

File No. 04-1000-20-2016-157

August 2, 2016

s.22(1)

Dear s.22(1)

Re: Request for Access to Records under the Freedom of Information and Protection of Privacy Act (the "Act")

I am responding to your request of May 5, 2016 for:

All emails relating to the breached aquifer at 7084 Beechwood Street, for the month of September, 2015.

All responsive records are attached. Some information in the records has been severed, (blacked out), under s.13(1), s.14, s.22(1), and s.22(3)(d) of the Act. You can read or download this section here:

http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/96165_00

Under section 52 of the Act you may ask the Information & Privacy Commissioner to review any matter related to the City's response to your request. The Act allows you 30 business days from the date you receive this notice to request a review by writing to: Office of the Information & Privacy Commissioner, info@oipc.bc.ca or by phoning 250-387-5629.

If you request a review, please provide the Commissioner's office with: 1) the request number assigned to your request (#04-1000-20-2016-157); 2) a copy of this letter; 3) a copy of your original request for information sent to the City of Vancouver; and 4) detailed reasons or grounds on which you are seeking the review.

Please do not hesitate to contact the Freedom of Information Office at foi@vancouver.ca if you have any questions.

Yours truly,
Cobi Falconer, For Case Manager, for
Barbara Van Franssen (M)

Barbara J. Van Fraassen, BA Director, Access to Information City Clerk's Department, City of Vancouver Email: Barbara.vanfraassen@vancouver.ca

Telephone: 604.873.7999

Encl.

:cf

s.14		

From: "West Annex - 321 - Collingwood \((8 \text{ person}\)" < WestAnnex.321-

Collingwood8person@vancouver.ca>

To: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>

Date: 9/29/2015 1:32:07 PM

Subject: Accepted: Beechwood St - Next Step

Your request was accepted.

Sent by Microsoft Exchange Server 2010

From: "Mayberry, Jennifer" < Jennifer. Mayberry@vancouver.ca>

To: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>

Date: 9/29/2015 1:45:50 PM

Subject: Accepted: Beechwood St - Next Step

I'll have to leave a couple minutes before 4pm as I'm giving a presentation in Crossroads.



From: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>

To: "Ryan, Pat \(PDS\)" <patrick.ryan@vancouver.ca>

"Jackson, Brian \(PDS\)" < Brian.Jackson@vancouver.ca>

Date: 9/29/2015 11:33:05 AM

Subject: Beechwood

Attachments: IMG_0843.MOV

ATT00001.txt

From: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

To: "Ryan, Pat \(PDS\)" <patrick.ryan@vancouver.ca>

"Jackson, Brian \(PDS\)" < Brian.Jackson@vancouver.ca>

Date: 9/29/2015 11:32:28 AM

Subject: Beechwood
Attachments: ATT00001.txt



From: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>

To: "Ryan, Pat \(PDS\)" <patrick.ryan@vancouver.ca>

"Jackson, Brian \(PDS\)" < Brian.Jackson@vancouver.ca>

Date: 9/29/2015 11:33:05 AM

Subject: Beechwood

Attachments: IMG_0843.MOV

ATT00001.txt

s.14		
s. 13(1) and s.14		
s. 13(1) and s.14		

From: Ryan, Pat (PDS) < patrick.rvan@vancouver.ca>

Sent: Sunday, September 27, 2015 3:48 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

Subject: Re: 3074 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

Mark Roozbahani,

Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger. 513

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

From: Roozbahani, Mark

Sent: Monday, September 28, 2015 11:06 AM

To: Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Thank Matthew,

I just came back from the site. I was with Jamie Hartley, Mike Collister, Linda Kwan and Dave Robertson. The owner/contractor intends to hire Matt Kokan who was on the site. Matt stated that he does not see public safety as an issue based on the type and amount of sediment collected. We asked for a correspondence from Matt Kokan, Geopacific to oversee the capping operations by noon today.

We informed the owner and contractor they that they have to pay for the services of the contractor and professionals they selected and the City has no responsibility in this regard.

We also informed the owner and contractor that they are not permitted to try another geothermal well at this site. Mr. Young, the Geotechnical Engineer of Record was at the job site earlier last week and provided a field review report. We took a picture of that report too. Nothing special but provides explanation about the operations proceeding.

Mark Roozbahani

From: Lam, Matthew

Sent: Monday, September 28, 2015 10:22 AM

To: Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

All:

Thanks for the updates, please let me know if there is any information I can obtain from the office to serve you in the field.

I do want to confirm the address as 7084 Beechwood, which recent had a building permit issued in August 2015 under DB446788.

The owner and contractor are shown as:

FENG LIN LIU Contact 2 is: 01 PROPERTY OWNER

Fax:

2606 EDGAR CRESCENT Bl account : Tel: VANCOUVER BC V6L 2G4 Certificate: Tel:

LIBO SUN Contact 3 is: 02 CONTRACTOR

Fax:

5887 ADERA ST Bl account : 705939 Tel: 778-855-8957

VANCOUVER BC V6P 5B9 Certificate: 271715 Tel:

Matthew

From: Mayberry, Jennifer

Sent: Monday, September 28, 2015 8:44 AM

To: Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Lam, Matthew; Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Hi All,

James and I are happy to help in any way. We both have loads of experience installing and decommissioning groundwater wells.

FYI – there are specific requirements on how to decommission wells, as per the Groundwater Protection Regulation: http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/11_299_2004
http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html

Jenn



5.14

From: Ryan, Pat (PDS) < patrick.ryan@vancouver.ca>

Sent: Sunday, September 27, 2015 3:48 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

Subject: Re: 3074 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

s.13(1)

Mark Roozbahani,

Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger.

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official

Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

1.3(1) and ≤ 14

From: Ryan, Pat (PDS) <patrick.ryan@vancouver.ca>

Sent: Sunday, September 27, 2015 3:48 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

Subject: Re: 3074 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

Mark Roozbahani,

Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger.

vater volume has doubled as bore note is getting bigger.

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng
Chief Building Official
Director Building Code and Policy
City of Vancouver

Sent from BlackBerry

From: Roozbahani, Mark

Sent: Sunday, September 27, 2015 3:55 PM

To: Ryan, Pat (PDS)

Subject: Re: 3074 Beechwood underground water problem

Thanks Pat

As per your request I talked to . She is not sure if she will take on this job as she is worried about the risks.

She is a registered hydrologist geotechnical with APEGBC

She will let me know either or. She hasn't been on the job site. She was also worried about settlement in neighbourhood.

Sent from my iPhone

On Sep 27, 2015, at 3:48 PM, Ryan, Pat (PDS)
patrick.ryan@vancouver.ca> wrote:

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed) .

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

s 13(1) Mark

Roozbahani, Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger.

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Begin forwarded message:

From: "Johnston, Sadhu" < Sadhu.Johnston@vancouver.ca>

Date: September 29, 2015 at 1:44:12 PM PDT

To: "Ryan, Pat (PDS)" < patrick.ryan@vancouver.ca >, "Jackson, Brian (PDS)"

specification-color: specification-color: specifica

Mark" < Mark.Roozbahani@vancouver.ca>

Cc: "Lam, Matthew" < matthew.lam@vancouver.ca >, "Mayberry, Jennifer"

<<u>Jennifer.Mayberry@vancouver.ca</u>>, "Smith, James" <<u>James.Smith@vancouver.ca</u>>, "Stevens, Daniel"

<<u>Daniel.Stevens@vancouver.ca</u>>, "Connell, Francie" <<u>francie.connell@vancouver.ca</u>>

Subject: RE: 7034 Beechwood underground water problem - Update

ok

From: Ryan, Pat (PDS)

Sent: Tuesday, September 29, 2015 1:29 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Collister, Mike;

Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew; Mayberry, Jennifer; Smith, James; Stevens, Daniel; Connell, Francie

Subject: RE: 7034 Beechwood underground water problem - Update

Update 5 – Owner is hiring a Qualified Contractor to Cap Well starting Thursday

The owner has agreed to hire an experienced Hydrologist and Geologist company who now have a plan on capping the well and will begin on Thursday. It will be complex and requires some large machinery to be bought in. We have also involved Jennifer Mayberry and James Smith who both have experience in aquifer issues and reviewed the proposed approach. The Province is also aware of the issue as part of the Water Act and may require a permit.

The costs are high with a \$20 K retainer and total costs that may go to \$150K to \$200K.

Mark Roozbahani will be the contact for the City and is working with both the owner (through an interpreter) and the original contractor (through an interpreter). He is also talking with law over paperwork we may – will need for the work.

Should this go ahead as planned, we will do an order to force the issue although It looks like it is moving forward as best as we can expect.

s.13(1)

s.13(1)

Pat

Undergoing Third Party Review

Pat Ryan, M.Sc. P.Eng.
Chief Building Official
Building Department
Planning and Development Services
City of Vancouver

Undergoing Third Party Review

From: Ryan, Pat (PDS)

Sent: Sunday, September 27, 2015 3:49 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

Subject: Re: 7034 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

s.13(1) Mark

Roozbahani, Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger. \$13(1)

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap

wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation

giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

From: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

To: cdavidson@bcgroundwater.ca

Date: 9/28/2015 12:19:07 PM

Subject: FW: 7084 Beechwood St - Geothermal Dill Hole

Good afternoon Thierry,

Can you please confirm the following for us:

- 1. Your involvement with the capping operations at the above noted address,
- 2. If you have professionals on board for design and oversight of your scope of work (registered in BC),
- 3. Brief description of your approach and methodology.

Please note that you are not permitted to start work until City provides you with such authorization.

thanks

Mark Roozbahani Deputy Chief Building Official Assistant Director, Inspections, Integrated Enfocement and Trade Services City of Vancouver 604 873 7533

From: Golden Sun [mailto:goldensunhousing@gmail.com]

Sent: Monday, September 28, 2015 12:09 PM

To: Roozbahani, Mark **Cc:** Collister, Mike

Subject: 7084 Beechwood St - Geothermal Dill Hole

Hello Mark and Mike

We have decided to hire BC Groundwater Consulting Services as the professional agency to oversee the closure of the drill hole.

Their contact is below:

BC Groundwater Consulting Service

Thierry Cacciou Cell: 1-250-377-5758 Office:1-250-851-9414

Email: cdavidson@bcgroundwater.ca

I have not gone into detail discussion with Thierry. The general summary of the operation is that we going to close the hole in three steps.

- 1. Contain the flow
- 2. Control the well
- 3. Close it

If you need any further details, please contact Thierry.

Thank you.

Best Regards

Andy Wang

--

Golden Sun Housing Development ltd.

Vancouver, BC. Canada

Contact (ENG): 778-855-8957 (CHN): 778-858-8887

Email: goldensunhousing@gmail.com

From: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

To: "Ryan, Pat \(PDS\)" < patrick.ryan@vancouver.ca>

Date: 9/29/2015 1:36:38 PM

Subject: FW: 7084 Beechwood Street

From: Thierry Carriou [mailto:tcarriou@bcgroundwater.ca]

Sent: Tuesday, September 29, 2015 1:36 PM

To: Roozbahani, Mark

Cc: goldensunhousing@gmail.com; Ryan, Pat (PDS); Collister, Mike; Mayberry, Jennifer

Subject: RE: 7084 Beechwood Street

Hi Mark.

You bet. Andy indicated they are depositing the retainer today.

We have our lead hand on site today and the driller and myself are performing a formal inspection on Thursday afternoon. Would you be available to visit with me on site Friday morning say 9 am? I would like to brief you on our findings.

You had indicated that Jennifer may be able to provide information about the aquifer. I would sure appreciate anything she has as we are piecing together the geology at this time.

Thank you

Т

From: Roozbahani, Mark [mailto:Mark.Roozbahani@vancouver.ca]

Sent: Tuesday, September 29, 2015 11:44 AM

To: 'Thierry Carriou'

Cc: goldensunhousing@gmail.com; Ryan, Pat (PDS); Collister, Mike; Mayberry, Jennifer

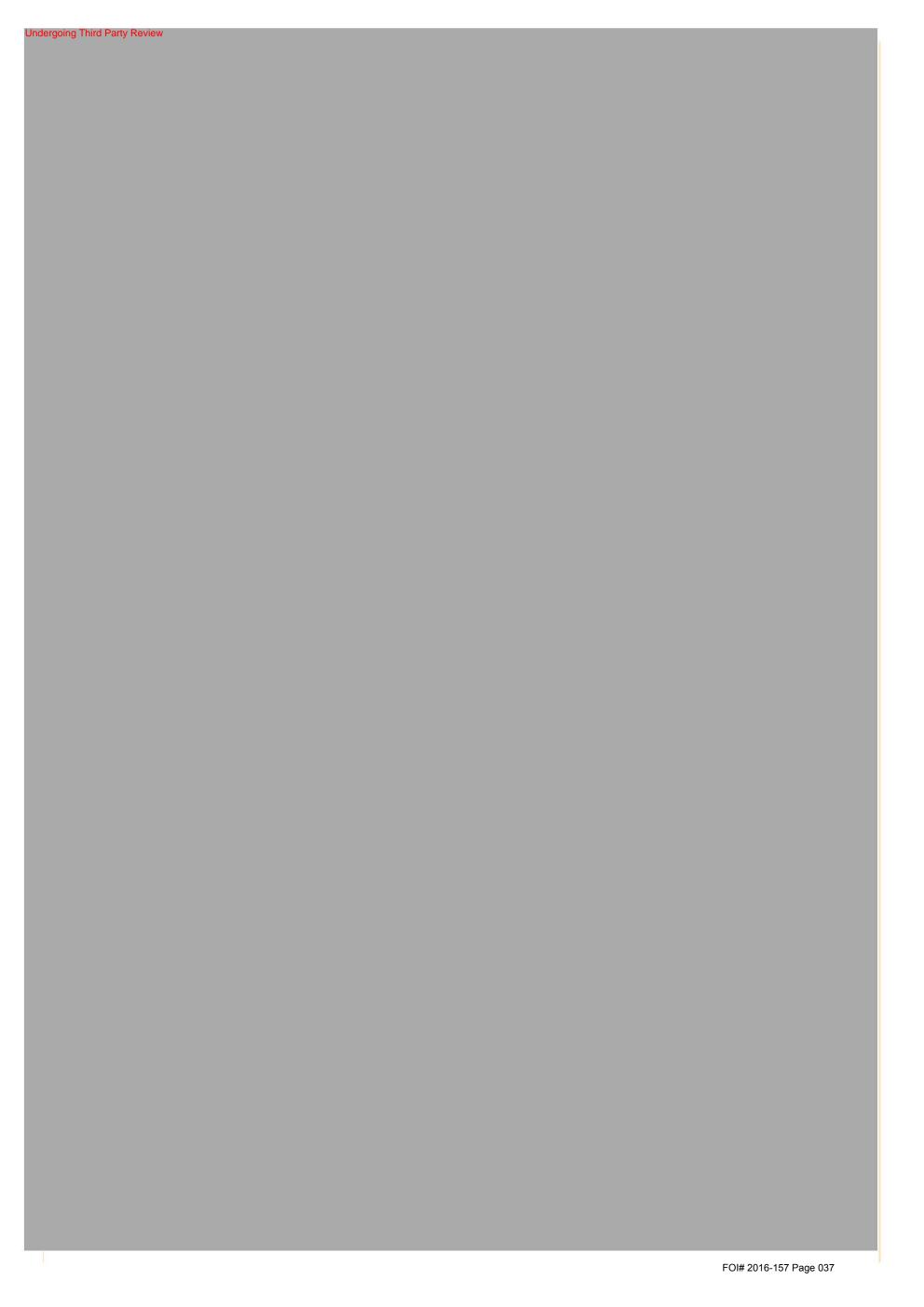
Subject: RE: 7084 Beechwood Street

I will be the contact person at the City for the time being.

I just spoke with Andre from Golden sun and he said they are in the process of finalizing the contract. Let us know as soon as you secure your contract.

Mark Roozbahani Deputy Chief Building Official Assistant Director, Inspections Integrated Enforcment and Trade Services City of Vancouver 604 873 7533

Undergoing Third Party Review



Undergoing Third Party Review		

From: Collister, Mike

Sent: Monday, September 28, 2015 11:23 AM

To: Smith, James

Cc: Roozbahani, Mark; Ryan, Pat (PDS); McDiarmid, Mike; Crowe, Brian; Kwan, Linda

Subject: RE: 7084 Beechwood underground water problem

FYI to all. The address for the site is actually 7084 Beechwood St. The related building permit is DB446788.

Mike Collister

Manager Building Inspection Branch Planning and Development Services City of Vancouver Tel: 604.873.7174

Email: mike.collister@vancouver.ca

From: Smith, James

Sent: Monday, September 28, 2015 11:10 AM

To: Lam, Matthew; Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Mathew,

Linda Kwan from our group who was onsite this morning and learned the following:

- The homeowner has contracted GeoPacific Engineering to manage the problem. GeoPacific indicated it could be easily managed. As a matter of urgency, they are reportedly planning to contract a driller (Uniwide) to re-drill and cap the flow. I'm not sure Uniwide has the necessary equipment (i.e., large diameter augers/casing) but we have confidence in GeoPacific. The City should liaise with GeoPacific to better understand to confirm they have been retained as well as the approach and permanency of the proposed solution.

Also, we've spoken with a driller/consultant who was onsite on Saturday (September 26th) who indicated they were also in discussions with the homeowner to manage the well. They are negotiating the need for a retainer and are going to contact us at noon with a progress update. At issue was the requirement for a retainer and I surmise this will fall through in-light of the above bullet but we will confirm.

At the end of the day, it sounds like the homeowner is taking some steps to manage things but we will should stay ontop of it to ensure the work is dealt with expeditiously.

James

From: Lam, Matthew

Sent: Monday, September 28, 2015 10:21 AM

To: Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

All:

Thanks for the updates, please let me know if there is any information I can obtain from the office to serve you in the field.

I do want to confirm the address as 7084 Beechwood, which recent had a building permit issued in August 2015 under DB446788.

The owner and contractor are shown as:

FENG LIN LIU Contact 2 is: 01 PROPERTY OWNER

Fax:

2606 EDGAR CRESCENT Bl account : Tel: VANCOUVER BC V6L 2G4 Certificate: Tel:

LIBO SUN Contact 3 is: 02 CONTRACTOR

Fax:

5887 ADERA ST Bl account : 705939 Tel: 778-855-8957

VANCOUVER BC V6P 5B9 Certificate: 271715 Tel:

Matthew

From: Mayberry, Jennifer

Sent: Monday, September 28, 2015 8:44 AM

To: Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Lam, Matthew; Collister, Mike; Smith, James; McDiarmid, Mike Subject: RE: 3074 Beechwood underground water problem

Hi All,

James and I are happy to help in any way. We both have loads of experience installing and decommissioning groundwater wells.

FYI – there are specific requirements on how to decommission wells, as per the Groundwater Protection Regulation: http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/11_299_2004
http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html

Jenn

s. 13(1) and s.14



From: Ryan, Pat (PDS) < <u>patrick.ryan@vancouver.ca</u>>

Sent: Sunday, September 27, 2015 3:48 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

Subject: Re: 3074 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed) .

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official

Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

s.13(1) Mark Roozbahani,

Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger. s.13(1)

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the

flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

From: "Shannon, Mike" < mike.shannon@vancouver.ca>

To: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>

Date: 9/28/2015 7:56:23 AM

Subject: FW: Natural Resources plugs pesky B.C. well after trying for 50 years - Politics - CBC

News East of Vernon BC

Gentlemen,

Interesting news report from on the water aquifer from Vernon BC, in relation to 7054 Beechwood (near sw marine and endowment lands).

Mike.

----Original Message-----

From: Shannon, Mike

Sent: Monday, September 28, 2015 7:52 AM

To: Shannon, Mike

Subject: Natural Resources plugs pesky B.C. well after trying for 50 years - Politics - CBC News

http://www.cbc.ca/news/politics/natural-resources-plugs-pesky-b-c-well-after-trying-for-50-years-1.3237472

s.14

----Original Message-----

From: White, Phil

Sent: Tuesday, September 29, 2015 1:14 PM

To: Roozbahani, Mark

Subject: RE: Urgent - - 7084 beechwood

We have a sewer and draintile permit open. I checked Tracker for the surcharge levels (as attached). There is no mention of Geothermal drilling on these two permits.

Regards,

Phillip White

Gas Safety Manager
Acting Supervisor
Plumbing and Gas Inspection Branch
Licenses and Inspections
Tel 604 873 7609
Email. Phil.white@vancouver.ca

-----Original Message-----From: Roozbahani, Mark

Sent: Tuesday, September 29, 2015 12:41 PM

To: White, Phil; McDiarmid, Mike Subject: Urgent - - 7084 beechwood

Importance: High

Can you let me know if there is any permits for this site? Was there any mention of a geothermal or drilling in our permits?

PUBLIC SEWER AND WATER CONNECTION INFORMATION

SEWER INFORMATION FOR 7084 BEECHWOOD ST

THIS SITE PLAN SHOWS THE LOCATIONS, SIZES AND INVERT ELEVATIONS OF THE PUBLIC STORM AND SANITARY SEWER CONNECTIONS.
PLUMBING FIXTURES ARE RESTRICTED AS FOLLOWS: (CLASS II)

- A) PUMP ALL SANITARY FIXTURES (INCLUDING FLOOR DRAINS) WITH RIM ELEVATIONS BELOW 36.32 m (geodetic) or 119.15 ft (geodetic), AND
- B) IF THE LOWEST FLOOR SLAB OR THE LOWEST OUTSIDE STORM DRAIN IS BELOW THE SANITARY FIXTURE RESTRICTION ELEVATION NOTED IN "A" ABOVE, THEN:
 - 1) PUMP ALL STORM FIXTURES BELOW THE RESTRICTED ELEVATION, OR
 - 2) CONNECT ALL ROOF DRAINS AND STORM FIXTURES WITH RIM ELEVATIONS ABOVE THE RESTRICTED ELEVATION THROUGH ONE SUMP AND CONNECT THE SUBSOIL DRAINAGE SYSTEM (DRAIN TILES) AND ALL STORMWATER FIXTURES WITH RIM ELEVATIONS BELOW THE RESTRICTED ELEVATIONS TO A SECOND SUMP. (SEE SCHEMATIC DRAWING FOR CLASS 2 FIXTURE RESTRICTIONS).

WATER INFORMATION

THIS SITE PLAN SHOWS THE LOCATION AND SIZE OF THE PUBLIC WATER CONNECTION.
THE ESTIMATED WATER PRESSURES@36 U.S. GPM FOR THIS SITE ARE:

WINTER STATIC: <u>97</u> psi SUMMER STATIC: <u>60</u> psi RESIDUAL: <u>51</u> psi

NOTES

The City of Vancouver does not guarantee the accuracy of the information provided on this Plan. Circumstances may prevent the City from installing the public sewer and/or water connections at the locations and depths shown on this Plan.

The Owner is responsible for locating and connecting to the public sewer and water connections installed by the City regardless of their actual installed locations and depths.

The Owner is responsible for ensuring that the sizing of the private plumbing system is adequate for the storm & sanitary sewer discharges and the domestic & fire water flows.

No person shall connect a building sewer or water system to a public connection without first obtaining a "Public Sewer & Water Connection Permit".

All revisions related to the sewer and water information on this site plan must have Engineering review and acceptance prior to making the change(s). Any requests for changes after a City crew has arrived at the site may cause installation delays and additional costs.

Begin forwarded message: From: "Smith, James" < James. Smith@vancouver.ca> Date: September 28, 2015 at 11:33:47 AM PDT To: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca >, "Lam, Matthew" <matthew.lam@vancouver.ca>, "Mayberry, Jennifer" <Jennifer.Mayberry@vancouver.ca>, "Ryan, Pat (PDS)" cpatrick.ryan@vancouver.ca, "Connell, Francie" <francie.connell@vancouver.ca> Cc: "Collister, Mike" < mike.collister@vancouver.ca >, "McDiarmid, Mike" <mike.mcdiarmid@vancouver.ca> Subject: RE: 3074 Beechwood underground water problem Thanks Mark, 5.13(1) James From: Roozbahani, Mark Sent: Monday, September 28, 2015 11:25 AM To: Smith, James; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Connell, Francie Cc: Collister, Mike; McDiarmid, Mike Subject: RE: 3074 Beechwood underground water problem s.13(1)

Mark Roozbahani

From: Smith, James

Sent: Monday, September 28, 2015 11:10 AM

To: Lam, Matthew; Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Mathew,

Linda Kwan from our group who was onsite this morning and learned the following:

- The homeowner has contracted GeoPacific Engineering to manage the problem. GeoPacific indicated it could be easily managed. As a matter of urgency, they are reportedly planning to contract a driller (Uniwide) to re-drill and cap the flow. I'm not sure Uniwide has the necessary equipment (i.e., large diameter augers/casing) but we have confidence in GeoPacific. The City should liaise with GeoPacific to better understand to confirm they have been retained as well as the approach and permanency of the proposed solution.

Also, we've spoken with a driller/consultant who was onsite on Saturday (September 26th) who indicated they were also in discussions with the homeowner to manage the well. They are negotiating the need for a retainer and are going to contact us at noon with a progress update. At issue was the requirement for a retainer and I surmise this will fall through in-light of the above bullet but we will confirm.

At the end of the day, it sounds like the homeowner is taking some steps to manage things but we will should stay on-top of it to ensure the work is dealt with expeditiously.

James

From: Lam, Matthew

Sent: Monday, September 28, 2015 10:21 AM

To: Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

All:

Thanks for the updates, please let me know if there is any information I can obtain from the office to serve you in the field.

I do want to confirm the address as 7084 Beechwood, which recent had a building permit issued in August 2015 under DB446788.

