APPENDICES

Appendix A

Phase 1 – Cost Estimate Breakdown

Location #1

City of Paintsville
I & I Cost
Intersection of 3rd & Church

Description	Quantity	Units	Unit Cost	Total Cost
Curb Inlets	4	each	$400	$1,600
Pipe for Curb Inlets (18")	96	L.F.	$125	$12,000
4' Dia Manhole (new)		each	$3,000	$0
4' Dia Manhole (New Sealed)	1	each	$6,000	$6,000
6' Dia Manhole (New)		each	$4,000	$0
6' Dia Manhole (New Sealed)		each	$8,000	$0
Extra Manhole Depth		V.F.	$250	$0
Tie to existing Sanitary Sewer		each	$2,700	$0
Tie to existing Storm Sewer	1	each	$2,500	$2,500
Replace existing Sanitary Sewer				$0
8" Dia Sanitary Gravity	30	L.F.	$95	$2,850
10" Dia Sanitary Gravity		L.F.	$100	$0
12" Dia Sanitary Gravity		L.F.	$105	$0
New Storm Drain				$0
12" Dia RCP		L.F.	$100	$0
15" Dia RCP		L.F.	$115	$0
18" Dia RCP	15	L.F.	$125	$1,875
24" Dia RCP	24	L.F.	$175	$4,200
Waterline				$0
6" Dia	40	L.F.	$8	$320
4" Dia		L.F.	$5	$0
Gasoline				$0
2" Dia		L.F.	$3	$0
4" Dia		L.F.	$5	$0
6" Dia	20	L.F.	$7	$140
Crosswalk	4	each	$800	$3,200
Handicap Ramp	4	each	$450	$1,800
Sidewalk	40	L.F.	$40	$1,600
Curb/Gutter	40	L.F.	$27	$1,080
Pavement (Full Width)	64	L.F.	$95	$6,080
Downspout Cross Connections	5	each	$200	$1,000
Renovate Sanitary Manhole (Minor)	1	each	$200	$200
Renovate Sanitary Manhole (Major)	1	each	$300	$300
Total for Location #1				$46,745

Location #2

City of Paintsville
I & I Cost
Intersection of 2nd & Church

Description	Quantity	Units	Unit Cost	Total Cost
Curb Inlets	4	each	$400	$1,600
Pipe for Curb Inlets (18")	96	L.F.	$125	$12,000
4' Dia Manhole (new)	1	each	$3,000	$3,000
4' Dia Manhole (New Sealed)	1	each	$6,000	$6,000
6' Dia Manhole (New)		each	$4,000	$0
6' Dia Manhole (New Sealed)		each	$8,000	$0
Extra Manhole Depth		V.F.	$250	$0
Tie to existing Sanitary Sewer	2	each	$2,700	$5,400
Tie to existing Storm Sewer	2	each	$2,500	$5,000
Replace existing Sanitary Sewer				$0
8" Dia Sanitary Gravity	40	L.F.	$95	$3,800
10" Dia Sanitary Gravity		L.F.	$100	$0
12" Dia Sanitary Gravity	40	L.F.	$105	$4,200
New Storm Drain				$0
12" Dia RCP		L.F.	$100	$0
15" Dia RCP		L.F.	$115	$0
18" Dia RCP		L.F.	$125	$0
24" Dia RCP	50	L.F.	$175	$8,750
Waterline				$0
6" Dia	10	L.F.	$8	$80
4" Dia	40	L.F.	$5	$200
Gasoline				$0
2" Dia	20	L.F.	$3	$60
4" Dia	20	L.F.	$5	$100
6" Dia		L.F.	$7	$0
Crosswalk	4	each	$800	$3,200
Handicap Ramp	4	each	$450	$1,800
Sidewalk	40	L.F.	$40	$1,600
Curb/Gutter	40	L.F.	$27	$1,080
Pavement (Full Width)	64	L.F.	$95	$6,080
Downspout Cross Connections	5	each	$200	$1,000
Renovate Sanitary Manhole (Minor)	1	each	$200	$200
Renovate Sanitary Manhole (Major)	2	each	$300	$600
Total for Location #2				$65,750

Location #3

City of Paintsville

I & I Cost

Intersection of 2rd & Court

Description	Quantity	Units	Unit Cost	Total Cost
Curb Inlets	4	each	$400	$1,600
Pipe for Curb Inlets (18")	96	L.F.	$125	$12,000
4' Dia Manhole (new)		each	$3,000	$0
4' Dia Manhole (New Sealed)	1	each	$6,000	$6,000
6' Dia Manhole (New)		each	$4,000	$0
6' Dia Manhole (New Sealed)		each	$8,000	$0
Extra Manhole Depth		V.F.	$250	$0
Tie to existing Sanitary Sewer	1	each	$2,700	$2,700
Tie to existing Storm Sewer	11	each	$2,500	$27,500
Replace existing Sanitary Sewer				$0
8" Dia Sanitary Gravity		L.F.	$95	$0
10" Dia Sanitary Gravity	40	L.F.	$100	$4,000
12" Dia Sanitary Gravity		L.F.	$105	$0
New Storm Drain				$0
12" Dia RCP		L.F.	$100	$0
15" Dia RCP		L.F.	$115	$0
18" Dia RCP		L.F.	$125	$0
24" Dia RCP	30	L.F.	$175	$5,250
Waterline				$0
6" Dia	20	L.F.	$8	$160
4" Dia	20	L.F.	$5	$100
Gasoline				$0
2" Dia		L.F.	$3	$0
4" Dia		L.F.	$5	$0
6" Dia		L.F.	$7	$0
Crosswalk	4	each	$800	$3,200
Handicap Ramp	4	each	$450	$1,800
Sidewalk	40	L.F.	$40	$1,600
Curb/Gutter	40	L.F.	$27	$1,080
Pavement (Full Width)	64	L.F.	$95	$6,080
Downspout Cross Connections	4	each	$200	$800
Renovate Sanitary Manhole (Minor)	1	each	$200	$200
Renovate Sanitary Manhole (Major)	1	each	$300	$300
Total for Location #3				$74,370

Location #4

City of Paintsville
I & I Cost
Intersection of 3rd & College

Description	Quantity	Units	Unit Cost	Total Cost
Curb Inlets	3	each	$400	$1,200
Pipe for Curb Inlets (18")	80	L.F.	$125	$10,000
4' Dia Manhole (new)	1	each	$3,000	$3,000
4' Dia Manhole (New Sealed)	1	each	$6,000	$6,000
6' Dia Manhole (New)		each	$4,000	$0
6' Dia Manhole (New Sealed)		each	$8,000	$0
Extra Manhole Depth		V.F.	$250	$0
Tie to existing Sanitary Sewer	1	each	$2,700	$2,700
Tie to existing Storm Sewer		each	$2,500	$0
Replace existing Sanitary Sewer				$0
8" Dia Sanitary Gravity	30	L.F.	$95	$2,850
10" Dia Sanitary Gravity		L.F.	$100	$0
12" Dia Sanitary Gravity		L.F.	$105	$0
New Storm Drain				$0
12" Dia RCP		L.F.	$100	$0
15" Dia RCP		L.F.	$115	$0
18" Dia RCP		L.F.	$125	$0
24" Dia RCP	40	L.F.	$175	$7,000
Waterline				$0
6" Dia	20	L.F.	$8	$160
4" Dia	20	L.F.	$5	$100
Gasoline				$0
2" Dia		L.F.	$3	$0
4" Dia		L.F.	$5	$0
6" Dia	30	L.F.	$7	$210
Crosswalk	4	each	$800	$3,200
Handicap Ramp	4	each	$450	$1,800
Sidewalk	40	L.F.	$40	$1,600
Curb/Gutter	40	L.F.	$27	$1,080
Pavement (Full Width)	64	L.F.	$95	$6,080
Downspout Cross Connections	5	each	$200	$1,000
Renovate Sanitary Manhole (Minor)	1	each	$200	$200
Renovate Sanitary Manhole (Major)		each	$300	$0
Total for Location #4				**$48,180**

Location #5

City of Paintsville
I & I Cost
Intersection of 4th & College

Description	Quantity	Units	Unit Cost	Total Cost
Curb Inlets	4	each	$400	$1,600
Pipe for Curb Inlets (18")	60	L.F.	$125	$7,500
4' Dia Manhole (new)	1	each	$3,000	$3,000
4' Dia Manhole (New Sealed)	1	each	$6,000	$6,000
6' Dia Manhole (New)	1	each	$4,000	$4,000
6' Dia Manhole (New Sealed)		each	$8,000	$0
Extra Manhole Depth		V.F.	$250	$0
Tie to existing Sanitary Sewer		each	$2,700	$0
Tie to existing Storm Sewer		each	$2,500	$0
Replace existing Sanitary Sewer				$0
8" Dia Sanitary Gravity	50	L.F.	$95	$4,750
10" Dia Sanitary Gravity		L.F.	$100	$0
12" Dia Sanitary Gravity		L.F.	$105	$0
New Storm Drain				$0
12" Dia RCP		L.F.	$100	$0
15" Dia RCP		L.F.	$115	$0
18" Dia RCP		L.F.	$125	$0
24" Dia RCP	40	L.F.	$175	$7,000
Waterline				$0
6" Dia	30	L.F.	$8	$240
4" Dia	30	L.F.	$5	$150
Gasoline				$0
2" Dia		L.F.	$3	$0
4" Dia		L.F.	$5	$0
6" Dia		L.F.	$7	$0
Crosswalk	4	each	$800	$3,200
Handicap Ramp	4	each	$450	$1,800
Sidewalk	40	L.F.	$40	$1,600
Curb/Gutter	30	L.F.	$27	$810
Pavement (Full Width)	150	L.F.	$95	$14,250
Downspout Cross Connections	5	each	$200	$1,000
Renovate Sanitary Manhole (Minor)	1	each	$200	$200
Renovate Sanitary Manhole (Major)		each	$300	$0
Total for Location #5				**$57,100**

Location #6

City of Paintsville
I & I Cost
Intersection of 5th & College

Description	Quantity	Units	Unit Cost	Total Cost
Curb Inlets	4	each	$400	$1,600
Pipe for Curb Inlets (18")	60	L.F.	$125	$7,500
4' Dia Manhole (new)		each	$3,000	$0
4' Dia Manhole (New Sealed)	1	each	$6,000	$6,000
6' Dia Manhole (New)	1	each	$4,000	$4,000
6' Dia Manhole (New Sealed)		each	$8,000	$0
Extra Manhole Depth		V.F.	$250	$0
Tie to existing Sanitary Sewer	1	each	$2,700	$2,700
Tie to existing Storm Sewer		each	$2,500	$0
Replace existing Sanitary Sewer				$0
8" Dia Sanitary Gravity	30	L.F.	$95	$2,850
10" Dia Sanitary Gravity	10	L.F.	$100	$1,000
12" Dia Sanitary Gravity		L.F.	$105	$0
New Storm Drain				$0
12" Dia RCP		L.F.	$100	$0
15" Dia RCP		L.F.	$115	$0
18" Dia RCP		L.F.	$125	$0
24" Dia RCP		L.F.	$175	$0
Waterline				$0
6" Dia	40	L.F.	$8	$320
4" Dia		L.F.	$5	$0
Gasoline				$0
2" Dia	30	L.F.	$3	$90
4" Dia		L.F.	$5	$0
6" Dia		L.F.	$7	$0
Crosswalk	4	each	$800	$3,200
Handicap Ramp	4	each	$450	$1,800
Sidewalk	300	L.F.	$40	$12,000
Curb/Gutter	150	L.F.	$27	$4,050
Pavement (Full Width)	64	L.F.	$95	$6,080
Downspout Cross Connections	5	each	$200	$1,000
Renovate Sanitary Manhole (Minor)	1	each	$200	$200
Renovate Sanitary Manhole (Major)		each	$300	$0
Total for Location #6				$54,390

Location #7

City of Paintsville
I & I Cost
Intersection of 5th & Elm

Description	Quantity	Units	Unit Cost	Total Cost
Curb Inlets	4	each	$400	$1,600
Pipe for Curb Inlets (18")	100	L.F.	$125	$12,500
4' Dia Manhole (new)	2	each	$3,000	$6,000
4' Dia Manhole (New Sealed)	1	each	$6,000	$6,000
6' Dia Manhole (New)		each	$4,000	$0
6' Dia Manhole (New Sealed)		each	$8,000	$0
Extra Manhole Depth		V.F.	$250	$0
Tie to existing Sanitary Sewer		each	$2,700	$0
Tie to existing Storm Sewer		each	$2,500	$0
Replace existing Sanitary Sewer				$0
8" Dia Sanitary Gravity	30	L.F.	$95	$2,850
10" Dia Sanitary Gravity		L.F.	$100	$0
12" Dia Sanitary Gravity		L.F.	$105	$0
New Storm Drain				$0
12" Dia RCP		L.F.	$100	$0
15" Dia RCP		L.F.	$115	$0
18" Dia RCP	300	L.F.	$125	$37,500
24" Dia RCP		L.F.	$175	$0
Waterline				$0
6" Dia	50	L.F.	$8	$400
4" Dia		L.F.	$5	$0
Gasoline				$0
2" Dia	30	L.F.	$3	$90
4" Dia		L.F.	$5	$0
6" Dia		L.F.	$7	$0
Crosswalk	1	each	$800	$800
Handicap Ramp	2	each	$450	$900
Sidewalk	40	L.F.	$40	$1,600
Curb/Gutter	300	L.F.	$27	$8,100
Pavement (Full Width)	150	L.F.	$95	$14,250
Downspout Cross Connections	5	each	$200	$1,000
Renovate Sanitary Manhole (Minor)	1	each	$200	$200
Renovate Sanitary Manhole (Major)		each	$300	$0
Total for Location #7				$93,790

Location #8

City of Paintsville
I & I Cost
Intersection of Elm and Ally Before 5th

Description	Quantity	Units	Unit Cost	Total Cost
Curb Inlets	4	each	$400	$1,600
Pipe for Curb Inlets (18")	96	L.F.	$125	$12,000
4' Dia Manhole (new)		each	$3,000	$0
4' Dia Manhole (New Sealed)	1	each	$6,000	$6,000
6' Dia Manhole (New)		each	$4,000	$0
6' Dia Manhole (New Sealed)		each	$8,000	$0
Extra Manhole Depth		V.F.	$250	$0
Tie to existing Sanitary Sewer	1	each	$2,700	$2,700
Tie to existing Storm Sewer	2	each	$2,500	$5,000
Replace existing Sanitary Sewer				$0
8" Dia Sanitary Gravity	40	L.F.	$95	$3,800
10" Dia Sanitary Gravity		L.F.	$100	$0
12" Dia Sanitary Gravity		L.F.	$105	$0
New Storm Drain				$0
12" Dia RCP		L.F.	$100	$0
15" Dia RCP		L.F.	$115	$0
18" Dia RCP	40	L.F.	$125	$5,000
24" Dia RCP		L.F.	$175	$0
Waterline				$0
6" Dia	40	L.F.	$8	$320
4" Dia		L.F.	$5	$0
Gasoline				$0
2" Dia	30	L.F.	$3	$90
4" Dia		L.F.	$5	$0
6" Dia		L.F.	$7	$0
Crosswalk		each	$800	$0
Handicap Ramp	4	each	$450	$1,800
Sidewalk		L.F.	$40	$0
Curb/Gutter	300	L.F.	$27	$8,100
Pavement (Full Width)	150	L.F.	$95	$14,250
Downspout Cross Connections	5	each	$200	$1,000
Renovate Sanitary Manhole (Minor)	3	each	$200	$600
Renovate Sanitary Manhole (Major)	3	each	$300	$900
Total for Location #8				$63,160

Location #9

City of Paintsville
I & I Cost
Intersection of 4th and Elm

Description	Quantity	Units	Unit Cost	Total Cost
Curb Inlets	4	each	$400	$1,600
Pipe for Curb Inlets (18")	96	L.F.	$125	$12,000
4' Dia Manhole (new)		each	$3,000	$0
4' Dia Manhole (New Sealed)	1	each	$6,000	$6,000
6' Dia Manhole (New)		each	$4,000	$0
6' Dia Manhole (New Sealed)		each	$8,000	$0
Extra Manhole Depth		V.F.	$250	$0
Tie to existing Sanitary Sewer		each	$2,700	$0
Tie to existing Storm Sewer	1	each	$2,500	$2,500
Replace existing Sanitary Sewer				$0
8" Dia Sanitary Gravity		L.F.	$95	$0
10" Dia Sanitary Gravity		L.F.	$100	$0
12" Dia Sanitary Gravity	40	L.F.	$105	$4,200
New Storm Drain				$0
12" Dia RCP		L.F.	$100	$0
15" Dia RCP		L.F.	$115	$0
18" Dia RCP		L.F.	$125	$0
24" Dia RCP		L.F.	$175	$0
Waterline				$0
6" Dia	30	L.F.	$8	$240
4" Dia	30	L.F.	$5	$150
Gasoline				$0
2" Dia		L.F.	$3	$0
4" Dia		L.F.	$5	$0
6" Dia		L.F.	$7	$0
Crosswalk	4	each	$800	$3,200
Handicap Ramp	4	each	$450	$1,800
Sidewalk	40	L.F.	$40	$1,600
Curb/Gutter	40	L.F.	$27	$1,080
Pavement (Full Width)	64	L.F.	$95	$6,080
Downspout Cross Connections	5	each	$200	$1,000
Renovate Sanitary Manhole (Minor)	2	each	$200	$400
Renovate Sanitary Manhole (Major)		each	$300	$0
Total for Location #9				**$41,850**

Location #10

City of Paintsville
I & I Cost
Intersection of 3rd and Elm

Description	Quantity	Units	Unit Cost	Total Cost
Curb Inlets	3	each	$400	$1,200
Pipe for Curb Inlets (18")	80	L.F.	$125	$10,000
4' Dia Manhole (new)		each	$3,000	$0
4' Dia Manhole (New Sealed)	1	each	$6,000	$6,000
6' Dia Manhole (New)		each	$4,000	$0
6' Dia Manhole (New Sealed)		each	$8,000	$0
Extra Manhole Depth		V.F.	$250	$0
Tie to existing Sanitary Sewer		each	$2,700	$0
Tie to existing Storm Sewer		each	$2,500	$0
Replace existing Sanitary Sewer				$0
8" Dia Sanitary Gravity	40	L.F.	$95	$3,800
10" Dia Sanitary Gravity		L.F.	$100	$0
12" Dia Sanitary Gravity		L.F.	$105	$0
New Storm Drain				$0
12" Dia RCP		L.F.	$100	$0
15" Dia RCP		L.F.	$115	$0
18" Dia RCP		L.F.	$125	$0
24" Dia RCP		L.F.	$175	$0
Waterline				$0
6" Dia		L.F.	$8	$0
4" Dia	20	L.F.	$5	$100
Gasoline	20			$0
2" Dia		L.F.	$3	$0
4" Dia	30	L.F.	$5	$150
6" Dia	30	L.F.	$7	$210
Crosswalk	4	each	$800	$3,200
Handicap Ramp	4	each	$450	$1,800
Sidewalk	40	L.F.	$40	$1,600
Curb/Gutter	40	L.F.	$27	$1,080
Pavement (Full Width)	64	L.F.	$95	$6,080
Downspout Cross Connections	5	each	$200	$1,000
Renovate Sanitary Manhole (Minor)	2	each	$200	$400
Renovate Sanitary Manhole (Major)	1	each	$300	$300
8 " Dia Water	20	L.F.	$10	$200
Total for Location #10				$37,120

