PREVENTING A MODERN DAY CUYAHOGA: MISSOURI SHOULD APPLY THE "FISHABLE/SWIMMABLE" WATER QUALITY STANDARD TO ALL UNCLASSIFIED WATERS

By Ted Weiss

I. INTRODUCTION

In June of 1969, a disturbing event occurred: the Cuyahoga River near Cleveland, Ohio caught fire, burning for more than two hours.[1] As the story goes, flammable debris from a nearby steel mill was discharged directly into the river and pooled underneath a railroad truss bridge.[2] A spark from a passing rail car ignited the material, setting the river ablaze with flames reaching up to five stories high.[3] The Cuyahoga, like many of the nation's navigable waterways at that time, had long been neglected.[4] Industrial facilities and open sewers lining the river's banks regularly discharged their untreated wastewater directly into river.[5] Debris consisting of anything from tires to picnic benches clogged its waters.[6] Oil slicks up to two inches thick, spanning the entire width of the river, were not unheard of.[7] Through much of the early 20th century, the Cuyahoga was devoid of life, lacking the oxygen content necessary to support fish and many other aquatic species.[8] Indeed, the Cuyahoga became so contaminated that it was widely thought of as one of the most polluted rivers in the country.[9]

The 1969 fire was not the first or even the most intense fire on the Cuyahoga,[10] but it had a national impact.[11] The spectacle of a major river actually catching fire caught the nation's attention and became a primary driving force behind legislation that eventually became the Clean Water Act (CWA).[12] Living in the 21st century, it is difficult to fathom that this river, today used for

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[1] DANIEL A. VALLERO, PARADIGMS LOST: LEARNING FROM ENVIRONMENTAL MISTAKES, MISHAPS, AND MISDEEDS 168 (2006).
[2] Michael Scott, *The Burning Cuyahoga Got Public's Attention and Pushed Pollution Issues to the Forefront*, CLEVELAND PLAIN DEALER, Apr. 12, 2009, at A1.
[3] Jonathan H. Adler, *Fables of the Cuyahoga: Reconstructing A History of Environmental Protection*, 14 FORDHAM ENVTL. L.J. 89, 96 (2002); Michael Scott, *Fire 40 Years Ago Ignited Cleanup of the Cuyahoga,* CLEVELAND PLAIN DEALER, June 22, 2009, at A1.
[4] *See* Adler, *supra* note 3 ("[F]ederal laws protecting commercially navigable waterways went largely unenforced.").
[5] *Id.* at 99-100.
[6] Scott, *supra* note 3, at 96.
[7] Adler, *supra* note 3, at 103.
[8] *The Cities: The Price of Optimism*, TIME, Aug. 1, 1969, at 51.
[9] Adler, *supra* note 3, at 107.
[10] *Id.* at 101-02. The Cuyahoga has caught fire at least nine other times, the first such incident as early as 1868.
[11] *See* Adler, *supra* note 3, at 90 (noting the nation-wide attention brought to the fire through publications such as TIME and NATIONAL GEOGRAPHIC).
[12] 118 CONG. REC. 10,244 (1972) (statement of Rep. Edward Boland).

both recreational purposes and as a public drinking water supply, or any other, could be so polluted as to actually ignite and burn for several hours. This modern mentality is due in large part to increased national awareness of environmental issues and the revolutionary effect that the CWA has had upon our nation's rivers and other waterways. Due to the CWA, Americans today enjoy vastly improved waters for recreational activities, as sources of drinking water, and for observing nature.[13]

The CWA is one of the more significant federal environmental programs, responsible for regulating industrial wastewater discharges, implementing permit programs, and establishing water quality standards for water bodies.[14] While the federal Environmental Protection Agency (EPA) is the agency charged with implementing the CWA and promulgating regulations,[15] states are delegated the responsibility for implementing and enforcing water quality standards for waters within their borders.[16] States implementing the provisions of the CWA have experienced dramatic improvement in water quality. Indeed, the Cuyahoga, once relegated to an industrial stream and devoid of life, has been reborn. The river today supports "more than 60 species of fish" and provides habitat for beavers and birds of prey such as bald eagles.[17] The rebirth of the Cuyahoga and other rivers, lakes, and streams throughout the United States is due in large part to requirements placed upon states under the CWA.

