



Standard Operating Procedure for Wildlife

December 18, 2007
Updated January 8, 2013

Kamloops Business Area



Objective/Scope:

This standard operating procedure (SOP) is intended to provide guidance for staff involved in the management of wildlife species.

Key steps include:

- Review of species data and refine target species for management
- Identification of the species that may be affected by the proposed development
- Incorporation of management strategies into layout and operational plans;
- Follow up by tracking through CENGEA RESOURCES management strategies

The list of species identified by the business area was compiled by a registered professional biologist (RPBio) in consultation with the Ministry of Environment. All listed wildlife fall into one of the following categories:

- Species identified in the Nicola Thompson Fraser Sustainable Forest Management Plans (SFMPs).
- Section 7 Notice species that have been designated for the Kamloops, Cascades, Headwaters and 100-Mile House Forest Districts.
- Identified Wildlife as defined under the Identified Wildlife Management Strategy (IWMS) version 2004). This category of Species at Risk represents those provincially red- and blue-listed (Endangered and Special Concern) species (including key plant communities) that are identified as being impacted by forest and range activities, and requiring specific habitat protection.
- Species designated under the federal Species at Risk Act (SARA) as Endangered, Threatened and Special Concern species that occur in forest and range habitats in the Kamloops, Headwaters (excluding Robson), Cascades and 100-Mile House Forest Districts.
- Species listed in TSO FSP's.



DETAILED STANDARD OPERATING PROCEDURES

Step 1

WHO: Planning.

WHAT: Species at Risk training, process and resources for planning and practices foresters as well as other field staff as required.

WHEN: 2008 and as required thereafter

RESULT: Effective implementation of Species at Risk management process.

Step 2

WHO: TSO designate (Planner from each field team or Planning Officer)

WHAT: Monitors for and receives updates on SAR and alerts GIS and Planners on revisions to SAR list as well as other wildlife species that require management. GIS ensures that links to spatial data are up to date as per Step 3. Periodic review of the process for currency

WHEN: Periodically or whenever a Planner has been legally notified.

RESULT: BCTS wildlife database and link location list remain up to date.

Step 3

WHO: GIS

WHAT: Update Planners' Arcmap projects listed in Step 4.

. Update Local SAR geodatabase (tka_root\Local_data\Wildlife\SAR.gdb and BCTS layer location list. (Location: F:\tka_root\Layer_Files\Layer_Location_List_new.xls). Layer location list provides links to, or locations of, key spatial data.

WHEN: Periodically or whenever updated data is received.

RESULT: BCTS wildlife database and link location list remain up to date.

Step 4

WHO: Planners **WHAT:**

- a) Planners review new information and access species information available in one of the following mxd files (field team-specific) (:
 - tka_root\Local_data\FMH\!Planning\100MileHouse_Planning_Project_2010NEW.mxd (100-Mile House)
 - W:\FOR\RSI\TKS\General_USER_DATA\iblack\Cascades_Planning_two.mxd.mxd (Cascades)
 - tka_root\Local_data\Fc\ResourceCheck_project\Clearwater_ResourceCheck_NEW_Oct6.mxd (Clearwater)



- tka_root\Local_data\Fka\ResourceCheck_project\Base_Master.mxd (Kamloops)

Alternately, if staff or contractors wish to create their own mxd file they may access spatial data located in the BCTS layer location list (F:\tka_root\Layer_Files\Layer_Location_List_new.xls). This list contains not only wildlife but other features as well. Refer to the WILDLIFE column to identify data to load (If YES, load this data). Key data to load includes:

1. CDC non-sensitive data
(WHSE_TERRESTRIAL_ECOLOGY.BIOT_OCCR_NON_SENS_AREA_SVW)
2. CDC masked sensitivity data
(WHSE_TERRESTRIAL_ECOLOGY.BIOT_OCCR_MASKED_SENS_AREA_SP)
3. UWR
(WHSE_WILDLIFE_MANAGEMENT.WCP_UNGULATE_WINTER_RANGE_SP,
WHSE_LAND_USE_PLANNING.RMP_PLAN_LEGAL_POLY_SVW,
REG_LAND_AND_NATURAL_RESOURCE.CARIBOU_PLANNING_CELLS_TKA_POLY)
4. WHA
(WHSE_WILDLIFE_MANAGEMENT.WCP_WILDLIFE_HABITAT_AREA_POLY)

Other data is available for individual species (for example: Flammulated Owl potential habitat spatial data) and listed in the abovementioned BCTS layer location list table. Please contact the Kamloops BCTS GIS department for assistance with this data. NOTE: The abovementioned spatial data are included in the mxd file associated with your field location.

- b) Planners review key data categories to identify key species or habitat known to occur in the development area:
- I. CDC non-sensitive data.
 - II. CDC masked occurrences. If a masked occurrence falls within development area, contact the [Conservation Data Centre \(cdccdata@gov.bc.ca\)](mailto:cdccdata@gov.bc.ca) with the Feature_ID code to acquire the identity of the species of interest.
 - III. Ungulate Winter Range.
 - IV. Wildlife Habitat Areas.



- V. Other wildlife data (for example, Flammulated Owl potential habitat spatial data).
 - VI. **BEC zone and Forest District table.** Check this table for those species that occur in the BEC zone(s) associated with the development area. Provide list of species to field team (for layout personnel).
- c) Planners review applicable management strategies. If there are none, recommend habitat management. Ensure the FSP requirements are applied. Planners should consider retaining a Registered Professional Biologist at this stage if required.
 - d) Planners enter results into CENGEA RESOURCES ([How to enter a new task](#)) tasks and issues.
 - e) Planners report tasks and issues by block or development area.

WHEN: Pre-activity, preparation for site prescription.

RESULT: Key species checked for possible presence in block and possible presence recorded in CENGEA RESOURCES tasks and issues. Convey to field team via CENGEA RESOURCES and through block or license task report.

