

When It Comes  
To Eco-friendly  
Decking...

**GET  
REAL!**



REAL. STRONG.

**REDWOOD**

It turns out that making new plastic out of old plastic is not that green after all.

Especially compared with REDWOOD.

## Here's What's Real.

**PLASTIC** is a petroleum product. Making plastic depletes the world's oil reserves. Once made, it has only one final destination...the landfill. Making plastic or plastic-composite decking\* out of recycled plastic only delays the inevitable.

**REDWOOD** is an abundant and renewable building material. It comes from sustainable, well-managed forests. Each year we grow more than we harvest. The lumber produced from those trees is one of nature's longest lasting, strongest, most beautiful and environmentally friendly building materials.

So when you build your deck, be sure to measure the environmental footprint as well as the physical footprint.

### Redwood Decking

VS

### Plastic Decking



1

#### Renewable

Here's where redwood comes from. It grows from sprouts or seeds using soil, sun and water.



2

#### Milled

When it is fully grown, it can be sustainably harvested and milled to produce one of nature's strongest and most beautiful building materials.



3

#### Stores a Lot Of Carbon

Redwood decks store carbon throughout their lives. They use significantly less energy and fresh water – nearly 15 times less of each!



4

#### Biodegradable

Redwood is biodegradable. When it's done adding beauty to your home, it goes back to the earth to help make more trees.

VS

#### Non-renewable

Here's where a lot of the raw material for your plastic-composite deck comes from...an oil well.



1



2

#### Molded or Extruded

Making plastic lumber is a process of combining petroleum-based plastic with artificial ingredients, colorants, binding agents, fillers and the like. It can be molded or extruded.



3

#### Emits a Lot Of Carbon

A plastic-composite deck consumes 15 times more energy than a redwood deck – and 87% of that energy comes from non-renewable fossil fuels, a major source of carbon emissions.



4

VS

#### Not Biodegradable

When it's done being a plastic deck, it goes to the landfill.

\* Plastic-composite decking is a man-made material made from plastic and sawdust.



# Which label makes you **THINK** “green”?

You can tell a lot about a product by looking at its label. If you want to help conserve energy and fresh water, and reduce solid waste, you want to **choose redwood**. There's nothing artificial about redwood – no additives required. Before you attach a plastic-composite deck to your home, read the label.

## Redwood Lumber

**INGREDIENTS:** 100% pure redwood, no artificial ingredients.

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## Eco Facts

Cradle to Grave Life Cycle Assessment of 100 sq. ft. of residential decking

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### Energy Consumption

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Non-renewable Fossil

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280 MJ (megajoules)

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Total Primary Energy

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447 MJ (megajoules)

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### Material Consumption

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Fresh Water

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229 L (liters)

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Solid Waste

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0.223 kg (kilograms)

## Plastic-composite Lumber

**INGREDIENTS:** Polyvinyl chloride resin, acrylic copolymers, calcium carbonate, glass fiber, calcium stearate, paraffin wax, titanium dioxide, Organotin complex, organic calcium compound, chromium compounds, brown pigment compound, talc.

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## Eco Facts

Cradle to Grave Life Cycle Assessment of 100 sq. ft. of residential decking

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### Energy Consumption

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Non-renewable Fossil

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5820 MJ (megajoules)

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Total Primary Energy

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6690 MJ (megajoules)

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### Material Consumption

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Fresh Water

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3440 L (liters)

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Solid Waste

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8.6 kg (kilograms)



## Compared with redwood, is plastic lumber green or just green wash?

Here are some charts to help you decide.

A recent **Life Cycle Assessment** measured the environmental impact of redwood and plastic decking. As you can see, in each case, the plastic decking has a significantly higher environmental impact than redwood.

If eco-friendly is important to you, it doesn't get any greener than redwood. If you would like to know more about the environmental advantages of redwood; or to download a pdf of the **Life Cycle Assessment Executive Summary**, visit us at [RealStrongRedwood.com](http://RealStrongRedwood.com)



FSC-C110720  
FSC-C018043  
FSC-C004495

## Preserving and Nurturing. A sustainable **FUTURE** for our redwood forests.

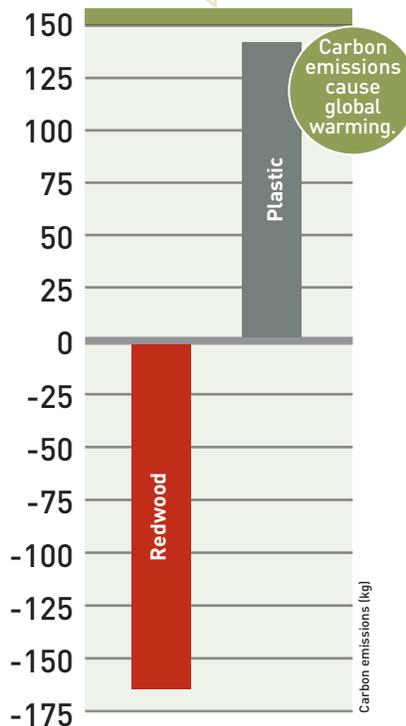
All the members of the California Redwood Association (CRA) are committed to sound forest management practices to ensure that our forests will remain healthy, beautiful and productive for generations to come.

