M2 Tier 2 Project Entry in OCST Planning Module



Notes:

Welcome to this lesson on M2 Tier 2 Project Entry in the Orange County Stormwater Tools Planning Module. If you have a project idea that could benefit from M2 Tier 2 funding, you're in the right place.

In this lesson, you'll learn how to enter your project details into the OCST Project Planning Module and submit them to the Orange County Transportation Authority for consideration for funding.

Let's get started.



In this lesson we will cover:

- What the OC Stormwater Tools Planning Module is and how it is being used to assist with M2 Tier 2 grant applications;
- How to get access to the OC Stormwater Tools Planning Module;
- How to enter project information into the Planning Module and share it with OCTA;
- and, the OCTA Review Process.

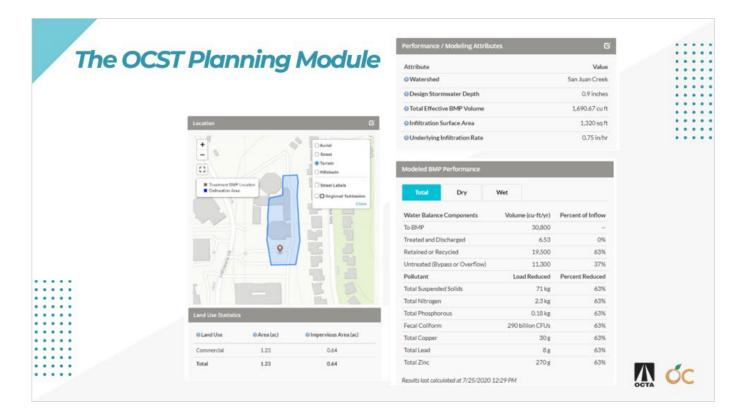


To begin, let's review what the OC Stormwater Tools Planning Module is and how it is being used to assist with M2 Tier 2 grant applications.



The OC Stormwater Tools Planning Module is an extension of Orange County's web-based platform for inventorying stormwater treatment BMPs and modeling their effectiveness.

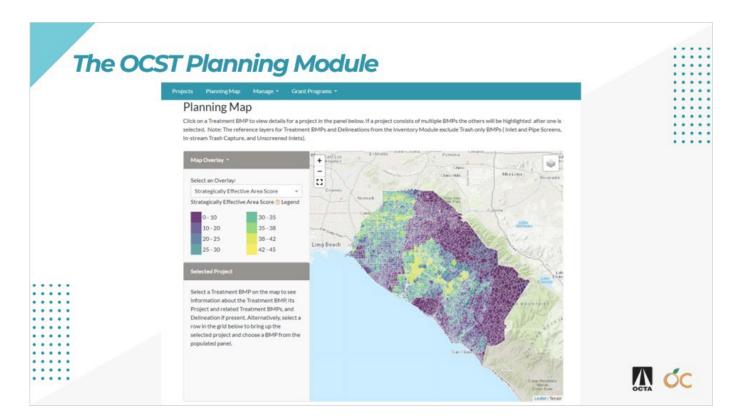
Many jurisdictions within Orange County are actively using the OC Stormwater Tools platform. Together, they've entered over seventeen thousand stormwater treatment facilities and fourteen hundred development project sites.



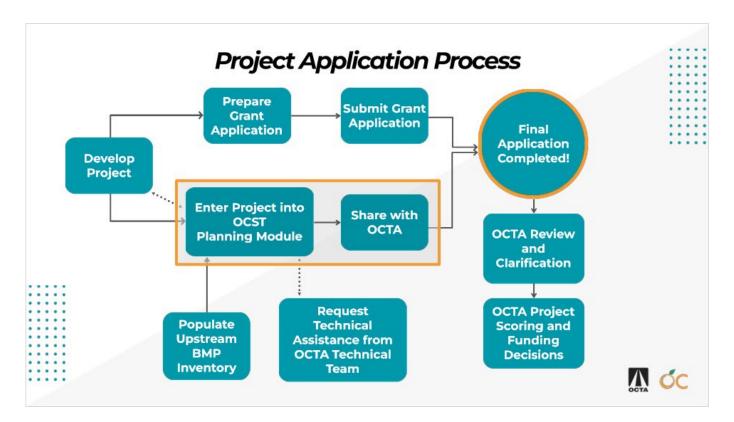
The OC Stormwater Tools platform combines this stormwater BMP inventory with hydrologic and water quality modeling data and calculates the volume managed and pollutant load reduced by each facility.



