#### **General Project Information**

Project ID: RP-257-14

Name: COLUMBIA COUNTY: Spring Creek WQ Analysis & Modeling

Type: River Grant

Subtype: River Planning Grant

Status: COMPLETE

**Start Date:** 7/1/2013 **End Date:** 12/31/2017

**Purpose:** Description of products or deliverables are as follows:

Model Identification

- Overview of possible river models, contrasting model strengths and weaknesses.
- \* Selection of an appropriate river model for water quality analysis and adaptive management follow up modeling will be selected for use on Spring Creek.

**Build out Scenarios** 

- \* Two sets of products will be established related to the baseline land use inventory. The first product is a set of maps depicting the existing conditions of the surface watersheds. The maps will include existing land uses, tax parcel boundaries, orthophotography, and environmental constraints. The second product will be a set of statistics that measure the percent and acreages of developed and undeveloped land uses as well as environmental constraints.
- \* A review of the existing regulatory framework will be compiled in a brief report that summarizes regulatory findings for the ground and surface watersheds and by jurisdiction. If significant differences are found among jurisdictions, a matrix will be compiled to illustrate the differences.
- \* A set of maps and set of statistics will be compiled for a build out assessment of the surface watershed. The maps will detail areas that are available and unavailable for future development. Statistics will identify how many acres are available for future development and how many additional development units are possible with existing regulations. The change in potential impervious surface will be calculated and displayed on a map.
- \* Statistics will be derived that determine how much change in phosphorus loading is possible for the surface watershed based on the build-out scenarios.

\* Final report

Objective:

Outcome:

Comments: Grantee is COLUMBIA COUNTY

Study Design:

**QA Measures:** 

People						
Name	Role	Status	Start Date	End Date	Organization	Comments
Columbia County Land & Water C	GRANT_RECIPI ENT	ACTIVE	7/1/2013	12/31/2014	Columbia County Land & Water Conservation Dept	

# Project Statuses Date Reported By Status Comments

#### **Actions**

Action	<b>Detailed Description</b>	Start Date	End Date	Status
roject Deliverable	Description of products or deliverables are as follows: Model Identification * Overview of possible river models, contrasting model strengths and weaknesses. * Selection of an appropriate river model for water quality analysis and adaptive management follow up modeling will be selected for use on Spring Creek. Build out Scenarios * Two sets of products will be established related to the baseline land use inventory. The first product is a set of maps depicting the existing conditions of the surface watersheds. The maps will include existing land uses, tax parcel boundaries, orthophotography, and environmental constraints. The second product will be a set of statistics that measure the percent and acreages of developed and undeveloped land uses as well as environmental constraints. * A review of the existing regulatory framework will be compiled in a brief report that summarizes regulatory findings for the ground and surface watersheds and by jurisdiction. If significant differences are found among jurisdictions, a matrix will be compiled to illustrate the differences. * A set of maps and set of statistics will be compiled for a build out assessment of the surface watershed. The maps will detail areas that are available and unavailable for future development. Statistics will identify how many acres are available for future development and how many additional development units are possible with existing regulations. The change in potential impervious surface will be calculated and displayed on a map. * Statistics will be derived that determine how much change in phosphorus loading is possible for the surface watershed based on the build-out scenarios. * Final report	7/1/2013	12/31/2017	COMPLETE

