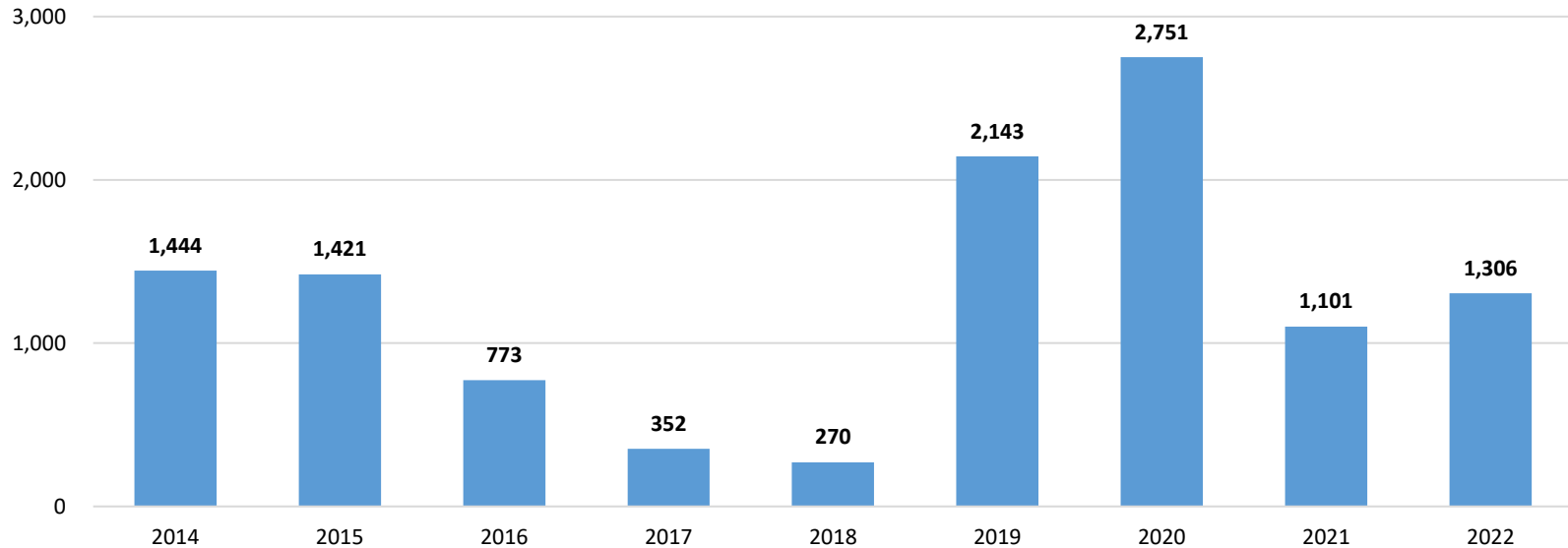


North American Mill Closures by Year, 2014-2022

At least 59 North American mills representing 11.6 million tons of annual capacity have permanently shut since 2014. Closure activity peaked in the first year of the Covid pandemic

Tons of Annual Capacity Impacted by Mill Closures, 2014-2022 (000 tons)



Note: Excludes mills that were subsequently restarted or converted to production of other grades. Includes closure of portions of mills where entire product line exited. Timing based on actual shut down of production, although permanent closure announcement might have occurred at a later date

Source: RISI, Rivermill analysis

North American Mill Closures, 2014 –2022 (1 of 3)

At least 59 North American mills representing 11.6 million tons of annual capacity have permanently shut since 2014

Company / Location	Timing ⁽¹⁾	Capacity (000 Tons)	Grade
WestRock - St. Paul, MN ⁽²⁾	Dec-22	200	Corrugating Medium
Ox Industries - Halltown, WV	Nov-22	50	Uncoated Recycled Paperboard
Dunn Paper - Port Huron, MI	Nov-22	86	Specialty Paper
Georgia Pacific - Green Bay, WI (Day St. Mill)	Aug-22	70	Tissue
WestRock - Panama City, FL	Jun-22	645	Kraft Linerboard (353), Market Pulp (292)
Graphic Packaging - Battle Creek, MI	May-22	255	Coated Recycled Paperboard
Resolute Forest Products - Calhoun, TN	Dec-21	326	Unctd. Groundwood (164) and Market Pulp (162)
Paper Excellence - Powell River, BC	Dec-21	370	Converted from high-bright uncoated groundwood to unbleached packaging papers in May 2021 before shutting
Pactiv Evergreen - Pine Bluff, AR ⁽³⁾	Sep-21	189	Coated groundwood
Neenah Paper - Appleton, WI	Jul-21	25	Specialty Paper (transportation filtration)
Clearwater Paper - Neenah, WI	Jun-21	54	Tissue
Appvion - Roaring Spring, PA	Feb-21	137	Uncoated Free-Sheet
SWM - Spotswood, NJ	Dec-20	47	Specialty Paper (cigarette paper)
Domtar - Port Huron, MI	Aug-20	93	Uncoated Free-Sheet (48), Specialty Paper (45)
Sappi - Westbrook, ME	Jul-20	40	Specialty Paper
Paper Excellence - Mackenzie, BC	Jun-20	265	NBSK Pulp
Ponderay Newsprint - Usk, WA	Jun-20	270	Newsprint
Greif - Mobile, AL ⁽⁴⁾	Jun-20	140	Uncoated Recycled Paperboard
Sonoco - Trent Valley, ON	Jun-20	125	Recycled Linerboard (89), Uncoated Recyc. Paperboard (36)

Note: Excludes mills that were subsequently restarted or converted to production of other grades. Includes closure of portions of mills where entire product line exited

