

## 2 DEVELOPMENT POTENTIAL ANALYSIS

### DEVELOPMENT AREAS

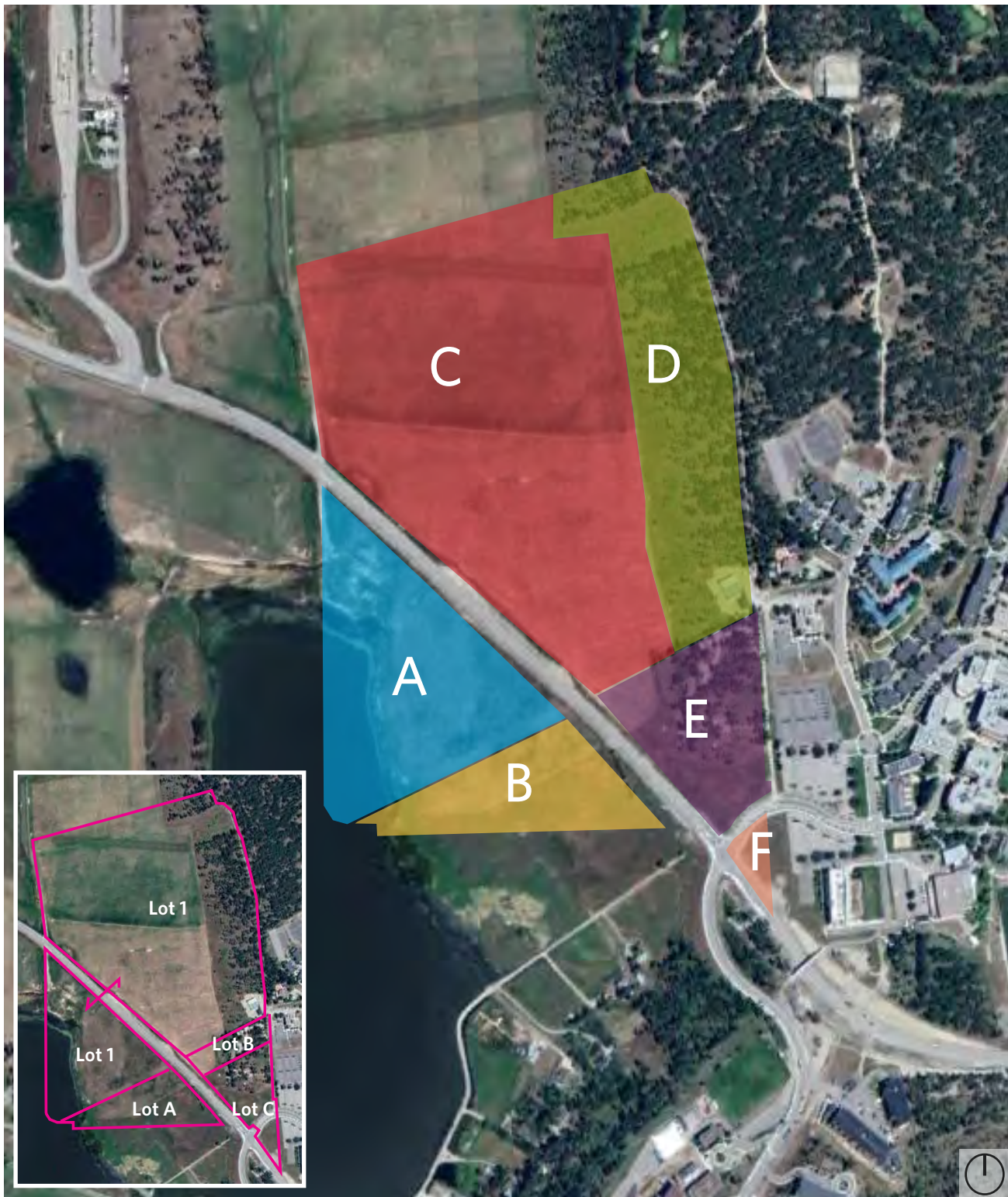
To communicate the development potential of the West Campus Lands and identify which locations may be most feasible for various desired uses, the lands have been broken into six Development Areas as shown in Figure 26 opposite.

This section provides a summary of:

- The key features of each area.
- The potential uses that are consistent with current land use designations and are compatible with the site.
- A breakdown of each area into potential areas of development based on the following:
  - **Development not permitted/recommended:** Covers areas of ecological sensitivity, archeological potential and/or legal charges preventing permanent structural development.
  - **Open-land use development:** Areas that are recommended for open land use such as open field production, not including structures (except minor ancillary support structures permitted under zoning).
  - **Structure potential development:** Areas that are recommended for building structures, with limited regulations.
  - **Structure potential development (enhanced regulations):** Areas that could be used for building structures but are subject to additional regulations such as airport height restrictions, wildfire management plans and engineering solutions for sloped conditions.

The section concludes with a master summary table which identifies specific potential future uses for each area, identified during the Visioning process detailed in Section 2 of the Conceptual Structure Plan, that may or may not require regulatory permission.

The development potential identified for each area has guided the development of the Conceptual Structure Plan.



**FIGURE 26:** Development Areas Map.  
Background Source: Google Earth, April 2022



## 2.1 AREA A

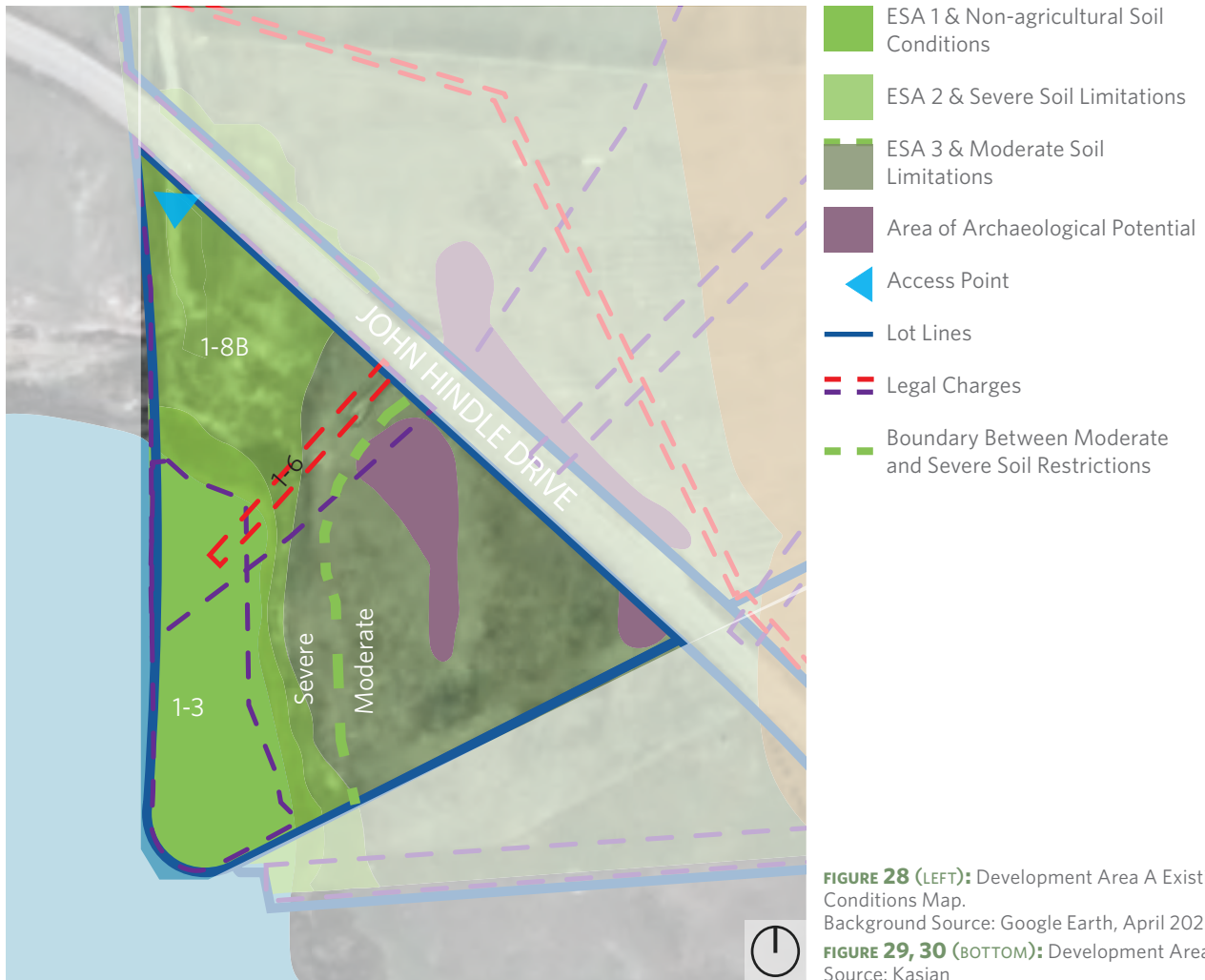
### Current Conditions

Area A is the southwest portion of Lot 1. It is primarily characterized by saline meadows/wetlands associated with the Robert Lake ecosystem on the western side, and cultivated fields on the eastern side. A portion of the lot is covered by Robert Lake itself. The table below summarizes the current conditions of this area. Figure 28 on the following page overlays the key conditions graphically on an aerial view of the area.

**FIGURE 27:** Development Area A.  
Background Source: Google Earth, April 2022

Current Conditions	
Land Use Designations/Zoning:	Whole site: ALR, A1, R-AGR w/ Farm Protection DPA; Partial site: Natural Environment DPA, Hazardous Conditions DPA
Current Land Use:	Forage production, natural wetlands
Legal Charges:	1-6 Statutory Right of Way for drainage from John Hindle Drive to Robert Lake 1-3 Portion of Robert Lake within West Campus Lands and its natural vegetation cannot be disturbed, specific allowable activities and uses are identified (i.e. Farm and Trails). 1-8B Landfill nuisance easement. Can't complain about landfill noise, odour, dust emissions, or vibrations or damage caused by them.
Access:	Single gated, gravel access from John Hindle Drive at north end of site, no internal roadways or trails
Topography:	Sloped from a high point at John Hindle Drive (approx 443m) down to Robert Lake (approx 435m)
Environmental Sensitivity Rating:	ESA 1: Robert Lake; ESA 2: Lands adjacent to Lake; ESA 3: approx 60% of area
Agricultural Capability:	Robert Lake and severe restrictions in surrounding areas, not recommended for agricultural use. Moderate limitations capability at eastern portion of site
Archaeological Potential:	Identified site and areas of archaeological potential located at east and centre of site
Services:	Ditch and pipe providing drainage for northern section of Lot 1 to Robert Lake. Access available to gas, power, water along John Hindle. No current access to sanitary.

