Appendix A

Summary of State Construction and Development Requirements

APPENDIX A: SUMMARY OF STATE CONSTRUCTION AND DEVELOPMENT REQUIREMENTS

State requirements—SUMMARY					
State	**Sediment basin storage volume (ft^3/acre drained)**	**Sediment basin (design parameters)**	**Sediment basin—notes/references**	**Numeric standard**	**Soil stabilization**
Alabama	1,800 (EPA 2007)	(1) 8-hour detention time for sites > 5 acres (EPA 2007) (2) 67 cy/acre (1,809 ft^3) - (Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas June 2003, Revised 1-06)	The 2004 TDD Section 7 notes: a sediment basin storage volume of 3,600 ft^3/acre drained, and sediment basin requirements for drainage areas ≥ 10 acres.	Statewide standard varies with background, < 50 Nephelometric Turbidity Units (NTUs) above background. The EPA literature noted "None." The 2002 TDD Appendix A notes: Turbidity <50 NTU. Turbidity limits as set forth by the Alabama Department of Environmental Management are 50 NTUs above background for any Alabama waterbody with a Fish and Wildlife classification (Alabama Department of Environmental Management 2001). PG Environmental (PG) determined that the Alabama Department of Environmental Management-Water Division Water Quality Program (2006) states in its specific water quality criteria Section 335-6-10-.09 that there shall be no turbidity other than natural origin and that in no case shall turbidity exceed 50 NTUs above background.	13 days (EPA 2007)
Alaska	3,600 (2004 TDD Section 7)	The EPA 2007 literature referenced the CGP and noted a sediment basin volume of 1,800 ft3/acre plus 1.5 ft for sediment accumulation - generally designed to remove medium silt (62 microns) particles.	The 2004 TDD Section 7 notes sediment basin requirements for drainage areas ≥ 10 acres. 2002 water quality standards specify that all stormwater treatment devices shall be designed based on the 2-year, 6-hour rain event (assume runoff), and the Best Management Practice (BMP) must also be capable of removing particles greater than 20-microns during such an event.	The 2002 TDD Appendix A notes total suspended solids (TSS) > 20 microns. The EPA 2007 literature notes "None."	14 days. Reference to the CGP (EPA 2007)
Arizona	3,600 (EPA 2007; 2004 TDD Section 7)	Sizing based on a 2-year, 24-hour event (EPA 2007)	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas ≥ 10 acres.	None (EPA 2007)	14 days (EPA 2007)
Arkansas	3,600 (EPA 2007; 2004 TDD Section 7)	Temporary or permanent sediment basins shall be based on either the smaller of 3,600 ft^3/acre, or a size based on the runoff volume of a 10-year, 24-hour storm event (EPA 2007).	The 2004 TDD Section 7 notes sediment basin requirements for drainage areas ≥ 10 acres.	PG estimated post-construction standard only. A goal of 80 percent removal of TSS from these flows (e.g., stormwater detention structures-including wet ponds), which exceed predevelopment levels should be used in designing and installing, where practicable (EPA 2007; state literature).	14 days (EPA 2007)

State requirements—SUMMARY					
State	**Sediment basin storage volume (ft^3/acre drained)**	**Sediment basin (design parameters)**	**Sediment basin—notes/references**	**Numeric standard**	**Soil stabilization**
California	3,600 (EPA 2007; 2004 TDD Section 7)	Other design standards include a settling velocity approach, where the precipitation intensity for a 10-year, 6-hour rain event is used (EPA 2007).	The 2004 TDD Section 7 notes sediment basin requirements for drainage areas $\geq$ 10 acres.	California's draft CGP includes turbidity effluent levels of 1,000 NTU. If Active Treatment Systems are used, the daily flow-weighted average is 10 NTU and the maximum for any single sample is 20 NTU.	Not specified (EPA 2007 and 2002 TDD Appendix A). 2004 TDD confirmed that CA has no stabilization standard within 14 days.
Colorado	1,800 general/3,600 transportation	N/A	The 2004 TDD Section 7 notes sediment basin requirements of 1,800 ft^3/acre drained. The EPA 2007 literature notes sediment basin sizing of 3,600 ft^3/acre for Colorado Department of Transportation (CDOT).	None (EPA 2007)	14 days. PERMIT NO. COR10*##F (http://www.epa.gov/region8/water/stormwater/downloads/Cof_con.pdf states 14 days. There is no stabilization standard within 14 days per 2004 TDD. Douglas County requires that disturbed areas be drill seeded and crimp mulched, or permanently landscaped, within 30 days from the start of land disturbance activities or within 7 days of the substantial completion of grading and topsoiling operations, whichever duration is shorter (EPA 2007).
Connecticut	3,600 (EPA 2007)	The EPA 2007 literature notes basin sizing of 3,600 ft^3/acre.	The 2004 TDD Section 7 notes a sediment basin storage volume of 1,800 ft^3/acre drained. The EPA, 2007 literature noted that sediment basins required for sites greater than 2 acres.	PG estimated no numeric standard for active construction sites based on review of state literature. The EPA 2007 literature notes 80% TSS. The 2004 Connecticut Stormwater Quality Manual, Chapter 6 states, The State of Connecticut has adopted the 80 percent TSS removal goal based on EPA guidance and its widespread use as a target water quality performance standard. The 2004 Connecticut Construction General Permit for Stormwater discharges noted that the 80 percent TSS removal was for post-construction. The 2002 TDD Appendix A notes an 80 percent TSS reduction.	3 days. Where construction activities have permanently ceased or have temporarily been suspended for more than 7 days, or when final grades are reached in any portion of the site, stabilization practices shall be implemented within 3 days. Areas that will remain disturbed but inactive for at least 30 days shall receive temporary seeding. Areas that will remain disturbed beyond the planting

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					season, shall receive long-term, nonvegetative stabilization sufficient to protect the site through the winter (EPA 2007).
Delaware	3,600 (EPA 2007; 2004 TDD Section 7)	N/A	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas ≥ 10 acres.	PG estimated no numeric standard. The EPA 2007 literature states "None." The 2002 TDD Appendix A notes an 80 percent TSS reduction; however, PG determined from state literature that this was a post-construction standard.	14 days (EPA 2007)
Florida	3,600 (EPA 2007; 2004 TDD Section 7)	N/A	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas ≥ 10 acres.	PG estimated no statewide numeric standard. The EPA 2007 literature states "None." The 2002 TDD Appendix A notes some standards for specific regions, but no statewide requirements.	7 days (EPA 2007)
Florida, DEP, Northern District (only applies in NW Florida)				The 2002 TDD Appendix A notes an 80 percent TSS reduction.	
Florida, South Florida Water Management District (General, Standard General, Noticed General and Individual Permits)					
Florida, Southwest Florida Water Management District					
Florida, St. Johns River Water Management District				The 2002 TDD Appendix A notes a turbidity less than 29 NTU.	

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State	**Sediment basin storage volume (ft^3/acre drained)**	**Sediment basin (design parameters)**	**Sediment basin—notes/references**	**Numeric standard**	**Soil stabilization**
Florida, Suwannee River Water Management District				The 2002 TDD Appendix A notes an 80 percent TSS reduction.	
Georgia	1,800 (EPA 2007; 2004 TDD Section 7)		The 2002 TDD Appendix A notes water runoff from 25-year, 24-hour storm event shall be treated for water quality management. PG assumed the 25-year storm event is for the emergency spillway per the 2004 TDD ("Typical return periods vary between 25 and 100 years, with 25 years recommended by the USDOT").	Statewide standard varies with background. Cannot increase turbidity by more than 25 NTU in warm waters and 10 NTU in cold water trout streams. Allowable turbidity in effluent varies based on site size and receiving stream drainage area (EPA 2007). The 2002 TDD Appendix A notes turbidity < 10 to 25 NTUs.	14 days (EPA 2007)
Hawaii	3,600 (EPA 2007)	Basin sizing for a 2-year, 24-hour storm event for drainage areas ≥ 10 acres (EPA 2007).		No numeric requirements for stormwater pollutant removal have been established at the state level, but regional and municipal regulations are in place (EPA 2007).	30 days (EPA 2007)
Idaho	3,600 (EPA 2007; 2004 TDD Section 7)	Basin sizing for a 2-year, 24-hour storm event for drainage areas > 10 acres (EPA 2007).	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas ≥ 10 acres.	None. None listed in EPA 2007 or 2002 TDD Appendix A.	14 days (EPA 2007)
Illinois	3,600 (2002 TDD Appendix A)	No sizing criteria in permit (EPA 2007). The 2002 TDD Appendix A notes 3,600 ft^3/acre.	The 2002 Illinois Urban Manual states that the basin requirements shall be based on a 2-year, 24-hour storm or 134 cubic yards/acre (i.e., 3,600 ft3/acre)—whichever is greater (EPA 2007). General NPDES Permit No. ILR10 5/30/2003 notes that "The management practices, controls and other provisions contained in the stormwater pollution prevention plan must be at least as protective as the requirements contained in Illinois Environmental Protection Agency's Illinois Urban Manual, 2002."	None (EPA 2007)	14 days (unless covered with snow or construction will resume within 21 days) (EPA 2007).
Indiana	1,800 (2004 TDD Section 7)	No sizing criteria in permit (EPA 2007). The 2004 TDD Section 7 states that for a state program that did not note a sediment basin size, EPA assumed based on best professional judgement (BPJ) that the baseline size was 1,800 ft^3/acre.	Sediment basin requirements exist for some areas in State (EPA 2007).	Only in certain parts of Indiana (e.g., 80 percent of TSS removal in Marion County). (EPA 2007).	15 days (EPA 2007)
Iowa	3,600 (EPA 2007; 2004 TDD Section 7)	The 2002 permit states that a sediment basin shall be installed for drainage area more than 10 acres disturbed. (Flows from upland areas that are undisturbed may be diverted around	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas ≥ 10 acres. The EPA 2007 literature notes: The 2006 Iowa Construction Site Erosion Control Manual	PG estimated no numeric standard. The EPA 2007 literature states "None." The 2002 TDD Appendix A notes an 80 percent TSS reduction; however, PG	14 days (unless covered with snow or construction will resume within 21 days) (EPA 2007).

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State	**Sediment basin storage volume (ft^3/acre drained)**	**Sediment basin (design parameters)**	**Sediment basin—notes/references**	**Numeric standard**	**Soil stabilization**
		the basin) (EPA 2007).	states that the size of the sediment basin, is as measured from the bottom of the basin to the principal spillway and should provide at least 3,600 ft^3 of storage per acre of drainage. This provides storage equal to 1 inch of runoff per acre. Likewise, 1,800 ft^3 amounts to 1/2 inch of sediment storage per acre. The basin should be cleaned when the volume of sediment reaches 900 ft^3/acre. At this time, the cleanout shall be performed to restore the original design capacity of the basin. At no time should the sediment level be permitted to build higher than 1 foot below the principal outlet.	could not confirm that this standard was for active construction sites.	
Kansas	3,600 (EPA 2007; 2004 TDD Section 7)	Kansas 1/30/07 CGP Definitions and Acronyms pages states, "Sediment Basin Design Criteria requires sedimentation structures that receive runoff from 10 acres or more of disturbed area to provide at least 3,600 ft^3 of storage per acre of area drained into the sediment basin. KDHE may approve alternate storage volumes if significant portions of undisturbed area drain to the sediment basin."	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas $\geq$ 10 acres. The EPA 2007 literature notes that the 2007 permit requires a storage capacity of 3,600 ft^3/acre and the Sediment Basin Design Criteria in the permit states, "rational method or other equivalent runoff calculations based on storage of a 2.6 inch rainfall event with a minimum runoff coefficient of 0.77 for disturbed acreage and appropriate runoff coefficients for undisturbed acreage must be provided to determine the revised storage volume requirement." The field guide for Missouri and Kansas says that for drainage areas of 20 acres or less, the sediment storage shall be 1,800 ft^3/acre with a detention time of at least 24 hours (EPA 2007).	None (EPA 2007)	Not specified; however, it states, "time should be minimized" (EPA 2007).
Kentucky	3,600 (EPA 2007; 2004 TDD Section 7)	The 2002 permit requires a basin sizing of 3,600 ft^3/acre for drainage locations >10 acres (EPA 2007). The EPA 2007 literature notes in the 2007 Draft Kentucky BMP Manual requires basin sizing of 3,600 ft^3/acre, not to exceed 10 acre-feet for areas 5 to 120 acres with the goal to provide a detention time of 24 to 48 hours and 80 percent TSS reduction for the 10-year, 24-hour storm.	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas $\geq$ 10 acres.	PG noted that there was only numeric standard requirements for Jefferson County and no statewide standard. 80% TSS removal only for Jefferson (EPA 2007). The 2002 Appendix A notes a goal of 80 percent TSS reduction (compared to pre-construction levels). A goal of 80 percent removal of TSS from flows that exceed predevelopment levels (2002 General KPDES Permit for Stormwater Point Source Discharges, Construction Activity, page IV-2).	14 days (unless covered with snow or construction will resume within 21 days) (EPA 2007).
Louisiana	3,600 (EPA 2007; 2004 TDD Section 7)	For 10 or more disturbed acres, either the smaller of 3,600 ft^3/acre or a 2-year, 24-hour storm. This does not apply to flows from off-	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas $\geq$ 10 acres. For drainage locations serving less than 10	Not directly applicable. There are standards for permitted support activities related to a construction site	14 days (EPA 2007)

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State	**Sediment basin storage volume (ft^3/acre drained)**	**Sediment basin (design parameters)**	**Sediment basin—notes/references**	**Numeric standard**	**Soil stabilization**
		site areas and flows from on-site areas that are either undisturbed of have undergone final stabilization where such flows are diverted around the sediment basin (EPA 2007).	acres, smaller sediment basins and/or sediment traps should be used. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all downslope boundaries of the construction area unless a sediment basin providing storage for a calculated volume of runoff from a 2-year, 24-hour storm or 3,600 ft^3 of storage per acre drained is provided (EPA 2007).	(cement and concrete facilities, hot mix asphalt/asphaltic concrete facilities, stockpiles of sand and gravel, and non-process area stormwater from cement, concrete, and asphalt facilities). They establish monthly monitoring requirements and discharge limitations for flow (parameters - TSS, TOC, Oil & Grease, and allowable ranges of pH) (EPA 2007).	
Maine	3,600 (2004 TDD Section 7)	No sizing criteria in permit (EPA 2007).	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas $\geq$ 10 acres. The EPA 2007 literature states in the 2003 Erosion and Sediment Control BMPs Manual that the capacity of the sediment basin shall be equal to the stormwater volume to be detained plus the volume of sediment expected to be trapped. Periodic removal of sediment will be necessary to maintain basin's capacity. Temporary basins having drainage areas of 5 acres or less and a total embankment height of 5 feet or less may be designed with less conservative criteria. Any excavated pond with a drainage area in excess of 5 acres, or spring flow in excess of 100 gallons per minute must be designed in accordance with embankment pond criteria. Excavated ponds must be designed to be drained within a 10-day period.	None (EPA 2007). The 2002 TDD Appendix A states: 40 to 80 percent TSS reduction. PG could not verify 2002 TDD Appendix A, and assumed no numeric standard.	14 days. Operators must stabilize with mulch, or other non-erodible cover, any exposed soils that will not be worked for more than 7 days. Must stabilize areas within 75 feet of a wetland or waterbody within 48 hours of the initial disturbance of the soil or before any storm event, whichever comes first (EPA 2007).
Maryland	3,600 (EPA 2007)	N/A	EPA 2007 (minimum of 3,600 ft^3/acre).	PG estimated no numeric standard. None (EPA 2007). The 2002 TDD Appendix A states an 80 percent TSS reduction based on the average annual TSS loading from all storm events less than or equal to the 2-year/24-hour storm; however, PG could not confirm for active construction sites.	14 days (7 days for steep slopes) (EPA 2007).
Massachusetts	3,600 (2004 TDD Section 7)	Basin size based on the runoff volume of a 2-year, 24-hour storm event (2002 TDD Appendix A).	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas $\geq$ 10 acres. In the EPA 2007 literature, it is noted that EPA issues permit.	PG estimated no numeric standard. None (EPA 2007). The 2002 TDD Appendix A notes an 80 percent TSS reduction; however, PG could not confirm for active construction sites.	14 days. In the EPA 2007 literature it is noted as 14 days with a CGP reference.
Michigan	3,600 (2004 TDD Section 7; 2002 TDD Appendix A)	N/A	The 2002 TDD Appendix A notes sites > 10 acres require an on-site temporary sediment basin. The 2004 TDD Section 7 also notes sediment basin	None (EPA 2007).	15 calendar days after final grading or the final earth change has been

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State	**Sediment basin storage volume (ft^3/acre drained)**	**Sediment basin (design parameters)**	**Sediment basin—notes/references**	**Numeric standard**	**Soil stabilization**
			drainage requirements for drainage areas ≥ 10 acres. The EPA 2007 literature notes that the 1998 Guidebook for Best Management Practices for Michigan Watersheds provides sediment basin design recommendations (see longer write-up for details) (EPA 2007). The 1998 Guidebook for Best Management Practices for Michigan Watersheds provides sediment basin design recommendations. A straightforward method requires a storage volume that is equal to 1/2 inch of runoff from the contributing watershed. (For residential areas, 1/2 inch of runoff would be about a 1-year rainfall event in Michigan). For the high percentage of particulate pollutant removal, the detention basin should be designed so that it will take at least 24 hours to drain the entire volume stored. (For more information, see chapter 3 of the guidebook).		completed (EPA 2007).
Minnesota	3,600 (EPA 2007; 2004 TDD Section 7)	For 10 or more disturbed acres; (1) The basins must provide storage below the outlet pipe for a calculated volume of runoff from a 2-year, 24-hour storm from each acre drained to the basin, except that in no case shall the basin provide less than 1,800 ft^3 of storage below the outlet pipe from each acre drained to the basin, (2) Where no such calculation has been performed, a temporary (or permanent) sediment basin providing 3,600 ft^3 of storage below the outlet pipe per acre drained to the basin shall be provided where attainable until final stabilization of the site (EPA 2007).	The 2004 TDD Section 7 also noted sediment basin drainage requirements for drainage areas ≥ 10 acres.	None; however, where an alternative, innovative treatment system is proposed and demonstrated by calculation, design or other independent methods to achieve 80 percent TSS removal a 2-year monitoring plan to sample runoff from the proposed method must be submitted (EPA 2007).	Steeper than 3:1, 7 days, 10:1 to 3:1, 14 days, flatter than 10:1, 21 days (EPA 2007)
Mississippi	3,600 (EPA 2007; 2004 TDD Section 7)	The Planning and Design Manual states that the maximum allowable drainage area into the basin shall be 25 acres. The design capacity of the basin must be at least 67 yd^3/acre (1809 ft^3/acre). The capacity of the basin may be estimated by 40% x Height x Surface Area. The basin spillway shall be designed to handle peak flow from a 10-year, 24-hour storm event. If a principal spillway is used in conjunction with an emergency spillway, the principal spillway shall have a minimum capacity of 0.2 cfs per acre of drainage area when the water surface is at the crest of the	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas ≥ 10 acres.	None (EPA 2007).	7 days. Within 7 days when a disturbed area will be left undisturbed for 30 days or more (EPA 2007).

State requirements—SUMMARY					
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		emergency spillway. The embankment of the sediment basin shall be temporarily seeded within 15 days after its completion. The basin should be designed according the following data sheet (see more detailed summaries in the manual) (EPA 2007).			
Missouri	3,600 (EPA 2007)	The 2007 permit states that basins are needed for 10 acres or more, with a basin sizing at least 3,600 ft^3/acre. In valuable water resource areas, the sediment basin needs to contain 1/2 inch of sediment from the drainage and withstand the 2-year, 24-hour storm (EPA 2007). PG noted that the 2007 permit 2-year, 24-hour storm event was not a statewide requirement (applies to valuable water resource areas).	The 2004 TDD Section 7 notes a sediment basin storage volume of 1,800 ft^3/acre drained. The EPA 2007 literature notes that in the 1995 Erosion and Sediment Manual the contributing area is recommended to be 20 acres or less and sized to store a minimum of 1,800 ft^3 per disturbed acre with a detention of at least 24 hours. The site should be vegetated and stabilized immediately after construction.	The 2002 TDD Appendix A notes that settleable solids less than 2.5 ml/L per hour for normal land disturbance, and 0.5 ml/L per hour for land disturbance within sensitive areas. The EPA 2007 literature notes that per the Missouri State Operating Permit General Permit MO-R109000 3/8/2002: Construction site discharges shall not violate Missouri Code of State Regulations General Water Quality Standards 10 CSR 20 7.031(3) or exceed a maximum settleable solids concentration of 2.5 ml/L per hour for each stormwater outfall. If the disturbed area is near a Valuable Resources Water settleable solids may not exceed 0.5 ml/L per hour.	14 days; however, if the slope of the area is greater than 3:1 (3 feet horizontal to 1 foot vertical) or if the slope is greater than 3 percent and greater than 150 feet in length, then interim stabilization within 7 days of ceasing operations on that part of the site is required (EPA 2007).
Montana	1,800 (2004 TDD Section 7)	No sizing criteria in permit (EPA 2007). The 2004 TDD Section 7 states that for a state program that did not note a sediment basin size, EPA assumed based on BPJ that the baseline size was 1,800 ft^3/acre. The 2002 TDD Appendix A notes a basin size based on the runoff volume of a 2-year, 24-hour storm event. PG could not verify the 2-year, 24-hour storm event.	In the EPA literature, it notes in the Erosion and Sediment Control Manual stating that desilting basins are appropriate for areas of disturbed soil between 5 acres and 10 acres in size. Desilting basins shall be designed to have a capacity equivalent to 100 m^3 (1500 ft^3) of storage (as measured from the top of the basin to the principal outlet,) per hectare (acre) of contributory area. This design is less than that required to capture 0.01 mm (0.0004 in) particle size, but larger than that required to capture particles 0.02 mm (0.0008 in) or larger. The depth must be no less than 1 m (3 ft) nor greater than 1.5 m (5 ft). Basins shall be designed to drain within 72 hours following storm events.	The EPA 2007 literature notes that BMPs must minimize or prevent "significant sediment" (as defined in Part VI of the General Permit p. 28) from leaving the construction site. Significant sediment means sediment, solids, or other wastes discharged from construction site, or a facility or activity regulated under the General Permit which exceeds 1.0 cubic foot in volume in any area of 100 square feet that may enter state surface water or a drainage that leads directly to state surface water.	Not specified (EPA 2007). 2002 TDD Appendix A confirmed no stabilization within 14 days.
Nebraska	1,800 (2004 TDD Section 7)	No sizing criteria in permit (EPA 2007). The EPA 2007 literature also noted that sediment basins required for 5 acres or more in size. Where slopes are equal to or steeper than 3:1, sediment basins may be required for smaller		None (EPA 2007).	14 days (Permit NER110000)

State requirements—SUMMARY					
State	**Sediment basin storage volume (ft^3/acre drained)**	**Sediment basin (design parameters)**	**Sediment basin—notes/references**	**Numeric standard**	**Soil stabilization**
		drainage areas. The 2004 TDD Section 7 states that for a state program that did not note a sediment basin size, EPA assumed based on BPJ that the baseline size was 1,800 ft^3/acre.			
Nevada	3,600 (EPA 2007; 2004 TDD Section 7)	The EPA 2007 literature notes in the 2002 permit states that basin requirements for drainage areas > 10 acres shall provided storage of 3,600 ft3/acre or for a 2-year, 24-hour storm event for each disturbed acre. For a drainage location that serves 10 or more acres disturbed at one time and where a temporary sediment basin or equivalent controls is not attainable, smaller sediment basins and/or sediment traps should be used.	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas $\geq$ 10 acres. The EPA 2007 literature notes to see design specifications from the Department of Conservation and Natural Resources (DCNR) and 1994 BMP manual.	None (EPA 2007).	14 days (EPA 2007).
New Hampshire	3,600 (EPA 2007; 2004 TDD Section 7)	The EPA 2007 literature references the CGP which specifies 3,600 ft^3/acre or 2-year, 24-hour runoff event.	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas $\geq$ 10 acres. The EPA 2007 literature notes that EPA's CGP applies, and to see the design specifications from the 1992 Erosion and Sediment Control Handbook.	PG estimated no numeric standard. The standard referenced is not relevant to stormwater, only for excavation dewatering. The EPA 2007 literature states, must treat any uncontaminated excavation dewatering discharges to remove TSS and turbidity. TSS must meet monthly average and maximum daily TSS limitations of 50 mg/L and 100 mg/L, respectively.	14 days (EPA 2007).
New Jersey	1,800 (2004 TDD Section 7)	The 2004 TDD Section 7 states that for a state program that did not note a sediment basin size, EPA assumed based on BPJ that the baseline size was 1,800 ft^3/acre.	New Jersey Erosion and Sediment Control and Stormwater Management Requirements state that Sediment Control Tanks shall be sized accordingly: 1 ft^3 of storage for each gallon per minute of pump discharge capacity. Tanks may be connected in series to increase effectiveness (EPA 2007).	None, standards are for post-construction (EPA 2007).	Not specified (EPA 2007). 2002 TDD Appendix A confirmed no stabilization within 14 days.
New Mexico	3,600 (EPA 2007; 2004 TDD Section 7)	EPA Region 6 issues permit—the 2003 general permit states that for 10 or more disturbed acres at one time, a temporary (or permanent) sediment basin providing at least 3,600 ft^3/acre drained shall be provided until final stabilization of the site. For drainage locations which serve 10 or more disturbed acres at one time and where a temporary sediment basin or equivalent controls is not attainable, smaller sediment basins and/or sediment traps should be used. For drainage locations serving less than 10 acres, smaller	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas $\geq$ 10 acres. The EPA 2007 literature notes that EPA Region 6 issues permit.	None (EPA 2007).	14 days (EPA 2007).

State requirements—SUMMARY					
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		sediment basins and/or sediment traps should be used. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries (and for those side slope boundaries deemed appropriate as dictated by individual site conditions) of the construction area unless a sediment basin providing storage for a calculated volume of runoff from a 2-year, 24-hour storm or 3,600 ft^3 of storage per acre drained is provided.			
New York	3,600 (2004 TDD Section 7). For alternate size standards, see New York's Standards and Specifications for Erosion and Sediment Control (August 2005).	The New York August 2005 Standards and Specification for Sediment and Erosion Control states that the minimum sediment storage volume of the basin, as measured from the bottom of the basin to the elevation of the crest of the principal spillway shall be at least 3,600 ft^3/acre draining to the basin. This 3,600 ft^3 is equivalent to one inch of sediment per acre of drainage area. The entire drainage area is used for this computation, rather than the disturbed area above, to maximize trapping efficiency. The length to width ratio shall be greater than 2:1, where length is the distance between the inlet and outlet. A wedge shape shall be used with the inlet at the narrow end.	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas $\geq$ 10 acres. The EPA 2007 literature notes to see details in New York's Standards and Specifications for Erosion and Sediment Control (August 2005).	None (EPA 2007).	7 days (Permit No. GP-0-08-001)
North Carolina	1,800 (EPA 2007; 2004 TDD Section 7)	The 2006 Erosion and Sediment Control Planning and Design Manual states that the sediment storage volume of the basin, as measured to the elevation of the crest of the principal spillway, is at least 1,800 ft^3/acre for the disturbed area draining into the basin (1,800 ft3 is equivalent to a 1/2 inch of sediment per acre of basin drainage area) for a maximum of 100 acres. See more details on basin design provided in manual (EPA 2007).	The EPA 2007 literature notes a sediment basin storage volume of 1,800 ft^3/acre drained.	None. None listed in EPA 2007 or 2002 TDD Appendix A.	None specified. 2002 TDD Appendix A confirms no stabilization within 14 days. 20 acres of total disturbance at any given time for areas discharging to high quality waters (2002 TDD Appendix A).
North Dakota	3,600 (EPA 2007)	The 2004 permit states that (for 10 or more acres) the basins shall be sized to provide 3,600 ft^3 of storage below the outlet pipe per acre drained to the basin. Alterative designs may be used which provide storage below the outlet for a calculated volume of runoff from a 2-year, 24-hour storm and provides not less	The 2004 TDD Section 7 notes a sediment basin storage volume of 1,800 ft^3/acre drained.	None (EPA 2007).	Not specified (EPA 2007). 2002 TDD Appendix A confirmed no stabilization within 14 days.

State requirements—SUMMARY					
State	**Sediment basin storage volume (ft^3/acre drained)**	**Sediment basin (design parameters)**	**Sediment basin—notes/references**	**Numeric standard**	**Soil stabilization**
		than 1,800 ft^3 of storage below the outlet pipe from each acre drained to the basin. (EPA 2007).			
Ohio	1,800 (EPA 2007; 2004 TDD Section 7)	N/A	The 2006 Rainwater and Land Development Manual states that for areas less than 100 acres, the volume of the dewatering zone shall be a minimum of 1,800 ft^3/acre of drainage (66.7 yd3/acre) (EPA 2007).	None (EPA 2007).	7 days, or 2 days if near stream (EPA 2007).
Oklahoma	3,600 (EPA 2007; 2004 TDD Section 7)	The EPA 2007 literature notes that the 2002 general permit states that for 10 or more acres drained the basin shall provide storage for a 2-year, 24-hour storm event or 3,600 ft^3 of storage per acre. The 2002 TDD Appendix A notes 3,600 ft^3/acre.	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas $\geq$ 10 acres.	None (EPA 2007).	14 days (EPA 2007).
Oregon	3,600 (EPA 2007)	N/A	Per the Oregon Erosion and Sediment Control Manual (April 2005), basin size shall be 3,600 ft3/acre and be designed by a professional engineer. The 2004 TDD Section 7 notes a sediment basin storage volume of 1,800 ft3/acre drained.	If discharging to a 303(d) listed waterbody or a waterbody with a TMDL for sediment and turbidity, sampling for turbidity is required to meet a 160 NTU benchmark. If unable to meet benchmark, an Action Plan using a BMP such as water treatment using electro-coagulation, chemical flocculation or filtration shall be implemented. (OR CGP)	1 day (PG assumed). The EPA 2007 literature notes apply temporary or permanent soil stabilization measures immediately on all disturbed areas as grading progresses.
Pennsylvania	5,000 (EPA 2007)	The EPA 2007 literature notes that the 2005 permit states that (1) A sediment storage zone of 1,000 ft^3 per disturbed acre within the watershed of the basin is required; (2) A dewatering zone of 5,000 ft^3 for each acre tributary to the basin is to be provided. Reductions in the dewatering zone are allowed unless the basins is in a HQ or EV watershed, however the minimum required dewatering zone is at least 3,600 ft^3/acre. (3,600 to 6,000 ft3/acre + 1,800 ft3/acre = 4,800 to 6,000 ft3/acre, assumed 5,000 ft3/acre). The 2002 TDD Appendix A notes a 5-year runoff event for water quality treatment.	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas $\geq$ 10 acres. The 2002 TDD Appendix A states that basins volumes should drain no quicker than 4 days and no longer than 7 days.	None (EPA 2007).	Not specified (EPA 2007). 2002 TDD Appendix A confirmed no stabilization within 14 days.
Rhode Island	1,800 (2004 TDD Section 7)	The 2004 TDD Section 7 states that for a state program that did not note a sediment basin size, EPA assumed based on BPJ that the baseline size was 1,800 ft^3/acre. The EPA	The Stormwater Design and Installation Standards Manual and the Soil Erosion and Sediment Control Handbook were not reviewed.	PG estimated no numeric standard. None (EPA 2007). The 2002 TDD Appendix A notes 80 to 90 percent TSS reduction; however, PG could not	14 days (EPA 2007).

State requirements—SUMMARY					
State	**Sediment basin storage volume (ft^3/acre drained)**	**Sediment basin (design parameters)**	**Sediment basin—notes/references**	**Numeric standard**	**Soil stabilization**
		2007 literature notes no sizing criteria in permit. The 2002 TDD Appendix A notes a 10-year runoff event for water quality treatment.		confirm for active construction runoff.	
South Carolina	3,600 (EPA 2007; 2004 TDD Section 7)	The EPA 2007 literature notes basin sizing requirements for 10 or more acres provide storage for a 10-year, 24-hour storm event or at least 3,600 ft^3/acre. (10–year, 24-hour Soil Conservation Service (SCS) Type II, or Type III (coastal zone) storm event). The 2002 TDD Appendix A notes 3,600 ft^3/acre.	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas $\geq$ 10 acres.	PG estimated no numeric standard. The EPA 2007 literature notes 80 percent of TSS removal for drainage areas > 5 acres. The 2002 TDD Appendix A notes 80 percent TSS reduction; however, PG could not confirm for active construction runoff.	14 days. As soon as possible (ASAP), but no later than 14 days (EPA 2007).
South Dakota	3,600 (EPA 2007; 2004 TDD Section 7)	The 2002 TDD Appendix A notes a 5-year runoff event for water quality treatment. (PG could not find reference for this).	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas $\geq$ 10 acres.	None (EPA 2007).	14 days (EPA 2007).
Tennessee	3,600 (EPA 2007; 2004 TDD Section 7)	The EPA 2007 literature notes that the 2005 permit states to design for a 2-year, 24-hour storm for 10 or more acres. Also, the 2002 Erosion and Sediment Control Handbook states that the total storage volume of the basin at the spillway should be at least 134 cubic yards (3,618 ft^3) per acre of drainage area. The volume of the permanent pool must be at least 67 cubic yards (1,809 ft^3) per acre of drainage area and the volume of dry storage must be at least an additional 67 cubic yards (1,809 ft^3) per acre of drainage area. The emergency spillway should be able to handle a 2-year or 5-year, 24-hour storm event. The outlets for the basin should pass the peak runoff expected from the contributing drainage area for a 25-year, 24-hour storm.	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas $\geq$ 10 acres.	None (EPA 2007).	15 days, Pre-construction vegetative ground cover shall not be destroyed, removed or disturbed more than 10 days before grading or earth moving unless the area is seeded and/or mulched or other temporary cover is installed. Construction must be phased for projects in which over 50 acres of soil will be disturbed. No more than 50 acres of active soil disturbance is allowed at any time during the construction project (EPA 2007).
Texas	3,600 (EPA 2007; 2004 TDD Section 7)	The EPA 2007 literature notes that the 2003 Permit states that sediment basins are required where feasible for common drainage locations that serve an area with 10 or more acres disturbed at one time. The temporary (or permanent) sediment basin should provide storage for a calculated volume of runoff from a 2-year, 24-hour storm from each disturbed acre drained. Where rainfall data is not available or a calculation cannot be	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas $\geq$ 10 acres.	None, except for concrete batch plants (EPA 2007)	14 days (EPA 2007)

State requirements—SUMMARY					
State	**Sediment basin storage volume (ft^3/acre drained)**	**Sediment basin (design parameters)**	**Sediment basin—notes/references**	**Numeric standard**	**Soil stabilization**
		performed, a sediment basin providing 3,600 ft^3 of storage per acre drained is required where attainable until final stabilization of the site. The 2002 TDD Appendix A notes 3,600 ft^3/acre.			
Utah	3,600 (EPA 2007; 2004 TDD Section 7)	The EPA 2007 literature notes that the 2002 permit says for 10 or more acres basin storage shall provide for a 10-year, 24-hour storm event, or 3,600 ft^3/acre. Permit No.: UTRI00000 (10/31/200) states "...sediment basin that provides storage for a 10-year, 24-hour storm event, a calculated volume of runoff for disturbed acres drained, or equivalent control measures, until final stabilization of the site. Where calculations are not performed, a sediment basin providing 3,600 ft^3 of storage per acre drained (a 1 inch storm event)"	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas $\geq$ 10 acres.	None (EPA 2007).	14 days (EPA 2007).
Vermont	1,800 (2004 TDD Section 7)	The EPA 2007 literature notes basin sizing of 3,600 ft^3/acre for moderate risk only, and no sizing criteria in permit. The 2004 TDD Section 7 states that for a state program that did not note a sediment basin size, EPA assumed based on BPJ that the baseline size was 1,800 ft^3/acre.	EPA 2007 literature found no sizing criteria and found 3,600 ft^3/acre for moderate risk only; therefore, assumed 1,800 per BPJ from 2004 TDD Section 7.	Vermont's CGP issued February, 2008 contains a numeric action level of 25 NTU for moderate-risk sites.	21 days, for low or moderate risk activities only (EPA 2007).
Virginia	3,600 (EPA 2007; 2004 TDD Section 7)	The EPA 2007 literature notes that the Virginia Erosion and Sediment Control regulations state that sediment traps and sediment basins shall be designed and constructed based on the total drainage area to be served by the trap or basin. Surface runoff from disturbed areas that is comprised of flow from drainage areas greater than or equal to three acres shall be controlled by a sediment basin. The minimum storage capacity of a sediment basin shall be 134 cubic yards per acre (3,618 ft^3) of drainage area. The outfall system shall, at a minimum, maintain the structural integrity of the basin during a 25-year, 24-hour duration storm event. Runoff coefficients used in runoff calculations shall correspond to a bare earth condition or those conditions expected to exist while the sediment basin is used. The 2002 TDD	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas $\geq$ 10 acres.	None (EPA 2007)	7 days (EPA 2007)

State requirements—SUMMARY					
State	**Sediment basin storage volume (ft^3/acre drained)**	**Sediment basin (design parameters)**	**Sediment basin—notes/references**	**Numeric standard**	**Soil stabilization**
		Appendix A notes that sediment basins required for sites of 10 acres or more (except those with final stabilization); for sites less than 10 acres, same units required but only for sideslope and downslope boundaries of construction sites.			
Washington	3,600 (eastern WA only). For alternate size standards, see WA BMP C241.	The 2002 TDD Appendix A notes a 24-hour/6-month storm for water quality treatment. 2-year (or 10-year peak if warranted) OR Rational Method See Eastern Washington BMP C241 (http://www.ecy.wa.gov/pubs/0410076/7.pdf). Western Washington has the same storm events but does not specifically mention 3,600 ft^3/acre.	The EPA 2007 literature notes basin requirements are different for western and eastern parts of State—see manuals. The 2004 TDD Section 7 notes a sediment basin storage volume of 1,800 ft^3/acre drained.	Statewide standard varies with background. PG noted that the WAC 173-201A-030 has been replaced with the WAC 173-201A-200 Freshwater designated uses and criteria (updated 2006). Table 200 (1) (e) contains updated aquatic life turbidity criteria. The EPA 2007 literature states that the Water Quality Standards for Surface Waters of the State of Washington WAC 173-201A-030 (1) (vi) states that turbidity shall not exceed 5 NTU over background turbidity when the background turbidity is 50 NTU or less, or has more than a 10 percent increase in turbidity when the background turbidity is more than 50 NTU.	Both the EPA literature and the 2002 TDD Appendix A note that stabilization varies by time of year and location in State. West of the Cascade Mountains Crest: During the dry season (May 1–Sept. 30): 7 days; during the wet season (October 1–April 30): 2 days.
Washington, Small Parcel		The 2002 TDD Appendix A notes a 24-hour/6-month storm for water quality treatment.			
West Virginia	3,600 (EPA 2007; 2004 TDD Section 7)	The EPA 2007 literature notes that the 2002 permit states sediment basins and traps will be installed with 3,600 ft^3 of storage, measured from the bottom elevation of the structure to the top of the riser or weir, per acre of drainage and will have draw down times of 48 to 72 hours. The 2002 TDD Appendix A notes runoff from a 2-year storm required for water quality treatment (PG could not confirm with state literature).	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas $\geq$ 10 acres.	None (EPA 2007).	7 days (EPA 2007).
Wisconsin	1,800 (2004 TDD Section 7). For alternate size standards, see WI DNR Conservation Practice Standard 1064.	The EPA 2007 literature notes in the Technical Standards document that basins shall be used for greater than 5 to 100 acres. The sizing criteria for determining treatment surface area of a sediment basin are based on the soil texture and peak outflow during the 1-year, 24-hour design storm. The overflow		The EPA 2007 literature notes that the current standard in Wisconsin (NR 151.11 pg 409) requires construction sites to implement erosion and sediment controls to reduce to the maximum extent practicable 80 percent of the sediment load carried in runoff on an	Not specified (EPA 2007). 2002 TDD Appendix A confirmed no stabilization within 14 days.

State requirements—SUMMARY					
State	**Sediment basin storage volume (ft^3/acre drained)**	**Sediment basin (design parameters)**	**Sediment basin—notes/references**	**Numeric standard**	**Soil stabilization**
		spillway should be designed to carry the peak rate of runoff expected from a 10-year, 24-hour design storm. The 2004 TDD Section 7 states that for a state program that did not note a sediment basin size, EPA assumed based on BPJ that the baseline size was 1,800 ft^3/acre.		annual basis, compared to a baseline of no sediment or erosion controls.	
Wyoming	1,800 (2004 TDD Section 7)	The EPA 2007 literature notes No sizing criteria in the permit, and the 1999 Urban Best Management Practice (BMP) manual says use basins for 5 to 100 acres. The 2004 TDD Section 7 states that for a state program that did not note a sediment basin size, EPA assumed based on BPJ that the baseline size was 1,800 ft^3/acre.	1,800 ft^3/acre based on 2004 TDD Section 7.	Standard varies with background. The EPA 2007 literature notes that for cold water fisheries and drinking water supplies turbidity level increases must be less than 10 NTUs; for warm water /nongame fisheries turbidity level increases must be less than 15 NTUs. However, an exception shall apply to the North Platte River from Guernsey Dam to the Nebraska line during the annual "silt run" from Guernsey Dam. The 2002 TDD Appendix A notes turbidity levels must be less than 10 to 15 NTUs.	28 days, temporary stabilization (such as cover crop plantings, mulching or erosion controls blankets, surface roughening, etc.) for exposed soil areas where activities have permanently or temporarily ceased should be installed whenever practicable in areas where further work is not expected for 28 days or more (EPA 2007).
Puerto Rico					
District of Columbia	3,600 (EPA 2007; 2004 TDD Section 7)	Basin sizing for 2-year, 24-hour storm (EPA 2007).	The 2004 TDD Section 7 notes sediment basin drainage requirements for drainage areas $\geq$ 10 acres.	None (EPA 2007)	14 days (EPA 2007)

State requirements: Environmental Protection Agency (EPA) 2007							
State	**Sediment basin general requirements**	**Sediment basins notes/other requirements**	**Soil stabilization**		**Numeric standard**	**Water quality requirements**	**Other notes**
			Notes/other requirements	**Days**			
Alabama	Basin sizing of 1,800 ft^3/acre.	8-hour detention time for sites greater than 5 acres.		13	No	There are no standards, but the manual recommends that detention basins provide 1/2 inch of runoff storage and that discharge be at the 2-year predevelopment rate to minimize downstream erosion.	
Alaska	Basin sizing of 1,800 ft^3/acre plus 1.5 ft for sediment accumulation—generally designed to remove medium silt (62 microns) particles.	Construction General Permit (CGP)	CGP		No	None	
Arizona	Basin sizing of 3,600 ft^3/acre or 2-year, 24-hour.			14	No	None	
Arkansas	Basin sizing of 3,600 ft^3/acre or 10-year, 24-hour.			14	80 percent removal of TSS from flows exceeding predevelopment levels, where practicable.	None	
California	Several standards exist, including a basin sizing of 3,600 ft^3/acre as well as a settling velocity approach		Not specified		California's draft CGP includes turbidity effluent levels of 1,000 NTU. If Active Treatment Systems are used, the daily flow-weighted average is 10 NTU and the maximum for any single sample is 20 NTU.	85 percent of storm events from specific development categories must be infiltrated or treated per the Standard Urban Stormwater Mitigation Plan (SUSMP).	
Colorado	Colorado Department of Transportation (CDOT) specifies 3,600 ft^3/acre sediment basin sizing.	Colorado requires preparation of a stormwater pollution prevention plan (SWPPP) but does not specify specific sizing for BMPs. No statewide erosion and sediment control manual exists. Extensive requirements exist at the local level. Specifically, Douglas County requires that disturbed areas be drill seeded, crimped and mulched, or permanently landscaped within 30 days from the start of land disturbance activities or within 7 days of the substantial	Douglas County requires that disturbed areas be drill seeded and crimp mulched, or permanently landscaped, within 30 days from the start of land disturbance activities or within 7 days of the substantial completion of grading and topsoiling operations, whichever duration is shorter.	see notes	No	None	

State requirements: Environmental Protection Agency (EPA) 2007							
State	**Sediment basin general requirements**	**Sediment basins notes/other requirements**	**Soil stabilization**		**Numeric standard**	**Water quality requirements**	**Other notes**
			Notes/other requirements	**Days**			
		completion of grading and topsoiling operations, whichever duration is shorter.					
Connecticut	Basin sizing of 3,600 ft^3/acre.	Required for sites greater than 2 acres.	Where construction activities have permanently ceased or have temporarily been suspended for more than 7 days, or when final grades are reached in any portion of the site, stabilization practices shall be implemented within three days. Areas that will remain disturbed but inactive for at least 30 days shall receive temporary seeding. Areas that will remain disturbed beyond the planting season, shall receive long-term, nonvegetative stabilization sufficient to protect the site through the winter.	3	80% TSS [A goal of 80 percent removal of TSS - 2004 Connecticut Stormwater Quality Manual, Chapter 6.]	[Requires treatment of] 1 inch, which equals 90 percent of average annual runoff.	
Delaware	Basin sizing of 3,600 ft^3/acre.			14	No	[Recommended treatment volume for] 2 inches of rainfall, up to 1 inch of runoff. Goal is to remove 80 percent of the annual TSS load, classified as a post construction standard.	
Florida	Basin sizing of 3,600 ft^3/acre.			7	No	Requirements vary by region. Generally, it appears that 0.5 inch to 1 inch of runoff is a recommended treatment volume.	
Florida, DEP, Northern District (only applies in NW Florida)							
Florida, South Florida Water Management							

State requirements: Environmental Protection Agency (EPA) 2007							
State	Sediment basin general requirements	Sediment basins notes/other requirements	Soil stabilization		Numeric standard	Water quality requirements	Other notes
			Notes/other requirements	Days			
District (General, Standard General, Noticed General and Individual Permits)							
Florida, Southwest Florida Water Management District							
Florida, St. Johns River Water Management District							
Florida, Suwannee River Water Management District							
Georgia	Basin sizing of 1,800 ft^3/acre.			14	Receiving water turbidity standard—cannot increase turbidity by more than 25 NTU in warm waters and 10 NTU in cold water trout streams. Allowable turbidity in effluent varies based on site size and receiving stream drainage area.	Requires treatment of 85 percent of annual runoff, which equates to 1.2-inch storm event depth.	New development standards apply to sites that create 5,000 square feet of impervious area or disturb 5,00 or more square feet
Hawaii	Basin sizing of 3,600 ft^3/acre or 2-year, 24-hour for drainage areas $\geq$ 10 or more acres.			30		Reduce the average annual TSS loadings by 80 percent based on the average annual TSS loadings from all storms less than or equal to the 2-year, 24-hour storm. Reduce the post-development loadings of TSS so that the average annual TSS loadings are no greater than	The Hawaii Department of Health's Clean Water Branch (CWB) is responsible for administrating the state's stormwater management plan. No numeric requirements for stormwater

State requirements: Environmental Protection Agency (EPA) 2007							
State	Sediment basin general requirements	Sediment basins notes/other requirements	Soil stabilization		Numeric standard	Water quality requirements	Other notes
			Notes/other requirements	Days			
						predevelopment loadings. To the extent practicable, maintain post-development peak runoff rate and average volume at levels that are similar to predevelopment levels. For design purposes, post-development peak runoff rate and average volume should be based on the 2-year/24-hour storm.	pollutant removal have been established at the state level, but regional and municipal regulations are in place. For example, the city and county of Honolulu has developed a stormwater management plan and BMP manual for controlling stormwater within the limits of the city and the county. The counties of Hawaii, Maui, Kauai, and the city and county of Honolulu are responsible for planning and zoning in urban districts. They have additional responsibilities that include state-mandated county regulatory programs dealing with erosion control, urban design, and other areas. The Hawaii Coastal Nonpoint Pollution Program Management Plan, Part III and Hawaii's Implementation Plan for Polluted Runoff Control

State requirements: Environmental Protection Agency (EPA) 2007							
State	Sediment basin general requirements	Sediment basins notes/other requirements	Soil stabilization		Numeric standard	Water quality requirements	Other notes
			Notes/other requirements	Days			
							contain descriptions of management measures for urban areas to address runoff. These are the requirements described in this summary.
Idaho	Basin sizing of 3,600 ft^3/acre or 2-year, 24-hour for drainage areas $\geq$ 10 or more acres.			14			EPA issues permits in Idaho because the state has not been delegated authority to issue NPDES construction permits.
Illinois	No sizing criteria in permit.	The 2002 Illinois Urban Manual states that the basin requirements shall be based on a 2-year, 24-hour storm or 134 cubic yards/acre (i.e., 3,600 ft^3/acre)—whichever is greater.	Stabilization within 14 days (unless covered with snow or construction will resume within 21 days).	14	No		
Indiana	No sizing criteria in permit.	Exist for some areas in the state.		15	Not applicable. Only in certain parts of Indiana (e.g., 80 percent of TSS removal in Marion County) (EPA 2007).		
Iowa	Basin sizing of 3,600 ft^3/acre. The 2002 permit states that a sediment basin shall be installed for drainage area more than 10 acres disturbed. (Flows from upland areas that are undisturbed may be diverted around the basin).	The 2006 Iowa Construction Site Erosion Control Manual states that the size of the sediment basin, is as measured from the bottom of the basin to the principal spillway and should provide at least 3,600 ft^3 of storage per acre of drainage. This provides storage equal to 1 inch of runoff per acre. Likewise, 1,800 ft^3 amounts to 1/2 inch of sediment storage per acre. The basin should be cleaned when the volume of sediment reaches 900 ft^3/acre. At this time, the cleanout shall be performed to restore the original design capacity of the basin. At no time should the sediment level be permitted to build higher than 1 ft below the principal outlet.	Stabilization within 14 days (unless covered with snow or construction will resume within 21 days).	14	No		

State requirements: Environmental Protection Agency (EPA) 2007							
State	Sediment basin general requirements	Sediment basins notes/other requirements	Soil stabilization		Numeric standard	Water quality requirements	Other notes
			Notes/other requirements	Days			
Kansas	The 2007 permit requires a storage capacity of 3,600 ft^3/acre and the Sediment Basin Design Criteria in the permit states, "rational method or other equivalent runoff calculations based on storage of a 2.6-inch rainfall event with a minimum runoff coefficient of 0.77 for disturbed acreage and appropriate runoff coefficients for undisturbed acreage must be provided to determine the revised storage volume requirement."	The field guide for Missouri and Kansas says that for drainage areas of 20 acres or less, the sediment storage shall be 1,800 ft^3/acre with a detention time of at least 24 hours.	None specified; state that "time should be minimized."	N/A	No		
Kentucky	The 2002 permit requires a basin sizing of 3,600 ft^3/acre for drainage locations >10 acres.	The 2007 Draft Kentucky BMP Manual requires basin sizing of 3,600 ft^3/acre, not to exceed 10 acre-feet for areas 5 to 120 acres. The goal is to reduce TSS by 80 percent for the 10-year, 24-hour storm, or provide a detention time of 24 to 48 hours for the 10-year, 24-hour storm.	Stabilization within 14 days (unless covered with snow or construction will resume within 21 days).	14	80% TSS (EPA 2007). A goal of 80 percent removal of TSS from flows that exceed predevelopment levels (2002 General KPDES Permit for Stormwater Point Source Discharges, Construction Activity, page IV-2)		
Louisiana	For 10 or more disturbed acres either the smaller of 3,600 ft^3/acre or a 2-year, 24-hour storm. This does not apply to flows from off-site areas and flows from on-site areas that are either undisturbed of have undergone final stabilization where such flows are diverted around the sediment basin. For drainage locations serving less than 10 acres, smaller sediment basins and/or sediment traps should be used. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all downslope boundaries of the construction area unless a sediment basin providing storage for a calculated volume of runoff from a 2-year, 24-hour storm or			14	There are standards for permitted support activities related to a construction site (cement and concrete facilities, hot mix asphalt/asphaltic concrete facilities, stockpiles of sand and gravel, and non-process area stormwater from cement, concrete, and asphalt facilities). They establish monthly monitoring requirements and discharge limitations for flow (parameters: TSS, TOC, Oil & Grease, and allowable ranges of pH).		

State requirements: Environmental Protection Agency (EPA) 2007							
State	Sediment basin general requirements	Sediment basins notes/other requirements	Soil stabilization		Numeric standard	Water quality requirements	Other notes
			Notes/other requirements	Days			
	3,600 ft^3 of storage per acre drained is provided.						
Maine	No sizing criteria in permit.	The 2003 Erosion and Sediment Control BMPs Manual states that the capacity of the sediment basin shall be equal to the stormwater volume to be detained plus the volume of sediment expected to be trapped. Periodic removal of sediment will be necessary to maintain basin's capacity. Temporary basins having drainage areas of 5 acres or less and a total embankment height of 5 feet or less may be designed with less conservative criteria. Any excavated pond with a drainage area in excess of 5 acres, or spring flow in excess of 100 gallons per minute must be designed in accordance with embankment pond criteria. Excavated ponds must be designed to be drained within a 10-day period.	Operators must stabilize with mulch, or other non-erodible cover, any exposed soils that will not be worked for more than 7 days. They must stabilize areas within 75 feet of a wetland or waterbody within 48 hours of the initial disturbance of the soil or before any storm event, whichever comes first. They are also required to remove any temporary control measures, such as silt fences, within 30 days after permanent stabilization is attained.	14	No		
Maryland		The 1994 Erosion and Sediment Control requirements states that the minimum storage volume for sediment basins is 3,600 ft^3/acre of contributing drainage area, equally divided between wet storage and dry storage. The specified drawdown time from the crest of the basin to the permanent pool level is 10 hours (minimum). The state standards do not specify minimum site sizes where sediment basins are required, but it is assumed based on the sediment trap applicability criteria that sediment basins are required for contributing drainage areas of 10 or more acres.	Stabilization is 14 days (7 days for steep slopes).	14	No		
Massachusetts	EPA issues permit.	The 2003 Erosion and Sediment Control guidelines says the drainage area for the sediment basin should be no more than 100 acres with a life span of 3 years unless it is designed as a permanent structure. The	CGP reference.	14	No		

State requirements: Environmental Protection Agency (EPA) 2007							
State	**Sediment basin general requirements**	**Sediment basins notes/other requirements**	**Soil stabilization**		**Numeric standard**	**Water quality requirements**	**Other notes**
			Notes/other requirements	**Days**			
		sediment basin should have a minimum volume based on 1⁄2 inch of storage for each acre of drainage area. This volume equates to 1,800 ft^3 of storage or 67 cubic yards for each acre of drainage area. The sediment basin should have a total spill way capacity for a 10-year peak flow with a 1-foot freeboard. Freeboard is the difference between the design flow elevation in the emergency spillway and the top elevation of the embankment.					
Michigan		1998 Guidebook for Best Management Practices for Michigan Watersheds provides sediment basin design recommendations (see longer write-up for details). The 1998 Guidebook for Best Management Practices for Michigan Watersheds provides sediment basin design recommendations. A straightforward method requires a storage volume that is equal to one-half inch of runoff from the contributing watershed. (For residential areas, 1/2 inch of runoff would be about a 1-year rainfall event in Michigan). For the high percentage of particulate pollutant removal, the detention basin should be designed so that it will take at least 24 hours to drain the entire volume stored. (For more information, see chapter 3 of the guidebook.)	Stabilization within 15 calendar days after final grading or the final earth change has been completed.	15	No		
Minnesota	For 10 or more disturbed acres; (1) The basins must provide storage below the outlet pipe for a calculated volume of runoff from a 2-year, 24-hour storm from each acre drained to the basin, except that in no case shall the basin provide less than 1,800 ft^3 of storage below the outlet pipe from each acre drained to the basin, (2) Where		Steeper than 3:1, 7 days, 10:1 to 3:1, 14 days, flatter than 10:1, 21 days	7, 14 or 21 (see notes)	No - Where an alternative, innovative treatment system is proposed and demonstrated by calculation, design or other independent methods to achieve 80 percent TSS removal a 2-year monitoring plan to sample runoff from the proposed method must be submitted.		

State requirements: Environmental Protection Agency (EPA) 2007							
State	**Sediment basin general requirements**	**Sediment basins notes/other requirements**	**Soil stabilization**		**Numeric standard**	**Water quality requirements**	**Other notes**
			Notes/other requirements	**Days**			
	no such calculation has been performed, a temporary (or permanent) sediment basin providing 3,600 ft^3 of storage below the outlet pipe per acre drained to the basin shall be provided where attainable until final stabilization of the site.						
Mississippi	The 2005 general permit states that for 10 or more acres disturbed at one time, a temporary (or permanent) sediment basin providing at least 3,600 ft^3/acre drained shall be provided until final stabilization of the site.	The Planning and Design Manual states that the maximum allowable drainage area into the basin shall be 25 acres. The design capacity of the basin must be at least 67 yd^3/acre (1809 ft^3/acre). The capacity of the basin may be estimated by 40% x Height x Surface Area. The basin spillway shall be designed to handle peak flow from a 10-year, 24-hour storm event. If a principal spillway is used in conjunction with an emergency spillway, the principal spillway shall have a minimum capacity of 0.2 cfs per acre of drainage area when the water surface is at the crest of the emergency spillway. The embankment of the sediment basin shall be temporarily seeded within 15 days after its completion. The basin should be designed according the following data sheet (see more detailed summaries in the manual).	Within 7 calendar days when a disturbed area will be left undisturbed for 30 days or more.	7	No		Different general permits exist for large and small (1 to < 5 acres).
Missouri	The 2007 permit states that basins are needed for 10 acres or more, with a basin sizing at least 3,600 ft^3/acre. In valuable water resource areas the sediment basin needs to contain 1/2 inch of sediment from the drainage and withstand the 2-year, 24-hour storm. The basin spillway or embankment requires stabilization to minimize potential for erosion.	The 1995 Erosion and Sediment Manual says the contributing area is recommended to be 20 acres or less and sized to store a minimum of 1,800 ft^3 per disturbed acre with a detention of at least 24 hours. The site should be vegetated and stabilized immediately after construction.	Stabilization at 14 days; however if the slope of the area is greater than 3:1 (3 feet horizontal to 1 foot vertical) or if the slope is greater than 3 percent and greater than 150 feet in length, then interim stabilization within 7 days of ceasing operations on that part of the site is required.	7 or 14 (see notes)	Per the Missouri State Operating Permit General Permit MO-R109000 3/8/2002: Construction site discharges shall not violate Missouri Code of State Regulations General Water Quality Standards 10 CSR 20 7.031(3) or exceed a maximum settleable solids concentration of 2.5 ml/L per hour for each stormwater outfall. If the disturbed area is		

State requirements: Environmental Protection Agency (EPA) 2007							
State	**Sediment basin general requirements**	**Sediment basins notes/other requirements**	**Soil stabilization**		**Numeric standard**	**Water quality requirements**	**Other notes**
			Notes/other requirements	**Days**			
					near a Valuable Resources Water, settleable solids may not exceed 0.5 ml/L per hour.		
Montana	No sizing criteria in permit.	The Erosion and Sediment Control Manual states that desilting basins are appropriate for areas of disturbed soil between 5 acres and 10 acres in size. Desilting basins shall be designed to have a capacity equivalent to 100 m^3 (1500 ft^3) of storage (as measured from the top of the basin to the principal outlet,) per hectare (acre) of contributory area. This design is less than that required to capture 0.01 mm (0.0004 in) particle size, but larger than that required to capture particles 0.02 mm (0.0008 in) or larger. The depth must be no less than 1 m (3 ft) nor greater than 1.5 m (5 ft). Basins shall be designed to drain within 72 hours following storm events.		N/A	BMPs must minimize or prevent significant sediment (as defined in Part VI of the General Permit p. 28) from leaving the construction site. Significant sediment means sediment, solids, or other wastes discharged from construction site, or a facility or activity regulated under the General Permit that exceeds 1.0 cubic foot in volume in any area of 100 square feet that may enter state surface water or a drainage that leads directly to state surface water.		
Nebraska	Sediment basins required for 5 acres or more in size. Where slopes are equal to or steeper than 3:1, sediment basins may be required for smaller drainage areas.	None	Temporary or permanent seeding shall be established as soon as possible after grading and clearing activities are completed, and during interim periods on areas that are not being actively worked. Whenever exposed soils are not to be graded for 30 days or more, temporary or permanent seeding needs to be initiated, unless other stabilization methods are used or such need can be justified as unnecessary due to mitigating conditions present at the site.	30 (see notes)	No		
Nevada	The 2002 permit states that basin requirements for drainage areas $\geq$ 10 acres shall provided storage of 3,600 ft^3/acre or for a 2-year, 24-hour storm event for each disturbed acre. For a drainage	See design specifications from the Department of Conservation and Natural Resources (DCNR) and 1994 BMP manual.		14	No		

State requirements: Environmental Protection Agency (EPA) 2007							
State	**Sediment basin general requirements**	**Sediment basins notes/other requirements**	**Soil stabilization**		**Numeric standard**	**Water quality requirements**	**Other notes**
			Notes/other requirements	**Days**			
	location which serves ten or more acres disturbed at one time and where a temporary sediment basin or equivalent controls is not attainable, smaller sediment basins and/or sediment traps should be used.						
New Hampshire	EPA's CGP applies.	See the design specifications from the 1992 Erosion and Sediment Control Handbook.		14	Yes, see monitoring. Must treat any uncontaminated excavation dewatering discharges to remove TSS and turbidity. Must sample at a location before mixing with stormwater at least once per week during weeks when discharges occur. TSS must meet monthly average and maximum daily TSS limitations of 50 mg/L and 100 mg/L, respectively. Records of any sampling and analysis must be maintained and kept with the SWPPP for at least 3 years after final site stabilization. Applicable only to certain size sites.		
New Jersey		New Jersey Erosion and Sediment Control and Stormwater Management Requirements state that Sediment Control Tanks shall be sized accordingly: 1 cubic foot of storage for each gallon per minute of pump discharge capacity. Tanks may be connected in series to increase effectiveness.	None	N/A	A major development project that creates at least 0.25 acres of new or additional impervious surface must include stormwater management measures that reduce the average annual TSS load in the development site's post-construction runoff by 80 percent. In addition, these stormwater management measures must reduce the average annual nutrient load in the post-construction runoff by the maximum extent feasible. For various BMPs for more detailed TSS and nutrient removal rates, see Chapter 4 of the New Jersey Stormwater		

State requirements: Environmental Protection Agency (EPA) 2007							
State	Sediment basin general requirements	Sediment basins notes/other requirements	Soil stabilization		Numeric standard	Water quality requirements	Other notes
			Notes/other requirements	Days			
					Best Management Practices Manual.		
New Mexico	EPA Region 6 issues permit—the 2003 general permit states that for 10 or more disturbed acres at one time, a temporary (or permanent) sediment basin providing at least 3,600 ft^3/acre drained shall be provided until final stabilization of the site. For drainage locations which serve 10 or more disturbed acres at one time and where a temporary sediment basin or equivalent controls is not attainable, smaller sediment basins and/or sediment traps should be used. For drainage locations serving less than 10 acres, smaller sediment basins and/or sediment traps should be used. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries (and for those side slope boundaries deemed appropriate as dictated by individual site conditions) of the construction area unless a sediment basin providing storage for a calculated volume of runoff from a 2-year, 24-hour storm or 3,600 ft^3 of storage per acre drained is provided.			14	No		
New York		See details in New York's Standards and Specifications for Erosion and Sediment Control (August 2005).		14	No		
North Carolina		The 2006 Erosion and Sediment Control Planning and Design Manual states that the sediment storage volume of the basin, as measured to the elevation of the crest of the principal spillway, is at least 1,800 ft^3/acre for the disturbed area draining		N/A			

State requirements: Environmental Protection Agency (EPA) 2007							
State	Sediment basin general requirements	Sediment basins notes/other requirements	Soil stabilization		Numeric standard	Water quality requirements	Other notes
			Notes/other requirements	Days			
		into the basin (1,800 ft^3 is equivalent to a 1/2 inch of sediment per acre of basin drainage area) for a maximum of 100 acres. See more details on basin design provided in manual.					
North Dakota	The 2004 permit states that (for 10 or more acres) the basins shall be sized to provide 3,600 ft^3 of storage below the outlet pipe per acre drained to the basin. Alterative designs may be used which provide storage below the outlet for a calculated volume of runoff from a 2-year, 24-hour storm and provides not less than 1,800 ft^3 of storage below the outlet pipe from each acre drained to the basin.		None	N/A	No		
Ohio	The 2003 permit states that a sediment settling pond shall be sized to provide at least 67 cubic yards of storage per acre or 1809 ft^3/acre.	The 2006 Rainwater and Land Development Manual states that for areas less than 100 acres, the volume of the dewatering zone shall be a minimum of 1,800 ft^3/acre of drainage (66.7 yd^3/acre).	Stabilization in 7 days, or 2 days if near stream.	2 or 7 (see notes)	No		
Oklahoma	The 2002 general permit states that for 10 or more acres drained the basin shall provide storage for a 2-year, 24-hour storm event or 3,600 ft^3 of storage per acre.			14	No		
Oregon		Basin sizing of 3,600 ft^3/acre.	Apply temporary or permanent soil stabilization measures immediately on all disturbed areas as grading progresses.	1 (see notes)	No		Additional requirements for special waters.
Pennsylvania	The 2005 permit states that (1) A sediment storage zone of 1,000 ft^3 per disturbed acre within the watershed of the basin is required; (2) A dewatering zone of 5,000 ft^3 for each acre tributary to the basin is to be provided. Reductions in the dewatering zone are allowed unless the basins is in a HQ or		None	N/A	No		

State requirements: Environmental Protection Agency (EPA) 2007							
State	Sediment basin general requirements	Sediment basins notes/other requirements	Soil stabilization		Numeric standard	Water quality requirements	Other notes
			Notes/other requirements	Days			
	EV watershed, however the minimum required dewatering zone is at least 3,600 ft^3/acre.						
Rhode Island	No sizing criteria in permit.	The Stormwater Design and Installation Standards Manual and the Soil Erosion and Sediment Control Handbook were not reviewed.		14	No		
South Carolina	Basin sizing requirements for 10 or more acres provide storage for a 10-year, 24-hour storm event or at least 3,600 ft^3/acre (10-year 24-hour Soil Conservation Service (SCS) Type II, or Type III (coastal zone) storm event).		As soon as possible, but no later than 14 days.	14	80 percent of TSS removal for drainage areas > 5 acres.		
South Dakota	Basin sizing of 3,600 ft^3/acre.			14	No		
Tennessee	The 2005 permit states to design for a 2-year, 24-hour storm for 10 or more acres.	The 2002 Erosion and Sediment Control Handbook states that the total storage volume of the basin at the spillway should be at least 134 cubic yards (3,618 ft^3) per acre of drainage area. The volume of the permanent pool must be at least 67 cubic yards (1,809 ft^3) per acre of drainage area and the volume of dry storage must be at least an additional 67 cubic yards (1,809 ft^3) per acre of drainage area. The emergency spillway should be able to handle a 2-year or 5-year, 24-hour storm event. The outlets for the basin should pass the peak runoff expected from the contributing drainage area for a 25-year, 24-hour storm.	Preconstruction vegetative ground cover shall not be destroyed, removed or disturbed more than 10 days before grading or earth moving unless the area is seeded and/or mulched or other temporary cover is installed. Construction must be phased for projects in which more than 50 acres of soil will be disturbed. No more than 50 acres of active soil disturbance is allowed at any time during the construction project.	15	No		There are additional SWPPP requirements for discharges into impaired or high-quality waters.

State requirements: Environmental Protection Agency (EPA) 2007							
State	**Sediment basin general requirements**	**Sediment basins notes/other requirements**	**Soil stabilization**		**Numeric standard**	**Water quality requirements**	**Other notes**
			Notes/other requirements	**Days**			
Texas	The 2003 Permit states that sediment basins are required where feasible for common drainage locations that serve an area with 10 or more acres disturbed at one time. The temporary (or permanent) sediment basin should provide storage for a calculated volume of runoff from a 2-year, 24-hour storm from each disturbed acre drained. Where rainfall data is not available or a calculation cannot be performed, a sediment basin providing 3,600 ft^3 of storage per acre drained is required where attainable until final stabilization of the site.			14	For Concrete Batch plants only.		Additional requirements for different locations in Texas.
Utah	The 2002 permit says for 10 or more acres basin storage shall provide for a 10-year, 24-hour storm event, or 3,600 ft^3/acre.			14	No		
Vermont	No sizing criteria in permit.	Basin sizing of 3,600 ft^3/acre for moderate risk only.	For low or moderate risk activities only.	21 (see notes)	No		
Virginia	For common drainage locations that serve an area with 3 or more acres disturbed at one time, a temporary (or permanent) sediment basin providing 3,618 ft^3 of storage per acre drained, or equivalent control measures, shall be provided where attainable until final stabilization of the site.	The Virginia Erosion and Sediment Control regulations state that sediment traps and sediment basins shall be designed and constructed based on the total drainage area to be served by the trap or basin. The minimum storage capacity of a sediment trap shall be 134 cubic yards per acre of drainage area (3,618 ft^3) and the trap shall only control drainage areas less than 3 acres. Surface runoff from disturbed areas that is composed of flow from drainage areas greater than or equal to three acres shall be controlled by a sediment basin. The minimum storage capacity of a sediment basin shall be 134 cubic yards per acre of drainage area. The outfall system shall, at a minimum, maintain the		7	No		

State requirements: Environmental Protection Agency (EPA) 2007							
State	**Sediment basin general requirements**	**Sediment basins notes/other requirements**	**Soil stabilization**		**Numeric standard**	**Water quality requirements**	**Other notes**
			Notes/other requirements	**Days**			
		structural integrity of the basin during a 25-year, 24-hour duration storm event. Runoff coefficients used in runoff calculations shall correspond to a bare earth condition or those conditions expected to exist while the sediment basin is used.					
Washington		Basin requirements are different for western and eastern parts of state—see manuals.	Varies by time of year and location in state. West of the Cascade Mountains Crest: During the dry season (May 1–Sept. 30): 7 days; during the wet season (October 1–April 30): 2 days.	2 or 7 (see notes)	The Water Quality Standards for Surface Waters of the State of Washington WAC 173-201A-030 (1) (vi) states that turbidity shall not exceed 5 NTU over background turbidity when the background turbidity is 50 NTU or less, or has more than a 10 percent increase in turbidity when the background turbidity is more than 50 NTU.		
Washington, Small Parcel							
West Virginia	The 2002 permit states that sediment basins and traps will be installed with 3,600 ft^3 of storage, measured from the bottom elevation of the structure to the top of the riser or weir, per acre of drainage and will have draw down times of 48 to 72 hours. For locations on a site that have a drainage area of 5 acres or less, a sediment trap which provides a storage volume equal to 3,600 ft^3/acre of drainage area shall be installed. Half of the volume of the trap will be in a permanent pool and half will be dry storage.			7	No		
Wisconsin		The Technical Standards document states that basins shall be used for greater than 5 to 100 acres. The sizing criteria for determining treatment surface area of a sediment basin are based on the soil texture and peak	Not specified.	N/A	The current standard in Wisconsin (NR 151.11 pg 409) requires construction sites to implement erosion and sediment controls to reduce to the maximum extent		

State requirements: Environmental Protection Agency (EPA) 2007							
State	**Sediment basin general requirements**	**Sediment basins notes/other requirements**	**Soil stabilization**		**Numeric standard**	**Water quality requirements**	**Other notes**
			Notes/other requirements	**Days**			
		outflow during the 1-year, 24-hour design storm. The overflow spillway should be designed to carry the peak rate of runoff expected from a 10-year, 24-hour design storm.			practicable 80 percent of the sediment load carried in runoff on an annual basis, compared to a baseline of no sediment or erosion controls.		
Wyoming	No sizing criteria in permit.	The 1999 Urban Best Management Practice (BMP) manual says use basins for 5 to 100 acres.	Temporary stabilization (such as cover crop plantings, mulching or erosion controls blankets, surface roughening, etc.) for exposed soil areas where activities have permanently or temporarily ceased should be installed whenever practicable in areas where further work is not expected for 28 days or more.	28 (see notes)	Wyoming water quality regulations (Section 23, Page 1-20) require that discharge of substances attributable to or influenced by the activities of man shall not be present in quantities which would result in a turbidity increase for cold water fisheries and drinking water supplies (classes 1, 2AB, 2A, and 2B), shall not result in a turbidity increase of more than ten (10) nephelometric turbidity units (NTUs). In all warm water or nongame fisheries (classes 1, 2AB, 2B and 2C), the discharge of substances attributable to or influenced by the activities of man shall not be present in quantities which would result in a turbidity increase of more than 15 NTUs. An exception to shall apply to the North Platte River from Guernsey Dam to the Nebraska line during the annual silt run from Guernsey Dam.		There are two general permits—one for small and one for large.
Puerto Rico							
District of Columbia	Basin sizing for 2-year, 24-hour storm or 3,600 ft^3/acre.	Sediment basin requirements for drainage areas of 10 or more acres.		14	No	For parking lots, city streets, and high-speed roads, the runoff depth to be treated for post-development land use is 0.5 inch. For rooftops, sidewalks, pedestrian plaza areas, the runoff depth is 0.3 inch	

State requirements: 2004 Technical Development Document (TDD) Section 7			
State	**Sediment basin storage volumes (ft^3/acre drained)**	**Sediment basin requirements for drainage areas ≥ 10 acres**	**Seeding requirements 14 days post-construction**
Alabama	3,600	Yes	No
Alaska	3,600	Yes	Yes
Arizona	3,600	Yes	Yes
Arkansas	3,600	Yes	Yes
California	3,600	Yes	No
Colorado	1,800	No	No
Connecticut	1,800	No	No
Delaware	3,600	Yes	Yes
Florida	3,600	Yes	Yes
Florida , DEP, Northern District (only applies in NW Florida)			
Florida, South Florida Water Management District (General, Standard General, Noticed General and Individual Permits)			
Florida, Southwest Florida Water Management District			
Florida, St. Johns River Water Management District			
Florida, Suwannee River Water Management District			
Georgia	1,800	No	Yes
Hawaii	1,800	No	No
Idaho	3,600	Yes	Yes
Illinois	1,800	No	Yes
Indiana	1,800	No	Yes
Iowa	3,600	Yes	Yes
Kansas	3,600	Yes	No

State requirements: 2004 Technical Development Document (TDD) Section 7			
State	**Sediment basin storage volumes (ft^3/acre drained)**	**Sediment basin requirements for drainage areas ≥ 10 acres**	**Seeding requirements 14 days post-construction**
Kentucky	3,600	Yes	Yes
Louisiana	3,600	Yes	No
Maine	3,600	Yes	Yes
Maryland	1,800	No	No
Massachusetts	3,600	Yes	Yes
Michigan	3,600	Yes	No
Minnesota	3,600	Yes	No
Mississippi	3,600	Yes	No
Missouri	1,800	No	No
Montana	1,800	No	No
Nebraska	1,800	No	No
Nevada	3,600	Yes	Yes
New Hampshire	3,600	Yes	Yes
New Jersey	1,800	No	No
New Mexico	3,600	Yes	Yes
New York	3,600	Yes	Yes
North Carolina	3,600	Yes	No
North Dakota	1,800	No	No
Ohio	1,800	No	Yes
Oklahoma	3,600	Yes	Yes
Oregon	1,800	No	No
Pennsylvania	3,600	Yes	No
Rhode Island	1,800	No	No
South Carolina	3,600	Yes	Yes
South Dakota	3,600	Yes	Yes
Tennessee	3,600	Yes	Yes
Texas	3,600	Yes	Yes

State requirements: 2004 Technical Development Document (TDD) Section 7			
State	**Sediment basin storage volumes (ft^3/acre drained)**	**Sediment basin requirements for drainage areas ≥ 10 acres**	**Seeding requirements 14 days post-construction**
Utah	3,600	Yes	Yes
Vermont	1,800	No	No
Virginia	3,600	Yes	Yes
Washington	1,800	No	No
Washington, Small Parcel			
West Virginia	3,600	Yes	Yes
Wisconsin	1,800	No	No
Wyoming	1,800	No	No
Puerto Rico			
District of Columbia	3,600	Yes	Yes

State Requirements: 2002 Technical Development Document (TDD) Appendix A				
State	**Numeric standard or pollutant reduction requirements**	**Minimum depth of runoff or storm return frequency to treat for water quality management (per acre)**	**Maximum allowed denuded acreage or soil stabilization requirement**	**Notes**
Alabama	Turbidity < 50 NTU.			
Alaska	Total Suspended Solids greater than 20 microns.	2 year/6 hour		An inspector must be qualified personnel provided by the discharger.
Arizona				
Arkansas		10 year/24 hour		Developers must submit erosion and sediment control plan and SWPPP before filing a notice of intent. Sites greater than or equal to 10 acres must implement a temporary or permanent sediment basin. Sites less than 10 acres must implement sediment traps and silt fences.
California		2 year/24 hour		Inspections will be performed before anticipated storm events, during extended storm events, and after storm events, and at least once each 24-hour period during extended storm events to identify BMP effectiveness and implement repairs or design changes as soon as feasible depending on field conditions. A discharger is also responsible for inspecting and cleaning all public and private roads for sediment. Construction activities that fall under the jurisdiction of the California Department of Transportation (CALTRANS) have separate a permit and regulations.
Colorado				Stormwater management plan must be submitted to state for a 10-day review, as well as be retained on site. PG determined: A certification verifying that the Stormwater Management Plan (SWMP) is complete must be submitted to state 10 days before beginning construction activities, as well as being retained on site during construction activities. The SWMP shall be prepared in accordance with good

State Requirements: 2002 Technical Development Document (TDD) Appendix A				
State	**Numeric standard or pollutant reduction requirements**	**Minimum depth of runoff or storm return frequency to treat for water quality management (per acre)**	**Maximum allowed denuded acreage or soil stabilization requirement**	**Notes**
				engineering, hydrologic and pollution control practices.
Connecticut	80 percent TSS reduction.			
Delaware	80 percent TSS reduction.	0.5 inch		
Florida				
Florida , DEP, Northern District (only applies in NW Florida)	80 percent TSS reduction.	0.5 inch		*> 100 acres, 1 inch rainfall; < 100 acres, 0.5 inch rainfall
Florida, South Florida Water Management District (General, Standard General, Noticed General and Individual Permits)		1 inch		
Florida, Southwest Florida Water Management District		0.5 inch		
Florida, St. Johns River Water Management District	Turbidity less than 29 NTU.			
Florida, Suwannee River Water Management District	80 percent TSS reduction.	1 inch		
Georgia	Turbidity less than 10 to 25 NTUs.	25 year/24 hour		Turbidity < 25 NTUs for waters supporting warm water fisheries, or <10 NTUs for waters classified as trout waters.
Hawaii				Construction shall be phased for large projects; one phase must be stabilized before another can begin. A 50-day maximum from removal of pre-construction conditions to temporary stabilization.

State Requirements: 2002 Technical Development Document (TDD) Appendix A				
State	**Numeric standard or pollutant reduction requirements**	**Minimum depth of runoff or storm return frequency to treat for water quality management (per acre)**	**Maximum allowed denuded acreage or soil stabilization requirement**	**Notes**
Idaho				
Illinois		3,600 ft^3/acre		
Indiana				
Iowa	80 percent TSS reduction.			
Kansas				
Kentucky	Goal of 80 percent TSS reduction (compared to pre-construction levels).			
Louisiana				
Maine	40 to 80 percent TSS reduction	2 year		
Maryland	80 percent TSS reduction based on the average annual TSS loading from all storm events less than or equal to the 2-year/24-hour storm.	2 year/24 hour		
Massachusetts	80 percent TSS reduction	2 year/24 hour		
Michigan		3,600 ft^3/acre		Sites greater than 10 acres require an on-site temporary sediment basin.
Minnesota		0.5 inch		
Mississippi				
Missouri	Settleable Solids < 0.5 to 2.5 ml/L per hour.			Settleable solids less than 2.5 ml/L per hour for normal land disturbance, and 0.5 ml/L per hour for land disturbance within sensitive areas.
Montana		2 year/24 hour		Dischargers must submit with the state application form a stormwater erosion control plan (SWECP) that resembles EPA's construction site SWPPP. Permit coverage begins only when Montana

State Requirements: 2002 Technical Development Document (TDD) Appendix A				
State	**Numeric standard or pollutant reduction requirements**	**Minimum depth of runoff or storm return frequency to treat for water quality management (per acre)**	**Maximum allowed denuded acreage or soil stabilization requirement**	**Notes**
				Department of Environmental Quality reviews and approves the SWECP. Inspections must also be conducted everyday during prolonged precipitation or snowmelt periods. A registered Professional Engineer must prepare the SWESCP if the site is greater than 20 acres. Also regulate down to 1 acre if the construction site is within 100 feet of a surface waterbody. Montana has a sediment and erosion control guidance manual that lists standard use BMPs. If other BMPs are used, they need to be submitted with SWECP to the state for approval. For slopes steeper than 3:1 and greater than 5 vertical feet, surface roughening is required. Filter fences should be used on drainage areas >1 acre; sediment traps should be used only on drainage areas > 3 acres; and temporary sediment ponds should be used only on drainage areas > 10 acres.
Nebraska				
Nevada				
New Hampshire				
New Jersey				
New Mexico				
New York		0.5 inch		
North Carolina			20 acres of total disturbance at any given time for areas discharging to high-quality waters.	
North Dakota				
Ohio				

State Requirements: 2002 Technical Development Document (TDD) Appendix A				
State	**Numeric standard or pollutant reduction requirements**	**Minimum depth of runoff or storm return frequency to treat for water quality management (per acre)**	**Maximum allowed denuded acreage or soil stabilization requirement**	**Notes**
Oklahoma		3,600 ft^3/acre		A vegetated buffer zone of at least 100 feet must be retained or successfully established between the area disturbed during construction and all perennial or intermittent streams on or adjacent to the construction site. A vegetated buffer zone at least 50 feet wide must be retained or established between the area disturbed during construction and all ephemeral streams or drainages. Treatment volume is the lesser of 3,600 ft^3 or the runoff volume of a 2-year, 24-hour storm.
Oregon				If the site is greater than 20 acres, an erosion and sediment control plan must be prepared by a Professional Engineer, or Registered Landscape Architect, or Certified Professional in Erosion and Sediment Control, and the plan must be submitted 90 days before construction begins. All permittees must submit an Oregon Land Use Compatibility Statement if they do not already have one on file with Oregon Department of Environmental Quality.
Pennsylvania		5 year		Basins volumes should drain no quicker than 4 days and no longer than 7 days.
Rhode Island	80 to 90 percent TSS reduction.	10 year		
South Carolina	80 percent TSS reduction.	3,600 ft^3/acre		Sediment trapping efficiency is a performance-based requirement for any BMPs. The major requirements for stormwater control plans are application, location map, type and location of BMPs, construction sequencing, location of disturbed areas, property line and waters of the state, standard notes, grassing specifications. The minimum required volume for water quality management is 3,600 ft^3 for a disturbed area of more

State Requirements: 2002 Technical Development Document (TDD) Appendix A				
State	**Numeric standard or pollutant reduction requirements**	**Minimum depth of runoff or storm return frequency to treat for water quality management (per acre)**	**Maximum allowed denuded acreage or soil stabilization requirement**	**Notes**
				than 10 acres. If there is not a sediment basin of 3,600 ft^3 and the drainage area is less than 10 acres, sediment traps, silt fences, or equivalent measures are needed for sideslope and downslope boundaries for the construction area. However, the first 0.5 inch rainfall runoff in a 24-hour period is applicable to the coastal counties only.
South Dakota		5 year		
Tennessee				The permittee shall maintain records of all inspection and maintenance.
Texas		3,600 ft^3/acre		
Utah		1 inch or 24-hour storm event		Where sites have been finally or temporarily stabilized, or when runoff is unlikely because of winter conditions or during seasonal arid periods in arid areas and semiarid areas inspections shall be conducted at least once every 30 days. Runoff volume from a 10-year, 24-hour storm event for 10 or more disturbed acres shall be evaluated for water quality. For areas less than 10 acres or where calculations for the volume of runoff for disturbed acres is not performed, a sediment basin providing 3,600 ft^3 of storage per acre drained or equivalent control measures shall be provided. (1) Where the initiation of stabilization measures by the 14th day after construction activity has temporary or permanently ceased is precluded by snow cover or frozen ground conditions, stabilization measures shall be initiated as soon as possible. (2) In arid areas, semiarid areas, and areas experiencing droughts where the initiation stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by

State Requirements: 2002 Technical Development Document (TDD) Appendix A				
State	**Numeric standard or pollutant reduction requirements**	**Minimum depth of runoff or storm return frequency to treat for water quality management (per acre)**	**Maximum allowed denuded acreage or soil stabilization requirement**	**Notes**
				seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.
Vermont				
Virginia		3,600 ft^3/acre		Sediment basins required for sites of 10 acres or more (except those with final stabilization); for sites less than 10 acres, the same units are required but only for sideslope and downslope boundaries of construction sites.
Washington, Large Parcel		24 hour/6 month	2 days between October 1 and April 30 (i.e., the wet season); 7 days between May 1 to September 30 (dry season)	
Washington, Small Parcel		24 hour/6 month	2 days between October 1 and April 30 (i.e., the wet season); 7 days between May 1 to September 30 (dry season)	
West Virginia		2 year		
Wisconsin				
Wyoming	Turbidity less than 10 to 15 NTUs.			
Puerto Rico				
District of Columbia				

Appendix B

Literature Search Annotated Bibliography

Author(s): Peter T. Weiss,[1] John S. Gulliver,[2] and Andrew J. Erickson[3]
Date: 2007
Title: **Cost and Pollutant Removal of Storm-Water Treatment Practices**
Organization: [1] Valparaiso University
[2, 3] University of Minnesota
Source: **Journal of Water Resources Planning and Management**
Volume 133, Issue 3, pp. 218-2229 (May/June 2007)
Abstract: Six storm-water best management practices (BMPs) for treating urban rainwater runoff were evaluated for cost and effectiveness in removing suspended sediments and total phosphorus. Construction and annual operating and maintenance (O and M) cost data were collected and analyzed for dry extended detention basins, wet basins, sand filters, constructed wetlands, bioretention filters, and infiltration trenches using literature that reported on existing storm-water BMP sites across the United States. After statistical analysis on historical values of inflation and bond yields, the annual O and M costs were converted to a present worth based on a 20-year life and added to the construction cost. The total present cost of each storm-water BMP with the 67% confidence interval was reported as a function of water quality design volume, again with a 67% confidence interval. Finally, the mass of TSS and total phosphorus removed over the 20-year life was estimated as a function of the water quality volume. For the six storm-water BMPs investigated, results show that, ignoring land costs, constructed wetlands have been the least expensive to construct and maintain if appropriate land is available. However, since wetlands typically require more land area to be effective, land acquisition costs may result in wetlands being significantly more expensive than other storm-water BMPs that require less area. The results can be used by planners and designers to estimate both the total cost of installing a storm-water BMP and the corresponding total suspended solids and total phosphorus removal

Comments: Summarizes recent cost work and presents best fit curves and 67 percent confidence intervals as ranges. The presentation of total capital costs assumes construction costs plus the present worth of 20 years of operating and maintenance costs. Paper was reviewed as part of EPA's review of costs for permanent sedimentation ponds and sand filters.

