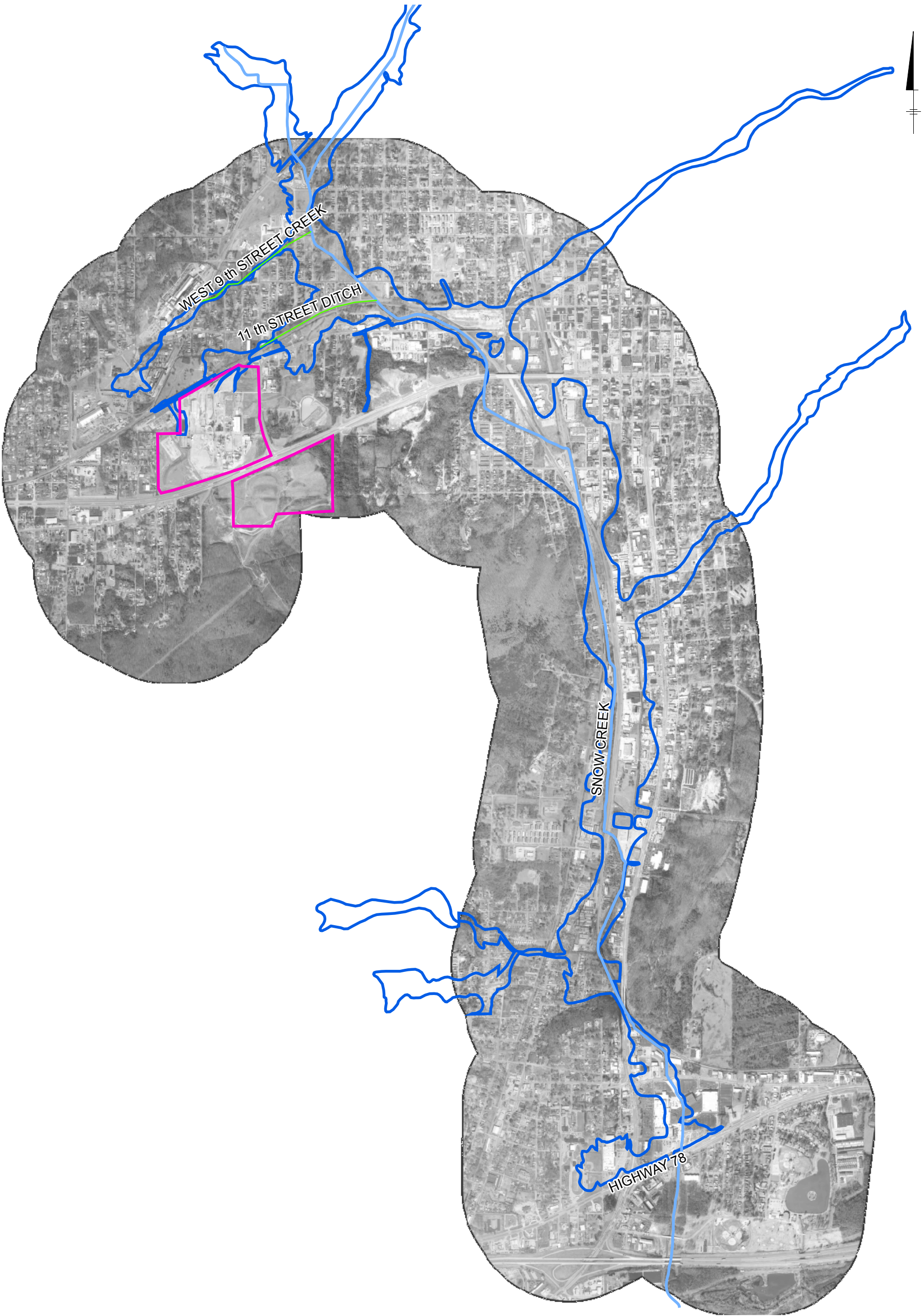



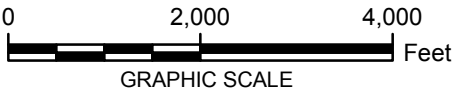


Figures

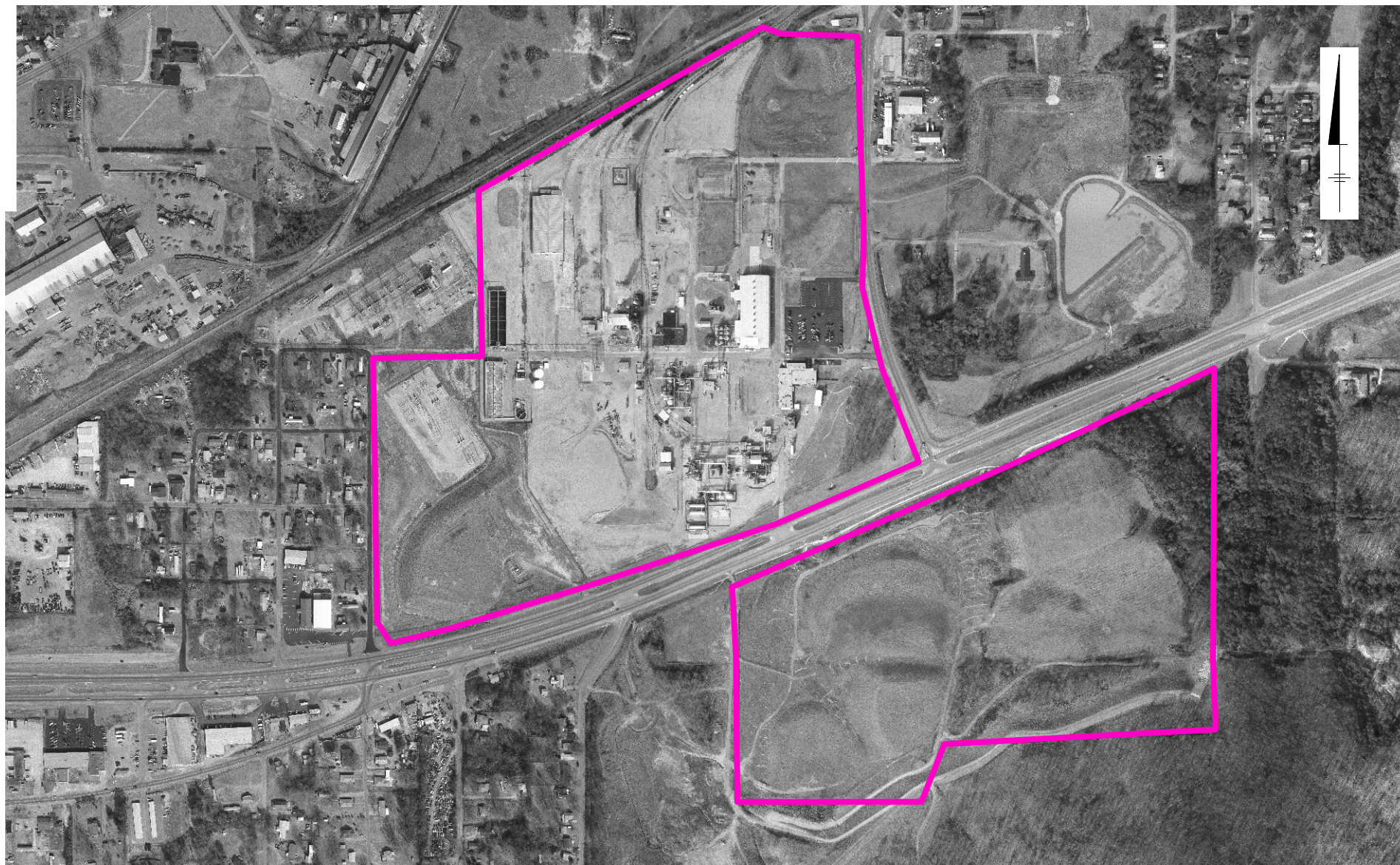


LEGEND:

-  100-YR FLOODPLAIN AND DRAINAGE AREA
-  OU-3
-  SNOW CREEK



ANNISTON PCB SITE ANNISTON, ALABAMA SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT FOR OPERABLE UNITS 1, 2, AND 3	
OPERABLE UNITS 1, 2, AND 3	
 BLASLAND, BOUCK & LEE, INC. engineers, scientists, economists	FIGURE 1



LEGEND:

