



Kettle Creek Conservation Authority Emergency Preparedness Plan Dalewood Dam

General

The Dalewood Dam and the Dalewood Reservoir were initially constructed in 1921 as the water supply system for the City of St. Thomas. In the late 1920's, piers and stop logs were added to the structure, to allow for greater storage capacity in the reservoir. However, since the introduction of the Lake Erie pipeline and due to heavy siltation that has occurred in the reservoir since that time, the main purpose of the dam is now low flow supplement to Kettle Creek. Operations were minimized after 1983 due to structural and safety concerns and by 1991 the piers, deck and downstream apron had been replaced, as well as the log lifting mechanism machinery. The only outstanding repair work that is required is the eventual replacement of the downstream wingwalls, which should be structurally sound for another 30 to 50 years minimum.

Periodic maintenance of the downstream apron is also required, in terms of filling the void under the apron at its downstream end with rubble. This area typically erodes, and filling the void with rubble protects the structural integrity of the apron.

The deck is roughly 32.32 metres (106 feet) across at a width of about 4 metres (13.12 feet). The dam consists of four bays, each having an opening of approximately 6.3 metres (20.67 feet). There is one stop log (with a height of 0.5 metres) in each bay and these are added after spring runoff and should be removed during the autumn with the lifting device that sits on the deck of the dam.

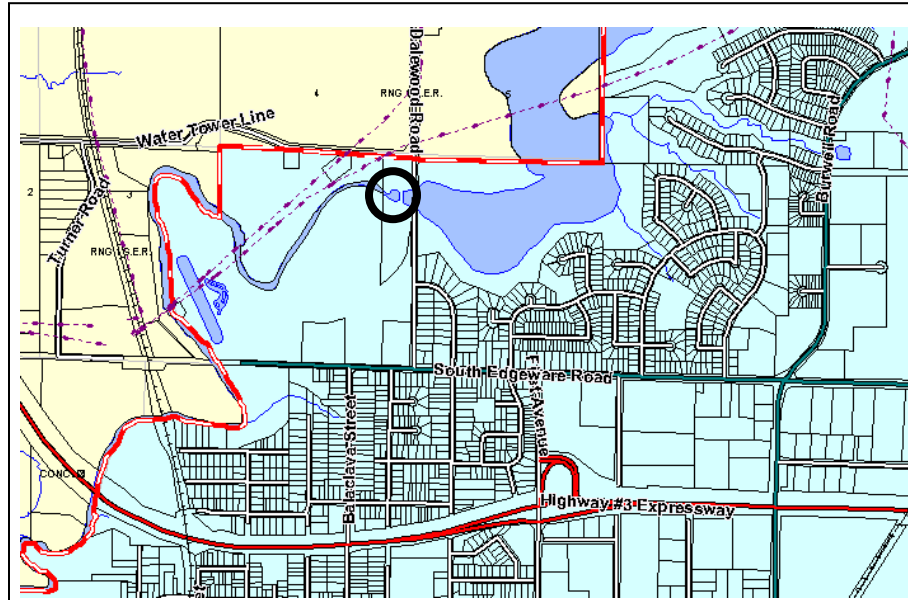
Access


Dalewood dam is located just west of Dalewood Drive at the northern limits of the City of St. Thomas.

From St. Thomas:

From the intersection of South Edgeware Road and Dalewood Drive, turn north on Dalewood Drive. The main access point is about 0.5 km north on Dalewood Drive on the west side of the road, which is gated. Just south of the main access point is another wide trail that has a permanent steel guardrail structure which is used by KCCA as a heavy equipment access point for works on the downstream side of the dam. There is a small parking lot on the east side of Dalewood Drive that is intended for hikers utilizing the trail network.

The following map further illustrates the location of Dalewood Dam:



 Dalewood Dam

Water Levels

The elevation of the dam is 14.78 metres (48.5 feet). The water level can be adjusted by 0.5 m by placing or removing the stop logs.

