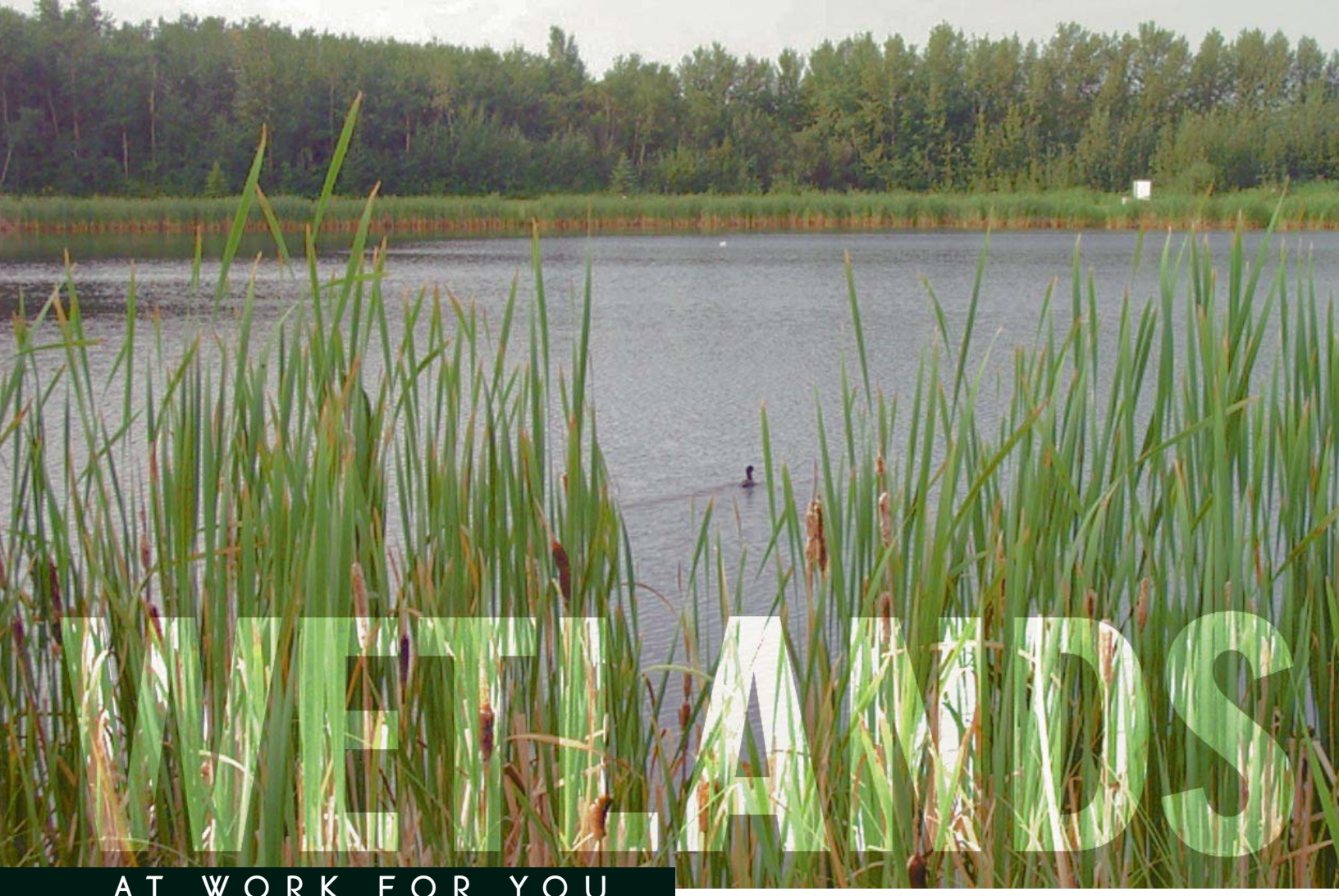


WETLANDS

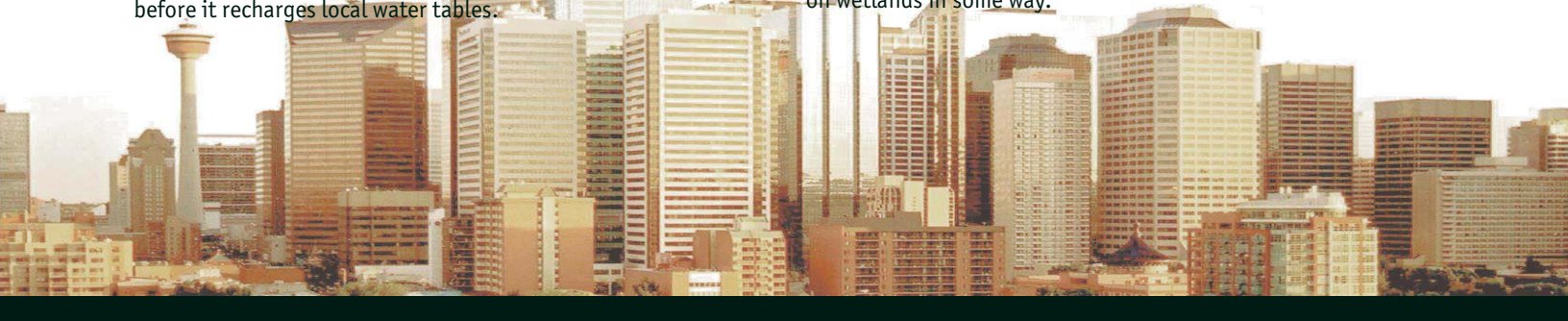
AT WORK FOR YOU

Take a look at downtown Calgary's urban skyline and it's easy to forget this city is set in the middle of a prairie landscape. Also missing from that urban perspective is the fact our city's steady expansion has consumed 80-90 per cent of the prairie wetlands that once dotted the land where we live, work and play.

BUT WHY SHOULD WE CARE? Wetlands are among the most productive places on the planet. Research from Ducks Unlimited Canada shows that up to 70 per cent of wetlands have already disappeared across the Canadian prairies, a landscape that supports more than 60 per cent of North America's waterfowl. That's a concern, since healthy wetlands also purify water, eliminating more than 90 per cent of phosphorus and up to 90 per cent of water-borne pathogens. Wetlands also recharge groundwater reserves. That's important, since more than 26 per cent of Canadians including about half a million rural Albertans, rely on groundwater for household use.

WETLANDS AT WORK. Wetlands slow water flow during flood peaks, hold water during droughts and replenish water in the atmosphere through evaporation. Wetland vegetation helps purify the water before it recharges local water tables.

THE ISSUE. Filling in and paving over sloughs, marshes and seasonal ponds to accommodate urban growth in Calgary has depressed nature's ability to handle everything from floods, droughts and even water purification - an increasingly big issue for downstream neighbours concerned about the impact of urban runoff on water quality. Urban wetland loss also has a negative impact on the city's landscape capacity to moderate temperature and nurture wildlife habitat for a diverse