The owner and contractor are shown as:

FENG LIN LIU Contact 2 is: 01 PROPERTY OWNER

Fax:

2606 EDGAR CRESCENT Bl account : Tel: VANCOUVER BC V6L 2G4 Certificate: Tel:

LIBO SUN Contact 3 is: 02 CONTRACTOR

Fax:

5887 ADERA ST Bl account : 705939 Tel: 778-855-8957

VANCOUVER BC V6P 5B9 Certificate: 271715 Tel:

Matthew

From: Mayberry, Jennifer

Sent: Monday, September 28, 2015 8:44 AM

To: Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Lam, Matthew; Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Hi All,

James and I are happy to help in any way. We both have loads of experience installing and decommissioning groundwater wells.

http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/11_299_2004 http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html Jenn s. 13(1) and s.14 s. 13(1) and s.14

FYI – there are specific requirements on how to decommission wells, as per the Groundwater Protection

Regulation:

From: Ryan, Pat (PDS) < patrick.rvan@vancouver.ca>

Sent: Sunday, September 27, 2015 3:48 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

Subject: Re: 3074 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

5.13(1) Mark

Roozbahani, Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the

moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger. 513

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

s.14

Begin forwarded message:

From: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>

Date: September 28, 2015 at 11:25:39 AM PDT

To: "Smith, James" < James. Smith@vancouver.ca >, "Lam, Matthew"

<matthew.lam@vancouver.ca>, "Mayberry, Jennifer" <Jennifer.Mayberry@vancouver.ca>,

"Ryan, Pat (PDS)" cpatrick.ryan@vancouver.ca, "Connell, Francie"

<francie.connell@vancouver.ca>

Cc: "Collister, Mike" < mike.collister@vancouver.ca >, "McDiarmid, Mike"

<mike.mcdiarmid@vancouver.ca>

Subject: RE: 3074 Beechwood underground water problem

s.13(1)

Mark Roozbahani

From: Smith, James

Sent: Monday, September 28, 2015 11:10 AM

To: Lam, Matthew; Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Mathew,

Linda Kwan from our group who was onsite this morning and learned the following:

- The homeowner has contracted GeoPacific Engineering to manage the problem. GeoPacific indicated it could be easily managed. As a matter of urgency, they are reportedly planning to contract a driller (Uniwide) to re-drill and cap the flow. I'm not sure Uniwide has the necessary equipment (i.e., large diameter augers/casing) but we have confidence in GeoPacific. The City should liaise with GeoPacific to better understand to confirm they have been retained as well as the approach and permanency of the proposed solution.

Also, we've spoken with a driller/consultant who was onsite on Saturday (September 26th) who indicated they were also in discussions with the homeowner to manage the well. They are negotiating the need for a retainer and are going to contact us at noon with a progress update. At issue was the requirement for a retainer and I surmise this will fall through in-light of the above bullet but we will confirm.

At the end of the day, it sounds like the homeowner is taking some steps to manage things but we will should stay on-top of it to ensure the work is dealt with expeditiously.

From: Lam, Matthew

Sent: Monday, September 28, 2015 10:21 AM

To: Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

All:

Thanks for the updates, please let me know if there is any information I can obtain from the office to serve you in the field.

I do want to confirm the address as 7084 Beechwood, which recent had a building permit issued in August 2015 under DB446788.

The owner and contractor are shown as:

FENG LIN LIU Contact 2 is: 01 PROPERTY OWNER

Fax:

2606 EDGAR CRESCENT Bl account : Tel: VANCOUVER BC V6L 2G4 Certificate: Tel:

LIBO SUN Contact 3 is: 02 CONTRACTOR

Fax:

5887 ADERA ST Bl account: 705939 Tel: 778-855-8957

VANCOUVER BC V6P 5B9 Certificate: 271715 Tel:

Matthew

From: Mayberry, Jennifer

Sent: Monday, September 28, 2015 8:44 AM

To: Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Lam, Matthew; Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Hi All,

James and I are happy to help in any way. We both have loads of experience installing and decommissioning groundwater wells.

FYI – there are specific requirements on how to decommission wells, as per the Groundwater Protection Regulation:

http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/11_299_2004 http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html

Jenn

s. 13(1) and s. 14

s. 13(1) and s.14

From: Ryan, Pat (PDS) < <u>patrick.ryan@vancouver.ca</u>>

Sent: Sunday, September 27, 2015 3:48 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

s. 13(1) and s.14

Subject: Re: 3074 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on

other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

5.13(1) Mark

Roozbahani, Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger. 5.13(1)

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for

occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Begin forwarded message:

From: "Lam, Matthew" < matthew.lam@vancouver.ca >

Date: September 28, 2015 at 10:21:51 AM PDT

To: "Mayberry, Jennifer" < Jennifer. "Roozbahani, Mark"

<Mark.Roozbahani@vancouver.ca>, "Ryan, Pat (PDS)" patrick.ryan@vancouver.ca>,

"Connell, Francie" < francie.connell@vancouver.ca>

Cc: "Collister, Mike" < mike.collister@vancouver.ca >, "Smith, James"

<James.Smith@vancouver.ca>, "McDiarmid, Mike" <mike.mcdiarmid@vancouver.ca>

Subject: RE: 3074 Beechwood underground water problem

All:

Thanks for the updates, please let me know if there is any information I can obtain from the office to serve you in the field.

I do want to confirm the address as 7084 Beechwood, which recent had a building permit issued in August 2015 under DB446788.

The owner and contractor are shown as:

FENG LIN LIU Contact 2 is: 01 PROPERTY OWNER

Fax:

2606 EDGAR CRESCENT Bl account : Tel: VANCOUVER BC V6L 2G4 Certificate: Tel:

LIBO SUN Contact 3 is: 02 CONTRACTOR

Fax:

5887 ADERA ST Bl account : 705939 Tel: 778-855-8957

VANCOUVER BC V6P 5B9 Certificate: 271715 Tel:

Matthew

From: Mayberry, Jennifer

Sent: Monday, September 28, 2015 8:44 AM

To: Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Lam, Matthew; Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Hi All,

James and I are happy to help in any way. We both have loads of experience installing and decommissioning groundwater wells.

FYI – there are specific requirements on how to decommission wells, as per the Groundwater Protection

Regulation: http://www.bcla	ws.ca/EPLibraries/l	<u>EPLibraries/bclaws_new/document/ID/freeside/11_299_2004</u>				
	env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html					
Jenn I) and s.14						
,						
and s.14						

From: Ryan, Pat (PDS) < patrick.rvan@vancouver.ca>

Sent: Sunday, September 27, 2015 3:48 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

Subject: Re: 3074 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

\$.13(1) Mark

Roozbahani, Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the

moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger. 513(1)

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Begin forwarded message:

From: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>

Date: September 28, 2015 at 11:05:53 AM PDT

To: "Lam, Matthew" < matthew.lam@vancouver.ca >, "Mayberry, Jennifer"

<Jennifer.Mayberry@vancouver.ca>, "Ryan, Pat (PDS)" <patrick.ryan@vancouver.ca>,

"Connell, Francie" < francie.connell@vancouver.ca>

Cc: "Collister, Mike" < mike.collister@vancouver.ca >, "Smith, James"

<James.Smith@vancouver.ca>, "McDiarmid, Mike" <mike.mcdiarmid@vancouver.ca>

Subject: RE: 3074 Beechwood underground water problem

Thank Matthew,

I just came back from the site. I was with Jamie Hartley, Mike Collister, Linda Kwan and Dave Robertson. The owner/contractor intends to hire Matt Kokan who was on the site. Matt stated that he does not see public safety as an issue based on the type and amount of sediment collected. We asked for a correspondence from Matt Kokan, Geopacific to oversee the capping operations by noon today.

We informed the owner and contractor they that they have to pay for the services of the contractor and professionals they selected and the City has no responsibility in this regard.

We also informed the owner and contractor that they are not permitted to try another geothermal well at this site. Mr. Young, the Geotechnical Engineer of Record was at the job site earlier last week and provided a field review report. We took a picture of that report too. Nothing special but provides explanation about the operations proceeding.

Mark Roozbahani

From: Lam, Matthew

Sent: Monday, September 28, 2015 10:22 AM

To: Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

All:

Thanks for the updates, please let me know if there is any information I can obtain from the office to serve you in the field.

I do want to confirm the address as 7084 Beechwood, which recent had a building permit issued in August 2015 under DB446788.

The owner and contractor are shown as:

FENG LIN LIU Contact 2 is: 01 PROPERTY OWNER

Fax:

2606 EDGAR CRESCENT Bl account : Tel: VANCOUVER BC V6L 2G4 Certificate: Tel:

LIBO SUN Contact 3 is: 02 CONTRACTOR

Fax:

5887 ADERA ST Bl account: 705939 Tel: 778-855-8957

VANCOUVER BC V6P 5B9 Certificate: 271715 Tel:

Matthew

From: Mayberry, Jennifer

Sent: Monday, September 28, 2015 8:44 AM

To: Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Lam, Matthew; Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Hi All,

James and I are happy to help in any way. We both have loads of experience installing and decommissioning groundwater wells.

FYI – there are specific requirements on how to decommission wells, as per the Groundwater Protection Regulation:

http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/11_299_2004 http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html

Jenn





From: Ryan, Pat (PDS) < patrick.ryan@vancouver.ca >

Sent: Sunday, September 27, 2015 3:48 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

Subject: Re: 3074 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

s.13(1) Mark

Roozbahani, Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger. \$130

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were

looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

s.14

Begin forwarded message:

From: "Smith, James" < <u>James.Smith@vancouver.ca</u>>

Date: September 28, 2015 at 11:10:07 AM PDT

To: "Lam, Matthew" < matthew.lam@vancouver.ca >, "Mayberry, Jennifer"

<Jennifer.Mayberry@vancouver.ca>, "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>,

"Ryan, Pat (PDS)" patrick.ryan@vancouver.ca, "Connell, Francie"

<francie.connell@vancouver.ca>

Cc: "Collister, Mike" < mike.collister@vancouver.ca >, "McDiarmid, Mike"

<mike.mcdiarmid@vancouver.ca>

Subject: RE: 3074 Beechwood underground water problem

Mathew,

Linda Kwan from our group who was onsite this morning and learned the following:

- The homeowner has contracted GeoPacific Engineering to manage the problem. GeoPacific indicated it could be easily managed. As a matter of urgency, they are reportedly planning to contract a driller (Uniwide) to re-drill and cap the flow. I'm not sure Uniwide has the necessary equipment (i.e., large diameter augers/casing) but we have confidence in GeoPacific. The City should liaise with GeoPacific to better understand to confirm they have been retained as well as the approach and permanency of the proposed solution.

Also, we've spoken with a driller/consultant who was onsite on Saturday (September 26th) who indicated they were also in discussions with the homeowner to manage the well. They are negotiating the need for a retainer and are going to contact us at noon with a progress update. At issue was the requirement for a retainer and I surmise this will fall through in-light of the above bullet but we will confirm.

At the end of the day, it sounds like the homeowner is taking some steps to manage things but we will should stay on-top of it to ensure the work is dealt with expeditiously.

James

From: Lam, Matthew

Sent: Monday, September 28, 2015 10:21 AM

To: Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

All:

Thanks for the updates, please let me know if there is any information I can obtain from the office to serve you in the field.

I do want to confirm the address as 7084 Beechwood, which recent had a building permit issued in August 2015

under DB446788.

The owner and contractor are shown as:

FENG LIN LIU Contact 2 is: 01 PROPERTY OWNER

Fax:

2606 EDGAR CRESCENT Bl account : Tel: VANCOUVER BC V6L 2G4 Certificate: Tel:

LIBO SUN Contact 3 is: 02 CONTRACTOR

Fax:

5887 ADERA ST Bl account: 705939 Tel: 778-855-8957

VANCOUVER BC V6P 5B9 Certificate: 271715 Tel:

Matthew

From: Mayberry, Jennifer

Sent: Monday, September 28, 2015 8:44 AM

To: Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Lam, Matthew; Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Hi All,

James and I are happy to help in any way. We both have loads of experience installing and decommissioning groundwater wells.

FYI – there are specific requirements on how to decommission wells, as per the Groundwater Protection Regulation:

http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/11_299_2004 http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html

Jenn

. 13(1) and s.14

S. 13(1) and s.14

From: Ryan, Pat (PDS) < patrick.ryan@vancouver.ca >

Sent: Sunday, September 27, 2015 3:48 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

Subject: Re: 3074 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

s.13(1) Mark

Roozbahani, Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger. said

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were

looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

s.14		
	Begin forwarded message:	
	From: "Mayberry, Jennifer" < <u>Jennifer.Mayberry@vancouver.ca</u> > Date: September 28, 2015 at 8:44:11 AM PDT To: "Roozbahani, Mark" < <u>Mark.Roozbahani@vancouver.ca</u> >, "Ryan, Pat (PDS)" < <u>patrick.ryan@vancouver.ca</u> >, "Connell, Francie" < <u>francie.connell@vancouver.ca</u> > Cc: "Lam, Matthew" < <u>matthew.lam@vancouver.ca</u> >, "Collister, Mike" < <u>mike.collister@vancouver.ca</u> >, "Smith, James" < <u>James.Smith@vancouver.ca</u> >, "McDiarmid,	

Mike" < mike.mcdiarmid@vancouver.ca >

Subject: RE: 3074 Beechwood underground water problem

Hi All,

James and I are happy to help in any way. We both have loads of experience installing and decommissioning groundwater wells.

FYI – there are specific requirements on how to decommission wells, as per the Groundwater Protection Regulation:

http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/11_299_2004 http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html

Jenn

s. 13(1) and s.14





From: Ryan, Pat (PDS) < <u>patrick.ryan@vancouver.ca</u>>

Sent: Sunday, September 27, 2015 3:48 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

Subject: Re: 3074 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

s.13(1) Mark

Roozbahani, Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger. s.13(1

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling

FOI# 2016-157 Page 080

around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A

FOI# 2016-157 Page 081

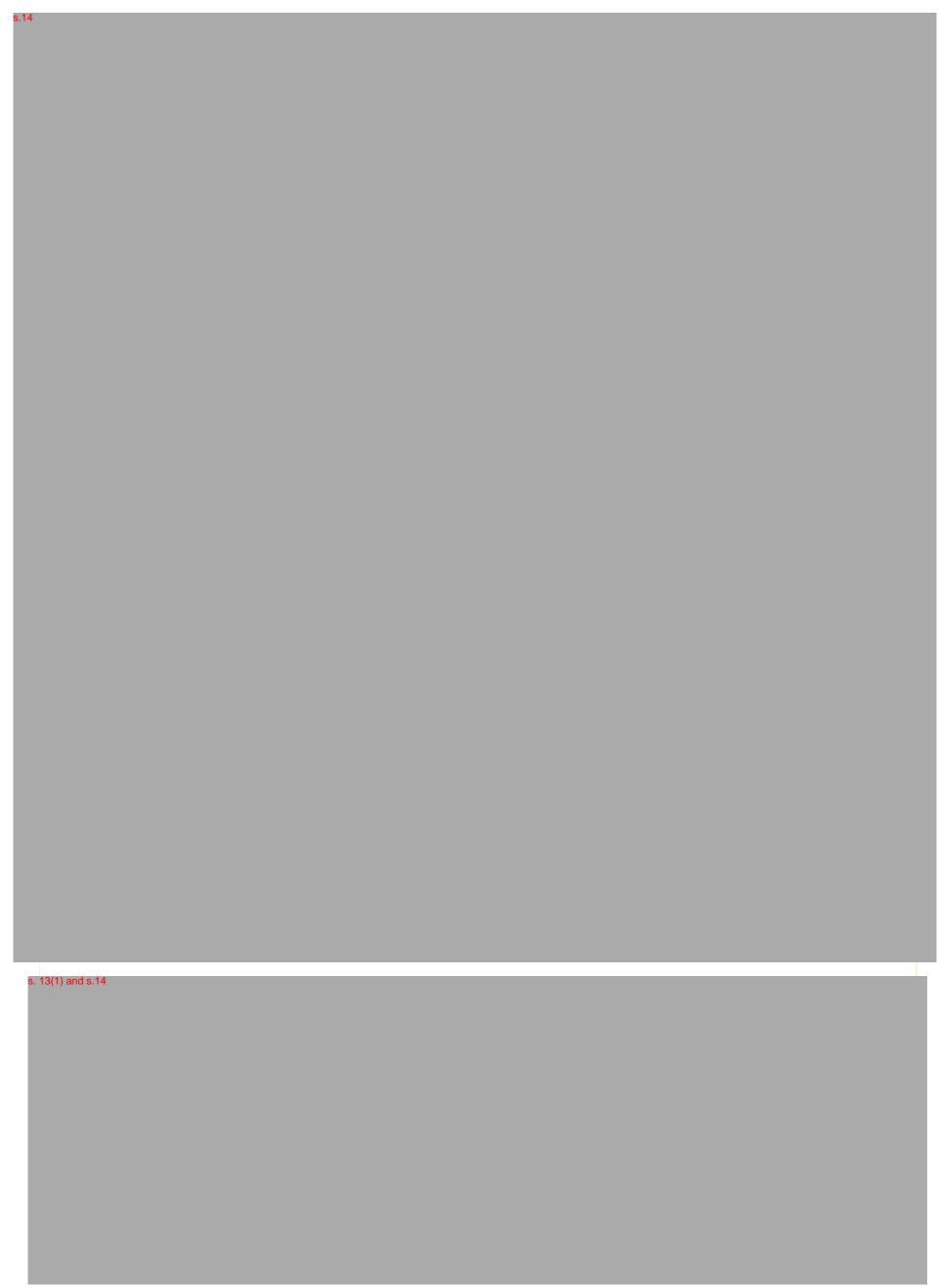
generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver



13(1) and s.14

From: Ryan, Pat (PDS) < patrick.ryan@vancouver.ca>

Sent: Sunday, September 27, 2015 3:48 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

Subject: Re: 3074 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

5.13(1) Mark

Roozbahani, Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger. 513(1)

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the

excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official

Director Building Code and Policy City of Vancouver		
Sent from BlackBerry		

From: Ryan, Pat (PDS) < patrick.ryan@vancouver.ca> Sent: Sunday, September 27, 2015 3:48 PM To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel; Collister, Mike; Lundberg, David; Roozbahani, Mark Cc: Lam, Matthew

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Subject: Re: 3074 Beechwood underground water problem

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to

ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

s.13(1) Mark

Roozbahani, Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork,

power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

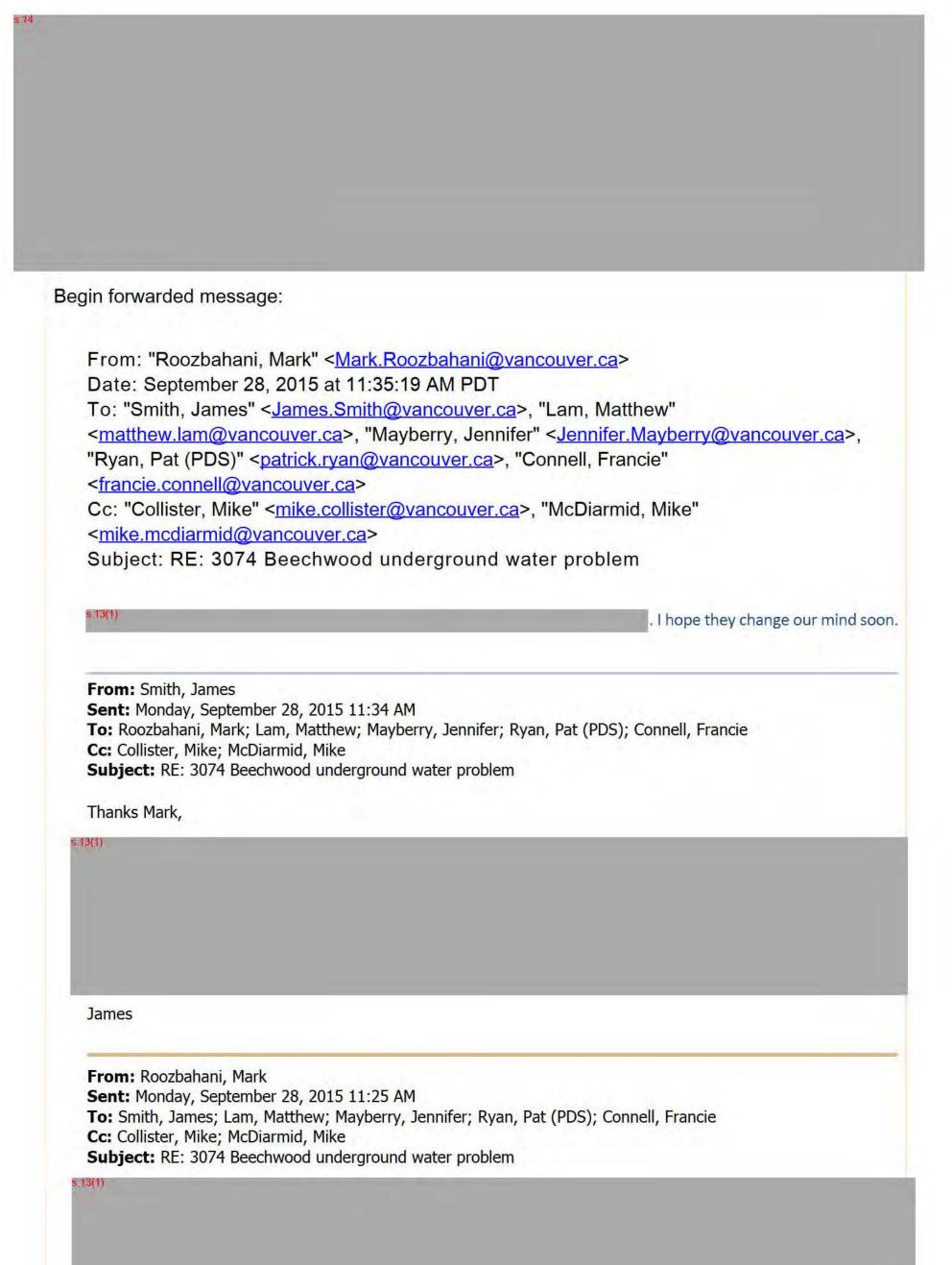
A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng
Chief Building Official
Director Building Code and Policy
City of Vancouver



Mark Roozbahani

From: Smith, James

Sent: Monday, September 28, 2015 11:10 AM

To: Lam, Matthew; Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Mathew,

Linda Kwan from our group who was onsite this morning and learned the following:

- The homeowner has contracted GeoPacific Engineering to manage the problem. GeoPacific indicated it could be easily managed. As a matter of urgency, they are reportedly planning to contract a driller (Uniwide) to re-drill and cap the flow. I'm not sure Uniwide has the necessary equipment (i.e., large diameter augers/casing) but we have confidence in GeoPacific. The City should liaise with GeoPacific to better understand to confirm they have been retained as well as the approach and permanency of the proposed solution.

Also, we've spoken with a driller/consultant who was onsite on Saturday (September 26th) who indicated they were also in discussions with the homeowner to manage the well. They are negotiating the need for a retainer and are going to contact us at noon with a progress update. At issue was the requirement for a retainer and I surmise this will fall through in-light of the above bullet but we will confirm.

At the end of the day, it sounds like the homeowner is taking some steps to manage things but we will should stay on-top of it to ensure the work is dealt with expeditiously.

James

From: Lam, Matthew

Sent: Monday, September 28, 2015 10:21 AM

To: Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

All:

Thanks for the updates, please let me know if there is any information I can obtain from the office to serve you in the field.

I do want to confirm the address as 7084 Beechwood, which recent had a building permit issued in August 2015 under DB446788.

The owner and contractor are shown as:

FENG LIN LIU Contact 2 is: 01 PROPERTY OWNER

Fax:

2606 EDGAR CRESCENT Bl account : Tel: VANCOUVER BC V6L 2G4 Certificate: Tel:

LIBO SUN Contact 3 is: 02 CONTRACTOR

Fax:

5887 ADERA ST Bl account : 705939 Tel: 778-855-8957

VANCOUVER BC V6P 5B9 Certificate: 271715 Tel:

Matthew

From: Mayberry, Jennifer

Sent: Monday, September 28, 2015 8:44 AM

To: Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Lam, Matthew; Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Hi All,

James and I are happy to help in any way. We both have loads of experience installing and decommissioning groundwater wells.

FYI – there are specific requirements on how to decommission wells, as per the Groundwater Protection Regulation:

http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/11_299_2004 http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html

Jenn



13(1) and s.14

From: Ryan, Pat (PDS) < patrick.ryan@vancouver.ca>

Sent: Sunday, September 27, 2015 3:48 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

Subject: Re: 3074 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

5.13(1) . Mark

Roozbahani, Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger. 5.13(

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Chief Building Official
Director Building Code and Policy
City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

From: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

To: "Ryan, Pat \(PDS\)" <patrick.ryan@vancouver.ca>

"Mayberry, Jennifer" < Jennifer. Mayberry@vancouver.ca>

"Collister, Mike" < mike.collister@vancouver.ca>

Date: 9/29/2015 7:13:17 AM

Subject: Fwd: 7084 Beechwood Street

Edit

Sent from my iPhone

Undergoing Third Party Review

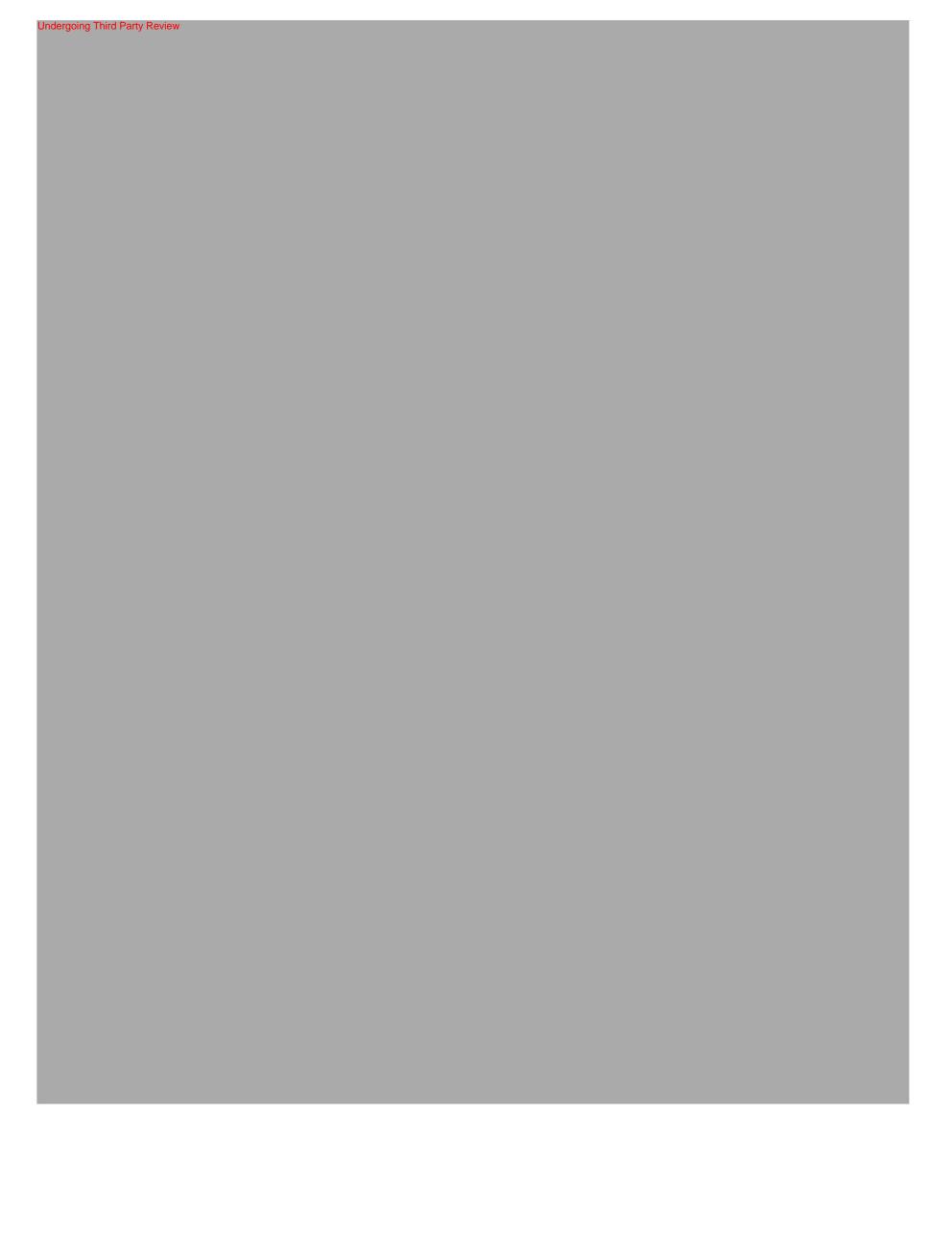
Begin forwarded message:

From: Thierry Carriou < tcarriou@bcgroundwater.ca >

Date: September 29, 2015 at 7:09:25 AM PDT

To: < Mark.Roozbahani@vancouver.ca > Cc: < goldensunhousing@gmail.com > Subject: RE: 7084 Beechwood Street

Good morning. One edit to the email is the cutoff date is Sept 30, 2015 to retain our services (not October). Thierry



From: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

To: "Murray, Grant" < Grant. Murray@vancouver.ca>

"Mayberry, Jennifer" < Jennifer. Mayberry@vancouver.ca>

"Ryan, Pat \(PDS\)" <patrick.ryan@vancouver.ca>
"Collister, Mike" <mike.collister@vancouver.ca>

Date: 9/29/2015 5:15:17 PM

Subject: Fwd: 7084 Beechwood Street

Sent from my iPhone

Begin forwarded message:

From: Thierry Carriou < tcarriou@bcgroundwater.ca >

Date: September 29, 2015 at 4:59:35 PM PDT

To: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>

Cc: <goldensunhousing@gmail.com>
Subject: RE: 7084 Beechwood Street

Mark,

We have received the deposit to commence work.