Location #11

City of Paintsville

I & I Cost

ntersection of 3rd and Margaret Heights

Description	Quanity	Units	Unit Cost	Total Cost
Curb Inlets	4	each	$400	$1,600
Pipe for Curb Inlets (18")		L.F.	$125	$0
4' Dia Manhole (new)	3	each	$3,000	$9,000
4' Dia Manhole (New Sealed)		each	$6,000	$0
6' Dia Manhole (New)		each	$4,000	$0
6' Dia Manhole (New Sealed)		each	$8,000	$0
Extra Manhole Depth		V.F.	$250	$0
Tie to existiong Sanitary Sewer		each	$2,700	$0
Tie to existing Storm Sewer		each	$2,500	$0
Replace existing Sanitary Sewer				$0
8" Dia Sanitary Gravity	30	L.F.	$95	$2,850
10" Dia Sanitary Gravity		L.F.	$100	$0
12" Dia Sanitary Gravity		L.F.	$105	$0
New Storm Drain				$0
12" Dia RCP		L.F.	$100	$0
15" Dia RCP		L.F.	$115	$0
18" Dia RCP	450	L.F.	$125	$56,250
24" Dia RCP		L.F.	$175	$0
Waterline				$0
6" Dia		L.F.	$8	$0
12" Dia	50	L.F.	$15	$750
Gasline				$0
2" Dia	20	L.F.	$3	$60
4" Dia	20	L.F.	$5	$100
6" Dia	80	L.F.	$7	$560
Crosswalk	2	each	$800	$1,600
Handicap Ramp		each	$450	$0
Sidewalk		L.F.	$40	$0
Curb/Gutter	450	L.F.	$27	$12,150
Pavement (Full Width)	450	L.F.	$95	$42,750
Downspout Cross Connections		each	$200	$0
Renovate Sanitary Manhole (Minor)	1	each	$200	$200
Renovate Sanitary Manhole (Major)		each	$300	$0
8 " Dia Water		L.F.	$10	$0
Total for Location #11				$127,870

Location #12

City of Paintsville

I & I Cost

Intersection of Euclid and Main

Description	Quantity	Units	Unit Cost	Total Cost
Curb Inlets	2	each	$400	$800
Pipe for Curb Inlets (18")	45	L.F.	$125	$5,625
4' Dia Manhole (new)		each	$3,000	$0
4' Dia Manhole (New Sealed)	1	each	$6,000	$6,000
6' Dia Manhole (New)		each	$4,000	$0
6' Dia Manhole (New Sealed)		each	$8,000	$0
Extra Manhole Depth		V.F.	$250	$0
Tie to existing Sanitary Sewer	1	each	$2,700	$2,700
Tie to existing Storm Sewer	1	each	$2,500	$2,500
Replace existing Sanitary Sewer				$0
8" Dia Sanitary Gravity	30	L.F.	$95	$2,850
10" Dia Sanitary Gravity		L.F.	$100	$0
12" Dia Sanitary Gravity		L.F.	$105	$0
New Storm Drain				$0
12" Dia RCP		L.F.	$100	$0
15" Dia RCP		L.F.	$115	$0
18" Dia RCP		L.F.	$125	$0
24" Dia RCP		L.F.	$175	$0
Waterline				$0
8" Dia	30	L.F.	$10	$300
12" Dia	10	L.F.	$15	$150
Gasoline				$0
2" Dia	20	L.F.	$3	$60
4" Dia	30	L.F.	$5	$150
6" Dia	30	L.F.	$7	$210
Crosswalk	3	each	$800	$2,400
Handicap Ramp	3	each	$450	$1,350
Sidewalk	40	L.F.	$40	$1,600
Curb/Gutter	40	L.F.	$27	$1,080
Pavement (Full Width)	64	L.F.	$95	$6,080
Downspout Cross Connections	5	each	$200	$1,000
Renovate Sanitary Manhole (Minor)	1	each	$200	$200
Renovate Sanitary Manhole (Major)		each	$300	$0
8 " Dia Water		L.F.	$10	$0
Total for Location #12				$35,055

Location #13

City of Paintsville
I & I Cost
Intersection of Preston Street and Salt Well

Description	Quantity	Units	Unit Cost	Total Cost
Curb Inlets		each	$400	$0
Pipe for Curb Inlets (18")		L.F.	$125	$0
4' Dia Manhole (new)	1	each	$3,000	$3,000
4' Dia Manhole (New Sealed)	1	each	$6,000	$6,000
6' Dia Manhole (New)		each	$4,000	$0
6' Dia Manhole (New Sealed)		each	$8,000	$0
Extra Manhole Depth		V.F.	$250	$0
Tie to existing Sanitary Sewer		each	$2,700	$0
Tie to existing Storm Sewer		each	$2,500	$0
Replace existing Sanitary Sewer				$0
8" Dia Sanitary Gravity	30	L.F.	$95	$2,850
10" Dia Sanitary Gravity		L.F.	$100	$0
12" Dia Sanitary Gravity		L.F.	$105	$0
New Storm Drain				$0
12" Dia RCP		L.F.	$100	$0
15" Dia RCP		L.F.	$115	$0
18" Dia RCP	200	L.F.	$125	$25,000
24" Dia RCP		L.F.	$175	$0
Waterline				$0
8" Dia		L.F.	$10	$0
12" Dia		L.F.	$15	$0
Gasoline				$0
2" Dia		L.F.	$3	$0
4" Dia		L.F.	$5	$0
6" Dia		L.F.	$7	$0
Crosswalk		each	$800	$0
Handicap Ramp		each	$450	$0
Sidewalk	20	L.F.	$40	$800
Curb/Gutter	20	L.F.	$27	$540
Pavement (Full Width)	100	L.F.	$95	$9,500
Downspout Cross Connections	5	each	$200	$1,000
Renovate Sanitary Manhole (Minor)	1	each	$200	$200
Renovate Sanitary Manhole (Major)		each	$300	$0
8 " Dia Water		L.F.	$10	$0
Total for Location #13				$48,890

Location #14

City of Paintsville
I & I Cost
Between Maple St and Boyd St on
Depo Rd

Description	Quantity	Units	Unit Cost	Total Cost
Curb Inlets	2	each	$400	$800
Pipe for Curb Inlets (18")	45	L.F.	$125	$5.625
4' Dia Manhole (new)	1	each	$3,000	$3,000
4' Dia Manhole (New Sealed)	1	each	$6,000	$6,000
6' Dia Manhole (New)		each	$4,000	$0
6' Dia Manhole (New Sealed)		each	$8,000	$0
Extra Manhole Depth		V.F.	$250	$0
Tie to existing Sanitary Sewer	1	each	$2,700	$2,700
Tie to existing Storm Sewer	1	each	$2,500	$2,500
Replace existing Sanitary Sewer				$0
8" Dia Sanitary Gravity	30	L.F.	$95	$2,850
10" Dia Sanitary Gravity		L.F.	$100	$0
12" Dia Sanitary Gravity		L.F.	$105	$0
New Storm Drain				$0
12" Dia RCP		L.F.	$100	$0
15" Dia RCP		L.F.	$115	$0
18" Dia RCP		L.F.	$125	$0
24" Dia RCP		L.F.	$175	$0
Waterline				$0
6" Dia	30	L.F.	$8	$240
12" Dia		L.F.	$15	$0
Gasoline				$0
2" Dia		L.F.	$3	$0
4" Dia	30	L.F.	$5	$150
6" Dia		L.F.	$7	$0
Crosswalk	1	each	$800	$800
Handicap Ramp	2	each	$450	$900
Sidewalk	30	L.F.	$40	$1,200
Curb/Gutter	60	L.F.	$27	$1,620
Pavement (Full Width)	30	L.F.	$95	$2,850
Downspout Cross Connections	5	each	$200	$1,000
Renovate Sanitary Manhole (Minor)	1	each	$200	$200
Renovate Sanitary Manhole (Major)		each	$300	$0
8 " Dia Water		L.F.	$10	$0
Total for Location #14				$32,435

Location #15

City of Paintsville

I & I Cost

Intersection of 3rd Street and Court Street

Description	Quantity	Units	Unit Cost	Total Cost
Curb Inlets	4	each	$400	$1,600
Pipe for Curb Inlets (18")	90	L.F.	$125	$11,250
4' Dia Manhole (new)	1	each	$3,000	$3,000
4' Dia Manhole (New Sealed)	1	each	$6,000	$6,000
6' Dia Manhole (New)		each	$4,000	$0
6' Dia Manhole (New Sealed)		each	$8,000	$0
Extra Manhole Depth		V.F.	$250	$0
Tie to existing Sanitary Sewer		each	$2,700	$0
Tie to existing Storm Sewer		each	$2,500	$0
Replace existing Sanitary Sewer				$0
8" Dia Sanitary Gravity	10	L.F.	$95	$950
10" Dia Sanitary Gravity	20	L.F.	$100	$2,000
12" Dia Sanitary Gravity		L.F.	$105	$0
New Storm Drain				$0
12" Dia RCP		L.F.	$100	$0
15" Dia RCP		L.F.	$115	$0
18" Dia RCP		L.F.	$125	$0
24" Dia RCP	40	L.F.	$175	$7,000
Waterline				$0
10" Dia	30	L.F.	$13	$390
12" Dia	20	L.F.	$15	$300
Gasoline				$0
2" Dia	20	L.F.	$3	$60
4" Dia	20	L.F.	$5	$100
6" Dia	20	L.F.	$7	$140
Crosswalk	4	each	$800	$3,200
Handicap Ramp	4	each	$450	$1,800
Sidewalk	40	L.F.	$40	$1,600
Curb/Gutter	130	L.F.	$27	$3,510
Pavement (Full Width)	64	L.F.	$95	$6,080
Downspout Cross Connections	5	each	$200	$1,000
Renovate Sanitary Manhole (Minor)	1	each	$200	$200
Renovate Sanitary Manhole (Major)		each	$300	$0
8 " Dia Water		L.F.	$10	$0
Total for Location #15				**$50,180**

Location # 16

City of Paintsville
I & I Cost
Auxier Ave

Description	Quantity	Units	Unit Cost	Total Cost
Curb Inlets		each	$400	$0
Pipe for Curb Inlets (18")		L.F.	$125	$0
4' Dia Manhole (new)	1	each	$3,000	$3,000
4' Dia Manhole (New Sealed)		each	$6,000	$0
6' Dia Manhole (New)		each	$4,000	$0
6' Dia Manhole (New Sealed)	1	each	$8,000	$8,000
Extra Manhole Depth		V.F.	$250	$0
Tie to existing Sanitary Sewer	1	each	$2,700	$2,700
Tie to existing Storm Sewer	1	each	$2,500	$2,500
Replace existing Sanitary Sewer				$0
8" Dia Sanitary Gravity		L.F.	$95	$0
10" Dia Sanitary Gravity		L.F.	$100	$0
12" Dia Sanitary Gravity	50	L.F.	$105	$5,250
New Storm Drain				$0
12" Dia RCP		L.F.	$100	$0
15" Dia RCP		L.F.	$115	$0
18" Dia RCP		L.F.	$125	$0
24" Dia RCP		L.F.	$175	$0
Waterline				$0
10" Dia		L.F.	$13	$0
12" Dia		L.F.	$15	$0
Gasoline				$0
2" Dia		L.F.	$3	$0
4" Dia		L.F.	$5	$0
6" Dia		L.F.	$7	$0
Crosswalk		each	$800	$0
Handicap Ramp		each	$450	$0
Sidewalk		L.F.	$40	$0
Curb/Gutter		L.F.	$27	$0
Pavement (Full Width)		L.F.	$95	$0
Downspout Cross Connections	50	each	$200	$10,000
Renovate Sanitary Manhole (Minor)	20	each	$200	$4,000
Renovate Sanitary Manhole (Major)		each	$300	$0
8 " Dia Water		L.F.	$10	$0
Total for Location #16				**$35,450**

Location #17

City of Paintsville
I & I Cost
Mill Street

Description	Quantity	Units	Unit Cost	Total Cost
Curb Inlets		each	$400	$0
Pipe for Curb Inlets (18")		L.F.	$125	$0
4' Dia Manhole (new)	3	each	$3,000	$9,000
4' Dia Manhole (New Sealed)		each	$6,000	$0
6' Dia Manhole (New)		each	$4,000	$0
6' Dia Manhole (New Sealed)		each	$8,000	$0
Extra Manhole Depth		V.F.	$250	$0
Tie to existing Sanitary Sewer		each	$2,700	$0
Tie to existing Storm Sewer		each	$2,500	$0
Replace existing Sanitary Sewer				$0
8" Dia Sanitary Gravity	700	L.F.	$95	$66,500
10" Dia Sanitary Gravity		L.F.	$100	$0
12" Dia Sanitary Gravity		L.F.	$105	$0
New Storm Drain				$0
12" Dia RCP		L.F.	$100	$0
15" Dia RCP		L.F.	$115	$0
18" Dia RCP		L.F.	$125	$0
24" Dia RCP		L.F.	$175	$0
Waterline				$0
10" Dia		L.F.	$13	$0
12" Dia		L.F.	$15	$0
Gasoline				$0
2" Dia		L.F.	$3	$0
4" Dia		L.F.	$5	$0
6" Dia		L.F.	$7	$0
Crosswalk		each	$800	$0
Handicap Ramp		each	$450	$0
Sidewalk		L.F.	$40	$0
Curb/Gutter		L.F.	$27	$0
Pavement (Full Width)	350	L.F.	$95	$33,250
Downspout Cross Connections	5	each	$200	$1,000
Renovate Sanitary Manhole (Minor)		each	$200	$0
Renovate Sanitary Manhole (Major)		each	$300	$0
8 " Dia Water		L.F.	$10	$0
Location #17				$109,750

Location #18

City of Paintsville
I & I Cost
Woodland #1

Description	Quantity	Units	Unit Cost	Total Cost
Curb Inlets		each	$400	$0
Pipe for Curb Inlets (18")		L.F.	$125	$0
4' Dia Manhole (new)	4	each	$3,000	$12,000
4' Dia Manhole (New Sealed)	2	each	$6,000	$12,000
6' Dia Manhole (New)		each	$4,000	$0
6' Dia Manhole (New Sealed)		each	$8,000	$0
Extra Manhole Depth		V.F.	$250	$0
Tie to existing Sanitary Sewer		each	$2,700	$0
Tie to existing Storm Sewer		each	$2,500	$0
Replace existing Sanitary Sewer				$0
8" Dia Sanitary Gravity	1100	L.F.	$95	$104,500
10" Dia Sanitary Gravity		L.F.	$100	$0
12" Dia Sanitary Gravity		L.F.	$105	$0
New Storm Drain				$0
12" Dia RCP		L.F.	$100	$0
15" Dia RCP		L.F.	$115	$0
18" Dia RCP		L.F.	$125	$0
24" Dia RCP		L.F.	$175	$0
Waterline				$0
10" Dia		L.F.	$13	$0
12" Dia		L.F.	$15	$0
Gasoline				$0
2" Dia		L.F.	$3	$0
4" Dia		L.F.	$5	$0
6" Dia		L.F.	$7	$0
Crosswalk		each	$800	$0
Handicap Ramp		each	$450	$0
Sidewalk		L.F.	$40	$0
Curb/Gutter		L.F.	$27	$0
Pavement (Full Width)	1100	L.F.	$95	$104,500
Downspout Cross Connections	10	each	$200	$2,000
Renovate Sanitary Manhole (Minor)		each	$200	$0
Renovate Sanitary Manhole (Major)		each	$300	$0
8 " Dia Water		L.F.	$10	$0
Location #18				$235,000

Location #19

City of Paintsville
I & I Cost
Preston Estates

Description	Quantity	Units	Unit Cost	Total Cost
Curb Inlets		each	$400	$0
Pipe for Curb Inlets (18")		L.F.	$125	$0
4' Dia Manhole (new)	5	each	$3,000	$15,000
4' Dia Manhole (New Sealed)	1	each	$6,000	$6,000
6' Dia Manhole (New)		each	$4,000	$0
6' Dia Manhole (New Sealed)		each	$8,000	$0
Extra Manhole Depth		V.F.	$250	$0
Tie to existing Sanitary Sewer		each	$2,700	$0
Tie to existing Storm Sewer		each	$2,500	$0
Replace existing Sanitary Sewer				$0
8" Dia Sanitary Gravity	1400	L.F.	$95	$133,000
10" Dia Sanitary Gravity		L.F.	$100	$0
12" Dia Sanitary Gravity		L.F.	$105	$0
New Storm Drain				$0
12" Dia RCP		L.F.	$100	$0
15" Dia RCP		L.F.	$115	$0
18" Dia RCP		L.F.	$125	$0
24" Dia RCP		L.F.	$175	$0
Waterline				$0
10" Dia		L.F.	$13	$0
12" Dia		L.F.	$15	$0
Gasoline				$0
2" Dia		L.F.	$3	$0
4" Dia		L.F.	$5	$0
6" Dia		L.F.	$7	$0
Crosswalk		each	$800	$0
Handicap Ramp		each	$450	$0
Sidewalk		L.F.	$40	$0
Curb/Gutter		L.F.	$27	$0
Pavement (Full Width)	1400	L.F.	$95	$133,000
Downspout Cross Connections	20	each	$200	$4,000
Renovate Sanitary Manhole (Minor)		each	$200	$0
Renovate Sanitary Manhole (Major)		each	$300	$0
8 " Dia Water		L.F.	$10	$0
Location #19				$291,000

Location #20

City of Paintsville
I & I Cost
Woodland #2

Description	Quantity	Units	Unit Cost	Total Cost
Curb Inlets		each	$400	$0
Pipe for Curb Inlets (18")		L.F.	$125	$0
4' Dia Manhole (new)		each	$3,000	$0
4' Dia Manhole (New Sealed)	3	each	$6,000	$18,000
6' Dia Manhole (New)		each	$4,000	$0
6' Dia Manhole (New Sealed)		each	$8,000	$0
Extra Manhole Depth		V.F.	$250	$0
Tie to existing Sanitary Sewer		each	$2,700	$0
Tie to existing Storm Sewer		each	$2,500	$0
Replace existing Sanitary Sewer				$0
8" Dia Sanitary Gravity	650	L.F.	$95	$61,750
10" Dia Sanitary Gravity		L.F.	$100	$0
12" Dia Sanitary Gravity		L.F.	$105	$0
New Storm Drain				$0
12" Dia RCP		L.F.	$100	$0
15" Dia RCP		L.F.	$115	$0
18" Dia RCP		L.F.	$125	$0
24" Dia RCP		L.F.	$175	$0
Waterline				$0
10" Dia		L.F.	$13	$0
12" Dia		L.F.	$15	$0
Gasoline				$0
2" Dia		L.F.	$3	$0
4" Dia		L.F.	$5	$0
6" Dia		L.F.	$7	$0
Crosswalk		each	$800	$0
Handicap Ramp		each	$450	$0
Sidewalk		L.F.	$40	$0
Curb/Gutter		L.F.	$27	$0
Pavement (Full Width)	20	L.F.	$95	$1,900
Downspout Cross Connections	15	each	$200	$3,000
Renovate Sanitary Manhole (Minor)	8	each	$200	$1,600
Renovate Sanitary Manhole (Major)		each	$300	$0
8 " Dia Water		L.F.	$10	$0
Location #20				$86,250

Appendix B

Cost Estimate for Expansion of Sewer Services

Preliminary Cost Estimate
Thealka Area Sewer Extension
Paintsville Utilities
March 2013

NO.	ITEM	QUANT.	UNIT	UNIT PRICE	TOTAL
1	8" Gravity Sewer Line	17,500	LF	$60.00	$1,050,000.00
2	Force Main	3,000	LF	$25.00	$75,000.00
3	4" Sewer Tap	130	EA	$1,000.00	$130,000.00
4	4" Gravity Sewer Line	4,000	LF	$20.00	$80,000.00
5	Manhole	84	EA	$2,500.00	$210,000.00
6	Road Bore	600	LF	$120.00	$72,000.00
7	Connection	1	EA	$2,000.00	$2,000.00
8	Lift Station	2	LS	$100,000.00	$200,000.00
9	Telemetry	1	LS	$30,000.00	$30,000.00
10	Gravel Replacement	200	LF	$10.00	$2,000.00
11	Full Width Pavement Replacment	5,600	LF	$25.00	$140,000.00
12	Concrete and Pavement Replacement	360	LF	$25.00	$9,000.00
	TOTAL ESTIMATED CONSTRUCTION COST				**$2,000,000.00**

Estimated Project Budget

Construction	$2,000,000.00
Contingency	$200,000.00
Engineering	$160,000.00
Inspection	$100,000.00
Administration	$50,000.00
Legal	$25,000.00
Land	$25,000.00
Total Estimated Project Budget	**$2,560,000.00**