range of plant and animal species. That impacts thousands of migrating birds, many from the southern reaches of the continent that must now go somewhere else to find spring wetlands teeming with plants and invertebrates. About 35 per cent of this country's rare and endangered animals, including trumpeter swans and the northern leopard frog, depend on wetlands in some way.



WE CAN'T GO BACK. But with increased awareness of the role healthy wetlands play in the long-term health of this vibrant community, we can take steps to make sure we don't continue to lose more than we can afford to. After all, who pays for the damage caused by floods and droughts? Who assigns a dollar value to residential homes with fabulous views of natural areas? We do. A 1988 study estimates a $10 billion annual return related to annual production associated with wetlands across Canada. This includes these recreational pursuits: hunting, fishing, birdwatching and tourism. It also factors in the natural role wetlands play in flood control and water purification.

A 1988 estimate reflects a $10 billion annual return associated with wetlands across Canada

Healthy wetlands are an integral part of the socio-economic reality that has made Calgary a great place to call home. As part of the larger watershed that traverses the Bow River's journey from the Rockies to southern Alberta, these wetlands support the pristine image our city exports in everything from its lifestyle and tourism messages, to news of its booming economy. Our home-grown recreational opportunities depend on the safe, secure water supplies our wetlands help provide. Our economic strength is buoyed by the fact Canada's fifth-largest city thrives amidst one of the world's cleanest - and most beautiful - environments.

