

KENNEBEC COUNTY SOIL & WATER CONSERVATION DISTRICT

REQUEST FOR QUALIFICATIONS (RFQ)

PROJECT COORDINATOR FOR THE CHINA LAKE WATERSHED RESTORATION PROJECT

The Kennebec County Soil & Water Conservation District (District) is requesting Statements of Qualifications from interested and qualified Consultants for Professional Project Coordinator Services in order to assist in the implementation of a Watershed Restoration Project at China Lake. The District has been awarded a 319 grant under contract with Maine DEP to implement the China Lake Watershed Restoration Project, Phase III. China Lake is a 3,939-acre lake located in China and Vassalboro, Maine. It is a naturally formed dual-basin waterbody with an east and west basin that was enlarged in 1969 by raising the height of the dam at Outlet Stream. The watershed is located within the towns of China, Vassalboro, Albion, and Winslow in Kennebec County, Maine and drains approximately 27 square miles of the surrounding landscape

China Lake serves as an important source of drinking water for the municipalities of Waterville, Winslow, Fairfield, Benton, and Vassalboro. It is the sole source of water for over 22,000 customers and is managed as a drinking water supply by the Kennebec Water District (KWD). Water quality in China Lake has been poor since the sharp decline in clarity that occurred in the 1980s, with water clarity readings regularly falling below the 2 m threshold indicating an algal bloom. The large size of the watershed, extent of development, phosphorus inputs from the direct watershed and the watershed of upstream lakes, and the effects of a changing climate all play a role in the lake's water quality. Managing the input of pollutants from the watershed is essential to protect water quality and manage cycles of internal loading that have developed in China Lake.

A. PURPOSE AND SCOPE OF WORK

The purpose of the China Lake Restoration Project, Phase III is to reduce sediment and phosphorus into the lake by: 1) installing best management practices at 21 high and medium impact NPS sites throughout the watershed including 8 beach/boat access sites, 1 commercial site, 2 private road sites, and 10 residential sites, and complete 10 LakeSmart evaluations, and 2) by educating the public about NPS problems and solutions through use of various media and at a number of workshops and public events.

The consulting Project Coordinator will assist the District with items outlined in the scope of work (Attachment 1), including:

- 1) Coordinate closely with the District to track project progress, expenses, matching funds, prepare DEP reimbursement requests, semi-annual progress reports, final project report, and other deliverables.
- 2) Assist the District with four steering committee meetings. This includes assisting with development of meeting agendas, facilitating meetings, providing project updates at each meeting, and distributing meeting notes.
- 3) Provide technical assistance for 10 residential sites including coordinating meetings with landowners, preparing NPS site plans for each property, developing cost-share agreements, taking before and after photos of each site, and signing off on completed projects.

- 4) Provide technical assistance and oversight of BMP installation for 11 non-residential sites including coordinating meetings with landowners, preparing NPS site plans, developing cost-share agreements, taking before and after photos, completing NPS site reports for each site, providing construction oversight where needed, and signing off on completed projects.
- 5) Provide training to District staff related to project coordination/grant management, and technical assistance.
- 6) Assist the District and watershed partners with development of press releases, presentations at CLA annual meetings, assist with development and implementation of a buffer mailing and buffer campaign, and help coordinate a gravel road workshop.
- 7) Estimate pollutant load reductions and resources protected by the project and present results in annual Pollutants Controlled Reports (PCRs).

B. TENTATIVE SCHEDULE

Submission Deadline: 4:00 pm, March 15, 2024

Contract Award: March 25, 2024

***Project finish:** December 31, 2025

**The District plans to utilize the services of the Project Coordinator for the first year of the two-year project with the intention of hiring new District staff to coordinate the second year of the project. However, if both parties are willing, or no qualified District staff are hired, the project could extend into the second year.*

C. FORMAT AND REQUIREMENT OF RESPONSES

- All responses must include proof of insurance as outlined in Section J.
- All responses will include the name, address, telephone number(s) and email contact information of the authorized person in connection with the response along with information on others who are authorized to represent the individual, group, organization, or entity in connection with the response.
- All responses will be accompanied by the following:
 - a. A statement of experience working with State and EPA Regulations and 319 Project Procedures.
 - b. Identify the proposed Project Coordinator and key project team members and responsibilities. Provide an itemized rate per hour for identified project team.
 - c. Provide a brief resume for each person outlining their credentials and experience.
 - d. Provide the name and contact information for at least three (3) references familiar with the quality of work by your firm or similar nature as contained in the Work Plan (Attachment 1).
 - e. Provide your general understanding of the watershed, project, and issues regarding the identified project. Identify any potential challenges or special concerns that may be encountered.
 - f. Include any other information you feel to be relevant to the selection of your firm or the makeup of the project team including subconsultants.

D. CONSIDERATION OF RESPONSES

Request for responses will be evaluated based on the following Criteria:

1. *Qualifications of Firm (30%):* Preference shall be given to those firms with experience with managing grant-funded projects and implementing watershed-based plans.
2. *Qualifications of the Project Team (Key Staff) (45%):* Preference shall be given to those with key staff experience in items listed in the Work Plan (Attachment 1), and familiarity with the watershed and project partners.
3. *Experience in Working with State and EPA Regulations and 319 Project Procedures (25%):* Preference shall be given to project teams whose personnel have a demonstrated working relationship with the State and EPA and possess a thorough understanding of the rules and regulations regarding erosion control and watershed restoration.

E. SELECTION OF THE CONSULTANT

It is the intent of the District to appoint a committee to review the Statements of Qualifications submitted and rank the qualified firms. All unsuccessful firms will be notified in writing no later than 10 days after selection of the Consultant. The District reserves the right to reject all submissions to this RFQ, request clarification, or waive informalities/technicalities, if it is deemed in the best interest of the project. The District assumes no responsibility for costs incurred in responding to the RFQ.

F. SUBMISSION OF QUALIFICATIONS STATEMENT AND CONTACT PERSON

Submissions must be received electronically by the District by **4:00 pm, Friday, March 15, 2024** with the subject line: **"RFQ Consulting Project Coordinator for the China Lake Phase III Watershed Restoration Project."** Please send responses to:

Dale Finseth

Kennebec County Soil & Water Conservation District
2305 North Belfast Ave.
Augusta, ME 04330
dale@kcsxcd.org
(207) 480-3927

G. CONDITIONS OF AWARD

Funding for this component of the project will be provided in whole or in part through a 319 Grant administered by the Maine Department of Environmental Protection (DEP). It is the intent of the District to award the project to the most qualified and responsive firm, provided that the proposal has been submitted in accordance with the requirements of this RFQ. The committee shall be the sole judge of the firm's qualifications and whether the proposal is in the best interest of the District.

