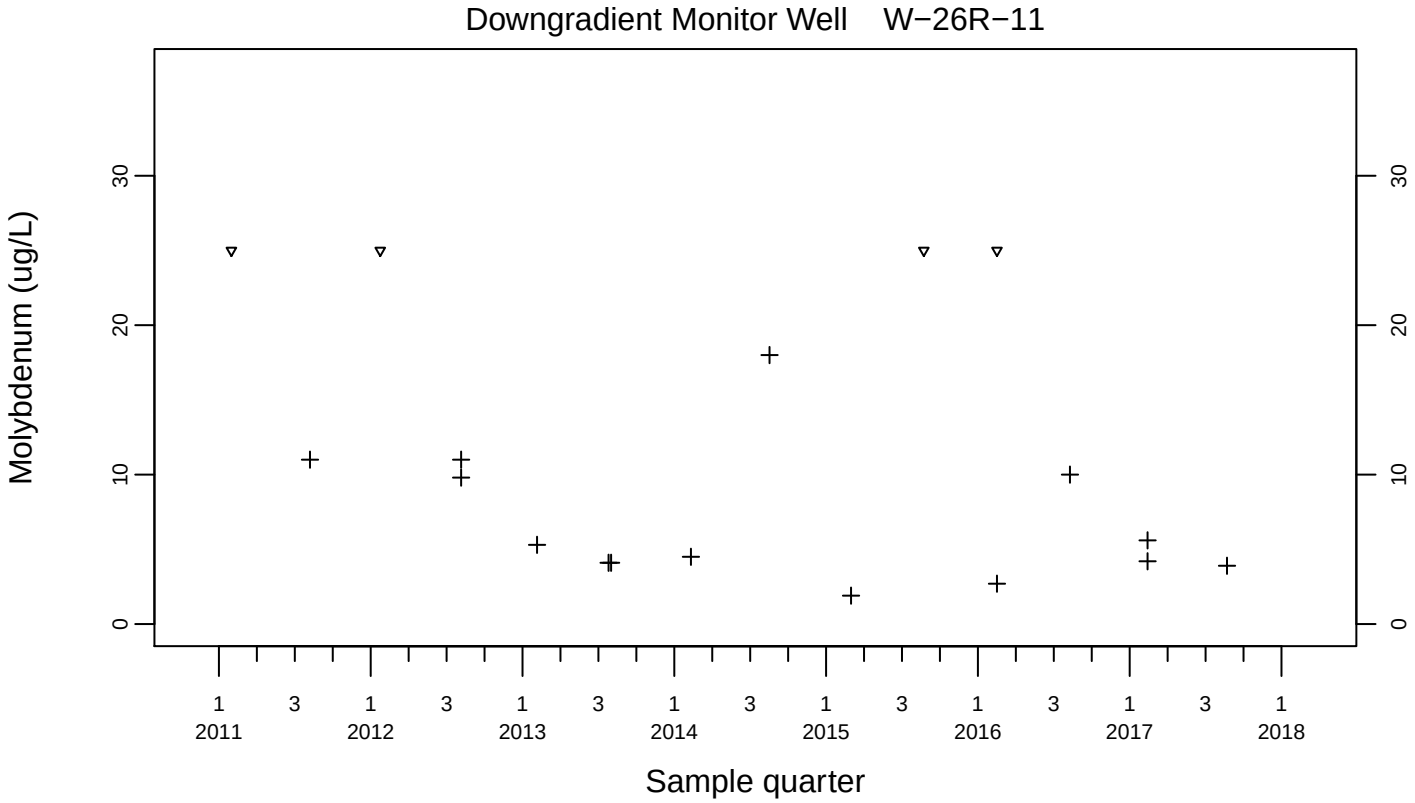

Sewage Ponds Ground Water
Molybdenum (ug/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Estimated
Molybdenum (ug/L)
0
10
20
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

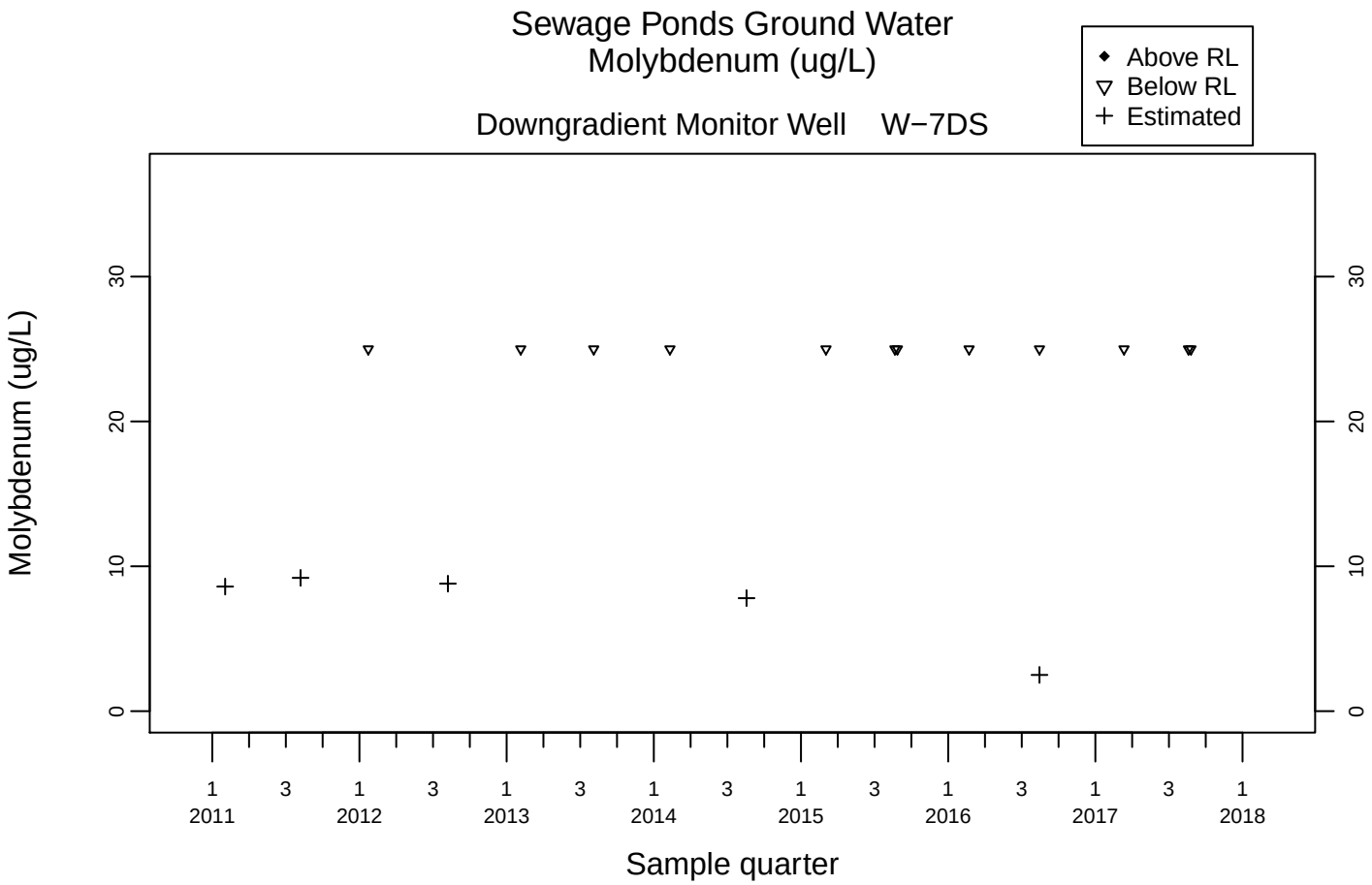

Downgradient Monitor Well W−25N−23
Molybdenum (ug/L)
0
10
20
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

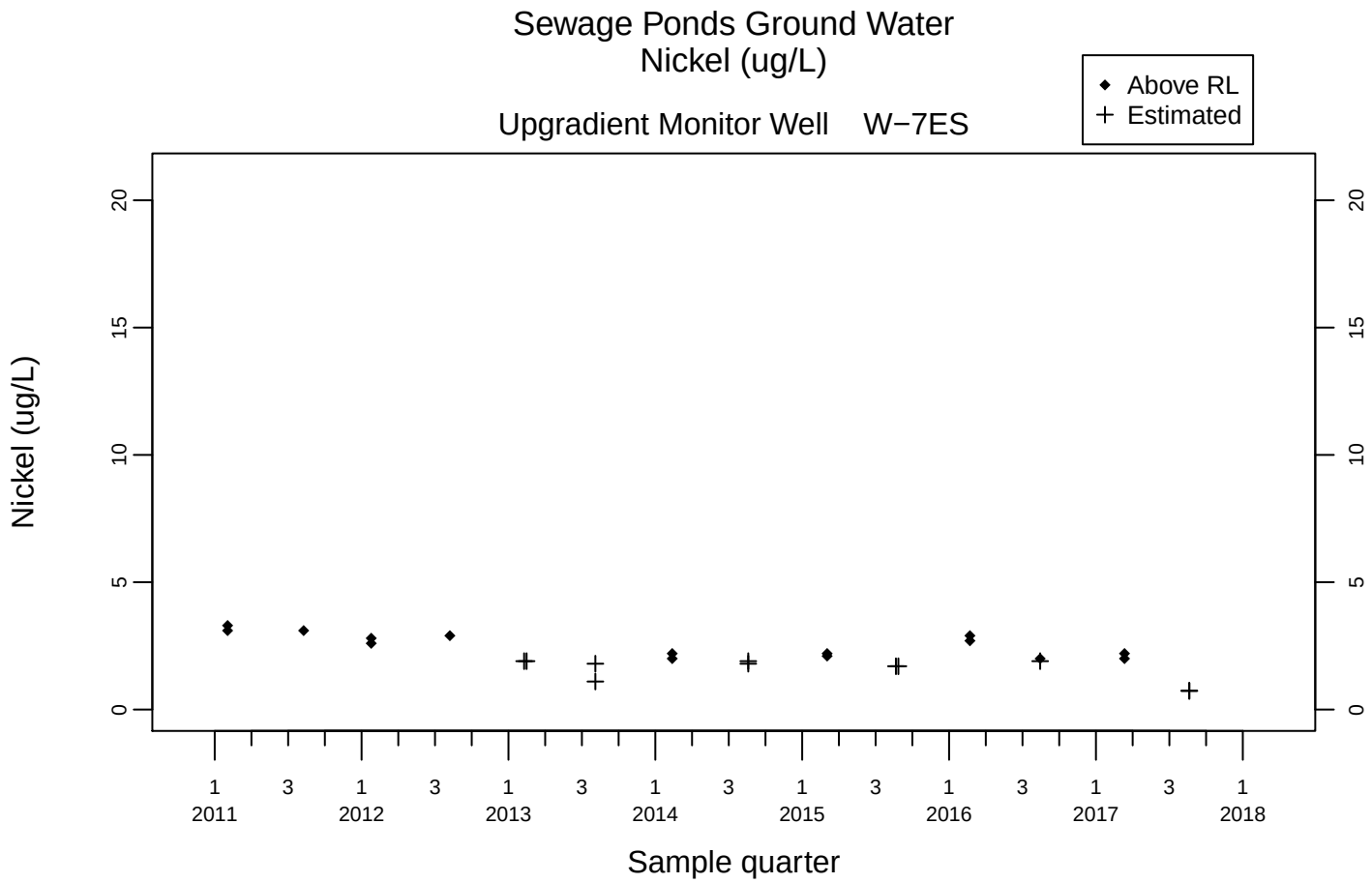

Sewage Ponds Ground Water
Molybdenum (ug/L)
Above RL
Estimated
Downgradient Monitor Well W−25N−22
Molybdenum (ug/L)
0
10
20
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

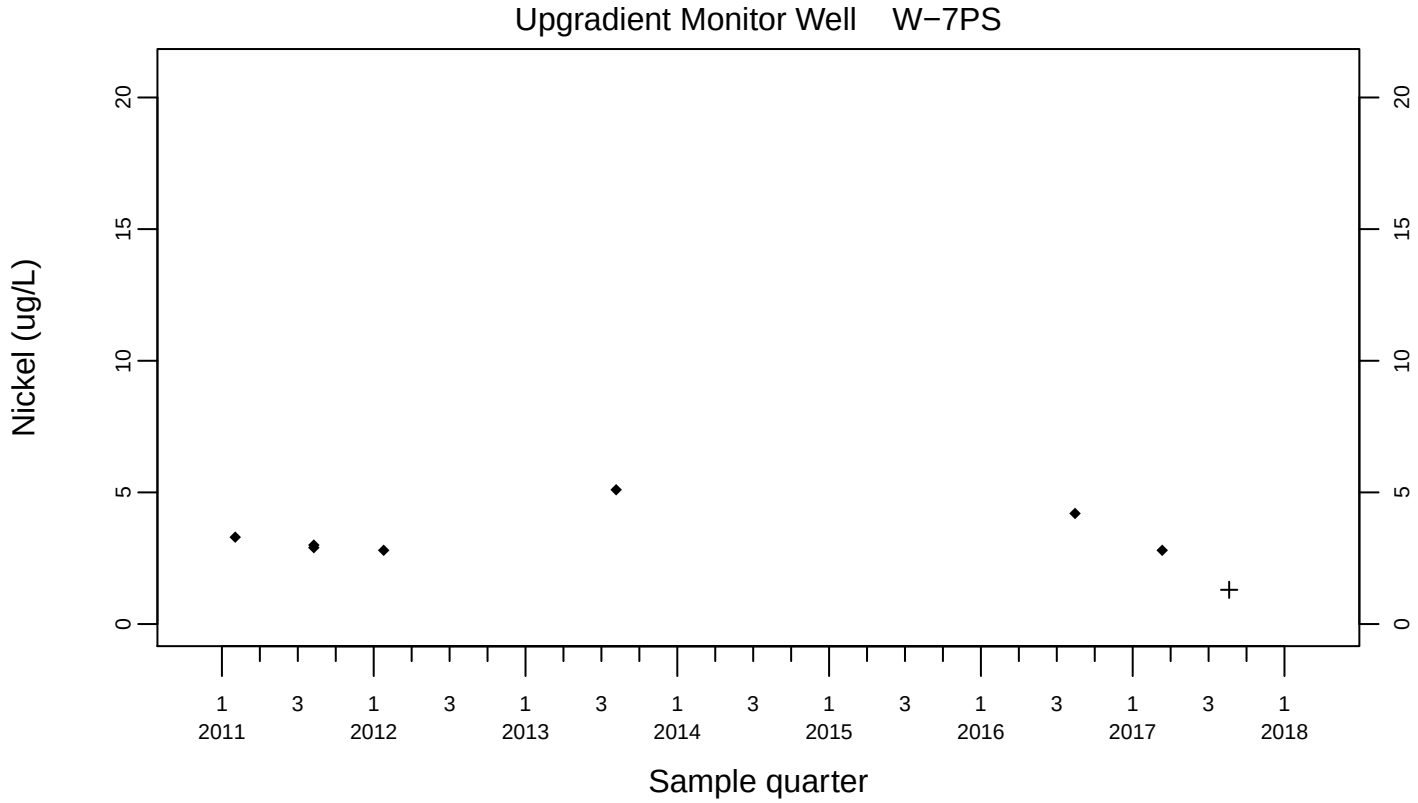

Downgradient Monitor Well W−26R−01
Molybdenum (ug/L)
0
10
20
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

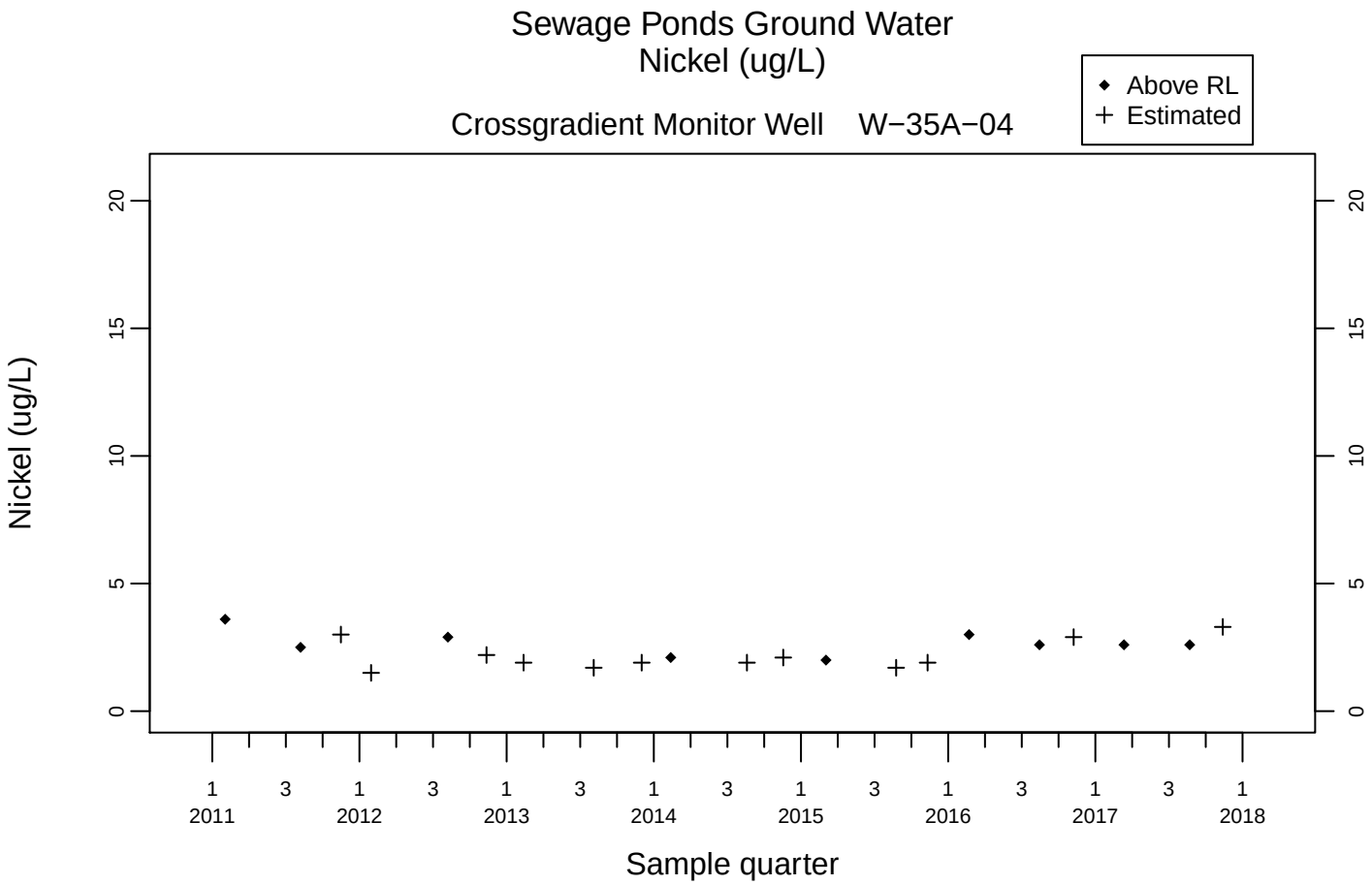

Sewage Ponds Ground Water
Molybdenum (ug/L)
Downgradient Monitor Well W−26R−05
Above RL
Below RL
Estimated
Molybdenum (ug/L)
0
10
20
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

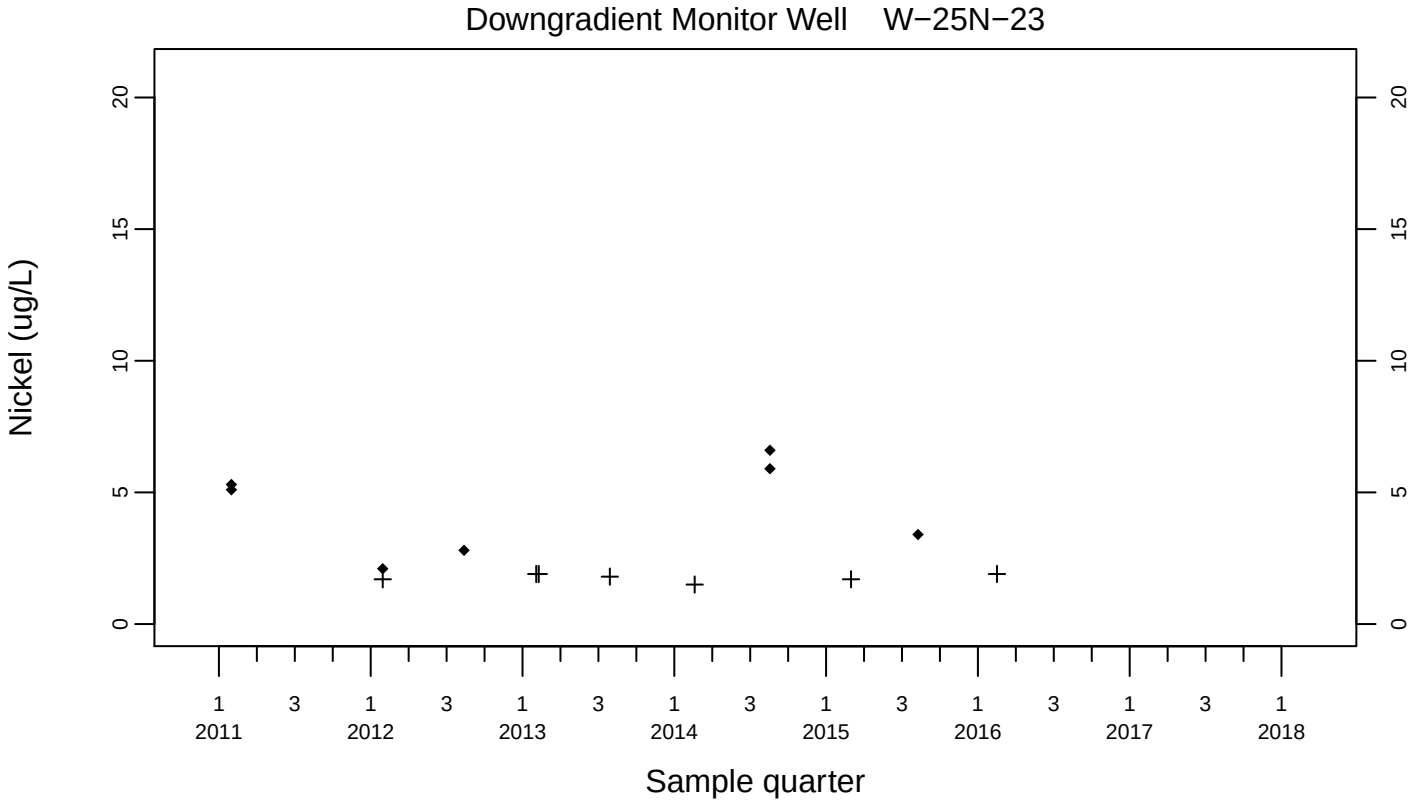

Downgradient Monitor Well W−26R−11
Molybdenum (ug/L)
0
10
20
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

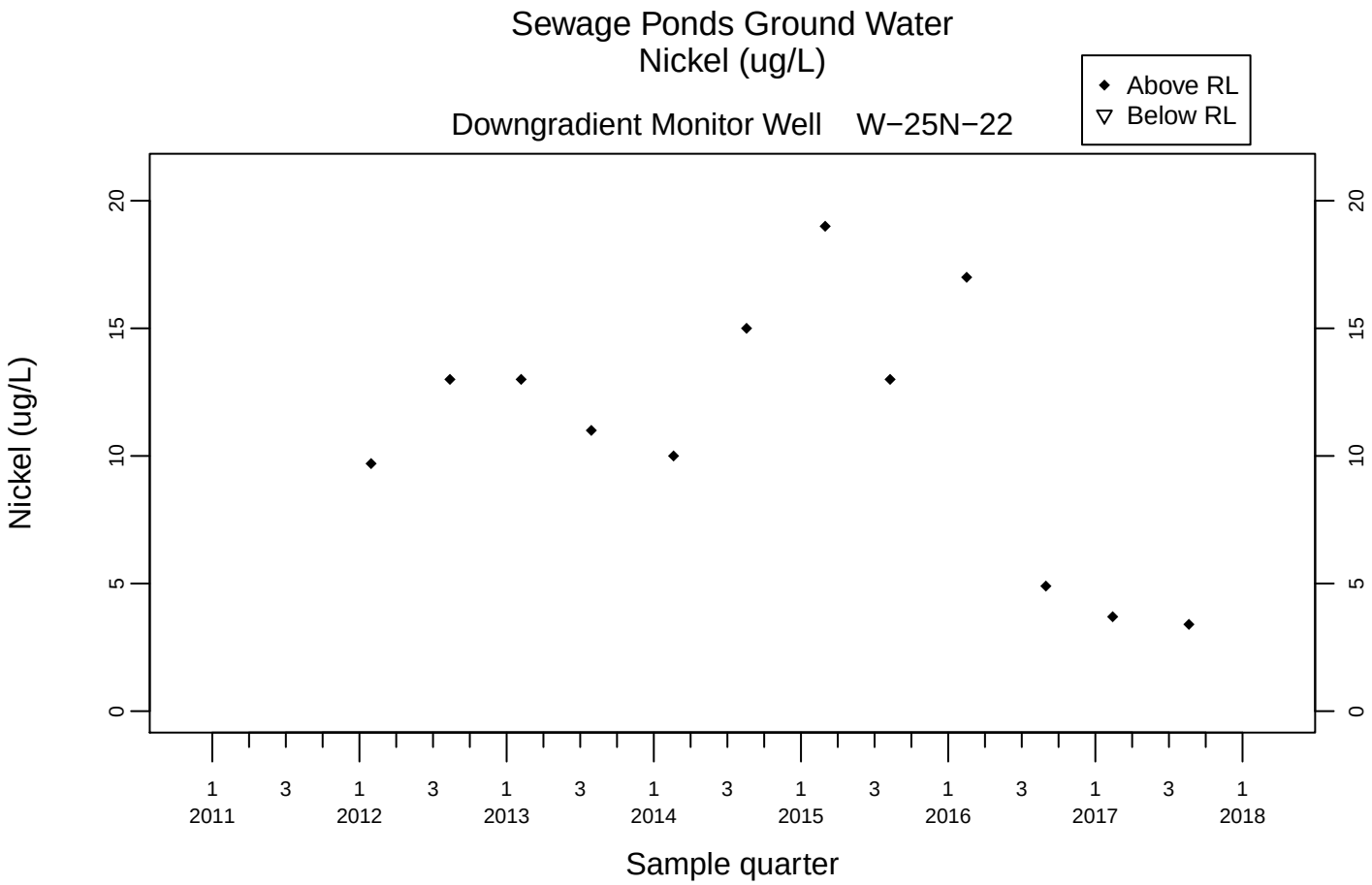

Sewage Ponds Ground Water
Molybdenum (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Estimated
Molybdenum (ug/L)
0
10
20
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

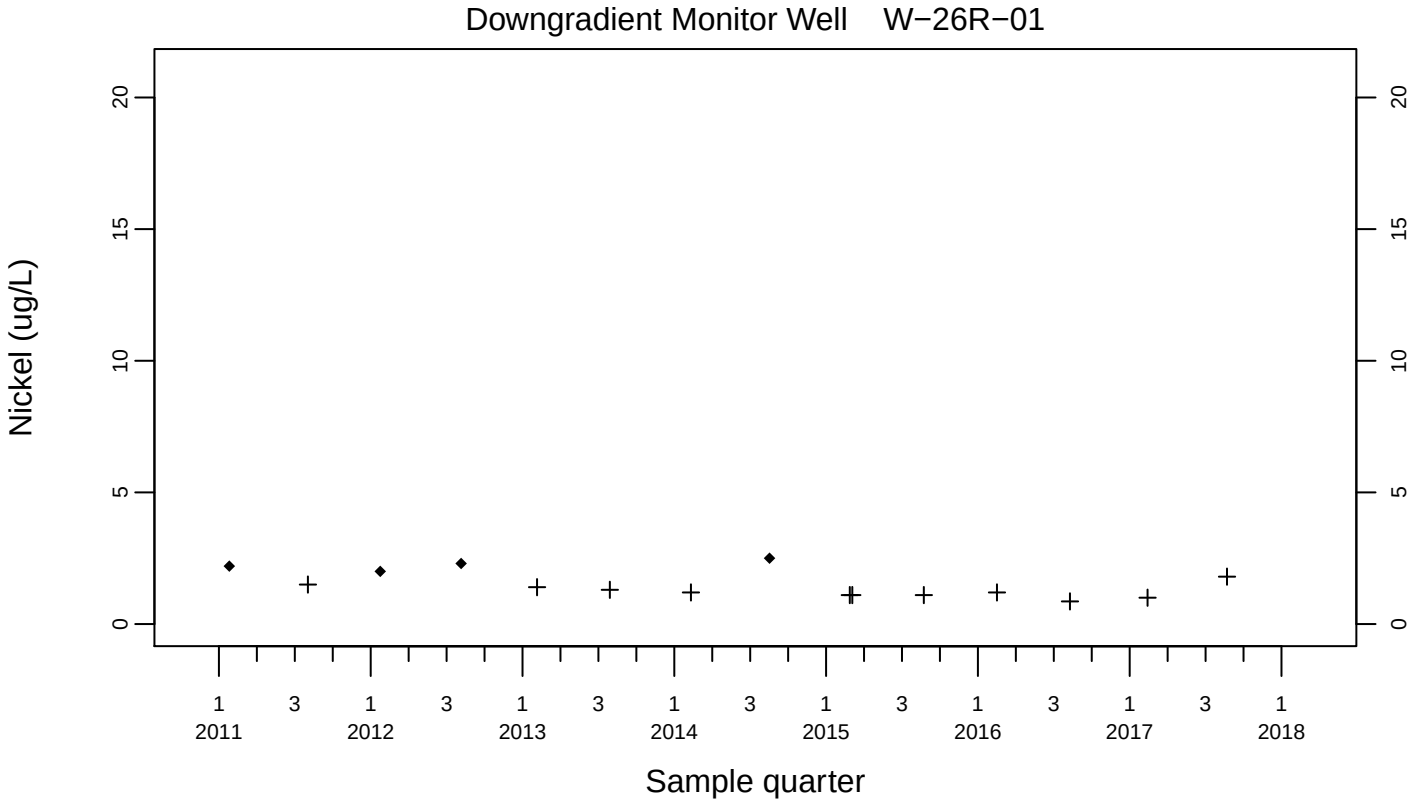

Sewage Ponds Ground Water
Nickel (ug/L)
Upgradient Monitor Well W−7ES
Above RL
Estimated
Nickel (ug/L)
0
5
10
15
20
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

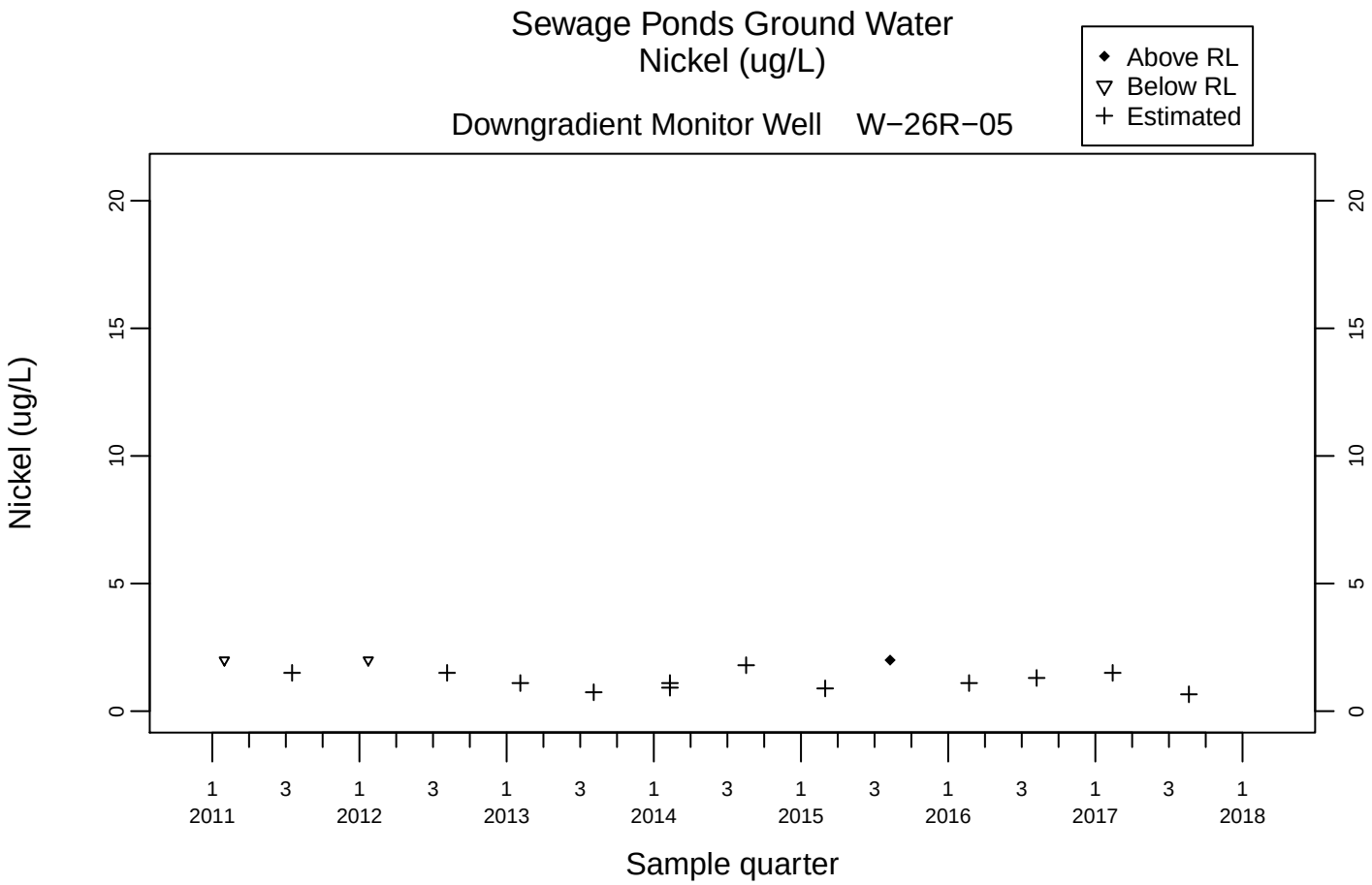

Upgradient Monitor Well W−7PS
Nickel (ug/L)
0
5
10
15
20
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

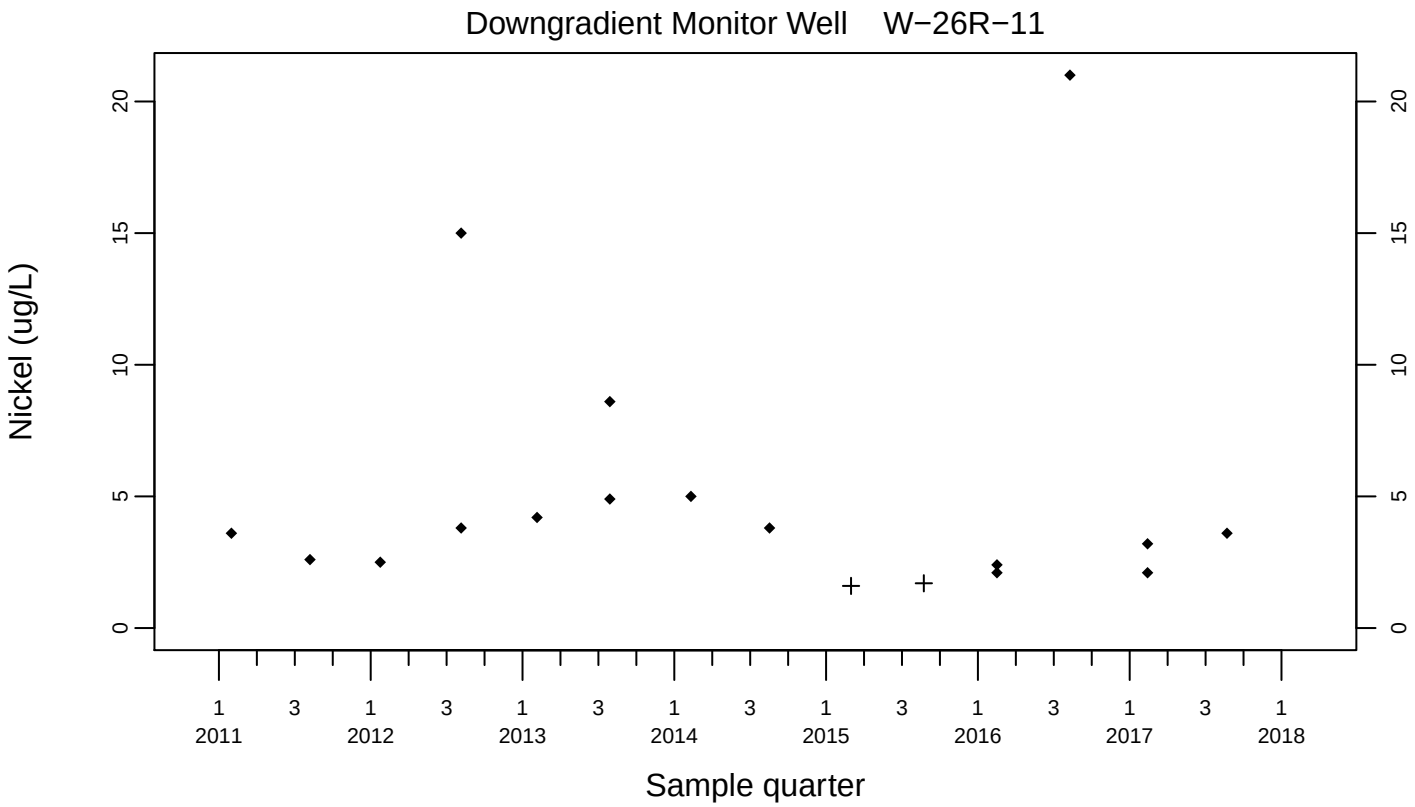

Sewage Ponds Ground Water
Nickel (ug/L)
Crossgradient Monitor Well W−35A−04
Above RL
Estimated
Nickel (ug/L)
0
5
10
15
20
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

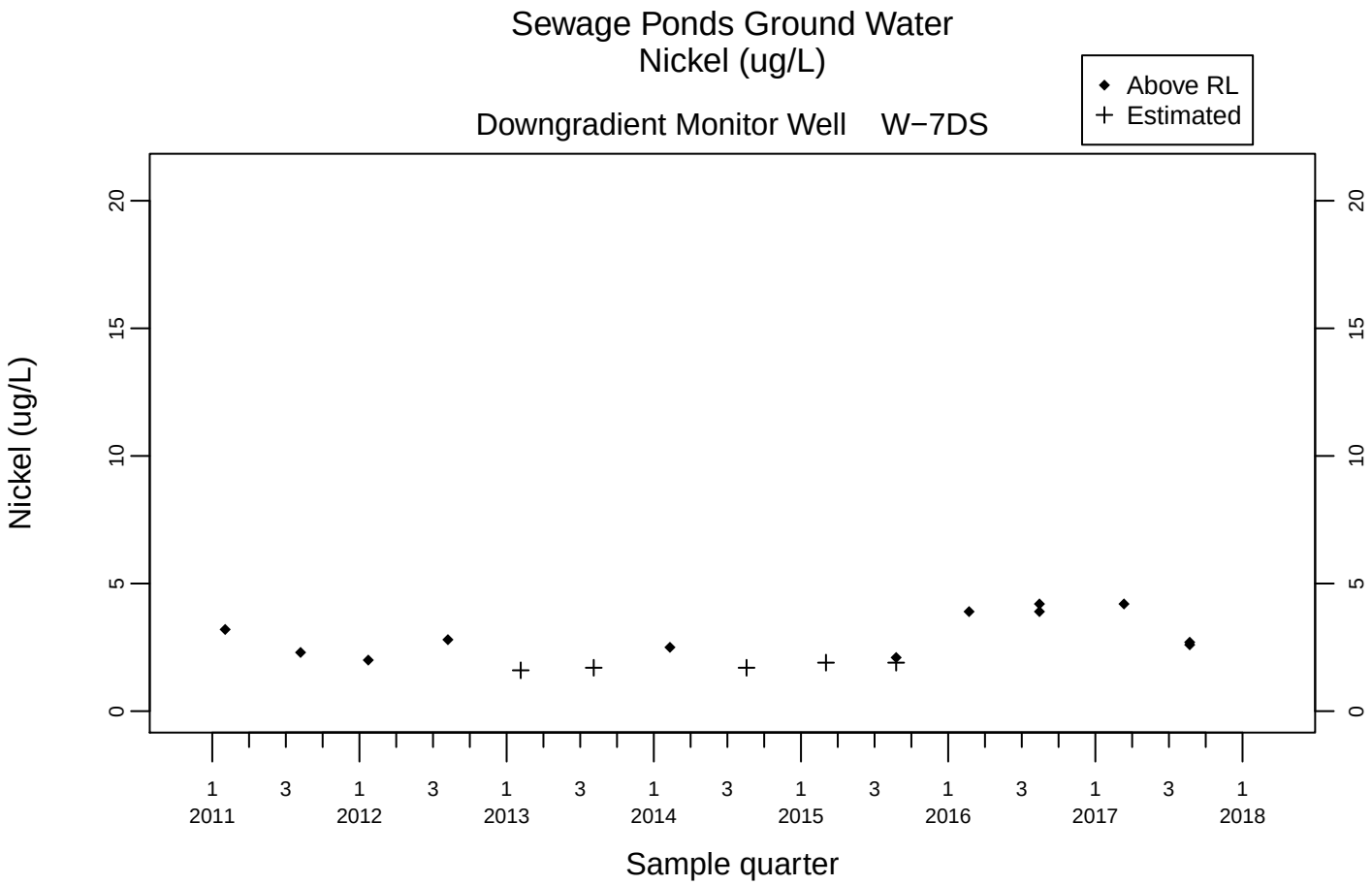

Downgradient Monitor Well W−25N−23
Nickel (ug/L)
0
5
10
15
20
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Nickel (ug/L)
Downgradient Monitor Well W−25N−22
Above RL
Below RL
Nickel (ug/L)
0
5
10
15
20
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Downgradient Monitor Well W−26R−01
Nickel (ug/L)
0
5
10
15
20
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Nickel (ug/L)
Above RL
Below RL
Estimated
Downgradient Monitor Well W−26R−05
Nickel (ug/L)
0
5
10
15
20
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Downgradient Monitor Well W−26R−11
Nickel (ug/L)
0
5
10
15
20
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Nickel (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Estimated
Nickel (ug/L)
0
5
10
15
20
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
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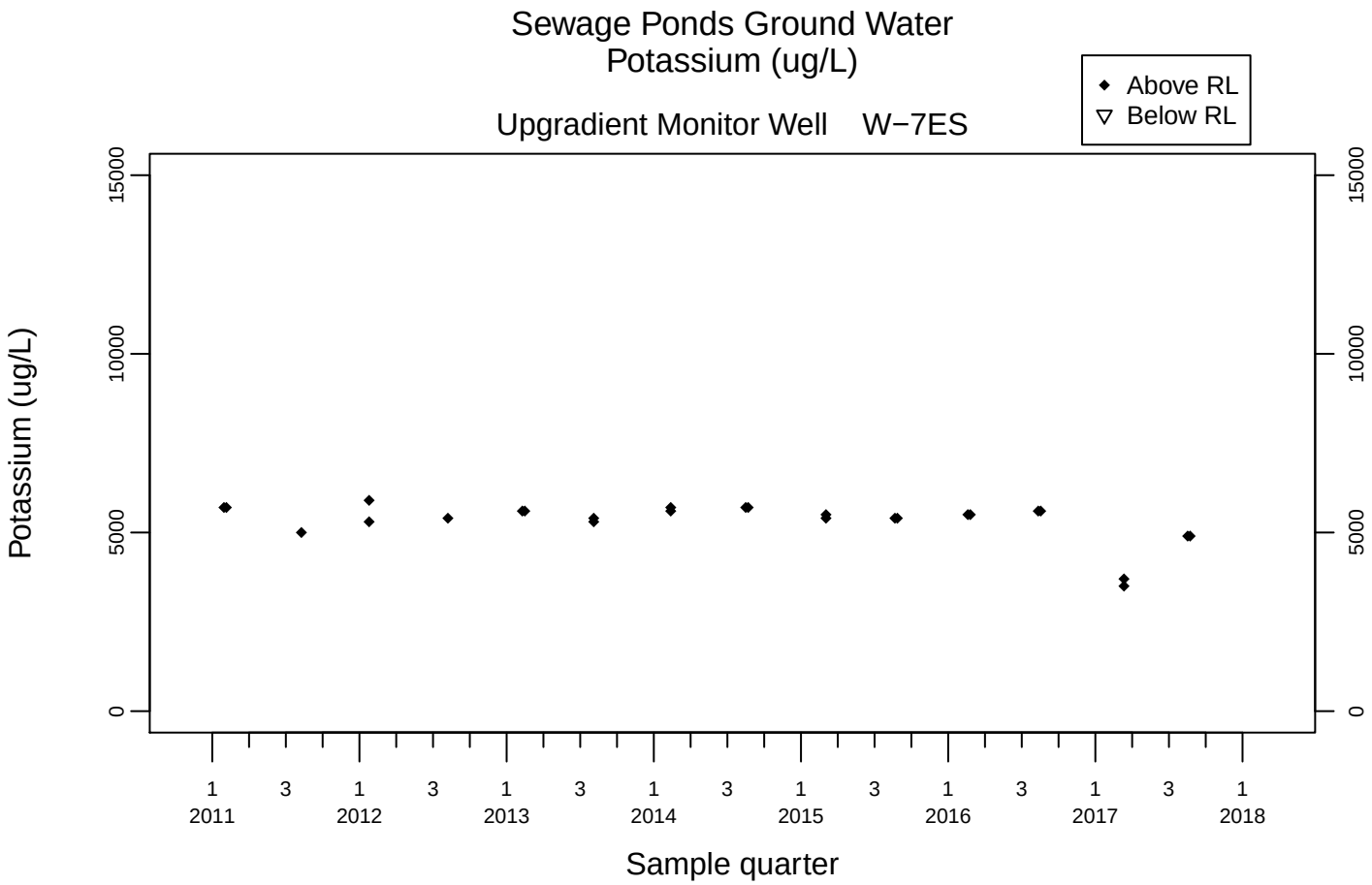
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Potassium (ug/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Potassium (ug/L)
0
5000
10000
15000
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
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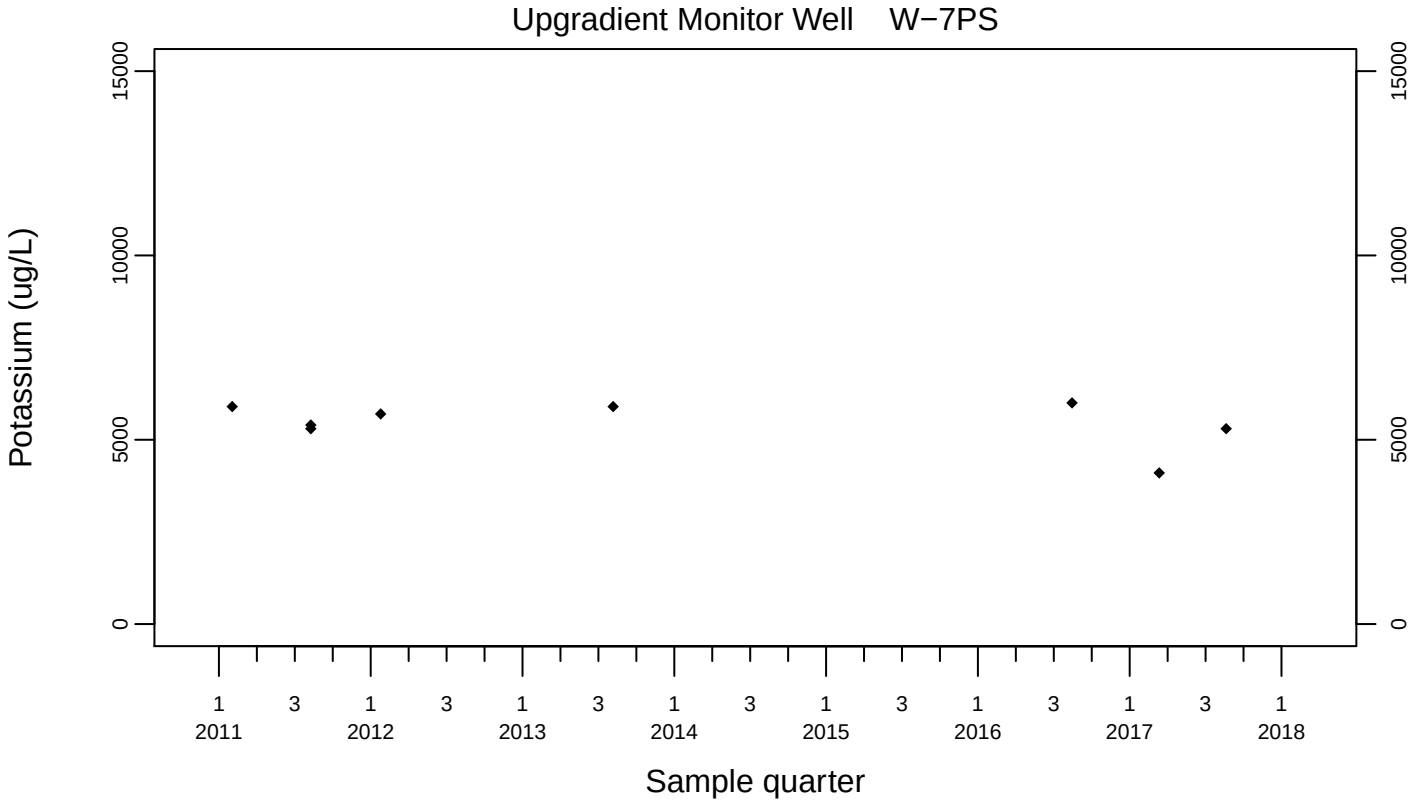
1 2017
3
1 2018
Sample quarter


Upgradient Monitor Well W−7PS
Potassium (ug/L)
0
5000
10000
15000
1 2011
3
1 2012
3
1 2013
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1 2014
3
1 2015
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1 2016
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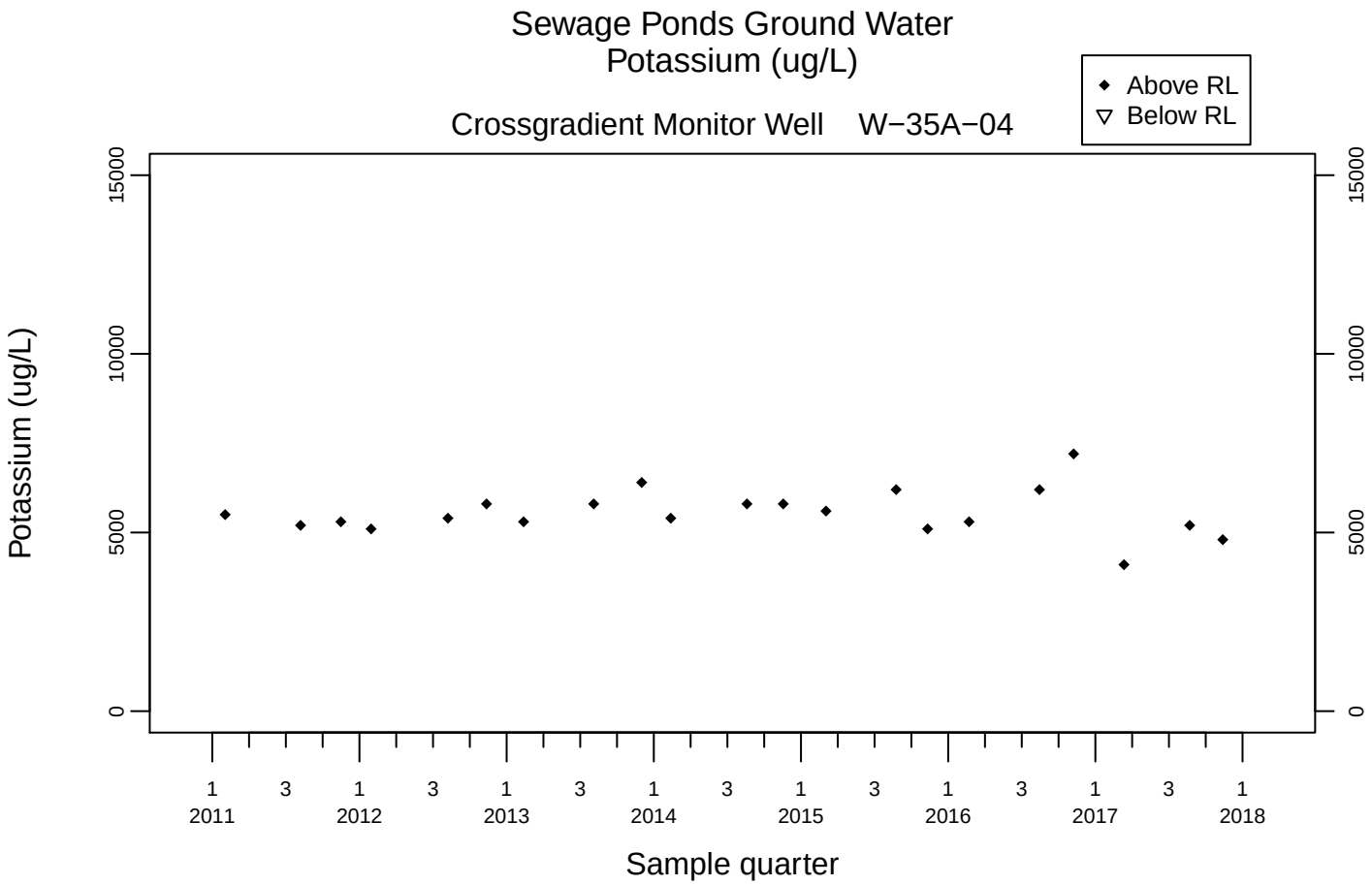
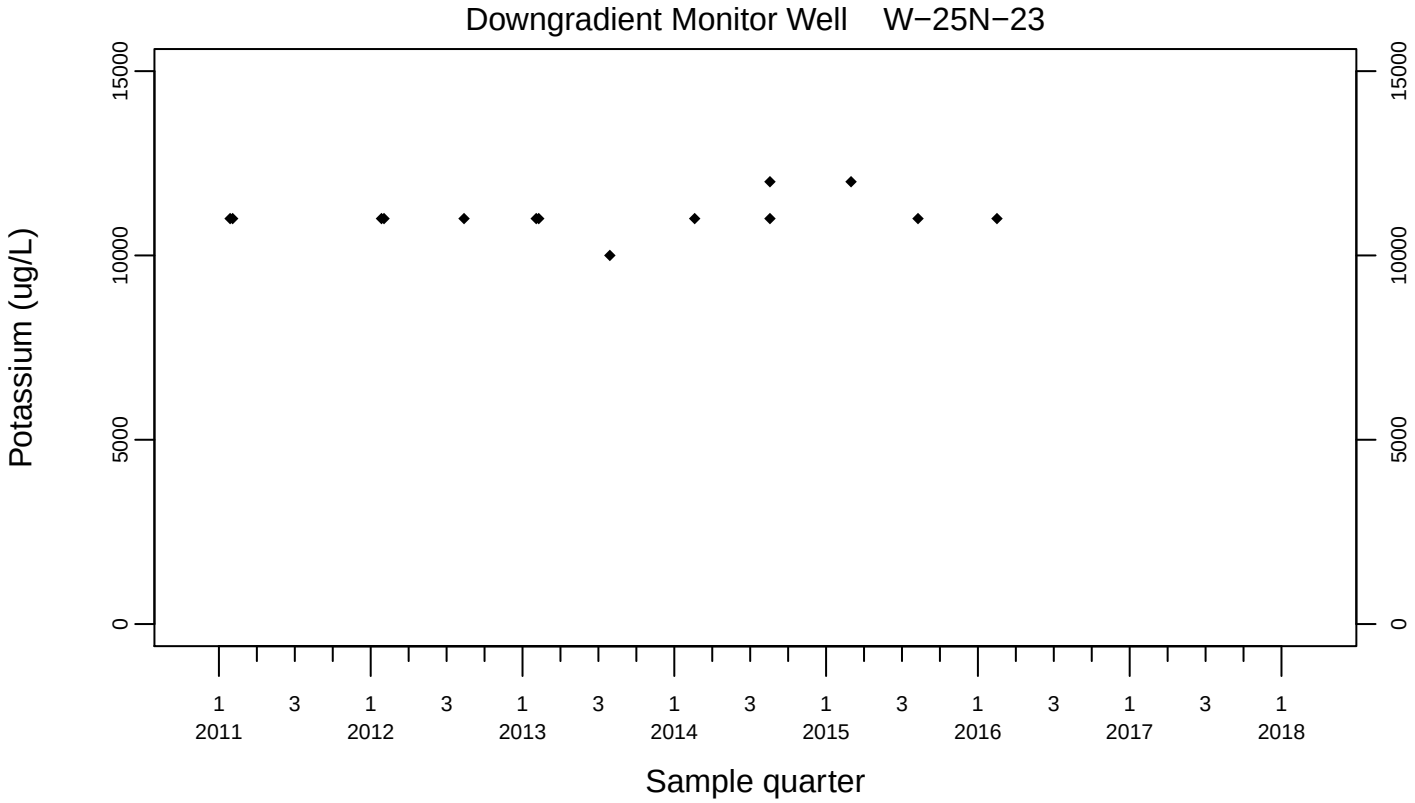
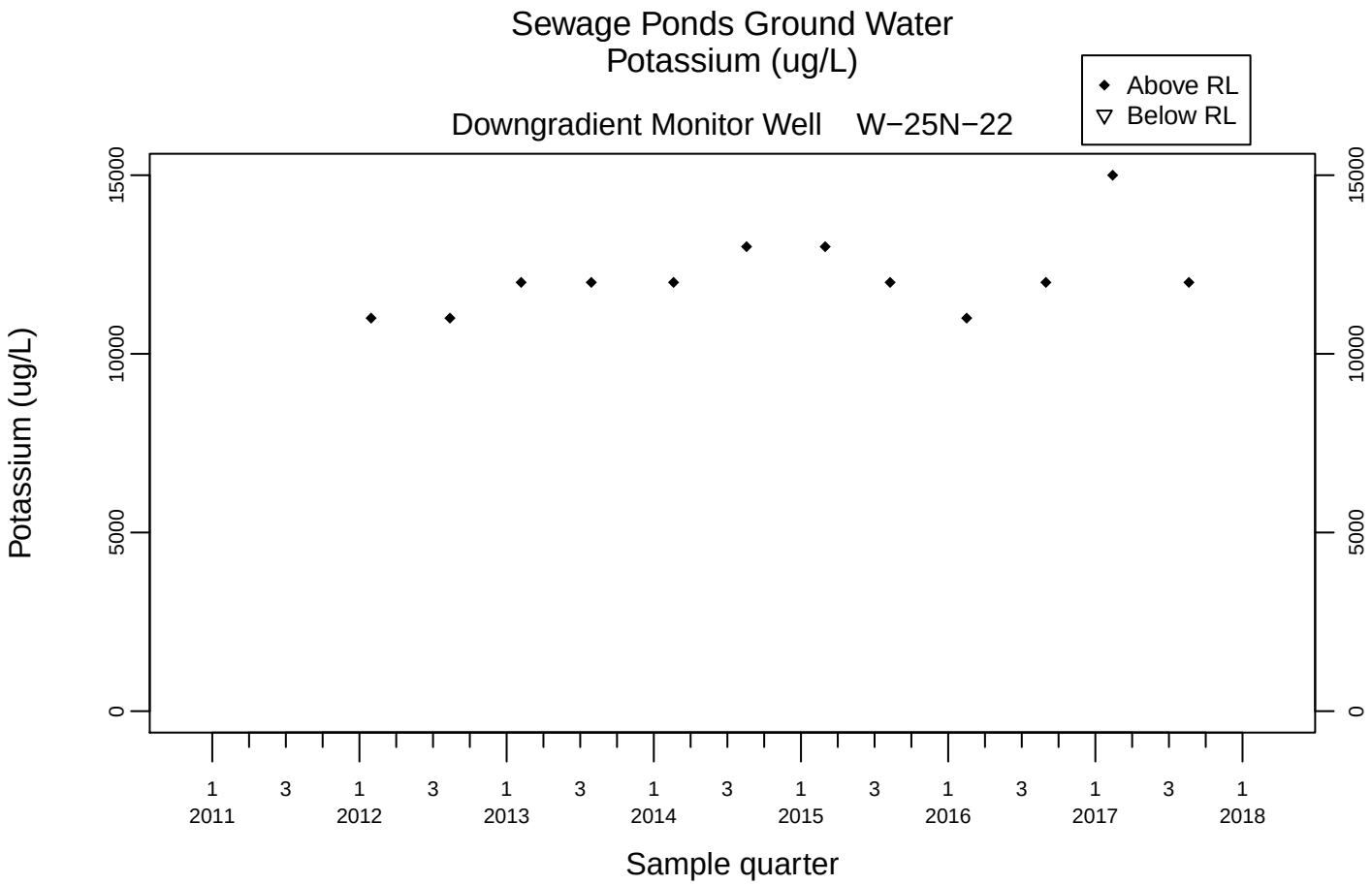
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Potassium (ug/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Potassium (ug/L)
0
5000
10000
15000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter


Downgradient Monitor Well W−25N−23
Potassium (ug/L)
0
5000
10000
15000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter


Sewage Ponds Ground Water
Potassium (ug/L)
Downgradient Monitor Well W−25N−22
Above RL
Below RL
Potassium (ug/L)
0
5000
10000
15000
1 2011
3
1 2012
3
1 2013
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1 2014
3
1 2015
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1 2016
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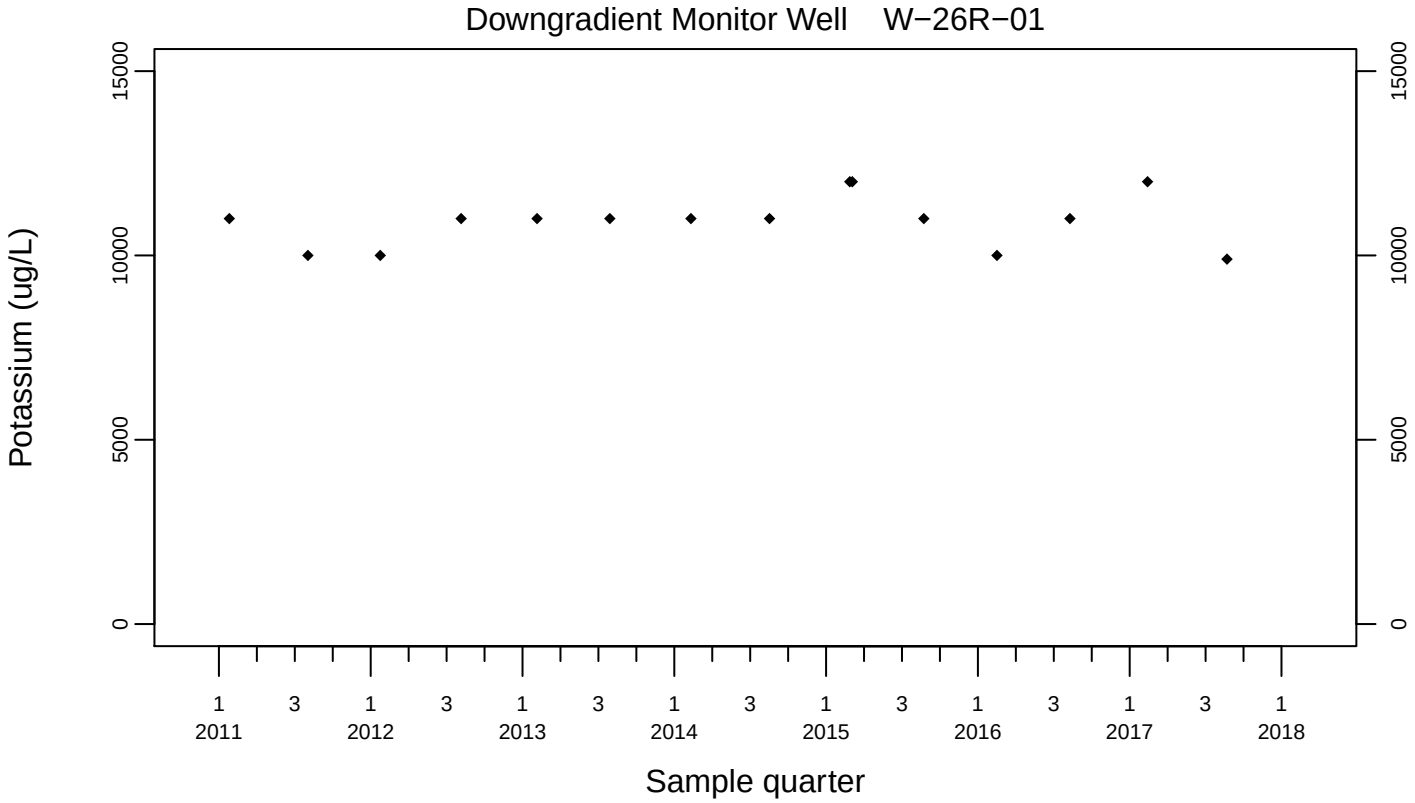
1 2017
3
1 2018
Sample quarter


