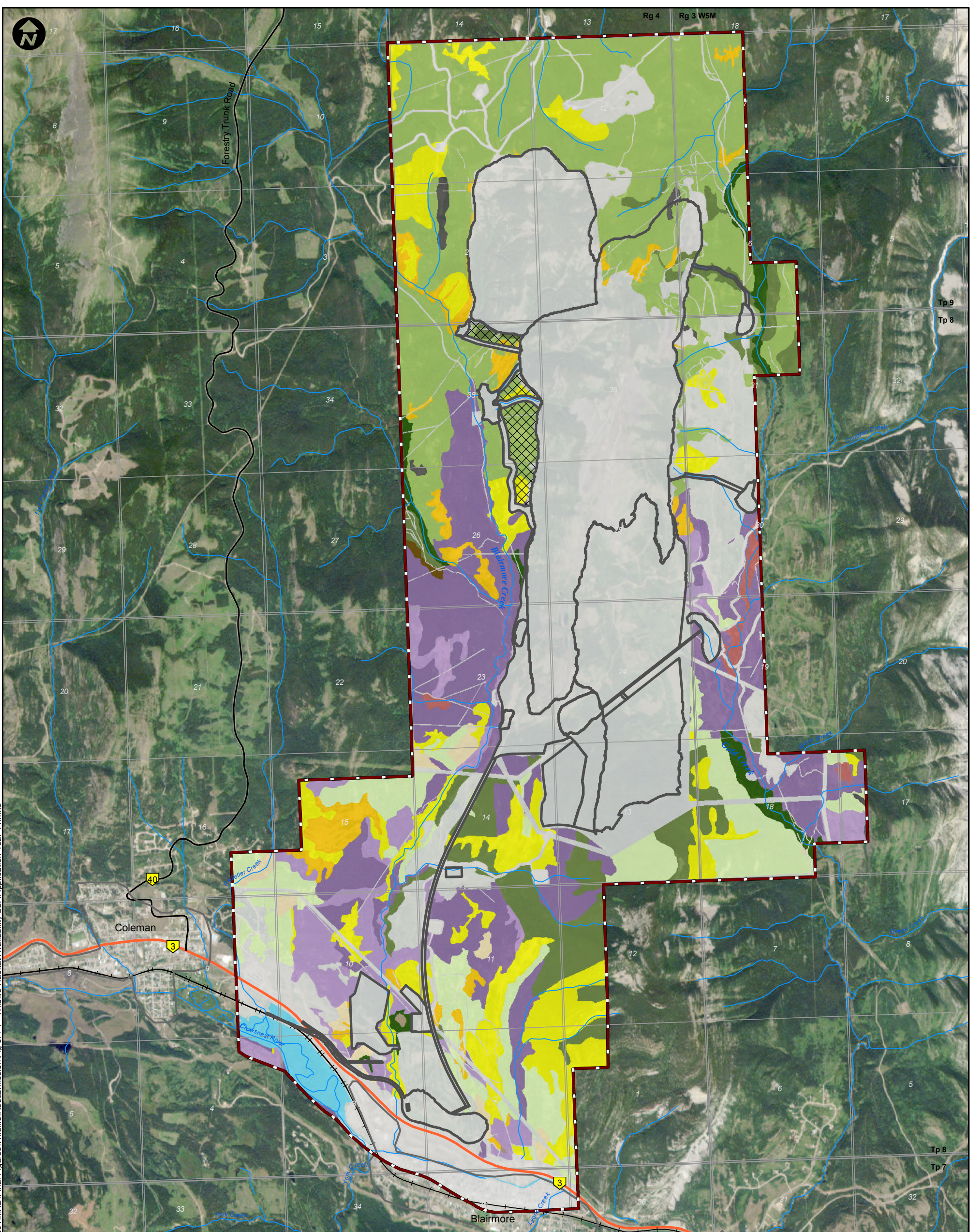


Document Path: K:\Active Projects\2014\AP\_14-00201 to 14-00250\14-00201\MXD\Final Figures\Wildlife\Resubmission\Fig 5.1-1 - Wildlife Habitat Availability LSA Application Year 14.mxd



**LEGEND**

- |                |                           |  |                           |
|----------------|---------------------------|--|---------------------------|
|                | Primary Highway           |  | Moderate Mixed Coniferous |
|                | Secondary Highway         |  | Closed Deciduous          |
|                | Existing Railway          |  | Closed Mixedwood          |
|                | Surface Water Drainage    |  | Closed Spruce             |
|                | Wildlife Local Study Area |  | Closed Mixed Coniferous   |
|                | Project Footprint         |  | Grassland                 |
|                | Undisturbed Area          |  | Upland Shrub              |
| <b>Habitat</b> |                           |  | Shrubby Wetland           |
|                | Open Pine                 |  | Treed Wetland             |
|                | Open Deciduous            |  | Rock Barren               |
|                | Open Mixedwood            |  | Naturally Flooded Area    |
|                | Open Mixed Coniferous     |  | Anthropogenic Disturbance |

**PROJECT**

**RIVERSDALE** GRASSY MOUNTAIN COAL PROJECT

**MILLENNIUM**  
EMS Solutions Ltd.

**TITLE**

**WILDLIFE HABITAT AVAILABILITY IN THE WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

DRAWN BY: SL

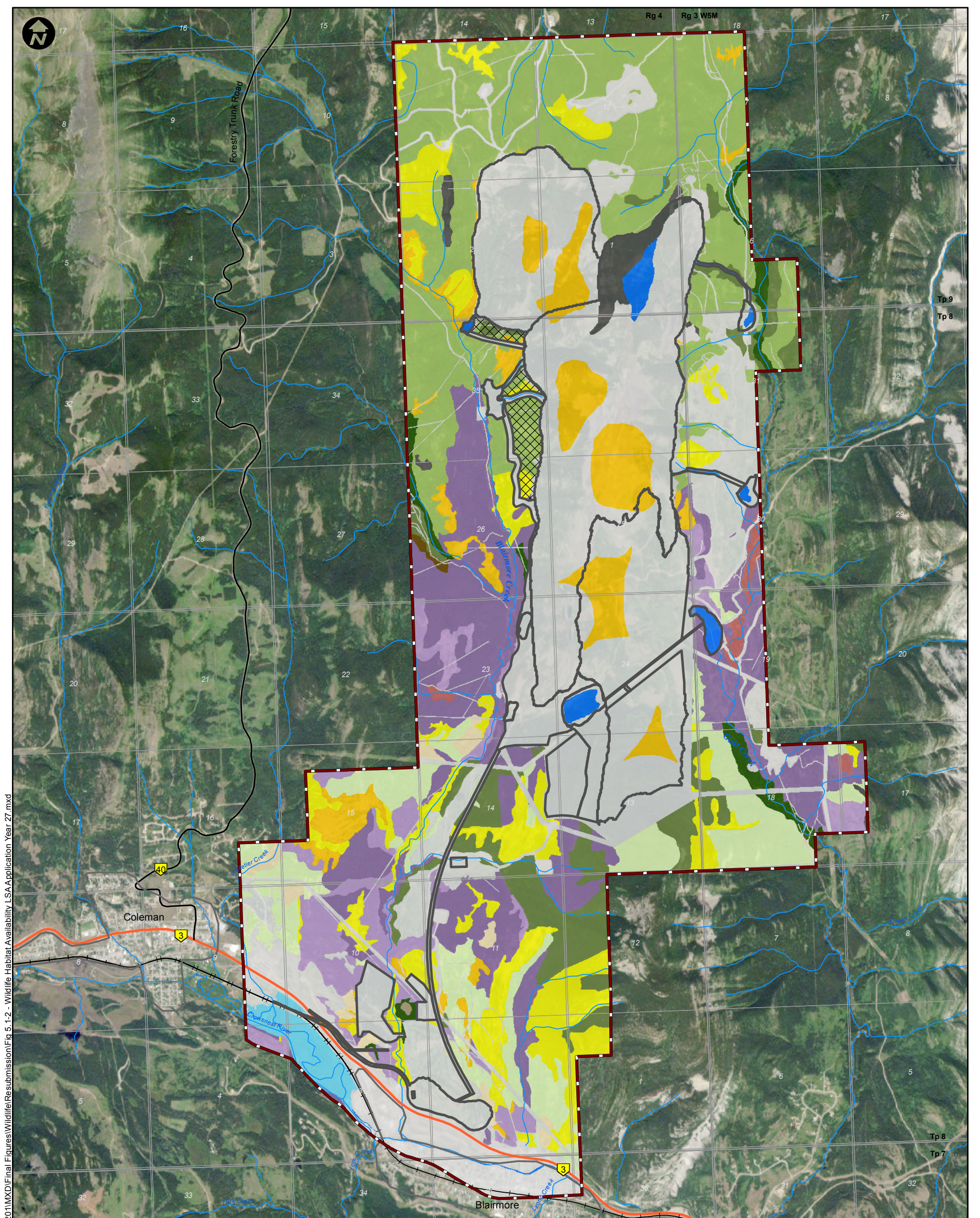
CHECKED BY: RM

DATE: JUNE 20, 2016

**FIGURE**

**5.1-1**





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**LEGEND**

- |                           |                           |
|---------------------------|---------------------------|
| Primary Highway           | Closed Deciduous          |
| Secondary Highway         | Closed Mixedwood          |
| Existing Railway          | Closed Spruce             |
| Surface Water Drainage    | Closed Mixed Coniferous   |
| Wildlife Local Study Area | Grassland                 |
| Project Footprint         | Upland Shrub              |
| Undisturbed Area          | Shrubby Wetland           |
| <b>Habitat</b>            | Treed Wetland             |
| Open Pine                 | Rock Barren               |
| Open Deciduous            | Naturally Flooded Area    |
| Open Mixedwood            | Waterbody                 |
| Open Mixed Coniferous     | Anthropogenic Disturbance |
| Moderate Mixed Coniferous |                           |

**PROJECT**

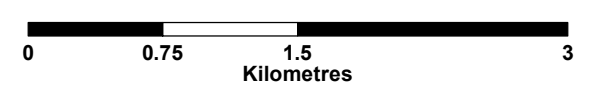
**RIVERSDALE** GRASSY MOUNTAIN COAL PROJECT  
RESOURCES

**MILLENNIUM**  
EMS Solutions Ltd.

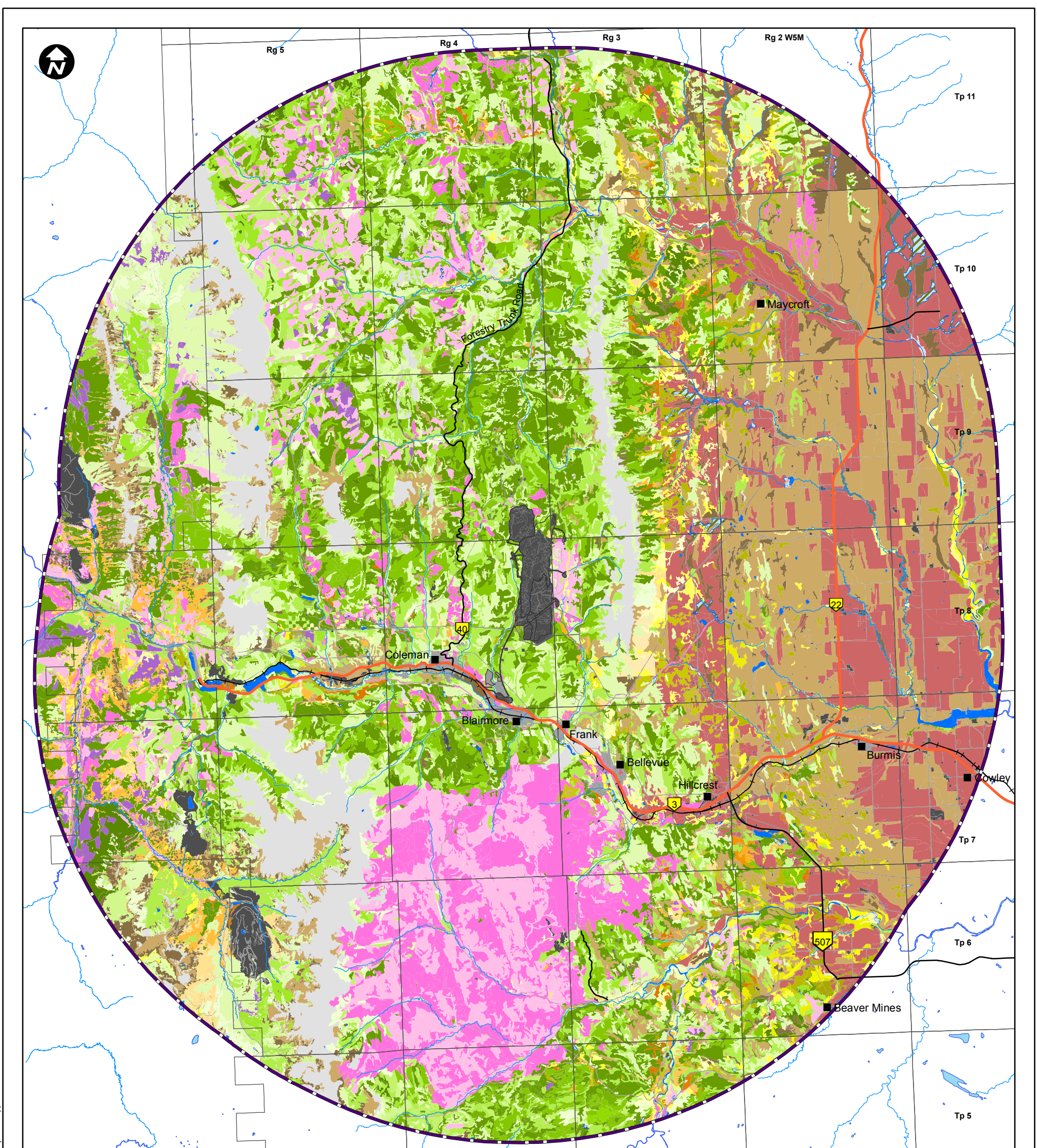
**TITLE**  
**WILDLIFE HABITAT AVAILABILITY IN THE WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**  
AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01  
DRAWN BY: SL  
CHECKED BY: RM  
DATE: JUNE 20, 2016



**FIGURE**  
**5.1-2**



**Ecological Land Cover Class**

Open Broadleaf Young Forest	Closed Broadleaf Young Forest	Dense Conifer Young Forest	Moderate Mixed Young Forest	Natural Upland Herb	<b>Wetland/Watebody</b>
Open Broadleaf Mature Forest	Closed Broadleaf Mature Forest	Dense Conifer Mature Forest	Moderate Mixed Mature Forest	Lush Herb	
Open Broadleaf Old Forest	Closed Broadleaf Old Forest	Dense Conifer Old Forest	Moderate Mixed Old Forest	Closed Regenerating Treed	Natural Graminoid Wetland
Moderate Broadleaf Young Forest	Open Conifer Young Forest	Closed Conifer Young Forest	Dense Mixed Young Forest	Open Regenerating Herb	Natural Shrubby Wetland
Moderate Broadleaf Mature Forest	Open Conifer Mature Forest	Closed Conifer Mature Forest	Dense Mixed Mature Forest	Open Regenerating Shrub	Treed Wetland
Moderate Broadleaf Old Forest	Open Conifer Old Forest	Closed Conifer Old Forest	Closed Mixed Young Forest	Barren Land	Open Water
Dense Broadleaf Young Forest	Moderate Conifer Young Forest	Open Mixed Young Forest	Closed Mixed Mature Forest		<b>Anthropomorphic</b>
Dense Broadleaf Mature Forest	Moderate Conifer Mature Forest	Open Mixed Mature Forest	Closed Mixed Old Forest		Agriculture
Dense Broadleaf Old Forest	Moderate Conifer Old Forest	Open Mixed Old Forest	Natural Shrubby		Settlement
					Linear Anthropogenic Disturbance
					Industrial (e.g. Mining)

**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Grizzly Bear Regional Study Area
- Project Footprint

**PROJECT**

**RIVERSDALE RESOURCES** **GRASSY MOUNTAIN COAL PROJECT**

**MILLENNIUM**  
EMS Solutions Ltd.

**TITLE**

**WILDLIFE HABITAT AVAILABILITY IN THE GRIZZLY BEAR REGIONAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

DRAWN BY: SL

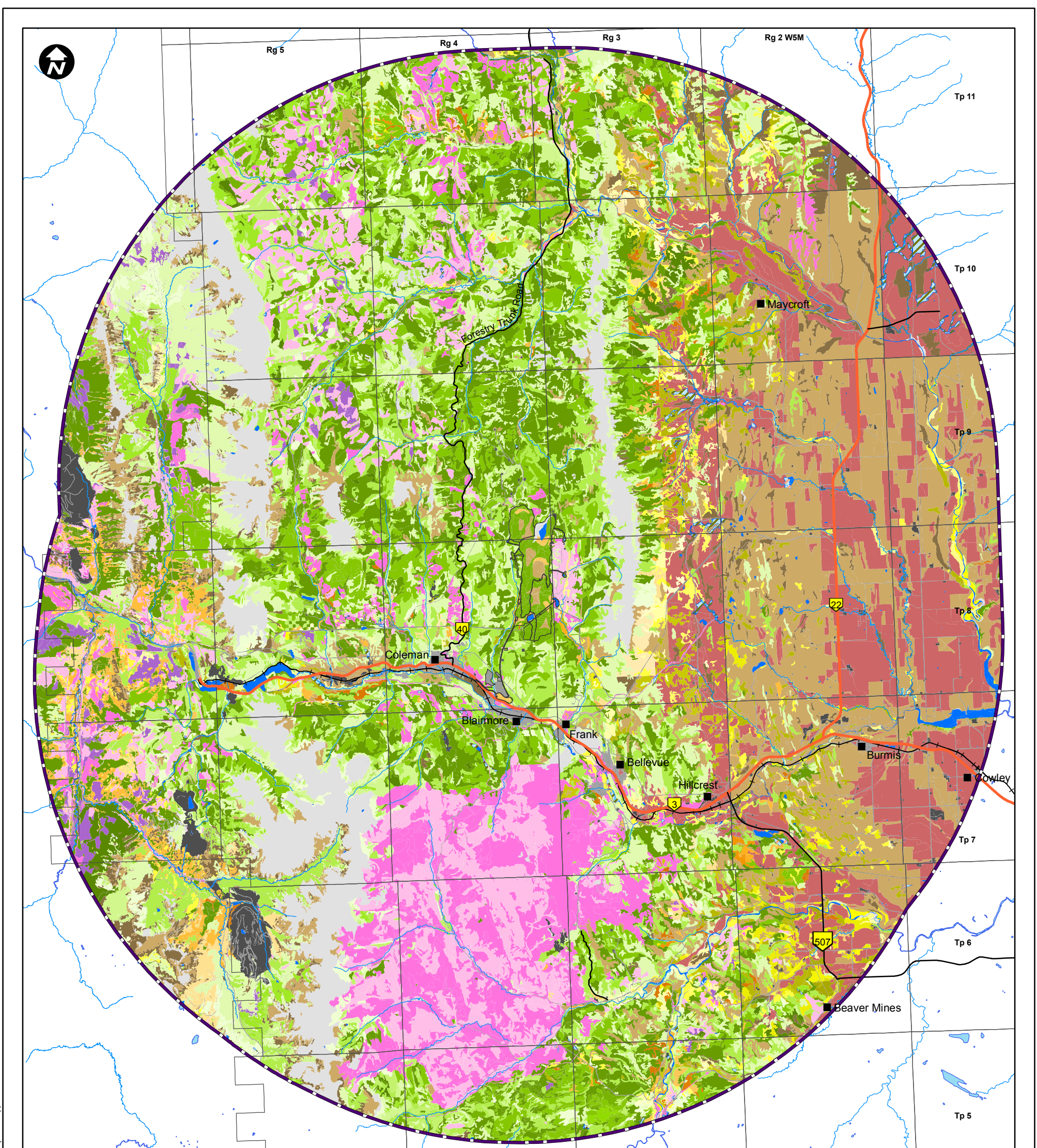
CHECKED BY: RM

DATE: JUNE 20, 2016

**FIGURE**

**5.1-3**





**Ecological Land Cover Class**

Open Broadleaf Young Forest	Closed Broadleaf Young Forest	Dense Conifer Young Forest	Moderate Mixed Young Forest	Natural Upland Herb	<b>Wetland/Watebody</b>
Open Broadleaf Mature Forest	Closed Broadleaf Mature Forest	Dense Conifer Mature Forest	Moderate Mixed Mature Forest	Lush Herb	
Open Broadleaf Old Forest	Closed Broadleaf Old Forest	Dense Conifer Old Forest	Moderate Mixed Old Forest	Closed Regenerating Treed	Natural Graminoid Wetland
Moderate Broadleaf Young Forest	Open Conifer Young Forest	Closed Conifer Young Forest	Dense Mixed Young Forest	Open Regenerating Herb	Natural Shrubby Wetland
Moderate Broadleaf Mature Forest	Open Conifer Mature Forest	Closed Conifer Mature Forest	Dense Mixed Mature Forest	Open Regenerating Shrub	Treed Wetland
Moderate Broadleaf Old Forest	Open Conifer Old Forest	Closed Conifer Old Forest	Closed Mixed Young Forest	Barren Land	Open Water
Dense Broadleaf Young Forest	Moderate Conifer Young Forest	Open Mixed Young Forest	Closed Mixed Mature Forest		<b>Anthropomorphic</b>
Dense Broadleaf Mature Forest	Moderate Conifer Mature Forest	Open Mixed Mature Forest	Closed Mixed Old Forest		Agriculture
Dense Broadleaf Old Forest	Moderate Conifer Old Forest	Open Mixed Old Forest	Natural Shrubby		Settlement
					Linear Anthropogenic Disturbance
					Industrial (e.g. Mining)

**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Grizzly Bear Regional Study Area
- Project Footprint

**PROJECT**

**GRASSY MOUNTAIN COAL PROJECT**

**TITLE**

**WILDLIFE HABITAT AVAILABILITY IN THE GRIZZLY BEAR REGIONAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**

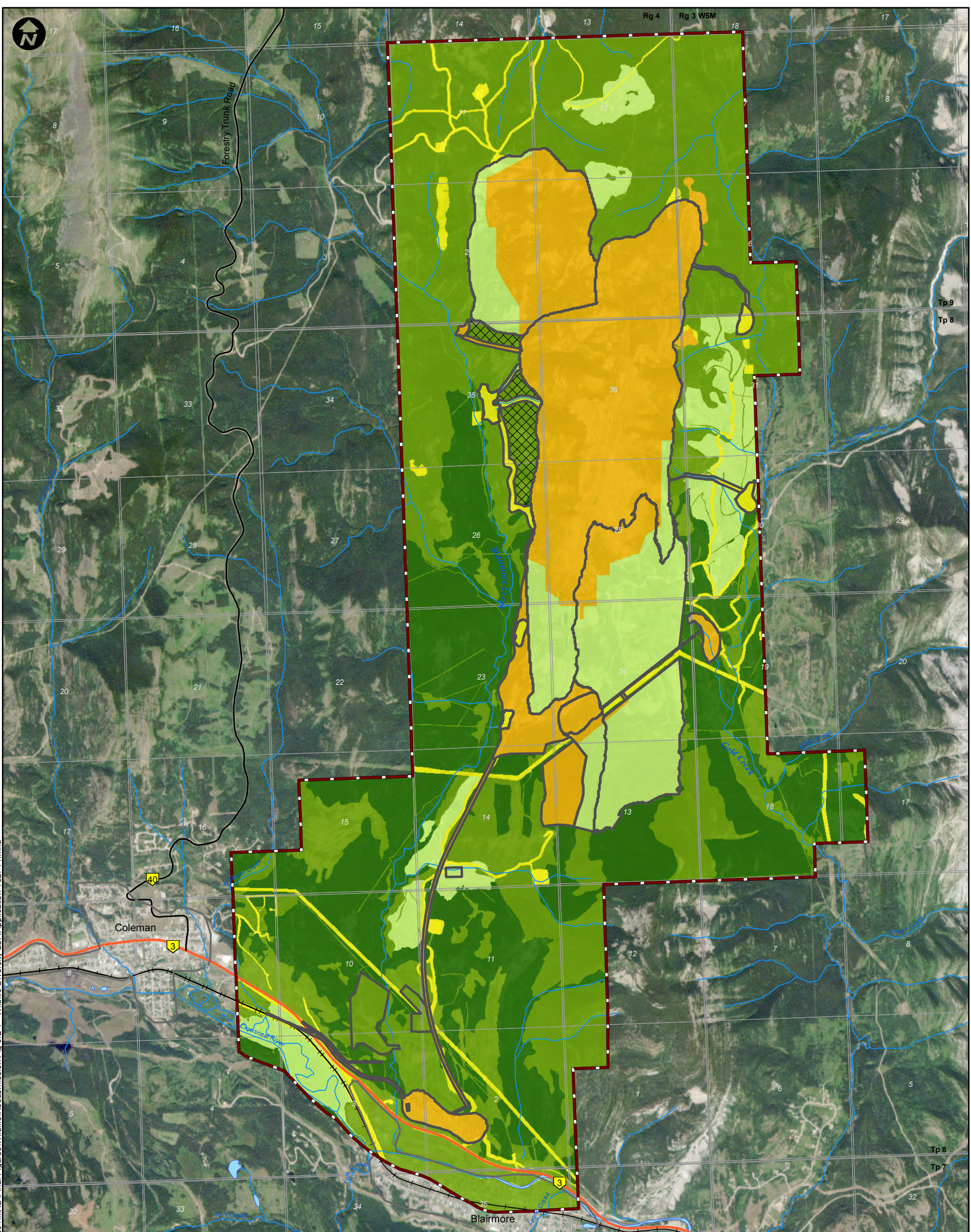
AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01  
DRAWN BY: SL  
CHECKED BY: RM  
DATE: JUNE 20, 2016

**FIGURE**  
**5.1-4**



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**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area

- Diversity**
- High
  - Moderate-High
  - Moderate
  - Moderate-Low
  - Low

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**WILDLIFE DIVERSITY IN THE WILDLIFE  
LOCAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

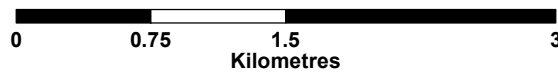
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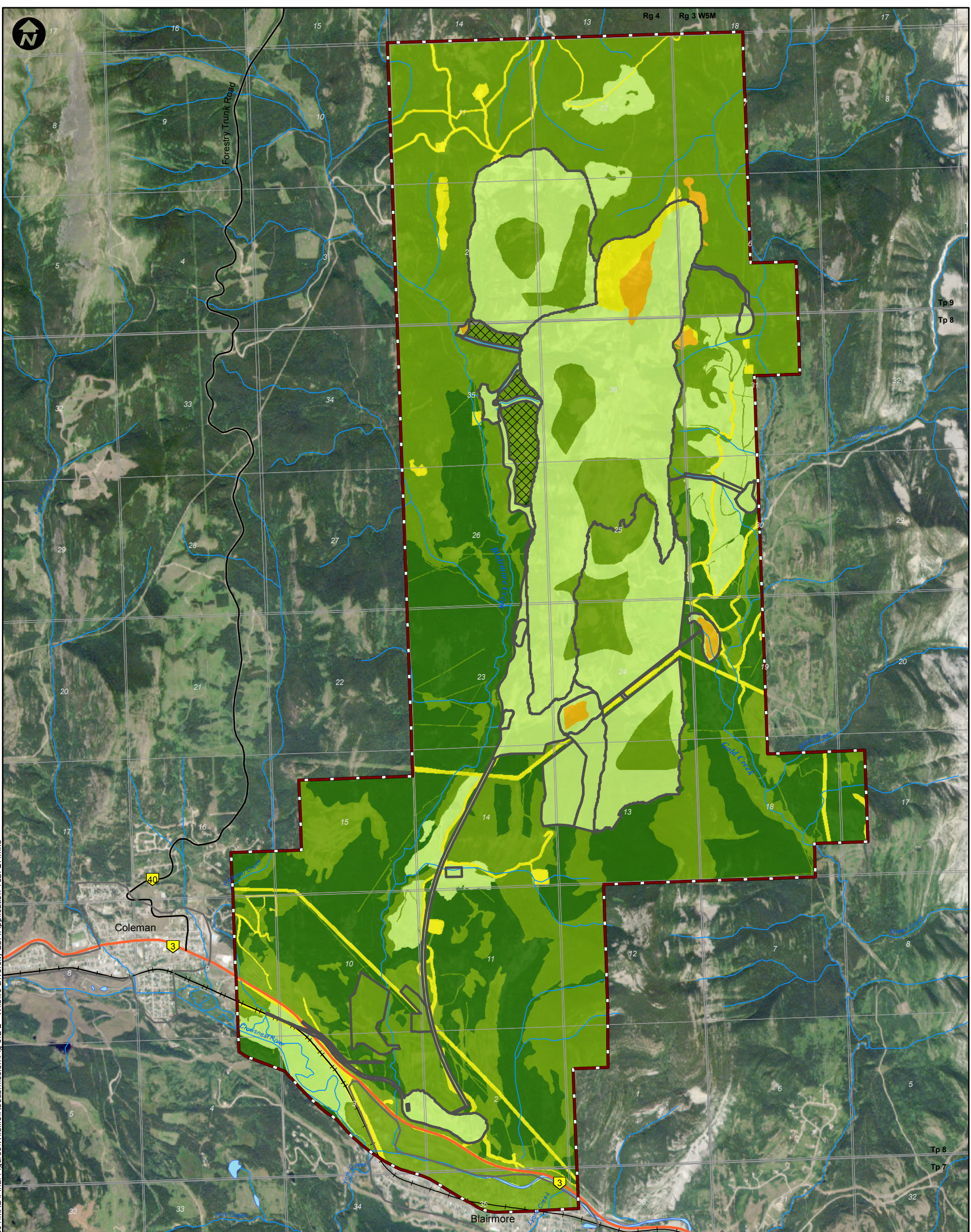
DATE: JULY 06, 2016

**FIGURE**

**5.2-1**



Document Path: K:\Active Projects 2014\AP\_14-00201 to 14-00250\14-00201\MXD\Final Figures\Wildlife\Resubmission\Fig 5.2-2 - Wildlife Diversity LSA Application Year 27.mxd



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area

- Diversity**
- High
  - Moderate-High
  - Moderate
  - Moderate-Low
  - Low

**PROJECT**

**RIVERSDALE** GRASSY MOUNTAIN  
RESOURCES COAL PROJECT

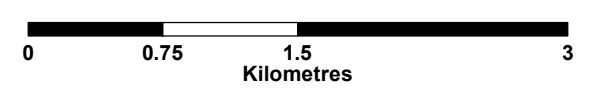
**MILLENNIUM**  
EMS Solutions Ltd.

**TITLE**  
**WILDLIFE DIVERSITY IN THE WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 27**

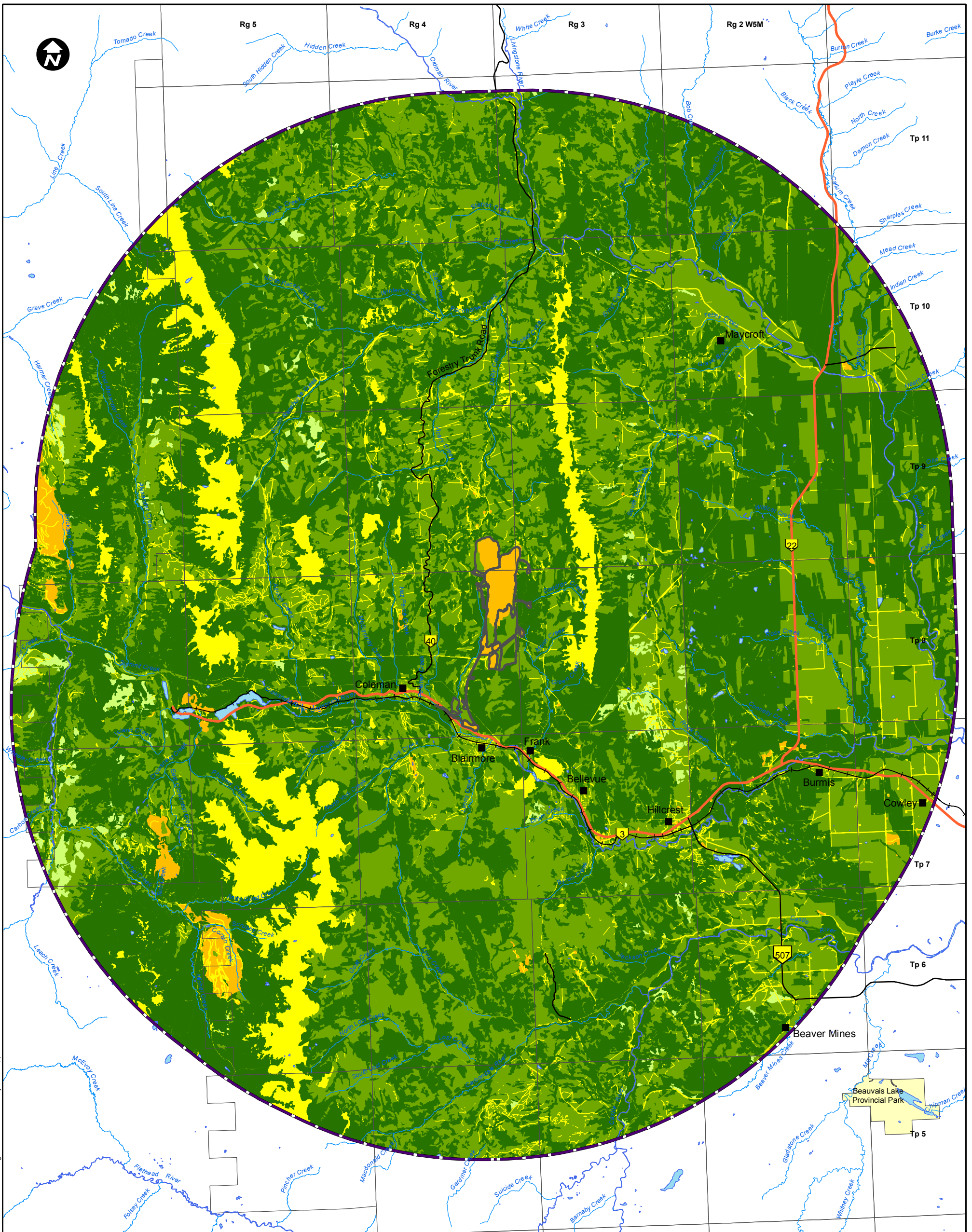
**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01  
DRAWN BY: SL  
CHECKED BY: RM  
DATE: JULY 06, 2016



**FIGURE**  
**5.2-2**



Document Path: K:\Active Projects 2014\AP 14-00201-14-00201\MXD\Final\Figures\Wildlife\Resubmission\Fig 5.2-3 - Wildlife Diversity GRSA Application Year 14.mxd

**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Provincial Park
- Grizzly Bear Regional Study Area
- Project Footprint

- Diversity**
- High
  - Moderate-High
  - Moderate
  - Moderate-Low
  - Low

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**WILDLIFE DIVERSITY IN THE GRIZZLY BEAR  
REGIONAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

