

# Exploring Letters of Protest for the BC Hydro Dam Site C #Hackarchives

Kathleen Reed, Carl Cooper, Ben O'Brien

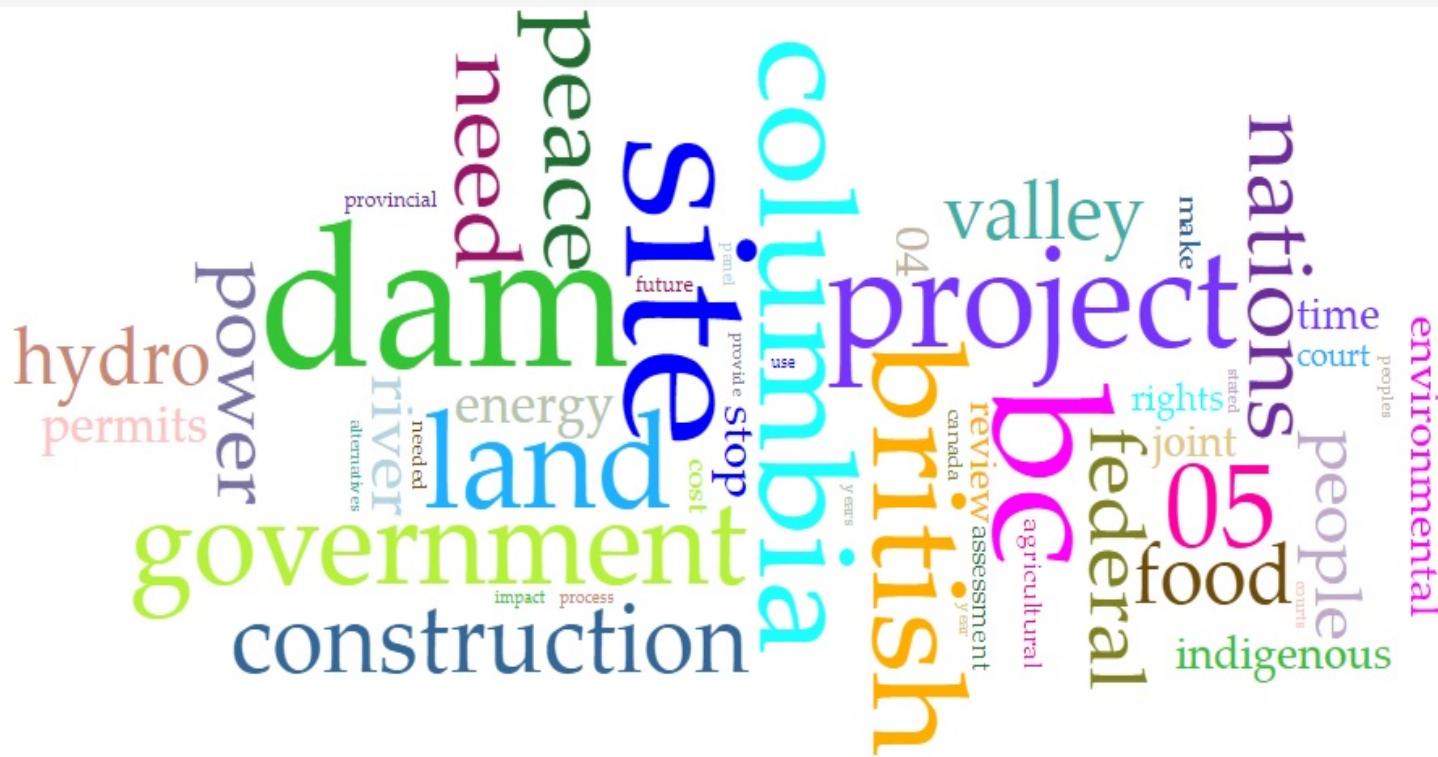
# Exploring Datasets

- Ubc-first-nations-indigenous-communities
- Ubc-bc-wildfires
- Uvic-anarchist-archives
- Ubc-bc-hydro-site-c