Downgradient Monitor Well W−26R−01
Potassium (ug/L)
0
5000
10000
15000
1 2011
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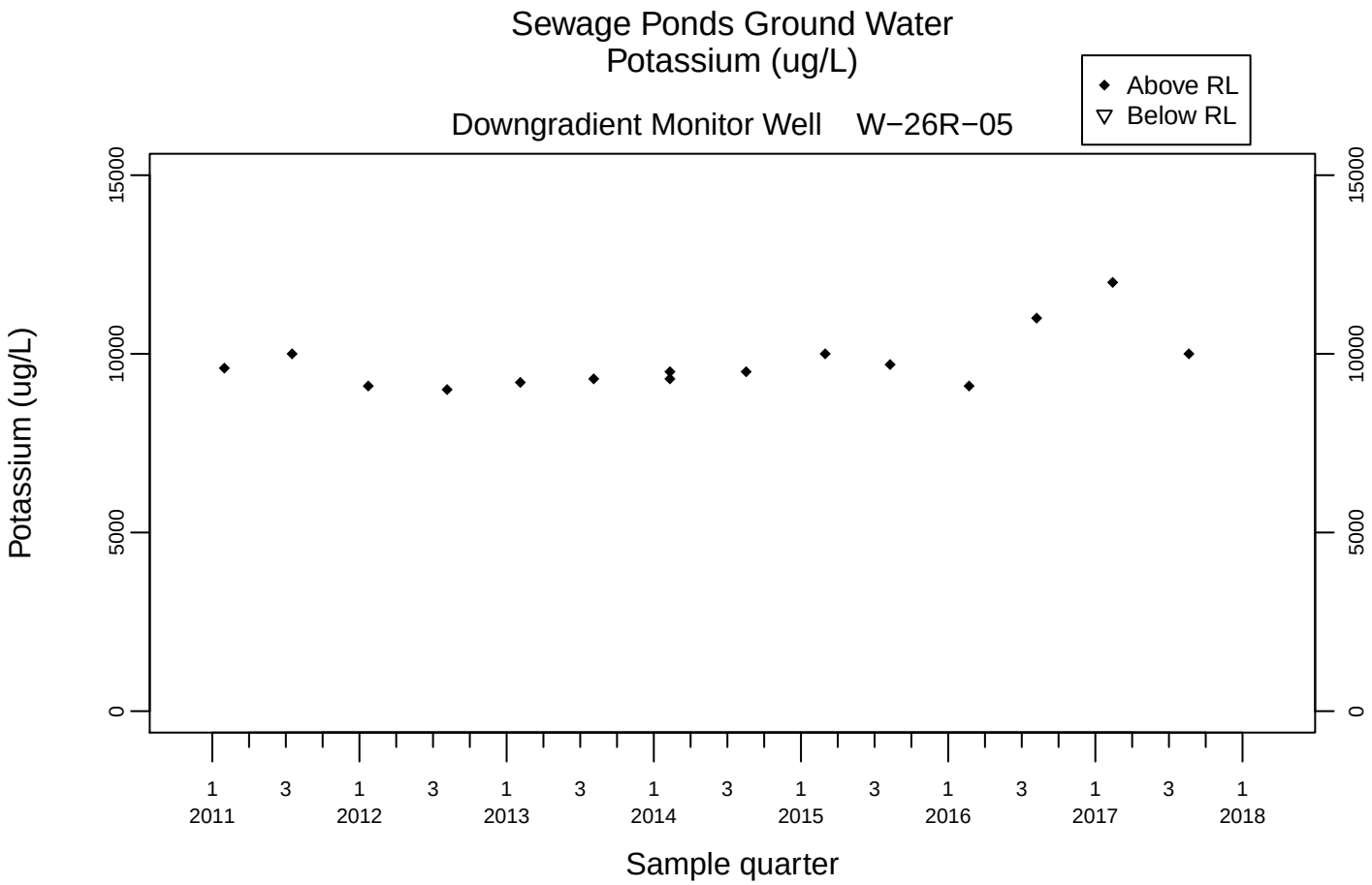
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Potassium (ug/L)
Downgradient Monitor Well W−26R−05
Above RL
Below RL
Potassium (ug/L)
0
5000
10000
15000
1 2011
3
1 2012
3
1 2013
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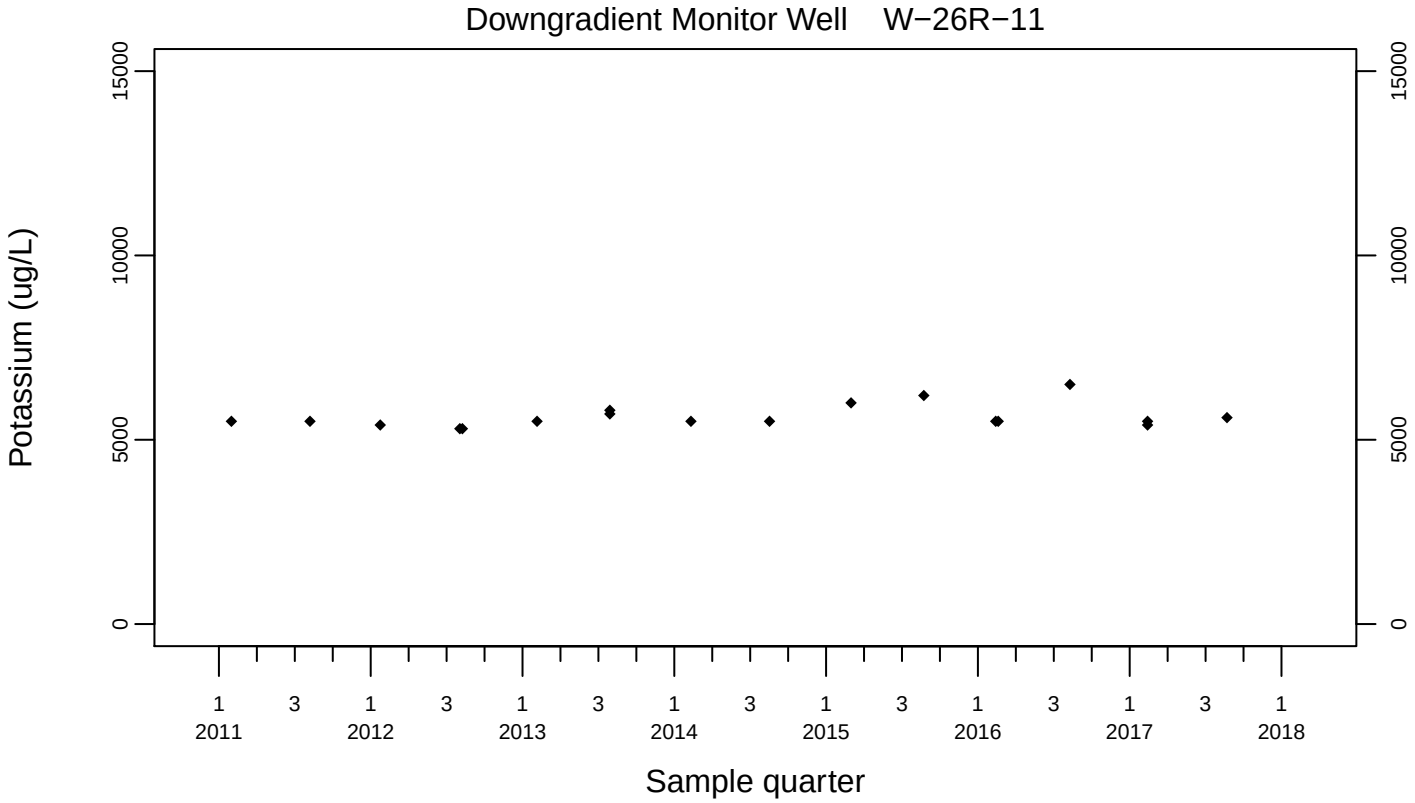
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Downgradient Monitor Well W−26R−11
Potassium (ug/L)
0
5000
10000
15000
1 2011
3
1 2012
3
1 2013
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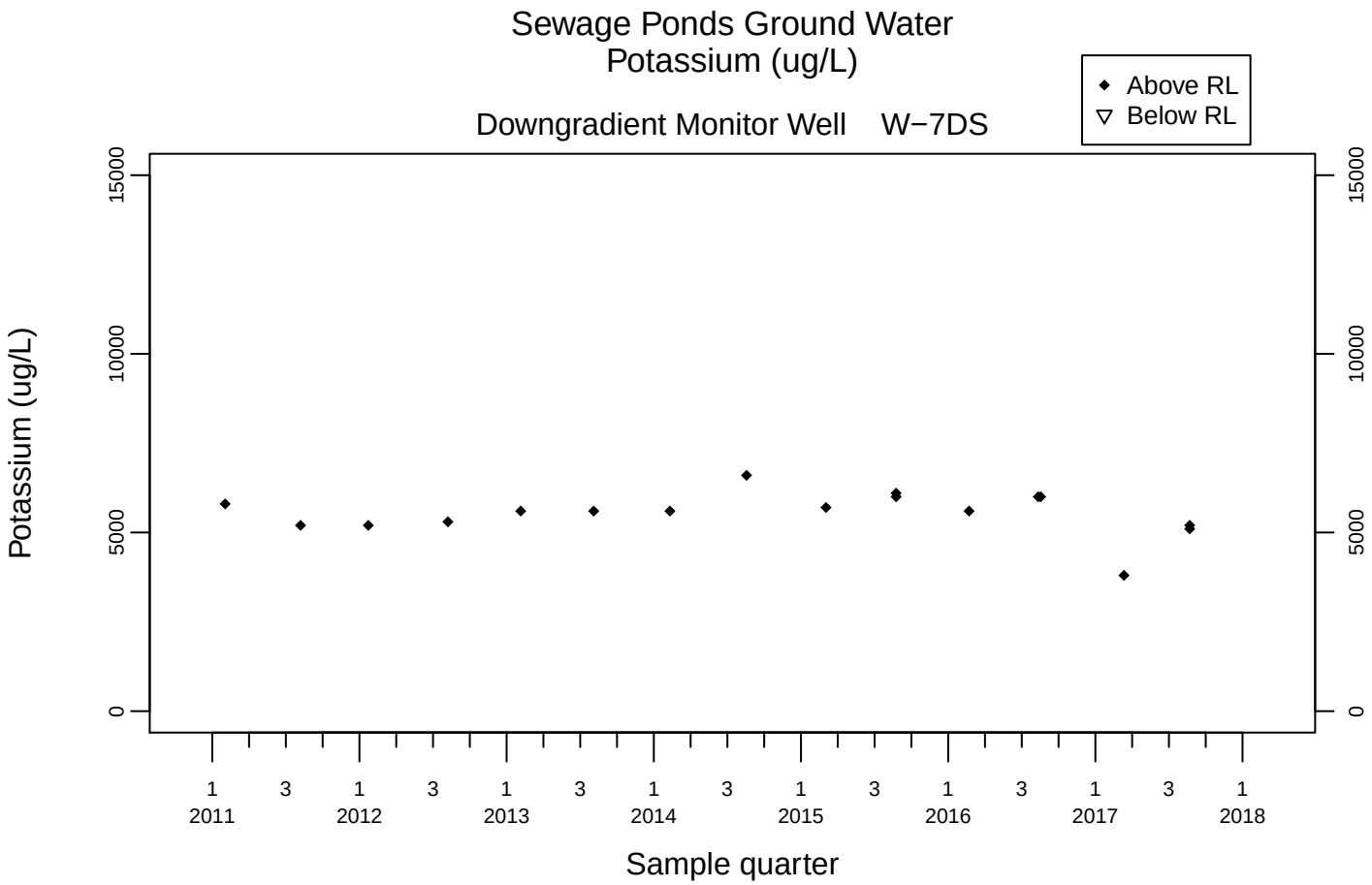
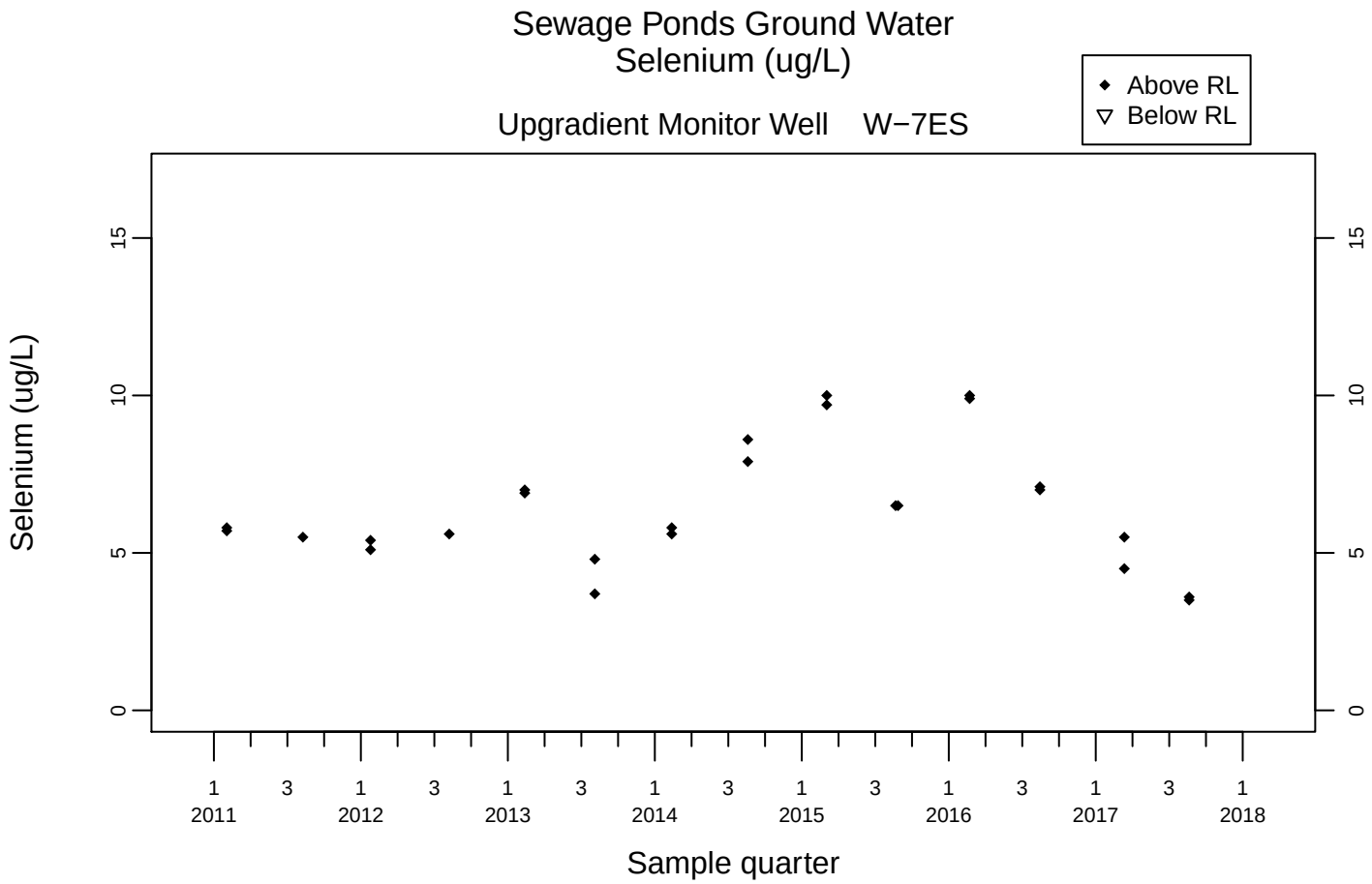
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Potassium (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Potassium (ug/L)
0
5000
10000
15000
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter


Sewage Ponds Ground Water
Selenium (ug/L)
Above RL
Below RL
Upgradient Monitor Well W−7ES
Selenium (ug/L)
0
5
10
15
1 2011
3
1 2012
3
1 2013
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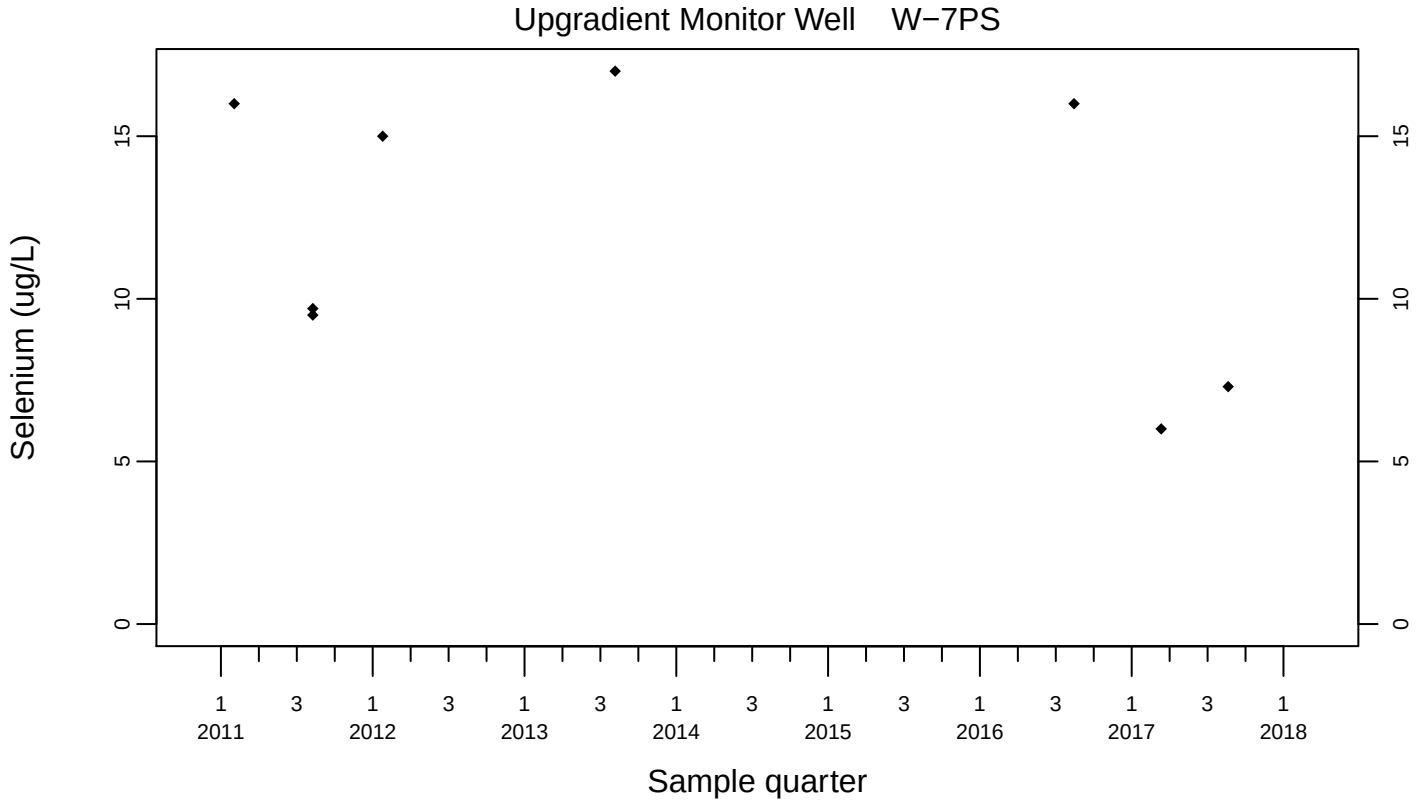
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Upgradient Monitor Well W−7PS
Selenium (ug/L)
0
5
10
15
1 2011
3
1 2012
3
1 2013
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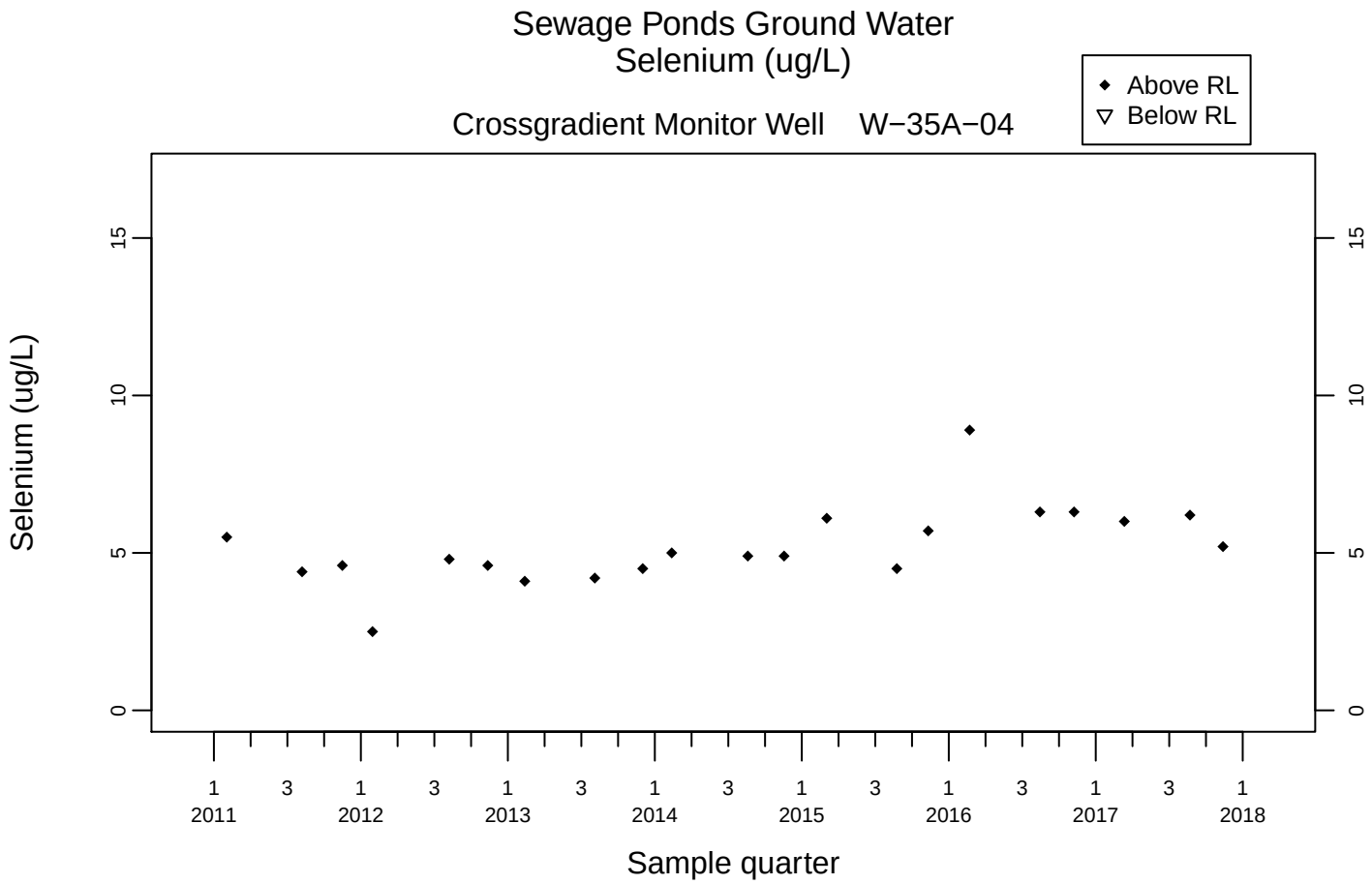
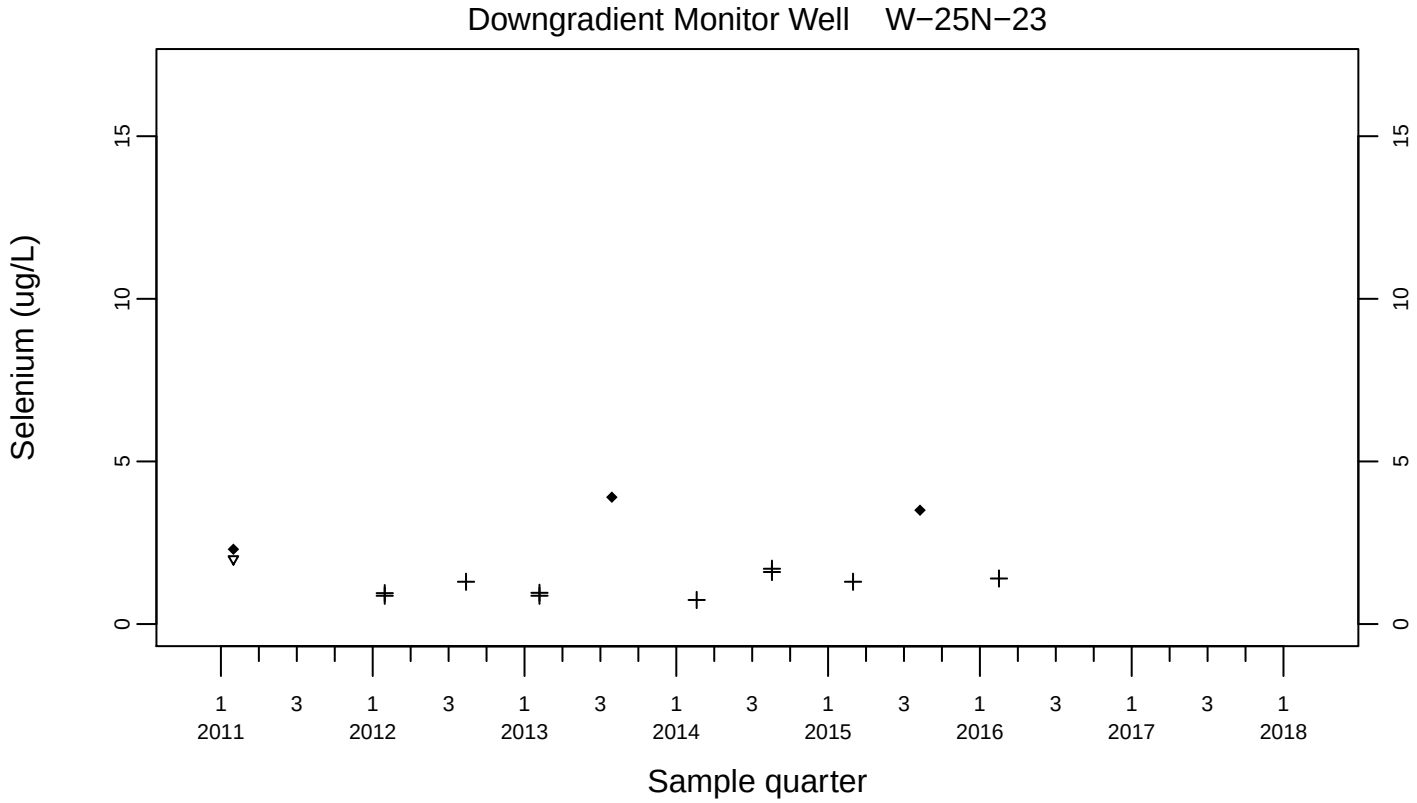
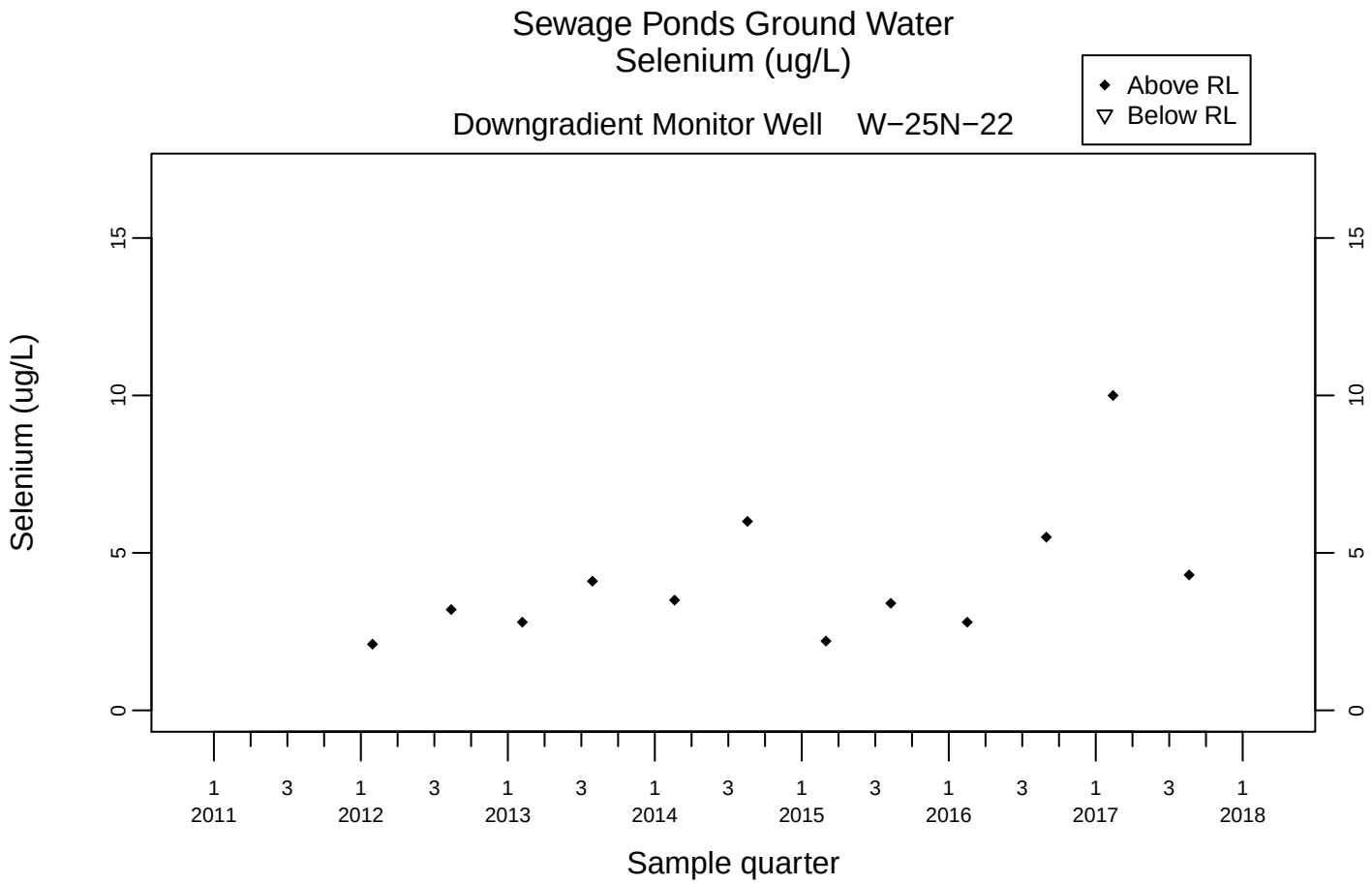
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Selenium (ug/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Selenium (ug/L)
0
5
10
15
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter


Downgradient Monitor Well W−25N−23
Selenium (ug/L)
0
5
10
15
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter


Sewage Ponds Ground Water
Selenium (ug/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Selenium (ug/L)
0
5
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15
1 2011
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1 2013
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1 2014
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1 2015
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1 2016
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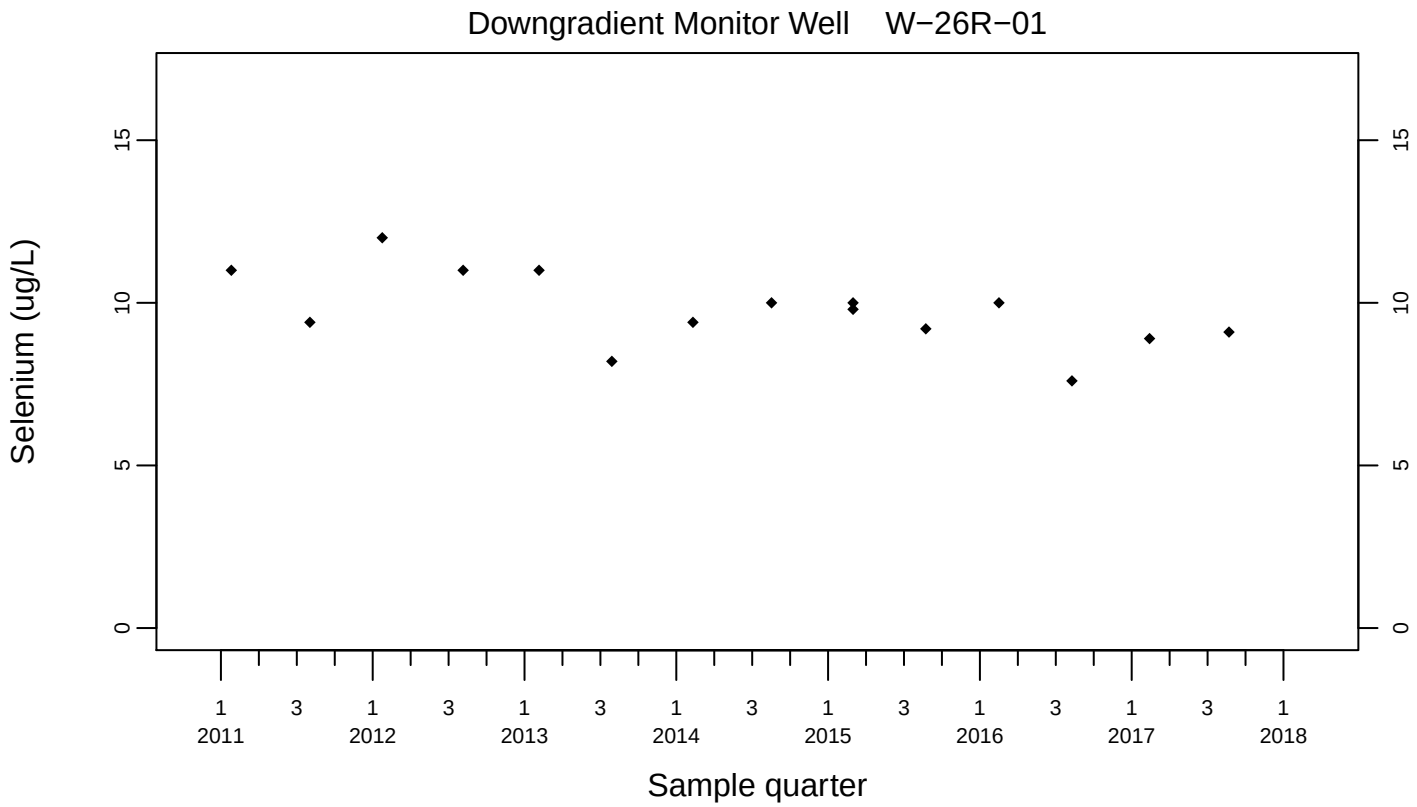
1 2017
3
1 2018
Sample quarter


Downgradient Monitor Well W−26R−01
Selenium (ug/L)
0
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1 2011
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1 2012
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1 2013
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1 2014
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1 2016
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1 2017
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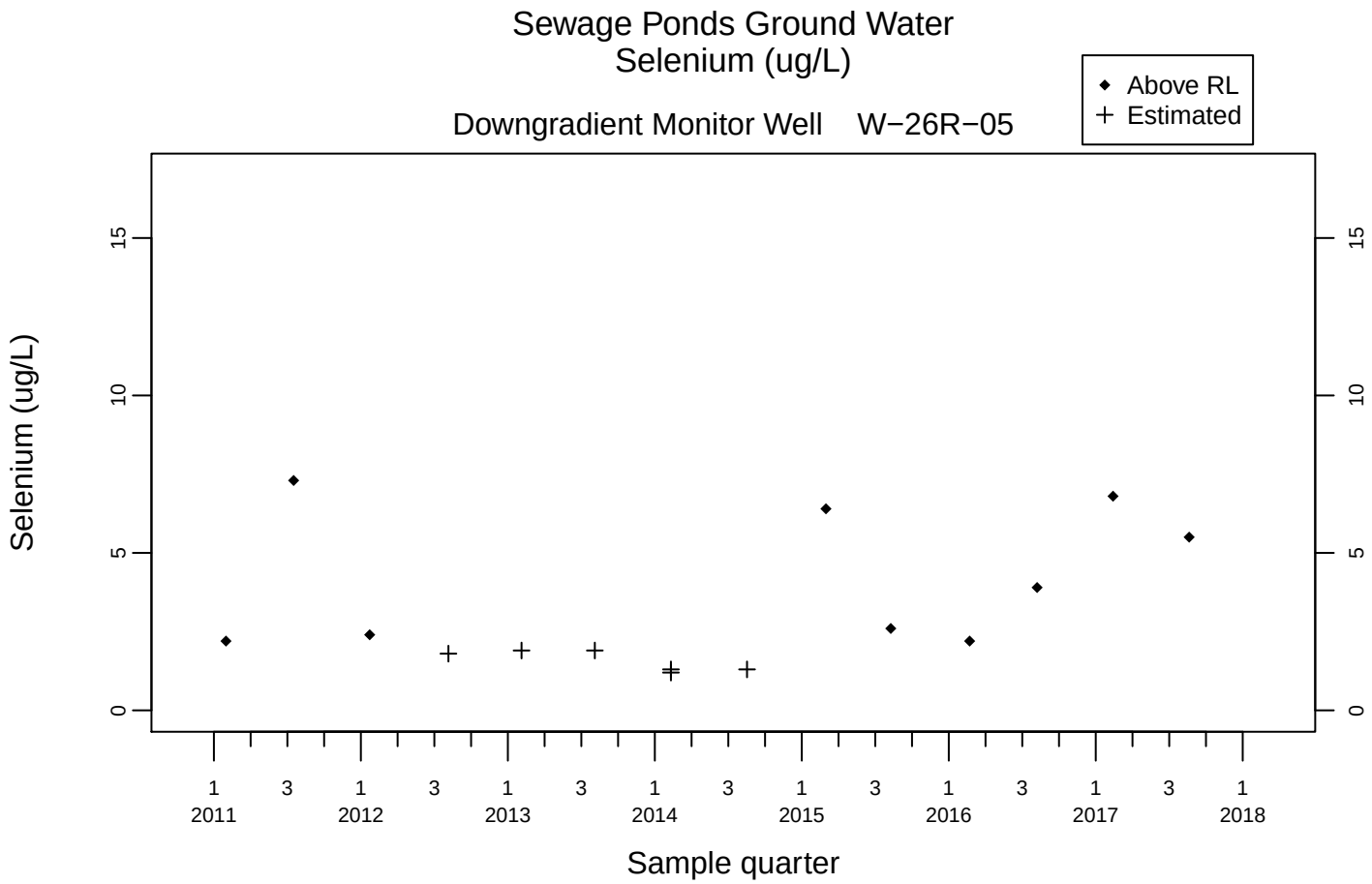
1 2018
Sample quarter


Sewage Ponds Ground Water
Selenium (ug/L)
Above RL
Estimated
Downgradient Monitor Well W−26R−05
Selenium (ug/L)
0
5
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15
1 2011
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1 2012
3
1 2013
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1 2014
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1 2016
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1 2017
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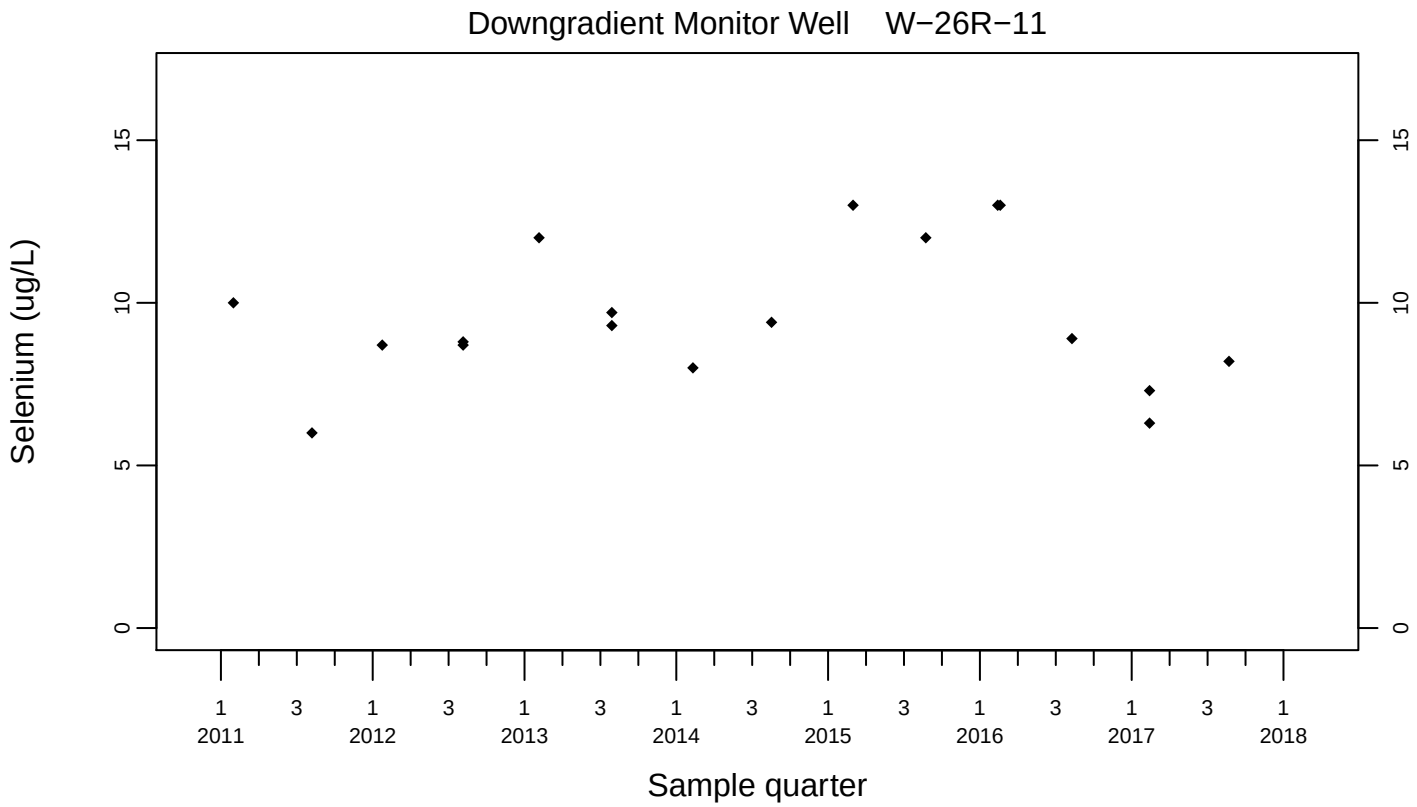
1 2018
Sample quarter


Downgradient Monitor Well W−26R−11
Selenium (ug/L)
0
5
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1 2011
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1 2012
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1 2013
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1 2014
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1 2015
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1 2016
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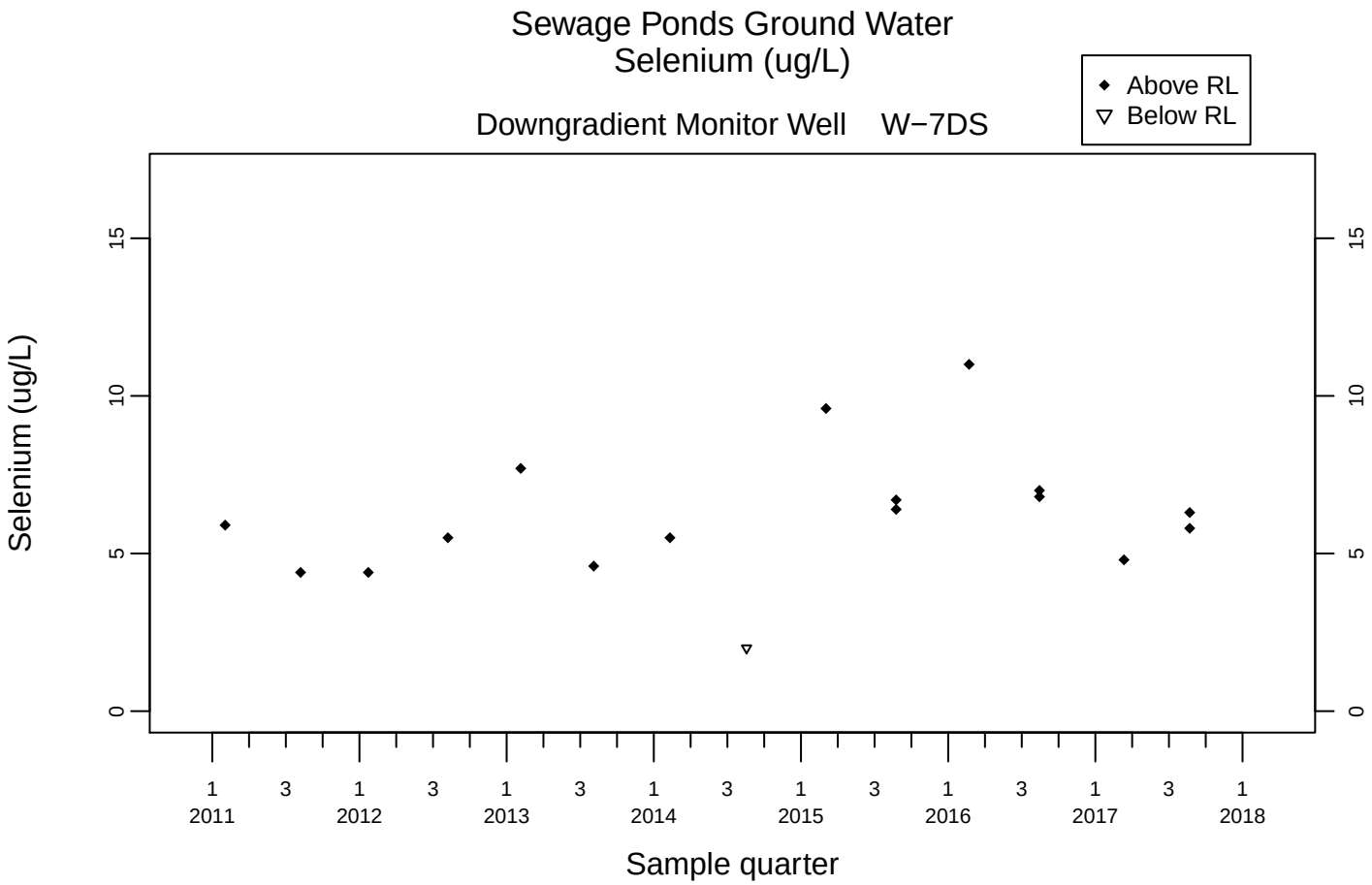
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Selenium (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Selenium (ug/L)
0
5
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1 2011
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1 2012
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1 2013
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1 2014
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1 2015
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1 2016
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1 2017
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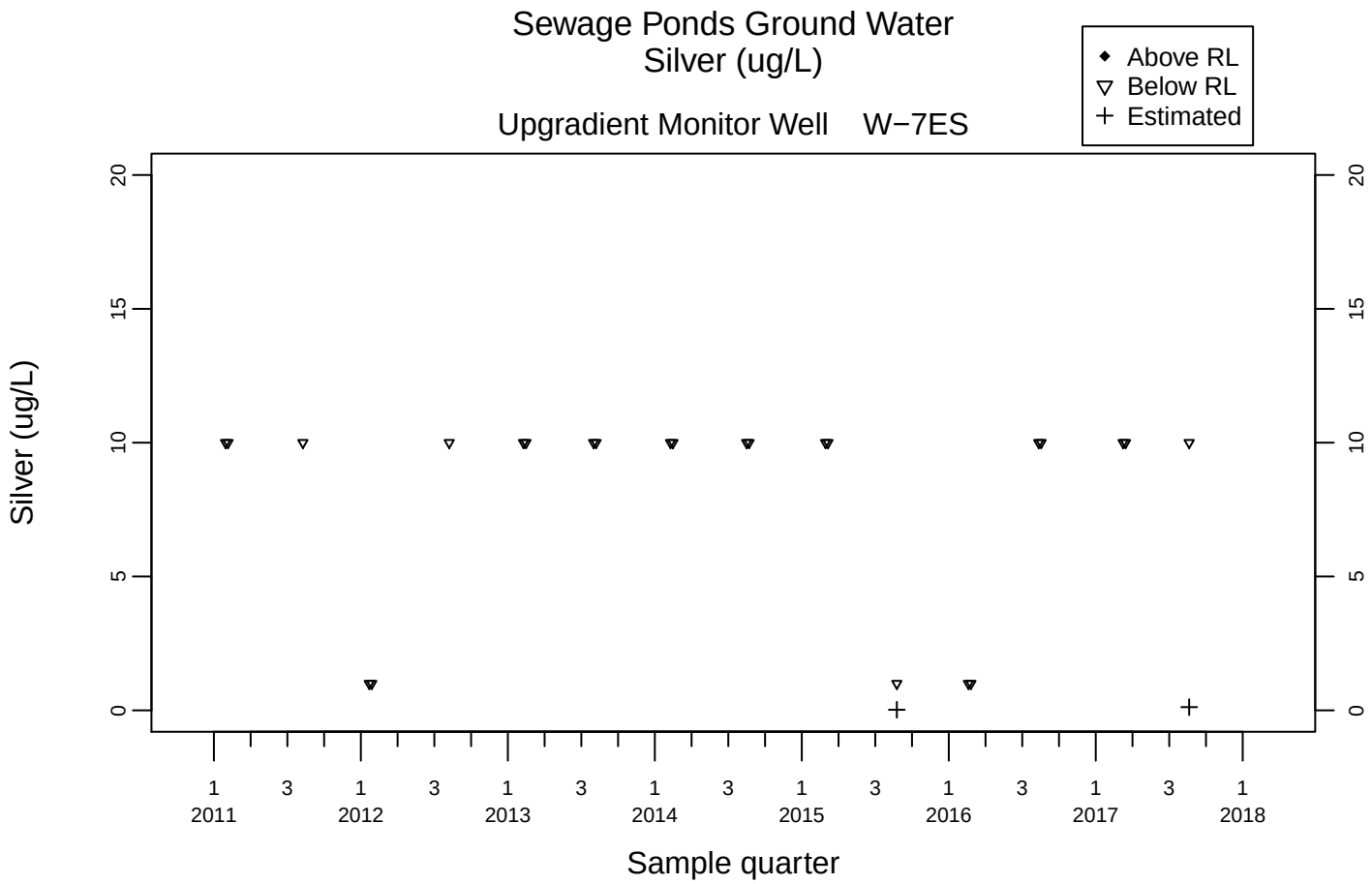
1 2018
Sample quarter


Sewage Ponds Ground Water
Silver (ug/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Estimated
Silver (ug/L)
0
5
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1 2011
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1 2012
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1 2013
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1 2014
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1 2015
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1 2016
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1 2017
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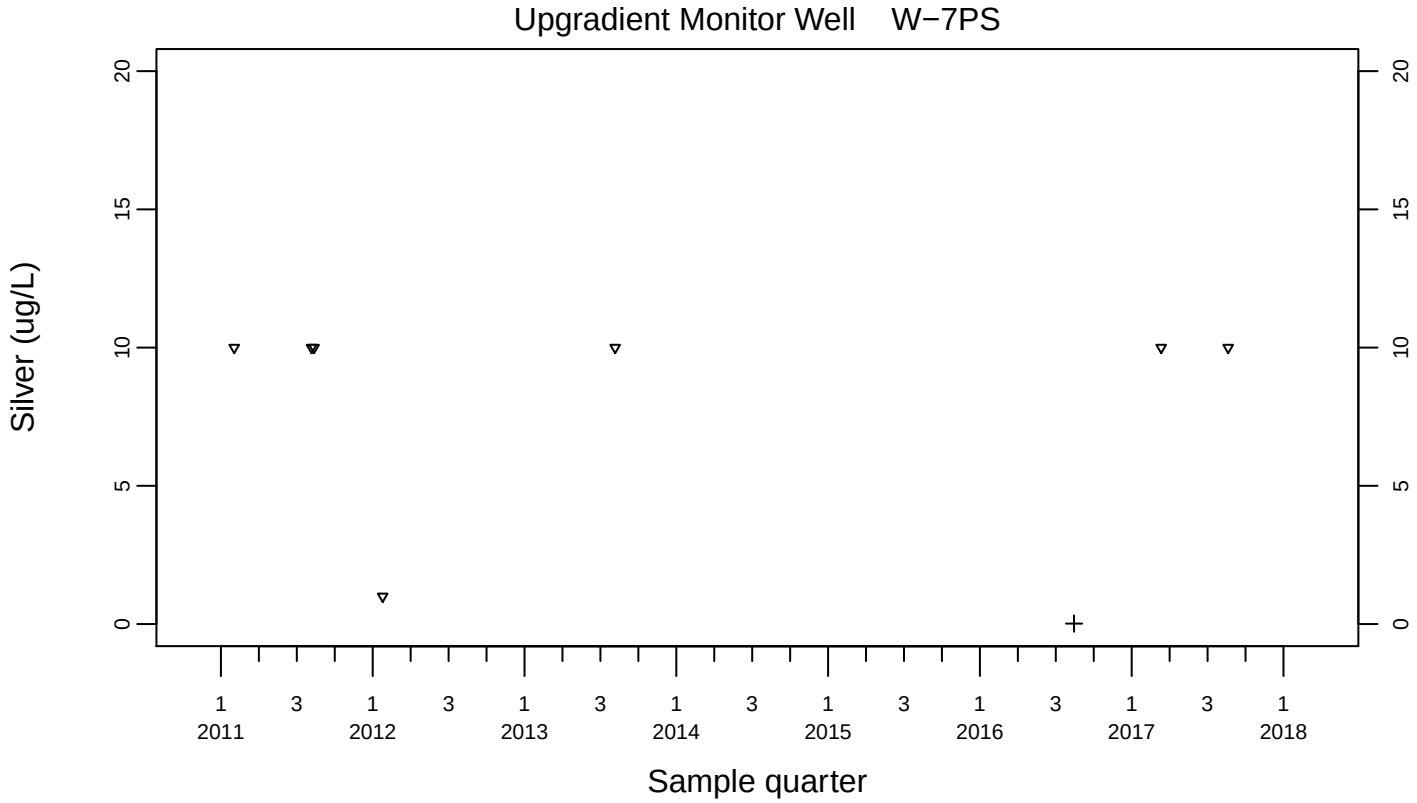
1 2018
Sample quarter


Upgradient Monitor Well W−7PS
Silver (ug/L)
0
5
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1 2011
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1 2012
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1 2013
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1 2014
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1 2015
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1 2016
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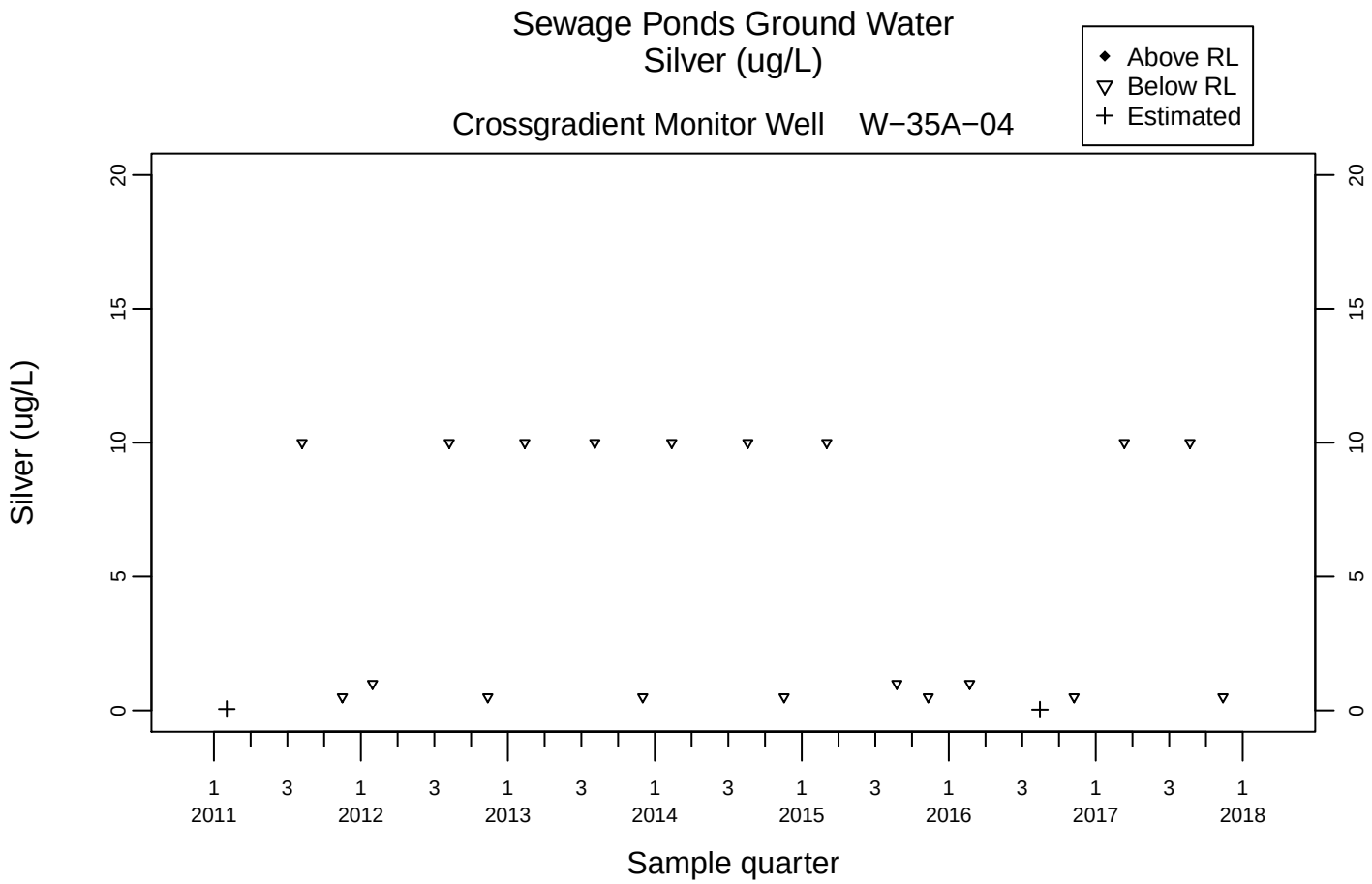
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Silver (ug/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Estimated
Silver (ug/L)
0
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1 2011
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1 2012
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1 2013
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1 2014
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1 2015
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1 2016
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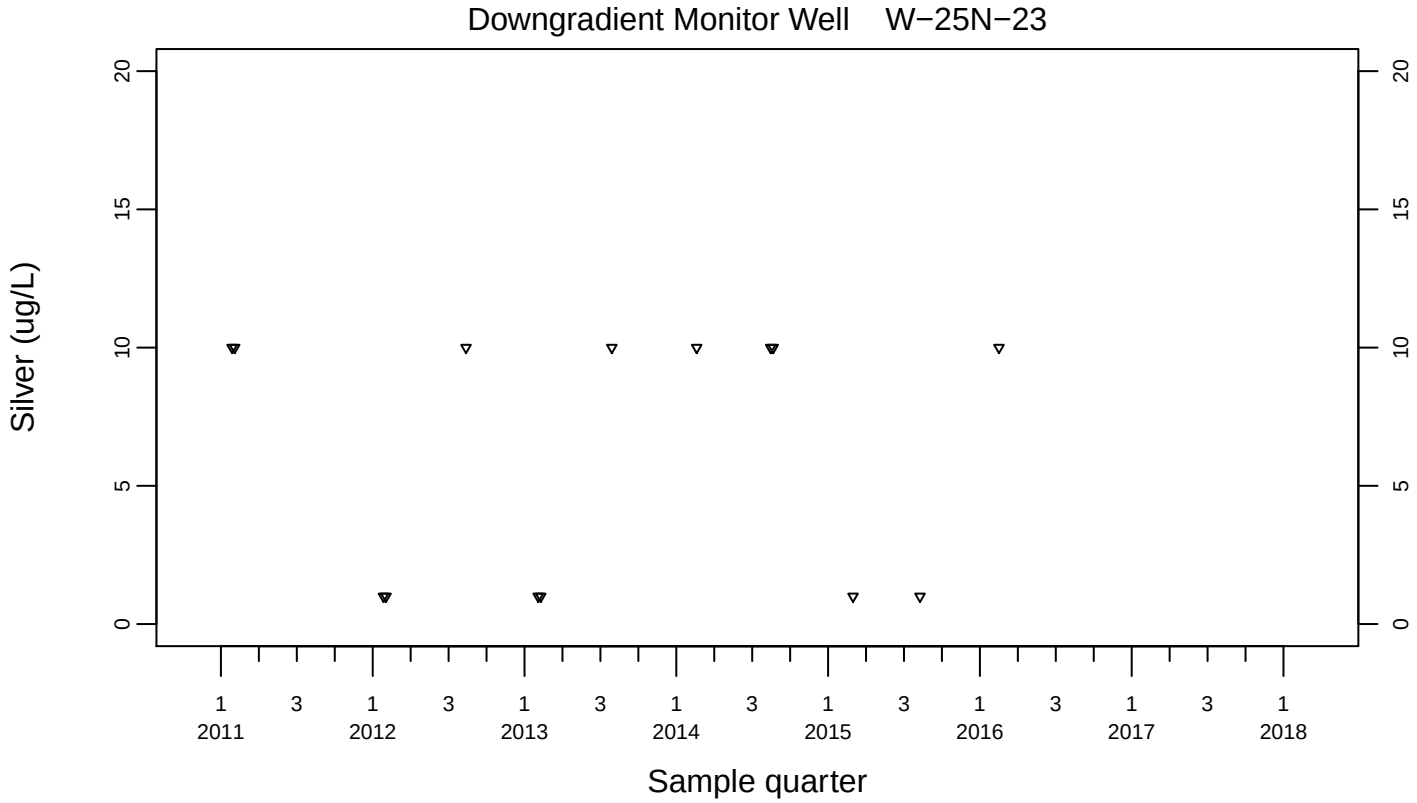
1 2017
3
1 2018
Sample quarter


Downgradient Monitor Well W−25N−23
Silver (ug/L)
0
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1 2011
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1 2012
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1 2013
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1 2014
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1 2015
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1 2016
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1 2017
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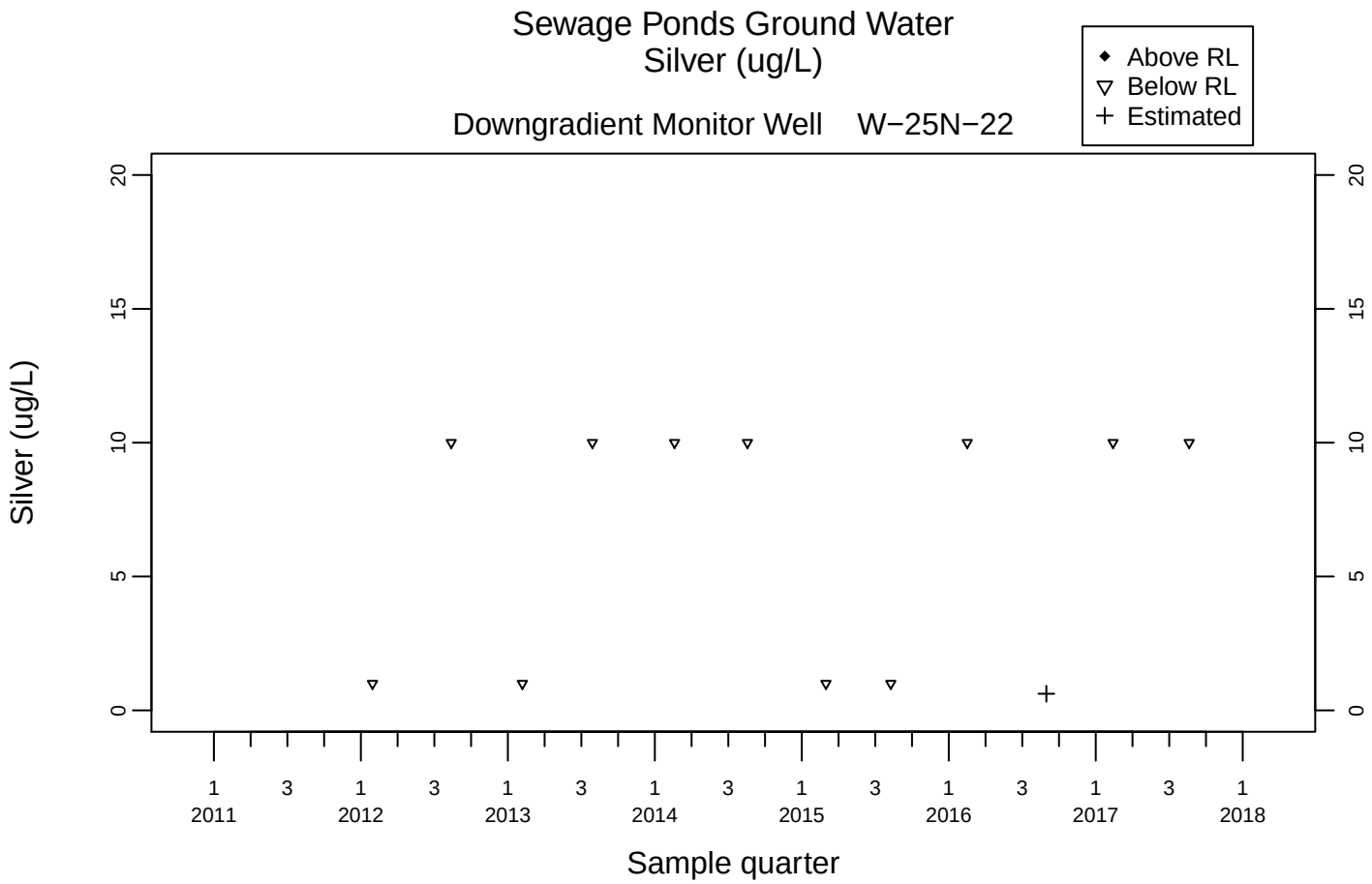
1 2018
Sample quarter


Sewage Ponds Ground Water
Silver (ug/L)
Above RL
Below RL
Estimated
Downgradient Monitor Well W−25N−22
Silver (ug/L)
0
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1 2011
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1 2012
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1 2013
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1 2014
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1 2016
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1 2017
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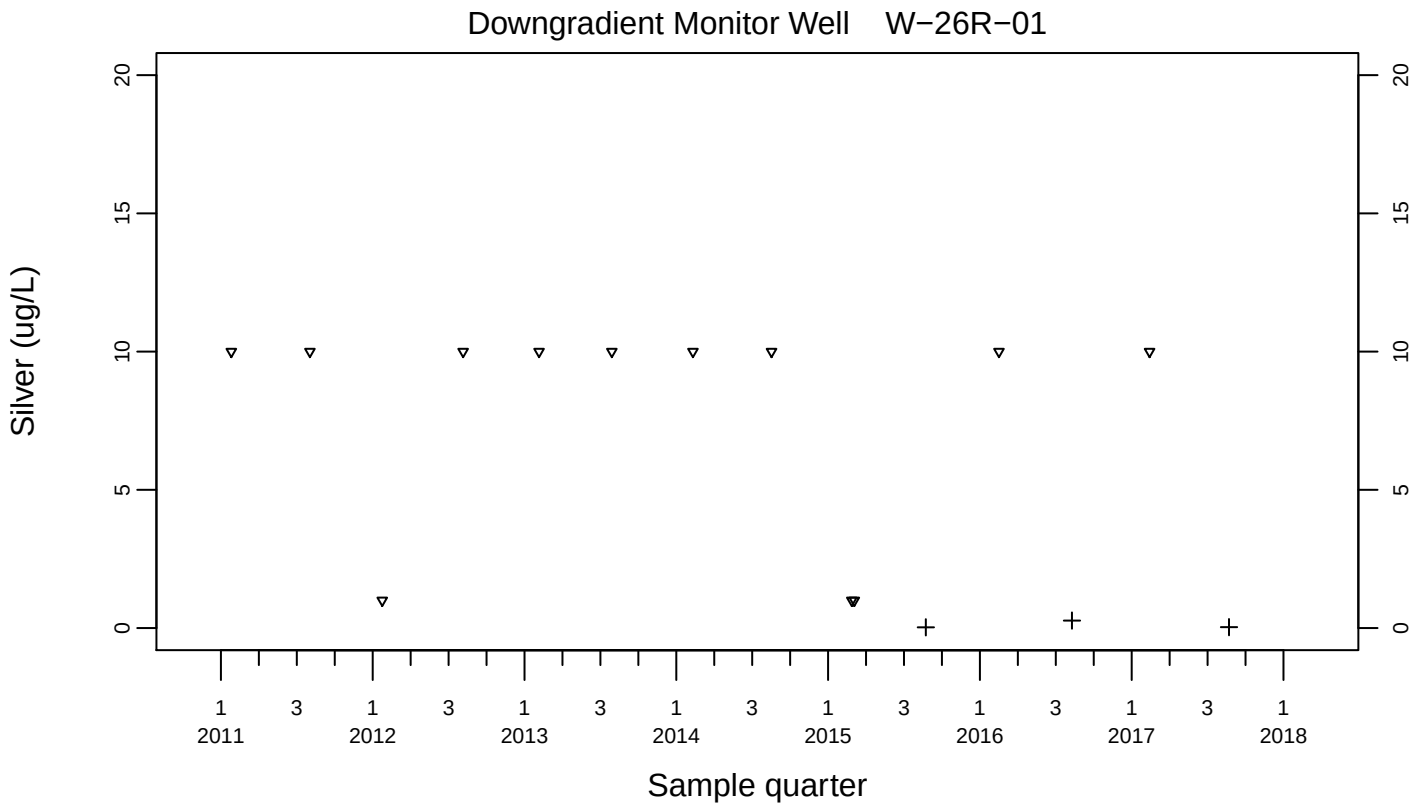
1 2018
Sample quarter


Downgradient Monitor Well W−26R−01
Silver (ug/L)
0
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10
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1 2011
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1 2012
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1 2013
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1 2014
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1 2015
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1 2016
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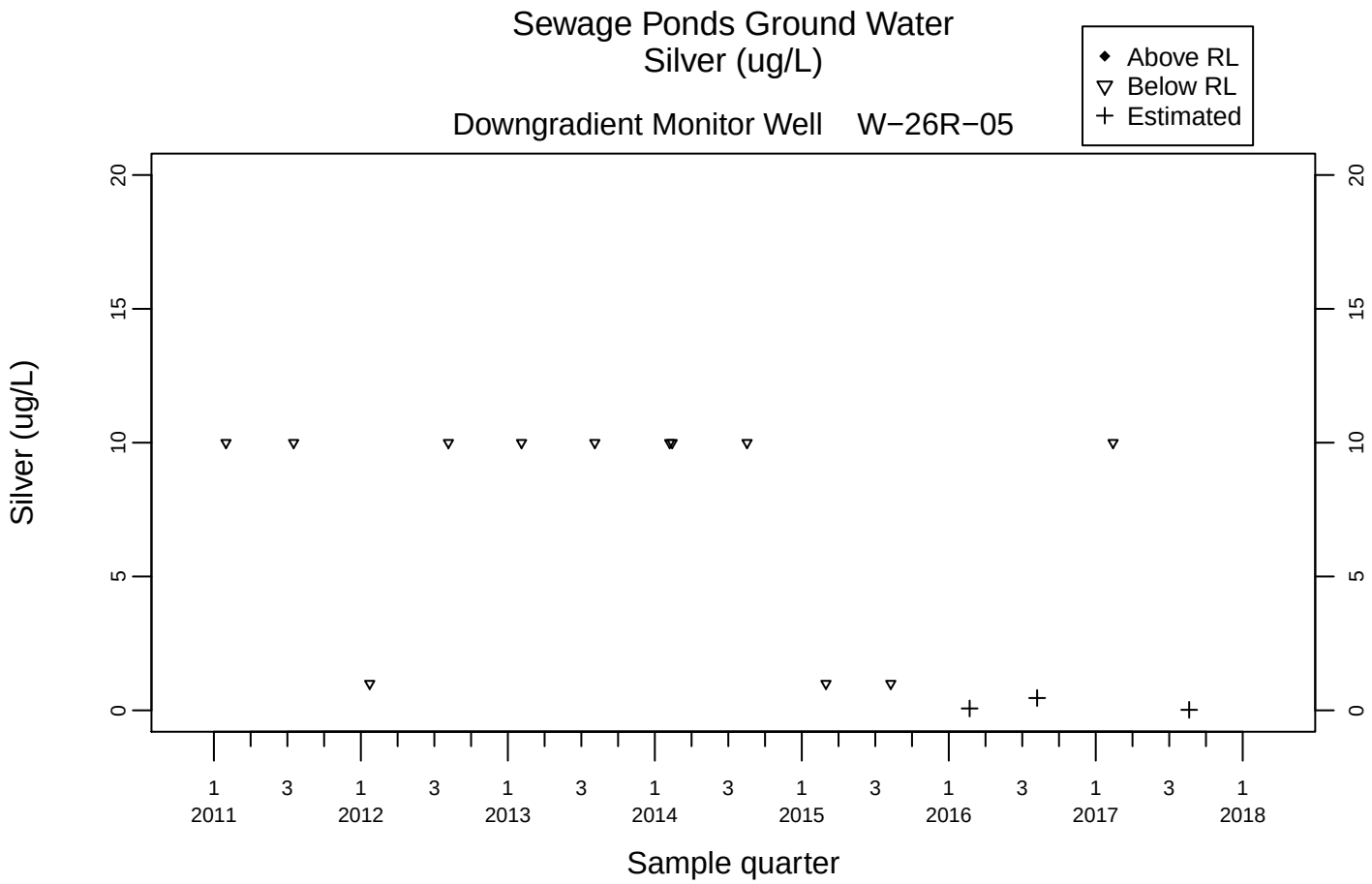
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Silver (ug/L)
Above RL
Below RL
Estimated
Downgradient Monitor Well W−26R−05
Silver (ug/L)
0
5
10
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1 2011
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1 2012
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1 2013
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1 2014
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1 2015
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1 2016
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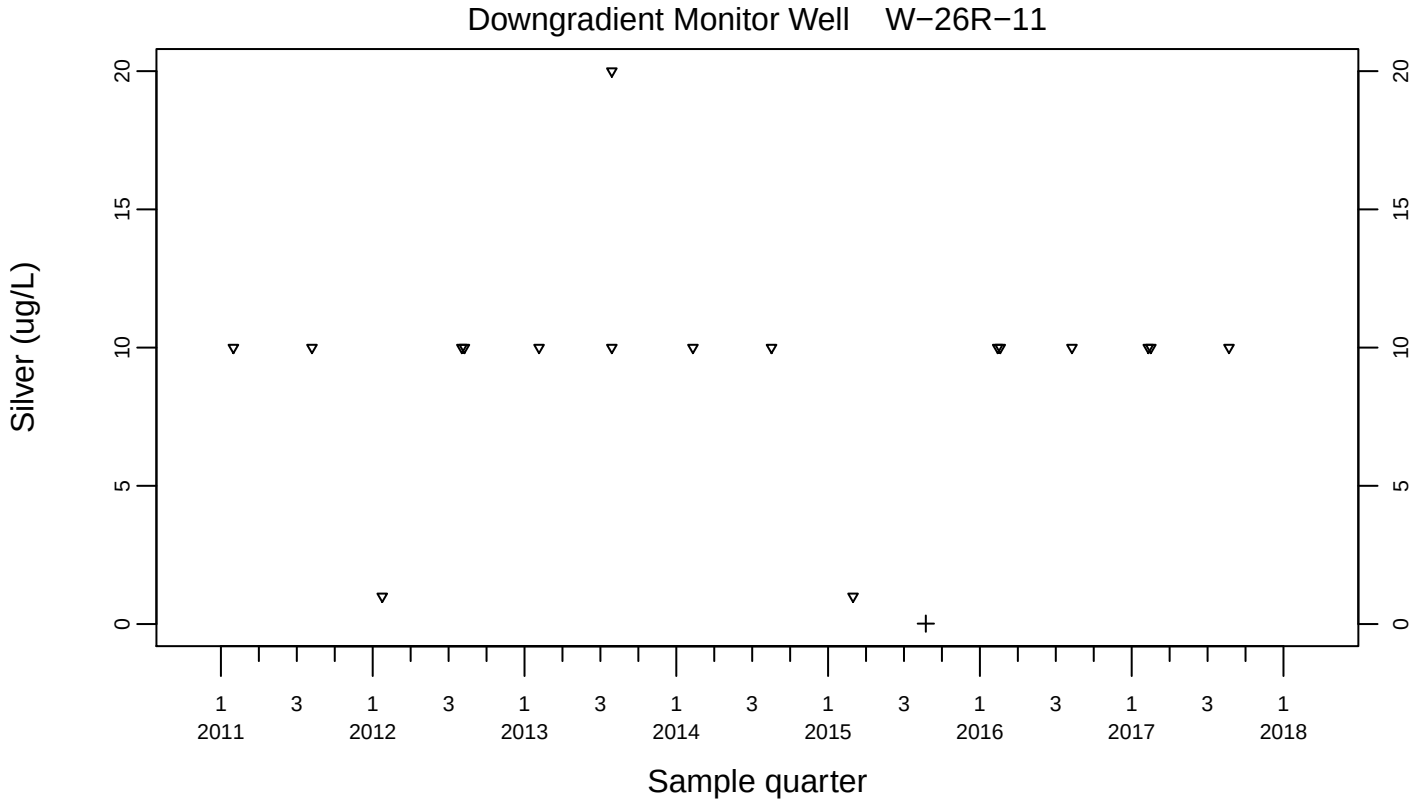
1 2017
3
1 2018
Sample quarter


