

Salient Facts Impacting the Decision Making Model
for the
Proposed Storm Water Rule Changes in the Twenty Coastal Counties

Purpose Statement:

This paper was prepared to provide an objective review of the need for the current proposed revision to the storm water rules; to evaluate published data from DWQ regarding the issue and its relevance; to calculate the certain consequences of the action and to examine the plausible unintended consequences.

Division of Water Quality Hypothesis:

Levels of fecal coliform bacteria threaten shellfish areas. Storm water rule changes are required in the 20 coastal counties to accomplish the goal of reducing fecal coliform pollution.

Division of Water Quality Solution:

Immediate, sweeping regulatory changes are required in North Carolina in order to mitigate the damage done to water quality, specifically shellfish populations, in “SA” waters from urban storm water out-fall.

Division of Water Quality Relevant Duty and Purpose:

It is incumbent upon the Division of Water Quality to provide critical information about water quality to all the citizens of North Carolina. All state agencies are presumed to have a quasi-fiduciary relationship with the general citizenry as well as the legislative, executive, and judiciary bodies of state government.

It is further required of them to recommend management practices (i.e. regulations) that are necessary, founded in legitimate science and fair to both the environmental and economic resources of the state’s entire population. Data provided by state agencies should not require citizens or government officials to discern between the agency’s professed aim and their real aim. All recommendations should be factual and objective; otherwise, it is just “information tainted by agenda.”

Published Supporting Facts:

The Division of Water Quality has published and posted “Section A: North Carolina Water Quality Issues” for the purpose of identifying water quality issues and preferred management strategies to address the issues.

“Section A-2 Non Point Source Pollution” states that “studies have demonstrated that a serious decline in the quality of receiving waters can occur when only ten to fifteen percent of a

watershed is covered by impervious surface such as roads, roof tops, and parking lots (Schueler, 1994). It further states “there are a number of issues that need to be addressed, such as specific aspects of urbanization that cause degradation, the extent to which urbanization alone is responsible for degradation and how to change human habits and reduce the amount of pollutants that cause the degradation.” (Mulholland and Lenot, 1992).

Section B-2 Fecal Coliform Bacteria” (Page 21) stipulate the general management strategies for addressing fecal coliform contamination of surface and ground waters.

These strategies include:

- Proper maintenance and pumping of septic tanks every three to five years.
- Maintenance and repair of sanitary sewer lines and WWTP Authorities.
- Elimination of piped unpermitted discharges of home waste
- Proper management of livestock to keep wastes from reaching surface waters.
- Encouragement of local health departments to routinely monitor waters known to be used for body contact recreation.

Also, in *Development Thresholds* (Page 21) they state, “such a threshold would be extremely difficult to establish because of the variety of factors that must be considered, including the amount of development; type, the specific practices used and the nature of the land prior to development.” The Schueler study levels of ten to fifteen percent are noted but, (Page 22) “These studies have been conducted primarily on freshwater streams, and no systematized effort has yet been under taken to establish a relationship between shellfish closures and the extent of impervious surface” (Schueler 94).

Other research (Tschetter and Maiolo 84) and (Duda and Cromartie 82) are either “to general to be used for management purposes” or “insufficient” to be used.

DWQ points out that, based on these studies, (Pg. 22) “a strong empirical relationship exists between land development and shellfish water closures.” *Construction, Storm Water and Land Use Issues* (Pg. 22) concludes that “shellfish water closures in developed areas are more likely the result of improper maintenance or installation of best management practices, a lack of stream buffers or the ditching and piping of adjacent land areas.”

Certainties and Unintended Consequences:

Certainties of proposed regulation require examination. The “Law of Unintended Consequences” has become a legitimate public and governmental concern as we have evolved into a more proactive body public.

Often the consequences are totally unexpected and far from desirable. In the case of this rule, some consequences are immediate certainties and others are probable eventualities.

One immediate certainty is added cost to each individual house (i.e. 1500 square feet or less) with a "target market" of \$195,000 or less. The conservative estimate of these costs is \$5,970. As you can see, this amounts to three percent of the sales price. It further requires an increase in the monthly payment of \$36.78 at 6.25% and \$600 in the down payment.

