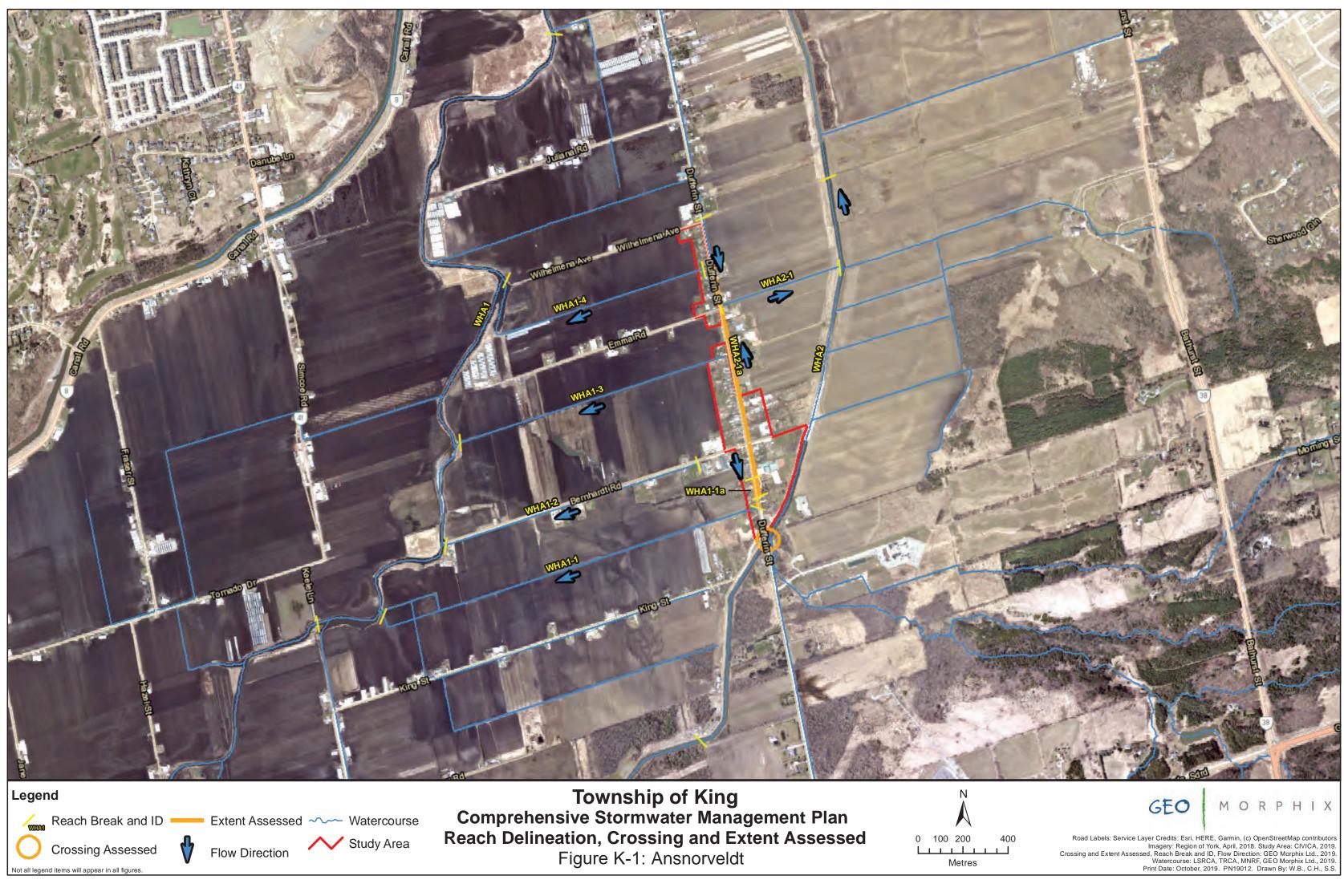
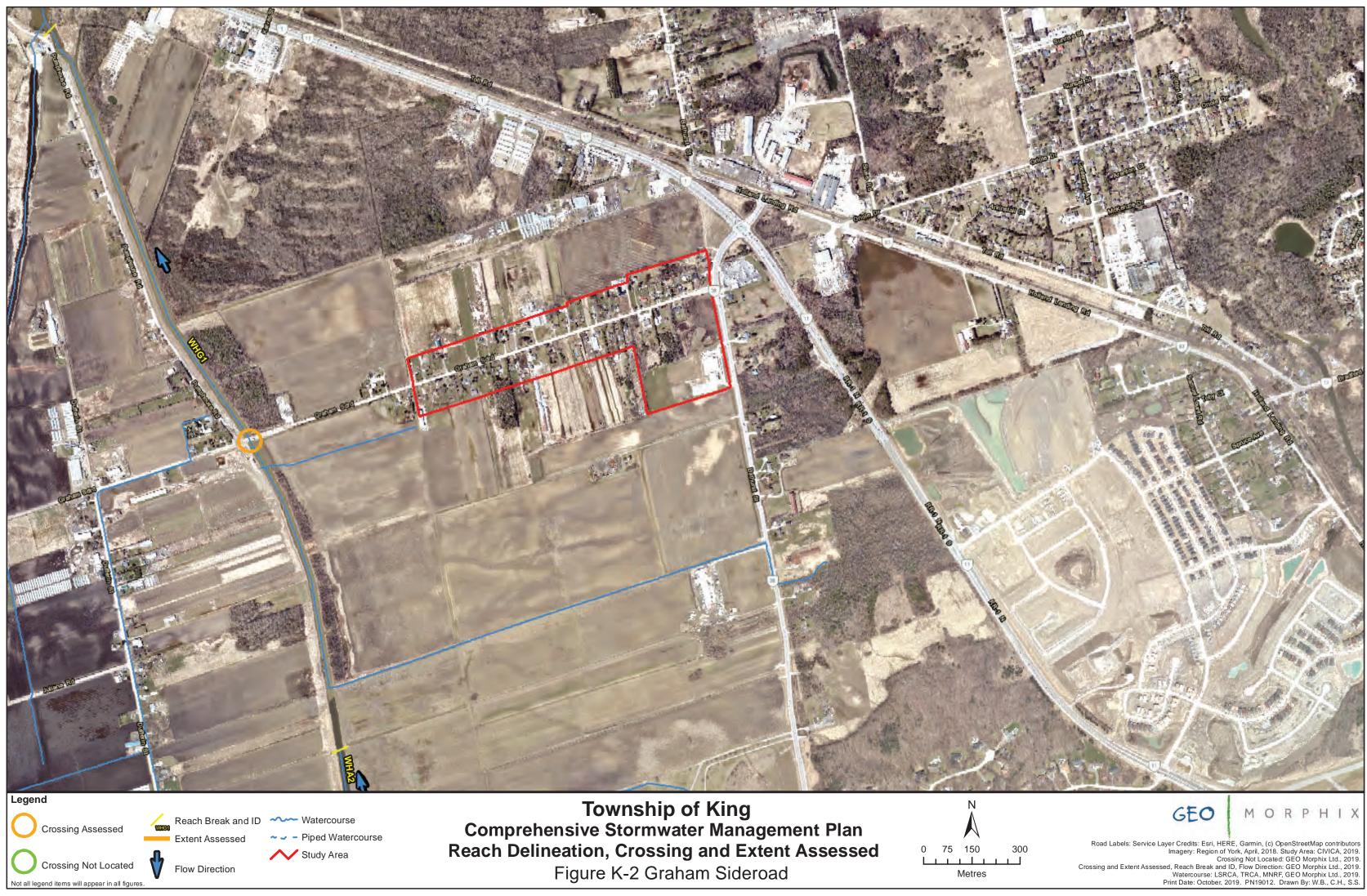
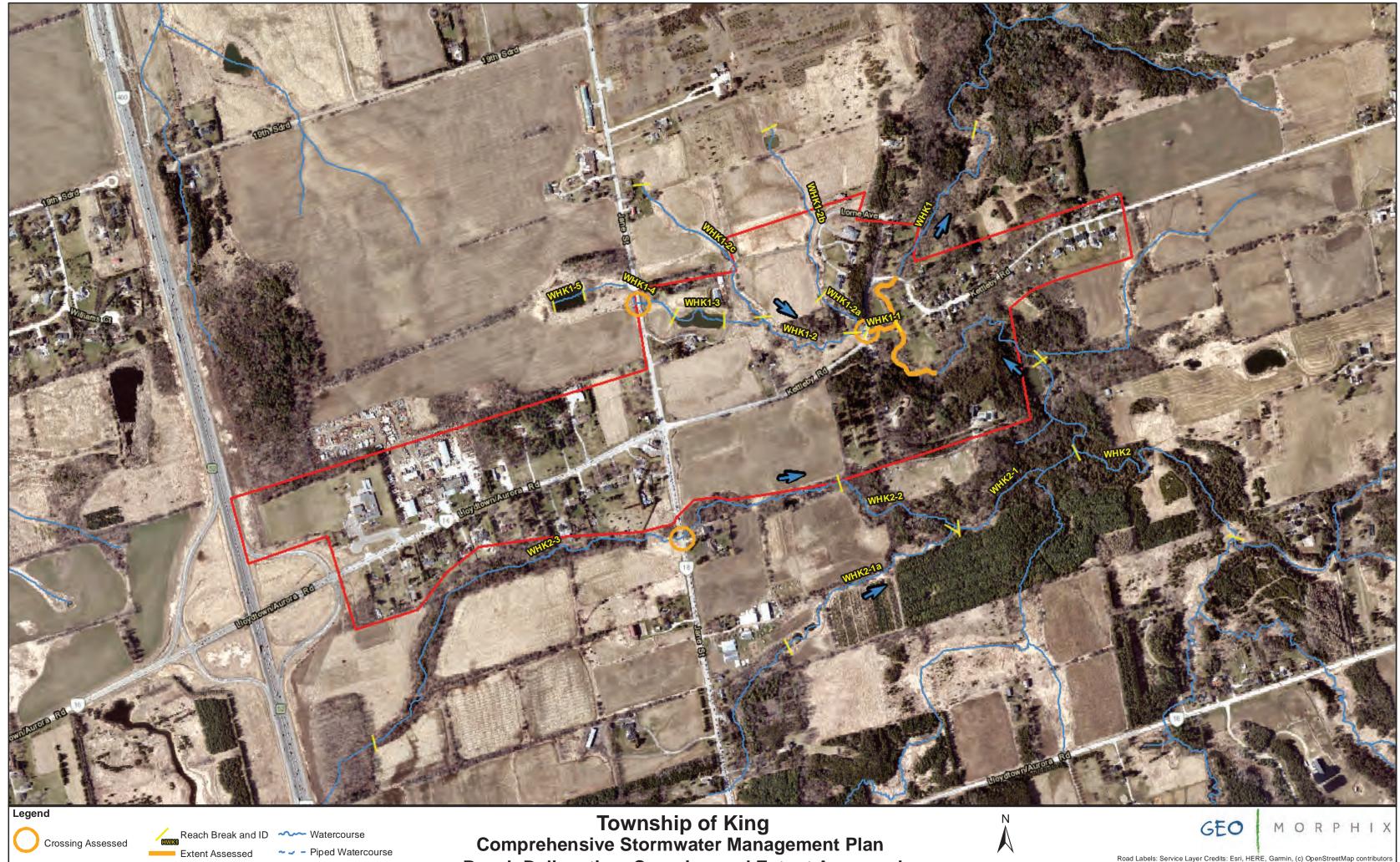
APPENDIX K

