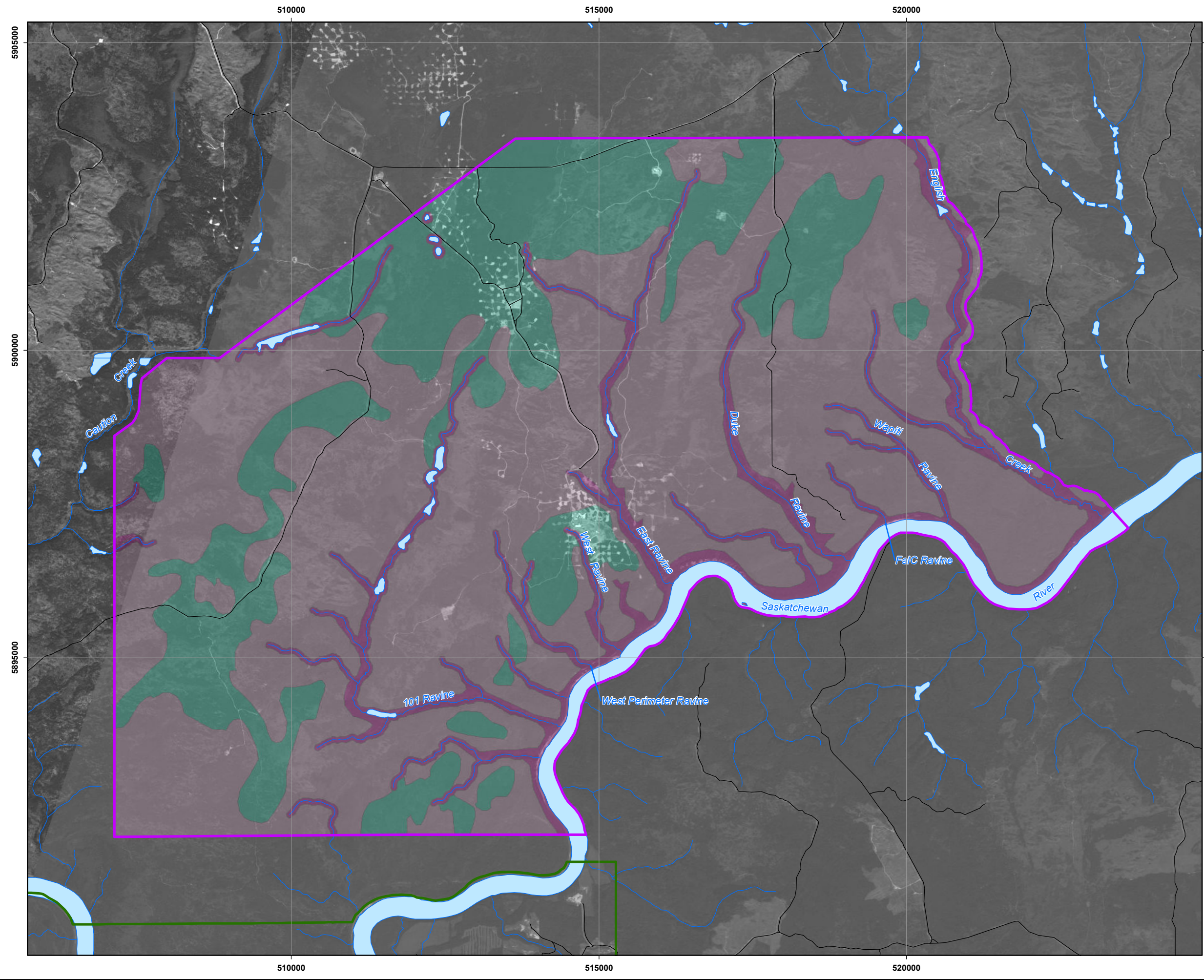
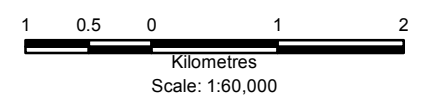


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- Legend**
- Watercourse
 - Waterbody
 - Local Study Area
 - Regional Study Area
- Landscape Class**
- Lowland
 - Upland
 - Riparian

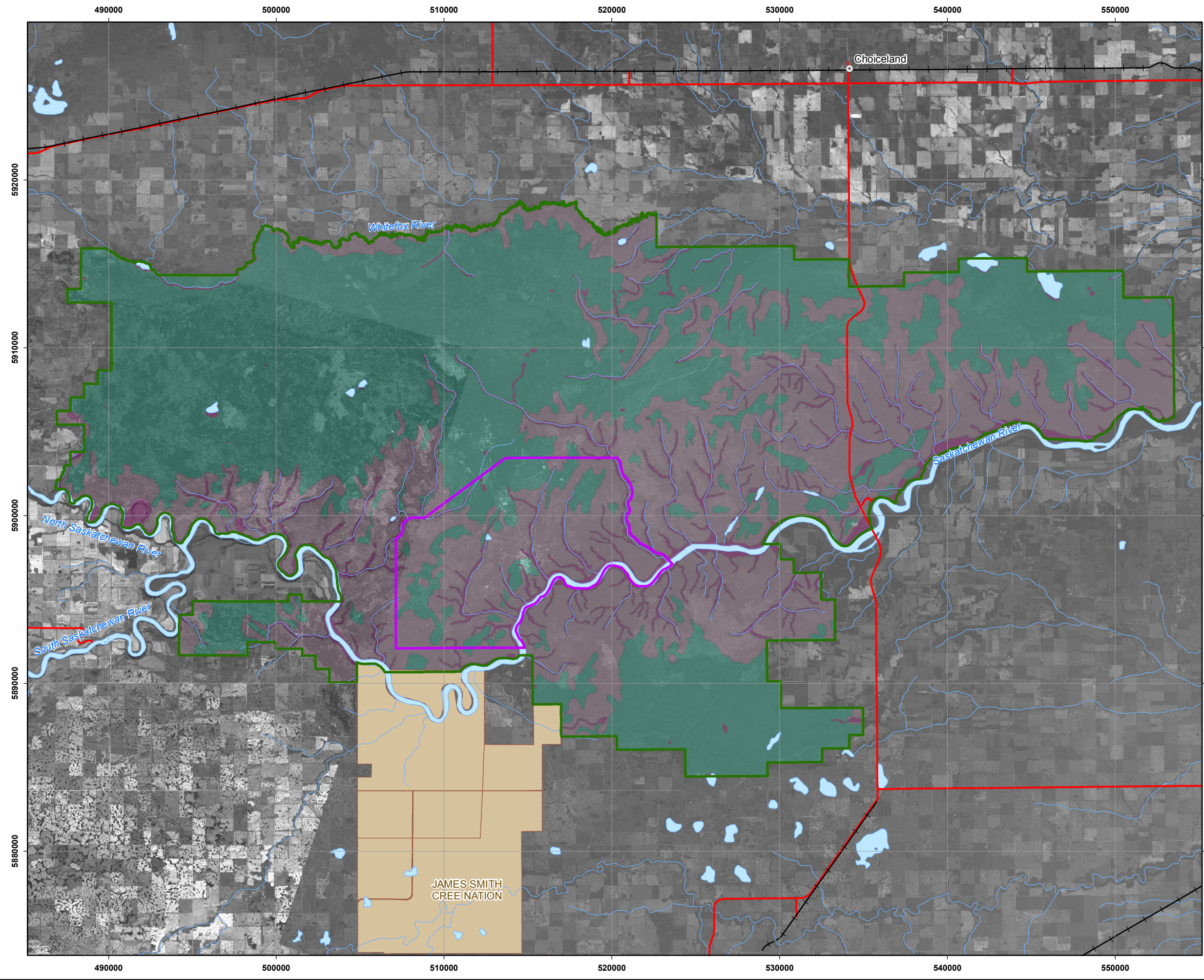


Reference

Base data: NRCan National Road Network
 NTS 1:50,000 scale: GeoSask
 SPOT Imagery: GeoBase® 2006-2007

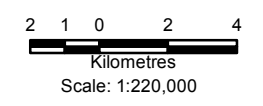
CLIENT: 		
PROJECT: Star - Orion South Diamond Project		
Baseline Landscape Classes in the LSA		
DATE: March 2012	ANALYST: NH	Figure 5.3.4-1
JOB No: SX0373306.10	QA/QC: MY	PDF FILE: Fig5.3.4-1 LSA Landforms 12-03-19.pdf
GIS FILE: Fig5.3.4-1 LSA Landforms.mxd		
PROJECTION: UTM Zone 13	DATUM: NAD27	

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Legend

- Town
 - Highway
 - + Railway
 - Watercourse
 - Waterbody
 - Indian Reserve
 - Local Study Area
 - Regional Study Area
- Landscape Class**
- Lowland
 - Upland
 - Riparian