The Planning Module builds upon this platform to allow users to enter planned future stormwater management projects and calculate the BMP effectiveness in context with the existing facilities of the OC Stormwater Tools inventory.



OCTA has enhanced the Planning Module to include a project location prioritization map and additional metrics calculations specific to the M2 Tier 2 grant program. Use of the Planning Module has been made an integral part of the M2 Tier 2 Grant Funding Application process.



Let's review the major steps of the project application process to see how the OC Stormwater Tools Planning Module fits in.

The first thing an applicant should do is develop their project. This part of the process will be different for every applicant, but it should generally include the following:

- First, a selection and evaluation process of strategic areas for implementing Stormwater BMPs.
- Second, the development of facility sizing and design documentation that includes a clear delineation of the area treated by the facility.
- And third, the development of cost estimates and any necessary funding requests or partnerships.

The Applicant should then begin preparing their grant application. This includes performing a detailed review of the guidelines provided by OCTA, completion of the application forms, and compiling the required supplemental project documentation to include with the application package.

While the application package is being collected and prepared, grant applicants should begin entering their project details into the OC Stormwater Tools Planning Module. This tool will run calculations related to the project's effectiveness that will be used by OCTA to evaluate grant applications. As an option, you can enter project information early, while you are still developing your project. This can help you get feedback on project performance to help you improve your project or select between multiple project alternatives before you finalize your application.

The project effectiveness calculations include existing upstream BMPs that are present in the OC Stormwater Tools Inventory. Project applicants are required to certify that all significant treatment BMPs within their project delineation are fully entered, delineated, and verified, and are returning modeling results. Applicants have significant upstream treatment BMPs if greater than ten percent of their project delineation is treated by other existing facilities.

Applicants who need assistance with the OC Stormwater Tools inventory process or who have questions about entering their project information into the Planning Module may contact OCTA grant administrators for technical assistance.

Once the project is entered into the Planning Module and the technical calculations are complete, the project can be shared with OCTA. The final application is completed after all of the required Grant Application materials are fully submitted to OCTA per their guidelines and after the project has been 'shared' with OCTA in the Planning Module.

After the application is submitted, OCTA staff will review the projects, complete their process for scoring, and make funding decisions.

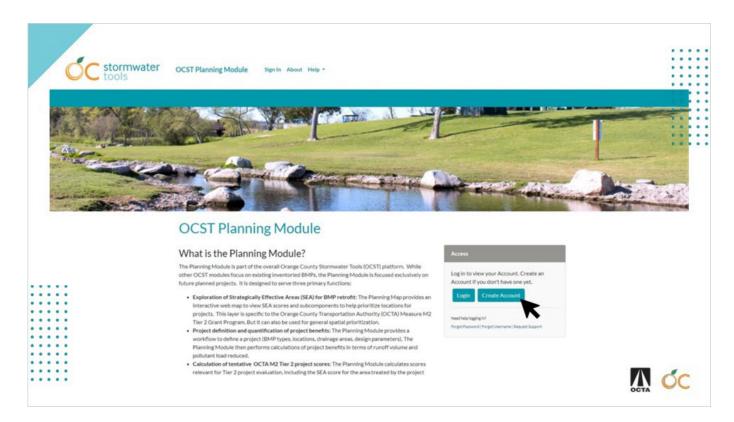
In this training presentation we will focus on the process of gaining access to the OC Stormwater Tools Planning Module, how to enter project information and review the modeling and grant-specific metric calculations, and how to share a completed project with OCTA.

For more information on other pieces of the process, please refer to the grant guidelines or reach out to an OCTA grant administrator.

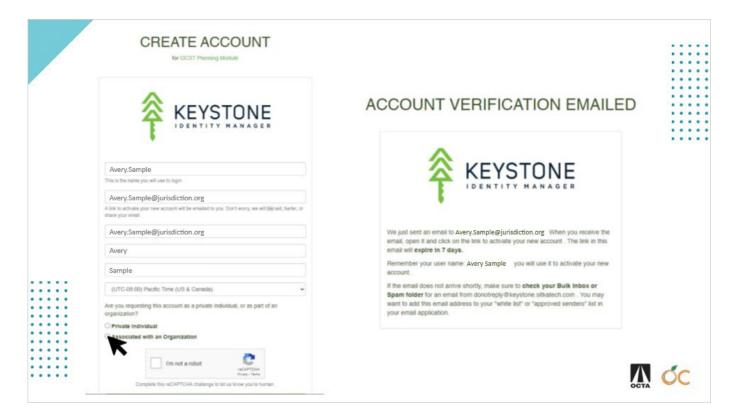


In order to use the Orange County Stormwater Tools software, you'll first need to create an account, verify your identity, and request access to your jurisdiction in the system.

