Introduction

This essay is a companion to my essay at http://www.rbs2.com/utility.pdf, on liability of electric utilities in the USA for high or low voltage that causes damage to a utility customer. Voltage of an electric conductor is analogous to pressure in a water pipe, so this essay considers liability of water works in the USA for damage by high or low water pressure. A second analogy considered in this essay is liability of water works in the USA for contaminated water (e.g., bacteria, giardia, rust, toxic chemicals). This essay analogizes liability for defective water (e.g., low water pressure or contaminated water) to defective electricity. This essay is not a survey of all cases in the USA involving liability for water.
This essay presents general information about an interesting topic in law, but is not legal advice for your specific problem. See my disclaimer at http://www.rbs2.com/disclaim.htm. From reading e-mail sent to me by readers of my essays since 1998, I am aware that readers often use my essays as a source of free legal advice on their personal problem. Such use is not appropriate, for reasons given at http://www.rbs2.com/advice.htm.

I list the cases in chronological order in this essay, so the reader can easily follow the historical development of a national phenomenon. If I were writing a legal brief, then I would use the conventional citation order given in the Bluebook.

**Water is a Good**

The Uniform Commercial Code, § 2-105 emphasizes that a good is “movable”. The Code also requires that a good is a “thing”. From the viewpoint of physics, a “thing” has mass — unlike services, which often involve ideas, advice, creative design, or other intangibles. Note that a quantity of goods is commonly expressed in units of mass. Alternatively, a quantity of goods can be expressed as a volume, which can be converted to mass if the density is known.

Water satisfies both of these two criteria:

1. **water is movable** Courts are agreed that water is obviously movable. See, e.g.,
   - *Zepp v. Mayor & Council of Athens*, 348 S.E.2d 673, 677 (Ga.App. 1986) (“We think water is ‘fairly identifiable’ as a movable (i.e. something that can be moved) ‘before the contract is performed.’”).
   - *Gall v. Allegheny County Health Dept.*, 555 A.2d 786, 789 (Pa. 1989) (“Under this definition [in the Uniform Commercial Code], ‘goods’ must be ‘(1) a thing, (2) existing, and (3) movable....’ *Helvey v. Wabash County REMC*, 151 Ind.App. 176, 179, 278 N.E.2d 608, 610 (1972). Water is all three. ‘Whatever can be measured by a flow meter has “movability” as that term is used in connection with the definition of goods.’ 1 R. Anderson, *UNIFORM COMMERCIAL CODE*, § 2-105:19, at 560 (3rd Ed. 1981). All who have paid bills for water can attest to its movability. Under this definition water is ‘goods.’ See *Zepp v. Mayor & Council of Athens*, 180 Ga.App. 72, 348 S.E.2d 673 (1986).”);
   - *Mulberry-Fairplains Water Association, Inc. v. Town of North Wilkesboro*, 412 S.E.2d 910, 915 (N.C.App. 1992) (“The definition of goods is based on the concept of movability. Official Comment 1, U.C.C. § 25-2-105. ‘Whatever can be measured by a flow meter has “movability” as that term is used in connection with the definition of goods.’ 1 Anderson, *UNIFORM COMMERCIAL CODE*, § 2-105:19 (3d ed. 1981). The sale of water is movable in this context. This is evidenced by the fact that defendant charges plaintiff for the water it supplies by the number of gallons plaintiff consumes per month.”).
2. **water has mass** Water in the USA is sold in units of hundred cubic feet, a unit of volume. The density of water is nearly constant at the range of temperatures encountered in cities. Multiplying volume times density gives the mass of the water.