Up to the time of the signature of the contract, the District shall have the right in its sole discretion to reject all the submissions for the work and to waive any defects, time limits or deficiencies in any bid, and to terminate consideration with or without cause if deemed in the best interest of the District to do so.

H. AMENDMENTS TO THE RFQ

The District may revise this RFQ by using written addenda. Addenda will be posted on the District's website and emailed to all known bidders. The District may also request additional information if deemed

necessary. Failure to provide such information may result in a submission being considered incomplete. The District reserves the right to be the sole judge of all such criterion.

I. CONFIDENTIALITY

Proposals will be kept confidential until after they have been evaluated.

J. INSURANCE CERTIFICATES

The contractor must be able to provide evidence of insurance coverage; The contractor will maintain insurance at least as hereinafter set forth so as to protect it and the District from any and all claims for personal injury and property damage, and for claims under the Workmen's Compensation Acts, including death arising out of operation of this agreement, for the entire pendency of this project; All insurance must be issued by an insurer licenses, authorized and maintaining an office to do business in Maine.

ATTACHMENT 1. WORK PLAN

Project Information

Project Title	#20240004 China Lake Watershed Restoration Project, Phase III
Applicant’s Organization	Kennebec County Soil & Water Conservation District (KCSWCD)
Applicant’s UEI#	MHJ3PNFCK2W1
Project Start Date	January 1, 2024
Project Completion Date	December 31, 2025

I. Waterbody and Watershed Information

a. Background

Waterbody Name	China Lake (MIDAS # 5448)
Waterbody Size (e.g., lake acres, stream miles)	3,939 acres
Watershed Area (in acres or square miles)	27 mi ²
Watershed Location (town(s), county(s))	China, Vassalboro, Albion & Winslow - Kennebec County
Title and Date of Existing or Past Watershed-based Management Plan	China Lake Watershed-Based Management Plan, March 2022
Public Access to Waterbody	Two state-owned public boat launches on China Lake located in Vassalboro and China, and a town-owned carry-in boat landing in South China

b. Waterbody and Watershed Physical Characteristics

China Lake (MIDAS 5448) is a 3,939-acre lake located in China and Vassalboro, Maine. It is a naturally formed dual-basin waterbody with an east and west basin that was enlarged in 1969 by raising the height of the dam at Outlet Stream. China Lake serves as the drinking water supply for the municipalities of Waterville, Winslow, Fairfield, Benton, and Vassalboro.

The watershed is located within the towns of China, Vassalboro, Albion, and Winslow in Kennebec County, Maine and drains approximately 27 square miles of the surrounding landscape (see Location Map, File #3). The lake has a maximum depth of 28 m (92 ft), and an average depth of 8 m (25 ft). The deepest location in the lake is in the west basin, while the east basin has a maximum depth of 17 m (56 ft). The west basin has a flushing rate of 0.64 flushes/yr, and the east basin has a flushing rate of 0.68 flushes/yr, both significantly lower than the average for lakes in Maine of 1 to 1.5 flushes/yr. China Lake is located

194 ft above sea level, with the highest elevation in the watershed being Parmenter Hill on the eastern edge of the watershed at 646 ft.

The watershed is drained by several perennial tributaries including Ward Brook, Jones Brook, Starkey Brook, Hunter Brook, Muldoon Stream. In addition to these perennial streams, numerous intermittent streams, and the direct shoreline drainage areas contribute to the flow of water from the watershed into the lake. Water flows north to south through the east basin, and east to west through the west basin where it leaves the lake through the Outlet Stream and the lake's western end. The lake's water level is controlled by a dam at the outlet. From Outlet Stream, water flows into the Sebasticook River, which empties into the Kennebec River and eventually the Gulf of Maine.

While the west basin shoreline is largely protected from development, the shores of the east basin are highly developed estimated at 30 houses/shoreline mile. According to a recent survey of town records, there are 529 shoreline lots, 452 of which are developed. Of the developed lots, 61% are seasonal and 39% are used year-round.¹ Roads encompass 84 acres of land in the watershed, the majority (61%) of which are unpaved gravel roads that service high-density residential development along the shoreline. The remaining 39% of roads are paved, including Lakeview Drive (Rt. 202) that runs along the eastern shore of the east basin, Vassalboro Road (Rt. 32), running through the southwest corner of the watershed, and Neck Road that runs parallel to the west shore of the east basin. Commercial development is concentrated near the southern tip of the watershed near the intersection of Rt. 3 and Rt. 202, and near China Village at the northern tip of the watershed.

Land cover in the watershed is dominated by forestland (56%), including deciduous, non-deciduous, mixed forest, and recent timber harvests (2%). Wetlands, including forested wetlands, freshwater emergent wetlands, and open water, make up 19% of the watershed. Agriculture, including hayland, pasture, and row crops account for 12% of the total watershed area, while residential and commercial development and roads account for 13% of the watershed area. From a phosphorus loading perspective agriculture is estimated to account for 38% of the total phosphorus load, and development another 32% of the phosphorus load, despite collectively only accounting for 25% of the watershed area.

c. Description of Waterbody Uses and Value

China Lake serves as an important source of drinking water for the municipalities of Waterville, Winslow, Fairfield, Benton, and Vassalboro. It is the sole source of water for over 22,000 customers and is managed as a drinking water supply by the Kennebec Water District (KWD). The lake and its surrounding watershed are also used heavily for recreation, including boating, fishing, swimming, snowmobiling, ice-fishing, and cross-country skiing. Public access to the lake is available at the two state-owned boat launches, one on the west basin near the outlet in Vassalboro, and one on the north end of the lake in the Town of China. An informal town-owned carry-in public boat "landing" is located on the south end of the lake at the end of Town Landing Rd. Prior to the sudden decline in water quality that the lake experienced beginning in the 1980's, it supported a coldwater fishery which is no longer sustainable.

Conserved lands in the China Lake watershed include 344 acres of land owned by KWD that surrounds the shoreline of the lake's west basin (~ 200 ft. wide buffer). This property was acquired by KWD for the

¹ Personal communication, Janet Preston, Town of China Selectman. Email communication June 2, 2021

purpose of protecting the shoreline from development and erosion in order to protect the water quality of the west basin as a drinking water source. A 119-acre portion of the southeastern watershed is protected as part of the Alonzo H. Garcelon Wildlife Management Area, a collection of properties in Augusta and Windsor that were conserved to protect wetland and riparian habitats. Another 22 acres of land in the northern end of the watershed is conserved as farmland under an agricultural easement through the Maine Farmland Trust.

