

***BRINGING THE URANIUM-
NUCLEAR CONTROVERSY
INTO THE LIGHT: how have
attitudes and worldviews changed in
Saskatchewan over a third of a
century?***

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Prepared for Quebec Commission on Uranium Mining, Oct. 2014

PREFACE

I am sorry that arrangements could not be made to present in person to your Commission. The “to and fro” based on your specific concerns and questions would have been very fruitful, including for me. I have invested years into studying the uranium mining industry and the nuclear industry of which it is a part. I have researched and written about these matters from 1977 to the present. It has been one of my major academic focuses and a major concern as a Canadian citizen and environmentalist.

I have presented and written about all the inquiries held on this matter in Saskatchewan. This includes inquiries on uranium mining in 1977-80, 1992 and 2009. It also involves inquiries held on uranium refining (1980) and nuclear wastes (1990) and the whole nuclear fuel system (2009). I also presented at the *International Uranium Congress* held in Saskatoon in 1988 and the *World Uranium Hearings* held

in Austria in 1992 and was a consultant for the *National Film Board’s* award-winning documentary “Uranium”. I have just been invited to attend the upcoming *World Uranium Symposium* to be held in Quebec City this coming April 14-16.

I have specific publications available that are relevant to your Commission, including *What’s Wrong With the UDP Report (2009)*, *What’s the Alternative to Nuclear Colonialism in the North (2010)*, and *Why Saskatchewan Should Ban Nuclear wastes (2011)*. An overview of my years of study of Saskatchewan’s involvement in uranium mining is provided in my book *Canada’s Deadly Secret: Saskatchewan Uranium and the Global Nuclear System* (Fernwood, 2007). **Some sections of that book, which are footnoted in my following presentation, along with other research publications on these matters, are directly relevant to your inquiry. The Appendix at the end of this presentation will provide a historical context and chronology of events pertaining to uranium mining in Saskatchewan.**

INTRODUCTION

During 2009 the *Uranium Development Partnership* (UDP) consultations showed a groundswell of opposition to nuclear power and other recommended expansions of the nuclear fuel system in Saskatchewan.¹ For government, the Chamber of Commerce and the big city media this all came as a surprise. There had been no widespread opposition expressed to uranium mining since the federal-provincial inquiries of the 1990s and proponents had come to accept the superficial polling results suggesting

1 Dan Perrins, *Future of Uranium Public Consultation Process*, Prepared for Saskatchewan Ministry of Energy and Resources, August 31, 2009.

people here were ready to embrace nuclear power. The governing Saskatchewan Party and the opposition NDP both supported some version of value-adding to the uranium industry.

The UDP process was the first extensive public airing on the nuclear controversy since the uranium inquiries of 1977-1980. The NDP government under Premier Blakeney embraced the uranium industry as a pillar of its public ownership and economic development plan in the late 1970s. Until then the uranium mining had gone on in the secrecy of the nuclear arms race. Until then the Saskatchewan people knew next to nothing about where uranium was mined, where it was sent and what it was used for. Under such circumstances it was impossible to form informed opinion or democratic consent. It's been a long process to bring this industry and its ecological and military footprint into the light.

1. THE URANIUM INQUIRY DATABASE

I returned to my home province of Saskatchewan from teaching environmental studies in Ontario just before the Cluff Lake Board of Inquiry (CLBI) was established in February 1977. I started my learning curve about nuclear technology during the Ban-The-Bomb days but it deepened when I taught environmental health at the University of Waterloo. Opposition was building to expanding nuclear plants and soon after I left Ontario its *Royal Commission on Electric Power Planning* called for a moratorium on nuclear power

due to the build-up of nuclear wastes.²

It seemed that if we were to ever bring this industry into the light we'd need to look at the full nuclear fuel system, from mining to nuclear weapons to nuclear power and wastes. And we'd have to place the compartmentalized promotions and promises into a solid context of both sustainability and accountability, where claims were tested against independent and credible information and knowledge. This would not be easy.

I participated in the CLBI as a founding member of the *Regina Group for a Non-Nuclear Society* (RGNNS) and as an expert witness on social impact. At that time I was Director of Research in the *Addictions Commission* in the province's Health Department. There was a lot of disinformation and semantic manipulation from nuclear corporations and the government which was already in joint-ventures with uranium multinationals before the inquiry started.

I decided it was in the public interest to try to bring some objectivity to the controversy by studying the inquiries using social science methods. In 1982, after joining the faculty at the University of Regina, I received major funding from the SSHRC's *Human Context of Science and Technology* (HCST) strategic grant program and began systematic research on the three inquiries that had taken place; on the uranium mine proposed at Cluff Lake by the French company Amok (now Cogema-Areva), on the uranium refinery proposed at Warman, near Saskatoon, by the federal crown Eldorado Nuclear, and supported by Saskatchewan's Blakeney government; and

² *A Race Against Time*, Porter Commission, Ontario, 1978.

on the uranium mine at Key Lake proposed by the German company Uranerz.

Our research was ongoing from 1982-1997, after which I took early retirement from the University of Regina.³ In that 15-year period we assembled the most extensive content-analysis database on the nuclear controversy anywhere, and published several reports and papers.⁴ It was fitting that this research was being done in Saskatchewan as this region was quickly becoming the major front-end of the global nuclear system.

There were 914 participants in these three uranium-related inquiries. A stratified random sample was taken for each inquiry to enable us to do in-depth content-analysis; and some people who were central to the events, such as the Commissioners and counsel for the proponents, were also “self-sampled”. We ended up with a sample of 315 participants which was organized into four files: 84 participants for the CLBI formal hearings, 97 participants for the CLBI local hearings, 69 participants for the Warman hearings, and 80 participants for the Key Lake Board of Inquiry (KLBI) formal and local hearings combined. A comprehensive database was then constructed out of exhaustive transcript coding for attitudes and minor and major themes and socio-demographic, occupation and affiliation identifiers.

1.1 THE PARAMETERS OF THE SAMPLE

³ Due to workplace stress resulting from a growing student body and ongoing cuts to the School of Human Justice and the need to pursue intensive rehabilitation after a serious car accident.

⁴ Several research reports and working papers were published under the Series, *In The Public Interest*. All of these should be available in the University of Regina archives.

The database had 236 participants from Saskatchewan and 79 from out-of-province or with residence initially unknown. (We obtained more reliable and extensive demographic information as the study proceeded, including from the 1986 follow-up study.) There were 101 participants from urban areas (Regina and Saskatoon), 46 from the rural south, and 89 from the north, who were later coded as indigenous or non-indigenous. There were 253 men and 62 women in the sample, which reflected the huge gender bias regarding science, technology and public policy, and set the stage for some compelling gender analysis of the nuclear controversy.

