

Agricultural Land Reserve

This layer shows the boundaries of Agricultural Land Reserve (ALR) land within the RDCK. The ALR designation identifies land deemed necessary to be maintained for agricultural use, based on soil and climate information.

Source

Agricultural Land Commission (ALC). (2020). *ALC ALR Polygons*. Retrieved from: <https://catalogue.data.gov.bc.ca/dataset/alc-alr-polygons>

Aquifers

This layer shows the locations of developed, mapped ground water aquifers within the RDCK.

Productivity

Productivity refers to the potential water availability in the aquifer. This measure is inferred from indicators such as reported well yield, specific capacity of wells, and aquifer transmissivity¹ (when available). Well usage type (e.g. irrigation/municipal) and probable recharge sources (lakes/streams) are taken into consideration.

Level of development

Level of development is a measure of the demand on the aquifer compared to the supply of water it contains (productivity). As exact quantitative measures are not often available, level of development is a subjective measurement based on water use, well density, aquifer productivity, and recharge sources.

Development	Description
Heavy	Demand = high relative to water availability
Moderate	Demand = moderate relative to water availability
Light	Demand = light relative to water availability

¹ Transmissivity is “the rate at which water is transmitted through a unit width of an aquifer under a unit hydraulic gradient” (Berardinucci & Ronneseth, 2002, p. 52). It can be expressed as meters squared per second (m²/s), feet squared per day (ft² /d), or gallons per day per foot (gpd/ft) (Berardinucci & Ronneseth, 2002).

Vulnerability

Vulnerability refers to the intrinsic vulnerability of the aquifer to surface contaminants. The level of vulnerability is a qualitative assessment based on the aquifer's overlying geologic sediments (type, thickness, and extent), depth of water, and type of aquifer material. It does not take existing land uses, the nature of potential contaminant, or contaminants from deep sources into account. For these reasons, assessment of vulnerability does not equal the risk of contamination.

Vulnerability	Description
High	Highly vulnerable to surface contamination with little natural protection. Existing land uses and future developments should institute protection measures if they could introduce a contaminant to the land surface.
Moderate	Moderately vulnerable to surface contamination with limited natural protection. Existing land uses and future developments should institute protection measures if they could introduce a contaminant to the land surface.
Low	Not very vulnerable to surface contamination with more natural protection than aquifers rated "High" or "Moderate" vulnerability. Low vulnerability does not mean immune to contamination – all aquifers are vulnerable to a certain degree.

Source

Berardinucci, J., & Ronneseth, K. (2002). *Guide to Using the BC Aquifer Classification Maps for the Protection and Management of Groundwater*. Victoria: Ministry of Water, Land, and Air Protection, Water, Air, and Climate Change Branch. Retrieved from:

http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/aquifers/reports/aquifer_maps.pdf

Further Information

To look up a specific aquifer by number or name (which can be found by clicking on an aquifer within this interactive map), follow this link: <https://apps.nrs.gov.bc.ca/gwells/aquifers/>

For more on understanding aquifers, follow this link:

<https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/groundwater-wells-aquifers/understanding-aquifers>

Flood Construction Level (FCL)

This layer shows where Flood Construction Levels have been established in the RDCK. Flood Construction levels describe the required elevation of the underside of wooden floor systems or the top of a concrete slab for habitable buildings in order to keep living areas and storage above flood levels.

Flood Construction Level

Flood construction level in metres. The number includes the elevation of the observed or calculated water surface level, plus the vertical distance necessary to account for uncertainties and the potential for waves, surges, or other natural phenomena.

Setback

The required minimum distance that any structural support or landfill required to elevate a floor system or pad must be from the natural boundary of a watercourse, lake, or other body of water, in metres.

Floodplain

Describes whether or not the FCL is within a floodplain, indicated by either YES or NO.

Watercourse

Identifies which watercourse the FCL is associated with (by name).

Sources

Regional District of Central Kootenay (2009). *Regional District of Central Kootenay Floodplain Management Bylaw No. 2080, 2009*. Retrieved from:

https://rdck.ca/assets/Government/Bylaws/Land~Use-Planning/2080-Floodplain_Consolidated_2695.pdf

Regional District of Central Kootenay. (n.d.) *Floodplains, Alluvial Fans and Geotechnical Hazards Information Brochure*. Retrieved from:

<https://rdck.ca/assets/Services/Land~Use~and~Planning/Documents/2016-PLN-Floodplain-Brochure.pdf>

Professional Engineers and Geoscientists of BC [APEGBC] (2017). *Flood Mapping in BC: APEGBC Professional Practice Guidelines V1.0*. Retrieved from: <https://www.egbc.ca/getmedia/8748e1cf-3a80-458d-8f73-94d6460f310f/APEGBC-Guidelines-for-Flood-Mapping-in-BC.pdf.aspx>

Ground Water Wells

This layer shows the location of ground water wells within the RDCK.

Well Tag

The file number assigned to the well in British Columbia's Wells and Aquifers application.

Well Class

This is the classification of the well as defined in the Groundwater Protection Regulation of the Water Sustainability Act. Classifications are: Water Supply, Monitoring, Recharge, Injection, Dewatering, Drainage, Remediation, Geotechnical, or Closed-loop geexchange.

Intended Use

Intended use of a well is reported by the driller when the well is completed. The options include private domestic, irrigation, water supply system, industrial commercial, or unknown.