Step 5

WHO: Field team (Practices Forester)

WHAT: Ensures that site plans incorporate information and appropriate management strategies:

- a) Field team (and their development contractors) review what species and/or habitat to look for during layout (SAR field guide book,) (occurrence, specific features, abundance / scarcity inside and outside the development area recorded).
- b) Engage a Registered Professional Biologist for any areas of uncertainty (check with Planner to determine if this has already been completed).
- c) Implement species or habitat management strategies as required (**FSP strategies** (highest priority), **WHA General Wildlife Measures**, **BCTS SAR Guides**, **MOE Accounts and Measures**).

WHEN: During block development and preparation for site plan

RESULT: Key species checked for possible presence in block and possible presence recorded in CENGEA RESOURCES tasks and issues. A habitat management strategy implemented for those species occurring in development area. Results forwarded to Planners and Planners forward to MOE contacts. (and /or CDC?)



Step 6

WHO: Field team

WHAT: Review information related to Species at Risk and ungulate winter range in the site plans with contractors and licensees during pre-works. Field team will make reference material available to Licensee (consider providing copies of applicable species guides).

WHEN: Contract pre-work.

RESULT: Any key species, wildlife habitat area or ungulate winter range is recorded on pre-work checklist. Contractors and licensees are made aware of key species or habitat that has been identified or may be present in the development area and procedure should they encounter new occurrences.

Step 7

WHO: Practices Forester/Planning Forester

WHAT: Procedure in the case of encountering new occurrences.

WHEN: After the finalization of the site plan, or during the harvesting of the TSL.

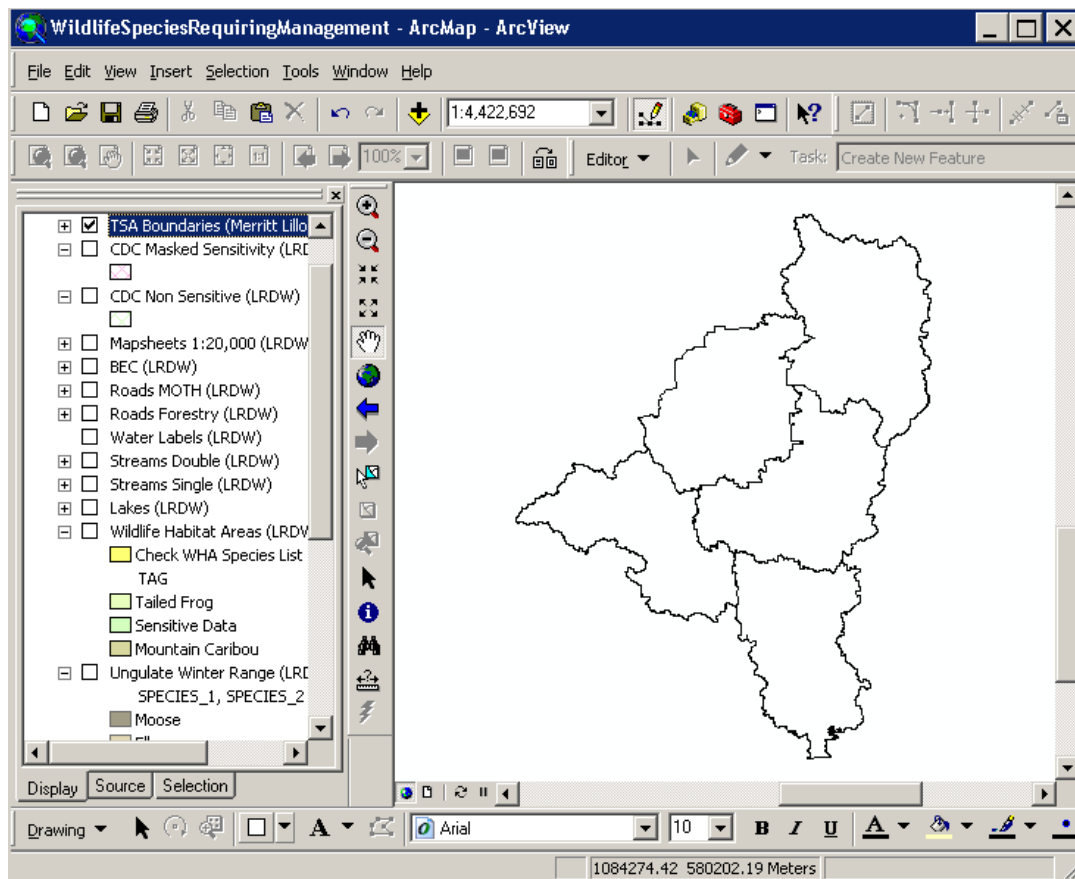
RESULT: Any key species encountered after the completion of the SP will be communicated to the Practices Forester and Planning Forester by whomever discovered the feature and/or species. The Practices Forester/Planning Forester would then communicate this to the field team as a known occurrence. Occurrence recorded in CENGEA RESOURCES tasks and issues. Habitat management strategies implemented for those species occurring in development area.

Planning forester to forward location information to MOE local contact. (and or CDC – electronic form).

