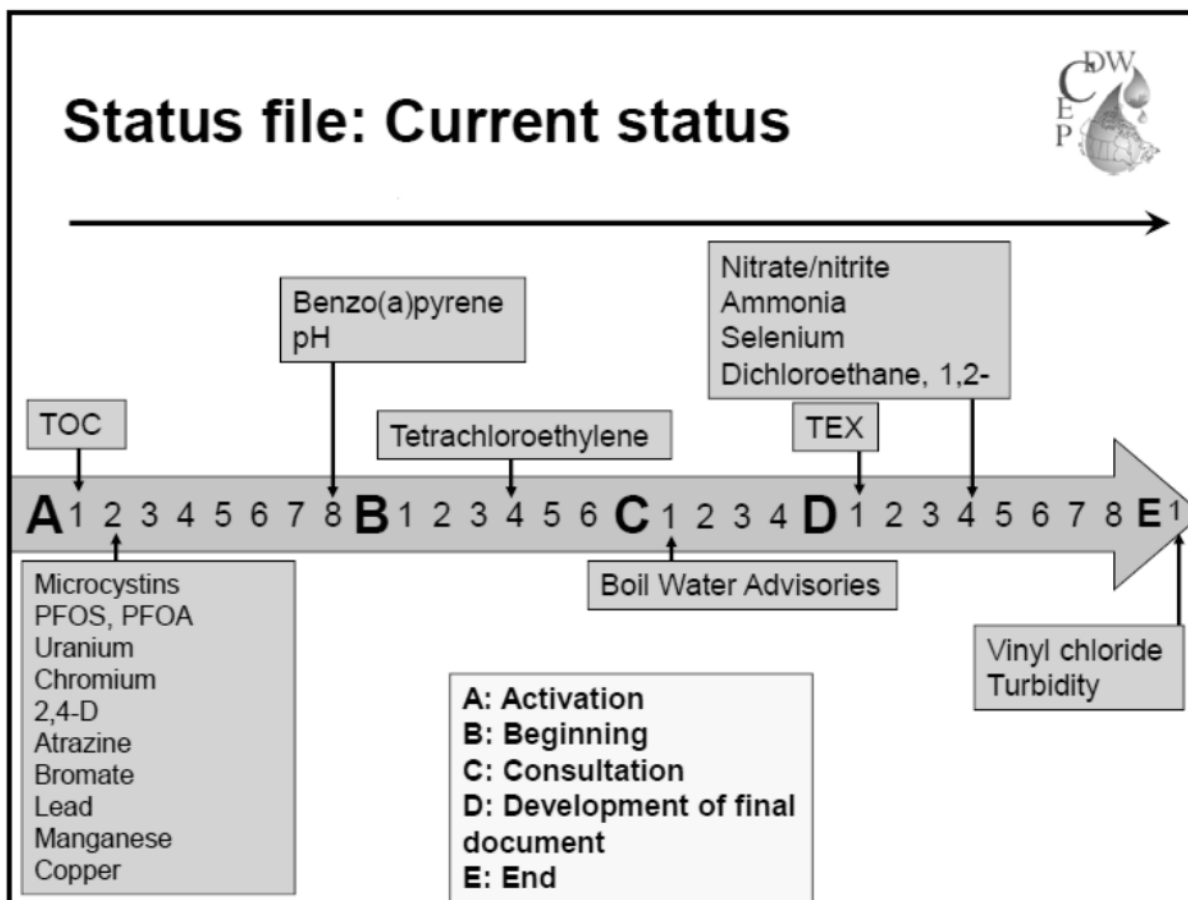


CDW Status- See Chart.

Discussion on how to make process more responsive to new information (minor tweaks rather than complete rewrites)

- Reviewed priority list – consistent with concerns from DWLC
- Concerns about some parameters in terms of detect limits and ability to treat.



Presentation – Dr. Pintar, PHAC.

- Estimate of enteric in Canada attributable to water as source
- Will officially release in the fall.
- May be good idea for webinar.

Other Microbial Guidance

- Reference to Human Pathogen Toxins Act
- Antibiotic resistance in drinking water

BWN Guidance

- Public comment period ends June 16

Chromium

- III (trivalent) is not non-toxic but can be oxidized to VI in treatment systems.
- VI (hexavalent) can sometime be reduced in intestine to III
- III can be treated with coag./filtration, lime
- VI can be treated with anion exch, memb filtration, reduction/coagulation filtration

Status:

The document(s) on chromium is being drafted and will go through internal and external peer-review processes. Once the comments from these reviews are integrated, the document is expected to be presented to CDW in October 2014.

Bromate:

- 1998 MAC of 10ug/L
- Problem – this is also the detection limit, but new lab technology may soon solve.
- Sources: Paper products/industry, hair solutions, contamination of hypochlorite (typical values 26ug/L)
- Fe++ treatment effective
- For peer review in summer of 2014

Status:

The document(s) on bromate is being drafted and will go through internal and external peer-review processes. Once the comments from these reviews are integrated, the document is expected to be presented to CDW in October 2014.

PFOA/PFOS

- Liver effects
- Detection limit 0.0017ug/L

Status:

The document(s) on PFOS and PFOA is/are being drafted and will go through internal and external peer-review processes. Once the comments from these reviews are integrated, the document(s) is/are expected to be presented to CDW in October 2014.

Arsenic

Oral presentation on upcoming manuscript on the analysis of arsenic urinary levels from the Canadian Health Measures Survey. For information only.

- Biomarker – MMA, DMA etc.
- High rice and fish consumption associated with high levels of inorganic arsenic.
- Organic more toxic.
- Debate about food being poor source of uptake, as well as beer and wine as a source.

pH

- Oral presentation on the draft guideline technical document for the pH of drinking water.
- Currently 6.5-8.5.
- Proposed to revise to 7.0-10.5 based on corrosion control, lead solubility, and bioavailability.
- Concerns about:
 - where in treatment train – finished water
 - eye/skin irritation at high values

- areas with low natural pH – groundwater and limestone.

Status:

The draft guideline technical document went through external peer-review. The comments from this review were integrated, and the document is presented at the meeting for approval by CDW for a 2 months public consultation period.

Seeking CDW approval for public consultation.

Benzo-a-pyrene

- Oral presentation on the changes made to the guideline technical document for benzo[a]pyrene in drinking water since the last CDW meeting in November.

Status:

The draft guideline technical document went through internal and external peer review processes. The comments from these reviews were integrated, and the document was presented at the November 2013 meeting for approval by CDW for a 2 month public consultation period.

CDW members approved the consultation document on B(a)P in principle with some changes, including analytical information. Since the last CDW meeting, members provided analytical information from laboratories in their jurisdictions about B(a)P and the Secretariat contacted CALA regarding the same. Based on the information received, it was determined that the MAC did not need to be risk-managed. The Technical Secretariat modified the document by changing the MAC, including the information on analytical methods and other changes requested by CDW, including changes to the purpose of consultation section of the document.

Seeking CDW confirmation of approval for public consultation.

TEX (Toluene, Ethyl Benzene, Xylene)

- Oral presentation on the revised guideline technical document on TEX.
- Seeking Final Approval (I had nothing to add – we need to be ahead of these next time)

Status:

The draft document on TEX has gone through internal and external peer-review processes. The comments from these reviews were integrated, and the document was presented at the spring meeting of 2013 for approval by CDW for a 2 month public consultation period. The draft document underwent a 2-month national public consultation ending at the end of March 2014. The relevant comments from consultation were integrated and the document revised and presented to CDW for final approval.

Seeking final CDW approval for publication.

Microcystin

- Verbal update on the microcystins document - For information only.

Status:

We have been working in collaboration with the U.S. EPA to develop the risk assessment document on cyanobacterial toxins. Health Canada has the lead on developing the sections on analytical methods and treatment technologies, while the EPA leads the development of the health effect sections. This collaborative work is supporting the development of a guideline technical document for Canada, and a public health advisory (non-regulatory, similar to one of our drinking water guidance values in application) for the U.S. The EPA has completed their draft health effects document and has sent this draft out for peer-review, as per their regulated process. A first peer review was completed in January. The process was delayed as a second peer-review was determined to be required to address critical issues; it should be completed at the end of the spring. The health sections of the guideline technical

document will be updated accordingly. The treatment and analytical sections are also expected to undergo peer-review later this spring. Once the comments from these reviews are integrated, the document will be presented to CDW in October 2014.

Lead

- Verbal update on the standards and U.S. legislation related to lead.
- For information only.

Oral presentation on the approach used in the risk assessment for the lead document.

Status:

The document(s) on lead is being drafted and will go through internal and external peer-review processes. Once the comments from these reviews are integrated, the document is expected to be presented to CDW in October 2014.

Discussion – Complaints on importation of Lead DW products (pipes/meters) to go to consumer products safety at Health Canada

Chemical /Radiological

- Verbal update on other work in the area of chemical and radiological parameters.
- Other parameters in development or to discuss include uranium, manganese, etc.
- For information only.

PMRA Presentations

1. Special Reviews
 - Special reviews may be done where an OECD country bans a product, or
 - There is new info about health risk
2. Tox assessments
 - Areas across country studied – residues on crops etc. and potential effects on DW
 - Parent & metabolites of concern. Consider soil adhesion, pesticide use, runoff.
 - Monitoring usually show lower than models (hence uncertainty factors)
 - Large questions of uncertainty. Explanation of source of factors used.
 - Questions about additives/inactive component consideration.

Inter-departmental working group on DW (IWGDW)

- DW standards for employees in areas of federal jurisdiction
- Has a series of videos, and a water quality 101 /microsystem fundamentals book
- www.wcwc.ca/en/training/water-quality-training/

QMRA- test model presented

- Basic spreadsheet model in excel.
- Allows input of water system data.
- Targeted for completion in 2015
- Concerns about ability of most operators to understand it, to have data to input, the ability to respond appropriately – garbage in garbage out.
- May need a more appropriate name

Fracking

- Council of Canadian academics report on fracking

- Concerns listed:
 - well integrity as source of contamination – long term impacts after wells are decommissioned, and effects of forcing water movement underground.
 - More science based regulation is required. Canada may be lagging behind other countries in regulation but may not be a bad thing if future regs can incorporate lessons learned from other experiences.
 - Need to get good base line info so we know what normal state of GW is.
- Review of fracking effects on DW was suggested and supported as a standing item for CDW

Labs

- National Survey of DBPs
- Sample cost has dropped from \$2K to \$1.1k, but still getting poor quality results.
- Compounded by degradation of samples prior to analysis.
- 65 sites across Canada

Pharmaceuticals Survey

- Those with highest volume of sales not correlated with detects
- Due to degradation
- Levels at millions of orders of magnitude below pharmacological effect levels

FNDWA

- To develop 9 sets of federal regulations that mirrors provincial ones.
- Looking at completion fall 2015, implementation in 3-5 years
- Enforcement issues under discussion

Minutes - December 04, 2014

Drinking Water Leadership Council Minutes December 04, 2014

Attendees:

David Fishwick, Emily Quinn, Marc Zubel, Len Clarkson, Ivor Norlin, Lynne Magee, Bruce Gaunt, Roger Parsonage, Sylvia Struck, Mark Lysyshyn, Tin Tun, Brenda Janke, Steve Bumber, Keri Laughlin, Liam Edwards

Regrets:

Mike Zemanek, Paul Hasselback, Michele Gee

1. Introductions
2. Welcome – New (acting) Provincial Drinking Water Officer: Lynne Magee
 - Replaced Joanne S 22 – here until approximately end of August
 - Working on the last two reports
 - Email at Lynne.Magee@gov.bc.ca
3. Previous Action Items
 - Emily connected Charmaine Enns with Celina O'Connor to get her access to the SharePoint
 - Pertaining to the Communication Project: on agenda.
 - Pertaining to wildfires and watersheds: Health authorities have contacted Ed Korpela but have not heard back from him
4. Prioritizing funding for water systems – Liam Edwards
 - The Local Government and Infrastructure Division at the Ministry of Community Sport and Cultural Development will be providing access to community water systems through the Small Communities Fund (<http://www2.gov.bc.ca/gov/topic.page?id=BF4B6CE910FA49E0BAA869054C0B691A>) and the Gas Tax Fund. These funds are restricted to systems owned by local government – municipalities and regional districts. Other systems would need to demonstrate (e.g., completed referendum) that they are willing to be taken over by a local government.
 - Small Communities Fund will have \$327 million available for small communities (i.e., any community with less than 100,000 people) over 10 years. Some of this money will be allocated through an application process ending on February 18, 2015. The rest will be allocated during a later application process (2016?). This money is available for other infrastructure projects aside from drinking water systems.
 - The Gas Tax fund will have \$145 million available over five years. This money will be available for even more categories of projects than the Small Communities Fund.
 - Expecting at least a few hundred applications for each fund.
 - A number of factors will be used to determine which projects will be allocated these funds. Not meeting standards will not be the sole trigger – also looking at the reasons for not meeting standards (e.g., Neglect? Poor management? Regulation / thresholds changed?). Dave put together a list of all systems currently on a boil water notice. Need a means to prioritize systems and hoping to get aid from the health authorities in this process.
 - Representatives from each of the health authorities demonstrated a willingness to participate in the prioritization process. Liam stated he would put together an email with links to send to the health authorities. He will schedule one-on-one calls with each health authority in the New Year in order to set the stage for prioritization. The assessment criteria have already been established, but input from the health authorities is appreciated. Waiting to see who applies before completing the prioritization process is the most efficient means of completing the process.
5. Public consultation on draft policies (Dave and Steve)
 - Planning a public consultation for three draft policies:
 - o The Drinking Water treatment Objectives (Microbiological) for Ground Water Supplies in British Columbia;
 - o The guidance Document for Determining Ground Water at Risk of Containing Pathogens (GARP) Version 2; and
 - o The Guidelines (Microbiological) for Maintaining Water Quality in Distribution Systems: Secondary Disinfection.
 - The plan is to post all three documents on the Health Protection Branch website so people can read and send comments by email. There will also be five 'in-person' consultation sessions held in throughout the province (approximately February).
 - An RFP is finished and consultant selected to aid the Ministry with the in-person sessions. The in-person sessions will have limited room (approximately 50 people) and targeted to water supply systems (owners / operators) and other key stakeholders.
 - The intention is to release final documents in the spring – there may be opportunity for limited feedback from DWLC before final drafts are released. Steve will check with Mike Zemanek.
 - Interior suggested Kamloops and Cranbrook / Nelson; Vancouver Coastal suggested Richmond (Fraser agreed); Northern stated that Canada Winter Games will be in Prince George from February 13 – end of month ... February will be a bad time to go to Prince George. Northwest and Caribou regions of Northern would be the best places to go for feedback from the North.
6. Drinking Water Officers' Guide (Emily)
 - The Guide was posted this week (<http://www.health.gov.bc.ca/protect/dwpublications.html#dwog>)

7. Communication Tools for Public Reporting

- Dave put together a draft Terms of Reference – please contact him to provide comments.
- Hoping to finalize committee membership and get started.

8. FPT meeting in Ottawa

- BWN Guidance and tetrachloroethylene – moving forward (publish in New Year?)
- Trihalomethanes – small change coming soon, there will be discussion to decide if the whole thing needs to be reassessed
- Lead – putting together an initial draft for update; thinking of reducing from 10 µg/L - 5µg/L; trouble: sampling ... sampling needs to be done exactly as outlined in guidance for results to be comparable, detection limits anywhere from 2 µg/L – 7 µg/L
- Chromium – thinking of relaxing MAC from 50 – 100 µg/L; there will be a focus on hexavalent chromium
- Bromate – new draft for public consultation, reaffirming existing MAC
- Manganese, uranium, copper and PFO are upcoming
- Microcystins – working with USEPA on testing techniques
- Pentachlorophenol – do we still need guidance?
- Safe DW for First Nations Act – similar concerns raised by all jurisdictions
- Microbial guidance – how to best develop guidance for protozoa? How useful are total coliforms? How useful is enterococcus?
- Summary posted at: [https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Files/FPT-CDW/FPT Report Oct 2014.docx](https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Files/FPT-CDW/FPT%20Report%20Oct%202014.docx) Contact Dave with questions / comments.

9. Res'eau (Dave / Marc)

- Res'eau is a national research organization with headquarters at UBC focused on drinking water treatment
- Received funding to do some research related to drinking water treatment in small First Nations communities, particularly as it relates to chlorination
- Sought feedback from representatives from across the country – invited them to a workshop in Ottawa (coincided with the Canadian Water and Waste Association Conference). Approximately 30 people attended.
- Six key areas of focus emerged from the workshop: community perspective of chlorine, operator concerns, operations and maintenance, design and water source issues, governance and regulatory issues, and financing. See summary at: [https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Lists/Announcements/Attachments/217/Strategic Approach to Chlorination Practices - As it Was Heard Report.pdf](https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Lists/Announcements/Attachments/217/Strategic%20Approach%20to%20Chlorination%20Practices%20-%20As%20it%20Was%20Heard%20Report.pdf)
- Set up a steering committee to coordinate guidelines (Marc, Sylvia and Dave volunteered)

10. Process for developing new indicators for PHO Drinking Water Report (Lynne)

- Joanne spoke to HA Drinking Water Council to discuss indicators and developed a discussion paper which is posted on SharePoint ([https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Lists/Announcements/Attachments/213/Discussion paper for future PHO reports_final draft.pdf](https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Lists/Announcements/Attachments/213/Discussion%20paper%20for%20future%20PHO%20reports%20final%20draft.pdf))
- Please look at this paper and get back to Lynne. Let he know if you can participate on a committee regarding this issue. Mark Lysyshyn and Paul Hasselback have already expressed willingness to help out.
- Interior health's large water system framework ([https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Lists/Announcements/Attachments/213/Appendix A_Large Water Program Evaluation Framework Lysyshyn.pdf](https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Lists/Announcements/Attachments/213/Appendix%20A%20Large%20Water%20Program%20Evaluation%20Framework%20Lysyshyn.pdf)) was adopted by the Regional Directors and Environmental Health Policy Committee as a reporting framework and requested the PHO to roll into the report.

11. In-person Meeting

- Richmond in early March; approximately 2 days
- Action: Len will look for potential space and contact Dave with regards to potential dates

12. Round Table

MOH

- The draft updated *Emergency Response and Contingency Planning for Small Water Systems* document is posted on the SharePoint. Please email comments to Emily (emily.quinn@gov.bc.ca) by January 15, 2015.

MHOs

- Nothing to report

PHO

- Nothing to report

PHES

- Nothing to report

Northern Health

- Leadership: Lucy Beck's position has been filled. Sharlene Lively is the new director. Still working on filling the role of manager.
- Getting ready for the Canada Winter Games in February

Interior Health

- New program for Hedgehog completed
- Small water system strategy is endorsed; there are 6 dedicated EHO with a supervisor responsible for SWS (~1500)

Regional Directors

- Nothing to report

Fraser Health

- Participating in BCCDC study of climate change; showing no correlation with sws, but correlation with large water systems – looking into further.
- Had a request from UBC Cancer prevention Centre regarding a proposal they are putting together to study public communications with respect to arsenic
- Had a meeting with BCGWA, Marc presented on DWLC activities, discussed *Water Sustainability Act*
- FHA has chosen drinking water as a scorecard – providing information on systems complying with monitoring requirements.

Vancouver Coastal

- Participating in BCCDC study with Fraser Health
- Planning to submit comments in relation to the draft non-potable policy
- Having trouble with systems with less than 5 connections

Island Health

- Gary Anderson will replace Lynne Magee
- Underground coal is coming back as an issue
- Released medical Health Officers' report ([https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Files/Health Authorities/VIHA/MHO Drinking Water Report - FINAL - Nov 27, 2014.pdf](https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Files/Health%20Authorities/VIHA/MHO%20Drinking%20Water%20Report-FINAL-Nov%2027,%202014.pdf))

FNHA

- The first phase of the First Nations Water Act is under way and includes Atlantic, Yukon and NWT; phase 2 in 2015 and phase 3 undecided
- Getting ready to roll-out baseline sampling.

ACTION ITEMS FOR NEXT MEETING (December 04, 2014)

- With regards to in-person meeting: Len will look for potential space and contact Dave with regards to potential dates

FPT Summary – October 2014

Other Microbiological:

- Protozoa:
 - New Document Being started
 - How to approach monitoring/indicator guidance?
 - Looking for Input as to what it should cover?
- Total Coliforms
 - FPT questioning if there needs to still be federal guidance on this
 - Proposing to Drop the “MAC” and just leave “guidance”
 - Any Concerns? – Get them to me by DEC 10
- Enterococcus
 - Looking for feedback on usefulness of having further enterococcus guidance as an additional indicator. Get to me by DEC 10
 - What would be the impact on our program if developed?

BWNs

- Public Consultation Complete
- Questions raised as to how this applies to long term boil advisories & systems that do not meet treatment objectives – some conflicting messaging.
- They are moving to publication phase

Tetrachloroethylene

- Public Consultation complete
- Moving to Publication Phase

THMs

- Interim update to revise bromodichloromethane (BCDM) info
- Further amendments may be considered after Gordon Research Conference on DBPs in Massachusetts next year. Seemed to be reluctant to do further update unless there was anything significant at this conference.

Lead

- Draft almost ready for Public Consultation
- Proposed change from 10µg/L to 5µg/L + ALARA statement
- Analytical achievability may be a challenge – as many Lab detect thresholds are in the 2-7µg/L range.
- How, where and when to sample is also critical to having meaningful results, as does the analytical technique used- must follow guideline exactly. Colloidal and particulate lead content in water may skew meaning of results as well.
- Discussion on responsibility of water supplier to undertake corrosion control if it is assumed that there are lead solder/service connections downstream of the water supply system.
- HC FPT CDW will have teleconference in early 2015 I would appreciate any comments /concerns about approach to take this to them.

Chromium

- Relaxing MAC from 50µg/L to 100µg/L but focusing on Hexavalent Chromium

- Draft ready for Public Consultation

Bromate

- Disinfection by-product – once formed difficult to remove.
- Best controlled by looking at source water, appropriate disinfection process and quality of chemicals used.
- Questions about sampling costs
- Reaffirm existing MAC of 10µg/L
- Draft ready for Public Consultation

PFOS/PFOA, Uranium, Copper

- Early stage draft underway

Manganese

- Early stage draft underway – both Aesthetic and health concerns

Microcystins

- Collaborative USEPA/HC project
- HC – Focus on analytical methods/treatment, US focus on health effects
- MAC Expected to be based on Treatment and Detection Limits
- Drafting underway.

Pentachlorophenol

- Discussion on whether it should be moved on priority list
- Conclusion to withdraw it from GCDWQ as guidance was outdated and as there was little evidence of it moving from soil/preserved wood poles to water.

Other

- PHAC Waterborne disease project
 - Dr. Katarina Pintar doing research to attribute sources of WBI in Canada.
 - Increased risk associated with one or less treatment barrier
 - Lower incidence in larger WS
 - Seemed to me to be challenging to have any accuracy as there are so many variables
- Canadian Health Measures survey
 - Data from across the country put together and not identified by source – not sure what value this really gives
- FN Ontario Pharmaceuticals Report –
 - Found all over the place, but at very low levels
 - Orders of magnitude below therapeutic doses, but questions of synergistic effects of low levels of multiple drugs on environment and people
- Safe DW for First Nations Act
 - Concerns raised about who is going to do enforcement, and \$
 - Concerns raised about what regulations will actually look like – is will they be exactly the same as provincial, or will there be two different standards?
- QMRA
- Fracking – what's happening across the country
 - Issues of concern:
 - What should be monitored (unknown/proprietary chemicals)?

- Back flow, pad spills, fugitive emissions
- Treatment and disposal of used water/fluids
- Claims of "we treat to GCDW standards" not reassuring as there are many chemicals without parameters.

Priority List for Future:

- Top 10: Arsenic, THM, Strontium, Chloramines, 1,4-Dioxane, HAAs, Barium, Al, Cd, Boron.
- Let me know if there are parameters I should advocate for getting onto their agenda



Minutes - June 4-5th, 2015

Drinking Water Leadership Council In-Person Meeting Minutes (June 4-5th, 2015)

11:25am

EOCP

Ashifa

Presentation By Ashifa Dhanani (EOCP) – EOCP Classification of water systems and operator certification. (Power point presentation posted on SharePoint)

Ivor

- Risk - Volume of uptake. A planned/phased in approach would be a good idea.
- The biggest concern is 'uncertainty' about requirements for training. Need for coordinated implementation & communication.

Mike

- EOCP-MOH relationship is important for consultation with DWLC.

Lynne

- Noted some systems are currently listed under the wrong health authority on EOCP website.

Paul

- Current training requirements aren't meeting the system requirements.
- Concerned with clear definitions of "expectations & training", needs further assessment.
- What if there is disagreement of classification level btw EOCP & EHOs?

Ashifa

- EOCP now has a renewed energy and focus on the latter (Paul's comment), and consistently 'checking-in' with MoH.
- EOCP has changed their strategy, approach, and focus.
- Health Authorities are one of our stakeholders.

Ivor

- Deliberate intent. Communication should start now, building a platform for communications with stakeholders.

Mike

- There was a lack of transparency, now the Classification system has been handed over to EOCP.

Ashifa

- Facilities & Systems operators were filling out false forms.

Garry

- Small system vs. Single system

Marc

- Is there a role for HA's validating info submitted by operators – data such as population/size?
- Match-up classification vs. operator training working. Working form of facilities?

Ashifa

- Currently addressing bottleneck - Forms for admin under Direct Responsible Charge.
- EOCP will do outreach to facilities to bring up to correct level of certification.
- Currently: In B.C., 65% of facilities or systems have a certified operator working at the appropriate level of the facility, vs. 35% of facilities who do not.

Len

- It would be desirable to report this presentation to each Health Authority.
- Can competencies be communicated?

Action Items

- EOCP to provide feedback on slide 10 & 11 of PPP for next DWLC meeting.
- MOH to post EOCP PPP on DWLC SharePoint site.
- Health Authorities send in list of items (data requirements from EOCP).
- Mike Z. to share "need to know documents"
- MOH to send reminder to send feedback in Mid-July
- MOH to put EOCP feedback on next DWLC Agenda
- If health authorities are aware of current errors on website (i.e. system listed under wrong HA), please let Ashifa know.

1:30pm

BC Asset Management

Brian

Presentation by Brian Bedford (MCSO) and Rob Fleming (IHA) on Asset Management for water systems.

