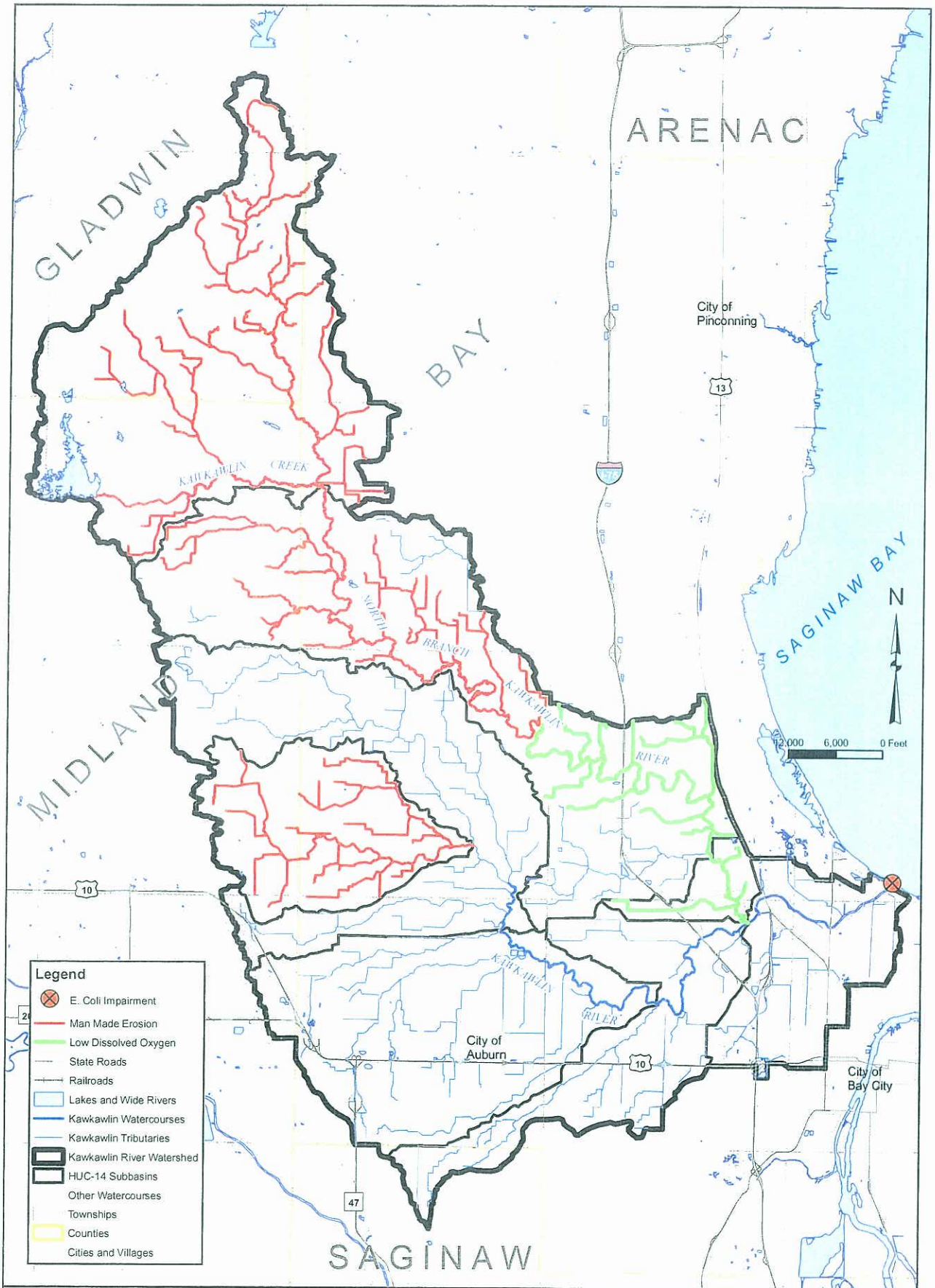
Appendix D



JOSEPH RIVET
BAY COUNTY DRAIN COMMISSIONER

DR. BY: MMC CHK. BY: RAB
DE. BY: MMC APP. BY: RAB

PROJECT NO. 117345SG2008

EXHIBIT 14
DNRE IMPAIRMENTS

KAWKAWLIN RIVER WATERSHED MANAGEMENT PLAN
GLADWIN, MIDLAND, SAGINAW, & BAY COUNTIES
MICHIGAN

DATE: AUGUST, 2009

FILE NO. F-1090-14

SHEET 1 OF 1

OFFICE LOCATIONS
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DETROIT, MI
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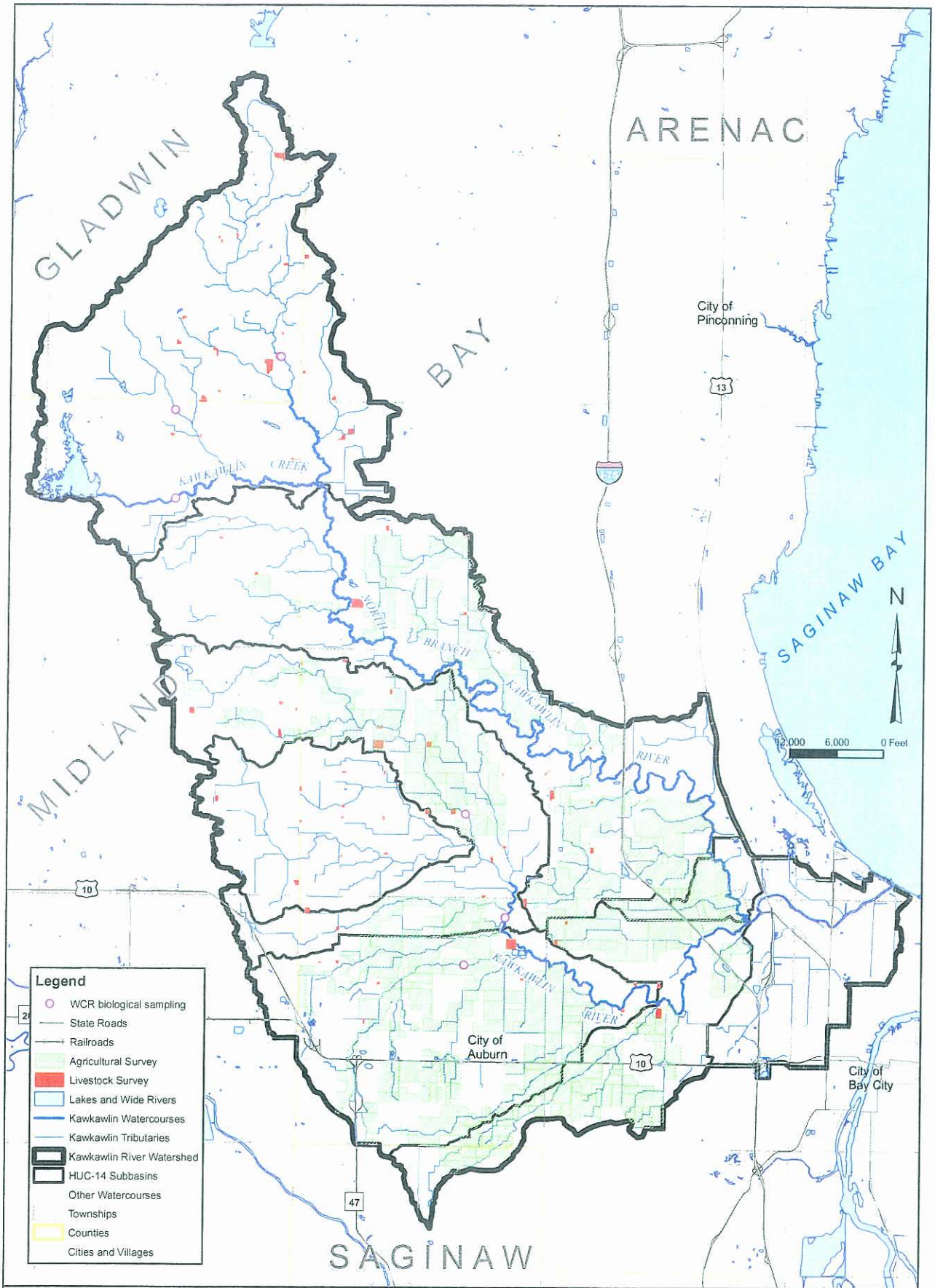
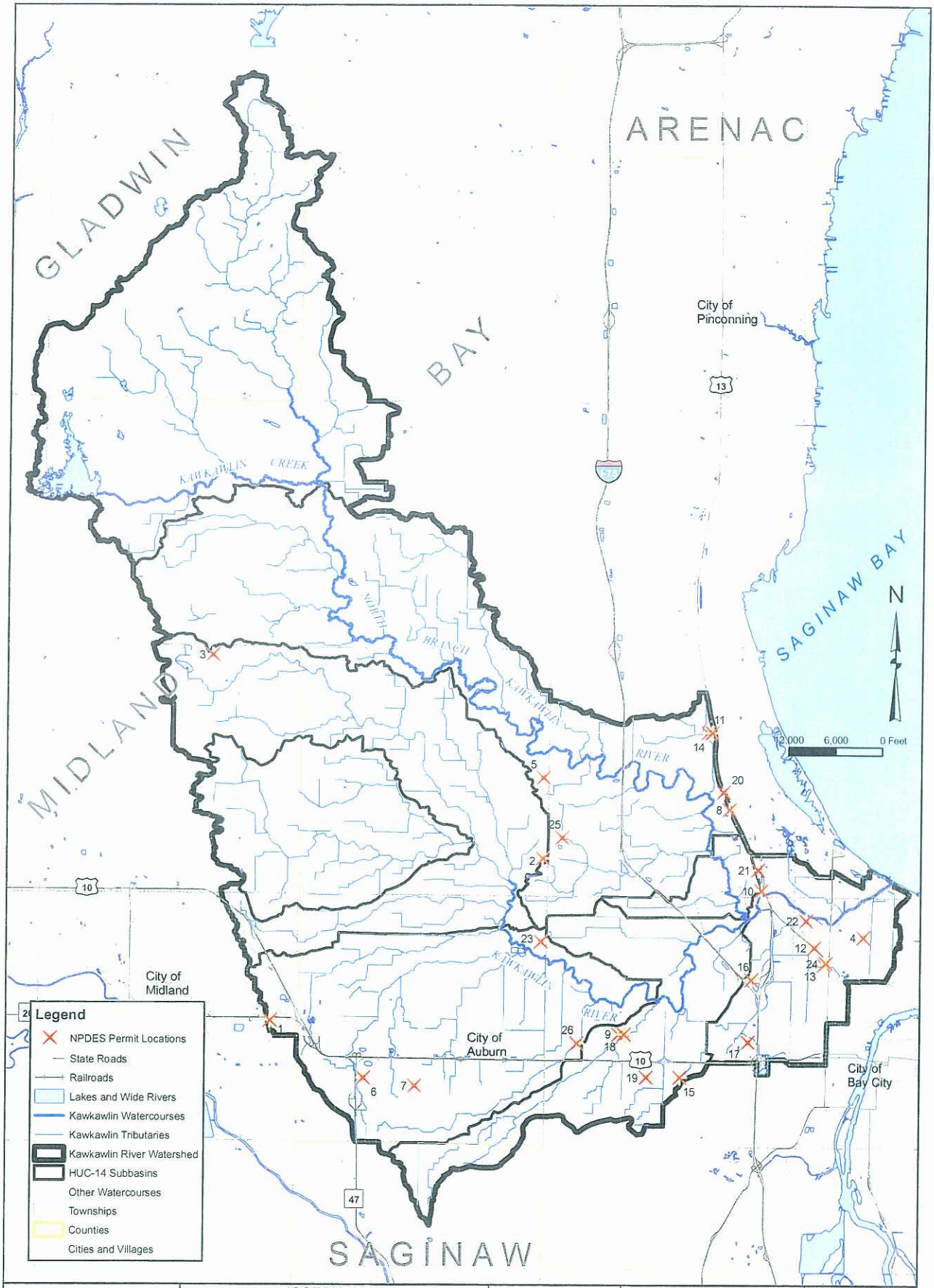
