

# Source Water Protection Plan

## City of Marion McDowell County

PWS ID # 01-56-010



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We would also like to thank Jay Frick, the NC Source Water Protection Coordinator for his leadership in putting this plan together. Also, the Source Water Assessment and Protection Report (SWAP) prepared by the North Carolina Public Water Supply Section (PWSS) provided an excellent resource for beginning the planning process. Another invaluable resource contributing to this effort was The North Carolina Source Water Protection Guidebook, Developing a Local Surface Water Protection Plan, made available by the PWSS in 2006.

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## Executive Summary

The City of Marion is located in McDowell County along the Catawba River Basin, at the eastern foot of the Blue Ridge Mountains in Western North Carolina. Marion is located just north of Interstate 40 approximately 35 miles east of Asheville and 20 miles west of Morganton, and serves as a gateway between the Mountains and the Piedmont sections of North Carolina. The City obtains its drinking water from three creeks located to the west of the City: Buck Creek, Mackey Creek, and Clear Creek. Mackey and Clear Creeks are in undeveloped and completely protected WS I watersheds, but Buck Creek is a WS II watershed where some development and recreational activities are allowed, so it is very important to the Town of Marion to protect Buck Creek with this Source Water Protection Plan.

This plan was drafted by a committee of local citizens and local officials (the SWP committee). The plan includes six recommendations to provide long term protection of the City's drinking water source and its immediate 26-acre watershed. The recommendations are as follows:

1. Address issues of water quantity during times of drought.
2. Control recreational activities around the intake. Reduce problems from straight-piping and/or failing onsite wastewater disposal.
3. Enlist the McDowell County Cooperative Extension as partner to distribute information regarding the centralization of pesticide-mixing stations and educating the public on how agricultural contaminants can have an effect on public water quality.
4. Establish community watchdog/citizen groups. Promote good stewardship of watershed through education and publicity. Acquire public awareness signage and signage regarding gas/oil leaks, swimming hazards, etc. Identify and initiate BMP implementation for hazardous waste, gasoline leaks, landscaping, etc.
5. Establish and maintain riparian buffers. Erosion, sediment control, and land disturbance control enforcement via dedicated city/county employee.
6. Develop a comprehensive written emergency preparedness plan including provisions for spill containment for the entire watershed.

The Committee strongly recommends adoption and implementation of this plan to help ensure the purity and adequacy of the drinking water drawn from Buck Creek. In addition to cleaner water, implementation of this plan will raise awareness in the community of the importance of the creek, sources of contamination and the creek's vulnerability.

Adoption of the plan may also make the City of Marion eligible for a low interest-long term (1%, 20 year) loan program through the NC DENR for purchase of the vulnerable and important properties along Buck Creek or the implementation of other important SWP strategies.

## Introduction

Source water is untreated water from lakes, streams, reservoirs, or ground water that is used as a drinking water supply. Source water quality can be threatened by many everyday activities and land uses, ranging from industrial wastes to chemicals applied to lawns. Source Water Protection (SWP) is the process of identifying and managing potential sources of contamination that may impact a drinking water supply. The ultimate goal of SWP is to prevent contaminants from entering a source of public drinking water.

The North Carolina Source Water Protection Program is a voluntary program designed to support local efforts to protect public drinking water sources. The Program is administered by the Public Water Supply (PWS) Section of the North Carolina Department of Environment and Natural Resources (DENR). A key feature of the Program is that each PWS system develops its own local SWP plan based on local conditions and priorities. The Program affords PWS systems a broad range of options for protecting their water supplies. It also provides information about funding and other resources available to support local protection efforts. The SWP Program encompasses both surface water and ground water sources of drinking water. Communities are encouraged to establish source water protection plans which include the following:

Step 1. Obtaining a copy of the Source Water Assessment Program (SWAP) Report: The 1996 amendments to the Safe Drinking Water Act provided federal support and required states to conduct assessments of all public water systems. A source water assessment is a qualitative evaluation of the potential of a drinking water source to become contaminated by the identified potential contaminant sources (PCS) within the delineated area. The PWS Section completed assessments for approximately 10,000 public water supply sources in the state of North Carolina. A copy of the SWAP may be found on the PWS website <http://www.deh.enr.state.nc.us/pws/>.

