



Longview Drinking Water Improvement Study
Customer Advisory Committee Meeting #3

Meeting Summary

Date: Tuesday, February 24, 2015
Location: Longview City Hall, Training Room
Time: 6:00 – 8:00 p.m.

In Attendance

CAC Members Present

Bill Beltz
Orranda Chamberlain
Raymond Colwell
Philip Dennis
Dave Hooper
Rich Kirkpatrick
Alissa Lee
Patrick McCoey

Amber Olson
Stephanie Owens
Dave Quinn
Vincent Scalesse
Preston Worth
Ken Botero, City Council Liaison
Bonnie Decius, BHWSO Liaison

CAC Members Absent

Mark Bergeson

Staff and Consultants

Jeff Cameron, City of Longview
Amy Blain, City of Longview
Dale Jutila, CH2MHILL
Lee Odell, CH2MHILL

Brad Phelps, CH2MHILL
Adrienne DeDona, JLA Public Involvement
Jamie Harvie, JLA Public Involvement

Members of the Public

Andy Busack, Longview resident
Leann Colwell
Sonya Elhardt-Olden, Longview resident
Tracy Goldsmith, Longview resident
Dan Johnson, Longview resident
Ron and Toni Jones, Longview residents
Art Mahlum, Longview resident
Gin Mathews
Stephen Powell, Longview resident/rate payer
Julie Salzsieder, Longview resident
Ken Spring, Longview resident

Overview Summary

- The CAC approved the meeting #2 summary with no changes and the committee protocol document with proposed changes.
- The CAC reviewed the problem statement, evaluation criteria and initial list of supply options.
 - The problem statement was revised to: “Provide a recommendation for a sustainable, safe and satisfactory water supply for Longview/BHWSO water customers”.
 - An aqueduct system will be added to the initial list of possible water supply improvement options.
 - “Indirect customer costs” will be added to the evaluation criteria.
- The next CAC meeting will be held on March 17 at 6:30 p.m. The CAC will continue their discussion on the evaluation criteria and consider public feedback.
- Before the next meeting, the community will have a chance to weigh in on the evaluation criteria through an online survey. The project team will also conduct stakeholder interviews.

Parking Lot Items

- A sound system will be looked into to help the audience hear the discussion.
- The City will look into expediting the routine monitoring well sampling so the CAC can review results prior to making a recommendation in June.

Information Requests

- Results of engineering tests.
- Trends from well sampling.
- Cost per test of sampling wells.

Welcome, Introductions, Review Agenda

Adrienne DeDona, JLA Public Involvement, welcomed everyone to the meeting. Staff and members of the committee introduced themselves. Adrienne reviewed the agenda. She said the meeting will primarily focus on reviewing the Evaluation Criteria and Water Supply Improvement Options, which are two of the main recommendation points that the CAC will be considering. She noted these items will be revisited in future meetings; no decisions will be made tonight.

Adrienne noted that the next meeting will return to the standard start time of 6:30 p.m. The change in start time tonight was inadvertent.

Meeting #2 Summary and CAC Protocols

Adrienne said that the Meeting 2 Summary had been sent out to CAC members with the meeting packet and asked for any comments. There were no comments on the meeting summary; the summary was approved and will be posted to the project website.

- A committee member asked whether project emails are being sent to the Longview or personal email addresses. Adrienne said she has been using both to make sure members see them right away.

Adrienne reviewed the changes that had been made to the protocols document based on the CAC’s discussion at the last meeting. This included the definition of the quorum and instructions regarding requests for information. Adrienne noted that the project team had also changed the protocol regarding majority and minority opinions, removing the sentence that read, “If that threshold cannot be reached, the project team will consider all comments and make an informed decision in order to keep the project moving forward.” She asked the committee for feedback on that change.

- The group discussed how this protocol is different from the one regarding majority and minority opinions. Adrienne explained that it has to do with a situation where there is no majority opinion. One CAC member said that the project team should not make a decision on behalf of the group and that the lack of consensus should be reported to the council. Another CAC member said that all opinions should be presented to the Council. Committee members indicated general agreement with removing the sentence.

The updated protocols were approved by the committee.

