Polk County
Water & Land
Legacy Bond

"Out of the Gate…"

Initial Polk County Water and Land Legacy Projects

January 3, 2013

Polk County Land and Water Legacy
Project Narratives (Years 1-3)

Lake, River and Stream Protection Projects

Thomas Mitchell Park Camp Creek Stabilization

Camp Creek stream bank armoring will begin south of the existing crossing and involves restoration work in approximately14 areas. This project is designed to stabilize the stream bed and collapsing banks along Camp Creek as it flows through the park resulting in improved water quality by providing areas of biological activity and stopping sediment delivery. The project will improve conditions within the park, slow the velocity of the stream thereby protecting downstream habitat and protect existing and planned park infrastructure. Efforts will be concentrated in the tent, electrical and youth campgrounds. Additional grade stabilization structures will be installed to complement those in place and to further reduce erosion.

Thomas Mitchell Park Camp Creek Crossing

The low water crossing at Thomas Mitchell Park over Camp Creek is a popular place for park users to access and be close to a moving stream. Currently, the crossing serves as a shared pedestrian and vehicular crossing with vehicles driving through the stream as it flows over the access road. This project will provide for separation of these conflicting uses improving safety, water quality and park access. The project will provide a box culvert to maintain the natural stream flow of Camp Creek while reducing the current steep grade for vehicles crossing the stream. The existing crossing will be maintained as a pedestrian crossing and provide recreational access to Camp Creek.

Fort Des Moines Park Silt Dikes & Ditch Checks

Protection and improvement of the Fort Des Moines pond is a high priority water quality project. Several silt basins will be constructed on each of the arms of the pond to slow water flow and retain sediment prior to entering the Fort Des Moines pond. Ditch checks are dry rock dams constructed across eroding gullies to prevent further downcutting of eroded channels and collapsing banks. These practices will improve water quality, fisheries health, and outdoor recreation opportunities. PCC is collaborating with the IA DNR who will complement our funding with monies from the Urban Fisheries Program.

Fort Des Moines Park Pond Shoreline Stabilization

Protection and improvement of the Fort Des Moines pond is a high priority water quality project. Several portions of the pond shoreline are eroding resulting in increased sedimentation of the pond and challenging access for fishing. Some portions of the eroded shoreline will be pulled back and rocked along the water's edge to prevent wave erosion. The majority of areas will be stabilized with natural vegetation. Reconstruction of the shoreline will provide additional high quality fish habitat and provide better public access to the water body.

Jester Park Paw Creek Stabilization

This project is designed to improve water quality of Paw Creek and reduce sediment entering Saylorville Lake. Sediment reduction and bank sloughing will be stabilized by reducing debris in the stream and armoring critical portions of the banks. Efforts will be concentrated in areas adjacent to the main park road and before it reaches the recently created wetland near Campground 6. Additional grade stabilizations structures will be installed to complement the armoring efforts and to further reduce erosion.

Easter Lake Park Siltation Dikes and Dredging

A combination of restoration practices is necessary to restore this 178-acre lake and its watershed. Planned restoration measures include stream bank stabilization, promoting the use of no or low phosphorus fertilizer, storm water management, in-lake sediment detention basins, dredging existing storm water detention basins and portions of the lake, fish population renovation and extensive public education. This project also involves shoreline restoration, fish habitat improvement, invasive species control and improved public access. Partners include the City of Des Moines, ISU, DNR, Polk SWCD, NRCS, and neighborhood groups. Projects are planned in phases as guided by the recently completed watershed improvement plan.

Four Mike Creek Greenbelt Bank Stabilization

A series of stream bank stabilization projects within the existing Four Mile Creek Greenbelt will reduce the erosion, improve water quality, and protect existing wildlife habitat and infrastructure within the Greenbelt. Initial projects are planned that would restore approximately 600' of eroded stream bank. Future projects are anticipated further north within the watershed in cooperation with local communities and agencies. These projects would provide additional buffer areas to Four Mile Creek with a goal of improving the water quality, increasing the amount of storm water retention and protecting the natural resources while enhancing recreational opportunities.

