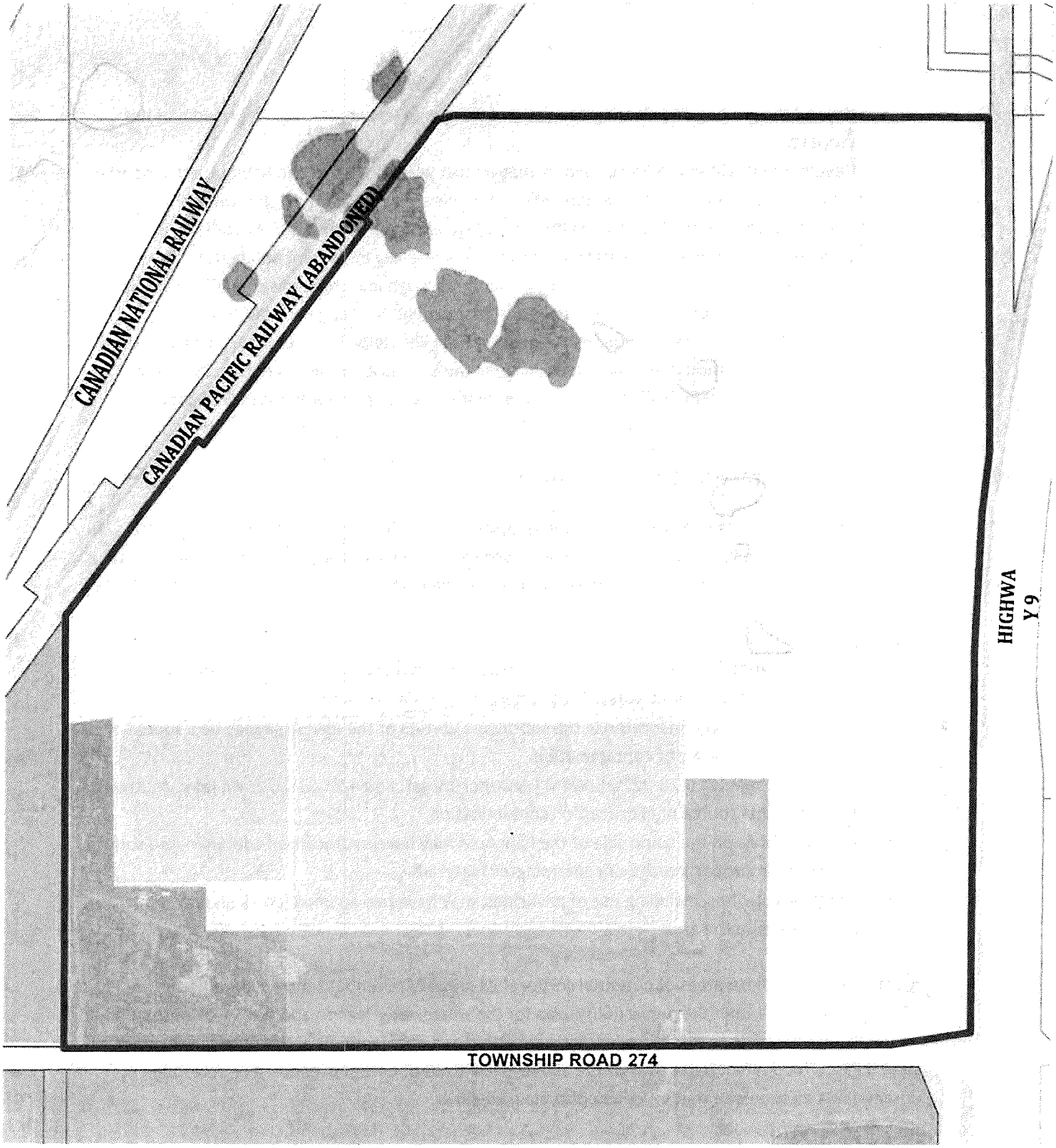

TOWN OF IRRICANA

NE INDUSTRIAL ASP

BIOPHYSICAL ASSESSMENT

PLAN AREA BOUNDARY
LEGAL LINEWORK
WETLAND
LAGOONS
EXISTING DISTURBANCE
TREES
CULTIVATED
PASTURE
HAY

DILLON CONSULTING

DATA PROVIDED BY THE TOWN OF IRRICANA, DILLON CONSULTING LIMITED, ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEX, GETMAPPING, AEROGRID, IGN, IGP, SWISSTOPO, AND THE GIS USER COMMUNITY