Problem Statement

Dale Jutila, CH2MHILL, reviewed the proposed problem statement, values and evaluation criteria, and how they were developed (see attached handout). He said that the problem statement articulates the problem that the committee will be focused on solving. The evaluation criteria will be used to help the committee conduct a values-based evaluation of the various water supply options. The problem statement, values and evaluation criteria were derived from the responses to the community survey and feedback from the first two CAC meetings. He noted that the evaluation criteria are organized under three categories, which were the main values identified in the CAC visioning session. He said that criteria with an asterisk came directly from the customer survey conducted in October, 2014.

Dale said the committee would talk more about specific values and criteria later in the meeting. He asked the committee for feedback on the proposed problem statement: “Improve Customer Satisfaction with Longview Water.”

- One committee member said that the committee’s goal is to improve the quality of the water, not to convince citizens that the current water is adequate. He said that if the water quality is improved, customer satisfaction will follow. Another committee member supported this statement.
- One committee member suggested the wording, “Improving customer satisfaction by improving Longview Water.”
- Another committee member said the goal should be to “provide a sustainable, safe and satisfactory drinking water supply/solution for the Longview area.” He said the current problem statement is too narrow and there are some evaluation criteria that do not have to do with customer satisfaction.
- Another committee member said they should retain the idea of customer satisfaction in the problem statement. The group discussed wording to reflect the community, which includes not only Longview, but Beacon Hill water customers.
- One committee member expressed concern with implying that the CAC will change the water supply, noting that they will only provide recommendations to City Council and BHWSO. The group discussed wording for making this clear in the problem statement.
- One committee member questioned whether the word “satisfactory” includes economic concerns or whether economic concerns should be stated separately. One committee member suggested that “satisfactory” would cover all consumer satisfaction issues.
- Another committee member asked whether economic concerns included just the cost of the water supply or also costs that the consumer faces to make the water acceptable to them (indirect customer costs). Dale suggested that indirect customer costs be added to the evaluation criteria.

The CAC agreed on the following problem statement: “Provide a recommendation for a sustainable, safe and satisfactory water supply for Longview/BHWSO water customers”.

Water Supply Improvement Options

Brad Phelps, CH2MHILL, presented an overview of the initial water supply improvement options (see attached). He said the technical team intends this to be a complete list of all options and purposefully did not evaluate them for feasibility when creating the list. Brad asked the committee if they had any questions or whether there are additional options not listed that should be considered.

- One committee member asked if the sediment mitigation work being done by the Army Corps of Engineers will be considered as part of these alternatives. It was noted that this could be part of Option R.
- One committee member asked what the difference is between a Ranney collector and a well. Brad explained that a well is a single hole going deep into the ground, while a Ranney collector is a larger hole that goes down and then has horizontal collectors to collect water from underneath a river bed. Ranney collectors are shallower than the current wells.
- A committee member asked whether Ranney collectors are considered a surface water source. Brad said that it could be considered surface water or groundwater depending on the outcomes of testing at each location. Depending on the outcome, this would determine how much the water needs to be treated and what type of facility would be needed to treat the water (i.e. surface water and groundwater are treated differently).
- A committee member asked for information about Ranney collectors in other areas, specifically how Ranney water compares to well water. Brad used Kelso as an example. He said that their Ranney water had only traditional treatment before Mount St. Helens erupted. After the eruption, groundwater was forced into the Ranney wells and Kelso had to add treatment for manganese and iron as a result.
- A committee member asked what the benefits of a Ranney collector would be. Brad said the best case scenario would be that it is deemed a groundwater source and thus the water does not need as rigorous of a treatment process as surface water, which is the designation for some Ranney systems along the Columbia River.
- One committee member asked for confirmation that the current well water also comes from the Columbia River, but that water from a Ranney collector would not be filtered through the ground as much well water. Brad confirmed this.