OU-3

0 600 1,200
Feet

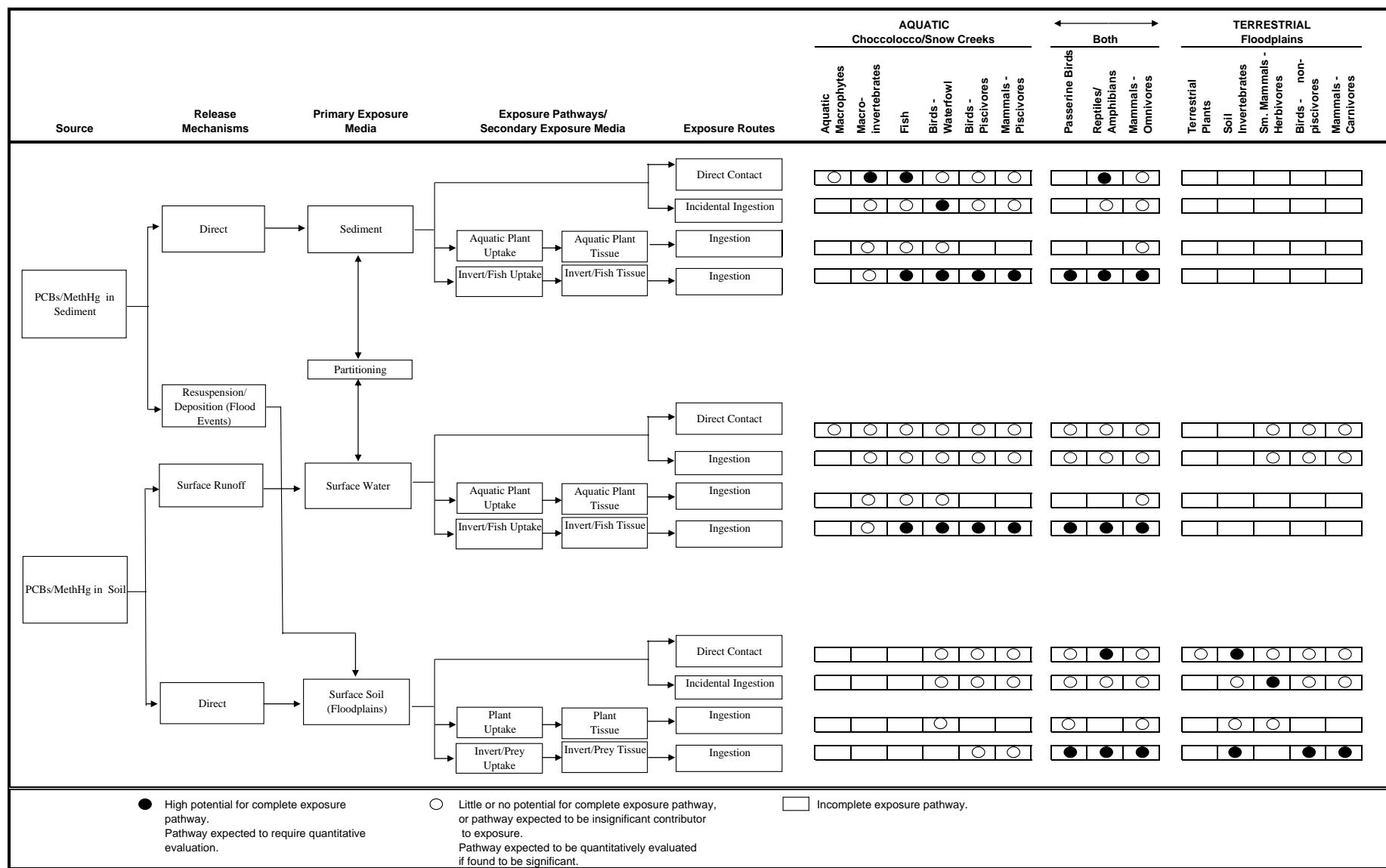
GRAPHIC SCALE

ANNISTON PCB SITE
ANNISTON, ALABAMA
SCREENING LEVEL ECOLOGICAL RISK
ASSESSMENT FOR OPERABLE UNITS 1, 2, AND 3

OPERABLE UNIT 3

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FIGURE
2



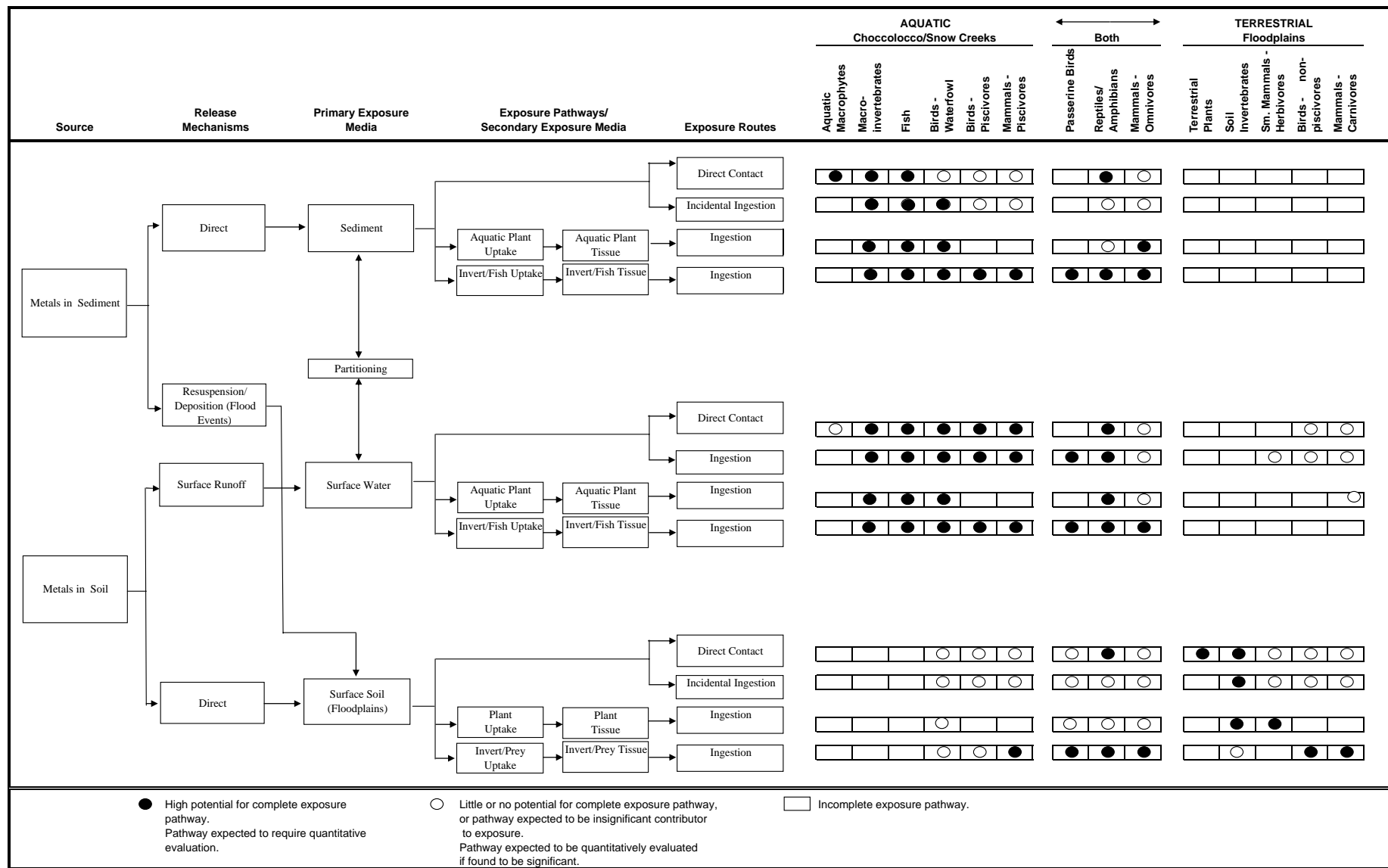
ANNISTON PCB SITE
ANNISTON, ALABAMA

**SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3**

**CONCEPTUAL EXPOSURE MODEL FOR
ECOLOGICAL RECEPTORS: PCBs & METHYL
MERCURY**



FIGURE
3

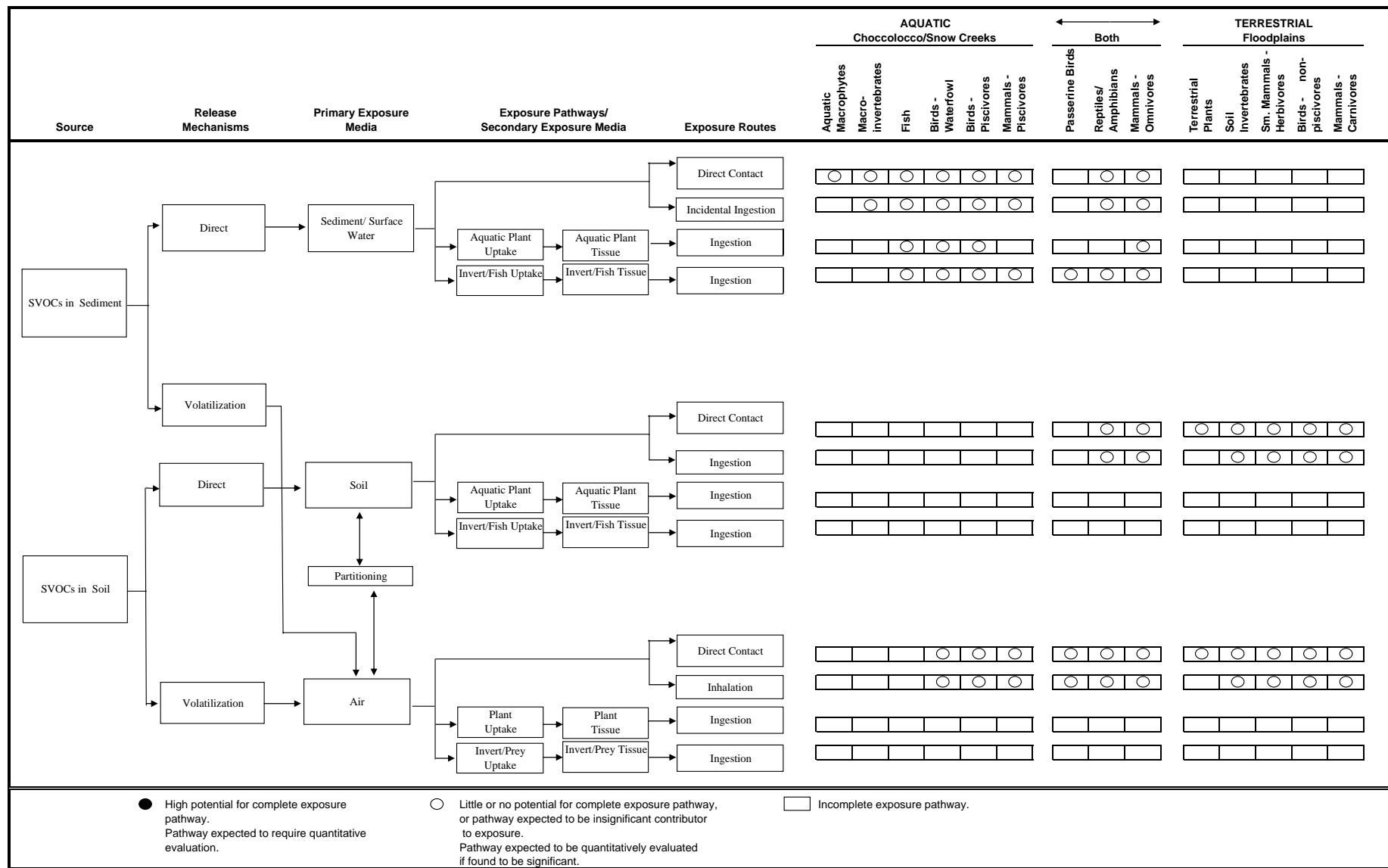


ANNISTON PCB SITE
ANNISTON, ALABAMA
**SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3**

**CONCEPTUAL EXPOSURE MODEL FOR
ECOLOGICAL RECEPTORS: METALS**



**FIGURE
4**

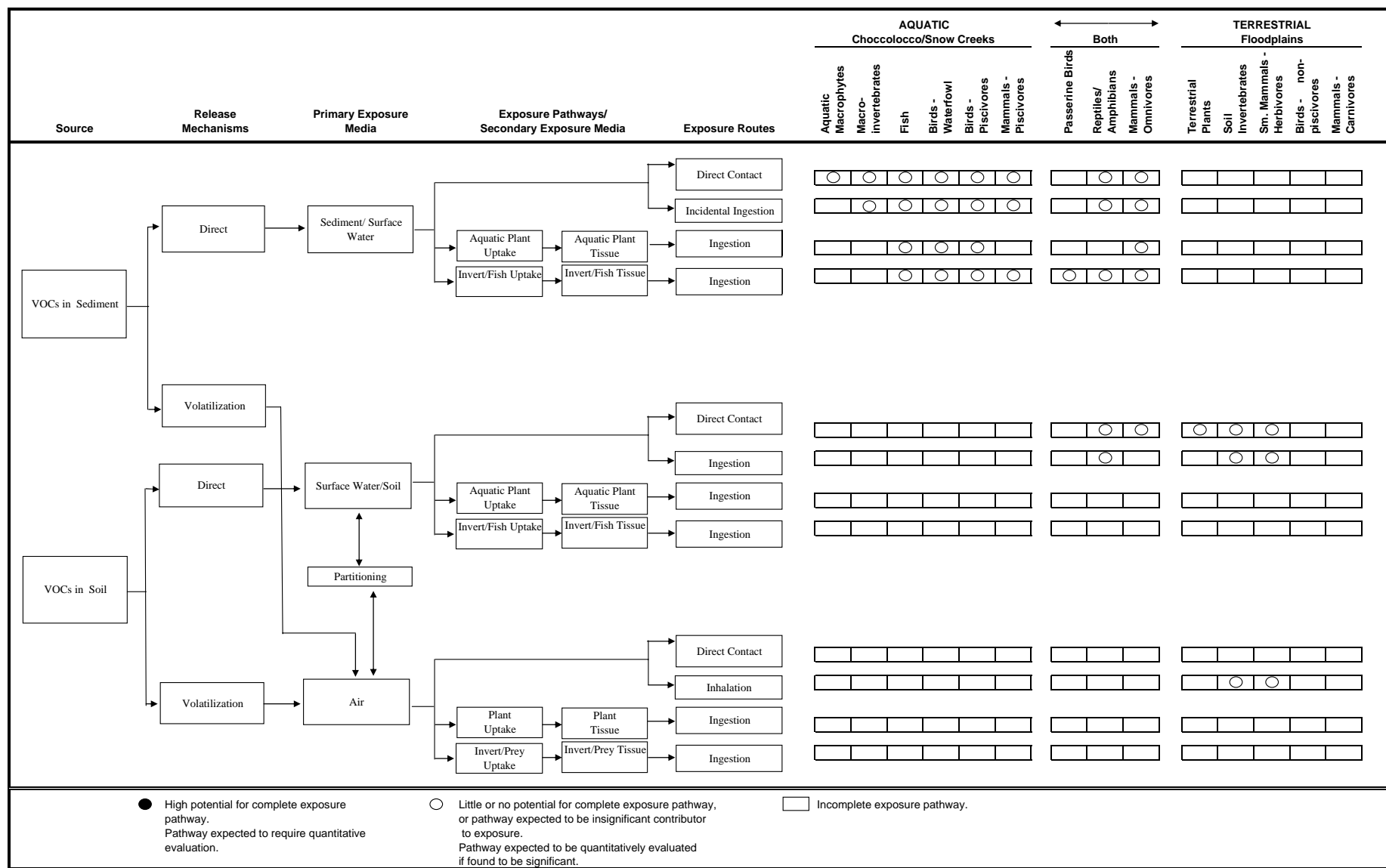


ANNISTON PCB SITE
ANNISTON, ALABAMA
**SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3**

**CONCEPTUAL EXPOSURE MODEL FOR
ECOLOGICAL RECEPTORS: OTHER SVOCs**



**FIGURE
5**

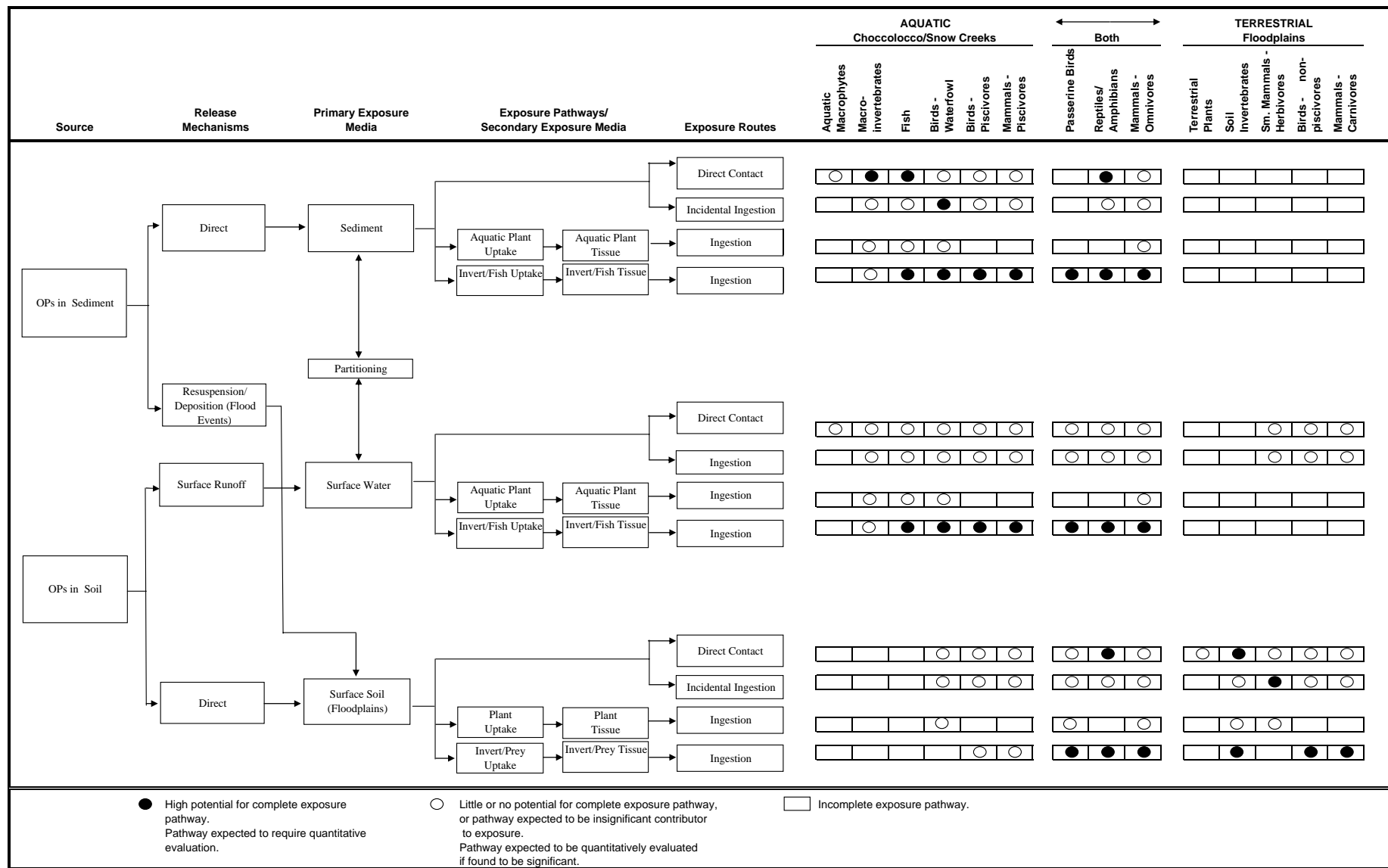


ANNISTON PCB SITE
ANNISTON, ALABAMA
**SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3**