Operational Requirements

Operational requirements require the usage of the lifting device for the addition or removal of the stop logs to control water flows and water levels in the Dalewood Reservoir. Detailed instructions for the operating procedure are included in the Operation, Maintenance and Surveillance Manual. It is also important to clear any debris that collects in the dam bays.

Dam Failure

Overtopping of earthen berms which could eventually lead to berm failure.

Root rot of large adjacent trees to dam structures could also lead to a breach of the earthen berm causing it to collapse.

Another potential risk is the possibility of failure of the adjacent Bailey bridge on Dalewood Drive. If the bridge were to collapse and obstruct water flow through the dam, serious overtopping could occur.

Preventative Actions

When an emergency situation is observed, the KCCA should be prepared to undertake notifying the local Municipalities and resident along Kettle Creek as per the KCCA Flood Forecasting and Warning Plan.

Communications

The KCCA staff would normally identify an emergency condition. This could result from extreme flow conditions or on-the-ground conditions affecting the dam. A list of contact persons and their respective agencies is included in this document.

Case A – Emergency or Potential Emergency Observed by KCCA Staff

A KCCA staff discovers or is told of a potential problem. The staff member and the KCCA General Manager evaluate the situation and commence notification. The extent of notification depends upon the particular event and is done at the direction of the General Manager. Situations reported as an emergency will be dealt with in an expeditious manner.

Case B – Emergency Advised by a Third Party

A third party, such as the City of St. Thomas, who is aware of a problem in advance of the KCCA, would identify an emergency situation. The KCCA would support the emergency notification process initiated by the third party.

Notification

The contact list identifies contacts for the circulation of information about emergency events. The notification advice should indicate the anticipated event, public safety issues (e.g. road flooded), emergency services affected, and advise as to the nature of the anticipated event.

Potential Damages – Failure – Normal Flows

Potential flooding of Waterworks Park including possible failure of Waterworks dam. The more significant environmental damage would be that of a silt spill, downstream upon St. Thomas and Central Elgin floodplain.

Potential Damages – Failure – Extreme Flood Failure

A 1988 dam break analysis determined that the dam can safely operate at 1:100 year flows, as per its design. However, larger flows could cause overtopping of the dam, specifically at its earthen embankments on the north and south ends of the dam. While the dam cannot completely and catastrophically fail, significant breaching of the earthen berms would cause somewhat sudden rising of flood levels downstream in the Central Elgin and St. Thomas flood damage centres. While such flood levels would not exceed the regional flood elevation, the more significant natural and environmental hazard created by failure of the berms would be the loss of flood response time and the probability of significant downstream silt spills.

Contacts

Contacts are listed as per the attached and include individuals representing local officials of the following agencies:

Ministry of the Environment and Climate Change – Spills Action Centre (SAC)
Municipality of St. Thomas
Municipality of Central Elgin
County of Elgin
OPP
Fire Department (St. Thomas)
Ministry of Natural Resources and Forestry
St. Thomas Water Pollution Control Plant

Emergency Contact List - Dalewood Dam

KETTLE CREEK CONSERVATION AUTHORITY STAFF CONTACTS

Name	Position	Phone	Cell Phone
KCCA Main Administrative Office		519-631-1270	
Elizabeth VanHooren	General Manager / Secretary Treasurer	x 222	519-280-1634
Joe Gordon	Director of Operations	x 226	519-282-4337
Jennifer Dow	Water Conservation Supervisor	x 228	519-280-1631
Scott Pinnel	Maintenance Coordinator	x232	519-280-1632
Marianne Levogiannis	Public Relations Supervisor	x224	
Rob Lindsay	Conservation Area Coordinator—Dalewood	519-631-1009 (Gatehouse) 519-631-4581 (Pool) 519-631-2391 (Fax)	519-281-7774
Stephen Harvey	Chair—KCCA Board of Directors		
Grant Jones	Vice Chair—KCCA Board of Directors		