Final report	Grant Awarded	Description of products or deliverables are as follows: Model Identification * Overview of possible river models, contrasting model strengths and weaknesses. * Selection of an appropriate river model for water quality analysis and adaptive management follow up modeling will be selected for use on Spring Creek. Build out Scenarios * Two sets of products will be established related to the baseline land use inventory. The first product is a set of maps depicting the existing conditions of the surface watersheds. The maps will include existing land uses, tax parcel boundaries, orthophotography, and environmental constraints. The second product will be a set of statistics that measure the percent and acreages of developed and undeveloped land uses as well as environmental constraints. * A review of the existing regulatory framework will be compiled in a brief report that summarizes regulatory findings for the ground and surface watersheds and by jurisdiction. If significant differences are found among jurisdictions, a matrix will be compiled to illustrate the differences. * A set of maps and set of statistics will be compiled for a build out assessment of the surface watershed. The maps will detail areas that are available and unavailable for future development. Statistics will identify how many acres are available for future development units are possible with existing regulations. The change in potential impervious surface will be calculated and displayed on a map. * Statistics will be derived that determine how much change in phosphorus loading is possible for the surface watershed based on the build-out scenarios. *	7/1/2013	12/31/2017	COMPLETE
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Rivers Planning Grant	Description of products or deliverables are as follows: Model Identification * Overview of possible river models, contrasting model strengths and weaknesses. * Selection of an appropriate river model for water quality analysis and adaptive management follow up modeling will be selected for use on Spring Creek. Build out Scenarios * Two sets of products will be established related to the baseline land use inventory. The first product is a set of maps depicting the existing conditions of the surface watersheds. The maps will include existing land uses, tax parcel boundaries, orthophotography, and environmental constraints. The second product will be a set of statistics that measure the percent and acreages of developed and undeveloped land uses as well as environmental constraints. * A review of the existing regulatory framework will be compiled in a brief report that summarizes regulatory findings for the ground and surface watersheds and by jurisdiction. If significant differences are found among jurisdictions, a matrix will be compiled to illustrate the differences. * A set of maps and set of statistics will be compiled for a build out assessment of the surface watershed. The maps will detail areas that are available and	7/1/2013	12/31/2017	COMPLETE
	matrix will be compiled to illustrate the differences. * A set of maps and set of statistics will be compiled for a build out assessment of the surface watershed. The			

Watershed Mapping or Assessment	Description of products or deliverables are as	7/1/2013	12/31/2017	COMPLETE
	follows: Model Identification * Overview of			
	possible river models, contrasting model			
	strengths and weaknesses. * Selection of an			
	appropriate river model for water quality			
	analysis and adaptive management follow up			
	modeling will be selected for use on Spring			
	Creek. Build out Scenarios * Two sets of			
	products will be established related to the			
	baseline land use inventory. The first product			
	is a set of maps depicting the existing			
	conditions of the surface watersheds. The			
	maps will include existing land uses, tax			
	parcel boundaries, orthophotography, and			
	environmental constraints. The second			
	product will be a set of statistics that measure			
	the percent and acreages of developed and			
	undeveloped land uses as well as			
	environmental constraints. * A review of the			
	existing regulatory framework will be compiled			
	in a brief report that summarizes regulatory			
	findings for the ground and surface			
	watersheds and by jurisdiction. If significant			
	differences are found among jurisdictions, a			
	matrix will be compiled to illustrate the			
	differences. * A set of maps and set of			
	statistics will be compiled for a build out			
	assessment of the surface watershed. The			
	maps will detail areas that are available and			
	unavailable for future development. Statistics			
	will identify how many acres are available for			
	future development and how many additional			
	development units are possible with existing			
	regulations. The change in potential			
	impervious surface will be calculated and			
	displayed on a map. * Statistics will be derived			
	that determine how much change in			
	phosphorus loading is possible for the surface			
	watershed based on the build-out scenarios. *			
	Final report			

Protective Areas: Feet of bank

Stormwater Goals Addressed:

Stormwater Goals Addressed:

protected
Report Writeup

Protective areas

Reduce TSS

\\\-t\\	Mandalia -	Description of multiple	-1-1	7/4/0040	40/04/0047	COMPLETE	
Water Quality	Modeling	Description of products or deliver follows: Model Identification * Over possible river models, contrasting strengths and weaknesses. * Sele appropriate river model for water analysis and adaptive management modeling will be selected for use Creek. Build out Scenarios * Two products will be established related baseline land use inventory. The is a set of maps depicting the exist conditions of the surface watersh maps will include existing land us parcel boundaries, orthophotograten environmental constraints. The seproduct will be a set of statistics to the percent and acreages of developmental constraints. * A revexisting regulatory framework will in a brief report that summarizes findings for the ground and surface watersheds and by jurisdiction. If differences. * A set of maps and statistics will be compiled to illustrate differences. * A set of maps and statistics will be compiled for a busessessment of the surface waters maps will detail areas that are available for future development will identify how many acres are affuture development units are possible we regulations. The change in potentimpervious surface will be calculated displayed on a map. * Statistics withat determine how much change phosphorus loading is possible for watershed based on the build-out Final report	erview of g model ection of an quality ent follow up on Spring et to the first product sting eds. The ses, tax aphy, and econd that measure eloped and seview of the I be compiled regulatory ce significant sdictions, a et the set of silld out shed. The ailable and ent. Statistics available for my additional with existing tial eted and will be derived ein or the surface	7/1/2013	12/31/2017	COMPLETE	
Details:	Parameter	Value/Amount	Units	Com	ments		
	BMP Implementation						
	I & E Activities						
	PCBs						
	Permit Modification						
	Products Developed: Stormwater Plan						
	Protective Areas: Feet of bank protected						
	Protective Areas: Feet of baprotected	ank					

Details:	Parameter	Value/Amount	Units	Comments
	Streambank & Shoreline Protection: Pollutant load reduction			
	Streambank & Shoreline Protection: Units			
	Streambank &Shoreline Protection: Pollutant load reduction			
	Streambank &Shoreline Protection: Units			
	Streambanks: Feet of bank protected			
	Streambanks: Feet of bank protected			
	Streambanks: Feet of bank protected			
	Total Nitrogen			
	Total Phosphorus			
	Total Suspended Solids			
	Watershed Outreach, Planning	9		

Water Quality Modeling		Description of products or deliverables are follows: Model Identification * Overview of possible river models, contrasting model strengths and weaknesses. * Selection of a appropriate river model for water quality analysis and adaptive management follow modeling will be selected for use on Spring Creek. Build out Scenarios * Two sets of products will be established related to the baseline land use inventory. The first produis a set of maps depicting the existing conditions of the surface watersheds. The maps will include existing land uses, tax parcel boundaries, orthophotography, and environmental constraints. The second product will be a set of statistics that measure the percent and acreages of developed and undeveloped land uses as well as environmental constraints. * A review of the existing regulatory framework will be compinal a brief report that summarizes regulatory findings for the ground and surface watersheds and by jurisdiction. If significant differences are found among jurisdictions, amatrix will be compiled to illustrate the differences. * A set of maps and set of statistics will be compiled for a build out assessment of the surface watershed. The maps will detail areas that are available and unavailable for future development. Statisti will identify how many acres are available and unavailable for future development. Statisti will identify how many acres are available future development units are possible with existin regulations. The change in potential impervious surface will be calculated and displayed on a map. * Statistics will be deri that determine how much change in phosphorus loading is possible for the surface watershed based on the build-out scenarior. Final report	up  ure d eiled t a cs or nal g	12/31/2017	COMPLETE
Monitoring Stations					
Station ID	Name		Comments		
Assessment Units					

Monitoring Stations				
Station ID	Name	Comments		

Assessment Units					
WBIC	Segment	Local Name	Official Name		
1260600	1	Lake Wisconsin	Lake Wisconsin		
1261900	1	Lodi Creek	Spring Creek		

Lab Account Codes					
Account Code	Start Date End Date				
Forms					
Form Code	Form Name				
Methods					

#### Wisconsin Department of Natural Resources SWIMS Project Summary

<b>Method Code</b>	I	Method Description		
Fieldwork Eve	nts			
Start Date	Status	Field ID	Station ID	Station Name
Documents				

Documents							
Title	Description	Author	Published	Comments			
Spring Creek Water Quality Analysis and Modeling	River Planning Grant Report RP-257-14	Columbia County Land and Water Conservation	2/9/2018				
Spring Creek Watershed Build Out Analysis		Columbia County Land and Water Conservation	2/1/2017				

#### **Budget**

**Combined Budgets: Combined WSLH:** 

**Combined Total:** \$0.00

Funding					
Organization	Source	Туре	Amount	Start Date	End Date