**CONCEPTUAL EXPOSURE MODEL FOR
ECOLOGICAL RECEPTORS: VOCs**



**FIGURE
6**



ANNISTON PCB SITE
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**SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3**

**CONCEPTUAL EXPOSURE MODEL FOR
ECOLOGICAL RECEPTORS:
ORGANOPHOSPHORUS PESTICIDES (OPs)**



FIGURE
7



ANNISTON PCB SITE
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SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3

**SNOW CREEK FLOWING THROUGH A
RESIDENTIAL AREA (UPSTREAM VIEW)**

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FIGURE

8



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SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3

**SNOW CREEK FLOWING THROUGH A
RESIDENTIAL AREA (DOWNSTREAM VIEW)**

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FIGURE
9



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SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3

**RIPARIAN VEGETATION AND DEPOSITIONAL
BARS IN SNOW CREEK (BELOW NOBLE STREET)**

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FIGURE
10



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SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3

**SNOW CREEK BEFORE FLOWING INTO CULVERT
UNDER QUINTARD MALL (IN BACKGROUND)**

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FIGURE
11



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SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3

**RESIDENTIAL MAINTAINED LAWNS AND SPARSE
ORNAMENTAL TREES**

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FIGURE
12



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SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3

**RESIDENTIAL MAINTAINED LAWNS AND SPARSE
ORNAMENTAL TREES**

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FIGURE
13



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SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3

**EXAMPLE OF RESIDENTIAL AREAS WHERE
NETWORKS OF ROADS, ROOFTOPS AND
PARKING AREAS ELIMINATE HABITAT**

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FIGURE
14



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SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3

**MAINTAINED LAND USE TO EDGE OF SNOW
CREEK (UPSTREAM). NOTE: UNSTABLE BANKS
DUE TO EROSION AND SLOUGHING**

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FIGURE
15



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SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3

**INDUSTRIAL LAND USE WITH MAINTAINED FIELD
AND SPARSE ORNAMENTAL TREES AND SHRUBS**

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FIGURE
16



ANNISTON PCB SITE
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SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3

**INDUSTRIAL LAND USE SHOWING IMPERVIOUS
LAYERS OF FACILITY ENVIRONS AND NO
HABITAT**

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FIGURE

17



ANNISTON PCB SITE
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SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3

**COMMERCIAL LAND USE WITH EXTENSIVE
IMPERVIOUS LAYER AND ESSENTIALLY NO
HABITAT**

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FIGURE

18



ANNISTON PCB SITE
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SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3

**EXTENSIVE PARKING AREAS AND SMALL
ISLANDS OF ORNAMENTAL TREES AND SHRUBS
AT QUINTARD MALL**

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FIGURE
19



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SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3

**RECREATION/SCHOOL LAND USE SHOWING
LARGE MANICURED FIELD FOR SPORTS**

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FIGURE
20



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SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3

RECREATION/SCHOOL LAND USE SHOWING
DRAINAGE DITCH BEFORE BORDERING FIELD

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FIGURE
21



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SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3

**WEST END LANDFILL: RIP-RAPPED DRAINAGE
SWALE**

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FIGURE

22



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SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3

**NORTHEAST PORTION OF FACILITY: MAINTAINED
LAWN**



FIGURE
23



ANNISTON PCB SITE
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SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT
FOR OPERABLE UNITS 1, 2, AND 3

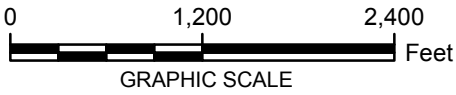
NORTH VIEW OF SOUTH LANDFILL

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FIGURE
24



LEGEND:
— SNOW CREEK SAMPLING STATION BOUNDARIES

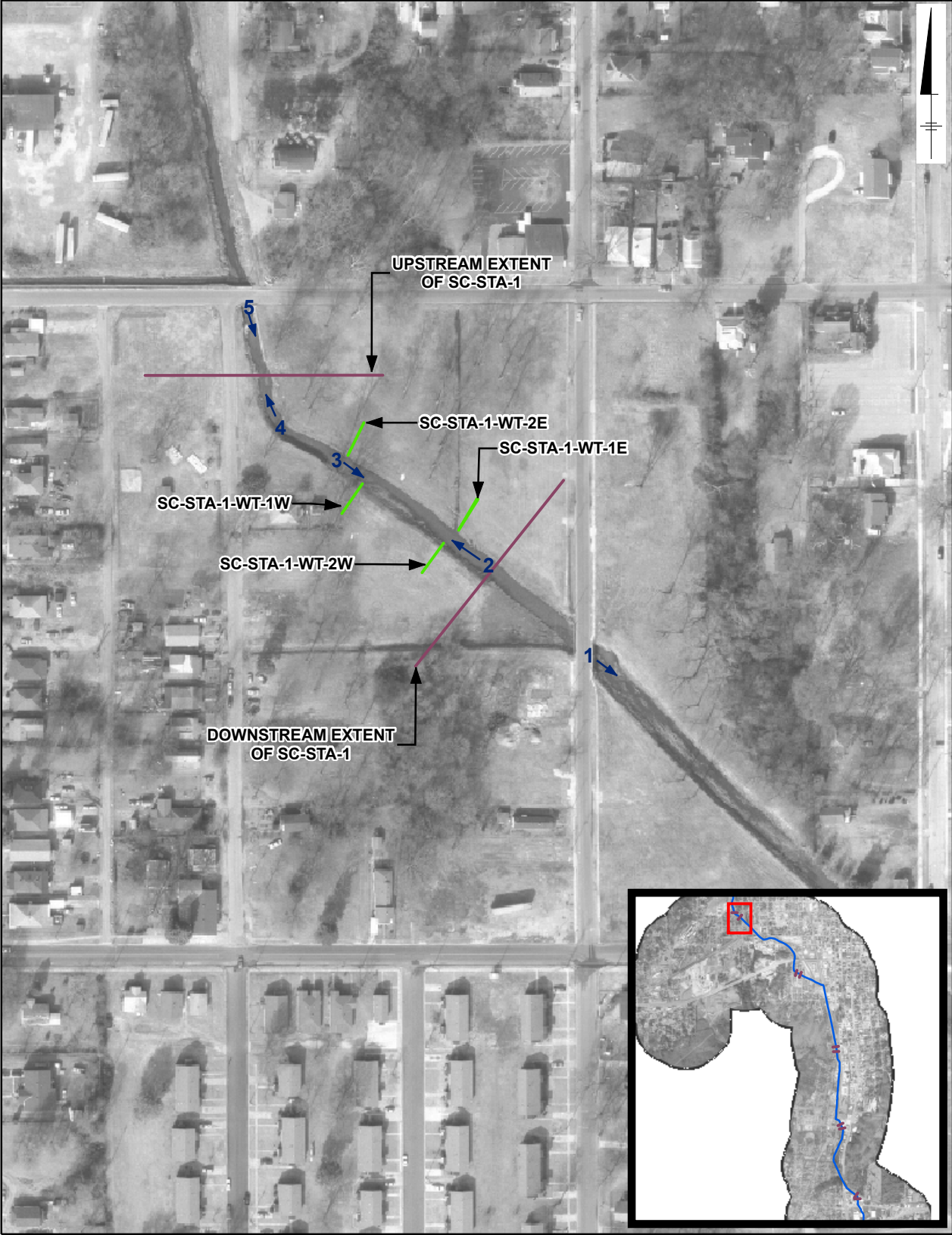


ANNISTON PCB SITE
ANNISTON, ALABAMA
SCREENING LEVEL ECOLOGICAL RISK
ASSESSMENT FOR OPERABLE UNITS 1, 2, AND 3

**SNOW CREEK SAMPLING
STATION LOCATIONS**



**FIGURE
25**



NOTE:
1. ALL BENTHOS AND FISH SAMPLING ACTIVITIES
CONDUCTED WITHIN REACH BOUNDARIES.

LEGEND:
— WILDLIFE OBSERVATION TRANSECT
— SNOW CREEK SAMPLING STATION BOUNDARIES
2 PHOTO ID AND CAMERA DIRECTION



Station	Fish Survey Total Shock Time (min)	Benthic MacroInvertebrate Survey							Wildlife Observations	
		Distribution of Kicks by Habitat Type (% of 20 kicks/jabs)*							Total Transect Length (ft)	Total Observation Time (min)
SC-STA-1	40	20		20	60				200	200
SC-STA-2	36	50			50				200	205
SC-STA-3	24	50			50				100	175
SC-STA-4	28	60			40				100	180
SC-STA-5*	39	31	11	8	34		8	8	100	250
RP-1	31			60		30		10	240	160

* - more kicks/jabs at this location
SC-STA-5 "Other" was detritus/leaf litter
RP-1 "Other" is emergent vegetation (Alligator weed)

ANNISTON PCB SITE
ANNISTON, ALABAMA
SCREENING LEVEL ECOLOGICAL RISK
ASSESSMENT FOR OPERABLE UNITS 1, 2, AND 3

BIOSURVEY LOCATIONS ON SNOW CREEK: STA-1

Habitat Evaluation Summary						
Habitat Parameters - Low Gradient Streams Reaches		Condition Category & Score				
		Optimal (20 - 16) --- Suboptimal (15 - 11) --- Marginal (10 - 6) --- Poor (5 - 0)				
		SC-STA-1	SC-STA-2	SC-STA-3	SC-STA-4	SC-STA-5
Epifaunal Substrate/Available Cover		8	11	17	12	17
Pool Substrate Characterization		14	8	7	8	4
Pool Variability		3	4	8	11	15
Sediment Deposition		14	12	17	14	17
Channel Flow Status		17	17	17	17	18
Channel Alteration		14	17	18	18	9
Channel Sinuosity		5	6	3	4	6
Bank Stability	Right Bank (10 - 0)	9	9	7	10	10
	Left Bank (10 - 0)	9	9	10	10	10
Vegetative Protection	Right Bank (10 - 0)	9	9	7	10	9
	Left Bank (10 - 0)	8	8	10	9	7
Riparian Vegetative Zone Width	Right Bank (10 - 0)	6	6	1	5	2
	Left Bank (10 - 0)	6	5	2	2	1
TOTAL SCORE		122	121	124	130	125

Note: Habitat evaluation performed using the methods outlined in the USEPA's Rapid Bioassessment Protocols for Streams and Wadable Rivers

Fish Community Survey Summary						
Species Observed	Count by Location					Total Fish
	SC-STA-1	SC-STA-2	SC-STA-3	SC-STA-4	SC-STA-5	
Largescale Stoneroller (<i>Campostoma oligolepis</i>)	15	21	2	70	91	199
Eastern Mosquitofish (<i>Gambusia holbrooki</i>)	110	2		7		119
Unknown Shiner #2 (<i>Notropis</i> spp.)		5	8	62	3	78
Unknown Shiner #1 (<i>Notropis</i> spp.)		12	3	23	4	42
Bluespotted Sunfish (<i>Enneacanthus gloriosus</i>)	2	18	1	5	1	27
Unknown Shiner #3 (<i>Notropis</i> spp.)			7			7
Bluegill (<i>Lepomis macrochirus</i>)				6		6
Unknown Shiner (<i>Cyprinella</i> sp.)				3	1	4
Creek Chub (<i>Semotilus atromaculatus</i>)			1			1
Suckermouth minnow (<i>Phenacobius mirabilis</i>)				1		1
Longear Sunfish (<i>Lepomis megalotis</i>)					1	1
Black Redhorse (<i>Moxostoma duquesnei</i>)					1	1
Yellow Bullhead (<i>Ameiurus natalis</i>)					1	1
Total Fish	127	58	22	177	103	487
Species Richness	3	5	6	8	8	13
Total Shock Time (seconds)	2,386	2,146	1,468	1,678	2,322	10,000
Catch per unit Effort	0.053	0.027	0.015	0.105	0.044	0.049

Note: 1,853 seconds of shocking in the stormwater containment structure yielded no fish

Benthic Macroinvertebrate Summary Metrics							
Metric	Expected Response	STA-1	STA-2	STA-3	STA-4	STA-5	RP-1
Total Number of Specimens	Decrease	97	106	16	28	16	331
Species Richness	Decrease	19	13	5	7	4	31
Percent EPT	Decrease	0	42	19	14	63	37
Percent Diptera	Increase	23	45	69	82	31	10

Note: Expected Response indicates the response to each metric in the presence of perturbation

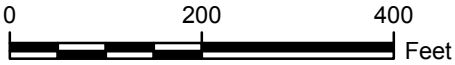
NOTE:

- ALL BENTHOS AND FISH SAMPLING ACTIVITIES CONDUCTED WITHIN REACH BOUNDARIES.