Regards,

Thierry

From: Roozbahani, Mark [mailto:Mark.Roozbahani@vancouver.ca]

Sent: Tuesday, September 29, 2015 11:44 AM

To: 'Thierry Carriou'

Cc: goldensunhousing@gmail.com; Ryan, Pat (PDS); Collister, Mike; Mayberry, Jennifer

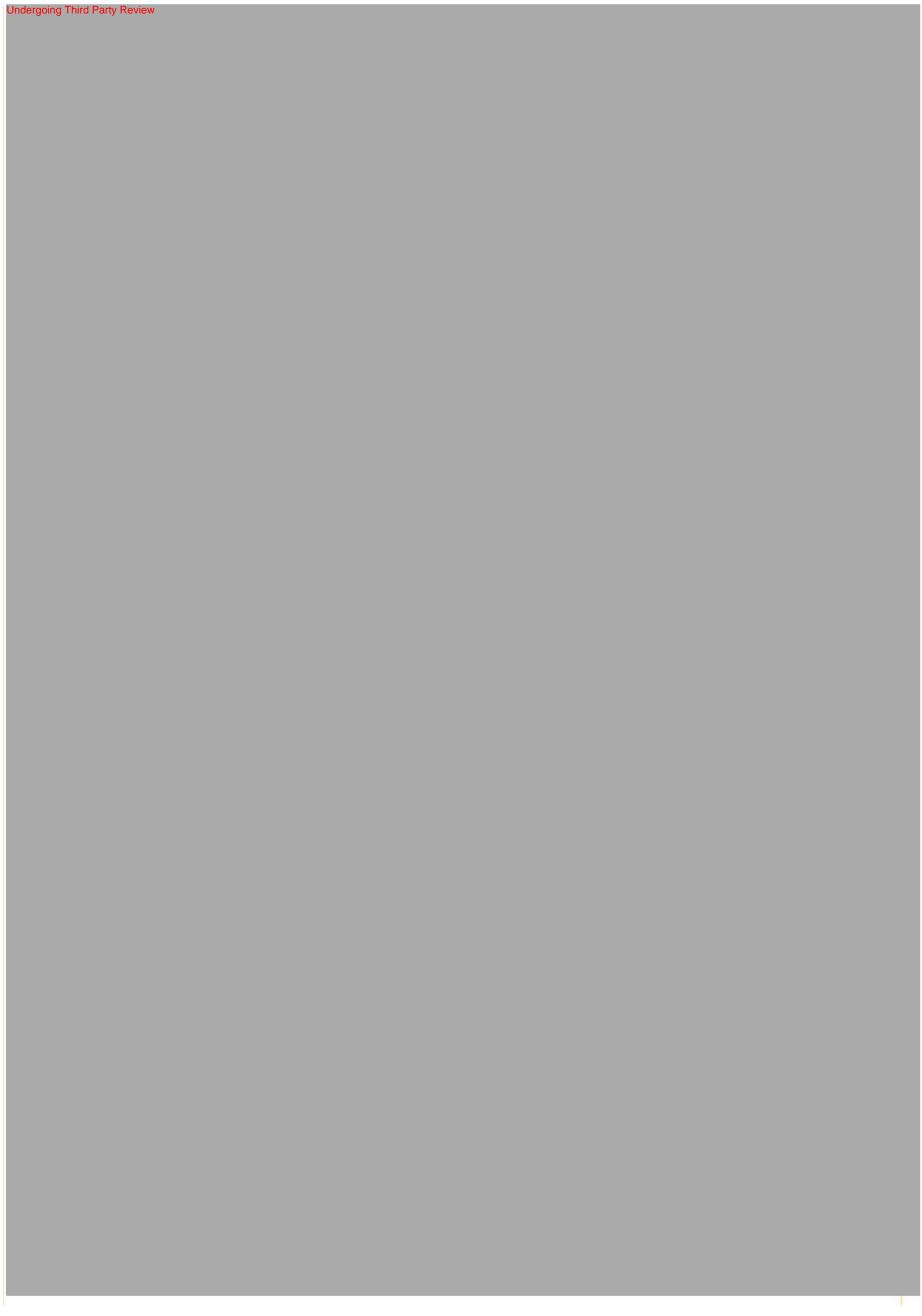
Subject: RE: 7084 Beechwood Street

I will be the contact person at the City for the time being.

I just spoke with Andre from Golden sun and he said they are in the process of finalizing the contract. Let us know as soon as you secure your contract.

Mark Roozbahani
Deputy Chief Building Official
Assistant Director, Inspections Integrated Enforcment and Trade Services
City of Vancouver
604 873 7533

Undergoing Third Party Review



ndergoing Third Party Review	

From: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

To: "Collister, Mike" < mike.collister@vancouver.ca>

"Mayberry, Jennifer" < Jennifer. Mayberry@vancouver.ca>

Date: 9/30/2015 7:01:56 AM

Subject: Fwd: 7084 Beechwood Street - Artesian Well Daily Report Sept 29, 2015

Attachments: ATT00001.htm

15014.1 BCGW Bin Xue Cronin Report DRAFT - Sept 29 2015_p.pdf

ATT00002.htm

FYI and in case you want to send inspectors to monitor. I will send a draft to Mike for an order later today.

Sent from my iPhone

Begin forwarded message:

From: "Thierry Carriou" < tcarriou@bcgroundwater.ca>

To: "goldensunhousing@gmail.com" < goldensunhousing@gmail.com>

Cc: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>, "Simpson, Mike W FLNR:EX"

< Mike. Simpson@gov.bc.ca>

Subject: 7084 Beechwood Street - Artesian Well Daily Report Sept 29, 2015

Good evening Andy.

Attached, please find our first daily report.

Our team will be on site around 1 pm on Thursday. Rick, Jim and myself will tour the site alone first then I will meet with you in private. It is important for our team to have this uninterrupted time and hope you understand. I will text you when we have completed the inspection.

On Friday morning I have asked Mark from the City if he might have time to meet on site. The Ministry of Environment has been notified. They are confident in our team and will not be sending an observer.

Have a good night.

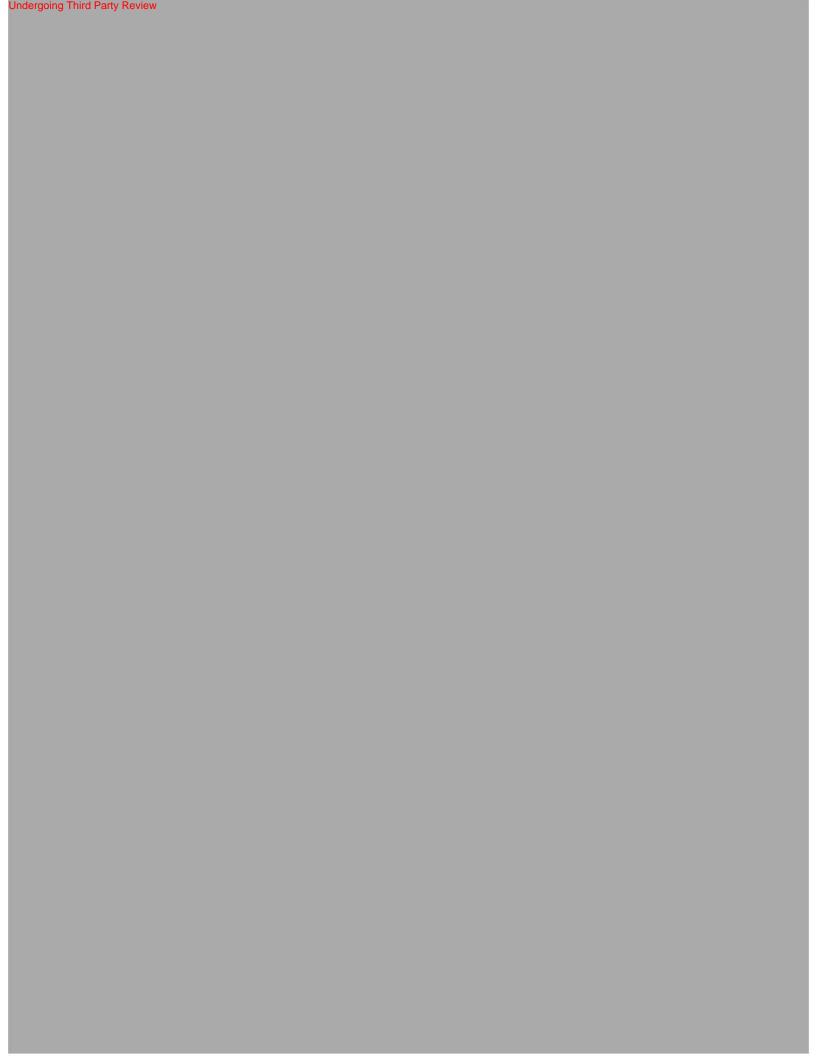
Thierry

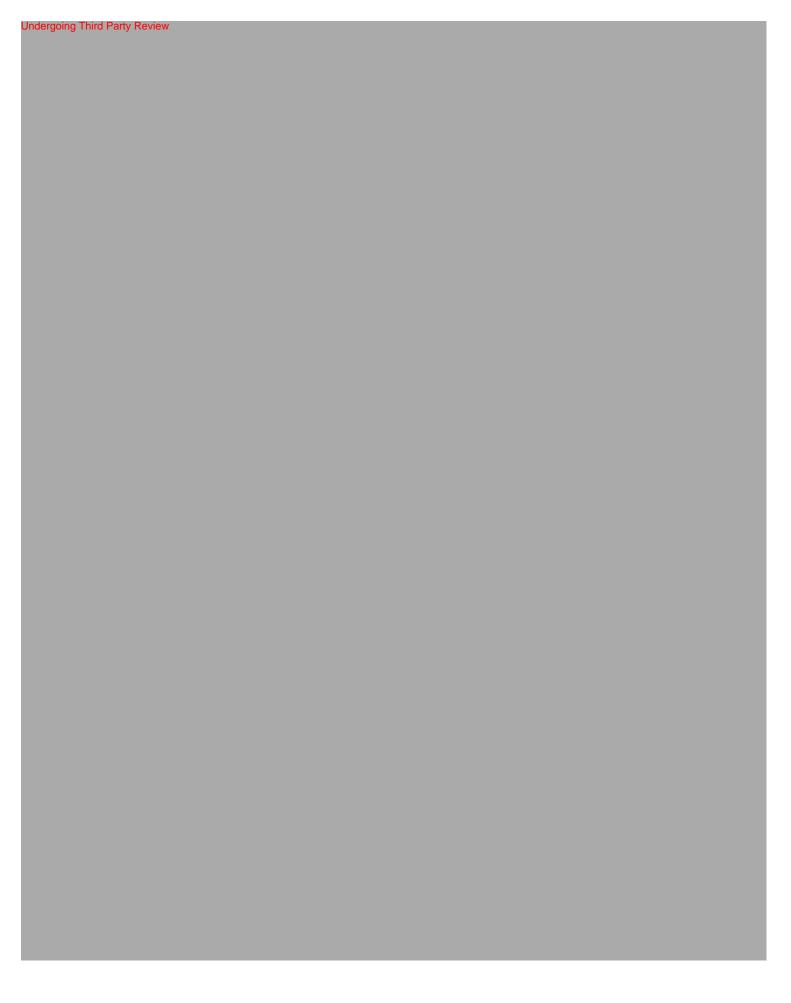
Thierry M. Carriou, M.Sc., P.Eng

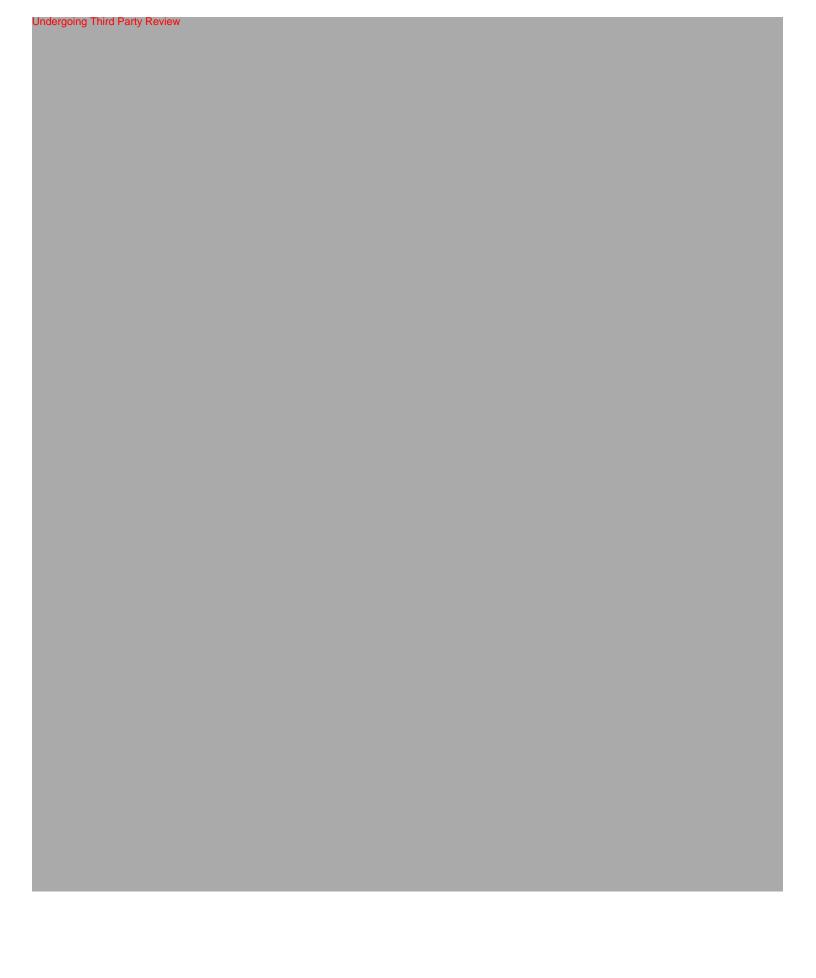
Hydrogeologist (1993)

w (250) 851-9414

c (250) 377-5758













From: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

To: "Collister, Mike" < mike.collister@vancouver.ca>

"Wong, Catherine" <catherine.wong@vancouver.ca>

Date: 9/30/2015 7:12:30 AM

Subject: Fwd: 7084 Beechwood Street

You can use some of the wording in the email below plus Div C 5.3.1 for unsafe condition. Mike please check the VBBL and confirm with Catherine as I do not have the Bylaw handy. Please send me a copy for review. Use my name Dr signature.

Thanks

Sent from my iPhone

Begin forwarded message:

From: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca >

Date: September 30, 2015 at 7:09:40 AM PDT To: Thierry Carriou < tcarriou@bcgroundwater.ca>

Cc: "Murray, Grant" < Grant.Murray@vancouver.ca >, "Ryan, Pat (PDS)"

<patrick.ryan@vancouver.ca>, "Collister, Mike" <mike.collister@vancouver.ca>, "Mayberry,

Jennifer" < Jennifer. Mayberry@vancouver.ca >, "goldensunhousing@gmail.com"

<goldensunhousing@gmail.com>

Subject: Re: 7084 Beechwood Street

Good news. Today you can call me in case of emergency at 604 781 0939. I'll be back to the office tomorrow. We are in the process of preparing an order to the owner to require immediate capping as recommended by you. We will require your (and also geotechnical Engineer of Record's) assurance upon completion that the site is safe and construction can proceed. We already informed the owner and their contractor and hereby I confirm that no construction permitted until the current unsafe condition is addressed to the City's satisfaction. Mark Roozbahani

Sent from my iPhone

On Sep 29, 2015, at 4:59 PM, Thierry Carriou < tcarriou@bcgroundwater.ca > wrote:

Mark,

We have received the deposit to commence work.

Regards,

Thierry

From: Roozbahani, Mark [mailto:Mark.Roozbahani@vancouver.ca]

Sent: Tuesday, September 29, 2015 11:44 AM

To: 'Thierry Carriou'

Cc: goldensunhousing@gmail.com; Ryan, Pat (PDS); Collister, Mike; Mayberry, Jennifer

Subject: RE: 7084 Beechwood Street

I will be the contact person at the City for the time being.

I just spoke with Andre from Golden sun and he said they are in the process of finalizing the contract. Let us know as soon as you secure your contract.

Mark Roozbahani Deputy Chief Building Official Assistant Director, Inspections Integrated Enforcment and Trade Services City of Vancouver 604 873 7533

U	Indergoing Third Party Review
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	



From: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

To: "Ryan, Pat \(PDS\)" <patrick.ryan@vancouver.ca>

"Jackson, Brian \(PDS\)" < Brian.Jackson@vancouver.ca>

Date: 9/29/2015 11:29:47 AM Subject: Fwd: 7084 beechwood

Attachments: ATT00001.htm

There are few video and pix in case you want to share with Sadhu.

Sent from my iPhone

Begin forwarded message:

From: "Collister, Mike" < mike.collister@vancouver.ca >

Date: September 29, 2015 at 11:27:13 AM PDT

To: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>

Subject: 7084 beechwood

Sent from my iPhone

From: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

To: <u>"Smith, James" < James. Smith@vancouver.ca></u>

"Lam, Matthew" <matthew.lam@vancouver.ca>

"Mayberry, Jennifer" < Jennifer. Mayberry@vancouver.ca>

"Ryan, Pat \(PDS\)" <patrick.ryan@vancouver.ca>

"Twa, Jason" <Jason.Twa@vancouver.ca>

Date: 9/28/2015 4:26:00 PM

Subject: RE: 3074 Beechwood underground water problem

Thierry call me. He is both P.Eng. and Hydrogeologist. He's trying to secure his contract. Let's hope and wait for his response. He acknowledged he will not start until getting the permission from the City.

From: Roozbahani, Mark

Sent: Monday, September 28, 2015 1:29 PM

To: Smith, James; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Twa, Jason

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Just received a new piece of information that the Golf course near the site has a well that seem to be connected to the same aquifer. Sarah from BC Fresh Water who was contacted by the owner phoned me and shared this information. She mentioned that Rod Smith was the professional who was dealing with this well still in use by the City.

Sarah mentioned that reduction of the pressure may cause risks of settlement and this issue has to be dealt with asap.

Mark

From: Smith, James

Sent: Monday, September 28, 2015 12:27 PM

To: Roozbahani, Mark; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Twa, Jason

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Mark,

This is the hydrogeologist that was onsite Saturday with a driller (Rick Conin) and who was recommended by a driller (Gordon Gibbons of Mud Bay Drilling) we called for advice. I spoke with a different driller (Mud Bay) who we were considering as a backup should we need to get more involved and he indicated this group (Thierry and Rick) knew what they were doing.

James

From: Roozbahani, Mark

Sent: Monday, September 28, 2015 12:12 PM

To: Smith, James; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Twa, Jason

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

It seems that they finally retained the services of the following company. None of the ones we knew to this point. I will email to get their scope of involvement and see if they have a professional on board.

Will let you know.

From: Golden Sun [mailto:goldensunhousing@gmail.com]

Sent: Monday, September 28, 2015 12:09 PM

To: Roozbahani, Mark **Cc:** Collister, Mike

Subject: 7084 Beechwood St - Geothermal Dill Hole

Hello Mark and Mike

We have decided to hire BC Groundwater Consulting Services as the professional agency to oversee the closure of the drill hole.

Their contact is below:

BC Groundwater Consulting Service

Thierry Cacciou Cell: 1-250-377-5758 Office:1-250-851-9414

Email: cdavidson@bcgroundwater.ca

I have not gone into detail discussion with Thierry. The general summary of the operation is that we going to close the hole in three steps.

- 1. Contain the flow
- 2. Control the well
- 3. Close it

If you need any further details, please contact Thierry.

Thank you.

Best Regards

Andy Wang

--

Golden Sun Housing Development ltd.

Vancouver, BC. Canada

Contact (ENG): 778-855-8957 (CHN): 778-858-8887

Email: goldensunhousing@gmail.com

From: Roozbahani, Mark

Sent: Monday, September 28, 2015 11:35 AM

To: Smith, James; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

From: Smith, James

Sent: Monday, September 28, 2015 11:34 AM

To: Roozbahani, Mark; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Connell, Francie

I hope they change our mind soon.

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

s.13(1)

James

From: Roozbahani, Mark

Sent: Monday, September 28, 2015 11:25 AM

To: Smith, James; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

s.13(1)

Mark Roozbahani

From: Smith, James

Sent: Monday, September 28, 2015 11:10 AM

To: Lam, Matthew; Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Mathew,

Linda Kwan from our group who was onsite this morning and learned the following:

- The homeowner has contracted GeoPacific Engineering to manage the problem. GeoPacific indicated it could be easily managed. As a matter of urgency, they are reportedly planning to contract a driller (Uniwide) to re-drill and cap the flow. I'm not sure Uniwide has the necessary equipment (i.e., large diameter augers/casing) but we have confidence in GeoPacific. The City should liaise with GeoPacific to better understand to confirm they have been retained as well as the approach and permanency of the proposed solution.

Also, we've spoken with a driller/consultant who was onsite on Saturday (September 26th) who indicated they were also in discussions with the homeowner to manage the well. They are negotiating the need for a retainer and are going to contact us at noon with a progress update. At issue was the requirement for a retainer and I surmise this will fall through in-light of the above bullet but we will confirm.

At the end of the day, it sounds like the homeowner is taking some steps to manage things but we will should stay ontop of it to ensure the work is dealt with expeditiously.

James

From: Lam, Matthew

Sent: Monday, September 28, 2015 10:21 AM

To: Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

All:

Thanks for the updates, please let me know if there is any information I can obtain from the office to serve you in the field.

I do want to confirm the address as 7084 Beechwood, which recent had a building permit issued in August 2015 under

DB446788.

The owner and contractor are shown as:

FENG LIN LIU Contact 2 is: 01 PROPERTY OWNER

Fax:

2606 EDGAR CRESCENT Bl account : Tel: VANCOUVER BC V6L 2G4 Certificate: Tel:

LIBO SUN Contact 3 is: 02 CONTRACTOR

Fax:

5887 ADERA ST Bl account: 705939 Tel: 778-855-8957

VANCOUVER BC V6P 5B9 Certificate: 271715 Tel:

Matthew

From: Mayberry, Jennifer

Sent: Monday, September 28, 2015 8:44 AM

To: Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Lam, Matthew; Collister, Mike; Smith, James; McDiarmid, Mike **Subject:** RE: 3074 Beechwood underground water problem

Hi All,

James and I are happy to help in any way. We both have loads of experience installing and decommissioning groundwater wells.

FYI – there are specific requirements on how to decommission wells, as per the Groundwater Protection Regulation: http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/11_299_2004
http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html

Jenn

13(1) and s.14

ı		

s. 13(1) and s.14

S, 13(1) and S 14

From: Ryan, Pat (PDS) < patrick.ryan@vancouver.ca>

Sent: Sunday, September 27, 2015 3:48 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

Subject: Re: 3074 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

Mark Roozbahani,

Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger. s.13(

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: "Mayberry, Jennifer" < Jennifer. Mayberry@vancouver.ca>

To: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>

Date: 9/28/2015 4:13:20 PM

Subject: RE: 3074 Beechwood underground water problem

Yes, it's McCleery GC. Parks should/might have info. I'll check.

From: Roozbahani, Mark

Sent: Monday, September 28, 2015 3:23 PM

To: Mayberry, Jennifer

Subject: RE: 3074 Beechwood underground water problem

If it's on the City golf Course, would Parks have the information? Is this Golf Course City's?

From: Mayberry, Jennifer

Sent: Monday, September 28, 2015 1:41 PM

To: Roozbahani, Mark

Subject: RE: 3074 Beechwood underground water problem

Do you want me to see if Parks has any well data?

From: Roozbahani, Mark

Sent: Monday, September 28, 2015 1:29 PM

To: Smith, James; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Twa, Jason

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Just received a new piece of information that the Golf course near the site has a well that seem to be connected to the same aquifer. Sarah from BC Fresh Water who was contacted by the owner phoned me and shared this information. She mentioned that Rod Smith was the professional who was dealing with this well still in use by the City.