Both sale of electric energy and sale of water is (or should be) considered a sale of goods under the Uniform Commercial Code. Electricity in the USA is sold in units of kilowatt-hours, a unit of energy. As explained in my earlier essay at [http://www.rbs2.com/utility.pdf](http://www.rbs2.com/utility.pdf), energy is equivalent to mass. At least two courts in the USA have recognized the analogy between water and electricity:

We can see no appreciable difference between the sale of water and the sale of electricity when it comes to determining whether the sale of either commodity is a sale of goods. Water, like electricity, is a thing; it exists; it is “fairly identifiable” as a movable at the time of identification to the contract of sale. (In fact, we think water is even more identifiable as a movable than electricity.) In this regard we adopt the reasoning of the *Helvey v. Wabash County REMC*, [278 N.E.2d 608 (Ind.App. 1972)], court: “Logic would indicate that whatever can be measured in order to establish the price to be paid would be indicative of fulfilling both the existing and movable requirements of goods.” *Id.*, 278 N.E.2d at 610. *Zepp v. Mayor & Council of Athens*, 348 S.E.2d 673, 677-678 (Ga.App. 1986).

Beginning at page 9 below, there is a list of cases in the USA that hold that water is a good, or alternatively hold that water is a product to which products liability applies.

### Liability for Low or High Water Pressure

Claims for damage by excessive or inadequate voltage in the electricity supply have an analogy in claims for damages by too high or too low water pressure, because voltage of an electrical conductor is analogous to pressure in a water pipe.

However, the analogy fails in law, because electricity is typically furnished by a private corporation, while water is typically furnished by a waterworks that is owned by a municipal government. In general, municipal waterworks — unlike a private corporation — are immune from liability under the doctrine of governmental immunity. However, as explained below, a few states (e.g., Pennsylvania and New Jersey) allow customers to sue the municipal waterworks for low water pressure.

Interestingly, most of the cases in which plaintiffs alleged inadequate water pressure involved damage by a fire: the water pressure was inadequate to quickly extinguish the fire. The law in the USA is clear that municipalities have no liability for a fire department that fails to extinguish a fire, for an inadequate fire department, or even a negligent fire department. See, e.g.,

- *South v. State of Maryland for use of Pottle*, 59 U.S. 396 (1855) (no liability for sheriff who refuses to protect an individual);
- *Hughes v. State of New York*, 299 N.Y.S. 387, 390 (N.Y.A.D. 1937);
• Steitz v. City of Beacon, 64 N.E.2d 704 (N.Y. 1945);
• Stang v. City of Mill Valley, 240 P.2d 980, 982-983 (Cal. 1952);
• Commerce & Industry Insurance Co. v. City of Toledo, 543 N.E.2d 1188, 1194 (Ohio 1989);
• Zimmerman v. Village of Skokie, 697 N.E.2d 699, 702 (Ill. 1998) (“The public duty rule is a long-standing precept which establishes that a governmental entity and its employees owe no duty of care to individual members of the general public to provide governmental services, such as police and fire protection. [Huey v. Town of Cicero, 243 N.E.2d 214, 216 (Ill. 1968).]");
• Mayor and City Council of Baltimore v. Chase, 756 A.2d 987 (Md. 2000).

This immunity for fire department service extends to immunity for inadequate water pressure when attempting to extinguish a fire. Note that immunity for police and fire services under the “public duty doctrine” is distinguishable from general governmental immunity. If governmental immunity is abolished, the public duty doctrine may still prevent recovery by plaintiffs.

cases on low or high water pressure

This is not a complete list of all cases, but includes some of the major cases that discuss the reasons for whether or not there is liability.

• Van Horn v. City of Des Moines, 19 N.W. 293 (Iowa 1884) (private waterworks under contract to city failed to provide adequate water to extinguish fire, no liability);

• Stansbury v. City of Richmond, 81 S.E. 26, 27-28 (Va. 1914) (city waterworks immune from liability for a claim of inadequate water pressure “at least during the formative or experimental stage of the enterprise”);

• H.R. Moch Co. v. Rensselaer Water Co., 159 N.E. 896, 897-898 (N.Y. 1928) (Private waterworks that contracted with city owes no duty to residents of the city to maintain adequate water pressure. At 898-899, held that there was also no liability in tort.);