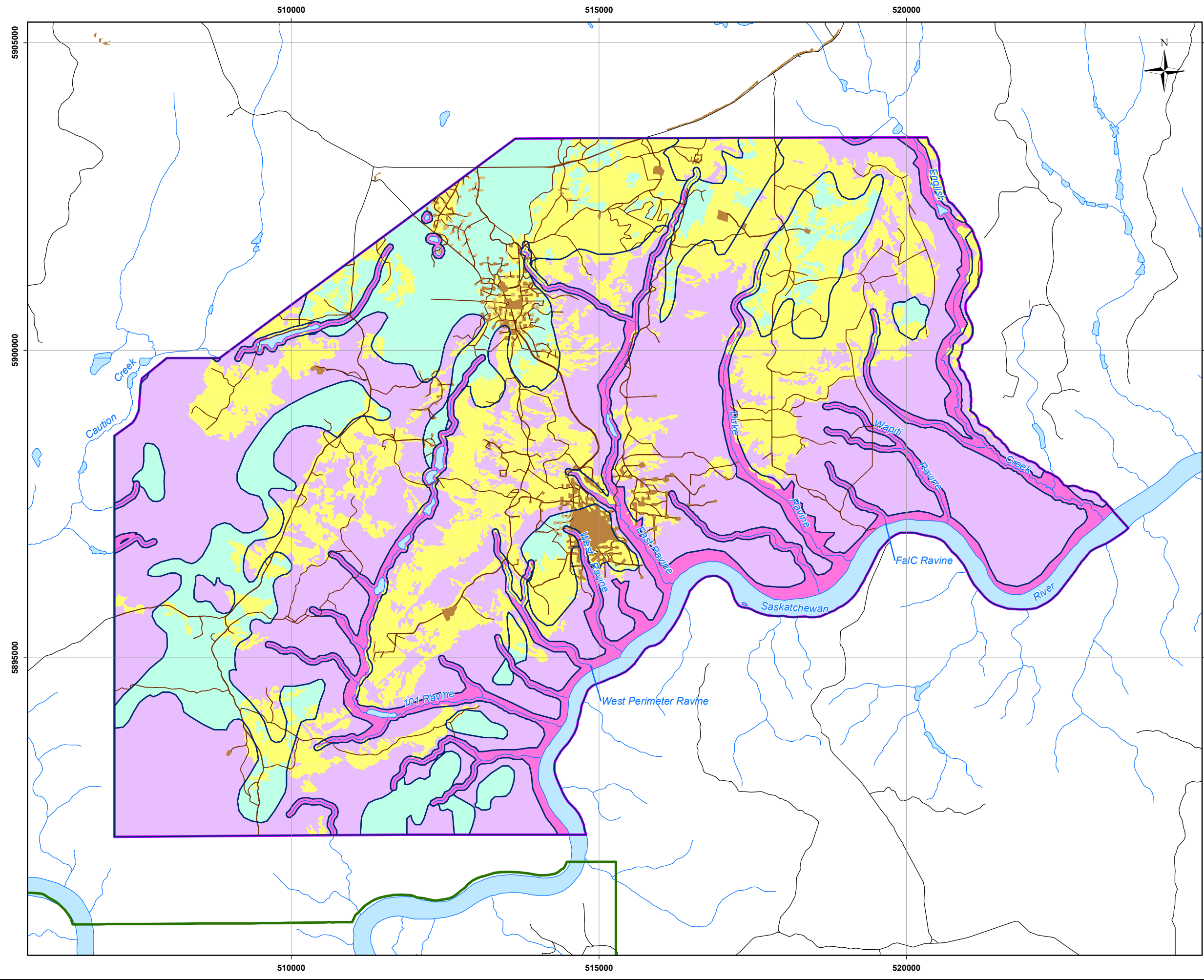


Reference

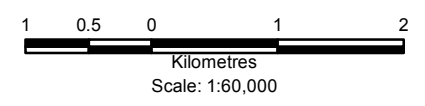
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 Indian Reserve/Municipality Boundaries: GeoSask
 SPOT Imagery: GeoBase® 2006-2007

CLIENT: 		
PROJECT: Star - Orion South Diamond Project		
Baseline Landscape Classes in the RSA		
DATE: March 2012	ANALYST: NH	Figure 5.3.4-2
JOB No: SX0373306.10	QA/QC: MY	PDF FILE: Fig5.3.4-2 RSA Landforms 12-03-19.pdf
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PROJECTION: UTM Zone 13	DATUM: NAD27	

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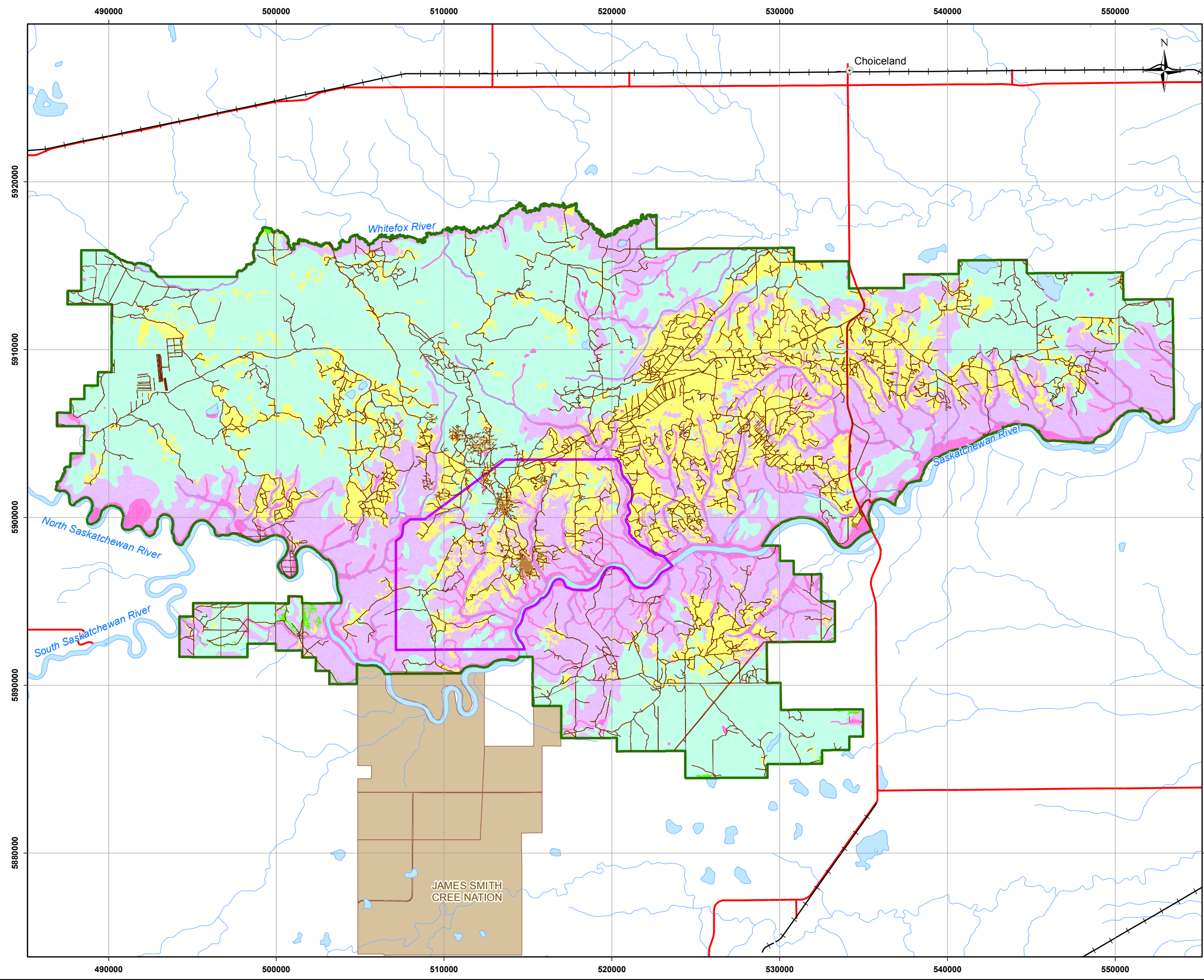
- Legend**
- Watercourse
 - Waterbody
 - Local Study Area
 - Regional Study Area
 - Terrain Boundary
 - Baseline Disturbance**
 - Linear Disturbance
 - Industrial Clearing
 - Reclaimed Clearing
 - Recent Harvest
 - Landscape Class**
 - Lowland
 - Upland
 - Riparian



Reference
 Base data: NRCan National Road Network
 NTS 1:50,000 scale: GeoSask
 Saskatchewan Ministry of Environment 2008.

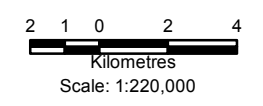
CLIENT: 		
PROJECT: Star - Orion South Diamond Project		
Baseline Disturbances Within Landscape Classes - LSA		
DATE: March 2012	ANALYST: NH	Figure 5.3.4-3
JOB No: SX0373306.10	QA/QC: MY	PDF FILE: Fig5.3.4-3 LSA Baseline Landforms 12-03-21.pdf
GIS FILE: Fig5.3.4-3 LSA Baseline Landforms.mxd		
PROJECTION: UTM Zone 13	DATUM: NAD27	

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Legend

- Town
- Highway
- +— Railway
- Watercourse
- Waterbody
- Indian Reserve
- Local Study Area
- Regional Study Area
- Baseline Disturbance**
- Agriculture
- Linear Disturbance
- Industrial Clearing
- Reclaimed Clearing
- Recent Harvest
- Landscape Class**
- Lowland
- Upland
- Riparian



Reference

Base data: NRCan National Road Network
 NTS 1:50,000 scale: GeoSask
 Indian Reserve/Municipality Boundaries: GeoSask

CLIENT:



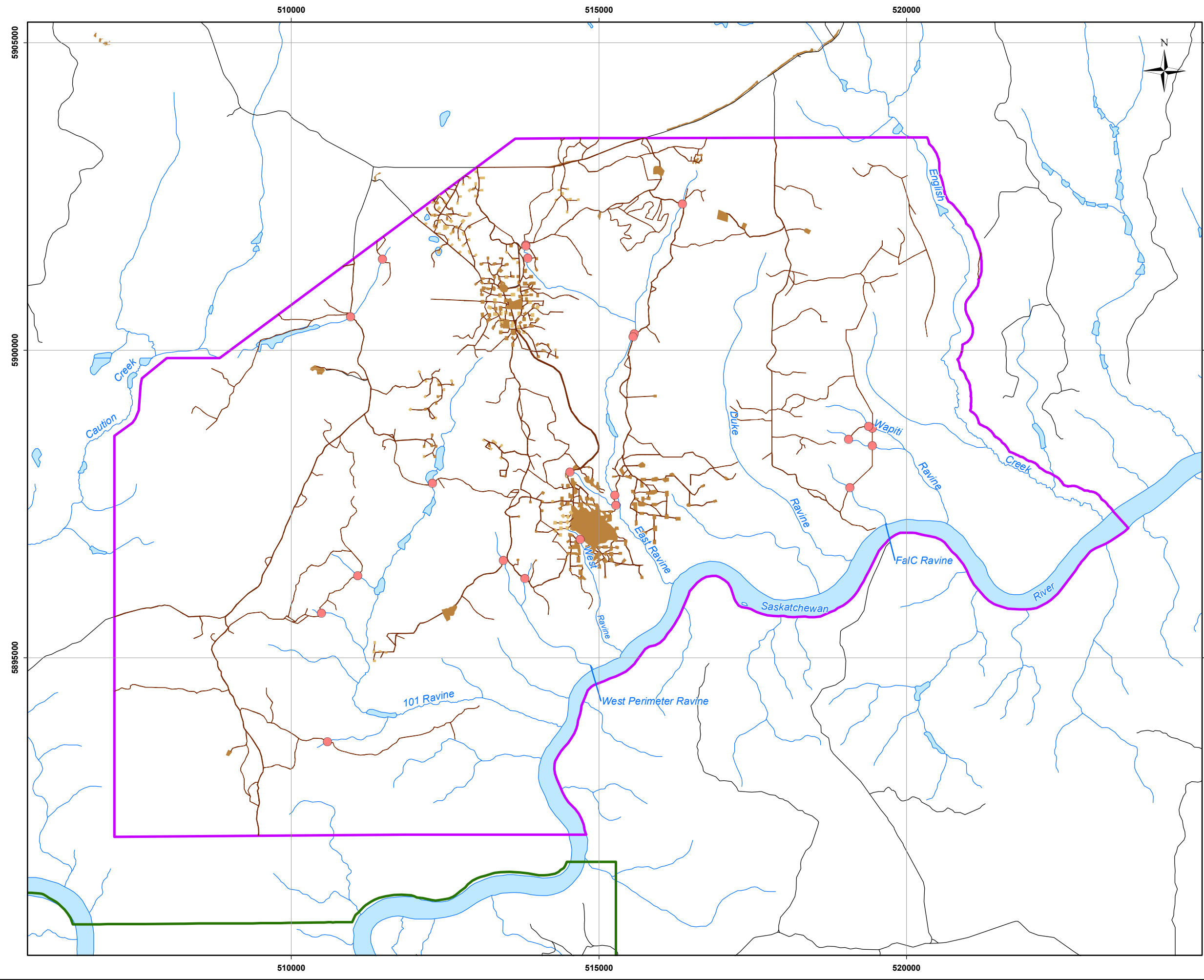
PROJECT:

Star - Orion South Diamond Project

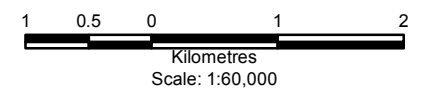
**Disturbances Within
Landscape Classes - RSA**

DATE: March 2012	ANALYST: NH	Figure 5.3.4-4
JOB No: SX0373306.10	QA/QC: MY	PDF FILE: Fig5.3.4-4 RSA Baseline Landforms 12-03-20.pdf
GIS FILE: Fig5.3.4-4 RSA Baseline Landforms.mxd		
PROJECTION: UTM Zone 13	DATUM: NAD27	

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- Legend**
- Watercourse
 - Waterbody
 - Local Study Area
 - Regional Study Area
 - Creek Crossing
- Baseline Disturbance**
- Linear Disturbance
 - Industrial Clearing
 - Reclaimed Clearing



Reference
 Base data: NRCan National Road Network
 NTS 1:50,000 scale: GeoSask
 Mine facilities: AMEC dated July 2010
 Saskatchewan Ministry of Environment 2008.

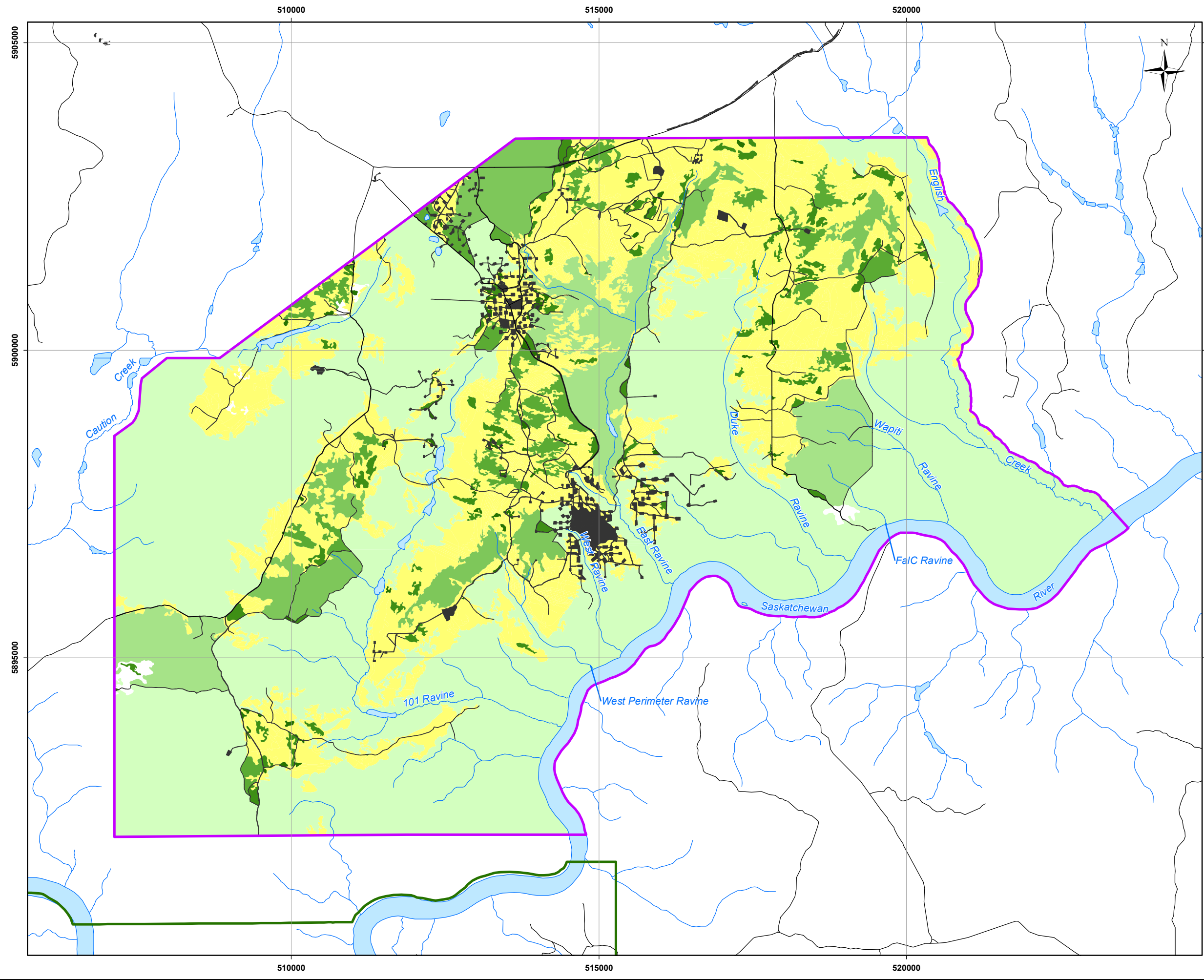
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PROJECT: Star - Orion South Diamond Project

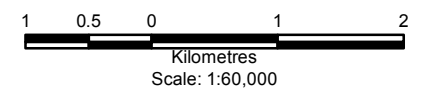
Baseline Creek Crossings - LSA

DATE: March 2012	ANALYST: NH	Figure 5.3.4-5
JOB No: SX0373306.10	QA/QC: MY	
GIS FILE: Fig5.3.4-5 LSA Baseline Crossings.mxd		
PROJECTION: UTM Zone 13	DATUM: NAD27	