To create an account, follow these steps...



Navigate to <u>Planning.OCStormWaterTools.org</u> using your preferred web browser. Select "Create Account."

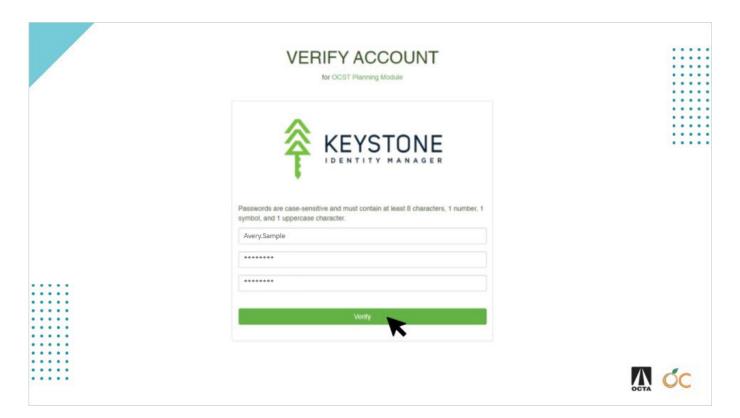


Enter a username of your choice, your email address, and your name. Your username and email address must be unique and valid.

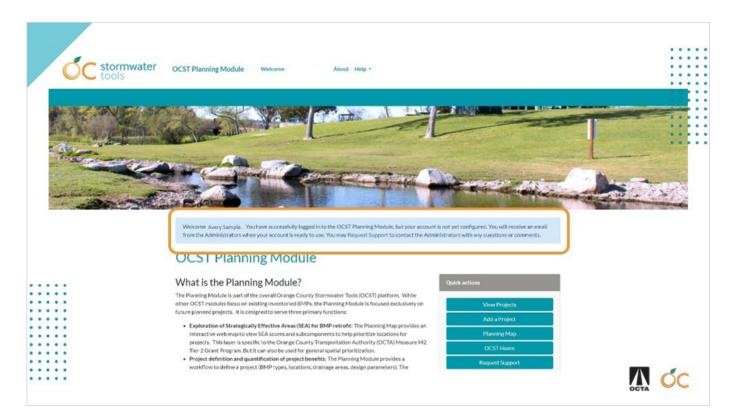
Select "Associated with an Organization" and choose your jurisdiction from the dropdown list.

Check the captcha box and select "Submit".

You will soon receive a verification email at the email address you entered. Open the email and follow the verification link to continue creating your account credentials.



Create a password for your account and select "Verify". Your password must be at least 8 characters long and include at least one uppercase letter, one number, and one special character.



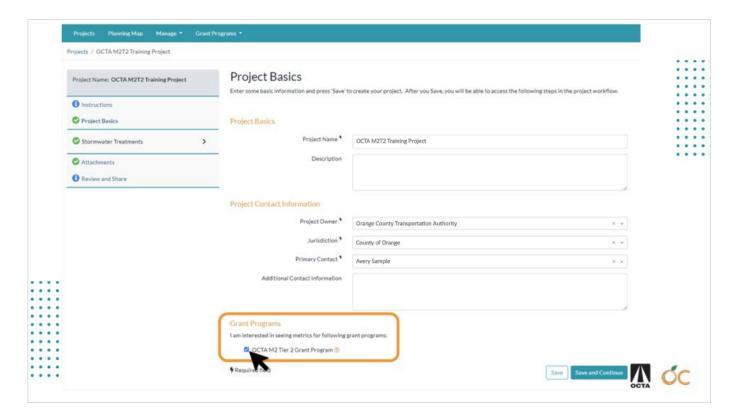
After the account verification process, you will not be able to view, add, or edit projects or access the planning map until you have been added to your jurisdiction in the system by an administrator. The system administrators will receive a notification when you sign up and will configure your account with necessary permissions. You will receive notice via email from a system administrator when your account has been given access.



