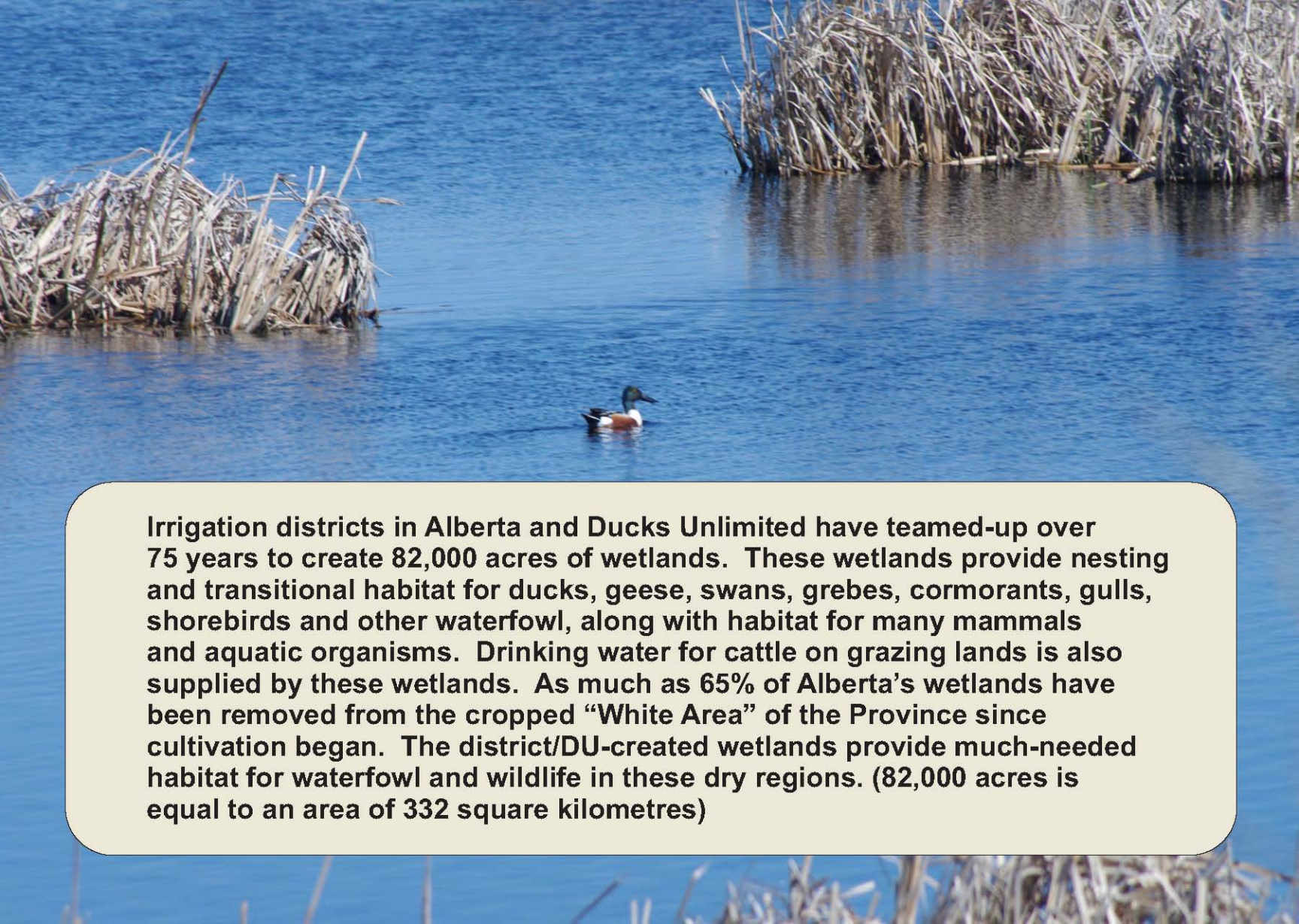


A photograph of a wetland environment. In the foreground, a male mallard duck with a black head, yellow eye, and brown and white body is standing on a muddy bank. In the background, a female mallard duck with mottled brown and grey feathers is standing among tall, dry reeds. The water is visible on the left side of the frame.

