Appendix C: Comments on Draft Report – February 28, 2011

Name	Comment	Tetra Tech Response
VECA (03/07/2011)	Conceptual 12: Historic railroad bed converted to V&E Greenline needs further development to deal with the chokepoint between Auburndale St and Evergreen St. Further, care must be taken not to damage the V&E Greenline trail and especially the tree lined trail east of Auburndale St.	Previous attempts to alter the channel in the VECA area were met with intense public opposition and were therefore not recommended in the report. The recommended projects are conceptual in nature and specific design considerations should be discussed during project design.
	All of the projects in VECA need to involve regular meetings with VECA. VECA can be an advocate for projects, but it can also provide information that makes the projects stronger.	We endorse regular communication between the city and public.
V&E Greenline Committee and V&E Greenline Community Corporation (03/11/2011)	Overall, the addition of the conceptual projects will significantly reduce flooding in VECA and we support their implementation. Projects outside of VECA will detain water until it can be safely moved through Lick Creek, while the VECA projects should draw flood waters from the surrounding streets. The projects will not eliminate all flooding.	The recommended projects are conceptual in nature and specific design considerations should be discussed during project design.
	The maps show that that the area around Tutwiler and McLean and the area along creek between idlewild St and Evergreen St receive a very large amount of cumulative excess storm water runoff. The V&E Greenline Committee was pleased to find that the report documents that the area around Tutwiler Ave andMcLean Blvd and the area between Idlewild St and Evergreen St receive a very large amount of cumulative excess storm water runoff. We were also pleased to find many storm water detention projects being proposed for the VECA area address the excess storm water runoff in VECA. However, we did find confusion in the terminology and we ask that it be more clearly specified in the final draft. The term " greenline" seems to be used interchangeably with "greenspaces", MLGW open spaces and the V&E Greenline trail.	Tetra Tech will revise the report with consistent terminology when describing the greenline, greenspace, and MLGW property.
	We suggest the following terminology: V&E Greenline Trail for the actual space where the trail is located, which can be up to 50 feet wide. V&E Greenline property for the area outside the trail, but owned by the V&E Greenline Community Corporation. MLGW open spaces should be used for property owned by the utility that is both open space and tree lined space. The V&E Greenline Community Corporation owns the V&E Greenline land, while the V&E Greenline VECA Committee manages the maintenance of the trail. When examining some of the projects, we could not determine if the projects would be on the V&E Greenline Trail and that should be clarified in the final report.	Tetra Tech will revise the report with consistent terminology when describing the greenline, greenspace, and MLGW property.
	As the planning and construction go forward, care must be taken not to damage the V&E Greenline trail and especially the tree lined trail east of Auburndale St. The conveyance of storm water should not be on the V&E Greenline since that would degrade the trail. The V&E Greenline Committee supports the conceptual projects with the caveat that both the V&E Greenline and VECA should be consulted on a regular basis in the design and construction process.	Tetra Tech will include similar language in the report and clearly state that the areas mentioned are of significant value to the community and should be preserved in the final design.
	Conceptual 12: Historic railroad bed converted to greenline; Project Description: 0.82 acre lot between Hawthorne and Auburndale. .83 acre lot between Auburndale and Evergreen. 0.88 acre lot between Evergreen and Belvedere. Underground detention and/or detention basis opportunities in each of the lots along the V&E Greenline. A project or several projects are needed in this area because of the flooding on Auburndale, Hawthorne, Tutwiler, and Idlewild. This project might be renamed "MLGW Open Spaces near Auburndale and the V&E Greenline".	Rename project