- One committee member asked whether it would be reasonable to assume that water from a Ranney collector on the Columbia River would have similar silica content to the water at Fishers Lane Treatment Plant. Brad replied that, as a rough guess, it is probably reasonable to assume this.
- The committee member asked whether Kelso has silica issues. Brad said not that he knows of.
- A committee member asked whether Kelso's treatment process is the same as Longview and, if so, why the process works well for Kelso but not Longview. Lee Odell, CH2MHILL, answered that the treatment in Kelso and Longview are very similar. He said that the treatment works very well for manganese and iron, but that Kelso does not have some of the other mineral content that Longview does.
- One committee member asked for an explanation of aquifer storage and recovery (ASR). Brad said this is a relatively new technology, in which water is injected into a well to be stored underground and then extracted later. He said this is common in places that are very wet in the winter and very dry in the summer. The team has not been able to find any proof that this technique would address silica issues, so they would likely need to do pilot testing to determine this. He noted that both Ranney collectors and ASR would involve some pilot testing.
- A committee member asked where water for the ASR system usually comes from. Brad said it is usually surface water that is injected underground. He noted that this is quite an expensive option because the water must be treated, injected underground and then extracted.
- Another committee member asked how this would benefit Longview if they have to treat the water anyway. Brad said that water from a Ranney collector may not need to be treated. Dale also said that surface water sources may have constraints at certain times of the year (for example, on the Cowlitz River due to smelt regulations), so extracting the water at one time of year and storing for another may be beneficial.
- There was a discussion about water rights permits. Amy Blain said that the City has one emergency permit on the Columbia River and one recreational water right and one municipal water right on the Cowlitz River. She said the City had three municipal water rights on the Cowlitz River that were combined into one when the groundwater permit was issued.
- There was a discussion about smelt. Smelt is a threatened species and there are proposed regulations to limit water withdrawal during certain seasons. The City is still in conversations with the regulatory agencies to modify how the regulations would affect its withdrawal from the river. It was noted that smelt could be an issue in any nearby surface water source.
- A committee member asked whether a Ranney collector would require a permit. Brad said it would require permits, but the existing water rights permits could probably cover a Ranney collector.
- A committee member asked whether a Ranney collector would be affected by sediment in the river and whether the current sediment mitigation program could affect it. Brad said that a Ranney system might be impacted by sediment changes, but not as severe as Kelso experienced after the Mt. St. Helens eruption.
- A committee member asked whether a Ranney collector would be affected by erosion. Brad said the Ranney collector would be deeper than the river would erode.
- One committee member asked about the City's plans to flush Lake Sacajawea. Amy said the City had begun a plan to modify the lake flushing system, however the design process has been put on hold to get permits and the City is unsure whether they will be able to permit the changes.
- A committee member asked whether all the wells at Mint Farm are registering the same amount of silica. Brad said they are all elevated but they register at slightly different levels.
- The committee discussed silica treatment and whether the level of silica could be brought down. Brad said there are ways to potentially reduce the impacts of silica with various treatments; one option to remove it is though reverse osmosis, which is very expensive; other less expensive options may be available.
- Finally, Brad explained that there is a parallel study under way to look at optimizing the Mint Farm Treatment Plant to address chlorine taste issues.

Dale said that the CAC will eventually evaluate the options that have been presented tonight. To make this a manageable process, the project team has reduced the number of options by grouping similar items together (see attached). Dale said the evaluation process will happen two meetings from now and that the majority of the next meeting will be to discuss the evaluation criteria and ranking their importance. He reminded the group that this upfront work will help the process move more quickly at the end.

- A committee member asked whether the groupings are useful because many options will have the same issues associated with them. Dale confirmed this and said that once the groups have been whittled down, the CAC will then consider the options within the highest rated group in detail.

Adrienne noted that the options list is still open for further ideas and invited continued suggestions after the meeting.

- One committee member asked if there is any effective end-user solution to silica. Lee Odell said the only known treatment system for silica at a home level is reverse osmosis.
- A committee member asked for the project team to confirm that there are some places that have chosen not to treat silica issues. Amy Blain said she does not know of any communities in Washington that treat for silica.
- One committee member suggested adding an aqueduct system to the list. The committee discussed examples of aqueducts, particularly in California. This option will be added to the list.

Initial Water Supply Evaluation Criteria

Dale Jutila told CAC members that the Evaluation Criteria would be revisited at the next meeting in more detail. He asked whether committee members had any initial questions or suggestions for adding any criteria that might be missing. He noted that “indirect customer costs” had already been identified as needing to be added.