Here I can't summarize the findings on all inquiry sub-groups. Though preliminary analysis was done, we did not get to thoroughly analyze all files. The plan was to find more research funds to do this and complete several sub-studies (e.g. gender and nuclear, etc.) but several research files including the tapes containing the computerized database got discarded into the University of Regina garbage bin. (This happened when the Dean of Social Work imposed an arbitrary timetable for evacuating the Prairie Justice Resource (PJR) room, before the School of Human Justice had even arranged new space with its planned move to Arts.)⁵ By the time I was informed of this “mishap” the computer file had gone to Regina's city dump. This was a demoralizing setback for this important, exhaustive and expensive publicly-funded research. It made me more personally aware of how the knowledge passed or not

⁵ There was a lengthy background to this, some of which can be found in my *The Political Vulnerability of Justice Studies*, Prairie Justice Research, 20th Anniversary Series, Working Paper No. 2, University of Regina, September 1997.

passed on from the past likely has an underlying political and ideological story. The exercise of power and authority can encourage or impel the pursuit of knowledge in many indirect and subtle ways.

I am not reporting on all the analyses that was completed because this isn't required for my purposes, and this material is available through other sources.⁶ I will first summarize the results from the analysis of the CLBI Local Hearings, which reflected the views on uranium mining of a broad range of people, similar to the UDP consultations. Furthermore, since 12 of the 23 communities where these Local Hearings were held in 1977 are the same ones visited by the UDP consultations in 2009, there is some possibility for comparisons, though not for actual persons.⁷ Second, I will report on our 1986 follow-up study of participants in the three uranium inquiries. This study allowed us to check and enhance our original coding of attitudes and themes and, most vital, to explore any changes that may have occurred for participants over the decade since the inquiries began. It also allowed us to assess in more depth the themes reflecting the diverging worldviews found among proponents, opponents and those supporting a moratorium. Finally, since the follow-up study used the 315 participants in the original database created

6 For a discussion of preliminary methodology and analysis see Jim Harding and Ingrid Alesich, "*Content Analysis of Uranium Mining Transcripts in Saskatchewan*", 1977-1980, Paper presented to WASA, Regina, February 10-12, 1984. This was published as Prairie Justice Research's Occasional Paper # 2, January 1984.

7 These communities are La Ronge, Stony Rapids, Fond du Lac, Wollaston and Buffalo Narrows in the north, and Yorkton, Estevan, Swift Current, Regina, Prince Albert, North Battleford and Saskatoon in the south.

from all the uranium inquiries it could allow some broad -based comparisons with the results of the UDP consultations.

2. 1977-80: ATTITUDES IN LOCAL HEARINGS

Local hearings were held in 23 Saskatchewan communities as part of the CLBI. These local hearings generated 2,182 pages of transcripts over a 23-day period. This was about one-fifth of the 10,786 pages from the formal hearings which lasted 67 days. The Formal, more technical, hearings allowed for more in-depth analysis of science and technology, the ideology of science, the nuclear industry, environmental impact and policy issues. But the Local hearings included about twice the participants as the Formal hearings and represented more "grass-roots" people from across the province. The views of northern indigenous and non-indigenous, southern rural and urban, male and female could therefore all be compared.

Participation in these Local hearings, particularly in the north, was extremely high. Almost one-half (165 of 336) of those who attended and participated in some way in the 23 hearings came from the north, and the majority (118 of 165) were indigenous northerners. More than half of the Local hearings (14 of 23) were held in the north even though the northern population at the time was only 28,000 of the province's nearly 1,000,000 people at the time. The participation rate of northerners, particularly indigenous northerners, was therefore a lot higher than in the south. The head of the CLBI, Judge Bayda, said he wanted to ensure that he and the other two commissioners heard from those living in

the north, where the uranium mine expansion would occur. And they did. Whether, with their own pro-uranium industry biases, which were analyzed separately,⁸ they could really “hear” what people were saying, is another question. It seems unquestionable that in 2009 UDP Head Dan Perrins listened better in public consultations.

One hundred and thirteen (113) people were sampled from those who directly participated in these Local hearings. The 113 were then reduced to 97 participants after it was found that some of those sampled were minor speakers within the transcripts and there were insufficient transcripts to make coding worthwhile. The final sample was quite diverse as it included 32 indigenous persons, 18 non-indigenous northerners, 35 rural and 28 urban participants. Furthermore, the transcripts for these participants included 47% of the total southern and 55% of the total northern transcripts. The generalizability of the research results is therefore very solid.

Codes were created, tested and revised and coding reliability was established in an earlier pilot study.⁹ Then all the transcripts associated with the sampled participants were coded, with participants all pseudo-identified to ensure that coders had no knowledge of participant characteristics or affiliations. Coding was done for attitudes to the uranium mine as well as for major and related minor themes which reflected

8 See “Due Process in Saskatchewan’s Uranium Inquiries”, in Dawn Currie and Brian McLean (eds.), *Rethinking The Administration of Justice*, Fernwood, 1992, pp. 130-49.

9 See my *Report to SSHRC Strategic Grants*, Human Context of Science and technology, Prairie Justice Research, University of Regina, January 20, 1986 for details.

differing views among proponents, opponents and pro-moratorium indigenous participants. The attitude codes used were: none, questions only, support moratorium, unconditional pro, unconditional con, neutral, conditional pro and conditional con. The major themes addressed the provincial economy, northern development, energy policy, ecology and technology, science and knowledge, the inquiry process and the regulatory process. There were proponent and opponent versions of each, with many minor themes developed for each. The final codebook included about 400 discrete codes. Only attitudes from the Local Hearings are reported in 2.1 and 2.2 below.¹⁰

2.1 NO INDIGENOUS SUPPORT FOR URANIUM MINE

Only 19 participants in the sample of 97, none indigenous, were coded as either unconditionally or conditionally in support of the uranium mine, whereas 35 participants were coded as unconditionally or conditionally opposing the mine. Another 31 supported a moratorium. The support for a moratorium was distributed across the sample: 13 indigenous persons, 9 urban, 5 non-indigenous northerners and 4 rural participants. When those coded as outrightly opposed to the uranium mine at Cluff Lake were grouped with those wanting a moratorium on the mine it was found that **66 of 97 or 68% of the Local hearings sample did not want the mine to go ahead. Though there was diverse reasoning, 81.5% of urban, 75% of rural and 71% of indigenous participants did not support**

10 These results are taken from Jim Harding, “A Content Analysis of Attitudes Towards Uranium Mining Expressed in the Local Hearings of the CLBI”, *Issues of Impact Assessment, Impact Assessment Bulletin*, Vol. 4, No.1-2, 1986, pp. 189-209.

the go-ahead of the uranium mine.