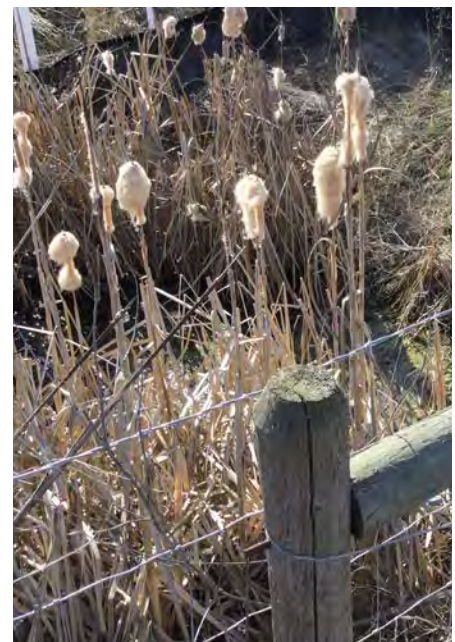




**FIGURE 28 (LEFT):** Development Area A Existing Conditions Map.

Background Source: Google Earth, April 2022

**FIGURE 29, 30 (BOTTOM):** Development Area A. Source: Kasian





### Development Potential

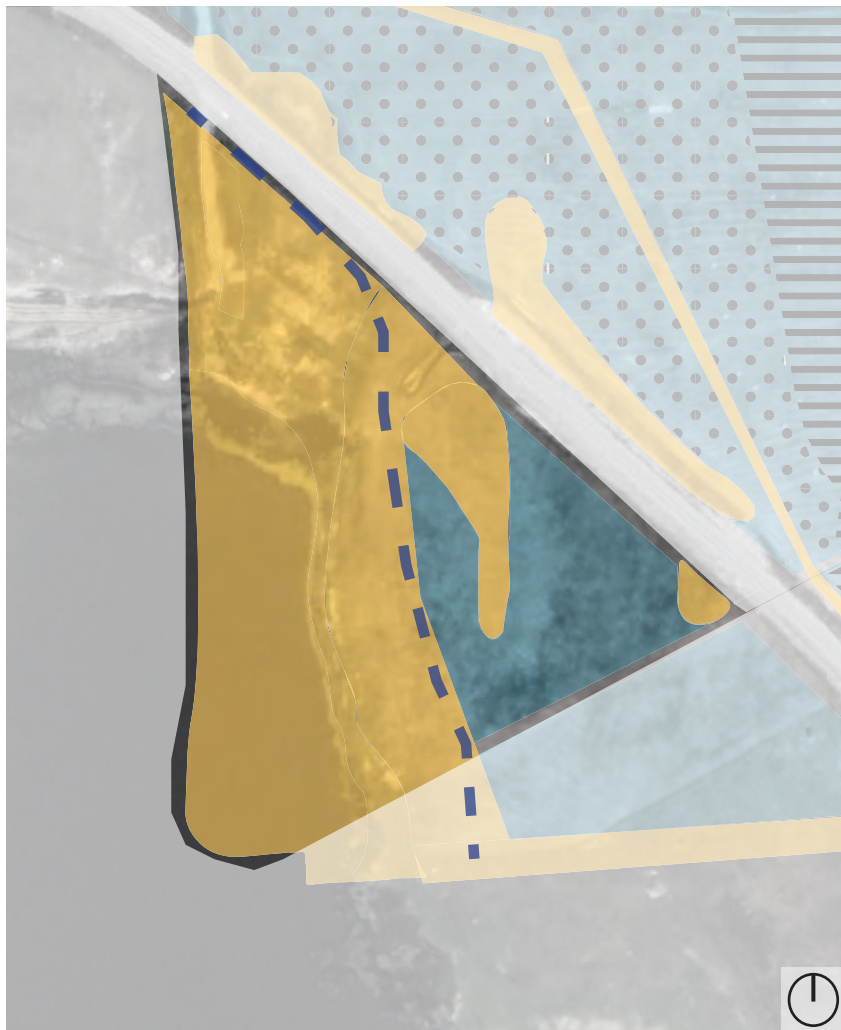
Given the high Environmental Sensitivity Rating, the low agricultural capability of the land, and the presence of areas of archaeological potential, significant portions of Area A may be best suited for conservation and research activities focussed on protecting and further understanding the unique Robert Lake ecosystem and the archaeological findings. In particular, the Existing Conditions Report identified the location adjacent to Robert Lake as a potential location to restore existing disturbed wetlands and to add additional constructed wetlands to create a protective buffer and to treat stormwater draining into Robert Lake. This use would require approval from the ALC which sets limits on constructed wetlands in the ALR.

The eastern portion of Area A has moderate soil limitations and could be developed for agricultural uses, potentially studying the affects of the adjacent alkaline ecosystem.

Any more intensive development of the site will likely require additional access point(s) from John Hindle Drive, as well as servicing infrastructure which has the potential to disrupt the ecosystem and requires regulatory approval from the both the ALC and the City of Kelowna.

The table below summarizes the development potential of this area. Figure 31 on the opposite page summarizes the areas of potential development for land based activities and structures.

Development Potential, Requirements & Restrictions	
Applicable potential permitted farm-based land uses within current regulations:	Agricultural production (farming/ranching) including greenhouses, with restrictions; Application of soil amendments; Land development works for farm purposes
Applicable potential permitted non-farm uses with restrictions:	Conservation, passive recreation, and open land parks; Education & research (not schools)
Special setback requirements:	Recommended minimum 30m setback measured from the edge of the transitional ecological community of Robert Lake
Special height restrictions:	N/A
Site coverage restrictions:	Maximum site coverage for agricultural use is limited to 35% but may be increased to 75% for greenhouses and plant nurseries with closed wastewater and storm water management systems
Structure area restrictions:	Greenhouse/Plant Nurseries/Agricultural Structures: see site coverage restrictions. Accessory Buildings or Structures: 130m <sup>2</sup> ; Education/Research Structures: 100m <sup>2</sup> per parcel; Passive Recreation Structures: 100m <sup>2</sup> per parcel
Potential connectivity to Main Campus:	Low - no direct access available



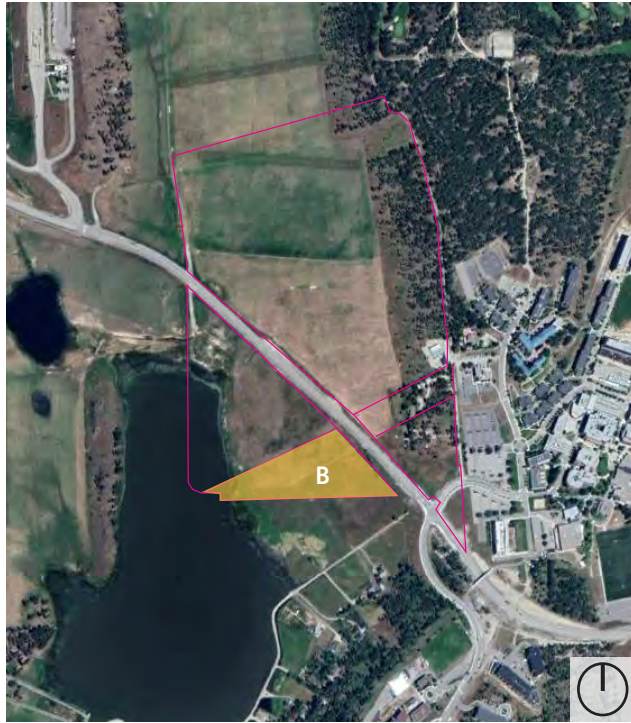
- Area of Potential Open Land Development
- Development Not Permitted/Recommended
- 30m Buffer Line

**FIGURE 31 (LEFT):** Development Area A Development Potential Map.

**FIGURE 32 (BOTTOM LEFT):** Wetland Path. Source: <https://www.wetlandtrust.org.nz/what-we-do/wetland-trails/>

**FIGURE 33 (BOTTOM RIGHT):** Interpretive Path Signage. Source: <https://interpretivedesign.com.au/portfolio/interpretive-projects/walking-track-interpretive-signage>





## 2.2 AREA B

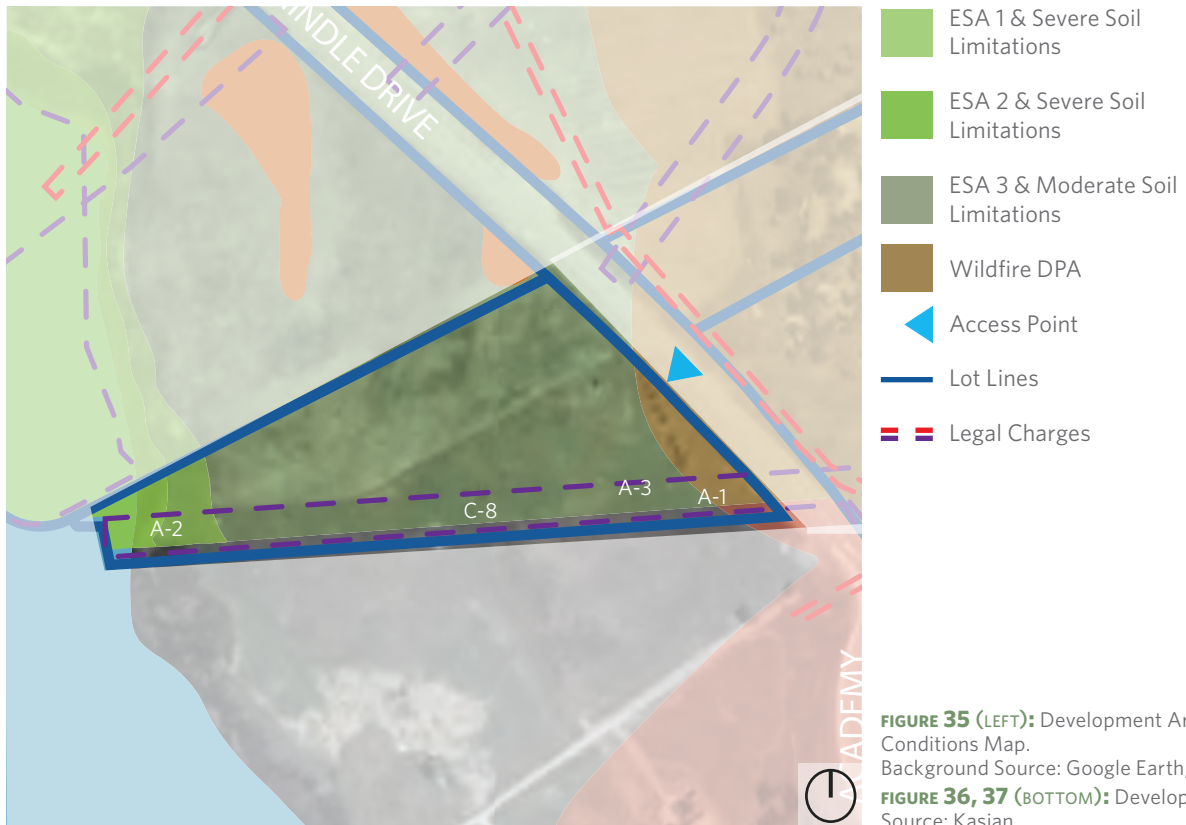
### Current Conditions

Area B is Lot A, adjacent to Robert Lake and south of Lot 1 and John Hindle Drive. It has been given a rural community ecosystem classification, described in the Existing Conditions Report as *"disturbed areas with permeable surfaces (i.e., unpaved) and maintained vegetation cover dominated by non-native species, such as old roads, fields, and disturbed areas associated with clearing for parking or other human activity."* There is a narrow portion of saline meadows/wetlands associated with Robert Lake at the western boundary. The table below summarizes the current conditions of this area. Figure 35 on the following page overlays the key conditions graphically on an aerial

