

**Murray Basin Combined Sewer Overflow Project
Community Advisory Group**

Meeting 7 Summary

**Prepared for
King County Wastewater Treatment Division**

September 15, 2010

Prepared by



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Meeting Information

Meeting #7

Wednesday, September 15, 2010

5:30 – 8:00 p.m.

Fauntleroy Community Services Agency Building (Old Fauntleroy School)
9131 California Ave SW

Attendance

CAG members

- ☐ William Beyers
- ☐ Sharon Best (alternate)
- ☐ John Comick
- ☐ Linda Cox (alternate)
- ☐ Cheryl Eastberg
- ☐ Patrick Gordon
- ☐ Scott Gunderson
- ☐ Chris Jansen
- ☐ Vlad Oustimovitch (Fauntleroy Community Association)
- ☐ Chas Redmond (Morgan Community Association)
- ☐ Donna Sandstrom
- ☐ Ron Sterling
- ☐ Jim Coombes (alternate)
- ☐ Linda J. Sullivan (King County WTD)

Facilitation Team

- ☐ Penny Mabie (EnviroIssues)
- ☐ Amy Meyer (EnviroIssues)

WTD Staff and Consultants

- ☐ Kevin Dour (Tetra Tech)
- ☐ Jeff Lykken (Tetra Tech)
- ☐ Brian Matson (Carollo Engineers)
- ☐ Shahrzad Namini (King County WTD)
- ☐ Martha Tuttle (King County WTD)

Also in attendance

- ☐ Donna Davis
- ☐ Tracy Record

Welcome and Introductions

Penny Mabie, meeting facilitator, welcomed everyone to the seventh of eight Murray Basin Combined Sewer Overflow (CSO) Community Advisory Group (CAG) meetings, and asked that all CAG members and guests introduce themselves. Penny noted that the Meeting #6 summary had been sent out and asked if there were any revisions from the CAG. There were none, so the Meeting #6 summary will be finalized and posted on the King County and Google group websites. Penny also noted that Ron Sterling approved a revision to the Meeting #4 summary, and it has been re-finalized. The agenda was reviewed and the following goals were listed for meeting #7:

- Finalize Meeting #6

- Review alternatives definition from September 9th workshop
- Conduct an alternatives down-select
- Apply CAG guiding principles and County criteria to alternatives to determine whether or not they remain “above the line”
- Begin discussion on the CAG recommendations report
- Prepare for Meeting #8

Alternatives Definition

Penny reviewed the outcome of the alternatives definition workshop on September 9, 2010. At that meeting, Patrick Gordon and Bill Beyers individually presented their alternative evaluation matrices. Although their methodology and evaluation of infrastructure in Lincoln Park varied, the results of their evaluations were similar. The workshop was also an opportunity to review any outstanding information gaps such as Seattle Parks Department’s response to infrastructure in Lowman and Lincoln parks, and life cycle, long- and short-term costs. Members who attended the workshop were also able to optimize each of the alternatives to ensure they are presented as viably as possible. As a result of optimization, an additional alternative (CAG9) was developed which encapsulates a combination of three existing alternatives (CAG3, CAG7 and KC1B). As alternatives were being reviewed, workshop attendees agreed upon “thumbs-down” recommendations for several of the alternatives, but felt it was necessary to validate those recommendations with the entire CAG at this meeting. A new alternatives matrix had been developed which included the optimized alternatives, workshop recommendations, and additional information including short-term community impacts.

Penny noted updates to existing alternatives including the following:

- CAG7 Rephrased and intended to be included in all alternatives
- CAG2 Updated to include four potential locations
- Jeff Lykken, Tetra Tech, noted that options which include placing storage tanks under the Lincoln Park parking lots would require a pump station at the bottom of the park near the shoreline because of the topography difference.
 - Ron Sterling asked how large of a pump station would be required.
 - Jeff said that the pump station must be large enough to accommodate the peak flow from Barton.

Penny asked if CAG members would prefer to review each optimized alternative, or to move ahead. Those who were not present at the workshop, i.e. Sharon Best, John Comick, Chas Redmond, Vlad Oustimovitch, and Chris Jansen agreed to move ahead without review.

Patrick Gordon and Bill Beyers reviewed their alternative evaluations. Patrick explained that if an alternative was able to be tweaked and therefore scored higher, an explanation was embedded in the evaluation spreadsheet. Bill explained that although Patrick’s scaling system was reverse of his, both evaluations were focused on locating the least attractive alternatives. His evaluation resulted in a larger number of “thumbs-down” recommendations than the matrix that Penny distributed, but there was much concurrence that after application of the CAG’s guiding principles and the County criteria a number of alternatives can be eliminated.