- One committee member asked why carbon consumption is a consideration – is it something the city is concerned about? Dale said that the technical team added this as a consideration, and wanted to know whether the CAC and public feel it is important. Ken Botero said that the City Council may have to consider carbon consumption when an option is presented.
- One committee member said that she heard feedback from one BHWS customer that the water smells “fishy” and asked whether this is common. Bonnie Decius said she has not heard this before.

Public Comment

Ken Spring said he has lived here all his life and they have always had excellent water from the Cowlitz River. He hoped that the committee will look at returning to the Cowlitz River surface water source and, if this doesn’t work, look at combining with Kelso. He thought that the city could get permits if they tried harder. He said he and his wife would not have built their home in the area if they had known that the water quality was going to be so terrible. He said they are very unhappy; their appliances have been severely affected and they have thrown out their glassware. He thought that to correct the problem, they need to go back to a surface water source.

Dan Johnson said he lives in Longview. He said that people indicated in the telephone survey that they would be willing to pay extra to fix the water. He said this would provide substantial funds to pay for improvements.

Tracy Goldsmith said that during the water treatment plant tour at the last CAC meeting, it was mentioned that the City hoped the silica level would go down in Mint Farm wells as they are used. She asked whether there has been any sign of this. Amy Blain said the silica levels have not changed since they’ve been in use.

Adam Hemer said that when the new treatment plant was constructed, the rates increased. He asked whether this was a lifetime increase or whether it will decrease over time. Jeff Cameron said that most rate increases were to pay for funding of the plant, which were 20 year bonds.

Steve Powell said that clogged pipes and damaged appliances are economic concerns, not aesthetic concerns. He thought that the CAC should consider putting these in a different category. He also supported including some categories for externalities. He noted that the extra cost for water may be offset by not having these indirect costs.

Andy Busack said he is a longtime citizen of Longview and felt it is the City’s obligation to provide quality water that meets the standards expected by the community. He was involved in the previous process and said that no one had asked for lower quality water at a higher price. He said he has replaced one dishwasher and plans to replace it again, as well as the shower heads. He said he has had staining in his sinks and other places. He said he does not want to pay to install a water softener at home. He said that if the current level of thought had been applied to the original process, a better solution would have been identified. He said that status quo should be scratched off the list. He said the financial impacts that community members are bearing – even if it is a small percentage of people – is not acceptable.

Lloyd Hedgland said that a booklet in the Cowlitz County Museum contained a lot of information about early wells in Longview. He said that one piece of information from the booklet was that changes in the Columbia River water level affects water levels in wells. He said that the original Weyerhaeuser landfill was in an area that could have leached into the water supply and it would have been good to subpoena Weyerhaeuser to ask them which chemicals were used in the mill. In his experience driving piles in the area, the ground formation was very irregular and strata layers were different. He said that this kind of ground would mean that some chemicals leached through the layers. Some of the time he worked for Weyerhaeuser, he was in charge of the water treatment plant and sanitary sewer system and they sometimes supplied the City with water. Once, he experienced seeing mercury in the bottom of the treatment plant clarifiers. He asked the committee, when considering ground water, to consider that a lot of it runs through Weyerhaeuser land where they applied chemicals.

Art Mahlum said he hoped the CAC will take into consideration the Army Corps of Engineers building the sediment retention dam. He said he had a friend visit who is the vice-chair for water in Snohomish County and the first thing she said when she tasted the water was “what are they trying to kill with all the chlorine.” He said he hopes that Dr. Kirkpatrick will help the committee consider the health-related

issues with the water. He said there are several committee members from NORPAC and that NORPAC wouldn't leave an important machine in the kind of condition that the Fishers Lane Treatment Plant was left in. He said that he feels the City would be able to get a water permit despite the smelt restriction since they had been using the Cowlitz River as a source long before the species was listed as endangered. He noted that CH2MHILL are consultants being paid to create alternatives. In his opinion, they are skewing data toward a biased outcome.

Gin Mathews said that from her understanding, the City knew that the new water source would be just under EPA standards for hardness, which has to do with silica. She said that manganese levels are very close to the maximum levels. She said she takes exception to any of this being called "aesthetics" because it just makes it seem like it is only an appearance rather than a real thing. She also noted that "silicosis" is a serious illness, and that she thinks there are still questions about whether the silica in the water is innocuous.