Reach Summaries









Crossing Not Located

Not all legend items will appear in all figures

Flow Direction

Study Area

Reach Delineation, Crossing and Extent Assessed Figure K-3: Kettleby

0 50 100 200 Metres

Road Labels: Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors Imagery: Region of York, April, 2018. Study Area: CIVICA, 2019. Crossing Not Located: GEO Morphix Ltd., 2019. Crossing and Extent Assessed, Reach Break and ID, Flow Direction: GEO Morphix Ltd., 2019. Watercourse: LSRCA, TRCA, MNRF, GEO Morphix Ltd., 2019. Print Date: October, 2019. PN19012. Drawn By: W.B., C.H., S.S.





Crossing Not Located

Not all legend items will appear in all figures.

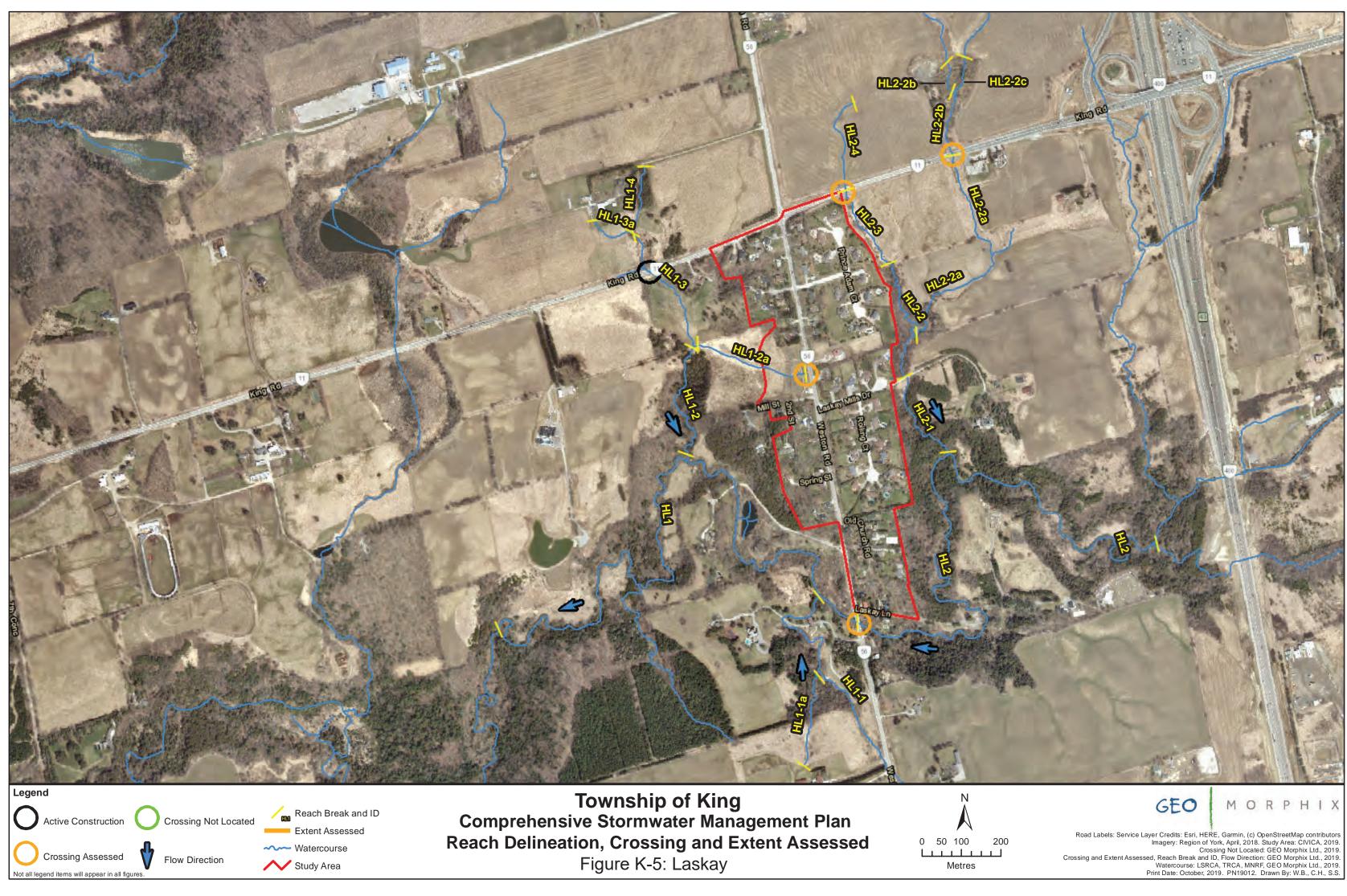