EMERGENCY CONTACTS

Contact	Phone Number
St. Thomas Elgin General Hospital	519-631-2030
Police, Ambulance, Fire	911
London Police	519-661-5670
OPP* Elgin County Detachment (John Wise Line)	1-888-310-1122 519-631-2920
St. Thomas Police Service	519-631-1364 519-631-1224 (Office) info@stps.on.ca
Central Elgin Fire Department	911
London Fire Department	519-433-0111
Southwold Fire Department	911
St. Thomas Fire Department**	519-631-0210

Organization	Contact / Position	Business Phone / Email	Other
*OPP Elgin County Detachment	Adam Crewdson Community Safety Officer	adam.crewdson@opp.ca Cell: 519-318-6136	Main: 519-631-2920 Cell: 519-317-2223 Fax: 519-631-2923 24HR: 1-888-310-1122
**St. Thomas Fire Department	Ray Ormerod, Deputy Fire Chief/Community Emergency Management Coordinator	Cell: 519-520-3716 rormerod@stthomas.ca info@stfd.stthomas.ca	Dispatch: 519-631-0210 Fax: 519-631-0215 mmacleod@stthomas.ca
Central Elgin Fire Department	Chris McDonough Fire Chief; Director of Fire Rescue Services CEMC—Emergency Planner	519-631-4860 x249 cmcdonough@centralelgin.org	Cell: 519-617-0495 Fax: 519-631-4036

MUNICIPAL AND HEALTH UNIT CONTACTS

Municipality/ Health Unit	Contact / Position	Business Phone / Email	Other
Central Elgin	Lloyd Perrin, Director of Physical Services	519-631-4860 x 277 lperrin@centralelgin.org	Cell: 519-617-0469 Fax: 519-631-4036 Home: 519-765-4778
	Geoff Brooks, Manager of Transportation and Drainage	519-631-4860 x247 gbrooks@centralelgin.org	Cell: 519-617-0476 Fax: 519-631-2805
St. Thomas	Justin Lawrence, Director of Environmental Services & City Engineer	519-631-1680 x 4165 jlawrence@stthomas.ca	Cell: 519-808-1958
	Nathan Bokma Manager of Development & Compliance	519-631-1680 4151 nbokma@stthomas.ca	Cell: 519-808-1342
Elgin County	Kevin Englehart, Emergency Management Coordinator	519-631-1460 x 121 kenglehart@elgin.ca	Cell: 519-857-2514 Fax: 519-631-4297
	Peter Dutchak, Deputy Director of Engineering Services	519-631-1460 x124 pdutchak@elgin.ca	Fax: 519-631-4297 General: 519-631-1460 x4
Southwestern Public Health	Dr. Joyce Lock Medical Office of Health	519-631-9900 x 1203 info@swpublichealth.ca	
	Peter Heywood Director—Healthy Environments, Safe Water	519-631-9900 info@swpublichealth.ca	

UTILITY CONTACTS

Utility	Contact	Business Phone	Other
Union Gas		519-439-0151	1-877-969-0999 Emergency Only
Bell Canada		519-310-2355	611
St. Thomas Energy Inc.		519-631-5550 519-476-8513	Emergency: 519-631-0311 Fax: 519-631-2243 519-631-5550 x243 (only during office hours M-F)
ERTH Power	Chris White	519-485-1820 x 235 Fax: 519-485-5838 info@erthpower.com	Cell: 519-521-7113 519-485-1820 24Hr: 1-877-850-3128
Hydro One		1-800-434-1235 24-Hour Emergency Line	
St. Thomas Water Pollution Control Plant	John Mansell Wastewater Inspector	519-631-1680 x4169 jmansell@stthomas.ca	