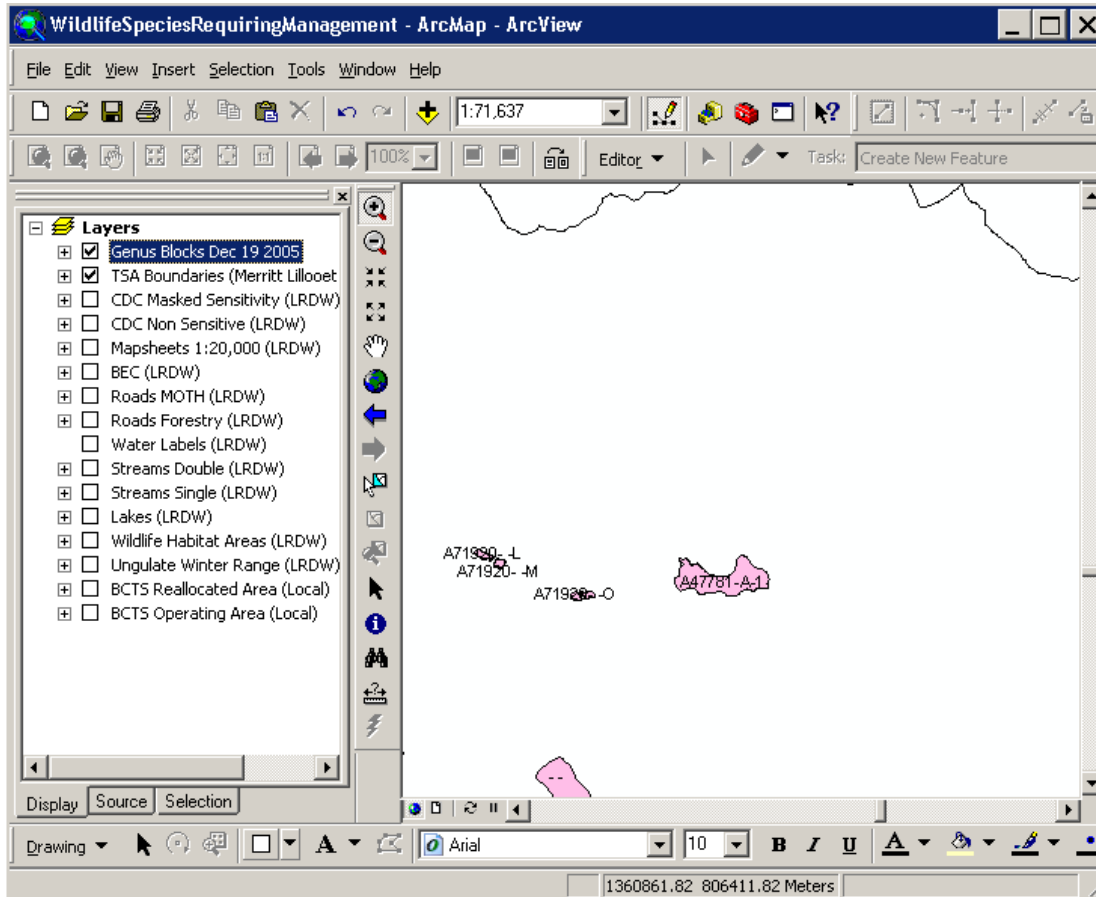
APPENDIX 1 (TO BE UPDATED BY GIS AS THE MXD IS REFINED)– MXD SCREENSHOTS

The following screen shots show how the mapping project can be used to identify known locations of species requiring management.

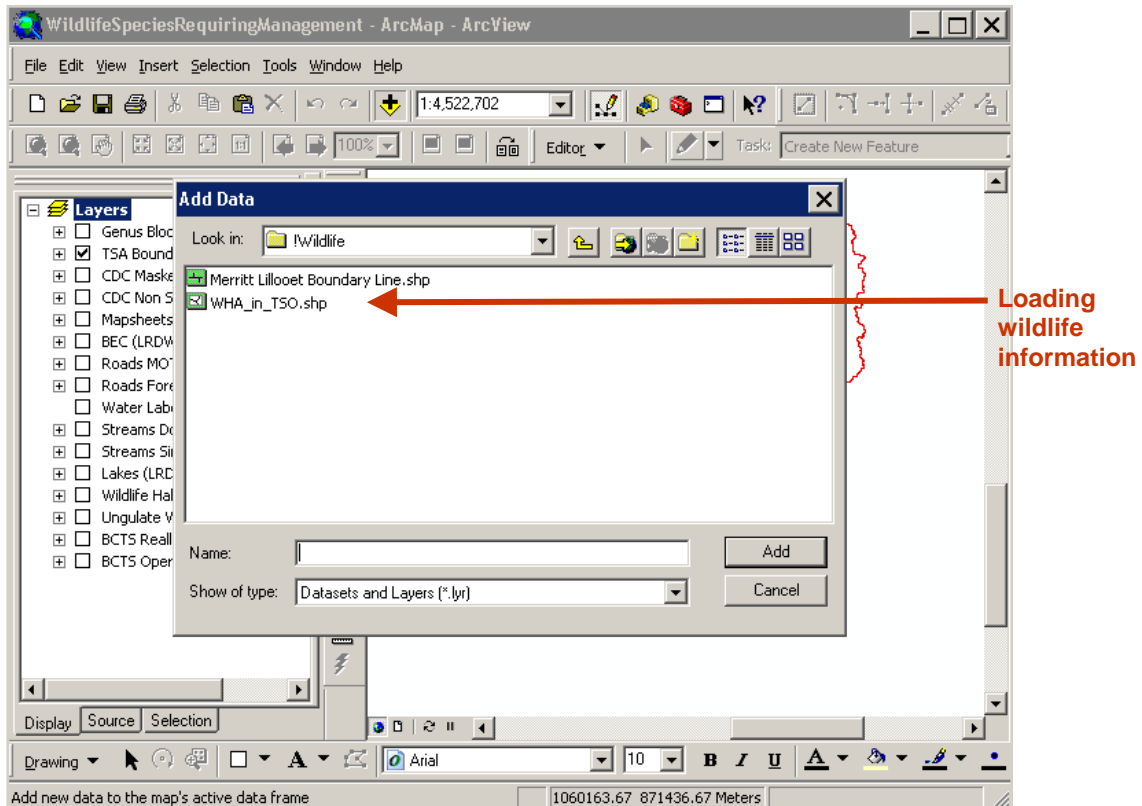
The first screen shot shows the mapping project zoomed to the business area.



