



Grays Harbor Paper



Harbor 100

100% Recycled Paper



History

- Grays Harbor Paper (GHP) is located on the Pacific Coast in Hoquiam, WA.
- GHP has been manufacturing premium papers since 1927.
- GHP is privately held and locally owned.
- GHP has two paper machines that produce 150,000 tons of paper annually.





Our Footprint

- Regardless of your political affiliation or beliefs in the causes of global warming, each of us has a vested interest in the well being of our planet.
- Mitigating our footprint is good for society, the economy and the planet.
- Mitigating your footprint is a process not an event. Small steps make a real difference.

Grays Harbor Paper

Making a **Real** Difference

- *Sustainability* - meeting the needs of the present without compromising the ability of future generations to meet their own needs.
People, Profit, Planet
- *Green House Gases* - are components of the atmosphere that contribute to the greenhouse effect. Resulting from human activities such as the burning of fossil fuels.



Sustainability and GHP

- Power - **Grays Harbor Paper** makes our own renewable energy using biomass and three turbine generators on site.
 - *Biomass* - is wood waste from the forestry industry. Biomass used to be burned on the land or taken to landfills.
 - Biomass energy is *Carbon Neutral* and does not add any *Green House Gas* to our environment.
- *Other manufacturers use Oil, Natural Gas or coal (Fossil Fuels) to power their mill facilities.*
- *Manufacturers buy green tags to produce carbon neutral products. (buy your way to heaven)*

Logging Biomass



Grapple with Saws



Processing Biomass



Aluminum Trailer



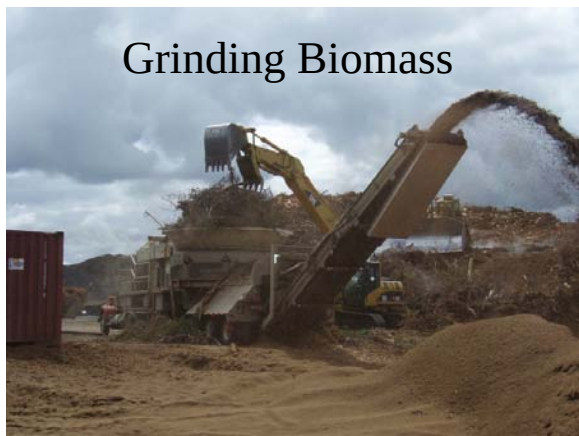
Loading Aluminum Trailer



Biomass Unloading



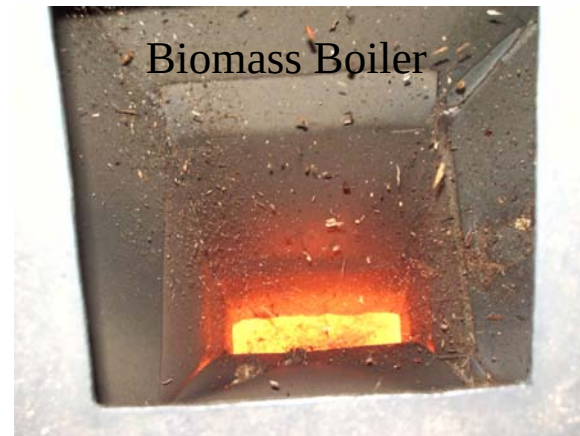
Grinding Biomass



Hogged Fuel



Biomass Boiler





Raw Material



- We purchase the **highest quality** recycled pulp on the open market.
- Process Chlorine Free.
- Abundant supply of paper fiber.

Zero Industrial Waste

- **Grays Harbor Paper** takes our industrial production by-product (Ash, Calcium Carbonate, and Wood Fiber) and puts it on a local farm as fertilizer. Previously this product was sent to a landfill.





Savings Calculator

- ***Environmental Defense Fund*** and the ***Environmental Protection Agency*** have put together a web based tool to calculate the environmental savings that switching to higher post consumer recycled can have.