For forty years, Missouri has been subject to the provisions of the CWA. However, Missouri's implementation of the Act is currently in conflict with the federally mandated requirements. Among other responsibilities under the CWA, states are required to designate all water bodies with a "use," describing the activities for which that water body is best suited.[18] Once a designated use is determined, the state must then apply water quality criteria designed to maintain the utility of the water for its designated use.[19] However, Missouri's implementation of the CWA adds an additional requirement before assigning a water body a designated use. Under Missouri's regulatory scheme, a water body must be "classified" according to its flow characteristics prior to assigning a designated use and implementing associated water quality criteria.[20] While this

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[13] *See generally* Donna Frye, *The Clean Water Act: Thirty Years Later*, SAN DIEGO EARTH TIMES, Nov. 2002, http://www.sdearthtimes.com/et1102/et1102s6.html ("Today, thirty years later, there is much to celebrate as it relates to Clean Water Act successes. Nationally, point source pollution such as discharges from industry and sewage plants has been greatly reduced. More than one billion pounds per year of toxic pollutants are now removed from our nation's waterways. The Cuyahoga River is cleaner, generating substantial economic revenue from tourism and pleasure boaters.").

[14] *See generally* Clean Water Act, 33 U.S.C. § 1251 (2006) ("The objective of this chapter is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters.").

[15] § 1251(d).

[16] § 1313(c)(2)(A).

[17] Christopher Maag, *From the Ashes of '69, A River Reborn*, N.Y. TIMES, June 21, 2009, at A18.

[18] 40 C.F.R. § 131.6(a) (2011); § 131.10.

[19] § 131.6(c).

[20] *See* MO. CODE REGS. ANN. tit. 10, § 20-7.031(1)(F) (2011).

may sound like an insignificant step, as much as 85%, or 150,000 miles of Missouri streams and waterways, remain unclassified.[21] Missouri's unclassified waters are thus left relatively unprotected, since water quality standards do not apply until classification. Since much of Missouri's waters remain in CWA limbo, they remain unprotected by the Act's provisions. This policy conflicts with the mandate under the CWA that each water body be given a designated use and associated protections, and the EPA lacks the power to force Missouri to comply.

Part I of this article summarizes the relevant history of the CWA, the State requirements in implementing the CWA, the current regulatory framework applied in Missouri, and environmental consequences of Missouri's classification system. Part II of this article will address recent litigation seeking to bring Missouri into compliance with CWA requirements and proposed Missouri regulatory changes that may reconcile Missouri's scheme with the federal requirements.

II. THE CLEAN WATER ACT AND STATE RESPONSIBILITIES

A. The Federal Clean Water Act

Enacted in 1972 as an amendment to the Federal Water Pollution Control Act, the CWA sought the "restoration and maintenance of [the] chemical, physical and biological integrity of [the] Nation's waters."[22] In order to achieve this ambitious undertaking, the CWA established as a "national goal that wherever attainable" water quality in the United States must provide "for the protection and propagation of fish, shellfish, and wildlife and . . . recreation in and on the water. . . ."[23] This is commonly known as the "fishable/swimmable" standard of the CWA, and represents the minimum standard of protection for all bodies of water in the United States.[24] In short, the CWA seeks to make all waters in the United States clean enough to, at a minimum, support fishing and recreation.

At the time the CWA was enacted, many rivers, streams and lakes throughout the United States were like the Cuyahoga: industrial waterways clogged with various pollutants and far from being suitable for human recreation

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[21] *Missouri's Unprotected Waters*, MISSOURI COALITION FOR THE ENV'T, http://www.moenviron.org/index.php/program-areas/clean-water-program/protecting-missouri-s-waters/missouri-s-unprotected-waters (last visited Feb. 17, 2013).

[22] Clean Water Act, 33 U.S.C. § 1251(a) (2006).

[23] *Id.* at § 1251(a)(2).