Another immediate certainty is the onerous burden on small business plant growth or expansion. As written, this rule will impact every "non residential" project in the 20 coastal counties with land disturbing activity of 10,000 square feet or more. The majority of small business plant investment typically requires land disturbance activity of 30,000 to 40,000 square feet. The current regulatory threshold is one acre or 43,560 square feet. If there is no problem with the required 24" separation from ground water, the quantifiable costs will be close to \$30,000. Since the current workload at DWQ for storm water permits usually results in the 75-day statutory limit for comment, and an additional review of 45 to 60 days to receive an actual permit; construction will be delayed by at least four months. Since commodity prices for most construction materials are rapidly increasing, it is impossible to calculate the additional costs of construction. By way of illustration, steel prices have increased eighty percent since last August. One can surmise that the costs will be substantial.

In the likely event that ground water separation is an issue, the costs to raise a site one foot so that it will drain to the structural storm water device will require 1,629 cubic yards of select fill for 40,000 square feet of area. The cost to truck, place, engineer, and compact this fill will add \$22,992 to the \$30,000 mentioned above. The total costs incurred here are \$52,992.

A third immediate certainty of this action will be the 163 trips (average 20 miles) to bring the fill to the site. This will result in about 545 gallons of diesel fuel being burned in the trucks and, of course, the resulting fluorocarbon emissions, which may contribute to global warming.

While these are the most obvious immediate certainties, there are many more. However, the real damage is through the probable eventualities of unintended consequences.

As most of us are aware, we have recently gone through a near collapse of the securitized debt markets. As recently as 1978, these markets were small and unimportant; but since then, they have become the preferred vehicle for raising money by mortgage markets, large corporate interests, credit card finance, commercial finance, and student loans. While the immediate calamity has been avoided, the "crisis of trust" between investors and providers continues. Some doubt that securitized lending will ever completely recover, but it is safe to say that it will be a long time.

Since this shock to the markets has occurred, traditional banking has become the lender of choice for many large corporations. There is danger that this could lead to "crowding out" the productive small business ventures that rely one hundred percent on bank financing for their operations.

If this rule is enacted as written, it could place an additional burden on the banks that, coupled with the above scenario, will be very destructive to both small business creation and expansion.

Many banks have already taken huge write downs on securitized assets and they face additional write downs on non-accruing and delinquent commercial real estate loans.

In the event the legislature fails to take action on this rule; the banks may face an even more difficult scenario. The rule will lead to significant losses of value on already originated acquisition and development loans.

The following scenario will serve to demonstrate:

Typically, a bank lends about fifty percent of the retail sell-out value of a parcel in development and acquisition funding. For instance, Developer "A" purchases a parcel that one expects to produce 100 lots at \$25,000 each for a total of \$2,500,000 in retail sell-out value. Banker "B" lends the developer \$1,250,000 towards the acquisition and development costs based on a fifty percent loan-to-value ratio.

Developer "A" obtains the necessary title work and closes the property, paying Seller "C". Developer "A" then begins the long trek to acquire regulatory approvals and permits and begins contracting for clearing and infrastructure work.

Unfortunately, while this has been going on, the market has had a tremendous shock and a precipitous drop in lot value. Conservative estimates would be that the lots are more likely valued at \$20,000 each. Developer "A" has lost twenty percent of his equity and the loan-to-value ratio of Banker "B" increased from fifty percent of retail to sixty-three percent of retail.

Meanwhile, Builder "D" has just been told he will have to add \$5,970 in storm water costs to each of the homes he builds. Builder "D" was already tight on producing a product at \$195,000 due to material and labor price increases, so he informs Developer "A" that he can only pay \$13,000 for each lot he purchases and still meet his target market.

Developer "A" has now lost another twenty-four percent of his equity and Banker "B" now has a loan-to-value ratio of ninety-six percent.