Flow Direction

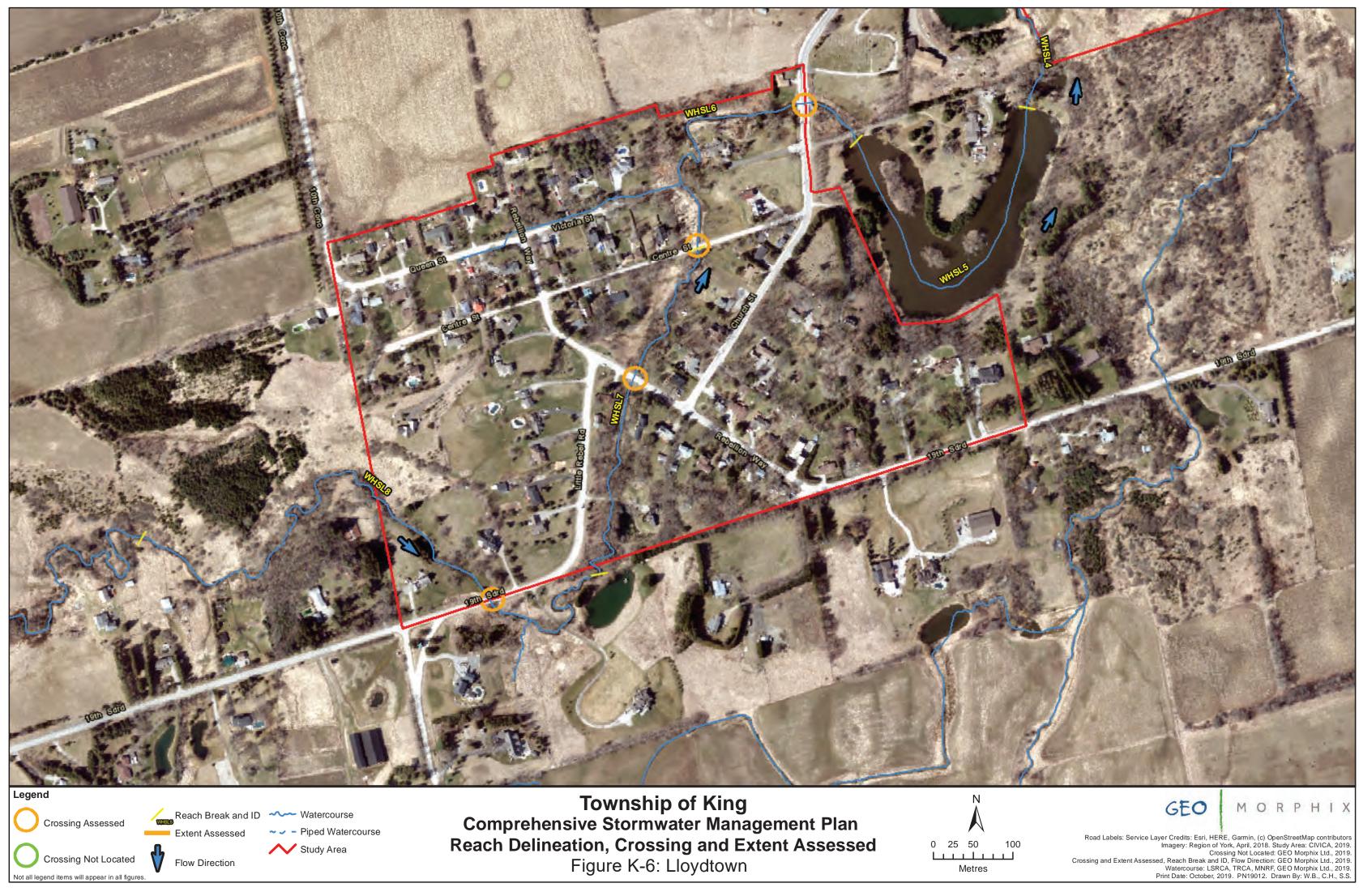
Study Area

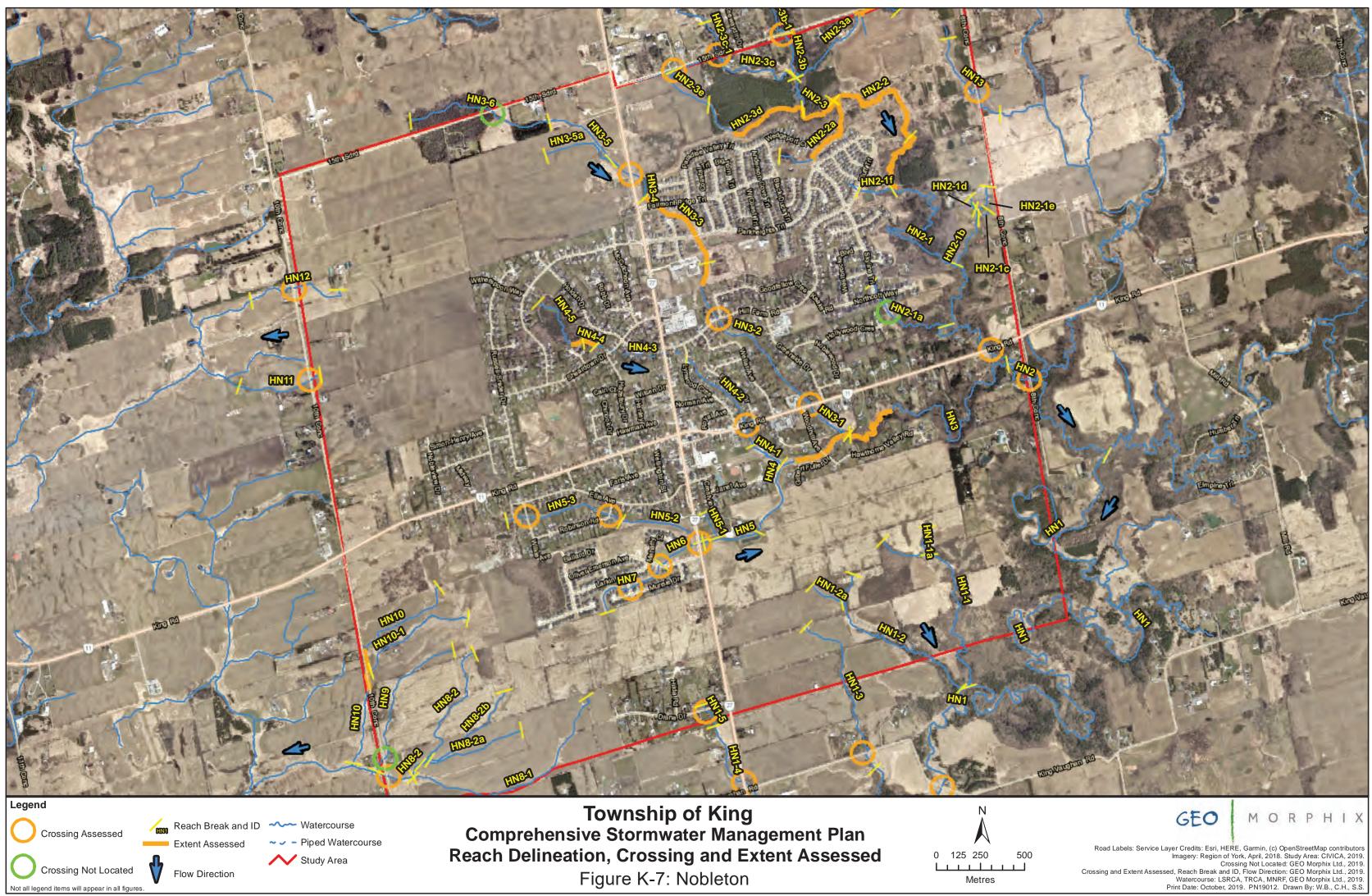
Township of King Comprehensive Stormwater Management Plan Reach Delineation, Crossing and Extent Assessed Figure K-4B: King City - South Half

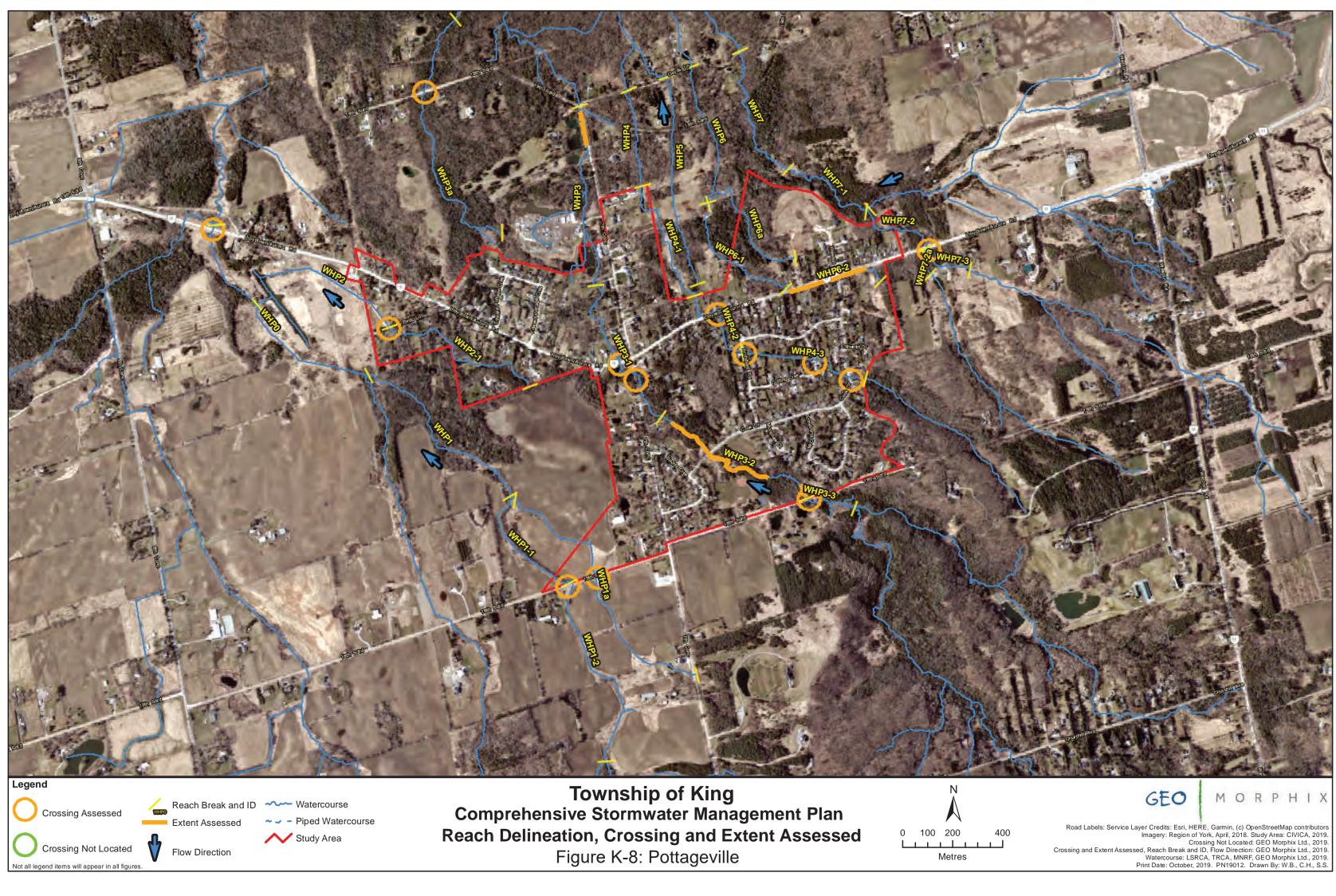
Metres

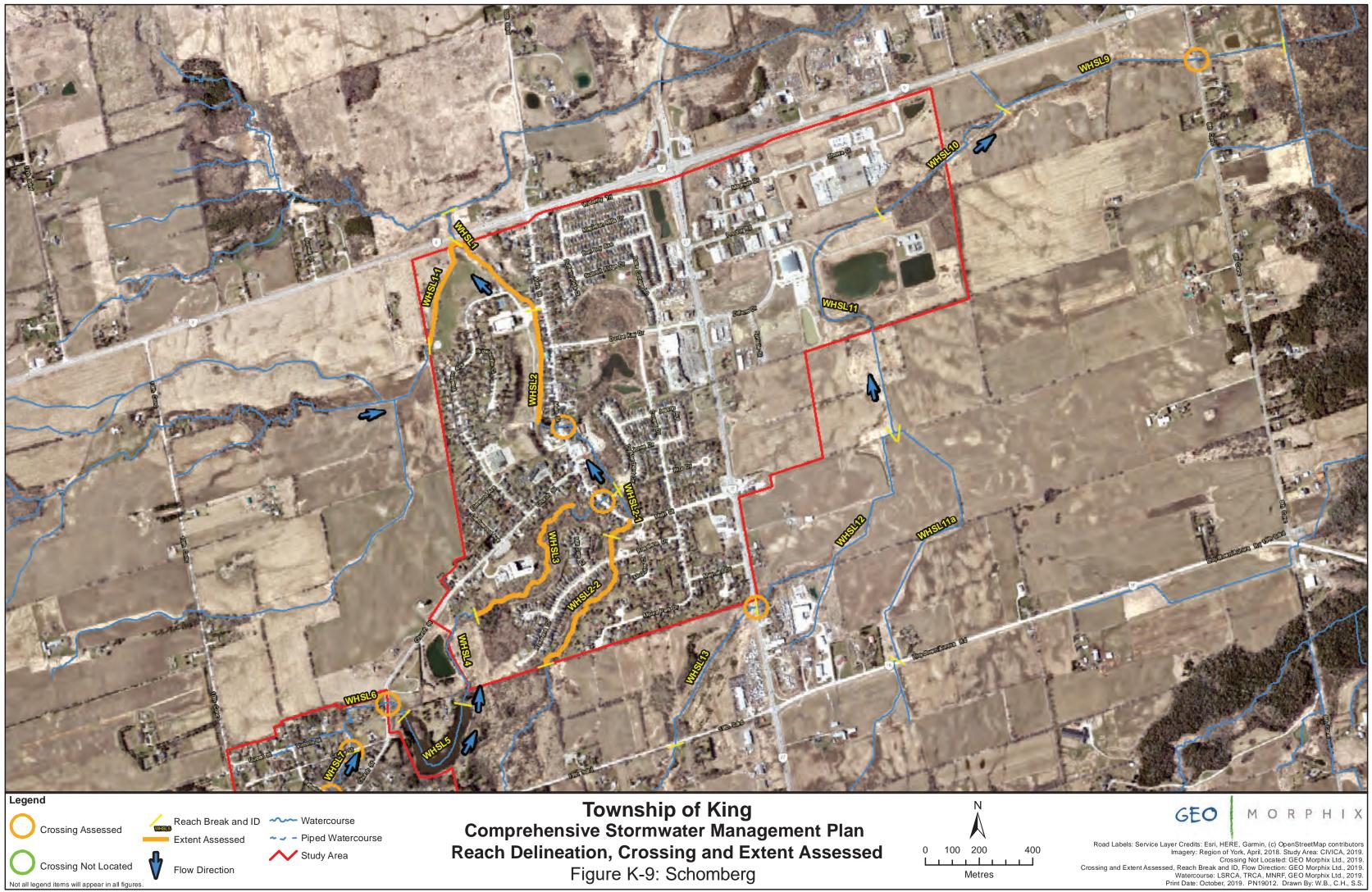
Road Labels: Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors Imagery: Region of York, April, 2018. Study Area: CIVICA, 2019. Crossing Not Located: GEO Morphix Ltd., 2019. Crossing and Extent Assessed, Reach Break and ID, Flow Direction: GEO Morphix Ltd., 2019. Watercourse: LSRCA, TRCA, MNRF, GEO Morphix Ltd., 2019. Print Date: October, 2019. PN19012. Drawn By: W.B., C.H., S.S.