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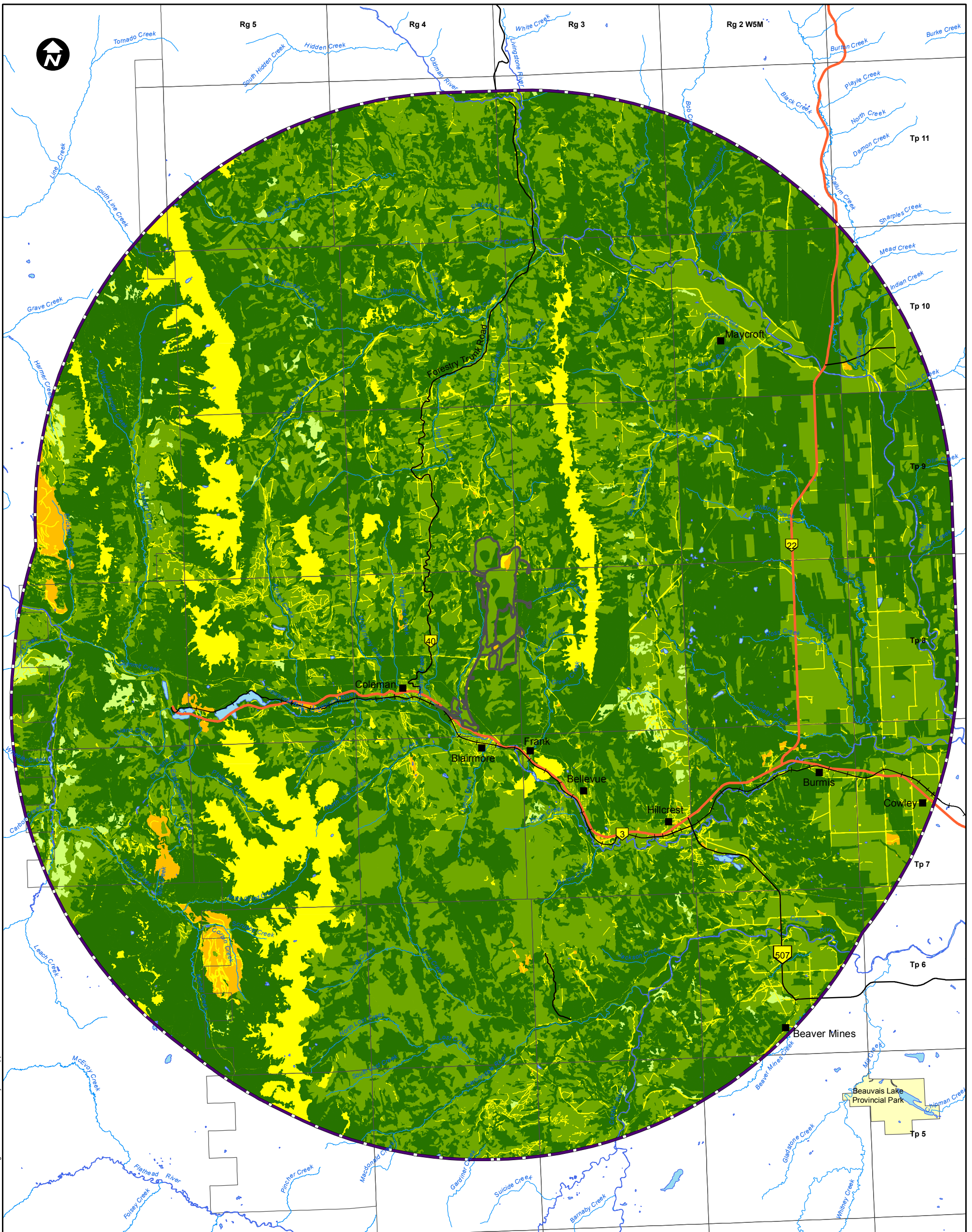
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DATE: JULY 06, 2016

**FIGURE**

**5.2-3**





Document Path: K:\Active Projects 2014\AP 14-00201-14-00201\MXD\Final\Figures\Wildlife\Resubmission\Fig 5.2-4 - Wildlife Diversity GRSA Application Year 27.mxd

**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Provincial Park
- Grizzly Bear Regional Study Area
- Project Footprint

- Diversity**
- High
  - Moderate-High
  - Moderate
  - Moderate-Low
  - Low

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**WILDLIFE DIVERSITY IN THE GRIZZLY BEAR  
REGIONAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

DRAWN BY: SL

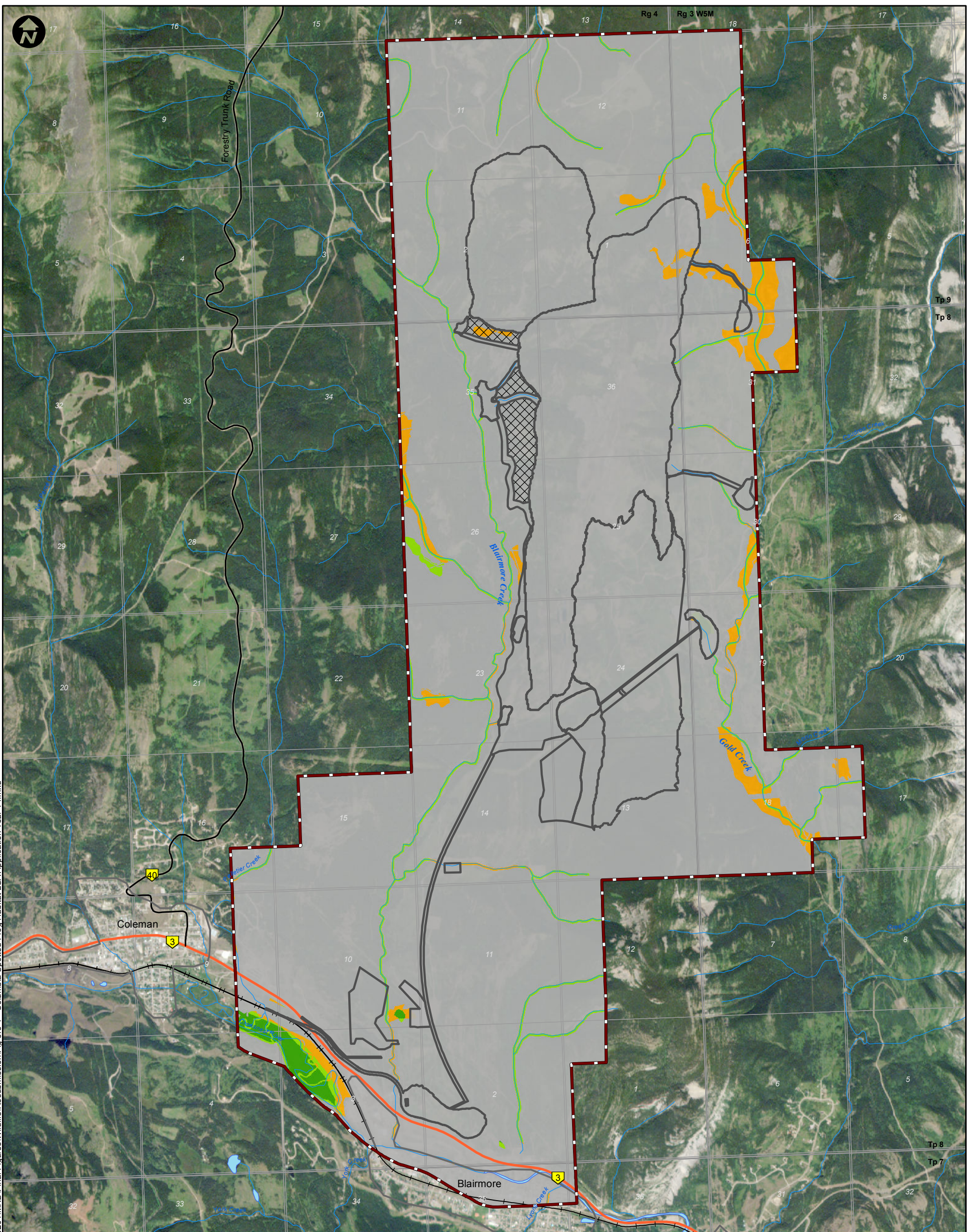
CHECKED BY: RM

DATE: JULY 06, 2016

**FIGURE**

**5.2-4**





**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area

**Columbia Spotted Frog Habitat Suitability**

- High
- Moderate
- Low
- Nil

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**COLUMBIA SPOTTED FROG HABITAT AVAILABILITY IN THE  
WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

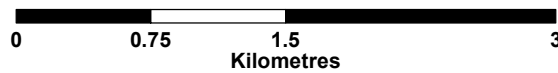
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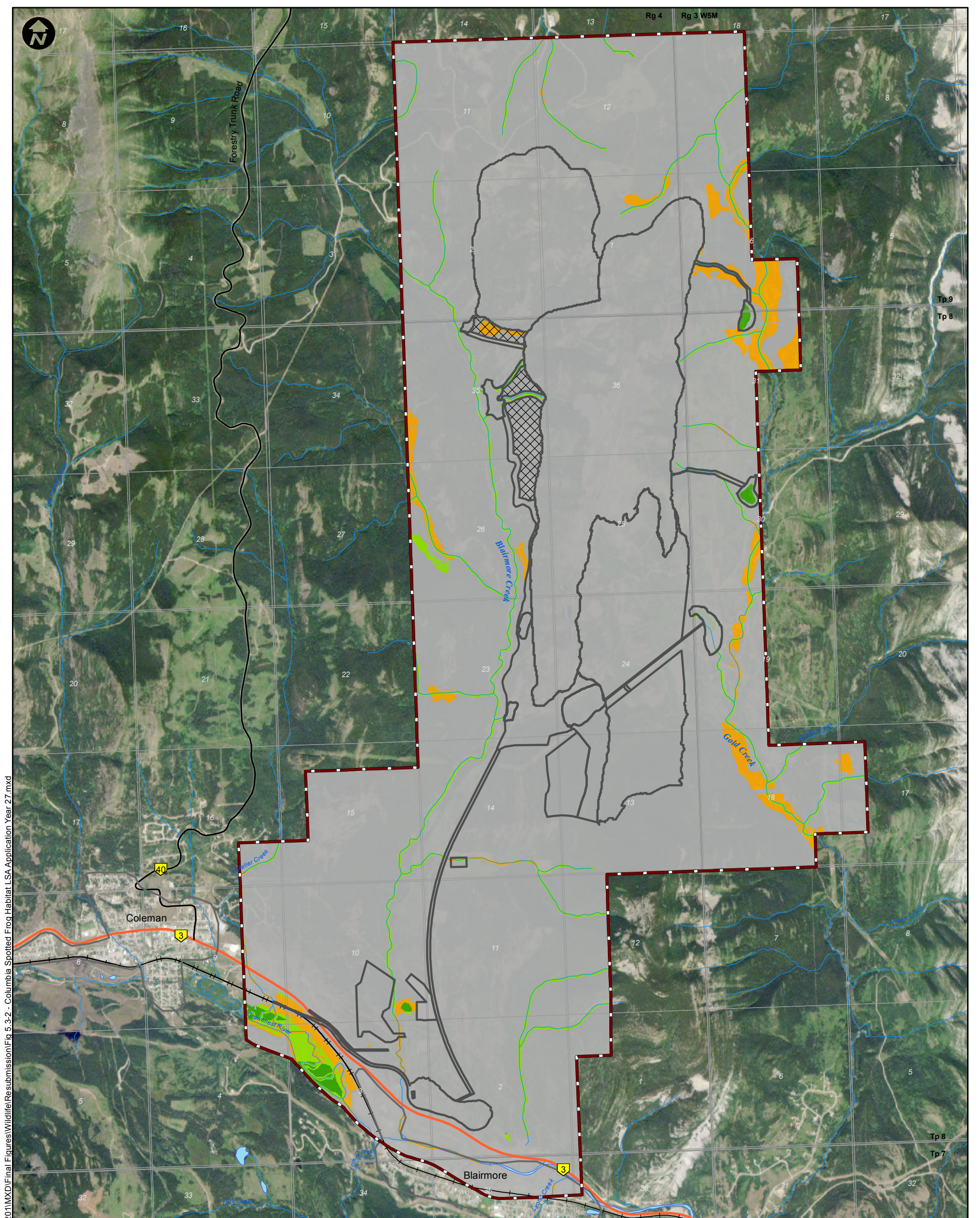
CHECKED BY: RM

DATE: JUNE 17, 2016

**FIGURE**

**5.3-1**





Document Path: K:\Active Projects\2014\AP\_14-00201\14-00201\MXD\Final\Figures\Wildlife\Resubmission\Fig 5.3-2 - Columbia Spotted Frog Habitat LSA Application Year 27.mxd

**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area

**Columbia Spotted Frog Habitat Suitability**

- High
- Moderate
- Low
- Nil

**PROJECT**

**RIVERSDALE** **GRASSY MOUNTAIN COAL PROJECT**  
 RESOURCES

**MILLENNIUM**  
 EMS Solutions Ltd.

**TITLE**

**COLUMBIA SPOTTED FROG HABITAT AVAILABILITY IN THE WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
 (Image Date: Jul 26/13); Riversdale, 2016  
 Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

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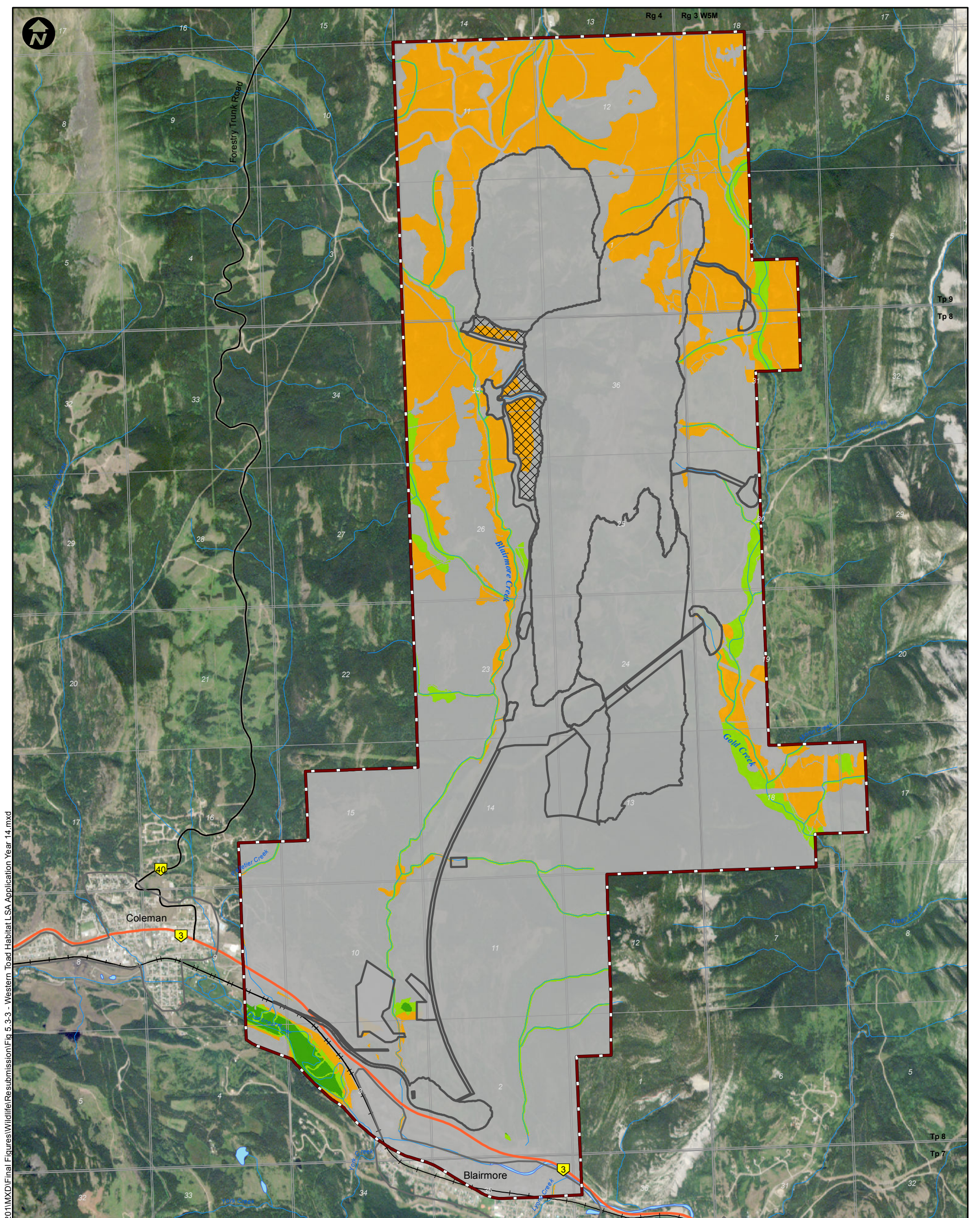
CHECKED BY: RM

DATE: JUNE 17, 2016

FIGURE

**5.3-2**





Document Path: K:\Active Projects 2014\AP 14-00201 to 14-00250\14-00201\MXD\Final Figures\Wildlife\Resubmission\Fig 5.3-3 - Western Toad Habitat LSA Application Year 14.mxd

**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area

- Western Toad Habitat Suitability**
- High
  - Moderate
  - Low
  - Nil

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**WESTERN TOAD HABITAT AVAILABILITY IN THE  
WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

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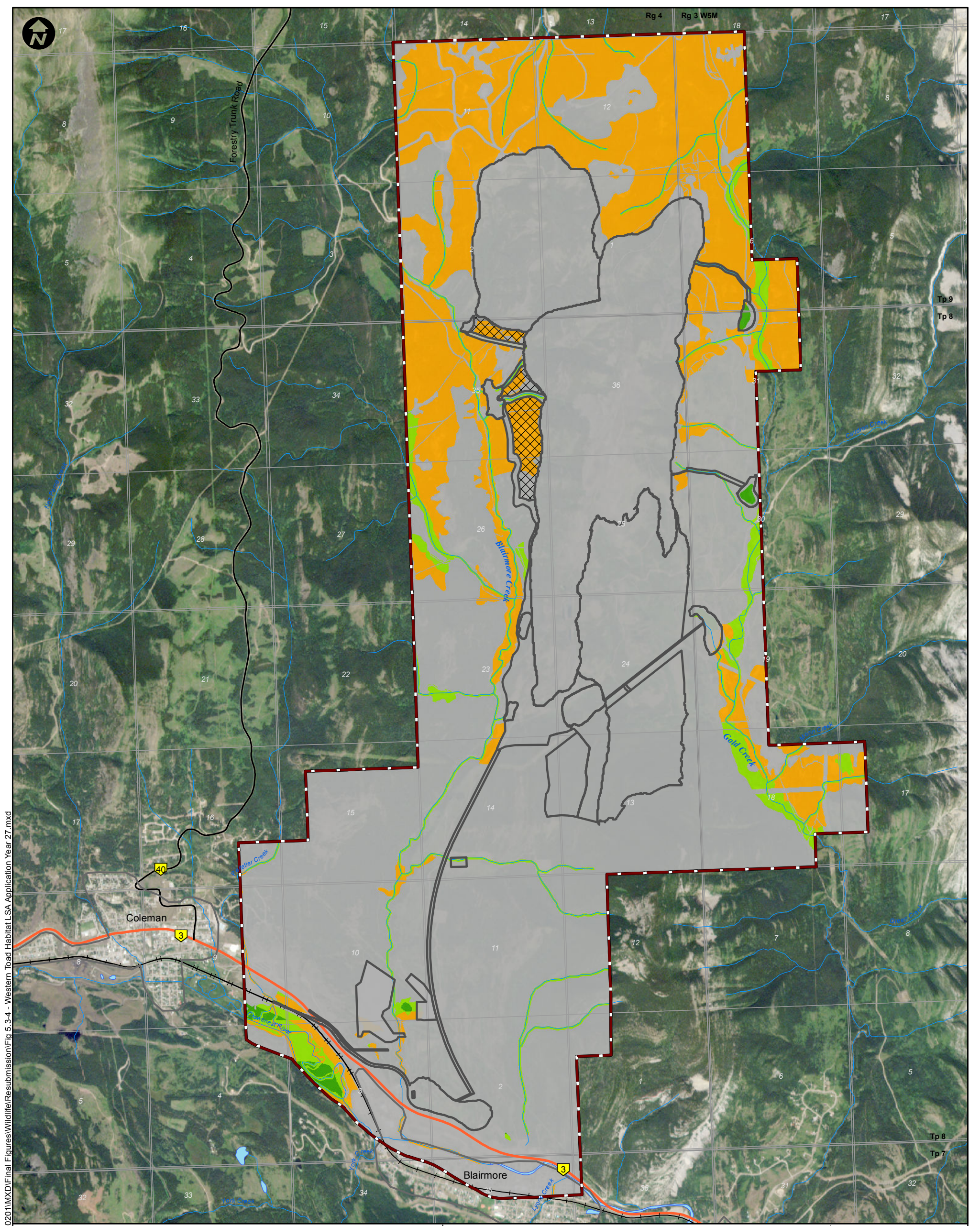
CHECKED BY: RM

DATE: JUNE 17, 2016

**FIGURE**

**5.3-3**





Document Path: K:\Active Projects 2014\AP 14-00201 to 14-00250\14-00201\MXD\Final Figures\Wildlife\Resubmission\Fig 5.3-4 - Western Toad Habitat LSA Application Year 27.mxd

**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area

- Western Toad Habitat Suitability**
- High
  - Moderate
  - Low
  - Nil

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**WESTERN TOAD HABITAT AVAILABILITY IN THE  
WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

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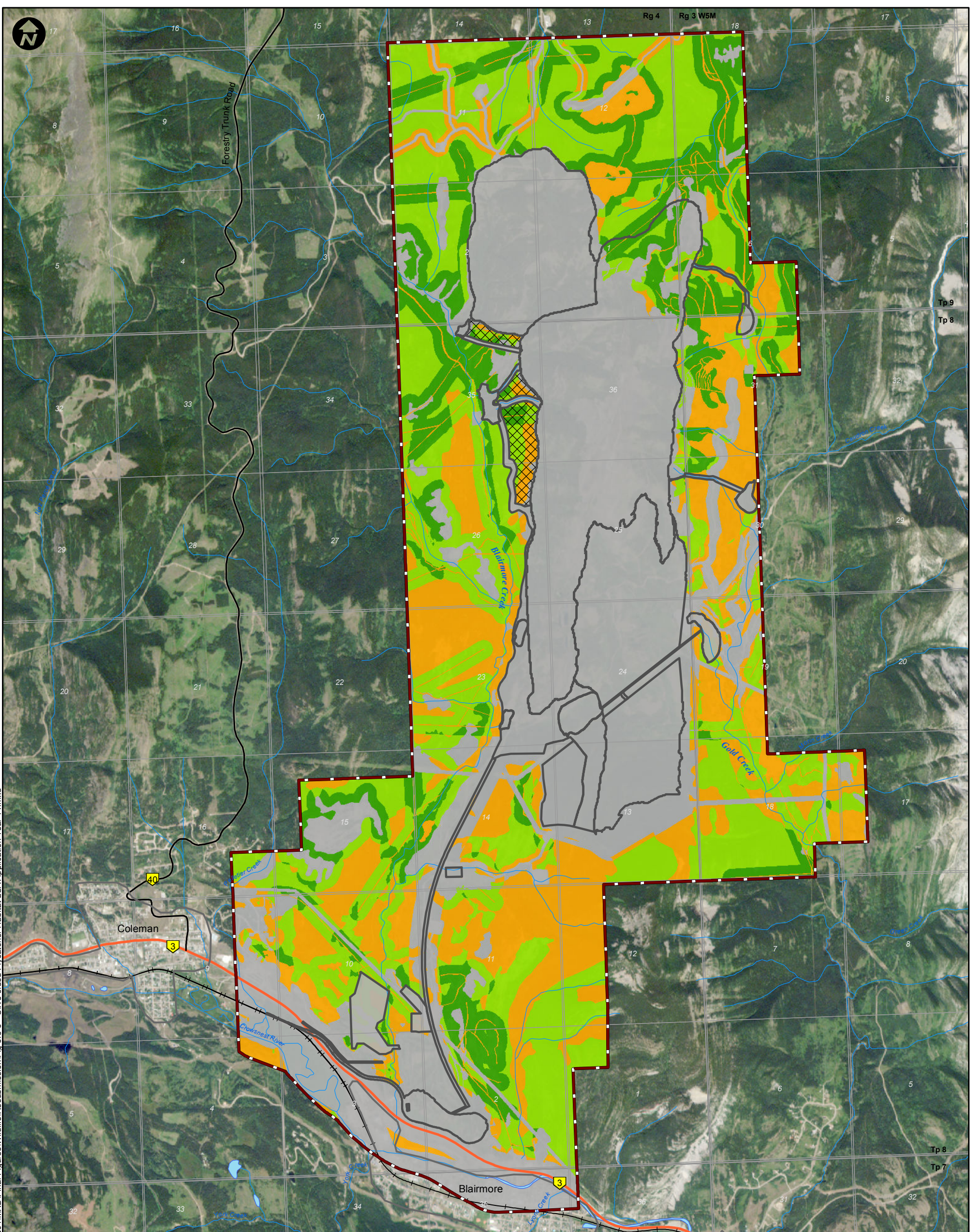
DATE: JUNE 17, 2016

**FIGURE**

**5.3-4**



Document Path: K:\Active Projects\2014\AP\_14-00201\14-00201\MXD\Final\Figures\Wildlife\Resubmission\Fig 5.3-5 - Olive-sided Flycatcher Habitat\_LSA Application Year 14.mxd



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area

**Olive-sided Flycatcher Habitat Suitability**

- High
- Moderate
- Low
- Nil

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**OLIVE-SIDED FLYCATCHER HABITAT AVAILABILITY IN THE  
WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

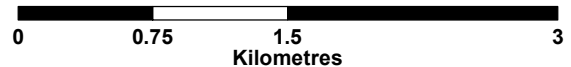
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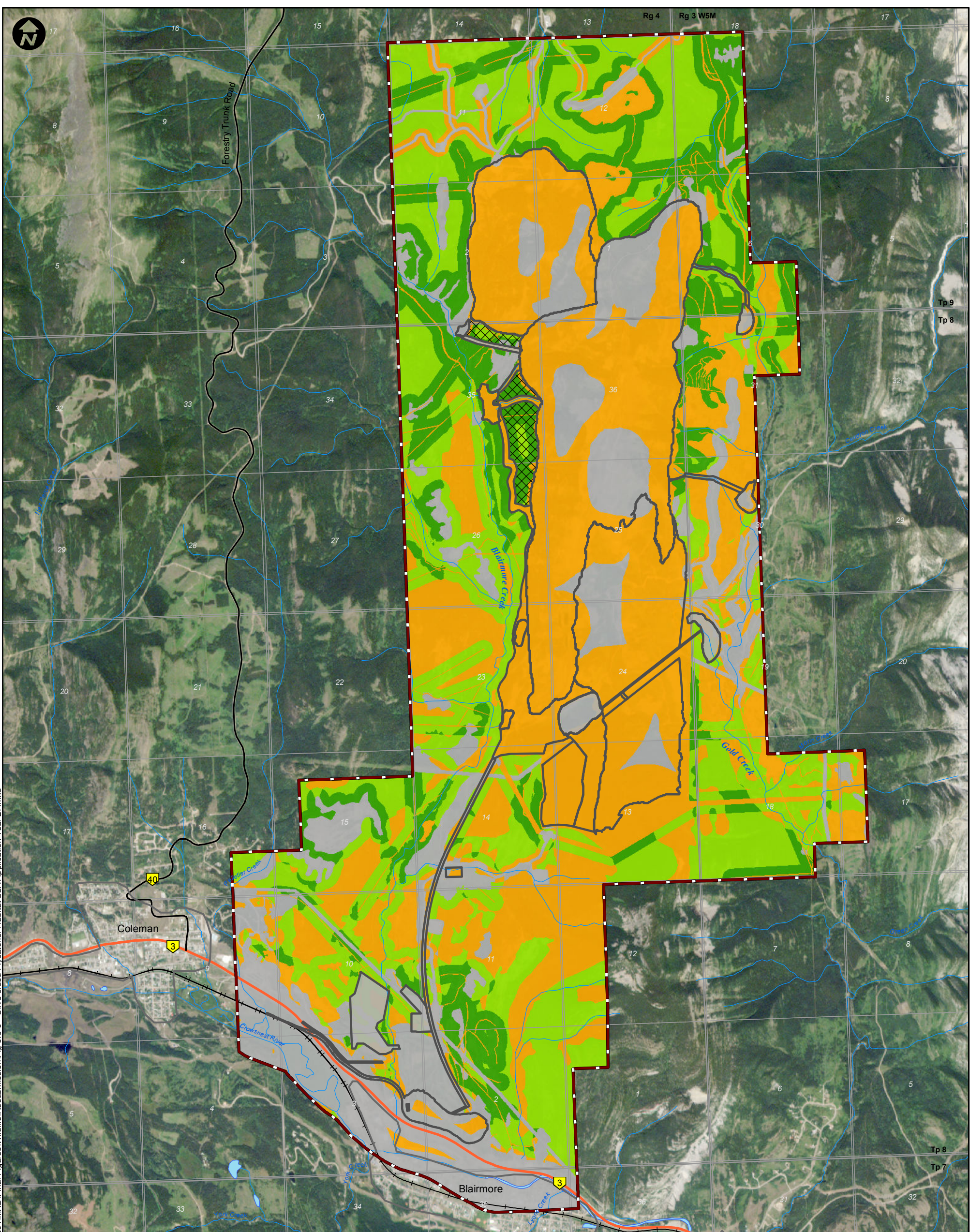
DATE: JUNE 17, 2016

**FIGURE**

**5.3-5**



Document Path: K:\Active Projects\2014\AP\_14-00201 to 14-00250\14-00201\MXD\Final\Figures\Wildlife\Resubmission\Fig 5.3-6 - Olive-sided Flycatcher Habitat\_LSA Application Year 27.mxd



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area

**Olive-sided Flycatcher Habitat Suitability**

- High
- Moderate
- Low
- Nil

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**OLIVE-SIDED FLYCATCHER HABITAT AVAILABILITY IN THE  
WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

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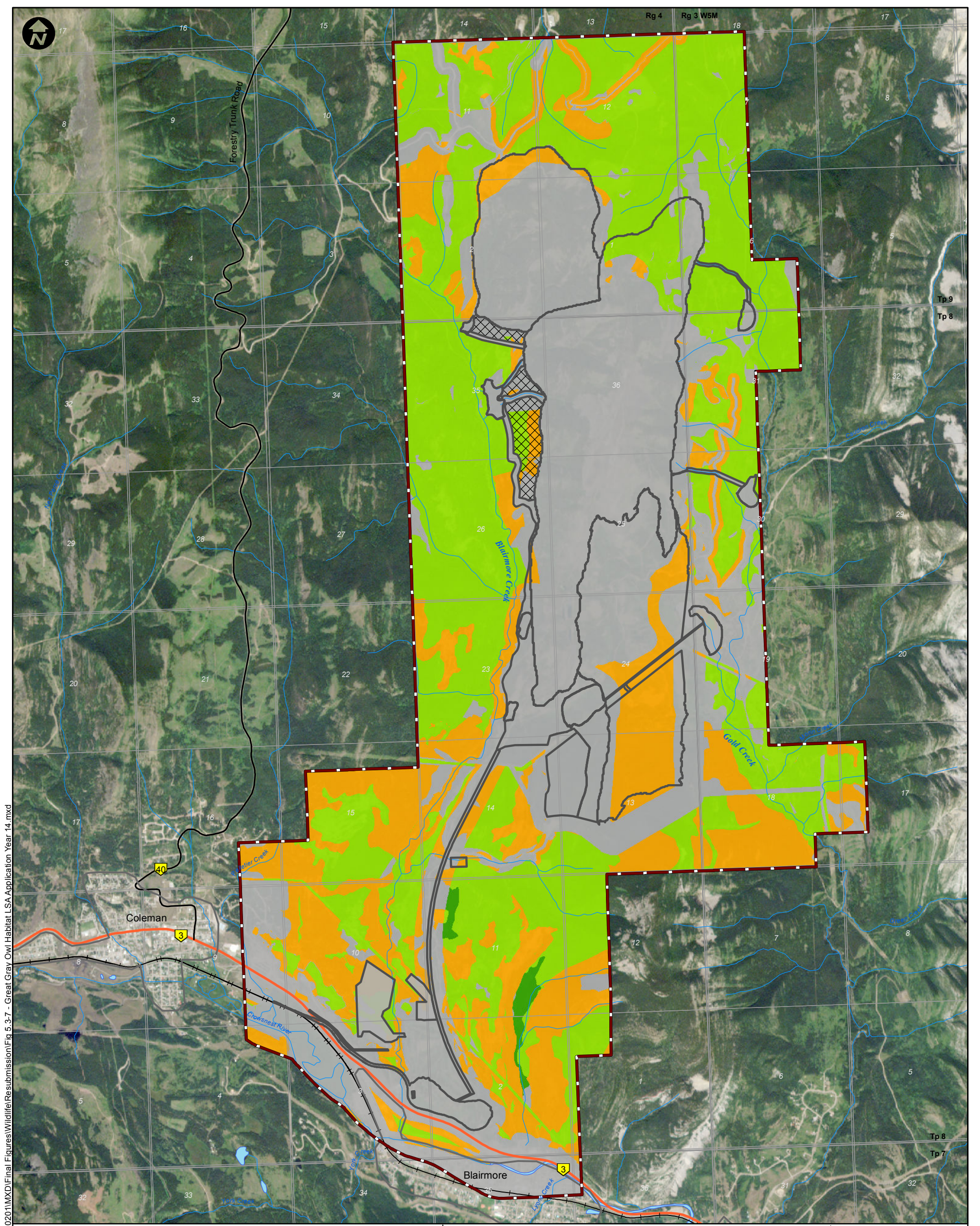
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DATE: JUNE 17, 2016

**FIGURE**

**5.3-6**





Document Path: K:\Active Projects 2014\AP 14-00201 to 14-00250\14-00201\MXD\Final Figures\Wildlife\Resubmission\Fig 5.3-7 - Great Gray Owl Habitat LSA Application Year 14.mxd

**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area

**Great Gray Owl Habitat Suitability**

- High
- Moderate
- Low
- Nil

**PROJECT**



**GRASSY MOUNTAIN COAL PROJECT**



**TITLE**

**GREAT GRAY OWL HABITAT AVAILABILITY IN THE WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
 (Image Date: Jul 26/13); Riversdale, 2016  
 Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

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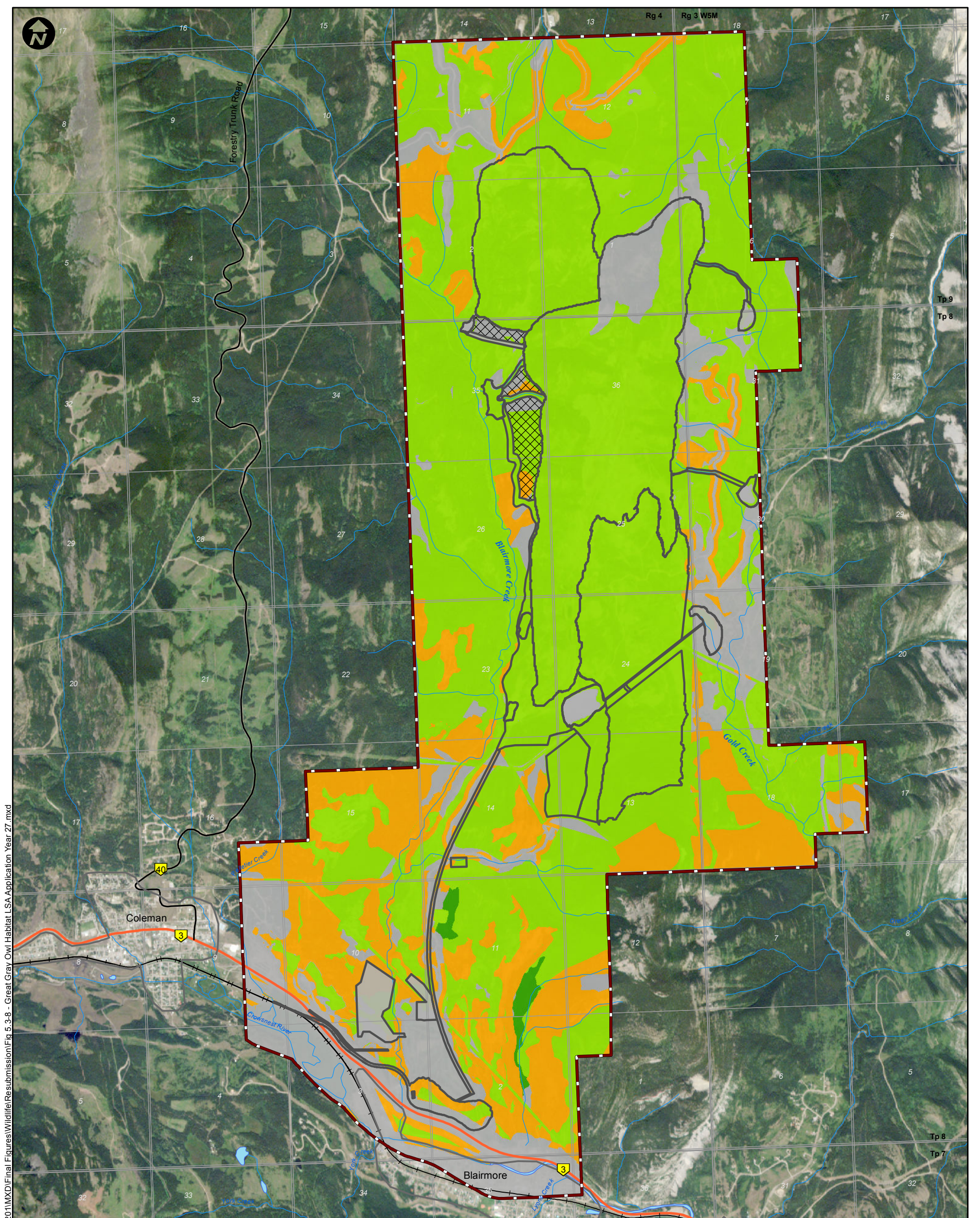
CHECKED BY: RM