Land, Water and Habitat Protection Projects

Chichaqua Bottoms Greenbelt Property Acquisitions

Sensitive natural areas lie adjacent to property currently owned and managed by PCC within the Chichaqua Bottoms Greenbelt. PCC will work with partners and landowners to acquire priority properties or easements to support restoring these areas to functional wetlands, prairies, and woodlands that will benefit wildlife, flood control, water quality, and outdoor recreation. A master plan for the Chichaqua Bottoms Greenbelt will be completed involving agencies, organizations and individuals interested in the future development of the Greenbelt. This master plan will guide future acquisitions once completed.

Raccoon River Property/Easement Acquisitions

Protecting the Raccoon River corridor is a priority for the public and the multiple agencies involved. Through the acquisition of properties or easements the riparian corridor can be managed to provide for natural resource management practices that will assist with flood protection, water quality improvement, habitat protection and improved recreational opportunities.

Park Buffer Areas & In-Holdings

PCC will work with landowners to acquire key properties adjacent to PCC parks and trails with the intent to enhance and maintain significant natural areas for the public. The recently completed master plans for each park identified potential areas for acquisition to provide buffer areas adjacent to the parks, protect natural areas, or to support planned park improvements. These additions are supportive of the long range visions for each of the parks as increased use and within the parks and developments surrounding the parks continue to impact the overall quality of the parks.

Trail Improvement Projects

Gay Lea Wilson Trail Connection (Des Moines to Ankeny)

Constructing the last segment of the Gay Lea Wilson Trail will complete the connection between Des Moines and Ankeny. This project will involve constructing and paving a 2.5 mile segment of trail between 29th Avenue and Aurora Avenue adjacent to Four Mile Creek. The Gay Lea Wilson Trail is classified as a priority one (statewide significant) trail within the comprehensive multi agency Central Iowa Trail Plan.

Chichaqua Valley Trail (South) Connection Phase I

Phase 1 will involve constructing the southern 1.5 mile section of paved trail originating near Mally's County Park and extending south to Douglas Avenue. This south connection links to the Gay Lea Wilson Trail which connects trail users to other regional trails in Des Moines and Ankeny. This portion of the Chichaqua Valley Trail is classified as a priority two (regionally significant) trail within the comprehensive multi agency Central Iowa Trail Plan.

Chichaqua Valley Trail (North) Connection Phase 2

Phase 2 will involve constructing the northern 6 mile section of paved trail originating near Mally's County Park and extending north to Bondurant. This north connection links the Gay Lea Wilson Trail to the Bondurant trail section leading to the existing Chichaqua Valley Trail and on into Jasper County. This portion of the Chichaqua Valley Trail is classified as a priority two (regionally significant) trail within the comprehensive multi agency Central Iowa Trail Plan. When completed, the Chichaqua Valley Trail will extend over 29 miles connecting Des Moines and Baxter.

Easter Lake Trail Phase 1 (West end & Ewing Park)

Phase 1 will involve constructing the initial phase of the circumferential trail around Easter Lake. This phase begins at the west end of the lake at Indianola Avenue and follows the north shore eastward to Evergreen Avenue a distance of approximately two miles. This phase will also provide improved trail access to adjacent neighborhoods. The completed trail will be over five miles of off road paved trail eventually connecting the popular Ewing and Easter Lake parks to downtown Des Moines and Carlisle.

Easter Lake Trail Phase 2 (Southside)

Phase 2 of the circumferential trail around Easter Lake and through Ewing Park will encompass approximately 1.75 miles of paved trail construction on the south side of Easter Lake from Easter Lake Drive to Shelter #4. This section of trail will provide for safe trail use off the park road and will include enhancements of the existing historic covered bridge. This phase will also provide improved trail access to adjacent neighborhoods.