MAP CREATED BY: BQS
MAP CHECKED BY: DGG
MAP PROJECTION: NAD 1983 3TM 114

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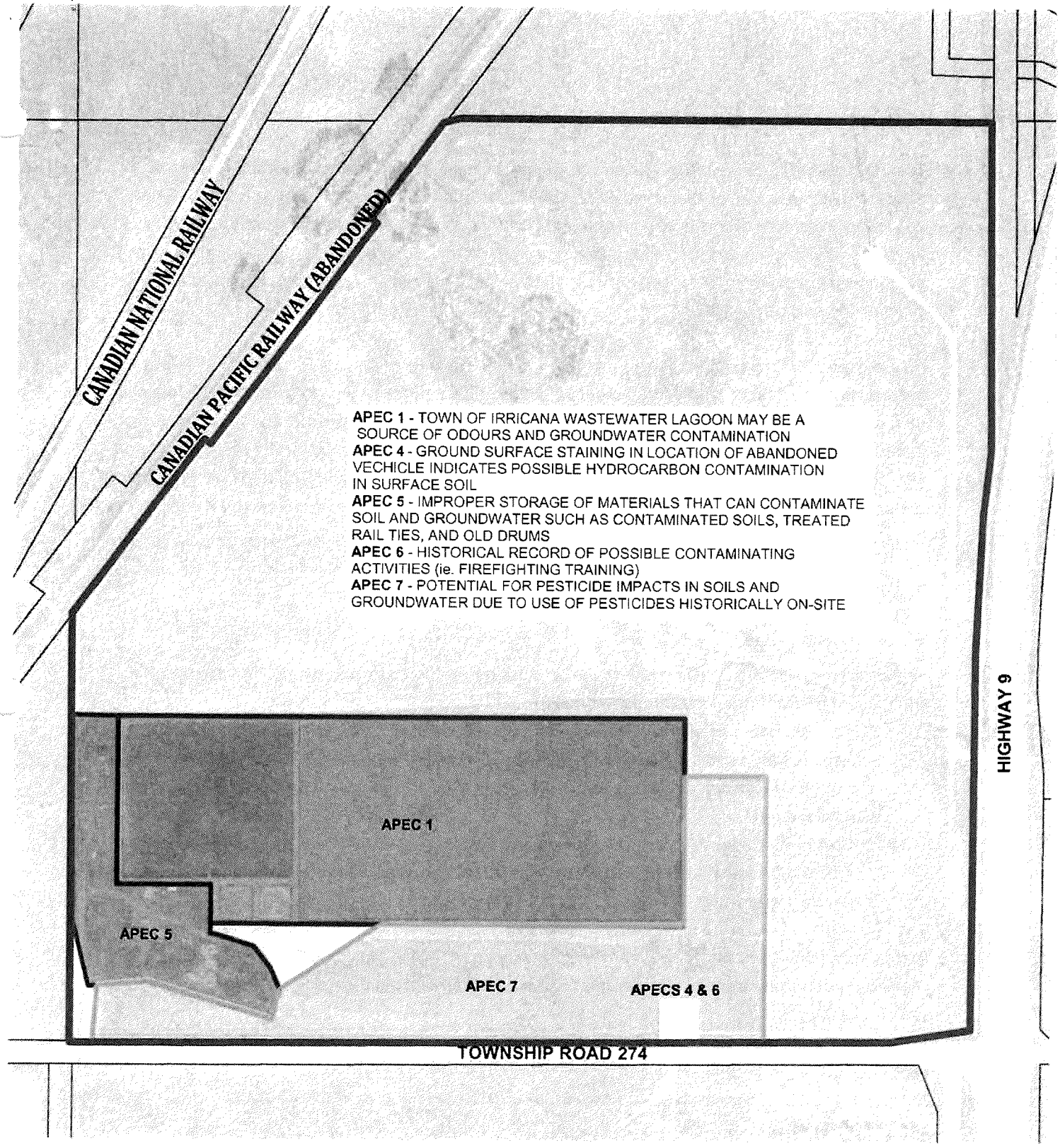
SCALE 1:4,500