Let's walk through the OC Stormwater Tools Planning Module together.



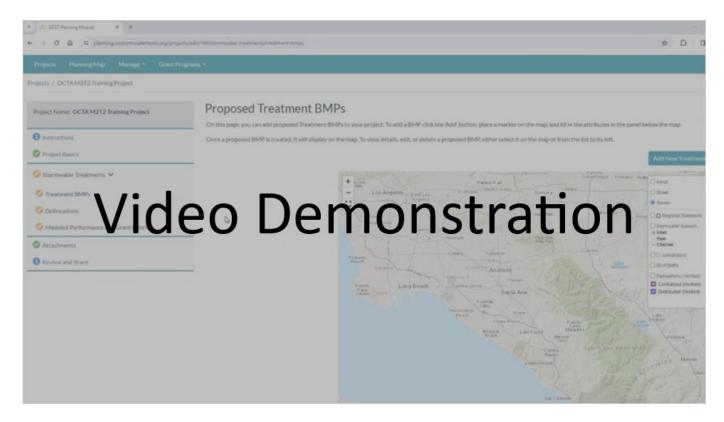
Once you receive notification from the administrator that you're good to go, you'll need to add a new project. Just click on the "Add a Project" button on the Planning.OCStormwaterTools.org home page, and you'll see instructions for a multi-step workflow. Let's walk through each step.



The first step is to enter some basic information about your project, like the name, owner, jurisdiction, contact person, and so on.

Near the bottom of the page you will see a checkbox for the "OCTA M2 Tier 2 Grant Program". Checking this box will allow you to view the preliminary Technical Scoring metrics calculated by the Planning Module and it will enable options later in the process for sharing the project with OCTA for funding consideration.

Don't worry, checking this box will not automatically submit your project.



See this video demonstration <u>here</u>.

The second step is to identify on the map where you plan to build your stormwater treatment facilities.

Begin by zooming the web map to the region near your planned project. To make this easier, the tool includes stormwater pipe network layers, jurisdiction boundaries, and existing BMPs that can be optionally viewed on the web map while you locate your BMP for the system. Click the "Add New Treatment BMP" button and place a pin as accurately as possible.

Next, give the facility a descriptive name. Clear and concise facility names are especially useful if the project includes multiple BMP facilities.

Next, use the dropdown to select the facility type. Select the BMP type that best matches the design objectives and configuration of the design documents for the project. BMP type descriptions are available in OCST

(https://www.ocstormwatertools.org/TreatmentBMPType/Index) and in the Stormwater BMP Technical Guidance Documents.

Links to these resources are provided in the PDF version of this training.

The BMP type selector will adjust the required modeling attributes that are required for the Planning Module to estimate the long-term average annual volume capture and load removal performance of the BMP.

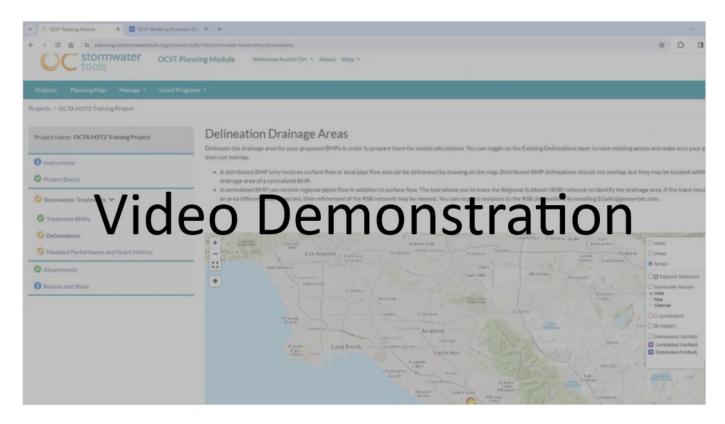
Consult the design documents accompanying your project and enter the required modeling attributes for the BMP. These entries should relate directly to key dimensions and design features of the documentation. You will need to translate your designs into the modeling parameters set for each BMP type. More information and instruction is provided for each modeling parameter in the 'information' bubble next to each parameter.

For more information on how to enter modeling attributes for your project, please consult the OCST modeling parameter guidance documentation available in the OC Regional Clearinghouse. As before, a link is provided in the PDF version of this training.