(1) Timing based on actual shut down of production, although permanent closure announcement might have occurred at a later date

(2) Corrugating medium operations shut, coated recycled board production continues at the site

(3) Coated groundwood operations shut, bleached paperboard production continues at the site

(4) 75,000 tons on one machine operating at time of closure. Capacity as shown also includes PM idled in October 2019

Source: RISI, Rivermill analysis

North American Mill Closures, 2014 –2022 (2 of 3)

At least 59 North American mills representing 11.6 million tons of annual capacity have permanently shut since 2014

Company / Location	Timing ⁽¹⁾	Capacity (000 Tons)	Grade
Verso - Wisconsin Rapids, WI ⁽²⁾	Jun-20	680	Coated and Packaging Papers (540), Market Pulp (140)
Resolute Forest Products - Amos, QC ⁽³⁾	Apr-20	220	Newsprint
Resolute Forest Products - Baie Comeau, QC ⁽³⁾	Apr-20	353	Newsprint
Kruger - Brompton, QC	Apr-20	187	Newsprint (110), Kraft Paper (55), Specialty Paper (22)
Paper Excellence - Pictou, NS	Jan-20	331	NBSK Pulp
Fortress Global Enterprises - Thurso, QC	Dec-19	265	Dissolving and BHK Pulp
Resolute Forest Products - Augusta, GA	Nov-19	236	Newsprint
Georgia-Pacific - Crossett, AR ⁽⁴⁾	Oct-19	368	Bleached Paperboard
Flambeau River Papers - Park Falls, WI ⁽⁵⁾	Sep-19	151	Uncoated Free-Sheet, Wet-Lap Pulp
Cascades - Whitby and Scarborough, ON	Jun-19	44	Tissue
Verso - Luke, MD	Jun-19	450	Coated Free-Sheet and Specialties
Georgia-Pacific - Port Hudson, LA ⁽⁴⁾	Mar-19	630	Uncoated Free-Sheet
Georgia-Pacific - Augusta, GA	May-18	33	Tissue
Georgia-Pacific - Camas, WA ⁽⁴⁾	May-18	237	Uncoated Free-Sheet
Graphic Packaging - Santa Clara, CA	Dec-17	138	Coated Recycled Paperboard
Turners Falls Paper - Turners Falls, MA	Aug-17	9	Specialty Paper
SCA - Flagstaff, AZ	Jun-17	55	Tissue
PaperWorks - Philadelphia, PA	Apr-17	150	Coated Recycled Paperboard

Note: Excludes mills that were subsequently restarted or converted to production of other grades. Includes closure of portions of mills where entire product line exited

(1) Timing based on actual shut down of production, although permanent closure announcement might have occurred at a later date

(2) For website chart, 85% of paper capacity classified as coated free-sheet, 15% as specialty paper

(3) Indefinitely idled at time of announcement, with no subsequent status change

(4) Grade listed in "Grade" column shut; tissue operations at these sites continue

(5) 66,000 tons of UFS and unspecified volume of wet-lap operating at time of closure. Capacity as shown also includes UFS PM idled in early 2018. Mill restarted briefly under new ownership from September 2020 to August 2021, before shutting down again

Source: RISI, Rivermill analysis

North American Mill Closures, 2014 –2022 (3 of 3)

At least 59 North American mills representing 11.6 million tons of annual capacity have permanently shut since 2014

Company / Location	Timing ⁽¹⁾	Capacity (000 Tons)	Grade
Resolute Forest Products - Thorold, ON	Dec-16	217	Newsprint
Cascades - Auburn, ME	Jul-16	77	Deinked Pulp
UPM - Madison, ME	May-16	231	Supercalendered Paper
Georgia Pacific - San Leandro, CA	Apr-16	73	Gypsum Linerboard
Whiting Paper - Menasha, WI	Mar-16	10	Specialty Paper
WestRock - Uncasville, CT	Jan-16	165	Corrugating Medium
WestRock - Coshocton, OH	Dec-15	310	Corrugating Medium
Lincoln Paper & Tissue - Lincoln, ME	Nov-15	76	Tissue
WestRock - Newberg, OR	Nov-15	435	Containerbd. (140), Kraft Paper (60), Newsprint (235)
Graphic Packaging - Jonquiere, QC	Jul-15	159	Paperboard (SBS Substitute and CRB)
Paper Excellence - Port Mellon, BC ⁽²⁾	Jul-15	265	Newsprint
Neucel - Port Alice, BC	Mar-15	176	Dissolving Pulp
Resolute Forest Products - Iroquois Falls, ON	Dec-14	231	Newsprint
Verso - Bucksport, ME	Dec-14	405	Coated groundwood (350), Specialty Paper (55)
Resolute Forest Products - Shawinigan, QC	Oct-14	210	Supercalendered Paper
Cascades - East Angus, QC	Oct-14	109	Kraft Paper
Neenah Paper - Fitchburg, MA	Oct-14	14	Specialty Paper
RockTenn - Cincinnati, OH	Oct-14	53	Uncoated Recycled Paperboard
Fusion Paperboard - Sprague, CT	Aug-14	146	Coated Recycled Paperboard
Georgia-Pacific - Thorold, ON	Jan-14	110	Gypsum Linerboard
Great Northern Paper - Millinocket, ME	Jan-14	165	Newsprint
Total		11,562	

Note: Excludes mills that were subsequently restarted or converted to production of other grades. Includes closure of portions of mills where entire product line exited

(1) Timing based on actual shut down of production, although permanent closure announcement might have occurred at a later date

(2) Newsprint operations shut, pulp production continues at the site

Source: RISI, Rivermill analysis