Penny reviewed the documents which had been distributed, including a revised achievability table, and a matrix with the County’s criteria incorporated which is based on the original 17 alternatives as opposed to those that were optimized.

Penny addressed prior questions regarding the “triangle Site,” otherwise known as the Pelley Creek site, which is addressed in alternative KC1B. The County originally ruled out this alternative because of environmental considerations, as there are wetlands near the bottom of the parcel. Penny referred to Jeff to answer more questions regarding siting feasibility,

- Jeff noted that the Tetra Tech team has been re-engaged to look at the site in more detail, and to determine whether or not the City’s maps are representative of its current status.
 - Penny added that biologists will visit the site and geotechnical analysts will conduct a data study of the parcel, as well.

Jim Coombes presented information from the City of Seattle regarding the site, which addressed its size (22,100 sq. ft.) and the adjacent property’s size. In sum, the area in and around the “triangle” equals 47,000 sq. ft. or 1.1 acres. These parcels have been designated as “riparian corridor” and “steep slope” areas, despite Jim’s assessment that neither fish nor steep slopes are present.

- Penny said that although the City’s information could be challenged, the designations have been set and present permitability challenges. She noted that there would likely be property acquisition challenges, as well.
- Chas Redmond whether the County had considered this site for their Murray Pump Station generator and odor control upgrade.
 - Martha Tuttle, King County WTD, said that it was considered to be too difficult to site an odor control facility or generator far away from a pump station, which would have been the case.
 - Penny noted that because it was not selected as an alternative initially, the challenges are likely to still exist.
- Donna Sandstrom said that if this location was chosen for siting to solve the CSO problem, it could be an opportunity to improve its environmental value, too.
- Chris Jansen noted that the actual public right of way near the “triangle” is approximately 80 feet wide, which is wider and more flat than one would expect. It is the lowest grade of paved surface the neighborhood has, and private property issues could be avoided because of the large amount of right of way available. The property should be carefully analyzed in context of the CSO problem. Chris said he would distribute the figure he created on iMap to the CAG members.
 - Penny said that alternative KC1B essentially includes the same option Chris suggested, which is to call upon public right of way in order to avoid acquisition of private property. She noted that King County’s team will look into this further.

ACTION: King County team will study in further detail the feasibility of siting the CSO solution on the “triangle” property.

ACTION: Chris Jansen will distribute the figure he created representing the “triangle” property.

- Ron Sterling said that permitting obstacles and risk are null points, since they exist in every alternative. Discussion that followed noted that many of the alternatives include environmentally sensitive parcels.
 - Penny reiterated that she understands the challenges to the City’s designations, but emphasized that the designations still stand.

- Donna Sandstrom noted that the group is interested in a solution which includes environmental restoration of an area.
- Patrick Gordon reminded the CAG that an emphasis should be placed not solely on challenges, but on ways to make particular solutions work.

Alternatives Down-Select

Penny reviewed the revised Murray Basin CSO Alternatives worksheet and noted the two alternatives that were determined “not technically feasible.” She began the Alternatives Down-Select activity by distributing 16 sticker dots to each person. Dots were given to CAG members as well as ex-officios and CAG members’ alternates. Each participant was instructed to place one dot along the continuum depending on the individual’s assessment of how the alternative would meet the CAG’s guiding principles. The activity was an unofficial reading of the CAG’s opinions about each alternative.

- Donna Sandstrom asked if each alternative should be considered individually, or relative to one another.
 - Penny said the alternatives should be considered individually.

All participants placed their dots, including the King County technical team whose dots were a different color. The resulting chart was documented with digital photographs.



“Above the Line” Alternatives

Penny reviewed the resulting document, and began the “down-select” process by looking for alternatives for which dots were placed only in the first three columns; a strong indication that the CAG does not feel the alternative aligns with their guiding principles.

The following alternatives were highlighted and brought to the table for discussion: CAG1, KC1A, and KC2A. Penny asked the CAG members whether or not they felt comfortable putting those alternatives “below the line,” which meant they would not be considered by the CAG any longer.

- Chris Jansen said the final solution might be a result of choosing elements from alternatives in an “a la carte” style. He said he did not feel comfortable eliminating entire alternatives if there were elements that could be salvaged.
 - Penny said that hybrid alternatives were discussed at the workshop, which is essentially where alternative CAG9 came from.

The CAG confirmed that CAG1, KC1A and KC2A were now “below the line.”

Penny then addressed those alternatives which had a majority of dots placed in the first three columns, but had one or two outliers. Those included: CAG5, CAG6, KC1E, and KC3A.