It also summarizes removal efficiencies for TSS and Phosphorus by BMP.

Author(s): P. Kaini, K. Artita, and J. W. Nicklow
Date: 2007
Title: **Evaluating Optimal Detention Pond Locations at a Watershed Scale**
Organization: Department of Civil and Environmental Engineering, Southern Illinois University
Source: World Environmental and Water Resources Congress 2007
Abstract: Structural BMPs like stormwater basins (detention and retention basins), wetlands, filter strips and grassland swales are extensively used as stormwater runoff controls. BMPs are often designed for peak flow reduction or pollution

control or can be considered for dual purpose in that they provide both water quality and quantity benefits by relying upon storage allocation and key mechanisms of setting filtration, sorption, biodegradation and evapotranspiration. In spite of previous studies, there exists neither a methodology nor a generalized model for selecting, placing, and sizing BMP combinations that cost-effectively promotes achievement of treatment goals at larger spatial scales. This paper presents part of an ongoing research effort to develop a new, comprehensive decision support tool for watershed-scale BMP design. The current model is designed to identify detention pond sizes that best achieve target peak flow reduction criteria. It is developed by coupling the U.S. Department of Agriculture's (USDA) Soil and Water Assessment Tool (SWAT) and a genetic algorithm. The model is applied to Silver Creek watershed, a subbasin of the larger Lower Kaskaskia watershed in Illinois. The results show that detention ponds can be designed at a holistic, watershed scale to more effectively achieve peak flow reduction goals. Future work will focus on expansion of the model, which will also be disseminated through outreach workshops in portions of Illinois and surrounding states.

Comments: Basin-wide design does not yet appear to be a viable option. The paper notes, "Despite these efforts [previous studies], there exists neither a methodology nor a generalized model for selecting, placing, and sizing BMP combinations that cost effectively promote achievement of treatment goals at the watershed scale. This paper presents ongoing research to develop a new, comprehensive decision support tool for watershed-scale BMP design."

Author(s): Fu-hsiung Lai, Jenny Zhen, John Riverson, and Leslie Shoemaker
Date: 2006
Title: **SUSTAIN—An Evaluation and Cost-Optimization Tool for Placement of BMPs**
Organization: Tetra Tech, Fairfax, VA
Source: World Environmental and Water Resources Congress 2006
Abstract: To assist stormwater management professionals in planning for best management practices (BMPs) implementation, the U.S. Environmental Protection Agency (USEPA) is developing a decision-support system for placement of BMPs at strategic locations in urban watersheds. This tool will help develop, evaluate, select, and place BMP options based on cost and effectiveness. The system was formerly called the Integrated Stormwater Management Decision Support Framework (ISMDSF), but will be tentatively called the System for Urban Stormwater Treatment and Analysis INtegration (SUSTAIN). SUSTAIN, a generic public domain framework, will provide a means for objective analysis of management alternatives among multiple interacting and competing factors. The desired outcome from the system application is a thorough, practical, and informative assessment considering economic, environmental, and engineering factors. SUSTAIN has seven key components: framework manager, ArcGIS interface, watershed model, BMP

model, optimization model, post-processor, and Microsoft Access database. They are integrated under a common ArcGIS platform. SUSTAIN supports evaluation of BMP placement at multiple scales from a few city blocks to large watersheds.

Comments: Basin-wide design does not yet appear to be a viable option. EPA is developing a decision-support system for placement of BMPs at strategic locations in urban watersheds. This tool will help develop, evaluate, select, and place BMP options on the basis of cost and effectiveness.

Author(s): Yuan Cheng, Ph.D., P.E.
Date: 2006
Title: **Extended Analysis for Sediment Pond Design**
Organization: Benatec Associates, Inc.
Source: World Environmental and Water Resources Congress 2006
Abstract: An example of extended analysis for sediment pond design is presented. The sediment pond is designed to trap the suspended sediment carried by surface runoff from a construction site. Extended analysis can show dynamic changes of the velocity field in a pond as well as suspended sediment distribution from the pond inlet to the outlet. Results from the analysis can be used by designers to adjust pond size and shape for more effective reduction of sediment discharge that varies with time at the pond outlet.

Comments: Presents site-specific two-dimensional finite analysis approach for designing pond shape and size.

Author(s): Michael E. Barrett
Date: 2003
Title: **Performance, Cost, and Maintenance Requirements of Austin Sand Filters**
Organization: Center for Research in Water Resources, University of Texas, Austin, TX
Source: **Journal of Water Resources Planning and Management**
Volume 129, Issue 3, pp. 234-242 (May/June 2003)
Abstract: Five Austin-style sand filters were constructed by the California Department of Transportation (Caltrans) as retrofit projects for maintenance yards and park-and-ride facilities in the Los Angeles and San Diego metropolitan areas. Each of these filter systems included storm-water monitoring equipment for collection of flow weighted composite samples. In addition, detailed records were compiled of the design elements, construction costs, and type and amount of maintenance required at each of the sites. The construction costs were relatively high because of the retrofit nature of the project and the integration of the Caltrans storm-drain system with those of the adjoining metropolitan areas, which eliminated any opportunities for economies of scale. An analysis of performance using linear-regression techniques indicated that for sediment and almost all particle associated constituents, effluent concentration was independent of influent concentration. For instance, the

average suspended solids concentration in treated runoff was 7.8±1.2 mg/L (at the 90% confidence level) regardless of observed influent concentration. The constant effluent quality produced for the particulate constituents indicates that the calculation of a percent reduction is more indicative of the influent concentration rather than the performance of the filter itself. Rejuvenation of the filter bed was required at three sites after 3 years of operation when the solids loading to the system was between 5 and 7.5 kg/m2 of filter area. However, the clogging may have been accelerated by problems with the pumps that resulted in standing water on the filter for extended periods. Other maintenance activities consisted mainly of inspections, pump repair, and activities to reduce mosquito breeding. The main impediment to widespread implementation is the initial construction cost; however, modifications of the filter configuration and media may reduce these costs and increase effectiveness, thereby making the technology more attractive.

Comments: Warrants further review if EPA evaluates use of sand filtration in meeting numerical standards. The article notes that it is difficult to determine the validity of the 1993 construction costs ("Guidance specifying management measures for sources of nonpoint pollution in coastal waters"). Note that the any use of the costs and removals from this study would need to consider that the site selection in this study was limited to relatively small, impervious watersheds. "The most important consideration was the extent to which runoff from unstabilized areas would be able to enter the filter. The biggest threat to the long-term successful operation of any filter is the introduction of excessive amounts of sediment that cause premature clogging of the filter media. For this reason, site selection was limited to relatively small, impervious watersheds (park-and-ride areas and maintenance stations)."

Author(s): R. M. Hozalski, A. Erickson, and J. S. Gulliver
Date: 2007
Title: **A New Approach for Assessing the Performance of Stormwater Best Management Practices**
Organization: University of Minnesota, Department of Civil Engineering
Source: **Proceedings of the World Environmental and Water Resources Congress 2007**
Abstract: One approach for improving the quality of stormwater runoff before it enters the receiving water is to install stormwater BMPs. Stormwater BMPs include a wide range of systems (rain gardens, ponds, wetlands, underground proprietary sediment removal devices, etc.) used to reduce stormwater runoff quantity or improve stormwater quality, or both. No standard methodology for assessment of stormwater BMPs is available. Therefore, we propose a tiered approach to stormwater BMP assessment that is termed the "Four levels of assessment" (Table 1), ***that are numbered in order of increasing difficulty and cost***. Developers of an assessment program should consider each of four levels of assessment in order, and consider advancing to next level only when requirements of the assessment program have not been satisfied. All

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stormwater BMP assessment programs should include regularly scheduled (at least annual) visual inspections (level 1). In addition to visual inspections, capacity testing (level 2) and/or simulated runoff testing (level 3), if warranted, should be included in stormwater BMP assessment programs at regular intervals to determine the performance of a BMP immediately after installation and to determine how performance of a stormwater BMP is changing with respect to time, changes in the watershed, or both. If the goals of the assessment program cannot be met by capacity testing or simulated runoff testing, or these techniques are not feasible, then monitoring (level 4) should be implemented as part of the assessment program.

Comments: Describes performance assessment of BMPs through visual inspections, capacity testing, simulated runoff testing, and/or monitoring.

Author(s): J. M. Hathaway, W.F. Hunt, R.A. Smith, and K.L. Bass
Date: 2007
Title: **Innovative Stormwater Treatment Practices in the Neuse and Tar-Pamlico Basins**
Organization: North Carolina State University, Biological and Agricultural Engineering Department
Source: **Proceedings of the World Environmental and Water Resources Congress 2007**
Abstract: Urbanization within North Carolina's watersheds and the need for proactive mitigation led to the establishment of the North Carolina Ecosystem Enhancement Program (EEP) in July 2003. The EEP is responsible for the majority of mitigation efforts throughout the state. These efforts include the restoration, enhancement, and preservation of streams and wetlands, as well as the creation of stormwater best management practices (BMPs) for the purpose of maintaining and improving water quality and riparian habitats across the state.

This project involves a partnership between EEP and the Biological and Agricultural Engineering Department (BAE) at North Carolina State University for the purpose of locating, designing, and monitoring stormwater BMPs. In addition, local governments and the North Carolina Cooperative Extension Service assist in project site selection and development.
Two large river basins in North Carolina, Neuse and Tar-Pamlico, have historic, significant degradation to water quality partially due to urbanization and agricultural practices. Primary pollutants within these basins include nitrogen and phosphorous. To change the trend of degradation, the State of North Carolina enacted regulations for nitrogen and phosphorous removal specifically for these basins. These regulations provided for the funding of the EEP Nutrient Reduction Program by authorizing impact fees.

Comments: Provides "an example of how academic institutions and state governments can work together to develop programs to identify design, and build retrofit stormwater BMPs."

Author(s): Kelly A. Collins, William F. Hunt, and Jon M. Hathaway
Date: 2007
Title: **Evaluation of Various Types of Permeable Pavements with Respect to Water Quality Improvement and Flood Control**
Organization: North Carolina State University, Biological and Agricultural Engineering Department
Source: **Proceedings of the World Environmental and Water Resources Congress 2007**
Abstract: In many U.S. states, different permeable pavement types are considered to have the same capabilities in reducing runoff, and they are not credited with improving water quality. To test various permeable pavement designs, a parking lot consisting of four different types of permeable pavements and standard asphalt was constructed in Kinston, NC. The permeable pavement sections consist of pervious concrete (PC), permeable interlocking concrete pavers (PICP) with 8.5 % void space, PICP with 12.9 % void space, and concrete grid pavers (CGP), each covering a 1200 sq. ft. area with a 10 in. gravel storage layer. The purpose of this study is to evaluate and compare the effects of each pavement type on water quality and runoff reduction. Site analyses on every rainfall event began in March, 2006, and will continue through March, 2007. Preliminary results indicate significant ($p<0.05$) peak flow and volume reductions from all permeable pavements. Additionally, there has been little to no runoff observed from any of the pervious sections. Pollutant removal performance by the pavements has widely varied. As a result of this study, it is expected that the state of North Carolina will make a judgment on how much pollutant removal credit permeable pavement types should receive. Also, this study may be used to determine whether or not stormwater credit should vary based on pavement type.

Comments: Evaluates parking lot runoff from various permeable pavement designs.

Author(s): Ben Urbonas,[1] and Jim Wulliman[2]
Date: 2007
Title: **Stormwater Runoff Control Using Full Spectrum Detention**
Organization: [1] Urban Drainage and Flood Control District, Denver, CO
[2] Muller Engineering Company, Lakewood, CO
Source: **Proceedings of the World Environmental and Water Resources Congress 2007**
Abstract: The goal of controlling peak flow rates at individual sites to pre-developed levels can be met using detention basins for design storms from 2- to 100-year return periods. However control of peak storm runoff flows along receiving streams by multiple detention basins operating simultaneously within larger urban catchments are much more difficult to achieve. The latter topic was studied in the past by several investigators, but the findings were very limited in scope and were focused primarily on larger runoff events such as the 10-year to 100-year flows. At the same time, there is evidence that stream

geometry, water quality and aquatic habitat are impacted significantly whether this type of detention is used, or not, as areas urbanize. The profound hydrologic and geomorphic changes caused by urbanization require more robust control of the frequently occurring, smaller, runoff events. In response to this, different approaches toward designing stormwater detention were investigated and modeled by the authors. This testing was first done using design storm protocols employed by the Urban Drainage & Flood Control District for the Denver area of Colorado and then followed up using the USEPA SWMM 5.0 model calibrated to 15-years of recorded 5-minute rainfall (5 gages) and runoff (2 gages) data for a 3.1 square mile watershed. This paper presents the findings most applicable for the Denver region and other locations having similar precipitation patterns; however, the underlying principles used to develop this concept can be used to develop design protocols for other hydrologic regions of the USA and other countries.

Comments: Describes a watershed-wide approach for minimizing the excess urban runoff volume (difference between urban and pre-development), including smaller rain events such as the 2-year storm.

Author(s): Dianna M. Hogan[1, 2] and Mark Walbridge[3]
Date: 2007
Title: **Best Management Practices for Nutrient and Sediment Retention in Urban Stormwater Runoff**
Organization: [1]Department of Environmental Science and Policy, George Mason University, Fairfax, VA
[2]Eastern Geographic Science Center, U.S. Geological Survey, Reston, VA
[3]Department of Biology, West Virginia University, Morgantown, WV
Source: **Journal of Environmental Quality**
Abstract: Stormwater management infrastructure is utilized in urban areas to alleviate flooding caused by decreased landscape permeability from increased impervious surface cover (ISC) construction. In this study, we examined two types of stormwater detention basins, SDB-BMPs (stormwater detention basin-best management practice), and SDB-FCs (stormwater detention basin–flood control). Both are constructed to retain peak stormwater flows for flood mitigation. However, the SDB-BMPs are also designed using basin topography and wetland vegetation to provide water quality improvement (nutrient and sediment removal and retention). The objective of this study was to compare SDB (both SDB-BMP and SDB-FC) surface soil P concentrations, P saturation, and Fe chemistry with natural riparian wetlands (RWs), using sites in Fairfax County, Virginia as a model system.

Comments: Study compares nutrient and sediment retention in urban stormwater runoff for stormwater detention basin BMPs and stormwater detention basin flood control.

Author(s): Arvind Narayanan and Robert Pitt
Date: 2006
Title: **Cost of Urban Stormwater Control Practices**
Organization: University of Alabama
Source: This report is a consolidated and summary of information obtained from the following major reports on costs of stormwater controls, plus additional specialized references:

- *Costs of Urban Nonpoint Source Water Pollution Control Measures* prepared by Southeastern Wisconsin Regional Planning Commission 1991
- *Costs of Urban Stormwater Control* by Heaney, Sample, and Wright for USEPA 2002
- *BMP Retrofit Pilot Program* prepared by CALTRANS 2001

Abstract: This research presents a method to determine the costs of several types of stormwater control practices including the costs of conventional drainage system. Several published literature sources were reviewed that contained costs of control practices. Standard unit cost data used in developing the conventional conveyance drainage system costs were obtained from RS Means. The cost data were transformed into equations and utilized to develop the cost module for the Source Loading and Management Model WinSLAMM). An Excel spreadsheet model was also developed to estimate the costs of conventional stormwater drainage systems based on the published unit cost data. In an example, the costs estimated by the spreadsheet model were compared to the costs associated with the stormwater control practices as estimated by WinSLAMM for a 250-acre industrial site in Huntsville, AL. The costs of site biofiltration, large-scale grass swales, and a wet detention pond were compared to the costs for the conventional drainage system. The cost information available from published literature sources and other references were in the form of tables and equations. The cost information gathered provided regional cost estimates for the control practices for a specific year. Cost indices published by the Engineering News Record were used to estimate the present costs from historical cost information and at locations where cost information is unavailable. These cost indices, from 1978 to 2005, were incorporated into WinSLAMM and the spreadsheet model. Based on the cost data obtained form Southeastern Wisconsin Regional Planning Commission (1991), the component(s) that affected the control practice cost the most were also analyzed

Comments: References previously used documents for sedimentation basins (1976 EPA, Cost Estimating Manual—Combined Sewer Overflow Storage and Treatment, referenced in subsequent EPA documents (1993 and 1999)) and detention ponds (Young et al. 1996, the out-of-date 1986 equations referenced in Schueler 2000).

Sand filter information references CALTRANS 2004, which was included in EPA's review of sand filters.

Author(s): Dennis Jurrie, P.E.
Date: Unknown
Title: **Flocculation of Construction Site Runoff in Oregon**
Organization: Sisul Engineering
Source: Unknown
Abstract:
Comments: Describes flocculation for treating stormwater runoff from construction sites. Includes sampling results for Sumalchlor 50 (a Polyaluminum Chloride) at a corporate park construction site in Oregon. Provides a cost to treat and flocculate stormwater runoff of $0.08 per gallon of water treated. Warrants additional review as part of the evaluation of numerical standards.

Author(s): Eric Woodhouse and Tiffany Leop
Date: 2007
Title: **Temporary Slope Protection: Cost Versus Effectiveness**
Organization: Landscape Development, Inc.
Source: **StormCon 2007**
Abstract: Landscape Development, Inc., conducted a study in Santa Clarita, CA. Eight products and applications were tested on 1000 square foot, 2:1 slope panels during the heavy rain season of 2004-2005. The rains in this area accumulated to over 40 inches between October and May. The products and applications tested include straw blanket, blown straw with organic binder-tackifier, straw/coco blanket, coconut blanket, jute netting, wood fiber mulch and organic binder, a preblended stabilized fiber matrix (SFM) with two stabilizer components (a tackifier and cross link binder), and another stabilized fiber matrix (SFM) with one stabilizing component consisting of wood fiber mulch with polyacrylimide stabilizer. Four soil loss samples were taken over the course of the study. The weight of the soil lost was accumulated and used in comparing the performance of the varying products and applications. The blanket products performed better, overall, for retaining the soil on the slope face when compared for amount of soil lost per inch of rainfall. The cost comparison for all the products and applications showed comparable pricing when extended over the duration of the product/application's effective lifeline. Cost comparisons for the various applications in regards to lifespan and price per square foot are presented in this paper.

Comments: Provides a comparison of soil loss, price per square foot, and lifespan for various erosion controls (straw blanket, blown straw with organic binder-tackifier, straw/coco blanket, coconut blanket, jute netting, wood fiber mulch and organic binder, a preblended stabilized fiber matrix (SFM) with two stabilizer components (a tackifier and cross link binder), and another stabilized fiber matrix (SFM) with one stabilizing component consisting of wood fiber mulch with polyacrylimide stabilizer). The study notes, "It can be seen that cost is directly correlated with the lifespan of the application as well as the effectiveness in minimizing soil loss." The article might be useful for inclusion in the updated technical development document.

Author(s): David Wachal
Date: 2007
Title: **BMP Selection for Land Disturbance: A Methodology Based on Efficiency, Cost, and Site Management Goals**
Organization: City of Dention, Texas
Source: **StormCon 2007**
Abstract: This paper presents a methodology for developing a BMP selection tool for disturbed hillslopes based on BMP efficiency, BMP implementation costs, and site management goals. To demonstrate how the methodology was developed and applied, a case study focusing on Natural Gas Exploration and Production (NGE&P) sites is presented. Version 2 of the Revised Universal Soil Loss Equation (RUSLE2) was used to evaluate sediment yields for several combinations of BMPs, slopes, and soil types, and based on the modeling results, BMP efficiency values were computed for each possible combination. Efficiency values for the various slope and soil combinations revealed that both slope and soil type influences the effectiveness of the BMPs. The efficiency values were incorporated into a selection tool that also included estimated BMP implementation costs. While this paper focuses on NGE&P sites, the methodology presented is easily adaptable to other types of disturbed site conditions.

Comments: Project evaluated BMP efficiencies and costs for BMPs (seeding, mulching, erosion blanket, silt fence, and vegetated filter strip) and BMP combinations for disturbed hillsides in Natural Gas Exploration and Production. The method uses RUSLE2 (for possible combinations of three soil types and three slope profiles) as an erosion prediction tool. The methodology then uses the Best Management Practices Assessment Tool (BMPSAT) to evaluate efficiencies and costs on the basis of soil and slope combinations. The article states that BMPSAT is an Excel spreadsheet that could be modified for additional evaluations of BMPs or site characteristics and that the flexibility of RUSLE2 allows BMPSAT to be easily customized for complex or simple slopes, specific site characteristics, and to include additional BMPs.

Costs for the BMPs included in the analysis are from EPA-842-B-02-003 (National management measures to control nonpoint source pollution from urban areas – draft). The modeling methodology could be of interest for soil modeling.

Author(s): Autumn DeWoody
Date: 2007
Title: **Cost-Effectiveness of Stormwater Infiltration BMPs in Los Angeles County**
Organization: University of California, Riverside
Source: **StormCon 2007**

Abstract: Current stormwater regulations require infiltration and/or treatment of the runoff generated by a minimum rain depth or flow rate at new developments or redevelopments above a threshold size, but most existing facilities in Los Angeles are not required to mitigate their onsite runoff. Available information on stormwater infiltration BMP costs is often vague or inadequate and outdated, and there is little data on urban Southern California BMP costs. This research aims to provide clarity to decision makers on parcel-level strategies that comply with stormwater regulations and boost groundwater supply. It focuses on the retrofit of existing nonresidential parcels with stormwater infiltration BMPs. The research begins with five cost/benefit case studies, then follows with a BMP cost analysis using local area BMP data, and then presents a cost-benefit analysis of parcel-level infiltration across a wide variety of land uses, parcel sizes, and infiltration rates.

Comments: On the basis of a Los Angeles and San Gabriel Rivers Watershed Council study evaluating the potential to retrofit typical urban neighborhoods to promote infiltration, this paper evaluates the costs and benefits of retrofits to determine whether the benefit of increased groundwater recharge justified the expense of a BMP system. The cost/benefit analysis uses the actual capital costs for the retrofit sites; the source costs were not presented.

Author(s): Jason Ziemer
Date: 2007
Title: **Complying with NPDES Phase II Requirements on a Major Highway Construction Project with the Implementation of an Emerging BMP**
Organization: Clear Water Compliance Services, Inc.
Source: **StormCon 2007**
Abstract: The Washington State Department of Transportation (WSDOT) and their general contractors began a $126.3M construction project along 3.5 miles of State Route (SR) 18 in Maple Valley, Washington in September, 2003. The project included 15 new bridges, over 40 retaining walls and required more than 850,000 cubic yards of earth moving. Initial stormwater engineering and planning focused primarily on post construction stormwater considerations included drainage improvements, construction of 14 stormwater storage and treatment ponds, and the enhancement of 49 acres of wetlands. Planning for construction-phase stormwater focused almost entirely on implementation and maintenance of BMPs and was absent of specific considerations for meeting water quality standards. This lack of planning eventual caused serious problems and project delays. During the spring of 2004, WSDOT discovered the general contractor had filled a wetland with woody debris without a permit. Immediate action was taken by WSDOT, the U.S. Army Corps of Engineers and the Washington State Department of Ecology (Ecology). This paper presents the aggressive implementation of BMPs, including the use of erosion control practices that had to be taken in order for the project to be in compliance. Issues of turbidity were also discussed.

Comments: Example of a highway project in Washington State using a Chitosan-enhanced sand filtration system to meet state requirement of <= 5 NTU above background. Project specifications required treating 700 gpm with a continuous effluent turbidity of less than 10 NTU. Article reports nearly 40,000 turbidity data points show an average turbidity of 236 NTU, 42.4 NTU after pretreatment, and 1.04 NTU average discharge. The average cost per gallon treated for the project was $0.017 per gallon. Warrants additional review as part of the evaluation of numerical standards.

Author(s): Neil Myers and Ted Blahnik
Date: 2007
Title: **The Development Paradigm Shift: A Case Study**
Organization: Williams Creek Consulting
Source: **StormCon 2007**
Abstract: This paper presents a case study from Williams Creek Consulting, a firm specializing in LID and sustainable natural system designs for construction stormwater management. Due to increased regulatory acceptance, development companies are now utilizing more sustainable and lower impact development solutions to provide for regulatory compliance, improve marketability, increase profit and improve overall quality of life for the community. A prime example of acceptance for sustainable sites engineering for natural resource and stormwater management solutions is at a 1,700 acre mixed-use development in the Midwest. This site is among the national developer's first attempt at utilizing the more sustainable, lower impact systems on a large scale and challenged the traditional design and construction delivery methods within the Midwest. As the site begins to be developed, significant cost savings are being realized during construction. BMPs planned for this project included constructed wetlands, vegetated swales, bioretention and rain gardens, wetland fringe along ponds, linear dry landscaped basins, and more.

Comments: Might be useful for benefits analysis. Case study provides detailed cost savings from low-impact development (vegetated swale, bioretention and rain gardens, wetland fringe pond, and dry landscaped basins), reducing costs for reinforced concrete storm pipes, storm structures, and site fill.

Author(s): Jamie Weist and Don Alexander
Date: 2007
Title: **Saving Time and Money on Construction-Site SWPPPs**
Organization: Woolpert, Inc.
Source: **StormCon 2007**
Abstract: Designed for contractors who must comply with federal, state, and local stormwater, erosion, and sediment control regulations, this presentation shows how to reduce the likelihood of fines due to noncompliance. A methodology and automated process have been developed to help prepare stormwater pollution prevention plans and comply with permit requirements, particularly for contractors who are dealing with multiple construction sites.
Comments: The full text of the article is not available.

Appendix C

Analysis of Construction Industry Trends Using Notice of Intent Records

To estimate costs to different sectors of the industry and to projects of different sizes, U.S. Environmental Protection Agency (EPA) developed a series of model projects that could serve as the basis for developing mathematical models. A key source of information that EPA used in this analysis is Construction Permit Notice of Intent (NOI) records, which EPA and state permitting authorities collect. EPA collected NOI data for approximately 138,000 permits, containing data from 38 states for construction activities occurring primarily between the mid-1990s and 2006. Depending on the state, the number of NOI records available ranged from fewer than 10 to more than 10,000. The data are available either from a database of permits processed directly by EPA (referred to as the EPA_NOI database) or per-state databases obtained independently. In general, the NOI records are sufficiently similar to allow pooling of all sources regardless of whether EPA or an individual state is the permit processing entity.

In general, the data fields of greatest interest within an NOI record for EPA's analysis are the following:

- National Pollutant Discharge Elimination System (NPDES) Permit or State-specific Identification Number
- Name/Title of Project or Facility
- Acres Affected and/or Disturbed
- Location of Project (e.g., latitude/longitude and/or street address)
- Date of Project (e.g., date of permit award, start of construction)
- Permitted Name and Contact Information

Not all NOI records collected contain the full array of data. Frequently, data fields are not filled in completely for any single NOI record. In addition, some states do not appear to collect or provide all the desired data fields in the files EPA collected. Also, in general, the more recent records are more complete than older records, and more current years contain more permit records for any given state. Overall, approximately half the NOI records collected covering all locations and all years have the type and quality of data that support analyses of interest to EPA.

For this analysis, EPA chose to characterize the industry into three major project types. EPA further subdivided these projects into three size categories, yielding a total of six model projects. Small projects are defined as those smaller than 10 acres in size, medium projects are 10 or more acres but less than 30 acres, while large projects are 20 or more acres in size. Table C-1 presents the matrix of model project types.

Table C-1. Model Site Matrix

Ultimate land use	Size category	Examples
Residential	Small, medium and large	Single and multifamily subdivisions
Nonresidential	Small, medium and large	Institutional, commercial, and industrial sites
Transportation/linear projects	Small, medium and large	Roadway, pipelines

For each of the six model projects, EPA analyzed the NOI records to determine the percentage of total constructed acreage that each model project comprises and the he median site size in each

category. EPA also analyzed the NOI records to determine if any other major project types existed.

The starting point for the analysis was identifying project type (i.e., future land use) on the basis of key words found in project name data fields. The broad categories and their subcategories identified according to a preliminary review of the NOI records were as follows:

- Residential – single and multifamily dwellings
- Nonresidential – commercial, industrial, institutional, places of worship, and schools
- Infrastructure – transportation, rail, mining, airport, water projects
- Farm – farm including poultry and dairy operation, and agriculture projects

As a first step, a suite of key words were identified for each of the subcategories, as a way of placing projects in one of the four broad categories. For example, the project title "Smith Condos" contains a key word, "Condos" which suggests the project is residential in nature. "John's Dairy Farm" contains the key word combination of "Dairy Farm," which suggests an agricultural project.

The search algorithm looked for occurrence of a single word from a list of key words and for key word combinations. Through an iterative process, word combinations were created from actual project names to help minimize identification errors. For example, identifying agricultural projects based only on the word "Farm" generated errors because the name of many residential projects contain the word, e.g., Farm Acres subdivision or Farm Estates. So, a review of agriculture projects was performed to create phrases like "Poultry Unit" and "Turf Farm" to help identify all apparent agriculture projects. Attachment A provides a list of key words and key word combinations.

Once the type of construction project was known, other data fields within an NOI record (e.g., acreage disturbed) became much more useful. For the most part, follow-on analysis of NOI record data was limited to totaling data fields within categories of land use, and performing limited statistical analysis using industry standard software (i.e., Microsoft Excel).

As the identification of construction project type (i.e., future land use) involved searching through thousands of data records using customized computer code, conducting quality control (QC) checks of the search results was warranted. This check attempted to verify that the computerized process was sufficiently robust to permit EPA's use of the results.

EPA's approach to use of the NOI information was to favor the highest quality information. Because the original data set is large (approximately 138,000 NOIs were used for this analysis), a subset contains sufficient data to perform a statistically defensible analysis. Various efforts are appropriate to manage potential and actual shortcomings within the NOI data records. The results of the current analysis (discussed below) are based on specific quality control activities performed before analysis of NOI records. The activities are as follows:

Management of Missing data
Where an NOI data record did not provide numeric information, it was not included in any statistical summaries performed, i.e., if the field containing constructed acreage was blank it was excluded from the analysis, not interpreted as "0" acres.

Unusual Data
Various checks were made to identify unusual data. For example, NOI records with very large acreage (larger than 1,500 acres) were screened to verify the project type would require extensive land area. If not, they were removed from the analysis. Another example is records with unexpected dates (e.g., June 2nd, 1890) were not used in any assessment related to construction duration or period.

Repetitive Records
An effort was made to identify and remove repeating records. Multiple listings of a single construction site are in the NOI records, judging from project name, project location, and construction site size information. The frequency of repeating records varies from state to state, with some states reporting a project multiple times. There is some suggestion that multiple listings relate to multiphase projects. While they represented a relatively small portion of the total NOI data set, repeating records were reduced to a single record (one that seemed most inclusive), where they could be identified.

Multiple Construction Subcategory Identifications
Hence, whenever a project title could be interpreted as falling into multiple categories (e.g., residential and commercial) it was removed from the analysis. For the results below, an NOI record was not used, even if its project name was more strongly associated with one of two subcategories, e.g., the project title contained two words generally associated with residential projects and only one word generally associated with commercial project. The focus of the analysis was to limit the degree of interpretation performed to a practical minimum.

Overall, approximately 4 percent of NOI records contain key words or key phrases that fall within multiple categories.

Assessment of Automated Construction Subcategory Identifications
Internal checks were performed to identify the accuracy of automated keyword searches (using computer code) as compared to key word interpretation performed by humans. The intent was to provide information on the percent of projects where the computer code misinterpreted the nature of construction activity.

If the automated (i.e., computer) characterization was correct most of the time, it is reasonable to use the conclusions drawn from the results. If the computer characterization was substantially wrong or biased, EPA could require alternative means to identify the nature individual NOIs, perhaps including individually assessing tens of thousands of records manually.

Regarding the automated key word search, three conditions were assessed:

- The computer code and human interpretation agree on a construction project name/nature

- The computer code misinterpreted the project nature, as judged by a review performed by humans
- The project nature is *ambiguous*, although it was assigned to a category on the basis of the computer code key word search (i.e., human interpretation of the project name/nature revealed that no clear conclusion could be drawn)

To characterize the performance of the automated key word search, NOI records were first grouped into the broad categories (residential, nonresidential, infrastructure, and farm). Any project not singularly assigned by the automated keyword search was excluded. Within each broad category, identified projects were first randomized in order, mingling all projects regardless of location, period of operation, and size. Next, the first 200 projects (at a minimum) in each category were individually reviewed and characterized by a person. A judgment was made as to whether the automated keyword search correctly characterized the individual construction project.

Overall, the automated characterization was judged to be *incorrect* approximately 2 percent of the time. In addition, approximately 4 percent of projects characterized through the automated process were later judged by a person to be *ambiguous*. Projects judged to be ambiguous were not necessarily incorrectly characterized; they might or might not be found to be correctly characterized if additional data were made available at a later date.

In summary, it appears that the automated keyword search provides reasonably high accuracy regarding its assessment of the future land use when broad categories of land use are used. Given the relative high accuracy of the key word search, EPA elected to use the results of the automated (computer) identification characterization of construction site type without correction.

Results of Assessment of NOI data records

Approximately 138,000 NOIs are available in files collected by EPA, and 61,500 records can be placed in a single land use category with an approximate 95 percent accuracy on the basis of a key word search. [Accuracy is based on a comparison between human interpretation of the project title and computer-code interpretation of project title.] In addition to the 61,500 NOIs assigned to a single land use category, an additional 2,500 NOIs can be placed in more than one land use category according to the key word search and were not used in subsequent evaluations. Only 41,000 categorized NOIs (of the 61,500) were from sources that provided construction acreage information for a portion of their NOIs; the remainder is from state files without site size data.

Identification and Processing of Relatively Infrequent Land Use Types
Approximately 3,000 of the 34,000 NOIs which listed project acreage were found to be from small subcategories on the basis of the total acreage represented across all NOIs. The relatively infrequent future land use subcategories are the following:

- Railroad
- Mine
- Water projects

- Park
- Airport
- Farm

Collectively, these six subcategories contain about 10 percent of the total site acreage found within the pool of NOI records. In terms of summarizing the results of the NOI assessment herein, these subcategories are not prioritized because of their small individual contribution. Creating individual construction sites models of these six subcategories would likely not alter the national results significantly. EPA assumed that the influence of the six infrequent subcategories is sufficiently represented in models of other, more common, land use types. In the case of the Transportation/Linear category, a linear transportation model was used to represent the acreage developed as railroad, water projects (e.g., pipelines) and airports. In terms of the acreage listed in the NOI data pool, transportation alone makes up about 9 percent of the total, or about equal to the collective acreage found in the other linear land uses.

Summarizing Future Land Use by Broad Land Use Categories
Across the suite of the land use categories analyzed, actual acreage was available for only 34,000 NOIs. This acreage was summed nationally for the most common land uses, and then the percent contribution by each category was computed. The results are summarized in Table C-2. Note, in the absence of railroad, water projects, and airports (neglected for their small individual contribution), the original infrastructure group is left containing only transportation projects.

In summary, it appears that the land use models for residential, nonresidential, and transportation (linear) projects can account for the majority of land use found within the NOI pool of data. In addition, it appears appropriate to subdivide the broad land use categories into large and small projects, with the division being at the 10-acre site size. While small projects make a small contribution to the total acreage, they represent a large fraction of the total number of projects permitted.

Inclusion of Small Sites
The Phase I NPDES stormwater regulations, promulgated in 1990, required construction sites of 5 or more acres in size to obtain a permit. The Phase II NPDES regulations, promulgated in 1999, extended regulation to sites of 1 or more acre. So as not to skew the national distribution, a simple assessment was performed to determine if the smallest sites (defined as being below 5 acres in size) were excluded from the pool of EPA's NOI data. A state-by-state review was performed to determine the first year when sub-5 acre sites are found in the NOI records. Table C-3 indicates the per-state summary of the results for sub-5 acre sites. Overall, between 95 and 100 percent of EPA's pool of NOI data originates after sub-5 acre sites are included in the NOI records (typically starting in Year 2003). Table C-3 summarizes the results of this assessment.

Table C-2. National Summary of NOI Assessment by Common Land Use Category and Site Size

	Number of NOIs	Percent of NOIs	Acres in Each NOI Category	Percent of Total NOI Acres	Median Site Size (acres)
Small Transportation Projects	1,261	3.7%	4,496	0.8%	3.0
Small Residential Projects	8,322	24.3%	32,139	5.5%	3.0
Small Non-residential Projects	12,915	37.7%	43,141	7.3%	2.6
Medium Transportation Projects	395	1.2%	6,884	1.2%	16.0
Medium Residential Projects	4,236	12.4%	74,322	12.6%	16.7
Medium Non-residential Projects	3,232	9.4%	54,182	9.2%	15.0
Large Transportation Projects	407	1.2%	44,060	7.5%	78.9
Large Residential Projects	2,130	6.2%	178,803	30.4%	33.0
Large Non-residential Projects	1,353	4.0%	149,931	25.5%	51.0
TOTALS	**34,251**		**587,958**		

* Note, approximately 2 percent of projects are believed to be incorrectly categorized, and up to 4 percent of categorized projects are of an uncertain nature.

Table C-3. Evaluation of Sub-5 Acre Sites with NOI Records

State	Number in EPA's NOI population*	Year when sub-5 acre NOIs appear in EPA's database	Number of independently submitted population**	Year when sub-5 acre NOIs appear in individual databases
AK	1,195	Sub-5 acre NOIs starting in 2003	--	
AL	1	Data too limited to evaluate	13,276	No acreage provided
AR	--	No data provided	320	No acreage provided
AZ	484	Sub-5 acre NOIs starting in 2003	13,591	Sub-5 acre NOIs starting in 2002; Post-2002 constitutes 98% of data
CA	44	Sub-5 acre NOIs starting in 2003	20,751	Sub-5 acre NOIs starting in 2001; Post-2001 constitutes 95% of data
CO	184	Sub-5 acre NOIs starting in 1999	--	
CT	5	Data too limited to evaluate	--	
DC	138	Sub-5 acre NOIs starting in 2003	--	
FL	10	Data too limited to evaluate	20,395	No acreage provided
GA	--	No data provided	21,912	No date fields provided, but 44% of data is for sub-5 acre sites
IA	3	Data too limited to evaluate	--	
ID	2,130	Sub-5 acre NOIs starting in 2003	--	
IL	--	No data provided	8,747	Sub-5 acre NOIs starting in 2000; Post-2000 constitutes 99% of data
KS	4	Data too limited to evaluate	--	
LA	6	Data too limited to evaluate	1,441	No acreage provided
MA	2,590	Sub-5 acre NOIs starting in 2002	--	
MI	12	Data too limited to evaluate	--	

State	Number in EPA's NOI population*	Year when sub-5 acre NOIs appear in EPA's database	Number of independently submitted population**	Year when sub-5 acre NOIs appear in individual databases
MN	58	Sub-5 acre NOIs starting in 2003	--	
MS	5	Data too limited to evaluate	1,624	No acreage provided
MT	72	Sub-5 acre NOIs starting in 2003	--	
ND	6	Data too limited to evaluate	--	
NE	12	Data too limited to evaluate	--	
NH	1,874	Sub-5 acre NOIs starting in 2002	--	
NM	3,590	Sub-5 acre NOIs starting in 2001	--	
NV	11	Data too limited to evaluate	--	
NY	1	Data too limited to evaluate	--	
OH	--	No data provided	9,181	Sub-5 acre NOIs starting in 2003; Post-2003 constitutes 99% of data
OK	233	Sub-5 acre NOIs starting in 2003	--	
OR	7	Data too limited to evaluate	--	
SD	11	Data too limited to evaluate	1,381	Sub-5 acre NOIs starting in 2002; Post-2002 constitutes 96% of data
TN	--	No data provided	8,815	Sub-5 acre NOIs starting in 1996; Post-1996 constitutes 100% of data
TX	386	Sub-5 acre NOIs starting in 2003	--	
UT	2	Data too limited to evaluate	--	
VT	7	Data too limited to evaluate	--	
WA	104	Sub-5 acre NOIs starting in 2003	1,800	No acreage provided
WI	36	Data too limited to evaluate	--	
WV	--	No data provided	1,219	Sub-5 acre NOIs starting in 2002; Post-2002 constitutes 100% of data
WY	5	Data too limited to evaluate	--	

* NOI permits processed directly by EPA

** Within databases obtained from individual states

Evaluation of Transportation Projects

Table C-4 contains additional data related to transportation projects listed within the pool of NOI data. Tetra Tech combined all NOI records that appeared to be transportation related, and attempted to obtain additional insight into the actual activity covered by the permit.

Table C-4. Detailed Evaluation of Transportation-Related NOIs

Subcategory	Average site acreage	Total acreage in subcategory	Number of NOIs	Median site size	Percentage of listed acreage	Percentage of assigned NOIs
Unassigned	23.60	15,502	657		28.0%	31.8%
Bridge	5.87	980	167	3.00	1.8%	8.1%
Hwy	26.66	9,384	352	6.00	16.9%	17.1%
Interchange	52.20	261	5		0.5%	0.2%
Office*	32.74	3,798	116		6.9%	5.6%
Road, Lane, Avenue	12.82	5,835	455	4.79	10.5%	22.1%
State Road	63.28	19,680	311	23.00	35.5%	15.1%
Total	**26.87**	**55,440**	**2063**			

* Some projects are identified only by reference to a DOT office location

As expected, a fraction of the transportation NOIs could not be characterized in terms of the type of activity (approximately 28 percent). An example of this would be an NOI that lists only a DOT contract number in the project name field. The remaining (assignable) projects were divided into groups on the basis of a detailed key word search of the project title. Linear roadway-related projects were found to be the dominant project type. Because linear transportation projects collectively represent about 63 percent of all transportation project acreage (State Roads, Road, Lane, Avenue, Highway) it seems reasonable for EPA to consider a road project as its *linear*-type construction site model.

The NOI permit characterization is DCN 43093 and the NOI model site assessment is DCN 43094 in the Administrative Record.

Attachment A: Key Word List

Subcategories of construction activities were developed on the basis of a review of NOI records. The subcategories of interest and the broader categories that contain them are as follows:

- Residential – single and multifamily dwellings
- Nonresidential – commercial, industrial, institutional, places of worship, and schools
- Infrastructure – transportation, rail, mine, airport, water projects
- Farm – farm including poultry and dairy operation, and agriculture projects

The tables below indicate the relationship between key words and subcategories. Note that in some cases a space preceded or followed the key word, but only the unique key words are presented in the tables.

Farm Key Words
Chicken Farm
Dairy Farm
Egg Farm
Family Farm
Farms Dairy
Farms Hatchery
Fish Farm
Goat Farm
Grass Farm
Horse Farm
Pork Farm
Poultry
Poultry Farm
Sod Farm
Tree Farm
Turf Farm

Residential Key Words	
Acres	RV Park
Addition	RV Resort
Apartment	Senior Housing
Apt	Single Family
Assisted Living	Square
Commons	Sub
Condo	Sub Division
Condominium	Subdivision
Condos	Tenant
Cottages	The Bluffs
Development	The Hills
Dvlpmnt	The Meadow
Dwelling	The Orchards
Estate	The Reserve
Heights	The Ridge
Home	Towers
Housing	Town Home
Landing	Towne Crossing
Manor	Townhomes
Mobile Home	Townhouse
Residence	Village
Residential	Villas
Retreat	

Nonresidential commercial/industrial			
84 Lumber	Dairy	Mart	Services Center
Administration Bld	Day Care	Maverik	Shop
Administration Building	Daycare	McDonalds	Shopping
Arena	Dealership	Medical	Shopping Center
Auto	Dental	Medical Center	Sonic
Automotive	Department Store	Medical Cntr	Staples
Autozone	Dept Store	Millwork	Starbucks
Baking	Distribution Center	Mini Storage	Steakhouse
Bank	Dollar General	Ministorage	Stop & Shop
Bbq	Energy	Motel	Stop And Shop
Beverage	Equipment	Municipal Building	Storage
Business	Exxon	Nursery	Store
Business Park	Family Dollar	Office Addition	Subway
Café	Fedex	Office Bld	Subway Sandwich
Cannery	Filene's	Office Building	Supermarket
Car Wash	Fire Station	Office Complex	Tech. Center
Carwash	Food Shops	Office Development	Technology Center
Casino	Fuel Center	Package	Terminal
Century 21	Furniture	Packaging	Theater
Chiropractic	Gas Station	Parking	Town Hall
Citgo	Golf	Pharmacy	Townhall
Cleaners	Hardware	Plaza	Trading Post
Clinic	Healthcare	Plumbing	Transport
Clubhouse	Home Depot	Power	Travel Center
College	Hotel	Printing	Village Center
Com Bldg	Industrial	Public Storage	Walgreen
Commerce Center	Industrial Park	Recyclers	Walmart
Commercial	Inn	Resort	Wal-Mart
Convenience	Kohls	Restaurant	Warehouse
Convenience Station	Kohl's	Retail	Yacht Club
Corporate Headquarters	Lodge	Retail Shops	Yard
Costco	Lowes	Roadhouse	Ymca
Country Club	Lowe's	Rodeo Arena	
Courthouse	Mall	Sam's Club	
Credit Services	Manufacturing	Sandwich Shop	
Credit Union	Market	Sawmill	
Ctry Club	Market Place	Self Storage	
CVS	Marketplace	Service Station	

Nonresidential other subcategories	
Places of Worship	**Institutional**
Church	Armory
Chapel	Booster Station
Congregation	City Hall
Diocese	Community Services
Jehovah	Correction
Of God	Dam
Sanctuary	Facility
School	Federal Center
Academy	Garage
Athletic Field	Gas Line
Ball Field	Gas Plant
Ballfield	Harbor
Baseball	Hospital
Campus	Jail
Childrens Center	Landfill
Dugout	Library
Education	Lift Station
Elem	Maintenance
Elementary	Pipe
Football	Plant
Kindergarten	Plnt
Library	Police
Practice Facility	Port Authority
Sch	Power
School	Power Line
Soccer	Powerline
Sports Track	Public Infrastructure
Stadium	Public Library
Track & Field	Utility
	Visitors Center

Infrastructure		
Airport	**Transportation**	Borrow
Airpark	Bridge	Coal
Airport	Bridge Recon	Gravel
Hanger	Bypass	Mine
Ramp	Dot	Mining
Runway	Freeway	Pit
Spaceport	Highway	Reclamation
Tarmac	Highway Department	Sand & Gravel
Taxilane	Hwy	
Taxiway	Hwy Department	
Water Projects	Intersection	
Lateral	Overpass	
Main	Rd Realignment	
Pipeline	Road Improvement	
Potw	Road Realignment	
Sewer	Road Reconstruction	
Sewerage	Road Relocation	
Swr	Roadway Impr	
Trunkline	Route	
Waste Water	St Realignment	
Wastewater	Street Improve	
water line	Street Realignment	
Water Main	Tollway	
Water Pollution	Transit	
Water System	Transportation	
waterlines	**Railroad**	
Watermain	Railroad	
Wpc	Rail Road	
Wwtf	**Mine**	
Wwtp	Aggregates	

Appendix D

Precipitation Data Representative of Major U.S. Metropolitan Areas

OVERVIEW

The U.S. Environmental Protection Agency (EPA) used precipitation data to estimate costs and pollutant load reductions for regulatory options. EPA developed a series of regional pollutant load models using data from 11 indicator cities for the loadings analysis. These indicator cities are shown in Table D-1. For the costing analysis, EPA used rainfall data for one indicator city in each state. EPA used the same 11 indicator cities for the states described in Table D-1. For the remaining states, a major urban area was chosen as the indicator; which in most cases was the capital city. Precipitation data was acquired for each city using the National Oceanic and Atmospheric Administration (NOAA) National Weather Service (NWS) Precipitation Frequency Data Server (PFDS). The Hydrometeorological Design Studies Center (HDSC) within the Office of Hydrologic Development of the NWS is in an ongoing process of updating its precipitation frequency estimates, which are available in NOAA Atlas 14 format. At the time of this writing, only a portion of the United States had been updated into this format. Atlas 14 supercedes precipitation frequency estimates contained in previous NWS publications. The updates are based on more recent and extended data sets, currently accepted statistical approaches, and improved spatial interpolation and mapping techniques. A complete list of NWS publications is listed in Table D-2. The rainfall analysis data is DCN 43095 and an index of spatial data analyses conducted for the proposed rule is DCN 43097 the Administrative Record.

Table D-1. EPA Region Indicators

EPA Region	Indicator city
1	Manchester, NH
2	Albany, NY
3	Washington, DC, VA, and MD
4	Atlanta, GA
5	Chicago, IL—IN
6	Dallas, Fort Worth, and Arlington, TX
7	Kansas City, MO and KS
8	Denver and Aurora, CO
9	Las Vegas, NV
10	Boise City, ID, and Seattle, WA

Table D-2. Current NWS Precipitation Frequency Publications

Location	5 min–60 min	1 hr–24 hr	2 day–10 day
Arizona, Nevada, New Mexico, Utah, and Southeast California	NOAA Atlas 14 (2003)	NOAA Atlas 14 (2003)	NOAA Atlas 14 (2003)
Remainder of the Western United States	Arkell & Richards (1986) Frederick & Miller (1979)	NOAA Atlas 2 (1973)	Tech. Paper 49 (1964)
Delaware; Illinois; Indiana; Kentucky; Maryland; New Jersey; North Carolina; Ohio; Pennsylvania; South Carolina; Tennessee; Virginia; West Virginia; and Washington, DC	NOAA Atlas 14, Volume 2 (June 2004)	NOAA Atlas 14, Volume 2 (June 2004)	NOAA Atlas 14, Volume 2 (June 2004)
Remainder of the Eastern United States	Tech. Memo 35 (1977)	Tech. Paper 40 (1961)	Tech. Paper 49 (1964)
Hawaii	Tech. Paper 43 (1962)	Tech. Paper 43 (1962)	Tech. Paper 51(1965)
Alaska	Tech. Paper 47 (1963)	Tech. Paper 47 (1963)	Tech. Paper 52 (1965)
Puerto Rico	NOAA Atlas 14, Volume 3	NOAA Atlas 14, Volume 3	NOAA Atlas 14, Volume 3

NOAA Atlas 14 contains precipitation frequency estimates with associated confidence limits for the United States for 5-minute through 60-day durations at average recurrence intervals of 1 year through 1,000 year. The estimates are based on the analysis of annual maximum series and then converted to partial duration series results. Figure D-1 shows an example of the Atlas 14 interface.

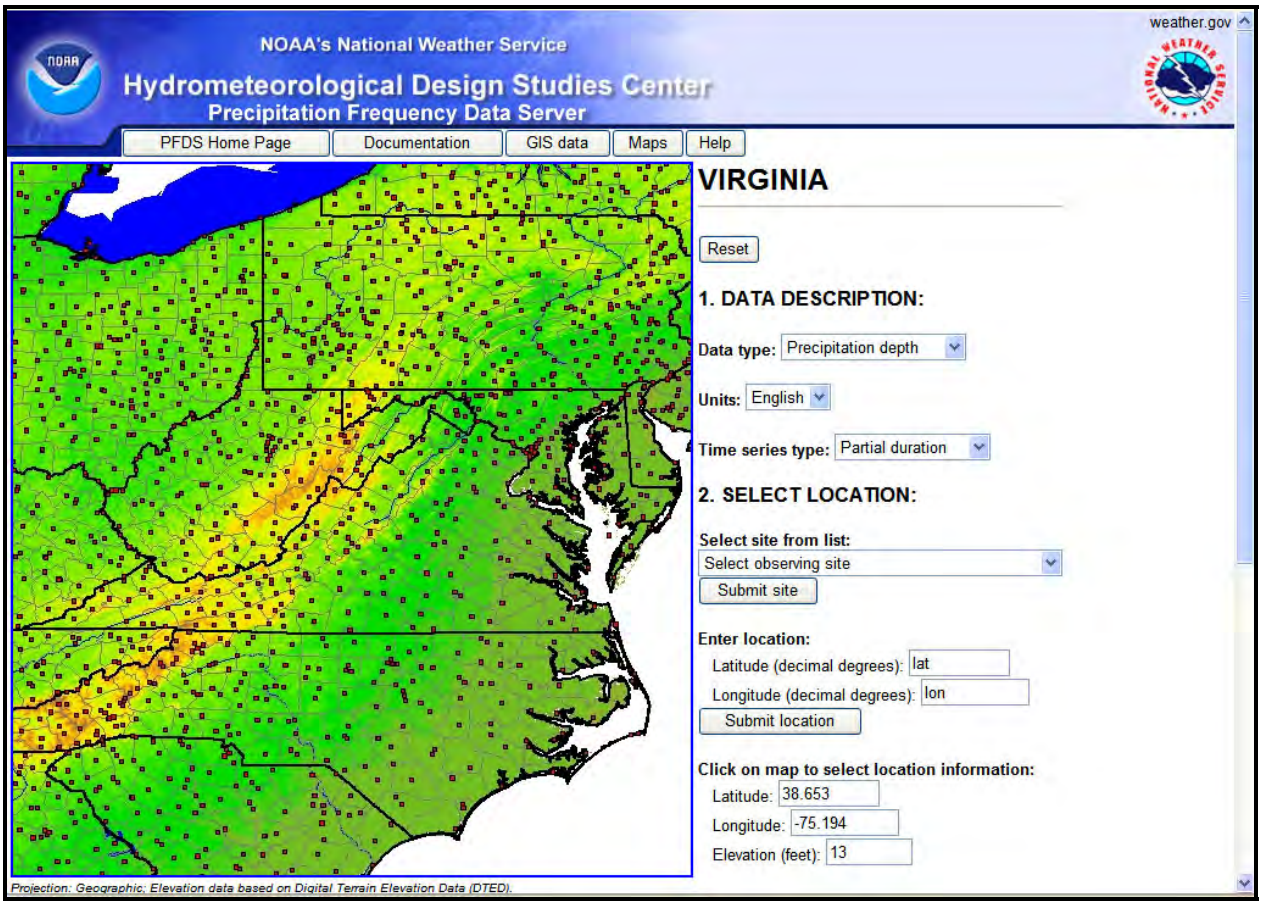


Figure D-1. Example of PFDS Atlas 14 – Virginia.

The Atlas 14 interface allows the user to choose from various data parameters, such as data type (precipitation depth or precipitation intensity); units (English or Metric); time series type (partial duration or annual maximum); and the weather station location. The rainfall data results used in EPA's analysis are shown in Table D-3.

For the states not currently updated by NOAA Atlas 14, the rainfall-frequency values for selected durations were estimated using a series of maps presented in the older NWS publications. The current modeling effort focused on the 2-year 24-hour, 10-year 24-hour, 25-year 24-hour, and 10-year 6-hour precipitation data. Therefore, the data for the remainder of the Western United States were estimated by using NOAA Atlas 2, *Precipitation Frequency Atlas of the Western United States* (1973), which are generalized maps presented for 6- and 24-hour point precipitation for the return periods of 2, 5, 10, 25, 50, and 100 years. Atlas 2 is published in separate volumes for each of the states. Similarly, the maps presented in the corresponding Technical Paper were used for the remainder of the Eastern United States and Hawaii. (Alaska was not included in this analysis because EPA lacked sufficient data on the annual amount of construction activity occurring in Alaska). Examples of an Atlas 2 map and a map from a Technical Paper are shown in Figures D-6 and D-7, respectively.

Precipitation frequency results not generated by Atlas 14 for the remaining states (i.e., using Atlas 2 or Technical Paper maps) are presented in Table D-4. The rainfall depths in Table D-4 were estimated by identifying the target city on the Atlas 2 or Technical Paper map and linearly

approximating the rainfall value. For example, if a city fell between a depth of 4.5 and 5 inches and the city was approximately 20 percent of the map distance from the 5-inch line, a rainfall depth of 4.9 inches was estimated. Note that the maps provided data for depth only. Intensity estimates were calculated by dividing the duration (e.g., 6- or 24-hour) by the depth. Additionally, Atlas 2 depths were converted from tenths of an inch to inches.

The above data were used in modeling state basin size requirements. New York and Wisconsin specified alternate basin size storm events (10-year, 24-hours and 1-year, 24-hours, respectively). Therefore, a depth of 4.4 inches for a 10-year 24-hour event in Albany, New York, and a depth of 2.5 inches for a 1-year 24-hour event in Madison, Wisconsin were also estimated.

For use in estimating the annual volume of runoff produced, the PRISM Group analysis and mapping services, developed by the Oregon State University, was used to obtain annual precipitation data for all indicator cities and gauge locations. The PRISM data sets were developed through projects funded partly by the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service, USDA Forest Service, NOAA Office of Global Programs, and others. PRISM Group is responsible for nearly all major climate mapping efforts at the federal level in the United States. Some examples of recent and current projects include the following:

- Climate Atlas of the United States, for the National Climatic Data Center
- Precipitation and temperature maps for all 50 U.S. states and possessions, for USDA Natural Resources Conservation Service
- 103 years of monthly temperature and precipitation maps for the lower 48 states, for NASA/NOAA Office of Global Programs

The PRISM Model is a knowledge-based system that uses point measurements of precipitation, temperature, and other climate elements to produce continuous, digital coverages. Figure D-2 provides an example of the PRISM Data Explorer interface.

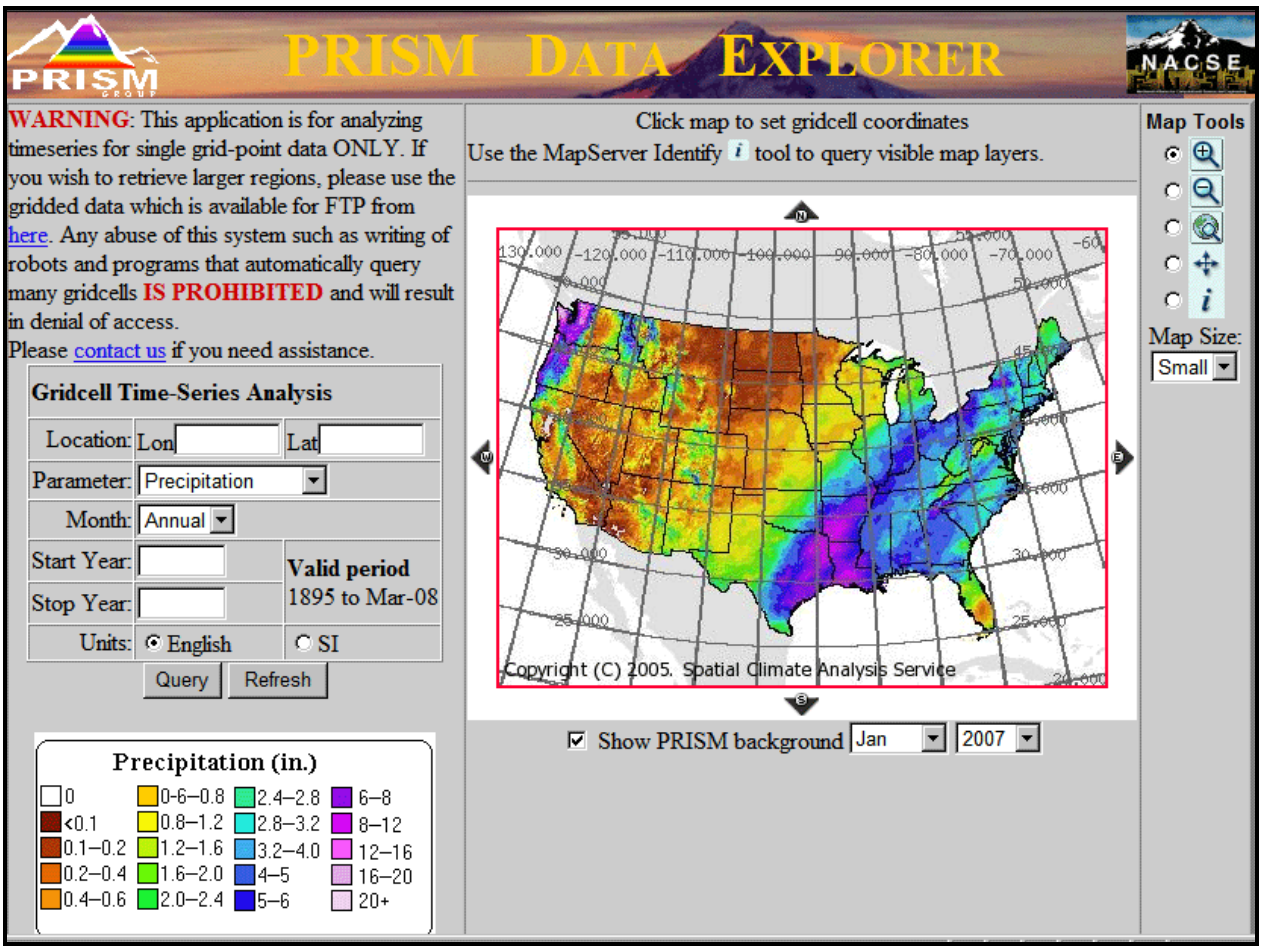


Figure D-2. Example of PRISM Interface.

The PRISM interface allows users to choose from various parameters such as months (January through December, all months, and annual); start and stop years (1895 to current); and units (English or Metric). The PRISM-required inputs are latitude and longitude points for all indicator cities and gauge locations. Results were compiled of annual precipitation totals for the years of 1895 to 2007 from which a determination was made for the annual average for each indicator city in each state (presented in Table D-5). The latitude and longitude point inputs for the PRISM Gridcell analysis were obtained from NOAA Atlas 14 weather station locations [e.g., Phoenix WSFO AP, AZ (02-6481)] where possible. For the states not currently updated by NOAA Atlas 14, the U.S. Geological Survey (USGS) Geographic Names Information System (GNIS) was used to obtain latitude and longitude points.

Figure D-3 provides an example of the USGS interface.

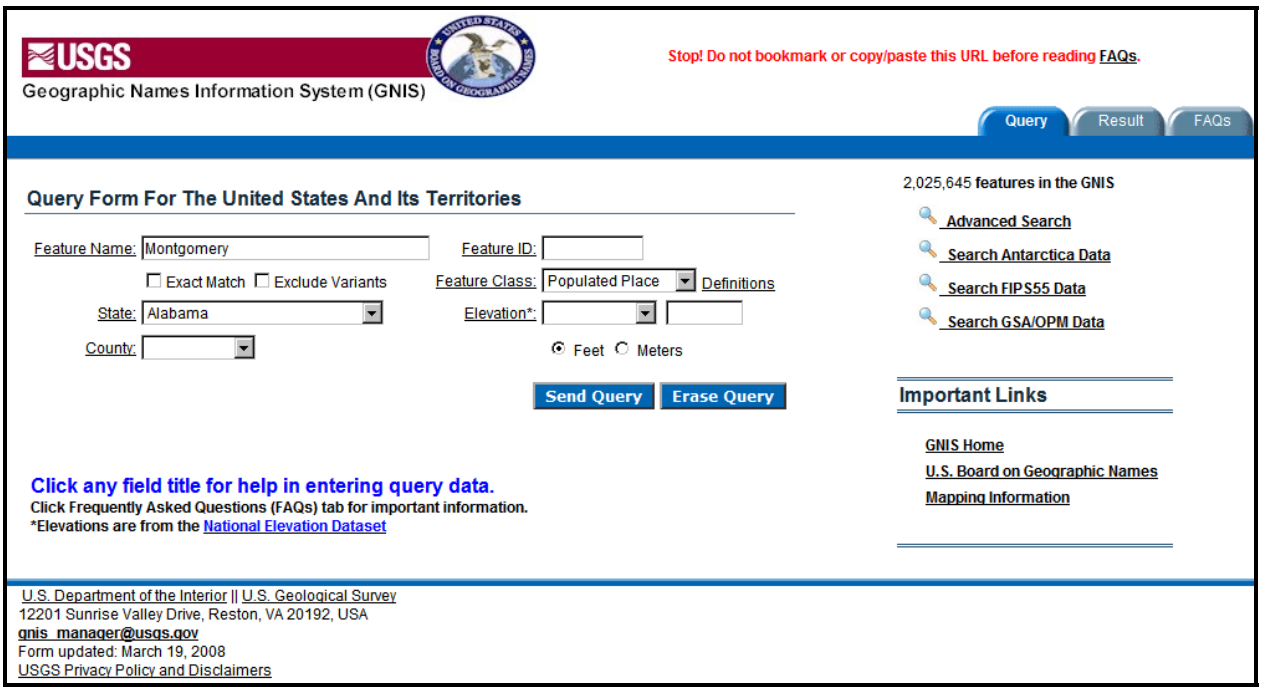
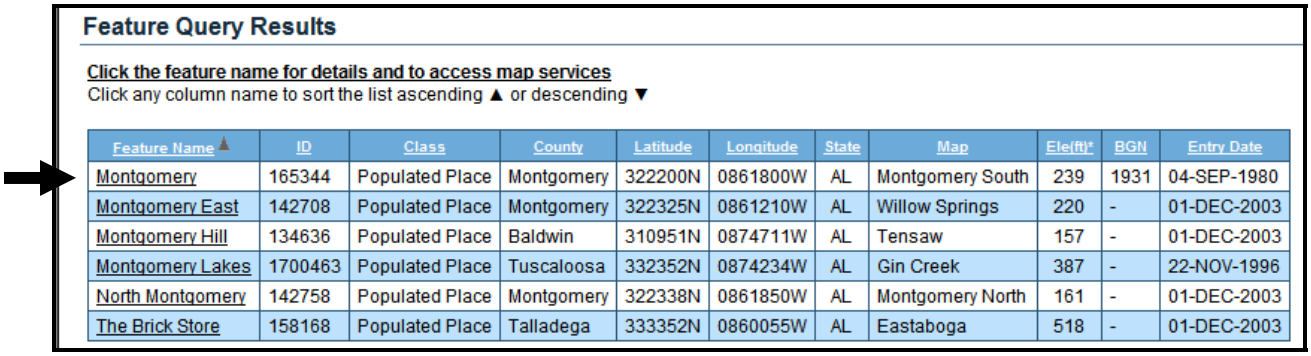


Figure D-3. Example of USGS GNIS Interface.

The indicator city and the state were input into this interface and then *Populated Place* under the Feature Class field was selected for obtaining the latitude and longitude points. Once *Send Query* is selected, the results are displayed in a table format as shown in the Figure D-4 example. The user can then click the desired *Feature Name* in the list for a Detailed Report as shown in the example in Figure D-5.

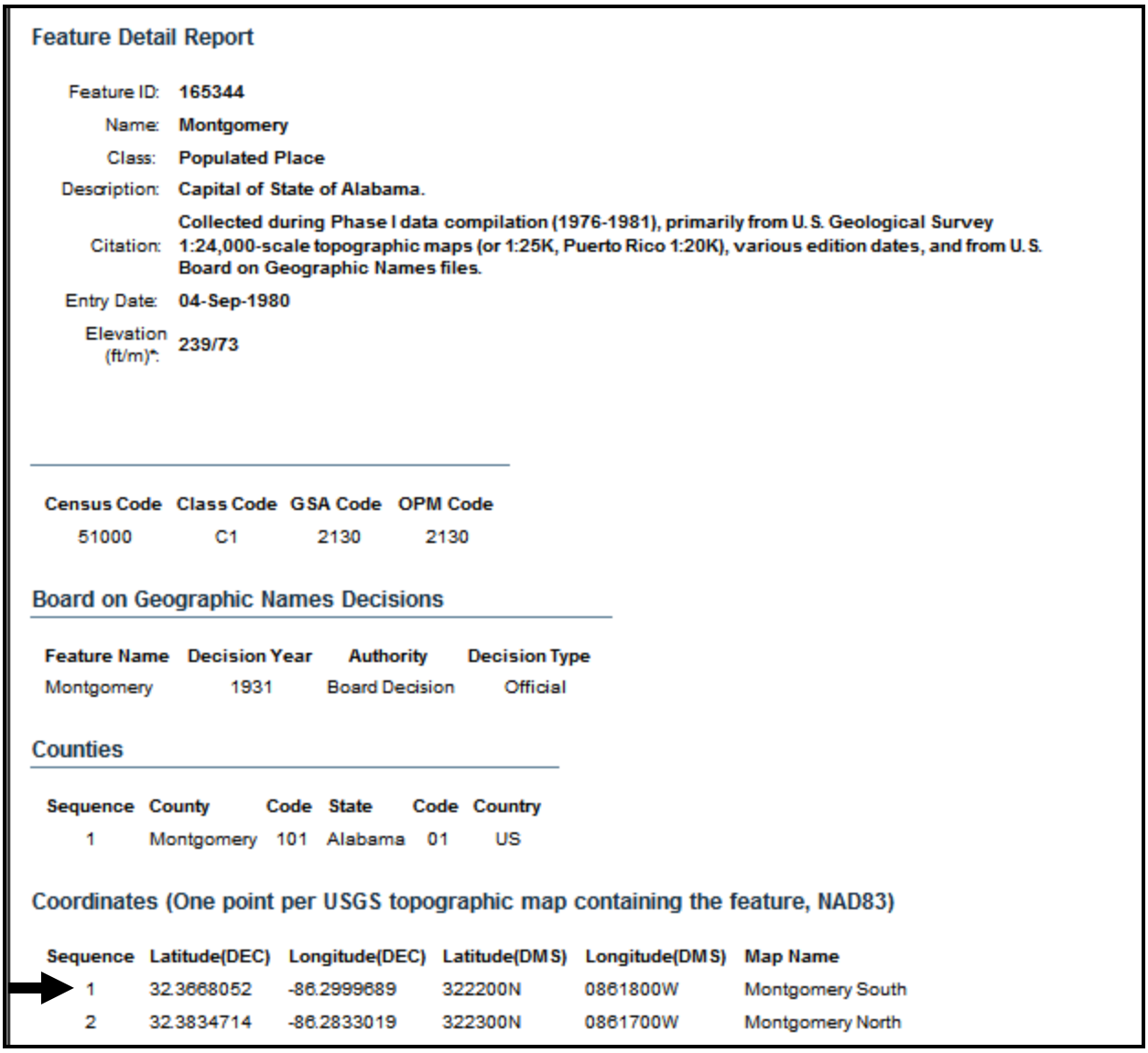


Feature Query Results

Click the feature name for details and to access map services
Click any column name to sort the list ascending ▲ or descending ▼

Feature Name	ID	Class	County	Latitude	Longitude	State	Map	Ele(ft)*	BGN	Entry Date
Montgomery	165344	Populated Place	Montgomery	322200N	0861800W	AL	Montgomery South	239	1931	04-SEP-1980
Montgomery East	142708	Populated Place	Montgomery	322325N	0861210W	AL	Willow Springs	220	-	01-DEC-2003
Montgomery Hill	134636	Populated Place	Baldwin	310951N	0874711W	AL	Tensaw	157	-	01-DEC-2003
Montgomery Lakes	1700463	Populated Place	Tuscaloosa	332352N	0874234W	AL	Gin Creek	387	-	22-NOV-1996
North Montgomery	142758	Populated Place	Montgomery	322338N	0861850W	AL	Montgomery North	161	-	01-DEC-2003
The Brick Store	158168	Populated Place	Talladega	333352N	0860055W	AL	Eastaboga	518	-	01-DEC-2003

Figure D-4. Example of USGS GNIS Query Results.



Feature Detail Report

Feature ID: **165344**
Name: **Montgomery**
Class: **Populated Place**
Description: **Capital of State of Alabama.**
Citation: **Collected during Phase I data compilation (1976-1981), primarily from U.S. Geological Survey 1:24,000-scale topographic maps (or 1:25K, Puerto Rico 1:20K), various edition dates, and from U.S. Board on Geographic Names files.**
Entry Date: **04-Sep-1980**
Elevation (ft/m)*: **239/73**

Census Code	Class Code	GSA Code	OPM Code
51000	C1	2130	2130

Board on Geographic Names Decisions

Feature Name	Decision Year	Authority	Decision Type
Montgomery	1931	Board Decision	Official

Counties

Sequence	County	Code	State	Code	Country
1	Montgomery	101	Alabama	01	US

Coordinates (One point per USGS topographic map containing the feature, NAD83)

Sequence	Latitude(DEC)	Longitude(DEC)	Latitude(DMS)	Longitude(DMS)	Map Name
1	32.3668052	-86.2999689	322200N	0861800W	Montgomery South
2	32.3834714	-86.2833019	322300N	0861700W	Montgomery North

Figure D-5. Example of USGS GNIS Query Detail Report.

The *Sequence 1* latitude (DEC) and longitude (DEC) data coordinates from the USGS GNIS query results were used for use in the PRISM model for each indicator city.