Brian

- Even many municipalities inventory of assets are not complete, so they don't know what their assets are.
- Asset Management BC (since 2008) is a group of professional members (e.g. UBCM, BCWWA, First Nations, Government, etc.)
- Asset management tools:
 - Asset Smart- for evaluating capacity
 - Asset Management Roadmap
 - Asset Management for Water systems: Same language, working together on strategy and assessment.
 - Infrastructure costing tool; Launched in May 2015. A planning tool that looks at Lifecycle costs for low and high density infrastructure.
 - NAMS training (Original Australian):
 - Australian training experts\
 - Integrated training
 - Local Government
 - Outcome: Draft management plan
 - 3 days: \$1500/pp + \$150-200 subscription fee (1x)
 - Ideal training: Engineering and finance ppl. in same training cohort.
- Funding opportunities before 2016:
 - Gas Tax Strategic Fund: Capacity category
 - Asset Management planning grant program
 - Infrastructure planning grant
 - Capital grant

Rob

- Training EHO's in asset management could go a long way, especially by spreading the same consistent messaging.
- DWPA allows conditions permits – can require asset mgmt. plans here.

- Systems can outline plans to move forward – replacement, seismic upgrade, treatment, distribution, life cycle.

Paul

- What are our expectations for asset planning? (i.e. specific assets, distribution systems, sewerage systems)
- What does our oversight look like?
- Conditions on permit?
- What is the minimum standard?
- Do we need a collective set of guidelines?

Ivor

- Need to adopt a consistency in language, and a title (i.e. Plan “”) that defines the expectations.

Lynne

- Need to think of the value added by ‘natural’ capital as an asset (i.e. Gibson’s, B.C.)
- Natural capital asset management: Protecting watersheds and storm water management (rivers, streams, reservoirs, aquifers).

Brian

- Does the DWO Guide have an asset management component? It’s easy to add into the guide or any work plan.
- Getting systems to move forward Orders (DWPA) – vs plebiscites (community charter) MCSCD encouraging use of orders

Action Items

- DWLC – Can we address these concepts through DWLC work plan? DWOG revisions; DWO training?

3:00pm

BCWWA SWS Outreach

Carlie

Presentation by Carlie Thauvette (BCWWA) on BCWWA programs and SWS Outreach Contract (Presentation on SharePoint)

- Recent BCWWA report - \$13Billion in added investments is needed to improve current water infrastructure, this projection does not cover projections for future regulation changes or population growth.
- BCWWA has adopted ‘Smart growth’ strategy.
- Fiscally self-reliant, self-sustainable to rely less on grants.
- Currently 700 students in operator training courses.
- Website: valueofwater.ca
- 0.5M Funding to develop SWS outreach activities – i.e. Financial BMPs, PoE templates, other guidance.
- Looking for feedback on how and what to deliver to best serve SWS needs.
- Discussion:
 - How to target communication to client groups to effect programs on the right people (think outside the box- fishing lodge owners assn, strata assns, Water users communities, local government associations etc.)
 - Target residential not commercial – maybe target users to build bottom up support

Action Items

All – provide Ideas/feedback either directly to Carlie or through Dave.

3:45pm

Webinars

Esther

Update on past and future webinars by Esther parkier

- Esther has been looking into ways of archiving webinars, however there are still some hurdles.
- Popular: Dr. Hrudy - Ensuring safe drinking water; MFLNRO – Regulating private water utilities.
- Future Webinars: DWO Guide (Fall 2015), Enteric, illnesses- Public Health Agency of Canada (October), asset mgt, disinfection by-products.
- DWLC suggestions for Webinars:
 - Natural capital of regions (Benefits of and how to protect it as part of our infrastructure (e.g. Gibsons, B.C.) ;
 - Ultrafiltration advancements (Pierre Berubé);
 - Case study ‘Master Plan’ asset management (Rolston, Squamish, B.C.);
 - BCCDC ‘Water microbiological testing (Brian Auk)
 - Emergency management/response.
 - Latest Arsenic treatment available
 - ResEau Water treatment research (Magit Moheesni)

Action Items

- Len Will Forward VCH Needs assessment document
- MOH to look into organizing a webinar or other tutorial on SharePoint (ins & outs, navigations, filing, site organizing, past/present/future files, etc.) for DWLC members

4:00pm

DWO Training

Dave

Looking for feedback on gaps in EHO/MHO training – for both for new and experienced officers, and discussion how to fill those gaps (back to BCIT, CIPHI BOC or staff in-services)

Discussion:

Gaps:

- Who influences BCIT Steering committee? (Tim, RDs)- Need to be specific to prompt action
- Ordering, asset mgt, GARP, secondary disinfection CT times DWO guide New MoH policy would be good to do training in.

Potential Strategies for solutions

- Review BCIT Curriculum, BOC Competencies and make recommendations for updating
- Orientation of New EHOs/MHOs – local policy progressive enforcement
- Formal and informal mentoring in HAs
- SWS Guidebook is a good intro as an overview.
- A webinar session would be a good idea.
- Performance plans
- Online learning and resource material
- Team meetings

Action Plan

- (MoH?) Get BCIT Curriculum and BOC competencies – vet through DWLC at future meeting
- Bring forward gaps to Day 2 of work planning

4:45pm

Regional Teams

Brenda

Discussion on Status and future

Concerns that teams are not effective because:

- No reason to meet if there are no issues to solve
- No where to elevate issues that cannot be resolved by the teams to.
- Some benefit in info sharing/networking
- Issues may be better dealt with through other means, such as one off meetings.

Action Items

- MoH will discuss with Directors and with other signatories to MOU (i.e. MOE/MFLNRO) re: discontinuing teams.

June 5th

8:30am**Non-Potable****Emily**

s.13

Action Items:

Emily will make further tweaks and get back to group.

9:10am**CDW Report****Dave**

Update on parameters under review by Dave Fishwick

Len

- pH - sees Health benefit to reducing lead + copper levels but not comfortable going all the way to pH 10.

Ivor

- Important to have a "made in Canada" product.

Mike

- Q - How do parameters get identified as a priority? A: Questionnaire sent out annually.
- Parameters (that are most important) → Ranking

Action Items:

Dave will put presentation on SharePoint – please review and ask Dave if you have further questions

9:30am**GWDI – Consultation Summary****Steve**

Update on status by Steve Baumber

Paul

- How do you weigh the feedback? Do opinions determine valid concern?
- Issues with process of Government consultation is not community building.

Ivor

- There is confusion in Interior region.
- Differences in opinion on virus log credits, there is no reasonable evidence which virus to use is.

Len

- There may be residual risk for people with private wells → Need more messaging for them? Land-use practice? Communication plan?
- Aversion to use of chlorines? Try to strategize. How do we deconstruct the hype that is not crediting the recent studies that show no evidence of cancer related risks?

Steve

- Hope to hear from both sides of the coin (content & upset).

Mike

- Spent time on seeing where the spectrum of public opinion was - Input/Collaboration.
- Sharing information (not integrate all public input!) Made sure the public who was consulted understood this beforehand. Not necessarily a democratic process, but there is always a need for honesty when interacting with communities.

9:50am**PHO Report Indicators****Lynne**

Update on status by Lynne Magee

Andrew

- Emphasize value of drinking water programs.
- Capture something of value identified by the health authorities.

Roger

- Narrow down to 86 treatment plants. When it's more granular, it's more difficult to narrow down.

Marc

- What does the public get out of this? A report?

Lynne

- Answer (Marc's Q): Goes back to the water system operator.
- Committee asked DWLC to suggest recommended frequency for chemical sampling.

Paul

- Overview 'collectively' of what's happening in province.
- How do successes in B.C.'s Health Authorities fit into PHO Report?
- Macro-level measures.

Ivor

- Q: Timeline? Hedgehog module?
- Project Risk Management and tight timelines.

Lynne

- A: July → PHO → September (present to Health Authorities) → Time to adjust.
- Will add new information to 2013/14 Report, and set the stage for the future.
- Action item: Will send out spreadsheet on collecting indicators, tools used, etc.

Len

- Q: How much data do we need? VCH has some concerns that the vast volumetric measures may distract the reader – thus diluting focus on key issues or indicators.

Mike

- A: Not now. Can't speak to where Gov't reporting direction is going.

Brenda

- A: Go with Lynne's indicators

Roger

- I feel as though there's lots of opportunity to develop robust indicators.

Mike

- We're working with group + Lynne to develop indicators and working with the public's feedback. Some communities doing lots of good work, so we'll find some way to recognize them.

10:30am**SWS Strategy****Dave**

Update on status by Dave Fishwick

Dave

- ADM Cross-Gov't Work plan (1-6 categories).
- MoT currently exploring the issue of registering information on property title.

Ivor

- Would like to capitalize on the ADM's work plan.
- In competition with each other (e.g. BCWWA vs. EOCP), potential conflict.

Paul

- What is the strategy for de-regulating systems?

Lynne

- Regional District of Nanaimo has a 'Well Smart' program and 'Ownership Workshop' program. (*Note: Good for Len's group).

Next steps

- ADM's meet to formulate plan.
- Discussion at next DWLC meeting (July/August).

*Action item:

- Send Joanne's Paper to DWLC (*Not for Public).

10:55am**Selenium****Mike**

Update on status by Mike Zemanek

Mike

- Concerns with background exposure of selenium in food alone – particularly concerning for children.
- Guideline produced by Health Canada, but MoE's issues were not addressed.
- Little is known about selenium + toxicity in children – we know that children drink more water per BW than adults
- Inorganic levels more toxic in water than food.
- Different Geography and hydro-geography within B.C.
- Have seen other researchers suggesting a value of 2 micrograms/L.
- There is little rationale to raise the MAC levels for selenium in Canada.
- B.C. is not legally obligated to adopt new guideline value.
- Maintaining a level of precaution and stringency is important.
- MoH advises maintaining selenium levels at MAC 10 micrograms/L, and will send its written concerns to Health Canada. Supported by E.A. Policy Committee.

Paul

- What is our (Health Authority) role in the national process? We haven't always been happy with the outcomes. Not so concerned about MoH/MoE argument about the analysis in this particular case so much as implications and precedence of departing for HC guidelines.

Roger

- Why care about this? These may only a few communities with levels above 10µg/L.
- Issue with the Health Canada process in 'general'
- No compelling evidence to keep at the 10 micrograms/L vs. increasing to 50 micrograms/L.

Ivor

- There's 2 places selenium matters: 1) East Kootenay, 2) Sparwood well (brakes on building it)
- Dan Byron – Local EHO – what guidance will he look to at the end of the day?

Next Steps

- MoH – information note to Minister recommending an "Interim Value"
- MoH – Response to MoE re: maintaining value.
- MoH – Letter to Health Canada.
- MoH – Approach BCCDC to do further work.

11:25am**Roundtable****All**Northern Health Authority – Ivor (standing in for Angela)

- Charlene left as regional Director
- New chief MHO – Dr. Sandra Allison
- Top 3 Priorities: 1) Arsenic in water systems- risk assessments; 2) Lead and copper in systems; 3) Surface water treatment -- Boil water advisories.
- Joint policy development on making improvements.

Interior Health Authority (IHA) – Ivor

- Strategic Planning Initiative (3rd year).
- Large water systems implementing treatment objectives.
- Information sharing may continue to be a challenge.
- PHO Report part of solution.
- IHA board introducing a motion regarding large systems - will communicate with MoH.
- SWS – phase of realignment: How do we raise capacity and engagement?
- Bio-solids
- Clarifying FNHA's role.
- Section 29 investigation requests coming from First Nations – credibility & communications concerns.

Fraser Health Authority (FHA) – Marc

- New MHO lead on Drinking water (Dr. Andrew Larder)
- Coquitlam reservoir now functioning – Upgraded to U.V. in addition to ozone. Now compliant with 4-3-2-1 treatment standards. 86% or 41 (of 57 systems).
- Goal setting: Monitoring requirements; Water quality meeting schedule A and B of potability; 96% of systems received annual inspections last year, goal of 100% in 2015; Using 2012 water system tool.
- Following up on arsenic studies – Conducting a follow-up study that will look at behavioral changes.
- Promote healthy drinking water outreach. Goal: 3 community events for 2015.
- Goal: Distributing bulletin on cross-connection
- Andrew: Private well in FHA found levels of 5.4g/L of arsenic. The owners tested the water because they were having a baby.

Vancouver Coastal Health Authority (VCH) – Len

- Have also found high arsenic in private wells – do we need updated communication tools for these folks, even though we don't regulate them?
- Have also found elevated levels of Boron and fluoride and increased pH in private wells affected by elevated arsenic – reverse osmosis and filtration are best for removal (99%).
- Have found evidence of elevated copper and lead in surveys of tapwater and drinking fountains in schools and child day care facilities.
- Commissioned twin tunnels – Capilano and Seymour will be filtered to 4-3-2-1-0 standards.
- New suite of DWO's now getting their feet wet – Completing microbiological course with BCCDC (\$200/course, \$150/SWS operators); Pilot in the fall.

Island Health Authority (IH) – Lynne & Garry

- Large water systems have implementation plans – Nanaimo will be online in the fall 2015; financial capacity can be a barrier.
- 100 Small Water Systems → Formalized need for implementation plan
- 1 day training session for EHO's; video (4hrs) will be released soon.
- SWS – Sending Intro letter to system operators – To be completed by fall. Plan attached to permits and conditions.
- Goal: In 4 years (2019), all Small water systems will meet treatment objectives.
- Well Smart Program is in its 3rd year with MFLRNO. Workshops are done out in the public community, and are advertised in the local news. Program has been taken up by North Island Labs on the Gulf Islands.
- We're updating Turbidity process – Message sent and received by Island Health staff.
- On March 23rd – Questions received on training but didn't have time to address. As a result, have started a weekly 'Water Q&A'.
- All Island Health staff meeting week of June 11th (E.g. topics: Potability, goals, etc.)

*Action items:

- Well Smart Materials to be posted on DWLC SharePoint site (Lynne)

Medical Health Officers (MHO's) – Paul Hasselback & Andrew Larder

- Messaging interpreted by DWO's and Operators- not always consistent.
- Need to look carefully at training for MHO, need process to gain consistency.
- Climate changed – warm water blob – warm ocean water blob off B.C. coast.
- Writing order for treatment? Rather be consistent across province.
- Timelines for compliance – how to best approach systems that won't meet deadlines
- Need to change attitudes about drinking water systems (in general).
- We see a huge variance, and risk, in delegation level (Andrew) A map/diagram of who does what would be helpful.

PHO (Provincial Health Officer) - Lynne

- 2012/12 report files are out the door.

1:00pm Workshop – DWLC Priorities and Goals All

****Note:** See separate document summarizing session;



Minutes December 3, 2015

DWLC Teleconference Meeting

December 3, 2015

Attendees:

NHA – Angela Wheeler
 IHA – Ivor Norlin
 VCH – Len Clarkson
 FHA – Marc Zubei
 FNHA – Sylvia Struck
 VIHA – Lynne Magee
 MHO – Paul Hasselback, Mark Lysyshyn
 PHO – Joanne Edwards
 FNHA – Angela Wheeler
 MoE – Heather Granger (Water Protection)
 MoH – Brenda, Mike, Dave, Rosanna, Michele
 MoTi – David Fisher
 Regional Director Representative: Roger Parsonage
 BCWAA – Ashifa Dhanani
 MCSCD – Liam Edwards
 PHE – Tin Tun

Previous Action Items

Food premises installation of treatment as business continuity plan in case of BWN – David Fishwick

- Action Item: Continue to consult with MOH food policy group (Dave).

GIS mapping – Len and Steve

- σ ∩ helping with a survey to track down coordinates. Will be used to develop map. Action Item: Will share with Steve (Len).
- Data type should be similar to Fraser Health.

GARP Training – Michele

- See update on agenda

Cyanobacteria – Dave Fishwick

- Connected Ivor with Heather Granger and Geneen Russo from MOE
- Ivor: concerned that this issue may become political again
- Ivor: has emailed Deb to set up meeting. Action Item: Will try one more time to contact Deb (Ivor).

Passmore Lab – Ivor/Joanne Discussion

- Response to MLA enquiry has been sent

Agenda Items

New Agenda Item: Attach agenda to meeting invite

- Len: Some still having trouble accessing sharepoint and the posted agendas. Please attach agendas when meeting invites go out.

BCWWA Small Water Systems Education Update: Ashifa

- Progress: Currently in recruitment phase, aiming to recruit 40-70 sws, so far 13 signed up
- Created charter
- BCWAA webpage presence, articles in Watermark Magazine and in February issue of Water Canada, mail outs
- Developed criteria for sws participants
- Hired Associated Engineering for workshop/training
- Developing webinar for financial management
- Performance goal: 10 workshops, 70 sws participants, 40 to continue with webinars, coaching, and plans, impact 4800 residents of BC.
- Challenges:
 - Budget, applied for grants
 - Need help from HAs to target sws that may fit criteria

MoTi Subdivision – Dave Fisher

- In response to UCBM's recommendation to deregulate small water systems
- Exploring idea of small water system checklist for approving officers to assist them in making decisions on whether water is a barrier to subdivision in public interest "may refuse to subdivide if unsuitable for intended use"
- Currently drafting RFP to hire consultant to develop checklist
- Checklist will be developed with consultation from HAs, SWS owners and ADM Committee
- Deregulation is dependent on creation of other tools to protect public

Concerns from DWLC:

- Paul: deregulation will encourage the creation of more microsystems – opposite of what we are trying to achieve. One of the principles in the UBCM document was to prevent proliferation of smaller systems and this does not seem to be in keeping with this document.
- Ivor: If consultation on checklist occurs, it will create expectation that there will be deregulation. Need to determine why there is an existing proliferation of microsystems before coming up with solution. UCBM report did not articulate why deregulation is the answer.

Response: consult not a public exercise just an in-house exercise with HAs, ADM Committee and other key stakeholders

- Len: Definition of sws too liberal. Supports deregulation of sws on 1 property, but not for deregulation of other sws that would support creation of new sws – does not assure potable water
- Len: Not realistic from resource point of view to provide oversight to all sws - either "in" or "out"
- Mike: Checklist is just one part of sws strategy' e.g.: BCWAA sws education contract
- Intent is to prevent proliferation of sws at subdivision stage.
- Action: Dave Fishwick will send email out to DWLC asking for appropriate contacts for consultation re: checklist

GARP – Michele Gee

- Guidance document for GARP was posted on November 30.
- GW Treatment Objectives will be online in one week
- APEGBC creating training in preparation of document targeting
- Trainers have been hired: Golder – Nick Sargent and Mark Bolton
- Registration now open for 5 sessions in February: Nanaimo, Nelson, Kelowna, Prince George, and Richmond
- Action: Michele will send out announcement with links to registration
- Action: Dave/Rosanna will look into Lynne's request to consider restructuring DWOG so links to individual documents can be shared

Indicators Update – Joanne

- Making changes based on feedback
- Will be discussing system size categories with Dr. Bonnie Henry And will bring her comments back to working group to discuss next steps
- Len: There will be a lag phase as the HAs develop capacity in the system before able to capture data
- Len: Requests that if MOH has any additional parameters that they would like reported to please inform HAs at same time as PHO metrics

Health Canada GCDWQ Update – Dave Fishwick

- Action Item: Impact Statement from each HA on Lead to Dave Fishwick by December 10.
- Changing aesthetic objective and adding a MAC for Manganese likely to have big impacts. We may have to develop new messaging. AO to increase from .05 mg/L to .02 mg/L. Proposed MAC of .1 mg/L will need impact statement
- Action Item: Need Impact Statement from each HA to Dave – guestimates of # of systems that will be affected and how water delivery will be affected
- Action Item: Dave Fishwick will send email to HAs with Health Canada information on lead and manganese and will remind HAs to send impact statements for lead and manganese
- Action Item: Dave Fishwick will post summary of FTP/CDW meeting on sharepoint including list of pesticides and other chemicals that are going to be removed

Electronic Data: Len

- Need centralized approach to data and recommend that the Minister looks into this issue
- Should develop business case to upload data and request resources. First step to do systems and business analysis
- Needs to come from DWLC
- Brenda/Mike: Better it comes from EH Policy, DWLC already tried and it is hard for DWLC to push this.
- Len: need clear statement and request from DWLC
- Mike: be clear about who will be delivering database, need clear division between policy and operations
- Action Item: Len will draft clear statement from DWLC to EH Policy. Will send to Dave Fishwick to distribute to DWLC.

Roundtable

CSCD

- None

MOE

- Updating source guidelines, rec guidelines, irrigation ready to eat guidelines in review for release early next year.
- Drought workshop went well. Lots of discussion. Raised new issues and questions

PHO

- Indicator Committee
- Timber West and CVRD withdrew the request for review of order for Comox Lake issued by IHA

FNHA

- None

IH

- None

VCH

- EOCP workshop, GW assessment
- Working with Metro Vancouver on an emergency response and drill

FH

- None

Interior Health

- Continuing to develop strategic plan, realignment with small water team. Logic model
- Brenda: Ivor should do webinar on Mt. Polley
- SILGA meeting in April – water presentation

Northern Health:

- Working on improving surface water treatment through pilot project
- Issues in Kitimat with the municipality. Trying to improve relationship and messaging.

Regional Directors (Roger Parsonage)

- Alan Torng is the new Regional Director from Northern Health started in August
- “Moderate” reorganization of Interior Health

VIHA

- Paul: Rainfall issue
- Nanaimo plant is up and running
- Parksville treatment facility received 80% public support on assent approval process
- Lots of time on South Island Aggregate
- Cyanobacteria continues to be issue on Salt Spring Island
- Lynne: considering rainfall harvesting – could the Ministry adopt the CSA as guidance?
- Dave Fishwick: Let’s discuss this further.

MOH

- Large system communication dialogue between IH and Minister finished. Will refocus working group and get new draft
- Roger: focus of working group should be different – opportunity to change terms of reference?
- Dave Fishwick: Divide goals into manageable goals and what to achieve before end of fiscal. Changing TOR good approach. Need to limit scope.

Next Call: February 4, 2016



Health Protection Branch

BC HAGIS Working Group

Drinking Water Leadership Council

Personal Service Establishment SharePoint

H/

February 2016

DWLC Minutes
February 4, 2016

In Attendance

Brenda Janke
David Fishwick
Heather Granger
Joanne Edwards
Rebecca Abernethy
Paul Hasselback
Marc Lysyshyn
Roger Parsonage
Lynne Magee
Len Clarkson
Marc Zubel
Ivor Norlin
Angela Wheeler

Water treatment in food service and other facilities

- As business continuity plan for boil water advisories (food and/or care facilities), or as part of food preparation process.
- Policy question: Should these facilities be managed under the DWPA or the Food Regulation?
- Also need to consider long-term care facilities as they may also look to install their own treatment.
- Action – Dave to look at HADWC minutes/action items to get a picture of how each HA has been approaching

GIS Mapping Project – Len suggest BF to next meeting

Cyanobacteria

- IHA having trouble getting response from MoE
- MoH has drafted a letter to MoE requesting support.

CDW Issues

- Thanks everyone for assistance in Mangarose, lead impact statements
- Next request form data is regarding Natural Organic Matter TOC/DOC and colour – (TCU/ALU) – there may be limited data on this.
- Action – Dave will forward request for data info to group.

Meeting Frequency, MoE Presentation and in-person meetings

- General desire to have more frequent, shorter meetings
- Perhaps some reports can be written (i.e. HADWC) to be time effective
- Little desire to have an in-person meeting unless there is a specific topic that needs thorough debate. Need to dedicate time to review work plan. Perhaps more frequent meetings will negate need for in-person every year. We can re-visit topic in the fall.
- Action – Joanne will look into getting a date (May 5th) for a presentation from MoE on their new water legislation.
- Action – MoH to update meeting schedule.
- Note – Conflict with April Meeting and HOC.

Water System Data Initiative

- Further discussion occurring to refine purpose of initiative to ensure it gets traction when it is brought forward.
- Need Clear Problem statement.
- Joanne to raise issue with Bonnie/Perry.

DWO Training

- Problem – newly graduated EHOs are not arriving on the scene with the skill set to be delegated authority with confidence under DWPA

s.13

Joanne

- Update on indicators – she will be tweaking documents and sending it out asap.
- Waiting for Minister's decision on the PHO request for a DWPP in Comox valley
- 2012-2014 PHO report still in progress

NHA

- Revitalizing Arsenic Initiative
- Looking at long term BWNs from a different angle – ID issues (governance/funding) and long term improvement plans

MoE

- Source water guidelines – nearly complete – will end up on website for public review soon.

Paul:

- Looking forward to more discussion on Asset Mgt, distribution systems

IHA

- SILGA- Venue for discussing treatment objectives and risk communication
- Lots of issues – Mt. Polly, Selenium, Nitrates, Industrial reviews, biosolids
- Stand alone "food" water supplies – 130-200 wineries, daycares, meat facilities etc. how to address (Food or DWPA)?

MoH

- GUDI/Garp training all this month – spread the word!
- Non-emergency communication – TOR revised and sent to subcommittee for comments, will make changes, run up the ladder then bring to DWLC.
- Non-potable – Will be pilot for a new consultation website – should be posted in a next couple weeks.

Fraser

- White rock - opposition to Chloramination, leaning towards chlorination
- Langley- Rezoning of land over Brookwood aquifer from agricultural to industrial is a concern

Vancouver Coastal

- Growing interest in lead (due to Flint, MI), looking at corrosion control

Island Health

- RDN – proposal to UBCM for potable rainwater. Under water act Rainwater is not source water. Looking for treatment requirements.