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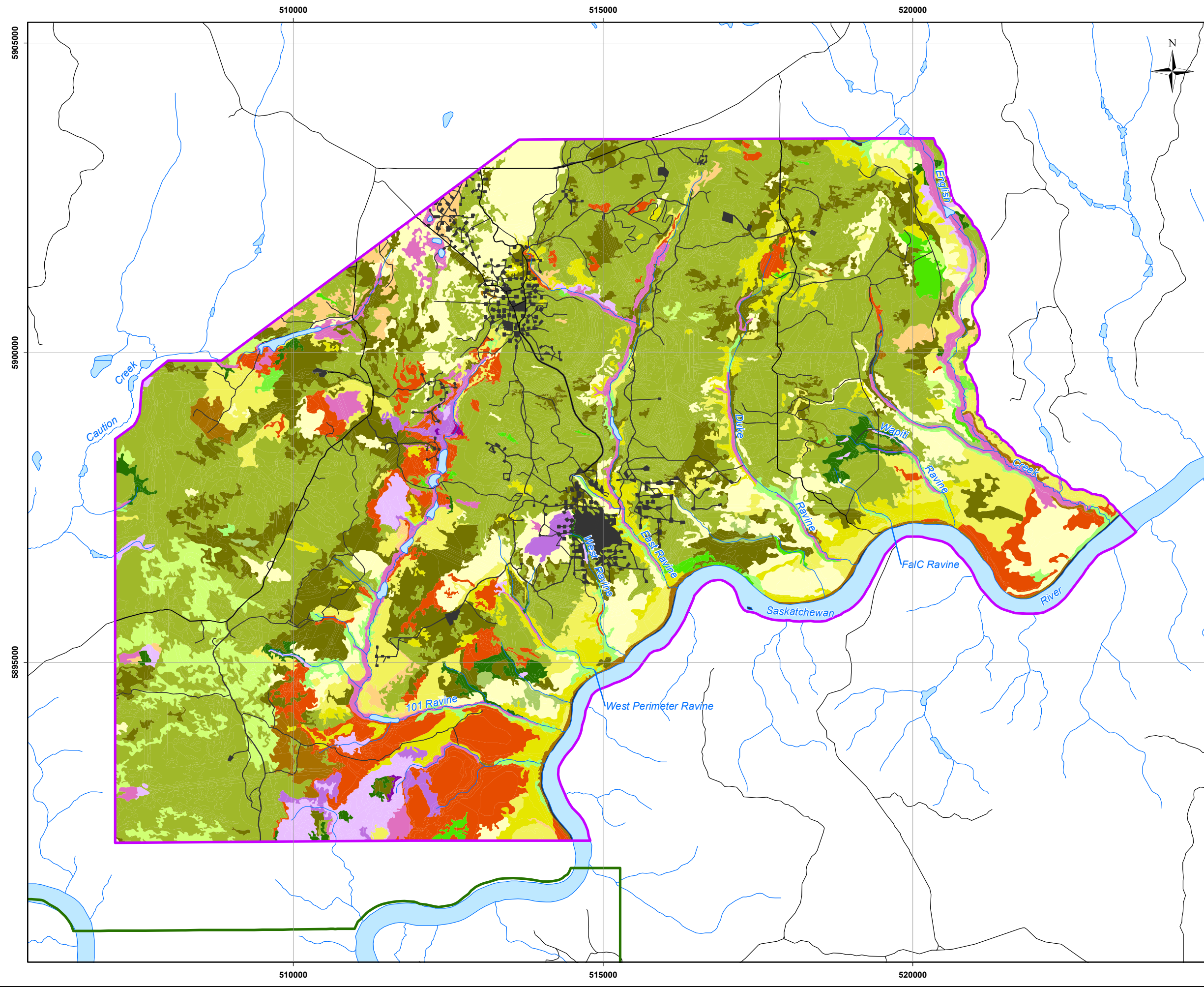
- Legend**
- Watercourse
 - Waterbody
 - Local Study Area
 - Regional Study Area
 - Baseline Disturbance
 - Recent Harvest
- Patch Size**
- 0 to 1 ha
 - 1 to 5 ha
 - 5 to 25 ha
 - 25 to 100 ha
 - 100 to 400 ha
 - >400 ha



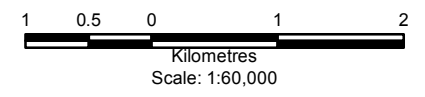
Reference
 Base data: NRCan National Road Network
 NTS 1:50,000 scale: GeoSask
 Saskatchewan Ministry of Environment 2008.

CLIENT: 		
PROJECT: Star - Orion South Diamond Project		
Natural Patches by Size Classes - LSA		
DATE: March 2012	ANALYST: NH	Figure 5.3.4-6
JOB No: SX0373307.10	QA/QC: MY	PDF FILE: Fig5.3.4-6 LSA Baseline Patches 12-03-21.pdf
GIS FILE: Fig5.3.4-6 LSA Baseline Patches.mxd		
PROJECTION: UTM Zone 13	DATUM: NAD27	

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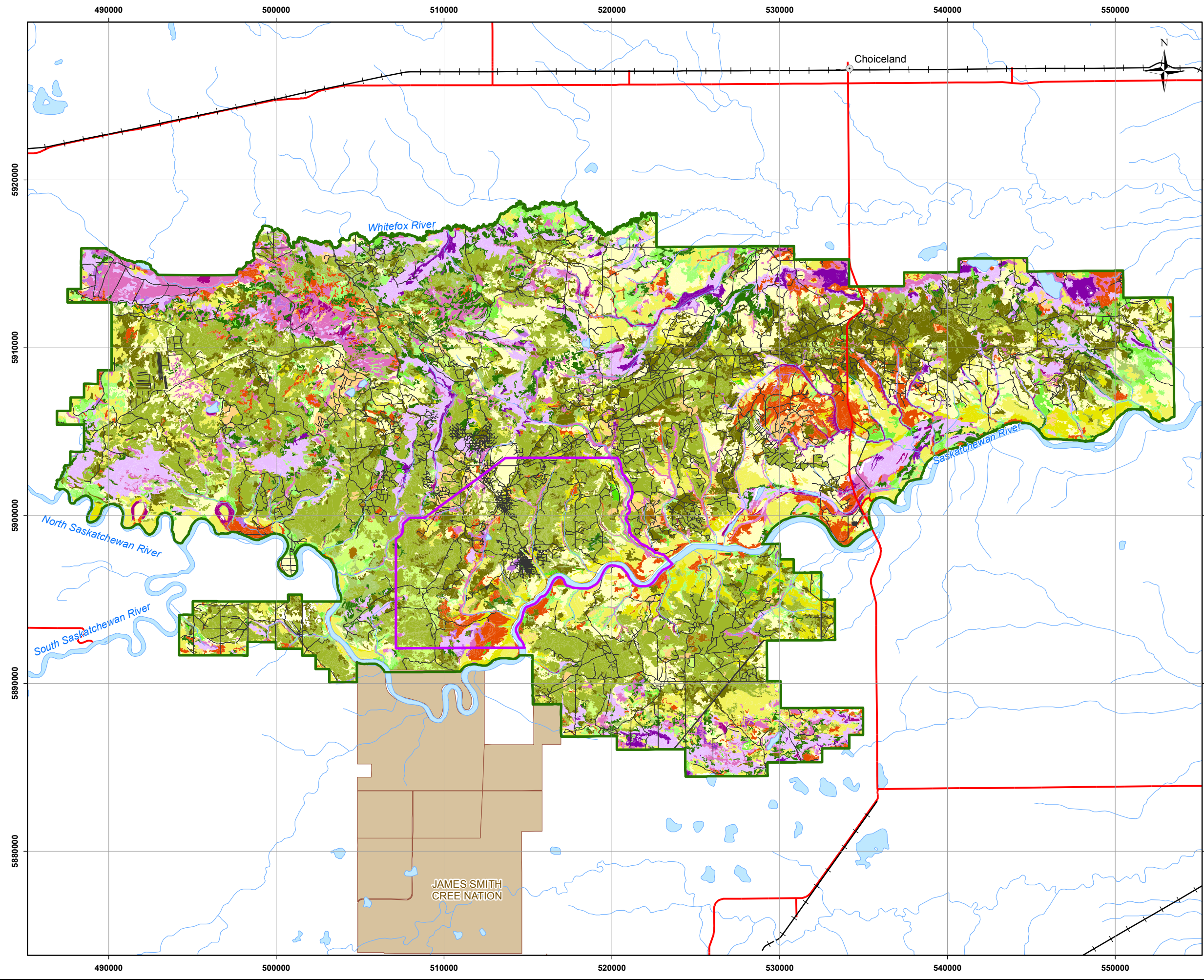
- Legend**
- Watercourse
 - Waterbody
 - Local Study Area
 - Regional Study Area
 - Baseline Disturbance
- Boreal Plain Ecosite**
- BP01
 - BP01a
 - BP02
 - BP03
 - BP04
 - BP05
 - BP06
 - BP07
 - BP09
 - BP10
 - BP11
 - BP12
 - BP14
 - BP15
 - BP16
 - BP18
 - BP18a
 - BP19
 - BP23
 - BP25
 - BP28



Reference
 Base data: NRCan National Road Network
 NTS 1:50,000 scale: GeoSask
 Mine facilities: AMEC dated July 2010
 Ecosite Classification: Saskatchewan Ministry of Environment 2010.

