

# HOW TO

Run a Successful
Paint the Plow Event



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# THE CONCEPT

### WHAT IS SALT WATCH PAINT THE PLOW?

Paint the Plow is a community outreach program that encourages groups to work with their local Department of Transportation (DoT) to paint a snowplow blade with original artwork centered around smart road salting practices.

### WHAT IS THE PURPOSE?

The program aims to raise awareness around the issue of road salt pollution and highlight the important and difficult work of DoTs to maintain safety while protecting the environment.

The painted snowplow blades enhance public awareness of road salt use, clean water, and the connection between road salt application and drinking water.



# **BACKGROUND**

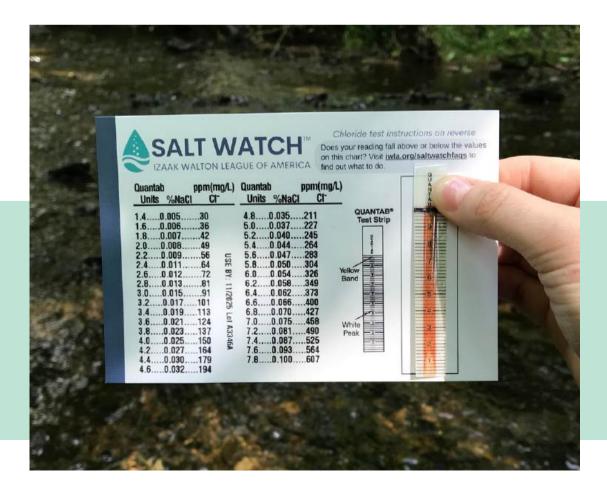
### WHAT IS ROAD SALT POLLUTION

Each year in the United States, approximately 20 million tons of road salt is used to maintain safety in the winter months. Unfortunately, once applied, road salt often makes its way into local waterways and even into our drinking water, causing damage to infrastructure and harming our wildlife, habitats, and even our pets!

### WHAT IS SALT WATCH?

Salt Watch, launched in 2018, is a community science monitoring program that mobilizes volunteers across the country to monitor local waterways for chloride pollution, a component of most road salts. Through monitoring and sharing data, we are raising awareness and creating meaningful behavior change towards smart road salting practices.

Volunteers can go to <u>www.saltwatch.org</u> to learn more, advocate for solutions, and request a free Salt Watch kit to get started monitoring the water they care about.



# **GETTING STARTED**

To have a successful Paint the Plow program, you'll need the following pieces in place:

### **PARTNERS**

Why not get partner organizations involved in Paint the Plow? The more the merrier! Paint the Plow is a great way to get community members, the art community, students, teachers, watershed groups, and more involved. If you have the time and budget to do multiple snowplows, consider inviting one of your partner organizations to paint one. One of the key partnerships with Paint the Plow is connecting with your local Department of Transportation.

### **VOLUNTEERS**

Paint the Plow is more fun (and easier!) with more people involved. Plus, painting a snowplow is a cool thing to add to and then cross off of your bucket list! This is a great activity to get the community interested in your organization and involved in a creative awareness campaign.

### **A COORDINATOR**

Make sure to identify a coordinator for your Paint the Plow program. This person will be responsible for:

- Managing funding for supplies and ordering materials
- Communicating with the DoT and your organization about snowplow drop-off and pick-up
- Coordinating volunteers and/or organization members for painting
- Advertising the event within the community

### **FUNDING**

Expect that supplies for painting will cost between \$300-500 per snowplow blade depending on what is purchased. Some items can be donated like painters tape, paper towels, gloves, and permanent markers. We do recommend purchasing brushes and paint to get started. See pages 4-7 for price breakdown and material suggestions.

# THE EQUIPMENT

See below for the supplies that we use for Salt Watch Paint the Plow. These amounts are for ONE snowplow blade. You may need additional materials depending on the number of volunteers involved.

Our pilot project materials were sourced from Home Depot, but may be sourced elsewhere. Costs are subject to change. For ease of access, we created a <u>Shopping List</u>. Note: Out of stock items may be missing from this shopping list.

