WATER

Water makes up over 70% of Earth's surface, and it is a common feature on any layout. Bodies of water are found at the lowest point in a landscape's contours.

Rivers flow towards another body of water like an ocean, lake or another river. Many rivers, like the Missouri River, are naturally created when small rivers and creeks converge. Rivers in flat areas tend to be slow-moving, muddy (filled with sediment) and wind in braid-like patterns. Mountainous rivers are usually crystal clear and drop quickly in elevation, which creates wild rapids with white water and waterfalls.

Lakes can be natural or man-made. Glacial lakes, like those found in the Lake District in England, were carved when glaciers moved through the landscape. Many glacial lakes have large boulders left behind by the glaciers along the shorelines. Other lakes are created when people build dams to contain rivers and supply electricity to local towns and cities.

Each water feature is different and will need different products to achieve the desired results. Decide what kind of water feature you are going to create, such as a rushing river, quiet lake or ocean waves crashing on a beach. Then choose which products best fit your needs.

Product Overview

Realistic Water™

Use Realistic Water to model still or slow-moving water, such as ponds, rivers, lakes and more. This simple solution for modeling water can be poured directly from the bottle in layers up to 1/8" at a time.

Realistic Water is self-leveling, water-soluble, won't crack and has minimal shrinkage. It is fully compatible with Water Undercoats™, Water Tints and Surface Waters. **NOTE:** Tuft-Tac glue is not compatible with Realistic Water.

Deep Pour Water™

Deep Pour Water can be poured in layers up to 1/2" at a time. It is ideal for deep water features and submerged underwater scenes. Deep Pour Water is available in pre-tinted Murky or Clear for customizing the color.

Deep Pour Water dries hard and won't crack, is non-shrinking and will not become discolored over time. It is fully compatible with Water Undercoats, Water Tints and Surface Waters.

CLEAR

MURKY

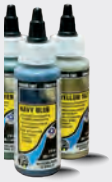
E-Z Water™

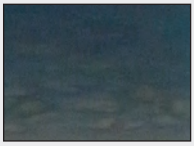
E-Z Water is a great solution for easy, fast and flat surfaces. There is no need for measuring or mixing. Just melt E-Z Water and pour to create ponds, streams, rivers and harbors. E-Z Water hardens in minutes and is easy to tint with powdered fabric dye.

E-Z Water is a low odor, non-toxic, plastic product that comes in the form of pellets. It is compatible with Water Undercoats and Surface Waters.
Note: Do not use Water Tints with E-Z Water.

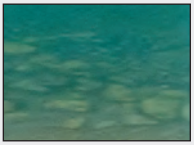
Water Tints

Water Tints make it easy to create natural shallows and depths. Use Water Tints with Deep Pour Water, Realistic Water or Surface Water for authentic colors on your water feature. Mix more than one to create custom colors.

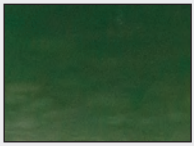




NAVY BLUE



TURQUOISE



MOSS GREEN

SAGE GREEN

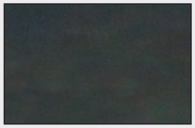
OLIVE DRAB

YELLOW SILT

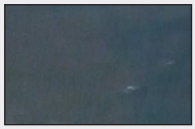
MURKY

Water Undercoats™

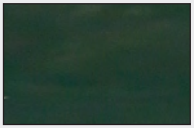
Water Undercoats are 100% acrylic and available in six colors that color and seal your plaster base all at once. Combine multiple colors to create authentic transitions between shallows and depths.



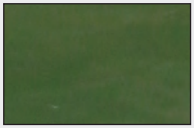
DEEP BLUE



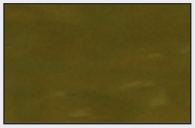
NAVY BLUE



HUNTER GREEN



MOSS GREEN



OLIVE DRAB

YELLOW SILT

White Water Highlight™

Add White Water Highlight to intensify water crests, rapids and waterfalls. Create foamy or frothy water by adding White Water Highlight to Surface Waters or Deep Pour Water. White Water Highlight is 100% acrylic.

SURFACE WATERS

Set your water in motion by using Surface Waters to model splashes, waves and waterfalls.

Product Overview

Water Effects®

Water Effects is perfect for modeling fast-moving water features like waterfalls and rapids. Water Effects is moldable, holds its shape, dries clear, and remains flexible.