DATE: JUNE 17, 2016

**FIGURE**

**5.3-7**





Document Path: K:\Active Projects 2014\AP\_14-00201 to 14-00250\14-00201\MXD\Final Figures\Wildlife\Resubmission\Fig 5.3-8 - Great Gray Owl Habitat LSA Application Year 27.mxd

**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area

**Great Gray Owl Habitat Suitability**

- High
- Moderate
- Low
- Nil

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**GREAT GRAY OWL HABITAT AVAILABILITY IN THE  
WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
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PROJECT: 14-00201-01

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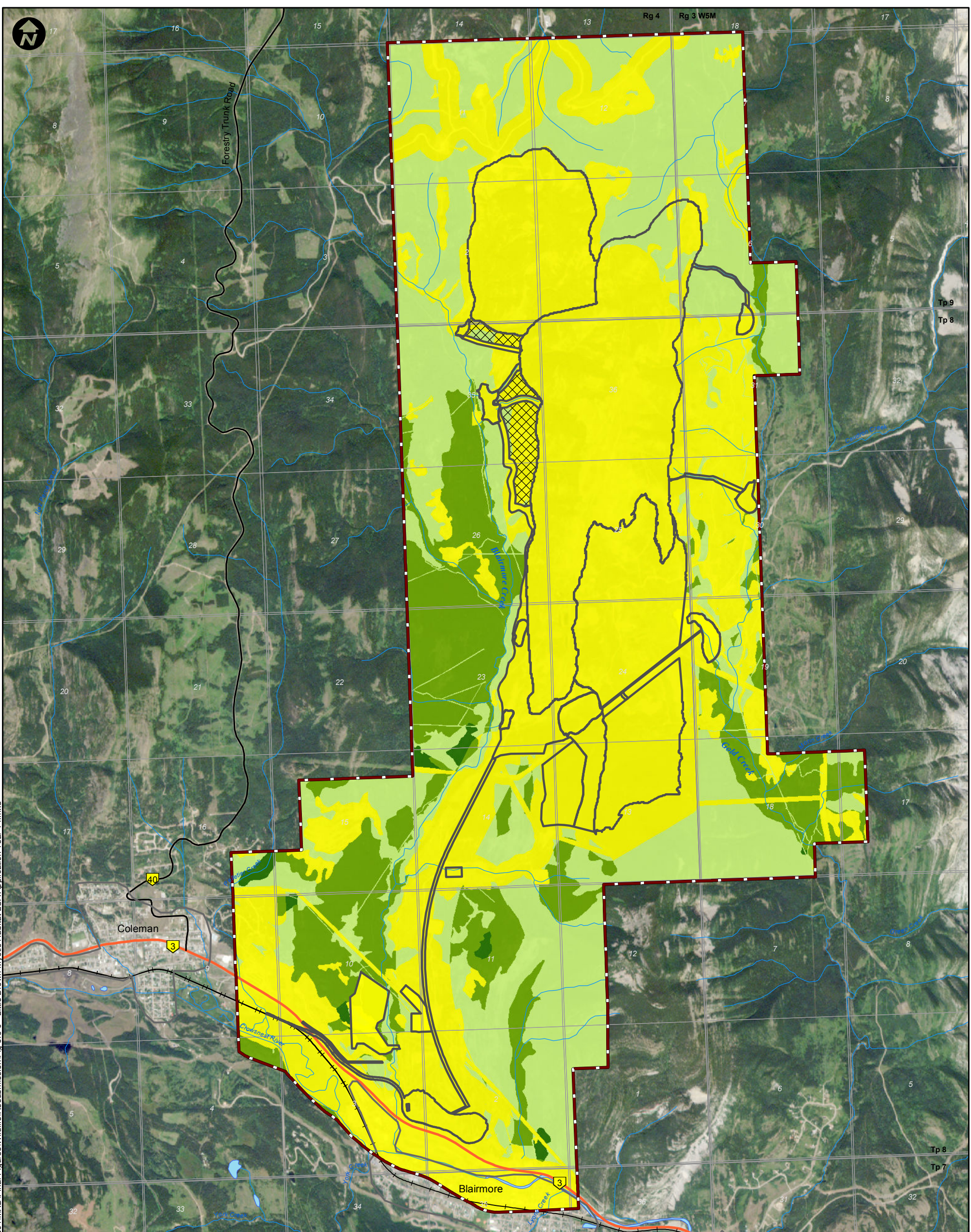
DATE: JUNE 17, 2016

**FIGURE**

**5.3-8**



Document Path: K:\Active Projects 2014\AP\_14-00201 to 14-00250\14-00201\MXD\Final Figures\Wildlife\Resubmission\Fig 5.3-9 - Little Brown Myotis Habitat LSA Application Year 14.mxd



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area

**Little Brown Myotis Habitat Suitability**

- High
- Moderate-High
- Moderate
- Moderate-Low
- Low
- Nil

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**LITTLE BROWN MYOTIS HABITAT AVAILABILITY IN THE  
WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

DRAWN BY: SL

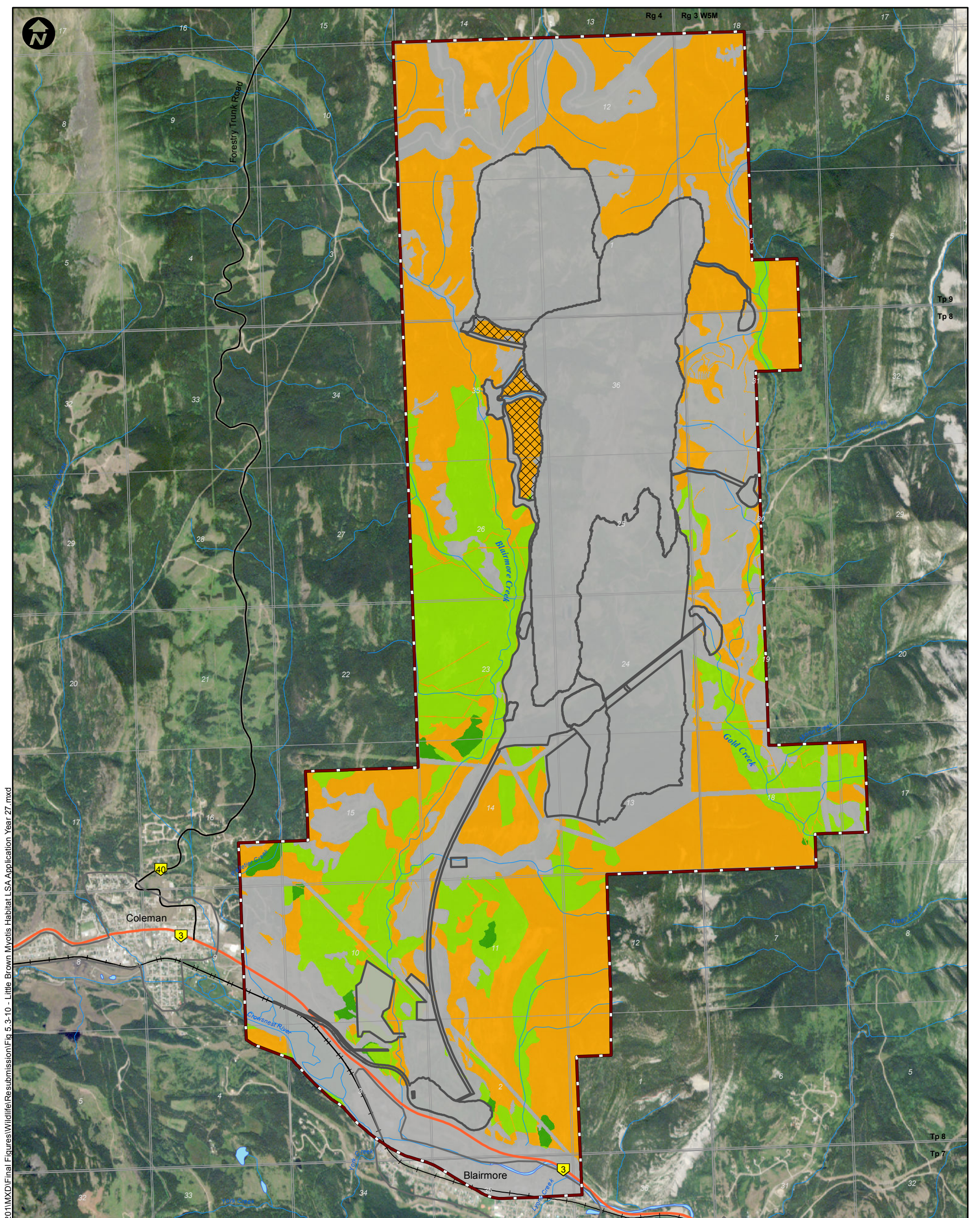
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DATE: JUNE 20, 2016

**FIGURE**

**5.3-9**





Document Path: K:\Active Projects 2014\AP\_14-00201 to 14-00250\14-00201\MXD\Final Figures\Wildlife\Resubmission\Fig 5.3-10 - Little Brown Myotis Habitat\_LSA Application Year 27.mxd

**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area

- Little Brown Myotis Habitat Suitability**
- High
  - Moderate
  - Low
  - Nil

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**LITTLE BROWN MYOTIS HABITAT AVAILABILITY IN THE  
WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

DRAWN BY: SL

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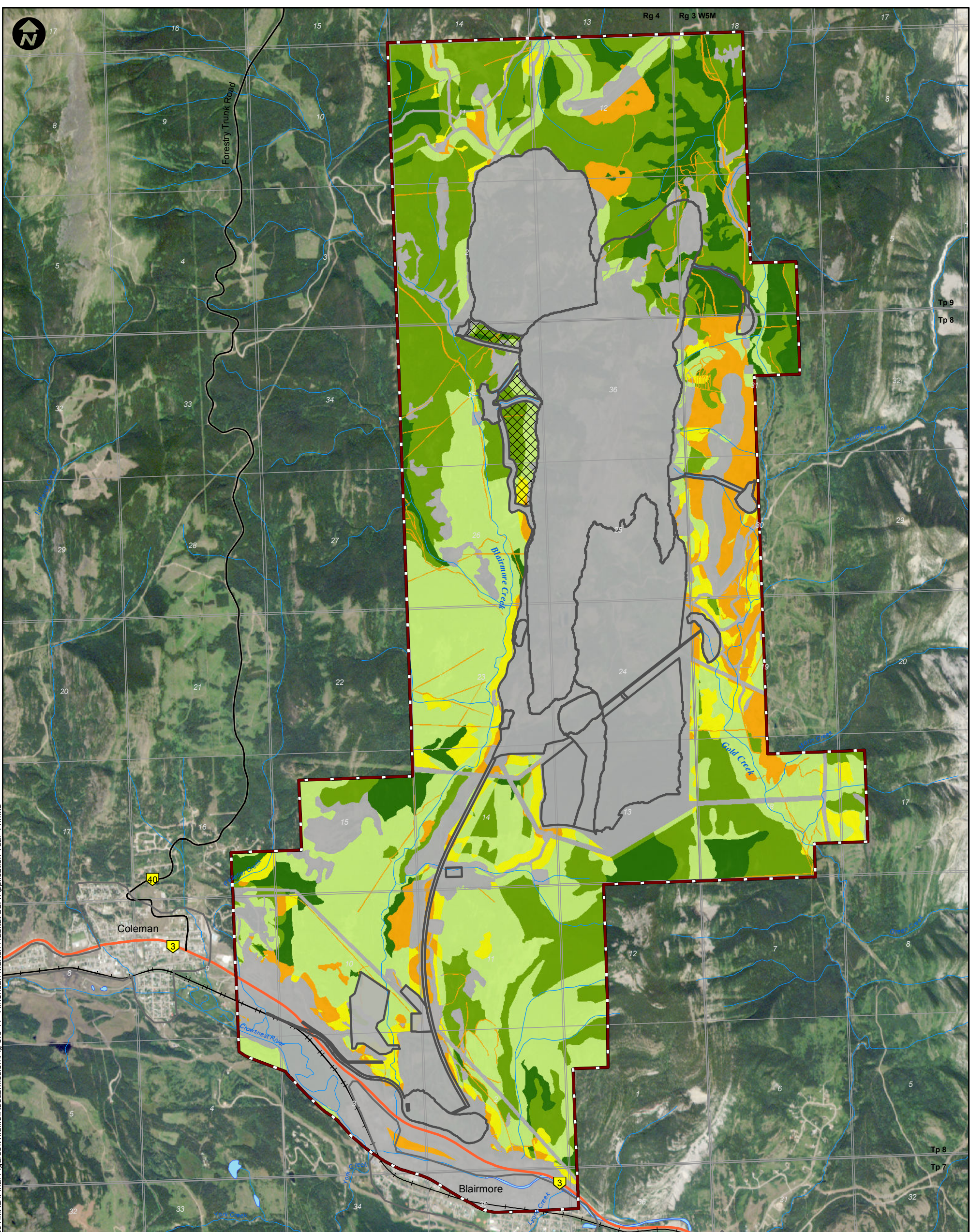
DATE: JUNE 20, 2016

**FIGURE**

**5.3-10**



Document Path: K:\Active Projects 2014\AP\_14-00201 to 14-00250\14-00201\MXD\Final Figures\Wildlife\Resubmission\Fig 5.3-11 - American Marten Habitat\_LSA\_Application Year 14.mxd



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area

**American Marten Habitat Suitability**

- High
- Moderate-High
- Moderate
- Moderate-Low
- Low
- Nil

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**AMERICAN MARTEN HABITAT AVAILABILITY IN THE  
WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

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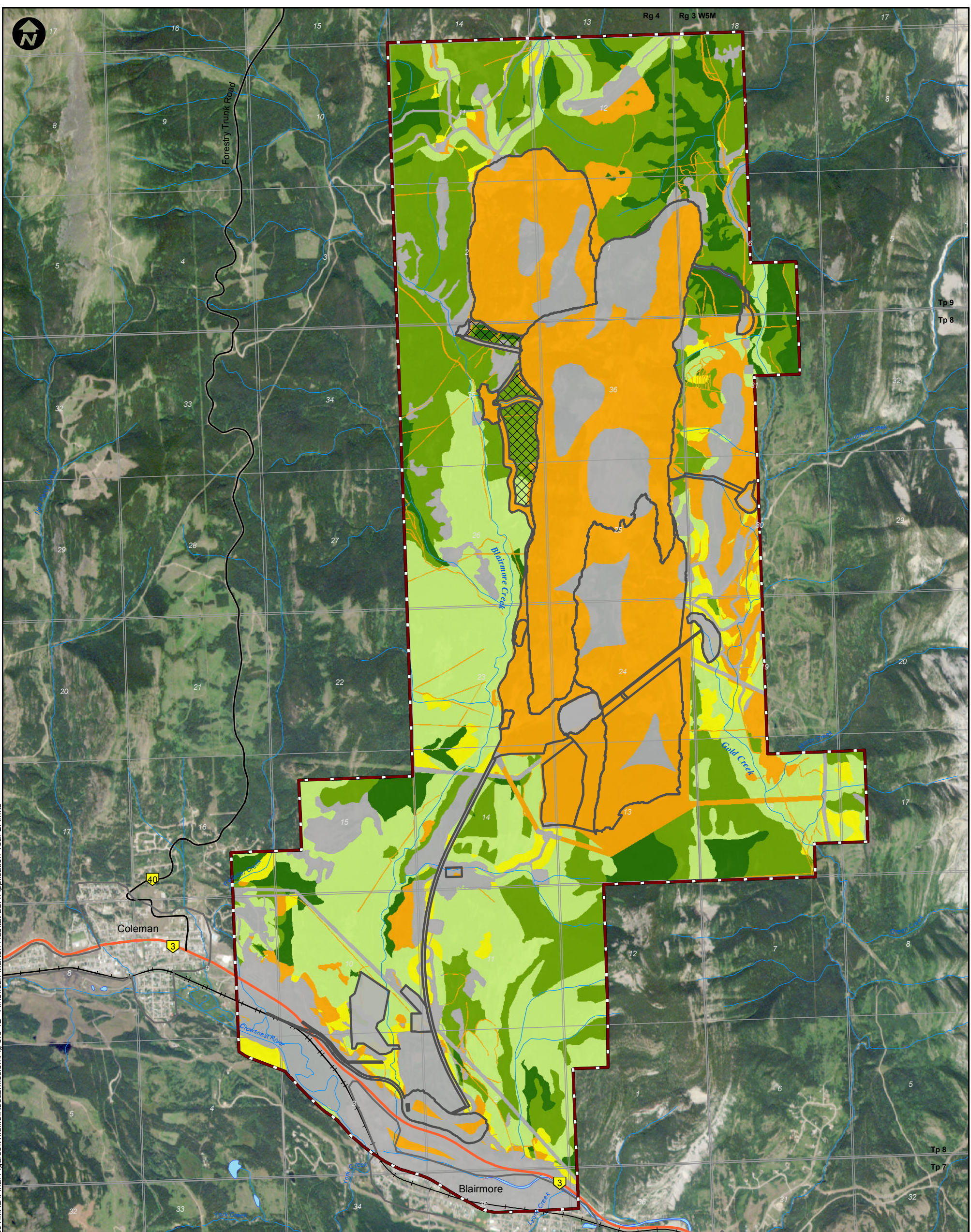
DATE: JUNE 20, 2016

**FIGURE**

**5.3-11**



Document Path: K:\Active Projects 2014\AP\_14-00201 to 14-00250\14-00201\MXD\Final Figures\Wildlife\Resubmission\Fig 5.3-12 - American Marten Habitat\_LSA\_Application Year 27.mxd



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area

**American Marten Habitat Suitability**

- High
- Moderate-High
- Moderate
- Moderate-Low
- Low
- Nil

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**AMERICAN MARTEN HABITAT AVAILABILITY IN THE  
WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

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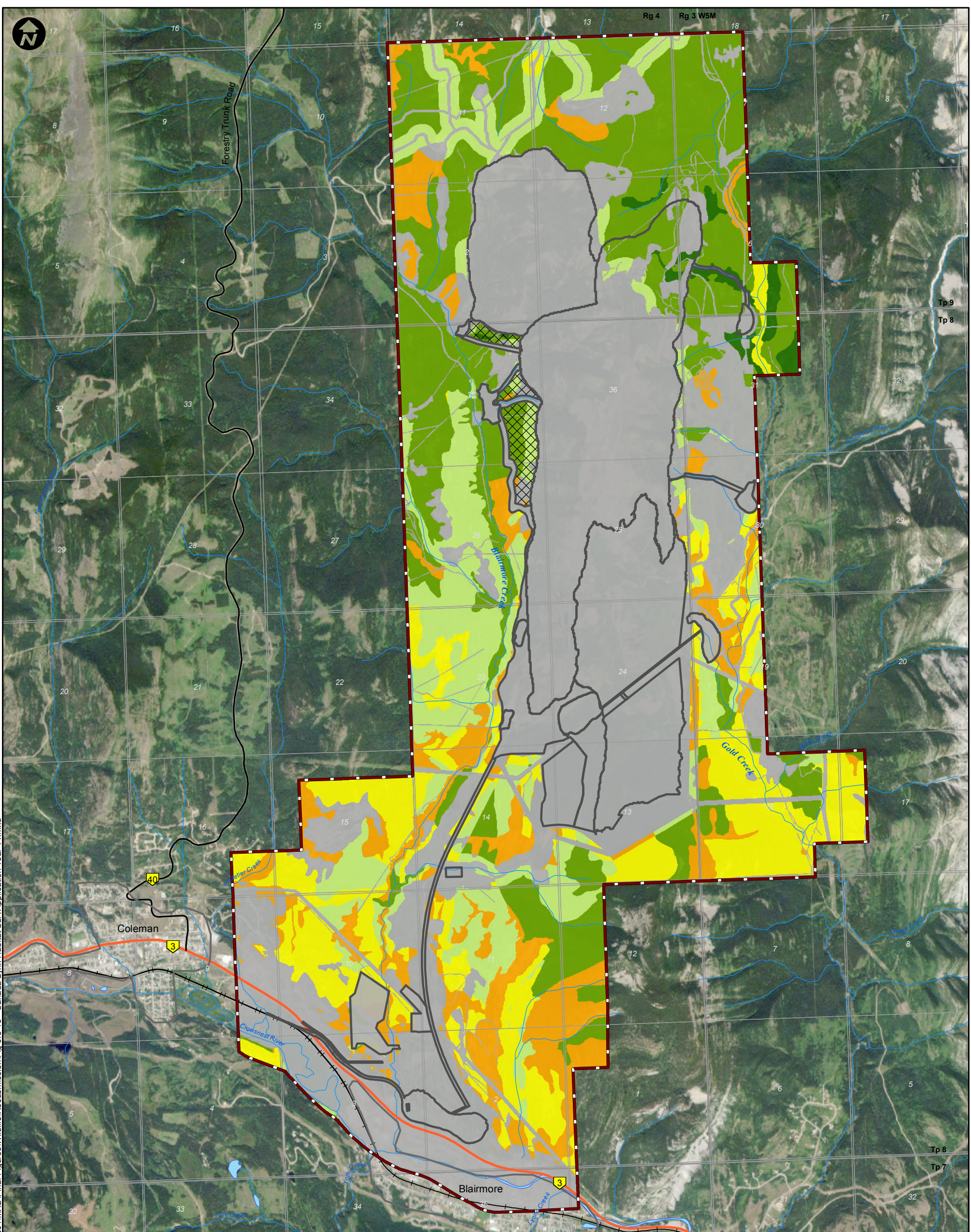
DATE: JUNE 20, 2016

**FIGURE**

**5.3-12**



Document Path: K:\Active Projects 2014\AP\_14-00201\14-00201\MXD\Final Figures\Wildlife\Resubmission\Fig 5.3-13 - Canada Lynx Habitat LSA Application Year 14.mxd



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area

**Canada Lynx Habitat Suitability**

- High
- Moderate-High
- Moderate
- Moderate-Low
- Low
- Nil

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**CANADA LYNX HABITAT AVAILABILITY IN THE  
WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

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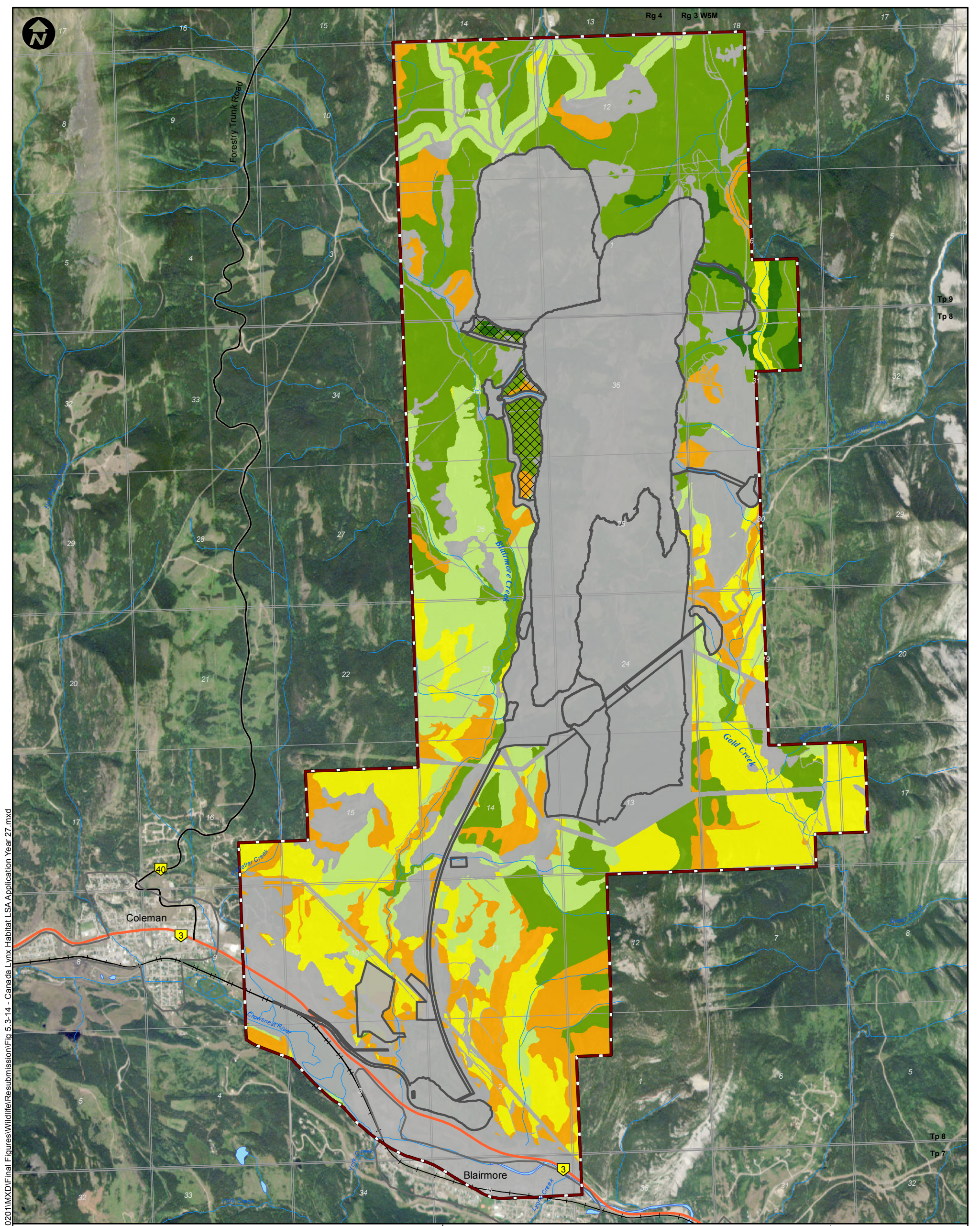
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DATE: JUNE 20, 2016

**FIGURE**

**5.3-13**





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**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area

- Canada Lynx Habitat Suitability**
- High
  - Moderate-High
  - Moderate
  - Moderate-Low
  - Low
  - Nil

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**CANADA LYNX HABITAT AVAILABILITY IN THE  
WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

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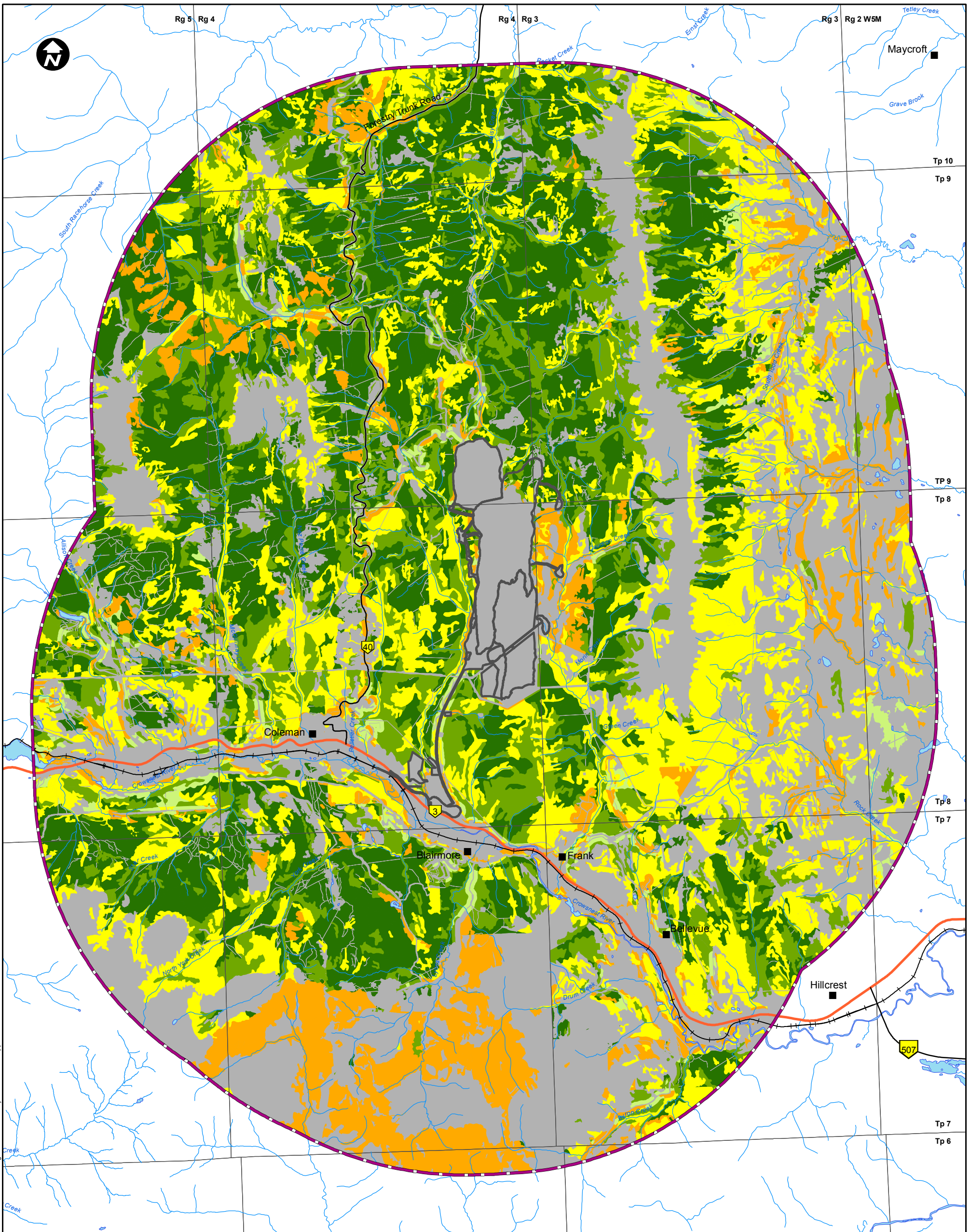
CHECKED BY: RM

DATE: JUNE 20, 2016

**FIGURE**

**5.3-14**





Document Path: K:\Active Projects\2014\AP\_14-00201-14-00201\IMXD\Final\Figures\Wildlife\Resubmission\Fig\_5.3-15 - Canada Lynx Habitat RSA Application Year 14.mxd

**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Regional Study Area
- Project Footprint

**Canada Lynx Habitat Suitability**

- High
- Moderate-High
- Moderate
- Moderate-Low
- Low
- Nil

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**CANADA LYNX HABITAT AVAILABILITY IN THE WILDLIFE  
REGIONAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2015  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

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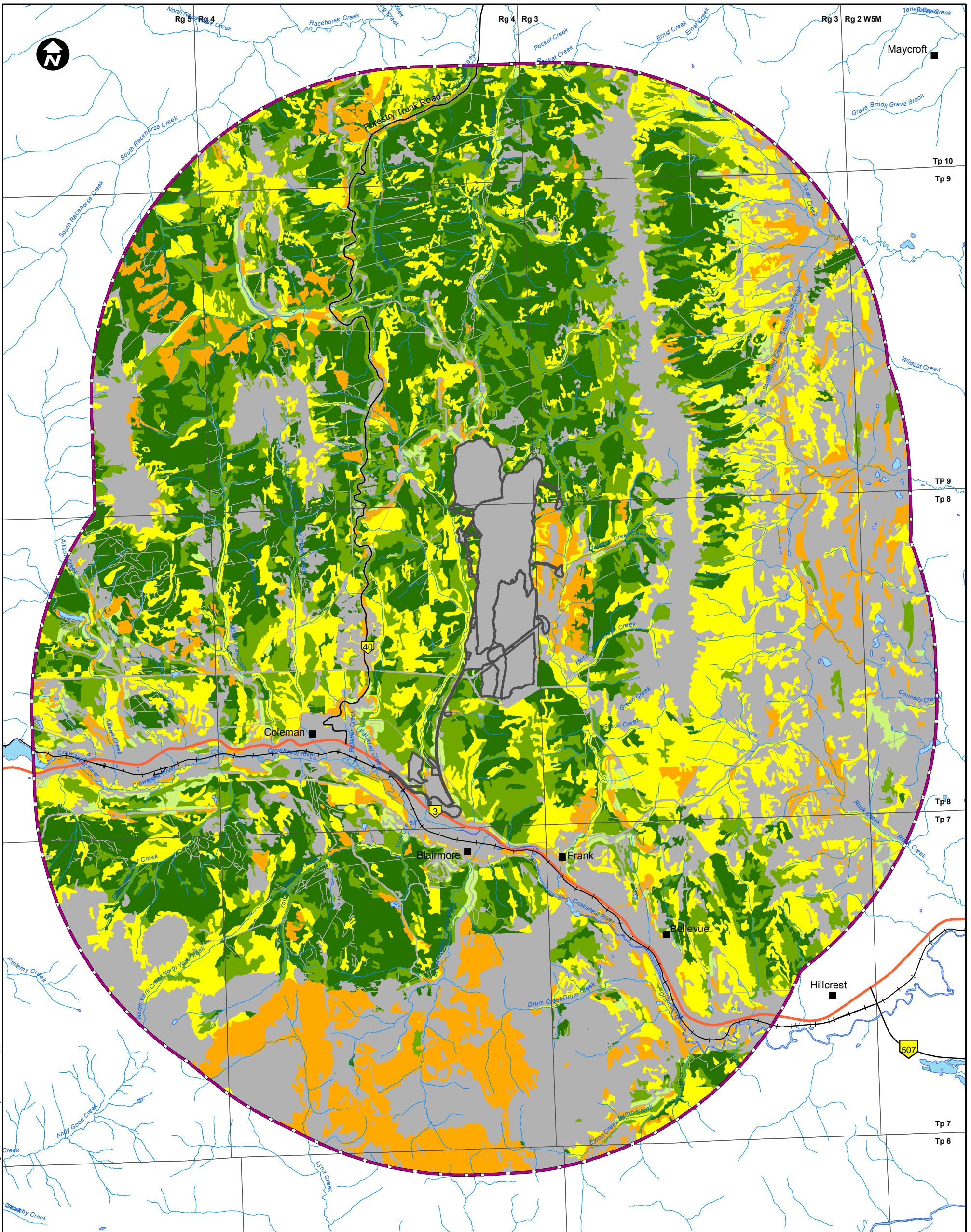
CHECKED BY: RM

DATE: JUNE 20, 2016

**FIGURE**

**5.3-15**





**LEGEND**

- Primary Highway
- Secondary Highway
- + Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Regional Study Area
- Project Footprint

**Canada Lynx Habitat Suitability**

- High
- Moderate-High
- Moderate
- Moderate-Low
- Low
- Nil

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**CANADA LYNX HABITAT AVAILABILITY IN THE WILDLIFE  
REGIONAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2015  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