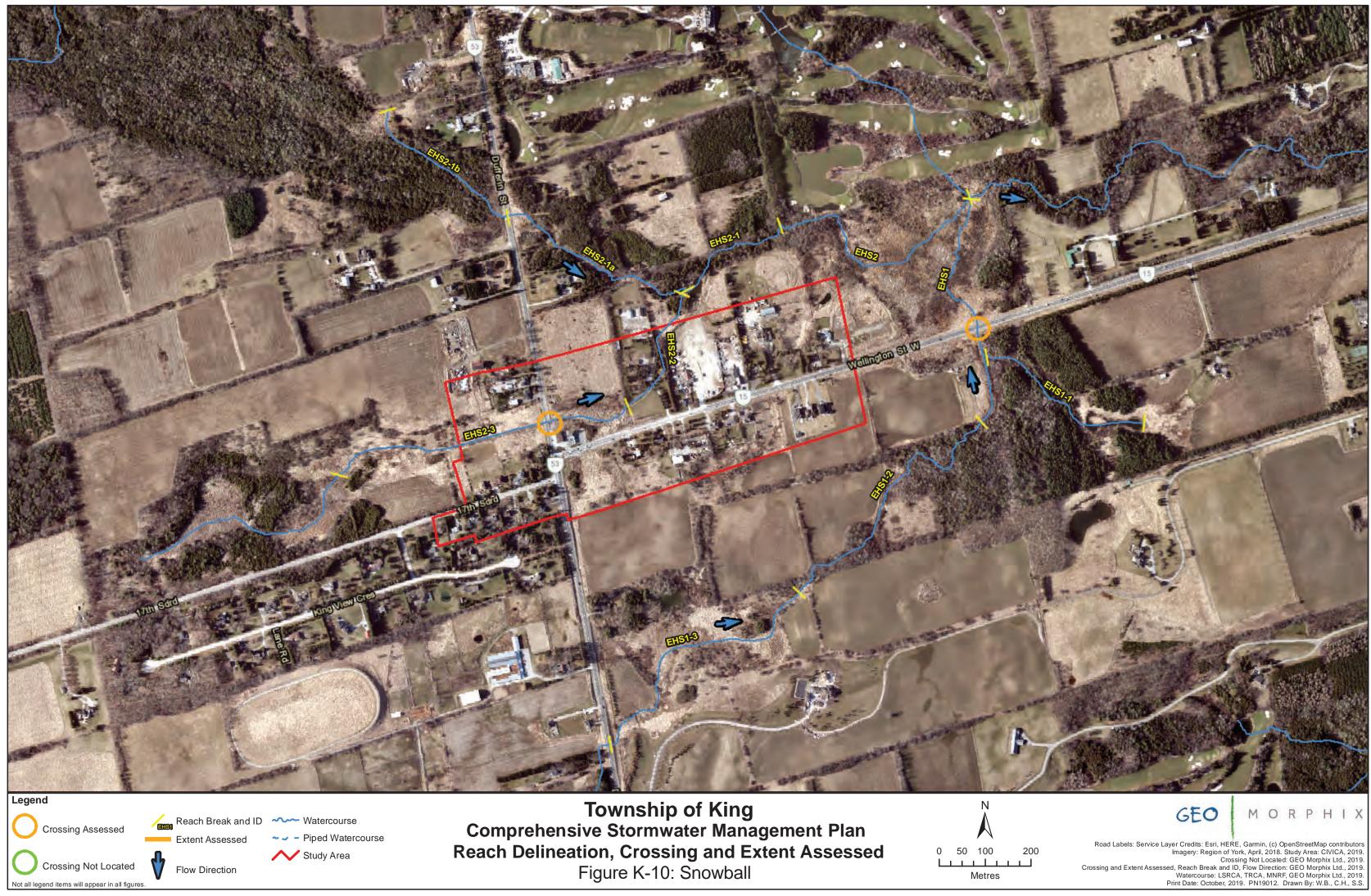




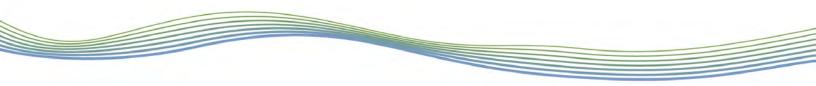












Reach WHA1-1 and Reach WHA1-1a

Location:	Watershed:	Type of Assessment:	
Dufferin Street, Ansnorveldt	West Holland River	Roadside/Partial	
Valley Type:	Land use:	Riparian Coverage:	
Unconfined	Agricultural and residential	Fragmented trees and	
		manicured lawns	
Bankfull Width (m):	Bankfull Depth (m):	Bed Substrate:	
0.75	0.40	Clay and silt	
RGA Score:	RGA Condition:	RGA Dominant Process:	
N/A	N/A	N/A	
RSAT Score:	RSAT Condition:	RSAT Limiting Feature:	
N/A	N/A	N/A	
Down's Channel Evolution:	Notes: Roadside assessment at Dufferin Street. Reach		
`S' – stable	WHA1-1 was a straightened ditch between active agricultural fields. Reach WHA1-1 was visible in aerials. Reach WHA1-		



Photograph facing downstream of Reach **WHA1-1**. The reach was a straightened ditch that flowed between two agricultural fields.



Reach **WHA1-1a** was a roadside ditch on the west side of Dufferin Street.

Reach WHA2

Location:	Watershed:	Type of Assessment:	
Dufferin Street, Ansnorveldt	West Holland River	Roadside	
Valley Type: Unconfined	Land use: Agricultural and residential	Riparian Coverage : Fragmented trees, shrubs, and manicured lawns	
Bankfull Width (m):	Bankfull Depth (m):	Bed Substrate:	
27.0	N/A: could not measure	N/A: could not see bed	
RGA Score: N/A	RGA Condition: N/A	RGA Dominant Process: N/A	
RSAT Score:	RSAT Condition:	RSAT Limiting Feature:	
N/A	N/A N/A		
Down's Channel Evolution : N/A	Notes : Roadside assessment at Dufferin Street. Reach WHA2 was part of the canal. The reach was too deep to enter to determine substrate or measure depth. No erosion concerns.		



Downstream of Dufferin St. Note the exposed roots along the bank of the manicured lawn.

Upstream extent of bridge. The bridge was built in 2014.



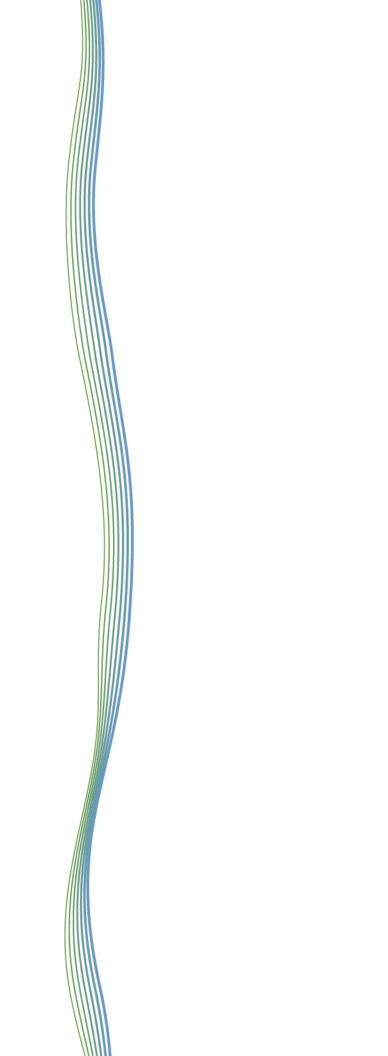
Reach WHA2-1 and Reach WHA2-1a

Location: Dufferin Street, Ansnorveldt	Watershed: West Holland River		Type of Assessment : Roadside/Partial
Valley Type: Unconfined	Land use: Agricultural and residential		Riparian Coverage : Fragmented trees and manicured lawns
Bankfull Width (m): 0.75	Bankfull Dept	h (m):	Bed Substrate: Clay and silt
RGA Score: N/A	RGA Condition N/A	1:	RGA Dominant Process : N/A
RSAT Score: N/A	RSAT Condition: N/A		RSAT Limiting Feature : N/A
Down's Channel Evolution : 'S' – stable	WHA2-1a cons		t Dufferin Street. Reach ide ditch. Reach WHA2-1 was eature.
Photograph facing downstre WHA2-1. The reach was a stra			1a was a roadside ditch on the side of Dufferin Street.
that flowed between two agrie			

Graham Sideroad

Reach WHG1

Location : Graham Sideroad, Graham Sideroad	Watershed: West Holland River		Type of Assessment: Roadside
Valley Type: Unconfined	Land use: Agricultural		Riparian Coverage : Fragmented grasses and trees
Bankfull Width (m): 28.4	Bankfull Depth (m N/A: could not meas		Bed Substrate : N/A: could not see bed
RGA Score: N/A	RGA Condition : N/A		RGA Dominant Process : N/A
RSAT Score: N/A	RSAT Condition : N/A		RSAT Limiting Feature : N/A
Down's Channel Evolution : 'S' – stable	Notes : Roadside assessment a WHG1 was part of the canal. T enter to determine substrate or concerns.		he reach was too deep to
	19 09.10 09:15		2019-09-10-09:13
Downstream of bridge crossing at Graham Sideroad.		Jpstream of	bridge crossing at Graham Sideroad.