Sarah mentioned that reduction of the pressure may cause risks of settlement and this issue has to be dealt with asap.

Mark

From: Smith, James

Sent: Monday, September 28, 2015 12:27 PM

To: Roozbahani, Mark; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Twa, Jason

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Mark,

This is the hydrogeologist that was onsite Saturday with a driller (Rick Conin) and who was recommended by a driller (Gordon Gibbons of Mud Bay Drilling) we called for advice. I spoke with a different driller (Mud Bay) who we were considering as a backup should we need to get more involved and he indicated this group (Thierry and Rick) knew what they were doing.

James

From: Roozbahani, Mark

Sent: Monday, September 28, 2015 12:12 PM

To: Smith, James; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Twa, Jason

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

It seems that they finally retained the services of the following company. None of the ones we knew to this point. I will email to get their scope of involvement and see if they have a professional on board.

Will let you know.

From: Golden Sun [mailto:goldensunhousing@gmail.com]

Sent: Monday, September 28, 2015 12:09 PM

To: Roozbahani, Mark **Cc:** Collister, Mike

Subject: 7084 Beechwood St - Geothermal Dill Hole

Hello Mark and Mike

We have decided to hire BC Groundwater Consulting Services as the professional agency to oversee the closure of the drill hole.

Their contact is below:

BC Groundwater Consulting Service

Thierry Cacciou Cell: 1-250-377-5758 Office:1-250-851-9414

Email: cdavidson@bcgroundwater.ca

I have not gone into detail discussion with Thierry. The general summary of the operation is that we going to close the hole in three steps.

- 1. Contain the flow
- 2. Control the well
- 3. Close it

If you need any further details, please contact Thierry.

Thank you.

Best Regards

Andy Wang

0.11

Golden Sun Housing Development ltd.

Vancouver, BC. Canada

Contact (ENG): 778-855-8957 (CHN): 778-858-8887

Email: goldensunhousing@gmail.com

From: Roozbahani, Mark

Sent: Monday, September 28, 2015 11:35 AM

To: Smith, James; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

s.13(1)

I hope they change our mind soon.

From: Smith, James

Sent: Monday, September 28, 2015 11:34 AM

To: Roozbahani, Mark; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Thanks Mark,

.13(1)

James

From: Roozbahani, Mark

Sent: Monday, September 28, 2015 11:25 AM

To: Smith, James; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

s.13(1)

Mark Roozbahani

From: Smith, James

Sent: Monday, September 28, 2015 11:10 AM

To: Lam, Matthew; Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Mathew,

Linda Kwan from our group who was onsite this morning and learned the following:

- The homeowner has contracted GeoPacific Engineering to manage the problem. GeoPacific indicated it could be easily managed. As a matter of urgency, they are reportedly planning to contract a driller (Uniwide) to re-drill and cap the flow. I'm not sure Uniwide has the necessary equipment (i.e., large diameter augers/casing) but we have confidence in GeoPacific. The City should liaise with GeoPacific to better understand to confirm they have been retained as well as the approach and permanency of the proposed solution.

Also, we've spoken with a driller/consultant who was onsite on Saturday (September 26th) who indicated they were also in discussions with the homeowner to manage the well. They are negotiating the need for a retainer and are going to contact us at noon with a progress update. At issue was the requirement for a retainer and I surmise this will fall through in-light of the above bullet but we will confirm.

At the end of the day, it sounds like the homeowner is taking some steps to manage things but we will should stay ontop of it to ensure the work is dealt with expeditiously.

James

From: Lam, Matthew

Sent: Monday, September 28, 2015 10:21 AM

To: Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

All:

Thanks for the updates, please let me know if there is any information I can obtain from the office to serve you in the field.

I do want to confirm the address as 7084 Beechwood, which recent had a building permit issued in August 2015 under DB446788.

The owner and contractor are shown as:

FENG LIN LIU Contact 2 is: 01 PROPERTY OWNER

Fax:

2606 EDGAR CRESCENT Bl account : Tel: VANCOUVER BC V6L 2G4 Certificate: Tel:

LIBO SUN Contact 3 is: 02 CONTRACTOR

Fax:

5887 ADERA ST Bl account : 705939 Tel: 778-855-8957

VANCOUVER BC V6P 5B9 Certificate: 271715 Tel:

Matthew

From: Mayberry, Jennifer

Sent: Monday, September 28, 2015 8:44 AM

To: Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Lam, Matthew; Collister, Mike; Smith, James; McDiarmid, Mike Subject: RE: 3074 Beechwood underground water problem

Hi All,

James and I are happy to help in any way. We both have loads of experience installing and decommissioning groundwater wells.

FYI – there are specific requirements on how to decommission wells, as per the Groundwater Protection Regulation: http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/11_299_2004
http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html

Jenn

13(1) and s.14

(1) and s.14			

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

Subject: Re: 3074 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

Mark Roozbahani,

Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger.

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells.

Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff , Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way.

FOI# 2016-157 Page 148

Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

From: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

To: "Smith, James" < James. Smith@vancouver.ca>

Date: 9/28/2015 12:48:02 PM

Subject: Re: 3074 Beechwood underground water problem

Let's see if they are contracted. I believe it when I see it in writing from them.

Sent from my iPhone

On Sep 28, 2015, at 12:26 PM, Smith, James < James. Smith@vancouver.ca > wrote:

Mark,

This is the hydrogeologist that was onsite Saturday with a driller (Rick Conin) and who was recommended by a driller (Gordon Gibbons of Mud Bay Drilling) we called for advice. I spoke with a different driller (Mud Bay) who we were considering as a backup should we need to get more involved and he indicated this group (Thierry and Rick) knew what they were doing.

James

From: Roozbahani, Mark

Sent: Monday, September 28, 2015 12:12 PM

To: Smith, James; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Twa, Jason

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

It seems that they finally retained the services of the following company. None of the ones we knew to this point. I will email to get their scope of involvement and see if they have a professional on board. Will let you know.

From: Golden Sun [mailto:goldensunhousing@gmail.com]

Sent: Monday, September 28, 2015 12:09 PM

To: Roozbahani, Mark **Cc:** Collister, Mike

Subject: 7084 Beechwood St - Geothermal Dill Hole

Hello Mark and Mike

We have decided to hire BC Groundwater Consulting Services as the professional agency to oversee the closure of the drill hole.

Their contact is below:

BC Groundwater Consulting Service

Thierry Cacciou Cell: 1-250-377-5758 Office:1-250-851-9414

Email: cdavidson@bcgroundwater.ca

I have not gone into detail discussion with Thierry. The general summary of the operation is that we going to close the hole in three steps.

- 1. Contain the flow
- 2. Control the well
- 3. Close it

If you need any further details, please contact Thierry. Thank you. Best Regards Andy Wang **Golden Sun Housing Development ltd.** Vancouver, BC. Canada Contact (ENG): 778-855-8957 (CHN): 778-858-8887 Email: goldensunhousing@gmail.com From: Roozbahani, Mark Sent: Monday, September 28, 2015 11:35 AM To: Smith, James; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Connell, Francie Cc: Collister, Mike; McDiarmid, Mike Subject: RE: 3074 Beechwood underground water problem I hope they change our mind soon. From: Smith, James Sent: Monday, September 28, 2015 11:34 AM To: Roozbahani, Mark; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Connell, Francie Cc: Collister, Mike; McDiarmid, Mike Subject: RE: 3074 Beechwood underground water problem Thanks Mark, 5.13(1) James From: Roozbahani, Mark Sent: Monday, September 28, 2015 11:25 AM To: Smith, James; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Connell, Francie Cc: Collister, Mike; McDiarmid, Mike Subject: RE: 3074 Beechwood underground water problem

From: Smith, James

Sent: Monday, September 28, 2015 11:10 AM

To: Lam, Matthew; Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Mathew,

Linda Kwan from our group who was onsite this morning and learned the following:

- The homeowner has contracted GeoPacific Engineering to manage the problem. GeoPacific indicated it could be easily managed. As a matter of urgency, they are reportedly planning to contract a driller (Uniwide) to re-drill and cap the flow. I'm not sure Uniwide has the necessary equipment (i.e., large diameter augers/casing) but we have confidence in GeoPacific. The City should liaise with GeoPacific to better understand to confirm they have been retained as well as the approach and permanency of the proposed solution.

Also, we've spoken with a driller/consultant who was onsite on Saturday (September 26th) who indicated they were also in discussions with the homeowner to manage the well. They are negotiating the need for a retainer and are going to contact us at noon with a progress update. At issue was the requirement for a retainer and I surmise this will fall through in-light of the above bullet but we will confirm.

At the end of the day, it sounds like the homeowner is taking some steps to manage things but we will should stay on-top of it to ensure the work is dealt with expeditiously.

James

From: Lam, Matthew

Sent: Monday, September 28, 2015 10:21 AM

To: Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

All:

Thanks for the updates, please let me know if there is any information I can obtain from the office to serve you in the field.

I do want to confirm the address as 7084 Beechwood, which recent had a building permit issued in August 2015 under DB446788.

The owner and contractor are shown as:

FENG LIN LIU Contact 2 is: 01 PROPERTY OWNER

Fax:

2606 EDGAR CRESCENT Bl account : Tel: VANCOUVER BC V6L 2G4 Certificate: Tel:

LIBO SUN Contact 3 is: 02 CONTRACTOR

Fax:

5887 ADERA ST Bl account : 705939 Tel: 778-855-8957

VANCOUVER BC V6P 5B9 Certificate: 271715 Tel:

Matthew

From: Mayberry, Jennifer

Sent: Monday, September 28, 2015 8:44 AM

To: Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Lam, Matthew; Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

	Hi All,
	James and I are happy to help in any way. We both have loads of experience installing and decommissioning groundwater wells.
	FYI – there are specific requirements on how to decommission wells, as per the Groundwater Protection Regulation:
	http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/11_299_2004 http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html
	Jenn
s. 13	1) and s.14
. 13(1) and s.14

From: Ryan, Pat (PDS) < <u>patrick.ryan@vancouver.ca</u>>

Sent: Sunday, September 27, 2015 3:48 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

Subject: Re: 3074 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed) 2.

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown ²in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

s.13(1) Mark

Roozbahani, Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the

Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger. 5.16

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. ²Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

²7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left ²with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy

City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff ², Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

²2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left ²with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled ² for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

From: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

To: "Smith, James" < James. Smith@vancouver.ca>

"Lam, Matthew" <matthew.lam@vancouver.ca>

"Twa, Jason" <Jason.Twa@vancouver.ca>

Date: 9/28/2015 12:33:47 PM

Subject: RE: 3074 Beechwood underground water problem

FYI.

From: Roozbahani, Mark

Sent: Monday, September 28, 2015 12:19 PM

To: 'cdavidson@bcgroundwater.ca'

Cc: Mayberry, Jennifer; Ryan, Pat (PDS); Collister, Mike; 'goldensunhousing@gmail.com'

Subject: FW: 7084 Beechwood St - Geothermal Dill Hole

Good afternoon Thierry,

Can you please confirm the following for us:

1. Your involvement with the capping operations at the above noted address,

- 2. If you have professionals on board for design and oversight of your scope of work (registered in BC),
- 3. Brief description of your approach and methodology.

Please note that you are not permitted to start work until City provides you with such authorization.

thanks

Mark Roozbahani Deputy Chief Building Official Assistant Director, Inspections, Integrated Enfocement and Trade Services City of Vancouver 604 873 7533

From: Golden Sun [mailto:goldensunhousing@gmail.com]

Sent: Monday, September 28, 2015 12:09 PM

To: Roozbahani, Mark **Cc:** Collister, Mike

Subject: 7084 Beechwood St - Geothermal Dill Hole

Hello Mark and Mike

We have decided to hire BC Groundwater Consulting Services as the professional agency to oversee the closure of the drill hole.

Their contact is below:

BC Groundwater Consulting Service

Thierry Cacciou Cell: 1-250-377-5758 Office:1-250-851-9414

Email: cdavidson@bcgroundwater.ca

I have not gone into detail discussion with Thierry. The general summary of the operation is that we going to close the hole in three steps.

1. Contain the flow

2. Control the well

3. Close it

If you need any further details, please contact Thierry.

Thank you.

Best Regards

Andy Wang

From: Roozbahani, Mark

Sent: Monday, September 28, 2015 12:12 PM

To: Smith, James; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Twa, Jason

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

It seems that they finally retained the services of the following company. None of the ones we knew to this point. I will email to get their scope of involvement and see if they have a professional on board.

Will let you know.

From: Golden Sun [mailto:goldensunhousing@gmail.com]

Sent: Monday, September 28, 2015 12:09 PM

To: Roozbahani, Mark **Cc:** Collister, Mike

Subject: 7084 Beechwood St - Geothermal Dill Hole

Hello Mark and Mike

We have decided to hire BC Groundwater Consulting Services as the professional agency to oversee the closure of the drill hole.

Their contact is below:

BC Groundwater Consulting Service

Thierry Cacciou Cell: 1-250-377-5758 Office:1-250-851-9414

Email: cdavidson@bcgroundwater.ca

I have not gone into detail discussion with Thierry. The general summary of the operation is that we going to close the hole in three steps.

- 1. Contain the flow
- 2. Control the well
- 3. Close it

If you need any further details, please contact Thierry.

Thank you.

Best Regards

Andy Wang

Golden Sun Housing Development ltd.

Vancouver, BC. Canada

Contact (ENG): 778-855-8957 (CHN): 778-858-8887

Email: goldensunhousing@gmail.com

From: Roozbahani, Mark

Sent: Monday, September 28, 2015 11:35 AM

To: Smith, James; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

s.13(1)

I hope they change our mind soon.

From: Smith, James

Sent: Monday, September 28, 2015 11:34 AM

To: Roozbahani, Mark; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Thanks Mark,

s.13(1)

James

From: Roozbahani, Mark

Sent: Monday, September 28, 2015 11:25 AM

To: Smith, James; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

s.13(1)

Mark Roozbahani

From: Smith, James

Sent: Monday, September 28, 2015 11:10 AM

To: Lam, Matthew; Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Mathew,

Linda Kwan from our group who was onsite this morning and learned the following:

- The homeowner has contracted GeoPacific Engineering to manage the problem. GeoPacific indicated it could be

easily managed. As a matter of urgency, they are reportedly planning to contract a driller (Uniwide) to re-drill and cap the flow. I'm not sure Uniwide has the necessary equipment (i.e., large diameter augers/casing) but we have confidence in GeoPacific. The City should liaise with GeoPacific to better understand to confirm they have been retained as well as the approach and permanency of the proposed solution.

Also, we've spoken with a driller/consultant who was onsite on Saturday (September 26th) who indicated they were also in discussions with the homeowner to manage the well. They are negotiating the need for a retainer and are going to contact us at noon with a progress update. At issue was the requirement for a retainer and I surmise this will fall through in-light of the above bullet but we will confirm.

At the end of the day, it sounds like the homeowner is taking some steps to manage things but we will should stay ontop of it to ensure the work is dealt with expeditiously.

James

From: Lam, Matthew

Sent: Monday, September 28, 2015 10:21 AM

To: Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

All:

Thanks for the updates, please let me know if there is any information I can obtain from the office to serve you in the field.

I do want to confirm the address as 7084 Beechwood, which recent had a building permit issued in August 2015 under DB446788.

The owner and contractor are shown as:

FENG LIN LIU Contact 2 is: 01 PROPERTY OWNER

Fax:

2606 EDGAR CRESCENT Bl account : Tel: VANCOUVER BC V6L 2G4 Certificate: Tel:

LIBO SUN Contact 3 is: 02 CONTRACTOR

Fax:

5887 ADERA ST Bl account: 705939 Tel: 778-855-8957

VANCOUVER BC V6P 5B9 Certificate: 271715 Tel:

Matthew

From: Mayberry, Jennifer

Sent: Monday, September 28, 2015 8:44 AM

To: Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

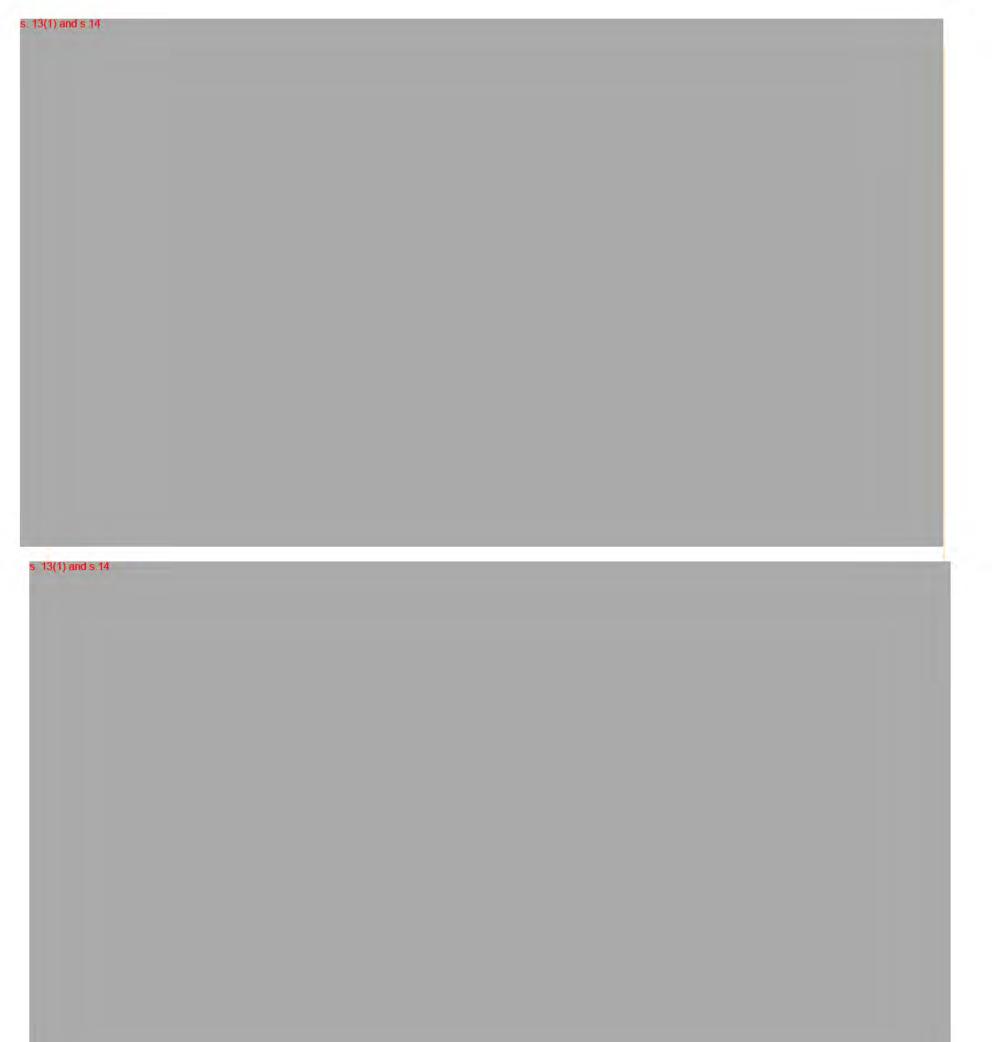
Cc: Lam, Matthew; Collister, Mike; Smith, James; McDiarmid, Mike **Subject:** RE: 3074 Beechwood underground water problem

Hi All,

James and I are happy to help in any way. We both have loads of experience installing and decommissioning groundwater wells.

FYI – there are specific requirements on how to decommission wells, as per the Groundwater Protection Regulation: http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/11_299_2004
http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html

Jenn



From: Ryan, Pat (PDS) < patrick.ryan@vancouver.ca>

Sent: Sunday, September 27, 2015 3:48 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

Subject: Re: 3074 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed) .

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

s.13(1)

Mark Roozbahani,

Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger. 5.13(

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

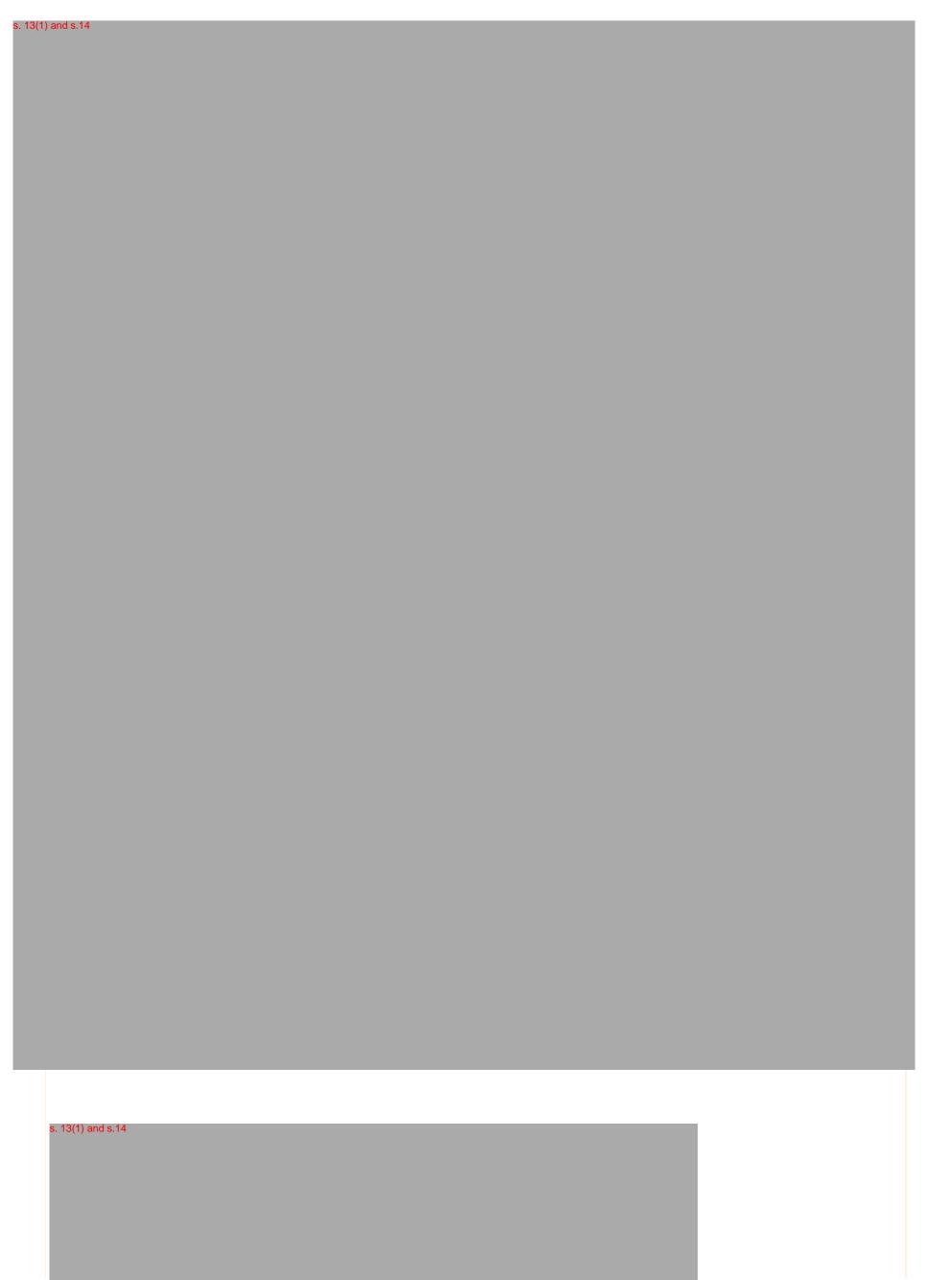
A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver





From: Ryan, Pat (PDS) patrick.ryan@vancouver.ca>

Sent: Sunday, September 27, 2015 3:48 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

Subject: Re: 3074 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

s.13(1) Mark

Roozbahani, Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger.

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were

looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver



s 13(1) and s.14

From: Ryan, Pat (PDS) < patrick.ryan@vancouver.ca >

Sent: Sunday, September 27, 2015 3:48 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

Subject: Re: 3074 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

s.13(1)

Mark Roozbahani,

Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger.

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

From: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

To: "Ryan, Pat \(PDS\)" < patrick.ryan@vancouver.ca>

Date: 9/27/2015 8:40:57 PM

Subject: Re: 3074 Beechwood underground water problem

Refer to text to the owners contractor. I do not want to influence the owner in case things start going side ways. I gave him two contacts. I will try to pay a visit tomorrow morning. I will be in touch with you

Sent from my iPhone

On Sep 27, 2015, at 6:10 PM, Ryan, Pat (PDS) patrick.ryan@vancouver.ca> wrote:

I do not think they have expertise in this as its a different field. They deal with contaminants.

We gave the permit so need to take lead but get support.

Call in Jen Mayberry for chat.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Roozbahani, Mark

Sent: Sunday, September 27, 2015 4:07 PM

To: Ryan, Pat (PDS)

Subject: Re: 3074 Beechwood underground water problem

I talked Lai to Mike C. Environmental group needs to take ownership. It's more in line with their expertise.

Sent from my iPhone

On Sep 27, 2015, at 4:05 PM, Ryan, Pat (PDS) patrick.ryan@vancouver.ca> wrote:

Either him or Golders.

I am away Monday so you can use your judgement but we need someone Monday

Thanks

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy

City of Vancouver

Sent from BlackBerry

From: Roozbahani, Mark

Sent: Sunday, September 27, 2015 3:58 PM

To: Ryan, Pat (PDS)

Subject: Re: 3074 Beechwood underground water problem

Dr. Vassos told me he would be happy to help if there are ways to cap it. He thought in some cases you need to wait until aquifer water table goes down.

Sent from my iPhone

On Sep 27, 2015, at 3:56 PM, Ryan, Pat (PDS) patrick.ryan@vancouver.ca> wrote:

Be ready to being in Golders even as an independent backup though the VBBL provisions.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Roozbahani, Mark

Sent: Sunday, September 27, 2015 3:55 PM

To: Ryan, Pat (PDS)

Subject: Re: 3074 Beechwood underground water problem

Thanks Pat

As per your request I talked to . She is not sure if she will take on this job as she is worried about the risks.

She is a registered hydrologist geotechnical with APEGBC

She will let me know either or. She hasn't been on the job site. She was also worried about settlement in neighbourhood.

Sent from my iPhone

On Sep 27, 2015, at 3:48 PM, Ryan, Pat (PDS)
patrick.ryan@vancouver.ca
wrote:

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to

look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian;

Stevens, Daniel; Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

s.13(1)

Mark Roozbahani, Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian;

Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger. [13]

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

From: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

To: "Ryan, Pat \(PDS\)" < patrick.ryan@vancouver.ca>

Date: 9/27/2015 6:13:06 PM

Subject: Re: 3074 Beechwood underground water problem

I will let you know as soon as I get their email.