[*www.papercalculator.org*](http://www.papercalculator.org)

One Semi Truck 840 Cartons

	Virgin	Harbor 100	Difference (Baseline - Target)	
 Wood Use	73 tons	0 tons	73 tons	504 trees
 Total Energy	806 million BTU's	455 million BTU's	351 million BTU's	4 homes/year
 Greenhouse Gases	119,494 lbs CO ₂ equiv.	75,224 lbs CO ₂ equiv.	44,270 lbs CO ₂ equiv.	4 cars/year
 Wastewater	400,579 gallons	216,825 gallons	183,754 gallons	<1 swimming pools
 Solid Waste	47,845 pounds	24,249 pounds	23,597 pounds	<1 garbage trucks

The Paper Calculator is based on research done by the Paper Task Force, a peer-reviewed study of the lifecycle environmental impacts of paper production and disposal. The underlying data is updated regularly.

For more information, contact Environmental Defense:
papercalculator@environmentaldefense.org

One Semi Truck 840 Cartons

	Virgin	Harbor 100	Difference (Virgin-Harbor100)	
 Wood Use	73 tons	0 tons	73 tons	504 trees
 Total Energy	806 million BTU's	455 million BTU's	351 million BTU's	4 homes/year
Purchased Energy	382 million BTU's	455 million BTU's	-72 million BTU's	<1 homes/year
Sulfur dioxide (SO₂)	548 pounds	537 pounds	11 pounds	2 18-wheelers/year
 Greenhouse Gases	119,494 lbs CO ₂ equiv.	75,224 lbs CO ₂ equiv.	44,270 lbs CO ₂ equiv.	4 cars/year
Nitrogen oxides (NO_x)	387 pounds	303 pounds	84 pounds	<1 18-wheelers/year
Particulates	261 pounds	154 pounds	107 pounds	10 buses/year
Hazardous Air Pollutants (HAP)	45 pounds	3 pounds	42 pounds	
Volatile Organic Compounds (VOCs)	117 pounds	38 pounds	78 pounds	
Total Reduced Sulfur (TRS)	7 pounds	0 pounds	7 pounds	
 Wastewater	400,579 gallons	216,825 gallons	183,754 gallons	<1 swimming pools
Biochemical Oxygen Demand (BOD)	132 pounds	127 pounds	5 pounds	<1 homes/year
Total Suspended Solids (TSS)	213 pounds	145 pounds	68 pounds	<1 homes/year
Chemical Oxygen Demand (COD)	1,927 pounds	580 pounds	1,347 pounds	3 homes/year
Adsorbable organic halogens (AOX)	20 pounds	0 pounds	20 pounds	
 Solid Waste	47,845 pounds	24,249 pounds	23,597 pounds	<1 garbage trucks

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PaperCalculator.orgSM

Powered by Environmental Defense

150,000 tons GHP Annual Production Capacity

	Virgin	Harbor 100	Difference (Baseline - Target)	
 Wood Use	520,000 tons	0 tons	520,000 tons	3,600,000 trees
 Total Energy	5,754,601 million BTU's	3,248,625 million BTU's	2,505,976 million BTU's	27,538 homes/year
 Greenhouse Gases	853,529,454 lbs CO ₂ equiv.	537,316,800 lbs CO ₂ equiv.	316,212,654 lbs CO ₂ equiv.	28,713 cars/year
 Wastewater	2,861,279,400 gallons	1,548,750,000 gallons	1,312,529,400 gallons	1,987 swimming pools
 Solid Waste	341,752,362 pounds	173,205,160 pounds	168,547,202 pounds	6,020 garbage trucks

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<http://papercalculator.org> | <http://environmentaldefense.org>