WETLANDS

IN ALBERTA'S IRRIGATION DISTRICTS



Irrigation districts in Alberta and Ducks Unlimited have teamed-up over 75 years to create 82,000 acres of wetlands. These wetlands provide nesting and transitional habitat for ducks, geese, swans, grebes, cormorants, gulls, shorebirds and other waterfowl, along with habitat for many mammals and aquatic organisms. Drinking water for cattle on grazing lands is also supplied by these wetlands. As much as 65% of Alberta's wetlands have been removed from the cropped "White Area" of the Province since cultivation began. The district/DU-created wetlands provide much-needed habitat for waterfowl and wildlife in these dry regions. (82,000 acres is equal to an area of 332 square kilometres)



In the Stewart and Kantrud wetland classification system, seven types of wetlands are described:

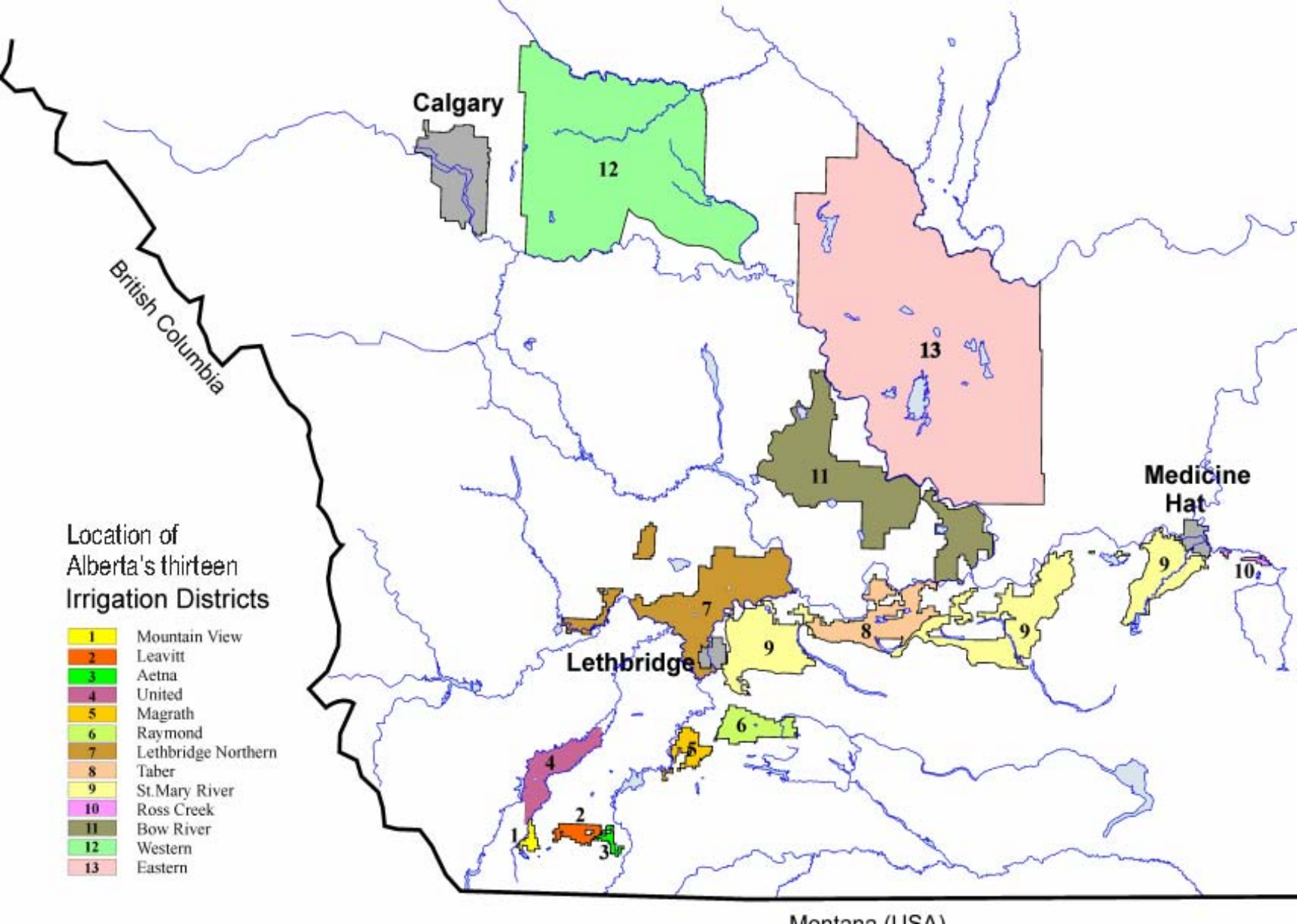
- 1) Ephemeral ponds, which occur after snowmelt but disappear from fields soon after the frost comes out of the ground.
- 2) Temporary ponds, which have open water showing for several weeks after snowmelt and which may reappear for a short time after heavy rainfall.
- 3) Seasonal ponds and lakes, which are visible throughout much of the growing season but can disappear in summer when weather is hot and/or dry.
- 4) Semi-permanent ponds and lakes, which have standing water throughout the growing season.