The China Lake watershed contains a wealth of water resources including 85 miles of streams, 4,732 acres of riparian habitat, and 3,014 acres of freshwater wetlands, and four significant vernal pools. Nearly 2,000 acres of the freshwater wetlands in the watershed are classified as inland wading bird and waterfowl habitat, and large wetland areas to the north and east of the lake provide habitat for endangered species and species of special concern including the least bittern, eastern ribbon snake, and great blue heron. A symbol of summertime on Maine lakes, loons are regularly observed on China Lake, with 34 adult loons counted on the lake in 2022.

China Lake is home to 23 fish species, including 19 native species, and four introduced non-native species. Due to the pattern of annual anoxia in colder and deeper water throughout the lake, habitat for coldwater game fish such as brown trout and brook trout is limited in China Lake. Landlocked salmon and lake trout were stocked prior to the 1980s, when declining water quality caused the loss of the well-oxygenated water in deeper areas of the lake where young lake trout reside. Brown trout continue to be stocked yearly in the fall with the expectation that they will not survive the summer due to poor water quality. The lake also supports a robust warm water fishery including largemouth and smallmouth bass. China Lake was historically used by spawning alewives moving up through the Sebasticook River and the Outlet Stream. The Maine Department of Marine Resources (MDMR) began active alewife restoration of China Lake in 2014 and completed in 2021, allowing alewives to return to China Lake freely beginning in the spring of 2022.

II. Water Quality Problem or Threat

a. Water Quality Listing Status

Is water quality listed as impaired?	Yes
If impaired, what is the listed cause(s) and/or impaired use?	<i>Non-attainment of GPA water quality standards for primary contact recreation and nuisance algal blooms</i>
Name and date of any DEP TMDL report(s) for the waterbody.	<i>China Lake (East and West Basins) TMDL, October 10, 2001</i>

b. Water Quality Overview

Water quality in China Lake has been poor since the sharp decline in clarity that occurred in the 1980s, with SDT regularly falling below the 2 m threshold indicating an algal bloom. The large size of the watershed, extent of development, phosphorus inputs from the direct watershed and the watershed of upstream lakes, and the effects of a changing climate all play a role in the lake’s water quality. Managing

the input of pollutants from the watershed is essential to protect water quality and manage cycles of internal loading that have developed in China Lake.

Along with being listed as impaired on the Maine DEP's NPS Priority Watersheds List, China Lake is on the State's list of lakes most at risk from new development. Data have been collected regularly by Maine DEP and certified volunteers from the Lake Stewards of Maine and KWD since 1970.

A recent trend analysis conducted as part of the 2022 China Lake WBMP showed a significant decrease in SDT over the entire time series at all three stations, indicating a decrease in water clarity. Minimum SDT fell to 2 m or less in 29 to 32 of the 48 years sampled depending on the station, indicating the frequency of algal blooms. Chl-a showed a significant increasing trend across the entire sampling period at Station 3, but no significant trend over the whole time series at Stations 1 and 2. Chl-a has ranged from a low of 0.7 ppb to a high of 82 ppb, both recorded at Station 3, with an average over all three stations of 11.4 ppb. Epilimnetic TP samples at all three stations have ranged from 2 ppb to 80 ppb with an average of 17.8ppb. The only significant trend in TP data was a significant decreasing trend over the past 10 years at Station 1, coinciding with a significant decreasing trend in Chl-a over the last 10 years at that same station. These 10-year trends may have been caused in part by drought conditions experienced in the latter half of the last decade. Decreasing dissolved oxygen (DO) levels have also been observed in China Lake, causing concern because low DO levels (anoxia) can cause release of phosphorus from the lake sediments. Recent data indicates that anoxia is regularly occurring as shallow as 6 m in China Lake. Watershed modeling shows that internal loading is a major source of phosphorus inputs to the lake and must be addressed in addition to reducing watershed inputs in order to reach water quality goals.

III. Watershed Nonpoint Pollution Sources and NPS Mitigation Activities

a. Summary of Watershed Assessments and Priority Nonpoint Pollution Sources

2005 Watershed Analysis of China Lake - In 2005 a watershed analysis of China Lake was completed by the Colby College Environmental Assessment Team. The analysis included an assessment of water quality in the lake, a review of land cover and land use patterns in the watershed, modeling the effects of future land use changes on phosphorus loading, and presents possible techniques for remediation. The report recommends managing external phosphorus loading from development including residential areas, roads, and agricultural land. It also recommends considering an aluminum treatment and water drawdown to reduce the internal phosphorus load.

2016 China Lake Watershed Road Survey - In 2016, a survey of roads in the China Lake watershed was conducted by Maine Environmental Solutions to provide CLA with an overview of the condition of camp roads along the shoreline.

2020 China Lake Watershed Survey - A comprehensive watershed survey was completed in 2020 with help from 12 volunteers and 10 technical leaders in partnership with Maine DEP to assess the condition of roads and developed properties in the watershed. A total of 161 sites were documented across 11 different land-use types, with 66% of sites located on residential properties. Twenty properties were ranked high impact, 59 medium impact, and 82 sites were ranked low impact.

2020 Agriculture & Forestry Assessment- An assessment of the current state of agriculture and forestry in the watershed was conducted by the District with support from the USDA/NRCS. Agriculture makes up approximately 12% of the land in the watershed. A total of 860 NRCS practices were applied in the watershed between 2007 and 2020. 55% of the watershed is forested, and 2% of the forestland has been harvested in previous five to 10 years.

2021 Septic Inventory and Sensitive Soils Analysis - Ecological Instincts conducted a sensitive soils analysis for septic systems in the China Lake watershed which includes a review of the Maine Soil Catena to identify soils and drainage classes that may result in short-circuiting of septic leachate (e.g., shallow to bedrock soils and coarse sandy soils). The analysis identified 533 parcels located on sensitive soils within 150 feet of a waterbody, at least 318 of which are developed lots. The Town of China's septic system database was also updated in 2021 which indicates 45% of the 452 developed properties in the shoreland zone have been updated since 1998.