Water Ripples

Water Ripples goes on clear and dries clear to create ripples and windswept surfaces.

Water Waves

Water Waves goes on clear and dries clear to create splashes, waves and rapids.

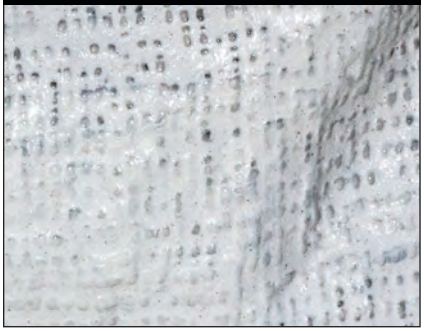
PREPARING THE WATER CAVITY ONLINE VIDEO

The first step of any water feature is preparing the water cavity. Construct any banks or dams when you are forming the terrain contours with Plaster Cloth or Shaper Sheet (page 69). Make sure the banks of the water cavity will be deep enough to contain the water material.

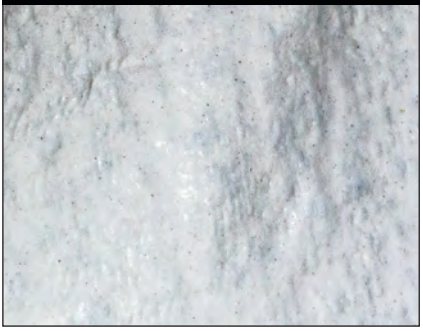
All water cavities must be completely sealed by a smooth, continuous layer of Plaster Cloth, Shaper Sheet Plaster, Lightweight Hydrocal or Super Strength Plaster. Follow the water product's instructions closely to seal the water area with the appropriate material. This layer of plaster not only protects against seepage, but also creates a barrier between the water product and any materials used to create the layout base that may cause an adverse reaction with the water product. This step is essential to obtaining good results when constructing a water feature. After sealing the water area with plaster, you can also use a coat of Flex Paste to ensure any holes in the plaster are filled.

When installing Plaster Cloth, be sure to smooth all holes until they are filled. If they are not filled, add another layer of Plaster Cloth or a coat of plaster or Flex Paste to cover and seal the holes.

PLASTER CLOTH - BEFORE



PLASTER CLOTH - AFTER



When modeling with Shaper Sheet, always coat the Shaper Sheet thoroughly with plaster. Do not pour a water product directly on the Shaper Sheet's fiber mesh.

Allow the plaster base of your water cavity to dry completely. Once dry, it is time to add color (page 175).

Coat Shaper Sheet thoroughly with Shaper Sheet Plaster.

COLORING THE WATER CAVITY ONLINE VIDEO

Natural bodies of water exist in a variety of colors. A lake or river may be dark and murky, while an ocean is bright blue. Colors also indicate depth, with deep areas often appearing much darker. Deep Pour Water, Realistic Water and E-Z Water are all transparent once they have cured, meaning you will be able to see the colors beneath them. Create these effects on your water feature by coloring the plaster base with Earth Colors Liquid Pigment or Water Undercoat prior to pouring the water product.

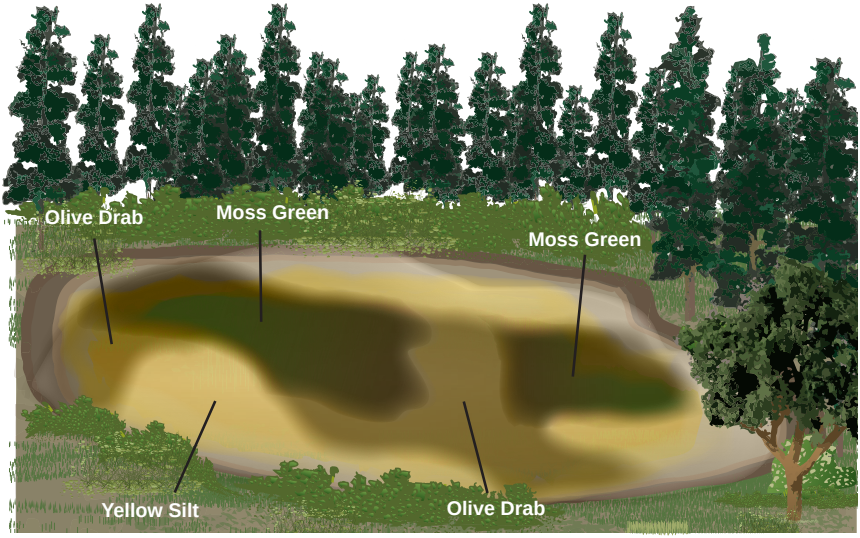
Adding Color

Most bodies of water range from turquoise blue and mossy green to murky brown. Earth Colors Liquid Pigment are all earth tones that can be used to create muddy creeks, rivers and ponds. Use Water Undercoats for water features that are shades of blue or green.