The second screen shot shows that the blocks as seen in CENGEA RESOURCES can be zoomed to.

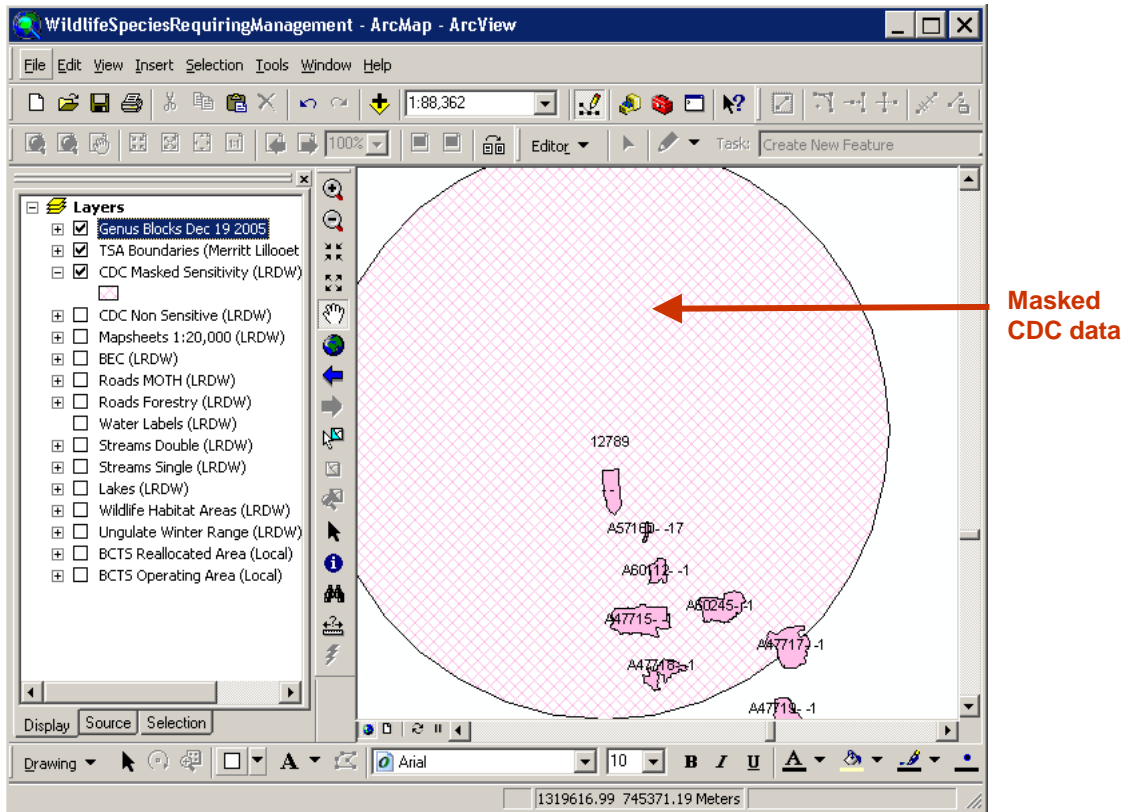


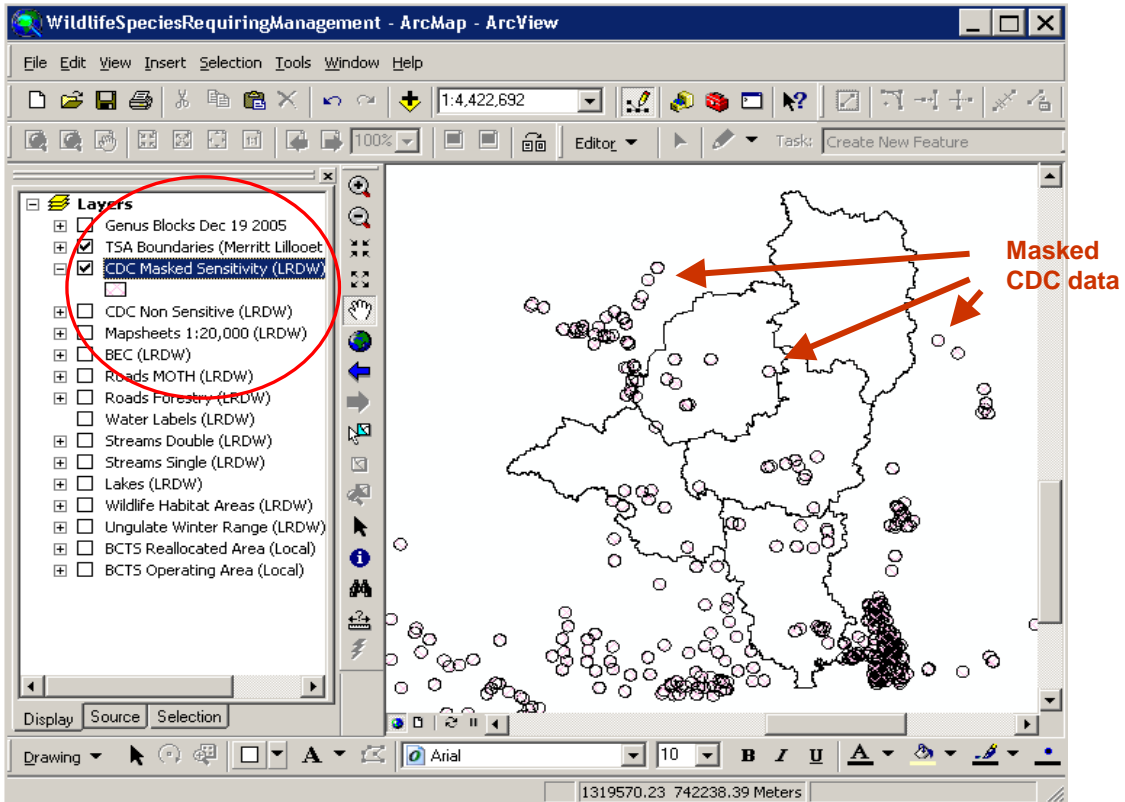
The third screen shot shows that if you have spatial data for blocks or roads not yet in CENGEA RESOURCES, you can load the wildlife information and zoom to the block or road.