Many of us remember the credit crunch and real estate debacle of the mid eighties. It was the unintended consequence of changing the federal tax laws for depreciation that helped trigger the savings and loan crisis. This made many good loans bad and led to great costs and tremendous pain for the taxpayer.

A resulting problem during this time was the tough supervisory stance taken by federal regulators on commercial banks. These regulators forced banks to reclassify even accruing development loans as non-accruing, or likely losses, since the regulators marked down appraised value due to the special market environment. Any managing banker will tell you that this scenario is one of the greatest fears amongst banking in today's environment.

The banks fear this because it only leaves them two alternatives. The first alternative is to ask Developer "A" to pay down the development loan to adjust the loan-to-value ratio back to fifty percent of retail sellout. This requires the developer to pay down the loan by \$600,000, an unlikely possibility in today's economic environment. The second alternative is for the bank to foreclose or reclassify the loan. Regardless of their choice, the bank loses \$1,250,000 in capital. Therefore, they must either raise capital or pare lending by \$15,000,000 based on a loan/capital leverage factor of 12-to-1.

With the economic stress on banks, development, construction and small business already increasing, it may well be catastrophic to curtail bank lending to the extreme that this probability portends.

It is worth noting here that banks often choose to reduce assets to increase capital. In the event this possibility develops, you can be sure that every North Carolinian will be at risk for credit card limit reductions, higher auto and credit card rates, and calls on unsecured demand notes.

It is reasonable to postulate that this rule can be the "tipping point" that starts a "negative feedback loop" which leads to a liquidity crisis for small, medium, and regional banks. This will result in reduced consumer spending which leads to small business failure, large retail and service layoffs, reduced tax base for counties, and declining income tax receipts for the state.

Observations and Conclusions:

As one observes the published data of the Division of Water Quality, it is clear that urbanization and impervious surface are not the only probable causes for water degradation. Secondly, it is obvious that a reduction in the amount of pollutants at the source would improve water quality and place some responsibility on the polluter. After all, water is merely the means of conveyance, and not the source of the pollution.

It is unclear and inconsistent that storm water management is not listed as a general management strategy for control of fecal coliform bacteria in the DWQ published NC Water Quality Issues, yet it is the only "solution" criteria proposed in the rule.

Fairly, one can question the fact of whether there has been conclusive systematized study as to the correlation of impervious surface to shell fish closures, if an adequate body of science exists on salt water estuarine systems to positively identify pollutant sources, evaluate the long term impacts and recommend additional regulatory management tools. Further, questions remain as to the efficacy of the sweeping rule changes.

Obviously, DWQ believes that properly installed and maintained best management practices already in place and required for developed areas would likely result in improvement of shell fish waters. If DWQ is not inspecting these installations at inception and reviewing them for proper maintenance, why would it be appropriate to add new rules, requirements and costs

without first evaluating water quality after existing projects are in compliance from an installation and maintenance perspective.

Finally, it is useful to point out that existing study unanimously perceives water quality degradation begins at between ten and twelve percent coverage. Urban land uses contained in the sub-basins of the twenty coastal counties are consistently under ten percent of land area. Since urban land use is defined as “at least fifty percent covered by impervious surface,” it is feasible that impervious cover in the coastal counties sub-basins may actually be less than five percent, which calls into question the need for additional regulations across the twenty coastal counties.

In conclusion, it is clear that the need for new rules is questionable and certainly not advisable without further study by the Division of Water Quality. There is doubt about an urgent need based on the limited existing data and absolutely no assurance of a measurable improvement in water quality after the proposed rules take effect.

In contrast, there are absolute economic consequences which will further damage an already ailing housing industry, decrease housing affordability for Eastern North Carolina’s population, and place costly burdens on small business creation and expansion. If you take out the military, a few hospitals, schools, and large companies, small business is the “job engine” of rural Eastern North Carolina.

In as much as the unintended consequences could be catastrophic for Eastern North Carolina, harmful to its banking industry, and costly for every citizen of the state, one must judge that both the risk-reward ratio and the cost benefit analysis are unsatisfactory by any standard.

This is the wrong rule at the wrong time for the wrong reason. Worse, we will not get a second chance to get it right.