Preliminary Cost Estimate
Mill Branch Road Area Sewer Extension (Southside)
Paintsville Utilities
March 2013

NO.	ITEM	QUANT.	UNIT	UNIT PRICE	TOTAL
1	8" Gravity Sewer Line	4,500	LF	$60.00	$270,000.00
2	4" Sewer Tap	39	EA	$1,000.00	$39,000.00
3	4" Gravity Sewer Line	1,200	LF	$20.00	$24,000.00
4	Manhole	30	EA	$2,500.00	$75,000.00
5	Road Bore	150	LF	$120.00	$18,000.00
6	Connection	1	EA	$2,000.00	$2,000.00
7	Gravel Replacement	100	LF	$10.00	$1,000.00
8	Full Width Pavement Replacment	2,800	LF	$25.00	$70,000.00
9	Concrete and Pavement Replacement	40	LF	$25.00	$1,000.00
	TOTAL ESTIMATED CONSTRUCTION COST				**$500,000.00**

Estimated Project Budget

Construction	$500,000.00
Contingency	$45,000.00
Engineering	$55,000.00
Inspection	$40,000.00
Administration	$25,000.00
Legal	$10,000.00
Land	$25,000.00
Total Estimated Project Budget	**$700,000.00**

Preliminary Cost Estimate
Staffordville Area Sewer Extension
Paintsville Utilities
March 2013

NO.	ITEM	QUANT.	UNIT	UNIT PRICE	TOTAL
1	8" Gravity Sewer Line	15,000	LF	$60.00	$900,000.00
2	Force Main	12,000	LF	$25.00	$300,000.00
3	4" Sewer Tap	110	EA	$1,000.00	$110,000.00
4	4" Gravity Sewer Line	3,300	LF	$20.00	$66,000.00
5	Manhole	81	EA	$2,500.00	$202,500.00
6	Road Bore	700	LF	$120.00	$84,000.00
7	Connection	1	EA	$2,000.00	$2,000.00
8	Lift Station	1	LS	$100,000.00	$100,000.00
9	Telemetry	1	LS	$30,000.00	$30,000.00
10	Gravel Replacement	1,050	LF	$10.00	$10,500.00
11	Full Width Pavement Replacment	6,800	LF	$25.00	$170,000.00
12	Concrete and Pavement Replacement	1,000	LF	$25.00	$25,000.00
	TOTAL ESTIMATED CONSTRUCTION COST				**$2,000,000.00**

Estimated Project Budget

Construction	$2,000,000.00
Contingency	$200,000.00
Engineering	$160,000.00
Inspection	$100,000.00
Administration	$50,000.00
Legal	$25,000.00
Land	$25,000.00
Total Estimated Project Budget	**$2,560,000.00**

Preliminary Cost Estimate
Davis Branch Area Sewer Extension
Paintsville Utilities
March 2013

NO.	ITEM	QUANT.	UNIT	UNIT PRICE	TOTAL
1	8" Gravity Sewer Line	6,000	LF	$60.00	$360,000.00
2	Force Main	2,000	LF	$25.00	$50,000.00
3	4" Sewer Tap	50	EA	$1,000.00	$50,000.00
4	4" Gravity Sewer Line	1,500	LF	$20.00	$30,000.00
5	Manhole	30	EA	$2,500.00	$75,000.00
6	Road Bore	200	LF	$120.00	$24,000.00
7	Connection	1	EA	$2,000.00	$2,000.00
8	Lift Station	1	LS	$100,000.00	$100,000.00
9	Telemetry	1	LS	$30,000.00	$30,000.00
10	Gravel Replacement	250	LF	$10.00	$2,500.00
11	Full Width Pavement Replacement	2,800	LF	$25.00	$70,000.00
12	Concrete and Pavement Replacement	260	LF	$25.00	$6,500.00
	TOTAL ESTIMATED CONSTRUCTION COST				**$800,000.00**

Estimated Project Budget

Construction	$800,000.00
Contingency	$80,000.00
Engineering	$75,000.00
Inspection	$50,000.00
Administration	$25,000.00
Legal	$10,000.00
Land	$25,000.00
Total Estimated Project Budget	**$1,065,000.00**

Preliminary Cost Estimate
Hager Hill Area Sewer Extension
Paintsville Utilities
March 2013

NO.	ITEM	QUANT.	UNIT	UNIT PRICE	TOTAL
1	8" Gravity Sewer Line	4,000	LF	$60.00	$240,000.00
2	Force Main	3,000	LF	$25.00	$75,000.00
3	4" Sewer Tap	34	EA	$1,000.00	$34,000.00
4	4" Gravity Sewer Line	1,050	LF	$20.00	$21,000.00
5	Manhole	20	EA	$2,500.00	$50,000.00
6	Road Bore	300	LF	$120.00	$36,000.00
7	Connection	1	EA	$2,000.00	$2,000.00
8	Lift Station	1	LS	$100,000.00	$100,000.00
9	Telemetry	1	LS	$30,000.00	$30,000.00
10	Gravel Replacement	100	LF	$10.00	$1,000.00
11	Concrete and Pavement Replacement	440	LF	$25.00	$11,000.00
	TOTAL ESTIMATED CONSTRUCTION COST				**$600,000.00**

Estimated Project Budget

Construction	$600,000.00
Contingency	$60,000.00
Engineering	$60,000.00
Inspection	$40,000.00
Administration	$20,000.00
Legal	$10,000.00
Land	$10,000.00
Total Estimated Project Budget	**$800,000.00**

Preliminary Cost Estimate
Allen Heights Area Sewer Extension
Paintsville Utilities
March 2013

NO.	ITEM	QUANT.	UNIT	UNIT PRICE	TOTAL
1	8" Gravity Sewer Line	4,400	LF	$60.00	$264,000.00
2	Force Main	10,800	LF	$25.00	$270,000.00
3	4" Sewer Tap	35	EA	$1,000.00	$35,000.00
4	4" Gravity Sewer Line	1,050	LF	$20.00	$21,000.00
5	Manhole	20	EA	$2,500.00	$50,000.00
6	Road Bore	200	LF	$120.00	$24,000.00
7	Connection	1	EA	$2,000.00	$2,000.00
8	Lift Station	1	LS	$100,000.00	$100,000.00
9	Telemetry	1	LS	$30,000.00	$30,000.00
10	Gravel Replacement	200	LF	$10.00	$2,000.00
11	Concrete and Pavement Replacement	80	LF	$25.00	$2,000.00
	TOTAL ESTIMATED CONSTRUCTION COST				**$800,000.00**

Estimated Project Budget

Construction	$800,000.00
Contingency	$80,000.00
Engineering	$75,000.00
Inspection	$50,000.00
Administration	$25,000.00
Legal	$10,000.00
Land	$25,000.00
Total Estimated Project Budget	**$1,065,000.00**

Preliminary Cost Estimate
American Standard Area Sewer Extension
Paintsville Utilities
March 2013

NO.	ITEM	QUANT.	UNIT	UNIT PRICE	TOTAL
1	8" Gravity Sewer Line	5,500	LF	$60.00	$330,000.00
2	Force Main	10,000	LF	$25.00	$250,000.00
3	4" Sewer Tap	25	EA	$1,000.00	$25,000.00
4	4" Gravity Sewer Line	750	LF	$20.00	$15,000.00
5	Manhole	30	EA	$2,500.00	$75,000.00
6	Road Bore	200	LF	$120.00	$24,000.00
7	Connection	1	EA	$2,000.00	$2,000.00
8	Lift Station	1	LS	$100,000.00	$100,000.00
9	Telemetry	1	LS	$30,000.00	$30,000.00
10	Gravel Replacement	200	LF	$10.00	$2,000.00
11	Full Width Pavement Replacement	5,800	LF	$25.00	$145,000.00
12	Concrete and Pavement Replacement	80	LF	$25.00	$2,000.00
	TOTAL ESTIMATED CONSTRUCTION COST				**$1,000,000.00**

Estimated Project Budget

Construction	$1,000,000.00
Contingency	$100,000.00
Engineering	$90,000.00
Inspection	$60,000.00
Administration	$50,000.00
Legal	$25,000.00
Land	$25,000.00
Total Estimated Project Budget	**$1,350,000.00**

Preliminary Cost Estimate
KY Hwy 321 Area Sewer Extension
Paintsville Utilities
March 2013

NO.	ITEM	QUANT.	UNIT	UNIT PRICE	TOTAL
1	8" Gravity Sewer Line	16,000	LF	$60.00	$960,000.00
2	Force Main	5,000	LF	$25.00	$125,000.00
3	4" Sewer Tap	150	EA	$1,000.00	$150,000.00
4	4" Gravity Sewer Line	4,300	LF	$20.00	$86,000.00
5	Manhole	100	EA	$2,500.00	$250,000.00
6	Road Bore	700	LF	$120.00	$84,000.00
7	Connection	2	EA	$2,000.00	$4,000.00
8	Lift Station	2	LS	$100,000.00	$200,000.00
9	Telemetry	1	LS	$30,000.00	$30,000.00
10	Gravel Replacement	700	LF	$10.00	$7,000.00
11	Full Width Pavement Replacement	7,800	LF	$25.00	$195,000.00
12	Concrete and Pavement Replacement	360	LF	$25.00	$9,000.00
	TOTAL ESTIMATED CONSTRUCTION COST				**$2,100,000.00**

Estimated Project Budget

Construction	$2,100,000.00
Contingency	$210,000.00
Engineering	$160,000.00
Inspection	$100,000.00
Administration	$50,000.00
Legal	$25,000.00
Land	$25,000.00
Total Estimated Project Budget	**$2,670,000.00**

Preliminary Cost Estimate
Powells Addition Area Sewer Extension
Paintsville Utilities
March 2013

NO.	ITEM	QUANT.	UNIT	UNIT PRICE	TOTAL
1	8" Gravity Sewer Line	6,000	LF	$60.00	$360,000.00
2	Force Main	2,000	LF	$25.00	$50,000.00
3	4" Sewer Tap	80	EA	$1,000.00	$80,000.00
4	4" Gravity Sewer Line	2,300	LF	$20.00	$46,000.00
5	Manhole	30	EA	$2,500.00	$75,000.00
6	Road Bore	200	LF	$120.00	$24,000.00
7	Connection	1	EA	$2,000.00	$2,000.00
8	Lift Station	1	LS	$100,000.00	$100,000.00
9	Telemetry	1	LS	$30,000.00	$30,000.00
10	Gravel Replacement	150	LF	$10.00	$1,500.00
11	Full Width Pavement Replacement	3,000	LF	$25.00	$75,000.00
12	Concrete and Pavement Replacement	260	LF	$25.00	$6,500.00
	TOTAL ESTIMATED CONSTRUCTION COST				**$850,000.00**

Estimated Project Budget

Construction	$850,000.00
Contingency	$85,000.00
Engineering	$75,000.00
Inspection	$50,000.00
Administration	$25,000.00
Legal	$10,000.00
Land	$15,000.00
Total Estimated Project Budget	**$1,110,000.00**

Preliminary Cost Estimate
Van Lear Area Sewer Extension
Paintsville Utilities
March 2013

NO.	ITEM	QUANT.	UNIT	UNIT PRICE	TOTAL
1	8" Gravity Sewer Line	30,000	LF	$60.00	$1,800,000.00
2	Force Main	15,000	LF	$25.00	$375,000.00
3	4" Sewer Tap	350	EA	$1,000.00	$350,000.00
4	4" Gravity Sewer Line	15,000	LF	$20.00	$300,000.00
5	Manhole	185	EA	$2,500.00	$462,500.00
6	Road Bore	900	LF	$120.00	$108,000.00
7	Connection	1	EA	$2,000.00	$2,000.00
8	Lift Station	2	LS	$100,000.00	$200,000.00
9	Telemetry	2	LS	$30,000.00	$60,000.00
10	Gravel Replacement	600	LF	$10.00	$6,000.00
11	Full Width Pavement Replacement	3,160	LF	$25.00	$79,000.00
12	Concrete and Pavement Replacement	300	LF	$25.00	$7,500.00
	TOTAL ESTIMATED CONSTRUCTION COST				**$3,750,000.00**

Estimated Project Budget

Construction	$3,750,000.00
Contingency	$375,000.00
Engineering	$270,000.00
Inspection	$145,000.00
Administration	$50,000.00
Legal	$25,000.00
Land	$25,000.00
Total Estimated Project Budget	**$4,640,000.00**

Appendix C

Cross-Cutter Correspondence

Cann-Tech, L.L.C.

CT Engineers Planners Managers

March 15, 2012

Mr. Lee Andrews
U.S. Dept. of the Interior
Fish and Wildlife Service
3761 Georgetown Road
Frankfort, Kentucky 40601

RE: Paintsville Utilities
201 Facilities Plan
Endangered or Threatened Species

Dear Mr. Andrews:

Paintsville Utilities is in the process of preparing a Regional Facility Program. Section 9 requires that potential adverse impacts be identified by various cross-cutting agencies. The project is being proposed in order to route waste water from the older over capacity waste water treatment plant to a newer treatment plant that will be increased in capacity. Enclosed are a topo map, street map and aerial that depict the proposal's construction activities and the Paintsville Utilities' service area. The wastewater will be transferred by force main from the Paintsville WWTP (37° 48' 47.6"N, 82° 47' 24.17"W) to the Honey Branch WWTP (37° 45' 9.78"N, 82° 45' 19.77"W).

The proposal should not represent a "major construction activity" as defined in 50 CFR 402.02. We request a list of any Federally-listed or proposed threatened or endangered species and designated or proposed critical habitat that may be present in the service/project area. In addition, please advise us of any present concerns you may have related to possible effects of the project listed above on such species or critical habitat, as well as any other wildlife concerns.

We would appreciate a response within 30 days. If you need any further information or wish to discuss our project, please contact Derek Motsch at (502) 859-0907.

Sincerely,
CANN-TECH, LLC

R. Derek Motsch, P.E.

Enclosure

cc: Larry Herald, Paintsville Utilities
Eric Ratliff, Paintsville Utilities

1100 Glensboro Rd., Suite 9
Park View Center
Lawrenceburg, KY 40342
Phone: (502) 859-0907 • Fax: (502) 859-0668
Email: waterboy@kih.net

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kentucky Ecological Services Field Office
330 West Broadway, Suite 265
Frankfort, Kentucky 40601
(502) 695-0468

March 22, 2012

Received
MAR 2[illegible] 2012
Cann - Tech, LLC

Mr. Derek Motsch
Project Engineer
Cann-Tech, LLC
1100 Glensboro Road, Suite 9
Park View Center
Lawrenceburg, Kentucky 40342

Re: FWS 2012-B-0404; Cann-Tech, LLC, Paintsville Utilities, Regional Facilities Plan, located in Johnson County, Kentucky

Dear Mr. Motsch:

The U.S. Fish and Wildlife Service (Service) has reviewed your correspondence of March 15, 2012 regarding the above-referenced project. The Service offers the following comments in accordance with the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*). This is not a concurrence letter. Please read carefully, as further consultation with the Service may be required.

In accordance with provisions of the Fish and Wildlife Coordination Act, the Service has reviewed the project with regards to the effects the proposed actions may have on wetlands and/or other jurisdictional waters. We recommend that project plans be developed to avoid impacting wetland areas and/or streams, and reserve the right to review any required federal or state permits at the time of public notice issuance. The U.S. Army Corps of Engineers should be contacted to assist you in determining if wetlands or other jurisdictional waters are present or if a permit is required.

In accordance to section 7 of the ESA, the Service must consider the "Direct effects", "Indirect effects", and "Cumulative effects" of the proposed project. "Direct effects" are the effects on listed species or critical habitat that occur at the time of construction activities. "Indirect effects" are effects on listed species or critical habitat that are caused by the action and are later in time but are still reasonably certain to occur. "Cumulative effects" are those effects on listed species or critical habitat for future activities and/or projects that are induced by the proposed project subject to consultation and that occur after that project is completed.

Cumulative effects

We believe that the proposed project may have "cumulative effects", as previously defined. Thus, future projects may be induced by the proposed project (*i.e.*; residential development, commercial development). Please inform us of all the cumulative effects that are likely to occur as a result of the proposed project, so that we may adequately analyze those effects.

In order to assist you in determining if the proposed project has the potential to impact protected species we have searched our records for occurrences of listed species within the vicinity of the proposed project. Based upon the information provided to us and according to our databases, we believe that the Indiana bat (*Myotis sodalis*) is the only federally listed species that has the potential to occur within the project vicinity.

We must advise you that collection records available to the Service may not be all-inclusive. Our database is a compilation of collection records made available by various individuals and resource agencies. This information is seldom based on comprehensive surveys of all potential habitats and thus does not necessarily provide conclusive evidence that protected species are present or absent at a specific locality.

Indiana bat

Summer roost and/or winter habitat for the endangered Indiana bat may exist within the proposed project site. Based on this information, we believe that: (1) forested areas in the vicinity of and on the project area may provide potentially suitable summer roosting and foraging habitat for the Indiana bat; and (2) caves, rockshelters, and abandoned underground mines in the vicinity of and on the project area may provide potentially suitable wintering habitat for the Indiana bat. Our belief that potentially suitable habitat may be present is based on the information provided in your correspondence, the fact that much of the project site and/or surrounding areas contain forested habitats that are within the natural range of this species, and our knowledge of the life history characteristics of the species.

The Indiana bat utilizes a wide array of forested habitats, including riparian forests, bottomlands, and uplands for both summer foraging and roosting habitat. Indiana bats typically roost under exfoliating bark, in cavities of dead and live trees, and in snags (*i.e.*, dead trees or dead portions of live trees). Trees in excess of 16 inches diameter at breast height (DBH) are considered optimal for maternity colony roosts, but trees in excess of 9 inches DBH appear to provide suitable maternity roosting habitat. Male Indiana bats have been observed roosting in trees as small as 5 inches DBH.

Prior to hibernation, Indiana bats utilize the forest habitat around the hibernacula, where they feed and roost until temperatures drop to a point that forces them into hibernation. This "swarming" period is dependent upon weather conditions and may last from about September 15 to about November 15. This is a critical time for Indiana bats, since they are acquiring additional fat reserves and mating prior to hibernation. Research has shown that bats exhibiting this "swarming" behavior will range up to five miles from chosen hibernacula during this time. For hibernation, the Indiana bat prefers limestone caves, sandstone rockshelters, and abandoned underground mines with stable temperatures of 39 to 46 degrees F and humidity above 74 percent but below saturation.

Because we have concerns relating to the Indiana bat on this project and due to the lack of occurrence information available on this species relative to the proposed project area, we would have the following recommendations relative to Indiana bats.

1. Based on the presence of numerous caves, rock shelters, and underground mines in Kentucky, we believe that it is reasonable to assume that other caves, rock shelters, and/or abandoned underground mines may occur within the project area, and, if they occur, they could provide winter habitat for Indiana bats. Therefore, we would recommend that the project proponent survey the project area for caves, rock shelters, and underground mines, identify any such habitats that may exist on-site, and avoid impacts to those sites pending an analysis of their suitability as Indiana bat habitat by this office.

2. We would also recommend that the project proponent only remove trees within the project area between October 15 and March 31 in order to avoid impacting summer roosting Indiana bats. However, if any Indiana bat hibernacula are identified on the project area, we recommend the project proponent only remove trees between November 15 and March 31 in order to avoid impacting Indiana bat "swarming" behavior.

However, if these recommendations cannot be incorporated as project conditions, then the project area may be surveyed to determine the presence or absence of this species within the project area in an effort to determine if potential impacts to the Indiana bat are likely. A qualified biologist who holds the appropriate collection permits for the Indiana bat must undertake such surveys, and we would appreciate the opportunity to approve the biologist's survey plan prior to the survey being undertaken and to review all survey results, both positive and negative. If any Indiana bats are identified, we would request written notification of such occurrence(s) and further coordination and consultation.