2022 China Lake Watershed-Based Management Plan- A US EPA Clean Water Act Section 604(b) grant funded the development of an updated WBMP for China Lake. Plan development included in-lake water quality monitoring, sediment testing and analysis, a watershed survey, bathymetric map update, and watershed modeling to better understand the contributions and effects of NPS pollution and internal phosphorus loading. The WBMP set a goal of reducing phosphorus in runoff from the watershed by 56 kg/yr in the east basin, and 41 kg/year in the west basin, along with an additional 656 kg/yr by addressing internal phosphorus loading from the sediments. The overall goal is a stable or improving water quality trend and a lake that is free from nuisance algal blooms.

b. Description of Watershed Activities to Address NPS Pollution

Watershed partners have worked diligently to implement recommendations to address NPS pollution in the China Lake watershed. However, as described above, the 2020 NPS survey identified 161 locations with potential to negatively affect the water quality of the lake. Long-term trends show a significant decrease in SDT and a significant increase in Chl-a, and anoxia at the lake bottom is a concern due to the release of phosphorus from bottom sediments. Fortunately, the watershed community has demonstrated a strong commitment to watershed protection. Local partnerships between CLA, CRLA, Kennebec Water District, KCSWCD, watershed towns, and landowners indicate a high probability of success in addressing NPS pollution. Past (since 2006) and current watershed activities to address NPS pollution are provided below.

2014 – Present CRLA Youth Conservation Corps - CRLA runs a Youth Conservation Corps (YCC) program that employs high school and college students to engage in watershed stewardship by implementing lakeshore conservation and erosion control projects. Through the YCC, CRLA is able to implement approximately 10 - 20 site improvements a year in the China Lake Watershed.

2006 – 2010 Clean Water Act Section 319 Projects - CRLA and KCSWCD oversaw two phases of grant funded implementation projects, funded in part by USEPA under Section 319 of the Clean Water Act to help reduce P runoff from the watershed between 2006-2010. The major focus was to address high-priority/ high-impact residential sites and gravel roads along the shoreline, as well as high-priority agricultural sites and active forestry. Over \$457,000 was invested in the watershed including \$163,495 in

grant funding and \$294,317 in local matching funds. The work resulted in a significant decrease in sediment and P loading to the lake.

2008-Present LakeSmart – Since 2008, there have been 172 site visits completed by trained LakeSmart inspectors led by DEP, CLA, and CRLA, with a total of 61 LakeSmart awards.

2019-2022 Gravel Road Rehabilitation Program – The 2016 China Lake Watershed Road Survey resulted in improvement projects being completed on gravel camp roads around China Lake. The Gravel Road Rehabilitation Program resulted a \$70,000 local investment in reducing runoff from gravel roads over a four-year period (improvement of six gravel camp roads between 2019-2022). Two of these sites were on CLA's high impact NPS survey list in 2020.

The 2022 China Lake WBMP set a goal of completing three additional phases of 319 grants over the 10-year WBMP planning period to address NPS sites identified during plan development. The Phase III project will address 21 high and medium impact NPS sites throughout the watershed (see Section IV- Project Purpose, below). Phase IV will continue addressing high and medium impact NPS sites with a focus on roads and residential properties while focusing LakeSmart and YCC efforts on low-impact NPS sites. Phase V will address any remaining high and medium impact NPS sites and target the remaining low-impact NPS sites through YCC and LakeSmart efforts. It is unclear at this time if the Town of China will continue funding the Gravel Road Rehabilitation Program beyond 2023.

IV. Project Purpose

The purpose of the China Lake Restoration Project, Phase III is to reduce sediment and phosphorus into the lake by: 1) installing best management practices at 21 high and medium impact NPS sites throughout the watershed including 8 beach/boat access sites, 1 commercial site, 2 private road sites, and 10 residential sites, and complete 10 LakeSmart evaluations, and 2) by educating the public about NPS problems and solutions through use of various media and at a number of workshops and public events.

V. Environmental Outcome

The project will improve the water quality in China Lake by preventing delivery of excess sediment and phosphorus to the lake with the goal of attaining class GPA standards. A significant reduction of NPS pollution is expected as a result of a strong education and outreach program and by addressing 21 high and medium-impact NPS sites in the watershed of the east basin. Approximately 13 tons/yr of sediment, 6 kg/year of phosphorus, and 9 kg/yr of nitrogen will be prevented from entering China Lake as a result of this project.

VI. Partner Coordination, Roles and Responsibility

Kennebec County Soil & Water Conservation District (KCSWCD) will serve as the grantee, oversee administrative functions, coordinate and facilitate Steering Committee meetings, provide technical assistance for NPS sites, assist CLA with education and outreach tasks including coordination of the buffer campaign and gravel road workshop. (see File #3, Attachment 1). KCSWCD plans to complete all tasks in-house but may require outside consultants to assist with various aspects of the project as needed pending District staffing (e.g., Project Management or Technical Assistance). In this case, KCSWCD will use competitive procurement procedures outlined in the DEP's NPS Grant Administrative Guidelines.

China Lake Association (CLA) will participate on the Steering Committee, lead the education and outreach efforts including two annual CLA newsletter articles to all landowners in the watershed, two annual CLA meetings, attending two road association meetings each year, hosting a gravel road workshop and a buffer planting workshop, assisting with the development of a Buffer Campaign, and providing project updates on the CLA website and social media. CLA will provide \$5,677 in-kind match and \$10,000 cash match to the project for a total of \$15,677 in match (see File # 3, Attachment 2). CLA is the primary entity overseeing the 2022 China Lake WBMP.

China Regional Lakes Association (CRLA) will serve on the steering committee, assist with the buffer planting workshop, and implement BMPs on residential sites through the Youth Conservation Corps (YCC) program. CRLA will provide cash and in-kind match of \$23,380 (see File # 3, Attachment 3).

Kennebec Water District (KWD) will serve on the Steering Committee and provide \$10,000 in cash match to the project (see File #3, Attachment 4).

Town of China will serve on the Steering Committee and provide \$6,200 in cash and in-kind match to address erosion at two high impact NPS sites at the town landing and town boat launch. The Town will also support outreach activities by highlighting project information in the *China Connected* monthly mailer and through social media outlets (see File #3, Attachment 5).

Maine Department of Environmental Protection will administer project funding, serve as the project advisor, serve on the steering committee, and provide project and technical support.

US Environmental Protection Agency will provide work plan guidance and project funding, pending acceptability of final workplan and availability of federal funds.

VIII. Tasks, Schedules and Estimated Costs

All press releases, outreach materials, project signs, and plans will acknowledge that the project is funded in part by the United States Environmental Protection Agency under Section 319(h) of the Clean Water Act. Project staff will consult with DEP on EPA's public awareness terms and conditions for Section 319(h) grants before the project commences. In addition, project staff will consult with DEP and EPA before project signs are designed. Refer to the Service Contract, Rider A. Section III. D. Acknowledgement.

