CONTRACT NO.: E00022E06			CSO Beach Projects Team Member review of Barton Basin Alternative Identification Process		King County	
PROJECT MANAGER: Shahrzad Namini						
Project No.:423607-610			**Return Comments to: Mary Wohleb**	**Comment Date: 11/19/09**		
Sub-Proj. No.:			**Email: mary.wohleb@kingcounty.gov**	**Response Date: X/XX/09**		
Phase:				**Check Off Due Date: NA**		
Comment No.	**Basin**	**Alternative #/ New**	**Comment**	**Response/Resolution, If appropriate**	**Comment by**	**Response by**
1.	All	All	This is a comment about showing enough information in the figures for all alternatives, or otherwise clearly describing the information, to allow the category leads to adequately evaluate the alternatives. 1. For tunneling options, representative portals should be shown. Suggest that a note or different symbols be used to differentiate cut-and-cover vs. tunneling sections. Suggest that Engineers describe to category leads anything that cannot be shown on the drawings, so that situations are understood. Impacts of cut-and-cover vs. tunneling will be different. 2. Confirm that footprints of structures accurately depict the alternatives. 3. Construction staging areas should somehow be shown, or perhaps note an order-of-magnitude size by inset or other means, so that impacts of ROW, property acquisition, CR, environmental, cost, etc. can be assessed.		Okuda	
2.	All	All	**(NOTE TO CAROLLO AND MARY WOHLEB: This comment can be merged with the comment above if you prefer.)** Note that construction staging is a construction means-and-methods issue and cannot be designed or completely predicted by engineering design. Staging areas almost always increase -- could easily double in size -- depending on the contractor's needs. For example, we may say that the contractor will not use water access for an alternative, but they in fact may want water access. Assumptions should be noted on staging, and perhaps carried forward as a risk management item.		Okuda	
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PROJECT MANAGER: Shahrzad Namini

CSO Beach Projects Team Member review of Alternative Identification Process

Project No.:423607-610

Sub-Proj. No.:

Phase:

Return Comments to: Mary Wohleb

Email: mary.wohleb@kingcounty.gov

Comment Date: 8/25/09

Response Date: 8/28/09

Check Off Due Date: NA

Comment No.	Basin	Alternative #/ New	Comment	Response/Resolution, if appropriate	Comment by	Response by
1.	S Magnolia	5A	Consider residential roof top disconnection for all alternatives. High likely hood of success in this basin for at least 50% disconnection	Alternative 5.1 will consider one to three levels of rooftop disconnection in concert with storage (see basis of design) in order to test performance using the hydraulic model.	Phillips	de Steiguer
2.	S Magnolia	1	Alternative will require analysis of Elliott West/Dexter system for operational changes due to increase flows to EBI from S. Magnolia. CSO program and management will consider impacts to this system during alternative review process	This approach increases conveyance in the S. Magnolia Trunk and affects any related alternatives. County is evaluating potential for capacity increases.	Phillips	de Steiguer
3.	S Magnolia	4B	GSI for S. Magnolia is unlikely. There are not large scale opportunities. Feasibility for CSO control is low.	Alternative 4.1 is not included in this basin at this time.	Phillips	de Steiguer
4.	S Magnolia	new	There are no identified alternatives utilizing parking in Smith Cove. Port owned property and large parking area. Lighter use on west side of parking.	Alternatives 1.6 will include the provision to adjust to other sites nearby the indicated site C. At this time, site C will be used for development of the alternative as it has the least apparent post construction restoration requirements of sites in the vicinity.	Phillips	de Steiguer
5.	S Magnolia	Some	CR staff should research street end plans to see if there are identified community needs at end of 32nd Ave W	Response by county	Phillips	
6.	S Magnolia	new	Community member has asked me several times about building storage out in the water by utilizing outfall. Be prepared for this at community meetings.	Will be prepared to address why this approach is not feasible.	Phillips	de Steiguer
7.	South Magnolia		Allen has explained that topographic and flow profiles in South Magnolia don't allow compliance with coarse criteria Carollo has put in place for alternatives development (for example, lots 1/2 acre or more, avoiding critical areas). If Carollo hasn't done so already, I suggest documenting the apparent need for exception for this basin in the technical memo characterizing the decision process leading to 9 alternatives. I'm sure our team understands that each basin has unique characteristics, and that the South Magnolia basin characteristics force us into areas we have excluded in other basins. Documenting this will memorialize the rationale in the event that it needs to be explained to stakeholders, whether they are internal (management, CST, construction, etc) or external (electeds, agencies, community stakeholders, jurisdictions, etc).	Will incorporate in documentation	Van der Vieren	de Steiguer
8.	South Magnolia		For some of these alternatives, it seems that constructability risk is so high that they may not be feasible. The South Magnolia bluff has proven instability issues known very well to permitting agencies and the community. If "technically feasible" alternatives include aspects like ability to permit and construct a project, the alternatives that include bluffs and ravines may not qualify. Factors that may affect the project are:	Noted. There are no alternatives being presented at this time that include work near, on, or at the base of the Magnolia bluffs of concern.	Van der Vieren	de Steiguer
9.	General		Permitting and dealing with appeals on these alternatives may significantly impact schedule or negate use of these alternatives altogether.	Noted.	Van der Vieren	de Steiguer