Table D-3. NOAA Atlas 14 Precipitation Frequency Results

Precipitation frequency estimates (depth/inches)
Point Estimates
Data series: Partial duration maxima
State: ILLINOIS
Station: CHICAGO OHARE WSO ARP
Lon (dd): -87.9142
Lat (dd): 41.9861
Elev (feet): 66
Date/time: Thu Jan 31 08:44:02 EST 2008

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
1	0.39	0.6	0.73	0.97	1.19	1.39	1.49	1.78	2.05	2.34	2.7	3.08	3.58	4.05	5.53	6.88	8.64	10.42
2	0.46	0.71	0.87	1.17	1.43	1.68	1.8	2.15	2.47	2.85	3.26	3.7	4.27	4.81	6.54	8.1	10.15	12.22
5	0.54	0.84	1.03	1.41	1.77	2.1	2.27	2.75	3.13	3.64	4.11	4.55	5.16	5.77	7.71	9.41	11.61	13.94
10	0.61	0.95	1.17	1.62	2.06	2.47	2.68	3.3	3.74	4.29	4.81	5.26	5.88	6.57	8.63	10.39	12.68	15.2
25	0.7	1.08	1.33	1.88	2.44	2.94	3.21	4.05	4.57	5.25	5.83	6.28	6.9	7.69	9.88	11.65	14	16.78
50	0.78	1.18	1.46	2.09	2.76	3.35	3.67	4.73	5.32	6.07	6.68	7.13	7.73	8.61	10.85	12.6	14.98	17.93
100	0.85	1.28	1.59	2.3	3.08	3.77	4.13	5.46	6.11	6.96	7.6	8.05	8.61	9.59	11.85	13.52	15.9	19.01
200	0.93	1.39	1.73	2.52	3.43	4.2	4.63	6.26	6.98	7.93	8.61	9.04	9.54	10.63	12.86	14.44	16.77	20.03
500	1.04	1.53	1.9	2.82	3.9	4.81	5.31	7.42	8.24	9.38	10.08	10.56	10.92	12.12	14.25	15.61	17.87	21.3
1000	1.13	1.64	2.05	3.08	4.32	5.33	5.91	8.47	9.38	10.62	11.32	11.86	12.19	13.38	15.34	16.49	18.66	22.21

Precipitation Intensity Estimates (in/hr)

2	5.47	4.27	3.48	2.33	1.43	0.84	0.6	0.36	0.21	0.12	0.07	0.04	0.03	0.02	0.01	0.01	0.01	0.01
5	6.48	5.03	4.12	2.82	1.77	1.05	0.76	0.46	0.26	0.15	0.09	0.05	0.03	0.02	0.02	0.01	0.01	0.01
10	7.36	5.68	4.66	3.24	2.06	1.23	0.89	0.55	0.31	0.18	0.1	0.05	0.03	0.03	0.02	0.01	0.01	0.01
25	8.45	6.46	5.32	3.75	2.44	1.47	1.07	0.68	0.38	0.22	0.12	0.07	0.04	0.03	0.02	0.02	0.01	0.01
50	9.36	7.09	5.85	4.18	2.76	1.68	1.22	0.79	0.44	0.25	0.14	0.07	0.05	0.04	0.02	0.02	0.01	0.01
100	10.24	7.7	6.38	4.61	3.08	1.88	1.38	0.91	0.51	0.29	0.16	0.08	0.05	0.04	0.02	0.02	0.01	0.01
200	11.18	8.35	6.92	5.05	3.43	2.1	1.54	1.04	0.58	0.33	0.18	0.09	0.06	0.04	0.03	0.02	0.02	0.01
500	12.46	9.16	7.62	5.64	3.9	2.4	1.77	1.24	0.68	0.39	0.21	0.11	0.07	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date/time: Thu Jan 31 08:47:43 EST 2008

Precipitation frequency estimates (depth/inches)
Point Estimates
Data series: Partial duration maxima
State: NEW MEXICO
Station: SANTA FE
Lon (dd): 105.9
Lat (dd): 35.6833
Elev (feet): 7582
Date/time: Thu Jan 31 10:56:42 EST 2008

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
1	0.2	0.3	0.38	0.51	0.63	0.76	0.82	0.96	1.09	1.24	1.4	1.62	1.92	2.18	2.91	3.56	4.46	5.16
2	0.26	0.39	0.49	0.66	0.81	0.97	1.04	1.2	1.37	1.54	1.75	2.02	2.39	2.71	3.62	4.42	5.53	6.41
5	0.34	0.52	0.65	0.87	1.08	1.28	1.34	1.52	1.71	1.92	2.16	2.5	2.94	3.34	4.41	5.35	6.62	7.68
10	0.41	0.62	0.77	1.04	1.28	1.52	1.59	1.77	1.98	2.22	2.5	2.88	3.36	3.84	5.01	6.04	7.41	8.59
25	0.5	0.76	0.94	1.26	1.56	1.84	1.93	2.13	2.36	2.62	2.94	3.39	3.92	4.5	5.78	6.92	8.39	9.7
50	0.56	0.86	1.06	1.43	1.77	2.1	2.19	2.4	2.64	2.93	3.29	3.78	4.36	5	6.36	7.55	9.07	10.48
100	0.64	0.97	1.2	1.62	2	2.38	2.47	2.68	2.94	3.26	3.64	4.18	4.79	5.51	6.91	8.17	9.72	11.21
200	0.71	1.08	1.34	1.8	2.23	2.67	2.77	2.98	3.23	3.58	3.99	4.58	5.22	6.02	7.45	8.75	10.31	11.88
500	0.81	1.23	1.52	2.05	2.54	3.07	3.18	3.38	3.63	4.02	4.46	5.12	5.79	6.69	8.14	9.47	11.04	12.69
1000	0.89	1.35	1.67	2.25	2.79	3.38	3.51	3.7	3.95	4.35	4.83	5.54	6.21	7.21	8.64	9.99	11.54	13.25

Precipitation Intensity Estimates (in/hr)

2	3.1	2.36	1.95	1.31	0.81	0.48	0.35	0.2	0.11	0.06	0.04	0.02	0.01	0.01	0.01	0.01	0.01	0
5	4.13	3.14	2.6	1.75	1.08	0.64	0.45	0.25	0.14	0.08	0.05	0.03	0.02	0.01	0.01	0.01	0.01	0.01
10	4.91	3.73	3.08	2.08	1.28	0.76	0.53	0.3	0.16	0.09	0.05	0.03	0.02	0.02	0.01	0.01	0.01	0.01
25	5.96	4.54	3.75	2.52	1.56	0.92	0.64	0.36	0.2	0.11	0.06	0.04	0.02	0.02	0.01	0.01	0.01	0.01
50	6.76	5.15	4.25	2.86	1.77	1.05	0.73	0.4	0.22	0.12	0.07	0.04	0.03	0.02	0.01	0.01	0.01	0.01
100	7.64	5.81	4.81	3.24	2	1.19	0.82	0.45	0.24	0.14	0.08	0.04	0.03	0.02	0.01	0.01	0.01	0.01
200	8.51	6.47	5.35	3.6	2.23	1.34	0.92	0.5	0.27	0.15	0.08	0.05	0.03	0.03	0.02	0.01	0.01	0.01
500	9.7	7.38	6.1	4.11	2.54	1.54	1.06	0.56	0.3	0.17	0.09	0.05	0.03	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date/time: Thu Jan 31 10:57:41 EST 2008

Precipitation frequency estimates (depth/inches)
Point Estimates
Data series: Partial duration maxima
State: ARIZONA
Station: PHOENIX WSFO AP
Lon (dd): -111.99
Lat (dd): 33.4431
Elev (feet): 1148
Date/time: Thu Jan 31 11:18:08 EST 2008

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
1	0.17	0.27	0.33	0.44	0.55	0.63	0.67	0.81	0.91	1.1	1.21	1.32	1.45	1.58	1.93	2.25	2.61	2.89
2	0.23	0.35	0.43	0.58	0.72	0.81	0.86	1.03	1.16	1.4	1.55	1.68	1.85	2.02	2.48	2.89	3.35	3.72
5	0.31	0.48	0.59	0.79	0.98	1.09	1.14	1.33	1.48	1.81	2.03	2.21	2.43	2.65	3.26	3.8	4.41	4.88
10	0.38	0.57	0.71	0.96	1.19	1.31	1.36	1.57	1.73	2.14	2.42	2.64	2.9	3.16	3.86	4.49	5.19	5.72
25	0.46	0.7	0.87	1.18	1.46	1.6	1.67	1.9	2.06	2.59	2.96	3.25	3.57	3.88	4.65	5.42	6.21	6.82
50	0.53	0.81	1	1.35	1.67	1.83	1.92	2.16	2.32	2.95	3.38	3.73	4.1	4.45	5.26	6.12	6.97	7.62
100	0.6	0.91	1.13	1.52	1.88	2.07	2.18	2.43	2.59	3.33	3.83	4.26	4.67	5.05	5.88	6.85	7.74	8.42
200	0.67	1.02	1.26	1.7	2.1	2.3	2.45	2.7	2.85	3.71	4.31	4.81	5.26	5.69	6.51	7.58	8.49	9.2
500	0.76	1.16	1.44	1.94	2.4	2.62	2.83	3.08	3.22	4.24	4.96	5.59	6.11	6.57	7.35	8.56	9.49	10.21
1000	0.83	1.27	1.57	2.12	2.62	2.87	3.13	3.37	3.5	4.66	5.49	6.22	6.79	7.29	8	9.31	10.23	10.96

Precipitation Intensity Estimates (in/hr)

2	2.74	2.08	1.72	1.16	0.72	0.4	0.29	0.17	0.1	0.06	0.03	0.02	0.01	0.01	0.01	0	0	0
5	3.76	2.86	2.36	1.59	0.98	0.55	0.38	0.22	0.12	0.08	0.04	0.02	0.01	0.01	0.01	0.01	0	0
10	4.52	3.44	2.85	1.92	1.19	0.66	0.45	0.26	0.14	0.09	0.05	0.03	0.02	0.01	0.01	0.01	0	0
25	5.56	4.23	3.5	2.35	1.46	0.8	0.56	0.32	0.17	0.11	0.06	0.03	0.02	0.02	0.01	0.01	0.01	0
50	6.37	4.85	4.01	2.7	1.67	0.92	0.64	0.36	0.19	0.12	0.07	0.04	0.02	0.02	0.01	0.01	0.01	0.01
100	7.19	5.47	4.52	3.04	1.88	1.03	0.73	0.41	0.21	0.14	0.08	0.04	0.03	0.02	0.01	0.01	0.01	0.01
200	8.03	6.11	5.05	3.4	2.1	1.15	0.82	0.45	0.24	0.15	0.09	0.05	0.03	0.02	0.01	0.01	0.01	0.01
500	9.14	6.96	5.75	3.87	2.4	1.31	0.94	0.51	0.27	0.18	0.1	0.06	0.04	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date/time: Thu Jan 31 11:19:49 EST 2008

Precipitation frequency estimates (depth/inches)
Point Estimates
Data series: Partial duration maxima
State: UTAH
Station: SALT LAKE CITY NWSFO
Lon (dd): -111.955
Lat (dd): 40.7725
Elev (feet): 4235
Date/time: Thu Jan 31 14:22:26 EST 2008

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
1	0.12	0.18	0.23	0.3	0.38	0.5	0.58	0.75	0.94	1.14	1.29	1.5	1.74	1.96	2.56	3.1	3.84	4.56
2	0.15	0.23	0.29	0.39	0.48	0.61	0.71	0.92	1.14	1.4	1.58	1.84	2.13	2.4	3.15	3.8	4.7	5.59
5	0.21	0.32	0.39	0.53	0.65	0.8	0.89	1.1	1.37	1.67	1.89	2.2	2.55	2.86	3.73	4.47	5.51	6.55
10	0.26	0.39	0.48	0.65	0.81	0.97	1.05	1.27	1.57	1.9	2.15	2.51	2.9	3.23	4.17	4.99	6.15	7.3
25	0.34	0.52	0.65	0.87	1.08	1.25	1.31	1.53	1.88	2.21	2.49	2.94	3.38	3.72	4.74	5.65	6.97	8.24
50	0.42	0.65	0.8	1.08	1.33	1.51	1.55	1.75	2.13	2.45	2.76	3.27	3.75	4.08	5.15	6.13	7.56	8.92
100	0.52	0.79	0.98	1.32	1.63	1.83	1.84	2	2.41	2.69	3.03	3.61	4.13	4.44	5.54	6.59	8.13	9.57
200	0.63	0.96	1.19	1.6	1.99	2.2	2.21	2.28	2.7	2.95	3.3	3.96	4.51	4.8	5.92	7.02	8.67	10.18
500	0.82	1.24	1.54	2.07	2.57	2.81	2.82	2.88	3.14	3.29	3.66	4.43	5.03	5.26	6.38	7.57	9.35	10.93
1000	0.99	1.5	1.86	2.51	3.11	3.37	3.38	3.44	3.5	3.54	3.94	4.8	5.42	5.6	6.71	7.96	9.82	11.46

Precipitation Intensity Estimates (in/hr)

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
2	1.81	1.38	1.14	0.77	0.48	0.31	0.24	0.15	0.09	0.06	0.03	0.02	0.01	0.01	0.01	0.01	0	0
5	2.48	1.89	1.56	1.05	0.65	0.4	0.3	0.18	0.11	0.07	0.04	0.02	0.02	0.01	0.01	0.01	0.01	0
10	3.08	2.35	1.94	1.31	0.81	0.48	0.35	0.21	0.13	0.08	0.04	0.03	0.02	0.01	0.01	0.01	0.01	0.01
25	4.12	3.13	2.59	1.74	1.08	0.63	0.44	0.26	0.16	0.09	0.05	0.03	0.02	0.02	0.01	0.01	0.01	0.01
50	5.09	3.87	3.2	2.15	1.33	0.76	0.52	0.29	0.18	0.1	0.06	0.03	0.02	0.02	0.01	0.01	0.01	0.01
100	6.22	4.73	3.91	2.63	1.63	0.91	0.61	0.33	0.2	0.11	0.06	0.04	0.02	0.02	0.01	0.01	0.01	0.01
200	7.57	5.77	4.76	3.21	1.99	1.1	0.74	0.38	0.22	0.12	0.07	0.04	0.03	0.02	0.01	0.01	0.01	0.01
500	9.79	7.45	6.16	4.15	2.57	1.41	0.94	0.48	0.26	0.14	0.08	0.05	0.03	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date/time: Thu Jan 31 14:23:39 EST 2008

Precipitation frequency estimates (depth/inches)
Point Estimates
Data series: Partial duration maxima
State: NEVADA
Station: LAS VEGAS WSO AIRPORT
Lon (dd): -115.167
Lat (dd): 36.0833
Elev (feet): 2152
Date/time: Thu Jan 31 14:25:16 EST 2008

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
1	0.12	0.17	0.22	0.29	0.36	0.45	0.5	0.61	0.7	0.77	0.8	0.88	0.96	1.04	1.18	1.34	1.46	1.61
2	0.15	0.23	0.29	0.39	0.48	0.59	0.65	0.79	0.92	1	1.05	1.16	1.27	1.37	1.58	1.8	1.97	2.19
5	0.22	0.33	0.41	0.55	0.68	0.82	0.89	1.07	1.25	1.37	1.42	1.58	1.73	1.86	2.18	2.54	2.83	3.2
10	0.27	0.41	0.51	0.69	0.85	1	1.07	1.29	1.48	1.62	1.68	1.87	2.04	2.19	2.58	3.05	3.42	3.91
25	0.35	0.53	0.66	0.88	1.09	1.26	1.34	1.58	1.8	1.96	2.02	2.24	2.43	2.59	3.07	3.69	4.19	4.84
50	0.41	0.62	0.77	1.04	1.29	1.48	1.54	1.82	2.03	2.2	2.27	2.52	2.71	2.88	3.42	4.16	4.76	5.55
100	0.48	0.73	0.91	1.23	1.52	1.72	1.77	2.07	2.27	2.46	2.51	2.78	2.97	3.15	3.76	4.61	5.33	6.26
200	0.56	0.85	1.05	1.42	1.76	1.98	2.01	2.33	2.5	2.7	2.75	3.04	3.22	3.4	4.09	5.05	5.89	6.97
500	0.67	1.02	1.27	1.71	2.12	2.36	2.39	2.69	2.83	3.03	3.05	3.38	3.55	3.73	4.49	5.61	6.6	7.91
1000	0.77	1.17	1.45	1.96	2.42	2.67	2.69	3	3.07	3.27	3.28	3.63	3.79	3.97	4.77	6.01	7.13	8.61

Precipitation Intensity Estimates (in/hr)

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
2	1.82	1.39	1.15	0.77	0.48	0.29	0.22	0.13	0.08	0.04	0.02	0.01	0.01	0.01	0	0	0	0
5	2.59	1.97	1.63	1.1	0.68	0.41	0.3	0.18	0.1	0.06	0.03	0.02	0.01	0.01	0	0	0	0
10	3.24	2.47	2.04	1.37	0.85	0.5	0.36	0.22	0.12	0.07	0.04	0.02	0.01	0.01	0.01	0	0	0
25	4.16	3.17	2.62	1.76	1.09	0.63	0.45	0.26	0.15	0.08	0.04	0.02	0.01	0.01	0.01	0.01	0	0
50	4.91	3.74	3.09	2.08	1.29	0.74	0.51	0.3	0.17	0.09	0.05	0.03	0.02	0.01	0.01	0.01	0	0
100	5.78	4.4	3.64	2.45	1.52	0.86	0.59	0.35	0.19	0.1	0.05	0.03	0.02	0.01	0.01	0.01	0	0
200	6.7	5.1	4.22	2.84	1.76	0.99	0.67	0.39	0.21	0.11	0.06	0.03	0.02	0.01	0.01	0.01	0.01	0
500	8.08	6.14	5.08	3.42	2.12	1.18	0.8	0.45	0.23	0.13	0.06	0.04	0.02	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date/time: Thu Jan 31 14:33:29 EST 2008

Precipitation frequency estimates (depth/inches)
Point Estimates
Data series: Partial duration maxima
State: INDIANA
Station: INDIANAPOLIS WSFO AP
Lon (dd): -86.2789
Lat (dd): 39.7317
Elev (feet): 780
Date/time: Thu Jan 31 14:35:02 EST 2008

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
1	0.38	0.6	0.73	0.97	1.18	1.39	1.47	1.74	2.07	2.46	2.87	3.26	3.85	4.39	5.99	7.39	9.35	11.2
2	0.46	0.71	0.87	1.17	1.43	1.68	1.78	2.11	2.49	2.95	3.43	3.89	4.58	5.21	7.09	8.71	10.97	13.12
5	0.55	0.85	1.04	1.43	1.79	2.11	2.24	2.67	3.1	3.62	4.19	4.69	5.49	6.23	8.36	10.13	12.64	15.02
10	0.62	0.95	1.17	1.63	2.07	2.45	2.61	3.12	3.6	4.13	4.76	5.31	6.22	7.03	9.35	11.22	13.92	16.49
25	0.71	1.08	1.34	1.89	2.46	2.94	3.14	3.77	4.29	4.83	5.54	6.15	7.2	8.12	10.65	12.65	15.56	18.36
50	0.78	1.19	1.47	2.1	2.76	3.33	3.58	4.31	4.86	5.38	6.15	6.81	7.98	8.98	11.66	13.74	16.79	19.75
100	0.85	1.28	1.59	2.3	3.08	3.75	4.05	4.89	5.46	5.94	6.76	7.47	8.76	9.84	12.66	14.81	17.97	21.09
200	0.93	1.38	1.72	2.51	3.4	4.19	4.55	5.51	6.08	6.5	7.39	8.13	9.56	10.72	13.65	15.85	19.1	22.37
500	1.02	1.5	1.88	2.78	3.85	4.81	5.26	6.41	6.97	7.27	8.22	9.02	10.63	11.89	14.95	17.2	20.54	23.98
1000	1.1	1.6	2	2.99	4.2	5.31	5.84	7.15	7.68	7.86	8.86	9.71	11.46	12.8	15.94	18.21	21.59	25.15

Precipitation Intensity Estimates (in/hr)

2	5.48	4.28	3.49	2.33	1.43	0.84	0.59	0.35	0.21	0.12	0.07	0.04	0.03	0.02	0.01	0.01	0.01	0.01
5	6.56	5.1	4.18	2.86	1.79	1.05	0.75	0.45	0.26	0.15	0.09	0.05	0.03	0.03	0.02	0.01	0.01	0.01
10	7.42	5.72	4.69	3.26	2.07	1.23	0.87	0.52	0.3	0.17	0.1	0.06	0.04	0.03	0.02	0.02	0.01	0.01
25	8.51	6.51	5.36	3.79	2.46	1.47	1.05	0.63	0.36	0.2	0.12	0.06	0.04	0.03	0.02	0.02	0.01	0.01
50	9.38	7.11	5.87	4.19	2.76	1.67	1.19	0.72	0.4	0.22	0.13	0.07	0.05	0.04	0.02	0.02	0.02	0.01
100	10.22	7.7	6.38	4.6	3.08	1.88	1.35	0.82	0.45	0.25	0.14	0.08	0.05	0.04	0.03	0.02	0.02	0.01
200	11.1	8.29	6.87	5.01	3.4	2.1	1.51	0.92	0.5	0.27	0.15	0.08	0.06	0.04	0.03	0.02	0.02	0.02
500	12.29	9.03	7.51	5.57	3.85	2.41	1.75	1.07	0.58	0.3	0.17	0.09	0.06	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date/time: Thu Jan 31 14:36:24 EST 2008

Precipitation frequency estimates (depth/inches)
Point Estimates
Data series: Partial duration maxima
State: OHIO
Station: COLUMBUS WSO AIRPORT
Lon (dd): -82.8808
Lat (dd): 39.9914
Elev (feet): 820
Date/time: Thu Jan 31 13:06:58 EST 2008

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
1	0.35	0.55	0.67	0.89	1.09	1.27	1.35	1.61	1.89	2.19	2.53	2.9	3.48	3.97	5.52	6.92	8.81	10.64
2	0.42	0.66	0.8	1.07	1.32	1.54	1.63	1.94	2.26	2.62	3.03	3.45	4.14	4.71	6.51	8.14	10.35	12.46
5	0.5	0.78	0.96	1.32	1.65	1.93	2.04	2.41	2.8	3.23	3.7	4.19	5.01	5.63	7.65	9.45	11.88	14.21
10	0.57	0.88	1.08	1.5	1.91	2.24	2.37	2.8	3.25	3.73	4.25	4.79	5.7	6.37	8.54	10.44	13.04	15.52
25	0.65	1	1.23	1.74	2.25	2.67	2.84	3.36	3.9	4.44	5.03	5.62	6.68	7.38	9.71	11.72	14.49	17.17
50	0.71	1.08	1.34	1.92	2.53	3.02	3.21	3.83	4.44	5.03	5.66	6.29	7.46	8.18	10.62	12.69	15.55	18.38
100	0.78	1.17	1.46	2.1	2.81	3.39	3.61	4.33	5.03	5.64	6.33	6.98	8.27	8.99	11.51	13.61	16.55	19.5
200	0.84	1.26	1.56	2.28	3.1	3.77	4.03	4.86	5.65	6.3	7.02	7.7	9.11	9.83	12.4	14.5	17.5	20.57
500	0.93	1.36	1.7	2.52	3.48	4.3	4.62	5.62	6.55	7.23	8	8.68	10.28	10.96	13.56	15.63	18.67	21.87
1000	0.99	1.44	1.8	2.7	3.79	4.73	5.09	6.25	7.29	7.98	8.78	9.46	11.2	11.85	14.41	16.45	19.5	22.78

Precipitation Intensity Estimates (in/hr)

2	5.05	3.94	3.21	2.15	1.32	0.77	0.54	0.32	0.19	0.11	0.06	0.04	0.02	0.02	0.01	0.01	0.01	0.01
5	6.05	4.7	3.85	2.63	1.65	0.96	0.68	0.4	0.23	0.13	0.08	0.04	0.03	0.02	0.02	0.01	0.01	0.01
10	6.83	5.27	4.32	3	1.91	1.12	0.79	0.47	0.27	0.16	0.09	0.05	0.03	0.03	0.02	0.01	0.01	0.01
25	7.82	5.98	4.92	3.48	2.25	1.34	0.94	0.56	0.32	0.19	0.1	0.06	0.04	0.03	0.02	0.02	0.01	0.01
50	8.58	6.51	5.37	3.84	2.53	1.51	1.07	0.64	0.37	0.21	0.12	0.07	0.04	0.03	0.02	0.02	0.01	0.01
100	9.34	7.03	5.82	4.2	2.81	1.69	1.2	0.72	0.42	0.24	0.13	0.07	0.05	0.04	0.02	0.02	0.02	0.01
200	10.1	7.54	6.25	4.56	3.1	1.88	1.34	0.81	0.47	0.26	0.15	0.08	0.05	0.04	0.03	0.02	0.02	0.01
500	11.12	8.18	6.8	5.04	3.48	2.15	1.54	0.94	0.54	0.3	0.17	0.09	0.06	0.05	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date/time: Thu Jan 31 13:07:44 EST 2008

Precipitation frequency estimates (depth/inches)
Point Estimates
Data series: Partial duration maxima
State: PENNSYLVANIA
Station: PHILADELPHIA WSO AP
Lon (dd): -75.2311
Lat (dd): 39.8683
Elev (feet): 6
Date/time: Thu Jan 31 14:50:28 EST 2008

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
1	0.35	0.56	0.69	0.95	1.19	1.43	1.56	1.93	2.34	2.68	3.07	3.44	3.98	4.46	6.01	7.49	9.49	11.32
2	0.41	0.66	0.83	1.15	1.44	1.73	1.89	2.33	2.82	3.23	3.71	4.15	4.78	5.34	7.13	8.83	11.15	13.27
5	0.49	0.78	0.98	1.4	1.79	2.17	2.37	2.91	3.54	4.08	4.7	5.22	5.94	6.54	8.53	10.34	12.86	15.18
10	0.54	0.86	1.08	1.57	2.05	2.49	2.73	3.38	4.13	4.8	5.51	6.1	6.89	7.5	9.63	11.51	14.15	16.59
25	0.6	0.95	1.21	1.79	2.38	2.93	3.22	4.03	5.01	5.85	6.68	7.36	8.27	8.87	11.14	13.07	15.79	18.37
50	0.64	1.02	1.29	1.94	2.63	3.26	3.61	4.56	5.75	6.74	7.66	8.4	9.42	9.97	12.32	14.26	17.02	19.67
100	0.68	1.08	1.37	2.09	2.88	3.6	4.01	5.11	6.55	7.7	8.71	9.52	10.64	11.12	13.52	15.44	18.18	20.88
200	0.72	1.14	1.43	2.23	3.13	3.93	4.4	5.69	7.42	8.76	9.85	10.72	11.95	12.32	14.74	16.61	19.29	22.01
500	0.76	1.2	1.51	2.4	3.44	4.38	4.94	6.51	8.68	10.3	11.48	12.45	13.82	14.05	16.38	18.13	20.67	23.39
1000	0.79	1.24	1.56	2.52	3.68	4.72	5.36	7.16	9.73	11.6	12.84	13.87	15.36	15.48	17.64	19.26	21.66	24.36

Precipitation Intensity Estimates (in/hr)

2	4.97	3.97	3.32	2.3	1.44	0.87	0.63	0.39	0.23	0.13	0.08	0.04	0.03	0.02	0.01	0.01	0.01	0.01
5	5.83	4.67	3.94	2.8	1.79	1.08	0.79	0.49	0.29	0.17	0.1	0.05	0.04	0.03	0.02	0.01	0.01	0.01
10	6.43	5.15	4.34	3.14	2.05	1.25	0.91	0.56	0.34	0.2	0.11	0.06	0.04	0.03	0.02	0.02	0.01	0.01
25	7.18	5.72	4.83	3.58	2.38	1.46	1.07	0.67	0.42	0.24	0.14	0.08	0.05	0.04	0.02	0.02	0.01	0.01
50	7.68	6.11	5.16	3.89	2.63	1.63	1.2	0.76	0.48	0.28	0.16	0.09	0.06	0.04	0.03	0.02	0.02	0.01
100	8.17	6.49	5.47	4.19	2.88	1.8	1.33	0.85	0.54	0.32	0.18	0.1	0.06	0.05	0.03	0.02	0.02	0.01
200	8.59	6.81	5.73	4.46	3.13	1.97	1.47	0.95	0.62	0.36	0.21	0.11	0.07	0.05	0.03	0.02	0.02	0.02
500	9.08	7.19	6.03	4.8	3.44	2.19	1.65	1.09	0.72	0.43	0.24	0.13	0.08	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date/time: Thu Jan 31 14:51:05 EST 2008

Precipitation frequency estimates (depth/inches)
Point Estimates
Data series: Partial duration maxima
State: KENTUCKY
Station: FRANKFORT LOCK 4
Lon (dd): -84.8817
Lat (dd): 38.235
Elev (feet): 600
Date/time: Thu Jan 31 14:52:10 EST 2008

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
1	0.38	0.59	0.72	0.96	1.17	1.37	1.47	1.8	2.12	2.51	2.96	3.34	3.98	4.48	6.17	7.7	9.75	11.59
2	0.45	0.7	0.86	1.15	1.41	1.65	1.77	2.16	2.54	3	3.55	4	4.73	5.34	7.31	9.08	11.45	13.59
5	0.52	0.82	1.01	1.38	1.74	2.04	2.19	2.67	3.13	3.73	4.38	4.89	5.76	6.48	8.7	10.64	13.17	15.5
10	0.59	0.91	1.12	1.57	2	2.36	2.54	3.09	3.62	4.34	5.06	5.62	6.61	7.42	9.81	11.85	14.46	16.93
25	0.67	1.03	1.27	1.8	2.35	2.8	3.03	3.7	4.32	5.23	6.04	6.63	7.82	8.76	11.31	13.46	16.07	18.71
50	0.73	1.11	1.38	1.98	2.62	3.15	3.43	4.2	4.89	5.98	6.84	7.44	8.82	9.86	12.49	14.69	17.24	20.01
100	0.79	1.2	1.49	2.16	2.9	3.53	3.86	4.74	5.5	6.79	7.69	8.29	9.88	11	13.69	15.9	18.35	21.2
200	0.85	1.28	1.59	2.34	3.19	3.92	4.31	5.31	6.16	7.67	8.6	9.17	11	12.22	14.9	17.1	19.38	22.31
500	0.94	1.38	1.73	2.58	3.59	4.47	4.96	6.14	7.09	8.95	9.89	10.39	12.59	13.92	16.53	18.66	20.64	23.65
1000	1	1.46	1.83	2.76	3.9	4.92	5.49	6.82	7.86	10.01	10.95	11.35	13.87	15.29	17.79	19.82	21.53	24.59

Precipitation Intensity Estimates (in/hr)

2	5.35	4.19	3.42	2.3	1.41	0.82	0.59	0.36	0.21	0.13	0.07	0.04	0.03	0.02	0.02	0.01	0.01	0.01
5	6.29	4.91	4.02	2.77	1.74	1.02	0.73	0.45	0.26	0.16	0.09	0.05	0.03	0.03	0.02	0.01	0.01	0.01
10	7.06	5.47	4.5	3.14	2	1.18	0.84	0.52	0.3	0.18	0.11	0.06	0.04	0.03	0.02	0.02	0.01	0.01
25	8.02	6.16	5.08	3.61	2.35	1.4	1.01	0.62	0.36	0.22	0.13	0.07	0.05	0.04	0.02	0.02	0.01	0.01
50	8.77	6.68	5.52	3.97	2.62	1.58	1.14	0.7	0.41	0.25	0.14	0.08	0.05	0.04	0.03	0.02	0.02	0.01
100	9.49	7.18	5.95	4.33	2.9	1.76	1.28	0.79	0.46	0.28	0.16	0.09	0.06	0.05	0.03	0.02	0.02	0.01
200	10.21	7.67	6.38	4.68	3.19	1.96	1.44	0.89	0.51	0.32	0.18	0.1	0.07	0.05	0.03	0.02	0.02	0.02
500	11.23	8.3	6.93	5.16	3.59	2.24	1.65	1.03	0.59	0.37	0.21	0.11	0.07	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date/time: Thu Jan 31 14:52:44 EST 2008

Precipitation frequency estimates (depth/inches)
Point Estimates
Data series: Partial duration maxima
State: WEST VIRGINIA
Station: CHARLESTON WSFO AP
Lon (dd): -81.5914
Lat (dd): 38.3794
Elev (feet): 744
Date/time: Thu Jan 31 14:53:54 EST 2008

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
1	0.34	0.53	0.65	0.85	1.04	1.21	1.27	1.5	1.77	2.16	2.58	2.99	3.6	4.15	5.8	7.3	9.32	11.24
2	0.4	0.63	0.77	1.03	1.26	1.46	1.53	1.8	2.11	2.56	3.06	3.54	4.25	4.89	6.79	8.53	10.85	13.04
5	0.48	0.75	0.92	1.26	1.58	1.82	1.91	2.22	2.58	3.1	3.66	4.21	4.97	5.67	7.77	9.63	12.13	14.46
10	0.54	0.83	1.03	1.43	1.81	2.1	2.2	2.56	2.96	3.55	4.15	4.73	5.54	6.27	8.5	10.46	13.08	15.51
25	0.62	0.94	1.17	1.65	2.13	2.48	2.61	3.03	3.5	4.16	4.82	5.44	6.27	7.03	9.42	11.48	14.23	16.76
50	0.67	1.02	1.26	1.8	2.38	2.78	2.93	3.41	3.95	4.65	5.35	5.98	6.82	7.61	10.09	12.22	15.05	17.64
100	0.72	1.09	1.36	1.96	2.62	3.08	3.26	3.81	4.41	5.17	5.89	6.53	7.37	8.15	10.71	12.9	15.78	18.42
200	0.78	1.16	1.44	2.11	2.86	3.38	3.59	4.22	4.89	5.7	6.45	7.08	7.9	8.68	11.3	13.52	16.44	19.11
500	0.84	1.24	1.55	2.29	3.17	3.8	4.05	4.78	5.57	6.44	7.21	7.8	8.58	9.34	12.02	14.26	17.22	19.91
1000	0.89	1.3	1.62	2.43	3.42	4.12	4.41	5.23	6.11	7.02	7.79	8.36	9.08	9.83	12.52	14.77	17.74	20.45

Precipitation Intensity Estimates (in/hr)

2	4.82	3.77	3.07	2.06	1.26	0.73	0.51	0.3	0.18	0.11	0.06	0.04	0.03	0.02	0.01	0.01	0.01	0.01
5	5.78	4.49	3.68	2.52	1.58	0.91	0.64	0.37	0.21	0.13	0.08	0.04	0.03	0.02	0.02	0.01	0.01	0.01
10	6.49	5.01	4.11	2.85	1.81	1.05	0.73	0.43	0.25	0.15	0.09	0.05	0.03	0.03	0.02	0.01	0.01	0.01
25	7.39	5.66	4.66	3.29	2.13	1.24	0.87	0.51	0.29	0.17	0.1	0.06	0.04	0.03	0.02	0.02	0.01	0.01
50	8.08	6.12	5.05	3.61	2.38	1.39	0.98	0.57	0.33	0.19	0.11	0.06	0.04	0.03	0.02	0.02	0.01	0.01
100	8.7	6.55	5.42	3.92	2.62	1.54	1.08	0.64	0.37	0.22	0.12	0.07	0.04	0.03	0.02	0.02	0.01	0.01
200	9.34	6.97	5.78	4.21	2.86	1.69	1.2	0.7	0.41	0.24	0.13	0.07	0.05	0.04	0.02	0.02	0.02	0.01
500	10.13	7.45	6.19	4.59	3.17	1.9	1.35	0.8	0.46	0.27	0.15	0.08	0.05	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date/time: Thu Jan 31 14:54:26 EST 2008

Precipitation frequency estimates (depth/inches)
Point Estimates
Data series: Partial duration maxima
State: VIRGINIA
Station: WASHINGTON REAGAN AP
Lon (dd): -77.0342
Lat (dd): 38.865
Elev (feet): 22
Date/time: Tue Feb 5 10:31:30 EST 2008

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
1	0.36	0.57	0.71	0.97	1.21	1.41	1.5	1.84	2.22	2.57	2.99	3.33	3.85	4.41	5.95	7.32	9.19	10.94
2	0.43	0.68	0.86	1.18	1.49	1.71	1.83	2.23	2.67	3.11	3.62	4.02	4.64	5.29	7.07	8.66	10.84	12.86
5	0.51	0.81	1.03	1.46	1.87	2.17	2.32	2.81	3.4	4	4.64	5.14	5.86	6.61	8.55	10.3	12.67	14.86
10	0.57	0.91	1.15	1.66	2.16	2.52	2.71	3.29	4.02	4.78	5.51	6.1	6.91	7.71	9.74	11.62	14.08	16.37
25	0.64	1.02	1.3	1.92	2.56	3.02	3.26	4	4.97	5.98	6.83	7.55	8.48	9.31	11.41	13.43	15.93	18.32
50	0.7	1.11	1.41	2.12	2.87	3.43	3.72	4.61	5.8	7.04	7.98	8.8	9.83	10.65	12.76	14.88	17.35	19.77
100	0.75	1.2	1.51	2.31	3.19	3.85	4.21	5.26	6.72	8.24	9.25	10.2	11.32	12.11	14.16	16.36	18.73	21.16
200	0.81	1.28	1.61	2.51	3.52	4.3	4.72	5.97	7.75	9.61	10.68	11.75	12.96	13.67	15.61	17.88	20.09	22.48
500	0.87	1.38	1.74	2.77	3.97	4.93	5.45	7.01	9.32	11.71	12.83	14.08	15.42	15.98	17.63	19.94	21.84	24.16
1000	0.93	1.46	1.83	2.97	4.33	5.44	6.06	7.89	10.67	13.55	14.68	16.08	17.51	17.89	19.22	21.55	23.14	25.37

Precipitation Intensity Estimates (in/hr)

2	5.11	4.09	3.43	2.37	1.49	0.86	0.61	0.37	0.22	0.13	0.08	0.04	0.03	0.02	0.01	0.01	0.01	0.01
5	6.08	4.87	4.11	2.92	1.87	1.08	0.77	0.47	0.28	0.17	0.1	0.05	0.03	0.03	0.02	0.01	0.01	0.01
10	6.79	5.43	4.58	3.32	2.16	1.26	0.9	0.55	0.33	0.2	0.11	0.06	0.04	0.03	0.02	0.02	0.01	0.01
25	7.7	6.13	5.18	3.84	2.56	1.51	1.09	0.67	0.41	0.25	0.14	0.08	0.05	0.04	0.02	0.02	0.01	0.01
50	8.36	6.67	5.62	4.24	2.87	1.71	1.24	0.77	0.48	0.29	0.17	0.09	0.06	0.04	0.03	0.02	0.02	0.01
100	9.04	7.18	6.05	4.63	3.19	1.93	1.4	0.88	0.56	0.34	0.19	0.11	0.07	0.05	0.03	0.02	0.02	0.01
200	9.67	7.66	6.45	5.02	3.52	2.15	1.57	1	0.64	0.4	0.22	0.12	0.08	0.06	0.03	0.02	0.02	0.02
500	10.49	8.29	6.96	5.54	3.97	2.46	1.82	1.17	0.77	0.49	0.27	0.15	0.09	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date/time: Tue Feb 5 10:32:29 EST 2008

Precipitation frequency estimates (depth/inches)
Point Estimates
Data series: Partial duration maxima
State: MARYLAND
Station: BALTIMORE WSO ARPT
Lon (dd): -76.6839
Lat (dd): 39.1722
Elev (feet): 147
Date/time: Thu Jan 31 14:47:48 EST 2008

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
1	0.34	0.55	0.69	0.94	1.17	1.4	1.51	1.86	2.25	2.61	3.03	3.35	3.89	4.43	5.99	7.39	9.31	11.09
2	0.41	0.66	0.83	1.14	1.43	1.7	1.83	2.25	2.72	3.16	3.66	4.05	4.68	5.33	7.12	8.75	10.98	13.05
5	0.49	0.78	0.99	1.41	1.8	2.16	2.33	2.84	3.46	4.06	4.7	5.18	5.92	6.65	8.61	10.4	12.83	15.07
10	0.55	0.87	1.1	1.6	2.08	2.51	2.71	3.32	4.09	4.85	5.59	6.15	6.98	7.75	9.81	11.73	14.26	16.61
25	0.62	0.98	1.25	1.85	2.46	3	3.27	4.04	5.06	6.08	6.92	7.61	8.56	9.36	11.5	13.57	16.14	18.58
50	0.67	1.07	1.35	2.03	2.76	3.4	3.72	4.66	5.91	7.16	8.09	8.87	9.92	10.71	12.86	15.04	17.56	20.05
100	0.72	1.15	1.45	2.22	3.06	3.82	4.2	5.32	6.86	8.38	9.39	10.27	11.42	12.16	14.26	16.53	18.96	21.45
200	0.77	1.22	1.54	2.4	3.37	4.25	4.71	6.04	7.92	9.76	10.84	11.84	13.08	13.73	15.73	18.05	20.33	22.79
500	0.83	1.32	1.66	2.64	3.79	4.87	5.45	7.09	9.53	11.89	13.02	14.19	15.55	16.01	17.76	20.14	22.11	24.49
1000	0.88	1.39	1.74	2.82	4.11	5.37	6.04	7.98	10.93	13.76	14.9	16.2	17.66	17.93	19.36	21.75	23.43	25.71

Precipitation Intensity Estimates (in/hr)

2	4.93	3.94	3.3	2.28	1.43	0.85	0.61	0.38	0.23	0.13	0.08	0.04	0.03	0.02	0.01	0.01	0.01	0.01
5	5.87	4.7	3.96	2.82	1.8	1.08	0.78	0.47	0.29	0.17	0.1	0.05	0.04	0.03	0.02	0.01	0.01	0.01
10	6.55	5.24	4.42	3.2	2.08	1.25	0.9	0.55	0.34	0.2	0.12	0.06	0.04	0.03	0.02	0.02	0.01	0.01
25	7.4	5.9	4.99	3.69	2.46	1.5	1.09	0.68	0.42	0.25	0.14	0.08	0.05	0.04	0.02	0.02	0.01	0.01
50	8.04	6.4	5.4	4.07	2.76	1.7	1.24	0.78	0.49	0.3	0.17	0.09	0.06	0.04	0.03	0.02	0.02	0.01
100	8.66	6.88	5.8	4.44	3.06	1.91	1.4	0.89	0.57	0.35	0.2	0.11	0.07	0.05	0.03	0.02	0.02	0.01
200	9.25	7.33	6.17	4.8	3.37	2.13	1.57	1.01	0.66	0.41	0.23	0.12	0.08	0.06	0.03	0.03	0.02	0.02
500	10	7.9	6.63	5.28	3.79	2.44	1.81	1.18	0.79	0.5	0.27	0.15	0.09	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date/time: Thu Jan 31 14:48:21 EST 2008

Precipitation frequency estimates (depth/inches)
Point Estimates
Data series: Partial duration maxima
State: DELAWARE
Station: DOVER
Lon (dd): -75.5167
Lat (dd): 39.2583
Elev (feet): 0
Date/time: Thu Jan 31 14:45:28 EST 2008

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
1	0.35	0.56	0.7	0.96	1.2	1.46	1.58	1.95	2.36	2.68	3.09	3.42	3.98	4.48	6.05	7.49	9.51	11.39
2	0.42	0.67	0.84	1.16	1.46	1.76	1.92	2.35	2.83	3.26	3.76	4.16	4.8	5.38	7.2	8.87	11.22	13.41
5	0.49	0.78	0.99	1.41	1.8	2.2	2.39	2.92	3.54	4.24	4.89	5.35	6.08	6.71	8.71	10.57	13.14	15.51
10	0.55	0.88	1.11	1.61	2.09	2.57	2.81	3.44	4.21	5.08	5.85	6.37	7.17	7.8	9.93	11.91	14.61	17.08
25	0.62	0.98	1.25	1.85	2.46	3.05	3.35	4.14	5.15	6.36	7.32	7.88	8.77	9.38	11.63	13.75	16.54	19.07
50	0.67	1.07	1.35	2.04	2.76	3.44	3.81	4.75	6	7.49	8.59	9.18	10.14	10.71	13	15.2	18.01	20.54
100	0.72	1.15	1.45	2.22	3.05	3.84	4.27	5.39	6.91	8.75	10.01	10.62	11.64	12.12	14.43	16.67	19.44	21.93
200	0.77	1.21	1.53	2.38	3.35	4.25	4.76	6.08	7.92	10.19	11.62	12.23	13.29	13.73	15.9	18.18	20.84	23.26
500	0.82	1.3	1.64	2.6	3.73	4.79	5.42	7.04	9.38	12.37	14.04	14.63	15.74	16.12	17.96	20.2	22.65	24.93
1000	0.87	1.37	1.72	2.78	4.05	5.25	5.98	7.88	10.71	14.27	16.15	16.69	17.81	18.17	19.6	21.78	24	26.12

Precipitation Intensity Estimates (in/hr)

2	5.02	4.01	3.36	2.32	1.46	0.88	0.64	0.39	0.23	0.14	0.08	0.04	0.03	0.02	0.01	0.01	0.01	0.01
5	5.87	4.7	3.96	2.82	1.8	1.1	0.8	0.49	0.29	0.18	0.1	0.06	0.04	0.03	0.02	0.01	0.01	0.01
10	6.59	5.26	4.44	3.22	2.09	1.29	0.93	0.57	0.35	0.21	0.12	0.07	0.04	0.03	0.02	0.02	0.01	0.01
25	7.4	5.9	4.99	3.69	2.46	1.52	1.11	0.69	0.43	0.27	0.15	0.08	0.05	0.04	0.02	0.02	0.02	0.01
50	8.04	6.4	5.4	4.07	2.76	1.72	1.27	0.79	0.5	0.31	0.18	0.1	0.06	0.04	0.03	0.02	0.02	0.01
100	8.65	6.87	5.79	4.43	3.05	1.92	1.42	0.9	0.57	0.36	0.21	0.11	0.07	0.05	0.03	0.02	0.02	0.02
200	9.19	7.28	6.13	4.77	3.35	2.12	1.58	1.02	0.66	0.42	0.24	0.13	0.08	0.06	0.03	0.03	0.02	0.02
500	9.85	7.79	6.54	5.2	3.73	2.4	1.8	1.18	0.78	0.52	0.29	0.15	0.09	0.06	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date/time: Thu Jan 31 14:46:04 EST 2008

Precipitation frequency estimates (depth/inches)
Point Estimates
Data series: Partial duration maxima
State: NEW JERSEY
Station: HIGHTSTOWN 2 W
Lon (dd): -74.5642
Lat (dd): 40.265
Elev (feet): 98
Date/time: Thu Jan 31 14:43:06 EST 2008

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
1	0.34	0.54	0.68	0.93	1.16	1.41	1.55	1.97	2.39	2.73	3.16	3.55	4.16	4.73	6.4	7.96	10.16	12.18
2	0.41	0.65	0.81	1.12	1.41	1.72	1.89	2.39	2.89	3.31	3.84	4.3	5	5.67	7.61	9.41	11.96	14.3
5	0.48	0.77	0.97	1.38	1.77	2.18	2.41	3.03	3.68	4.26	4.94	5.46	6.26	6.99	9.13	11.09	13.88	16.41
10	0.54	0.86	1.09	1.57	2.05	2.54	2.8	3.55	4.36	5.07	5.87	6.44	7.31	8.06	10.35	12.39	15.34	17.98
25	0.61	0.96	1.22	1.81	2.41	3.03	3.36	4.3	5.37	6.3	7.25	7.86	8.83	9.6	12.02	14.14	17.22	19.97
50	0.66	1.04	1.32	1.99	2.7	3.42	3.82	4.93	6.24	7.37	8.44	9.06	10.12	10.87	13.34	15.49	18.63	21.42
100	0.71	1.12	1.42	2.17	2.99	3.83	4.3	5.6	7.2	8.57	9.75	10.37	11.5	12.21	14.69	16.83	19.99	22.79
200	0.75	1.19	1.51	2.35	3.29	4.25	4.79	6.33	8.26	9.9	11.2	11.79	12.99	13.63	16.07	18.17	21.31	24.08
500	0.81	1.28	1.62	2.57	3.69	4.84	5.49	7.38	9.86	11.93	13.38	13.88	15.18	15.66	17.96	19.94	22.98	25.68
1000	0.86	1.35	1.69	2.74	4	5.31	6.05	8.26	11.22	13.69	15.24	15.65	17	17.39	19.43	21.28	24.22	26.83

Precipitation Intensity Estimates (in/hr)

2	4.86	3.89	3.26	2.25	1.41	0.86	0.63	0.4	0.24	0.14	0.08	0.04	0.03	0.02	0.02	0.01	0.01	0.01
5	5.77	4.62	3.9	2.77	1.77	1.09	0.8	0.51	0.31	0.18	0.1	0.06	0.04	0.03	0.02	0.02	0.01	0.01
10	6.44	5.15	4.34	3.15	2.05	1.27	0.93	0.59	0.36	0.21	0.12	0.07	0.04	0.03	0.02	0.02	0.01	0.01
25	7.27	5.79	4.89	3.62	2.41	1.51	1.12	0.72	0.45	0.26	0.15	0.08	0.05	0.04	0.03	0.02	0.02	0.01
50	7.87	6.27	5.29	3.98	2.7	1.71	1.27	0.82	0.52	0.31	0.18	0.09	0.06	0.05	0.03	0.02	0.02	0.01
100	8.47	6.73	5.67	4.34	2.99	1.92	1.43	0.94	0.6	0.36	0.2	0.11	0.07	0.05	0.03	0.02	0.02	0.02
200	9.04	7.16	6.02	4.69	3.29	2.13	1.6	1.06	0.69	0.41	0.23	0.12	0.08	0.06	0.03	0.03	0.02	0.02
500	9.74	7.7	6.46	5.14	3.69	2.42	1.83	1.23	0.82	0.5	0.28	0.14	0.09	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date/time: Thu Jan 31 14:43:54 EST 2008

Precipitation frequency estimates (depth/inches)
Point Estimates
Data series: Partial duration maxima
State: TENNESSEE
Station: NASHVILLE WSO AIRPORT
Lon (dd): -86.6764
Lat (dd): 36.1253
Elev (feet): 498
Date/time: Thu Jan 31 14:41:00 EST 2008

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
1	0.38	0.61	0.76	1.04	1.3	1.54	1.67	2	2.37	2.83	3.37	3.76	4.56	5.24	7.08	8.72	10.86	13.07
2	0.45	0.71	0.9	1.24	1.55	1.83	1.99	2.38	2.82	3.37	4.03	4.48	5.44	6.24	8.39	10.28	12.76	15.34
5	0.51	0.82	1.04	1.48	1.9	2.23	2.41	2.88	3.42	4.11	4.92	5.45	6.62	7.51	9.9	11.99	14.69	17.56
10	0.57	0.91	1.15	1.67	2.17	2.54	2.76	3.31	3.92	4.7	5.65	6.23	7.58	8.53	11.05	13.3	16.16	19.2
25	0.64	1.01	1.28	1.9	2.54	2.97	3.23	3.9	4.62	5.53	6.69	7.29	8.93	9.91	12.56	15.02	18.05	21.25
50	0.69	1.09	1.39	2.09	2.83	3.31	3.61	4.38	5.19	6.2	7.53	8.15	10.01	11.01	13.7	16.32	19.46	22.76
100	0.74	1.17	1.48	2.27	3.12	3.67	4.01	4.88	5.79	6.89	8.41	9.04	11.15	12.13	14.82	17.6	20.81	24.16
200	0.78	1.24	1.57	2.44	3.42	4.03	4.41	5.41	6.41	7.61	9.34	9.94	12.34	13.26	15.91	18.85	22.11	25.46
500	0.84	1.33	1.68	2.67	3.83	4.52	4.97	6.15	7.28	8.6	10.63	11.17	13.99	14.8	17.31	20.46	23.75	27.05
1000	0.89	1.4	1.75	2.84	4.15	4.91	5.41	6.73	7.96	9.37	11.65	12.14	15.31	15.99	18.35	21.66	24.93	28.17

Precipitation Intensity Estimates (in/hr)

2	5.35	4.28	3.59	2.48	1.55	0.91	0.66	0.4	0.23	0.14	0.08	0.05	0.03	0.03	0.02	0.01	0.01	0.01
5	6.17	4.94	4.16	2.96	1.9	1.11	0.8	0.48	0.28	0.17	0.1	0.06	0.04	0.03	0.02	0.02	0.01	0.01
10	6.82	5.45	4.6	3.33	2.17	1.27	0.92	0.55	0.33	0.2	0.12	0.06	0.05	0.04	0.02	0.02	0.01	0.01
25	7.63	6.08	5.14	3.81	2.54	1.48	1.08	0.65	0.38	0.23	0.14	0.08	0.05	0.04	0.03	0.02	0.02	0.01
50	8.24	6.56	5.54	4.17	2.83	1.66	1.2	0.73	0.43	0.26	0.16	0.08	0.06	0.05	0.03	0.02	0.02	0.02
100	8.83	7.02	5.92	4.53	3.12	1.83	1.33	0.82	0.48	0.29	0.18	0.09	0.07	0.05	0.03	0.02	0.02	0.02
200	9.41	7.46	6.27	4.88	3.42	2.01	1.47	0.9	0.53	0.32	0.19	0.1	0.07	0.06	0.03	0.03	0.02	0.02
500	10.12	8	6.71	5.34	3.83	2.26	1.66	1.03	0.6	0.36	0.22	0.12	0.08	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date/time: Thu Jan 31 14:41:55 EST 2008

Precipitation frequency estimates (depth/inches)
Point Estimates
Data series: Partial duration maxima
State: NORTH CAROLINA
Station: CHARLOTTE WSO ARPT
Lon (dd): -80.9542
Lat (dd): 35.2225
Elev (feet): 728
Date/time: Thu Jan 31 14:38:42 EST 2008

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
1	0.4	0.63	0.79	1.09	1.35	1.57	1.68	2.03	2.41	2.77	3.24	3.63	4.17	4.78	6.41	7.92	9.96	11.84
2	0.47	0.75	0.94	1.3	1.64	1.9	2.02	2.45	2.91	3.34	3.9	4.36	4.97	5.69	7.57	9.31	11.66	13.82
5	0.55	0.88	1.11	1.57	2.02	2.36	2.52	3.06	3.64	4.19	4.86	5.37	6.04	6.83	8.93	10.82	13.31	15.61
10	0.6	0.96	1.22	1.77	2.3	2.71	2.91	3.54	4.23	4.86	5.62	6.18	6.9	7.73	10.01	11.99	14.59	16.99
25	0.67	1.06	1.35	1.99	2.65	3.16	3.44	4.19	5.04	5.76	6.64	7.28	8.08	8.94	11.46	13.53	16.24	18.77
50	0.71	1.13	1.43	2.16	2.93	3.51	3.85	4.7	5.69	6.48	7.45	8.15	9.01	9.89	12.59	14.72	17.5	20.11
100	0.75	1.19	1.51	2.31	3.19	3.85	4.27	5.23	6.36	7.22	8.27	9.04	9.97	10.85	13.73	15.9	18.71	21.4
200	0.79	1.25	1.57	2.45	3.44	4.19	4.7	5.77	7.06	7.97	9.11	9.95	10.95	11.82	14.89	17.07	19.89	22.65
500	0.83	1.31	1.65	2.62	3.76	4.64	5.29	6.52	8.04	9	10.26	11.2	12.28	13.12	16.44	18.62	21.43	24.27
1000	0.86	1.35	1.69	2.74	4	4.97	5.75	7.11	8.82	9.8	11.15	12.16	13.31	14.13	17.64	19.8	22.59	25.49

Precipitation Intensity Estimates (in/hr)

2	5.64	4.51	3.78	2.61	1.64	0.95	0.67	0.41	0.24	0.14	0.08	0.05	0.03	0.02	0.02	0.01	0.01	0.01
5	6.55	5.25	4.43	3.14	2.02	1.18	0.84	0.51	0.3	0.17	0.1	0.06	0.04	0.03	0.02	0.02	0.01	0.01
10	7.22	5.78	4.87	3.53	2.3	1.35	0.97	0.59	0.35	0.2	0.12	0.06	0.04	0.03	0.02	0.02	0.01	0.01
25	7.99	6.37	5.38	3.99	2.65	1.58	1.14	0.7	0.42	0.24	0.14	0.08	0.05	0.04	0.02	0.02	0.02	0.01
50	8.53	6.8	5.74	4.32	2.93	1.75	1.28	0.79	0.47	0.27	0.16	0.08	0.05	0.04	0.03	0.02	0.02	0.01
100	9.02	7.16	6.04	4.62	3.19	1.93	1.42	0.87	0.53	0.3	0.17	0.09	0.06	0.05	0.03	0.02	0.02	0.01
200	9.44	7.49	6.3	4.9	3.44	2.1	1.57	0.96	0.59	0.33	0.19	0.1	0.07	0.05	0.03	0.02	0.02	0.02
500	9.94	7.86	6.59	5.25	3.76	2.32	1.76	1.09	0.67	0.38	0.21	0.12	0.07	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date/time: Thu Jan 31 14:39:36 EST 2008

Precipitation frequency estimates (depth/inches)
Point Estimates
Data series: Partial duration maxima
State: SOUTH CAROLINA
Station: COLUMBIA WSFO AP
Lon (dd): -81.1219
Lat (dd): 33.9456
Elev (feet): 209
Date/time: Thu Jan 31 13:53:59 EST 2008

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
1	0.46	0.73	0.91	1.25	1.55	1.79	1.89	2.24	2.61	3.02	3.55	4.02	4.68	5.32	7.17	8.84	10.98	13.14
2	0.53	0.85	1.06	1.47	1.84	2.14	2.25	2.67	3.12	3.62	4.25	4.82	5.57	6.31	8.47	10.41	12.88	15.41
5	0.61	0.97	1.23	1.75	2.24	2.61	2.77	3.27	3.84	4.52	5.28	5.93	6.79	7.61	10.02	12.15	14.83	17.57
10	0.68	1.08	1.37	1.99	2.59	3.05	3.25	3.85	4.54	5.28	6.13	6.84	7.79	8.68	11.25	13.51	16.34	19.21
25	0.76	1.21	1.53	2.27	3.03	3.62	3.91	4.64	5.51	6.39	7.35	8.13	9.2	10.18	12.93	15.32	18.32	21.27
50	0.83	1.32	1.67	2.51	3.4	4.11	4.49	5.35	6.39	7.33	8.37	9.19	10.36	11.39	14.25	16.7	19.8	22.79
100	0.89	1.41	1.79	2.74	3.77	4.62	5.1	6.1	7.33	8.35	9.47	10.31	11.58	12.66	15.59	18.06	21.24	24.22
200	0.95	1.51	1.9	2.96	4.15	5.16	5.76	6.92	8.36	9.46	10.66	11.5	12.87	13.99	16.96	19.41	22.64	25.56
500	1.03	1.62	2.04	3.25	4.67	5.91	6.71	8.09	9.87	11.1	12.35	13.21	14.73	15.89	18.8	21.2	24.46	27.22
1000	1.09	1.72	2.16	3.5	5.11	6.56	7.55	9.14	11.23	12.47	13.75	14.59	16.25	17.43	20.23	22.54	25.8	28.4

Precipitation Intensity Estimates (in/hr)

2	6.35	5.08	4.25	2.94	1.84	1.07	0.75	0.45	0.26	0.15	0.09	0.05	0.03	0.03	0.02	0.01	0.01	0.01
5	7.27	5.83	4.91	3.49	2.24	1.3	0.92	0.55	0.32	0.19	0.11	0.06	0.04	0.03	0.02	0.02	0.01	0.01
10	8.14	6.5	5.48	3.97	2.59	1.52	1.08	0.64	0.38	0.22	0.13	0.07	0.05	0.04	0.02	0.02	0.02	0.01
25	9.12	7.27	6.14	4.55	3.03	1.81	1.3	0.78	0.46	0.27	0.15	0.08	0.05	0.04	0.03	0.02	0.02	0.01
50	9.91	7.9	6.66	5.02	3.4	2.06	1.49	0.89	0.53	0.31	0.17	0.1	0.06	0.05	0.03	0.02	0.02	0.02
100	10.68	8.48	7.15	5.48	3.77	2.31	1.7	1.02	0.61	0.35	0.2	0.11	0.07	0.05	0.03	0.03	0.02	0.02
200	11.41	9.05	7.61	5.92	4.15	2.58	1.92	1.16	0.69	0.39	0.22	0.12	0.08	0.06	0.04	0.03	0.02	0.02
500	12.32	9.74	8.18	6.51	4.67	2.95	2.23	1.35	0.82	0.46	0.26	0.14	0.09	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date/time: Thu Jan 31 13:54:39 EST 2008

Precipitation frequency estimates (depth/inches)
Point Estimates
Data series: Partial duration maxima
State: PUERTO RICO
Station: SAN JUAN WSFO
Lon (dd): -66
Lat (dd): 18.4333
Elev (feet): 6
Date/time: Tue Feb 5 09:38:04 EST 2008

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
1	0.37	0.51	0.66	1.05	1.56	1.87	2	2.48	2.8	3.27	4	4.44	5.12	5.75	7.86	9.93	12.31	14.92
2	0.46	0.63	0.81	1.29	1.91	2.34	2.51	3.15	3.62	4.26	5.21	5.75	6.59	7.35	9.92	12.45	15.38	18.51
5	0.52	0.7	0.9	1.45	2.15	2.7	2.95	3.89	4.7	5.66	6.9	7.61	8.56	9.32	12.13	14.86	18.14	21.49
10	0.55	0.76	0.97	1.56	2.31	2.94	3.25	4.42	5.54	6.76	8.26	9.11	10.14	10.9	13.89	16.74	20.34	23.87
25	0.6	0.82	1.05	1.69	2.5	3.24	3.61	5.08	6.68	8.29	10.13	11.2	12.33	13.05	16.24	19.19	23.2	26.97
50	0.63	0.86	1.11	1.78	2.64	3.45	3.88	5.58	7.58	9.5	11.63	12.88	14.08	14.76	18.07	21.07	25.38	29.34
100	0.66	0.9	1.16	1.86	2.76	3.64	4.13	6.06	8.49	10.75	13.17	14.6	15.88	16.5	19.91	22.91	27.53	31.64
200	0.69	0.94	1.21	1.93	2.87	3.83	4.37	6.54	9.44	12.04	14.79	16.42	17.75	18.28	21.78	24.78	29.72	33.98
500	0.72	0.98	1.26	2.02	3	4.06	4.68	7.17	10.73	13.83	17.03	18.96	20.35	20.73	24.27	27.21	32.6	37.03
1000	0.74	1.01	1.3	2.09	3.1	4.22	4.9	7.64	11.74	15.24	18.8	20.97	22.4	22.65	26.17	29.06	34.77	39.34

Precipitation Intensity Estimates (in/hr)

2	5.51	3.77	3.22	2.58	1.91	1.17	0.84	0.53	0.3	0.18	0.11	0.06	0.04	0.03	0.02	0.02	0.01	0.01
5	6.18	4.22	3.62	2.89	2.15	1.35	0.98	0.65	0.39	0.24	0.14	0.08	0.05	0.04	0.03	0.02	0.02	0.01
10	6.65	4.54	3.89	3.11	2.31	1.47	1.08	0.74	0.46	0.28	0.17	0.09	0.06	0.05	0.03	0.02	0.02	0.02
25	7.2	4.93	4.21	3.37	2.5	1.62	1.2	0.85	0.55	0.35	0.21	0.12	0.07	0.05	0.03	0.03	0.02	0.02
50	7.6	5.19	4.44	3.56	2.64	1.72	1.29	0.93	0.63	0.4	0.24	0.13	0.08	0.06	0.04	0.03	0.02	0.02
100	7.93	5.42	4.64	3.72	2.76	1.82	1.37	1.01	0.71	0.45	0.27	0.15	0.09	0.07	0.04	0.03	0.03	0.02
200	8.26	5.64	4.83	3.86	2.87	1.91	1.45	1.09	0.78	0.5	0.31	0.17	0.11	0.08	0.05	0.03	0.03	0.02
500	8.64	5.9	5.05	4.04	3	2.03	1.56	1.2	0.89	0.58	0.35	0.2	0.12	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date/time: Tue Feb 5 09:39:39 EST 2008

Precipitation frequency estimates (depth/inches)
Point Estimates
Data series: Partial duration maxima
State: DISTRICT OF COLUMBIA
Station: NATIONAL ARBORETUM WASHINGTON DC
Lon (dd):-76.97
Lat (dd): 38.9133
Elev (feet): 78
Date/time: Tue Feb 5 09:44:27 EST 2008

Freq (yr)	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr	2-day	4-day	7-day	10-day	20-day	30-day	45-day	60-day
1	0.35	0.56	0.7	0.96	1.2	1.41	1.51	1.85	2.25	2.61	3.03	3.37	3.91	4.46	6.02	7.42	9.32	11.09
2	0.42	0.67	0.85	1.17	1.47	1.71	1.83	2.25	2.71	3.16	3.67	4.07	4.7	5.35	7.16	8.77	10.99	13.04
5	0.5	0.8	1.01	1.44	1.85	2.17	2.33	2.84	3.44	4.06	4.7	5.2	5.94	6.68	8.65	10.43	12.84	15.07
10	0.56	0.9	1.13	1.64	2.14	2.52	2.72	3.32	4.08	4.85	5.59	6.18	7.01	7.8	9.86	11.77	14.27	16.6
25	0.63	1.01	1.28	1.9	2.52	3.02	3.27	4.04	5.04	6.07	6.93	7.64	8.6	9.42	11.55	13.62	16.15	18.58
50	0.69	1.1	1.39	2.09	2.83	3.42	3.73	4.65	5.89	7.15	8.09	8.91	9.96	10.78	12.92	15.09	17.58	20.05
100	0.74	1.18	1.49	2.29	3.15	3.84	4.22	5.32	6.83	8.37	9.39	10.32	11.48	12.25	14.33	16.59	18.99	21.46
200	0.8	1.26	1.59	2.48	3.47	4.28	4.73	6.03	7.87	9.76	10.84	11.9	13.15	13.84	15.8	18.12	20.37	22.81
500	0.86	1.36	1.72	2.73	3.92	4.91	5.47	7.09	9.47	11.9	13.03	14.26	15.65	16.16	17.85	20.23	22.16	24.52
1000	0.91	1.44	1.8	2.92	4.26	5.42	6.07	7.98	10.86	13.78	14.91	16.3	17.79	18.1	19.47	21.87	23.48	25.76

Precipitation Intensity Estimates (in/hr)

2	5.05	4.04	3.38	2.34	1.47	0.86	0.61	0.37	0.23	0.13	0.08	0.04	0.03	0.02	0.01	0.01	0.01	0.01
5	6.01	4.81	4.06	2.88	1.85	1.08	0.77	0.47	0.29	0.17	0.1	0.05	0.04	0.03	0.02	0.01	0.01	0.01
10	6.72	5.37	4.53	3.28	2.14	1.26	0.9	0.55	0.34	0.2	0.12	0.06	0.04	0.03	0.02	0.02	0.01	0.01
25	7.61	6.06	5.12	3.79	2.52	1.51	1.09	0.68	0.42	0.25	0.14	0.08	0.05	0.04	0.02	0.02	0.01	0.01
50	8.27	6.58	5.56	4.18	2.83	1.71	1.24	0.78	0.49	0.3	0.17	0.09	0.06	0.04	0.03	0.02	0.02	0.01
100	8.92	7.09	5.97	4.57	3.15	1.92	1.4	0.89	0.57	0.35	0.2	0.11	0.07	0.05	0.03	0.02	0.02	0.01
200	9.54	7.56	6.36	4.95	3.47	2.14	1.58	1.01	0.65	0.41	0.23	0.12	0.08	0.06	0.03	0.03	0.02	0.02
500	10.33	8.17	6.86	5.46	3.92	2.46	1.82	1.18	0.79	0.5	0.27	0.15	0.09	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date/time: Tue Feb 5 09:45:19 EST 2008

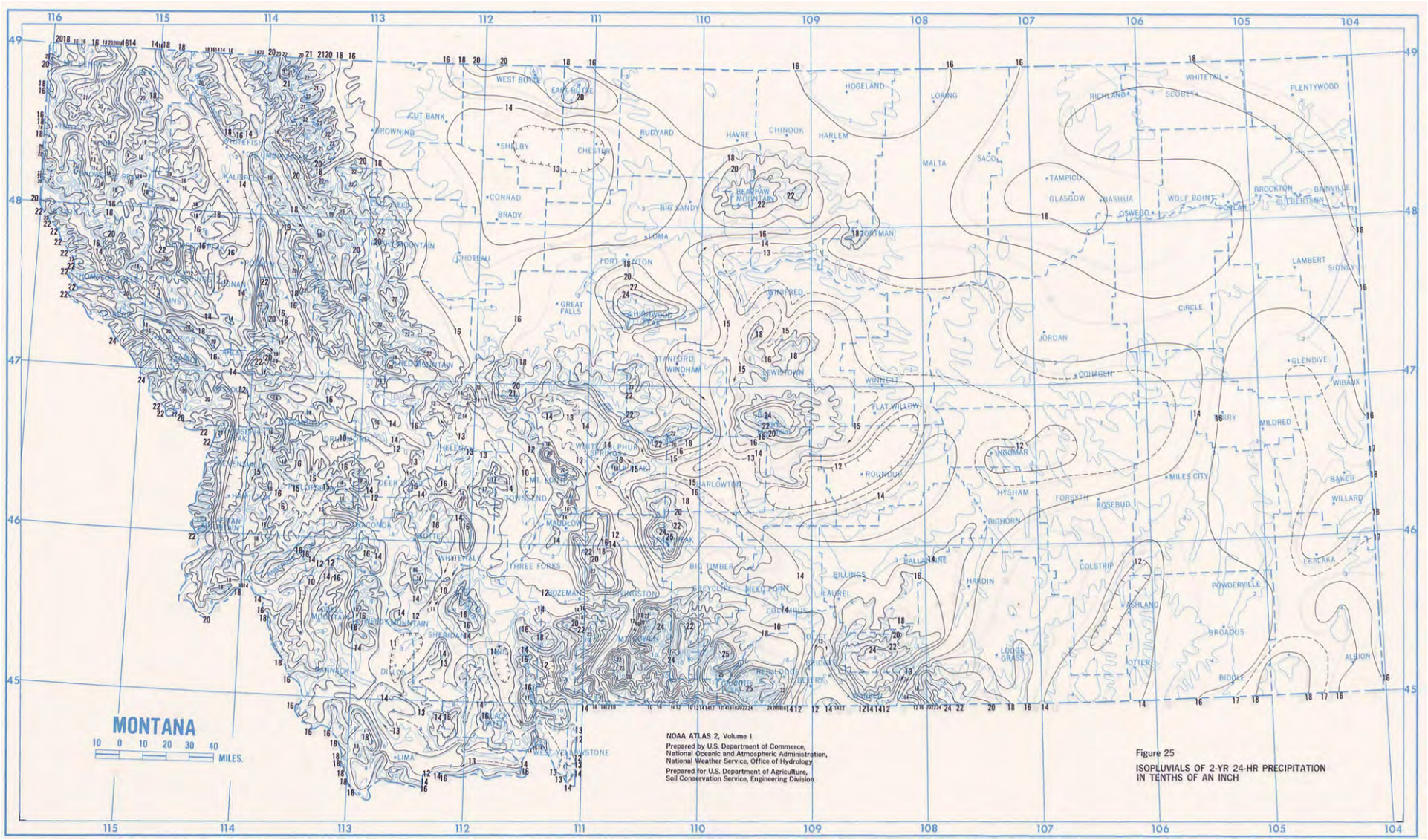


Figure D-6. NOAA Atlas 2 – Montana – Isopluvials of 2-year, 24-hour precipitation in tenths of an inch.

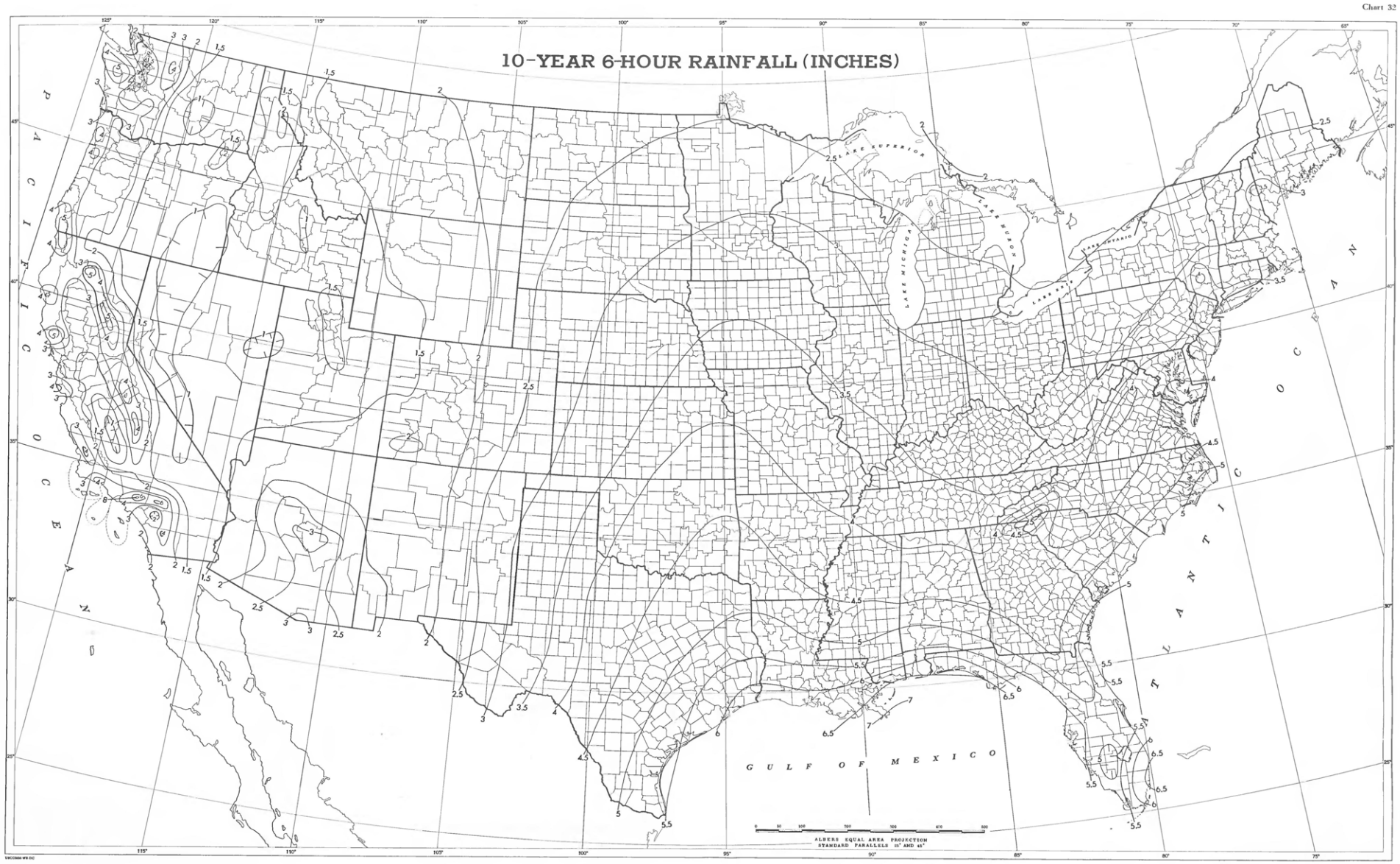


Figure D-7. Technical Paper No. 40 Rainfall Frequency Atlas of the United States for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 Years – 10-Year, 6-Hour Rainfall (inches).

Table D-4. Atlas 2 and Technical Paper Map Results

State	Indicator city	2-year, 24-hour storm		10-year, 24-hour storm		25-year, 24-hour storm		10-year, 6 hour storm	
		Depth (inches)	Intensity (inches/hr)	Depth (inches)	Intensity (inches/hr)	Depth (inches)	Intensity (inches/hr)	Depth (inches)	Intensity (inches/hr)
Alabama	Montgomery	4.50	0.19	6.5	0.27	7.6	0.32	4.60	0.77
Arkansas	Little Rock	4.10	0.17	6.05	0.25	7	0.29	4.35	0.73
California	Sacramento	2.00	0.08	3	0.13	3.5	0.15	1.70	0.28
Colorado	Denver	2.00	0.08	3	0.13	3.8	0.16	2.30	0.38
Connecticut	Hartford	3.10	0.13	4.8	0.2	5.5	0.23	3.25	0.54
Florida	Tallahassee	4.75	0.20	7.4	0.31	8.5	0.35	5.25	0.88
Georgia	Atlanta	3.70	0.15	5.5	0.23	6.5	0.27	4.20	0.70
Hawaii	Honolulu	4.75	0.20	7.8	0.33	8.9	0.37	4.80	0.80
Idaho	Boise	1.20	0.05	1.8	0.08	2.2	0.09	1.20	0.20
Iowa	Des Moines	3.25	0.14	4.7	0.2	5.5	0.23	3.54	0.59
Kansas	Kansas City	3.50	0.15	5.2	0.22	6.1	0.25	3.90	0.65
Louisiana	Baton Rouge	5.25	0.22	8.2	0.34	9.1	0.38	5.75	0.96
Maine	Augusta	2.80	0.12	4.25	0.18	4.9	0.2	2.90	0.48
Massachusetts	Boston	3.10	0.13	4.5	0.19	5.5	0.23	3.30	0.55
Michigan	Lansing	2.40	0.10	3.6	0.15	4.2	0.18	2.70	0.45
Minnesota	St. Paul	2.75	0.11	4.2	0.18	4.7	0.2	3.10	0.52
Mississippi	Jackson	4.45	0.19	6.7	0.28	7.8	0.33	4.70	0.78
Missouri	Kansas City	3.45	0.14	5.3	0.22	6	0.25	3.85	0.64
Montana	Helena	1.30	0.05	2.1	0.09	2.4	0.1	1.10	0.18
Nebraska	Lincoln	3.00	0.13	4.8	0.2	5.4	0.23	3.52	0.59
New Hampshire	Manchester	2.80	0.12	4.3	0.18	5	0.21	3.20	0.53
New York	Albany	2.90	0.12	4	0.17	5.9	0.25	3.10	0.52
North Dakota	Bismarck	1.90	0.08	3.25	0.14	3.75	0.16	2.50	0.42
Oklahoma	Oklahoma City	3.70	0.15	5.8	0.24	6.9	0.29	4.25	0.71
Oregon	Salem	2.50	0.10	3.5	0.15	4	0.17	2.90	0.48
Rhode Island	Providence	3.20	0.13	4.8	0.2	5.7	0.24	3.40	0.57
South Dakota	Pierre	2.25	0.09	3.5	0.15	4.1	0.17	2.75	0.46
Texas	Fort Worth	3.90	0.16	6.3	0.26	7.4	0.31	4.55	0.76

State	Indicator city	2-year, 24-hour storm		10-year, 24-hour storm		25-year, 24-hour storm		10-year, 6 hour storm	
		Depth (inches)	Intensity (inches/hr)	Depth (inches)	Intensity (inches/hr)	Depth (inches)	Intensity (inches/hr)	Depth (inches)	Intensity (inches/hr)
Vermont	Montpelier	2.40	0.10	3.7	0.15	4.25	0.18	2.70	0.45
Washington	Seattle	2.00	0.08	3	0.13	3.4	0.14	1.40	0.23
Wisconsin	Madison	2.80	0.12	4.1	0.17	4.75	0.2	3.15	0.53
Wyoming	Cheyenne	1.60	0.07	2.4	0.1	2.8	0.12	1.90	0.32

Sources: PRISM, Oregon State University. http://mole.nacse.org/prism/nn/index.phtml; PRISM data sets were developed through projects funded partly by the USDA Natural Resources Conservation Service, USDA Forest Service, NOAA Office of Global Programs, and others.

Class/Location and Latitude/Longitude Sources: USGS Geographic Names Information System (GNIS) http://geonames.usgs.gov/pls/gnispublic/, and National Oceanic and Atmospheric Administration (NOAA) National Weather Service (NWS) Precipitation Frequency Data Server (PFDS) Atlas 14 http://hdsc.nws.noaa.gov/hdsc/pfds/.

PRISM Data Variables:
Parameter: Annual Precipitation
Start year: 1895
Stop year: 2007
Units: inches

Table D-5. Average Annual Precipitation Data (1895 to 2007)

Indicator city, state	USGS class location (e.g., Populated Place) OR NOAA NWS Precipitation Frequency Data Server Atlas 14 site location (e.g., WSO ARP)	Latitude (Northing)	Longitude (Westing)	Average precipitation (inches)
Montgomery, Alabama	Montgomery Populated Place (165344)	32.3668	-86.2999	49.04
Phoenix, Arizona	Phoenix WSFO AP, AZ (02-6481)	33.443	-111.99	7.74
Little Rock, Arkansas	Little Rock Populated Place (83350)	34.7464	-92.2895	47.62
Sacramento, California	Sacramento Populated Place (1659564)	38.5815	-121.494	18.39
Denver, Colorado	Denver Populated Place (201738)	39.7391	-104.984	13.31
Hartford, Connecticut	Hartford Populated Place (213160)	41.7637	-72.685	44.41
Dover, Delaware	Dover, Delaware (07-2730)	39.2583	-75.516	43.02
Tallahassee, Florida	Tallahassee Populated Place (308416)	30.4382	-84.2807	62.01
Atlanta, Georgia	Atlanta Populated Place (351615)	33.7489	-84.3879	50.86
Boise, Idaho	Boise Populated Place (400590)	43.6135	-116.203	11.33
Chicago, Illinois	Chicago O'Hare WSO ARP, IL (11-1549)	41.986	-87.9142	33.04
Indianapolis, Indiana	Indianapolis WSFO AP, IN (12-4259)	39.7317	-86.2789	39.69
Des Moines, Iowa	Des Moines Populated Place (465961)	41.6005	-93.6091	31.66
Kansas City, Kansas	Kansas City Populated Place (478635)	39.1141	-94.6274	36.69
Frankfort, Kentucky	Frankfort Lock 4, KY (15-3028)	38.235	-84.8817	45.01
Baton Rouge, Louisiana	Baton Rouge Populated Place (1629914)	30.4507	-91.1545	58.77
Augusta, Maine	Augusta Populated Place (581636)	44.3106	-69.7794	41.67
Baltimore, Maryland	Baltimore WSO AP, MD (18-0465)	39.1722	-76.6839	42.28
Boston, Massachusetts	Boston Populated Place (617565)	42.3584	-71.0597	42.40
Lansing, Michigan	Lansing Populated Place (1625035)	42.7325	-84.5555	30.28
Saint Paul, Minnesota	Saint Paul Populated Place (662851)	44.9444	-93.0932	28.76
Jackson, Mississippi	Jackson Populated Place (711543)	32.2987	-90.1848	52.48
Helena, Montana	Helena Populated Place (802116)	46.5927	-112.036	11.78

Indicator city, state	USGS class location (e.g., Populated Place) OR NOAA NWS Precipitation Frequency Data Server Atlas 14 site location (e.g., WSO ARP)	Latitude (Northing)	Longitude (Westing)	Average precipitation (inches)
Lincoln, Nebraska	Lincoln Populated Place (837279)	40.8	-96.6669	28.31
Las Vegas, Nevada	Las Vegas WSO Airport, NV (26-4436)	36.0833	-115.166	3.82
Manchester, New Hampshire	Manchester Populated Place (868243)	42.9956	-71.4547	40.23
Hightstown, New Jersey	Hightstown 2 W, NJ (28-3951)	40.265	-74.5642	47.00
Santa Fe, New Mexico	Santa Fe, NM (29-8072)	35.6833	-105.9	15.46
Albany, New York	Albany Populated Place (977310)	42.6525	-73.7562	36.91
Charlotte, North Carolina	Charlotte WSO ARPT, NC (31-1690)	35.2225	-80.9542	43.19
Bismarck, North Dakota	Bismarck Populated Place (1035849)	46.8083	-100.783	16.09
Columbus, Ohio	Columbus WSO Airport, OH (33-1786)	39.9914	-82.8808	37.79
Oklahoma City, Oklahoma	Oklahoma City Populated Place (1102140)	35.4675	-97.5164	32.81
Salem, Oregon	Salem Populated Place (1167861)	44.9428	-123.035	40.72
Philadelphia, Pennsylvania	Philadelphia WSO AP, PA (36-6889)	39.8683	-75.2311	41.62
Providence, Rhode Island	Providence Populated Place (1219851)	41.8239	-71.4128	44.74
Columbia, South Carolina	Columbia WSFO AP, SC (38-1939)	33.9456	-81.1219	45.45
Pierre, South Dakota	Pierre Populated Place (1266887)	44.3683	-100.35	16.10
Nashville, Tennessee	Nashville WSO Airport, TN (40-6402)	36.1253	-86.6764	46.11
Fort Worth, Texas	Fort Worth Populated Place (1380947)	32.7254	-97.3208	32.52
Salt Lake City, Utah	Salt Lake City NWSFO, UT (42-7598)	40.7725	-111.955	14.56
Montpelier, Vermont	Montpelier Populated Place (1461834)	44.26	-72.5753	34.00
Arlington, Virginia	Washington Reagan AP (44-8906)	38.865	-77.0342	40.35
Seattle, Washington	Seattle Populated Place (1512650)	47.6062	-122.332	35.26
Charleston, West Virginia	Charleston WSFO AP, WV (46-1570)	38.3794	-81.5914	42.82
Madison, Wisconsin	Madison Populated Place (1581834)	43.073	-89.4012	31.47
Cheyenne, Wyoming	Cheyenne Populated Place (1609077)	41.1399	-104.82	14.74
District of Columbia	National Arboretum DC (18-6350)	38.9133	-76.97	41.74

Appendix E

Determination of Development Rates in U.S. Watersheds

Land Use Data Sources

There are multiple sources of land cover change information at a national scale. The U.S. Environmental Protection Agency (EPA) initially reviewed the U.S. Department of Agriculture (USDA) National Resources Inventory (NRI). The NRI is a publicly available data set that tracks temporal changes in major land covers within the United States using a sampling method. NRI data is available for the entire United States on an 8-digit hydrologic unit basis (hydrologic units[1] or HUCs) for the years 1982, 1987, 1992, and 1997. Data from these years are comparable and can be used for analyzing land cover change at several broad scales. Data from NRI are also available for the years 2001, 2002, and 2003, though not on an HUC basis. Data from these years are available only at the major river basin level, and are not directly comparable to data from earlier years because of changes in statistical and sampling methodologies.

The U.S. Geological Survey (USGS) National Land Cover Dataset (NLCD) provides another national source of data on land cover change. The Multi-Resolution Land Characteristics Consortium (MRLC) has produced the NLCD data sets that are based on classification of 30-meter pixel resolution Landsat ETM+ (TM) satellite imagery. NLCD data is publicly available for the years 1992 and 2001.[2] Because new developments in mapping methodology, new sources of input data, and changes in the mapping legend for the 2001 National Land Cover Database (NLCD 2001) confound direct comparison between NLCD 2001 and the 1992 National Land Cover Dataset (NLCD 1992), USGS prepared and recently released the NLCD 1992/2001 Retrofit Land Cover Change Product. The NLCD 1992/2001 Retrofit Land Cover Change Product was developed to offer more accurate direct change analysis between the two products.

The NLCD 1992/2001 Retrofit Land Cover Change Product uses a specially developed methodology to provide land cover change information at the Anderson Level I classification scale,[3] relying on decision tree classification of Landsat imagery from 1992 and 2001. While NLCD 1992 reported on developed land in the categories of low-intensity residential, high-intensity residential, commercial/industrial/transportation, and urban/recreational grasses, NLCD 2001 reported categories of developed low, medium, high, and open space. To compare change between the two data sets, the developed categories were merged into one overall urban class. Unchanged pixels between the two dates are coded with the NLCD 2001 Anderson Level I class code, while changed pixels are labeled with a *from-to* land cover change value. Modified Anderson Level I Classifications include the following:

- Open water
- Urban
- Barren
- Forest
- Grassland/Shrub
- Agriculture
- Wetlands Ice/Snow

[1] For definitions of hydrologic units, see http://water.usgs.gov/GIS/huc.html.
[2] To obtain data and for further descriptions of NLCD products, see http://www.mrlc.gov/index.asp.
[3] See http://landcover.usgs.gov/pdf/anderson.pdf

The NLCD 1992/2001 Retrofit Land Cover Change Product was intended to provide a current, consistent, and seamless data set for the United States at medium spatial resolution for Anderson Level I classes. This land cover change map and all documents pertaining to it are considered *provisional* until a formal accuracy assessment can be conducted. Detailed definitions and discussion of the NLCD 1992/2001 Retrofit Land Cover Change Product will be provided in an upcoming paper.[4]

Watershed Boundary Data Sources

HUC boundaries encompass surface water drainage to an outlet and are useful units for summarization of land cover change information. HUCs through four levels were created in the 1970s as the USGS developed a hierarchical HUC that divides the country into 21 regions, 222 subregions, 352 accounting units, and 2,149 cataloging units on the basis of surface hydrologic features. The 8-digit HUC, or cataloging unit (now referred to as a *basin*), is approximately 448,000 acres. By the 1990s, geographic information system (GIS) tools facilitated the mapping of digital HUC boundaries and the Natural Resources Conservation Service started to delineate HUCs to the 5th and 6th level by using GIS to meet 1:24,000 National Map Accuracy Standards. With increased interest from other federal, state, and local entities, this initiative became an interagency effort to create the Watershed Boundary Dataset (WBD) as a hydrologically correct, seamless, and consistent national GIS database. The new levels are called watershed (5th level, 10-digit) and subwatershed (6th level, 12-digit). The watershed level is typically 40,000 to 250,000 acres, and the subwatershed level is typically 10,000 to 40,000 acres. An estimated 22,000 watersheds and 160,000 subwatersheds will be mapped to the 5th and 6th level when the data set is complete.

The WBD provides publicly available spatial data for watershed boundaries at various scales within the United States. Attachment A shows the status of the WBD for the nation as of April 28, 2008. EPA is working to certify 10- and 12-digit HUC boundaries for the remainder of the country. Because the WBD is not complete, and because the water quality model used by EPA (SPARROW) does not operate on HUC boundaries, EPA chose not to characterize land use change on a HUC basis.

Another option for summarizing national land cover change in drainage area units is to use a coarser USGS data set than the WBD. A consistent, national scale watershed data set was prepared to match the Reach File Version 1.0 (RF1) hydrology data set, a vector database used extensively by EPA and states to model approximately 700,000 miles of streams and open waters in the conterminous United States. This watershed data set, the Enhanced River Reach File 1.2 (ERF1_2), was designed to be a digital database of river reaches capable of supporting regional and national water-quality and river-flow modeling.[5] The ERF1_2 coverage extends the earlier drainage area founded on the 1-kilometer data for North America.[6] ERF1_2 contains 67,171 watersheds with a minimum size of 247 acres (1 km^2) and an average size of 30,182 acres (122

[4] Coan, M., Fry, J., Homer, C., Meyer D. K., Larson, C., and J. Wickham. In Progress. Completion of the National Land Cover Database 1992/2001 Change Product.
[5] Further information on ERF1_2 watersheds is at http://water.usgs.gov/GIS/metadata/usgswrd/XML/erf1_2.xml.
[6] Verdin, K.L., and S.K. Jenson. 1996. Development of continental scale digital elevation models and extraction of hydrographic features. In *Proceedings of the Third International Conference/Workshop on Integrating GIS and Environmental Modeling*. CD-ROM. Santa Fe, NM.

km^2). (See DCN 43097 in the Administrative Record for an index of the spatial data analyses conducted for the proposed rule.

