

**MINUTES - SPECIAL JOINT PUBLIC HEARING  
BOONE TOWN COUNCIL & BOONE AREA PLANNING COMMISSION  
MARCH 17, 2005**

A special public hearing was called to order at 5:30 p.m., Thursday, March 17, 2005, in the Council Chambers, 1500 Blowing Rock Road. Mayor Velma C. Burnley presided. Council members present were Mayor Pro-Tem Loretta Clawson, Graydon Eggers, Lynne Mason, Bunk Spann and Dempsey Wilcox. Planning Commission members present were Chairman Mary Ruth McRae, Mary Bolick, Stephen Phillips, Pat Vines, Skip Greene and Lee Wood. Staff present were Town Manager Greg Young; Town Clerk Freida Van Allen and Development Services Director John Spear.

**Case RZ2005-6 The Town of Boone** has initiated a zoning amendment to UDO Section 316 regarding off-line stormwater retention requirements. It is the purpose of this proposed amendment to repeal Boone's stormwater quality requirements. Development Services Director John Spear presented the following staff report:

**CASE # RZ2005-6**

*Staff: John E. Spear, Development Services Director  
Petitioner: Town of Boone*

**REQUEST**

*The Boone Town Council has initiated a text amendment to UDO Section 316. Drainage and Storm Water Management Design Standards. The purpose of this amendment is to repeal the Town of Boone's design standards for stormwater retention systems.*

**BACKGROUND**

*Increasing amounts of impervious surfaces are a by-product of increasing levels of urbanization. Impervious surfaces decrease the amount of rainfall naturally infiltrating into the ground which, in turn, results in increased stormwater runoff volumes and rates. This stormwater runoff carries various pollutants to our water resources. Stormwater management attempts to address these development related issues by requiring engineering solutions for the collection and transmission of stormwater flows into natural drainage systems or manmade drainage facilities.*

**ANALYSIS**

*The Town has been requiring plans for stormwater management with all new development activities for 20 years. The Town stormwater management program currently consists of two major components – retention and detention. Stormwater detention is geared towards the prevention and abatement of flooding and runoff related property damage resulting from increasing levels of impervious surfaces. Stormwater retention is geared toward the reduction of water quality degradation that results from various pollutants transmitted to natural drainage systems. Several years ago, the Town amended the stormwater section of the UDO to provide specific design criteria for construction of stormwater retention and stormwater detention facilities. The amendment also clarified the property owner's obligation for continued operation*

*and maintenance of impoundment or detention facilities, and, where facilities are located in common areas serving numerous owners, the establishment of a property owners association to ensure continued operation and maintenance. This approach to stormwater management is very common and accepted practice nationwide. More recently and largely based on program mandates from the Environmental Protection Agency, communities nationwide are recognizing the fact that various problems have been occurring with stormwater management programs. For example, many communities have no mechanism to ensure long term operation and maintenance of such facilities which, without proper maintenance, are prone to failure. Commercial property owners and established property owner associations are often times unaware of ownership and maintenance responsibilities. This is particularly true when property changes hands. This has lead to local governments taking a more active role in the operation and maintenance of stormwater facilities.*

### ***NPDES PHASE II - PROGRAM REQUIREMENTS***

*The Federal Clean Water Act is the basis for federal and state water quality programs. The EPA delegated North Carolina the authority to administer its National Pollutant Discharge Elimination System (NPDES) permitting program in 1975. The purpose of the program is to reduce pollutants in stormwater runoff. North Carolina's Department of Environment and Natural Resources (DENR) is the primary agency responsible for environmental protection programs including stormwater management. Stormwater management is primarily implemented through DENR's Division of Environmental Management. Phase I of the NPDES permitting process required all municipal areas with populations of 100,000 or greater to obtain a permit through the DEM to discharge stormwater. In addition, industrial land uses and state agencies such as NCDOT were required to comply with program requirements. The next step in the EPA's efforts to protect water resources is the NPDES Phase II program which expands program requirements to smaller municipal areas. Currently the Town of Boone is listed as a governmental entity to be examined by DENR for program designation. It is very likely that Phase II permitting compliance will be required. IF that happens, the Town will have to develop a program for stormwater management that complies with minimum control measures mandated by the state. These minimum control measures include:*