Downgradient Monitor Well W−26R−11
Silver (ug/L)
0
5
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1 2011
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1 2012
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1 2013
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1 2014
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1 2015
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1 2016
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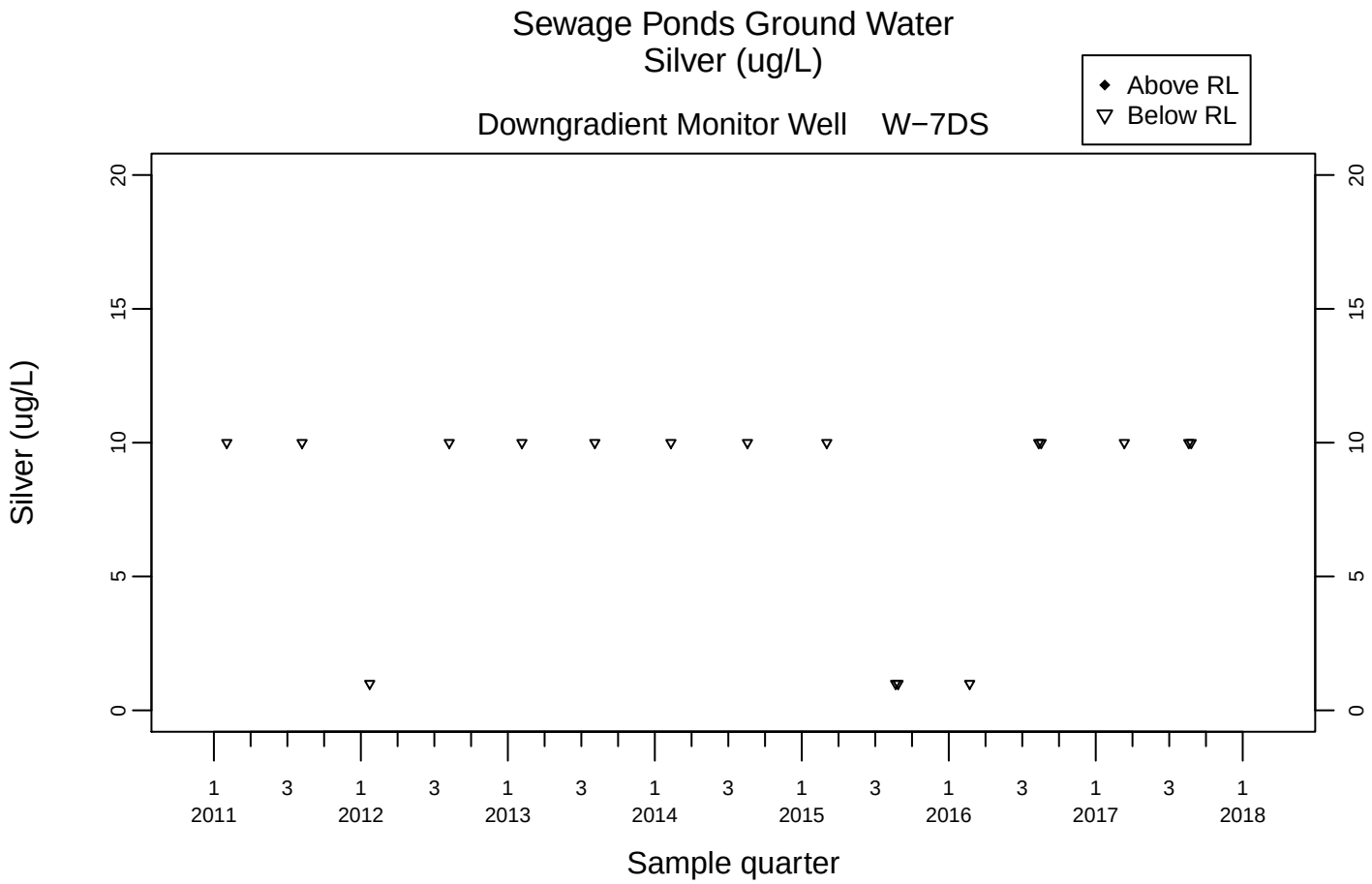
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Silver (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Silver (ug/L)
0
5
10
15
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1 2011
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1 2012
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1 2013
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1 2014
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1 2015
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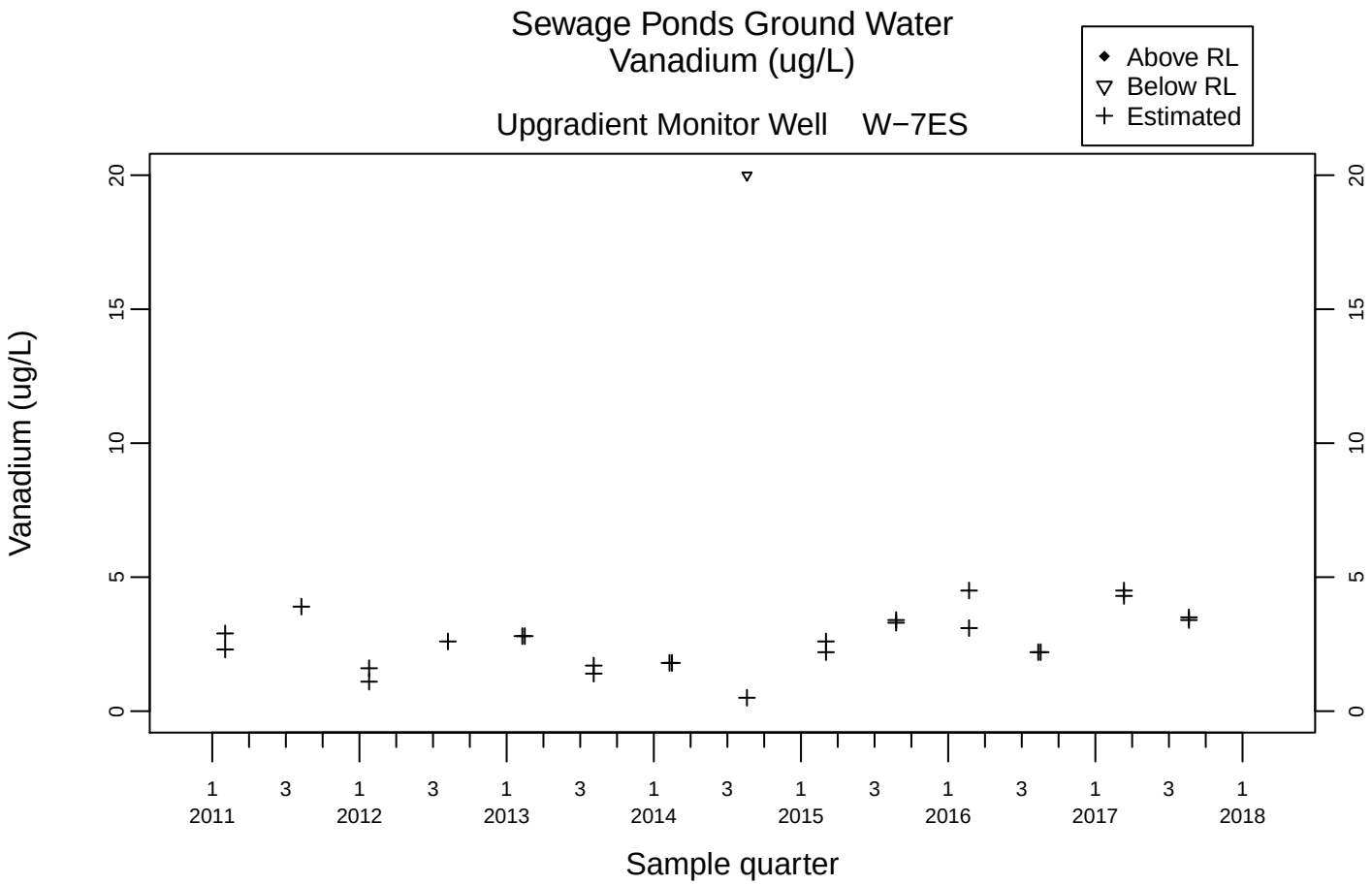
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Vanadium (ug/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Estimated
Vanadium (ug/L)
0
5
10
15
20
1 2011
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1 2012
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1 2013
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1 2014
3
1 2015
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1 2016
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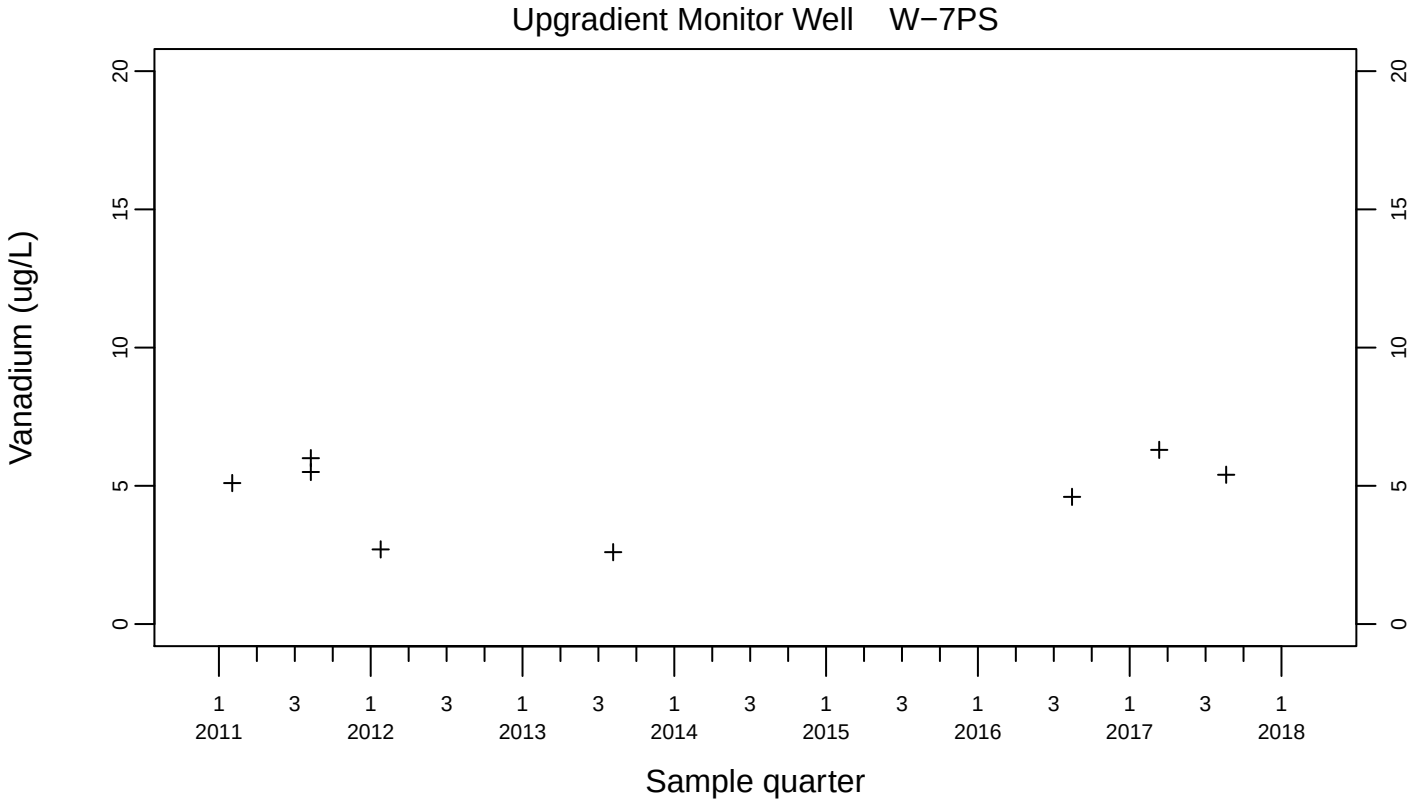
1 2017
3
1 2018
Sample quarter


Upgradient Monitor Well W−7PS
Vanadium (ug/L)
0
5
10
15
20
1 2011
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1 2012
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1 2013
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1 2014
3
1 2015
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1 2016
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1 2017
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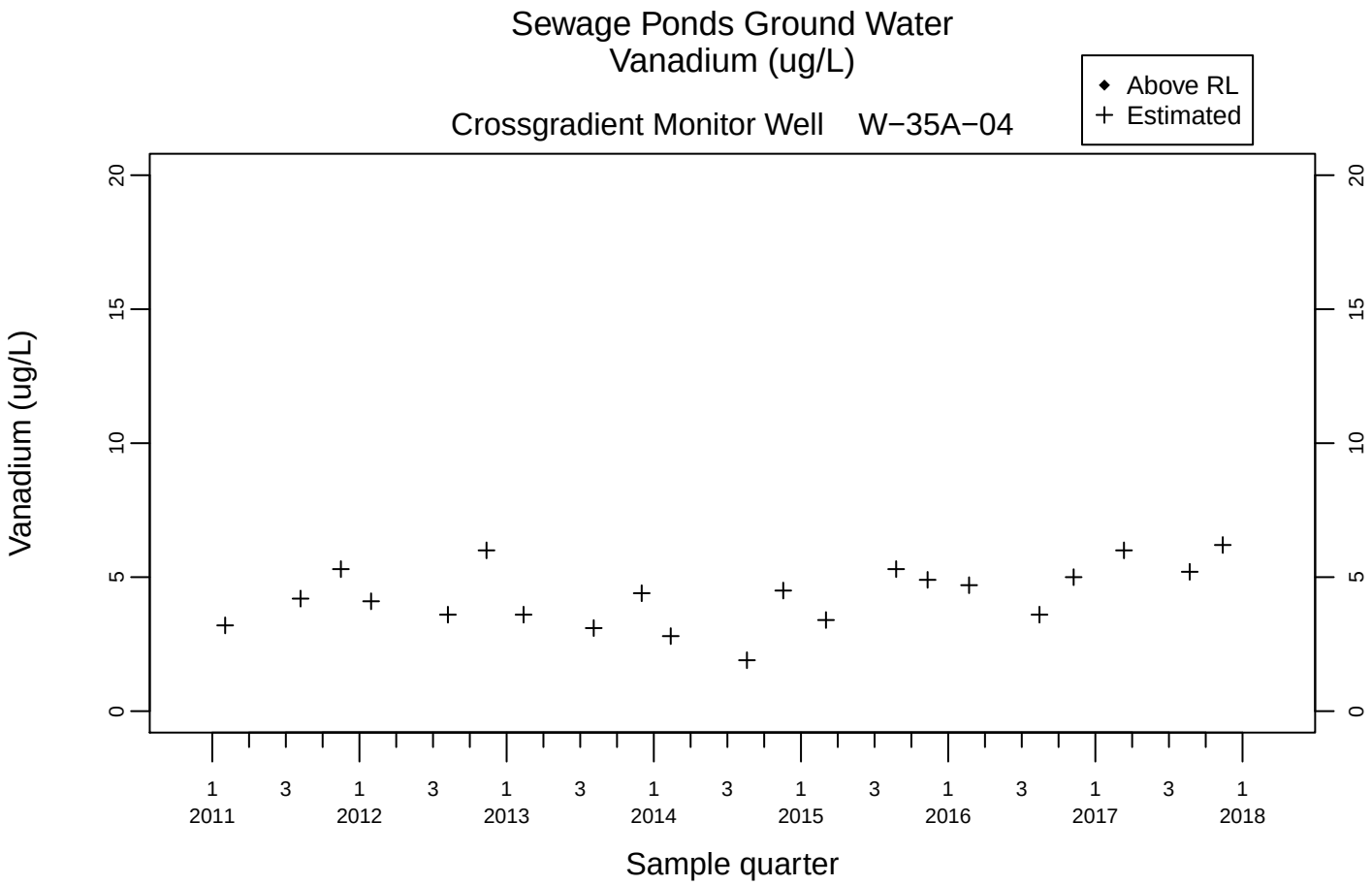
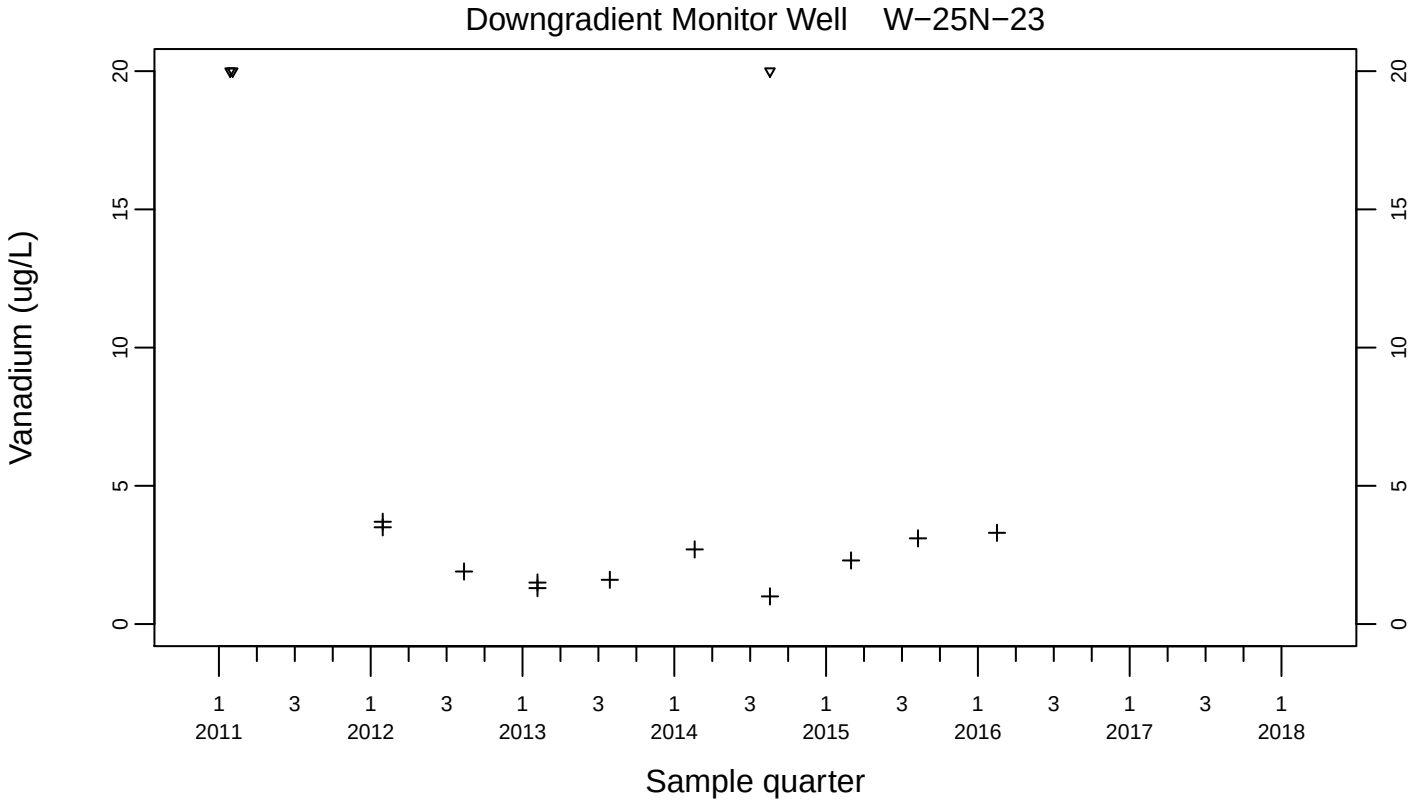
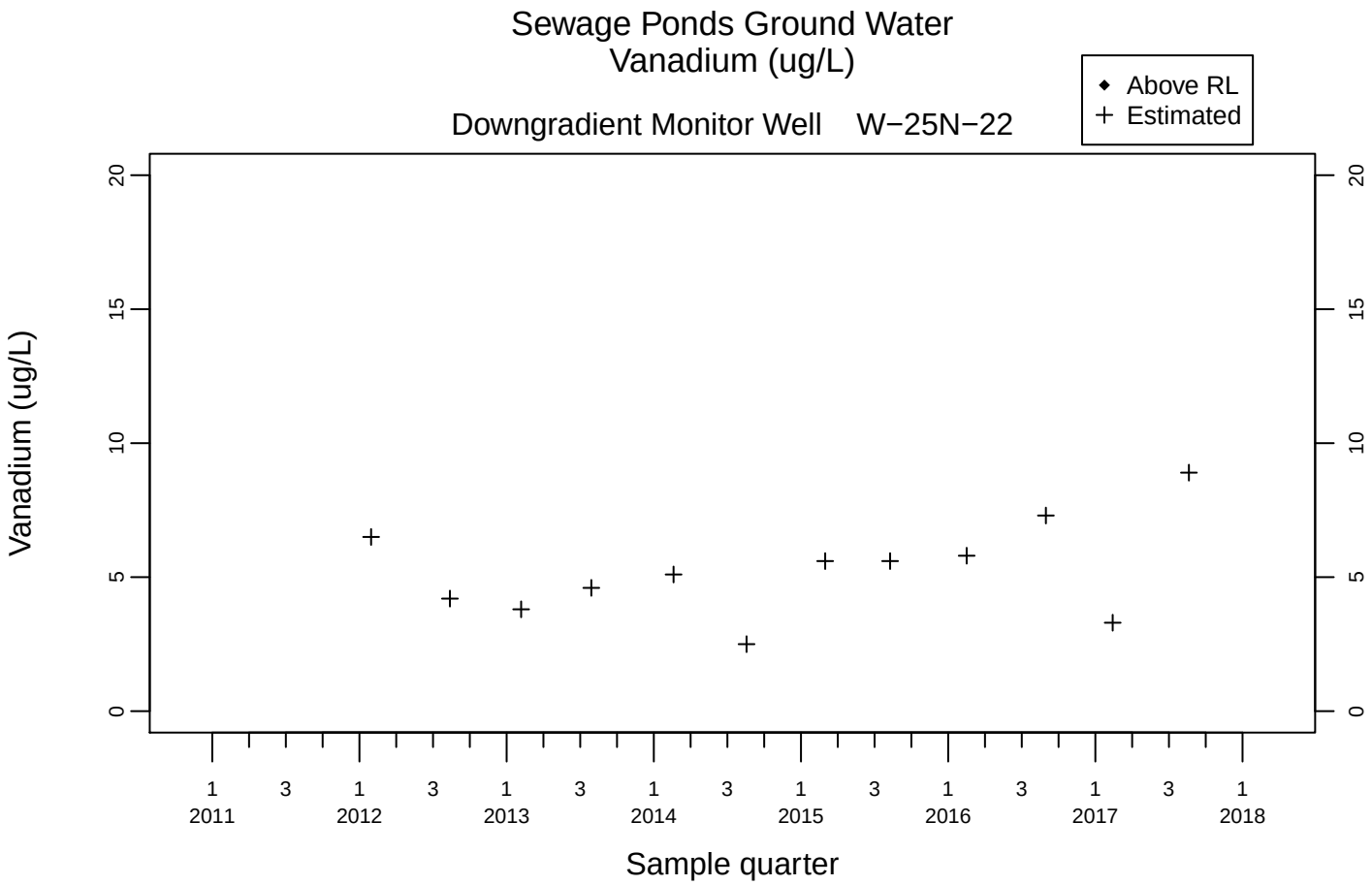
1 2018
Sample quarter


Sewage Ponds Ground Water
Vanadium (ug/L)
Above RL
Estimated
Crossgradient Monitor Well W−35A−04
Vanadium (ug/L)
0
5
10
15
20
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter


Downgradient Monitor Well W−25N−23
Vanadium (ug/L)
0
5
10
15
20
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter


Sewage Ponds Ground Water
Vanadium (ug/L)
Above RL
Estimated
Downgradient Monitor Well W−25N−22
Vanadium (ug/L)
0
5
10
15
20
1 2011
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1 2012
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1 2013
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1 2014
3
1 2015
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1 2016
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1 2017
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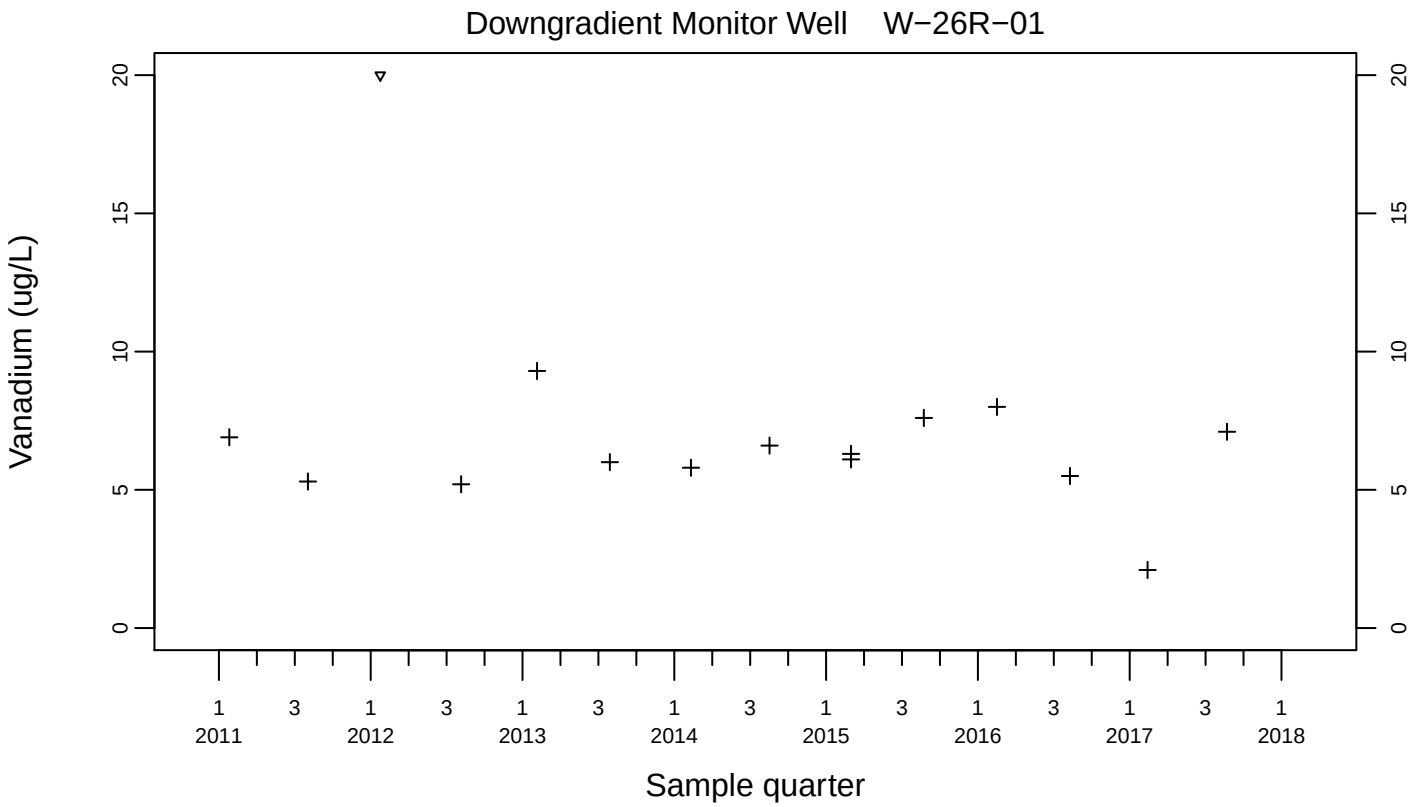
1 2018
Sample quarter


Downgradient Monitor Well W−26R−01
Vanadium (ug/L)
0
5
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15
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1 2011
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1 2012
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1 2013
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1 2014
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1 2015
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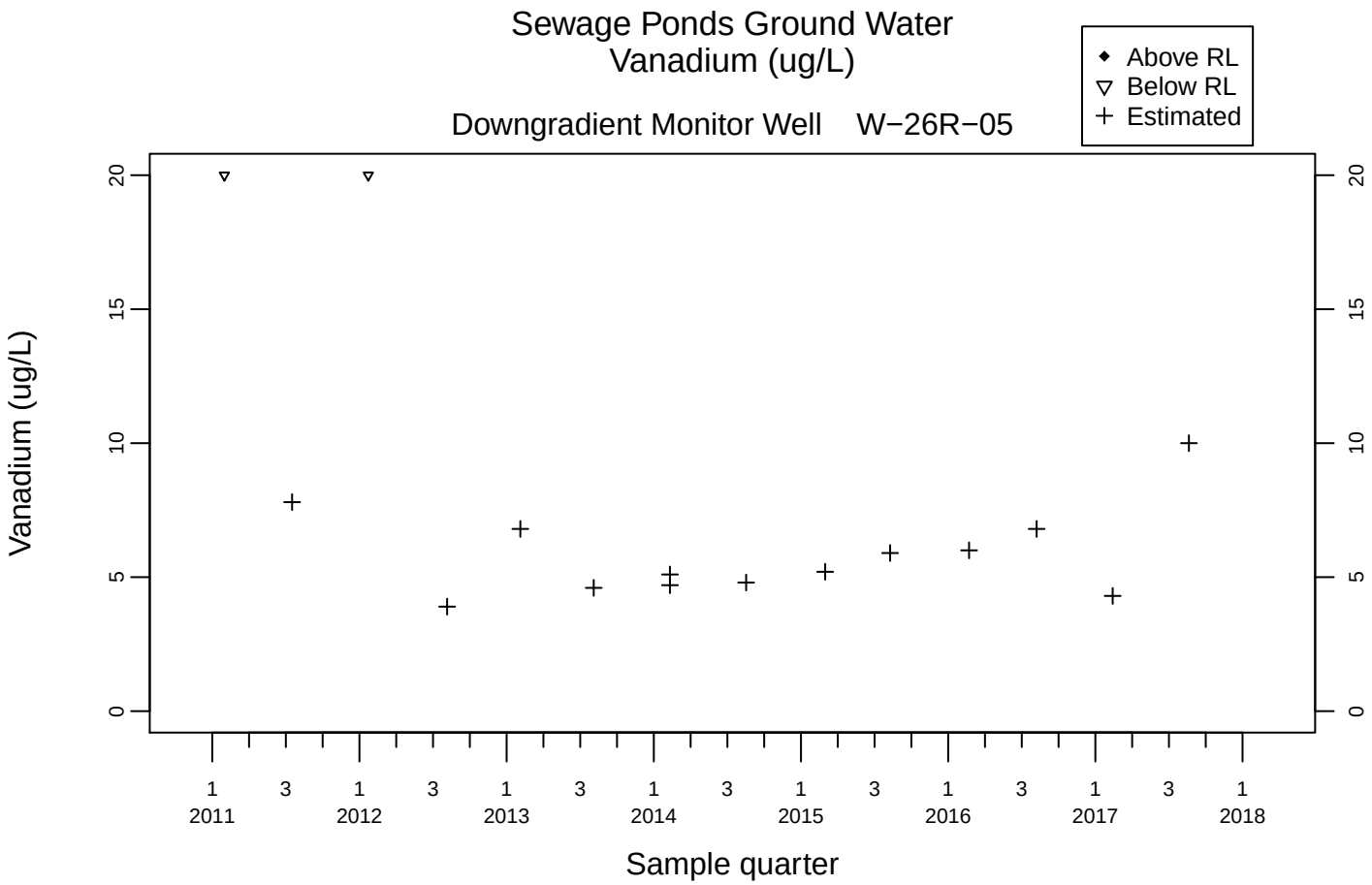
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Vanadium (ug/L)
Above RL
Below RL
Estimated
Downgradient Monitor Well W−26R−05
Vanadium (ug/L)
0
5
10
15
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1 2011
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1 2012
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1 2013
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1 2014
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1 2015
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1 2016
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1 2017
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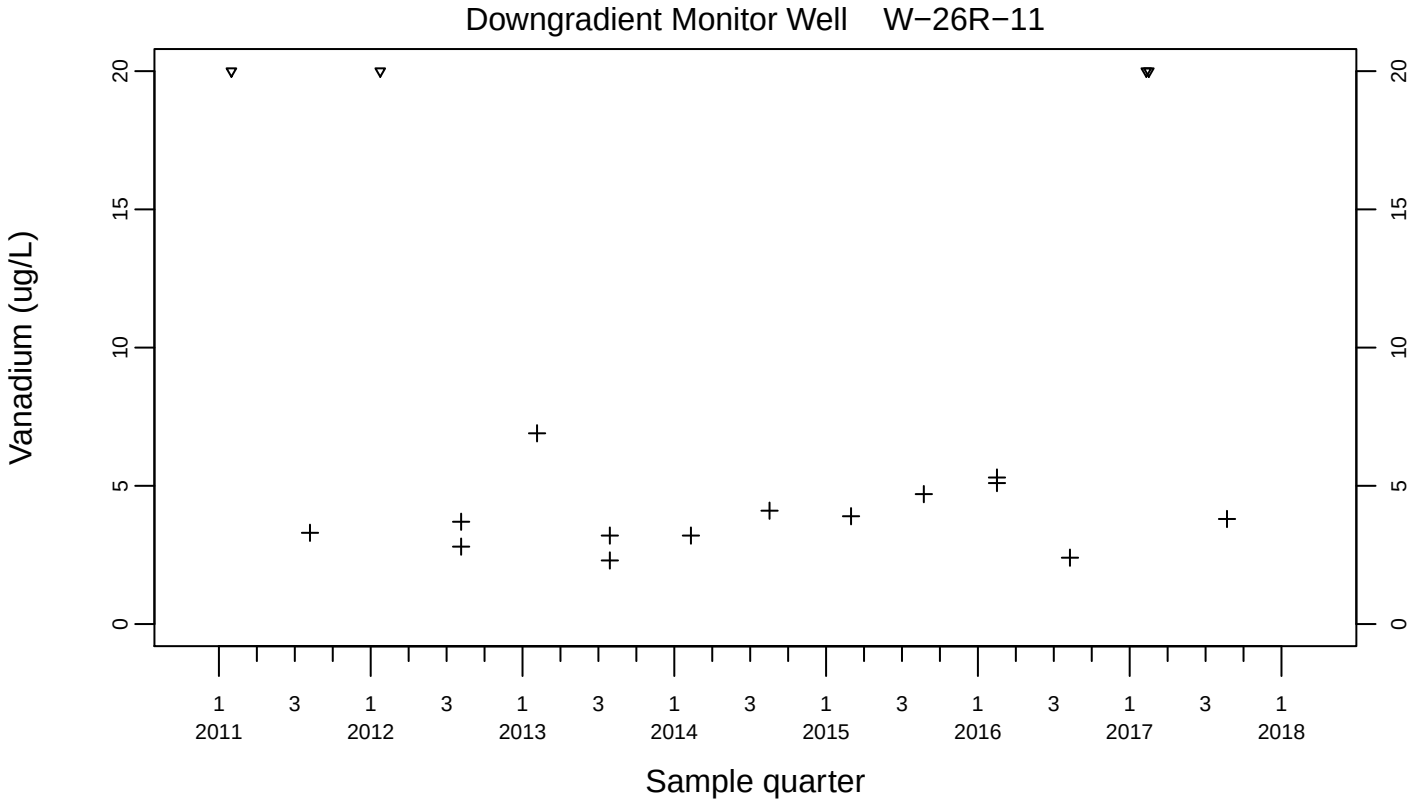
1 2018
Sample quarter


Downgradient Monitor Well W−26R−11
Vanadium (ug/L)
0
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1 2011
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1 2012
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1 2013
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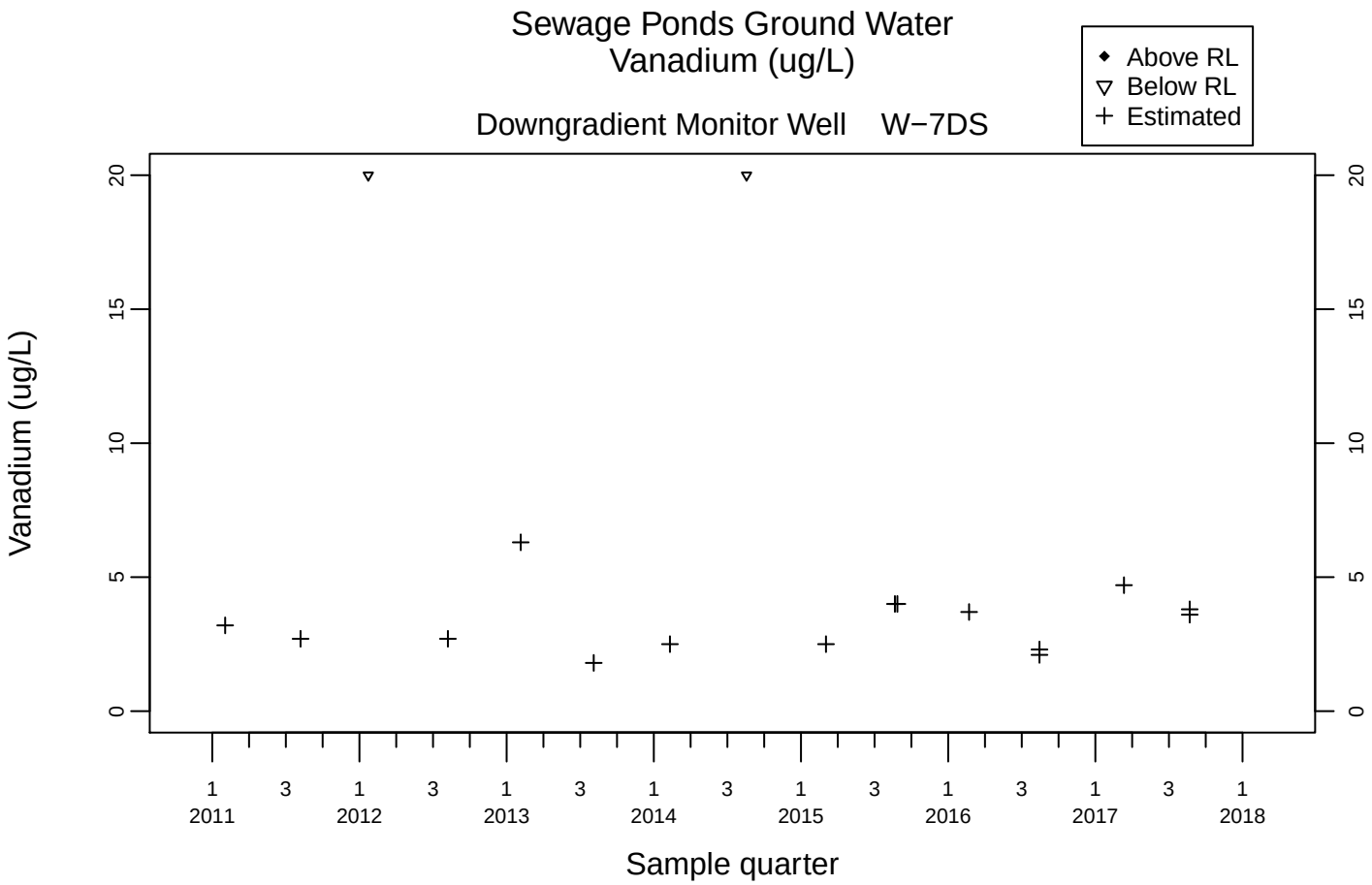
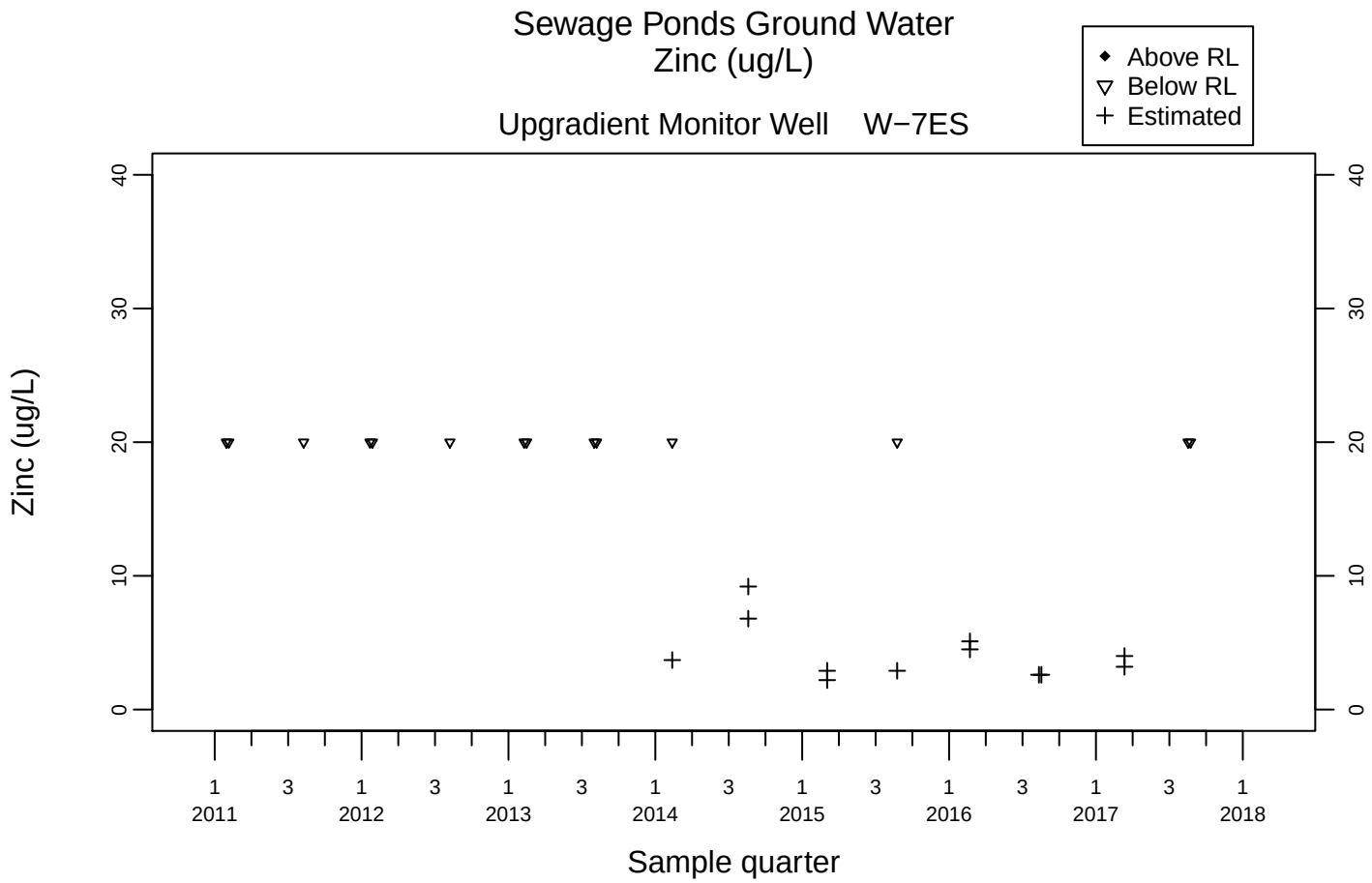
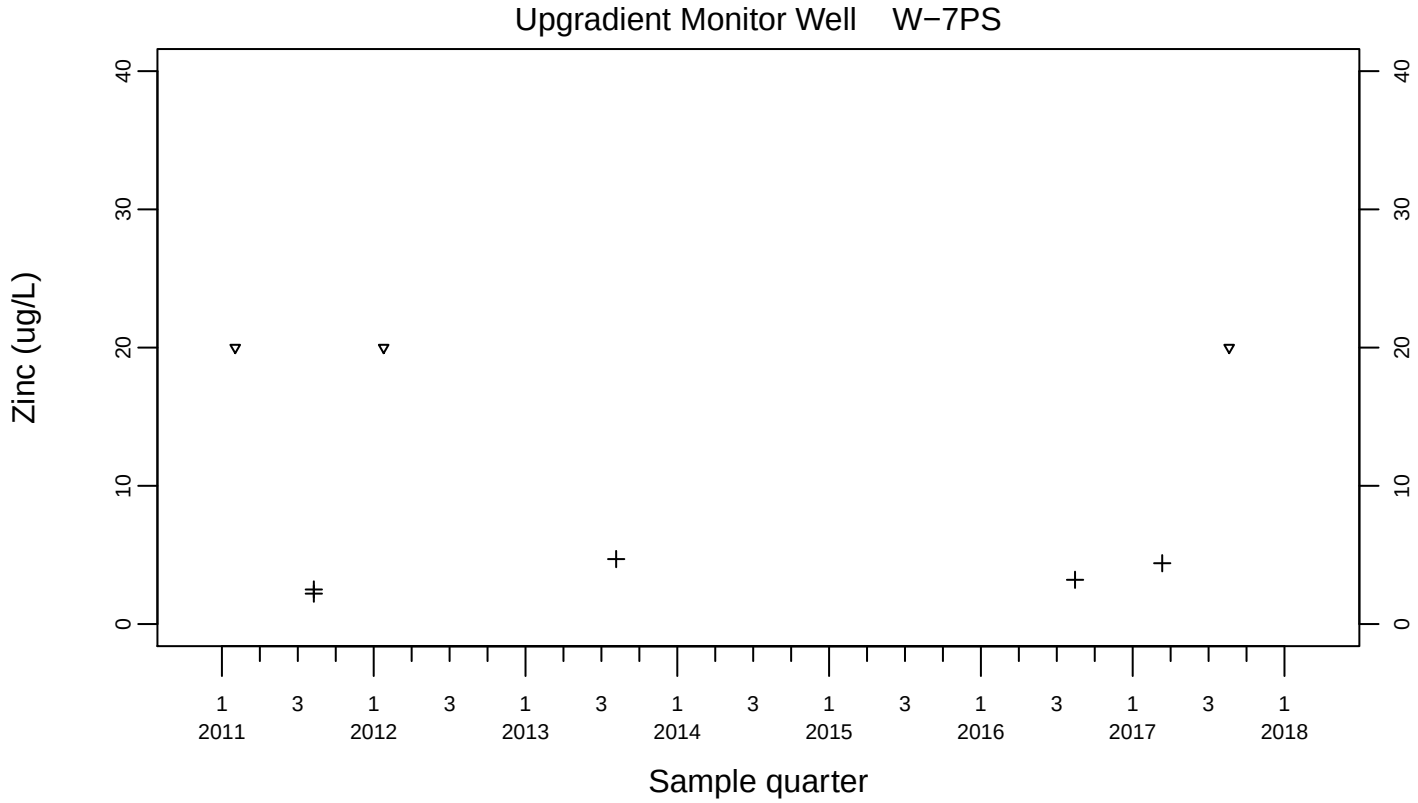
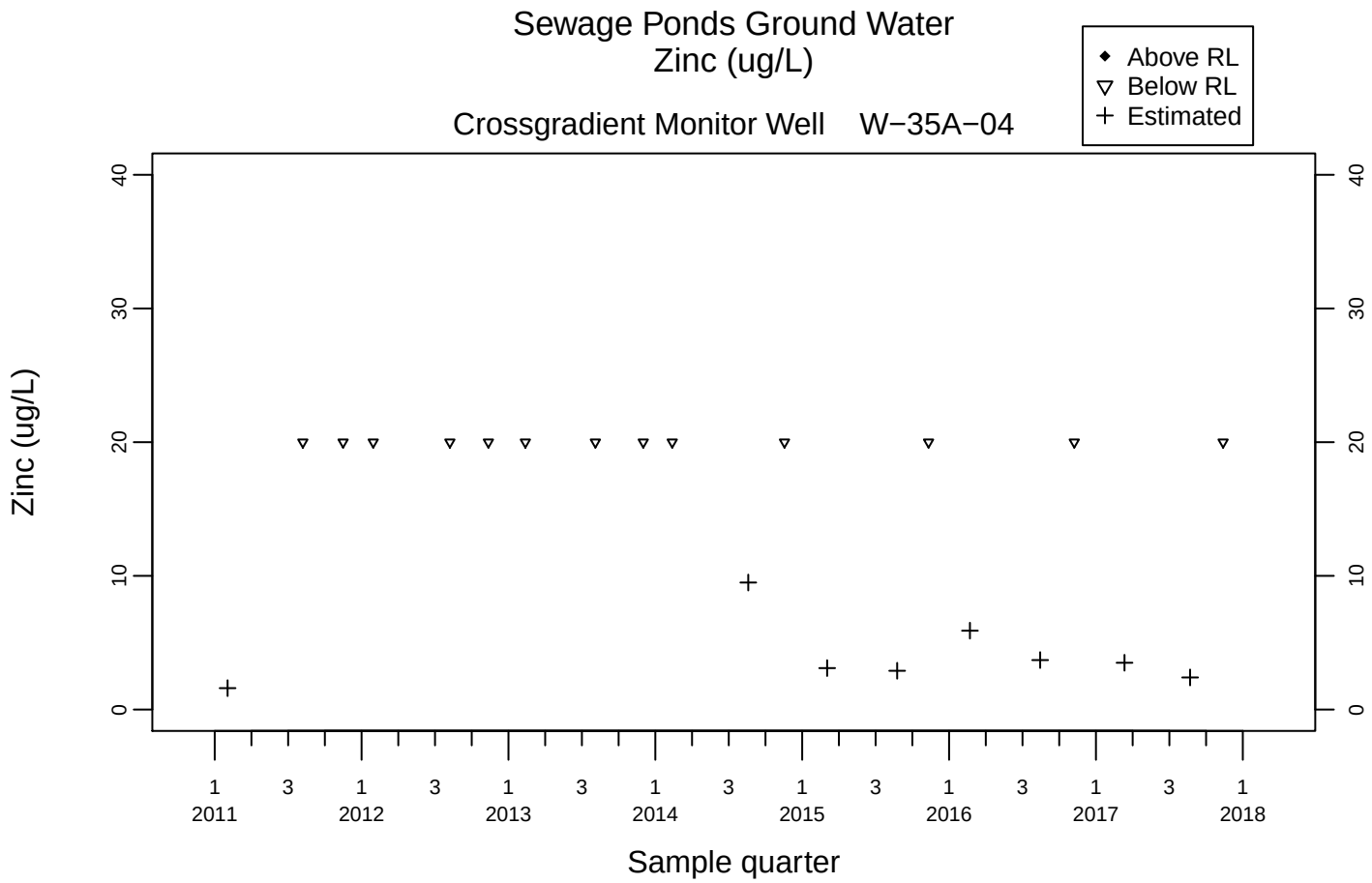
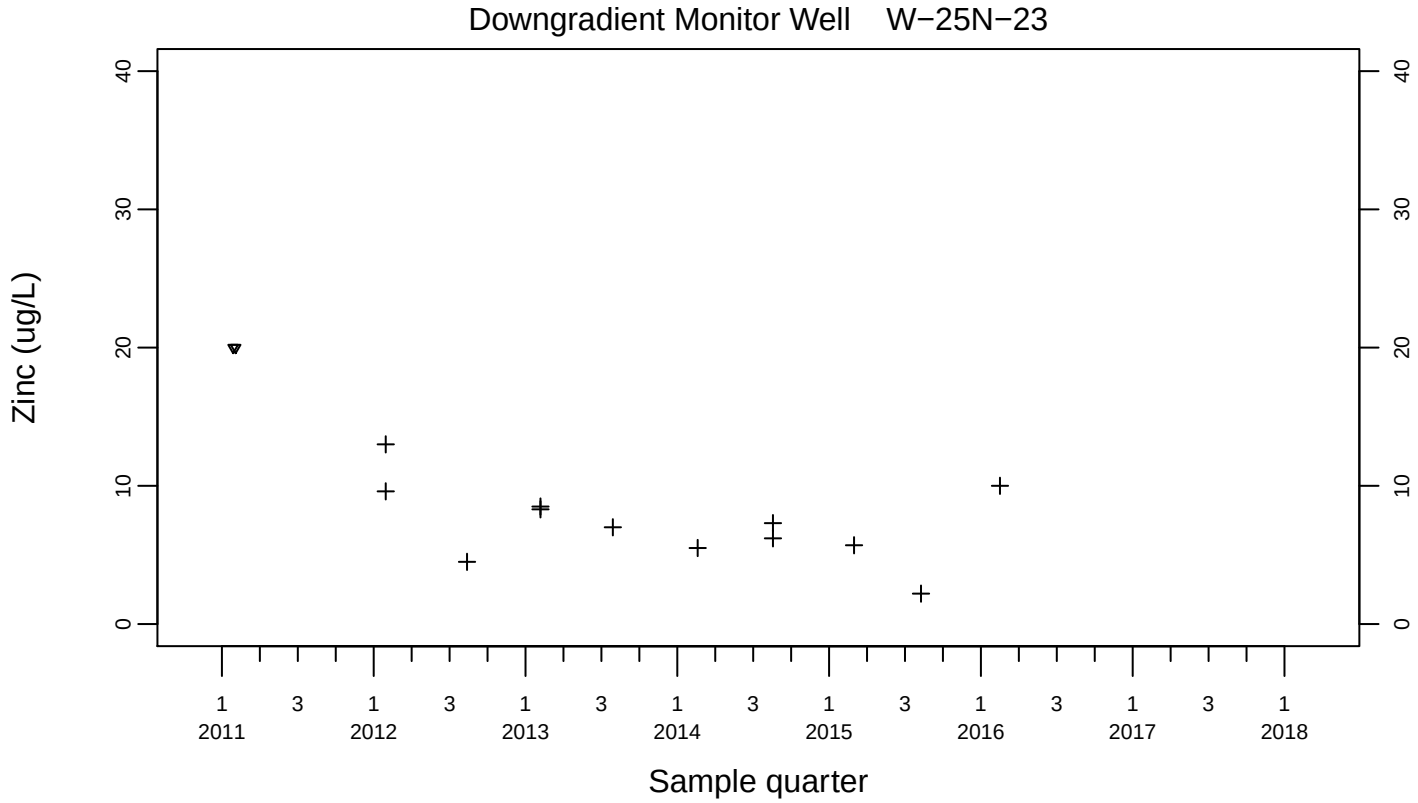
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

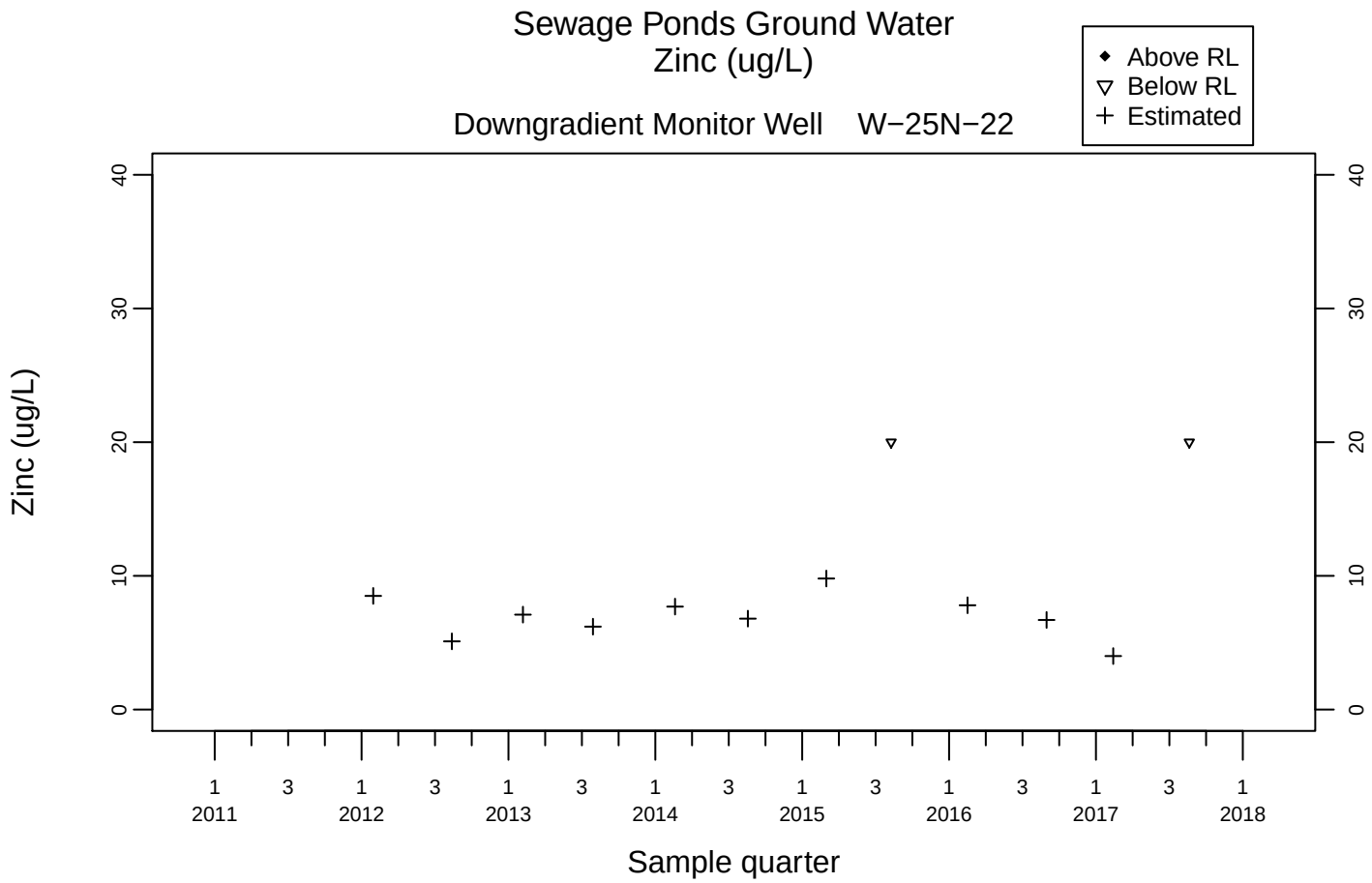

Sewage Ponds Ground Water
Vanadium (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Estimated
Vanadium (ug/L)
0
5
10
15
20
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Zinc (ug/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Estimated
Zinc (ug/L)
0
10
20
30
40
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Upgradient Monitor Well W−7PS
Zinc (ug/L)
0
10
20
30
40
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Zinc (ug/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Estimated
Zinc (ug/L)
0
10
20
30
40
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Downgradient Monitor Well W−25N−23
Zinc (ug/L)
0
10
20
30
40
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Zinc (ug/L)
Above RL
Below RL
Estimated
Downgradient Monitor Well W−25N−22
Zinc (ug/L)
0
10
20
30
40
1 2011
3
1 2012
3
1 2013
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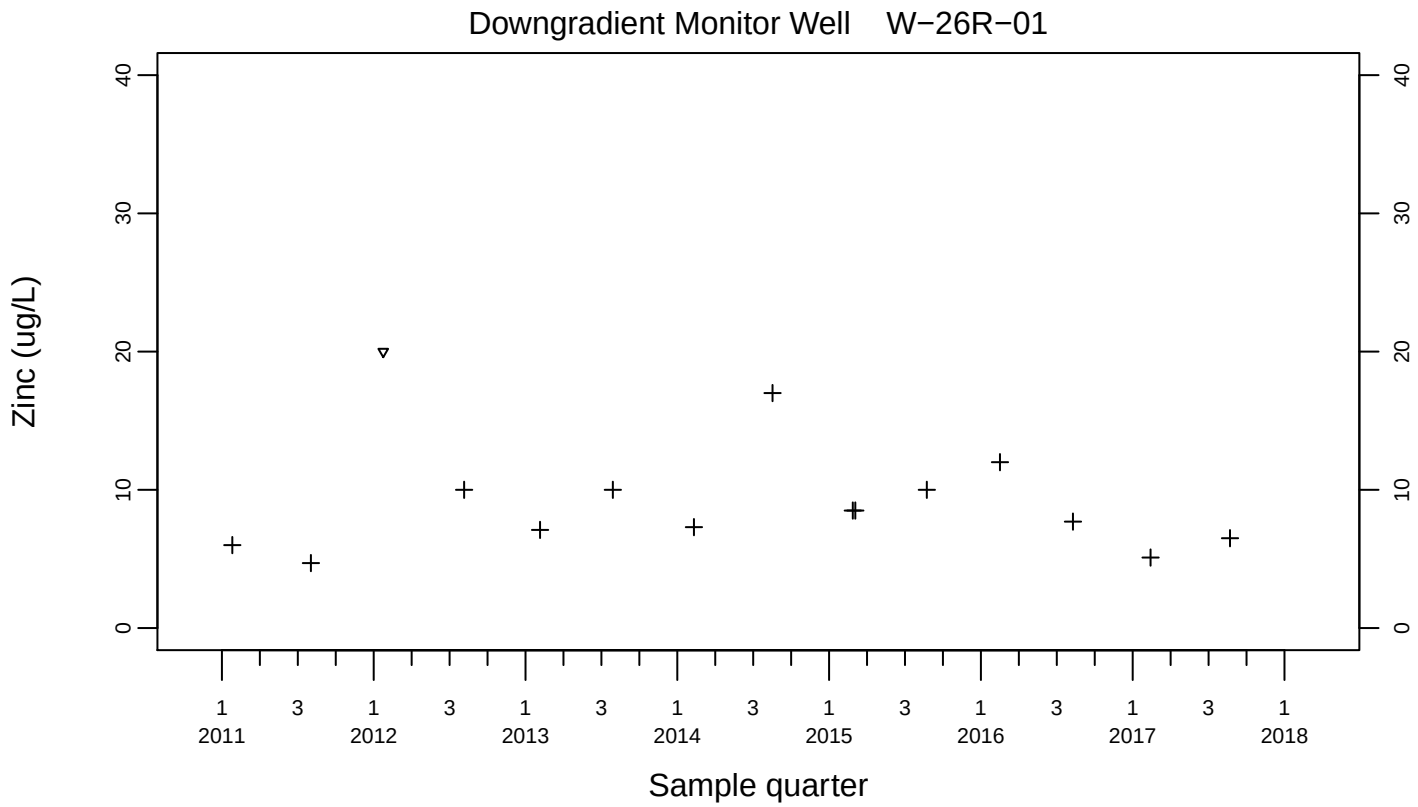
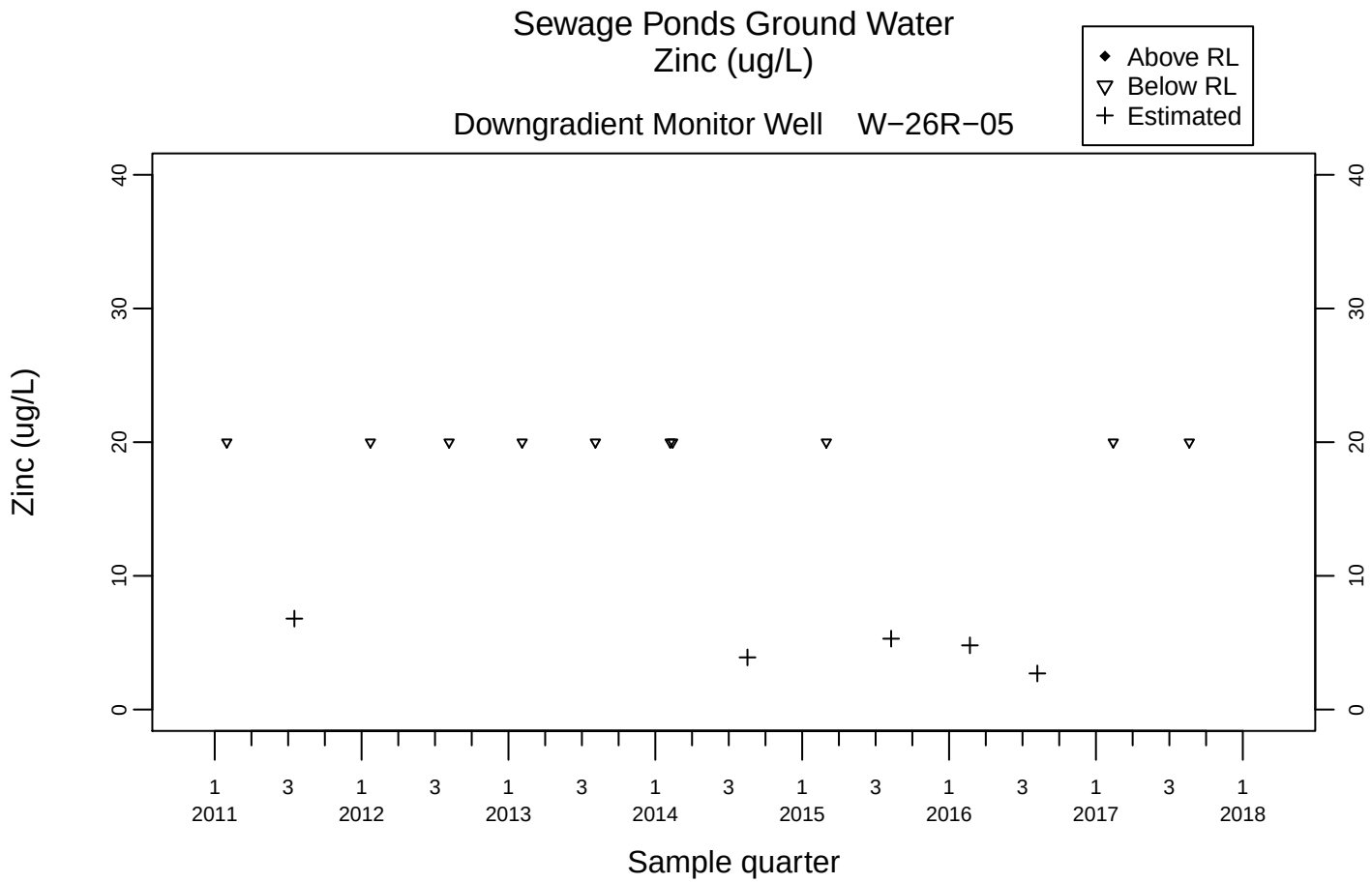
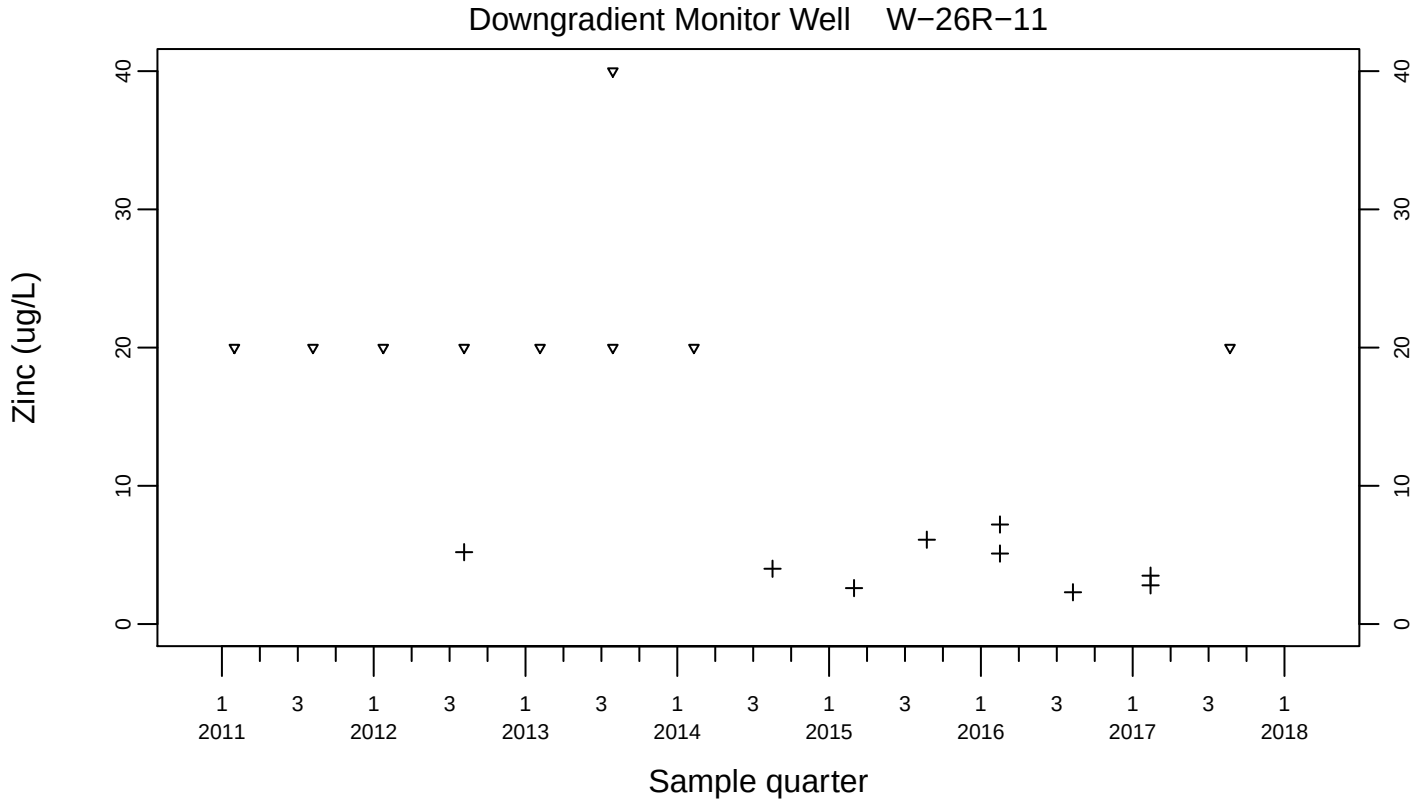
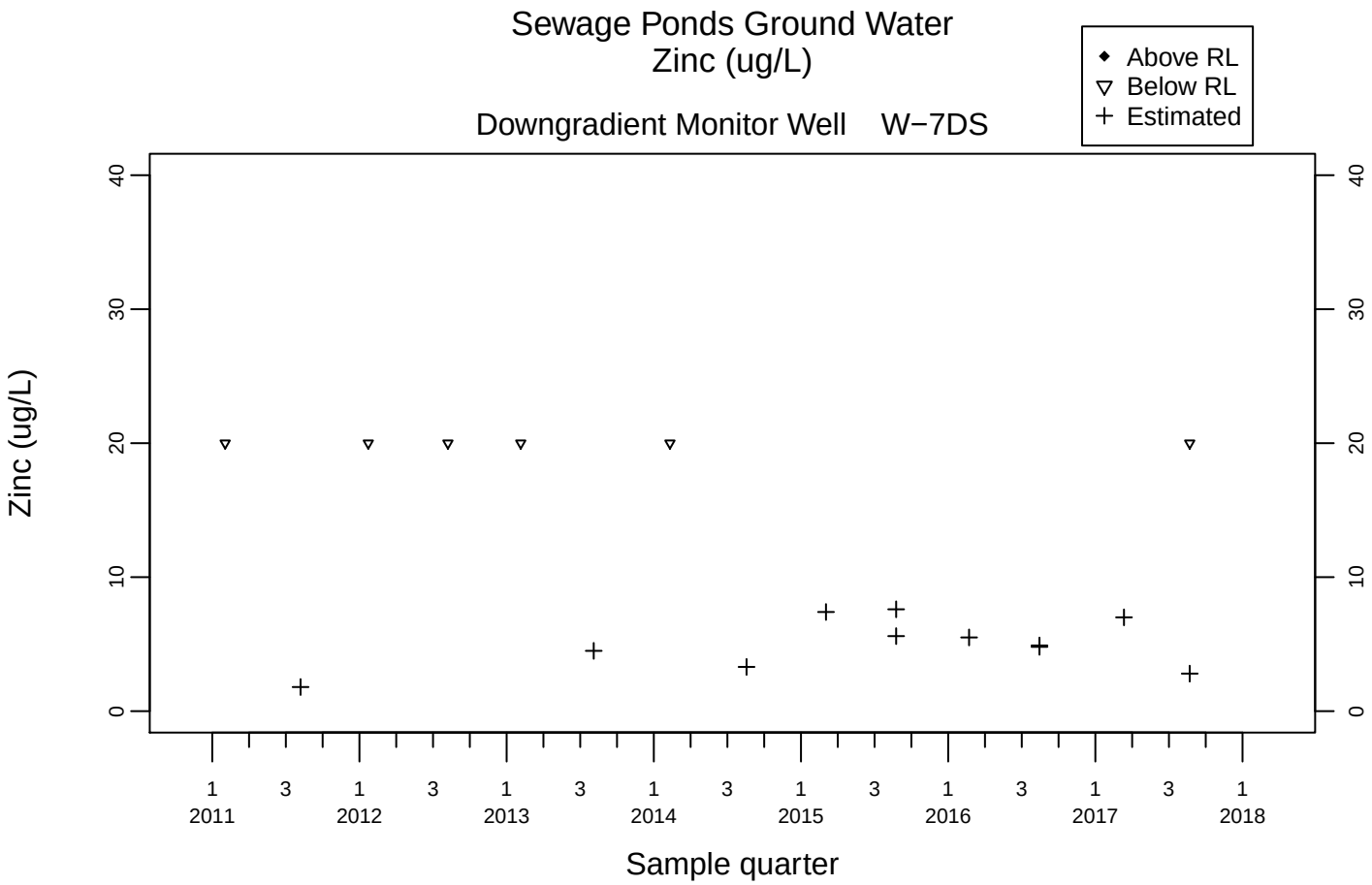
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Downgradient Monitor Well W−26R−01
Zinc (ug/L)
0
10
20
30
40
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Zinc (ug/L)
Above RL
Below RL
Estimated
Downgradient Monitor Well W−26R−05
Zinc (ug/L)
0
10
20
30
40
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Downgradient Monitor Well W−26R−11
Zinc (ug/L)
0
10
20
30
40
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Zinc (ug/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Estimated
Zinc (ug/L)
0
10
20
30
40
1 2011
3
1 2012
3
1 2013
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1 2014
3
1 2015
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1 2016
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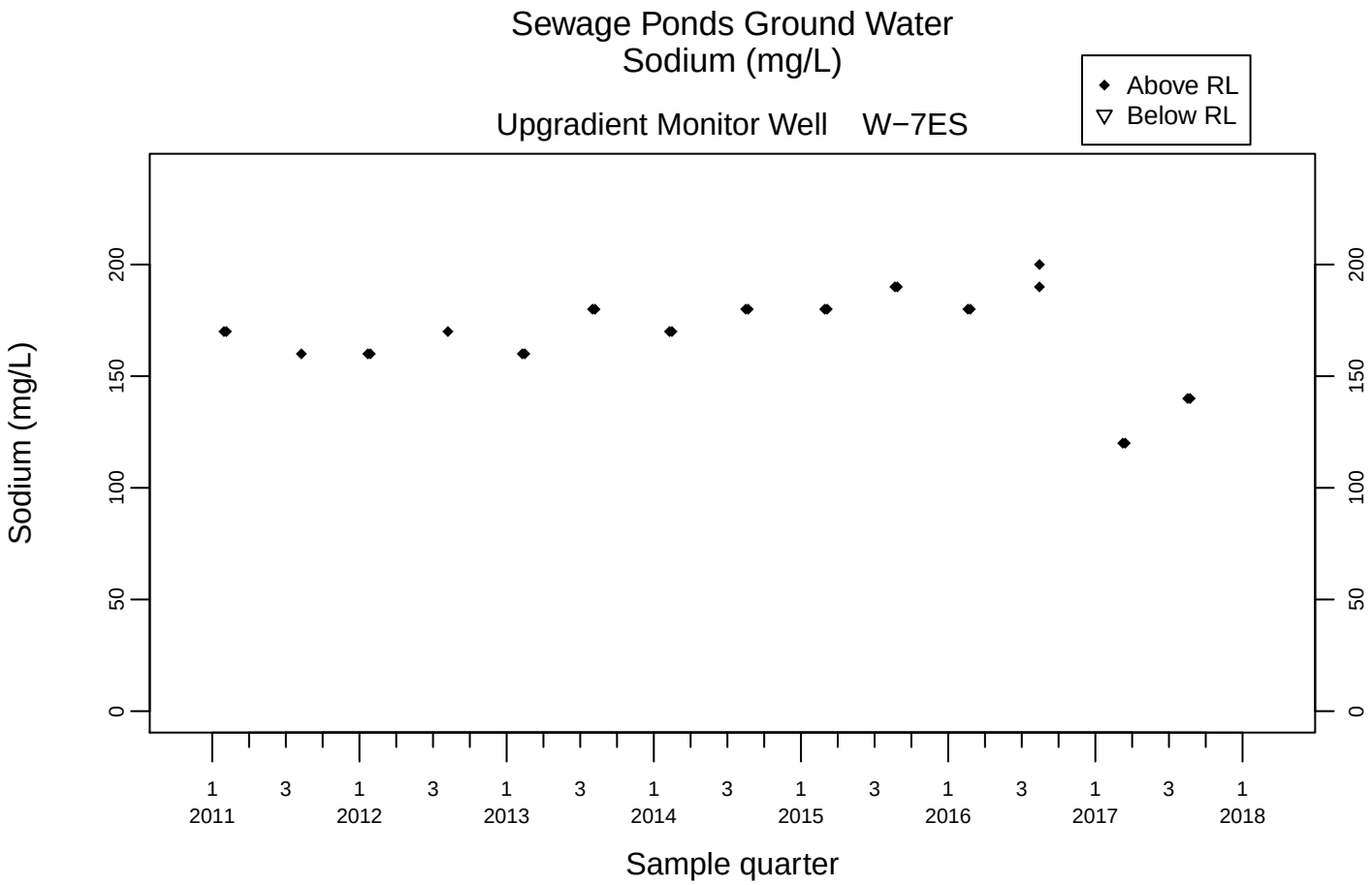
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Sodium (mg/L)
Above RL
Below RL
Upgradient Monitor Well W−7ES
Sodium (mg/L)
0
50
100
150
200
1 2011
3
1 2012
3
1 2013
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1 2014
3
1 2015
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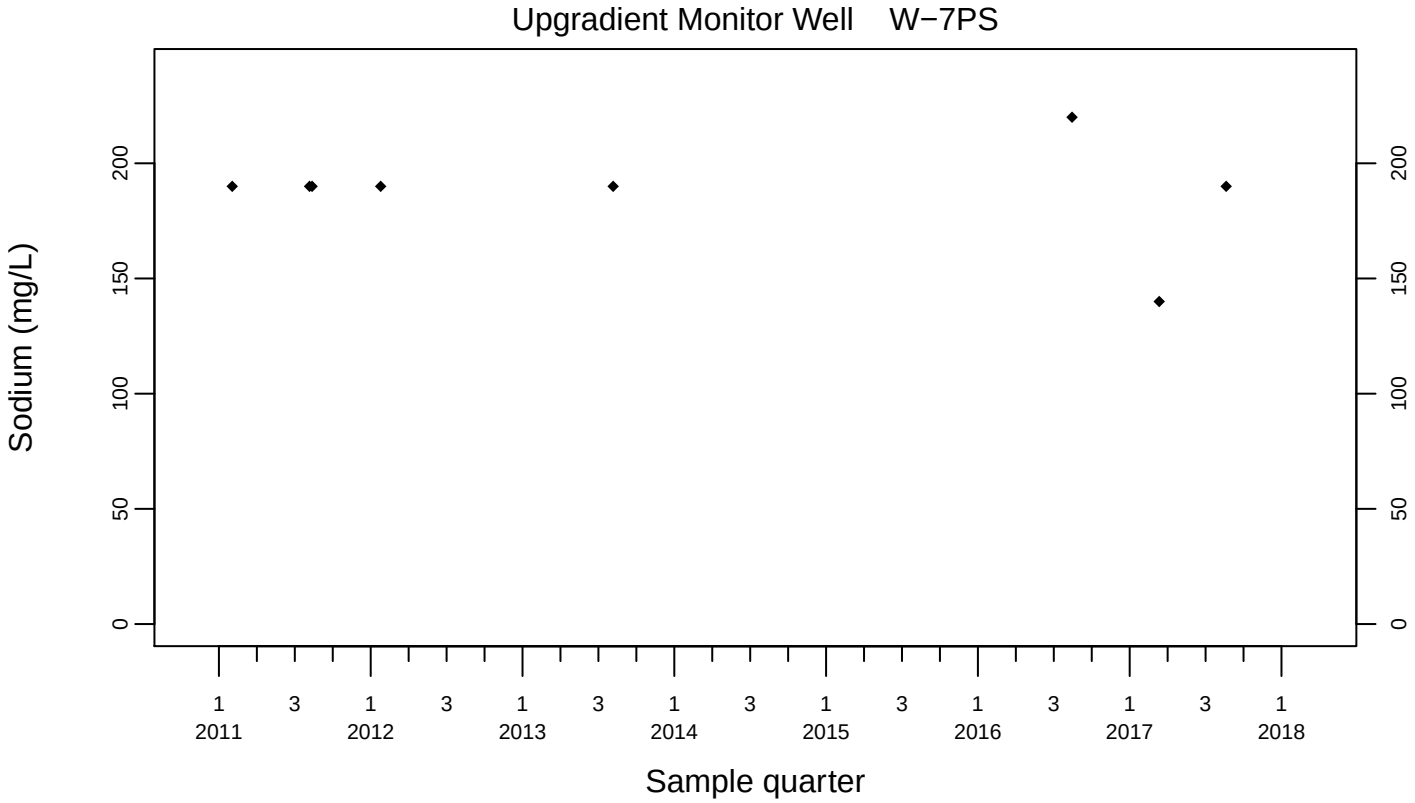
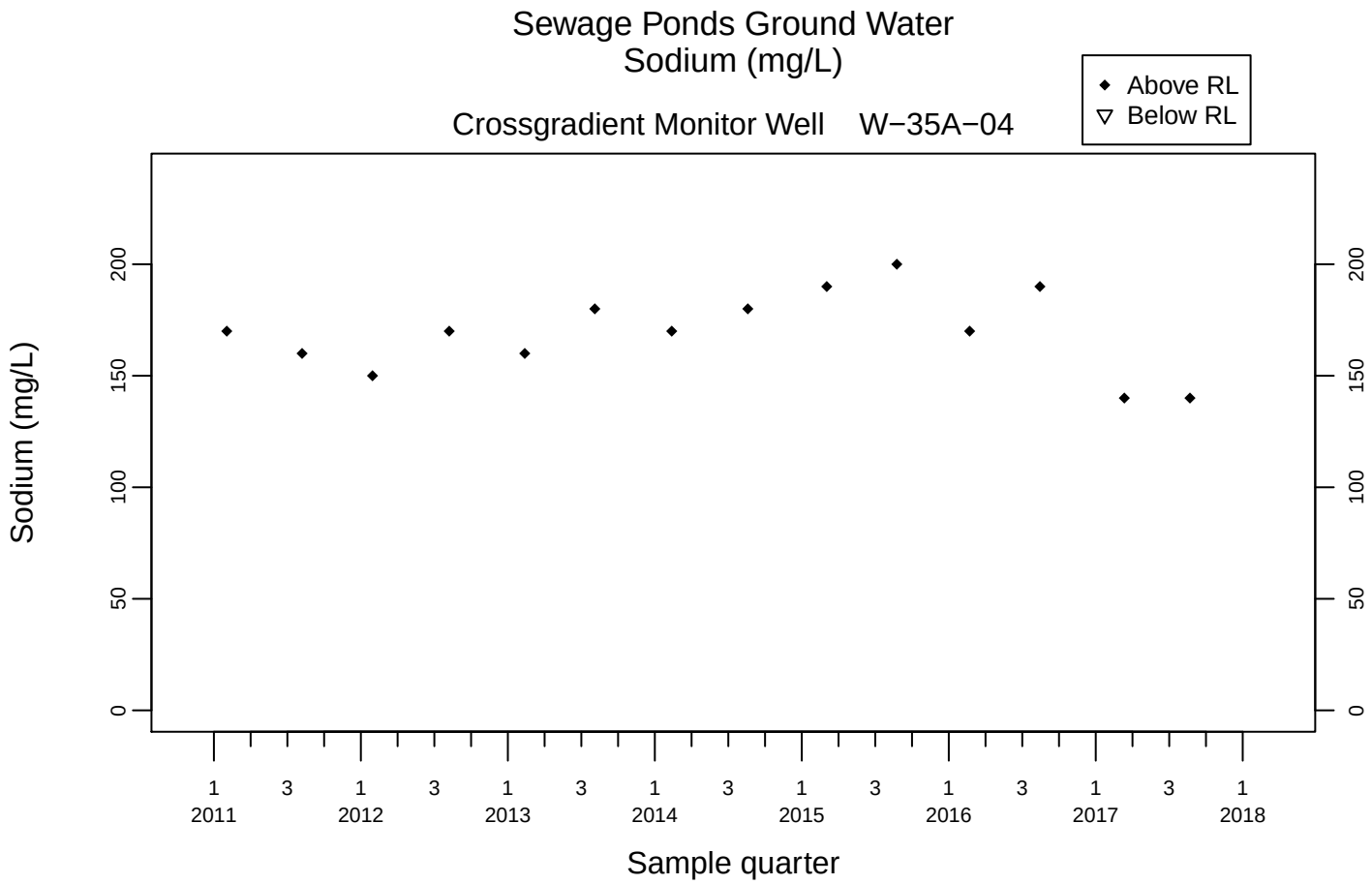
1 2016
3
1 2017
3
1 2018
Sample quarter