To apply Pigment and Water Undercoats, simply paint a couple coats on the water cavity. Use two or more coats for the best results. Make sure there are no holes in coverage and reapply if needed. Be sure your plaster base is sealed before pouring your water product (page 174).

You can create an illusion of depth with Water Undercoats or Earth Colors Liquid Pigment, reducing the need for a water feature that is physically deep. For most rivers, lakes, oceans and ponds, the shoreline is shallow and the depth increases the further you go from shore.

To create the illusion of depth, begin painting the deepest areas of your water feature with a darker color of Undercoat or Pigment, such as Deep Blue or Hunter Green. Paint lighter colors like Moss Green or Yellow Silt along the shoreline for the illusion of a shallow area. Blend the edges of the dark and light colors together to create a smooth transition between deep and shallow areas.



SEALING THE PLASTER BASE

Plaster is porous and can produce air bubbles in a water product. The plaster itself must be sealed prior to pouring. If you used Water Undercoats or 100% acrylic paint to color your water cavity, the plaster base will be sealed and ready for the water product. If you chose Earth Colors Liquid Pigments instead, you must seal your plaster base with a coat of Scenic Cement.

Allow the Scenic Cement, Water Undercoats or 100% acrylic paint to dry completely. Once the water cavity is colored and sealed, it is time to pour the water product. If you want to submerge items like Dead Fall, rocks, Talus, Turf, or figures in the water, skip to the “Underwater Features” section (pages 180-181).

CHOOSING A WATER

The type of water feature you create will determine which water product you should use. Consider factors like time, color, depth and other products you will be using. For example, slow moving creeks are not very deep and a product that is poured in thin layers, such as Realistic Water, may be the best option. On the other hand, a large lake will be much deeper and may require a product that can build up depth quickly, like Deep Pour Water or E-Z Water. Reference the product descriptions for pouring depth. Information such as curing time, whether a product can be layered, and the best techniques for each product is addressed throughout the Water section. We recommend reading the whole section before choosing a water product.

If you are unsure how much water product you will need, try the free Water Volume Estimator app at woodlandscenics.com. Simply enter the dimensions of your water feature, and the app will estimate how much Realistic Water or Deep Pour Water is needed for your project.

Water Volume Estimator
This fast and easy tool calculates how much Deep Pour Water or Realistic Water you need to create your water feature. Just put in the measurements of your water feature and let the Water Volume Estimator do the rest.

TINTING THE WATER ONLINE VIDEO

Natural bodies of water are rarely crystal clear and often become opaque as the depth increases. Materials suspended in water, like sediment, underwater plant life or pollutants, can affect the color of a natural body of water. These effects can be recreated by tinting the water. Tinting can adjust the transparency of the water to further the illusion of depth, soften details (like logs and rocks) underneath the water, create an algae effect and make the water look muddy or filled with sediment.

All water products can be tinted for different effects in the water feature, but tinting the water product must be done during the product's preparation. The products used to tint the water product vary depending on the product you choose.

Testing the Color

Like many natural water features, tinted water appears more opaque in deeper areas and remains more transparent in shallow areas. The more tint you add to the water product, the more opaque the water will be. If the water is too opaque, submerged details will be harder to see. Less is often best when it comes to tinting water features.

If you have a very specific look in mind, test the color in a cup of tap water. Use the Water Volume Estimator (page 176) to estimate how much water will be needed for your water feature and measure the same amount of tap water in a separate cup. Add the colorant to the tap water. Then pour this mixture into a dish approximately the same dimensions as your water feature to see how transparent it remains. Remember this color will also be impacted by the Water Undercoat color that you have on the plaster base. If it seems too opaque in the tap water, add less tint to the water product.

