ST. CHARLES SINCE 1834	**AGENDA ITEM EXECUTIVE SUMMARY**	Agenda Item number: 5.a
	Title:	Presentation of Concepts from the Active River WBK Feasibility Study– Information Only
	Presenter:	Chris Adesso/Greg Chismark – WBK, LLC.

Meeting: Government Services Committee	Date: June 26, 2017	
Proposed Cost: $ N/A	Budgeted Amount: $ N/A	Not Budgeted: ☐

Executive Summary (*if not budgeted please explain*)**:**

In October of 2016 the City of St. Charles, the St. Charles Park District and the River Corridor Foundation entered into an Intergovernmental Agreement (IGA) to jointly sponsor and fund an engineering feasibility study of the "River Park" concept as presented by the Active River Task Force. The study was to focus on the section of the Fox River located between the Main Street bridge and the UP-railroad trestle to the north. WBK Engineering was selected to perform the study which was expected to take about nine (9) months to complete and was intended to provide a "proof of concept" to the "River Park" idea. A copy of the study's Executive Summary has been included in the back up documentation to tonight's agenda item.

The study has been completed and Greg Chismark, Vice President of WBK, will present the concepts that were developed during the study, important information on the existing conditions of the river and cost estimates as requested by the Committee.

Also included as a supplemental document is a Memorandum from Active River Task Force Chairman, John Rabchuk that summarizes the Task Forces' thoughts and opinions on the project and attempts to answer some Frequently Asked Questions.

Attachments (*please list*)**:**

* St. Charles Active River Park Executive Summary by WBK Engineering * Memo from Active River Task Force * FAQ – Frequently Asked Questions

Recommendation/Suggested Action (*briefly explain*)**:**

None – For information only.

St. Charles Active River Park

Project Summary June 16, 2017

Purpose and Scope

In 2015 the City of St. Charles, the St. Charles Park District and the River Corridor Foundation of St. Charles jointly updated the Fox River Corridor Master Plan intending to provide a strategic framework to enhance the Fox River as a resource for the community from an environmental, recreational and economic development perspectives. The Master Plan provides guidance for public and private investment / projects along the Fox River in St. Charles and recognizes the importance of connectivity of the river and adjacent land uses.

The City has engaged WBK to investigate alternatives to accomplish the objectives of the Master Plan with a focus on the section of the Fox River between Main Street and the Union Pacific Railroad (UPRR) trestle. This section of the Fox River is approximately 1100 feet long and includes the St. Charles – Fox River dam. The St. Charles dam is 300 feet long with a crest elevation of approximately 684. Mean daily flows can be approximated at 1200 cubic feet/second (cfs). Normal pool elevation is approximately elevation 686. Based on the best available records the dam is owned by the Illinois Department of Natural Resources.

The purpose of this study is determine qualitatively if dam modification appears feasible and to develop a set of concept alternatives that accomplish the objectives of the River Corridor Foundation of St. Charles Master Plan without significant / adverse impact to existing recreational uses of the river. This concept study phase will conclude by identifying significant challenges and opportunities created by proposed concept alternatives, as scoping items for future evaluation and engineering.

Existing River / Dam Conditions

Two significant existing challenges exist within the study area of the Fox River; public safety and ecological impacts of the existing St. Charles dam. Public safety concerns with low head dams are well known and documented and including an evaluation of the St. Charles dam in the 2007 Run-of-the –River studies by the Illinois Capital Development Board. Uses of the river are restricted adjacent to the St. Charles dam. Flooding of IL 31 upstream of the St. Charles dam occurs when water levels in the Fox River rise and has traffic impacts. Approximately 820 feet of IL 31 adjacent to the project limits and upstream of the St. Charles dam lies within the 100 year floodplain of the Fox River. Additionally, the dam is a recognized impediment to fish passage and other species who make their home in and around the Fox River. The lack of fish biodiversity in certain segments of the Fox River as a result of dams is well documented and resulted in the advocacy for dam removal or modification to facilitate the restoration of riparian ecosystems. The development of alternatives consider these challenges and seek to improve safety and the Fox River ecosystem.

Opportunities

Water Recreation

Public activity on the water of the Fox River between Main Street and Pottawatomie Park is less than the activity occurring both north and south of the project limits. Direct access to the water is limited within the study area and the study area can be considered underutilized from a recreational perspective. Opportunities involve improved connectivity on the water and access to the water form trails and adjacent land uses. The Fox River serves as a recreational water resource and also as an attraction and backdrop to many land activities including walking, running, bicycling and many other Park District activities. Potential enhancement of water recreation includes improved kayaking, canoeing, and fishing with potential for competitive kayaking and recreational surfing among other water based activities. The project provides an opportunity to better connect Potawatomie Park and the many existing water activities to downtown St. Charles businesses and customers. The Hotel Baker and Municipal Building are historic and significant land uses adjacent to the river with existing river access. We believe opportunities to provide enhanced access to the River and river trail / amenities will appeal to a broader segment of business patrons including potential for boat dock facilities within the pool at or north of the project limits.

Land Based

If a project such as this is implemented we believe significant land use opportunities exist adjacent to the Fox River within the study limits. Opportunities include the relocation of the Police Station on the east side of the river and potential reduction in floodplain limits west of IL 31. Although the extent of floodplain reduction west of IL 31 is uncertain at this concept phase, any reduction together with the proximity to a significant recreational destination is expected to enhance intrinsic land value and encourage evaluation of current land uses. We expect the rekindling of commercial interest to synergize with the river improvements to enhance the downtown business climate for all businesses along and near the Fox River, including Salerno's, Hotel Baker, Century Corners, Third Street and Main Street businesses.

Walking trails – Perhaps the most significant improvement opportunity to enhance recreation and the St. Charles' downtown business district lies with land connections via trails and pathways adjacent to the Fox River. Although an existing Riverwalk exists along the east bank of the river, it is not continuous across Main Street and ends at the Municipal Building / Main Street creating a less than desirable interface for cyclists and pedestrians. Although access from the study area to Pottawatomie Park is provided, access is not obvious nor comfortable when busy. An opportunity exists to improve this condition and perhaps provide a visible gateway from downtown St. Charles to Pottawatomie Park. Although the project limits end at Main Street, the project has potential to safely and easily facilitate pedestrians and bicyclists along the Fox River and to a future riverwalk extension under Main Street. There is also potential to directly connect Main Street to the west bank Riverwalk at First Street further strengthening the commercial / recreational connection. Finally, a west bank Riverwalk has potential to extend north of the UPRR trestle to Boy Scout Island. If accomplished this connection would link Boy Scout Island to Potawatomie Park and to the proposed improvements within the study limits.