- 1. A program for public education and outreach;*
- 2. Public participation and involvement;*
- 3. Illicit discharge detection and elimination;*
- 4. Construction site runoff control;*
- 5. Post construction runoff control to address declining water quality; and*
- 6. A program to address pollutant runoff from municipal operations.*

*The Phase II draft permit language is extensive. The Town of Boone, like so many others already designated, will have to consider the budgetary impact of compliance with the NPDES Phase II program mandate. The Town will have to come to terms with the program approach that is best for Boone. Many programs are developed to meet minimum standards. Others are more progressive with many facets of the programs undertaken by the local government. This raises issues dealing with public and private obligations for program implementation. Financial implications for program compliance vary depending upon the approach taken by the local government. Because the Town has not yet been designated, no determination has been made*

regarding the Town's role in stormwater management.

### **STORM WATER RETENTION – CURRENT PROGRAM**

The design standard currently implemented by the Town to address stormwater quality differs from the design criteria set forth in the draft permit language for NPDES Phase II program. Like many other communities nationwide, the Town has not established a program for annual inspection and maintenance of installed stormwater management facilities. The Town has not yet performed an analysis of funding mechanisms available for administration of a stormwater program under NPDES Phase II program requirements.

## **CONFORMITY TO BOONE'S COMPREHENSIVE PLAN**

### **Plan Objectives**

The Town of Boone Comprehensive Plan has seventeen overriding objectives which provide overall direction for Town policies toward growth and development. One of the overriding objectives relevant to the relationship between land use and water quality is **4. Environmental Quality**, which states "Growth factors and activities that contribute to water, air, light, and noise pollution should be addressed". Another related objective is **10. Utilities/Infrastructure**, which states "Long range planning for water and sewer systems, stormwater runoff, natural gas, and other utility systems should be an integral part of the plan".

### **Plan Policies and Implementation Actions**

In addition, the Comprehensive Plan contains specific policies and action agenda relating to items which are relative to the issue at hand. These are listed below for your consideration.

#### **3. Utilities**

Narrative suggests that stormwater management is a "rapidly emerging" issue that will require planning involving "both financial and regulatory strategies". In addition, recommendations were made to develop regulatory standards "emphasizing on-site retention, ground water recharge of stormwater, and minimization of impervious surface areas" that would "minimize off-site stormwater flows".

#### **Policies**

2. Long range planning for possible stormwater collection and treatment system shall be supported, including the development of financial and regulatory strategies.

#### **Implementation Actions**

- F. Prepare a community-wide stormwater management plan, to include at a minimum: 1) recommended hydraulics, 2) revised development standards to reduce stormwater runoff, and 3) the establishment of a stormwater management "superfund" for the funding of future hydraulic system improvements and possible stormwater treatment plant.

#### **11. Environmental Quality**

Narrative states that "problems related to stormwater management, runoff and drainage were identified as a major ongoing issue in the Boone community – one that is expensive to correct". Language goes on to suggest that "a comprehensive drainage and stormwater management plan is needed" that would include surveying and mapping of the Town's drainage systems, consideration of utility fees and other funding alternatives, and the need to consider "innovative approaches to stormwater reduction".

#### **Policies**

11.3 *Runoff and drainage from development and agricultural activities shall be of a quality and quantity as near to natural conditions as possible, with special emphasis given to critical watershed areas.*

11.6 *Recognizing the economic and environmental costs of commercial and residential stormwater runoff, innovative stormwater management techniques such as permeable sidewalks, driveways, and parking areas shall be encouraged.*