If your project schedule requires the clearing of potential Indiana bat habitat (*i.e.*, trees) during the period of April 1 to October 14, you have two primary options for addressing impacts to Indiana bats. First, you can survey the project site as described previously, or you can enter into a Conservation Memorandum of Agreement (MOA) with the Service. By entering into a Conservation MOA with the Service, Cooperators gain flexibility in project timing with regard to the removal of suitable Indiana bat habitat. In exchange for this flexibility, the Cooperator provides recovery-focused conservation benefits to the Indiana bat through the implementation of minimization and mitigation measures as set forth in the Indiana Bat Mitigation Guidance for the Commonwealth of Kentucky. For additional information about this option, please notify our office.

Thank you again for your request. Your concern for the protection of endangered and threatened species is greatly appreciated. If you have any questions regarding the information that we have provided, please contact James Gruhala at (502) 695-0468 extension 116.

Sincerely,

Virgil Lee Andrews, Jr.

Virgil Lee Andrews, Jr.
Field Supervisor

Cann-Tech, L.L.C.

CT Engineers Planners Managers

March 15, 2012

Kentucky Department
Fish and Wildlife Service
#1 Sportsman Lane
Frankfort, Kentucky 40601

RE: Paintsville Utilities
201 Facilities Plan
Endangered or Threatened Species

Dear Sir or Madam:

Paintsville Utilities is in the process of preparing a Regional Facility Program. Section 9 requires that potential adverse impacts be identified by various cross-cutting agencies. The project is being proposed in order to route waste water from the older over capacity waste water treatment plant to a newer treatment plant that will be increased in capacity. Enclosed are a topo map, street map and aerial that depict the proposal's construction activities and the Paintsville Utilities' service area. The wastewater will be transferred by force main from the Paintsville WWTP (37° 48' 47.6"N, 82° 47' 24.17"W) to the Honey Branch WWTP (37° 45' 9.78"N, 82° 45' 19.77"W).

The proposal should not represent a "major construction activity" as defined in 50 CFR 402.02. We request a list of any Federally-listed or proposed threatened or endangered species and designated or proposed critical habitat that may be present in the service/project area. In addition, please advise us of any present concerns you may have related to possible effects of the project listed above on such species or critical habitat, as well as any other wildlife concerns.

We would appreciate a response within 30 days. If you need any further information or wish to discuss our project, please contact Derek Motsch at (502) 859-0907.

Sincerely,
CANN-TECH, LLC

R. Derek Motsch, P.E.

Enclosure

cc: Larry Herald, Paintsville Utilities
Eric Ratliff, Paintsville Utilities

1100 Glensboro Rd., Suite 9
Park View Center
Lawrenceburg, KY 40342
Phone: (502) 859-0907 • Fax: (502) 859-0668
Email: waterboy@kih.net

KENTUCKY DEPARTMENT OF FISH & WILDLIFE RESOURCES
TOURISM, ARTS, AND HERITAGE CABINET

Steven L. Beshear
Governor

#1 Sportsman's Lane
Frankfort, Kentucky 40601
Phone (502) 564-3400
1-800-858-1549
Fax (502) 564-0506
fw.ky.gov

Marcheta Sparrow
Secretary

Dr. Jonathan W. Gassett
Commissioner

23 March 2012

R. Derek Motsch, P.E.
Cann-Tech, LLC
100 Glensboro Rd., Suite 9
Park View Center
Lawrenceburg, Kentucky 40342

Received
MAR 28 2012
Cann - Tech, LLC

RE: Paintsville Utilities
2012 Facilities Plan
Endangered or Threatened Species

Dear Mr. Motsch:

The Kentucky Department of Fish and Wildlife Resources (KDFWR) has received your request for information regarding the subject project. The Kentucky Fish and Wildlife Information System indicates that no federally-listed species are known to occur within the boundaries of the proposed project. Due to the nature of the project, the KDFWR does not anticipate impacts to listed species or any critical habitat, wetlands, special aquatic sites, or refuge areas. Please be aware that our database system is a dynamic one that only represents our current knowledge of various species distributions.

To minimize indirect impacts to aquatic resources, strict erosion control measures should be developed and implemented prior to construction to minimize siltation into streams and storm water drainage systems located within the project area. Such erosion control measures may include, but are not limited to silt fences, staked straw bales, brush barriers, sediment basins, and diversion ditches. Erosion control measures will need to be installed prior to construction and should be inspected and repaired regularly as needed. Additionally, the KDFWR recommends the following measures for any work that may occur within a stream to help reduce impacts to stream habitat and quality:

- When crossing a stream, pipe should be laid perpendicular to the stream bank to minimize the direct impacts to the streambed.
- Avoidance of impacts to intermittent and perennial streams if it is feasible.
- Development/excavation during low flow period to minimize disturbances.
- Proper placement of erosion control structures below highly disturbed areas to minimize entry of silt to the stream.
- Replanting of disturbed areas after construction, including reforestation of stream banks, with native vegetation for soil stabilization and enhancement of fish and wildlife populations.

- Avoid impacts to forested areas if possible. If impacts cannot be avoided we recommend reforestation of common areas with native trees to promote use by various species of wildlife.
- Return all disturbed instream habitat to stable condition upon completion of construction in the area.
- Preservation of any tree canopy overhanging the stream.

I hope this information is helpful to you, and if you have questions or require additional information, please call me at (502) 564-7109 extension 4453.

Sincerely,

Dan Stoelb
Wildlife Biologist

Cc: Environmental Section File

STEVEN L. BESHEAR
GOVERNOR

TOURISM, ARTS AND HERITAGE CABINET
KENTUCKY HERITAGE COUNCIL

MARCHETA SPARROW
SECRETARY

THE STATE HISTORIC PRESERVATION OFFICE
300 WASHINGTON STREET
FRANKFORT, KENTUCKY 40601
PHONE (502) 564-7005
FAX (502) 564-5820
www.heritage.ky.gov

LINDY CASEBIER
ACTING EXECUTIVE DIRECTOR AND
STATE HISTORIC PRESERVATION OFFICER

March 26, 2012

R. Derek Motsch, P.E.
Cann-Tech, L.L.C.
1100 Glensboro Rd, Suite 9
Park View Center
Lawrenceburg, KY 40342

Received
Cann - Tech, LLC

Re: Paintsville Utilities, 201 Facilities Plan

Dear Mr. Motsch:

Thank you for your letter concerning the above-referenced proposed project. A review of our files indicates that e proposed project area has not been surveyed for archaeological resources. Investigations of projects in similar vironmental contexts have resulted in the identification of a large number of sites, some of which have been determined eligible for listing in the National Register. Therefore, I recommend that the proposed project area be surveyed by a professional archaeologist and that the resulting report of these investigations be submitted to our office for review and comment. Where a given project area or portions thereof have been disturbed by prior construction, the applicant may file documentation of that disturbance with the State Historic Preservation Officer and may request an opinion concerning the need of an archaeological survey. The State Historic Preservation Officer must review and approve the survey report.

Further, in order to make a preliminary determination if above-ground properties eligible for listing in the National Register of Historic Places will be affected by this project, the applicant must submit photographs of all structures 50 years or older that are within and visible from areas impacted by any above ground structures, such as (but not limited to) pump stations, associated with this project. Each photograph should be labeled by street address or map coordinates with a brief description of potential impacts or proposed treatment, and should be accompanied by a project map showing their location. Upon completion of our review, this office will advise the applicant if further consultation is required.

Should you have any questions, feel free to contact Nick Laracuente of my staff at 502.564.7005, extension 151.

Sincerely,

Lindy Casebier,
Acting Executive Director and
State Historic Preservation Officer

C:nrl

KENTUCKY DEPARTMENT OF FISH & WILDLIFE RESOURCES
TOURISM, ARTS, AND HERITAGE CABINET

Steven L. Beshear
Governor

#1 Sportsman's Lane
Frankfort, Kentucky 40601
Phone (502) 564-3400
1-800-858-1549
Fax (502) 564-0506
fw.ky.gov

Marcheta Sparrow
Secretary

Dr. Jonathan W. Gassett
Commissioner

23 March 2012

R. Derek Motsch, P.E.
Cann-Tech, LLC
100 Glensboro Rd., Suite 9
Park View Center
Lawrenceburg, Kentucky 40342

Received
MAR 28 2012
Cann - Tech, LLC

RE: Paintsville Utilities
2012 Facilities Plan
Endangered or Threatened Species

Dear Mr. Motsch:

The Kentucky Department of Fish and Wildlife Resources (KDFWR) has received your request for information regarding the subject project. The Kentucky Fish and Wildlife Information System indicates that no federally-listed species are known to occur within the boundaries of the proposed project. Due to the nature of the project, the KDFWR does not anticipate impacts to listed species or any critical habitat, wetlands, special aquatic sites, or refuge areas. Please be aware that our database system is a dynamic one that only represents our current knowledge of various species distributions.

To minimize indirect impacts to aquatic resources, strict erosion control measures should be developed and implemented prior to construction to minimize siltation into streams and storm water drainage systems located within the project area. Such erosion control measures may include, but are not limited to silt fences, staked straw bales, brush barriers, sediment basins, and diversion ditches. Erosion control measures will need to be installed prior to construction and should be inspected and repaired regularly as needed. Additionally, the KDFWR recommends the following measures for any work that may occur within a stream to help reduce impacts to stream habitat and quality:

- When crossing a stream, pipe should be laid perpendicular to the stream bank to minimize the direct impacts to the streambed.
- Avoidance of impacts to intermittent and perennial streams if it is feasible.
- Development/excavation during low flow period to minimize disturbances.
- Proper placement of erosion control structures below highly disturbed areas to minimize entry of silt to the stream.
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- Preservation of any tree canopy overhanging the stream.

I hope this information is helpful to you, and if you have questions or require additional information, please call me at (502) 564-7109 extension 4453.

Sincerely,

Dan Stoelb
Wildlife Biologist

Cc: Environmental Section File

United States Department of Agriculture

NRCS Natural Resources Conservation Service

1925 Old Main Street
Suite 2
Maysville, KY. 41056
Ph: 606-759-5570

To: Derck Motsch, P.E.
Cann – Tech, L.L.C.
1100 Glensboro Road, Suite 9
Park View Center
Lawrenceburg, KY 40342

Mar. 27, 2012

Received
MAR 2? 2012
Cann - Tech, LLC

Re: Paintsville Utilities, 201 Facilities Plan
Johnson County, KY

Mr. Motsch,

Attached is an NRCS map on 2010 aerial photography showing the approximate project area, as best identified by the maps provided. All areas of soil map units meeting the definition of prime farmland have been identified with green shading. All areas of soil map units meeting the definition of statewide important farmland have been identified with yellow shading. A soils legend along with the brief soil map unit descriptions for those prime farmland and statewide important farmland map units is also attached. Areas identified as "Prior Converted " those that are currently built up, residential, or designated for non-farm use have been outlined in yellow and identified as (PC) on the attached map. Areas of shading for prime or statewide important farmlands within the areas identified as PC are no longer farmland, but considered prior converted and no additional action needs to be taken.

The shaded areas outside of "PC" boundaries appear according to your provided maps, to fall on the existing right-a-way of roads which also are considered as prior converted. If on the right-a-way, no additional action is needed, if not, those areas that are not on the right-a-way should be treated as prime or statewide important farmland according to the attached map and additional action may be necessary if Federal funding is involved.

If this office may be of additional assistance, please do not hesitate to contact my office in Maysville Ky. or contact the NRCS District Conservationist at 606-789-5263.

Steve Jacobs
Resource Soil Scientist, NRCS, Maysville, KY.
cc: Chris Slone, NRCS District Conservationist, Paintsville, KY

Cann-Tech, L.L.C.

Engineers *Planners* *Managers*

April 18, 2012

U.S. Army Engineer District, Louisville
P.O. Box 59
Louisville, Kentucky 40201

RE: Paintsville Utilities
201 Facilities Plan

To Whom It May Concern:

Paintsville Utilities is in the process of preparing a Regional Facility Program. Section 9 requires that potential adverse impacts be identified by various cross-cutting agencies. The project is being proposed in order to route waste water from the older over capacity waste water treatment plant to a newer treatment plant that will be increased in capacity. Enclosed are a topo map, street map and aerial that depict the proposal's construction activities and the Paintsville Utilities' service area. The wastewater will be transferred by force main from the Paintsville WWTP (37° 48' 47.6"N, 82° 47' 24.17"W) to the Honey Branch WWTP (37° 45' 9.78"N, 82° 45' 19.77"W). Multiple waters will be crossed utilizing directional bores.

The proposed project will not include the discharge of dredged materials into any "Waters of the U.S.". Please advise us of any possible effects that you may have related to this project.

We would appreciate a response within 15 days. If you need any further information or wish to discuss our project, please contact Derek Motsch at (502) 859-0907.

Sincerely,
CANN-TECH, LLC

RDM

R. Derek Motsch, P.E.

Enclosure

1100 Glensboro Rd., Suite 9
Park View Center
Lawrenceburg, KY 40342
Phone: (502) 859-0907 • Fax: (502) 859-0668
Email: waterboy@kih.net

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
P.O. BOX 59
LOUISVILLE KY 40201-0059
FAX: (502) 315-6677
http://www.lrl.usace.army.mil/

May 7, 2012

Received
MAY 0 2012
Cann - Tech, LLC

Operations Division
Regulatory Branch (South)

Mr. R. Derek Motsch
Cann-Tech, L.L.C.
1100 Glensboro Road
Suite 9
Lawrenceburg, Kentucky 40342

Dear Mr. Motsch:

This is in regard to your letter dated April 18, 2012, for a review on behalf of Paintsville Utilities in Johnson County, Kentucky concerning the Regional Facility Program which involves the installation of a force main from Paintsville wastewater treatment plant to the Honey Branch wastewater treatment plant.

The U.S. Army Corps of Engineers (USACE) exercises regulatory authority under Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) and Section 404 of the Clean Water Act, 1972 (33 USC 1344) for certain activities in "waters of the United States (U.S.)." Section 404 requires that a Department of the Army (DA) permit be obtained for the placement or discharge of dredged and/or fill material into "waters of the United States (U.S.)," including wetlands, prior to conducting the work.

"Waters of the U.S.," include hydrologically connected lakes, rivers and stream channels exhibiting an Ordinary High Water Mark (OHWM), wetlands, sloughs, wet meadows and wetlands adjacent to "waters of the U.S." The ordinary high water mark (OHWM) elevation is the line on the bank established by the changing water surface and indicated by physical characteristics such as a clear natural line impressed on the bank; shelving; changes in the character of the soil; destruction of terrestrial vegetation; and other indications as determined upon inspection of the area.

Section 10 requires that a DA permit be obtained for any work that occurs in, under, or over a navigable water. These waters include all waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, and would include the Levisa Fork of the Big Sandy River in your project area.

Based on the information provided by you, "waters of the U.S." may be located within the project area. "Waters of the U.S.," may include any stream channels (perennial, intermittent, ephemeral) and/or hydrologically connected lakes exhibiting an OHWM and any adjacent wetlands within the proposed project area. A jurisdictional determination must be completed if a proposed project would impact any "waters of the U.S.," including wetlands.

Our comments on this project are limited to only those effects which may fall within our area of jurisdiction and thus does not obviate the need to obtain other permits from State or local agencies.

If the project would necessitate the discharge of dredged or fill material into any "waters of the U.S.," including jurisdictional wetlands, then you should submit a DA permit application for review by this office. We will need a completed DA permit application along with additional details regarding the project's design, scope, photos, construction methods, purpose and the locations (coordinates) of all "waters of the U.S." Please allow sufficient time in your preconstruction schedule for the processing of a DA permit application. Copies of DA permit application forms can be obtained by writing to the above address ATTN: CELRL-OP-FS or online at http://www.lrl.usace.army.mil/.

If we can be of any further assistance, please contact us by writing to the above address ATTN: CELRL-OP-FS, or by calling Mr. Adam Fannin at 502-315-6702.

Sincerely,

Lee Anne Devine
Chief, South Section
Regulatory Branch

Appendix D

KPDES Permits

STEVEN L. BESHEAR
GOVERNOR

LEONARD K. PETERS
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
200 FAIR OAKS LANE, 4TH FLOOR
FRANKFORT, KENTUCKY 40601
www.kentucky.gov

May 7, 2014

Mr. Eric Ratliff
1600 Ky Rte 2381
Van Lear, KY 41265

Re: Supplemental Disinfection by Proxitane WW-12 Microbiocide
Johnson County, Kentucky
Project ID #: 14-0085
Honey Branch Regional WWTP
Activity ID #: 2356, APE20140001
KPDES #: KY0103578

Dear Mr. Ratliff:

We have reviewed the requested effluent testing data submitted for the above referenced project. The plans include transitioning from UV disinfection to disinfection by Proxitane WW-12 Microbiocide as the primary disinfectant. This is to advise that this request is APPROVED. Proxitane WW-12 Microbiocide will be listed as the primary disinfectant on the final discharge permit.

If we can be of any further assistance or should you wish to discuss this correspondence, please do not hesitate to contact me at 502 564 3410.

Sincerely,

Greg Goode

Greg Goode, P.E.
Engineering Section
Water Infrastructure Branch
Division of Water

Enclosures
c: Johnson County Health Department
Hazard Regional Field Office
Michael Conley, Paintsville Utilities

Based on environmentally-friendly peracetic acid and hydrogen peroxide, Proxitane has a proven record as a safe sanitizer in the food industry. Now with EPA registration, Solvay Chemicals, Inc. is the first to offer this powerful, biodegradable disinfectant to U.S. wastewater treatment facilities. Proxitane® WW-12 is also suitable and approved for a wide range of wastewater treatment applications:

Municipal wastewater
Industrial wastewater
Water reuse
Stormwater discharges
Combined sewer overflows
Sanitary sewer overflows

Used primarily as a replacement for chlorine gas and sodium hypochlorite, it also offers a low-capital alternative to chlorine dioxide, ozone and UV. Additionally, Proxitane WW-12 complements marginally performing UV systems.

ATTRIBUTE	BENEFIT TO YOUR OPERATION
Excellent microbiocide	**Cost-effective over a broad range of microorganisms and conditions.**
No known resistant microorganisms	**Long-term efficacy.**
Environmentally friendly	**Decomposes into non-harmful by-products.**
Non-halogenated	**Forms no AOX.**
Ready-to-use liquid	**Accurately controlled at low levels. Easy to dose. Minimal capital required.**
Rapid reactions	**Suitable for short contact times. In-pipe treatment effective.**
Long-term stability	**On-site storage suitable for intermittent CSO applications.**
Neutralization step not required	**Simplified operations - one step process.**
Fewer security issues	**Avoids HS&E concerns associated with chlorine gas.**

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STEVEN L. BESHEAR
GOVERNOR

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
200 FAIR OAKS LANE
FRANKFORT, KENTUCKY 40601
www.kentucky.gov

LEONARD K. PETERS
SECRETARY

May 19, 2014

Mr. Mike Conley
Honey Branch Regional WWTP
Post Office Box 630
Paintsville, Kentucky 41240

Re: Honey Branch WWTP
KPDES No.: KY0103578
AI No.: 2356
Johnson County, Kentucky

Dear Mr. Conley:

Enclosed is the Kentucky Pollutant Discharge Elimination System (KPDES) permit for the above-referenced facility. This action constitutes a final permit issuance under 401 KAR 5:075, pursuant to KRS 224.16-050.

This permit will become effective on the date indicated in the attached permit provided that no request for adjudication is granted. All provisions of the permit will be effective and enforceable in accordance with 401 KAR 5:075, unless stayed by the Hearing Officer under Sections 11 and 13.

Any demand for a hearing on the permit shall be filed in accordance with the procedures specified in KRS 224.10-420, 224.10-440, 224.10-470 and any regulations promulgated thereto. Any person aggrieved by the issuance of a permit final decision may demand a hearing, pursuant to KRS 224.10-420(2), within thirty (30) days from the date of the issuance of this letter. Two (2) copies of request for hearing should be submitted in writing to the Energy and Environment Cabinet, Office of Administrative Hearings, 35-36 Fountain Place, Frankfort, Kentucky 40601 and the Commonwealth of Kentucky, Energy and Environment Cabinet, Division of Water, 200 Fair Oaks Lane, Frankfort, Kentucky 40601. For your record keeping purposes, it is recommended that these requests be sent by certified mail. The written request must conform to the appropriate statutes referenced above.