If the water feature is a critical pour on a finished layout, you may want to test the color on an actual water feature with the water product itself before committing it to a permanent layout. This is easy if you use Shaper Sheet. Create a similar-shaped water feature with a small piece of Shaper Sheet. Prepare it the same way as the permanent water feature and pour the tinted tap water into the Shaper Sheet model as a test.

Tinting Realistic Water

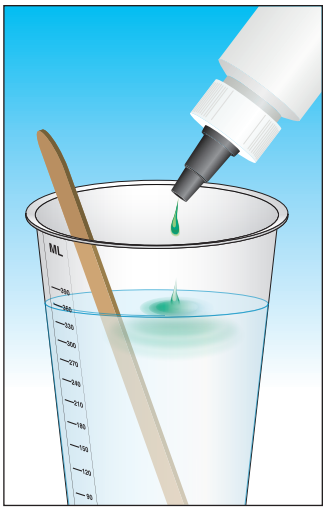
Realistic Water can be tinted with Water Tints, Earth Colors Liquid Pigment, 100% acrylic paint, food coloring and powdered fabric dye. To tint Realistic Water, pour the water product into a disposable cup. Add the chosen colorant to the water product and very slowly mix it into the Realistic Water. Slow, methodical mixing is the best way to prevent and reduce bubbles. If bubbles do occur, cover the cup and let the material sit until the bubbles disperse (approximately two hours).

You can add the colorant directly to the bottle of Realistic Water if you intend to pour a lot of water features in one day. If the colorant separates in the bottle, stir it again before use.

Tinting Deep Pour Water

The process of mixing, pouring and curing Deep Pour Water includes a chemical reaction. For this reason, the only colorants that should be used to tint Deep Pour Water are Woodland Scenics Water Tints.

Add Water Tint after stirring the Water Base and Activator for one minute. Mix the Water Tint with the Deep Pour Material thoroughly before pouring. Stir slowly to prevent bubbles. Bubbles that occur during the mixing process will likely dissipate during the curing process, but it is best to start with as few bubbles as possible.



MAKING A DAM FOR OPEN-ENDED WATER FEATURES

ONLINE VIDEO

Large water features like oceans, harbors, bays and rivers can be difficult to model because of limited available space. However, you can create a water feature that abuts the edge of your layout, allowing you to create the water feature in the available space.

To make a water feature abutted to the edge of your layout, simply create a dam to hold the water product in. We recommend installing the dam before landscaping the water feature's base or banks. The Scenic Cement you use to install the landscaping materials on the base of your water feature will help prevent any leaks and ensure a good result.

For Deep Pour Water

When using Deep Pour Water, make a removable dam out of clear, smooth plastic. Cut the plastic taller than the desired depth of the finished water feature. Use Foam Tack Glue to attach the dam to the edge of the water feature. The glue must completely cover the seam between the layout and the plastic. Run a thick bead of glue along the edge of the water feature's base, and then press the plastic into it. If any holes are present, the Deep Pour Water will leak out of the water feature. Be thorough when applying the glue and installing the dam. Let the glue dry completely. If desired, run masking tape along the bottom edge of the dam to reinforce it and further prevent leaks.

Pour the Deep Pour Water (page 171) into the water feature, and let it cure completely. Once cured, gently peel the plastic away. If there is any excess glue stuck to the layout, scrape it off with a hobby knife. For a neat, crisp finish, paint the edges of your layout black all the way up to the open-ended water feature.

For Realistic Water

When using Realistic Water, the steps for creating and installing the dam are the same as Deep Pour Water except the dam will not be removable. Cut the plastic to snugly fit the water feature or trim the plastic after Realistic Water cures.

UNDERWATER FEATURES

When pouring a water product that is transparent, submerged objects will be clearly visible under the surface of the water. If the water has been tinted, the shape of the object will be visible but fine details may be obscured. Underwater features can include figures, boats, logs, rocks, sediment or plant life. Use landscaping materials like Talus, Dead Fall, Fine Turf or Static Grass in your underwater features.

Landscaping

Install landscaping materials directly on the colored water cavity with Scenic Glue, Static-Tac or Scenic Cement. Let the glue dry completely.

Landscaping materials are often porous and contain air that can cause bubbles in the water product as it escapes. Once installation glue is dry, saturate these items with Scenic Cement to seal them and prevent the air from escaping. Another way to seal the landscaping materials is to pour a very thin layer of Deep Pour Water over the water base. This layer will lock everything in place and allow air bubbles to escape during the curing process. Then pour an additional layer to the desired depth.