2

PROJECT: 17-5893 STATUS: DRAFT DATE: OCT 2017



TOWN OF IRRICANA

NE INDUSTRIAL ASP

AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

PLAN AREA BOUNDARY
APEC 1
APECS 4 & 6
APEC 5
APEC 7
LEGAL LINEWORK

DILLON CONSULTING

DATA PROVIDED BY THE TOWN OF IRRICANA, DILLON CONSULTING LIMITED, ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA USGS, AEX, GETMAPPING, AEROGRID, IGN, IGP, SWISSTOPO, AND THE GIS USER COMMUNITY

MAP CREATED BY: BQS
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PROJECT 17-5893 STATUS: DRAFT DATE: OCT 2017

2.4 Historical Resources

The Alberta Culture and Tourism Historic Resources Management Branch has granted Historical Resources Act approval for the activities described in a Statement of Justification submitted on July 28, 2017. The Statement of Justification described a light industrial development consisting of large lot industrial parcels, including the existing lagoon within the development. According to the approval, "a person who discovers an historic resource in the course of making an excavation for a purpose other than for the purpose of seeking historic resources shall forthwith notify the Minister of the discovery."

An assessment of archaeological resources prepared by Lifeways of Canada found that "The proposed Project will impact lands with limited potential for significant historic resources. As such, Historical Resources Act Approval is recommended for the Irricana NE ASP Development" and that "The Project lands have no Historic Resource Values listings in the most recent Listing of Historic Resources (April 2017) maintained by Alberta Culture and Tourism (ACT). No known Historic structures are listed within the proposed Project lands. The two known sites, EhPj – 7 and EiPj – 2 are listed as HRV [Historic Resource Value] 0 sites with no further concerns."