If you have any questions regarding the KPDES decision, please contact Dan Juett, Operational Permits Section, Surface Water Permits Branch, at (502) 564-3410, extension 4894.

Further information on procedures and legal matters pertaining to the hearing request may be obtained by contacting the Office of Administrative Hearings at (502) 564-7312.

Sincerely,

Peter T. Goodmann, Director
Division of Water

PTG:TJB:tjb
Enclosure
c: Division of Water

KPDES

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT

PERMIT NO.: KY0103578

AI NO.: 2356

AUTHORIZATION TO DISCHARGE UNDER THE

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

Pursuant to Authority in KRS 224,

Paintsville Utilities Commission
P O Box 630
Paintsville, Kentucky 41240

is authorized to discharge from a facility located at

Honey Branch Wastewater Treatment Plant
1600 KY Route 2381
Van Lear, Johnson County, Kentucky 41265

to receiving waters named

Johns Creek at Latitude 37°45'7.753" Longitude 82°45'25.224 NHD Index 1.55

in accordance with effluent limitations, monitoring requirements and other conditions set forth in this permit.

This permit shall become effective on July 1, 2014.

This permit and the authorization to discharge shall expire at midnight, June 30, 2019.

May 19, 2014

Date Signed

Peter T. Goodmann, Director
Division of Water

DEPARTMENT FOR ENVIRONMENTAL PROTECTION

Division of Water, 200 Fair Oaks Lane, Frankfort, Kentucky 40601

Printed on Recycled Paper

1. EFFLUENT AND MONITORING REQUIREMENTS

1.1. Monitoring Locations

The following table lists the outfalls authorized by this permit, the latitude and longitude of each and the DOW assigned KPDES outfall number.

MONITORING LOCATIONS				
Number	Type	Latitude (N)	Longitude (W)	Description of Outfall
001	Effluent	37°45'7.753"	82°45'25.224	Treated Municipal Wastewater
001	Influent	Headworks		Raw Municipal Wastewater

1.2. Effluent Limitations and Monitoring Requirements

Beginning on the effective date and lasting through the term of this permit discharges from Outfall(s) 001 shall comply with the effluent limitations.

EFFLUENT LIMITATIONS							MONITORING REQUIREMENTS		
Effluent Characteristic	Loadings (lbs/day)		Concentrations (specify units)				Monitoring		Sample Type
	Monthly Average	Weekly Average	Minimum	Monthly Average	Weekly Average	Maximum	Location	Frequency	
Flow (Design 1.0 MGD)	Report	Report	N/A	N/A	N/A	N/A	Effluent	Continuous	Recorder
Flow (MGD)	Report	Report	N/A	N/A	N/A	N/A	Influent	Continuous	Recorder
$CBOD_5$	209	313	N/A	25 mg/l	37.5 mg/l	N/A	Effluent	1/Week	24-Hr Composite
$CBOD_5$	Report	Report	N/A	Report, mg/l	Report, mg/l	N/A	Influent	1/Week	24-Hr Composite
Percent Removal $CBOD_5$	N/A	N/A	N/A	85%	N/A	N/A	N/A	1/Month	Calculated
TSS	250	375	N/A	30 mg/l	45 mg/l	N/A	Effluent	1/Week	24-Hr Composite
TSS	Report	Report	N/A	Report, mg/l	Report, mg/l	N/A	Influent	1/Week	24-Hr Composite
Percent Removal TSS	N/A	N/A	N/A	85%	N/A	N/A	N/A	1/Month	Calculated
Ammonia (as NH_3N)	83	125	N/A	10 mg/l	15 mg/l	N/A	Effluent	1/Week	24-Hr Composite
E. Coli (colonies/100 ml)[1]	N/A	N/A	N/A	130	240	N/A	Effluent	1/Week	Grab
Dissolved Oxygen	N/A	N/A	7.0 mg/l	N/A	N/A	N/A	Effluent	1/Week	Grab
pH (Standard Units)	N/A	N/A	6.0	N/A	N/A	9.0	Effluent	1/Week	Grab
Hardness as mg/l $CaCO_3$	N/A	N/A	N/A	Report, mg/l	Report, mg/l	N/A	Effluent	1/Quarter	24-Hr Composite
Total Recoverable Cadmium	N/A	N/A	N/A	Report, µg/l	Report, µg/l	N/A	Effluent	1/Quarter	24-Hr Composite
Total Recoverable Silver	N/A	N/A	N/A	Report, µg/l	Report, µg/l	N/A	Effluent	1/Quarter	24-Hr Composite

EFFLUENT LIMITATIONS							MONITORING REQUIREMENTS		
Effluent Characteristic	Loadings (lbs/day)		Concentrations (specify units)				Monitoring		Sample Type
	Monthly Average	Weekly Average	Minimum	Monthly Average	Weekly Average	Maximum	Location	Frequency	
Chronic Toxicity	N/A	N/A	N/A	N/A	N/A	2.42 TU_c	Effluent	1/Quarter	3 24-Hr Composites
Total Phosphorus	N/A	N/A	N/A	Report (mg/l)	Report (mg/l)	N/A	Effluent	1/Week	24-Hr Composite
Total Nitrogen	N/A	N/A	N/A	Report (mg/l)	Report (mg/l)	N/A	Effluent	1/Week	24-Hr Composite

[1]The effluent limitations for *Escherichia Coli* are 30 day and 7 day Geometric Means.
Total Nitrogen is the summation of the analytical results for Total Nitrates, Total Nitrites, and Total Kjeldahl Nitrogen.

1.3. Standard Effluent Requirements

The discharges to waters of the Commonwealth shall not produce floating solids, visible foam or a visible sheen on the surface of the receiving waters.

amples and measurements taken in accordance with the requirements of specified Section 1.2 shall be representative of the volume and nature of the monitored scharge and shall be taken at nearest accessible point after final treatment, but prior to actual discharge to or mixing with the receiving waters or wastestreams from other outfalls.

1.4. Whole Effluent Toxicity Testing

The permittee shall initiate, within thirty (30) days of the effective date of this permit, or continue the series of tests described below to evaluate wastewater toxicity of the discharge from Outfall 001.

1.4.1. WET Test Requirements

The permittee shall perform one (1) short-term static-renewal water flea (Ceriodaphnia dubia) life-cycle test and one (1) short-term static-renewal fathead minnow (Pimephales promelas) growth test on 42% effluent (2.42 TU_C) at the frequency specified in Section 1.2.

1.4.2. WET Sampling Requirements

Tests shall be conducted on a minimum of three (3) 24-hour composite samples shall be collected at a frequency of one (1) 24-hour composite every other day. For example, the first sample would be used for test initiation on day 1 and for test solution renewal on day 2. The second sample would be used for test solution renewal on days 3 and 4. The third sample would be used for test solution renewal on days 5, 6, and 7. Each 24-hour composite shall be collected using a refrigerated automatic sampler. Each 24-hour composite sample shall consist of not less than forty-eight (48) discrete aliquots of effluent. Aliquots shall be of equal volume and

time-proportional unless effluent flow is expected to vary by more than 10% from one hour to another or by 50% over the 24-hour collection period (as predicted from historical trends, significant rainfall events, etc.). With anticipated effluent flow variation of greater than 10% per hour or 50% overall, the frequency, and volume of each aliquot shall be flow-proportional. The lapsed time from collection of the last aliquot of the composite and its first use for test initiation or for test solution renewal shall not exceed 36 hours.

Samples shall be iced and maintained at not greater than 6 °C during collection, storage, transport and until used in the test by the laboratory.

1.4.3. WET Serial Dilutions

Effluent concentrations for the tests must include the percent effluent required by the permit and at least four additional effluent concentrations as follows.

Required Percent Effluent	Dilution 1 Percent	Dilution 2 Percent	Dilution 3 Percent	Dilution 4 Percent	Dilution 5 Percent
100	20	40	60	80	100
95	23.5	47.5	95	97.5	100
90	22.5	45	90	95	100
85	21.25	42.5	85	92.5	100
80	20	40	80	90	100
75	18.75	37.5	75	87.5	100
70	17.5	35	70	85	100
65	16.25	32.5	65	82.5	100
60	15	30	60	80	100
55	13.75	27.5	55	77.5	100
50	12.5	25	50	75	100
45	11.25	22.5	45	72.5	100
40	10	20	40	70	100
35	8.75	17.5	35	67.5	100
30	7.5	15	30	65	100
25	6.25	12.5	25	62.5	100
20	5	10	20	60	100
15	3.75	7.5	15	57.5	100
10	2.5	5	10	55	100
5	1.25	2.5	5	50	100

For a required percent effluent of 100%, test concentrations shall be 20%, 40%, 60%, 80% and 100%.

For a required percent effluent less than 100% but greater than or equal to 75%, the test concentrations shall include the required percent effluent, two (2) concentrations below that are based on a 0.5 dilution factor, and two (2) concentrations above: one (1) at mid-point between 100% and the required percent effluent, and one (1) at 100% effluent.

For a required percent effluent less than 75%, test concentrations shall include the required percent effluent, two (2) concentrations below on a 0.5 dilution factor, and two (2) concentrations above the required percent effluent based on a 0.5 dilution factor if possible, one (1) at mid-point between 100% and the required percent effluent, and one (1) at 100% effluent.

Selection of different effluent concentrations must be approved by DOW prior to testing. Controls shall be conducted concurrently with effluent testing using synthetic water.

1.4.4. WET Controls

Controls shall be tested concurrent with effluent testing using synthetic water. The analysis will be deemed reasonable and good only if the minimum control requirements are met:

For the Ceriodaphnia test: at least 80% survival of all control organisms and an average of fifteen (15) or more young per surviving female in the control solutions; and 60% of surviving control females must produce three broods.

For the fathead minnow test: at least 80% survival in controls and the average dry weight per surviving organism in control chambers equals or exceeds 0.25 mg.

Any test that does not meet the control acceptability criteria shall be repeated as soon as practicable within the monitoring period.

Within thirty (30) days prior to initiating an effluent toxicity test, a reference toxicant test must be completed for the method used; alternatively, the reference xicant test may be run concurrent with the effluent toxicity test.

1.4.5. WET Test Methods

All test organisms, procedures and quality assurance criteria used shall be in accordance with Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (4th Edition), EPA-821-R-02-013, the most recent edition of this publication, or as approved in advance by DOW.

1.4.6. Reduction to Single Species Testing

After at least six (6) consecutive passing toxicity tests using both, the water flea and the fathead minnow, a request for testing with only the most sensitive species may be submitted to DOW. Upon approval, the most sensitive species may be considered as representative and all subsequent compliance tests may be conducted using only that species unless directed at any time by DOW to change or revert to both.

1.4.7. WET Reporting Requirements

Results of all toxicity tests conducted with any species shall be reported according to the most recent format provided by DOW. Notification of failed test shall be made to DOW within five (5) days of test completion. Test reports shall be submitted to DOW within thirty (30) days of completion. A control chart including the most recent reference toxicant test endpoints for the effluent test method (minimum of five [5], up to twenty [20] if available) shall be part of the report.

1.4.8. WET Test Results

Noncompliance with the toxicity limit will be demonstrated if the IC_{25} (inhibition concentration) for reproduction or growth is less than 42 % effluent. If noncompliance occurs in an initial test, the permittee must repeat the test using a new set of three (3) 24-hour composite samples. Sampling must be initiated within fifteen (15) days of completing the failed test. The second round of testing shall include both species unless approved for only the most sensitive species by DOW.

Results of the second round of testing will be used to evaluate the persistence of the toxic event and the possible need for a Toxicity Reduction Evaluation (TRE).

1.4.9. Accelerated Testing

If the second round of testing also demonstrates noncompliance, the permittee will be required to perform accelerated testing as specified in the following paragraphs.

Complete four (4) additional rounds of testing to evaluate the frequency and degree of toxicity within sixty (60) days of completing the second failed round of testing. Results of the initial and second rounds of testing specified above plus the four (4) additional rounds of testing will be used in deciding if a TRE shall be required.

If results from any two (2) of six (6) rounds of testing show a significant noncompliance with the Toxicity limit, i.e., ≥1.2 times the TU, or results from any four of the six tests show toxicity as defined in Section 1.4.8, a TRE will be required.

The permittee shall provide written notification to DOW within five (5) days of completing the accelerated testing, stating that: (1) toxicity persisted and that a TRE ll be initiated; or (2) that toxicity did not persist and normal testing will resume.

Should toxicity prove not to be persistent during the accelerated testing period, but reoccur within twelve (12) months of the initial failure at a level ≥ 1.2 times the TU, then a TRE shall be required.

1.4.10. WET Toxicity Reduction Evaluation (TRE)

Having determined that a TRE is required, the permittee shall initiate and/or continue at least monthly testing with both species until such time as a specific TRE plan is approved by DOW. A TRE plan shall be developed by the permittee and submitted to DOW within thirty (30) days of determining a TRE is required. The plan shall be developed in accordance with the most recent EPA and DOW guidance. Questions regarding this process may be submitted to DOW.

The TRE plan shall include Toxic Identification Evaluation (TIE) procedures, treatability studies, and evaluations of: chemical usage including changes in types, handling and suppliers; operational and process procedures; housekeeping and maintenance activities; and raw materials. The TRE plan will establish an implementation schedule to begin immediately upon approval by DOW, to have duration of at least six (6) months, and not to exceed twenty-four (24) months. The implementation schedule shall include quarterly progress reports being submitted to DOW, due the last day of the month following each calendar quarter.

Upon completion of the TRE, the permittee shall submit a final report detailing the findings of the TRE and actions taken or to be taken to prevent the reoccurrence of toxicity. This final report shall include: the toxicant(s), if any are identified; treatment options; operational changes; and the proposed resolutions including an implementation schedule not to exceed one-hundred-eighty (180) days.

Should the permittee determine the toxicant(s) and/or a workable treatment prior to the planned conclusion of the TRE, the permittee will notify DOW within five (5) days of making that determination and take appropriate actions to implement the solution within one-hundred-eighty (180) days of that notification.

2. STANDARD CONDITIONS

2.1. Schedule of Compliance

The permittee shall attain compliance with all requirements of this permit on the effective date of this permit unless otherwise stated.

2.2. Standard Conditions for KPDES Permit

2.2.1. Other Permits

This permit has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal, and local agencies.

2.2.2. Sufficiently Sensitive Analytical Methods

Analytical methods utilized to demonstrate compliance with the effluent limitations established in this permit shall be sufficiently sensitive to detect pollutant levels at or below the required effluent limit, i.e. the Method Detection Limit (MDL) shall be at or below the effluent limit. In that instance where an EPA-approved method does not exist that has an MDL at or below the established effluent limitation, the permit shall: (1) use the method specified in the permit; or (2) the EPA-approved method with an MDL that is nearest to the established effluent limit.

2.2.3. Antidegradation

or those discharges subject to the provisions of 401 KAR 10:030, Section 1(3)(b)5, the permittee shall install, operate, and maintain wastewater treatment facilities consistent with those identified as follows: bar screening, three deep cell aerated lagoons, bio towers, final clarifiers, proxitane WW-12 microbiocide used for disinfection, post aeration and discharge. Sludge Solids are disposed in the deep cell lagoons.

2.2.4. Conditions Applicable to All Permits

The following conditions apply to all KPDES permits.

2.2.4.1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of KRS Chapter 224 and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Any person who violates applicable statutes or who fails to perform any duty imposed, or who violates any determination, permit, administrative regulation, or order of the cabinet promulgated pursuant thereto shall be liable for a civil penalty as provided at KRS 224.99.010.

2.2.4.2. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for a new permit.

2.2.4.3. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

2.2.4.4. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

2.2.4.5. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2.2.4.6. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and issuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

2.2.4.7. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

2.2.4.8. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Director upon request, copies of records required to be kept by this permit.

2.2.4.9. Inspection and Entry

The permittee shall allow the Director or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:

(1) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
(3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
(4) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

2.2.4.10. Monitoring and Records

(1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(2) Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five (5) years (or longer as required by 401 KAR 5:065 Section 2(10) [40 CFR 503]), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

(3) Records of monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;
(ii) The individual(s) who performed the sampling or measurements;
(iii) The date(s) analyses were performed;
(iv) The individual(s) who performed the analyses;
(v) The analytical techniques or methods used; and
(vi) The results of such analyses.

') Monitoring must be conducted according to test procedures approved under 401 KAR 5:065 Section 2(8) [40 CFR 136] unless another method is .equired under 401 KAR 5:065 Section 2(9) or (10) [40 CFR subchapters N or O].

(5) KRS 224.99-010 provides that any person who knowingly violates KRS 224.70-110 or other enumerated statutes, or who knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall be guilty of a Class D felony and, upon conviction, shall be punished by a fine of not more than $25,000, or by imprisonment for not more than one (1) year, or both. Each day upon which a violation occurs shall constitute a separate violation.

2.2.4.11. Signatory Requirement

(1) All applications, reports, or information submitted to the Director shall be signed and certified pursuant to 401 KAR 5:060, Section 4 [40 CFR 122.22].

(2) KRS 224.99-010 provides that any person who knowingly provides false information in any document filed or required to be maintained under KRS Chapter 224 shall be guilty of a Class D felony and upon conviction thereof, shall b punished by a fine not to exceed twenty-five thousand dollars ($25,000), or by imprisonment, or by fine and imprisonment, for each separate violation. Each day upon which a violation occurs shall constitute a separate violation

2.2.4.12. Reporting Requirements

2.2.4.12.1. Planned Changes

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

(i) The alteration or addition to a permitted facility may meet one (1) of the criteria for determining whether a facility is a new source in KRS 224.16-050 [40 CFR122.29 (b); or

(ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under KRS 224.16-050 [40 CFR 122.42(a)(1)].
(iii) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

2.2.4.12.2. Anticipated Noncompliance

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

2.2.4.12.3. Transfers

This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under KRS 224 [CWA; see 40 CFR 122.61; in some cases, modification or revocation and reissuance is mandatory].

2.2.4.12.4. Monitoring Reports

Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(i) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices.
(ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 401 KAR 5:065 Section 2(8) [40 CFR 136], or another method required for an industry-specific waste stream under 401 KAR 5:065 Section 2(9) or (10) [40 CFR subchapters N or O], the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.
(iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

2.2.4.12.5. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date.

2.2.4.12.6. Twenty-four-Hour Reporting

(i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

(ii) The following shall be included as information which must be reported within twenty-four (24) hours under this paragraph.

(A) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See §122.41(g).
(B) Any upset which exceeds any effluent limitation in the permit.
(C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within twenty-four (24) hours.

(iii) The Director may waive the written report on a case-by-case basis for reports under paragraph (l)(6)(ii) of this section if the oral report has been received within twenty-four (24) hours.

2.2.4.12.7. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under Sections 2.2.4.12.1, 2.2.4.12.4, 2.2.4.12.5, and 2.2.4.12.6, at the time monitoring reports are submitted. The reports shall contain the information listed in Section 2.2.4.12.6.

2.2.4.12.8. Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

2.2.4.13. Bypass

2.2.4.13.1. Definitions

) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
(ii) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

2.2.4.13.2. Bypass Not Exceeding Limitations

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Section 2.2.4.13.1.

2.2.4.13.3. Notice

(i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass.
(ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section 2.2.4.12.6.

2.2.4.13.4. Prohibition of Bypass

(i) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

(A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
(C) The permittee submitted notices as required under Section 2.2.4.13.3.

(ii) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three (3) conditions listed above in Section 2.2.4.13.3.

2.2.4.13.5. Upset

2.2.4.13.5.1. Definition

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

2.2.4.13.5.2. Effect of an Upset

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Section 2.2.4.13.5.3 are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

2.2.4.13.5.3. Conditions Necessary for a Demonstration of Upset

A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(i) An upset occurred and that the permittee can identify the cause(s) of the upset;
(ii) The permitted facility was at the time being properly operated; and
(iii) The permittee submitted notice of the upset as required in Section 2.2.4.12.6; and
(iv) The permittee complied with any remedial measures required under Section 2.2.4.4.

2.2.4.13.5.4. Burden of Proof

In any enforcement preceding the permittee seeking to establish the occurrence of an upset has the burden of proof.