• Steitz v. City of Beacon, 64 N.E.2d 704 (N.Y. 1945) (Plaintiff alleged “insufficient quantity of water was provided to combat effectively the fire” on premises owned by plaintiff. Affirmed dismissal of action. Followed Moch Co. v. Rensselaer Water Co., 159 N.E. 896, 898 (N.Y. 1928) in denying liability.);

• DeFrancesco v. Western Pennsylvania Water Co., 453 A.2d 595 (Pa. 1982) (utility customers can sue utility in state court for negligently providing inadequate service);
• *Weinberg v. Penns Grove Water Co.*, 524 A.2d 403, 405 (N.J.Super.A.D. 1984) (“The total immunity of a water utility for fire damages resulting from inadequate water supply or inadequate water pressure, whatever the cause or reason, stands like a dinosaur from the past. If the decision were ours to make we would at least modify the rule.”), *rev’d sub nom. Weinberg v. Dinger*, 524 A.2d 366, 378 (N.J. 1987) (“... we abrogate the [private] water company’s immunity for losses caused by the negligent failure to maintain adequate water pressure for fire fighting only to the extent of claims that are uninsured or underinsured.”);

• *Lainer Investments v. Department of Water & Power of the City of Los Angeles*, 215 Cal.Rptr. 812 (Cal.App. 1985) (city immune for inadequate water pressure that made firefighting ineffective);


• *Zacharie v. City of San Antonio*, 952 S.W.2d 56 (Tex.App. 1997) (city immune from damages caused by inadequate water during a fire);

• *Wells v. City of Lynchburg*, 501 S.E.2d 746, 751 (S.C.App. 1998) (citing six cases from other states for governmental immunity of waterworks in cases involving fires);

• *Travelers Excess and Surplus Lines Co. v. City of Atlanta*, 677 S.E.2d 388, 389, n.1 (Ga.App. 2009) (citing seven cases from other states for rule: “governmental entities are immune from damages suits for the destruction of property caused by the failure to provide adequate fire protection, including the failure to provide an adequate water supply to combat the fire.”);

• *Asuncion v. City Of Seattle*, 151 Wash.App. 1015, Not Reported in P.3d, 2009 WL 2151884 (Wash.App. Div. 1, 2009) (During a rain storm, homeowner “discovered a sudden flood in the basement, where high pressure water was coming out of his toilet and bathtub.” Action for trespass allowed. Other torts may have been allowed if plaintiffs had filed earlier.);

• *Wilkinson v. Washington City*, 230 P.3d 136, 2010 UT App 56 at ¶14 (Utah App. 2010) (city immune from damages caused by high water pressure);

• *Cheney v. City of Montpelier*, 27 A.3d 359, 361, 2011 VT 80 at ¶9 (Vt. 2011) (Owner of apartment building claimed $4600 damages from ruptured water main. Plaintiff “failed to prove that the water main broke due to the City's breach of duty.”).
discussion

Courts are very protective of municipal corporations. For example, an appellate court in Georgia wrote:

The trial court correctly held that the City was shielded from liability. For over a century, it has been the law in Georgia that a municipal corporation is immune from liability for property damage caused by a fire in consequence of [the municipality's] failure to provide suitable engines and apparatus, or on account of defective cisterns, or an insufficient supply of water to extinguish the flames, or the inefficiency, carelessness and neglect of its firemen or the officers in charge of them, and whose duty it is to direct their operations.

Wright v. City Council of Augusta, 78 Ga. 241, 242 (1886). [citing four other Georgia cases, plus seven cases outside Georgia] Any other rule would be contrary to sound public policy because it would potentially open the floodgates of litigation and would risk the “utter insolvency” of municipalities. Wright, 78 Ga. at 244.

Travelers Excess and Surplus Lines Co. v. City of Atlanta, 677 S.E.2d 388, 389-390 (Ga.App. 2009). One sees the same concerns in the refusal of courts to hold schools liable for the tort of educational malpractice, see http://www.rbs2.com/edumal.htm.