Kettleby

Reach WHK1

Location: Kettleby Road, Kettleby	Watershed: West Holland R	iver	Type of Assessment : Partial Reach
Valley Type: Confined	Land use : Park		Riparian Coverage: Fragmented trees and manicured lawns
Bankfull Width (m) : 4.98	Bankfull Dept 0.65	h (m):	Bed Substrate : Silt, sand, gravel, cobble, boulder, and till
RGA Score : 0.31	RGA Condition In Transition/St		RGA Dominant Process : Evidence of Aggradation
RSAT Score: 28	RSAT Conditio	on:	RSAT Limiting Feature : Riparian Habitat Conditions
Down's Channel Evolution : 'M' – lateral migration	cribwall, thalwe	eg out of alignme	e bar, valley wall contacts, old ent, and gabion near road was cowards channel.
Valley wall contact where ve	Alley wall contact where vegetation has begun to re-grow along the banks.		orting the bank beside a road. on is leaning towards channel.
			2110.402 29 10:57
Medial bar located in the m channel. Note the vegetation of bar.			located within the channel bed te the siltation within the pool.

Reach WHK1-1

Location: Kettleby Road, Kettleby	Watershed: West Holland River		Type of Assessment: Full reach
Valley Type:	Land use:		Riparian Coverage:
Partially confined	Park		Continuous trees
Bankfull Width (m): 2.63	Bankfull Dept 0.35	h (m):	Bed Substrate: Sand, gravel, cobble, and boulder
RGA Score: 0.23	RGA Condition In Transition/S ⁴	tress	RGA Dominant Process: Evidence of Degradation
RSAT Score : 26.5	RSAT Condition	on:	RSAT Limiting Feature : Riparian Habitat Conditions
Down's Channel Evolution : 'E' – enlarging	contact, expose	ed till, leaning a	s, knickpoint, valley wall nd fallen trees. Reach became fluence with reach WHK1 .
29			2013 08 26 10:02
Photograph looking downstream. Bank angles and channel gradient was lower at the upstream extent.			looking downstream of the point within the reach.
			019 02-26-14-11/
Valley wall contact along the r downstream exter			ken facing downstream towards ence with reach WHK1 .

Reach WHK1-2

Location:	Watershed:		Type of Assessment:
Kettleby Road, Kettleby	West Holland River		Roadside
Valley Type:	Land use:		Riparian Coverage:
Unconfined	Residential, agricultural		Continuous grasses
Bankfull Width (m) :	Bankfull Dept	h (m):	Bed Substrate:
N/A	N/A		Cobble and gravel in riffle
RGA Score:	RGA Condition	1:	RGA Dominant Process :
N/A	N/A		N/A
RSAT Score:	RSAT Condition:		RSAT Limiting Feature :
N/A	N/A		N/A
Down's Channel Evolution : N/A	Notes: Roadside assessment a had a moderate gradient and fl meadow.		
			2019 08 26 09.83
Photograph taken facing upstream from Kettleby Road.		crossing. The	ken facing upstream within the CSP at the upstream end was ned to the box culvert.

Reach WHK1-4

Location:	Watershed:	Type of Assessment:
Jane Street, Kettleby	West Holland River	Roadside
Valley Type:	Land use:	Riparian Coverage:
Unconfined	Agricultural and residential	Fragmented trees and grasses
Bankfull Width (m):	Bankfull Depth (m):	Bed Substrate:
1.00	0.23	Silt and gravel
RGA Score:	RGA Condition :	RGA Dominant Process :
N/A	N/A	N/A
RSAT Score:	RSAT Condition :	RSAT Limiting Feature :
N/A	N/A	N/A
Down's Channel Evolution : 'S' – stable		ent at Jane Street. Manicured lawn agricultural field at upstream
The downstream extent of t	he crossing Upstream	of Jane Street. The channel was
The downstream extent of t flowed through a residential pu manicured lawn. The reach w downstream.	roperty with a less define	o of Jane Street. The channel was ed but wider than the downstream extent.

geomorphix.com The science of earth + balance.

Reach WHK2-3

Location: Jane Street, Kettleby	Watershed: West Holland River	Type of Assessment: Roadside	
Valley Type: Unconfined	Land use: Agricultural	Riparian Coverage : Continuous grasses and herbaceous vegetation	
Bankfull Width (m): 1.20	Bankfull Depth (m): 0.20	Bed Substrate: Silt and gravel	
RGA Score: N/A	RGA Condition : N/A	RGA Dominant Process : N/A	
RSAT Score: N/A	RSAT Condition : N/A	RSAT Limiting Feature : N/A	
Down's Channel Evolution : 'S' – stable		nt at Jane Street. Channel flows he road, the CSP was perched from	
Photograph facing downstream the background.	tograph facing downstream at the pond in The CSP		
		crossing.	
	vetland feature with no defined channel was observed upstream of the crossing.		



King City

Reach HK1

Location: Jane Street and King Road, King City	Watershed: Humber		Type of Assessment: Roadside
Valley Type: Confined	Land use: Forest		Riparian Coverage : Continuous trees and herbaceous vegetation
Bankfull Width (m) : N/A	Bankfull Depth N/A		Bed Substrate: Sand, gravel, cobble, and rip rap
RGA Score : N/A	RGA Condition N/A	:	RGA Dominant Process : N/A
RSAT Score: N/A	RSAT Condition	n:	RSAT Limiting Feature : N/A
Down's Channel Evolution : N/A	Could not access	s reach, made o	t Jane Street and King Road. observations from both m of bridge at Jane Street.
			013 08 22 04 124
Photograph facing upstream of Note beaver dam and a riffle se under the bridge	equence flowed	Street. There	facing downstream of Jane e was a pool upstream of the e with some siltation.
			2019 08 29 16 28
Upstream of King Road the channel flowed through a forest. The reach flowed from Jane Street to King Road.			of King Road. The reach was ted downstream of King Road.

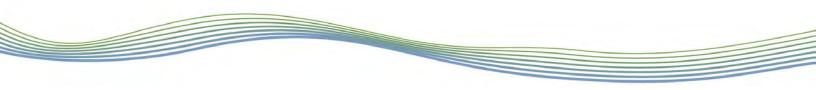
Reach HK1-1

Location:	Watershed:	Type of Assessment:
Jane Street, King City	Humber River	Roadside
Valley Type:	Land use:	Riparian Coverage :
Confined	Forest and Agricultural	Continuous trees
Bankfull Width (m):	Bankfull Depth (m):	Bed Substrate:
1.80	0.20	Sand, gravel, and cobble
RGA Score :	RGA Condition :	RGA Dominant Process:
N/A	N/A	N/A
RSAT Score :	RSAT Condition :	RSAT Limiting Feature :
N/A	N/A	N/A

Down's Channel Evolution: N/A

Notes: Roadside assessment upstream of Jane Street, unable to access downstream. Defined channel through confined and forested valley. Aerial show wetland features upstream.





Reach HK1-2a and Reach HK1-2b

Location: Jane Street, King City	Watershed: Humber River		Type of Assessment: Roadside
Valley Type: Unconfined	Land use: Forest and residential		Riparian Coverage : Fragmented trees, grasses, and herbaceous vegetation
Bankfull Width (m): 2.00	Bankfull Dept 0.15	h (m):	Bed Substrate: Clay and silt
RGA Score: N/A	RGA Condition N/A	n:	RGA Dominant Process : N/A
RSAT Score: N/A	RSAT Conditio N/A	on:	RSAT Limiting Feature : N/A
Down's Channel Evolution : 'S' – stable	Boulevard. Poo		t Jane Street and Westgate for both reaches. Channel
Reach HK1-2a downstream of Westgate Boulevard. There was poor bank definition.		Boulevard. T	L-2a upstream of Westgate The channel flowed through a ed lawn from Jane Street.
Reach HK1-2b upstream from Jane Street. Reach consisted of a swale flowing through an active agricultural field.			b upstream of Jane Street. The avily encroached with grasses.

Reach HK1-3

Location : Kingsworth Road and Kingscross Drive, King City	Watershed: West Holland	Type of Assessment: Roadside
Valley Type: Unconfined	Land use: Residential	Riparian Coverage: Fragmented trees and grasses
Bankfull Width (m): N/A	Bankfull Depth (m) : N/A	Bed Substrate: Clay and silt
RGA Score: N/A	RGA Condition : N/A	RGA Dominant Process : N/A
RSAT Score: N/A	RSAT Condition : N/A	RSAT Limiting Feature: N/A
Down's Channel Evolution : N/A	Notes : Roadside assessment from Kingsworth Road and Kingcross Drive. Channel was more defined and had more water downstream of crossing.	
		LUIU IN LUI 12 16
Reach HK1-2 downstream of Drive. The reach was not acces from the road.		of Kingscross Drive. Feature nsisted of a wetland.
Downstream of Kingsworth Driv	ve the channel CSP upstream	m of Kingsworth Drive. There
had water but was still poo	rly defined. was no defi	ined channel and was heavily roached with grasses.

Reach HK1-3a

Location:	Watershed :	Type of Assessment:
Jane Street, King City	Humber River	Roadside
Valley Type:	Land use:	Riparian Coverage :
Unconfined	Agricultural and residential	Continuous trees and grasses
Bankfull Width (m):	Bankfull Depth (m):	Bed Substrate:
N/A	N/A	Clay and silt
RGA Score:	RGA Condition :	RGA Dominant Process:
N/A	N/A	N/A
RSAT Score:	RSAT Condition :	RSAT Limiting Feature :
N/A	N/A	N/A
Down's Channel Evolution : 'S' – stable	Notes : Roadside assessment at Jane Street. No defined feature through agricultural field upstream of Jane Street.	
Upstream of Jane Street, th defined feature within the acti field.		of Jane Street, the channel was re heavily vegetated.