5) Permanent ponds and lakes, which exist year-round. Vegetation above and below water level will be evident along the shore and submerged vegetation may be present in deeper water.

6) Alkali Ponds and Lakes, which will often be noticeable because of a white ring of salt that frequently surrounds such waterbodies.

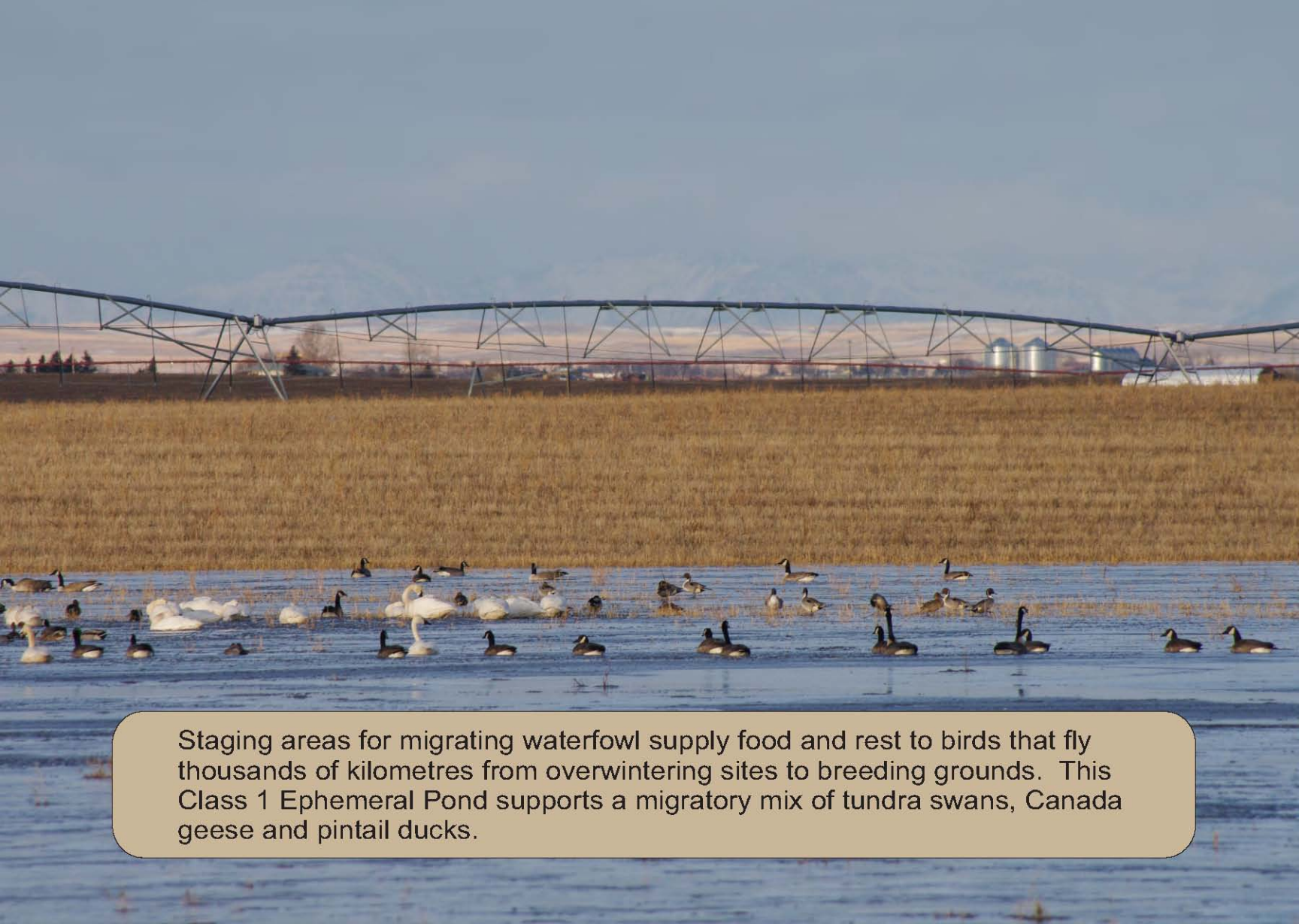
7) Fenn Ponds, which look more like a wet meadow with little to no visible water and have a gradient of plants becoming more able to live in saturated conditions towards the middle of the pond.





Irrigation districts deliver water to 1.4 million acres of land, and manage more than 50 reservoirs. Their 7,600 km of delivery canals and pipelines carry water to wetlands as well as to croplands, livestock operations, towns, villages, farm homes and businesses. In the dry Canadian prairies, this water gives life and provides livelihoods.