The next screen shots show:

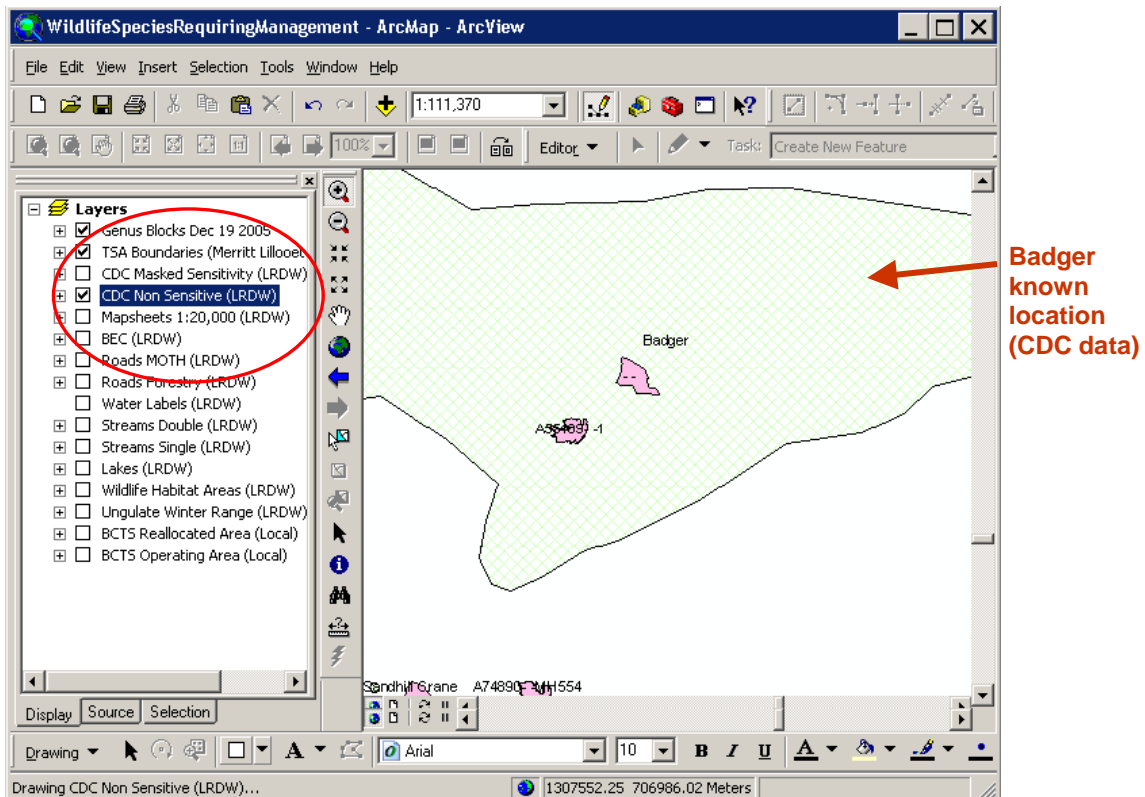
- That when you are zoomed to your block you can click on the CDC's masked sensitivity data
 - This data is not labelled because it is sensitive.
 - The CDC would have to be contacted by the business area for more information. (see details in Appendix 2 for contacting CDC)
- The extent of the masked sensitivity habitat within the business area.