March 2016

Minutes

David Fishwick
 Brenda Janke
 Michael Zemánek
 Joanne Edwards
 Rebecca Abernathy
 Heather Granger
 Ivor Norlin
 Marc Zubeł
 Lynne Magee
 Doug Quibel
 Paul Hasselback
 TinTun

1 Action Items from Previous Minutes

- Water data Project: Joanne connecting with Bonnie, she will have a draft letter for next meeting.
- Training- Send back to HADWLC
- Water treatment as business continuity in restaurants – Dave unsuccessful in finding info (maybe he was looking in the wrong place)- can each HADWLC rep send info on their approach/position

2. Lead in Schools –Joanne

- Letter sent to DM of Education reminding that lead in schools is an issue.
- Perry will discuss at EH policy
- Corrosion control/pH all factors
- Question as to whether there has actually been any increased blood lead measured.
- Lead in DW unlikely to be major driver of overall lead ingestion.
- School act speaks to role of MHOs

3. Round table

- VIHA (Lynne): Cowichan – Moving to filtration, Sayward - \$6M upgrade
- VCH (Len away)
- FHA (Marc) Clearbrook – worlds best tasting water (again)
- IHA (Ivor) – Silga – April, Hular nitrate issues – demonstrates importance of health y regional teams, cyanobacteria season coming – still looking for support from MoE. Working with NHA on construction application process.
- TINTUN – No report – but noted that technology evolves faster than guidelines.
- NHA (Doug) –Fluoride in Terrace,
- PHO – VCH In-service, working on 2013/2014 report.
- MoH – Non-potable consultation page – imminent, distribution systems/secondary disinfection – final draft for review imminent, GARP tour complete, Health Canada - Cyanobacteria draft posted, Lead to come out soon for consultation, Staff – Michele moved to METRO, new staff - Manish.

April 2016

DWLC Teleconference Meeting

April 7, 2016

Attendees:

IHA – Ivor Norlin
 VCH – Len Clarkson
 FHA – Marc Zubeł
 FNHA – Sylvia Struck
 VIHA – Lynne Magee
 PHO – Joanne Edwards
 MoH – Brenda Janke, Mike Zemanek, Dave Fishwick, Rosanna Breiddal, Emily Quinn, Manish Om Prakash
 Regional Director Representative - Roger Parsonage
 PHE - Marianne Crowe
 NH - Doug Quibell

I. Previous Action Items

EO training

HADWLC discussed and made recommendations to Regional Directors.

Water treatment as business continuity in restaurants

Dave received info from some, but not from VCH. VIHA or NHA do not have established position)

Action Item: Dave will send summary to discuss at June DWLC meeting

Agenda Items

Webinars - Exclusive to HAs or? (Esther not present)

Would discussion be stifled by including municipalities?

Webinars are not intended to be stakeholder outreach

Tech/cost/time concerns

Agree to let Rob Fleming/Dean Scoville join for now, discuss at later date if others ask to join.

PHO Indicators - Joanne

Sent final draft out, planning on moving forward now

Pilot project with IHA to test hedgehog.net before broader rollout

Working on PHO report for 2014-2016 will use hybrid of old and new indicators

Len expressed interest in being involved in pilot as well

Lead – Joanne/Dave

Brought HA lead information to EHPAC

Health Protection will lead development of provincial policy on lead in drinking water, especially in schools, licensed day care facilities and other public buildings.

Homeowners need info too

Does not fall strictly under DWPA – MoH will be discussing with legal council

Roles, responsibilities and communication need to be established

Action Item: HAs please read Joanne's EHPAC report and answer questions about inspections. Has may have to ask licensing staff as well re: daycares. Deadline: April 14

Vancouver Coastal Database Pilot Project BN – Len

VHCA does not have sufficient resources to input data, needs centralized leadership for efficiency, either DWLC or EHPAC?

Len has some connections who have agreed to test data on a small scale

Doug Ryegaard (sp?) is away on leave, project requires his involvement.

Desirability of database has been established, but feasibility has not. Still need a gatekeeper of information, seems to be an operational issue, not a provincial issue.

Some HAs do not have resources to enter data into system.

Don't necessarily need a system, need a coordinating hub.

What kind of data is needed? Source water vs. tap water? Issue is also about what data is collected.

Health Canada requests about source water may be unrealistic.

Action Item: Put on hold until we know whether Doug will be back to work on pilot, and at next meeting: Discuss the "what" and "why" data is collected.

Distribution Systems - final review - Dave/Emily

Final draft is ready.

Action Item: Send final comments by April 21.

MOTI checklist – Dave

Contractor (mark at KWL) has sent draft 2

MoH has concerns about approving officers having to make decisions without technical knowledge

Action Item: each health authority submit their own questions and concerns to Mark at KWL.

Ivor: checklist assumes context of deregulation. Haven't addressed is this a good idea. Will this actually discourage proliferation of systems with 2-4 connections?

Mike: Developing checklist in response to concerns from HAs about deregulation. Exploring option. Just one part of the approach.

3. Roundtable**MOH - Dave**

Non-potable document is moving up the chain of approvals.

Dave, Tim and Mike to attend SILGA meeting April 20

DWOG is currently being updated, including new WSA references

Attending Health Canada meeting May 4-6, Dave will not be at next DWLC meeting

Health Canada posted new pH guideline and technical document

Health Canada is preparing technical document for 1,4-dioxane in drinking water. Action Item: Please submit compiled monitoring data on 1,4-dioxane in drinking water for past 5-10 years and provide any specific issues or concerns you would like considered. Deadline: End of April

PHO - Joanne

Community project with FLNRO –report is finished. Can provide to those interested

Busy with nitrates and lead

Reminder: May DWLC meeting there will be presentation on WSA from FLNRO

Bonnie and Joanne presenting at SILGA on drinking water

Presented at BCIT – water assessment tool etc,

FNHA - Sylvia S.22

None

Northern Health - Doug

Lead issues

Angela Wheelers S.22

Interior Health - Ivor

Focused on SILGA

Aiming to finish drinking water officer report for Fall

SILGA meeting in April – water presentation

Action Item: Please read Thompson River University proposal posted on sharepoint regarding strategic plan for small water systems. They are interested in partnering. Contact Thompson University or Ivor with feedback.

Regional Directors (Roger Parsonage)

No update.

FHA - Marc

Lead testing issue

Inreach – testing new satellite communication for officers to use where no cellphone coverage

Drinking water is taking responsibility of land use program

Prepared "Running out of water" bulletin to prepare for drought season

New chair of HADWC is Len Clarkson

PHEs - Marianne

developing a provincial construction permit guideline – may be ready in a year.

VCH - Len

Lead issues, especially in Pemberton and Powell River. Corrosive water very common. Trying to communicate need to flush water in the morning.

Held DWO training in February, included BCCDC's course. Considering partnering with FHA next year.

IHA - Lynne

Comox Valley watershed protection plan. Recommending an alternative to turbidity decision tree. Going to hold meeting with elected officials

Regional water meeting on Monday to set direction for next 2-3 years

Next Call: May 5, 2016.



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H/

April 2016

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Sent final draft out, planning on moving forward now

Pilot project with IHA to test hedgehog.net before broader rollout

Working on PHO report for 2014-2016 will use hybrid of old and new indicators

Len expressed interest in being involved in pilot as well

Lead – Joanne/Dave

Brought HA lead information to EHPAC

Health Protection will lead development of provincial policy on lead in drinking water, especially in schools, licensed day care facilities and other public buildings.

Homeowners need info too

Does not fall strictly under DWPA – MoH will be discussing with legal council

Roles, responsibilities and communication need to be established

Action Item: HAs please read Joanne's EHPAC report and answer questions about inspections. Has may have to ask licensing staff as well re: daycares. Deadline: April 14

Vancouver Coastal Database Pilot Project BN – Len

VHCA does not have sufficient resources to input data, needs centralized leadership for efficiency, either DWLC or EHPAC?

Len has some connections who have agreed to test data on a small scale

Doug Ryegaard (sp?) is away on leave, project requires his involvement.

Desirability of database has been established, but feasibility has not. Still need a gatekeeper of information, seems to be an operational issue, not a provincial issue.

Some HAs do not have resources to enter data into system.

Don't necessarily need a system, need a coordinating hub.

What kind of data is needed? Source water vs. tap water? Issue is also about what data is collected.

Health Canada requests about source water may be unrealistic.

Action Item: Put on hold until we know whether Doug will be back to work on pilot, and at next meeting: Discuss the "what" and "why" data is collected.

Distribution Systems - final review - Dave/Emily

Final draft is ready.

Action Item: Send final comments by April 21.

MOTI checklist – Dave

Contractor (mark at KWL) has sent draft 2

MoH has concerns about approving officers having to make decisions without technical knowledge

Action Item: each health authority submit their own questions and concerns to Mark at KWL.

Ivor: checklist assumes context of deregulation. Haven't addressed is this a good idea. Will this actually discourage proliferation of systems with 2-4 connections?

Mike: Developing checklist in response to concerns from HAs about deregulation. Exploring option. Just one part of the approach.

3. Roundtable**MOH - Dave**

Non-potable document is moving up the chain of approvals.

Dave, Tim and Mike to attend SILGA meeting April 20

DWOG is currently being updated, including new WSA references

Attending Health Canada meeting May 4-6, Dave will not be at next DWLC meeting

Health Canada posted new pH guideline and technical document.

Health Canada is preparing technical document for 1,4-dioxane in drinking water. Action Item: Please submit compiled monitoring data on 1,4-dioxane in drinking water for past 5-10 years and provide any specific issues or concerns you would like considered. Deadline: End of April

PHO - Joanne

Community project with FLNRO --report is finished. Can provide to those interested

Busy with nitrates and lead

Reminder: May DWLC meeting there will be presentation on WSA from FLNRO

Bonnie and Joanne presenting at SILGA on drinking water

Presented at BCIT --water assessment tool etc.

FNHA - Sylvia (had to leave early)

None

Northern Health - Doug

Lead issues

Angela Wheeler will be back next week

Interior Health - Ivor

Focused on SILGA

Aiming to finish drinking water officer report for Fall

SILGA meeting in April -- water presentation

Action Item: Please read Thompson River University proposal posted on sharepoint regarding strategic plan for small water systems. They are interested in partnering. Contact Thompson University or Ivor with feedback.

Regional Directors (Roger Parsonage)

No update.

FHA - Marc

Lead testing issue

Inreach -- testing new satellite communication for officers to use where no cellphone coverage

Drinking water is taking responsibility of land use program

Prepared "Running out of water" bulletin to prepare for drought season

New chair of HADWC is Len Clarkson

PHEs - Marianne

developing a provincial construction permit guideline -- may be ready in a year.

VCH - Len

Lead issues, especially in Pemberton and Powell River. Corrosive water very common. Trying to communicate need to flush water in the morning.

Held DWO training in February, included BCCDC's course. Considering partnering with FHA next year.

IHA - Lynne

Comox Valley watershed protection plan. Recommending an alternative to turbidity decision tree. Going to hold meeting with elected officials

Regional water meeting on Monday to set direction for next 2-3 years

Next Call: May 5, 2016.

May 2016

DWLC Livemeeting

May 5, 2016

Attendees:

IHA – Ivor Norlin
 VCH – Len Clarkson
 FHA – Marc Zubel
 FNHA – Sylvia Struck
 VIHA – Lynne Magee
 PHO – Joanne Edwards
 MoH – Brenda Janke, Mike Zemanek, Rosanna Breiddal, Emily Quinn, Manish Om Prakash, Rupert Benzon, Esther Parker, Rebecca Abernethy
 MOE – Heather Granger
 NHA – Angela Wheeler
 MHO – Paul Hasselback
 PHE – Tin Tun
 FLNR – Valerie Cameron, Glen Davidson

FLNR Presentation on WSA

Presenters: Valerie Cameron and Glen Davidson

Access WSA slides:

<https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Files/Active Documents/WSA Implementation DWLC 160505.pdf>
Previous Action Items**Water treatment as business continuity in restaurants**

Action item: Dave will send summary to discuss at June DWLC meeting

Lead

See agenda items.

Distribution Systems

Final comments were sent.

MoTI Checklist

Yes, and received final comments from contractor.

1,4-dioxane in drinking water

Compiled monitoring data on 1,4-dioxane.

Interior Health – Ivor

Feedback for Thompson River University proposal.

Agenda Items**Lead Update – Joanne**

Moving quickly - Received input, will review next week and write draft soon. Will share with DWLC for input.

PHO Indicators – Joanne

- Modified indicator data for 2014-2016 fiscal years
- Action Item: Joanne will send livemeeting invites to explain table setup

Roundtable**NHA – Angela**

- Lead – flushing and sampling programs, getting pushback
- Long-term plans for improvement plans

IHA – N/A (Left early)**FHA – Marc**

- Tinder Morgan – GPS locations
- Lead messaging

VCH – Len

- Lead testing. Resampling schools – 4th round. Promote communication. Lots of media attention.

PHEs – Tin Tun

- No update

IH – Lynne

- Had meeting with elected officials in the Comox Valley to educate on why water treatment necessary, water not safe to drink, plan includes filtration.

FNHA

- No update

MHOs – Paul

- Many systems are approaching deadline to meet drinking water objectives. Considering issues: how does enforcement work? Who is the authority?

Next DWLC Meeting: June 2 9:00 am

June 2016

DWLC Teleconference Meeting

June 2, 2016

Attendees:

IHA – Ivor Norlin
 VCH – Len Clarkson, James Lu
 FH – Marc Zobel
 NH – Raina Fumerton
 FNHA – Sylvia Struck
 VIHA – Lynne Magee
 Regional Directors Rep: Roger Parsonage
 PHO – Joanne Edwards
 MoH – Brenda Janke, Rosanna Breiddal, Dave Fishwick
 MOE – Heather Granger

Please add call-in number to calendar invite - Dave

Previous Action Items

Water treatment as business continuity in restaurants

Action Item: Dave will send summary to discuss at June DWLC meeting-maybe for July meeting?

Lead

See agenda items.

PHO Indicators

There is a LiveMeeting set up for 3:00 today.

Agenda ItemsLead Update – Joanne/Dave

- MoH presented early draft of policy to EHPAC on Tuesday
- Document not yet complete, other aspects to add, including standard messaging
- Concern of what CCF can realistically do in daycare facilities
- Will give next draft to EHPAC and DWLC for feedback again.
- Final decision on document will likely be Arlene and Perry
- Concern- What is rationale behind corrosion control numbers in Health Canada guide? Action Item: Dave will ask CDW
- Action Item: Send feedback on draft to Joanne and Dave by June 10.
- Action Item: Send health authority's current messaging for lead to Joanne and Dave by June 10
- MoH: Share press release from Ministry of Education requiring annual testing for lead

EHPAC ctte update

- **Manganese**
 - Working with Tom and BCCDC to give comments to Health Canada on Manganese
 - Email Karen Glassford to get a copy of Tom's presentation on Manganese (Rosanna)
- **EOCP - System risk management plan**
- **Nitrates**
 - Polluter pay principle
 - Action only taken when locals make it a political issue – nitrate problem likely widespread in other aquifers
 - Issue of source protection, but no provincial guidance of how to deal with agricultural or sewage waste
- **Long-term improvement plans - Roger**
 - than provincial standards
 - Encouraged to use legislative tools, but carefully. Communicate to all partners.
 - Discussion about non-emergency communication/water treatment notifications
 - EHPAC suggestion: Require suppliers to provide notice in bill that water system does not meet water objectives and there is a risk of _____. In annual report/website provide more information of treatment inadequacies and how water supplier is remedying issue. Hope is to reduce boil water notices.
 - Dave: next step to develop "phase b" of communication to now develop tools. MoH will put together straw dog and bring back to DWLC. Will provide update in July.

Drought - Joanne

- Roundtable on drought:
 - VIHA: Level 3 drought levels. Conducting survey and mapping drought with focus on small systems on groundwater. Last year large systems were okay. Nanaimo and area developed consistent responses to drought levels.
 - VCH: Snowpack on lower mainland. Reservoir levels 60% of normal, increased from last year. Potential problem on Sunshine Coast, reliant on surface water. Questions about greywater from public.
 - FH: Likely not a problem this year

- IHA: some systems are vulnerable, overall there are normal conditions. Would take multi-year drought to be a concern.
- NH: Angela would likely have this information.
- FNHA: Revising messaging to communities re: drought and conservation. Last year INAC sent out 5Q survey similar to VIA. Now revising. Sylvia to get copy of survey to share with DWLC.
- Update from River Forecasters: Streamflow this year 2 weeks ahead. Low streamflow expected later in season. Also considering messaging.
- Joanne sits on interagency table on drought. Considering provincial drought vulnerability survey. Questions for DWLC:
 - What is best approach to roll out across province?
 - What resources needed? Not much, if online. Participation an issue
 - What type of survey Q? Need to identify intention and goal of survey first. May change over time and from place to place.
 - What other partners? Boards, trusts.
 - Other discussion: timing of survey → better in fall.
- Questions about using greywater-Mike Zemanek to work w/land use people about potential concerns.
- Email Joanne if interested in sitting on provincial technical working group – operational issues of drought. Need health rep. (Possibly Judy, or Len)

Drinking Water Program Webinar - Rosanna

- Ideas for future topics/speakers?
- EHOs present case study problems and solutions
- Valerie Cameron etc on WSA
- Lead, corrosion. Mix of health impacts and provincial direction. (Tom, Joanne and Dave?)
- Drought management and process
- Leak detection
- Hydrogeology – movement of nitrates via water
- Later in the year – presentation by Joanne on PHQ indicators and future direction
- Dave Tomlin case study on Kitimat
- Contact Esther if you think of additional topics/speakers

CDW meeting – Dave

- Big focus on lead. Most provinces similar questions as BC.
- Dave will post summary of parameters on sharepoint

Roundtable

IHA – Ivor

- Working on configuring hedgehog.net. Goal to have full implementation by September.
- Developing MHO report. Focus on consulting with larger water systems, communication tools, goal setting and follow-up
- Hulicar Aquifer –trying more of a direct management approach. Need to engage more with FN.

FHA – Marc

- White Rock BN due to fire downtown.

VCH – Len/James

- Firefighting agents, Tom reviewing literature
- Regional Drinking Water Teams have fizzled out – issues driven.
- Lead in Pemberton – public dissatisfied with communication. Need to build partnerships with school boards, municipalities
- Water quality chemical parameter database on backburner
- Commenting on MOE's SPILLS proposal

IH – Lynne

- Making presentation w FLNR on expectations of water suppliers related to WSA
- Lead
- Compliance algorithm for non-complying surface water systems.

NHA – Raina

- Moving to hedgehog.net. Doug Quibell putting together business plan this fiscal year.
- Corrosive water – Prince Rupert and Kitimat refuse to participate in assessing and messaging to public. Considering staged enforcement.

FNHA – (Had to leave call early)

MOE – Heather

- Updating Moving to hedgehog.net. Doug Quibell putting together business plan this fiscal year.
- Corrosive water – Prince Rupert and Kitimat refuse to participate in assessing and messaging

PHO – Joanne

- Livemeeting today at 3:00
- Please forward lead document to licensing leads for comment

Next DWLC Meeting: July 7 9:00 am

July 2016

DWLC Teleconference Meeting

July 7, 2016

Attendees:

IHA – Ivor Norlin
 VCH – Len Clarkson, James Lu
 FH – Marc Zubei
 NH – Raina Fumerton, Darryl Belanger
 FNHA – Sylvia Struck
 VIHA – Lynne Magee
 PHO – Joanne Edwards
 MoH – Brenda Janke, Emily Quinn, Esther Parker, Mike Zemanek, Rosanna Breiddal, Dave Fishwick
 MOE – Heather Granger
 MHOs – Paul Hasselback
 PHEs – Tin Tun
 PHO – Joanne Edwards

Previous Action Items**Water treatment as business continuity in restaurants**

- Yes. Document posted on sharepoint. Action Item: Please review document on sharepoint. Email Rosanna.breiddal@gov.bc.ca if document does not capture HA's current or proposed approach.

Lead

See agenda

Manganese

Yes. Presentation posted on sharepoint.

Risk Communication

See agenda

Drought Survey

See Agenda

CDW update - Summary of parameters

Yes. Posted to sharepoint.

Agenda Items**Drought – Emily/Esther**

- Drought Vulnerability Survey Project Update posted to sharepoint
 - Request from Deputy Ministers Committee to conduct survey to identify water systems at risk
 - Survey being finalized, will be piloted and distributed by EOCP end of July

Well Sharing – Lynne

- Discussion of works in common. 2 pumps, one well.

DWO training – Len

- Discussion about EHOs providing case studies in webinars → not their role to provide training? What is Ministry's role in DWO training?
- MOH used to provide in-service training. No funding for that now
- Training gap being addressed in HADWC. Ivor conducting interviews to identify necessary DWO competencies at different developmental levels. Will share report in September. Discuss with DWLC then bring to EHPAC.

Spill Preparedness – Len

- MOE conducting consultation on Spill Preparedness – opportunity to offer health lens. Action item: Please take opportunity to give feedback.

Lead Update – Joanne/Dave

- Currently reviewing DWLC comments on draft
- In a few weeks, hope to share second draft for further feedback
- Waiting for response from Health Canada regarding rationale behind corrosion control numbers in Health Canada guide.
- Action Item: Please provide feedback for Healthlink lead file posted on sharepoint by July 15.

(Sharepoint Access

- Some are not receiving emails about announcements – change personal settings in sharepoint to receive emails
- Some are not able to open documents on sharepoint – MOH will put you in contact with Tamara Mitchell to help troubleshoot and send files as attachment in the meantime)

Mobile Emergency Response Treatment - Joanne

- What is permitting process? What are roadblocks to approval across health authorities?
- Ivor: HADWC in the past has set similar standards for mobile work camps. Joanne to send formal request to Len as Chair of HADWC to share standards.
- Is there regulation that exempts DWPA in emergency situations? MOH to do scan of legislation

(Terms of Reference

- Raina to send email to Dave requesting TOR for HADWC and DWLC)
- MOH to confirm what TOR for WLC are at – finalized?

Non-emergency communication – Dave

- Dave will send document out and try to update for August meeting
- Need to reconvene working group.
- Members: Dave, Joanne, Len, Mark Lysyshn, Ivor. Need nominations for other members
- Reassess scope and purpose

Roundtable**NH – Darryl**

- Lead is main priority

Interior – Ivor

- Strategic MHO report, engaging with local government and water systems on recommendations
- Developing hedgehog water modules
- Hullcar aquifer is still a hot topic; proposed area-based plan under EMA

FH – Marc

- Still responding to dissatisfaction in White Rock – response to fire
- Working on lead messaging in schools
- Staff now taking land-use files

PHEs – Tin Tun

- Nothing to report

VCH – Len/James

- Sampled lead in schools – pre flush had varied results. Flushing successful. Requiring schools to develop flushing and sampling system. Limit drinking water access points
- Engaging with SFUI on climate change project
- Concerned about changing AO and new MAC for Manganese. Uncertainty of research.

IH – Lynne

- Developing Rainwater harvesting guidelines. What is MOH's policy: rainwater is surface water
- Surface water supply treatment plans

FNHA – Sylvia

- General messaging for lead and copper. Developed exceedance letter
- Sampling continues in schools and daycares
- Messaging on drought

MOE – Heather

- Updating drought response group and handbook for water suppliers
- Drought webinar for local governments on July 12

PHO – Joanne

- Working on indicators/pilot project
- Business rules around categories

MOH – Dave/Mike

- Nothing else to report
- What is the update on the System Risk Plans? Tim gave presentation to EOCP. Tim to update DWLC next meeting?

Next DWLC Meeting: August 4 9:00 am

September 2016

DWLC Teleconference Meeting

September 1, 2016

Attendees:

JH – Dan Byron
 VCH – Len Clarkson
 FH – Marc Zubei
 FNHA – Sylvia Struck
 VIHA – Lynne Magee
 PHO – Joanne Edwards
 MoH – Esther Parker, Mike Zemanek, Rosanna Breiddal, Dave Fishwick
 MHOs – Paul Hasselback
 PHEs – Tin Tun
 MNGD – Jarrett Hutchinson and Dale Andersson

Building Act

Presentation by Jarrett Hutchinson with Dale Andersson

- Please contact dale.andersson@gov.bc.ca to discuss any questions about applying the *Building Act*.

Previous Action Items

Spill Preparedness Feedback

yes

Sharepoint access

Emails when announcement is made: People indicating they were having trouble were contacted by Tamara.

Unable to open documents – Tamara contacted those experiencing issues. Those with “basic authorization errors” need to check server settings on own computer/server.

Mobile Emergency Response Treatment – Joanne

Add to Agenda

Non-emergency communication – Dave

There were some nominations made

Working group will begin meeting again in the Fall.

Lead

See agenda

Terms of Reference

- We need to update the TOR in the future.

Action Item: MOH send an announcement reminding everyone where TOR is located on the sharepoint. Also, share HADWC TOR as well, as they have recently updated theirs.

Agenda Items

Drought – Esther/Joanne

- Survey closed on August 26 with 195 responses
- Sending a thank you email with drought resources
- Action Item: Please email esther.parker@gov.bc.ca with any drought resources to share with system operators
- Action Item: Please verify if the Health Authority contact information is correct. Contact info is posted on sharepoint: <https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Files/Forms/AllItems.aspx?RootFolder=/sites/HLTH5/HPB/DWLC/Files/Active Documents&FolderCTID=0x0120001245C92B9E5AF44397BF63A9E86C4FBA&View={24C79CDA-01BE-4469-91F3-CDC05FF45570}>

Lead Update – Joanne/Dave

- Healthlink File does not currently include First Nation Health Authority
- VCH conducted extensive survey and sampling pre and post flush
- Health Authorities have a variety of sampling approaches
- Compiling various sampling protocols to offer options dependent on situation, rather than one size fits all approach. Depends on outcome you are looking for.
- James Lu to speak in mid-September
- Would like feedback on testing from licensed child care facilities

Independent Schools – Joanne

- Independent schools are not in the Public School Act
- Wondering if independent schools received communication about lead
- Recently sent letter from PHO included all policies with MOH
- French immersion schools do fall under the Public School Act

Lead testing in Schools – Paul

- Who is accountable for sampling? Where is policy going? Roles? Who is the lead?
- Concern that Ministry of Education is developing their own directive without consultation
- Mike: Direction from EHPAC to develop roles and responsibilities. Ministry of Education separate task. Licensing is an outstanding issue. Package sampling protocols, roles and responsibilities together for approval by EHPAC
- Joanne/Dave: Roles and responsibilities piece accompanied by appendices e.g.: communication examples, flushing guidance, letters.
- Policy timeline? Dependent on other factors. Health Canada planned on releasing policy in May, delayed and reworked. Possibly will release in 1-3 months. Support for staged release as pieces are ready? = Yes.
- MOH: Send reminder/request to find out progress on Ministry of Education document
- Plans for outreach to private homes beyond healthlink files? Province-wide promotion?
- Paul: Accountability? GCPE contacting HA. Joanne and Paul will discuss. GCPE should be contacting MOH rather than GCPE.