Staging areas for migrating waterfowl supply food and rest to birds that fly thousands of kilometres from overwintering sites to breeding grounds. This Class 1 Ephemeral Pond supports a migratory mix of tundra swans, Canada geese and pintail ducks.



In the spring, you can see such sights as this all along Highway 1 in the Brooks area, where waterfowl are resting up for the next leg of their migration. Class 2 Temporary Ponds abound providing springtime oases for weary avian travellers.



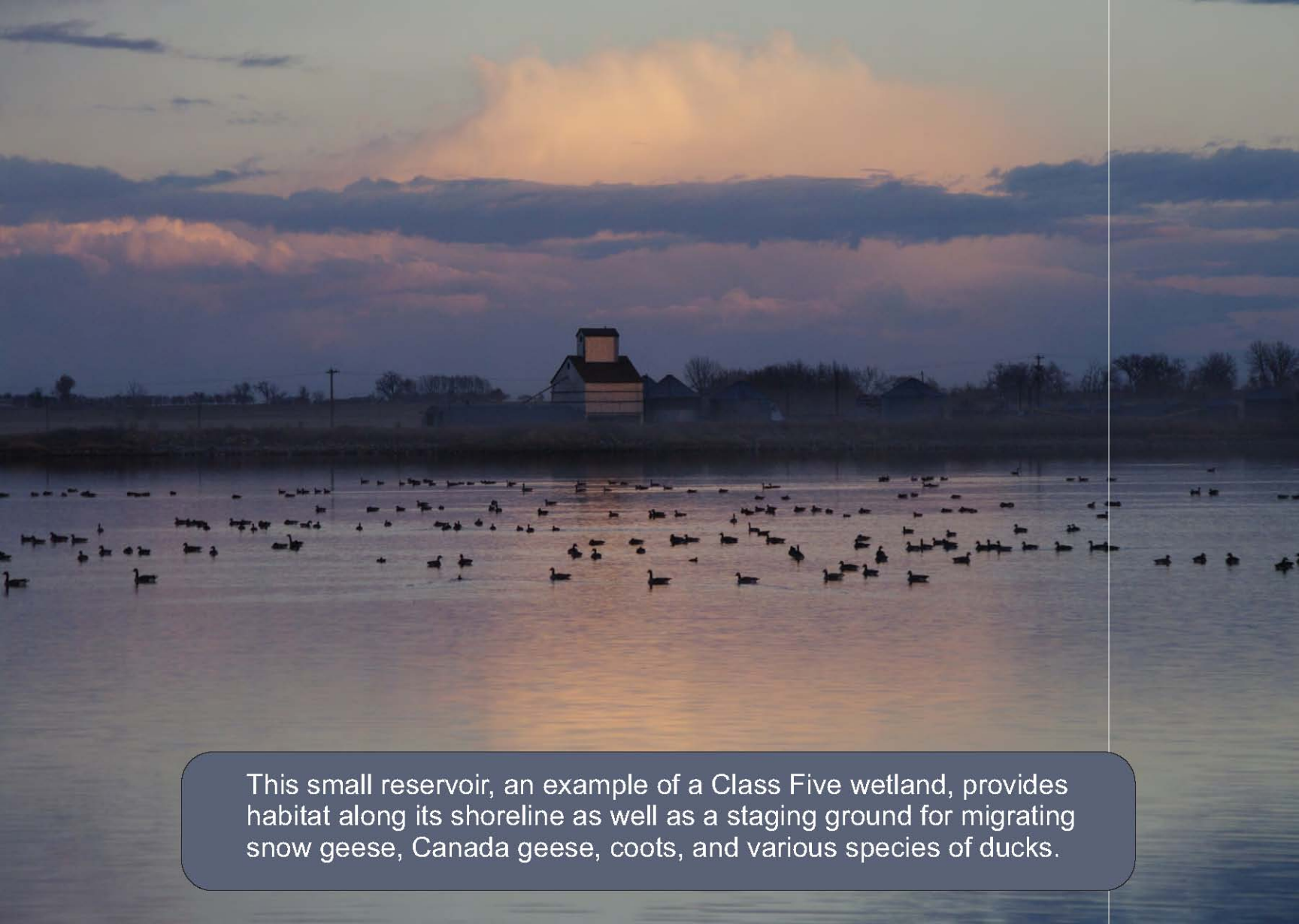
Wetlands, such as this Class 3 Seasonal Pond, can provide water for cattle as well as for waterfowl. Agriculture and wildlife are peacefully coexisting as shown in this scene of tranquility.