Ecological / Cultural

The ability of the project to improve the biodiversity of plants and animals within the study area and adjacent segments of the Fox River is a noteworthy opportunity for the community. We expect fish passage to be significantly improved as a result of the project. We propose to introduce native plants within the study area and adjacent areas to create habitat for fish and other riparian species such as turtles, mussels and birds. Public education of the river ecology can be accomplished through signage and collaboration with Park District and School District activities.

The St. Charles community is proud of its heritage and through historic preservation sustains the memories and stories of past civic leaders and community efforts. Although this project seeks to create a new beginning for this segment of the Fox River, respecting the adjacent historic architecture, incorporating existing art elements and preserving the story of the dam itself can all be incorporated into the project. In addition, an opportunity to expand an understanding of the pre-settlement community and culture can be incorporated into recreational, landscape and other elements of the project.

Alternative River Park Concepts

The project team initiated development of alternatives by starting with the concept sketches in the Fox River Corridor Master Plan. We considered of a wide range of variations including modifying the existing dam, relocation of the dam, discussion on the extent of the study limits and consideration of multi-channel alternatives. We evaluated project elements against project goals, existing challenges and potential opportunities. We have developed three alternatives which we believe significantly improve public safety, enhance fish passage and provide recreational and economic development opportunities. While evaluating alternatives we sought to strike a balance between various interests to minimize impacts while providing benefit in accordance with project objectives.

Two primary concepts developed from our evaluation, primarily as a result the physical slope of the river across the study area. A single channel configuration achieves water "connectivity" and creates additional riverbank area for walking trails and riverbank amenities. The dual channel configurations expands the single channel concept to create a variety of paddling / water experiences by varying the slope of each channel. The island area is necessary to facilitate varying channel slopes and also creates a point of interest and facilitates enhanced access to the water. From these concepts we developed a total of three feasible alternatives; one single channel and two dual channel configurations. The alternatives are best depicted on three exhibits attached to this summary. A narrative overview of the alternative is provided hereafter:

- All concepts maintain the pool north of the UPRR trestle and have no adverse impact on 100 year flood elevations and will not result in sediment accumulation adjacent to Potawatomie Park.

- All concepts remove the dam in its entirety due to the proximity to Main Street and the adjacent walls of the Municipal Center and Hotel Baker.

- All concepts change the river profile from a single six foot drop at the existing dam to a series of three cascade drop structures across the length of the project. This serves to improve public safety and facilitate fish passage through this section of the river.

- All concepts include an upstream gated control structure with potential to reduce upstream flood elevations, to facilitate sediment transport and to support the existing recreational purposes. The type of gate and configuration is beyond the scope of this study however the Fox River has several gated structures / types between the Chain O Lakes and Dayton.

- All concepts narrow the width of the river from the existing pool condition to create additional riverbank to enhance access / use of the river and improve safety.

- The dual channel configurations have a "Primary" channel; depicted along the west bank of the area and an "Active" channel; depicted along the east bank of the area. This arrangement is reflective of the private land ownership along the west bank seeking to create activity on publicly owned land along the east bank. It also facilitates the confluence of State Street Creek at the west Bank of the river.

- The "active" channel in both dual channel alternatives have, in the terminology of paddle sports, a flatwater segment and a steep / whitewater segment. The primary difference between the dual channel alternatives is the location of the steeper segment being either closer to Pottawatomie Park or closer to Main Street.

Based on information gathered in accordance with the scope of this study we find these three alternatives feasible. It is noted that further study is necessary to define these preliminary concepts and to fully and better understand impacts, costs and schedule. In addition, other alternatives or variations of these alternatives may provide additional benefit or ability to mitigate impacts and may be developed or selected in the subsequent preliminary design phase of the project.

Other Similar / Recent Projects

It is useful to compare the project concepts developed to previously constructed projects providing similar functions. Accordingly, a comparison of the St. Charles Active River Park study area was made to the Glen Palmer Dam modification /Marge Cline Whitewater Park, both on the Fox River in Yorkville, IL. This comparison validates the feasibility of a river park concept in St. Charles. The projects are similar from several aspects including: both projects are on the Fox River, the length and elevation differentials are similar at each dam locations, the Glen palmer Dam project was recently completed (2011) and the Glen Palmer Dam project resulted in agreements between the Illinois Department of Natural Resources (IDNR) and Yorkville for maintenance of the whitewater park. This comparison is made solely to validate the feasibility of a River Park in St. Charles through the similarities in river segments. However, there is no

comparison relative to the adjacent land uses including Potawatomie Park, Hotel Baker, Main Street and adjacent commercial districts.

Regulation

Construction of a project in the Fox River involves a complex regulatory framework that involves public agencies and will also involve private landowner rights. The scope of this study was limited to review and engagement with the Illinois Department of Natural Resources – Office of Water Resources - Northeastern Illinois Regulatory Section (IDNR). Although a majority of the public regulation is under IDNR's authority the following list of regulatory compliance is recognized for consideration in the preliminary design phase of the project.

- The following regulation is under the authority of IDNR:
  - Public Body of water regulated under IAC 3704 rules
  - Dam Safety including construction, removal and operation under IAC 3702 rules
  - Floodway Construction NE IL under IAC 3708 rules

- The following regulation is under the authority of the United States Army Corps of Engineers Chicago District Regulatory Branch:
  - Federal jurisdiction is through the Section 10 Public Waters – River & Harbors Act.
  - Wetland fringe United States Army Corps of Engineers (USACE) jurisdiction under Section 404 of the Clean Water Act

- Regulation under the authority of the Illinois Environmental Protection Agency (IEPA) includes:
  - In river work may be subject to either IEPA Section 401 Water Quality Certification and/or the more stringent IEPA Bureau of Water Anti-degradation rules.

The project team introduced the three alternatives presented herein to IDNR for review and preliminary comment. No regulatory issue was identified that would render the project infeasible nor was a "fatal flaw" identified. In general, IDNR felt the project was feasible from their regulatory perspective. There are regulatory conditions and constraints that will require compliance, however, there is no regulatory conditions identified that we can find at this time to render the project infeasible.