[24] M. Ann Bradley & Joseph M. Dawley, *West Virginia's Antidegredation Policy for State Waters: From Theoretical Construct to Implementation Procedures*, 103 W. VA. L. REV. 331, 333-34 (2001); *see also* U.S. ENVTL. PROT. AGENCY, NPDES PERMIT WRITERS' MANUAL (2010), at ch. 6, p. 6-3, *available at* http://www.epa.gov/npdes/pubs/pwm_chapt_06.pdf (noting the fishable-swimmable standard is a rebuttable presumption for water quality, per regulations at 40 C.F.R § 131.10(j)).

and fishing.[25] In order to achieve the ambitious goals set by the CWA, states and Indian tribes were charged to enact and enforce water quality standards for all navigable waters within their jurisdictions.[26] These standards are the foundation of the CWA, and a primary reason for the restoration of many of the nation's waterways. The water quality standards program, found under section 303 of the CWA, consists generally of three parts: (1) assignment of a designated use, (2) setting water quality criteria, and (3) establishing and maintaining an anti-degradation policy.[27]

Under the first prong, states identify appropriate uses for the water body, taking into consideration "the use and value" of the water body for drinking water, recreation, protection and propagation of fish and wildlife, etc.[28] When considering the most appropriate use, the state or tribe also bases its decision on "the physical, chemical, and biological characteristics of the water body, its geographical setting and scenic qualities, and the social-economic and cultural characteristics of the surrounding area."[29] Regardless of what use a state designates for its waters, the water body must at a minimum support the "fishable/swimmable" standard, discussed above.[30]

Once a water body is provided with a designated use, the state must, under the second prong of the water quality standards program, implement water quality criteria to prevent degradation of the water body to a degree inconsistent with that use.[31] Generally, this requires states to adopt narrative and numeric water quality criteria to maintain the designated use, discussed further below.[32] States enforce these criteria through developing technology-based effluent limitations on industry and other direct dischargers. These limitations are usually outlined in permits, issued under another CWA program.[33] If further protection is needed, the state may determine the total maximum daily load (TMDL) of pollutants a water body can take without degradation and limiting all discharges to that TMDL.[34]

Although the EPA oversees implementation of the CWA by the states, its role in determining water quality standards is limited largely to review and approval or denial of state standards. States are required to review their standards at least every three years (triennial review) and make changes "as

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[25] Adler, *supra* note 3, at 95-96.
[26] *See* 40 C.F.R. § 131.4(a)-(c) (2011).
[27] 40 C.F.R. § 131.10(a); 40 C.F.R. § 131.11(a); 40 C.F.R. § 131.12(a).
[28] 40 C.F.R. § 131.10(a).
[29] *Water Quality Standards: Region 7*, U.S. ENVTL. PROT. AGENCY (May 22, 2012), www.epa.gov/region07/water/wqs.htm.
[30] *See* NPDES PERMIT WRITERS' MANUAL, *supra* note 24, at ch. 6, p. 6-3.
[31] 40 C.F.R. § 131.12(a).
[32] *See Water Quality Standards*, *supra* note 29; NPDES PERMIT WRITERS' MANUAL, *supra* note 24, at ch. 6, p. 6-7.
[33] *Water Quality and Technology-Based Permitting*, U.S. ENVTL. PROT. AGENCY, (Nov. 1, 2010, 3:49 PM), http://cfpub.epa.gov/npdes/generalissues/watertechnology.cfm.
[34] 40 C.F.R. § 130.7(c).

appropriate."[35] The CWA does not require the EPA to implement water quality standards if states fail to do so. The statute only explicitly grants power to the EPA to review new or revised state standards.[36] The CWA does not provide that the EPA must re-examine existing standards that remain unchanged.[37] This lack of enforcement power is what has allowed Missouri to largely ignore applying water quality standards to its waters. Since this provision of the CWA has no teeth, Missouri cannot be compelled by the EPA to apply all three prongs of the water quality standards program to all of its navigable waters.