GOVERNMENT CONTACTS

Agency	Contact	Business Phone / Email	Other
MOECC Spills Action Centre (SAC)		1-800-268-6060	416-325-3000
MNR, Aylmer District	Mitch Wilson District Supervisor	519-773-4710 mitch.wilson@ontario.ca	Cell: 519-860-3731
MNR Surface Water Monitoring Centre Peterborough	Frank Kenny, Surface Water Monitoring Centre Coordinator	705-755-5011 frank.kenny@ontario.ca	
	Gord Gallant, Water Level Management Specialist	705-755-5200 gordon.gallant@ontario.ca	
	Duty Officer Desk Lakshminarayanan Ramanathan (during business hours)	705-755-5201 surface.water@ontario.ca	Cell: 705-761-2044
Emergency Management Ontario (EMO)	Provincial Emergency Operations Centre Duty Manager	1-866-314-0472 416-314-3723 (Reception 8-4:30 M-F)	Fax: 416-314-3758 Emergency line: 416-314-0472 x 2417
	Steve Beatty, Emergency Management Officer- Southwestern Area	519-679-7055	Fax: 519-675-7691 Cell: 519-859-6333
Red Cross of Canada	Heather Little	519-379-4278 heather.little@redcross.ca	

MEDIA CONTACTS

Organization	Contact	Phone	Fax	Email
Television				
CTV London	Matthew Thompson Kathy Rumleski Julie Atchison (Meteorologist)	519-686-8810 x7218 1-800-668-7754	519-668-3288	matthew.thompson@bellmedia.ca kathy.rumleski@bellmedia.ca julie.atchison@bellmedia.ca newsnow@bellmedia.ca
RogersTV Cable 13 Southwestern Ontario	Jeremy Parking	1-519-894-8160	No Fax	jeremy.parking@rci.rogers.com
Radio				
CJBK 1290 AM BX93 FM 97.5 FM Virgin Radio	Steve Young News Director (Bell Media Radio)	519-686-2525 x243 519-691-2380 519-686-8810	No Fax	newsnow@bellmedia.ca steve.young@bellmedia.ca cjbknews@astral.com
MyFM CKZM 94.1	News Department	519-633-6936 Press 1	No Fax	news941@mbcmmedia.ca
CBC Radio 93.5 FM	Kerry McKee Gary Ennett Amanda Margison	519-667-1990 londonnewstips@cbc.ca	No Fax	kerry.mckee@cbc.ca gary.ennett@cbc.ca amanda.margison@cbc.ca
103.1 Fresh FM FM96 Country 104 AM980 CFPL	Brad Gibb Scott Monich (Chorus Radio)	519-931-6000 x56096 519-931-6098 direct line to news desk	No Fax	news@980cfpl.ca scott@980cfpl.ca
CHRW FM 94.9 Radio Western	News Desk	519-661-3602 519-661-3601	No Fax	news@chrwradio.ca
106.9 FM The X Fanshawe College	Jim VanHorne	519-455-6397	No Fax	ivanhorne@fanshaweonline.ca cixx-fm@fanshawec.ca
102.3 Jack FM	Al Smith	519-690-0102 x7273	No Fax	al@jack1023.com
Print				
London Free Press	News Desk	519-679-1111 general 519-667-5525 news tips	519-667-4620	lfp.newsdesk@sunmedia.ca
Aylmer Express	Brett Hueston (News Editor) Rob Perry Craig Bradford	519-773-3126	519-773-3147	bhueston@aylmerexpress.ca cbradford@aylmerexpress.ca rperry@aylmerexpress.ca info@aylmerexpress.ca
St. Thomas Times Journal	Ian McCallum	519-631-2790	519-631-5653	ian.mccallum@sunmedia.ca timesjournal@postmedia.com
Port Stanley News	Francine Dennison	519-782-7893		editor@portstanleynews.com
The Sign Post	Wendy Spence	519-268-7337	519-268-3260	news@dorchestersignpost.com
The Lake Erie Beacon	Andrew Hibbert	519-782-4563	519-782-4725	andrew@lebeacon.ca
Ontario Farmer	Paul Mahon	1-877-358-7773 x540221	519-473-2256	ontariofarmer.editorial@sunmedia.ca pmahon@postmedia.com
St. Thomas Elgin Weekly News	Scott Taylor	519-649-2000 x2309	519-633-0558	staylor@ourlondon.ca editor@theweeklynews.ca