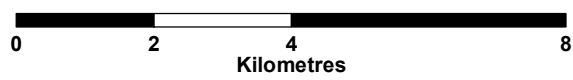
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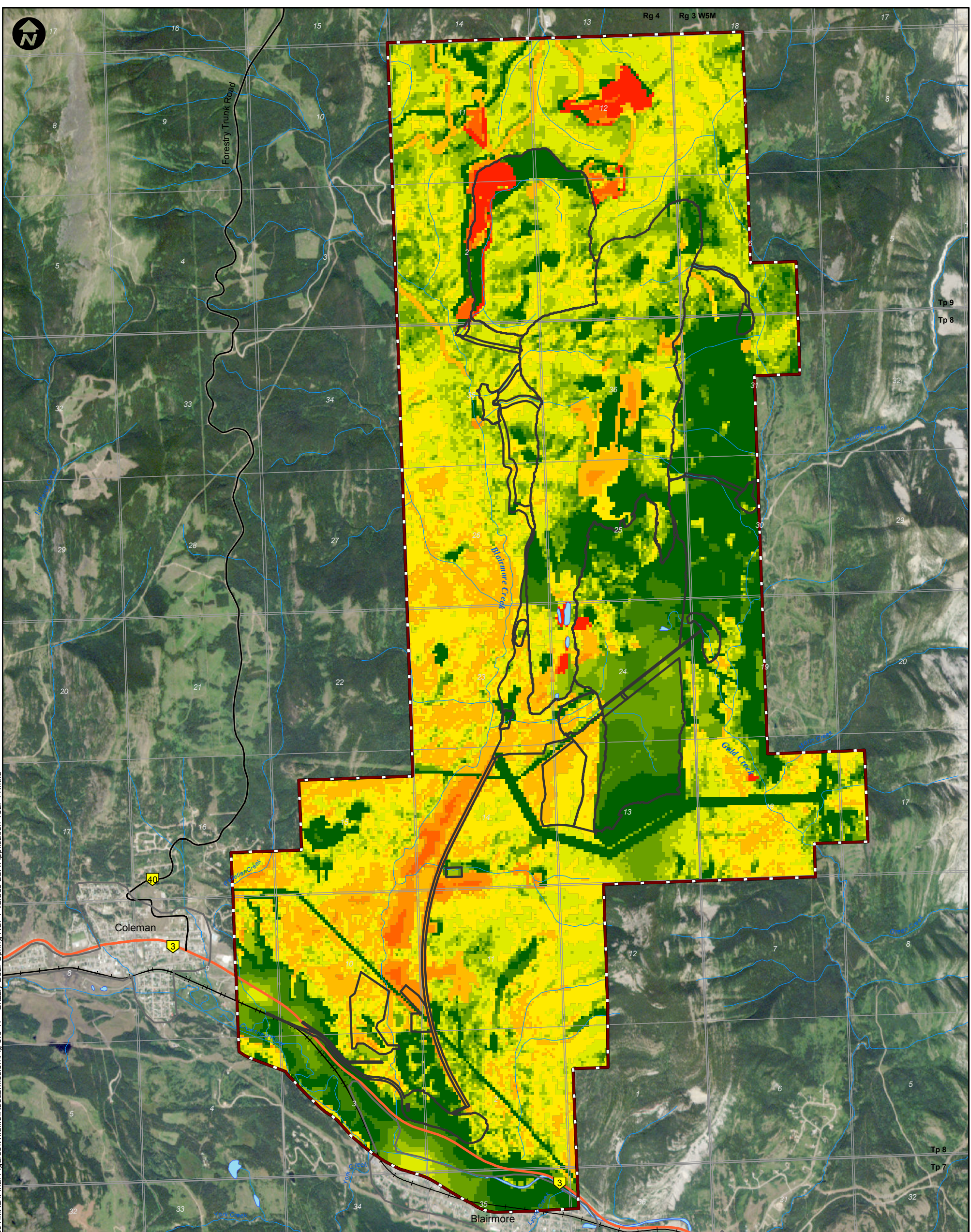
DATE: JUNE 20, 2016

FIGURE

**5.3-16**



DocumentPath: K:\Active Projects\2014\AP\_14-002\01\MXD\Final\Figures\Wildlife\Resubmission\Fig 5.3-17 - Grizzly Bear Spring RSF Values\_LSA Application Year 14.mxd



- LEGEND**
- Primary Highway
  - Secondary Highway
  - Existing Railway
  - Surface Water Drainage
  - Waterbody
  - Wildlife Local Study Area
  - Project Footprint

- RSF Spring**
- 10
  - 9
  - 8
  - 7
  - 6
  - 5
  - 4
  - 3
  - 2
  - 1

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**  
**SPRING RESOURCE SELECTION FUNCTION VALUES  
FOR GRIZZLY BEARS IN THE WILDLIFE LOCAL  
STUDY AREA - APPLICATION YEAR 14**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

DRAWN BY: SL

CHECKED BY: RM

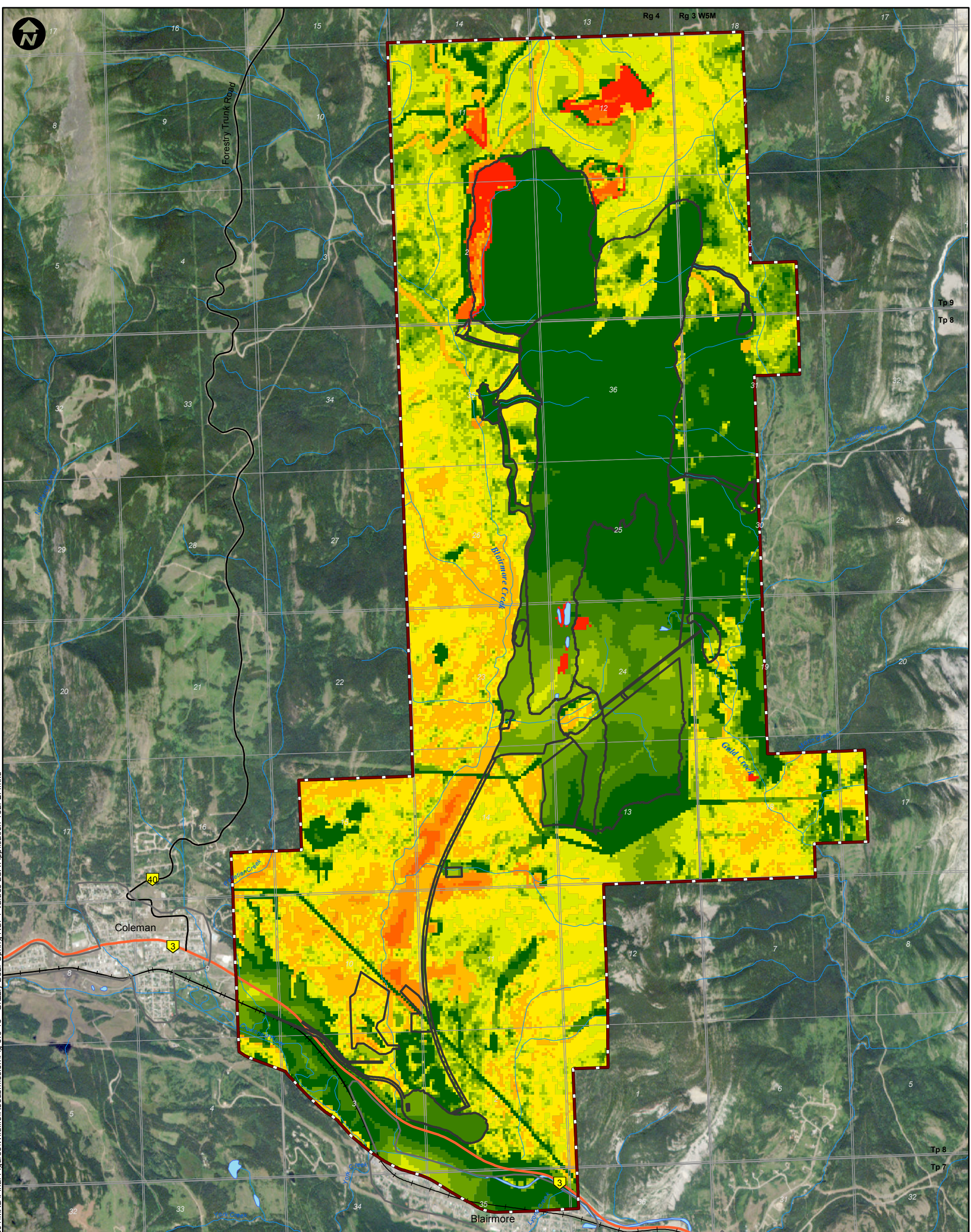
DATE: JUNE 20, 2016

**FIGURE**

**5.3-17**



Document Path: K:\Active Projects\2014\AP\_14-002\014-00201\MXD\Final\Figures\Wildlife\Resubmission\Fig 5.3-18 - Grizzly Bear Spring RSF Values\_LSA Application Year 27.mxd



- LEGEND**
- Primary Highway
  - Secondary Highway
  - Existing Railway
  - Surface Water Drainage
  - Waterbody
  - Wildlife Local Study Area
  - Project Footprint

- RSF Spring**
- 10
  - 9
  - 8
  - 7
  - 6
  - 5
  - 4
  - 3
  - 2
  - 1

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**  
**SPRING RESOURCE SELECTION FUNCTION VALUES  
FOR GRIZZLY BEARS IN THE WILDLIFE LOCAL  
STUDY AREA - APPLICATION YEAR 27**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

DRAWN BY: SL

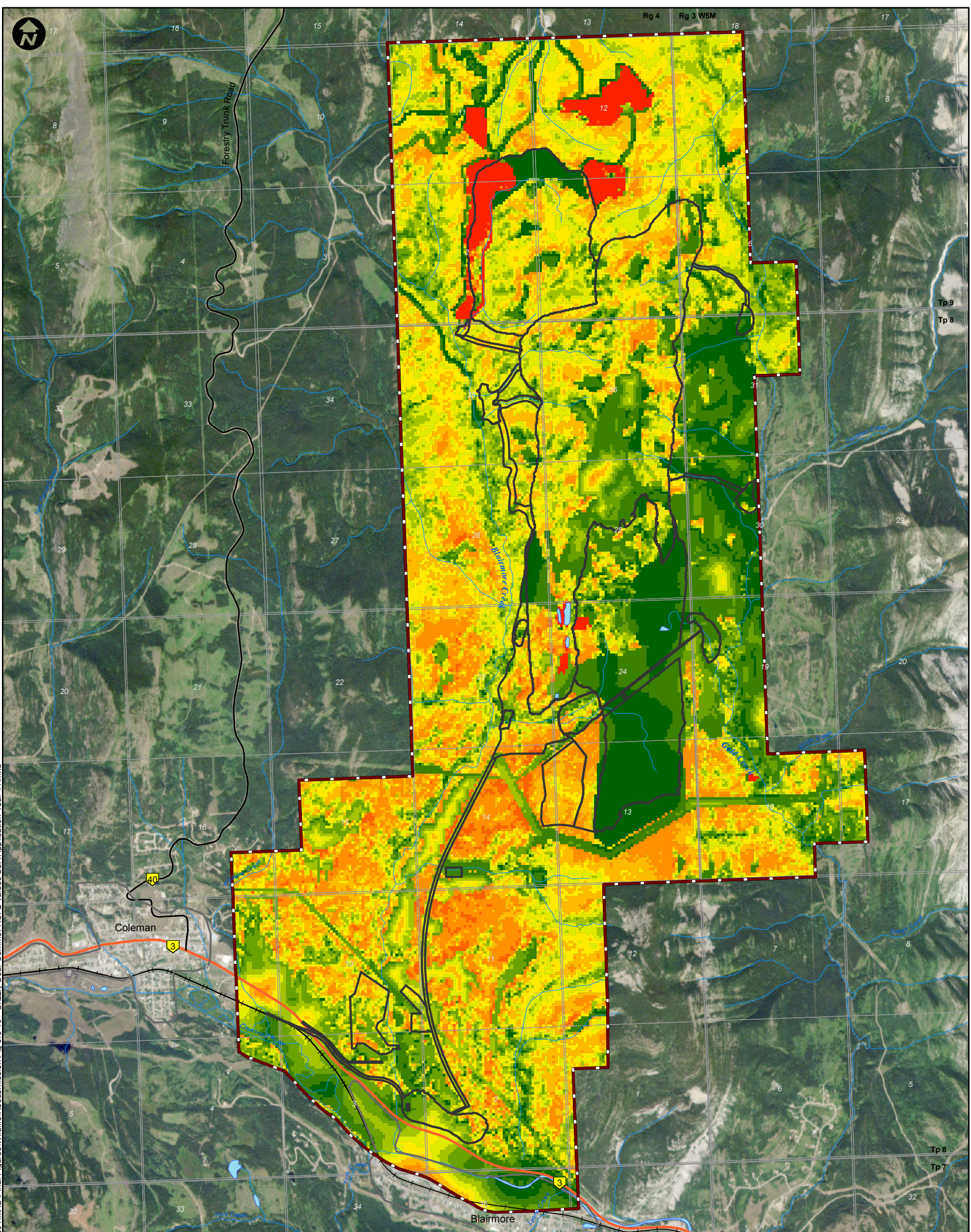
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DATE: JUNE 20, 2016

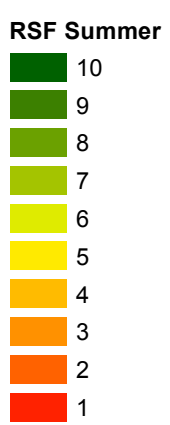
**FIGURE**

**5.3-18**



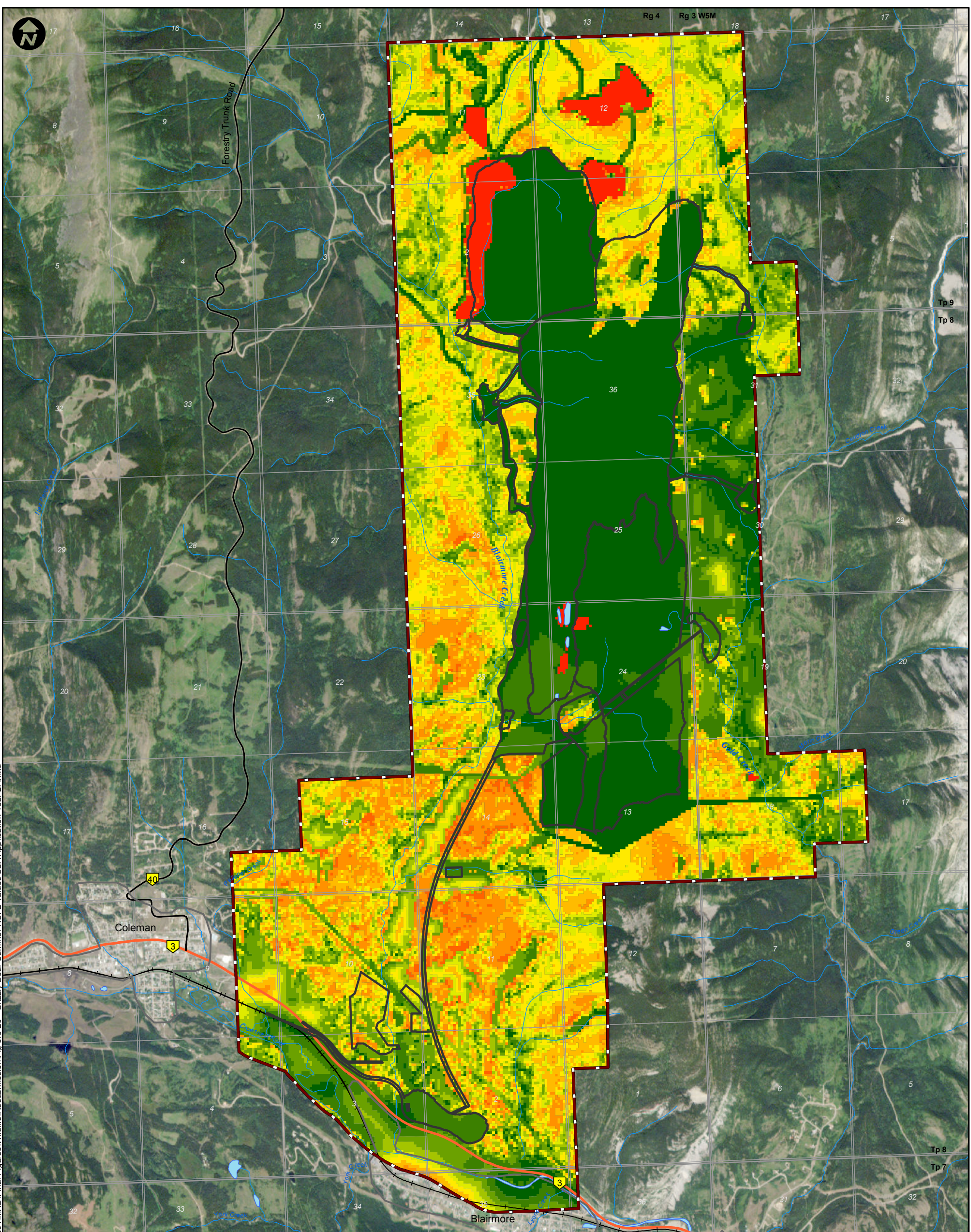


- LEGEND**
- Primary Highway
  - Secondary Highway
  - Existing Railway
  - Surface Water Drainage
  - Waterbody
  - Wildlife Local Study Area
  - Project Footprint

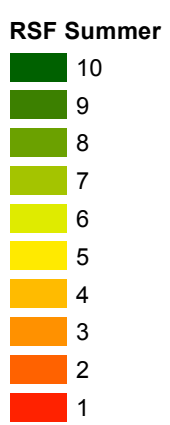


<p><b>PROJECT</b></p> <p><b>RIVERSDALE RESOURCES</b></p>	<p><b>GRASSY MOUNTAIN COAL PROJECT</b></p>	<p><b>MILLENNIUM</b> EMS Solutions Ltd.</p>
<p><b>TITLE</b>  <b>SUMMER RESOURCE SELECTION FUNCTION VALUES FOR GRIZZLY BEARS IN THE WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 14</b></p>		
<p><b>NOTES</b>                  AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015                  (Image Date: Jul 26/13); Riversdale, 2016                  Datum/Projection: UTM NAD 83 Zone 11</p>		
<p>0      0.75      1.5      3 Kilometres</p>		<p>PROJECT: 14-00201-01                  DRAWN BY: SL                  CHECKED BY: RM                  DATE: JUNE 20, 2016  <b>FIGURE</b>  <b>5.3-19</b></p>

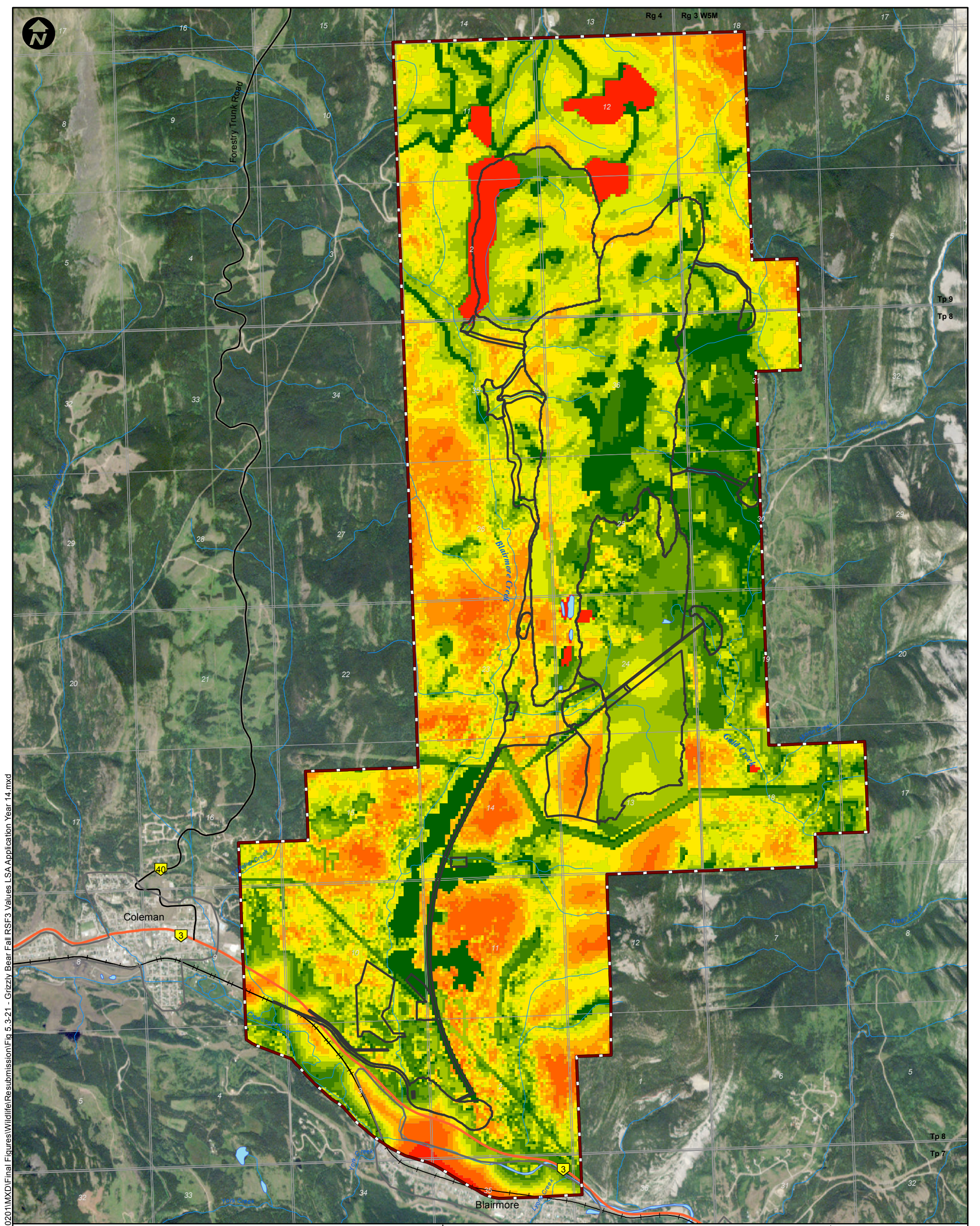
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- LEGEND**
- Primary Highway
  - Secondary Highway
  - Existing Railway
  - Surface Water Drainage
  - Waterbody
  - Wildlife Local Study Area
  - Project Footprint



<p><b>PROJECT</b></p> <p><b>RIVERSDALE</b> RESOURCES</p>	<p><b>GRASSY MOUNTAIN COAL PROJECT</b></p>	<p><b>MILLENNIUM</b> EMS Solutions Ltd.</p>
<p><b>TITLE</b>  <b>SUMMER RESOURCE SELECTION FUNCTION VALUES          FOR GRIZZLY BEARS IN THE WILDLIFE LOCAL          STUDY AREA - APPLICATION YEAR 27</b></p>		
<p><b>NOTES</b>          AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015          (Image Date: Jul 26/13); Riversdale, 2016          Datum/Projection: UTM NAD 83 Zone 11</p>		
<p>0      0.75      1.5      3 Kilometres</p>		<p>PROJECT: 14-00201-01          DRAWN BY: SL          CHECKED BY: RM          DATE: JUNE 20, 2016</p>
		<p><b>FIGURE</b>  <b>5.3-20</b></p>



Document Path: K:\Active Projects\2014\AP\_14-00201 to 14-00250\14-00201\MXD\Final\Figures\Wildlife\Resubmission\Fig 5.3-21 - Grizzly Bear Fall RSF3 Values LSA Application Year 14.mxd

**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint

- RSF Fall**
- 10
  - 9
  - 8
  - 7
  - 6
  - 5
  - 4
  - 3
  - 2
  - 1

**PROJECT**

**RIVERSDALE** GRASSY MOUNTAIN  
RESOURCES COAL PROJECT

**MILLENNIUM**  
EMS Solutions Ltd.

**TITLE**  
**FALL RESOURCE SELECTION FUNCTION VALUES FOR GRIZZLY BEARS IN THE WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
 (Image Date: Jul 26/13); Riversdale, 2016  
 Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

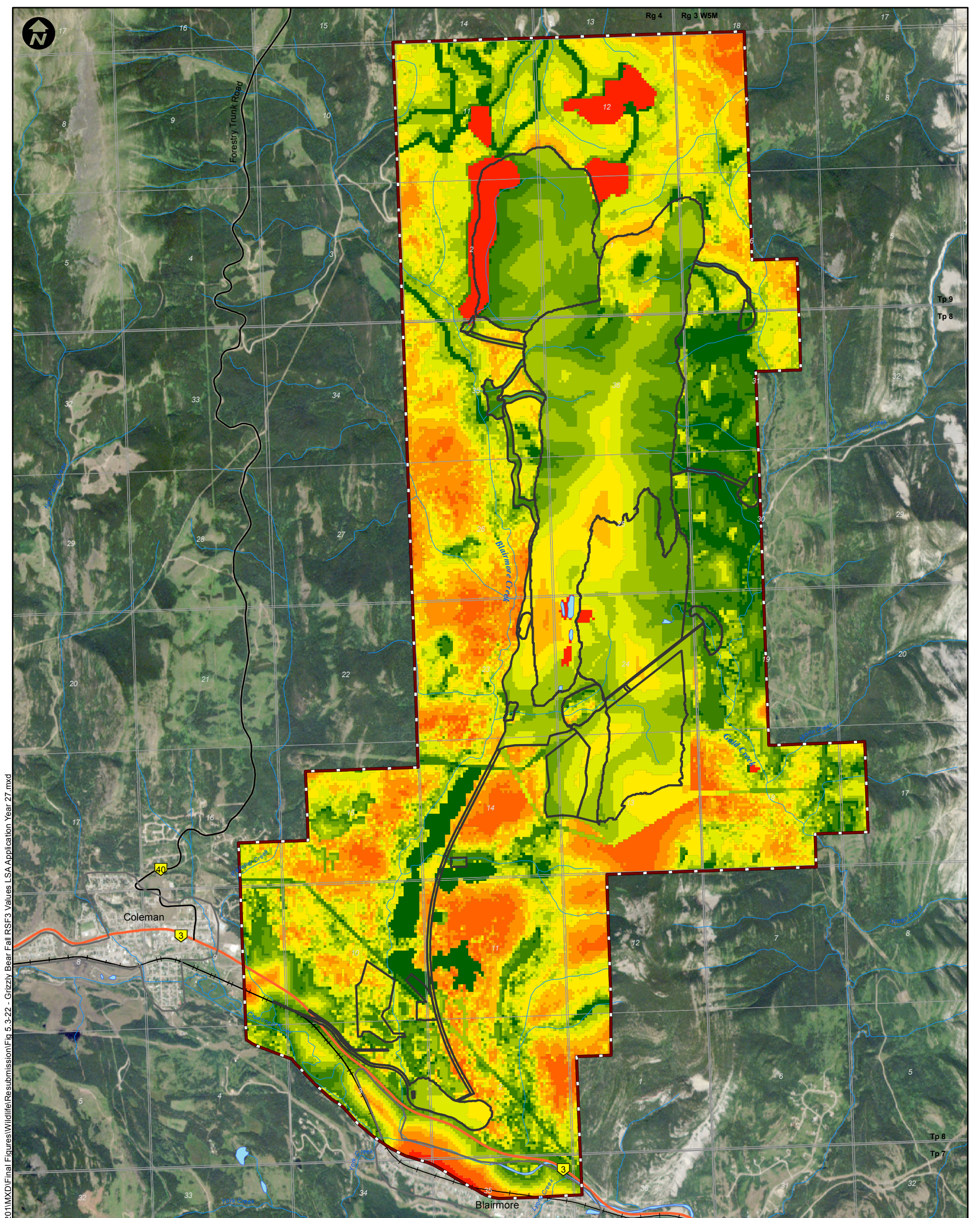
DRAWN BY: SL

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DATE: JUNE 20, 2016

**FIGURE**  
**5.3-21**





Document Path: K:\Active Projects\2014\AP\_14-00201 to 14-00250\14-00201\MXD\Final\Figures\Wildlife\Resubmission\Fig 5.3-22 - Grizzly Bear Fall RSF3 Values LSA Application Year 27.mxd

**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint

- RSF Fall**
- 10
  - 9
  - 8
  - 7
  - 6
  - 5
  - 4
  - 3
  - 2
  - 1

**PROJECT**

**RIVERSDALE** GRASSY MOUNTAIN  
RESOURCES COAL PROJECT

**MILLENNIUM**  
EMS Solutions Ltd.

**TITLE**  
**FALL RESOURCE SELECTION FUNCTION VALUES FOR GRIZZLY BEARS IN THE WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**

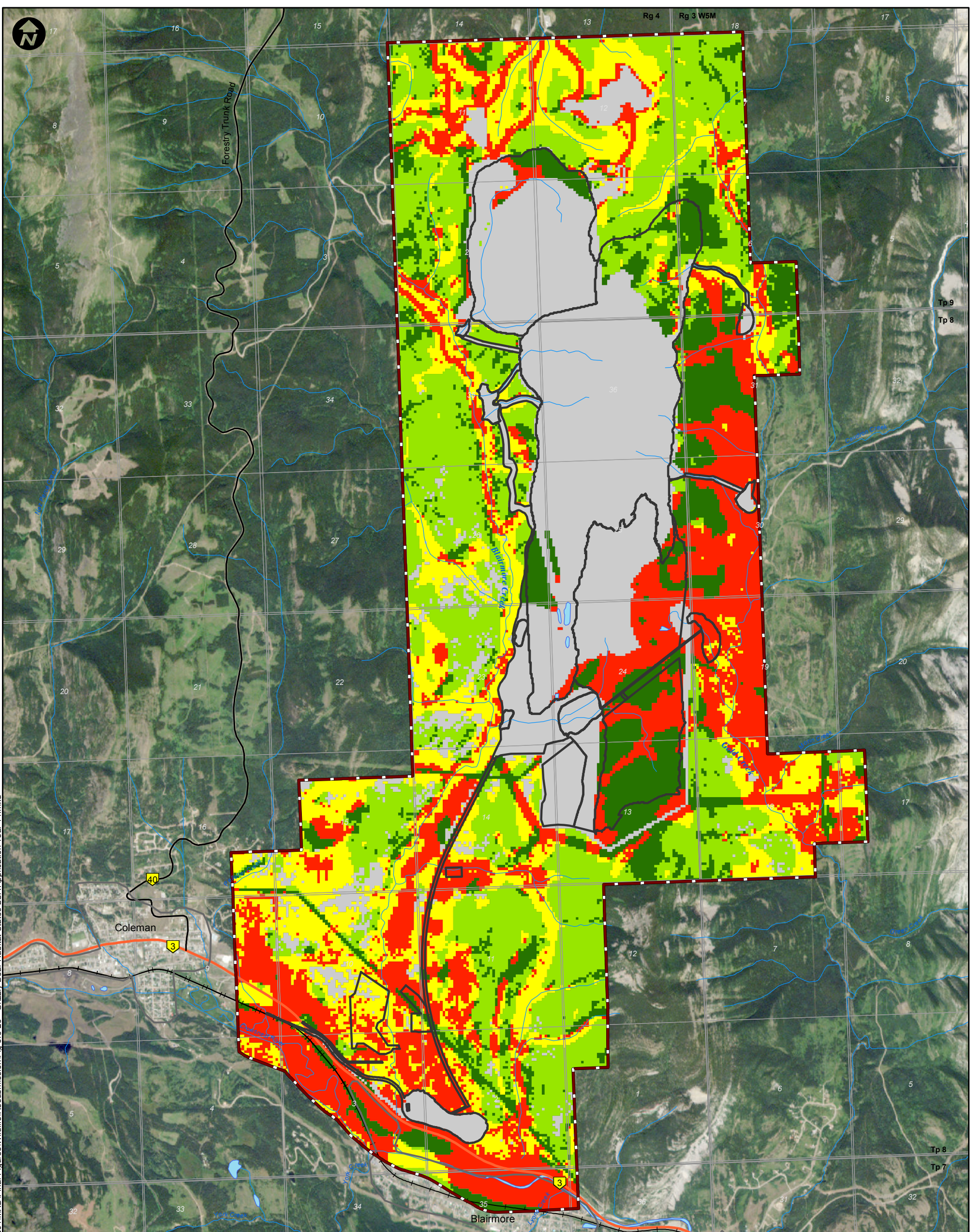
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 (Image Date: Jul 26/13); Riversdale, 2016  
 Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01  
 DRAWN BY: SL  
 CHECKED BY: RM  
 DATE: JUNE 20, 2016



**FIGURE**  
**5.3-22**

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**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint

**Habitat States**

- 2: Primary Sink
- 1: Secondary Sink
- 0: Non-critical Habitat
- 1: Secondary Habitat
- 2: Primary Habitat

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**GRIZZLY BEAR HABITAT STATES IN THE WILDLIFE  
LOCAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

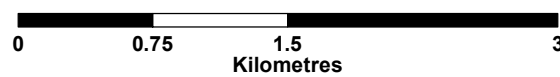
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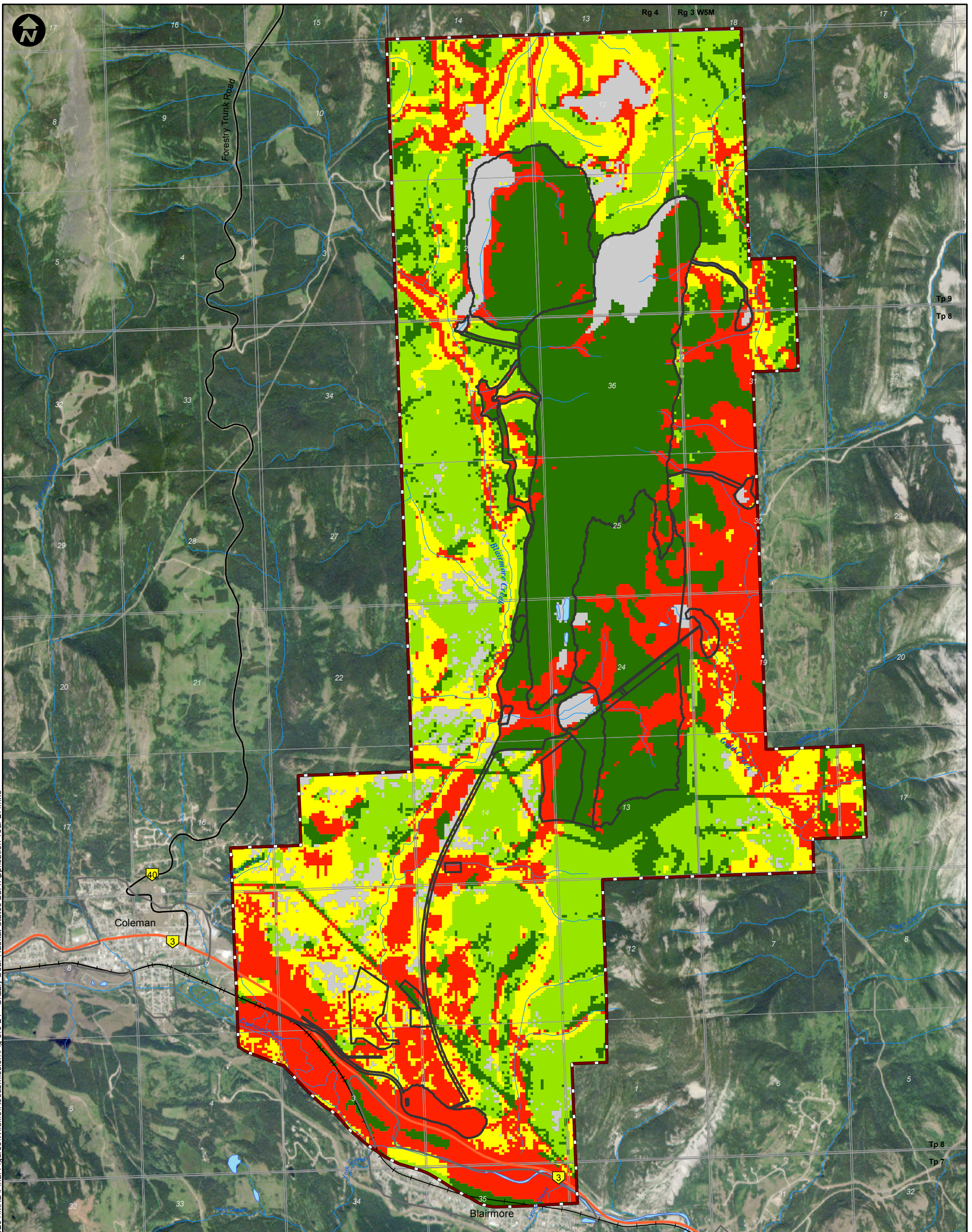
CHECKED BY: RM

DATE: JUNE 20, 2016

**FIGURE**

**5.3-23**





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**LEGEND**

- Primary Highway
- Secondary Highway
- + Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint

**Habitat States**

- 2: Primary Sink
- 1: Secondary Sink
- 0: Non-critical Habitat
- 1: Secondary Habitat
- 2: Primary Habitat

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**GRIZZLY BEAR HABITAT STATES IN THE WILDLIFE  
LOCAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