B. Missouri's Regulatory Scheme

States are granted primary authority to develop water quality standards for all waters within their jurisdiction including designating an appropriate use, developing water quality criteria, and implementing antidegredation procedures.[38] However, Missouri law is not structured to carry out the federal mandates to establish water quality standards for all eligible waters within its borders.[39] Prior to establishing water quality standards, Missouri has developed an additional layer of regulation, requiring that a water body be "classified" according to its flow characteristics prior to establishing the three-part water quality standards discussed above.[40] This extra requirement is not mandated by the CWA. On the contrary, by adding this extra layer of regulatory red tape, Missouri has left an estimated 85% of its waters largely exempt from the protections provided by the CWA because they remain unclassified.[41] While some unclassified waters consist of intermittent streams, others are prominent urban waterways or major tributaries of classified waters, including Brush Creek in Kansas City, Missouri; River Des Peres in St. Louis, Missouri; and Flat Branch Creek in Columbia, Missouri.[42]

There does not appear to be any explanation for why Missouri chose to add this requisite step before implementing CWA protections. However, the potential consequences of requiring classification prior to implementing water quality standards arguably leave some waters unsafe for even the minimal "fishable/swimmable" standards required by the CWA.

To gain the protections provided by the CWA, a water body in Missouri must be classified by its flow characteristics: i.e. as a lake, reservoir, permanent

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[35] 33 U.S.C. § 1313(c)(1) (2006).
[36] *Id.* at § 1313(c)(2)(A).
[37] Nat'l Wildlife Fed'n v. Browner, 127 F.3d 1126, 1130 (D.C. Cir. 1997).
[38] 40 C.F.R. §§ 131.10-12.
[39] *See id.* at § 131.10(a).
[40] MO. CODE REGS. ANN. tit. 10, § 20-7.031(1)(F) (2012) (outlining the characteristics for each classification).
[41] *Missouri's Unprotected Waters*, *supra* note 21.
[42] Ken Midkiff, *Even 'Unclassified' Streams Merit Protection in Missouri*, COLUMBIA TRIB., Oct. 31, 2008, http://archive.columbiatribune.com/2008/Oct/20081031Comm002.asp.

stream, or wetland, among others categories.[43] The main problem with this system is that Missouri generally requires an actual field assessment to assign a water body a classification.[44] Missouri, however, rarely undertakes a field assessment under its own initiative.[45] Of the waters that have been classified through field assessments, many were conducted years or even decades ago.[46] The slow pace of field assessments and irrational regulatory procedures have resulted in a large number of prominent streams and waterways being left unclassified.[47] A second method for instigating classification of a water body is through public participation.[48] This method requires that citizens submit their own data showing that a particular water body meets the required flow characteristics for classification.[49] However, few water bodies have been classified through this method, leaving most of Missouri's waters unclassified.[50]

The protections afforded to classified waters under the Missouri regulatory scheme are significantly more stringent than those afforded to unclassified waters. Missouri regulations provide for two levels of water quality protection: (1) General Criteria and (2) Specific Criteria.[51] The general criteria standards apply to all "waters of the state," including in some cases "unclassified" waters, and provide for general protection of water bodies in narrative form.[52] Examples of general protections include mandates stating "waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly, or harmful bottom deposits" and "waters shall be free from oil, scum, and floating debris in sufficient amounts to be unsightly."[53] These black and white narrative standards merely serve to keep state waters visibly clean and prevent waters from becoming so polluted that they are toxic "to human, animal, or aquatic life."[54] Although general criteria may be sufficient to keep some waters fishable and swimmable, such standards alone are insufficient to ensure that all waters of the state maintain this minimal designated use. With only general criteria protections, a body of water may be visibly clean,

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[43] MO. CODE REGS. ANN. tit. 10, § 20-7.031(1)(F).

[44] *See generally* MO. DEP'T OF NATURAL RES. WATER PROT. PROGRAM, FINAL GUIDELINES FOR WATER BODY CLASSIFICATION, at 2-10 (Mar. 2, 2005) *available at* http://dnr.mo.gov/env/wpp/wqstandards/water_classification_guidelines.pdf [hereinafter *Water Protection Program*] (providing guidelines for field assessments regarding each classification of water).

[45] Second Amended Complaint at 9, Missouri Coalition For The Environment v. Jackson, No. 10-04169 (W.D. Mo. Oct. 6, 2011) [hereinafter Second Amended Complaint].

[46] *Id.*

[47] *Id.* at 8-9.

[48] *Water Protection Program*, *supra* note 44, at 9.

[49] *Id.*

[50] Second Amended Complaint, *supra* note 45, at 9.