Reach HN1-4

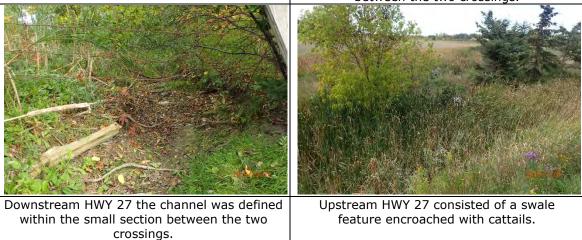
Location: King Vaughan Road and HWY 27, Nobleton	Watershed: Humber River	Type of Assessment: Roadside
Valley Type:	Land use:	Riparian Coverage :
Unconfined	Agricultural	Continuous grasses
Bankfull Width (m):	Bankfull Depth (m):	Bed Substrate:
1.7*	0.2*	Clay and silt
RGA Score :	RGA Condition:	RGA Dominant Process:
N/A	N/A	N/A
RSAT Score :	RSAT Condition :	RSAT Limiting Feature :
N/A	N/A	N/A
Down's Channel Evolution : 'S' - stable	Notes : Roadside assessment at King Vaughan Road and HWY 27. *A channel was defined between the two road crossings within the forested section.	

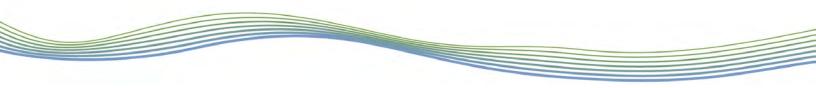


Downstream King Vaughan Road consisted of a swale feature encroached with cattails.



Upstream King Vaughan Road. Feature was forested for this small section of the reach between the two crossings.





Reach HK2-1 and Reach HK2-2

Location:	Watershed:	Type of Assessment:
King Road, King City	Humber River	Roadside
Valley Type: Unconfined	Land use: Agricultural and Commercial	Riparian Coverage: Fragmented trees and grasses
Bankfull Width (m) :	Bankfull Depth (m):	Bed Substrate:
N/A	N/A	Clay and organics
RGA Score:	RGA Condition :	RGA Dominant Process :
N/A	N/A	N/A
RSAT Score:	RSAT Condition :	RSAT Limiting Feature :
N/A	N/A	N/A
Down's Channel Evolution: Notes: Roadside assessment at King Road. Wetland feature present for both reaches with no defined channel apparent.		
Reach HK2-2 upstream of Wetland feature		2-1 downstream of King Road. Wetland feature.

Reach HK2-3

Location:	Watershed:	Type of Assessment:
Collard Drive, King City	Humber River	Roadside
Valley Type: Unconfined	Land use: Residential	Riparian Coverage : Fragmented trees, shrubs, grasses, and herbaceous vegetation
Bankfull Width (m):	Bankfull Depth (m):	Bed Substrate:
8.00 (feature width)	0.50 (feature depth)	Clay, silt, and organics
RGA Score:	RGA Condition :	RGA Dominant Process:
N/A	N/A	N/A
RSAT Score:	RSAT Condition :	RSAT Limiting Feature :
N/A	N/A	N/A
Down's Channel Evolution: 'S' – stable	Notes: Crossing assessment a of the crossing. Swale feature	at Collard Drive. Piped upstream was present downstream.
Downstream of Jane Street the through a poorly defined a encroached swale	nd heavily crossing and	as piped upstream of the road diverted under the road into a CPP.

Reach HK3

Location: Martin Street, King City	Watershed: Humber River		Type of Assessment: Partial reach
Valley Type:	Land use:		Riparian Coverage:
Unconfined	Park and forest		Continuous trees and grasses
Bankfull Width (m): 4.50	Bankfull Depth (m): 1.17		Bed Substrate : Clay, silt, sand, gravel, and exposed till
RGA Score : 0.36	RGA Condition In Transition/ S	Stress	RGA Dominant Process: Evidence of Degradation & Widening
RSAT Score : 26.5	RSAT Condition Good	on:	RSAT Limiting Feature : Physical Instream Habitat
Down's Channel Evolution : 'E' – enlarging	Notes : Reach assessed at upstream extent. Observations include elevated storm sewer outlet, fall and leaning trees, and the thalweg was out of alignment.		utlet, fall and leaning trees,
Photograph facing upstream of narrowing the width of th		Expos	sed till in the channel.
Bank erosion occurring on th through a meander h		Elevated storn	n water outlet with small scour pool.

Reach HK3-1

Location:	Watershed:	Type of Assessment:	
Martin Street, King City	Humber River	Partial reach	
Valley Type: Partially confined	Land use: Residential	Riparian Coverage : Fragmented trees and grasses (manicured lawns)	
Bankfull Width (m):	Bankfull Depth (m):	Bed Substrate:	
2.03	0.67	Sand and gravel	
RGA Score:	RGA Condition:	RGA Dominant Process:	
N/A	N/A	N/A	
RSAT Score :	RSAT Condition:	RSAT Limiting Feature :	
N/A	N/A	N/A	
Down's Channel Evolution N/A		Notes : Roadside assessment at Martin Street and King Road. Exposed roots upstream and downstream of Martin Street.	



Photograph looking downstream from Martin Street. Bank erosion observed downstream.



Culvert under Martin Street. There were no bridge footings exposed.



Reach HK3-2

Location: King Road and Station Street, King City	Watershed: Humber River	Type of Assessment: Partial reach
Valley Type:	Land use:	Riparian Coverage:
Unconfined	Forest and residential	Continuous grasses and trees
Bankfull Width (m):	Bankfull Depth (m):	Bed Substrate :
1.28*	0.50*	Clay, silt, sand, and gravel
RGA Score:	RGA Condition :	RGA Dominant Process :
N/A	N/A	N/A
RSAT Score:	RSAT Condition :	RSAT Limiting Feature :
N/A	N/A	N/A
Down's Channel Evolution : 'S' – stable	Notes : Road assessment at King Road, a trail crossing, and Station Street. *Feature only defined for 10 m just upstream of King Road. The reach mainly consisted of a wetland feature.	



Road.was noted only at the downstream extent by
King Road.Image: Road in the trait of th

Reach HK3-2a

Location:	Watershed:	Type of Assessment:
King Road, King City	Humber River	Partial reach
Valley Type:	Land use:	Riparian Coverage:
Unconfined	Forest and residential	Continuous grasses and trees
Bankfull Width (m):	Bankfull Depth (m):	Bed Substrate:
N/A	N/A	N/A
RGA Score:	RGA Condition:	RGA Dominant Process:
N/A	N/A	N/A
RSAT Score:	RSAT Condition:	RSAT Limiting Feature:
N/A	N/A	N/A
Down's Channel Evolution:	Notes: Feature assessed at in	n and around adjacent trail and
N/A	trail crossing. Wetland feature with no defined channel.	
CSP at trail crossing. There w		and feature from trail crossing.
flow path and the channel was	ary at time of	
assessment.		

Reach HK3-2b

Location :	Watershed:		Type of Assessment:
Keele Street, King City	Humber River		Full reach
Valley Type:	Land use:		Riparian Coverage:
Unconfined	Residential		Continuous grasses
Bankfull Width (m) :	Bankfull Depth	(m):	Bed Substrate:
N/A	N/A		N/A
RGA Score:	RGA Condition :		RGA Dominant Process:
N/A	N/A		N/A
RSAT Score:	RSAT Condition:		RSAT Limiting Feature :
N/A	N/A		N/A
Down's Channel Evolution : N/A	Notes: Wide wet upstream extent		with no defined channel. Dry at ng.
Hactropy of Koole Stread the C	SP was almost	View of the set	A sector trail by stormuster
Upstream of Keele Street the C completely submerged. The re cattails.			each from trail by stormwater nanagement pond.

Reach HK3-3

Location : King Vaughan Road, King City	Watershed: Humber River	Type of Assessment: Roadside
Valley Type:	Land use:	Riparian Coverage:
Unconfined	Forest and residential	Continuous grasses and trees
Bankfull Width (m) :	Bankfull Depth (m) :	Bed Substrate:
N/A	N/A	Clay and silt
RGA Score:	RGA Condition:	RGA Dominant Process:
N/A	N/A	N/A
RSAT Score:	RSAT Condition :	RSAT Limiting Feature :
N/A	N/A	N/A
Down's Channel Evolution : 'S' – stable	Notes : Road assessment at King Vaughan Road. The reach consisted of a wetland feature.	



Upstream of King Vaughan Road. The reach consisted of a wetland feature with no defined channel both upstream and downstream of the road crossing.



Photograph of the CSP at the downstream side of King Vaughan Road.

Reach HK3-4

Location: Martin Street, King City	Watershed: Humber River		Type of Assessment : Partial reach
Valley Type:	Land use:		Riparian Coverage:
Unconfined	Park and reside		Continuous grasses
Bankfull Width (m): 1.90*	Bankfull Dept 0.28*	:h (m):	Bed Substrate: Clay and silt
RGA Score: N/A	RGA Conditio N/A	n:	RGA Dominant Process : N/A
RSAT Score: N/A	RSAT Conditio N/A	on:	RSAT Limiting Feature : N/A
Down's Channel Evolution : 'S' – stable		a wetland featur tent just before	re and *only defined at confluence.
Confluence of reach with HK4 . had a saturated bed at the do was dry.		more defined.	eam extent of the reach was There were scattered trees at downstream extent.
			2019 88 1011211
Further upstream from the correach became undef			ossing mid-reach. The channel I upstream and downstream of the trail.

Reach HK3-5

Location:	Watershed:		Type of Assessment:
Kingscross Drive, King City	Humber River		Roadside
Valley Type:	Land use:		Riparian Coverage :
Unconfined	Residential		Continuous trees
Bankfull Width (m) : N/A	Bankfull Dept	:h (m):	Bed Substrate: Sand, gravel, and cobble
RGA Score:	RGA Condition	n:	RGA Dominant Process :
N/A	N/A		N/A
RSAT Score:	RSAT Conditio	on:	RSAT Limiting Feature :
N/A	N/A		N/A
Down's Channel Evolution : N/A		to a pond on a p	t Kingscross Drive. Reach private property upstream of
Downstream of road crossing. flowing water at time of as			<image/> <caption></caption>
Photograph taken facing up Kingscross Drive. The reach flo forest.			ingscross Drove. Small defined with minor bank erosion.