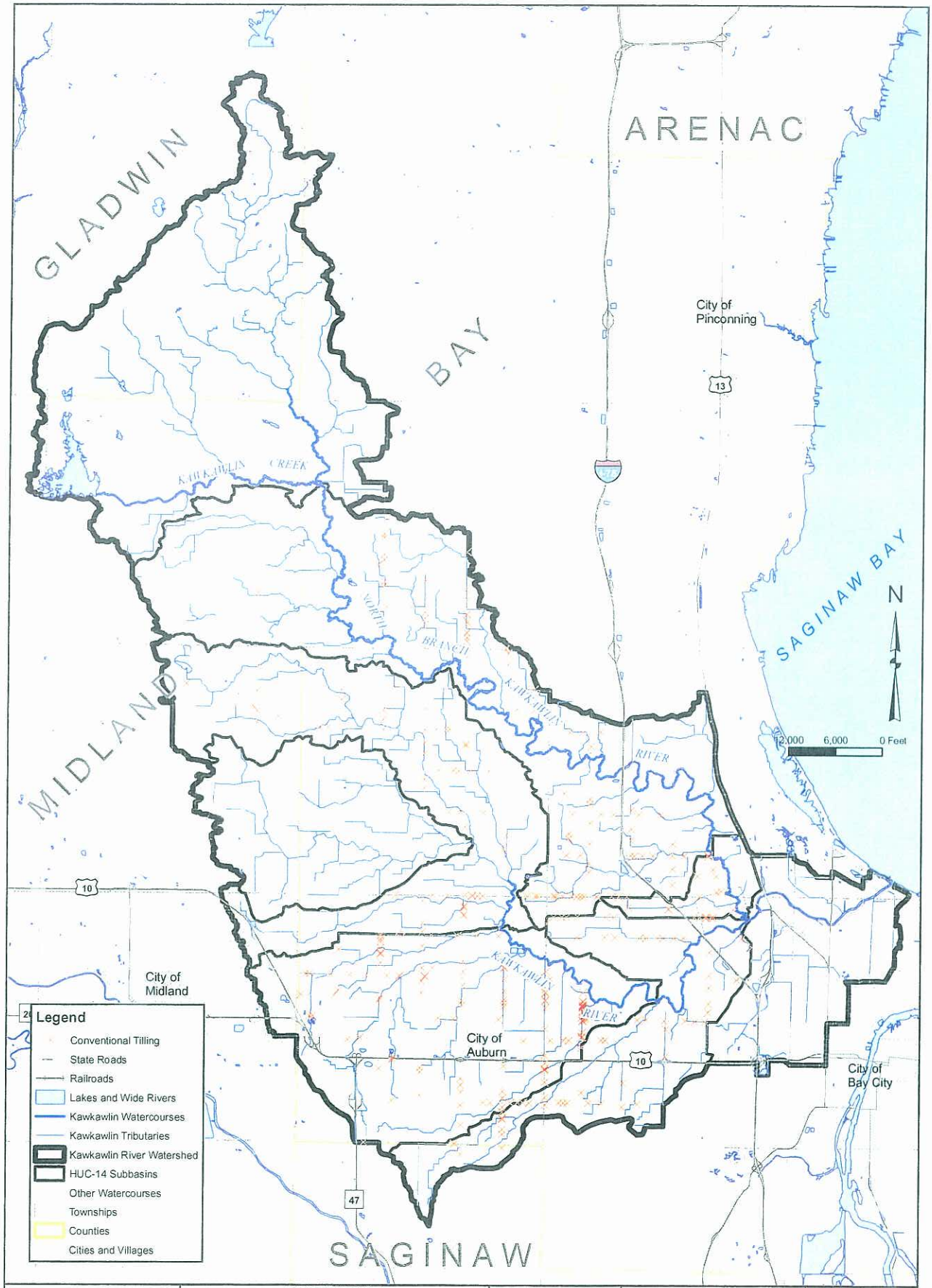


BAY COUNTY MICHIGAN 1857	JOSEPH RIVET BAY COUNTY DRAIN COMMISSIONER		DR. BY: MMC CHK. BY: RAB DE. BY: MMC APP. BY: RAB	PROJECT NO. 117345SG2008
	EXHIBIT 15 WINDSHIELD ASSESSMENT AGRICULTURE & LIVESTOCK KAWKAWLIN RIVER WATERSHED MANAGEMENT PLAN GLADWIN, MIDLAND, SAGINAW, & BAY COUNTIES MICHIGAN	DATE: AUGUST, 2009	FILE NO. F-1090-15	SHEET 1 OF 1
		OFFICE LOCATIONS SAGINAW, MI ST. JOHNS, MI CARO, MI DETROIT, MI TEMPE, AZ	Spicer group	SAGINAW OFFICE 230 S. WASHINGTON AVE. SAGINAW, MI 48605 TEL. 989-754-4717 FAX 989-754-4440 www.SpicerGroup.com