Name	Comment	Tetra Tech Response
V&E Greenline Committee and V&E Greenline Community Corporation (03/11/2011) cont.	The V&E Greenline itself, a 50 foot wide rails to trails project should not be used. It is elevated over the surrounding land, has a stand of beautiful trees, and is a premier walking path used by many in VECA, Evergreen Historic, and even beyond.	Include similar language in the report and clearly states that the areas mentioned are of significant value to the community and should be preserved/conserved in the final design.
	The map of the detention between Idlewild and Auburndale appears to show the detention will not involve the V&E Greenline Trail. The section between Auburndale to Belvedere shows the V&E Greenline would be impacted. In the latter case, how would the trail be preserved?	The recommended projects are conceptual in nature and specific design considerations should be discussed during project design.
	The MLGW open spaces and a MLGWaccess road are to the south of the V&E Greenline and would appear to be great opportunity for detention. A complication is a main water line that may lead from the pumping stations—it needs to be identified as quickly as possible.	Utility conflicts make this detention opportunity difficult if not impossible to implement
	There are two turns of Lick Creek between Auburndale and Evergreen that are a chokepoint and a project is needed to address the chokepoint, and purchasing four to six houses and that space would then be a detention pond. Neighbors indicate that one of the houses is in foreclosure and could be purchased by the city now. Another neighbor has indicated a willingness to a buyout. In addition, 663 Hawthorne backs up to this area and might be a buyout candidate. The area west of Evergreen also has an opportunity for a detention basis using a buyout. There is some concern that Lick Creek may be narrower in this area west of Evergreen St.	Buyouts are recommended in the report and buyout packages were supposed to be sent by the city to home owners who commented during the public meeting that their home was flooding. Additional details and assumptions about the locations of the buyouts would not be possible at this time and beyond our scope. However, this information is very helpful and should be shared with city officials.
	Conceptual 7: West of Charles Place dead end at Greenline, access off Springdale; Project Description: Combination of underground detention and detention basis opportunities in historic railroad bed V&E Greenline and in small wooded area. It is not clear what is being proposed, but there are opportunities in land that is not productive and the V&E Greenline Community Corporation would be interested in pursuing a discussion. In addition, there is vacant land directly on Springdale south of Vollintine that could be purchased now at an affordable price—one of these is a tax sale property.	The Conceptual-7 project was removed in the final report. However, based on the comment, there appears to be several opportunities for purchasing property in this area for detention projects. Additional details and assumptions are not possible at this time. However, this information is very helpful and should be shared with city officials.
	Conceptual 9: 2.78 acre lot owned by MLGWin Greenline; drainage canal flows North of Glenmary Apartments, under the V&E Greenline and through MLGWlot. MLGW property is the location of the project opportunity. Underground and/or detention basis could be constructed depending on underground utility conflicts. This is an excellent site that is mostly open. Care should be taken not to damage the trees on the south end of the property. This project might be renamed land in the MLGWOpen Spaces near Avalon.	Rename the project MLGW Open Spaces near Avalon.
	Conceptual 14: University Park. There is plenty of room for large detention basin in the park, while maintaining athletic fields. This would seem to be a good use of the land, but the land is contaminated with Cypress Creek soil and was capped with clay. The park has minimal usage at the present.	The project recommended in University Park will be removed from consideration due to the contaminated soils and it's location at the bottom of the watershed. Cypress Creek is large enough at the confluence to handle storm flows.
	Snowden Field: The Division of Engineering Project: Snowden Field detention: This is a great idea and will help with flooding on McLean and Tutwiler.	The Snowden School project is being designed by the city.