The project will not use project funds to undertake, complete or maintain work required by existing permits, consent decrees or other orders. Project staff will exercise best professional judgment in the selection, design and installation of BMPs for NPS sites and will design and install BMPs at NPS sites according to design guidance described in Maine BMP guidance manuals or use other BMPs acceptable to the DEP. Project staff will ensure that permits required for construction are secured prior to construction and BMPs are constructed in an acceptable manner, before reimbursing landowners according to applicable Cost Sharing Agreements.

DEP guidelines "*Using Project Funds for Construction of BMPs at Road-related Sites*" will be used to evaluate road-related NPS sites and determine if NPS project funds can be used to help a landowner pay for construction of road-related BMPs.

Task 1 – Project Administration

The District will administer the project according to the service contract with DEP. The District will track project expenses, matching funds, and submit reports (semi-annual progress reports and final project

report) and other deliverables. The District will establish an NPS Site Tracker spreadsheet tool to efficiently accumulate and record information about NPS sites observed during this project to enable continued activity in future years to maintain existing BMPs and address new NPS sites.

Start and Completion Dates	January 2024 – December 2025	
Grant Cost: \$6,123	Match Cost: \$500	Total Cost: \$6,623
Breakdown of Grant by Cost Category: \$6,098 (salary & fringe), \$25 (supplies)		
Breakdown of Match by Cost Category: \$500 (salary & fringe)		

Task 2 – Steering Committee

The District will coordinate and facilitate four Steering Committee meetings made up of representatives from the District, CLA, KWD, CRLA, Road Associations, and the Town of China to help guide the project. The committee will weigh in on project progress and project deliverables. It is anticipated that two of the four meetings will be held remotely via video conferencing.

Start and Completion Dates	January 2024 – November 2025	
Grant Cost: \$2,956	Match Cost: \$2,872	Total Cost: \$5,828
Breakdown of Grant Cost by Cost Category: \$2,880 (salary & fringe), \$51 (travel), \$25 (supplies)		
Breakdown of Match by Cost Category: \$500 (salary & fringe), \$2,372 (donated services-labor)		

Task 3 – BMP Installation at Residential NPS sites

The District will oversee the installation of BMPs on 10 high and medium impact shoreline residential projects in partnership with CRLA. CRLA will provide \$2,000 in match for each project including YCC labor and \$600 in BMP materials to complete each project. District staff will coordinate site visits with landowners, prepare NPS site plans for each property, develop cost-share agreements, take before and after photos of each site, and sign off on all completed projects. A summary of residential site visits and completed sites including grant and match costs, BMPs installed, and before and after photos will be provided as a project deliverable.

Start and Completion Dates	April 2024 – October 2025	
Grant Cost: \$22,429	Match Cost: \$23,700	Total Cost: \$46,129
Breakdown of Grant Cost by Cost Category: \$7,620 (salary & fringe), \$14,000 (construction), \$759 (travel), \$50 (supplies)		
Breakdown of Match by Cost Category: \$2,000 (salary & fringe), \$700 (donated services-labor), \$21,000 (construction)		

Task 4 – BMP Installation at Non-Residential NPS sites (road; beach/boat; commercial)

The District will oversee the installation of BMPs at 11 high and medium impact non-residential sites including 4 beach/boat access sites, 1 commercial site, 2 private road sites. District staff will prepare an NPS site plan and cost-share agreement for each site prior to construction that outlines the grant and match requirements and complete an NPS Site Report for each site including before and after photos. MDEP “Using Project Funds for Construction of BMPs at Road-related Sites” will be used to evaluate road-related NPS sites and determine if NPS project funds can be used to help pay for road-related BMPs.

Start and Completion Dates	April 2024 – December 2025	
Grant Cost: \$54,949	Match Cost: \$44,820	Total Cost: \$99,769
Breakdown of Grant Cost by Cost Category: \$5,418 (salary & fringe), \$49,000 (construction), \$531 (travel)		
Breakdown of Match by Cost Category: \$3,000 (salary & fringe), \$1,820 (donated services-labor), \$40,000 (construction)		

Task 5 – Education & Outreach

The District will work directly with watershed partners to complete both general and targeted outreach throughout the watershed. This includes several subtasks:

5a- General Outreach & Final Project Brochure- This includes publishing three press releases, presenting project information at two CLA annual meetings, publishing project information on partner websites, publicizing events through two CLA newsletters each year (650 newsletters/ mailing) and via CLA social media (~700 followers). A final project brochure will be developed to highlight Phase III project successes.

Start and Completion Dates	January 2024 – December 2025	
Grant Cost: \$3,261	Match Cost: \$1,887	Total Cost: \$5,148
Breakdown of Grant Cost by Cost Category: \$3,185 (salary & fringe), \$51 (travel), \$25 (supplies)		
Breakdown of Match by Cost Category: \$1,887 (donated services-labor)		

5b- Buffer Campaign- The District will coordinate with CLA and CRLA to develop and implement a Buffer Campaign including preparing “buffer bundles” for buffer workshop attendees and residential BMP projects (Task 3) and distributing a “Buffer Mailing” with information about the importance of shoreline buffers and how to purchase buffer bundles. The Buffer Campaign will provide plant and planting recommendations to all those who contact about the buffer bundle. That information will be made available both on the websites and at town office location. Additional follow-up with landowners will happen on an as-needed basis. Buffer bundles will be available on a first come basis as budget allows.

Start and Completion Dates	January 2024 – October 2025
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#20240004 China Lake Watershed Restoration Project, Phase III

Grant Cost: \$5,553	Match Cost: \$9,040	Total Cost: \$14,593
Breakdown of Grant Cost by Cost Category: \$5,403 (salary & fringe), \$51 (travel), \$100 (supplies)		
Breakdown of Match by Cost Category: \$1,000 (salary & fringe), \$1,040 (donated services-labor), \$1,500 (supplies), \$5,500 (other)		

5c- Gravel Road Workshop & Gravel Road Association Meetings- The District will coordinate with CRLA and CLA to organize a gravel road workshop geared toward road associations with expert speakers covering topics such as gravel road maintenance, road association law, and climate change impacts. CLA will attend two road association meetings each year.

Start and Completion Dates	January 2024 – December 2025	
Grant Cost: \$3,694	Match Cost: \$2,104	Total Cost: \$5,798
Breakdown of Grant Cost by Cost Category: \$3,543 (salary & fringe), \$101 (travel), \$50 (supplies)		
Breakdown of Match by Cost Category: \$1,104 (donated services-labor), \$1,000 (other)		

5d- LakeSmart Technical Assistance- CRLA will conduct 10 LakeSmart evaluations.

