NEOSHO BASIN TOTAL MAXIMUM DAILY LOAD

Waterbody: Neosho River
Water Quality Impairment: pH

1. INTRODUCTION AND PROBLEM IDENTIFICATION

Subbasin: Upper Neosho

County: Allen, Neosho, Wilson and Woodson

HUC 8: 11070204

HUC 11 (HUC 14s)**:** **050** (010, 020 and 050)

Drainage Area: 163.4 square miles

Main Stem Segments: WQLS: 15, 17 and 18 (in HUC 11070205 downstream of monitoring site) and 1 and 3 (in HUC 11070204) starting at confluence with Flat Rock Creek in southeastern Neosho County and traveling upstream to confluence with Mud Creek in southwestern Wilson County (**Figure 1**).

Tributary Segments:
WQLS: Sutton Creek (35)
Village Creek (33)
Non-WQLS: Turkey Creek (32)
Little Turkey Creek (397)

Designated Uses: Special Aquatic Life Support, Primary Contact Recreation; Domestic Water Supply; Food Procurement; Ground Water Recharge; Industrial Water Supply Use; Irrigation Use; Livestock Watering Use for Main Stem Segments 15, 17 and 18 in HUC 11070205 and 1 and 3 in HUC 11070204.

Expected Aquatic Life Support; Secondary Contact Recreation and Food Procurement on Tributary Village Creek (47). Expected Aquatic Life Support and Secondary Contact Recreation on Tributary Sutton Creek (47)

1998 303(d) Listing: Table 3 - Predominant Natural Conditions

Impaired Use: Aquatic Life Support

Water Quality Standard: Artificial sources of pollution shall not cause the pH of any surface water outside a zone of initial dilution to be below 6.5 and above 8.5 (KAR 28-16-28e(c)(2)(C)

2. CURRENT WATER QUALITY CONDITION AND DESIRED ENDPOINT

Level of Support for Designated Use under 1998 303(d): Not Supporting Aquatic Life

Monitoring Sites: Station 271 near Chanute

Period of Record Used: 1985-2001 for Station 271

Flow Record: Neosho River near Iola (USGS 07183000).

Long Term Flow Conditions: 10% Exceedance Flows = 7,427 cfs**,** 95% = 29 cfs.