We take pride that 100% of CRA member-owned timberlands are certified as well-managed by the Forest Stewardship Council™ (FSC®). When you see the FSC icon in the store, you can rest assured that the lumber you are buying and building with comes from healthy forests. That means responsible harvesting at sustainable levels as well as the protection of natural habitats.

### Global Warming

Our sustainably managed forests pull carbon out of the atmosphere and store it throughout their life. That's why the **redwood bar is below zero**. It doesn't contribute any carbon at all. It removes carbon and stores it.

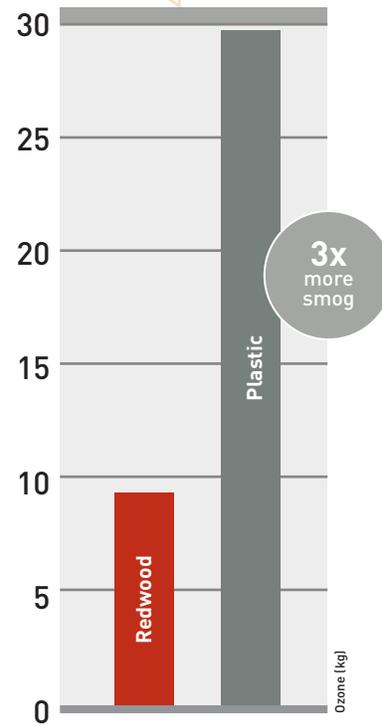
When you build with redwood, you become part of the climate change solution.



### Smog

Do you like breathing clean air? Is anybody really in favor of dirty air?

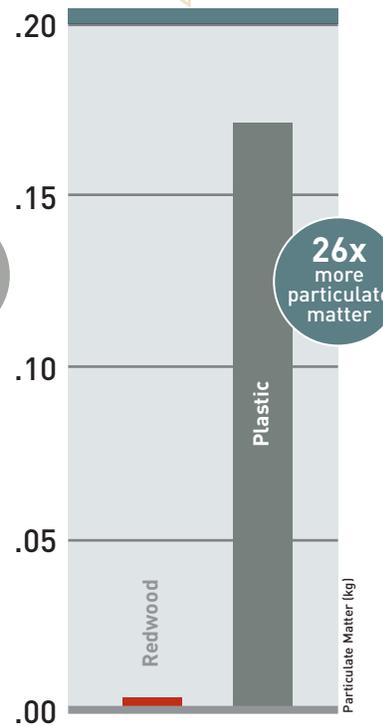
Making plastic-composite lumber using **recycled plastic contributes three times more smog to the atmosphere.**



### Air Pollution

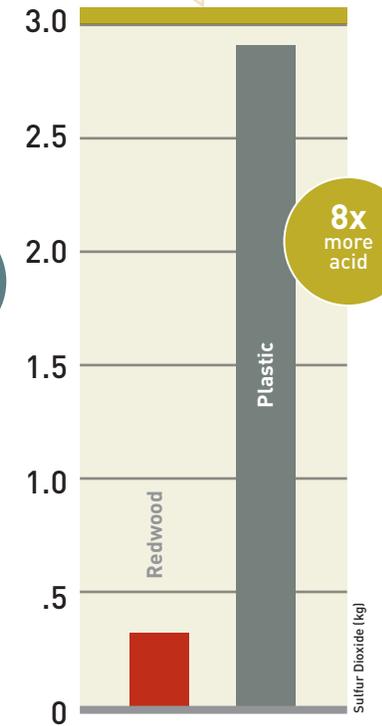
If you like your air without harmful particulates (and who doesn't?) redwood is the clear winner. **Plastic-composite lumber introduces 26-times more particulate matter into our air.**

When you choose redwood, we can all breathe a little easier.