	JOSEPH RIVET BAY COUNTY DRAIN COMMISSIONER		DR. BY: MMC CHK. BY: RAB DE. BY: MMC APP. BY: RAB	PROJECT NO. 117345SG2008
	EXHIBIT 16 NPDES PERMITS	DATE: AUGUST, 2009	FILE NO. F-1090-16	SHEET 1 OF 1
	KAWKAWLIN RIVER WATERSHED MANAGEMENT PLAN GLADWIN, MIDLAND, SAGINAW, & BAY COUNTIES MICHIGAN	OFFICE LOCATIONS SAGINAW, MI ST. JOHNS, MI CARO, MI DETROIT, MI TEMPE, AZ	Spicer group	SAGINAW OFFICE 230 S. WASHINGTON AVE. SAGINAW, MI 48605 TEL. 989-754-4717 FAX 989-754-4440 www.SpicerGroup.com



JOSEPH RIVET
BAY COUNTY DRAIN COMMISSIONER

DR. BY: MMC CHK. BY: RAB
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PROJECT NO. 117345SG2008

EXHIBIT 17
Windshield Survey Results Part 1
Agriculture - Conventional Tilling

KAWKAWLIN RIVER WATERSHED MANAGEMENT PLAN
GLADWIN, MIDLAND, SAGINAW, & BAY COUNTIES
MICHIGAN

DATE: AUGUST, 2009

FILE NO. F-1090-17

SHEET 1 OF 1

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JOSEPH RIVET
BAY COUNTY DRAIN COMMISSIONER

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DE. BY: MMC APP. BY: RAB

PROJECT NO. 117345SG2008

EXHIBIT 18
Windshield Survey Results Part 1
Agriculture - Waste Nutrient Application

KAWKAWLIN RIVER WATERSHED MANAGEMENT PLAN
GLADWIN, MIDLAND, SAGINAW, & BAY COUNTIES
MICHIGAN

DATE: AUGUST, 2009

FILE NO. F-1090-18

SHEET 1 OF 1

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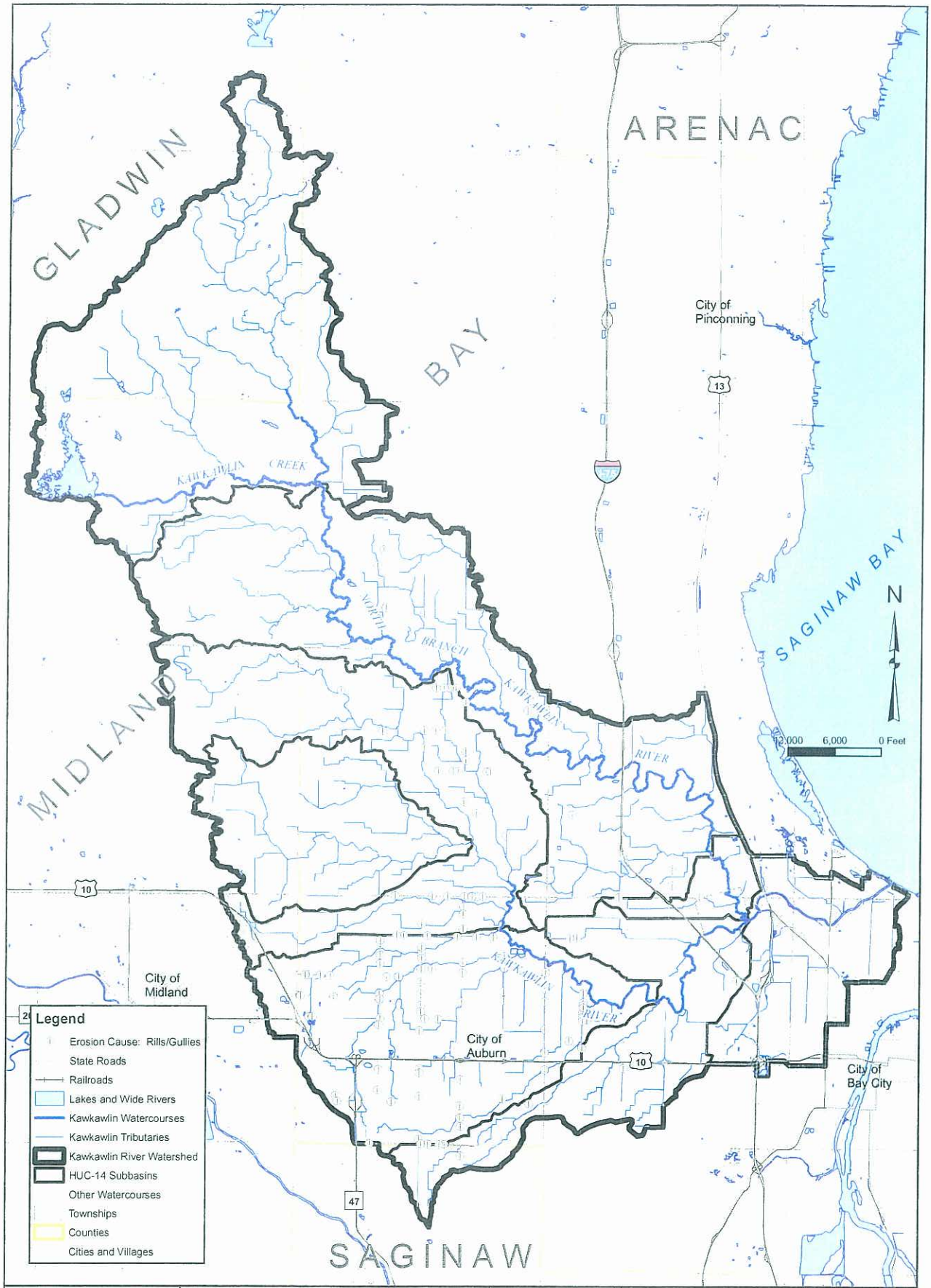

JOSEPH RIVET
BAY COUNTY DRAIN COMMISSIONER

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DE. BY: MMC APP. BY: RAB

PROJECT NO.
117345SG2008

EXHIBIT 19
Windshield Survey Results Part 1
Agriculture - Waste Nutrient Application