- Cheryl Eastberg identified herself as the outlier dot for alternatives CAG5, CAG6 and KC1E. In defense of CAG5, Cheryl said that she felt this alternative had better storage siting than others. She asked if the reason it had not been recommended was because it would require significant upgrades and a larger footprint for Barton pump station.
 - Scott Gunderson said that it might be possible to upgrade Murray pump station and pump to Gatewood Elementary School, which would have a much smaller impact.
 - Penny asked if the CAG could move forward with placing CAG5 below the line if the element regarding upsizing Murray pump station and pumping to Gatewood was kept as a backup. The CAG agreed to move forward in that fashion.
- Cheryl defended CAG6 and said that she did not consider construction impacts to be a limiting factor since it is a temporary impact. She said that roads should be the priority placement for infrastructure.
 - Penny noted that short- and long-term impacts have been supplied by the technical team, but may not be accurate or comprehensive at this point. She asked the other members why they collectively chose not to support this alternative.
 - Members shared the following reasons: the added requirements at Barton pump station are not worth it; it has significant cost, street, and environmental impacts relative to others; it is the most expensive alternative that remains; although roads are the logical placement for infrastructure, this alternative requires 2.5 miles of force main which is so large of an area that it no longer makes sense.
- Donna asked about the requirements for an outfall upgrade at the Alki Treatment Plant.
 - Jeff responded that Alki is only capable of treating their current peak flow. If conveyance at Murray is doubled, infrastructure (in particular the outfall) at Alki would need to increase.
 - Scott said the current system includes force mains which convey to the highest point of hills, and lines are incorporated all the way to Alki. If the pressure line to Murray is dropped, and capacity at Murray is increased, then some extra wastewater can be pumped to Murray and the rest can be under Beach Drive.
 - Jeff said the team had not looked at that specifically, but he predicted that the costs would still be significant.
- Penny asked Jeff if CAG6 and KC2A could be tweaked so that they would be feasible.
 - Brian Matson said the feature that should be retained from this alternative is that the CAG does not recommend pumping and increasing flow to Alki, but rather to pump and store wastewater elsewhere.
 - Jeff noted that there are “pump and store” alternatives that are more centralized than the location in CAG6, and it is beneficial to keep everything as close as possible.
 - Penny asked Cheryl if she approved of the CAG placing CAG6 below the line at this point, and Cheryl approved.

Due to KC1E’s similarity with CAG5, and the fact that the CAG had already set aside an element of CAG5 that should be retained, Cheryl also approved that the CAG place alternative KC1E below the line.

Alternative KC3A had one outlier. No member claimed it and therefore the alternative was placed below the line.

Next, Penny identified alternatives which were most highly supported by the CAG. This assessment did not reveal much about the CAG's preference. It was noted that there was disparity between the number of dots for each alternative, indicating that some individuals may have voted for particular alternatives twice, and others none. Since this exercise was intended to be a broad check-in with the CAG's opinions, the CAG decided to keep moving forward.

- Patrick Gordon said CAG2 is predictable, and requires more discussion so should stay above the line.
 - Bill noted that if new facilities were built at Colman Pool, facilities may be able to be removed from Lowman Beach Park. He said that every alternative affects Lowman Beach Park in some way.
 - Cheryl said that Seattle Parks management has stated that siting CSO infrastructure at Lincoln Park is no more appropriate than at Lowman Beach Park. Every alternative that includes a park must go through the same process which will involve the Parks-related Initiative 42, as well as new groups of stakeholders.
 - Penny asked those who wanted to preserve CAG2 to put their hands up, and eight members did so. CAG2 was placed above the line.

Alternative CAG3 was discussed next, and since the element that the CAG wanted to retain was already included in CAG9, the CAG decided to place CAG3 below the line, and retain CAG9 above the line.

CAG members decided that CAG7 itself could fall below the line if the element of GSI implementation remained present in all the remaining alternatives.

Penny brought alternative CAG4 to the table. Sharon Best defended CAG4, and said that although the required transition of separating storm flows from the combined sewer would be costly and time consuming, that it should be addressed at some point. Discussion about this alternative included that it requires nearly 100% voluntary compliance and it may not address enough stormwater to solve the CSO problem.

- Scott Gunderson said that stormwater currently entering Puget Sound is grandfathered in, but if any changes are made, much more stormwater will need to be treated.
- Penny reminded the CAG that they should be finding a CSO solution that will work for Murray basin. CAG4 could work, but meeting control needs would be a significant challenge. Although CAG4 is theoretically viable and is a great environmental promise according to some (note that Andrew Lee from Seattle Public Utilities said that separation could cause more problems than it helps) Penny asked if CAG4 as an alternative itself should be above or below the line.
 - Sharon asked that attention be paid to this element for the future, and said she was comfortable moving forward without CAG4 if CAG9 remained.
 - Linda Sullivan said that King County considers alternative CAG4 one of the weakest.