Materials Needed	Item Number/URL	Cost
White Gloss Paint (Gallon)	<u>Link</u>	\$65.98
Yellow Gloss Paint (Quart)	<u>Link</u>	\$16.48
Red Gloss Paint (Quart)	<u>Link</u>	\$16.48
Black Gloss Paint (Quart)	<u>Link</u>	\$16.48
Blue Gloss Paint (Quart)	<u>Link</u>	\$16.48
Primer (Quart)	<u>Link</u>	\$16.48
Small containers for mixing colors (8/plow)	<u>Link</u>	\$2.28 x 8
Quart Container Lid	<u>Link</u>	\$1.28 x 8
Tarp (1/plow)	<u>Link</u>	\$12.36
Sharpies (chisel tip)	<u>Link</u>	\$5.97
Sharpies (regular tip)	<u>Link</u>	\$13.47
Brushes, 4 pack	<u>Link</u>	\$12.25
Brushes, 3 pack	<u>Link</u>	\$10.26
Paint mixers for gallons (1/plow)	<u>Link</u>	\$1.48
Paint mixers for quarts (8/plow)	<u>Link</u>	\$1.48
Roller frame for priming (1/plow)	<u>Link</u>	\$4.48
Roller cover for priming (1/plow) *use 1/4" nap size	<u>Link</u>	\$4.97
Painters Tape (1 roll/plow)	<u>Link</u>	\$19.98
Paint Tray (1/plow)	<u>Link</u>	\$3.98
Paper Towel Rolls (2 rolls/plow)	<u>Link</u>	\$12.98
Paint Can Opener	<u>Link</u>	\$0.68
Total Cost		\$281.21

# THE EQUIPMENT

### continued

Recommended Additional Supplies	Source	Cost
Smocks or Ponchos	<u>Link</u>	\$3.48
Disposable Gloves	<u>Link</u>	\$11.98
Sponge Brushes (2 inches)	<u>Link</u>	\$7.47
Sponge Brushes (1 inch)	<u>Link</u>	\$0.77 x 10
Small Brushes (many)	<u>Link</u>	\$31.96
Total		\$62.59

Optional Equipment	Source	Cost
Clear Coat (1-1.5 cans/plow)	<u>Link</u>	\$6.98
Knee Pads	<u>Link</u>	\$12.98
Gojo's Hand Cleaner	<u>Link</u>	\$8.48
Empty Metal Bucket with lid (for brush cleaning)	<u>Link</u>	\$8.98
Solvent (for brush cleaning)	<u>Link</u>	\$8.98
Total		\$46.40

# **EQUIPMENT TOTALS**

Materials Required	\$281.21
Recommended Additional Supplies	\$62.59
Optional Equipment	\$46.40
Total	\$390.20

# NOTES ON EQUIPMENT

### **PAINT TYPE**

We recommend using an oil-based paint like Rust-Oleum, as it will last longer and stick better to metal. Your design will also be less likely to be ruined if a storm event occurs during painting. However, do note that this paint will not come off clothing and is hard to remove from skin. If using oil-based paint, make sure to also use oil-based primer.

We used gloss paint for our Pilot, as it was the most available. It did make photos rather shiny. To counter this, we finished painting with a matte clearcoat spray. It might be best to use matte paint throughout the process.

Many schools do not let students use oil-based paint for indoor painting because of the fumes. Since the plow painting occurs outside, this may not be an issue for Paint the Plow. However, if this is a concern, water-based paint can be used.

### **PAINT COLOR**

In our Pilot Paint the Plow program, we offered primary colors, plus black and white so participants could mix their own colors. We provided small containers for mixing colors and recommend getting containers with lids or using plastic wrap to cover the paint in between painting sessions.



# NOTES ON EQUIPMENT

### continued

### **BRUSHES**

If you want to keep your brushes, we recommend freezing them (wrapped in plastic) between uses or cleaning them with a solvent like mineral spirits (do not let students handle this). Most of our participants opted to purchase additional small brushes and dispose of brushes and roller cover after using. You can purchase mineral spirits (listed as solvent) and an empty metal bucket (with lid) for brush cleaning, but we would recommend instead to dispose of brushes after the project is complete.

We recommend purchasing lots of little brushes for this project. For priming, we recommend purchasing a roller cover with a 1/4" nap size/thickness for painting metal. You can discard the roller cover after this step is complete.