Figures and Accents

Figures and accents can be installed in a water cavity. Follow the instructions in the previous section to install figures. Testing in a small amount of water product is recommended before committing a figure to a permanent water feature. The paints used on figures and accents may not be compatible with the water product, and some accents may trap air, which will cause bubbles.

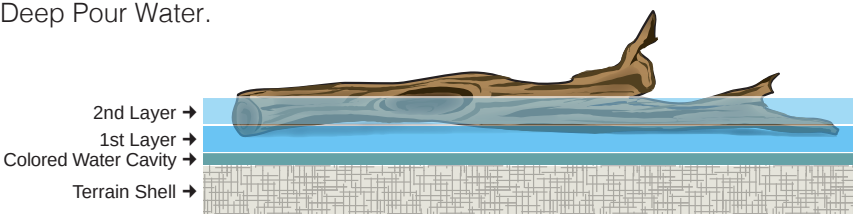
E-Z Water is not recommended for submerging figures and accents because E-Z Water is heated to very high temperatures that can cause plastic figures to melt.

Floating Objects

Draw attention to your water feature by creating the effect of swimming figures or floating underwater plants and debris. This effect is most pronounced when using Deep Pour Water but can also be done with Realistic Water.

To create this effect, pour the water product in at least two layers. The first layer will make it look like the object has water beneath it, while the top layer makes the object appear submerged. Prepare the water feature as described previously. Place the object on a non-stick surface and coat it thoroughly with Scenic Cement. Let it dry completely. While the object dries, pour the first layer of water product on your layout.

If you are using Deep Pour Water, press the object into the first layer of Deep Pour when it reaches the sticky state (approximately four hours after pouring). Then, pour another layer of Deep Pour over the object. To prevent bubbles, do not pour the water product directly on the object. If you miss the sticky state and the Deep Pour has hardened, secure the object to the first layer's surface with Scenic Glue, Static-Tac or Scenic Cement. Let the glue dry completely, and then pour the Deep Pour Water.



For Realistic Water, allow the first layer to dry completely. Then, attach the object to the fully cured first layer with one of the glues mentioned above. Allow the glue to dry, then pour another layer over the first. Avoid pouring directly on the object.

E-Z Water is not recommended for submerging items because it is not intended to be poured in layers. Transition lines between layers will be visible and the floating effect will not appear natural.

POURING THE WATER PRODUCT ONLINE VIDEO

Pouring the Water Product should be left to the very last stages of construction. Landscaping materials need to be installed and adhesives or latent moisture left over from the construction process should be dry. Lingering moisture in the layout can have adverse effects in all the water products, including cloudiness, inability to cure to a hard state and adverse chemical reactions.

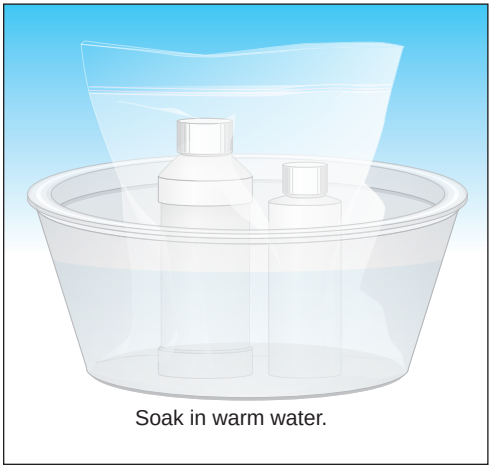
The only landscaping materials you should install after pouring the water are trees and buildings surrounding the water feature. These items can physically get in the way when you are trying to pour the water product, so it is best to install them when the water has fully cured.

Each product is prepared and poured differently. Prepare your chosen water product by following all package instructions, as well as the tips and techniques below.

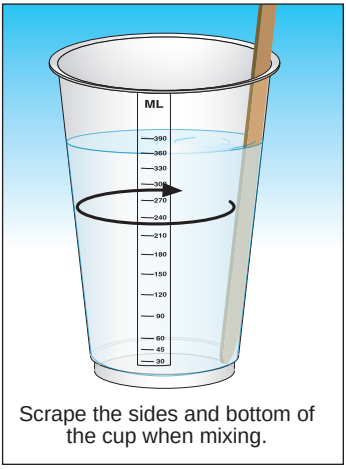
Deep Pour Water

Deep Pour Water is made up of two parts: the Activator and the Water Base. When mixed together, there is a chemical reaction that hardens and forms Deep Pour Water. Great results with Deep Pour Water are easy to achieve when instructions and tips are followed.