Reach HK4

Location: Norman Drive and Keele Street, King City	Watershed: Humber River		Type of Assessment: Full reach
Valley Type: Partially confined	Land use: Park and residential		Riparian Coverage : Fragmented trees and grasses
Bankfull Width (m): 4.55	Bankfull Depth 0.79		Bed Substrate : Clay, silt, sand, gravel, cobble, boulder, and till
RGA Score : 0.20	RGA Condition In regime	1:	RGA Dominant Process : Evidence and Widening
RSAT Score: 27	RSAT Conditio Good	n:	RSAT Limiting Feature : Riparian Habitat Conditions
Down's Channel Evolution : 'M' – lateral migration	fences, chutes,	leaning fence, o	xposed roots, leaning trees and old gabion basket intact, and erns at this reach.
	19, 2, 10, 10, 36		
Photograph facing upstrear Note the siltation in th		Tra	il adjacent to reach.
Photograph taken facing eros left bank and leaning fence at residential proper	the back of a		aken facing upstream towards ele Street crossing.

Reach KH4-1

Location:	Watershed:	Type of Assessment:
Denison Street and East Humber Drive, King City	Humber River	Partial reach
Valley Type: Partially confined	Land use : Residential	Riparian Coverage: Fragmented trees
Bankfull Width (m): 2.60	Bankfull Depth (m): 0.45	Bed Substrate: Clay, silt, sand, gravel, cobble, and exposed till
RGA Score : 0.20	RGA Condition: In Regime	RGA Dominant Process: Evidence of Widening
RSAT Score : 27	RSAT Condition: Good	RSAT Limiting Feature : Channel stability
Down's Channel Evolution : 'S' – stable	Notes : Reach becomes more Observations include valley wa and fallen and leaning trees.	
Confluence of reach HK4-1 a	verd into HK4	hinto trail. Someone has placed
Confluence of reach HK4-1 a		g into trail. Someone has placed debris for bank protection.
Photograph taken facing dow downstream of Dennison St followed closely to the back homes. Note poor-riffle de	reet. Reach three box of residential Manicured	f Dennison Street. There were culverts at Dennison Street. lawns to the top of bank were l upstream of the crossing.

Reach HK4-2

Location:	Watershed:	Type of Assessment:
Sim Hill Crescent, King City	Humber River	Partial reach
Valley Type:	Land use:	Riparian Coverage :
Unconfined	Residential	Continuous trees and grasses
Bankfull Width (m):	Bankfull Depth (m):	Bed Substrate:
2.60	0.30	Clay and organics
RGA Score:	RGA Condition:	RGA Dominant Process:
0.0	In Regime	N/A
RSAT Score:	RSAT Condition :	RSAT Limiting Feature :
N/A	N/A	N/A
Down's Channel Evolution : 'S' – stable		h poor channel and bank definition. near willow trees, most of reach
Wetland feature at the downs near rail crossing with no def Photograph taken along the t	ined channel. more de	efined near willow trees. Note the debris and rooted knickpoint in channel.
The reach lost definition again willow trees.	definitio	m of King Road, the reach had no n and was a wetland. Channel was ch few pockets of standing water.

Reach HK4-2a

Location: Spring Hill Drive and Dufferin Street, King City	Watershed: Humber River		Type of Assessment: Partial reach
Valley Type: Unconfined	Land use: Residential		Riparian Coverage : Continuous trees and grasses
Bankfull Width (m) : N/A	Bankfull Dept N/A	:h (m):	Bed Substrate: Clay
RGA Score : N/A	RGA Conditio N/A	n:	RGA Dominant Process : N/A
RSAT Score: N/A	RSAT Condition N/A	on:	RSAT Limiting Feature : N/A
Down's Channel Evolution : 'S' – stable	Notes: Wetlan	d feature with n	o defined channel.
Downstream extent of the reconfluence. The reach consister		remained ur	of Spring Hill Drive. The reach ndefined. Riparian vegetation
feature.	undor Dufforin		ed of trees and grasses.
Street. The culvert had no wa time of assessment. One culv bottom and the other was clo	iter flowing at vert was open	flow path ap path had grass	proximately 0.30 m wide. The ses growing on the bed and was the time of assessment.

Reach HK4-3

Location: Lavender Valley Road, King City	Watershed: Humber River	Type of Assessment: Roadside
Valley Type:	Land use:	Riparian Coverage:
Unconfined	Residential	Continuous trees and grasses
Bankfull Width (m) :	Bankfull Depth (m):	Bed Substrate:
N/A	N/A	N/A
RGA Score:	RGA Condition:	RGA Dominant Process:
N/A	N/A	N/A
RSAT Score:	RSAT Condition:	RSAT Limiting Feature :
N/A	N/A	N/A
Down's Channel Evolution :	Notes : Roadside assessment at Lavender Valley Road.	
N/A	Wetland feature upstream and downstream of crossing.	



Downstream of Lavender Valley Road. The reach was a wetland feature with no defined channel.



Upstream of Lavender Valley Road.

Reach HK5

Location:	Watershed:	Type of Assessment:
Keele Street, King City	Humber River	Partial reach
Valley Type:	Land use:	Riparian Coverage:
Partially confined	Residential	Continuous tees and grasses
Bankfull Width (m): 4.80	Bankfull Depth (m): 0.85	Bed Substrate: Sand, gravel, cobble, and rip rap
RGA Score :	RGA Condition :	RGA Dominant Process:
N/A	N/A	N/A
RSAT Score:	RSAT Condition:	RSAT Limiting Feature :
N/A	N/A	N/A
Down's Channel Evolution : N/A	Notes : Reach only assessed near downstream reach break near Keele Street. Rip rap was noted in riffle.	



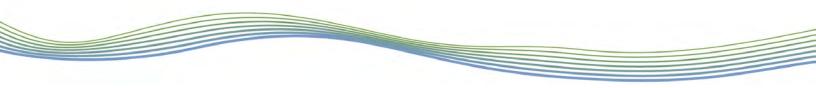
Photograph taken facing downstream. Leaning tree and eroded break near downstream reach break.



Rip rap was noted in riffles and siltation was noted in pools.

Reach HK5-2

Location: Keele Street, King City	Watershed: Humber River		Type of Assessment: Roadside
Valley Type:	Land use:		Riparian Coverage:
Unconfined	Forest		Continuous grasses and trees
Bankfull Width (m) : N/A	Bankfull Dept N/A	h (m):	Bed Substrate: Clay and silt
RGA Score: N/A	RGA Condition: N/A		RGA Dominant Process : N/A
RSAT Score: N/A	RSAT Condition: N/A		RSAT Limiting Feature : N/A
Down's Channel Evolution : 'S' – stable	Notes : Roadside assessment at Keele Street. The reac no defined channel.		t Keele Street. The reach had
			definition and high vegetation
Downstream of Keele Street. There was not water flowing through the pipe.			lefinition and high vegetation t downstream of Keele Street.



Reach HK5-2b and Reach HK5-2c

Location : 15 th Sideroad, King City	Watershed: Humber River		Type of Assessment: Roadside
Valley Type: Unconfined	Land use: Agricultural		Riparian Coverage : Continuous trees
Bankfull Width (m): 2.5*	Bankfull Depth 0.2*	(m) :	Bed Substrate : Clay and silt
RGA Score: N/A	RGA Condition N/A	:	RGA Dominant Process : N/A
RSAT Score: N/A	RSAT Condition N/A	n:	RSAT Limiting Feature : N/A
Down's Channel Evolution : 'S' - stable	2b downstream	of 15 th sideroad	: 15 th Sideroad. Reach HK5 - consisted of a defined ted of a roadside ditch.
Reach HK5-2b downstream of defined channel was prese			5-2b downstream of 15 th eature was dry at the time of
woodlot.			assessment.
Reach HK5-2c upstream of 1: flowpaths were observed from property.	5 th Sideroad. No m the northern		-2c upstream 15 th Sideroad ed of a roadside ditch.

Reach HK5-3

Location : Keele Street and 15 th Sideroad, King City	Watershed: Humber River	Type of Assessment: Roadside
Valley Type: Unconfined	Land use: Forest	Riparian Coverage : Continuous grasses and trees
Bankfull Width (m): N/A	Bankfull Depth (m): N/A	Bed Substrate: Clay and silt
RGA Score: N/A	RGA Condition : N/A	RGA Dominant Process: N/A
RSAT Score: N/A	RSAT Condition : N/A	RSAT Limiting Feature : N/A
Down's Channel Evolution : 'S' – stable	Notes : Roadside assessmen Sideroad. Feature consisted ponds were observed on aer	of a poorly defined swale. A few
Photograph upstream of Keel large pond on residential p		n downstream of 15 th Sideroad.
Photograph downstream of 15t poorly defined swale feature w water was noted.	vith standing	

Reach HK5-4

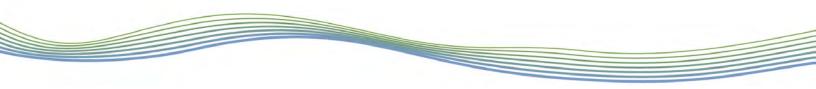
Location:	Watershed :	Type of Assessment:
15 th Sideroad, King City	Humber River	Roadside
Valley Type:	Land use:	Riparian Coverage:
Unconfined	Residential and Institutional	Continuous grasses
Bankfull Width (m) :	Bankfull Depth (m):	Bed Substrate:
N/A	N/A	Clay and silt
RGA Score:	RGA Condition:	RGA Dominant Process :
N/A	N/A	N/A
RSAT Score:	RSAT Condition :	RSAT Limiting Feature :
N/A	N/A	N/A
Down's Channel Evolution : `S' - stable	Notes: Roadside assessment consisted of a straightened sy property.	t at 15 th Sideroad. The reach wale feature through a school
Photograph upstream of 15	th Sideroad.	ater was present within the poorly

Straight swale feature was observed.

defined swale.