In the leading case of Moch in 1928, Justice Cardozo wrote:

If the plaintiff is to prevail, one who negligently omits to supply sufficient pressure to extinguish a fire started by another assumes an obligation to pay the ensuing damage, though the whole city is laid low. A promisor will not be deemed to have had in mind the assumption of a risk so overwhelming for any trivial reward.


Water is cheap, in fact it is typically less expensive than electricity, heating gas, or telephone service. However, Justice Cardozo engages in hyperbole about “the whole city is laid low” — the facts of this case is that one warehouse was damaged by fire, as a result of low water pressure. In this case, the damages sought were $46,477 [Moch, 220 N.Y.S. 557, 558 (N.Y.A.D. 1927)], much less than the value of the entire city of Rensselaer. The real effect of liability here would be to motivate the city to provide adequate utility services to its inhabitants. This case is limited to pure negligence:

We do not need to determine now what remedy, if any, there might be if the defendant had withheld the water or reduced the pressure with a malicious intent to do injury to the plaintiff or another. We put aside also the problem that would arise if there had been reckless and wanton indifference to consequences measured and foreseen. Difficulties would be present even then, but they need not now perplex us. What we are dealing with at this time is a mere negligent omission, unaccompanied by malice or other aggravating elements. The failure in such circumstances to furnish an adequate supply of water is at most the denial of a benefit. It is not the commission of a wrong.


In one Pennsylvania case, residents complained in 1992 that water company had been supplying “inadequate water pressure, and sometimes no water pressure at all,” since 1980. The court affirmed a $200/day civil penalty imposed by the Public Utility Commission (PUC) and blasted the water utility:

The order of the PUC is affirmed. We will not tolerate a situation whereby Honey Brook, by itself injecting into these proceedings its own past defiance of a PUC order, may once again deny relief to the long-suffering homeowners in the Luceno development. Honey Brook Water Co. v. Pennsylvania Public Utility Commission, 647 A.2d 653, 659 (Pa.Cmwlth. 1994).

Putting aside governmental immunity and the public duty rule, when there is inadequate water pressure, the demand has exceeded the supply. Unless there is a written contract that explicitly gives a minimum water pressure (or minimum delivery in gallons/minute) — which a waterworks should never guarantee — it will be difficult for a consumer to litigate a claim for inadequate water pressure. There are myriad reasons why a waterworks might not be able to meet the future demand for water: drought might reduce the supply, equipment might fail, a past source might become contaminated and unusable, etc.
Liability for Contamination

The electricity that leaves a large generator has a voltage that is nearly a pure sinusoidal function of time. When electricity arrives at a customer’s premises, the voltage sometimes contains numerous “disturbances”, including fluctuations in rms voltage, nonsinusoidal waveform, and transient overvoltages. These disturbances enter the utility system from switching inside other customers’ premises, tree branches contacting overhead lines, and from lightning strikes to overhead electric wires.

By analogy, drinking water sometimes contains bacteria, giardia cysts, or toxic chemicals that make the water unwholesome for consumption. In a water system, such contamination is usually present at the source of the water, but might leak into the water mains. Rust in water commonly comes from corroded iron pipes.

Like electricity, water is supplied in only one grade. In the case of electricity, resistive heaters are tolerant of defects in the electricity, while various other loads may be vulnerable to damage by some specific kind of defect in the electricity. Similarly, any kind of water is suitable for flushing toilets. Applications such as watering the lawn or washing a car may accept contaminated water. On the other hand, laundry is intolerant of rust in the water, and people are intolerant of bacteria or giardia in drinking water.

Unlike governmental immunity or the public duty rule for low water pressure claims, courts generally allow claims for breach of the implied warranty for merchantability of contaminated water. This warranty says the goods “are fit for the ordinary purposes for which such goods are used”. Uniform Commercial Code § 2-314(2)(c).

Some attorneys for plaintiffs have argued that the waterworks breached a warranty of “fitness for a particular purpose”. This kind of claim was rejected in both Gall v. Allegheny County Health Dept., 555 A.2d 786, 790 (Pa. 1989); and Dakota Pork Industries v. City of Huron, 638 N.W.2d 884, 887, ¶17 (S.D. 2002).
contaminated water cases

This is not a complete list of all cases, but includes some of the major cases that discuss the reasons for whether or not there is liability for supplying contaminated water. This list also includes the major cases that hold that the sale of water is a good.