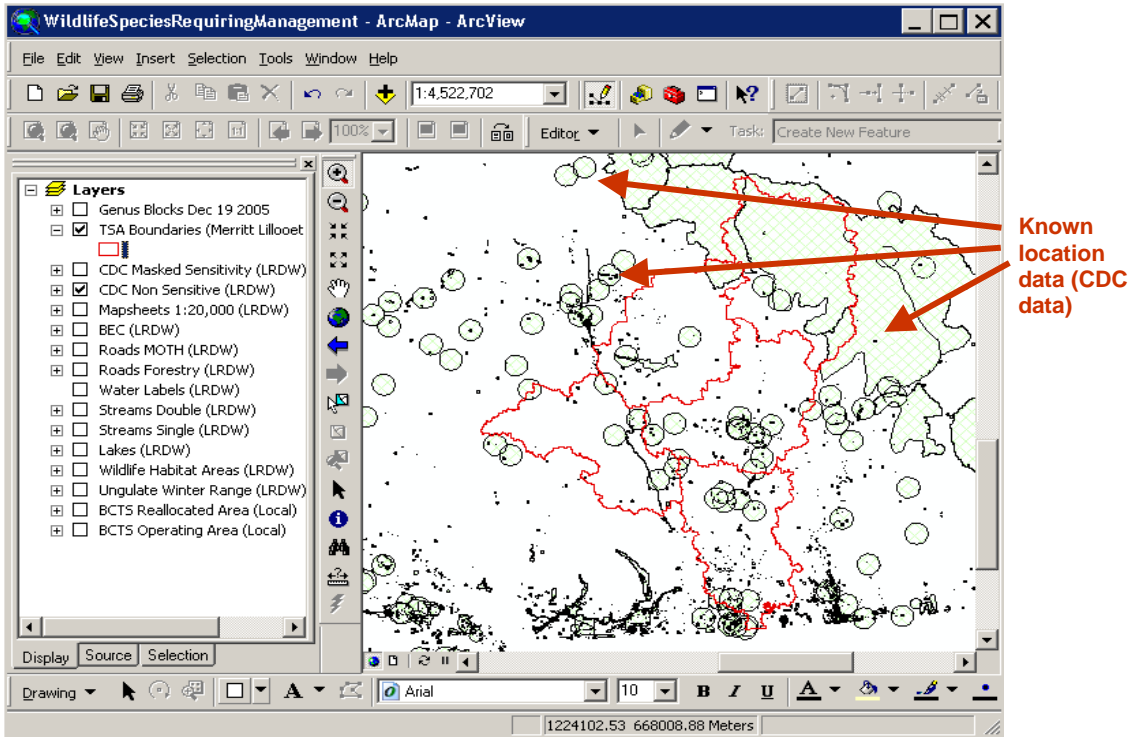


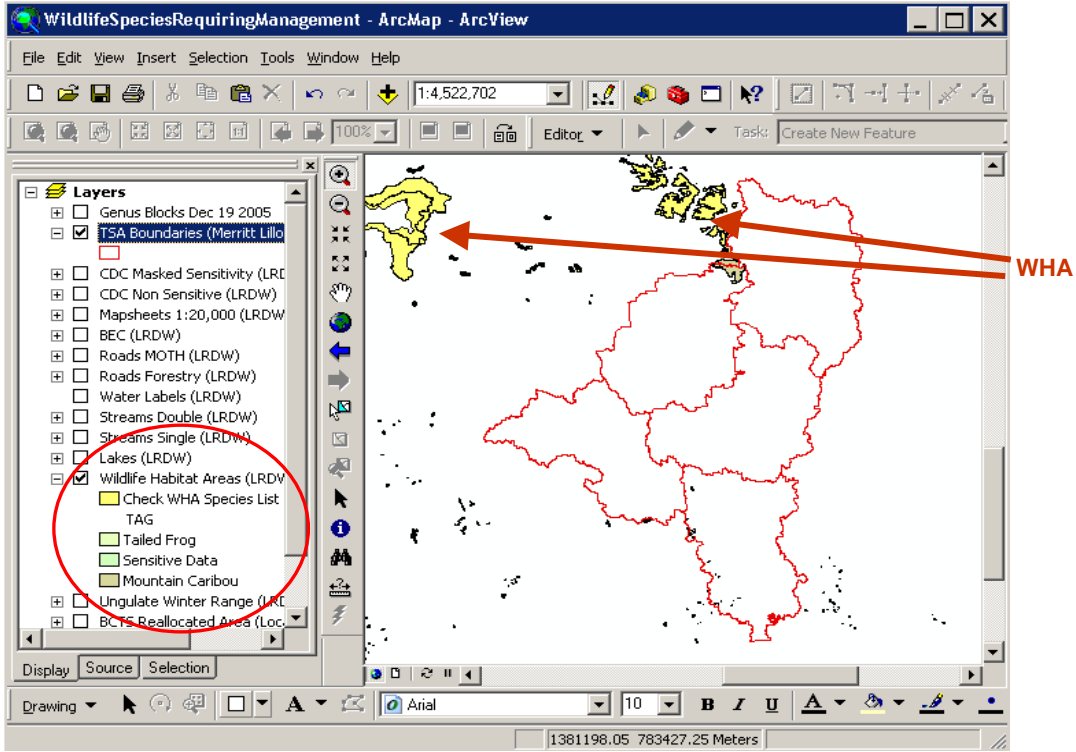


The next screen shots show:

- The CDC's non-sensitive data.
 - This data is labelled.
- The extent of the habitat within the business area.