Name	Comment	Tetra Tech Response
E G (03/16/2011)	I notice little if any mention of Cooper Young area in report. I know I was there and several other people from CY. As we told you at the meeting, we have a serious problem with streets flooding and basements flooding. The only reason we haven't had homes flooding is that so many are on hills and most all are over crawl spaces. I have lost one car to street flooding and untold amount of damage to my landscape. My neighbor and I both, as we explained to you, have problems with major holes in our yards and one hole in front of my house that has already claimed one car. It is just a matter of time till major amounts of damage are done in this area. While I understand this report was concerned mainly with the major part of problem, we in CY have so many problem or ones that will be in the future. The holes I mention are due to infrastructure failing as well as being inadequate for the amount of water it is having to carry. That brings me to another thing I feel should be recommended to the city: we must enforce the laws on developers and past new ones if needed, to force them to work with residents in neighborhoods.	The Cooper Young area is being addressed in the report through project opportunities in Arlington Bayou and proposed detention at Overton Square. The network of these projects should help alleviate the flooding problems in Cooper Young. Failing infrastructure should be addressed by the city.
Kristen Edwards (03/16/2011)	I have not been able to read the whole report yet. I do see on page 11 in the "areas in the basin that have reported significant flooding" the 2000 block of Cowden is missing. My neighbor and I have been flooded multiple times over the past few years (garage (car) , basement, yard areas) and felt that should be noted also.	The list on page 11 is just a summary of some of the areas that have reported flooding. We will add Cowden to the list.
Katie Suda (03/16/2011)	I am concerned about the flooding and sinkhole issues in Midtown. I understand that your organizations have completed a draft to submit to the city with recommendations to help manage the Lick Creek Basin flooding. However, only a couple of Cooper Young drainage issues made the report and little is mentioned about resolving the collapses in the infrastructure in midtown, especially in Cooper Young. I am asking that you extend your draft to include the drainage and infrastructure issues in Cooper Young. All of midtown is affected by the Lick Creek Drainage Basin and all of the issues should be rectified for the taxpayers in midtown. As you know, many of us have basements since the majority of properties are older homes. My home is 99 years old and my basement flooding has increased since I purchased the home six years ago. In addition, sink holes have emerged in many of the streets in Cooper Young. Running the 4-miler in September was interesting - I never had to dodge so many sink holes in a race before in Memphis or other places in the US!	The Cooper Young area is being addressed in the report through project opportunities in Arlington Bayou and proposed detention at Overton Square. The network of these projects should help alleviate the flooding problems in Cooper Young. Failing infrastructure should be addressed by the city and is recommended in the final report as a priority.
Evergreen Historic District Association (03/17/2011)	We strongly recommend further study of the Royster Bayou, as the report does not provide sufficient detail or suggestions for alleviating problems within Evergreen. The area in question received significant work performed by the City last year and it is unclear what impact the completion of that work has had. It does appear that the work around Overton Park Avenue and Angelus has brought to light existing problems with breaches between the sanitary and storm sewer systems along the box culvert section of Royster. Extensive evaluation of the sanitary sewer in this area is critical for any real progress to be made. A good deal of the flooding occuring in this area is backup through sanitary drains during significant rain events.	The Royster bayou area has been studied and addressed in the report with recommendations and explanations. Based on city recommendations, the Conceptual-8 project will be enhanced. Further, buyouts are recommended as a priority in Royster bayou due to limited opportunities for detention projects. Additional details and assumptions about the locations of the buyouts would not be possible at this time and beyond our scope. Additional details about FEMA buyouts can be found at http://www.fema.gov/government/grant/mitmeasures/buyouts.shtm. The sanitary sewer problems are addressed in the recommendations as a priority.
	The second area for further study is the volume of water entering Royster from south of Poplar. It appears in significant rain events that this is the source of a large portion of the flooding that occurs on the open-air stretch of Royster in Evergreen. There are several areas south of Poplar that appear to be ideal for possible detention projects. As they are significant contributors to the storm water in the Royster Bayou, they should be studied in detail for possible alleviation of flooding in Royster.	The Conceptual-8 project enhancements recommended by the city include the area North of Poplar Avenue. The area South of Poplar Avenue has a small drainage area and a project at Catholic High School is being proposed for that area.

Name	Comment	Tetra Tech Response
Evergreen Historic District Association (03/17/2011) cont.	The report mentions possible buyouts of homes in Evergreen for destruction and construction of detention as a solution. Evergreen cannot support the destruction of histroic homes in the center of our neighborhood without much more extensive study of the basin. We suggest an immediate study of the sanitary sewer system as well as study of possible detention south of Poplar in commercial areas as first steps that should occur before any buyout of property in the neighborhood.	Catholic High School is being considered for detention south of Poplar Avenue. Also, the Conceptual-8 detention opportunity has been enhanced based on recommendations from the city. Buyouts are recommended in flood prone areas and are recommended as a priority in Royster Bayou due to limited opportunities for detention projects. Additional details and assumptions about the locations of the buyouts would not be possible at this time and beyond our scope. The general requirements for the program as it stands now are defined by FEMA.
Shannon Dixon (03/17/2011)	I am writing to give feedback on the Lick Creek report. Little is mentioned about resolving the collapses in the infrastructure which is a common problem within Cooper Young. Please address this problem more specifically in your report and help our community find solutions to it.	The Cooper Young area is being addressed in the report through project opportunities in Arlington Bayou and proposed detention at Overton Square. The network of these projects should help alleviate the flooding problems in Cooper Young. Failing infrastructure should be addressed by the city and is recommended in the final report as a priority.
VECA Storm Water Committee (03/23/2011)	We support and encourage all the projects being completed as listed in the recommendation. We understand that only if **ALL** the projects are completed will provide the highest protection from flooding in the VECA neighborhood. The exclusion of any of these projects will result in greater excess storm water runoff in VECA and in our streets, yards, and homes.	The recommended projects are conceptual in nature and specific design considerations should be discussed during project design.
	The draft version does not include all of VECA and the Lick Creek drainage basin as it stops along Lick Creek at Maury. Lick creek continues past Maury up to Bellevue and then turns north until it eventually reaches the Wolf River. Several residents who live along Lick Creek past Maury have experienced flooding and we would like this area evaluated and recommendations be included in the final draft.	We were tasked to evaluate flooding problems within the watershed boundaries shown in the report.
	Many long time residents of VECA feel that the worst flooding has been since regular maintenance of Lick Creek was stopped about 10 years ago. By removing the debris and overgrowth, including trees branches, will clear the flow of water and prevent pinch points that lead to creek overflow and associated flooding. We would like the wording of the final report to include “maintenance” of the creek as a priority instead of being listed under “other options” as it is currently worded.	Tetra Tech will move maintenance to the priorities section of the recommendations section.
	It has been brought to our attention that multiple residents of VECA submitted detailed documentation and narratives of their flooding that were not included in the draft version of the report. We have asked that these residents resubmit their documentations and that they be included in the final report.	All written correspondence provided to Tetra Tech via the public meeting and/or email will be included in the final report appendix.
	After review of Figure 5-6, it appears that areas in VECA will still be the hardest hit after the completion of all the projects. The areas west of Mclean along Lick Creek still appear to have between 1M and 3M cubic ft of excess water runoff, greater than any other areas in the Lick Creek Drainage basin. We would like clarification if these excess water runoff numbers translate to flooding in our streets, yards, and homes. If so, we would request additional projects be investigated to prevent flooding.	Tetra Tech will describe in better detail the volume approach. Also, enhancements to the volume estimates will be performed based on recommendations by the city to more accurately represent the capacity of the conveyance channel. A water surface elevation model should be used to simulate the effects of the network of recommended projects on specific areas.