KAWKAWLIN RIVER WATERSHED MANAGEMENT PLAN
GLADWIN, MIDLAND, SAGINAW, & BAY COUNTIES
MICHIGAN

DATE: AUGUST, 2009

FILE NO. F-1090-19

SHEET 1 OF 1

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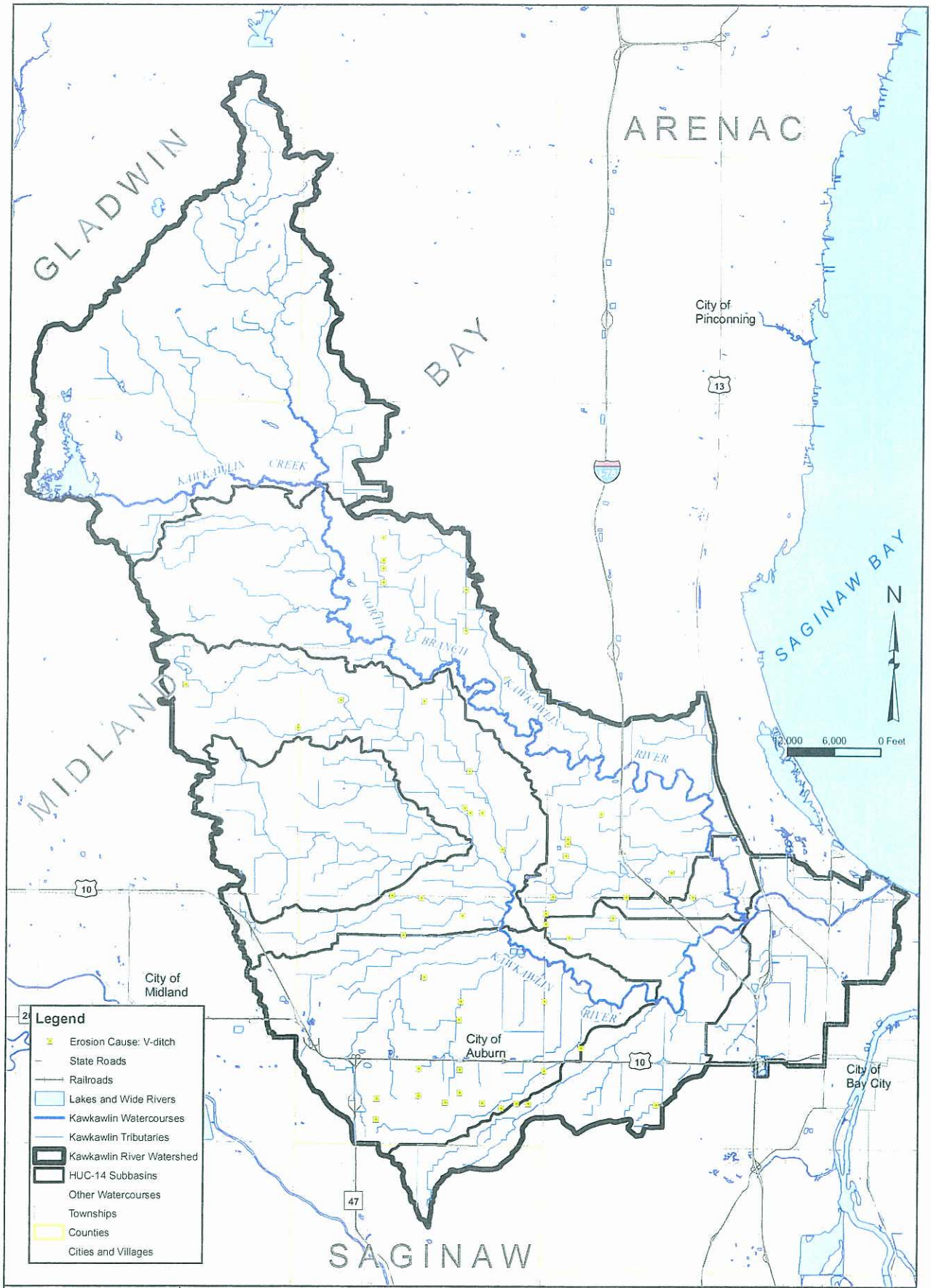

JOSEPH RIVET
BAY COUNTY DRAIN COMMISSIONER

DR. BY: MMC CHK. BY: RAB
DE. BY: MMC APP. BY: RAB

PROJECT NO. 117345SG2008

EXHIBIT 20
Windshield Survey Results Part 1
Agriculture - Erosion Cause: V-Ditch

KAWKAWLIN RIVER WATERSHED MANAGEMENT PLAN
GLADWIN, MIDLAND, SAGINAW, & BAY COUNTIES
MICHIGAN

DATE: AUGUST, 2009

FILE NO. F-1090-20

SHEET 1 OF 1

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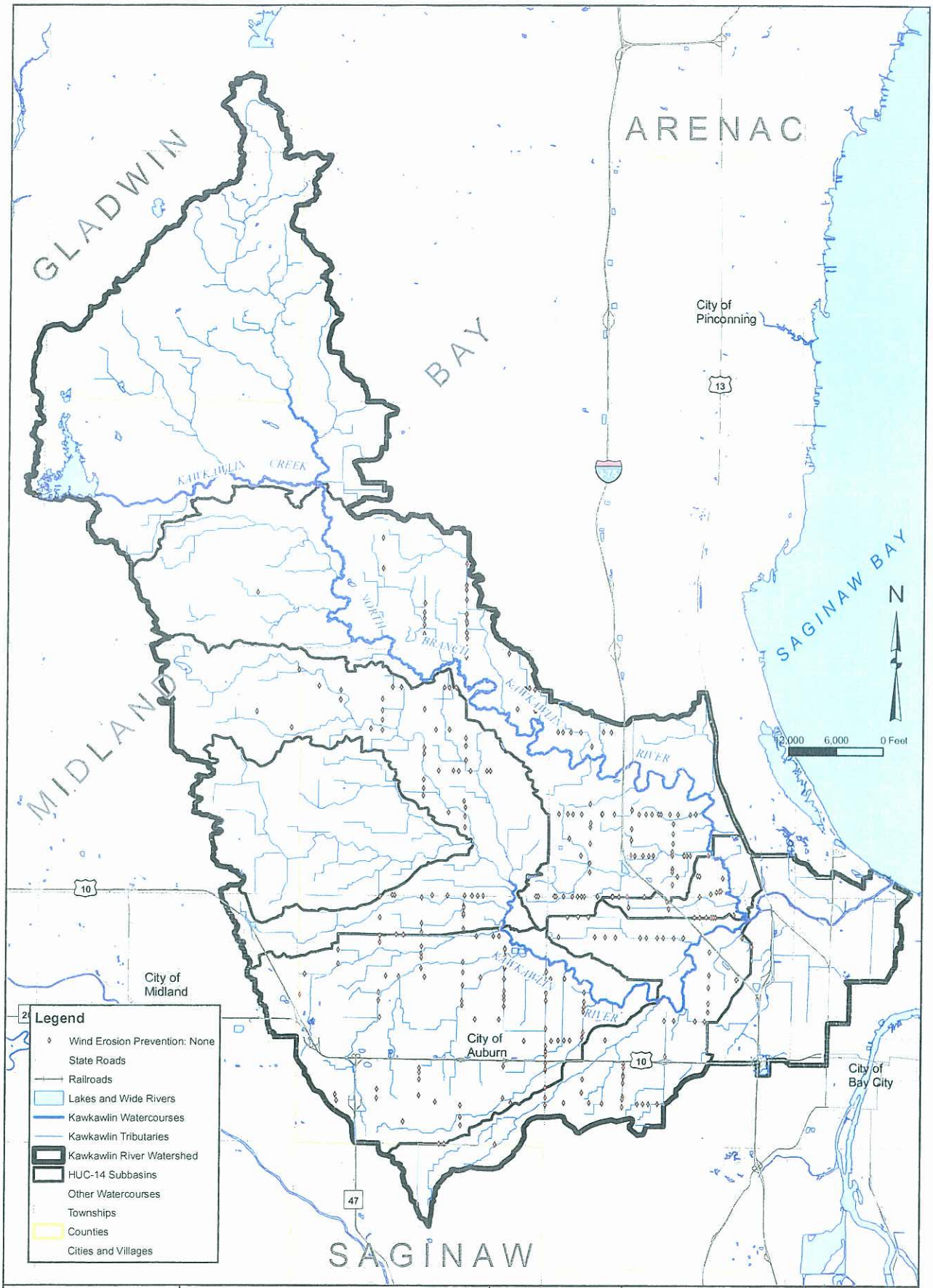

JOSEPH RIVET
BAY COUNTY DRAIN COMMISSIONER

DR. BY: MMC CHK. BY: RAB
DE. BY: MMC APP. BY: RAB

PROJECT NO.
117345SG2008

EXHIBIT 21
Windshield Survey Results Part 1
Agricluture - No Wind Erosion Prevention

