

## Brush Creek Feasibility Study: Bi-State Reach Workshop

### Alternative 1

#### Comments...

##### *Aesthetics...*

- Alternative seems more environmentally friendly.
- Looks more natural.
- Like the natural stream.
- Nature, density – pretensions in urban setting.
- Alternative 1 has more of a tiered bench. Not aesthetic (comparing to Paseo turfgrass) – feels empty.
- Looks more wild.
- Vast improvement. If you want to change what matters to people (vegetation) this alternative is easy to do that & make it attractive to people.
- Prefer this one, more flexibility with aesthetics. Creek at Martway and Johnson County where they are installing a natural stream.
- But going to have to weed for one to five years but after that it will work.

##### *Habitat Restoration...*

- Trees need to overhang the stream, important for habitat development.
- Good potential to use vegetation to improve water quality – consensus.
- Simple maintainable plants.
- Habitat restoration points based.
- Looking at it from a funding perspective.
- Lower maintenance = better.
- Like the idea of the paths.
- Getting rid of concrete.
- Like meander.

##### *Flooding and Water Management...*

- Seems like more open ground means better absorption.
- First alternative seems to make more sense in terms of carrying water.
- More water movement.
- This looks like infiltration.
- Needs to be a lot of variability in the water depth, not static. This changes the velocity (pool, riffle).
- Between Ward & State Line large pond or wetland to help w/flooding.
- Concerned about more vegetation causing back-up into Kansas.
- It is going to be tough to maintain this level of water during a flood.
- I like Alternative 1's upper flood plain.

### *Amenities...*

- If you had pathways across the creek would be great. Think accessible to recreational traffic.
- Parking would be nice.
- Like green space, picnic areas.
- Looks natural, but Brush Creek is an urban setting need recreational opportunities – trails, recreational areas.
- Can get down closer to creek.

### Questions:

- Likes the lush vegetation but is there a difference between how the different alts. Handle water?
- Will the 100-yr flood still be on Ward Parkway? Is that part of the design?
- How do you prevent the meanders from eroding away?
- Vegetation will catch a lot of debris/trash. Who is going to clean that?
- What can be done to keep the State Line area from flooding during a rain event? What will happen to all the trash that gets carried?
- Is Alternative 2 more likely to be funded because of more habitat restoration – fish/aquatic?
- Will the water feed into the current channel at the Plaza?
- 77 or 98 flood – which would handle the water best?
- Would more vegetation bring more wildlife into the Plaza?

## Alternative 2

### Comments:

#### *Aesthetics...*

- Would look ugly without any water in it during summer.
- In late summer in a dry year, this won't look as good.
- Looks more tailored.
- I don't know if I would want the whole reach to be Alternative 2 – maybe just one pool in one section.
- Like the wider stream.
- More natural environment would help wildlife – already living there.
- Likes Alternative 2 from a visual standpoint. Believes the increased capacity of creek in both alternatives. – but like the look of more water in creek.
- Does not look natural – strikes me as something that is unnatural.
- Second alternative is more visually inviting.
- Would be an interesting break in the “norm” as you're driving through – visually satisfying.
- Based on aesthetics a water channel is preferred, although anything would look better.
- A wider channel would cause a less obstructed view u/s & d/s.
- Like looking at water aesthetics.
- Both scenarios are nice.

#### *Habitat Restoration...*

- I like this alternative because it has more aquatic habitat. A larger pool could help make it cooler in the summertime. Alternative 2 could also improve air quality.
- This alt. looks like it will lend itself for creek to do what it'll naturally do.
- If this would allow for natural swales, etc., then support this one.
- Cement won't make it better environmentally.
- More natural environment would help wildlife – already living there.
- Like #2 but would support either that can get funded.
- Pools cooling effect.
- Getting rid of concrete.
- In the summer the evaporation is so much that there is not enough water.
- Residents may be willing to help with maintenance.
- This might be lower maintenance.
- Would be kind of a waste of energy.

#### *Flooding/Water Management...*

- Not a fan of Alternative 2 – depth is not appropriate, flow is not sufficient to maintain the water levels. Should have small flows, ripples.
- Pool may not work as that well with sedimentation.
- Concerned about maintenance – money and other resources.
- Ignores previous history references lower section but not existing structures – not feasible.
- Aren't we going to need to pump the water because we are going to get algae growth – in both alternatives. Worry that will be necessary.
- Deeper drop structures.