2.3. Reporting of Monitoring Results

Monitoring results obtained during each monitoring period must be reported. The completed Discharge Monitoring Report (DMR) for each monitoring period must be submitted no later than the 28th day of the month following the monitoring period for which monitoring results were obtained.

2.3.1. Electronic Submittal

The completed DMR for each monitoring period must be entered into the Division of Water approved electronic system no later than midnight on the 28th day of the month following the monitoring period for which monitoring results were obtained. For information regarding electronic submittal of DMRs please visit the Division's website at http://water.ky.gov/permitting/Pages/netDMRInformation.aspx or contact the DMR Coordinator at (502) 564-3410.

2.4. Reopener Clause

This permit shall be modified, or alternatively revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved in accordance with 401 KAR 5:050 through 5:080, if the effluent standard or limitation so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
2. Controls any pollutant not limited in the permit.

This permit may be reopened to implement the findings of a reasonable potential analysis performed by the Division of Water.

This permit shall be reopened if Division of Water determines surface waters are aesthetically or otherwise degraded by substances that:

(a) Settle to form objectionable deposits;
(b) Float as debris, scum, oil, or other matter to form a nuisance;
(c) Produce objectionable color, odor, taste, or turbidity;
(d) Injure, are chronically or acutely toxic to or produce adverse physiological or behavioral responses in humans, animals, fish, and other aquatic life;
(e) Produce undesirable aquatic life or result in the dominance of nuisance species; or
(f) Cause fish flesh tainting.

The permit as modified or reissued under this paragraph shall also contain any other requirements of KRS Chapter 224 when applicable.

3. SPECIAL CONDITIONS

3.1. Pretreatment Program

At the present time neither the current wastewater treatment system operated by the permittee nor the current users meet the conditions necessitating the development and implementation a pretreatment program. Although current conditions do not warrant a pretreatment program the permittee shall continue to enforce the general and specific prohibitions listed in Sections 3.1.1 and 3.1.2 respectively of this permit. The permittee shall at a minimum conduct annual industrial wastes surveys to determine if there has been changes to the industrial users' discharges that would necessitate the development an implementation of a pretreatment program. In the event the permittee becomes aware of a new industrial user or modification to an existing industrial user the permittee shall require the submission of an industrial waste survey fore evaluation. Should any industrial waste survey indicate that a pretreatment program is required the permittee shall notify DOW within 30 days of this determination and provide a schedule not to exceed one year for development and implementation of the pretreatment program. The permittee shall submit to DOW an annual report by January 28th of the following year detailing the results of the annual and any other industrial waste surveys reviewed.

3.1.1. General Prohibitions

No user is to introduce to a POTW any pollutant or pollutants that will cause pass through or interference even if the user is not subject to National Pretreatment Standards or any national, state, or local requirements. A user shall have an affirmative defense against a violation of the general prohibitions where the user can demonstrate that:

(1) It did not know or have reason to know that its discharge singly or in conjunction with other discharges would result in pass through or interference with the POTW; and
(2) The discharge met the local limit designed to prevent pass through or interference or in the case of no local limit the user's discharge did not substantially change in nature or substance during the occurrence from the pre-occurrence conditions.

3.1.2. Specific Prohibitions

No user is to introduce to a POTW any of the following pollutants:

(1) Pollutants which create a fire or explosion hazard, including but not limited to, wastestreams with a closed cup flashpoint of less than 140 °F (60 °C);
(2) Pollutants which will cause corrosive structural damage or have a pH less than 5.0 standard units unless the POTW is designed to accommodate such pH levels;
(3) Solid or viscous pollutants in amounts that would obstruct the flow to the POTW thus resulting in interference;
(4) Any pollutant released in a discharge at such a volume or strength as to cause interference in the POTW;
(5) Heat in amounts that will inhibit biological activity in the POTW thus resulting in interference. In no case heat in such quantities that the temperature at the POTW treatment plant exceeds 104 °F (40 °C) unless the POTW requests and the Approval Authority grants alternate temperature limits;
(6) Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass-through;
(7) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and,
(8) Any trucked or hauled waste except, at discharge points designated by the POTW

3.2. Collection Systems

3.2.1. Operation and Maintenance

3.2.1.1. CMOM Programs

The permittee shall have in place Capacity, Management, Operation and Maintenance (CMOM) Programs that are effective at eliminating SSOs and other unpermitted discharges. The permittee shall submit a completed CMOM Programs Self-Assessment report within two (2) years of the effective date of this permit, which includes the checklist in the "Guide for Evaluation Capacity, Management, Operation, and Maintenance (CMOM) Programs at Sanitary Sewer Collection Systems," EPA 305-B-05-002. This document is available at: http://www.epa.gov/npdes/pubs/cmom_guide_for_collection_systems.pdf. The self-assessment shall include an evaluation of relevant CMOM program elements and a schedule for implementation of recommended program improvements.

The CMOM programs and Self-Assessment report shall be available to EEC or its authorized representative for review and copying during on-site inspections. Where the CMOM refers to procedures in other documents, copies of the relevant portions of those documents must be kept with the CMOM.

In accordance with Agreed Order Case No. DOW 130114 dated October 28, 2013; the permittee is required to implement certain components which are enforceable conditions of the KPDES permit.

3.2.1.2. Monitoring, Recordkeeping, and Reporting

The permittee shall provide estimated volumes of all reported overflows, bypasses, other releases, and unpermitted discharges, in documentation and reporting of overflows to DOW. The method of estimating volume shall be rationally justifiable, and the same method shall be used for all reportable events in the absence of different circumstances.

3.2.1.3. Sewer Overflow Response Protocol (SORP)

The permittee shall implement a Sewer Overflow Response Protocol (SORP) in compliance with 401 KAR 5:015 for 1) responding to, cleaning up, and/or minimizing the impact of all overflows, including unauthorized discharges; 2) reporting the location, volume, cause and impact of overflows, including CSOs, SSO's and unauthorized discharges, to the Cabinet; and 3) notifying the potentially-impacted public. The permittee shall submit a SORP within one (1) year of the effective date of this permit, which shall include, but not be limited to, the following components.

(1) An overflow response procedure including designated responders for the city, response times, and cleanup methods
(2) A public advisory procedure
(3) A regulatory agency notification procedure
(4) A manhole and pump station inspection schedule

The SORP shall be reviewed by the permittee at least annually and amended if it is determined to be in conflict with 401 KAR 5:015 or that changes in procedures, changes in designated and/or contact personnel, or changes due to regulatory requirements are appropriate. The permittee shall prepare revisions to the SORP to adequately address these provisions or changes and submit the revisions to the cabinet for review and approval and to the Frankfort Regional Office of the Division of Water. The permittee shall implement the revised SORP within 30 days of receiving notification from the cabinet that the proposed changes are acceptable.

The SORP shall be available to EEC or its authorized representative for review and copying during on-site inspections. Where the SORP refers to procedures in other documents, copies of the relevant portions of those documents must be kept with the SORP.

3.3. Mixing Zone

The assigned mixing zone for this discharge shall have the following dimensions:

Linear Distance from point of discharge:	15	feet in any direction
Maximum Surface Area involved:	176.1	square feet
Volume of Receiving Water:	2.2	cfs

3.4. Best Management Practices

3.4.1. BMP - General Conditions

3.4.1.1. BMP - Applicability

These conditions apply to all permittees who use, manufacture, store, handle, or discharge any pollutant listed as: (1) toxic under Section 307(a)(1) of the Clean Water Act; (2) oil, as defined in Section 311(a)(1) of the Act; (3) any pollutant listed as hazardous under Section 311 of the Act; or (4) is defined as a pollutant pursuant to KRS 224.01-010(35) and who have ancillary manufacturing operations which could result in (1) the release of a hazardous substance, pollutant, or contaminant, or (2) a environmental emergency, as defined in KRS 224.01-400, as amended, or any regulation promulgated pursuant thereto (hereinafter, the "BMP pollutants"). These operations include material storage areas; plant site runoff; in-plant transfer, process and material handling areas; loading and unloading operations, and sludge and waste disposal areas.

3.4.1.2. BMP - Plan

The permittee shall develop and implement a Best Management Practices (BMP) plan consistent with 401 KAR 5:065, Section 2(10) pursuant to KRS 224.70-110, which prevents or minimizes the potential for the release of "BMP pollutants" from ancillary activities through plant site runoff; spillage or leaks, sludge or waste disposal; or drainage from raw material storage. A Best Management Practices (BMP) plan will be prepared by the permittee unless the permittee can demonstrate through the submission of a BMP outline that the elements and intent of the BMP have been fulfilled through the use of existing plans such as the Spill Prevention Control and Countermeasure (SPCC) plans, contingency plans, and other applicable documents.

3.4.1.3. BMP - Implementation

If this is the first time for the BMP requirement, then the plan shall be developed and submitted to the Division of Water within 90 days of the effective date of the permit. Implementation shall be within 180 days of that submission. For permit renewals the plan in effect at the time of permit reissuance shall remain in effect. Modifications to the plan as a result of ineffectiveness or plan changes to the facility shall be submitted to the Division of Water and implemented as soon as possible.

3.4.1.4. BMP - General Requirements

The BMP plan shall:

a. Be documented in narrative form, and shall include any necessary plot plans, drawings, or maps.

b. Establish specific objectives for the control of toxic and hazardous pollutants.

(1) Each facility component or system shall be examined for its potential for causing a release of "BMP pollutants" due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc.
(2) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g., precipitation), or other circumstances which could result in a release of "BMP pollutants," the plan should include a prediction of the direction, rate of flow, and total quantity of the pollutants which could be released from the facility as result of each condition or circumstance.

c. Establish specific Best Management Practices to meet the objectives identified under paragraph b of this section, addressing each component or system capable of causing a release of "BMP pollutants."

d. Include any special conditions established in part b of this section.

e. Be reviewed by plant engineering staff and the plant manager.

3.4.1.5. BMP - Specific Requirements

The plan shall be consistent with the general guidance contained in the publication entitled "NPDES Best Management Practices Guidance Document," and shall include the following baseline BMPs as a minimum.

BMP Committee
.. Reporting of BMP Incidents
c. Risk Identification and Assessment
d. Employee Training
e. Inspections and Records
f. Preventive Maintenance
g. Good Housekeeping
h. Materials Compatibility
i. Security
j. Materials Inventory

3.4.1.6. BMP - SPCC Plans

The BMP plan may reflect requirements for Spill Prevention Control and Countermeasure (SPCC) plans under Section 311 of the Act and 40 CFR Part 151, and may incorporate any part of such plans into the BMP plan by reference.

3.4.1.7. BMP - Hazardous Waste Management

The permittee shall assure the proper management of solid and hazardous waste in accordance with the regulations promulgated under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1978 (RCRA) (40 U.S.C. 6901 et seq.) Management practices required under RCRA regulations shall be referenced in the BMP plan.

3.4.1.8. BMP - Documentation

The permittee shall maintain a description of the BMP plan at the facility and shall make the plan available upon request to EEC personnel. Initial copies and modifications thereof shall be sent to the following addresses when required by Section 3.4.1.9:

Division of Water
Surface Water Permits Branch
Operational Permits Section
200 Fair Oaks Lane
Frankfort, Kentucky 40601

3.4.1.9. BMP - Modification

The permittee shall amend the BMP plan whenever there is a change in the facility or change in the operation of the facility which materially increases the potential for the ancillary activities to result in the release of "BMP pollutants."

3.4.1.10. BMP - Modification for Ineffectiveness

If the BMP plan proves to be ineffective in achieving the general objective of preventing the release of "BMP pollutants," then the specific objectives and requirements under paragraphs b and c of Section 4, the permit, and/or the BMP plan shall be subject to modification to incorporate revised BMP requirements. If at any time following the issuance of this permit the BMP plan is found to be inadequate pursuant to a state or federal site inspection or plan review, the plan shall be modified to incorporate such changes necessary to resolve the concerns.

3.4.2. BMP - Specific Conditions

3.4.2.1. BMP - Periodically Discharged Wastewaters Not Specifically Covered by Effluent Conditions

The permittee shall include in this BMP plan procedures and controls necessary for the handling of periodically discharged wastewaters such as intake screen backwash, meter calibration, fire protection, hydrostatic testing water, water associated with demolition projects, etc.

4. STATE CONDITIONS

4.1. Outfall Signage

The KPDES permit establishes monitoring points, effluent limitations, and other conditions to address discharges from the permitted facility. In an effort to better document and clarify these locations the permittee should place and maintain a permanent marker at each of the monitoring locations.

4.2. Discharge and Monitoring Point Accessibility

As previously stated in Section 2.2.4.9, the permittee shall allow authorized agency representatives to inspect the facility and collect samples to determine compliance. In order for such monitoring to be conducted either by the permittee or authorized agency personnel all monitoring and discharge points required by this permit shall be readily and safely accessible in all weather conditions.

4.3. Certified Operators

Pursuant to 401 KAR 5:010, a treatment plant with a design capacity of more than 50,000 gallons per day, but less than or equal to two (2) million gallons per day shall be under the primary responsibility of a certified operator holding an active Class II, III, or IV treatment certificate.

4.4. Monthly Operating Reports

The permittee shall maintain daily process control monitoring reports. These reports shall be summarized monthly and submitted with the DMRs to DOW on rms approved by DOW by the 28th day of the month following the monitoring period.

4.5. Application Monitoring

To ensure that sufficient samples are collected and analyzed DOW is imposing annual sampling and reporting for those parameters in Sections A.12, B.6, and Part D (Expanded Effluent Testing) of KPDES Form A. The results of the application monitoring shall be submitted on an annual DMR and summarized on the renewal application.

4.6. Certified Laboratory Requirements

All laboratory analyses and tests required to demonstrate compliance with the conditions of this permit shall be performed by EEC certified general wastewater laboratories and EEC certified field-only laboratories. Compliance with this requirement shall commence on January 1, 2015 for analyses and tests performed by a general wastewater laboratory and January 1, 2016 for field-only wastewater laboratories.

5. ABBREVIATIONS, ACRONYMS AND DEFINITIONS

Abbreviation or Acronym	Full Phrase	Definition
MGD	Million Gallons Per Day	A measure of flow
cfs	cubic feet per second	A measure of flow
SU	Standard Units	A measure of pH
mg/l	milligrams per liter	A measure of pollutant concentration (1000 milligrams = 1 gram)
µg/l	micrograms per liter	A measure of pollutant concentration (1000 micrograms = 1 milligram)
°F	Degrees Fahrenheit	A measure of temperature
°C	Degrees Centigrade or Celsius	A measure of temperature
N/A	Not Applicable	
lbs/day	pounds per day	A measure of pollutant loading
Grab	Grab Sample	A sample taken from a wastestream on a one-time basis without consideration of the flow rate of the wastestream and without consideration of time.
24-Hr Composite	24-hour Composite Sample	Sample composed of discrete equal volume aliquots (100 ml minimum) collected every 15 minutes over a 24-hour period and aggregated by an automated sampling device. The aggregate sample will reflect the average water quality of the compositing or sample period.

STEVEN L. BESHEAR
GOVERNOR

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
200 FAIR OAKS LANE, 4TH FLOOR
FRANKFORT, KENTUCKY 40601
www.kentucky.gov

LEONARD K. PETERS
SECRETARY

December 8, 2008

Mr. Larry Herald
Paintsville Utilities Commission
Post Office Box 630
Paintsville, Kentucky 41240

Re: Paintsville WWTP
KPDES No.: KY0020630
AI No.: 2395
Johnson County, Kentucky

Dear Mr. Herald:

Enclosed is the Kentucky Pollutant Discharge Elimination System (KPDES) permit for the above-referenced facility. This action constitutes a final permit issuance under 401 KAR 5:075, pursuant to KRS 224.16-050.

This permit will become effective on the date indicated in the attached permit provided that no request for adjudication is granted. All provisions of the permit will be effective and enforceable in accordance with 401 KAR 5:075, unless stayed by the Hearing Officer under Sections 11 and 13.

Any demand for a hearing on the permit shall be filed in accordance with the procedures specified in KRS 224.10-420, 224.10-440, 224.10-470 and any regulations promulgated thereto. Any person aggrieved by the issuance of a permit final decision may demand a hearing, pursuant to KRS 224.10-420(2), within thirty (30) days from the date of the issuance of this letter. Two (2) copies of request for hearing should be submitted in writing to the Energy and Environment Cabinet, Office of Administrative Hearings, 35-36 Fountain Place, Frankfort, Kentucky 40601 and the Commonwealth of Kentucky, Energy and Environment Cabinet, Division of Water, 200 Fair Oaks Lane, Frankfort, Kentucky 40601. For your record keeping purposes, it is recommended that these requests be sent by certified mail. The written request must conform to the appropriate statutes referenced above.

If you have any questions regarding the KPDES decision, please contact Robert S. Clay, Jr., Operational Permits Section, Surface Water Permits Branch, at (502) 564-8158, extension 4848.

Further information on procedures and legal matters pertaining to the hearing request may be obtained by contacting the Office of Administrative Hearings at (502) 564-7312.

Sincerely,

Sandra L. Gruzesky, Director
Division of Water

SLG:TJB:tjb
Enclosure
cc: Division of Water

KPDES

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT

PERMIT NO.: KY0020630
AI NO.: 2395

AUTHORIZATION TO DISCHARGE UNDER THE KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

Pursuant to Authority in KRS 224,

Paintsville Utilities Commission
P.O. Box 630
Paintsville, Kentucky 41240

is authorized to discharge from a facility located at

Paintsville STP
475 Ponderosa Drive
Paintsville, Johnson County, Kentucky

to receiving waters named

Levisa Fork at mile point 65.5

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, III, and IV hereof. The permit consists of this cover sheet, and Part I 2 pages, Part II 6 pages, and Part III 2 page, and Part IV 3 pages.

This permit shall become effective on February 1, 2009.

This permit and the authorization to discharge shall expire at midnight, January 31, 2014.

December 8, 2008
Date Signed

Sandra L. Gruzesky, Director
Division of Water

A1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date of this permit and lasting through the term of this permit, the permittee is authorized to discharge from Outfall serial number: 001 - Sanitary Wastewater (Design Flow = 0.99MGD)

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS (lbs/day) Monthly Avg.	Daily Max.	Other Units (Specify) Monthly Avg.	Daily Max.	MONITORING REQUIREMENTS Measurement Frequency	Sample Type
Effluent Flow (MGD)	Report	Report	N/A	N/A	Continuous	Recorder
Influent Flow (MGD)	Report	Report	N/A	N/A	Continuous	Recorder
Effluent BOD_5 (mg/l)	248	372	30	45	1/Week	24 Hr Composite
Influent BOD_5 (mg/l)	Report	Report	Report	Report	1/Week	24 Hr Composite
Percent Removal BOD_5 (%)			85 or greater		1/Month	Calculated
Effluent TSS (mg/l)	248	372	30	45	1/Week	24 Hr Composite
Influent TSS (mg/l)	Report	Report	Report	Report	1/Week	24 Hr Composite
Percent Removal TSS (%)			85 or greater		1/Month	Calculated
Ammonia Nitrogen (as mg/l N)	165	248	20	30	1/Week	24 Hr Composite
Escherichia Coli (N/100 ml)	N/A	N/A	130	240	1/Week	Grab
Dissolved Oxygen (mg/l) (minimum)	N/A	N/A	Not less than 2		1/Week	Grab
pH (standard units)	N/A	N/A	6.0 (min)	9.0 (max)	1/Week	Grab
Total Residual Chlorine (mg/l)	N/A	N/A	0.011	0.019	1/Week	Grab
Total Phosphorus (mg/l)	N/A	N/A	Report	Report	1/Week	24 Hr Composite
Total Nitrogen (mg/l)	N/A	N/A	Report	Report	1/Week	24 Hr Composite

The abbreviation BOD_5 means Biochemical Oxygen Demand (5-day).
The abbreviation TSS means Total Suspended Solids.
The abbreviation N/A means Not Applicable.
The effluent limitations for BOD_5 and TSS are Monthly (30 day) and Weekly (7 day) Averages.
The effluent limitations for *Escherichia Coli* are thirty (30) day and seven (7) day Geometric Means.
Total Nitrogen is to be reported as the summation of the analytical results for Total Nitrates, Total Nitrites, and Total Kjeldahl Nitrogen.
There shall be no discharge of floating solids or visible foam or sheen in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: nearest accessible point prior to discharge to or mixing with the receiving waters or wastestreams from other outfalls.