The following regulatory issues need to be resolved or clarified:

- Riparian rights of private land parcels immediately adjacent to the Fox River. These owners have the rights of use and access and public access at these 3 parcels requiring legal review separate from the IDNR process.

- Creation of land within the limits of the river by means of fill will need to be publically owned. This may also give rise to a license to use / operate.

- IDNR is not likely to take ownership of new structures within the river (i.e. upstream control structure / gates) so a public entity willing to commit to ownership and maintenance will be required. We are assuming at this point that the City of St. Charles or the St. Charles Park District would need to fill that role.

- Signage / setback requirements at upstream control structure / gates.

- In-river work restrictions to protect threatened and endangered species. Of primary concern in this area of the Fox River is protecting the breeding habitat and season for the Greater River Red Horse.

It was clear based on our meeting that the type and scope of this project is not typical for IDNR to process. Coordination between sections and workgroups is necessary to coordinate all of IDNR authority and concerns. Although the IDNR-OWR Northeastern Illinois Regulatory Section identified themselves as the coordinating section for IDNR, a well-defined process and schedule could not be provided. Identify a permitting process & schedule with all regulatory agencies and a legal review of riparian rights is warranted in the preliminary design phase of the project.

Construction

The following outline is intended to demonstrate the feasibility of construction and generate an understanding of challenges and timeframes for construction of the project. It is based on a dual channel alternative. We envision the project to span at least two construction seasons and consist of multiple phases. One scenario includes the following major elements and phases:

1. Establish and set a temporary water control structure upstream just south of the UPRR trestle. This structure will serve to maintain he recreational pool north of the project location throughout construction.

2. Remove the existing dam to the elevation of the river bed. Dam abutments may remain pending structural evaluation of adjacent properties / structures.

3. Construct the south portion of the west (primary) channel and two intermediate cascade drop structures. A temporary A-frame structure can be erected parallel to the river to dewater the work area. Construct the south half of a concrete cutoff wall separating the two channels (The exact length of the cutoff wall is uncertain and the term “half” is used as an approximation). It is

anticipated this would be located in the core of the island and facilitate construction of the two intermediate cascade drop structures. The phase will not include State Street creek and will route the Creek north and around the A-frame elements.

4. Construct the north portion of the west (primary) channel and the upstream control structure. Provide A-frame cofferdams from the cutoff wall to the temporary water control structure at the upstream end of the project. Re-route State Street Creek through the recently completed phase. Modify the temporary water control structure as necessary to accommodate the new phase. Complete the north half of the cutoff wall from the prior phase to the north end of the project. Construct the permanent upstream control structure. Install control gates, mechanical and electrical elements including temporary controls.

   End Year 1

5. Construct the east (active) channel. Modify the temporary water control structure as necessary to accommodate the new phase, perhaps remove the west half. Provide A-frame cofferdams from the cutoff wall to the temporary water control structure at the upstream end of the project. Construct the active channel head control structure and active channel features.

6. Complete the pedestrian connection to the UPRR pedestrian bridge and east bank walk / bikeway improvements. Modify the temporary water control structure to accommodate this phase.

7. Perform final filling, shaping and “tuning” of river elements.

8. Install bridges and hardscape elements on the island.

9. Install final gate controls and island electrical elements.

10. Construct ancillary plan items and support features.

11. Perform restoration of all disturbed areas including final plantings and landscaping.

Process / Schedule

The process to design and engineer a dam modification / removal project typically includes two phases; preliminary design and preparation of final construction documents. Based on our findings and the need for further refinement, resolution and definition we believe this standard approach to be appropriate. The preliminary and final construction design phases would include:

- Preliminary Design

  - Design development of two concepts (~20% design)
  - Field Investigations
    - Sediment depth and constituents
    - Bathymetric survey
    - Rock coring/testing
  - Meetings with all regulatory agencies
  - Refine cost estimates and schedule
  - Identify required field investigations
  - Identify and affirm funding sources
  - Legal evaluation of project
  - Public participation
  - Preliminary Design Report

- Go/No-Go Milestone
  - Select preferred alternative
  - Confirm funding sources
  - Continue communication with regulatory agencies & regulatory changes

- Final Construction Documents
  - Final design development of preferred alternative
  - Final construction Plans, specifications, and contract documents
  - Final construction estimate and schedule / sequencing
  - Permitting and regulatory submittals
  - Legal requirements
    - Intergovernmental agreements
    - Easements / land rights

- Bidding including major equipment procurement & construction services procurement