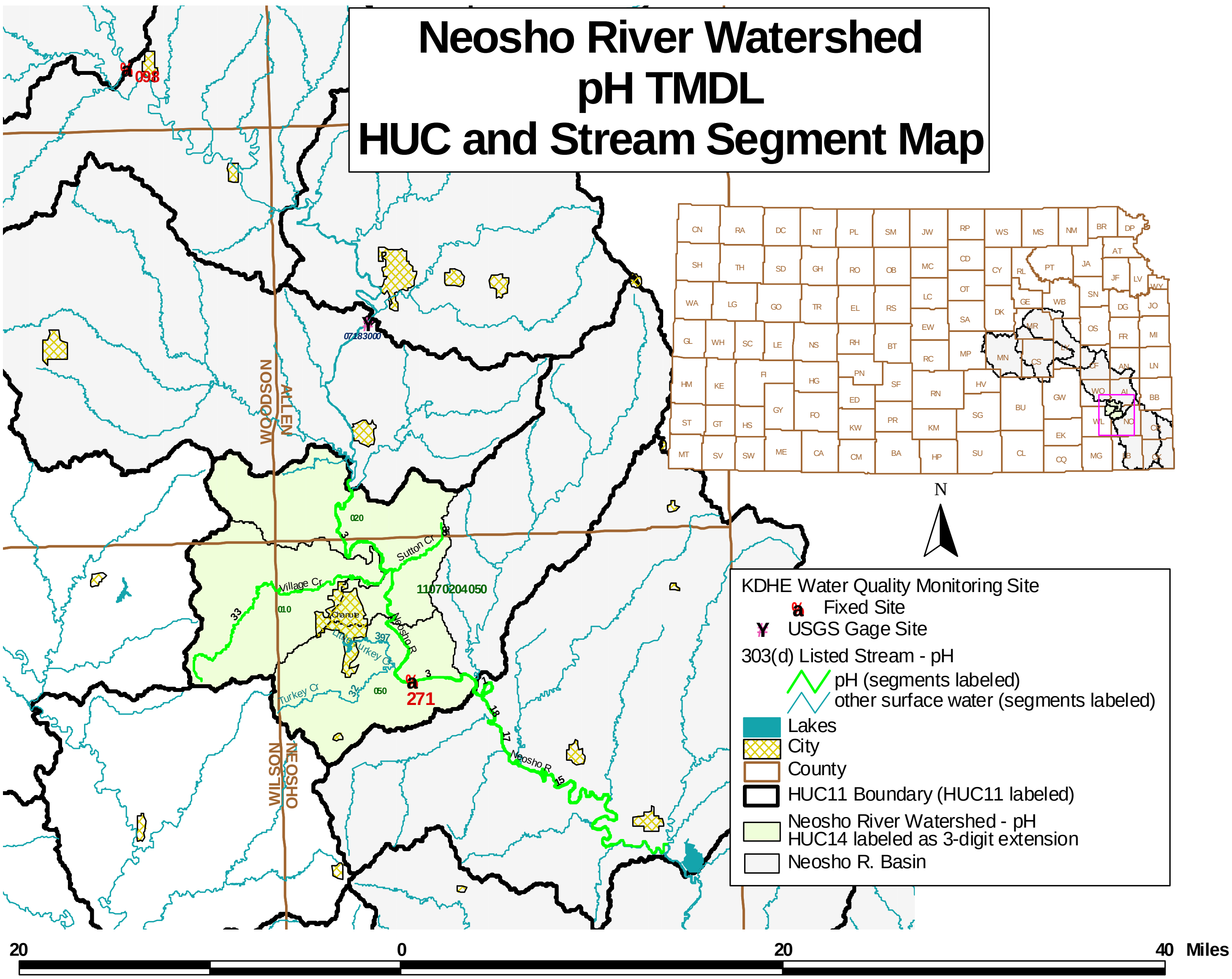


Figure 1

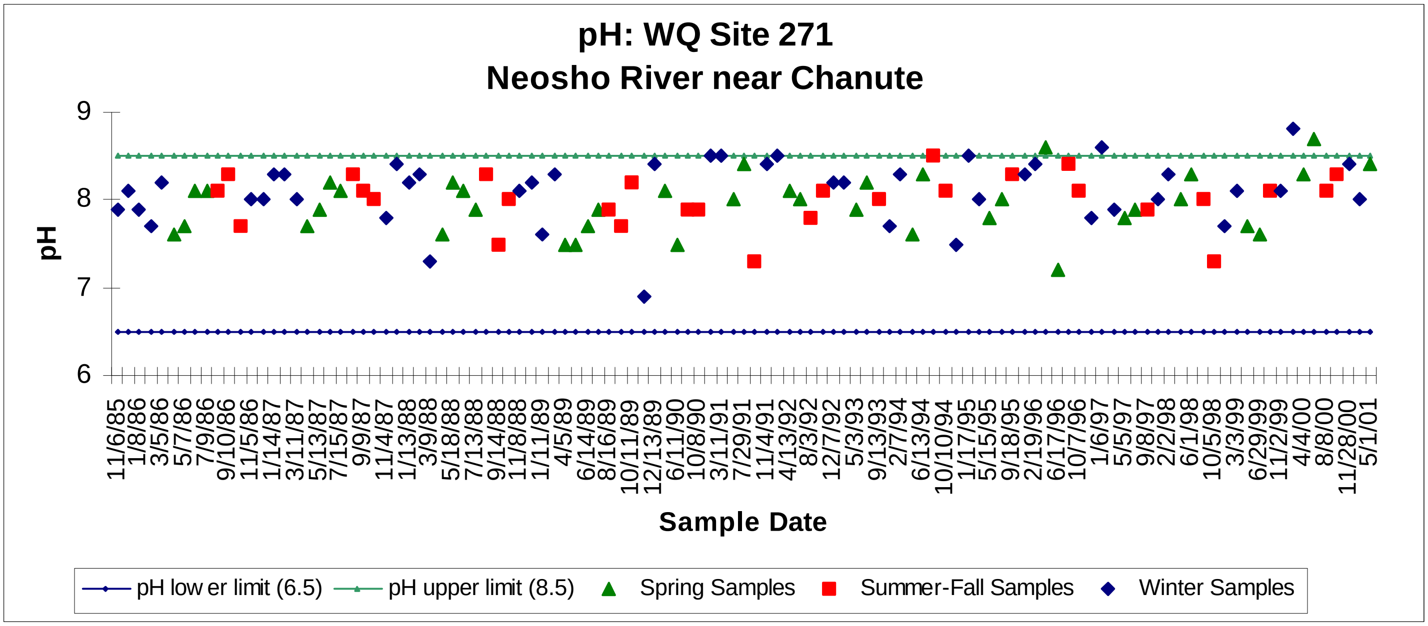


Figure 2

Current Conditions: Samples for each of the three defined seasons, Spring (Apr-Jul), Summer-Fall (Aug-Oct) and Winter (Nov-Mar), are plotted in **Figure 2** for the site 271. Excursions were noted in two of the three defined seasons toward the end of the sample record.

Of the four excursions over a pH of 8.5, 2 were in Spring, 2 were in Winter and no samples exceeded a pH of 8.5 in Summer-Fall. Since loading capacity varies as a function of the flow present in the stream, this TMDL represents a continuum of desired loads over all flow conditions, rather than fixed at a single value.

As previously noted, excursions were seen in two of the three seasons under medium and lower flows at water quality sampling site 271 (**Table 1**). Five percent of Spring samples and none of Summer-Fall samples were over the criterion. Four percent of Winter samples were over the criterion. Overall, 3.5 % of the samples were over the criterion. This would represent a baseline condition of full support of the impaired designated use for this site.

Table 1

NUMBER OF SAMPLES OVER pH STANDARD OF 8.5 BY FLOW AND SEASON

Station	Season	0 to 10%	10 to 25%	25 to 50%	50 to 75%	75 to 90%	90 to 100%	Cum Freq.
Neosho River near Chanute (271)	Spring	0	0	0	1	0	1	2/39 = 5%
	Summer	0	0	0	0	0	0	0/29 = 0%
	Winter	0	0	0	2	0	0	2/45 = 4%

Comparison tables were created for those samples exceeding 8.5 pH at Site 271 (**Table 2** in the Appendix) and samples taken during the same time frame approximately 54 river miles upstream on the Neosho River near LeRoy (Site 098) (**Table 3** in the Appendix). Although pH does increase marginally from the upstream (Site 098) to the downstream site (Site 271), it appears that there is little change in ammonia, BOD, dissolved oxygen, fecal coliform bacteria, nitrate, temperature, phosphorus and total suspended solids along this stretch of the Neosho River on these dates. Furthermore, the concentration of calcium, alkalinity and sulfate, indicative of limestone or gypsum deposition in the river was not different between the upstream LeRoy site and the Chanute site. Therefore, local deposition of minerals causing the rise in the pH is discounted. It would appear that any materials introduced which might elevate stream pH are emanating from John Redmond Reservoir. Sampling which occurred in the lake concurrently with the June 6, 2002 pH violation, tends to bear out elevated pH in the lake (pH: 8.6) during that time. Given the elevated dissolved oxygen associated with the elevated pH episodes, it is surmised that photosynthetic activity is responsible for the pH rises.

The flow in the Neosho River at both of these sampling locations is modified by releases from John Redmond Lake. In fact, on those dates that pH exceedances were noted at Site 271, the flow in the Neosho River is dominated or entirely created by lake releases. The last column of **Tables 2 and 3** is the average flow release at John Redmond Lake for the three days prior to the sample collection date at Site 271. This lag relationship is further illustrated in the hydrographs in the Appendix. In all four of the instances when elevated pH was observed at Station 271, the flow in the downstream reaches, as measured at Iola and Parsons, is directly responding to flow releases from John Redmond, as measured at Burlington. There is a 1-2 day lag in the response between each of the stations, but the parallel traces of flow indicate no runoff occurring during these times. Examination of previous week rainfall for each of the four pH violation periods, shows little to no rainfall occurring, also precluding runoff from quarries and cement plant grounds as causes of the pH problem.

Studies by USGS evaluated the geomorphic effect of low head dams on the Lower Neosho River. Three such dams are located in the vicinity of Chanute, all above Station 271. The major impact of these dams is to create backwater pools above the structure and plunge pools and depositional bars below the dams. With three sequential dams located in the stream reach above the monitoring station, it is possible that the combined backwater areas acted to still the river flow, lower the relative turbidity in the water column and allow instream biological activity to engage in photosynthesis, utilizing the available nutrients. The photosynthetic activity causes a rise in instream pH, which likely carried out past the lowest structure where it was detected at Station 271.

Only one such structure exists between Station 098 at LeRoy and John Redmond Reservoir. That low head dam at Burlington, while substantial in height (15 ft.), is located some distance above Station 098**,** so any similarity in backwater effects on stream pH would be offset by the dynamic flow-pH relationship which would re-establish itself below Burlington. The four flow conditions which occurred during the episodes of elevated pH were heavily influence by the releases of John Redmond Reservoir. This indicates a lack of runoff occurring during these times and the substantial influence of water quality coming out of John Redmond on down stream stations.

Figure 3 in the Appendix shows pH and total phosphorus data collected by the Corps of Engineers below the dam at John Redmond Lake. Those data collected in 1997 show that pH levels in releases can exceed 8.5 and phosphorus levels averaged about 0.2 mg/L. Assuming the nutrient levels in the lake releases are the primary source of nutrients in the Neosho River, then when pH excursions were noted at Site 271, the primary cause of those excursions is not related to any nutrient loads added to the stream between water quality monitoring sites 098 and 271.

The Neosho River is a clear and shallow under medium to lower flow conditions with rock or pebble substrate in the lower reach between John Redmond Lake and Site 271. The morphology of the Neosho River is conducive to the continued support of phytoplankton. The river is clear, allowing light to fully penetrate the water column and reach the phytoplankton either supplied in the releases from the lake or existing in the stream. It appears from lake releases that sufficient nutrients are available to support growth. Because the river is wide, shallow and has a consistent flow because of upstream lake releases, the phytoplankton have a stable environment under medium to lower flows in which to grow, particularly in the backwater areas behind low head dams.

During photosynthesis, the phytoplankton up take carbon dioxide and give off oxygen. In this reaction, water molecules are cleaved. The organism takes up the hydrogen cation, and the remaining hydroxyl anion remains in solution. The pH value increases with the decrease in available hydrogen cations. Peaks in pH should occur in the afternoon, when the greatest amount of radiant energy reaches the river.

Desired Endpoints of Water Quality (Implied Load Capacity) at Site 271 over 2005 - 2009:

The ultimate endpoint for this TMDL will be to achieve the Kansas Water Quality Standards fully supporting aquatic life. The current standard of pH between 6.5 to 8.5 was used to establish the pH/flow exceedance TMDL curve at Site 271. However, the morphology of the river and lake release flows tends to foster periphyton growth and activity which can naturally cause rises in pH over the 8.5 criterion. Because the water quality standard for pH is tied to artificial sources within the watershed (which at this time do not appear to be a cause of the pH excursions) this TMDL will concern itself with maintaining current loads within the watershed below John Redmond Reservoir and directing activities to reducing nutrient levels from contributions upstream of the watershed entering John Redmond coupled with evaluating future patterns of pH.