### **SEALANT**

If using sealant as a topcoat at the end of painting, do not overspray, as it will cause sharpie to drip/run. On this note, we do not recommend using sharpie in place of black paint. Permanent markers should be used to outline designs before painting.

### HANDPRINT DESIGNS

If doing handprints, make sure to use gloves and lightly coat paint onto a gloved hand, rather than dipping a gloved hand in paint.



# **PLANNING**

## **SCOPE OF PROJECT**

To get started, think about the scope of your project and what you would like to accomplish. How many snowplow blades do you intend to paint? Do you want the general public to get involved, do you want snowplow blades displayed at at a public event during or after painting, or do you just want to paint, take photos, and send the plow back to the DoT to service your local streets? \*We recommend starting with no more than 3 snowplow blades, as planning itself can quickly become a full-time job.

### DEPARTMENT OF TRANSPORTATION CONTACT

Even before you have established funding for the project, it is important to get in contact with someone at your local Department of Transportation. We recommend someone at the county, city, or municipality level within the division of highway services or a similarly titled field. If you can get connected with the chief of that division, that would be ideal. Some DoTs already have similar Paint the Plow programs in place for local schools. If you are planning on doing plow painting on a property not owned by the county, municipality, or township, you may need to have some liability forms drafted to hold harmless all parties (See Appendix A and B).

### **PROJECT TIMING**

Start working with your local DoT months in advance of when you plan to paint. For our program, we initially contacted the DoT a year before our project began and established an approximate painting date range at least 6 months in advance. The DoT snowplows can generally be acquired for painting between May-September. Typically, DOTs need snowplows back by the second week of October so they can be ready to use them for the first winter storm. These dates may vary for your region. Ask your DoT what this date is to help with your planning.

# **PLANNING**

### continued

### **PAINTING TIMELINE**

For our project, we wanted to raise awareness in the community about road salt pollution and make connections between road salt and watershed health. We contacted local middle and high schools, scout troops, and community partners to see who wanted to get involved. We gave participants 2 weeks to paint a plow blade (this allowed for painting to finish even if delayed by storms).

### MATERIAL PURCHASING

We recommend purchasing materials weeks (if not a month or two) before you need them. Some items may be backordered, which could throw a wrench in your project.

### **DESIGNS**

Make sure that snowplow designs are drafted in advance. This helps participants to be ready for painting and allows designs to be approved by the DoT before the plow is even dropped off. Also, make sure to check with the DoT to see what areas of the plow blade are okay to be painted. In addition to painting the front of the snowplow blade, some of our partners painted small designs on the back of the blade! If that is something you anticipate, ask!





# PLOW DROPOFF

Most of the snowplows used by the DoTs are around 10.5 feet long (can be up to 12 feet in length) and about 3.5-4 feet tall. Make sure you ask what size snowplow blade you are receiving, make plans for a large truck navigating the space for drop-off, and plan for the space taken up by the plow. The size of the snowplow might also increase the amount of paint required.

**Reflector:** Most plows have a rubber reflector fastened to the top of the plow. See if this can be removed prior to painting. Note that when this is put back on the plow it will hide up to the top foot of the design. The DoT might also let you paint the reflector.

A tarp **needs** to be under the plow blade before it is dropped off so the pavement/parking lot is protected from paint. Pinning the tarp under the snowplow blade also keeps the tarp from blowing away.

 Make sure if purchasing a tarp other than what we have listed that it is large enough to go under the snowplow blade and flip over the front of the snowplow in between painting sessions to protect the artwork.

Our DoT dropped off only the snowplow blade (they didn't leave the truck), so make sure of the following before confirming a drop-off location:

- o The snowplow blade is in a FLAT place not on grass or dirt.
- The snowplow blade is stable, upright, and will not move.
- The snowplow blade is in a location that is safe and will not be vandalized. If your location has a grounds/maintenance crew, make sure you are having conversations with them about this project and the best location for it to take place.



After the snowplow blade has been dropped off, the fun can begin!

**Appropriate Clothing:** Make sure participants who are painting are wearing gloves and clothes they don't mind being permanently covered in paint. Alternatively, they can wear ponchos or smocks to prevent most paint from getting on their clothes.