Upgradient Monitor Well W−7PS
Sodium (mg/L)
0
50
100
150
200
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Sodium (mg/L)
Above RL
Below RL
Crossgradient Monitor Well W−35A−04
Sodium (mg/L)
0
50
100
150
200
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
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1 2016
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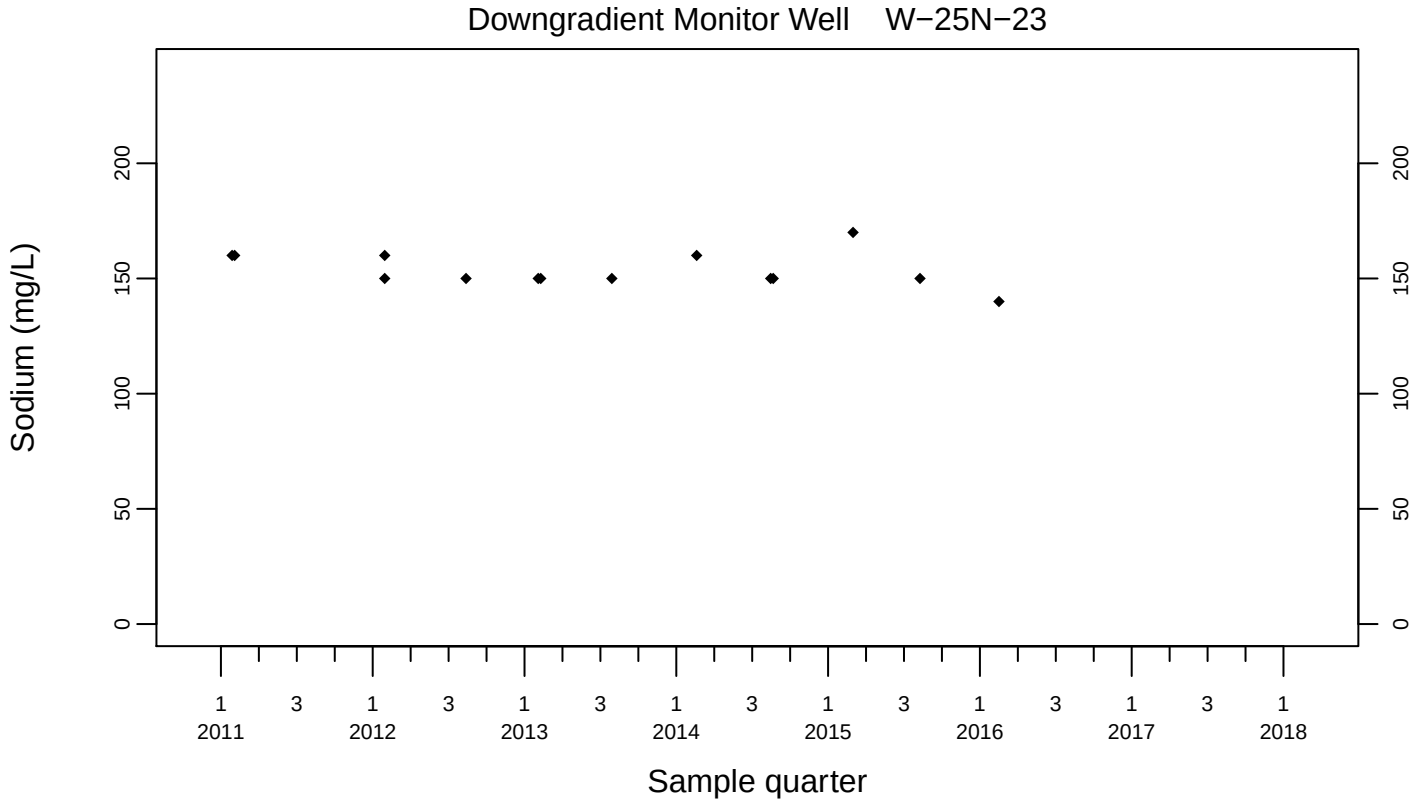
1 2017
3
1 2018
Sample quarter


Downgradient Monitor Well W−25N−23
Sodium (mg/L)
0
50
100
150
200
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
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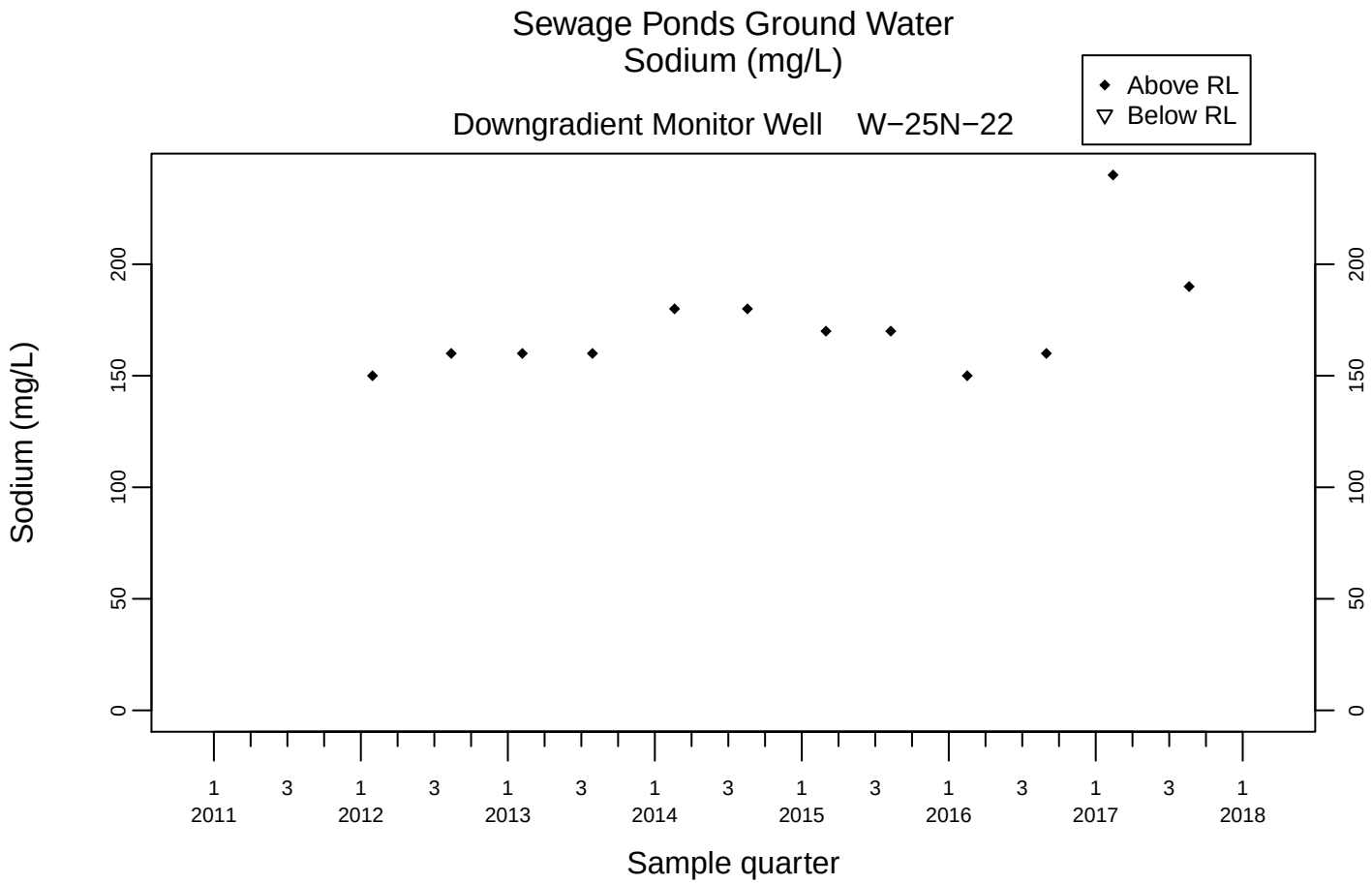
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Sodium (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Sodium (mg/L)
0
50
100
150
200
1 2011
3
1 2012
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1 2013
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1 2014
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1 2015
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1 2016
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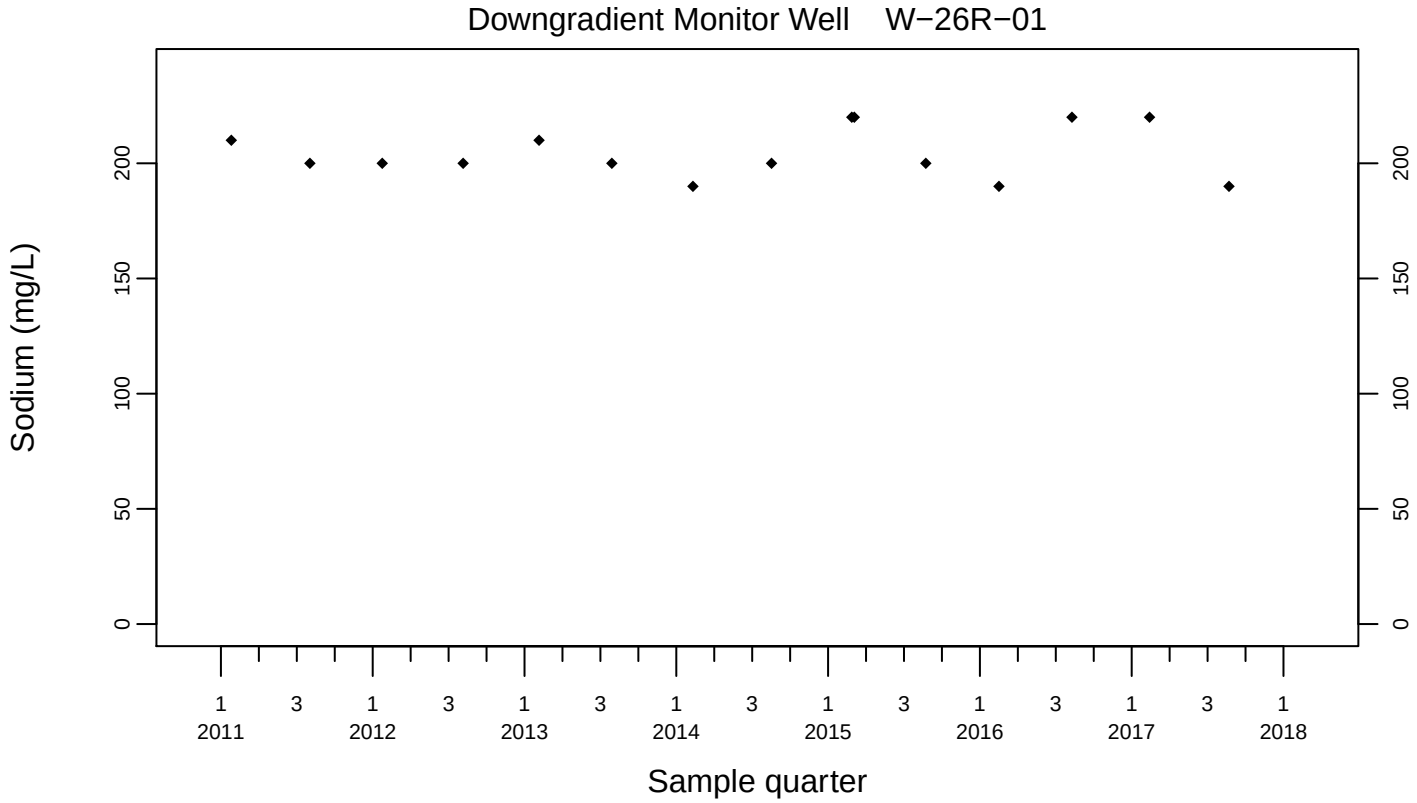
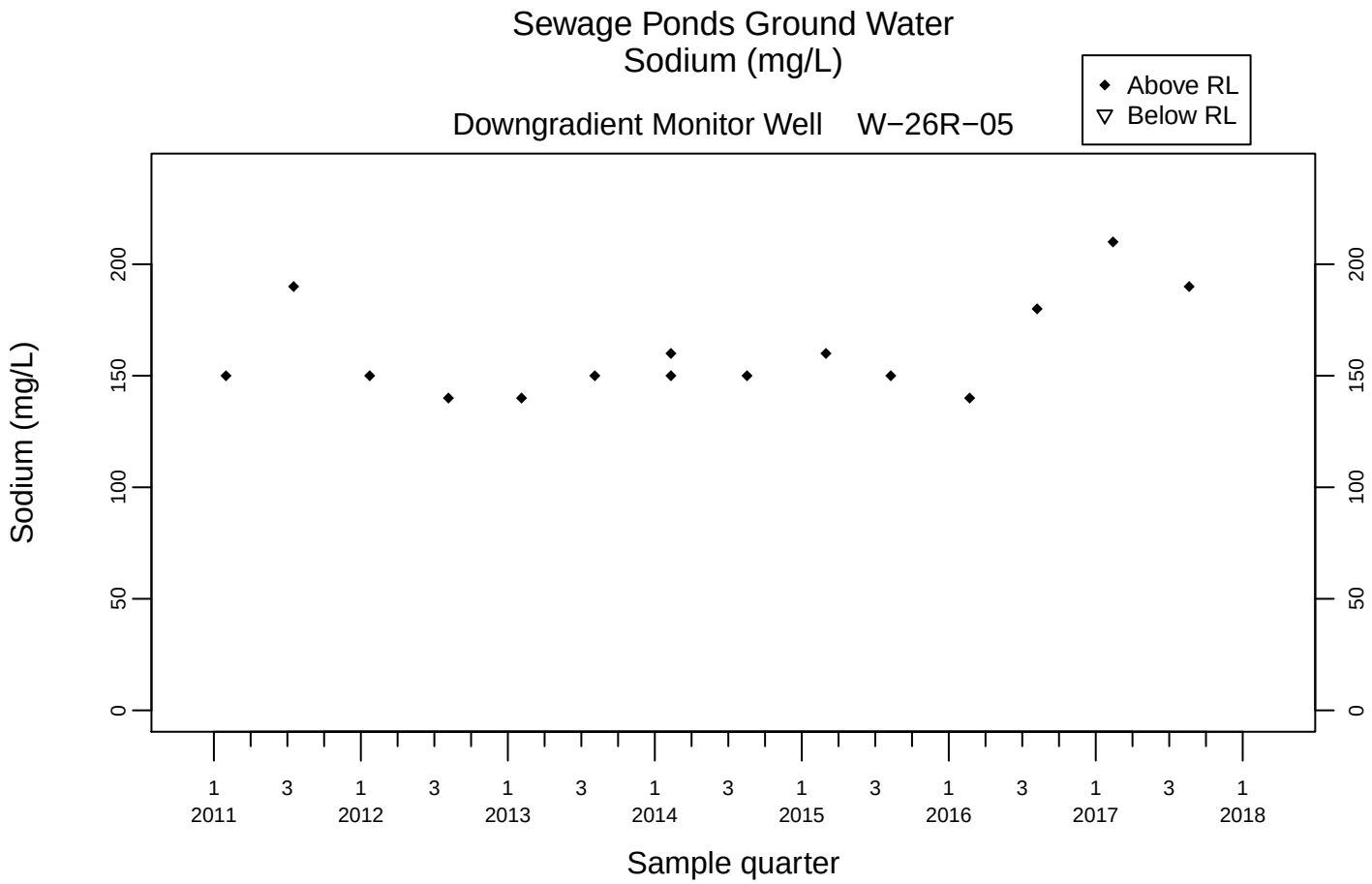
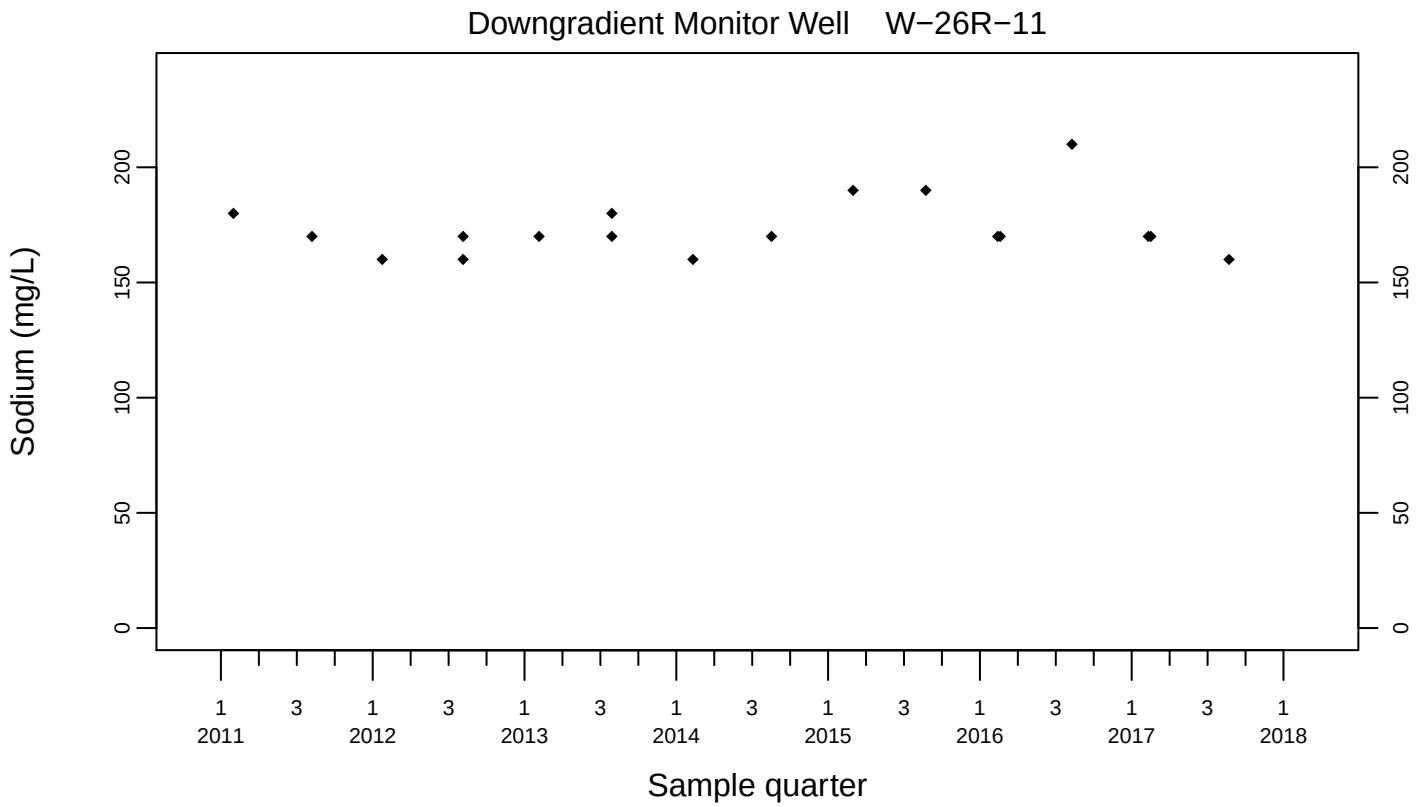
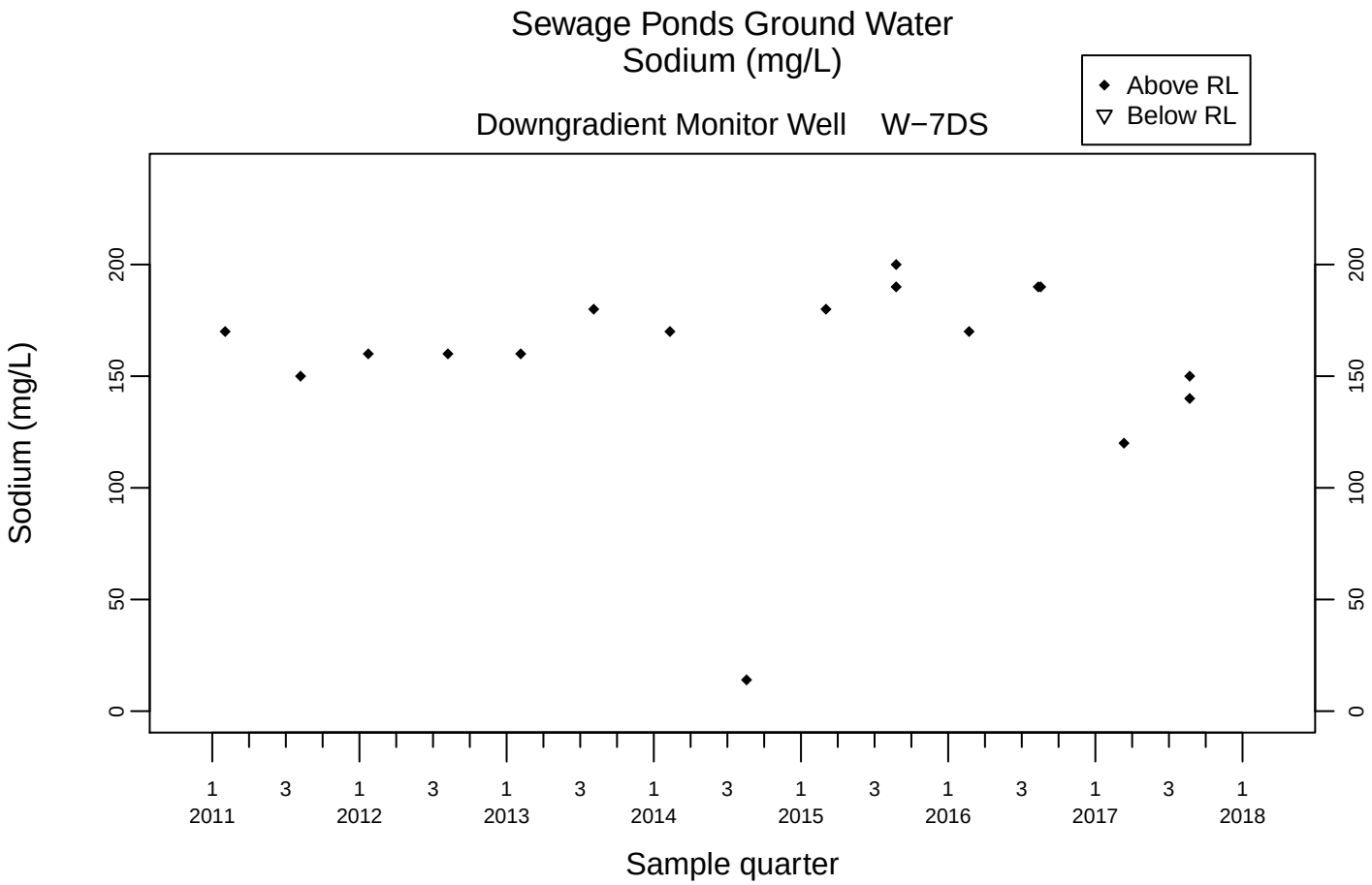
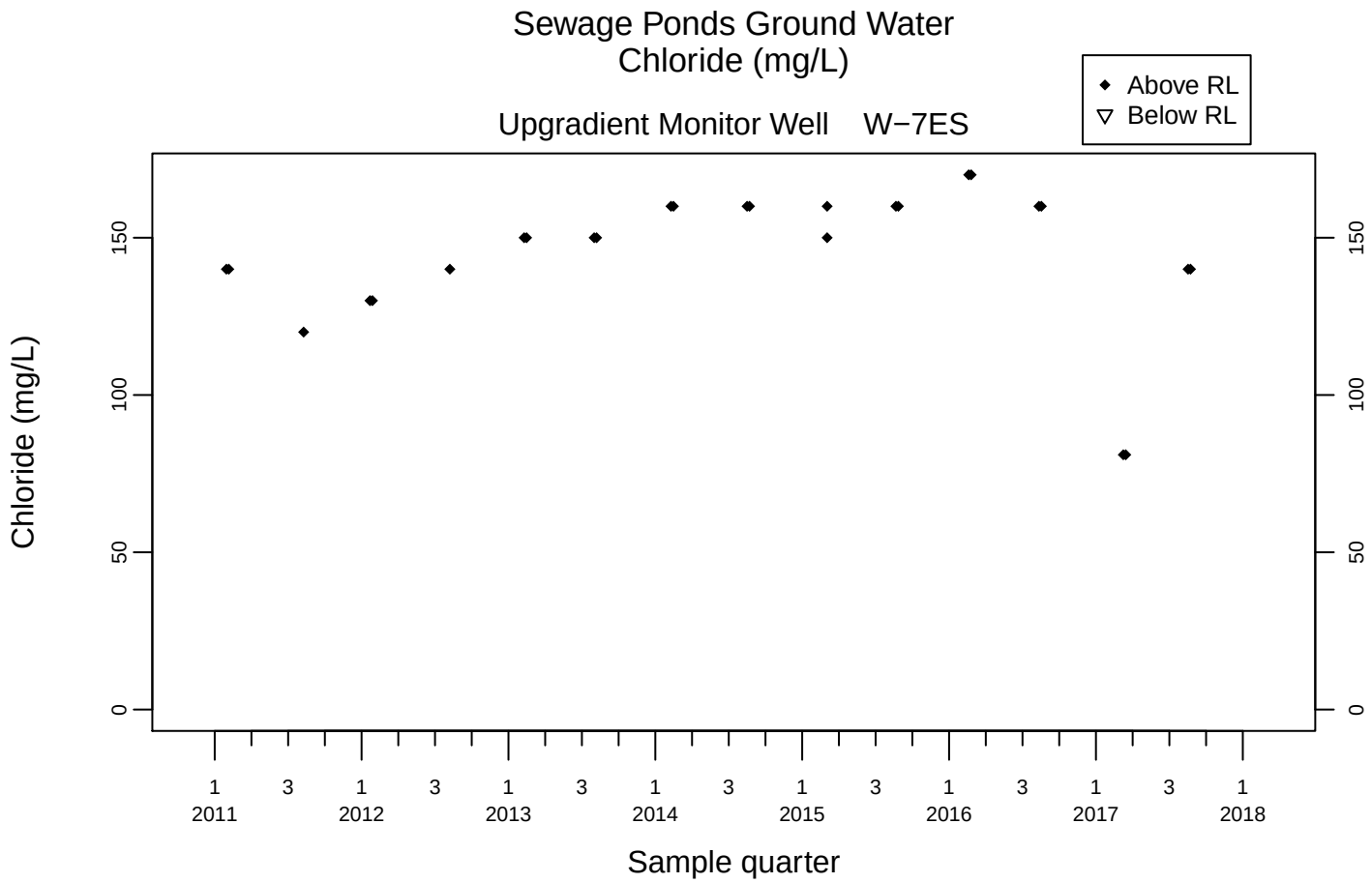
1 2017
3
1 2018
Sample quarter

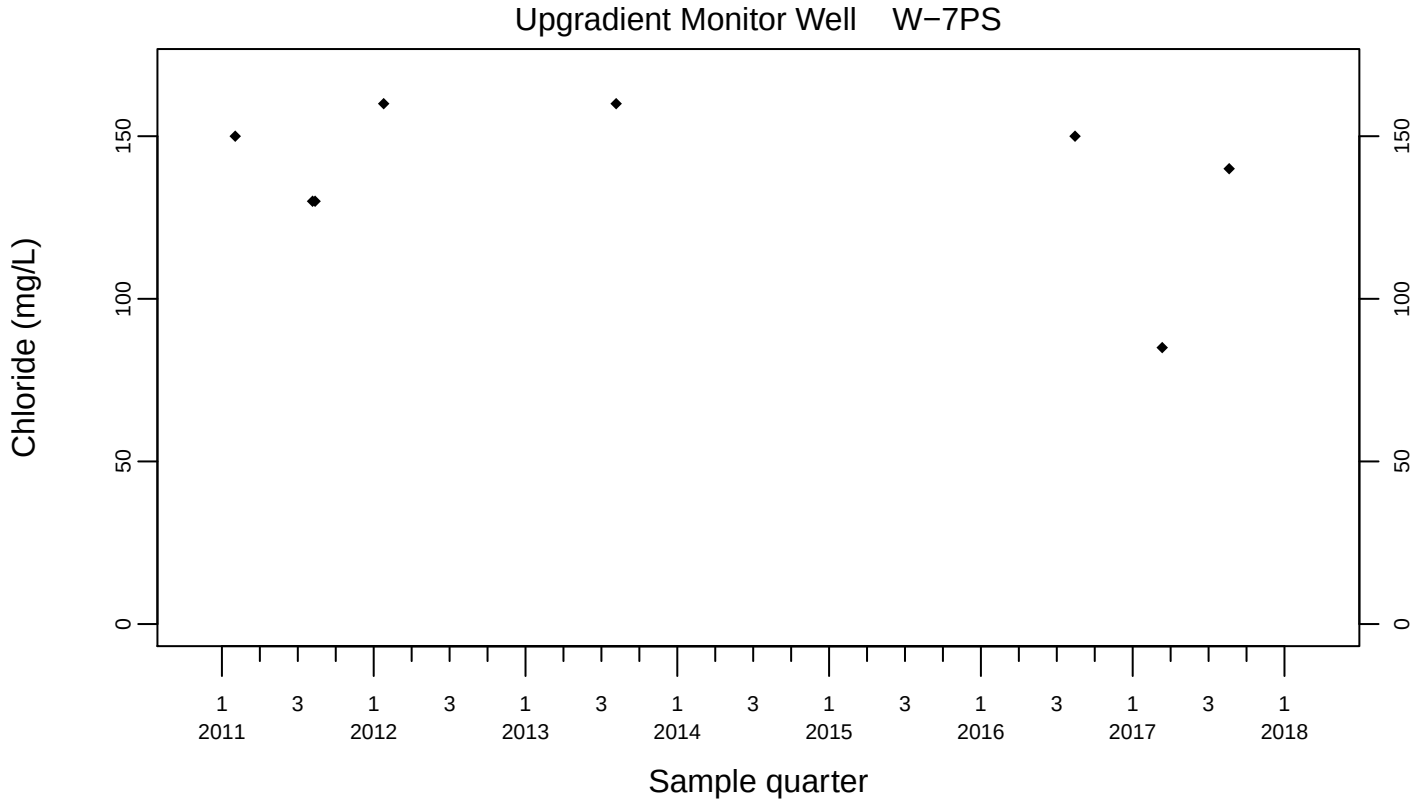

Downgradient Monitor Well W−26R−01
Sodium (mg/L)
0
50
100
150
200
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

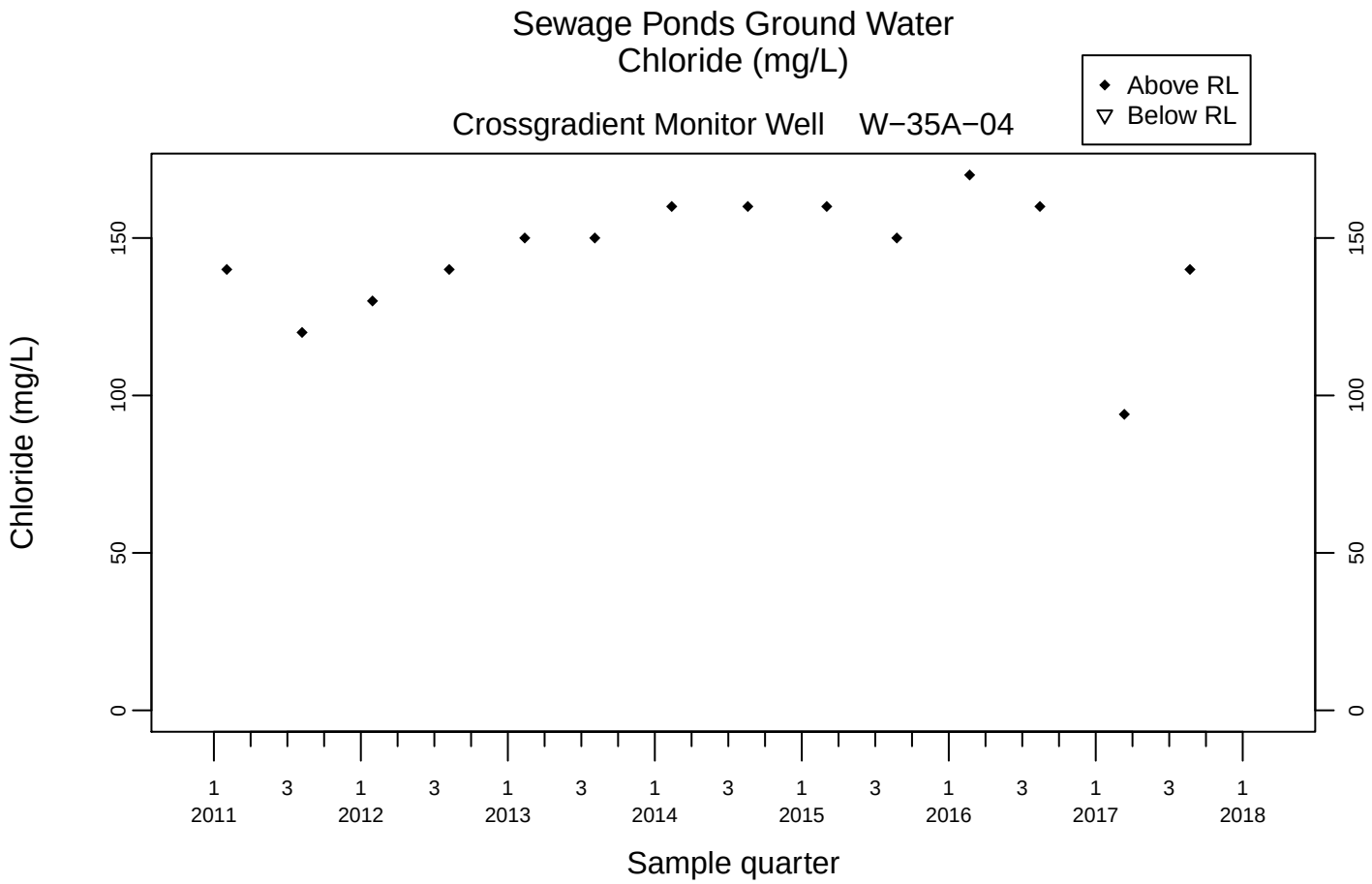

Sewage Ponds Ground Water
Sodium (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−26R−05
Sodium (mg/L)
0
50
100
150
200
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

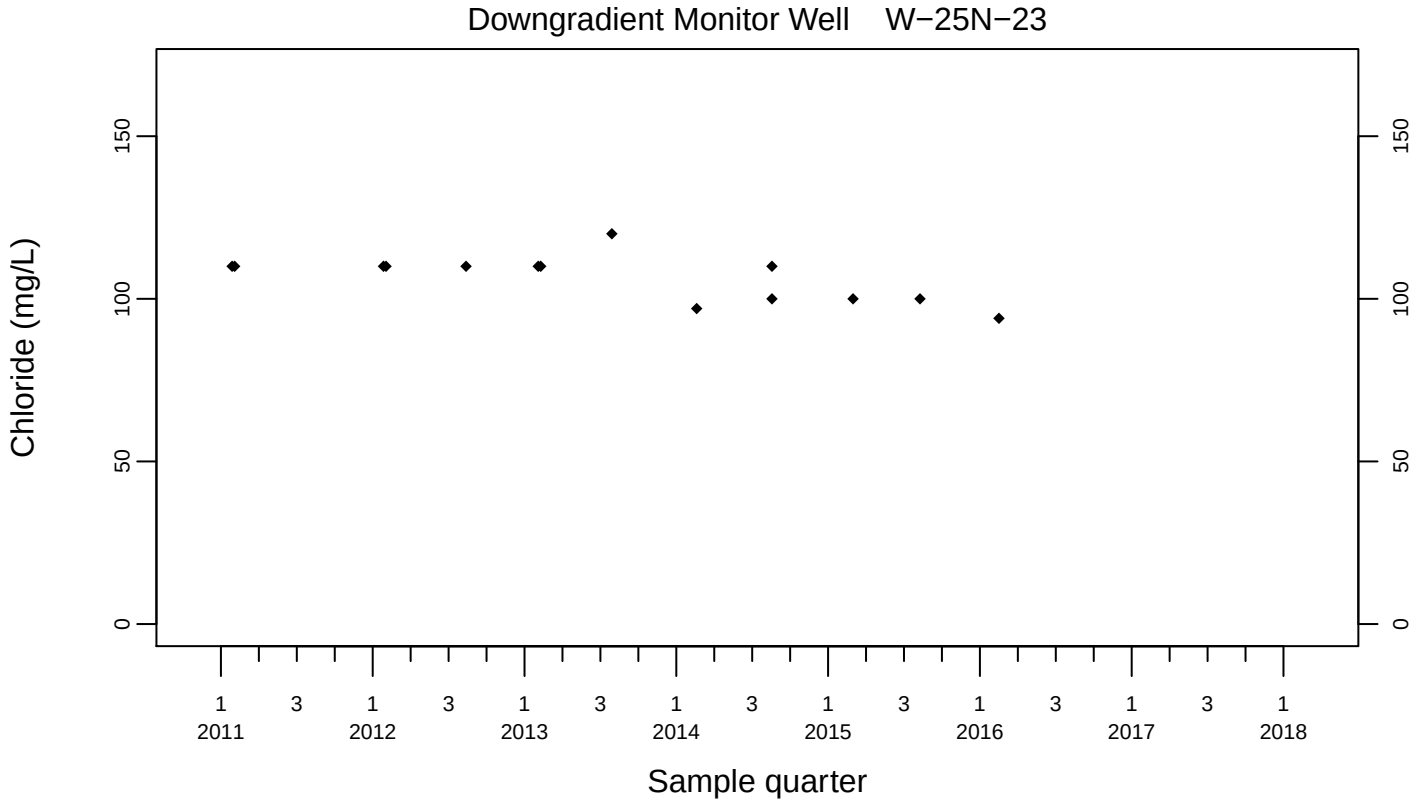

Downgradient Monitor Well W−26R−11
Sodium (mg/L)
0
50
100
150
200
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

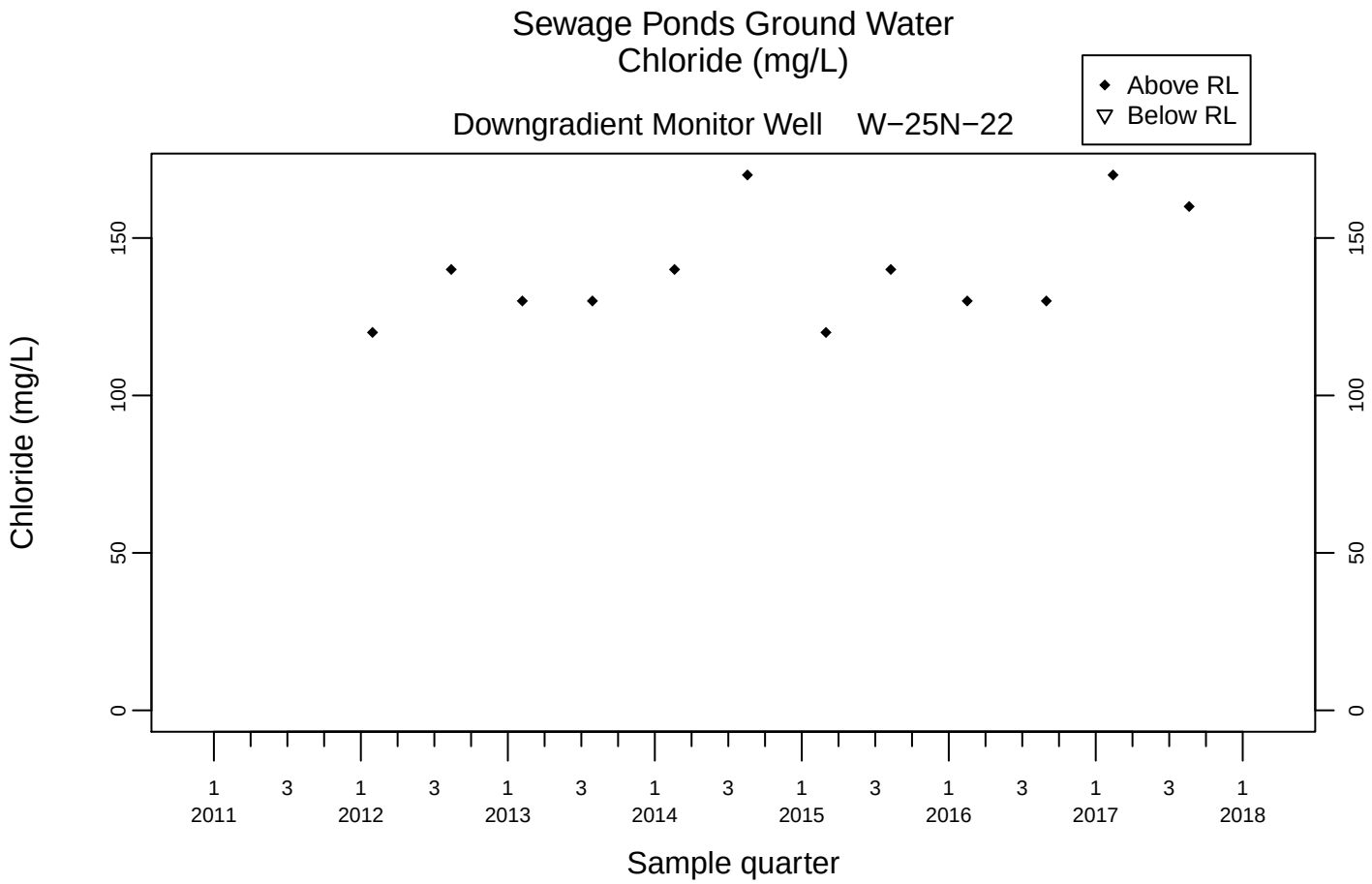

Sewage Ponds Ground Water
Sodium (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Sodium (mg/L)
0
50
100
150
200
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

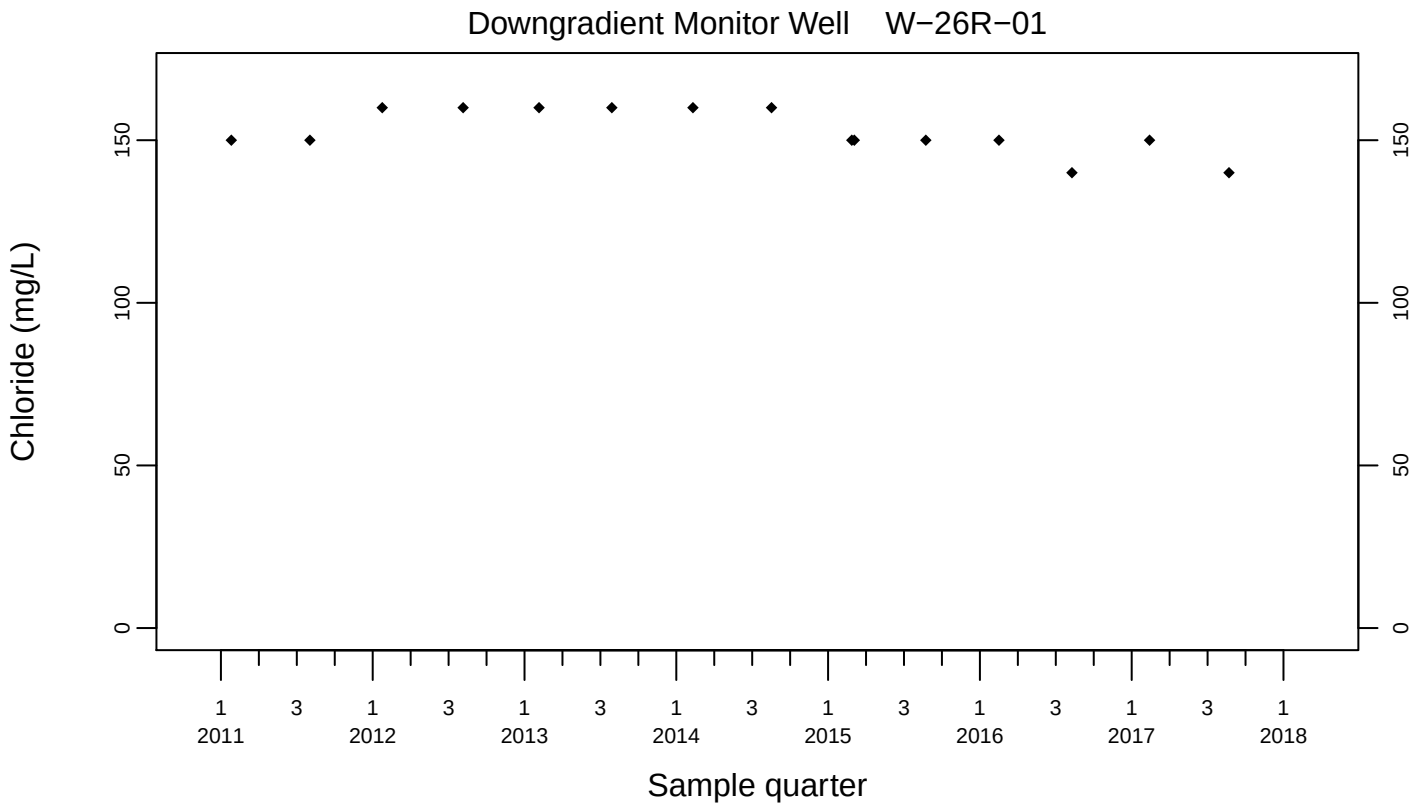

Sewage Ponds Ground Water
Chloride (mg/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Chloride (mg/L)
0
50
100
150
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Upgradient Monitor Well W−7PS
Chloride (mg/L)
0
50
100
150
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Chloride (mg/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Chloride (mg/L)
0
50
100
150
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Downgradient Monitor Well W−25N−23
Chloride (mg/L)
0
50
100
150
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Chloride (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Chloride (mg/L)
0
50
100
150
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Downgradient Monitor Well W−26R−01
Chloride (mg/L)
0
50
100
150
1 2011
3
1 2012
3
1 2013
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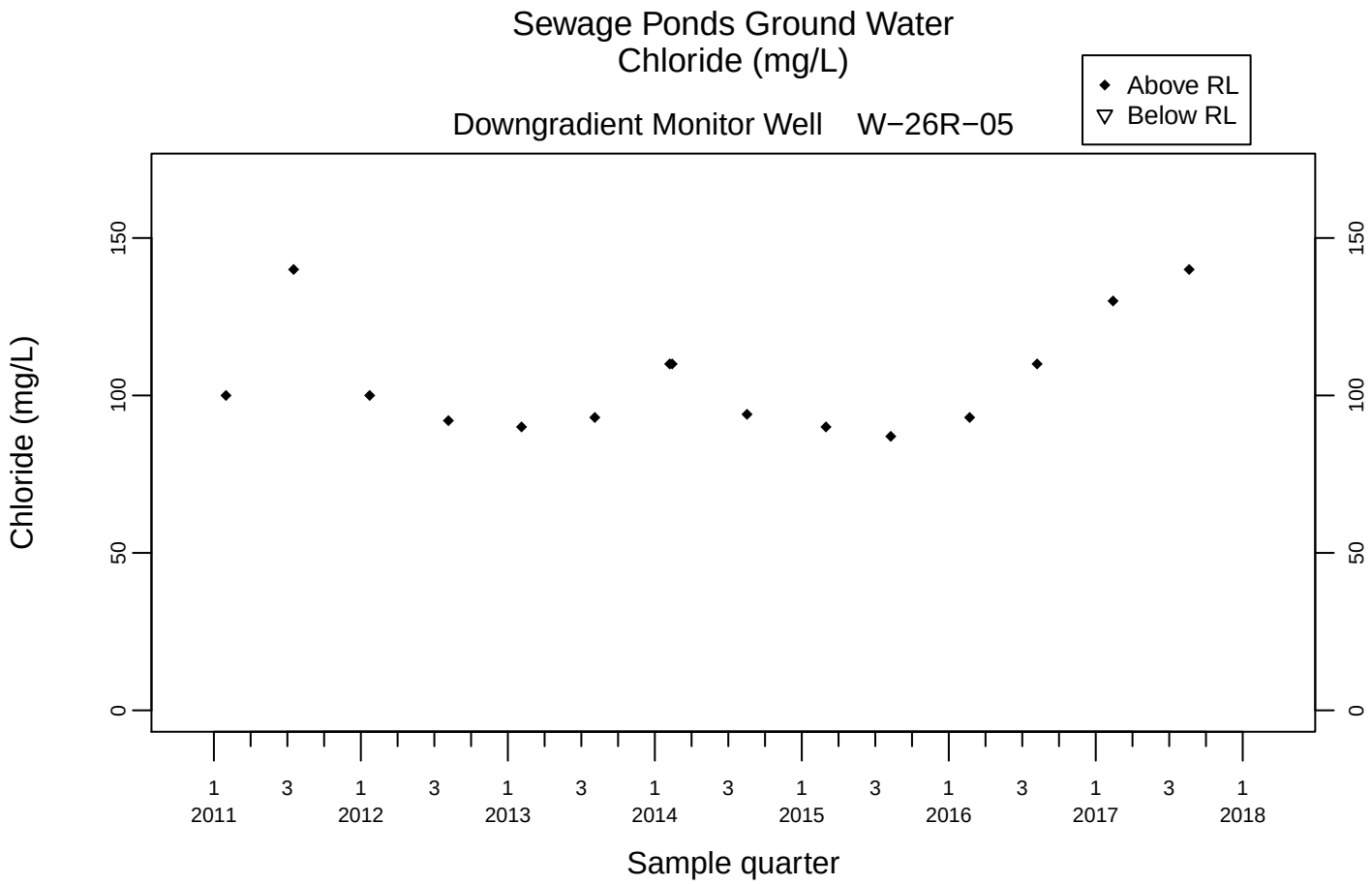
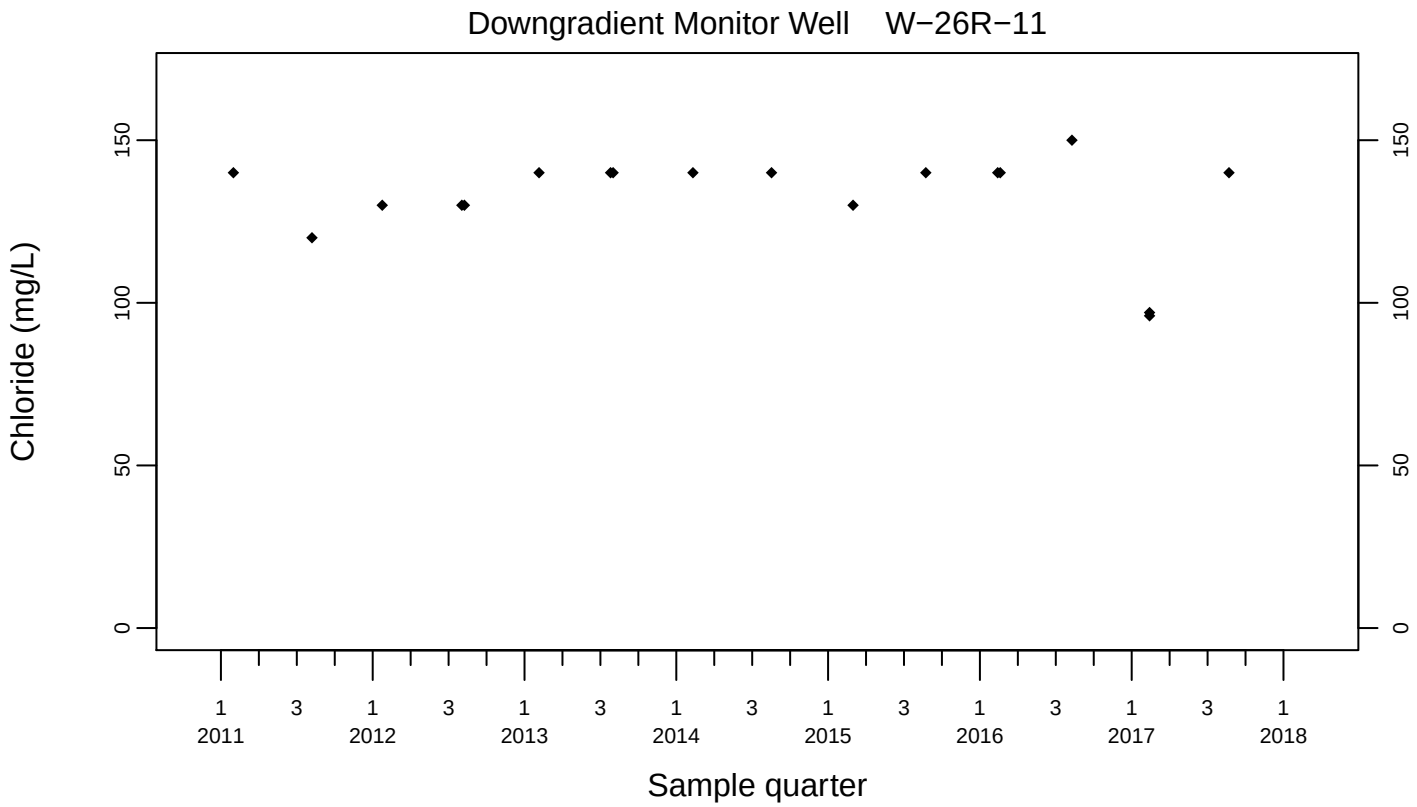
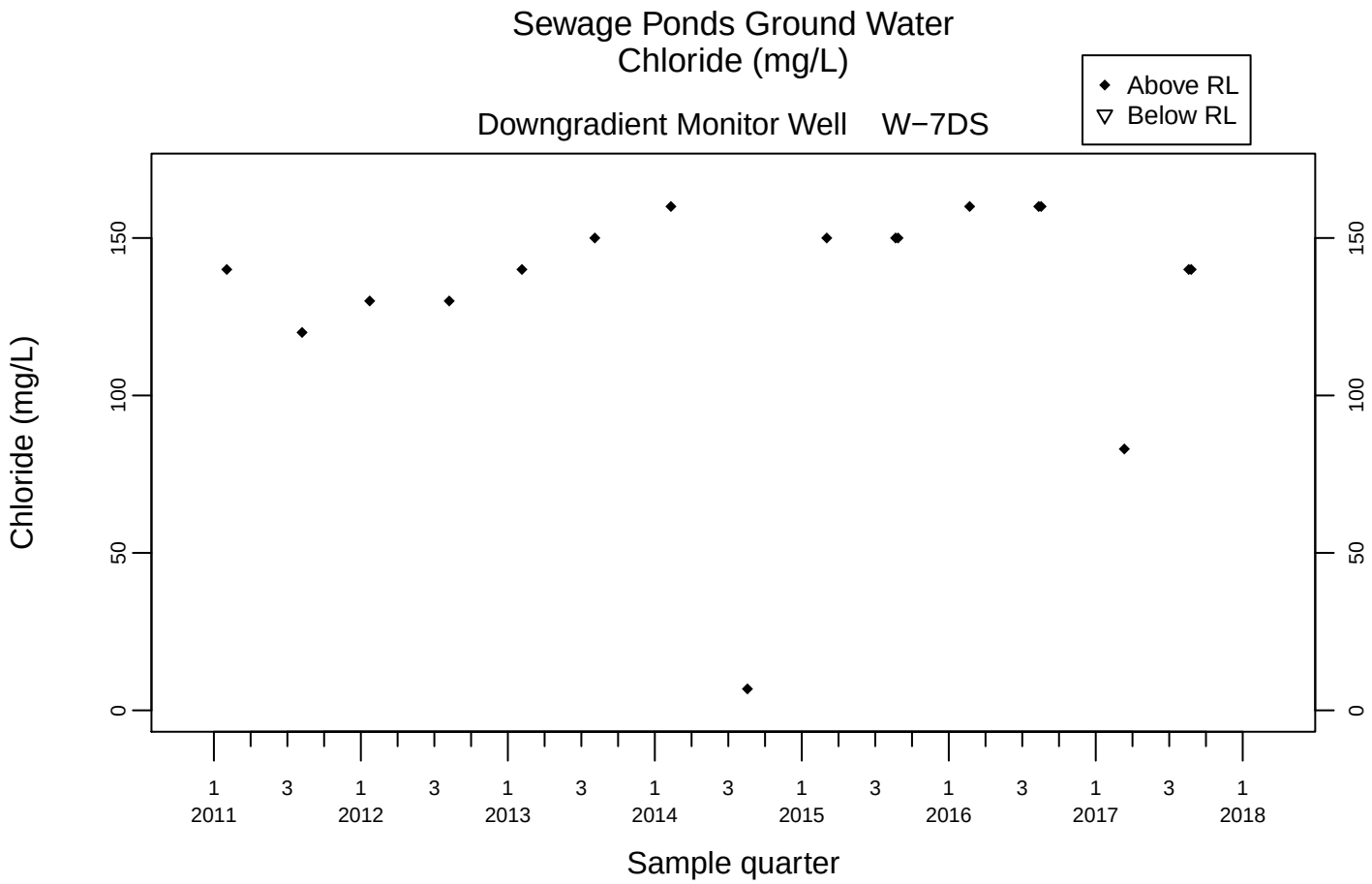
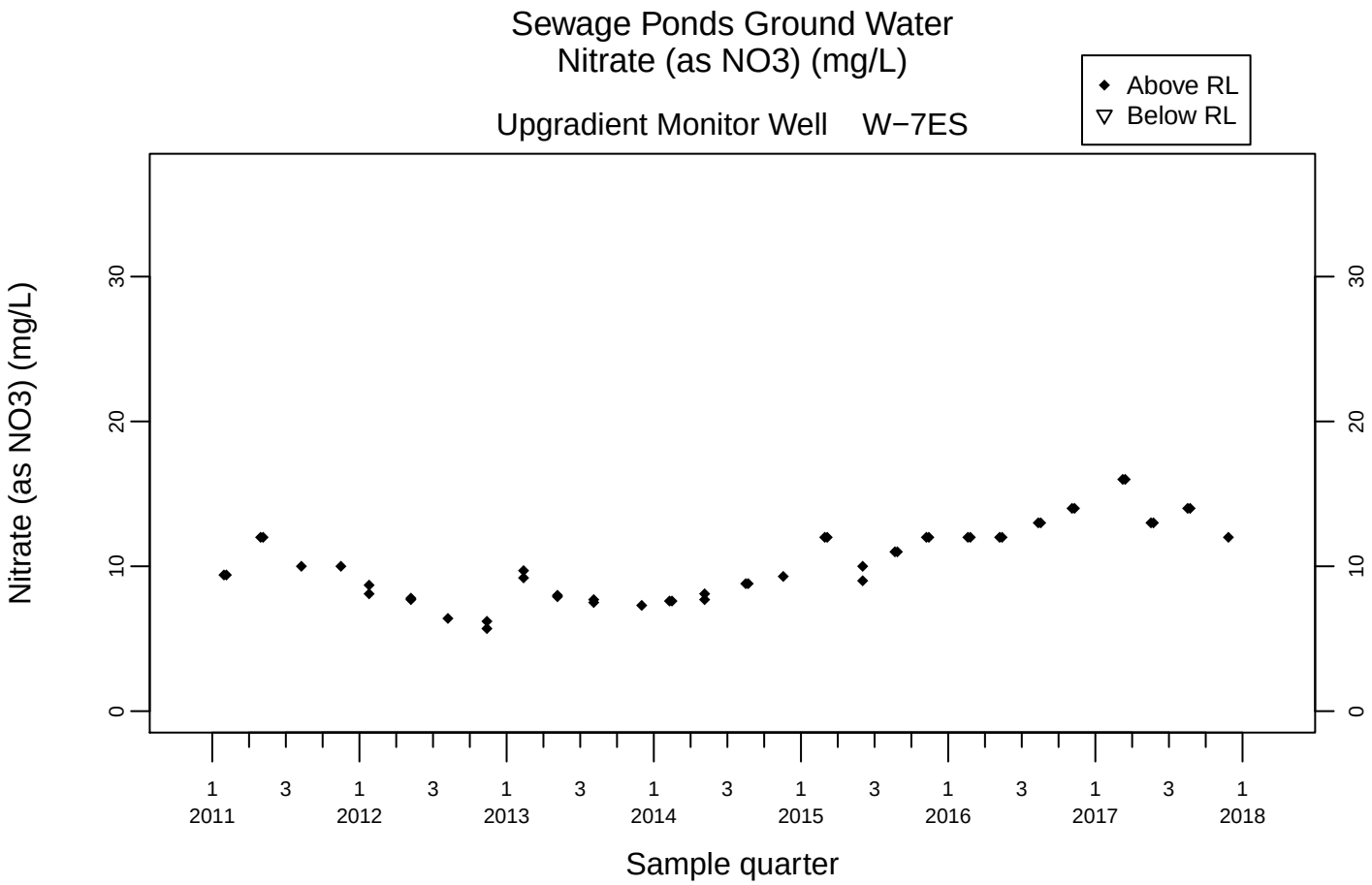
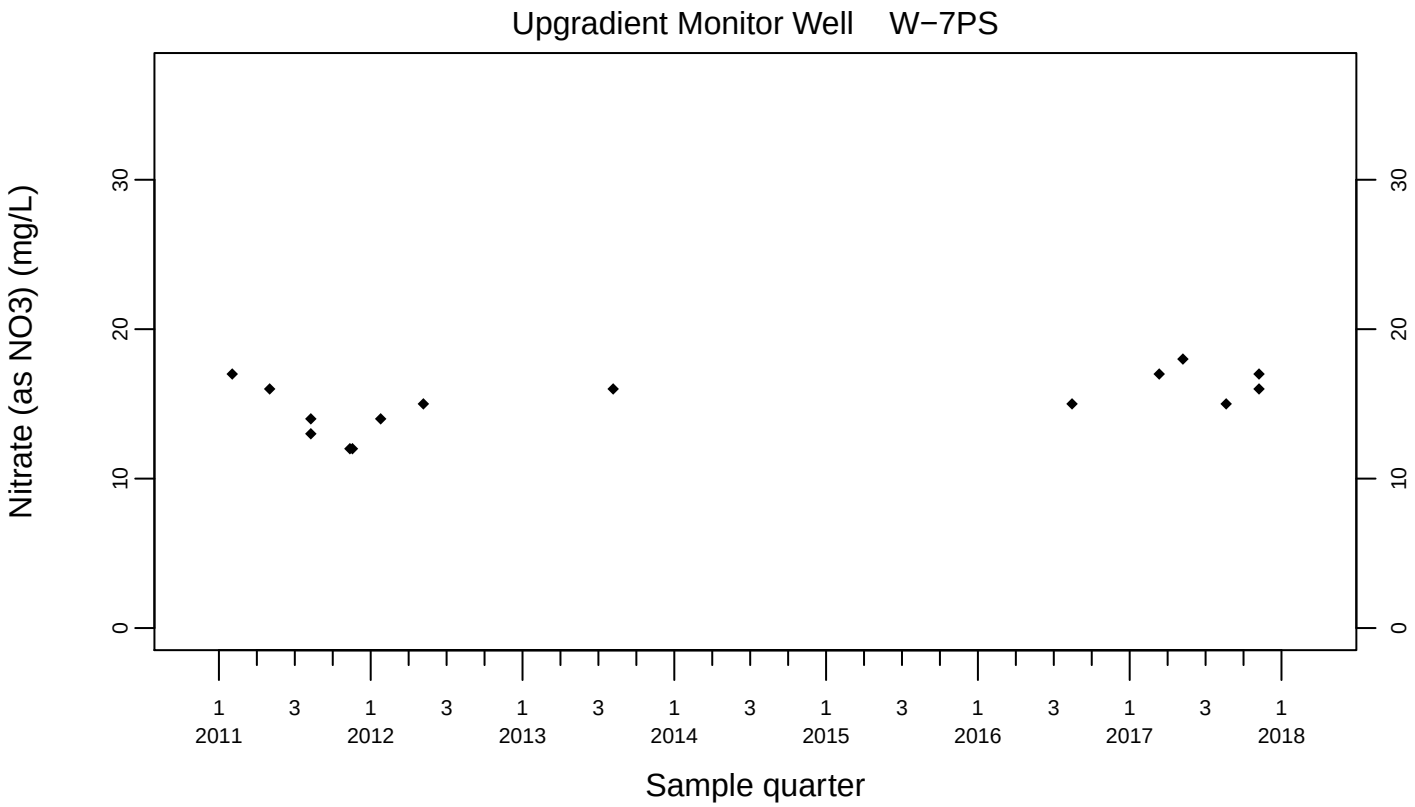
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