Achievement of the endpoints indicate loads are within the loading capacity of the stream, water quality standards are attained and full support of the designated use of the stream has been restored.

3. SOURCE INVENTORY AND ASSESSMENT

NPDES: There are six NPDES permitted wastewater discharger within the watershed that may contribute a pH load to site 271 (**Figure 4**). Additionally, there are two non-discharging NPDES sites in the watershed. All eight systems are outlined below in **Table 4**.

For those months when pH excursions were noted, effluent monitoring (when available) from discharging facilities indicate pH levels within permit limits. The likelihood of a discharge from non-discharging facilities under the flow conditions (medium or lower flows) when pH excursions have occurred in the watershed is remote at best. Discharges from the cement plants was examined for the periods in question. There was typically small flows (0-2 cfs) and pH levels of the effluent were moderate (7.6-8.6). Combined with the previously discussed lack of runoff, the cement plants were discounted as sources of the pH problem.

Table 4

FACILITY	PERMIT #	STREAM REACH	SEGMENT	DESIGN FLOW	TYPE
Chateau Villlage	C-NE11-NO05	Neosho R.*	3	*non-discharging	Lagoon
Chanute Diesel PP	I-NE11-CO01	Turkey Cr	32	0.016 mgd	Cooling
Ash Grove Cement	I-NE11-PO02	Village Cr.	33		Quarry
H. Byers & Sons	I-NE11-PO06	Village Cr.	33		Quarry
Monarch Cement	I-NE36-PO01	Neosho R.	3		Quarry
Chanute WTP	M-NE11-OO01	Little Turkey Cr.	397	2.2 mgd	Mech.
Wilson Co. SD#1	M-NE11-OO04	Village Cr.	33	0.0225 mgd	Lagoon
Petrolia WTF	M-NE76-NO01	Neosho R.*	3	*non-discharging	Lagoon

Livestock Waste Management Systems: Four operations are registered, certified or permitted within the watershed. These facilities (swine or beef) are primarily located toward the lower end of the watershed (**Figure 4**). Permitted livestock facilities have waste management systems designed to minimize runoff entering their operations or detaining runoff emanating from their areas. Such systems are designed to retain the 25 year, 24 hour rainfall/runoff event, as well as an anticipated two weeks of normal wastewater from their operations. Such rainfall events typically coincides with stream flows which are exceeded less than 1 - 5 percent of the time. Therefore, events of this type, infrequent and of short duration, are not likely to cause chronic impairment of the designated uses of the waters in this watershed. Requirements for maintaining the water level of the waste lagoons a certain distance below the lagoon berms ensures retention of the runoff from these intense, local storm events. In Neosho County, such an event would generate 6.7 inches of rain, yielding 5.5 to 6.3 inches of runoff in a day.

NPDES permits, also non-discharging, are issued for facilities with more than 1,000 animal units. None of the facilities in the watershed are of this size. Total potential animal units for all facilities is 1,195. The actual number of animal units on site is variable, but typically less than potential numbers.

Land Use: Most of the watershed is grassland (50% of the area), cropland (41%), woodland (4%) or urban use (3%). Much of the cropland is located in the Neosho River Valley. The grazing density estimate is average across the watershed when compared to densities elsewhere in the Neosho Basin (37-38 animal units/mi^2) (**Figure 5**).

On-Site Waste Systems: The watershed's population density is high when compared to densities across the Neosho Basin (52-91 person/mi^2) (**Figure 5**). The rural population projection for Neosho and Woodson Counties through 2020 shows significant growth (22.5 and 20% increase, respectively) while Allen County shows slight growth (2 % increase). Based on 1990 census data, about 2,150 households in Neosho county, 875 households in Woodson and 1,500 households in Allen County are on septic systems. While failing on-site waste systems can contribute nutrient loadings, their impact on the impaired segments is generally limited, given the small size of the rural population and magnitude of other sources upstream of the watershed.

Neosho River Watershed (pH)
NPDES Sites and Livestock Waste Management Facilities