- **Jersey City v. Town of Harrison**, 58 A. 100, 101 (N.J.Sup. 1904), aff’d, 62 A. 765 (N.J.Err. & App. 1905) (validity of contracts for supplying water, water held to be a good);

- **Hayes v. Torrington Water Co.**, 92 A. 406, 407 (Conn. 1914) (“The duty which a water company owes to the public and to its customers is that of exercising reasonable care and diligence in providing an adequate supply of wholesome water at all times. [citing one treatise and three cases]”).

- **Jones v. Mt. Holly Water Co.**, 93 A. 860, 861 (N.J.Sup. 1915) (typhoid fever case, affirms jury verdict for plaintiff in negligence case. “Water is a necessity of life, and one who undertakes to trade in it and supply customers stands in no different position to those with whom he deals than does a dealer in foodstuffs. He is bound to use reasonable care that whatever is supplied for food or drink shall be ordinarily and reasonably pure and wholesome.”);

- **Canavan v. City of Mechanicville**, 128 N.E. 882 (N.Y. 1920) (typhoid fever case. A municipal waterworks is not engaged in a governmental function when it sells water to consumers, so the municipal waterworks has the same liability as a private waterworks. However, the waterworks “cannot be held liable for injuries caused by impure water furnished by it unless it knew or ought to have known of the impurity.” At 883: “The furnishing of water, through a system of waterworks, by a water corporation, either private or municipal, to private consumers, at a fixed compensation, is a sale of goods within the meaning of the statute.” At 884: “There is no conceivable method in which the corporation can absolutely secure and maintain to the waters wholesomeness and freedom from pollution. .... As a matter of fact, consumers of a public water supply do not, generally speaking, regard the corporation as a warrantor or insurer of the wholesomeness of the water.” Two judges dissented on holding of no implied warranty of wholesomeness.);

- **Aronson v. City of Everett**, 239 P. 1011 (Wash. 1925) (typhoid fever case, affirming jury verdict for plaintiff in negligence case.);

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1 One wonders if a city could avoid liability by increasing taxes, and discontinuing billing for water, thereby making water a governmental service. One obvious problem is that consumers could then use unlimited amounts of water.
• **Ritterbusch v. City of Pittsburg**, 269 P. 930 (Calif. 1928) (typhoid fever case, unchlorinated water was supplied by the waterworks for approximately a half-day, court affirmed judgment for plaintiff);

• **Horton v. Inhabitants of North Attleboro**, 19 N.E.2d 15 (Mass. 1939) (water with high carbon dioxide content absorbed lead from pipe. Implied warranty that the goods (i.e., water) shall be reasonably fit for drinking, assumed but not decided.);

• **Gordon v. City of Medford**, 117 N.E.2d 284 (Mass. 1954) (Plaintiff's laundry damaged by rust in city water during flushing of sewers. Held: “A municipality in the construction, maintenance, and operation of its water system for the distribution and sale of water is not performing a governmental function but is engaged in conducting a private business....” Affirmed judgment for plaintiff.);

• **Coast Laundry, Inc. v. Lincoln City**, 497 P.2d 1224, 1227-1228 (Or.App. 1972) (Tar in water ruined laundry. Poorly reasoned opinion held no “implied warranty of merchantability or fitness for a particular purpose in connection with the sale and supply of water.”);

• **Moody v. City of Galveston**, 524 S.W.2d 583 (Tex.Civ.App. 1975) (flammable gas in tap water, water held to be a good under the Uniform Commercial Code, also products liability applies);

• **Kusnir v. City of Yonkers**, 497 N.Y.S.2d 582, 585 (N.Y.City Ct. 1985) (city was liable for supplying rust in water: city “is bound to use reasonable care and diligence in providing pure and wholesome water and in keeping its water supply system free from infection or contamination rendering the water unsafe and dangerous to individuals, or unsuitable for domestic purposes....”);