**FIGURE 34:** Development Area B.  
Background Source: Google Earth, April 2022

Current Conditions	
Land Use Designations/Zoning:	Whole site: ALR, A1, R-AGR w/ Farm Protection DPA; Partial site: Wildfire DPA
Current Land Use:	Forage production, natural wetlands
Legal Charges:	<p>A-2: No disturbance or construction within the identified area.</p> <p>A-3/C-8: Undersurface rights and notification / registering of road closure of Curtis Road. Rights are retained by UBCO after road closure by the City.</p> <p>A-1: Required 10-foot buffer either side of the GEID pipeline for protection and maintenance of infrastructure. No structural development allowed in the identified areas.</p>
Access:	Single gated, gravel access from John Hindle Drive; No internal roadways or trails
Topography:	Incline from John Hindle Drive (approx 440m) down to Robert Lake (approx 435m)
Environmental Sensitivity Rating:	ESA 1: Robert Lake; ESA 2: Lands adjacent to Lake; ESA 3: majority of area
Agricultural Capability:	Robert Lake and severe restrictions in surrounding areas, not recommended for agricultural use. Moderate limitations capability at eastern portion of site
Archaeological Potential:	None identified at this time
Services:	No existing service infrastructure. Access is available to water and shallow utilities along John Hindle Drive





**FIGURE 35 (LEFT):** Development Area B Existing Conditions Map.  
Background Source: Google Earth, April 2022  
**FIGURE 36, 37 (BOTTOM):** Development Area B.  
Source: Kasian



### Development Potential

Area B has been disturbed for rural uses and is primarily classified as ESA 3, therefore it presents an opportunity for future development, likely for agricultural or research activities, including related structures.

In the western zone, a combination of ESA 1/ESA 2 environmental sensitivity ratings, a legal charge protecting the area, and severe soil limitations suggest this portion be considered for conservation and rehabilitation activities. This would include the recommended 30m buffer from the transitional ecosystem around Robert Lake.

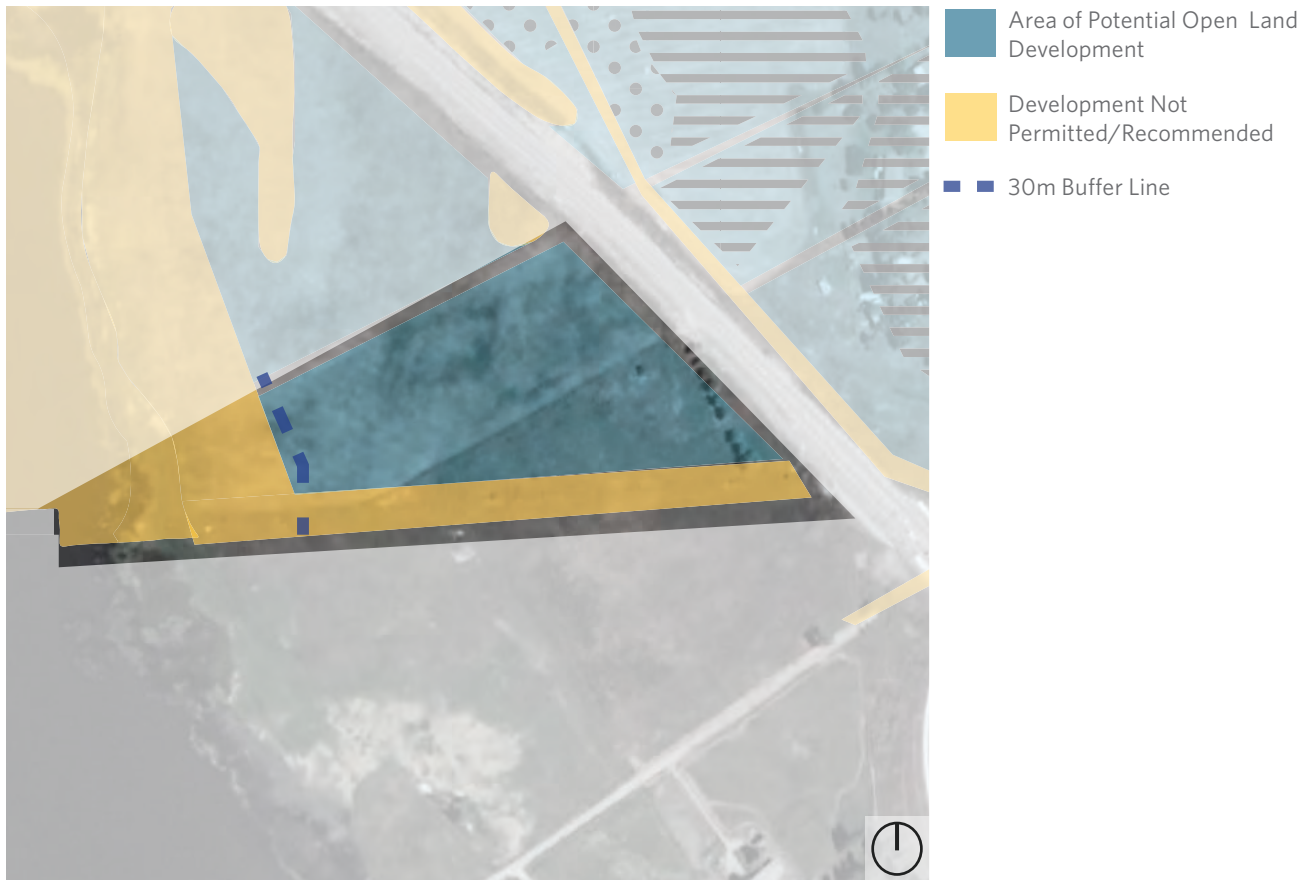
At the eastern perimeter of the site, there is a small zone that falls within the Wildfire DPA, which suggests limiting structures there. However, structures could be considered with an appropriate Wildfire Management plan.

The southern edge of the site has a series of legal charges applicable. These legal charges will prevent any permanent structures from being developed along the perimeter of Lot B without pursuing easements.

New development within Area B would require new infrastructure which would be subject to City of Kelowna and ALC approvals.

The table below summarizes the development potential of this area. Figure 38 on the opposite page summarizes the areas of potential development for land based activities and structures.

Development Potential, Requirements & Restrictions	
Applicable potential permitted farm-based land uses within current regulations:	Agricultural production (farming/ranching) including greenhouses, with restrictions; Application of soil amendments; Land development works for farm purposes
Applicable potential permitted non-farm uses with restrictions	Conservation, passive recreation, and open land parks; Education & research (not schools)
Special setback requirements:	Recommended 30m setback from the edge of the transitional ecological community of Robert Lake
Special height restrictions:	N/A
Site coverage restrictions:	Maximum site coverage for agricultural use is limited to 35% but may be increased to 75% for greenhouses and plant nurseries with closed wastewater and storm water management systems
Structure area restrictions:	Greenhouse/Plant Nurseries/Agricultural Structures: see Site coverage restrictions; Accessory Buildings or Structures: 130m <sup>2</sup> ; Education/Research Structures: 100m <sup>2</sup> per parcel; Passive Recreation Structures: 100m <sup>2</sup> per parcel
Potential connectivity to Main Campus:	Low - no direct access available



**FIGURE 38 (TOP):** Development Area B Development Potential Map.

**FIGURE 39 (BOTTOM):** Constructed Wetland.

Source: <https://unalab.eu/en/node/186>





## 2.3 AREA C

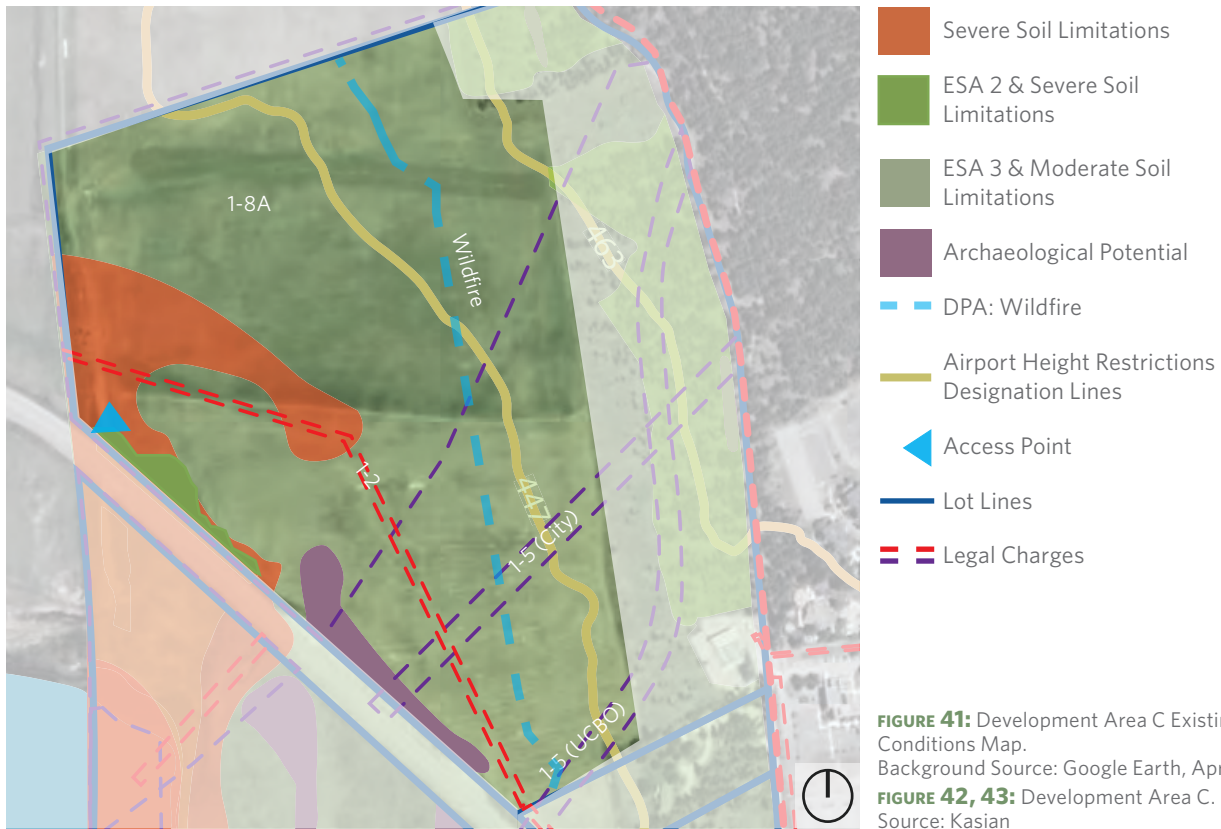
### Current Conditions

Area C is the section of Lot 1 that is north-east of John Hindle Drive. It is primarily characterized by cultivated fields, currently leased for forage production (alfalfa). There is a small low lying wetland area at the west of the site adjacent to John Hindle Drive.