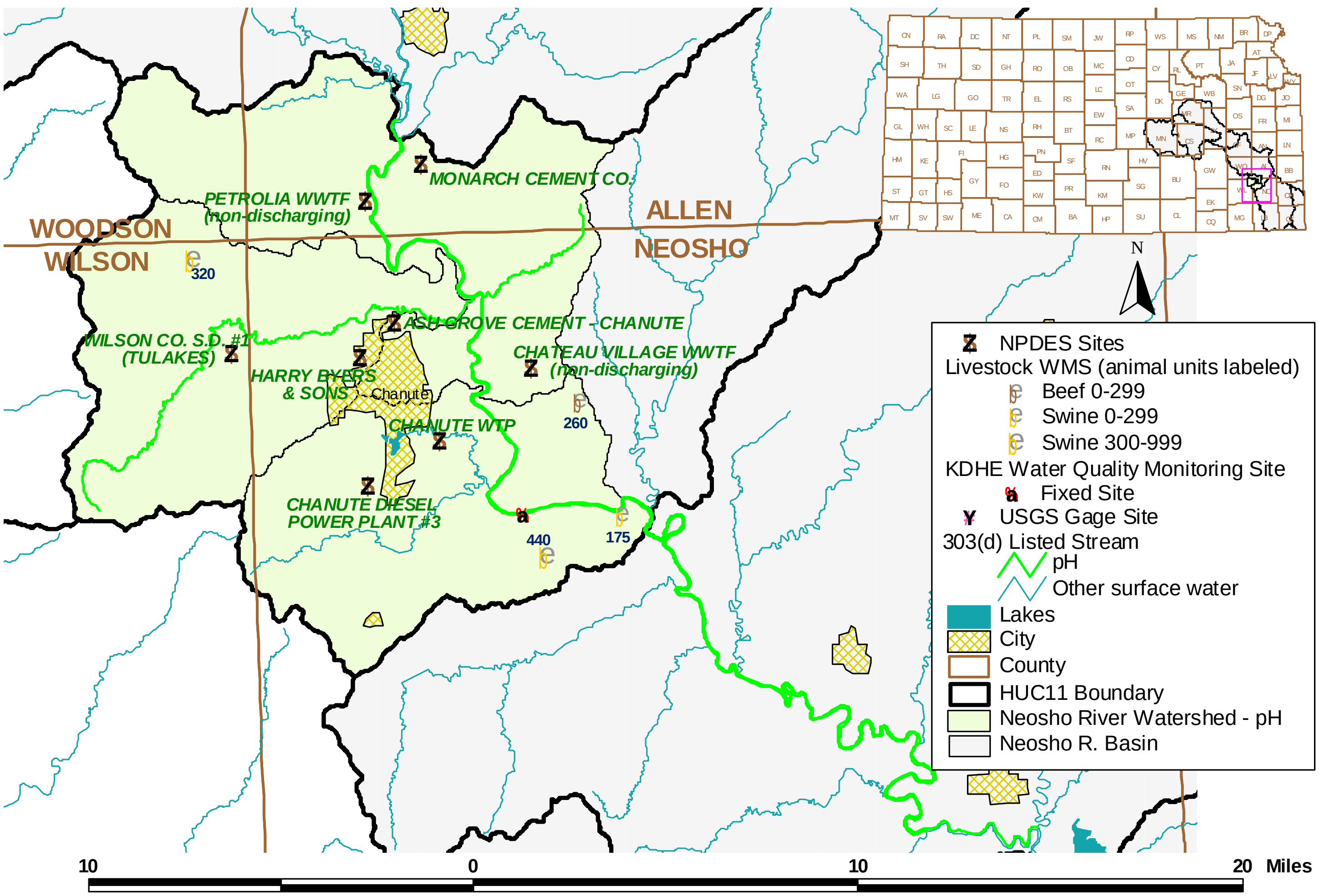


Figure 4

Neosho River Watershed (pH)
Land Use, Population and Grazing Density

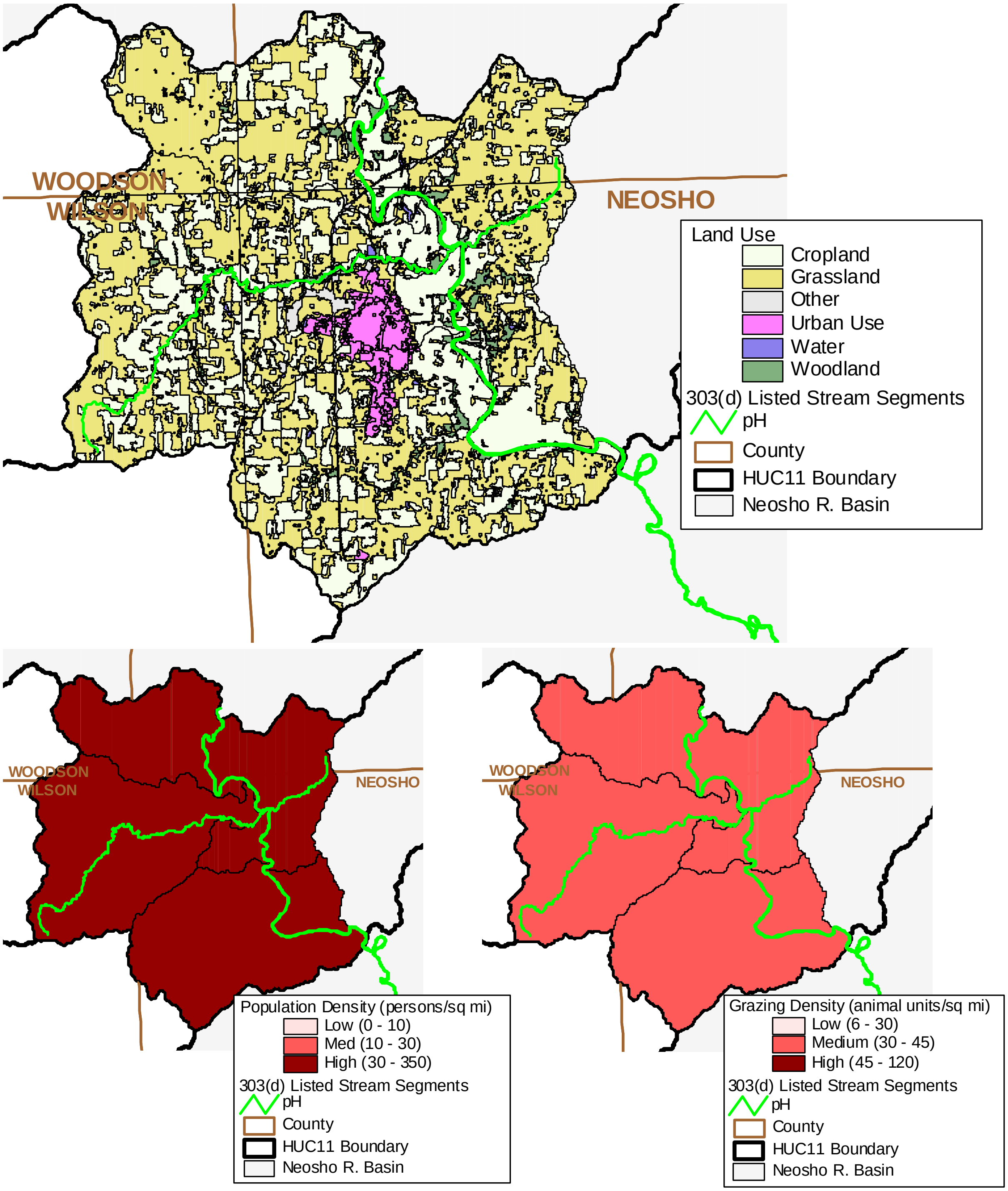


Figure 5

Contributing Runoff: The Neosho River watershed's average soil permeability is0.5 inches/hour according to NRCS STATSGO data base. Ninety nine percent of the watershed produces runoff even under relatively low (1.71''/hr) potential runoff conditions. Under very low (1.14"/hr) potential conditions, this potential contributing area is reduced to about 83%. Runoff is chiefly generated as infiltration excess with rainfall intensities greater than soil permeabilities. As the watersheds' soil profiles become saturated, excess overland flow is produced. Generally, storms producing less than 0.57"/hr of rain will still generate runoff from 73% of this watershed

4. ALLOCATION OF POLLUTANT REDUCTION RESPONSIBILITY

It is believed that the flow in the Neosho River under those conditions where pH excursions were noted at Site 271 is nearly dominated by releases from John Redmond Lake. Also, it has been shown that there is little change to the relevant stream chemistry through the tracking of pH and nutrients from John Redmond to Site 271. Since the flow and concentration at Site 271 can be linked to lake releases, it follows that the loadings are also related to John Redmond Lake. These relations are compounded by the effect of backwater areas behind low head dams which likely facilitates photosynthesis in suspended plankton. Although loads will be set by this TMDL, no reductions in either Load or Wasteload Allocations will be established, since the pH excursion at Site 271 are not related to activities within the watershed. Activities to reduce nutrient loading to John Redmond Lake, which in turn should improve lake pH conditions and associated releases from the lake are outlined in the John Redmond Lake Eutrophication TMDL.

Point Sources: Point sources are responsible for maintaining their systems in proper working condition and appropriate capacity to handle anticipated wasteloads of their respective populations. The State and NPDES permits will continue to be issued on 5 year intervals, with inspection and monitoring requirements and conditional limits on the quality of effluent released from these facilities. Ongoing inspections and monitoring of the systems will be made to ensure that minimal contributions have been made by this source.

The Wasteload Allocations will be defined as the product pH criteria, bounded by its upper and lower limits, and flows occurring 98-99% of the time (**Figure 6**). Wasteload allocations are established for the low flows conditions which are most susceptible to impact form point source discharges. Typically, these conditions are deemed to be ten times the combined design flow of the facilities or the 7Q10, whichever is greater. This allocation accounts for future point source loads exerting some impact on the water quality of the stream. The TMDL addressing the eutrophication issue at John Redmond establishes a reduction of 22.8 % in its Wasteload Allocation.

Nonpoint Sources: Based on the assessment of sources, the distribution of excursions from water quality standards and the relationship of those excursions to runoff conditions, non-point sources within the watershed are also not seen as a significant cause of the water quality violation. Additionally, background levels are not a significant cause of the problem.

The Load Allocation assigns responsibility for maintaining water quality bounded by the upper and lower pH limits over flow conditions exceeded 98% of the time (greater than 22.5 cfs streamflow) (**Figure 6**). The TMDL addressing the eutrophication in John Redmond reduces the Load Allocation by 60.6 %.

Defined Margin of Safety: The Margin of Safety (MOS) will be implicit based on current data which indicates the cause of impairment occurring upstream of the watershed. Hence, this TMDLs MOS is essentially created by the MOS associated with the John Redmond TMDL, which is a 10 % allocation of the derived load capacity at the lake. Should future study of point and nonpoint source activities within the watershed determine an impact on loading, the margin of safety will be crafted to reduce the available allocations to those sources.