Mobile Emergency Response Treatment Update - Joanne

- EMBC provincial response and Red Cross considering use in earth quakes
- Emergency Program Act in effect
- Construction permits not practical
- Need protocol for maintenance and to be reviewed by MOH

Roundtable**VCH – Len**

- Lead in schools. Avoid using taps, bottle filling stations, bottled water.

NHA – Dave Tamblyn

- Active lead file. Letter out to suggest testing needed. All districts have conducted some testing, however each method different. Analysis difficult. Uptake in municipalities limited.

IH – Dan Byron filling in for Ivor

- No update.

FH – Marc

- Lead: Abbotsford replacing pipes and taps
- Lead testing in hospitals – risk to kids? Short term exposure is not high risk factor
- Joanne: Dr. Tom Kosatsky will review health impact of lead in BC and report out in October at EHPAC meeting.
- FLNRO meeting on WSA and ground water regulations
- Lab investigation on discharge of chemicals into wells – Should health authorities test water? Mike: Contact MOE to ask about responsibilities under Environmental Management Act.

FNHA – Sylvia

- Lead and copper in schools and daycares. Writing preliminary report. Sent letters to homes and facilities.

VIHA – Lynne

- No updates.

PHEs – Tin Tun

- No updates.

PHO – Joanne

- Working on indicators/pilot project
- Working to simplify data request for 2015/2016

MOH – Dave/Mike

- Provided grant to BCWWA for small water system operator workshops: best management practices. 5 workshops in health authorities and 60 small water systems attended, 4 more workshops to go.
- Retained lawyer to develop principles for agreements between water suppliers and homeowners for POE/POU systems, ready for mid-September.
- Individual and group coaching

Next DWLC Meeting: October 6 9:00 am

October 2016

DWLC Teleconference Meeting**October 6, 2016****Attendees:**

NHA – Dave Tamblyn
 IHA – Ivor Norlin
 VCH – Len Clarkson, Dr. James Lu
 FH – Marc Zubeł
 VIHA – Paul Hasselback with Ashley Wayside (sp?)
 MHO – Roger Parsonage
 PHEs – Tin Tun
 MoH – Mike Zemanek, Rosanna Breiddal, Dave Fishwick, Brenda Janke, Emily Quinn, Rupert Benzon

Previous Action Items**Terms of Reference**

- YES - MOH to send an announcement showing where TOR is located.
- NO - HADWC to send TOR as well.

Drought

- YES - review HA contact list posted to sharepoint
- See agenda

Lead

See agenda

Agenda Items**Drought – Esther/Joanne**

- Survey closed on August 26 with 195 responses
- Have conducted a high level analysis, detailed analysis to follow
- 32 systems self-identified as “at risk,” corresponding to drought areas
- Paul – Where do we go from here? DWPA/WSA – are some systems not viable in future?
- Preparing report that will identify challenges with survey and present recommendations for future work.
- Interagency group discussion re: role of province when water runs out
- Len – drought issue vs. issues stemming from poor management and maintenance of water system
- Paul - Lacking assessment of quantity as part of system itself – there are gaps in quantity.
- Dave Tamblyn – WSA a tool on quantity, once it comes to intake, falls better to MOH, not FLNRO

Fish Bone Diagram – Len/Dr. James Lu

- Used Fish Bone Diagram after Lead in Drinking Water in Pemberton community outrage
- A good tool to understand circumstances leading to dissatisfaction and to improve future response
- Action item: Len will send Fish Bone diagram to Dave to post on SharePoint.

Cyanobacteria - NHA

- Question raised at EHPAC on the science behind Cyanobacteria protocols
- NHA has not been tracking blooms. Would be valuable discussion on how protocols have been working for HAs.
- Action Item: Dave Tamblyn to ask Dr. Fumerton and Alan for specific questions. Add to next meeting's agenda.

Lead update – Dave Fishwick

- Taking staged approach to rolling out policy. First Roles and Responsibilities, later technical document
- Community care facilities reluctant to engage so far
- Dave F. – How are HAs addressing community care facilities?
- Ivor – they need a clear message from top on which health risks are priority. Limited fund to address problems
- Provincial structure of licensing is challenging. EH policy work plan now includes licensing, but has not been used so far. Maybe should request to discuss in EH policy.
- Dave T. – in the North, sent recommendation to all licensed facilities to test for drinking water with basic instructions. Action item: share letter with DWLC
- VCH – made info sheet for daycares for licensed officers to use as a resource
- Ivor – Action item: will share lead and copper guidance
- issue is licensing officers don't feel they have skill set for sampling. Cost of sampling a barrier. Could encourage flushing even if no sampling as a precaution.
- Mike Zemanek – move issue of lead in daycares to EH Policy
- Mike – Ministry of Education sent letter last week to all school districts requiring them to test. Action Item: MOH to share letter that went out

BCWAA – Dave/Mike

- Template agreement for POE/POU responsibilities, rules, maintenance etc. early draft finished
- Will share draft with DWLC in mid-November and BCWAA will present at DWLC November meeting.

Non-potable update - Dave

- File transfer of non-potable ambient source water from Emily to Rosanna
- Reviewing comments made during June public consultation
- Final draft expected with a couple of months

Roundtable**NHA – Dave Tamblyn**

- Dave will sit on DWLC, Darryl on HADWC, Dr. Fumerton as MHO rep.
- Sampling program funded by MOH. Will be requesting more funding.
- Len – suggest funding through OGC

Interior – Ivor

- Scan of delegated drinking water officer training. Finished draft report. Action item: Will post to SharePoint.
- Inspection module – now live on hedgehog.net
- MHO report – share internally. Will share with local government in December and to public in May

MHOs: Roger

- Work plan – reviewed communication on water treatment notice
- Mike – Phase 1 is complete. Phase 2 is underway.
- EH Policy would like update. Add to agenda for next DWLC meeting.

FH – Marc

- Lead: working with school districts

VCH – Len/Dr. Lu

- SWS committee – rewriting TOR. Will repeat 1 day training seminar, partner with FH and perhaps FNHA
- Richard raising question of Ministry's role in training? How could training be approached on provincial scale?
 - GARP guidelines, System Risk Management
 - Centralized training?
- Data - Chemical data: working with Doug to upload to hedgehog. Bacteriological automated data transmission to healthspace has encountered glitches. Getting data together for PHO interim report.
- Working on May/June lead in drinking water report

VIHA – Paul

- Protocol for training assessment of DWOs has been developed
- Several large systems granted financial support
- Comox Valley making progress on recommendations
- Lead – vulnerability in school districts
- PHO indicators – responding to data request

MHOs – Paul

- No update

PHEs – Tin Tun

- No update

MOH – Dave/Mike

- MOE has published Intentions Paper on organic matter recycling regulation. Open for comments until December 2, 2016. Also posted literature review on risks relevant to Nicola Valley.
- EHPAC trying to setup online presentation by MOE, DWLC members invited

Next DWLC Meeting: November 3, 9:00 am

November 2016

DWLC Teleconference Meeting

November 3, 2016

Attendees:

VIHA – Lynne
 FNHA – Sylvia
 FH – Marc
 Interior - Ivor
 VCH - James
 NHA – Raina
 MOH – Brenda, Mike, Dave, Rosanna, Alistair
 PHO - Joanne
 MHO – Roger, Paul, David (student)
 PHE – Marianne Crowe
 MOE – Heather
 BCWAA – Olga Rivkin, Ashifa Dhanani

I. POU/POE Term Sheet Presentation - Olga Rivkin

- MOH will post latest draft and BCWAA's contact info on sharepoint. Please send comments to BCWAA on document to and potential pilot systems by end of November.

I. Past Action Items

Len to share Fish Bone Diagram

- Yes

Dave Tamblin: Ask Raina and Alan about specific cyanobacteria protocol questions

- Raina: NH has not followed provincial guidelines – have other HAS?
- Discussion:
 - Yes, following guidelines
 - Coordinating with MOE an issue
 - Local government has responsibility in many parts to test
 - In areas with many lakes, only test where cyanobacteria is an issue (not every lake)
 - If see bloom, post sign – but precautionary approach can be too cautious too
 - Action Item: MOH welcome feedback – will organize meeting in January.

NHA to share lead letter sent to daycares– Dave Tamblin

- No – Raina will look into.

MOH to share lead letter from Ministry of Education

- Yes.

IH to share draft report: scan of delegated DWO training

- Yes

I. Agenda Items

BCWAA update on SWS project

- 2 recent sessions in Victoria and Smithers
- Good networking and support for small water systems
- 3 more upcoming sessions
- Follow-up networking sessions – consultants will demonstrate treatment equipment

Antibiotics in Hualcar Aquifer - Ivor

- FN and public advocacy group inquiry about antibiotics in water
- No drinking water standard
- Action Item: Mike to share antibiotics in wastewater report with IHA

Lead update – Dave/Joanne

- Latest draft posted to sharepoint today
- Still licensing questions
- Bringing to EH Policy in December
- Ministry of Education put own policy out, independent schools working on one of own

CDW-FTP update - Dave

- Action Item: Will post summary online

Request for update on status of systems with less than four connections – Paul

- MOH not heard back from MOTI
- Little support for change to change definition. Lost momentum
- Suggest taking to EH Policy

Roundtable

VIHA – Lynne

- Getting lead samples back
- Cyanobacteria issue on islands

VCH – James

- Nothing to report

FH – Marc

- Nothing to report

Interior – Ivor

- MHO report moving up internal approvals.
 - Area based planning recommendation, City of Kelowna interested in SRMP pilot.
- Hullcar review
- EOCP list of operators not in good standing – action required?
- Kalpa to speak at HA operational DW Council in December

MHOs: Roger

- No update

NHA – Raina

- Prince Rupert and Kitimat, surface water, corrosive, only use chlorine
 - Long-term improvement plan and lead abatement plan
 - Logical steps and timeline template – discussion going well.

PHO – Joanne

- December data request

Meeting time cap: no updates from:

FNHA – Sylvia

PHEs – Marianne

MOH

Next DWLC Meeting: December 1, 9:00 am

December 2016

DWLC Teleconference Meeting

December 1, 2016

Attendees:

VIHA – Lynne, Paul (MHO)

FNHA – Sylvia?

FH – Marc

Interior – dan Byron

VCH – Len, James (MHO)

NHA – Dave T.

MOH – Brenda, Mike, Dave, Alistair

PHO – Joanne

PHE – Tintun

1. Past Action Items

MOH will post BCWAA POE/POU info on SharePoint for comment. – Done

NHA daycare handout to be shared – Done

Mike to send Antibiotics report to Ivor – Done

Dave to post FTP CDW update on sharepoint- Done.

2. UV Disinfection – Alistair

2 Steps - 1. Data Gathering, 2. Jurisdictional Scan.

- How many UV systems?
- What type?
- What other treatment?
- HA positions on disinfection, what would they like to see?
- Target draft for review – 2017

3. Lead Update

- EH Policy is on December 6 – please keep your reps apprised of any concerns you may have.
- Health Canada also targeting release of Consultation Draft December 6
- Have engaged with CCF and MoEd
- Waiting on release of health files
- Developed draft bulletin for schools
- Engaged with other info sources such as Babys Best Bet, Toddlers First Steps and Healthy Families BC on lead awareness
- MOH will post latest draft and BCWAA's contact info on sharepoint. Please send comments to BCWAA on document to and potential pilot systems by end of November

4. Round Table

NHA – Kitimat and Prince Rupert – conditions on permit, MHO DW report – target Jan/Feb 2017

IHA – MHO DW Report release is imminent

FHA – No report

VCH – James nearing completion of Lead sampling in schools report

EOCP – Looking for how to enforce operator certification

VIHA – No report

PHEs – No report

PHO – Doing review on IHA decision on Hular Aquifer issues.

MoH – No Report

January 2017

DWLC Teleconference Meeting

January 5, 2017

Attendees:

VIHA – Lynne
 FNHA – Sylvia
 Interior - Ivor
 VCH - Len
 NHA – Raina
 MOH – Brenda, Mike, Dave, Rosanna, Alistair, Keri, Rupert
 PHO - Joanne
 MHO – Roger
 PHE – Tin Tun

Past Action Items

Request for feedback on draft lead letter to schools

- Yes – see agenda

Agenda Items

Fire retardants - Len

- Communication challenge re: toxicity. Possible solution HealthlinkBC file?
- Action Item: MOH to send Len Hfile request form. Keri to look for information on past discussions

MOH Updates:

- Cyanobacteria Dave/Rupert
 - Rupert to review cyanobacteria protocols
 - Action Item: Request for 1 name by next week from each RHA to help review protocols and identify gaps.
- Rainwater Harvesting Standard - Rosanna
 - CSA/ICC Joint committee developing Rainwater Harvesting Standard in 2nd draft
 - MOH contributed comments
 - Lynne: risk characterization of rainwater in standard not sufficient
 - Action Item: Lynne will look for and share example of another rainwater document with good risk characterization of water
- DWOOG - Rosanna
 - DWOOG is being updated to add recently published policy documents, include changes to legislation, correct typos and update links
 - Target to finish by next DWLC meeting. Will share draft.
- Small Water System Guidebook – Keri
 - Updating SWS Guidebook. Minor revisions.
 - Target to finish within the next month
 - Action Item: please let Keri know if you have noticed any errors or typos.

Lead in schools update – Dave/Joanne

- Ministry of Education letter open to interpretation → any more feedback?
- Different sampling options gives different types of information
- Action Item: MOH to send link again to Ministry of Education approach to sampling

Roundtable

FNHA – Sylvia:

- left call

VIHA – Lynne:

- Vibrio outbreak
- Staff changes: Heather leaving, Rory Beise to be new DW Land Use Consultant; Ann Thomas retiring in February.

VCH – Len

- Gathering data for PHO report
- Health Space revamping system
- Water chemistry upload

Interior – Ivor

- MHO report finalized. Considering communication options.
- Hedgehog.net Drinking water module
- Question about water systems on federal lands
 - Action Item: MOH will consult with legal counsel on issue

Roger

- Regional Directors to discuss Ivor's report on DWO training

PHEs: Tin Tun: No update

MHOs: Roger: No update.

NHA – Raina

- Drinking water report for the north in draft
- Prince Rupert and Kitimat ongoing issues

PHO – Joanne

- Request for review of Hullycar Aquifer
- Upcoming meeting with Regional Directors to go over new indicators.

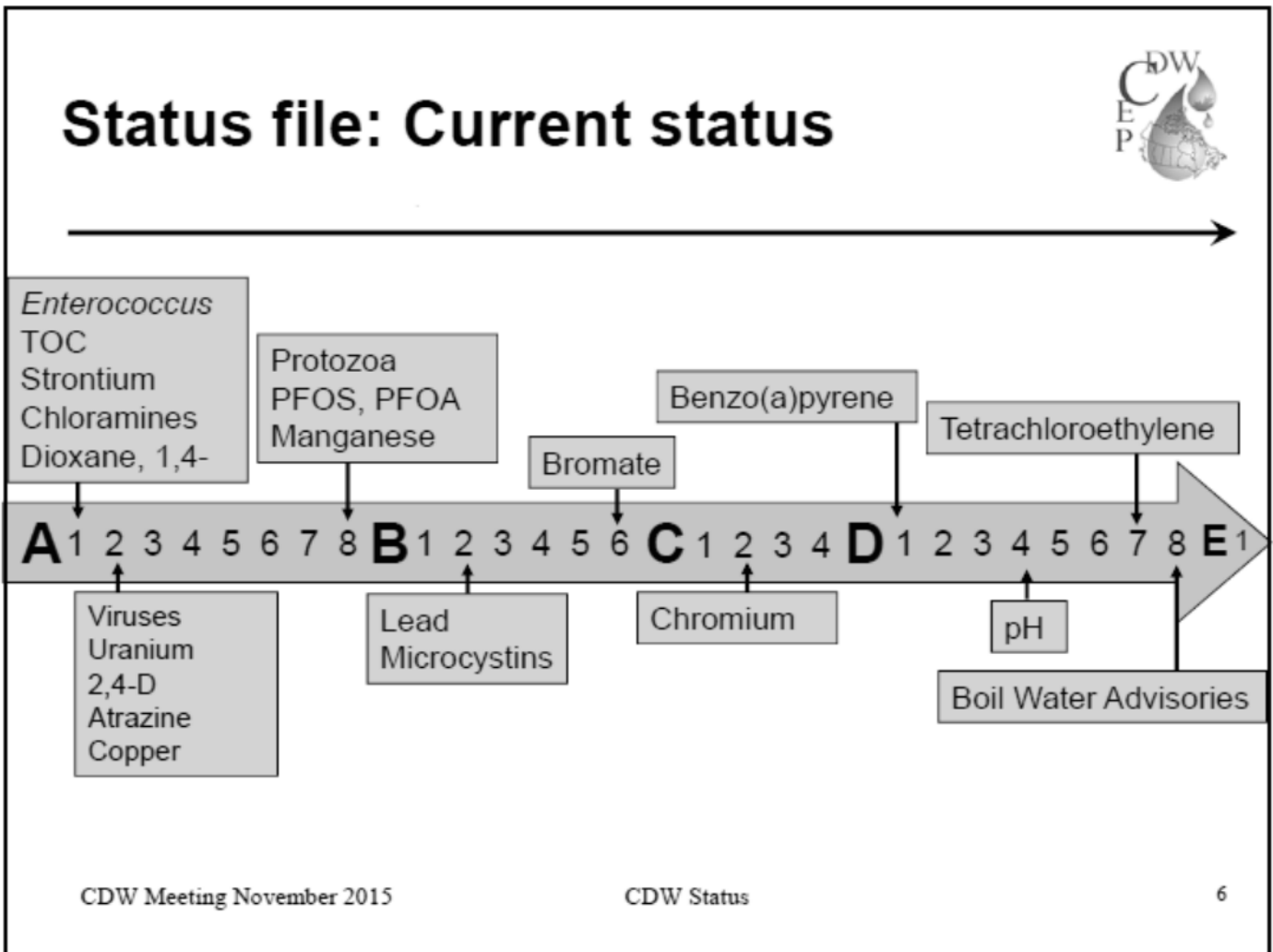
Nothing to report:

FNHA - Sylvia

PHEs – Marianne

MOH

Next DWLC Meeting: February 2, 9:00 am



- A – (Activation) Project scoping research
B – (Beginning) Drafting
C – (Consultation)
D – (Develop final) CHE approval, final draft and translation
E – (End) Publishing

Highlights

BWN – Complete - anticipated posting Nov 27

Protozoa

- Guideline statement unchanged, supporting info updated.
- Further discussion on riverbank filtration in context of GUDI
- E.coli not good indicator of protozoa
- Includes extensive guidance on QMRA - Discussion on breaking this into a separate document
- Further drafting expected prior to moving to consultation stage in near future

Virus

- Has undergone peer review
- Extensive further drafting expected

PFOS/PFOA

- Persistent in Environment
- May be a fish tissue issue
- Moving to consultation stage shortly

Chromium

- Consultation closed
- No change in MAC
- Expected to go to CHE for Approval in next couple months

B(a)P

- Consultation closed
- Expected to go to CHE for Approval in next couple months

Uranium

- Chemical Toxicity – not radiological
- Very early in process

Strontium

- Chemical Toxicity – not radiological
- Very early in process

Copper

- Early in review process
- Anticipate a MAC being developed – no idea what that will be yet

TOC

- Very early in process
- Very difficult to set MAC – may look for percent removal guidance

Microcystins

- Consultation document will come out soon
- Health Canada Needs impact statement

Lead

- (Refresher): Current guideline (1992) is 0.010 mg/L (after flushing), MAC of 0.005 mg/L (5 µg/L) based on analytical feasibility
- Health Canada Needs impact statement

Manganese

- Current AO 0.05mg/L– looking at moving to 0.02mg/L. Looking at a MAC of 0.1mg/L.
- Addition of a MAC is a significant departure from previous messaging regarding Manganese, and may impact many systems.
- Concern is neurotoxicity in infants and reproductive effects. (note this is from short term, not lifetime exposure)
- Also concerns about manganese accumulation in system that may get stirred up.
- Health Canada Needs impact statement

Withdrawal of unused pesticides and other chemicals

- Pesticides no longer licenced by PMRA
- Chemicals that guidance is so out of date their value is limited and are not priorities for re-evaluation. Better to look elsewhere
- HC will do public consultation on these prior to withdrawal - see list below

National Conference – October 16-18, 2016 in Ottawa, \$525, \$100 students

Antimicrobial resistance

- Looking at whether treatment may be selecting for resistant strains. No evidence yet.

FNIB report

- Slowly movement from east to west in regulatory development and figuring out logistics

Old guidelines Nov-2015

Proposed path forward

Withdrawal Rationale

Bromoxynil Low # of detects, levels well below MAC + Int values

Carbaryl Low # of detects, levels well below MAC + Int values

Chlorpyrifos Low # of detects, levels well below MAC + Int values

Diazinon

Low # of detects, levels below MAC + Int values. Most uses being phased out by PMRA by December 31st 2016, except soil drench and ear tags; low potential for water exposure

Diuron

Uses on dugouts and ponds to be phased out (date TBD); low potential for water exposure

Metolachlor Phased out by PMRA in 2006

Paraquat

Domestic product uses phased out by PMRA in 2005; low potential for water exposure

Phorate Phased out or to be phased out by PMRA 2015-08

Picloram Low # of detects, levels well below the MAC + Int values

Simazine Low # of detects, levels well below the MAC + Int values

Trifluralin Low # of detects, levels well below the MAC + Int values

Dichlorobenzene, 1,2- Low # of detects, levels well below the MAC + Int values

Dichlorophenol, 2,4- Low # of detects, levels well below the MAC + Int values

Monochlorobenzene Low # of detects, levels well below the MAC + Int values

Tetrachlorophenol,

2,3,4,6- Low # of detects, levels well below the MAC + Int values

Pentachlorophenol Low # of detects, levels well below the MAC

Temperature To be replaced by Water Talk

Azinphos-methyl Phased out by PMRA 2006-12

Carbofuran Phased out by PMRA 2010-12

Diclofop-methyl Phased out by PMRA 2011-08

Terbufos Phased out by PMRA 2012-08

Update Rationale

Antimony Lots of detects, levels close to MAC + Int values

Silver Lots of detects, no current HBV/MAC

Problem formulation Rationale

Cyanide Lots of detects, levels close to MAC + Int values

Dicamba Average # of detects, levels well below the MAC + Int values

Dichlorobenzene, 1,4- Lots of detects, levels close to MAC + Int values

Dimethoate Low # of detects, levels close to MAC + higher than Int values
Diquat Low # of detects, levels close to MAC + Int values
Glyphosate Average # of detects, levels close to MAC + Int values
Malathion Low # of detects, levels well below MAC + Int values
Mercury Lots of detects, levels close to MAC + Int values
Metribuzin Average numbers of detects, levels below MAC + Int values
Dichloroethylene, 1,1- Low # of detects, levels close to the MAC + Int values
Nitrilotriacetic acid (NTA)
Average # of detects, levels close to MAC + Int values
Sodium To determine if guideline is still required
Trichlorophenol, 2,4,6- Lots of detects, levels close to MAC + Int values
Calcium Part of Operational
Chloride Part of Operational
Hardness Part of Operational
Magnesium Part of Operational
Sulphate Part of Operational
Sulphide Part of Operational
Total dissolved solids (TDS) Part of Operational
Odour Part of taste and odour
Taste Part of taste and odour
Colour Part of TOC

Summary: CDW Spring 2016 Meeting, Ottawa

Lead

- Similar issues to BC in Jurisdictions across Canada.
 - who is responsible? Supplier/building owner
 - what is the extent of the problem?
 - Sample for worst case scenario or typical consumption level?
 - decentralized vs. water system mitigation measures?
 - does corrosion control work? Finding even “non-corrosive “ water can leach lead.
- HC asked if we want give municipalities a heads up that they are planning to be more stringent for new consultation document.
- Public consultation draft likely posted it eh next few months.

Virus

- No change for surface water proposed, but may have issues for GW (treat it the same)
- Have sent comments to help align with our new GARP documents.
- Adenovirus – hard to kill with UV but low risk
- Next step – HC will do edits, then post for public consultation

QMRA

- Under development – draft expected in fall

Other Microbiological

- May get into stormwater issues
- Rec water quality to be reviewed too.

Pesticides

- Many pesticides that guidance is given for are no longer produced and HC proposing to remove guidance for these
- They will post list of pesticides planned for withdrawal for public consultation

Radiological

- Developed by a different branch of Health Canada, (Outside CDW group)
- Interesting things that mobilize radioactive uranium in water –nitrate contamination, road salt, drywall waste
- They plan to revise emergency response document, and will consult with CDW in the process.

Uranium – (chemical)

- Considering dropping MAC to 5-15 range based on kidney toxicity

Treatment technology

- General discussion- most recent guidance document speak to effective treatment options in section 7.

Climate Change – Literature review

- Effect of temperature rise on water – chemical rxn rates double every 10 degrees C, gas solubility drops, , increase algae blooms, etc.

THM

- New data continues to support existing MAC

HAAcid

- Still going through review

Bromate

- Comments from consultation back -no change top MAC proposed, more guidance info added.

Natural Organic Mater

- Under peer review – hope to see document in October.

Copper

- Considering a new MAC, but most intake is from food and vitamins.
- Peer review this summer – expect draft in fall

PFOS/PFOA –

- Fire foam and similar products
- Beginning stage of drafting

First Nations water Act

- Regulation development stalled pending federal review of the Act

National Conference

- October 16, 17, 18 in Ottawa. Attend if you can.

DWLC Teleconference Meeting

February 2, 2017

Attendees:

VIHA – Lynne McGee

FNHA – Sylvia Struck

Interior – Ivor Norlin

VCH – Len Clarkson, James Lu

NHA – Raina Fumerton, Dave Tamblyn

MOH – Brenda Janke, Mike Zemanek, Dave Fishwick, Rosanna Breiddal, Alistair Stewart, Keri Laughlin, Rupert Benzon

PHO – Joanne Edwards

FH – Mark Zubel

MOE – Heather Granger

1. Past Action Items

- Yes - MOH to send Len Healthlink file request.
- Yes – Cyanobacteria sub-committee volunteer. See agenda
- No – Action Item: Lynne to send rainwater document with risk characterization of water to Dave Fishwick
- Yes – SWS Guidebook typos send to Keri
- Yes - MOH to share link again to Ministry of Education approach to sampling (sharepoint)

2. Agenda Items

MOH Updates:

Cyanobacteria - Rupert

- Rec water committee to act as working group for review of cyanobacteria guidelines
- Drinking water volunteers welcome to be part. Names put forward: IHA, Jen Jacobsen; NHA Neelam Hayer; VIHA, Rory Beise (to be confirmed); FNHA Sylvia will discuss name.