It is a matter of balance; a robust and growing city should acknowledge that wetlands require our care too. A growing number of our residential communities incorporate natural areas that include permanent and seasonal wetlands, a resource we've really just started to treasure for its aesthetic values. There's much to be done, but opportunity abounds, especially now that science tells us healthy wetlands really do matter to birds, animals, plants and people. It is only us who have the power to make a difference. But imagine the possibilities. Wetlands today. Wetlands tomorrow. Together, we can make sure our wetlands work for all of us.

WHAT CAN YOU DO?

KEEP WETLANDS CLEAN

Pollutants can injure or kill. A single drop of oil can make up to 25 litres of water unfit for drinking. One gram of lead does the same to 20,000 litres of water. When nitrates (N) from lawn fertilizer or phosphates (P) from cleaning products wash into storm sewers, the compounds can promote excessive algae growth and impact sport fish habitat. Research shows thriving wetlands in agricultural areas can remove up to 92 per cent of the nitrates from water. They can also retain around 95 per cent of the phosphorus. This creates a good news/bad news scenario, in rural and urban areas. When 'sunk' into a wetland's sediment, these nutrients can nurture plant health and biodiversity. In high concentrations, however, wetland vigour is lost when excessive growth of some plant species chokes out others. So, while it's nice to know wetlands help purify water, it's good to know we should prevent nutrient run-off in the first place.

About 35 per cent of this country's rare and endangered animals, including trumpeter swans and the northern leopard frog, depend on wetlands in some way.

Research shows thriving wetlands in agricultural areas can remove up to 92 per cent of the nitrates from water. They can also retain around 95 per cent of the phosphorus.