Sent from my iPhone

On Sep 27, 2015, at 6:10 PM, Ryan, Pat (PDS) patrick.ryan@vancouver.ca> wrote:

I do not think they have expertise in this as its a different field. They deal with contaminants.

We gave the permit so need to take lead but get support.

Call in Jen Mayberry for chat.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Roozbahani, Mark

Sent: Sunday, September 27, 2015 4:07 PM

To: Ryan, Pat (PDS)

Subject: Re: 3074 Beechwood underground water problem

I talked Lai to Mike C. Environmental group needs to take ownership. It's more in line with their expertise.

Sent from my iPhone

On Sep 27, 2015, at 4:05 PM, Ryan, Pat (PDS)
patrick.ryan@vancouver.ca
wrote:

Either him or Golders.

I am away Monday so you can use your judgement but we need someone Monday

Thanks

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Roozbahani, Mark

Sent: Sunday, September 27, 2015 3:58 PM

To: Ryan, Pat (PDS)

Subject: Re: 3074 Beechwood underground water problem

Dr. Vassos told me he would be happy to help if there are ways to cap it. He thought in some cases you need to wait until aquifer water table goes down.

Sent from my iPhone

On Sep 27, 2015, at 3:56 PM, Ryan, Pat (PDS) patrick.ryan@vancouver.ca> wrote:

Be ready to being in Golders even as an independent backup though the VBBL provisions.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Roozbahani, Mark

Sent: Sunday, September 27, 2015 3:55 PM

To: Ryan, Pat (PDS)

Subject: Re: 3074 Beechwood underground water problem

Thanks Pat

As per your request I talked to . She is not sure if she will take on this job as she is worried about the risks.

She is a registered hydrologist geotechnical with APEGBC

She will let me know either or. She hasn't been on the job site. She was also worried about settlement in neighbourhood.

Sent from my iPhone

On Sep 27, 2015, at 3:48 PM, Ryan, Pat (PDS)
patrick.ryan@vancouver.ca
wrote:

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be

tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian;

Stevens, Daniel; Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

s.13(1)

Mark Roozbahani, Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian;

Stevens, Daniel

Subject: 3074 Beechwood underground water problem

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: "Ryan, Pat \(PDS\)" <patrick.ryan@vancouver.ca>

To: "Johnston, Sadhu" < Sadhu. Johnston@vancouver.ca>

"Jackson, Brian \(PDS\)" < Brian.Jackson@vancouver.ca>

"Dobrovolny, Jerry" < jerry.dobrovolny@vancouver.ca>

"Mochrie, Paul" < Paul. Mochrie@vancouver.ca>
"Crowe, Brian" < brian.crowe@vancouver.ca>

"Stevens, Daniel" < Daniel. Stevens@vancouver.ca>

"Collister, Mike" < mike.collister@vancouver.ca>

"Lundberg, David" < David.Lundberg@vancouver.ca>

"Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

Date: 9/27/2015 3:48:44 PM

Subject: Re: 3074 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

s.13(1)

Mark Roozbahani,

Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger. 5.13(

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: "Ryan, Pat \(PDS\)" <patrick.ryan@vancouver.ca>

To: "Johnston, Sadhu" < Sadhu. Johnston@vancouver.ca>

"Jackson, Brian \(PDS\)" < Brian.Jackson@vancouver.ca>

"Dobrovolny, Jerry" < jerry.dobrovolny@vancouver.ca>

"Mochrie, Paul" < Paul. Mochrie@vancouver.ca>
"Crowe, Brian" < brian.crowe@vancouver.ca>

"Stevens, Daniel" < Daniel. Stevens@vancouver.ca>

"Collister, Mike" < mike.collister@vancouver.ca>

"Lundberg, David" < David.Lundberg@vancouver.ca>

Date: 9/26/2015 5:51:24 PM

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

Mark Roozbahani,

Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger. \$13(1)

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. ²Given this is third hand, the Inspector can confirm although we will still require some professional

oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

²7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left ²with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff ², Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

²2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left ²with

Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled ²for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

s. 13(1) and s.14

From: Roozbahani, Mark

Sent: Monday, September 28, 2015 1:29 PM

To: Smith, James; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Twa, Jason

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Just received a new piece of information that the Golf course near the site has a well that seem to be connected to the same aquifer. Sarah from BC Fresh Water who was contacted by the owner phoned me and shared this information. She mentioned that Rod Smith was the professional who was dealing with this well still in use by the City.

Sarah mentioned that reduction of the pressure may cause risks of settlement and this issue has to be dealt with asap.

Mark

From: Smith, James

Sent: Monday, September 28, 2015 12:27 PM

To: Roozbahani, Mark; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Twa, Jason

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Mark,

This is the hydrogeologist that was onsite Saturday with a driller (Rick Conin) and who was recommended by a driller (Gordon Gibbons of Mud Bay Drilling) we called for advice. I spoke with a different driller (Mud Bay) who we were considering as a backup should we need to get more involved and he indicated this group (Thierry and Rick) knew what they were doing.

James

From: Roozbahani, Mark

Sent: Monday, September 28, 2015 12:12 PM

To: Smith, James; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Twa, Jason

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

It seems that they finally retained the services of the following company. None of the ones we knew to this point. I will

email to get their scope of involvement and see if they have a professional on board. Will let you know.

From: Golden Sun [mailto:goldensunhousing@gmail.com]

Sent: Monday, September 28, 2015 12:09 PM

To: Roozbahani, Mark Cc: Collister, Mike

Subject: 7084 Beechwood St - Geothermal Dill Hole

Hello Mark and Mike

We have decided to hire BC Groundwater Consulting Services as the professional agency to oversee the closure of the drill hole.

Their contact is below:

BC Groundwater Consulting Service

Thierry Cacciou Cell: 1-250-377-5758 Office:1-250-851-9414

Email: cdavidson@bcgroundwater.ca

I have not gone into detail discussion with Thierry. The general summary of the operation is that we going to close the hole in three steps.

- 1. Contain the flow
- 2. Control the well
- 3. Close it

If you need any further details, please contact Thierry.

Thank you.

Best Regards

Andy Wang

Golden Sun Housing Development ltd.

Vancouver, BC. Canada

Contact (ENG): 778-855-8957 (CHN): 778-858-8887

Email: goldensunhousing@gmail.com

From: Roozbahani, Mark

Sent: Monday, September 28, 2015 11:35 AM

To: Smith, James; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

From: Smith, James

Sent: Monday, September 28, 2015 11:34 AM

To: Roozbahani, Mark; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; McDiarmid, Mike

I hope they change our mind soon.

Subject: RE: 3074 Beechwood underground water problem

Thanks Mark,

s.13(1)

James

From: Roozbahani, Mark

Sent: Monday, September 28, 2015 11:25 AM

To: Smith, James; Lam, Matthew; Mayberry, Jennifer; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

s.13(1)

Mark Roozbahani

From: Smith, James

Sent: Monday, September 28, 2015 11:10 AM

To: Lam, Matthew; Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

Mathew,

Linda Kwan from our group who was onsite this morning and learned the following:

- The homeowner has contracted GeoPacific Engineering to manage the problem. GeoPacific indicated it could be easily managed. As a matter of urgency, they are reportedly planning to contract a driller (Uniwide) to re-drill and cap the flow. I'm not sure Uniwide has the necessary equipment (i.e., large diameter augers/casing) but we have confidence in GeoPacific. The City should liaise with GeoPacific to better understand to confirm they have been retained as well as the approach and permanency of the proposed solution.

Also, we've spoken with a driller/consultant who was onsite on Saturday (September 26th) who indicated they were also in discussions with the homeowner to manage the well. They are negotiating the need for a retainer and are going to contact us at noon with a progress update. At issue was the requirement for a retainer and I surmise this will fall through in-light of the above bullet but we will confirm.

At the end of the day, it sounds like the homeowner is taking some steps to manage things but we will should stay ontop of it to ensure the work is dealt with expeditiously.

James

From: Lam, Matthew

Sent: Monday, September 28, 2015 10:21 AM

To: Mayberry, Jennifer; Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Collister, Mike; Smith, James; McDiarmid, Mike

Subject: RE: 3074 Beechwood underground water problem

All:

Thanks for the updates, please let me know if there is any information I can obtain from the office to serve you in the field.

I do want to confirm the address as 7084 Beechwood, which recent had a building permit issued in August 2015 under DB446788.

The owner and contractor are shown as:

FENG LIN LIU Contact 2 is: 01 PROPERTY OWNER

Fax:

2606 EDGAR CRESCENT Bl account : Tel: VANCOUVER BC V6L 2G4 Certificate: Tel:

LIBO SUN Contact 3 is: 02 CONTRACTOR

Fax:

5887 ADERA ST Bl account : 705939 Tel: 778-855-8957

VANCOUVER BC V6P 5B9 Certificate: 271715 Tel:

Matthew

From: Mayberry, Jennifer

Sent: Monday, September 28, 2015 8:44 AM

To: Roozbahani, Mark; Ryan, Pat (PDS); Connell, Francie

Cc: Lam, Matthew; Collister, Mike; Smith, James; McDiarmid, Mike Subject: RE: 3074 Beechwood underground water problem

Hi All,

James and I are happy to help in any way. We both have loads of experience installing and decommissioning groundwater wells.

FYI – there are specific requirements on how to decommission wells, as per the Groundwater Protection Regulation: http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/11_299_2004
http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html

Jenn

s. 13(1) and s.14

s. 13(1) and s.14		

From: Ryan, Pat (PDS) < patrick.ryan@vancouver.ca>

Sent: Sunday, September 27, 2015 3:48 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

Subject: Re: 3074 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed) .

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the contractor.

s.13(1)

Mark Roozbahani,

Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger. Sale

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional

FOI# 2016-157 Page 196

oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng
Chief Building Official
Director Building Code and Policy
City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes

FOI# 2016-157 Page 197

Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: "Stevens, Daniel" < Daniel. Stevens@vancouver.ca>
To: "Ryan, Pat \(PDS\)" < patrick.ryan@vancouver.ca>

Date: 9/29/2015 10:50:10 PM

Subject: Re: 7034 Beechwood underground water problem - Update

Thanks for keeping me in the loop. Looks like it could be an expensive issue to fix. Is the responsibility (cost) on the owner or geotechnical consultant or city?

<mark>D</mark>aniel Stevens,

Director of Emergency Management, City of Vancouver

This message is confidential and subject to privilege. Confidentiality and privilege are not lost by this message having been sent to the wrong person. If you are not the intended recipient, please notify us immediately by return and destroy this message. Any use of this message by an unintended recipient is prohibited.

On Sep 29, 2015, at 10:29 PM, Ryan, Pat (PDS) patrick.ryan@vancouver.ca> wrote:

Update 5 – Owner is hiring a Qualified Contractor to Cap Well starting Thursday

The owner has agreed to hire an experienced Hydrologist and Geologist company who now have a plan on capping the well and will begin on Thursday. It will be complex and requires some large machinery to be bought in. We have also involved Jennifer Mayberry and James Smith who both have experience in aquifer issues and reviewed the proposed approach. The Province is also aware of the issue as part of the Water Act and may require a permit.

The costs are high with a \$20 K retainer and total costs that may go to \$150K to \$200K.

Mark Roozbahani will be the contact for the City and is working with both the owner (through an interpreter) and the original contractor (through an interpreter). He is also talking with law over paperwork we may – will need for the work.

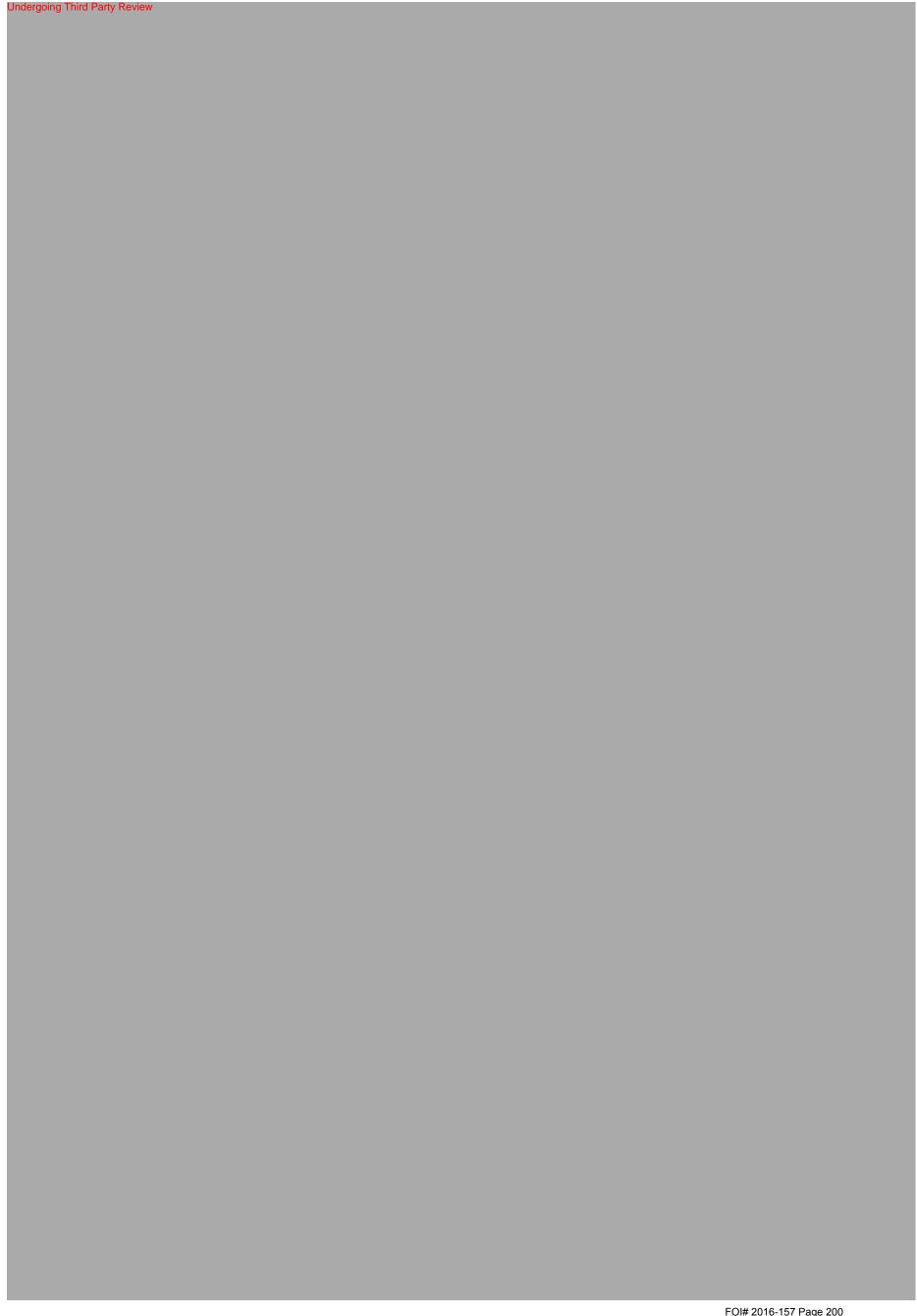
Should this go ahead as planned, we will do an order to force the issue although It looks like it is moving forward as best as we can expect.

s.13(1)

Pat

Pat Ryan, M.Sc. P.Eng. Chief Building Official Building Department Planning and Development Services City of Vancouver

Undergoing Third Party Review



Undergoing Third Party Review

From: Ryan, Pat (PDS)

Sent: Sunday, September 27, 2015 3:49 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David; Roozbahani, Mark

Cc: Lam, Matthew

Subject: Re: 7034 Beechwood underground water problem

Update 4. Sunday 3 pm

Contractor has retained a hydrologist (we have another available if needed).

Mark Roozbahani and Mike Collister have been in contact with the owners rep and contractor who have now bought in a Hydrologist. They are looking at ways of capping the "well" they created possibly with another bore hole they can inject. Mark will be in contact with the hydrologist to ensure we have some comfort on the approach and to look at other risks.

The water from a sewers perspective is under control although Engineering will be tracking costs.

This is still a bit of an unknown in terms of the impact of water being drawn from the aquifer on other homes or where the hole is. Again we will consult with the hydrologist.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:51 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel;

Collister, Mike; Lundberg, David

Subject: Re: 3074 Beechwood underground water problem

Update 3 - 5 45 pm

Just spoke to Brian Crowe who has Dave Lundberg on his way who can check out the sewer issues.

Mike collister, inspection manager, is in contact with owners rep and, through a translator, the

contractor.

s.13(1)

Mark

Roozbahani, Deputy CBO has one potentially for tomorrow. The consultant agreed we should be concerned about potential settlement and wider spread impacts.

With Dave and using constant contact with owners rep, it is the best we can do until we get the Consultants out.

Essentially a holding pattern pumping and minimizing the impacts on the sewer system at the moment.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Saturday, September 26, 2015 5:11 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul; Crowe, Brian; Stevens, Daniel

Subject: 3074 Beechwood underground water problem

Update 2 Saturday 5 pm

Water volume has doubled as bore hole is getting bigger. 510

We are sending out Building inspector again to monitor what is happening and provide a reliable update.

The original contractor is an Italian geothermal Contractor apparently with contacts who can cap wells. Given this is third hand, the Inspector can confirm although we will still require some professional oversight. Concerns are the water may leak elsewhere or there could be some settling around the neighbourhood.

We may also call in Ministry of Environment

Pat

7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with

Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBer	rry		

From: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

To: "Matt Kokan" < kokan@geopacific.ca>

Date: 9/28/2015 12:13:40 PM Subject: RE: 7084 Beechwood St.

You might want o check with the owner to see if they are willing to sign a contract with you first.

Mark

----Original Message-----

From: Matt Kokan [mailto:kokan@geopacific.ca] Sent: Monday, September 28, 2015 12:20 PM

To: Roozbahani, Mark

Cc: Ryan, Pat (PDS); Collister, Mike Subject: RE: 7084 Beechwood St.

We are just trying to get the correct people in place at the moment. Need an experience well driller who doesn't run away from a challenge like the Uniwide guys did this AM. I spoke with Rick Cronin who I believe one of our representatives also spoke with. Right now the challenge is getting the owners who do not speak English to understand the importance of getting the well sealed ASAP. As I asaid on site there is no sand coming anymore so there shouldn't be an overall issue of ground loss and subsidence to deal with. Just cutting off the water.

Matt Kokan, M.A.Sc., P.Eng. Principal, GeoPacific Consultants Ltd. 215 - 1200 West 73rd Avenue Vancouver, B.C., V6P 6G5

Office: 604 439 0922 ext 226

Cell: 604 341 6360

----Original Message-----

From: Roozbahani, Mark [mailto:Mark.Roozbahani@vancouver.ca]

Sent: Monday, September 28, 2015 11:27 AM To: 'Matt Kokan' <kokan@geopacific.ca>

Cc: Ryan, Pat (PDS) <patrick.ryan@vancouver.ca>; Collister, Mike <mike.collister@vancouver.ca>

Subject: RE: 7084 Beechwood St.

Sorry the above is the correct address.

Mark

604 873 7533

----Original Message-----From: Roozbahani, Mark

Sent: Monday, September 28, 2015 11:22 AM

To: 'Matt Kokan'

Cc: Ryan, Pat (PDS); Collister, Mike Subject: 3074 Beechwood St.

Hi Matt,

It was good to see you at the job site this morning. As discussed, please send us an email with some details including that you or any other professional at your firm who will take responsibility for design and oversight of the capping operations, brief scope and approach. I am surprised my email on Saturday did not make it to you.

After you send your email, please wait until I run your email by the Environmental and other groups within the City (quickly) before proceeding on capping. Based on your verbal commitment at the job site, we did not put a "Stop Work Order"; however, if the owner does not act quickly to retain professional services for the capping operations we will be back by the afternoon to do so.

Thanks

Mark Roozbahani Deputy Chief Building Official Assistant Director, Inspection and Trade Services City of Vancouver 604 873 7533

----Original Message-----From: Roozbahani, Mark

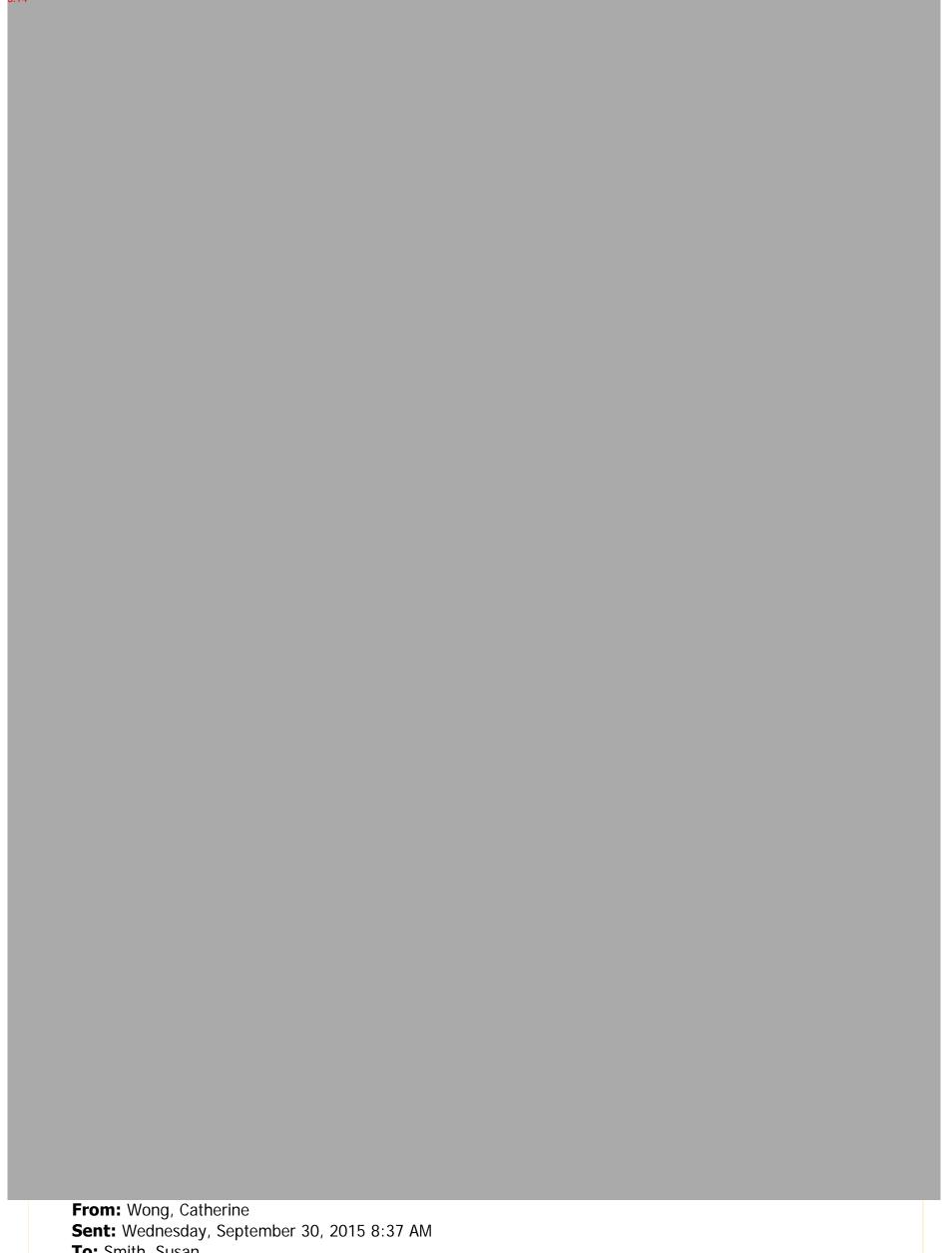
Sent: Saturday, September 26, 2015 4:28 PM

To: kokan@geopacific.ca

Subject: Urgently Need your advice

Please call me back at 781-0939

Sent from my iPhone



To: Smith, Susan

Cc: Roozbahani, Mark; Collister, Mike; Murray, Grant

Subject: RE: 7084 Beechwood Street



Catherine

From: Roozbahani, Mark

Sent: Wednesday, September 30, 2015 7:12 AM

To: Collister, Mike; Wong, Catherine **Subject:** Fwd: 7084 Beechwood Street

5.13(1)

Sent from my iPhone

Begin forwarded message:

From: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>

Date: September 30, 2015 at 7:09:40 AM PDT **To:** Thierry Carriou < tcarriou@bcgroundwater.ca>

Cc: "Murray, Grant" < <u>Grant.Murray@vancouver.ca</u>>, "Ryan, Pat (PDS)" < <u>patrick.ryan@vancouver.ca</u>>, "Collister, Mike" < <u>mike.collister@vancouver.ca</u>>, "Mayberry, Jennifer" < <u>Jennifer.Mayberry@vancouver.ca</u>>,

"goldensunhousing@gmail.com" <goldensunhousing@gmail.com>

Subject: Re: 7084 Beechwood Street

Good news. Today you can call me in case of emergency at 604 781 0939. I'll be back to the office tomorrow. We are in the process of preparing an order to the owner to require immediate capping as recommended by you. We will require your (and also geotechnical Engineer of Record's) assurance upon completion that the site is safe and construction can proceed. We already informed the owner and their contractor and hereby I confirm that no construction permitted until the current unsafe condition is addressed to the City's satisfaction.

Mark Roozbahani

Sent from my iPhone

On Sep 29, 2015, at 4:59 PM, Thierry Carriou < tcarriou@bcgroundwater.ca > wrote:

Mark,

We have received the deposit to commence work.