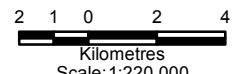
CLIENT: 		
PROJECT: Star - Orion South Diamond Project		
Baseline Ecosites and Disturbances - LSA		
DATE: March 2012	ANALYST: NH	Figure 5.3.4-7
JOB No: SX0373306.10	QA/QC: MY	PDF FILE: Fig5.3.4-7 LSA Baseline ELC 12-03-21.pdf
GIS FILE: Fig5.3.4-7 LSA Baseline ELC.mxd		
PROJECTION: UTM Zone 13	DATUM: NAD27	

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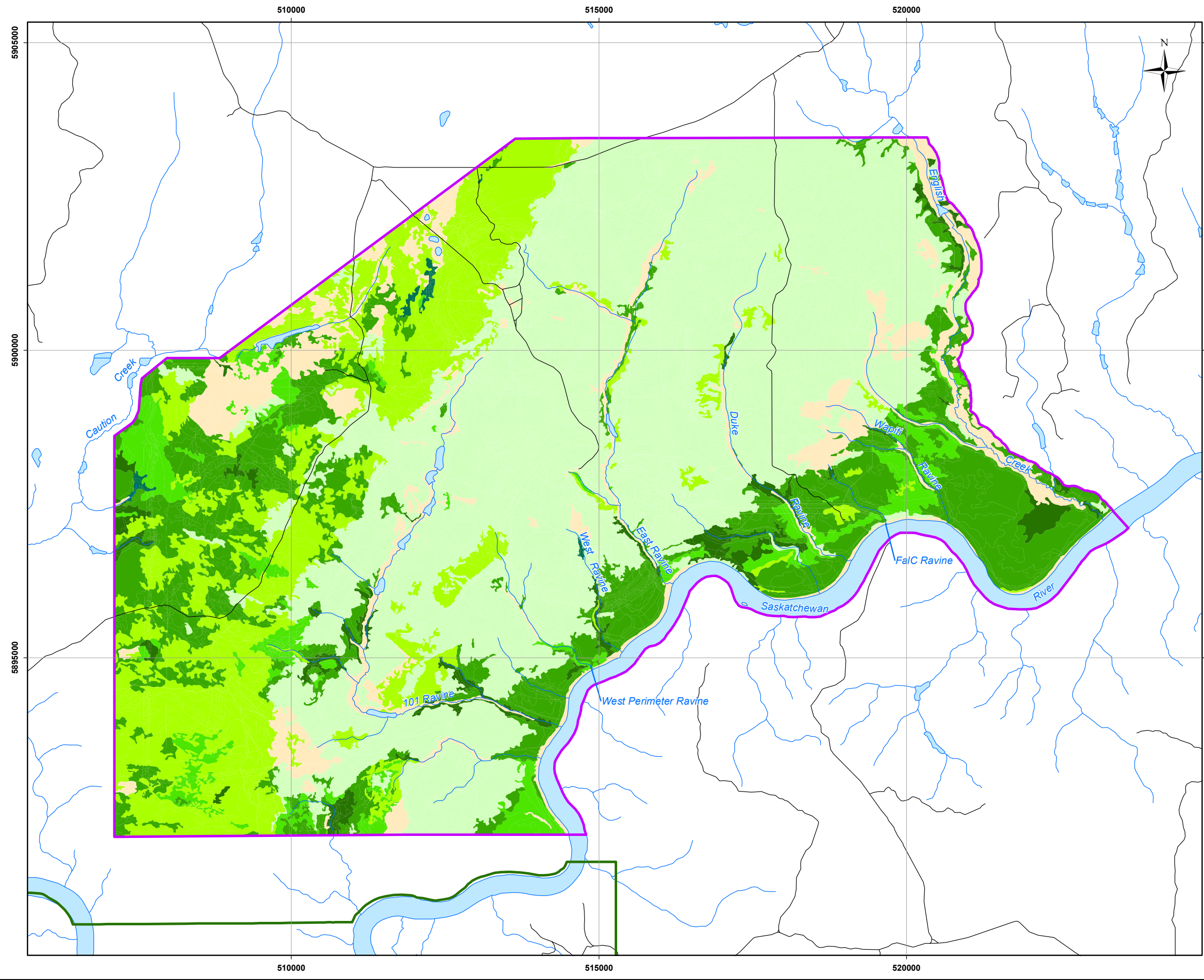
- Legend**
- Town
 - Highway
 - +— Railway
 - Watercourse
 - Waterbody
 - Indian Reserve
 - Local Study Area
 - Regional Study Area
 - Baseline Disturbance
- Boreal Plain Ecosite**
- BP01
 - BP01a
 - BP02
 - BP03
 - BP04
 - BP05
 - BP06
 - BP07
 - BP09
 - BP10
 - BP11
 - BP12
 - BP13
 - BP14
 - BP15
 - BP16
 - BP18
 - BP18a
 - BP19
 - BP23
 - BP24
 - BP25
 - BP26
 - BP28
 - Cutbank

Reference
 Base data: NRCan National Road Network
 NTS 1:50,000 scale: GeoSask
 Indian Reserve/Municipality Boundaries: GeoSask
 Ecosite Classification: Saskatchewan Ministry of Environment 2010.

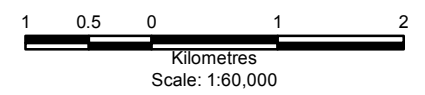


CLIENT: 		
PROJECT: Star - Orion South Diamond Project		
Baseline Ecosites and Disturbances - RSA		
DATE: March 2012	ANALYST: NH	Figure 5.3.4-8
JOB No: SX0373306.10	QA/QC: MY	PDF FILE: Fig5.3.4-8 RSA Baseline ELC 12-03-21.pdf
GIS FILE: Fig5.3.4-8 RSA Baseline ELC.mxd		
PROJECTION: UTM Zone 13	DATUM: NAD27	

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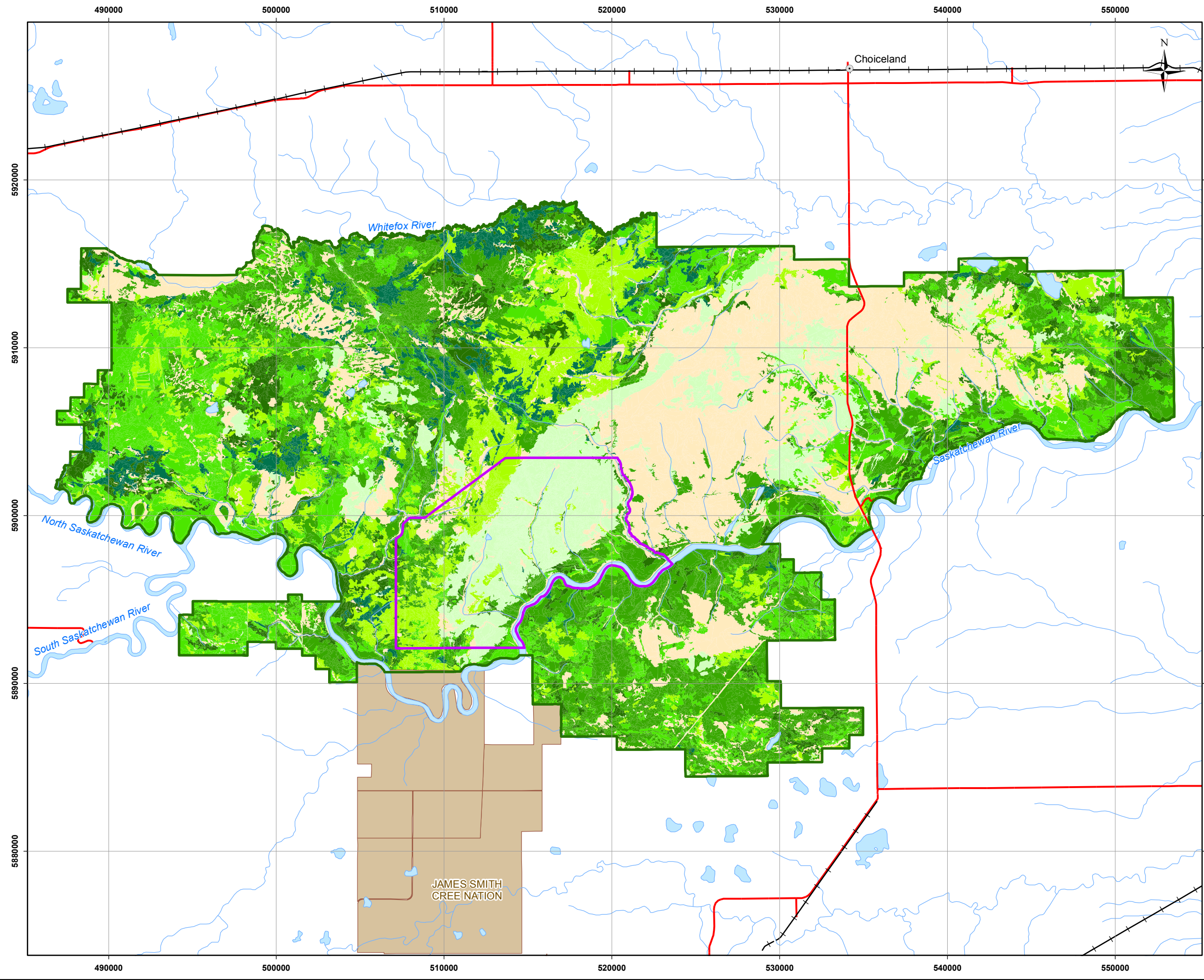
- Legend**
- Watercourse
 - Waterbody
 - Local Study Area
 - Regional Study Area
- Forest Age Classes**
- <20 years
 - 20 to 39 years
 - 40 to 59 years
 - 60 to 79 years
 - 80 to 99 years
 - 100 to 119 years
 - ≥120 years



Reference
 Base data: NRCan National Road Network
 NTS 1:50,000 scale: GeoSask
 Forest Inventory: Saskatchewan Ministry of Environment 2008.