This actual measure of the views of participants did not jibe with, and was overshadowed by, all the “uranium boom” fanfare coming from government and industry and steadily highlighted (“reported”) in the mass media. Remember that the government was both responsible for the inquiry process and a co-owner, through its crown the Saskatchewan Mining and Development Corporation (SMDC), of the uranium ventures under review. In retrospect it seems fair to say the Cluff Lake mine was steamrolled through in spite of the views of local people in the hearings. **There is also strong evidence that the go-ahead was given prior to the CLBI completing its recommendations, and we know for sure that the second uranium mine, at Key Lake, was already draining lakes prior to the CLBI reporting. Once the chronology of events is carefully studied it’s hard not to see these inquiries as tools of political legitimacy.**¹¹

The breakdown of attitudes is most revealing. As already stated, no indigenous participants were among the proponents. Meanwhile, in the media and proponent and pro-uranium elite circles, uranium mining was continually promoted as not only being good for northern development but as having support among needy northerners. “Northerner” was used to include participants from First Nations and Métis communities, as well as non-indigenous northerners living in places attached to the mining industry like Uranium City and La Ronge. However, **when the views of indigenous participants were empirically analyzed it was found that 50%**

11 See the discussion of this in my *Canada’s Deadly Secret*, pp. 57-58 and 66-67.

supported a moratorium, 25% were unsure about the project and the rest were outrightly opposed. This was back in 1977-80; later we’ll see that views had substantially changed by 1986. There certainly was no groundswell of indigenous support for the uranium mine. Furthermore, all the indigenous organizations, including the District Chiefs and Métis Society had already called for a moratorium on uranium mining and inclusion of Aboriginal Rights in the CLBI, and when this was refused, they boycotted the CLBI.¹²

It was also found that it was the non-indigenous northerners that supported the go-ahead of the uranium mine; 11 of 18 or 61% of them in the Local hearings sample supported the mine. Cross-tabulation showed that these 11 were among the 12 sampled participants who lived in majority non-indigenous communities. Ten came from the mining town of Uranium City, which had been involved in uranium mining for U.S. nuclear weapons since the 1950s. Ironically, once the more profitable Cluff Lake and Key Lake mines went into production, the much lower-grade uranium mines at Uranium City were shut down and the town was depopulated. In 2014 the Gunner mine near Uranium City which opened in 1953 still has not been safely decommissioned and radioactive contaminants continue to spread into the adjacent environment. For a while the federal government even allowed a fish plant to be operated from its toxic site.¹³

12 See details on this in “Side-Stepping Aboriginal Rights”, In Jim Harding, *Canada’s Deadly Secret: Saskatchewan Uranium and the Global Nuclear System* (Fernwood, 2007), Chapter 1, pp. 25-35. Also see my “*Aboriginal Rights and Government Wrongs*”, In the Public Interest Series, Prairie Justice Research.

13 See my column on Gunner mine in R-Town News available at: [http: crowdstecology.wordpress.com](http://crowdstecology.wordpress.com)

The strategy of promoting uranium mining as being in the interests of poverty-stricken northern indigenous communities was not developed because there was widespread support for uranium mining among northern indigenous participants in the Local hearings. It succeeded in part because the actual views of northern people were not accurately reported in the provincial media or taken seriously in the inquiry process. Furthermore, the notion that uranium mining was a way to “develop” the north was an ideological story-line that resonated well in some circles in the south. It was attractive because it continued with paternalism towards indigenous people and yet could be made to sound like a step towards self-determination. Northerners, indigenous or otherwise, were not given any fundamental say over what kind of development path they would take. And any inquiry recommendations that might have strengthened their participation, such as a Northern Development Board or revenue-sharing, have been out-rightly rejected by a string of Saskatchewan governments.

2.2 MORE WOMEN AGAINST URANIUM MINING

The importance of gender in attitudes to uranium mining became apparent in the study of Local hearings. Over half the women in the participants sample (54.8%) were coded as either unconditionally or conditionally opposed to uranium mining, compared to just over one-quarter (29.6%) of all the men. Meanwhile it was found that all (100%) of the non-indigenous northern women were coded as either unconditionally or conditionally in support of the mine. This compared to less than half (48%) of the non-indigenous northern men,

over a third (38%) of whom supported a moratorium. As stated earlier, over one-half of all indigenous participants also supported a moratorium.

These remarkable findings showed the need to contextualize gender within the political economy of uranium mining. The more dependent women were on the industry, the more supportive they were, even while men who had proximity to and may have even worked within the industry, expressed some doubts about it.

The gender gap continued in urban and rural, southern Saskatchewan. In the big cities of Regina and Saskatoon, two-thirds (66.7%) of the women in the Local hearing sample were coded as either unconditionally or conditionally in opposition to uranium mining. This compared to one-third (38.9%) of the urban men in the sample. In rural Saskatchewan a huge majority of women participants (87.5%) were coded as opposing uranium mining, compared to 50% of the rural men in the Local hearings. The results of this analysis were modeled to show how gender and attitudes interrelate. **A continuum of support to opposition existed from: i) all non-indigenous women in the north wholeheartedly supporting uranium mining, to ii) no indigenous women in the north supporting and some opposing uranium mining, to iii) no urban women supporting and a majority opposing uranium mining, to iv) the vast majority of rural women opposing uranium mining.**

3. 1986: TEN YEARS AFTER THE INQUIRIES

In 1986 we initiated a follow-up study to

see what reflections participants had about the previous inquiries and whether their views had altered. We started with the 315 participants in our original database, and found that after so many years it was challenging and very time-consuming to successfully trace 169 of these people down. Then by using these contacts to gain further information about the whereabouts of past participants we assembled contact information for 209 people, or 66.6% of the original sample. These people were all invited by mail to participate in the follow-up study. Out of this process we were able to directly contact 114 people in Saskatchewan by mail, telephone or actual visits. With another 20 contacted from out of province we had 134 people, or 73.2% of the 209 we had tracked down. Of these, 28 could not or chose not to participate further. So the follow-up study was based on 106 of the original participants from the uranium inquiry database, 90 of whom were directly interviewed and 16 of whom completed a detailed mail-out questionnaire. Being able to interview 54.7% of those we tracked down, and 33.7% of the participants in the original database, is good for such follow-up research.¹⁴

3.1 OPPOSITION GROWING AMONG MEN

The follow-up study enabled us to evaluate changes in attitudes over the period since the inquiries took place.¹⁵ **The biggest change was among indigenous men, where a marked shift occurred from large support for a moratorium in 1977-1980 to 50%**

¹⁴ See Jim Harding and Beryl Forgay, *Ten Years After the Uranium Inquiries: A Follow-up Study of Participants' Attitudes and Concerns*, Prairie Justice Research, University of Regina, April 1992, for details on methodology and all results reported here.