Analysis

EPA prepared spreadsheets summarizing the amount of acreage changing from undeveloped land to developed land within each state and ERF1_2 watershed of the United States by aggregating land cover change estimates from the NLCD 1992/2001 Retrofit Land Cover Change Product on an ERF1_2 level. Figure 1 shows an example of the Retrofit Land Cover Change Product near an urban area.

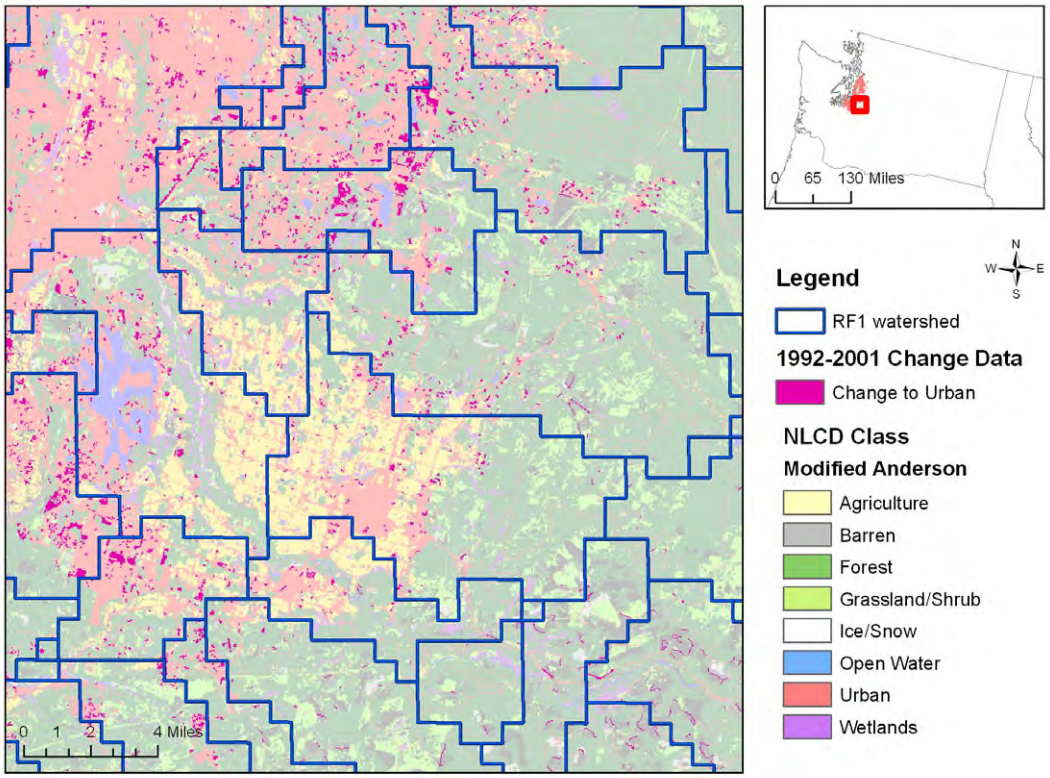


Figure E-1. NLCD 1992/2001 Retrofit Land Cover Change Product near Seattle, Washington.

Attachment B provides processing notes for the NLCD 1992/2001 Retrofit data analysis run by EPA. This data was combined with EPA Region boundaries by spatially joining the National Atlas State coverage[7] attributed with EPA Region borders and the ERF1_2 watersheds. EPA Regional boundaries were thus joined to ERF1_2 watershed so that developed areas within each region could be identified. Representative urban areas describing the fastest developing and greatest land area developing between 1992 and 2001 in a watershed are shown in Table E-1 and Figure E-2.

[7] http://www.nationalatlas.gov/mld/statesp.html

Table E-1. Fastest Developing Watersheds by Representative Urban Area per EPA Region

EPA Region	Indicator cities
1	Manchester, NH
2	Albany, NY
3	Washington, DC, VA, MD
4	Atlanta, GA
5	Chicago, IL—IN
6	Dallas, Fort Worth, and Arlington, TX
7	Kansas City, MO and KS
8	Denver and Aurora, CO
9	Las Vegas, NV
10	Boise City, ID Seattle, WA

Figure E-2. Urban Areas Selected for Each EPA Region.

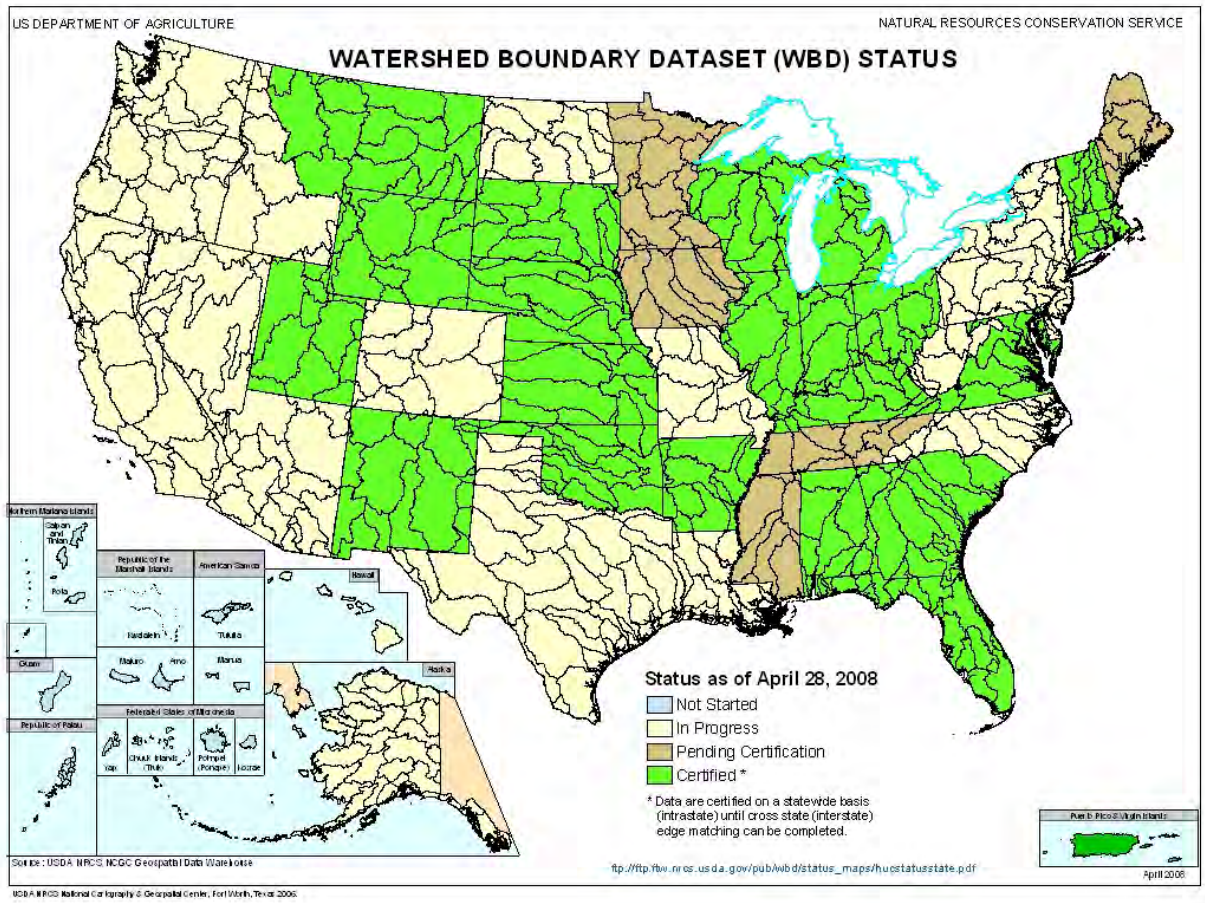
After representative urban area watersheds were targeted, the ERF1_2 watershed summarizations were also aggregated by state. When summarizing by state, an approach was needed to apportion partial watersheds (those crossing state boundaries) into state aggregations. Allocation of developed acreage within ERF1_2 watersheds overlapping state boundaries was done using a basic area-weighting approach.

Table E-2 shows a national overview of developed acreage according to data source. Attachment C presents state level results for developed acreage change in each ERF1_2 watershed.

Table E-2. National Change in Developed Acreage (1992–2001)

Source	1992 (million acres)	2001 (million acres)
NLCD RETROFIT	96.8	102.1
State aggregated NLCD RETROFIT ERF1_2 watersheds	96.5	101.8
NLCD (original)	40.3	101.3
NRI	87	106.3

Attachment A. Status of Watershed Boundary Data Set



Attachment B. NLCD 1992-2001 Land-cover Change Estimates Processing Notes
J. Wickham and T. Wade (EPA/ORD/NERL/ESD/LEB)
02/08/2008

Grabbed erf file from water.usgs.gov/gis site
61,215 watersheds in erf1_2ws_lg (61215 records in vat)
1186 single pixel watersheds
67,172 polygons in vector version
Frequency of vector version returns 61215 unique values of grid_code
Projected into albers
67171 polygons in albers version
61214 unique grid-codes
5957 multi-part polygons

WS is used throughout as an acronym for watershed; WS is also equivalent to grid-code.

US was split into 8 regions to estimate changes (nw1, nw2, ne1, ne2, sw1, sw2, se1, se2) changes were compiled into master file using

$1lcclass<date> = <>lcclass<date> + $1lcclass<date> where $1 = masterfile and <> = the regional files the equation sums watersheds that were split across regions. Areas were summed then converted to percentages. The attribute labeled area was used to convert to percentages.

47 watersheds split across regions.
8562 9124 14264 14776 14857 15006 15324 16331 18374 23999 24000 24242 25213 25230 26327 26371 28767 30796 30816 31089 31378 33206 35283 36052 38432 38460 38550 38598 39269 39841 41670 41698 41758 42307 42309 42697 42712 42817 42831 43718 58938 58994 59002 80951 81729

8 WS outside US
grid-code 95005 completely outside US (in CA west of ME)
grid-code 32171 completely outside US (in CA Nrth of MT)
others 31486 31534, 31535, 35239,35276, 42648
These WS have a -1 for LA01 and LA92 (explained below).

82 watersheds (grid-codes) in water; no land change estimates
1671 1762 1917 1918 4439 4440 4454 4455 10527 11764 11765 11766 11973 12181 12384 12440 12553 12555 18003 18014 19055 21249 21251 22621 22728 22793 22821 22854 26515 29044 29059 29063 29072 29261 32037 32051 32102 32108 32136 34650 34664 34665 34666 34787 34810 34811 34814 34818 38005 38051 38053 38154 38266 38816 38817 38818 38819 38820 38821 38975 40981 41030 42294 44296 45535 46510 46544 56786 57091 57095 57211 57427 57428 57526 57685 57689 57696 60232 65001 65002 80886 81545

Attributes LA92 and LA01 = land area in watershed for 1992 and 2001, respectively. Large changes in the amount of water will cause anomalies in the percentage differences. For example, WS 26515 in north central Missouri went from ag to water. It's a small (1km^2) WS. These

anomalies will be common on the coast, and otherwise spread throughout were the small (i.e., 1km^2) WS *overlay* such changes. WS 81555 is a coastal example at the mouth of the Miss. R. The attribute Dwatpct was added as a flag for changing amounts of water. It was calculated as ((LA01 - LA92) / area) * 100. The max value of Dwatpct is 67 percent in WS = 56768. The change is due to sedimentation of a reservoir in the PNW. There are 191 WS with Dwatpct >= 5 percent.

Attachment C. State Level Results for NLCD Developed Acreage Change in Each Watershed

State	1992DevAcre	2001DevAcre	Development rate
Alabama	2,066,843	2,197,370	14,503
Arizona	1,285,258	1,407,907	13,628
Arkansas	1,836,496	1,912,867	8,486
California	6,278,143	6,524,934	27,421
Colorado	1,609,387	1,751,860	15,830
Connecticut	727,078	736,131	1,006
Delaware	113,052	120,552	833
District of Columbia	26,381	26,973	66
Florida	4,526,626	4,869,204	38,064
Georgia	3,026,921	3,320,243	32,591
Idaho	847,520	898,587	5,674
Illinois	4,014,480	4,198,994	20,502
Indiana	2,238,170	2,349,522	12,372
Iowa	2,527,225	2,618,075	10,094
Kansas	2,463,194	2,666,039	22,538
Kentucky	1,740,669	1,830,453	9,976
Louisiana	1,788,423	1,904,013	12,843
Maine	653,697	694,157	4,496
Maryland	698,386	757,203	6,535
Massachusetts	1,174,234	1,204,116	3,320
Michigan	3,746,569	3,949,025	22,495
Minnesota	2,648,001	2,731,981	9,331
Mississippi	1,721,138	1,827,846	11,856
Missouri	2,845,661	2,967,610	13,550
Montana	1,187,901	1,246,005	6,456
Nebraska	1,699,570	1,754,268	6,078
Nevada	572,706	646,109	8,156
New Hampshire	426,786	442,861	1,786
New Jersey	1,124,705	1,163,128	4,269
New Mexico	799,207	841,237	4,670
New York	2,682,301	2,751,793	7,721
North Carolina	2,816,229	2,984,873	18,738
North Dakota	1,667,029	1,725,866	6,537
Ohio	3,549,025	3,705,609	17,398
Oklahoma	2,387,508	2,538,082	16,730
Oregon	1,552,824	1,618,391	7,285

State	1992DevAcre	2001DevAcre	Development rate
Pennsylvania	3,006,384	3,150,410	16,003
Rhode Island	173,764	177,161	377
South Carolina	1,487,194	1,632,717	16,169
South Dakota	1,315,111	1,389,905	8,310
Tennessee	2,189,700	2,307,498	13,089
Texas	8,229,892	8,781,625	61,304
Utah	758,031	833,531	8,389
Vermont	304,570	309,695	569
Virginia	1,818,500	1,954,814	15,146
Washington	2,286,574	2,401,699	12,792
West Virginia	1,016,805	1,048,419	3,513
Wisconsin	2,345,956	2,414,075	7,569
Wyoming	491,168	516,758	2,843
State aggregated totals	**96,492,992**	**101,802,191**	**589,911**

Appendix F

Evaluating Soil Nature and Soil Erosion Representative of Major U.S. Metropolitan Areas

Background and Purpose

To assess the pollutant loading reductions of potential regulatory options for the construction and development (C&D) industry, the U.S. Environmental Protection Agency (EPA) developed a series of model construction sites. By using estimates of regional soil erosion rates and pollutant removal efficiencies for various regulatory options EPA estimated pollutant removals at the national, state, and Reach File Version 1.0 (RF1) level. This appendix describes the soils data collected and analyzed by EPA.

Methodology

Identification of Indicator Cities for Each Region

Because of the large variation in soil types and rainfall patterns nationwide, EPA selected high-growth urban areas that could be used to produce representative point estimates. Using the greatest rate of development, EPA identified major metropolitan areas within each of the 10 EPA Regions to serve as indicators (see Appendix E). The indicator cites selected for the 10 EPA Regions are provided in Table F-1. As noted in Table F-1, each indicator city actually represents an area that might extend across state boundaries and includes surrounding suburban areas and satellite towns/cities.

Note, two indicator cities were evaluated for EPA Region 10, in part to assess expected variability in rainfall between damp coastal areas (e.g., Seattle) and the arid inland western flank of the Rocky Mountains (e.g., Boise, Idaho).

Table F-2. EPA Region Indicator Cities and Associated High-Growth Metropolitan Areas

EPA Region	Indicator city	High-growth metropolitan area
1	Manchester, NH	Manchester, Concord and adjacent suburban communities
2	Albany, NY	Albany, Schenectady, and adjacent suburban communities
3	Washington, DC	Washington and adjacent communities in Virginia and Maryland
4	Atlanta, GA	Atlanta and adjacent suburban communities
5	Chicago, IL	Chicago, and adjacent communities in Illinois and Indiana
6	Dallas, TX	Dallas, Fort Worth, and Arlington
7	Kansas City, MO	Kansas City, adjacent suburban communities in Missouri and Kansas
8	Denver, CO	Denver and adjacent suburban communities including Aurora
9	Las Vegas, NV	Las Vegas and adjacent suburban communities
10	Boise City, ID	Boise City and adjacent suburban communities
10	Seattle, WA	Seattle, Olympia and adjacent suburban communities

Acquisition of Soil Data

EPA used soil coverage data provided as State Soil Geographic Database (STATSGO) mapping units (Wolock 1997) to characterize soils present in each of the indicator cities. STATSGO component and layer tables were accessed through Pennsylvania State University's active archive (http://www.soilinfo.psu.edu/index.cgi?soil_data&index.html) for the representative states per EPA Region. The authors of STATSGO describe it as follows:

> This (STATSGO) data set is a digital general soil association map developed by the National Cooperative Soil Survey and distributed by the Natural Resources Conservation Service (formerly Soil Conservation Service) of the U.S. Department of Agriculture. It consists of a broad based inventory of soils and nonsoil areas that occur in a repeatable pattern on the landscape and that can be cartographically shown at the scale mapped. The soil maps for STATSGO are compiled by generalizing more detailed soil survey maps. Where more detailed soil survey maps are not available, data on geology, topography, vegetation, and climate are assembled, together with Land Remote Sensing Satellite (LANDSAT) images. Soils of like areas are studied, and the probable classification and extent of the soils are determined.
>
> The approximate minimum area delineated is 625 hectares (1,544 acres), which is represented on a 1:250,000-scale map by an area approximately 1 cm by 1 cm (0.4 inch by 0.4 inch). Linear delineations are not less than 0.5 cm (0.2 inch) in width. The number of delineations per 1:250,000 quadrangle typically is 100 to 200, but may range up to 400. Delineations depict the dominant soils making up the landscape. Other dissimilar soils, too small to be delineated, are present within a delineation.

The data available in STATSGO are valuable because they provide enough detail to evaluate broad trends in soil distribution but are still generalized sufficiently to permit analysis of many acres. It is EPA's expectation that evaluating soil over large geographic areas will produce a representative sample sufficient for analyzing sediment generation for the C&D industry.

As shown in Table F-2, EPA inventoried soils data from between 0.5 million and 5 million acres in the area surrounding each indicator city. The intent was to identify soil types and soil characteristics in each city's developing fringe. Nationally, 2,175 STATSGO statistical units were individually evaluated, in combination providing soil data for 20 million acres. Typically, the soils at each indicator city were represented by between 74 and 501 STASTSGO statistical units.

Table F-2. Summary of STATSGO Evaluation of Indicator City Locations

Indicator city	Representing acreage extracted from STATSGO	Number of statistical units evaluated
Albany	720,741	239
Atlanta	5,311,422	130
Boise	465,617	93
Chicago	2,676,561	501
Dallas	3,054,633	161
Denver	1,344,782	151

Indicator city	Representing acreage extracted from STATSGO	Number of statistical units evaluated
Kansas City	1,924,721	268
Las Vegas	858,166	100
Manchester	484,354	101
Seattle	814,413	74
Washington, DC	2,580,084	357
Total	20,235,494	2,175

The geographic limits of the STATSGO soil coverage evaluated were determined by superimposing indicator city urban area boundaries (U.S. Census Bureau 2000) upon intersecting RF1 watersheds (Nolan et al. 2003). The resulting list of RF1 watersheds intersecting the rapidly developing indicator city urban areas was used to spatially identify underlying STATSGO soil coverage Map Unit Identifiers (MUIDs). Last, the soil data associated with the surface soil layer within the selected MUIDs were extracted from STATSGO to produce the suite of data evaluated for each indicator city.

Table F-3 presents a summary of soil data for each indicator city, some of which were used to develop hybrid soil distributions (detailed later) for each indicator city. The data shown are spatially averaged, such that soil parameter values representing larger areas have a greater influence than values representing smaller areas.

Table F-3. Summary of STATSGO Soil Data Extraction for Indicator Cities

Indicator city	Average clay percentage	Average silt percentage	Average sand percentage	Average RUSLE* K factor	Average percent passing #200 sieve (sub-75 microns)	Average percent passing #40 sieve (sub-300 microns)
Albany	17%	43%	40%	0.37	60%	75%
Atlanta	19%	26%	55%	0.26	45%	77%
Boise	17%	41%	43%	0.34	57%	76%
Chicago	24%	57%	20%	0.31	80%	92%
Dallas	38%	35%	27%	0.33	73%	89%
Denver	19%	25%	56%	0.27	44%	63%
Kansas City	27%	66%	7%	0.33	93%	96%
Las Vegas	12%	16%	72%	0.31	28%	47%
Manchester	6%	33%	61%	0.23	39%	62%
Seattle	10%	31%	59%	0.29	41%	58%
Washington, DC	16%	39%	45%	0.33	55%	74%

* Revised Universal Soil Loss Equation

As noted in the description of STATSGO above, the coverage is a compilation of more detailed soil survey data. As a result, STATSGO reports some soil parameters only in terms of a low and a high value, or the range observed when more detailed data sources were compiled. For

example, for each of the 239 statistical units evaluated by for Albany, STATSGO provides 239 lowest-reported and highest-reported values for some soils parameters.

Where STATSGO provides a range of values, EPA used the average of the high and low in subsequent computations (e.g., the values provided in Table F-3). As detailed below, EPA used the STATSGO-reported range in slopes to estimate the possible range in soil yield from construction sites.

Note the *percent passing* is also the percent of the total soil sample (by weight) that is smaller than the opening of the sieve. As a result, it is possible to estimate the fraction of a soil sample that is larger or smaller on the basis of the sieve used by the soil laboratory to process the sample.

Applying the RUSLE to Estimate Construction Site Annual Yield

One of the more common methods for estimate the tons of soil eroded from soil surfaces is the Revised Universal Soil Loss Equation (RUSLE) (USDA 2000). As shown in Equation 1, the RUSLE is a regression equation that contains five parameters that account for site geometry and conditions, the soil's tendency to erode, and the location of the site.

Equation F-1

$$\text{Per Acre Yield of Eroded Soil Tons} = R \times K \times LS \times C \times P$$

where

Land Condition Parameters

C = Cover Management Factor

P = Support Factor/Soil Management Factor

Soil Erosivity Factor

K = Soil Erosivity, tons/acre

Site Location Factor

R = Rainfall – Runoff Erosivity Factor

Site Geometry

LS = Length Slope Factor

Table F-4 provides an overview of the data sources used by EPA to obtain regional-specific RUSLE factors customized to the nine construction model projects.

Selection of C and P Factors

EPA selected RUSLE C and P factors from information found in the SEDCAD 4 Design Manual and User's Guide (Warner et al. 2006). The cover management factor C was set to 1, to represent the absence of cover crop and tillage. EPA elected to assume the land area of each construction model project would be cleared and grubbed in preparation for construction. The site would

remain denuded except for the footprint of structures. Hence, the support factor/soil management factor was set to a value of 0.9, per guidance from SEDCAD 4.

Table F-4. Data Sources and Data Processing to Obtain RUSLE Factors

RUSLE term	Source of information	Processing for model project erosion estimation
C	SEDCAD 4 Documentation*	Globally set to a value of 1 across all regions and model projects. This is for a denuded soil surface
P	SEDCAD 4 Documentation*	Globally set to a value of 0.9 across all regions and model projects. This represents a *Roughed and Irregularly Tracked* soil surface
K	STATSGO***	Spatially averaged value determined from soils data for each region's indicator city
R	RUSLE2 database**	Value provided for indicator city used either the R reported for the city or reported for an adjacent county
LS	Length factor estimated on the basis of model project geometry Regional slope ranges obtained from STATSGO***	Length and regional slope values combined to determine LS value, on the basis of assumption of high ratio of rill-to-interrill erosion.

* SEDCAD 4 Documentation (Warner et al. 2006)
** RUSLE 2 ARS Version Jan 19 2005, Program Database
*** STATSGO Soil Data Coverage

Selection of K Factors

The appropriate RUSLE *K* factor for each region was determined on the basis of STATSGO soil coverage data. For each STATSGO statistical unit, a single K value is reported within coverage data fields. EPA spatially averaged all of the individual Ks for each city to determine the region-wide representative value. The K value for each indicator city was universally applied to all states in the region. Attachment A lists how states are grouped into regions. Table F-5 indicates the *average* K for each indicator city.

Table F-5. Spatially Averaged Regional Soil Erosivity (K) Values

City	Region	Average K*
Albany	2	0.369
Atlanta	4	0.264
Manchester	1	0.229
Boise	10a	0.340
Chicago	5	0.315
Dallas	6	0.331
Washington, DC	3	0.332
Denver	8	0.268
Kansas City	7	0.331
Las Vegas	9	0.314
Seattle	10b	0.293

*The STASTGO KKFACT data point

LS Factor Selection

The LS factor reflects the influence of the site geometry and land slope. As suggested by its name, the LS factor combines the average slope for the eroding area with the flow distance eroded particles will travel to the point of *discharge*. This term is referred to here as the overland flow length; although in RUSLE terminology, it is commonly referred to as the *slope length*.

Usually, the LS factor is determined from U.S. Department of Agriculture (USDA) tables, where users look up the appropriate value for the average percent slope and overland flow distance (USDA 2000). EPA automated this lookup process by developing a curve that fits parameter values found in the USDA tables. For the range of low-end and high-end slopes found in STATSGO, this curve fit produces less than a 4 percent departure from table-reported LS values, and typically only a 1 to 2 percent departure for most slopes evaluated for the regions.

USDA provides three sets of LS values based on the tendency for rills to form—LS values for a low, medium, and high ratio of rill-to-interrill erosion. EPA's analysis is based on a high ratio of rill-to-interrill erosion (USDA 2000). USDA suggests that construction sites or other highly disturbed soil surfaces are likely to have a high ratio of rill-to-interill erosion.

EPA elected to set slope lengths for model projects at ranges between 200 feet and 425 feet, to reflect differences in geometries of various construction site project types. Typically, overland flow distance on a construction site would be limited by slope and soil type, with the goal of preventing sheet flow from becoming concentrated flow. As such, construction sites typically will provide channels along slopes for collection and conveyance of runoff before the point where overland sheet flow would become concentrated flow. Because the specific geometry would vary for each individual project, EPA selected values that would provide a reasonable approximation of slope lengths that might be found on a typical project. The overland flow or RUSLE slope lengths selected for the nine model site projects are in Table F-6.

Table F-6. Model Project Slope Lengths (feet)

Model project description	Overland flow distance (feet)
Large Residential - median size 33 acres	350
Large Nonresidential - median size 51 acres	425
Large Transportation - median size 78.9 acres	200
Medium Residential - median size 16.7 acres	350
Medium Nonresidential - median size 15 acres	425
Medium Transportation - median size 16 acres	200
Small Residential - median size 3 acres	150
Small Nonresidential - median size 2.6 acres	250
Small Transportation - median size 3 acres	200

A range of soil slopes were extracted for each region from the STATSGO soil coverage data. For any single statistical unit, STATSGO provides a high and low slope value, where the high value is the highest reported for the statistical unit, and the low value is the lowest reported. EPA spatially averaged the lowest- and highest-reported slopes of the individual statistical units for each city to determine the region-wide representative value. The regional lowest-reported and highest-reported values were then used to determine the range of slopes construction sites would likely encounter in a given geographic area.

Table F-7 indicates spatially averaged STATSGO lowest-reported and highest-reported slope data, and presents slope values computed from the STATSGO data. EPA believes that using the lowest-reported and highest-reported slopes would indicate the extremes, but not the more common conditions faced by the industry. Therefore, EPA computed three slope values from the STASTGO data for each indicatory city; values that reflect regional slope tendencies but offer a more central estimate of the slopes likely to occur at construction sites.

For its analysis, EPA used the average of the lowest-reported and highest-reported slope values for each indicator city to produce an *average* estimate of soil slope/erosion. A *low-end* estimate of soil erosion was computed on the basis of the value halfway between the lowest-reported slope value and the computed average slope value. *A high-end* soil erosion was computed on the basis of the value halfway between the highest-reported slope value and the computed average slope value.

For most the analysis of the industry, EPA used the computed average slope value for each region to obtain a central estimate (loads based on the average slope are used in the SPARROW model to compute changes in receiving water quality and to calculate benefits). The computed low-end and high-end slope values provide an opportunity to see how changes in slope assumptions could affect the results.

Table F-7. Slope Ranges from STATSGO and Computed Regional Slope Ranges for Estimating Soil Erosion Yield

		Origin STATSGO, percent		Computed slopes, percent		
City	**Region**	**Average of lowest reported slopes**	**Average of highest reported slopes**	**Low end**	**Average**	**High end**
Albany	2	4.72%	12.06%	6.55%	8.39%	10.22%
Atlanta	4	7.55%	15.18%	9.46%	11.37%	13.28%
Manchester	1	3.24%	9.59%	4.83%	6.42%	8.00%
Boise	10a	7.71%	18.71%	10.46%	13.21%	15.96%
Chicago	5	2.39%	6.25%	3.35%	4.32%	5.28%
Dallas	6	1.17%	5.62%	2.28%	3.40%	4.51%
Washington, DC	3	6.59%	14.74%	8.63%	10.67%	12.71%
Denver	8	3.38%	17.83%	6.99%	10.61%	14.22%
Kansas City	7	4.26%	8.87%	5.41%	6.57%	7.72%
Las Vegas	9	5.60%	16.98%	8.45%	11.29%	14.14%
Seattle	10b	10.89%	25.76%	14.60%	18.32%	22.04%

Rainfall Erosivity Factor Selection

USDA Agricultural Research Service (ARS) makes available rainfall erosivity factors through many outlets, including the recently published RUSLE 2 computer program (USDA 2005). EPA used location-specific databases built into RUSLE 2 to acquire the appropriate R values for the indicator cities (See Table F-8). Typically the value chosen for each indicator city was either the R value reported for the city or reported for an adjacent county.

Table F-8. Regional Rainfall Erosivity (R) Factors

City	Region	Rainfall R
Albany	2	105
Atlanta	4	318
Manchester	1	107
Boise	10a	6.75
Chicago	5	158
Dallas	6	273
Washington, DC	3	176
Denver	8	30.6
Kansas City	7	226
Las Vegas	9	12.5
Seattle	10b	77.8

Soil Delivery Ratios

When RUSLE is applied to agricultural situations, and/or where the slope length is long, it is expected that some eroded soil particles will deposit as they move along the flow path. Such is the case where water flow moves eroded particles along a crop row cut into a farm field's topographic contour. The rough bottom and flat slope at the base of the row provide ample opportunity for the recapture of eroded soil particles. The ratio of soil discharged to eroded (moved) soil is referred to as the delivery ratio.

For construction sites, EPA elected to assume a delivery ratio of 1, or that 100 percent of the eroded soil particles would be delivered to sediment controls. For construction sites, this is justified in part by the industries tendency to install efficient flow systems (e.g., channels and swales) that are designed to convey flow efficiently to the sediment control devices. This convention helps ensure that the construction site work schedule is affected as little as possible by precipitation.

EPA acknowledges that many types of construction site best management practices (BMPs), (e.g., silt fences and check dams) do capture sand-size and larger soil particles when they are properly placed and maintained within the flow path. However, these particles would also be removed by baseline BMPs (such as sediment basins), and therefore EPA's baseline analysis does account for removal of these particles. The technologies currently under consideration by EPA (advanced treatment systems) are targeted at silt and clay particle size fractions, or the

fractions much less affected by flow path BMPs. Neglecting the role of flow path BMPs (i.e., assuming a delivery ratio of 1.0) therefore is not expected to significantly bias the results.

Estimating Soil Yield for Regional Models

Tables F-9a through F-9d provide EPA's estimates of erosion rates (low-end, average, and high-end) for the 11 indicator cities. Note that the per acre erosion rates are the same for large transportation, medium, and small transportation model projects. This occurs because the overland length selected for these projects is the same (200 feet). Matching overland flow length is also the reason why the per acre yield estimates match for small residential and small nonresidential model projects. Each of the model projects predict a different amount of eroded soil discharge at their outlet points, even if they have the same yield per acre. This occurs because the median site size differs between the nine model construction projects.

Table F-9a. Estimated Soil Eroded from Large, Medium, and Small Transportation Model Construction Projects (Tons per Acre)

Indicator city	Low-end estimate	Average estimate	High-end estimate
Albany	47.05	62.03	82.98
Atlanta	159.12	211.69	265.75
Manchester	21.18	29.04	37.19
Boise	5.09	7.20	9.38
Chicago	28.80	37.97	47.46
Dallas	34.77	53.15	72.45
Denver	10.70	18.59	29.58
Kansas City	73.38	90.99	109.07
Las Vegas	6.32	9.78	13.55
Seattle	82.42	112.12	142.41
Washington, DC	96.50	133.58	173.39

Table F-9b. Estimated Soil Eroded from Large and Medium Residential Model Construction Projects (Tons per Acre)

Indicator city	Low-end estimate	Average estimate	High-end estimate
Albany	65.72	89.58	120.62
Atlanta	229.69	310.64	395.42
Manchester	7.41	10.71	14.19
Boise	37.88	51.10	65.03
Chicago	44.19	70.00	97.97
Dallas	15.04	27.11	42.79
Denver	100.76	127.13	154.60
Kansas City	9.04	14.34	20.28
Las Vegas	28.79	40.48	52.88
Seattle	123.69	171.70	221.73
Washington, DC	138.15	194.91	256.99

Table F-9c. Estimated Soil Eroded from Large and Meduim Nonresidential Model Construction Projects (Tons per Acre)

Indicator city	Low-end estimate	Average estimate	High-end estimate
Albany	73.79	100.24	137.33
Atlanta	260.88	354.85	453.87
Manchester	8.45	12.30	16.39
Boise	41.66	56.64	72.54
Chicago	48.03	77.02	108.64
Dallas	16.92	30.90	49.21
Denver	112.47	142.76	174.49
Kansas City	10.23	16.37	23.32
Las Vegas	32.02	45.43	59.75
Seattle	142.39	199.06	258.54
Washington, DC	156.46	222.21	294.57

Table F-9d. Estimated Soil Eroded from Small Nonresidential and Small Residential Model Construction Projects (Tons per Acre)

Indicator city	Low-end estimate	Average estimate	High-end estimate
Albany	53.75	71.50	96.33
Atlanta	184.20	246.67	311.38
Manchester	5.91	8.44	11.07
Boise	32.12	42.75	53.81
Chicago	38.26	59.32	81.68
Dallas	12.26	21.60	33.57
Denver	83.27	103.97	125.57
Kansas City	7.29	11.39	15.92
Las Vegas	23.94	33.15	42.79
Seattle	96.90	132.89	169.91
Washington, DC	111.34	155.30	202.85

Additional details on the application of RUSLE to the nine model construction projects, on the basis of STATSGO data, are in Attachment B.

Uncertainty of Estimated Construction Site Soil Yield

EPA recognizes that soil yield will vary among actual construction projects, even those that are very similar to the model projects evaluated in this document. EPA recognizes that it cannot perform detailed analysis of all combinations of soil type, soil slope, slope profile, and overflow flow length. However, EPA did evaluate some of the variability surrounding its estimate of per acre annual erosion for construction sites. This analysis focused on variation in slope at indicator cities, as indicated by the STATSGO soil data coverage. The results are presented in terms of low-end and high-end and average soil yields, as presented in Tables F-9a through F-9d.

The low-end estimates of slope produce erosion rates that are between 19 and 45 percent lower than those that result from average slope values, depending on the model and region. The high-end estimates of slope predict erosion rates that are greater than average slope values by between 20 and 59 percent.

Application of STATSGO Data for Particle Grain Size Distribution

EPA's assessment of the effectiveness of technologies is based on particle size distributions for soil eroded from construction sites. STATSGO data provide a basis for estimating particles size distributions of soils. The data in Table F-3 represent the data that are spatially weighted and region-specific. The data represent the grain size distribution of a hybrid soil, or a composite soil created by proportionally weighting the soils data in the area surrounding each indicator city. Each hybrid soil provides sufficient accuracy to estimate the contribution of each soil particle size group to the total eroded yield from construction sites.

With the STATSGO-developed percent passing data for regional hybrid soils in Table F-3, it is possible to estimate the percent passing for other particle sizes. For this analysis, EPA used the Skaggs et al. Equation (see Equation F-2)(Skaggs et al. 2001), which was fit to the hybrid soil data for the average percent clay, percent passing a #200 sieve, and passing a #40 sieve.

Once the Skaggs et al. Equation parameters are determined for each region's hybrid soil, the region-specific equation can then be used to develop a particle size distribution for the hybrid soils. These particle size distributions can be used to estimate the percent by weight above and below any selected particle size. Exhibit F-1 documents the application of the Skaggs et al. Equation to each region's hybrid soil and the resulting regional estimates of percent passing for select particle sizes.

Many of the technologies being considered by EPA for the C&D industry remove pollutants proportionally to the size of the soil particles that flow into them. The finer the suspended soil particle, the more difficult it is to remove the particle through settling technology (e.g., sedimentation basin). As shown in Exhibit F-1, the fraction of small particles found in surface soils varies significantly region-to-region. For example, the fraction of soils smaller than 20 microns, ranges from a low of 21 percent (Las Vegas) to a high of 90 percent (Kansas City). This highlights the difference between areas with sandy soils and those with clayey soils.

Skaggs et.al. Particle distribution curve equation

$$P(r) = \frac{1}{1 + (1/P(r_0) - 1)\exp(-uR^c)},$$

$$R = \frac{r - r_0}{r_0}, \qquad r \geq r_0 > 0.$$

where r0, r1, r2 are the radii for three calibration particle sizes
p(0), p(1), p(2) are the percent passing for the three calibration particles

and

$$c = \alpha \ln \frac{v}{w}$$

and

$$u = -v^{1-\beta} w^{\beta},$$

where

$$v = \ln \frac{1/P(r_1) - 1}{1/P(r_0) - 1}, \qquad w = \ln \frac{1/P(r_2) - 1}{1/P(r_0) - 1},$$

$$\alpha = 1/\ln \frac{r_1 - r_0}{r_2 - r_0}, \qquad \beta = \alpha \ln \frac{r_1 - r_0}{r_0},$$

$$1 > P(r_2) > P(r_1) > P(r_0) > 0, \quad r_2 > r_1 > r_0 > 0.$$

Reference:
Estimating Particle-Size Distribution from Limited Soil Texture Data
T. H. Skaggs,* L. M. Arya, P. J. Shouse, and B. P. Mohanty

Equation F-2. Skaggs et al. Equation for Fitting Soil Particle Distributions

Fitting Skaggs et.al. Equation to Average STATSGO soil data for indicator cities

Global Skaggs et.al. Parameters

Equ. Parameter	Dia,micron	Radius, micron
ro	2	1
r1	75	37.5
r2	300	150

Percent Passing Average Data from STATSGO

Region	Indicator City	Pro: 2 micron - Percent clay	Pr1: 75 micron Passing #200 Sieve	Pr2: 300 microns Passing #40 Sieve	Region Specific Skaggs Equation Parameter Calculation: v	w	alpha	Beta	u	c
2	Albany	17.0	60.5	75.2	0.044	0.047	-0.711	-2.557	-0.036	0.051
4	Atlanta	18.7	44.7	77.2	0.032	0.042	-0.711	-2.557	-0.017	0.184
10a	Boise	16.9	57.5	76.2	0.043	0.048	-0.711	-2.557	-0.034	0.068
5	Chicago	23.5	80.1	92.0	0.031	0.033	-0.711	-2.557	-0.027	0.037
6	Dallas	38.4	73.4	88.6	0.013	0.015	-0.711	-2.557	-0.008	0.122
8	Denver	19.0	44.2	63.2	0.031	0.038	-0.711	-2.557	-0.019	0.142
7	Kansas City	26.7	93.1	96.5	0.027	0.028	-0.711	-2.557	-0.026	0.010
9	Las Vegas	12.0	27.7	46.7	0.050	0.065	-0.711	-2.557	-0.025	0.188
1	Manchester	6.4	39.4	62.0	0.145	0.155	-0.711	-2.557	-0.124	0.045
10b	Seattle	10.3	40.8	57.8	0.078	0.085	-0.711	-2.557	-0.062	0.064
3	DC	15.6	54.7	73.7	0.048	0.052	-0.711	-2.557	-0.037	0.068

Estimated Percent Smaller by Weight for Select Particle Size

Particle Diameter, Microns

Region	Indicator City	2	5	10	20	30	50	75	150	300	400
2	Albany	17.0	43.4	47.3	51.2	53.8	57.3	60.5	66.9	75.2	79.3
4	Atlanta	18.7	27.5	30.4	33.9	36.4	40.5	44.7	55.7	77.2	93.7
10a	Boise	16.9	39.0	42.9	47.1	49.8	53.8	57.5	65.4	76.2	82.0
5	Chicago	23.5	63.0	67.2	71.3	73.8	77.2	80.1	85.6	92.0	95.1
6	Dallas	38.4	56.6	60.3	64.1	66.6	70.1	73.4	80.0	88.6	93.0
8	Denver	19.0	29.7	32.5	35.6	37.7	41.0	44.2	51.6	63.2	70.2
7	Kansas City	26.7	86.4	88.4	90.0	91.0	92.2	93.1	94.8	96.5	97.2
9	Las Vegas	12.0	17.3	19.1	21.2	22.7	25.1	27.7	34.2	46.7	56.1
1	Manchester	6.4	22.7	25.9	29.5	32.0	35.7	39.4	48.1	62.0	70.7
10b	Seattle	10.3	26.0	29.0	32.3	34.5	37.7	40.8	47.7	57.8	63.6
3	DC	15.6	36.5	40.3	44.4	47.1	51.0	54.7	62.6	73.7	79.8

Exhibit F-1. Application of Skaggs et al. Equation to Indicator City Soils

Areas for Additional Investigation

EPA acknowledges that there is ongoing investigation of soil and soil erosion behavior that is not incorporated into the analysis documented in this proposal. For example, data suggests that when erosion of a soil surface occurs, the primary soil clay, silt, and sand particles flow down gradient as individual particles and as conglomerates of small and large soil aggregate. Conglomeration of soil particles exists because of chemical and physical adhesion—adhesion that can range from slightly to strongly water resistant depending on the soil.

In this document, EPA refers to the STATSGO-based soil distribution as the *parent* soil distribution to distinguish it from the *eroded* distribution that probably contains a greater fraction of small and large soil conglomerate particles. Attachment C provides details for twelve USDA soil texture classes the parent soil particle size distribution and the associated eroded particle size distribution.

Table F-10 provides summary information on small and large aggregate size in eroded soil on the basis of the parent soil distributions of 12 USDA soil texture classes. Note: the fraction of small and large particle aggregates and their estimated average diameter were obtained from relationships found in USDA's RUSLE2 Science Documentation (USDA 2005). In summary, for each of the 12 soil texture classes that span the soil spectrum, the estimated eroded soil distribution contains a greater percentage of large diameter particles than its parent soil.

Table F-10 Summary of Small and Large Soil Aggregate Potentially Found in Eroded Soils

Particle description	Particle sizes	Estimated aggregate size (microns) and fraction within eroded soil sample *	Description of aggregate size
Small Aggregate	Composed of clay (< 2 microns) and silts (2 to 50 microns) and sands	30 and 100 microns in size Representing between 5 to 40 % of eroded soil weight	Very fine sand to fine sand
Large Aggregate	Composed of clay (< 2 microns), silts (2 to 50 microns) and sands	300 and 1,600 microns in size Representing between 7 to 80 % of soil eroded soil weight	Medium sand to coarse sand

* Range computed from 12 USDA soil texture classes

EPA's analysis of new technologies and new design criteria for the C&D industry is based on *parent* soil distributions, not *eroded* soil distributions. EPA expects that this approach will underestimate removal efficiencies for technologies because of settling (e.g., sedimentation ponds). EPA acknowledges that where the flow distance to the sediment basins is short, the eroded particle distribution entering the basin will probably contain a greater percentage of larger diameter particles than is suggested by dry sieve analysis of the parent soil.

The load allocation spreadsheet is DCN 43091, the estimate of construction site loads is DCN 43092 and the STATSGO soil data evaluation is DCN 43096 in the Administrative Record.

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Attachment A. Allocation of States/Commonwealths/Territories to Representative Regions

State	Abbreviation	EPA Region	State	Abbreviation	EPA Region
Alabama	AL	4	New Jersey	NJ	2
Arizona	AZ	9	New Mexico	NM	6
Arkansas	AR	6	New York	NY	2
California	CA	9	North Carolina	NC	4
Colorado	CO	8	North Dakota	ND	8
Connecticut	CT	1	Ohio	OH	5
Delaware	DE	3	Oklahoma	OK	6
Florida	FL	4	Oregon	OR	10b
Georgia	GA	4	Pennsylvania	PA	3
Idaho	ID	10a	Rhode Island	RI	1
Illinois	IL	5	South Carolina	SC	4
Indiana	IN	5	South Dakota	SD	8
Iowa	IA	7	Tennessee	TN	4
Kansas	KS	7	Texas	TX	6
Kentucky	KY	4	Utah	UT	8
Louisiana	LA	6	Vermont	VT	1
Maine	ME	1	Virginia	VA	3
Maryland	MD	3	Washington	WA	10b
Massachusetts	MA	1	West Virginia	WV	3
Michigan	MI	5	Wisconsin	WI	5
Minnesota	MN	5	Wyoming	WY	8
Mississippi	MS	4	Alaska	AK	Not analyzed
Missouri	MO	7	Hawaii	HI	Not analyzed
Montana	MT	8	Puerto Rico	PR	Not analyzed
Nebraska	NE	7	Virgin Islands	VI	Not analyzed
Nevada	NV	9	Pacific Islands	PI	Not analyzed
New Hampshire	NH	1	District of Columbia	DC	3

Attachment B. Regional Estimates of Construction Site Annual Yield for Model Projects

General Note: Medium Model Projects have the same RUSLE parameters as Large Model Projects

RUSLE Input Parameters

Model Project: Medium and Large Commercial

				LS Values *		
Indicator City	Region	Average k	Annual R	Low End	Average	High End
Albany	2	0.37	105.0	2.12	2.87	3.94
Atlanta	4	0.26	318.0	3.45	4.69	6.00
Manchester	1	0.23	107.0	1.45	2.06	2.71
Boise	10a	0.34	6.8	4.09	5.95	7.93
Chicago	5	0.31	158.0	0.93	1.27	1.62
Dallas	6	0.33	273.0	0.59	0.95	1.33
DC	3	0.33	176.0	2.98	4.23	5.60
Denver	8	0.27	30.6	2.29	4.19	6.67
Kansas City	7	0.33	226.0	1.67	2.12	2.59
Las Vegas	9	0.31	12.5	2.90	4.64	6.61
Seattle	10b	0.29	77.8	6.95	9.71	12.61

*EPA Applied LS values for High Rill to Interrill Development

	STATSGO Slope Data, Percent			EPA Applied Slopes, Percent		
Indicator City	Lowest	Average	Highest	Low End	Average	High End
Albany	4.72	8.39	12.1	6.55	8.39	10.22
Atlanta	7.55	11.37	15.2	9.46	11.37	13.28
Manchester	3.24	6.42	9.6	4.83	6.42	8.00
Boise	7.71	13.21	18.7	10.46	13.21	15.96
Chicago	2.39	4.32	6.2	3.35	4.32	5.28
Dallas	1.17	3.40	5.6	2.28	3.40	4.51
DC	6.59	10.67	14.7	8.63	10.67	12.71
Denver	3.38	10.61	17.8	6.99	10.61	14.22
Kansas City	4.26	6.57	8.9	5.41	6.57	7.72
Las Vegas	5.60	11.29	17.0	8.45	11.29	14.14
Seattle	10.89	18.32	25.8	14.60	18.32	22.04

			Comments
Overland Flow Length	425	Feet	Value taken from model project geometry
RUSLE "P"	0.9	Unitless	Value taken from SEDCAD 4 Documentation
RUSLE "C"	1	Unitless	Value taken from SEDCAD 4 Documentation

Calculated ranges in soil yield, Tons per acre per year

Indicator City	Low End	Average	High End
Albany	73.79	100.24	137.33
Atlanta	260.88	354.85	453.87
Manchester	32.02	45.43	59.75
Boise	8.45	12.30	16.39
Chicago	41.66	56.64	72.54
Dallas	48.03	77.02	108.64
DC	156.46	222.21	294.57
Denver	16.92	30.90	49.21
Kansas City	112.47	142.76	174.49
Las Vegas	10.23	16.37	23.32
Seattle	142.39	199.06	258.54

Departure from Aver

Low End	High End
26%	-37%
26%	-28%
30%	-32%
31%	-33%
26%	-28%
38%	-41%
30%	-33%
45%	-59%
21%	-22%
38%	-42%
28%	-30%

RUSLE Input Parameters

Model Project: Small Commercial

				LS Values *		
Indicator City	Region	Average k	Annual R	Low End	Average	High End
Albany	2	0.37	105.0	1.54	2.05	2.76
Atlanta	4	0.26	318.0	2.44	3.26	4.12
Manchester	1	0.23	107.0	1.09	1.50	1.94
Boise	10a	0.34	6.8	2.86	4.09	5.36
Chicago	5	0.31	158.0	0.72	0.96	1.20
Dallas	6	0.33	273.0	0.47	0.73	1.00
DC	3	0.33	176.0	2.12	2.95	3.86
Denver	8	0.27	30.6	1.66	2.93	4.55
Kansas City	7	0.33	226.0	1.24	1.54	1.86
Las Vegas	9	0.31	12.5	2.07	3.23	4.51
Seattle	10b	0.29	77.8	4.73	6.48	8.29

*EPA Applied LS values for High Rill to Interrill Development

	STATSGO Slope Data, Percent			EPA Applied Slopes, Percent		
Indicator City	Lowest	Average	Highest	Low End	Average	High End
Albany	4.72	8.39	12.1	6.55	8.39	10.22
Atlanta	7.55	11.37	15.2	9.46	11.37	13.28
Manchester	3.24	6.42	9.6	4.83	6.42	8.00
Boise	7.71	13.21	18.7	10.46	13.21	15.96
Chicago	2.39	4.32	6.2	3.35	4.32	5.28
Dallas	1.17	3.40	5.6	2.28	3.40	4.51
DC	6.59	10.67	14.7	8.63	10.67	12.71
Denver	3.38	10.61	17.8	6.99	10.61	14.22
Kansas City	4.26	6.57	8.9	5.41	6.57	7.72
Las Vegas	5.60	11.29	17.0	8.45	11.29	14.14
Seattle	10.89	18.32	25.8	14.60	18.32	22.04

			Comments
Overland Flow Length	250	Feet	Value taken from model project geometry
RUSLE "P"	0.9	Unitless	Value taken from SEDCAD 4 Documentation
RUSLE "C"	1	Unitless	Value taken from SEDCAD 4 Documentation

Calculated ranges in soil yield, Tons per acre per year

Indicator City	Low End	Average	High End
Albany	53.75	71.50	96.33
Atlanta	184.20	246.67	311.38
Manchester	23.94	33.15	42.79
Boise	5.91	8.44	11.07
Chicago	32.12	42.75	53.81
Dallas	38.26	59.32	81.68
DC	111.34	155.30	202.85
Denver	12.26	21.60	33.57
Kansas City	83.27	103.97	125.35
Las Vegas	7.29	11.39	15.92
Seattle	96.90	132.89	169.91

Departure from Aver

Low End	High End
25%	-35%
25%	-26%
28%	-29%
30%	-31%
25%	-26%
36%	-38%
28%	-31%
43%	-55%
20%	-21%
36%	-40%
27%	-28%

RUSLE Input Parameters

Model Project: Medium and Large Residential

				LS Values *		
Indicator City	Region	Average k	Annual R	Low End	Average	High End
Albany	2	0.37	105.0	1.88	2.54	3.46
Atlanta	4	0.26	318.0	3.04	4.11	5.23
Manchester	1	0.23	107.0	1.31	1.84	2.40
Boise	10a	0.34	6.8	3.59	5.19	6.87
Chicago	5	0.31	158.0	0.85	1.14	1.45
Dallas	6	0.33	273.0	0.54	0.86	1.20
DC	3	0.33	176.0	2.63	3.71	4.89
Denver	8	0.27	30.6	2.04	3.67	5.80
Kansas City	7	0.33	226.0	1.50	1.89	2.30
Las Vegas	9	0.31	12.5	2.56	4.06	5.75
Seattle	10b	0.29	77.8	6.03	8.38	10.82

*EPA Applied LS values for High Rill to Interrill Development

	STATSGO Slope Data, Percent			EPA Applied Slopes, Percent		
Indicator City	Lowest	Average	Highest	Low End	Average	High End
Albany	4.72	8.39	12.1	6.55	8.39	10.22
Atlanta	7.55	11.37	15.2	9.46	11.37	13.28
Manchester	3.24	6.42	9.6	4.83	6.42	8.00
Boise	7.71	13.21	18.7	10.46	13.21	15.96
Chicago	2.39	4.32	6.2	3.35	4.32	5.28
Dallas	1.17	3.40	5.6	2.28	3.40	4.51
DC	6.59	10.67	14.7	8.63	10.67	12.71
Denver	3.38	10.61	17.8	6.99	10.61	14.22
Kansas City	4.26	6.57	8.9	5.41	6.57	7.72
Las Vegas	5.60	11.29	17.0	8.45	11.29	14.14
Seattle	10.89	18.32	25.8	14.60	18.32	22.04

			Comments
Overland Flow Length	350	Feet	Value taken from model project geometry
RUSLE "P"	0.9	Unitless	Value taken from SEDCAD 4 Documentation
RUSLE "C"	1	Unitless	Value taken from SEDCAD 4 Documentation

Calculated ranges in soil yield, Tons per acre per year

Indicator City	Low End	Average	High End
Albany	65.72	88.58	120.62
Atlanta	229.69	310.64	395.42
Manchester	28.79	40.48	52.88
Boise	7.41	10.71	14.19
Chicago	37.88	51.10	65.03
Dallas	44.19	70.00	97.87
DC	138.15	194.91	256.99
Denver	15.04	27.11	42.79
Kansas City	100.76	127.13	154.60
Las Vegas	9.04	14.34	20.28
Seattle	123.69	171.70	221.73

Departure from Aver

Low End	High End
26%	-36%
26%	-27%
29%	-31%
31%	-32%
26%	-27%
37%	-40%
29%	-32%
45%	-58%
21%	-22%
37%	-41%
28%	-29%

RUSLE Input Parameters

Model Project: Small Residential

				LS Values *		
Indicator City	Region	Average k	Annual R	Low End	Average	High End
Albany	2	0.37	105.0	1.54	2.05	2.76
Atlanta	4	0.26	318.0	2.44	3.26	4.12
Manchester	1	0.23	107.0	1.09	1.50	1.94
Boise	10a	0.34	6.8	2.86	4.09	5.36
Chicago	5	0.31	158.0	0.72	0.96	1.20
Dallas	6	0.33	273.0	0.47	0.73	1.00
DC	3	0.33	176.0	2.12	2.95	3.86
Denver	8	0.27	30.6	1.66	2.93	4.55
Kansas City	7	0.33	226.0	1.24	1.54	1.86
Las Vegas	9	0.31	12.5	2.07	3.23	4.51
Seattle	10b	0.29	77.8	4.73	6.48	8.29

*EPA Applied LS values for High Rill to Interrill Development

	STATSGO Slope Data, Percent			EPA Applied Slopes, Percent		
Indicator City	Lowest	Average	Highest	Low End	Average	High End
Albany	4.72	8.39	12.1	6.55	8.39	10.22
Atlanta	7.55	11.37	15.2	9.46	11.37	13.28
Manchester	3.24	6.42	9.6	4.83	6.42	8.00
Boise	7.71	13.21	18.7	10.46	13.21	15.96
Chicago	2.39	4.32	6.2	3.35	4.32	5.28
Dallas	1.17	3.40	5.6	2.28	3.40	4.51
DC	6.59	10.67	14.7	8.63	10.67	12.71
Denver	3.38	10.61	17.8	6.99	10.61	14.22
Kansas City	4.26	6.57	8.9	5.41	6.57	7.72
Las Vegas	5.60	11.29	17.0	8.45	11.29	14.14
Seattle	10.89	18.32	25.8	14.60	18.32	22.04

			Comments
Overland Flow Length	250	Feet	Value taken from model project geometry
RUSLE "P"	0.9	Unitless	Value taken from SEDCAD 4 Documentation
RUSLE "C"	1	Unitless	Value taken from SEDCAD 4 Documentation

Calculated ranges in soil yield, Tons per acre per year

Indicator City	Low End	Average	High End
Albany	53.75	71.50	96.33
Atlanta	184.20	246.67	311.38
Manchester	23.94	33.15	42.79
Boise	5.91	8.44	11.07
Chicago	32.12	42.75	53.81
Dallas	38.26	59.32	81.68
DC	111.34	155.30	202.85
Denver	12.26	21.60	33.57
Kansas City	83.27	103.97	125.35
Las Vegas	7.29	11.39	15.92
Seattle	96.90	132.89	169.91

Departure from Aver

Low End	High End
25%	-35%
25%	-26%
28%	-29%
30%	-31%
25%	-26%
36%	-38%
28%	-31%
43%	-55%
20%	-21%
36%	-40%
27%	-28%

RUSLE Input Parameters

Model Project: Medium and Large Transportation

				LS Values *		
Indicator City	Region	Average k	Annual R	Low End	Average	High End
Albany	2	0.37	105.0	1.35	1.78	2.38
Atlanta	4	0.26	318.0	2.10	2.80	3.51
Manchester	1	0.23	107.0	0.96	1.32	1.69
Boise	10a	0.34	6.8	2.46	3.49	4.54
Chicago	5	0.31	158.0	0.64	0.85	1.06
Dallas	6	0.33	273.0	0.43	0.65	0.89
DC	3	0.33	176.0	1.84	2.54	3.30
Denver	8	0.27	30.6	1.45	2.52	3.87
Kansas City	7	0.33	226.0	1.09	1.35	1.62
Las Vegas	9	0.31	12.5	1.79	2.77	3.84
Seattle	10b	0.29	77.8	4.02	5.47	6.95

*EPA Applied LS values for High Rill to Interrill Development

	STATSGO Slope Data, Percent			EPA Applied Slopes, Percent		
Indicator City	Lowest	Average	Highest	Low End	Average	High End
Albany	4.72	8.39	12.1	6.55	8.39	10.22
Atlanta	7.55	11.37	15.2	9.46	11.37	13.28
Manchester	3.24	6.42	9.6	4.83	6.42	8.00
Boise	7.71	13.21	18.7	10.46	13.21	15.96
Chicago	2.39	4.32	6.2	3.35	4.32	5.28
Dallas	1.17	3.40	5.6	2.28	3.40	4.51
DC	6.59	10.67	14.7	8.63	10.67	12.71
Denver	3.38	10.61	17.8	6.99	10.61	14.22
Kansas City	4.26	6.57	8.9	5.41	6.57	7.72
Las Vegas	5.60	11.29	17.0	8.45	11.29	14.14
Seattle	10.89	18.32	25.8	14.60	18.32	22.04

			Comments
Overland Flow Length	200	Feet	Value taken from model project geometry
RUSLE "P"	0.9	Unitless	Value taken from SEDCAD 4 Documentation
RUSLE "C"	1	Unitless	Value taken from SEDCAD 4 Documentation

Calculated ranges in soil yield, Tons per acre per year

Indicator City	Low End	Average	High End
Albany	47.05	62.03	82.98
Atlanta	159.12	211.69	265.75
Manchester	21.18	29.04	37.19
Boise	5.09	7.20	9.38
Chicago	28.80	37.97	47.46
Dallas	34.77	53.15	72.45
DC	96.50	133.58	173.39
Denver	10.70	18.59	28.58
Kansas City	73.38	90.99	109.07
Las Vegas	6.32	9.78	13.55
Seattle	82.42	112.12	142.41

Departure from Aver

Low End	High End
24%	-34%
25%	-26%
27%	-28%
29%	-30%
24%	-25%
35%	-36%
28%	-30%
42%	-54%
19%	-20%
35%	-39%
26%	-27%

RUSLE Input Parameters

Model Project: Small Transportation

				LS Values *		
Indicator City	Region	Average k	Annual R	Low End	Average	High End
Albany	2	0.37	105.0	1.35	1.78	2.38
Atlanta	4	0.26	318.0	2.10	2.80	3.51
Manchester	1	0.23	107.0	0.96	1.32	1.69
Boise	10a	0.34	6.8	2.46	3.49	4.54
Chicago	5	0.31	158.0	0.64	0.85	1.06
Dallas	6	0.33	273.0	0.43	0.65	0.89
DC	3	0.33	176.0	1.84	2.54	3.30
Denver	8	0.27	30.6	1.45	2.52	3.87
Kansas City	7	0.33	226.0	1.09	1.35	1.62
Las Vegas	9	0.31	12.5	1.79	2.77	3.84
Seattle	10b	0.29	77.8	4.02	5.47	6.95

*EPA Applied LS values for High Rill to Interrill Development

	STATSGO Slope Data, Percent			EPA Applied Slopes, Percent		
Indicator City	Lowest	Average	Highest	Low End	Average	High End
Albany	4.72	8.39	12.1	6.55	8.39	10.22
Atlanta	7.55	11.37	15.2	9.46	11.37	13.28
Manchester	3.24	6.42	9.6	4.83	6.42	8.00
Boise	7.71	13.21	18.7	10.46	13.21	15.96
Chicago	2.39	4.32	6.2	3.35	4.32	5.28
Dallas	1.17	3.40	5.6	2.28	3.40	4.51
DC	6.59	10.67	14.7	8.63	10.67	12.71
Denver	3.38	10.61	17.8	6.99	10.61	14.22
Kansas City	4.26	6.57	8.9	5.41	6.57	7.72
Las Vegas	5.60	11.29	17.0	8.45	11.29	14.14
Seattle	10.89	18.32	25.8	14.60	18.32	22.04

			Comments
Overland Flow Length	200	Feet	Value taken from model project geometry
RUSLE "P"	0.9	Unitless	Value taken from SEDCAD 4 Documentation
RUSLE "C"	1	Unitless	Value taken from SEDCAD 4 Documentation

Calculated ranges in soil yield, Tons per acre per year

Indicator City	Low End	Average	High End
Albany	47.05	62.03	82.98
Atlanta	159.12	211.69	265.75
Manchester	21.18	29.04	37.19
Boise	5.09	7.20	9.38
Chicago	28.80	37.97	47.46
Dallas	34.77	53.15	72.45
DC	96.50	133.58	173.39
Denver	10.70	18.59	28.58
Kansas City	73.38	90.99	109.07
Las Vegas	6.32	9.78	13.55
Seattle	82.42	112.12	142.41

Departure from Aver

Low End	High End
24%	-34%
25%	-26%
27%	-28%
29%	-30%
24%	-25%
35%	-36%
28%	-30%
42%	-54%
19%	-20%
35%	-39%
26%	-27%

Attachment C. Comparison of Soil Particle Distributions of Common Soil Texture Groups

Table 3A-1. Computed Soil Distribution (Percent by Weight) for 12 Common Soil Texture Classes

PARENT SOIL DISTRIBUTION PER TEXTURE CLASS — **Value Taken from Mid-point of Soil Triangle**

ERODED DISTRIBUTION VALUES

USDA and NRCS 12 Textures	Primary Percent Clay	Primary Percent Silt	Primary Percent Sand	Percent in Eroded Material ** Clay	Silt	Sand	Small Aggregate	Large Aggregate
Sand	5	5	90	1.3%	0.01%	69.6%	5.0%	24.1%
Loamy sand	7	7	86	1.8%	0.01%	59.8%	7.0%	31.4%
Silt	7	87	6	1.8%	74.4%	4.2%	12.6%	7.0%
Sandy loam	10	25	65	2.6%	7.0%	38.4%	18.0%	34.0%
Silt loam	15	65	20	3.9%	38.0%	8.9%	27.0%	22.2%
Loam	20	40	40	5.2%	4.0%	13.1%	36.0%	41.7%
Sandy clay loam	27	15	58	7.0%	0.01%	12.0%	15.0%	66.0%
Silty clay loam	33	57	10	8.6%	16.8%	1.4%	40.2%	33.1%
Clay loam	35	33	32	9.1%	0.01%	3.7%	33.0%	54.2%
Sandy clay	40	5	55	10.4%	0.01%	4.3%	5.0%	80.3%
Silty clay	45	50	5	11.7%	17.0%	0.3%	33.0%	38.0%
Clay	80	10	10	20.8%	0.01%	0.0%	10.0%	69.2%

** Draft Science Documentation RUSLE2, January 1st, 2005

Terms: Psl = Percent silt, Pc= Percent clay, Fsa = eroded percent small aggregate, Fla = eroded percent large aggregate

Table 3A-2. Computed Eroded Particle Diameters for Five Particle Sizes (Percent by Weight) for 12 Common Soil Texture Classes

PARENT SOIL DISTRIBUTION PER TEXTURE CLASS

Physical Parameters	Diameter (mm) **			**ERODED DISTRIBUTION VALUES**				
				Diameter (mm) **				
USDA and NRCS 12 Textures	Primary Percent Clay	Primary Percent Silt	Primary Percent Sand	Primary Percent Clay	Primary Percent Silt	Primary Percent Sand	Small Aggregate	Large Aggregate
Sand	0.002	0.01	0.3	0.002	0.01	0.3	0.03	0.3
Loamy sand	0.002	0.01	0.3	0.002	0.01	0.3	0.03	0.3
Silt	0.002	0.01	0.3	0.002	0.01	0.3	0.03	0.3
Sandy loam	0.002	0.01	0.3	0.002	0.01	0.3	0.03	0.3
Silt loam	0.002	0.01	0.3	0.002	0.01	0.3	0.03	0.3
Loam	0.002	0.01	0.3	0.002	0.01	0.3	0.03	0.4
Sandy clay loam	0.002	0.01	0.3	0.002	0.01	0.3	0.034	0.54
Silty clay loam	0.002	0.01	0.3	0.002	0.01	0.3	0.046	0.66
Clay loam	0.002	0.01	0.3	0.002	0.01	0.3	0.05	0.7
Sandy clay	0.002	0.01	0.3	0.002	0.01	0.3	0.06	0.8
Silty clay	0.002	0.01	0.3	0.002	0.01	0.3	0.07	0.9
Clay	0.002	0.01	0.3	0.002	0.01	0.3	0.1	1.6
			Specific Gravity **	2.6	2.65	2.65	1.8	1.6

** Draft Science Documentation RUSLE2, January 1st, 2005
Terms: Pcl = percent clay

Appendix G
Turbidity Report Tables

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	10/28/2004	4400	
2	10/29/2004	.	1.09
2	10/29/2004	.	2.6
2	10/29/2004	.	5.3
2	10/29/2004	.	3.1
2	10/29/2004	.	7.8
2	11/01/2004	4036	9.4
2	11/01/2004	.	1.79
2	11/01/2004	.	0.97
2	11/01/2004	.	0.95
2	11/01/2004	.	1.25
2	11/01/2004	.	2.1
2	11/02/2004	4204	1.11
2	11/02/2004	.	1.92
2	11/02/2004	.	1.02
2	11/02/2004	.	1.12
2	11/02/2004	.	0.96
2	11/02/2004	.	1.58
2	11/02/2004	.	1.38
2	11/03/2004	3892	0.96
2	11/03/2004	.	1.1
2	11/03/2004	.	1.12
2	11/03/2004	.	1.33
2	11/03/2004	.	9.6
2	11/04/2004	3612	8.6
2	11/04/2004	.	3.62
2	11/04/2004	.	10.8
2	11/04/2004	.	8.6
2	11/04/2004	.	12.6
2	11/05/2004	.	11.1
2	11/05/2004	.	20.1
2	11/05/2004	.	12.1
2	11/05/2004	.	19.2
2	11/05/2004	.	16.4
2	11/08/2004	3700	12.9
2	11/08/2004	.	26.4
2	11/08/2004	.	21.6
2	11/08/2004	.	3.38
2	11/08/2004	.	11.6
2	11/08/2004	.	3.38
2	11/09/2004	3900	10.5
2	11/09/2004	4280	1936
2	11/09/2004	4800	9.2
2	11/09/2004	.	14.2
2	11/09/2004	.	15.1
2	11/09/2004	.	16.2
2	11/10/2004	.	8.8

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	11/10/2004	.	13.1
2	11/10/2004	.	13.7
2	11/10/2004	.	16.8
2	11/10/2004	.	16.4
2	11/10/2004	.	7.47
2	11/10/2004	.	11.7
2	11/10/2004	.	4.68
2	11/10/2004	.	13.8
2	11/11/2004	.	4.95
2	11/11/2004	.	12.9
2	11/11/2004	.	10.9
2	11/11/2004	.	11.2
2	11/12/2004	.	0.48
2	11/12/2004	.	0.5
2	11/17/2004	1936	1.08
2	11/17/2004	.	7.09
2	11/17/2004	.	7.77
2	11/17/2004	.	7.93
2	11/17/2004	.	8
2	11/17/2004	.	7.33
2	11/17/2004	.	7.12
2	11/17/2004	.	6.63
2	11/18/2004	4816	4.67
2	11/18/2004	.	6.43
2	11/18/2004	.	8.02
2	11/18/2004	.	7.29
2	11/18/2004	.	7.34
2	11/18/2004	.	6.94
2	11/18/2004	.	6.85
2	11/18/2004	.	6.33
2	11/18/2004	.	6.87
2	11/18/2004	.	6.29
2	11/18/2004	.	6.54
2	11/18/2004	.	5.98
2	11/19/2004	1590	5.24
2	11/19/2004	.	5.54
2	11/19/2004	.	6.7
2	11/19/2004	.	5.67
2	11/19/2004	.	5.35
2	11/19/2004	.	5.65
2	11/19/2004	.	4.54
2	11/19/2004	.	4.56
2	11/19/2004	.	4.85
2	11/19/2004	.	4.3
2	11/19/2004	.	4.95
2	11/19/2004	.	4.91
2	11/22/2004	.	5.42

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	11/22/2004	.	5.2
2	11/22/2004	.	5.04
2	11/22/2004	.	4.71
2	11/22/2004	.	5.06
2	11/22/2004	.	4.77
2	11/22/2004	.	4.34
2	11/22/2004	.	5.12
2	11/22/2004	.	4.29
2	11/23/2004	.	4.66
2	11/23/2004	.	4.01
2	11/23/2004	.	4.3
2	11/23/2004	.	3.84
2	11/23/2004	.	4.41
2	11/23/2004	.	3.73
2	11/23/2004	.	4.1
2	11/23/2004	.	4.22
2	11/23/2004	.	4.32
2	11/23/2004	.	4.61
2	11/23/2004	.	4.47
2	11/23/2004	.	5.24
2	11/24/2004	.	5.36
2	11/24/2004	.	4.13
2	11/24/2004	.	5.03
2	11/24/2004	.	5.09
2	11/24/2004	.	4.17
2	11/24/2004	.	4.33
2	11/24/2004	.	4.4
2	12/02/2004	.	2.84
2	12/02/2004	.	1.55
2	12/02/2004	.	1.46
2	12/02/2004	.	0.82
2	12/02/2004	.	0.44
2	12/02/2004	.	0.42
2	12/06/2004	853	3.88
2	12/06/2004	.	4.76
2	12/06/2004	.	5.09
2	12/06/2004	.	0.92
2	12/06/2004	.	0.45
2	12/06/2004	.	0.45
2	12/06/2004	.	0.64
2	12/06/2004	.	0.67
2	12/06/2004	.	0.37
2	12/07/2004	.	0.61
2	12/07/2004	.	0.31
2	12/07/2004	.	0.45
2	12/07/2004	.	0.31
2	12/07/2004	.	0.47

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	12/07/2004	.	0.54
2	12/07/2004	.	0.33
2	12/07/2004	.	0.31
2	12/07/2004	.	0.41
2	12/08/2004	.	0.99
2	12/08/2004	.	0.26
2	12/08/2004	.	0.23
2	12/08/2004	.	0.55
2	12/08/2004	.	0.2
2	12/08/2004	.	0.33
2	12/08/2004	.	0.33
2	12/08/2004	.	0.28
2	12/08/2004	.	0.28
2	12/08/2004	.	0.3
2	12/08/2004	.	0.97
2	12/08/2004	.	0.2
2	12/08/2004	.	0.29
2	12/09/2004	.	0.94
2	12/09/2004	.	0.8
2	12/09/2004	.	0.86
2	12/09/2004	.	0.29
2	12/09/2004	.	0.6
2	12/09/2004	.	4.6
2	12/09/2004	.	0.35
2	12/09/2004	.	0.32
2	12/09/2004	.	0.38
2	12/09/2004	.	0.91
2	12/09/2004	.	0.45
2	12/09/2004	.	0.3
2	12/10/2004	.	0.69
2	12/10/2004	.	1.55
2	12/10/2004	.	0.25
2	12/10/2004	.	0.3
2	12/10/2004	.	0.23
2	12/10/2004	.	0.8
2	12/10/2004	.	0.25
2	12/10/2004	.	0.34
2	12/13/2004	.	0.36
2	12/13/2004	.	0.48
2	12/13/2004	.	0.42
2	12/13/2004	.	0.37
2	12/13/2004	.	0.24
2	12/13/2004	.	0.3
2	12/13/2004	.	0.32
2	12/14/2004	.	0.77
2	12/14/2004	.	0.3
2	12/14/2004	.	0.51

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	12/14/2004	.	0.53
2	12/14/2004	.	0.38
2	12/14/2004	.	0.27
2	12/14/2004	.	0.34
2	12/14/2004	.	0.66
2	12/15/2004	2794	0.91
2	12/15/2004	.	0.6
2	12/15/2004	.	0.45
2	12/15/2004	.	1.2
2	12/15/2004	.	1.4
2	12/15/2004	.	1.61
2	12/15/2004	.	1.6
2	12/15/2004	.	7.92
2	12/16/2004	2072	0.48
2	12/16/2004	.	1.55
2	12/16/2004	.	0.66
2	12/16/2004	.	0.37
2	12/16/2004	.	0.43
2	12/16/2004	.	0.44
2	12/16/2004	.	0.55
2	12/16/2004	.	2.13
2	12/17/2004	1466	0.6
2	12/17/2004	.	1.26
2	12/17/2004	.	0.58
2	12/17/2004	.	0.43
2	12/17/2004	.	0.4
2	12/17/2004	.	0.57
2	12/17/2004	.	0.47
2	12/17/2004	.	0.49
2	12/17/2004	.	0.57
2	12/20/2004	2140	0.47
2	12/20/2004	.	0.67
2	12/20/2004	.	0.6
2	12/20/2004	.	0.43
2	12/20/2004	.	0.41
2	12/20/2004	.	0.38
2	12/20/2004	.	0.42
2	12/20/2004	.	0.53
2	12/21/2004	2108	0.53
2	12/21/2004	.	0.23
2	12/21/2004	.	1.54
2	12/21/2004	.	0.23
2	12/21/2004	.	0.33
2	12/21/2004	.	0.39
2	12/21/2004	.	0.45
2	12/21/2004	.	0.56
2	12/21/2004	.	5.13

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	12/21-22/2004	.	2.74
2	12/21-22/2004	.	3.02
2	12/21-22/2004	.	3.27
2	12/21-22/2004	.	2.28
2	12/21-22/2004	.	2.17
2	12/21-22/2004	.	2.3
2	12/22/2004	1772	0.59
2	12/22/2004	.	7.45
2	12/28/2004	.	12.3
2	12/28/2004	.	14.5
2	12/28/2004	.	14.3
2	12/28/2004	.	15.4
2	12/28/2004	.	2.01
2	12/28/2004	.	0.94
2	12/28/2004	.	0.92
2	12/28/2004	.	0.76
2	12/28/2004	.	1.41
2	12/29/2004	1358	1.3
2	12/29/2004	.	0.69
2	12/29/2004	.	0.71
2	12/29/2004	.	0.59
2	12/29/2004	.	1
2	12/29/2004	.	20.4
2	12/29/2004	.	19.5
2	12/29/2004	.	20
2	12/29/2004	.	19.6
2	12/30/2004	1000	2.19
2	12/30/2004	.	0.7
2	12/30/2004	.	0.74
2	12/30/2004	.	0.99
2	12/30/2004	.	0.47
2	12/30/2004	.	1.13
2	12/30/2004	.	0.75
2	12/30/2004	.	1.06
2	12/30/2004	.	1.76
2	12/30/2004	.	1.99
2	12/30/2004	.	1.78
2	12/30/2004	.	1.06
2	12/31/2004	.	0.5
2	12/31/2004	.	0.8
2	12/31/2004	.	1.25
2	12/31/2004	.	0.73
2	12/31/2004	.	1.01
2	12/31/2004	.	1.97
2	12/31/2004	.	2.65
2	12/31/2004	.	0.61
2	12/31/2004	.	0.99

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	12/31/2004	.	1.33
2	12/31/2004	.	1.53
2	12/31/2004	.	1.07
2	12/31/2004	.	0.95
2	12/31/2004	.	1.18
2	12/31/2004	.	0.73
2	12/31/2004	.	1.42
2	12/31/2004	.	1.11
2	12/31/2004	.	0.71
2	01/01/2005	.	1.04
2	01/01/2005	.	1.03
2	01/01/2005	.	0.97
2	01/01/2005	.	1.01
2	01/01/2005	.	0.87
2	01/01/2005	.	1.47
2	01/01/2005	.	1.13
2	01/01/2005	.	1.53
2	01/01/2005	.	1.08
2	01/01/2005	.	1.55
2	01/01/2005	.	3.73
2	01/02/2005	.	1.87
2	01/02/2005	.	0.97
2	01/02/2005	.	1.21
2	01/02/2005	.	3.77
2	01/02/2005	.	2.5
2	01/02/2005	.	2.36
2	01/02/2005	.	1.98
2	01/02/2005	.	1.49
2	01/02/2005	.	1.85
2	01/02/2005	.	1.54
2	01/02/2005	.	1.43
2	01/02-03/2005	.	1.25
2	01/02-03/2005	.	1.25
2	01/02-03/2005	.	1.82
2	01/02-03/2005	.	2.71
2	01/02-03/2005	.	1.95
2	01/02-03/2005	.	2.59
2	01/03/2005	.	1.67
2	01/03/2005	.	3.48
2	01/03/2005	.	2.62
2	01/03/2005	.	1.75
2	01/03/2005	.	2
2	01/03/2005	.	2.11
2	01/03/2005	.	2.86
2	01/03/2005	.	3.23
2	01/03/2005	.	1.98
2	01/03/2005	.	2.03

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	01/03-04/2005	.	2.47
2	01/03-04/2005	.	2.86
2	01/03-04/2005	.	2.21
2	01/03-04/2005	.	1.96
2	01/03-04/2005	.	1.76
2	01/03-04/2005	.	1.58
2	01/03-04/2005	.	1.24
2	01/03-04/2005	.	2.29
2	01/04/2005	.	1.46
2	01/04/2005	.	1.45
2	01/04/2005	.	1.85
2	01/04/2005	.	1.35
2	01/04/2005	.	4.55
2	01/04/2005	.	2.69
2	01/04/2005	.	1.75
2	01/04/2005	.	2.27
2	01/04/2005	.	1.91
2	01/04-05/2005	.	1.25
2	01/04-05/2005	.	3.55
2	01/04-05/2005	.	1.5
2	01/04-05/2005	.	2.68
2	01/04-05/2005	.	2.11
2	01/04-05/2005	.	1.23
2	01/04-05/2005	.	1.28
2	01/05/2005	.	4.33
2	01/05/2005	.	25.8
2	01/05/2005	.	3.01
2	01/05/2005	.	2.39
2	01/05/2005	.	2.62
2	01/05/2005	.	2.02
2	01/05/2005	.	1.87
2	01/05/2005	.	1.79
2	01/05/2005	.	1.55
2	01/05/2005	.	2.59
2	01/05/2005	.	3.89
2	01/05/2005	.	7.88
2	01/05/2005	.	7.95
2	01/05/2005	.	4.65
2	01/05/2005	.	2.69
2	01/06/2005	.	1.84
2	01/06/2005	.	1.68
2	01/06/2005	.	2.57
2	01/06/2005	.	1.61
2	01/06/2005	.	1.7
2	01/06/2005	.	1.2
2	01/06/2005	.	1.46
2	01/06/2005	.	1.73

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	01/06/2005	.	1.31
2	01/06/2005	.	0.71
2	01/06/2005	.	1.03
2	01/06/2005	.	1.11
2	01/06-07/2005	.	1.98
2	01/06-07/2005	.	1.75
2	01/06-07/2005	.	2.01
2	01/06-07/2005	.	1.44
2	01/06-07/2005	.	0.89
2	01/06-07/2005	.	1.24
2	01/06-07/2005	.	.88/6.5
2	01/07/2005	.	2.53
2	01/07/2005	.	1.73
2	01/07/2005	.	1.56
2	01/07/2005	.	2.31
2	01/07/2005	.	3.89
2	01/07-08/2005	.	5.25
2	01/07-08/2005	.	5.46
2	01/07-08/2005	.	8.92
2	01/08/2005	.	1.76/6
2	01/08-09/2005	.	4.77
2	01/08-09/2005	.	3.54
2	01/08-09/2005	.	3.14
2	01/08-09/2005	.	2.75
2	01/08-09/2005	.	3.78
2	01/08-09/2005	.	3.88
2	01/08-09/2005	.	4.46
2	01/08-09/2005	.	4.82
2	01/08-09/2005	.	4.7
2	01/08-09/2005	.	3.75
2	01/08-09/2005	.	4.37
2	01/08-09/2005	.	5.25
2	01/09/2005	.	4.54
2	01/09/2005	.	4.34
2	01/09/2005	.	4.79
2	01/09/2005	.	4.9
2	01/09/2005	.	4.29
2	01/09/2005	.	4.63
2	01/09/2005	.	3.76
2	01/09/2005	.	3.78
2	01/09/2005	.	3.3
2	01/09-10/2005	.	3.35
2	01/09-10/2005	.	3.85
2	01/09-10/2005	.	3.14
2	01/09-10/2005	.	3.14
2	01/09-10/2005	.	3.01
2	01/09-10/2005	.	2.73

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	01/09-10/2005	.	2.71
2	01/09-10/2005	.	2.74
2	01/09-10/2005	.	2.14
2	01/09-10/2005	.	3.85
2	01/09-10/2005	.	2.37
2	01/10-11/2005	.	8.95
2	01/10-11/2005	.	9.36
2	01/10-11/2005	.	3.28
2	01/10-11/2005	.	8.24
2	01/10-11/2005	.	2.73
2	01/10-11/2005	.	4.28
2	01/10-11/2005	.	5.38
2	01/10-11/2005	.	2.23
2	01/10-11/2005	.	4.23
2	01/10-11/2005	.	6.52
2	01/11/2005	.	6.92
2	01/11/2005	.	7.52
2	01/11/2005	.	5.41
2	01/11/2005	.	3.54
2	01/11/2005	.	3.06
2	01/11/2005	.	1.3
2	01/11/2005	.	2.25
2	01/11/2005	.	1.27
2	01/11/2005	.	1.39
2	01/11/2005	.	1.4
2	01/11/2005	.	1.19
2	01/11-12/2005	.	0.87
2	01/11-12/2005	.	1.95
2	01/11-12/2005	.	2.32
2	01/11-12/2005	.	2.03
2	01/11-12/2005	.	1.72
2	01/11-12/2005	.	1.91
2	01/11-12/2005	.	2.78
2	01/11-12/2005	.	2.76
2	01/11-12/2005	.	3.06
2	01/11-12/2005	.	2.88
2	01/11-12/2005	.	2.83
2	01/11-12/2005	.	2.94
2	01/12/2005	.	4.19
2	01/12/2005	.	4.26
2	01/12/2005	.	4.52
2	01/12/2005	.	4.33
2	01/12/2005	.	3.88
2	01/12/2005	.	4.18
2	01/12/2005	.	2.81
2	01/12/2005	.	2.32
2	01/12/2005	.	2.37