Preparation: Deep Pour Water is heat sensitive during the preparation and curing processes. It is important to warm the Activator and Water Base bottles before mixing. However, if the bottles are too hot to touch, they are too hot to pour. Let the bottles cool until they are warm to the touch, then pour into a cup. When you are stirring, scrape the sides and bottom of the cup to ensure the Water Base and Activator are thoroughly mixed.



Soak in warm water.



Scrape the sides and bottom of the cup when mixing.

Curing: Once poured, keep Deep Pour Water in an environment that stays an even, warm temperature. If the area it is curing in is below 75°, cover the pour with aluminum foil overnight. Cool air blowing across the water product during curing can cause a film to develop on the surface. If the environment is 75° or warmer, do not cover the Deep Pour with aluminum foil.

Bubbles: You may see trapped air being displaced, especially when there are submerged landscaping features. You can reduce the bubbles by misting the pour with rubbing alcohol. This will minimize the surface tension and allow the trapped bubbles to surface and dissipate. This will also help reduce capillary action: a natural phenomenon in which a liquid “creeps” up the sides of the container it is in.

Layering: You can pour Deep Pour Water in 1/2" incremental layers. Do not exceed a 1/2" depth in a single pour. For water features deeper than 1/2", pour the first layer up to the 1/2" depth, and let it cure to its sticky state (approximately four hours). Then, mix and pour the second layer. Repeat as needed to achieve desired depth.

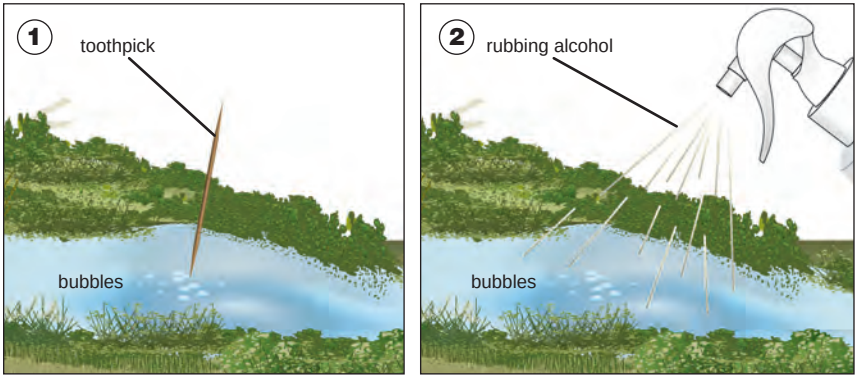
Adjusting Tint Intensity: After Deep Pour has been poured, you may see that the tint is too dark or too light. It is best to address any color issues immediately by mixing and pouring an additional small batch of Deep Pour that is either clear (for applications that came out too dark) or more opaque (for applications that came out too light). Do not exceed the 1/2" overall depth between the two pours. The second batch will blend with the first for an even, consistent color.

Changing Tint Color: If you pour a layer and want to change the color completely, you can. Mix and pour a second layer after the first has cured. The color will be cumulative, which means that if you pour Yellow Silt over cured Navy Blue tint, the overall result may be green. To block out the first color entirely, pour an opaque mixture for the second layer.

Realistic Water

Simply remove the cap on the Realistic Water bottle and pour the water product directly into the prepared water cavity. Do not shake the bottle at any time. Pour Realistic Water up to 1/8" thick—any deeper and it will remain cloudy rather than curing to a clear state. If bubbles are in the bottle, let it sit for two hours to dissipate. Realistic Water should cure to a clear state in about 24 hours, but it may take longer for deeper pours or humid environments.

If bubbles occur after Realistic Water is poured, **(1)** pop them with a toothpick or pull them to the edge of the water feature where they will dissipate quickly. **(2)** You can also mist the surface with rubbing alcohol to reduce bubbles and capillary action.