**Painting Time:** Follow the instructions on the paint cans. You might have to wait between paint applications for paint to dry, so plan on leaving extra time for this. Depending on the design detail and painting experience of participants, it can take between 3-12 hours to paint each snowplow blade. Please also note that at most there is room for about 2-4 people painting at one time and participants will need to kneel down on a hard surface to paint.



continued

### PRIME THE PLOW

a. Mix up your quart of white primer using paint mixers and pour a portion of the paint into the paint tray. Use rollers to prime most of the plow and a brush to prime any rough spots and edges. One coat of primer should be sufficient, but be prepared to do two coats depending on coat thickness.



**Before Priming** 

**After Priming** 

continued

### STENCIL ON THE DESIGN

- a. Painters tape, pencils, and sharpies are helpful for this step!
- b. Some groups found success using a projector to project designs onto the plow to outline while painting.





continued

### **START PAINTING!**

- 1. Mix paint for needed colors and paint the design!
- 2. Cover plow blade with tarp between painting sessions.
- 3. Take pictures of the process!
- 4. If desired, spray plow with clearcoat after painting is finished (make sure clearcoat is matte, not gloss--your camera will thank you).



# **CLEANUP**

Make a plan for disposal of items after the event! Many items like brushes cannot be easily cleaned, so they may be properly disposed of after the painting event.

Leftover paint can be used for other projects as can the tarp, paint tray, roller frame, and more. If paint cans are empty, crack the cans open in a ventilated space (make sure no critters can get into them) and let any remaining paint dry before taking the cans for proper disposal.



# **POSSIBLE SLOGANS**

Using a slogan isn't required. Just make sure your message/image on the plow relates to smart salting and clean water! Make sure that your design is approved by the DoT before painting. None of the messages should be antisalt, as we still need road salt to stay safe during the winter and our DoTs help us to do this. We recommend messages about clean watersheds and mindful or smart salting.

### **EXAMPLE SLOGANS:**

- Just a Sprinkle Will Do
- Stop Oversalting
- Be Smart Salt
- Be Salt Wise
- Love the Lines
  - This is related to anti-icing practices where brine (salt/water mixture) is sprayed on roadways before an anticipated winter storm. It helps to reduce the amount of salt used on roadways.
- Hold the Salt
- Changing the Salt Default
- Halt the Salt
- Sweep the Salt
- Resolve to Dissolve Over Salting
- Part of the Solution to Salt Pollution
- Keep It Fresh
- Shovel, Scatter, Sweep, Repeat!
- 1 teaspoon of salt permanently pollutes 5 gallons of water
- Be a Conscientious Motorist
- Spot Oversalting, Stop Oversalting

# **APPENDICES**

We've assembled some additional materials that may be helpful as you organize your own Paint the Plow event.

- Appendix A: Sample Paint the Plow permission slips
- Appendix B: Sample Paint the Plow Property Damage Liability Waiver
- Appendix C: Sample Paint the Plow event flyer
- Appendix D: Paint the Plow coloring page
- Appendix E: Photos of Salt Watch partners participating in Paint the Plow

# **APPENDIX A**

### SAMPLE PAINT THE PLOW PERMISSION SLIPS

**Note**: These permission slips are examples of permission slips we used for students and volunteers to get involved in the painting process. These are by no means one-size fits all liability waivers and consultation with an attorney should be considered when creating your own permission slips.

# Salt Watch Paint the Plow Liability Waiver & Photo Release \*PLEASE READ THE WAIVER BELOW PRIOR TO SIGNING\*

I acknowledge that my child is voluntarily participating in an outdoor educational program event. I understand as a volunteer participant that that he/she will not be covered by any medical or other insurance coverage provided by the Izaak Walton League of America, and that he/she will not be eligible for any Workers Compensation benefits.

I hereby agree that I, and anyone else claiming through me, will not make a claim against the Izaak Walton League of America, any of its affiliated and partner organizations, or either of their officers or directors collectively or individually, or the supplier of any materials or equipment that is used for this program, or any of the volunteer workers, for the injury or death to me, my child, or damage to my property, however caused, arising from my participation in this program. I understand that this release is intended to be broad in its effect. I understand and hereby agree to accept any and all risks of injury, illness or death in connection with my participation in this program. I have carefully read this assumption of risk and general liability release agreement, and I fully understand its contents. I understand and am aware that this is a release of liability and a legal contract between me/my child and the Izaak Walton League of America and that it affects my legal rights. I am signing this document of my own free will. I further consent to the unrestricted use by the Izaak Walton League of America and/or person(s) authorized by them of any photographs, recordings, interviews, videotapes, motion pictures, or similar visual recording of me, my child, and/or my family members.