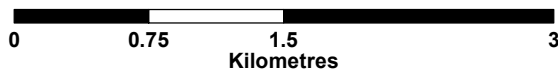
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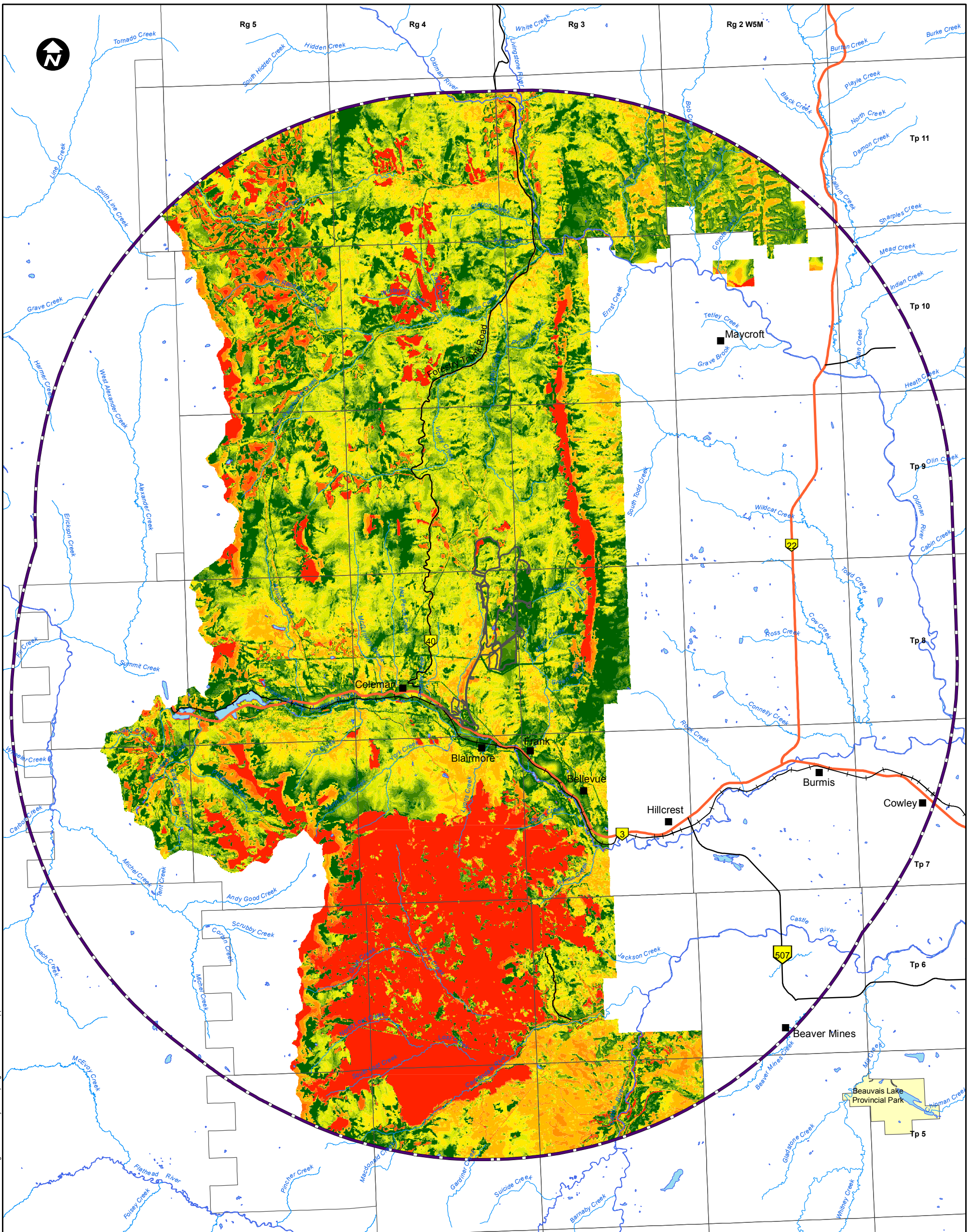
CHECKED BY: RM

DATE: JUNE 20, 2016

**FIGURE**

**5.3-24**





**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Provincial Park
- Grizzly Bear Regional Study Area
- Project Footprint

**RSF Spring**

- 10
- 9
- 8
- 7
- 6
- 5
- 4
- 3
- 2
- 1

**PROJECT**



**RIVERSDALE RESOURCES**

**GRASSY MOUNTAIN COAL PROJECT**

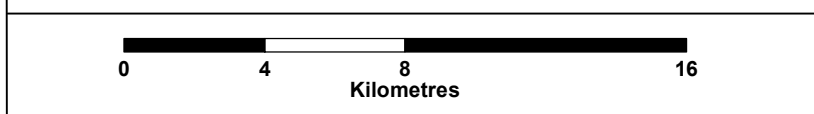


**MILLENNIUM EMS Solutions Ltd.**

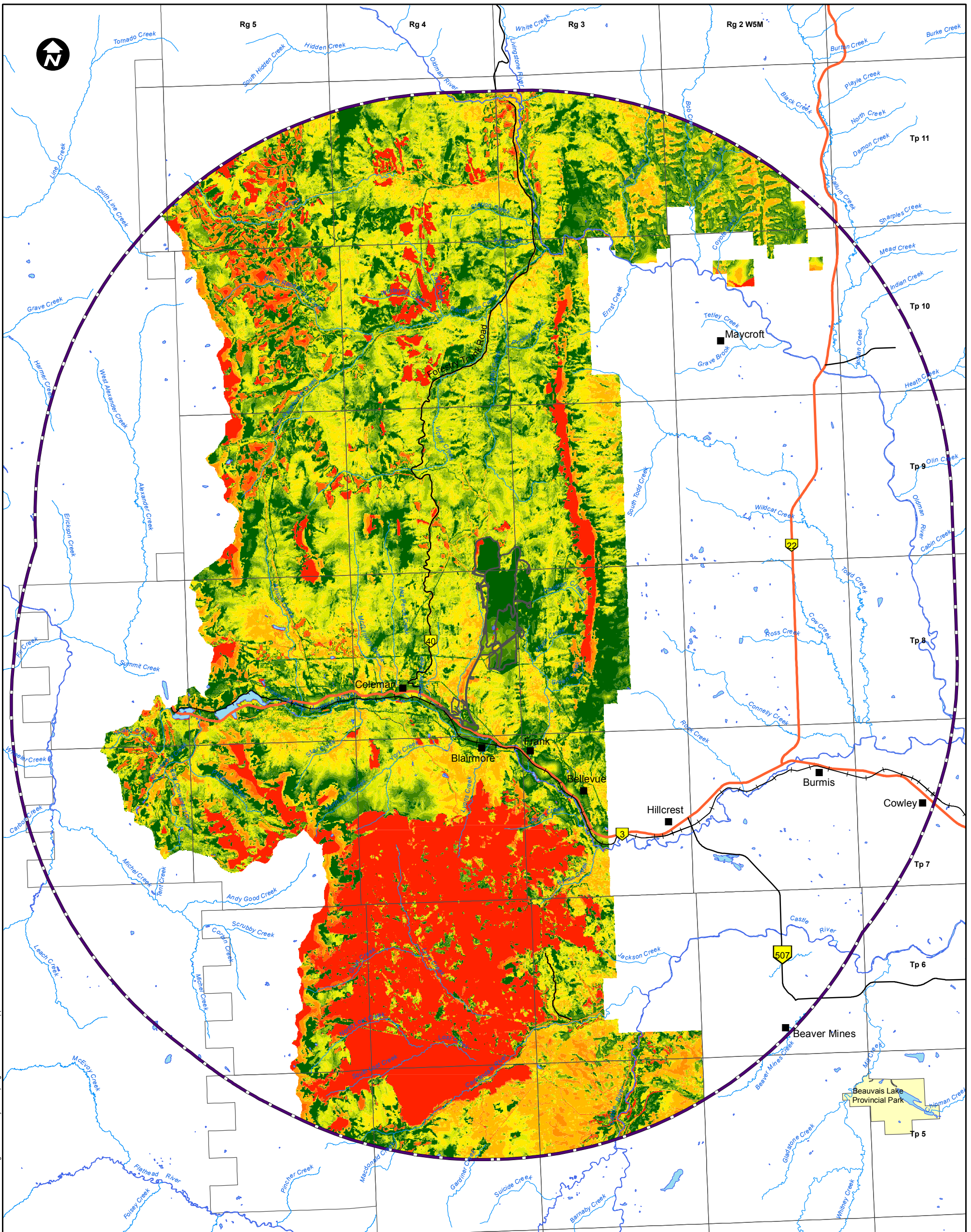
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**SPRING RESOURCE SELECTION FUNCTION VALUES FOR GRIZZLY BEARS IN THE GRIZZLY BEAR REGIONAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**  
 AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
 Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01  
 DRAWN BY: SL  
 CHECKED BY: RM  
 DATE: JUNE 20, 2016



**FIGURE**  
**5.3-25**



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Provincial Park
- Grizzly Bear Regional Study Area
- Project Footprint

**RSF Spring**

- 10
- 9
- 8
- 7
- 6
- 5
- 4
- 3
- 2
- 1

**PROJECT**

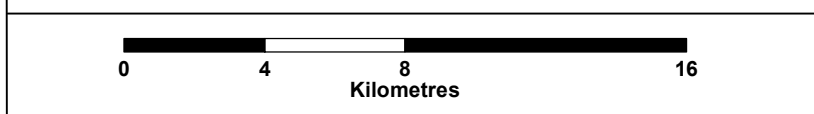
**RIVERSDALE RESOURCES** **GRASSY MOUNTAIN COAL PROJECT**

**MILLENNIUM**  
EMS Solutions Ltd.

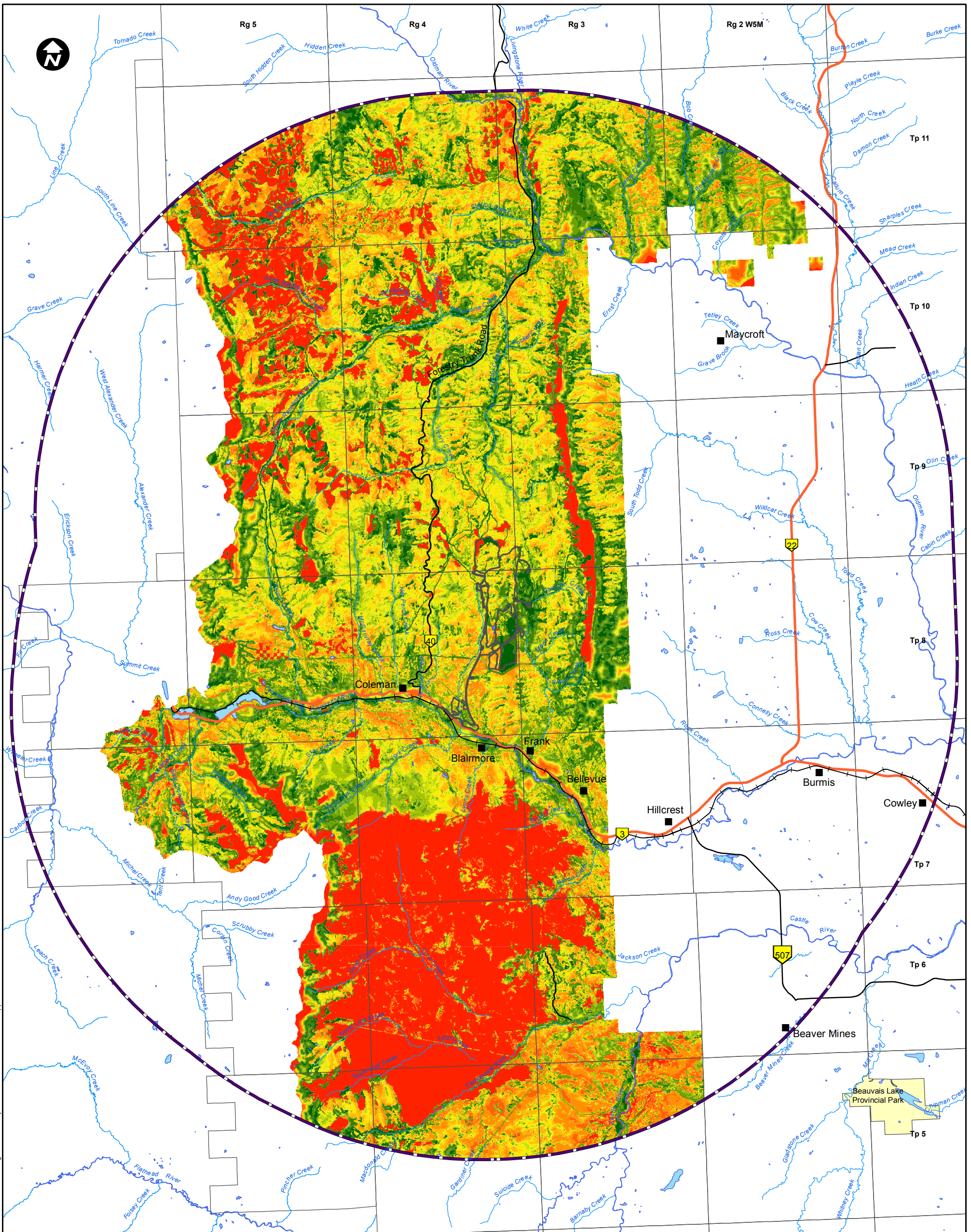
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**SPRING RESOURCE SELECTION FUNCTION VALUES FOR GRIZZLY BEARS IN THE GRIZZLY BEAR REGIONAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**  
 AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
 Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01  
 DRAWN BY: SL  
 CHECKED BY: RM  
 DATE: JUNE 20, 2016



**FIGURE**  
**5.3-26**



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Provincial Park
- Grizzly Bear Regional Study Area
- Project Footprint

**RSF Summer**

- 10
- 9
- 8
- 7
- 6
- 5
- 4
- 3
- 2
- 1

**PROJECT**

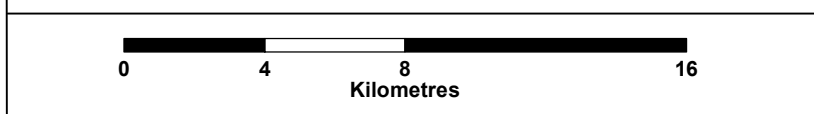
**RIVERSDALE RESOURCES** **GRASSY MOUNTAIN COAL PROJECT**

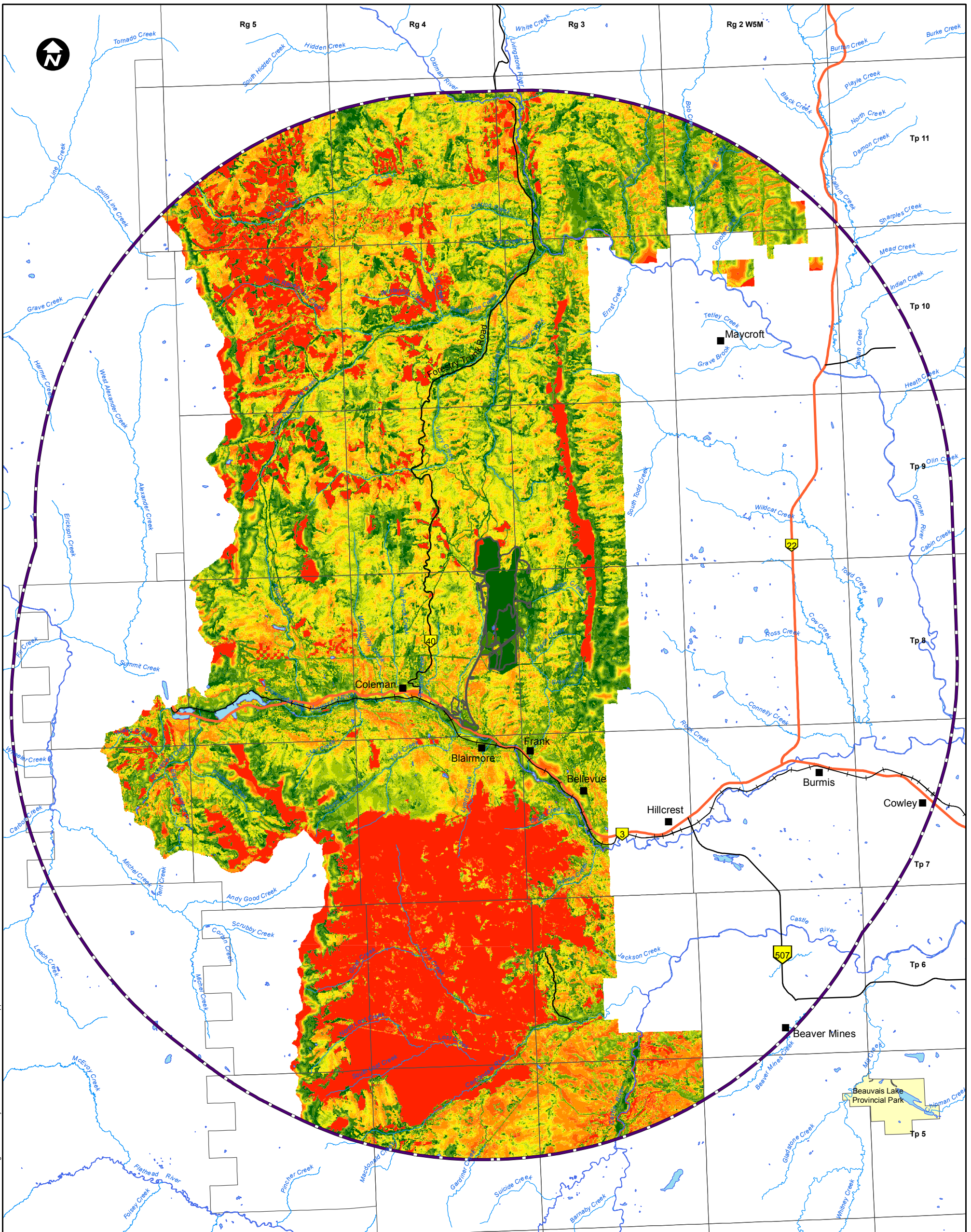
**MILLENNIUM EMS Solutions Ltd.**

**TITLE**  
**SUMMER RESOURCE SELECTION FUNCTION VALUES FOR GRIZZLY BEARS IN THE GRIZZLY BEAR REGIONAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**  
 AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
 Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01  
 DRAWN BY: SL  
 CHECKED BY: RM  
 DATE: JUNE 20, 2016  
**FIGURE 5.3-27**





**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Provincial Park
- Grizzly Bear Regional Study Area
- Project Footprint

**RSF Summer**

- 10
- 9
- 8
- 7
- 6
- 5
- 4
- 3
- 2
- 1

**PROJECT**



**RIVERSDALE RESOURCES**

**GRASSY MOUNTAIN COAL PROJECT**

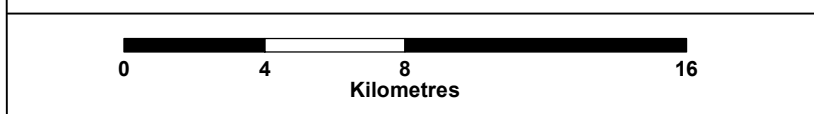


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EMS Solutions Ltd.

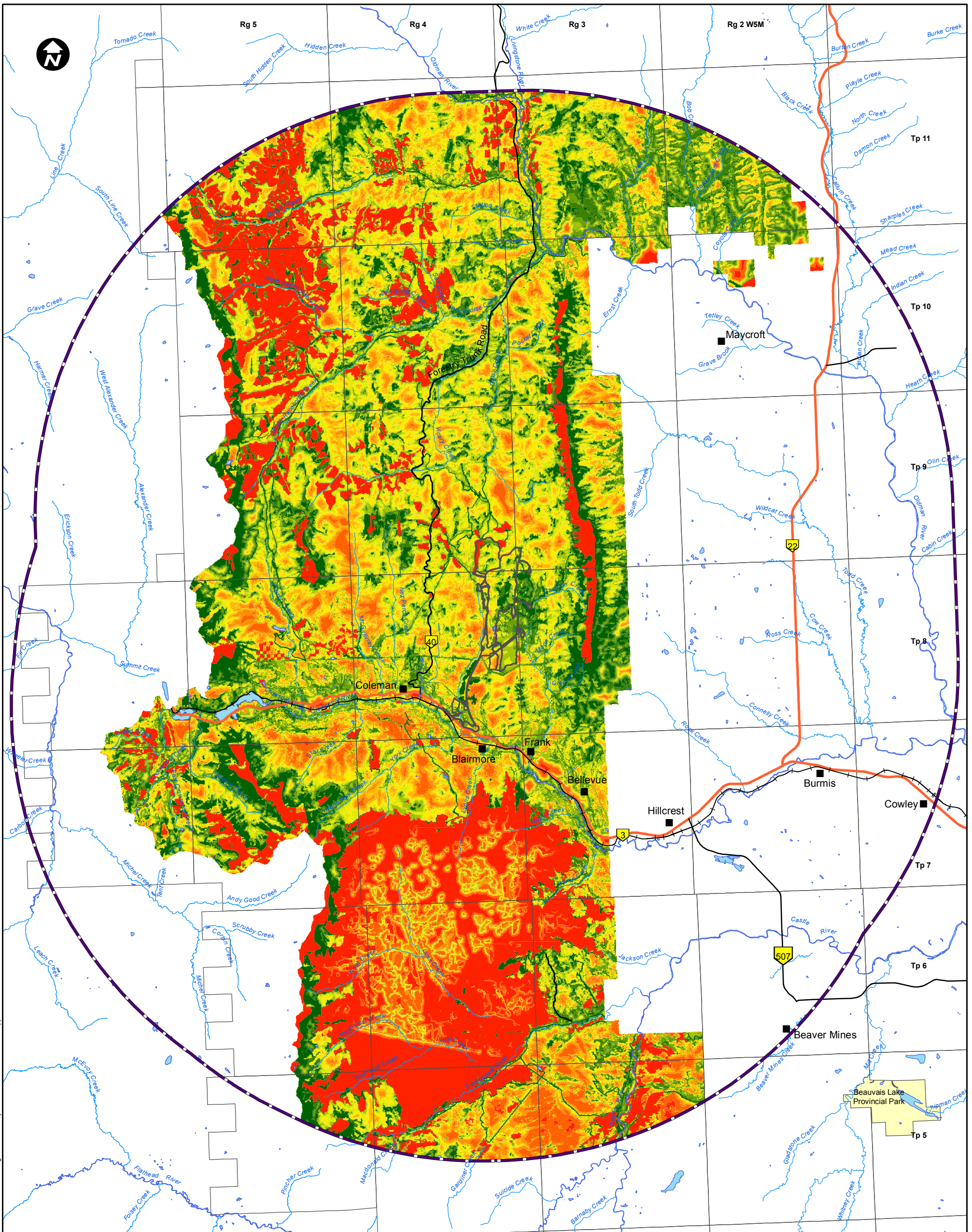
**TITLE**  
**SUMMER RESOURCE SELECTION FUNCTION VALUES FOR GRIZZLY BEARS IN THE GRIZZLY BEAR REGIONAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**  
 AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
 Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01  
 DRAWN BY: SL  
 CHECKED BY: RM  
 DATE: JUNE 21, 2016



**FIGURE**  
**5.3-28**



- LEGEND**
- Primary Highway
  - Secondary Highway
  - Existing Railway
  - Surface Water Drainage
  - Waterbody
  - Provincial Park
  - Grizzly Bear Regional Study Area
  - Project Footprint

- RSF Fall**
- 10
  - 9
  - 8
  - 7
  - 6
  - 5
  - 4
  - 3
  - 2
  - 1

**PROJECT**

**RIVERSDALE RESOURCES** **GRASSY MOUNTAIN COAL PROJECT**



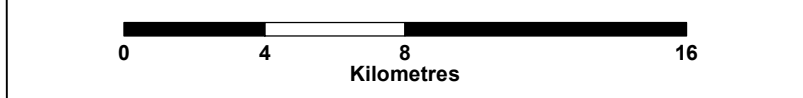
**TITLE**

**FALL RESOURCE SELECTION FUNCTION VALUES FOR GRIZZLY BEARS IN THE GRIZZLY BEAR REGIONAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**

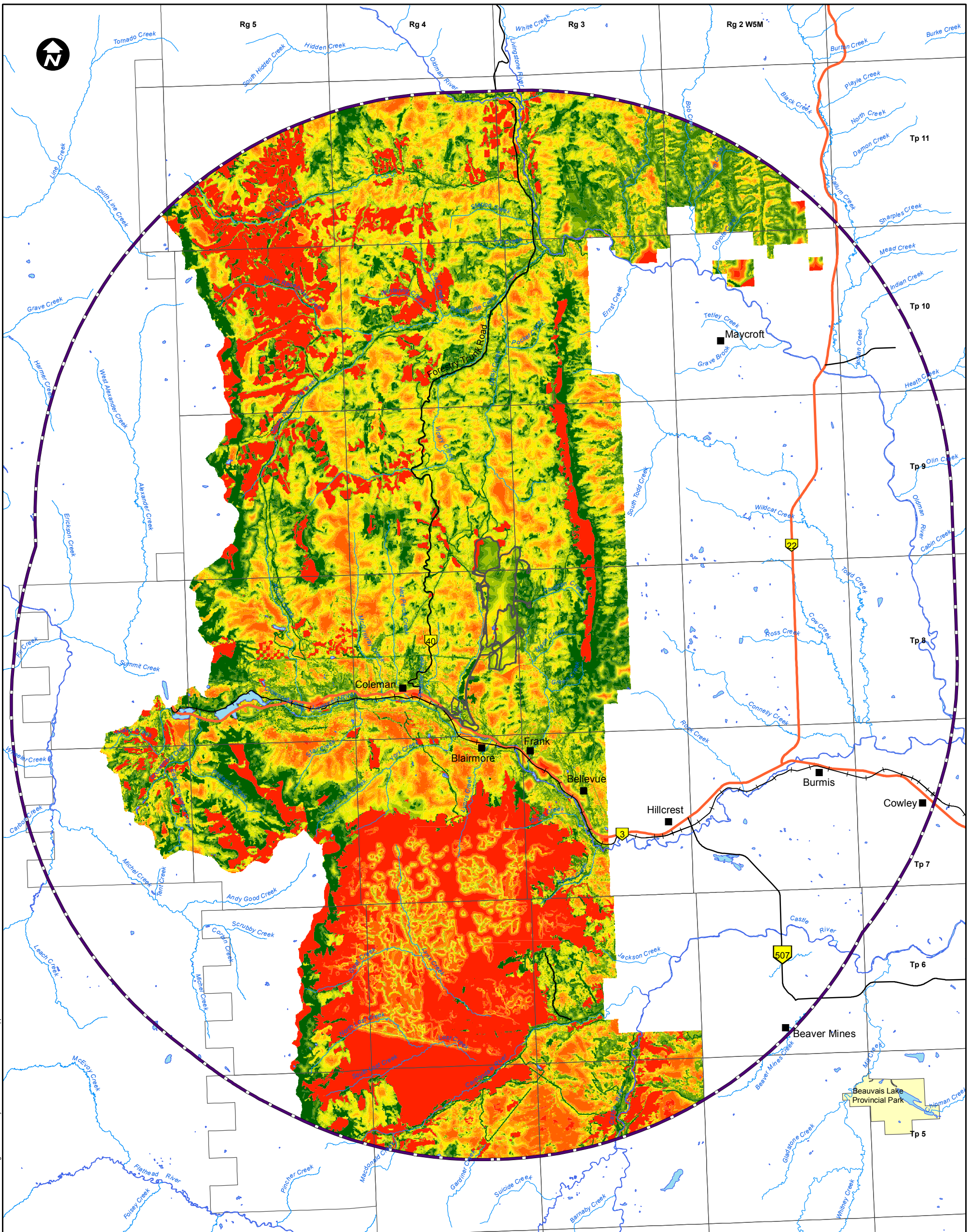
AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
 Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01  
 DRAWN BY: SL  
 CHECKED BY: RM  
 DATE: JUNE 21, 2016



**FIGURE**

**5.3-29**



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Provincial Park
- Grizzly Bear Regional Study Area
- Project Footprint

**RSF Fall**

- 10
- 9
- 8
- 7
- 6
- 5
- 4
- 3
- 2
- 1

**PROJECT**

**RIVERSDALE RESOURCES** **GRASSY MOUNTAIN COAL PROJECT**

**TITLE**  
**FALL RESOURCE SELECTION FUNCTION VALUES FOR GRIZZLY BEARS IN THE GRIZZLY BEAR REGIONAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**  
 AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
 Datum/Projection: UTM NAD 83 Zone 11

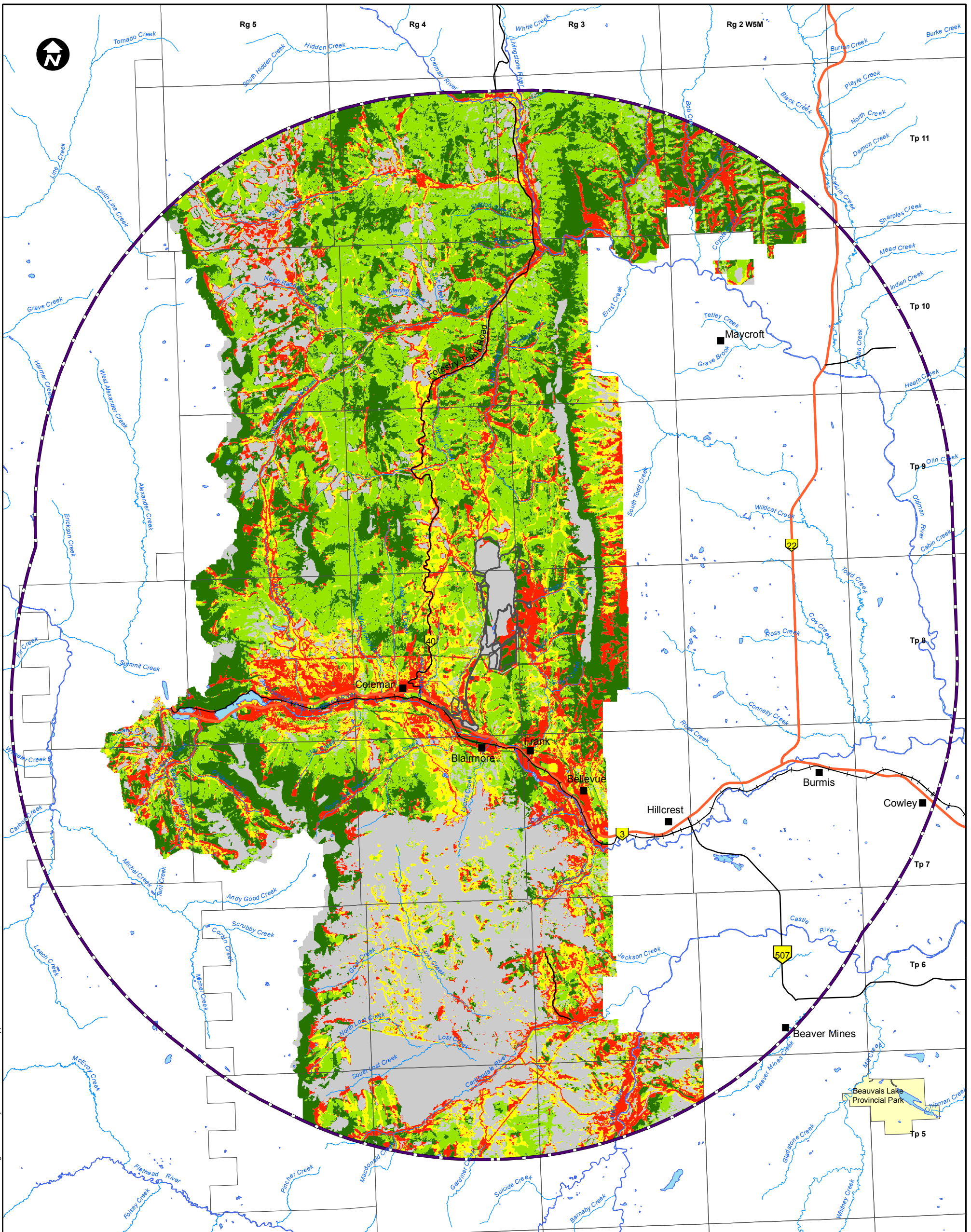
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 Kilometres

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PROJECT: 14-00201-01  
 DRAWN BY: SL  
 CHECKED BY: RM  
 DATE: JUNE 21, 2016

**FIGURE**  
**5.3-30**

Document Path: K:\Active Projects\2014\AP\_14-00201 to 14-00250\14-00201\MXD\Final\Figures\Wildlife\Resubmission\Fig\_5.3-30 - Grizzly Bear Fall RSF3 Values, RSA Application Year 27.mxd



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Provincial Park
- Grizzly Bear Regional Study Area
- Project Footprint

**Habitat States**

- 2: Primary Sink
- 1: Secondary Sink
- 0: Non-critical Habitat
- 1: Secondary Habitat
- 2: Primary Habitat

**PROJECT**



**RIVERSDALE RESOURCES**

**GRASSY MOUNTAIN COAL PROJECT**



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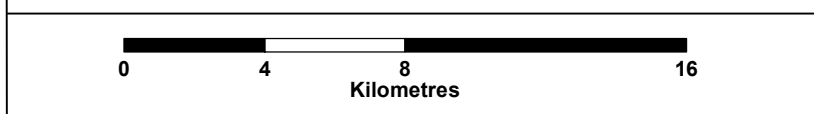
**TITLE**

**GRIZZLY BEAR HABITAT STATES IN THE GRIZZLY BEAR REGIONAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**

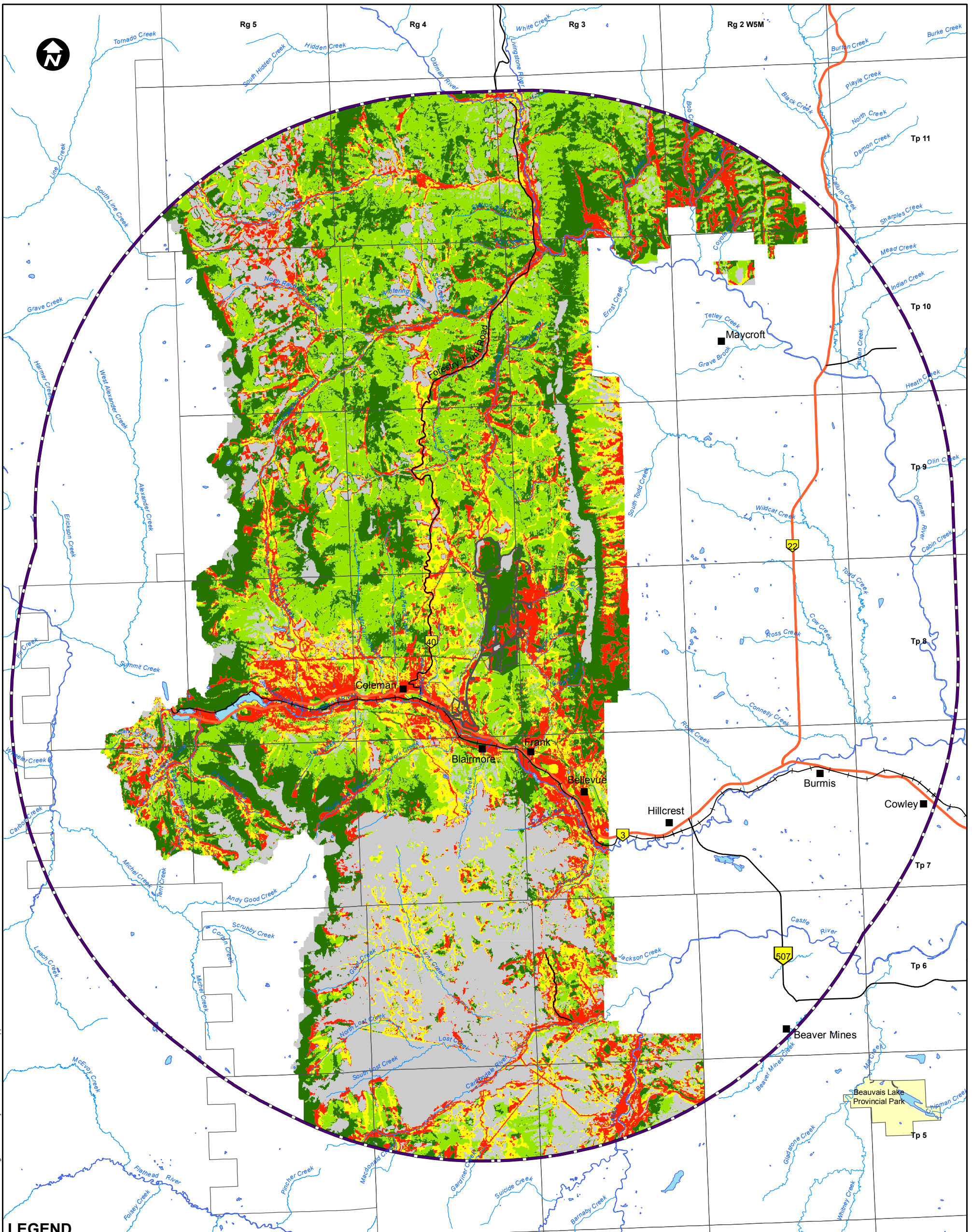
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 Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01  
 DRAWN BY: SL  
 CHECKED BY: RM  
 DATE: JUNE 21, 2016