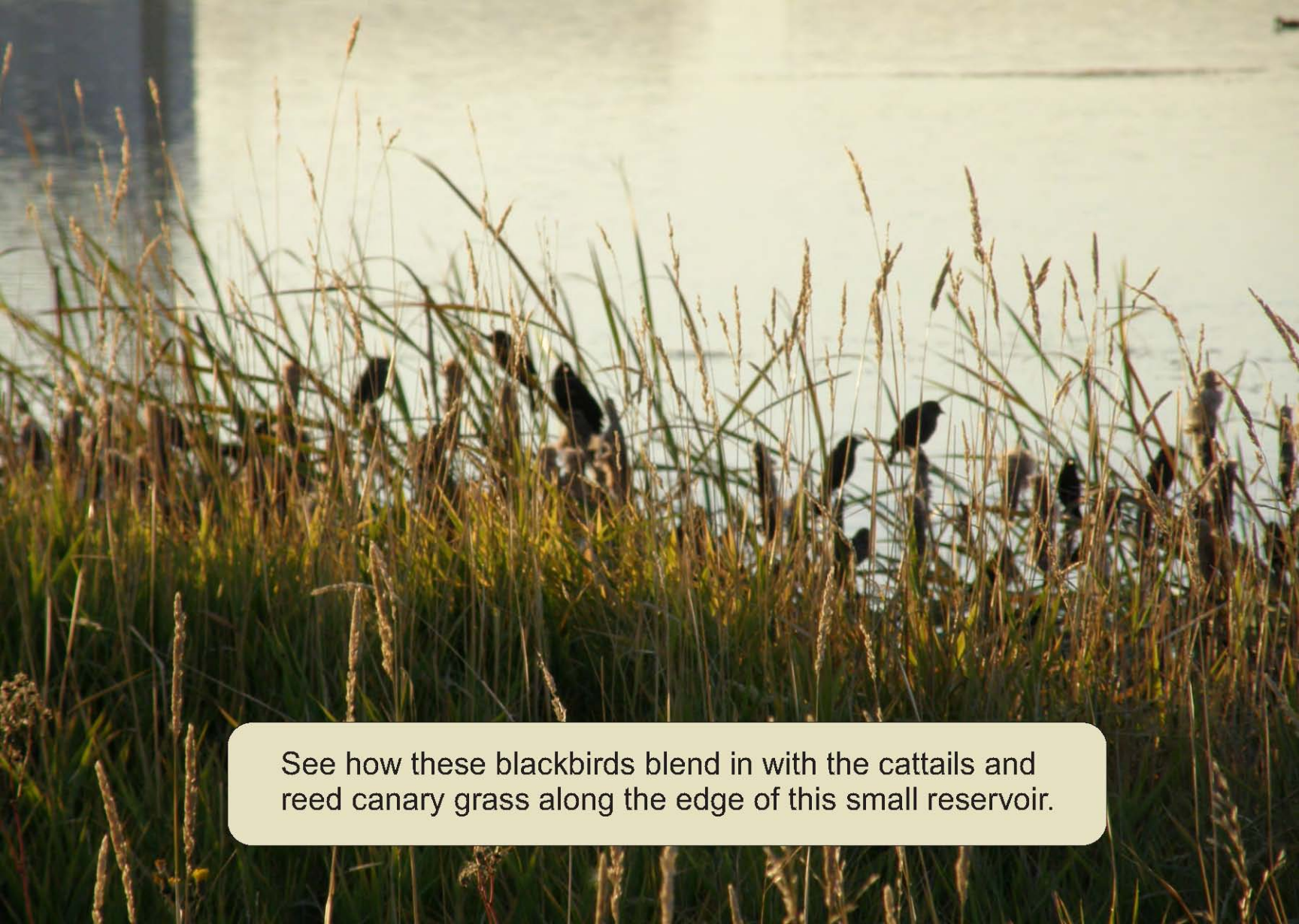
Class Four wetlands, semi permanent ponds and lakes, provide breeding habitat, shelter and safety from predators for a diversity of wildlife and waterfowl.



Muskrats, ducks and deer
make this constructed wetland
their home.



This small reservoir, an example of a Class Five wetland, provides habitat along its shoreline as well as a staging ground for migrating snow geese, Canada geese, coots, and various species of ducks.



See how these blackbirds blend in with the cattails and reed canary grass along the edge of this small reservoir.






Cinnamon-coloured avocets gather in this alkali pond, typical of Class 6 wetlands found throughout southern Alberta, one of their major breeding grounds. Here avocets feed on an abundance of aquatic insects. Notice how well this bird is camouflaged matching many of the surrounding colours.



Here we see a collection of Alkali Pond wetlands in the Eastern Irrigation District. The “bathtub” ring of salts around the perimeter of each is typical. Adjacent plant diversity created in the wetland project provides cover and shelter for wildlife.