2.5 Existing Development

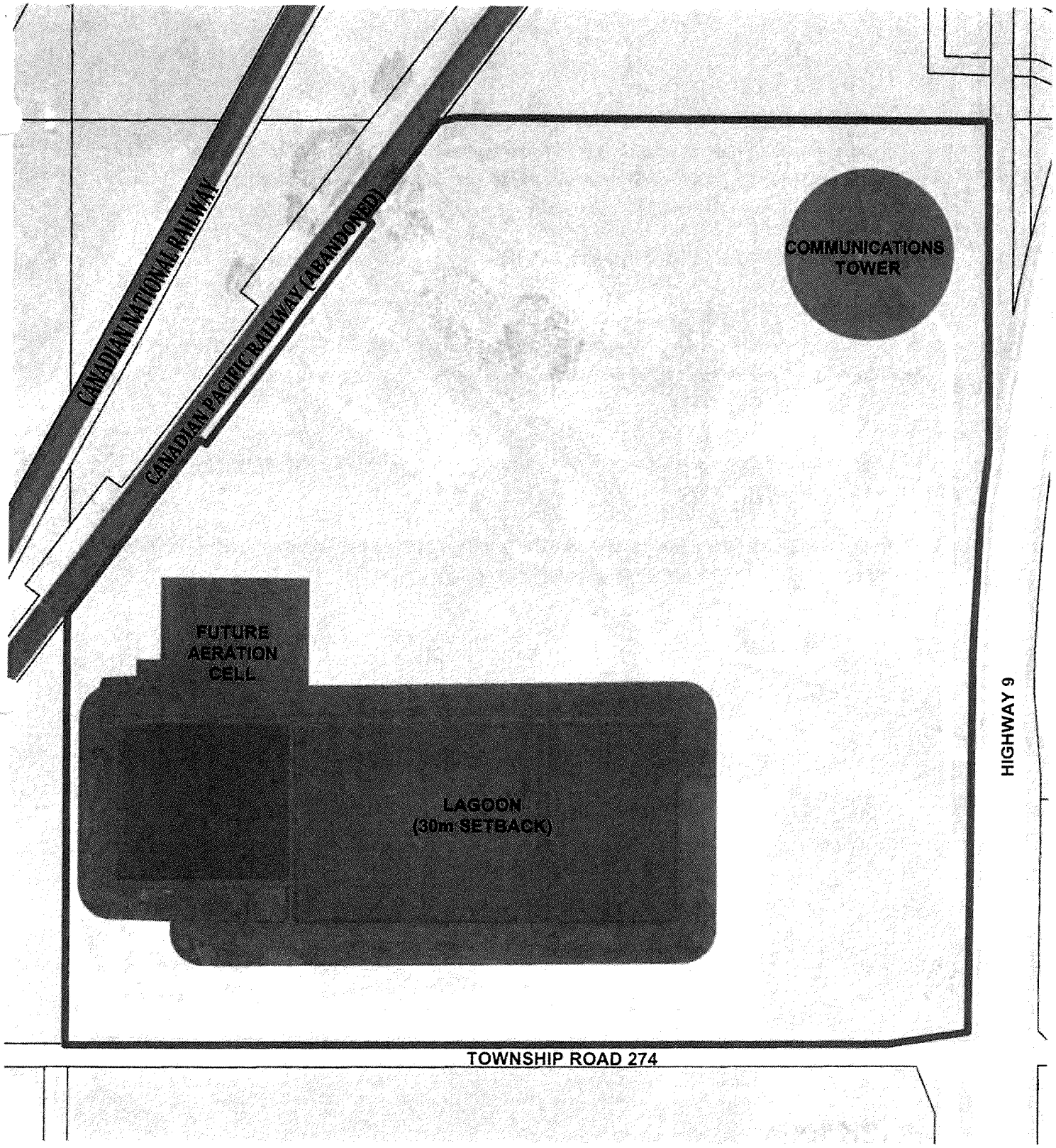
2.5.1 Wastewater Lagoon

The wastewater lagoon in the south of the Plan Area serves the Town of Irricana. The following is a summary of relevant provincial requirements:

- The Alberta Subdivision and Development Regulation subsection 12(3) requires that no school, hospital, food establishment, or residential use be located within 300 m of a wastewater lagoon without written consent of the Deputy Minister of Environment and Sustainable Resource Development.
- The Alberta Code of Practice for Wastewater Systems Using a Wastewater Lagoon requires a setback distance of at least 30 m between the lagoon and all watercourses, public roads, railway lines, or water wells.

In the case of any discrepancy between the summary provided here and any Provincial or Federal regulations and standards for the operation of a wastewater lagoon, Provincial or Federal regulations shall prevail.

Figure 4 illustrates the required lagoon setback for these uses.



TOWN OF IRRICANA

NE INDUSTRIAL ASP

PLAN AREA BOUNDARY

SITE DEVELOPMENT CONSTRAINTS

DEVELOPMENT CONSTRAINTS

FIGURE 4

IRRICANA

DILLON

MAP DRAWING INFORMATION:
DATA PROVIDED BY THE TOWN OF IRRICANA, DILLON CONSULTING LIMITED, ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA USGS, AEX, GEOMAPPING, AEROGRID, IGN, IGP, SWISSTOPO, AND THE GIS USER COMMUNITY

MAP CREATED BY: BQS
MAP CHECKED BY: DGG
MAP PROJECTION: NAD 1983 3TM 114

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SCALE 1:4,500

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PROJECT: 17-3893 STATUS: DRAFT DATE: OCT 2017

2.5.2 Communications Tower

A communications company currently leases land from the Town for a communications tower in the northeast corner of the Plan Area. This company was consulted in the development of this ASP. Suitable access to the communications tower site shall be maintained through the development of the Plan Area.