CLIENT: 		
PROJECT: Star - Orion South Diamond Project		
Baseline Forest Age and Old Growth Forest - LSA		
DATE: March 2012	ANALYST: NH	Figure 5.3.4-9
JOB No: SX0373306.10	QA/QC: MY	PDF FILE: Fig5.3.4-9 LSA Baseline Old Growth 12-03-21.pdf
GIS FILE: Fig5.3.4-9 LSA Baseline Old Growth.mxd		
PROJECTION: UTM Zone 13	DATUM: NAD27	

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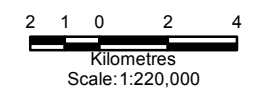


Legend

- Town
- Highway
- +— Railway
- Watercourse
- Waterbody
- Indian Reserve
- Local Study Area
- Regional Study Area

Forest Age Classes

- <20 years
- 21 to 39 years
- 40 to 59 years
- 60 to 79 years
- 80 to 99 years
- 100 to 119 years
- ≥120 years

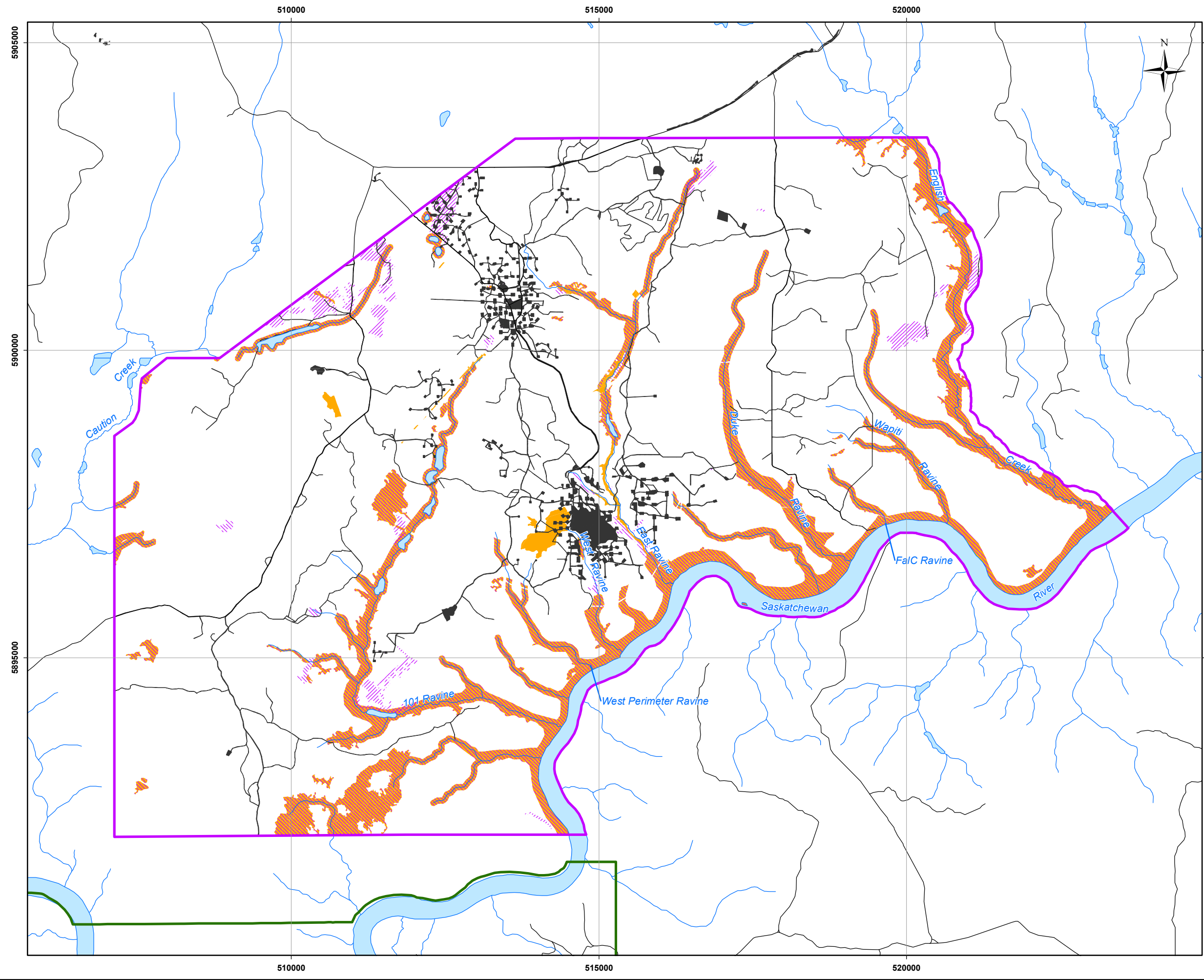


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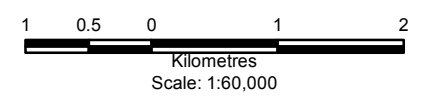
Base data: NRCan National Road Network
 NTS 1:50,000 scale: GeoSask
 Indian Reserve/Municipality Boundaries: GeoSask
 Forest Inventory: Saskatchewan Ministry of Environment 2008.

CLIENT: 		
PROJECT: Star - Orion South Diamond Project		
Baseline Forest Age and Old Growth Forest - RSA		
DATE: March 2012	ANALYST: NH	Figure 5.3.4-10
JOB No: SX0373306.10	QA/QC: MY	PDF FILE: Fig5.3.4-10 RSA Baseline Old Growth 12-03-21.pdf
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PROJECTION: UTM Zone 13	DATUM: NAD27	

S:\GIS\Projects\SX\Shore_Gold\2011\ArcGIS\Report\Biodiversity\Fig5.3.4-11_LSA Baseline Species at Risk.mxd



- Legend**
- Watercourse
 - Waterbody
 - Local Study Area
 - Regional Study Area
 - Baseline Disturbance
 - High Ranked Habitat**
 - Plant Species at Risk
 - Bird Species at Risk
 - Butterfly Species at Risk



Reference
 Base data: NRCan National Road Network
 NTS 1:50,000 scale: GeoSask
 Forest Inventory: Saskatchewan Ministry of Environment 2008.

CLIENT: 		
PROJECT: Star - Orion South Diamond Project		
High Ranked Species at Risk Habitats - LSA		
DATE: March 2012	ANALYST: NH	Figure 5.3.4-11
JOB No: SX0373306.10	QA/QC: MY	
GIS FILE: Fig5.3.4-11 LSA Baseline Species at Risk.mxd		PDF FILE: Fig5.3.4-11 LSA Baseline Species at Risk 12-03-20.pdf
PROJECTION: UTM Zone 13	DATUM: NAD27	