Name	Comment	Tetra Tech Response
VECA Storm Water Committee (03/23/2011) cont.	There was mention of property buyout in the Royster Bayou but no mention of buyouts in VECA. Several VECA residents between Idlewild and Evergreen have been contacted about possible buyouts. Additional clarification should be communicated about the buyouts and the associated requirements and eligibilities. In addition, we would like a scenario included that would show the results of the buyouts to the excess storm water runoff in these areas.	Buyouts are recommended in flood prone areas and are recommended as a priority in Royster Bayou due to limited opportunities for detention projects. Additional details and assumptions about the locations of the buyouts would not be possible at this time and beyond our scope. The general requirements for the program as it stands now are defined by FEMA. Additonal details about FEMA buyouts can be found at http://www.fema.gov/government/grant/mitmeasures/buyouts.shtm.
	There is no mention of a building code change for the Lick Creek basin. We must address future storm water issues now through storm water building codes enforcement and changes. We would like this to be a recommendation in the final report.	Storm water management and better communication between engineering and development are recommended in the priorities section of the report under OPD and Engineering.
	Finally, we would like the sewage backup issue be addressed. It is apparent to most residents that the sewage backup only occurs during times of excess rain and is therefore related to storm water runoff. This has the greatest impact to the health of our residents. We understand that the city may be doing some sewer line testing, but nothing has been communicated to the residents about the results or solutions.	The sanitary sewer overflows are in the priorities section of the recommendations report.
The Lick Creek Storm Water Coalition (03/24/2011)	The report describes 25-year storm values for proposed projects and not the 100-year storm values, which is the industry standard. The 100-year data should be included.	The report describes the 25- and 100- year storm events in the volume approach section. The final network of projects should be optimized with a water surface elevation model that takes into consideration hydraulics. Page 34 of the report describes this in better detail under the 25-year volume analysis results. Tetra Tech will enhance the 25- and 100-year discussion within the report.
	Provide a table indicating what areas (Belleair, Zoo, Evergreen, VECA) would be the beneficiary of each of the conceptual projects, and to what extent the improvement would be.	The recommendations are based on a network of projects and would need to be further optimized based on hydraulics for specific site flooding problems.
	While the color-coded maps showing overall water volumes with and without detention are one method of conveying the information, there is concern that they may not provide a clear enough picture of specific areas flooding in significant rain events. The maps convey that entire areas either flood without the proposed projects or do not flood following completion of projects. More detailed maps should be provided to show the areas that will or will not flood during the different scenarios. The current maps give the incorrect impression that certain areas will have no more flooding.	Tetra Tech recommends that the network of projects in the report be further evaluated with a suitable hydrologic/hydraulic model such as the SSR Ellers water surface elevation model. The results from such a model would convey more clearly the locations of localized flooding.
	In the 100 year analysis, the 3 conceptual projects with the largest potential volumes are #1 at Overton Square, #12 on the V&E Greenline and #14 at University Park, however, in the 25 year analysis these volume projections are all reduced and in the case of #12 the reduction is a million cubic feet. Further explanation of this discrepancy should be provided.	The conceptual project volumes used in the 100-year analysis were conceptual in nature and were based on excess volumes in order to begin an assessment of needs within the basin. Field reconnaissance of the sites was performed to enhance the assessment and determine what could be feasible. Tetra Tech will enhance the discussion of the volume approach to more clearly distinguish the 100-year and 25-year project progression.
	With regard to conceptual project #1, how much of the vacant lot south of Madison would be required to achieve the volume projected in the report and how much of the total does this lot represent? Is the theater parking area and the dairy property included in the totals?	The question is about specific project design and is outside the scope of our work.