(https://ocgov.app.box.com/v/SouthOCRegionalClearinghouse/folder/157550118966)

If more assistance is needed, please reach out to the OCTA team for additional guidance.

If your project includes more than one BMP, you can add each BMP on this screen. Once all BMP locations and modeling attributes have been added for the project, click 'Save and Continue.'



See this video demonstration here.

The third step is to delineate the area that drains to each facility.

The Delineation Drainage Areas web map is similar to the one shown in the previous step, and has several reference layers and tools to help make drawing your delineation easier.

Below the web map are the options for adding new delineations to your project. New delineations can be added in two varieties: "Distributed" and "Centralized."

If your facility is a traditional BMP that treats the adjacent land surfaces and receives mostly sheet flow, flow from curbs and gutters, or local pipe flow, then your project is probably a 'Distributed' BMP. Use the web map tools to draw the upstream delineation onto the map. This delineation should match the project design documentation as closely as possible.

To draw a distributed delineation, click the map to add a sequence of vertices that form the perimeter of the delineation. When complete, click the starting point to close the shape. Once completed, the delineation can be made editable again by clicking the 'Edit Layers' button. Users can add, move, or delete points around the shape as needed to closely match the design

documentation. As a final check, turn on the Regional Subbasins layer in the map legend and ensure that the distributed delineation does not cross Regional Subbasin Boundaries.

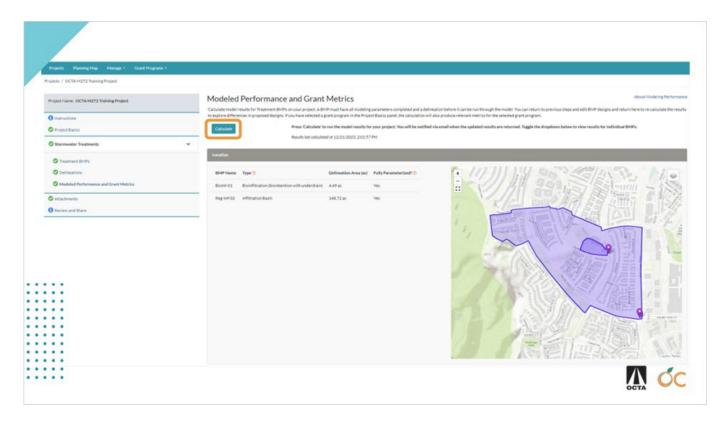
If the delineation cannot be drawn or edited in such a way that it does not cross Regional Subbasin boundaries, please contact the OCTA Grant administrator for assistance.

If the planned facility is a regional BMP that receives flow from a large upstream area via the storm drain network, then your project is probably a 'Centralized' BMP. Use the web tools to 'trace' its upstream delineation using the regional subbasins provided by OC Survey.

Centralized delineations are not directly editable by users of the Planning module since they are collections of hydrologically connected Regional Subbasins. Instead, users may try to adjust the location of the facility to obtain a different 'trace' point for their delineation.

Once you edit your location on the map, save the location and click 'Trace Network' to trace a new delineation based on the updated location. If the traced delineation differs significantly from the project design documentation and the regional subbasins would need to be edited to better represent your project, please contact the OCTA Grant administrator for assistance.

When upstream delineations have been added for all project BMPs, click 'Save and Continue'.

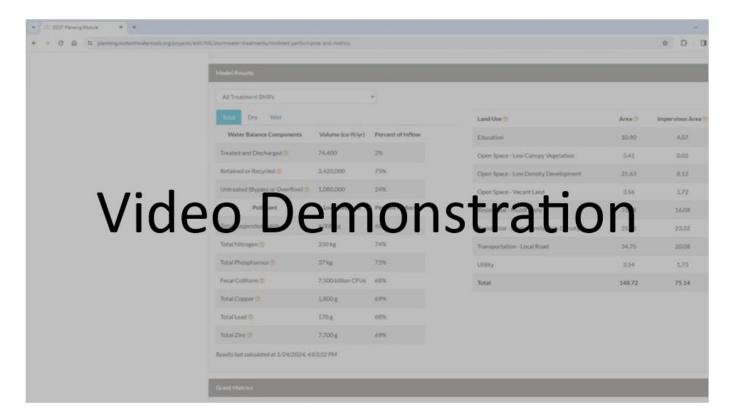


Click the "Calculate" button to compute BMP performance modeling results and preliminary M2 Tier 2 Technical Score component metrics for your project.