# Using the Derivatives

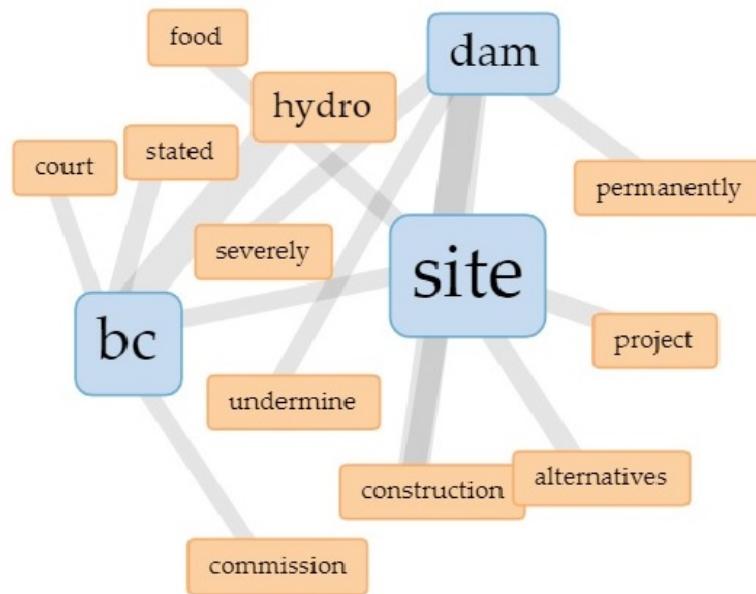
- Extracted full text
- Grep – Key Word Search
- Voyant-Tools

# Word Cloud of Key Terms



# GREP Term Links

Cirrus Terms Links



# Letters in a Table: Extraction Problem

The screenshot shows a web page from REAL SITE C HEARINGS.ORG. At the top, there's a yellow header bar with the site's name and a navigation menu. Below the header, the main content area has a title "Public Comments Asking the Federal Liberals to Deny Permits for Site C Dam". It includes a search bar and a table displaying four rows of comments. Each row contains information such as the commenter's name, location, and their message. The table is styled with alternating row colors and has a header row with column titles.

First Name	Last Name	City	Province / State	My concerns about Site C dam	Entry Date
A	Bonvouloir	Sunnyvale	California	Activities of this sort have continent -wide ramifications. Indigenous peoples of North America have been abused more than enough---pipelines, pollution, tar sands, exclusion from decision-making bodies are a trait of Harper's government and should be reversed immediately. Certainly, no new abuses of the continent and the people on it should even be being considered.	2016-05-13 16:03:39
Abe	Levy	Bonita Springs	Florida	My wife and I have visited most of the provinces in Canada over the last 50 years and several provinces multiple times including cruise ship ports, camping visits to parks, and back country camping, as well as driving through provinces and visiting cities.  We urge you to stop BC Hydro from building the Site C dam completely.	2016-05-13 15:37:45
adele	curtis	victoria	British Columbia	Please stand behind the many people who believe Site C dam permits should be put on hold for the continuation of legal challenges by First Nations people and land owners. Environmental issues need to be fully respected and the future needs to be a promising one for this region. Site C dam is not the best way to go. I am quite confident that you already believe this but wanted you to hear one of the voices asking for stoppage of any further development, stopping Premier Clark as she threatens to continue construction to reach the point of no return. Thank you.	2016-05-25 01:55:02
Agnes	Watts	Vancouver	British Columbia	It's not needed. It's being built to supply water for fracking, which is also not needed. It will destroy vast areas of fertile potential agricultural land, which will become more valuable as the south becomes a dust bowl. It is rejected by the First Nations people who've lived there for millennia. There are several court cases which should have precedence, before any clearing or other preparation takes place, yet this government is steam-rolling ahead, without the legal right or the necessity to do so. Power could be acquired, as needed, with much less expensive and damaging methods.	2016-04-22 22:07:09

# Extraction

```
<header class="vc_cta3-content-header">
    <h2>Public Comments Asking the Federal Liberals to Deny Permits for Site C Dam</h2>
</header>
<div class="vfbp-display-entries"><table class="vfbp-display-entries-table" cellspacing="0" width="100%"><thead><tr>
<th>First Name</th><th>Last Name</th><th>City</th><th>Province / State</th><th>My concerns about Site C dam</th><th>Entry Date</th>
</tr></thead><tbody><tr><td>Andrea</td><td>Morison</td><td>Fort St. John</td><td>British Columbia</td><td><p>In this day and
age...is a massive dam that destroys 107 km of river valley considered 'PROGRESS'?! It can't be.</p>
<p>We voted in a new government and a prime minister that we thought was truly progressive, not a government that still used old,
backward thinking about how to generate wealth for our country.</p>
<p>What happened?</p>
<p>Why do we keep hearing the rhetoric about a 'truly green economy' and 'honoring First Nations'? It is appalling when we ask abou
Site C and all we get are these repetitive, meaningless responses.</p>
<p>The federal government has the power to make a difference. In the coming weeks, permits for construction of Site C will be sough
by BC Hydro through federal government departments. It's time for you to put pressure on them to pause and seriously examine and
consider the magnitude of damage that this unnecessary project will cause. Consider the key recommendations of the Joint Review
Panel: this dam is not needed on the timeline set forth; the costs and energy demand forecasts associated with this dam need more
thorough examination; and, more research into alternatives must take place.</p>
<p>The cost of alternative energy has come down considerably in the last two years. According to expert Robert McCullough, Site C i
3x more expensive than the least expensive alternative.<br />
Alternatives are far less risky: they can be built on an as-needed basis, cost less and can provide more jobs in a variety of
locations. </p>
```