KAWKAWLIN RIVER WATERSHED MANAGEMENT PLAN
GLADWIN, MIDLAND, SAGINAW, & BAY COUNTIES
MICHIGAN

DATE: AUGUST, 2009

FILE NO. F-1090-21

SHEET 1 OF 1

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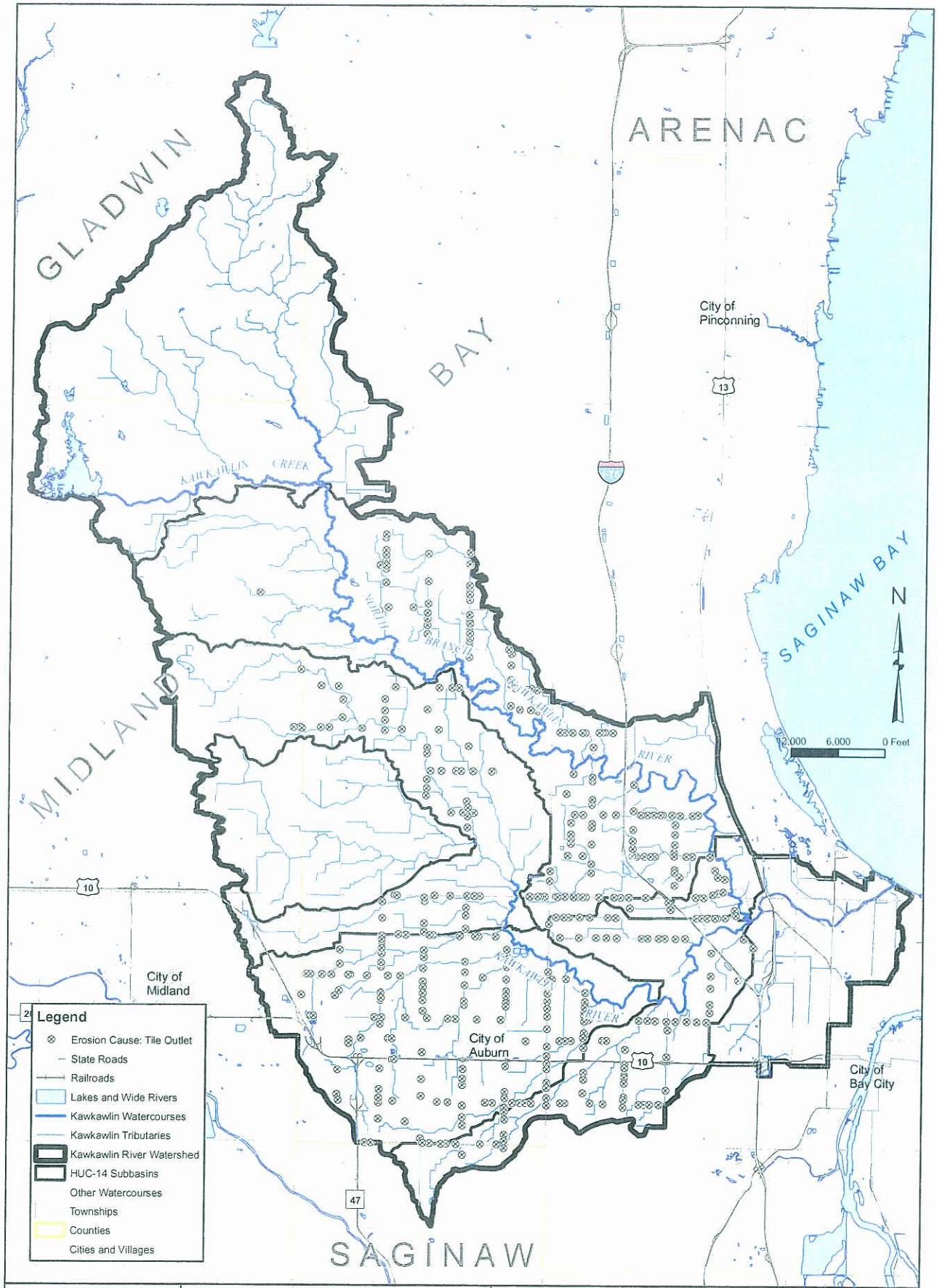

JOSEPH RIVET
BAY COUNTY DRAIN COMMISSIONER

EXHIBIT 22
Windshield Survey Results Part 1
Agricluture - Erosion Cause: Tile Outlet
KAWKAWLIN RIVER WATERSHED MANAGEMENT PLAN
GLADWIN, MIDLAND, SAGINAW, & BAY COUNTIES
MICHIGAN

DR. BY: MMC CHK. BY: RAB
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PROJECT NO. 117345SG2008

DATE: AUGUST, 2009

FILE NO. F-1090-22

SHEET 1 OF 1

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JOSEPH RIVET
BAY COUNTY DRAIN COMMISSIONER

DR. BY: MMC CHK. BY: RAB
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PROJECT NO.
117345SG2008

EXHIBIT 23
Windshield Survey Results Part 1
Ag. - Erosion Cause: Surface Drainage

KAWKAWLIN RIVER WATERSHED MANAGEMENT PLAN
GLADWIN, MIDLAND, SAGINAW, & BAY COUNTIES
MICHIGAN

DATE: AUGUST, 2009

FILE NO. F-1090-23

SHEET 1 OF 1

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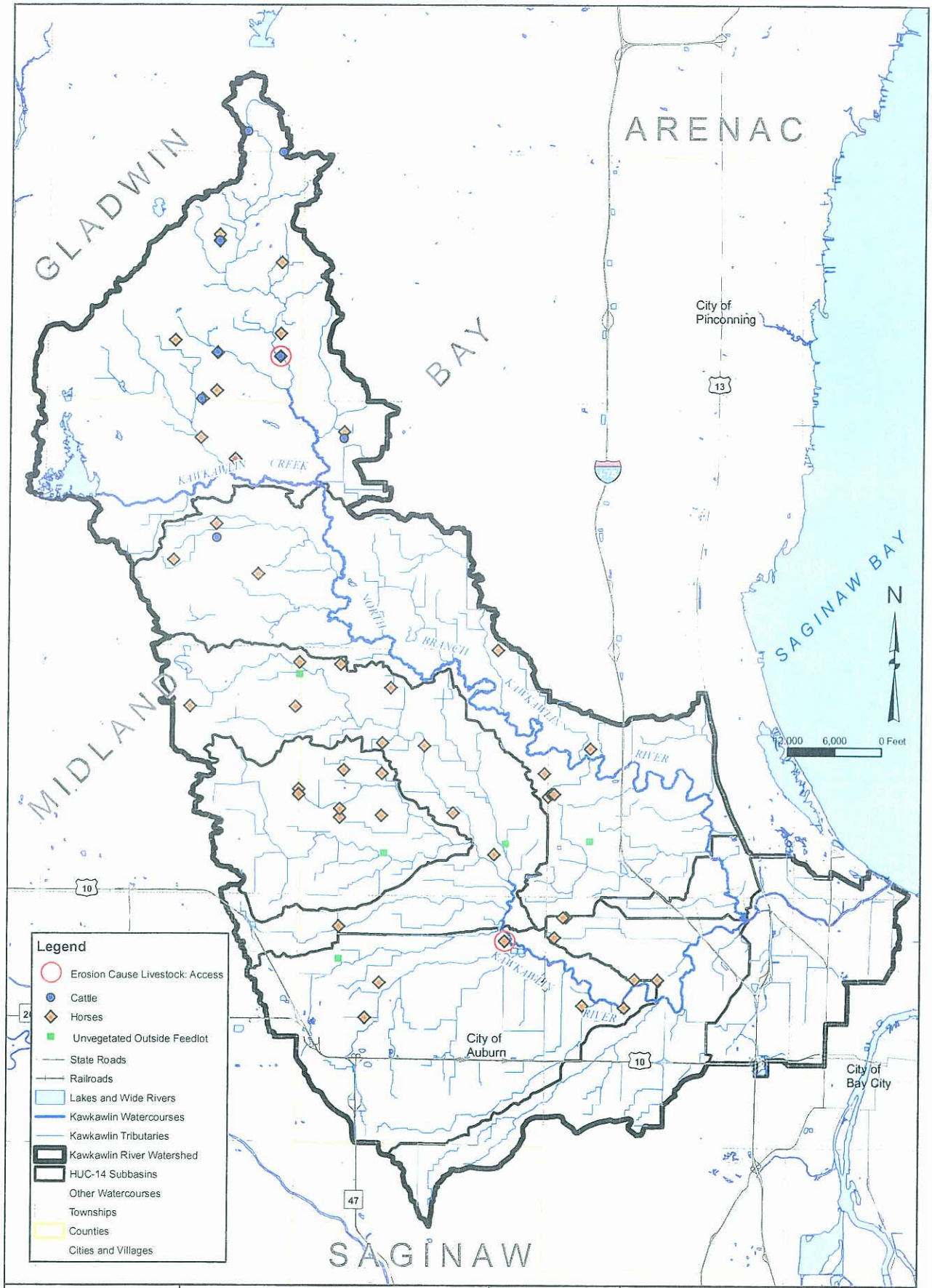