Child's Name	Parent's Name (Print)	Parent's Signature	Phone Number



## **Salt Watch Program Permission Slip and Photo Release**

### SALT WATCH PAINT THE PLOW PERMISSION FORM

Child's Name:_	Date	of Birth:
I have read and	d agree to the policies below:	
Parent/Guardia	an's Signature:	Date:
Parent/Guardia	an's Name:	
Phone Number	:	
as a volunteer participa	v child is voluntarily participating in an outdoor eant that that he/she will not be covered by any own walton League of America, and that he/she will so	medical or other insurance coverage
League of America, any collectively or individual the volunteer workers, arising from my participal understand and herek participation in this proagreement, and I fully understand its content.	nd anyone else claiming through me, will not may of its affiliated and partner organizations, or eigally, or the supplier of any materials or equipme for the injury or death to me, my child, or dama pation in this program. I understand that this replay agree to accept any and all risks of injury, illnown and illness assumption of rest. I understand and am aware that this is a release and the Izaak Walton League of America and the will.	ither of their officers or directors ent that is used for this program, or any of age to my property, however caused, lease is intended to be broad in its effect. ess or death in connection with my risk and general liability release ase of liability and a legal contract
	SALT WATCH PAINT THE PLOW PHOTO RE e unrestricted use by the Izaak Walton League on this, recordings, interviews, videotapes, motion	of America and/or person(s) authorized by
I agree	: agree	

# **APPENDIX B**

# SAMPLE PAINT THE PLOW PROPERTY DAMAGE LIABILITY WAIVER

**Note**: This liability waiver is an example of a liability waiver created for snowplow blades that were delivered to properties not owned and operated by the County (where the DoT snowplow blades came from in our Pilot) to hold harmless the property owner and the DoT from damages incidental to the project. This is by no means one-size fits all liability waiver and consultation with an attorney should be considered when creating your own permission slips.

### **Limited Property Damage Liability Waiver**

The Izaak Walton League of America (herein after "the League") and Montgomery County Department of Transportation (herein after "MoCo DOT") agree to the following with respect to their joint project to "paint the plows" (herein after "the project"):

MoCo DOT will deliver one snowplow to the League property at 707 Conservation Lane, Gaithersburg, MD and place the plow in an area of the parking lot designated by the League. MoCo DOT will place tarps under the plow as part of the delivery process.

MoCo DOT will remove the plow from the League property upon completion of the project.

The League agrees to hold MoCo DOT harmless for any damage that may occur to the League property or parking lot, including during delivery and removal of the plow and while the plow is stored on the League property, which is reasonably incidental to this project, including spillage of paint onto the parking lot (provided however tarps are placed under the plow upon delivery as specified above), leaks from hydraulic components and minor scrapes or indentations on the asphalt parking lot surface from plow blades. This waiver does not extend to damage to the parking lot or property which is not reasonably incidental to the project, including, but not limited, to damage to any light pole or fixture, utility, or ground adjacent to the parking lot, such as excessive rutting caused by truck tires. The League will promptly notify MoCo DOT of any damage caused to the League property or parking lot that the League does not believe is incidental to this project.

MoCo DOT understands and acknowledges that the League property, including the parking lot, is open to the public and that the League does not control entry upon or access to the property, including the parking lot, at any time of day or day of the week.

MoCo DOT agrees to hold the League harmless for any damage that may occur to the plow, including damage caused by participants in the project, including, but not limited, to damage caused by vandalism (such as painting not associated with the project), damage to hydraulic systems or other components of the plow, or any other damage that may occur while the plow is located on the League property. League staff will promptly notify MoCo DOT if the League becomes aware of potential damage to the plow.

	s agreement on behalf of their organization. This agreement is 123, and expires on the date MoCo DOT removes the plow from the
For Izaak Walton League of America:	For Montgomery County Department of Transportation
Signature	Signature
Name	