Regards,

Thierry

Undergoing Third Party Review

From: Roozbahani, Mark [mailto:Mark.Roozbahani@vancouver.ca]

Sent: Tuesday, September 29, 2015 11:44 AM

To: 'Thierry Carriou'

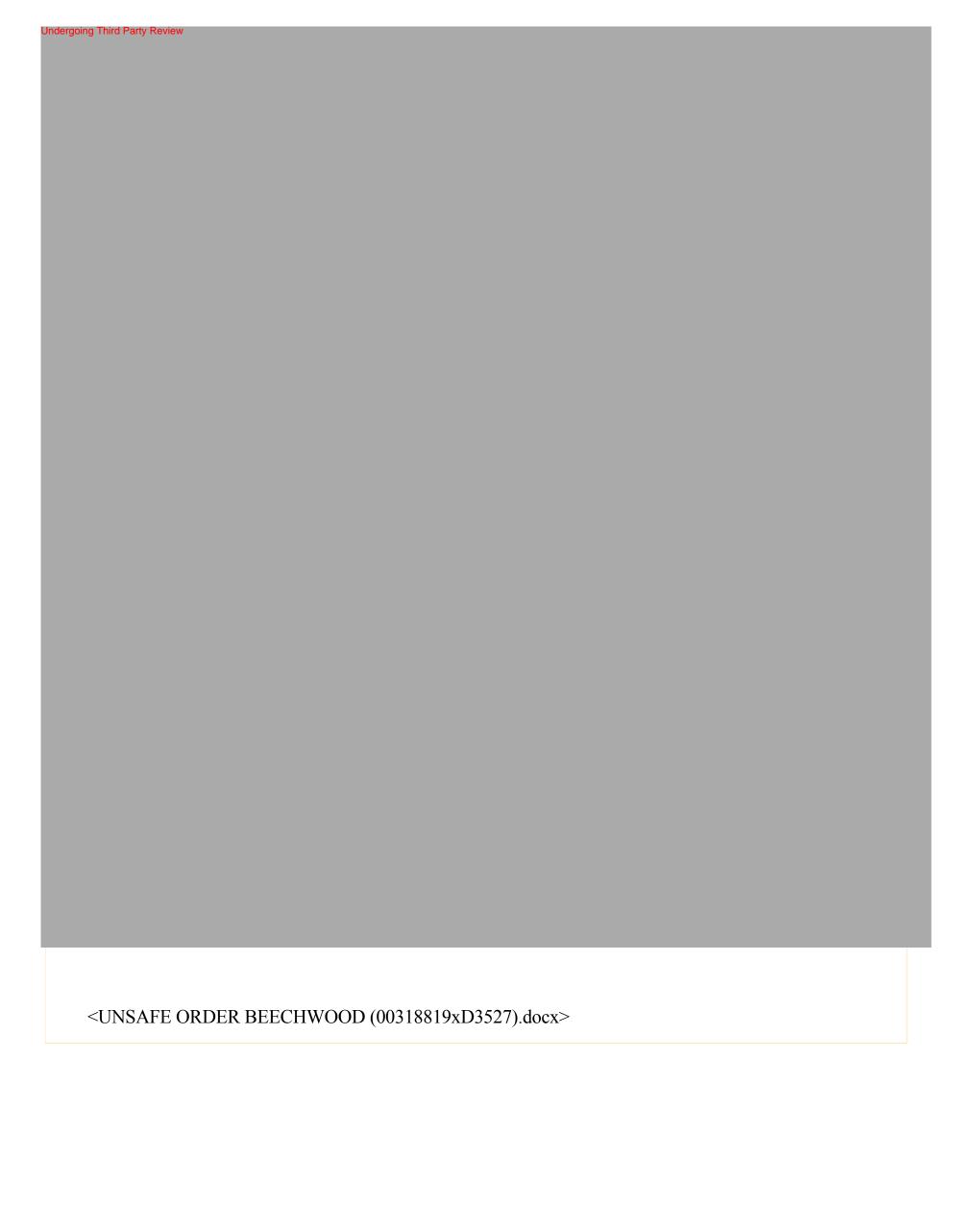
Cc: goldensunhousing@gmail.com; Ryan, Pat (PDS); Collister, Mike; Mayberry, Jennifer

Subject: RE: 7084 Beechwood Street

I will be the contact person at the City for the time being.

I just spoke with Andre from Golden sun and he said they are in the process of finalizing the contract. Let us know as soon as you secure your contract.

Mark Roozbahani Deputy Chief Building Official Assistant Director, Inspections Integrated Enforcment and Trade Services City of Vancouver 604 873 7533





HAND DELIVERED AND POSTED ON THE SITE

PLEASE REFER TO:

Mr. M. Roozbahani, P.Eng. Deputy City Building Official 604.873.7529 EN #105535

ORDER

September 30, 2015

OWNER: CONTRACTOR:

FENG LIN LIIU 2606 EDGAR STREET VANCOUVER, BC

5887 ADERA STREET VANCOUVER, BC

LIBO SUN

V6P 5B9

V6L 2G4 V6P 5B

Dear Sir/Madam:

RE 7084 Beechwood Street, Vancouver, BC (the Property")

This concerns an unsafe condition that City staff observed at the Property.

A drilling operation on the Property related to a construction project inadvertently tapped into an aquifer. The drill site is now discharging significant quantities of water and has flooded the Property. Water is also running off the Property, onto adjoining properties and the street.

This amounts to an unsafe condition, and is a violation of Sentence 1.3.3.5.1) of the Building By-law, which reads as follows:

1.3.3.5. Unsafe Conditions

1) No person who is an owner or who is involved in the construction, relocation or occupancy of a building shall cause, allow or maintain any unsafe condition.

The Chief Building Official is authorized to issue orders to remove unsafe conditions. Pursuant to Articles 1.5.3.3 and 1.5.4.2. of Division C of the Building By-law, you are therefore **ordered** to:

- 1. Stop work at this site immediately, except for the work required otherwise by this order; and
- 2. Cap the drill site no later than October 3, 2015 in accordance with sound engineering practices, so that it no longer discharges water.

3. Until the cap is in place, manage the drainage of the water so as to minimize safety concerns.
Further construction work may not proceed until the City is satisfied with the measures taken.
In the meantime, the above construction site is to be otherwise secured until the requirements of this Order have been met.
Yours truly,
P. Ryan, M. Sc., P. Eng. Chief Building Official & Director, Building Code & Policy
/CW
Copy:

{00318819v1}

Page 2 of 2

From: "Mayberry, Jennifer" < Jennifer. Mayberry@vancouver.ca>

To: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>

"Ryan, Pat \(PDS\)" <patrick.ryan@vancouver.ca>
"Collister, Mike" <mike.collister@vancouver.ca>

Date: 9/29/2015 9:02:46 AM

Subject: RE: 7084 Beechwood Street

I'm glad FLNRO is involved. They'll ensure regulatory requirements are met.

Fingers crossed they can regain control of the well; will depend largely on site access (Sonic rigs are large) and equipment (i.e. casing) availability.

No further comments. Please let James or I know if there's anything we can be of assistance with.

Jenn

From: Roozbahani, Mark

ndergoing Third Party Review

Sent: Tuesday, September 29, 2015 7:13 AM

To: Ryan, Pat (PDS); Mayberry, Jennifer; Collister, Mike

Subject: Fwd: 7084 Beechwood Street

Please let me know if you have any comments.



Undergoing Third Party Review	
Lindovacina Third Darty Daviey	_
Undergoing Third Party Review	

From: "Mayberry, Jennifer" < Jennifer. Mayberry@vancouver.ca>

To: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

Date: 9/30/2015 9:55:49 AM

Subject: RE: 7084 Beechwood Street

Quick update: I spoke to the regional hydrogeologist at FLNRO (Ministry of Forests, Land, and Natural Resources). They're aware of the situation and confident in consultant's abilities (in fact, said they were probably the best we were going to find). Said they've assigned a hydrogeologist to the file but that they were not likely to be out onsite. They have Mark's contact info if they want/need to contact the City for any reason.

Jenn

From: Roozbahani, Mark

Sent: Wednesday, September 30, 2015 7:22 AM

To: Thierry Carriou

Cc: Murray, Grant; Ryan, Pat (PDS); Collister, Mike; Mayberry, Jennifer; goldensunhousing@gmail.com

Subject: Re: 7084 Beechwood Street

I will talk to you on Thursday. I have few appointments but let's see.

Sent from my iPhone

On Sep 30, 2015, at 7:17 AM, Thierry Carriou < tcarriou@bcgroundwater.ca wrote:

Good morning.

Thanks for the email.

Are you able to attend a site visit on Friday morning with myself?

Τ

From: Roozbahani, Mark [mailto:Mark.Roozbahani@vancouver.ca]

Sent: Wednesday, September 30, 2015 7:10 AM

To: Thierry Carriou

Cc: Murray, Grant; Ryan, Pat (PDS); Collister, Mike; Mayberry, Jennifer; goldensunhousing@gmail.com

Subject: Re: 7084 Beechwood Street

Good news. Today you can call me in case of emergency at 604 781 0939. I'll be back to the office tomorrow. We are in the process of preparing an order to the owner to require immediate capping as recommended by you. We will require your (and also geotechnical Engineer of Record's) assurance upon completion that the site is safe and construction can proceed. We already informed the owner and their contractor and hereby I confirm that no construction permitted until the current unsafe condition is addressed to the City's satisfaction.

Mark Roozbahani

IVIAIR NOOZDAIIAIII

Sent from my iPhone

On Sep 29, 2015, at 4:59 PM, Thierry Carriou < tcarriou@bcgroundwater.ca wrote:

Mark,

We have received the deposit to commence work.

Regards,

Thierry

From: Roozbahani, Mark [mailto:Mark.Roozbahani@vancouver.ca]

Sent: Tuesday, September 29, 2015 11:44 AM

To: 'Thierry Carriou'

Cc: goldensunhousing@gmail.com; Ryan, Pat (PDS); Collister, Mike; Mayberry, Jennifer

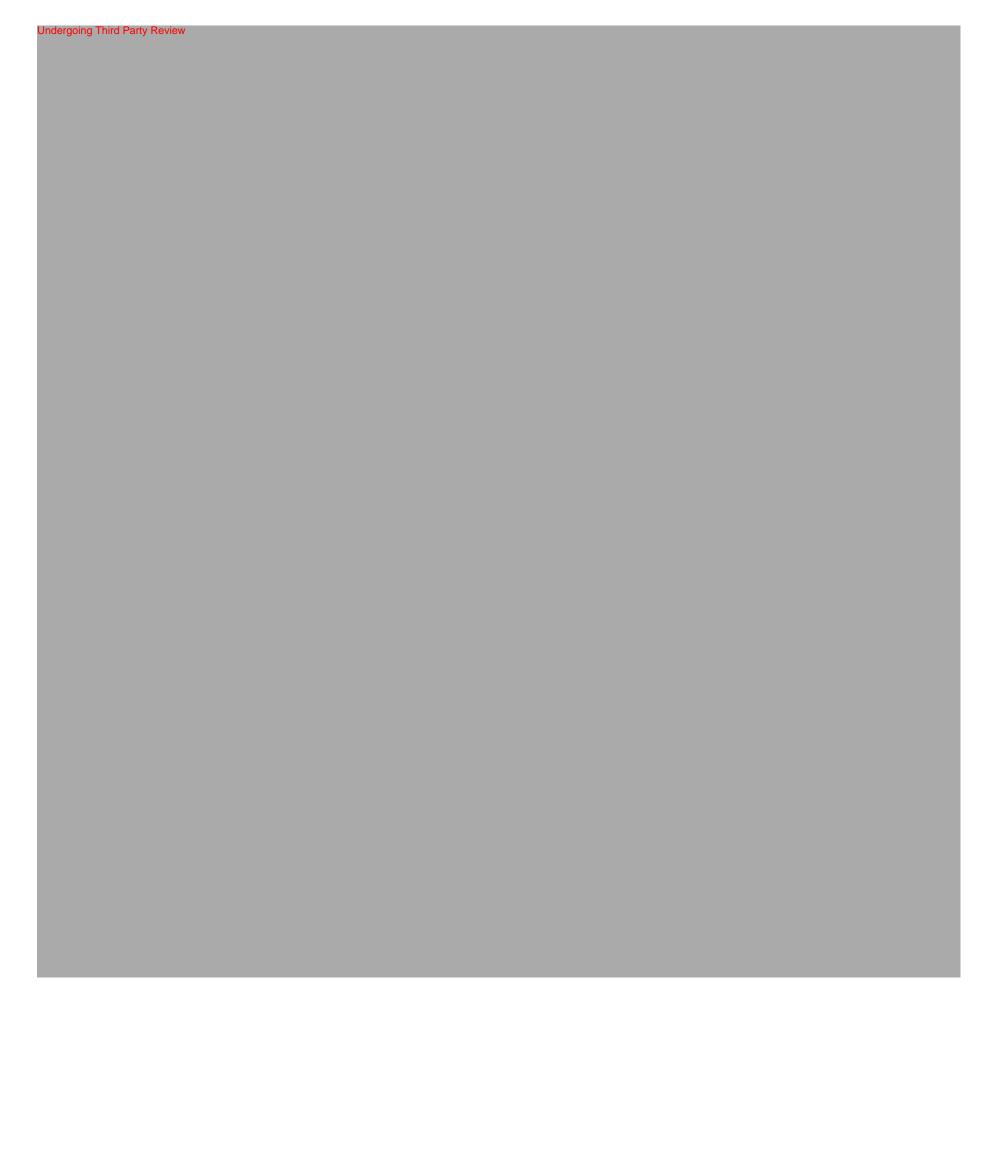
Subject: RE: 7084 Beechwood Street

I will be the contact person at the City for the time being.

I just spoke with Andre from Golden sun and he said they are in the process of finalizing the contract. Let us know as soon as you secure your contract.

Mark Roozbahani Deputy Chief Building Official Assistant Director, Inspections Integrated Enforcment and Trade Services City of Vancouver 604 873 7533

ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
ı	
1	





From: Wong, Catherine

Sent: Wednesday, September 30, 2015 8:37 AM

To: Smith, Susan

Cc: Roozbahani, Mark; Collister, Mike; Murray, Grant

Subject: RE: 7084 Beechwood Street



Catherine

From: Roozbahani, Mark

Sent: Wednesday, September 30, 2015 7:12 AM

To: Collister, Mike; Wong, Catherine **Subject:** Fwd: 7084 Beechwood Street

s.13(1)

Sent from my iPhone

Begin forwarded message:

From: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>

Date: September 30, 2015 at 7:09:40 AM PDT

To: Thierry Carriou <tcarriou@bcgroundwater.ca>

Cc: "Murray, Grant" < Grant. Murray@vancouver.ca >, "Ryan, Pat (PDS)" < patrick.ryan@vancouver.ca >, "Collister,

Mike" < mike.collister@vancouver.ca >, "Mayberry, Jennifer" < Jennifer.Mayberry@vancouver.ca >,

"goldensunhousing@gmail.com" <goldensunhousing@gmail.com>

Subject: Re: 7084 Beechwood Street

Good news. Today you can call me in case of emergency at 604 781 0939. I'll be back to the office tomorrow. We are in the process of preparing an order to the owner to require immediate capping as recommended by you. We will require your (and also geotechnical Engineer of Record's) assurance upon completion that the site is safe and construction can proceed. We already informed the owner and their contractor and hereby I confirm that no construction permitted until the current unsafe condition is addressed to the City's satisfaction.

Mark Roozbahani

Sent from my iPhone

On Sep 29, 2015, at 4:59 PM, Thierry Carriou < tcarriou@bcgroundwater.ca > wrote:

Mark,

We have received the deposit to commence work.

Regards,

Thierry

From: Roozbahani, Mark [mailto:Mark.Roozbahani@vancouver.ca]

Sent: Tuesday, September 29, 2015 11:44 AM

To: 'Thierry Carriou'

Cc: goldensunhousing@gmail.com; Ryan, Pat (PDS); Collister, Mike; Mayberry, Jennifer

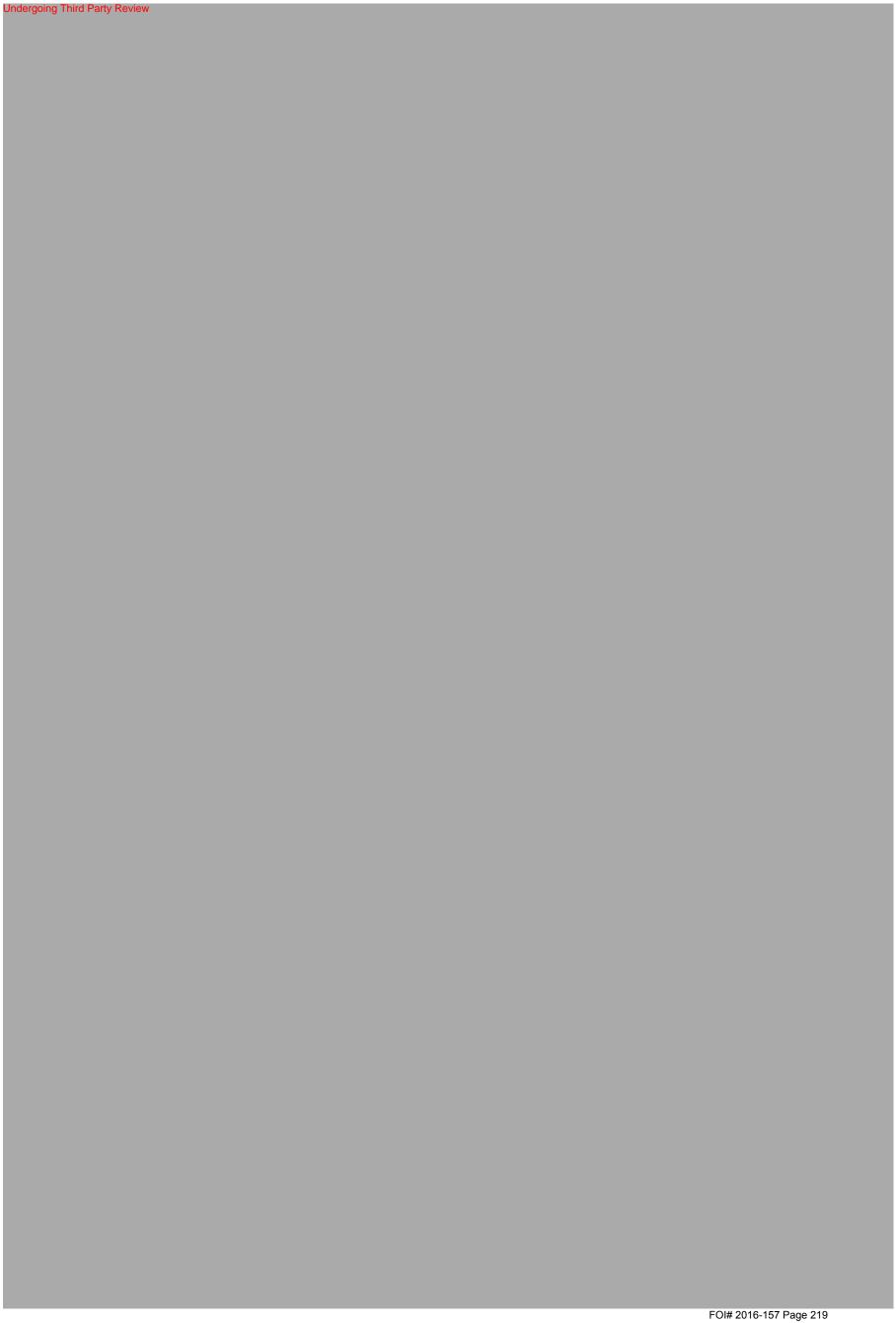
Subject: RE: 7084 Beechwood Street

I will be the contact person at the City for the time being.

I just spoke with Andre from Golden sun and he said they are in the process of finalizing the contract. Let us know as soon as you secure your contract.

Mark Roozbahani
Deputy Chief Building Official
Assistant Director, Inspections Integrated Enforcment and Trade Services
City of Vancouver
604 873 7533

Indergoing Third Party Review



Undergoing Third Party Review			



REGISTERED AND REGULAR MAIL

PLEASE REFER TO: Mr. M. Roozbahani, P.Eng. Deputy City Building Official 604.873.7529

EN #105535

ORDER

March 11, 2015

West Georgia Holdings Inc. 800 - 885 West Georgia Street Vancouver, BC V6C 3H1 West Georgia Holdings Inc. 10 - 698 Seymour Street Vancouver, BC V6B 3K6

Dear Sir/Madam:

RE 1151 West Georgia Street

:

I am writing to you with respect to an incident that occurred yesterday, March 10, 2015, at the above construction site.

• A glass curtain wall fell from a significant height of this high rise building, presently under construction, and landed in the middle of West Georgia Street.

The above incident is a significant public safety concern. Accordingly, the Building Inspector posted a STOP WORK NOTICE at the site.

Your attention is called to Sentences 1.4.2.1.(1), 1.4.2.1.(2) and 1.4.2.1.(3) of Division C of the Building By-law, which state:

- **1.4.2.1.(1)** Every contractor shall ensure that all requirements of this By-law relating to construction safety are complied with, and shall ensure that every sub-contractor of the project has retained a trades safety coordinator as required by Sentence (2).
- **1.4.2.1.(2)** Every sub-contractor shall retain a qualified trades safety coordinator whose responsibilities shall include appropriate training of all persons working for the sub-contractor at the worksite in safe construction and installation practice.
- **1.4.2.1.(3)** The trades safety coordinator shall provide certification respecting training to the Chief Building Official upon request.

Pursuant to Article 1.5.4.2. of Division C of the Building By-law, you are therefore ordered to:

- 1. Stop work at this site immediately; and
- 2. Provide a written report bearing the seal and signature of a Professional Engineer registered in the Province of British Columbia, that provides the following:
 - the cause of the above safety incident;
 - the contributing factors that led to the incident; and
 - the measures that will be put in place to prevent future incidents.

NOTE: The above-noted report must be accepted by WorkSafe BC.

3. Provide a copy of your Construction Safety Plan as required by Subsection 8.1.3. of Division B of the Building By-law.

Further construction work may not proceed until the City has received all of the above and is satisfied with the mitigating measures recommended by the Professional Engineer.

In the meantime, the above construction site is to be secured and kept in a safe condition until the requirements of this Order have been met.

Yours truly,

P. Ryan, M. Sc., P. Eng. Chief Building Official & Director, Building Code & Policy

/CW

Copy: Posted on Building

Copy: Andrew Harmsworth, P. Eng., GHL Consultants Ltd. 950 - 409 Granville St., Vancouver, BC V6C 1T2

From: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

To: "Thierry Carriou" <tcarriou@bcgroundwater.ca>

Date: 9/30/2015 7:09:40 AM

Subject: Re: 7084 Beechwood Street

Good news. Today you can call me in case of emergency at 604 781 0939. I'll be back to the office tomorrow. We are in the process of preparing an order to the owner to require immediate capping as recommended by you. We will require your (and also geotechnical Engineer of Record's) assurance upon completion that the site is safe and construction can proceed. We already informed the owner and their contractor and hereby I confirm that no construction permitted until the current unsafe condition is addressed to the City's satisfaction.

Mark Roozbahani

Sent from my iPhone

On Sep 29, 2015, at 4:59 PM, Thierry Carriou < tcarriou@bcgroundwater.ca > wrote:

Mark,

We have received the deposit to commence work.

Regards,

Thierry

From: Roozbahani, Mark [mailto:Mark.Roozbahani@vancouver.ca]

Sent: Tuesday, September 29, 2015 11:44 AM

To: 'Thierry Carriou'

Cc: goldensunhousing@gmail.com; Ryan, Pat (PDS); Collister, Mike; Mayberry, Jennifer

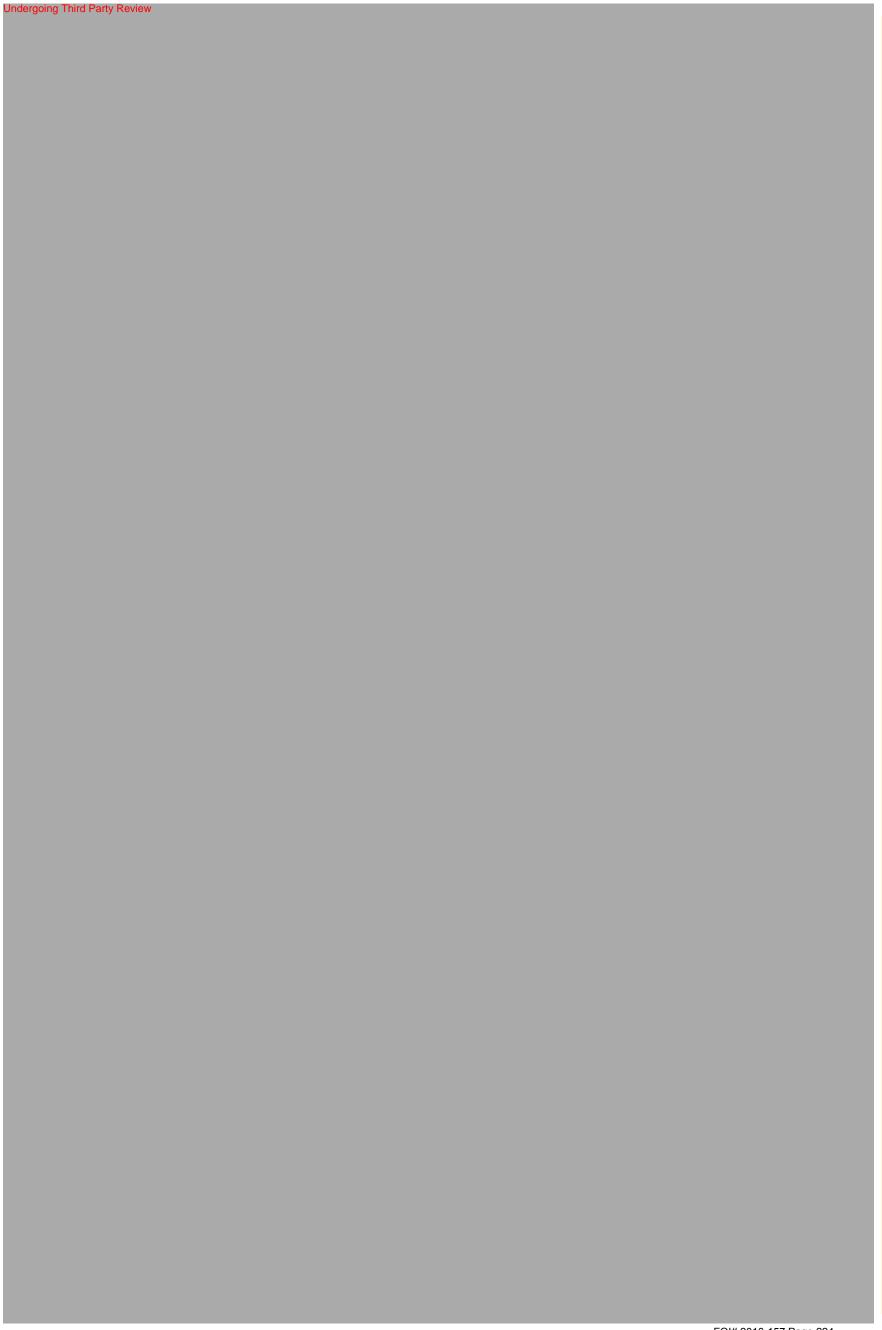
Subject: RE: 7084 Beechwood Street

I will be the contact person at the City for the time being.