¹⁵ *Ibid.*, pp.57-60.

being out-rightly opposed to uranium mining in 1986. Also there was no support at all for uranium mining among the indigenous men in the follow-up study.

This shift was found whether participants were analyzed as indigenous men or in terms of being associated with aboriginal organizations. In contrast to this shift, non-indigenous northerners were slightly more (now 46%) supportive of uranium mining. It's worth speculating whether this reflected a polarization occurring over the uranium industry along neo-colonial lines in the north.

Interestingly, non-Saskatchewan men also showed a slight shift over this decade towards more opposition to uranium mining. A large shift towards opposition occurred among rural men (58% by 1986). Rural women were already mostly opposed, but in 1986 the overall opposition among all rural participants grew to 72%. There was an anomaly in the shift found from opposition to more support for a moratorium among urban women, which may relate the size of this urban sub-sample (both men and women) growing from 25% to 46% of all participants in the follow-up study compared to the original database. (It turned out to be much easier to trace down urban than other participants.) But **based on the participants own views of their attitudes in 1977-80 and changes by 1986, there was an overall 38.7% increase in opposition compared to a 5.1% increase in support for uranium mining. The shift was mostly among indigenous, rural and urban men.**

In the follow-up study we also found that some of those previously placed in the "moratorium" category actually

remembered supporting or opposing the uranium industry. So we added two new attitude categories, “proponent moratorium” and “opponent moratorium”. There were 27 of the 106 originally in the moratorium category but with the new codes this dropped to only 9 of 106.

Fourteen of the 18 who were placed in the new categories were men (7 of 8 in proponent moratorium and 7 of 10 in the opponent moratorium), which confirms that women were more categorical. With this reanalysis we ended up with 47 of 106 or 44.4% in support of the uranium industry and 50 of 106 or 47.2% in opposition, which presents a much more polarized view of the controversy. Those not wanting to proceed with the mine, including those re-categorized as “opponent moratorium” were now 54.7% of those in the follow-up study compared to 36.8% favouring the go-ahead of the uranium project.¹⁶

Changes could also be tracked through the coding of major themes. We found some marked changes regarding views of the inquiry process. In the follow-up study participants remembered their views at the time of the inquiries to be much more pro-inquiry than anti-inquiry. The only exception to this was among indigenous and non-indigenous northern men, which may suggest some skepticism about the southern-created inquiry process among all northerners at the time. However, the views registered ten years after the inquiries contrasted sharply with this. **Pro-inquiry major theme codes for the same participants dropped from 58 to only 5 and anti-inquiry major theme codes grew from 30 to 52 over this decade. The percentage of all major theme codes that were pro-**

¹⁶ Ibid., Table 35 and pp. 51-52.

inquiry dropped from 7.1% in 1977-80 to .06% in 1986, whereas the percentage for anti-inquiry major theme codes went from 3.6% to 5.9% over this period. It’s noteworthy that this change is primarily for men, as women, overall, seemed less interested in evaluating the inquiry process. When major themes on the inquiry process were analyzed by “association groups” it was found that change in the direction of being more critical of the inquiries occurred for all groups except for proponents.

Two main things can be concluded from these findings. **First, a decade after the uranium inquiries, the same participants were more opposed to uranium mining; and second, they were more critical of the inquiry process. And it’s interesting that these changes mostly involved men, who could be said to be catching up with what most women participating in the inquiries had already concluded.** A lot happened in that decade, though exactly what triggered these attitudinal changes cannot be specifically gleaned from the data. There were major spills at uranium mines during the period between the initial inquiries and our follow-up study which probably played some role.¹⁷ Furthermore, many of the economic benefits promised for indigenous northerners, when the inquiries were high-profile, had not accrued.¹⁸ If these attitudinal changes are generalizable and persistent they might have laid the ground for the outpouring of criticism in 2009 about the composition and bias of the UDP and the initial broad public skepticism

¹⁷ See Jim Harding, “Uranium Blowback”, *Canada’s Deadly Secret*, Chapter 4, pp. 54-67.

¹⁸ I discuss these failed promises throughout *Canada’s Deadly Secrets*. See “Northern Opposition Mounts”, Chapter 7, pp. 84-101 for some of the signs that northern indigenous people were becoming more unhappy with the uranium industry.

about how its consultations would be run. Perhaps a fragmented, buried, collective memory from experiences with the earlier inquiries found expression during the UDP public consultations. Change occurs on many levels and in many ways and bigger changes often come from accumulating smaller ones.

4. 2009: THE SHIFT TO THE SOFT ENERGY PATH

The UDP held in 2009 was about adding economic value to the uranium industry by expanding the nuclear fuel system in Saskatchewan, including building nuclear power plants.¹⁹ In promoting this the ruling Saskatchewan Party was following in the path carved out since the 1980s by the NDP. The NDP was forced by its members and public opinion to draw the line for its support for the uranium-nuclear industry at nuclear power, meaning they supported sending uranium to other places, where nuclear wastes would accumulate and weapons material could be diverted. And they put on their moral blinders about the use of depleted uranium, left from enriching uranium from Saskatchewan, in

¹⁹ *Capturing the full potential of the uranium fuel chain in Saskatchewan*, UDP, March 2009. My critique of all the recommendations in the UDP report, entitled "*Flawed Assumptions, More Deregulation and Subsidies, Shoddy Demand 'Guestimates', Downplaying of Renewables, and a Rehash of Old Nuclear Fantasies...with the Wastes Thrown In*", is posted at <http://jimharding.brinkster.net>. My critical analysis of the UDP report based on the policies of the Coalition for a Clean Green Saskatchewan, entitled "*What's Wrong With The UDP Report*", is published as booklet # 2 of the *Moving Towards Sustainability Series*, July 2009.

DU weapons in recent wars.²⁰

The public consultations, however, showed that there was much greater support (80-85% of 2,263 responses) for going non-nuclear and moving towards renewable energy than for the pro-nuclear UDP report. When on December 19, 2009 the Saskatchewan Party government said they would not follow the UDP recommendation to build nuclear plants in Saskatchewan they ended up with the same contradictory policy as the NDP.