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	01/12/2005	.	2.62
2	01/12-13/2005	.	2.45
2	01/12-13/2005	.	3.06
2	01/12-13/2005	.	2.97
2	01/12-13/2005	.	3.18
2	01/12-13/2005	.	2.86
2	01/12-13/2005	.	2.51
2	01/12-13/2005	.	3.27
2	01/12-13/2005	.	2.12
2	01/12-13/2005	.	2.73
2	01/12-13/2005	.	3.15
2	01/12-13/2005	.	2.72
2	01/12-13/2005	.	2.28
2	01/13/2005	.	4.91
2	01/13/2005	.	4.77
2	01/13/2005	.	4.1
2	01/13-14/2005	.	4.8
2	01/13-14/2005	.	13.8
2	01/13-14/2005	.	2.61
2	01/13-14/2005	.	8.06
2	01/13-14/2005	.	4.46
2	01/13-14/2005	.	10.48
2	01/14/2005	.	11.9
2	01/14/2005	.	4.81
2	01/14/2005	.	2.46
2	01/14/2005	.	1.9
2	01/14/2005	.	6.15
2	01/15/2005	.	9.26
2	01/15/2005	.	17.8
2	01/15/2005	.	4.16
2	01/15/2005	.	7.29
2	01/15-16/2005	.	11.3
2	01/15-16/2005	.	12.1
2	01/15-16/2005	.	2.64
2	01/15-16/2005	.	5.57
2	01/15-16/2005	.	1.54
2	01/15-16/2005	.	6.05
2	01/15-16/2005	.	4.55
2	01/15-16/2005	.	5.05
2	01/15-16/2005	.	5.76
2	01/15-16/2005	.	5.6
2	01/15-16/2005	.	4.8
2	01/15-16/2005	.	3.11
2	01/16/2005	.	2
2	01/16/2005	.	2.31
2	01/16/2005	.	1.52
2	01/16/2005	.	1.56

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	01/16/2005	.	1.08
2	01/16/2005	.	1.03
2	01/16/2005	.	0.86
2	01/16/2005	.	1.11
2	01/16/2005	.	0.57
2	01/16/2005	.	0.91
2	01/16/2005	.	1.99
2	01/16/2005	.	0.76
2	01/16-17/2005	.	0.97
2	01/16-17/2005	.	0.85
2	01/16-17/2005	.	0.52
2	01/16-17/2005	.	0.63
2	01/16-17/2005	.	0.87
2	01/16-17/2005	.	1.14
2	01/16-17/2005	.	1.45
2	01/17/2005	.	1.13
2	01/17/2005	.	2.33
2	01/18/2005	.	3.21
2	01/18/2005	.	3.74
2	01/18/2005	.	2.55
2	01/18/2005	.	2.27
2	01/18/2005	.	1.7
2	01/18/2005	.	3.68
2	01/18/2005	.	2.15
2	01/18/2005	.	2.4
2	01/18/2005	.	1.98
2	01/18/2005	.	5.7
2	01/18/2005	.	6.78
2	01/18-19/2005	.	2.47
2	01/18-19/2005	.	3.54
2	01/18-19/2005	.	2.17
2	01/18-19/2005	.	2.71
2	01/19/2005	.	5.46
2	01/19/2005	.	4.49
2	01/19/2005	.	3.92
2	01/19/2005	.	3.28
2	01/19/2005	.	3.78
2	01/19/2005	.	4.89
2	01/19/2005	.	6.65
2	01/19-20/2005	.	5.14
2	01/19-20/2005	.	6.49
2	01/19-20/2005	.	7.22
2	01/19-20/2005	.	4.52
2	01/19-20/2005	.	4.28
2	01/19-20/2005	.	3.29
2	01/19-20/2005	.	2.63
2	01/19-20/2005	.	2.7

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	01/19-20/2005	.	3.33
2	01/19-20/2005	.	1.85
2	01/19-20/2005	.	2.1
2	01/19-20/2005	.	1.69
2	01/20/2005	.	2.48
2	01/20/2005	.	3.41
2	01/20/2005	.	4.03
2	01/20/2005	.	2.23
2	01/20/2005	.	2.28
2	01/20/2005	.	1.71
2	01/20-21/2005	.	1.65
2	01/20-21/2005	.	1.68
2	01/20-21/2005	.	2.36
2	01/20-21/2005	.	5.8
2	01/20-21/2005	.	2.17
2	01/20-21/2005	.	2.72
2	01/20-21/2005	.	2.89
2	01/20-21/2005	.	6.18
2	01/20-21/2005	.	7.6
2	01/20-21/2005	.	5.02
2	01/20-21/2005	.	4.7
2	01/21/2005	1253	3.49
2	01/21/2005	.	2.83
2	01/21/2005	.	1.84
2	01/21/2005	.	1.79
2	01/21/2005	.	1.71
2	01/21/2005	.	1.11
2	01/21/2005	.	1.28
2	01/21/2005	.	1.62
2	01/21/2005	.	1.19
2	01/21/2005	.	1.92
2	01/21/2005	.	1.48
2	01/21/2005	.	2.81
2	01/21/2005	.	4.7
2	01/21/2005	.	3.67
2	01/21/2005	.	3.79
2	01/21/2005	.	4.17
2	01/21/2005	.	2.93
2	01/21/2005	.	3.17
2	01/22/2005	.	2.46
2	01/22/2005	.	1.96
2	01/22/2005	.	1.65
2	01/22/2005	.	1.73
2	01/22/2005	.	1.83
2	01/22/2005	.	3.06
2	01/22/2005	.	1.94
2	01/22/2005	.	1.21

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	01/22/2005	.	1.13
2	01/22/2005	.	1.38
2	01/22/2005	.	1.3
2	01/23/2005	.	1.02
2	01/23/2005	.	1.24
2	01/23/2005	.	1.25
2	01/23/2005	.	1.43
2	01/23/2005	.	0.83
2	01/23/2005	.	1.04
2	01/23/2005	.	1.59
2	01/23/2005	.	1.14
2	01/23/2005	.	0.94
2	01/23/2005	.	0.87
2	01/23/2005	.	0.99
2	01/23-24/2005	.	0.77
2	01/23-24/2005	.	0.93
2	01/23-24/2005	.	0.85
2	01/23-24/2005	.	0.78
2	01/23-24/2005	.	1.05
2	01/23-24/2005	.	1.35
2	01/24/2005	.	1.86
2	01/24/2005	.	1.47
2	01/24/2005	.	1.07
2	01/24/2005	.	1.12
2	01/24/2005	.	0.84
2	01/24/2005	.	2.05
2	01/24/2005	.	1.86
2	01/24/2005	.	1.18
2	01/24-25/2005	.	1.21
2	01/24-25/2005	.	1.34
2	01/24-25/2005	.	1.23
2	01/24-25/2005	.	2.1
2	01/24-25/2005	.	1.98
2	01/24-25/2005	.	1.81
2	01/24-25/2005	.	2.24
2	01/25/2005	.	1.58
2	01/25/2005	.	1.63
2	01/25/2005	.	2.21
2	01/25/2005	.	4.54
2	01/25/2005	.	4.35
2	01/25/2005	.	4.2
2	01/25/2005	.	4.76
2	01/25/2005	.	3.63
2	01/25/2005	.	3.38
2	01/25-26/2005	.	3.02
2	01/25-26/2005	.	2.08
2	01/25-26/2005	.	2.26

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	01/25-26/2005	.	2.59
2	01/25-26/2005	.	1.39
2	01/25-26/2005	.	2.3
2	01/26/2005	.	1.38
2	01/26/2005	.	1.89
2	01/26/2005	.	2.03
2	01/26/2005	.	2.33
2	01/26/2005	.	1.55
2	01/26/2005	.	1.55
2	01/26/2005	.	3.25
2	01/26/2005	.	4.55
2	01/26/2005	.	2.56
2	01/27/2005	.	3.49
2	01/27/2005	.	3.66
2	01/27/2005	.	3.5
2	01/28/2005	.	1.91
2	01/28/2005	.	1.96
2	01/28/2005	.	1.81
2	01/28/2005	.	2.37
2	01/28/2005	.	1.65
2	01/28/2005	.	3.2
2	01/28/2005	.	2.73
2	01/28/2005	.	2.43
2	01/28/2005	.	3.05
2	01/28/2005	.	3.33
2	01/29/2005	.	3.72
2	01/29/2005	.	3.66
2	01/29/2005	.	2.86
2	01/29/2005	.	3.66
2	01/29/2005	.	0.4
2	01/29-30/2005	.	355
2	01/29-30/2005	.	1.91
2	01/29-30/2005	.	2.63
2	01/29-30/2005	.	2.28
2	01/29-30/2005	.	2.47
2	01/29-30/2005	.	3.54
2	01/29-30/2005	.	2.22
2	01/30/2005	.	2.07
2	01/30/2005	.	4.17
2	01/30/2005	.	5.06
2	01/30/2005	.	1.86
2	01/30/2005	.	5.06
2	01/30/2005	.	2.12
2	01/30-31/2005	.	2.36
2	01/30-31/2005	.	2.77
2	01/30-31/2005	.	2.72
2	01/30-31/2005	.	3.15

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	01/30-31/2005	.	3.41
2	01/30-31/2005	.	3.87
2	01/30-31/2005	.	9.09
2	01/30-31/2005	.	2.65
2	01/31/2005	.	0.78
2	01/31/2005	.	0.56
2	01/31/2005	.	0.51
2	01/31/2005	.	0.69
2	01/31/2005	.	0.63
2	01/31/2005	.	0.61
2	01/31/2005	.	0.75
2	02/02/2005	.	3.4
2	02/02/2005	.	2.48
2	02/02/2005	.	1.62
2	02/02/2005	.	1.16
2	02/02/2005	.	1.55
2	02/02/2005	.	1.96
2	02/02/2005	.	2.04
2	02/02/2005	.	2.95
2	02/02/2005	.	4.11
2	02/02/2005	.	1.14
2	02/02/2005	.	1.23
2	02/02/2005	.	1.76
2	02/02/2005	.	1.02
2	02/02/2005	.	1.48
2	02/02/2005	.	0.92
2	02/03-04/2005	.	1.18
2	02/03-04/2005	.	1.42
2	02/03-04/2005	.	1.37
2	02/03-04/2005	.	1.48
2	02/03-04/2005	.	1.74
2	02/03-04/2005	.	0.75
2	02/03-04/2005	.	8.1
2	02/03-04/2005	.	4.4
2	02/07/2005	1800	2.66
2	02/07/2005	.	1.22
2	02/07/2005	.	1.93
2	02/07/2005	.	5.4
2	02/07/2005	.	2.21
2	02/07/2005	.	2.28
2	02/08/2005	.	1.89
2	02/08/2005	.	1.42
2	02/08/2005	.	2.44
2	02/08/2005	.	2.04
2	02/08/2005	.	1.35
2	02/08/2005	.	2.08
2	02/09/2005	.	1.53

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	02/09/2005	.	1.49
2	02/09/2005	.	1.59
2	02/09/2005	.	1.51
2	02/09/2005	.	1.32
2	02/09/2005	.	1.24
2	02/09/2005	.	1.9
2	02/10/2005	.	1.27
2	02/10/2005	.	1.22
2	02/10/2005	.	1.53
2	02/10/2005	.	1.87
2	02/10/2005	.	1.53
2	02/10/2005	.	1.86
2	02/10/2005	.	1.29
2	02/11/2005	.	2.17
2	02/11/2005	.	1.66
2	02/11/2005	.	1.55
2	02/11/2005	.	1.25
2	02/11/2005	.	1.01
2	02/11/2005	.	0.69
2	02/11/2005	.	1.13
2	02/14/2005	.	1.42
2	02/14/2005	.	1.79
2	02/17/2005	.	1.26
2	02/17/2005	.	1.37
2	02/17/2005	.	0.9
2	02/17/2005	.	0.93
2	02/18/2005	.	1.21
2	02/18/2005	.	0.74
2	02/18/2005	.	0.74
2	02/19/2005	.	0.73
2	02/19/2005	.	0.51
2	02/22/2005	.	1.05
2	02/22/2005	.	0.47
2	02/22/2005	.	0.62
2	02/22/2005	.	0.82
2	02/22/2005	.	0.84
2	02/22/2005	.	0.96
2	02/23/2005	.	0.64
2	02/23/2005	.	0.48
2	02/23/2005	.	1.31
2	02/24/2005	.	1.25
2	02/24/2005	.	3.38
2	02/24/2005	.	1.09
2	02/25/2005	.	1.8
2	02/25/2005	.	1.98
2	02/25/2005	.	2.97
2	02/25/2005	.	1

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	02/25/2005	.	1.38
2	02/26/2005	.	0.5
2	02/26/2005	.	0.4
2	02/26/2005	.	0.57
2	02/26/2005	.	0.68
2	02/27/2005	.	0.33
2	02/27/2005	.	0.52
2	02/27/2005	.	0.51
2	02/27/2005	.	0.33
2	02/27/2005	.	0.39
2	02/27/2005	.	0.4
2	02/28/2005	.	1.95
2	02/28/2005	.	1.01
2	02/28/2005	.	0.78
2	02/28/2005	.	0.56
2	02/28/2005	.	0.35
2	02/28/2005	.	0.51
2	02/28/2005	.	0.5
2	02/28/2005	.	0.48
2	03/01/2005	.	0.78
2	03/01/2005	.	0.39
2	03/01/2005	.	0.33
2	03/01/2005	.	0.48
2	03/01/2005	.	0.44
2	03/01/2005	.	0.44
2	03/01/2005	.	0.4
2	03/01/2005	.	0.41
2	03/01/2005	.	0.45
2	03/02/2005	.	2.89
2	03/02/2005	.	1.39
2	03/02/2005	.	1.15
2	03/02/2005	.	0.8
2	03/02/2005	.	0.74
2	03/03/2005	.	1.77
2	03/03/2005	.	1.6
2	03/03/2005	.	1.64
2	03/03/2005	.	1.78
2	03/03/2005	.	1.64
2	03/03/2005	.	1.26
2	03/03/2005	.	1.65
2	03/04/2005	.	1.75
2	03/04/2005	.	2.56
2	03/04/2005	.	2.54
2	03/04/2005	.	2.32
2	03/06/2005	.	3.24
2	03/06/2005	.	5.77
2	03/06/2005	.	5.01

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	03/06/2005	.	5.21
2	03/06/2005	.	4.82
2	03/06/2005	.	2.53
2	03/07/2005	.	1.46
2	03/07/2005	.	1.36
2	03/07/2005	.	0.73
2	03/07/2005	.	0.52
2	03/07/2005	.	1.47
2	03/07/2005	.	1.48
2	03/07/2005	.	1.07
2	03/07/2005	.	1.13
2	03/08/2005	.	0.87
2	03/08/2005	.	0.58
2	03/08/2005	.	0.67
2	03/08/2005	.	1.04
2	03/08/2005	.	0.51
2	03/08/2005	.	0.45
2	03/08/2005	.	0.59
2	03/08/2005	.	0.77
2	03/09/2005	.	1.7
2	03/09/2005	.	0.69
2	03/09/2005	.	0.66
2	03/09/2005	.	0.57
2	03/10/2005	.	0.45
2	03/10/2005	.	0.88
2	03/10/2005	.	0.49
2	03/10/2005	.	0.78
2	03/10/2005	.	0.38
2	03/10/2005	.	0.4
2	03/10/2005	.	0.49
2	03/10/2005	.	0.59
2	03/10/2005	.	0.56
2	03/11/2005	.	0.46
2	03/11/2005	.	0.56
2	03/11/2005	.	0.43
2	03/11/2005	.	0.35
2	03/11/2005	.	0.48
2	03/11/2005	.	0.41
2	03/11/2005	.	0.62
2	03/11/2005	.	0.49
2	03/11/2005	.	0.46
2	03/14/2005	.	0.35
2	03/14/2005	.	0.39
2	03/14/2005	.	0.59
2	03/14/2005	.	0.5
2	03/14/2005	.	0.43
2	03/14/2005	.	0.62

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	03/14/2005	.	0.33
2	03/14/2005	.	0.42
2	03/14/2005	.	0.4
2	03/15/2005	.	0.78
2	03/15/2005	.	0.63
2	03/15/2005	.	0.5
2	03/15/2005	.	0.51
2	03/15/2005	.	0.69
2	03/15/2005	.	0.64
2	03/15/2005	.	0.58
2	03/15/2005	.	0.53
2	03/15/2005	.	0.32
2	03/16/2005	.	0.61
2	03/16/2005	.	0.63
2	03/16/2005	.	0.59
2	03/16/2005	.	0.55
2	03/16/2005	.	0.8
2	03/16/2005	.	0.66
2	03/16/2005	.	0.75
2	03/16/2005	.	0.71
2	03/17/2005	.	0.89
2	03/17/2005	.	0.89
2	03/17/2005	.	0.78
2	03/17/2005	.	0.58
2	03/17/2005	.	0.55
2	03/17/2005	.	0.42
2	03/17/2005	.	0.72
2	03/17/2005	.	0.52
2	03/18/2005	.	1.21
2	03/18/2005	.	0.26
2	03/18/2005	.	0.4
2	03/21/2005	.	0.82
2	03/21/2005	.	0.56
2	03/21/2005	.	0.44
2	03/21/2005	.	0.33
2	03/21/2005	.	0.34
2	03/21/2005	.	0.29
2	03/22/2005	.	0.63
2	03/22/2005	.	0.22
2	03/22/2005	.	0.51
2	03/22/2005	.	0.24
2	03/22/2005	.	0.38
2	03/22/2005	.	0.29
2	03/22/2005	.	0.26
2	03/22/2005	.	0.31
2	03/22/2005	.	0.42
2	03/22/2005	.	0.35

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	03/22/2005	.	0.33
2	03/22/2005	.	0.31
2	03/23/2005	.	5
2	03/23/2005	.	5
2	03/23/2005	.	5
2	03/23/2005	.	5
2	03/23/2005	.	5
2	03/23/2005	.	5
2	03/23/2005	.	5
2	03/23/2005	.	4
2	03/23/2005	.	2
2	03/23/2005	.	0.59
2	03/23/2005	.	0.51
2	03/23/2005	.	0.35
2	03/23/2005	.	0.55
2	03/23/2005	.	0.59
2	03/23/2005	.	0.49
2	03/23/2005	.	0.51
2	03/23/2005	.	0.47
2	03/23/2005	.	0.41
2	03/24/2005	.	0.72
2	03/24/2005	.	0.62
2	03/24/2005	.	0.7
2	03/24/2005	.	0.65
2	03/24/2005	.	0.86
2	03/24/2005	.	0.78
2	03/24/2005	.	0.88
2	03/24/2005	.	0.75
2	03/24/2005	.	1.07
2	03/25/2005	.	0.34
2	03/25/2005	.	0.37
2	03/25/2005	.	0.47
2	03/25/2005	.	0.39
2	03/25/2005	.	0.44
2	03/25/2005	.	0.48
2	03/25/2005	.	0.58
2	03/25/2005	.	0.39
2	03/25/2005	.	0.33
2	03/25/2005	.	0.34
2	03/25/2005	.	0.3
2	03/25/2005	.	0.35
2	03/25/2005	.	0.73
2	03/25/2005	.	0.71
2	03/25/2005	.	0.75
2	03/25/2005	.	0.67
2	03/25/2005	.	0.71
2	03/25/2005	.	0.58

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	03/26/2005	1520	0.94
2	03/26/2005	.	0.98
2	03/26/2005	.	0.96
2	03/26/2005	.	0.91
2	03/26/2005	.	0.87
2	03/28/2005	.	1.14
2	03/28/2005	.	1.16
2	03/28/2005	.	1.69
2	03/28/2005	.	1.68
2	03/28/2005	.	1.66
2	03/28/2005	.	1.7
2	03/28/2005	.	1.67
2	03/28/2005	.	1.69
2	03/28/2005	.	1.61
2	03/28/2005	.	2.3
2	03/28/2005	.	2.36
2	03/28/2005	.	2.34
2	03/29/2005	.	2.28
2	03/29/2005	.	2.2
2	03/29/2005	.	2.05
2	03/29/2005	.	2.72
2	03/29/2005	.	2.1
2	03/29/2005	.	2.2
2	03/29/2005	.	2.2
2	03/29/2005	.	2.4
2	03/29/2005	.	4.13
2	03/29/2005	.	0.79
2	03/29/2005	.	0.51
2	03/29/2005	.	0.64
2	03/29/2005	.	0.91
2	03/29/2005	.	0.9
2	03/29/2005	.	0.85
2	03/29/2005	.	0.83
2	03/29/2005	.	1.55
2	03/29/2005	.	1.34
2	03/29/2005	.	1.36
2	03/29/2005	.	0.96
2	03/29/2005	.	0.98
2	03/29/2005	.	1.02
2	03/29/2005	.	0.79
2	03/29/2005	.	0.81
2	03/30/2005	.	1.12
2	03/30/2005	.	0.54
2	03/30/2005	.	0.75
2	03/30/2005	.	0.63
2	03/30/2005	.	0.81
2	03/30/2005	.	0.87

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
2	03/30/2005	.	0.92
2	03/30/2005	.	1.05
2	03/30/2005	.	1.4
2	03/30/2005	.	1.28
2	03/30/2005	.	1.04
2	03/30-31/2005	.	1.74
2	03/30-31/2005	.	1.73
2	03/30-31/2005	.	1.35
2	03/30-31/2005	.	1.24
2	03/30-31/2005	.	1.34
2	03/30-31/2005	.	1.3
2	03/30-31/2005	.	1.41
2	03/30-31/2005	.	1.4
2	03/30-31/2005	.	2.21
2	03/30-31/2005	.	2.39
2	03/30-31/2005	.	2.19
2	03/30-31/2005	.	1.86
2	03/31/2005	.	1.86
2	03/31/2005	.	1.75
2	03/31/2005	.	1.69
2	03/31/2005	.	1.4
2	03/31/2005	.	1.56
2	03/31/2005	.	1.57
2	03/31/2005	.	1.66
2	03/31/2005	.	1.14
2	03/31/2005	.	1.16
2	03/31/2005	.	1.34
2	04/01/2005	.	87
2	12/22-23/2005	.	1.52
2	12/22-23/2005	.	1.04
2	12/22-23/2005	.	1
2	12/22-23/2005	.	0.85
2	12/22-23/2005	.	1.11
2	12/22-23/2005	.	1.02
2	12/22-23/2005	.	1.05
2	12/22-23/2005	.	1.41
3	12/31/2004	289	1
3	01/01/2005	381	1
3	01/01/2005	380	0
3	01/01/2005	380	0
3	01/01/2005	380	0
3	01/01/2005	380	0
3	01/03/2005	99.9	0.8
3	01/03/2005	99.9	2
3	01/03/2005	99.9	1.6
3	01/03/2005	99.9	1.2
3	01/03/2005	99.9	1.4

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
3	01/03/2005	99.9	1.8
3	01/03/2005	99.9	0.9
3	01/03/2005	99.9	1.2
3	01/03/2005	99.9	0.04
3	01/03/2005	99.9	.
3	01/04/2005	99.9	1.6
3	01/04/2005	87.2	0.6
3	01/04/2005	180.1	.
3	01/05/2005		1.1
3	01/05/2005		0.6
3	01/05/2005		0.8
3	01/05/2005		0.4
3	01/05/2005		0.6
3	01/05/2005		0.7
3	01/05/2005		0.4
3	01/05/2005		0.4
3	01/05/2005		0.6
3	01/11/2005	49.9	0.2
3	01/11/2005	99.9	3.7
3	01/11/2005	99.9	5.5
3	01/11/2005	99.9	1.9
3	01/11/2005		0.5
3	01/11/2005		0.5
3	01/12/2005	99.9	0.6
3	01/12/2005	99.9	1.2
3	01/12/2005	99.9	2.4
3	01/12/2005	99.9	0.3
3	01/12/2005		0.4
3	01/25/2005		1.3
3	01/25/2005		2.2
3	02/07/2005		1.3
3	02/07/2005		2.9
3	02/07/2005		2.5
3	02/10/2005		26
3	02/10/2005		1.2
3	02/10/2005		1.7
3	02/10/2005		2
3	02/10/2005		3.7
3	02/10/2005		6.6
3	02/10/2005		12.2
3	02/11/2005		3
3	02/11/2005		3.6
3	02/11/2005		3.5
3	02/11/2005		4.3
3	02/11/2005		6.4
3	02/11/2005		6.3
3	02/11/2005		15

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
3	02/11/2005		15.3
3	02/14/2005		2.47
3	02/14/2005		1.71
3	02/14/2005		1.79
3	02/14/2005		2.06
3	02/14/2005		1.48
3	02/14/2005		1.11
3	02/14/2005		1.21
3	02/23/2005	46.3	1.04
3	02/23/2005		0.92
3	02/23/2005		0.43
3	02/24/2005	35.8	0.72
3	02/24/2005		0.94
3	02/24/2005		0.69
3	02/24/2005		0.86
3	02/24/2005		0.48
3	03/01/2005	48.2	1.21
3	03/01/2005	6.6	0.84
3	03/01/2005		0.72
3	03/01/2005		0.72
3	03/03/2005	86.8	0.46
3	03/03/2005		0.8
3	03/03/2005		0.45
3	03/03/2005		0.31
3	03/03/2005		0.81
3	03/03/2005		0.63
3	03/03/2005		0.47
3	03/03/2005		0.41
3	03/04/2005	84.4	0.51
3	03/04/2005		0.55
3	03/07/2005	76.5	0.38
3	03/07/2005		0.51
3	03/24/2005	38.5	2.14
3	03/24/2005		2.08
3	03/25/2005	37.1	1.12
3	03/25/2005		1.12
3	03/25/2005		1.12
3	03/25/2005		0.55
3	03/25/2005		0.37
3	03/25/2005		0.27
3	03/25/2005		0.22
3	03/25/2005		0.7
3	03/25/2005		0.97
3	03/25/2005		0.72
3	03/25/2005		0.49
3	03/25/2005		0.46
3	03/25/2005		0.43

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
3	04/12/2005	44.6.5	1.3
3	04/12/2005		1.56
3	04/12/2005		1.91
4_SYS1	01/09/2005	143	2.63
4_SYS1	01/09/2005		2.19
4_SYS1	01/09/2005		2.25
4_SYS1	01/09/2005		22.4
4_SYS1	01/09/2005		8.04
4_SYS1	01/09/2005		17.2
4_SYS1	01/10/2005	82.7	0.75
4_SYS1	01/10/2005		1.3
4_SYS1	01/10/2005		0.57
4_SYS1	01/12/2005	56.5	0.08
4_SYS1	01/13/2005	230	1.01
4_SYS1	01/13/2005		0.44
4_SYS1	01/13/2005		0.53
4_SYS1	01/13/2005		0.34
4_SYS1	01/13/2005		0.35
4_SYS1	01/14/2005		0.59
4_SYS1	01/14/2005		1.07
4_SYS1	01/14/2005		0.52
4_SYS1	01/15/2005		0.34
4_SYS1	01/15/2005		0.34
4_SYS1	01/15/2005		0.39
4_SYS1	01/16/2005	10.2	0.23
4_SYS1	01/16/2005		0.58
4_SYS1	01/16/2005		0.34
4_SYS1	01/16/2005		0.33
4_SYS1	01/16/2005		0.26
4_SYS1	01/16/2005		0.12
4_SYS1	01/17/2005	90-10	1.5
4_SYS1	01/17/2005		0.68
4_SYS1	01/17/2005		0.26
4_SYS1	01/18/2005	57.4	1.26
4_SYS1	01/18/2005		0.34
4_SYS1	01/18/2005		0.56
4_SYS1	01/18/2005		0.57
4_SYS1	01/18/2005		0.63
4_SYS1	01/18/2005		0.85
4_SYS1	01/18/2005		0.7
4_SYS1	01/18/2005		0.44
4_SYS1	01/19/2005	631	0.5
4_SYS1	01/19/2005		0.68
4_SYS1	01/19/2005		0.31
4_SYS1	01/19/2005		0.24
4_SYS1	01/19/2005		0.21
4_SYS1	01/19/2005		0.14

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
4_SYS1	01/19/2005		0.26
4_SYS1	01/19/2005		0.15
4_SYS1	01/24/2005	985	2.49
4_SYS1	01/24/2005		16.9
4_SYS1	01/24/2005		6.32
4_SYS1	01/24/2005		1.2
4_SYS1	01/24/2005		0.8
4_SYS1	01/25/2005	533	1.2
4_SYS1	01/25/2005	79	1.15
4_SYS1	01/31/2005	555	6.38
4_SYS1	01/31/2005		2.77
4_SYS1	01/31/2005		1.3
4_SYS1	01/31/2005		0.86
4_SYS1	01/31/2005		8.57
4_SYS1	02/01/2005	550	2.42
4_SYS1	02/01/2005		5.23
4_SYS1	02/01/2005		1.09
4_SYS1	02/01/2005		1.09
4_SYS1	02/08/2005	900	23
4_SYS1	02/23/2005	313	.
4_SYS1	02/24/2005	317	1.87
4_SYS1	02/24/2005		1.45
4_SYS1	02/24/2005		1.43
4_SYS1	02/24/2005		1.06
4_SYS1	02/24/2005		0.65
4_SYS1	02/24/2005		0.84
4_SYS1	03/03/2005	549	1.21
4_SYS1	03/03/2005	527	0.69
4_SYS1	03/03/2005	433	0.78
4_SYS1	03/03/2005	431	0.6
4_SYS1	03/03/2005	472	.
4_SYS1	03/03/2005		0.74
4_SYS1	03/03/2005		0.62
4_SYS1	03/04/2005	530	0.91
4_SYS1	03/04/2005		0.51
4_SYS1	03/04/2005		0.46
4_SYS1	03/04/2005		0.48
4_SYS1	03/05/2005	621	1.07
4_SYS1	03/05/2005		0.94
4_SYS1	03/05/2005		0.47
4_SYS1	03/05/2005		0.61
4_SYS1	03/05/2005		0.56
4_SYS1	03/05/2005		0.63
4_SYS1	03/05/2005		0.53
4_SYS1	03/05/2005		0.88
4_SYS2	01/09/2005	143	1.35
4_SYS2	01/09/2005		2.77

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
4_SYS2	01/09/2005		1.07
4_SYS2	01/09/2005		4.96
4_SYS2	01/09/2005		.3.4
4_SYS2	01/09/2005		16.6
4_SYS2	01/10/2005	82.7	2.85
4_SYS2	01/10/2005		0.9
4_SYS2	01/10/2005		0.79
4_SYS2	01/10/2005		1.63
4_SYS2	01/10/2005		4.63
4_SYS2	01/12/2005	56.5	1.23
4_SYS2	01/13/2005	230	1.28
4_SYS2	01/13/2005		0.41
4_SYS2	01/13/2005		1.43
4_SYS2	01/13/2005		3.03
4_SYS2	01/13/2005		1.53
4_SYS2	01/15/2005		1.14
4_SYS2	01/15/2005		0.45
4_SYS2	01/15/2005		0.48
4_SYS2	01/15/2005		0.56
4_SYS2	01/16/2005	10.2	1.78
4_SYS2	01/16/2005		0.33
4_SYS2	01/16/2005		0.23
4_SYS2	01/16/2005		0.46
4_SYS2	01/17/2005	90-10	1.2
4_SYS2	01/17/2005		0.86
4_SYS2	01/17/2005		0.64
4_SYS2	01/18/2005	57.4	7.25
4_SYS2	01/18/2005		1.1
4_SYS2	01/18/2005		0.94
4_SYS2	01/18/2005		0.51
4_SYS2	01/18/2005		0.65
4_SYS2	01/18/2005		0.8
4_SYS2	01/18/2005		0.48
4_SYS2	01/18/2005		0.41
4_SYS2	01/19/2005	631	0.4
4_SYS2	01/19/2005		0.49
4_SYS2	01/19/2005		0.3
4_SYS2	01/19/2005		1.39
4_SYS2	01/19/2005		0.25
4_SYS2	01/19/2005		0.17
4_SYS2	01/19/2005		0.25
4_SYS2	01/24/2005	985	8.69
4_SYS2	01/24/2005		40
4_SYS2	01/24/2005		3.97
4_SYS2	01/24/2005		0.45
4_SYS2	01/24/2005		0.77
4_SYS2	01/25/2005	533	1.5

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
4_SYS2	01/25/2005	79	0.78
4_SYS2	01/25/2005		0.62
4_SYS2	01/25/2005		1.01
4_SYS2	01/25/2005		1.96
4_SYS2	01/31/2005	555	6.48
4_SYS2	01/31/2005		3.45
4_SYS2	01/31/2005		1.6
4_SYS2	01/31/2005		4.84
4_SYS2	01/31/2005		18.8
4_SYS2	02/01/2005	550	4.27
4_SYS2	02/01/2005		1.2
4_SYS2	02/01/2005		1.77
4_SYS2	02/01/2005		9.83
4_SYS2	02/08/2005	900	33.2
4_SYS2	02/09/2005		0.91
4_SYS2	02/23/2005	313	8.42
4_SYS2	02/23/2005		0.94
4_SYS2	02/23/2005		0.8
4_SYS2	02/23/2005		0.74
4_SYS2	02/23/2005		0.66
4_SYS2	02/24/2005	317	
4_SYS2	03/03/2005	549	0.54
4_SYS2	03/03/2005	527	0.69
4_SYS2	03/03/2005	433	0.78
4_SYS2	03/03/2005	431	0.6
4_SYS2	03/03/2005	472	0.77
4_SYS2	03/03/2005		1.61
4_SYS2	03/03/2005		0.62
4_SYS2	03/04/2005	530	1.18
4_SYS2	03/04/2005		1.64
4_SYS2	03/04/2005		1.11
4_SYS2	03/04/2005		0.73
4_SYS2	03/04/2005		0.78
4_SYS2	03/05/2005	621	0.7
4_SYS2	03/05/2005		0.31
6	11/8-11/12	434	5.9
6	11/8-11/12	408	6.6
6	11/8-11/12	308	4.6
6	11/8-11/12	1000+	7.1
6	11/8-11/12	672	3.8
6	11/8-11/12	444	7.1
6	11/14-11/16	516	3.9
6	11/14-11/16		2.7
6	11/18/2004	951	.
6	12/29/2004		1.19
6	12/29/2004		1.53
6	12/29/2004		1.55

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
6	12/29/2004		1.45
6	12/30/2004		0.95
6	12/30/2004		0.46
6	12/30/2004		0.56
6	12/30/2004		0.34
6	01/01/2005		6.03
6	01/01/2005		37.8
6	01/01/2005		45.5
6	01/01/2005		25.4
6	01/01/2005		46.5
6	01/02/2005		6.39
6	01/02/2005		4.52
6	01/02/2005		4.02
6	01/02/2005		2.03
6	02/18/2005		0.43
6	02/18/2005		0.38
6	02/18/2005		0.45
6	02/18/2005		0.26
6	02/22/2005		0.54
6	02/22/2005		0.65
6	02/22/2005		0.83
6	02/22/2005		0.74
6	02/23/2005		0.85
6	02/23/2005		0.7
6	02/23/2005		0.86
6	02/25/2005	610	2.5
6	02/25/2005		2.53
6	02/25/2005		1.54
6	02/28/2005		1.06
6	02/28/2005		2.7
6	02/28/2005		2.16
6	03/02/2005		1.39
6	03/02/2005		1.46
6	03/02/2005		2.29
6	03/02/2005		1.89
6	03/03/2005		1.23
6	03/03/2005		2.98
6	03/03/2005		1.68
6	03/04/2005		2.27
6	03/04/2005		2.9
6	03/04/2005		2.36
6	03/07/2005		2.39
6	03/22/2005	209	3.7
6	03/23/2005	517	2.73
6	03/23/2005		2.74
6	03/24/2005	524	.
6	11/13/2005		6.87

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
6	11/13/2005		13
6	11/13/2005		0.1
6	11/13/2005		1.85
6	11/13/2005		0.91
6	11/13/2005		1.47
6	11/13/2005		1.77
6	11/13/2005		1.65
6	11/13/2005		1.79
6	11/13/2005		3.02
8	12/20/2004		0.41
8	12/20/2004		0.38
8	12/20/2004		0.93
8	01/02/2005	473	0.46
8	01/02/2005	473	0.69
8	01/02/2005	301	0.42
8	01/02/2005		0.45
8	01/02/2005		0.56
8	01/03/2005	330	0.85
8	01/03/2005		0.78
8	01/04/2005	295	0.92
8	01/04/2005		2.01
8	01/04/2005		8.12
8	01/04/2005		1.12
8	01/04/2005		2.63
8	01/05/2005		2.6
8	01/05/2005		1.95
8	01/05/2005		3.35
8	01/05/2005		3.05
8	01/05/2005		3.89
8	01/05/2005		9.81
8	01/05/2005		13.2
8	01/05/2005		9.2
8	01/05/2005		9.75
8	01/06/2005		8.76
8	01/06/2005		17.8
8	01/06/2005		23.7
8	01/06/2005		22.1
8	01/06/2005		10.8
8	01/06/2005		13.6
8	01/06/2005		3.89
8	01/06/2005		3.94
8	01/06/2005		6.27
8	01/06/2005		10.2
8	01/06/2005		16.6
8	01/07/2005	947	8.2
8	01/07/2005		9.81
8	01/07/2005		17.2

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
8	01/07/2005		25.4
8	01/07/2005		27.1
8	01/07/2005		30.1
8	01/07/2005		37.5
8	01/08/2005	923	7.78
8	01/08/2005		8.51
8	01/08/2005		11.1
8	01/08/2005		13.7
8	01/08/2005		16
8	01/08/2005		12.2
8	01/08/2005		5.92
8	01/08/2005		9.73
8	01/09/2005	209	6.46
8	01/09/2005		8.21
8	01/09/2005		8.44
8	01/09/2005		9.86
8	01/09/2005		7.65
8	01/09/2005		9.43
8	01/09/2005		8.77
8	01/10/2005	204	2.32
8	01/10/2005		8.03
8	01/10/2005		11.1
8	01/10/2005		14.1
8	01/10/2005		8.57
8	01/10/2005		6.82
8	01/10/2005		5.26
8	01/10/2005		2.51
8	01/11/2005	over 1000	4.63
8	01/11/2005		3.16
8	01/11/2005		4.3
8	01/11/2005		11.8
8	01/11/2005		22.8
8	01/11/2005		26.5
8	01/11/2005		28.5
8	01/11/2005		43.1
8	01/11/2005		41
8	01/11/2005		23.7
8	01/12/2005	1000	11.7
8	01/12/2005		24.4
8	01/12/2005		71.6
8	01/13/2005	1000	54.3
8	01/13/2005		38.1
8	01/13/2005		18.6
8	01/13/2005		7.55
8	01/13/2005		42.9
8	01/14/2005	899	40.6
8	01/14/2005		36.9

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
8	01/15/2005		24.4
8	01/15/2005		10.2
8	01/15/2005		7.91
8	01/16/2005	377	4.62
8	01/16/2005		6.6
8	01/16/2005		9.36
8	01/16/2005		1.76
8	01/16/2005		0.83
8	01/16/2005		0.37
8	01/17/2005	362	1.68
8	01/17/2005		1.63
8	01/17/2005		1.81
8	01/17/2005		1.81
8	03/07/2005		0.4
11	12/29/2004	.	5.07
11	12/29/2004	.	6.53
11	12/29/2004	.	7.76
11	12/29/2004	.	.6.87
11	12/29/2004	.	0.33
11	12/29/2004	.	1.2
11	12/29/2004	.	1.36
11	12/29/2004	.	1.25
11	12/29/2004	.	0.62
11	12/29/2004	.	1.88
11	12/29/2004	.	1.98
11	12/30/2004	86.6	1.13
11	12/30/2004	104	1.23
11	12/30/2004	108	13.1
11	12/30/2004	97.2	1.31
11	12/30/2004	86.2	0.94
11	12/30/2004	75.5	1.57
11	12/30/2004	67	1.58
11	12/30/2004	63.7	1.96
11	12/30/2004	67.1	2.54
11	12/30/2004	106	2.38
11	12/30/2004	82.5	4.07
11	12/30/2004	78.9	6.26
11	12/31/2004	.	1.12
11	12/31/2004	.	3.41
11	12/31/2004	.	5.92
11	12/31/2004	.	5.46
11	12/31/2004	.	3.1
11	12/31/2004	.	3.95
11	12/31/2004	.	4.08
11	12/31/2004	104	15.1
11	12/31/2004	106	15.3
11	12/31/2004	174	17.8

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
11	12/31/2004	147	22.9
11	12/31/2004	147.8	31.9
11	12/31/2004	151.3	4.02
11	12/31/2004	148	32.1
11	12/31/2004	.	22.2
11	12/31/2004	.	25.6
11	12/31/2004	.	18.7
11	12/31/2004	.	20.4
11	01/01/2005	.	26.4
11	01/01/2005	.	23.1
11	01/01/2005	.	20.6
11	01/01/2005	.	15.6
11	01/01/2005	.	21.3
11	01/01/2005	.	22.2
11	01/01/2005	.	1.54
11	01/01/2005	.	15.2
11	01/01/2005	.	26.7
11	01/01/2005	.	5.26
11	01/01/2005	.	1.72
11	01/01/2005	.	1.77
11	01/02/2005	.	0.89
11	01/02/2005	.	0.8
11	01/02/2005	.	0.76
11	01/02/2005	.	2.47
11	01/02/2005	.	0.89
11	01/02/2005	.	0.8
11	01/02/2005	.	0.76
11	01/02/2005	.	1.79
11	01/02/2005	.	2.47
11	01/02/2005	.	2.11
11	01/02/2005	.	1.15
11	01/02/2005	.	0.45
11	01/02/2005	.	0.72
11	01/02/2005	.	1.1
11	01/02/2005	.	0.75
11	01/02/2005	.	0.58
11	01/03/2005	.	10.3
11	01/03/2005	.	14.8
11	01/03/2005	.	15
11	01/03/2005	.	11.7
11	01/03/2005	.	4.35
11	01/03/2005	.	4.15
11	01/04/2005	173	23.4
11	01/04/2005	.	26.3
11	01/04/2005	.	26.8
11	01/04/2005	.	33.6
11	01/04/2005	.	30.6

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
11	01/04/2005	.	29.9
11	01/04/2005	.	30.9
11	01/04/2005	.	9.09
11	01/04/2005	.	17.3
11	01/04/2005	.	4.21
11	01/05/2005	182	1.33
11	01/05/2005	.	0.97
11	01/05/2005	.	1.1
11	01/06/2005	1.56	1.12
11	01/06/2005	.	0.74
11	01/06/2005	.	0.73
11	01/06/2005	.	1.08
11	01/06/2005	.	0.91
11	01/06/2005	.	0.8
11	01/06/2005	.	1.85
11	01/06/2005	.	2.08
11	01/06/2005	.	2.14
11	01/06/2005	.	1.02
11	01/06/2005	.	1.04
11	01/07/2005	292	9.26
11	01/07/2005	.	3.8
11	01/07/2005	.	2.86
11	01/07/2005	.	2.98
11	01/07/2005	.	1.23
11	01/07/2005	.	1.34
11	01/07/2005	.	1.49
11	01/07/2005	.	1.18
11	01/07/2005	.	1.18
11	01/07/2005	.	1.21
11	01/08/2005	.	1.1
11	01/08/2005	.	0.6
11	01/08/2005	.	1.58
11	01/08/2005	.	1.31
11	01/08/2005	.	2.26
11	01/08/2005	.	2.24
11	01/08/2005	575	2.12
11	01/08/2005	.	2.34
11	01/08/2005	269	3.12
11	01/08/2005	284	3.98
11	01/08/2005	.	12.6
11	01/08/2005	.	15.2
11	01/08/2005	.	16.6
11	01/08/2005	.	17.2
11	01/08/2005	.	10.8
11	01/08/2005	.	20.5
11	01/08/2005	.	16.9
11	01/08/2005	.	1.44

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
11	01/08/2005	.	1.36
11	01/08/2005	.	10
11	01/08/2005	.	3.61
11	01/08/2005	.	1.85
11	01/08/2005	.	6.03
11	01/09/2005	.	4.39
11	01/09/2005	.	3.61
11	01/09/2005	.	3.21
11	01/09/2005	.	9.48
11	01/09/2005	.	1.55
11	01/09/2005	.	2.98
11	01/09/2005	178	7.57
11	01/09/2005	191	
11	01/09/2005	184	1.36
11	01/09/2005	.	1.4
11	01/09/2005	.	1.86
11	01/09/2005	.	1.67
11	01/09/2005	.	1.37
11	01/09/2005	.	1.26
11	01/09/2005	.	0.78
11	01/10/2005	231	0.9
11	01/10/2005	230	0.51
11	01/10/2005	230	
11	01/10/2005	247	
11	01/10/2005	204	
11	01/10/2005	225	
11	01/10/2005	231	1.41
11	01/10/2005	230	1.26
11	01/10/2005	240	1.26
11	01/10/2005	230	1.81
11	01/10/2005	267	1.08
11	01/10/2005	213	1.21
11	01/10/2005	288	1.7
11	01/10/2005	.	1.52
11	01/10/2005	.	2.37
11	01/10/2005	.	7.5
11	01/10/2005	.	5.38
11	01/11/2005	.	38.7
11	01/11/2005	.	38.7
11	01/11/2005	.	6.36
11	01/11/2005	.	18.5
11	01/11/2005	.	4.72
11	01/11/2005	.	16.4
11	01/11/2005	.	0.9
11	01/11/2005	.	0.43
11	01/11/2005	.	0.55
11	01/11/2005	.	0.74

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
11	01/11/2005	.	0.79
11	01/11/2005	.	0.54
11	01/11/2005	.	0.69
11	01/11/2005	.	0.42
11	01/11/2005	.	0.46
11	01/11/2005	.	0.62
11	01/11/2005	.	0.78
11	01/12/2005	.	0.71
11	01/12/2005	.	1.21
11	01/12/2005	.	0.58
11	01/12/2005	.	1.22
11	01/12/2005	.	1.74
11	01/12/2005	.	1.36
11	01/12/2005	.	1.79
11	01/12/2005	.	9.99
11	01/12/2005	.	7.31
11	01/12/2005	.	1.63
11	01/12/2005	.	1.63
11	01/12/2005	.	2.37
11	01/12/2005	.	1.57
11	01/12/2005	.	2.3
11	01/12/2005	.	1.38
11	01/12/2005	.	2.44
11	01/12/2005	.	0.78
11	01/12/2005	.	0.93
11	01/12/2005	9.99	0.64
11	01/12/2005	.	0.43
11	01/12/2005	.	0.8
11	01/12/2005	.	1.35
11	01/12/2005	.	1.51
11	01/12/2005	.	1.61
11	01/12/2005	.	0.89
11	01/12/2005	.	0.74
11	01/12/2005	.	0.82
11	01/12/2005	.	0.94
11	01/13/2005	.	9.99
11	01/13/2005	.	24.5
11	01/13/2005	.	29.6
11	01/13/2005	.	3.02
11	01/13/2005	.	0.45
11	01/13/2005	.	1.25
11	01/13/2005	.	1.07
11	01/13/2005	.	0.99
11	01/13/2005	.	0.31
11	01/13/2005	.	0.95
11	01/13/2005	.	2.85
11	01/13/2005	.	4.05

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
11	01/13/2005	.	1.6
11	01/13/2005	.	1.27
11	01/13/2005	.	0.59
11	01/13/2005	.	1.13
11	01/13/2005	.	0.53
11	01/13/2005	.	0.98
11	01/14/2005	.	1.07
11	01/14/2005	.	1.08
11	01/14/2005	.	2.09
11	01/14/2005	.	1.16
11	01/14/2005	.	1.27
11	01/14/2005	.	2.69
11	01/14/2005	.	0.68
11	01/14/2005	.	0.5
11	01/14/2005	.	0.38
11	01/14/2005	.	1.1
11	01/14/2005	.	0.71
11	01/14/2005	.	1.86
11	01/14/2005	.	1.72
11	01/14/2005	.	1.46
11	01/14/2005	.	1.12
11	01/14/2005	.	1.02
11	01/14/2005	.	1.31
11	01/14/2005	.	1.43
11	01/14/2005	.	1.51
11	01/14/2005	.	1.21
11	01/14/2005	.	1.34
11	01/17/2005	.	0.63
11	01/17/2005	.	0.76
11	01/17/2005	.	0.88
11	01/17/2005	.	3.55
11	01/17/2005	.	15.3
11	01/17/2005	.	20.1
11	01/17/2005	.	1.57
11	01/18/2005	.	0.49
11	01/18/2005	.	1.01
11	01/18/2005	.	1.68
11	01/18/2005	.	4.37
11	01/18/2005	.	10.1
11	01/19/2005	.	2.55
11	01/19/2005	.	2.34
11	01/19/2005	.	4.62
11	01/19/2005	.	1.47
11	01/19/2005	.	2.58
11	01/19/2005	.	1.5
11	01/19/2005	.	1.41
11	01/20/2005	.	2.24

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
11	01/20/2005	.	1.75
11	01/20/2005	.	1.07
11	01/20/2005	.	1.03
11	01/21/2005	142	3.97
11	01/21/2005	.	1.52
11	01/21/2005	.	1.86
11	01/21/2005	.	3.97
11	01/21/2005	.	1.52/.86
11	01/21/2005	.	1.86/.72
11	01/21/2005	.	1.18/.85
11	01/21/2005	.	1.31/.71
11	01/21/2005	.	.90/.76
11	01/21/2005	.	.84/.60
11	01/21/2005	.	1.29/.86
11	01/22/2005	.	1.17
11	01/22/2005	.	1.5
11	01/22/2005	.	0.8
11	01/22/2005	.	0.66
11	01/22/2005	.	1.66
11	01/22/2005	.	0.71
11	01/22/2005	.	0.21
11	01/23/2005	.	1
11	01/24/2005	213	1.78
11	01/24/2005	.	1.57
11	01/24/2005	.	1.56
11	01/24/2005	.	2.1
11	01/24/2005	.	1.27
11	01/24/2005	.	1.6
11	01/25/2005	6	2.66
11	01/25/2005	.	3
11	01/25/2005	.	2.1
11	01/28/2005	1020	5.5
11	01/28/2005	.	5.56
11	01/28/2005	.	3.12
11	01/31/2005	335	4.52
11	01/31/2005	.	5.28
11	01/31/2005	.	5.11
11	01/31/2005	.	2.32
11	01/31/2005	.	2.3
11	01/31/2005	.	2.14
11	02/01/2005	6	3.54
11	02/01/2005	.	3.42
11	02/01/2005	.	1.98
11	02/01/2005	.	1.95
11	02/01/2005	.	1.41
11	02/01/2005	.	1.34
11	02/01/2005	.	1.32

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
11	02/02/2005	6	2.59
11	02/02/2005	.	2.41
11	02/02/2005	.	2.34
11	02/02/2005	.	2.01
11	02/02/2005	.	1.01
11	02/02/2005	.	0.98
11	02/16/2005	214	2.96
11	02/16/2005	.	7.6
11	02/16/2005	.	3.8
11	02/17/2005	.	25.3
11	02/17/2005	.	0
11	02/17/2005	.	24/3/.97
11	02/17/2005	.	14.1/.86
11	02/17/2005	.	8.28/.84
11	02/17/2005	.	1.43/1.46
11	02/17/2005	.	1.72
11	02/17/2005	.	.91/1.14
11	02/17/2005	.	0.59
11	02/17/2005	.	0.74
11	02/17/2005	.	0.39
11	02/18/2005	13.7	0.48
11	02/18/2005	.	0.42
11	02/18/2005	.	0.38
11	02/18/2005	.	0.44
11	02/18/2005	.	0.36
11	02/18/2005	.	0.34
11	02/18/2005	.	1.43
11	02/18/2005	.	0.64
11	02/18/2005	.	0.67
11	02/18/2005	.	0.48
11	02/18/2005	.	0.51
11	02/18/2005	.	0.61
11	02/18/2005	.	0.73
11	02/18/2005	.	0.59
11	02/18/2005	.	0.61
11	02/18/2005	.	0.69
11	02/18/2005	.	0.51
11	02/18/2005	.	0.43
11	02/18/2005	.	0.41
11	02/18/2005	.	0.53
11	02/18/2005	.	0.51
11	02/18/2005	.	0.42
11	02/19/2005	99.9	.39/.58
11	02/19/2005	.	.43/.63
11	02/19/2005	.	.35/.86
11	02/19/2005	.	.29/1.10
11	02/19/2005	.	.42/1.03

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
11	02/19/2005	.	.43/1.06
11	02/19/2005	.	.65/.70
11	02/19/2005	.	1.22/.61
11	02/19/2005	.	.57/.89
11	02/19/2005	.	.49/1.10
11	02/19/2005	.	.49/.98
11	02/19/2005	.	0.45
11	02/19/2005	.	1.22
11	02/19/2005	.	0.37
11	02/19/2005	.	0.39
11	02/19/2005	.	0.38
11	02/19/2005	.	0.39
11	02/19/2005	.	0.4
11	02/19/2005	.	0.45
11	02/19/2005	.	0.41
11	02/19/2005	.	1.05
11	02/20/2005	.	.90/1.14
11	02/20/2005	.	.60/1.02
11	02/20/2005	.	.42/1.77
11	02/20/2005	.	1.26/.33
11	02/20/2005	.	120/.43
11	02/20/2005	.	1.12/1.23
11	02/20/2005	.	.49/1.14
11	02/20/2005	.	1.0/.69
11	02/20/2005	.	.62/1.78
11	02/20/2005	.	.66/1.23
11	02/20/2005	.	1.28
11	02/20/2005	.	1.22
11	02/20/2005	.	1.88
11	02/20/2005	.	1.69
11	02/20/2005	.	1.93
11	02/20/2005	.	1.87
11	02/20/2005	.	0.98
11	02/20/2005	.	0.94
11	02/20/2005	.	0.91
11	02/20/2005	.	1.28
11	02/20/2005	.	1.25
11	02/21/2005	28.2	.68/1.26
11	02/21/2005	.	.57/.48
11	02/21/2005	.	.56/.59
11	02/21/2005	.	.61/.52
11	02/21/2005	.	.69/.58
11	02/21/2005	.	.85/.54
11	02/21/2005	.	1.06/.932
11	02/21/2005	.	1.15/.54
11	02/21/2005	.	1.20/.64
11	02/21/2005	.	1.64/.83

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
11	02/21/2005	.	0.64
11	02/21/2005	.	0.66
11	02/21/2005	.	0.88
11	02/21/2005	.	0.91
11	02/21/2005	.	0.68
11	02/21/2005	.	0.64
11	02/21/2005	.	0.73
11	02/21/2005	.	0.85
11	02/21/2005	.	0.83
11	02/21/2005	.	0.65
11	02/21/2005	.	0.63
11	02/21/2005	.	0.56
11	02/22/2005	68.2	.52/1.90
11	02/22/2005	.	.46/.84
11	02/22/2005	.	.53/.85
11	02/22/2005	.	.97/1.51
11	02/22/2005	.	.41/1.0
11	02/22/2005	.	.51/.93
11	02/22/2005	.	.70/.53
11	02/22/2005	.	.93/.23
11	02/23/2005	72	.45/.66
11	02/23/2005	72	.48/.22
11	02/23/2005	.	1.05/1.49
11	02/23/2005	.	1.19/.68
11	02/23/2005	.	.71/1.11
11	02/23/2005	.	.96/1.26
11	02/23/2005	.	.59/1.23
11	02/24/2005	87.9	.85/.60
11	02/24/2005	.	.91/.95
11	02/24/2005	.	1.04/.97
11	02/24/2005	.	.62/1.32
11	02/24/2005	.	.66/1.13
11	02/24/2005	.	.56/.97
11	02/24/2005	.	.63/.79
11	02/24/2005	.	.43/1.75
11	02/24/2005	.	.39/2.01
11	02/24/2005	.	.45/1.08
11	02/24/2005	.	.57/1.9
11	02/26/2005	88.6	.69/4.91
11	02/26/2005	.	.71/1.55
11	02/26/2005	.	.49/2.83
11	02/26/2005	.	.69/1.78
11	02/26/2005	.	1.98/2.70
11	02/26/2005	.	.72/1.80
11	02/26/2005	.	.33/2.01
11	02/26/2005	.	.36/2.53
11	02/26/2005	.	.57/2.01

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
11	02/26/2005	.	.43/1.30
11	02/26/2005	.	.46/1.43
11	02/28/2005	.	1.27/1.78
11	02/28/2005	.	1.30/1.70
11	02/28/2005	.	1.82/2.10
11	02/28/2005	.	1.16/1.91
11	02/28/2005	.	.75/1.69
11	02/28/2005	.	.57/.49
11	02/28/2005	.	.41/.92
11	03/02/2005	182	1.01/2.47
11	03/02/2005	.	0/10.6
11	03/02/2005	.	0/9.01
11	03/02/2005	.	0/10.5
11	03/02/2005	.	0/10.2
11	03/02/2005	.	5.94/10.3
11	03/02/2005	.	3.49/6.48
11	03/02/2005	.	3.26/3.83
11	03/02/2005	.	3.30/3.95
11	03/02/2005	.	2.61/2.00
11	03/03/2005	.	3.18/1.22
11	03/03/2005	.	2.38/1.56
11	03/03/2005	.	1.09/2.04
11	03/03/2005	.	1.32/1.60
11	03/03/2005	.	1.08/1.98
11	03/03/2005	.	1.28/1.73
11	03/03/2005	.	.83/1.59
11	03/03/2005	.	1.13
11	03/04/2005	1.08	0.75
11	03/04/2005	.	1.02
11	03/04/2005	.	0.82
11	03/04/2005	.	0.91
11	03/04/2005	.	0.92
11	03/04/2005	.	0.96
11	03/04/2005	.	0.84
11	03/04/2005	.	0.79
11	03/04/2005	.	0.84
11	03/05/2005	108	0.64
11	03/05/2005	.	0.63
11	03/05/2005	.	1.15
11	03/05/2005	.	0.8
11	03/05/2005	.	0.93
11	03/05/2005	.	0.83
11	03/07/2005	72.7	0.83
11	03/07/2005	.	1.02
11	03/07/2005	.	1.98
11	03/07/2005	.	2.01
11	03/07/2005	.	1.37

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
11	03/07/2005	.	1.27
11	03/07/2005	.	1.31
11	03/07/2005	.	0.85
11	03/08/2005	75	1.27
11	03/08/2005	.	1.13
11	03/08/2005	.	1.21
11	03/08/2005	.	0.86
11	03/08/2005	.	0.73
11	03/08/2005	.	0.71
11	03/08/2005	.	0.87
11	03/08/2005	.	0.92
11	03/09/2005	77.2	3.12
11	03/09/2005	.	1.04
11	03/09/2005	.	1.27
11	03/09/2005	.	2.61
11	03/09/2005	.	0.94
11	03/09/2005	.	0.85
11	03/09/2005	.	1.01
BHRBP	511/1	424.9	0
BHRBP	511/1	485.7	0
BHRBP	511/1	666.7	0
BHRBP	511/1	445	0
BHRBP	511/1	19.9	0
BHRBP	511/1	19.5	0
BHRBP	511/1	20	0
BHRBP	503/1	20	0
BHRBP	503/1	20.1	0
BHRBP	503/1	20.1	0
BHRBP	503/1	20.1	0
BHRBP	503/1	20	0
BHRBP	503/1	19.7	0
BHRBP	419/1	166.1	9.2
BHRBP	419/1	93.9	4.9
BHRBP	419/1	37.2	3.2
BHRBP	419/1	37.7	3.5
BHRBP	419/1	46.1	5.4
BHRBP	419/1	28.7	5
BHRBP	419/1	160.4	2.6
BHRBP	419/1	10	0.8
BHRBP	419/1	62.9	1.2
BHRBP	419/1	15.9	0
BHRBP	419/1	16	0
BHRBP	419/1	16.2	0
BHRBP	419/1	17.7	0
BHRBP	419/1	11.3	0
BHRBP	413/1	12.6	0
BHRBP	413/1	12.6	0

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
BHRBP	413/1	12.4	0
BHRBP	413/1	3.8	0
BHRBP	406/1	43.1	6.4
BHRBP	406/1	43.3	6.4
BHRBP	406/1	102.2	6
BHRBP	406/1	37.7	6.1
BHRBP	406/1	39.4	6.3
BHRBP	406/1	142.2	6.3
BHRBP	406/1	34	5.5
BHRBP	406/1	81.2	6.9
BHRBP	406/1	46.5	6.8
BHRBP	406/1	47.8	6.9
BHRBP	406/1	38.2	6.5
BHRBP	406/1	41.4	6.8
BHRBP	406/1	26	6.3
BHRBP	406/1	53.3	6.7
BHRBP	406/1	64.1	4.3
BHRBP	406/1	52.5	0
BHRBP	330/1	44.1	3
BHRBP	330/1	40.8	3.2
BHRBP	330/1	51.7	2.8
BHRBP	330/1	50.6	3.1
BHRBP	330/1	31.3	4
BHRBP	330/1	37.6	3.8
BHRBP	330/1	41.4	4
BHRBP	330/1	49.5	3.6
BHRBP	330/1	34.7	3.8
BHRBP	330/1	33	3.9
BHRBP	330/1	38.1	3.6
BHRBP	330/1	39.3	3.9
BHRBP	330/1	37	3.4
BHRBP	330/1	33.9	4
BHRBP	330/1	28	3.8
BHRBP	330/1	50.1	2.2
BHRBP	330/1	77.5	3
BHRBP	330/1	378.4	0
BHRBP	330/1	31.4	0
BHRBP	330/1	32.8	1.4
BHRBP	330/1	197.1	1
BHRBP	330/1	60.3	1.2
BHRBP	330/1	23.6	0
BHRBP	326/1	41.8	2.6
BHRBP	326/1	61.2	1.9
BHRBP	326/1	52.9	1.6
BHRBP	326/1	95.6	1.9
BHRBP	326/1	65.7	1.3
BHRBP	326/1	63.2	1.1

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
BHRBP	326/1	141.5	2
BHRBP	326/1	38	1.3
BHRBP	326/1	57.2	1.7
BHRBP	326/1	45.8	1.5
BHRBP	326/1	106.6	1.9
BHRBP	326/1	71.3	2.9
BHRBP	326/1	71.9	1.2
BHRBP	326/1	40	3.3
BHRBP	326/1	56.7	2.3
BHRBP	326/1	24.8	0.7
BHRBP	326/1	40.4	0.8
BHRBP	323/1	40.9	1.4
BHRBP	323/1	31.6	1
BHRBP	323/1	78.4	0.8
BHRBP	323/1	40.1	0.8
BHRBP	323/1	184.5	1.8
BHRBP	323/1	19.4	0.9
BHRBP	323/1	49.9	0.5
BHRBP	323/1	32	1.2
BHRBP	323/1	124.7	0.7
BHRBP	323/1	40.9	0.9
BHRBP	323/1	101	2.1
BHRBP	323/1	86.1	0.6
BHRBP	323/1	47.5	1.3
BHRBP	323/1	144.5	0.9
BHRBP	323/1	26	0.4
BHRBP	321/1	26.1	0.4
BHRBP	321/1	23	0.5
BHRBP	321/1	38.6	0.9
BHRBP	321/1	28.6	0.4
BHRBP	321/1	72.8	0.4
BHRBP	321/1	42.8	1
BHRBP	321/1	90.7	0.4
BHRBP	321/1	21.8	0.5
BHRBP	321/1	50.3	1.6
BHRBP	321/1	54.1	0.4
BHRBP	321/1	54.2	0.4
BHRBP	321/1	42.9	0.4
BHRBP	321/1	56.2	0.5
BHRBP	321/1	30.4	0.5
BHRBP	321/1	36.2	1.9
BHRBP	321/1	35.8	0.8
BHRBP	321/1	36.8	1.3
BHRBP	321/1	27.7	0
BHRBP	321/1	3.9	0
BHRBP	315/1	16.4	0.4
BHRBP	315/1	38.1	1.4

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
BHRBP	315/1	71.6	0.5
BHRBP	315/1	40.2	1.3
BHRBP	315/1	32.4	0.8
BHRBP	315/1	27.6	1.7
BHRBP	315/1	93.7	6.3
BHRBP	315/1	299.4	1.1
BHRBP	315/1	33.6	0.8
BHRBP	315/1	45.2	1.4
BHRBP	315/1	27.4	0.8
BHRBP	315/1	45.1	1.2
BHRBP	315/1	24.2	1.8
BHRBP	315/1	17.8	0
BHRBP	315/1	3.8	0
BHRBP	309/1	36.8	0.9
BHRBP	309/1	27.4	1
BHRBP	309/1	95.6	1.3
BHRBP	309/1	28	1.1
BHRBP	309/1	34.3	0.9
BHRBP	309/1	23	1.4
BHRBP	309/1	24.2	0.9
BHRBP	309/1	18	0.9
BHRBP	309/1	38.6	1.7
BHRBP	309/1	55.2	1.2
BHRBP	309/1	27.6	0.9
BHRBP	309/1	23.1	2.8
BHRBP	309/1	157.9	1.1
BHRBP	309/1	37.9	1.5
BHRBP	309/1	27.6	0.9
BHRBP	309/1	27	0.9
BHRBP	309/1	36.8	1.8
BHRBP	309/1	326.8	0
BHRBP	309/1	198.9	0
BHRBP	309/1	40.8	1.7
BHRBP	309/1	43.2	3
BHRBP	309/1	14.5	0
BHRBP	306/1	23	0.4
BHRBP	306/1	17.4	0.8
BHRBP	306/1	39.3	1
BHRBP	306/1	33.1	0.5
BHRBP	306/1	130.6	0.7
BHRBP	306/1	49.2	0.6
BHRBP	306/1	46.4	0.8
BHRBP	306/1	42.7	1.6
BHRBP	306/1	75.5	0.6
BHRBP	306/1	75.4	0.5
BHRBP	306/1	14.1	0.8
BHRBP	306/1	6.9	0

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
BHRBP	306/1	4.4	0
BHRBP	306/1	2.5	0
BHRBP	306/1	4	0
BHRBP	227/1	27.7	0
BHRBP	227/1	21.2	0.5
BHRBP	227/1	47.4	1.4
BHRBP	227/1	44.1	0.4
BHRBP	227/1	37.6	0.9
BHRBP	227/1	20	0.5
BHRBP	227/1	69.5	1.9
BHRBP	227/1	64.9	3.7
BHRBP	227/1	71.9	4.3
BHRBP	227/1	83.4	3.3
BHRBP	227/1	108	2.4
BHRBP	227/1	93.6	2.3
BHRBP	227/1	90	1.8
BHRBP	227/1	50	1.9
BHRBP	227/1	57.5	3.8
BHRBP	227/1	40.9	3.2
BHRBP	227/1	9.5	0
BHRBP	227/1	4.3	0
BHRBP	227/1	3.9	0
BHRBP	227/1	4	0
BHRBP	227/1	4.2	0
BHRBP	227/1	4	0
BHRBP	227/1	3.6	0
BHRBP	220/1	135.8	0.9
BHRBP	220/1	66.1	0.5
BHRBP	220/1	85	1.8
BHRBP	220/1	52.2	0.3
BHRBP	220/1	54.9	1.5
BHRBP	220/1	160	7.2
BHRBP	220/1	61.7	1.8
BHRBP	220/1	93.2	3.3
BHRBP	220/1	12.4	0
BHRBP	220/1	12	0
BHRBP	220/1	12.3	0
BHRBP	220/1	12.4	0
BHRBP	220/1	12.2	0
BHRBP	220/1	12.4	0
BHRBP	220/1	12.3	0
BHRBP	220/1	12.4	0
BHRBP	220/1	12.2	0
BHRBP	220/1	12.4	0
BHRBP	220/1	8.5	0
BHRBP	220/1	4.1	0
BHRBP	220/1	4	0

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
BHRBP	216/1	4.3	0
BHRBP	216/1	4.2	0
BHRBP	216/1	4.3	0
BHRBP	216/1	75.1	0
BHRBP	216/1	26.4	0.3
BHRBP	216/1	26.4	0.3
BHRBP	216/1	31.2	0.3
BHRBP	216/1	30	0.3
BHRBP	216/1	34.3	0.3
BHRBP	216/1	12.7	0.3
BHRBP	216/1	86.5	0.3
BHRBP	216/1	56.7	0.3
BHRBP	216/1	24	0.5
BHRBP	216/1	72.4	0.8
BHRBP	216/1	26.4	0.2
BHRBP	216/1	20.1	0.2
BHRBP	216/1	34.7	0.2
BHRBP	216/1	18	0.3
BHRBP	216/1	23.5	0.3
BHRBP	216/1	10.7	0
BHRBP	216/1	0	0
BHRBP	215/1	38.1	1.2
BHRBP	215/1	29.1	0.5
BHRBP	215/1	42.8	0.3
BHRBP	215/1	46.8	0.3
BHRBP	215/1	41.6	0.4
BHRBP	215/1	24.8	0.7
BHRBP	215/1	24.2	0.9
BHRBP	215/1	27.5	0.3
BHRBP	215/1	33.1	0.3
BHRBP	215/1	69.3	0.3
BHRBP	215/1	43.3	0.4
BHRBP	215/1	40	0.4
BHRBP	215/1	24	1.5
BHRBP	215/1	29.5	0.6
BHRBP	215/1	38.2	1.1
BHRBP	215/1	13	0
BHRBP	208/1	21.2	0.5
BHRBP	208/1	28.7	0.6
BHRBP	208/1	22.9	1.6
BHRBP	208/1	18.4	0.5
BHRBP	208/1	33.5	0.6
BHRBP	208/1	30.9	0.6
BHRBP	208/1	63.8	0.9
BHRBP	208/1	67.8	1.8
BHRBP	208/1	59.8	2.6
BHRBP	208/1	26.5	0.5

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
BHRBP	208/1	23.5	1.5
BHRBP	208/1	149.3	4.1
BHRBP	208/1	72.9	3.8
BHRBP	208/1	116	1.6
BHRBP	208/1	107.2	5.4
BHRBP	208/1	185.5	0
BHRBP	208/1	12.5	0.7
BHRBP	208/1	12.7	1
BHRBP	206/1	51.1	0.5
BHRBP	206/1	36.2	0.3
BHRBP	206/1	41	0.4
BHRBP	206/1	44.2	0.3
BHRBP	206/1	48.1	0.7
BHRBP	206/1	51	0.9
BHRBP	206/1	50.7	0.3
BHRBP	206/1	49.5	0.4
BHRBP	206/1	45.2	0.6
BHRBP	206/1	111.1	0
BHRBP	206/1	0	0
BHRBP	202/1	44.9	0
BHRBP	202/1	39.1	0.8
BHRBP	202/1	40	0.8
BHRBP	202/1	46.5	0.8
BHRBP	202/1	46.5	0.9
BHRBP	202/1	27.6	1.9
BHRBP	202/1	31.5	0.9
BHRBP	202/1	40.8	1
BHRBP	202/1	44.4	1
BHRBP	202/1	41.9	0.9
BHRBP	202/1	60.7	1.1
BHRBP	202/1	31.8	2.2
BHRBP	202/1	40.7	2.6
BHRBP	202/1	48.7	1.8
BHRBP	202/1	71.5	1.7
BHRBP	202/1	13	0.3
BHRBP	202/1	35.3	0.4
BHRBP	202/1	192.4	0
BHRBP	202/1	26.5	0.9
BHRBP	202/1	12.4	0
BHRBP	118/1	3.8	0
BHRBP	118/1	28.8	1.2
BHRBP	118/1	43.4	0.3
BHRBP	118/1	18	0.4
BHRBP	118/1	32	0.8
BHRBP	118/1	31.2	0.3
BHRBP	118/1	21.2	0.3
BHRBP	118/1	27.6	0.3

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
BHRBP	118/1	26.8	0.3
BHRBP	118/1	20.3	0.3
BHRBP	118/1	46	1.3
BHRBP	118/1	15.8	0.2
BHRBP	118/1	41.9	0.3
BHRBP	118/1	23.7	0.3
BHRBP	118/1	15.2	0.3
BHRBP	118/1	21.4	0.3
BHRBP	118/1	11.5	0.3
BHRBP	118/1	49.9	0.5
BHRBP	118/1	48	4.1
BHRBP	118/1	21.3	1.3
BHRBP	118/1	143.8	2.2
BHRBP	118/1	27.5	1.2
BHRBP	118/1	12.3	0.4
BHRBP	118/1	20.3	0.5
BHRBP	118/1	13.3	0
BHRBP	118/1	0.3	0
BHRBP	117/1	50.1	0
BHRBP	117/1	27.6	1.1
BHRBP	117/1	28.1	0.9
BHRBP	117/1	15.6	0.3
BHRBP	117/1	20.3	0.3
BHRBP	117/1	38.1	0.3
BHRBP	117/1	12.9	0.3
BHRBP	117/1	50.3	0.4
BHRBP	117/1	15.6	0.8
BHRBP	117/1	58.4	0.8
BHRBP	117/1	19	0.3
BHRBP	117/1	26.9	0.3
BHRBP	117/1	18.4	0.3
BHRBP	117/1	16.3	0.3
BHRBP	117/1	37.7	0.4
BHRBP	117/1	52.6	0.4
BHRBP	117/1	27.1	0.9
BHRBP	117/1	31.1	1.5
BHRBP	117/1	19.1	0.4
BHRBP	117/1	44.7	0
BHRBP	117/1	11.4	1.5
BHRBP	117/1	12.2	2
BHRBP	117/1	3.7	0
BHRBP	109/1	57.5	0.4
BHRBP	109/1	13.5	0.5
BHRBP	109/1	73.3	0.9
BHRBP	109/1	584.1	4.2
BHRBP	109/1	67.4	0.8
BHRBP	109/1	60.8	0.5

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
BHRBP	109/1	29.1	1
BHRBP	109/1	185.2	0.6
BHRBP	109/1	61.2	0.7
BHRBP	109/1	90.4	2.2
BHRBP	109/1	55	0.8
BHRBP	109/1	53.2	0.5
BHRBP	109/1	30.4	0.4
BHRBP	109/1	38.8	1.3
BHRBP	109/1	45.9	2.1
BHRBP	108/1	3.9	0
BHRBP	108/1	8	0.2
BHRBP	108/1	60.2	0.3
BHRBP	108/1	19	0.8
BHRBP	108/1	98.7	2.4
BHRBP	108/1	23.5	0.2
BHRBP	108/1	13.8	0.3
BHRBP	108/1	37.1	0.3
BHRBP	108/1	15.9	0.2
BHRBP	108/1	25.4	0.3
BHRBP	108/1	178.9	0
BHRBP	108/1	25.8	0.3
BHRBP	108/1	11.9	0.3
BHRBP	108/1	21.1	0.3
BHRBP	108/1	58.4	1.4
BHRBP	108/1	17.2	0.2
BHRBP	108/1	72.1	0.3
BHRBP	108/1	13	0.3
BHRBP	108/1	18.1	0.3
BHRBP	108/1	98.3	1.4
BHRBP	108/1	23.2	0.3
BHRBP	108/1	53.2	0.3
BHRBP	108/1	20.2	0.3
BHRBP	108/1	15.2	0.3
BHRBP	108/1	37.5	0.4
BHRBP	108/1	28.8	0.4
BHRBP	108/1	133.2	0.9
BHRBP	108/1	21.6	1
BHRBP	108/1	11.4	0.3
BHRBP	108/1	15.4	0.4
BHRBP	108/1	10.2	1
BHRBP	108/1	8.9	0
BHRBP	108/1	0	0
BHRBP	106/1	28.2	0
BHRBP	106/1	10.2	0.2
BHRBP	106/1	25.8	0.3
BHRBP	106/1	18.1	1.3
BHRBP	106/1	9.2	0.2

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
BHRBP	106/1	13.8	0.2
BHRBP	106/1	28.3	0.3
BHRBP	106/1	18	0.3
BHRBP	106/1	17.9	0.3
BHRBP	106/1	10.1	0.9
BHRBP	106/1	96.5	1.4
BHRBP	106/1	11.1	0.3
BHRBP	106/1	29.8	0.3
BHRBP	106/1	27.8	0.3
BHRBP	106/1	10.2	0.3
BHRBP	106/1	22.6	0.4
BHRBP	106/1	24.2	0.4
BHRBP	106/1	21.1	1.8
BHRBP	106/1	19.3	0.4
BHRBP	106/1	22	0.6
BHRBP	106/1	23.2	1.5
BHRBP	106/1	12.8	0
BHRBP	106/1	9.8	0
BHRBP	104/1	10.3	0.2
BHRBP	104/1	13	0.3
BHRBP	104/1	17.8	0.7
BHRBP	104/1	83.7	2.1
BHRBP	104/1	35.5	1.5
BHRBP	104/1	26.8	0.2
BHRBP	104/1	53	0.3
BHRBP	104/1	59.1	0.3
BHRBP	104/1	14.8	0.3
BHRBP	104/1	10	0.2
BHRBP	104/1	31.6	0.3
BHRBP	104/1	17.8	0.2
BHRBP	104/1	21.9	0.3
BHRBP	104/1	14.4	1
BHRBP	104/1	146.2	1.3
BHRBP	104/1	9.5	0.2
BHRBP	104/1	62	0.3
BHRBP	104/1	20	0.2
BHRBP	104/1	16.7	0.3
BHRBP	104/1	21	0.2
BHRBP	104/1	8.5	0.2
BHRBP	104/1	78.8	0.2
BHRBP	104/1	19.3	0.2
BHRBP	104/1	18.1	0.7
BHRBP	104/1	16.2	1
BHRBP	104/1	14	0.2
BHRBP	104/1	27	0.3
BHRBP	104/1	18.8	0.3
BHRBP	103/1	20.5	0.2

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
BHRBP	103/1	41.9	0.2
BHRBP	103/1	37	0.2
BHRBP	103/1	21.1	0.2
BHRBP	103/1	18.2	0.5
BHRBP	103/1	54.9	0.6
BHRBP	103/1	17.5	0.5
BHRBP	103/1	21.1	2
BHRBP	103/1	13.6	0.5
BHRBP	103/1	21	0.5
BHRBP	103/1	10.7	0.5
BHRBP	103/1	22.3	0.5
BHRBP	103/1	18.2	0.5
BHRBP	103/1	24.1	0.5
BHRBP	103/1	10.1	0.8
BHRBP	103/1	32.1	2.2
BHRBP	103/1	31.4	0.6
BHRBP	103/1	75.5	0.6
BHRBP	103/1	9.8	0.6
BHRBP	103/1	15.1	0.6
BHRBP	103/1	61.9	0.9
BHRBP	103/1	55.4	2.8
BHRBP	103/1	14.8	3.1
BHRBP	103/1	56.5	3.9
BHRBP	103/1	74.6	0
BHRBP	103/1	91.9	3.7
BHRBP	103/1	89.8	2.7
BHRBP	103/1	99.3	1.6
BHRBP	103/1	32.5	2.3
BHRBP	103/1	55.5	1
BHRBP	103/1	33.5	1.1
BHRBP	103/1	46.1	1.3
BHRBP	103/1	38.3	2.2
BHRBP	103/1	108.1	7.3
BHRBP	103/1	709.9	2.7
BHRBP	103/1	28.9	3.9
BHRBP	103/1	152.5	1.4
BHRBP	103/1	17.4	1.7
BHRBP	103/1	98.4	4.1
BHRBP	103/1	54.1	3.2
BHRBP	103/1	58.1	5.1
BHRBP	103/1	134.8	0.6
BWWTP	01/06/2007	284	0
BWWTP	01/06/2007	165.1	2
BWWTP	01/06/2007	157.7	2.1
BWWTP	01/06/2007	158.1	2
BWWTP	01/06/2007	163	1.9
BWWTP	01/06/2007	156.2	1.9

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
BWWTP	01/06/2007	161	1.9
BWWTP	01/06/2007	159.7	1.9
BWWTP	01/06/2007	152.8	1.9
BWWTP	01/06/2007	163	1.8
BWWTP	01/06/2007	141.7	2.2
BWWTP	01/06/2007	137.7	1.4
BWWTP	01/06/2007	143.3	1.5
BWWTP	01/06/2007	151.7	1.5
BWWTP	01/06/2007	164.3	1.5
BWWTP	01/06/2007	155.9	1.5
BWWTP	01/06/2007	139.2	1.6
BWWTP	01/06/2007	136.8	1.7
BWWTP	01/06/2007	144.5	1.7
BWWTP	01/06/2007	153.9	1.7
BWWTP	01/06/2007	150.3	1.7
BWWTP	01/06/2007	135	1.7
BWWTP	01/06/2007	131.2	1.7
BWWTP	01/06/2007	142.6	1.9
BWWTP	01/06/2007	144.3	1.9
BWWTP	01/06/2007	149.5	1.9
BWWTP	01/06/2007	149.8	2.2
BWWTP	01/06/2007	132.1	2.1
BWWTP	01/06/2007	211.9	1.8
BWWTP	01/06/2007	2.7	0
BWWTP	01/08/2007	3.6	0
BWWTP	01/08/2007	144.9	2.1
BWWTP	01/08/2007	140.4	2
BWWTP	01/08/2007	148.9	1.2
BWWTP	01/08/2007	146.6	2.1
BWWTP	01/08/2007	140.3	2.1
BWWTP	01/08/2007	145.9	2.3
BWWTP	01/08/2007	135.4	2.2
BWWTP	01/08/2007	143.5	2.4
BWWTP	01/08/2007	133.8	3
BWWTP	01/08/2007	158.4	2.4
BWWTP	01/08/2007	150.4	2.4
BWWTP	01/08/2007	153.1	2.7
BWWTP	01/08/2007	170.8	2.5
BWWTP	01/08/2007	170.6	2.5
BWWTP	01/08/2007	175.5	2.5
BWWTP	01/08/2007	169.4	2.3
BWWTP	01/08/2007	171.2	2.3
BWWTP	01/08/2007	156.5	2.5
BWWTP	01/08/2007	140.4	2.5
BWWTP	01/08/2007	135.1	2.4
BWWTP	01/08/2007	120.5	2.4
BWWTP	01/09/2007	4.6	0

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
BWWTP	01/09/2007	180.3	0
BWWTP	01/09/2007	135.8	1.6
BWWTP	01/09/2007	117.8	1.6
BWWTP	01/09/2007	123.6	1.6
BWWTP	01/09/2007	129.3	1.6
BWWTP	01/09/2007	113.9	1.6
BWWTP	01/09/2007	107.4	1.8
BWWTP	01/09/2007	108.3	1.9
BWWTP	01/09/2007	170.5	1.7
BWWTP	01/09/2007	119.7	1.5
BWWTP	01/09/2007	122.4	1.8
BWWTP	01/09/2007	128.9	1.9
BWWTP	01/09/2007	136.6	1.7
BWWTP	01/09/2007	133	1.6
BWWTP	01/09/2007	128.5	1.2
BWWTP	01/09/2007	135.5	1.6
BWWTP	01/09/2007	136	1.6
BWWTP	01/09/2007	131.9	1.8
BWWTP	01/09/2007	139.7	1.8
BWWTP	01/09/2007	136.1	1.8
BWWTP	01/09/2007	130	1.9
BWWTP	01/09/2007	132.5	2
BWWTP	01/09/2007	126.8	2.1
BWWTP	01/09/2007	114.2	2.2
BWWTP	01/09/2007	113.8	2.1
BWWTP	01/09/2007	99.5	0
BWWTP	02/09/2007	17.1	1.1
BWWTP	02/09/2007	13.5	1.5
BWWTP	02/09/2007	25.2	1.8
BWWTP	03/02/2007	11.6	0
BWWTP	03/02/2007	13.8	0.9
BWWTP	03/21/2007	62	2.8
BWWTP	03/21/2007	64.1	2.9
BWWTP	03/21/2007	61.5	2.7
BWWTP	03/21/2007	53.9	2.4
BWWTP	03/21/2007	44.9	2.2
BWWTP	03/21/2007	24.7	2.1
BWWTP	03/21/2007	7.2	0.6
BWWTP	03/21/2007	5.9	1
BWWTP	03/21/2007	37.2	1.9
BWWTP	05/11/2007	39.4	2.7
BWWTP	05/11/2007	34	3
BWWTP	05/11/2007	32.5	3
BWWTP	05/11/2007	37.3	1.8
BWWTP	05/11/2007	20.5	1.5
BWWTP	05/11/2007	16.5	1.5
BWWTP	05/11/2007	19.3	1.5