Title

Title

# **APPENDIX C**

SAMPLE PAINT THE PLOW EVENT FLYER

# Help Reduce Road Salt Pollution in MoCo

To request a plow for your class, email SaltWatch@iwla.org



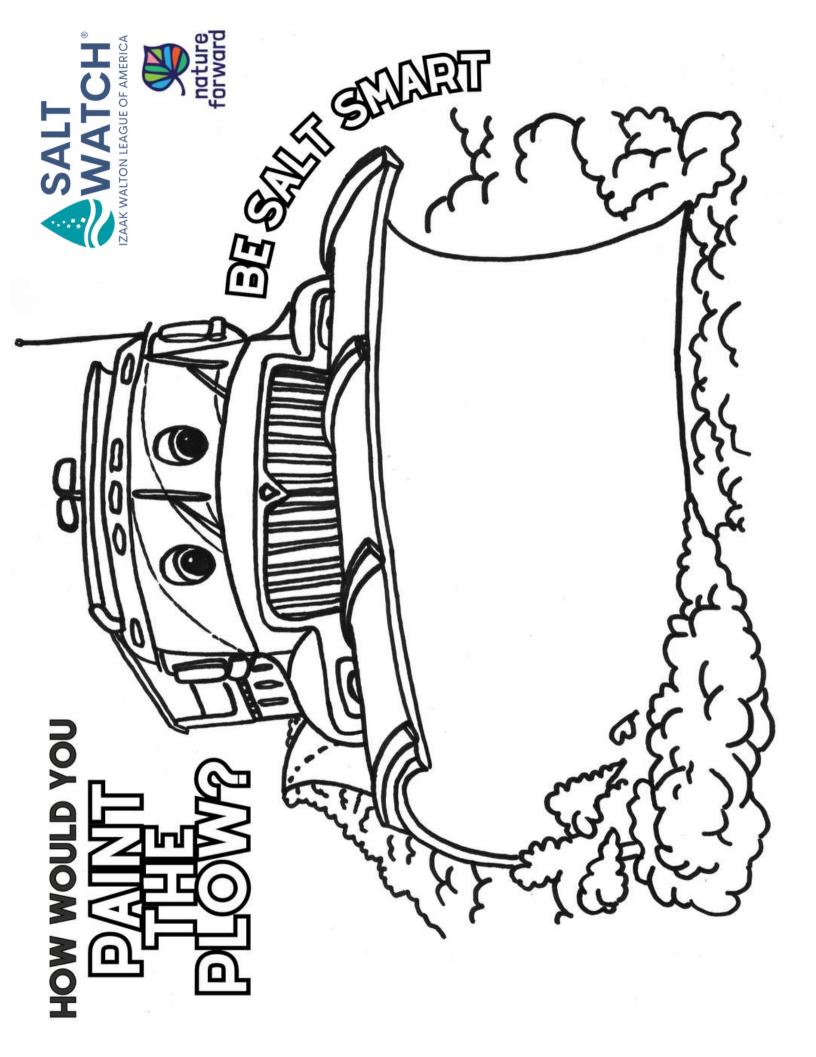
# PALE PLOTECTION MONTGOMERY COUNTY - MARYLAND PROTECTION MONTGOMERY - MARYLAND PROTECTION MONTGOMERY COUNTY - MARYLAND PROTECTI

Your class is invited to design and paint a
Montgomery County snowplow. The plow designs
should be themed around road salt pollution,
reducing road salt usage in the community, and/or
reframing our expectations for travel during
extreme winter weather events.

- All supplies will be provided
- Plows will be delivered and painted for two weeks between mid-September to mid-October
- We can also provide curriculum handouts and in-person or virtual presentations for students

# **APPENDIX D**

PAINT THE PLOW COLORING PAGE



# **APPENDIX E**

PHOTOS OF SALT WATCH PARTNERS PARTICIPATING IN PAINT THE PLOW

# Help Reduce Road Salt Pollution in MoCo

For questions, email: SaltWatch@iwla.org



# DALL BROWNENTAL PROTECTION MONTGOMENT ALL PR

This year we hosted a "Paint the Plow" event where classes, scout troops, and partners in Montgomery County, Maryland were invited to design and paint a Montgomery County Department of Transportation snowplow. The plow designs were themed around road salt pollution, reducing road salt usage in the community, and/or reframing our expectations for travel during extreme winter weather events.

Wheaton High School





# HOLD THE SALT

SAFE ROADS We shouldn't have to choose!