Is there anything in our research from the 1970s and 1980s that was embryonic for this groundswell of support for the soft energy path? The transcript and follow-up studies included a major theme that encapsulates the thinking leading to soft energy. It reads, "*The perpetual growth in the demand for energy (including nuclear) is unnecessary and unrealistic in a world of limited resources and will not sustain a quality of life for present or future generations.*" It's instructive to look at the relative place of this theme among the 14 major themes coded for those supporting and opposing uranium mining. And to consider how the implicit support for soft energy reflected by this theme fits into the oppositional and alternative "green" paradigm that we found emerging at the time of the uranium inquiries.

4.1 WERE WOMEN FORGING THE PARADIGM SHIFT?

I have already discussed how gender, economy and geography intersect in a continuum of opposition. If we analyze the distribution of major themes among

²⁰ I discuss the military connections with Saskatchewan uranium in "*Overcoming Amnesia*", in *Canada's Deadly Secret*, Chapter 18, pp. 242-263.

participants in the follow-up study we find this continuum of opposition goes from its highest among rural women to its lowest among non-indigenous women in the north. Indigenous women are the second most opposed group; while non-Saskatchewan men are the second least opposed (third most supportive). Urban women are the third most opposed group, whereas urban men are the third least opposed (third most supportive). Rural men are the fourth most opposed group, whereas indigenous men are the third least opposed (third most supportive). Non-indigenous northern men sit in the middle, but, based on this major theme analysis, are more opposed than supportive.²¹

How do these groups compare insofar as support for soft, renewable energy? Were any findings from our follow-up study in 1986 suggestive of the strong non-nuclear, pro-renewable views that Perrins found in the UDP consultations in 2009? I believe there are signs of what was to come, though the paradigm shift that was measurable in the 1970s and 1980s was more about values and worldview than about energy policy per se.

In our 1986 study we thematically coded how participants remembered their views during the inquiry. It is these findings that I will concentrate on here.²² Ninety-five percent (95%) of the major themes of rural women, the group most in opposition to uranium mining, were oppositional. Support for soft energy was the fifth highest theme, at 11% of all this group's themes. This was the same percentage that was shown for the theme that supports a more holistic, non-scientistic approach to knowledge. The

themes most emphasized by rural women were ecological sustainability (29% of themes), distrust of the regulatory system (21%) and support for a sustainable economy (19%). The least mentioned themes had to do with the north and the inquiry process. So while explicit support for soft energy was not that high, when the underlying notion of "sustainability" is considered, a paradigm shift, forged by these women, is more evident. Nearly three-quarters (70%) of the major themes of rural women reflect this paradigm shift in some way and I will take this as a benchmark for comparing other groups.

Ninety-three percent (93%) of the major themes emphasized by indigenous women were oppositional. And, interestingly, support for soft energy was the second/third highest, at 19% of total themes remembered from the inquiries. This was the same percentage as the theme stressing sustainable northern development. It is very noteworthy that the most emphasized theme among indigenous women was about skepticism for the state's regulation of environmental health (31% of all their themes). Ecological sustainability and holistic knowledge were the two least emphasized themes, at 6% each; and a sustainable economy was fourth highest, at 12.5% of all themes. If we add up the same themes as we did for rural women we get only 43% of all themes; however the addition of northern sustainability (19% of all themes) brings the total percent close to that of rural women (62.5% compared to 70% of all themes). And it is to be expected that women living in or connected to the north will express their attitudes and values through a different lens than rural women.

Just how important is gender in this

21 See Harding and Forgay, *op. cit.*, Table 46, p. 68.

22 *Ibid.*, pp. 66-71.

apparent shift to support non-nuclear technology and ecological sustainability? This is not self-evident as the non-indigenous northern women had an astonishing 97% of their major themes supporting uranium mining. And they showed no support at all for soft energy. This confirms that **attitudes intersect with proximity to and perceived dependency upon the uranium industry. In other words political economy and related ideological-cultural factors contextualize gender differences. And it seems that proximity can work both ways.** While non-indigenous women living in the north were highly supportive of uranium mining; so, too, were men living out of province. While these men had a political economic and ideological link to the industry or to pro-nuclear government departments they did not live in proximity to, or directly face the consequences of the uranium mines. It's obviously easier to support something that benefits you while you are at a safe distance. **While proponents were pushing through uranium mines in indigenous regions of northern Saskatchewan, non-indigenous people in British Columbia and Nova Scotia whose watersheds and human health would be directly affected were winning moratoria on uranium mining.** These moratoria have now been legislated in both provinces. People in New Brunswick, Quebec and the Ottawa region are presently working for a similar ban on uranium mining. It's hard not to see this double standard as being racialistic and neo-colonial.

Nevertheless, the third most oppositional group, with 76% of their major themes opposing uranium mining, was also women – urban women. Did these women support soft energy and did they show signs of a

paradigm shift towards sustainability? Only eleven percent (11%) of all their major themes supported soft energy, which is the same as among rural women. And the major theme for ecological sustainability was lower for urban women; 19% of all themes compared to 29% for rural women. So, too, was the major theme about a sustainable economy (8% compared to 19%) and the one on holistic knowledge (6% compared to 11%). If you add up the major themes that reflect a paradigm shift you get a much smaller total of 45% of all themes compared to 70% for rural women. Even if you add in the greater percentages for the major theme stressing northern sustainability, urban women don't come very close to rural or indigenous women.

4.2 THE CULTURAL AND ETHICAL SHIFT

How did support for soft energy stack up for men? Rural men, non-indigenous and indigenous men were similar in the percentage of major themes showing opposition to uranium mining (57%, 57% and 55% respectively). However **none of these groups of men came close to the female groups in their emphasis on soft energy. This major theme was only 4% of all themes for rural and non-indigenous northern men, and only 2.5% of all themes for indigenous men.** This suggests men, including indigenous men, were far more tied to conventional industrial technology which extracts non-renewable resources. **We can still see this inclination among some local non-indigenous male business leaders and Métis and First Nations male leaders in the province.** Nor were the major themes which reflect a paradigm shifts towards sustainability as predominant among male groups. When ecology, economy and knowledge are added in with

soft energy this still only totaled 39% of all rural male themes, 30% of all non-indigenous northern male themes and 25.5% of those for indigenous men. The major themes of urban men were more supportive of uranium mining than they were oppositional (65% to 35%), and the theme for soft energy was only 6% of the total themes for this group. If you add in ecology, economy and knowledge you still only get 23% of all themes, which is about one-half that for urban women.

So, once the matter of direct dependency and proximity is addressed there seems to be strong indication from both our transcript study of Local hearings, and from our 1986 follow-up study, that **women, whether indigenous or not, were far more along in this paradigm shift; though rural women seem to be where the shift was most marked.** While there is not a major focus on soft energy per se, the values and thinking that lie behind and complement this are already pronounced.