Easter Lake Trail Phase 3 (East end, Dam, and Bridges)

The final phase 3 will complete the 5+ mile circumferential trail around Easter Lake and through Ewing Park. Phase 3 will involve construction of approximately 1.75 miles of paved trail on the east side of Easter Lake, along the dam, and from Shelter 4 west to Indianola Ave and will cross the lake on two new bridges on the west arm.

Trail Resurfacing (system-wide) & Trail Bridge Improvements

Based on age and deterioration, existing asphalt surface multi-use trails require asphalt over lays or seal coating to extend their life and provide continued safe use. In addition to the over lay, Class-A road rock is applied to provide for a 24" wide shoulder along the trail edge to protect the pavement edge and enhanced user safety. Additionally 13 bridges need upgrading (remove railings, asphalt overlay on bridge, chain link railings) to extend the life of the bridges, maintain safe crossings and provide efficient access for maintenance equipment.

Park Improvement Projects

Thomas Mitchell Pond Accessible Trail & Pier(s)

This project is designed to enhance access and recreational opportunities to the recently renovated pond at Thomas Mitchell Park. An accessible trail will circle the pond and provide complete access to the site. Accessible fishing piers will be installed on the dam face, north bank and west side. These piers will be located in the vicinity of the recently installed fish habitat. New trail construction will connect the accessible trail to the existing park trail system. Combined these trails will provide over 3 miles of recreational opportunity.

Fort Des Moines Outdoor Classroom

PCC has a unique opportunity to collaborate with schools in the vicinity of Fort Des Moines Park to support quality environmental education programs with natural plant and wetland communities as the central theme. Savanna, oak woodlands, successional and wetland communities are already present in Fort Des Moines Park. Restoring a natural prairie, constructing a shallow wetland and rain garden will provide additional communities to study. An accessible trail will connect to the schools and meander through these natural areas to enhance education and provide valuable recreation opportunities. Facilities including an outdoor classroom, interpretive signing, and a shelter and parking area will be added to enhance public access and educational opportunities.

Brown's Woods Trailhead Parking & Trails

This cooperative project with the West Des Moines is designed to improve access and use of Brown's Woods complementing the natural experiences already in place. Additionally, lighting and improved visibility will provide increased safety for park users and neighbors. A new parking lot will handle both vehicular and bus parking and provide safe access for children using Brown's Woods for interpretive purposes. New amenities include a modern toilet, water fountain, and additional trails. Accessible parking and access to the West Des Moines Southwest Connector trail system will provide additional opportunities for all ages. Natural surface trail expansion will provide access to an under-used portion of the park and will include interpretive information.

Jester Park Cabins

Four newly-constructed modern cabins at Jester Park will provide opportunities for families to enjoy Jester Park who are unable or less inclined to camp. The cabins will feature a walk out basement, covered front porch seating area, a wrap around wooden walkway to a back deck with a secluded woodland views. Amenities inside will include a fireplace, kitchenette, restroom with shower, and modern household furnishings. The one large cabin will be a 2 bedroom upper level, with bunk space in the lower walk-out; the three smaller cabins will have 1 bedroom upstairs with the same lower level features. Other amenities to the cabin site will include BBQ grills outside, and a central fire-pit gathering area for families. These cabins will be in close proximity to the many recreation opportunities at Two Dam Pond, the Elk & Bison exhibit, and the Natural Playscape.

Chichaqua Bottoms Hwy 65 Wildlife Overlook

In partnership with the IA DNR, PCC will construct a public access and wildlife viewing platform deck at Chichaqua Bottoms Greenbelt. The viewing deck shape is a silhouette of a large bird in flight. It will be constructed adjacent to State Hwy 65, providing excellent public access and outstanding wildlife viewing opportunities. A parking lot will be constructed near the highway with an accessible trail providing access to the viewing platform. A kiosk and interpretive signs will be installed to provide educational information as well. The IA DNR has provided the lumber package for this project and volunteer assistance for construction.