Cattails and bulrushes form a dense perimeter of this wetland around the sedges and grasses in the centre. Found in the corner of an irrigated field, this wetland is probably fed by discharging groundwater as well as collecting some runoff.



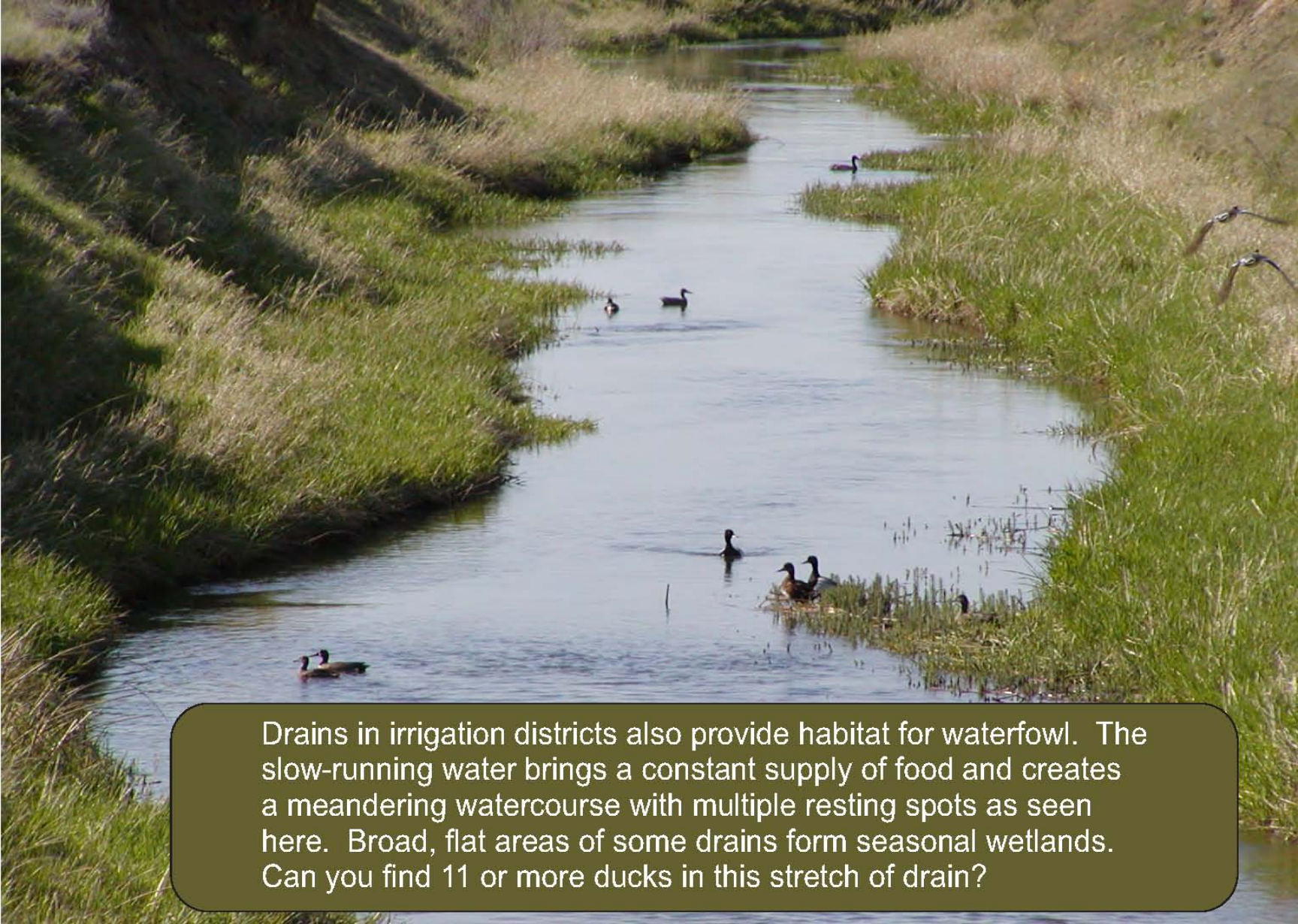
Most prairie wetlands are a quarter acre or smaller. Some are very large covering many square miles. This photogenic flock of pelicans are on a series of small constructed wetlands just east of the City of Lethbridge along Hwy 4. The area is frequented by ducks and geese as well. Some pelicans breed on land near and surrounded by larger reservoirs. This particular flock has come to these small wetlands to feed for the day.

A marbled godwit, three sandpipers and a plover, enjoy a meal of crustaceans and insects along the shore of Tyrrell Lake. The lake has a relatively high salt content despite being fed irrigation water to maintain its level. Because of its high carrying capacity, thousands of snow geese use this lake as a staging stop on their annual migration both spring and fall. Nearby, east of Tyrrell Lake is the Rush Lake complex, an extensive cattail-based wetland.