B. SCHEDULE OF COMPLIANCE

The permittee shall achieve compliance with all requirements on the effective date of this permit.

STANDARD CONDITIONS FOR KPDES PERMIT

This permit has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal, and local agencies.

It is the responsibility of the permittee to demonstrate compliance with permit parameter limitations by utilization of sufficiently sensitive analytical methods.

The following KPDES permit conditions apply to all discharges authorized by this permit pursuant to 401 KAR 5:065, Section 1.

(1) Duty to comply.

(a) General requirement.
The permittee shall comply with all conditions of this permit. Any permit noncompliance shall constitute a violation of KRS Chapter 224, among which shall be the following remedies: enforcement action, permit revocation, revocation and reissuance, or modification; or denial of a permit renewal application.

(b) Specific duties.
1. The permittee shall comply with effluent standards or prohibitions established under 40 CFR Part 129 as of July 1, 2001, as adopted without change, within the time provided in the federal regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
2. Any person who violates a permit condition as set forth in the KPDES administrative regulations shall be subject to penalties under KRS 224.99-010(1) and (4).

(2) Duty to reapply.
If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit as required in 401 KAR 5:060, Section 1.

(3) Need to halt or reduce activity not a defense.
It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(4) Duty to mitigate.
The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(5) Proper operation and maintenance.
The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control and related appurtenances which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also shall include adequate laboratory controls, and appropriate quality assurance procedures. This provision shall require the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only if the operation is necessary to achieve compliance with the conditions of the permit.

(6) Permit actions.
The permit may be modified, revoked and reissued, or revoked for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or a notification of planned changes or anticipated noncompliance, shall not stay any permit condition.

(7) Property rights.
This permit shall not convey any property rights of any kind, or any exclusive privilege.

(8) Duty to provide information.
The permittee shall furnish to the cabinet, within a reasonable time, any information which the cabinet may request to determine whether cause exists for modifying, revoking and reissuing, or revoking this permit, or to determine compliance with this permit. The permittee shall also furnish to the cabinet, upon request, copies of records required to be kept by this permit.

(9) Inspection and entry.
The permittee shall allow the cabinet, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

(a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records pertinent to the KPDES program are or may be kept;
(b) Have access to and copy, at reasonable times, any records that are required to be be kept under the conditions of this permit;
(c) Inspect at reasonable times any facilities, equipment, including monitoring and control equipment, practices, or operations regulated or required under this permit; and
(d) Sample or monitor at reasonable times, for the purposes of assuring KPDES program compliance or as otherwise authorized by KRS Chapter 224, any substances or parameters at any location.

(10) Monitoring and records.

(a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
(b) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample, measurement, report, or application. This period may be extended by request of the cabinet at any time.
(c) Records of monitoring information shall include:
1. The date, exact place, and time of sampling or measurements;
2. The individuals who performed the sampling or measurements;
3. The dates analyses were performed;
4. The individuals who performed the analyses;
5. The analytical techniques or methods used; and
6. The results of the analyses.

(d) Monitoring shall be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in the permit.
(e) Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the permit shall, upon conviction, be subject to penalties under KRS 224.99-010(4).

(11) Signatory requirement.
All applications, reports, or information submitted to the cabinet shall be signed and certified as indicated in 401 KAR 5:060, Section 9. Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be subject to penalties under KRS 224.99-010(4).

(12) Reporting requirements.

(a) Planned changes.
The permittee shall give notice to the cabinet as soon as possible of any planned physical alteration or additions to the permitted facility. Notice shall be required only if:
1. The alteration or addition to a permitted facility may meet one (1) of the criteria for determining whether a facility is a new source in 401 KAR 5:080, Section 5; or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification only applies to pollutants which are subject either to effluent limitations in the permit, or to notification requirements under 401 KAR 5:080, Section 5.

(b) Anticipated noncompliance.
The permittee shall give advance notice to the cabinet of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) Transfers.
The permit shall not be transferable to any person except after notice to the cabinet. The cabinet may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate other requirements as may be necessary under KRS Chapter 224.

(d) Monitoring reports.
Monitoring results shall be reported at the intervals specified in the permit. Monitoring results shall be reported as follows:
1. Monitoring results shall be reported on a Discharge Monitoring Report (DMR).
2. If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
3. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the cabinet in the permit.

(e) Compliance schedules.
Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date.

(f) Twenty-four (24) hour reporting.
The permittee shall follow the provisions of 401 KAR 5:015 and shall orally report any noncompliance which may endanger health or the environment, within twenty-four (24) hours from the time the permittee becomes aware of the circumstances. This report shall be in addition to and not in lieu of any other reporting requirement applicable to the noncompliance. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The cabinet may waive the written report on a case-by-case basis if the oral report has been received within twenty-four (24) hours. The following shall be included as events which shall be reported within twenty-four (24) hours:
1. Any unanticipated bypass which exceeds any effluent limitation in the permit, as indicated in subsection (13) of this section.
2. Any upset which exceeds any effluent limitation in the permit.
3. Violation of a maximum daily discharge limitation for any of the pollutants listed by the cabinet in the permit to be reported within twenty-four (24) hours, as indicated in Section 2(7) of this administrative regulation.

(g) Other noncompliance.
The permittee shall report all instances of noncompliance not reported under paragraphs (d), (e), and (f) of this subsection, when monitoring reports are submitted. The reports shall contain the information listed in paragraph (f) of this subsection.

(h) Other information.
Where the permittee becomes aware that it failed to submit any relevant fact in a permit application, or submitted incorrect information in a permit application or in any report to the cabinet, it shall promptly submit these facts or information.

(13) Occurrence of a bypass.

(a) Bypass not exceeding limitations.
The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. This type of bypass shall not be subject to the provisions of paragraphs (b) and (c) of this subsection.

(b) Notice.

1. Anticipated bypass.
If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass. Compliance with this requirement constitutes compliance with 401 KAR 5:015, Section 1.
2. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in subsection (12)(f) of this section, twenty-four (24) hour notice. Compliance with this requirement constitutes compliance with 401 KAR 5:015, Section 4.

(c) Prohibition of a bypass.
1. Bypassing shall be prohibited, and the cabinet may take enforcement action against a permittee for bypass, unless:
a. The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition shall not be satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
c. The permittee submitted notices as required under paragraph (b) of this subsection.
2. The cabinet may approve an anticipated bypass, after considering its adverse effects, if the cabinet determines that it will meet the three (3) conditions listed in subparagraph 1a, b, and c of this paragraph.

(14) Occurrence of an upset.

(a) Effect of an upset.
An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based permit effluent limitations if the requirements of paragraph (b) of this subsection are met.

(b) Conditions necessary for a demonstration of an upset.
A permittee who wishes to establish the affirmative defense of upset shall demonstrate through properly signed, contemporaneous operating logs, or other relevant evidence that:
1. An upset occurred and that the permittee can identify the causes of the upset;
2. The permitted facility was at the time being properly operated;
3. The permittee submitted notice of the upset as required in subsection (12)(f) of this section; and
4. The permittee complied with any remedial measures required under subsection (4) of this section.

(c) Burden of proof.
In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset shall have the burden of proof.

(15) Additional conditions applicable to specified categories of KPDES permits. The following conditions, in addition to others set forth in this administrative regulation, shall apply to all KPDES permits within the categories specified below:

(a) Existing manufacturing, commercial, mining, and silvicultural dischargers. In addition to the reporting requirements under subsections (12), (13), and (14) of this section, any existing manufacturing, commercial, mining, and silvicultural discharger shall notify the cabinet as soon as it knows or has reason to know:
1. That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
a. 100 micrograms per liter (100 µg/l);
b. 200 micrograms per liter (200 µg/l) for acrolein and acrylonitrile; 500 micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one (1) milligram per liter (1 mg/l) for antimony;
c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 401 KAR 5:060, Section 2(7);
d. The level established by the cabinet in accordance with Section 2(6) of this administrative regulation.
2. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
a. 500 micrograms per liter (500 µg/l);
b. One (1) milligram per liter (1 mg/l) for antimony;
c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 401 KAR 5:060, Section 2(7); or
d. The level established by the cabinet in accordance with Section 2(6) of this administrative regulation.

(b) POTWs.
1. POTWs shall provide adequate notice to the cabinet of the following:
a. Any new introduction of pollutants into that POTW from an indirect discharger which would be subject to the KPDES administrative regulations if it were directly discharging those pollutants; or
b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
2. For purposes of this paragraph, adequate notice shall include information on the quality and quantity of effluent introduced into the POTWs and any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

PART III

OTHER REQUIREMENTS

A. Reporting of Monitoring Results

Monitoring results obtained during each monitoring period must be reported on a preprinted Discharge Monitoring Report (DMR) Form that will be mailed to you. The completed DMR for each monitoring period must be sent to the Division of Water at the address listed below (with a copy to the appropriate Regional Office) postmarked no later than the 28th day of the month following the monitoring period for which monitoring results were obtained.

Division of Water	Energy and Environment Cabinet
Hazard Regional Office	Dept. for Environmental Protection
233 Birch Street, Suite 1	Division of Water/Surface Water Permits Branch
Hazard, Kentucky 41701	200 Fair Oaks Lane, 4th FLoor
ATTN: Supervisor	Frankfort, Kentucky 40601

B. Reopener Clause

This permit shall be modified, or alternatively revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under 401 KAR 5:050 through 5:086, if the effluent standard or limitation so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

2. Controls any pollutant not limited in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of KRS Chapter 224 when applicable.

C. Sludge Disposal

The disposal or final use of sewage sludge generated during the treatment of domestic sewage in a treatment works shall be disposed of in accordance with federal requirements specified in 40 CFR Part 503 and state requirements specified in Division of Waste Management regulations 401 KAR Chapter 45.

D. Certified Operators

This wastewater system shall be operated under the supervision of a Class 2 Kentucky Certified Operator who shall be reasonably available at all times. All other operators employed by the system shall hold a Kentucky Certificate or shall be in the process of obtaining a Kentucky Certificate. The certificates of each operator shall be prominently displayed on the wall of the system office.

F. Necessity to Develop and Implement a Pretreatment Program

POTWs which meet one or more of the following criteria are required to develop, submit for approval, and implement specific Pretreatment Program Requirements.

A POTW or combination of POTWs operated by the same authority, with a total design flow greater than five (5) million gallons per day (MGD) and receiving from industrial users which pass through interfere with the operation of the POTW, or are otherwise subject to pretreatment standards.

A POTW with a design flow of five (5) MGD or less shall develop a pretreatment program if the cabinet determines that the nature or volume of the industrial wastewater, treatment process upsets, violation of the POTW effluent limitations, contamination of municipal sludge or other circumstances warrant to prevent interference with the POTW or pass through.

The permittee shall conduct annual sewer user surveys to determine if conditions warrant the development and implementation of a pretreatment program. An annual report listing the industrial users, the manufacturing processes, the nature and volume of flow and any problems caused by the users shall be submitted no later than December 31 of each year, unless otherwise specified by the Division of Water.

G. Prohibited Discharges

The following are prohibit from being discharged to the POTW.

Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW);

Pollutants which will cause corrosive structural damage to the POTW, but in no case, discharges with a pH lower than 5.0;

Solid or viscous pollutants in amounts which will cause obstruction to the flow in sewers, or other interference with operation of the POTW;

Any pollutant, including oxygen demanding pollutants (BOD_5, etc.), released in a discharge at such a volume or strength as to cause interference in the POTW;

Heat in amounts, which will inhibit biological activity in the POTW, but in no case, heat in such quantities that the influent to the sewage treatment works exceeds 104° F (40° C);

Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass-through;

Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and,

Any trucked or hauled waste except, at discharge points designated by the POTW.

PART IV

BEST MANAGEMENT PRACTICES

SECTION A. GENERAL CONDITIONS

1. Applicability

These conditions apply to all permittees who use, manufacture, store, handle, or discharge any pollutant listed as: (1) toxic under Section 307(a)(1) of the Clean Water Act; (2) oil, as defined in Section 311(a)(1) of the Act; (3) any pollutant listed as hazardous under Section 311 of the Act; or (4) is defined as a pollutant pursuant to KRS 224.01-010(35) and who have ancillary manufacturing operations which could result in (1) the release of a hazardous substance, pollutant, or contaminant, or (2) an environmental emergency, as defined in KRS 224.01-400, as amended, or any regulation promulgated pursuant thereto (hereinafter, the "BMP pollutants"). These operations include material storage areas; plant site runoff; in-plant transfer, process and material handling areas; loading and unloading operations, and sludge and waste disposal areas.

2. BMP Plan

The permittee shall develop and implement a Best Management Practices (BMP) plan consistent with 401 KAR 5:065, Section 2(10) pursuant to KRS 224.70-110, which prevents or minimizes the potential for the release of "BMP pollutants" from ancillary activities through plant site runoff; spillage or leaks, sludge or waste disposal; or drainage from raw material storage. A Best Management Practices (BMP) plan will be prepared by the permittee unless the permittee can demonstrate through the submission of a BMP outline that the elements and intent of the BMP have been fulfilled through the use of existing plans such as the Spill Prevention Control and Countermeasure (SPCC) plans, contingency plans, and other applicable documents.

3. Implementation

If this is the first time for the BMP requirement, then the plan shall be developed and submitted to the Division of Water within 90 days of the effective date of the permit. Implementation shall be within 180 days of that submission. For permit renewals the plan in effect at the time of permit reissuance shall remain in effect. Modifications to the plan as a result of ineffectiveness or plan changes to the facility shall be submitted to the Division of Water and implemented as soon as possible.

4. General Requirements

The BMP plan shall:

a. Be documented in narrative form, and shall include any necessary plot plans, drawings, or maps.

b. Establish specific objectives for the control of toxic and hazardous pollutants.

(1) Each facility component or system shall be examined for its potential for causing a release of "BMP pollutants" due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc.

(2) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g., precipitation), or other circumstances which could result in a release of "BMP pollutants," the plan should include a prediction of the direction, rate of flow, and total quantity of the pollutants which could be released from the facility as result of each condition or circumstance.

c. Establish specific Best Management Practices to meet the objectives identified under paragraph b of this section, addressing each component or system capable of causing a release of "BMP pollutants."

d. Include any special conditions established in part b of this section.

e. Be reviewed by plant engineering staff and the plant manager.

5. Specific Requirements

The plan shall be consistent with the general guidance contained in the publication entitled "NPDES Best Management Practices Guidance Document," and shall include the following baseline BMPs as a minimum.

a. BMP Committee
b. Reporting of BMP Incidents
c. Risk Identification and Assessment
d. Employee Training
e. Inspections and Records
f. Preventive Maintenance
g. Good Housekeeping
h. Materials Compatibility
i. Security
j. Materials Inventory

6. SPCC Plans

The BMP plan may reflect requirements for Spill Prevention Control and Countermeasure (SPCC) plans under Section 311 of the Act and 40 CFR Part 151, and may incorporate any part of such plans into the BMP plan by reference.

7. Hazardous Waste Management

The permittee shall assure the proper management of solid and hazardous waste in accordance with the regulations promulgated under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1978 (RCRA) (40 U.S.C. 6901 et seq.) Management practices required under RCRA regulations shall be referenced in the BMP plan.

8. Documentation

The permittee shall maintain a description of the BMP plan at the facility and shall make the plan available upon request to NREPC personnel. Initial copies and modifications thereof shall be sent to the following addresses when required by Section 3:

Division of Water
233 Birch Street, Suite 1
Hazard, Kentucky 41701
ATTN: Supervisor

Energy and Environment Cabinet
Dept. for Environmental Protection
Division of Water/Surface Water Permits Branch
200 Fair Oaks Lane, 4th Floor
Frankfort, Kentucky 40601

9. BMP Plan Modification

The permittee shall amend the BMP plan whenever there is a change in the facility or change in the operation of the facility which materially increases the potential for the ancillary activities to result in the release of "BMP pollutants."

10. Modification for Ineffectiveness

If the BMP plan proves to be ineffective in achieving the general objective of preventing the release of "BMP pollutants," then the specific objectives and requirements under paragraphs b and c of Section 4, the permit, and/or the BMP plan shall be subject to modification to incorporate revised BMP requirements. If at any time following the issuance of this permit the BMP plan is found to be inadequate pursuant to a state or federal site inspection or plan review, the plan shall be modified to incorporate such changes necessary to resolve the concerns.

SECTION B. SPECIFIC CONDITIONS

Periodically Discharged Wastewaters Not Specifically Covered By Effluent Conditions

The permittee shall include in this BMP plan procedures and controls necessary for the handling of periodically discharged wastewaters such as intake screen backwash, meter calibration, fire protection, hydrostatic testing water, water associated with demolition projects, etc.

STEVEN L. BESHEAR
GOVERNOR

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
200 FAIR OAKS LANE, 4TH FLOOR
FRANKFORT, KENTUCKY 40601
www.kentucky.gov

LEONARD K. PETERS
SECRETARY

FACT SHEET

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT TO DISCHARGE TREATED WASTEWATER INTO WATERS OF THE COMMONWEALTH

KPDES No.: KY0020630 **Permit Writer:** Robert S. Clay, Jr. **Date:** December 8, 2008
AI No.: 2395

1. **SYNOPSIS OF APPLICATION**

a. Name and Address of Applicant

Paintsville Utilities Commission
P.O. Box 630
Paintsville, Kentucky 41240

b. Facility Location

Paintsville STP
475 Ponderosa Drive
Paintsville, Johnson County, Kentucky

c. Description of Applicant's Operation

Treatment of municipal wastewater for the City of Paintsville.

d. Design Capacity

0.99 MGD

e. Description of Existing Pollution Abatement Facilities

This facility treats wastewater by: grit removal, screening, oxidation, settling, chlorine disinfection, dechlorination, post aeration, and gravity thickening. Sludge is dried and land-filled.

f. Permitting Action

This is a re-issuance of a minor KPDES permit for a municipally owned wastewater treatment plant serving the City of Paintsville.

2. **RECEIVING WATER**

a. Name/Mile Point

Facility discharges to the Levisa Fork of the Big Sandy River at mile point 65.5.

b. Stream Segment Use Classification

Pursuant to 401 KAR 5:026, Section 5, Levisa Fork carries the following classifications: Warm Water Aquatic, Primary/Secondary contact recreation, and Drinking Water.

c. Stream Segment Categorization

Pursuant to 401 KAR 5:030, Section 1 Levisa Fork is categorized as a Impaired Water.

d. Stream Low Flow Condition

The 7-day, 10-year low flow and harmonic mean conditions of Levisa Fork are 175 and 900 CFS, respectively.

3. REPORTED DISCHARGE AND PROPOSED LIMITS

Serial Number 001 - Sanitary Wastewater (Design Flow = 0.99 MGD)

Effluent Characteristics	Reported Discharge Monthly Average	Reported Discharge Daily Maximum	Proposed Limits Monthly Average	Proposed Limits Daily Maximum	Applicable Water Quality Criteria and/or Effluent Guidelines
Effluent Flow (MGD)	0.79	3.00	Report	Report	401 KAR 5:065, Section 2(8)
Influent Flow (MGD)	NR	NR	Report	Report	401 KAR 5:065, Section 2(8)
Effluent BOD_5 (mg/l)	7.5	35	30	45	401 KAR 5:031, Section 4 401 KAR 5:045, Sections 3 and 5
Influent BOD_5 (mg/l)	224	443	Report	Report	401 KAR 5:065, Section 2(8)
Percent Removal BOD_5 (%)	96	99	85 or greater		40 CFR 133.102(a)3
Effluent TSS (mg/l)	13	48	30	45	401 KAR 5:031, Section 4 401 KAR 5:045, Sections 2 and 3
Influent TSS (mg/l)	297	1908	Report	Report	401 KAR 5:031, Section 4
Percent Removal TSS (%)	95	98	85 or greater		40 CFR 133.02(b)3
Fecal Coliform (N/100 ml)	15	2000	Removing from permit		401 KAR 5:080, Section 1(2)(c)2
Escherichia Coli (N/100 ml)	NR	NR	130	240	401 KAR 5:031, Section 7 401 KAR 5:045, Section 4 401 KAR 5:080, Section 1(2)(c)2
Ammonia Nitrogen (as mg/l N)	3.5	16	20	30	
Dissolved Oxygen (mg/l) (minimum)	7.1	9.2	Not less than 2		401 KAR 5:031, Section 4 401 KAR 5:045, Sections 3 and 5
pH (standard units)	6.3	7.5	6.0 (min)	9.0 (max)	401 KAR 5:031, Section 4 401 KAR 5:045, Section 4

3. REPORTED DISCHARGE AND PROPOSED LIMITS - SANITARY FACILTY

Serial Number 001 - Sanitary Wastewater (Design Flow = 0.99 MGD)

Effluent Characteristics	Reported Discharge		Proposed Limits		Applicable Water Quality Criteria and/or Effluent Guidelines
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	
Total Residual Chlorine (mg/l)	0.011	0.05	0.011	0.019	401 KAR 5:031, Section 4(k)
Total Phosphorus (mg/l)	NR	NR	Report	Report	401 KAR 5:065, Section 2(8)
Total Nitrogen (mg/l)	NR	NR	Report	Report	401 KAR 5:065, Section 2(8)

The data contained under the reported discharge columns is not from the renewal application, but rather from the analysis of the DMR data that has been reported during the term of the previous permit.