The modeling calculations incorporate the land uses, soils, slopes, rainfall, and hydrologic connectivity of the delineated area upstream of the project as well as the BMP size and type. The results include the amount of water retained or treated as well as the pollutant load reduction. BMP effectiveness calculations are reported on an average annual basis for both wet weather and dry weather conditions.

This calculation can take several minutes, especially if there are other calculations in the queue, so when it's completed, an email will be sent to your account notifying you that the modeling results task has been completed. If you do not receive an email message within 30 minutes, please contact the OCTA Grant administrator.

Once complete, it's recommended that you review the Model Results. The Planning module has several results panels to summarize the average annual performance of the project.

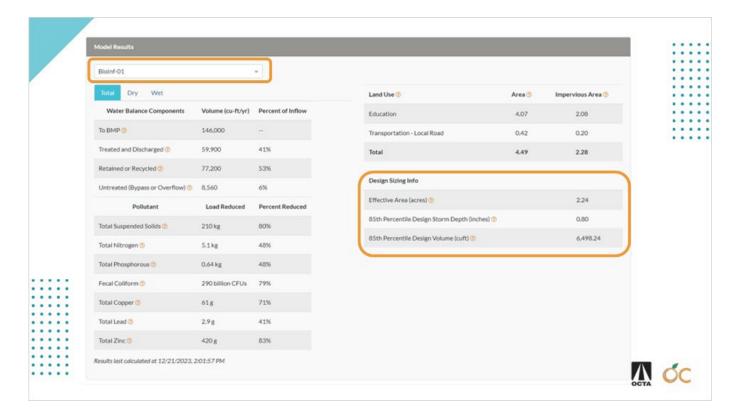


See this video demonstration <u>here</u>.

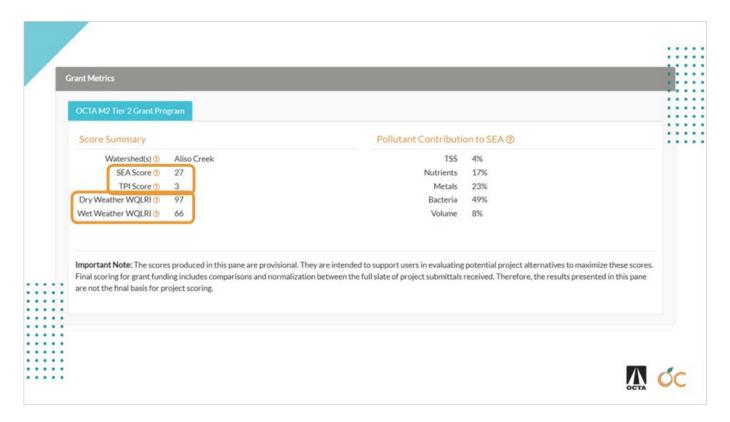
Average annual modeled performance of the project can be summarized for the whole project and on a per-facility basis. If your project has multiple facilities, it's recommended that you review the results from each one in addition to the overall project results.

The first result panel is the volume capture and load reduction summary. This panel can summarize the average annual performance of the whole project or be used to explore the performance of a single project BMP. Additionally, it's possible to toggle between summary results for dry weather conditions and wet weather conditions. Applicants are encouraged to review the volume capture results for the percent volume treated and the percent volume retained.

Next is the project area land use table. This section includes the type, total area, and impervious area for the project BMP delineations. Applicants are encouraged to review this table to ensure that the total area of the delineation matches the design documentation.



When a single project BMP is selected, the Design Sizing Info panel is also visible below the Land Use table. This panel shows the design capture volume (i.e., the runoff from the 85th percentile storm) for the area draining to the BMP. This can be used as a reference to help you refine the size of your facility.



Grant Metrics are also available for applicants to review and are presented below the Model Results.

This panel provides an initial calculation of M2 Tier 2 technical scoring components to help you understand how the project may score. Final scores will be determined by OCTA through comparison to other projects, so these scores are provisional. However, this information can help you compare between different candidate projects and refine your project to improve scores.

The Score Summary includes key Technical Score components. The first Technical Score components are the Strategically Effective Area Score (abbreviated as SEA) and the Transportation Priority Index Score (or TPI).