Lead in schools update – Dave/Joanne

- Redrafting communication to school boards based on feedback
- Waiting for feedback from BC CDC
- Raina – September goal would be helpful, as typical time for HA→school board communication to occur

Systems on federal lands - Dave

- Gap in DWO – how to approach federal land
- Sagarika of MOH considering legal context. Preliminary thoughts:
 - Situational – must consider facts of each case
 - Constitutional issue –expert opinion on constitution needed
 - Not “us vs.” them – both provincial and federal laws can apply to same land

- Mike – agreements between regulator necessary
- Long-term, MOH to draft material for DWO
- Action Item: MOH to share preliminary analysis with DWLC

Fire retardants - Keri

- Len has filled out healthlink file request form
- Waiting for informational material from FLNR and BC Wildfire
- Len – BCCDC reported to be reviewing risk assessment for fire retardants

3. Roundtable

PHO - Joanne

- Drafting response to Drinking Water decision
- Reviewing data for data requests
- Will be presenting on indicators to Regional Directors and EH Policy

MOE - Heather

- DW guideline changes related to recent land remediation and contaminated sites updates

FNHA – Sylvia

- Cleaning data for lead and copper testing
- Determining which systems affected by more stringent Manganese MAC
- Changes to reporting out procedures for water advisories. Will provide more details on affected community and system

VIHA - Lynne

- s.22
- Creating work plan for next few years
- Working on EHO training
- Addressing recommendations from Drinking Water report

VCH – Len Clarkson

- Working with FH to organize in-service training day for EHOs
- Developing core competencies for EHOs
- Completed lead report
- Working on mapping project with SFU to digitize water system data with GIS
- FH leading reassignment of data entry data fields to fit new indicators

FH - Mark

- DWO training day in February
- Busy trying to reach 100% inspection goal
- Working on Arsenic study update questionnaire
- New focus on PPH – considering how this will affect drinking water program

IHA - Ivor

- Completed Medical Officer report
 - Recommendations from report will guide program in future years
- Hullcar Aquifer – very busy. Working with other provincial agencies.

NHA – Raina/Dave

- Corrosive water, out of compliance– Kitimat: Going well. Prince Rupert: meeting next week.
- Creating Drinking Water report
- Data quality project- to inspect every system this summer
- Raina Question: Health authority jurisdiction on treaty land? Action Item: Sylvia to share info on pertinent legislation with Raina and Ivor.

MOH –

- No further updates.

Next DWLC Meeting: March 2, 9:00 am

DWLC Teleconference Meeting

March 2, 2017

Attendees:

VIHA – Lynne
FNHA – Sylvia
Interior – Ivor
VCH – Len, James
NHA – Raina
FH – Marc Zubel
MOE – Heather Granger
MOH – Mike, Dave, Rosanna, Alistair, Keri
PHO – Joanne
MHO – Roger

1. Past Action Items

Lynne to send MOH Rainwater Document

- Complete

MOH to share analysis of federal lands

- Still in progress
- Action item: Everyone: Please share with MOH: any examples of federal-HA agreements regarding division of enforcement

2. Agenda Items

BCWAA Conference – Interest in combining with in-person meeting? – Dave F.

- Action item: Dave will review conference schedule and dates and suggest possible in-person date and time

Groundwater section of DWPR – Alignment with new GWPR? - Len

- Action Item: Len to confirm if wording is out of alignment
- Updating GARP document is on Alistair's to-do list.

MOH Updates:

-Cyanobacteria – Dave F.

- First meeting held, shared issues. Second meeting is being set up.

-Lead – Dave.

- 2 weeks ago latest version of guidance document discussed at EHPAC
- New paper from BCCDC on risks to children's health from lead in drinking water in BC Daycares and Schools was presented at EHPAC as well. Messaging seems closely aligned with draft lead guidance document.
- HPB working with CCF branch to develop a one page handout for daycares

- Raina: Request to re-visit lead guidelines after one year of experience on the ground
- Latest draft and BCCDC docs can be obtained through EHPAC reps.
- Action Item: EHPAC deadline for comments March 3 on latest version. Comments and concerns should be directed through EHPAC Members.

-Airports – Dave F.

- Sagarika still gathering information

-Fire Retardants Health File - Keri

- Have submitted request for creation of new Healthfile – waiting to hear back
- MOE: will not be including fire retardants in drinking water update this year

3. **Roundtable**

NH – Raina:

- Met with Prince Rupert. Have draft of permit for review. Both Prince Rupert and Kitimat going in positive direction
- Cyanobacteria: Community forum in West Lake. Requesting timely monitoring and reporting and more health risk info.
- Dave T: Reviewing electronic data on water systems.

Interior – Ivor:

- MHO report. Tools and communication ready for end of May
- Lead: Screen sampling initiative – child care facilities in the Spring
- Question about operations of large systems: EHO asked about reclassification of water system, but not HA's role. MZ: EOCP looking into classification model, changes to classification based on complexity. Could ask Kalpna to give a presentation.

Regional Directors – Roger

s.22

Fraser Health – Marc

- Working on Arsenic follow-up survey. Action Item: Marc will share copy of report with DWLC
- Healthspace, updating forms for indicators
- Recent joint EHO training day hosted by VCH, FH also involved in organizing. FNHA participated
- Ivor: Hullcar Aquifer – wondering about comparison to Abbotsford-Sumas?
 - Marc: Before Water Protection Plan, have to try all other options. City task force with stakeholders, academics etc. Agricultural mitigation measures. Will take decades for nitrate levels to decrease. Hazard Abatement Order is one tool to consider for Hullcar.

VCH – Len

- Held 3rd EHO training day. Planning one more next year.
- Uploaded water chemistry and physical data to healthspace as a test. Next step engagement with private labs
- Struggle with shipment of water samples from Powell River. Increased costs. Decreased from 3 day to 2 day a week sampling. Rural systems very reliant on sampling due to lack of continuous monitoring. Looking for alternative solutions.

VIHA - Lynne

- Nitrate issue in Cobble Hill Aquifer. Composting facility applying to double compost, but no contact with ground. Other smaller producers have fewer controls
- SI Aggregates permit has been pulled as they did not post bond for potential contamination. Vacancies in Port Alberni, Courtenay

MOE: No update

Next DWLC Meeting: April 6, 9:00 am

DWLC Teleconference Meeting

May 4, 2017

Attendees:

VIHA – Lynne
Interior – Ivor
NHA – Dave T., Raina
MOH –Alistair, Rosanna, Mike, Brenda, Keri
PHO – Joanne
FH – Marc
FNHA - Sylvia
MHO –James, Paul
MOE - Heather
Regional Directors – Roger (left at 9:30)

1. Past Action Items

(From March) Share with MOH: any federal-HA agreements regarding division of enforcement.

-Marc – was absent at April meeting, but does not have any examples from FH on this

Marc to share arsenic report

-will likely receive report next week, will share at that time

Draft agenda for in-person meeting

-see agenda

2. Agenda Items

DWLC May 31st in-person meeting - MOH

- Joanne: Please come with feedback or changes you would like to see for PHO indicators
- Ivor and Roger likely attending. Sylvia unable to attend

Emergency Response document error? – Ivor

- Consensus that the “3 consecutive clean samples” should be 2, as in DWOG. Action item: Dave F. to update document

Site specific risk assessment, arsenic – Dave T.

- A tool to assess risk for sites where exposure is close to MAC—should sources be shut down if they exceed MAC?
- NH hoping for blessing on risk assessment tool by province, list of factors to consider in decision
- There is a new provincial health risk assessment group, coming up with a process to consider health risk in general, could look to them. Their timelines unclear at the moment

- Action Item: Dave T. to share draft policy on “Use of risk assessment for toxics in drinking water”

MOH updates

- Draft UV policy- Alistair: taken draft to former PHE council (now meets informally) for review. Currently reviewing their comments. Will produce another draft for their comment, then by end of summer share with DWLC for input
 - Mike Z.: With PHE disbanding, how should we be engaging with engineers?
 - Ivor: Suggests Mike email Roger with this question (Action Item).
- HealthlinkBC file on Nitrates: Keri. Thank you for your comments. Final comments by tomorrow please.

Lead testing in schools – Paul

- Discussion and questions re: this agenda item may be better informed after reading the Draft Guideline on Reducing Exposure to Lead through Drinking Water that was circulated by ADM during meeting today
- Two remaining questions to pose to group: 1) What has HAs experience been working with school district on lead? 2) Original Ministry of Education directive for sampling was at a frequency of every 3 years even in schools where initial tests do not indicate lead as a concern – will there be any change to directive?
- Joanne: Ministry of Education does not have expertise to decide who should test when, so blanket approach was taken. Agrees that frequency can be relaxed where no high risk
- Paul: ministry of Education should work with DWOs who can advise what sampling frequency should be
- James: instructions to independent schools vague
- Paul: mixed experiences with school districts. Variety of protocols used
- Ivor: In reaction mode. Trying to focus more on daycares, most vulnerable. School districts are behind in getting out strategy for schools
- FNHA: Different approach. EHOs sampled and HA provided funding
- Dave T.: In North very good uptake in schools. All school boards tested and taken action where necessary. Communication was confusing: multiple agencies sending information on protocols for testing

3. Roundtable

Interior – Ivor:

- MHO report. Tools and communication ready for end of May. Starting on implementation
- 2 large water systems in Okanagan trying to meet objectives without physical treatment. Going forward without HA support. Would like MOH input on if this meets objectives..or may consult 3rd party consultant for professional opinion.
- MZ: Happy to review document. There is guidance on flocculation. From policy standpoint, similar to log credits, but other system. Supports 3rd party opinion rather than MOH.
- Alistair: Not able to give opinion without further details. Not just an issue of potable water, also has policy implications. Need consistent approach across drinking water systems in

province. Need to determine best path forward for drinking water that is safe and systems that are financially sustainable.

NH – Raina

- Prince Rupert: have disregarded NH's requests to create legally binding timeline for compliance for system. Advice?
- Alistair: Excellent example of discussion needed at in-person meeting: review what is working and what is not re: permitting system, conditions, inspections and our relationships with stakeholders.
- Paul: highlights that we are still challenged with how to enforce. Also need to celebrate successes
- **Dave T.:** EHOs collecting baseline information for water systems. Completed section 29 investigation for contamination of a well. Report was not well received by the complainant. Also involved an abatement order through MOE, now being appealed under EAB, will likely require testimony on the section 29.

VCH – James N/A

FH – Marc

- Lead: Many independent schools asking for advice
- Recent request from associate in Quebec, Sandra Oms (sp?) on the evaluation in Surrey of mitigating lead in schools. She may be contacting others
- Will HAs be involved in Auditor General's report?
- Not sure of answer.

VIHA - Lynne

- Held MHO annual meeting to define 5 year work plan
- Ivor helped to set up discussion with NCCH re: health implication of cyanobacteria on irrigated crops

Paul:

- Drinking Water report. Received feedback from executive with minimal changes needed. Hoping to release to public by end of June

PHO – Joanne

- Data request for PHO 2016/2017 was due May 1. Please let her know when she can expect to receive data.

MOE – Heather N/A

Next DWLC Meeting: May 31, 8:30 am

1. Check-in & Attendance – Mike (MoH)

- Dan Byron (IH – covering for Ivor)
- Michael Wu (VCH – covering for Len)
- Paul Hasselback (VIHA)
- Roger Parsonage (Regional Directors, IHA)
- James Lu (MHO, VCH)
- Sylvia Struck (FNHA)
- Dave Tamblyn (NHA)
- Raina Fumerton (NHA)
- Marc Zobel (FHA)
- Dave Fishwick, Mike Zemanek, Alistair Stewart, Keri Laughlin (MoH)

Regrets

- Heather Granger (MoE)
- Joanne Edwards (PHO)
- Tin Tun (FHA)
- Brenda Janke, Rosanna Breiddal (MoH)

2. Approve past minutes and action items (May 31st, 2017) – All

- Motion to approve. Approved.

3. Operating Permits Project – Alistair (MoH)

Mike – New process recommended to develop Project charters for projects that DWLC takes on. This will help:

- Provide a structured approach;
- Provide project certainty and clear deliverables;
- List resources and key stakeholders; and
- Provide time and commitments, as well as sign off on commitment.

*Action Item: Rainwater harvesting project will be brought on next call (Rosanna/Dave)

Alistair – At last face-to-face meeting we spoke to the Operating permit document and that it will support an inspection protocol. Plan: Jurisdictional scan → Comments from working group → Draft to DWLC for comments.

***Action Items:**

1. Requesting input from DWLC today.

2. Will send out template from another jurisdiction as an example but important to note that this will not represent what B.C. version will look like.

3. Comments due back by July 21st end of day.

Questions:

James (VCH) – How far will we go with this? Concern: Very prescriptive and outcome-based. Create principles? Concern: A lot of time for HA's to give input, significant amount of time on behalf of HA's to implement.

Alistair (MoH) – Ultimately this will save time for everyone, especially the DWO. DWLC comments and review are important. This will be considered a "Living document" and will change over time, with the intention for it to be simplistic in nature. It's prepared for local govt's as a start.

Mike (MoH) – The idea behind project is to lay a foundation for the next phase of inspection protocol. We know some HA's have been struggling with existing protocol; however there should be a standard for accountability across the board. The 5 Managers will likely pull their staff in for resources and time. MoH is holding the pen on this.

Michael Wu (VCH) – Is the intention to use it for "standardization"? Some conditions need to be considered on a 'case-by-case basis'. This will take time and a lot of further discussions. Is there a problem with our current system?

Alistair (MoH) - I can put together a first draft for review for the working group.

James (VCH) – As a minimum, key concern from H.A's is that the "risk" of the project is it's too prescriptive, framework for legislation itself.

Roger (IHA) – Concern: This may be a statutory decision under the Act. Great care needs to be taken, that DWO cannot apply standard conditions. It sounds like a legal issue. Our support would be contingent on the Act. We don't want to duplicate language from legislation (re: terms of condition).

Dave (NH) – Application will take a lot of time. HA's already have a set of conditions, processes, electronic systems, etc. that will take time and money to change to new system/way of doing things.

Dan (IHA) – Would like to see examples from other jurisdictions.

Mike (MoH) – If we do nothing, there's a legal responsibility to uphold our processes. This way it will be a tool to reduce liability of DWO's. Currently, operating permits read "light". This project could provide more certainty.

James (VCH) - Risk the document will not meet needs, too prescriptive (*Action: Alistair will add this into charter). Field experience for issuing permits will be important.

Paul (VIHA) – Great idea. Look forward to participating.

Roger (IHA) – Standards to every permit puts us on shaky legal ground. Other tools to achieve same end? Different approach? If goal is to improve inspection process, there could be a better way.

Alistair (MoH) – This will ultimately reduce liability of MoH and HA's. We've seen a lot of inconsistency in all areas (i.e. flow, recordkeeping, etc.). I suggest we put something together to understand the benefits. We also need to look at the legislated framework to improve actions for people in the field.

Dave Tamblyn (NHA) – Making assumptions with the language in charter, with some HA's are already doing things differently. Cut down to 5 pages to keep things simple. 95% of systems in North are non-gov't small systems. NHA struggles with geography and landscape of systems, inspection is only one way of regulatory oversight.

Marc Zubel (FHA) – Want to look at/approach this in a simplified manner, simple is good.

Mike (MoH) – Next steps...*Action: 1) Talk with 5 water managers, 2) Two weeks to review charter (July 21st), need to time to feel comfortable with document, and 3) please email initial comments from today's meeting. Written comments by July 21st, 2017.

4. EOCP Compliance Project – Mike (MoH)

Mike (MoH) – At the face-to-face meeting last month (May 2017), Kalpna (EOCP) identified a number of water systems that were out of compliance with section 12 of the Regulation. EOCP doesn't have regulatory powers, only authority under the Society Act. Legal authority rests with the DWO's under the DWPA. Therefore, we need to work with HA's and EOCP to get operators more in compliance, and facilitate process + approach to certifying operators.

- There also needs to be more education around EOCP approach and classification systems, and overall transparency of the way they do business.
- There needs to be follow-up steps by DWO's to achieve compliance.
- As far as time/resources go, the charter may overstate time commitment.
- Kalpna is very open and willing to work with everyone on this.

James (VCH) – Do we need support from the Regional directors? Maybe we should ask managers for the time commitment piece.

Roger (IHA) – Charters are a good first step. Resource commitment: 1) Ask for endorsement from RD's; and 2) Propose each drinking water manager go back and have conversation internally with staff + RD committee to get direction.

Mike (MoH) – Agrees that RD needs to support staff involvement. Sign off would come from senior management.

Next RD meeting (September 2017); Next HA water meeting (November 2017).

Mike (MoH) – Next steps... *Action: 1) Talk with 5 water managers, 2) Two weeks to review charter (July 21st), need time to feel comfortable with document, and 3) please email initial comments from today's meeting. Written comments by July 21st, 2017.

5. Lead in Drinking Water – Dave Fishwick (MoH)

Dave (MoH) – We have incorporated comments into draft, now running it up the ladder for approval, and looking for direction on the need for broader consultation. Would like to get approved as “interim” until Health Canada releases their final guidance document. We think it will be a useful “tool kit” for best practices and consistency in application. We will update as soon as we know more.

Paul (VIHA) – Concern for how long this has dragged on, a lot of time + energy wasted. There was some lack of clarity in the Ministry of Education document, and there has been a lack of engagement from school districts. Re: time, needs to be clear guidance before school programs start up (late August 2017).

Dave (MoH) – Yes we want to an interim document that's out there. Material is going up to ADM before September.

6. Webinar Topic Ideas for Drinking Water – Mike (MoH)

Please send Esther Parker an email with further thoughts.

Michael Wu (VCH) - Earlier webinars this year were more interesting, maybe look at highest attendance ones and go from there.

Paul (VIHA) – They’ve been mostly on the “Science” side, maybe more regulatory actions based and interactions with systems for mitigation. Case studies?

Marc Zubel (FHA) – How do we manage complaints in Public Health? Webinars on complaint processes.

Sylvia (FNHA) – Will check and get back to the group.

Mike (MoH) – We will bring this item + ideas back on the next call.

7. Roundtable – All

Dave (NHA) – Current inspection blitz; Meeting with Kitimat and Prince Rupert on water treatment and corrosive issues; Preparing media release on algae; Participant on Cyanobacteria Provincial working group (Rupert Benzon).

Raina (NHA) – Nothing to add

Sylvia (FNHA) – Analyzing schools (256 sampled) for lead and copper; INAC and licensing cc’d on letter; FNHA will be producing a Drinking Water Report.

Dan (IHA) – Drinking water report released, received favorable media coverage throughout communities.

Roger (IHA) – Hullcar Aquifer – Detailed complaint came in from a community advocacy group, they have challenged the wording/language of the DWPA, and standard of forming an opinion of a DWO. My discussions with them made me think. Brian Emerson and I sought out legal counsel. Guidance (to be considered) for the DWOG, would like to put it forward and share with DWLC on SharePoint.

Roger (IHA) – Moving from regional director to another position in IHA. No decisions have been made yet as to replacement for me on DWLC.

Michael (VCH) - Pemberton corrosion project is being commissioned, we’re keeping an eye on it; Metro Vancouver prepared Emergency Response Plan for Water Systems. Metro Van is preparing an “ops document”, for how they will organize themselves in emergencies.

Marc (FHA) – Arsenic Report posted in announcements on SharePoint; Webinar on lead in Quebec schools; City of White Rock water issue, getting a lot of criticism. City received

complaints that were addressed at June 16th board meeting re: Manganese flushing and coloured water; White Rock treatment plant by 2019, currently researching on best treatment technology; Langley air emissions concerns, contaminate aquifer and drinking water; Challenge: when a water operator quits.

James (MHO) – No updates

Paul (VIHA) – MOH Report released; Auditor General scoping out projects, they're doing rounds in health authorities; 2/3rds of schools deal with all problems (Victoria + Nanaimo); Increasing algae in various surface water bodies in the region; Will send out list of AG requests (now on SharePoint); Other systems want to connect to Metro Van.

1. Check-in & Attendance – Mike (MoH)

- Ivor Norlin (IH)
- Len Clarkson (VCH)
- Rory Beise (VIHA for Lynne McGee), Paul Hasselback (VIHA), and Dr. Alex Choi (resident)
- Allan Torng (Regional Directors)
- Sylvia Struck (FNHA)
- Dave Tamblyn (NHA)
- Marc Zubel (FHA) with Binny Sivia (for presentation portion)
- MoH: Dave Fishwick, Tamara Mitchell, Mike Zemanek, Keri Laughlin, Rosanna Breiddal, Brenda Janke, Alistair Stewart, Rupert Benzon (MoH)
- Joanne Edwards (PHO)
- Heather Thompson (MoECC)
- Tin Tun (PHE)
- Paul Froese (Ontario)

Regrets

- James Lu (MHO, VCH)
- Lynne McGee (VIHA)
- Raina (NHA)

2. Presentation – Paul Froese, Ontario ministry of Environment and Climate Change

- Senior Policy and Program Specialist in the Drinking Water Management Division
- History and lessons learned from implementation of lead sampling in Ontario

3. Past action items – All

- Heather to ask if MOECC keeps database of reported cyanobacteria blooms
 - Do not have record of cyanobacteria calls. Reports forwarded directly to regional offices
 - Action Item: Heather/Cindy Meays to bring question to working group committee re: possibility of posting reported blooms on website

4. MOH updates

- Lead – Dave: Interim guidelines have been posted to the website http://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/waterquality/how-drinking-water-is-protected-in-bc/interim_guideline_on_reducing_exposure_to_lead_through_drinking_water_july_2017.pdf
- Wildfire HealthlinkBC file - Keri: If you have any more comments, please send by end of next week. Action Item: If no further comments, will send back to HealthlinkBC
- Rainwater Project Charter - Rosanna: Does anyone need more time to comment? No – Action Item: will review comment we did receive and re-draft for next DWLC meeting

s.13

- Cyanobacteria - Rupert: Anticipate new protocols going to EHPAC for decision. Anticipated final meeting for working group coming up, assuming no further issues arise.
- Operating Permit Project Charter – Alistair: Second version of project charter has been posted to SharePoint. Also posted example of permit based on Ontario permits to give an example of scope. Action Item: Please share any comments by email to Alistair.stewart@gov.bc.ca
- EOCP Project Charter – Action Item: Mike. Invite for meeting with Kalpna to go out today.

5. Roundtable – All

- PHO: Working on PHO report
- FNHA: 2016/2017
 - working on getting data to PHO for report
 - Completing lead/copper report
 - Wildfires ongoing issue
- MOE: No update
- NHA: No update
- IHA:
 - Wildfires
 - Working on MHO recommendations
 - Question to MoH: How is the review of systems in shared or overlapping federal/provincial jurisdiction going?
 - Dave: Still in progress. Not a simple answer - issue becoming more complex as we learn more.

- Question to FNHA: What is the status on First Nations Drinking Report?
 - Currently working on analysis, after encountering data glitch.
- FHA: No update
- VCH: No update
- VIHA:
 - Trying to standardize lead program.
 - MoH communications have been contacting health authority communications people rather than going through proper channels (DWLC reps should talk to each other if info needed)
 - PHO report data
- Regional Directors: No update.

Next meeting: October 5, 9:00 am.

Minutes, DWLC, October 5 2017

In Attendance:

Brenda Janke,
Joanne Edwards
Alistair Stewart
Michael Zemanek (joined partway through)
Tamara Mitchell
David Fishwick
Ivor Norlin
Dave Tamblyn
Len Clarkson
Rory Beise
Reza Afshari, BCCDC
Prabjit Barn
Tintun
Marc Zubel (joined partway through)
Sylvia Struck (joined partway through)

Presentation: Reza Afshari, BCCDC - Daycare manager knowledge and proposed testing protocol of lead in drinking water at FHA

- Questions/Comments:
 - Will this be published?
 - Why would there be a drop in lead concentration after 120 min stagnation?
 - Only one sample was over 10 ppb?

Past Action Items

- Web Reporting of Blooms – BF to next meeting as Heather not on call.
- Others – See agenda items in minutes

Ministry Updates:

- Wildfire Health Files
 - Comments incorporated, thank you
 - Next steps – To Send to HealthlinkBC for them to develop final version
- Rainwater Charter
 - Comments received on ideas for solutions/policy statements, but not on Charter.
 - Considering the charter as complete and ready to move forward
 - s.22
- Non-Potable
 - Building Code people would like to review language around building code before we finalize
 - We are awaiting response, then will move to finalize into DWO
- Permit Conditions
 - Project Charter – Were there further comments? – Len said he would have some, but not until next week or so.
- Airports/Federal land

- No one size fits all answers possible.
- Boundaries on a map are not necessarily an indicator of whether provincial vs. federal laws apply.
- Cooperation likely best solution in many cases
- Aeronautics has been established by courts to be area of federal jurisdiction
- Moving Forward – we will develop wording for DWOG and strategies for approaching fed-prov questions
- Comments back – Sometimes difficult to find federal agencies to engage with - may lead to gaps. Concerns about resource issues if provincial regulations apply on federal land. VCH also having questions about relationship with trains and YVR.
- Round table
 - NHA
 - Residential Lead sampling beginning in Prince Rupert and Kitimat Next year.
 - Interior Health
 - MHO Report , Large Water system and treatment options feature prominently.
 - FHA
 - No report
 - VCH
 - VIHA is new chair of HADWC
 - Developing VCH Protocol for how to count population?
 - James Lu webinar on lead in Schools
 - CIPHI Conference coming up November
 - Re-vamping Health Space for new PHO indicators
 - Water system mapping project
 - Water Chemistry data Import project –s.22
 - VIHA
 - VIHA Working on Rainwater Document – Will look into sharing
 - PHEs
 - Nothing To Report
 - FHNA
 - 2016/2017 report,
 - THMs,
 - CIPHI Conference coming up – Madjid/Reseau
 - PHO
 - Still Working on Report

CDW Summary – November 2017

General:

Discussion on subjects outside of guidelines:

1. Guidelines vs Guidance Documents – Subtle differences that are important to those provinces that refer to guidelines in legislation, but not Guidance Documents.
2. Sampling location – In light of issues such as lead and other metals, as well as Legionella – water quality at the tap vs at the curb-stop is a hot topic. Concerns about ability to access, resources, where responsibility ends etc.
3. CHMS Biomonitoring Studies – Report on testing of body burden of >250 chemicals. Among other things, Blood Lead in Canada continues to decline from 2007/9 (1.3ug/dL) to 2014/15 (0.95ug/dL). Currently the highest Risk factor appears to be Smoking. Elevated lead in home drinking water appears to be a marginally significant factor.
4. Sampling Integrity – would there be value in a summary document of sampling methods, similar to summary document of Macs/AOs?
5. CNPHI - 9/13 Jurisdictions participating (BC, Alta, Ont, Que don't). Data shows most BWNs are precautionary, only a few from E. Coli hits.
6. Infrastructure Canada funding proposed based on CHPHI BWA definition – but lack of consistency across Canada. May be Challenge for MMAH
7. Federal Bill C-326 – discussion on federally binding guidelines. Idea not supported by the group.