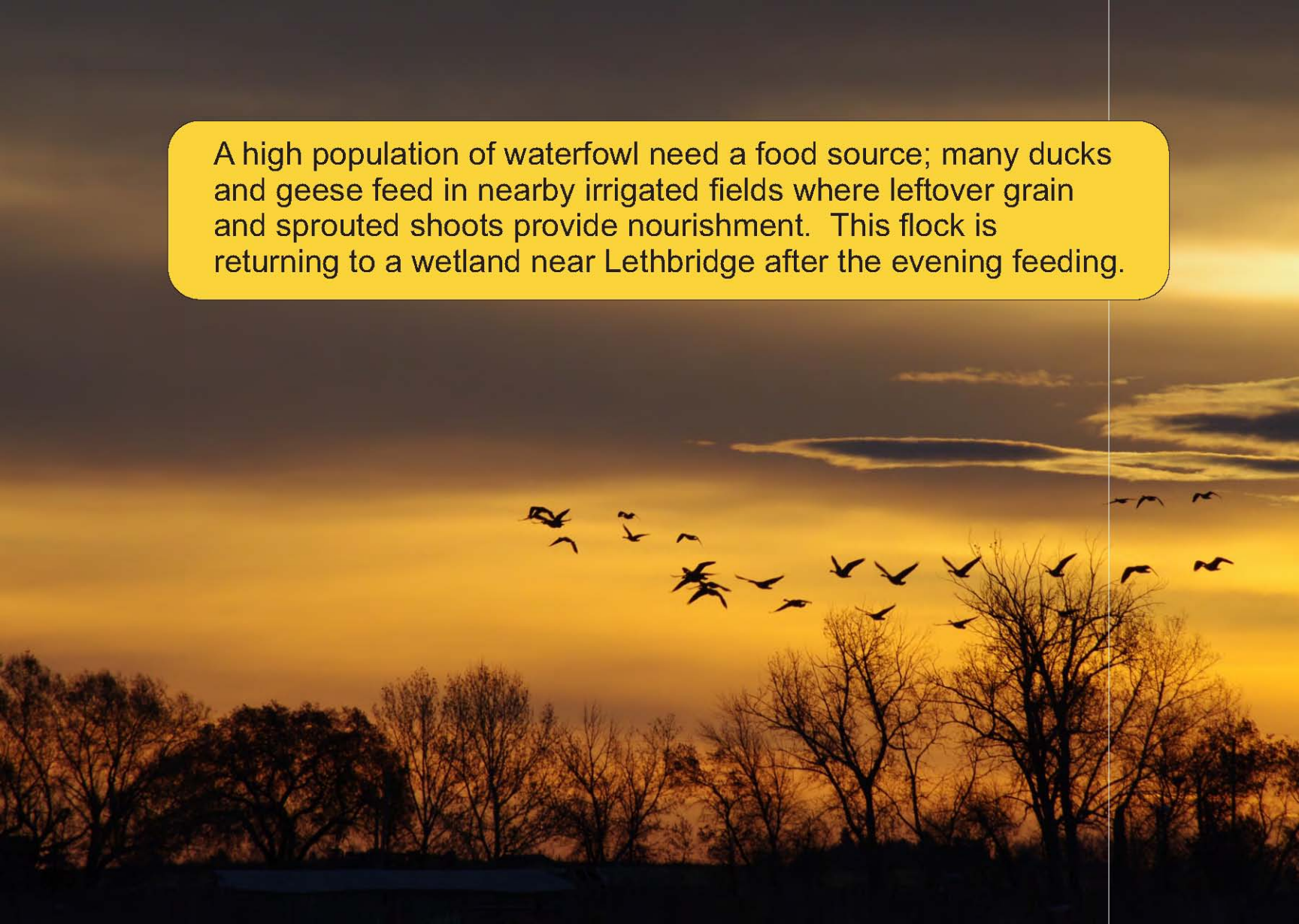


Damselflies live the early part of their lifecycle in water and so are commonly seen near wetlands in their various shades of blue and yellow-green. This one found an alfalfa plant on a raised piece of ground near the wetland for a resting spot.