- Construction Services

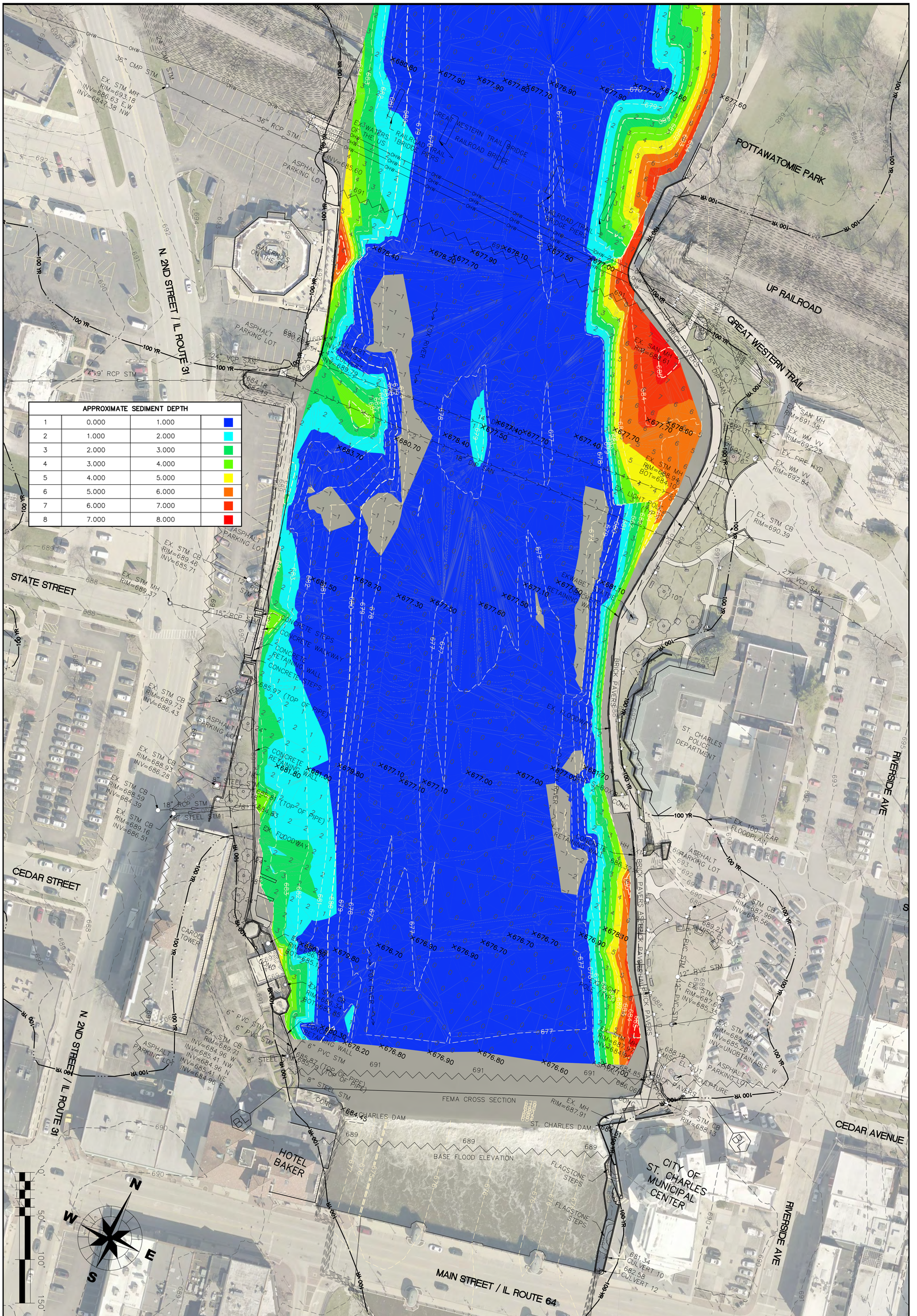
The project schedule for completion of preliminary and final design should be anticipated to be three years from authorization to proceed. This schedule could vary depending on project scope, sponsor agency interest is alternatives and regulatory requirements or changes. As noted previously, the project schedule for construction is anticipated to be two years. Procurement of a significant mechanical elements (i.e. gates) could be initiated prior to completion of final design to allow for manufacturing lead time if necessary.

Costs

Concept level costs for the project have been developed based on the dual channel alternative and the construction phasing and sequencing noted herein. The goal of this task is to provide order of magnitude funding requirements. The feasibility of achieving the funding level required may be judged based on other projects the City has invested public funds in the recent past. These include Wastewater Treatment Plant Improvements, Red Gate Bridge and the First Street Redevelopment. No two projects of this magnitude are alike or have similar funding sources. Construction costs, without contingencies and soft costs, are estimated in the range of $15 to $16 Million. With contingencies and soft costs the total project costs range from $20 to $22 Million.

Conclusion

Based on the team's understanding of existing conditions, the scope of proposed alternatives, regulatory requirements and stakeholder interests we believe the development of a successful River Park improvement project in St. Charles between Main Street and Potawatomie Park is feasible and will accomplish the objectives of the Fox River Corridor Master Plan. If public agencies desire to pursue these concepts, the next logical step is to develop a detailed preliminary design scope of services and to verify funding availability for preliminary engineering. This step would include public participation, regulatory agency coordination and legal review of project requirements.



SHEET: 1 OF 1	DRAWING NO. EC1	DATE : 06/07/2017	PROJECT NO. 160271

WBK engineering

WBK ENGINEERING, LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174
(630) 443-7755