Parameters:

Pesticides:

- Many pesticides that are out of use/not used will be removed from GCDWQ as advice is too dated, and they should not be found anyways.
- They will have consultation prior to removal
- PMRA will still keep list of “Heath Reference Values” should an incident occur
- Status: List will be coming for consultation

Total Coliform:

- No Substantive change proposed, some additional info on opportunistic plumbing pathogens
- Will add appendix summarizing new literature reviewed
- Status: To be posted for public consultation

HPC

- To be revised to broaden for use as assessment tool.
- Status: early drafting stage

Enterococci:

- Guidance document underway – may be considered in addition to other Micro parameters, particularly for groundwater.
- It may be a better indicator of contamination in groundwater than e-coli.
- Study done in New Brunswick with well water. Would like to do one in BC too. Anyone interested?
- Status: Document ready for public consultation soon

QMRA

- Draft prepared, Ready for public consultation soon
- NOTE: QMRA Ohio state had develop an app that may be worth checking out
- Status: Public consultation coon

Other Microbial

- Rotavirus Protocol – for evaluating UV reactors - they would be interested in doing cost shared study
- Legionella: Should there be guidance? Not a DW Issues – a building issue, no validated dose-response relationship.
- Status: N/A

Copper:

- Also corrosion issue
- Status: Ready for public consultation soon

Chloramines

- No Direct measurements – Combined CL can be used as proxy, or the Endophenol method
- May be corrosion control implications
- No Health-Based MAC expected – to toxic critical end points due to taste aversion – guideline will be aesthetic. Should not impact disinfection decisions.
- Status: public consultation soon

NOM

- Measure of Source Water Quality – Helps plan treatment. Related to Biofilm, Corrosion.
- Guidance, not guideline doc proposed.
- May be a predictor of DBPs
- BUT, No specific number as it depends on reactivity of water.
- Used in EU jurisdictions as a predictor of biostability: Netherlands target AOC of 10ug/L
- Status: For Public Consultation soon

HAAs

- Discussion on expanding the number of HAAS to include
- Status – not really started yet

Cadmium

- Current MAC 5ug/L
- 90% of human exposure from food such as leafy green veggies
- Similar to Lead, this is a distribution problem –best measured at the tap.
- New value anticipated to be similar to old one
- Status: Still in early scoping stage

Barium

- MAC is Currently 1ug/L, MAC proposed to go up (become less stringent)
- Food is primary source
- Again it is better measured in DS (at tap)
- Status: Public consultation next

Lead

- Still lots of discussion on how to apply this in the real world
- Status: Committee pushing HC to move forward with asking for CHE approval

Other parameters nearing publication stage: Chromium, Bromate, Manganese, Cyanobacterial Toxins.

Radioactive parameters

- Radium, Uranium, Thorium and other decay products
- Radiation Protection Branch will be updating this section. Note that they don't like using a MAC in relation to radiation – as these are generally very low levels in comparison to background.
- Status: waiting from report from Radiation Branch.

DWLC Minutes - November 2nd, 2017

Attendance: Raina (NH), Ivor (IH), Marc (FH), Len (VCH), Lynne (VIHA), Paul (VIHA), Sylvia (FNHA), Heather (MoE), Dave T. (NH), Allan (NH), Brenda (MoH), Dave F. (MoH), Joanne (PHO), Keri (MoH).

Agenda

- Web reporting on Algae blooms: Heather spoke with Cindy Maize (Knowledge Management branch, MoE) to see what is realistic. It looks as though Cindy also sits on the Cyanobacteria task force group. She will report out at that group.
- Colilert/Remote level C Labs/emergency use: MoH has been talking with Natalie Prystajec at BCCDC. She is interested in moving this concept forward with EQWA, and will come and speak to DWLC at a meeting in the near future to talk about a project plan for flexible approval process to integrate simple testing. FNHA has also been in discussions with Natalie P. for isolated locations.

Roundtable

- **MoE** – Office moved to downtown Victoria
- **FNHA** – First Nations ‘Water Panel’ on Monday; THMs regular testing from remote communities; Not just ‘Colilert’, let’s use ‘Level C labs’.
- **VIHA** – Near to final draft of Rainwater Harvesting project and will share with MoH and DWLC.
- **VCH** – Set to Host CIPHI conference Wednesday Nov 8th event on drinking water (topics: source water, GARP, SWS, new Lab technology, U.V., removal of metals); Planning for February Drinking Water in-service; Emily Quinn (drought contact person); CHMC Federal lands (near Granville island) meeting re: permit.
- **FHA** – Nothing to report.
- **IHA** – Strategic plan and restructuring with new Director - Courtney Hesketh; Ivor’s role will now be more focused on ‘Drinking water’; What is the time line on Federal lands and airports non-emergency planning response? (***Action item: Dave will talk to Sagarika**).
- **NHA** – Cooperation with Kitimat, new engineer; City of Prince Rupert – a lot of work being done and they’re starting to recognize water issues, and work towards conditions on permit; A trailer park has not been providing water at all since their pump failed. They’re unable to deal with volume or force people to provide water. Joanne (PHO) – Have you looked into Mobile Home Act? Yes (NHA), we have connected with the residential tenancy branch. IHA has had similar case in interior where it was declared a health hazard. Discussions with Dr. Golmohammadi were helpful; Section 29 complaint + investigation under way, issued a pollution control order, then order was appealed and testified at EPA hearing. Waste was continuing into well, but pollution control order was addressing this. Next step would be to use the DWPA.
- **PHO** – Making headway on report; Email on ‘lead and daycares’ sent to Regional directors + Perry for discussion at EHPAC.
- **MoH** – s.22
s.22 New Wildfires health file sent to HealthLinkBC.

DWLC Minutes – December 7th, 2017

Attendance: Ivor (IH), Marc (FH), Lynne (Island Health), Erin (Island Health), Paul (Island Health), Sylvia (FNHA), Heather (MOECCS), Dave T. (NH), Allan (NH), Dave F. (MoH), Joanne (PHO), Alistair (MoH), Emily (MoH), Mike (MoH), Michael (VCH), Raina (NH)

Absent: Keri (MoH), Brenda (MoH), Len (VCH)

Agenda:

- **Drought:** Emily reported that there was a provincial drought debrief last week. As there was little precipitation over the summer, drought levels were almost as severe as 2015 and peaked in late September. Emily asked DWLC if it would like to continue receiving the one page report-outs that were posted on the SharePoint website every two weeks during the summer. Paul asked how the drought conditions affected the availability of drinking water in the Province. Joanne asked whether drought was being addressed adequately by water systems in emergency response plans. Emily said that there is talk about a drought survey this coming spring and that FLNRO is concerned about drinking water availability. Ivor noted that there are a lot of drinking water systems in the Interior that have Water Management Plans. Dave T. said that new source water approvals should not be issued unless there is a water use licence in place.
- **Enterococci:** Dave F. reported that the Health Canada F-T-P drinking water group is looking at enterococci as a groundwater quality indicator and that Health Canada is interested in working with a few drinking water systems in B.C. that have had periodic E. coli hits. (*Action item: Lynne said that she should be able to come up with a couple of drinking water system names.)
- **Federal-Territorial-Provincial Meeting:** Dave F. reported that details of the November F-T-P committee meeting have been posted to the DWLC SharePoint website. Dave F. noted that Health Canada is close to publishing new guidelines for manganese.

Dave T. stated that there will be a couple of hundred drinking water systems in Northern Region that exceed the specified MAC value. Raina noted that some of the data were considered controversial. Mike asked if Tom Kosatsky (BCCDC) should be invited to the next DWLC meeting. Dave F. noted that the MAC is based on the most vulnerable group. Dave T. asked if the MAC would apply to industrial camps where adults would be subject to short term exposure. Dave F. noted that if the concentration of manganese in drinking water were to approach the MAC value, there would probably be aesthetic issues like water discoloration or fixture staining.

Mike asked if there would be value in the PHEs looking at manganese treatment technologies. Michael said that such a question would need to be referred to Regional Directors. (*Action item: Dave to call Tom to see if BCCDC can come to DWLC meeting to discuss strategy to respond to manganese concerns from the public. Mike to send an email to Regional Directors requesting PHE group consider input on technology for manganese removal).

Sylvia asked why it has taken so long to produce new guidelines for manganese. Dave F. said that it takes about 5 years for Health Canada to review a parameter and then publish it.

Roundtable:

- **NHA** – Dave T. reported that Natalie at the BCCDC is looking for partners/funding to validate a new virus testing protocol. Testing would cost about \$1000/sample. Dave T. asked if the MOH would consider supporting this type of research. Dave T. mentioned that Natalie needs to raise \$50,000 to do the work and that the Genome BC would match the funding.

Issue of restaurants installing filtration systems as national corporate business continuity plans for BWNs, but no real process for evaluating if they are effective (i.e. McDonalds restaurants). General response was that this should be dealt with under food permits, not DWPA but DW regulators should be involved in reviewing. Do we need a statement to this effect in the DWOG? Is there a venue for raising this issue with McDonalds and others at a corporate level? **Action:** Dave to ask Daphne Sidaway-Wolfe (Food Program) if their program is the appropriate business area to manage the issue.

Lead Survey in Prince George being done. Found 30 second flush effective for places with water quality results greater than the DW guideline.

- **IHA** – Ivor reported that the Interior Health website is being redesigned to provide better access to drinking water advisory information. Ivor also reported that a consultant has been hired to look at treatment trains that have flocculation and settling processes but no filtration step prior to UV and chemical disinfection. Ivor asked about the status of the non-emergency communication strategy that is being developed. Dave F. said that the Ministry is working on it. Finally, IH is dealing with selenium issue in the coal mining area and asked whether the recommended guideline is documented somewhere. MoH staff confirmed the selenium guideline value is noted in the Drinking Water Officer's Guide.
- **FHA** – Marc reported that a EHO training day is being planned with VCH for February 2018 and Dr. Steve Hruddy will be giving a talk. Marc also commented that there was a joint meeting with Vancouver Coastal Health and Metro Vancouver to review emergency response planning.
- **VCH** – Michael reported that he had made a presentation at the recent CIPHI conference and that discussions were ongoing with CMHC regarding the issuance of an Operating Permit for Granville Island.
- **Island Health** – Lynne reported that Island Health has decided not to release its guide for rainwater harvesting because there were too many uncertainties with respect to water quality (how to clean, high e-coli counts in source water). Dave F. commented that he would like to see a copy of the work that has been done to date. **Action:** Lynne to send Dave a copy.

- **FNHA** – Sylvia reported that a joint meeting was held with INAC to discuss drinking water issues and housing issues. Sylvia commented that Health Canada is interested in real-time reporting of drinking water advisories.
- **MOECCS** – Heather reported that she will be away on maternity leave in the middle of February 2018. Heather noted that the head of groundwater will be retiring in January.
- **PHO** – Joanne reported that work on the PHO report is ongoing and that she hopes to have a draft report ready by the end of the fiscal year.
- **MHOs** - Paul asked about lead in schools. Paul noted that good cooperation had been received from public schools but that there not as many responders for independent schools. Paul asked if there is a collective approach that can be taken to encourage submission of lead testing results. Joanne said that an information request had been sent to the Ministry of Education and that the PHO was waiting for a response. (*Action item: Joanne said that she or Dave F. would follow-up on the request.)

Closing Remarks:

- Dave F. commented that the next meeting will be in the first week of January 2018.



Public Health Consequences of Lead in Drinking Water

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Drinking Water Leadership Council – February 2018 minutes

Attendance: Marc Zobel (FHA), Raina Fumerton (NHA), Dave Tamblyn (NHA), Len Clarkson (VCH), Dr. James Lu (MHO), Rory Beise (VIHA), Ivor Norlin (IHA), Heather Thompson (MoE), Keri Laughlin (MoH), Dave Fishwick (MoH), Mike Zemanek (MoH), Alistair Stewart (MoH), Joanne Edwards (PHO), Emily Quinn (MoH), Kelsey Ewart (MoH), Allan Torng (NHA -Regional Directors)

Regrets: Silvia Struck (FNHA), Tin Tun (FHA), Paul Hasselback (VIHA), Liam Edwards (MAH), Darrell Belanger (NHA)

Past Action Items

- Manganese – Mike was going to send an email to Regional Directors requesting that PHEs provide input to get PHE's onboard for information on the technologies available for removing health effects and messaging for treating manganese from drinking in water. MoH has decided to produce information internally and draft a review in house instead of engaging a 'larger' committee group.
- Restaurants and Drinking Water – Some restaurants were installing treatment systems in the hopes of addressing water quality advisories. MoH contacted food safety team → Restaurants to work with food team at health authority level. It will be brought forward to their agenda for next food team meeting.
- Some s.22 restaurants s.22 have begun the approval process under their food permitting process. *Action item: VIHA (Rory) to share draft with members of the Leadership Council.
- Rainwater Harvesting Project – MoH addressing staffing gaps before moving forward with project. VIHA document tabled until further notice. High bacterial counts in raw water levels have been problematic. *Action item: MOH to ask VIHA to share raw water level range/circumstance with MoH?
- Cyanobacteria document (next steps) – Comments were due back to Rupert by February 1st, 2018. If you have not done so already, please send any further comments to Rupert as soon as possible. If you need more information, please check the DWLC SharePoint site. *Next steps: MOH to revise document and distribute to local governments.
- Federal Jurisdiction question (RCMP, DFO) from IHA – MoH looking further into this question, as every circumstance seems to be unique. General principles to consider: General laws/legislation (e.g. Public Health Act) do apply on most land. Is there any reason to believe the DWPA would not apply? Are there other laws that concurrently apply? If so, who else may be providing oversight? Len (VCH) YVR deals with Health Canada, who does do 'some' sampling, but there is no formal/meaningful program in place for testing. *Action item: Dave will continue to discuss with legal and possibly have Sagarika come talk to DWLC at a future meeting.

Agenda items

- Drinking Water on Twitter and other social media platforms – MoH Health Protection Branch has been approached by MoH Marketing and Engagement branch to help with outreach on a variety of public health protection messaging (i.e. steps to improve water quality during an advisory). MoH would like health authorities to be involved and will connect with communication contacts in each health authority to see how to move forward in a mutually beneficial way. *Action item: Keri to gather communication contacts from each of the health authorities and connect with Kelsey Ewart (Marketing & Engagement).

Roundtable

- MoH – EOCP compliance project working group has prepared a draft document and will have a teleconference in 2 weeks. EOCP will also speak to online data system which just went live.
- Auditor General Audit plan (final draft) – Currently identifying lines of inquiry; HPB has met with auditors, with additional meetings to discuss legislative review portion of the audit; 3 key areas are: Leadership, planning, and reporting out. Also involves PHO office (e.g. role of reporting, action plan, and risks of action/inaction of other ministries). Q: Will the AG contact health authorities for interviews or info? A: They don't seek MoH advice on who they interview, but they have notified MOH that they will be interviewing stakeholders. We don't know when health authorities will be contacted.
- PHO – Joanne
 - Perry Kendall has retired. Bonnie Henry is now the new PHO, with a vacancy sitting for the Deputy PHO.
- FHA – Marc Zubel
 - Q: Update on drinking water system information? A: 4 of 5 regions have provided data for the system. Q: Could you send the drinking water information request to Rory (VIHA)? A: Yes; and next DWLC will give a live demo. *Action item: Alistair to send drinking water information request to Rory Beise at VIHA.
 - Q: Re: Lead testing results in independent schools, where do they send results to and instructions as to what to do? As well, what is MoEd doing with all the collected data? Are they publishing data? A (PHO): Public school data is being entered into tracking sheet at a higher level for reporting out. MoEd will keep going in the same direction → Mitigation continues to play out + messaging to parents.
 - EHO in-service workshop at the end of February.
 - Has anyone dealt with the development of 'carriage homes' as a 2 connection water system? A: This went through a UBCM process, but didn't go through. Health authorities can make decisions about processing. Lingering issue in legislation.
- IHA – Ivor Norlin
 - Preparing for annual CMHO report → development of interactive map, field testing and prototypes → Outreach and workshops for local Gov'ts (i.e. Fernie). --> Going through another IHA re-org. Drinking water systems manager is still Ivor Norlin.

- Hullcar – Some response to POLIS review and active movement on legislation side from AGRI and waste control. POLIS report → How to govern in regions? DWP in Comox can relate.
- Q: How to approach watershed governance? A: MOECCS steering committee to carry out objectives; IHA still unclear as to what the provincial government has committed to and what that means for IHA. MOECCS has been in contact with MoH re: last minute review. IHA engagement process → Made staff available for interviews and informed of reports release, but not involved in drafting the report. Legislative revisions were made almost 20 yrs. ago and implementation of DWP. New ADM will meet with MOECCS ADM + PHO. MoH needs to flush out some items.
- Draft MOECCS work plan commit deliverables. Aaron Miller (Corporate Director) is following up with MOECCS now to clarify. MHO's recommended to go back and involve them in the review.
- VCH – Len Clarkson
 - Q: EOCP benchmark for certification programs success → don't see much on disinfection in ABC criteria. Need more clarity. A: Organization is USA-based, but Canadian (i.e. EPCOR) is putting together criteria. Q: Answers by Kalpna. *Action item: Send Mike your list of areas (disinfection) that are missing.
 - Q: USEPA messaging on disinfection out of date.
 - Approach EOCP (Kalpna) to come give a talk at future DWLC meeting. EOCP development competencies for operators. Standardized testing + competencies are more than need to know ABC's.
 - February 23rd DWO training – 42 ppl. Dr. Rudy to present.
 - Budget – More \$\$\$. Undertaking phase 2 of GIS mapping of service areas and source capture zones.
 - No clear direction of policy interpretation from MoEd for lead in schools. School Reno's → Bottle filters with NSF filters, but not clear on what 'flushing' programs are taking place. Not great communication from public schools. Schools → HA → Inspections → School districts. No big plans for submissions from schools on lead mitigation.
 - Working with Metro Vancouver + FHA + province on Emergency Response supplies.
 - Drinking Water Safety Plan from MoH? Publicly advocating. Waiting for response from emails. MOH has been in contact with the Building and Safety Standards Branch of the Ministry of Municipal Affairs and Housing and we are still looking into this issue.
- s.22
 - Regulatory review of Agriculture waste – have submitted comments.
 - Q- Re: 2 connections, are you willing to share guideline to small service connections? A- Yes (IHA). *Action item: IHA to share guideline.
- VIHA – Rory Beise
 - Q: Has everyone implemented the GWPTO already? A: Yes (IHA, VCH, FHA, NHA).

- Q: Has anyone applied it to all existing systems (e.g. Big → small)? A (IHA): Yes, progressive method compliance. A (VCH): Yes, GARP webinar, some uncertainties but conservatively reactive. Moving forward on a priority basis. A (FHA): Mostly assessments of Small water systems. A (NHA): GARP assessments for risk-based methodologies of compliance for large systems are a priority.
 - NHA- Allan and Dave Tamblyn
 - Many in-house projects on lead occurring.
 - Developing a competency-based evaluation of new EHOs/DWOs.
 - Regional Directors – Allan
 - DWP left out of scope.
 - MHO's – N/A
 - MoE – Heather Thompson
- s.22

Summary – FTP CDW May 2018

- Corrosion Control Guidance revamp is a priority for CDW. Health Canada will look into having it dovetail better with revised Lead guideline
- Priorities – Prioritization process I being revamped. any chemical that are priorities for DWLC?
- Withdrawal of outdated pesticides – public consultation paper being prepared for posting proposing to withdraw 19 chemical substances, including 15 pesticides: azinphos-methyl, bromoxynil, carbaryl, carbofuran, chlorpyrifos, diazinon, diclofop-methyl, diuron, metolachlor, paraquat, phorate, picloram, simazine, terbufos, and trifluralin. 1,2-dichlorobenzene, 2,4-dichlorophenol, 2,3,4,6-tetrachlorophenol and monochlorobenzene.
These were identified as no longer meeting the criteria for drinking water guideline development. However, in the event that any of these contaminants are detected in a drinking water supply, mechanisms are in place for Health Canada to provide up-to-date guidance to federal departments, provinces or territories to help address a specific need or situation.
- Health-based Reference Values – HC has this for many chemicals that were developed in response to a specific spill or event. These were not published. The Group asked if it is possible to share the list of what has been developed – HC has not answered yet.
- Virus – More clarification asked for Adenovirus/Rotavirus question to be put in the document. CDW approval given.
- E-coli – To be updated to include more info on holding/transport time, otherwise no substantial changes expected.
- Heterotrophic Plate Counts (HPC) – in problem formulation stage - for distribution system integrity rather than health issues
- Cadmium – Ready for public consultation.
- Uranium: Public Consultation completed, changes made, ready for final approval.
- PFNA – Screening value developed – not a MAC
- 2-4-D- - Low prevalence Ready for Public Consultation
- Protozoa – Will go to finalize
- Disc – 2018 – reviewing the act directly with assembly of first nations.
- Aluminum – Draft for fall 2018. Aluminum is used as coagulant, so may be challenging document.
- Brief discussion on micro plastic – but little depth of scientific knowledge at moment but seems like it may be the next big thing.
- HC looking at developing paper on sampling integrity.
- DISC – 2017- Assembly of First Nations passed resolution calling for the act to be repealed, and asked the review process to be terminated, and asked the feds to work directly with FN on the act. Assembly if FN now taking lead with support of DISC, Option being to amend the Act, Repeal and replace, or other FN led framework.
- I was nominated as vice chair
- Next Meeting November.

Drinking Water Leadership Council

Minutes – June 7th, 2018

Attendance

VIHA – Paul Hasselback
NHA – Doug Quibell
NHA – Raina Fumerton
FHA – Marc Zubel
VCH – Len Clarkson
FNHA – Sylvia Struck
Regional Directors – Courtney Hesketh
IHA – Ivor Norlin
MOH – Mike Zemanek, Alistair Stewart, Manish Om Prakash
PHO – Joanne Edwards

Past Action Items

1. **Go-To Meeting** – No updates. Will continue to look at other options.
2. **WSRMP Vision Document** – Vision Document has been posted on SharePoint
3. **Communications Document** – Defer to next meetings.^{s.22}
4. **Federal Issues Scoping Paper** – Defer to next meetings.^{s.22} Sylvia commented that she would like to provide comments to Keri.
5. **Point of Use Testing** – Joanne has not received any recommendations for a contractor. Sylvia commented that she will meet with the BCCDC.
6. **EOCP Compliance Project** – Teleconference was held with the Health Authority Drinking Water Council on May 11th to discuss some of the issues that have been raised.
7. **Operating Permit Template Enhancement Project** – The draft Project Charter was discussed with the Drinking Water Council during the May 11th teleconference.
8. **Northern Health Membership on DWLC** – Membership is still being discussed. Will either be Doug Quibell or Shane Wadden.
9. **Drought Working Group Committee** – Joanne asked DWLC members if they were happy with the process that was used last year. Hearing nothing to the contrary, Joanne proposed that the same process be used for the current year.
10. **DWO Competency and Assessment Program** – Document posted to DWLC SharePoint website.

Agenda Items

1. **DWLC Terms of Reference** -s.13

s.13

2. **EOCP Compliance Project** – The EOCP Compliance Process is now called the Environmental Operators Certification Program (EOCP) and B.C. Health Authorities Communication Process. Mike noted that a working group was established in 2017 and terms of reference were developed to ensure that EOCP work is aligned with DWPA legislative requirements. The document outlines the roles and responsibilities of EOCP, HAs and the water suppliers. The proposed screening process will help EOCP refine its list non-compliant drinking water systems to identify cases relevant to the HAs (i.e., falls under HA’s jurisdiction, are not small water systems, etc.) A draft copy of the document has been posted on the DWLC SharePoint website and HLTH is seeking any further input from DWLC. In the meantime, HLTH will continue to work with EOCP to refine the list of systems out of

compliance, as the initial list brought forward by EOCP identified systems that were either outside of provincial jurisdiction and small water systems that don't require operators.

***Action Item: DWLC requested to provide input on the document to Mike.**

- Manish commented that EOCP has developed a Customer Relationship Management (CRM) website tool. Users can access the EOCP database to check all stored information about facilities and operators including facility classification and the certification level of drinking water system operators.
- Marc noted that whilst the EOCP does not have legally binding authority over water suppliers, there may be an option under DWPA to delegate authority to the EOCP if required.
- Ivor commented that he will send copies of the draft screening process to his team members for review and comment.
- Ivor inquired as to the sign-off process for the draft document. Mike indicated that it should go to EHPAC as a recommendation and buy-in. Regarding the distribution of the document, Mike confirmed that the document was for internal use by HLTH, HAs and EOCP only and will be posted on the DWLC SharePoint website.

3. **Operating Permit Template Enhancement Project** – Alistair commented that there seems to be a lot of angst around the draft Project Charter. He explained that the intent of the project is not for Health Authorities to abandon their existing business processes but to look for opportunities where small changes can be made to the existing operating permit template to add value. The Operating Permit is not just a compliance tool but can also be used as a communication tool that can facilitate openness, public transparency and consistency. Alistair suggested that relatively simple changes could be used to tie program areas together and build a more robust drinking water program. He suggested by way of example that a high level description of the drinking water system could be included in the permit document along with a process flowchart/schematic and table listing pathogen log reduction requirements based on source water type and the credits assigned based on the treatment processes used. By making these simple changes for the smaller number of local government systems, it would support other program areas like the ongoing development of a centralized database and the development of performance indicators and performance measures by PHO and HLTH.