Start and Completion Dates	January 2024 – December 2025	
Grant Cost: \$260	Match Cost: \$1,000	Total Cost: \$1,260
Breakdown of Grant Cost by Cost Category: \$260 (salary & fringe)		
Breakdown of Match by Cost Category: \$1,000 (donated services-labor)		

Task 6 – Pollutant Load Reduction Estimates

The District will estimate NPS pollutant load reductions and resources protected under this project. During design or installation of conservation practices at NPS sites, appropriate field measurements will be recorded to prepare estimates of pollutant load reductions. Estimates will be prepared for all NPS sites unless there is not an applicable estimation method. Methods to be used are the EPA Pollution Load Estimation Tool (PLET, <http://www.epa.gov/nps/plet>) and/or the U.S. Forest Service WEPP Road Model <http://forest.moscowfsl.wsu.edu/fswepp/>. Results will be provided using DEP’s "Pollutants Controlled Report" (PCR), which will be submitted to the MDEP, by December 31 each year.

Start and Completion Dates	May 2024 – December 2025	
Grant Cost: \$845	Match Cost: \$0	Total Cost: \$845
Breakdown of Grant Cost by Cost Category: \$845 (salary & fringe)		
Breakdown of Match by Cost Category: n/a		

VII. Deliverables

An electronic copy of each deliverable will be provided to the DEP Contract Administrator. Each deliverable will be labeled according to procedures described in DEP document *Nonpoint Source Grant Administrative Guidelines*, <http://www.maine.gov/dep/water/grants/319-documents/2016GrantAdminGuidelinesFinal2.docx>.”

1. Subagreements, Semi-annual progress reports, NPS site tracker, final project report (Task 1).
2. Residential summary table with before and after photos (Task 3).
3. NPS Site Reports for each NPS Site including pre- and post-construction photos (Task 4).
4. Copies of all education & outreach materials produced and/or events including workshops and meetings as well as copies of press releases, newspaper and newsletter articles, a list of completed LakeSmart evaluations, buffer campaign summary, a copy of the buffer mailing, and final project brochure (Task 5).
5. Pollutants Controlled Reports each year until project completion (Task 6).

IX. Project Coordinator

Name	Dale Finseth
Organization	Kennebec County Soil & Water Conservation District
Mailing Address	2305 N. Belfast Ave.
Telephone Number	(207) 622-7847
Email Address	dale@kcsxcd.org

X. Project Budget

Federal Funds (319):	\$100,068
Non-Federal Match:	\$85,924
Proposed Total Cost:	\$185,992

Part 1. Estimated Personnel Expenses: (Applicant staff only)

Position Name & Title	Hourly Rate	Number of Hours	Salary & Fringe	Total Applicant Personnel Expenses
Dale Finseth, Project Manager	\$50	227	\$65	\$14,755
Technical Assistant Lead (TBD)	\$50	423	\$65	\$27,495
Totals		650		\$42,250

Part 2. Budget Estimates by Cost Category

Cost Category	Federal Funds (EPA) CWA 319	Non-Federal Match	Total Cost
Salary & Fringe (from Part 1)	\$35,250	\$7,000	\$42,250
Subgrant			
Contractual			
Donated Services – Labor		\$9,924	\$9,924
Travel	\$1,543		\$1,543
Construction	\$63,000	\$61,000	\$124,000
Supplies	\$275	\$1,500	\$1,775
Other		\$6,500	\$6,500
Indirect Costs			
Totals	\$100,068	\$85,924	\$185,992

Part 2 Notes: Salary & Fringe Match- KCSWCD Project Manager & Technical Assistance Lead (\$2,000 CLA cash match & \$5,000 KWD cash match)

Donated Services-Labor- CLA volunteers (142 hrs x \$28.89/hr); CLA Watershed Coordinator (45 hrs x \$35/hr); CRLA in-kind (68 hrs Ex. Director x \$35/hr); CRLA LakeSmart Director (20 hrs x \$30/hr); LakeSmart volunteers (\$20/evaluation x 2 evaluators x 10 evaluations); Other volunteer match- (30 hrs x \$28.89)

Travel Grant- KCSWCD (3,355 miles x \$0.46/mi)

Construction Match- \$20,000 CRLA YCC match Task 3; \$5,000 CLA, \$6,200 Town of China Task 4, \$29,800 landowners (Task 3 & 4)




Supplies Grant- KCSWCD (\$125 general task copies/printing, \$100 buffer workshop copies/handouts, \$50 gravel road workshop supplies/handouts); **Supplies Match-** (Task 5) \$1,500 (CLA- Buffer bundle outreach mailing - 500 letters x \$3/letter for printing and mailing)




Other Match- \$500 (CLA- snacks and misc. materials for buffer workshop), \$1,000 (CLA- speaker fees, food and misc. for gravel road workshop); \$5,000 (KWD Buffer Bundles for buffer workshop (10 bundles x \$500 or 20 bundles x \$250)




Part 3. Sources of Non-federal Match and Estimated Amounts



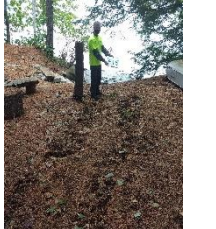

Sources of Non-federal Match	Amount
Kennebec Water District (cash match)	\$10,000
China Lake Association (cash match labor & materials)	\$5,000
China Lake Association (construction match-town landing)	\$5,000
China Lake Association (in-kind match)	\$5,677
China Region Lakes Alliance (in-kind match)	\$3,380
China Regional Lakes Alliance (construction match- YCC)	\$20,000
Town of China (construction match-town landing)	\$6,200
Other Construction Match	\$29,800
Other (in-kind match)	\$867
Total	\$85,924