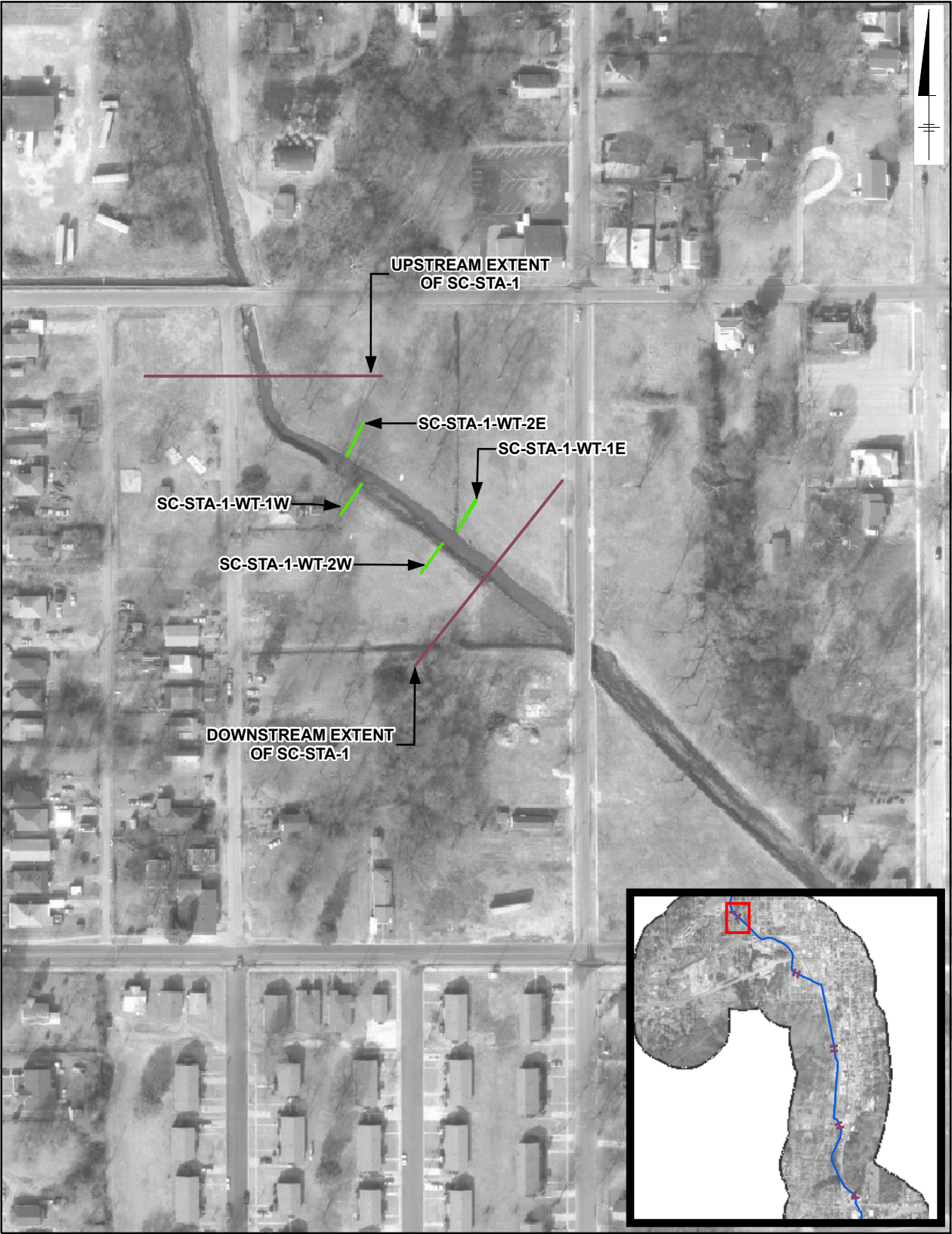
LEGEND:

WILDLIFE OBSERVATION TRANSECT

SNOW CREEK SAMPLING STATION BOUNDARIES



GRAPHIC SCALE

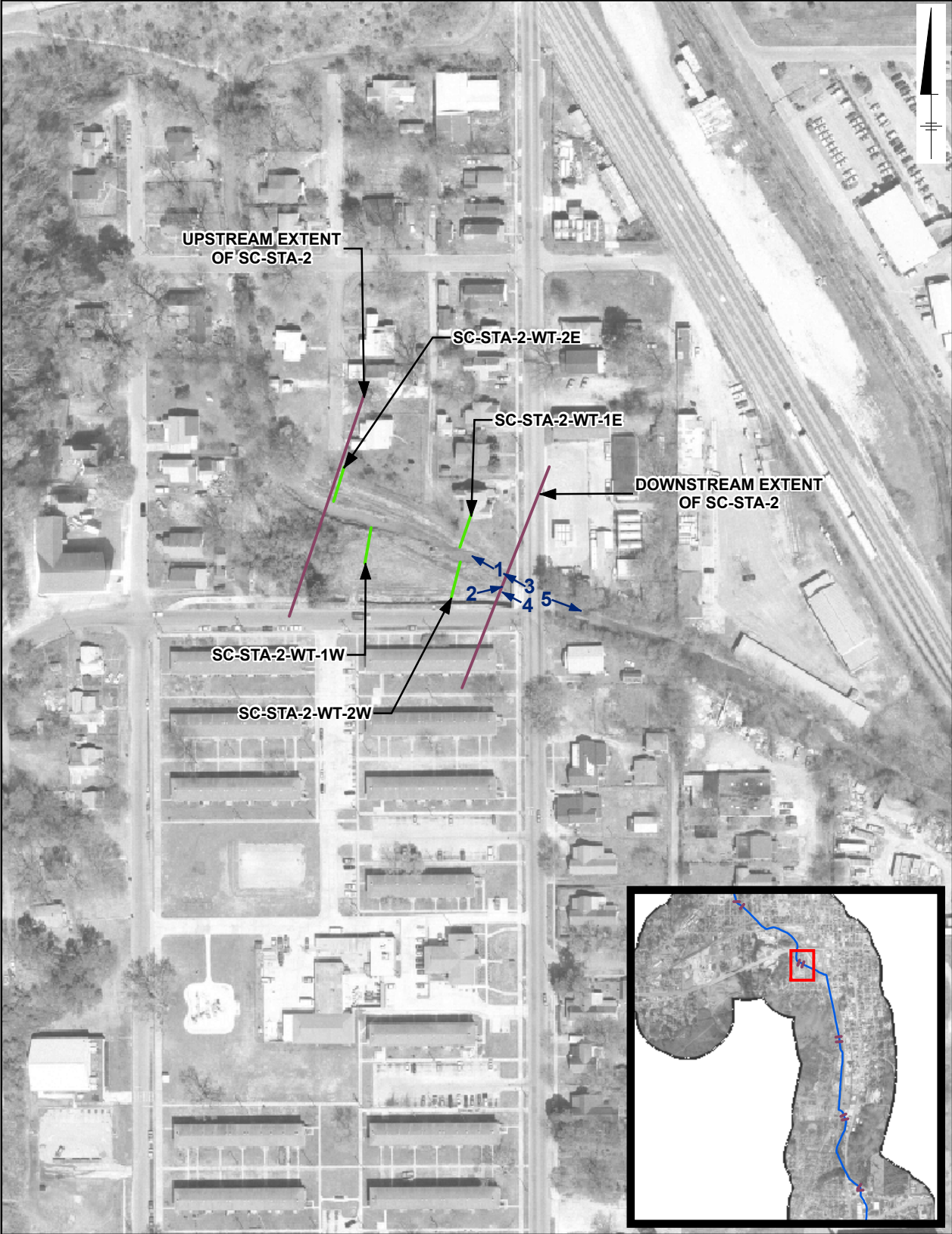


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SCREENING LEVEL ECOLOGICAL RISK
ASSESSMENT FOR OPERABLE UNITS 1, 2, AND 3

BIOSURVEY RESULTS FOR STA-1



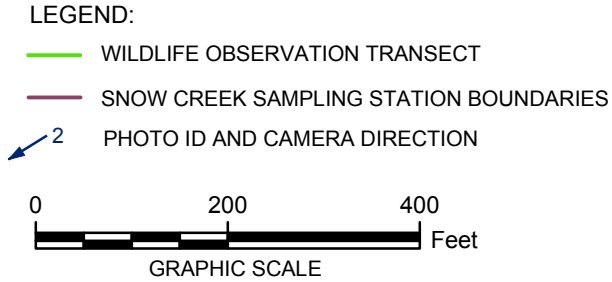
FIGURE
27



Station	Fish Survey	Benthic MacroInvertebrate Survey							Wildlife Observations	
		Distribution of Kicks by Habitat Type (% of 20 kicks/jabs)*							Total Transect Length (ft)	Total Observation Time (min)
	Total Shock Time (min)	Cobble	Snag	Vegetated Banks	Sand & Gravel	SAV	Bedrock Outcrop	Other - see notes		
SC-STA-1	40	20		20	60				200	200
SC-STA-2	36	50			50				200	205
SC-STA-3	24	50			50				100	175
SC-STA-4	28	60			40				100	180
SC-STA-5*	39	31	11	8	34		8	8	100	250
RP-1	31			60		30		10	240	160

* - more kicks/jabs at this location
 SC-STA-5 "Other" was detritus/leaf litter
 RP-1 "Other" is emergent vegetation (Alligator weed)

NOTE:
 1. ALL BENTHOS AND FISH SAMPLING ACTIVITIES CONDUCTED WITHIN REACH BOUNDARIES.



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ASSESSMENT FOR OPERABLE UNITS 1, 2, AND 3

BIOSURVEY LOCATIONS ON
SNOW CREEK: STA-2

FIGURE
28

Habitat Evaluation Summary					
Habitat Parameters - Low Gradient Streams Reaches	Condition Category & Score				
	Optimal (20 - 16) --- Suboptimal (15 - 11) --- Marginal (10 - 6) --- Poor (5 - 0)				
	SC-STA-1	SC-STA-2	SC-STA-3	SC-STA-4	SC-STA-5
Epifaunal Substrate/Available Cover	8	11	17	12	17
Pool Substrate Characterization	14	8	7	8	4
Pool Variability	3	4	8	11	15
Sediment Deposition	14	12	17	14	17
Channel Flow Status	17	17	17	17	18
Channel Alteration	14	17	18	18	9
Channel Sinuosity	5	6	3	4	6
Bank Stability	Right Bank (10 - 0)	9	9	7	10
	Left Bank (10 - 0)	9	9	10	10
Vegetative Protection	Right Bank (10 - 0)	9	9	7	10
	Left Bank (10 - 0)	8	8	10	9
Riparian Vegetative Zone Width	Right Bank (10 - 0)	6	6	1	5
	Left Bank (10 - 0)	6	5	2	2
TOTAL SCORE	122	121	124	130	125

Note: Habitat evaluation performed using the methods outlined in the USEPA's Rapid Bioassessment Protocols for Streams and Wadable Rivers

Fish Community Survey Summary						
Species Observed	Count by Location					Total Fish
	SC-STA-1	SC-STA-2	SC-STA-3	SC-STA-4	SC-STA-5	
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Unknown Shiner #2 (<i>Notropis</i> spp.)		5	8	62	3	78
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Bluespotted Sunfish (<i>Enneacanthus gloriosus</i>)	2	18	1	5	1	27
Unknown Shiner #3 (<i>Notropis</i> spp.)			7			7
Bluegill (<i>Lepomis macrochirus</i>)				6		6
Unknown Shiner (<i>Cyprinella</i> sp.)				3	1	4
Creek Chub (<i>Semotilus atromaculatus</i>)			1			1
Suckermouth minnow (<i>Phenacobius mirabilis</i>)				1		1
Longear Sunfish (<i>Lepomis megalotis</i>)					1	1
Black Redhorse (<i>Moxostoma duquesnei</i>)					1	1
Yellow Bullhead (<i>Ameiurus natalis</i>)					1	1
Total Fish	127	58	22	177	103	487
Species Richness	3	5	6	8	8	13
Total Shock Time (seconds)	2,386	2,146	1,468	1,678	2,322	10,000
Catch per unit Effort	0.053	0.027	0.015	0.105	0.044	0.049

Note: 1,853 seconds of shocking in the stormwater containment structure yielded no fish