The CAG decided to move CAG4 below the line, and to recommend pieces of CAG4 in their report to the County.

- Chris asked if any studies had revealed what the expected population for the basins would be in 2025, and if wastewater predictions had been calculated.
 - Jeff explained that those predictions were made in the technical team's modeling work. He noted that although there may be increases in population density, and small increases in base sewage flows, it is likely there will be a net decrease in flows to the combined

sewer because of stormwater detention measures that are required with redevelopment included in the City's drainage code.

Penny brought alternative CAG8 to the table for discussion.

- Patrick explained that the CAG seemed uncomfortable with this alternative, and that they are not compelled enough to argue for or against it.
- Chris said he was still confused as to why his suggestion to provide distributed storage in the upper basin, and control the amount of discharge leaving these storage facilities would not be feasible.
 - John Comick reiterated Chris' suggestion, saying that rather than utilizing the storage tanks for solely peak flow, they should be utilized all the time and outflow is controlled.
 - Jeff explained that there are two methods: a small and smart system, or a big and dumb system. Small and smart systems require that timing of flows be very accurately predicted, which gets more difficult the higher in the basin storage facilities are sited. Big and dumb systems must substantially limit the amount of flow being released to ensure control at the bottom of the basin, and end up requiring storage of a much larger volume.
 - Penny said that both options require a minimum 500,000 million gallons per day (mgd) storage tank at the bottom of the basin, anyway.
- Chris said he would like to see a large return on investment. This could occur if a site such as the dry cleaner parcel is chosen and could be converted into expanded park area after construction.
 - Scott asked if power-controlled valves would still be necessary in this case, and if a backup generator would be required at each site.
 - Jeff said that power-controlled valves may not be needed if enough flow is captured and can be predicted to pass by the storage. Backup generators would still be needed, however.
- Ron asked if all sewage and water were constantly flowing through a storage tank, if maintenance would be required more often to deal with "wear and tear."
 - Jeff explained that the technical concern about this alternative is more related to the uncertainty of flows higher in the basin and that the amount of flow in the portions of the combined system that are not routed through storage could still result in more than one overflow per year at the bottom of the basin.

Penny asked the CAG if they would like to keep alternative CAG8 above the line. Six members voted to keep it, and six voted to move it below the line. Therefore, CAG8 was allowed to stay above the line.

Alternative KC1B was discussed next. Penny pointed out that according to the down-select dot exercise, there seemed to be some optimism about this alternative amongst CAG members.

- Referring to King County's dot placement, Donna asked why King County felt pessimistic about this alternative.
 - Jeff said the technical team is uncertain that much storage would fit in the triangle parcel, and construction would span outside of it. An additional peak flow pump station at the bottom of the basin would still be required.
 - John said he had hoped this location could be the site of the entire CSO infrastructure.
 - Jeff explained that a pump station would still be needed at the bottom of the basin in the vicinity of the existing pump station.

- In reference to King County's dot placement, Patrick asked why King County felt more optimistic about KC1F than KC1B.
 - Jeff explained that elevation and environmental concerns play into King County's preferences in this case.
- Linda Sullivan said that an alternative that requires a new pump station appears to defeat the community's goals.

Penny asked if any member was opposed to KC1B staying above the line, and none were opposed. She moved on to alternative KC1D for discussion, and the following questions were addressed:

- Cheryl asked what are the negative aspects to the construction of a tunnel.
 - Jeff explained that the tunneling process, deep installation, non-ideal soil, and maintenance logistics pose large challenges for this alternative. The tunnel must be accessible from both ends.
- Scott asked if the tunnel could be perfectly horizontal, and act as an underground tank.
 - Jeff said that the material in wastewater would settle to the bottom of the horizontal tunnel and would cause significant odor issues; therefore some grade difference between the two ends of the tunnel is required to facilitate cleaning.
- Vlad Oustimovitch felt it is important that the tunneling alternative stay above the line, as it is the least impactful to the community and has not yet been fully explored. Vlad also mentioned that Chicago successfully uses horizontal tunnels for wastewater.
 - John suggested that the element of tunneling remain an option, but perhaps the CAG should dismiss tunneling on Beach Drive.

The CAG agreed to leave KC1D below the line, but retain the element of tunneling as storage.