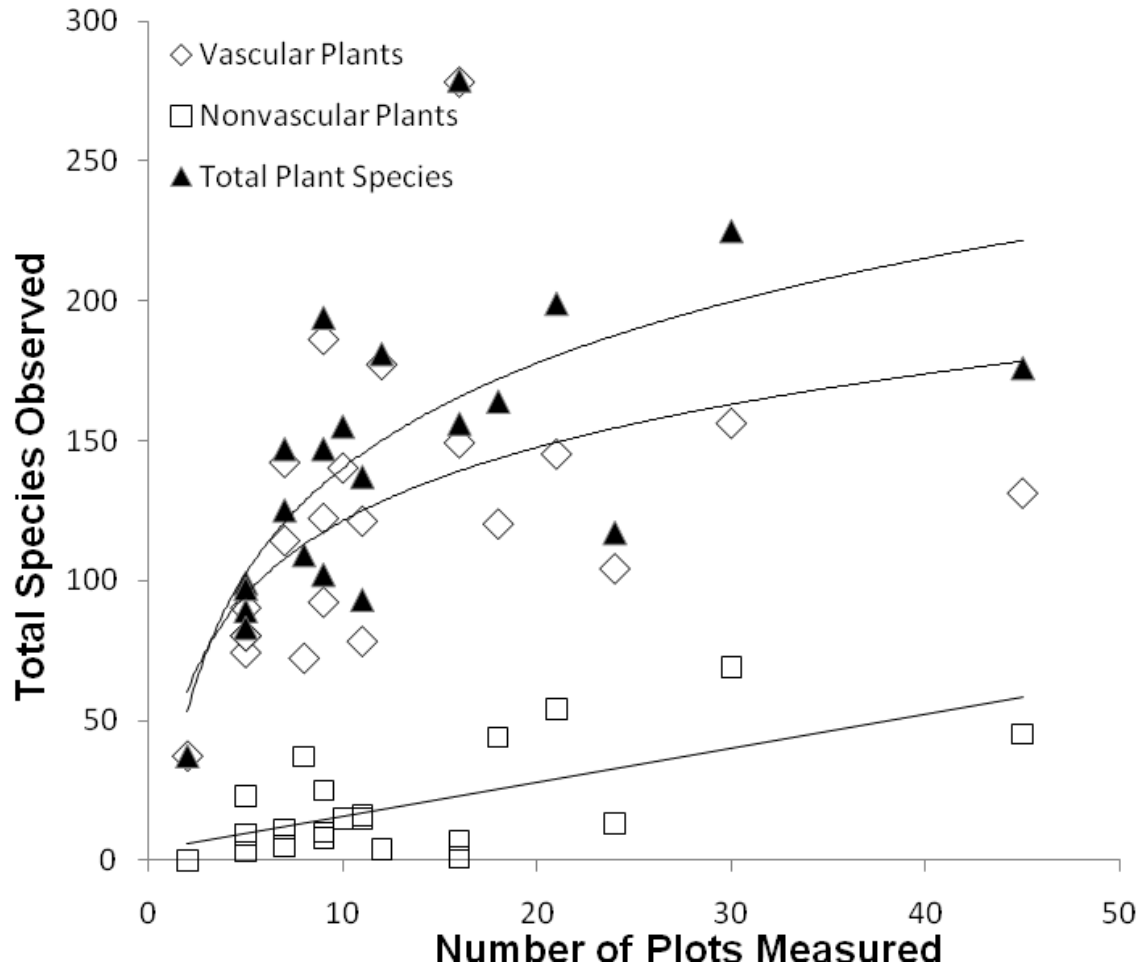
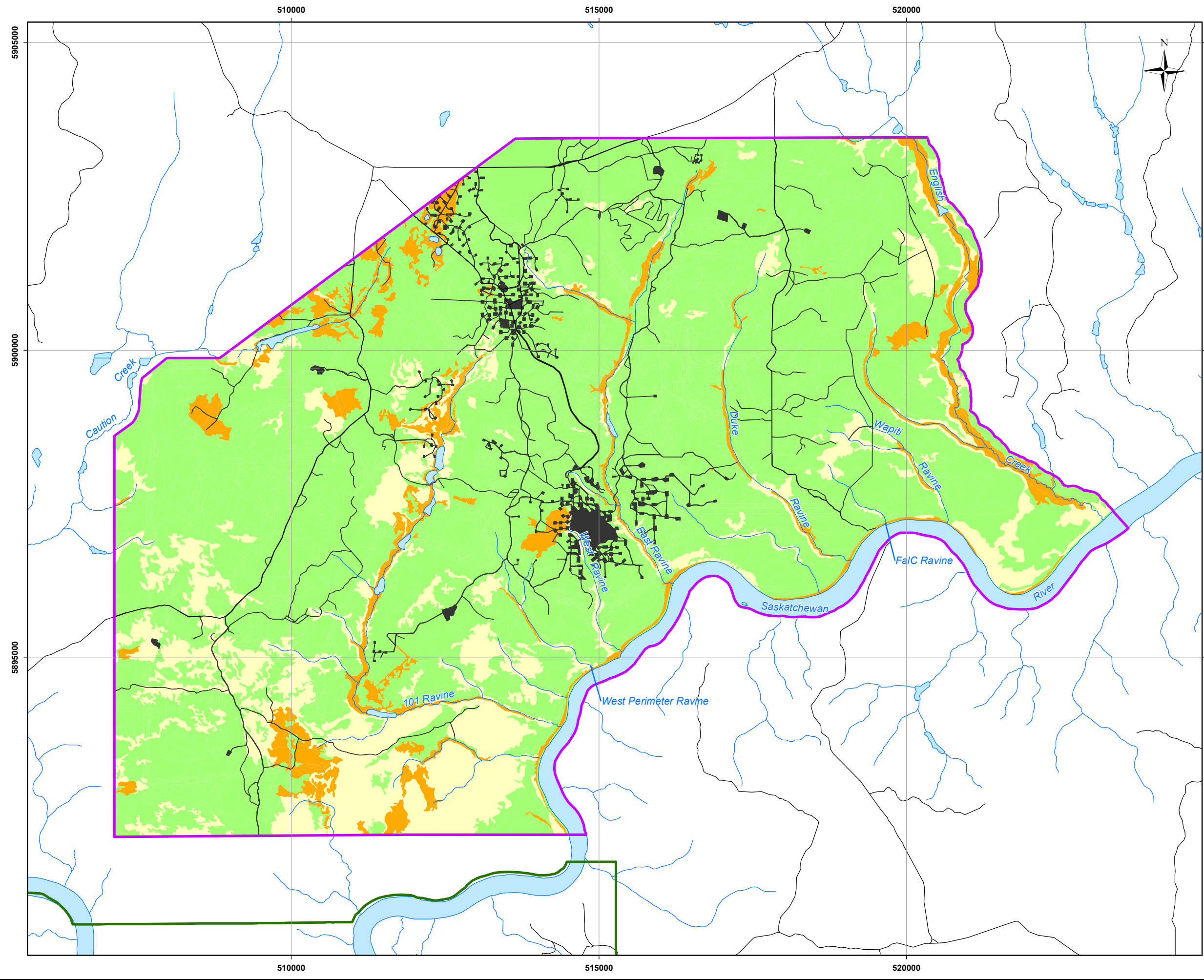
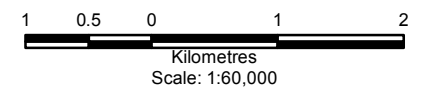


Figure 5.3.4-12: Relationship between Sample Sites and Total Plant Species Richness

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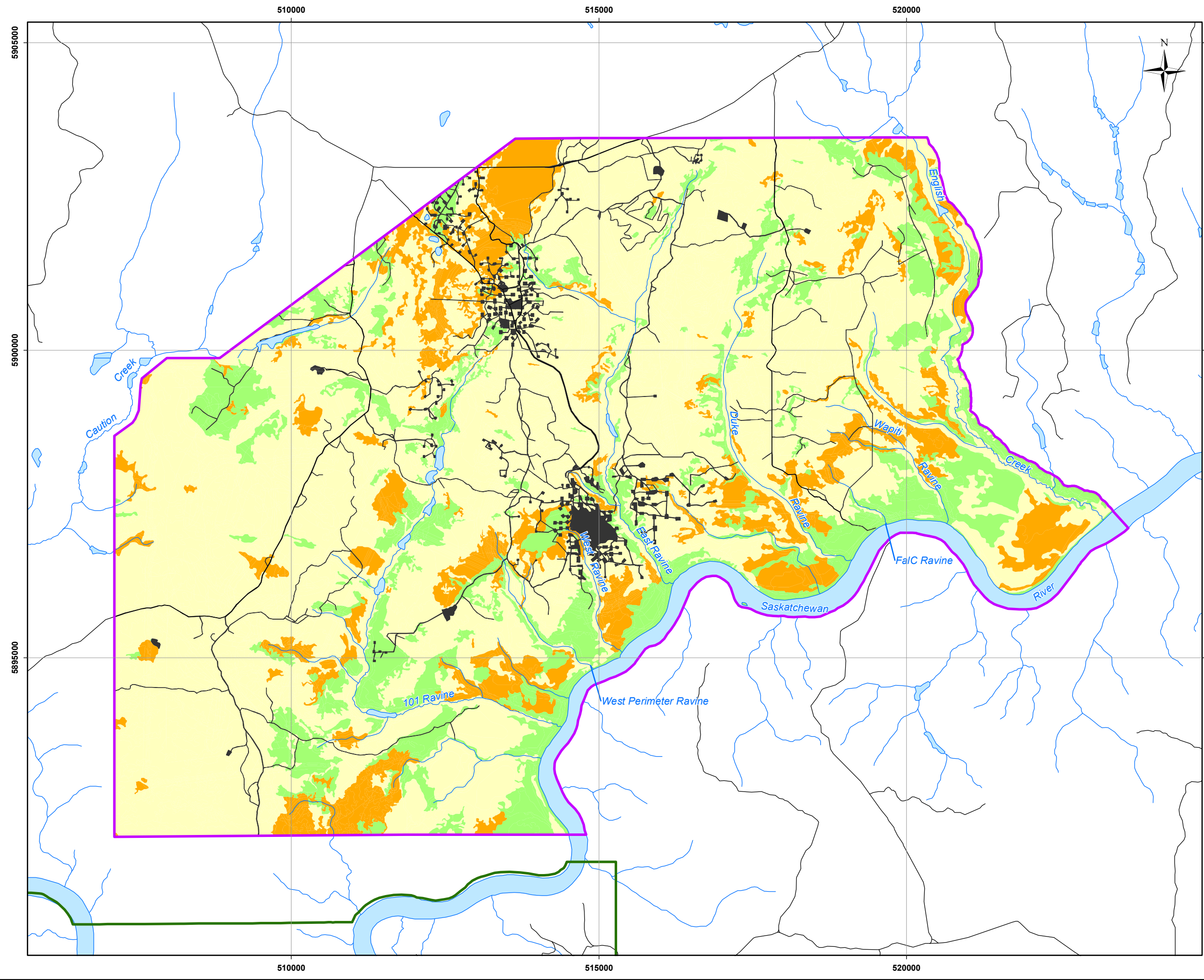
- Legend**
- Watercourse
 - Waterbody
 - Local Study Area
 - Regional Study Area
 - Baseline Disturbance
- Ranked Vascular Plant Habitat**
- High
 - Medium
 - Low
 - Not Ranked



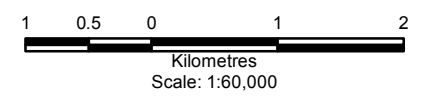
Reference
 Base data: NRCan National Road Network
 NTS 1:50,000 scale: GeoSask
 Forest Inventory: Saskatchewan Ministry of Environment 2008.