CLIENT :
CITY OF ST. CHARLES
2 E. MAIN STREET
ST. CHARLES, IL 60174

NO.	DATE	NATURE OF REVISION

DSGN.	GJC
DWN.	EAM
CHKD.	GJC
SCALE : 1" = 50'	
EC160271.DWG	

TITLE :
RIVER PARK CONCEPT FEASIBILITY
EXISTING CONDITIONS/ SEDIMENT DEPTHS

St. Charles Active River Project

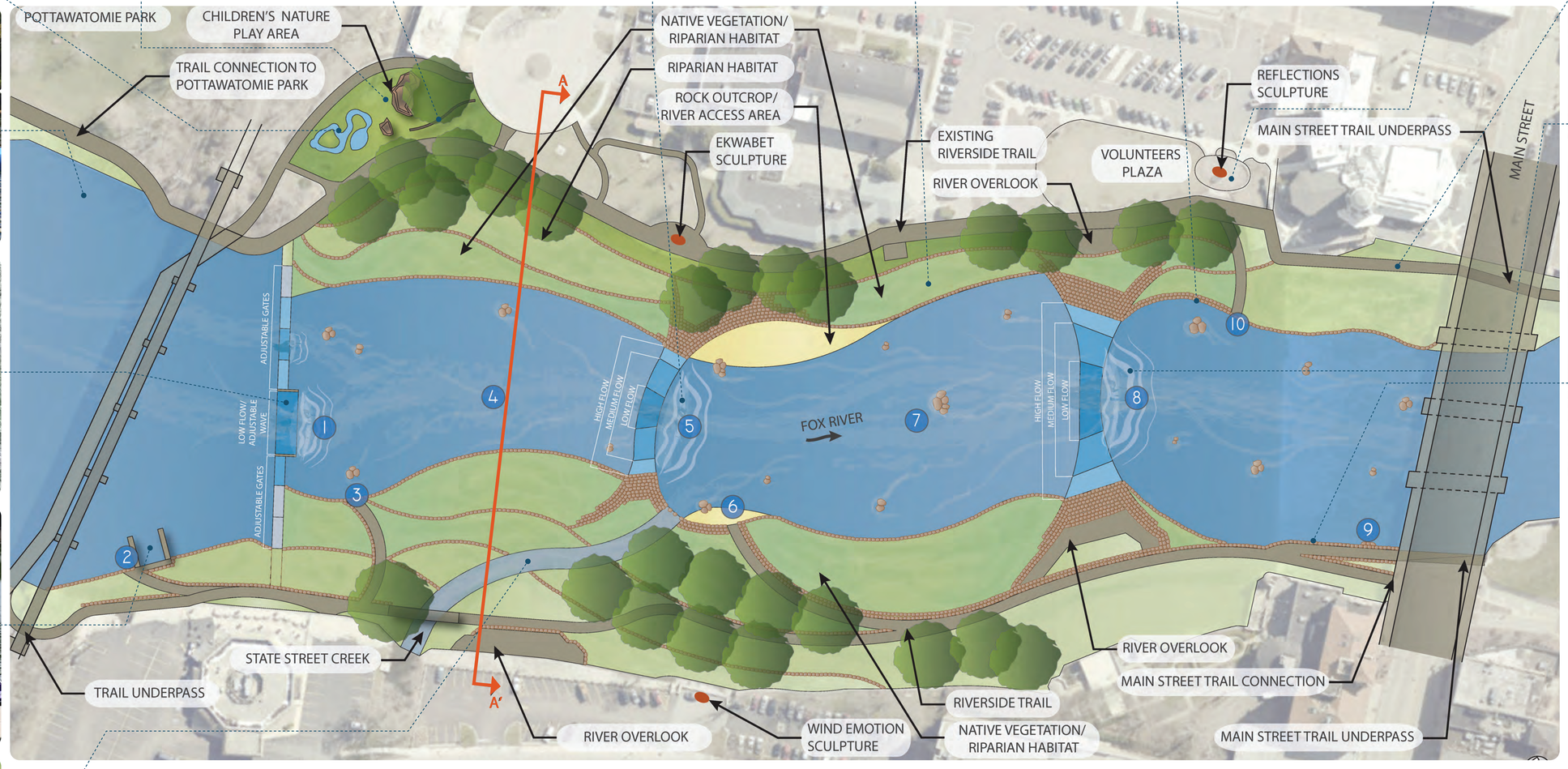
Alternative One

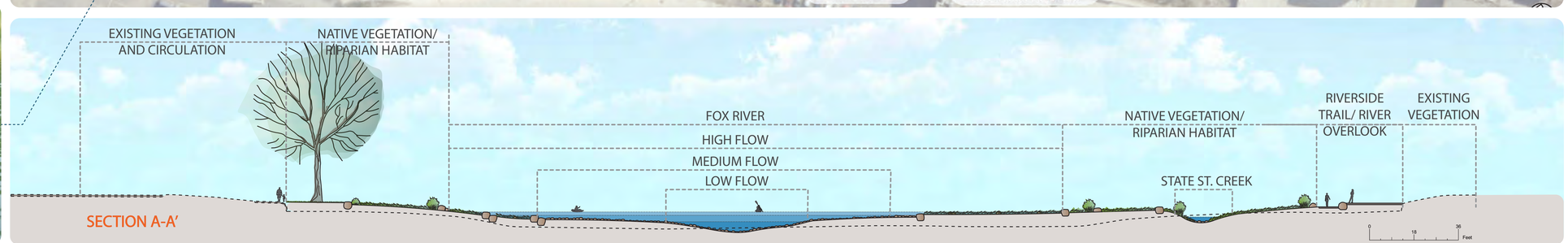
WBK engineering

S2O Reinventing Whitewater

June 26, 2017

ST. CHARLES SINCE 1834





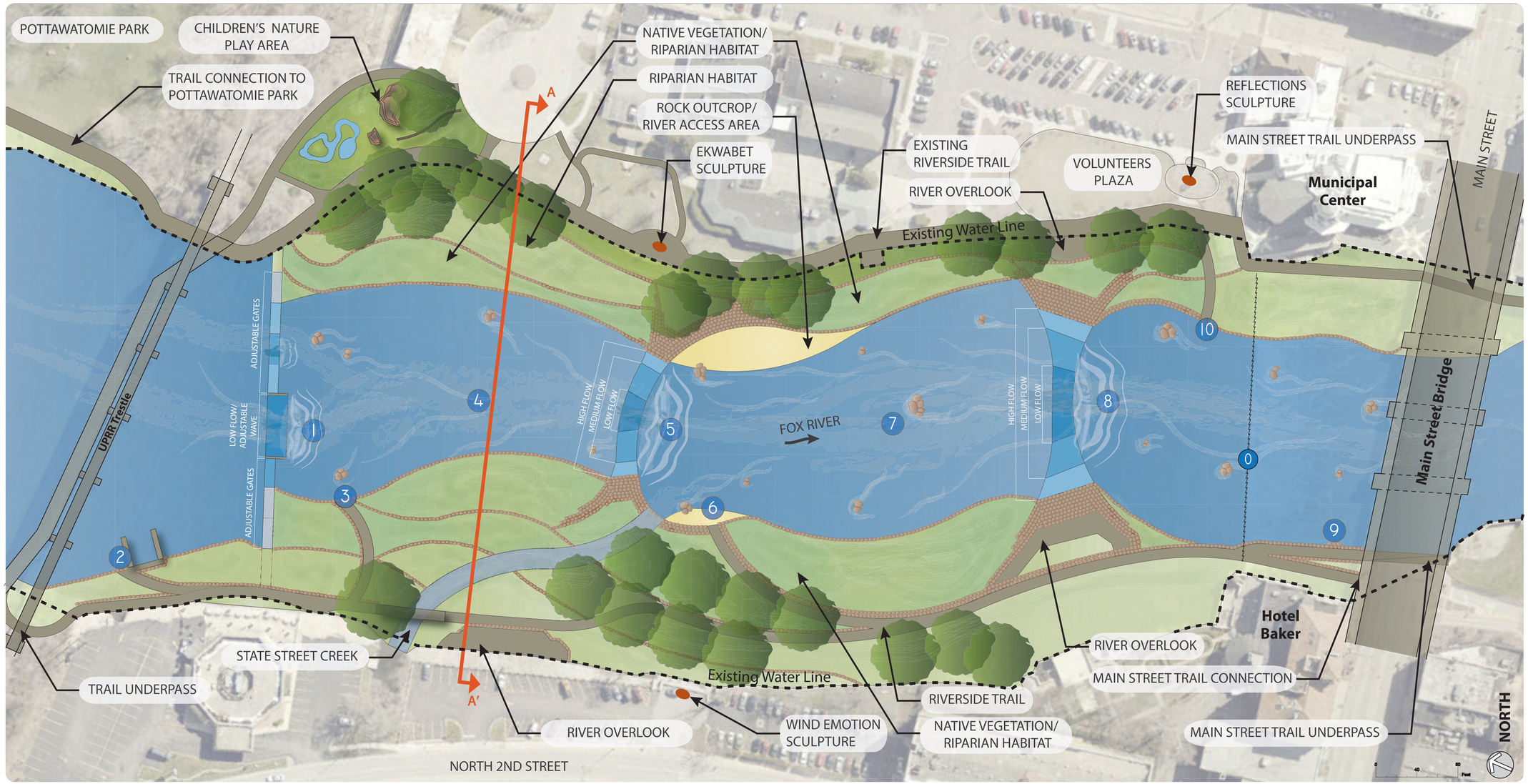
Legend

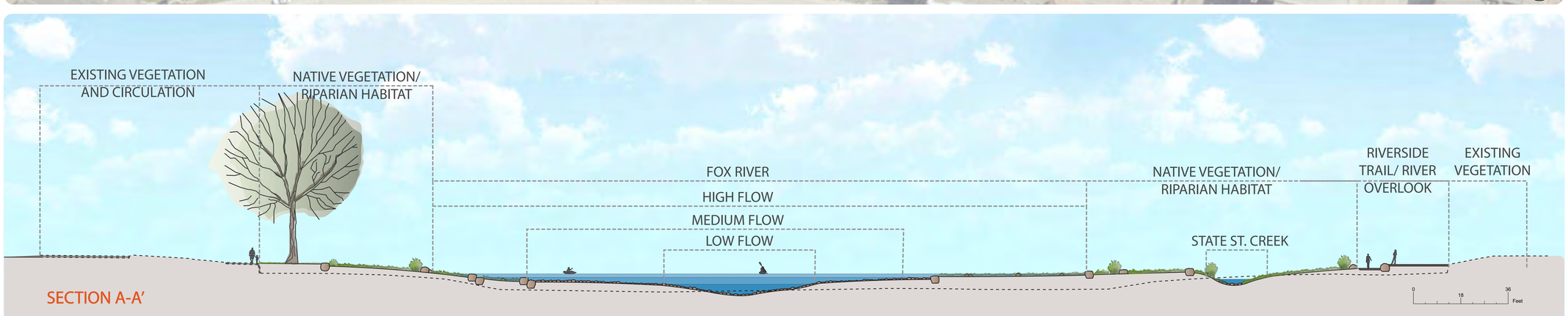
1. Acti e Feature: Adjustable Headgate/ Wave
2. Accessible River Access Point/Boat Dock
3. Accessible Put-in
4. Beginner Paddling Area
5. Acti e Feature: Beginner Hole
6. Accessible River Access Point/rock Outcrop
7. Intermediate Paddling Area
8. Acti e Feature: Intermediate/ Advanced Hole
9. River Access Point
10. Accessible Take-out/ River Access Point

St. Charles Active River Project

Alternative One

June 26, 2017





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0. Existing Dam emoval
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10. Accessible Take-out/ River Access Point