Reach HK5-3a

Location:	Watershed:	Type of Assessment:
Lockhart Lane, King City	Humber River	Roadside
Valley Type:	Land use:	Riparian Coverage:
Unconfined	Residential	Continuous grasses and trees
Bankfull Width (m) :	Bankfull Depth (m):	Bed Substrate:
N/A	N/A	N/A
RGA Score:	RGA Condition :	RGA Dominant Process:
N/A	N/A	N/A
RSAT Score:	RSAT Condition :	RSAT Limiting Feature :
N/A	N/A	N/A
Down's Channel Evolution : 'S' – stable	Notes : Roadside assessment at Lockhart Lane. Reach consisted of a wetland feature. CPP completely submerged on both sides of crossing.	
Downstream of Lockhart Lane		ure unstream of Lockhart Lane
Downstream of Lockhart Lane submerged.	. The CPP was Wetland featu	ire upstream of Lockhart Lane.



Reach HK6-2a and Reach HK6-2b

Location:	Watershed:	Type of Assessment:
15 th Sideroad	Humber River	Roadside
Valley Type: Unconfined	Land use: Partially confined	Riparian Coverage : Continuous trees, grasses, and herbaceous vegetation
Bankfull Width (m) :	Bankfull Depth (m):	Bed Substrate:
N/A	N/A	N/A
RGA Score:	RGA Condition:	RGA Dominant Process:
N/A	N/A	N/A
RSAT Score :	RSAT Condition:	RSAT Limiting Feature :
N/A	N/A	N/A
Down's Channel Evolution : N/A	Notes : Roadside assessment at 15 th Sideroad. Reach HK6 - 2a was downstream of the crossing and reach HK6-2b was upstream. Wetland feature downstream and upstream of road	



crossing.

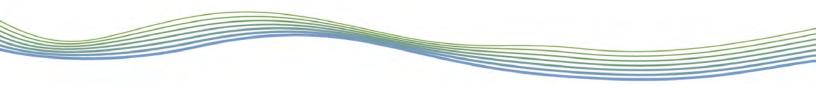
Reach **HK6-2a** was downstream of 15th Sideroad. The channel was undefined.

Downstream of 15th Sideroad, reach **HK6-2a** consisted of a wetland feature.



Reach **HK6-2b** was upstream of the 15th Sideroad. Iron staining was observed indicating the presence of groundwater. Reach **HK6-2b** was an undefined wetland

feature with lots of cattails.



Reach HK6-3 and Reach HK6-4

Location:	Watershed:	Type of Assessment:
15 th Sideroad, King City	Humber River	Roadside
Valley Type: Confined	Land use: Pasture and agricultur	and herbaceous vegetation
Bankfull Width (m) :	Bankfull Depth (m):	Bed Substrate :
N/A	N/A	N/A
RGA Score :	RGA Condition :	RGA Dominant Process:
N/A	N/A	N/A
RSAT Score:	RSAT Condition :	RSAT Limiting Feature :
N/A	N/A	N/A
Down's Channel Evolution : N/A	downstream of 15 th Si	5 th Sideroad. Reach HK6-3 was deroad and reach HK6-4 was lownstream of road – fence before CSP.
CSP downstream of reach HKC was defined immediately down CSP and there was a scour p	nstream of the which bool present. If the which have been been been been been been been be	Is further downstream of reach HK6-3 , the was only present in aerial images as there was no access past the road.
Reach HK6-4 was upstream of The reach was the downstrea Seneca. Note the beave	m end of Lake	pond upstream of 15 th Sideroad (reach HK6-4).

Reach HK7

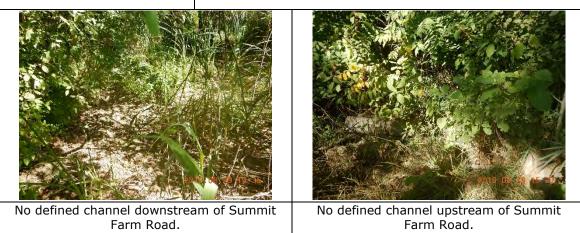
Location: Dufferin Street, King city	Watershed: Humber River		Type of Assessment: Roadside	
Valley Type: Unconfined at road crossing	Land use: Residential		Riparian Coverage : Fragmented trees, grasses, and herbaceous vegetation	
Bankfull Width (m): 4.60	Bankfull Dept 0.45	h (m):	Bed Substrate: Sand, gravel, cobble, and rip rap	
RGA Score: N/A	RGA Condition N/A	1:	RGA Dominant Process : N/A	
RSAT Score: N/A	RSAT Conditio N/A	on:	RSAT Limiting Feature : N/A	
Down's Channel Evolution : N/A		peared straight	t Dufferin Street. The reach at but aerial images show the	
View downstream of Dufferin Street. Rip rap was observed in riffle.		Photograph	taken facing downstream of Dufferin Street.	
and the	Dectropam of Dufforin Stroot Fallon troo and			
Upstream of Dufferin Street. F manicured lawn were of			eam of Dufferin Street. posed bridge footings.	

Reach HK8

Location:	Watershed:	Type of Assessment:
Jane Street, King City	Humber River	Roadside
Valley Type:	Land use:	Riparian Coverage:
Unconfined	Agricultural and residential	Continuous trees and grasses
Bankfull Width (m):	Bankfull Depth (m):	Bed Substrate:
N/A	N/A	N/A
RGA Score:	RGA Condition:	RGA Dominant Process:
N/A	N/A	N/A
RSAT Score:	RSAT Condition:	RSAT Limiting Feature :
N/A	N/A	N/A
Down's Channel Evolution : N/A	Notes : Roadside assessment dry and not well defined.	at Jane Street. The channel was
Downstream of Jane Street. Tl inside a CSP.		Jane Street. The channel had inition both upstream and downstream.

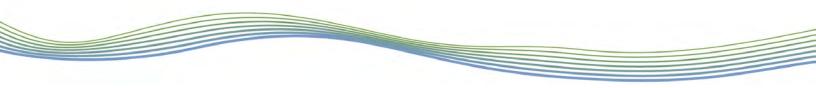
Reach HK8-1

Location:	Watershed:	Type of Assessment:
Summit Farm Road, King City	Humber River	Roadside
Valley Type: Unconfined	Land use : Residential	Riparian Coverage : Fragmented trees and grasses
Bankfull Width (m) :	Bankfull Depth (m):	Bed Substrate :
N/A	N/A	N/A
RGA Score:	RGA Condition :	RGA Dominant Process :
N/A	N/A	N/A
RSAT Score:	RSAT Condition :	RSAT Limiting Feature :
N/A	N/A	N/A
Down's Channel Evolution : N/A	Notes : Roadside assessment at Summit Farm Road. The channel was dry and not well defined.	





Laskay



Reach HL1 and Reach HL2

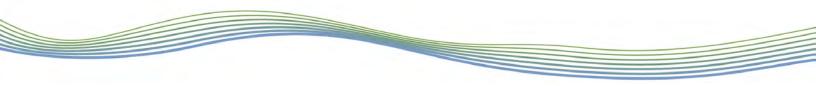
Location:	Watershed:	Type of Assessment:
Weston Road, Laskay	Humber River	Roadside
Valley Type:	Land use:	Riparian Coverage:
Partially confined	Forest and residential	Fragmented trees
Bankfull Width (m) : N/A	Bankfull Depth (m): N/A	Bed Substrate: Sand, gravel, cobble, and boulder
RGA Score :	RGA Condition:	RGA Dominant Process :
N/A	N/A	N/A
RSAT Score :	RSAT Condition :	RSAT Limiting Feature :
N/A	N/A	N/A
Down's Channel Evolution : N/A	Notes : Roadside assessment at Weston Road. Unable to access reach, photographs taken from bridge.	



Reach HL1-2a

Location:	Watershed:	Type of Assessment:
Weston Road, Laskay	Humber River	Roadside
Valley Type:	Land use:	Riparian Coverage :
Unconfined	Residential (construction)	Fragmented grasses
Bankfull Width (m) :	Bankfull Depth (m):	Bed Substrate :
N/A	N/A	Clay and silt
RGA Score:	RGA Condition:	RGA Dominant Process:
N/A	N/A	N/A
RSAT Score:	RSAT Condition :	RSAT Limiting Feature :
N/A	N/A	N/A
Down's Channel Evolution : N/A	Notes : Roadside assessment at Weston Road. The reach was fed by the roadside ditches. Rock check dams were noted along the reach and roadside ditches. Reach HL1-2a had been previously straightened.	





Reach HL2-2a and Reach HL2-2b

Location:	Watershed:	Type of Assessment:
King Road, Laskay	Humber River	Roadside
Valley Type: Unconfined (HL2-2a) Partially confined (HL2-2b)	Land use: Agricultural	Riparian Coverage: Continuous grasses with scattered trees upstream
Bankfull Width (m):	Bankfull Depth (m):	Bed Substrate:
1.7*	0.3*	N/A
RGA Score:	RGA Condition :	RGA Dominant Process:
N/A	N/A	N/A
RSAT Score :	RSAT Condition :	RSAT Limiting Feature :
N/A	N/A	N/A
Down's Channel Evolution: `S' – stable	Notes : Roadside assessment at King Road. Reach HL2-2a was downstream of King Road. Reach HL2-2a consisted of a swale feature. Reach HL2-2b was upstream of King Road. Reach HL2-4 was more defined (*see measurements).	



Reach **HL2-2a** downstream of King Road. The riparian zone was wide within the shallow



Reach **HL2-2a** downstream of King Road was poorly defined swale feature with moderate vegetation encroachment.





Reach HL2-3 and Reach HL2-4

Location:	Watershed:	Type of Assessment:	
King Road, Laskay	Humber River	Roadside	
Valley Type: Unconfined	Land use: Agricultural and residential	Riparian Coverage : (HL2-3) Continuous trees and grasses	
Bankfull Width (m) : N/A	Bankfull Depth (m) : N/A	Bed Substrate: N/A	
RGA Score : N/A	RGA Condition : N/A	RGA Dominant Process: N/A	
RSAT Score : N/A	RSAT Condition : N/A	RSAT Limiting Feature : N/A	
Down's Channel Evolution : 'S' – stable	Notes : Roadside assessment at King Road. Reach HL2-3 was downstream of King Road. Reach HL2-3 consisted of a swale feature. Reach HL2-4 was upstream of King Road. Reach HL2-4 was a poorly defined swale with no riparian vegetation.		
Reach HL2-3 downstream of F feature was present, with no o	defined banks. Poorly define	Reach HL2-4 was upstream of King Road. Poorly defined swale feature within active agricultural field.	