Name	Comment	Tetra Tech Response
The Lick Creek Storm Water Coalition (03/24/2011) cont.	Possible improvements to Lick Creek where it crosses under Poplar Avenue and engages bridges within Overton Park should be considered to increase flow and relieve pressure in the Belleair area.	The city currently has plans to design and construct new culverts below Poplar Avenue. We support these plans and recommend that this work be done in conjunction with our Conceptual-3 project opportunity. The Conceptual-3 project description recommends the culvert enhancements under Poplar Avenue.
	Provide further study of the alleviation of the two sharp turns in Lick Creek between Auburndale and Evergreen and the impact this would have on reducing flooding.	Previous attempts to alter the channel in the VECA area were met with intense public opposition and were therefore not recommended in the report. Further, a hydraulic model such as the model developed by SSR Ellers for the Lick Creek Drainage Basin would be recommended to evaluate the impact of such a project.
	Consider the possibility of lowering the east bank of Lick Creek as it passes through Overton Park so that water could spill out into the forest area.	Existing ground surface elevations make this project an unlikely solution. Also, proposed earth work in the park has been met with clear public opposition. Lastly, legislation was recently passed designating the old growth area of the park a state natural area which would likely create a large hurdle to flood the area.
	Provide further study of the Royster Bayou, as the report does not provide sufficient detail or suggestions for alleviating problems within Evergreen. The area in question received significant work performed by the City last year and it is unclear what impact the completion of that work has had.	The Royster bayou area has been studied and addressed in the report with recommendations and explanations. Based on city recommendations, the Conceptual-8 project will be enhanced.
	Provide further study of the volume of water entering Royster from south of Poplar. There are several areas south of Poplar that appear to be ideal for possible detention projects. As they are significant contributors to the storm water in the Royster Bayou, they should be studied in detail for possible alleviation of flooding in Royster.	The Conceptual-8 project enhancements recommended by the city include the area North of Poplar Avenue. The area South of Poplar Avenue has a small drainage area and a project at Catholic High School is being proposed for that area.
	Further clarify the differences between V&E Greenline and MLGW green spaces. While these are contiguous in areas, the report does not differentiate between the separate areas adequately to understand the exact location of several proposed conceptual projects.	The recommended projects are conceptual in nature and specific design considerations should be discussed during project design. Further, the MLGW site is considered low in priority due to utility conflicts and small storage capacity.
	Provide more study of maintenance of the bayous and creeks across the entire basin. Removal of debris seems to have a significant impact across the basin for improving flow and alleviating flooding. This should be moved to a priority item.	Tetra Tech will move maintenance to the priorities section of the recommendations section.
	In several areas throughout the basin including VECA and Evergreen a significant amount of sanitary sewer backups occur during significant rain events. Repair of the breaches between the sanitary and storm water sewers should be listed as a priority item in the report.	The sanitary sewer overflows are in the priorities section of the recommendations report.
Margaret & Keith Kirkland (03/24/2011)	My home is at 368 Angelus Street, three houses south of Overton Park. We have experienced repeated flooding over the past nine years, yet our block is not mentioned on page 11 in the list of areas that have reported significant flooding. Flooding at the Overton Park - Angelus Street intersection also impacts at least three homes to the south of Overton Park, on the east side of Angelus Street. We submitted this information along with photos at the meeting at Snowden School and would like for our area to be included since we typically have 4 feet of water filling our back yard and 5 feet in our basement with resultant damage to HVAC, automobiles, appliances, fences and the structure of our home and garage. In the most recent flood, water was within a few inches of the back door threshold.	Tetra Tech will add Angelus street to the list of areas reporting flooding on page 11.