S2O Reinventing Whitewater

WBK engineering

St. Charles Active River Project

Alternative Two

June 26, 2017

POTTAWATOMIE PARK
CHILDREN'S NATURE PLAY AREA
TRAIL CONNECTION TO POTTAWATOMIE PARK
TRAIL UNDERPASS
NATIVE VEGETATION/ RIPARIAN HABITAT
RIPARIAN HABITAT
ROCK OUTCROP/ RIVER ACCESS AREA
EKWABET SCULPTURE
REFLECTIONS SCULPTURE
MAIN STREET TRAIL UNDERPASS
VOLUNTEERS PLAZA
Municipal Center
MAIN STREET
Existing Water Line
UPRR Trestle
ADJ. GATE
ADJUSTABLE GATES
LOW FLOW/ ADJUSTABLE WAVE
ADJ. GATES
HIGH FLOW
MEDIUM FLOW
LOW FLOW
FOX RIVER
Main Street Bridge
Hotel Baker
STATE STREET CREEK
TRAIL UNDERPASS
RIVERSIDE TRAIL
NATIVE VEGETATION/ RIPARIAN HABITAT
NORTH 2ND STREET
Existing Water Line
RIVER OVERLOOK
WIND EMOTION SCULPTURE
MAIN STREET TRAIL CONNECTION
MAIN STREET TRAIL UNDERPASS
NORTH
0 40 80 Feet

EXISTING VEGETATION AND CIRCULATION
NATIVE VEGETATION
FLAT WATER CHANNEL
ISLAND/ RIVERSIDE TRAIL/ NATIVE VEGETATION/ RIPARIAN HABITAT
FOX RIVER
HIGH FLOW
MEDIUM FLOW
LOW FLOW
RIVERSIDE TRAIL/ NATIVE VEGETATION/ RIPARIAN HABITAT
EXISTING VEGETATION
SECTION A-A'
0 18 36 Feet