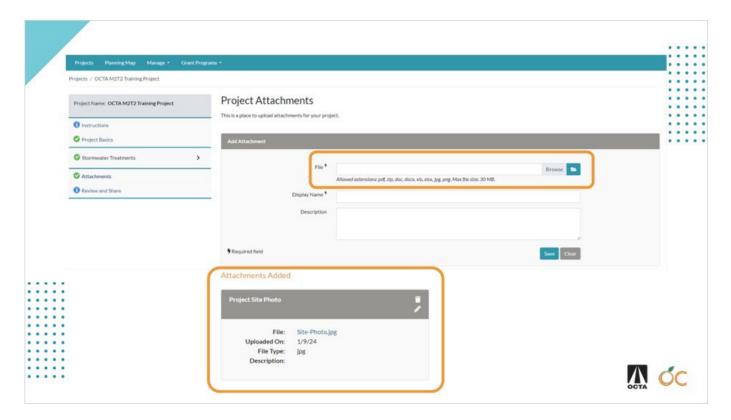
The SEA Score is the area weighted sum of the TPI Score (up to 5 points) and the Water Quality Need Analysis Score (up to 40 points) within the area treated by the project. These two scores are together worth 45 points and are combined and reported as the SEA Score in the Planning Module.

The next Technical Score components are the Dry & Wet Water Quality Load Reduction Indices (abbreviated here as "WQLRI"). These values reflect the effectiveness of the project at managing wet and dry weather flows and the associated pollutants of concern. The WQLRI values are on a 0-100 scale and higher scores indicate more favorable overall performance.

After the call for M2 Tier 2 projects is closed, these WQLRI values will be combined with other modeling results, like the total volume managed by the project and the cost estimates reported in the project application, to assign the normalized BMP Performance Score (up to 25 points).

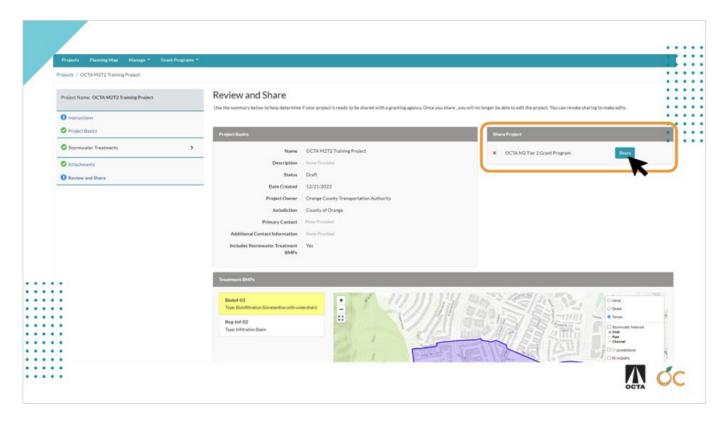
The BMP Performance Score cannot be fully reported to M2 Tier 2 Funding Applicants within the Planning Module because it will be informed in part by information provided by the applicant in their M2 Tier 2 funding application documentation, and then normalized by comparison to the field of other applicants.

The Planning Module exists to make this Technical Scoring as transparent as possible, and top scoring projects for the BMP Performance Score will demonstrate an ability to treat a large project treated area with high WQLRI values in a cost-effective way.



Next, the Planning module provides you with an optional ability to upload documents (such as photos or maps) that showcase your project or provide additional information.

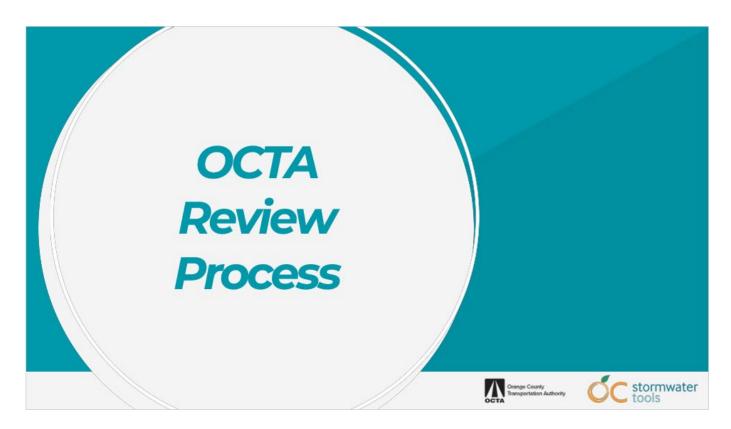
Applicants will still need to submit all other required documentation directly to OCTA to complete your application. Please refer to the grant guidelines for instructions on what documents are required and how to submit them.