The table below summarizes the current conditions of this area. Figure 41 on the following page overlays the key conditions graphically on an aerial view of the area.

**FIGURE 40:** Development Area C.  
Background Source: Google Earth, April 2022

Current Conditions	
Land Use Designations/Zoning:	Whole site: ALR, A1, R-AGR w/Farm Protection DPA; Partial site: Wildfire DPA
Current Land Use:	Forage production
Legal Charges:	<p>1-8A Landfill nuisance easement. Can't complain about landfill noise, odour, dust emissions, or vibrations or damage caused by them.</p> <p>1-5: City and UBCO preferred road alignments reserved for connection from Country Club Drive to John Hindle Drive.</p> <p>1-2: Required 10-foot buffer either side of the GEID pipeline for protection and maintenance of infrastructure. No structural development allowed in the identified areas.</p>
Access:	Single gated, gravel access from John Hindle Drive; No internal roadways or trails
Topography:	Sloped landscape rising from approx 437m at John Hindle Drive to approx 455m on the eastern boundary; Portion within the airport height restriction zone
Environmental Sensitivity Rating:	ESA 3: majority of area; Small area of ESA 2 at northern extent of John Hindle Drive
Agricultural Capability:	Moderate soil limitations over majority of site; Area of severe limitations due to poorly drained soils at western portion of site adjacent to John Hindle Drive.
Archaeological Potential:	Area of archaeological potential adjacent to John Hindle Drive
Services:	No existing service infrastructure; Access is available to water and shallow utilities along John Hindle Drive



### Development Potential

As the majority of Area C has been used for agricultural production and is classified ESA 3, it presents an opportunity for future development.

On the western zone of the site, an area of severe soil restriction coincides with the ESA 2 environmental sensitivity rating. This area may be more suitable for conservation and rehabilitation activities. The presence of an area of archaeological potential at the southern end of this zone should also be avoided for development. This zone contains the only current entry to the site. Access to the site could be designed to also function as the new roadway linking Country Club Drive to John Hindle Drive to respect the existing legal charge. Any new access roads will be subject to approval by the ALC in addition to the City.

In the eastern zone of the site where the land starts to rise more steeply, the airport height restriction zone and the wildfire risk zone are the primary limitations. The combination of these two constraints suggests new structures be minimized in this zone. Any proposed

internal access roads could be shaped along the edge of the wildfire risk zone to provide a fuel break and access for fire suppression activities.

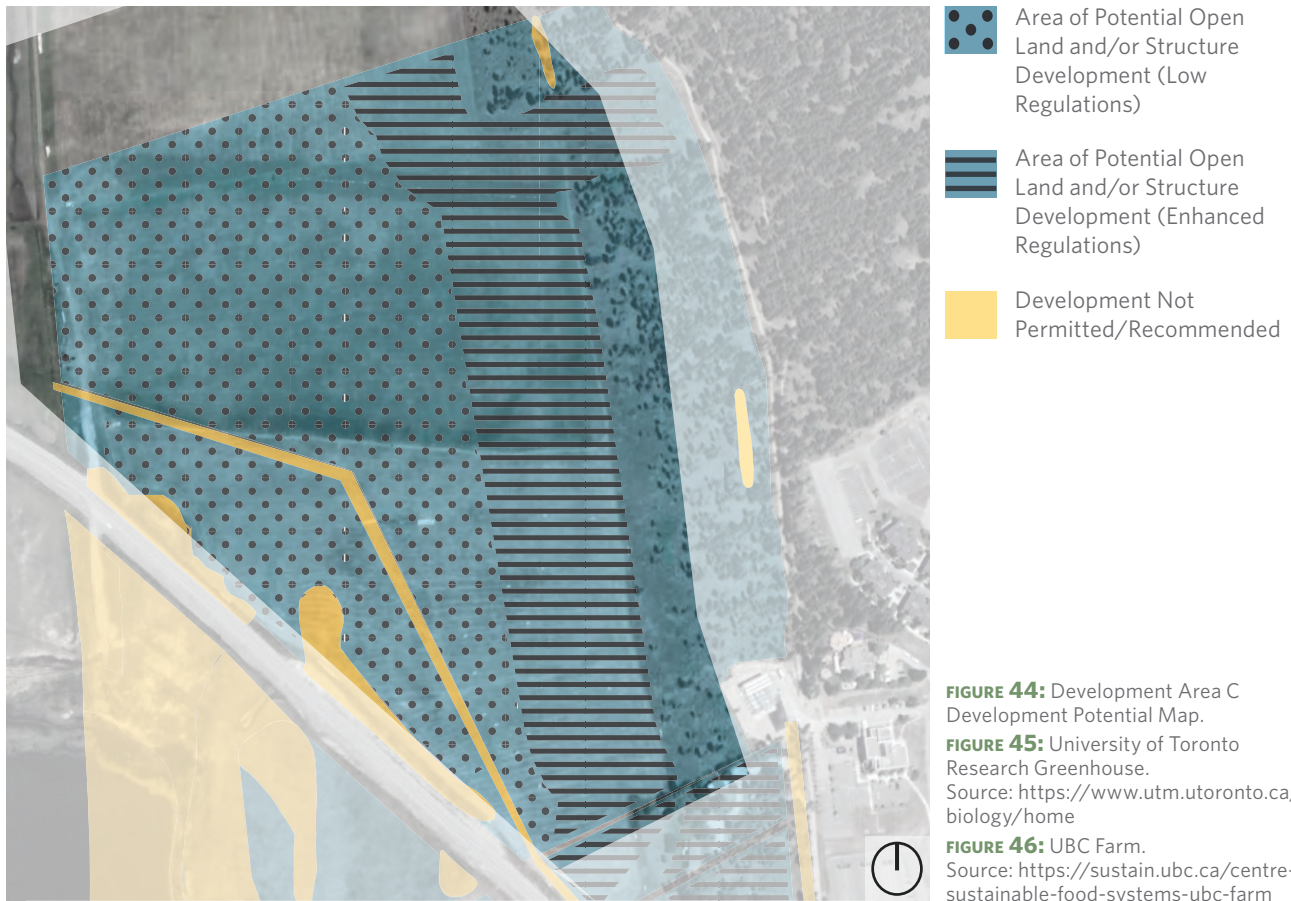
The centre zone of the site, with its ESA 3 rating, moderate soil restrictions and gentle slope has the least site constraints. This zone could be considered for more intensive development, including structures supporting agricultural and research activities. However, the soils are best suited to the forage production currently occurring there.

New development within Area C would require new infrastructure which would be subject to City of Kelowna and ALC approvals.

The table below summarizes the development potential of this area. Figure 44 on the opposite page summarizes the areas of potential development for open land based activities and structures.

Development Potential, Requirements & Restrictions	
Applicable potential permitted farm-based land uses within current regulations:	Agricultural production (farming/ranching) including greenhouses, with restrictions; Wineries and cideries; Farm retail sales; Storage, packing, and processing of farm products; Temporary or seasonal agri-tourism activities; Timber production, harvesting, and silviculture; Agroforestry; Application of soil amendments
Applicable potential permitted non-farm uses with restrictions	Conservation, passive recreation, and open land parks; Education and research (not schools); Production, storage, and application of Class A compost
Special setback requirements:	N/A
Special height restrictions:	Proposed structures in the airport height restriction zone will require review and approval
Site coverage restrictions:	Maximum site coverage for agriculture use is limited to 35% but may be increased to 75% for greenhouses and plant nurseries with closed wastewater and storm water management systems
Structure area restrictions:	Greenhouse/Plant Nurseries/Agricultural Structures: see Site coverage restrictions; Accessory Buildings or Structures: 130m <sup>2</sup> ; Education/Research Structures: 100m <sup>2</sup> per parcel; Passive Recreation Structures: 100m <sup>2</sup> per parcel
Potential connectivity to Main Campus:	Low - no direct access available





**FIGURE 44:** Development Area C Development Potential Map.

**FIGURE 45:** University of Toronto Research Greenhouse.  
 Source: <https://www.utm.utoronto.ca/biology/home>

**FIGURE 46:** UBC Farm.  
 Source: <https://sustain.ubc.ca/centre-sustainable-food-systems-ubc-farm>





## 2.4 AREA D

### Current Conditions

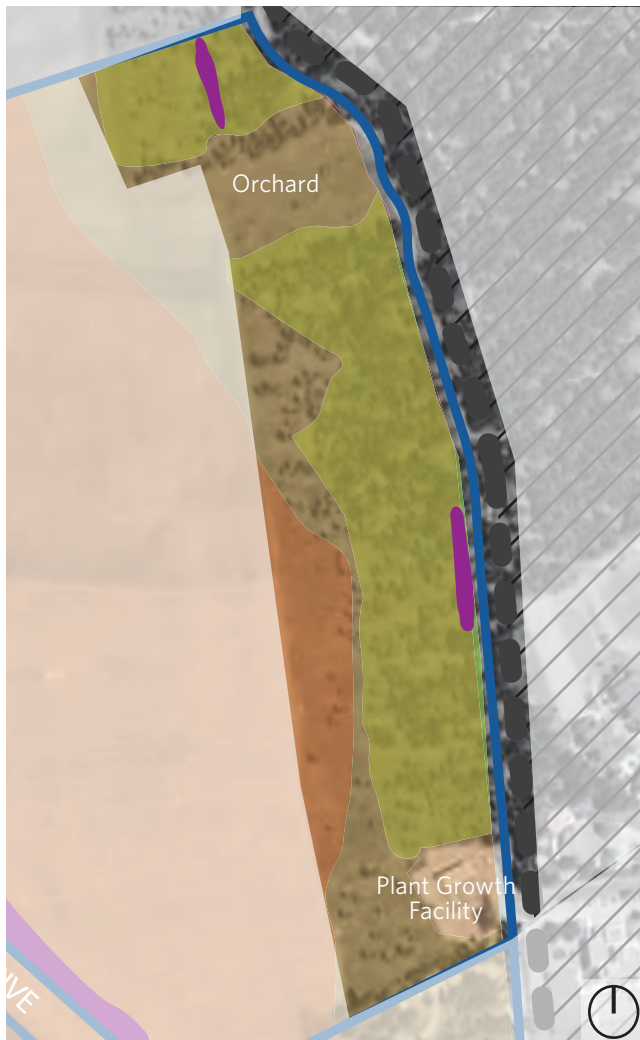
Area D is the western boundary of Lot 1 that is north-east of John Hindle Drive. It is primarily characterized by coniferous woodland, with a small untended orchard in the north and a developed area containing the Plant Growth Facility at the southern boundary.