# Extraction Solution

```
1  from bs4 import BeautifulSoup
2  import re
3  import os
4  import argparse
5  import glob
6
7  parser = argparse.ArgumentParser()
8  parser.add_argument('inputDir')
9  args = parser.parse_args()
10
11 INPUT_DIR = args.inputDir
12 #/home/dev/AppDev/aut-2018/submissions.html
13
14 file_marker = 0
15
16 for filename in glob.glob(INPUT_DIR + '/part-0016*'):
17 #for filename in glob.glob(INPUT_DIR + '/submissions-0*'):
18 #submissions-0
19 #part-00
20
21     with open(filename, 'r') as myfile:
22         data=myfile.read()
23
24     file_marker += 1
25     soup = BeautifulSoup(data, 'lxml') # Parse the HTML as a string
26     table = soup.findAll('table') # Grab the first table
27
28     with open("part-00" + str(file_marker) + ".txt", 'a') as file:
29
30         for t in table:
31             try:
32                 table_class = t['class']
33                 print(table_class)
34                 if table_class[0] == 'vfbp-display-entries-table':
35
36                     for row in t.findAll('tr'):
37                         column_marker = 0
38                         columns = row.findAll('td')
39                         message = []
40
41                         for column in columns:
42                             message.append(column.getText())
43                             text = column.getText()
44                             text = re.sub(r'[^\x00-\x1F]+', '', text)
45                             file.write(text + "|")
46
47                         file.write("\n")
48             except:
49                 print("unwanted table")
50
51
```

# 'Extraction Product'

Andrea|Morison|Fort St. John|British Columbia|In this day and age...is a massive dam that destroys 107 km of river valley considered 'PR minister that we thought was truly progressive, not a government that still used old, backward thinking about how to generate wealth for a 'truly green economy' and 'honoring First Nations'? It is appalling when we ask about Site C and all we get are these repetitive, mean difference. In the coming weeks, permits for construction of Site C will be sought by BC Hydro through federal government departments. It examine and consider the magnitude of damage that this unnecessary project will cause. Consider the key recommendations of the Joint Rev costs and energy demand forecasts associated with this dam need more thorough examination; and, more research into alternatives must take the last two years. According to expert Robert McCullough, Site C is 3x more expensive than the least expensive alternative. Alternatives less and can provide more jobs in a variety of locations. The need for the power from Site C is unproven, Christy Clark is running around through - it's ridiculous. How can Canada endorse this project for which there are numerous, credible arguments against? Many experts have Joint Review Panel on Site C, Dr. Harry Swain has a doctorate in economics. He is not satisfied with the business case for this project. recommendations from the Panel's report that he has made the unprecedented move of speaking out publicly against this project; and he cor Canada is truly green and progressive, afterall it's 2016.|2016-04-21 23:34:08|

# Prep Data for Geocoding

A	B	C	D
city	state	country	date
Black Diamo	Alberta	canada	2016-04-21
Black Diamo	Alberta	canada	2016-04-21
Black Diamo	Alberta	canada	2016-04-21
Black Diamo	Alberta	canada	2016-04-21
Black Diamo	Alberta	canada	2016-04-21
Black Diamo	Alberta	canada	2016-04-22
Black Diamo	Alberta	canada	2016-04-22
Black Diamo	Alberta	canada	2016-04-22
Black Diamo	Alberta	canada	2016-04-22
Stony Plain	Alberta	canada	2016-04-22
Stony Plain	Alberta	canada	2016-04-22
Stony Plain	Alberta	canada	2016-04-22
Stony Plain	Alberta	canada	2016-04-22
Edmonton	Alberta	canada	2016-04-22
Edmonton	Alberta	canada	2016-04-22
Edmonton	Alberta	canada	2016-04-22
Edmonton	Alberta	canada	2016-04-22
Calgary	Alberta	canada	2016-04-22
Calgary	Alberta	canada	2016-04-22
Calgary	Alberta	canada	2016-04-22
Calgary	Alberta	canada	2016-04-22
Stony Plain	Alberta	canada	2016-04-22
Stony Plain	Alberta	canada	2016-04-22