- Paul fully supports the project and noted that it needs to be done and enquired about the start date for the project. Ivor asked why haven't there been any meetings.
- Marc commented that Fraser Health is good to go.
- Len stated that he has concerns, but his concerns should not preclude starting the project.
- Mike commented that HLTH has heard reservations about the project and that it is seeking support from higher levels as a means to align business processes. Mike noted that the ministry is going to table the draft Project Charter with EHPAC and have it signed off at a senior level.

- Ivor said that he thought that it had already been signed off by the Regional Directors and he asked Courtney to look into it.
- Mike noted that an enhanced operating permit is also tied to the development of a common inspection protocol which is mentioned in the Health Authority mandate letters.
- Ivor commented on the 21 page operating permit that was included with the draft Project Charter as an example for discussion. Alistair explained that the intent was never to adopt the example but to show the different types of things that could be contained in a permit document. Alistair said that HLTH is fully aware of the resource constraints faced by the Health Authorities and that the intent would be to phase in agreed to changes over a prolonged period of time.
- Raina said that the Operating Permit template enhancement should not be tied to the development of a standardized inspection process but it will be great to have a conversation on opportunities for moving forward. She asked where the mandate letter requirement came from. Mike responded that the mandate letters came from the Minister and that he does not know where the drinking water inspection requirement came from.

***Action Item: HLTH will table the Operating Permit project at the June 25th EHPAC face-to-face meeting, seek further guidance for proceeding with the project and report back at the next DWLC meeting.**

Roundtable

FNHA – Sylvia Struck

- Working on lead and copper sampling
- Small water system summit on June 20th

NHA – Doug Quibell

- Looking for PHE replacement
- Draft delegation process for new DWOs
- Blue-green algae season

NHA – Raina Fumerton

s.22

IHA – Ivor Norlin

- New drinking water website for IHA is now live
- Associated Engineering study on new alternative treatment is almost ready – flocculation without filtration. Will share report when it is ready.

PHO – Joanne Edwards

- Updated group on data request for 2017/18.

Drinking Water Leadership Council

Minutes – July 5th, 2018

Attendance

VIHA – Paul Hasselback
NHA – Raina Fumerton
NHA – Jennifer Wheeler
NHA – Rachael Thom
NHA – Shane Wadden
FHA – Marc Zubel
VCH – Len Clarkson
IHA – Courtney Hesketh
IHA – Ivor Norlin
MOH – Mike Zemanek, Alistair Stewart, Manish Om Prakash, David Fishwick, Keri Laughlin, Geneen Russo
PHO – Joanne Edwards
HAPHEC – Marianne Crowe
MHO – James Lu

Past Action Items

1. **HAPHEC Representation** – Tin Tun is stepping down from the DWLC. Wayne Radomske will be the new HAPHEC representative.
2. **DWLC Terms of Reference** -s.13
s.13
3. **EOCP Compliance Project** – HLTH has received comments on the draft document.
4. **Operating Permit Project** – Project status will be discussed during today's meeting.

Agenda Items

1. **DWLC Terms of Reference** – s.13
s.13

2. Federal-Provincial-Territorial Committee on Drinking Water (FPT CDW) – Dave commented that the highlights of the FPT CDW meeting in May have been posted to the DWLC SharePoint website.

- Dave noted that:
 - Lead guidelines are still waiting for approval and that corrosion control guidance will need to be revised.
 - Outdated pesticide guidelines are being withdrawn for pesticides that have never been detected in drinking water or that are no longer manufactured.
 - First Nation communities would like to see the ‘Safe Drinking Water for First Nations Act’ repealed.
 - Dave is now the vice chair of the FPT CDW.

3. Hullcar Aquifer

- Ivor commented that as part of the Hullcar Action Plan, hazards are being assessed including the potential hazards from endocrine disruptors. Ivor asked if Health Canada could provide support if they need something. Mike commented that HLTH has risk assessors working on it.

4. Cyanotoxins and Algae Blooms

- Paul asked about cyanotoxins and algae blooms. Paul commented that non-cyanotoxin producing algae blooms are becoming more prevalent but we don't know much about them. Paul noted that a couple of filtration treatment processes have been compromised as a result. Taste and Odour complaints also issues independent of cyanotoxin presence
- Mike suggested that Paul should send a note to the DWLC asking council members about their experience with this issue. Dave commented that it is a treatment process issue and the question is how to address unknown risks?
- Paul commented that we should look at a hazard assessment given the increasing number of events. Guidelines should not just be health based but also aesthetic.
- Geneen noted that the issue needs further discussion and that Alberta has quite an extensive program.

*Action Item: Dave will reach out to his contacts at CDW to see if they have similar experiences and will come back to the DWLC with a response.

5. Operating Permit Template Enhancement Project – Alistair commented that HPB presented the draft project charter to EHPAC for support and sign-off. DWLC concerns with respect to the need for the project and potential resource implications were conveyed to EHPAC. Two options were presented to EHPAC: approval of the draft project charter versus maintaining status quo. A third option was agreed to by EHPAC which requires modifications be made to the draft charter.

- EHPAC did not like the use of the word 'enhancement' so the project will now be called the 'Operating Permit Review Project'.
- The project will be broader in scope and will look at how Operating Permits are issued and the types of things that should be included in a Permit.
- The project will focus on opportunities for improvement with respect to consistency and efficiency. It will also inventory what is currently being done, identify areas of commonality and a desired future state with options for achieving it.

6. Residual Chlorine in Distribution Systems

- Raina commented that Dave Tamblyn has raised concerns that the 0.2 mg/L target range concentration for free chlorine at distribution system end points in the B.C. guidelines is inadequate and should be reconsidered.
- Mike commented that it is difficult to respond to Dave's concerns without seeing something in writing. Geneen suggested that the DWLC needs to see the justification/technical rationale for raising the target range concentration.
- Raina commented that current research suggests that the level should be ten times greater than what it currently is.
- Dave Fishwick noted that there will be a webinar on this topic in the fall.

*Action Item: Raina will raise the issue with the HAPHEC and if further consideration is merited. If it is, HAPHEC will bring the issue to the DWLC.

7. POE/POU for BWN

- Raina commented that for restaurants where there are recurrent boil water notices, the use of POU filtration devices may be insufficient depending upon the advisory type.
- Dave noted that this issue was referred to the food group and that it is a food issue.
- Shane commented that in s.22, the restaurant provided drinking water to its customers throughout a boil water notice and given the treatment processes being used, s.22 would not have received any log reduction credits for pathogen reduction. Shane noted that because there was a boil water notice in place, it was now a drinking water issue.
- Dave noted that food premises are controlled through their food permits.
- Raina commented that she is not sure how spread-out the issue is.
- Dave commented that the role of the food inspector is to ask what you are doing during a boil water advisory.
- Joanne noted that bottle depots are considered food and it is definitely a food issue.
- Courtney commented that Interior Health has tried many different methods including guidance documents. Courtney noted that if you do not have a pre-approved POE/POU from a EHO, then you are automatically on a boil water advisory.
- Ivor commented that the biggest challenges are care facilities and hospitals.
- Geneen said that there needs to be informational support for food inspectors

*Action Item: Ivor will send links to the Interior Health guidance documents on POE/POU for BWNs.

*Action Item: Dave will touch base with Daphne to see if there has been any further movement on this in food program.

8. PHO Report

- Joanne commented that stakeholder consultation on the draft PHO report will begin in August with a two week stakeholder review period. Joanne indicated that the goal is to release the PHO report this September.
- Joanne noted that there will be an extensive distribution list for consultation purposes.

Roundtable

NHA – Raina Fumerton

s.22

- Raina discussed the importance of the Inter-ministerial roundtable/working group that Northern Health is part of and some of the challenges that the group has been facing. The group was established pursuant to one of the recommendations in the 2009 auditor report.
- Joanne noted that the PHO report will discuss the status of the regional teams and the challenges that are being faced.

Regional Directors – Courtney Hesketh

- Courtney discussed the provincial business process consistency project for food and drinking water and the far reaching scope of the project. Courtney hopes that the Operating Permit Review Project will facilitate consistency among the Health Authorities.

IHA – Ivor Norlin

- Ivor commented that the Associated Engineering report on 'Clarification and Disinfection for Okanagan Valley Unfiltered Drinking Water Systems' should be ready by Friday.
- Ivor noted that the regional team no longer exists in the Southern Interior and that with limited resources and no mandate the team stopped meeting.
- s.13
- Ivor commented that by comparison, the Hullcar Aquifer response plan is tangible, has political clout and is a process that can be replicated elsewhere.

IHA – Marianne Crowe

- Marianne reported that the HAPHEC has been working on draft interim guidelines on the use of rubberized surfaces for pool decks and spray parks.

Minutes

DWLC, September 6, 2018 9:00am-11:00am

In attendance:

David Fishwick
Geneen Russo
Michael Zemanek
Rory Beise
Sylvia Struck

Shane Wadden
Rakel Kling
Ivor Norlin
Courtney Hesketh
Marc Zobel

Len Clarkson
Lynne Magee
Paul Hasselback
Joanne Edwards

Past Action Items

- s.13
- Cyanotoxins/Algae – See – Agenda item below
- Residual Chlorine – Looking for response from PHE – BF to next call as Wayne is away.
- POE/POU in restaurants – Dave spoke with Daphne who suggested that DWLC put together a message and she can ask that it be distributed to BC Restaurant and Food Services Association.
Action- Lynne will forward messaging that VIHA has used in the past as a starting point.

Agenda Items

1. Algae blooms that are not microcystin positive (Paul).
 - Some sources have algae blooms but not necessarily health hazard by definition of the Cyanobacteria guidelines. Instead aesthetic problems, taste/odor are issues, but aren't so bad that people have a "gross out" aversion to it.
 - May consider that DBP by-product precursors (i.e. DOC) may lead to issues.
 - Messaging for these situations is challenging.
 - Dave has raised the aesthetic concerns to Health Canada, but it may be some time before this gets to the top of their guideline agenda, if at all.
 - Actions: Marc Z will touch base with Tim Mallard on Hatzic Lake update, Paul and Dave will touch base to further articulate the issue we are trying to solve, MOH to look into whether BCCDC may be able to do some work, and look to see if Alberta may have helpful info.
2. AE report on non-conventional log credits (Ivor)
 - Ivor thanks everyone for their input.

- Ivor will consolidate and consider comments, put forth a package for Dr. Trevor Corneil's consideration.
 - Action - Feel free to continue to send him comments.
3. PHO Report (Joanne)
- She is still working on wrapping up the report and will let everyone know when it is ready for review (2-3 week window), probably September or October. Special arrangements may be made if that timeframe is challenging.
4. Lead in Daycares
- Environmental Health Policy Advisory Committee (EHPAC) requested a task group form to develop a decision/options paper for EHPAC with a primary aim to clarify water sampling requirements in daycare facilities.
 - Membership to include Joanne and Courtney (cochairs), Dave, and a representatives for Licensing Officers, Regional DWO rep., licencing policy analyst at MoH, FNHA, Min Children and Families, Min Education, BCCDC.
 - Action – DWLC members to consider who should be a DWO rep from DWLC.
 - Len/Paul suggested it would be helpful if Min of Ed revisited their policy (frequency, locations, communication, path forward)
5. Presentation – overview of proposed Non-Potable and Rainwater guidance- Rory
- Ivor – please look with an eye to possible inconsistency with rec water guidelines – if it is OK to swim in, shouldn't it be OK to wash hands in?
 - Legionella concerns – probably limited to hot water/showering situations
 - Paul – Dissolved Chemicals – Look to Certification of collection/contact materials
 - Other risks – Paper will discuss risk assessment/mitigation of local contaminants.

Roundtable

- NHA (Shane)
 - i. L&M Engineering helping with approval backlog until Public Health Engineer position filled
 - ii. Reviewing delegation process.
- IHA (Ivor)
 - i. Hullcar – looking for MoE update on status of approval of action plan, Steel Springs improvements underway. Deeper well installed and water quality is promising; construction permit has been issued.
 - ii. First Nations communities – increase in focus from IHA. e.g. Nicola Valley pilot project
- VCH (Len)
 - i. Still owes Keri comments on federal jurisdiction document
 - ii. Media Questions on lead in daycares
 - iii. Need to get information to Joanne for PHO drinking water report.
- Fraser (Marc)
 - i. Developing inventory of systems that will be above new MAC for manganese when it is released

- VIHA (Lynne)
 - i. Roof runoff requests still a hot topic.
- FNHA (Sylvia)
 - i. Metals survey: Manganese –there are quite a number of systems that will be greater than the proposed MAC expected; lead and copper in anticipation of new Copper MAC as well.
 - ii. Looking into areas impacted by forest fires.
 - iii. Working with ISC on reducing long term BWNs by March 2021
- Regional Directors (Courtney)
 - i. Directors are currently looking at how to address the Minister’s mandate letter to co-ordinate business and inspection processes. Food area is further along, but they are at a more preliminary stage with drinking water.
- PHO (Joanne) – See agenda item.
- MHOs (Paul, Rakel)
 - i. Fire hazard has delayed installation of filtration in Ladysmith.
 - ii. Cyanobacteria – indirect recreational exposure is not covered in new guideline e.g. Rowing, boating etc.)
- MoH (Mike)
 - i. MoE is planning public consultation on Organic Matter Recycling Regulation intentions paper in near future. Consultation period will be over a 60 day period. We will notify DWLC members when the intentions paper is posted.
 - ii. Auditor General – Will be giving briefing on preliminary findings on October 4th. Therefore next DWLC will be cancelled and the next meeting with be in November.

FTP CDW Nov 2018
One-pager summary

Lead/Manganese – P/Ts looking for Q/As prior to release. Provinces all looking for support

HPC – Measure of Biostability, but there are probably better measures – ATP

QMRA – OHIO website is a good tool. Possibility of webinar to explain how it can be used.

Cyanobacteria – Rec water guidelines will be reviewed (by fed rec water group)

Research Group – “Whole water bioassays” are a possible alternative to sampling all parameters, more info to be developed. Metals pilot survey – HC looking at doing 120 samples across the country. (Further info to come)

Radon – Study in Chelsea Que. DW may be a significant contributor to radon in indoor air, especially in bathrooms, laundry etc. as it off-gasses from water. Can be easily treated by adding a bubbler external to the house.

Radiological parameters – Reviewing their document (they are a separate group) MAC may not be appropriate term, so they may develop a new one.

Strontium - (Chemical perspective not radiological). Most discussion around release of scale deposits in distribution systems and how to account for this as they are periodic, not constant.

Copper – Mac of 2 mg/L proposed. Will cover both acute GI, and long term liver/kidney. AO proposed at 1.0mg/L – which is taste threshold for 79% of population. Note copper concern is new pipes vs lead which is old pipes.

Glyphosate – Postponing pending outcome of US lawsuits. Old value is very conservative.

Boron – MAC to drop from 5mg/L to 2.5 mg/L – what impact will this have?

Aluminum –Operational Guidance value proposed to drop from 0.2 mg/L to 0.050mg/L, plus new MAC of 2.9 mg/L. Will this Impact conventional treatment systems? What about IHA proposal for clarification without filtration? Water quality changes may trigger periodic releases of this and other metals

Fluoride – Materials available through Malcom Williams (MOH) or cadth.ca website.

Acrylamide: Doc planned for CDW review in spring 2019, but not widely found in DW analysis to date.

Microplastics (<5mm in size) May be vectors for pathogens. WHO paper to be published in 2019.

Arsenic – Scoping next spring – HC will be looking for data

SDWFNA – Act is being reviewed with assembly of First Nations, possibly towards full repeal. They will lead engagement on Act. Regs to begin development in 2020.

Drinking Water Leadership Council

Meeting Minutes– November 1st, 2018

Attendees: Shane Wadden (NHA), Ivor Norlin (IHA), Courtney Hesketh (Regional Directors), Len Clarkson (VCH), James Lu + Rakel Kling (MHO), Rory Beise (VIHA), Marc Zubel (FHA), Wayne Radomske + Marianne Crowe (HAPHEC), Joanne Edwards (PHO), Heather Thompson (MoE), Brian Bedford (MAH), Harshan Radhakrishnan (EGBC), Mark Bolton (Golder Associates), Keri Laughlin + Geneen Russo + Alistair Stewart + Dave Fishwick + Rosanna Breiddal + Mike Zemanek + Manish Om Prakash (MoH).

Past Action Items:

1. Lynne sent VIHA position on restaurants with treatment – no response from BC Restaurant Association on request to have a blurb in newsletter. Reminder sent (Dave).
2. Marc to touch base with Tim Millard on Hatzec Lake (No update).
3. Associated Engineering Report on clarification without filtration – Send Ivor comments on report. Will address report in roundtable discussion later on in the teleconference.
4. Joanne requested representatives for “Lead in daycares” – Len will speak to it during the roundtable discussion.

GARP Professional Practice Guideline Presentation (Harshan Radhakrishnan and Mark Bolton)

- Mike noted that 3 weeks ago MOH received draft professional practice guidelines from EGBC on the assessment of groundwater at risk of containing pathogens. EGBC is looking for feedback on the draft guidelines. Comments should be sent to Alistair by Nov 20th. Alistair will compile all of the comments and forward them to EGBC for further consideration.
- Harshan and Mark gave an overview of the guideline and the reasons for it.
- The goal of the professional practice guidelines is to provide a standard of practice (establish standards). The guidelines are not prescriptive but establish what the professional standard of practice should be.
- The guidelines apply to EGBC members involved in the assessment of GARP sources. Not technical guidelines.
- The guidelines set out:
 - Roles and responsibilities (e.g. client, engineer of record, approving authority)
 - Professional practice considerations (e.g. what steps need to be followed)
 - Quality management
 - Qualifications of members (e.g. education, training and experience)
- Five workshops were held on the draft guidelines.
* Action: Comments should be sent to Alistair by Nov 20th. MoH will provide consolidated comments to EGBC by November 30th.

- **Q:** Different responsibilities (DWO's and qualified professionals). Are DWO's still making the GARP call/decision? If so, is this seen as challenging the opinion of the qualified professional?
A: The DWO is ultimately the deciding authority. DWO has authority under the DWPA to make the decision. The assessment conducted under the GARP guidance document informs the decision. The professional practice guidelines set out: the process that should be followed; the expectations of the qualified professional when they become engaged in an assessment; accountabilities and responsibilities; and the expected standard of care.
- **Q:** What is the expectation of the qualified professional when reviewing a very limited dataset? What tools are available to describe the level of certainty?
A: The assumptions and limitations of the work; the line of evidence and uncertainty around the information; and continued monitoring recommendations. The qualified professional should speak to what they know and what they don't know. Can never provide a definitive answer but can increase confidence in the determination.

PHO Updates (Joanne)

- Sent out an initial draft of the PHO report to stakeholder for critical error review. Comment deadline was October 31st.
- Lead in daycares was taken to EHPAC for discussion. A 'Policy Direction for Daycares' task group has been formed (Joanne and Courtney are co-chairs). Terms of reference have been established and task group membership determined. Len will represent the health authorities from the DWLC.
- Task group members include Sylvia Struck (FNHA), Sue Bedford (Licensing), Shelley McClure (Licensing), a representative from MCFD, Anne Marie Nichol (BCCDC), Dave Fishwick (MoH) and Len Clarkson (health authorities on DWLC).
- The first meeting of the task group will be next week. Dave Tamblyn will sit in on behalf of Sylvia.
- The task group will review: 1) Policy direction around sampling, 2) Data discrepancies and inconsistencies and 3) Reporting lessons learned from schools.
- The goal of the task group is identify the options that are available, the critical resources required, and a preferred option. Recommendations will be made to EHPAC.

Roundtable

- **NHA (Shane):** Nothing to report.
- **IHA (Ivor):**
 - Hullcar Aquifer response – Uncertainties around the expectations over the next few weeks. 1) Improvement of the Steele Springs drinking water system; 2) Hullcar Aquifer Response Plan – has the draft plan been endorsed, have the deliverable timelines been updated; 3) Outstanding "Orders of Compliance" – MoE intends to remove orders on farming operations and no longer review agriculture nutrient management practices and technical assessments. Need support of other ministries, cannot just rely on consultant reports. Reasonable to expect that nutrient management plans will be in

place with proper level of oversight. MOH – Cannot assign staff until plan has been endorsed. Timelines have been pushed back.

- Clarification without filtration project – Potential policy implications ... Do we need a policy statement or guideline? List of performance monitoring indicators. Working with Vernon towards specific indicators. No development of IHA policy moving forward. Will send a message to the Ministry on clarification when reviewing/updating guidance documents.
- Break-in at reservoir in Trail – Locks had been cut. IHA followed ER Protocol and issued a water advisory (used Health Canada avoidance guidance document). BC doesn't have clarity in protocol. Trail Emergency Response Plan - getting the RCMP involved early was helpful. Helpful to have information on the type of ER scenario (e.g. stealing tools vs. terrorism of water source/supply). Do we need a protocol in B.C. so that we have similar responses across the Province? The biggest risk could be terrorism.
- Provincial Spill Response Working Group – EERO – Jen Jacobsen – Leadership to come from health authorities. MoE (lead Ministry). Initial phase will be reaching out. Direction to Jen to look at including "intentional spills". Action – Courtenay to give future update.
- **VCH (Len): s.22**
s.22
 - Organic Matter Recycling Regulation review – feedback by Nov 8th
 - Federal jurisdiction scoping review comments to Keri have been delayed, waiting for approval. Some sensitivity around the VCH-YVR Airport relationship.
 - Phase 2 of the GIS mapping project – two thirds of the drinking water systems have been surveyed. Completion date is early in the New Year.
- **VIHA (Rory)** – Nothing to report
- **FHA (Marc)** – Nothing to report
- **Regional Directors (Courtney)** – Feedback on draft project charter with MoH. Increase consistency of business processes and inspections. Cole to work with MoH. Thank you to Alistair and Mike for developing the draft Project charter.
- **HAPHEC (Wayne)** – Water quality spreadsheet being updated to reflect changes with GCDWQ; Equipment registry list being developed; Discussions on the appropriateness of the engagement of third party engineering consultants to issue construction permits. Concerns around the perception of a conflict of interest, the protection of privacy and the confidentiality of information. Professional practice guidelines need to be followed; Discussing pathogen log reduction credit assignment for cartridge filters.
- **MHO (James, Rakel)** – Nothing to report.
- **MAH (Brian Bedford)** – Investing in Canada Infrastructure Program – British Columbia – Rural and Northern Communities Infrastructure. \$95 million for drinking water projects in rural northern BC communities with populations of 25,000 people or less.
*Action item: Will provide SharePoint link to the application process.
- **MoE (Heather)** – Nothing to report.

- **MoH (Mike)**
 - OAG Auditor clearance meeting (early October). Preliminary findings:
 - MoH does not have the information that it needs to report out to the public
 - Risk and mitigation plans are needed for higher priority water systems
 - Roles in source protection seem to be misunderstood
 - Preliminary findings suggest that the auditor does not recognise the changes that have been made in policy and mandates since the 2002 Action Plan
 - OAG / Deputy Minister meeting this week
 - Second clearance meeting will be in January 2019. OAG report due in February 2019.
 - Q: Do the preliminary findings clarify the role of Ministry versus the role of the health authorities?
A: Not clear. Disconnect between the DWPA and the discussions that took place in the 90's.
- **MoH (Dave)**
 - s.22

*Action item: The draft policy guidance document on 'Roof Runoff Rainwater Harvesting for Potable Use' will be sent to the DWLC for review and comment prior to the next DWLC meeting.
 - EOCP Communication Process – working on third version of system list.

Meeting adjourned at 10:34 a.m.

Drinking Water Leadership Council

Minutes – February 7th, 2019

Attendance

VIHA- Rory Beise

NHA- Rakel Kling (MHO) + Stacy Wheeler (Licensing)

FHA- Marc Zobel

VCH- Len Clarkson + Phil Muirhead

FNHA – Linda Pillsworth + Dave Tamblyn

IHA- Ivor Norlin

MoH- Keri Laughlin, Dave Fishwick, Mike Zemanek, Alistair Stewart, Geneen Russo, Manish Om Prakash

PHO- Joanne Edwards

Past Action Items

1. Rainwater – Dave Fishwick said that comments on the draft guidance document have been received. Rory asked if the draft document can go to HAPHEC for review.
2. FPT Update – Dave Fishwick reported that comments on the proposed MAC and operational guidance value for Aluminum have been sent to Health Canada. The next step is for Health Canada to prepare a draft document for consultation.
3. Manganese – Deferred to agenda discussion.

Lead in daycares (Joanne - PHO)

- Task group formed (MHO, MCFD, Licensing, PHO) at request of EHPAC to provide options for lead screening in daycares. Group has met four times to discuss options.
- Option 1: Education and lead reduction measures (i.e. flushing or filters) up front as standards of practice, however no agreement on testing. Option 2: Screening of all daycares and follow-up testing and mitigation measures. Option 3: Risk-based approach for lead screening - Development of critical risk factors, starting with only daycares that are high risk for lead contamination.
- No consensus among group at this time. Sending back to EHPAC. Agreement is that status quo is not an option but will go with option 1 to start → Options 2 or 3 could potentially work later with more research.
- Drafted Briefing Note with a list of pros + cons for each option, and impact on government childcare policy.
- Highlighted potential remedies/mitigations, as well as negotiated lab rates (e.g. \$32/sample).
- Largest barriers are cost and impact on other childcare policies.
- Licensing concerns are costs of sampling. Doesn't want to take money away from other provincial childcare programs. Licensing falls under CALA.
- EHPAC could make a recommendation to licensing.