The table below summarizes the current conditions of this area. Figures 48 and 49 on the following page overlays the key conditions graphically on an aerial view of the area.

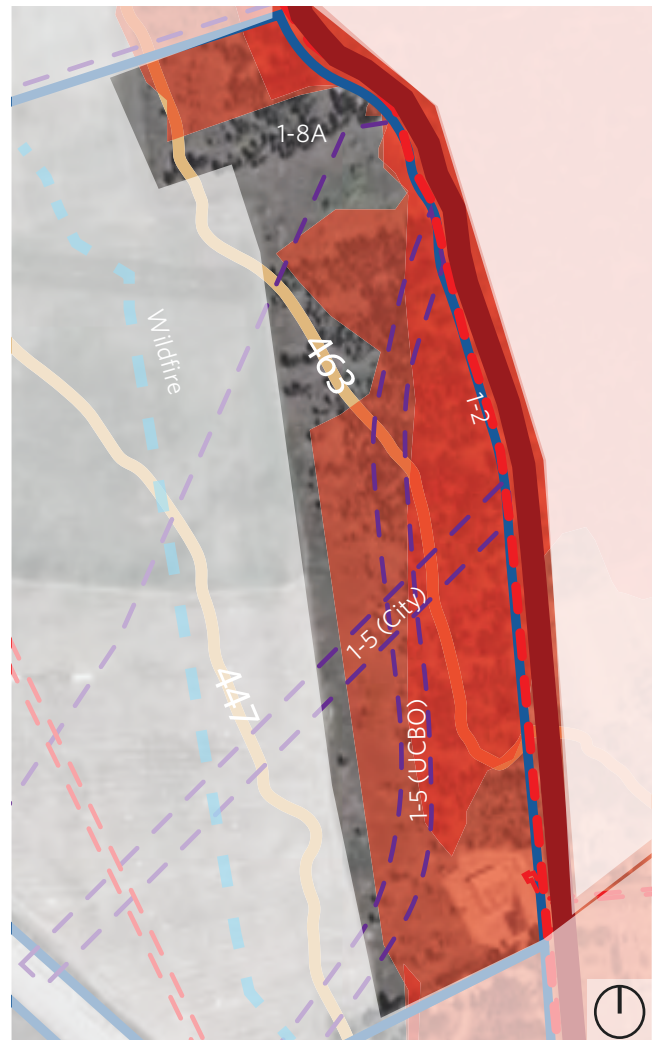
**FIGURE 47:** Development Area D.  
Background Source: Google Earth, April 2022

Current Conditions	
Land Use Designations/Zoning:	Whole site: ALR, A1, R-AGR w/ Farm Protection DPA; Partial Site: Natural Environment DPA, Wildfire DPA, Hazardous Conditions DPA
Current Land Use:	UBC Plant Growth Facility; Untended orchard; Majority of land is coniferous woodland
Legal Charges:	1-8A Landfill nuisance easement. Can't complain about landfill noise, odour, dust emissions, or vibrations or damage caused by them. 1-5: City and UBCO preferred road alignments reserved for connection from Country Club Drive to John Hindle Drive. 1-2: Required 10-foot buffer either side of the GEID pipeline for protection and maintenance of infrastructure. No structural development allowed in the identified areas.
Access:	Access by easement to Plant Growth Facility; Trail outside eastern perimeter
Topography:	Steep grade from approx 463m to approx 476m rising west to east; Within the airport height restriction zone
Environmental Sensitivity Rating:	ESA 2: majority of area (coniferous woodland); ESA 3: area along western perimeter and at the untended orchard; ESA 4: at Plant Growth Facility
Agricultural Capability:	Minor soil limitations over majority of site
Archaeological Potential:	Areas of archaeological potential along eastern boundary of site
Services:	No existing service infrastructure except to Plant Growth Facility





**FIGURE 48:** Development Area D Existing Conditions Map - Site Characteristics.  
Background Source: Google Earth, April 2022



**FIGURE 49:** Development Area D Existing Conditions Map - Regulations.  
Background Source: Google Earth, April 2022



**FIGURE 50:** Development Area D.  
Source: Kasian



## Development Potential

The majority of Area D is covered by young stands of Ponderosa pine and Interior Douglas fir. The area has been assigned an ESA 2 rating, falls under the Natural Environment DPA and is described in the Environmental Existing Conditions Report as "*an excellent example of the native woodland*."<sup>1</sup> As such it is recommended the ESA 2 area not be developed, or if it is developed, it is done in concert with habitat compensation elsewhere on the site. There are two areas of archaeological potential identified within the ESA 2 area which would ideally remain undisturbed.

Area D contains soils with only mild agricultural restrictions, suited to woody perennial horticultural crops like tree fruits, blueberries, or grape vines. It may be suitable to identify agricultural or research uses that could benefit from the soil conditions but maintain the existing tree overstory. The existing untended orchard is a cleared area that may be ideal for further agricultural research activities.

<sup>1</sup> Source: UBCO WEST CAMPUS LANDS, Summary of Existing Conditions prepared by Ecoscape Environmental Consultants

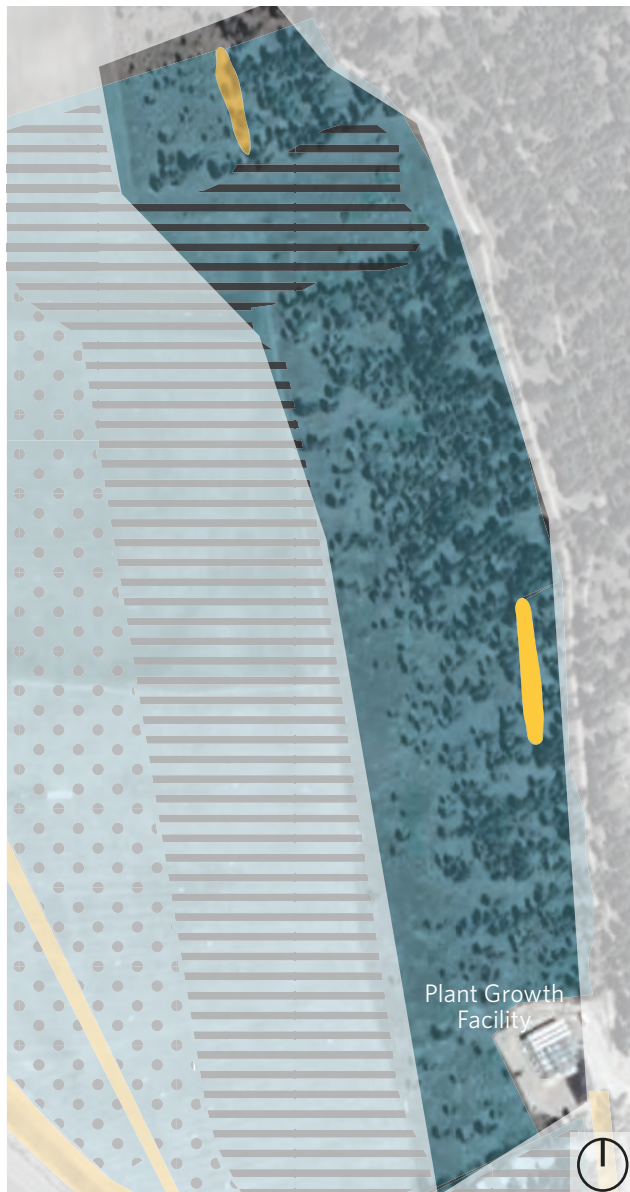
The eastern portion of the lands is sloped and falls under both the airport height restrictions and the Hazardous Conditions DPA. In addition, the entire area falls within the Wildfire DPA. This suggests structures be limited or avoided in this area.

Development of this area could be developed in concert with the future connecting road between John Hindle Drive and Country Club Drive. The new roadway could provide an infrastructure path as well as a fuel break for wildfire.

The sloped terrain and the two narrow legal lots (GEID and City of Kelowna owned) to the east of the site, place constraints on links to the Main Campus. The Plant Growth Facility has a direct access point that was achieved through an easement. This connection could be reviewed to support additional development around the existing facility.

The table below summarizes the development potential of this area. Figure 51 on the opposite page summarizes the areas of potential development for open land - based activities and structures.