Legend

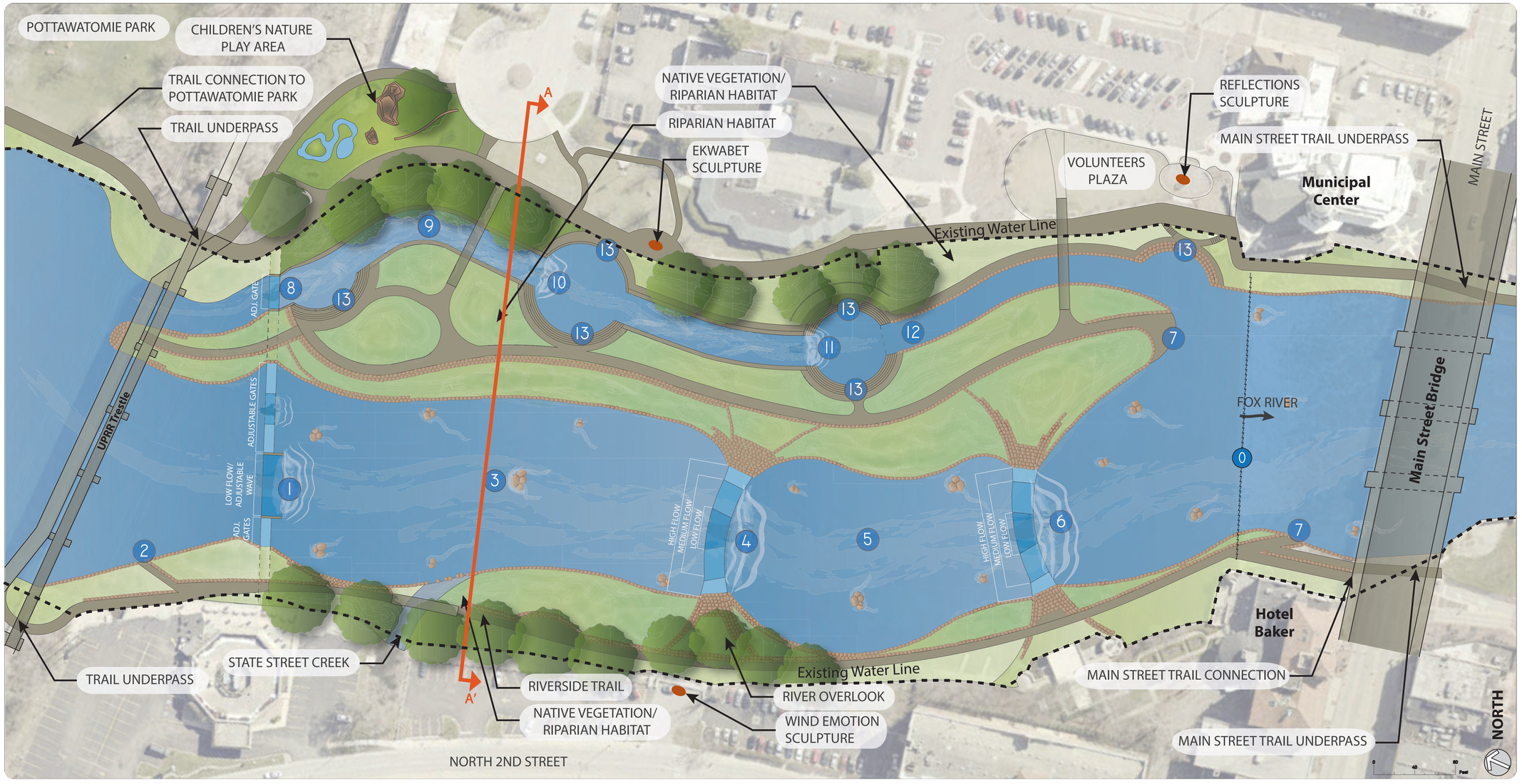
0 Existing Dam emoval
1 Acti e Feature: Adjustable Headgate/ Wave
2 Accessible Put-in/River Access Point
3 Beginner Paddling Area
4 Acti e Feature: Beginner Hole
5 Intermediate Paddling Area
6 Acti e Feature: Intermediate/Advanced Hole
7 Accessible Take-out/River Access Point
8 Acti e Feature: Adjustable Channel Headgate
9 Flat Water Channel Area
10 Advanced Whitewater Channel Area
11 Acti e Feature: Advanced Channel Wave Feature
12 Acti e Feature Advanced Channel Hole Feature
13 Channel Access Points

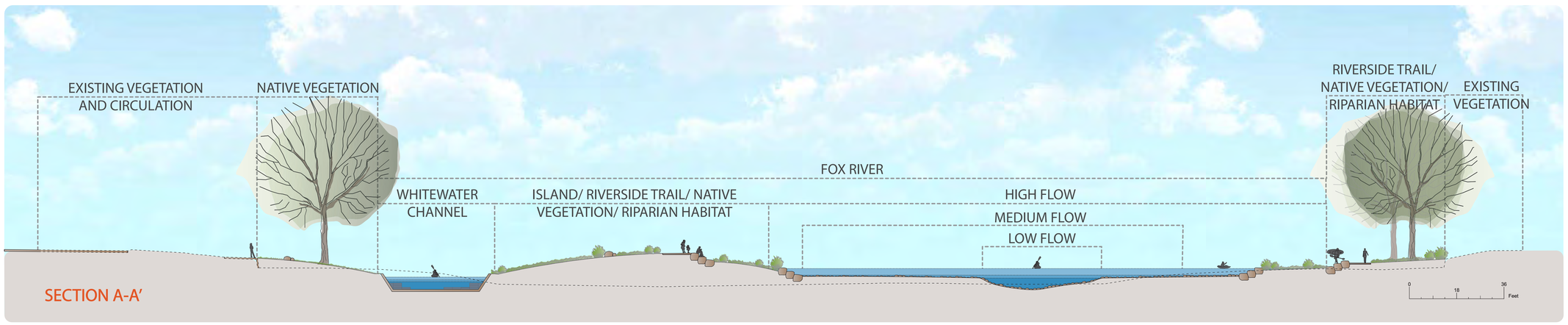
S2O REINVENTING WHITEWATER
WBK engineering

St. Charles Active River Project

Alternative Three

June 26, 2017





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12. Acti e Feature Advanced Channel Hole Feature
13. Channel Access Points

S2O Reinventing Whitewater

WBK engineering

ACTIVE RIVER PROJECT MEMORANDUM

TO: MARK KOENEN

FROM: JOHN RABCHUK, ACTIVE RIVER TASK FORCE CHAIRMAN

SUBJECT: WBK ENGINEERING FEASIBILITY STUDY – TASK FORCE OVERVIEW

DATE: JUNE 11, 2017

CC: GREG CHISMARK, PETE SUHR, CHRIS ADESSO, HOLLY CABEL, RITA PAYLIETNER

In October 2016 the City, the St. Charles Park District and the River Corridor Foundation entered into an IGA to fund and contract an engineering feasibility study of the Active River concept proposal for the section of the Fox River located between the Main Street bridge and the UP-railroad trestle to the north. This contract was awarded to WBK Engineering and has been completed. The high-level results of this study are the project concept can be built. Greg Chismark, WBK, will present the study findings at the Government Services Committee meeting on Monday, June 26, 2017. The study results illustrate:

1) Is the project as conceptualized feasible from an engineering perspective? The answer is a strong yes.
2) Can we prove that the level of the water pool north of the railroad trestle can be maintained? The answer is a strong yes. None of the current boating and rowing activities on the Fox River north of the RR trestle would be impacted.
3) Is the project as conceptualized permittable by the appropriate regulatory agencies? The answer will be that all indications suggest that it is. WBK will provide details of their conversations with the regulators as part of the executive summary component of their presentation. The Illinois DNR indicated that they could not foresee any red flags that would prohibit something like the concept plan being implemented and are very intrigued with the potential of achieving their desired goal of removing dams, yet doing so in a way that enhanced recreational and economic development while also maintain many of the current uses (such as power boating and the Paddle Wheel boats – which would be eliminated if the St. Charles dam was simply removed).
4) Can we identify a rough estimate of the Phase I design and engineering costs? This will be included in their presentation, based on a concept layout. As no actual design has been created, the concept sketch was utilized for the purpose of providing enough information to build time estimates.
5) Can we provide a rough estimate of the construction costs involved with this project? This will be provided in the presentation. These rough estimates will be based on a theoretical concept plan, as no actual design/engineering work has been done for the project.