I just spoke with Andre from Golden sun and he said they are in the process of finalizing the contract. Let us know as soon as you secure your contract.

Mark Roozbahani
Deputy Chief Building Official
Assistant Director, Inspections Integrated Enforcment and Trade Services
City of Vancouver
604 873 7533

Undergoing Third Party Review



Undergoing Third Party Review	

s. 13(1) and s.14		
Undergoing Third Party Review		

From: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

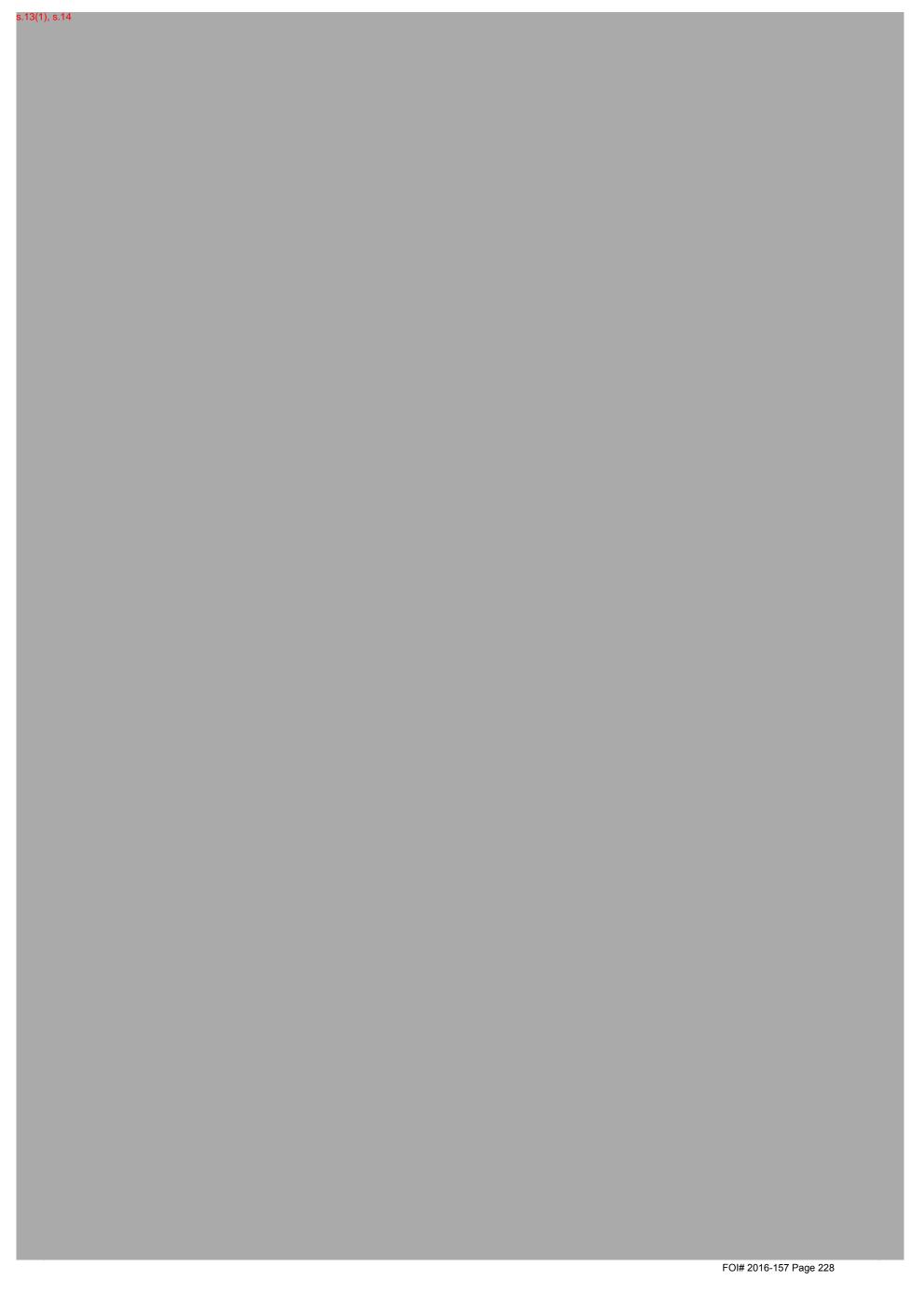
To: "Thierry Carriou" <tcarriou@bcgroundwater.ca>

Date: 9/29/2015 11:44:29 AM Subject: RE: 7084 Beechwood Street

I will be the contact person at the City for the time being.

I just spoke with Andre from Golden sun and he said they are in the process of finalizing the contract. Let us know as soon as you secure your contract.

Deputy Chief Building Official
Assistant Director, Inspections Integrated Enforcment and Trade Services
City of Vancouver
604 873 7533



s.13(1), s.14

From: Wong, Catherine
Sent: Wednesday, September 30, 2015 8:37 AM

To: Smith, Susan

Cc: Roozbahani, Mark; Collister, Mike; Murray, Grant

Subject: RE: 7084 Beechwood Street

s.13(1)

s.13(1)

Catherine

From: Roozbahani, Mark

Sent: Wednesday, September 30, 2015 7:12 AM

To: Collister, Mike; Wong, Catherine **Subject:** Fwd: 7084 Beechwood Street

s.13(1)

Thanks

Sent from my iPhone

Begin forwarded message:

From: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>

Date: September 30, 2015 at 7:09:40 AM PDT **To:** Thierry Carriou < tcarriou@bcgroundwater.ca>

Cc: "Murray, Grant" < <u>Grant.Murray@vancouver.ca</u>>, "Ryan, Pat (PDS)" < <u>patrick.ryan@vancouver.ca</u>>, "Collister, Mike" < <u>mike.collister@vancouver.ca</u>>, "Mayberry, Jennifer" < <u>Jennifer.Mayberry@vancouver.ca</u>>,

"goldensunhousing@gmail.com" <goldensunhousing@gmail.com>

Subject: Re: 7084 Beechwood Street

Good news. Today you can call me in case of emergency at 604 781 0939. I'll be back to the office tomorrow. We are in the process of preparing an order to the owner to require immediate capping as recommended by you. We will require your (and also geotechnical Engineer of Record's) assurance upon completion that the site is safe and construction can proceed. We already informed the owner and their contractor and hereby I confirm that no construction permitted until the current unsafe condition is addressed to the City's satisfaction.

Mark Roozbahani

Sent from my iPhone

On Sep 29, 2015, at 4:59 PM, Thierry Carriou < tcarriou@bcgroundwater.ca wrote:

Mark,

We have received the deposit to commence work.

Regards,

Thierry

From: Roozbahani, Mark [mailto:Mark.Roozbahani@vancouver.ca]

Sent: Tuesday, September 29, 2015 11:44 AM

To: 'Thierry Carriou'

Cc: goldensunhousing@gmail.com; Ryan, Pat (PDS); Collister, Mike; Mayberry, Jennifer

Subject: RE: 7084 Beechwood Street

I will be the contact person at the City for the time being.

I just spoke with Andre from Golden sun and he said they are in the process of finalizing the contract. Let us know as soon as you secure your contract.

Mark Roozbahani Deputy Chief Building Official Assistant Director, Inspections Integrated Enforcment and Trade Services City of Vancouver 604 873 7533



s.13(1), s.14	
5.10(1), 5.14	

From: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>

To: "Johnston, Sadhu" <Sadhu.Johnston@vancouver.ca>

Date: 9/29/2015 11:24:35 AM

Subject: Re: Building inspections responses

Yes. I can sen you the video and pictures. Water is managed.

Sent from my iPhone

On Sep 29, 2015, at 11:20 AM, Johnston, Sadhu < Sadhu.Johnston@vancouver.ca > wrote:

Ok. What's the current situation on the ground? Is there water gushing out still?

S.

From: Ryan, Pat (PDS)

Sent: Tuesday, September 29, 2015 10:55 AM

To: Johnston, Sadhu; Roozbahani, Mark; Jackson, Brian (PDS)

Subject: RE: Building inspections responses

We are waiting for the owner to contract an experienced well company with Hydrologist to cap the well. We have a deadline of noon before we do an order. The proposed plan looks good – just need a contract signed.

The cost could be \$150 to 200K.

Will provide more when we have details.

Pat

From: Johnston, Sadhu

Sent: Tuesday, September 29, 2015 10:53 AM

To: Roozbahani, Mark; Jackson, Brian (PDS); Ryan, Pat (PDS)

Subject: RE: Building inspections responses

Hi-

What's the update on this?

Thanks Sadhu

From: Roozbahani, Mark

Sent: Saturday, September 26, 2015 8:47 PM **To:** Jackson, Brian (PDS); Johnston, Sadhu **Subject:** Fwd: Building inspections responses

Sent from my iPhone

Begin forwarded message:

From: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>

Date: September 26, 2015 at 8:17:23 PM PDT

To: "Ryan, Pat (PDS)" < <u>patrick.ryan@vancouver.ca</u>>

Cc: "Collister, Mike" < mike.collister@vancouver.ca >, "Shannon, Mike"

<mike.shannon@vancouver.ca>, "Hartley, Jamie" <jamie.hartley@vancouver.ca>

Subject: Re: Building inspections responses

The hydrologist /geotechnical is getting in touch with the contractor. It's pretty. High tech operation to cap the hole.

We will receive a report tomorrow morning about any risks of settlement or other risks in that area. Engineering hopefully be alert and monitor the area for any settlement sink hole etc.

Sent from my iPhone

On Sep 26, 2015, at 9:48 AM, Ryan, Pat (PDS)
patrick.ryan@vancouver.ca> wrote:

And thank you all for your efforts.

Jamie - thankyou for staying late and handling it so well.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Jackson, Brian (PDS) < Brian.Jackson@vancouver.ca>

Sent: Friday, September 25, 2015 9:30 PM

To: Ryan, Pat (PDS)

Cc: Johnston, Sadhu; Dobrovolny, Jerry; Mochrie, Paul

Subject: Re: Building inspections responses

Thanks Pat and team!

Sent from my iPhone

On Sep 25, 2015, at 9:09 PM, Ryan, Pat (PDS) < patrick.ryan@vancouver.ca > wrote:

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

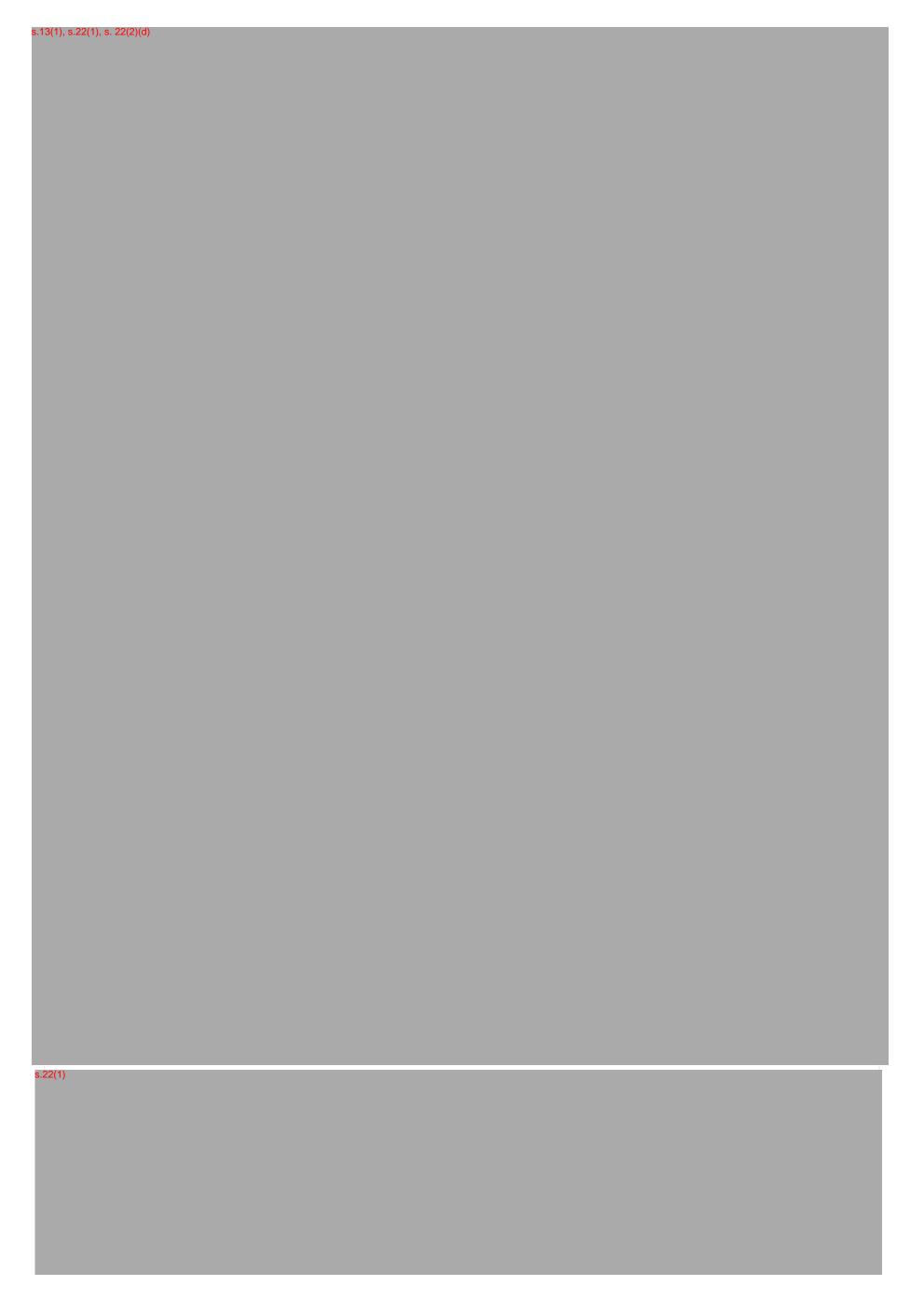
A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver



Sent from my iPhone

On Sep 26, 2015, at 9:48 AM, Ryan, Pat (PDS) < patrick.ryan@vancouver.ca > wrote:

And thank you all for your efforts.

Jamie - thankyou for staying late and handling it so well.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Jackson, Brian (PDS) < Brian.Jackson@vancouver.ca>

Sent: Friday, September 25, 2015 9:30 PM

To: Ryan, Pat (PDS)

Cc: Johnston, Sadhu; Dobrovolny, Jerry; Mochrie, Paul

Subject: Re: Building inspections responses

Thanks Pat and team!

Sent from my iPhone

On Sep 25, 2015, at 9:09 PM, Ryan, Pat (PDS) < patrick.ryan@vancouver.ca > wrote:

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the

excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

From: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

To: "Ryan, Pat \(PDS\)" < patrick.ryan@vancouver.ca>

Date: 9/27/2015 1:31:20 PM

Subject: Re: Building inspections responses

Pat

You might want to update the CMT that a hydrologist is retained and the owner is planning to cap the hole. It's a complex process and staff will monitor and report.

Please cc me on this email in case of seven u either of us would be able to inform them. I would also include the City Engineer. Keep them alder please as there will be risks associated with the operations. It may happen as soon as tomorrow.

Sent from my iPhone

On Sep 25, 2015, at 9:34 PM, Ryan, Pat (PDS) patrick.ryan@vancouver.ca> wrote:

Fyi

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Jackson, Brian (PDS) < Brian.Jackson@vancouver.ca>

Sent: Friday, September 25, 2015 9:30 PM

To: Ryan, Pat (PDS)

Cc: Johnston, Sadhu; Dobrovolny, Jerry; Mochrie, Paul

Subject: Re: Building inspections responses

Thanks Pat and team!

Sent from my iPhone

On Sep 25, 2015, at 9:09 PM, Ryan, Pat (PDS)
patrick.ryan@vancouver.ca
wrote:

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

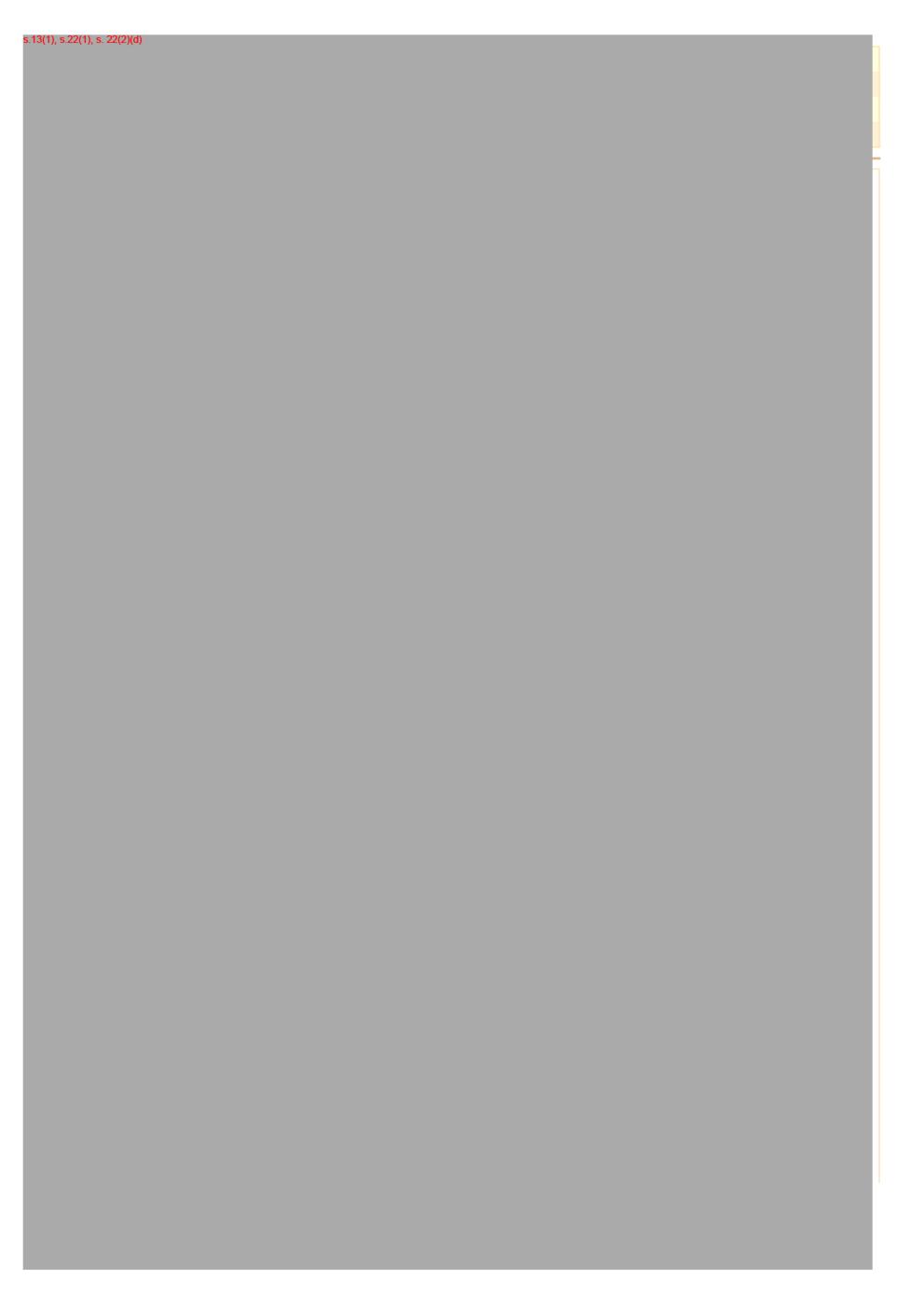
A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver



On Sep 26, 2015, at 9:48 AM, Ryan, Pat (PDS) < patrick.ryan@vancouver.ca > wrote:

And thank you all for your efforts.

Jamie - thankyou for staying late and handling it so well.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Jackson, Brian (PDS) < Brian.Jackson@vancouver.ca>

Sent: Friday, September 25, 2015 9:30 PM

To: Ryan, Pat (PDS)

Cc: Johnston, Sadhu; Dobrovolny, Jerry; Mochrie, Paul

Subject: Re: Building inspections responses

Thanks Pat and team!

Sent from my iPhone

On Sep 25, 2015, at 9:09 PM, Ryan, Pat (PDS) < patrick.ryan@vancouver.ca > wrote:

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed

power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

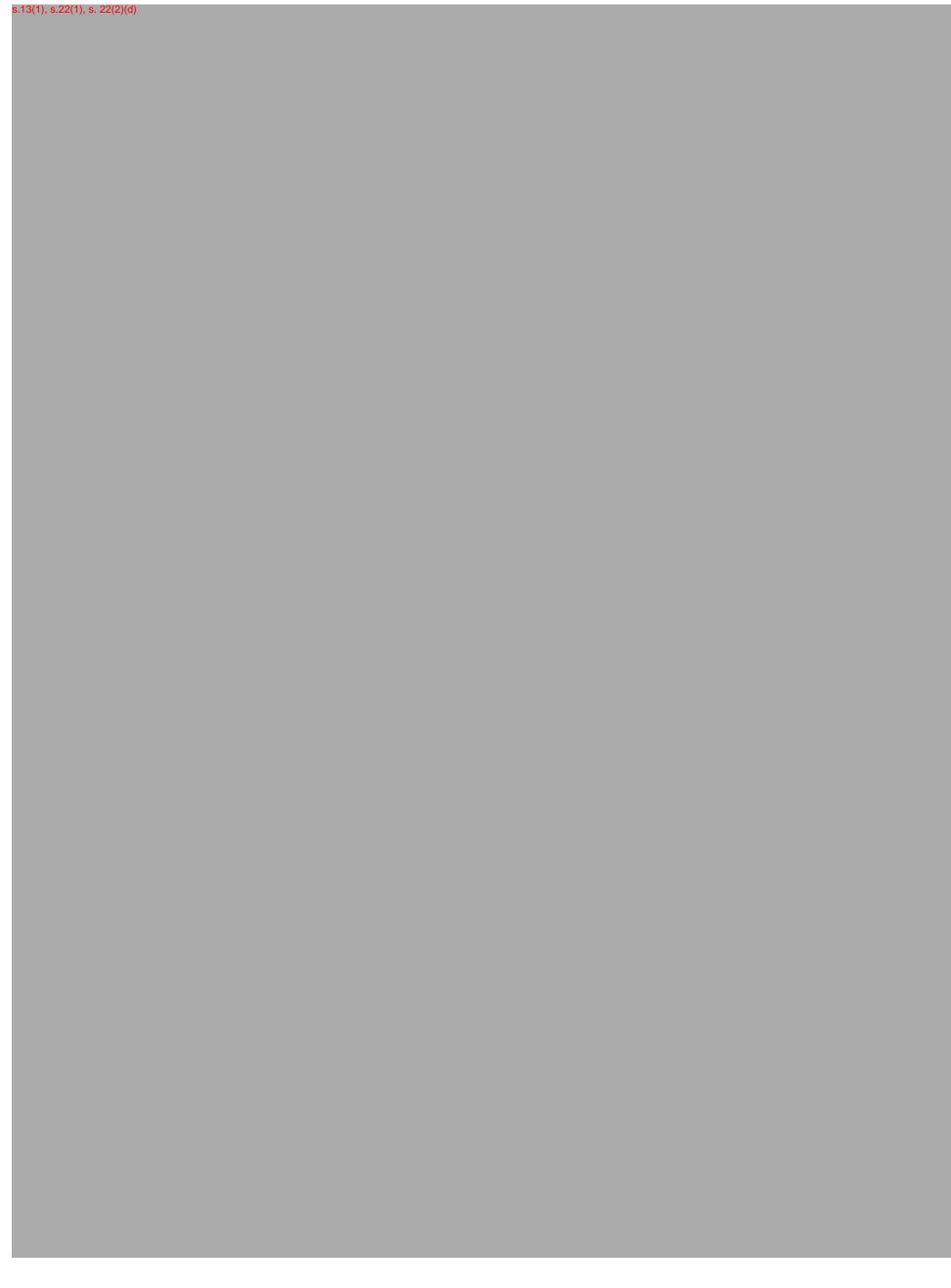
A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver



On Sep 26, 2015, at 9:48 AM, Ryan, Pat (PDS) < patrick.ryan@vancouver.ca > wrote:

And thank you all for your efforts.

Jamie - thankyou for staying late and handling it so well.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Jackson, Brian (PDS) < Brian.Jackson@vancouver.ca>

Sent: Friday, September 25, 2015 9:30 PM

To: Ryan, Pat (PDS)

Cc: Johnston, Sadhu; Dobrovolny, Jerry; Mochrie, Paul

Subject: Re: Building inspections responses

Thanks Pat and team!

Sent from my iPhone

On Sep 25, 2015, at 9:09 PM, Ryan, Pat (PDS) < patrick.ryan@vancouver.ca > wrote:

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed

power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver



And thank you all for your efforts.

Jamie - thankyou for staying late and handling it so well.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Jackson, Brian (PDS) < Brian.Jackson@vancouver.ca>

Sent: Friday, September 25, 2015 9:30 PM

To: Ryan, Pat (PDS)

Cc: Johnston, Sadhu; Dobrovolny, Jerry; Mochrie, Paul

Subject: Re: Building inspections responses

Thanks Pat and team!

Sent from my iPhone

On Sep 25, 2015, at 9:09 PM, Ryan, Pat (PDS) patrick.ryan@vancouver.ca> wrote:

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

From: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

To: "Ryan, Pat \(PDS\)" < patrick.ryan@vancouver.ca>

Date: 9/26/2015 8:46:45 PM

Subject: Re: Building inspections responses

I just finished talking to Dr. Vasous of Golder and Associates. There are similar cases that haven't been fixed for decades

And there are cases that were fixed through special engineering methods.

I lined up two geotechnical/hydrologist companies to help the owner's contractor determine a solution. I will report back tomorrow by noon.

Mark

604 781 0939

Sent from my iPhone

On Sep 26, 2015, at 9:48 AM, Ryan, Pat (PDS) patrick.ryan@vancouver.ca> wrote:

And thank you all for your efforts.

Jamie - thankyou for staying late and handling it so well.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Jackson, Brian (PDS) < Brian.Jackson@vancouver.ca>

Sent: Friday, September 25, 2015 9:30 PM

To: Ryan, Pat (PDS)

Cc: Johnston, Sadhu; Dobrovolny, Jerry; Mochrie, Paul

Subject: Re: Building inspections responses

Thanks Pat and team!