Development Potential, Requirements & Restrictions	
Applicable potential permitted farm-based land uses within current regulations:	Agricultural production (farming/ranching) including greenhouses, with restrictions; Wineries and cideries; Farm retail sales; Storage, packing, and processing of farm products; Temporary or seasonal agri-tourism activities; Timber production, harvesting, and silviculture; Agroforestry; Application of soil amendments
Applicable potential permitted non-farm uses with restrictions	Conservation passive recreation, and open land parks; Education and research (not schools)
Special setback requirements:	N/A
Special height restrictions:	Proposed structures in the airport height restriction zone will require review and approval
Site coverage restrictions:	Maximum site coverage for agricultural use is limited to 35% but may be increased to 75% for greenhouses and plant nurseries with closed wastewater and storm water management systems
Structure area restrictions:	Greenhouse/Plant Nurseries/Agricultural Structures: see site coverage restrictions; Accessory Buildings or Structures: 130m <sup>2</sup> ; Education/Research Structures: 100m <sup>2</sup> per parcel; Passive Recreation Structures: 100m <sup>2</sup> per parcel
Potential connectivity to Main Campus:	Low - limited access due to sloped terrain and narrow legal lots separating area from Main Campus, requiring easements; Potential connection through Plant Growth Facility



**FIGURE 51:** Development Area D Development Potential Map.

-  Area of Potential Open Land Development
-  Area of Potential Open Land and/or Structure Development (Enhanced Regulations)\*
-  Development Not Permitted/Recommended



**FIGURE 52 (TOP):** Restinclières research farm.

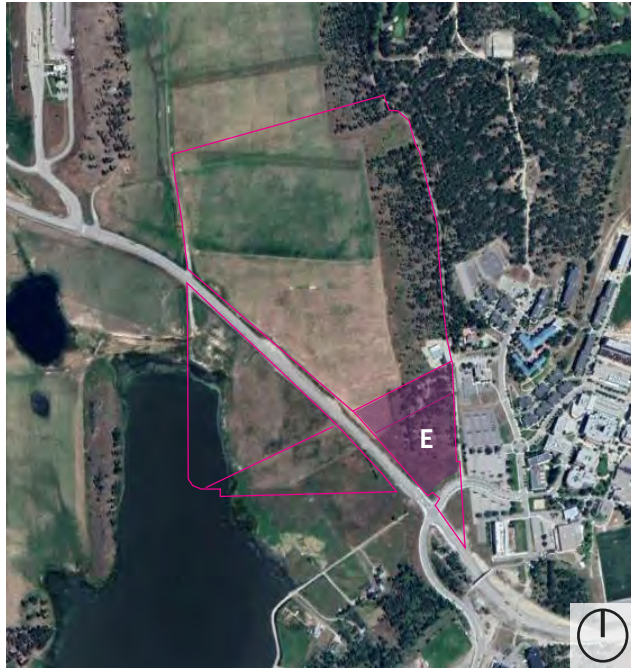
Source: <https://yaleclimateconnections.org/2020/07/planting-trees-could-help-winegrowers-adapt-to-global-warming-french-researchers-say/>

**FIGURE 53 (MIDDLE):** Apple orchard.

Source: Taves Family Farm Facebook

**FIGURE 54 (BOTTOM):** Malcolm Knapp Research Forest.

Source: [www.mkrf.forestry.ubc.ca](http://www.mkrf.forestry.ubc.ca)



## 2.5 AREA E

### Current Conditions

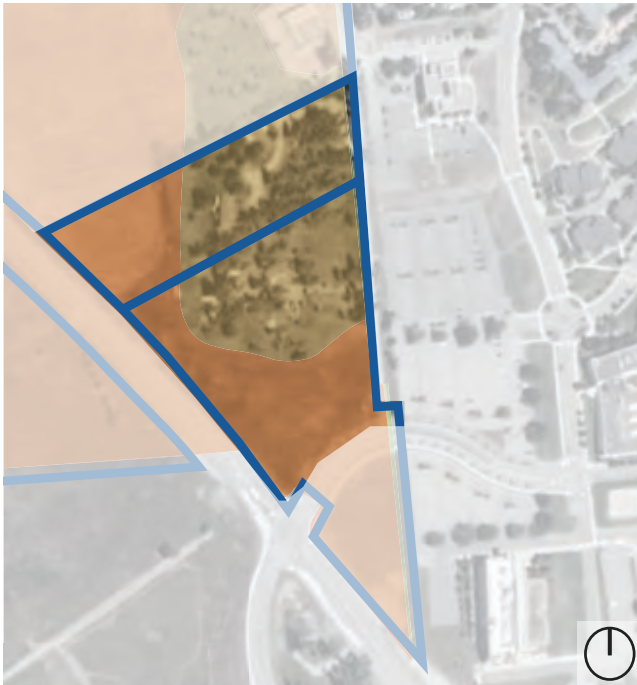
Area E includes all of Lot B and the portion of Lot C that is north of Upper Campus Way. It contains leased residential homes with adjacent farmlands and associated farm structures.

The table below summarizes the current conditions of this area. Figures 56 and 57 on the following page overlays the key conditions graphically on an aerial view of the area.

**FIGURE 55:** Development Area E.  
Background Source: Google Earth, April 2022

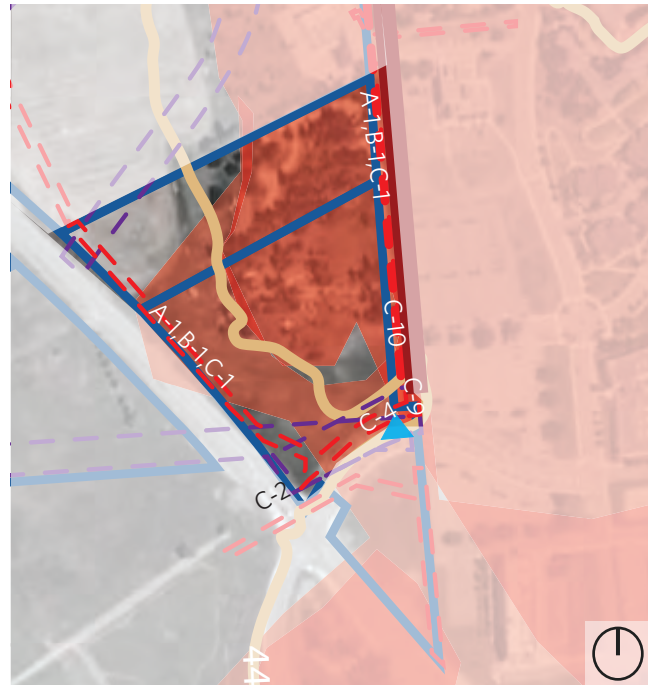
Current Conditions	
Land Use Designations/Zoning:	Whole site: ALR, A1, R-AGR w/ Farm Protection DPA; Partial Site: Natural Environment DPA, Wildfire DPA, Hazardous Conditions DPA
Current Land Use:	Leased Residential Homes; Cultivated fields
Legal Charges:	<p>C-2: Easement: No disturbance or construction within the identified area.</p> <p>C-10: SRW for the operation and maintenance of GEID's water delivery system.</p> <p>A-1,B-1,C-1: Required 10-foot buffer either side of the GEID pipeline for protection and maintenance of infrastructure. No structural development allowed in the identified areas.</p> <p>C-4,C-9: Undersurface rights and notification/registering of road closure of Curtis Road. Rights are retained by UBCO after road closure by the City.</p>
Access:	Access by a private gravel drive running north from Upper Campus Way (on City land)
Topography:	Sloped site, rising west to east from approx. 440m to 459m; Within the airport height restriction zone
Environmental Sensitivity Rating:	ESA 3
Agricultural Capability:	Minor soil limitations at north-east of site; Moderate limitations at south-west of site
Archaeological Potential:	None identified at this time
Services:	Local water service and utility infrastructure serving the residential homes; Access to future services available along John Hindle Drive





**FIGURE 56:** Development Area E Existing Conditions Map - Site Characteristics.  
Background Source: Google Earth, April 2022

- ESA 3 & Mild Soil Limitations
- ESA 3 & Moderate Soil Limitations
- Lot Lines



**FIGURE 57:** Development Area E Existing Conditions Map - Regulations.  
Background Source: Google Earth, April 2022

- DPA: Hazardous Condition & Wildfire
- DPA: Natural Environment & Wildfire
- Narrow Legal Lots
- Airport Height Restriction Designation Line
- Access Point
- Legal Charges
- Lot Lines



**FIGURE 58, 59:** Development Area E.  
Source: Kasian



## Development Potential

As the majority of Area E has been used as farmland, with residential and agricultural structures, and it is classified ESA 3, it presents an opportunity for future development. However, the site has several unique conditions that will shape where that development is focussed.

The entire site falls within the Wildfire DPA and has a slope from a high point of 459m at the north-east corner to a low point of 440m at John Hindle Drive. Portions of the slope are subject to the Hazardous Conditions DPA and the airport height restrictions. While this combination of factors would suggest limiting structures in the area, engineering solutions and a Wildfire Management Plan could mitigate the risks. This approach could be considered given the positive elements of the site including:

- Mild soil limitations on the east side of site, and moderate soil limitations on the west
- Existing structure development on site
- The proximity to the Main Campus

A zone of Saskatoon Berry bushes has been identified in this area, refer to Appendix C, Section 1.5 for further detail.

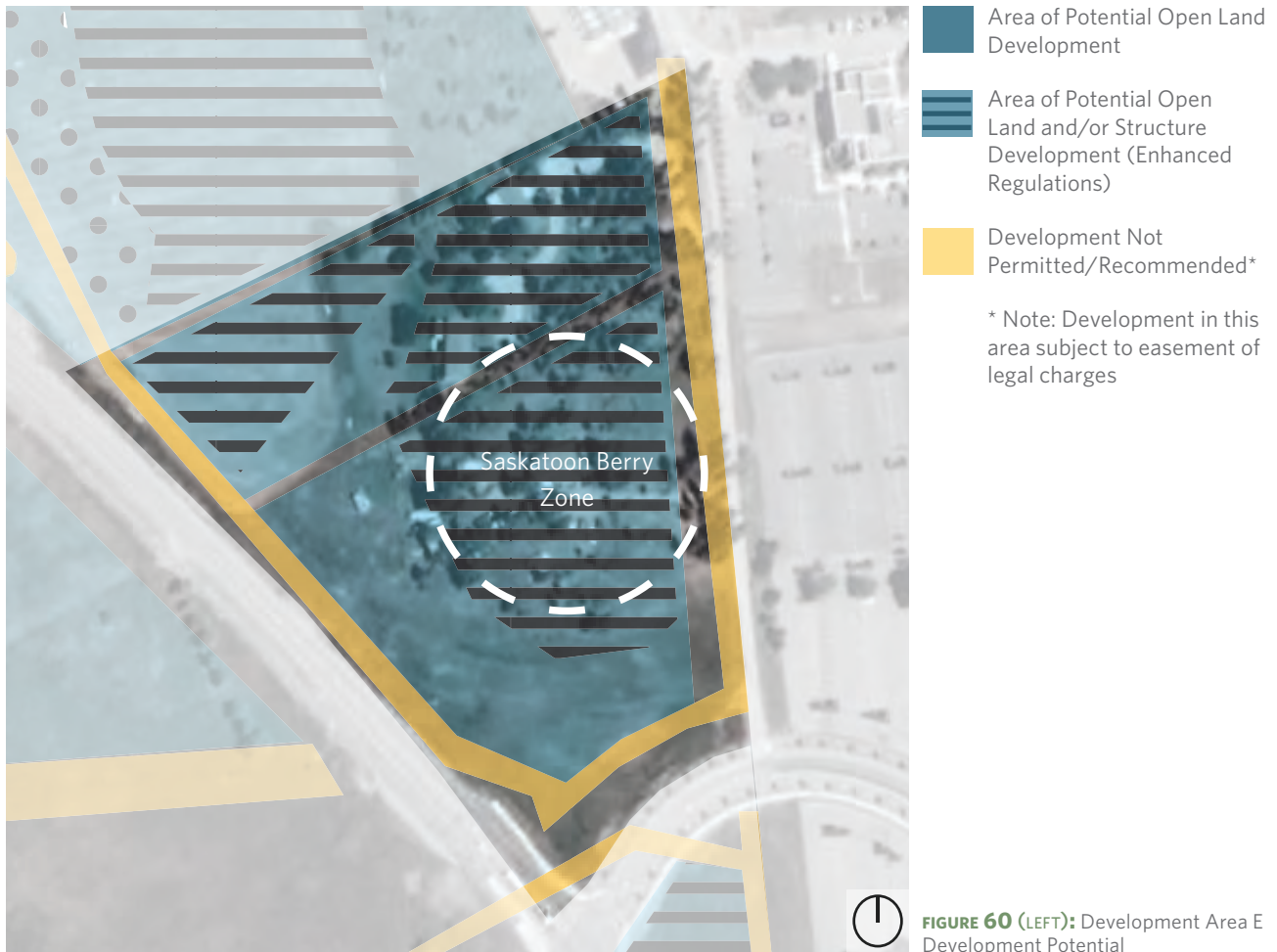
Current access to the site is on City owned land. Any further development of this access would require approval.