**FIGURE**

**5.3-31**



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Provincial Park
- Grizzly Bear Regional Study Area
- Project Footprint

**Habitat States**

- 2: Primary Sink
- 1: Secondary Sink
- 0: Non-critical Habitat
- 1: Secondary Habitat
- 2: Primary Habitat

**PROJECT**

**RIVERSDALE RESOURCES**

**GRASSY MOUNTAIN COAL PROJECT**

**MILLENNIUM**  
EMS Solutions Ltd.

**TITLE**  
**GRIZZLY BEAR HABITAT STATES IN THE GRIZZLY BEAR REGIONAL STUDY AREA - APPLICATION YEAR 27**

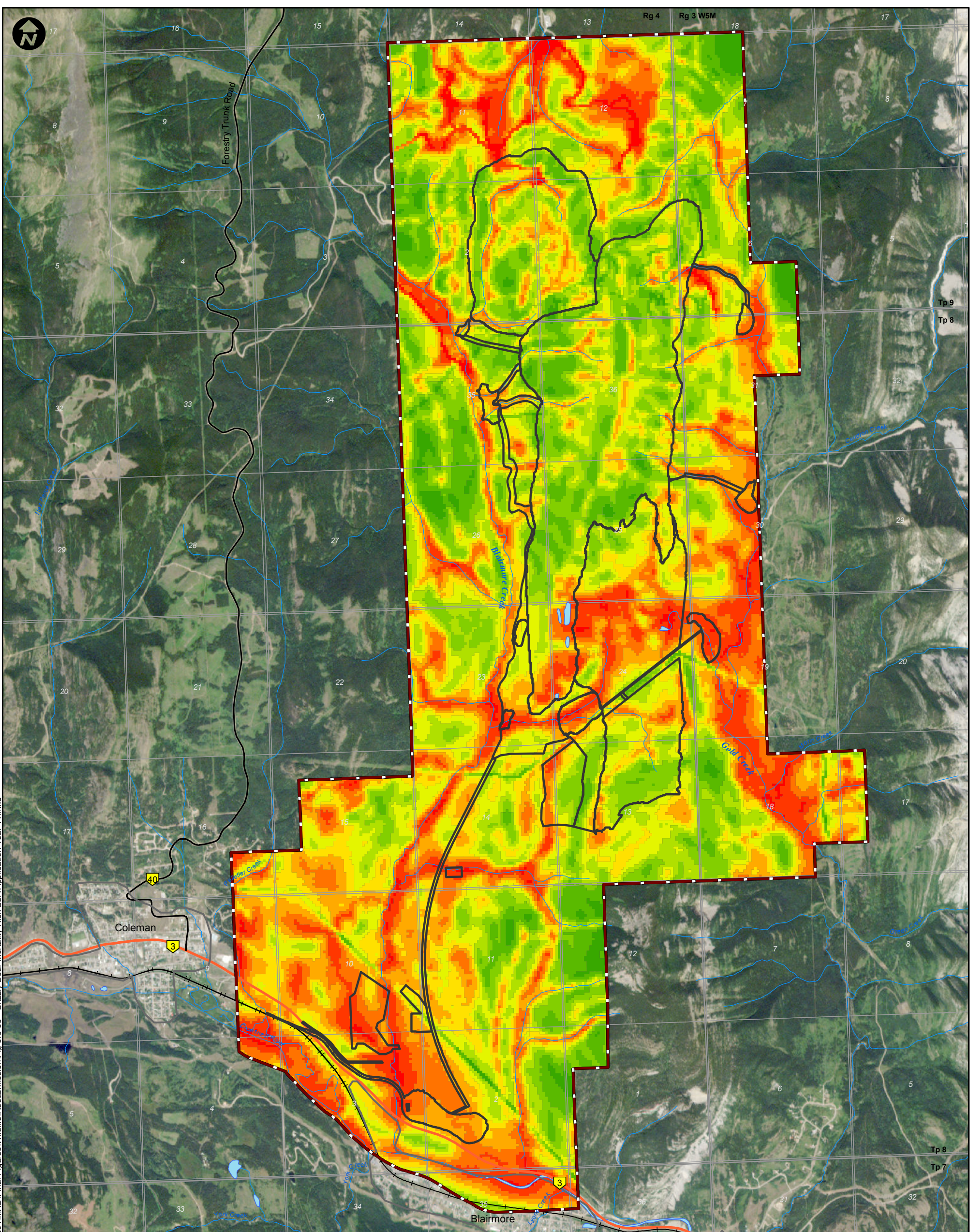
**NOTES**  
 AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
 Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01  
 DRAWN BY: SL  
 CHECKED BY: RM  
 DATE: JUNE 21, 2016



**FIGURE**  
**5.3-32**

Document Path: K:\Active Projects\2014\AP\_14-00201\14-00201\MXD\Final\Figures\Wildlife\Resubmission\Fig 5.3-33 - Grizzly Bear Mortality Risk LSA Application Year 14.mxd



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint



**PROJECT**

**RIVERSDALE** **GRASSY MOUNTAIN COAL PROJECT**  
RESOURCES

**MILLENNIUM**  
EMS Solutions Ltd.

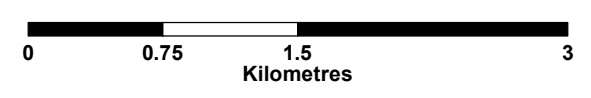
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**GRIZZLY BEAR MORTALITY RISK IN THE WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 14**

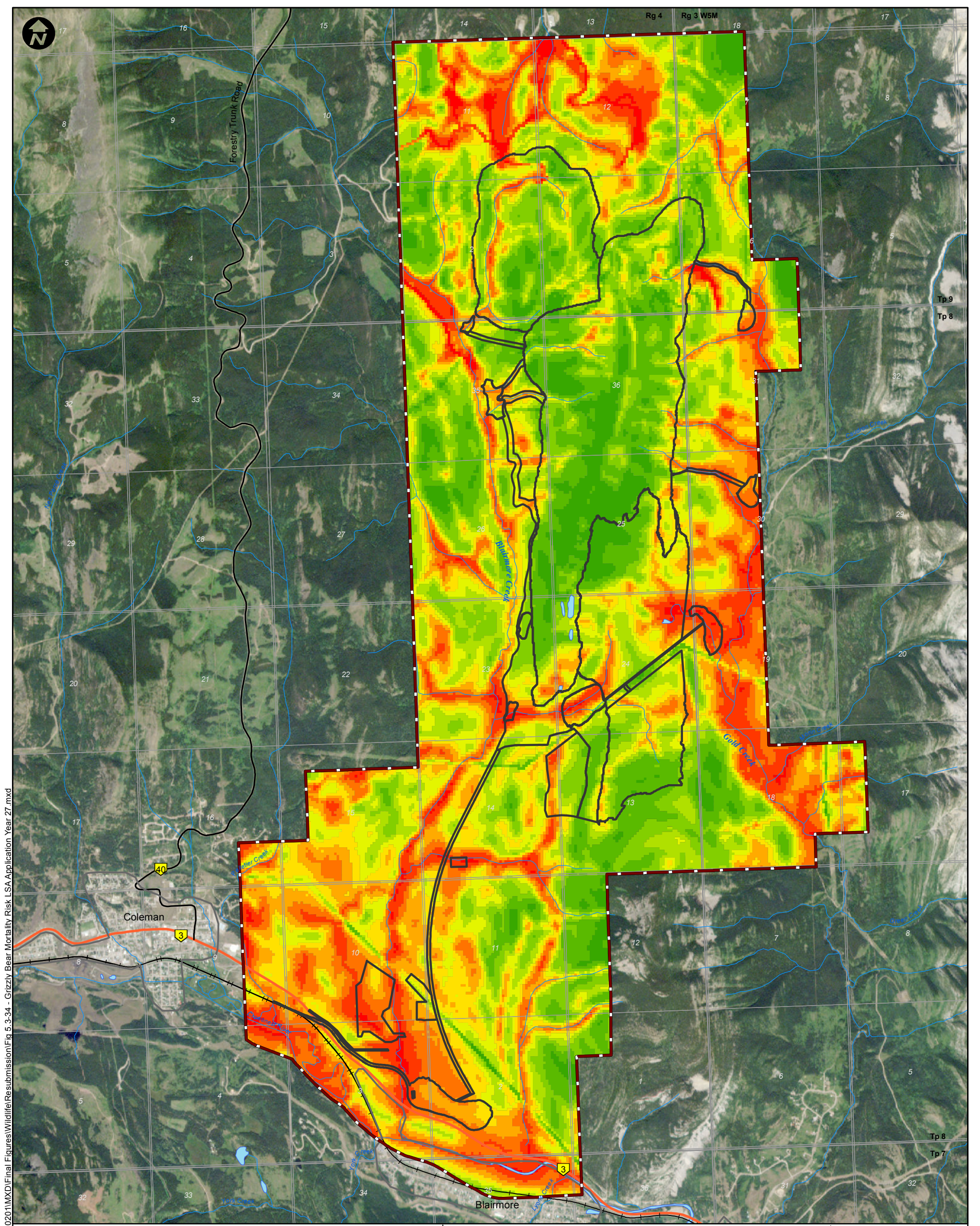
**NOTES**

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(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01  
DRAWN BY: SL  
CHECKED BY: RM  
DATE: JUNE 21, 2016



**FIGURE**  
**5.3-33**



Document Path: K:\Active Projects 2014\AP\_14-00201 to 14-00250\14-00201\MXD\Final Figures\Wildlife\Resubmission\Fig 5.3-34 - Grizzly Bear Mortality Risk LSA Application Year 27.mxd

**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint



**PROJECT**

**RIVERSDALE** **GRASSY MOUNTAIN COAL PROJECT**  
RESOURCES

**MILLENNIUM**  
EMS Solutions Ltd.

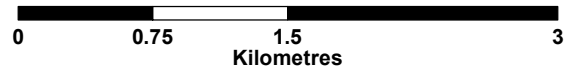
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**GRIZZLY BEAR MORTALITY RISK IN THE WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 27**

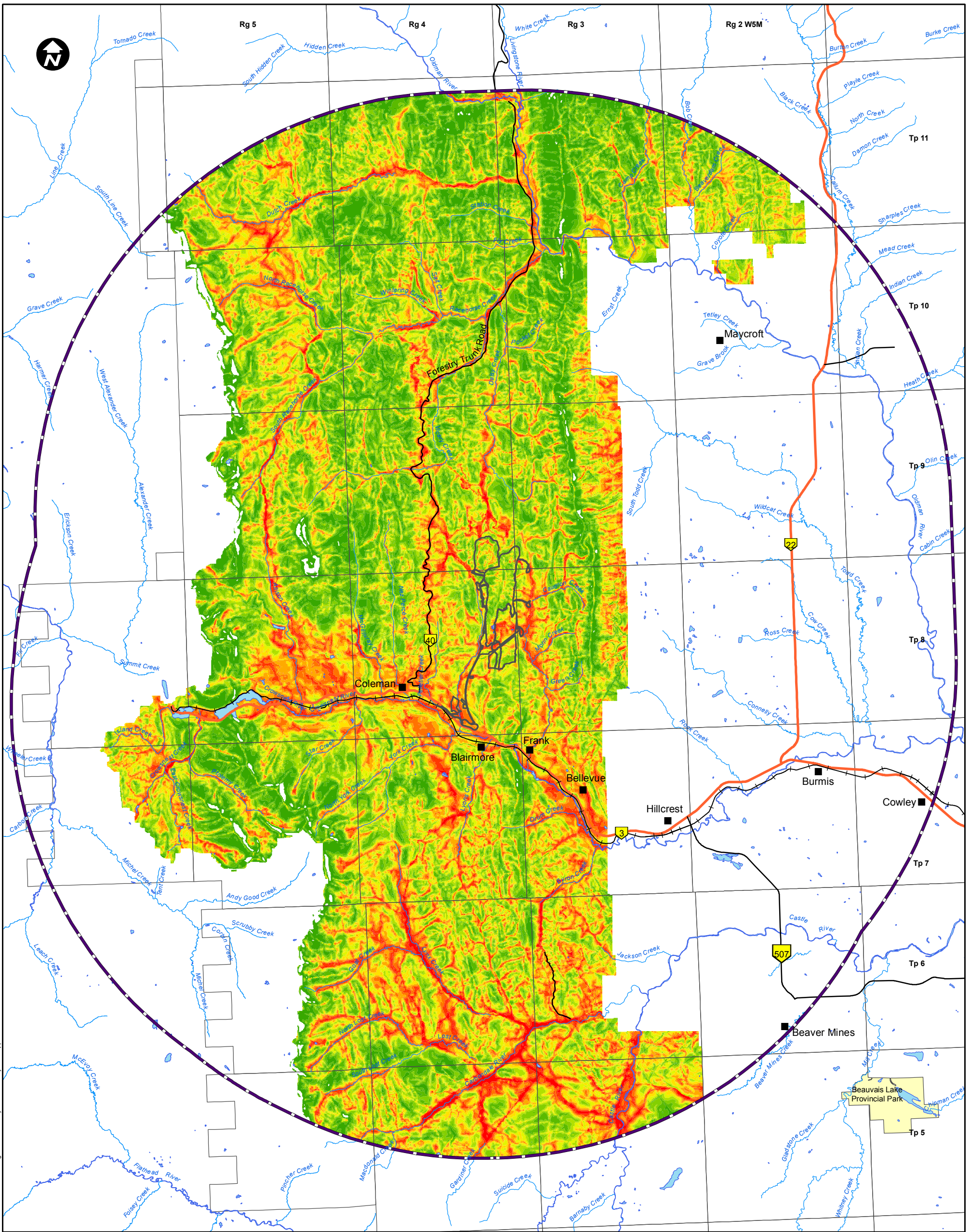
**NOTES**

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Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01  
DRAWN BY: SL  
CHECKED BY: RM  
DATE: JUNE 21, 2016



**FIGURE**  
**5.3-34**



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Provincial Park
- Grizzly Bear Regional Study Area
- Project Footprint

**Mortality Risk**

- 10
- 9
- 8
- 7
- 6
- 5
- 4
- 3
- 2
- 1

**PROJECT**

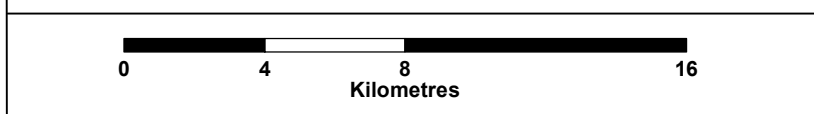
**RIVERSDALE RESOURCES** **GRASSY MOUNTAIN COAL PROJECT**

**MILLENNIUM**  
EMS Solutions Ltd.

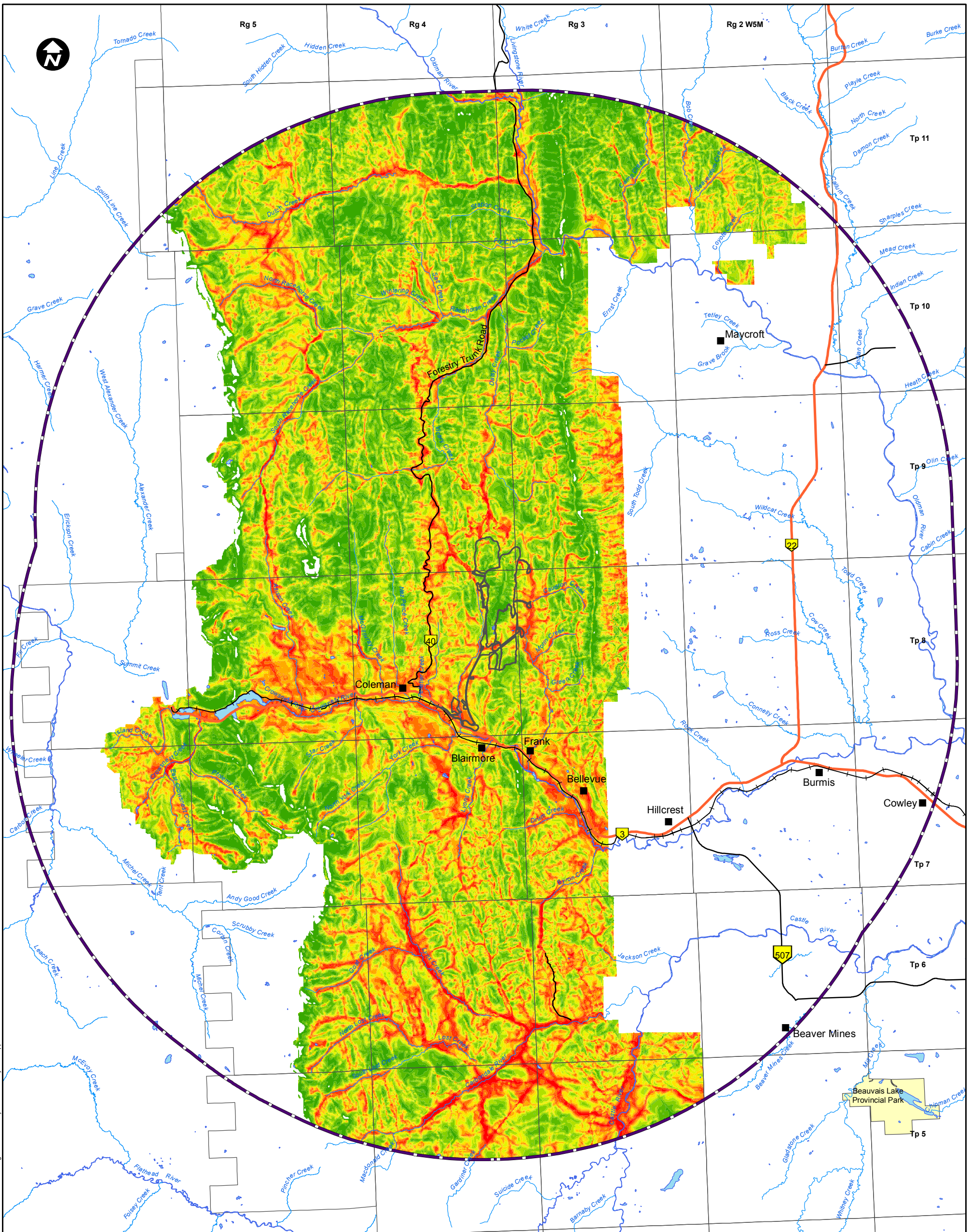
**TITLE**  
**GRIZZLY BEAR MORTALITY RISK IN THE GRIZZLY BEAR REGIONAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**  
AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01  
DRAWN BY: SL  
CHECKED BY: RM  
DATE: JUNE 21, 2016



**FIGURE**  
**5.3-35**



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Provincial Park
- Grizzly Bear Regional Study Area
- Project Footprint

- Mortality Risk**
- 10
  - 9
  - 8
  - 7
  - 6
  - 5
  - 4
  - 3
  - 2
  - 1

**PROJECT**



**RIVERSDALE GRASSY MOUNTAIN COAL PROJECT**  
RESOURCES



**TITLE**

**GRIZZLY BEAR MORTALITY RISK IN THE GRIZZLY BEAR REGIONAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

DRAWN BY: SL

CHECKED BY: RM

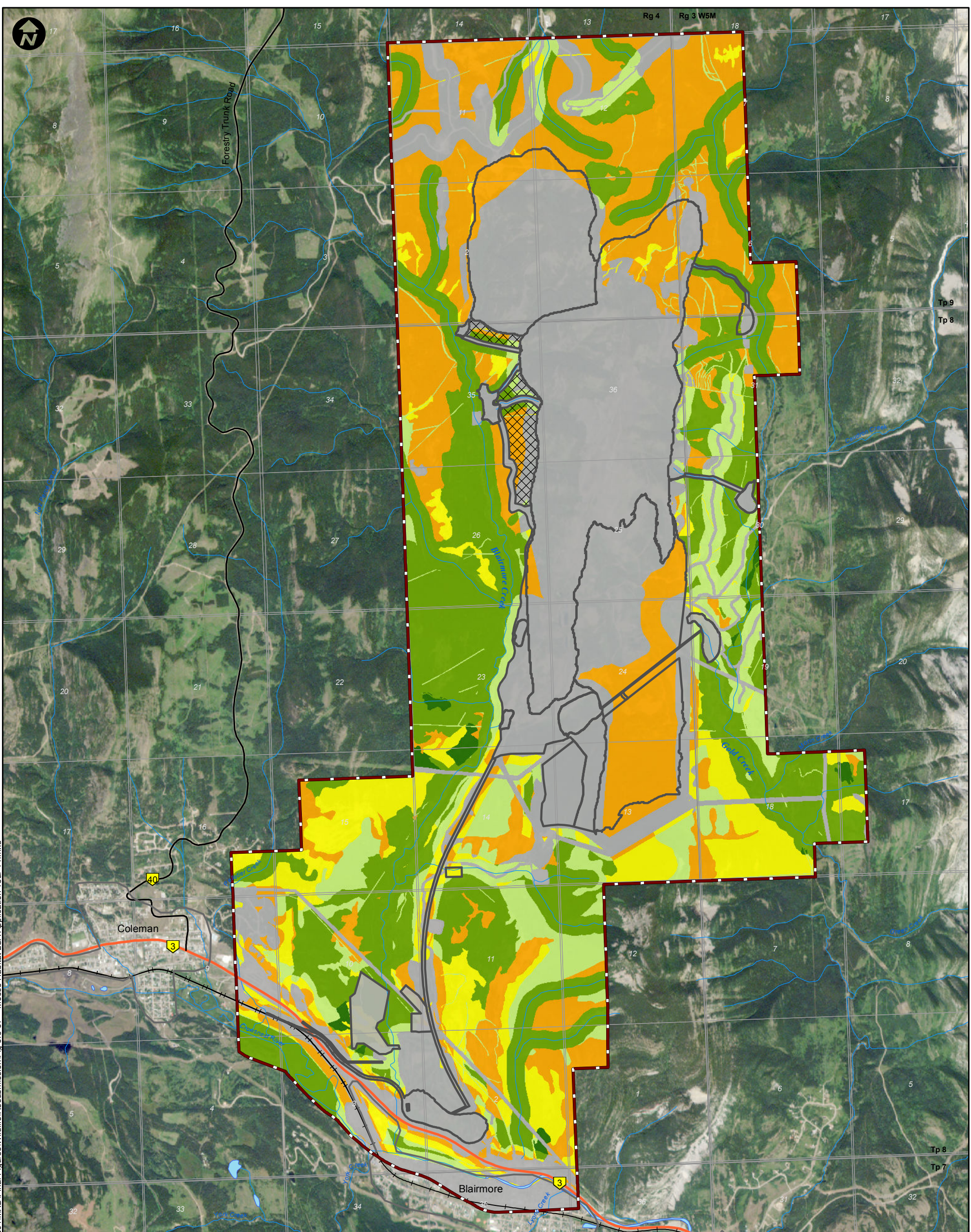
DATE: JUNE 21, 2016

FIGURE

**5.3-36**



Document Path: K:\Active Projects\2014\AP\_14-00201\14-00201\MXD\Final\Figures\Wildlife\Resubmission\Fig 5.3-37 - Moose Habitat LSA Application Year 14.mxd



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area

**Moose Habitat Suitability**

- High
- Moderate-High
- Moderate
- Moderate-Low
- Low
- Nil

**PROJECT**

**RIVERSDALE** GRASSY MOUNTAIN  
RESOURCES COAL PROJECT

**MILLENNIUM**  
EMS Solutions Ltd.

**TITLE**  
**MOOSE HABITAT AVAILABILITY IN THE WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 14**

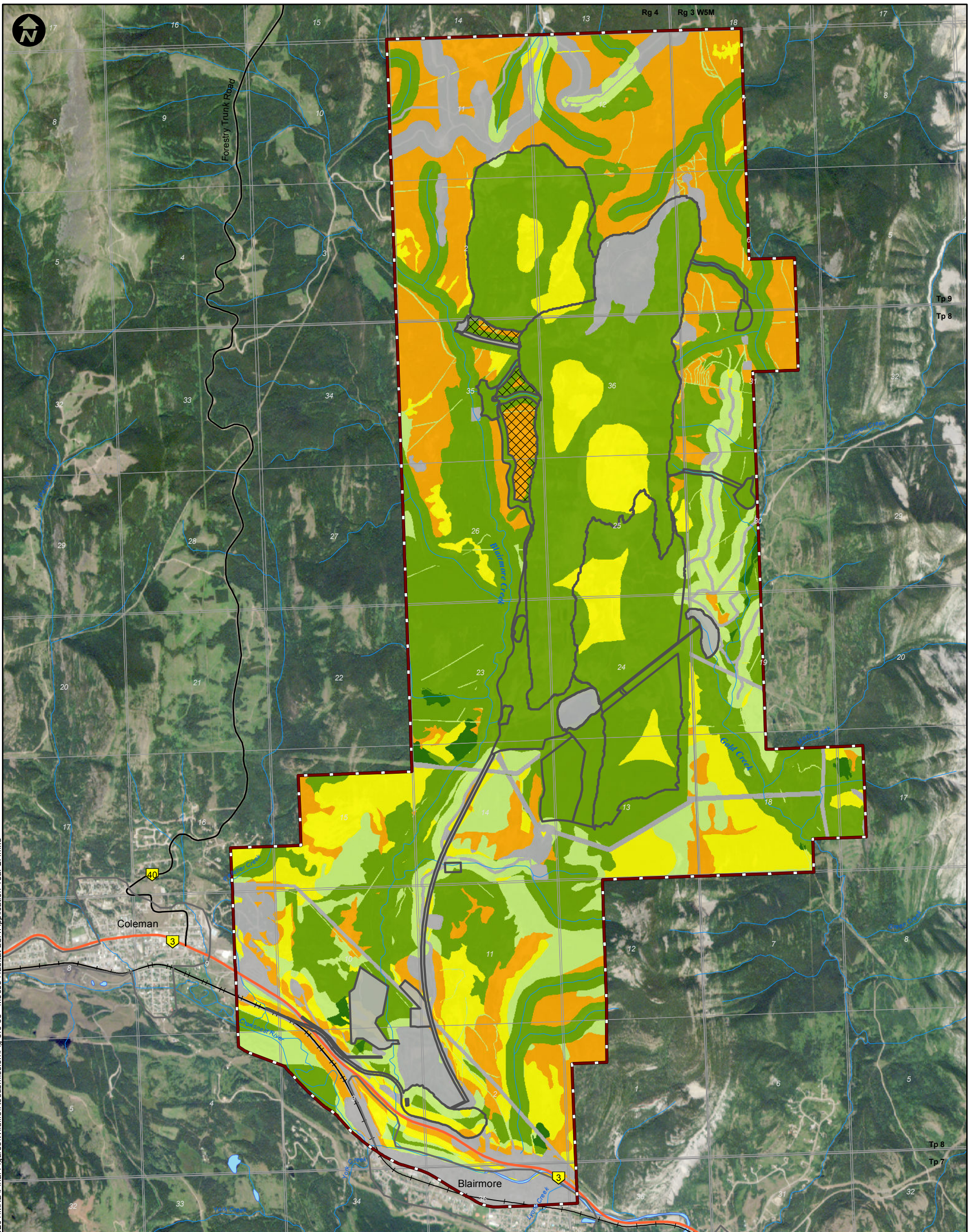
**NOTES**

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(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01  
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DATE: JUNE 20, 2016



**FIGURE**  
**5.3-37**



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**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area

**Moose Habitat Suitability**

- High
- Moderate-High
- Moderate
- Moderate-Low
- Low
- Nil

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**MOOSE HABITAT AVAILABILITY IN THE WILDLIFE  
LOCAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

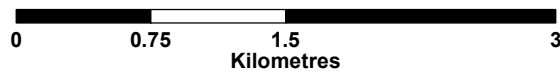
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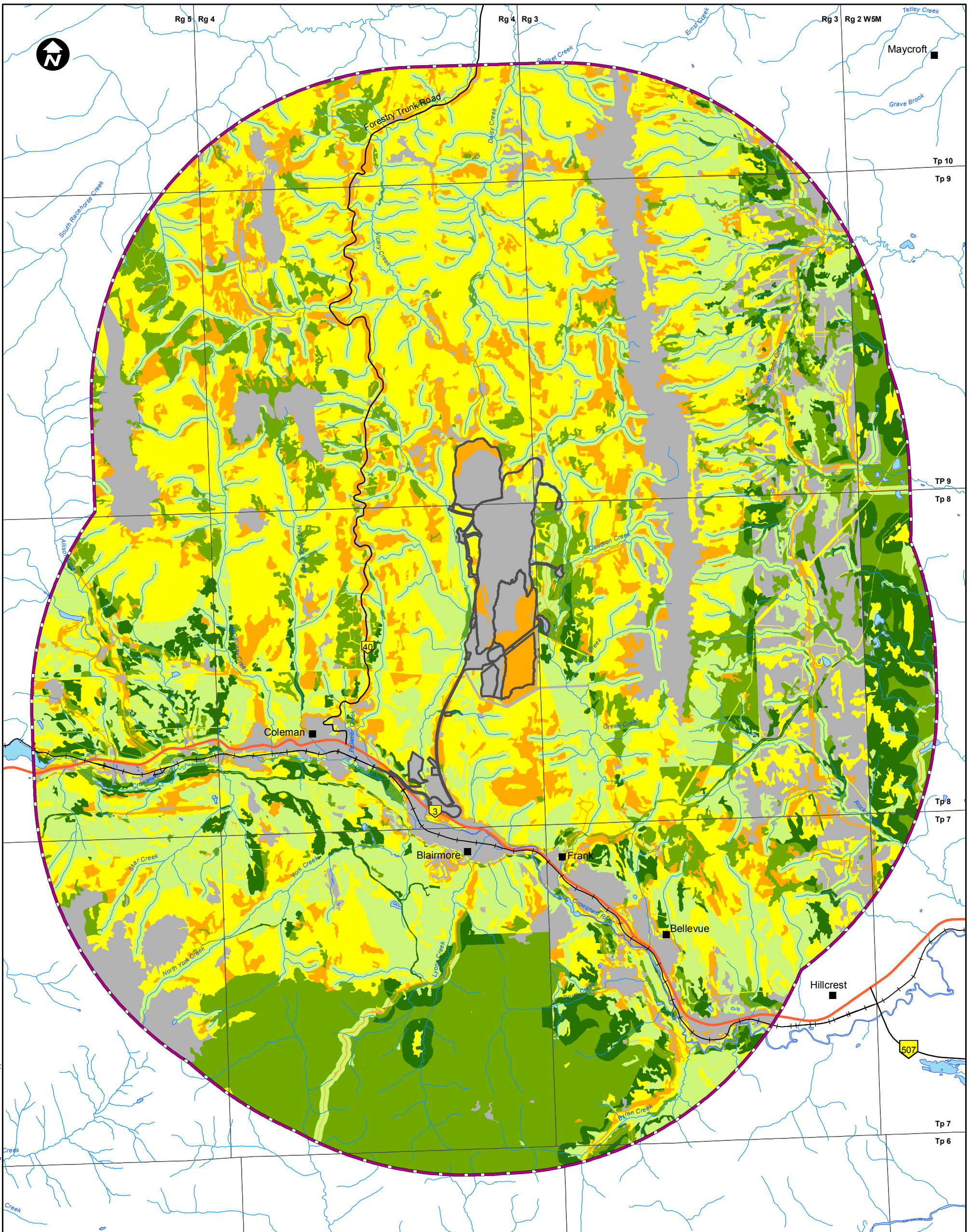
CHECKED BY: RM

DATE: JUNE 20, 2016

**FIGURE**

**5.3-38**





**LEGEND**

- Primary Highway
- Secondary Highway
- + Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Regional Study Area
- Project Footprint

**Moose Habitat Suitability**

- High
- Moderate-High
- Moderate
- Moderate-Low
- Low
- Nil

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**MOOSE HABITAT AVAILABILITY IN THE WILDLIFE  
REGIONAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

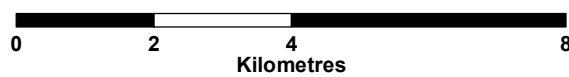
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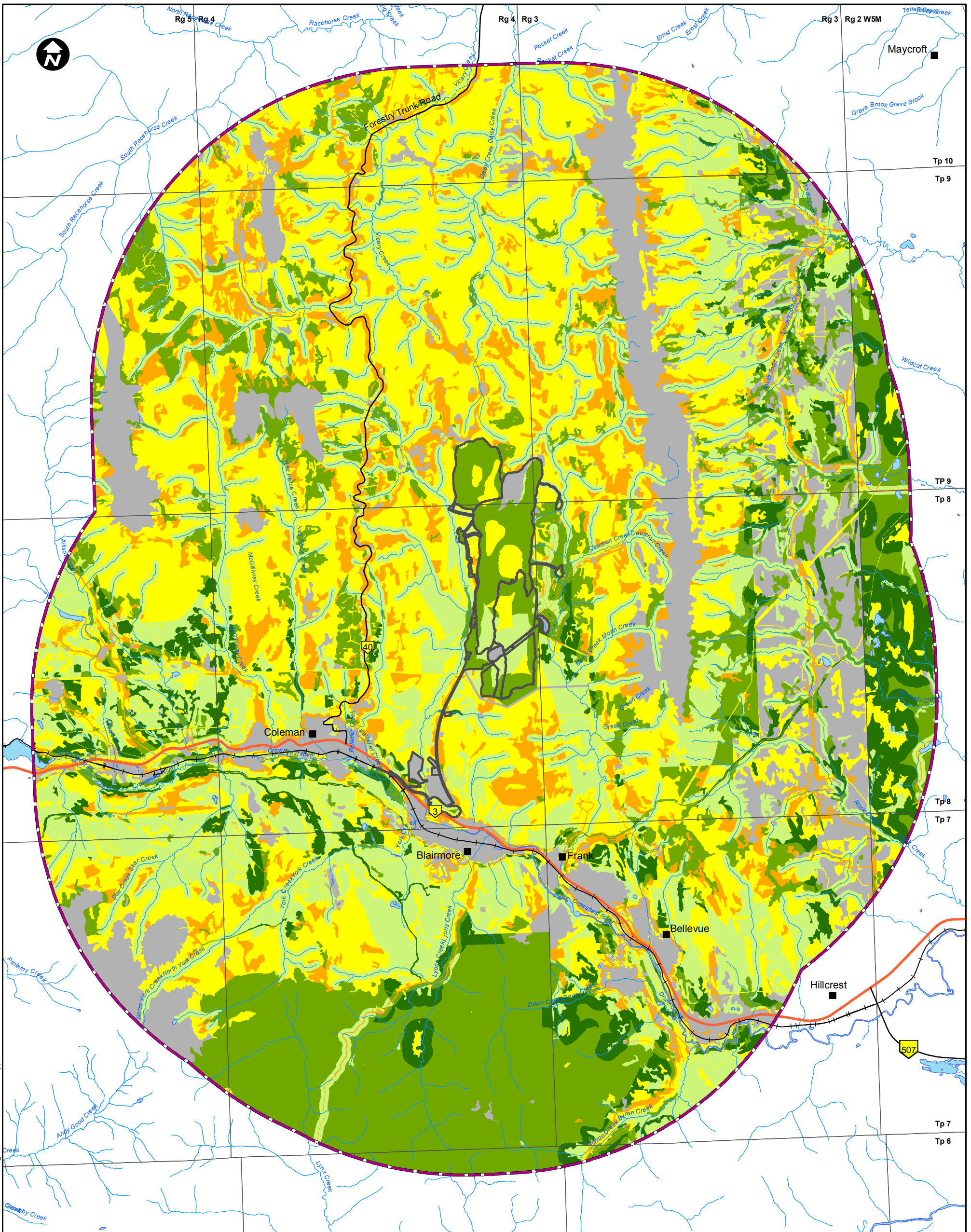
CHECKED BY: RM

DATE: JUNE 20, 2016

**FIGURE**

**5.3-39**





**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Regional Study Area
- Project Footprint

**Moose Habitat Suitability**

- High
- Moderate-High
- Moderate
- Moderate-Low
- Low
- Nil

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**MOOSE HABITAT AVAILABILITY IN THE WILDLIFE  
REGIONAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