Sent from my iPhone

On Sep 25, 2015, at 9:09 PM, Ryan, Pat (PDS)
patrick.ryan@vancouver.ca
wrote:

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: "Johnston, Sadhu" <Sadhu.Johnston@vancouver.ca>

To: "Ryan, Pat \(PDS\)" <patrick.ryan@vancouver.ca>

"Jackson, Brian \(PDS\)" < Brian.Jackson@vancouver.ca>
"Dobrovolny, Jerry" < jerry.dobrovolny@vancouver.ca>

"Mochrie, Paul" < Paul. Mochrie@vancouver.ca>

Date: 9/25/2015 9:15:08 PM

Subject: Re: Building inspections responses

Great work. Thanks

S.

Sent from my BlackBerry 10 smartphone on the Bell network.

From: Ryan, Pat (PDS)

Sent: Friday, September 25, 2015 9:09 PM

To: Johnston, Sadhu; Jackson, Brian (PDS); Dobrovolny, Jerry; Mochrie, Paul

Subject: Building inspections responses

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: "Johnston, Sadhu" < Sadhu. Johnston@vancouver.ca>

To: "Ryan, Pat \(PDS\)" <patrick.ryan@vancouver.ca>

"Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca> "Jackson, Brian \(PDS\)" < Brian.Jackson@vancouver.ca>

Date: 9/29/2015 11:32:29 AM

Subject: RE: Building inspections responses

Ok.

Thanks

s.

From: Ryan, Pat (PDS)

Sent: Tuesday, September 29, 2015 11:27 AM

To: Johnston, Sadhu; Roozbahani, Mark; Jackson, Brian (PDS)

Subject: RE: Building inspections responses

Water is still coming out but fully controlled in terms of filtering and disposal through the sewers.

Issue is now the need to cap the bore hole.

I will give complete update once I hear back on contractor.

Pat

From: Johnston, Sadhu

Sent: Tuesday, September 29, 2015 11:20 AM

To: Ryan, Pat (PDS); Roozbahani, Mark; Jackson, Brian (PDS)

Subject: RE: Building inspections responses

Ok. What's the current situation on the ground? Is there water gushing out still?

S.

From: Ryan, Pat (PDS)

Sent: Tuesday, September 29, 2015 10:55 AM

To: Johnston, Sadhu; Roozbahani, Mark; Jackson, Brian (PDS)

Subject: RE: Building inspections responses

We are waiting for the owner to contract an experienced well company with Hydrologist to cap the well. We have a deadline of noon before we do an order. The proposed plan looks good – just need a contract signed.

The cost could be \$150 to 200K.

Will provide more when we have details.

Pat

From: Johnston, Sadhu

Sent: Tuesday, September 29, 2015 10:53 AM

To: Roozbahani, Mark; Jackson, Brian (PDS); Ryan, Pat (PDS)

Subject: RE: Building inspections responses

Hi-

What's the update on this? Thanks Sadhu

From: Roozbahani, Mark

Sent: Saturday, September 26, 2015 8:47 PM **To:** Jackson, Brian (PDS); Johnston, Sadhu **Subject:** Fwd: Building inspections responses

Sent from my iPhone

Begin forwarded message:

From: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>

Date: September 26, 2015 at 8:17:23 PM PDT

To: "Ryan, Pat (PDS)" < patrick.ryan@vancouver.ca>

Cc: "Collister, Mike" < mike.collister@vancouver.ca >, "Shannon, Mike" < mike.shannon@vancouver.ca >,

"Hartley, Jamie" < jamie.hartley@vancouver.ca>

Subject: Re: Building inspections responses

The hydrologist /geotechnical is getting in touch with the contractor. It's pretty. High tech operation to cap the hole.

We will receive a report tomorrow morning about any risks of settlement or other risks in that area. Engineering hopefully be alert and monitor the area for any settlement sink hole etc.

Sent from my iPhone

On Sep 26, 2015, at 9:48 AM, Ryan, Pat (PDS) < patrick.ryan@vancouver.ca > wrote:

And thank you all for your efforts.

Jamie - thankyou for staying late and handling it so well.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Jackson, Brian (PDS) < Brian.Jackson@vancouver.ca>

Sent: Friday, September 25, 2015 9:30 PM

To: Ryan, Pat (PDS)

Cc: Johnston, Sadhu; Dobrovolny, Jerry; Mochrie, Paul

Subject: Re: Building inspections responses

Thanks Pat and team!

Sent from my iPhone

On Sep 25, 2015, at 9:09 PM, Ryan, Pat (PDS) < <u>patrick.ryan@vancouver.ca</u>> wrote:

Sadhu and Brian - for info only

Paul - to wet your feet on emergencies

Jerry - see 2) for awareness of water being diverted into the sewers from a groundwater source.

Quick update on two issues that occurred this evening and are now resolved which I felt were dealt with really well and with commendable dedication by our staff.

Neither warranted elevation although Daniel was informed just in case. Environmental, sewers, were also involved.

1) 3775 W 4th fire damaged Building

60 people were meant to be going back into this building but due to Hydro missing paperwork, power was not restored. We had a fire watch planned for the non operating fire alarm but we still needed power for occupancy. Our building staff, Mike Shannon, Deputy City Electrician, Mark Roozbahani, Deputy CBO and Mike Collister, Building Inspections Manager, kept following up and were able to get Hydro in to restore power to allow residents to stay.

2) 7054 Beechwood (near sw marine and endowment lands)

A contractor boring for geothermal hit an aquifer resulting in large amounts of water flooding into a pool under construction. Aside from the water potentially flooding the site, we had concerns of the excavation giving way. Our building inspector, Jamie Hartley, was out there and only just left with Mike Collister, behind the scenes Supporting and organising companies to secure the site, filter and deal with the water. A generator is set up for the pumps and all neighbours and 311 were notified with the company remaining on site until they can stop the flow.

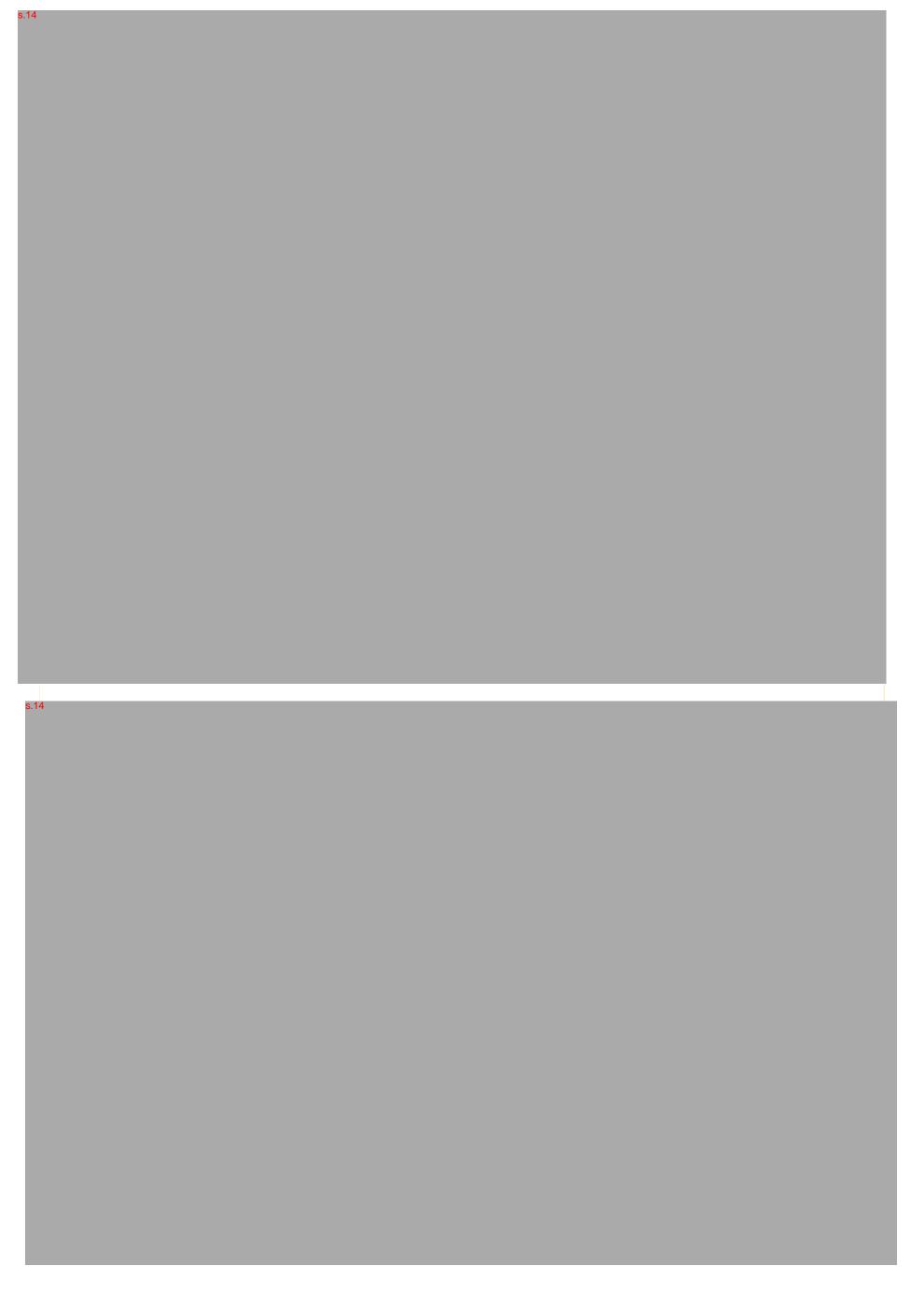
Both very professionally and efficiently handled for issues we do not normally deal with. Both were looked at in terms of worse case scenarios and contingencies.

The EOC training (which Mike just did) is certainly paying off.

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry



From: "Ryan, Pat \(PDS\)" <patrick.ryan@vancouver.ca>

To: "Collister, Mike" < mike.collister@vancouver.ca>

"Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

Date: 9/30/2015 1:46:50 PM

Subject: Re: UNSAFE ORDER BEECHWOOD (00318819xD3527)

In 2 - ask for report as well

Pat

Patrick Ryan M.Sc. P.Eng Chief Building Official Director Building Code and Policy City of Vancouver

Sent from BlackBerry

From: Collister, Mike

Sent: Wednesday, September 30, 2015 12:58 PM

To: Roozbahani, Mark

Cc: Murray, Grant; Ryan, Pat (PDS)

Subject: UNSAFE ORDER BEECHWOOD (00318819xD3527)

For your review and comments.

From: "White, Phil" < Phil. White@vancouver.ca>

To: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

Date: 9/29/2015 1:13:36 PM

Subject: RE: Urgent - - 7084 beechwood

Attachments: beechwood.html

We have a sewer and draintile permit open. I checked Tracker for the surcharge levels (as attached). There is no mention of Geothermal drilling on these two permits.

Regards,

Phillip White

Gas Safety Manager
Acting Supervisor
Plumbing and Gas Inspection Branch
Licenses and Inspections
Tel 604 873 7609
Email. Phil.white@vancouver.ca

-----Original Message-----From: Roozbahani, Mark

Sent: Tuesday, September 29, 2015 12:41 PM

To: White, Phil; McDiarmid, Mike Subject: Urgent - - 7084 beechwood

Importance: High

Can you let me know if there is any permits for this site? Was there any mention of a geothermal or drilling in our permits?

PUBLIC SEWER AND WATER CONNECTION INFORMATION

SEWER INFORMATION FOR 7084 BEECHWOOD ST

THIS SITE PLAN SHOWS THE LOCATIONS, SIZES AND INVERT ELEVATIONS OF THE PUBLIC STORM AND SANITARY SEWER CONNECTIONS.
PLUMBING FIXTURES ARE RESTRICTED AS FOLLOWS: (CLASS II)

- A) PUMP ALL SANITARY FIXTURES (INCLUDING FLOOR DRAINS) WITH RIM ELEVATIONS BELOW 36.32 m (geodetic) or 119.15 ft (geodetic), AND
- B) IF THE LOWEST FLOOR SLAB OR THE LOWEST OUTSIDE STORM DRAIN IS BELOW THE SANITARY FIXTURE RESTRICTION ELEVATION NOTED IN "A" ABOVE, THEN:
 - 1) PUMP ALL STORM FIXTURES BELOW THE RESTRICTED ELEVATION, OR
 - 2) CONNECT ALL ROOF DRAINS AND STORM FIXTURES WITH RIM ELEVATIONS ABOVE THE RESTRICTED ELEVATION THROUGH ONE SUMP AND CONNECT THE SUBSOIL DRAINAGE SYSTEM (DRAIN TILES) AND ALL STORMWATER FIXTURES WITH RIM ELEVATIONS BELOW THE RESTRICTED ELEVATIONS TO A SECOND SUMP. (SEE SCHEMATIC DRAWING FOR CLASS 2 FIXTURE RESTRICTIONS).

WATER INFORMATION

THIS SITE PLAN SHOWS THE LOCATION AND SIZE OF THE PUBLIC WATER CONNECTION.
THE ESTIMATED WATER PRESSURES@36 U.S. GPM FOR THIS SITE ARE:

WINTER STATIC: <u>97</u> psi SUMMER STATIC: <u>60</u> psi RESIDUAL: <u>51</u> psi

NOTES

The City of Vancouver does not guarantee the accuracy of the information provided on this Plan. Circumstances may prevent the City from installing the public sewer and/or water connections at the locations and depths shown on this Plan.

The Owner is responsible for locating and connecting to the public sewer and water connections installed by the City regardless of their actual installed locations and depths.

The Owner is responsible for ensuring that the sizing of the private plumbing system is adequate for the storm & sanitary sewer discharges and the domestic & fire water flows.

No person shall connect a building sewer or water system to a public connection without first obtaining a "Public Sewer & Water Connection Permit".

All revisions related to the sewer and water information on this site plan must have Engineering review and acceptance prior to making the change(s). Any requests for changes after a City crew has arrived at the site may cause installation delays and additional costs.

From: "Collister, Mike" < mike.collister@vancouver.ca>

To: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>

Date: 9/30/2015 12:58:15 PM

Subject: UNSAFE ORDER BEECHWOOD (00318819xD3527)

Attachments: UNSAFE ORDER BEECHWOOD (00318819xD3527).docx

For your review and comments.



HAND DELIVERED AND POSTED ON THE SITE

PLEASE REFER TO: Mr. M. Roozbahani, P.Eng. Deputy City Building Official

604.873.7529 EN #105535

ORDER

September 30, 2015

OWNER: CONTRACTOR:

FENG LIN LIIU LIBO SUN
2606 EDGAR STREET 5887 ADERA STREET

VANCOUVER, BC VANCOUVER, BC

V6L 2G4 V6P 5B9

Dear Sir/Madam:

RE 7084 Beechwood Street, Vancouver, BC (the Property")

:

This concerns an unsafe condition that City staff observed at the Property.

A drilling operation on the Property related to a construction project inadvertently tapped into an aquifer. The drill site is now dischargingcontinues to discharge significant quantities of water. The water is being managed and has flooded the Property.by pumping into the City storm system. The subterranean effect of the large amount of water exiting the aquifer on the above ground is unknown. Water is also running off the Property, onto adjoining properties and the street.

This amounts to an unsafe condition, and is a violation of Sentence 1.3.3.5.1) of the Building By-law, which reads as follows:

1.3.3.5. Unsafe Conditions

1) No person who is an owner or who is involved in the construction, relocation or occupancy of a building shall cause, allow or maintain any unsafe condition.

The Chief Building Official is authorized to issue orders to remove unsafe conditions. Pursuant to Articles 1.5.3.3 and 1.5.4.2. of Division C of the Building By-law, you are therefore **ordered** to:

1. Stop all work related to construction at this site immediately, except for the work required

otherwise by this order; and

- 2. Cap the drill site or provide a report to the Chief Building Official from a registered professional experienced in the field and geotechnical engineer of record with required actions no later than October 3, 2015. in accordance with sound engineering practices, so that it no longer discharges water.
- 3. Until the cap is in place, continue to manage the drainage of the water in coordination with the City of Vancouver Engineering and Building departments so as to minimize impact to City of Vancouver systems and neighboring properties.safety concerns.

4.

Further construction work may not proceed until the City is satisfied with the measures taken.

In the meantime, the above construction site is to be otherwise secured maintained in a safe and secure manner until the requirements of this Order have been met.

Yours truly,

P. Ryan, M. Sc., P. Eng. Chief Building Official & Director, Building Code & Policy

/CW

Copy:

{00318819v1}

Page 2 of 2

From: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

To: "White, Phil" < Phil. White@vancouver.ca>

"McDiarmid, Mike" < mike.mcdiarmid@vancouver.ca>

Date: 9/29/2015 12:41:00 PM

Subject: Urgent - - 7084 beechwood

Can you let me know if there is any permits for this site? Was there any mention of a geothermal or drilling in our permits?

From: "Roozbahani, Mark" < Mark. Roozbahani@vancouver.ca>

To: "Matt Kokan" < kokan@geopacific.ca>

Date: 9/28/2015 11:21:59 AM Subject: 3074 Beechwood St.

Hi Matt,

It was good to see you at the job site this morning. As discussed, please send us an email with some details including that you or any other professional at your firm who will take responsibility for design and oversight of the capping operations, brief scope and approach. I am surprised my email on Saturday did not make it to you.

After you send your email, please wait until I run your email by the Environmental and other groups within the City (quickly) before proceeding on capping. Based on your verbal commitment at the job site, we did not put a "Stop Work Order"; however, if the owner does not act quickly to retain professional services for the capping operations we will be back by the afternoon to do so.

Thanks

Mark Roozbahani Deputy Chief Building Official Assistant Director, Inspection and Trade Services City of Vancouver 604 873 7533

-----Original Message-----From: Roozbahani, Mark

Sent: Saturday, September 26, 2015 4:28 PM

To: kokan@geopacific.ca

Subject: Urgently Need your advice

Please call me back at 781-0939

Sent from my iPhone

From: "Thierry Carriou" <tcarriou@bcgroundwater.ca>

To: goldensunhousing@gmail.com

Date: 9/29/2015 11:29:19 PM

Subject: 7084 Beechwood Street - Artesian Well Daily Report Sept 29, 2015
Attachments: 15014.1 BCGW Bin Xue Cronin Report DRAFT - Sept 29 2015_p.pdf

Good evening Andy.

Attached, please find our first daily report.

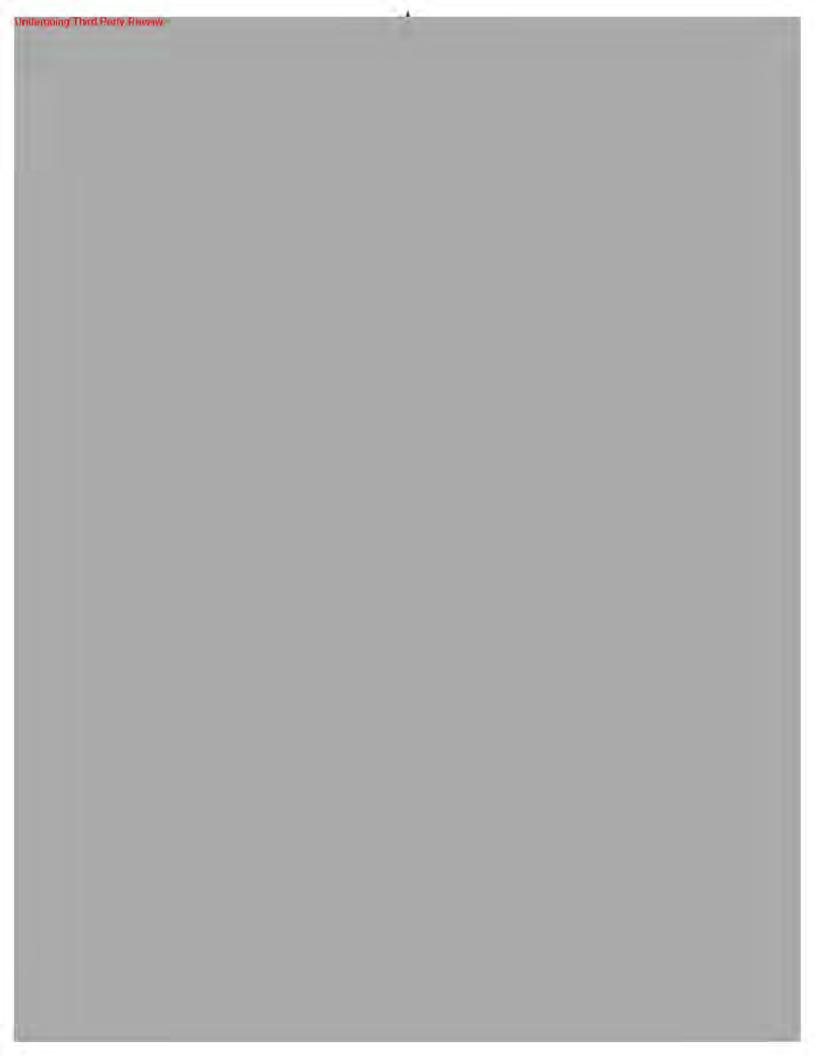
Our team will be on site around 1 pm on Thursday. Rick, Jim and myself will tour the site alone first then I will meet with you in private. It is important for our team to have this uninterrupted time and hope you understand. I will text you when we have completed the inspection.

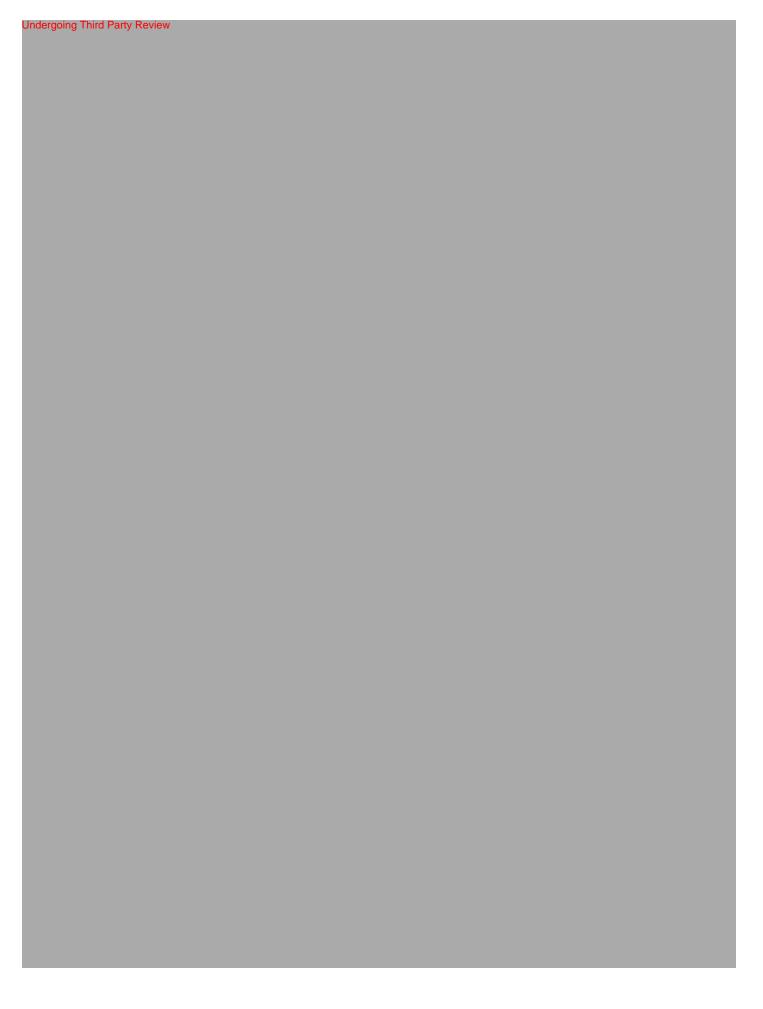
On Friday morning I have asked Mark from the City if he might have time to meet on site. The Ministry of Environment has been notified. They are confident in our team and will not be sending an observer.

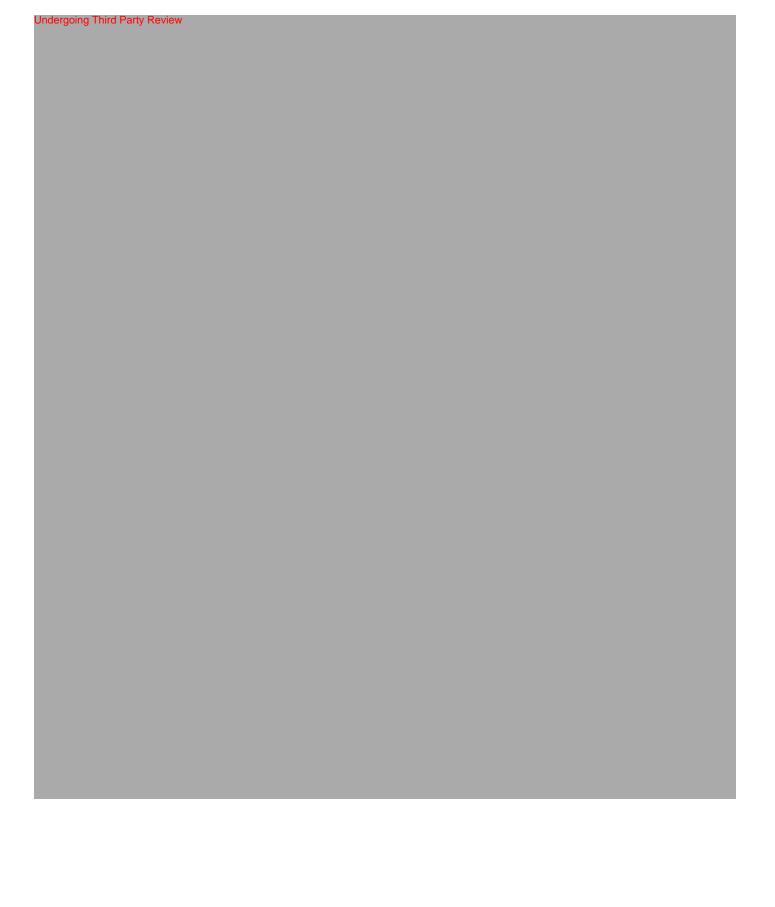
Have a good night.

Thierry

Thierry M. Carriou, M.Sc., P.Eng Hydrogeologist (1993) w (250) 851-9414 c (250) 377-5758













From: "Collister, Mike" < mike.collister@vancouver.ca>

To: "Roozbahani, Mark" < Mark.Roozbahani@vancouver.ca>

Date: 9/29/2015 11:27:13 AM

Subject: 7084 beechwood Attachments: IMG_0259.MOV

ATT00001.txt