Alberta Capital Region Wastewater Commission
Sustaining quality of life
The Alberta Capital Region Wastewater Commission (ACRWC) is a model of regional cooperation providing service to 13 municipalities in the Alberta Capital Region. Formed in 1985, in response to growth in the region at the time, the Commission was and is governed by the Municipal Government Act with a mandate to provide safe, reliable, cost-efficient and environmentally responsible wastewater service. Today, the ACRWC serves over 200,000 residents.
MIKE DARBYSHIRE, GENERAL manager, describes it in the simplest terms: “The ACRWC deals with transmission and treatment of wastewater, that’s what we do. Each community connected to the system collects its own wastewater and discharges it into the system. Then we take it and bring the water to the plant and treat it, before discharging it to the North Saskatchewan River.”

How it all works
The transmission system consists of 120 km of gravity sewers, 51 km of pressure pipelines and five pump stations. This system conveys wastewater to the ACRW Treatment Plant from member municipalities in the west, north and east sections of the region. It also conveys wastewater from the south members (City and County of Leduc, and the Town of Beaumont) into the City of Edmonton system for treatment.

In exchange, the ACRW Treatment Plant takes wastewater from Clareview in northeast Edmonton and from the Clover Bar Industrial Area. This exchange is regulated by the SWAP Agreement between Edmonton and the Commission (which expires in 2015).

As for the treatment, the provincial govern-
ment requires the plant treatment processes to achieve ammonia-nitrogen concentration to less than 10 mg/L during winter months and less than 5 mg/L during summer months, and total phosphorus less than 1.0 mg/L.

Darbyshire says this mandate is relatively new. “We get an operating approval that sets the parameters for how well we have to treat the wastewater,” he explains. “In 1996, the government changed it so that, by June 2005, we had to go from conventional treatment to an advanced treatment processes of biological nutrient removal (BNR) and ultraviolet (UV) disinfection. We had to start treating for nitrogen and phosphorous before the wastewater gets discharged to the rivers.”

**Why it’s important**

Because wastewater management doesn’t affect household drinking water, there is room for confusion as to why it’s important. What the public should understand is that treatment removes or reduces contaminants in the water, so that the treated effluent from will not create pollution to water body after it is discharged.

If wastewater goes untreated, the organic matter it contains will decompose and lead to nuisance conditions, such as production of malodorous gases. It also contains nutrients that

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**YOU CAN HELP ▼**

- Conserve water in your home by using low-flow fixtures and fix any leaks. This reduces the amount of water that needs to be treated.
- Don’t pour fats, oils and grease down the drain–dispose in the garbage. These substances clog pipes leading to costly repairs.
- Take unused medications to the pharmacy for disposal rather than flushing them down the toilet. Pharmaceuticals are not treated and end up in the environment.
- Use phosphate-free cleaning materials to reduce phosphorous levels in the river. Phosphorous is a nutrient that promotes algae growth negatively affecting the aquatic environment.
- Take household hazardous waste –motor oil, pesticides, herbicides, solvents, paint and chemicals –to a recycle facility or community round-up event instead of pouring it down the drain. Toxic substances are not treated and end up in the environment.
- Compost organic materials like vegetable peelings instead of using a garburator. Ground up organic material costs more to treat and must be disposed of at the wastewater treatment plant.
WASTEWATER

The Alberta Capital Region Wastewater Commission
can stimulate the growth of aquatic plants and may contain toxic compounds or compounds that potentially may be mutagenic or carcinogenic. If this water is ingested, it can cause a lot of problems for animal and human populations. For these reasons, to protect public health and the environment, the wastewater should be treated to remove the nuisances/contaminants so that it can be reused or discharged into the environment (water bodies such as a river or a lake).

Continuing to meet needs

The Alberta Capital Region Wastewater Commission will continue to maintain wastewater quality well into the future. In fact, the Commission has a major project out for tender to increase the capacity of part of the plant; it is also building a new pump station in the City of St. Albert. “The expansions are mainly to meet the needs of growth,” says Darbyshire. “We’re developing an asset management plan, to expand and to repair. After 25 years, some of the infrastructure wears down. We’re maturing to the point of developing replacement programs. There will always be improvements. In the next decade, there could be more stringent water requirements in treatment that may require an extra process.”

“One other program we have initiated in the last year is a source control program, which targets the industrial/commercial sector,” Darbyshire adds. “It’s an area that we’re working on with our members, talking with industries and getting out there to do site samples. The program is to promote responsible wastewater practices.”

Although the ACRWC will remain committed to its mandate, it’s not only up to the Commission to ensure our safety and health. There are several things the public can do to help within our homes (see sidebar). Together, we can all participate in helping the environment and our future.
Bylaw No. 8 governing the quality of wastewater accepted by the Alberta Capital Region Wastewater Commission was adopted. This new by-law will form the core of our member municipalities' sewer bylaws and is an integral part of the Commission’s source control program.