Before pouring Realistic Water, consider the following factors:

- Realistic Water is a hygroscopic material, which means it attracts water. If there is any latent moisture or if moisture is added after Realistic Water has been poured, this moisture can make Realistic Water cloudy. The cloudiness will dissipate over time, but you can stimulate dissipation by placing a fan in the room with the layout (do not aim fan directly at water feature).
- Realistic Water is not for use with PVA glues or Tuft-Tac and does not cure to a hard surface. Items placed on top will damage the surface and may permanently adhere.
- Do not store finished models with Realistic Water vertically.

E-Z Water

Melt E-Z Water pellets in a clean, dry, disposable metal container. E-Z Water is very difficult to remove if spilled and will not be easily removable from utensils or the container it is heated in. A tin can is a good option because it can be thrown directly in the trash. Use a disposable, non-melting utensil to gently stir E-Z Water during preparation. If you intend to pour a lot of E-Z water, dedicate a pan (Teflon) and utensil to the process.

Place the pellets in the container and use a burner or hot plate (only) to melt the pellets, following the instructions carefully. When the pellets begin to melt, stir gently. As soon as the pellets are liquified, pour E-Z Water into the prepared water cavity on the layout. Work quickly. The pellets are nearly colorless when melted, but they will darken slightly if continuously exposed to heat in a melted form for more than 15 minutes. Do not pour E-Z water in layers or transition lines will be visible. E-Z Water will harden in just a few minutes depending on how deep it is poured. If E-Z Water hardens before pouring, re-melt it in the pan.

SURFACE WATERS ONLINE VIDEO

Surface Waters are designed to create the illusion of motion. This can include anything from small ripples to waterfalls and ocean waves. The product you choose will depend on the motion you want to create for your water feature.

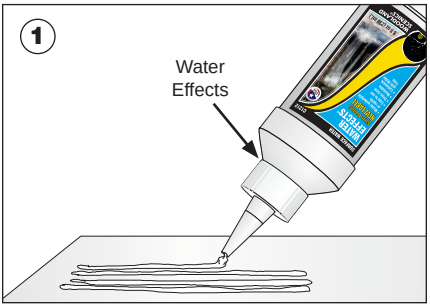
All Surface Water Products are compatible with Realistic Water, Deep Pour Water and E-Z Water. Surface Waters can be customized with Water Tints by mixing the Tint and Surface Water in a small disposable cup before application.

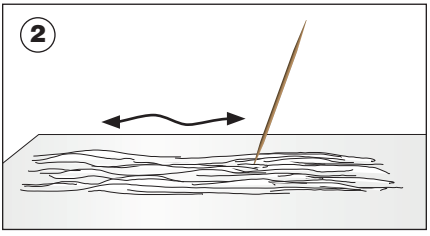
Avoid applying Surface Water where it will be in contact with submerged landscaping materials to prevent colorants in the landscaping materials from seeping into the Surface Water. If contact will be made, seal the object with Deep Pour Water prior to applying Surface Water.

Using Water Effects

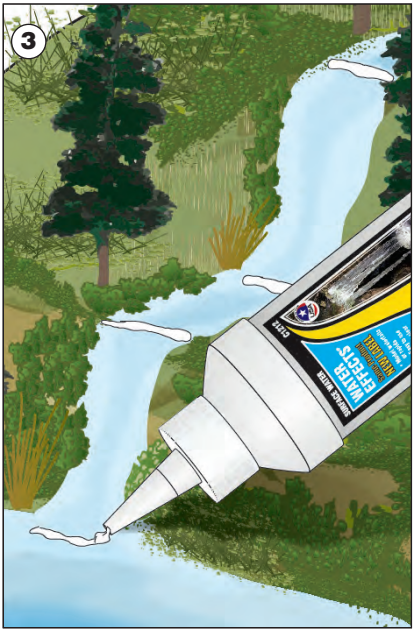
Model rapidly-moving water on your layout by squeezing strips of Water Effects on top of a cured water surface. Use a small brush to dab, or stipple, the Water Effects strips. Allow it to dry thoroughly.

To model waterfalls, **(1)** apply Water Effects to freezer paper in thin, wavy strips spaced tightly together. Measure the vertical drop on your layout, and make the waterfall 1/2" longer for attachment. **(2)** Use a toothpick to add texture or a damp paintbrush to smooth. **(3)** When dried clear, peel the waterfall off the freezer paper, and use a small amount of Water Effects on the bottom of each end of the waterfall. This will adhere the waterfall to the vertical drop on your layout. Hold in place until setting begins.