### *Amenities...*

- People spaces – overlooks, seating.
- If we knew we could swim in the pools, those would be preferable – but it looks like we can't.
- Ward Parkway area would be a good place to have a pool.
- Trees!
- This could be tempting to swimmers.

### Questions:

- From Tom's presentation - Will it continue to deposit muck on Ward Parkway and who will clean it up?
- Alternative 1 vs. 2 – What do you plan to do about water quality during the process of excavation?
- From Tom's presentation - How high will the water rise?
- Looking at 5-6 feet depth; was there any intent to have kayaking or other recreational activities?
- People access?
- If this plan goes through how daily do you plan to maintain it?
- How do maintain the higher water level? Wiers.
- Will more water produce more animals?
- Will it foster more rat populations – more “trash” loving animals? When they did this on the Little Blue River it multiplied the rat population.
- Is this going to be a concern with public safety & its depth?

### Other

- Don't know enough about differences to be able to give opinion on which is best alternative.
- How with depth compare to channel past Roanoke.
- The whole purpose should be function, so we need to know function before we can pick an alt.
- For me, it's how does it perform once it hits the Plaza.
- Could bio-swales/green streets be part of this project?
- First & foremost we need to understand the modeling and functionality.
- Need to see more on how it works as part of the overall watershed.
- Neither alternative seems to have any recreation or interaction w/the water itself, which could be a missed opportunity.
- I'd like a combo.
- Have we put a price on anything yet?
- I would like to see 1/2 of 1's lower flood plain, and then the other 1/2 a flood plain bench.
- Why couldn't it be both? Combo. Like what's natural
- Varying scales of size in the channel is interesting.
- Keep the trees! Keep to natural topography as much as possible, so if that means narrowing some parts of the channel to save the cottonwoods, then save the trees!
- Hope for there to be opportunities to have space in the waterways in order to actually be near the water – read a book, have a picnic, rose garden, engage with the landscape.
- Need to have points of access.
- Have some spaces that are as far from street noise as possible.
- Partnership with Climate Center.
- ICET funding amenities for pedestrian & bicycle?
- Look into funding pools.

- Can we get pictures of what natural flow looks like so we're not trying to force it?
- Interested in maintaining natural state. Work with the creek, not against it.
- I would want to look at the whole region; what habitats have we lost, and what habitats are we forecasted to lose? We should account for this.
- Disappointed with parts that have been developed at the Plaza. More access & recreation needed.
- When deepened channel + raised level + took off baseball diamond + amenities.
- Prefer a blend of the two.
- Bike trails underneath bridges.
- Ever fishable? Or swimmable?
- At the Plaza there is no easy way to get across it. Would be convenient if you could GPS.
- Don't like bike trails that cross roadways, it is a deathtrap. Want a dedicated bike lane or bike lane to go under the bridge.
- Bike trail connection on State Line going under State Line to complete access between.
- Anything you can do to steer water will help flooding downstream (especially between Ward & State Line and if it was a wetland)
- More water underneath those streets.
- More information needed about what it is going to look like during a storm.
- What happens upstream is much more important (JoCo) concerning storms.
- The stream is not a healthy ecosystem. What makes it a healthy system is people's presence.
- The more low maintenance the better.
- Learning more about maintenance plans. Some places of creek have dead animals. How do we plan for that? Maintenance.
- Are the alternatives being presented in line with the BCCC goals? Yes. Yes – improvement from existing. Sustainable question – when you have a flooding event, these may not be sustainable. Never going to be natural.
- How well does it address flooding concerns?
- Feel like real problems are downstream of the Plaza.
- Hopefully the MSU will resolve a lot of these pollution issues.
- How many drains go into this section? Concerned about overflow. Mostly surface runoff. Main issues here are golf courses.
- Interested in knowing what is going to happen to the concrete, reuse it?
- Is the main difference just the depth?
- How are we anticipating using the creek now?
- Might be safer to recreate in the water because it would be slower – water quality would be improved.
- Aren't really understanding the difference between the two alternatives.
- Are they (the engineers) OK with the capacity of the State Line Bridge?
- Will there be areas to play still – is that still the intent of the areas around the creek?
- Either alternative is a big improvement.
- Will we lose the tennis courts? There are people who want them to stay.
- BBQ pits? Would those be considered?
- Would like to see a lot of public use opportunity.
- The features in new parks in neighbor parks bring people out to use it.
- Parking access? Will that be a problem? Will there be parking?
- How far will the trail connection go?
- Any thoughts to connect trails to those in KS communities? Mission, etc.