Jester Park Entrance Relocation

The current entrance to Jester Park is confusing, congested, visibly unappealing, not centrally located, and it precedes a steep hill that is impassible during snow/ice conditions and when flood waters are high. The new entrance on the west side of the park off NW 118th Ave. addresses all of these concerns. The road relocation will bring visitors into one centrally located entrance point and past the new Conservation Center. They will be immersed in the reconstructed prairie upon entering the park and will be guided by improved signage.

Jester Park Maintenance Facility Relocation

Except for the Equipment Maintenance facility, all operational facilities at Jester Park are centrally located near the existing entrance. This equipment maintenance facility currently sits in close proximity to the proposed Conservation Center and planned entrance relocation. Relocation of this facility will improve operational efficiencies and improve the aesthetics for visitors entering the park and visiting the new Conservation Center. Following removal of the building, this 4-acre site will be converted to reconstructed prairie.

Jester Park Conservation Center

The Jester Park Conservation Center will enhance education excellence, demonstrate conservation and sustainable design, serve as a significant tourist attraction and community resource, and provide a safe haven to park users during severe weather. The Center will be located just inside a new relocated main entrance to Jester Park. Immersed in prairie, the Center will be connected to wetlands, a pond, and woodlands by means of hiking trails. The Center's upper level will be home to PC Conservation headquarters where the public can have immediate access to staff, resources, and interpretive areas. The lower level will serve as an educational staging area for science, arts, history, and a gateway to the great outdoors. Public rental space and a safe room will provide a secure environment for all users.

Yellow Banks Dam Repair and Site Improvement

This project is designed to reduce seepage through the existing dam, provide improved access to the pond and much needed amenities to this portion of the park. Specifically, the dam will be reshaped to improve maintenance and improve access to the pond. Access to the pond will further be enhanced by installing an accessible trail, fishing pier and a boat dock. The boat ramp road will be shaped, graded and asphalted allowing improved access during most of the year. On the eastern portion of the dam a shelter, vault toilet and parking area will be provided. Both the parking lot and the existing gravel road to the area will be paved.

Fort Des Moines Park Pond Access Road, Parking, & Fishing Pier

To improve access to Fort Des Moines pond, a new paved road and parking lot, north and east of the pond will be added. The parking lot will be large enough for bus parking to support environmental education programming for school groups involving the pond and the surrounding area. The project will also improve access to the pond for fishing and hiking the trails in this area of

the park. Included will be a new flush toilet, an accessible walk-way to the pond and access to an accessible fishing pier.

Fort Des Moines Park Toilet Replacement
The current restroom near Shelter #1 is located a long distance from the shelter and in need of replacement. Shelter #1 receives significant use and typically larger groups. Installation of a new flush toilet will benefit thousands of shelter users as well as park users just passing through the area.

Thomas Mitchell Park Sewer Lagoon Replacement
A sewer lagoon is located near the Thomas Mitchell Park electric and tent camping area. Lagoons are a safety concern and produce an unpleasant odor. Abandoning the current lagoon and replacing it with a peat sewer system will have a better environmental impact and provide us the opportunity to expand our campground area.

Jester Park Clubhouse Expansion
In partnership with Green Golf Partners, PCC would reconstruct and expand the Jester Park Golf Course Clubhouse to provide improved banquet dining space and merchandise sales area. The existing club house has limited capability to host tournaments and group events as well as providing for larger banquet groups. The pro shop space is limited and many aspects of the building need upgrading including the sewer system.

Chichaqua Bottoms Greenbelt Marsh Pump Replacement
This project involves extending or replacing the well and replacing the pump that supplies water for the controlled hunting areas at Chichaqua which draw water from a shallow aquifer. The existing system has become non functional due to age and mineral build up. Without this system the water levels to support the habitat and public hunting cannot be maintained.