On the Review and Share screen, you will see the option to share the project with OCTA.

Sharing your project means that you are submitting it for grant funding consideration and that OCTA will be able to see it on their dashboard. Once shared, the project will become 'read only' for the applicant. If revisions are needed while the call is still open, applicants can 'revoke' the project from the OCTA dashboard, make the required edits, and then re-share the project with OCTA. Applicants can share or revoke their project from the OCTA project review dashboard at any time before the grant application deadline, but must make sure that it is in the shared state when the call closes, otherwise it will not be considered for funding.

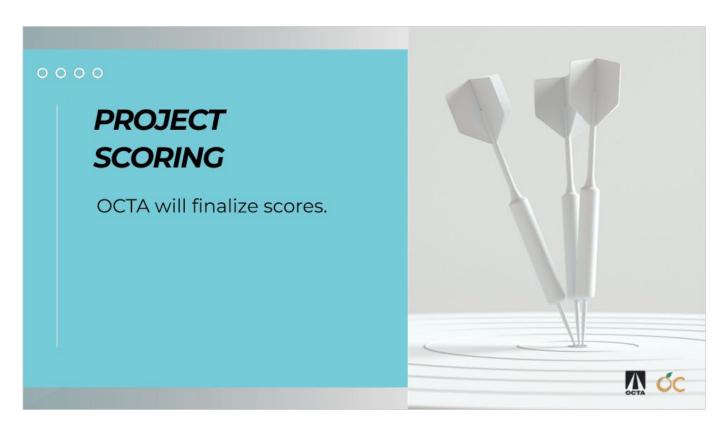
In addition to sharing the project with OCTA in the OC Stormwater Tools Planning Module, M2 Tier 2 grant funding applicants must also submit their application and all other required documentation in accordance with the grant application guidelines.



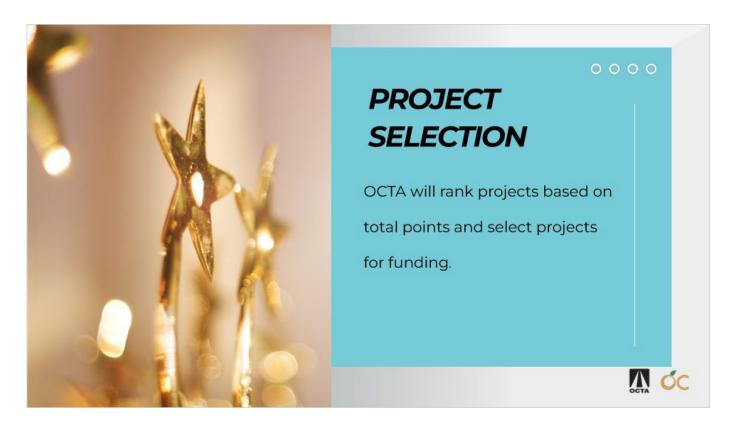
There are three main steps that OCTA staff will follow to review, score, and select the projects for funding. Let's go over them one by one.



The first step is project review. This is when OCTA staff will also verify the design documents and the project metrics submitted by the applicants and may ask for clarification. This step is important because it ensures that the projects meet the minimum requirements, are aligned with the grant program goals, and are accurately entered into the Planning Module.



The second step is project scoring. This is when OCTA staff will download the project applications and determine the final scores allotted to each applicant.



The third step is project selection. This is when OCTA staff will rank the projects based on the total points and select the projects for funding according to the available budget and the grant program objectives.



And that's it! I hope this lesson was helpful and informative for you. If you have any questions or comments, please reach out to the OCTA Grant Administrators. Thank you for watching, and good luck with your project!

Contact Info:

website - https://Planning.OCStormWaterTools.org/ email - AArmy@OCTA.net

Links to resources mentioned in this video:

- Video version of this training: OCST Training Video (youtube.com)
- BMP Type descriptions: https://www.ocstormwatertools.org/TreatmentBMPType/Index
- BMP Design Parameter Documentation: https://ocgov.app.box.com/v/SouthOCRegionalClearinghouse/folder/157550118966
- Orange County BMP Technical Guidance Documents: https://ocerws.ocpublicworks.com/service-areas/oc-environmental-resources/oc-watersheds/regional-stormwater-program/water-quality