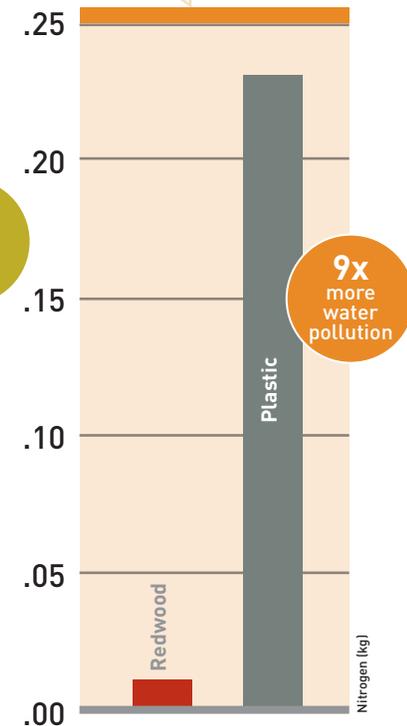
### Acid Rain

Water is a closed system. We're drinking the same water as the dinosaurs. So it's important to keep harmful chemicals such as sulfur dioxide out. That's where acid rain comes from. **Plastic lumber contributes 8 times more acid to the water supply.**



### Water Pollution

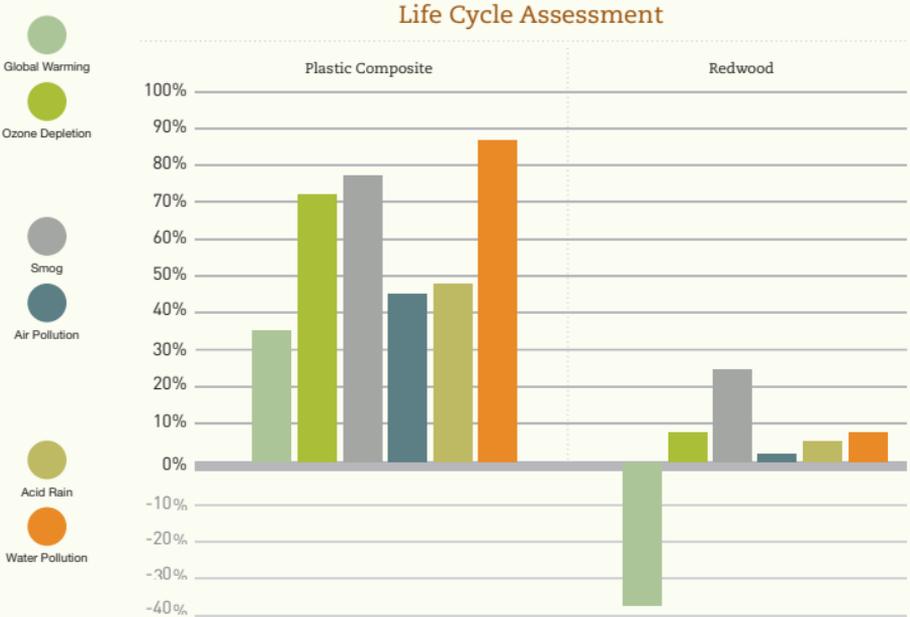
Introducing too much nitrogen into a pond or stream can produce algae blooms which destroy the habitat for many species of fish, creating what are known as "dead zones." It's called eutrophication and **plastic lumber is 9 times more damaging to marine habitats.**



# You can't just say things.

It's one thing to claim that a product is environmentally friendly. It's quite another to prove it. The CRA engaged the Consortium for Research on Renewable Industrial Materials (CORRIM) to conduct a Life Cycle Assessment (LCA). The goal of the study was to quantify and compare the environmental impacts of a 100 sq. ft. redwood deck to a similar deck made of plastic and wood-plastic composite material over a 25-year lifespan in what is known as a cradle-to-grave LCA.

The US Environmental Protection Agency has developed an LCA method called TRACI (Tool for the Reduction and Assessment of Chemical and Other Environmental Impacts) and it has grown to become the dominant impact assessment method used in North America. The results of the LCA are presented here so that consumers looking for environmentally sound building materials can make an informed decision based on facts rather than marketing claims.





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Abundant, renewable and energy-efficient, **REDWOOD** is clearly the environmental choice.

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**Redwood is a natural choice for so many reasons:**

- Redwood delivers one-of-a-kind natural beauty and durability
- Redwood is significantly stronger and requires less substructure
- Redwood stays comfortable to bare feet all summer long
- Redwood has a natural resistance to shrinking, warping and checking
- Redwood decking meets California's strict fire codes
- Redwood maintains its natural beauty and structural integrity with easy maintenance
- Redwood is not only affordable, it adds great value to your home

To find out more about natural outdoor living, or to get inspired, visit us at **RealStrongRedwood.com**

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