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
BWWTP	05/11/2007	37.3	1.9
BWWTP	05/14/2007	37.6	6
BWWTP	05/14/2007	35.8	4.3
BWWTP	05/14/2007	8.6	1.6
BZR08	01/15/2008		2.21
BZR08	01/16/2008	380	1.75
BZR08	01/16/2008		2.03
BZR08	01/16/2008		1.26
BZR08	01/16/2008		1.08
BZR08	01/16/2008		0.64
BZR08	01/17/2008	420	.
BZR08	01/17/2008		1.47
BZR08	01/17/2008		0.78
BZR08	01/17/2008		0.52
BZR08	01/18/2008	417	2.34
BZR08	01/18/2008		0.81
BZR08	01/18/2008		1.11
BZR08	01/18/2008		0.85
BZR08	01/18/2008		0.56
BZR08	01/18/2008		0.56
BZR08	01/18/2008		0.59
BZR08	01/21/2008	317	1.8
BZR08	01/25/2008	246/306	.
BZR08	01/28/2008	348	1.4
BZR08	01/28/2008		0.49
BZR08	01/29/2008	282	6.5
BZR08	01/29/2008		0.9
BZR08	01/29/2008		0.84
BZR08	01/29/2008		0.69
BZR08	01/29/2008		0.5
BZR08	01/29/2008		0.38
BZR08	01/29/2008		0.42
BZR08	01/30/2008		1.4
BZR08	01/30/2008		0.49
BZR08	01/30/2008		0.92
BZR08	01/30/2008		0.52
BZR08	01/30/2008		0.21
BZR08	01/30/2008		0.22
BZR08	01/30/2008		0.26
BZR08	02/04/2008	149	2.1
BZR08	02/04/2008		0.98
BZR08	02/04/2008		1.02
BZR08	02/04/2008		0.67
BZR08	02/04/2008		0.75
ELLRD	05/03/2005	6.22	3.81
ELLRD	05/03/2005	6.24	1.59
ELLRD	05/03/2005	6.02	1.25

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/03/2005	6.09	1.33
ELLRD	05/03/2005	6.33	1.43
ELLRD	05/03/2005	6.42	1.53
ELLRD	05/03/2005	6.65	1.61
ELLRD	05/03/2005	7.11	1.8
ELLRD	05/03/2005	7.17	1.76
ELLRD	05/03/2005	6.5	1.78
ELLRD	05/03/2005	6.62	1.78
ELLRD	05/03/2005	9.78	4.39
ELLRD	05/03/2005	10.78	1.52
ELLRD	05/03/2005	10.07 *	1.72 *
ELLRD	05/03/2005	8.97 *	1.77 *
ELLRD	05/03/2005	7.98 *	1.89 *
ELLRD	05/03/2005	7.29	2
ELLRD	05/03/2005	6.89	2.07
ELLRD	05/03/2005	6.62	2.29
ELLRD	05/03/2005	6.87	3.44
ELLRD	05/03/2005	6.84	3.71
ELLRD	05/03/2005	7.21	2.72
ELLRD	05/03/2005	7.65	2.76
ELLRD	05/03/2005	7.63	2.79
ELLRD	05/03/2005	7.42	2.76
ELLRD	05/03/2005	7.57 *	2.82 *
ELLRD	05/03/2005	7.57 *	2.78 *
ELLRD	05/03/2005	7.79 *	3.49 *
ELLRD	05/03/2005	8.12	4.48
ELLRD	05/03/2005	18.87	4.81
ELLRD	05/03/2005	19.25	3.22
ELLRD	05/03/2005	16.63	2.73
ELLRD	05/03/2005	10.6	3.92
ELLRD	05/03/2005	8.55	3.11
ELLRD	05/03/2005	8.23	3.01
ELLRD	05/03/2005	8.44	3.18
ELLRD	05/03/2005	9	3.43
ELLRD	05/03/2005	9.78	3.71
ELLRD	05/03/2005	17.74	3.92
ELLRD	05/03/2005	15.17	3.67
ELLRD	05/03/2005	13.23	3.95
ELLRD	05/03/2005	11.7	9.61
ELLRD	05/03/2005	11.09	5.44
ELLRD	05/03/2005	10.7	5.43
ELLRD	05/03/2005	10.23	4.36
ELLRD	05/03/2005	9.86	4.21
ELLRD	05/03/2005	9.48	4.11
ELLRD	05/03/2005	9.13	4.01
ELLRD	05/03/2005	8.9	3.92
ELLRD	05/03/2005	15.23	3.56

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/03/2005	10.63	5.2
ELLRD	05/03/2005	9.58	4.63
ELLRD	05/03/2005	8.99	4.83
ELLRD	05/03/2005	10.25	4.16
ELLRD	05/03/2005	10.52	3.45
ELLRD	05/03/2005	9.94	3.31
ELLRD	05/03/2005	9.39	3.39
ELLRD	05/03/2005	9	3.5
ELLRD	05/03/2005	8.77	3.6
ELLRD	05/03/2005	8.63	3.66
ELLRD	05/03/2005	8.59	3.71
ELLRD	05/03/2005	8.84	3.84
ELLRD	05/03/2005	9.95	7.06
ELLRD	05/03/2005	9.57	5.55
ELLRD	05/03/2005	19.83	5.35
ELLRD	05/03/2005	16.5	5.04
ELLRD	05/03/2005	12.81	4.59
ELLRD	05/03/2005	10.97	4.41
ELLRD	05/03/2005	10.03	4.55
ELLRD	05/03/2005	9.53	4.66
ELLRD	05/03/2005	9.41	4.78
ELLRD	05/03/2005	9.96	7.59
ELLRD	05/03/2005	15.79	5.63
ELLRD	05/03/2005	13.33	4.98
ELLRD	05/03/2005	11.21	4.37
ELLRD	05/03/2005	9.97	4.31
ELLRD	05/03/2005	9.23	4.28
ELLRD	05/03/2005	8.86	4.27
ELLRD	05/03/2005	8.78	4.26
ELLRD	05/03/2005	8.85	4.27
ELLRD	05/03/2005	25.49	6.16
ELLRD	05/03/2005	15.88	4.6
ELLRD	05/03/2005	13.14	4.7
ELLRD	05/03/2005	11.33	4.94
ELLRD	05/03/2005	10.53	5.09
ELLRD	05/03/2005	10.21	5.23
ELLRD	05/03/2005	10.07	5.32
ELLRD	05/03/2005	9.96	5.27
ELLRD	05/04/2005	12.23	6.77
ELLRD	05/04/2005	12.54	1.32
ELLRD	05/04/2005	11.08	1.6
ELLRD	05/04/2005	8.89	1.37
ELLRD	05/04/2005	7.73	2.61
ELLRD	05/04/2005	7.59	1.87
ELLRD	05/04/2005	7.92	2.46
ELLRD	05/04/2005	7.46	2.5
ELLRD	05/04/2005	7.37	2.68

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/04/2005	7.36	2.84
ELLRD	05/04/2005	7.3	2.98
ELLRD	05/04/2005	7.29	3.13
ELLRD	05/04/2005	7.3	3.26
ELLRD	05/04/2005	7.3	3.37
ELLRD	05/04/2005	7.28	3.46
ELLRD	05/04/2005	8.35	3.58
ELLRD	05/04/2005	8.83	6.82 *
ELLRD	05/04/2005	14.46	7.05
ELLRD	05/04/2005	15.36 *	4.55
ELLRD	05/04/2005	12.27	4.8
ELLRD	05/04/2005	10.85	4.85
ELLRD	05/04/2005	10.13	4.92
ELLRD	05/04/2005	9.32	4.49
ELLRD	05/04/2005	9.03	4.66
ELLRD	05/04/2005	9.14	4.78
ELLRD	05/04/2005	8.82	8.83
ELLRD	05/04/2005	8.61	8.76
ELLRD	05/04/2005	8.58	4.61
ELLRD	05/04/2005	8.56	4.59
ELLRD	05/04/2005	8.57	4.62
ELLRD	05/04/2005	8.56	4.66
ELLRD	05/04/2005	8.61	4.68
ELLRD	05/04/2005	8.57	4.72
ELLRD	05/04/2005	9.45	5.24
ELLRD	05/04/2005	10.64	7.61
ELLRD	05/04/2005	15.54	7.9
ELLRD	05/04/2005	15.48	6.07 *
ELLRD	05/04/2005	13.38	6.06 *
ELLRD	05/04/2005	11.87 *	6.14
ELLRD	05/04/2005	10.65 *	5.46
ELLRD	05/04/2005	10.17	5.7
ELLRD	05/04/2005	9.82	5.85
ELLRD	05/04/2005	9.66	5.97
ELLRD	05/04/2005	9.54	6.08
ELLRD	05/04/2005	9.5	6.15
ELLRD	05/04/2005	9.51	11.82 *
ELLRD	05/04/2005	13.34	6.6
ELLRD	05/04/2005	11.67 *	7.1
ELLRD	05/04/2005	11.07	6.08
ELLRD	05/04/2005	10.5	5.45
ELLRD	05/04/2005	10.32	5.42
ELLRD	05/04/2005	10.2	5.52
ELLRD	05/04/2005	10.1	5.64
ELLRD	05/04/2005	10	5.74
ELLRD	05/04/2005	9.94	5.86
ELLRD	05/04/2005	9.92	5.93

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/04/2005	9.88	6.01
ELLRD	05/04/2005	9.64	7.01
ELLRD	05/04/2005	9.61	8.62
ELLRD	05/04/2005	9.52	6.14
ELLRD	05/04/2005	11.77	6.12
ELLRD	05/04/2005	12.24	5.19
ELLRD	05/04/2005	11.11	4.48
ELLRD	05/04/2005	10.39	4.27
ELLRD	05/04/2005	9.93	4.32
ELLRD	05/04/2005	9.67	4.45
ELLRD	05/04/2005	9.53	4.63
ELLRD	05/04/2005	9.51	4.85
ELLRD	05/04/2005	9.56	5.07
ELLRD	05/04/2005	9.78	6.73
ELLRD	05/04/2005	9.78	6.44
ELLRD	05/04/2005	9.84	8.23
ELLRD	05/04/2005	11.37	5.3
ELLRD	05/04/2005	11.6	5.15
ELLRD	05/04/2005	11.12	5.21
ELLRD	05/04/2005	10.59	5.37
ELLRD	05/04/2005	10.32	5.54
ELLRD	05/04/2005	10.18	5.71
ELLRD	05/04/2005	10.14	5.87
ELLRD	05/04/2005	10.1	6.03
ELLRD	05/04/2005	10.09	6.15
ELLRD	05/04/2005	10.2	7.96
ELLRD	05/04/2005	9.99	6.9
ELLRD	05/04/2005	10	6.38
ELLRD	05/04/2005	10.05	5.62
ELLRD	05/04/2005	10.08	5.52
ELLRD	05/04/2005	10.15	5.47
ELLRD	05/04/2005	10.29	5.52
ELLRD	05/05/2005	13.38	6.03
ELLRD	05/05/2005	11.4	3.17
ELLRD	05/05/2005	9.5	1.44
ELLRD	05/05/2005	8.42	1.32
ELLRD	05/05/2005	7.61	1.41
ELLRD	05/05/2005	7.1	1.56
ELLRD	05/05/2005	6.83	1.73
ELLRD	05/05/2005	6.64	1.88
ELLRD	05/05/2005	6.53	2.02
ELLRD	05/05/2005	6.48	2.14
ELLRD	05/05/2005	7.33	2.4
ELLRD	05/05/2005	9.96	3.87
ELLRD	05/05/2005	9.24	4.19
ELLRD	05/05/2005	7.57	3.52
ELLRD	05/05/2005	6.99	3.36

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/05/2005	6.68	3.36
ELLRD	05/05/2005	6.51	3.39
ELLRD	05/05/2005	6.42	3.41
ELLRD	05/05/2005	6.41	3.42
ELLRD	05/05/2005	6.35	3.41
ELLRD	05/05/2005	6.98 *	3.73 *
ELLRD	05/05/2005	11.55	3.26
ELLRD	05/05/2005	9.47	3.29
ELLRD	05/05/2005	7.94	4.64
ELLRD	05/05/2005	7.35	4.66
ELLRD	05/05/2005	6.96	3.84
ELLRD	05/05/2005	6.84	3.62
ELLRD	05/05/2005	6.82	3.65
ELLRD	05/05/2005	6.81	3.69
ELLRD	05/05/2005	6.82	3.69
ELLRD	05/05/2005	7.11	4.07
ELLRD	05/05/2005	7.86	3.25
ELLRD	05/05/2005	7.58	3.31
ELLRD	05/05/2005	7.24	3.44
ELLRD	05/05/2005	7.11	3.53
ELLRD	05/05/2005	6.95	4.81
ELLRD	05/05/2005	6.96	5.57
ELLRD	05/05/2005	6.78	4.11
ELLRD	05/05/2005	6.81	3.81
ELLRD	05/05/2005	6.73	3.75
ELLRD	05/05/2005	7.94	3.46
ELLRD	05/05/2005	7.77	3.49
ELLRD	05/05/2005	7.45	3.57
ELLRD	05/05/2005	7.17	3.66
ELLRD	05/05/2005	7.05	3.77
ELLRD	05/05/2005	7.02	3.9
ELLRD	05/05/2005	7.12	3.96
ELLRD	05/05/2005	7.09	5.31
ELLRD	05/05/2005	7.34	5.91
ELLRD	05/05/2005	24.85	4.5
ELLRD	05/05/2005	18.11	5.58
ELLRD	05/05/2005	13.99	5.56
ELLRD	05/05/2005	11.35	5.58
ELLRD	05/05/2005	9.95	5.52
ELLRD	05/05/2005	9.09	5.4
ELLRD	05/05/2005	8.57	5.29
ELLRD	05/05/2005	8.21	5.18
ELLRD	05/05/2005	7.92	5.07
ELLRD	05/05/2005	7.84	4.89
ELLRD	05/05/2005	7.63	6.58
ELLRD	05/05/2005	7.67	6.66
ELLRD	05/05/2005	7.48	4.76

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/05/2005	7.74	4.52
ELLRD	05/05/2005	8.27 *	4.42 *
ELLRD	05/05/2005	10.83	4.11
ELLRD	05/05/2005	9.1	3.99
ELLRD	05/05/2005	8.31	4.05
ELLRD	05/05/2005	7.86	4.18
ELLRD	05/05/2005	7.62	4.3
ELLRD	05/05/2005	7.51	4.42
ELLRD	05/05/2005	7.6	4.47
ELLRD	05/05/2005	7.55	6.05
ELLRD	05/05/2005	13.23	5.54
ELLRD	05/05/2005	12.93	2.72
ELLRD	05/05/2005	10.63	2.45
ELLRD	05/05/2005	9.45	2.55
ELLRD	05/05/2005	8.71	2.7
ELLRD	05/05/2005	8.36	2.87
ELLRD	05/05/2005	8.12	3.04
ELLRD	05/05/2005	8.05	3.19
ELLRD	05/05/2005	8.02	3.31
ELLRD	05/05/2005	7.65	3.4
ELLRD	05/05/2005	7.84	3.47
ELLRD	05/05/2005	14.74	5.21
ELLRD	05/05/2005	16.4	5.9
ELLRD	05/05/2005	12.91	5.27
ELLRD	05/09/2005	8.36	4.56
ELLRD	05/09/2005	8.54	4.49
ELLRD	05/09/2005	8.24	4.5
ELLRD	05/09/2005	8.27	4.65
ELLRD	05/09/2005	8.25	4.59
ELLRD	05/09/2005	8.2	4.65
ELLRD	05/09/2005	8.25	4.64
ELLRD	05/09/2005	8.2	4.55
ELLRD	05/09/2005	8.19	4.55
ELLRD	05/09/2005	8.22	4.71
ELLRD	05/09/2005	7.37	4.72
ELLRD	05/09/2005	26.11	0.37
ELLRD	05/09/2005	28.35	0.46
ELLRD	05/09/2005	22.26	1.89
ELLRD	05/09/2005	19.5	1.04
ELLRD	05/09/2005	15.05 *	1.11 *
ELLRD	05/09/2005	16.59 *	1.13 *
ELLRD	05/09/2005	33.38 *	1.16 *
ELLRD	05/09/2005	34.27	0.89
ELLRD	05/09/2005	17.45	0.74
ELLRD	05/09/2005	10.98	0.77
ELLRD	05/09/2005	8.13	0.9
ELLRD	05/09/2005	7.48	2.3

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/09/2005	7.82 *	1.33 *
ELLRD	05/09/2005	22.01 *	1.24 *
ELLRD	05/09/2005	18.95	0.85
ELLRD	05/09/2005	11.16	0.8
ELLRD	05/09/2005	7.67	0.8
ELLRD	05/09/2005	6.09	0.82
ELLRD	05/09/2005	5.08	0.9
ELLRD	05/09/2005	4.63	1.04
ELLRD	05/09/2005	4.6	1.76
ELLRD	05/09/2005	4.52	1.36
ELLRD	05/09/2005	5.23 *	1.42 *
ELLRD	05/09/2005	5.28 *	1.45 *
ELLRD	05/09/2005	22.49	0.86
ELLRD	05/09/2005	11.89	0.79
ELLRD	05/09/2005	7.7	0.81
ELLRD	05/09/2005	5.77	0.83
ELLRD	05/09/2005	4.86	0.91
ELLRD	05/09/2005	4.45	1.03
ELLRD	05/09/2005	4.23	1.18
ELLRD	05/09/2005	4.06	1.35
ELLRD	05/09/2005	13.2	1.61
ELLRD	05/09/2005	10.38	0.89
ELLRD	05/09/2005	7.43	0.89
ELLRD	05/09/2005	5.95	0.9
ELLRD	05/09/2005	5.06	0.91
ELLRD	05/09/2005	4.66	0.97
ELLRD	05/09/2005	4.43	1.05
ELLRD	05/09/2005	4.27	1.15
ELLRD	05/09/2005	4.2	1.27
ELLRD	05/09/2005	4.24	1.39
ELLRD	05/09/2005	5.04	1.53
ELLRD	05/09/2005	8.17	2.48
ELLRD	05/09/2005	25.52	0.67
ELLRD	05/09/2005	11.27	0.64
ELLRD	05/09/2005	7.86	0.66
ELLRD	05/09/2005	5.81	0.86
ELLRD	05/09/2005	5.86	1.72
ELLRD	05/09/2005	4.43	1.07
ELLRD	05/09/2005	4.34	1.15
ELLRD	05/11/2005	5.93	1.1
ELLRD	05/11/2005	6.94	1.07
ELLRD	05/11/2005	16.73	1.04
ELLRD	05/11/2005	20.35	0.83
ELLRD	05/11/2005	19.09	0.81
ELLRD	05/11/2005	17.61	1.03
ELLRD	05/11/2005	16.39	1.28
ELLRD	05/11/2005	14.14	3.2

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/11/2005	13.19	3.06
ELLRD	05/11/2005	12.48	2.53
ELLRD	05/11/2005	11.89	2.84
ELLRD	05/11/2005	12.14 *	3.42 *
ELLRD	05/11/2005	16.5	1.73
ELLRD	05/11/2005	14.07	1.58
ELLRD	05/11/2005	13.09	1.62
ELLRD	05/11/2005	12.27	1.78
ELLRD	05/11/2005	12.05	2.09
ELLRD	05/11/2005	11.97	2.56
ELLRD	05/11/2005	11.86	2.96
ELLRD	05/11/2005	11.68	3.39
ELLRD	05/11/2005	15.11	3.17
ELLRD	05/11/2005	13.82	3.43
ELLRD	05/11/2005	14.08	3.12
ELLRD	05/11/2005	12.86	2.29
ELLRD	05/11/2005	12.41	2.13
ELLRD	05/11/2005	12.13	2.35
ELLRD	05/11/2005	11.98	2.66
ELLRD	05/11/2005	11.99	3
ELLRD	05/11/2005	12.07	3.4
ELLRD	05/11/2005	11.88	3.08
ELLRD	05/11/2005	11.79	2.57
ELLRD	05/11/2005	11.68	2.63
ELLRD	05/11/2005	11.63	2.92
ELLRD	05/11/2005	11.67	3.39
ELLRD	05/11/2005	11.78	3.95
ELLRD	05/11/2005	11.93	4.31
ELLRD	05/11/2005	12.11	4.7
ELLRD	05/11/2005	12.38	4.68
ELLRD	05/11/2005	12.53	4.46
ELLRD	05/11/2005	13.36	4.6
ELLRD	05/11/2005	12.99	3.26
ELLRD	05/11/2005	13.17	3.3
ELLRD	05/11/2005	14.5	2.31
ELLRD	05/11/2005	15.97	1.95
ELLRD	05/11/2005	15.41	2.24
ELLRD	05/11/2005	16.66	2.28
ELLRD	05/11/2005	18.47	3.72
ELLRD	05/11/2005	17.12	2.61
ELLRD	05/11/2005	16.21	2.2
ELLRD	05/11/2005	15.33	2.02
ELLRD	05/11/2005	14.25	2.45
ELLRD	05/11/2005	13.93	2.88
ELLRD	05/11/2005	14.65 *	3.72 *
ELLRD	05/11/2005	14.87 *	4.26 *
ELLRD	05/11/2005	15.06 *	4.42 *

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/11/2005	15.46 *	4.22 *
ELLRD	05/11/2005	15.12 *	6.47 *
ELLRD	05/11/2005	14.45	2.76
ELLRD	05/11/2005	14.09	2.45
ELLRD	05/11/2005	13.76	2.39
ELLRD	05/11/2005	13.47	2.72
ELLRD	05/11/2005	13.28	3.17
ELLRD	05/11/2005	13.02	3.66
ELLRD	05/11/2005	13.43 *	5.84 *
ELLRD	05/11/2005	65.32	6.36
ELLRD	05/11/2005	32.11	9.26
ELLRD	05/11/2005	21.33	4.87
ELLRD	05/11/2005	16.83	4.5
ELLRD	05/11/2005	14.91	3.63
ELLRD	05/11/2005	14.07	3.29
ELLRD	05/11/2005	13.91	3.73
ELLRD	05/11/2005	.	4.69
ELLRD	05/12/2005	15.22	1.17
ELLRD	05/12/2005	15.88	1.86
ELLRD	05/12/2005	14.59	3.13
ELLRD	05/12/2005	13.09	2.5
ELLRD	05/12/2005	12.12	2.25
ELLRD	05/12/2005	11.58	2.56
ELLRD	05/12/2005	11.25	2.92
ELLRD	05/12/2005	11.11	3.3
ELLRD	05/12/2005	11.01	3.67
ELLRD	05/12/2005	11.2 *	4.96 *
ELLRD	05/12/2005	32.26	2.78
ELLRD	05/12/2005	18.27	4.39
ELLRD	05/12/2005	14.82	5.95
ELLRD	05/12/2005	12.39	3.91
ELLRD	05/12/2005	11.75	3.82
ELLRD	05/12/2005	11.68 *	3.74 *
ELLRD	05/12/2005	25.71	1.96
ELLRD	05/12/2005	16.6	2.13
ELLRD	05/12/2005	12.79	2.51
ELLRD	05/12/2005	11.95	3.12
ELLRD	05/12/2005	11.41	3.66
ELLRD	05/12/2005	11.13	4.05
ELLRD	05/12/2005	10.97	4.48
ELLRD	05/12/2005	10.97	4.88
ELLRD	05/12/2005	11.41	4.56
ELLRD	05/12/2005	10.87	3.28
ELLRD	05/12/2005	10.83	2.82
ELLRD	05/12/2005	10.77	2.49
ELLRD	05/12/2005	10.72	2.64
ELLRD	05/12/2005	10.68	2.94

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/12/2005	10.95	3.25
ELLRD	05/12/2005	11.33	2.47
ELLRD	05/12/2005	10.9	2.81
ELLRD	05/12/2005	10.77	3.24
ELLRD	05/12/2005	10.73	3.67
ELLRD	05/12/2005	10.73	4.07
ELLRD	05/12/2005	12.1	4.74
ELLRD	05/12/2005	11.53	3.14
ELLRD	05/12/2005	11.3	2.62
ELLRD	05/12/2005	11.08	2.14
ELLRD	05/12/2005	10.98	2.43
ELLRD	05/12/2005	10.89	2.92
ELLRD	05/12/2005	10.85	3.34
ELLRD	05/12/2005	11.11 *	4.31 *
ELLRD	05/12/2005	11.47 *	4.09 *
ELLRD	05/12/2005	11.5	1.59
ELLRD	05/12/2005	11.02	2.01
ELLRD	05/12/2005	10.95	2.66
ELLRD	05/12/2005	11.13	4.12
ELLRD	05/12/2005	10.86	3.46
ELLRD	05/12/2005	10.97	2.68
ELLRD	05/12/2005	10.94	2.21
ELLRD	05/12/2005	10.87	2.39
ELLRD	05/12/2005	10.79	2.74
ELLRD	05/12/2005	10.7	3.11
ELLRD	05/12/2005	10.66	2.84
ELLRD	05/12/2005	11.07	2.22
ELLRD	05/12/2005	13.09	3.33
ELLRD	05/12/2005	12.01	2.71
ELLRD	05/12/2005	11.2	2.2
ELLRD	05/12/2005	11.2	2.82
ELLRD	05/12/2005	10.91	2.92
ELLRD	05/12/2005	11.15	2.62
ELLRD	05/12/2005	11.21	2.36
ELLRD	05/12/2005	10.84	2.59
ELLRD	05/12/2005	10.8	2.92
ELLRD	05/12/2005	10.77	3.26
ELLRD	05/12/2005	10.82	3.57
ELLRD	05/12/2005	12.15	1.86
ELLRD	05/12/2005	14.58	1.76
ELLRD	05/12/2005	13.07	2.54
ELLRD	05/12/2005	12.22	3.2
ELLRD	05/12/2005	11.59	3.72
ELLRD	05/12/2005	11.28	4.12
ELLRD	05/12/2005	11.09	4.47
ELLRD	05/12/2005	11.02	4.84
ELLRD	05/12/2005	10.96	5.21

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/12/2005	10.97	4.69
ELLRD	05/12/2005	10.88	4.35
ELLRD	05/12/2005	11.78 *	4.53 *
ELLRD	05/12/2005	14.89	1.93
ELLRD	05/12/2005	12.72	1.91
ELLRD	05/12/2005	11.67	2.22
ELLRD	05/12/2005	11.36	2.57
ELLRD	05/12/2005	11.15	2.98
ELLRD	05/12/2005	11.04	3.39
ELLRD	05/12/2005	10.97	3.77
ELLRD	05/12/2005	10.96	4.15
ELLRD	05/12/2005	11.03	4.45
ELLRD	05/12/2005	49.13	3.56
ELLRD	05/12/2005	27.64	7.49
ELLRD	05/12/2005	18.08	6.46
ELLRD	05/12/2005	15.95	2.8
ELLRD	05/12/2005	16.65	4.08
ELLRD	05/12/2005	17.39	3.28
ELLRD	05/12/2005	14.34	2.49
ELLRD	05/12/2005	13.08	2.71
ELLRD	05/12/2005	12.4	3.16
ELLRD	05/12/2005	11.9	3.56
ELLRD	05/12/2005	11.62	3.94
ELLRD	05/12/2005	11.5	4.29
ELLRD	05/12/2005	11.59 *	4.54 *
ELLRD	05/12/2005	16.78	2
ELLRD	05/12/2005	15.66	2.27
ELLRD	05/12/2005	13.69	3.12
ELLRD	05/12/2005	12.84	3.81
ELLRD	05/12/2005	12.15	4.37
ELLRD	05/12/2005	11.71	8.66
ELLRD	05/12/2005	12.13	3.86
ELLRD	05/12/2005	11.62	3.09
ELLRD	05/12/2005	11.55	2.52
ELLRD	05/12/2005	11.52	2.87
ELLRD	05/12/2005	11.53	3.27
ELLRD	05/12/2005	11.6	3.82
ELLRD	05/12/2005	11.66	4.13
ELLRD	05/12/2005	11.99 *	5.17 *
ELLRD	05/12/2005	13.39	1.69
ELLRD	05/12/2005	13.3	2.28
ELLRD	05/12/2005	12.8	2.88
ELLRD	05/12/2005	13.13	3.31
ELLRD	05/12/2005	12.58	2.95
ELLRD	05/12/2005	12.15	2.23
ELLRD	05/12/2005	12.06	3.93
ELLRD	05/12/2005	12.11	3.07

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/12/2005	11.99	2.45
ELLRD	05/12/2005	11.96	2.55
ELLRD	05/12/2005	11.97	2.92
ELLRD	05/12/2005	11.96	3.34
ELLRD	05/12/2005	11.94	3.72
ELLRD	05/13/2005	8.03	2.64
ELLRD	05/13/2005	11.75	2.82
ELLRD	05/13/2005	12.1	2.6
ELLRD	05/13/2005	12.76	1.84
ELLRD	05/13/2005	13.07	2.59
ELLRD	05/13/2005	13.31	3.09
ELLRD	05/13/2005	13.43	3.8
ELLRD	05/13/2005	13.18	2.53
ELLRD	05/13/2005	13.21	4.35
ELLRD	05/13/2005	13.04	4.99
ELLRD	05/13/2005	12.87	5.41
ELLRD	05/13/2005	12.77	5.54
ELLRD	05/13/2005	12.67	5.74
ELLRD	05/13/2005	12.58	5.84
ELLRD	05/13/2005	12.82	5.84
ELLRD	05/13/2005	13.52	7
ELLRD	05/13/2005	15.31	3.47
ELLRD	05/13/2005	14.71	2.38
ELLRD	05/13/2005	13.59	2.58
ELLRD	05/13/2005	12.63	3.05
ELLRD	05/13/2005	12.11	3.6
ELLRD	05/13/2005	11.84	4.08
ELLRD	05/13/2005	11.73	4.49
ELLRD	05/13/2005	11.73	4.78
ELLRD	05/13/2005	11.69	4.98
ELLRD	05/13/2005	11.57	5.14
ELLRD	05/13/2005	11.49	5.19
ELLRD	05/13/2005	11.95	5.22
ELLRD	05/13/2005	11.81	5.53
ELLRD	05/13/2005	11.73	4.58
ELLRD	05/13/2005	11.76	3.23
ELLRD	05/13/2005	11.72	3.19
ELLRD	05/13/2005	11.71	3.24
ELLRD	05/13/2005	11.67	3.27
ELLRD	05/13/2005	19.5	1.52
ELLRD	05/13/2005	16.4	2.7
ELLRD	05/13/2005	14.43	2.39
ELLRD	05/13/2005	14.11	2.38
ELLRD	05/13/2005	12.9	2.04
ELLRD	05/13/2005	12.31	2.24
ELLRD	05/13/2005	12.17	2.6
ELLRD	05/13/2005	12.18	2.94

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/13/2005	12.17	3.3
ELLRD	05/13/2005	12.08	3.7
ELLRD	05/13/2005	11.97	4.02
ELLRD	05/13/2005	11.84	4.25
ELLRD	05/13/2005	12.5	4.33
ELLRD	05/13/2005	12.18	4.53
ELLRD	05/13/2005	12.19	4.77
ELLRD	05/13/2005	12.61	2.42
ELLRD	05/13/2005	11.87	2.25
ELLRD	05/13/2005	11.92	2.3
ELLRD	05/13/2005	11.74	2.55
ELLRD	05/13/2005	11.85	2.87
ELLRD	05/13/2005	16.72	3.29
ELLRD	05/13/2005	13.29	1.23
ELLRD	05/13/2005	12.7	1.93
ELLRD	05/13/2005	12.48	2.62
ELLRD	05/13/2005	12.28	3.35
ELLRD	05/13/2005	12.34	4
ELLRD	05/13/2005	12.4	4.46
ELLRD	05/13/2005	12.63	4.71
ELLRD	05/13/2005	13.19 *	16.52 *
ELLRD	05/13/2005	14.97	4.47
ELLRD	05/13/2005	21.82	2.64
ELLRD	05/13/2005	22.38	2.09
ELLRD	05/13/2005	21.53	5.85
ELLRD	05/13/2005	20.77	3.26
ELLRD	05/13/2005	20.53	2.69
ELLRD	05/13/2005	20.86	3.15
ELLRD	05/13/2005	20.61	4.07
ELLRD	05/13/2005	20.19	4.98
ELLRD	05/13/2005	20.51	5.76
ELLRD	05/13/2005	21.38	6.69
ELLRD	05/13/2005	22.28	7.5
ELLRD	05/13/2005	23.13	8.28
ELLRD	05/13/2005	24.13	9.06
ELLRD	05/13/2005	24.93	9.79
ELLRD	05/13/2005	25.86 *	10.54 *
ELLRD	05/13/2005	26.76 *	11.33 *
ELLRD	05/13/2005	27.45 *	11.98 *
ELLRD	05/13/2005	32.47 *	87.79 *
ELLRD	05/13/2005	47.96	8.24
ELLRD	05/13/2005	36.68	7.29
ELLRD	05/13/2005	33.57	8.03
ELLRD	05/13/2005	32.55 *	10.11 *
ELLRD	05/16/2005	14.86	4.84
ELLRD	05/16/2005	23.84	7.99
ELLRD	05/16/2005	29.2	7.92

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/16/2005	32.69 *	12.5 *
ELLRD	05/16/2005	35.46 *	17.22 *
ELLRD	05/16/2005	36.82 *	21 *
ELLRD	05/16/2005	37.9 *	17.98 *
ELLRD	05/16/2005	38.63	5.35
ELLRD	05/16/2005	38.91	8.61
ELLRD	05/16/2005	39.03 *	11.79 *
ELLRD	05/16/2005	40.4 *	14.3 *
ELLRD	05/16/2005	40.13	8.08
ELLRD	05/16/2005	40.63	5.94
ELLRD	05/16/2005	40.78	4.55
ELLRD	05/16/2005	78.57	2.85
ELLRD	05/16/2005	62.77	9.73
ELLRD	05/16/2005	54.31 *	66.23 *
ELLRD	05/16/2005	48.71	3.06
ELLRD	05/16/2005	44.76	3.24
ELLRD	05/16/2005	42.33	1.27
ELLRD	05/16/2005	41.01	2.28
ELLRD	05/16/2005	40.1	4.64
ELLRD	05/16/2005	39.48 *	35.38 *
ELLRD	05/16/2005	39.25	3.94
ELLRD	05/16/2005	39.95	4.34
ELLRD	05/16/2005	39.61	2.95
ELLRD	05/16/2005	39.86	3.88
ELLRD	05/16/2005	40.16	6.16
ELLRD	05/16/2005	40.43	9.14
ELLRD	05/16/2005	42.05	7.01
ELLRD	05/16/2005	41.77	1.23
ELLRD	05/16/2005	41.35	1.76
ELLRD	05/16/2005	40.76	0.9
ELLRD	05/16/2005	40.6	1.94
ELLRD	05/16/2005	40.34	4.53
ELLRD	05/16/2005	40.9	3.3
ELLRD	05/16/2005	40.96	1.85
ELLRD	05/16/2005	42.23	1.31
ELLRD	05/16/2005	43.63	2.54
ELLRD	05/16/2005	45.96	5.45
ELLRD	05/16/2005	48.07	5.98
ELLRD	05/16/2005	51.16	4.86
ELLRD	05/16/2005	53	3.61
ELLRD	05/16/2005	55.28	4.84
ELLRD	05/16/2005	56.51	8.58
ELLRD	05/16/2005	57.26 *	33.13 *
ELLRD	05/16/2005	57.61	8.04
ELLRD	05/16/2005	57.81	4.8
ELLRD	05/16/2005	58.1	4.34
ELLRD	05/16/2005	60.67	1.86

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/16/2005	61.54	5.67
ELLRD	05/16/2005	61.44	4.39
ELLRD	05/16/2005	63.76	1.92
ELLRD	05/16/2005	66.89	1.93
ELLRD	05/16/2005	70.83	3.62
ELLRD	05/16/2005	73.81	9.05
ELLRD	05/16/2005	77.28 *	17.93 *
ELLRD	05/16/2005	80.13	8.29
ELLRD	05/16/2005	83.68 *	11.8 *
ELLRD	05/16/2005	86.8	7.46
ELLRD	05/16/2005	89.44 *	14.42 *
ELLRD	05/16/2005	90.83 *	18.49 *
ELLRD	05/16/2005	90.17 *	53.13 *
ELLRD	05/16/2005	90.4	9.46
ELLRD	05/16/2005	86.07	3.41
ELLRD	05/16/2005	80.72	2.73
ELLRD	05/16/2005	74.96	6.51
ELLRD	05/16/2005	70.95 *	19.97 *
ELLRD	05/16/2005	69.23	7.49
ELLRD	05/16/2005	69.18	3.19
ELLRD	05/16/2005	68.6	3.28
ELLRD	05/16/2005	66.35	6.23
ELLRD	05/16/2005	.	48.81 *
ELLRD	05/16/2005	62.54 *	8.9
ELLRD	05/16/2005	63.56	13.56 *
ELLRD	05/16/2005	61.96 *	1.52
ELLRD	05/16/2005	61.44	2.93
ELLRD	05/16/2005	61.72	2.59
ELLRD	05/16/2005	63.11	7.01
ELLRD	05/16/2005	64.71	9.38
ELLRD	05/16/2005	67.64	2.86
ELLRD	05/18/2005	33.5	5.23
ELLRD	05/18/2005	31.58	6
ELLRD	05/18/2005	30.41	8.35
ELLRD	05/18/2005	34.36	7.4
ELLRD	05/18/2005	35.44	8.24
ELLRD	05/18/2005	33.55	8.94
ELLRD	05/18/2005	32.29	9.31
ELLRD	05/18/2005	31.75	9.88
ELLRD	05/18/2005	31.53 *	14.76 *
ELLRD	05/18/2005	32.51	4.83
ELLRD	05/18/2005	32.08	2.05
ELLRD	05/18/2005	32.57	0.94
ELLRD	05/18/2005	33.12	1.38
ELLRD	05/18/2005	33.14	2.27
ELLRD	05/18/2005	33.06	3.65
ELLRD	05/18/2005	33.12	5.26

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/18/2005	33.24	7.01
ELLRD	05/18/2005	35.04	8.76
ELLRD	05/18/2005	33.14	7.45
ELLRD	05/18/2005	34.05	1.43
ELLRD	05/18/2005	34.32	1.6
ELLRD	05/18/2005	34.77	1.3
ELLRD	05/18/2005	34.95	2.28
ELLRD	05/18/2005	35.3	3.81
ELLRD	05/18/2005	35.61	5.6
ELLRD	05/18/2005	35.48	7.46
ELLRD	05/18/2005	35.61	9.15
ELLRD	05/18/2005	34.99 *	10.59 *
ELLRD	05/18/2005	34.6 *	11.75 *
ELLRD	05/18/2005	33.36	3.32
ELLRD	05/18/2005	33.16	0.79
ELLRD	05/18/2005	32.53	1.7
ELLRD	05/18/2005	32.46	0.57
ELLRD	05/18/2005	87.63	0.9
ELLRD	05/18/2005	105.8	3.56
ELLRD	05/18/2005	59.05 *	40.86 *
ELLRD	05/18/2005	39.34	0.6
ELLRD	05/18/2005	80.08	1.75
ELLRD	05/18/2005	67.75	0.13
ELLRD	05/18/2005	51.58	0.13
ELLRD	05/18/2005	44.31	0.27
ELLRD	05/18/2005	41.35	0.82
ELLRD	05/18/2005	40.13	1.72
ELLRD	05/18/2005	38.99	2.78
ELLRD	05/18/2005	38.35	3.97
ELLRD	05/18/2005	36.77	6.13
ELLRD	05/18/2005	39.95	2.33
ELLRD	05/18/2005	36.59	0.74
ELLRD	05/18/2005	35.92	0.48
ELLRD	05/18/2005	35.76	0.47
ELLRD	05/18/2005	36.24	0.62
ELLRD	05/18/2005	35.61	1.02
ELLRD	05/18/2005	34.07	1.82
ELLRD	05/18/2005	32.94	2.7
ELLRD	05/18/2005	31.7	3.5
ELLRD	05/18/2005	30.97	4.36
ELLRD	05/18/2005	31.48	5.38
ELLRD	05/18/2005	35.44	5.88
ELLRD	05/18/2005	38.93	1.75
ELLRD	05/18/2005	40.68	0.58
ELLRD	05/18/2005	40.37	0.59
ELLRD	05/18/2005	43.07	0.73
ELLRD	05/18/2005	40.72	1.05

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/18/2005	41.78	0.75
ELLRD	05/18/2005	42.12	1.24
ELLRD	05/18/2005	37.92	2.06
ELLRD	05/18/2005	36.01	3.08
ELLRD	05/18/2005	36.26	4.14
ELLRD	05/18/2005	35.42	5.38
ELLRD	05/18/2005	35.98	6.8
ELLRD	05/18/2005	36.11	8.19
ELLRD	05/18/2005	36.65	9.65
ELLRD	05/18/2005	37.13 *	11.03 *
ELLRD	05/18/2005	37.11 *	12.21 *
ELLRD	05/18/2005	36.81	3.02
ELLRD	05/18/2005	37.61	0.83
ELLRD	05/18/2005	37.34	1.6
ELLRD	05/18/2005	37.86	0.58
ELLRD	05/18/2005	38.21	0.86
ELLRD	05/18/2005	38.81	1.58
ELLRD	05/18/2005	39.39	3.45
ELLRD	05/18/2005	39.41	1.89
ELLRD	05/18/2005	39.55	1.33
ELLRD	05/18/2005	39.86	0.78
ELLRD	05/18/2005	40.73	1.26
ELLRD	05/18/2005	42.18	2.47
ELLRD	05/18/2005	42.86	4.43
ELLRD	05/18/2005	43.46	6.66
ELLRD	05/18/2005	43.65	8.84
ELLRD	05/18/2005	45.4 *	10.54 *
ELLRD	05/18/2005	45.57 *	14.22 *
ELLRD	05/18/2005	43.4 *	14.48 *
ELLRD	05/18/2005	59.03 *	15.55 *
ELLRD	05/18/2005	66.62 *	35.22 *
ELLRD	05/18/2005	63.11	4.55
ELLRD	05/18/2005	59.21	1.58
ELLRD	05/18/2005	58.72	1.26
ELLRD	05/18/2005	59.04	2.98
ELLRD	05/18/2005	59.37	6.65
ELLRD	05/18/2005	58.8	7.61
ELLRD	05/18/2005	58.68	6.77
ELLRD	05/18/2005	62.95	5.36
ELLRD	05/18/2005	62.26	3.07
ELLRD	05/18/2005	63.46	6.82
ELLRD	05/18/2005	64.71	5.52
ELLRD	05/18/2005	66.03	1.24
ELLRD	05/18/2005	64.87	0.53
ELLRD	05/18/2005	65.38	0.51
ELLRD	05/18/2005	65.81	0.38
ELLRD	05/18/2005	65.86	0.36

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/18/2005	62.92	0.56
ELLRD	05/18/2005	54.63	1.09
ELLRD	05/18/2005	49.34	1.62
ELLRD	05/18/2005	48.81	0.63
ELLRD	05/18/2005	47.03	0.54
ELLRD	05/18/2005	46.73	0.52
ELLRD	05/18/2005	45.65	0.53
ELLRD	05/18/2005	61.83	0.56
ELLRD	05/18/2005	71.7	0.35
ELLRD	05/18/2005	69.09	0.68
ELLRD	05/18/2005	64.74	1.41
ELLRD	05/18/2005	59.82	2.99
ELLRD	05/18/2005	50.17	2.12
ELLRD	05/18/2005	82.43	3.55
ELLRD	05/18/2005	88.17	0.93
ELLRD	05/18/2005	85.03	1.3
ELLRD	05/18/2005	87.19	4.33
ELLRD	05/18/2005	88.05 *	11.41 *
ELLRD	05/18/2005	91.17 *	20.28 *
ELLRD	05/18/2005	98.12 *	21.69 *
ELLRD	05/18/2005	101.73	2.16
ELLRD	05/18/2005	103.82	0.78
ELLRD	05/18/2005	104.71	0.63
ELLRD	05/18/2005	103.68	0.95
ELLRD	05/18/2005	75.82	2.14
ELLRD	05/18/2005	67.4	3.16
ELLRD	05/18/2005	98.73	1.16
ELLRD	05/18/2005	106.07	0.43
ELLRD	05/18/2005	102.6	0.48
ELLRD	05/18/2005	101.01	1.02
ELLRD	05/18/2005	102.3	3.86
ELLRD	05/18/2005	105.99 *	10.62 *
ELLRD	05/18/2005	112.64	2.05
ELLRD	05/18/2005	115.41	1.01
ELLRD	05/18/2005	118.44	0.82
ELLRD	05/18/2005	121.02	2.33
ELLRD	05/18/2005	116.71	7.97
ELLRD	05/18/2005	112.21	7.85
ELLRD	05/18/2005	79.25	0.84
ELLRD	05/18/2005	71.01	0.48
ELLRD	05/18/2005	107.13	0.46
ELLRD	05/18/2005	120.34	0.35
ELLRD	05/18/2005	121.46	2.74
ELLRD	05/18/2005	127.5	7.26
ELLRD	05/20/2005	39.13	3.06
ELLRD	05/20/2005	36.71	1.53
ELLRD	05/20/2005	95.16	0.84

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/20/2005	108.87	2.46
ELLRD	05/20/2005	111.36	2.49
ELLRD	05/20/2005	110.45	1.22
ELLRD	05/20/2005	106.65	3.08
ELLRD	05/20/2005	107.1	2.69
ELLRD	05/20/2005	104.94	7.97
ELLRD	05/20/2005	106.83 *	18.15 *
ELLRD	05/20/2005	92.95 *	27.25 *
ELLRD	05/20/2005	74.01	4.55
ELLRD	05/20/2005	85.98	0.59
ELLRD	05/20/2005	107.25	1.39
ELLRD	05/20/2005	102.66	0.43
ELLRD	05/20/2005	101.65	3.56
ELLRD	05/20/2005	102.32 *	15.56 *
ELLRD	05/20/2005	101.47 *	29.07 *
ELLRD	05/20/2005	101.18	8.96
ELLRD	05/20/2005	103.13	1.26
ELLRD	05/20/2005	101.62	3.3
ELLRD	05/20/2005	100.44	2.83
ELLRD	05/20/2005	77.16	6.53
ELLRD	05/20/2005	85.7	8.62
ELLRD	05/20/2005	98.56 *	21.5 *
ELLRD	05/20/2005	94.85 *	11.59 *
ELLRD	05/20/2005	94.64	7.56
ELLRD	05/20/2005	95.13	0.69
ELLRD	05/20/2005	95.3	0.55
ELLRD	05/20/2005	94.97	0.65
ELLRD	05/20/2005	95.8	1.98
ELLRD	05/20/2005	72.45	1.51
ELLRD	05/20/2005	57.97	0.67
ELLRD	05/20/2005	89.08	0.7
ELLRD	05/20/2005	92.25	0.37
ELLRD	05/20/2005	93.75	0.34
ELLRD	05/20/2005	93.18	2.39
ELLRD	05/20/2005	93.17	1.36
ELLRD	05/20/2005	98.37	0.66
ELLRD	05/20/2005	100.7	0.52
ELLRD	05/20/2005	100.64	0.87
ELLRD	05/20/2005	83.83	0.79
ELLRD	05/20/2005	61.67	0.7
ELLRD	05/20/2005	85.5	1.09
ELLRD	05/20/2005	102.41	0.4
ELLRD	05/20/2005	107.87	0.59
ELLRD	05/20/2005	111.97	1.41
ELLRD	05/20/2005	114.36	0.76
ELLRD	05/20/2005	120.65	1.26
ELLRD	05/20/2005	119.43	1.78

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/20/2005	119.68	3.44
ELLRD	05/20/2005	84.58	0.78
ELLRD	05/20/2005	66.53	0.48
ELLRD	05/20/2005	108.4	0.48
ELLRD	05/20/2005	114.07	0.6
ELLRD	05/20/2005	111.5	1.29
ELLRD	05/20/2005	118.95	1.15
ELLRD	05/20/2005	122.34	1
ELLRD	05/20/2005	123.87	2.66
ELLRD	05/20/2005	120.14	2.05
ELLRD	05/20/2005	120.34	0.64
ELLRD	05/20/2005	85.89	0.93
ELLRD	05/20/2005	65.36	0.58
ELLRD	05/20/2005	117.14	0.75
ELLRD	05/20/2005	116.4	1.43
ELLRD	05/20/2005	114.89	1.65
ELLRD	05/20/2005	117.39	1.81
ELLRD	05/20/2005	119	3.29
ELLRD	05/20/2005	119.79	1.38
ELLRD	05/20/2005	117.3	1.12
ELLRD	05/20/2005	111.79	1.17
ELLRD	05/20/2005	76.7	0.97
ELLRD	05/20/2005	56.09	0.78
ELLRD	05/20/2005	99.08	0.88
ELLRD	05/20/2005	114.11 *	16.86 *
ELLRD	05/20/2005	117.59 *	47.43 *
ELLRD	05/20/2005	124.6 *	74.66 *
ELLRD	05/20/2005	128.05 *	88.62 *
ELLRD	05/20/2005	129.92 *	97.11 *
ELLRD	05/20/2005	132.25 *	104.34 *
ELLRD	05/20/2005	130.56 *	109.29 *
ELLRD	05/20/2005	133.54 *	111.42 *
ELLRD	05/20/2005	133.58	8.8
ELLRD	05/20/2005	138.42	1.01
ELLRD	05/20/2005	123.14	3.6
ELLRD	05/20/2005	80.8	6.54
ELLRD	05/20/2005	86.53	7.2
ELLRD	05/20/2005	125.45 *	24.48 *
ELLRD	05/20/2005	135.13	9.66
ELLRD	05/20/2005	140.54 *	12.89 *
ELLRD	05/20/2005	143.47 *	15.17 *
ELLRD	05/20/2005	150.02 *	122.84 *
ELLRD	05/20/2005	153.01 *	34.4 *
ELLRD	05/20/2005	161.42 *	11.35 *
ELLRD	05/20/2005	154.85 *	15.82 *
ELLRD	05/20/2005	115.03 *	53.6 *
ELLRD	05/20/2005	87.06	4.28

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/20/2005	152.22	2.52
ELLRD	05/20/2005	149.56	2.23
ELLRD	05/20/2005	150.58 *	12.82 *
ELLRD	05/20/2005	147.74 *	14.33 *
ELLRD	05/20/2005	156.28	5.73
ELLRD	05/20/2005	163.34	9.4
ELLRD	05/20/2005	154.16	6.43
ELLRD	05/20/2005	80.86	1.65
ELLRD	05/20/2005	50.05	0.89
ELLRD	05/20/2005	125.28	1.3
ELLRD	05/20/2005	125.89	4.2
ELLRD	05/20/2005	138.94	4.6
ELLRD	05/20/2005	138.95	4.79
ELLRD	05/20/2005	146.97	7.58
ELLRD	05/20/2005	156.84	5.55
ELLRD	05/20/2005	154.44	3.93
ELLRD	05/20/2005	80.78	3.79
ELLRD	05/20/2005	49.22	1.56
ELLRD	05/20/2005	135.26	0.77
ELLRD	05/20/2005	135.02	2.4
ELLRD	05/20/2005	138.49 *	14.57 *
ELLRD	05/20/2005	137.05	5.34
ELLRD	05/20/2005	143.29	7.69
ELLRD	05/20/2005	151.79	6.11
ELLRD	05/20/2005	150.05	5.38
ELLRD	05/20/2005	75.39	1.22
ELLRD	05/20/2005	47.41	1.87
ELLRD	05/20/2005	122.33	0.9
ELLRD	05/20/2005	141.53	7.51
ELLRD	05/20/2005	136.42	4.33
ELLRD	05/20/2005	137.21	6.58
ELLRD	05/20/2005	150.34	6.76
ELLRD	05/20/2005	163.26	6.26
ELLRD	05/20/2005	154.69	5.89
ELLRD	05/20/2005	88.07	5.29
ELLRD	05/20/2005	50.65	1.48
ELLRD	05/20/2005	149.71	1.49
ELLRD	05/20/2005	157.11	2.08
ELLRD	05/20/2005	154.81 *	13.92 *
ELLRD	05/20/2005	154.47	6.37
ELLRD	05/20/2005	171.53	9.54
ELLRD	05/20/2005	168.71	7.39
ELLRD	05/20/2005	161.48	7.8
ELLRD	05/20/2005	78.32	2.64
ELLRD	05/20/2005	48.92	0.83
ELLRD	05/20/2005	136.92	1.61
ELLRD	05/20/2005	147.28	3.16

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/20/2005	143.49	7.12
ELLRD	05/20/2005	153.64	5.57
ELLRD	05/20/2005	165.19	5.37
ELLRD	05/20/2005	163.36	6.67
ELLRD	05/20/2005	145.69	4.61
ELLRD	05/20/2005	69.06	2.05
ELLRD	05/20/2005	47.94	0.88
ELLRD	05/20/2005	158.27	1.11
ELLRD	05/20/2005	161.09	3.12
ELLRD	05/20/2005	165.29	5.82
ELLRD	05/20/2005	169.42	8.34
ELLRD	05/20/2005	175.23	4.67
ELLRD	05/20/2005	182.77	2.23
ELLRD	05/20/2005	130.34	7.28
ELLRD	05/20/2005	62.66	1.47
ELLRD	05/20/2005	116.91	0.62
ELLRD	05/20/2005	164.27	1.87
ELLRD	05/20/2005	165.45 *	12.35 *
ELLRD	05/20/2005	162.93	4.5
ELLRD	05/20/2005	174.66 *	16.77 *
ELLRD	05/20/2005	174.91 *	15.09 *
ELLRD	05/20/2005	168.5	2.41
ELLRD	05/20/2005	100.83 *	10.41 *
ELLRD	05/20/2005	51.04	1.98
ELLRD	05/20/2005	122.37	1.01
ELLRD	05/20/2005	135.15	0.53
ELLRD	05/20/2005	134.61	2.83
ELLRD	05/20/2005	149.3 *	22.51 *
ELLRD	05/20/2005	167.1 *	16.72 *
ELLRD	05/20/2005	142.32	8.11
ELLRD	05/20/2005	63.52	4.73
ELLRD	05/20/2005	66.41	1.22
ELLRD	05/20/2005	158.08	2.67
ELLRD	05/20/2005	148.68	5.08
ELLRD	05/20/2005	163.98	7.36
ELLRD	05/20/2005	173.36	7.23
ELLRD	05/20/2005	181.18 *	10.75 *
ELLRD	05/20/2005	128.13	6.89
ELLRD	05/20/2005	73.28	1.74
ELLRD	05/20/2005	137.67	1.52
ELLRD	05/20/2005	167.76	2.66
ELLRD	05/20/2005	158.24	7.51
ELLRD	05/20/2005	168 *	12.42 *
ELLRD	05/20/2005	166.47	5.29
ELLRD	05/21/2005	133.58 *	12.97 *
ELLRD	05/21/2005	63.97	5.32
ELLRD	05/21/2005	124.18	1.34

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/21/2005	163.4 *	11.66 *
ELLRD	05/21/2005	160.33 *	33.61 *
ELLRD	05/21/2005	167.53 *	57.53 *
ELLRD	05/21/2005	147.86 *	70.94 *
ELLRD	05/21/2005	67.19 *	40.84 *
ELLRD	05/21/2005	26.82	5.82
ELLRD	05/21/2005	22.62	0.75
ELLRD	05/21/2005	22.96	0.38
ELLRD	05/21/2005	97.25	0.4
ELLRD	05/21/2005	125.54 *	23.34 *
ELLRD	05/21/2005	66.47 *	29.61 *
ELLRD	05/21/2005	26.59	5.48
ELLRD	05/21/2005	21.29	2.11
ELLRD	05/21/2005	96.05	9.37
ELLRD	05/21/2005	105.52 *	40.08 *
ELLRD	05/21/2005	98.15 *	37.13 *
ELLRD	05/21/2005	37.49 *	24.32 *
ELLRD	05/21/2005	20.46 *	10.06 *
ELLRD	05/21/2005	18.5	9.51
ELLRD	05/21/2005	80.54	3.51
ELLRD	05/21/2005	126.51 *	30.92 *
ELLRD	05/21/2005	136.47 *	54.8 *
ELLRD	05/21/2005	109.74 *	62.54 *
ELLRD	05/21/2005	60.01 *	44.01 *
ELLRD	05/21/2005	20.27	8.94
ELLRD	05/21/2005	17.25	1.66
ELLRD	05/21/2005	19.28	1.01
ELLRD	05/21/2005	19.72 *	11.26 *
ELLRD	05/21/2005	118.53 *	50.92 *
ELLRD	05/21/2005	133.35 *	64.48 *
ELLRD	05/21/2005	131.82 *	70.88 *
ELLRD	05/21/2005	58.59 *	47.31 *
ELLRD	05/21/2005	18.81 *	12.91 *
ELLRD	05/21/2005	14.44	3.28
ELLRD	05/21/2005	14.27	1.42
ELLRD	05/21/2005	18.74	1.23
ELLRD	05/21/2005	16.21 *	13.77 *
ELLRD	05/21/2005	109.09 *	36.98 *
ELLRD	05/21/2005	125.18 *	68.41 *
ELLRD	05/21/2005	85.72 *	70.2 *
ELLRD	05/21/2005	25.22 *	38.22 *
ELLRD	05/21/2005	20.73 *	19.64 *
ELLRD	05/21/2005	13.39 *	17.49 *
ELLRD	05/21/2005	16.79 *	15.47 *
ELLRD	05/21/2005	102.08 *	26.69 *
ELLRD	05/21/2005	139.29 *	100.75 *
ELLRD	05/21/2005	126.64 *	124.84 *

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/21/2005	27.55 *	52.17 *
ELLRD	05/21/2005	33.95 *	16.22 *
ELLRD	05/21/2005	25.94 *	16.3 *
ELLRD	05/21/2005	21.76 *	15.97 *
ELLRD	05/21/2005	21.79 *	15.52 *
ELLRD	05/21/2005	21.61 *	16.23 *
ELLRD	05/21/2005	21.73 *	16.45 *
ELLRD	05/21/2005	21.31 *	15.67 *
ELLRD	05/21/2005	21.44 *	14.54 *
ELLRD	05/21/2005	21.55 *	14.25 *
ELLRD	05/21/2005	18.05 *	11.86 *
ELLRD	05/21/2005	58.74	4.47
ELLRD	05/21/2005	44.74	0.23
ELLRD	05/21/2005	20.01	0.3
ELLRD	05/21/2005	13.76	0.36
ELLRD	05/21/2005	11.78	0.49
ELLRD	05/21/2005	10.56	0.32
ELLRD	05/21/2005	9.09	0.32
ELLRD	05/21/2005	9.57	0.34
ELLRD	05/21/2005	8.51	0.36
ELLRD	05/21/2005	9.26	0.37
ELLRD	05/21/2005	9.13	0.39
ELLRD	05/21/2005	9.08	0.38
ELLRD	05/21/2005	8.39	0.41
ELLRD	05/21/2005	8.58	0.36
ELLRD	05/21/2005	8.01	0.33
ELLRD	05/21/2005	7.64	0.29
ELLRD	05/21/2005	8.17 *	98.76 *
ELLRD	05/21/2005	10.37	5.62
ELLRD	05/21/2005	31.6 *	11.22 *
ELLRD	05/21/2005	134.24 *	35.75 *
ELLRD	05/21/2005	133.88 *	88 *
ELLRD	05/21/2005	146.97 *	111.29 *
ELLRD	05/21/2005	137.27 *	117.7 *
ELLRD	05/21/2005	86.34 *	44.06 *
ELLRD	05/21/2005	156.37 *	73.82 *
ELLRD	05/21/2005	177.92 *	151.75 *
ELLRD	05/21/2005	196.69 *	164.06 *
ELLRD	05/21/2005	70.41	0.21
ELLRD	05/21/2005	67.51	0.21
ELLRD	05/21/2005	69.69	0.21
ELLRD	05/21/2005	72.82	0.21
ELLRD	05/21/2005	69.87	0.22
ELLRD	05/21/2005	68.87	0.22
ELLRD	05/21/2005	70.84	0.22
ELLRD	05/21/2005	68.97	0.24
ELLRD	05/21/2005	67.53	0.25

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/21/2005	72.46	0.25
ELLRD	05/21/2005	71.91	0.25
ELLRD	05/21/2005	70.72	0.25
ELLRD	05/21/2005	69.67	0.25
ELLRD	05/21/2005	67.93	0.25
ELLRD	05/21/2005	66.82	0.25
ELLRD	05/21/2005	126.19	0.25
ELLRD	05/21/2005	86.38 *	38.53 *
ELLRD	05/21/2005	94.08	7.13
ELLRD	05/21/2005	103.43 *	15.71 *
ELLRD	05/21/2005	184.98 *	50.69 *
ELLRD	05/21/2005	186.83 *	24.85 *
ELLRD	05/21/2005	180.82 *	18.46 *
ELLRD	05/21/2005	177.48 *	29.97 *
ELLRD	05/21/2005	157.15 *	20.95 *
ELLRD	05/21/2005	98.26	7.5
ELLRD	05/21/2005	62.08	5.3
ELLRD	05/21/2005	156.25	6.48
ELLRD	05/21/2005	180.75	6.71
ELLRD	05/21/2005	171.12 *	15.9 *
ELLRD	05/21/2005	164.73 *	36.46 *
ELLRD	05/21/2005	164.34 *	61.75 *
ELLRD	05/21/2005	170.51 *	75.46 *
ELLRD	05/21/2005	111.36	9.92
ELLRD	05/21/2005	59.12	5.94
ELLRD	05/21/2005	139.37	3.88
ELLRD	05/21/2005	160.98	8.05
ELLRD	05/21/2005	151.42 *	20.85 *
ELLRD	05/21/2005	156.72 *	25.53 *
ELLRD	05/21/2005	160.07	5.71
ELLRD	05/21/2005	150.42 *	22.09 *
ELLRD	05/21/2005	77.33	6.75
ELLRD	05/21/2005	45.28	1.61
ELLRD	05/21/2005	160.61	4.23
ELLRD	05/21/2005	152.45 *	10.61 *
ELLRD	05/21/2005	158.56 *	23.57 *
ELLRD	05/21/2005	140.69 *	15.69 *
ELLRD	05/21/2005	83.03	5.27
ELLRD	05/21/2005	30.15	2.14
ELLRD	05/21/2005	23.77	8.57
ELLRD	05/21/2005	143.4	6.3
ELLRD	05/21/2005	156.27 *	23.4 *
ELLRD	05/21/2005	148.21 *	45.1 *
ELLRD	05/21/2005	148.6 *	38.04 *
ELLRD	05/21/2005	147.99 *	14.25 *
ELLRD	05/21/2005	136.67 *	25.04 *
ELLRD	05/21/2005	66.54 *	18.88 *

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/21/2005	41.32	3.28
ELLRD	05/21/2005	141.84	5.21
ELLRD	05/21/2005	147.8 *	24.77 *
ELLRD	05/21/2005	150.08 *	26.56 *
ELLRD	05/21/2005	135.41	7.06
ELLRD	05/21/2005	141.25 *	21.48 *
ELLRD	05/21/2005	80.62 *	23.91 *
ELLRD	05/21/2005	36.14	6.04
ELLRD	05/21/2005	60.21 *	10.12 *
ELLRD	05/22/2005	19.08	6.34
ELLRD	05/22/2005	90.11	2.47
ELLRD	05/22/2005	101.73	7.14
ELLRD	05/22/2005	101.32	5.34
ELLRD	05/22/2005	103.99	1.62
ELLRD	05/22/2005	93.7	3.87
ELLRD	05/22/2005	95.05	5.01
ELLRD	05/22/2005	40.22	1.51
ELLRD	05/22/2005	80.38	0.36
ELLRD	05/22/2005	99.74	7.1
ELLRD	05/22/2005	98.35	5.08
ELLRD	05/22/2005	89.48	0.26
ELLRD	05/22/2005	78.01	0.83
ELLRD	05/22/2005	40.79	0.53
ELLRD	05/22/2005	34.86	0.76
ELLRD	05/22/2005	115.74	3.02
ELLRD	05/22/2005	114.84	6.25
ELLRD	05/22/2005	104.72 *	19.32 *
ELLRD	05/22/2005	101.61	4.04
ELLRD	05/22/2005	99.05	7.86
ELLRD	05/22/2005	97.23	6.92
ELLRD	05/22/2005	98.61	9.77
ELLRD	05/22/2005	82.27	9.83
ELLRD	05/22/2005	64.41	1.8
ELLRD	05/22/2005	103.04	2.14
ELLRD	05/22/2005	100.34	6.3
ELLRD	05/22/2005	97.99	5.12
ELLRD	05/22/2005	98.04	7.28
ELLRD	05/22/2005	96.31	6.74
ELLRD	05/22/2005	101.99	1.97
ELLRD	05/22/2005	95.95	4.73
ELLRD	05/22/2005	65.88	1.17
ELLRD	05/22/2005	96.21	1.48
ELLRD	05/22/2005	98.78	4.28
ELLRD	05/22/2005	99.22	1.97
ELLRD	05/22/2005	94.84	4.42
ELLRD	05/22/2005	96.21	6.63
ELLRD	05/22/2005	94.83	1.93

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/22/2005	94.78	5.39
ELLRD	05/22/2005	84.6	3.34
ELLRD	05/22/2005	56.81	6.07
ELLRD	05/22/2005	97.66	1.35
ELLRD	05/22/2005	102.33	1.2
ELLRD	05/22/2005	92.92	5.38
ELLRD	05/22/2005	94.58	5.72
ELLRD	05/22/2005	91.17	2.38
ELLRD	05/22/2005	90.8	4.67
ELLRD	05/22/2005	90.36	1.35
ELLRD	05/22/2005	72.62	4.73
ELLRD	05/22/2005	48.21	1.6
ELLRD	05/22/2005	95.08	1.64
ELLRD	05/22/2005	95.46	5.24
ELLRD	05/23/2005	87.35	1.5
ELLRD	05/23/2005	88.06	2.91
ELLRD	05/23/2005	90.48	4.69
ELLRD	05/23/2005	91.26	2.72
ELLRD	05/23/2005	89.49	6.17
ELLRD	05/23/2005	64.02	0.98
ELLRD	05/23/2005	66.6	1.11
ELLRD	05/23/2005	92.87	2.12
ELLRD	05/23/2005	92.43	2.28
ELLRD	05/23/2005	91.07	7.05
ELLRD	05/23/2005	93.42	4.73
ELLRD	05/23/2005	94.11	0.36
ELLRD	05/23/2005	83.15	1.48
ELLRD	05/23/2005	52.1	4.1
ELLRD	05/23/2005	99.49	1.2
ELLRD	05/23/2005	97.58	3.85
ELLRD	05/23/2005	93.6	8.73
ELLRD	05/23/2005	88.64	2.25
ELLRD	05/23/2005	88.24	4.39
ELLRD	05/23/2005	86.72	2.69
ELLRD	05/23/2005	89.16	2.36
ELLRD	05/23/2005	88.1	3.9
ELLRD	05/23/2005	66.34	1.5
ELLRD	05/23/2005	47.21	1.37
ELLRD	05/23/2005	93.27	2.41
ELLRD	05/23/2005	87.29	8.54
ELLRD	05/23/2005	85.67 *	20.43 *
ELLRD	05/23/2005	83.19 *	29.71 *
ELLRD	05/23/2005	87.67 *	38.78 *
ELLRD	05/23/2005	85.66 *	45.67 *
ELLRD	05/23/2005	68.79 *	46.26 *
ELLRD	05/23/2005	40.73 *	27.3 *
ELLRD	05/23/2005	79.54 *	23.9 *

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/23/2005	81.86 *	37.18 *
ELLRD	05/23/2005	83.83 *	22.92 *
ELLRD	05/23/2005	85.75 *	13.54 *
ELLRD	05/23/2005	80.37 *	13.43 *
ELLRD	05/23/2005	41.7 *	11.73 *
ELLRD	05/23/2005	84.33	7.16
ELLRD	05/23/2005	86.17 *	28.62 *
ELLRD	05/23/2005	86.67 *	37.48 *
ELLRD	05/23/2005	83.75 *	45.35 *
ELLRD	05/23/2005	84.57 *	42.82 *
ELLRD	05/23/2005	51.34 *	22.86 *
ELLRD	05/23/2005	32.37	2.75
ELLRD	05/23/2005	88.81	6.97
ELLRD	05/23/2005	91.27 *	20.88 *
ELLRD	05/23/2005	86.13 *	34.1 *
ELLRD	05/23/2005	82.51 *	33.78 *
ELLRD	05/23/2005	72.62	2.59
ELLRD	05/23/2005	33.69	8.64
ELLRD	05/23/2005	76.87	0.43
ELLRD	05/23/2005	84.05	0.3
ELLRD	05/23/2005	84.77	1.73
ELLRD	05/23/2005	85.23	0.44
ELLRD	05/23/2005	62.65	3.58
ELLRD	05/23/2005	38.67	4.03
ELLRD	05/23/2005	89.29 *	30.64 *
ELLRD	05/23/2005	97.24	3.38
ELLRD	05/23/2005	84.07	1.95
ELLRD	05/23/2005	87.7	6.2
ELLRD	05/23/2005	87.62	2.54
ELLRD	05/23/2005	89.48	7.27
ELLRD	05/23/2005	73.9	5.25
ELLRD	05/23/2005	45.76	0.68
ELLRD	05/23/2005	92.16	0.97
ELLRD	05/23/2005	91	5.29
ELLRD	05/23/2005	85.55	3.93
ELLRD	05/23/2005	88.81	6.68
ELLRD	05/23/2005	83.8	5.45
ELLRD	05/23/2005	85.1	2.5
ELLRD	05/23/2005	77.24	0.67
ELLRD	05/23/2005	49.31	2.72
ELLRD	05/23/2005	85.44	1.7
ELLRD	05/23/2005	91.36	2.14
ELLRD	05/23/2005	84.65	5.47
ELLRD	05/23/2005	81.39	3.02
ELLRD	05/23/2005	83.92	2.46
ELLRD	05/23/2005	83.36	3.53
ELLRD	05/23/2005	85.99	4.62

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/23/2005	59.8	2.53
ELLRD	05/23/2005	59.8	3.29
ELLRD	05/23/2005	86.29	1.89
ELLRD	05/23/2005	81.86	2.65
ELLRD	05/23/2005	82.98	6.99
ELLRD	05/23/2005	85.15	4.08
ELLRD	05/23/2005	83.65	0.94
ELLRD	05/23/2005	83.97	4.94
ELLRD	05/23/2005	70.03	3.55
ELLRD	05/23/2005	44.53	1.68
ELLRD	05/23/2005	83.59	1.96
ELLRD	05/23/2005	82.23	6.52
ELLRD	05/23/2005	80.87	2.25
ELLRD	05/23/2005	80	7.26
ELLRD	05/23/2005	80.62	5.55
ELLRD	05/23/2005	82.33	0.88
ELLRD	05/23/2005	50.81	5.19
ELLRD	05/23/2005	71.21	4.69
ELLRD	05/23/2005	86.78 *	24.02 *
ELLRD	05/23/2005	80.36	5.41
ELLRD	05/23/2005	77.85 *	17.64 *
ELLRD	05/23/2005	78.76 *	14.66 *
ELLRD	05/23/2005	77.99	9.74
ELLRD	05/23/2005	81.55 *	12.9 *
ELLRD	05/23/2005	71.75 *	12.44 *
ELLRD	05/23/2005	50.89	6.67
ELLRD	05/23/2005	87.11	3.86
ELLRD	05/23/2005	78.26 *	29.04 *
ELLRD	05/23/2005	78.53	3.56
ELLRD	05/23/2005	75.3	7.07
ELLRD	05/23/2005	78.31 *	20.49 *
ELLRD	05/23/2005	76.57	3.27
ELLRD	05/23/2005	79.15	7.27
ELLRD	05/23/2005	67.02	9.88
ELLRD	05/23/2005	44.9	1.42
ELLRD	05/23/2005	84.38	7.06
ELLRD	05/23/2005	80.43 *	26.87 *
ELLRD	05/23/2005	80.33	3.83
ELLRD	05/23/2005	78.31	7.59
ELLRD	05/23/2005	76.03 *	11.1 *
ELLRD	05/23/2005	78.78	3.58
ELLRD	05/23/2005	78.03 *	15.63 *
ELLRD	05/23/2005	50.54	7.56
ELLRD	05/23/2005	68.3	2.27
ELLRD	05/23/2005	79.25	6.99
ELLRD	05/23/2005	79.37	9.79
ELLRD	05/23/2005	73.57	7.42

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/23/2005	73.78	8.85
ELLRD	05/23/2005	76.18 *	10.63 *
ELLRD	05/23/2005	77.65	4.41
ELLRD	05/23/2005	47.7 *	10.61 *
ELLRD	05/23/2005	22.57	1.26
ELLRD	05/23/2005	72.45	4.2
ELLRD	05/23/2005	73.99	9.51
ELLRD	05/23/2005	67.8	3.62
ELLRD	05/23/2005	73.74 *	10.25 *
ELLRD	05/23/2005	72.1	9.41
ELLRD	05/23/2005	76.58	2.97
ELLRD	05/23/2005	33.59 *	5.27 *
ELLRD	05/23/2005	23.61	4.08
ELLRD	05/23/2005	18.4	0.34
ELLRD	05/23/2005	84.65	9.75
ELLRD	05/23/2005	83.72 *	14.24 *
ELLRD	05/23/2005	76.12	5.32
ELLRD	05/23/2005	77.04 *	10.82 *
ELLRD	05/23/2005	74.85	3.22
ELLRD	05/23/2005	76.27	8.25
ELLRD	05/23/2005	63.79	5.04
ELLRD	05/23/2005	41.32	2.07
ELLRD	05/23/2005	74.6	2.98
ELLRD	05/23/2005	74.04	4.49
ELLRD	05/23/2005	69.51 *	10.37 *
ELLRD	05/23/2005	69.19	2.7
ELLRD	05/23/2005	69	8.29
ELLRD	05/23/2005	71.13	4.83
ELLRD	05/23/2005	70.99	6.35
ELLRD	05/23/2005	57.04	5.57
ELLRD	05/23/2005	35.92	5
ELLRD	05/23/2005	74.83	3.47
ELLRD	05/23/2005	69.81	1.67
ELLRD	05/23/2005	67.07	9.34
ELLRD	05/23/2005	63.83	7.46
ELLRD	05/23/2005	67.78	3.49
ELLRD	05/23/2005	64.36	5.62
ELLRD	05/23/2005	66.46	6.13
ELLRD	05/23/2005	68.49	8.05
ELLRD	05/23/2005	65.64	4.02
ELLRD	05/23/2005	49.24 *	18.26 *
ELLRD	05/23/2005	65.29 *	24.45 *
ELLRD	05/23/2005	71.22 *	24.64 *
ELLRD	05/23/2005	70.12 *	33.9 *
ELLRD	05/23/2005	66.88	8.08
ELLRD	05/23/2005	.	2.22
ELLRD	05/23/2005	62 *	11.33 *

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/23/2005	66.64	8.29
ELLRD	05/23/2005	64.71	4.85
ELLRD	05/23/2005	63.39 *	10.81 *
ELLRD	05/23/2005	66.56	2.01
ELLRD	05/23/2005	63.68	6.87
ELLRD	05/23/2005	63.75	4.48
ELLRD	05/23/2005	62.32	2.23
ELLRD	05/23/2005	59.99	3.74
ELLRD	05/23/2005	61.53	6.41
ELLRD	05/23/2005	57.82	7.28
ELLRD	05/23/2005	58.43	2.55
ELLRD	05/23/2005	59.71	4.72
ELLRD	05/23/2005	56.67	4.04
ELLRD	05/23/2005	59.25	4.1
ELLRD	05/23/2005	62.23	6.28
ELLRD	05/23/2005	63.03	2.21
ELLRD	05/23/2005	58.63	5.1
ELLRD	05/23/2005	62.41	3.23
ELLRD	05/23/2005	59.65	2.32
ELLRD	05/23/2005	60.09	2.49
ELLRD	05/23/2005	59.97	2.85
ELLRD	05/23/2005	61.4	1.56
ELLRD	05/23/2005	56	3.87
ELLRD	05/23/2005	59.3	4.31
ELLRD	05/23/2005	62.66	5.46
ELLRD	05/23/2005	59.96	2.32
ELLRD	05/23/2005	58.35	2.37
ELLRD	05/23/2005	58.17	1.61
ELLRD	05/23/2005	60.08	2.84
ELLRD	05/23/2005	62.63	4.35
ELLRD	05/23/2005	59.68	0.87
ELLRD	05/23/2005	58.45	1.46
ELLRD	05/23/2005	62.44	1.2
ELLRD	05/23/2005	60.71	0.76
ELLRD	05/23/2005	58.42	1.18
ELLRD	05/23/2005	59.94	2.24
ELLRD	05/23/2005	58.09	3.89
ELLRD	05/23/2005	57.74	1.18
ELLRD	05/23/2005	59.91	1.87
ELLRD	05/23/2005	57.98	2.48
ELLRD	05/23/2005	60.39	1.17
ELLRD	05/23/2005	56.57	1.83
ELLRD	05/23/2005	57.31	4.46
ELLRD	05/23/2005	56.15	1.06
ELLRD	05/23/2005	57.54	1.99
ELLRD	05/23/2005	55.81	3.06
ELLRD	05/23/2005	56.28	1.06

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/23/2005	55.84	1.94
ELLRD	05/23/2005	58.24	4.35
ELLRD	05/23/2005	58.2	0.92
ELLRD	05/23/2005	56.13	6.97
ELLRD	05/23/2005	56.81	1.72
ELLRD	05/23/2005	47.91	1.25
ELLRD	05/23/2005	44.51	1.3
ELLRD	05/23/2005	45.6	0.85
ELLRD	05/24/2005	10.33	0.26
ELLRD	05/24/2005	10.59	0.26
ELLRD	05/24/2005	11.38	0.26
ELLRD	05/24/2005	11.94	0.27
ELLRD	05/24/2005	11.75	0.26
ELLRD	05/24/2005	11.77	0.26
ELLRD	05/24/2005	12.18	0.27
ELLRD	05/24/2005	12.63	0.28
ELLRD	05/24/2005	12.76	0.28
ELLRD	05/24/2005	12.27	0.28
ELLRD	05/24/2005	12.57	0.28
ELLRD	05/24/2005	20.38	1.75
ELLRD	05/24/2005	16.91	1
ELLRD	05/24/2005	28.59	3.9
ELLRD	05/24/2005	54.23	1.69
ELLRD	05/24/2005	51.73	0.57
ELLRD	05/24/2005	48.22	0.76
ELLRD	05/24/2005	45.98	2.6
ELLRD	05/24/2005	46.15	1.57
ELLRD	05/24/2005	50.55	9.99
ELLRD	05/24/2005	46.44 *	16.84 *
ELLRD	05/24/2005	48.84 *	17.1 *
ELLRD	05/24/2005	47.23 *	19.93 *
ELLRD	05/24/2005	47.33 *	14.77 *
ELLRD	05/24/2005	45.81 *	19.91 *
ELLRD	05/24/2005	45.79 *	21.96 *
ELLRD	05/24/2005	46.82 *	39.53 *
ELLRD	05/24/2005	46.02 *	29.39 *
ELLRD	05/24/2005	46.12 *	32.11 *
ELLRD	05/24/2005	46.58 *	31.36 *
ELLRD	05/24/2005	46.67 *	20.6 *
ELLRD	05/24/2005	45.65 *	13 *
ELLRD	05/24/2005	52.54	1.45
ELLRD	05/24/2005	51.7	1.76
ELLRD	05/24/2005	48.59	4.68
ELLRD	05/24/2005	46.55	9.12
ELLRD	05/24/2005	46.08 *	12.35 *
ELLRD	05/24/2005	44.88	4.21
ELLRD	05/24/2005	44.74	0.31

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/24/2005	45.37	2.55
ELLRD	05/24/2005	44.56	0.41
ELLRD	05/24/2005	44.54	0.68
ELLRD	05/24/2005	44.35	1.7
ELLRD	05/24/2005	45.06	3.72
ELLRD	05/24/2005	44.18	5.53
ELLRD	05/24/2005	44.47	0.56
ELLRD	05/24/2005	44.39	0.61
ELLRD	05/24/2005	45.02	1.01
ELLRD	05/24/2005	43.53	1.71
ELLRD	05/24/2005	45.36	0.46
ELLRD	05/24/2005	45.46	1.08
ELLRD	05/24/2005	45.23	1.74
ELLRD	05/24/2005	44.43	0.37
ELLRD	05/24/2005	47.85	0.34
ELLRD	05/24/2005	45.31	0.33
ELLRD	05/24/2005	46.01	0.84
ELLRD	05/24/2005	46.29	2.56
ELLRD	05/24/2005	45.43	5.72
ELLRD	05/24/2005	43.84	8.8
ELLRD	05/24/2005	44.57	2.51
ELLRD	05/24/2005	43.7	0.41
ELLRD	05/24/2005	43.15	0.34
ELLRD	05/24/2005	43.06	0.46
ELLRD	05/24/2005	43.14	0.88
ELLRD	05/24/2005	42.67	1.77
ELLRD	05/24/2005	43.84	1.48
ELLRD	05/24/2005	44.06	0.44
ELLRD	05/24/2005	42.4	0.78
ELLRD	05/24/2005	43.55	0.51
ELLRD	05/24/2005	44.5	0.78
ELLRD	05/24/2005	42.1	1.26
ELLRD	05/24/2005	44.19	1.74
ELLRD	05/24/2005	43.43	1.11
ELLRD	05/24/2005	44.47	0.38
ELLRD	05/24/2005	43.65	0.39
ELLRD	05/24/2005	18.61	1.66
ELLRD	05/24/2005	28.25	0.38
ELLRD	05/24/2005	27.69	0.51
ELLRD	05/24/2005	36.85	0.55
ELLRD	05/24/2005	44.71 *	0.62 *
ELLRD	05/24/2005	56.9	0.76
ELLRD	05/24/2005	52.86	1.15
ELLRD	05/24/2005	48.05	2.31
ELLRD	05/24/2005	49.2	1.11
ELLRD	05/24/2005	48.45	0.61
ELLRD	05/24/2005	45.04	0.75