CLIENT: 		
PROJECT: Star - Orion South Diamond Project		
Baseline Vascular Plant Species Richness Habitats - LSA		
DATE: March 2012	ANALYST: NH	Figure 5.3.4-13
JOB No: SX0373306.10	QA/QC: MY	PDF FILE: Fig5.3.4-13_LSA_Baseline_Vascular_Plant_12-03-20.pdf
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PROJECTION: UTM Zone 13	DATUM: NAD27	

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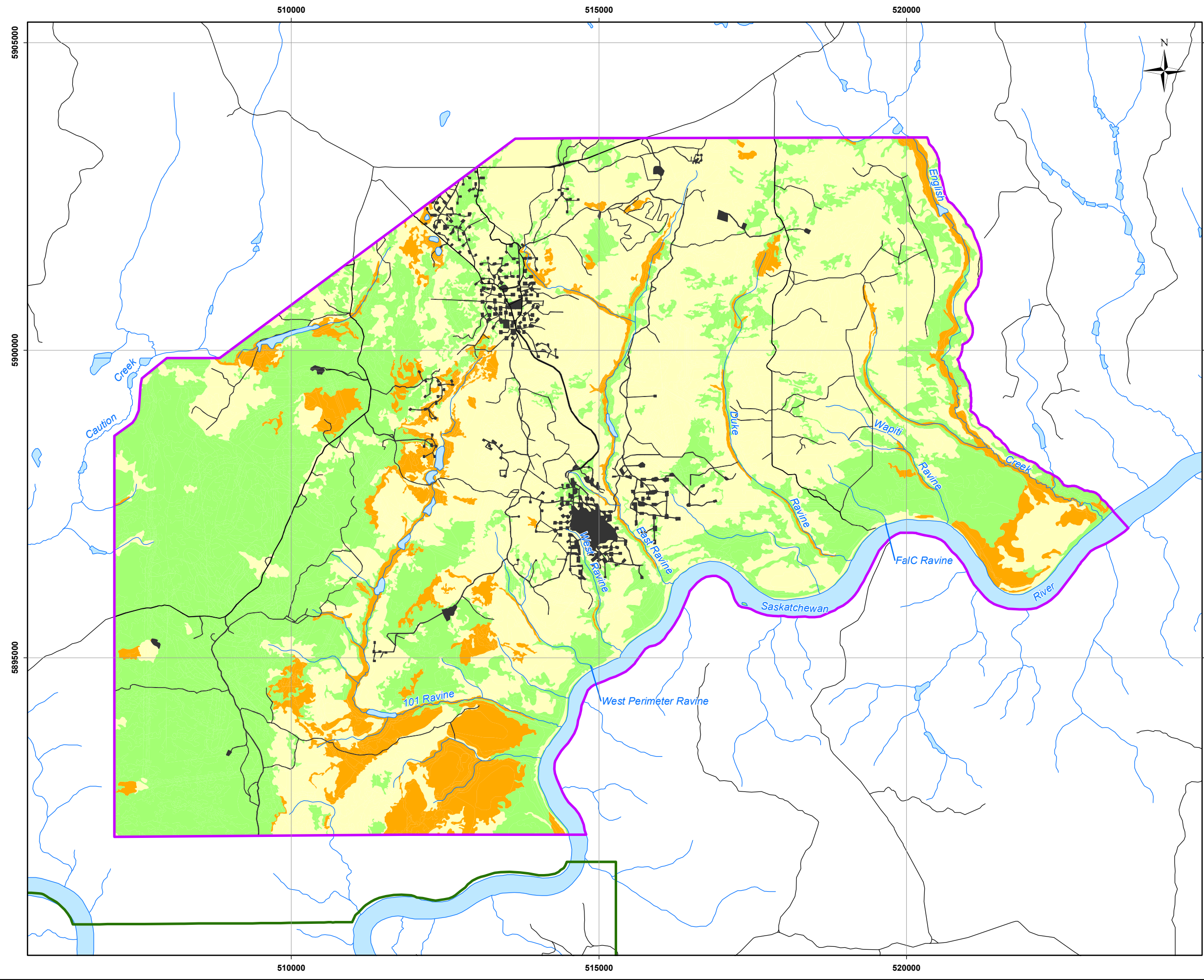
- Legend**
- Watercourse
 - Waterbody
 - Local Study Area
 - Regional Study Area
 - Baseline Disturbance
- Ranked Non-vascular Plant Habitat**
- High
 - Medium
 - Low
 - Not Ranked



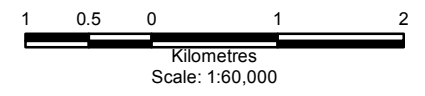
Reference
 Base data: NRCan National Road Network
 NTS 1:50,000 scale: GeoSask
 Forest Inventory: Saskatchewan Ministry of Environment 2008.

CLIENT: 		
PROJECT: Star - Orion South Diamond Project		
Baseline Non-vascular Plant Species Richness Habitats - LSA		
DATE: March 2012	ANALYST: NH	Figure 5.3.4-14
JOB No: SX0373306.10	QA/QC: MY	PDF FILE: Fig5.3.4-14 LSA Baseline Non-Vascular Plant 12-03-20.pdf
GIS FILE: Fig5.3.4-14 LSA Baseline Non-Vascular Plant.mxd		
PROJECTION: UTM Zone 13	DATUM: NAD27	

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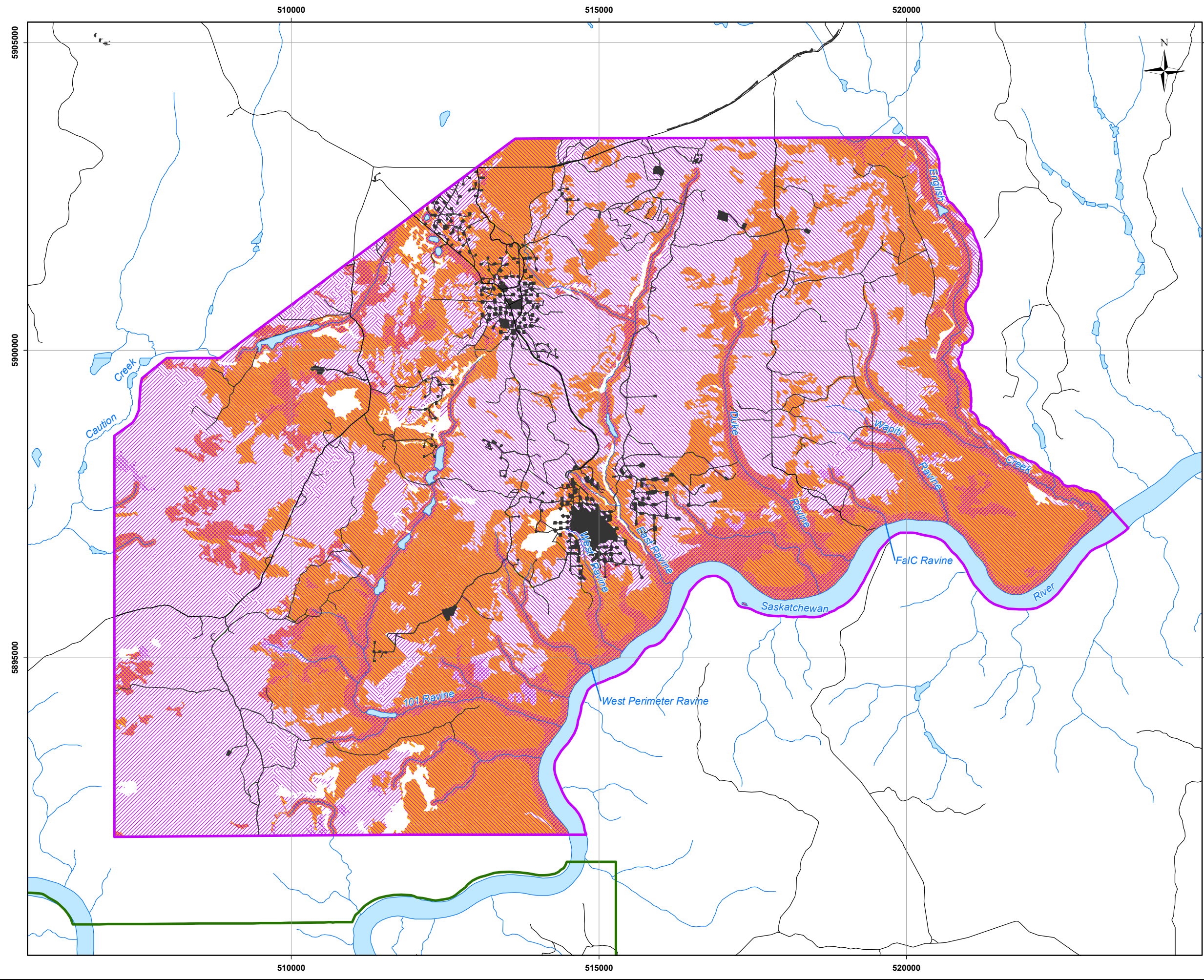
- Legend**
- Watercourse
 - Waterbody
 - Local Study Area
 - Regional Study Area
 - Baseline Disturbance
- Ranked Breeding Bird Habitat**
- High
 - Medium
 - Low
 - Not Ranked



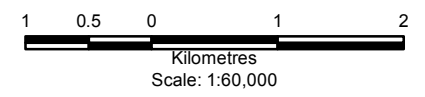
Reference
 Base data: NRCan National Road Network
 NTS 1:50,000 scale: GeoSask
 Forest Inventory: Saskatchewan Ministry of Environment 2008.

CLIENT: 		
PROJECT: Star - Orion South Diamond Project		
Baseline Breeding Bird Species Richness Habitats - LSA		
DATE: March 2012	ANALYST: NH	Figure 5.3.4-15
JOB No: SX0373306.10	QA/QC: MY	
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PROJECTION: UTM Zone 13	DATUM: NAD27	

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- Legend**
- Watercourse
 - Waterbody
 - Local Study Area
 - Regional Study Area
 - Baseline Disturbance
- High Ranked Mammal Species at Risk Habitat**
- Ungulate
 - Furbearer
 - Carnivore



Reference
 Base data: NRCan National Road Network
 NTS 1:50,000 scale: GeoSask
 Forest Inventory: Saskatchewan Ministry of Environment 2008.

CLIENT: 		
PROJECT: Star - Orion South Diamond Project		
Baseline High Ranked Mammal Species at Risk Habitats - LSA		
DATE: March 2012	ANALYST: NH	Figure 5.3.4-16
JOB No: SX0373306.10	QA/QC: MY	PDF FILE: Fig5.3.4-16 LSA Baseline Mammals 12-03-20.pdf
GIS FILE: Fig5.3.4-16 LSA Baseline Mammals.mxd		
PROJECTION: UTM Zone 13	DATUM: NAD27	