License Status

This is the licencing option granted to the well under the Water Sustainability act. The three options are Unlicensed, Licensed, and Historical.

Yield

Yield is an approximate estimate of the capacity of the well to produce groundwater, as determined by a well yield test during construction of the well.

Aquifer

The ID number of the mapped aquifer that the well draws upon. A well can only have one aquifer.

Sources

Ministry of Environment and Climate Change Strategy - Water Protection and Sustainability. (2020). *Ground Water Wells*. Retrieved from: <https://catalogue.data.gov.bc.ca/dataset/ground-water-wells>

British Columbia Ministry of Environment. (2014). *Water Sustainability Act*. Retrieved from: <http://www.bclaws.ca/civix/document/id/complete/statreg/14015>

Further Information

The Groundwater Protection Regulation of the Water Sustainability Act can be found here: http://www.bclaws.ca/civix/document/id/complete/statreg/39_2016

Land Capability Class

This layer shows agricultural capability (based on soil and climate information) across the RDCK. These are legacy data, based on common agricultural practices from the 1960s-1990s. The land capability ratings in the table below have not been updated to reflect changes in climate, changes in agricultural practices and crops, or site-specific land management changes (such as drainage) that may have modified soil quality. Caution should therefore be used in interpreting these data.

Class	Limitation level	Explanation
1	No significant limitations	The range of crops this class can support is wide , and limited or no conservation practices are required
2	Moderate limitations	The range of crops this class can support is moderately limited , or moderate conservation practices are required
3	Moderately severe limitations	The range of crops this class can support is limited , or special conservation practices are required
4	Severe limitations	The range of crops this class can support is restricted , or special conservation practices are required
5	Very severe limitations, improvement feasible	The range of crops this class can support is limited to perennial forage crops but improvement practices are feasible
6	Very severe limitations, no improvement feasible	The range of crops this class can support is limited to perennial forage crops , and improvement practices are not feasible
7	No agricultural capacity	The land in this class is not suitable for arable culture or permanent pasture

Sources

Ministry of Agriculture and Food and Ministry of Environment. (1983). *Land Capability Classification for Agriculture in British Columbia: MOE Manual 1*. Retrieved from: https://www.alc.gov.bc.ca/assets/alc/assets/library/agricultural-capability/land_capability_classification_for_agriculture_in_bc_1983.pdf

Ministry of Agriculture - Innovation and Adaptation Services. (2018). *Agriculture Capability Mapping*. Retrieved from: <https://catalogue.data.gov.bc.ca/dataset/agriculture-capability-mapping>

Non-Standard Flood Erosion Areas (NSFEA)

This layer shows areas where standard floodplain setbacks and flood construction levels are not enough to provide necessary protection from flooding, erosion, and/or debris flow. NSFEAs require special flooding and erosion precautions.

Rating

Rating	Physical Description
S	Superficial flooding and inundation by low velocity flow possible; typical of the low gradient alluvial/debris flow fans of very small streams or the flattest most distant edges of larger alluvia/debris flow fans.
1	Shallow flooding by low velocity flow possible; typical of the alluvial/debris flow fans of small streams with moderate slopes or the run-out areas of larger alluvial/debris flow fans.
2	Flooding by moderate velocity flows possible; typical of the alluvial/debris flow fans of moderate size streams, small streams with steeper slopes, or the transition zone of larger alluvial/debris flow fans
F	Flooding by moderate velocity flows possible; typical of the alluvial and debris fans of moderate size streams, small streams with steeper slopes, or the transition zone of larger alluvial and debris flow fans.
E	Flooding and erosion from: high velocity flows, avulsions, debris flows or bank stability problems possible. Typical of areas on alluvial/debris flow fans of larger streams, moderate sized streams with steeper slopes or erodible banks in the floodway of large rivers.
G	Temporary NSFE Rating: This is a geological feature. As such any portion of it should be assumed to be potentially active. The geological fan boundaries have been solely delineated by interpretation of aerial photography.
P	Temporary NSFE Rating: Flooding and erosion from high velocity flows; avulsions, debris flows or bank stability problems. Typical of the apex areas of larger streams or moderated sized streams with steeper slopes.

Source

Regional District of Central Kootenay. (2009). *Regional District of Central Kootenay Floodplain Management Bylaw No. 2080, 2009*. Retrieved from: https://rdck.ca/assets/Government/Bylaws/Land~Use-Planning/2080-Floodplain_Consolidated_2695.pdf

Surface Water Points of Diversion (POD)

This layer displays the locations of drinking water license points of diversion for water systems in the RDCK.

Status

Indicates the status of license. See table below.

Code	Description
A	Application for license
L	License granted
AL	License issued and application for license on POD
I	Inactive

Source

Ministry of Forests, Lands, Natural Resource Operations and Rural Development - Water Management. (2019). *Drinking Water Sources (Surface Water PODs)*. Retrieved from: <https://catalogue.data.gov.bc.ca/dataset/drinking-water-sources-surface-water-pods>

Wildland Urban Interface (WUI) Areas

This layer indicates areas where homes, farm structures, outbuildings or infrastructure are adjacent to combustible wildland fuels (vegetation) within the RDCK.

Source

Regional District of Central Kootenay. (n.d). *Community Wildfire Protection Plans*. Retrieved from: <https://rdck.ca/EN/main/services/emergency-management/community-wildfire-protection-plans.html>