The construction contract for the new DAF Facility 2 was awarded to Sure-Form Construction Ltd. This facility is used to thicken waste activated sludge from the bioreactors before it is transferred to the digesters, reducing biosolids handling costs.

Board Members and Senior Managers attended a successful and fruitful Strategic Planning Workshop in May.

Next Board Meeting – July 16, 2010

Performance Management Committee Meeting – June 18, 2010

MARK YOUR CALENDAR – Member Municipal Councils and Staff

Event: BBQ and Plant Tours
Date: Thursday, June 24th
Time: 11:00 a.m. – 2:00 p.m.
Location: Alberta Capital Region Wastewater Treatment Plant
23261 Township Road 540
Fort Saskatchewan, AB
RSVP by June 14th to
Carolyn Lowther
780 467-8655
E-mail: clowther@acrwc.ab.ca

For more information –
Alberta Capital Region Wastewater Commission
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Paul Krueger, Finance Manager
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Meeting Minute
Board Meeting
Friday, May 21st, 2010
9:50 – 11:10 a.m.
Jasper Inn, Jasper

Members or Alternates Present:
  Cr. Pat Brennan, Chairman   Parkland County
  Cr. Tom Hutchison, Vice-Chairman  City of Fort Saskatchewan
  Cr. Randy Boyd  Town of Bon Accord
  Cr. Len Bracko  City of St. Albert
  Cr. Alan Dunn  Strathcona County
  Cr. George Fraser  Town of Gibbons
  Mayor Marvin Molzan  Leduc County
  Ald. Dominic Mishio  City of Leduc
  Cr. Jerry Kaup (Alternate)  Sturgeon County
  Cr. Ben Van De Walle  Town of Morinville
  Cr. Dwight Ganske  Town of Stony Plain

Members Absent:
  Cr. Keith Gylander  Town of Beaumont
  Ald. Wayne Rothe  City of Spruce Grove

Commission Staff:
  Mike Darbyshire  General Manager
  Lorretta Johnston  Executive Assistant
  Paul Krueger  Finance Manager
  Gil Carleton  Engineering Manager

Call to Order
Chairman Brennan called the meeting to order.

Agenda
CM37-10  MOVED BY Cr. Ganske that the agenda as presented be adopted.
CARRIED

Minutes
CM38-10  MOVED BY Cr. Boyd that the minutes of the April 16th, 2010 ACRWC Board meeting be adopted.
CARRIED

Board Committees
Board Development Committee
The Committee passed along its thanks to staff and the Board Members for their participation at the Annual Strategic Planning Retreat.
25th Anniversary Committee
There has been good response to the Information Cards from the member municipalities. The June 24th BBQ and plant tours will be featured in the Meeting Highlights again this month. The Recognition Banquet in November will have be tied in to the 25th Anniversary.

CM39-10 MOVED BY Cr Ganske that his report be received for information.
CARRIED

Performance Management Committee
The above committee will meet at 9:00 a.m. on June 18th at the ACRWTP.

CM40-10 MOVED BY Cr. Hutchison that his report be received for information.
CARRIED

Regional Wastewater Exchange Agreement Committee
Arrangements will be made in the first quarter of 2011 for a meeting of the Joint Planning Committee.

DAF Facility 2 - Contract Award
CM41-10 MOVED BY Cr. Boyd that the construction contract for the new DAF Facility be awarded to Sure-Form Construction Ltd. in the amount of $6,349,112.55 plus GST.
CARRIED

Source Control Program – Sewer Bylaw
CM42-10 MOVED BY Cr. Kaup that Bylaw No. 8 governing the quality of wastewater accepted by the Alberta Capital Region Wastewater Commission be adopted.
CARRIED

2009 Annual Report
CM43-10 MOVED BY Cr. Van De Walle that the Board approve the 2009 Annual Report, with minor alterations, for publication.
CARRIED

Administration Reports
CM44-10 MOVED BY Ald. Mishio that the Administration reports be received for information.
CARRIED

Correspondence
CM45-10 MOVED BY Cr. Hutchison that Mike Darbyshire’s May 11th, 2010 letter to the Director General, Department of the Environment regarding the Wastewater Systems Effluent Regulations be received for information.
CARRIED
Conference Attendance
Conference attendance intentions for 2010:
Ben Van De Walle – Water Congress
Tom Hutchison – WCWWA
Dwight Ganske – WCWWA
George Fraser - WCWWA

Adjourn
CM46-10
MOVED BY Mayor Molzan that the meeting be adjourned.
CARRIED

Chairman

Prepared by:

Lorretta Johnston
Executive Assistant
May 25, 2010