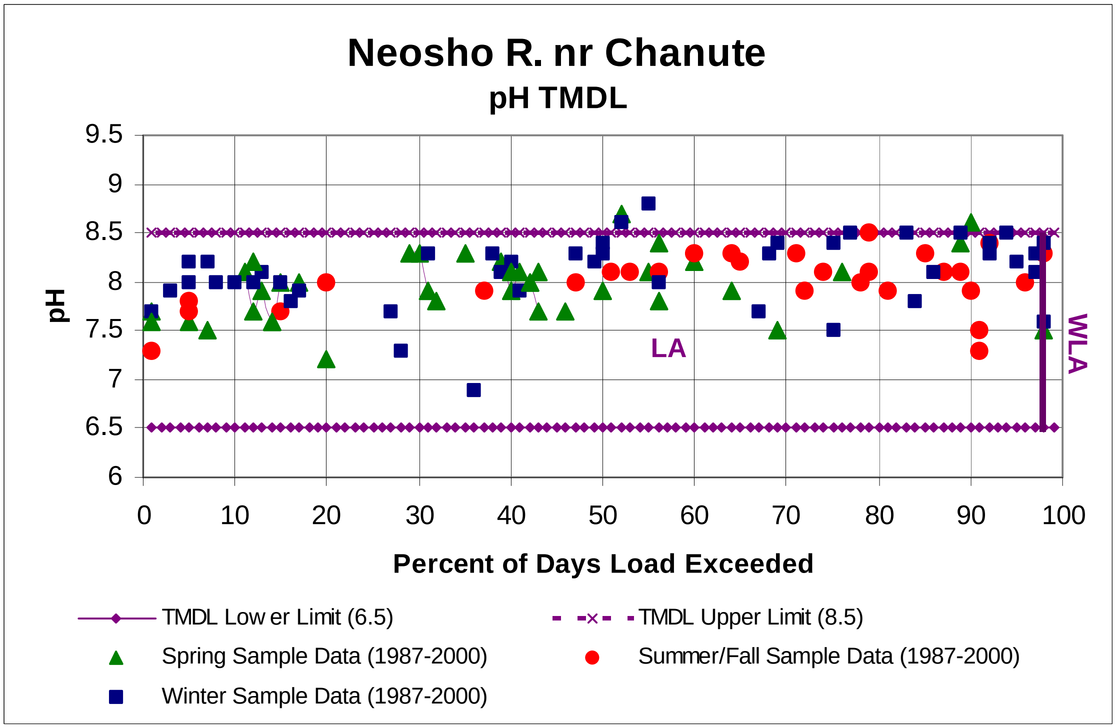


Figure 6

State Water Plan Implementation Priority: Because the frequency of excursions from the water quality standard is presently less than 10% of samples and current data indicates the impairment in the watershed is cause by activities external to the watershed, this TMDL will be a Medium Priority for implementation.

Unified Watershed Assessment Priority Ranking: This watershed lies within the Upper Neosho Basin (HUC 8: 11070204) with a priority ranking of 20 (High Priority for restoration work).

Priority HUC 11s and Stream Segments: Unless impairment is determined by additional monitoring between 2003- 2007, no priority HUCs or stream segments within the defined watershed will be identified.

5. IMPLEMENTATION

Desired Implementation Activities

1. None, unless impairment is determined by additional monitoring between 2003- 2007.

Implementation Programs Guidance

Unless impairment is determined by additional monitoring between 2003- 2007, no direction is needed on implementation programs.

Time frame for Implementation: Conditions will be evaluated based additional on monitoring between 2003- 2007.

Targeted Participants: None, until 2007 evaluation.

Milestone for 2007: The year 2007 marks the midpoint of the ten-year implementation window for the watershed. At that point in time, additional monitoring data from Station 271 will be reexamined to confirm the impaired status of the streams within this watershed. Should the case of impairment based on activities with in the watershed be confirmed, source assessment, allocation and implementation activities will ensue.

Delivery Agents: None at this time. Status will be re-evaluated in 2007.

Reasonable Assurances:

Authorities: The following authorities may be used to direct activities in the watershed to reduce pollution.

1. K.S.A. 65-164 and 165 empowers the Secretary of KDHE to regulate the discharge of sewage into the waters of the state.

2. K.S.A. 65-171d empowers the Secretary of KDHE to prevent water pollution and to protect the beneficial uses of the waters of the state through required treatment of sewage and established water quality standards and to require permits by persons having a potential to discharge pollutants into the waters of the state.

3. K.A.R. 28-16-69 to -71 implements water quality protection by KDHE through the establishment and administration of critical water quality management areas on a watershed basis.

4. K.S.A. 2-1915 empowers the State Conservation Commission to develop programs to assist the protection, conservation and management of soil and water resources in the state, including riparian areas.

5. K.S.A. 75-5657 empowers the State Conservation Commission to provide financial assistance for local project work plans developed to control non-point source pollution.

6. K.S.A. 82a-901, *et seq*. empowers the Kansas Water Office to develop a state water plan directing the protection and maintenance of surface water quality for the waters of the state.

7. K.S.A. 82a-951 creates the State Water Plan Fund to finance the implementation of the *Kansas Water Plan*.

8. The *Kansas Water Plan* and the Walnut Basin Plan provide the guidance to state agencies to coordinate programs intent on protecting water quality and to target those programs to geographic areas of the state for high priority in implementation.

Funding: The State Water Plan Fund, annually generates $16-18 million and is the primary funding mechanism for implementing water quality protection and pollution reduction activities in the state through the *Kansas Water Plan*. The state water planning process, overseen by the Kansas Water Office, coordinates and directs programs and funding toward watersheds and water resources of highest priority. Typically, the state allocates at least 50% of the fund to programs supporting water quality protection. This watershed and its TMDL is a Medium Priority consideration.

Effectiveness: Best Management Practices are effective in reducing nutrient loadings to streams and lakes if installed at a sufficiently high density and in proximity to contributing streams.

6. MONITORING

KDHE will continue to collect bimonthly samples from 2003 - 2006 at Station 271, over each of the three defined seasons. Based on that sampling, the priority status of 303(d) listing will be evaluated in 2007. Should a case for impaired status develop, the desired endpoints under this TMDL will be refined and direct more intensive sampling may need to be conducted under specified seasonal flow conditions over the period 2007-2011.

Monitoring of pH levels in effluent will continue to be a condition of NPDES and state permits for facilities. This monitoring will continually assess the functionality of the systems adherence to permitted levels in the effluent released to the streams.

7. FEEDBACK

Public Meetings: Public meetings to discuss TMDLs in the Neosho Basin were held January 9, 2002 in Burlington and March 4, 2002 in Council Grove. An active Internet Web site was established at http://www.kdhe.state.ks.us/tmdl/ to convey information to the public on the general establishment of TMDLs and specific TMDLs for the Neosho Basin.

Public Hearing: Public Hearings on the TMDLs of the Neosho Basin were held in Burlington and Parsons on June 3, 2002.

Basin Advisory Committee: The Neosho Basin Advisory Committee met to discuss the TMDLs in the basin on October 2, 2001, January 9 and March 4, 2002.

Milestone Evaluation: In 2007, evaluation will be made as to the degree of implementation which has occurred within the watershed and current condition of the Neosho River. Subsequent decisions will be made regarding the implementation approach and follow up of additional implementation in the watershed.

Consideration for 303(d) Delisting: The river will be evaluated for delisting under Section

303(d), based on the monitoring data over the period 2007-2011. Therefore, the decision for delisting will come about in the preparation of the 2012 303(d) list. Should modifications be made to the applicable water quality criteria during the ten year implementation period, consideration for delisting, desired endpoints of this TMDL and implementation activities may be adjusted accordingly.