Name	Comment	Tetra Tech Response
Margaret & Keith Kirkland (03/24/2011) cont.	On page 18 there is a reference to a project that was completed in the Royster Bayou area near Overton Park and Angelus Street. After the project was completed our flooding continued.	More projects are required in the Royster Bayou to alleviate flooding.
	We hope that our property will be considered for a buyout.	The city has sent or is sending buyout questionnaires to individuals who have reported flooding.
June Hurt (03/24/2011)	The Board of Directors for the Cooper-Young Community Association has read the report draft and is pleased that one of the proposal projects addresses the flooding on York. Our only wish is to have some sort of recommendation to address the collapsing infrastructure in our neighborhood. The majority of the flooding and sinkhole issues are directly related to major collapses, and although this study is primarily about managing the Lick Creek Basin, we feel that it is important to get our primary concern in the report.	The Cooper Young area is being addressed in the report through project opportunities in Arlington Bayou and proposed detention at Overton Square. The network of these projects should help alleviate the flooding problems in Cooper Young. Failing infrastructure should be addressed by the city and is recommended in the final report as a priority.
Megan Wilkins Reynolds and John Reynolds (03/25/2011)	Please provide clarification regarding the surface level flooding that would be estimated to be present based on the model that projects cubic feet excess volume present following implementation of all recommended projects for 25-year flood levels (Figure 5-6). Specifically, what level of excess surface (street-level) flooding would we expect based on these excess volume estimates (e.g., 1M-2M cubic feet).	We will revise the report to more accurately reflect the expected excess volume of water in the lower portion of the drainage basin. However, water surface elevations (depth of water) at specific locations requires the use of a water surface elevation model such as the SSR Ellers model developed for Lick Creek. We recommend in the report that the SSR Ellers model be used to simulate the cumulative effect of all the projects in Tetra Tech's report.
	Concern regarding a portion of the Vollintine-Evergreen community that is not fully remediated by the proposed conceptual projects. It appears projections (with city and conceptual projects completed) represent improvement in the current storm water containment in our neighborhood; however, it is also clear from Figure 5-6 that portions of the V-E community (including our block of N. Avalon St. between Tutwiler and Jackson) are not adequately affected by detention estimated by the proposed conceptual projects when compared to all other neighborhoods in the basin. Indeed, it is within the only section that still appears in the "red" with regard to projected excess volume of water during a storm. Without more information regarding the amount of surface level flooding we could expect based on excess volume estimate projections, this is very concerning. **Currently, there is not information in the report that explains why this section of the V-E neighborhood is not adequately detained by recommended conceptual projects.** Buyouts are mentioned, but for the *Royster bayou* area – which appears to be adequately detained from Figure 5-6 if all projects are implemented. The above named section of concern (N. Avalon St. and neighboring streets North of Tutwiler St.) is in the *Lick Creek basin subsection* according to maps included within the Tetra Tech report.	We will revise the report to more accurately reflect the expected excess volume of water in the lower portion of the drainage basin. However, water surface elevations (depth of water) at specific locations requires the use of a water surface elevation model such as the SSR Ellers model developed for Lick Creek. We recommend in the report that the SSR Ellers model be used to simulate the cumulative effect of all the projects in Tetra Tech's report. Buyouts are recommended in the report to be considered for any areas prone to flooding.
	Regarding buyout option listed in the report, it also should be noted that documentation received from the City (dated 1/27/2011) that is referenced in the report mentions required eligibility for buyout to include a) flooding to have occurred three times within the last ten years and b) that the flooded property must have sustained damage from the May 2010 flood that would cost or exceed 50% of its pre-flood fair market value to repair. It is likely most properties in the basin would not meet these two criteria. If buyouts are indeed recommended, communication between the city and Tetra Tech is recommended to clarify what criteria are set for qualification for buy out.	The criteria for the buyout opportunities at this time is set by FEMA. Additonal details about FEMA buyouts can be found at http://www.fema.gov/government/grant/mitmeasures/buyouts.shtm.