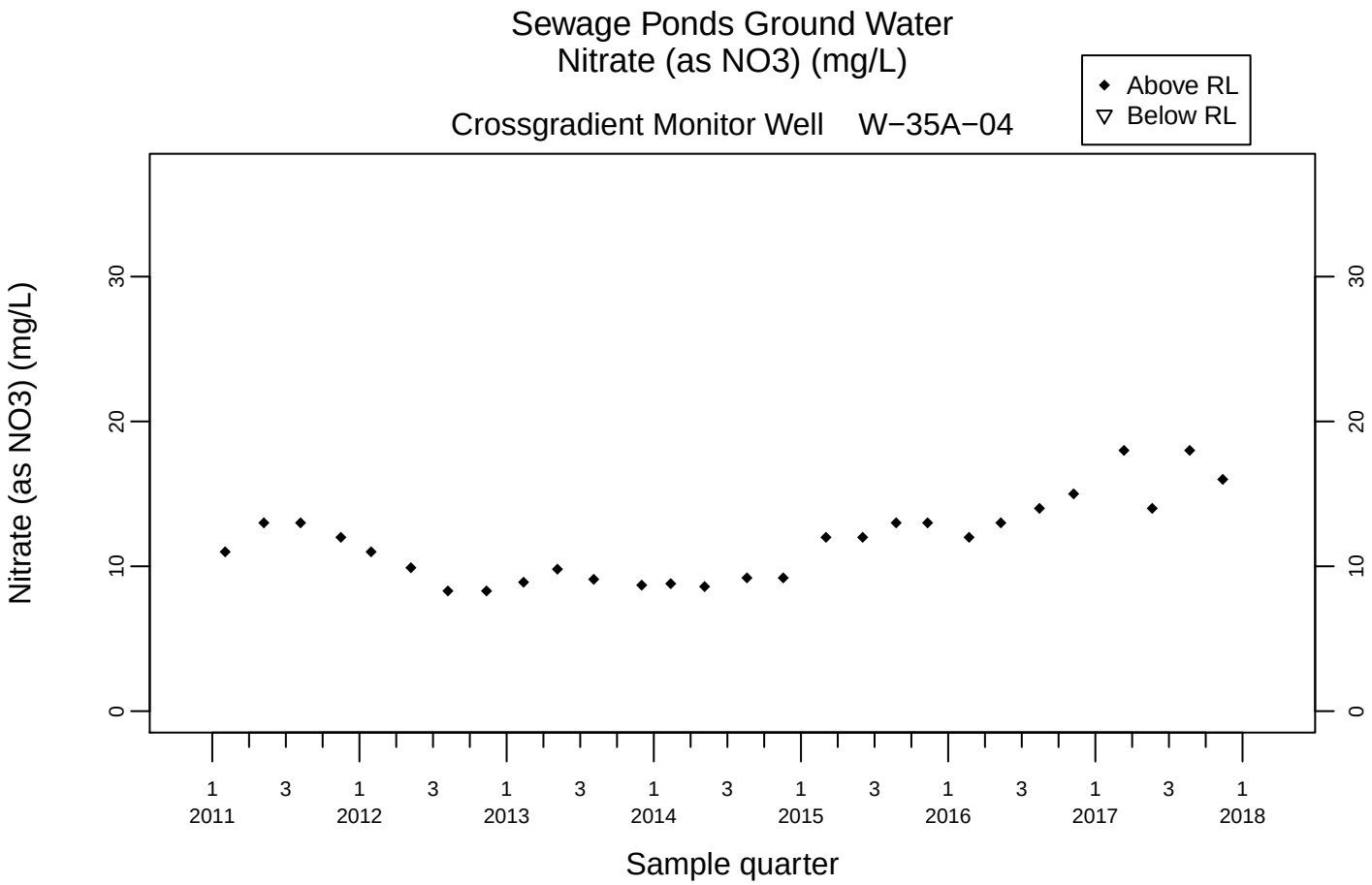

Sewage Ponds Ground Water
Chloride (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−26R−05
Chloride (mg/L)
0
50
100
150
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

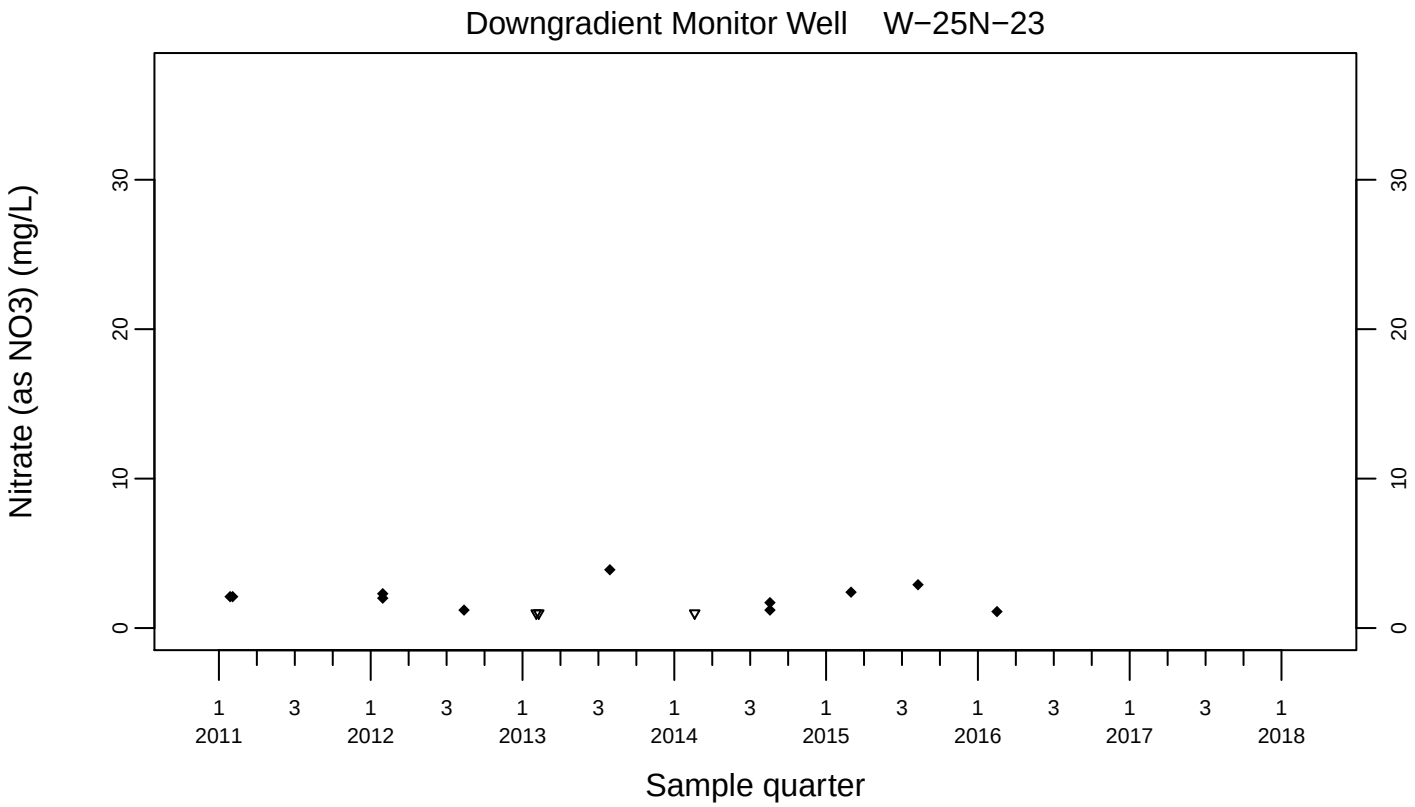

Downgradient Monitor Well W−26R−11
Chloride (mg/L)
0
50
100
150
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

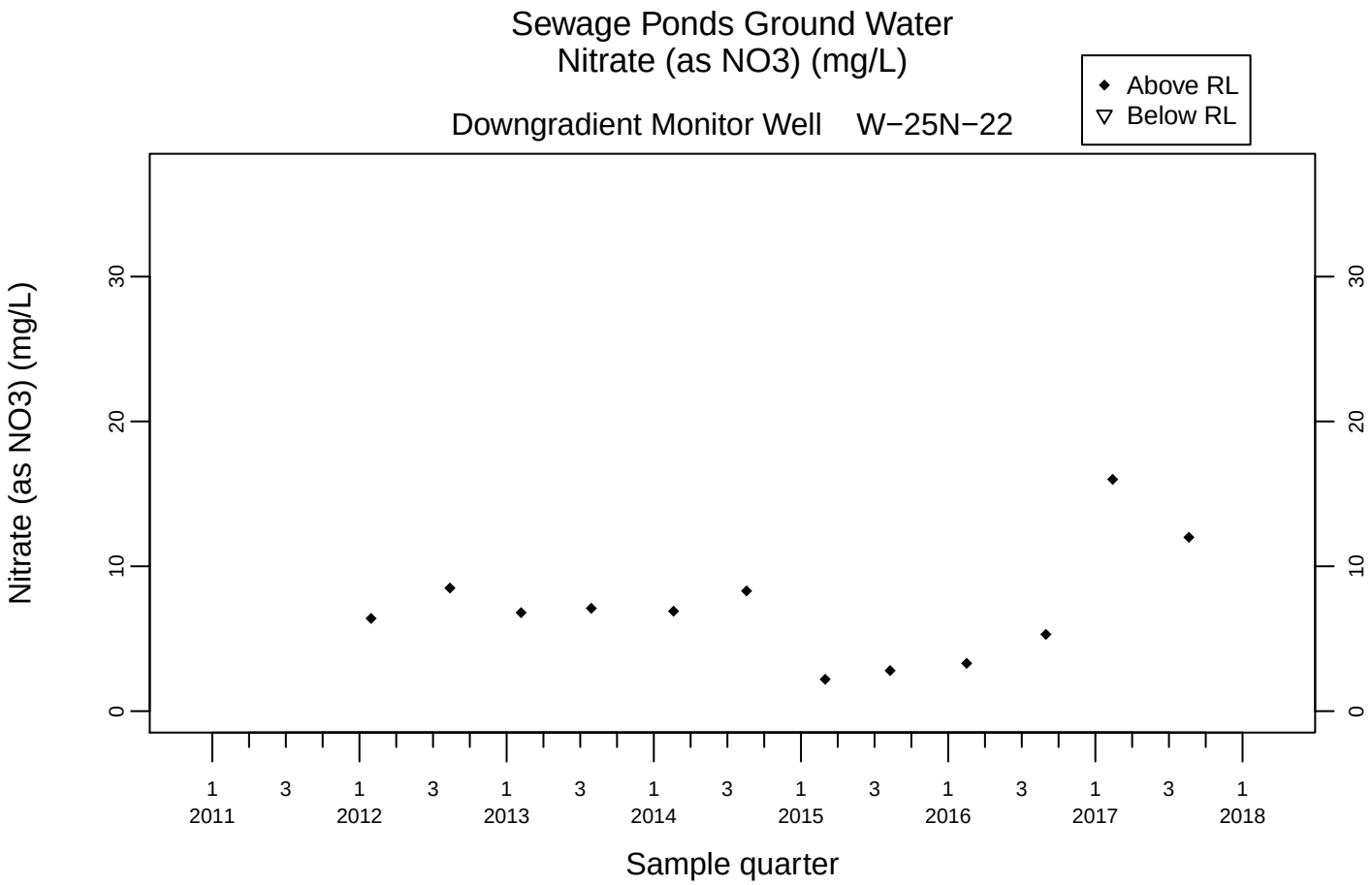

Sewage Ponds Ground Water
Chloride (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Chloride (mg/L)
0
50
100
150
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

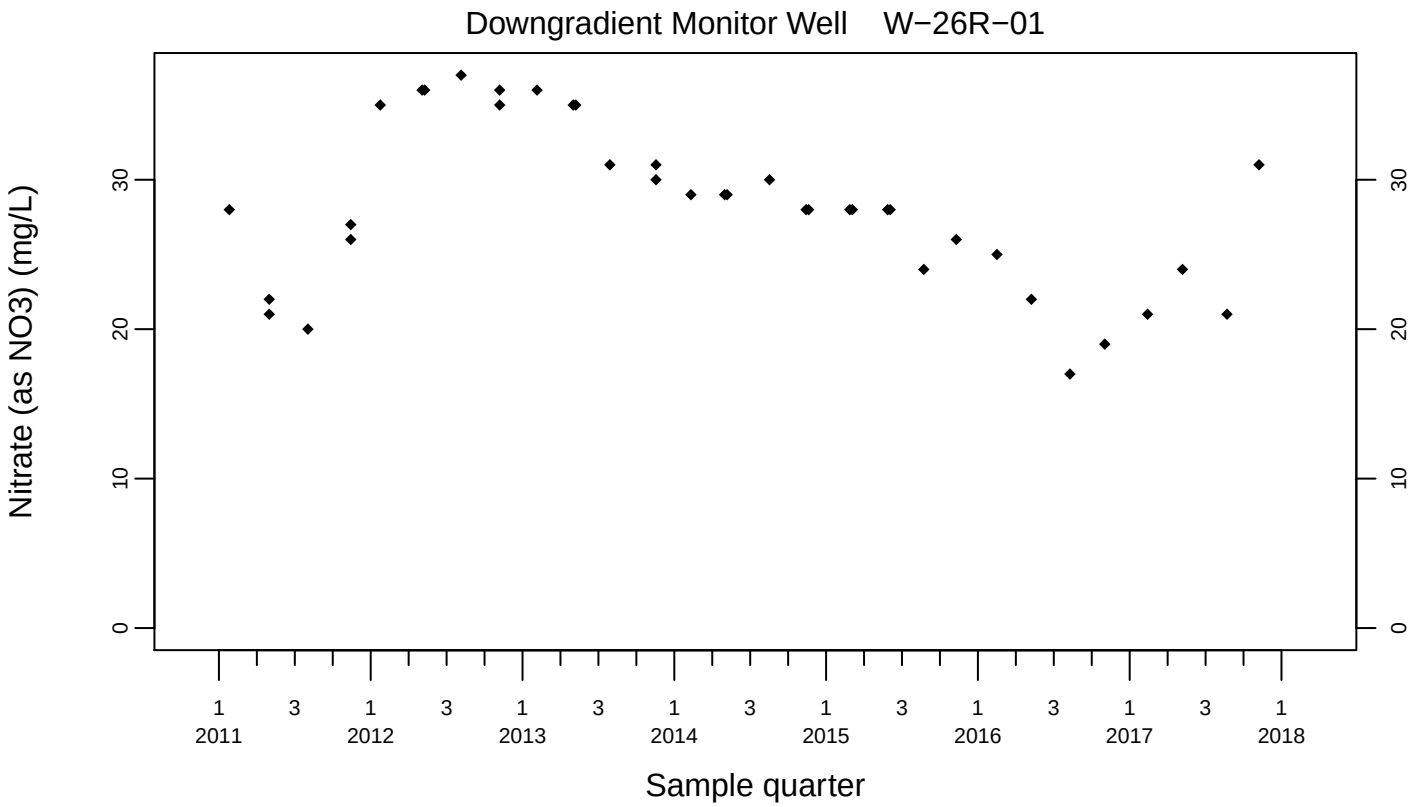

Sewage Ponds Ground Water
Nitrate (as NO3) (mg/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Nitrate (as NO3) (mg/L)
0
10
20
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Upgradient Monitor Well W−7PS
Nitrate (as NO3) (mg/L)
0
10
20
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Nitrate (as NO3) (mg/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Nitrate (as NO3) (mg/L)
0
10
20
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Downgradient Monitor Well W−25N−23
Nitrate (as NO3) (mg/L)
0
10
20
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Nitrate (as NO3) (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Nitrate (as NO3) (mg/L)
0
10
20
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Downgradient Monitor Well W−26R−01
Nitrate (as NO3) (mg/L)
0
10
20
30
1 2011
3
1 2012
3
1 2013
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1 2014
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1 2015
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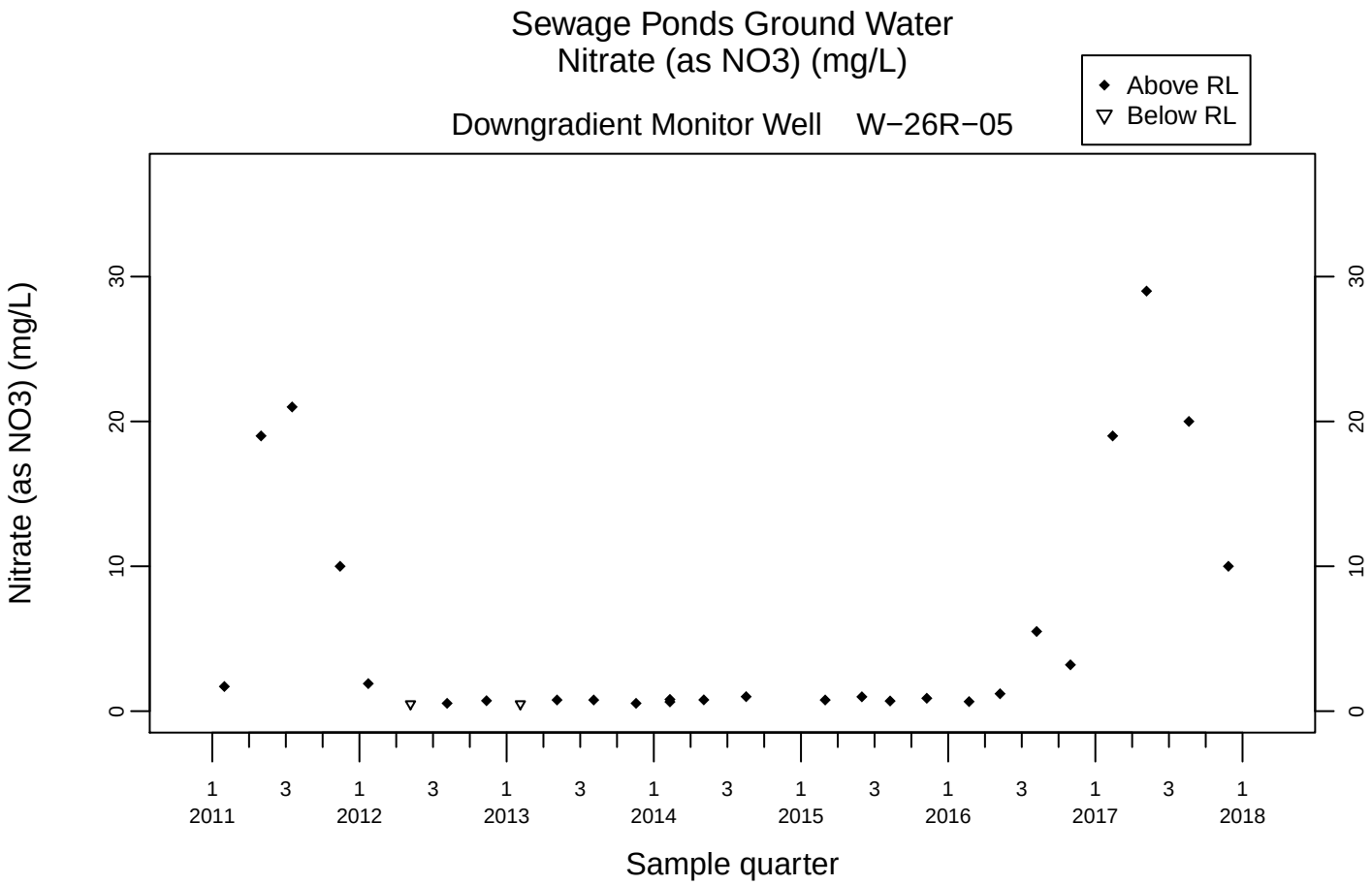
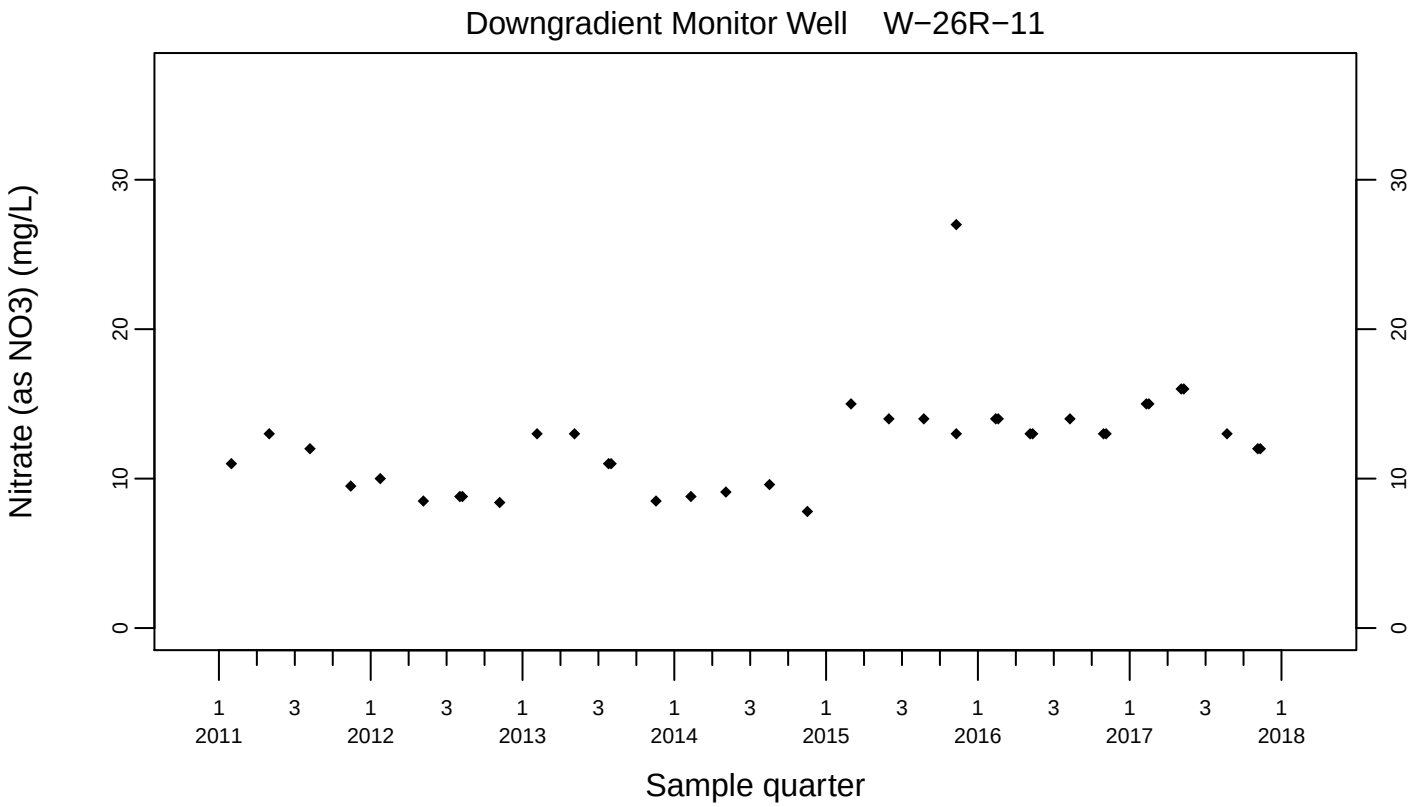
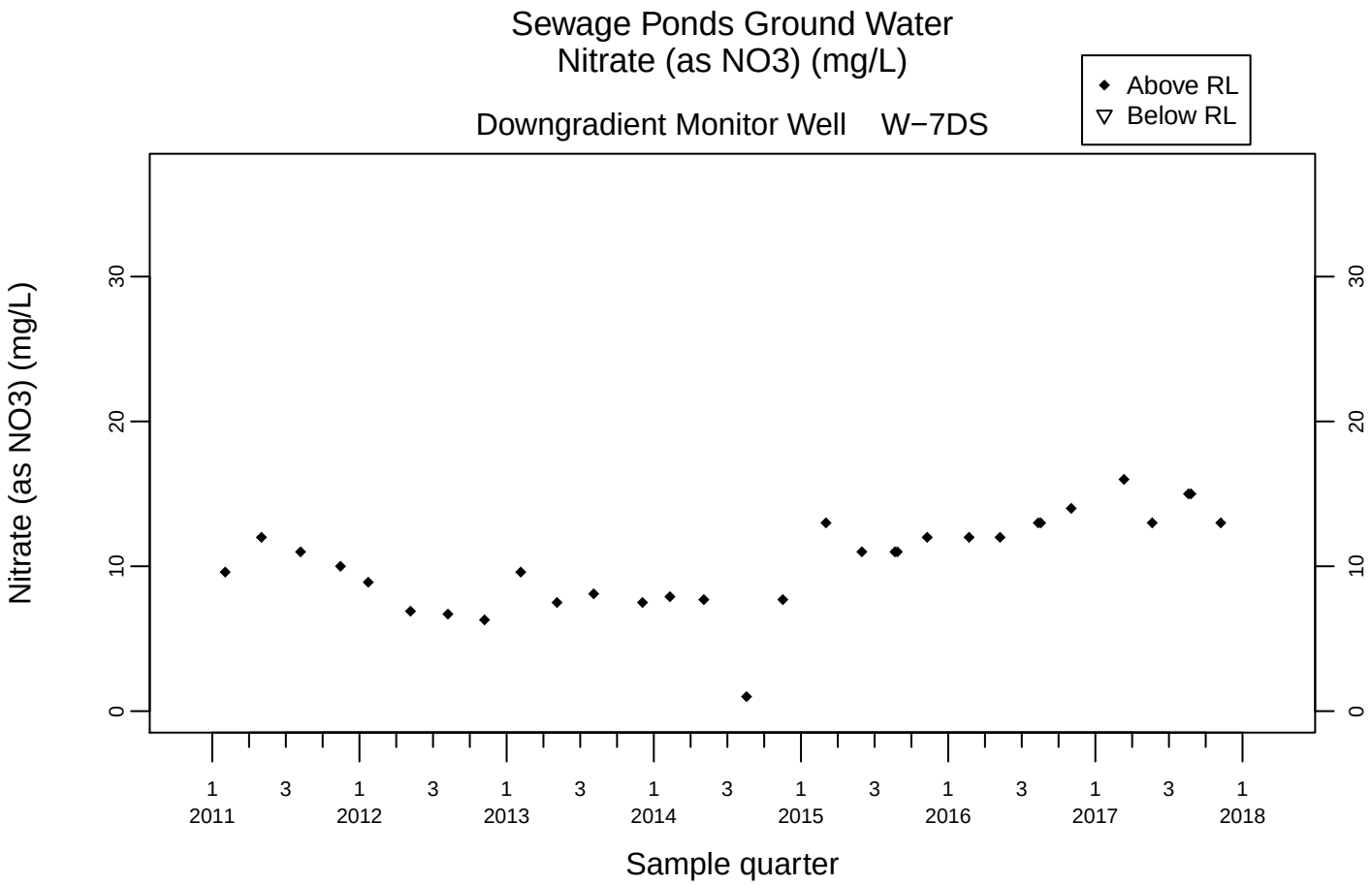
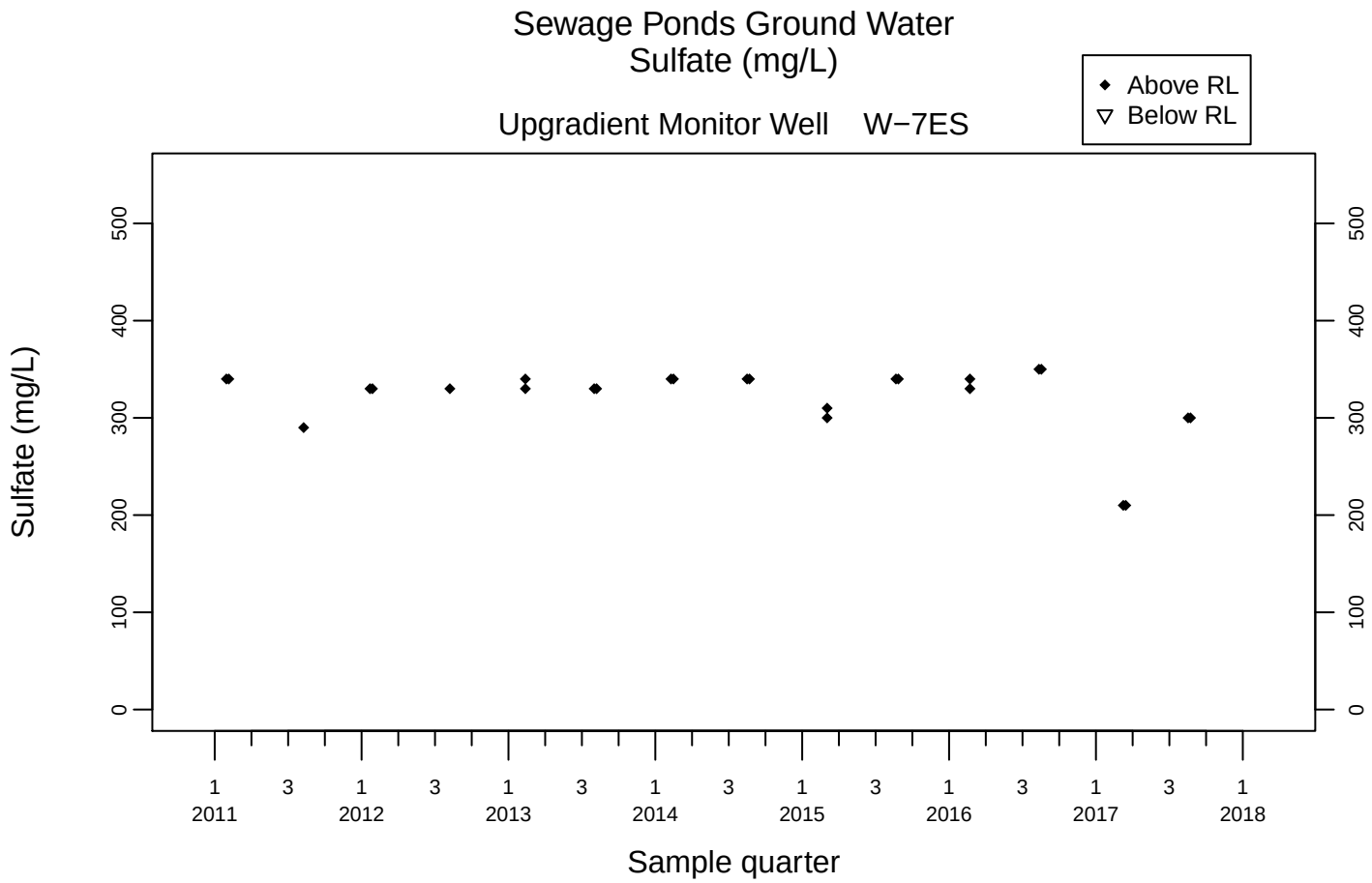
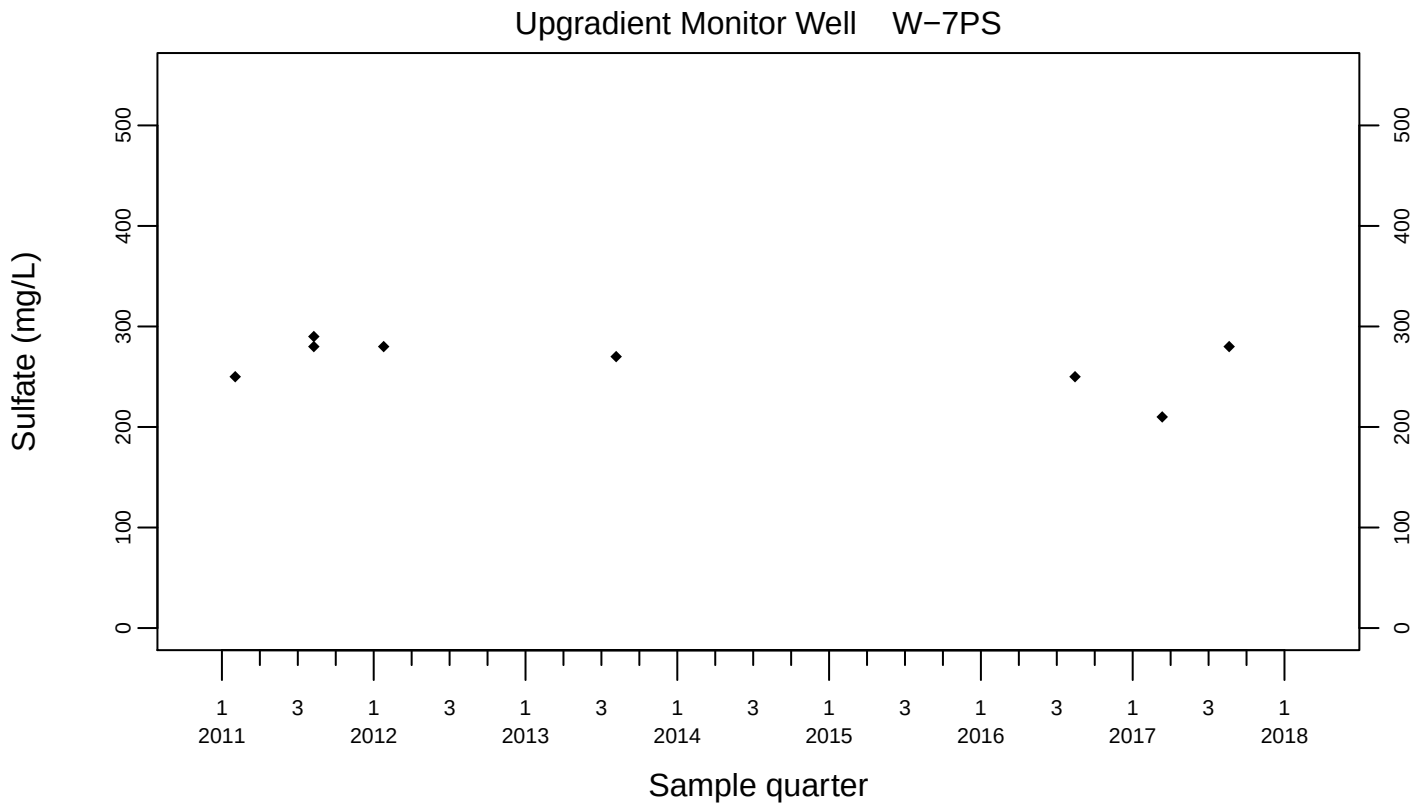
1 2016
3
1 2017
3
1 2018
Sample quarter

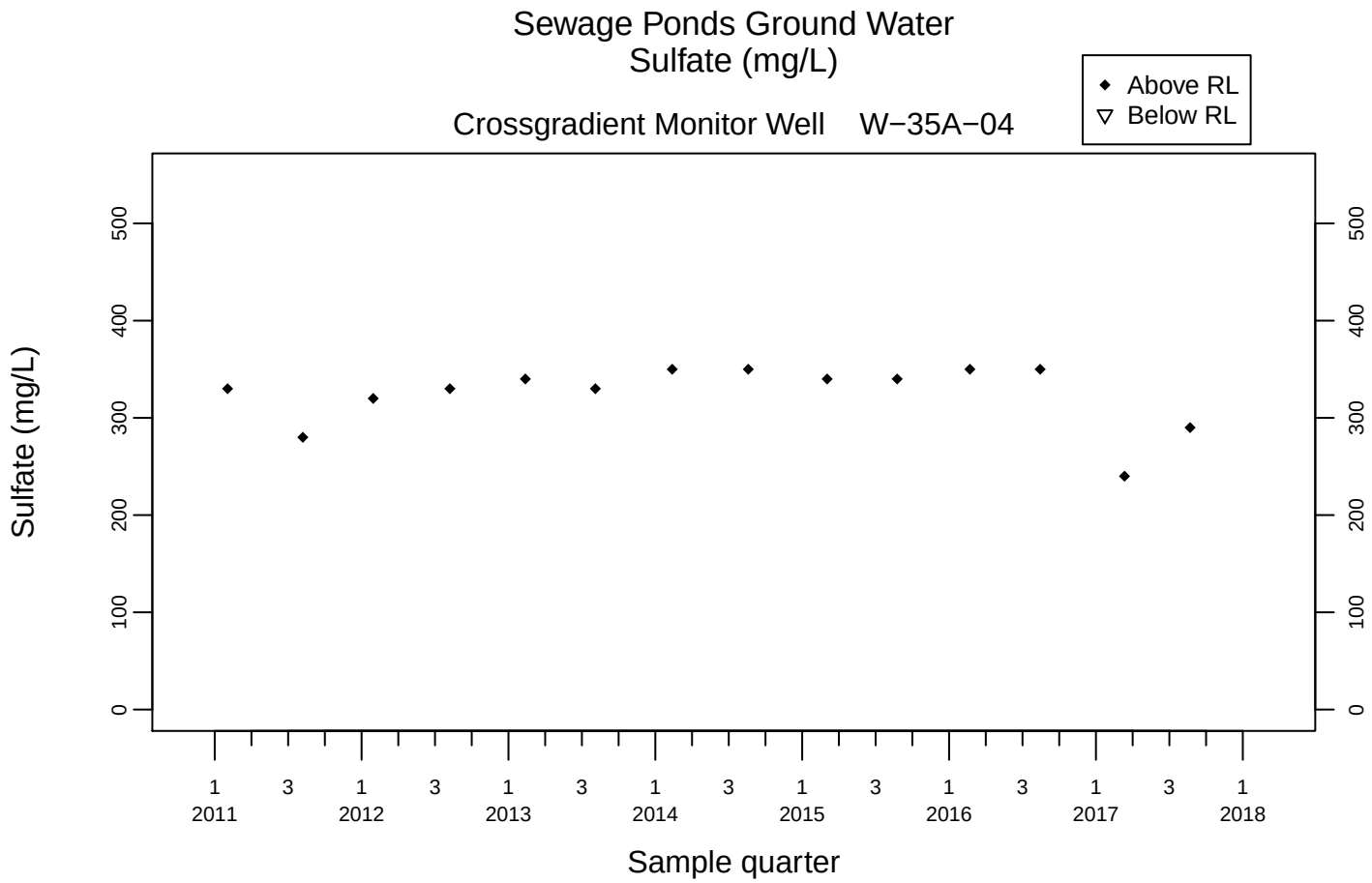

Sewage Ponds Ground Water
Nitrate (as NO3) (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−26R−05
Nitrate (as NO3) (mg/L)
0
10
20
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

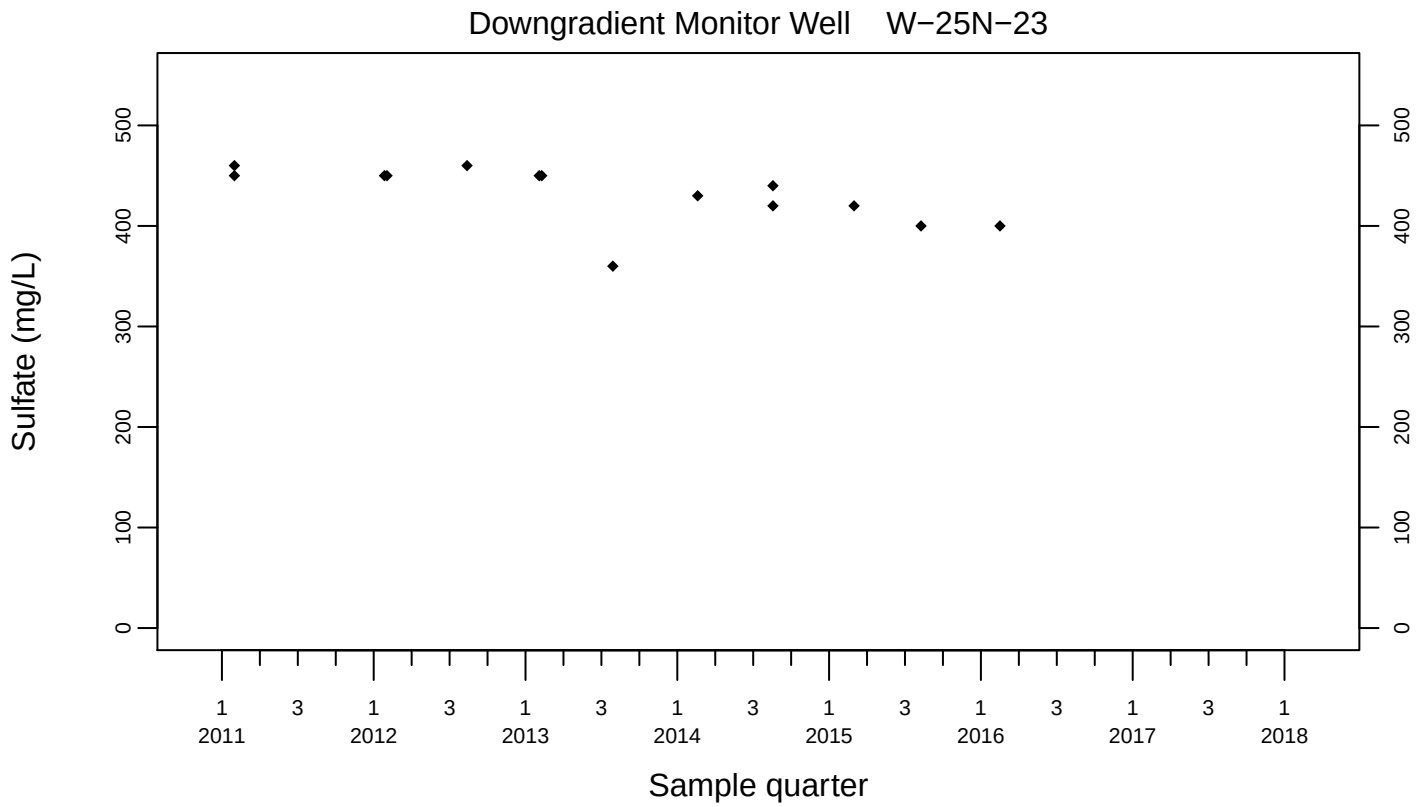

Downgradient Monitor Well W−26R−11
Nitrate (as NO3) (mg/L)
0
10
20
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

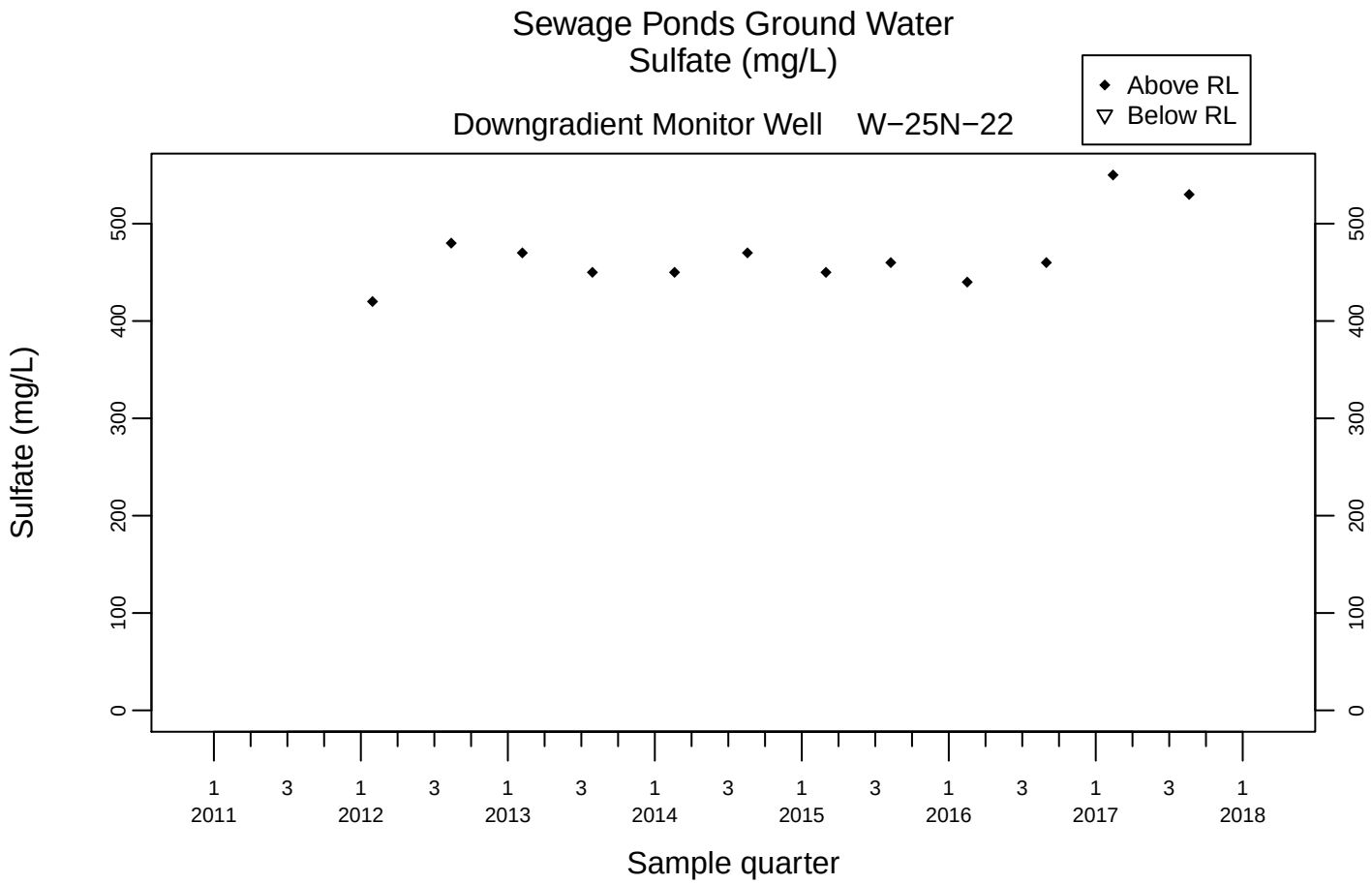

Sewage Ponds Ground Water
Nitrate (as NO3) (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Nitrate (as NO3) (mg/L)
0
10
20
30
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

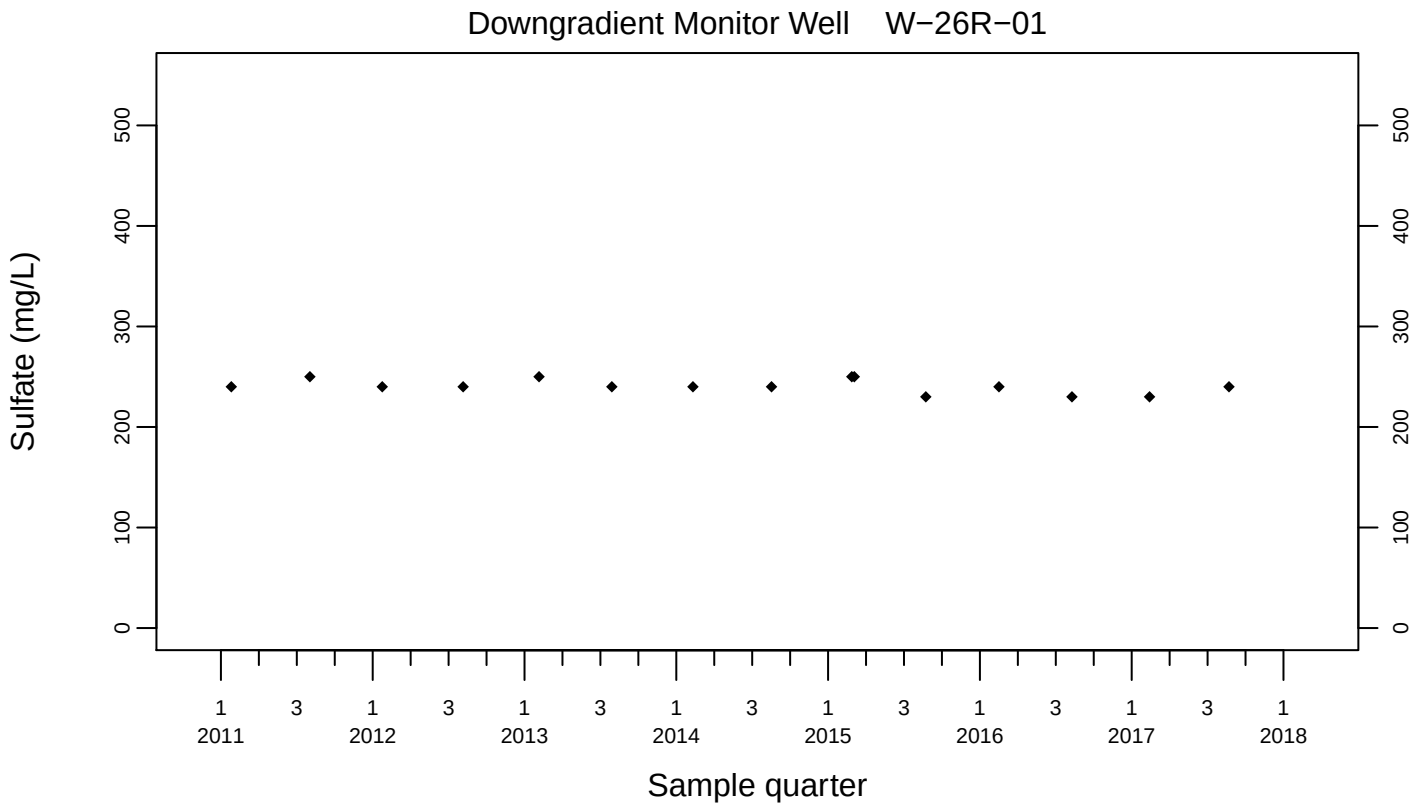

Sewage Ponds Ground Water
Sulfate (mg/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Sulfate (mg/L)
0
100
200
300
400
500
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

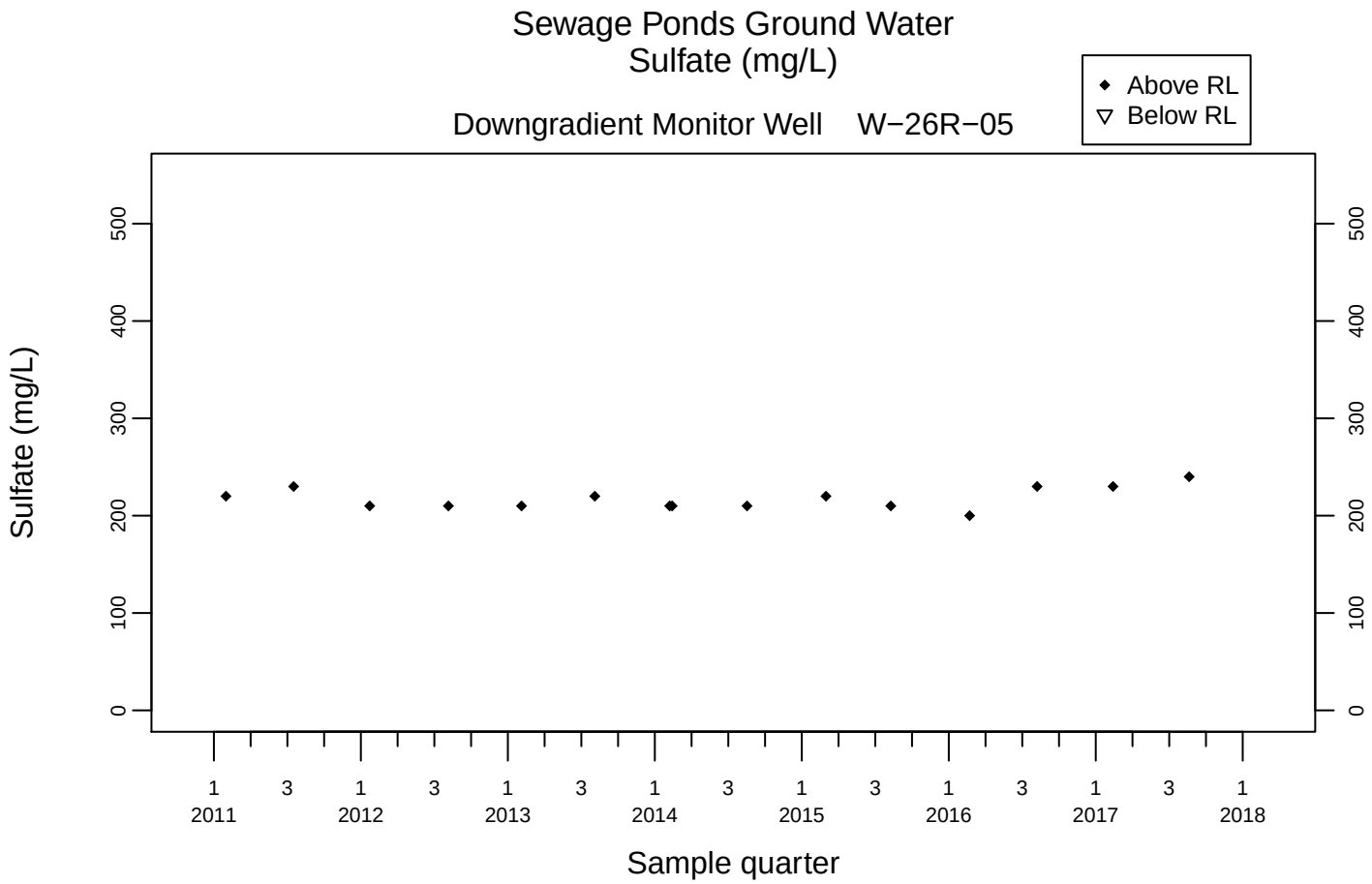

Upgradient Monitor Well W−7PS
Sulfate (mg/L)
0
100
200
300
400
500
1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
2011 2012 2013 2014 2015 2016 2017 2018
Sample quarter

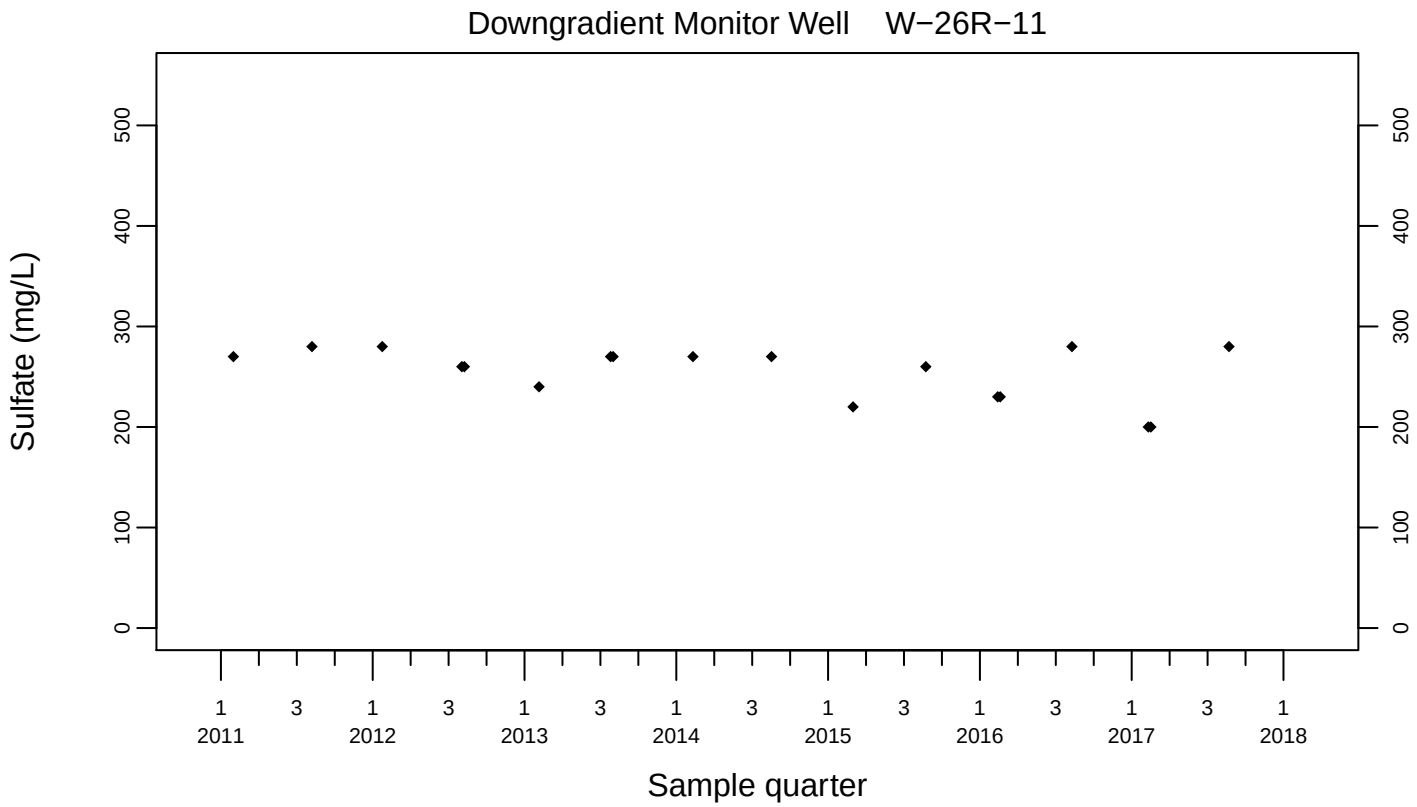

Sewage Ponds Ground Water
Sulfate (mg/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Sulfate (mg/L)
0
100
200
300
400
500
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

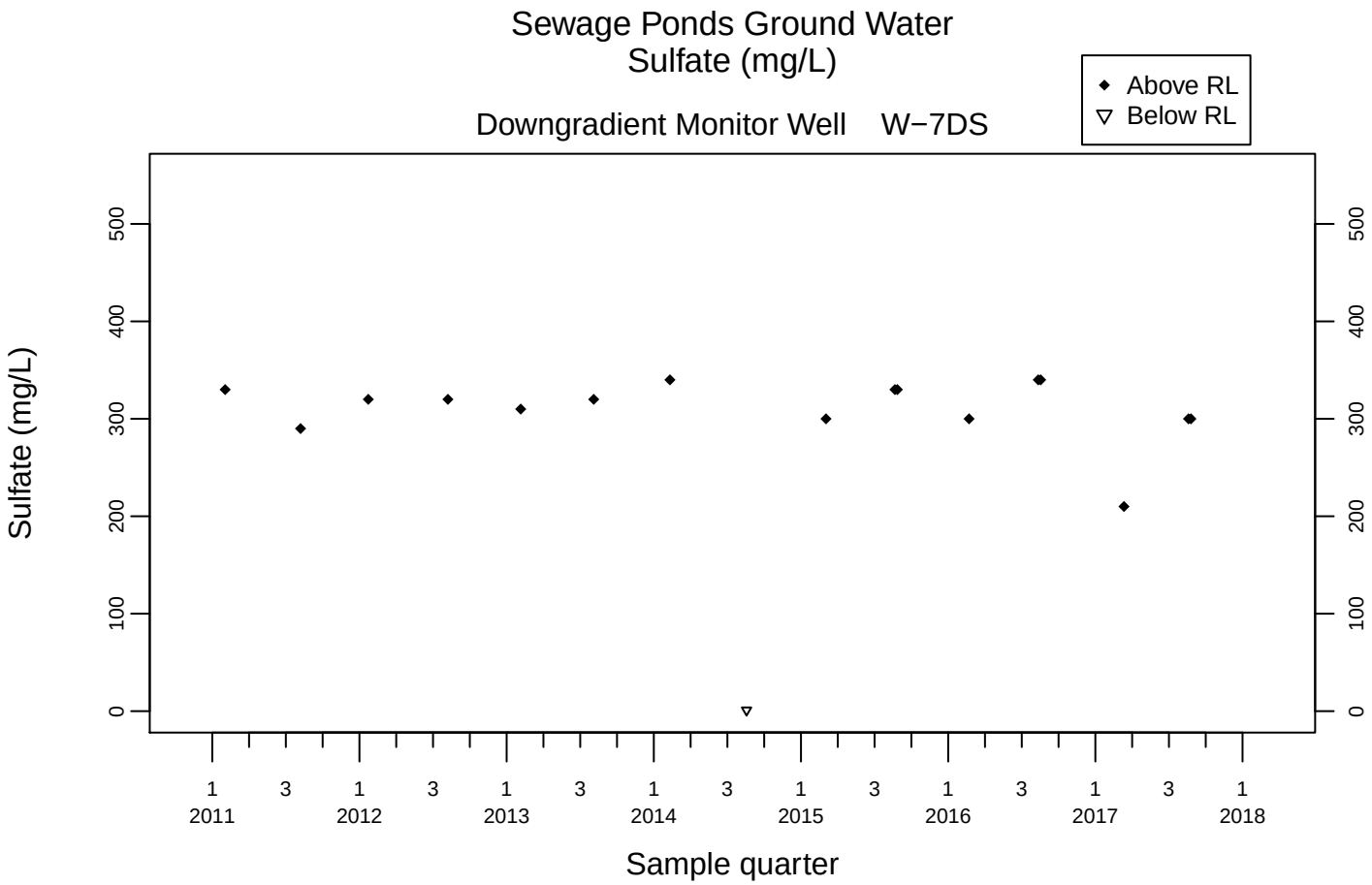

Downgradient Monitor Well W−25N−23
Sulfate (mg/L)
0
100
200
300
400
500
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

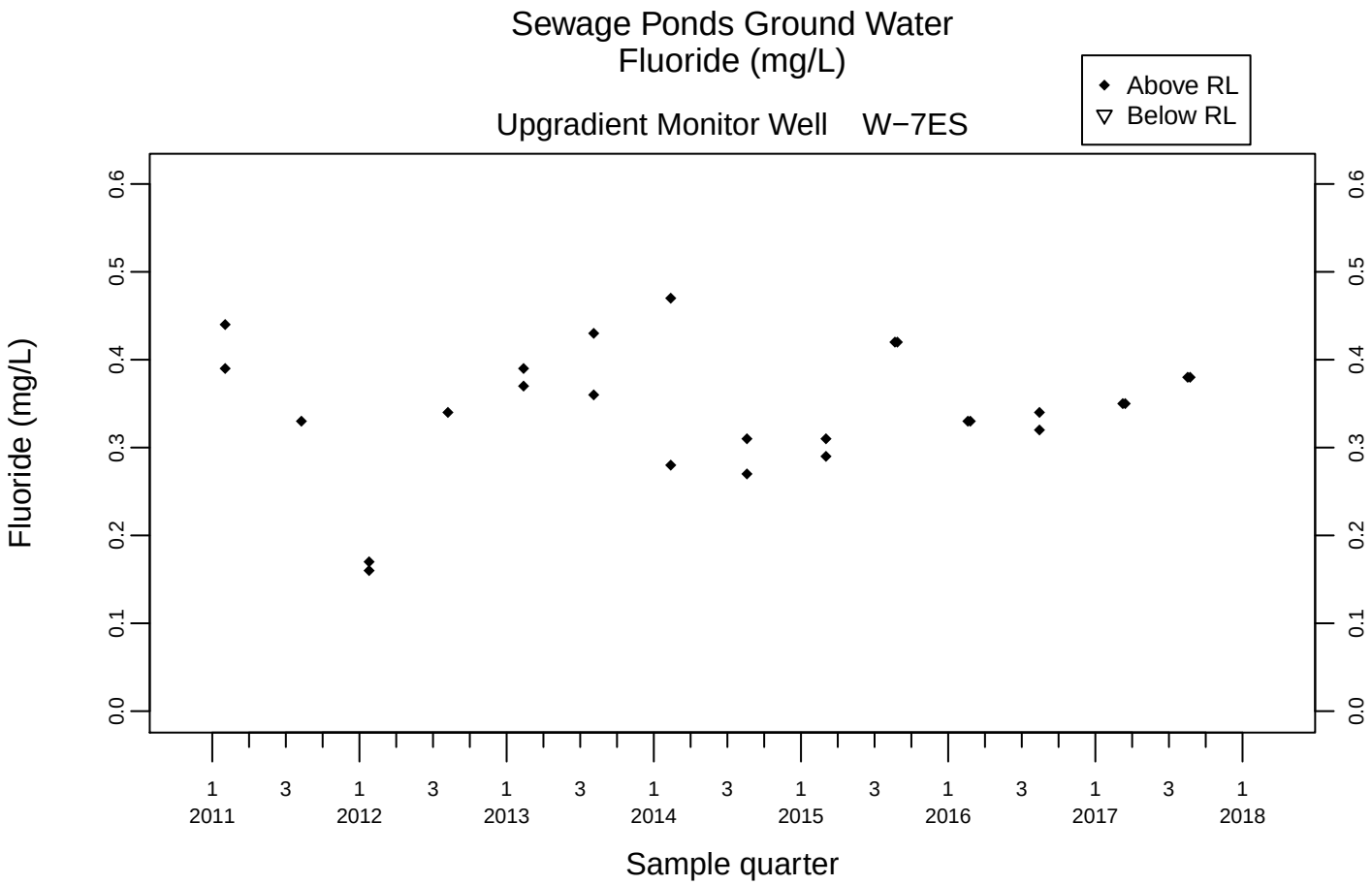

Sewage Ponds Ground Water
Sulfate (mg/L)
Downgradient Monitor Well W−25N−22
Above RL
Below RL
Sulfate (mg/L)
0
100
200
300
400
500
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