150,000 tons GHP Annual Production Capacity

Annual Environmental Impacts Report

	Virgin	Harbor 100	Difference (Virgin - Harbor 100)	
 Wood Use	520,000 tons	0 tons	520,000 tons	3,600,000 trees
 Total Energy	5,754,601 million BTU's	3,248,625 million BTU's	2,505,976 million BTU's	27,538 homes/year
Purchased Energy	2,730,857 million BTU's	3,248,625 million BTU's	-517,768 million BTU's	-5,690 homes/year
Sulfur dioxide (SO₂)	3,913,162 pounds	3,833,595 pounds	79,567 pounds	14,467 18-wheelers/year
 Greenhouse Gases	853,529,454 lbs CO ₂ equiv.	537,316,800 lbs CO ₂ equiv.	316,212,654 lbs CO ₂ equiv.	28,713 cars/year
Nitrogen oxides (NO_x)	2,762,510 pounds	2,162,025 pounds	600,485 pounds	2,301 18-wheelers/year
Particulates	1,864,941 pounds	1,101,810 pounds	763,131 pounds	68,137 buses/year
Hazardous Air Pollutants (HAP)	322,567 pounds	22,695 pounds	299,872 pounds	
Volatile Organic Compounds (VOCs)	833,885 pounds	273,870 pounds	560,015 pounds	
Total Reduced Sulfur (TRS)	50,987 pounds	0 pounds	50,987 pounds	
 Wastewater	2,861,279,400 gallons	1,548,750,000 gallons	1,312,529,400 gallons	1,987 swimming pools
Biochemical Oxygen Demand (BOD)	943,216 pounds	909,000 pounds	34,216 pounds	184 homes/year
Total Suspended Solids (TSS)	1,521,515 pounds	1,035,000 pounds	486,515 pounds	2,350 homes/year
Chemical Oxygen Demand (COD)	13,761,674 pounds	4,140,000 pounds	9,621,674 pounds	20,692 homes/year
Adsorbable organic halogens (AOX)	139,865 pounds	0 pounds	139,865 pounds	
 Solid Waste	341,752,362 pounds	173,205,160 pounds	168,547,202 pounds	6,020 garbage trucks



Price vs. True Cost

	Additional cost per Carton	Additional cost per Sheet
30% vs. Virgin	\$2.00 <i>Grande Drip Coffee</i>	\$.0004
100% vs. 30%	\$3.25 <i>Draft Beer</i>	\$.00065

- What's a forest worth to you?
- What's clean water worth to you?
- What's clean air worth to you?



Products

GHP is a Sustainable Paper and Power Solution Provider.

GHP makes premium papers in copy, forms, web rolls and large format sheets, offering a full range of white uncoated paper products.

Copy - Offset - Opaque - Book - Envelope - Forms

- **Harbor 100** - 100% Recycled Post consumer
- **Green Energy** - Electrons and Green Tags





Harbor 100 Certifications

- FSC Certified
 - The **Forest Stewardship Council** (FSC) "to promote environmentally appropriate, socially beneficial and economically viable management of the world's forests".
- Green-e
 - Certified products made with renewable energy.



Recycled

Supporting responsible use
of forest resources

www.fsc.org Cert no. SW-COC-1557
© 1996 Forest Stewardship Council















Informational Links

- www.ghplp.com
 - www.CityofSeattle.gov/papercuts
 - www.metafore.org
 - www.graysharbor2020.com
 - www.conservatree.org
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- Sustainability Steps and Associations
 - Metafore Product Innovation Award Finalist
 - DOE Footprint Participant
 - Building a Sustainable Grays Harbor -Vision 2020
 - Kettle Foods Kudos Award
 - Member NBIS (Network for Business Innovation and Sustainability)
 - Member Oregon Natural Step



Sustainable Leaders

- City of Seattle
- Nike
- University of WA
- State of Washington
- Kettle Foods
- UC Berkeley
- EPA
- World Bank
- WA Dept of Ecology
- Puget Sound Energy
- Philips Norelco



Grays Harbor Paper

Harbor 100



- Produced in the NW - Buy Local
- FSC & Green-e Certifications
- ISO 9001 Certified
- 100% Post Consumer
- Manufactured Fossil Fuel Free
- Zero Industrial Waste
- Sustainability Solution Provider

30% Post Consumer leaves the forest
70% empty



Grays Harbor Paper's Harbor 100

A **little** paper making a **big** difference!

David Quigg

dquigg@ghplp.com

360-538-5664

What will we do today?