Incorporation into Continuing Planning Process, Water Quality Management Plan and the Kansas Water Planning Process: Under the current version of the Continuing Planning Process, the next anticipated revision will come in 2003 which will emphasize implementation of TMDLs. At that time, incorporation of this TMDL will be made into both documents. Recommendations of this TMDL will be considered in *Kansas Water Plan* implementation decisions under the State Water Planning Process for Fiscal Years 2003-2007.

APPENDIX

Table 2														
Exceedance Table (pH) at Station 271														
COL_DATE	pH	AMMONIA	BOD	DO	FCB	NITRATE	TEMP	PHOS	TSS	CALCIUM	ALKALINITY	SULFATE	FLOW(Iola)	JR Release
04/15/96	**8.60**	0.095	3.8	12.4	1	0.09	14	0.13	17	79	208	106	42	31
02/01/00	**8.80**	0.04	4.56	15.6	10	0.33	2	0.12	26	84	221	52	464	361
01/06/97	**8.60**	0.05	2.61	13.5	10	0.54	6	0.126	13	67	183	81	557	626
06/06/00	**8.70**	0.02	4.38	8.7	30	0.39	25	0.19	74	77	215	100	575	809
Average	8.68	0.05	3.84	12.55	12.75	0.34	11.75	0.14	32.5	76.75	206.75	84.75	409.50	456.75

Table 3														
Neosho River nr Le Roy (upstream of subject site) for similar sample dates as in Table 1														
COL_DATE	pH	AMMONIA	BOD	DO	FCB	NITRATE	TEMP	PHOS	TSS	CALCIUM	ALKALINITY	SULFATE	FLOW(Iola)	JR Release
04/17/96	8.40	0.41	4.7	10	21	0.03	14	0.12	25	84	209	116.00	21	31
01/31/00	8.50	0.027	5.4	15.9	10	0.32	0	0.095	35	96	239	55.00	43	361
01/08/97	8.30	0.03	3.3	13.5	10	0.4	3	0.13	29	69	183	76.00	589	626
06/05/00	**8.60**	0.02	4.23	8.5	100	0.49	24	0.2	77	78	207	92.00	554	809
Average	8.45	0.12	4.41	11.98	35.25	0.31	10.25	0.14	41.5	81.75	209.5	84.75	301.75	456.75