The abbreviation BOD_5 means Biochemical Oxygen Demand (5-day).
The abbreviation TSS means Total Suspended Solids.
The abbreviation NR means not reported on the Discharge Monitoring Report (DMR).
The effluent limitations for BOD_5 and TSS are Monthly (30 day) and Weekly (7 day) Averages.
The effluent limitations for *Escherichia Coli* are thirty (30) day and seven (7) day Geometric Means.
Total Nitrogen is to be reported as the summation of the analytical results for Total Nitrates, Total Nitrites, and Total Kjeldahl Nitrogen.

4. **METHODOLOGY USED IN DETERMINING LIMITATIONS**

a. Serial Number

Outfall 001 Sanitary Wastewater (Design Flow = 0.99 MGD)

b. Effluent Characteristics

Flow, BOD_5 (Influent/Effluent), TSS (Influent/Effluent), Fecal Coliform Bacteria, *Escherichia Coli*, pH, Ammonia Nitrogen, Dissolved Oxygen, Total Residual Chlorine (TRC), Total Phosphorus, and Total Nitrogen.

c. Pertinent Factors

This section of Levisa Fork is list as impaired for pathogens in the 2006 Integrates Report. A properly operated and maintained facility will not contribute to this impairment. This facility is in compliance with permit limitations and requirements.

d. Monitoring Requirements

Influent sampling shall be conducted at the nearest accessible point in the collection system but prior to commencement of treatment.

Effluent sampling shall be conducted at the nearest point after final treatment but prior to discharge to or mixing with the receiving waters.

Influent and Effluent Flow monitoring shall be conducted continuously by recorder.

BOD_5 (Influent/Effluent) and TSS (Influent/Effluent) monitoring shall be conducted once per week by 24 hour composite sampling.

Percent Removal shall be determined monthly by calculation.

Ammonia Nitrogen, Total Phosphorus and Total Nitrogen shall be monitored once per week by 24 hour composite sampling.

Escherichia Coli, pH, Dissolved Oxygen and Total Residual Chlorine shall be monitored once per week by grab sample.

e. Justification of Conditions

The Kentucky regulations cited below have been duly promulgated pursuant to the requirements of Chapter 224 of the Kentucky Revised Statutes.

Escherichia Coli and Fecal Coliform Bacteria

The limits for *Escherichia Coli* are consistent with the requirements of 401 KAR 5:031, Section 7, 401 KAR 5:045 Section 4 and 401 KAR 5:080, Section 1(2)(c) 2. The removal of Fecal Coliform Bacteria is consistent with the requirements of 401 KAR 5:080k Section 1 (2) (c)2. Although Fecal Coliform Bacteria has been used as an indicator of fecal contamination, it does contain other species that are not necessarily fecal in origin. EPA recommends *Escherichia Coli*, which is specific to fecal material from warm-blooded animals, as the best indicator of health risk from contact with recreational waters. Therefore, it is the "Best Professional Judgment "BPJ" of the Division of Water that *Escherichia Coli* replace Fecal Coliform Bacteria on this permit.

Flow (Influent/Effluent)
The monitoring requirements for this parameter are consistent with the requirements of 401 KAR 5:065, Section 2(8).

Influent BOD_5, Influent TSS, and Percent Removal
The monitoring requirements for influent BOD_5 and influent TSS are consistent with the requirements of 401 KAR 5:065, Section 2(8). The raw influent values of these two parameters are necessary to determine compliance with the 85 percent removal requirement specified by 40 CFR 133.102 (a)3 and (b)3.

Ammonia Nitrogen, and Dissolved Oxygen
The limits for these parameters are consistent with the requirements of 401 KAR 5:031, Section 4, and 401 KAR 5:045, Sections 3 and 5. Section 4 of 5:031 establish water quality criteria for the protection of Kentucky's waters. Section 5 of 5:045 requires biochemically degradable wastewaters to receive treatment in excess of secondary treatment if the Cabinet determines that the receiving water would not satisfy applicable water quality standards as a result of a facility discharge or discharges from multiple facilities

BOD_5 and Total Suspended Solids
The limits for these parameters are consistent with the requirements of 401 KAR 5:031, Section 4 and 5:045, Sections 2 and 3. Section 4 of 5:031 establish water quality criteria for the protection of Kentucky's waters. Sections 2 and 3 of 5:045 require biochemically degradable wastewaters to receive secondary treatment.

pH
The limits for these parameters are consistent with the requirements of 401 KAR 5:031, Section 4 and 5:045, Section 4. Section 4 of 5:031 establish water quality criteria for the protection of Kentucky's waters. Section 4 of 5:045 establish the acceptable levels of these parameters for biochemically degradable wastewaters.

Total Residual Chlorine
The limits for these parameters are consistent with the requirements of 401 KAR 5:031, Section 4.

Total Phosphorus
The limits for phosphorus are consistent with the requirements of 401 KAR 5:080, Section 1(2)(c) 2. These limits are representative of the Division of Water's "Best Professional Judgment" (BPJ) determination of the "Best Practicable Technology Currently Available" (BPT) and "Best Available Technology Economically Achievable" (BAT) requirements for these pollutants.

Total Phosphorus and Total Nitrogen
The monitoring requirements for these parameters are consistent with the requirements of 401 KAR 5:065, Section 2(8)(a). Total Nitrogen is TKN (as N) and nitrate/nitrite (as N).

5. **ANTIDEGRADATION**

The conditions of 401 KAR 5:029, Section 1 have been satisfied by this permit action. Since this permit action involves reissuance of an existing permit, and does not propose an expanded discharge, a review under 401 KAR 5:030 Section 1 is not applicable.

6. **PROPOSED COMPLIANCE SCHEDULE FOR ATTAINING EFFLUENT LIMITATIONS**

The permittee will comply with all effluent limitations by the effective date of the permit.

7. **PROPOSED SPECIAL CONDITIONS WHICH WILL HAVE A SIGNIFICANT IMPACT ON THE DISCHARGE**

SLUDGE DISPOSAL
The disposal or final use of sewage sludge generated during the treatment of domestic sewage in a treatment works is subject to federal requirements specified in 40 CFR Part 503 and state requirements specified in Division of Waste Management regulations 401 KAR Chapter 45.

GENERAL PRETREATMENT REQUIREMENTS
All Publicly Owned Treatment Works (POTWs) are subject to the requirements of 401 KAR 5:057.

Publicly Owned Treatment Works (POTWs) means any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a State or municipality. This definition includes any sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

Municipality means a city, village, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial waste, other wastes, or Indian tribe or authorized Indian tribal organization, or a designated and approved management agency under Section 208 of CWA.

Prohibited Discharges
Pursuant to 401 KAR 5:057, Section 3(2) the permittee is to prevent discharges by any user to the POTW which would cause pass-through or interference. Specific prohibitions include: (1) flammable or explosive pollutants; (2) corrosive pollutants; (3) amounts of solid or viscous pollutants which could cause an obstruction; (4) pollutants including oxygen demanding pollutants discharged at a flow rate or concentration which would interfere with the POTW; (5) heat in amounts which would inhibit biological activity, but no heat in quantities such that the temperature at the POTW treatment plant exceeds 104 °F (40 °C); (6) amounts of petroleum oil, non-biodegradable cutting oil or products of mineral oil origin that would cause pass through or interference; (7) pollutants which cause toxic gases, vapors, or fumes; and (8) trucked or hauled pollutants except at discharge points designated by the POTW.

Necessity to Develop and Implement a Pretreatment Program
Pursuant to Section 6(1) POTWs which meet one or more of the following criteria are required to develop, submit for approval, and implement specific Pretreatment Program Requirements.

1. A POTW or combination of POTWs operated by the same authority, with a total design flow greater than five (5) million gallons per day (MGD) and receiving from industrial users which pass through interfere with the operation of the POTW, or are otherwise subject to pretreatment standards.

2. A POTW with a design flow of five (5) MGD or less shall develop a pretreatment program if the cabinet determines that the nature or volume of the industrial wastewater, treatment process upsets, violation of the POTW effluent limitations, contamination of municipal sludge or other circumstances warrant to prevent interference with the POTW or pass through.

7. **PROPOSED SPECIAL CONDITIONS WHICH WILL HAVE A SIGNIFICANT IMPACT ON THE DISCHARGE**

Consistent with the requirements of 401 KAR 5:057, Section 6(1) and 401 KAR 5:080, Section 1(2)(c)2 the permittee shall conduct annual sewer user surveys to determine if conditions warrant the development and implementation of a pretreatment program. This condition is representative of the Division of Water's "Best Professional Judgment" that such surveys are necessary to demonstrate compliance with 401 KAR 5:057, Section 6(1).

Best Management Practices (BMP) Plan

Pursuant to 401 KAR 5:065, Section 2(10), a BMP requirement shall be included: to control or abate the discharge of pollutants from ancillary areas containing toxic or hazardous substances or those substances which could result in an environmental emergency; where numeric effluent limitations are infeasible; or to carry out the purposes and intent of KRS 224. The facility has several areas where support activities occur which have a potential of the discharge of such substances through storm water runoff or spillage. Some of these areas will drain to present wastewater treatment plants, others will not.

Certified Operators

Pursuant to 401 KAR 5:010, Section 2(1) wastewater systems shall be operated under the supervision of a certified operator who holds a Kentucky Certificate equivalent to the class of system being supervised. All other operators employed by the system shall hold a Kentucky Certificate or shall be in the process of obtaining a Kentucky Certificate.

Pursuant to 401 KAR 5:010, Section 8 wastewater systems shall be classified as follows:

- Class I: Systems with a design capacity of less than or equal to 50,000 gpd
- Class II: Systems with a design capacity of more than 50,000 gpd but less than or equal to 2.0 MGD
- Class III: Systems with a design capacity of more than 2.0 MGD but less than or equal to 7.5 MGD
- Class IV: Systems with a design capacity of more than 7.5 MGD

Section 2(2) of 401 KAR 5:010 require the certified operator to be reasonably available if not physically present while the system is operating.

Section 2(3) of 401 KAR 5:010 require the Kentucky Certificate shall be displayed on the wall of wastewater system office.

Pursuant to Sections 2 and 8 of 401 KAR 5:010 this wastewater system requires a Class 3 Certified Operator.

8. **PERMIT DURATION**

Five (5) years. This facility is in the Big Sandy/Tygarts Basin Management Unit as per the Kentucky Watershed Management Framework.

9. **PERMIT INFORMATION**

The application, draft permit, fact sheet, public notice, comments received, and additional information is available from the Division of Water at 200 Fair Oaks Lane, Frankfort, Kentucky 40601.

10. **REFERENCES AND CITED DOCUMENTS**

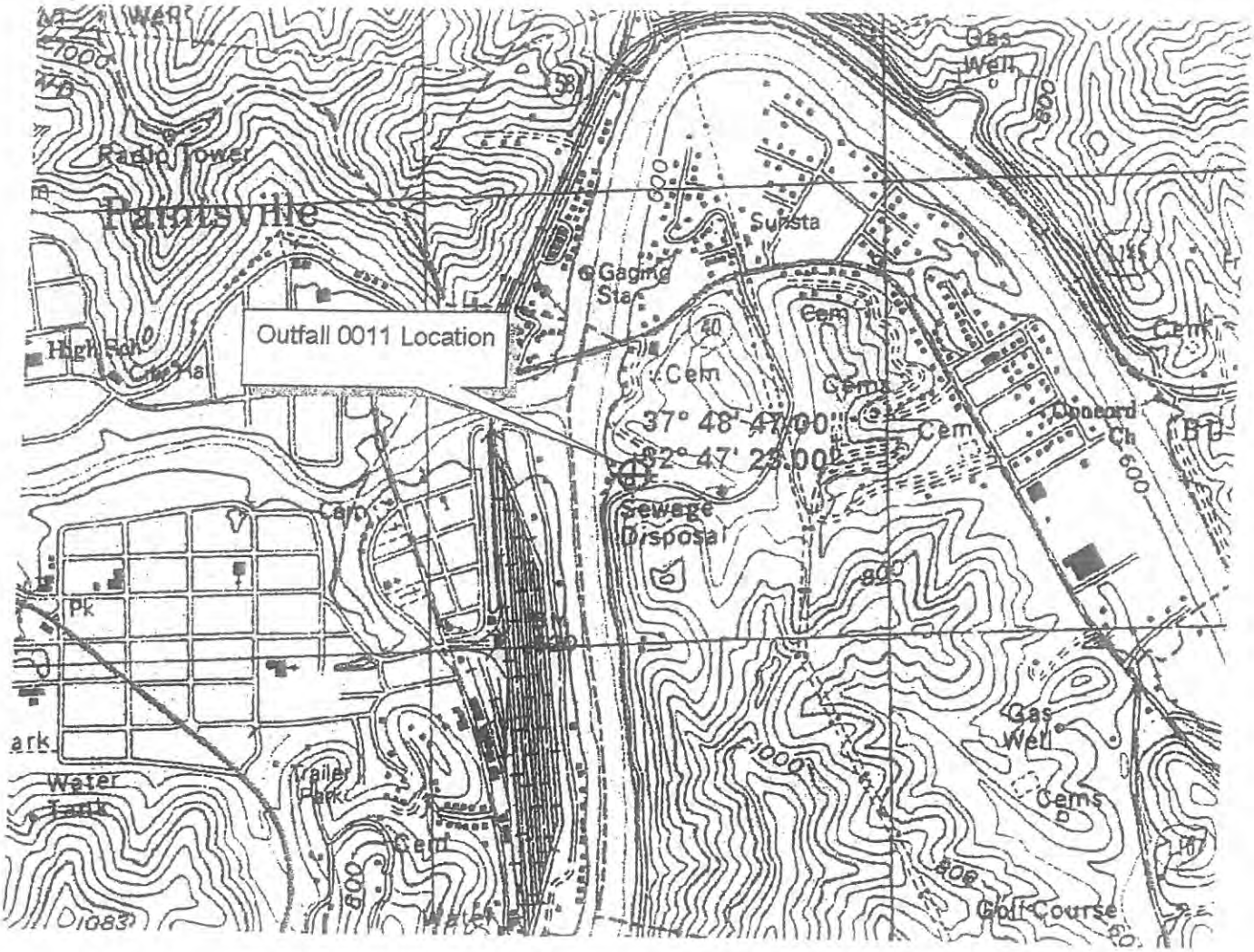
All material and documents referenced or cited in this fact sheet are a part of the permit information as described above and are readily available at the Division of Water Central Office. Information regarding these materials may be obtained from the person listed below.

11. **CONTACT**

For further information on the draft permit or comment process, contact the individual identified on the Public Notice or the Permit Writer - Robert S. Clay, Jr. at (502) 564-8158, extension 4848, or email robert.clay@ky.gov.

12. **PUBLIC NOTICE INFORMATION**

Please refer to the attached Public Notice for details regarding the procedures for a final decision, deadline for comments and other information required by 401 KAR 5:075, Section 4(2)(e).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Sewage Disposal
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Golf Course
Pk
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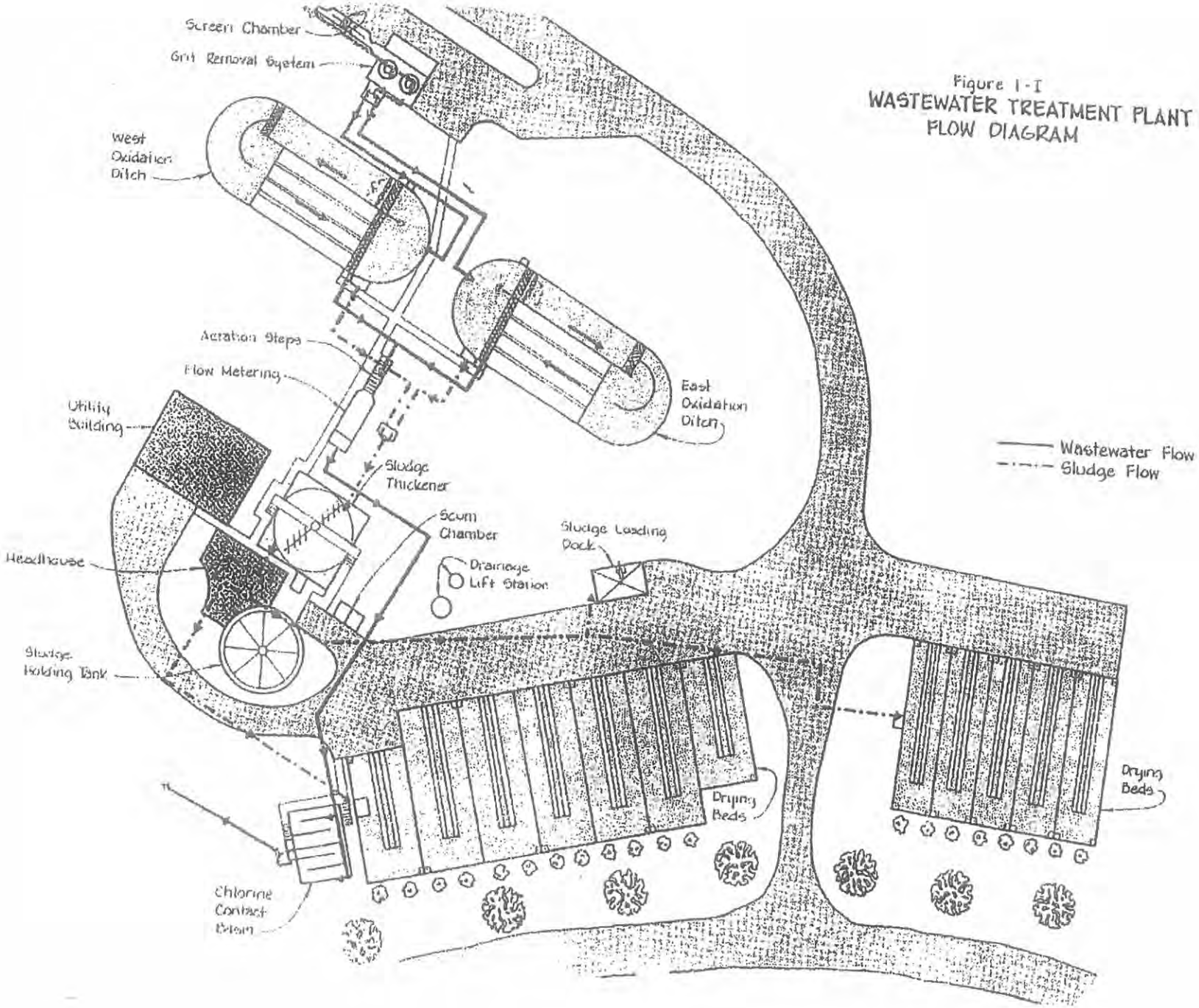
Figure 1-I
WASTEWATER TREATMENT PLANT
FLOW DIAGRAM