There are some local services to the residential homes. Any larger scale development would require additional commercial services which would be subject to City of Kelowna and ALC approvals. Access to services, except sanitary, is available off John Hindle Drive.

A series of legal charges around the south, east, and west perimeters of the area would focus new development in the centre and north of the site without pursuing easements.

The table below summarizes the development potential of this area.

Development Potential, Requirements & Restrictions	
Applicable potential permitted farm-based land uses within current regulations:	Agricultural production (farming/ranching) including greenhouses, with restrictions; Wineries and cideries; Farm retail sales; Storage, packing, and processing of farm products; Temporary or seasonal agri-tourism activities; Timber production, harvesting, and silviculture; Agroforestry; Application of soil amendments
Applicable potential permitted non-farm uses with restrictions	Passive recreation and open land parks; Education and research (not schools)
Special setback requirements:	N/A
Special height restrictions:	Proposed structures in the airport height restriction zone will require review and approval
Site coverage restrictions:	Maximum site coverage for agriculture use is limited to 35% but may be increased to 75% for greenhouses and plant nurseries with closed wastewater and storm water management systems
Structure area restrictions:	Greenhouse/Plant Nurseries/Agricultural Structures: see site coverage restrictions; Accessory Buildings or Structures: 130m <sup>2</sup> ; Education/Research Structures: 100m <sup>2</sup> per parcel; Passive Recreation Structures: 100m <sup>2</sup> per parcel
Potential Connectivity to Main Campus:	Moderate - Access to the south off Upper Campus Way linking to the Main Campus; Eastern connectivity limited by narrow legal lots separating area from Main Campus



**FIGURE 61 (LEFT):** Indigenous Health and Education Garden.  
Source: Olivia Szostek



**FIGURE 62 (RIGHT):** Agriphotovoltaics.  
Source: <https://nsci.ca/tag/solar-photovoltaics/>





## 2.6 AREA F

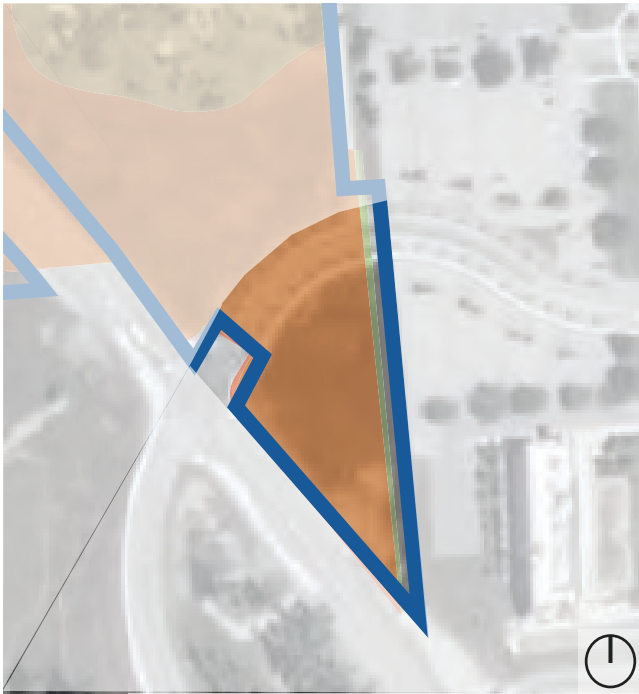
### Current Conditions

Area F is a triangular piece of land at the southern end of Lot C. It is separated from the rest of Lot C by Upper Campus Way. It is currently undeveloped and fill from adjacent road construction has been deposited there.

The table below summarizes the current conditions of this area. Figures 64 and 65 on the following page overlays the key conditions graphically on an aerial view of the area.

**FIGURE 63:** Development Area F.  
Background Source: Google Earth, April 2022

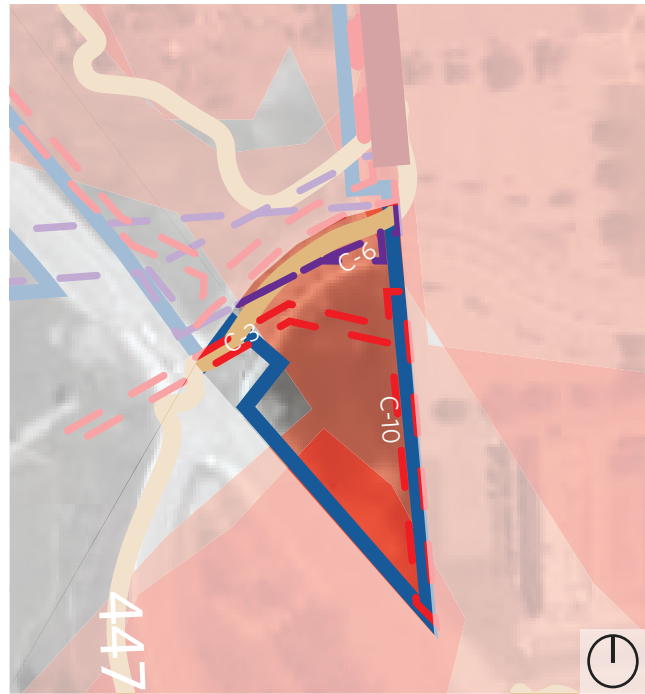
Current Conditions	
Land Use Designations/Zoning:	Whole site: ALR, A1, EDINST w/ Farm Protection DPA and Wildfire DPA (whole site). Partial Site: Natural Environment DPA, Hazardous Conditions DPA
Current Land Use:	Undeveloped
Legal Charges:	C-10: SRW for the operation and maintenance of GEID's water delivery system C-6: Area reserved for bicycle and pedestrian access; No development allowed within identified area C-3: Overhead and underground electrical distribution system. No structural development allowed in the identified area.
Access:	No current vehicle access
Topography:	Sloped site, rising from north to south from approximately 447m to 458m . Within the airport height restriction zone
Environmental Sensitivity Rating:	ESA 3
Agricultural Capability:	Moderate limitations
Archeological Potential:	None identified at this time
Services:	No services currently; Access to services available: John Hindle Drive or Main Campus



**FIGURE 64:** Development Area F Existing Conditions Map - Site Characteristics.

Background Source: Google Earth, April 2022

- ESA 3 & Moderate Soil Limitations
- Lot Lines



**FIGURE 65:** Development Area F Existing Conditions Map - Regulations.

Background Source: Google Earth, April 2022

- DPA: Hazardous Condition (slope)
- DPA: Natural Environment & Hazardous Conditions
- Narrow Legal Lots
- Airport Height Restriction Designation Line
- Access Point
- Legal Charges
- Lot Lines



**FIGURE 66, 67:** Development Area E.  
Source: Kasian

### Development Potential

Area F is unique in the West Campus Lands for its Educational and Institutional (EDINST) designation under the OCP. The EDINST designation allows for such uses as post secondary institutions and cultural and recreation facilities. Its location directly next to the Main Campus creates a strong potential link to adjacent activities and buildings on Campus.

The area has been classified as ESA 3 with moderate soil potential and therefore is ideally considered for development.

Area F shares many characteristics with Area E, including the Wildfire DPA covering the site, an area of slope resulting in the Hazardous Conditions DPA designation and a small area of Natural Environment DPA coverage. However, similar to Area E, the Environmental Existing Conditions Report has identified the area as rural (a disturbed landscape) which suggests development is still feasible.

There is currently no vehicle access to the site. Identifying an appropriate access point will be subject to the type of uses and the volume of traffic expected. Access off John Hindle Drive or Upper Campus Way are complicated by the proximity of the intersection of those two roads. With easement there could potentially be an access on the east of the site from the adjacent UBCO parking area.

A series of legal charges around the north and east perimeters of the area would focus new development in the centre and south of the site.

New development would require services which would be subject to City of Kelowna and ALC approvals. Access to services, except sanitary, is available off John Hindle Drive.

The table below summarizes the development potential of this area. Figure 68 on the opposite page summarizes the areas of potential development for open land based activities and structures.

Development Potential, Requirements & Restrictions	
Applicable potential permitted farm-based land uses within current regulations:	Agricultural production (farming/ranching) including greenhouses, with restrictions; Wineries and Cideries; Farm retail sales; Storage, packing, and processing of farm products; Temporary or seasonal agri-tourism activities; Timber production, harvesting, and silviculture; Agroforestry; Application of soil amendments
Applicable potential permitted non-farm uses with restrictions	Passive recreation and open land parks; Education and research
EDINST Designation Uses:	Schools and post secondary institutions; Government and not-for-profit offices and services; Health services; Cultural and recreation facilities; Places of worship; Shelters and supportive housing
Special setback requirements:	N/A
Special height restrictions:	Proposed structures in the airport height restriction zone will require review and approval
Site coverage restrictions:	Maximum site coverage for agricultural use is limited to 35% but may be increased to 75% for greenhouses and plant nurseries with closed wastewater and storm water management systems
Structure area restrictions:	Greenhouse/Plant Nurseries/Agricultural Structures: see site coverage restrictions; Accessory Buildings or Structures: 130m <sup>2</sup> ; Structures relating to Education/Research: 100m <sup>2</sup> per parcel; Passive Recreation Structures: 100m <sup>2</sup> per parcel
Potential Connectivity to Main Campus:	High (with easements)





**FIGURE 69:** UBCO Health Sciences Building.  
Source: <https://learningspaces.ok.ubc.ca/>



**FIGURE 70:** Community Food Depot.  
Source: <https://cfccanada.ca/>

## 2.7 SUMMARY OF DEVELOPMENT POTENTIAL AND RECOMMENDATIONS

Based on site characteristics and applicable regulations, the following general recommendations are made for the development of the site:

- **Area south of John Hindle Drive (Partial Lot 1, Lot A):** Consideration for conservation, restoration, passive recreation and research activities associated with the natural ecosystem.
- **Lot 1 north of John Hindle:** Consideration for larger scale mixed research activities such as agricultural, agroecology, and sustainability research initiatives.
- **Lot 1 eastern perimeter:** Consideration for conservation and restoration activities for the coniferous woodland, perhaps in association with land-based research that can work in concert with the natural ecosystem.
- **Lots B and C north of Upper Campus Way:** Consideration for community partnership activities and associated structures, given the area has already been developed and there is potential for connection to parking and access from the Main Campus.
- **Lot C south of Upper Campus Way:** Consideration for more typical education or public community-use spaces and buildings given the land use designation of the area as EDINST.