Name	Comment	Tetra Tech Response
Megan Wilkins Reynolds and John Reynolds (03/25/2011) cont.	We recommend moving "**maintenance**" of the creek to "**priority**" rather than listing it under "other options" as currently written. In a recent meeting held in our neighborhood, several neighbors commented that the city's cleanout of the creek last year assisted in control of rain water excess in the months following. We would like to recommend Tetra Tech make this a "priority" for the city to develop a comprehensive maintenance program, including at least bi-annual clean outs of the creek. Much was done in the past year – but this was after *several years* of no maintenance of the creek. As a result, there still remain significant foliage (including tree overhang) that serves to block storm water (and thus support street-level flooding) in the creek during a heavy downpour. In addition, there are sections of the creek that currently have large tree branches and other debris that are obstructing water from passing by. This is particularly of concern under bridges in the creek. As a community (VECA), we have recently started cleaning trash out of the creek on a bi-annual basis. We are not able to do the level of debris clean up and cut down needed. We ask that the city do their part in maintaining Lick Creek on a routine basis.	Tetra Tech will move maintenance to the priorities section of the recommendations section.

Meeting Minutes for March 29, 2011
Review of the Lick Creek Drainage Basin Recommendations Report - DRAFT
With the City of Memphis

Location:

This meeting was held via telephone

Attendance:

Hugh Teaford (City of Memphis)
Steven Davie (Tetra Tech)
Eric Byrne (Tetra Tech)

Objective: The objective of this meeting was to discuss the City of Memphis review of the Lick Creek Drainage Basin Recommendations Report - DRAFT.

Agenda:

1. Discuss the city's review of each conceptual project opportunity
2. Other comments

Review of Conceptual Projects:

The first agenda item was to discuss the city's opinion about each of the conceptual projects in the draft recommendations report. For each project, Hugh provided comments, suggestions, and opinions. The following bullet list summarizes the discussion for each project.

- Conceptual-1 project is agreeable and the city commits to implementing a project(s) in the Overton Square area. The project(s) in this area consist of underground detention and will likely coincide with future development.
- Conceptual-3 project as shown in the recommendations report is not agreeable with the city. Hugh stated that a similar project was proposed in the original SSR Ellers report and that it was removed from consideration because the project could only reduce the water surface elevation by a couple of inches based on model simulations. A discussion was then initiated to ascertain whether the original model took into consideration upstream projects and whether the original report considered the cumulative effect of multiple projects. It was determined that the original model did not take into consideration conceptual upstream projects and that a cumulative project evaluation with the SSR Ellers model should be considered. Lastly, the city recommends that culvert expansion below Poplar Avenue be clearly identified and recommended in the final recommendations report.
- Conceptual-5 project as shown in the recommendations report is not agreeable with the city. As an alternative, Hugh stated that the city would like to include a project consisting of a berm along the old Trolley line to detain water in Overton Park during storm events. The project

being proposed by the city would include a wall with top of wall elevations of about 259 to 260 feet. Hugh said that this project has been extensively studied by the city and SSR Ellers. Tetra Tech requested more information about this project. In summary, the city would prefer the berm project over underground storage at the zoo. Also, the city believes that an underground detention project in the existing maintenance area of the zoo would be unpractical from an engineering perspective and prohibitively expensive.

- Conceptual-6 project is agreeable with the city but should be low on the priorities list.
- Conceptual-7 project is not agreeable with the city due to limited space, trees, and lack of reported flooding.
- Conceptual-8 project is agreeable with the city but it was stated that the project opportunity should be revised to a location south of where it's shown in the report. The city recommends that the project should be located between Overton Park Avenue and Poplar Drive. The city has sent buy-out packages to residence and agrees that buy-outs should be considered in Royster Bayou as part of the solution.
- Conceptual-9 project is somewhat agreeable with the city but should be last on the priorities list due to conflicts with MLGW and its location in the lower portion of the watershed.
- Conceptual-10 project is agreeable with the city.
- Conceptual-11 project is agreeable with the city.
- Conceptual-12 project is somewhat agreeable but should be low on the priorities list due to its location in the existing greenline.
- Conceptual-14 project is not agreeable because of contaminated soils at the project location.

Other Comments:

After each of the conceptual projects was discussed, Hugh offered some suggestions to improve the clarity of the report. The following bullets summarize each suggestion.

- Hugh suggested that a stick chart and/or bar chart would be useful to show changes in cumulative excess runoff vs. detention.
- The city would like to see existing and city proposed projects be included in Tables 5-1 and 5-3.
- The city recommends that the subbasin area be included in Table B-2.