2.6 Surrounding Land Use and Infrastructure

2.6.1 Regional Water Services

There is a water pipeline along the west boundary of the site, outside of the Plan Area, operated by the Aqua 7 Regional Water Commission, which provides water to the Town.

2.6.2 Rail Infrastructure

The site is bounded immediately to the west by an abandoned rail right-of-way, owned by Alberta Trail Net, a non-profit organization.

An active CN Rail Line (Three Hills Subdivision) exists further to the west, approximately 100 m from the Plan Area boundary. The Three Hills Subdivision is a secondary main line.

3.0 Land Use Concept and Policies

3.1 Plan Objectives

The NE ASP will provide opportunities for locally based employment and business development for the Town. This plan supports the goals and objectives of other Town planning documents, including the Town's MDP. The plan provides a framework for the development and provision of serviced and unserviced light industrial lots that will respond to market demand. Objectives of this ASP are as follows:

1) Protect land for the continued operation of the wastewater lagoon.
2) Develop an industrial park that will provide local employment and support a non-residential tax base.
3) Minimize negative impacts of industrial development on the Town and adjacent land uses.

Development in the Plan Area should be complementary to surrounding land uses and will mitigate potential negative impacts where possible. Industrial uses will be buffered from surrounding areas utilizing green space and screening.

The plan will also protect existing land uses in the Plan Area, including the existing wastewater lagoon in the south portion of the Plan Area, and a telecommunications tower in the northeast of the Plan Area.

3.2 Proposed Land Use and Layout

Land use in the NE ASP area will consist primarily of light industrial uses. Development in the Plan Area is constrained by a required setback from a wastewater lagoon located in the south portion of the Plan Area. Alberta Subdivision Regulation setback requirements from wastewater treatment facilities do not include industrial uses. Therefore, the site provides a suitable location for industrial uses. The site's proximity to Highway 9, to the east of the site, also contributes to its suitability for light industrial land use. The Plan Area is located within the "Business Industrial" area identified by the Town's MDP.

The southwest portion of the Plan Area includes a 21.20 ha public utility area, which accommodates the Town's wastewater lagoon. Land adjacent to the lagoon is also currently used by the Town for municipal materials storage and community uses.

The Plan Area proposes 10.1 ha of park, pathway and green space area which will provide buffering between area industrial uses and the surrounding area, while providing additional green spaces for the Town.

3.3 Public Utility Area

3.3.1 Intent

To ensure that the public utility area surrounding the Town's wastewater lagoon, in the southwest portion of the Plan Area, continues to serve the Town, while ensuring compliance with the Alberta Subdivision and Development Regulation and minimizing potential impacts on surrounding uses.

3.3.2 Policies

a) Surrounding development shall not impede or negatively impact the operations of the Town of Irricana wastewater lagoon located in the public utility area.
b) In compliance with Alberta's Subdivision and Development Regulation, no school, hospital, food establishment, or residence shall be developed within 300 m of the wastewater lagoon.
c) The public utility land surrounding the lagoon area may be used by the Town for storage and municipal operations at the Town's discretion.
d) When the Town approaches a population of 1,500 the Town will install the aeration system to expand the capacity and extend the life of the lagoon system.
e) At such time as the lagoon is not sufficient to accommodate the needs of the Town of Irricana, either through capacity or technology, the Town will seek another sanitary sewer system solution and reclaim the site of the existing lagoon for additional industrial development.

3.4 Industrial Area

3.4.1 Intent

To create a functional and flexible light industrial area that is sensitive to surrounding land uses and supports the Town's economic development objectives. Increased availability of light industrial land will create employment opportunities and encourage residents to both live and work in Irricana.