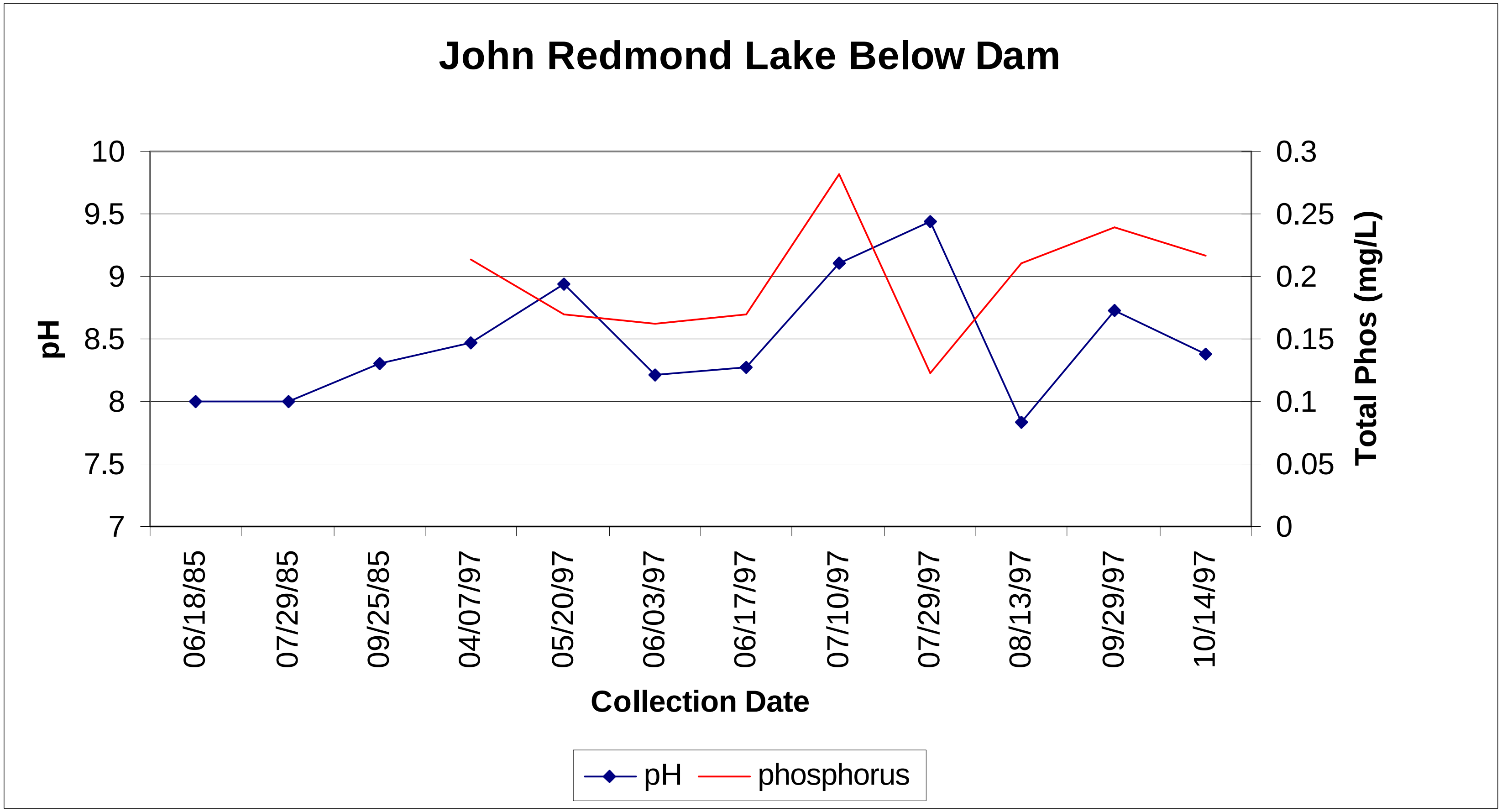
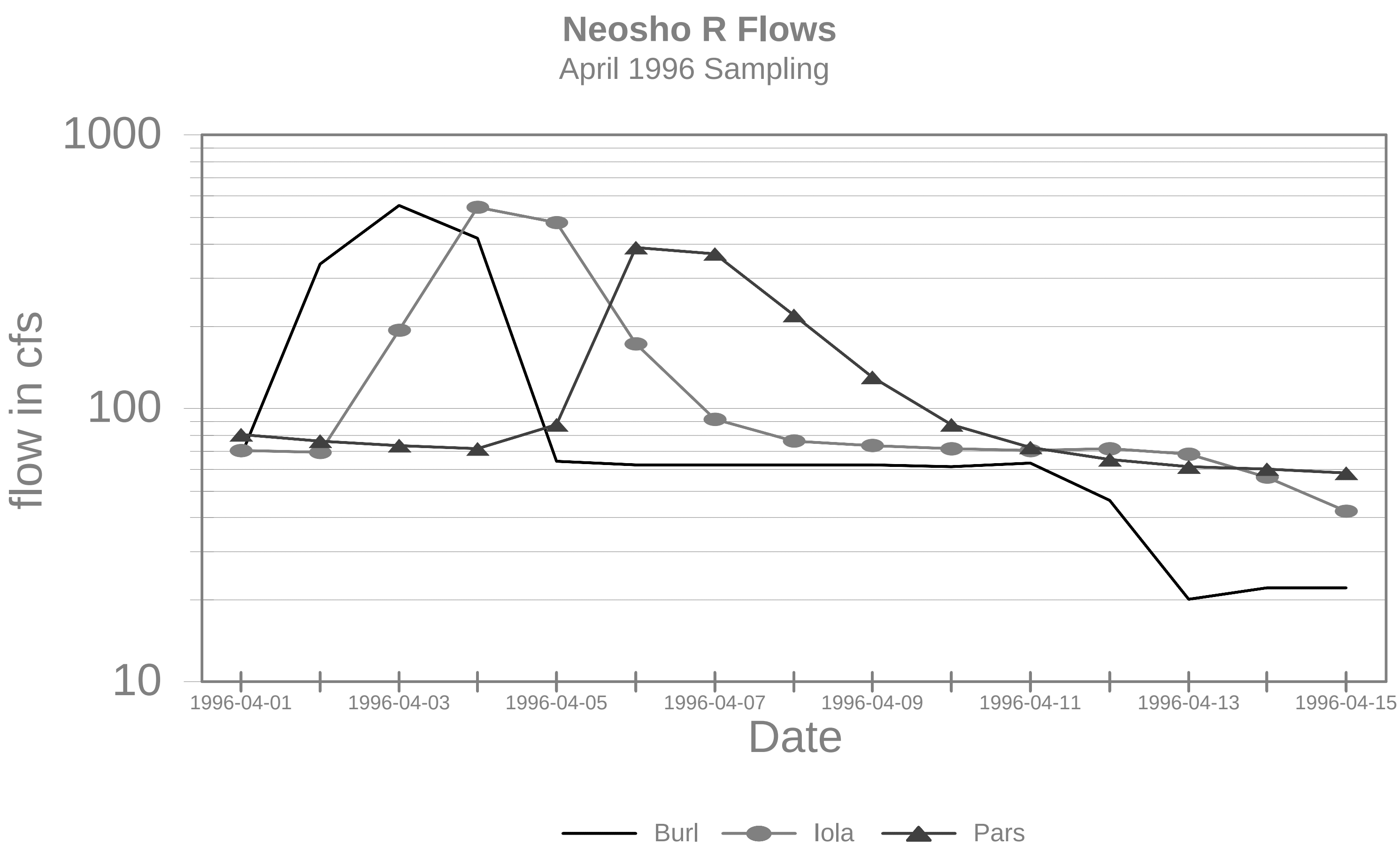
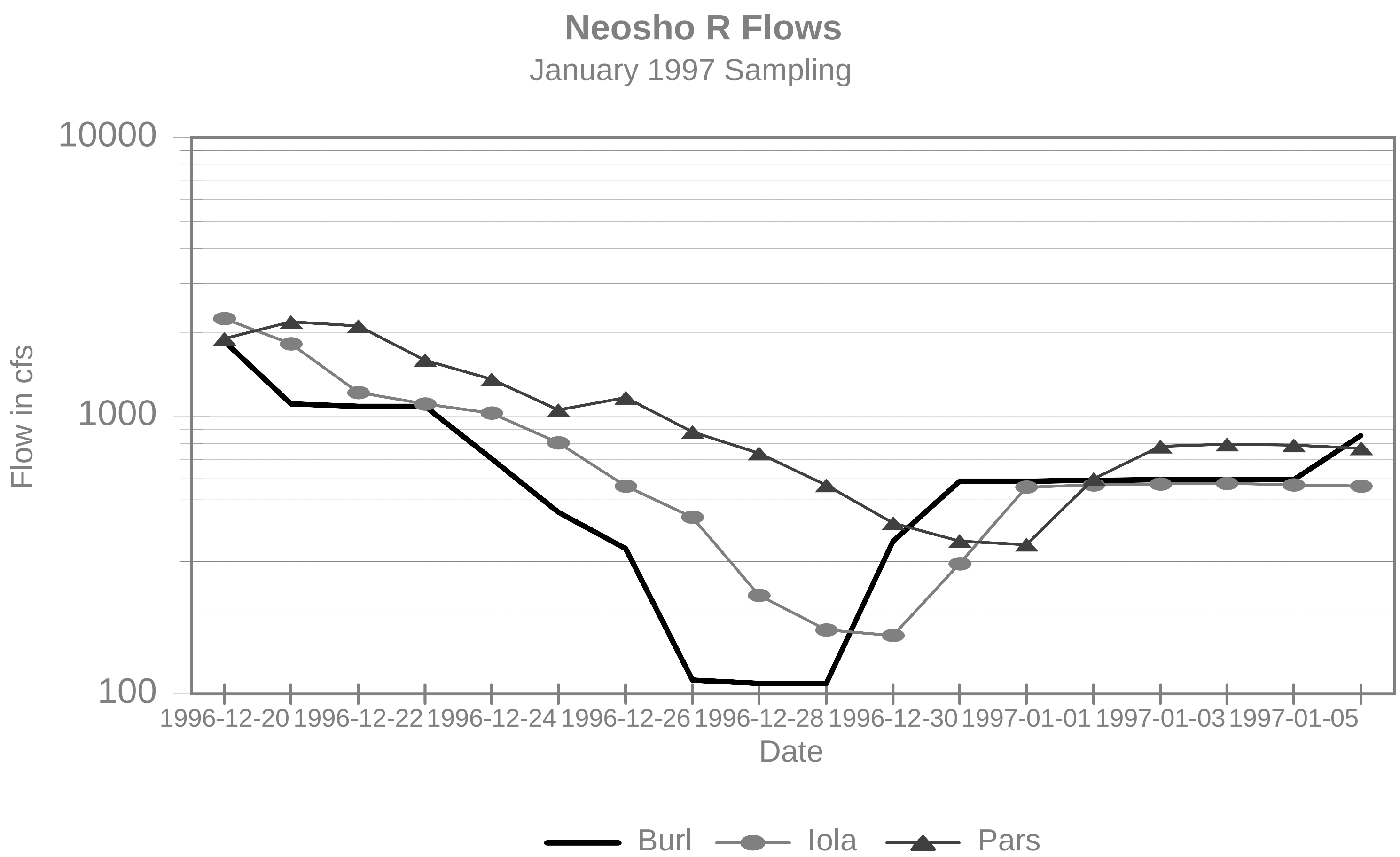
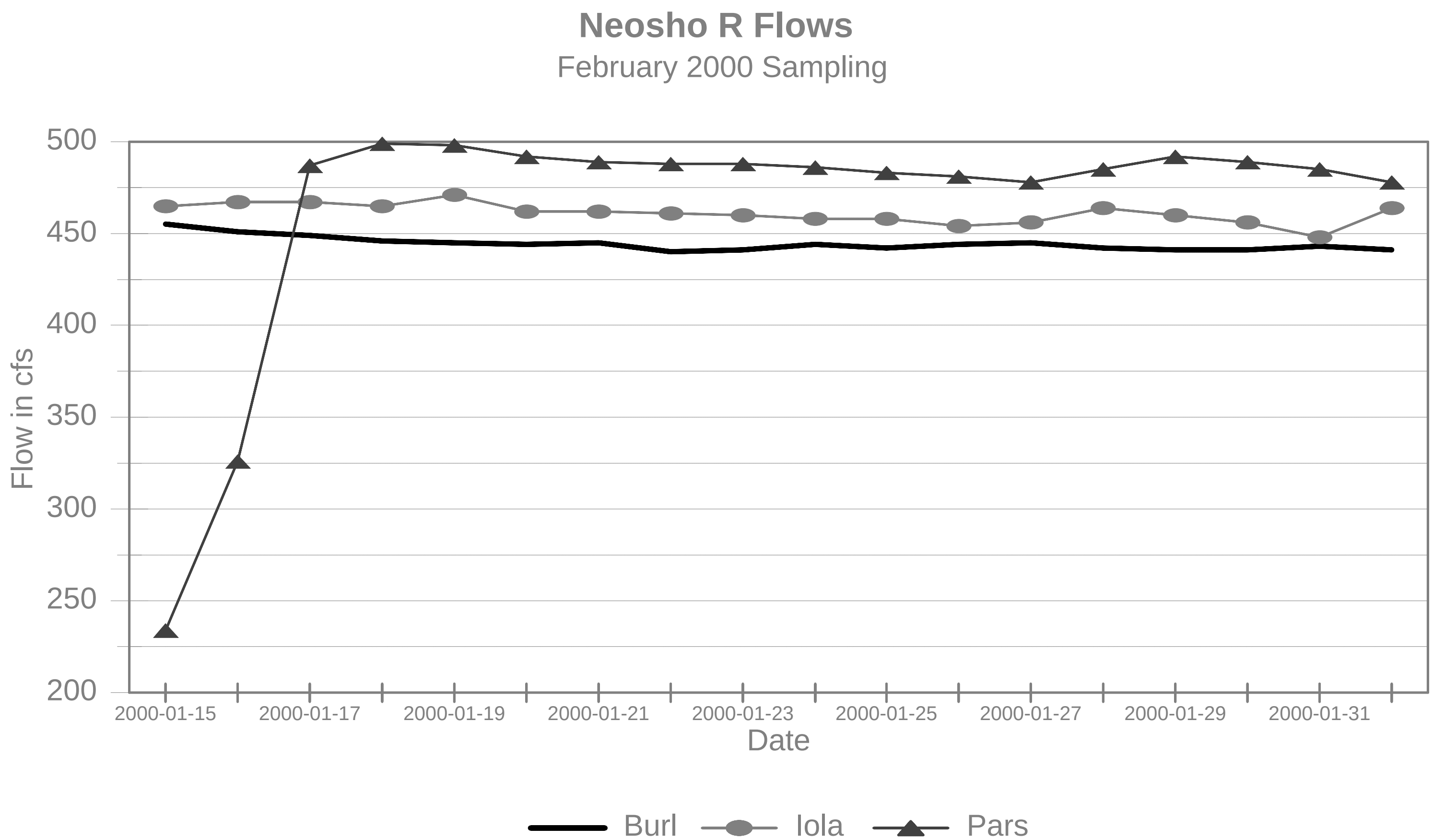