# Adding Geocoding

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	city	state	country	date	Latitude	Longitude	Accuracy	Scc	Accuracy	Typ	Number	Street	City	State	County	Zip	Country	Source
2	Black Diamo	Alberta	canada	2016-04-21	50.70011	-114.2353		1	place			Black Diamo	AB				CA	CanVec+ by Natural Resources Canada
3	Black Diamo	Alberta	canada	2016-04-21	50.70011	-114.2353		1	place			Black Diamo	AB				CA	CanVec+ by Natural Resources Canada
4	Black Diamo	Alberta	canada	2016-04-21	50.70011	-114.2353		1	place			Black Diamo	AB				CA	CanVec+ by Natural Resources Canada
5	Black Diamo	Alberta	canada	2016-04-21	50.70011	-114.2353		1	place			Black Diamo	AB				CA	CanVec+ by Natural Resources Canada
6	Black Diamo	Alberta	canada	2016-04-22	50.70011	-114.2353		1	place			Black Diamo	AB				CA	CanVec+ by Natural Resources Canada
7	Black Diamo	Alberta	canada	2016-04-22	50.70011	-114.2353		1	place			Black Diamo	AB				CA	CanVec+ by Natural Resources Canada
8	Black Diamo	Alberta	canada	2016-04-22	50.70011	-114.2353		1	place			Black Diamo	AB				CA	CanVec+ by Natural Resources Canada
9	Black Diamo	Alberta	canada	2016-04-22	50.70011	-114.2353		1	place			Black Diamo	AB				CA	CanVec+ by Natural Resources Canada
10	Stony Plain	Alberta	canada	2016-04-22	53.53343	-114.00205		1	place			Stony Plain	AB				CA	CanVec+ by Natural Resources Canada
11	Stony Plain	Alberta	canada	2016-04-22	53.53343	-114.00205		1	place			Stony Plain	AB				CA	CanVec+ by Natural Resources Canada
12	Stony Plain	Alberta	canada	2016-04-22	53.53343	-114.00205		1	place			Stony Plain	AB				CA	CanVec+ by Natural Resources Canada
13	Stony Plain	Alberta	canada	2016-04-22	53.53343	-114.00205		1	place			Stony Plain	AB				CA	CanVec+ by Natural Resources Canada
14	Edmonton	Alberta	canada	2016-04-22	53.55014	-113.46871		1	place			Edmonton	AB				CA	CanVec+ by Natural Resources Canada
15	Edmonton	Alberta	canada	2016-04-22	53.55014	-113.46871		1	place			Edmonton	AB				CA	CanVec+ by Natural Resources Canada
16	Edmonton	Alberta	canada	2016-04-22	53.55014	-113.46871		1	place			Edmonton	AB				CA	CanVec+ by Natural Resources Canada
17	Edmonton	Alberta	canada	2016-04-22	53.55014	-113.46871		1	place			Edmonton	AB				CA	CanVec+ by Natural Resources Canada
18	Calgary	Alberta	canada	2016-04-22	51.05011	-114.08529		1	place			Calgary	AB				CA	CanVec+ by Natural Resources Canada
19	Calgary	Alberta	canada	2016-04-22	51.05011	-114.08529		1	place			Calgary	AB				CA	CanVec+ by Natural Resources Canada
20	Calgary	Alberta	canada	2016-04-22	51.05011	-114.08529		1	place			Calgary	AB				CA	CanVec+ by Natural Resources Canada

# Extract Geocoding

	A	B	C
1	50.70011	-114.2353	2016-04-21
2	50.70011	-114.2353	2016-04-21
3	50.70011	-114.2353	2016-04-21
4	50.70011	-114.2353	2016-04-21
5	50.70011	-114.2353	2016-04-22
6	50.70011	-114.2353	2016-04-22
7	50.70011	-114.2353	2016-04-22
8	50.70011	-114.2353	2016-04-22
9	53.53343	-114.00205	2016-04-22
10	53.53343	-114.00205	2016-04-22
11	53.53343	-114.00205	2016-04-22
12	53.53343	-114.00205	2016-04-22
13	53.55014	-113.46871	2016-04-22
14	53.55014	-113.46871	2016-04-22
15	53.55014	-113.46871	2016-04-22
16	53.55014	-113.46871	2016-04-22
17	51.05011	-114.08529	2016-04-22
18	51.05011	-114.08529	2016-04-22
19	51.05011	-114.08529	2016-04-22
20	51.05011	-114.08529	2016-04-22
21	53.53343	-114.00205	2016-04-22
22	53.53343	-114.00205	2016-04-22
23	53.53343	-114.00205	2016-04-22

# Maps

- Map of Locations of Letter Writers
  - <https://dash.geocod.io/share/28z7>
- Time Lapse of Locations of Letter Writers
  - <http://create-maps.createlab.org/projects/siteletters/>