Knowing that this study generates questions as well as answering those items listed above, the Task Force has created a separate FAQ list (attached) to aide discussion within the Government Services Committee

The Active River Task Force believes that we need to celebrate the findings for a project that now confirms a concept; endorsed by the Park District Board and the City Council; may be built. Secondly, we need to think about next steps. As you are aware, the active river project in Greenville, SC, has been discussed. The Task Force has encouraged the Park District and City to send a team of elected officials and key staff to visit Greenville to see first-hand what a successful project is and learn from local officials the impacts this project had on the Greenville economy. Now that we understand the concept may be built, it would make sense to make this trip. Additionally, we would encourage the staffs of the Park District and City to begin a gather data/information on how to approach the project looking at the various elements of engineering/planning, construction phasing and long-term maintenance. Finally, we need to begin studying how to fund a project of this nature. For your information, the Task Force has been working to garner support from private parties and foundations with some success

and has identified state/federal grant programs that may be available to jointly fund this project with Park and City funding.

June 9, 2017

FAQ's for Government Services Committee of the St. Charles City Council Prepared by the Active River Task Force

Q1: **Now that the engineering study is complete, what is the next step?**

A1: The next step is to identify engineering and construction phasing and investigate what funding mechanisms might be available to implement this project.

Q2: **If the funding was available, what is the next step?**

A2: The Phase I Design and Engineering must be completed prior to any applications for grants. This process will include gathering community input as well as studies of other, similar, successful projects.

Q3: **Do the concept designs included in the study reflect what the final project may look like?**

A3: The concept designs were utilized as the basis for the cost estimates. While these designs reflect a buildable design based on the detailed study of the riverbed, water flows, etc. any final design may be substantially different. The actual design needs to reflect community input, regulatory requirements, sponsorship commitments, environmental issues, and input from similar projects across the country.

Q4: **How would low water conditions affect the completed project?**

A4: In general, the basic concept designs call for returning the river to its natural, narrow condition within the project limits. This will provide potential for cycle and walking pathways underneath both sides of the Main Street bridge as well as increasing the space available for pathways on the east side of the river under the railroad trestle to better accommodate pedestrians and cycles in a safe manner. Low flow conditions are expected to mimic the conditions that currently occur downstream of the dam.

Q5: **How would high water conditions affect the completed project?**

A5: The concept designs accommodate 100 year flood conditions as indicated on those graphics. In fact, the project is expected to provide some flood plain benefit within the project limits including a reduction of floodplain inundation of Rt. 31. Any design will also assume that certain features, such as walking paths, may be flooded on occasion - just as we now have on the path under the Prairie Street bridge along the west side of the river.

Q6: **How will canoes and kayaks traverse the new cascade features contemplated in the concept designs?**

A6: The project will be designed specifically for safe passage by canoes and kayaks. The passage from upstream to downstream will be possible without portage. The passage from downstream to upstream will require a short portage, which will be facilitated with easy access to and from the river on wide access trails.

Q7: **Will the new project be safe?**

A7: A primary objective of the project is to improve public safety on the river. The concept plan would enhance safety with the tiered cascade layout and the dam-like control mechanism design(s) would minimize the water "boil". The proposed project will significantly improve public safety within the project limits.

Q8: **Who will own and maintain the new dam structures and other project components?**

A8: This is yet to be determined and is subject to discussions among the City, the St. Charles Park District and the Illinois Department of Natural Resources. We have identified specialized consulting firms that have helped many other successful projects define and organize the ownership and maintenance issues. This will include on-going funding mechanisms for both operational and capital requirements.

Q9: **Who will be responsible for clearing debris in the river?**

A9: See Q8 above. The City currently provides this service as required on the existing St. Charles dam**.**

Q10: **How does this project effect private landowners along the river?**

A10: In this portion of the project there are three private land owners. If the project proceeds with the next steps, the design team will need to work closely with those landowners along the west bank to ensure that their concerns and needs are addressed. We intend to provide those landowners with improved access to the downtown and enhanced business opportunities.

Q11: **What about overall project features north and south of this section (between Main Street and the RR trestle) of the river?**

A11: The section of the project defined for this engineering study is the key to many other components because of the potential for providing improved access under the Main Street bridge and in developing additional recreational opportunities that are the basis for improved economic development within the downtown district. The Park District has already begun planning for changes to the boat launch, parking and boat slips on Boy Scout Island; and have begun conceptualizing alternative routes for an improved bike trail along the east side of the river. Project components south of the Main Street bridge can be designed and constructed in future years as funding sources and needs are defined. It is envisioned that once this key section is designed and constructed that a number of opportunities will be presented for consideration. Already, a number of civic groups are contemplating sponsorship of components such as splash parks, climbing walls, etc. as additions to the overall project. Each of these proposals will be evaluated as they are presented relative to an approved final design complete with community and agency input.

Q12: **What happens to all of the silt that is built up behind the current dam, and won't the new dam structures cause silt build-up as well?**

Q12: The engineering feasibility study utilized a detailed river bottom survey conducted by the Corps of Engineers within the past few years. Included in this were detailed measurements of the actual silt depth in the river. The actual silt build-up behind the existing dam is minimal based on the data from this study. A majority of the existing sediment is located along the east and west banks of the river and will need to be carefully managed during construction in accordance with regulatory requirements.

Q13: **Will power boats be able to traverse the new project?**

A13: No, but we believe that there is potential to provide dock facilities to provide boaters with improved access to river trail networks and easy access to downtown businesses.