3.4.2 Policies

a) Prior to any development occurring, the lands identified as light industrial on the land use concept shall be redesignated to the appropriate land use district (Light Industrial I-L District contained in the Town of Irricana's Land Use Bylaw) and all development shall comply with the rules of that district.
b) Parcel size will be determined at the subdivision phase, to accommodate a variety of industry market requirements.
c) Any activities with the potential to adversely impact neighbouring areas by way of noise, odours, dust, outdoor lighting, or other emissions should be located in the interior of the Plan Area where feasible.
d) Outdoor storage areas shall be screened with vegetation or fencing.

e) The first phase of the park may be developed as an un-serviced light industrial park. Potable water will be trucked in and stored on-site, and sanitary services shall be provided by either pump out tank or septic field.
f) If the industrial sites are to be serviced by septic fields, they must have the appropriate engineering studies completed to comply with the Province of Alberta Private Sewage Systems Standard of Practice 2015.
g) All uses shall be low water users until water servicing is available to the Plan Area.
h) Off-site levies may apply to all development within this area.

3.5 Municipal Reserve Area

3.5.1 Intent

To provide a transition area between industrial development and surrounding properties, to provide outdoor amenity space for residents, and to protect environmental features.

3.5.2 Policies

a) Municipal Reserve land shall be dedicated at the time of subdivision.
b) Municipal Reserve shall be dedicated in accordance with the Land Use Concept.
c) Municipal Reserve land will provide buffers between industrial uses and surrounding properties or roadways.
d) Industrial development may be required to contribute to the development of the Municipal Reserve, pathways and landscaping.
e) The Municipal Reserve area shall be designated as PSR (Public Park, School and Recreation District) in accordance with the Town of Irricana Land Use Bylaw. Development in this area shall be consistent with the guidelines of the Public Park, School, and Recreation District.

3.6 Environmental Protection

3.6.1 Intent

As described in the biophysical assessment summary (Section 2.2), the area contains small ephemeral or temporary potential wetlands, as well as two treed areas that could provide potential species habitat. The policies below are intended to ensure the retention and protection of key environmental features, such as wetlands or treed areas in the Plan Area, if identified.

3.6.2 Policies

a) A detailed biophysical assessment involving verification of the environmental features identified in this assessment should be completed by the land owner prior to development of the key areas identified in **Figure 3** to determine if any regulatory approvals are required. Costs of such investigations may be transferred to future tenants or land owners.

b) If the method of managing the wetlands is to protect them in situ, the province will determine a setback area and the wetland and setback may be dedicated as Environmental Reserve land.

4.0 Transportation Network and Policies

The proposed road network has been developed to allow for safe and efficient traffic circulation through the Plan Area and appropriate connectivity to the Town and Highway 9. Access to the Plan Area will be provided from the south off Township Road 274. Direct access from Highway 9, which borders the Plan Area to the east, is not permitted by Alberta Transportation. The primary road system has been identified in this ASP.

Public access (the east site access) to the Plan Area will be via Township Road 274, approximately 200 m west of Highway 9. A Transportation Impact Assessment was completed in the preparation of this ASP. No intersection improvements are required for the east site access.

An additional access point will be included to the west of the wastewater lagoon, along the Plan Area's western boundary. This road will provide a secondary point of access for emergency services, as well as the Town's access to the wastewater lagoon. This access point will not be a public roadway.

4.1.1 Intent

To provide the direction for the development of a safe and efficient internal road system with connectivity to the Town and the major Provincial transportation network.

4.1.2 Policies

a) For all lots that are adjacent to Highway 9, all buildings shall be constructed a minimum of 70 m from the centre of Highway 9.
b) The primary access road for the industrial park will access off Township Road 274 and shall be a minimum of 200 m from the intersection of Township Road 274 and Highway 9 to provide appropriate spacing and stacking distance for traffic.
c) All internal roads shall be built to the Industrial Roadway Standards outlined in the City of Calgary Roads Construction Standard Specifications and the Design Guidelines for Subdivision Servicing.