Was this a precursor to what Dolter and Arbuthnott call the “new ecology Identity” of those who during the UDP consultations so stringently opposed the expansion of the nuclear fuel system in Saskatchewan?²³ Does it reflect what they call the value of “unacceptable risk” upheld by opponents to the UDP’s pro-nuclear recommendations; the unwillingness to trade-off future burdens for short-term benefits?²⁴ Is this,

23 Brett Dolter and Katherine Arbuthnott, “Any Risk Is Unacceptable: Cultural Identity, Ethics and Support for the Nuclear Industry in Saskatchewan”. nd.

24 The major oppositional theme on “Ecology and Technology”, which was the highest for both rural and urban female participants, ends with the sentence “The risks are too great to justify its (the nuclear industry’s) continuation or expansion”.

then, fundamentally about the sustainability ethic of inter-generational justice? Do the comparative differences and the shifts found in our research in the 1970s and 1980s already reflect a moving away from the patriarchal stratification of society and knowledge and the objectification of nature, along the lines emphasized by “eco-feminism”?²⁵ Is the paradigm shift coming more from a convergence that includes post-colonial consciousness that doesn’t necessarily express itself in feminism? Are we perhaps seeing a deep historical shift in our cultural and ethical worldview from scientism towards sustainability?²⁶

When you consider the historical origins of uranium mining and the nuclear industry in the military and the ongoing threat from weapons proliferation, and the radioactive contamination that occurs from mine tailings to nuclear reactor releases and wastes, it should probably come as no surprise that the nuclear controversy is a catalyst for such a paradigm shift. An in-depth analysis of the UDP consultations may show the shift is spreading across more groupings; there are already some indications that the shift is occurring with the upcoming, more deeply “green” generations.

The question was raised when the shift would directly affect northern indigenous politics and what role indigenous women would play in this. In 2011, in response to the push from NWMO to find a northern Saskatchewan location for nuclear waste,

25 See Carolyn Merchant’s helpful discussion of eco-feminism in C. Merchant (ed.) *Ecology: Key Concepts in Critical Theory*, New Jersey: Humanities Press, 1994, pp. 9-13.

26 I critiqued scientism in my interdisciplinary doctoral thesis, *The Ideology and Logic of Scientism*, SFU, 1970.

mostly from Ontario, the *Committee for Future Generations* with much resourceful female leadership was formed by indigenous northerners. The struggle for a sustainable energy future continues province-wide.

Note: This presentation will be posted at my website – crowsnestecology.wordpress.com

APPENDIX

Based on: CANADA'S DEADLY SECRET: Saskatchewan Uranium and the Global Nuclear System (Fernwood, 2007)

Chronology of Significant Events: 1942-2009

Note: This chronology will help the reader of Canada's Deadly Secret create historical context - from the local situation to the global, and provide more familiarity with the complex and potentially confusing litany of organizations involved in nuclear politics in Saskatchewan (SK) Canada. It has been done in place of an index, which would not be as helpful in following the historical narrative. It is recommended that the reader scan the chronology in whole or part prior to starting chapter 1, and then come back to the chronology after having read the chapters that address the grouping of years (A – D). Chapter 1 starts in 1976 because that is when enough information became public for uranium mining to become a political issue. Much of the history prior to 1976, including during the secretive nuclear arms race, is addressed in Chapter 18.

A. The Cold War and Nuclear Arms Race: Saskatchewan as Supplier

1942 - Eldorado Nuclear's Port Radium mine in NWT reopens to provide uranium for

Manhattan A-Bomb Project

1943 – Canada becomes full-fledged member in Manhattan Project; Depleted Uranium (DU) weapons first envisaged by Manhattan Project

1944 – *Eldorado Nuclear* becomes federal crown corporation; *Co-operative Commonwealth Federation* (CCF) led by Tommy Douglas first elected in SK

1945 – Chalk River, Ontario reactor starts producing weapons-grade plutonium for U.S.; U.S. drops A-Bombs on Hiroshima and Nagasaki

1946 – Canadian *Atomic Energy Control Board* (AECB) Act passed; *Eldorado Nuclear* stakes uranium claims at Beaverlodge, SK

1951 – U.S. *Atomic Energy Commission* (USAEC) guarantees market and profitable price for all *Eldorado Nuclear* uranium

1952 - U.S. tests first H-Bomb

1953 – Beaverlodge, SK uranium mine opens; U.S. President Eisenhower makes “atoms for peace” speech

1957 – major nuclear reactor accident at Windscale, England

1958 – Ban-The-Bomb protests of nuclear arms race begin in SK

1961 – Tommy Douglas elected leader of newly formed New Democratic Party (NDP); Woodrow Lloyd elected SK NDP leader-Premier elect

1962 – *Eldorado Nuclear's* first public admission of role in Manhattan Project; Medicare established in SK

1963 – Pearson federal Liberal government does turn-about and supports nuclear armed-Bomarc missiles on Canadian soil; NDP leader and Member of Parliament Tommy Douglas supports peace movement's protests

1964 – Ross Thatcher Liberals defeat Woodrow Lloyd NDP in SK provincial election

1965 – SK Thatcher Liberal government fails to get heavy water plant at Estevan

1966 – *Test Ban Treaty* passed

1967 – French uranium corporation *Amok* begins aerial surveys of Northern SK

1968 – *Gulf Minerals* discovers uranium deposit at Rabbit Lake, SK

1969 – German corporation *Uranerz* guarantees market for all Rabbit Lake uranium

1970 – *Non-Proliferation Treaty* (NPT) passed

B. The Energy Crisis: Saskatchewan Sticks With Uranium

1971 – Allan Blakeney NDP defeats Thatcher Liberals in SK provincial election; high-grade uranium deposits discovered at Cluff Lake; SK government fails to get uranium enrichment plant for Estevan

1972 – *Atomic Energy of Canada Limited* (AECL) sells Candu reactor to India; then to Pakistan; Uranium Cartel, which includes Canada, inflates uranium prices until 1974

1973 – SK NDP government fails to get heavy water plant at Estevan; AECL attempts Candu sale to Argentina's military government; *Organization of Petroleum Exporting Countries* (OPEC) raises price of crude oil and "energy

crisis" begins; oil-import-dependent Japan expands nuclear power

1974 – Blakeney NDP government creates public uranium corporation, the *Sask. Mining and Development Corporation* (SMDC); AECL almost sells Candu to Iraq

1975 – high-grade uranium deposits found at Key Lake, SK

1976 – uranium issue erupts at SK provincial NDP convention - uranium inquiry, not moratorium, accepted as compromise; *Eldorado Nuclear* proposes uranium refinery for SK