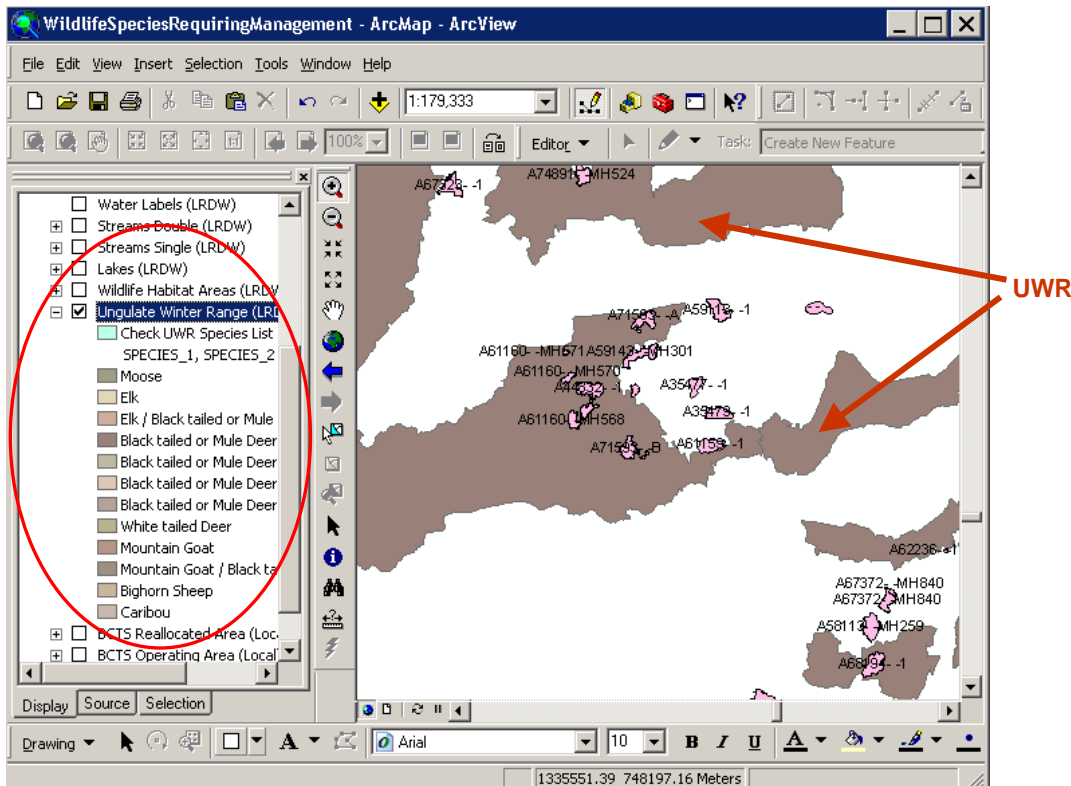


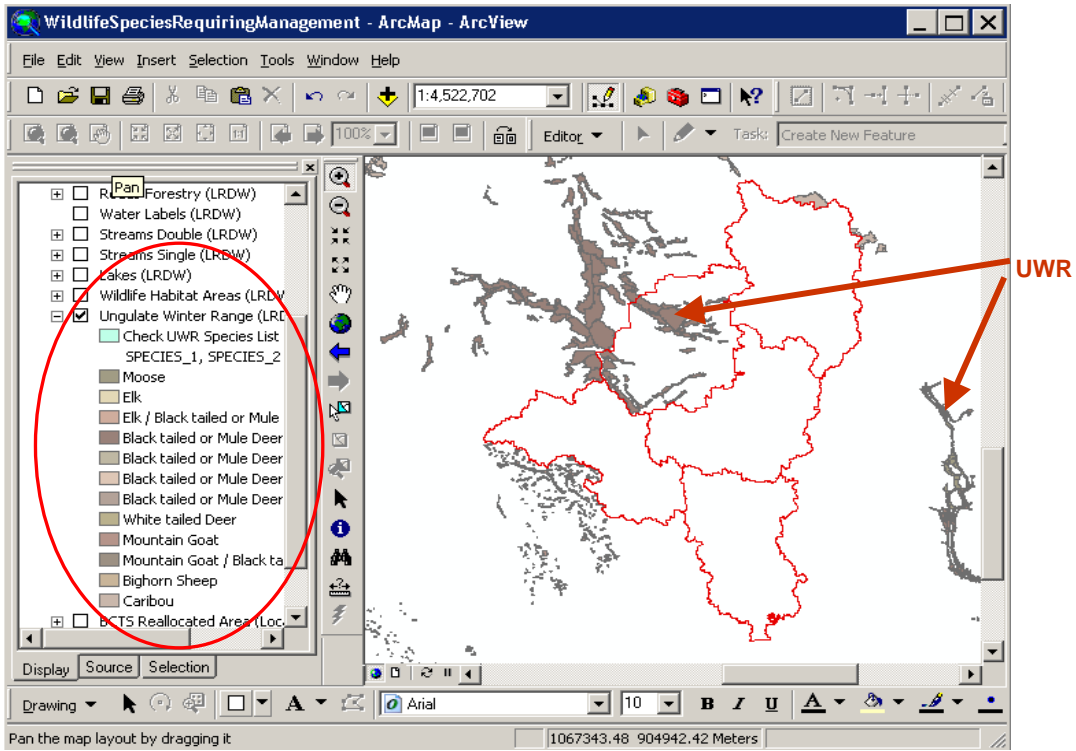




The next screen shots show:

- The MOE's ungulate winter range.
 - This data is grouped into a number of categories as well as check UWR species list.
 - If development is within an area labelled check UWR species list, contact the GIS Analyst because a new UWR has been added.
- The extent of the WHAs within the business area.







APPENDIX 2: ADDITIONAL INFORMATION ABOUT THE CDC

The Conservation Data Centre depends on the observations of scientists and knowledgeable amateur naturalists to continue building its province-wide database on the locations of species and ecological communities at risk.

Once received, your observation will be reviewed by the pertinent staff specialist. If appropriate, it will be incorporated into the database as a new record, or used to update an existing record.

Datasets

Please use the following sites to guide your submission of multiple records/observations that are a part of a dataset.

[Wildlife Species Inventory](#) – All Animals (except fish & mussels)

[Fish Data Submission](#) – Fish & Mussels

[Ecosystem Information](#) – Ecosystem Mapping (including TEM, PEM, SEI, VRI)

Information submitted via these sites is available to the CDC. If you wish to contribute spatial data, we prefer this data be projected in B.C. Albers coordinates. If you require assistance, please contact the [CDC](#).

Observations

Please e-mail, fax or mail observations to the [CDC](#) directly. The CDC will accept data in any format, however, the observation forms below have been designed to record the basic information necessary to create an "Occurrence Record" in our database. Please use these forms if it is convenient to do so. Any additional information you collect beyond what is listed on the forms will be most welcome.

If you are unable to view or download these observation forms, please contact the [CDC](#) and we will email, fax or mail you any forms you require.

Animals Observations

[Vertebrate Animal At Risk Observation Form](#) (PDF 327 KB)

[Dragonfly At Risk Observation Form](#) (PDF 872 KB)

[Butterfly At Risk Observation Form](#) (PDF 111 KB)



[Freshwater Mussel At Risk Observation Form](#) (PDF 108 KB)

[Landsnail and Slug At Risk Observation Form](#) (PDF 129KB)

Plant Observations

[Plant At Risk Observation Form](#) (PDF 289 KB)

[Plant At Risk Observation Spreadsheet](#) (Excel 70 KB) – Use for multiple plant records/observations

Ecological Community Observations

You can submit Ecological Community Observation data on the standard [FS882 or Ground Inspection \(GIF\)](#) forms available through the RISC Standard [Field Manual For Describing Terrestrial Ecosystems in the Field](#) (DTEIF). Fully completed FS882 forms or GIFs provide the best information with which to verify an occurrence.

We will also accept in any format the following **minimum** data for an Occurrence:

Geographic location

Either place name details or co-ordinate locations (latitude and longitude, or UTM), or both; and directions to the sites. Attach a map if possible.

Description of the site

Elevation, relative steepness, aspect (i.e., north, south, east, west), exposure to wind and sun, and presence of rocks, bedrock or bare soil.

Description of the vegetation

Dominant plants of each life form present, e.g., trees, shrubs, herbs, grasses, mosses, lichens. Vegetation structure if possible (e.g., complex and multi-layered, or relatively uniform in height).