10.	General		Geotechnical work required to investigate whether these alternatives can be permitted and built may delay construction and result in significant added cost.	Current scope for the CSO project includes preliminary geotechnical evaluations of candidate sites. This includes a paper study. Now is the appropriate time to examine potential geotechnical issues related to Magnolia sites in proximity to steep slopes or areas where geotechnical issues are likely to be significant.	Van der Vieren	de Steiguer
11.	General		We may select an alternative that has little or no chance of being constructed due to location in critical areas.	Nearly all areas around CSO control points are in critical areas.	Van der Vieren	de Steiguer
12.	General		Design to allow for seismic risks in unstable soils could increase cost significantly (see BW treatment plant seismic upgrades).	Noted.	Van der Vieren	de Steiguer
13.	General		Need for qualified contractors and risk during construction could significantly reduce contractor pool and increase project cost.	Noted. A risk analysis is included in the project scoping.	Van der Vieren	de Steiguer
14.	General		The county may inherit long term liability for bluff issues and damage such as settlement perceived to be associated with a facility in these locations.	See above comment response.	Van der Vieren	de Steiguer
15.	General		There may be concern by operations/maintenance staff about working with a facility located in an area perceived to be unstable.	Noted.	Van der Vieren	de Steiguer
16.	s. Magnolia		There are a couple a large areas I am familiar with in Magnolia... I don't know enough about the WTD infrastructue and CSO engineeing to know if these are possible: Burlington Northern rail yard; Burk Gillman trail; Magnolia basball fields. The trail runs along the base of Magnolia hill.	Noted.	Wohleb	de Steiguer
17.	Magnolia	1.1, 1.3-1.6, 2.1, 3.1	Many of the Magnolia alternatives appear to have steep slopes associated with some or all of the structures. The City of Seattle may have significant issues developing on steep slopes, especially if extensive grading is required. Criteria evaluation will identify potential problems.	Noted.	Erstad	de Steiguer
18.	All		For proposals located within the Shoreline District, we may be required to submit and acquire a "Plan Shoreline Permit" prior to submittal of the Shoreline Permit (refer SMC 23.60.066). We will need to demonstrate that "no reasonable or feasible alternative exists" to locate our facilities outside of the Shoreline District. It will be important that we are able to provide adequate justification as to why we chose the preferred alternative (if located within Shoreline District) and why other upland alternatives were not feasible.	Noted. Will add requirement to permit matrix and review the statute.	Erstad	de Steiguer
19.	Magnolia	2.1	It appears that HDD will be used to cross Pier 91-92? There is a Port of Seattle underground contaminated fill site just upland of the pier.	HDD may be an alternative approach for this alternative. Noted.	Erstad	de Steiguer
20.	All	3.1 (Magnolia)	I'm unclear as to whether a new outfall would be required under this alternative (or any of the other alternatives). New outfalls would requrire an Individual Permit from the COE along with an EIS. Review time would be 9 - 18 months. I seem to recall an e-mail from Brian M. that no outfalls would be associated with any of the PS CSO alternatives (hopefully this is the case).	No new outfalls are anticipated for any alternatives. End of Pipe Treatment would discharge treated effluent into the existing outfall. No additional flows are anticipated beyond existing levels.	Erstad	de Steiguer
21.	Meeting 100-50A comment		Dischrage of additional flows from Magnolia to a location downstream of the Interbay PS may be constrained by priorities given to the flow from the North Interceptor to West Point.	Noted. Long term affects on operation to be evaluated by county.		de Steiguer
22.	Meeting 100-53 comment	1.5	Convey and treat option should discharge to the EBI and not the Interbay PS.	Noted.		de Steiguer
23.	1.2: Meeting 100-53 comment	1.2	Need to consider the commercial area and be based on technical criteria.	To be done		de Steiguer
24.	Meeting 100-53 comment		Magnolia community wants to create green streets near the downtown area.	Noted		de Steiguer
25.	SM: Post 100-54 comment	1.1-	Storage tank and other alternatives in ravine may raise concerns about slope stability, water conveyance patterns in slope, etc. Potential for KC to be blamed to future slope issues.	Noted	Van Der Vieren	de Steiguer
26.	SM: Post 100-54 comment	3.1	Question about ability to permit TP without substantial rezone, and community reaction to siting TP in this area. May impact schedule.	Noted	Van Der Vieren	de Steiguer
27.	SM: Post 100-54 comment	1.4	Substantial traffic/access issues related to this alternative.	Will be considered in evaluation criteria	Van Der Vieren	de Steiguer
28.	SM: Post 100-54 comment	1.5	Cost and staging requirements for tunneling may obviate this alternative. Concern about slope/bluff impacts due to tunneling and future liability potential problems. Substantial traffic/access issues related to this alternative.	Cost and staging relative to other alternatives. Won't obviate alternative unless greater or most costly. Tunneling feasibility relative to geotechnical factors to be evaluated during this round of evaluation.	Van Der Vieren	de Steiguer

29.	SM: Post 100-54 comment	1.6-bluff option	Same concern about working in ravine/bluff related to ground water/stability and concerns about settlement and destabilization. Site C appears to be less impact for community, but may involve park improvement costs. Multiple components will have significant impacts. PS siting may not be possible in designated locations.	Significance of impacts to be evaluated by SEPA and technical team.	Van Der Vieren	de Steiguer
30.	SM: Post 100-54 comment	1.6- upgrade gravity sewer to FM	Multiple components will have significant impacts. PS siting may not be possible in designated location.	Significance of impacts to be evaluated by SEPA and technical team.	Van Der Vieren	de Steiguer
31.	SM: Post 100-54 comment	1.6 gravity sewer HDD to storage 2.1 force main to Interbay	Question staging needs for HDD - little space for construction activities.	Clarify question	Van Der Vieren	de Steiguer
32.	SM: Post 100-54 comment	3.1	Question about ability to permit TP without substantial rezone, and community reaction to siting TP in this area. May impact schedule. Residential access needs to be maintained.	Noted.	Van Der Vieren	de Steiguer
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