The tables on the following pages summarize the specific uses that are applicable to each Development Area, incorporating the potential future uses identified during the visioning and future use conceptualization process.

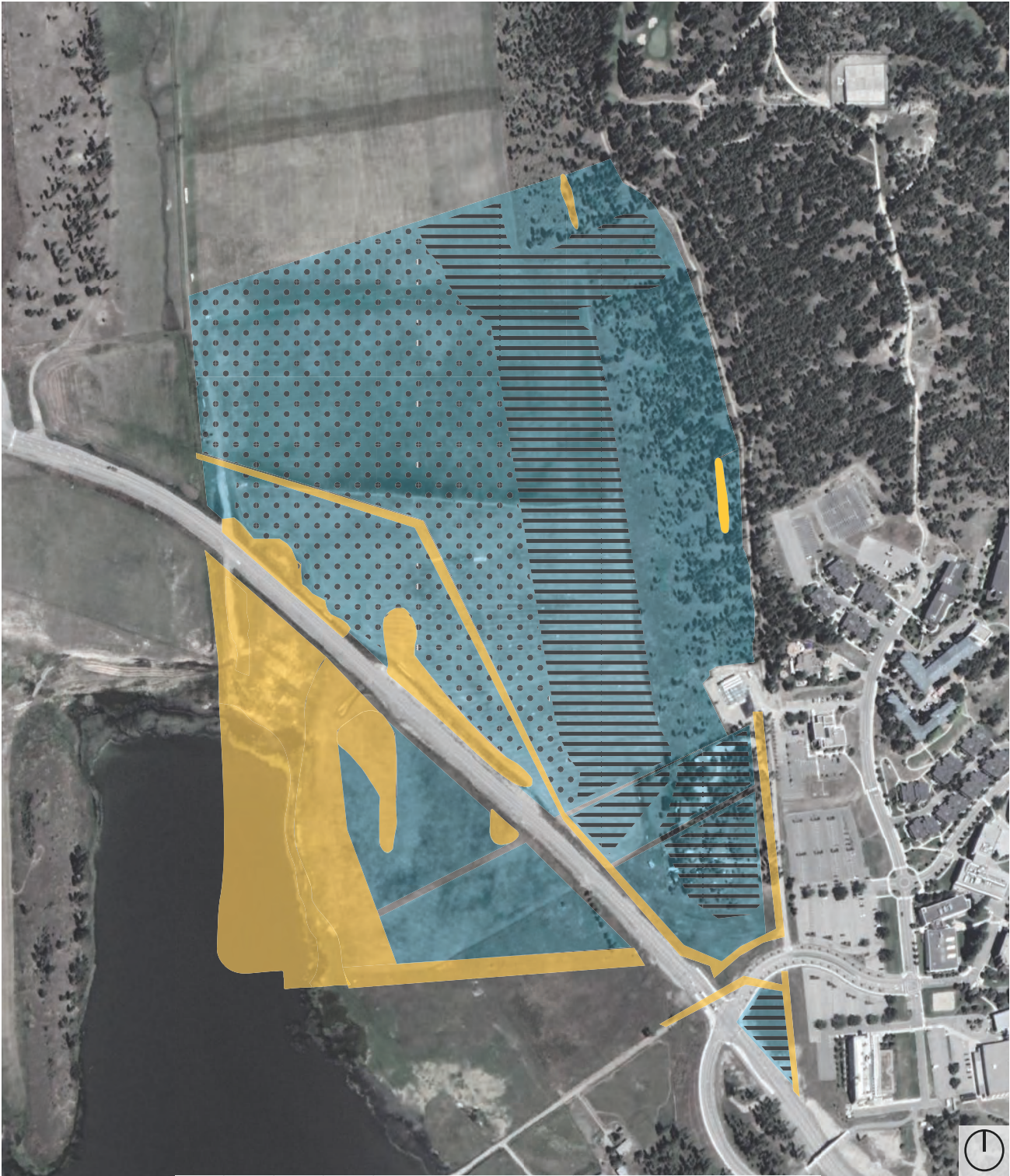


FIGURE 71: West Campus Lands Development Potential Map

- |  |  |
|--|--|
|  Development Not Permitted/<br>Recommended  |  Area of Potential Open Land and/or Structure<br>Development (low regulations)      |
|  Area of Potential Open Land<br>Development |  Area of Potential Open Land and/or Structure<br>Development (enhanced regulations) |



Development Potential			
Area	Recommended Uses based on Land Use Regulations	Applicable uses identified through Engagement	Key Limitations
A	Conservation (Land and AOP), Habitat Restoration, Passive Recreation Education & Research	Conservation and rehabilitation of ecosystem surrounding Robert Lake  Field-based research/observation of unique Robert Lake ecosystem ex: carbon sequestering studies, species at risk studies  Wildlife viewing opportunities/bird watching  Limited accommodation of trails and interpretive learning elements to support wildlife viewing, access and research while protecting sensitive ecosystem	Any structures relating to proposed uses are limited to 100m2 total area per parcel as per the ALC  Access limited to due ES1/ES2 and AOP along John Hindle Drive; No direct connectivity to Main Campus  No current services except water; Stormwater drains from Lot 1 North through culvert/ditch in area
B	Conservation (ES1/ES2 Land and AOP), Habitat Restoration, Passive Recreation  Agricultural/research production and associated land development  Education & Research	Conservation and rehabilitation of ecosystem surrounding Robert Lake  Field-based research/observation of unique Robert Lake ecosystem ex: carbon sequestering studies, species at risk studies  Wildlife viewing opportunities/bird watching  Limited accommodation of trails and interpretive learning elements to support wildlife viewing, access and research while protecting sensitive ecosystem  Open land-based agricultural research development in moderate soil conditions, with minor associated structures	Soils with moderate capability limitations, primarily suited to forage crop production  Any structures relating to non-farm uses are limited to 100m2 total area per parcel based on current ALR regulations  Access limited along John Hindle Drive due to ES1/ES2 and AOP areas, no direct connectivity to Main Campus  No current services except water  Agricultural development must take into consideration protection of Robert Lake (salinity affected by runoff)
C	Agricultural and/or research production, with associated structures (ex: greenhouses) and associated land development (e.g. access, utilities)  Production, storage, and application of Class A compost  Production and development of biological products used in integrated pest management  Farm retail sales  Storage, packing, and processing of farm products  Wineries and cideries  Temporary or seasonal Agri-tourism activities  Conservation (ES2 Land and AOP), Habitat Restoration, Passive Recreation  Education & Research	Agricultural research development, including open land based research and associated structures. Ex: Experimental vineyard, Microforestry, Indigenous agriculture, Agroecology/permaculture studies, irrigation studies (relating to preservation of Robert Lake), crop resiliency studies, smart farm/agricultural technology development  Research partnerships (Syilx, Industry, Government)  Solar energy research/demonstration. Ex: Agri-voltaics  Active transportation network connecting to existing surrounding trail systems  Conservation, restoration, and field-based research of ES2 lands	Any structures for non farm use are limited to 100m2 total area per parcel as per the ALC (includes structures for education and research)  Access limited from John Hindle Drive due to ES2, AOP, and utilities legal charges north of John Hindle  No current services except water  Agricultural development must take into consideration protection of Robert Lake (salinity affected by runoff) and migration pattern of Great Basin Spadefoot toad

Development Potential			
Area	Recommended Uses based on Land Use Regulations	Applicable uses identified through Engagement	Key Limitations
D	Agricultural and/or research production, with associated structures (ex: greenhouses) and associated land development (e.g. access, utilities)	Agricultural research development, including open land based research and associated minor structures. (e.g. Experimental vineyard, Orchard, General crop studies on mild/moderate soil conditions)  Conservation, restoration and field-based research of ES2 Coniferous Woodland  Active transportation network connecting to existing surrounding trail systems	Access limited from east due to sloped topography and presence of narrow legal lots requiring easements
	Farm retail sales		Sloped topography limits structure placement
	Storage, packing, and processing of farm products		Airport height restrictions on structures
	Wineries and cideries		No current services except water; Lands are distant from potential sources for utilities along John Hindle Drive
	Temporary or seasonal Agri-tourism activities		Invasive species present due to previous development of site
E	Conservation (ES2 Land and AOP), Habitat Restoration, Passive Recreation	Native Botanical Plant Garden  Education/Learning Garden  Community Garden/Community Food Hub  Agricultural research development, including open land based research and associated minor structures. (e.g. General crop studies on moderate soil conditions)	Existing residential homes on lot
	Education and Research		Access currently limited to gravel road on City owned property feeding off Upper Campus Way
	Agricultural and/or research production, with associated structures (ex: greenhouses) and associated land development (e.g. access, utilities)		Potential limitations on structure height due to airport height restrictions
	Production & development of biological products used in integrated pest management		Local water and utility services to existing residential structures
	Farm retail sales		Invasive species present due to previous development of site
F	Storage, packing & processing of farm products,	Community Food Hub/Depot  Building(s) with research supportive space (e.g. Labs)	Existing residential homes on lot
	Wineries and Cideries		Access will be affected by intersection of John Hindle and Upper Campus Way; Potential connection to adjacent UBCO parking lot with easements, provides potential parking access.
	Temporary or seasonal Agri-tourism activities		Potential limitations on structure height due to airport height restrictions
	Education & Research		No current services
	With approval of ALC and City of Kelowna:		
	Educational, cultural, government and religious activities (e.g. Schools, Hospitals, Places of worship, Recreation Centres, and Other facilities that provide public services delivered by governments or not-for-profit institutions)		