Benthic Macroinvertebrate Summary Metrics							
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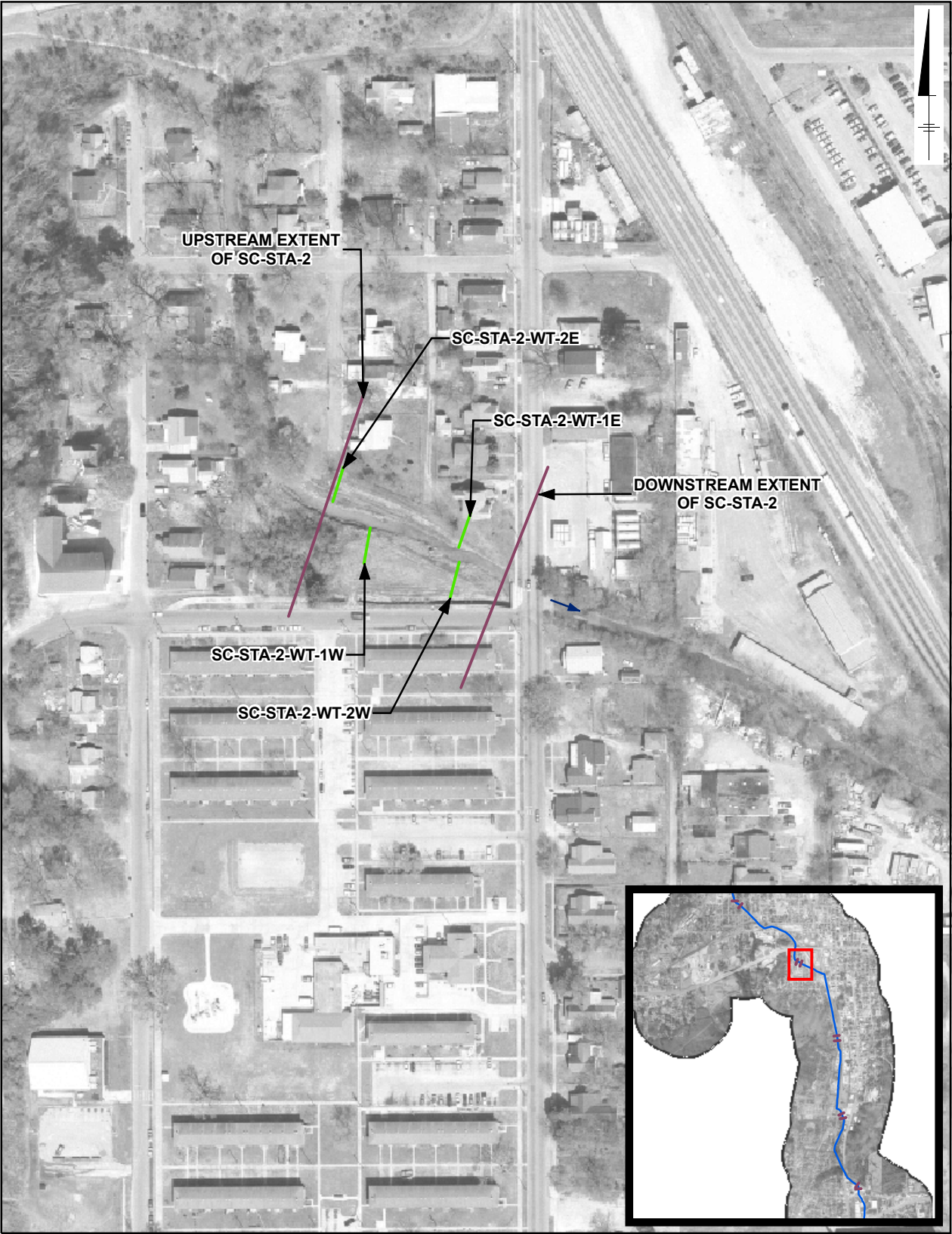
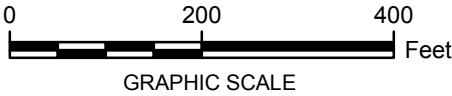
Note: Expected Response indicates the response to each metric in the presence of perturbation

NOTE:

- ALL BENTHOS AND FISH SAMPLING ACTIVITIES CONDUCTED WITHIN REACH BOUNDARIES.

LEGEND:

- WILDLIFE OBSERVATION TRANSECT
- SNOW CREEK SAMPLING STATION BOUNDARIES



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ASSESSMENT FOR OPERABLE UNITS 1, 2, AND 3

BIOSURVEY RESULTS FOR STA-2

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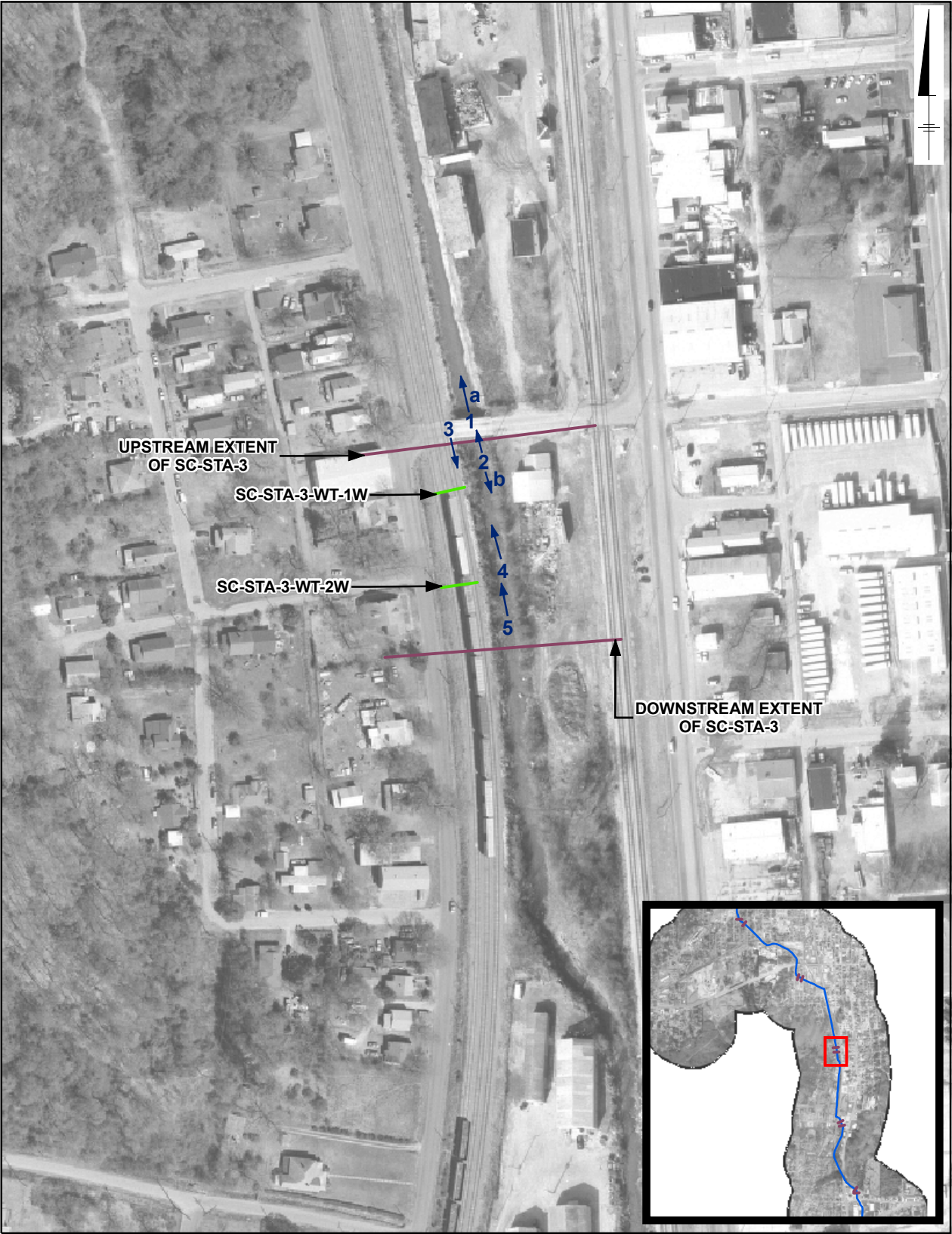
FIGURE
29



Station	Fish Survey	Benthic MacroInvertebrate Survey							Wildlife Observations	
		Distribution of Kicks by Habitat Type (% of 20 kicks/jabs)*							Total Transect Length (ft)	Total Observation Time (min)
	Total Shock Time (min)	Cobble	Snag	Vegetated Banks	Sand & Gravel	SAV	Bedrock Outcrop	Other - see notes		
SC-STA-1	40	20		20	60				200	200
SC-STA-2	36	50			50				200	205
SC-STA-3	24	50			50				100	175
SC-STA-4	28	60			40				100	180
SC-STA-5*	39	31	11	8	34		8	8	100	250
RP-1	31			60		30		10	240	160

* - more kicks/jabs at this location
 SC-STA-5 "Other" was detritus/leaf litter
 RP-1 "Other" is emergent vegetation (Alligator weed)

NOTE:
 1. ALL BENTHOS AND FISH SAMPLING ACTIVITIES CONDUCTED WITHIN REACH BOUNDARIES.



LEGEND:
 WILDLIFE OBSERVATION TRANSECT
 SNOW CREEK SAMPLING STATION BOUNDARIES
 PHOTO ID AND CAMERA DIRECTION



ANNISTON PCB SITE
ANNISTON, ALABAMA
SCREENING LEVEL ECOLOGICAL RISK
ASSESSMENT FOR OPERABLE UNITS 1, 2, AND 3

BIOSURVEY LOCATIONS ON
SNOW CREEK: STA-3

FIGURE
30

Habitat Evaluation Summary					
Habitat Parameters - Low Gradient Streams Reaches	Condition Category & Score				
	Optimal (20 - 16) --- Suboptimal (15 - 11) --- Marginal (10 - 6) --- Poor (5 - 0)				
	SC-STA-1	SC-STA-2	SC-STA-3	SC-STA-4	SC-STA-5
Epifaunal Substrate/Available Cover	8	11	17	12	17
Pool Substrate Characterization	14	8	7	8	4
Pool Variability	3	4	8	11	15
Sediment Deposition	14	12	17	14	17
Channel Flow Status	17	17	17	17	18
Channel Alteration	14	17	18	18	9
Channel Sinuosity	5	6	3	4	6
Bank Stability	Right Bank (10 - 0)	9	9	7	10
	Left Bank (10 - 0)	9	9	10	10
Vegetative Protection	Right Bank (10 - 0)	9	9	7	10
	Left Bank (10 - 0)	8	8	10	9
Riparian Vegetative Zone Width	Right Bank (10 - 0)	6	6	1	5
	Left Bank (10 - 0)	6	5	2	1
TOTAL SCORE	122	121	124	130	125

Note: Habitat evaluation performed using the methods outlined in the USEPA's Rapid Bioassessment Protocols for Streams and Wadable Rivers



Fish Community Survey Summary						
Species Observed	Count by Location					Total Fish
	SC-STA-1	SC-STA-2	SC-STA-3	SC-STA-4	SC-STA-5	
Largescale Stoneroller (<i>Campostoma oligolepis</i>)	15	21	2	70	91	199
Eastern Mosquitofish (<i>Gambusia holbrooki</i>)	110	2		7		119
Unknown Shiner #2 (<i>Notropis</i> spp.)		5	8	62	3	78
Unknown Shiner #1 (<i>Notropis</i> spp.)		12	3	23	4	42
Bluespotted Sunfish (<i>Enneacanthus gloriosus</i>)	2	18	1	5	1	27
Unknown Shiner #3 (<i>Notropis</i> spp.)			7			7
Bluegill (<i>Lepomis macrochirus</i>)				6		6
Unknown Shiner (<i>Cyprinella</i> sp.)				3	1	4
Creek Chub (<i>Semotilus atromaculatus</i>)			1			1
Suckermouth minnow (<i>Phenacobius mirabilis</i>)				1		1
Longear Sunfish (<i>Lepomis megalotis</i>)					1	1
Black Redhorse (<i>Moxostoma duquesnei</i>)					1	1
Yellow Bullhead (<i>Ameiurus natalis</i>)					1	1
Total Fish	127	58	22	177	103	487
Species Richness	3	5	6	8	8	13
Total Shock Time (seconds)	2,386	2,146	1,468	1,678	2,322	10,000
Catch per unit Effort	0.053	0.027	0.015	0.105	0.044	0.049

Note: 1,853 seconds of shocking in the stormwater containment structure yielded no fish

Benthic Macroinvertebrate Summary Metrics							
Metric	Expected Response	STA-1	STA-2	STA-3	STA-4	STA-5	RP-1
Total Number of Specimens	Decrease	97	106	16	28	16	331
Species Richness	Decrease	19	13	5	7	4	31
Percent EPT	Decrease	0	42	19	14	63	37
Percent Diptera	Increase	23	45	69	82	31	10

Note: Expected Response indicates the response to each metric in the presence of perturbation


NOTE:
1. ALL BENTHOS AND FISH SAMPLING ACTIVITIES CONDUCTED WITHIN REACH BOUNDARIES.