[51] MO. CODE REGS ANN. tit. 10, § 20-7.031(3)-(4) (2012). General and specific criteria are Missouri's terms for the CWA narrative and numeric criteria. *Id.*

[52] *See id* § 20-7.031(3).

[53] *Id.* at § 20-7.031(3)(B).

[54] *Id.* at § 20-7.031(3)(D).

but can contain unseen pollutants that would make it unsuitable for recreation or fishing.

Specific criteria, on the other hand, apply only to "classified" waters and consist of numeric restrictions on various pollutants specifically designed to ensure that a designated use is protected.[55] For example, Missouri law provides that discharges into water bodies designated as cold-water fisheries shall not "raise or lower the temperature . . . more than five degrees Fahrenheit."[56] Application of specific numeric criteria is especially important because it limits priority toxic pollutants, which interfere with designated uses of state waters.[57] The consequences of leaving so much of the state's waters unclassified means that such waters are not assigned with a designated use and protected with the specific, numeric criteria. As a result, much of the state's waters that would normally be protected without a classification system, are denied this protection.

III. CHANGING THE MISSOURI CLASSIFICATION SYSTEM

A. Recent Litigation Regarding Missouri's Classification System

Missouri environmental groups have been well aware of the problems with State's implementation of the CWA for many years.[58] One such group, the Missouri Coalition for the Environment (MCE), has actively participated with both the EPA and Missouri in an attempt to reform the Missouri system.[59] However, for reasons unknown, Missouri has resisted repeated calls by MCE and the EPA to apply water quality criteria to the state's unclassified waters.

In an attempt to force the federal agency to compel Missouri to comply with the Act, MCE brought suit against the EPA in 2010.[60] In its complaint, MCE outlines its repeated attempts to amend Missouri law and broken promises by Missouri to address its deficiency; the suit further alleges that the EPA has failed to compel Missouri to come into compliance.[61] The suit, in addition to other prayers for relief, seeks to compel the EPA to promulgate water quality standards for Missouri's unclassified waters since the state has failed to do so.[62]

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[55] *Id.* at § 20-7.031(4).
[56] *Id.* at § 20-7.031(4)(D).
[57] 40 C.F.R. § 122.44.
[58] *See, e.g.*, Jeffery Tomich, *Group Asks EPA To Help Clean Up Missouri Streams*, ST. LOUIS DISPATCH, Nov. 30, 2012, *available at* http://www.stltoday.com/news/local/metro/group-asks-epa-to-help-clean-up-missouri-streams/article_588f51bf-492b-5dd5-af4a-bf036a561077.html.
[59] *See generally What We've Done*, MO. COAL. FOR THE ENV'T (last visited Feb. 23, 2013), http://moenviron.org/index.php/about-us/achievements-and-successes (providing a timeline of the Coalition's steps to support several environmental initiatives in Missouri, including the protection of water sources).
[60] Second Amended Complaint, *supra* note 45. The Missouri Coalition for the Environment filed its initial complaint on Aug. 4, 2010.
[61] *Id.* at 20.
[62] *Id.*

Although MCE merely sought to bring Missouri into compliance with the CWA, its suit against the EPA was doomed to fail.[63] As stated above, the EPA's role in the process is to review and approve or deny new or revised water quality standards submitted by states under Triennial Review.[64] There is no requirement under the CWA that the EPA re-examine existing standards which remain unchanged.[65] Thus, the EPA lacks the authority to compel Missouri, or any other state, to assign uses and promulgate water quality standards for unclassified waters unless Missouri, in its Triennial Review, seeks to adopt new standards for its unclassified waters. Such a suit may have been successful if brought at the time Missouri originally adopted its standards, but retroactive enforcement is not granted under the CWA.