JOSEPH RIVET
BAY COUNTY DRAIN COMMISSIONER

DR. BY: MMC CHK. BY: RAB
DE. BY: MMC APP. BY: RAB

PROJECT NO.
117345SG2008

EXHIBIT 24
Windshield Survey Results Part 2 Livestock

KAWKAWLIN RIVER WATERSHED MANAGEMENT PLAN
GLADWIN, MIDLAND, SAGINAW, & BAY COUNTIES
MICHIGAN

DATE: AUGUST, 2009

FILE NO. F-1090-24

SHEET 1 OF 1

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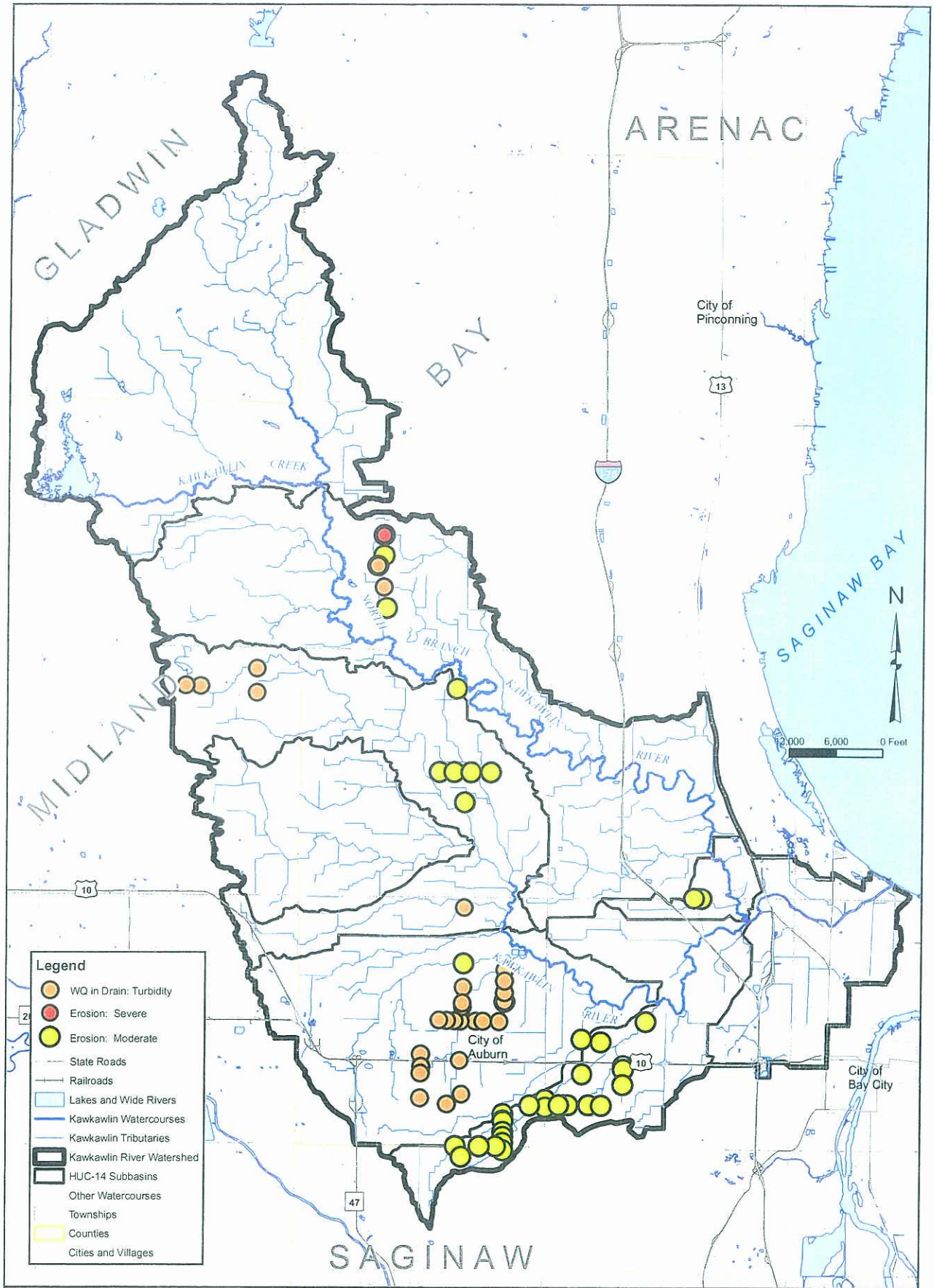

JOSEPH RIVET
BAY COUNTY DRAIN COMMISSIONER

DR. BY: MMC CHK. BY: RAB
DE. BY: MMC APP. BY: RAB

PROJECT NO.
117345SG2008

EXHIBIT 25
Windshield Survey Results, Part 3: Indicators

KAWKAWLIN RIVER WATERSHED MANAGEMENT PLAN
GLADWIN, MIDLAND, SAGINAW, & BAY COUNTIES
MICHIGAN

DATE: AUGUST, 2009

FILE NO. F-1090-25

SHEET 1 OF 1

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Kawkawlin River Watershed
Windshield Survey Results: Agriculture

Compiled Study

8/14/2009

Parcel used for Agriculture

Surveys completed	698	
Surveys of non-agricultural land	16	2.3%

Field Orientation

N/S	349	55.3%
E/W	279	44.2%
Square	3	0.5%

Average Field Size	44 acres

Slope of Land

Flat	674	99.6%
Moderate	3	0.4%
Hilly	0	0.0%

Tilling Practices

No-till	38	5.7%
Minimum tillage	268	40.5%
Conventional tillage	355	53.7%

Crop Residue Type

Corn	236	40.3%
Bean	120	20.5%
Wheat	40	6.8%
Sugar Beet	31	5.3%
Other	159	27.1%

% Residue

0-25%	447	77.5%
26-50%	88	15.3%
51-75%	6	1.0%
76% +	36	6.2%

How are Crops Planted?

Cover crop	25	3.9%
CREP land	0	0.0%
Contour farming	0	0.0%
Conservation crop rotation	589	91.7%
Other	28	4.4%
Other, Explain	Conventional	
	Corn on Corn	
	Corn stubble	
	CRP	
	Fallow	
	Grass	
	GRASS (CRP)	
	GRASS & TREES	
	Hay	
	Idle or Crep?	
	Not Planted / For Sale	
	Pasture for horses	
	Row	
	unsure	
	Wheat	

Note: Some categories add to more than 100% because multiple selections are possible.

Are Waste Nutrients Applied?

Yes	3	0.5%
No	649	99.5%
Unknown	0	0.0%
Yes, Explain	horses	
	manure noted in fields	
	sludge/human	

Note: Some categories add to more than 100% because multiple selections are possible.

Evidence that Applied Manure Reached Surface Water

Yes, via stormwater	2	0.3%
Yes, via misapplication	3	0.5%
No	627	99.2%

Water Erosion Observed in Field

Rills or Gullies	145	21.6%
Temporary V ditch	51	7.6%
Exposed roots	0	0.0%
None	417	62.1%
Other	58	8.6%
Other, Explain	by ditch	
	CRP	
	ditch banks falling in	
	field tile outlet	
	Hay	
	in ditch	
	minimal	
	sediment in ditch	
	sheet erosion	
	Slight	
	surface drainage	
	surface erosion to ditch	
	surface flow in ditch	
	Surface outlet to drain rip rap in place	
	tall grass	
	unknown	
	unknown to minimal	
	washing into ditch	

Note: Some categories add to more than 100% because multiple selections are possible.

Water Quality in Drain

N/A	131	21.4%
Clear	447	73.0%
Turbid	34	5.6%
Oily Sheen	0	0.0%
Greenish	0	0.0%

Wind Erosion Prevention

Fence row	1	0.1%
Tree line	234	35.0%
None	385	57.5%
Other	49	7.3%

Other, Explain	Buffer strip
	cover crop
	CRP
	ditch
	Ditch Bank
	Dow Building
	Drain
	ground cover
	HAY/PASTURE - HORSES
	Houses
	Open
	Partially Protected
	Road
	tillage pratice
	vegetated
	Wheat
	woods west side of field

Wind Erosion Potential

High	388	58.1%
Low	280	41.9%

Irrigation System on Property

Yes	0	0.0%
No	666	100.0%

How land is drained

Tiled	565	80.9%
Surface drain	501	71.8%
Grassed waterway	0	0.0%

Buffer Strip used on Property

No	605	92.2%
Yes	51	7.8%
Average width	25 feet	

Type of Buffer Strip

Natural	2	4.0%
Planted	48	96.0%

Vegetation Status

Poorly established	4	7.7%
Moderately established	0	0.0%
Well established	48	92.3%

Potential Cause of Streambank/Ditchbank Erosion

Flow	630	92.2%
Human access	0	0.0%
Tile outlets	42	6.1%
Livestock access	0	0.0%
Unknown	11	1.6%

Rank Erosion

Slight	612	92.3%
Moderate	50	7.5%
Severe	1	0.2%

Note: Some categories add to more than 100% because multiple selections are possible.