- Briefing note to EHPAC next month.
- Joanne noted that it is a challenging file that crosses three program areas – drinking water, licensing and children and families - e.g. for the Childcare BC Maintenance Fund.
- Marc Zubel (FHA) - commented that he has a masters student doing a survey of LO's viewpoint of lead testing in daycares. ***Action item: Marc will send info to Joanne.**

EOCP compliance (Mike- MoH)

- Work started in June 2017 with a face to face meeting of the DWLC. Kalpna Solanki presented on rates of compliance with respect to certified operators.
- June 2017 project charter looked at process for information exchange, options for compliance and enforcement based on a graduated enforcement model and development of a clear understanding on facility classification and operator requirements. Project has three major deliverables:
 - Documented process for information exchange
 - Communications framework to document screening process and education program with water suppliers
 - List of water supply systems that have operators that are not in good standing.
- Over the past year, EOCP has screened 300 systems (including small water systems that should not have been on the list + systems on non-provincial land (e.g. federal land) and has produced a revised list of 100 systems.
- Next steps include an EOCP outreach and education program with suppliers to help nudge systems into compliance. EOCP will document the process and forward information to HA's on those systems that are still not in compliance.
- *** Action item: HA's to review the list for accuracy, and let EOCP know if there are any concerns.**
- ***Action item: EOCP will update the list to include owner name.**
- EOCP has developed a new online 'Customer Relationship Management (CRM)' system to facilitate facility classification, and operator certification and training. To access the CRM system, you will need to create an account.
- MoH will look at training to use CRM system. ***Action item: Manish to look into Webinars.**
- MoH has drafted a communication document to document the screening process and communication pilot approach. The document is not intended for public use.
- Len noted that Vancouver Coastal Health is uncomfortable with the CRM 'personal info' field → ***Action item: Mike will raise the issue with Kalpna.**

Manganese (Dave)

- Dave thanked everybody for providing comments and noted that the Ministry has received a good amount of comments back.

- Dave said that some of the comments were on NSF standards and the use of home treatment devices. Dave noted that there are no treatment systems specifically certified for manganese removal and that the text in the draft guidance material will have to be changed.
- Dave noted that Alistair is working with the PHE's to include information on small water systems. Once the guidance material is finalized, Dave will seek approval to include it in the Drinking Water Officers' Guide (DWOOG).
- Dave commented that Health Canada will release its guidance documents on lead and manganese soon – and will keep the group informed when dates are narrowed down.
- Dave noted that the Provincial interim lead document will need to be revised to be consistent with Health Canada's documents.
- ***Action item: Please let Dave know if there are any concerns re: "Interim Guidelines on Evaluating Lead in Drinking Water Supplies, Schools, Daycares and Other Buildings" document.**
- (Linda Pillsworth – FNHA) Q: Do we need to be proactive with communicating the new Health Canada guidelines to water suppliers/users? A: Dave commented that the Ministry does not have a list of all of the water suppliers in the province and the Ministry is not planning on communicating the release directly with water suppliers, but we can work with our communications people on broader info .
- (Ivor Norlin – IHA) Q: How can we support the roll-out. Ivor noted that MHO's have been advised to step back from providing direct support. A limited number of chemical reports for Manganese are on file. Water sample results belong to, and sit with, water suppliers. MHO's are asking whose decision was it to adopt the Health Canada Manganese guidelines.
- Ivor commented that we need clear expectations with respect to Health Authority's from the Ministry, as well as a consistent and ongoing coordinated approach to communication (e.g. IHA GCPE → MOH GCPE).
- (Linda Pillsworth – FNHA) commented that FNHA is looking at historical results and is doing proactive sampling to establish a proper baseline. Bottled water can be provided for smaller populations and to those at risk. DISC (Department of Indigenous Services Canada) is open to this idea.
- Ivor noted that over 1300 systems in the interior would need additional sampling results and that it would cost \$500,000 just in staff time to get a screening level assessment.
- ***Action item: MoH will need a coordinated plan. Dave to Connect w/ GCPE so they can loop in each health authority's communications people.**
- Len commented that VCH would like direct reporting from labs and that one-on-one conversations are being held with operators regarding the new guideline levels and what's required.
- Marc commented that Fraser Health has drafted a letter to water suppliers with exceedances and that a unified, consistent approach would be preferable with consistent coordinated messaging.
- Rory comment that Island Health is currently assessing the number of water systems that could be affected.

Livestock Watering & Forest and Range Practices (Dave and Mike)

- Livestock watering on ranges/ranches. Most activity in IHA (95% of ranges)→ Best management practices (keep cows out of creeks, off stream watering) and engagement of workers and water suppliers.
- DWO could be involved→ Needs to be practical and administrative.
- Joanne noted that a new regulation is currently being developed under the WSA.
- Mike commented that Minister Heyman brought up drinking water in Regional meetings.
- Len asked who issues range permits. Ivor replied that Range Officers issue the permits. Ivor noted that range tenure doesn't apply to private land and it's a bureaucratic referral system.
- Off stream water could be used for access to surface water.-
- Cattle ranchers don't care where the cows get their water from.
- Dave noted that FLNRO Tweaks legislation/regulations re: Community Watersheds, Climate change, fish + wildlife management and drinking water objectives. ***Action item: Health authorities please pass any information/concerns and ideas to Dave re: Watersheds.**
- Ivor commented that the term Community Watershed under the forest practices legislation applies to a relatively small number of water systems.

Roundtable

Ministry of Health – Nothing further to report.

PHO- Report is half way through the copy editing stage. April release date is the goal.

FHA – Section 29 investigation→wondering how far we go with this? (e.g. well water on property in Mission). \$600 → VOC's (Manganese, etc.). FHA contracted MoE to look at contaminated sites, but MoE can't really do anything. ***Action item: Will share letter with DWLC.**

IHA – General public issue (Supreme Court + Ombudsperson)

VIHA – New PHE posting.

NHA – Downgraded Prince Rupert to WQA from BWA. – Could do webinar for knowledge transfer/sharing. – Is Shane Wadden still a rep? – Stacy is from Licensing, and will be reporting back to regional group.

VCH – **Len is now retired. Phil is Len's successor.** DWO training session on Feb 28th, 2019 with Dr. Steve Rudey (VCH + FHA) – Dave Fishwick and Rory invited to attend.

FNHA – EHO's finishing up with lead, aluminium and copper sampling in daycares. Have done a full metals scan and have lots of data. Manganese→focussing on community and private well systems. Four quarterly samples, get an annual average before decision is made.

MoE – None/Absent

Drinking Water Leadership Council

Minutes – March 7th, 2019

Attendance

VIHA - Lynne Magee
FHA - Marc Zobel
VCH - Len Clarkson, Phil Muirhead, James Lu
IHA - Ivor Norlin
MoH - Keri Laughlin, Dave Fishwick, Mike Zemanek, Alistair Stewart, Manish Om Prakash
PHO - Joanne Edwards
Regional Directors - Cole Diplock
PHEs - Wayne Radomske

Past Action Items

***Action item:** Marc to send info about masters student survey of lead in daycares to Joanne. **Update:** Kevin to connect with Joanne. Still going through questionnaire with one of FHA's staff, reviewing questions. It will take a couple of weeks before it is finalized. Joanne would like to see a copy of the questionnaire before it is finalized.

***Action item:** HA's to review EOCP list for accuracy. Mike commented that it should not be an action item for DWLC. It is an action item for the smaller working group.

***Action item:** Manish (MOH) to look into EOCP Webinar. **Update:** We're working towards a webinar in May. Tamara will send out details soon.

***Action item:** Mike to raise issue of Personal Info" field with EOCP. **Update:** Haven't followed up yet, but will follow up with Kalpna to make sure personal info isn't made available.

***Action item:** Let Dave know if there are concerns with the Interim Guidelines on Evaluating Lead in Drinking Water Supplies, Schools, Daycares and Other Buildings. **Update:** Dave has received comments back from VIHA.

***Action item:** Dave to connect with Ministry communication staff to ensure that they coordinate with health authority communication staff on Lead and Manganese. **Update:** Dave has provided information to the Ministry communication people.

***Action item:** Pass any information/concerns/ideas about forest/range impacts on watersheds to Dave Fishwick. **Update:** Several comments back, need to connect with FLRNO.

***Action item:** Marc Zobel to share letter on Manganese. **Update:** Done + posted on SharePoint.

Operating Permit Process Review Project - Alistair (10 min)

- Project charter has been approved by EHPAC.
- Health Authorities have been asked to standardize drinking water business processes and inspections. This project will review the operating permit process and tools as a subset of the expected larger project.
- Major deliverables include:
 - Operating permit business process review
 - Identification of potential gaps in practice
 - Recommendations for improvements to the process
 - Recommendations on data/information to be recorded on the operating permit based on best practices and legislation
 - A more consistent operating permit template or document as a process support tool
 - A summary of identified opportunities for a standardized inspection protocol
 - Recommended changes to the legislative framework and/or policy guidance if needed.
- Mike Zemanek and Cole Diplock will be project co-chairs, Alistair will conduct research and prepare written material, Dave Fishwick will identify key elements in policy, legislation and the Drinking Water Officers' Guide, HA reps will provide information and experiential feedback so that the project can move forward, and Manish will provide project coordination.

It is recognized that everybody has limited resources and established business processes in place. We are looking for opportunities for improvement that will support the business and benefit everybody.

Update: Lead and Manganese - Dave (10 Min)

- Release dates have been flipped by Health Canada. The new guideline document for lead will be released tomorrow (March 8) as well as Lead Q & As. HealthLinkBC files will be updated to reflect the new MAC and the Ministry's interim lead guidelines will also be updated.
- Will not have time to consider VIHA's comments on the interim guidelines right now, will just update the numbers to reflect the new MAC and AO.
- Len – last call. Hasn't had the chance to provide comments on the interim lead guidelines. Dave commented that the Ministry will change the numbers in the interim guidelines to reflect the new Health Canada MAC but not in a position to change the rest of the guidelines. Ongoing issues→ *Pls bring them up and MoH will look at them.
- Health Canada will be doing limited some lead sampling in homes across the country to compare to values in the distribution systems. Anyone who has interest in participating please contact Dave.
- Marc asked how it will affect the MOECCS water quality guidelines and which guidelines should the HAs follow. Joanne replied that HAs should follow the Health Canada guidelines. Should be looking at the end user/receptor.
- Mike commented that the MOECCS guidelines apply in the watershed and the obligations of the water supplier are to provide potable water. Health Authorities should also be looking at the DWOG. Mike noted that the values for selenium are different in BC.
- Manganese guidelines are anticipated to come out in April 2019. Dave working with MoH communication staff on roll out. HC will put info out in their 'water talk' on HC website. Thank

you for all of the comments + suggestions on the HealthLinkBC File and DWOOG technical guidance document.

- Ivor commented that greater clarity is needed on expectations from the Health Authorities. – IHA Haley (Communication person) hasn't heard back from MoH. HA's haven't heard anything re: communication from MoH GCPE. ***Action item: Dave will touch base with MoH GCPE.** Ivor working with his staff to be clear on expectations on communication support.
- ***Action item: Joanne will also touch base with MoEd on impending Lead guideline.**
***Action item: Dave will Also reach out to Susan Bedford's group (Susan Bedford).**

Water Week - Keri (10 min)

- MoH will be supporting BC water week (May 5 to 11, 2019). Letter of support to DM + ADM (PPH); Will get in touch with HA's Communications contacts to formulate a common message (e.g. Social media, twitter, fb, HealthyFamiliesBC blog, etc.). ***Action item: Keri will post BC Water link info to DWLC SharePoint site).** Ivor+ Marc will connect on communication.

Additional items

- Systems within systems – Ivor asked a question about the criteria being used to establish whether a large university campus is a system within a system. MoH had put together a draft document in the past but it was deemed an 'Operational decision' by Directors and not to be managed by MoH. There is currently a shift in thinking on this towards putting in the DWOOG. RDs should take this to EHPAC to get direction.
- Dave + Mike: Exemption that is considered upfront in the construction stage. Ivor: Regulation says either/or, ideally front end, but lots of retroactive work is being done. Need to standardize it.

•s.13

- Important to acknowledge that is has been a struggle for NHA to participate in the DWLC. If there is a better way of doing business then we should put it out on the table.

Roundtable (40 min)

MoH – Auditor General (AG) will forward a draft report to MoH by the end of March 2019, then MoH needs time to respond to it.

PHO – None

NHA - Absent

IHA

- Steele Springs advisory was lifted (nitrates) last week – A ‘Win’, as this was a long involved process. Not a clean process, but soldiered through.
- Kennedy lake resort (Penticton) was built with no permit. Over 100 sites, with high levels of arsenic contamination in the water. IHA undertook a progressive compliance campaign, and this week the resort went off the advisory. System has been dissolved on paper - No longer a water system. The resort’s water system is now a fire suppression system.
- Glade watershed protection society offer on table to settle.

FHA - None

VCH

- Len looking into sharing paper on how VCH works with YVR, waiting for Richard Taki to approve sharing it with minisntry. Dr. Steve Hrudehy attended an in-service training session, presented meaningful ways of triaging drinking water systems→Do the bigger ones first based on risk exposure, but no way to predict mishaps, and they’re all important as far as risks go. Good discussion on positive predictive values, and good feedback, will carry on again in 2020. Dr. Steve Hrudehy will be presenting at BCWWA in May (case studies + breakout sessions).
- Just received GIS map project from consultant re: detailed service delivery areas, capture zones, watershed boundaries + well protection boundaries. Recommend collecting this data over the next year. Phil will be at BCWWA. ***Action item: Joanne will send out slides on Dr. Hrudehy’s presentation, and he also has a book that you can buy.**
 - **Len suggested Joanne could share her training materials with Alistair . Also Steve Hrudehy has a new book out ‘Ensuring Safe Drinking Water – available through the AWWA bookstore.**

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VIHA

- s ??
- Rory has been counting systems that are expected to have problems with manganese.
- s.22
- Rory and Lynne have been invited to speak at BCWWA, Lynne can provide you with name if you want to present.

FNHA - Absent

RDs – Nothing

PHE’s

- Murray sent out an email with concerns about Mn guidelines, how will this affect our systems. Could see some systems going out of compliance, both treated + non-treated systems.

- Village of Lumby treats for Mn, contacted filter supplier → What is the treatment capacity of the filter technology? Sent Wayne data sheets, should be able to meet the new guidelines (orders of magnitude reduction). This may change our reporting methods, now that there is a new MAC.
- Health Authorities may need to start reporting Mn in monthly reports. Need pre-planning to be strategic in approach. Murray sexton put request to group.
- VIHA level 4 treatment operators → Any operators available with level 4 certification, looks like a current shortage.
- Approached by a local manufacturing company for approval of an air relief valve, sent out to PHE group and received comments back, insisting it meet manufacturing standards.
- VIHA still trying to fill PHE position, posting still live.

***Action: Len connect with EPCOR regarding its operator training program. Correction – Len suggested the PHE (from VIHA) could contact EPCOR to explore partnerships for operator training – needed to build capacity for level IV Operators.**

MoE - None

MMAH – None

Meeting Adjourned 10:03am

Title Health Canada Lead Links

Body Hi Folks:

Health Canada has provided the followign links to their lead related docs on-line.

The profile page: (an introductory landing page for the publication)<https://www.canada.ca/en/health-canada/services/publications/healthy-living/guidelines-canadian-drinking-water-quality-guideline-technical-document-lead.html>


The Guideline Technical Document (the main document – web and PDF)
<https://www.canada.ca/en/health-canada/services/publications/healthy-living/guidelines-canadian-drinking-water-quality-guideline-technical-document-lead/guidance-document.html>


and the currently posted infographic: "Drinking Water -- What about lead?" – "Eau potable : qu'en est-il du plomb?"
<https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality/what-about-lead.html>

Dave

Expires

Content Type: Announcement

Created at 3/8/2019 9:19 AM by  Fishwick, David HLTH:EX

Last modified at 3/8/2019 9:25 AM by  Fishwick, David HLTH:EX

Close

Title Lead (and Manganese) Health Canada release dates



Body For those who I havent updated in person- Here is the latest
from Health Canada. They are having a hiccup with their
manganese document, so they have chosen to release the
Lead document ahead of manganese. Revised estimated
dates are as follows:

 Lead: March 8th

 Manganese: Early April

 Dave

Expires

Content Type: Announcement
Created at 2/20/2019 1:18 PM by  Fishwick, David HLTH:EX
Last modified at 2/20/2019 1:20 PM by  Fishwick, David HLTH:EX

Close

Title DWLC Lead in Schools Presentation - BCCDC

Body Hi Everyone:

Here is a link to the presentation by Anne-marie Nicol from BCCDC tomorrow. There will be no on-line webinar, so you'll all just need to follow the attached ppt on your own. I'll also flip it to everyone by email.

[https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Files/Lead in School Water Presentation Dec 6th 2018 email.pptx](https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Files/Lead%20in%20School%20Water%20Presentation%20Dec%206th%202018%20email.pptx)

Dave

Expires

Content Type: Announcement
Created at 12/5/2018 2:12 PM by Fishwick, David HLTH:EX
Last modified at 12/7/2018 2:50 PM by Fishwick, David HLTH:EX

Close

Title	New Health Canada Lead in DW info Sheet
Body	<p>For your information, Health Canada has just posted some information for the public on lead in drinking water on our website.</p> <p>https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality/what-about-lead.html https://www.canada.ca/fr/sante-canada/services/sante-environnement-milieu-travail/rapports-publications/que-n-est-il-du-plomb.html</p> <p>Dave</p>
Expires	
Content Type: Announcement	
Created at 10/26/2018 9:37 AM by Fishwick, David HLTH:EX	
Last modified at 10/26/2018 9:40 AM by Fishwick, David HLTH:EX	

Close

Title Lead in DW in the news

Body See attached article regarding lead in drinking water in
private homes / buildings in BC

<https://www.thestar.com/vancouver/2018/09/20/how-safe-is-your-water-bcs-lack-of-in-home-lead-testing-leaves-threat-unknown.html>

Expires

Content Type: Announcement
Created at 9/21/2018 4:21 PM by [redacted] Edwards, Joanne HLTH:EX
Last modified at 9/21/2018 4:21 PM by [redacted] Edwards, Joanne HLTH:EX

Close


TitleNew study released regarding lead in Drinking Water


BodyRecently released study with good informaton. Tom and Prabjit from BCCDC are co-authors.

Expires

AttachmentsLevallois_2018 public health: consequences of Pb in DW.pdf

Content Type: Announcement

Created at 3/21/2018 10:19 AM by  Edwards, Joanne HLTH:EX

Last modified at 3/21/2018 10:21 AM by  Edwards, Joanne HLTH:EX

Close

Title FYI - Lead Presentation from APHA

Body FYI-Tom Kosatky thought people may be interested in this online presentation from APHA:

Drinking Water and Lead Service Lines: Partnering to Protect Public Health
January 24, 2018
1:2:45 p.m. EST
http://action.apha.org/site/MessageViewer?dlv_id=68011&em_id=65697.0

Expires

Content Type: Announcement
Created at 1/22/2018 9:36 AM by Fishwick, David HLTH:EX
Last modified at 1/22/2018 3:15 PM by Fishwick, David HLTH:EX

Close

Title Daycares and Lead

Body FYI - The following link is to the Lead handout targetted at day
cares produced by the Primary and Community Care Policy Division.

http://www2.gov.bc.ca/assets/gov/health/about-bc-s-health-care-system/child-day-care/fact_sheet_-_lead_in_drinking_water_2017.pdf

Dave

Expires

Content Type: Announcement
Created at 9/1/2017 3:40 PM by Fishwick, David HLTH:EX
Last modified at 9/1/2017 3:45 PM by Fishwick, David HLTH:EX

Close

Title Interim Lead Document Now Posted on-Line

Body

Hi Everyone:

The Interim Lead Document is now posted on our public website:

<http://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-quality/drinking-water-quality/how-drinking-water-is-protected-in-bc>

Dave

Expires

Content Type: Announcement
Created at 8/25/2017 10:31 AM by Fishwick, David HLTH:EX
Last modified at 8/25/2017 10:36 AM by Fishwick, David HLTH:EX

Close

Title Lead - Interim Guidance Document

Body

Hi Everyone:

The Lead Guidelines have received approval for posting as an interim document until the revised Guidelines for Canadian Drinking Water Quality has been released by Health Canada. At that time we can make any tweaks necessary to align with their document.

Thanks for everyone's input throughout this process, I recognize that we have had different ideas on how to approach this, however I think the result is that we have put together a comprehensive resource of best practices that can be drawn upon to fit a variety of situations.

A copy can be found on SharePoint at the link below, and we will be posting it on the Provincial website shortly next to the DWO. We will also be notifying the MoEd that this is available and encouraging them to work with HAs,

[https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Files/Interim Guideline on Reducing Exposure to Lead through Drinking Water July 2017.pdf](https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Files/Interim%20Guideline%20on%20Reducing%20Exposure%20to%20Lead%20through%20Drinking%20Water%20July%202017.pdf)

Dave

Expires

Content Type: Announcement

Created at 8/9/2017 4:16 PM by Fishwick, David HLTH:EX

Last modified at 8/9/2017 4:20 PM by Fishwick, David HLTH:EX

Title New Health Canada Draft Lead Guideline

Body Health Canada's Draft Guideline Technical Document for lead in drinking water is now posted for a 2-month public comment period ending March 15 2017:

www.healthycanadians.gc.ca/health-system-systeme-sante/consultations/lead-drinking-water-plomb-eau-potable/document-eng.php

Please take the time to have a look at this one as it has substantially changed from their existing guidance. Comments can be sent directly to Health Canada via their consultation page, and I would be happy to hear your thoughts as well.

Dave

Expires

Content Type: Announcement

Created at 1/11/2017 9:09 AM by Fishwick, David HLTH:EX

Last modified at 1/11/2017 9:10 AM by Fishwick, David HLTH:EX

Close



Title Independent school policy of lead testing just posted

Body The independent school branch of teh Ministry of Education has just informed me that they have just posted their policy on lead testing in schools. Please seee teh following link to view the policy:

<http://www2.gov.bc.ca/gov/content/education-training/administration/legislation-policy/independent-schools/testing-lead-content-in-drinking-water>

The policy encourages the schools to work with their local health authority so calls from independent schools should be expected.

Expires

Content Type: Announcement
Created at 1/19/2017 2:32 PM by  Edwards, Joanne HLTH:EX
Last modified at 1/19/2017 2:35 PM by  Edwards, Joanne HLTH:EX

Close

Title Lead in Drinking Water Health File (49e)

Body Here is the link to the new Lead in DW Health File:

<https://www.healthlinkbc.ca/healthlinkbc-files/lead-drinking-water>

Dave

Expires

Content Type: Announcement


Created at 1/5/2017 2:04 PM by Fishwick, David HLTH:EX

Last modified at 1/5/2017 2:05 PM by Fishwick, David HLTH:EX

Close


Title Draft Lead hand out to schools


Body Hello all,

Attached is a draft hand out meant to provide some basic information and guidance on evaluation, sampling, flushing and mitigation options for lead for public and independent schools. It is a two page document with the technical guidance parts as appendices. Please review and provide your feedback to Dave Fishwick or Joanne Edwards prior to our DWLC call in January. Thank you,  Lead info handout for Schools.docx

Expires

Content Type: Announcement

Created at 12/6/2016 4:12 PM by  Edwards, Joanne HLTH:EX

Last modified at 12/6/2016 4:15 PM by  Edwards, Joanne HLTH:EX

Close

Title Draft Lead Policy

Body As promised, here is the link to the draft Lead Policy:

[https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Files/ActiveDocuments/Draft BC Lead Policy November 3.docx](https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Files/ActiveDocuments/Draft%20BC%20Lead%20Policy%20November%203.docx)

[https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Files/ActiveDocuments/Draft BC Lead Policy November 3.pdf](https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Files/ActiveDocuments/Draft%20BC%20Lead%20Policy%20November%203.pdf)


We will also be sharing this with EH Policy CTTE. In order to streamline this process, please review and direct comments towards your EH Policy rep(s) so we can review at their next meeting.


Of course any questions can come to myself or Joanne.

Dave

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Content Type: Announcement




Created at 11/3/2016 11:27 AM by  Fishwick, David HLTH:EX

Last modified at 11/3/2016 11:30 AM by  Fishwick, David HLTH:EX



Close

Title: MoEd School Lead Testing Policy

Body: FYI - the Ministry of Education lead testing directive is attached for your information as discussed on today's DWLC call.

 190736 Policy for Testing Lead Content in Drinking Water.pdf  190736 Testing Lead Content in Drinking Water Letter.pdf  186335 Superintendents Secretary Treasurers outgoing.pdf

Expires

Content Type: Announcement
Created at 10/6/2016 2:33 PM by  Zemanek, Michael HLTH:EX
Last modified at 10/6/2016 2:35 PM by  Zemanek, Michael HLTH:EX



Close

Title Health file - Lead in Drinking Water

Body Health Protection Branch is working with Health Link BC to create a Health File for Lead in Drinking Water. Below is a link to the latest draft of the health file, which is posted on sharepoint within active documents. Please review and add your comments and suggested changes using track changes. Please send your comments to Manish.OmPrakash@gov.bc.ca by June 15th, 2016.

https://hlth.sp.gov.bc.ca/sites/HLTH5/HPB/DWLC/Files/Active Documents/Lead in Drinking Water HealthLinkBCFile_2016_V2.docx

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Content Type: Announcement
Created at 7/4/2016 1:06 PM by  Edwards, Joanne HLTH:EX
Last modified at 7/4/2016 1:06 PM by  Edwards, Joanne HLTH:EX

Close

Title US Lead and Copper Rule Webcast.


Body Just a heads up on this webcast from Water Research Foundation in case anyone is available/interested.
<http://wrl.informz.net/informzdataservice/onlineversion/nd/bWFpbGluZ2luc3RhbmNlaWQ9NTUyNTA1MCZzdWJzY3JpYmVyaWQ9MTA3MzQ5ODM3Mw==>
 Dave

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Content Type: Announcement
 Created at 4/18/2016 1:48 PM by Fishwick, David HLTH:EX
 Last modified at 4/18/2016 1:48 PM by Fishwick, David HLTH:EX

Close

Title New research on Pb from DW in large buildings

Body Attached is a recent study currently in press relating to Pb in DW in large buildings, schools and daycares. It has some interesting findings.  Deshommes et al. 2016. In press
Lead in DW.pdf

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Content Type: Announcement
Created at 5/2/2016 10:43 AM by  Edwards, Joanne HLTH:EX
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Close

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/301746151>

Evaluation of exposure to lead from drinking water in large buildings

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Title: Health Canada Guideline & Technical Document - pH

Body: Hi Everyone:

For your information, the new guideline technical document on the pH of drinking water is now available on Health Canada's web site, at the following address:

<http://healthycanadians.gc.ca/publications/healthy-living-vie-saine/water-ph-eau/index-eng.php>

Thanks

Dave

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Content Type: Announcement

Created at 4/4/2015 2:51 PM by Fishwick, David HLTH:EX

Last modified at 4/4/2016 2:51 PM by Fishwick, David HLTH:EX

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Lead in BC school water: data review and recommendations

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