XII. Candidate NPS Site List

NPS Site Name & Location	Describe the NPS Site & Conditions at the Site Causing Polluted Runoff to Reach Surface Waters	BMPs Recommended	Construction Cost Estimates: Grant, Match, Total	Site Photo
<p>Site #1 (1-01, 1-02): Causeway Road</p> <p>Across from Church</p>	<p>Surface Erosion; Size:10x20; Slope: Moderate</p> <p>Surface Erosion; Size:15x20; Slope: Moderate</p>	<p>Define Foot Path, Erosion Control Mulch, Establish Buffer, Re-seed bare soil & thinning grass, Mulch/ECM</p>	<p>Grant: \$3,000 Match: \$2,000 Total: \$5,000</p>	
<p>Site #2 (3-17): End of Fire Rd 44, boat ramp</p>	<p>Surface Erosion-Rill, Soil-Bare, Shoreline-Unstable Access; Size: 12'x100'; Slope: Steep</p>	<p>Build Up Road, Reshape (Crown) Road, Install Runoff Diverters-Rubber Razor or Waterbar</p>	<p>Grant: \$2,500 Match: \$2,500 Total: \$5,000</p>	
<p>Site #3 (6-09, 6-10): Town Landing Road & Town Boat Launch</p>	<p>Surface Erosion-Sheet/Rill, Soil-Bare, Shoreline-Unstable Access; Size: 36x30; Slope: Moderate</p> <p>Surface Erosion-Gully; Size: 36x500; Slope: Moderate</p>	<p>Regrade gravel road (525 lf), install stormwater filter, improve ditches and culverts, install berm and vegetated buffer</p>	<p>Grant: \$16,800 Match: \$11,200 Total: \$28,000</p>	

NPS Site Name & Location	Describe the NPS Site & Conditions at the Site Causing Polluted Runoff to Reach Surface Waters	BMPs Recommended	Construction Cost Estimates: Grant, Match, Total	Site Photo
<p>Site #4 (10-21, 10-22, 10-23): Convention Center, 4 Pendleton Dr</p>	<p>Surface Erosion- Sheet, Soil-Bare, Shoreline- Unstable Access, Roof Runoff Erosion 15x10 Flat; Surface Erosion-Rill, Culvert- Unstable inlet/outlet, Road Shoulder Erosion-Rill 100x5 Flat; Surface Erosion-Rill 30x10 Moderate</p>	<p>Stabilize Foot Path, Infiltration trench@roof dripline, Add to Buffer, Add stone from steps to dock, Armor Culvert Inlet/Outlet, Build Up Road, Reshape (Crown) Road, Add gravel, Reshape shoulder and seed or armor; turnouts on road.; Add gravel, Build Up Road, Reshape (Crown) Road, Install Runoff Diverters-Waterbar</p>	<p>Grant: \$7,200 Match: \$4,800 Total: \$12,000</p>	
<p>Site #5 (3-16): Fire Rd 43</p>	<p>Ditch Gully Erosion & Undersized; Size: 8' x 150'; Slope: Steep</p>	<p>Install Check Dams in ditch, Reshape (Crown) Road, Install Runoff Diverters- Broad-based Dip/Open Top Culvert/Rubber Razor/Waterbar; work needed on segments of road, not entire length.</p>	<p>Grant: \$7,500 Match: \$7,500 Total: \$15,000</p>	
<p>Site #6 (5-12): Fire Rd 53</p>	<p>Surface Erosion-Rill, Roadside Plow/Grader Berm; Size: 150x12; Slope: Steep</p>	<p>Armor Inlet/Outlet, Build Up Road, Reshape (Crown) Road, Remove Grader/Plow Berms</p>	<p>Grant: \$2,000 Match: \$2,000 Total: \$4,000</p>	

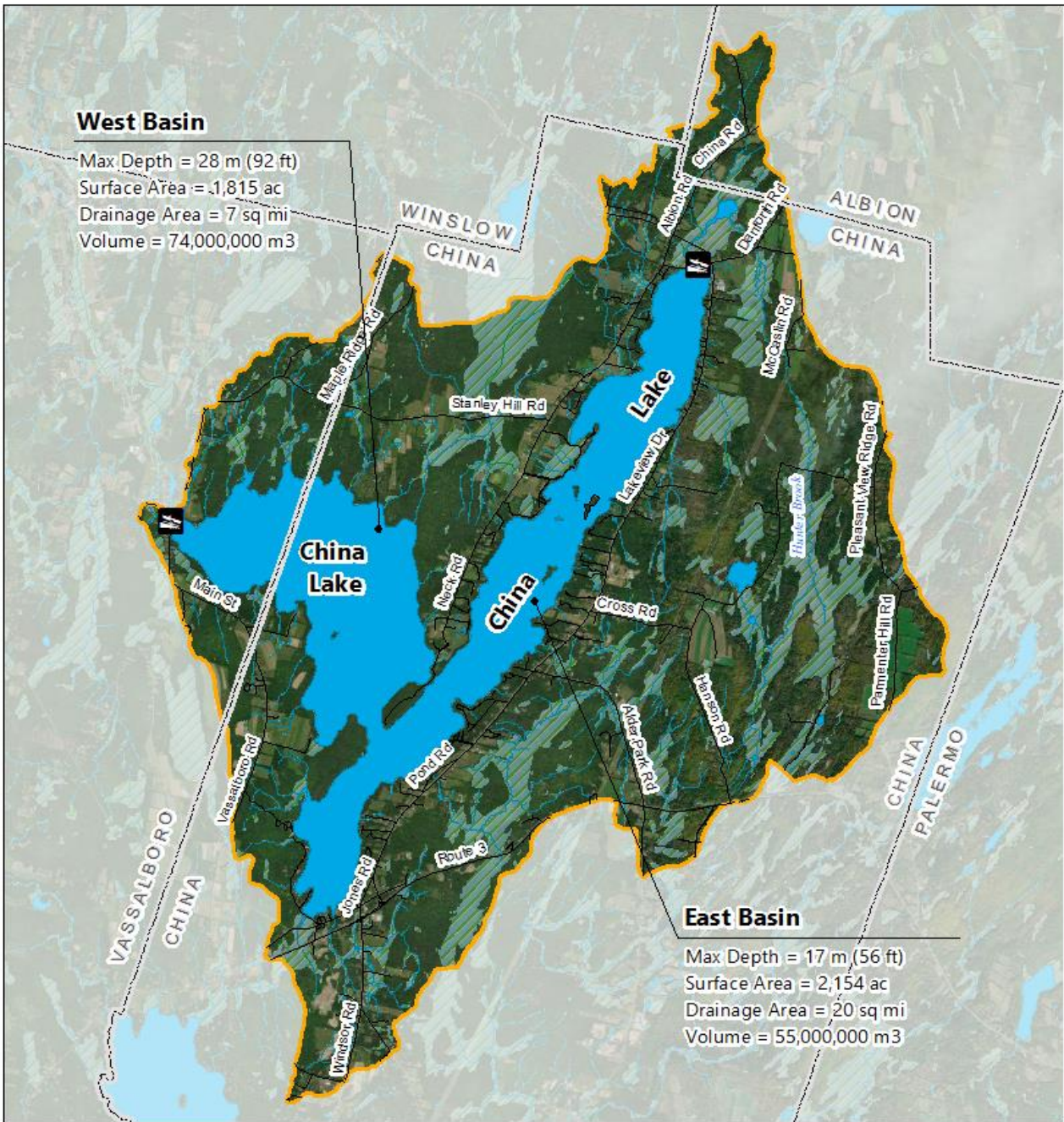
NPS Site Name & Location	Describe the NPS Site & Conditions at the Site Causing Polluted Runoff to Reach Surface Waters	BMPs Recommended	Construction Cost Estimates: Grant, Match, Total	Site Photo
<p>Site #7: Cottages at China Lake</p>	<p>Stormwater retention pond is too small to handle drainage area (43 acres), stormwater running across Lakeview Drive and directly into lake</p>	<p>800 sf raingarden, riprap plunge pool, turf reinforcement matting on slope at shoreline, install riprap pre-treatment sediment trap; engineering plan to be developed in 2023</p>	<p>Grant: \$10,000 Match: \$10,000 Total: \$20,000</p>	
<p>Site #8 (2-09): 12 Fire Rd 27</p>	<p>Large parking area for campers most likely. Minimal Vegetation; Surface Erosion-Sheet/Rill, Soil-Bare; Size 25x100; Slope: Moderate</p>	<p>Add gravel, install runoff diverters-waterbar</p>	<p>Grant: \$1,000 Match: \$2,000 Total: \$3,000</p>	
<p>Site #9 (2-20): 30 Fire Rd 35</p>	<p>Surface Erosion-Rill, Lack of Shoreline Vegetation; Size: 100'x10'; Slope: Steep</p>	<p>Build Up, Reshape (Crown), Install Runoff Diverters-Rubber Razor; Establish Buffer</p>	<p>Grant: \$1,000 Match: \$2,000 Total: \$3,000</p>	