B. Proposed Missouri Regulatory Changes

Although MCE's suit against the EPA was unsuccessful, it appears to have prompted Missouri to take initiative in amending its classification system. On December 1, 2011, the Missouri Department of Natural Resources (MDNR) published a proposed rule which would radically amend its current classification system and apply designated uses to its unclassified waters.[66] The purpose of the proposed rule is to ensure state water quality standards are functionally equivalent to federal standards by "expanding Missouri's classification system to currently unclassified waters, or otherwise satisfy the rebuttable presumption of 'fishable/swimmable' uses as required by Section 101(a) of the federal Clean Water Act.[67] The proposed rule appears to be in response to repeated requests from both the EPA and the public; in particular, a 2000 EPA request and the 2010 lawsuit filed by MCE against the EPA.[68]

Among other changes, the proposed rule would apply a rebuttable presumption that streams, lakes, reservoirs, and other water bodies support the minimal fishable/swimmable designated use.[69] Implementation of such a rule would effectively do away with the State's classification system as applied to a large number of water bodies and apply additional protections provided by numeric specific criteria. The MDNR estimates that an additional 84,845 miles of streams, previously unclassified, would be designated for fishable/swimmable use under the new regulation.[70] While some water bodies will continue to remain

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[63] The case was settled and the suit dismissed by the federal district court on February 16, 2012.
[64] 33 U.S.C. § 1313(c) (2006).
[65] *See id.* at (a)-(i).
[66] *See* Clean Water Commission, 36 Mo. Reg. 2521-2586, vol. 36, number 23 (proposed Dec. 1, 2011) *available at* http://www.sos.mo.gov/adrules/moreg/previous/2011/v36n23/v36n23b.pdf (to be codified at MO. CODE REGS. ANN. tit. 10, § 20-7.031).
[67] *Id.* at 2521-22.
[68] *Id.* at 2673.
[69] *See generally id.* at 2525.
[70] MO. DEP'T OF NATURAL RES., REGULATORY IMPACT REPORT, at 9, June 3, 2011, *available at* http://www.dnr.mo.gov/env/wpp/docs/RIRWQSMaster060311.pdf.

uncovered by the proposed rule, many of Missouri's waters would now reflect federal standards.

While Missouri has finally recognized its deficiency regarding CWA compliance, its proposed rule falls short of completely alleviating its problem of non-compliance. MDNR could have ensured full compliance if it had instead applied blanket coverage of the fishable/swimmable standard to all waters of the state, as defined by 10 C.S.R. § 20-2.010(83). Instead, Missouri chose to apply the standard to enumerated waters only, leaving some waters unprotected. Notwithstanding this shortcoming, Missouri has publicly acknowledged that state regulations are deficient and is attempting to rectify this deficiency through actively promulgating new rules. However, until Missouri imposes new rules, Missouri cannot ensure that its waters maintain the minimal standard under the CWA that they be fishable and swimmable.

IV. CONCLUSION

The 1969 Cuyahoga fire signified a low point in the way states viewed and treated waters of the United States. The Cuyahoga, and rivers like it, were not maintained as to preserve the use for which they were best suited, but were instead used largely as a means for unregulated industrial disposal and transportation of goods. The 1969 fire, despite being a reminder of America's polluting past, served as a wakeup call and a driving force behind the creation of the CWA.

Missouri's current regulatory scheme, as it now stands, is wholly insufficient to provide the necessary protection for state waters. Although some unclassified waters are merely small, intermittent tributaries, others are vibrant waters used for recreation. Brush Creek, an urban waterway flowing through the heart of the upscale Country Club Plaza area of Kansas City, is lined with a river walk frequented by residents and visitors alike.[71] It is also a major tributary of the Blue River, which is itself used for fishing, boating, and other leisure activities.[72] Despite its popularity and importance to the Blue River watershed, Brush Creek is an unclassified stream.[73] Thus, it does not need to meet the minimal fishable/swimmable standard that classified waters must, and contains elevated levels of many pollutants.[74] Under Missouri's proposed regulation, Brush Creek would be subject, at a minimum, to the fishable/swimmable standard mandated by the CWA. Although there would be public and private costs associated with curbing unregulated point and non-point discharges into the

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[71] *Brush Creek*, WATERSHEDS OF THE KANSAS CITY REGION (Sept. 25, 2012), http://www.marc.org/watershed/watershed.asp?ID=4.
[72] *Id.*
[73] *See* Midkiff, *supra* note 42.
[74] *Brush Creek*, *supra* note 71. Pollutions of concern include "bacteria, elevated nutrients, dissolved solids, and other trace elements." *Id.*

creek,[75] Brush Creek would gradually become suitable for more than just the casual stroll.

[75] Costs would most likely include more efficient storm water runoff controls and potential National Pollution Discharge Elimination System (NPDES) permitting costs.