Steve McGee asked whether silica was found in tests as wells were being constructed. Amy Blain said that they had tested for silica, but this was not done specifically in different strata layers. She said the City has considered doing some tests to see if there are some places within the water-bearing unit that have less silica, but this has not yet been done because it is expensive and requires dismantling equipment. She said at this point, they have not identified any strata layers that are particularly high in silica.

Next Steps

Adrienne said that between now and the next meeting the project team will be conducting outreach via stakeholder interviews and an online community survey. She noted that the CAC had previously heard that the stakeholder interviews would be completed before this meeting, but the project team decided that it would be more helpful to have draft evaluation criteria and potential alternatives first to generate stakeholder feedback on those items.

- One committee member asked whether the engineering evaluations of the condition of the Fishers Lane plant are still being conducted and whether the report will be available to the CAC. The project team confirmed they would be available.
- A committee member asked whether the wells are sampled. Amy Blain said that the wells are sampled twice a year in May and October.
 - The committee member asked whether the May testing can be expedited so the committee can have the results when making a decision. Amy replied that this might be a possibility. The City will look into this and get back to the CAC.
 - Dale asked whether the committee member is interested in any particular substances. The CAC member replied that he would like to see trending of the results of all the testing to determine if there is anything relevant. Amy said she has not trended each of the results because there are many substances being tested for in each of the four wells.
- A committee member asked how much each test costs. Amy said that at a very rough estimate, perhaps \$1500. The project team will check this number and report back to the committee.
- An audience member asked whether there is a method to remove dioxin from the water if pulling from Columbia River. Lee Odell said that granulated carbon may be an option. *Follow-up:* Lee confirmed that granular activated carbon is the only named treatment process for removing dioxin, according to USEPA.
- A member of the public requested a PA system for future meetings to help audience members hear. The project team will look into this.

Adrienne said the next meeting is March 17 and will begin at 6:30pm. She thanked everyone for coming and adjourned the meeting at approximately 8 p.m.