Vault Toilet Additions (6) - Replacement of portable toilets
This project is the replacement of older wooden pit latrines and portable toilets with permanent prefabricated vault toilets. These toilets buildings are easier to clean, fully accessible, more vandal resistant, have much less odor and an extended life. Six vault toilets would be positioned in parks and along trails where portable toilets have been continually provided in the past or existing wood pit toilets are in need of replacement.

Park Roads and Parking Lots
Current campgrounds roads, drive through campground loops, as well as many parking areas are gravel surfaced. Dust from the gravel presents sanitary health issues, as well as mobility challenges for park visitors. These surfaces are also difficult to adequately maintain. Paving these roads and parking lots would eliminate these problems. Existing paved roads are in need of crack sealing or asphalt overlays to extend the life of the roads and provide safer travel conditions. This project would provide for addressing these needs on a continuing annual basis.

Minor Projects
Numerous minor projects are needed in various areas to improve efficiency and address preventative and emergency maintenance to extend the life of existing facilities. Such projects include replacement of pumps, furnaces, septic systems, roofs, gutters, etc. These minor projects would typically cost less than $50,000. This project would provide for addressing these needs on a continuing annual basis.

Equestrian Center Lighting and Improvements

The existing lighting at the Equestrian Center is inefficient and in need of replacement. Improved energy efficient lighting is needed at the Jester Park Equestrian Center to support events and reduce operational costs. The 28 fixtures at the indoor arena and 18 fixtures at the outdoor arena would be replaced with energy efficient lighting that improves the overall lighting for these areas.

Jester Park Equestrian Campground

Equestrian camping at Jester Park will continue to increase as a result of new and expanded horse trails that were completed in 2012. To accommodate these campers, a campground with drive through camp spurs is needed, along with designated campsites that are equipped with water and electricity. The campground will support equestrian use and group camping events. The campground is planned at the north end of Jester Park.

Jester Park Two Dam Pond Accessible Trail

A .3 mile accessible trail around Two Dam Pond will be located adjacent to the main park road and meander through the existing pine/hardwood forest. The trail will include a bridge across the incoming stream and provide park users access to the proposed wetland and existing reconstructed prairie. The trail will also eventually connect to the planned Conservation Center. During school and public programs, persons with disabilities have been restricted to the hard surface of the road while the rest of their class/group is exploring. This trail will bring them closer to the natural areas surrounding Two Dam pond.

Chichaqua Bottoms Greenbelt Master Plan

Five master plans have been completed for some of Polk County's largest parks. Chichaqua Bottoms Greenbelt is the next park in need of a comprehensive master plan. Staff will work with a planning consultant to prepare this document in 2013. Public agencies and organizations will participate in the planning process. Public input will be incorporated throughout the planning process. This plan will guide future improvements and expansion within the Greenbelt.

Jester Park Golf Course North Restroom

Age and deterioration has taken its toll on the flush restroom at the north end of the Jester Park Golf Course immediately adjacent to the park road. This restroom serves as the primary restroom on the golf course, aside from the clubhouse facilities. Installations of a new vault flush restroom would not only better serve golfers, but it will also serve park users on a year-round basis. Cross-country ski trails run past the facility so winter users will benefit.

Thomas Mitchell Park Campground Expansion

Following abandonment of the Thomas Mitchell Park lagoon and installation of a new closed sewer system, expansion of the campground is planned. An additional 12 electric sites will accommodate more campers in this very popular park. Additional expansion improvements will include a larger capacity accessible shower house and the relocation of the tent camping area south of Camp Creek.

Jester Park Campground #2 Campsites Electric Upgrade

The demand for electric camp sites is great at all existing campgrounds. Jester Park's electric sites are full most weekends, while many non-electric sites remain vacant. Campground #2 is currently non-electric. The existing 23 sites will be converted to electric sites with 50 amp services. The 11 pull through and 12 back in sites will also be improved for RV campers to include new pads, grills, and picnic tables.