Penny moved on to alternative KC1F, which includes private property acquisition. The following comments were heard:

- Chris felt that this alternative is inappropriate considering that affordable housing in the city would be reduced should the County choose this alternative.
- Patrick noted that the issues of scale, impacted community character, and facility visibility resulting from this alternative make it an inappropriate choice for a CSO solution.
- John suggested that there might be an opportunity to cover the facility, which could result in new open space.
 - Penny clarified that John would prefer to have this alternative if the structure were buried underground. She asked if the alternative should stay above the line if that optimization is added.
- Jim voiced his concern that if steep slopes were of concern in the triangle property, they would certainly pose a challenge at this property.
- Donna was concerned that the loss of affordable housing would yield a more exclusive community.

- Linda Sullivan said that KC1F should stay above the line. She said at this point, King County does not know if the parcels include willing sellers. This alternative should remain an option because there are not many other bottom-of-the-basin alternatives.
 - Penny asked the CAG members if they agreed that KC1F should remain above the line at this time. CAG members agreed.

Review and Next Steps

Penny reviewed the results of the “above the line” exercise, which are listed as follows:

- Above the line: CAG2, CAG9, CAG8, KC1B, and KC1F
- Below the line: CAG1, CAG3, CAG4, CAG5, CAG6, CAG7, KC1A, KC2A, KC3A, KC1D, and KC1E

Elements of alternatives that will remain or be considered separately are as follows:

- (From CAG5) Upsize Murray pump station and pump up to Gatewood Elementary
- (From CAG6) Pump to other storage (i.e. gravity/storage before Alki)
- (From KC1D) Tunnel (In other locations than Beach Drive)
- (From CAG7) Include GSI implementation in the final definition of any selected alternative
- (From CAG4) Consider eventual separation of all sewer and stormwater flows in the basin

As Penny distributed a sample Table of Contents document, she said the CAG must discuss what will be included in its report to the County. She asked that members please email their suggestions of elements to include in the recommendation report and it will be developed off-line. She reminded the CAG that there is only one more meeting. The goal of this group has been to develop a set of recommendations that the County can consider as solutions to the CSO problem. She asked if those final recommendations can be chosen in one night.

- Patrick was concerned that the CAG would not see how the County worked with their final recommendations. He noted that the CAG would like to follow along as King County works on the final recommendations.
- Donna recommended one additional meeting to finalize the recommendations and to learn about any next steps.

Penny noted that the County’s deadline is September 28, 2010. She suggested the CAG meet for a workshop on Monday, September 27th in order to give the technical team some time to retrieve information about the triangle property, and to have the information fresh in CAG members’ minds before the last meeting. The CAG agreed to meet for a workshop on Monday, September 27th to prepare for their last meeting.

ACTION: Send invitations to CAG and guests for a supplemental workshop on Monday, September 27, 2010.

- Shahrzad Namini, King County WTD, asked if alternatives require property beyond City of Seattle park property, should they still be considered (i.e. KC1B and CAG9).
 - Penny said there are different elements that will be weighed and balanced based on the CAG’s guiding principles.

Penny said that the alternatives that fell below the line will now be off the table. A new table will be distributed.

- Cheryl asked if long-term impacts could be considered in the new table.
 - Penny and Jeff responded that anything listed will be gross impacts (such as siting of electrical and odor control facilities), similar to what has been listed in the past.
- Donna suggested there be more detail about the pump station, and that visual descriptions or illustrations should be included.
 - Cheryl suggested that simple graphics including elevations and basic elements of each alternative should be developed.
 - John Comick added that he would like to know what elements would be needed, i.e. pump station, generator, and odor control. He also noted his hope that all infrastructure could be located in one location.
- Shahrzad asked how the four locations included in alternative CAG2 would be addressed.
 - Penny said that feasibility for each of the four locations should be addressed as best they can.
- Linda Sullivan expressed her concern about CAG9.
 - Jeff explained that CAG9 includes storage at the bottom of Barton basin, which is difficult to work with considering the impacts to the ferry terminal.
 - Patrick Gordon clarified that the potential storage referred to was not intended to be located exclusively at the bottom of the basin but, for example, at the former Fauntleroy School.

Penny announced that she will be on vacation the week of September 20th, and asked that CAG members email Amy Meyer (ameyer@enviroissues.com) and the King County team with any follow-up thoughts or questions.

Action Items

- King County team will study in further detail the feasibility of siting the CSO solution on the “triangle” property.
- Chris Jansen will distribute the figure he created representing the “triangle” property.
- The King County team will send invitations to CAG and guests for a supplemental workshop on Monday, September 27, 2010.