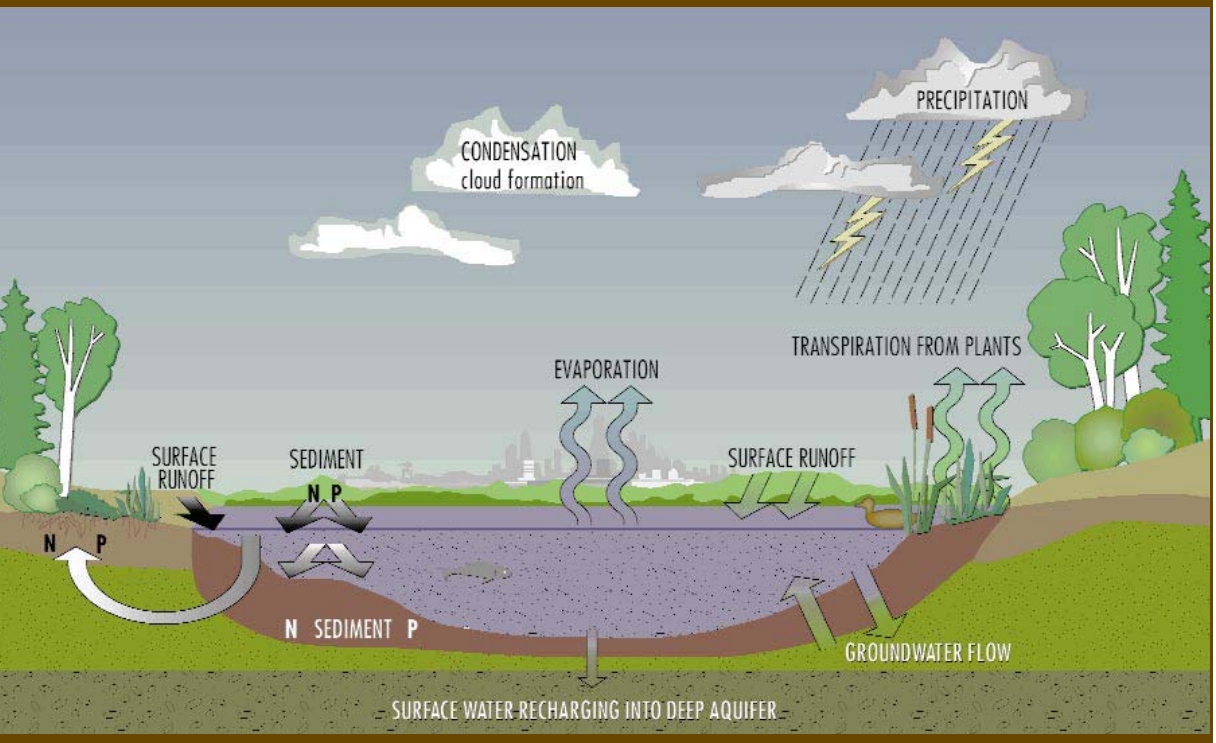
TALK ABOUT IT

The chart below shows how wetlands purify water, regulate flow and moderate the climate. They hold extra water during floods, retain water during droughts and filter surface water to recharge groundwater systems.

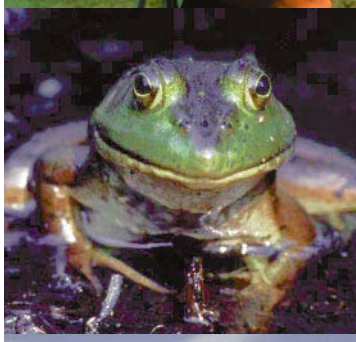
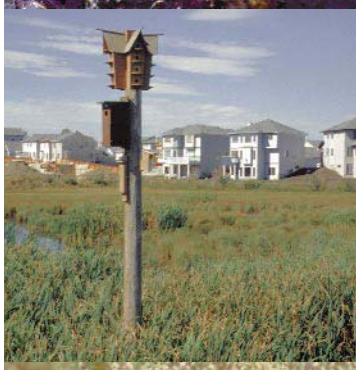
They also provide valuable habitat for a diverse range of plants and animals - sometimes called biological supermarkets. Inglewood Bird Sanctuary records show more than 250 species of birds use the site as a resting place during spring and fall migration. And that's right in the heart of one of the nation's fastest-growing urban centres.

LEARN ABOUT IT

Wetlands can be permanent and deep, or shallow and seasonal. In a semi-arid climate like ours, they may be dry for two or more years out of ten. However those seasonal wetlands are important for groundwater recharge and nutrient cycling. Here, our saline basins support a unique combination of flora and fauna. Prairie wetlands, including those within the city limits, are the major breeding ground for North America's duck population. Although it may be a spring slough to you, to a nesting duck, it's a protein-packed cafeteria that sustains this year's brood, or gives its migrating cousin the strength to fly to northern breeding grounds.





GET TOGETHER - ACT NOW!

Healthy wetlands are the ultimate biological tool behind Calgary's ecological, social and economic success. This is a great place to live, because we've done a good job of managing our natural resources.

But the cycle of life will always need water to work. To work well, it needs clean water - a natural by-product of a healthy wetland.

The Government of Alberta is developing province-wide policy for wetland management. Energized by a shared commitment to the future, Calgarians can also make healthy wetlands a local priority every time we build a road, develop a park, design a new residential community, or lay out commercial and industrial amenities.

A recent inventory of area wetlands estimates Calgary's urban expansion could impact 8,000 wetlands. As homes and industry are created, a balanced and pragmatic approach will incorporate those wetlands as part of the City's fabric, or ensure that what is lost is re-created somewhere else.

YOU CAN HELP

Calgary be one of the first major cities in Canada to develop a wetland policy. **TO BE PART OF THAT PROCESS, ATTEND AN OPEN HOUSE ON CALGARY'S WETLANDS**. For more information visit www.calgary.ca (search: wetland conservation plan) or contact: Chris Manderson, Natural Parkland Management Specialist (City of Calgary Parks) at (403) 268-5212 or email chris.manderson@calgary.ca

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Photos provided by Ducks Unlimited Canada, John Bicknell and Paul Massey

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This publication is the result of efforts arising from the Parks Foundation, Calgary Wetlands Committee a group of concerned and committed government and non-profit organizations dedicated to addressing the challenges associated with balancing the benefits of wetland conservation and development within the urban environment.