NPS Site Name & Location	Describe the NPS Site & Conditions at the Site Causing Polluted Runoff to Reach Surface Waters	BMPs Recommended	Construction Cost Estimates: Grant, Match, Total	Site Photo
<p>Site #10 (3-06): 68 Fire Rd 38</p>	<p>Directly into lake; Shoreline-Erosion & Unstable Access; Size: 4'x25'; Slope: Flat</p>	<p>Install infiltration steps for water access, regrade scarp with coir logs and install a proper buffer</p>	<p>Grant: \$1,000 Match: \$2,000 Total: \$3,000</p>	
<p>Site #11 (5-10): 64 Fire Rd 53</p>	<p>Stream runs under house via a culvert; Bank failure, Culvert-Clogged, Unstable inlet/outlet, & Undersized; Size: 75x10; Slope: Steep</p>	<p>Armor Inlet/Outlet, Reshape (Crown) Road, Install Runoff Diverters-Rubber Razor. Replant bank</p>	<p>Grant: \$2,500 Match: \$2,500 Total: \$5,000</p>	
<p>Site #12 (6-16): #141 Fire Rd 61</p>	<p>Directly into lake; Surface Erosion-Rill, Soil-Bare, Shoreline-Erosion & Unstable Access; Size: 100x50; Slope: Moderate</p>	<p>ECM, stabilize & define foot path, add to buffer, no raking, mulch/ECM, install runoff diverter (waterbar), vegetation</p>	<p>Grant: \$1,000 Match: \$2,000 Total: \$3,000</p>	
<p>Site #13 (9-08): 24 Fire Rd 16</p>	<p>Surface erosion- gully, shoreline-erosion & unstable access; size: 20'x 6', moderate slope, flows directly to lake</p>	<p>Stabilize foot path, install infiltration steps</p>	<p>Grant: \$1,000 Match: \$2,000 Total: \$3,000</p>	

NPS Site Name & Location	Describe the NPS Site & Conditions at the Site Causing Polluted Runoff to Reach Surface Waters	BMPs Recommended	Construction Cost Estimates: Grant, Match, Total	Site Photo
<p>Site #14 (10-13): 168 9th Fire Rd</p>	<p>Surface Erosion-Rill, Soil-Bare, Lack of Shoreline Vegetation, & Shoreline Erosion, Roof Runoff Erosion, Paved path to stairs conduit for water. Steep eroding bank above lake. Size: 20x30</p>	<p>Infiltration steps, infiltration trench @ roof dripline, add to buffer, Mulch/ECM, terrace with staked coir logs, install vegetation and ECM to cover all bare soil</p>	<p>Grant: \$2,500 Match: \$2,500 Total: \$5,000</p>	
<p>Site #15 (10-15): 110 10th Fire Rd</p>	<p>Directly into lake; Surface Erosion-Rill, Soil-Bare, Shoreline Erosion, & Lack of Shoreline Vegetation; Size: 30x10; Slope: Moderate</p>	<p>Plant buffer, install rip rap or coir logs</p>	<p>Grant: \$1,000 Match: \$2,000 Total: \$3,000</p>	
<p>Site #16 (10-16): 97 10th Fire Rd</p>	<p>Directly into lake; Surface Erosion-Rill, Lack of Shoreline Vegetation & Erosion; Size: 20x8; Slope: Moderate</p>	<p>Plant buffer, armor with coir logs</p>	<p>Grant: \$1,000 Match: \$2,000 Total: \$3,000</p>	
<p>Site #17 (10-19): 24 Fire Rd 7</p>	<p>Directly into lake; Surface Erosion-Rill, Soil-Bare, Lack of Shoreline Vegetation; Size: 75x8; Slope: Steep</p>	<p>Establish Buffer, Mulch/Erosion Control Mix, Terrace with staked coir logs</p>	<p>Grant: \$2,000 Match: \$2,000 Total: \$4,000</p>	

NPS Site Name & Location	Describe the NPS Site & Conditions at the Site Causing Polluted Runoff to Reach Surface Waters	BMPs Recommended	Construction Cost Estimates: Grant, Match, Total	Site Photo
			Total Grant: \$63,000	
			Total Match: \$61,000	
			Total Construction: \$124,000	

Attachment A. Location Map



China Lake Watershed China, Kennebec County

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
 Data Source: NHDPlus, Maine GeoLibrary
 Map Projection: NAD 1983 UTM Zone 19N
 Created by: K. Goodwin, Ecological Instincts - Nov 2021

Watershed Boundary
 Town Boundary

~ Perennial Streams
 ~ Ephemeral/Intermittent Streams

❊ Waterbody
 NWI Wetlands
 Roads

N
 Miles
 0 0.75 1.5 3

MAINE
China Lake

Attachment B: China Lake LLRM Basins