### **CONCLUSION**

*The Town Council has recently expressed concern with the Town's current stormwater retention requirements in light of the impending NPDES Phase II program requirements. Based on this concern, the Council hired an expert in the field of stormwater management and the NPDES program to evaluate the Town's stormwater program and make recommendations for appropriate Town actions in preparation of NPDES Phase II permitting requirements. After his evaluation, the Town's consultant made numerous recommendations including the temporary suspension of the Town's current water retention/water quality design standards where those standards exceed minimum state requirements. In addition, the consultant suggested that the Town perform an overall assessment of the Town's stormwater management program. During this time, provision of water quality protection measures above the state's minimum requirements would be strictly voluntary. As recommended, a program audit would include an evaluation of the effectiveness of current stormwater installations, an evaluation of Low Impact Development approaches to stormwater management, assessment of funding sources for a potential stormwater utility, completion of an inventory of stormwater management facilities, and an investigation of the Town's role in the future maintenance of stormwater management facilities. After completion of the evaluation, the Town would be in a better position to assess those actions necessary for compliance with NPDES Phase II program.*

*UDO Section 316 [b] [4] text would need to be amended as follows in order to meet the Council's objectives:*

*[4] ~~In order to address storm water quality the first ½ inch of runoff the flow from off site. The system shall be designed with a provision to prevent floating debris from entering the retention facility. This facility shall be designed to recover its capacity within 72 hours. Sufficient geotechnical evaluation shall be performed to verify that groundwater will not impact the efficiency of the pr with a mechanism to permit cleaning to insure continued functioning of the system.~~*

*In addition to the "off line" retention, in-line **Stormwater** detention pre and post development hydrographs will be submitted that demonstrate no increase in flow leaving the site during the 10 year 24 hour storm. Inflow-outflow calculations shall also be submitted for any storm water detention ponds.*

Council member Mason clarified that the detention requirements will remain intact, while the Town studies the retention requirements. Mr. Spear agreed. Council member Clawson made the

following statement:

*The town of Boone is proposing to amend the UDO regulations pertaining to storm water retention in order to expand the use of more economical and efficient ways to retain runoff and to bring the UDO in compliance with State regulations. Current UDO regulations do not meet State standards, nor do they use the same standard of measurement for compliancy.*

*I have heard from some citizens who are concerned that, through this action, we might be causing problems with our drinking water and with flooding. I certainly recognize and appreciate these concerns.*

*But it seems we may have a program in place right now that creates more environmental problems than it helps.*

*The town is in the process of hiring a consulting engineer who has worked on town storm water issues since 1997 and has extensive experience and knowledge in the state program and regulations. I ask the Council to join me tonight in asking the engineer to include in his evaluations looking at the language in our UDO that deals with maintenance and easements as they relate to storm water.*

*As important, we need to ask the engineer to look closely at requiring more green space and other green "tools" to deal with water runoff. In these ways we can improve our water quality and reduce storm water runoff issues by filtering storm water runoff through natural vegetated systems.*

Commissioner Wood questioned if current Town regulations are more or less restrictive than State regulations. Development Services Director Spear said the Town's current regulations are more restrictive initially, but the end result is the same with both sets of regulations. Mr. Spear noted that the State should develop a model stormwater ordinance by October, 2005 and update its design manual. Council member Eggers asked when the basin-wide study would be implemented. Development Services Director Spear said it should be implemented by March, 2006 and then, once the Town receives an NPDES permit, it will have five years to implement the six minimum control measures. Council member Mason questioned if the new model ordinance will integrate federal regulations. Town Manager Greg Young said yes, it will contain language from the federal register. Council discussed at length public information for voluntary retention measures and possible credits for voluntary compliance. Commissioner McRae asked why the Town is terminating the retention program completely rather than revising the UDO language to relax requirements. Mayor Burnley responded that current regulations require retention facilities but no maintenance requirements on those facilities. Mr. Spear agreed that maintenance of retention facilities will be a huge responsibility and financial burden for developers and that the NPDES Phase II will require annual inspections of retention facilities. Mayor Burnley asked for public comment. Mr. Rob Holton felt the Town should review an entire stormwater collection system rather than individual systems. Mr. Holton said current regulations actually cause more pollution by retaining contaminated stormwater on the property. Mr. Jim Marsh said retention regulations increase the costs of development in Boone and that it is not conducive to affordable housing. Council discussed credits for low-impact developments,

such as using rain guards and filtering systems.

**ADJOURNMENT**

On a motion by Council member Mason, seconded by Council member Eggers, Council moved to adjourn the public hearing at 6:25 p.m.

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Town Clerk

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Mayor