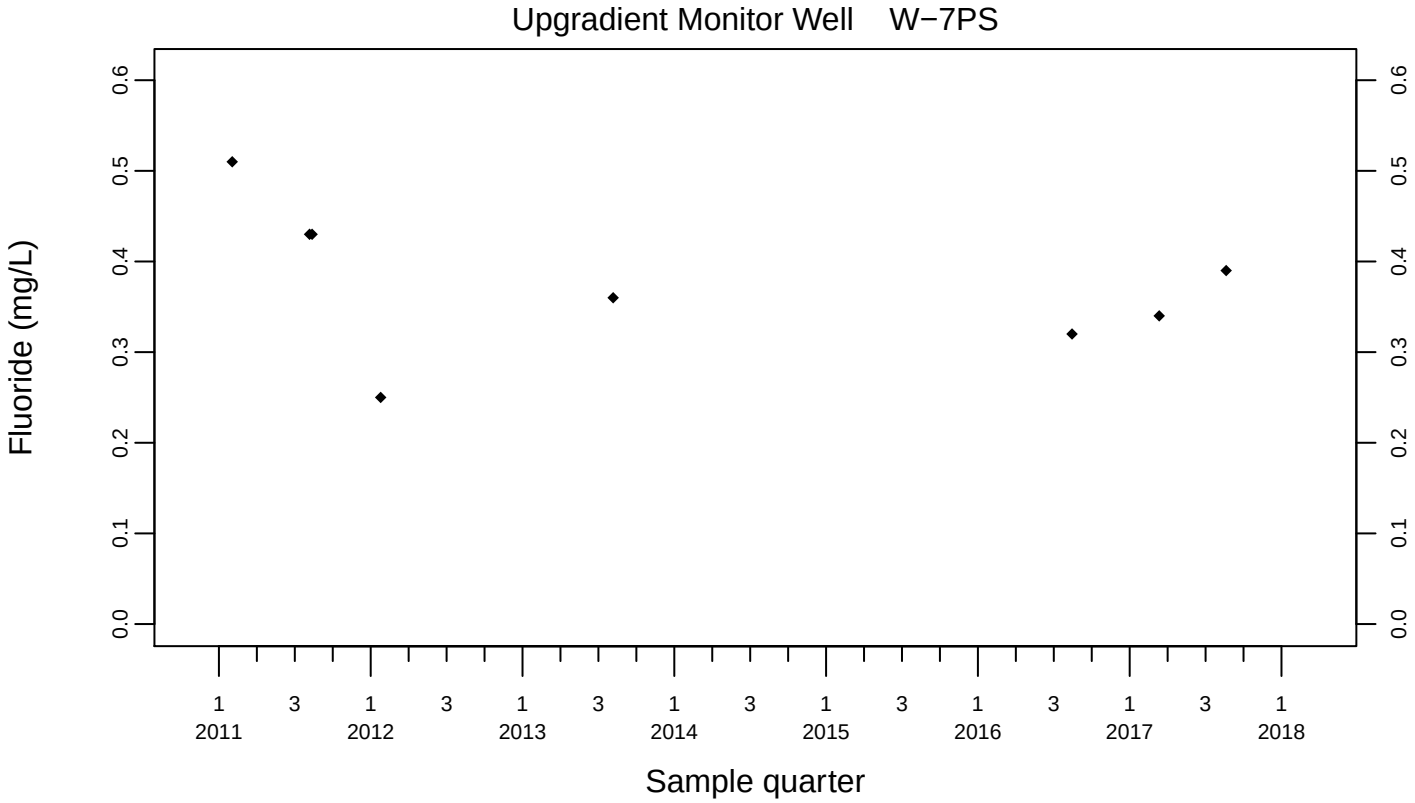

Downgradient Monitor Well W−26R−01
Sulfate (mg/L)
0
100
200
300
400
500
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

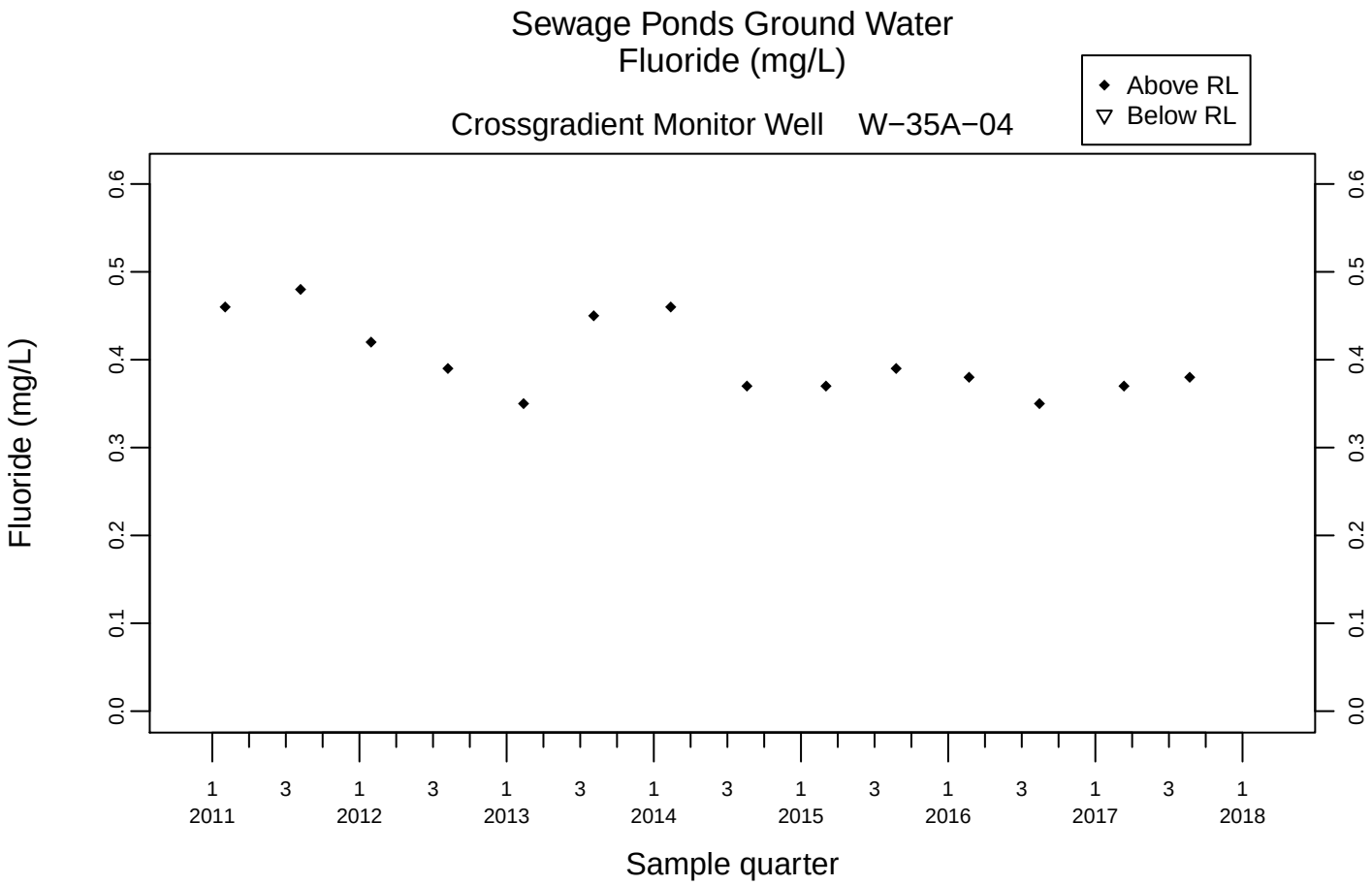

Sewage Ponds Ground Water
Sulfate (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−26R−05
Sulfate (mg/L)
0
100
200
300
400
500
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

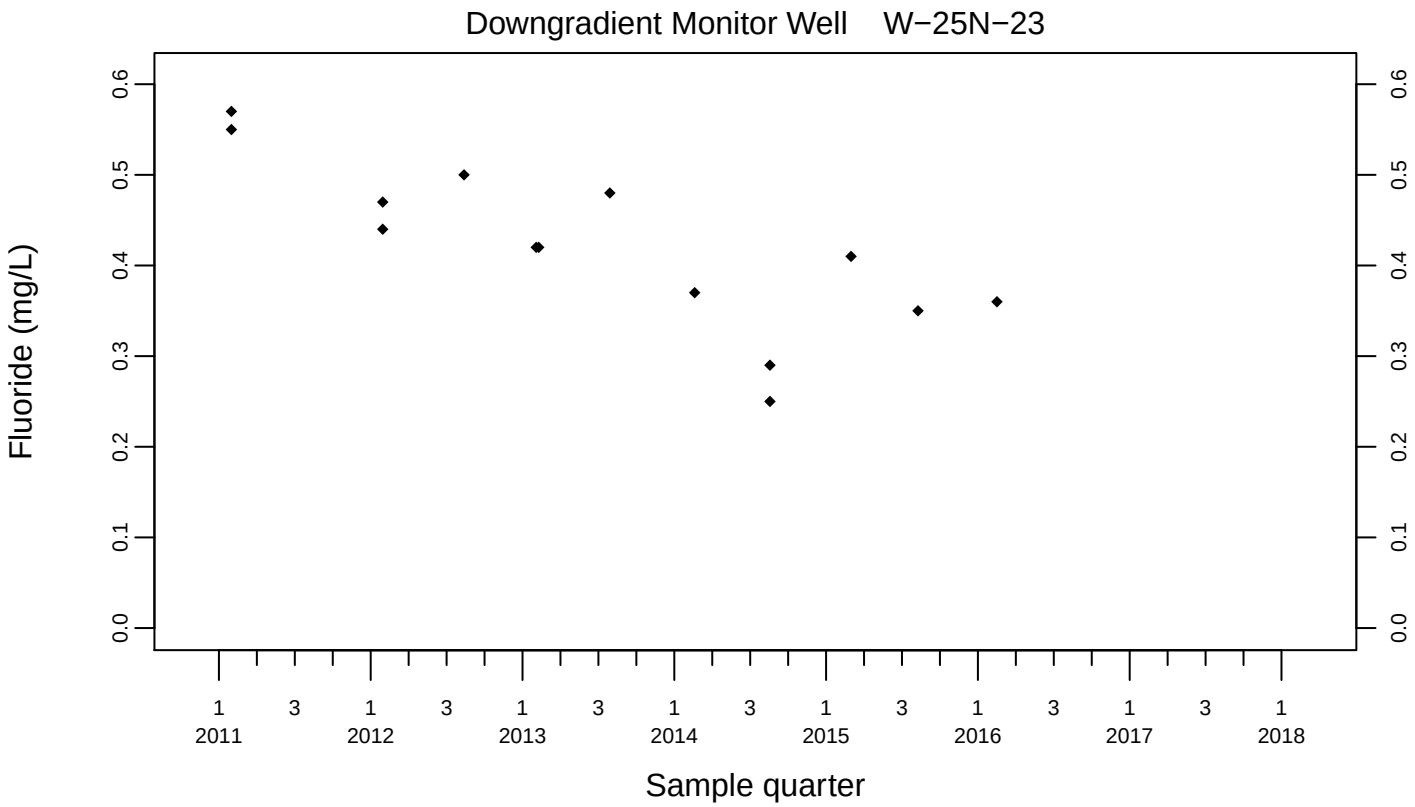

Downgradient Monitor Well W−26R−11
Sulfate (mg/L)
0
100
200
300
400
500
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

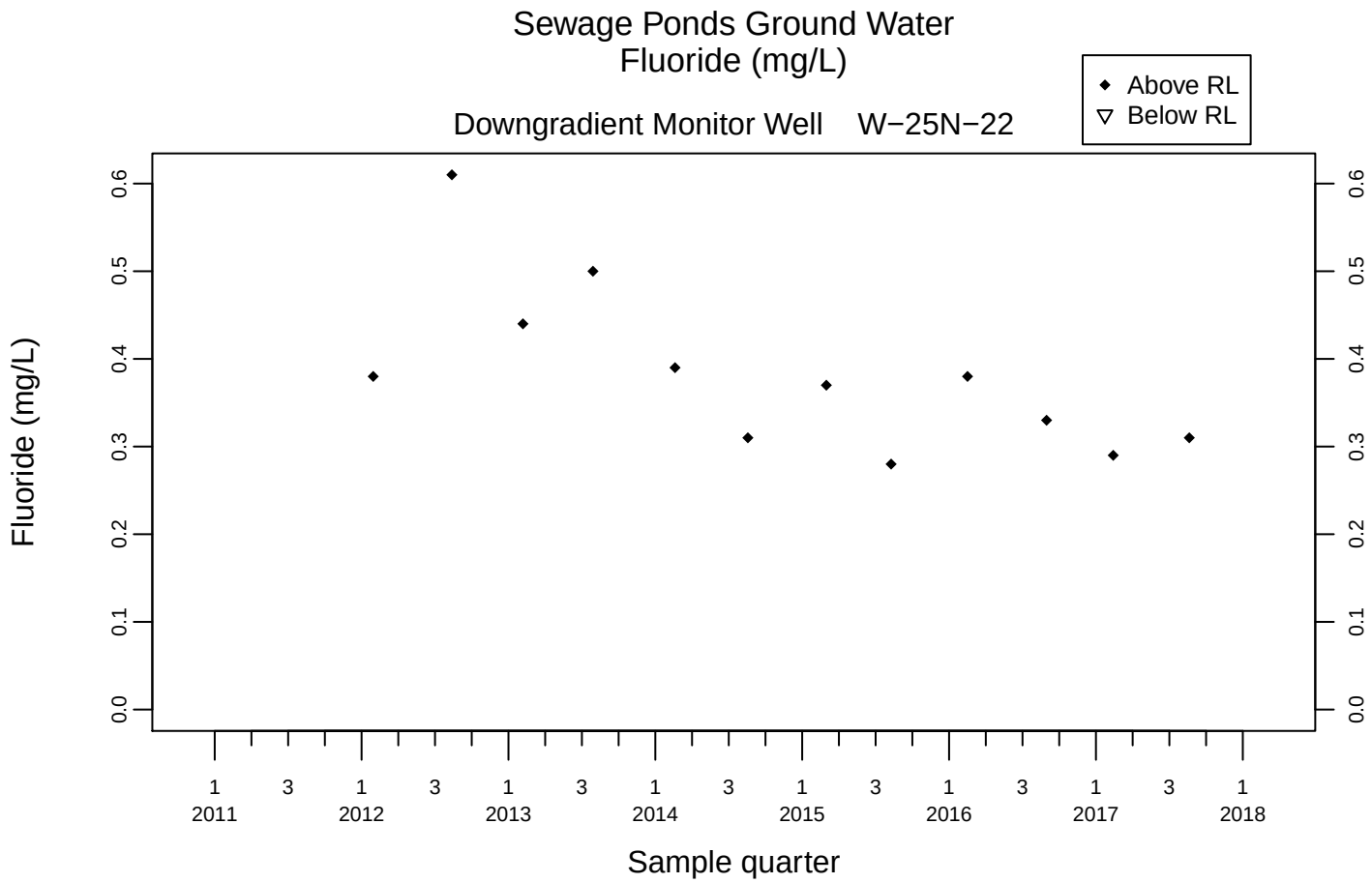

Sewage Ponds Ground Water
Sulfate (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Sulfate (mg/L)
0
100
200
300
400
500
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

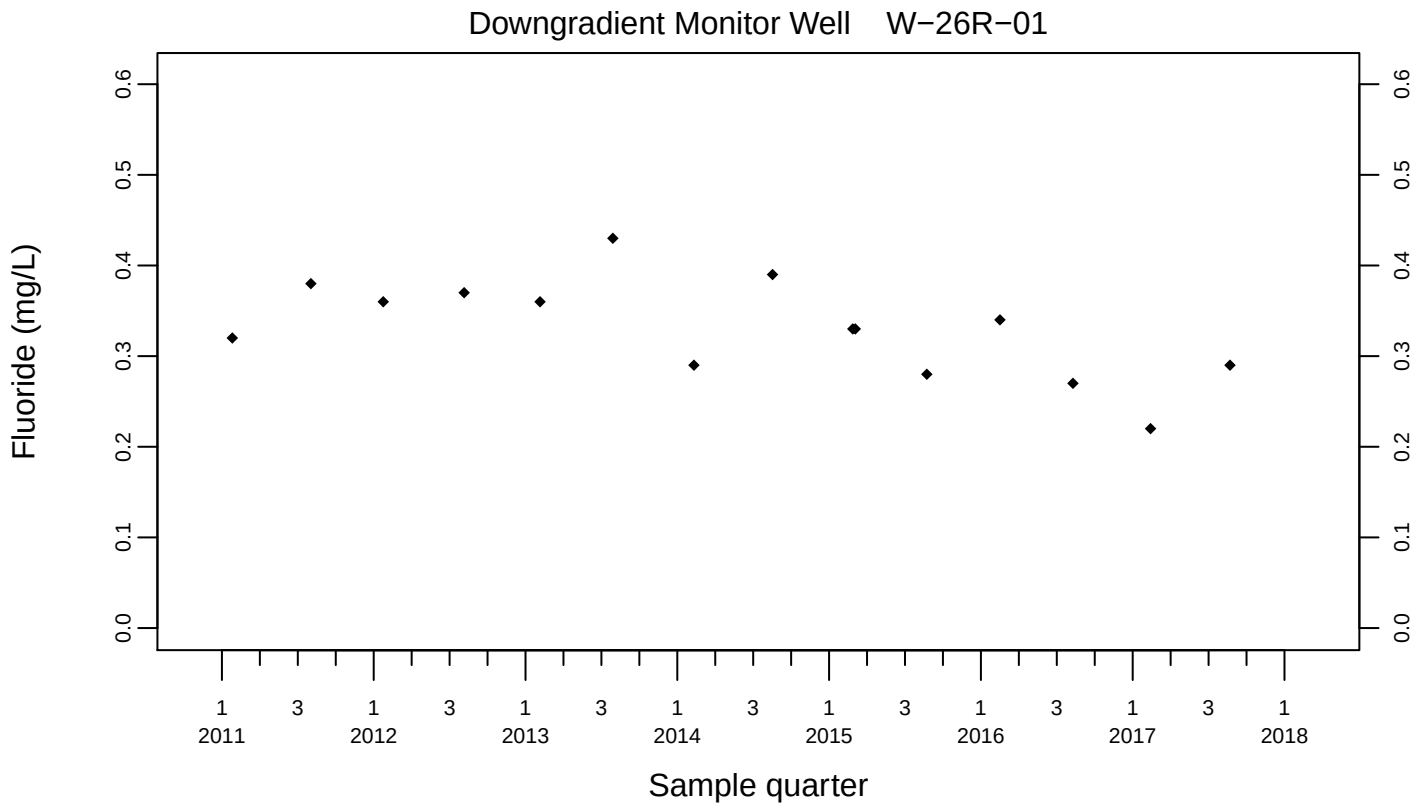

Sewage Ponds Ground Water
Fluoride (mg/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Fluoride (mg/L)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

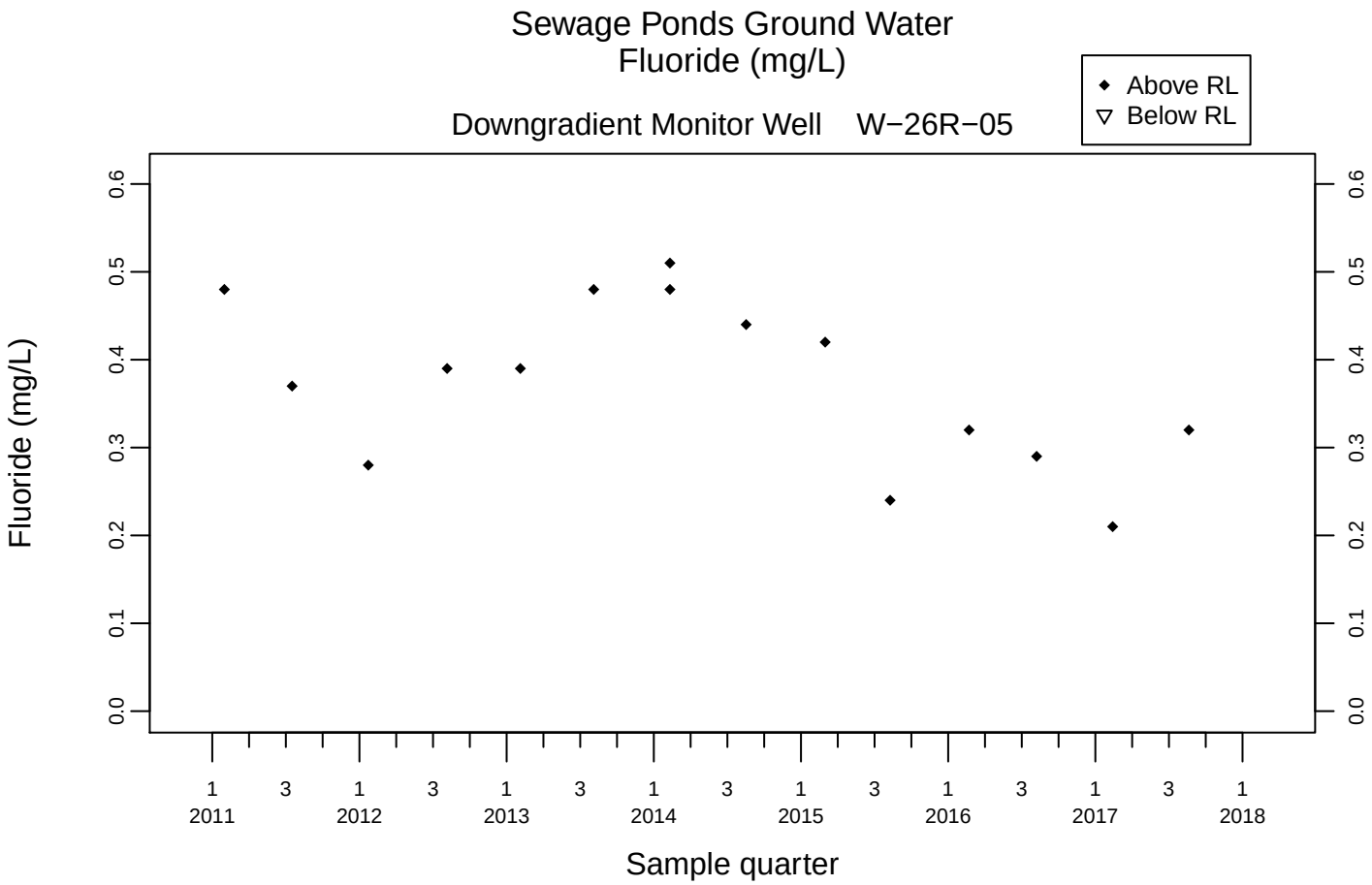

Upgradient Monitor Well W−7PS
Fluoride (mg/L)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

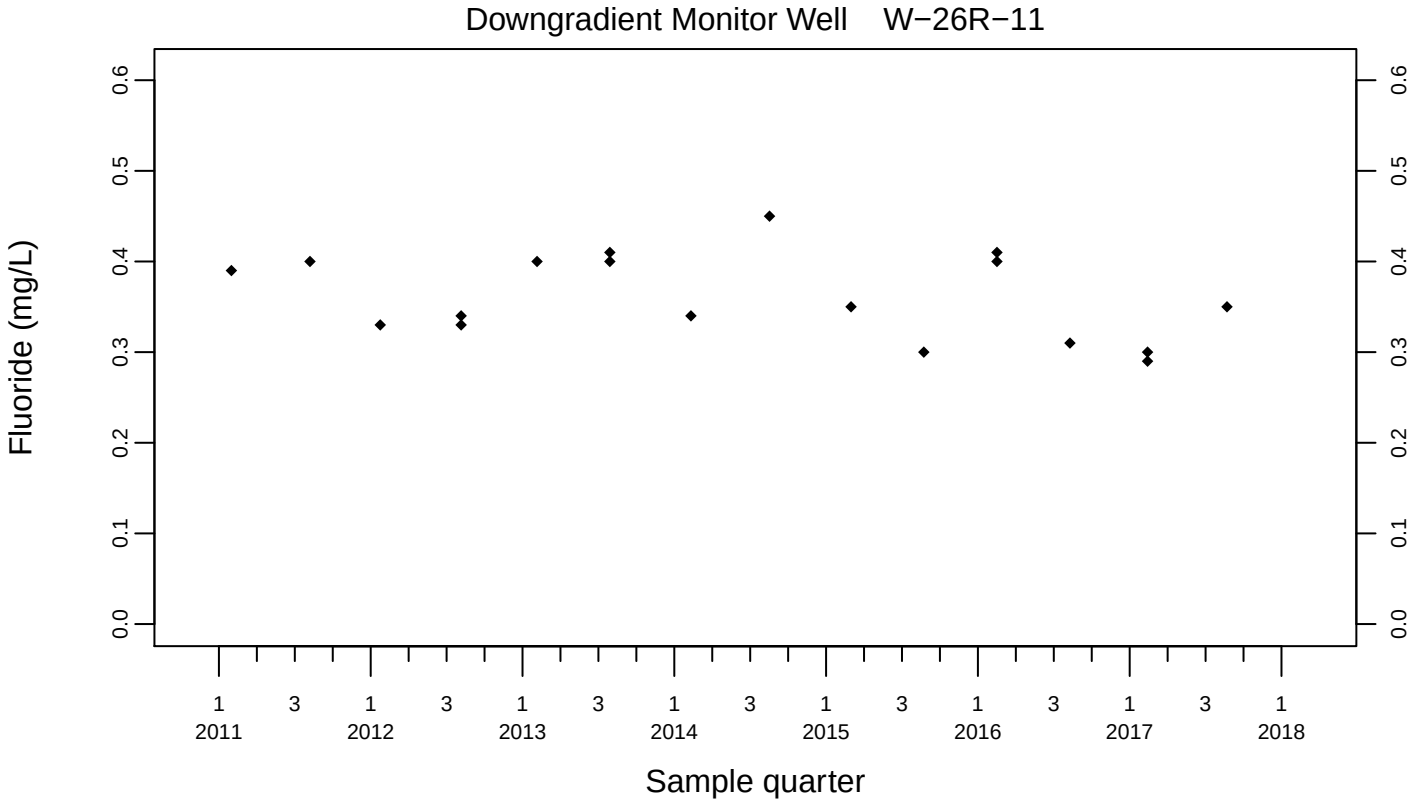

Sewage Ponds Ground Water
Fluoride (mg/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Fluoride (mg/L)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

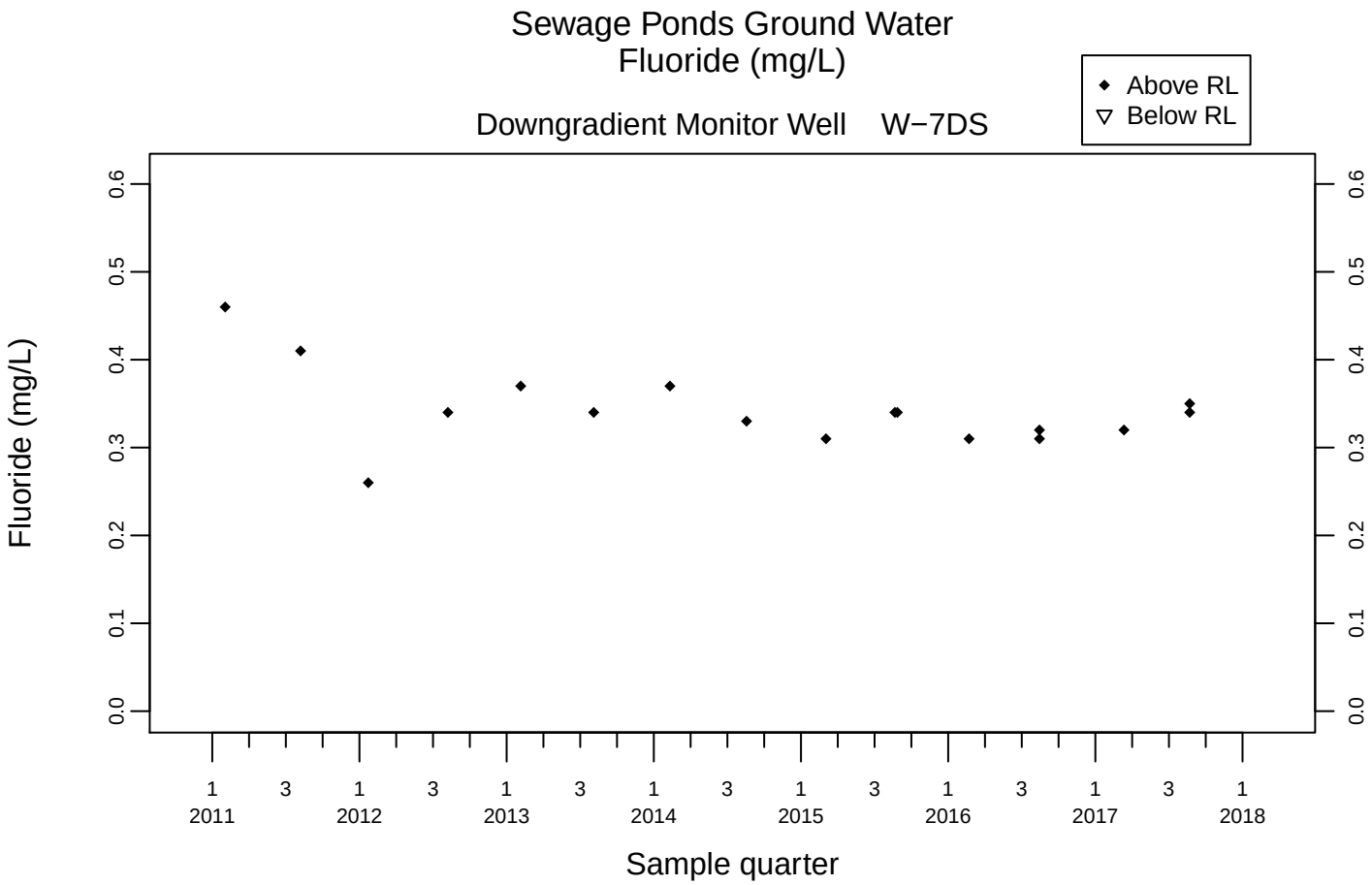

Downgradient Monitor Well W−25N−23
Fluoride (mg/L)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

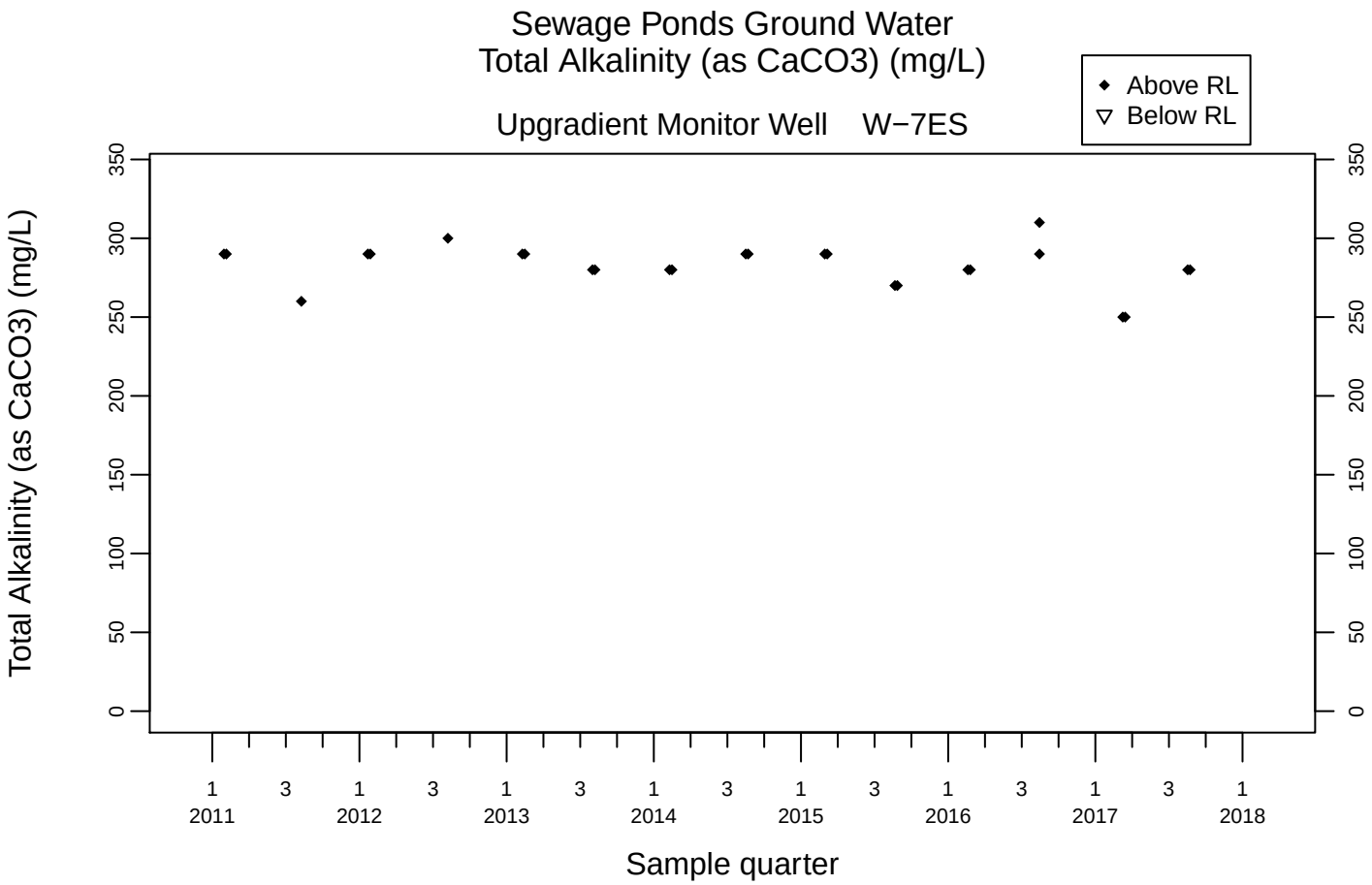

Sewage Ponds Ground Water
Fluoride (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Fluoride (mg/L)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

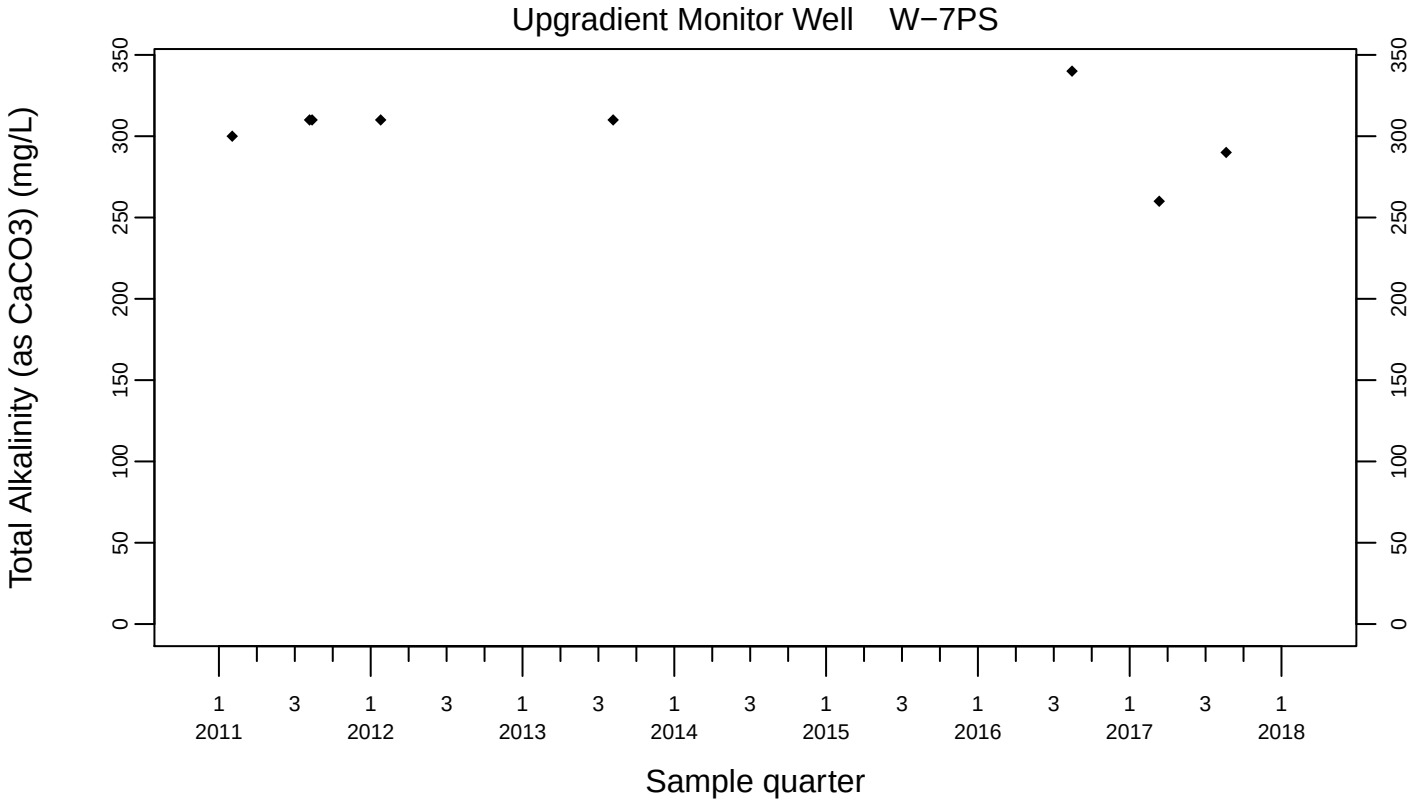

Downgradient Monitor Well W−26R−01
Fluoride (mg/L)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

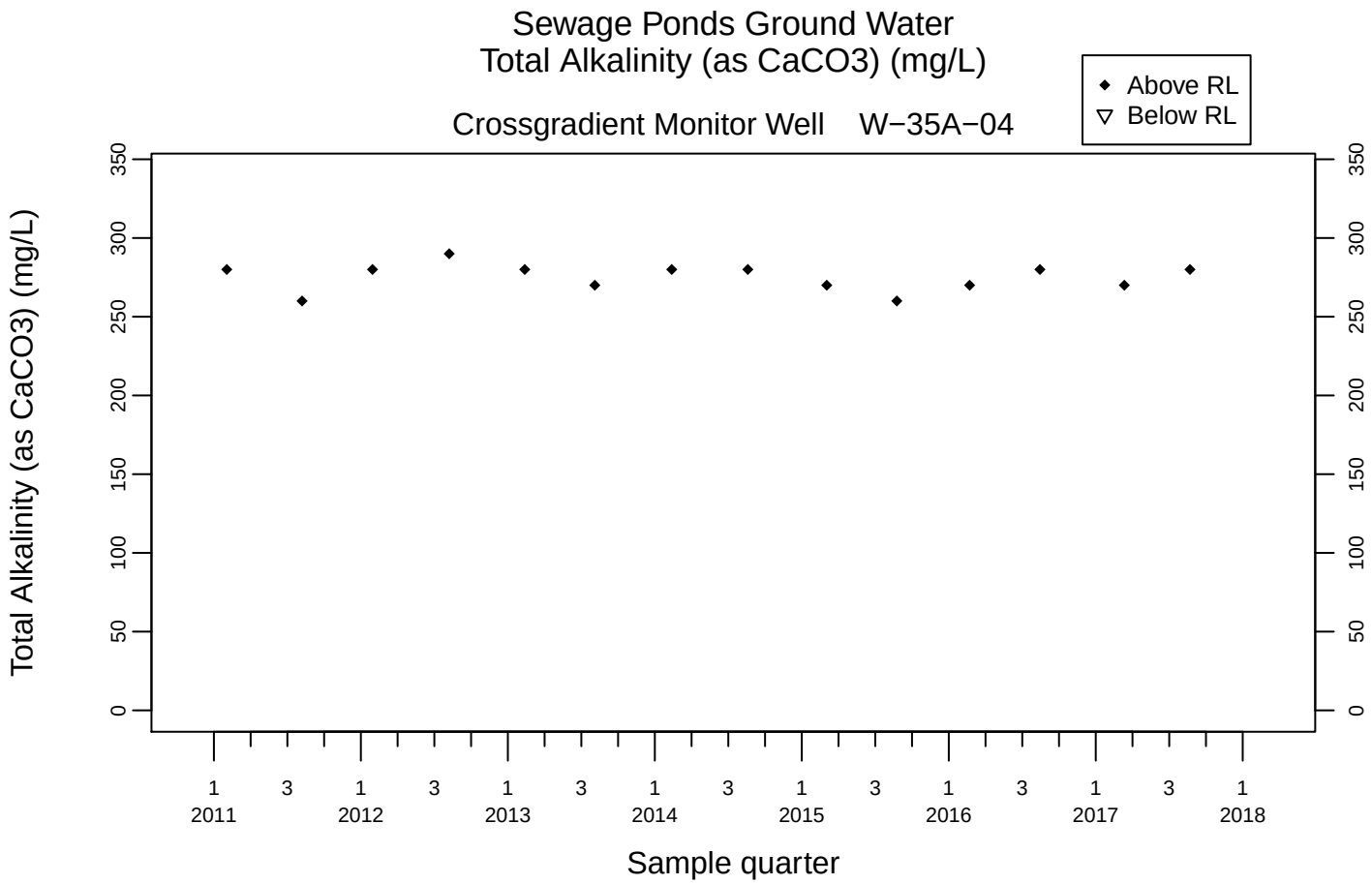

Sewage Ponds Ground Water
Fluoride (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−26R−05
Fluoride (mg/L)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

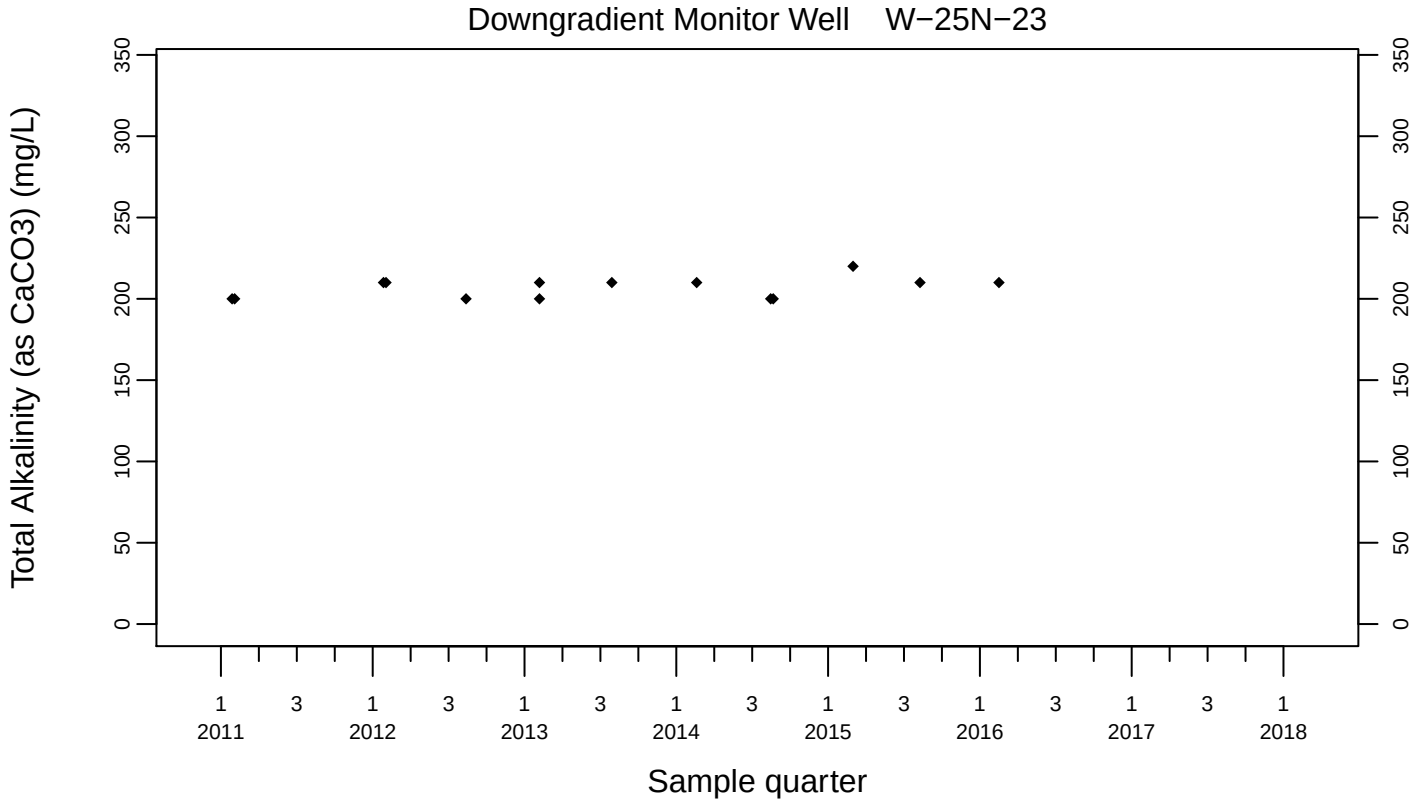

Downgradient Monitor Well W−26R−11
Fluoride (mg/L)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

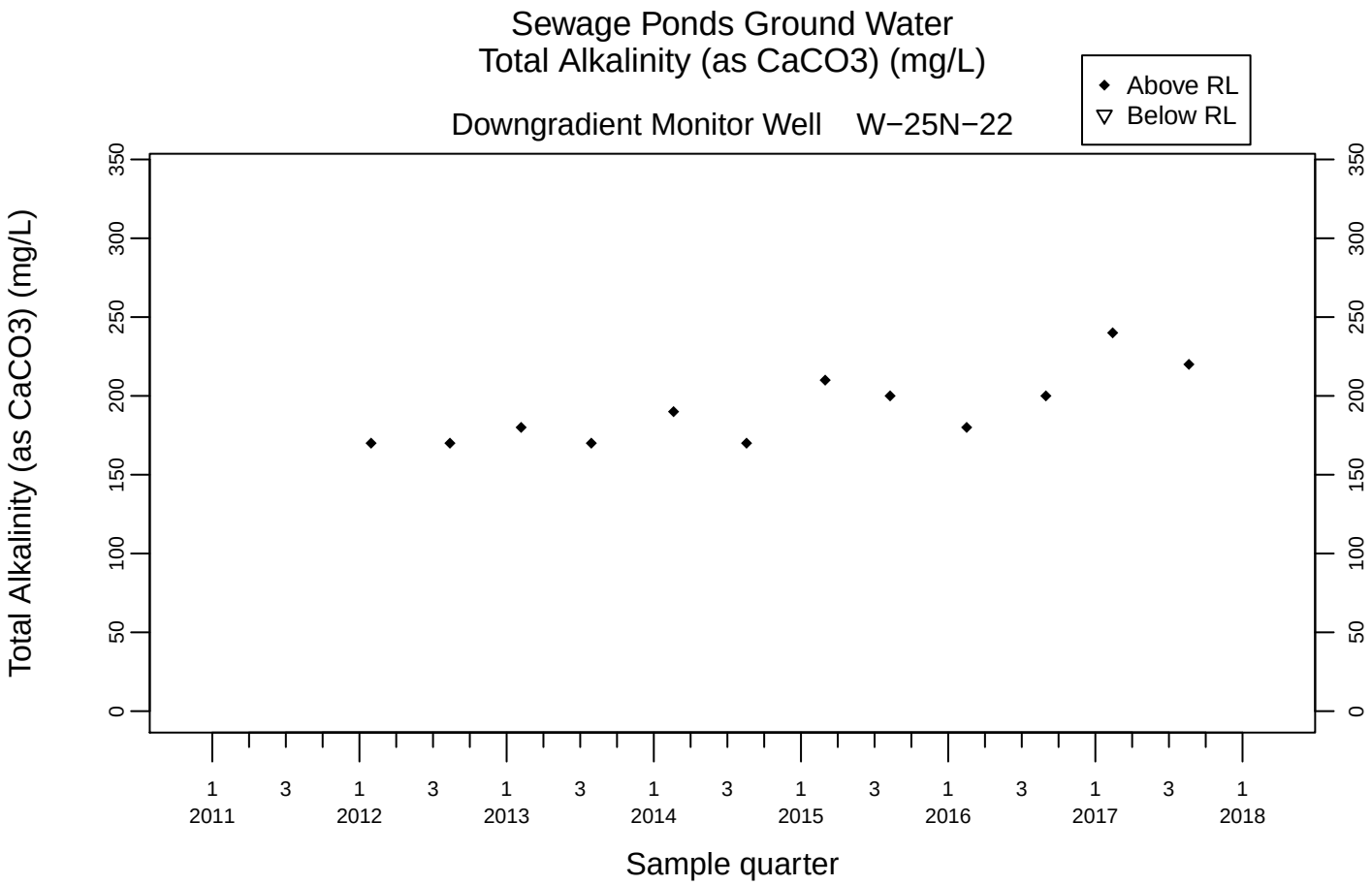

Sewage Ponds Ground Water
Fluoride (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Fluoride (mg/L)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

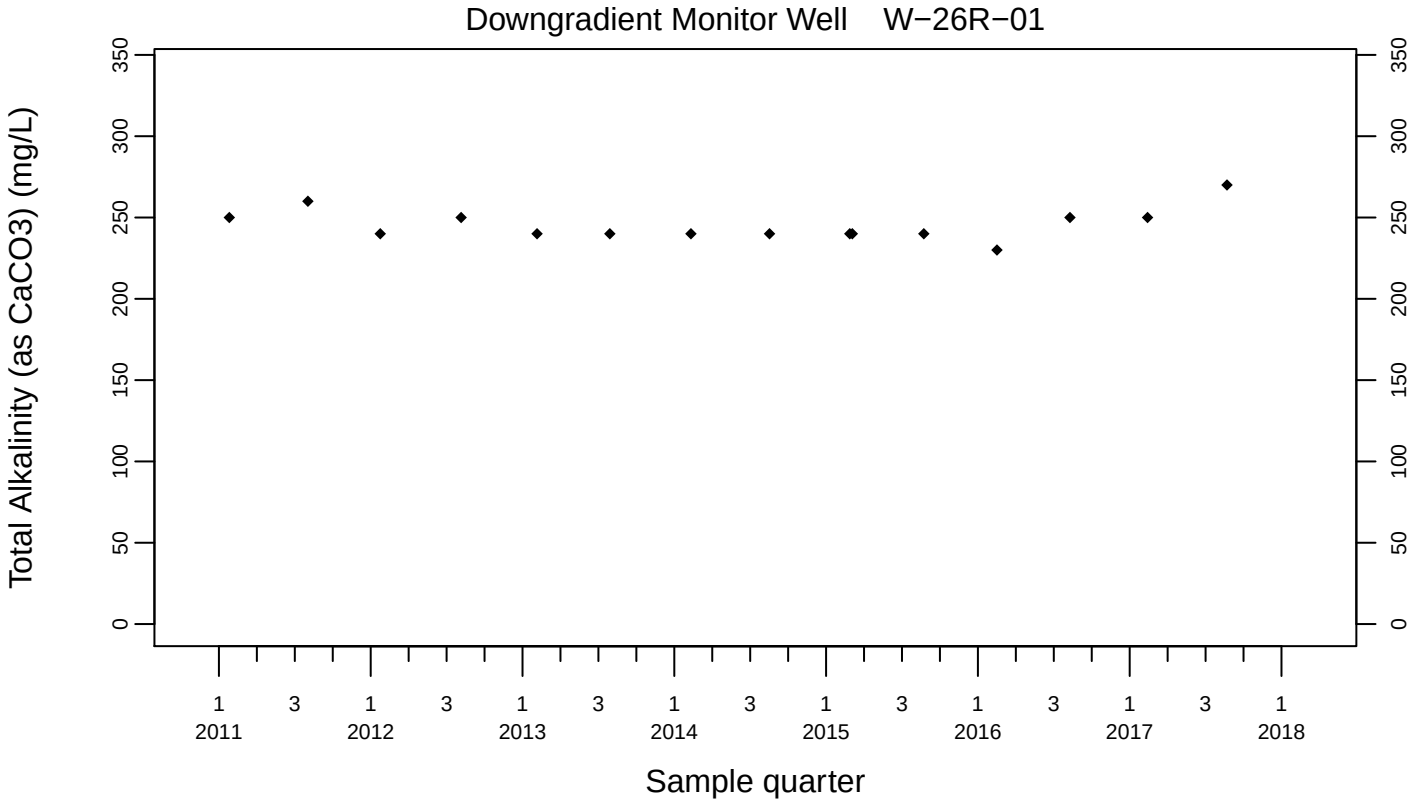

Sewage Ponds Ground Water
Total Alkalinity (as CaCO3) (mg/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Total Alkalinity (as CaCO3) (mg/L)
0
50
100
150
200
250
300
350
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

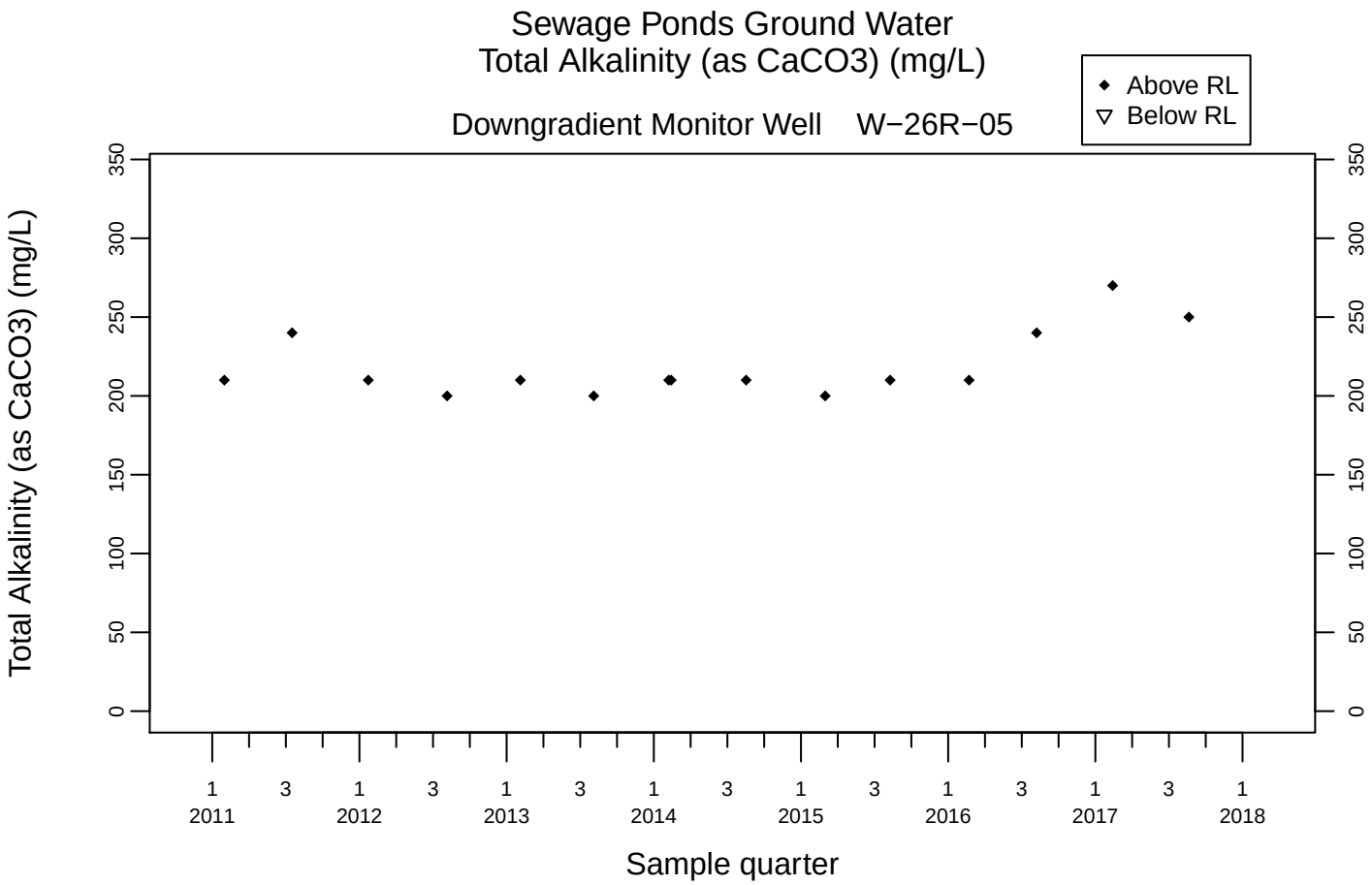

Upgradient Monitor Well W−7PS
Total Alkalinity (as CaCO3) (mg/L)
0
50
100
150
200
250
300
350
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

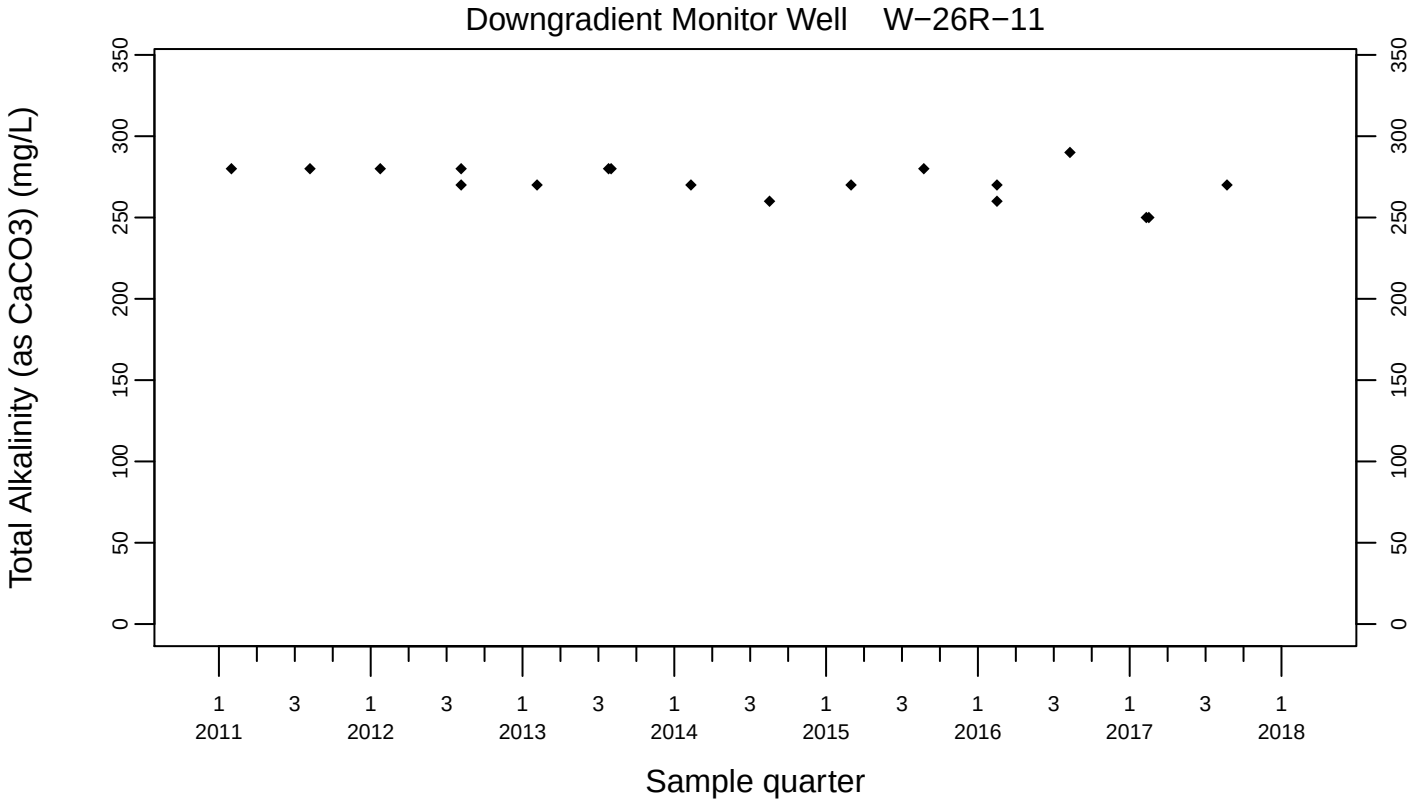

Sewage Ponds Ground Water
Total Alkalinity (as CaCO3) (mg/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Total Alkalinity (as CaCO3) (mg/L)
0
50
100
150
200
250
300
350
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

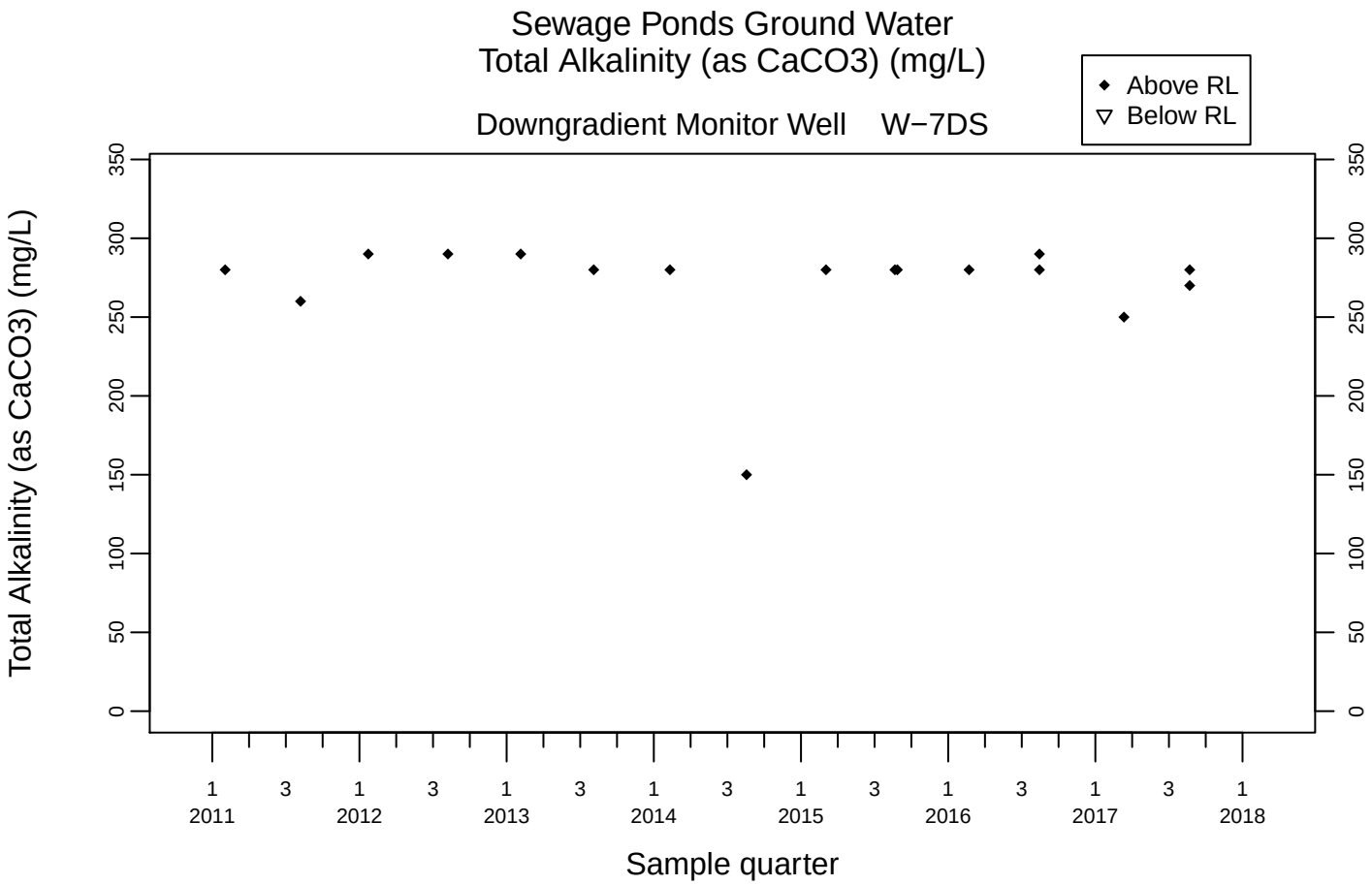

Downgradient Monitor Well W−25N−23
Total Alkalinity (as CaCO3) (mg/L)
0
50
100
150
200
250
300
350
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

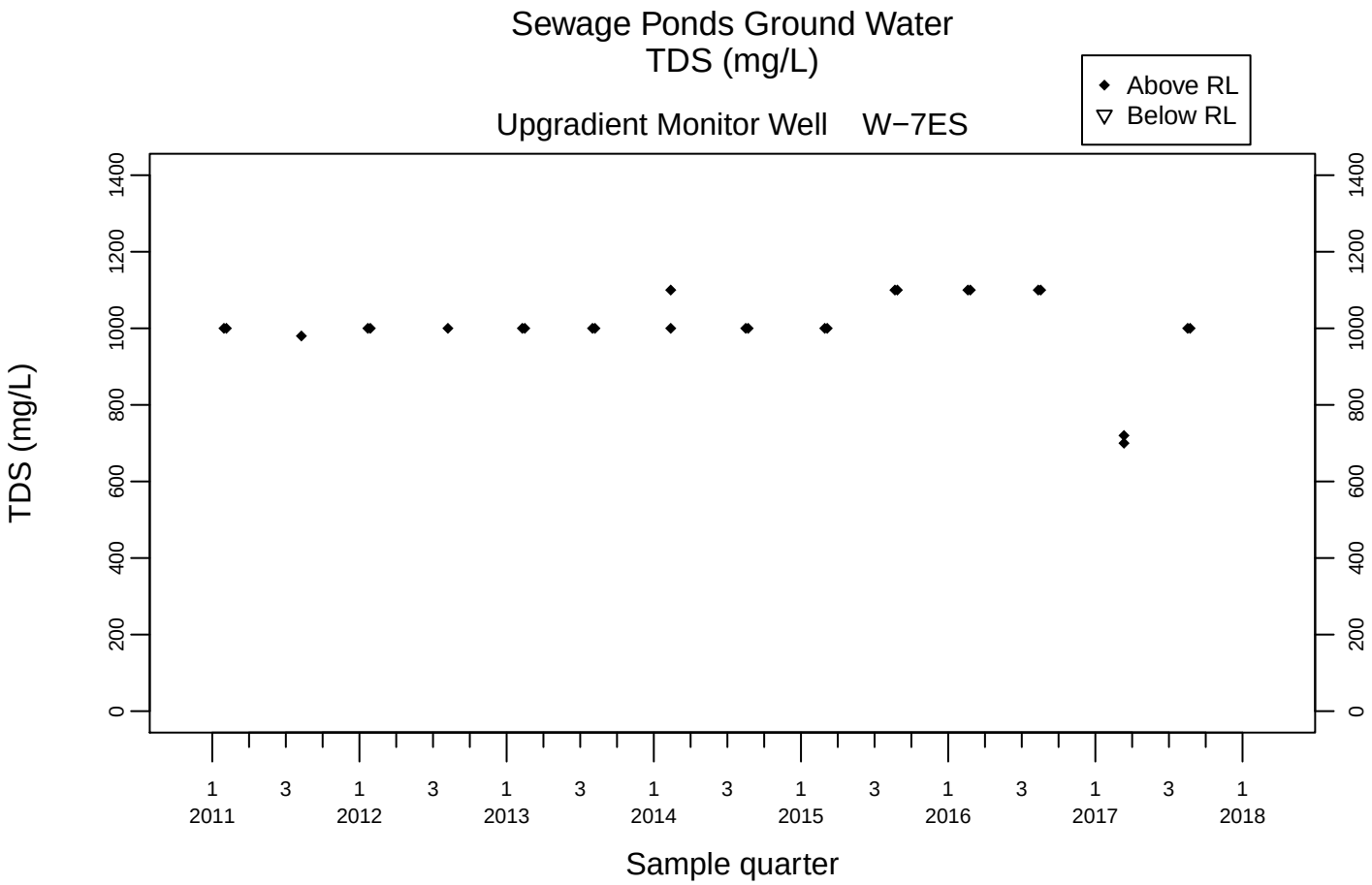

Sewage Ponds Ground Water
Total Alkalinity (as CaCO3) (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Total Alkalinity (as CaCO3) (mg/L)
0
50
100
150
200
250
300
350
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

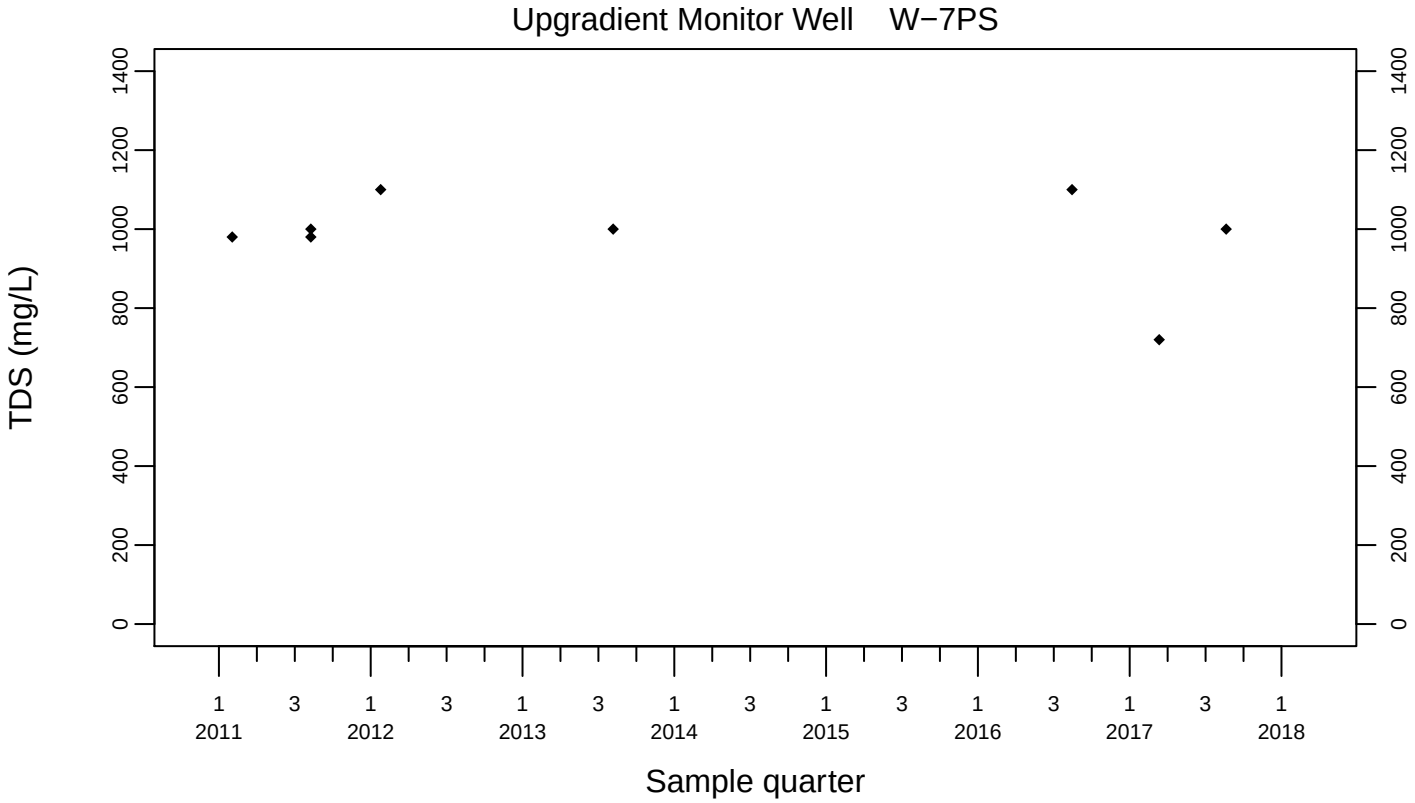

Downgradient Monitor Well W−26R−01
Total Alkalinity (as CaCO3) (mg/L)
0
50
100
150
200
250
300
350
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