Longview Drinking Water Improvement Study

Options Evaluation Framework

February 2015

| Category | Source | Option ID | Description |
|---|------------------------------|----------------------------------|---|
| Status Quo | Mint Farm Wellfield | A | No Additional Treatment; Optimize Existing Mint Farm Water Treatment Plant (WTP) |
| Wells | Mint Farm Wellfield | B | Add Dissolved Oxygen to Mint Farm WTP |
| | | C | Add Post Chlorination to Mint Farm WTP |
| | | D | Add Softening to Mint Farm WTP |
| | | E | Add Silica Removal to Mint Farm WTP |
| | Unspecified Location | F | Other Groundwater Sources |
| Distribution/ Transmission System Changes | Mint Farm Wellfield | G | Add Chlorine Booster Stations to Distribution System |
| | | H | Add Dissolved Oxygen Injection to Distribution System |
| | | I | Replace Pipes in Distribution System |
| | | J | Mint Farm WTP Finished Water Conveyed to Fishers Lane for Connection to Distribution System |
| Surface Source | Cowlitz River | K | Rehabilitate Fishers Lane WTP and Existing Intake |
| | | L | Rehabilitate Fishers Lane WTP with New Cowlitz River Intake Near Existing (within 5 miles +/-) |
| | | M | Rehabilitate Fishers Lane WTP with New Cowlitz River Intake above Toutle River |
| | | N | Replace Fishers Lane WTP with New Cowlitz River Intake Near Existing (within 5 miles +/-) |
| | | O | Replace Fishers Lane WTP with New Cowlitz River Intake above Toutle River |
| | | P | Rehabilitate Cowlitz River Intake; Treat at Mint Farm WTP |
| | | Q | New Cowlitz River Intake (within 5 miles +/-); Treat at Mint Farm WTP |
| | | R | Rehabilitate Cowlitz River Intake; Clarification at Fishers Lane and Filtration at Mint Farm WTP |
| | | S | New Cowlitz River Intake (within 5 mi +/-); Clarification at Fishers Lane and Filtration at Mint Farm WTP |
| | Columbia River | T | Columbia River Intake with New WTP |
| | | U | Columbia River Intake; Treat Water at Mint Farm WTP |
| | | V | Columbia River Intake; Treat Water at New/Rehabilitated Fishers Lane WTP |
| | Unspecified Location | W | New Upland Water Source with Surface Dam and Treatment |
| Ranney Collector | Cowlitz River | X | Ranney Collectors on Cowlitz River Downstream; Treat at Fishers Lane WTP |
| | | Y | Ranney Collectors on Cowlitz River Downstream; Treat at Mint Farm WTP |
| | | Z | Ranney Collectors on Cowlitz River Downstream with new WTP at New Location |
| | | AA | Ranney Collectors near Fishers Lane; Treat at Fishers Lane WTP |
| | | AB | Ranney Collectors near Fishers Lane; Treat at Mint Farm WTP |
| | | AC | Ranney Collectors near Lexington; Treat at Fishers Lane WTP |
| | | AD | Ranney Collectors near Lexington; Treat at Mint Farm WTP |
| | | AE | Ranney Collectors and new WTP near Lexington |
| | Columbia River | AF | Ranney Collectors on Columbia River; Treat at Mint Farm WTP |
| | | AG | Ranney Collectors on Columbia River; Treat at Fishers Lane WTP |
| | | AH | Ranney Collector on Columbia River with WTP at New Location |
| Kalama River | AI | Ranney Collector on Kalama River | |
| Aquifer Storage & Recovery (ASR) | Cowlitz River | AJ | ASR at Mint Farm WTP; Rehabilitate Fisher's Lane WTP and Intake |
| | Cowlitz River | AK | ASR at Mint Farm with New Cowlitz River Intake and WTP |
| | Cowlitz River | AL | ASR at Mint Farm with Cowlitz River Ranney Collector |
| | Columbia River | AM | ASR at Mint Farm with Columbia River Ranney Collector |
| | Columbia River | AN | ASR at Mint Farm with Columbia River Intake and Treatment |
| Blending | Cowlitz River and Mint Farm | AO | Cowlitz River Blending with Mint Farm WTP; Surface Intake or Ranney Collectors |
| | Columbia River and Mint Farm | AP | Columbia River Blending with Mint Farm WTP; Surface Intake or Ranney Collectors |
| Regional/ Intergovernmental | Cowlitz River | AQ | Connect to City of Kelso System |
| | | AR | Joint Expansion with City of Kelso; Ranney Collectors and Treatment |
| | Columbia River | AS | Connect to Port of Kalama Ranney Collector |
| | Kalama River | AT | Connect to City of Kalama Ranney Collector |
| Private/Public Partnership | Columbia River | AU | Utilize Weyerhaeuser or Kapstone Surface Water System |
| End User Treatment | Mint Farm Wellfield | AV | Customer Treatment Systems - Whole house, City-owned |
| | | AW | Customer Treatment Systems - Whole house, Resident-owned |
| | | AX | Customer Treatment System at the Faucet, Resident-owned |
| Non-Infrastructure | Mint Farm Wellfield | AY | Conduct Public Education about Water Purity, Safety, Aesthetics, Comparisons with Other Cities |
| | | AZ | Conduct Public Education about Using Hard Water, Preventing and Removing Water Spots |
| | | BA | Provide Products for Preventing and Removing Water Spots |

Longview Drinking Water Improvement Study

Options Evaluation Framework - Groups

February 2015

| Group ID | Group | Category | Source | Option ID |
|----------|---|--|----------------------|-----------|
| 1 | Stay the Course | Status Quo | Mint Farm Wellfield | A |
| 2 | Modify Existing Well Source | Wells | Mint Farm Wellfield | B - J |
| | | Distribution/ Transmission System Changes | | |
| 3 | Build New Surface Water Source | Surface Source | Cowlitz River | K - AP |
| | | | Columbia River | |
| | | | Unspecified Location | |
| 4 | Buy Water from or Collaborate with Another Entity | Regional/ Intergovernmental | Cowlitz River | AQ - AU |
| | | | Columbia River | |
| | | | Kalama River | |
| 5 | End User Treatment | End User Treatment | Mint Farm Wellfield | AV - AX |
| 6 | Non-Infrastructure | Non-Infrastructure | Mint Farm Wellfield | AY - BA |