• **Zepp v. Mayor & Council of Athens**, 348 S.E.2d 673, 677 (Ga.App. 1986) (case involves price of water. “Very few courts have considered whether the furnishing of water is a sale of goods under the Uniform Commercial Code. .... ... we are persuaded by the viewpoint set forth in Helvey v. Wabash County REMC, 278 N.E.2d 608 (Ind.App. 1972), and reach the conclusion that the sale of water does constitute the sale of goods.”);

• **Gall v. Allegheny County Health Dept.**, 555 A.2d 786 (Pa. 1989) (reversing dismissal, held plaintiffs who were sick from giardia could assert claim for breach of implied warranty of merchantability for providing infected water for drinking). This opinion is famous for ruling at p. 789 that the sale of water by a municipality did constitute the sale of goods under the Uniform Commercial Code.
• Miller v. McKeesport Municipal Water Authority, 555 A.2d 790 (Pa. 1989) (municipal water supply contained giardia. Held that exception to governmental immunity in 42 Pa.Con.Stat. § 8542(b)(5), “A dangerous condition of the facilities of steam, sewer, water, gas or electric systems owned by the local agency...”, applied, so city was not immune. Decided same day as Gall.);

• Sternberg v. New York Water Service Corp., 548 N.Y.S.2d 247, 248 (N.Y.A.D. 1989) (“In Canavan v. City of Mechanicville, 229 N.Y. 473, 128 N.E. 882, the Court of Appeals held that although the furnishing of water constitutes the sale of goods, no such warranties are implied.”);

• In re Perrier Bottled Water Litigation, 754 F.Supp. 264 (D.Conn. Nov 09, 1990) (products liability case for benzene in bottled water);

• S.A.B. Enterprises, Inc. v. Village of Athens, 564 N.Y.S.2d 817 (N.Y.A.D. 1991) (Affirming jury verdict (except for valuation of business) for one million dollars to laundry that lost its customers owing to stained linen from contaminated water. At 819: “... the staining was caused by live and dead microscopic animal and vegetable matter suspended in the water, attributable to the condition of the nearby lake which was defendant's sole water source. Defendant’s filtration system had been inoperable for several years.”);

• Mulberry-Fairplains Water Association, Inc. v. Town of North Wilkesboro, 412 S.E.2d 910, 915 (N.C.App. 1992) (water is a good under the Uniform Commercial Code, follows Zepp in Georgia);


• Dakota Pork Industries v. City of Huron, 638 N.W.2d 884, 886 (S.D. 2002) (At ¶10, follows Canavan: water is a good.);

• Mattoon v. City of Pittsfield, 775 N.E.2d 770, 783-784 (Mass.App.Ct. 2002) (Plaintiffs failed to provide expert testimony to prove giardia cysts in city water caused plaintiffs’ sickness. Courts dismissed claim for breach of warranty: “... the water supplied by the city cannot practically be protected against all potential contamination from humans and animals.” Held that water was a service, not a sale of a good.)
  (Legionnaires’ disease case. Predicted Vermont would consider water to be good under the Uniform Commercial Code and held there is an implied warranty of merchantability. Considers *Canavan* and *Sternberg* in New York and *Mattoon* in Massachusetts and rejects all three cases.).

**Conclusion**

It is interesting that law distinguishes (a) claims for low water pressure from (b) claims for contaminated water. As shown above, beginning at page 4, claims for low water pressure are usually barred by either governmental immunity or the public duty rule. However, as shown above, beginning at page 9, plaintiffs can win claims for contaminated water. The law in this area is muddled, principally with a judicial (and legislative) desire to protect incompetent or negligent municipal waterworks.

Attorneys for plaintiffs who are suing a municipal waterworks should do legal research to find case law on litigation against waterworks in their jurisdiction, because there is no national consensus.

This document is at [www.rbs2.com/utility2.pdf](http://www.rbs2.com/utility2.pdf)
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