John Redmond Lake Below Dam
pH
10
9.5
9
8.5
8
7.5
7
0.3
0.25
0.2
0.15
0.1
0.05
0
Total Phos (mg/L)
06/18/85
07/29/85
09/25/85
04/07/97
05/20/97
06/03/97
06/17/97
07/10/97
07/29/97
08/13/97
09/29/97
10/14/97
Collection Date
pH
phosphorus

Figure 3

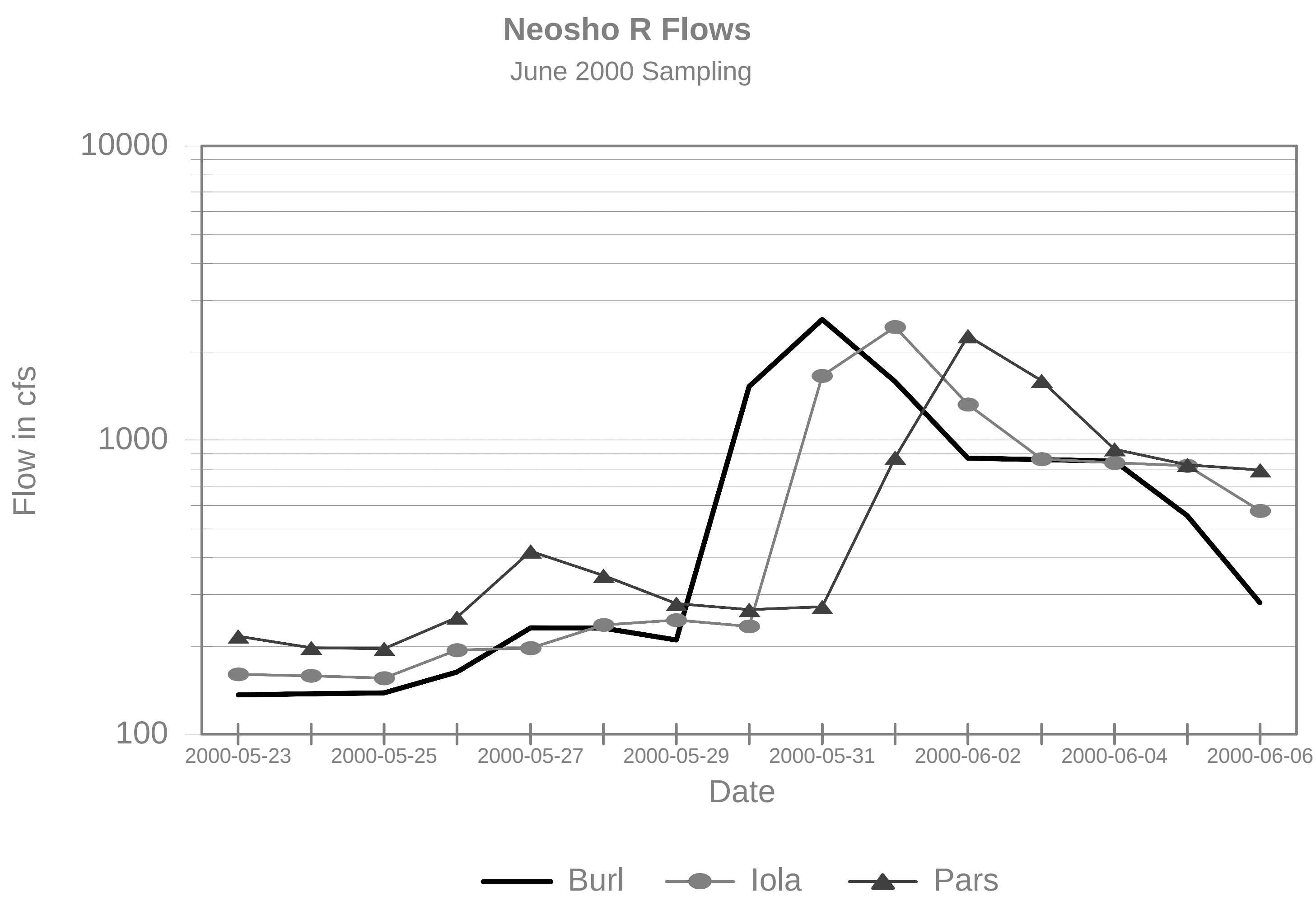


Neosho R Flows
April 1996 Sampling
1000
100
10
flow in cfs
1996-04-01
1996-04-03
1996-04-05
1996-04-07
1996-04-09
1996-04-11
1996-04-13
1996-04-15
Date
Burl
Iola
Pars


Neosho R Flows
January 1997 Sampling
10000
1000
100
Flow in cfs
1996-12-20
1996-12-22
1996-12-24
1996-12-26
1996-12-28
1996-12-30
1997-01-01
1997-01-03
1997-01-05
Date
Burl
Iola
Pars



Neosho R Flows
February 2000 Sampling
Flow in cfs
500
450
400
350
300
250
200
2000-01-15
2000-01-17
2000-01-19
2000-01-21
2000-01-23
2000-01-25
2000-01-27
2000-01-29
2000-01-31
Date
Burl
Iola
Pars



Neosho R Flows
June 2000 Sampling
10000
1000
100
Flow in cfs
2000-05-23
2000-05-25
2000-05-27
2000-05-29
2000-05-31
2000-06-02
2000-06-04
2000-06-06
Date
Burl
Iola
Pars