General Comments	
	algae in ditch
	All Trees and Bushes
	CREP PROPERTY
	CRP
	DOES NOT EXIST AS FARM FIELD - NOTHING - GRASS - WATER RETENTION
	Fallow fied, acts as a buffer to Culver Creek
	field appears fallow
	GRASS
	GRASS & TREES
	NOT A FARM ANYMORE - FABIANO BROTHER'S
	noted surface contents with sediment deposites in roadside ditch
	protected by trees
	appears idle or crep
	Tilling to edge of drain
	Tilling up to edge of drains
	TREE'S CANNOT SEE
	Vegetated Field
	Water Quality in Drain comment: Duckweed / Arrowhead
	Water Quality in Drain comment: a little algae

Note: Some categories add to more than 100% because multiple selections are possible.

Parcel used for Domestic Livestock

Total identified	96	
Surveys completed	78	81.3%

Type of Operation

Confined in buildings	6	7.7%
Outside feedlot (un-vegetated)	43	55.1%
Pasture (vegetated)	53	67.9%

Livestock access to Drain/Waterway

Yes	2	2.6%
No	76	97.4%
Comments	Appear to be fenced in, but land slopes to waterway.	
	Direct access! Parts where cattle walk through the drain.	
	Very large pasture and woods area. Drain runs through it.	

Problems with Manure Storage

Yes	7	9.0%
No	68	87.2%
Can't see storage area	3	3.8%
Comments	Large pile of manure on un-vegetated land, bulldozer present.	
	Manure pile in middle of lot.	
	Manure pile.	
	Massive pile (8' high, 50' long) of manure 100' from 9 Mile Rd.	
	Piles of manure. They sell manure.	
	Small piles of manure.	

Livestock Details

Type			*Average # per site when present*
Cattle	20	25.6%	20
Horse	58	74.4%	4
Poultry	0	0.0%	-
Sheep	3	3.8%	3
Pig/Hog	0	0.0%	-
Goat	3	3.8%	3
Mixed	9	11.5%	-
Unknown	5	6.4%	-

Type of Feeding Operation

Concentrated feeding lot	4	5.1%
Range style	75	96.2%

Polluted Runoff from the Livestock Production Area

No livestock production on property	0	0.0%
No visible evidence	77	98.7%
Yes	1	1.3%

Rank

Slight	0	0.0%
Moderate	1	1.3%
Severe	0	0.0%
Evidence Description	Algae in wetland area.	

General Comments	
	All dirt, some parts with a green color to them.
	Animal count approx.
	Animal count approx. 2 horses visible.
	Animal count approx. Sign says "K.H. Stables"
	Fence along back drain.
	No animal count because all inside barn.
	No animal count because all inside barn. Sign by road says "Diamond Ranch Registered Gelbvieh"
	Northing and Easting from Max's GPS (Surveys 42-78).
	Possible access to water along back.
	Possible access to water along back. Lat and Long from Russ' GPS (Surveys 1-40).
	Vegetated, but very short grass.

Kawkawlin River Watershed
Windshield Survey Results: Agriculture

Subwatershed 2

Note: Some categories may not total 100% due to null data fields.

Parcel used for Agriculture

Surveys completed	207	
Surveys of non-agricultural land		0.0%

Field Orientation

N/S	116	56.0%
E/W	67	32.4%
Square	0	0.0%

Average Field Size	41.25 acres

Slope of Land

Flat	199	96.1%
Moderate	0	0.0%
Hilly	0	0.0%

Tilling Practices

No-till	14	6.8%
Minimum tillage	26	12.6%
Conventional tillage	154	74.4%

How are Crops Planted?

Cover crop	6	2.9%
CREP land	0	0.0%
Contour farming	0	0.0%
Conservation crop rotation	174	84.1%
Other	6	2.9%
Other, Explain	Conventional East-West (1)	
	Conventional (3)	
	CRP (1)	

Are Waste Nutrients Applied?

Yes	1	0.5%
No	195	94.2%
Unknown	0	0.0%
Yes, Explain	sludge/human (1)	

Evidence that Applied Manure Reached Surface Water

Yes, via stormwater	0	0.0%
Yes, via misapplication	0	0.0%
No	194	93.7%

Water Erosion Observed in Field

Rills or Gullies	11	5.3%
Temporary V ditch	17	8.2%
Exposed roots	0	0.0%
None	153	73.9%
Other	13	6.3%
Other, Explain	No (1)	
	Minimal (1)	
	Unknown (1)	
	Unknown to Minimal (1)	
	Sheet Erosion (1)	
	Sheet (3)	

Wind Erosion Prevention

Fence row	1	0.5%
Tree line	0	0.0%
None	122	58.9%
Other	9	4.3%
Other, Explain	Wood west side of field (2)	
	Tillage Practice (1)	
	Road (2)	
	N/A (1)	
	Houses (1)	
	Ditch (1)	

Wind Erosion Potential

High	129	62.3%
Low	68	32.9%

Irrigation System on Property

Yes	0	0.0%
No	194	93.7%

How land is drained

Tiled	178	86.0%
Surface drain	187	90.3%
Grassed waterway	0	0.0%

Categories add to over 100% due to multiple selections.

Buffer Strip used on Property

No	180	87.0%
Yes	13	6.3%
Average width	27.0 feet	

Type of Buffer Strip

Natural	0	0.0%
Planted	12	92.3%

Vegetation Status

Poorly established	4	30.8%
Moderately established	0	0.0%
Well established	10	76.9%

Categories add to over 100% due to multiple selections.

Potential Cause of Streambank/Ditchbank Erosion

Flow	183	88.4%
Human access	0	0.0%
Tile outlets	1	0.5%
Livestock access	0	0.0%
Unknown	2	1.0%

Rank Erosion

Slight	189	91.3%
Moderate	4	1.9%
Severe	1	0.5%

Kawkawlin River Watershed
Windshield Survey Results: Agriculture

Subwatershed 3

Note: Some categories may not total 100% due to null data fields.

Parcel used for Agriculture

Surveys completed	22	
Surveys of non-agricultural land		0.0%

Field Orientation

N/S	14	63.6%
E/W	7	31.8%
Square	0	0.0%

Average Field Size	44.5 acres

Slope of Land

Flat	22	100.0%
Moderate	0	0.0%
Hilly	0	0.0%

Tilling Practices

No-till	0	0.0%
Minimum tillage	4	18.2%
Conventional tillage	17	77.3%

How are Crops Planted?

Cover crop	0	0.0%
CREP land	0	0.0%
Contour farming	0	0.0%
Conservation crop rotation	1	4.5%
Other	0	0.0%
Other, Explain		

Are Waste Nutrients Applied?

Yes	0	0.0%
No	22	100.0%
Unknown	0	0.0%
Yes, Explain		

Evidence that Applied Manure Reached Surface Water

Yes, via stormwater	0	0.0%
Yes, via misapplication	0	0.0%
No	22	100.0%

Water Erosion Observed in Field

Rills or Gullies	1	4.5%
Temporary V ditch	1	4.5%
Exposed roots	0	0.0%
None	3	13.6%
Other	17	77.3%
Other, Explain	Tall Grass (1)	
	Slight (1)	
	Sheet (14)	
	Ditch Banks Falling In (1)	

Wind Erosion Prevention

Fence row	0	0.0%
Tree line	7	31.8%
None	15	68.2%
Other	0	0.0%
Other, Explain		

Wind Erosion Potential

High	15	68.2%
Low	7	31.8%

Irrigation System on Property

Yes	0	0.0%
No	22	100.0%

How land is drained

Tiled	18	81.8%
Surface drain	4	18.2%
Grassed waterway	0	0.0%

Buffer Strip used on Property

No	18	81.8%
Yes	4	18.2%
Average width	N/A	feet

Type of Buffer Strip

Natural	0	0.0%
Planted	4	100.0%

Vegetation Status

Poorly established	0	0.0%
Moderately established	0	0.0%
Well established	4	100.0%

Potential Cause of Streambank/Ditchbank Erosion

Flow	17	77.3%
Human access	0	0.0%
Tile outlets	0	0.0%
Livestock access	0	0.0%
Unknown	5	22.7%

Rank Erosion

Slight	19	86.4%
Moderate	3	13.6%
Severe	0	0.0%

Kawkawlin River Watershed
Windshield Survey Results: Agriculture

Subwatershed 5

Note: Some categories may not total 100% due to null data fields.