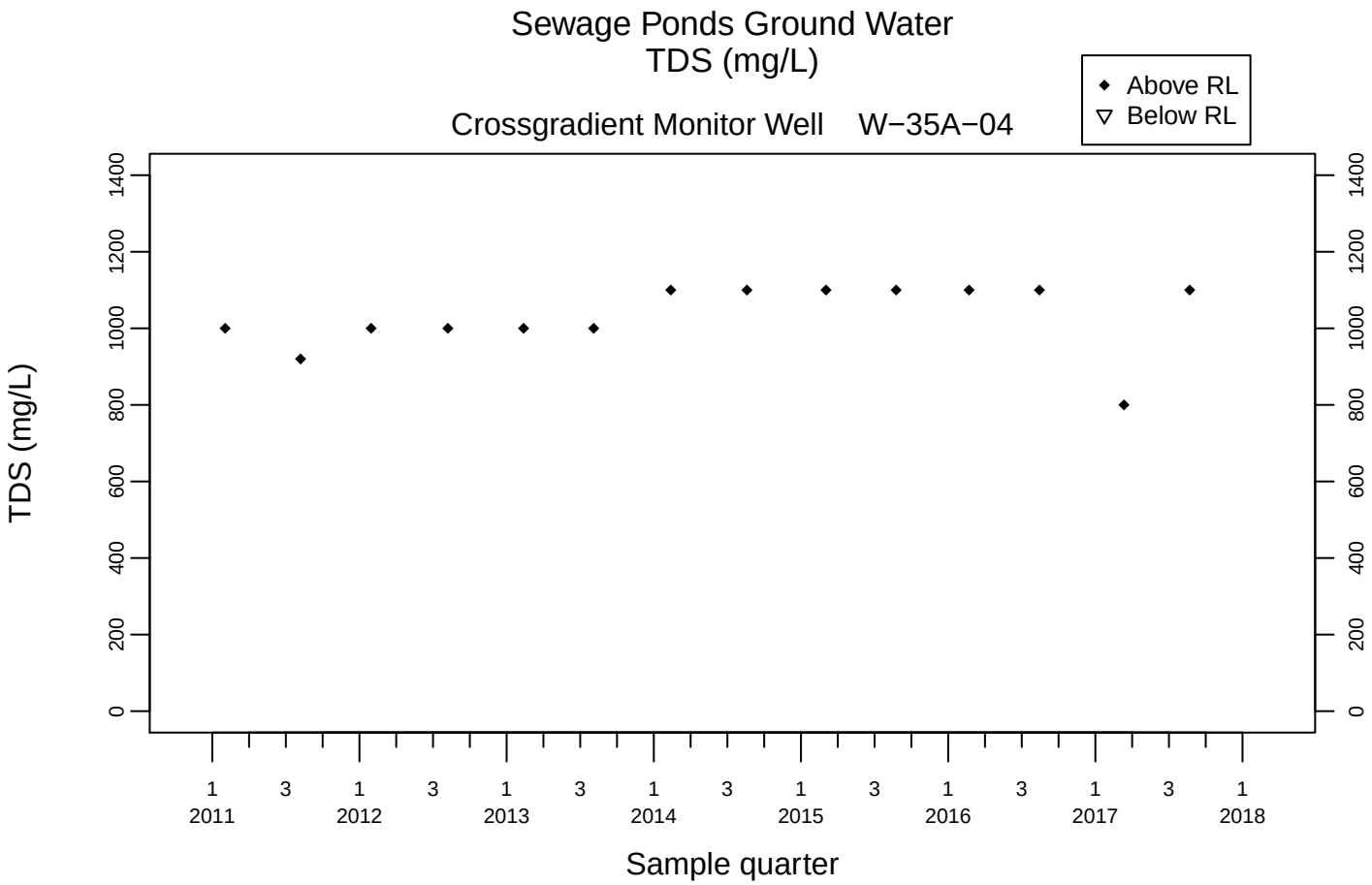

Sewage Ponds Ground Water
Total Alkalinity (as CaCO3) (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−26R−05
Total Alkalinity (as CaCO3) (mg/L)
0
50
100
150
200
250
300
350
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Downgradient Monitor Well W−26R−11
Total Alkalinity (as CaCO3) (mg/L)
0
50
100
150
200
250
300
350
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Total Alkalinity (as CaCO3) (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Total Alkalinity (as CaCO3) (mg/L)
0
50
100
150
200
250
300
350
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
TDS (mg/L)
Above RL
Below RL
Upgradient Monitor Well W−7ES
TDS (mg/L)
0
200
400
600
800
1000
1200
1400
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Upgradient Monitor Well W−7PS
TDS (mg/L)
0
200
400
600
800
1000
1200
1400
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
TDS (mg/L)
Above RL
Below RL
Crossgradient Monitor Well W−35A−04
TDS (mg/L)
0
200
400
600
800
1000
1200
1400
1 2011
3
1 2012
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1 2013
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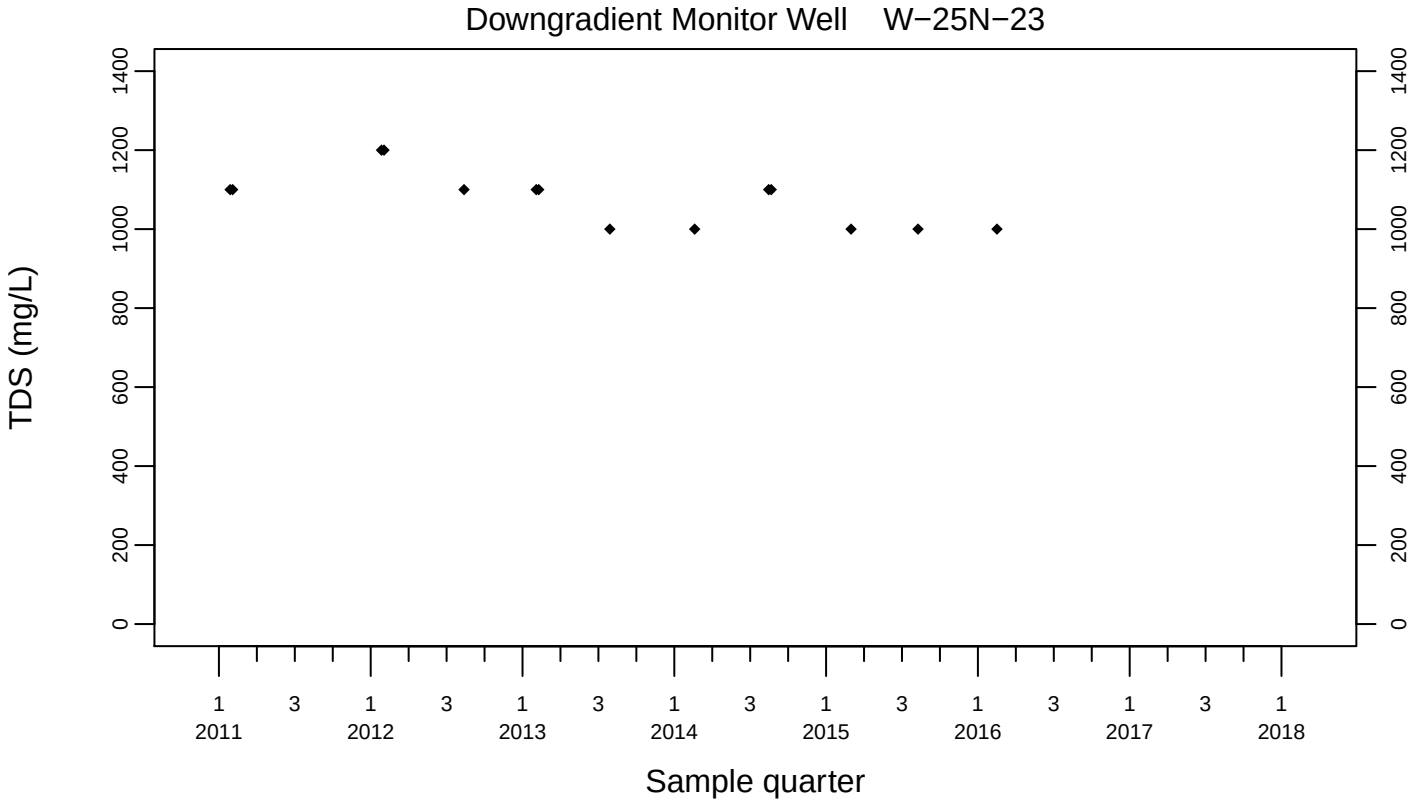
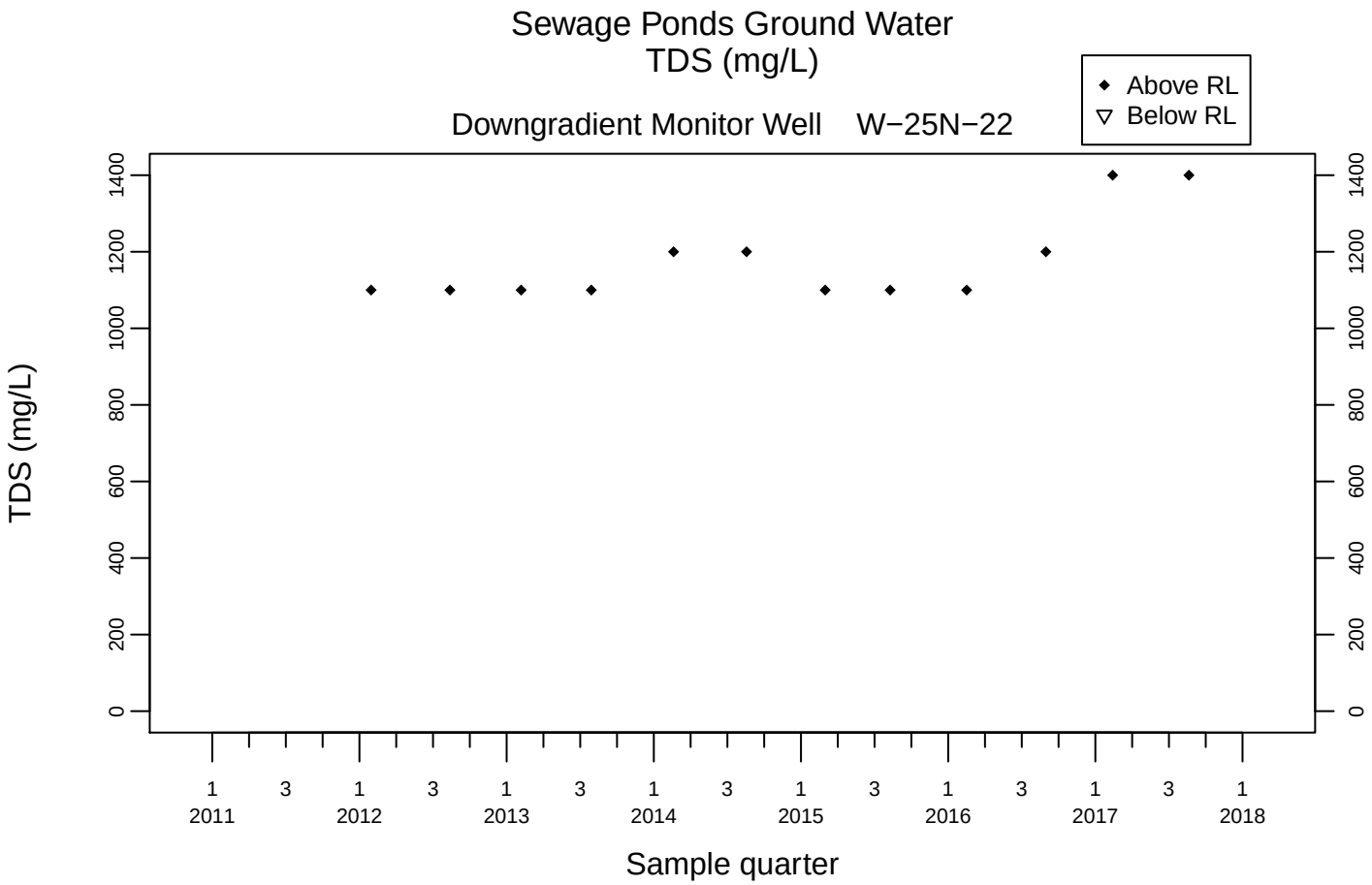
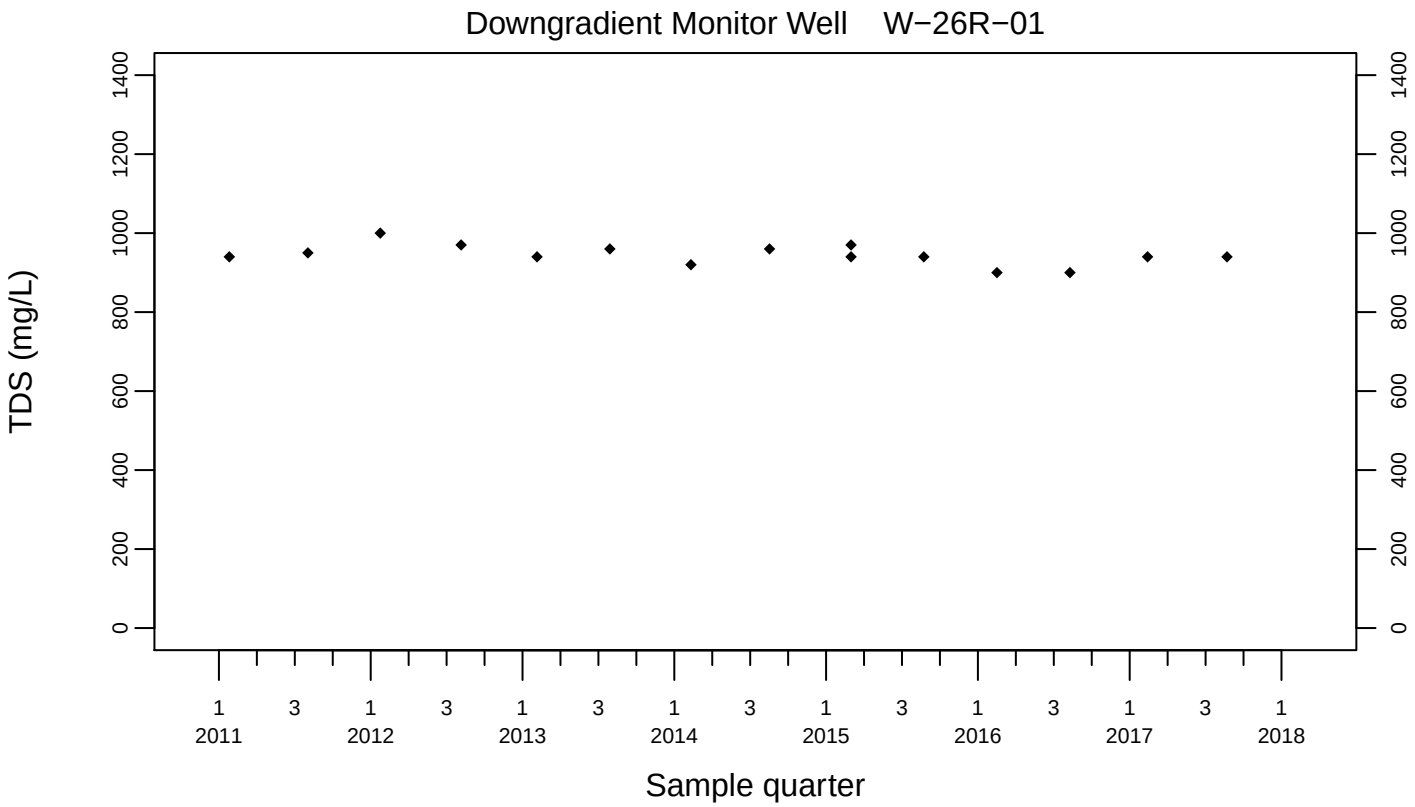
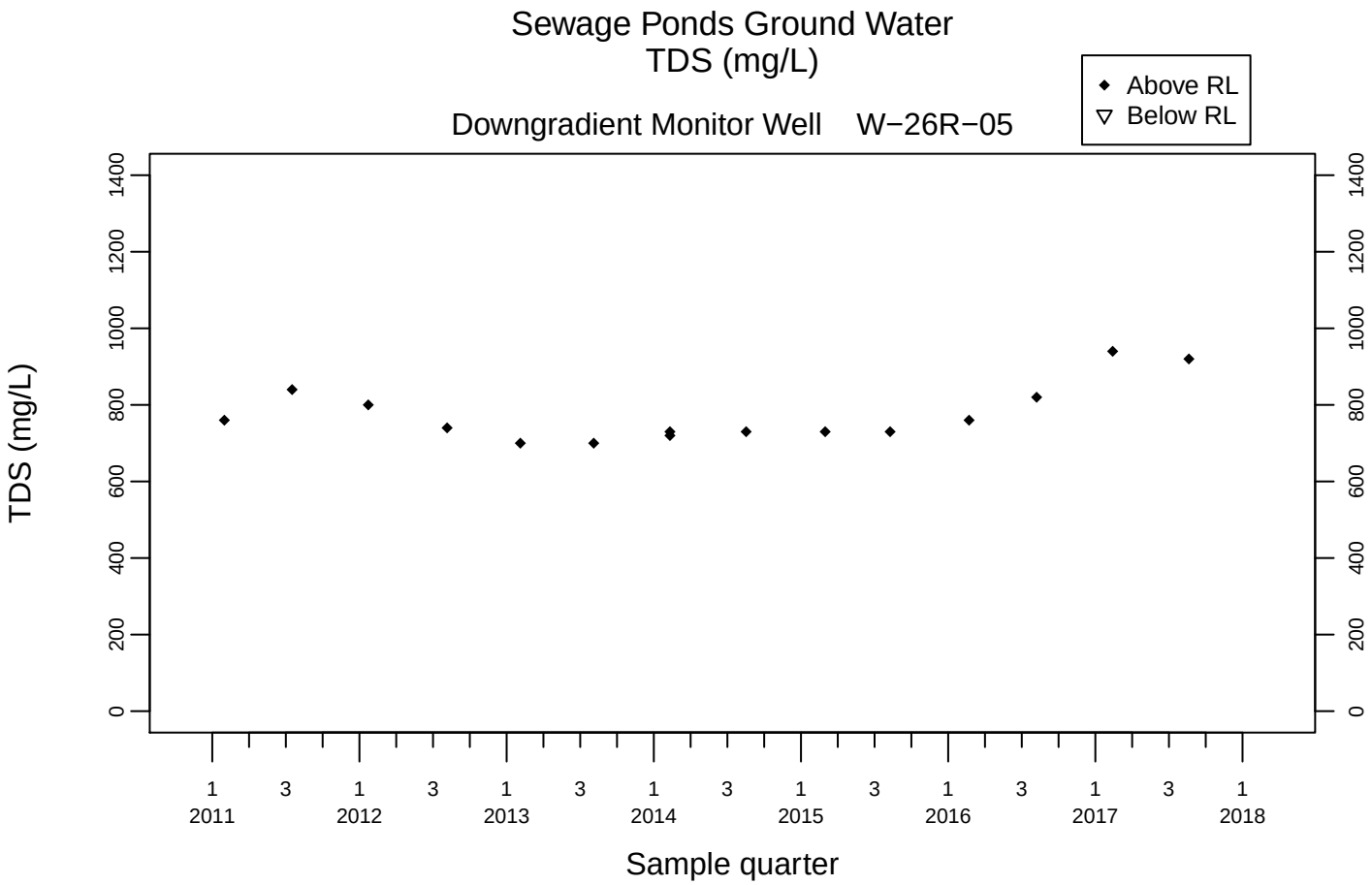
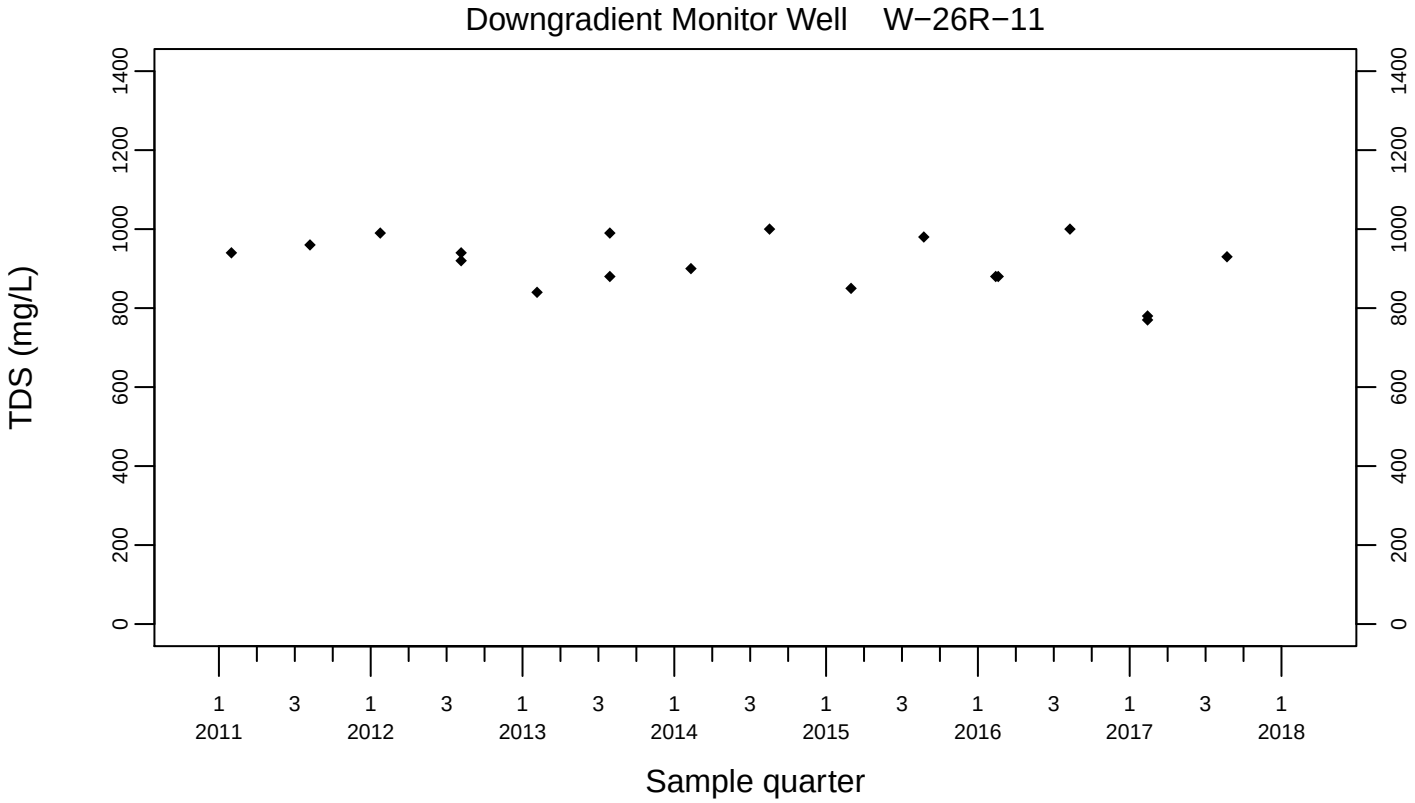
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

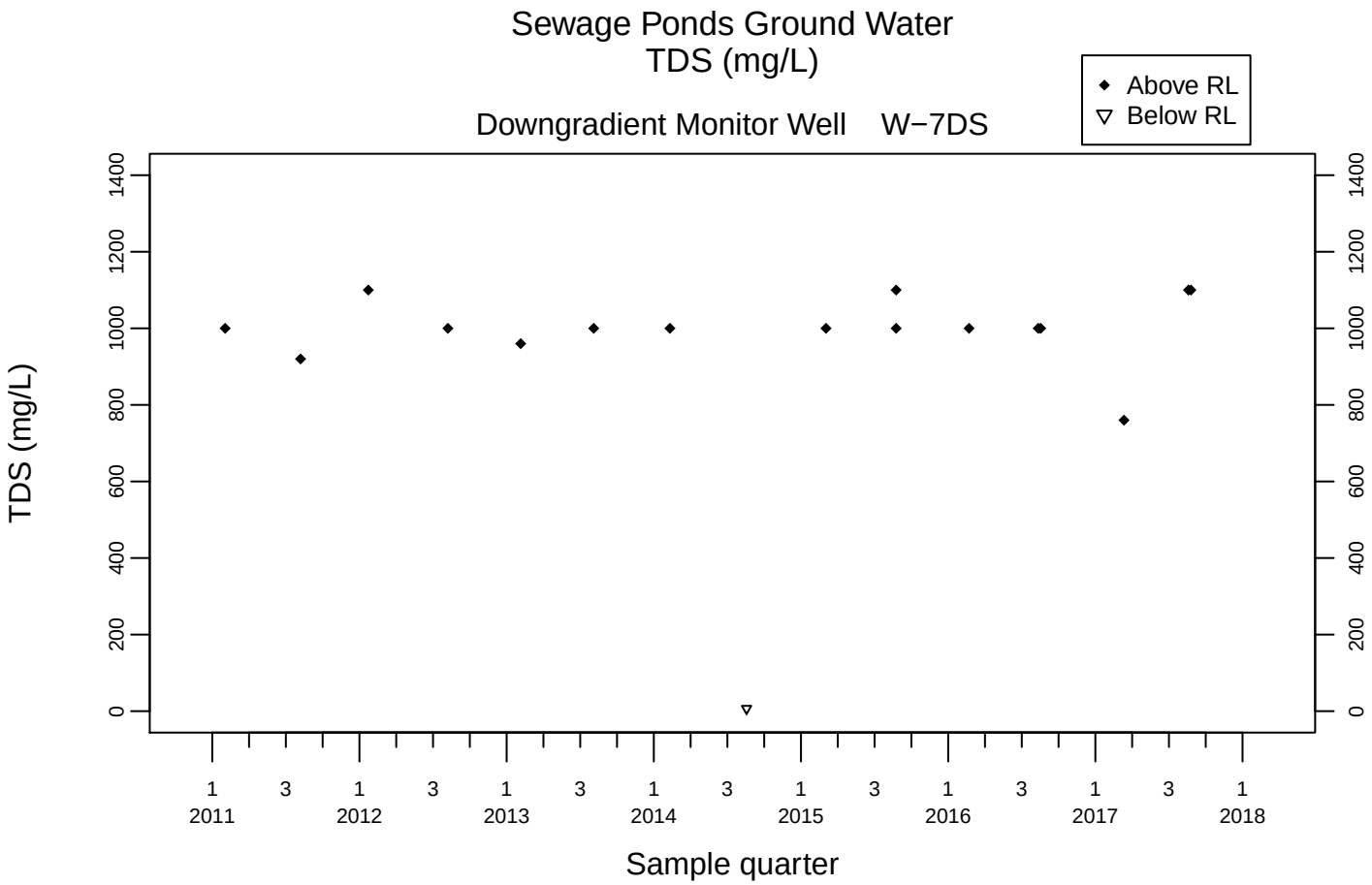

Downgradient Monitor Well W−25N−23
TDS (mg/L)
0
200
400
600
800
1000
1200
1400
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

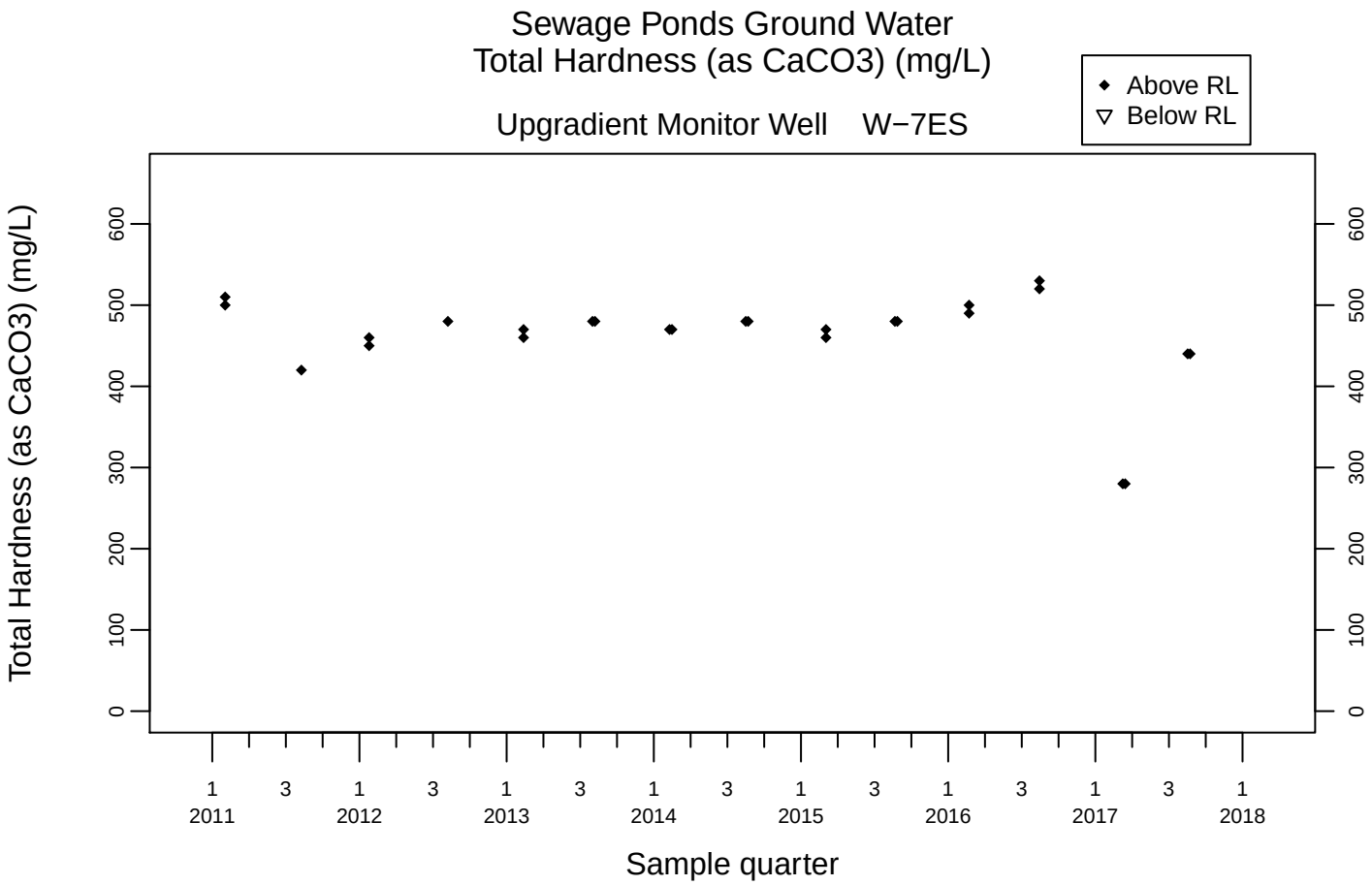

Sewage Ponds Ground Water
TDS (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
TDS (mg/L)
0
200
400
600
800
1000
1200
1400
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

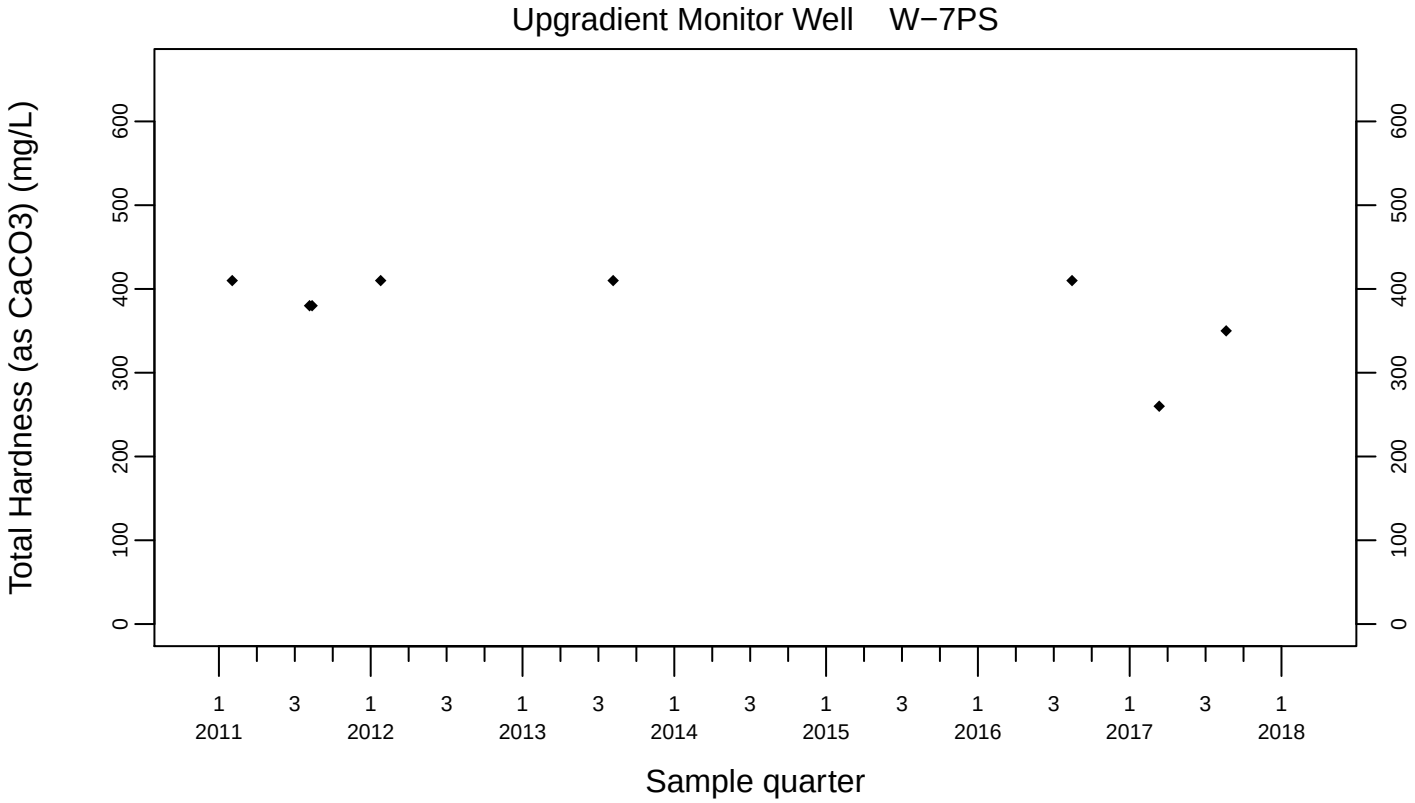

Downgradient Monitor Well W−26R−01
TDS (mg/L)
0
200
400
600
800
1000
1200
1400
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

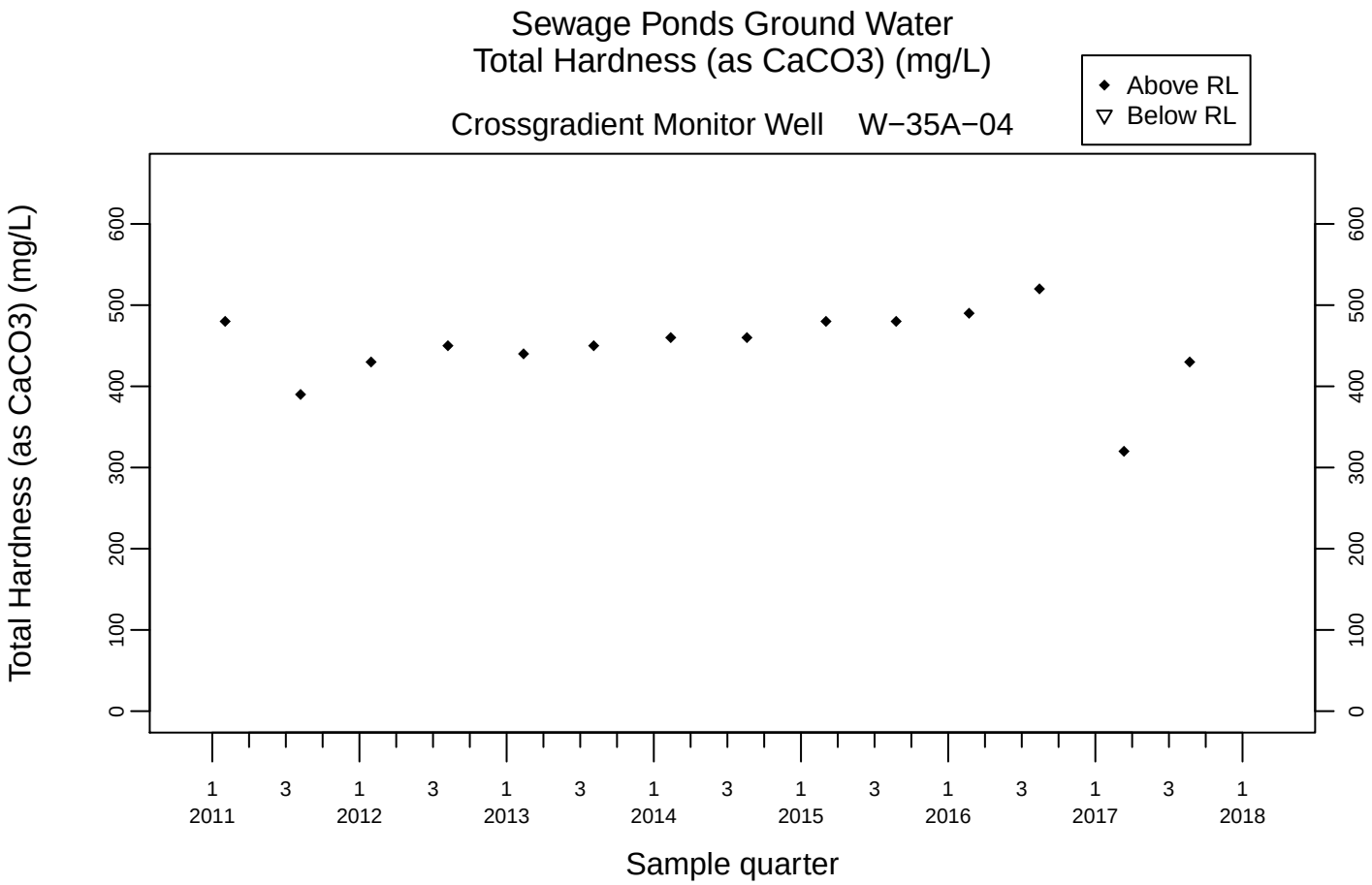

Sewage Ponds Ground Water
TDS (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−26R−05
TDS (mg/L)
0
200
400
600
800
1000
1200
1400
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

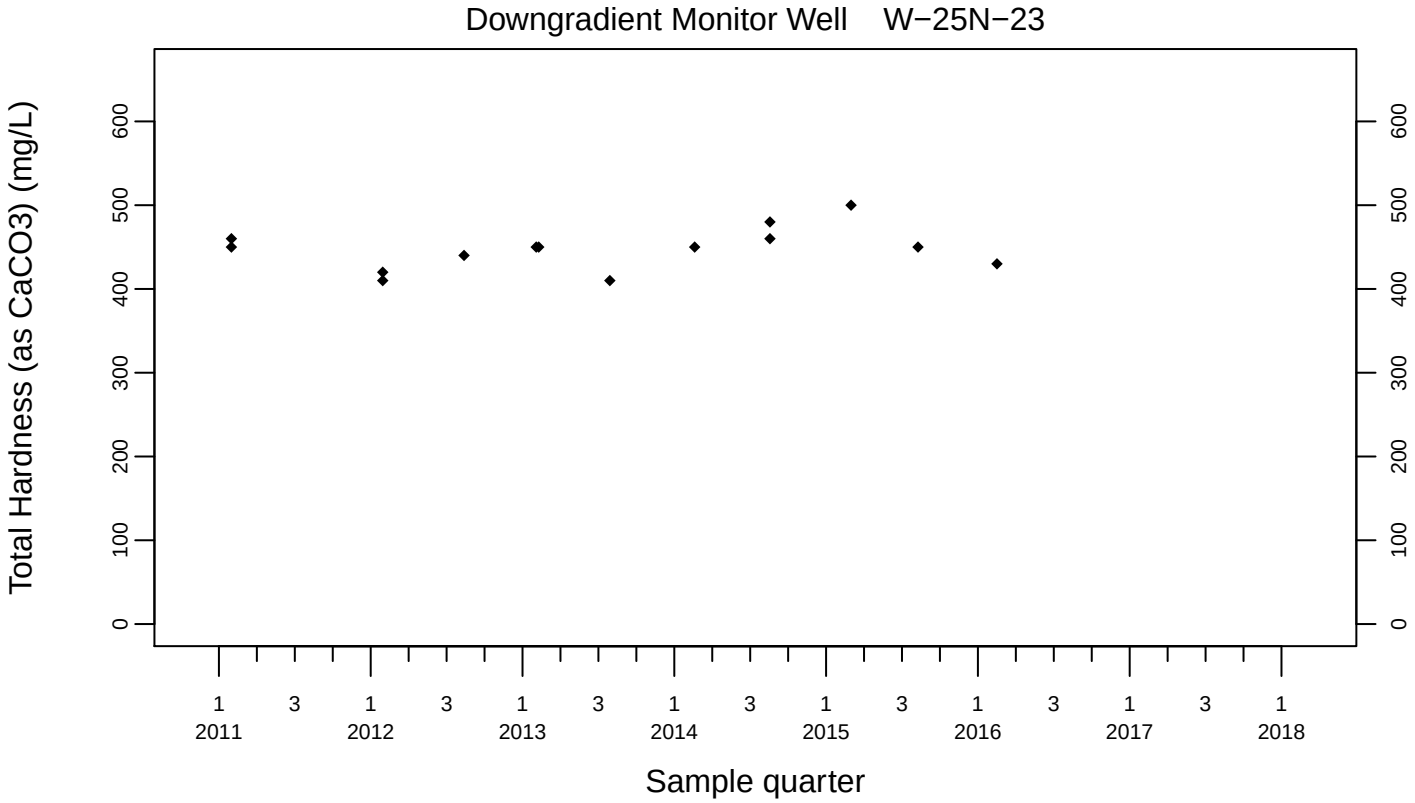

Downgradient Monitor Well W−26R−11
TDS (mg/L)
0
200
400
600
800
1000
1200
1400
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

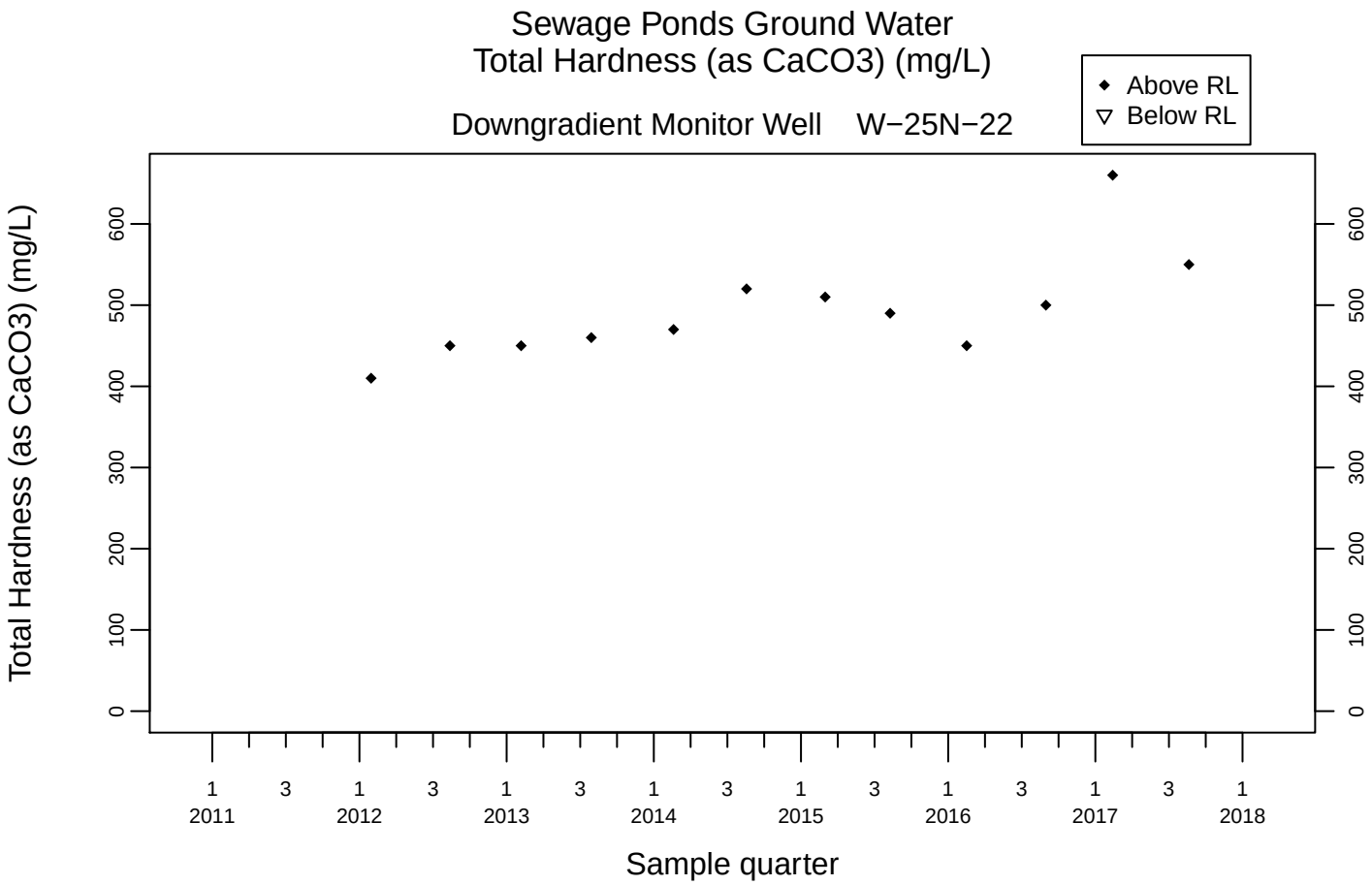

Sewage Ponds Ground Water
TDS (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
TDS (mg/L)
0
200
400
600
800
1000
1200
1400
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

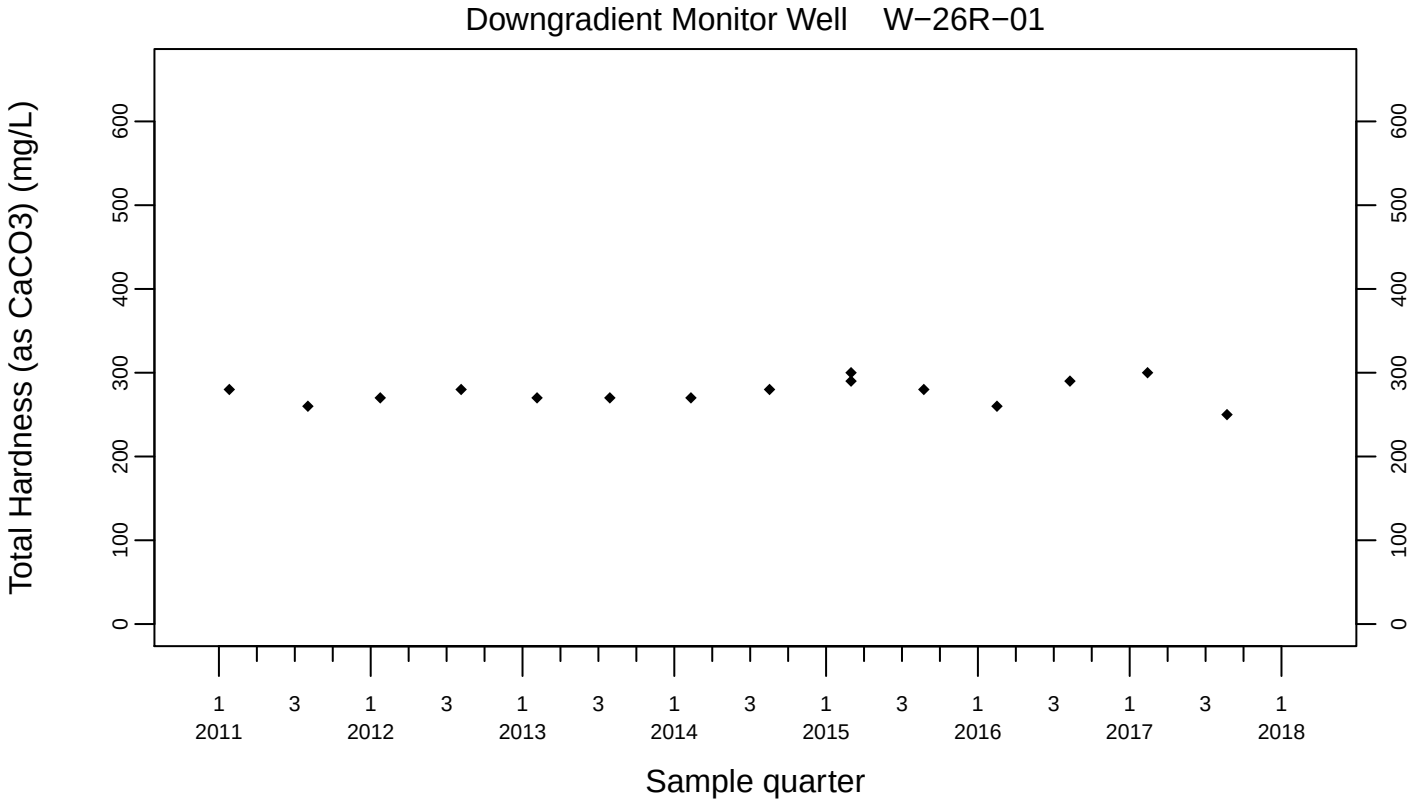

Sewage Ponds Ground Water
Total Hardness (as CaCO3) (mg/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Total Hardness (as CaCO3) (mg/L)
0
100
200
300
400
500
600
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

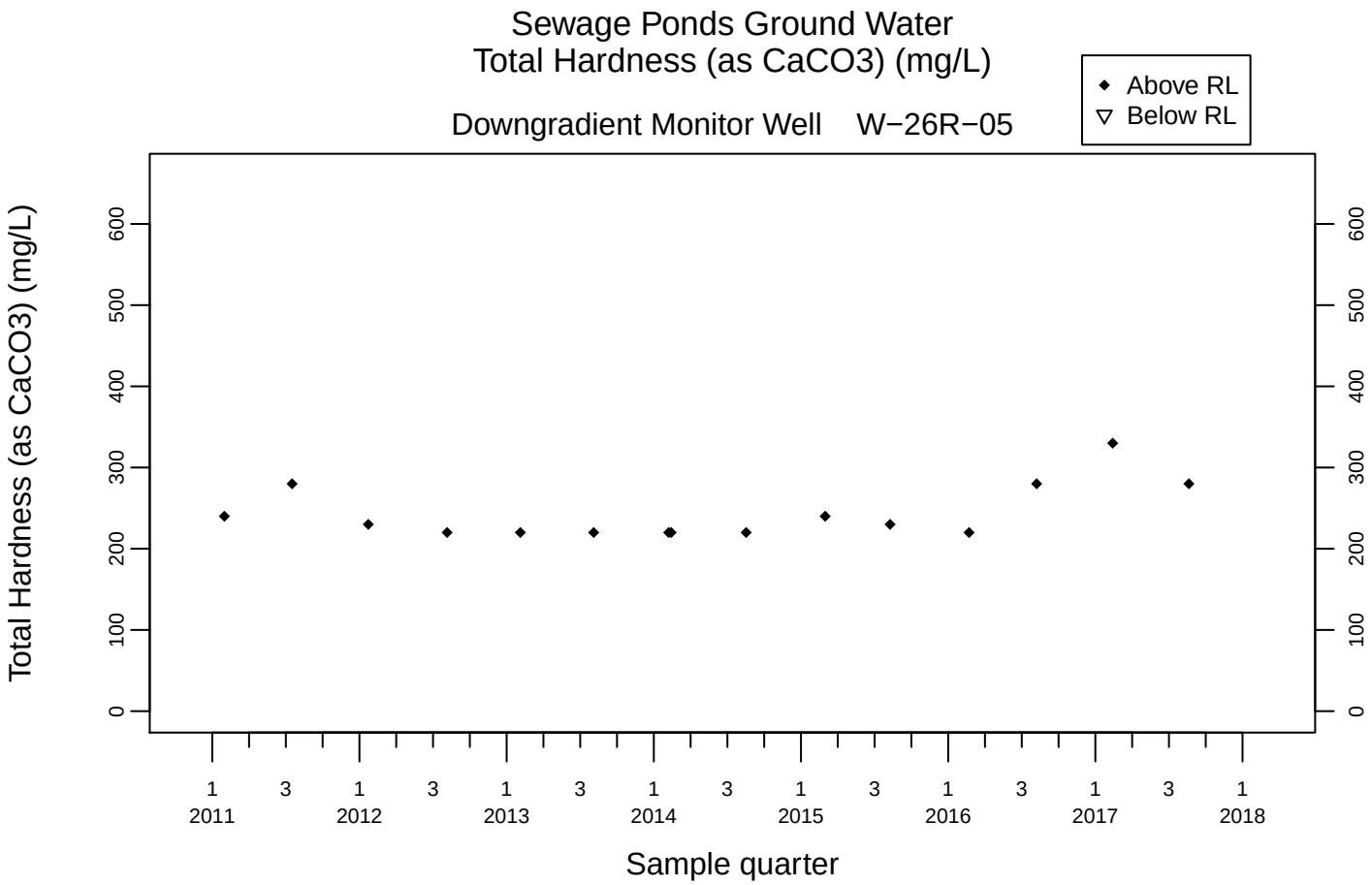

Upgradient Monitor Well W−7PS
Total Hardness (as CaCO3) (mg/L)
0
100
200
300
400
500
600
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

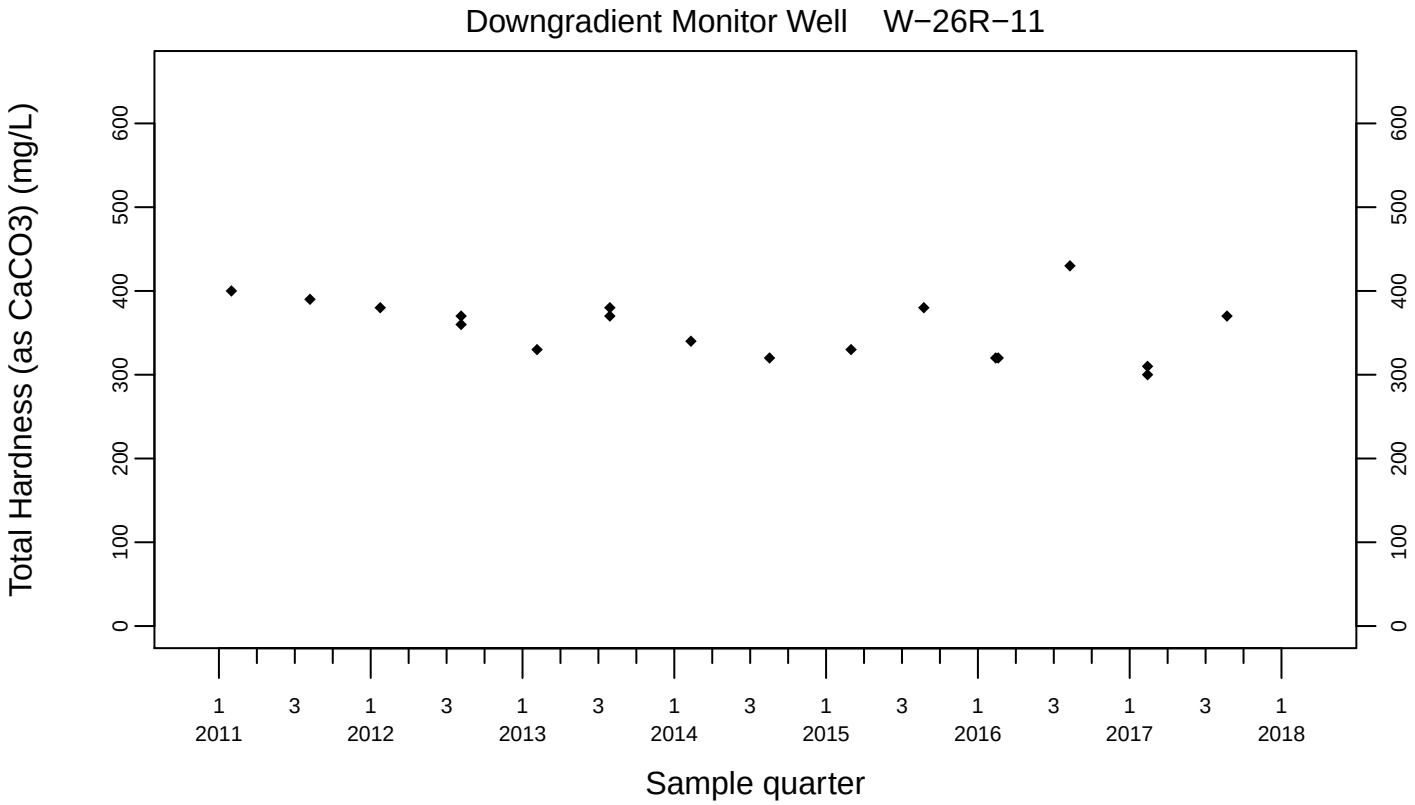

Sewage Ponds Ground Water
Total Hardness (as CaCO3) (mg/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Total Hardness (as CaCO3) (mg/L)
0
100
200
300
400
500
600
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

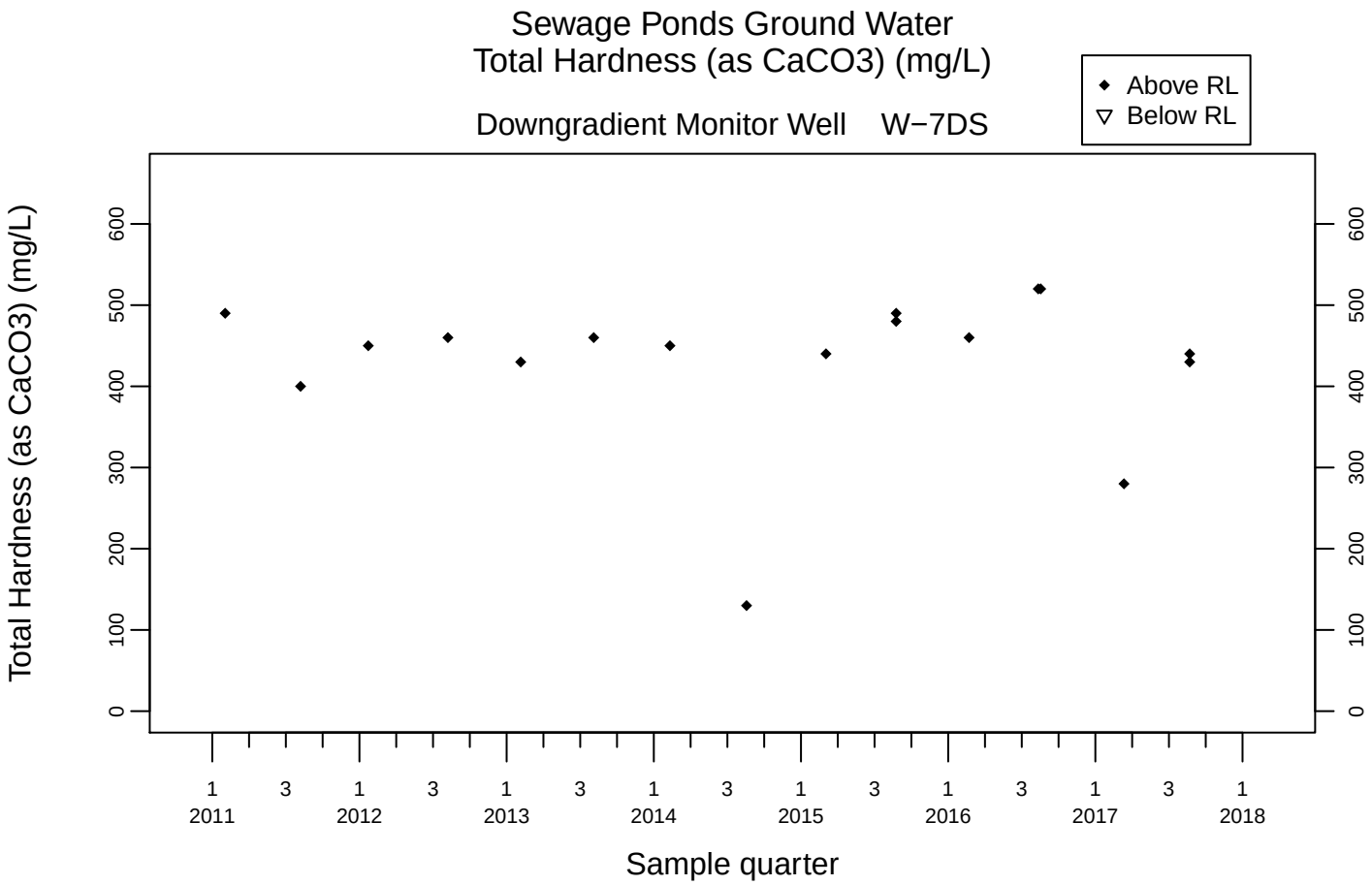

Downgradient Monitor Well W−25N−23
Total Hardness (as CaCO3) (mg/L)
0
100
200
300
400
500
600
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

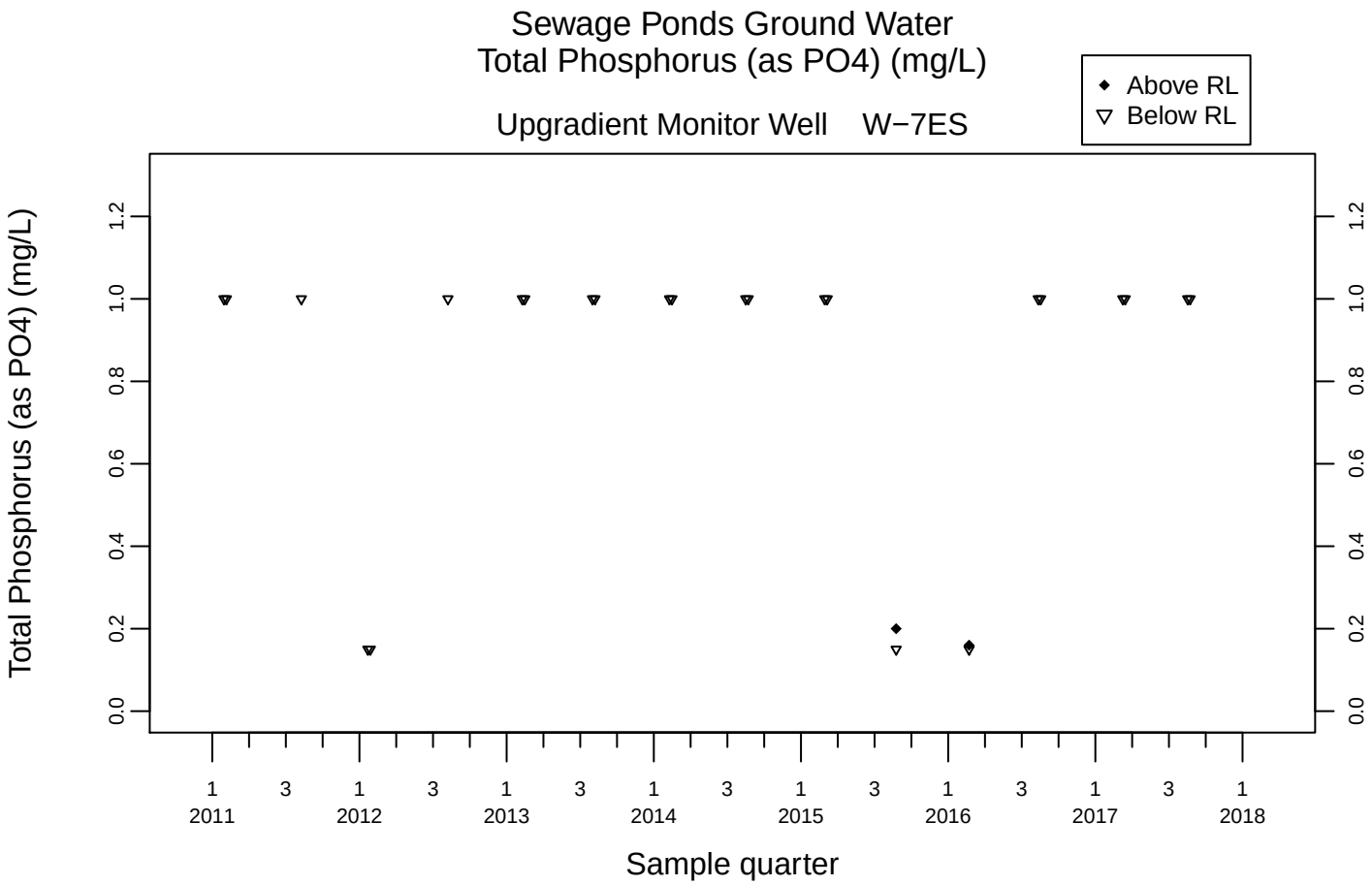

Sewage Ponds Ground Water
Total Hardness (as CaCO3) (mg/L)
Downgradient Monitor Well W−25N−22
Above RL
Below RL
Total Hardness (as CaCO3) (mg/L)
0
100
200
300
400
500
600
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

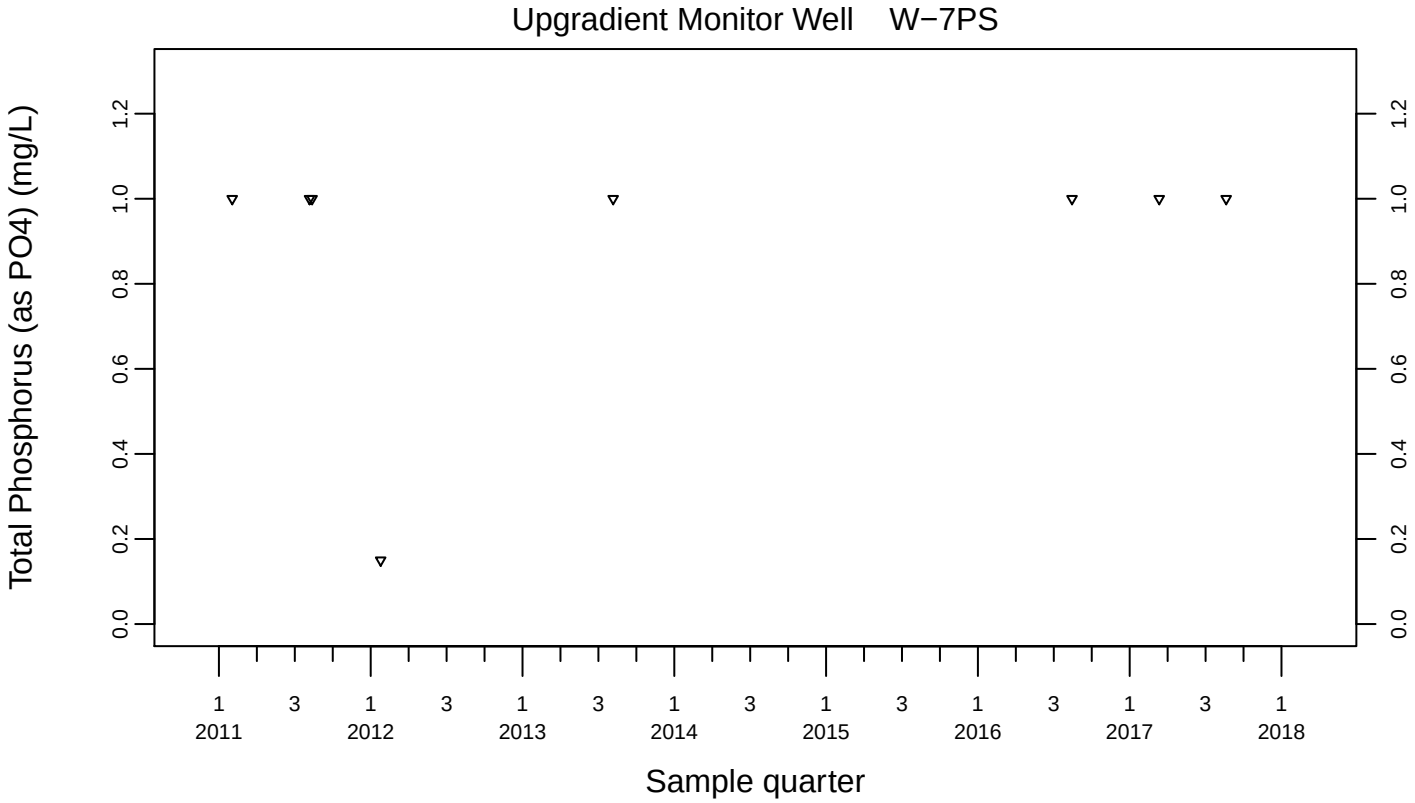

Downgradient Monitor Well W−26R−01
Total Hardness (as CaCO3) (mg/L)
0
100
200
300
400
500
600
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