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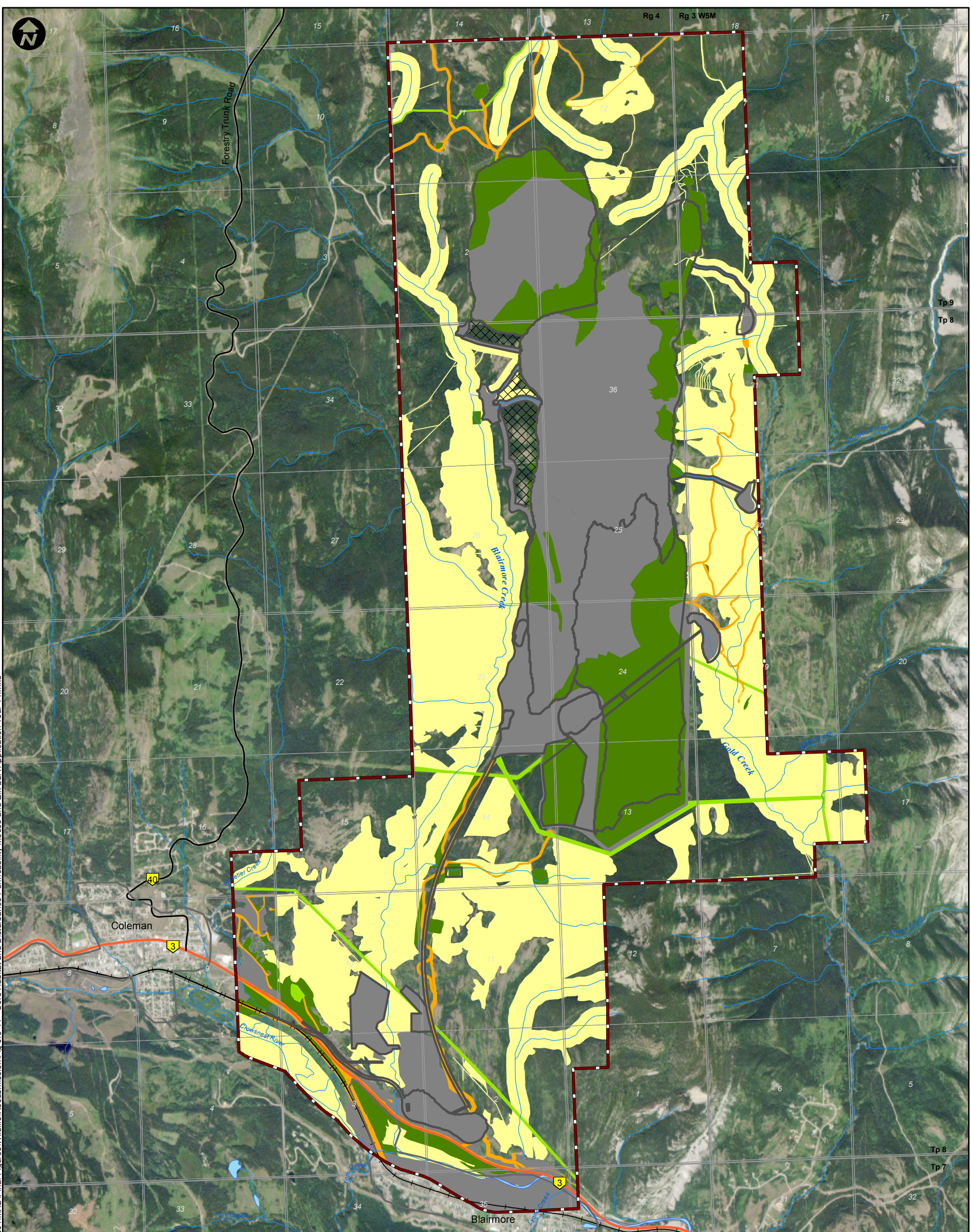
DATE: JUNE 20, 2016

**FIGURE**

**5.3-40**



Document Path: K:\Active Projects 2014\AP\_14-00250\14-00201\MXD\Final Figures\Wildlife\Resubmission\Fig 5.3-41 - Core Habitat and Disturbance Permeability Moose and Elk LSA Application Year 14.mxd



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area
- Moose Core Habitat
- Disturbance Permeability High
- Moderate
- Low
- Impermeable

**PROJECT**

**RIVERSDALE** GRASSY MOUNTAIN  
 RESOURCES COAL PROJECT

**MILLENNIUM**  
 EMS Solutions Ltd.

**TITLE CORE HABITAT AND DISTURBANCE PERMEABILITY FOR MOOSE AND ELK IN THE WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**

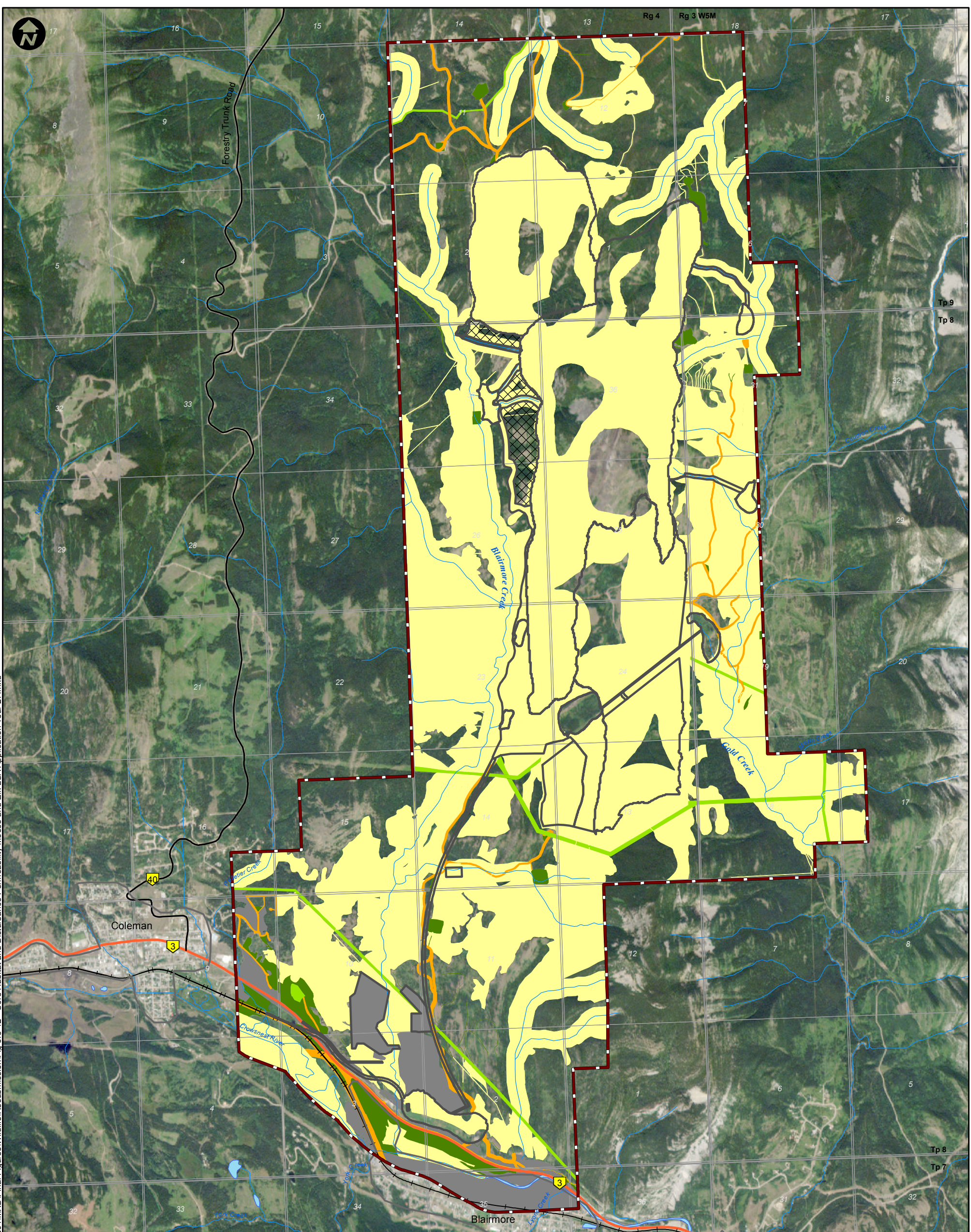
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 (Image Date: Jul 26/13); Riversdale, 2016  
 Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01  
 DRAWN BY: SL  
 CHECKED BY: RM  
 DATE: JUNE 20, 2016



**FIGURE 5.3-41**

Document Path: K:\Active Projects 2014\AP 14-00201 to 14-00250\14-00201\MXD\Final Figures\Wildlife\Resubmission\Fig 5.3-42 - Core Habitat and Disturbance Permeability Moose and Elk LSA Application Year 27.mxd



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Moose Core Habitat
- Disturbance Permeability
- High
- Moderate
- Low
- Impermeable
- Undisturbed Area

**PROJECT**

**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**

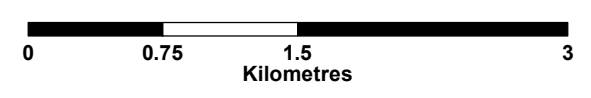
**MILLENNIUM**  
EMS Solutions Ltd.

**TITLE CORE HABITAT AND DISTURBANCE PERMEABILITY FOR MOOSE AND ELK IN THE WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 27**

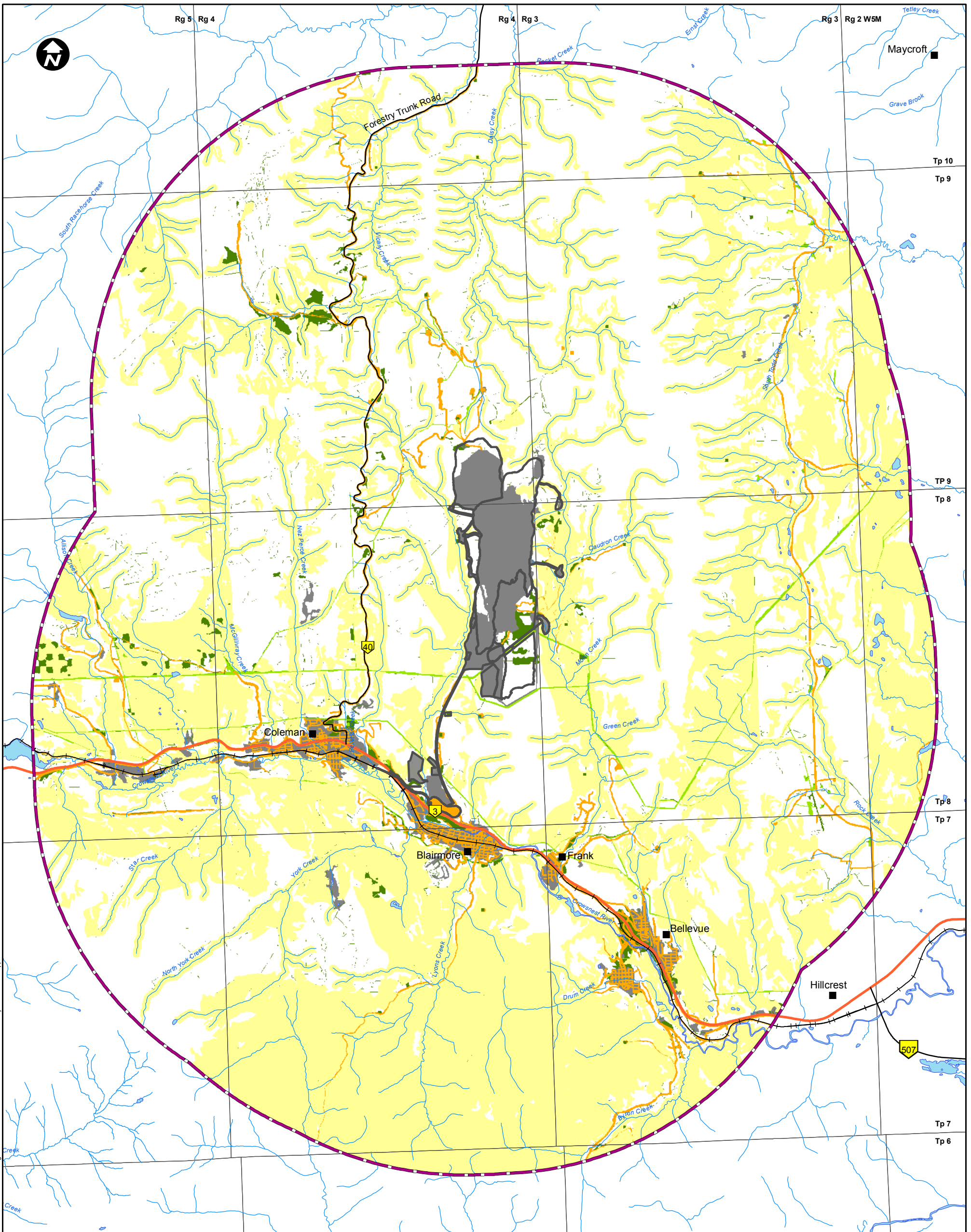
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Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01  
DRAWN BY: SL  
CHECKED BY: RM  
DATE: JUNE 20, 2016



**FIGURE 5.3-42**



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Regional Study Area
- Project Footprint

- Moose Core Habitat

**Disturbance Permeability**

- High
- Moderate
- Low
- Impermeable

**PROJECT**

**RIVERSDALE RESOURCES** **GRASSY MOUNTAIN COAL PROJECT**

**TITLE** **CORE HABITAT AND DISTURBANCE PERMEABILITY FOR MOOSE IN THE WILDLIFE REGIONAL STUDY AREA – APPLICATION YEAR 14**

**NOTES**  
 AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
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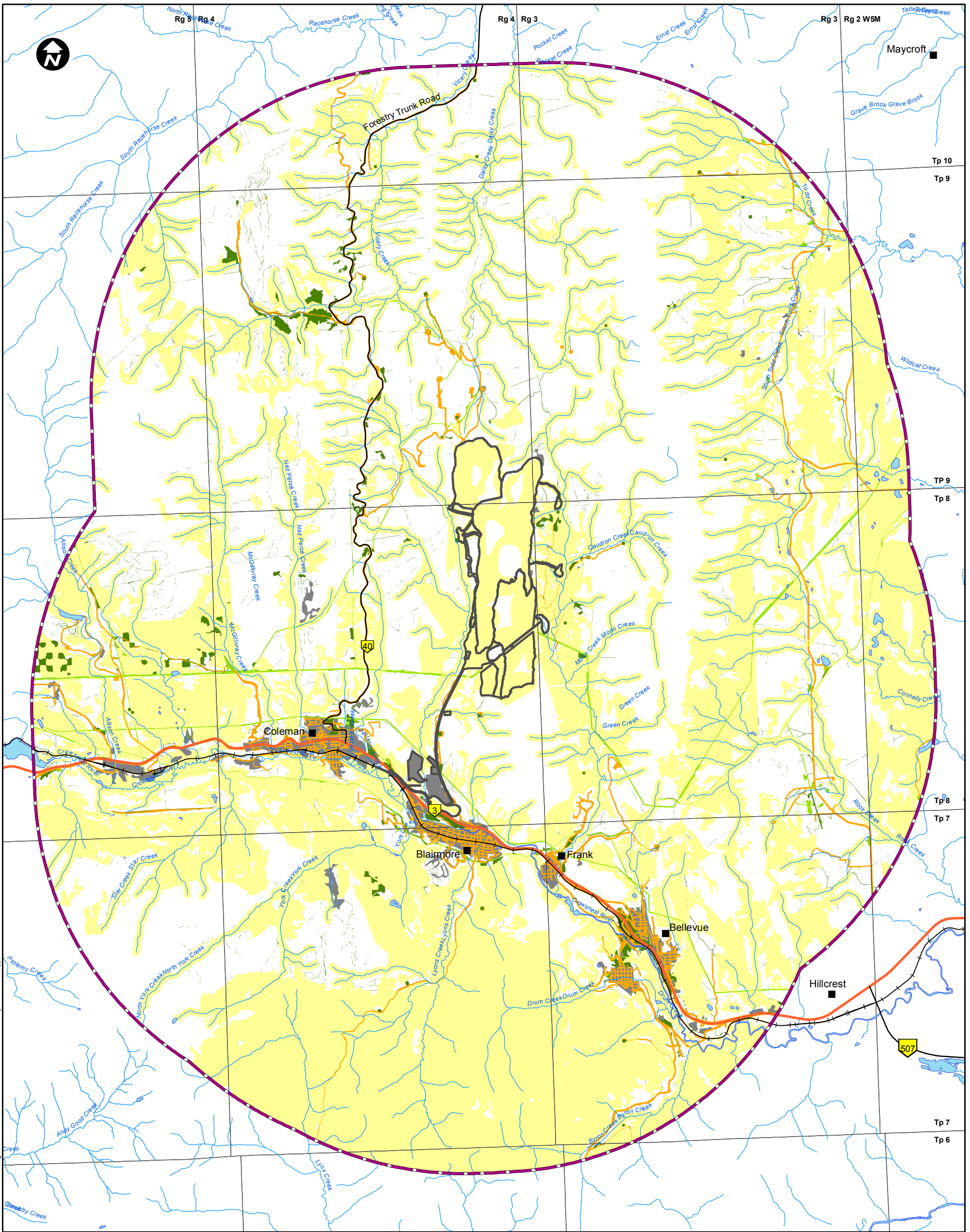
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**MILLENNIUM**  
EMS Solutions Ltd.

PROJECT: 14-00201-01  
 DRAWN BY: SL  
 CHECKED BY: RM  
 DATE: JUNE 20, 2016

**FIGURE**  
**5.3-43**

Document Path: K:\Active Projects\2014\AP\_14-00201 to 14-00250\14-00201\Figures\Wildlife\Resubmission\Fig\_5.3-43 - Core Habitat and Disturbance Permeability Moose RSA Application Year 14.mxd



Document Path: K:\Active Projects\2014\WP\_14-00201 to 14-00250\14-00201\MXD\Final\Figures\Wildlife\Resubmission\Fig\_5.3-44 - Core Habitat and Disturbance Permeability Moose RSA Application Year 27.mxd

**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Regional Study Area
- Project Footprint
- Moose Core Habitat
- Disturbance Permeability**
- High
- Moderate
- Low
- Impermeable

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE CORE HABITAT AND DISTURBANCE PERMEABILITY  
FOR MOOSE IN THE WILDLIFE REGIONAL  
STUDY AREA – APPLICATION YEAR 27**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

DRAWN BY: SL

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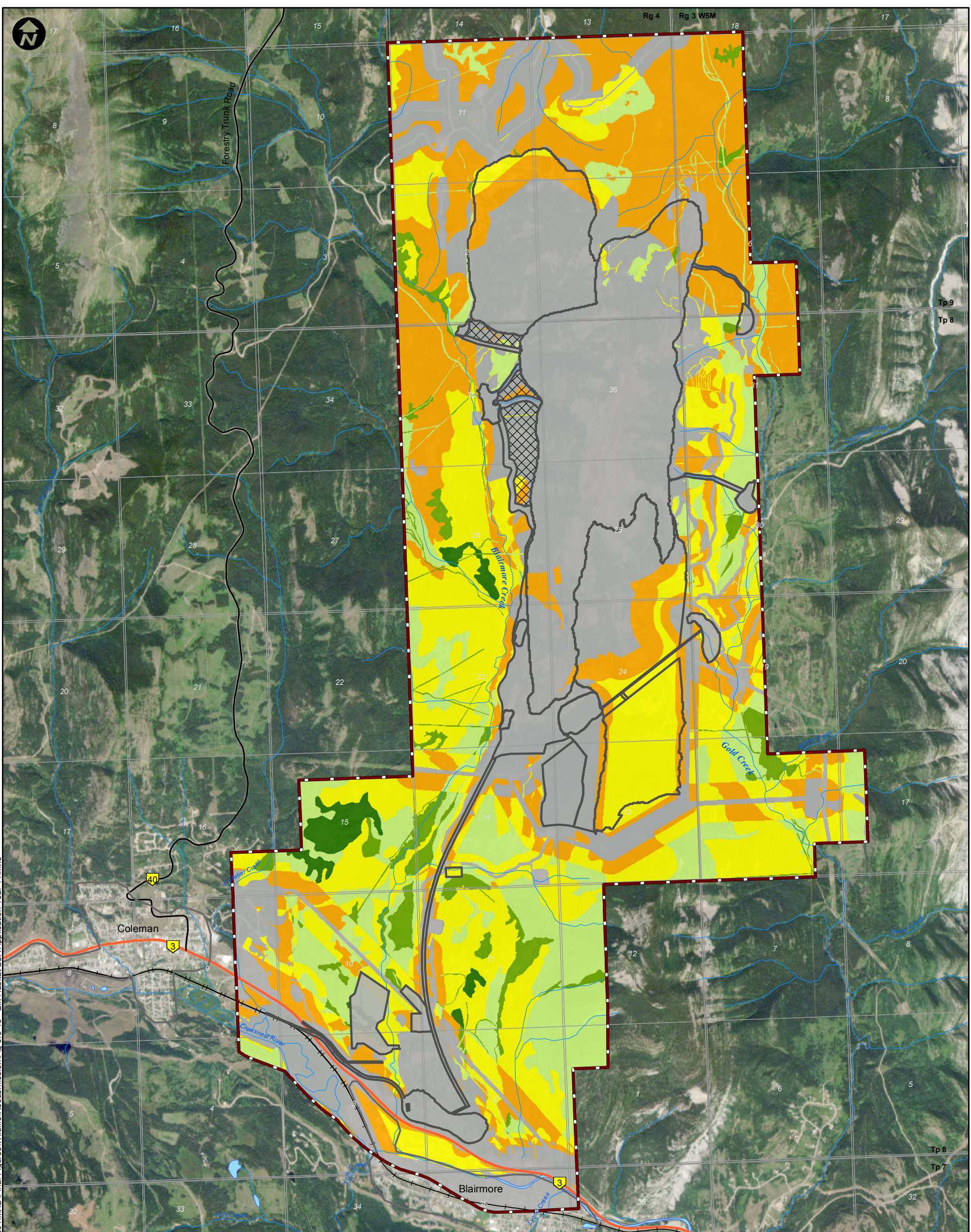
DATE: JUNE 20, 2016

FIGURE

**5.3-44**



Document Path: K:\Active Projects 2014\AP\_14-00201 to 14-00250\14-00201\MXD\Final Figures\Wildlife\Resubmission\Fig 5.3-45 - Elk Habitat LSA Application Year 14.mxd



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area

**Elk Habitat Suitability**

- High
- Moderate-High
- Moderate
- Moderate-Low
- Low
- Nil

**PROJECT**

**RIVERSDALE** GRASSY MOUNTAIN  
RESOURCES COAL PROJECT

**MILLENNIUM**  
EMS Solutions Ltd.

**TITLE**

**ELK HABITAT AVAILABILITY IN THE WILDLIFE LOCAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

DRAWN BY: SL

CHECKED BY: RM

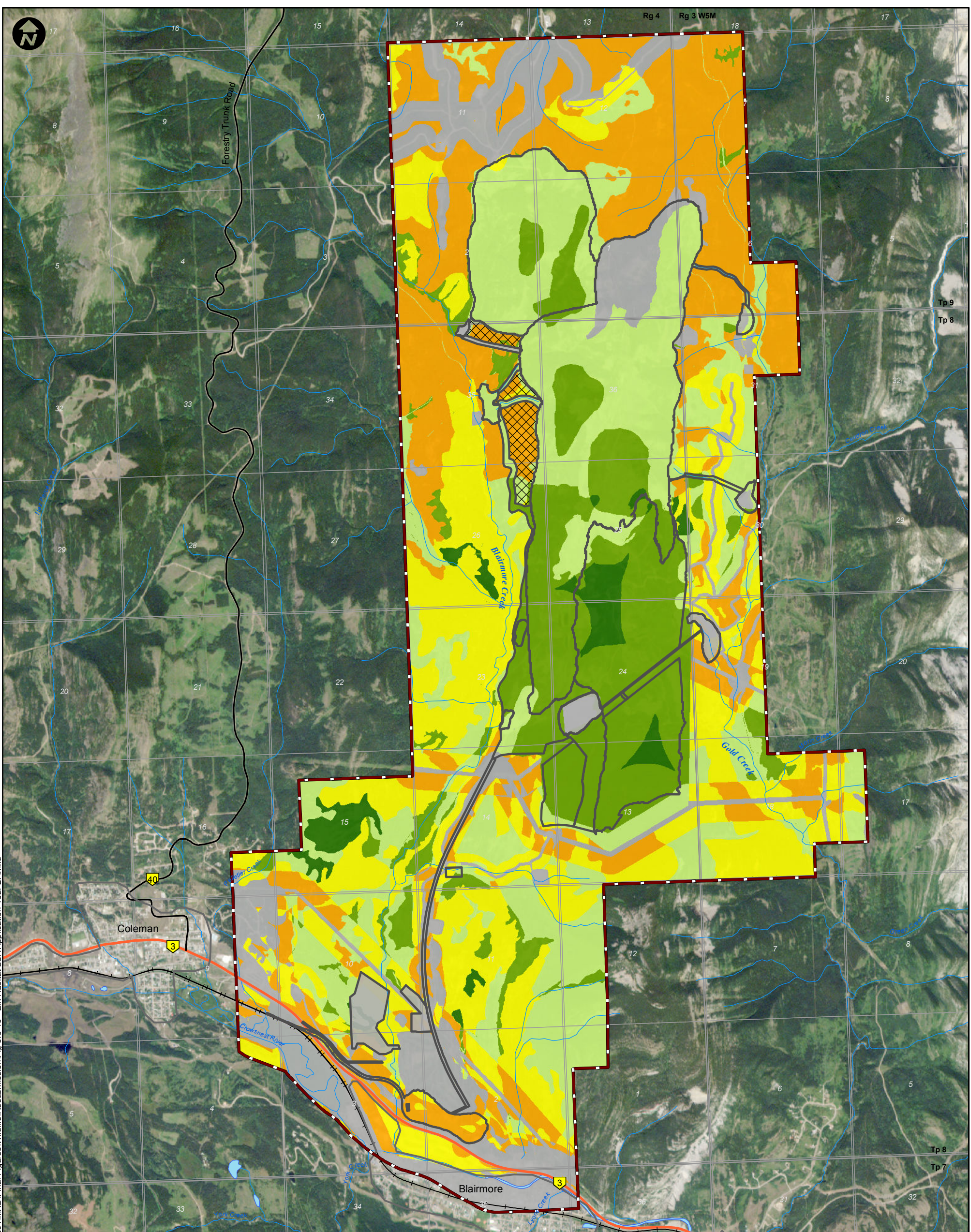
DATE: JUNE 20, 2016

**FIGURE**

**5.3-45**



Document Path: K:\Active Projects 2014\AP\_14-00201 to 14-00250\14-00201\MXD\Final Figures\Wildlife\Resubmission\Fig 5.3-46 - Elk Habitat LSA Application Year 27.mxd



**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area

- Elk Habitat Suitability**
- High
  - Moderate-High
  - Moderate
  - Moderate-Low
  - Low
  - Nil

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**ELK HABITAT AVAILABILITY IN THE WILDLIFE  
LOCAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

DRAWN BY: SL

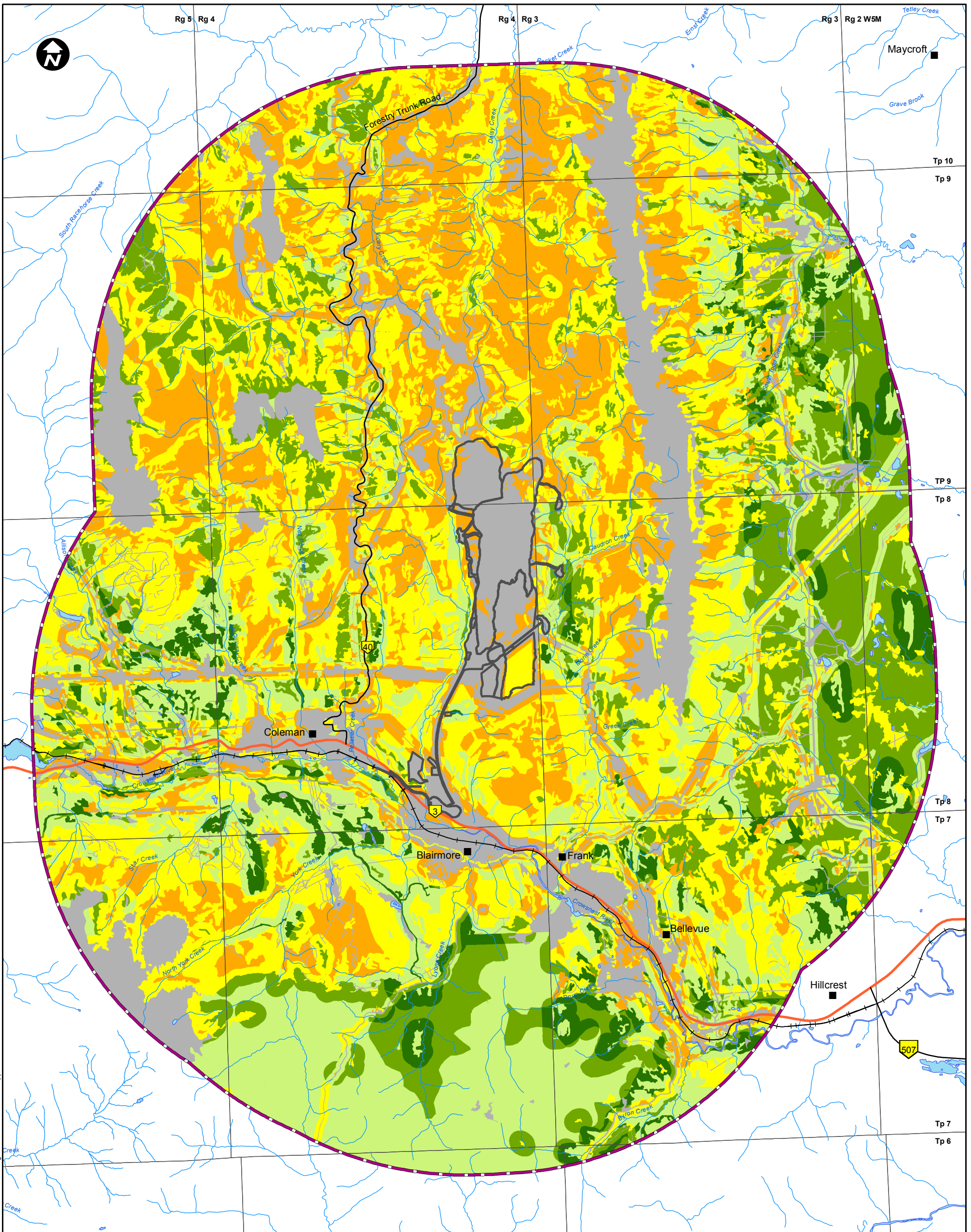
CHECKED BY: RM

DATE: JUNE 20, 2016

**FIGURE**

**5.3-46**





**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Regional Study Area
- Project Footprint

**Elk Habitat Suitability**

- High
- Moderate-High
- Moderate
- Moderate-Low
- Low
- Nil

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**ELK HABITAT AVAILABILITY IN THE WILDLIFE  
REGIONAL STUDY AREA - APPLICATION YEAR 14**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

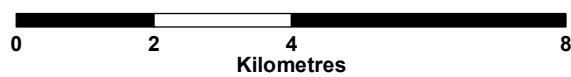
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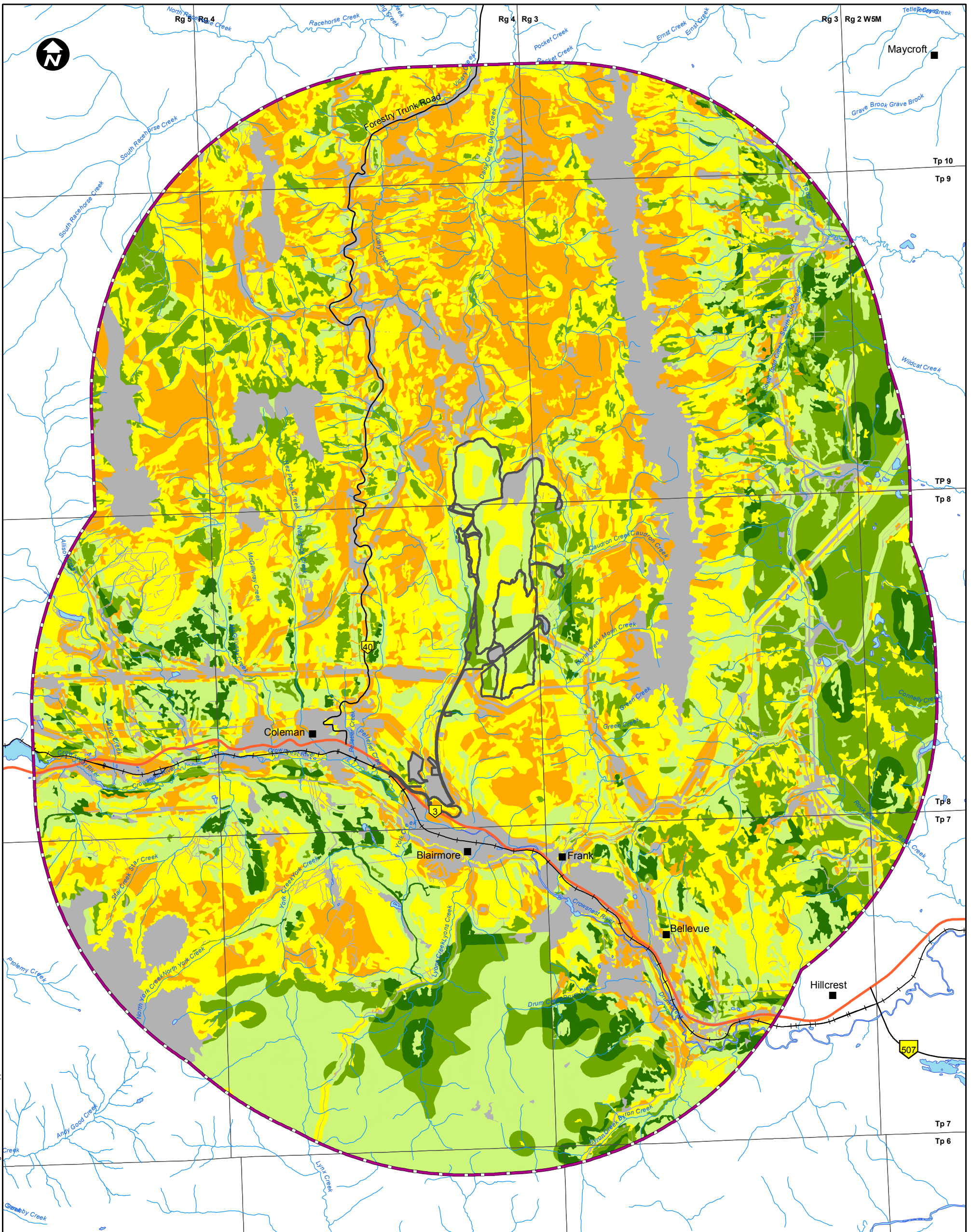
CHECKED BY: RM

DATE: JUNE 20, 2016

**FIGURE**

**5.3-47**





**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Regional Study Area
- Project Footprint

**Elk Habitat Suitability**

- High
- Moderate-High
- Moderate
- Moderate-Low
- Low
- Nil

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE**

**ELK HABITAT AVAILABILITY IN THE WILDLIFE  
REGIONAL STUDY AREA - APPLICATION YEAR 27**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