4.2 Pathway Network

A portion of Municipal Reserve lands in the Plan Area will be used to provide opportunities to extend the Town's pathway network, promote recreational uses, and improve access for pedestrians and cyclists. The Municipal Reserve area in the northwest of the Plan Area is a potentially suitable location for local pathway connections.

4.2.1 Intent

To integrate the Plan Area with the Town's existing pathway network and enhance opportunities for local recreation.

4.2.2 Policies

a) Municipal Reserve parcels within the Plan Area should connect to local and regional pedestrian pathways, and cycling pathway systems, where feasible.

5.0 Infrastructure and Servicing Policies

There is currently no water servicing in the Plan Area, although there is wastewater servicing access. Phase I of the NE ASP will be unserviced, with water and wastewater services to be introduced in subsequent phases of development.

5.1 General Policies

5.1.1 Intent

To ensure full piped water, wastewater, and stormwater management services to the Plan Area in an efficient manner, while allowing for unserviced development in initial development phases.

5.1.2 Policies

a) The costs of servicing new developments with utilities (including water, power and wastewater), roadways and other infrastructure shall be borne by the developer. These charges and levies will be in accordance with servicing agreements associated with each development as a condition of subdivision approval in accordance with Section 655 of the *Municipal Government Act*.
b) The Town will prepare an Off-Site Levy Bylaw to collect monies to be used to install piped water and sanitary services and the access road to the area.
c) If the first developer in the area determines that they require water and sanitary services, they may pay for the installation of the deep services, and the Town will create an Endeavour to Recover Agreement for all future developers to enter into, which will require late comer developers to pay the first developer a proportion of the cost of the infrastructure installation.
d) Late comer payments will be paid as a condition of the development permit approval.
e) All developers shall sign a Deferred Servicing Agreement with the Town to ensure that at the time the park is fully serviced with water and sanitary sewer, all developments will tie into the piped system.

5.2 Stormwater Management

The Plan Area is located in the Rosebud sub-watershed basin within the Red Deer River Basin. Crossfield Creek, a tributary to the Rosebud River, flows adjacent to the Plan Area. Drainage from the Plan Area will flow to the north of the site to a 1.3 ha stormwater retention pond located in the north of the Plan Area. Ultimately, drainage from the Plan Area will flow into Crossfield Creek.

5.2.1 Policies

a) The Town will provide the land for the storm pond and require contributions from each developer for the construction of the storm pond.

b) For Phase 1 of development, stormwater may flow overland or through open ditches. Future phases of the development will require drainage to be collected and transferred by conventional pipe and overland drainage routes towards a stormwater management pond located in the northwest portion of the Plan Area.

5.3 Sanitary Servicing

The NE ASP is proposed initially as an unserviced industrial park – no piped sewer system will be available. In future development phases, wastewater generated in the Plan Area will be conveyed to the Town's wastewater lagoon located within the Plan Area. The NE ASP servicing concept is illustrated in **Figure 7**.

5.3.1 Policies

a) The first phase of development will not be required to tie into the piped treated sanitary sewage collection system. Low water users will be required to install their own pump out tanks or septic fields.
b) At the time a piped sanitary sewage treatment system is required, the Town will construct the deep services using funds collected from the Off-Site Levy Bylaw and development will be required to tie in based on the Deferred Servicing Agreement.
c) Notwithstanding clause a) above, should the developer determine that piped servicing is required, and should the developer engineer, design and pay for the installation of the deep services, the Town will develop an Endeavour to Recover Agreement to allow the developer to recoup some of the financial expenditure from future development that ties into the infrastructure.
d) In future, treated effluent or grey water from the Town's wastewater lagoon may be used for irrigation of public green spaces, provided the water quality meets Provincialguidelines.
e) Stormwater may be used for irrigation of public green spaces, provided the water quality meets Provincial guidelines.