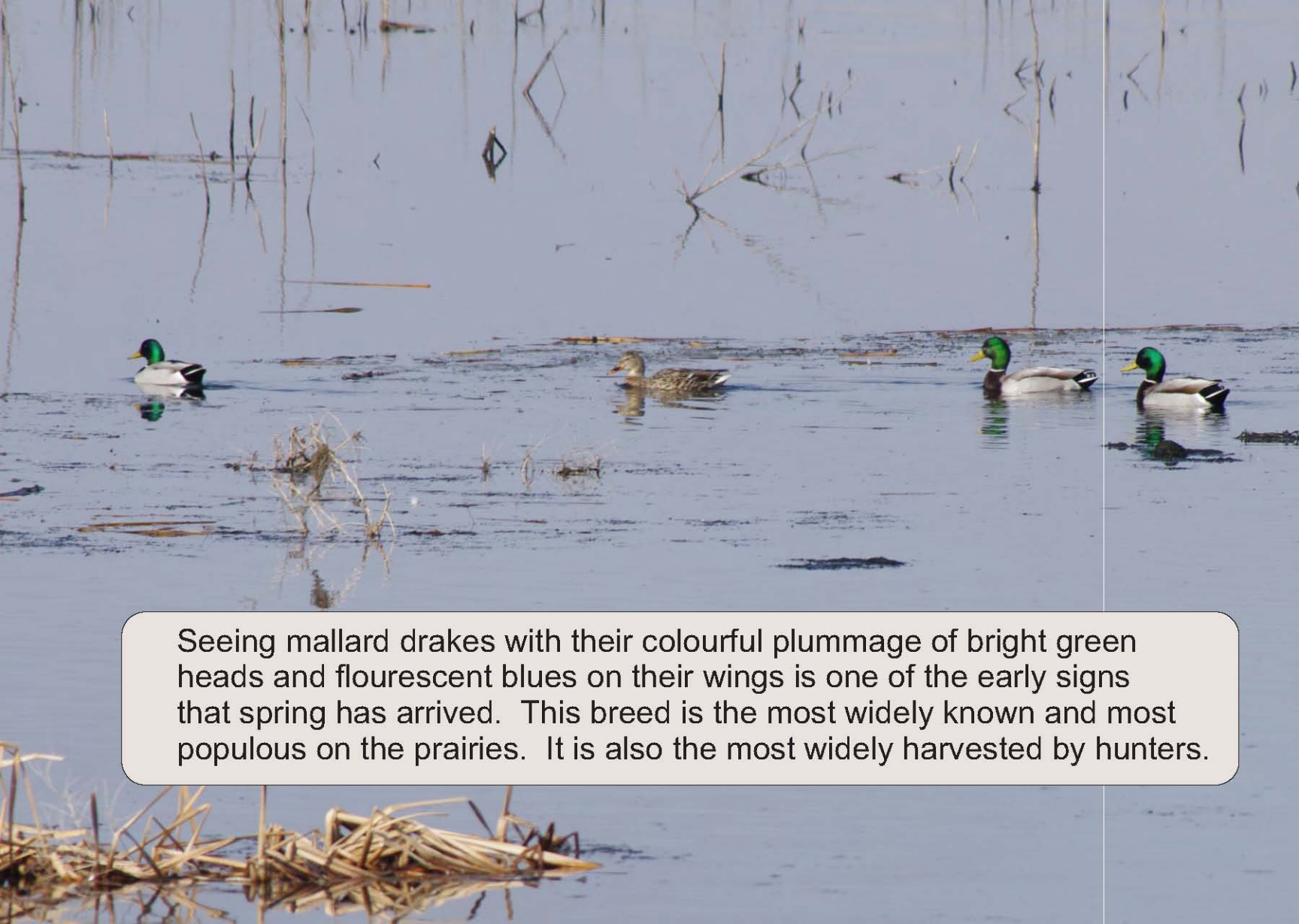
Drains in irrigation districts also provide habitat for waterfowl. The slow-running water brings a constant supply of food and creates a meandering watercourse with multiple resting spots as seen here. Broad, flat areas of some drains form seasonal wetlands. Can you find 11 or more ducks in this stretch of drain?

A high population of waterfowl need a food source; many ducks and geese feed in nearby irrigated fields where leftover grain and sprouted shoots provide nourishment. This flock is returning to a wetland near Lethbridge after the evening feeding.





These geese look like they are being shot out of the end gun of a centre pivot irrigation system. In reality, the birds are just passing by on their way to feed in nearby fields. Irrigation does generate a large number of waterfowl and shorebirds each year, but by providing habitat and food sources.



Seeing mallard drakes with their colourful plummage of bright green heads and fluorescent blues on their wings is one of the early signs that spring has arrived. This breed is the most widely known and most populous on the prairies. It is also the most widely harvested by hunters.

Never seen a duck race before? After raising a successful clutch, this mother duck is leading her grown chicks to safety. Canals, like this one, do provide some habitat for waterfowl. Irrigation districts operate 3,500 km of open canals, as well as 4,000 km of buried pipelines to deliver water.



Muskrat



Great Blue Heron



Bittern



Black-necked Stilt