1977 – *Regina Group for Non-Nuclear Society* (RGNNS) forms; construction begins at Amok and SMDC-owned Cluff Lake uranium mine; *Cluff Lake Board of Inquiry* (CLBI) begins hearings; all SK First Nations and Metis organizations call for moratorium on uranium mining; SK major uranium customer, France, continues with nuclear weapons tests (until 1996)

1978 – SK Heritage Fund created as contingency fund for unforeseen environmental problems with uranium mining (squandered by 1991); Ontario's "Porter" *Commission on Electric Power Planning* calls for moratorium on nuclear power until waste problem resolved; CLBI Final Report endorses uranium expansion in SK

1979 – SK NDP government creates "Uranium Secretariat" which launches several disinformation projects; RGNNS publishes Bill Harding's "*Correspondence With The Premier*"; leaked SK Department of Environment memos confirm illegal lakes drainage at Key Lake; major nuclear accident at Three Mile Island, Pennsylvania

1980 – SK *Key Lake Board of Inquiry* (KLBI) begins hearings; *Inter-Church Uranium Committee* (ICUC) forms in Saskatoon; *Federal Environmental Assessment Review Organization* (FEARO) *Panel* hears and rejects proposal for uranium refinery at Warman, SK; RGNNS publishes “*Why People Say No!*” (to uranium refinery); British Columbia declares 7-year moratorium on uranium mining; referendum on nuclear phase-out held in Sweden

1981 – Saskatoon “*Atoms for War and Peace*” conference reveals SK’s continuing connections with nuclear weapons; *Key Lake Mining Corporation* (KLMC) charged with illegal drainage; KLBI issues Final Report; AECL’s largest Candu sale ever made to Communist Romania; Ronald Reagan elected U.S. President – escalates second nuclear arms race which increases demand for uranium security of supply

C: Nuclear Globalization: Saskatchewan Becoming the Front-End

1982 – Grant Devine Tories defeat Blakeney NDP in SK provincial election; SaskPower’s *Office of Energy Conservation* shut down

1983 – highest-grade ever uranium discovered at Cigar Lake, SK; in opposition SK NDP reverses policy and endorses uranium mining phase-out; *Prairie Justice Research* at the University of Regina receives Social Science funding to undertake Uranium Inquiries Project (publications under Series “*In The Public Interest*” continue until 1997)

1984 – major uranium spill at Key Lake SK uranium mine; Brian Mulroney Tories elected as Federal Government

1985 – U.S. Cruise missile testing begins in Western Canada

1986 – catastrophic nuclear accident at Chernobyl, Ukraine – radioactive contamination of many countries

1987 – Inter-Church Uranium Committee (ICUC) campaigns to make Saskatoon Nuclear Weapons Free Zone; Canadian Nuclear Association (CNA) targets SK in Canada-wide nuclear ad campaign; SK networking with European Greens begins; United Nations World Commission on Environment and Development (Brundtland) Report on sustainable development endorses renewable energy

1988 – SMDC and Eldorado Nuclear merged and privatized as Cameco; Greenpeace campaign against Cigar Lake; International Uranium Congress (IUC) organizing committee formed and event held in Saskatoon; U.S. Supreme Court rules against domestic uranium protectionism; Free Trade Agreement (FTA) signed between Canada and U.S

1989 – major uranium spill at Wollaston Lake, SK; widespread calls for new SK uranium inquiry; huge shortfall on projected SK uranium revenues; Inuit at Baker Lake, N.W.T vote 90% against uranium mine in vicinity; Western Project Development Association (WPDA) proposes Candu reactor for SK; *Energy Probe* study shows growing costs of aging Candus; CNA releases “*Nuclear Facts*” promotional pamphlets; *Economic Council of Canada* estimates \$12 billion in subsidies to AECL

1990 – AECL head speaks at *University of Regina*, Engineering series; *Saskatchewan Education* promotes “*Uranium*” in its Resources Series; SK Department of Economic Diversification and Trade begins talks over Candu with TRW (Thompson-Ramo-Wooldridge); *National Film Board* releases its

film “Uranium” in face of stiff opposition within federal bureaucracy; new Ontario Rae NDP government begins investigation of *Ontario Hydro*; first Candu sale in a decade - to South Korea; OECD’s *Nuclear Energy Agency* (NEA) reports electricity from nuclear only 26% of that forecasted by it in 1972

1991 – SK Devine government signs Memorandum of Understanding (MOU) with AECL re Candu-3; Roy Romanow NDP defeats Devine government in SK provincial election; Sask Power’s *Energy Options Panel* issues Final Report – supports conservation; NDP Convention rejects Candu reactor ; *National Energy Board* (NEB) forecast contradicts AECL on projected growth in SK electrical demand; SK Energy and Mines releases “Uranium in SK” in promotional educational series; SK’s Gass Report documents writing down of value of *Cameco*’s public share offering; CNA holds annual meeting in Saskatoon; AECL and *Cameco* propose SK as nuclear waste site; FEARO Panel on AECL’s nuclear waste proposals begins hearings; Darlington Candu plant cost overruns hit \$11 billion dollars; Chernobyl cleanup costs at \$18 billion dollars; *The Economist* reveals huge French nuclear reactor debt load; DU weapons first used on occasion of Gulf War

1992 – SK NDP government Deputy Leader visits TRW in Washington; *Joint Federal Provincial Panel* (JFPP) on five new SK uranium mines begins hearings; SK NDP Convention supports uranium mining expansion only if approved by environmental review; Romanow launches *SK Energy Conservation and Development Institute* (shut down in 1996); Romanow NDP signs new MOU with AECL and AECL moves Candu offices to Saskatoon; *Saskatchewan Mining Association* (SMA) releases teacher’s guide “Uranium in SK”; Earth Summit held in Brazil; France and China

sign NPT; 1600 scientists issue Global Warning about devastating ecological impact of energy-intensive industrial society; France and China sign NPT; *World Uranium Hearings* held in Salzburg, Austria

1993 – JFPP’s first report rejects one new SK uranium mine, calls for postponement of other and warns no guarantee SK uranium used only for non-military purposes; ICUC releases evidence that DU from SK is used in U.S. weapons; newly elected Chretien federal Liberal government cancels Tories nuclear submarine deal; U.S. reports finds that nearly \$500 billion dollars of public finding has gone into nuclear industry

1994 – Romanow NDP government ignores JFPP panel and approves new uranium mines; SK NDP government makes initial sale of *Cameco* stocks; *Cameco* launches aggressive northern and Saskatoon school and community promotions

1995 – SK secular non-nuclear movement hibernates

1997 – *Kyoto Accord* on climate change initiated; promotion of nuclear as “clean” energy intensifies

1998 – SK *Green Party* begins to field candidates – advocates non-nuclear options; FEARO Panel on AECL nuclear waste proposal reports without any practical solutions