In addition to the field data, the practical conservation value of an Occurrence can be described using the new [Ecological Community Conservation Evaluation Form](#) (PDF 29 KB). Instructions are included on the back of the form. For definitions of terms in the Evaluation Summary see the [Element Occurrence Ranking Factors](#) page.

Conservation Data Centre – Spring Update 2012



[BC Species and Ecosystems Explorer Enhancement](#)

In response to user feedback the Conservation Data Centre routinely enhances the capacity of [BC Species and Ecosystems Explorer](#) (<http://www.env.gov.bc.ca/atrisk/toolintro.html>). In 2010 the CDC conducted a survey of its clients, including resource ministries and the resource professional community to guide future improvements to our services. The CDC released a number of enhancements in spring 2011 in response to client feedback. The spring 2012 release contains further enhancements in response to that survey.

- Improved user-friendly terms for searches.
- Distinction between plants and animals in search results.
- Inclusion of CITES (**Convention on International Trade in Endangered Species**) designation as a search criterion under Legal Designation.
- Addition of Land Use Objectives (e.g., for Ecosystem Based Management on the coast) as a search criterion under Legal Designation for ecological communities.
- Reformatting of the Summary Reports and Conservation Status Reports to make them more user friendly.
- Addition of an auto-complete function for the Species Name or Ecological Community Name search boxes.
- Enhanced and expanded species habitat search capability.
- Complete revision of the categories in the Ecosystem Groups search criterion to ensure consistency with recent publications by the Ministry of Forests, Lands and Natural Resource Operations.
- Improved species and ecological communities search pages so it is easier to tell which page you are on.
- Addition of clickable maps for easier searches by Forest District or Regional District.
- Addition of Grasshoppers and Related Insects, Spiders (partial list), liverworts and hornworts to the species groups represented.

2012 Taxonomy and Rank Updates

As part of standard business, the BC Conservation Data Centre reviews and releases updates of Conservation Status Ranks of selected species and ecological communities annually and updates to species taxonomy updates including the addition of any new species found in BC.

The 2012 CDC changes in taxonomy and Provincial Status Ranks for species and ecosystems are now available through BC Species and Ecosystems Explorer (BCSEE). Note that BCSEE is the provincial standard (Resource Inventory Standards Committee - RISC) for scientific names, English names and species codes (RISC codes) for animals (vertebrates and invertebrates).



Details of the 2012 taxonomy and rank changes can be found on the Endangered Species and Ecosystems Changes web page under the heading: 2011/12 Changes.

<http://www.env.gov.bc.ca/atrisk/changes.htm>.

The following are a brief summary of those changes:

Zoology Data

- **Birds:** A subset of the birds was assessed this year with only a few resulting changes in status.
- **Fish:** Many fish were assessed for the first time this year. These are species that have been divided into several populations using the methods and recommendations of Pollard (2009), available at Ecosystems Changes web link above. There were a few small adjustments made to ranks as a result of the adoption of updated ranking methods.
- **Mammals:** There were a few name changes to English and Scientific names; please see the Excel spreadsheet for details on these (available at Ecosystems Changes web link above).
- **Orthoptera (Grasshoppers):** We established preliminary status ranks for many grasshopper species. Due to the preliminary nature, they have not yet been placed on the red or blue lists yet. Hopefully this will provide an incentive for more research on this group!
- **Reptiles:** We reviewed the reptiles this year resulting in rank changes for two species. There were a number of changes to English names of the reptiles and amphibians as a result of adopting a new standard reference for British Columbia. The standard reference is now Crother (ed.) (2008), one that is endorsed by a number of the major North American herpetological groups.
- **Spiders:** The spiders of BC have been added as a reference list. The Conservation Status Ranks have not been assessed; therefore all have a rank of "SNR" (not ranked).

Botany Data

A total of 125 liverworts and one hornwort were added to the BC flora in 2012, following the taxonomy published in: Stotler, R. and B. Crandall-Stotler. 1977. A checklist of liverworts and hornworts of North America. *The Bryologist*. 76:405-428.

Subnational Ranks have not yet been assigned for these plants, but will be added as information on their distribution, abundance and risk status of these taxa becomes available.

Mosses



- There were five taxonomic and/or name changes; one species was removed because it was unconfirmed as a valid species.

Vascular Plants

- Fifty-nine vascular plants were added to the BC flora list, including 29 exotic species. Some additions were the result of new collections, while others were the result of re-identification of herbarium specimens.
- There were 108 Scientific name changes and three English name changes.
- Provincial Conservation Status Ranks were reviewed and adjusted for 21 taxa. The 59 additions were also assessed and assigned ranks, as well as 33 taxa resulting from taxonomic lumps and splits. In addition, 9 taxa were assessed but there was no change to the ranks.
- Thirteen plants were removed from the BC flora because their names had been misapplied or the collections on which the reports were based were re-identified as other species.

Ecological Community Data

- Revisions to all ecological communities in the Boreal White and Black Spruce (BWBS) biogeoclimatic zone were completed, to be consistent with the revised classification published by the Ministry of Forests, Lands and Natural Resource Operations (see [LMH 65](#)).
- Eight new ecological communities were added, including six from the new BWBS classification.
- We completed revisions to ecological community names to be consistent with current plant species taxonomy.
- 246 new Element Occurrences are now available on the Conservation Data Centre Mapping Service and i-map.
- Updates and new information are available in the Community Summary and Conservation Status reports for over 100 more ecological communities.
- There was a rank change for one ecological community (*Danthonia intermedia* / *Cladina rangiferina*).

Details of the 2012 taxonomy and rank changes can be found at <http://www.env.gov.bc.ca/atrisk/changes.htm>.

If you have any questions, please contact the Conservation Data Centre.
cdcdata@gov.bc.ca
250-356-0928