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/24/2005	42.39	1.24
ELLRD	05/24/2005	41.51	2.23
ELLRD	05/24/2005	41.16	3.72
ELLRD	05/24/2005	40.85	2.49
ELLRD	05/24/2005	39.86	0.59
ELLRD	05/24/2005	40.65	0.51
ELLRD	05/24/2005	39.61	0.6
ELLRD	05/24/2005	39.88	0.89
ELLRD	05/24/2005	39.7	1.45
ELLRD	05/24/2005	40.02	1.85
ELLRD	05/24/2005	38.9	1.32
ELLRD	05/24/2005	38.95	0.48
ELLRD	05/24/2005	38.66	0.44
ELLRD	05/24/2005	38.54	0.52
ELLRD	05/24/2005	38.89	0.82
ELLRD	05/24/2005	38.76	1.11
ELLRD	05/24/2005	38.31	2.63
ELLRD	05/24/2005	37.98	7.26
ELLRD	05/24/2005	39.25	8.14
ELLRD	05/24/2005	37.81	8.17
ELLRD	05/24/2005	38.07 *	11.44 *
ELLRD	05/24/2005	39.39	8.1
ELLRD	05/24/2005	37.89 *	12.09 *
ELLRD	05/24/2005	38.13 *	15.6 *
ELLRD	05/24/2005	38.1 *	18.06 *
ELLRD	05/24/2005	37.17 *	20.68 *
ELLRD	05/24/2005	37.13 *	22.3 *
ELLRD	05/24/2005	38.15 *	11.2 *
ELLRD	05/24/2005	36.91	0.71
ELLRD	05/24/2005	37.14	0.71
ELLRD	05/24/2005	37.07	0.5
ELLRD	05/24/2005	36.78	0.77
ELLRD	05/24/2005	37.68	1.51
ELLRD	05/24/2005	37.34	2.98
ELLRD	05/24/2005	37.91	4.91
ELLRD	05/24/2005	38.95	5.59
ELLRD	05/24/2005	37.36	0.65
ELLRD	05/24/2005	37.13	0.5
ELLRD	05/24/2005	37.56	0.42
ELLRD	05/24/2005	38.04	0.53
ELLRD	05/24/2005	37.12	1.18
ELLRD	05/24/2005	37.7	2.3
ELLRD	05/24/2005	36.81	5.44
ELLRD	05/24/2005	37.31	1.34
ELLRD	05/24/2005	38.88	4.07
ELLRD	05/24/2005	37.5	0.65
ELLRD	05/24/2005	36.97	0.68

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/24/2005	37.56	1.2
ELLRD	05/24/2005	36.71	2.39
ELLRD	05/24/2005	36.58	4.27
ELLRD	05/24/2005	36.47	6.33
ELLRD	05/24/2005	36.3	2.07
ELLRD	05/24/2005	37.78	0.68
ELLRD	05/24/2005	37.15	0.77
ELLRD	05/24/2005	37.32	0.69
ELLRD	05/24/2005	37.41	1.24
ELLRD	05/24/2005	36.61	2.33
ELLRD	05/24/2005	36.89	4.14
ELLRD	05/24/2005	36.18	6.25
ELLRD	05/24/2005	36.52	2.21
ELLRD	05/24/2005	36.49	0.62
ELLRD	05/24/2005	36.16	1.85
ELLRD	05/24/2005	36.8	0.57
ELLRD	05/24/2005	36.31	0.96
ELLRD	05/24/2005	36.24	2.04
ELLRD	05/24/2005	36.11	3.79
ELLRD	05/24/2005	35.86	5.58
ELLRD	05/24/2005	36.55	5.89
ELLRD	05/24/2005	36.06	3.13
ELLRD	05/24/2005	36.17	0.63
ELLRD	05/24/2005	36.22	0.52
ELLRD	05/24/2005	36.48	0.69
ELLRD	05/24/2005	36.21	1.35
ELLRD	05/24/2005	36.34	2.8
ELLRD	05/24/2005	35.85	4.8
ELLRD	05/24/2005	35.08	8.51
ELLRD	05/24/2005	36.98	1.21
ELLRD	05/24/2005	36.03	1.14
ELLRD	05/24/2005	36.6	0.52
ELLRD	05/24/2005	36.46	0.6
ELLRD	05/24/2005	36.69	1.1
ELLRD	05/24/2005	36.27	2.25
ELLRD	05/24/2005	35.95	3.98
ELLRD	05/24/2005	35.01 *	21.83 *
ELLRD	05/24/2005	35.82	1.11
ELLRD	05/24/2005	35.18	1.95
ELLRD	05/24/2005	35.35	0.5
ELLRD	05/24/2005	35.33	0.52
ELLRD	05/24/2005	34.97	0.83
ELLRD	05/24/2005	35.05	1.64
ELLRD	05/24/2005	34.54	3.09
ELLRD	05/24/2005	33.94 *	22.47 *
ELLRD	05/24/2005	34.36	0.95
ELLRD	05/24/2005	34.36	2.1

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/24/2005	34.28	2.16
ELLRD	05/25/2005	12.54	3.73
ELLRD	05/25/2005	40.13	2.38
ELLRD	05/25/2005	43.72	5.93
ELLRD	05/25/2005	41.4	5.75
ELLRD	05/25/2005	39.18 *	10.07 *
ELLRD	05/25/2005	37.52 *	13.51 *
ELLRD	05/25/2005	50.51 *	19.44 *
ELLRD	05/25/2005	42.59 *	11.82 *
ELLRD	05/25/2005	37.37	2
ELLRD	05/25/2005	36.64 *	10.43 *
ELLRD	05/25/2005	36.31	7.16
ELLRD	05/25/2005	34.83 *	10.64 *
ELLRD	05/25/2005	34.9 *	13.68 *
ELLRD	05/25/2005	34.42 *	16.74 *
ELLRD	05/25/2005	33.82 *	18.77 *
ELLRD	05/25/2005	33.87 *	17.06 *
ELLRD	05/25/2005	33.52 *	18.89 *
ELLRD	05/25/2005	33.42 *	19.4 *
ELLRD	05/25/2005	35.82 *	15.13 *
ELLRD	05/25/2005	33.94	5.78
ELLRD	05/25/2005	35.04	0.48
ELLRD	05/25/2005	34.52	0.8
ELLRD	05/25/2005	34.87	0.42
ELLRD	05/25/2005	34.51	0.87
ELLRD	05/25/2005	34.22	1.97
ELLRD	05/25/2005	33.37	3.8
ELLRD	05/25/2005	33.27	5.78
ELLRD	05/25/2005	35.17	7.65
ELLRD	05/25/2005	32.48	2.77
ELLRD	05/25/2005	33.39	0.46
ELLRD	05/25/2005	32.41	0.71
ELLRD	05/25/2005	32.4	0.4
ELLRD	05/25/2005	32.19	0.69
ELLRD	05/25/2005	33.93	1.44
ELLRD	05/25/2005	33.96	2.78
ELLRD	05/25/2005	33.92	4.28
ELLRD	05/25/2005	34.87	5.9
ELLRD	05/25/2005	31.27	2.02
ELLRD	05/25/2005	31.87	0.42
ELLRD	05/25/2005	30.67	0.69
ELLRD	05/25/2005	30.67	0.34
ELLRD	05/25/2005	30.67	0.48
ELLRD	05/25/2005	31.12	0.98
ELLRD	05/25/2005	31.4	1.94
ELLRD	05/25/2005	33.41	3.35
ELLRD	05/25/2005	59.41	6.6

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/25/2005	46.59	2.28
ELLRD	05/25/2005	40.72	2.83
ELLRD	05/25/2005	36.11	0.56
ELLRD	05/25/2005	33.66	0.89
ELLRD	05/25/2005	33.35	1.27
ELLRD	05/25/2005	31.6	1.58
ELLRD	05/25/2005	30.02	1.42
ELLRD	05/25/2005	30.29	0.32
ELLRD	05/25/2005	32.08	0.36
ELLRD	05/25/2005	31.59	0.6
ELLRD	05/25/2005	32.97	0.44
ELLRD	05/25/2005	32.3	0.59
ELLRD	05/25/2005	31.96	0.44
ELLRD	05/25/2005	32.02	0.75
ELLRD	05/25/2005	31.94	1.56
ELLRD	05/25/2005	31.92	2.97
ELLRD	05/25/2005	31.54	4.71
ELLRD	05/25/2005	34.36	6.33
ELLRD	05/25/2005	31.35	3.12
ELLRD	05/25/2005	32.99	0.5
ELLRD	05/25/2005	31.58	0.8
ELLRD	05/25/2005	30.92	0.43
ELLRD	05/25/2005	31	0.63
ELLRD	05/25/2005	30.91	1.21
ELLRD	05/25/2005	30.92	2.36
ELLRD	05/25/2005	30.72	3.69
ELLRD	05/25/2005	28.48	1.83
ELLRD	05/25/2005	27.78	1.51
ELLRD	05/25/2005	29.39	0.74
ELLRD	05/25/2005	29.78	0.47
ELLRD	05/25/2005	29.46	0.6
ELLRD	05/25/2005	28.78	1.16
ELLRD	05/25/2005	29.02	2.22
ELLRD	05/25/2005	28.69	3.58
ELLRD	05/25/2005	27.71	5.7
ELLRD	05/25/2005	30.13	1.74
ELLRD	05/25/2005	29.1	1.02
ELLRD	05/25/2005	29.82	0.95
ELLRD	05/25/2005	29.68	2.9
ELLRD	05/25/2005	30.57	5.65
ELLRD	05/25/2005	30.42	8.31
ELLRD	05/25/2005	30.71	7.75
ELLRD	05/25/2005	31.29	7.97
ELLRD	05/25/2005	32.3	7
ELLRD	05/25/2005	30.54	2.47
ELLRD	05/25/2005	29.97	0.93
ELLRD	05/25/2005	29.78	0.65

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/25/2005	29.03	0.89
ELLRD	05/25/2005	28.97	1.42
ELLRD	05/25/2005	29.17	2.29
ELLRD	05/25/2005	28.49	7.79
ELLRD	05/25/2005	29.86	1.21
ELLRD	05/25/2005	29.53	1.17
ELLRD	05/25/2005	29.92	0.65
ELLRD	05/25/2005	29.75	0.74
ELLRD	05/25/2005	30.2	1.12
ELLRD	05/25/2005	30.16	1.84
ELLRD	05/25/2005	32.52	2.83
ELLRD	05/25/2005	30.74	2.22
ELLRD	05/25/2005	31.41	0.72
ELLRD	05/25/2005	30.91	0.9
ELLRD	05/25/2005	30.54	0.63
ELLRD	05/25/2005	30.73	1
ELLRD	05/25/2005	30.74	1.73
ELLRD	05/25/2005	31.26	2.8
ELLRD	05/25/2005	33.27	4.3
ELLRD	05/25/2005	32.02	0.87
ELLRD	05/25/2005	33.23	0.88
ELLRD	05/25/2005	32.78	0.64
ELLRD	05/25/2005	32.25	1
ELLRD	05/25/2005	31.87	1.79
ELLRD	05/25/2005	32.1	2.89
ELLRD	05/25/2005	31.49	1.36
ELLRD	05/25/2005	32.25	0.68
ELLRD	05/25/2005	33.21	1.6
ELLRD	05/25/2005	33.32	0.66
ELLRD	05/25/2005	35.3	1.26
ELLRD	05/25/2005	36.73	2.65
ELLRD	05/25/2005	37.73 *	24.39 *
ELLRD	05/25/2005	39.56	2.11
ELLRD	05/25/2005	42.03	2.97
ELLRD	05/25/2005	45.24	1.55
ELLRD	05/25/2005	49.18	4.33
ELLRD	05/25/2005	53.96 *	11.24 *
ELLRD	05/25/2005	57.12 *	19.56 *
ELLRD	05/25/2005	57.71 *	11.16 *
ELLRD	05/25/2005	57.34 *	11.38 *
ELLRD	05/25/2005	54.96	5.69
ELLRD	05/25/2005	53.4 *	10.36 *
ELLRD	05/25/2005	55.56 *	16.05 *
ELLRD	05/25/2005	62.44 *	20.15 *
ELLRD	05/25/2005	71.96 *	35.01 *
ELLRD	05/25/2005	76.02 *	28.54 *
ELLRD	05/25/2005	80.33 *	39.05 *

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/25/2005	85.52 *	39.14 *
ELLRD	05/25/2005	96.74 *	57.81 *
ELLRD	05/25/2005	106.44 *	66.61 *
ELLRD	05/25/2005	108.96 *	69.5 *
ELLRD	05/25/2005	103.79 *	62.27 *
ELLRD	05/25/2005	94.61 *	98.89 *
ELLRD	05/25/2005	85.82 *	45.42 *
ELLRD	05/26/2005	9.08	8.26
ELLRD	05/26/2005	11.14	1.46
ELLRD	05/26/2005	68.05	1.11
ELLRD	05/26/2005	78.08	8.32
ELLRD	05/26/2005	129.21 *	30.16 *
ELLRD	05/26/2005	99.44	0.67
ELLRD	05/26/2005	80.62	3.14
ELLRD	05/26/2005	77.17	0.34
ELLRD	05/26/2005	72.9	2.31
ELLRD	05/26/2005	69.79 *	13.54 *
ELLRD	05/26/2005	66.53 *	19.78 *
ELLRD	05/26/2005	64.66 *	11.32 *
ELLRD	05/26/2005	88.34	2.99
ELLRD	05/26/2005	79.92	3.06
ELLRD	05/26/2005	70.34	7.84
ELLRD	05/26/2005	65.22	6.57
ELLRD	05/26/2005	61.79 *	12.63 *
ELLRD	05/26/2005	62.69 *	12.53 *
ELLRD	05/26/2005	60.27	3.29 *
ELLRD	05/26/2005	61.37	6.08 *
ELLRD	05/26/2005	51.36	6.13
ELLRD	05/26/2005	30.5	5.76
ELLRD	05/26/2005	11.76	2.64
ELLRD	05/26/2005	54.91	3.32
ELLRD	05/26/2005	17.8	0.44
ELLRD	05/26/2005	16.82	1.62
ELLRD	05/26/2005	54.68	4.66
ELLRD	05/26/2005	68.97 *	22.26 *
ELLRD	05/26/2005	75.31 *	20.17 *
ELLRD	05/26/2005	73.67 *	32.23 *
ELLRD	05/26/2005	70.56 *	31.58 *
ELLRD	05/26/2005	64.69	8.73
ELLRD	05/26/2005	62.51 *	11.51 *
ELLRD	05/26/2005	61.16	5.53
ELLRD	05/26/2005	58.76 *	10.6 *
ELLRD	05/26/2005	57.67	3.38
ELLRD	05/26/2005	57.81	3.56
ELLRD	05/26/2005	57.57	2.02
ELLRD	05/26/2005	58.65	4.37
ELLRD	05/26/2005	59.57	3.08

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/26/2005	58.62	1.96
ELLRD	05/26/2005	57.13	1.63
ELLRD	05/26/2005	53.42	1.71
ELLRD	05/26/2005	55.21	1.64
ELLRD	05/26/2005	52.98	1.4
ELLRD	05/26/2005	53.88	2.46
ELLRD	05/26/2005	54.32	6.06
ELLRD	05/26/2005	52.26	4.08
ELLRD	05/26/2005	51.5	2.92
ELLRD	05/26/2005	51.02	1.55
ELLRD	05/26/2005	50.52	3.27
ELLRD	05/26/2005	51.66	0.84
ELLRD	05/26/2005	50.64	4.65
ELLRD	05/26/2005	51.32 *	13.6 *
ELLRD	05/26/2005	51.99 *	21.56 *
ELLRD	05/26/2005	49.83 *	66.28 *
ELLRD	05/26/2005	51.61	1.8
ELLRD	05/26/2005	51.77	0.69
ELLRD	05/26/2005	52.13	0.68
ELLRD	05/26/2005	51.64	1.68
ELLRD	05/26/2005	50.41	0.64
ELLRD	05/26/2005	49.35	0.86
ELLRD	05/26/2005	35.58	0.94
ELLRD	05/26/2005	42.55	1.14
ELLRD	05/26/2005	64.45	0.76
ELLRD	05/26/2005	62.32	1.4
ELLRD	05/26/2005	58.04	1.2
ELLRD	05/26/2005	55.4	2.58
ELLRD	05/26/2005	54.67	1.01
ELLRD	05/26/2005	54.13	0.76
ELLRD	05/26/2005	54.75	1.49
ELLRD	05/26/2005	53.97	0.83
ELLRD	05/26/2005	50.96	2.07
ELLRD	05/26/2005	53.52	0.88
ELLRD	05/26/2005	51.26	0.85
ELLRD	05/26/2005	50.26	0.7
ELLRD	05/26/2005	49.39	0.92
ELLRD	05/26/2005	51	1.6
ELLRD	05/26/2005	50.87	1
ELLRD	05/26/2005	51.57	1.03
ELLRD	05/26/2005	50.7	0.83
ELLRD	05/26/2005	50.15	1.18
ELLRD	05/26/2005	50.32	1.92
ELLRD	05/26/2005	49.88 *	14.25 *
ELLRD	05/26/2005	49.19 *	11.18 *
ELLRD	05/26/2005	48.56 *	16.79 *
ELLRD	05/26/2005	47.11	2.44

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/26/2005	45.74	0.41
ELLRD	05/27/2005	14.46 *	26.75 *
ELLRD	05/27/2005	7.64	0.38
ELLRD	05/27/2005	15.03	0.8
ELLRD	05/27/2005	30.37	0.47
ELLRD	05/27/2005	62.79	0.53
ELLRD	05/27/2005	62.12	1.5
ELLRD	05/27/2005	54.25 *	11.79 *
ELLRD	05/27/2005	45.94 *	18.85 *
ELLRD	05/27/2005	40.16 *	20.89 *
ELLRD	05/27/2005	41.15 *	19.65 *
ELLRD	05/27/2005	38.12 *	11.81 *
ELLRD	05/27/2005	38.3 *	14.93 *
ELLRD	05/27/2005	37.11 *	10.57 *
ELLRD	05/27/2005	48.02 *	16.34 *
ELLRD	05/27/2005	48.42 *	11.98 *
ELLRD	05/27/2005	43.68 *	19.54 *
ELLRD	05/27/2005	62.08 *	14.25 *
ELLRD	05/27/2005	41.82 *	16.51 *
ELLRD	05/27/2005	42.03 *	20.3 *
ELLRD	05/27/2005	37.53 *	10.94 *
ELLRD	05/27/2005	39.02 *	13.02 *
ELLRD	05/27/2005	42.36	8.84
ELLRD	05/27/2005	38.39 *	12.06 *
ELLRD	05/27/2005	35.31 *	14.31 *
ELLRD	05/27/2005	33.54 *	16.28 *
ELLRD	05/27/2005	31.3 *	18 *
ELLRD	05/27/2005	30.86 *	19.06 *
ELLRD	05/27/2005	33 *	16.27 *
ELLRD	05/27/2005	31.16	7.25
ELLRD	05/27/2005	34.36	8.14
ELLRD	05/27/2005	35.3	5.18
ELLRD	05/27/2005	37.01	8.05
ELLRD	05/27/2005	34.56 *	11.18 *
ELLRD	05/27/2005	34.58 *	14.07 *
ELLRD	05/27/2005	32.51 *	16.7 *
ELLRD	05/27/2005	31.74 *	18.6 *
ELLRD	05/27/2005	34.03 *	16.31 *
ELLRD	05/27/2005	32.36	7.29
ELLRD	05/30/2005	2.14	0.2
ELLRD	05/30/2005	2.11	0.2
ELLRD	05/30/2005	2.13	0.2
ELLRD	05/30/2005	2.13	0.21
ELLRD	05/30/2005	2.11	0.21
ELLRD	05/30/2005	2.12	0.21
ELLRD	05/30/2005	2.12	0.21
ELLRD	05/30/2005	2.09	0.21

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/30/2005	2.13	0.21
ELLRD	05/30/2005	2.12	0.21
ELLRD	05/30/2005	2.14	0.21
ELLRD	05/30/2005	2.15	0.21
ELLRD	05/30/2005	2.14	0.21
ELLRD	05/30/2005	2.16	0.21
ELLRD	05/30/2005	2.12	0.21
ELLRD	05/30/2005	1.82	0.21
ELLRD	05/30/2005	45.77	0.21
ELLRD	05/30/2005	13.03	1.75
ELLRD	05/30/2005	15.36	0.94
ELLRD	05/30/2005	22.31	0.8
ELLRD	05/30/2005	18.2	0.9
ELLRD	05/30/2005	16.17	0.87
ELLRD	05/30/2005	13.75	1.15
ELLRD	05/30/2005	12.19	0.41
ELLRD	05/30/2005	11.66	0.59
ELLRD	05/30/2005	12.2	1.48
ELLRD	05/30/2005	11.54 *	2.95 *
ELLRD	05/30/2005	12.43 *	3.88 *
ELLRD	05/30/2005	14.82 *	4.53 *
ELLRD	05/30/2005	26.33 *	4.97 *
ELLRD	05/30/2005	39.87 *	5.14 *
ELLRD	05/30/2005	16.23 *	6.16 *
ELLRD	05/30/2005	27.96 *	6.39 *
ELLRD	05/30/2005	21.36 *	7.82 *
ELLRD	05/30/2005	21.16 *	6.43 *
ELLRD	05/30/2005	11.04 *	12.85 *
ELLRD	05/30/2005	12.78 *	10.12 *
ELLRD	05/30/2005	11.62	6.24
ELLRD	05/30/2005	10.83	6.25
ELLRD	05/30/2005	10.06	7.52
ELLRD	05/30/2005	19.61	8.01
ELLRD	05/30/2005	14.11	6.01
ELLRD	05/30/2005	12.07	6.47
ELLRD	05/30/2005	11.62	7
ELLRD	05/30/2005	12.1	7.46
ELLRD	05/30/2005	12.7	7.73
ELLRD	05/30/2005	12.87	7.94
ELLRD	05/30/2005	14.67	7.96
ELLRD	05/30/2005	27.24 *	8.59 *
ELLRD	05/30/2005	30.38 *	8.23 *
ELLRD	05/30/2005	17.47	9.17
ELLRD	05/30/2005	14.28	7.17
ELLRD	05/30/2005	12.47	7.62
ELLRD	05/30/2005	11.65	9.51
ELLRD	05/30/2005	11.08	7.17

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/30/2005	11.07	7.3
ELLRD	05/30/2005	11.09	7.35
ELLRD	05/30/2005	10.98	7.36
ELLRD	05/30/2005	11.16	7.37
ELLRD	05/30/2005	11.25	7.42
ELLRD	05/30/2005	12.79 *	8.55 *
ELLRD	05/30/2005	21.65	8.56
ELLRD	05/30/2005	15.83	9.97
ELLRD	05/30/2005	12.28	8.31
ELLRD	05/30/2005	11.94	7.2
ELLRD	05/30/2005	11.27	6.94
ELLRD	05/30/2005	10.68	7.05
ELLRD	05/30/2005	10.92	7.19
ELLRD	05/31/2005	8.1	6.91
ELLRD	05/31/2005	9.17	8.27
ELLRD	05/31/2005	8.75	6.94
ELLRD	05/31/2005	8.27	6.07
ELLRD	05/31/2005	7.72	5.74
ELLRD	05/31/2005	7.5	5.56
ELLRD	05/31/2005	6.95	5.44
ELLRD	05/31/2005	6.56	5.3
ELLRD	05/31/2005	6.34	5.25
ELLRD	05/31/2005	6.21	7.53
ELLRD	05/31/2005	6.52	5.51
ELLRD	05/31/2005	6.44	5.93
ELLRD	05/31/2005	6.1	5.03
ELLRD	05/31/2005	6.04	4.95
ELLRD	05/31/2005	6	4.89
ELLRD	05/31/2005	6.04	4.89
ELLRD	05/31/2005	5.89	3.73
ELLRD	05/31/2005	5.89	1.68
ELLRD	05/31/2005	6.12	0.92
ELLRD	05/31/2005	7.69 *	0.59 *
ELLRD	05/31/2005	7.81	0.86
ELLRD	05/31/2005	8.02	0.8
ELLRD	05/31/2005	8.37	0.79
ELLRD	05/31/2005	8.33	0.77
ELLRD	05/31/2005	8.3	0.74
ELLRD	05/31/2005	9.63	0.73
ELLRD	05/31/2005	9.96	0.71
ELLRD	05/31/2005	19.7	0.72
ELLRD	05/31/2005	14.77	0.87
ELLRD	05/31/2005	14.75	1
ELLRD	05/31/2005	23.01	0.95
ELLRD	05/31/2005	21.87	0.86
ELLRD	05/31/2005	14.5	4.93
ELLRD	05/31/2005	16.24 *	12.63 *

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/31/2005	15.48	7.69
ELLRD	05/31/2005	15.23 *	23.95 *
ELLRD	05/31/2005	15.63	1.21
ELLRD	05/31/2005	23.99	1
ELLRD	05/31/2005	12.8	1.27
ELLRD	05/31/2005	12.18	0.19
ELLRD	05/31/2005	9.51	0.16
ELLRD	05/31/2005	9.39	0.16
ELLRD	05/31/2005	7.99	0.18
ELLRD	05/31/2005	8.51	0.23
ELLRD	05/31/2005	7.53	0.3
ELLRD	05/31/2005	7.49	0.34
ELLRD	05/31/2005	7.93	0.42
ELLRD	05/31/2005	7.86	0.75
ELLRD	05/31/2005	7.66	0.68
ELLRD	05/31/2005	7.68	0.74
ELLRD	05/31/2005	7.64	0.78
ELLRD	05/31/2005	7.61	0.8
ELLRD	05/31/2005	7.53	0.79
ELLRD	05/31/2005	7.47	0.79
ELLRD	05/31/2005	7.4	0.84
ELLRD	05/31/2005	14.5	0.69
ELLRD	05/31/2005	11.69	0.43
ELLRD	05/31/2005	9.06	0.23
ELLRD	05/31/2005	8.29	0.2
ELLRD	05/31/2005	7.78	0.23
ELLRD	05/31/2005	7.52	0.32
ELLRD	05/31/2005	7.48	0.44
ELLRD	05/31/2005	7.46	0.58
ELLRD	05/31/2005	7.61	0.74
ELLRD	05/31/2005	19.36	0.98
ELLRD	05/31/2005	13.99	0.38
ELLRD	05/31/2005	11.24	0.32
ELLRD	05/31/2005	10.5	1.15
ELLRD	05/31/2005	9.15	0.37
ELLRD	05/31/2005	8.99	0.44
ELLRD	05/31/2005	9.04	0.66
ELLRD	05/31/2005	8.34	0.83
ELLRD	05/31/2005	8.29	0.88
ELLRD	05/31/2005	8.54	0.89
ELLRD	05/31/2005	8.71	0.87
ELLRD	05/31/2005	8.71	0.85
ELLRD	05/31/2005	8.8	0.83
ELLRD	05/31/2005	79.65	0.16
ELLRD	05/31/2005	65.27	0.23
ELLRD	05/31/2005	41.35	0.56
ELLRD	05/31/2005	16.07	0.18

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
ELLRD	05/31/2005	16.06	0.18
ELLRD	05/31/2005	8.16	0.24
ELLRD	05/31/2005	8.59	0.35
ELLRD	05/31/2005	7.53	0.48
ELLRD	05/31/2005	7.34	0.59
ELLRD	05/31/2005	7.33	0.71
ELLRD	05/31/2005	7.43	0.79
ELLRD	05/31/2005	7.47	0.82
ELLRD	05/31/2005	7.52	0.82
ELLRD	05/31/2005	7.46	0.82
HEO	01/14/2000	696	25.2
HEO	02/02/2000	650	25
HEO	02/09/2000	466	13.95
LSIDE	03/10/2003	161	1.4
LSIDE	03/10/2003	172	1.1
LSIDE	03/10/2003	170	1.22
LSIDE	03/10/2003	175	1.11
LSIDE	03/10/2003	162	1
LSIDE	03/10/2003	177	1.08
LSIDE	03/10/2003	164	1.22
LSIDE	03/10/2003	170	1.14
LSIDE	03/10/2003	165	1.08
LSIDE	03/10/2003	141	0.98
LSIDE	03/10/2003	160	1.33
LSIDE	03/10/2003	177	1.2
LSIDE	03/11/2003	142	2.4
LSIDE	03/11/2003	160	2.76
LSIDE	03/11/2003	151	2.72
LSIDE	03/11/2003	182	2.08
LSIDE	03/11/2003	170	2.46
LSIDE	03/11/2003	188	2.64
LSIDE	03/11/2003	152	2
LSIDE	03/11/2003	170	3.2
LSIDE	03/11/2003	161	2.48
LSIDE	03/11/2003	188	2.46
LSIDE	03/11/2003	176	1.98
LSIDE	03/11/2003	165	1.9
LSIDE	03/12/2003	232	3.08
LSIDE	03/12/2003	248	2.51
LSIDE	03/12/2003	198	2.98
LSIDE	03/12/2003	248	3.75
LSIDE	03/12/2003	235	4.05
LSIDE	03/12/2003	249	3.27
LSIDE	03/12/2003	262	2.05
LSIDE	03/12/2003	261	2.31
LSIDE	03/12/2003	247	3.09
LSIDE	03/12/2003	273	0.86

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
LSIDE	03/12/2003	283	1.1
LSIDE	03/12/2003	264	2.68
LSIDE	03/13/2003	608	3.28
LSIDE	03/13/2003	575	3.1
LSIDE	03/13/2003	633	3.84
LSIDE	03/13/2003	714	3.24
LSIDE	03/13/2003	621	2.88
LSIDE	03/13/2003	571	2.77
LSIDE	03/13/2003	572	3.08
LSIDE	03/13/2003	602	3.74
LSIDE	03/13/2003	631	3.38
LSIDE	03/13/2003	575	4
LSIDE	03/13/2003	611	3.35
LSIDE	03/13/2003	562	3.28
LSIDE	03/17/2003	222	2.19
LSIDE	03/17/2003	220	2.31
LSIDE	03/17/2003	251	2.2
LSIDE	03/17/2003	239	0.98
LSIDE	03/17/2003	215	1.12
LSIDE	03/17/2003	264	1.48
LSIDE	03/17/2003	211	1.76
LSIDE	03/17/2003	188	1.39
LSIDE	03/17/2003	203	0.99
LSIDE	03/21/2003	133	2.91
LSIDE	03/21/2003	152	1.26
LSIDE	03/21/2003	140	1.72
LSIDE	03/21/2003	144	2.65
LSIDE	03/21/2003	134	1.89
LSIDE	03/21/2003	150	1.26
LSIDE	03/21/2003	142	2.61
LSIDE	03/21/2003	130	2.08
LSIDE	03/21/2003	135	1.84
LSIDE	03/24/2003	192	2.61
LSIDE	03/24/2003	220	2.43
LSIDE	03/24/2003	199	3.31
LSIDE	03/24/2003	181	1.75
LSIDE	03/24/2003	197	1.02
LSIDE	03/24/2003	164	1.11
LSIDE	03/24/2003	152	1.03
LSIDE	03/24/2003	147	0.79
LSIDE	03/24/2003	171	1.23
LSIDE	03/31/2003	147	1.17
LSIDE	03/31/2003	154	1.7
LSIDE	03/31/2003	121	1.52
LSIDE	03/31/2003	137	1.41
LSIDE	03/31/2003	153	1.7
LSIDE	03/31/2003	127	1.82

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
LSIDE	03/31/2003	143	0.87
LSIDE	03/31/2003	119	1.22
LSIDE	03/31/2003	132	1.4
LSIDE	04/02/2003	195	2.14
LSIDE	04/02/2003	237	1.94
LSIDE	04/02/2003	223	2.06
LSIDE	04/02/2003	210	2.11
LSIDE	04/02/2003	194	1.75
LSIDE	04/02/2003	236	1.6
LSIDE	04/04/2003	74	1.37
LSIDE	04/04/2003	79	1.5
LSIDE	04/04/2003	82	1.42
LSIDE	04/04/2003	63	1.18
LSIDE	04/04/2003	73	0.88
LSIDE	04/04/2003	76	1.08
LSIDE	04/09/2003	127	0.96
LSIDE	04/09/2003	136	1.12
LSIDE	04/09/2003	142	1.3
LSIDE	04/09/2003	123	1.75
LSIDE	04/09/2003	132	0.77
LSIDE	04/09/2003	171	1.26
LSIDE	04/10/2003	209	1.17
LSIDE	04/10/2003	188	1.46
LSIDE	04/10/2003	210	2.02
LSIDE	04/10/2003	241	0.89
LSIDE	04/10/2003	275	1.75
LSIDE	04/10/2003	260	1.15
LSIDE	11/18/2003	99	4.96
LSIDE	11/18/2003	117	4.73
LSIDE	11/18/2003	235	4.69
LSIDE	11/18/2003	372	5.18
LSIDE	11/18/2003	482	4.89
LSIDE	11/18/2003	612	4.72
LSIDE	11/18/2003	703	4.17
LSIDE	11/18/2003	789	5.13
LSIDE	11/18/2003	917	4.89
LSIDE	11/29/2003	173	4.92
LSIDE	11/29/2003	154	4.63
LSIDE	11/29/2003	92	4.67
LSIDE	11/29/2003	108	4.87
LSIDE	11/29/2003	106	4.92
LSIDE	11/29/2003	102	4.28
LSIDE	11/29/2003	107	4.37
LSIDE	11/29/2003	123	4.93
LSIDE	11/29/2003	118	4.87
LSIDE	11/29/2003	112	4.23
LSIDE	11/29/2003	143	4.82

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
LSIDE	11/29/2003	132	4.17
LSIDE	11/29/2003	116	4.67
LSIDE	11/29/2003	152	4.82
LSIDE	11/29/2003	187	4.72
LSIDE	11/29/2003	163	4.54
LSIDE	11/29/2003	177	4.97
LSIDE	12/01/2003	103	4.27
LSIDE	12/01/2003	100	3.72
LSIDE	12/01/2003	90	4.28
LSIDE	12/01/2003	101	3.87
LSIDE	12/01/2003	89	4.17
LSIDE	12/01/2003	100	4.62
LSIDE	12/01/2003	88	3.54
LSIDE	12/01/2003	95	4.32
LSIDE	12/01/2003	98	4.83
LSIDE	12/01/2003	88	3.76
LSIDE	12/01/2003	90	3.94
LSIDE	12/01/2003	93	4.79
LSIDE	12/01/2003	99	4.12
LSIDE	12/01/2003	89	4.53
LSIDE	12/01/2003	93	4.37
LSIDE	12/01/2003	83	3.82
LSIDE	12/01/2003	93	4.38
LSIDE	12/01/2003	88	3.52
LSIDE	12/02/2003	77	1.34
LSIDE	12/02/2003	82	4.66
LSIDE	12/02/2003	74	1.42
LSIDE	12/02/2003	84	3.87
LSIDE	12/02/2003	81	1.98
LSIDE	12/02/2003	97	1.83
LSIDE	12/02/2003	94	2.49
LSIDE	12/02/2003	83	2.18
LSIDE	12/02/2003	87	3.82
LSIDE	12/03/2003	242	1.89
LSIDE	12/03/2003	225	2.51
LSIDE	12/03/2003	181	1.19
LSIDE	12/03/2003	198	1
LSIDE	12/03/2003	193	1.43
LSIDE	12/03/2003	192	1.33
LSIDE	12/03/2003	185	2.13
LSIDE	12/03/2003	197	2.35
LSIDE	12/03/2003	132	2.17
LSIDE	12/03/2003	147	2.63
LSIDE	12/03/2003	150	3.17
LSIDE	12/03/2003	163	2.92
LSIDE	12/04/2003	132	1.82
LSIDE	12/04/2003	137	1.48

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
LSIDE	12/04/2003	133	2.12
LSIDE	12/04/2003	151	2.47
LSIDE	12/04/2003	163	2.89
LSIDE	12/04/2003	153	1.92
LSIDE	12/04/2003	187	1.69
LSIDE	12/04/2003	162	1.47
LSIDE	12/04/2003	143	1.39
LSIDE	12/04/2003	167	1.56
LSIDE	12/04/2003	173	1.87
LSIDE	12/04/2003	217	2.37
LSIDE	12/04/2003	235	1.93
LSIDE	12/04/2003	183	2.26
LSIDE	12/04/2003	207	2.49
LSIDE	12/04/2003	187	2.09
LSIDE	12/04/2003	235	2.89
LSIDE	12/04/2003	192	2.47
LSIDE	12/04/2003	219	3.17
LSIDE	12/04/2003	243	3.68
LSIDE	12/04/2003	183	2.07
LSIDE	12/04/2003	151	1.65
LSIDE	12/04/2003	143	1.82
LSIDE	12/04/2003	217	2.04
LSIDE	12/04/2003	237	2.73
LSIDE	12/04/2003	287	2.91
LSIDE	12/04/2003	212	2.37
LSIDE	12/04/2003	182	1.97
LSIDE	12/04/2003	162	2.73
LSIDE	12/04/2003	172	2.65
LSIDE	12/04/2003	150	1.85
LSIDE	12/05/2003	193	2.21
LSIDE	12/05/2003	217	2.08
LSIDE	12/05/2003	189	2.42
LSIDE	12/05/2003	150	2.07
LSIDE	12/05/2003	173	2.46
LSIDE	12/05/2003	197	2.92
LSIDE	12/05/2003	217	3.27
LSIDE	12/05/2003	269	3.52
LSIDE	12/05/2003	225	2.87
LSIDE	12/05/2003	273	1.92
LSIDE	12/05/2003	159	2.88
LSIDE	12/05/2003	151	2.44
LSIDE	12/05/2003	159	2.44
LSIDE	12/05/2003	172	2.59
LSIDE	12/05/2003	152	2.55
LSIDE	12/05/2003	165	2.35
LSIDE	12/05/2003	153	3.46
LSIDE	12/05/2003	163	2.43

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
LSIDE	12/05/2003	232	3.17
LSIDE	12/06/2003	172	3.12
LSIDE	12/06/2003	183	2.72
LSIDE	12/06/2003	169	2.47
LSIDE	12/06/2003	151	3.18
LSIDE	12/06/2003	163	3.47
LSIDE	12/06/2003	174	2.84
LSIDE	12/06/2003	219	1.89
LSIDE	12/06/2003	192	2.28
LSIDE	12/06/2003	163	2.82
LSIDE	12/06/2003	174	3.12
LSIDE	12/06/2003	218	3.62
LSIDE	12/06/2003	159	2.83
LSIDE	12/06/2003	146	2.87
LSIDE	12/06/2003	182	3.17
LSIDE	12/06/2003	179	2.73
LSIDE	12/06/2003	157	3.62
LSIDE	12/06/2003	168	3.24
LSIDE	12/06/2003	184	3.54
LSIDE	12/06/2003	217	3.29
LSIDE	12/06/2003	187	2.89
LSIDE	12/06/2003	172	2.47
LSIDE	12/06/2003	183	2.31
LSIDE	12/09/2003	68	4.68
LSIDE	12/09/2003	65	3.48
LSIDE	12/09/2003	59	1.29
LSIDE	12/09/2003	61	2.41
LSIDE	12/09/2003	72	2.84
LSIDE	12/09/2003	65	3.37
LSIDE	12/09/2003	59	2.63
LSIDE	12/09/2003	75	2.83
LSIDE	12/10/2003	88	3.23
LSIDE	12/10/2003	69	4.19
LSIDE	12/10/2003	75	4.62
LSIDE	12/10/2003	68	3.36
LSIDE	12/10/2003	72	2.73
LSIDE	12/10/2003	77	3.17
LSIDE	12/11/2003	50	3.45
LSIDE	12/11/2003	65	1.82
LSIDE	12/11/2003	46	1.23
LSIDE	12/11/2003	44	4.62
LSIDE	12/11/2003	52	3.82
LSIDE	12/11/2003	51	3.27
LSIDE	12/11/2003	54	3.64
LSIDE	12/11/2003	56	3.78
LSIDE	12/15/2003	287	4.32
LSIDE	12/15/2003	271	3.62

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
LSIDE	12/15/2003	269	1.58
LSIDE	12/15/2003	264	2.43
LSIDE	12/15/2003	269	3.47
LSIDE	12/16/2003	171	3.62
LSIDE	12/16/2003	174	1.38
LSIDE	12/16/2003	180	2.55
LSIDE	12/16/2003	198	0.76
LSIDE	12/16/2003	172	1.96
LSIDE	12/17/2003	228	1.92
LSIDE	12/17/2003	184	1.93
LSIDE	12/17/2003	189	2.17
LSIDE	12/17/2003	207	2.53
LSIDE	12/17/2003	162	1.83
LSIDE	12/22/2003	143	3.19
LSIDE	12/22/2003	182	3.62
LSIDE	12/22/2003	173	4.92
LSIDE	12/22/2003	169	3.85
LSIDE	12/22/2003	192	3.92
LSIDE	12/23/2003	182	3.11
LSIDE	12/23/2003	193	2.88
LSIDE	12/23/2003	207	3.61
LSIDE	12/23/2003	188	3.07
LSIDE	12/24/2003	123	2.07
LSIDE	12/24/2003	147	2.15
LSIDE	12/24/2003	162	4.45
LSIDE	12/24/2003	178	3.93
LSIDE	12/24/2003	162	3.47
LSIDE	12/24/2003	169	2.48
LSIDE	12/26/2003	189	2.39
LSIDE	12/26/2003	217	3.12
LSIDE	12/26/2003	237	3.58
LSIDE	12/26/2003	224	3.61
LSIDE	12/26/2003	218	3.12
LSIDE	12/26/2003	203	2.14
LSIDE	12/26/2003	231	2.73
LSIDE	12/29/2003	143	2.14
LSIDE	12/29/2003	145	1.68
LSIDE	12/29/2003	152	1.9
LSIDE	12/29/2003	142	2.17
LSIDE	12/29/2003	161	2.3
LSIDE	12/29/2003	151	2.37
LSIDE	12/30/2003	169	2.61
LSIDE	12/30/2003	158	2.79
LSIDE	12/30/2003	161	2.1
LSIDE	12/30/2003	145	2.04
LSIDE	12/30/2003	152	1.81
LSIDE	12/30/2003	146	3.66

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
LSIDE	12/30/2003	149	2.2
LSIDE	01/02/2004	148	4.06
LSIDE	01/02/2004	149	2.29
LSIDE	01/02/2004	146	3.18
LSIDE	01/02/2004	143	1.96
LSIDE	01/02/2004	142	2.41
LSIDE	01/02/2004	156	2.12
LSIDE	01/02/2004	148	1.69
LSIDE	01/02/2004	148	3.99
LSIDE	01/05/2004	263	3.67
LSIDE	01/05/2004	282	4.1
LSIDE	01/05/2004	291	3.83
LSIDE	01/05/2004	276	3.17
LSIDE	01/05/2004	258	2.87
LSIDE	01/05/2004	328	4.17
LSIDE	01/06/2004	427	3.17
LSIDE	01/06/2004	407	3.62
LSIDE	01/06/2004	398	3.19
LSIDE	01/06/2004	362	2.85
LSIDE	01/06/2004	319	2.64
LSIDE	01/06/2004	337	2.84
LSIDE	01/06/2004	312	2.16
LSIDE	01/08/2004	269	2.53
LSIDE	01/08/2004	257	3.96
LSIDE	01/08/2004	258	4.27
LSIDE	01/08/2004	256	3.62
LSIDE	01/08/2004	268	3.87
LSIDE	01/08/2004	318	3.28
LSIDE	01/08/2004	282	2.71
LSIDE	01/08/2004	291	2.89
LSIDE	01/08/2004	268	3.82
LSIDE	01/08/2004	151	4.76
LSIDE	01/08/2004	254	4.83
LSIDE	01/08/2004	311	4.62
LSIDE	01/08/2004	288	3.85
LSIDE	01/09/2004	254	3.11
LSIDE	01/09/2004	268	3.37
LSIDE	01/09/2004	281	3.18
LSIDE	01/09/2004	324	3.92
LSIDE	01/09/2004	267	3.38
LSIDE	01/09/2004	291	2.98
LSIDE	01/09/2004	282	3.42
LSIDE	01/12/2004	252	3.54
LSIDE	01/12/2004	251	4.27
LSIDE	01/12/2004	262	2.43
LSIDE	01/12/2004	252	4.41
LSIDE	01/12/2004	247	4.29

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
LSIDE	01/12/2004	253	3.62
LSIDE	01/12/2004	238	3.42
LSIDE	01/12/2004	258	3.84
LSIDE	01/12/2004	267	3.17
LSIDE	01/13/2004	241	3.67
LSIDE	01/13/2004	245	4.09
LSIDE	01/13/2004	247	3.67
LSIDE	01/13/2004	252	2.68
LSIDE	01/13/2004	254	3.64
LSIDE	01/13/2004	241	4.67
LSIDE	01/13/2004	272	3.87
LSIDE	01/14/2004	238	2.96
LSIDE	01/14/2004	245	3.18
LSIDE	01/14/2004	238	3.23
LSIDE	01/14/2004	258	2.81
LSIDE	01/14/2004	241	3.18
LSIDE	01/14/2004	244	2.96
LSIDE	01/14/2004	243	3.72
LSIDE	01/14/2004	307	3.95
LSIDE	01/14/2004	257	4.51
LSIDE	01/14/2004	258	3.62
LSIDE	01/14/2004	311	3.24
LSIDE	01/14/2004	351	3.83
LSIDE	01/14/2004	327	4.17
LSIDE	01/15/2004	296	3.91
LSIDE	01/15/2004	294	4.36
LSIDE	01/15/2004	302	4.5
LSIDE	01/15/2004	310	3.85
LSIDE	01/15/2004	312	4.18
LSIDE	01/15/2004	332	3.76
LSIDE	01/15/2004	328	4.16
LSIDE	01/15/2004	309	2.66
LSIDE	01/16/2004	304	2.62
LSIDE	01/16/2004	312	3.2
LSIDE	01/16/2004	290	2.64
LSIDE	01/16/2004	286	3.57
LSIDE	01/16/2004	288	3.68
LSIDE	01/16/2004	298	2.7
LSIDE	01/16/2004	281	3.35
LSIDE	01/16/2004	295	4.74
LSIDE	01/16/2004	282	3.94
LSIDE	01/16/2004	280	3.62
LSIDE	01/16/2004	317	3.82
LSIDE	01/16/2004	292	3.67
LSIDE	01/19/2004	228	4.47
LSIDE	01/19/2004	217	4.19
LSIDE	01/19/2004	226	3.92

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
LSIDE	01/19/2004	241	4.36
LSIDE	01/19/2004	232	3.62
LSIDE	01/19/2004	235	3.48
LSIDE	01/19/2004	227	3.86
LSIDE	01/19/2004	237	4.91
LSIDE	01/19/2004	224	3.82
LSIDE	01/19/2004	253	2.98
LSIDE	01/20/2004	217	3.08
LSIDE	01/20/2004	225	3.2
LSIDE	01/20/2004	216	3.61
LSIDE	01/20/2004	233	4.63
LSIDE	01/20/2004	241	4.61
LSIDE	01/20/2004	261	3.22
LSIDE	01/20/2004	283	2.98
LSIDE	01/20/2004	317	3.74
LSIDE	01/20/2004	272	3.47
LSIDE	01/20/2004	284	3.18
LSIDE	01/21/2004	312	3.72
LSIDE	01/21/2004	308	3.27
LSIDE	01/21/2004	319	2.89
LSIDE	01/21/2004	317	3.27
LSIDE	01/21/2004	272	3.19
LSIDE	01/21/2004	218	2.99
LSIDE	01/21/2004	237	3.24
LSIDE	01/21/2004	227	3.58
LSIDE	01/21/2004	204	2.62
LSIDE	01/21/2004	231	3.27
LSIDE	01/22/2004	324	4.17
LSIDE	01/22/2004	287	3.65
LSIDE	01/22/2004	312	4.39
LSIDE	01/22/2004	345	4.08
LSIDE	01/22/2004	311	3.63
LSIDE	01/22/2004	261	3.23
LSIDE	01/22/2004	284	3.67
LSIDE	01/22/2004	311	3.15
LSIDE	01/22/2004	269	2.89
LSIDE	01/22/2004	294	3.08
LSIDE	01/23/2004	249	3.58
LSIDE	01/23/2004	228	3.81
LSIDE	01/23/2004	258	3.49
LSIDE	01/23/2004	312	2.63
LSIDE	01/23/2004	337	3.9
LSIDE	01/23/2004	311	2.85
LSIDE	01/23/2004	262	3.41
LSIDE	01/23/2004	248	3.87
LSIDE	01/23/2004	267	3.62
LSIDE	01/23/2004	289	3.92

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
LSIDE	01/23/2004	251	4.05
LSIDE	01/23/2004	267	3.62
LSIDE	01/23/2004	318	4.28
LSIDE	01/23/2004	328	3.87
LSIDE	01/26/2004	507	4.63
LSIDE	01/26/2004	496	4.52
LSIDE	01/26/2004	498	3.86
LSIDE	01/26/2004	510	3.56
LSIDE	01/26/2004	517	3.09
LSIDE	01/26/2004	485	3.04
LSIDE	01/26/2004	481	3.78
LSIDE	01/26/2004	503	4.27
LSIDE	01/26/2004	498	3.84
LSIDE	01/26/2004	491	4.85
LSIDE	01/26/2004	501	3.61
LSIDE	01/26/2004	517	4.19
LSIDE	01/26/2004	532	3.92
LSIDE	01/27/2004	386	4.09
LSIDE	01/27/2004	419	4.97
LSIDE	01/27/2004	386	2.77
LSIDE	01/27/2004	392	3.77
LSIDE	01/27/2004	384	2.7
LSIDE	01/27/2004	404	3.12
LSIDE	01/27/2004	385	3.06
LSIDE	01/27/2004	422	3.82
LSIDE	01/27/2004	402	2.79
LSIDE	01/27/2004	371	3.46
LSIDE	01/27/2004	418	3.08
LSIDE	01/28/2004	375	3.11
LSIDE	01/28/2004	412	2.92
LSIDE	01/28/2004	401	2.8
LSIDE	01/28/2004	382	3.17
LSIDE	01/28/2004	443	4.43
LSIDE	01/28/2004	382	3
LSIDE	01/28/2004	392	3.29
LSIDE	01/28/2004	411	3.17
LSIDE	01/28/2004	382	4.24
LSIDE	01/28/2004	380	3.7
LSIDE	01/28/2004	375	3.58
LSIDE	01/28/2004	443	3.97
LSIDE	01/28/2004	452	4.36
LSIDE	01/28/2004	501	4.17
LSIDE	01/29/2004	678	3.17
LSIDE	01/29/2004	587	4.57
LSIDE	01/29/2004	552	4.23
LSIDE	01/29/2004	613	4.82
LSIDE	01/29/2004	625	3.89

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
LSIDE	01/29/2004	652	4.61
LSIDE	01/29/2004	722	3.5
LSIDE	01/29/2004	809	4.72
LSIDE	01/29/2004	633	4.74
LSIDE	01/29/2004	690	1.99
LSIDE	01/29/2004	697	2.86
LSIDE	01/29/2004	718	2.89
LSIDE	01/29/2004	700	4.03
LSIDE	01/29/2004	652	3.42
LSIDE	01/29/2004	631	3.19
LSIDE	01/29/2004	683	3.47
LSIDE	01/29/2004	658	4.17
LSIDE	01/29/2004	632	3.81
LSIDE	01/30/2004	581	3.92
LSIDE	01/30/2004	561	4.29
LSIDE	01/30/2004	528	3.83
LSIDE	01/30/2004	611	4.71
LSIDE	01/30/2004	578	3.88
LSIDE	01/30/2004	463	2.69
LSIDE	01/30/2004	514	3.85
LSIDE	01/30/2004	543	3.64
LSIDE	01/30/2004	589	3.25
LSIDE	01/30/2004	562	3.71
LSIDE	01/30/2004	489	3.62
LSIDE	01/30/2004	617	3.63
LSIDE	01/30/2004	463	3.75
LSIDE	01/30/2004	418	3.89
LSIDE	01/30/2004	398	3.42
LSIDE	01/30/2004	361	3.89
LSIDE	01/30/2004	316	3.23
LSIDE	01/30/2004	312	3.45
LSIDE	01/30/2004	351	3.87
LSIDE	01/31/2004	308	3.59
LSIDE	01/31/2004	322	3.18
LSIDE	01/31/2004	308	3.68
LSIDE	01/31/2004	321	4.18
LSIDE	01/31/2004	364	4.32
LSIDE	01/31/2004	411	3.64
LSIDE	01/31/2004	459	3.11
LSIDE	02/02/2004	490	2.42
LSIDE	02/02/2004	487	3.07
LSIDE	02/02/2004	485	3.43
LSIDE	02/02/2004	498	3.61
LSIDE	02/02/2004	480	2.83
LSIDE	02/02/2004	468	2.42
LSIDE	02/02/2004	475	2.68
LSIDE	02/03/2004	269	2.15

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
LSIDE	02/03/2004	279	1.79
LSIDE	02/03/2004	251	2.07
LSIDE	02/03/2004	272	3.58
LSIDE	02/03/2004	259	3.09
LSIDE	02/03/2004	267	3.92
LSIDE	02/03/2004	308	3.67
LSIDE	02/03/2004	327	2.82
LSIDE	02/04/2004	268	3.19
LSIDE	02/04/2004	271	4.07
LSIDE	02/04/2004	261	3.39
LSIDE	02/04/2004	276	3.18
LSIDE	02/04/2004	275	3.61
LSIDE	02/04/2004	293	2.99
LSIDE	02/04/2004	307	2.37
LSIDE	02/04/2004	284	2.45
LSIDE	02/05/2004	261	4.36
LSIDE	02/05/2004	259	4.56
LSIDE	02/05/2004	261	2.43
LSIDE	02/05/2004	270	1.28
LSIDE	02/05/2004	293	3.11
LSIDE	02/05/2004	287	2.91
LSIDE	02/05/2004	271	3.19
LSIDE	02/05/2004	338	2.96
LSIDE	02/06/2004	317	2.65
LSIDE	02/06/2004	293	3.26
LSIDE	02/06/2004	261	3.62
LSIDE	02/06/2004	308	3.04
LSIDE	02/06/2004	302	2.73
LSIDE	02/06/2004	311	2.87
LSIDE	02/06/2004	284	3.61
LSIDE	02/06/2004	309	2.87
LSIDE	02/07/2004	327	2.67
LSIDE	02/07/2004	342	3.19
LSIDE	02/07/2004	367	3.67
LSIDE	02/07/2004	372	3.52
LSIDE	02/07/2004	361	3.18
LSIDE	02/07/2004	358	3.41
LSIDE	02/07/2004	362	3.18
LSIDE	02/11/2004	187	1.37
LSIDE	02/11/2004	172	2.62
LSIDE	02/11/2004	175	3.12
LSIDE	02/11/2004	193	4.19
LSIDE	02/11/2004	182	3.64
LSIDE	02/11/2004	168	3.19
LSIDE	02/11/2004	189	2.84
LSIDE	02/11/2004	176	3.12
LSIDE	02/12/2004	178	1.28

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
LSIDE	02/12/2004	171	2.67
LSIDE	02/12/2004	175	1.32
LSIDE	02/12/2004	181	4.21
LSIDE	02/12/2004	173	4.05
LSIDE	02/12/2004	175	3.61
LSIDE	02/12/2004	164	3.43
LSIDE	02/16/2004	184	2.79
LSIDE	02/16/2004	191	3.22
LSIDE	02/16/2004	176	3.48
LSIDE	02/16/2004	188	3.27
LSIDE	02/16/2004	197	2.89
LSIDE	02/16/2004	181	2.64
LSIDE	02/16/2004	193	3.42
LSIDE	02/16/2004	178	2.96
LSIDE	02/17/2004	167	3.69
LSIDE	02/17/2004	174	4.68
LSIDE	02/17/2004	182	2.89
LSIDE	02/17/2004	174	3.48
LSIDE	02/17/2004	184	3.82
LSIDE	02/17/2004	172	3.19
LSIDE	02/17/2004	184	2.12
LSIDE	02/17/2004	173	2.33
LSIDE	02/18/2004	148	4.25
LSIDE	02/18/2004	146	2.92
LSIDE	02/18/2004	139	4.41
LSIDE	02/18/2004	133	4.56
LSIDE	02/18/2004	128	3.16
LSIDE	02/18/2004	132	3.64
LSIDE	02/18/2004	139	3.18
LSIDE	02/19/2004	99	2.44
LSIDE	02/19/2004	92	2.18
LSIDE	02/19/2004	97	3.19
LSIDE	02/19/2004	96	2.87
LSIDE	02/19/2004	92	2.97
LSIDE	02/19/2004	95	3.03
LSIDE	02/23/2004	143	2.83
LSIDE	02/23/2004	148	3.12
LSIDE	02/23/2004	137	3.43
LSIDE	02/23/2004	141	2.87
LSIDE	02/23/2004	132	2.17
LSIDE	02/23/2004	135	2.04
LSIDE	02/23/2004	142	2.72
LSIDE	02/23/2004	131	2.28
LSIDE	02/25/2004	243	3.18
LSIDE	02/25/2004	241	2.91
LSIDE	02/25/2004	254	3.04
LSIDE	02/25/2004	248	3.47

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
LSIDE	02/25/2004	263	3.52
LSIDE	02/25/2004	268	3.11
LSIDE	02/25/2004	252	3.84
LSIDE	02/25/2004	261	3.22
LSIDE	02/27/2004	453	4.46
LSIDE	02/27/2004	451	3.89
LSIDE	02/27/2004	450	3.8
LSIDE	02/27/2004	447	3.49
LSIDE	02/27/2004	450	3.41
LSIDE	02/27/2004	449	3.16
LSIDE	02/27/2004	452	3.28
LSIDE	02/27/2004	439	3.42
LSIDE	02/27/2004	417	3.17
LSIDE	03/01/2004	182	2.38
LSIDE	03/01/2004	197	2.93
LSIDE	03/01/2004	173	3.18
LSIDE	03/01/2004	185	2.87
LSIDE	03/01/2004	178	3.37
LSIDE	03/01/2004	194	2.82
LSIDE	03/01/2004	211	3.47
LSIDE	03/01/2004	184	3.24
LSIDE	03/01/2004	167	3.46
LSIDE	03/02/2004	142	3.86
LSIDE	03/02/2004	142	3.42
LSIDE	03/02/2004	140	2.87
LSIDE	03/02/2004	141	3.36
LSIDE	03/02/2004	143	3.87
LSIDE	03/02/2004	145	2.89
LSIDE	03/02/2004	143	4.14
LSIDE	03/02/2004	151	3.82
LSIDE	03/03/2004	197	4.47
LSIDE	03/03/2004	202	3.47
LSIDE	03/03/2004	196	3.17
LSIDE	03/03/2004	193	3.42
LSIDE	03/03/2004	187	3.17
LSIDE	03/03/2004	194	2.82
LSIDE	03/03/2004	184	3.72
LSIDE	03/04/2004	299	4.2
LSIDE	03/04/2004	302	2.76
LSIDE	03/04/2004	298	3.57
LSIDE	03/04/2004	290	3.21
LSIDE	03/04/2004	275	2.75
LSIDE	03/04/2004	274	3.53
LSIDE	03/04/2004	317	4.69
LSIDE	03/04/2004	307	3.42
LSIDE	03/05/2004	306	3.13
LSIDE	03/05/2004	325	4.19

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
LSIDE	03/05/2004	331	3.89
LSIDE	03/05/2004	325	3.62
LSIDE	03/05/2004	343	2.72
LSIDE	03/05/2004	361	3.18
LSIDE	03/05/2004	332	3.84
LSIDE	03/05/2004	358	4.11
LSIDE	03/08/2004	242	2.76
LSIDE	03/08/2004	225	1.51
LSIDE	03/08/2004	208	1.64
LSIDE	03/08/2004	220	3.49
LSIDE	03/08/2004	215	1.22
LSIDE	03/08/2004	236	2.48
LSIDE	03/08/2004	241	2.17
LSIDE	03/08/2004	243	3.18
LSIDE	03/09/2004	217	3.42
LSIDE	03/09/2004	223	2.84
LSIDE	03/09/2004	203	2.61
LSIDE	03/09/2004	213	2.47
LSIDE	03/09/2004	223	2.17
LSIDE	03/09/2004	231	2.39
LSIDE	03/09/2004	243	2.17
LSIDE	03/09/2004	232	2.48
SC05	03/22/2005	237	.
SC05	03/23/2005	311	.
SC05	03/23/2005	.	0.62
SC05	03/23/2005	.	0.15
SC05	03/23/2005	.	0.23
SC05	03/23/2005	.	0.21
SC05	03/23/2005	.	0.37
SC05	03/23/2005	.	0.33
SC05	03/23/2005	.	0.22
SC05	03/24/2005	331	.
SC05	03/24/2005	.	0.24
SC05	03/24/2005	.	0.25
SC05	03/24/2005	.	0.03
SC05	03/24/2005	.	0.29
SC05	03/24/2005	.	0.37
SC05	03/24/2005	.	0.61
SC05	03/24/2005	.	0.52
SC05	03/24/2005	.	0.58
SC05	03/24/2005	.	0.3
SC05	03/24/2005	.	1.85
SC05	03/25/2005	224	.
SC05	03/25/2005	.	0.7
SC05	03/25/2005	.	0.39
SC05	03/25/2005	.	0.24
SC05	03/25/2005	.	0.92

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SC05	03/25/2005	.	0.6
SC05	03/25/2005	.	0.31
SC05	03/25/2005	.	0.34
SC05	03/26/2005	210	0.3
SC05	03/28/2005	220	0.51
SC05	03/28/2005	.	1.03
SC05	03/28/2005	.	0.33
SC05	03/28/2005	.	0.57
SC05	03/29/2005	.	0.32
SC08	02/07/2008	926	.
SC08	02/07/2008	923	.
SC08	02/07/2008	234	4.42
SC08	02/07/2008	406	0.79
SC08	02/07/2008	906	3.51
SC08	02/07/2008	996	5.79
SC08	02/07/2008	867	1.79
SC08	02/07/2008	755	7.3
SC08	02/07/2008	742	0.88
SC08	02/07/2008	782	2.27
SC08	02/11/2008	761	0.49
SC08	02/11/2008	765	0.58
SC08	02/11/2008	736	0.59
SC08	02/11/2008	735	0.63
SC08	02/11/2008	819	0.59
SC08	02/11/2008	819	0.68
SC08	02/11/2008	822	0.44
SC08	02/11/2008	746	1.42
SC08	02/11/2008	754	0.48
SC08	02/11/2008		1.21
SC08	02/12/2008	730	6.29
SC08	02/12/2008	737	0.21
SC08	02/12/2008	718	1.23
SC08	02/12/2008	699	0.26
SC08	02/12/2008	731	0.19
SC08	02/12/2008	742	0.26
SC08	02/12/2008	757	0.16
SC08	02/12/2008	630	0.25
SC08	02/12/2008	698	0.33
SC08	02/12/2008	698	0.22
SC08	02/12/2008	688	0.22
SC08	02/12/2008	669	0.57
SC08	02/13/2008	649	1.2
SC08	02/13/2008	638	2.68
SC08	02/13/2008	675	0.47
SC08	02/13/2008	615	1.04
SC08	02/13/2008	631	0.79
SC08	02/13/2008		0.33

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SC08	02/13/2008	659	0.38
SC08	02/13/2008	657	0.36
SC08	02/13/2008	471	0.31
SC08	02/13/2008	618	0.35
SC08	02/13/2008	629	0.38
SC08	02/13/2008	641	0.033
SC08	02/14/2008	629	0.47
SC08	02/14/2008		3.5
SC08	02/14/2008		1.87
SC08	02/14/2008	645	1.25
SC08	02/14/2008		3.54
SC08	02/14/2008		1.45
SC08	02/14/2008	1000+	1.6
SC08	02/14/2008		2.5
SC08	02/14/2008		1.75
SC08	02/14/2008		1.73
SC08	02/14/2008		2.91
SC08	02/14/2008		2.74
SC08	02/15/2008	1000+	1.64
SC08	02/15/2008		3.09
SC08	02/15/2008		1.09
SC08	02/15/2008		1.51
SC08	02/15/2008	1000+	1.36
SC08	02/15/2008		0.59
SC08	02/15/2008		0.31
SC08	02/15/2008		0.4
SC08	02/15/2008		0.44
SC08	02/15/2008		0.62
SC08	02/15/2008		0.88
SC08	02/16/2008	1000+	0.78
SC08	02/16/2008		1.66
SC08	02/16/2008		1.4
SC08	02/16/2008		0.7
SC08	02/16/2008		0.34
SC08	02/16/2008		0.25
SC08	02/16/2008		4.86
SC08	02/16/2008		0.53
SC08	02/17/2008	1080	1.39
SC08	02/17/2008	1080	0.82
SC08	02/17/2008		0.36
SC08	02/17/2008		0.33
SC08	02/17/2008		0.53
SC08	02/17/2008		1.72
SC08	02/17/2008		0.37
SC08	02/17/2008		0.72
SC08	02/17/2008		0.86
SC08	02/17/2008		1

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SC08	02/17/2008		1.74
SC08	02/18/2008	808	1.17
SC08	02/18/2008		0.72
SC08	02/18/2008		0.65
SC08	02/18/2008		0.68
SC08	02/18/2008		1.06
SC08	02/18/2008		0.81
SC08	02/18/2008		2.54
SC08	02/19/2008	839	3.73
SC08	02/19/2008	1536	0.27
SC08	02/19/2008	408	1.2
SC08	02/19/2008	1022	0.67
SC08	02/19/2008		0.84
SC08	02/20/2008	556	2.01
SC08	02/20/2008	387	0.47
SC08	02/20/2008	928	2.49
SC08	02/20/2008	905	0.47
SC08	02/23/2008	907	0.96
SC08	02/23/2008		0.79
SC08	02/23/2008		1.42
SC08	02/23/2008		1.24
SC08	02/23/2008		0.47
SC08	02/23/2008		0.44
SC08	02/23/2008		0.41
SC08	02/23/2008		0.35
SC08	02/23/2008		0.3
SC08	02/23/2008	1000+	0.34
SC08	02/23/2008		0.51
SC08	02/23/2008		0.51
SC08	02/24/2008	1000+	0.51
SC08	02/24/2008		1.61
SC08	02/24/2008		2.5
SC08	02/24/2008		0.78
SC08	02/24/2008		0.38
SC08	02/24/2008		0.34
SC08	02/24/2008		0.64
SC08	02/24/2008		0.37
SC08	02/24/2008		0.59
SC08	02/24/2008		1.68
SC08	02/24/2008		0.66
SC08	02/24/2008		0.45
SEAAIR	04/01/2005	.	1.63
SEAAIR	04/01/2005	171.54 *	10.04 *
SEAAIR	04/01/2005	.	1.15
SEAAIR	04/01/2005	56.41	0.84
SEAAIR	04/01/2005	.	1.07
SEAAIR	04/01/2005	127.68	2.33

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SEAAIR	04/01/2005	.	6.87
SEAAIR	04/01/2005	138.01	0.9
SEAAIR	04/01/2005	.	0.82
SEAAIR	04/01/2005	136.12	7.34
SEAAIR	04/01/2005	.	1.2
SEAAIR	04/01/2005	136.75	1.85
SEAAIR	04/01/2005	.	0.65
SEAAIR	04/01/2005	138.79	1.63
SEAAIR	04/01/2005	.	8.22
SEAAIR	04/01/2005	138.16	0.49
SEAAIR	04/01/2005	.	1.29
SEAAIR	04/01/2005	116.48	0.68
SEAAIR	04/01/2005	.	0.6
SEAAIR	04/01/2005	113.94	0.57
SEAAIR	04/01/2005	.	0.7
SEAAIR	04/01/2005	134.03 *	17.09 *
SEAAIR	04/01/2005	.	0.5
SEAAIR	04/01/2005	144.07	0.46
SEAAIR	04/01/2005	.	1.93
SEAAIR	04/01/2005	145.42	0.59
SEAAIR	04/01/2005	.	1.13
SEAAIR	04/01/2005	145.16 *	0.48
SEAAIR	04/01/2005	.	14.27 *
SEAAIR	04/01/2005	126.08 *	11.88 *
SEAAIR	04/01/2005	.	0.44
SEAAIR	04/01/2005	120.36	0.87
SEAAIR	04/01/2005	.	0.7
SEAAIR	04/01/2005	137.15	0.77
SEAAIR	04/01/2005	.	0.8
SEAAIR	04/01/2005	149.65	1.25
SEAAIR	04/01/2005	.	5.9
SEAAIR	04/01/2005	157.7	0.49
SEAAIR	04/01/2005	.	0.47
SEAAIR	04/01/2005	148.28	1.65
SEAAIR	04/01/2005	.	0.56
SEAAIR	04/01/2005	126.78	1.1
SEAAIR	04/01/2005	.	0.92
SEAAIR	04/01/2005	120.95	0.99
SEAAIR	04/01/2005	.	0.63
SEAAIR	04/01/2005	139.15	1.89
SEAAIR	04/01/2005	.	0.55
SEAAIR	04/01/2005	158.03	0.55
SEAAIR	04/01/2005	.	4.83
SEAAIR	04/01/2005	154.1	1.12
SEAAIR	04/01/2005	.	0.88
SEAAIR	04/01/2005	129.96	0.76
SEAAIR	04/01/2005	.	0.79

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SEAAIR	04/01/2005	126.86	1.74
SEAAIR	04/01/2005	.	0.69
SEAAIR	04/01/2005	138.07	0.54
SEAAIR	04/01/2005	.	5.98
SEAAIR	04/01/2005	150.14	2.3
SEAAIR	04/01/2005	.	3.8
SEAAIR	04/01/2005	157.22	2.42
SEAAIR	04/01/2005	.	4.96
SEAAIR	04/01/2005	165.5	6
SEAAIR	04/01/2005	.	0.6
SEAAIR	04/01/2005	136.84	1.96
SEAAIR	04/01/2005	.	1.11
SEAAIR	04/01/2005	126.45	1.24
SEAAIR	04/01/2005	.	1.33
SEAAIR	04/01/2005	143.77 *	2.7
SEAAIR	04/01/2005	.	19.36 *
SEAAIR	04/01/2005	164.92	0.77
SEAAIR	04/01/2005	.	1.05
SEAAIR	04/01/2005	169.73	6.19
SEAAIR	04/01/2005	.	7.43
SEAAIR	04/01/2005	159.02	9
SEAAIR	04/01/2005	.	3.11
SEAAIR	04/01/2005	137.03	2.88
SEAAIR	04/01/2005	.	1.65
SEAAIR	04/01/2005	133.54	3.73
SEAAIR	04/01/2005	.	2.95
SEAAIR	04/01/2005	153.83 *	18.1 *
SEAAIR	04/01/2005	.	2.25
SEAAIR	04/01/2005	168.05 *	11.24 *
SEAAIR	04/01/2005	.	5.22
SEAAIR	04/01/2005	173.66	5.95
SEAAIR	04/01/2005	.	6.54
SEAAIR	04/01/2005	148.51	4.27
SEAAIR	04/01/2005	.	2.67
SEAAIR	04/01/2005	140.8	5.2
SEAAIR	04/01/2005	.	3.39
SEAAIR	04/01/2005	142.1	6.67
SEAAIR	04/01/2005	.	9.49
SEAAIR	04/01/2005	155.52 *	9.19
SEAAIR	04/01/2005	.	15.42 *
SEAAIR	04/01/2005	166.43 *	7.84
SEAAIR	04/01/2005	.	13.29 *
SEAAIR	04/01/2005	170.27	3.68
SEAAIR	04/01/2005	.	7.97
SEAAIR	04/01/2005	135.32	2.93
SEAAIR	04/01/2005	.	2.29
SEAAIR	04/01/2005	116.33	1.33

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SEAAIR	04/01/2005	.	0.82
SEAAIR	04/01/2005	119.09	1.12
SEAAIR	04/01/2005	.	0.96
SEAAIR	04/01/2005	121.32	1.19
SEAAIR	04/01/2005	.	0.98
SEAAIR	04/01/2005	127.89	0.65
SEAAIR	04/01/2005	.	0.49
SEAAIR	04/01/2005	121.41	0.56
SEAAIR	04/01/2005	.	0.5
SEAAIR	04/01/2005	118.48	1.03
SEAAIR	04/01/2005	.	2.91
SEAAIR	04/01/2005	110.94	0.9
SEAAIR	04/01/2005	.	0.58
SEAAIR	04/01/2005	112.23	0.56
SEAAIR	04/01/2005	.	0.53
SEAAIR	04/01/2005	124.24	0.51
SEAAIR	04/01/2005	.	5.99
SEAAIR	04/01/2005	127.88	0.49
SEAAIR	04/01/2005	.	0.83
SEAAIR	04/01/2005	117.92	0.7
SEAAIR	04/01/2005	.	0.58
SEAAIR	04/01/2005	109.68	0.45
SEAAIR	04/01/2005	.	0.49
SEAAIR	04/01/2005	113.36	0.47
SEAAIR	04/01/2005	.	0.5
SEAAIR	04/01/2005	119.21	2.71
SEAAIR	04/01/2005	.	0.75
SEAAIR	04/01/2005	123.75	0.58
SEAAIR	04/01/2005	.	0.55
SEAAIR	04/01/2005	112.59	0.52
SEAAIR	04/01/2005	.	0.52
SEAAIR	04/01/2005	114.96	0.75
SEAAIR	04/01/2005	.	0.49
SEAAIR	04/01/2005	110.16	0.78
SEAAIR	04/01/2005	.	0.57
SEAAIR	04/01/2005	113.52	0.57
SEAAIR	04/01/2005	.	0.46
SEAAIR	04/01/2005	121.99	0.51
SEAAIR	04/01/2005	.	3.47
SEAAIR	04/01/2005	127.39	0.5
SEAAIR	04/01/2005	.	1.19
SEAAIR	04/01/2005	119.59	0.74
SEAAIR	04/01/2005	.	0.57
SEAAIR	04/01/2005	108.24	0.55
SEAAIR	04/01/2005	.	0.98
SEAAIR	04/01/2005	113.61 *	10.84 *
SEAAIR	04/01/2005	.	0.51

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SEAAIR	04/01/2005	121.89	0.48
SEAAIR	04/01/2005	.	0.74
SEAAIR	04/01/2005	123.94	0.54
SEAAIR	04/01/2005	.	0.58
SEAAIR	04/01/2005	112	0.46
SEAAIR	04/01/2005	.	6.9
SEAAIR	04/01/2005	115.24 *	10.9 *
SEAAIR	04/01/2005	.	0.51
SEAAIR	04/01/2005	111.8	0.81
SEAAIR	04/01/2005	.	0.66
SEAAIR	04/01/2005	116.98	0.58
SEAAIR	04/01/2005	.	0.55
SEAAIR	04/01/2005	125.61 *	0.54
SEAAIR	04/01/2005	.	10.78 *
SEAAIR	04/01/2005	120.96	0.53
SEAAIR	04/01/2005	.	0.52
SEAAIR	04/01/2005	113.06	0.9
SEAAIR	04/01/2005	.	0.79
SEAAIR	04/01/2005	111.32	0.6
SEAAIR	04/01/2005	.	0.48
SEAAIR	04/01/2005	114.92	0.55
SEAAIR	04/01/2005	.	0.5
SEAAIR	04/01/2005	125.44	0.56
SEAAIR	04/01/2005	.	5.98
SEAAIR	04/01/2005	122.48	0.86
SEAAIR	04/01/2005	.	0.62
SEAAIR	04/01/2005	115.86	0.58
SEAAIR	04/01/2005	.	0.55
SEAAIR	04/03/2005	79.01	2.74
SEAAIR	04/03/2005	.	1.51
SEAAIR	04/03/2005	58.11	0.64
SEAAIR	04/03/2005	.	0.64
SEAAIR	04/03/2005	106.37	0.64
SEAAIR	04/03/2005	.	0.7
SEAAIR	04/03/2005	112.25	1.24
SEAAIR	04/03/2005	.	0.88
SEAAIR	04/03/2005	111.73	1.41
SEAAIR	04/03/2005	.	1.09
SEAAIR	04/03/2005	115.87	0.99
SEAAIR	04/03/2005	.	0.7
SEAAIR	04/03/2005	118.65	0.87
SEAAIR	04/03/2005	.	0.74
SEAAIR	04/03/2005	121.31	1.06
SEAAIR	04/03/2005	.	6.75
SEAAIR	04/03/2005	124.09	1.37
SEAAIR	04/03/2005	.	0.94
SEAAIR	04/03/2005	124.14	0.91

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SEAAIR	04/03/2005	.	0.87
SEAAIR	04/03/2005	124.06	0.9
SEAAIR	04/03/2005	.	4.77
SEAAIR	04/03/2005	125.96	0.93
SEAAIR	04/03/2005	.	1.77
SEAAIR	04/03/2005	124.35	1.19
SEAAIR	04/03/2005	.	1.45
SEAAIR	04/03/2005	124.47	0.93
SEAAIR	04/03/2005	.	1.34
SEAAIR	04/03/2005	127.77	1.04
SEAAIR	04/03/2005	.	1.08
SEAAIR	04/03/2005	129.18	5.94
SEAAIR	04/03/2005	.	1.89
SEAAIR	04/03/2005	127.85	1.58
SEAAIR	04/03/2005	.	1.4
SEAAIR	04/03/2005	126.83	1.4
SEAAIR	04/03/2005	.	2.42
SEAAIR	04/03/2005	126.89	1.65
SEAAIR	04/03/2005	.	1.24
SEAAIR	04/03/2005	124.58	2.51
SEAAIR	04/03/2005	.	1.32
SEAAIR	04/03/2005	123.4	1.71
SEAAIR	04/03/2005	.	1.07
SEAAIR	04/03/2005	124.71	1.62
SEAAIR	04/03/2005	.	2.82
SEAAIR	04/03/2005	127.32	1.27
SEAAIR	04/03/2005	.	2.82
SEAAIR	04/03/2005	124.38	1.92
SEAAIR	04/03/2005	.	1.62
SEAAIR	04/03/2005	123.34	1.46
SEAAIR	04/03/2005	.	1.42
SEAAIR	04/03/2005	124.11 *	16.34 *
SEAAIR	04/03/2005	.	1.39
SEAAIR	04/03/2005	124.34	1.27
SEAAIR	04/03/2005	.	2.3
SEAAIR	04/03/2005	125.77	1.3
SEAAIR	04/03/2005	.	1.97
SEAAIR	04/03/2005	137.95 *	1.15
SEAAIR	04/03/2005	.	15.6 *
SEAAIR	04/03/2005	169.4 *	17.02 *
SEAAIR	04/03/2005	.	2.11
SEAAIR	04/03/2005	195.9	5.39
SEAAIR	04/03/2005	.	5.32
SEAAIR	04/03/2005	.	27.47 *
SEAAIR	04/03/2005	203.59 *	5.18
SEAAIR	04/03/2005	.	2.87
SEAAIR	04/03/2005	209.22 *	3.15

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SEAAIR	04/03/2005	.	18.41 *
SEAAIR	04/03/2005	201.44	1.38
SEAAIR	04/03/2005	.	0.75
SEAAIR	04/03/2005	183	0.68
SEAAIR	04/03/2005	.	1.04
SEAAIR	04/03/2005	167.8 *	12.66 *
SEAAIR	04/03/2005	.	0.64
SEAAIR	04/03/2005	149	0.73
SEAAIR	04/03/2005	.	1.64
SEAAIR	04/03/2005	122.39	0.58
SEAAIR	04/03/2005	.	0.57
SEAAIR	04/03/2005	107.76	0.82
SEAAIR	04/03/2005	.	0.45
SEAAIR	04/03/2005	98.2	0.47
SEAAIR	04/03/2005	.	0.66
SEAAIR	04/03/2005	97.12	0.4
SEAAIR	04/03/2005	.	0.47
SEAAIR	04/03/2005	97.67	0.48
SEAAIR	04/03/2005	.	0.37
SEAAIR	04/03/2005	87.09	0.57
SEAAIR	04/03/2005	.	0.45
SEAAIR	04/03/2005	88.53	0.74
SEAAIR	04/03/2005	.	0.5
SEAAIR	04/11/2005	.	5.72
SEAAIR	04/11/2005	40.78 *	12.51 *
SEAAIR	04/11/2005	.	0.69
SEAAIR	04/11/2005	51.45	0.67
SEAAIR	04/11/2005	.	0.92
SEAAIR	04/11/2005	78.05	1.1
SEAAIR	04/11/2005	.	1.28
SEAAIR	04/11/2005	76.21	1.62
SEAAIR	04/11/2005	.	1.74
SEAAIR	04/11/2005	73.64	1.7
SEAAIR	04/11/2005	.	1.92
SEAAIR	04/11/2005	77.47	1.79
SEAAIR	04/11/2005	.	1.61
SEAAIR	04/11/2005	78.82	1.76
SEAAIR	04/11/2005	.	1.6
SEAAIR	04/11/2005	79.01	1.48
SEAAIR	04/11/2005	.	1.53
SEAAIR	04/11/2005	86.97	1.31
SEAAIR	04/11/2005	.	1.12
SEAAIR	04/11/2005	90.29	1.19
SEAAIR	04/11/2005	.	1.03
SEAAIR	04/11/2005	88.8	0.96
SEAAIR	04/11/2005	.	1.07
SEAAIR	04/11/2005	88.96	0.97

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SEAAIR	04/11/2005	.	0.91
SEAAIR	04/11/2005	89.05	1.02
SEAAIR	04/11/2005	.	0.92
SEAAIR	04/11/2005	85.31	0.91
SEAAIR	04/11/2005	.	0.96
SEAAIR	04/11/2005	89.44	0.84
SEAAIR	04/11/2005	.	0.78
SEAAIR	04/11/2005	94.46	0.81
SEAAIR	04/11/2005	.	0.71
SEAAIR	04/11/2005	91	0.68
SEAAIR	04/11/2005	.	0.75
SEAAIR	04/11/2005	90.91	0.68
SEAAIR	04/11/2005	.	0.69
SEAAIR	04/11/2005	92.27	0.74
SEAAIR	04/11/2005	.	0.66
SEAAIR	04/11/2005	91.66	0.66
SEAAIR	04/11/2005	.	0.71
SEAAIR	04/11/2005	88.4	0.64
SEAAIR	04/11/2005	.	0.66
SEAAIR	04/11/2005	90.23	0.66
SEAAIR	04/11/2005	.	0.59
SEAAIR	04/11/2005	89.94	0.57
SEAAIR	04/11/2005	.	0.61
SEAAIR	04/11/2005	88.14	0.57
SEAAIR	04/11/2005	.	0.58
SEAAIR	04/11/2005	88.02	0.63
SEAAIR	04/11/2005	.	0.6
SEAAIR	04/11/2005	86.14	0.6
SEAAIR	04/11/2005	.	0.65
SEAAIR	04/11/2005	80.65	0.62
SEAAIR	04/11/2005	.	0.6
SEAAIR	04/11/2005	83.71	0.66
SEAAIR	04/11/2005	.	0.61
SEAAIR	04/11/2005	86.47	0.59
SEAAIR	04/11/2005	.	0.62
SEAAIR	04/11/2005	83.8	0.58
SEAAIR	04/11/2005	.	0.59
SEAAIR	04/11/2005	82.69	0.64
SEAAIR	04/11/2005	.	0.61
SEAAIR	04/11/2005	82.78	0.61
SEAAIR	04/11/2005	.	0.67
SEAAIR	04/11/2005	80.86	0.62
SEAAIR	04/11/2005	.	0.63
SEAAIR	04/11/2005	80.86	0.68
SEAAIR	04/11/2005	.	0.63
SEAAIR	04/11/2005	81.38	0.6
SEAAIR	04/11/2005	.	0.62