LEGEND:
 WILDLIFE OBSERVATION TRANSECT
 SNOW CREEK SAMPLING STATION BOUNDARIES



ANNISTON PCB SITE
ANNISTON, ALABAMA
SCREENING LEVEL ECOLOGICAL RISK
ASSESSMENT FOR OPERABLE UNITS 1, 2, AND 3

BIOSURVEY RESULTS FOR: STA-3



FIGURE

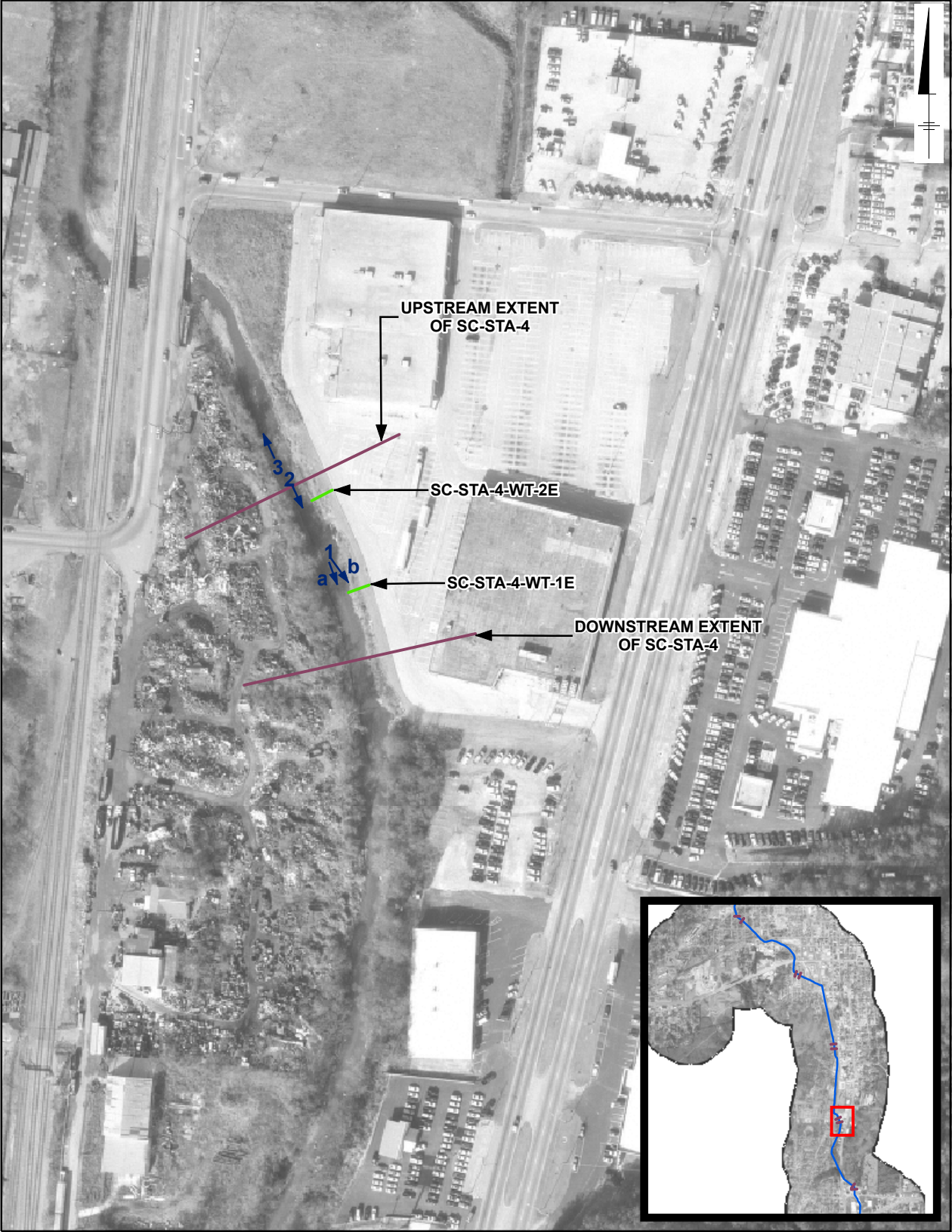
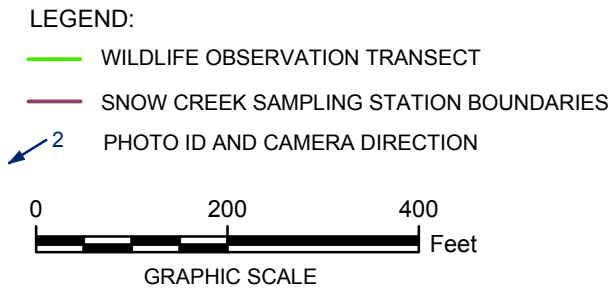
31



Station	Fish Survey Total Shock Time (min)	Benthic MacroInvertebrate Survey Distribution of Kicks by Habitat Type (% of 20 kicks/jabs)*							Wildlife Observations	
		Cobble	Snag	Vegetated Banks	Sand & Gravel	SAV	Bedrock Outcrop	Other - see notes	Total Transect Length (ft)	Total Observation Time (min)
SC-STA-1	40	20		20	60				200	200
SC-STA-2	36	50			50				200	205
SC-STA-3	24	50			50				100	175
SC-STA-4	28	60			40				100	180
SC-STA-5*	39	31	11	8	34		8	8	100	250
RP-1	31			60		30		10	240	160

* - more kicks/jabs at this location
 SC-STA-5 "Other" was detritus/leaf litter
 RP-1 "Other" is emergent vegetation (Alligator weed)

NOTE:
 1. ALL BENTHOS AND FISH SAMPLING ACTIVITIES CONDUCTED WITHIN REACH BOUNDARIES.



ANNISTON PCB SITE
 ANNISTON, ALABAMA
 SCREENING LEVEL ECOLOGICAL RISK
 ASSESSMENT FOR OPERABLE UNITS 1, 2, AND 3

**BIOSURVEY LOCATIONS ON
 SNOW CREEK: STA-4**

FIGURE
32

Habitat Evaluation Summary						
Habitat Parameters - Low Gradient Streams Reaches		Condition Category & Score				
		Optimal (20 - 16) --- Suboptimal (15 - 11) --- Marginal (10 - 6) --- Poor (5 - 0)				
		SC-STA-1	SC-STA-2	SC-STA-3	SC-STA-4	SC-STA-5
Epifaunal Substrate/Available Cover		8	11	17	12	17
Pool Substrate Characterization		14	8	7	8	4
Pool Variability		3	4	8	11	15
Sediment Deposition		14	12	17	14	17
Channel Flow Status		17	17	17	17	18
Channel Alteration		14	17	18	18	9
Channel Sinuosity		5	6	3	4	6
Bank Stability	Right Bank (10 - 0)	9	9	7	10	10
	Left Bank (10 - 0)	9	9	10	10	10
Vegetative Protection	Right Bank (10 - 0)	9	9	7	10	9
	Left Bank (10 - 0)	8	8	10	9	7
Riparian Vegetative Zone Width	Right Bank (10 - 0)	6	6	1	5	2
	Left Bank (10 - 0)	6	5	2	2	1
TOTAL SCORE		122	121	124	130	125

Note: Habitat evaluation performed using the methods outlined in the USEPA's Rapid Bioassessment Protocols for Streams and Wadable Rivers

Fish Community Survey Summary						
Species Observed	Count by Location					Total Fish
	SC-STA-1	SC-STA-2	SC-STA-3	SC-STA-4	SC-STA-5	
Largescale Stoneroller (<i>Campostoma oligolepis</i>)	15	21	2	70	91	199
Eastern Mosquitofish (<i>Gambusia holbrooki</i>)	110	2		7		119
Unknown Shiner #2 (<i>Notropis</i> spp.)		5	8	62	3	78
Unknown Shiner #1 (<i>Notropis</i> spp.)		12	3	23	4	42
Bluespotted Sunfish (<i>Enneacanthus gloriosus</i>)	2	18	1	5	1	27
Unknown Shiner #3 (<i>Notropis</i> spp.)			7			7
Bluegill (<i>Lepomis macrochirus</i>)				6		6
Unknown Shiner (<i>Cyprinella</i> sp.)				3	1	4
Creek Chub (<i>Semotilus atromaculatus</i>)			1			1
Suckermouth minnow (<i>Phenacobius mirabilis</i>)				1		1
Longear Sunfish (<i>Lepomis megalotis</i>)					1	1
Black Redhorse (<i>Moxostoma duquesnei</i>)					1	1
Yellow Bullhead (<i>Ameiurus natalis</i>)					1	1
Total Fish	127	58	22	177	103	487
Species Richness	3	5	6	8	8	13
Total Shock Time (seconds)	2,386	2,146	1,468	1,678	2,322	10,000
Catch per unit Effort	0.053	0.027	0.015	0.105	0.044	0.049

Note: 1,853 seconds of shocking in the stormwater containment structure yielded no fish

Benthic Macroinvertebrate Summary Metrics							
Metric	Expected Response	STA-1	STA-2	STA-3	STA-4	STA-5	RP-1
Total Number of Specimens	Decrease	97	106	16	28	16	331
Species Richness	Decrease	19	13	5	7	4	31
Percent EPT	Decrease	0	42	19	14	63	37
Percent Diptera	Increase	23	45	69	82	31	10

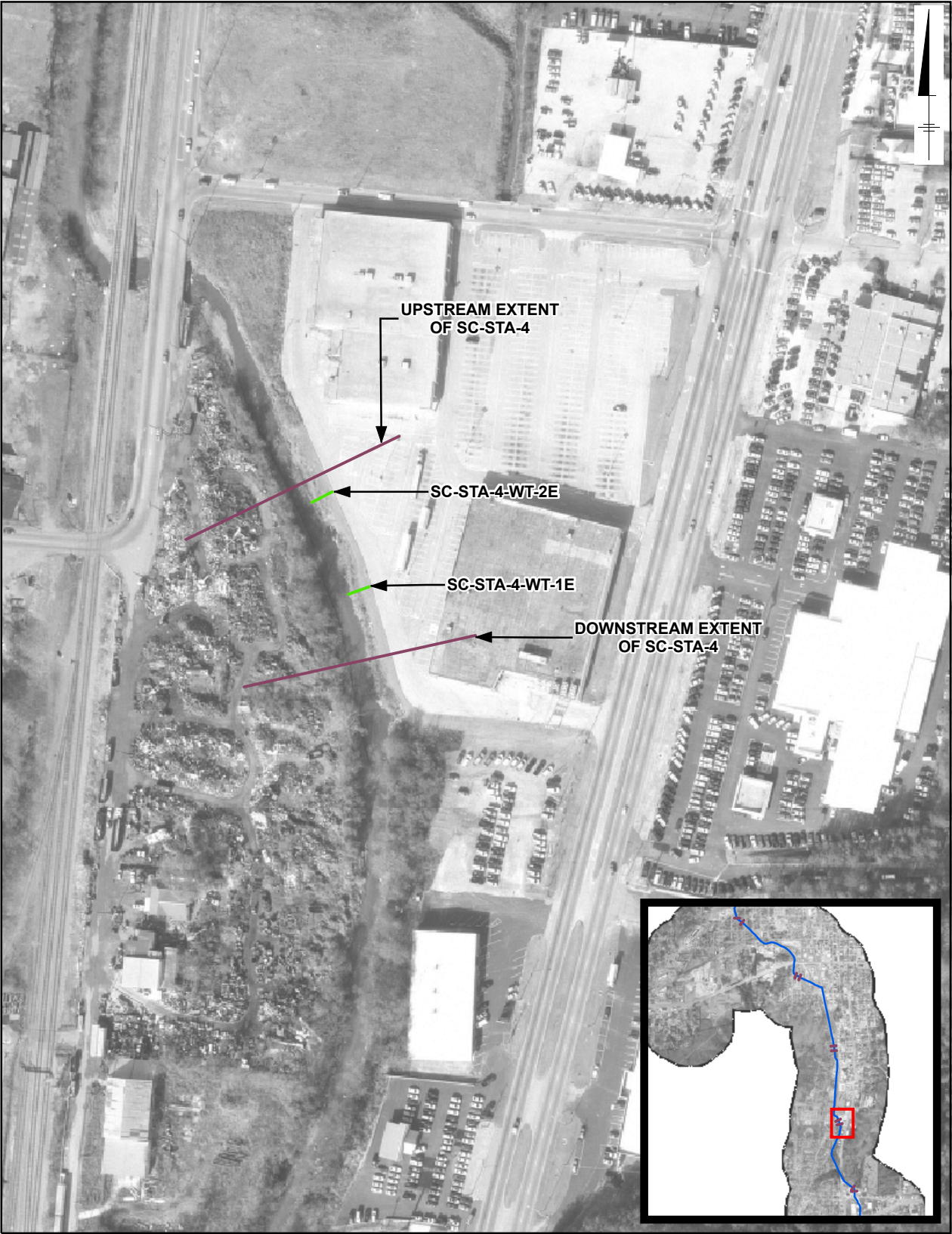
Note: Expected Response indicates the response to each metric in the presence of perturbation

NOTE:

- ALL BENTHOS AND FISH SAMPLING ACTIVITIES CONDUCTED WITHIN REACH BOUNDARIES.

LEGEND:

- WILDLIFE OBSERVATION TRANSECT
- SNOW CREEK SAMPLING STATION BOUNDARIES

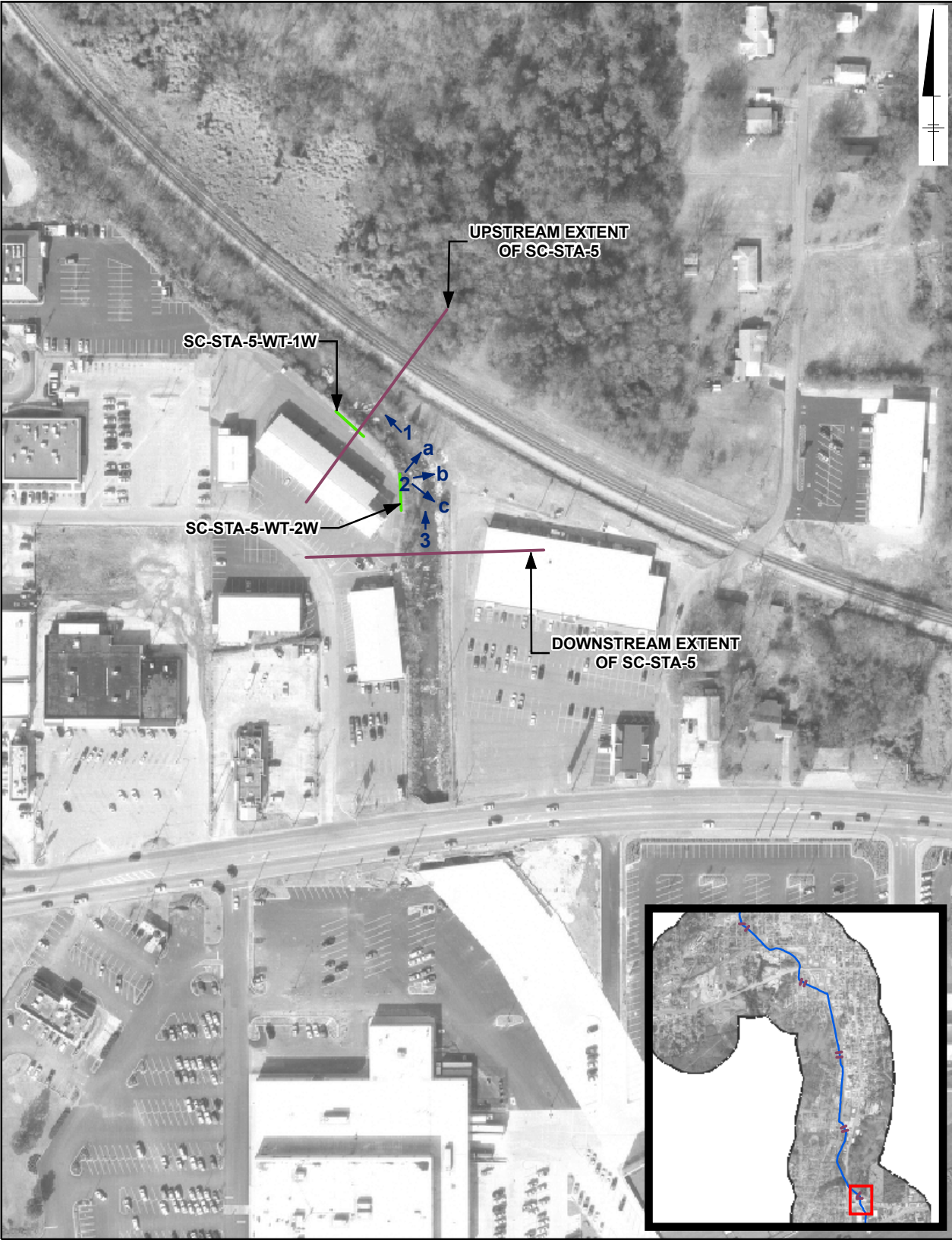
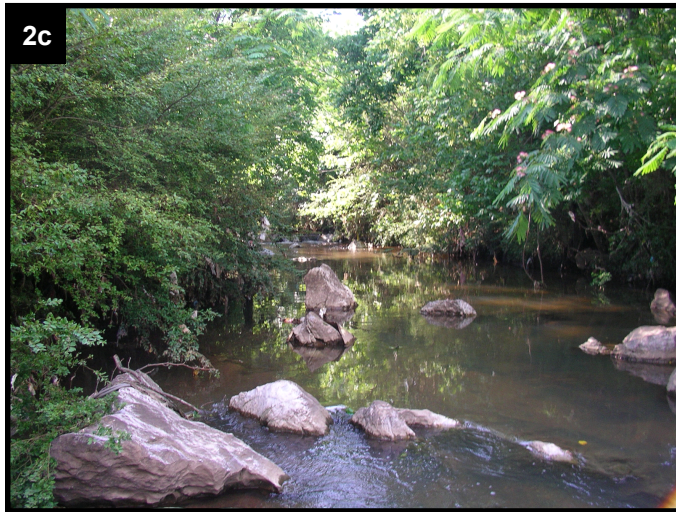


ANNISTON PCB SITE
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SCREENING LEVEL ECOLOGICAL RISK
ASSESSMENT FOR OPERABLE UNITS 1, 2, AND 3

BIOSURVEY RESULTS FOR STA-4

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FIGURE
33



Station	Fish Survey	Benthic Macroinvertebrate Survey							Wildlife Observations	
		Distribution of Kicks by Habitat Type (% of 20 kicks/jabs)*							Total Transect Length (ft)	Total Observation Time (min)
	Total Shock Time (min)	Cobble	Snag	Vegetated Banks	Sand & Gravel	SAV	Bedrock Outcrop	Other - see notes		
SC-STA-1	40	20		20	60				200	200
SC-STA-2	36	50			50				200	205
SC-STA-3	24	50			50				100	175
SC-STA-4	28	60			40				100	180
SC-STA-5*	39	31	11	8	34		8	8	100	250
RP-1	31			60		30		10	240	160

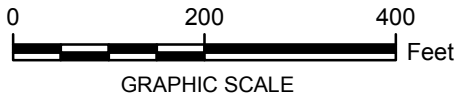
* - more kicks/jabs at this location
 SC-STA-5 "Other" was detritus/leaf litter
 RP-1 "Other" is emergent vegetation (Alligator weed)

NOTES:

1. ALL BENTHOS AND FISH SAMPLING ACTIVITIES CONDUCTED WITHIN REACH BOUNDARIES.
2. WILDLIFE TRANSECTS WERE CONDUCTED BY WALKING THE VEGETATED SLOPE PARALLEL TO SNOW CREEK DUE TO CLOSE PROXIMITY OF ASPHALT PARKING LOTS AND BUILDINGS TO THE EDGE OF THE CREEK.

LEGEND:

- WILDLIFE OBSERVATION TRANSECT
- SNOW CREEK SAMPLING STATION BOUNDARIES
- 2 PHOTO ID AND CAMERA DIRECTION



ANNISTON PCB SITE
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 SCREENING LEVEL ECOLOGICAL RISK
 ASSESSMENT FOR OPERABLE UNITS 1, 2, AND 3

BIOSURVEY LOCATIONS ON
 SNOW CREEK: STA-5

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 engineers, scientists, economists

FIGURE
34

Habitat Evaluation Summary					
Habitat Parameters - Low Gradient Streams Reaches	Condition Category & Score				
	Optimal (20 - 16) --- Suboptimal (15 - 11) --- Marginal (10 - 6) --- Poor (5 - 0)				
	SC-STA-1	SC-STA-2	SC-STA-3	SC-STA-4	SC-STA-5
Epifaunal Substrate/Available Cover	8	11	17	12	17
Pool Substrate Characterization	14	8	7	8	4
Pool Variability	3	4	8	11	15
Sediment Deposition	14	12	17	14	17
Channel Flow Status	17	17	17	17	18
Channel Alteration	14	17	18	18	9
Channel Sinuosity	5	6	3	4	6
Bank Stability	Right Bank (10 - 0)	9	9	7	10
	Left Bank (10 - 0)	9	9	10	10
Vegetative Protection	Right Bank (10 - 0)	9	9	7	9
	Left Bank (10 - 0)	8	8	10	7
Riparian Vegetative Zone Width	Right Bank (10 - 0)	6	6	1	5
	Left Bank (10 - 0)	6	5	2	2
TOTAL SCORE	122	121	124	130	125

Note: Habitat evaluation performed using the methods outlined in the USEPA's Rapid Bioassessment Protocols for Streams and Wadable Rivers

Fish Community Survey Summary						
Species Observed	Count by Location					Total Fish
	SC-STA-1	SC-STA-2	SC-STA-3	SC-STA-4	SC-STA-5	
Largescale Stoneroller (<i>Campostoma oligolepis</i>)	15	21	2	70	91	199
Eastern Mosquitofish (<i>Gambusia holbrooki</i>)	110	2		7		119
Unknown Shiner #2 (<i>Notropis</i> spp.)		5	8	62	3	78
Unknown Shiner #1 (<i>Notropis</i> spp.)		12	3	23	4	42
Bluespotted Sunfish (<i>Enneacanthus gloriosus</i>)	2	18	1	5	1	27
Unknown Shiner #3 (<i>Notropis</i> spp.)			7			7
Bluegill (<i>Lepomis macrochirus</i>)				6		6
Unknown Shiner (<i>Cyprinella</i> sp.)				3	1	4
Creek Chub (<i>Semotilus atromaculatus</i>)			1			1
Suckermouth minnow (<i>Phenacobius mirabilis</i>)				1		1
Longear Sunfish (<i>Lepomis megalotis</i>)					1	1
Black Redhorse (<i>Moxostoma duquesnei</i>)					1	1
Yellow Bullhead (<i>Ameiurus natalis</i>)					1	1
Total Fish	127	58	22	177	103	487
Species Richness	3	5	6	8	8	13
Total Shock Time (seconds)	2,386	2,146	1,468	1,678	2,322	10,000
Catch per unit Effort	0.053	0.027	0.015	0.105	0.044	0.049

Note: 1,853 seconds of shocking in the stormwater containment structure yielded no fish

Benthic Macroinvertebrate Summary Metrics							
Metric	Expected Response	STA-1	STA-2	STA-3	STA-4	STA-5	RP-1
Total Number of Specimens	Decrease	97	106	16	28	16	331
Species Richness	Decrease	19	13	5	7	4	31
Percent EPT	Decrease	0	42	19	14	63	37
Percent Diptera	Increase	23	45	69	82	31	10

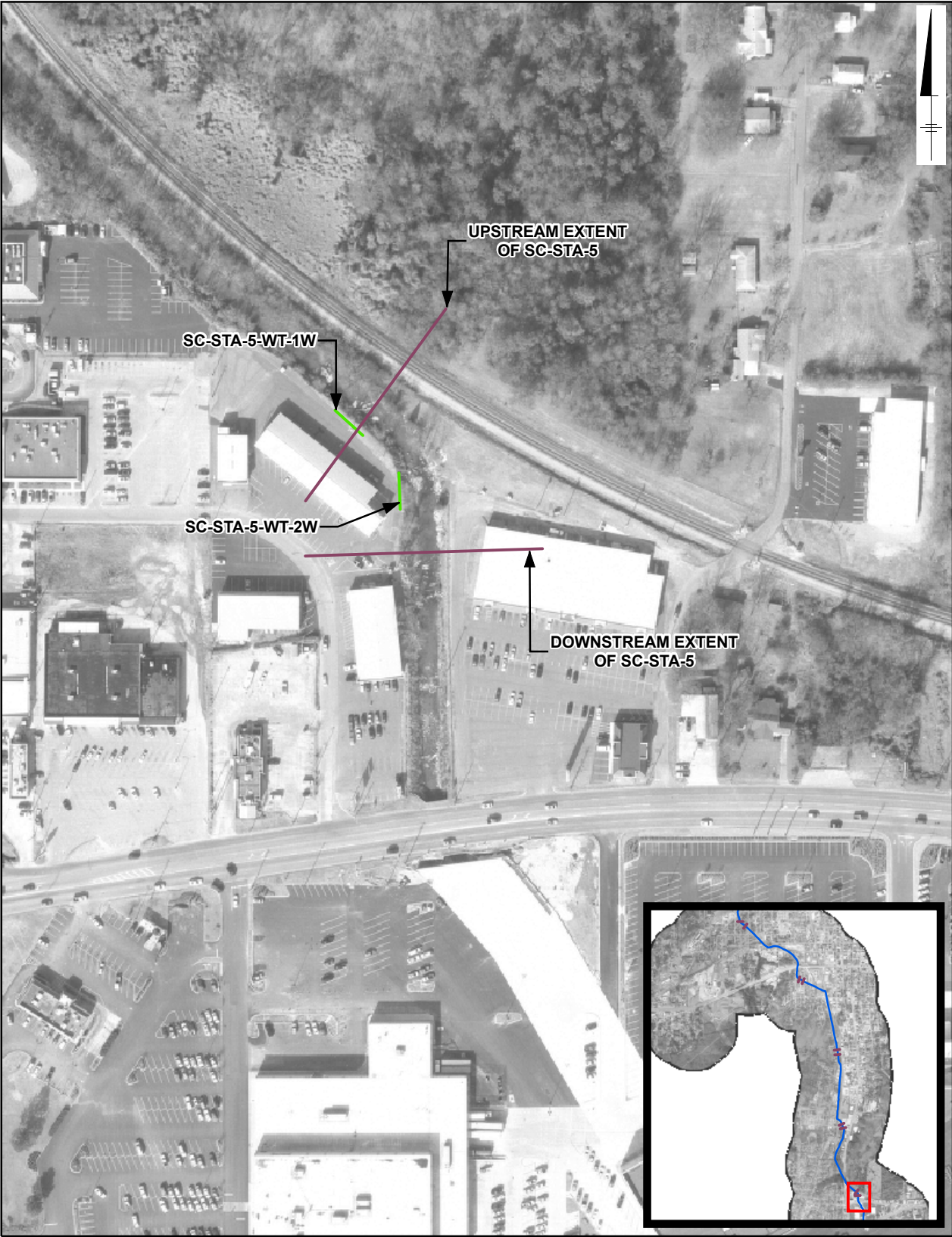
Note: Expected Response indicates the response to each metric in the presence of perturbation

NOTES:

- ALL BENTHOS AND FISH SAMPLING ACTIVITIES CONDUCTED WITHIN REACH BOUNDARIES.
- WILDLIFE TRANSECTS WERE CONDUCTED BY WALKING THE VEGETATED SLOPE PARALLEL TO SNOW CREEK DUE TO CLOSE PROXIMITY OF ASPHALT PARKING LOTS AND BUILDINGS TO THE EDGE OF THE CREEK.