Parcel used for Agriculture

Surveys completed	124	
Surveys of non-agricultural land		0.0%

Field Orientation

N/S	54	43.5%
E/W	55	44.4%
Square	0	0.0%

Average Field Size	50.46 acres

Slope of Land

Flat	118	95.2%
Moderate	0	0.0%
Hilly	0	0.0%

Tilling Practices

No-till	0	0.0%
Minimum tillage	19	15.3%
Conventional tillage	94	75.8%

How are Crops Planted?

Cover crop	2	1.6%
CREP land	0	0.0%
Contour farming	0	0.0%
Conservation crop rotation	103	83.1%
Other	8	6.5%
Other, Explain	Grass (2)	
	Corn on Corn (2)	
	CRP (1)	
	Hay (3)	

Are Waste Nutrients Applied?

Yes	0	0.0%
No	15	12.1%
Unknown	0	0.0%
Yes, Explain		

Evidence that Applied Manure Reached Surface Water

Yes, via stormwater	0	0.0%
Yes, via misapplication	0	0.0%
No	94	75.8%

Water Erosion Observed in Field

Rills or Gullies	35	28.2%
Temporary V ditch	13	10.5%
Exposed roots	0	0.0%
None	63	50.8%
Other	6	4.8%
Other, Explain	Washing into ditch (1)	
	Surface Drainage (1)	
	Sheet (1)	
	In Ditch (1)	
	CRP (1)	
	By Ditch (1)	

Wind Erosion Prevention

Fence row	0	0.0%
Tree line	46	37.1%
None	66	53.2%
Other	5	4.0%
Other, Explain	Hay/Pasture - Horses (1)	
	Ditch (1)	
	CRP (1)	
	Buffer Strip (2)	

Wind Erosion Potential

High	55	44.4%
Low	60	48.4%

Irrigation System on Property

Yes	0	0.0%
No	115	92.7%

How land is drained

Tiled	67	54.0%
Surface drain	79	63.7%
Grassed waterway	0	0.0%

Categories add to over 100% due to multiple selections.

Buffer Strip used on Property

No	107	86.3%
Yes	5	4.0%
Average width	35.0 feet	

Type of Buffer Strip

Natural	0	0.0%
Planted	5	100.0%

Vegetation Status

Poorly established	0	0.0%
Moderately established	0	0.0%
Well established	5	100.0%

Categories add to over 100% due to multiple selections.

Potential Cause of Streambank/Ditchbank Erosion

Flow	115	92.7%
Human access	0	0.0%
Tile outlets	5	4.0%
Livestock access	0	0.0%
Unknown	1	0.8%

Rank Erosion

Slight	110	88.7%
Moderate	6	4.8%
Severe	0	0.0%

Kawkawlin River Watershed
Windshield Survey Results: Agriculture

Subwatershed 6

Note: Some categories may not total 100% due to null data fields.

Parcel used for Agriculture

Surveys completed	202	
Surveys of non-agricultural land		0.0%

Field Orientation

N/S	85	42.1%
E/W	101	50.0%
Square	0	0.0%

Average Field Size	41.2 acres

Slope of Land

Flat	202	100.0%
Moderate	0	0.0%
Hilly	0	0.0%

Tilling Practices

No-till	14	6.9%
Minimum tillage	29	14.4%
Conventional tillage	153	75.7%

How are Crops Planted?

Cover crop	4	2.0%
CREP land	0	0.0%
Contour farming	0	0.0%
Conservation crop rotation	193	95.5%
Other	2	1.0%
Other, Explain	Grass (1)	
	Wheat (1)	
	Not Planted / For Sale (1)	

Are Waste Nutrients Applied?

Yes	0	0.0%
No	198	98.0%
Unknown	0	0.0%
Yes, Explain		

Evidence that Applied Manure Reached Surface Water

Yes, via stormwater	0	0.0%
Yes, via misapplication	3	1.5%
No	184	91.1%

Water Erosion Observed in Field

Rills or Gullies	90	44.6%
Temporary V ditch	17	8.4%
Exposed roots	0	0.0%
None	90	44.6%
Other	5	2.5%
Other, Explain	No (4)	

Wind Erosion Prevention

Fence row	0	0.0%
Tree line	89	44.1%
None	91	45.0%
Other	18	8.9%
Other, Explain	Wheat (1)	
	Partially Protected (1)	
	Dow Building (1)	
	Ditch Bank (1)	
	Buffer Strip (2)	

Wind Erosion Potential

High	96	47.5%
Low	102	50.5%

Irrigation System on Property

Yes	0	0.0%
No	198	98.0%

How land is drained

Tiled	173	85.6%
Surface drain	138	68.3%
Grassed waterway	0	0.0%

Categories add to over 100% due to multiple selections.

Buffer Strip used on Property

No	178	88.1%
Yes	19	9.4%
Average width	25.9 feet	

Type of Buffer Strip

Natural	0	0.0%
Planted	19	100.0%

Vegetation Status

Poorly established	0	0.0%
Moderately established	0	0.0%
Well established	19	100.0%

Categories add to over 100% due to multiple selections.

Potential Cause of Streambank/Ditchbank Erosion

Flow	192	95.0%
Human access	0	0.0%
Tile outlets	1	0.5%
Livestock access	0	0.0%
Unknown	1	0.5%

Rank Erosion

Slight	196	97.0%
Moderate	2	1.0%
Severe	0	0.0%

Kawkawlin River Watershed
Windshield Survey Results: Agriculture

Subwatershed 7

Note: Some categories may not total 100% due to null data fields.

Parcel used for Agriculture

Surveys completed	88	
Surveys of non-agricultural land		0.0%

Field Orientation

N/S	57	64.8%
E/W	25	28.4%
Square	0	0.0%

Average Field Size	48 acres

Slope of Land

Flat	85	96.6%
Moderate	0	0.0%
Hilly	0	0.0%

Tilling Practices

No-till	7	8.0%
Minimum tillage	11	12.5%
Conventional tillage	67	76.1%

How are Crops Planted?

Cover crop	2	2.3%
CREP land	0	0.0%
Contour farming	0	0.0%
Conservation crop rotation	79	89.8%
Other	2	2.3%
Other, Explain	Wheat (5)	

Are Waste Nutrients Applied?

Yes	0	0.0%
No	85	96.6%
Unknown	0	0.0%
Yes, Explain		

Evidence that Applied Manure Reached Surface Water

Yes, via stormwater	0	0.0%
Yes, via misapplication	0	0.0%
No	85	96.6%

Water Erosion Observed in Field

Rills or Gullies	6	6.8%
Temporary V ditch	4	4.5%
Exposed roots	0	0.0%
None	63	71.6%
Other	12	13.6%
Other, Explain	Sheet (4)	

Wind Erosion Prevention

Fence row	0	0.0%
Tree line	12	13.6%
None	59	67.0%
Other	14	15.9%
Other, Explain	Houses (1)	

Wind Erosion Potential

High	70	79.5%
Low	15	17.0%

Irrigation System on Property

Yes	0	0.0%
No	85	96.6%

How land is drained

Tiled	82	93.2%
Surface drain	80	90.9%
Grassed waterway	0	0.0%

Categories add to over 100% due to multiple selections.

Buffer Strip used on Property

No	76	86.4%
Yes	8	9.1%
Average width	21.4 feet	

Type of Buffer Strip

Natural	0	0.0%
Planted	7	87.5%

Vegetation Status

Poorly established	0	0.0%
Moderately established	0	0.0%
Well established	7	87.5%

Categories add to over 100% due to multiple selections.

Potential Cause of Streambank/Ditchbank Erosion

Flow	84	95.5%
Human access	0	0.0%
Tile outlets	0	0.0%
Livestock access	0	0.0%
Unknown	0	0.0%

Rank Erosion

Slight	85	96.6%
Moderate	0	0.0%
Severe	0	0.0%