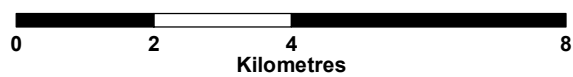
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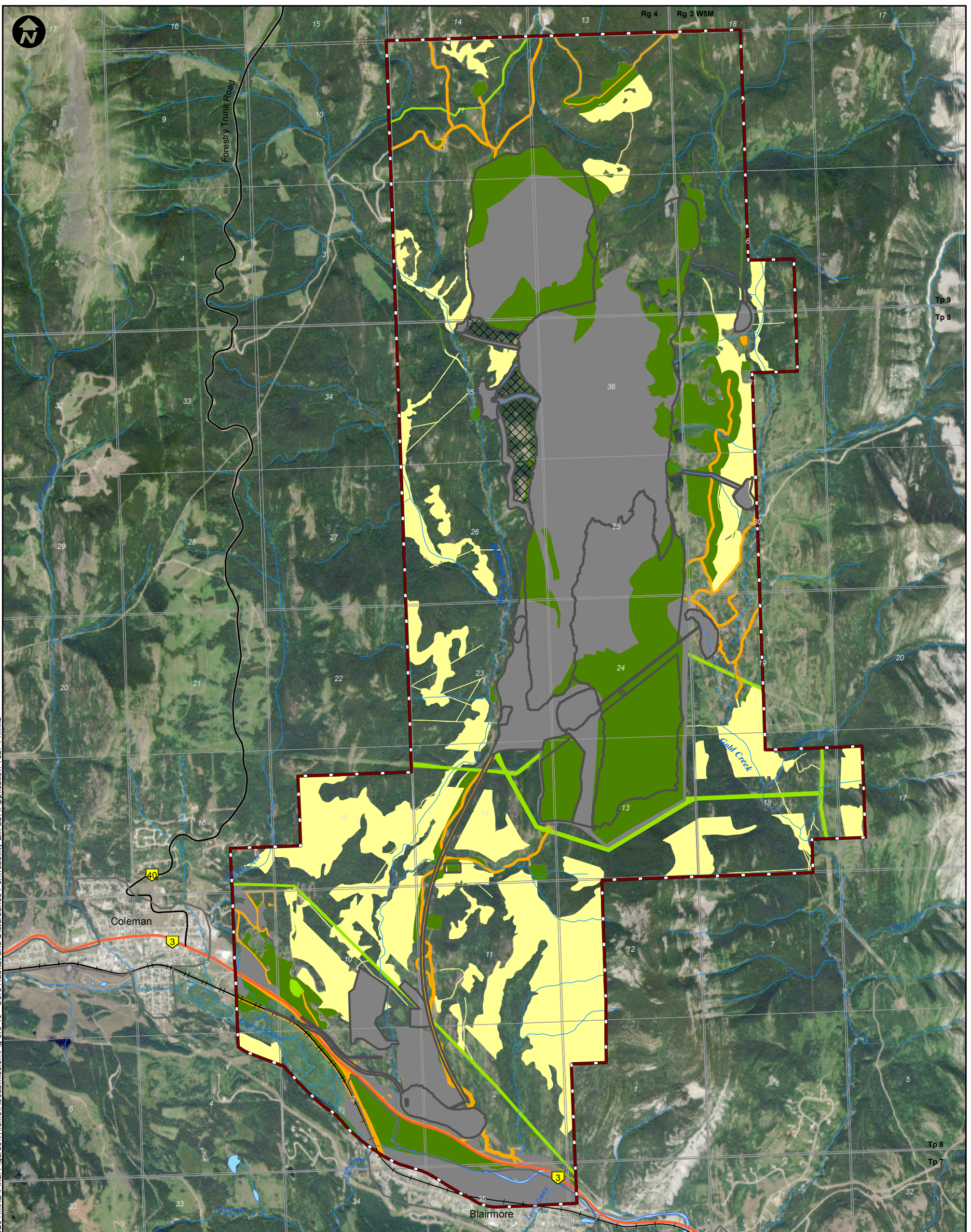
CHECKED BY: RM

DATE: JUNE 20, 2016

FIGURE

**5.3-48**





**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area
- Elk Core Habitat
- Disturbance Permeability
- High
- Moderate
- Low
- Impermeable

**PROJECT**

**RIVERSDALE** RESOURCES **GRASSY MOUNTAIN COAL PROJECT**



**TITLE CORE HABITAT AND DISTURBANCE PERMEABILITY FOR ELK IN THE WILDLIFE LOCAL STUDY AREA – APPLICATION YEAR 14**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
 (Image Date: Jul 26/13); Riversdale, 2016  
 Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

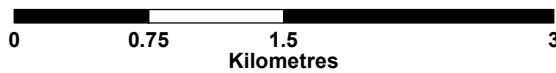
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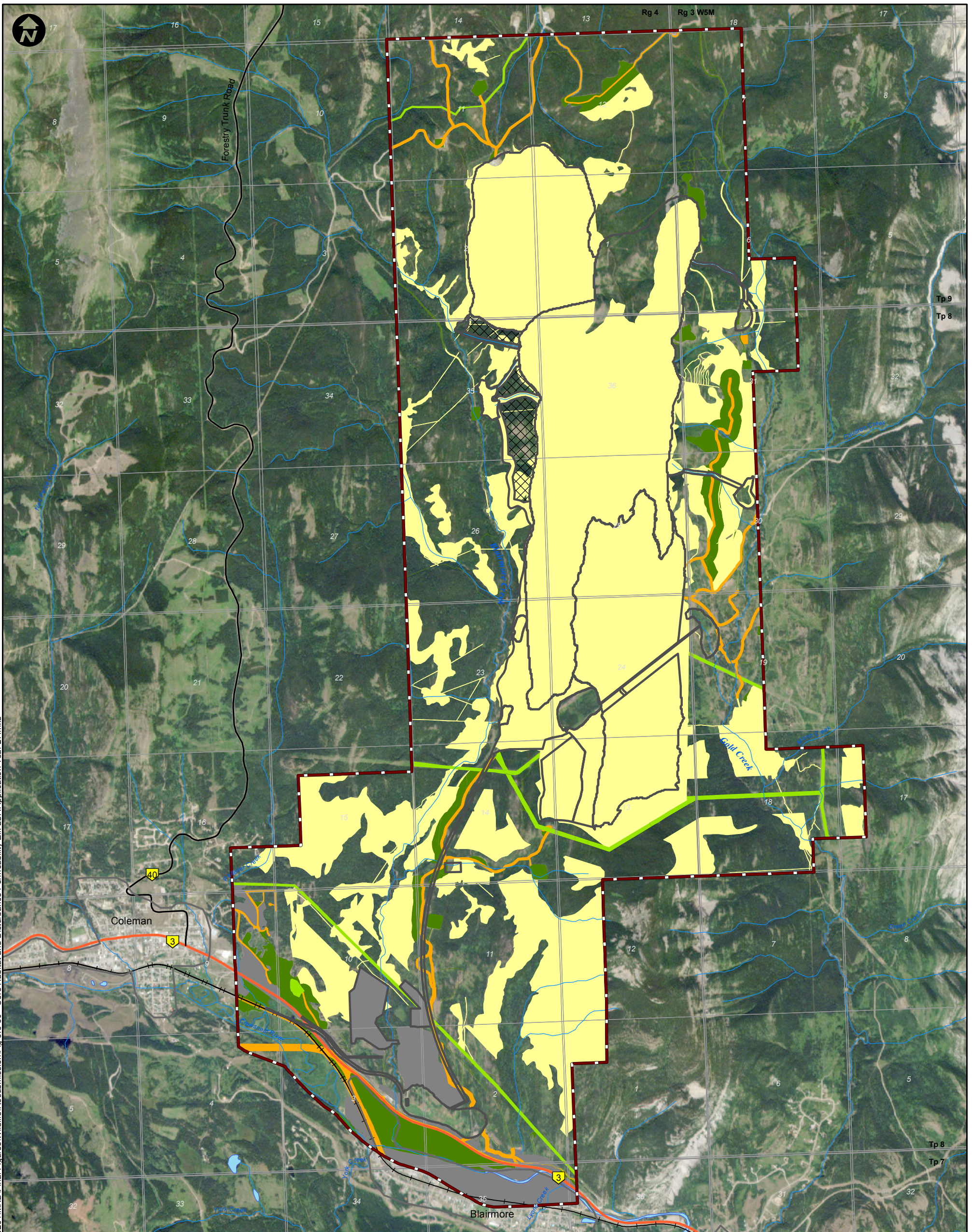
CHECKED BY: RM

DATE: JUNE 20, 2016

**FIGURE**

**5.3-49**





**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Local Study Area
- Project Footprint
- Undisturbed Area
- Elk Core Habitat
- Disturbance Permeability High
- Moderate
- Low
- Impermeable

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE CORE HABITAT AND DISTURBANCE PERMEABILITY  
FOR ELK IN THE WILDLIFE LOCAL  
STUDY AREA – APPLICATION YEAR 27**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; RapidEye, 2015  
(Image Date: Jul 26/13); Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

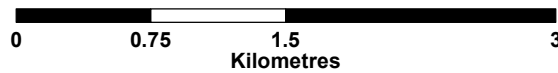
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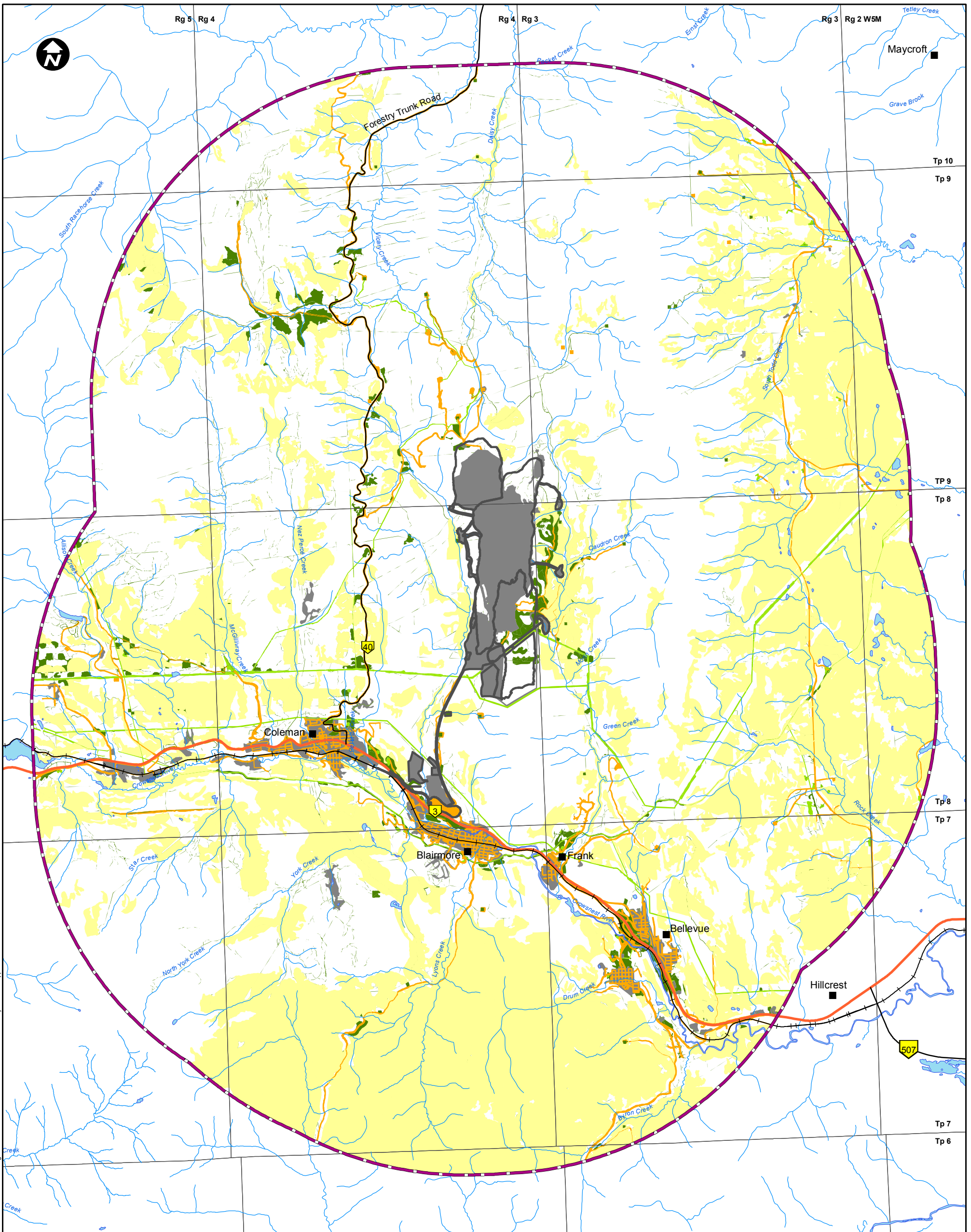
CHECKED BY: RM

DATE: JUNE 20, 2016

**FIGURE**

**5.3-50**





**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Regional Study Area
- Project Footprint
- Elk Core Habitat
- Disturbance Permeability**
- High
- Moderate
- Low
- Impermeable

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN  
COAL PROJECT**



**TITLE CORE HABITAT AND DISTURBANCE PERMEABILITY  
FOR ELK IN THE WILDLIFE REGIONAL  
STUDY AREA – APPLICATION YEAR 14**

**NOTES**

AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01

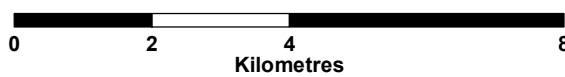
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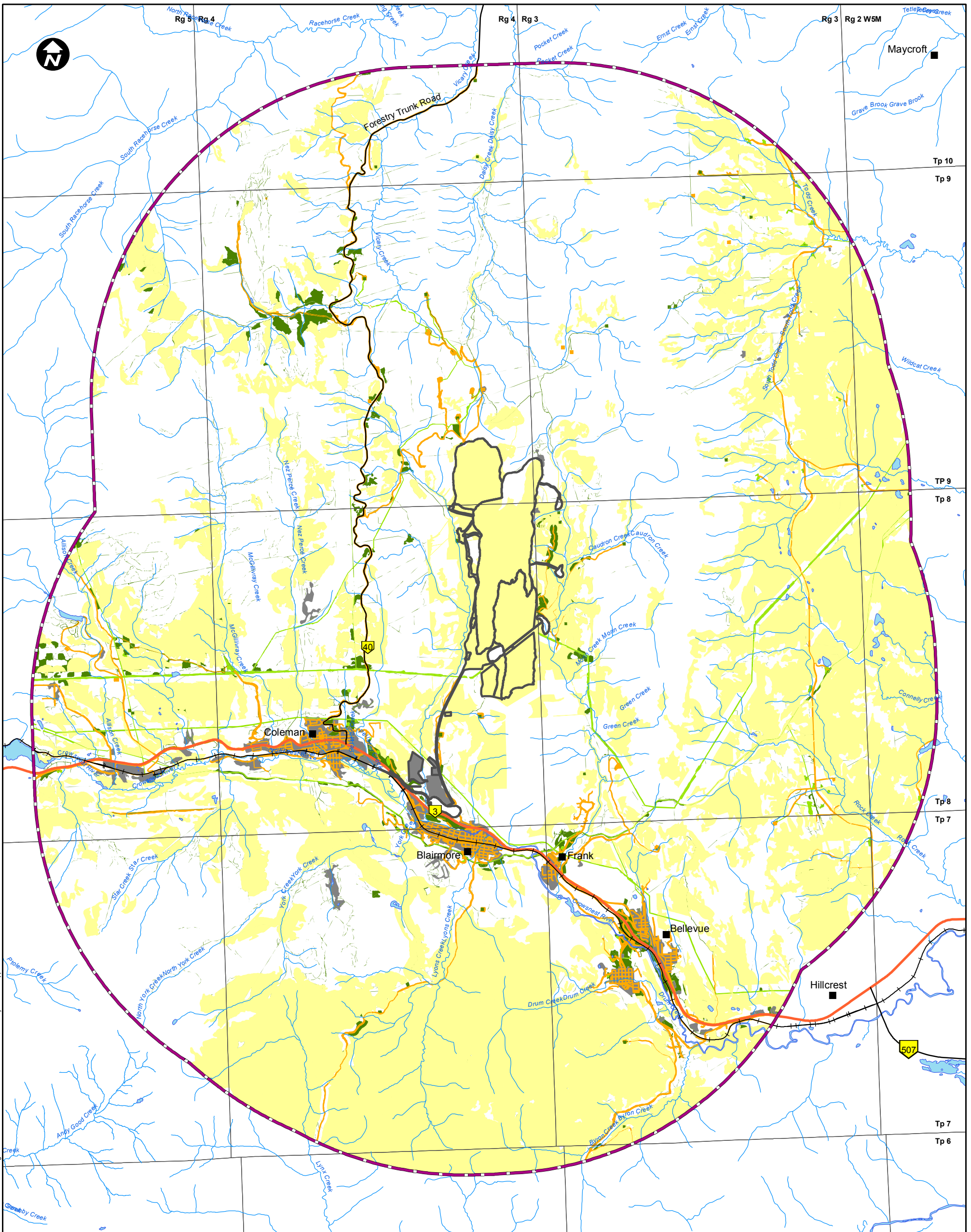
CHECKED BY: RM

DATE: JUNE 20, 2016

FIGURE

**5.3-51**





**LEGEND**

- Primary Highway
- Secondary Highway
- Existing Railway
- Surface Water Drainage
- Waterbody
- Wildlife Regional Study Area
- Project Footprint

- Elk Core Habitat
- Disturbance Permeability**
- High
- Moderate
- Low
- Impermeable

**PROJECT**

**RIVERSDALE RESOURCES** **GRASSY MOUNTAIN COAL PROJECT**

**TITLE** **CORE HABITAT AND DISTURBANCE PERMEABILITY FOR ELK IN THE WILDLIFE REGIONAL STUDY AREA – APPLICATION YEAR 27**

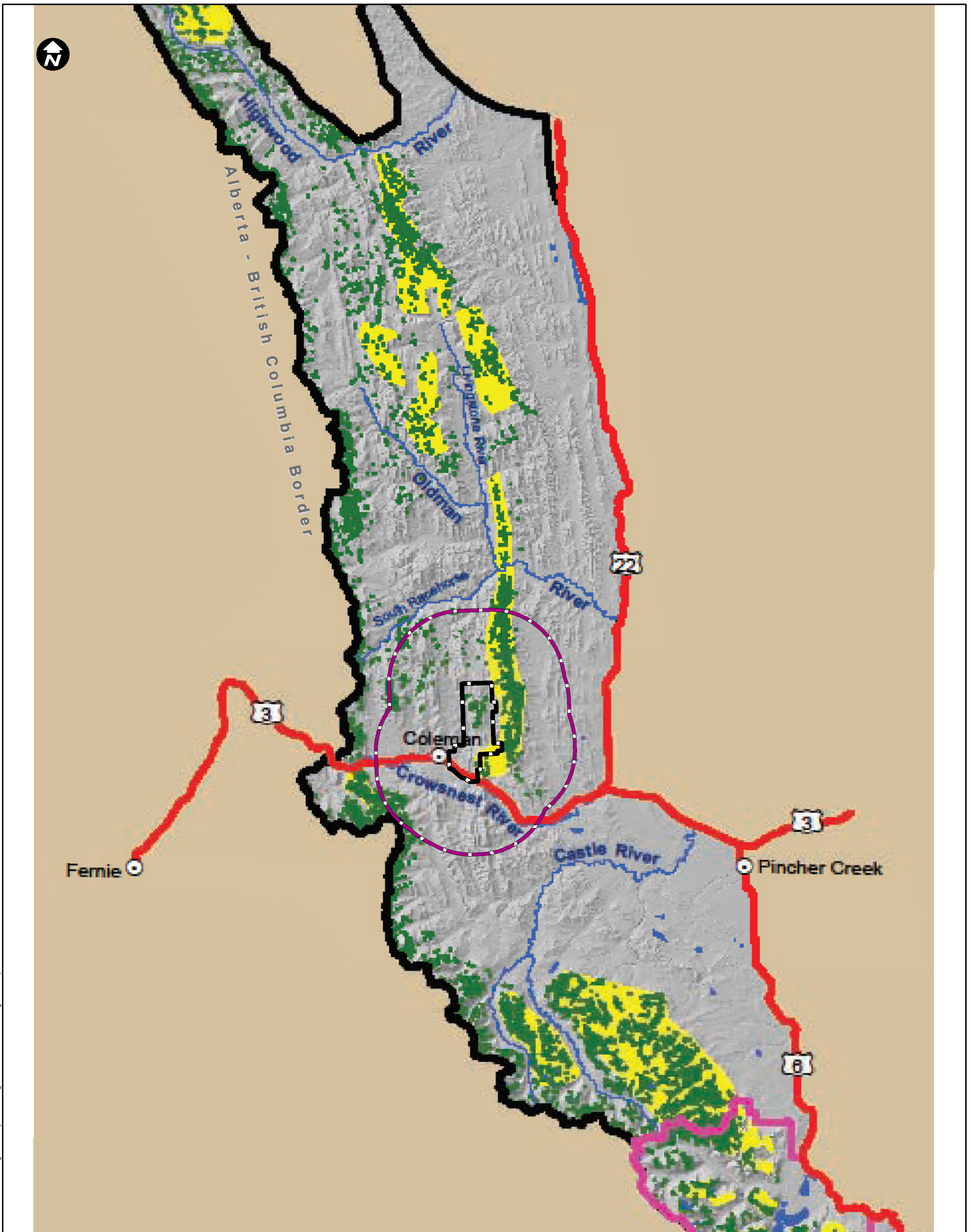
**NOTES**  
 AltaLIS, 2016; Geobase, 2015; MEMS, 2016; Riversdale, 2016  
 Datum/Projection: UTM NAD 83 Zone 11

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**MILLENNIUM**  
EMS Solutions Ltd.

PROJECT: 14-00201-01  
 DRAWN BY: SL  
 CHECKED BY: rm  
 DATE: JUNE 20, 2016  
**FIGURE**  
**5.3-52**

Document Path: K:\Active Projects\2014\AP\_14-00201 to 14-00250\14-00201\Figures\Wildlife\Resubmission\Fig\_5.3-52 - Core Habitat and Disturbance Permeability Elk RSA Application Year 27.mxd



**LEGEND**

- Highway
- Waterton Lakes National Park
- Wildlife Regional Study Area
- Wildlife Local Study Area

**Bighorn Sheep**

- Very High - Winter Range
- High - Summer Habitat

**PROJECT**

**RIVERSDALE** GRASSY MOUNTAIN COAL PROJECT  
RESOURCES

**TITLE** LOCATION OF KEY WINTER RANGES AND SUMMER HABITATS FOR BIGHORN SHEEP IN SOUTHWESTERN ALBERTA

**NOTES**  
MEMS, 2015; Weaver, 2013  
Datum/Projection: UTM NAD 83 Zone 11

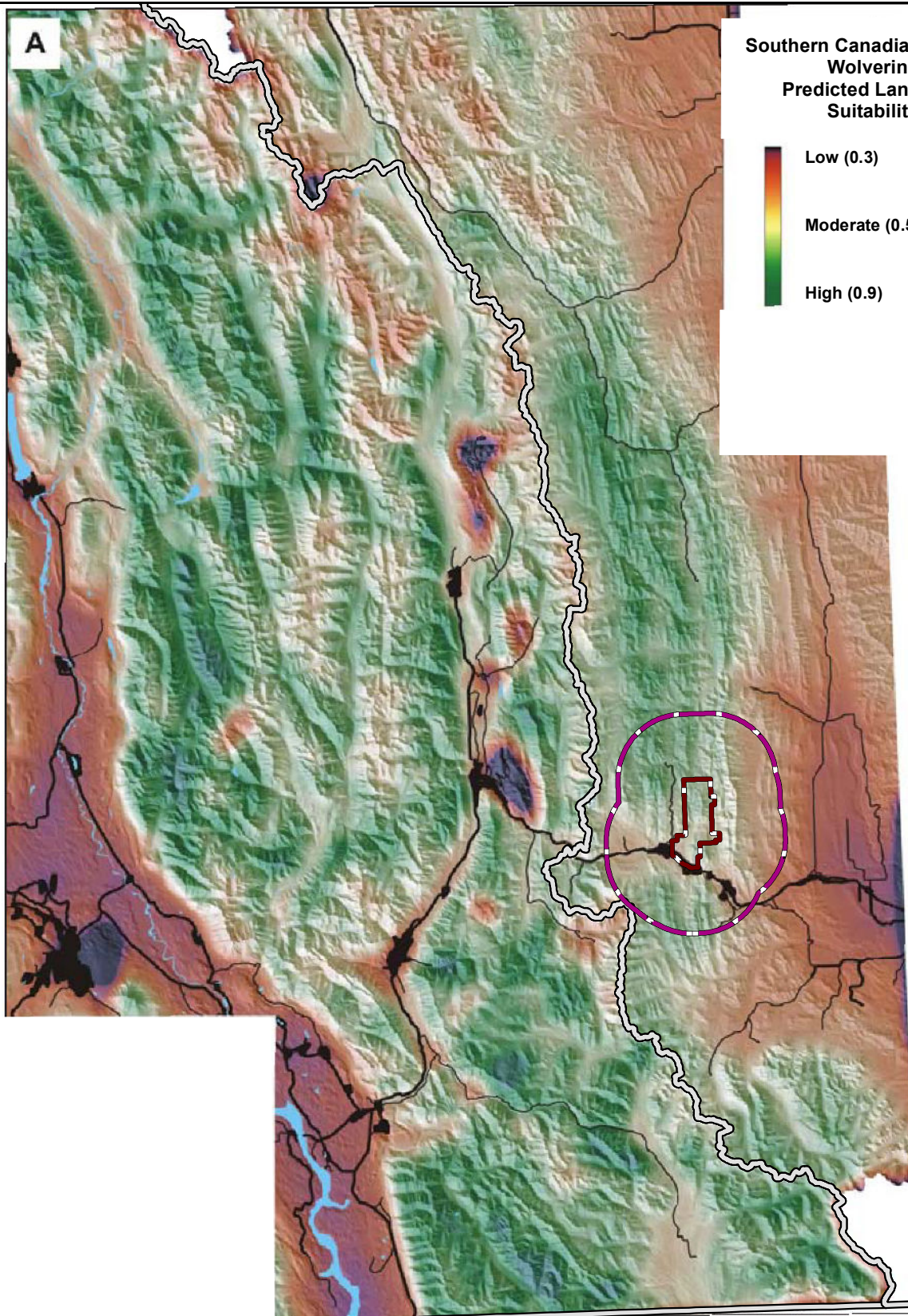
**MILLENNIUM**  
EMS Solutions Ltd.

PROJECT: 14-00201-01  
DRAWN BY: HS  
CHECKED BY: LB  
DATE: OCTOBER 07, 2015

**FIGURE**  
**5.4-1**

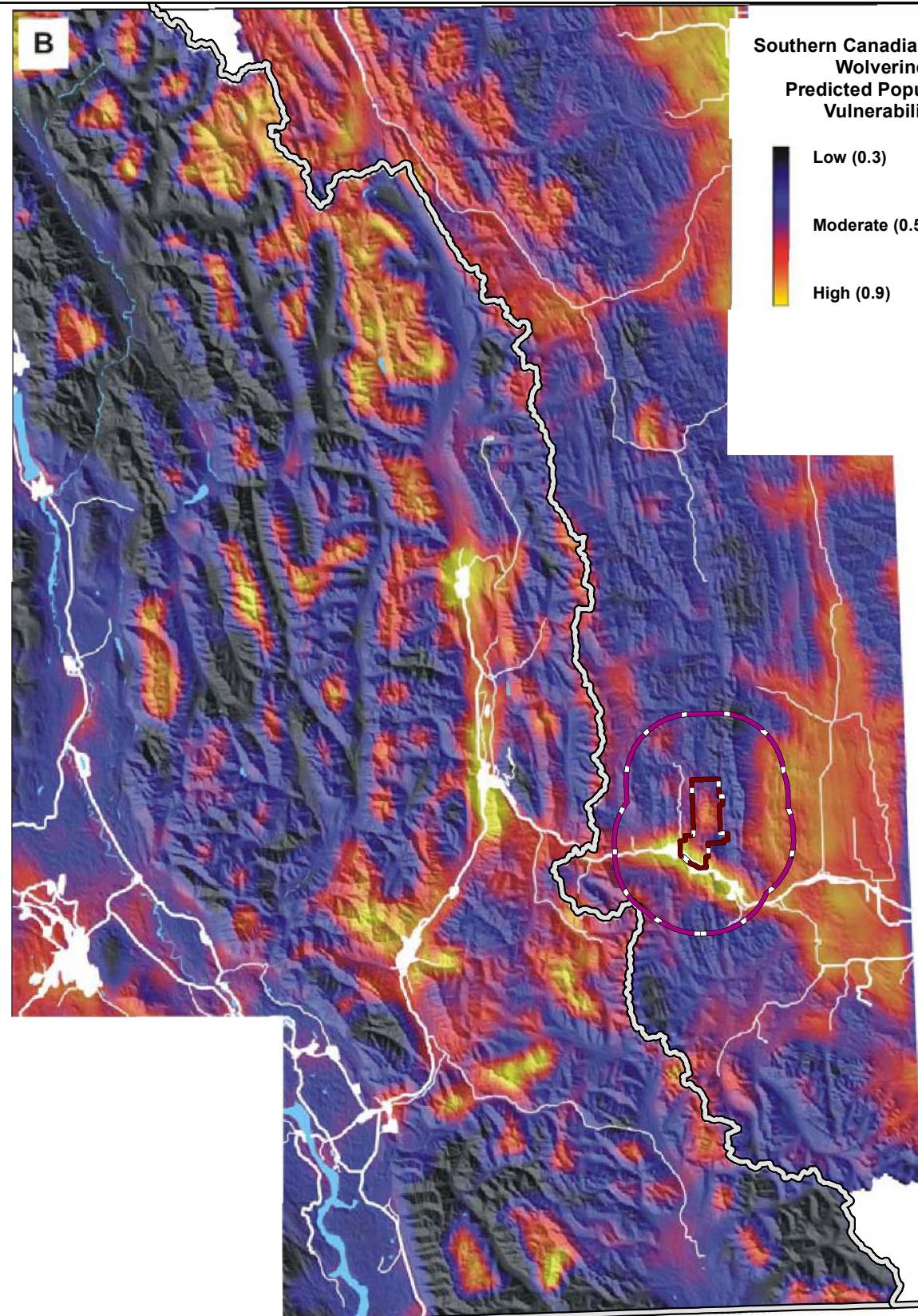
Document Path: K:\Active Projects 2014\AP 14-00201 to 14-00250\14-00201\IMXD\Final\Figures\Wildlife\Resubmission\Fig 5.4-1 - Key Winter Ranges and Summer Habitats Bighorn Sheep.mxd

Document Path: K:\Active Projects 2014\AP 14-00201 to 14-00250\14-00201\MXD\Final Figures\Wildlife\Resubmission\Fig 5.4-2 - Predicted Wolverine Distribution.mxd



**Southern Canadian Rockies  
Wolverine  
Predicted Landscape  
Suitability**

Low (0.3)  
Moderate (0.5)  
High (0.9)



**Southern Canadian Rockies  
Wolverine  
Predicted Population  
Vulnerability**

Low (0.3)  
Moderate (0.5)  
High (0.9)

**LEGEND**

- Major Roads
- ▭ Provincial Boundary
- ▭ Wildlife Regional Study Area
- ▭ Wildlife Local Study Area

**PROJECT**



**RIVERSDALE**  
RESOURCES

**GRASSY MOUNTAIN COAL PROJECT**

**TITLE**

**PREDICTED WOLVERINE DISTRIBUTION BASED ON LANDSCAPE SUITABILITY  
AND POPULATION VULNERABILITY IN SOUTHEASTERN BRITISH COLUMBIA**

**NOTES**

Apps et al., 2003; MEMS, 2015  
Datum/Projection: UTM NAD 83 Zone 11



**MILLENNIUM**  
EMS Solutions Ltd.

PROJECT: 14-00201

DRAWN BY: HS

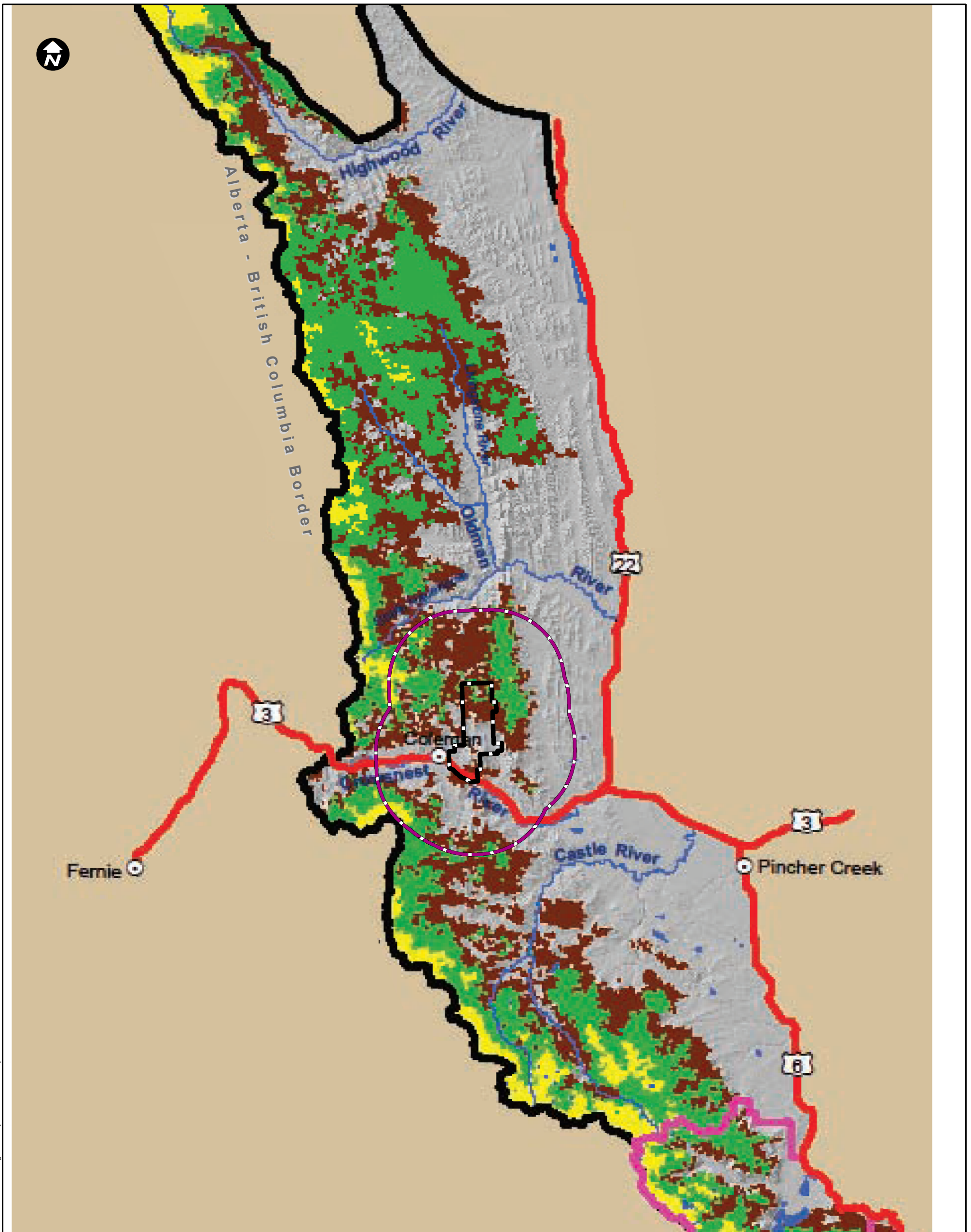
CHECKED BY: LB

DATE: OCTOBER 07, 2015

**FIGURE**

**5.4-2**





**LEGEND**

- Highway
- Waterton Lakes National Park
- Wildlife Regional Study Area
- Wildlife Local Study Area

**Wolverine**

- Very High - Maternal Habitat
- High - Future Primary Habitat
- Moderate - Current Primary Habitat

**PROJECT**

**RIVERSDALE** RESOURCES **GRASSY MOUNTAIN COAL PROJECT**

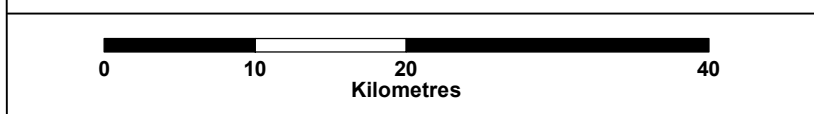
**MILLENNIUM**  
EMS Solutions Ltd.

**TITLE** LOCATION OF KEY MATERNAL AND CURRENT AND FUTURE PRIMARY HABITATS FOR WOLVERINES IN SOUTHWESTERN ALBERTA

**NOTES**

MEMS, 2015; Weaver, 2013  
Datum/Projection: UTM NAD 83 Zone 11

PROJECT: 14-00201-01  
DRAWN BY: HS  
CHECKED BY: LB  
DATE: OCTOBER 07, 2015



**FIGURE**  
**5.4-3**