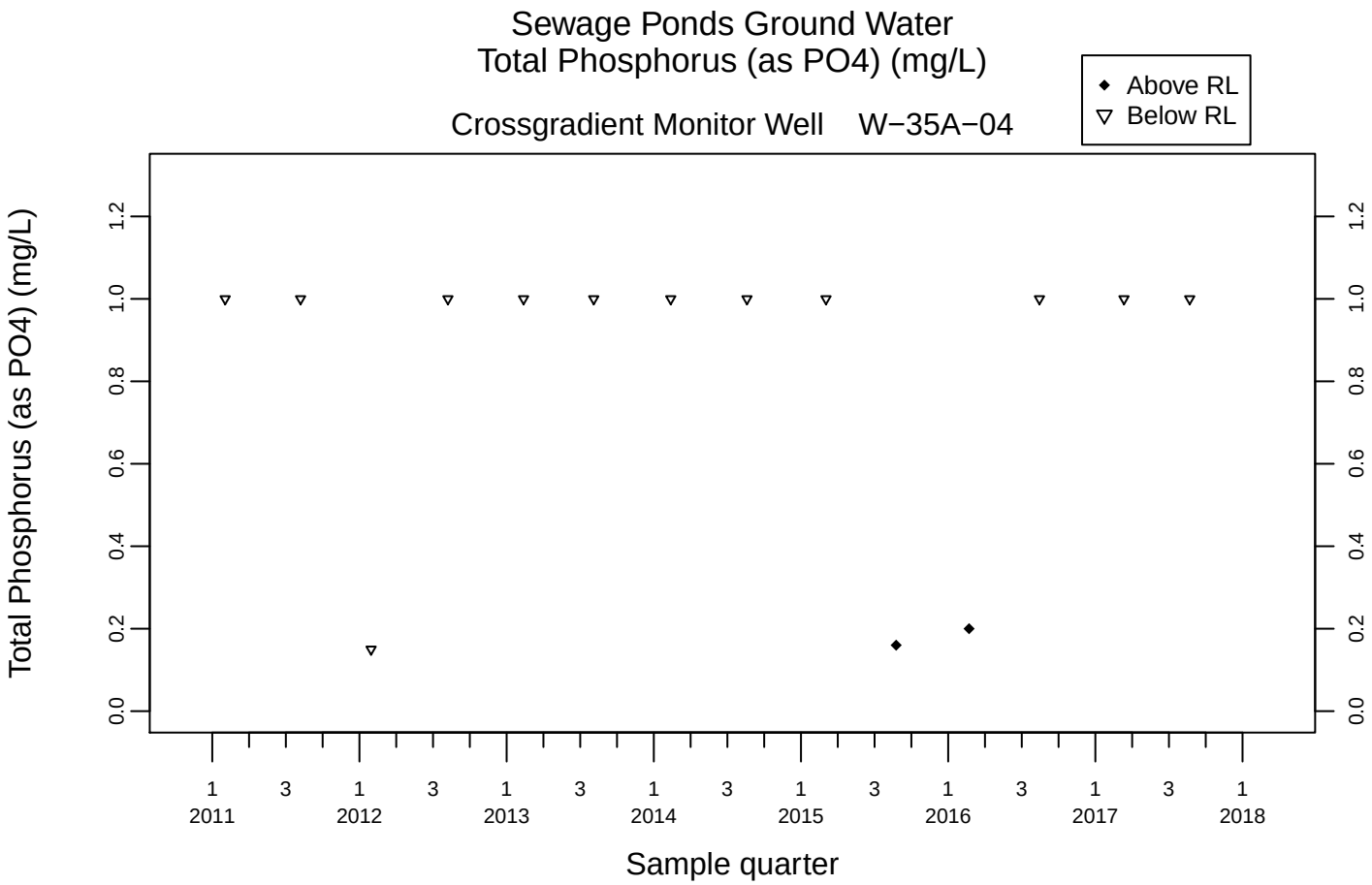

Sewage Ponds Ground Water
Total Hardness (as CaCO3) (mg/L)
Downgradient Monitor Well W−26R−05
Above RL
Below RL
Total Hardness (as CaCO3) (mg/L)
0
100
200
300
400
500
600
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

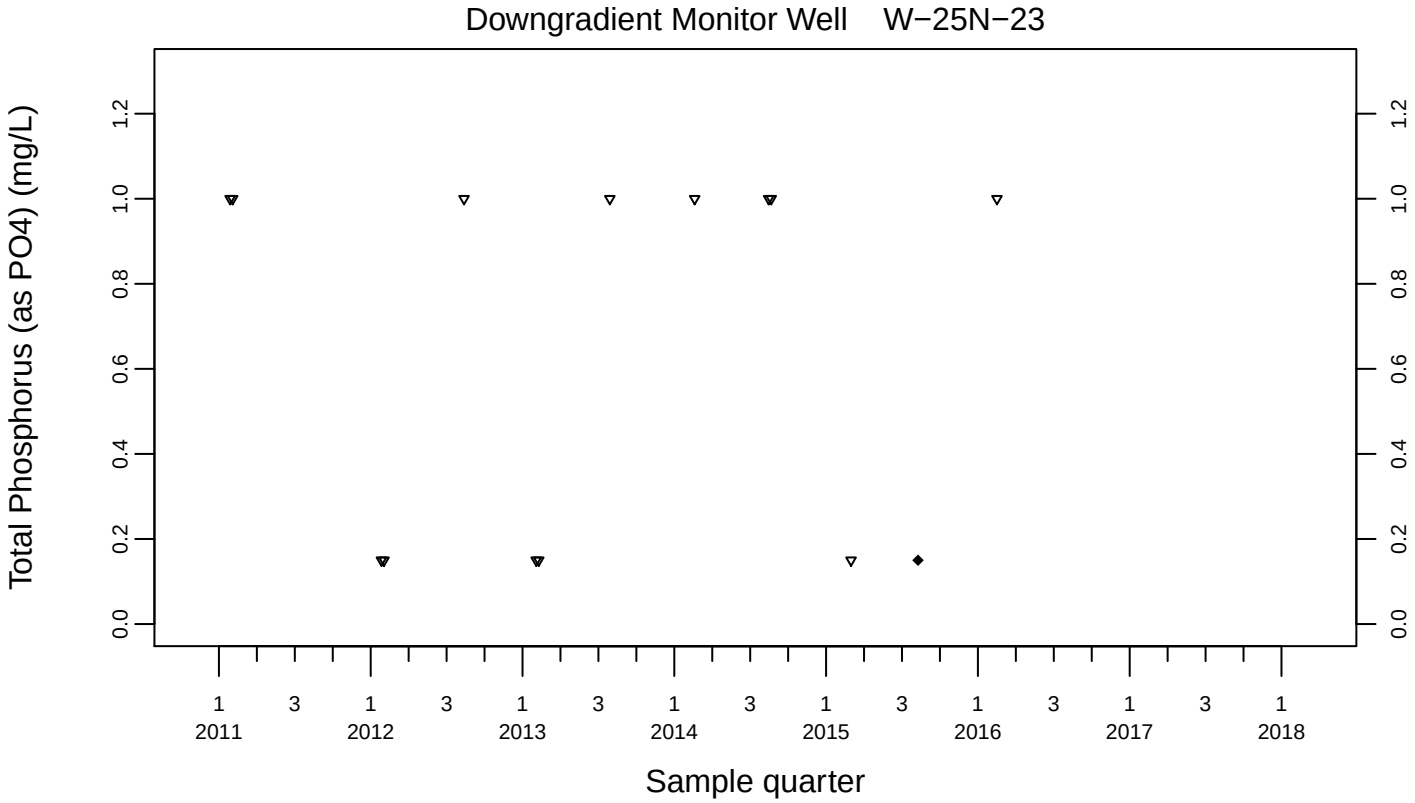

Downgradient Monitor Well W−26R−11
Total Hardness (as CaCO3) (mg/L)
0
100
200
300
400
500
600
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

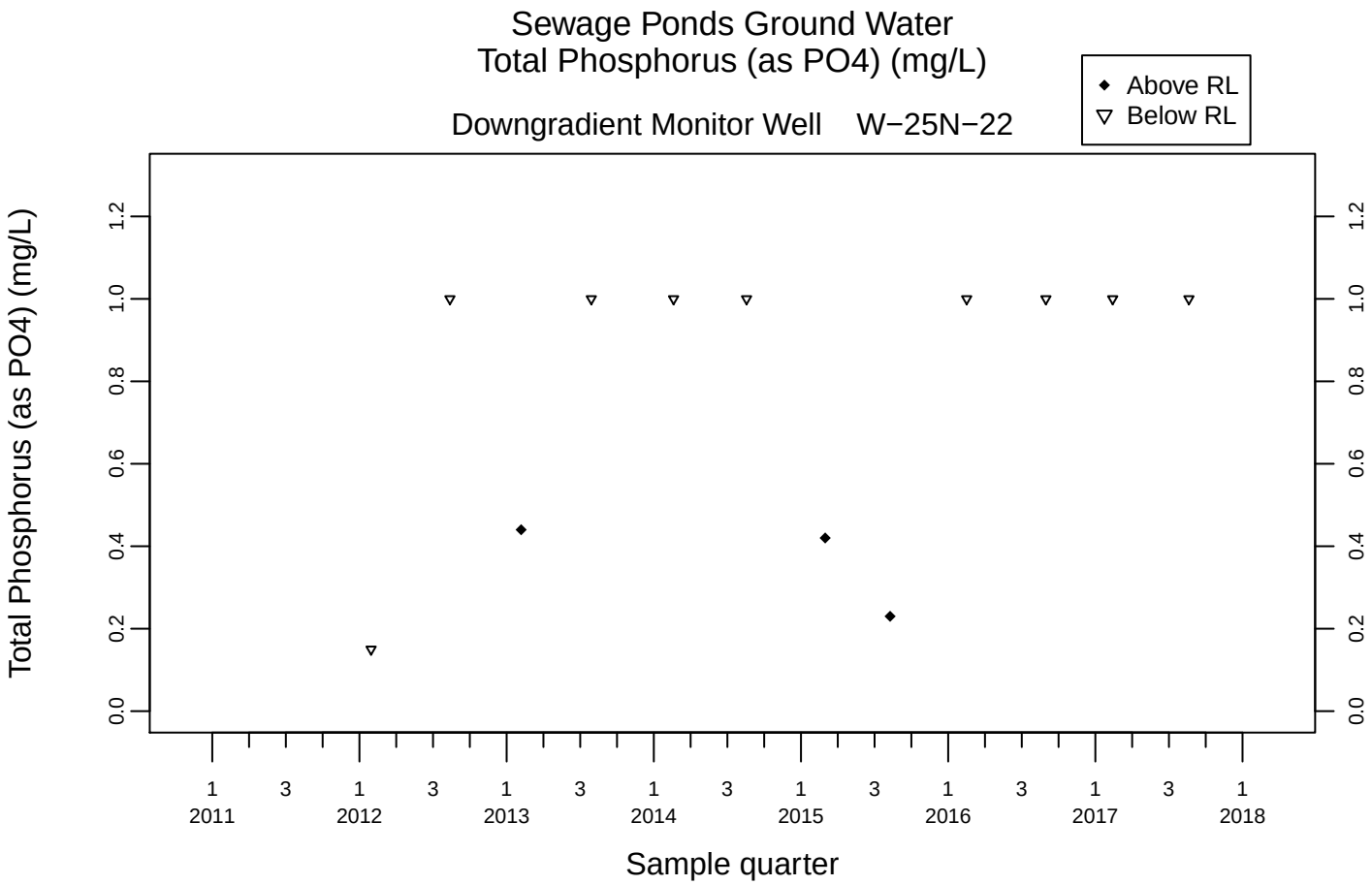

Sewage Ponds Ground Water
Total Hardness (as CaCO3) (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Total Hardness (as CaCO3) (mg/L)
0
100
200
300
400
500
600
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Total Phosphorus (as PO4) (mg/L)
Upgradient Monitor Well W−7ES
Above RL
Below RL
Total Phosphorus (as PO4) (mg/L)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Upgradient Monitor Well W−7PS
Total Phosphorus (as PO4) (mg/L)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Total Phosphorus (as PO4) (mg/L)
Crossgradient Monitor Well W−35A−04
Above RL
Below RL
Total Phosphorus (as PO4) (mg/L)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Downgradient Monitor Well W−25N−23
Total Phosphorus (as PO4) (mg/L)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Total Phosphorus (as PO4) (mg/L)
Downgradient Monitor Well W−25N−22
Above RL
Below RL
Total Phosphorus (as PO4) (mg/L)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
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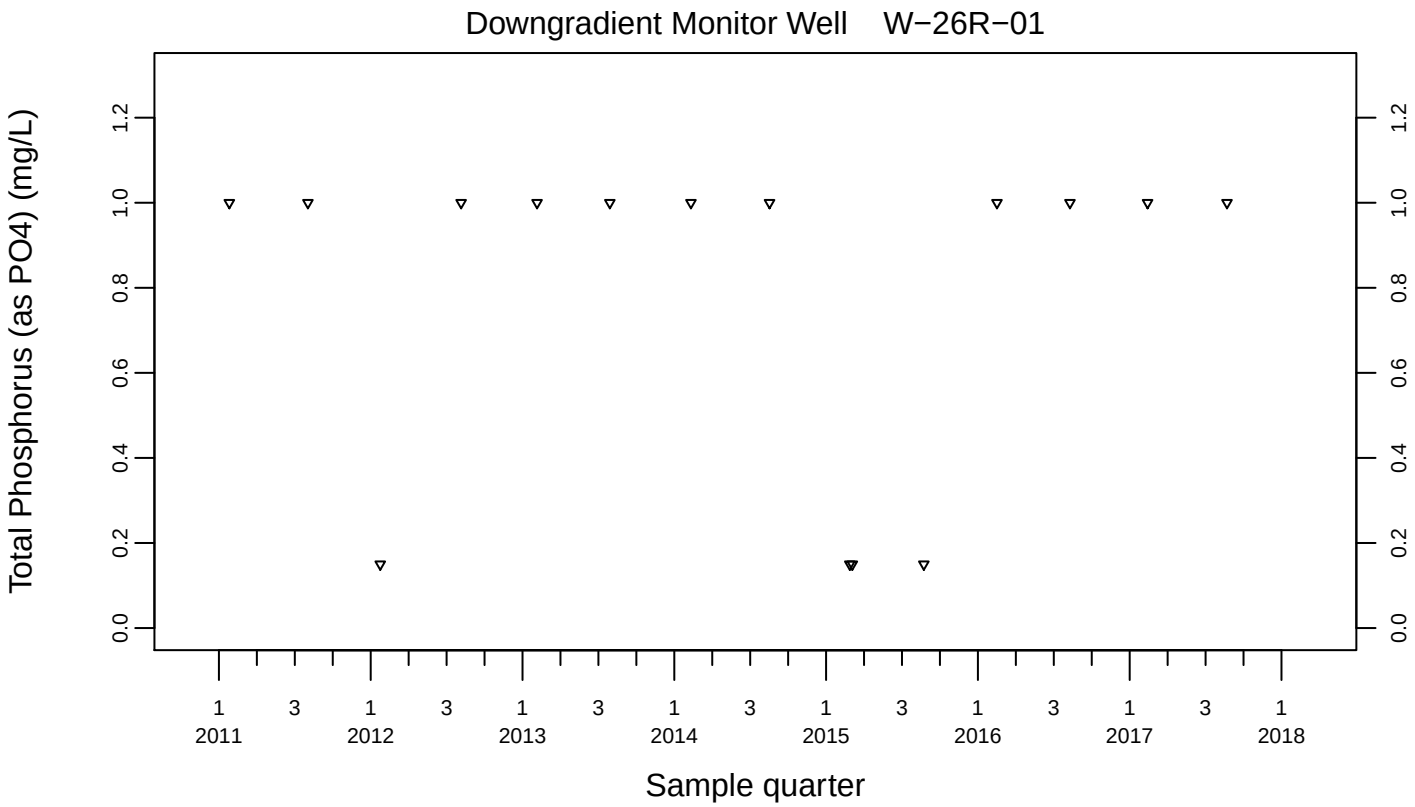
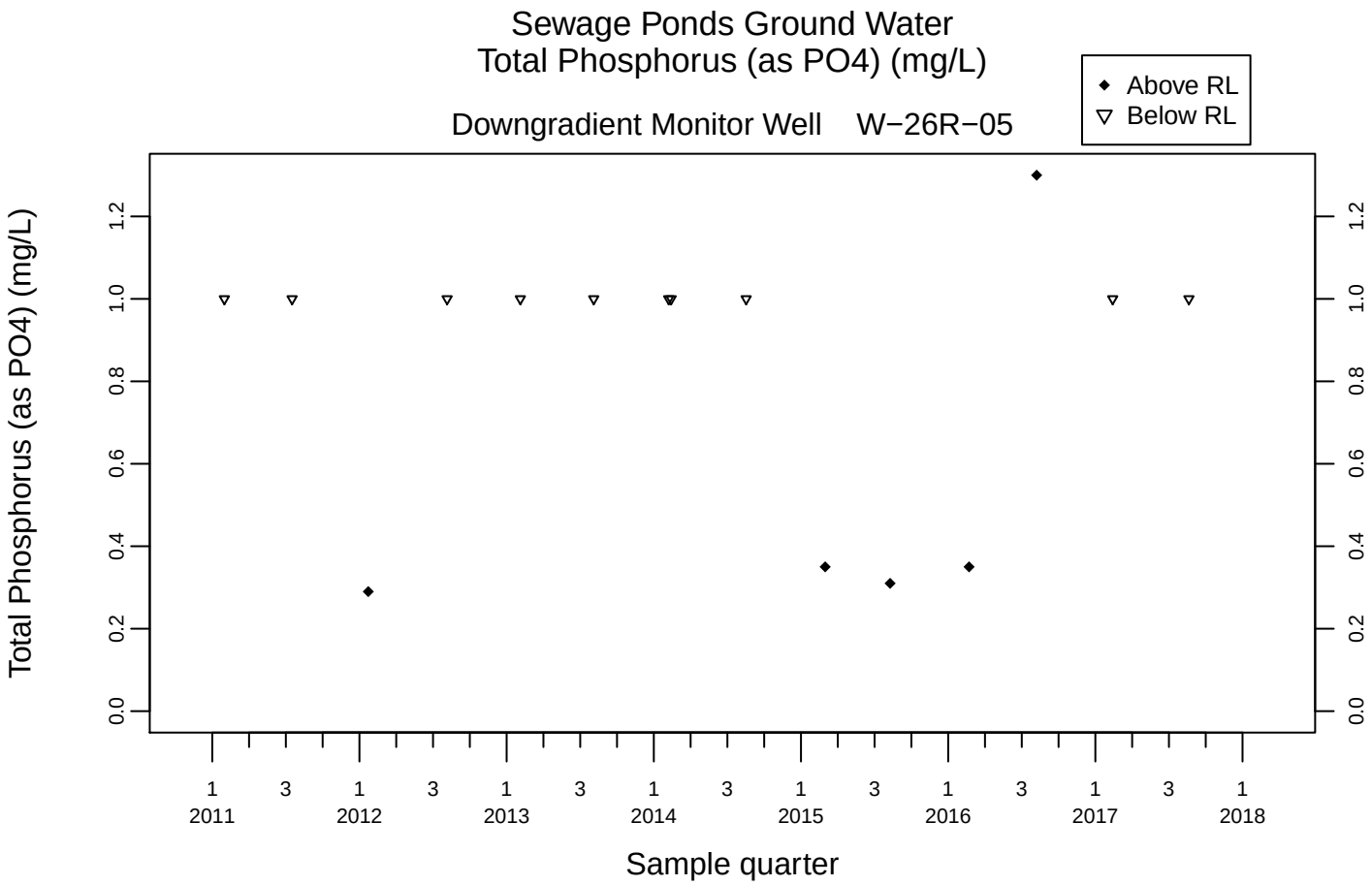
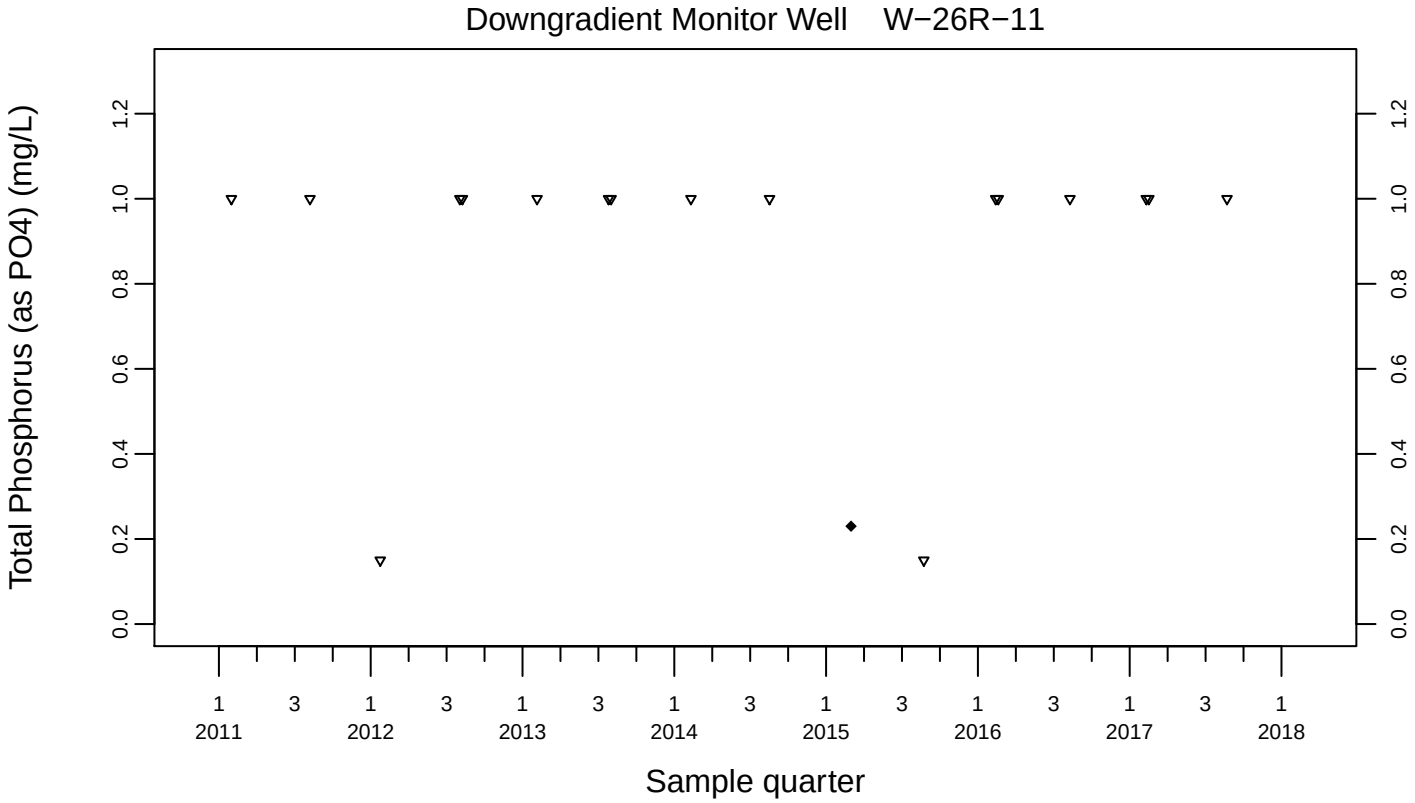
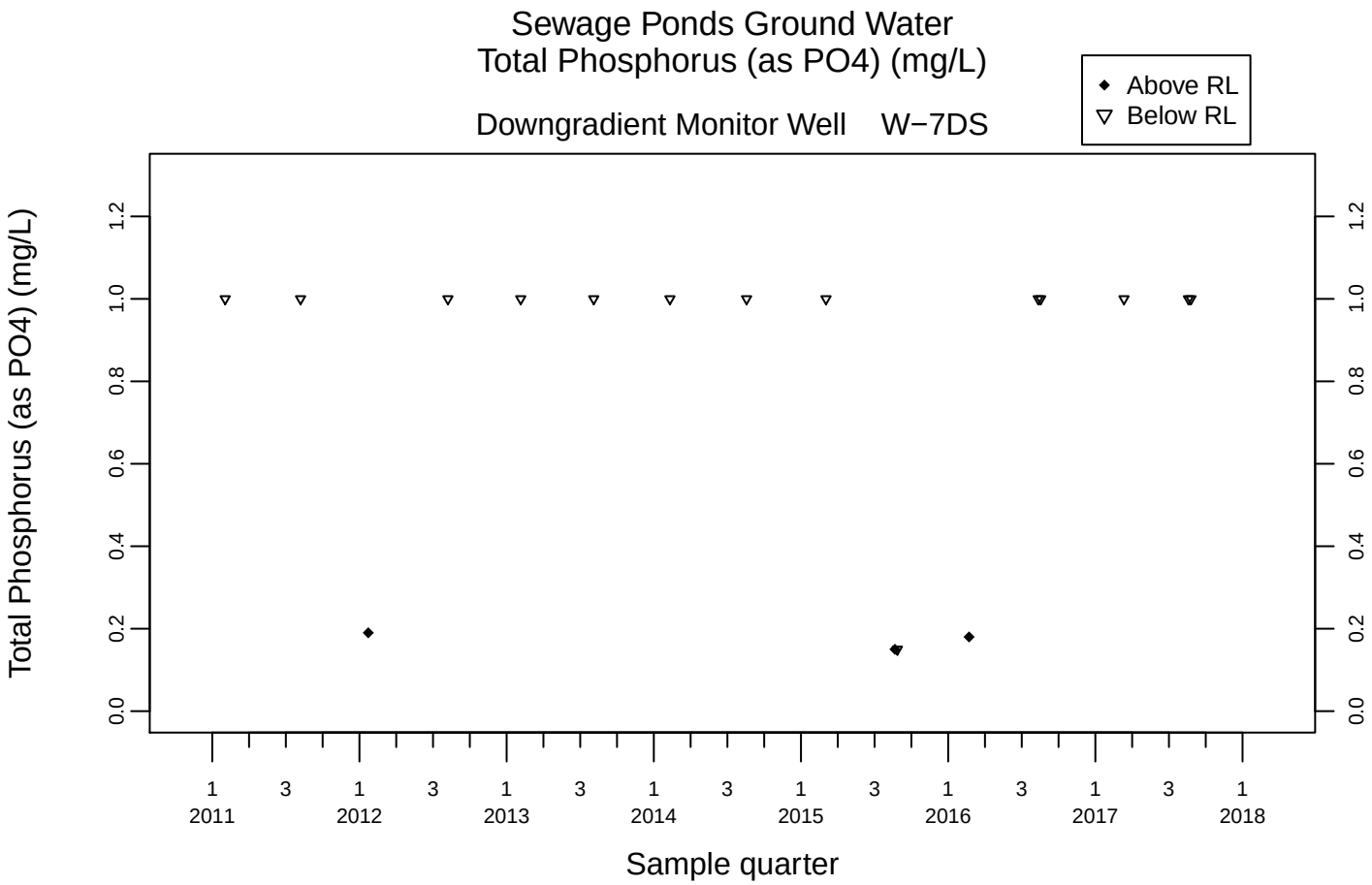
1 2016
3
1 2017
3
1 2018
Sample quarter


Downgradient Monitor Well W−26R−01
Total Phosphorus (as PO4) (mg/L)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Total Phosphorus (as PO4) (mg/L)
Downgradient Monitor Well W−26R−05
Above RL
Below RL
Total Phosphorus (as PO4) (mg/L)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Downgradient Monitor Well W−26R−11
Total Phosphorus (as PO4) (mg/L)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter


Sewage Ponds Ground Water
Total Phosphorus (as PO4) (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Total Phosphorus (as PO4) (mg/L)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1 2011
3
1 2012
3
1 2013
3
1 2014
3
1 2015
3
1 2016
3
1 2017
3
1 2018
Sample quarter

Appendix B

Cooling Tower Network

Cooling Tower Blowdown Effluent Monitoring Network
with Discharges to Percolation Pits
(Bldgs. 801, 817A, 825, 826, 827A, and 851)
and Cooling Tower Percolation Pit Inspection Forms

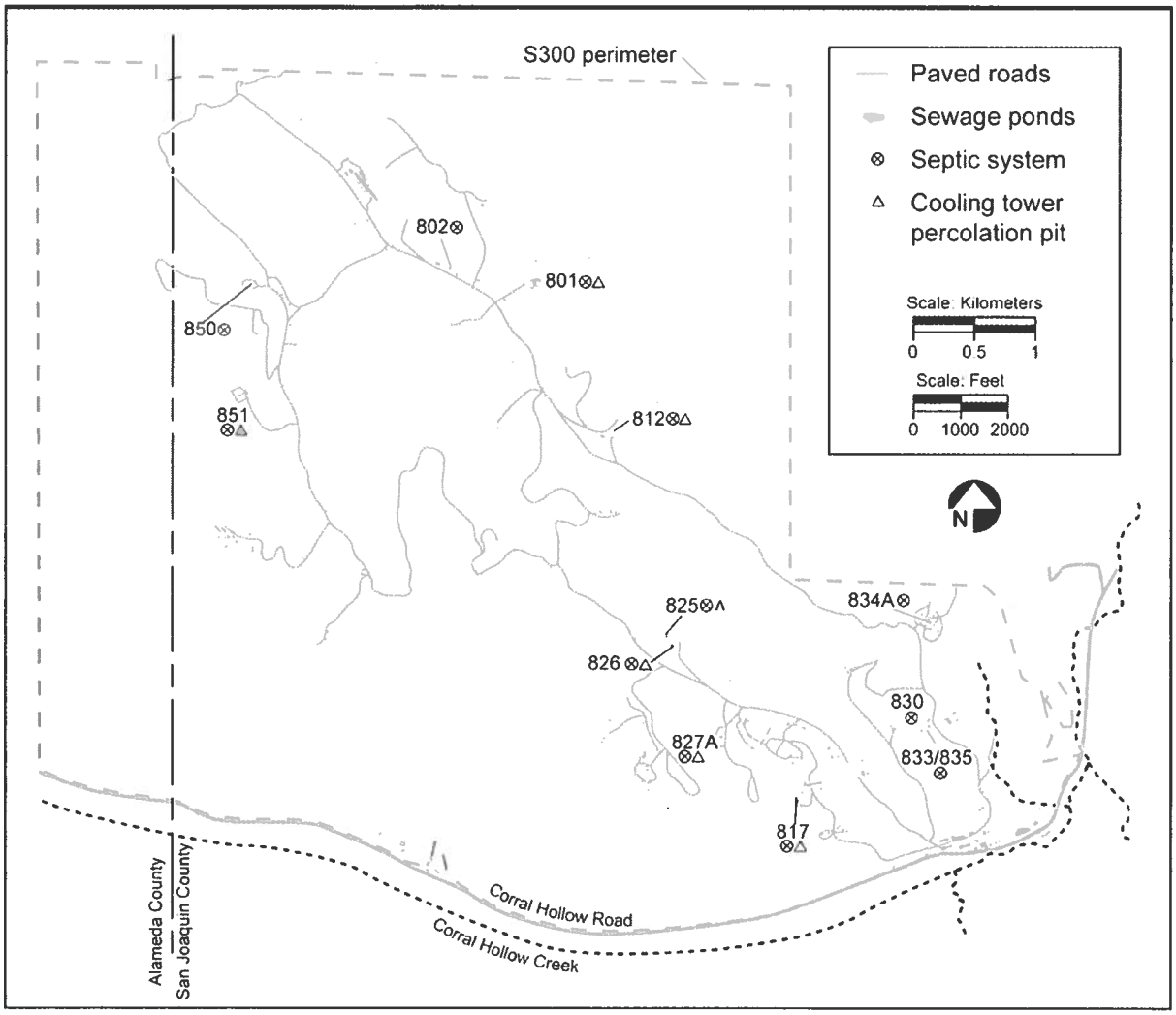


Figure B.1. Location of Site 300 cooling towers.

Table B-1. Site 300 cooling tower wastewater monitoring network 2017 anions data summary.

Building/Location	Date	Sodium (mg/L)	Chloride (mg/L)	Nitrate (as NO3) (mg/L)	Sulfate (mg/L)	Fluoride (mg/L)	Bromide (mg/L)
3-801ACT01-TW	May 16	710	260	1.1	490	0.66	11
3-801ACT01-TW	Oct 17	960	440	2.5	750	1.1	19
3-817ACT01-TW	May 16	260	96	<0.5	180	0.24	<0.1
3-817ACT01-TW	Oct 17	3400	1700	<10	2300	3.8	45
3-826FCT01-TW	May 16	250	92	<0.5	180	0.23	<0.1
3-826FCT01-TW	Oct 17	2600	1200	<5	1800	2.8	70
3-827ACT01-TW	May 16	650	250	<1	460	0.61	12
3-827ACT01-TW	Oct 17	860	350	<2.5	600	0.98	19
3-851BFCT03-TW	May 16	560	230	<1	410	0.57	7.7
3-851BFCT03-TW	Oct 17	1300	580	3.3	1000	1.5	18

Table B–2. Site 300 cooling tower wastewater monitoring network 2017 metals analysis data summary.

Analyte (µg/L)	Month	3-801ACT01-TW	3-817ACT01-TW	3-826FCT01-TW	3-827ACT01-TW	3-851BFCT03-TW
Aluminum	Q2	<50	<50	<50	<50	<50
	Q4	<50	<250	<250	<250	<250
Arsenic	Q2	8.2	<2	<2	14	6.1
	Q4	<10	16	10	10	<10
Barium	Q2	26	<25	<25	31	26
	Q4	<120	<120	<120	<120	<120
Boron	Q2	2700	1000	960	2500	2200
	Q4	4200	11000	9500	3100	4900
Cadmium	Q2	<50	<50	<50	<50	<50
	Q4	<250	<250	<250	<250	<250
Calcium	Q2	30000	10000	8700	22000	30000
	Q4	42000	40000	80000	29000	51000
Chromium	Q2	<1	<1	<1	<1	<1
	Q4	<5	<5	<5	<5	<5
Hexavalent Chromium	Q2	<1	<1	<1	<1	<1
	Q4	<1	2.6	2.8	<1	2.2
Copper	Q2	120	3.9	440	33	71
	Q4	71	130	36	24	41
Iron	Q2	260	160	100	140	390
	Q4	200	<500	650	<500	<500
Lead	Q2	<5	<5	<5	<5	<5
	Q4	<25	<25	<25	<25	<25
Magnesium	Q2	<500	<500	<500	<500	<500
	Q4	<500	<2500	<2500	<2500	<2500
Manganese	Q2	<30	<30	<30	<30	<30
	Q4	<30	<150	<150	<150	<150
Mercury	Q2	<0.2	<0.2	<0.2	<0.2	<0.2
	Q4	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum	Q2	50	<25	<25	45	37
	Q4	84	260	190	<120	<120
Nickel	Q2	2.3	2.3	2.1	2.3	2.7
	Q4	<10	<10	<10	<10	<10
Potassium	Q2	35000	10000	13000	39000	26000
	Q4	46000	110000	91000	38000	53000
Selenium	Q2	26	<2	<2	44	20
	Q4	31	31	43	41	25
Silver	Q2	<10	<10	<10	<10	<10
	Q4	<50	<50	<50	<50	<50
Vanadium	Q2	<20	<20	<20	<20	<20
	Q4	<100	<100	<100	<100	<100
Zinc	Q2	28	320	71	61	180
	Q4	<100	130	170	<100	<100

Table B-3. Site 300 cooling tower wastewater monitoring network 2017 physical characteristics data summary.

Well/ Location	Date	pH	Specific Conductance (µmhos/cm)	Total Alkalinity (as CaCO3) (mg/L)	Total dissolved solids (mg/L)	Total Hardness (as CaCO3) (mg/L)	Total Phosphorus (as PO4) (mg/L)
3-801ACT01-TW	May 16	9.1	2910	620	2100	77	14
3-817ACT01-TW	Oct 17	9.2	4360	940	3300	110	<1
3-826FCT01-TW	May 16	8.8	1120	230	780	26	<1
3-827ACT01-TW	Oct 17	9.5	12600	2500	9200	100	12
3-851BFCT03-TW	May 16	8.7	1080	220	780	23	8.0
3-801ACT01-TW	Oct 17	9.4	10100	2200	8200	210	33
3-817ACT01-TW	May 16	9.1	2690	580	2100	56	18
3-826FCT01-TW	Oct 17	9.2	3600	760	2700	73	17
3-827ACT01-TW	May 16	9.0	2460	540	1800	75	8.5
3-851BFCT03-TW	Oct 17	9.3	5640	1200	4300	130	11

Table B-4. Site 300 cooling tower wastewater monitoring network second semester 2017 QA data summary.

Constituent	Units	3-801ACT01-TW	3-801ACT01-TW	3-826FCT01-TW	3-826FCT01-TW
		May 16	May 16	Oct 17	Oct 17
		Routine	Duplicate	Routine	Duplicate
pH	Units	9.1	9.1	9.4	9.4
Specific Conductance	µmhos/cm	2910	2890	10100	9840
Aluminum	µg/L	<50	<50	<250	<250
Arsenic	µg/L	8.2	8.3	10	20
Barium	µg/L	26	27	<120	120
Boron	µg/L	2700	2700	9500	9200
Cadmium	µg/L	<50	<50	<250	<250
Calcium	µg/L	30000	30000	80000	80000
Chromium	µg/L	<1	<1	<5	<5
Hexavalent Chromium	µg/L	<1	<1	2.8	2.5
Copper	µg/L	120	120	36	61
Iron	µg/L	260	250	650	590
Lead	µg/L	<5	<5	<25	<25
Magnesium	µg/L	<500	<500	<2500	<2500
Manganese	µg/L	<30	<30	<150	<150
Mercury	µg/L	<0.2	<0.2	<0.2	<0.2
Molybdenum	µg/L	50	52	190	190
Nickel	µg/L	2.3	2.5	<10	<10
Potassium	µg/L	35000	34000	91000	91000
Selenium	µg/L	26	25	43	63
Silver	µg/L	<10	<10	<50	<50
Vanadium	µg/L	<20	<20	<100	<100
Zinc	µg/L	28	37	170	250
Sodium	mg/L	710	690	2600	2600
Chloride	mg/L	260	270	1200	1200
Nitrate (as NO3)	mg/L	1.1	<1	<5	<5
Sulfate	mg/L	490	490	1800	1800
Fluoride	mg/L	0.66	0.66	2.8	2.6
Bromide	mg/L	11	11	70	70
Total Alkalinity (as CaCO3)	mg/L	620	630	2200	2100
Total dissolved solids (TDS)	mg/L	2100	2200	8200	8300
Total Hardness (as CaCO3)	mg/L	77	76	210	210
Total Phosphorus (as PO4)	mg/L	14	14	33	33

FIELD TRACKING FORM

Semi-Annual SITE 300 Cooling Towers

Special Instructions:
Should be sampled in early April and October.
See back of form for additional access information

LAB	CoC#	Ship It #
BC Labs	73986	224229

pH meter calibrated on: 10/17/17
Specific Conductance meter calibrated on: 10/17/17

Sample Date: 10/17/17

Location Indentifier	Location DUP taken -year/quarter	Sample Time	Initials	Field Measurments		BC Labs				Comments
				pH	Specific Conductance	S3METALS 500mL Poly	S3ANIONS 500mL Poly	S3WETCHEM 1000mL Poly	E300.0/BR 250ml Poly	
3-801ACT01-TW	2017/2nd	10:15	KS	9.34	4.72 ms	✓	✓	✓	✓	
3-817ACT01-TW	2016/2nd	0900	KS	9.72	12.60ms	✓	✓	✓	✓	
3-825ACT01-TW	2015/2nd									OFF LINE
3-826FCT01-TW	2015/4th	0930	KS	9.51	10.24ms	✓	✓	✓	✓	
3-827ACT01-TW	2014/4TH	0945	KS	9.16	3.86ms	✓	✓	✓	✓	
3-827ACT02-TW		10:00	KS	9.24	3.74 ms	✓	✓	✓	✓	
3-851BFCT03-TW	2016/4th	10:30	KS	9.43	6.12 ms	✓	✓	✓	✓	
Duplicate of 3-826FCT01-TW										
3-B9900-01-TW		0930	KS			✓	✓	✓	✓	

☑ Copy to Analyst, Rick Blake.

Rev. 9-27-17

Chain of Custody

EFA Data Management Team
Lawrence Livermore National Laboratory
P.O. Box 808 L-627
Livermore, CA 94551

Work Authorized By: EFA
TRR Approver: Della Burruss
Project Info:

Access/COC #: 73986
Document Control #: 73986
Requester/LLNL Analyst: R. Blake
Organization / Sampler: EFA / brunckhorst2
PCI Project #: 44497
PCI Task #: ES&H Bills and Taxes
Email: efa-dmt@llnl.gov
DMT Additional Copies:

Analytical Lab : BCLABS-BAK
TAT: 20d
Analytical Lab Log #:
Project/Network: COOLTOWER
ShipIt Release #: 224/229
Add'l Email:

Additional Instructions:

Sample ID	Sampled Date/Time	Matrix	Cont. Type	Cont. Count	Study Area	Req. Analysis	Analysis Detail	Lab Instructions
3-801ACT01-01-TW	10/17/2017 10:15	TW	P	1	COOLTOWER	E300.0	BR	
3-801ACT01-01-TW	10/17/2017 10:15	TW	P	1	COOLTOWER	S3ANIONS	ALL	
3-801ACT01-01-TW	10/17/2017 10:15	TW	P	0	COOLTOWER	S3METALS	ALL	
3-801ACT01-01-TW	10/17/2017 10:15	TW	P	1	COOLTOWER	S3METALS	TOTAL	
3-801ACT01-01-TW	10/17/2017 10:15	TW	P	1	COOLTOWER	S3WETCHEM	ALL	
3-817ACT01-01-TW	10/17/2017 09:00	TW	P	1	COOLTOWER	E300.0	BR	
3-817ACT01-01-TW	10/17/2017 09:00	TW	P	1	COOLTOWER	S3ANIONS	ALL	
3-817ACT01-01-TW	10/17/2017 09:00	TW	P	0	COOLTOWER	S3METALS	ALL	
3-817ACT01-01-TW	10/17/2017 09:00	TW	P	1	COOLTOWER	S3METALS	TOTAL	
3-817ACT01-01-TW	10/17/2017 09:00	TW	P	1	COOLTOWER	S3WETCHEM	ALL	
3-826FCT01-01-TW	10/17/2017 09:30	TW	P	1	COOLTOWER	E300.0	BR	
3-826FCT01-01-TW	10/17/2017 09:30	TW	P	1	COOLTOWER	S3ANIONS	ALL	
3-826FCT01-01-TW	10/17/2017 09:30	TW	P	0	COOLTOWER	S3METALS	ALL	
3-826FCT01-01-TW	10/17/2017 09:30	TW	P	1	COOLTOWER	S3METALS	TOTAL	
3-826FCT01-01-TW	10/17/2017 09:30	TW	P	1	COOLTOWER	S3WETCHEM	ALL	
3-B9900-01-TW	10/17/2017 09:30	TW	P	1	COOLTOWER	E300.0	BR	
3-B9900-01-TW	10/17/2017 09:30	TW	P	1	COOLTOWER	S3ANIONS	ALL	
3-B9900-01-TW	10/17/2017 09:30	TW	P	0	COOLTOWER	S3METALS	ALL	
3-B9900-01-TW	10/17/2017 09:30	TW	P	1	COOLTOWER	S3METALS	TOTAL	
3-B9900-01-TW	10/17/2017 09:30	TW	P	1	COOLTOWER	S3WETCHEM	ALL	
3-827ACT01-01-TW	10/17/2017 09:45	TW	P	1	COOLTOWER	E300.0	BR	
3-827ACT01-01-TW	10/17/2017 09:45	TW	P	1	COOLTOWER	S3ANIONS	ALL	
3-827ACT01-01-TW	10/17/2017 09:45	TW	P	0	COOLTOWER	S3METALS	ALL	
3-827ACT01-01-TW	10/17/2017 09:45	TW	P	1	COOLTOWER	S3METALS	TOTAL	
3-827ACT01-01-TW	10/17/2017 09:45	TW	P	1	COOLTOWER	S3WETCHEM	ALL	
3-851BFCT03-01-TW	10/17/2017 10:30	TW	P	1	COOLTOWER	E300.0	BR	
3-851BFCT03-01-TW	10/17/2017 10:30	TW	P	1	COOLTOWER	S3ANIONS	ALL	

Relinquished Signature	Company	Date	Time	Received Signature	Company	Date	Time
1 [illegible]	LLNL/EFA	10/17/2017	1520	2 [illegible]	BCLab	10/17/17	1630
2				3			
3				4			
4				5			

Revision Printed: 11/24/2015/13/04/05

Signature Order - 1: Sampler, 2: Courier, 3: Lab, 4: Analyst, 5: DMT

Chain of Custody

EFA Data Management Team
Lawrence Livermore National Laboratory
P.O. Box 808 L-627
Livermore, CA 94551

Work Authorized By: EFA
TRR Approver: Della Burruss
Project Info:

Access/COC #: 73986
Document Control #: 73986
Requester/LLNL Analyst: R. Blake
Organization / Sampler: EFA / brunckhorst2
PCI Project #: 44497
PCI Task #: ES&H Bills and Taxes
Email: efa-dmt@llnl.gov
DMT Additional Copies:

Analytical Lab : BCLABS-BAK
TAT: 20d
Analytical Lab Log #:
Project/Network: COOLTOWER
ShipIt Release #: 224 229
Add'l Email:

Additional Instructions:

Sample ID	Sampled Date/Time	Matrix	Cont. Type	Cont. Count	Study Area	Req. Analysis	Analysis Detail	Lab Instructions
3-851BFCT03-01-TW	10/17/2017 10:30	TW	P	0	COOLTOWER	S3METALS	ALL	
3-851BFCT03-01-TW	10/17/2017 10:30	TW	P	1	COOLTOWER	S3METALS	TOTAL	
3-851BFCT03-01-TW	10/17/2017 10:30	TW	P	1	COOLTOWER	S3WETCHEM	ALL	
3-827ACT02-TW	10/01/2017 10:00	TW	P	1	COOLTOWER	E300.0	BR	
3-827ACT02-TW	10/01/2017 10:00	TW	P	1	COOLTOWER	S3ANIONS	ALL	
3-827ACT02-TW	10/01/2017 10:00	TW	P	0	COOLTOWER	S3METALS	ALL	
3-827ACT02-TW	10/01/2017 10:00	TW	P	1	COOLTOWER	S3METALS	TOTAL	
3-827ACT02-TW	10/01/2017 10:00	TW	P	1	COOLTOWER	S3WETCHEM	ALL	

Relinquished Signature	Company	Date	Time	Received Signature	Company	Date	Time
1 [signature]	LLNL/EFA	10/17/2017	1520	2 [signature]	BC Lab	10-17-17	1630
2				3			
3				4			
4				5			

Signature Order - 1: Sampler, 2: Courier, 3: Lab, 4: Analyst, 5: DMT

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 7-26-17 Inspector Joseph Walker Building Number 851

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature _____ Date 7-26-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 7-26-17 Inspector Joseph Walker Building Number 827A

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	6" of standing water
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 7-26-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 7-26-17 Inspector Joseph Walker Building Number 826

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA. (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	2" of standing water
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature _____ Date 7-26-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 7-26-17 Inspector Joseph Walker Building Number 817A

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 7-26-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 7-26-17 Inspector Joseph Walker Building Number 801

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature _____ Date 7-26-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 8-29-17 Inspector Joseph Walker Building Number 801

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	Unknown. Unable to inspect due to no inspection cover.
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature _____ Date 8-29-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 8-9-17 Inspector Joe Walker Building Number 851

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	6" standing water
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	excessive accumulation of dirt and debris covering feed pipe
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 8-29-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 8-29-17 Inspector Joseph Walker Building Number 827

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	7" of standing water
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature _____ Date 8 29 17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 8-29-17 Inspector Joseph Walker Building Number 826

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 8-29-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 8-30-17 Inspector Joe Walker Building Number 817

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature _____ Date 8-30-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 12-27-17 Inspector Walker Building Number 827

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 12/27/17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 9-25-17 Inspector Joe Walker Building Number 826

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature _____ Date 9-26-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 9-25-17 Inspector Joe Walker Building Number 827

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	6"
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature _____ Date 9-26-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 9-26-17 Inspector Joe Walker Building Number 817

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 9-26-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 9-25-17 Inspector Joe Walker Building Number 851

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 9-26-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 9-25-17 Inspector Joe Walker Building Number 801

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature _____ Date 9-26-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 10-23-17 Inspector Walker Building Number 801

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature _____ Date 10-23-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 10-23-17 Inspector Walker Building Number 851

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	6"
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 10-23-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 10-23-17 Inspector Walker Building Number 827

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	5"
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 10-23-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 10-23-17 Inspector Walker Building Number 826

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 10 23-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 10-30-17 Inspector Walker Building Number 817

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature _____ Date 10-23-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 11-27-17 Inspector Walker Building Number 827

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	7"
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 11-27-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 11-20-17 Inspector Walker Building Number 817

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature _____ Date 11-20-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 11-27-17 Inspector Walker Building Number 801

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 11-27-17

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Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 11-27-17 Inspector Walker Building Number 851

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	6"
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 11-27-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 809, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 11-27-17 Inspector Walker Building Number 826

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 11-27-17

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Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 12-27-17 Inspector Walker Building Number 826

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 12/27/17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 12-27-17 Inspector Walker Building Number 801

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 12/27/17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 12-27-17 Inspector Walker Building Number 817

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature _____ Date 12/27/17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Cooling Tower Percolation Pit Inspection Checklist*
For Buildings 801, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 12-27-17 Inspector Walker Building Number 851

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA, (L-627)

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	6"
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 12/27/17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Appendix C

Mechanical Equipment Room Network

Mechanical Equipment Discharge Effluent Monitoring for Buildings 806A, 827A, 827C, 827D, 827E
Mechanical Equipment Room and Cooling Tower Percolation Pit
Inspection Forms

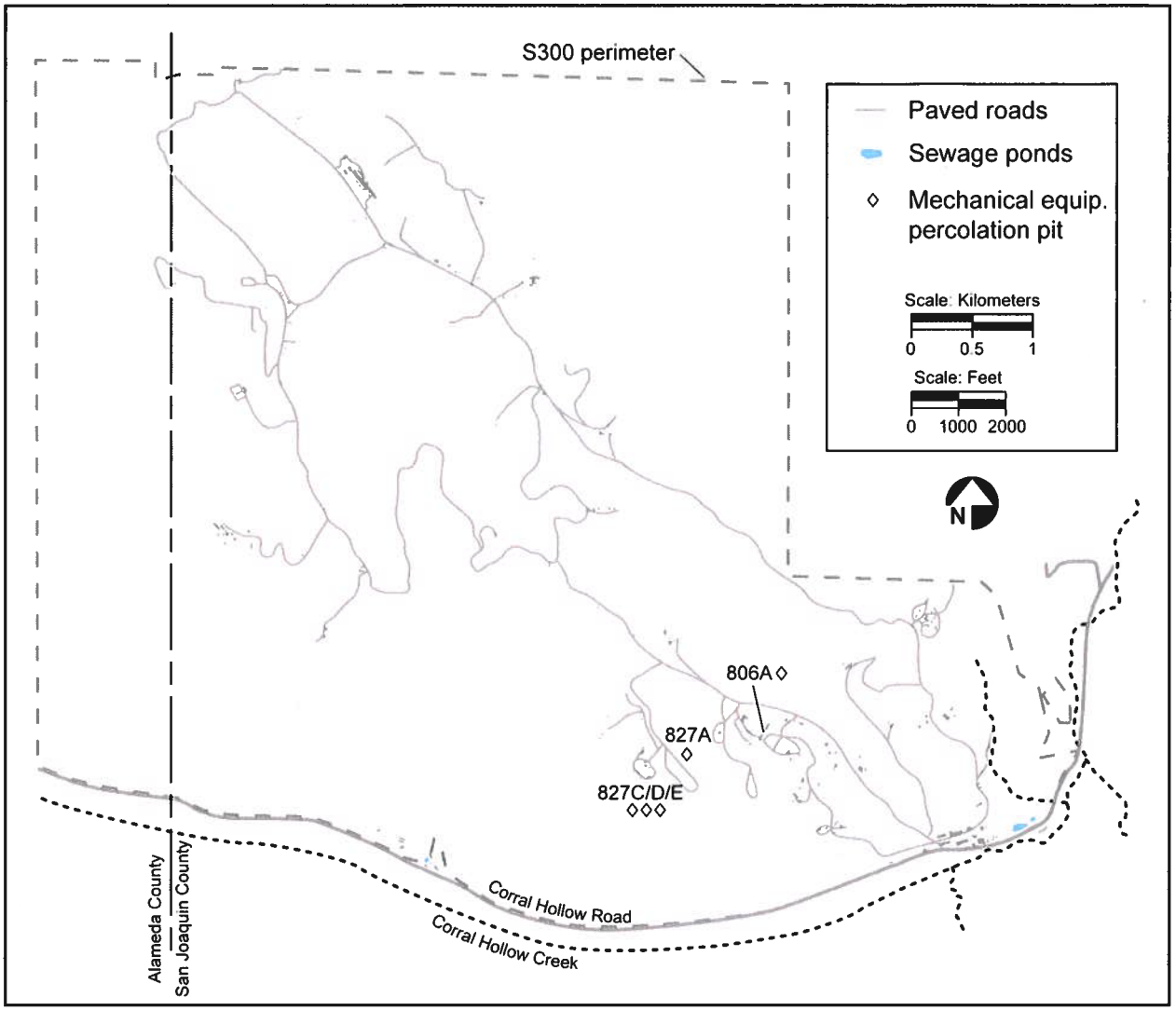

Figure C-1. Location of mechanical equipment wastewater percolation pits.

Table C-1. Site 300 mechanical equipment discharge effluent monitoring 2017 anions data summary.

Well	Date	Sodium mg/L	Chloride mg/L	Nitrate (as NO3) mg/L	Sulfate mg/L	Fluoride mg/L
3-B806A-OW	May 1	230	90	<0.5	170	0.19
3-B806A-OW	Oct 3	230	100	<0.5	170	0.18
3-B827A-OW	May 1	440	170	<0.5	320	0.42
3-B827A-OW	Oct 2	290	130	<0.5	230	0.20
3-B827A-OW	Oct 2 DUP	290	130	<0.5	230	0.20
3-B827C-OW	May 2	320	100	2.1	200	0.96
3-B827C-OW	May 2 DUP	310	100	2.0	200	0.94
3-B827C-OW	Oct 3	250	100	<0.5	190	0.18
3-B827E-OW	May 2	240	90	<0.5	170	0.17

Table C-2. Site 300 mechanical equipment discharge effluent monitoring 2017 metals data summary.

Analyte	Date	3-B806A-OW	3-B827A-OW	3-B827A-OW DUP	3-B827C-OW	3-B827C-OW DUP	3-B827E-OW
Aluminum (µg/L)	May 1	<50	56	-	-	-	-
	May 2	-	-	-	110	120	<50
	Oct 2	-	<50	<50	-	-	-
	Oct 3	<50	-	-	<50	-	-
Arsenic (µg/L)	May 1	<2	<2	-	-	-	-
	May 2	-	-	-	<10	<10	<2
	Oct 2	-	<2	<2	-	-	-
	Oct 3	<2	-	-	<2	-	-
Barium (µg/L)	May 1	<25	<25	-	-	-	-
	May 2	-	-	-	<120	<120	<25
	Oct 2	-	<25	<25	-	-	-
	Oct 3	<25	-	-	<25	-	-
Boron (µg/L)	May 1	950	1900	-	-	-	-
	May 2	-	-	-	1000	1100	970
	Oct 2	-	1100	1100	-	-	-
	Oct 3	830	-	-	930	-	-
Cadmium (µg/L)	May 1	<50	<50	-	-	-	-
	May 2	-	-	-	<50	<50	<50
	Oct 2	-	<50	<50	-	-	-
	Oct 3	<50	-	-	<50	-	-
Calcium (µg/L)	May 1	8900	18000	-	-	-	-
	May 2	-	-	-	5400	5300	12000
	Oct 2	-	12000	11000	-	-	-
	Oct 3	7900	-	-	2800	-	-
Chromium (µg/L)	May 1	<1	<1	-	-	-	-

Table C-2. Site 300 mechanical equipment discharge effluent monitoring 2017 metals data summary.

Analyte	Date	3-B806A-OW	3-B827A-OW	3-B827A-OW DUP	3-B827C-OW	3-B827C-OW DUP	3-B827E-OW
	May 2	-	-	-	21	25	<1
	Oct 2	-	<1	<1	-	-	-
	Oct 3	<1	-	-	<1	-	-
Chromium (VI) (µg/L)	May 1	<1	<1	-	-	-	-
	May 2	-	-	-	<1	<1	<1
	Oct 2	-	<1	<1	-	-	-
	Oct 3	<1	-	-	<1	-	-
Copper (µg/L)	May 1	16	12	-	-	-	-
	May 2	-	-	-	5800	6200	80
	Oct 2	-	5.7	4.3	-	-	-
	Oct 3	21	-	-	37	-	-
Iron (µg/L)	May 1	<100	200	-	-	-	-
	May 2	-	-	-	51000	53000	260
	Oct 2	-	<100	<100	-	-	-
	Oct 3	<100	-	-	590	-	-
Lead (µg/L)	May 1	<5	<5	-	-	-	-
	May 2	-	-	-	190	220	<5
	Oct 2	-	<5	<5	-	-	-
	Oct 3	<5	-	-	<5	-	-
Magnesium (µg/L)	May 1	<500	<500	-	-	-	-
	May 2	-	-	-	<500	<500	<500
	Oct 2	-	<500	<500	-	-	-
	Oct 3	<500	-	-	<500	-	-

Table C-2. Site 300 mechanical equipment discharge effluent monitoring 2017 metals data summary.

Analyte	Date	3-B806A-OW	3-B827A-OW	3-B827A-OW DUP	3-B827C-OW	3-B827C-OW DUP	3-B827E-OW
Manganese (µg/L)	May 1	<30	<30	-	-	-	-
	May 2	-	-	-	750	810	<30
	Oct 2	-	<30	<30	-	-	-
	Oct 3	<30	-	-	<30	-	-
Mercury (µg/L)	May 1	<0.2	<0.2	-	-	-	-
	May 2	-	-	-	<0.2	<0.2	<0.2
	Oct 2	-	<0.2	<0.2	-	-	-
	Oct 3	<0.2	-	-	<0.2	-	-
Molybdenum (µg/L)	May 1	<25	38	-	-	-	-
	May 2	-	-	-	32	32	<25
	Oct 2	-	<25	<25	-	-	-
	Oct 3	<25	-	-	<25	-	-
Nickel (µg/L)	May 1	3.0	3.6	-	-	-	-
	May 2	-	-	-	86	93	<2
	Oct 2	-	<2	<2	-	-	-
	Oct 3	<2	-	-	<2	-	-
Potassium (µg/L)	May 1	8500	18000	-	-	-	-
	May 2	-	-	-	190000	180000	13000
	Oct 2	-	11000	11000	-	-	-
	Oct 3	7800	-	-	5800	-	-
Selenium (µg/L)	May 1	<2	<2	-	-	-	-
	May 2	-	-	-	<10	<10	<2
	Oct 2	-	<2	<2	-	-	-
	Oct 3	<2	-	-	<2	-	-

Table C-2. Site 300 mechanical equipment discharge effluent monitoring 2017 metals data summary.

Analyte	Date	3-B806A-OW	3-B827A-OW	3-B827A-OW DUP	3-B827C-OW	3-B827C-OW DUP	3-B827E-OW
Silver (µg/L)	May 1	<10	<10	-	-	-	-
	May 2	-	-	-	<10	<10	<10
	Oct 2	-	<10	<10	-	-	-
	Oct 3	<10	-	-	<10	-	-
Vanadium (µg/L)	May 1	<20	<20	-	-	-	-
	May 2	-	-	-	<100	<100	<20
	Oct 2	-	<20	<20	-	-	-
	Oct 3	<20	-	-	<20	-	-
Zinc (µg/L)	May 1	<20	44	-	-	-	-
	May 2	-	-	-	500	550	24
	Oct 2	-	<20	<20	-	-	-
	Oct 3	20	-	-	<20	-	-

Note:
– = Sampling not required, sampling was performed for that analyte on a different date.

Table C-3. Site 300 mechanical equipment discharge effluent monitoring 2017 physical data.

Well	Date	pH (Units)	Specific Conductance (µmhos/cm)	Total Alkalinity (as CaCO3) (mg/L)	Total dissolved solids (TDS) (mg/L)	Total Hardness (as CaCO3) (mg/L)	Total Phosphorus (as PO4) (mg/L)
3-B806A-OW	May 1	8.7	1070	220	720	23	<1
3-B806A-OW	Oct 3	8.7	1100	220	840	21	<1
3-B827A-OW	May 1	9.1	1940	400	1400	47	1.4
3-B827A-OW	Oct 2	8.8	1430	290	990	30	2.7
3-B827A-OW	Oct 2 DUP	8.7	1440	300	1000	29	2.3
3-B827C-OW	May 2	10.3	1910	490	1500	14	61
3-B827C-OW	May 2 DUP	10.2	1940	490	1500	14	62
3-B827C-OW	Oct 3	8.8	1170	240	900	7.4	<1
3-B827E-OW	May 2	8.9	1110	230	800	30	1.5

FIELD TRACKING FORM

Semi-Annual Site 300 Mechanical Equipment Room/Percolation Pit Discharge

Special Instructions: Should be sampled in early April and October.
See back of form for additional access information
** For 3-B827A-OW Contact FPOC; Off-road travel

Location name change info: 3-B827A-OW previously 3-CT-PERC-OW
3-B806B-OW previously 3-806B-OW

LAB	CoC#	Ship It #
BC Labs	74030	223760

pH meter calibrated on: 10/3/17
Specific Conductance meter calibrated on: 10/3/17

Sample Date: 10/3/17

			Field Meas		BC Labs				Comments
Location Indentifier	Sample Time	Initials	pH	Specific Conductance	S3METALS 500mL Poly	S3ANIONS 1 x 500ml Poly	S3WETCHEM 1000mL Poly		
3-B827A-OW**									827C Started at 0755 74, 150 Samples collected over a 6 hour time period. One Sample every 5 min. Approx 7 Liters collected
3-B827C-OW	1400	KS	8.81	1054us	✓	✓	✓		
3-B827D-OW									806A Started at 0815 75, 150 ml Samples collected over a 6 hour time period. One Sample every 5 min. Approx 8 Liters collected
3-B827E-OW					✓	✓	✓	KS	
3-B806A-OW	1425	KS	8.76	987us	✓	✓	✓		
Duplicate of 3-827E-OW									
3-B9900-OW									

☑ Copy to Analyst, Rick Blake.

Revised 2/2/17

Chain of Custody

EFA Data Management Team
Lawrence Livermore National Laboratory
P.O. Box 808 L-627
Livermore, CA 94551

Work Authorized By: EFA
TRR Approver: Della Burruss
Project Info:

Access/COC #: 74030
Document Control #: 74030
Requester/LLNL Analyst: R. Blake
Organization / Sampler: EFA / brunckhorst2
PCI Project #: 44497
PCI Task #: ES&H Bills and Taxes
Email: efa-dmt@llnl.gov
DMT Additional Copies:

Analytical Lab : BCLABS-BAK
TAT: 20d
Analytical Lab Log #:
Project/Network: MECHEQUIPMNTRMS
ShipIt Release #: 223760
Add'l Email:

Additional Instructions:

Sample ID	Sampled Date/Time	Matrix	Cont. Type	Cont. Count	Study Area	Req. Analysis	Analysis Detail	Lab Instructions
3-B806A-01-OW	10/03/2017 14:25	AQ	P	1	MECHEQUIPM	S3ANIONS	ALL	
3-B806A-01-OW	10/03/2017 14:25	AQ	P	0	MECHEQUIPM	S3METALS	ALL	
3-B806A-01-OW	10/03/2017 14:25	AQ	P	1	MECHEQUIPM	S3METALS	TOTAL	
3-B806A-01-OW	10/03/2017 14:25	AQ	P	1	MECHEQUIPM	S3WETCHEM	ALL	
3-B827C-01-OW	10/03/2017 14:00	AQ	P	1	MECHEQUIPM	S3ANIONS	ALL	
3-B827C-01-OW	10/03/2017 14:00	AQ	P	0	MECHEQUIPM	S3METALS	ALL	
3-B827C-01-OW	10/03/2017 14:00	AQ	P	1	MECHEQUIPM	S3METALS	TOTAL	
3-B827C-01-OW	10/03/2017 14:00	AQ	P	1	MECHEQUIPM	S3WETCHEM	ALL	

	Relinquished Signature	Company	Date	Time		Received Signature	Company	Date	Time
1	[signature]	LLNL/EFA	10/3/2017	1530	2	[signature]	BCLab	10-3-17	1630
2					3				
3					4				
4					5				

FIELD TRACKING FORM

Semi-Annual Site 300 Mechanical Equipment Room/Percolation Pit Discharge

Special Instructions: Should be sampled in early April and October.
See back of form for additional access information
** For 3-B827A-OW Contact FPOC; Off-road travel

Location name change info: 3-B827A-OW previously 3-CT-PERC-OW
3-B806B-OW previously 3-806B-OW

LAB	CoC#	Ship It #
BC Labs	74004	223675

pH meter calibrated on: 10/2/17
Specific Conductance meter calibrated on: 10/2/17

Sample Date: 10/2/17

			Field Meas		BC Labs				Comments
Location Indentifier	Sample Time	Initials	pH	Specific Conductance	S3METALS 500mL Poly	S3ANIONS 1 x 500ml Poly	S3WETCHEM 1000mL Poly	*	
3-B827A-OW**	1400	MS	8.96	1250 us	✓	✓	✓		827E Started at 07:38. Dry upon Arrival. Dry again on morning of 10/3/17. 827E NOT Discharging. NOT Sampled 827A Started at 0805 74, 150 ml Samples collected over A 6 hour time period. one Sample every 5 min. Approx 8 Liters collected.
3-B827C-OW									
3-B827D-OW									
3-B827E-OW	*								
3-B806A-OW									
Duplicate of 3-827A-OW									
3-B9900-OW	1400	MS	8.96	1250 us	✓	✓	✓		

☑ Copy to Analyst, Rick Blake.

Revised 2/2/17

Chain of Custody

EFA Data Management Team
Lawrence Livermore National Laboratory
P.O. Box 808 L-627
Livermore, CA 94551

Work Authorized By: EFA
TRR Approver: Della Burruss
Project Info:

Access/COC #: 74004
Document Control #: 74004
Requester/LLNL Analyst: R. Blake
Organization / Sampler: EFA / brunckhorst2
PCI Project #: 44497
PCI Task #: ES&H Bills and Taxes
Email: efa-dmt@llnl.gov
DMT Additional Copies:

Analytical Lab : BCLABS-BAK
TAT: 20d
Analytical Lab Log #:
Project/Network: MECHEQUIPMNTRMS
ShipIt Release #: 223675
Add'l Email:

Additional Instructions:

Sample ID	Sampled Date/Time	Matrix	Cont. Type	Cont. Count	Study Area	Req. Analysis	Analysis Detail	Lab Instructions
3-B827A-01-OW	10/02/2017 14:00	AQ	P	1	MECHEQUIPM	S3ANIONS	ALL	
3-B827A-01-OW	10/02/2017 14:00	AQ	P	0	MECHEQUIPM	S3METALS	ALL	
3-B827A-01-OW	10/02/2017 14:00	AQ	P	1	MECHEQUIPM	S3METALS	TOTAL	
3-B827A-01-OW	10/02/2017 14:00	AQ	P	1	MECHEQUIPM	S3WETCHEM	ALL	
3-B9900-01-OW	10/02/2017 14:00	AQ	P	1	MECHEQUIPM	S3ANIONS	ALL	
3-B9900-01-OW	10/02/2017 14:00	AQ	P	0	MECHEQUIPM	S3METALS	ALL	
3-B9900-01-OW	10/02/2017 14:00	AQ	P	1	MECHEQUIPM	S3METALS	TOTAL	
3-B9900-01-OW	10/02/2017 14:00	AQ	P	1	MECHEQUIPM	S3WETCHEM	ALL	

	Relinquished Signature	Company	Date	Time		Received Signature	Company	Date	Time
1	[illegible]	LLNL/EFA	10/2/2017	1530	2	Gary Bogan	BCLAB	10-2-17	1630
2					3				
3					4				
4					5				

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 12/6/2017 Inspector MARK KRAUKS Building Number 806A

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature Robert Bates Date 12/6/17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

1/11/18

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 12/13/17 Inspector LEE P. CALDEIRA Building Number 3-CT-PERK-OW

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/(No)	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/(No)	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/(No)	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/(No)	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 12.14.17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 12/13/17 Inspector LEE P. CALDEIRA Building Number 827C

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 12.14.17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 12/13/17 Inspector LEE P. CALDEIRA Building Number 827 D

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 12.14.17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 12/13/17 Inspector LEE P. CALDEIRA Building Number 827E

Instructions: Circle the appropriate response for each item below, and record the date and time.. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 12.14.17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 11/1/17 Inspector LEE P. CALDEIRA Building Number 3-CT-PERK-OW

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 11.1.17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 11/1/17 Inspector LEE P. CALDERA Building Number 827C

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 11.1.17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 11/1/17 Inspector LEE P. CALDEIRA Building Number 827 D

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 11.1.17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 11/1/17 Inspector LEE P. CALDEIRA Building Number 827E

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 11.1.17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 10/2/2017 Inspector MARK KRAUHK Building Number 806A

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature Robert Bates Date 10/2/17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

11/6/17

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 10/31/2017 Inspector MARK KRAUHS Building Number 806A

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature Robert Baker Date 10/31/17

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11/6/17

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 10-4-17 Inspector Lee P CALDEIRA Building Number 3CT-PERK-ON

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/(No)	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/(No)	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/(No)	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/(No)	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 10.4.17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 10-4-17 Inspector Lee P CALDEIRA Building Number 827-C

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/(No)	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/(No)	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/(No)	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/(No)	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 10.4.17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 10-4-17 Inspector Lee P CALDEIRA Building Number 827 D

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 10-4-17

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Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 10-4-17 Inspector Lee PCALDEIRA Building Number 827 E

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 10·4·17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 9-6-17 Inspector LEE P. CALDEIRA Building Number 3-CT-PERK-OW

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/(No)	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/(No)	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/(No)	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/(No)	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 9.6.17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 9-6-17 Inspector LEE P. CALDEIRA Building Number 827 C

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 9.6.17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 9-6-17 Inspector LEE P. CALDEIRA Building Number 827 D

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 9.6.17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 9-6-17 Inspector LEE P. CALDEIRA Building Number 827E

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 9.6.17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 8/2/17 Inspector LEE P. CALDEIRA Building Number 3-CT-PERK-OW

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/(No)	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/(No)	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/(No)	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/(No)	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature _____ Date 8-2-17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 8/2/17 Inspector LEE P. CALDEIRA Building Number 827C

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 8-2-17

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Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 8/2/17 Inspector LEE R. CALDEIRA Building Number 827 D

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 8-2-17

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Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 8/2/17 Inspector LEE P. CALDEIRA Building Number 827E

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 8.2.17

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Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 7/31/2017 Inspector Mark Krauts Building Number 806A

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature Robert Bates Date 7/31/17

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

8/1/17

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 8/28/2017 Inspector MARK KRAUAS Building Number 806A

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature Robert Baker Date 8/28/17

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8/31/17

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 7-5-17 Inspector LEE P. CALDEIRA Building Number 3-CT-PERK-OW

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/(No)	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/(No)	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/(No)	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/(No)	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 7.5.17

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Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 7-5-17 Inspector LEE P. CALDEIRA Building Number 827C

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 7.5.17

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Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 7-5-17 Inspector LEE P. CALDEIRA Building Number 827D

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 7.5.17

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Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 7-5-17 Inspector Lee P CALDEIRA Building Number 827E

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 7.5.17

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Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 6/7/17 Inspector LEE P. CALDEIRA Building Number 3-CT-PERC-OW

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/(No)	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/(No)	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/(No)	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/(No)	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 6.14.17

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Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 6/7/17 Inspector LEE P. CALDEIRA Building Number 827 C

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

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Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/(No)	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/(No)	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/(No)	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/(No)	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 6-14-17

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Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 6/7/17 Inspector LEE P. CALDEIRA Building Number 827 D

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/(No)	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/(No)	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/(No)	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/(No)	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 6.14.17

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Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148
Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 6/7/17 Inspector LEE P. CALDEIRA Building Number 827E

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Rick Blake, EFA (L-627), Environmental Functional Area.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 6.14.17

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Environmental Functional Area, Lawrence Livermore National Laboratory
P.O. Box 808, L-627, Livermore, California 94551