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SEAAIR	04/11/2005	85.92	0.68
SEAAIR	04/11/2005	.	0.55
SEAAIR	04/11/2005	79.08	0.63
SEAAIR	04/11/2005	.	0.62
SEAAIR	04/11/2005	79.66	0.6
SEAAIR	04/11/2005	82.85	.
SEAAIR	04/11/2005	77.88	.
SEAAIR	04/12/2005	.	2.96
SEAAIR	04/12/2005	33.32	0.44
SEAAIR	04/12/2005	.	0.45
SEAAIR	04/12/2005	52.53	1.01
SEAAIR	04/12/2005	.	0.46
SEAAIR	04/12/2005	63.07	0.42
SEAAIR	04/12/2005	.	0.44
SEAAIR	04/12/2005	69.43	0.46
SEAAIR	04/12/2005	.	0.47
SEAAIR	04/12/2005	69.88	0.43
SEAAIR	04/12/2005	.	0.48
SEAAIR	04/12/2005	75.94	0.43
SEAAIR	04/12/2005	.	0.43
SEAAIR	04/12/2005	81.78	0.47
SEAAIR	04/12/2005	.	0.43
SEAAIR	04/12/2005	73.61	0.42
SEAAIR	04/12/2005	.	0.45
SEAAIR	04/12/2005	78.83	0.42
SEAAIR	04/12/2005	.	0.42
SEAAIR	04/12/2005	83.6	0.44
SEAAIR	04/12/2005	.	0.44
SEAAIR	04/12/2005	79.59	0.43
SEAAIR	04/12/2005	.	0.43
SEAAIR	04/12/2005	79.17	0.42
SEAAIR	04/12/2005	.	0.43
SEAAIR	04/12/2005	82.54	0.43
SEAAIR	04/12/2005	.	0.42
SEAAIR	04/12/2005	77.85	0.42
SEAAIR	04/12/2005	.	0.43
SEAAIR	04/12/2005	77.94	0.43
SEAAIR	04/12/2005	.	0.45
SEAAIR	04/12/2005	82.59	0.46
SEAAIR	04/12/2005	.	0.47
SEAAIR	04/12/2005	79.9	0.46
SEAAIR	04/12/2005	.	0.45
SEAAIR	04/12/2005	80.4	0.45
SEAAIR	04/12/2005	.	0.45
SEAAIR	04/12/2005	81.81	0.43
SEAAIR	04/12/2005	.	0.44
SEAAIR	04/12/2005	76.89	0.45

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SEAAIR	04/12/2005	.	0.43
SEAAIR	04/12/2005	78.82	0.47
SEAAIR	04/12/2005	.	0.5
SEAAIR	04/12/2005	83.33	0.48
SEAAIR	04/12/2005	.	0.51
SEAAIR	04/12/2005	80.06	0.5
SEAAIR	04/12/2005	.	0.46
SEAAIR	04/12/2005	81.17	0.49
SEAAIR	04/12/2005	.	0.48
SEAAIR	04/12/2005	82.61	0.46
SEAAIR	04/12/2005	.	0.47
SEAAIR	04/12/2005	77.58	0.47
SEAAIR	04/12/2005	.	0.46
SEAAIR	04/12/2005	78.05	0.53
SEAAIR	04/12/2005	.	0.57
SEAAIR	04/12/2005	82.32	0.55
SEAAIR	04/12/2005	.	0.6
SEAAIR	04/12/2005	80.7	0.6
SEAAIR	04/12/2005	.	0.54
SEAAIR	04/12/2005	81.08	0.57
SEAAIR	04/12/2005	.	0.6
SEAAIR	04/12/2005	82.26	0.5
SEAAIR	04/12/2005	.	0.55
SEAAIR	04/12/2005	78.84	0.55
SEAAIR	04/12/2005	.	0.53
SEAAIR	04/12/2005	82.48	0.63
SEAAIR	04/12/2005	.	0.68
SEAAIR	04/12/2005	91.67	0.65
SEAAIR	04/12/2005	94.62	.
SEAAIR	04/12/2005	96.3	.
SEAAIR	04/16/2005	.	3.08
SEAAIR	04/16/2005	.	0.52
SEAAIR	04/16/2005	.	0.52
SEAAIR	04/16/2005	.	0.54
SEAAIR	04/16/2005	.	0.66
SEAAIR	04/16/2005	.	0.65
SEAAIR	04/16/2005	.	0.64
SEAAIR	04/16/2005	.	0.77
SEAAIR	04/16/2005	.	0.77
SEAAIR	04/16/2005	.	0.79
SEAAIR	04/16/2005	.	0.98
SEAAIR	04/16/2005	.	1.19
SEAAIR	04/16/2005	.	1.21
SEAAIR	04/16/2005	.	3.07
SEAAIR	04/16/2005	.	6.08
SEAAIR	04/16/2005	.	2.47
SEAAIR	04/16/2005	.	4.54

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SEAAIR	04/16/2005	.	6.41
SEAAIR	04/16/2005	.	0.98
SEAAIR	04/16/2005	.	0.96
SEAAIR	04/16/2005	.	0.78
SEAAIR	04/16/2005	.	0.63
SEAAIR	04/16/2005	.	0.67
SEAAIR	04/16/2005	.	0.62
SEAAIR	04/16/2005	.	0.49
SEAAIR	04/16/2005	.	0.51
SEAAIR	04/16/2005	.	1.79
SEAAIR	04/16/2005	.	0.45
SEAAIR	04/16/2005	.	0.43
SEAAIR	04/16/2005	.	0.49
SEAAIR	04/16/2005	.	0.4
SEAAIR	04/16/2005	.	1.13
SEAAIR	04/16/2005	.	0.54
SEAAIR	04/16/2005	.	0.5
SEAAIR	04/16/2005	.	2.43
SEAAIR	04/16/2005	.	0.66
SEAAIR	04/16/2005	.	7.17
SEAAIR	04/16/2005	.	0.57
SEAAIR	04/16/2005	.	0.48
SEAAIR	04/16/2005	.	0.48
SEAAIR	04/16/2005	.	0.55
SEAAIR	04/16/2005	.	6.27
SEAAIR	04/16/2005	.	0.73
SEAAIR	04/16/2005	.	0.93
SEAAIR	04/16/2005	.	2.02
SEAAIR	04/16/2005	.	1.32
SEAAIR	04/16/2005	.	4.52
SEAAIR	04/16/2005	.	1.1
SEAAIR	04/16/2005	.	0.84
SEAAIR	04/16/2005	.	4.12
SEAAIR	04/16/2005	.	0.64
SEAAIR	04/16/2005	.	2.21
SEAAIR	04/16/2005	.	1.24
SEAAIR	04/16/2005	.	1.91
SEAAIR	04/16/2005	.	1.3
SEAAIR	04/16/2005	.	2.06
SEAAIR	04/16/2005	.	3.71
SEAAIR	04/16/2005	.	6.53
SEAAIR	04/16/2005	.	1.84
SEAAIR	04/16/2005	.	5.72
SEAAIR	04/16/2005	.	1.15
SEAAIR	04/16/2005	.	1.25
SEAAIR	04/16/2005	.	3.44
SEAAIR	04/16/2005	.	2.83

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SEAAIR	04/16/2005	.	1.44
SEAAIR	04/16/2005	.	7.49
SEAAIR	04/16/2005	.	17.08 *
SEAAIR	04/16/2005	.	26.72 *
SEAAIR	04/16/2005	.	16.93 *
SEAAIR	04/16/2005	.	11.45 *
SEAAIR	04/16/2005	.	14.31 *
SEAAIR	04/16/2005	.	8.36
SEAAIR	04/16/2005	.	11.94 *
SEAAIR	04/16/2005	.	19.16 *
SEAAIR	04/16/2005	.	17.67 *
SEAAIR	04/16/2005	.	26.87 *
SEAAIR	04/16/2005	.	52.22 *
SEAAIR	04/16/2005	.	42.07 *
SEAAIR	04/16/2005	.	49.95 *
SEAAIR	04/16/2005	.	77.44 *
SEAAIR	04/16/2005	.	40.4 *
SEAAIR	04/16/2005	.	30.08 *
SEAAIR	04/16/2005	.	38.68 *
SEAAIR	04/16/2005	.	22.98 *
SEAAIR	04/16/2005	.	27.27 *
SEAAIR	04/16/2005	.	52.11 *
SEAAIR	04/16/2005	.	39.61 *
SEAAIR	04/16/2005	.	53.18 *
SEAAIR	04/16/2005	.	93.66 *
SEAAIR	04/16/2005	185 *	64.68 *
SEAAIR	04/16/2005	.	36.8 *
SEAAIR	04/16/2005	173.75 *	51.97 *
SEAAIR	04/16/2005	.	23.12 *
SEAAIR	04/16/2005	165.38 *	19.57 *
SEAAIR	04/16/2005	.	32.39 *
SEAAIR	04/16/2005	168.27 *	22.04 *
SEAAIR	04/16/2005	.	34.62 *
SEAAIR	04/16/2005	176.92 *	10.51 *
SEAAIR	04/16/2005	.	39.2 *
SEAAIR	04/16/2005	179.8 *	32.35 *
SEAAIR	04/16/2005	.	45.5 *
SEAAIR	04/16/2005	165.36 *	33.49 *
SEAAIR	04/16/2005	.	2.32
SEAAIR	04/16/2005	157.82	2.36
SEAAIR	04/16/2005	.	1.82
SEAAIR	04/16/2005	160.41	2.42
SEAAIR	04/16/2005	.	3.33
SEAAIR	04/16/2005	140.42	1.48
SEAAIR	04/16/2005	.	2.37
SEAAIR	04/16/2005	147.74	1.31
SEAAIR	04/16/2005	.	1.32

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SEAAIR	04/16/2005	148.79	1.56
SEAAIR	04/16/2005	.	4.58
SEAAIR	04/16/2005	133.56	2.8
SEAAIR	04/16/2005	.	3.31
SEAAIR	04/16/2005	142.5	5.56
SEAAIR	04/16/2005	.	9.08
SEAAIR	04/16/2005	147.17	1.68
SEAAIR	04/16/2005	.	3.74
SEAAIR	04/16/2005	148.08	4.36
SEAAIR	04/16/2005	.	5.32
SEAAIR	04/16/2005	146.78	4.65
SEAAIR	04/16/2005	.	5.87
SEAAIR	04/16/2005	147.24	6.06
SEAAIR	04/16/2005	.	9.13
SEAAIR	04/16/2005	152.5	1.93
SEAAIR	04/16/2005	.	4.84
SEAAIR	04/16/2005	147.95 *	6.29
SEAAIR	04/16/2005	.	14.82 *
SEAAIR	04/16/2005	144.34	11.84 *
SEAAIR	04/16/2005	.	11.84 *
SEAAIR	04/16/2005	150.51 *	23.69 *
SEAAIR	04/16/2005	.	11.86 *
SEAAIR	04/18/2005	95.89	.
SEAAIR	04/18/2005	.	2.48
SEAAIR	04/18/2005	109.48	1.98
SEAAIR	04/18/2005	.	2.85
SEAAIR	04/18/2005	133.33 *	10.73 *
SEAAIR	04/18/2005	.	6.91
SEAAIR	04/18/2005	130.57	1.48
SEAAIR	04/18/2005	.	3.69
SEAAIR	04/18/2005	125.31	5.69
SEAAIR	04/18/2005	.	2.69
SEAAIR	04/18/2005	120.41	2.45
SEAAIR	04/18/2005	.	1.31
SEAAIR	04/18/2005	117.5	2.6
SEAAIR	04/18/2005	.	1.19
SEAAIR	04/18/2005	117.42	1.61
SEAAIR	04/18/2005	.	2.76
SEAAIR	04/18/2005	117.91	0.98
SEAAIR	04/18/2005	.	9.12
SEAAIR	04/18/2005	116.66	1.27
SEAAIR	04/18/2005	.	0.86
SEAAIR	04/18/2005	116.16	1.27
SEAAIR	04/18/2005	.	0.89
SEAAIR	04/18/2005	116.26	1.23
SEAAIR	04/18/2005	.	1.07
SEAAIR	04/18/2005	117.31	1.12

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SEAAIR	04/18/2005	.	1.3
SEAAIR	04/18/2005	117.39	1.16
SEAAIR	04/18/2005	.	4.89
SEAAIR	04/18/2005	116.67	1.29
SEAAIR	04/18/2005	.	0.94
SEAAIR	04/18/2005	117.81	1.26
SEAAIR	04/18/2005	.	2
SEAAIR	04/18/2005	117.77	1.03
SEAAIR	04/18/2005	.	1.64
SEAAIR	04/18/2005	118.15	0.96
SEAAIR	04/18/2005	.	1.62
SEAAIR	04/18/2005	118.01	1.61
SEAAIR	04/18/2005	.	0.82
SEAAIR	04/18/2005	119.5	1.17
SEAAIR	04/18/2005	.	0.88
SEAAIR	04/18/2005	119.74	6.11
SEAAIR	04/18/2005	.	0.9
SEAAIR	04/18/2005	121.63	1.58
SEAAIR	04/18/2005	.	0.8
SEAAIR	04/18/2005	119.09	0.89
SEAAIR	04/18/2005	.	0.62
SEAAIR	04/18/2005	108.09	0.84
SEAAIR	04/18/2005	.	0.65
SEAAIR	04/18/2005	108.14	0.84
SEAAIR	04/18/2005	.	1.05
SEAAIR	04/18/2005	107.91	0.69
SEAAIR	04/18/2005	.	0.99
SEAAIR	04/18/2005	107.69	0.67
SEAAIR	04/18/2005	.	0.95
SEAAIR	04/18/2005	109.34	0.78
SEAAIR	04/18/2005	.	1.18
SEAAIR	04/18/2005	108.73	0.87
SEAAIR	04/18/2005	.	0.86
SEAAIR	04/18/2005	108.36	2.74
SEAAIR	04/18/2005	.	0.92
SEAAIR	04/18/2005	108.29	0.72
SEAAIR	04/18/2005	.	0.78
SEAAIR	04/18/2005	109.53	1.1
SEAAIR	04/18/2005	.	0.75
SEAAIR	04/18/2005	109.41	0.84
SEAAIR	04/18/2005	.	0.99
SEAAIR	04/18/2005	109.59	2.05
SEAAIR	04/18/2005	.	1.18
SEAAIR	04/18/2005	110.66	1.04
SEAAIR	04/18/2005	.	1.12
SEAAIR	04/18/2005	113.89	1.43
SEAAIR	04/18/2005	.	1.05

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SEAAIR	04/18/2005	114.93	1.03
SEAAIR	04/18/2005	.	1.21
SEAAIR	04/18/2005	116.75	2.34
SEAAIR	04/18/2005	.	1.32
SEAAIR	04/18/2005	117.6	1.12
SEAAIR	04/18/2005	.	1.2
SEAAIR	04/18/2005	121.01	1.49
SEAAIR	04/18/2005	.	1.07
SEAAIR	04/18/2005	122.39	1.03
SEAAIR	04/18/2005	.	1.22
SEAAIR	04/18/2005	123.88	1.98
SEAAIR	04/18/2005	.	1.34
SEAAIR	04/18/2005	124.65	1.12
SEAAIR	04/18/2005	.	1.26
SEAAIR	04/18/2005	126.37	1.61
SEAAIR	04/19/2005	.	0.8
SEAAIR	04/19/2005	114.34	0.86
SEAAIR	04/19/2005	.	1.17
SEAAIR	04/19/2005	124.52	1.91
SEAAIR	04/19/2005	.	2.16
SEAAIR	04/19/2005	124.24	0.88
SEAAIR	04/19/2005	.	1.22
SEAAIR	04/19/2005	122	1.16
SEAAIR	04/19/2005	.	1.32
SEAAIR	04/19/2005	107.99	1.12
SEAAIR	04/19/2005	.	1.24
SEAAIR	04/19/2005	107.19	1.37
SEAAIR	04/19/2005	.	1.5
SEAAIR	04/19/2005	107.14	1.15
SEAAIR	04/19/2005	.	1.66
SEAAIR	04/19/2005	108.22	1.33
SEAAIR	04/19/2005	.	1.61
SEAAIR	04/19/2005	107.9	1.25
SEAAIR	04/19/2005	.	1.27
SEAAIR	04/19/2005	107	1.49
SEAAIR	04/19/2005	.	1.66
SEAAIR	04/19/2005	106.73	1.48
SEAAIR	04/19/2005	.	1.73
SEAAIR	04/19/2005	106.11	1.43
SEAAIR	04/19/2005	.	1.77
SEAAIR	04/19/2005	106.04	6.97
SEAAIR	04/19/2005	.	1.57
SEAAIR	04/19/2005	105.87	1.47
SEAAIR	04/19/2005	.	1.83
SEAAIR	04/19/2005	105.16	6.22
SEAAIR	04/19/2005	.	2.02
SEAAIR	04/19/2005	104.8	1.63

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SEAAIR	04/19/2005	.	1.89
SEAAIR	04/19/2005	104.66	6.79
SEAAIR	04/19/2005	.	1.67
SEAAIR	04/19/2005	105.15	1.69
SEAAIR	04/19/2005	.	1.98
SEAAIR	04/19/2005	104.83	2.72
SEAAIR	04/19/2005	.	2.15
SEAAIR	04/19/2005	104.75	1.47
SEAAIR	04/19/2005	.	5.02
SEAAIR	04/19/2005	104.64	6.51
SEAAIR	04/19/2005	.	1.76
SEAAIR	04/19/2005	104.54	1.72
SEAAIR	04/19/2005	.	2.14
SEAAIR	04/19/2005	104.61	2.22
SEAAIR	04/19/2005	.	2.33
SEAAIR	04/19/2005	104.92	1.91
SEAAIR	04/19/2005	.	2.09
SEAAIR	04/19/2005	105.08	6.69
SEAAIR	04/19/2005	.	1.86
SEAAIR	04/19/2005	105.65	1.85
SEAAIR	04/19/2005	.	2.21
SEAAIR	04/19/2005	105.53	2.36
SEAAIR	04/19/2005	.	2.39
SEAAIR	04/19/2005	106.06	1.97
SEAAIR	04/19/2005	.	2.16
SEAAIR	04/19/2005	103.03	6.37
SEAAIR	04/19/2005	.	1.96
SEAAIR	04/19/2005	102.6	1.92
SEAAIR	04/19/2005	.	2.25
SEAAIR	04/19/2005	102.08	2.24
SEAAIR	04/19/2005	.	2.41
SEAAIR	04/19/2005	101.72	2.03
SEAAIR	04/19/2005	.	2.22
SEAAIR	04/19/2005	101.75	3.25
SEAAIR	04/19/2005	.	2.05
SEAAIR	04/19/2005	102.01	2.05
SEAAIR	04/19/2005	.	2.31
SEAAIR	04/19/2005	101.66	2.19
SEAAIR	04/19/2005	.	2.49
SEAAIR	04/19/2005	101.39	2.09
SEAAIR	04/19/2005	.	2.27
SEAAIR	04/19/2005	101.29	3.46
SEAAIR	04/19/2005	.	2.15
SEAAIR	04/19/2005	101.55	2.15
SEAAIR	04/19/2005	.	1.99
SEAAIR	04/19/2005	101.73	2.24
SEAAIR	04/19/2005	.	2.63

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SEAAIR	04/19/2005	101.48	2.2
SEAAIR	04/19/2005	.	2.38
SEAAIR	04/19/2005	101.6	3.43
SEAAIR	04/19/2005	.	2.21
SEAAIR	04/19/2005	101.18	2.25
SEAAIR	04/19/2005	.	2.54
SEAAIR	04/19/2005	101.19	2.36
SEAAIR	04/19/2005	.	2.7
SEAAIR	04/19/2005	101.2	2.25
SEAAIR	04/20/2005	.	0.87
SEAAIR	04/20/2005	98.96	1.72
SEAAIR	04/20/2005	.	1.6
SEAAIR	04/20/2005	99.85	1.31
SEAAIR	04/20/2005	.	1.44
SEAAIR	04/20/2005	100.76	1.64
SEAAIR	04/20/2005	.	1.27
SEAAIR	04/20/2005	99.42	1.79
SEAAIR	04/20/2005	.	1.44
SEAAIR	04/20/2005	97.99	1.55
SEAAIR	04/20/2005	.	1.84
SEAAIR	04/20/2005	97.33	2.41
SEAAIR	04/20/2005	.	2.36
SEAAIR	04/20/2005	96.51	1.6
SEAAIR	04/20/2005	.	2.2
SEAAIR	04/20/2005	96.91	1.71
SEAAIR	04/20/2005	.	1.84
SEAAIR	04/20/2005	96.69	2.26
SEAAIR	04/20/2005	.	1.89
SEAAIR	04/20/2005	96.26 *	14.79 *
SEAAIR	04/20/2005	.	1.88
SEAAIR	04/20/2005	96.32	2.72
SEAAIR	04/20/2005	.	2.49
SEAAIR	04/20/2005	95.79	2.12
SEAAIR	04/20/2005	.	2.66
SEAAIR	04/20/2005	95.85	2.13
SEAAIR	04/20/2005	.	2.39
SEAAIR	04/20/2005	96.26	2.12
SEAAIR	04/20/2005	.	5.65
SEAAIR	04/20/2005	96.14	5.37
SEAAIR	04/20/2005	.	2.31
SEAAIR	04/20/2005	96.15	2.94
SEAAIR	04/20/2005	.	2.54
SEAAIR	04/20/2005	96.14	2.65
SEAAIR	04/20/2005	.	2.36
SEAAIR	04/20/2005	96.23	2.39
SEAAIR	04/20/2005	.	3.52
SEAAIR	04/20/2005	96.22	2.7

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SEAAIR	04/20/2005	.	2.45
SEAAIR	04/20/2005	96.87	2.56
SEAAIR	04/20/2005	.	3.26
SEAAIR	04/20/2005	97.02 *	2.53
SEAAIR	04/20/2005	.	10.02 *
SEAAIR	04/20/2005	96.53	3.07
SEAAIR	04/20/2005	.	3.81
SEAAIR	04/20/2005	96.32	3.82
SEAAIR	04/20/2005	.	2.66
SEAAIR	04/20/2005	96.19	4.02
SEAAIR	04/20/2005	.	2.76
SEAAIR	04/20/2005	95.95	2.95
SEAAIR	04/26/2005	39.12	8.18
SEAAIR	04/26/2005	.	1.4
SEAAIR	04/26/2005	37.61	1.33
SEAAIR	04/26/2005	.	2.45
SEAAIR	04/26/2005	72.06	1.35
SEAAIR	04/26/2005	.	2
SEAAIR	04/26/2005	64.73	1.76
SEAAIR	04/26/2005	.	1.61
SEAAIR	04/26/2005	49.02	1.41
SEAAIR	04/26/2005	.	1.26
SEAAIR	04/26/2005	42.41	1.13
SEAAIR	04/26/2005	.	1.85
SEAAIR	04/26/2005	36.8	1.91
SEAAIR	04/26/2005	.	1.88
SEAAIR	04/26/2005	33.35	1.64
SEAAIR	04/26/2005	.	1.48
SEAAIR	04/26/2005	35.19	1.37
SEAAIR	04/26/2005	.	2.06
SEAAIR	04/26/2005	35.15	2.07
SEAAIR	04/26/2005	.	1.98
SEAAIR	04/26/2005	31.92	1.71
SEAAIR	04/26/2005	.	1.52
SEAAIR	04/26/2005	30.28	1.38
SEAAIR	04/26/2005	.	2.06
SEAAIR	04/26/2005	29.14	2.1
SEAAIR	04/26/2005	.	1.99
SEAAIR	04/26/2005	27.15	1.73
SEAAIR	04/26/2005	.	1.52
SEAAIR	04/26/2005	30.13	1.38
SEAAIR	04/26/2005	.	2.09
SEAAIR	04/26/2005	30.4	2.04
SEAAIR	04/26/2005	.	1.9
SEAAIR	04/26/2005	28.05	1.67
SEAAIR	04/26/2005	.	1.49
SEAAIR	04/26/2005	26.37	1.36

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
SEAAIR	04/26/2005	.	1.99
SEAAIR	04/26/2005	26.82	1.96
SEAAIR	04/26/2005	.	1.87
SEAAIR	04/26/2005	24.51	1.61
SEAAIR	04/26/2005	.	1.45
SEAAIR	04/26/2005	25.67	1.33
SEAAIR	04/26/2005	.	1.93
SEAAIR	04/26/2005	28.3	1.93
SEAAIR	04/26/2005	.	1.81
SEAAIR	04/26/2005	26.65	1.55
SEAAIR	04/26/2005	.	1.41
SEAAIR	04/26/2005	25.32	1.27
SEAAIR	04/26/2005	.	1.9
STCLLR	521/1	120.4	0
STCLLR	521/1	131.4	0.6
STCLLR	521/1	131.4	0.6
STCLLR	521/1	163.7	0.4
STCLLR	521/1	293.9	0
STCLLR	521/1	14.6	0
STCLLR	521/1	51.2	0
STCLLR	521/1	7.9	0
STCLLR	503/1	24.3	1.6
STCLLR	503/1	20.8	1.7
STCLLR	503/1	8.2	2.6
STCLLR	503/1	0	0
STCLLR	416/1	126.1	0.9
STCLLR	416/1	72.2	1
STCLLR	416/1	62.3	1.1
STCLLR	416/1	47.2	0.9
STCLLR	416/1	58.6	0.8
STCLLR	416/1	102.3	0.9
STCLLR	416/1	33.2	0.6
STCLLR	416/1	22.6	0.6
STCLLR	416/1	24.9	0
STCLLR	416/1	4.7	0
STCLLR	402/1	238.8	1.2
STCLLR	402/1	78.9	0.7
STCLLR	402/1	89.7	0.5
STCLLR	402/1	47.9	0.5
STCLLR	402/1	44.8	0.7
STCLLR	402/1	53.3	0.4
STCLLR	402/1	55.9	0.6
STCLLR	402/1	61.4	0.6
STCLLR	402/1	23.5	0.4
STCLLR	402/1	4.9	0
STCLLR	330/1	95.2	0.7
STCLLR	330/1	52.7	0.8

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
STCLLR	330/1	53	0.7
STCLLR	330/1	74.8	0.5
STCLLR	330/1	51.9	0.7
STCLLR	330/1	28.7	0.4
STCLLR	330/1	8.5	0.3
STCLLR	330/1	7.5	0.6
STCLLR	330/1	9.9	0.4
STCLLR	330/1	120.4	1.4
STCLLR	327/1	80.9	0.4
STCLLR	327/1	61.3	0.5
STCLLR	327/1	51.5	0.7
STCLLR	327/1	69.2	0.3
STCLLR	327/1	88.9	0.4
STCLLR	327/1	53.3	0.6
STCLLR	327/1	54.6	0.4
STCLLR	327/1	56.6	0.6
STCLLR	327/1	67.6	0.4
STCLLR	327/1	84.1	0.9
STCLLR	327/1	22.8	0.5
STCLLR	327/1	17.9	0.5
STCLLR	327/1	0	0
STCLLR	324/1	0	0
STCLLR	324/1	39	0.2
STCLLR	324/1	41.2	0.5
STCLLR	324/1	88	0.4
STCLLR	324/1	113.4	0.3
STCLLR	324/1	132.8	0.6
STCLLR	324/1	50.7	0.3
STCLLR	324/1	68.7	0.8
STCLLR	324/1	45.3	0.3
STCLLR	324/1	73.1	0.8
STCLLR	324/1	78.5	0.2
STCLLR	324/1	90.9	0.6
STCLLR	324/1	55.2	0.3
STCLLR	324/1	75.1	0.8
STCLLR	324/1	73.5	0.5
STCLLR	324/1	87.2	0.9
STCLLR	324/1	95.6	0.6
STCLLR	324/1	91.4	0.7
STCLLR	324/1	83.4	0.6
STCLLR	324/1	75.1	0
STCLLR	324/1	71.9	1
STCLLR	324/1	73.4	0.4
STCLLR	324/1	79.3	1.2
STCLLR	324/1	83.7	0.8
STCLLR	324/1	81.8	0.5
STCLLR	324/1	55.4	0.7

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
STCLLR	324/1	9.3	0
STCLLR	322/1	64.8	0.7
STCLLR	322/1	39.9	0.5
STCLLR	322/1	41.5	0.6
STCLLR	322/1	54.9	1.1
STCLLR	322/1	48.8	1.7
STCLLR	322/1	35.9	0.4
STCLLR	322/1	40	0.4
STCLLR	322/1	52.4	1.3
STCLLR	322/1	28.8	0.5
STCLLR	322/1	27.7	0.8
STCLLR	322/1	22.3	3.4
STCLLR	320/1	63	0.3
STCLLR	320/1	75.7	0.7
STCLLR	320/1	56	0.7
STCLLR	320/1	57.7	0.4
STCLLR	320/1	63	0.7
STCLLR	320/1	146.9	0
STCLLR	320/1	108	1.9
STCLLR	320/1	96.1	0.8
STCLLR	320/1	58.6	0.7
STCLLR	320/1	60.6	0.4
STCLLR	320/1	63.7	0.7
STCLLR	320/1	90.3	0.4
STCLLR	320/1	139.1	1
STCLLR	320/1	65	0.3
STCLLR	320/1	50.9	0.4
STCLLR	320/1	7.8	0.6
STCLLR	320/1	13.2	0.3
STCLLR	312/1	50	0.7
STCLLR	312/1	60.2	0.6
STCLLR	312/1	59.2	0.3
STCLLR	312/1	65.2	0.4
STCLLR	312/1	53.3	0.3
STCLLR	312/1	51.8	0.3
STCLLR	312/1	49	0.7
STCLLR	312/1	49.5	0.5
STCLLR	312/1	49.8	0.3
STCLLR	312/1	56.6	0.4
STCLLR	312/1	95.6	1
STCLLR	312/1	53.4	0.3
STCLLR	312/1	50.5	0.4
STCLLR	312/1	50.7	0.7
STCLLR	312/1	50.5	0.5
STCLLR	312/1	60.2	0.5
STCLLR	312/1	71.9	0.7
STCLLR	312/1	42.9	0.4

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
STCLLR	312/1	0	0
STCLLR	312/1	0	0
STCLLR	311/1	57.7	0.6
STCLLR	311/1	55.8	0.4
STCLLR	311/1	66.1	0.4
STCLLR	311/1	81.8	0.2
STCLLR	311/1	70.7	0.6
STCLLR	311/1	54.5	0.2
STCLLR	311/1	60.4	0.5
STCLLR	311/1	58.5	0.2
STCLLR	311/1	68	0.3
STCLLR	311/1	102.1	1
STCLLR	311/1	61.5	0.3
STCLLR	311/1	47.9	0.3
STCLLR	311/1	62.6	0.5
STCLLR	311/1	63.7	0.5
STCLLR	311/1	66.4	0.6
STCLLR	311/1	33.5	0.2
STCLLR	311/1	28.2	0.6
STCLLR	311/1	31.1	0
STCLLR	309/1	85.1	0.2
STCLLR	309/1	85.5	0.6
STCLLR	309/1	69.3	0.4
STCLLR	309/1	72.8	0.3
STCLLR	309/1	81.9	0.6
STCLLR	309/1	55.6	0.4
STCLLR	309/1	44.4	0.4
STCLLR	309/1	47.7	0.5
STCLLR	309/1	30.2	0.2
STCLLR	309/1	18.8	0.5
STCLLR	309/1	18.7	0.5
STCLLR	309/1	0	0
STCLLR	306/1	7.4	0.2
STCLLR	306/1	6.8	0.5
STCLLR	306/1	14.2	0.2
STCLLR	306/1	16.3	0.4
STCLLR	306/1	11.4	2.3
STCLLR	302/1	33.9	0.2
STCLLR	302/1	18.5	2.1
STCLLR	302/1	35.1	4.2
STCLLR	301/1	65.6	0
STCLLR	301/1	65.7	0.7
STCLLR	301/1	52.4	0.1
STCLLR	301/1	50.2	0.2
STCLLR	301/1	48.9	0.8
STCLLR	301/1	61.8	0.5
STCLLR	301/1	57.8	0.2

Listing 1: Turbidity Measurements as Reported			
Site/System	**Date**	**Influent (NTU)**	**Effluent (NTU)**
STCLLR	301/1	56.9	0.7
STCLLR	301/1	55	0.2
STCLLR	301/1	35.7	0.3
STCLLR	301/1	29.1	0.6
STCLLR	301/1	23.4	0.5
STCLLR	301/1	19.3	0.2
STCLLR	301/1	20.2	0.5
STCLLR	301/1	32.1	0
STCLLR	226/1	96.4	0.8
STCLLR	226/1	86.9	0.3
STCLLR	226/1	77.6	1.8
STCLLR	226/1	48.1	0.8
STCLLR	226/1	38.4	0.4
STCLLR	226/1	39.2	0.5
STCLLR	226/1	73.7	1.4
STCLLR	224/1	175.9	1.9
STCLLR	224/1	173.1	3.2
STCLLR	224/1	233.3	2.9
STCLLR	224/1	246.2	5.7
STCLLR	224/1	257.4	2.3
STCLLR	224/1	180.1	0.5
STCLLR	224/1	57.9	0.9
STCLLR	224/1	56.9	2.9
STCLLR	224/1	113.2	0
STCLLR	224/1	163.1	1
STCLLR	224/1	208.4	0.8
STCLLR	224/1	75.6	0.6
STCLLR	224/1	0	0
WLCPO_SYS1	03/31/1999	472	11.4
WLCPO_SYS1	04/01/1999	136.1	36.1
WLCPO_SYS1	04/02/1999	128.3	28.3
WLCPO_SYS1	04/03/1999	155.3	25.8
WLCPO_SYS1	04/06/1999	128	9.8
WLCPO_SYS1	04/08/1999	167.12	19.5
WLCPO_SYS1	04/13/1999	361	5.1
WLCPO_SYS1	05/03/1999	124.6	34.4
WLCPO_SYS1	06/08/1999	78.1	4.9
WLCPO_SYS2	03/31/1999	472	6.84
WLCPO_SYS2	04/01/1999	136.1	.
WLCPO_SYS2	04/02/1999	128.3	24.5
WLCPO_SYS2	04/03/1999	155.3	23.4
WLCPO_SYS2	04/06/1999	128	22.4
WLCPO_SYS2	04/08/1999	167.12	19.87
WLCPO_SYS2	04/13/1999	361	4.6
WLCPO_SYS2	05/03/1999	124.6	.
WLCPO_SYS2	06/08/1999	78.1	1

Listing 2: Daily Values (NTU) for Turbidity						
Site/ System	**Date**	**Daily Value (Arithmetic Average)**	**Summary Statistics of Reported Measurements Used to Calculate Daily Value**			
			Number	**Standard Deviation**	**Minimum**	**Maximum**
2	10/29/2004	3.98	5	2.62	1.09	7.8
2	11/01/2004	2.74	6	3.29	0.95	9.4
2	11/02/2004	1.30	7	0.35	0.96	1.92
2	11/03/2004	2.82	5	3.79	0.96	9.6
2	11/04/2004	8.84	5	3.37	3.62	12.6
2	11/05/2004	15.78	5	4.07	11.1	20.1
2	11/08/2004	13.21	6	9.38	3.38	26.4
2	11/09/2004	13.04	5	3.03	9.2	16.2
2	11/10/2004	11.83	9	4.09	4.68	16.8
2	11/11/2004	9.99	4	3.47	4.95	12.9
2	11/12/2004	0.49	2	0.01	0.48	0.5
2	11/17/2004	6.62	8	2.29	1.08	8
2	11/18/2004	6.63	12	0.83	4.67	8.02
2	11/19/2004	5.19	12	0.66	4.3	6.7
2	11/22/2004	4.88	9	0.39	4.29	5.42
2	11/23/2004	4.33	12	0.41	3.73	5.24
2	11/24/2004	4.64	7	0.50	4.13	5.36
2	12/02/2004	1.26	6	0.92	0.42	2.84
2	12/06/2004	1.91	9	2.03	0.37	5.09
2	12/07/2004	0.42	9	0.11	0.31	0.61
2	12/08/2004	0.40	13	0.27	0.2	0.99
2	12/09/2004	0.90	12	1.19	0.29	4.6
2	12/10/2004	0.55	8	0.46	0.23	1.55
2	12/13/2004	0.36	7	0.08	0.24	0.48
2	12/14/2004	0.47	8	0.18	0.27	0.77
2	12/15/2004	1.96	8	2.45	0.45	7.92
2	12/16/2004	0.83	8	0.65	0.37	2.13
2	12/17/2004	0.60	9	0.26	0.4	1.26
2	12/20/2004	0.49	8	0.10	0.38	0.67
2	12/21/2004	1.04	9	1.58	0.23	5.13
2	12/21-22/2004	2.63	6	0.45	2.17	3.27
2	12/22/2004	4.02	2	4.85	0.59	7.45
2	12/28/2004	6.95	9	6.86	0.76	15.4
2	12/29/2004	9.31	9	10.03	0.59	20.4
2	12/30/2004	1.22	12	0.57	0.47	2.19
2	12/31/2004	1.14	18	0.52	0.5	2.65
2	01/01/2005	1.40	11	0.81	0.87	3.73
2	01/02/2005	1.91	11	0.77	0.97	3.77
2	01/02-03/2005	1.93	6	0.63	1.25	2.71
2	01/03/2005	2.37	10	0.63	1.67	3.48
2	01/03-04/2005	2.05	8	0.52	1.24	2.86
2	01/04/2005	2.14	9	1.00	1.35	4.55
2	01/04-05/2005	1.94	7	0.89	1.23	3.55

Listing 2: Daily Values (NTU) for Turbidity						
Site/ System	Date	Daily Value (Arithmetic Average)	Summary Statistics of Reported Measurements Used to Calculate Daily Value			
			Number	Standard Deviation	Minimum	Maximum
2	01/05/2005	5.00	15	6.09	1.55	25.8
2	01/06/2005	1.50	12	0.48	0.71	2.57
2	01/06-07/2005	1.55	6	0.44	0.89	2.01
2	01/07/2005	2.40	5	0.92	1.56	3.89
2	01/07-08/2005	6.54	3	2.06	5.25	8.92
2	01/08-09/2005	4.10	12	0.75	2.75	5.25
2	01/09/2005	4.26	9	0.54	3.3	4.9
2	01/09-10/2005	3.00	11	0.54	2.14	3.85
2	01/10-11/2005	5.52	10	2.62	2.23	9.36
2	01/11/2005	3.20	11	2.37	1.19	7.52
2	01/11-12/2005	2.34	12	0.66	0.87	3.06
2	01/12/2005	3.55	10	0.90	2.32	4.52
2	01/12-13/2005	2.78	12	0.37	2.12	3.27
2	01/13/2005	4.59	3	0.43	4.1	4.91
2	01/13-14/2005	7.37	6	4.22	2.61	13.8
2	01/14/2005	5.44	5	4.00	1.9	11.9
2	01/15/2005	9.63	4	5.84	4.16	17.8
2	01/15-16/2005	5.67	12	3.14	1.54	12.1
2	01/16/2005	1.31	12	0.56	0.57	2.31
2	01/16-17/2005	0.92	7	0.31	0.52	1.45
2	01/17/2005	1.73	2	0.85	1.13	2.33
2	01/18/2005	3.29	11	1.62	1.7	6.78
2	01/18-19/2005	2.72	4	0.59	2.17	3.54
2	01/19/2005	4.64	7	1.15	3.28	6.65
2	01/19-20/2005	3.77	12	1.80	1.69	7.22
2	01/20/2005	2.69	6	0.86	1.71	4.03
2	01/20-21/2005	3.89	11	2.05	1.65	7.6
2	01/21/2005	2.53	18	1.12	1.11	4.7
2	01/22/2005	1.79	11	0.58	1.13	3.06
2	01/23/2005	1.12	11	0.24	0.83	1.59
2	01/23-24/2005	0.96	6	0.22	0.77	1.35
2	01/24/2005	1.43	8	0.45	0.84	2.05
2	01/24-25/2005	1.70	7	0.43	1.21	2.24
2	01/25/2005	3.36	9	1.25	1.58	4.76
2	01/25-26/2005	2.27	6	0.54	1.39	3.02
2	01/26/2005	2.34	9	1.01	1.38	4.55
2	01/27/2005	3.55	3	0.10	3.49	3.66
2	01/28/2005	2.44	10	0.61	1.65	3.33
2	01/29/2005	2.86	5	1.42	0.4	3.72
2	01/29-30/2005	2.51	6	0.56	1.91	3.54
2	01/30/2005	3.39	6	1.54	1.86	5.06
2	01/30-31/2005	3.75	8	2.21	2.36	9.09
2	01/31/2005	0.65	7	0.10	0.51	0.78
2	02/02/2005	1.92	15	0.94	0.92	4.11

Listing 2: Daily Values (NTU) for Turbidity						
Site/ System	Date	Daily Value (Arithmetic Average)	Summary Statistics of Reported Measurements Used to Calculate Daily Value			
			Number	Standard Deviation	Minimum	Maximum
2	02/03-04/2005	2.56	8	2.50	0.75	8.1
2	02/07/2005	2.62	6	1.45	1.22	5.4
2	02/08/2005	1.87	6	0.42	1.35	2.44
2	02/09/2005	1.51	7	0.21	1.24	1.9
2	02/10/2005	1.51	7	0.27	1.22	1.87
2	02/11/2005	1.35	7	0.49	0.69	2.17
2	02/14/2005	1.61	2	0.26	1.42	1.79
2	02/17/2005	1.12	4	0.24	0.9	1.37
2	02/18/2005	0.90	3	0.27	0.74	1.21
2	02/19/2005	0.62	2	0.16	0.51	0.73
2	02/22/2005	0.79	6	0.22	0.47	1.05
2	02/23/2005	0.81	3	0.44	0.48	1.31
2	02/24/2005	1.91	3	1.28	1.09	3.38
2	02/25/2005	1.83	5	0.74	1	2.97
2	02/26/2005	0.54	4	0.12	0.4	0.68
2	02/27/2005	0.41	6	0.08	0.33	0.52
2	02/28/2005	0.77	8	0.52	0.35	1.95
2	03/01/2005	0.46	9	0.13	0.33	0.78
2	03/02/2005	1.39	5	0.88	0.74	2.89
2	03/03/2005	1.62	7	0.17	1.26	1.78
2	03/04/2005	2.29	4	0.38	1.75	2.56
2	03/06/2005	4.43	6	1.26	2.53	5.77
2	03/07/2005	1.15	8	0.36	0.52	1.48
2	03/08/2005	0.69	8	0.20	0.45	1.04
2	03/09/2005	0.91	4	0.53	0.57	1.7
2	03/10/2005	0.56	9	0.17	0.38	0.88
2	03/11/2005	0.47	9	0.08	0.35	0.62
2	03/14/2005	0.45	9	0.10	0.33	0.62
2	03/15/2005	0.58	9	0.13	0.32	0.78
2	03/16/2005	0.66	8	0.08	0.55	0.8
2	03/17/2005	0.67	8	0.18	0.42	0.89
2	03/18/2005	0.62	3	0.51	0.26	1.21
2	03/21/2005	0.46	6	0.20	0.29	0.82
2	03/22/2005	0.35	12	0.12	0.22	0.63
2	03/23/2005	2.53	18	2.20	0.35	5
2	03/24/2005	0.78	9	0.14	0.62	1.07
2	03/25/2005	0.50	18	0.16	0.3	0.75
2	03/26/2005	0.93	5	0.04	0.87	0.98
2	03/28/2005	1.75	12	0.40	1.14	2.36
2	03/29/2005	1.52	24	0.87	0.51	4.13
2	03/30/2005	0.95	11	0.26	0.54	1.4
2	03/30-31/2005	1.68	12	0.40	1.24	2.39
2	03/31/2005	1.51	10	0.25	1.14	1.86
2	12/22-23/2005	1.13	8	0.22	0.85	1.52

Listing 2: Daily Values (NTU) for Turbidity						
Site/ System	Date	Daily Value (Arithmetic Average)	Summary Statistics of Reported Measurements Used to Calculate Daily Value			
			Number	Standard Deviation	Minimum	Maximum
3	12/31/2004	1.00	1		1	1
3	01/01/2005	1.00	1		1	1
3	01/03/2005	1.22	9	0.59	0.04	2
3	01/04/2005	1.10	2	0.71	0.6	1.6
3	01/05/2005	0.62	9	0.23	0.4	1.1
3	01/11/2005	2.05	6	2.14	0.2	5.5
3	01/12/2005	0.98	5	0.87	0.3	2.4
3	01/25/2005	1.75	2	0.64	1.3	2.2
3	02/07/2005	2.23	3	0.83	1.3	2.9
3	02/10/2005	7.63	7	8.97	1.2	26
3	02/11/2005	7.18	8	5.08	3	15.3
3	02/14/2005	1.69	7	0.48	1.11	2.47
3	02/23/2005	0.80	3	0.32	0.43	1.04
3	02/24/2005	0.74	5	0.18	0.48	0.94
3	03/01/2005	0.87	4	0.23	0.72	1.21
3	03/03/2005	0.54	8	0.18	0.31	0.81
3	03/04/2005	0.53	2	0.03	0.51	0.55
3	03/07/2005	0.45	2	0.09	0.38	0.51
3	03/24/2005	2.11	2	0.04	2.08	2.14
3	03/25/2005	0.66	13	0.33	0.22	1.12
3	04/12/2005	1.59	3	0.31	1.3	1.91
4_SYS1	01/09/2005	9.12	6	8.72	2.19	22.4
4_SYS1	01/10/2005	0.87	3	0.38	0.57	1.3
4_SYS1	01/12/2005	0.08	1		0.08	0.08
4_SYS1	01/13/2005	0.53	5	0.28	0.34	1.01
4_SYS1	01/14/2005	0.73	3	0.30	0.52	1.07
4_SYS1	01/15/2005	0.36	3	0.03	0.34	0.39
4_SYS1	01/16/2005	0.31	6	0.15	0.12	0.58
4_SYS1	01/17/2005	0.81	3	0.63	0.26	1.5
4_SYS1	01/18/2005	0.67	8	0.28	0.34	1.26
4_SYS1	01/19/2005	0.31	8	0.19	0.14	0.68
4_SYS1	01/24/2005	5.54	5	6.71	0.8	16.9
4_SYS1	01/25/2005	1.18	2	0.04	1.15	1.2
4_SYS1	01/31/2005	3.98	5	3.36	0.86	8.57
4_SYS1	02/01/2005	2.46	4	1.95	1.09	5.23
4_SYS1	02/08/2005	23.00	1		23	23
4_SYS1	02/24/2005	1.22	6	0.45	0.65	1.87
4_SYS1	03/03/2005	0.77	6	0.22	0.6	1.21
4_SYS1	03/04/2005	0.59	4	0.21	0.46	0.91
4_SYS1	03/05/2005	0.71	8	0.22	0.47	1.07
4_SYS2	01/09/2005	5.35	5	6.47	1.07	16.6
4_SYS2	01/10/2005	2.16	5	1.61	0.79	4.63
4_SYS2	01/12/2005	1.23	1		1.23	1.23
4_SYS2	01/13/2005	1.54	5	0.95	0.41	3.03

Listing 2: Daily Values (NTU) for Turbidity						
Site/ System	Date	Daily Value (Arithmetic Average)	Summary Statistics of Reported Measurements Used to Calculate Daily Value			
			Number	Standard Deviation	Minimum	Maximum
4_SYS2	01/15/2005	0.66	4	0.32	0.45	1.14
4_SYS2	01/16/2005	0.70	4	0.73	0.23	1.78
4_SYS2	01/17/2005	0.90	3	0.28	0.64	1.2
4_SYS2	01/18/2005	1.52	8	2.33	0.41	7.25
4_SYS2	01/19/2005	0.46	7	0.42	0.17	1.39
4_SYS2	01/24/2005	10.78	5	16.67	0.45	40
4_SYS2	01/25/2005	1.17	5	0.55	0.62	1.96
4_SYS2	01/31/2005	7.03	5	6.82	1.6	18.8
4_SYS2	02/01/2005	4.27	4	3.94	1.2	9.83
4_SYS2	02/08/2005	33.20	1		33.2	33.2
4_SYS2	02/09/2005	0.91	1		0.91	0.91
4_SYS2	02/23/2005	2.31	5	3.42	0.66	8.42
4_SYS2	03/03/2005	0.80	7	0.37	0.54	1.61
4_SYS2	03/04/2005	1.09	5	0.37	0.73	1.64
4_SYS2	03/05/2005	0.51	2	0.28	0.31	0.7
6	11/8-11/12	5.85	6	1.38	3.8	7.1
6	11/14-11/16	3.30	2	0.85	2.7	3.9
6	12/29/2004	1.43	4	0.17	1.19	1.55
6	12/30/2004	0.58	4	0.26	0.34	0.95
6	01/01/2005	32.25	5	16.91	6.03	46.5
6	01/02/2005	4.24	4	1.79	2.03	6.39
6	02/18/2005	0.38	4	0.09	0.26	0.45
6	02/22/2005	0.69	4	0.12	0.54	0.83
6	02/23/2005	0.80	3	0.09	0.7	0.86
6	02/25/2005	2.19	3	0.56	1.54	2.53
6	02/28/2005	1.97	3	0.84	1.06	2.7
6	03/02/2005	1.76	4	0.42	1.39	2.29
6	03/03/2005	1.96	3	0.91	1.23	2.98
6	03/04/2005	2.51	3	0.34	2.27	2.9
6	03/07/2005	2.39	1		2.39	2.39
6	03/22/2005	3.70	1		3.7	3.7
6	03/23/2005	2.74	2	0.01	2.73	2.74
6	11/13/2005	3.24	10	3.88	0.1	13
8	12/20/2004	0.57	3	0.31	0.38	0.93
8	01/02/2005	0.52	5	0.11	0.42	0.69
8	01/03/2005	0.82	2	0.05	0.78	0.85
8	01/04/2005	2.96	5	2.97	0.92	8.12
8	01/05/2005	6.31	9	4.15	1.95	13.2
8	01/06/2005	12.51	11	6.87	3.89	23.7
8	01/07/2005	22.19	7	10.84	8.2	37.5
8	01/08/2005	10.62	8	3.31	5.92	16
8	01/09/2005	8.40	7	1.13	6.46	9.86
8	01/10/2005	7.34	8	4.05	2.32	14.1
8	01/11/2005	20.95	10	14.66	3.16	43.1

Listing 2: Daily Values (NTU) for Turbidity						
Site/ System	Date	Daily Value (Arithmetic Average)	Summary Statistics of Reported Measurements Used to Calculate Daily Value			
			Number	Standard Deviation	Minimum	Maximum
8	01/12/2005	35.90	3	31.56	11.7	71.6
8	01/13/2005	32.29	5	18.91	7.55	54.3
8	01/14/2005	38.75	2	2.62	36.9	40.6
8	01/15/2005	14.17	3	8.93	7.91	24.4
8	01/16/2005	3.92	6	3.58	0.37	9.36
8	01/17/2005	1.73	4	0.09	1.63	1.81
8	03/07/2005	0.40	1		0.4	0.4
11	12/29/2004	2.80	10	2.65	0.33	7.76
11	12/30/2004	3.17	12	3.48	0.94	13.1
11	12/31/2004	14.06	18	10.41	1.12	32.1
11	01/01/2005	15.12	12	9.92	1.54	26.7
11	01/02/2005	1.16	16	0.67	0.45	2.47
11	01/03/2005	10.05	6	4.84	4.15	15
11	01/04/2005	23.21	10	9.91	4.21	33.6
11	01/05/2005	1.13	3	0.18	0.97	1.33
11	01/06/2005	1.23	11	0.53	0.73	2.14
11	01/07/2005	2.65	10	2.51	1.18	9.26
11	01/08/2005	6.73	23	6.57	0.6	20.5
11	01/09/2005	3.04	14	2.58	0.78	9.48
11	01/10/2005	2.15	13	2.00	0.51	7.5
11	01/11/2005	7.66	17	12.93	0.42	38.7
11	01/12/2005	1.81	28	2.04	0.43	9.99
11	01/13/2005	4.73	18	8.47	0.31	29.6
11	01/14/2005	1.27	21	0.53	0.38	2.69
11	01/17/2005	6.11	7	8.10	0.63	20.1
11	01/18/2005	3.53	5	3.97	0.49	10.1
11	01/19/2005	2.35	7	1.13	1.41	4.62
11	01/20/2005	1.52	4	0.58	1.03	2.24
11	01/21/2005	2.83	4	1.32	1.52	3.97
11	01/22/2005	0.96	7	0.51	0.21	1.66
11	01/23/2005	1.00	1		1	1
11	01/24/2005	1.65	6	0.28	1.27	2.1
11	01/25/2005	2.59	3	0.45	2.1	3
11	01/28/2005	4.73	3	1.39	3.12	5.56
11	01/31/2005	3.61	6	1.51	2.14	5.28
11	02/01/2005	2.14	7	0.96	1.32	3.54
11	02/02/2005	1.89	6	0.72	0.98	2.59
11	02/16/2005	4.79	3	2.47	2.96	7.6
11	02/17/2005	5.75	5	10.94	0.39	25.3
11	02/18/2005	0.55	22	0.22	0.34	1.43
11	02/19/2005	0.55	10	0.31	0.37	1.22
11	02/20/2005	1.38	11	0.39	0.91	1.93
11	02/21/2005	0.72	12	0.12	0.56	0.91
11	03/03/2005	1.13	1		1.13	1.13

Listing 2: Daily Values (NTU) for Turbidity						
Site/ System	**Date**	**Daily Value (Arithmetic Average)**	**Summary Statistics of Reported Measurements Used to Calculate Daily Value**			
			Number	**Standard Deviation**	**Minimum**	**Maximum**
11	03/04/2005	0.87	9	0.09	0.75	1.02
11	03/05/2005	0.83	6	0.19	0.63	1.15
11	03/07/2005	1.33	8	0.46	0.83	2.01
11	03/08/2005	0.96	8	0.21	0.71	1.27
11	03/09/2005	1.55	7	0.92	0.85	3.12
BHRBP	419/1	3.98	9	2.54	0.8	9.2
BHRBP	406/1	6.28	15	0.67	4.3	6.9
BHRBP	330/1	3.14	20	0.96	1	4
BHRBP	326/1	1.76	17	0.71	0.7	3.3
BHRBP	323/1	1.02	15	0.47	0.4	2.1
BHRBP	321/1	0.72	17	0.47	0.4	1.9
BHRBP	315/1	1.50	13	1.50	0.4	6.3
BHRBP	309/1	1.36	19	0.62	0.9	3
BHRBP	306/1	0.75	11	0.33	0.4	1.6
BHRBP	227/1	2.15	15	1.29	0.4	4.3
BHRBP	220/1	2.16	8	2.24	0.3	7.2
BHRBP	216/1	0.33	15	0.15	0.2	0.8
BHRBP	215/1	0.61	15	0.39	0.3	1.5
BHRBP	208/1	1.66	17	1.47	0.5	5.4
BHRBP	206/1	0.49	9	0.21	0.3	0.9
BHRBP	202/1	1.18	17	0.63	0.3	2.6
BHRBP	118/1	0.76	23	0.89	0.2	4.1
BHRBP	117/1	0.67	20	0.51	0.3	2
BHRBP	109/1	1.13	15	1.02	0.4	4.2
BHRBP	108/1	0.53	29	0.50	0.2	2.4
BHRBP	106/1	0.59	20	0.50	0.2	1.8
BHRBP	104/1	0.48	28	0.48	0.2	2.1
BHRBP	103/1	1.69	41	1.59	0.2	7.3
BWWTP	01/06/2007	1.81	28	0.22	1.4	2.2
BWWTP	01/08/2007	2.32	21	0.34	1.2	3
BWWTP	01/09/2007	1.75	24	0.22	1.2	2.2
BWWTP	02/09/2007	1.47	3	0.35	1.1	1.8
BWWTP	03/02/2007	0.9	1		0.9	0.9
BWWTP	03/21/2007	2.07	9	0.8	0.6	2.9
BWWTP	05/11/2007	2.11	8	0.67	1.5	3
BWWTP	05/14/2007	3.97	3	2.22	1.6	6
BZR08	01/15/2008	2.21	1		2.21	2.21
BZR08	01/16/2008	1.35	5	0.55	0.64	2.03
BZR08	01/17/2008	0.92	3	0.49	0.52	1.47
BZR08	01/18/2008	0.97	7	0.63	0.56	2.34
BZR08	01/21/2008	1.80	1		1.8	1.8
BZR08	01/28/2008	0.95	2	0.64	0.49	1.4
BZR08	01/29/2008	1.46	7	2.23	0.38	6.5
BZR08	01/30/2008	0.57	7	0.44	0.21	1.4

Listing 2: Daily Values (NTU) for Turbidity						
Site/ System	**Date**	**Daily Value (Arithmetic Average)**	**Summary Statistics of Reported Measurements Used to Calculate Daily Value**			
			Number	**Standard Deviation**	**Minimum**	**Maximum**
BZR08	02/04/2008	1.10	5	0.58	0.67	2.1
ELLRD	05/03/2005	3.91	82	1.47	1.25	9.61
ELLRD	05/04/2005	5.23	84	1.62	1.32	8.83
ELLRD	05/05/2005	3.93	84	1.22	1.32	6.66
ELLRD	05/09/2005	1.78	55	1.48	0.37	4.72
ELLRD	05/11/2005	2.95	65	1.36	0.81	9.26
ELLRD	05/12/2005	3.24	122	1.1	1.17	8.66
ELLRD	05/13/2005	4.1	80	1.83	1.23	9.79
ELLRD	05/16/2005	4.83	64	2.54	0.9	9.73
ELLRD	05/18/2005	2.97	139	2.7	0.13	9.88
ELLRD	05/20/2005	3.24	154	2.62	0.34	9.66
ELLRD	05/21/2005	2.87	71	3.08	0.21	9.92
ELLRD	05/22/2005	4	51	2.52	0.26	9.83
ELLRD	05/23/2005	3.95	185	2.45	0.3	9.88
ELLRD	05/24/2005	1.95	158	2.1	0.26	9.99
ELLRD	05/25/2005	2.31	116	2.1	0.32	8.31
ELLRD	05/26/2005	2.5	68	2.11	0.34	8.73
ELLRD	05/27/2005	4.4	11	3.63	0.38	8.84
ELLRD	05/30/2005	4.14	54	3.64	0.2	9.97
ELLRD	05/31/2005	1.76	88	2.22	0.16	8.27
HEO	01/14/2000	25.20	1		25.2	25.2
HEO	02/02/2000	25.00	1		25	25
HEO	02/09/2000	13.95	1		13.95	13.95
LSIDE	03/10/2003	1.16	12	0.13	0.98	1.4
LSIDE	03/11/2003	2.42	12	0.38	1.9	3.2
LSIDE	03/12/2003	2.64	12	0.96	0.86	4.05
LSIDE	03/13/2003	3.33	12	0.37	2.77	4
LSIDE	03/17/2003	1.60	9	0.53	0.98	2.31
LSIDE	03/21/2003	2.02	9	0.60	1.26	2.91
LSIDE	03/24/2003	1.70	9	0.88	0.79	3.31
LSIDE	03/31/2003	1.42	9	0.30	0.87	1.82
LSIDE	04/02/2003	1.93	6	0.22	1.6	2.14
LSIDE	04/04/2003	1.24	6	0.23	0.88	1.5
LSIDE	04/09/2003	1.19	6	0.34	0.77	1.75
LSIDE	04/10/2003	1.41	6	0.42	0.89	2.02
LSIDE	11/18/2003	4.82	9	0.30	4.17	5.18
LSIDE	11/29/2003	4.67	17	0.26	4.17	4.97
LSIDE	12/01/2003	4.16	18	0.40	3.52	4.83
LSIDE	12/02/2003	2.62	9	1.20	1.34	4.66
LSIDE	12/03/2003	2.06	12	0.70	1	3.17
LSIDE	12/04/2003	2.22	31	0.55	1.39	3.68
LSIDE	12/05/2003	2.63	19	0.47	1.92	3.52
LSIDE	12/06/2003	2.93	22	0.46	1.89	3.62
LSIDE	12/09/2003	2.94	8	0.97	1.29	4.68

Listing 2: Daily Values (NTU) for Turbidity						
Site/ System	Date	Daily Value (Arithmetic Average)	Summary Statistics of Reported Measurements Used to Calculate Daily Value			
			Number	Standard Deviation	Minimum	Maximum
LSIDE	12/10/2003	3.55	6	0.71	2.73	4.62
LSIDE	12/11/2003	3.20	8	1.12	1.23	4.62
LSIDE	12/15/2003	3.08	5	1.08	1.58	4.32
LSIDE	12/16/2003	2.05	5	1.10	0.76	3.62
LSIDE	12/17/2003	2.08	5	0.28	1.83	2.53
LSIDE	12/22/2003	3.90	5	0.64	3.19	4.92
LSIDE	12/23/2003	3.17	4	0.31	2.88	3.61
LSIDE	12/24/2003	3.09	6	1.00	2.07	4.45
LSIDE	12/26/2003	2.96	7	0.56	2.14	3.61
LSIDE	12/29/2003	2.09	6	0.26	1.68	2.37
LSIDE	12/30/2003	2.46	7	0.63	1.81	3.66
LSIDE	01/02/2004	2.71	8	0.92	1.69	4.06
LSIDE	01/05/2004	3.64	6	0.52	2.87	4.17
LSIDE	01/06/2004	2.92	7	0.46	2.16	3.62
LSIDE	01/08/2004	3.77	13	0.75	2.53	4.83
LSIDE	01/09/2004	3.34	7	0.30	2.98	3.92
LSIDE	01/12/2004	3.67	9	0.63	2.43	4.41
LSIDE	01/13/2004	3.76	7	0.60	2.68	4.67
LSIDE	01/14/2004	3.49	13	0.52	2.81	4.51
LSIDE	01/15/2004	3.92	8	0.57	2.66	4.5
LSIDE	01/16/2004	3.46	12	0.62	2.62	4.74
LSIDE	01/19/2004	3.96	10	0.55	2.98	4.91
LSIDE	01/20/2004	3.57	10	0.60	2.98	4.63
LSIDE	01/21/2004	3.20	10	0.32	2.62	3.72
LSIDE	01/22/2004	3.59	10	0.51	2.89	4.39
LSIDE	01/23/2004	3.64	14	0.45	2.63	4.28
LSIDE	01/26/2004	3.94	13	0.55	3.04	4.85
LSIDE	01/27/2004	3.42	11	0.69	2.7	4.97
LSIDE	01/28/2004	3.57	14	0.58	2.8	4.43
LSIDE	01/29/2004	3.78	18	0.79	1.99	4.82
LSIDE	01/30/2004	3.71	19	0.42	2.69	4.71
LSIDE	01/31/2004	3.67	7	0.46	3.11	4.32
LSIDE	02/02/2004	2.92	7	0.47	2.42	3.61
LSIDE	02/03/2004	2.89	8	0.81	1.79	3.92
LSIDE	02/04/2004	3.16	8	0.57	2.37	4.07
LSIDE	02/05/2004	3.10	8	1.04	1.28	4.56
LSIDE	02/06/2004	3.08	8	0.38	2.65	3.62
LSIDE	02/07/2004	3.26	7	0.32	2.67	3.67
LSIDE	02/11/2004	3.01	8	0.82	1.37	4.19
LSIDE	02/12/2004	2.94	7	1.22	1.28	4.21
LSIDE	02/16/2004	3.08	8	0.31	2.64	3.48
LSIDE	02/17/2004	3.28	8	0.83	2.12	4.68
LSIDE	02/18/2004	3.73	7	0.67	2.92	4.56
LSIDE	02/19/2004	2.78	6	0.39	2.18	3.19

Listing 2: Daily Values (NTU) for Turbidity						
Site/ System	Date	Daily Value (Arithmetic Average)	Summary Statistics of Reported Measurements Used to Calculate Daily Value			
			Number	Standard Deviation	Minimum	Maximum
LSIDE	02/23/2004	2.68	8	0.48	2.04	3.43
LSIDE	02/25/2004	3.29	8	0.30	2.91	3.84
LSIDE	02/27/2004	3.56	9	0.42	3.16	4.46
LSIDE	03/01/2004	3.08	9	0.36	2.38	3.47
LSIDE	03/02/2004	3.53	8	0.47	2.87	4.14
LSIDE	03/03/2004	3.46	7	0.53	2.82	4.47
LSIDE	03/04/2004	3.52	8	0.67	2.75	4.69
LSIDE	03/05/2004	3.59	8	0.52	2.72	4.19
LSIDE	03/08/2004	2.31	8	0.82	1.22	3.49
LSIDE	03/09/2004	2.57	8	0.41	2.17	3.42
SC05	03/23/2005	0.30	7	0.16	0.15	0.62
SC05	03/24/2005	0.50	10	0.50	0.03	1.85
SC05	03/25/2005	0.50	7	0.25	0.24	0.92
SC05	03/26/2005	0.30	1		0.3	0.3
SC05	03/28/2005	0.61	4	0.30	0.33	1.03
SC05	03/29/2005	0.32	1		0.32	0.32
SC08	02/07/2008	3.34	8	2.36	0.79	7.3
SC08	02/11/2008	0.71	10	0.33	0.44	1.42
SC08	02/12/2008	0.85	12	1.74	0.16	6.29
SC08	02/13/2008	0.69	12	0.71	0.033	2.68
SC08	02/14/2008	2.11	12	0.94	0.47	3.54
SC08	02/15/2008	1.08	11	0.81	0.31	3.09
SC08	02/16/2008	1.32	8	1.51	0.25	4.86
SC08	02/17/2008	0.89	11	0.52	0.33	1.74
SC08	02/18/2008	1.09	7	0.67	0.65	2.54
SC08	02/19/2008	1.34	5	1.38	0.27	3.73
SC08	02/20/2008	1.36	4	1.05	0.47	2.49
SC08	02/23/2008	0.65	12	0.37	0.3	1.42
SC08	02/24/2008	0.88	12	0.68	0.34	2.5
SEAAIR	04/01/2005	1.89	163	2.19	0.44	9.49
SEAAIR	04/11/2005	0.93	75	0.67	0.55	5.72
SEAAIR	04/12/2005	0.52	68	0.31	0.42	2.96
SEAAIR	04/16/2005	2.51	93	2.25	0.4	9.13
SEAAIR	04/18/2005	1.63	85	1.41	0.62	9.12
SEAAIR	04/19/2005	2.28	88	1.32	0.8	6.97
SEAAIR	04/20/2005	2.45	48	0.94	0.87	5.65
SEAAIR	04/26/2005	1.83	48	0.98	1.13	8.18
SEAAIR	04/03/2005	1.55	83	1.30	0.37	6.75
STCLLR	521/1	0.53	3	0.12	0.4	0.6
STCLLR	503/1	1.97	3	0.55	1.6	2.6
STCLLR	416/1	0.85	8	0.18	0.6	1.1
STCLLR	402/1	0.62	9	0.24	0.4	1.2
STCLLR	330/1	0.65	10	0.31	0.3	1.4
STCLLR	327/1	0.52	12	0.16	0.3	0.9

Listing 2: Daily Values (NTU) for Turbidity						
Site/ System	**Date**	**Daily Value (Arithmetic Average)**	**Summary Statistics of Reported Measurements Used to Calculate Daily Value**			
			Number	**Standard Deviation**	**Minimum**	**Maximum**
STCLLR	324/1	0.58	24	0.26	0.2	1.2
STCLLR	322/1	1.04	11	0.89	0.4	3.4
STCLLR	320/1	0.64	16	0.39	0.3	1.9
STCLLR	312/1	0.50	18	0.20	0.3	1
STCLLR	311/1	0.44	17	0.21	0.2	1
STCLLR	309/1	0.42	11	0.14	0.2	0.6
STCLLR	306/1	0.72	5	0.89	0.2	2.3
STCLLR	302/1	2.17	3	2.00	0.2	4.2
STCLLR	301/1	0.42	13	0.24	0.1	0.8
STCLLR	226/1	0.86	7	0.55	0.3	1.8
STCLLR	224/1	2.06	11	1.57	0.5	5.7
WLCPO_SYS1	03/31/1999	11.40	1		11.4	11.4
WLCPO_SYS1	04/01/1999	36.10	1		36.1	36.1
WLCPO_SYS1	04/02/1999	28.30	1		28.3	28.3
WLCPO_SYS1	04/03/1999	25.80	1		25.8	25.8
WLCPO_SYS1	04/06/1999	9.80	1		9.8	9.8
WLCPO_SYS1	04/08/1999	19.50	1		19.5	19.5
WLCPO_SYS1	04/13/1999	5.10	1		5.1	5.1
WLCPO_SYS1	05/03/1999	34.40	1		34.4	34.4
WLCPO_SYS1	06/08/1999	4.90	1		4.9	4.9
WLCPO_SYS2	03/31/1999	6.84	1		6.84	6.84
WLCPO_SYS2	04/02/1999	24.50	1		24.5	24.5
WLCPO_SYS2	04/03/1999	23.40	1		23.4	23.4
WLCPO_SYS2	04/06/1999	22.40	1		22.4	22.4
WLCPO_SYS2	04/08/1999	19.87	1		19.87	19.87
WLCPO_SYS2	04/13/1999	4.60	1		4.6	4.6
WLCPO_SYS2	06/08/1999	1.00	1		1	1

Appendix H

Lognormal Distribution Used for Site-Specific, Long-Term Averages and Variability Factors

INTRODUCTION

From its past experience with effluent data, the U.S. Environmental Protection Agency (EPA) considers the lognormal distribution to be appropriate for statistically modeling daily values of turbidity measurements to obtain the proposed limitations. This appendix describes EPA's use of the lognormal distribution in estimating a long-term average and variability factor for each site-specific data set described in Section 6. EPA then used the site-specific estimates to develop an overall long-term average and variability factor for the limitations calculation, also as described in Section 6.

The sections below describe the lognormal distribution and parameter estimates; long-term average calculations; variability factor calculations; and an example based on data from site SC05. For the final rule, EPA also intends to evaluate several other statistical approaches that are described in Appendix I.

OVERVIEW OF THE LOGNORMAL DISTRIBUTION

The lognormal distribution is the most commonly used probability density model for environmental contaminant data (Gilbert 1987). EPA's experience has shown that the daily pollutant concentrations in effluent can be modeled by a lognormal distribution for a wide range of industrial categories and pollutants. For example, histograms of daily pollutant concentration data associated with effluent discharges frequently exhibit positive skewness (i.e., most values tending to occur at the lower limit of the data range) and long *tails* to the right (i.e., gradually fewer values at the higher end). Such histograms resemble the shape of the probability curve of a lognormal distribution. Scientists have used the lognormal distribution to model environmental data, including effluent data, primarily because it consistently provides a reasonably good fit to these data.

Figure H-1 presents an example of a lognormal probability curve. Lognormal distributions assign positive probability only to positive values, and pollutant concentrations cannot hold negative values.

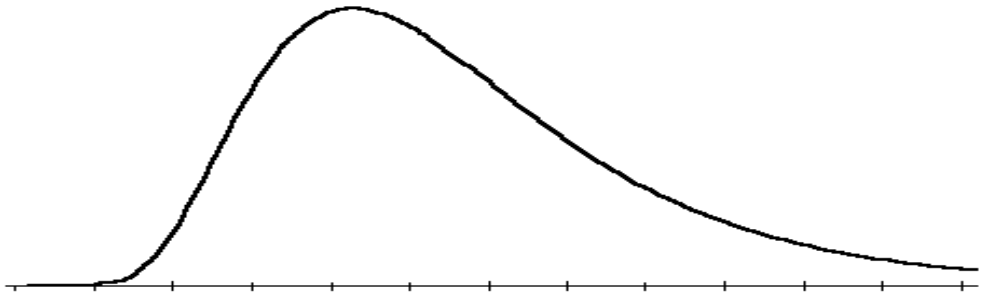

Figure H-1. An example lognormal probability curve.

If a random variable X has a lognormal distribution, its logarithm $Y = \log(X)$ has a normal distribution. The lognormal distribution and its properties and common applications are detailed in Aitchison and Brown (1969) and in Crow and Shimizu (1988). If Y has a normal distribution with expected value μ and variance σ^2, the cumulative probability distribution function of X (i.e., the probability that X can hold values less than or equal to some specified value x) takes the following form:

$$P[X \le x] = \int_{-\infty}^{x} \frac{1}{\sigma t \sqrt{2\pi}} e^{-(\log(t)-\mu)^2/2\sigma^2}\, dt$$

The expected value and variance of *X* are as follows:

$$\mu^X = E[X] = \exp(\mu + 0.5\sigma^2)$$

$$\sigma_X^2 = Var[X] = \exp(2\mu + \sigma^2)(\exp(\sigma^2) - 1)$$

where exp denotes exponentiation. For some number p ranging from 0 to 100, the p^{th} percentile of the lognormal distribution associated with X is equal to

$$\exp(\mu + \Phi^{-1}(p) \cdot \sigma)$$

where $\Phi^{-1}(p)$ is the p^{th} percentile of the standard normal distribution. Values for $\Phi^{-1}(p)$ are readily obtained from tables found in many statistical reference books, and they can also be generated by calling functions within several common statistical software packages.

Estimators for the unknown parameters μ and σ^2 of a lognormal distribution are directly related to estimators for the expected value and variance of a normal distribution. Let $\{x_1, \ldots, x_n\}$ represent a set of *n* sample pollutant measurements, and assume that they represent a random sample from a common lognormal distribution associated with the random variable *X*. Then estimators for μ and σ^2 are as follows:

$$\hat{\mu} = \frac{1}{n}\sum_{i=1}^{n} \log(x_i)$$

$$\hat{\sigma}^2 = \frac{1}{n-1}\sum_{i=1}^{n} (\log(x_i) - \hat{\mu})^2$$

Because Y = log(X) has a normal distribution, $\hat{\mu}$ is known as a maximum likelihood estimator for μ, which has several highly attractive statistical properties. Also, the estimator $\hat{\sigma}^2$ is the maximum likelihood estimator for σ^2, after an adjustment is made to allow the estimator to be unbiased.

LONG-TERM AVERAGE CALCULATIONS

A long-term average represents the average pollutant level that a site can be expected to achieve within its treated effluent over a period of time. EPA sets the long-term average equal to the estimated expected value of the pollutant level. Under the lognormal distribution, this is equal to

$$LTA = \exp(\hat{\mu} + 0.5\hat{\sigma}^2)$$

VARIABILITY FACTOR CALCULATIONS

A daily (i.e., one-day) variability factor (denoted as VF_1) for a specified pollutant and site is calculated as the ratio of the estimate of the 99th percentile, P_{99}, of the distribution of X, to the estimate of the expected value, E(X). Under the lognormal distribution

$$VF_1 = \frac{\hat{P}_{99}}{\hat{E}[X]} = \frac{\exp(\hat{\mu} + 2.326 \cdot \hat{\sigma})}{\exp(\hat{\mu} + 0.5 \cdot \hat{\sigma}^2)} = \exp(2.326\hat{\sigma} - 0.5\hat{\sigma}^2)$$

Under lognormal assumptions, the value of the daily variability factor VF_1 varies according to the value of the standard deviation of the log-transformed measurements, σ. Under these assumptions, the smallest value that VF_1 can hold is 1, which occurs when $\sigma = 0$. To determine the largest value that VF_1 can hold, we differentiate the formula for VF_1 relative to σ, set it equal to zero, and solve for σ:

$$\frac{\partial VF_1}{\partial \sigma} = [\exp(2.326\sigma - 0.5\sigma^2)] \cdot [2.326 - 2(0.5\sigma)] = 0$$

Note that this expression can equal zero only if the second component of this product equals zero. This occurs when $\sigma = 2.326$. Therefore, we substitute this value of σ into the formula for VF_1 to obtain its maximum value:

$$\exp(2.326(2.326) - 0.5(2.326)^2) = \exp(0.5(2.326)^2) = \exp(2.705) = 14.96.$$

Thus, as the value of σ increases from 0 to 2.326, the value of VF_1 increases from 1 to its maximum of 14.96 under lognormal assumptions. At this point, VF_1 declines as σ increases beyond 2.326, approaching zero as σ approaches infinity. Values close to 1 indicate a well-controlled system. In contrast, a value near 15 would indicate a system with extreme variability in its discharges.

EXAMPLE

This section provides an example using data from Site SC05 shown in Table H-1. This section applies the equations above to the data to show the calculations resulting in the site-specific long-term average (LTA) of 0.43 nephelometric turbidity units (NTU) and the daily variability factor (VF_1) of 1.97.

Table H-1 Turbidity Data from Site SC05

Date	Turbidity (NTU)	log(turbidity)
3/23/2005	0.304	-1.191
3/24/2005	0.504	-0.685
3/25/2005	0.500	-0.693
3/26/2005	0.300	-1.204
3/28/2005	0.610	-0.494
3/29/2005	0.320	-1.139

$$\hat{\mu} = \frac{(-1.191) + (-0.685) + (-0.693) + (-1.204) + (-0.494) + (-1.139)}{6} = -0.901$$

$$\hat{\sigma} = \sqrt{\frac{(-1.191-(-0.901))^2 + (-0.685-(-0.901))^2 + \Lambda + (-1.139-(-0.901))^2}{6-1}} = \sqrt{0.0976} = 0.312$$

$$LTA = \exp(\hat{\mu} + 0.5\hat{\sigma}^2) = \exp\left((-0.901 + (0.5 \times 0.0976)\right) = 0.43$$

$$VF_1 = \exp\left(2.326\hat{\sigma} - 0.5\hat{\sigma}^2\right) = \exp\left(2.326 \times 0.312 - 0.5 \times 0.0976\right) = 1.97$$

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Appendix I

Alternative Statistical Methods

INTRODUCTION

Appendix H describes the lognormal distribution used to develop the proposed limitations for turbidity in construction and development (C&D) stormwater runoff. The following sections describe potential censoring in the data and additional statistical methods that the U.S. Environmental Protection Agency (EPA) might consider for modeling data in developing the final limitations. The section below provides a brief summary of the modified delta-lognormal distribution that EPA has used in developing effluent limitations for other industries. The remaining sections discuss the censored lognormal distribution, the probability regression method for the lognormal distribution, and nonparametric methods.

Censoring

In statistical terms, measured concentrations are *non-censored* and non-detected values are *left-censored*. The distinction between non-censored and left-censored measurements is often important in statistically modeling the data. For the proposed rule, as explained in Section 6, EPA excluded data values reported as zero nephelometric turbidity units (NTU). EPA then used the lognormal distribution to model the remaining data values, which all had positive, non-censored, values. For the final rule, EPA could reconsider its exclusion of zero values and consider them to be *non-detected* instead. EPA also could receive and consider data sets with non-detected measurements such as zero NTU or less than some value (e.g., < 0.10 NTU). In such situations, because the lognormal distribution does not incorporate censoring directly, EPA would need to consider applying other statistical methods that appropriately handle non-detected data. This appendix presents other statistical methods that EPA might consider for the final rule.

Modified Delta-Lognormal Distribution

The modified delta-lognormal distribution models the data as a mixture of (1) detected measurements that follow a lognormal distribution; and (2) non-detected measurements that occur with a certain probability (Aitchison and Brown (1963), Kahn and Rubin (1989), and USEPA (1993)). By a modification to the delta portion of the distribution, this model also allows for the possibility that non-detected measurements can be observed at different sample-specific detection limits.

For some industries, detected and non-detected measurements can be associated with different pollutant-generating mechanisms. For example, non-detected measurements might indicate that the pollutant is not generated by a particular source or production practice, and detected measurements can be generated by different source, production, and/or wastewater treatment conditions. The modified delta-lognormal distribution is appropriate for such data sets because each data type (i.e., detected measurements and non-detected measurements) is modeled separately with different distributional properties.

If the modified delta-lognormal distribution appears to be appropriate for the C&D data, EPA also will consider a further modification that would incorporate left-censoring into the lognormal portion of the model while retaining the delta distribution for values reported as non-detected. This model would explicitly censor the lognormal distribution at some point, such as the minimum sample-specific detection limit observed in a data set. In doing so, this model would assume that (1) the analytical method is incapable of quantifying measured concentrations of the pollutant below that point in any sample; and (2) non-censored measurements can occur only above this point. This modification is based on an extension of the method developed by Moulton and Halsey (1995). EPA used a similar modification in developing the limitations for the pulp and paper industry (USEPA 1993).

Censored Lognormal Distribution

In some situations, it might not be reasonable to assume that detected and non-detected values are associated with different pollutant-generating mechanisms. If so, techniques like a censored lognormal distribution model might be appropriate. In a censored lognormal model (see Cohen 1959), all measurements, regardless of whether they are detected or non-detected, are regarded as random measurements generated from a common underlying lognormal distribution. Estimates of the mean, variance, and upper percentiles can be computed from the lognormal distribution that best fits the available data. These estimates are similar to those derived under the modified delta-lognormal model, except that in Cohen's procedure, non-detected measurements are treated merely as left-censored data. Thus, it is assumed that non-detects, if the true concentration or mass amounts were measurable, would follow the same lognormal pattern as the rest of the detected data.

Probability Regression Method for the Lognormal Distribution

Like the censored lognormal distribution model, the probability regression method assumes that the entire data set would follow a specific distributional model (e.g., the lognormal distribution) if concentrations of non-detected measurements could be observed. The basic idea behind the probability regression method can be described by first considering the case with no censored measurements (for instance, a set of detected and precisely known observations). If these data originate from an underlying lognormal distribution, a plot of the log-transformed measurements versus ordered quantiles from a standard normal distribution would be expected to resemble a linear pattern. In fact, it would be possible in this case to fit a linear regression to the points on the probability plot and determine the slope and intercept of the fitted regression line. When non-detected values are present, the probability regression method fits the regression line only to the non-censored data. A parametric version of this approach estimates the mean and standard deviation from the slope and intercept of this regression line.

To reduce the potential for introducing bias to the estimation process by fitting the regression line to only non-censored values, EPA could consider a more robust version of this approach. Under such a robust version, the method imputes numerical values for the non-detected measurements according to where they would fall along the fitted regression line under a lognormal distribution. Summary statistics (e.g., mean, percentiles) are then calculated from the combined set of detected measurements and imputed values for the non-detects.

When the non-detected values do not all have the same detection limit and the set of detection limits overlaps the set of detected measurements, the desired ordering of the data within the probability regression method is more difficult to construct. However, Helsel and Cohn (1988) have adapted the handling of data at a single detection limit to the more general case of multiple detection limits and overlapping of non-censored and non-detected measurements. This adaptation orders the data in terms of conditional probabilities. EPA will evaluate whether an ordering of the non-detected values is appropriate for the C&D effluent data.

Nonparametric Methods

In contrast to the other statistical methods discussed in this appendix, nonparametric methods are not based on fitting a specific distribution (e.g., lognormal) to the available data. Thus, the outcome of nonparametric methods is not dependent on assumptions placed on the particular shape or form of the true (unknown) distribution of the pollutant concentrations. For the final rule, EPA will consider whether the following two nonparametric methods would be appropriate for modeling the data.

Kaplan-Meier (KM) Approach

The Kaplan-Meier (KM) approach is commonly used by the medical sciences to model survival data but can easily be adapted to model data that are a mixture of non-censored and non-detected values. KM is generally used to estimate the percentage of survival (or some other event) under specified conditions as a function of time. Such situations have a mixture of non-censored and *right-censored* data (i.e., measurements that are reported only as being above a specified lower bound, such as surviving beyond some specified time). Survival data sets often include right-censored values because, for example, the exact time to death might be unknown if a participant withdraws early. For this reason, the KM approach was designed to effectively handle a mixture of right-censored and non-censored data. The KM approach yields a nonparametric estimate of the cumulative distribution function (CDF) of the underlying survival rates, conditioned on known (non-censored) survival times.

Works such as Lawless (2003) and Helsel (2005) specify how the KM method can be extended to left-censored data by using a *flipping* transformation. In such a transformation, left-censored values are transformed to right-censored values. The transformation subtracts an arbitrarily determined constant from the reported measurements and sample-specific detection limits. The constant value is usually chosen to be a value that slightly exceeds the maximum observed detected measurement. In this manner, instead of conditioning on known survival times, KM now can be used to condition on measured (non-censored) concentrations above the smallest observed detection limit. The estimated CDF gives the probability that a measurement falls below a specified value. As a result, it allows distributional percentiles to be estimated, which are an important component of EPA's approach to determining limitations.

Simple Estimation of Percentiles from the Observed Data

A simple nonparametric estimate of the 99th percentile of an effluent concentration data set is the observed value that exceeds 99 percent of the observed data points. If a data set consists of fewer than 100 observations, the best that can be done under this approach is to use the maximum value as an approximate nonparametric estimate of the 99th percentile. However, this will underestimate the true value (in statistical expectation). Because most of the data sets analyzed in support of EPA's proposed limitations development had fewer than 100 observations, EPA would likely consider other approaches to avoid underestimating the values used as a basis of the limitations.

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