LEGEND:

- WILDLIFE OBSERVATION TRANSECT
- SNOW CREEK SAMPLING STATION BOUNDAIRES

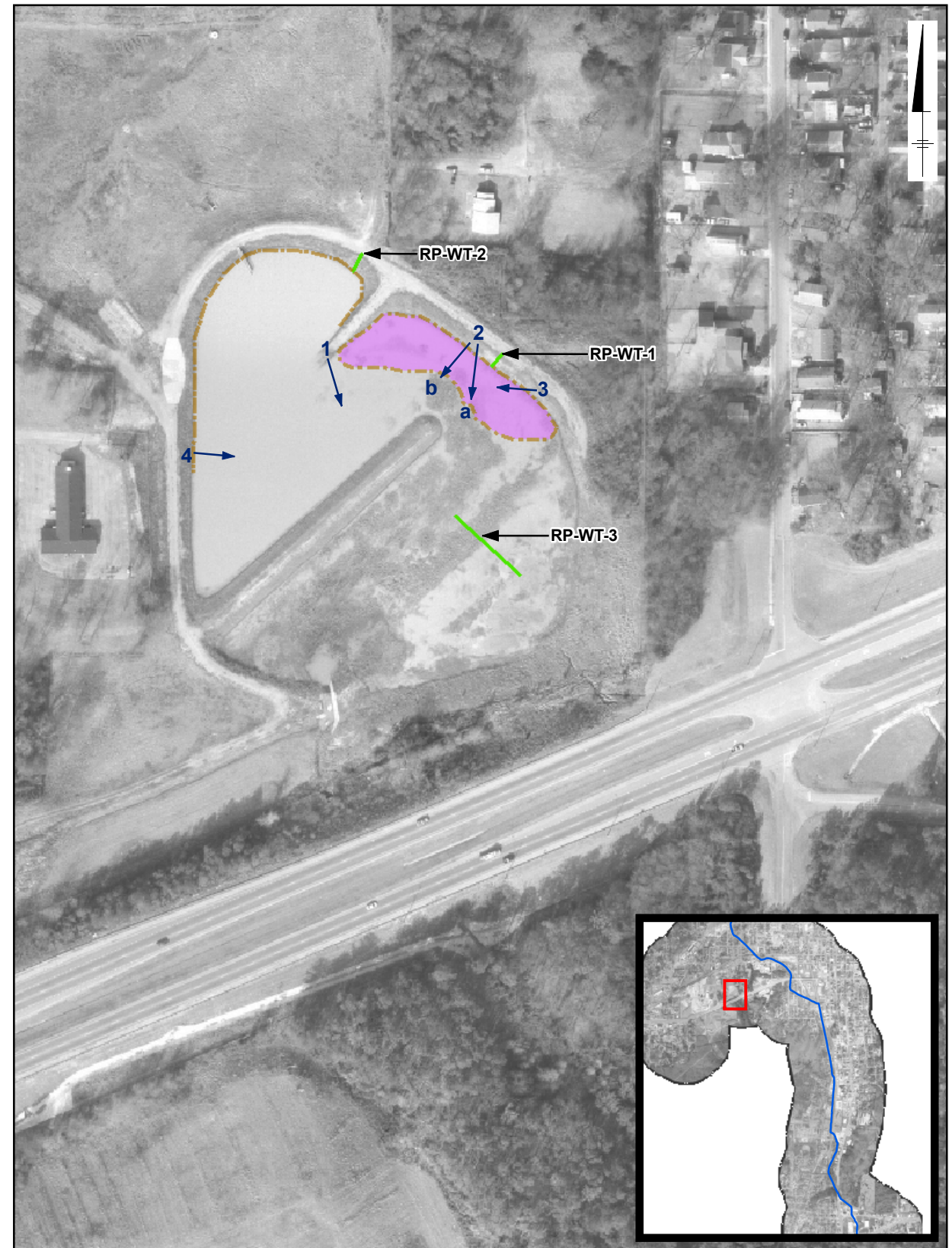


ANNISTON PCB SITE
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SCREENING LEVEL ECOLOGICAL RISK
ASSESSMENT FOR OPERABLE UNITS 1, 2, AND 3

BIOSURVEY RESULTS FOR STA-5



FIGURE
35



Station	Fish Survey	Benthic MacroInvertebrate Survey							Wildlife Observations	
	Total Shock Time (min)	Distribution of Kicks by Habitat Type (% of 20 kicks/jabs)*							Total Transect Length (ft)	Total Observation Time (min)
SC-STA-1	40	20		20	60				200	200
SC-STA-2	36	50			50				200	205
SC-STA-3	24	50			50				100	175
SC-STA-4	28	60			40				100	180
SC-STA-5*	39	31	11	8	34		8	8	100	250
RP-1	31			60		30		10	240	160

* - more kicks/jabs at this location
 SC-STA-5 "Other" was detritus/leaf litter
 RP-1 "Other" is emergent vegetation (Alligator weed)

LEGEND:
 WILDLIFE OBSERVATION TRANSECT
 FISH SAMPLING AREA
 BENTHIC AND FISH SAMPLING AREA
 PHOTO ID AND CAMERA DIRECTION



ANNISTON PCB SITE
 ANNISTON, ALABAMA
 SCREENING LEVEL ECOLOGICAL RISK
 ASSESSMENT FOR OPERABLE UNITS 1, 2, AND 3

**BIOSURVEY LOCATIONS FOR
STORMWATER RETENTION STRUCTURE**

FIGURE
36

Habitat Evaluation Summary						
Habitat Parameters - Low Gradient Streams Reaches		Condition Category & Score				
		Optimal (20 - 16) --- Suboptimal (15 - 11) --- Marginal (10 - 6) --- Poor (5 - 0)				
		SC-STA-1	SC-STA-2	SC-STA-3	SC-STA-4	SC-STA-5
Epifaunal Substrate/Available Cover		8	11	17	12	17
Pool Substrate Characterization		14	8	7	8	4
Pool Variability		3	4	8	11	15
Sediment Deposition		14	12	17	14	17
Channel Flow Status		17	17	17	17	18
Channel Alteration		14	17	18	18	9
Channel Sinuosity		5	6	3	4	6
Bank Stability	Right Bank (10 - 0)	9	9	7	10	10
	Left Bank (10 - 0)	9	9	10	10	10
Vegetative Protection	Right Bank (10 - 0)	9	9	7	10	9
	Left Bank (10 - 0)	8	8	10	9	7
Riparian Vegetative Zone Width	Right Bank (10 - 0)	6	6	1	5	2
	Left Bank (10 - 0)	6	5	2	2	1
TOTAL SCORE		122	121	124	130	125

Note: Habitat evaluation performed using the methods outlined in the USEPA's Rapid Bioassessment Protocols for Streams and Wadable Rivers

Fish Community Survey Summary						
Species Observed	Count by Location					Total Fish
	SC-STA-1	SC-STA-2	SC-STA-3	SC-STA-4	SC-STA-5	
Largescale Stoneroller (<i>Campostoma oligolepis</i>)	15	21	2	70	91	199
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Unknown Shiner #2 (<i>Notropis</i> spp.)		5	8	62	3	78
Unknown Shiner #1 (<i>Notropis</i> spp.)		12	3	23	4	42
Bluespotted Sunfish (<i>Enneacanthus gloriosus</i>)	2	18	1	5	1	27
Unknown Shiner #3 (<i>Notropis</i> spp.)			7			7
Bluegill (<i>Lepomis macrochirus</i>)				6		6
Unknown Shiner (<i>Cyprinella</i> sp.)				3	1	4
Creek Chub (<i>Semotilus atromaculatus</i>)			1			1
Suckermouth minnow (<i>Phenacobius mirabilis</i>)				1		1
Longear Sunfish (<i>Lepomis megalotis</i>)					1	1
Black Redhorse (<i>Moxostoma duquesnei</i>)					1	1
Yellow Bullhead (<i>Ameiurus natalis</i>)					1	1
Total Fish	127	58	22	177	103	487
Species Richness	3	5	6	8	8	13
Total Shock Time (seconds)	2,386	2,146	1,468	1,678	2,322	10,000
Catch per unit Effort	0.053	0.027	0.015	0.105	0.044	0.049

Note: 1,853 seconds of shocking in the stormwater containment structure yielded no fish

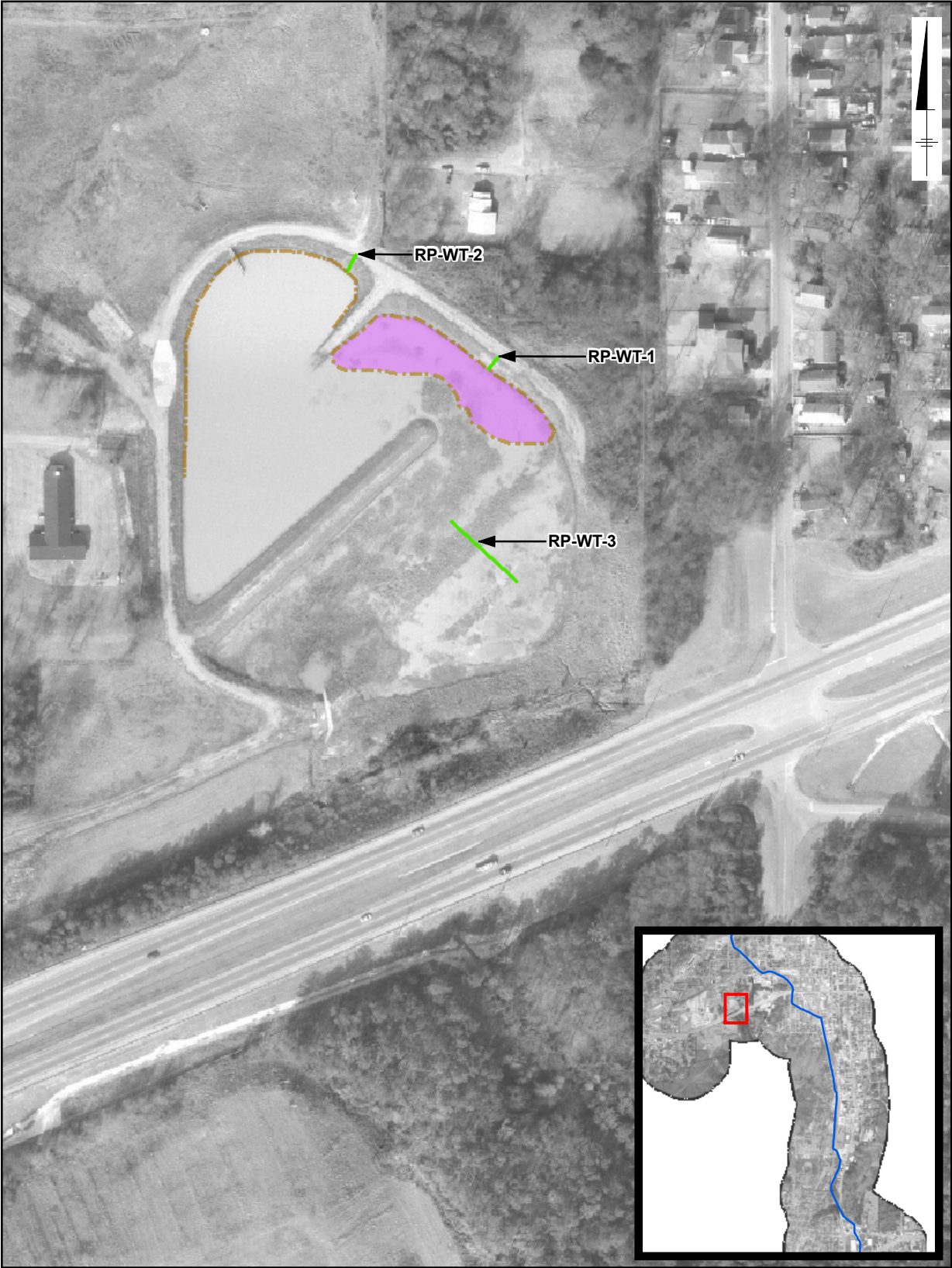
Benthic Macroinvertebrate Summary Metrics							
Metric	Expected Response	STA-1	STA-2	STA-3	STA-4	STA-5	RP-1
Total Number of Specimens	Decrease	97	106	16	28	16	331
Species Richness	Decrease	19	13	5	7	4	31
Percent EPT	Decrease	0	42	19	14	63	37
Percent Diptera	Increase	23	45	69	82	31	10

Note: Expected Response indicates the response to each metric in the presence of perturbation

- LEGEND:
- WILDLIFE OBSERVATION TRANSECT


FISH SAMPLING AREA

BENTHIC AND FISH SAMPLING AREA



ANNISTON PCB SITE
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SCREENING LEVEL ECOLOGICAL RISK
ASSESSMENT FOR OPERABLE UNITS 1, 2, AND 3

BIOSURVEY RESULTS FOR
STORMWATER RETENTION STRUCTURE



FIGURE

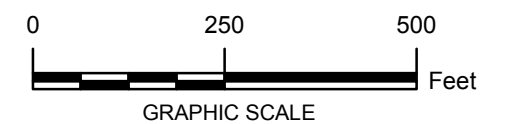
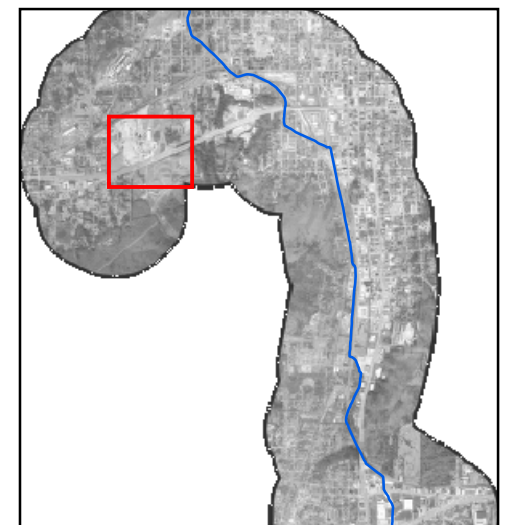
37





LEGEND:

- WILDLIFE OBSERVATION LOCATION - 1 MINUTE SWEEP
- ▲ WILDLIFE OBSERVATION LOCATION - SOIL CORE
- WILDLIFE OBSERVATION TRANSECT



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SCREENING LEVEL ECOLOGICAL RISK
ASSESSMENT FOR OPERABLE UNITS 1, 2, AND 3

**WILDLIFE TRANSECT AND
SAMPLE LOCATIONS: OU-3**

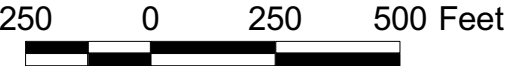
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FIGURE
38



Legend

- OU-3 Sample Locations
- OU-3



ANNISTON PCB SITE
ANNISTON, ALABAMA
SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT FOR
OPERABLE UNITS 1, 2, AND 3

**OU-3 SURFACE SOIL
SAMPLING LOCATIONS**