When modeling with Water Effects, keep in mind that the thicker it is, the longer it will take to dry. If you use a thick application, it can potentially remain a milky white for weeks. Less is more.



Using Water Ripples

When applying Water Ripples, you should consider what force is causing the water to ripple. If you are making a lake or pond, water will ripple from wind or activity like boats, swimmers, etc. Ripples are also frequently found where water is lapping against the shoreline. Whereas ripples on a river are caused by the flow of water around objects submerged in the water.

To model ripples, swelling waves or windswept water, dip a stiff brush into Water Ripples, loading it with product. Dab Water Ripples onto the surface of a cured water feature. Wait 10 minutes. You can let it dry as is, or you can make the ripples more choppy or soft. For choppier ripples, stipple the application again. For softer ripples, use a spray bottle to mist water or rubbing alcohol onto the surface while it is still wet. The more you apply, the softer the ripples will be. Wait another 10 minutes. Then let dry or repeat the above techniques until you reach the desired effect.

SMOOTH

GENTLE RIPPLES

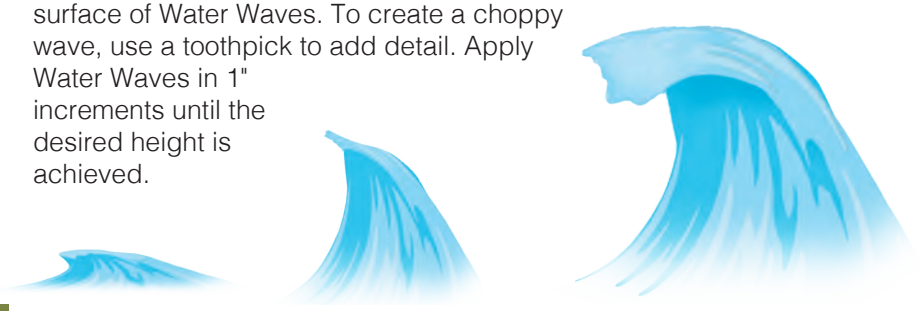
HEAVY RIPPLES

NOTE: Water Ripples should always be applied directly to a cured water product. Do not apply directly to painted surfaces.

Using Water Waves

Large waves occur along beaches of oceans and on fast-moving rivers around or below submerged items. Tall, choppy waves can occur on large lakes due to wind, bad weather and boating traffic.

Use a craft stick to apply Water Waves directly to the cured water feature. Then dip another craft stick into water to wet it. With the wet craft stick, gently push the material into a peak. Form a cresting wave by pushing the tip of the peak over. Use a soft wet brush to smooth the surface of Water Waves. To create a choppy wave, use a toothpick to add detail. Apply Water Waves in 1" increments until the desired height is achieved.



For crashing waves on ocean shorelines, we recommend mixing Soft Flake Snow (page 190) and White Earth Colors Liquid Pigment into Water Waves. Add Snow and pigment until it is a thick texture. Then dab onto the shoreline, sculpting and shaping as described above.

HEAVY RAPIDS

A splash in a water feature can create a sense of time on your layout. To create a splash, shape Water Waves into smooth, circular waves around the epicenter. The epicenter is where the object creating the splash entered the water. If desired, you can

WAVES

install an object like a rock in the center of the splash as described in the Floating Objects section (page 181). The waves will become wider as they get farther away from the epicenter. To give the splash height, repeatedly layer dabs of Water Waves on top of each other until you achieve the desired effect. Let each dab dry completely before applying the next. It can take time to build up a splash, but it can be a very special feature on your layout.

NOTE: Water Waves should always be applied directly to a cured water product. Do not apply directly to painted surfaces.

SPLASH

DETAILING WATER FEATURES

Still water can be crystal clear, but moving water often has some foam and froth. This is often found as whitecaps on waves, along a shoreline or where waterfalls meet a pool of water. The faster and more turbulent the movement, the more foam and froth there will be.

White Water Highlights

To create the appearance of froth, use the drybrush technique (page 112) and brush White Water Highlight on peaks of crashing waves. For detailed application, use a toothpick or damp, fine-tipped brush. For areas with a lot of crashing waves and heavy white water, like the base of a waterfall or around rocks in fast-moving rivers, load a larger brush up with product. Paint it on the area thickly, and then use the dry brush technique to create lighter white water areas around the churning water.