1999 - Romanow NDP re-elected as minority government forms coalition with Liberal MLAs to hold provincial power; ICUC sues AECB over *Cogema* license at McLean Lake, but is later refused standing to appeal case at Supreme Court

2000 – *Canadian Nuclear Safety Commission* (CNSC) replaces AECB as federal regulatory body; NEA reports that 14% of Canadian

electricity comes from nuclear (among lowest in OECD)

D: New Directions: The Challenges of Sustainability

2001 – Lorne Calvert elected SK NDP leader- Premier elect; Cameco takes control of privatized Bruce Power Candus in Ontario; first wind farm in SK; French government renames uranium-nuclear conglomerate “Areva”; George W. Bush elected U.S. President; 9/11; DU weapons used in Afghanistan

2002 – SK NDP government sells remaining Cameco shares; SK NDP government lowers fossil fuel royalties and along with Alberta stalls on Kyoto Accord; provincial NDP convention supports *Kyoto Accord*; industry-based *Nuclear Waste Management Organization (NWMO)* established by federal Liberal government

2003 – SK Calvert NDP barely reelected – 30 of 58 seats; Paper at Canadian International Petroleum Conference proposes Candu for Alberta tar sands ; DU weapons used in the invasion and occupation of Iraq; uranium aerosol count rises as far away as England

2004 – Cigar Lake mine licensed; SK Minister of Industry speaks at *World Nuclear Association*; *University of Regina* Justice Studies Round Table on eliminating WMD; *United Nations Environmental Programme (UNEP)* finds energy subsidies still biased towards nuclear and fossil fuels; DU weapons likely used in U.S. attack on city of Fallujah, Iraq

2005 – SK Centennial *Action Plan for Economy* supports uranium industry; Calvert NDP government and party supports uranium refinery; NWMO holds public consultations in

SK re long-term nuclear waste disposal; George Bush regime creates \$13 billion in new subsidies for nuclear industry; *Kyoto Accord* comes into effect; *New Economics Foundation* and *New Scientist* reports cost of nuclear power underestimated by factor of three; *World Tribunal on Iraq (WTI)*, concluding in Turkey, hears evidence of cancer increases from DU contamination in Iraq

2006 – *University of Regina* co-sponsors conference “Exploring Saskatchewan’s Nuclear Future”; massive flooding in Cigar Lake mine tunnels – start up postponed; *Suzuki Foundation* finds SK greenhouse gases grown most and highest (per capita) in Canada; Calvert NDP appoints Legislative Secretary for Renewable Energy – two reports later released; Calvert visits U.S. Vice President Cheney to promote non-renewables uranium and oil; Calvert promotes uranium refinery while visiting France; *Energy Probe* estimates subsidies to Canadian nuclear industry total \$75 billion dollars; AECL announces deal with *Albert Energy Corporation* to promote Candu in oilfields; Ontario McGinty Liberal government announces plans for two more reactors at Darlington; Harper Conservative minority government elected: rejects Kyoto targets and considers selling AECL; *BEIR VII (Biological Effects of Ionizing Radiation)* concludes no safe level of radiation; uranium price almost doubles spearheading uranium exploration worldwide; China negotiates uranium supply with Australia; Helen Caldicott publishes “*Nuclear Power is not the Answer*”(for global warming)

2007 - *SK Environmental Society* releases non-nuclear “Sustainable Energy Strategy for SK”; Helen Caldicott’s speaking tour in SK; Calvert NDP brings Al Gore to speak in Regina; Calvert NDP releases *Green Strategy* and *Sustainable*

Energy Strategy – both propose “energy mix” which includes uranium-nuclear; SK provincial election pending – polls put Calvert NDP far behind *Sask Party*; *Alberta Energy Corporation* announces plan to file Candu site application; new SK *Non-Nuclear Network* starts lobby of all MLAs; ecumenical activist coalition *KAIROS* focuses on non-nuclear options at Prairie Conference on Sustainable and Just Energy.

2008 – Bruce Power announces it wants to build nuclear power plants along the North Saskatchewan River; the Coalition for a Clean Green Saskatchewan expands its educational activities across the province: spokespeople reach out to First Nations, Churches, Labour, students and youth in many locations.

2009 – Save Our Saskatchewan (SOS) forms in Lloydminster area in opposition to Bruce Power’s plans: four hundred attend rally that “kick-starts” new grass-roots non-nuclear movement in Saskatchewan; the Wall government appoints the Uranium Development Partnership (UDP), composed of nuclear industry and pro-nuclear “sectoral” representatives, to recommend on adding economic “value” to uranium industry; the UDP is seen as “fox protecting chicken coop” and the vast majority of thousands attending public consultations throughout Saskatchewan reject the expansion of the nuclear industry, favouring moving towards a renewable energy system in Saskatchewan; Saskatchewan NDP leadership race pushes party towards a non-nuclear position; broad coalition of cross-Canadian environmental and indigenous groups hold Climate Justice actions when Premiers meet in Regina; Sask Party government finally says “no” to nuclear power plants in the province (for now).

2010 – Keepers of the Water IV gather at

Wollaston Lake in August: uranium mining history dissected with Dene people from across north; three northern Sask communities (Pinehouse, English River and Creighton) targeted as potential “willing communities” by the *Nuclear Waste Management Organization* (NWMO).

2011 – Kairos, Council of Canadians and Sask Greens ally to oppose nuclear wastes; Coalition for a Clean Green Saskatchewan launches nuclear waste ban campaign: community forums on nuclear wastes held in Wynyard, Saskatoon, Prince Albert, La Ronge and Regina; *Committee for Future Generations* forms: Northern Forum for Truth on Nuclear Waste Storage held at Beauval in June; 7000 Generations Walk Against Nuclear Wastes from Pinehouse to Regina Legislature held July 27 to August 15th; thousands are involved and petition campaign starts.

2012 – 12,000 name petition against nuclear wastes delivered to Sask. Legislature in May; collaboration agreement signed between village of Pinehouse and uranium industry.

2013 – 42 claimants file claim challenging the legality of collaboration agreement between Pinehouse and uranium industry; it’s latter revealed that since 2010 the village has received over \$400,000 from NWMO.

2014 – After concerted regional indigenous opposition the NWMO pulls out of Pinehouse and English River and shifts its attention to the town of Creighton.

2015 – Opposition to Creighton site grows; NWMO pulls out of Creighton and Sask in March; shifts its attention back to Manitoba and northern Ontario. (The first targeting of a northern Sask community (Meadow Lake) for

nuclear wastes occurred in 1991); International Uranium Symposium held in Quebec City in April - 300 expected from around the globe.