- Creekside residents in Fairway are not thrilled about the streamway trails the JoCo is committed to. They are concerned that it will bring undesirable people to their backyards.
- If we change the habitat is that going to cause more wildlife?
- We don't want to encourage non-desirable wildlife like foxes, coyotes, etc. That would not be good.
- What is the ultimate goal of this project?
- Any discussion on water pollution east of Plaza?
- Is one alternative better than the other?
- What is the difference in water depth & how does it contribute to habitat type?
- What do the geese like better?
- Any difference in flood elevations?
- Homes & structures in floodway?
- Create an accommodating space for people & habitat.
- All the vegetation creates a barrier to the creek.
- Any being proposed is a good thing.
- How does this impact taxpayers?
- Any time estimates to implement project?
- Construction noise!
- How much will these alternatives cost?
- Job creation.
- Mission & vision being met.
- Maintenance – city response. City, parks & recreation coordination.
- City/parks property? - yes.
- Great improvement.
- Like idea of looking at more water.
- How to manage large groups of birds? Use of dense vegetation (predators can hide)
- Trails – are they close to the stream?
- Double trail is good idea – trail close to stream & one further away (can use at night for security).
- Is there more possibility for double trail in either Alternative? Not as much space in Alternative 2.
- Are we talking fish, crawdads, animals?
- Sewage disposal – how are we handling it?
- Is recirculation part of this plan?
- Will large animals (deer) be a problem on roadways?
- Do we want animals in neighborhoods?
- What is timeline? Planning process complete early next year. Feasibility study.
- Is either alt. better for flood control? Both are intended to improve flooding situation.
- Can this project join both states together?
- Show with this project that it's one community, visually.
- Include KS in ecosystem restoration projects.
- This could bring people together, across state lines.
- Can we incorporate things to encourage public participation, recreation, music?
- Include programming space.
- People are interested – need someone to sell this community project.
- Like soft waterfall effect – it is attractive.
- How does water back up?

- Will A or B address flood control? Flood control is important. Keep cars safe. Top safety considerations.
- Aesthetics need to be put aside, project needs to address safety issues (i.e. flooding).
- What is the maximum solution for flooding? Is it Alternative 1 or 2?
- How would projects be phased? Would want to replace bridges at same time that project is being constructed.
- Is there cost analysis? Alternative 1 vs. Alternative 2 vs. Plaza reach.
- Indifferent to either one as far as aesthetics.
- Can't walk from Roanoke (on either side of creek) to State Line safely. Would be a neat walk/bike ride.
- Is there any other water mgmt. within these projects? Curb cuts into rain gardens? Swales?
- What is planned on KS side? Need coordination between state lines?
- Ward Pkwy. Bridge is problematic. Sedimentation.
- 18<sup>th</sup> & Broadway – example of BMPS, gardens.
- Concerned w/large storms.
- Will the channel be dry at times? Channel will not be good/aesthetic if it is dried up.
- One large rain will take out meanders.
- Plants need to be able to sustain heavy rains.
- KC Country Club (Indian Lane into Mission Dr.) – plant “sustainable” plan and plants; large rainfall (100 yr) wiped out plants.
- Start with the bests engineering solution (best design to alleviate flooding risk) and enhance that aesthetically.
- Plaza has contained & helped w/water problem.
- Water control is primary goal then add aesthetics.
- A combination seems interesting – fish/water birds/terrestrial species.
- What is going to happen with the sewer system that flows into the channels? (Large tunnel constructed under Brush Creek to capture the overflow.)
- What can we maintain and at what price?
- How long until the studies are complete?
- How will information disseminate to the neighborhoods to educate them on what they can do on their own properties to improve water quality?
- Concerned about property values and visual appeal and habitat.
- Neosho Dr. – Last natural remnant of Rock Creek.
- Water floods at Ward Parkway up to Pembroke Hill. May be something that needs to be looked at vs.
- Talk to people vs. on both sides. New sewers will increase inflow.
- Aesthetics are great but are not primary concern.
- What are funding sources? Local? How does it impact project?
- In 1998 flood, people were killed by Carriage Club.
- Concerned with traffic on Belleview Bridge.
- Should make reservoirs for flood control.
- Local people should weigh in more than non-locals.
- Funding source – bi-state tax (i.e. 2 year. plan, 5 year. plan). Extend conceptual plan to KS side.
- Incorporate incoming tributaries.