Step 2. Forming a local Source Water Protection Team: The SWP Team will develop and implement the local SWP plan.

Step 3. Conducting a Potential Contaminant Source Inventory: Identification of any potential contamination sources within the source water protection area.

Step 4. Developing Management Strategies: The goal of management is to minimize the potential for contamination to enter the drinking water supply. Management strategies may take the form of regulatory strategies (such as zoning or use permits) and/or non-regulatory strategies (such as education or household hazardous waste collection). The local SWP Team must decide what methods are appropriate for their PWS system.

Step 5. Developing a Contingency Plan: Develop an emergency contingency plan for alternative water supply sources in the event supply becomes contaminated and emergency response planning for incidents that may impact water quality.

Step 6. Developing a Schedule for Implementing and Updating the Local SWP Plan: Develop an implementation and maintenance schedule for the local SWP plan.

Step 7. Submitting the Local SWP Plan to the PWS Section: Submit the completed local SWP plan to the PWS Section for review and approval.

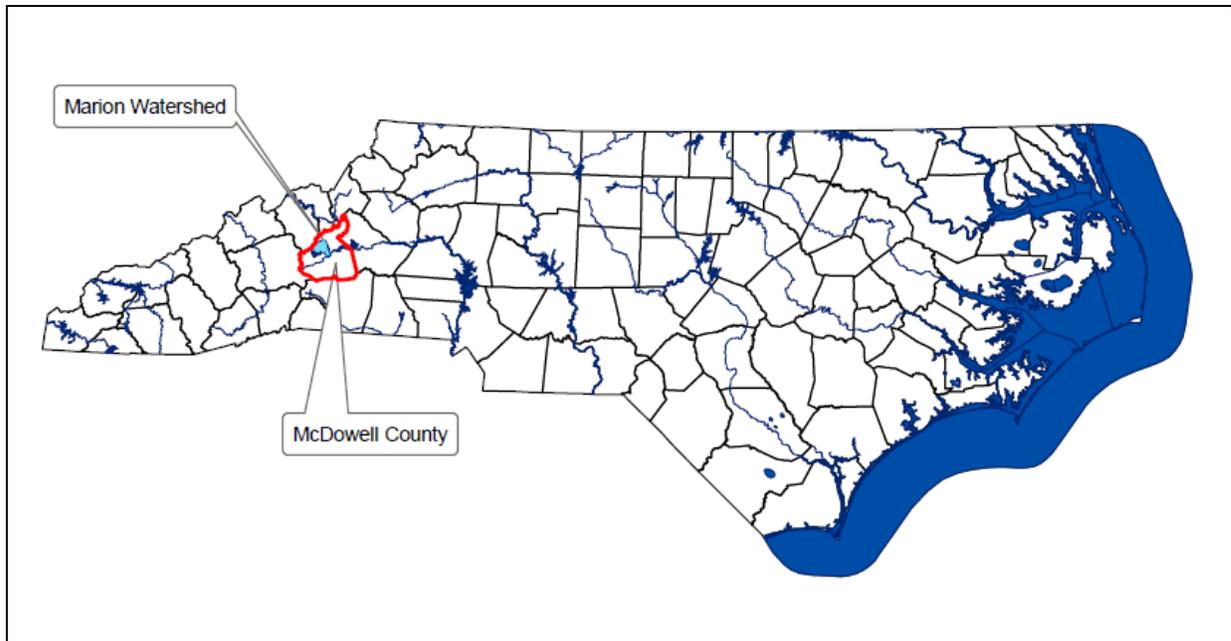
A copy of this plan should be forwarded to the Public Water Supply Section (PWSS) for their review and recommendations. The PWSS will provide the final approval for SWP Plans. Plans should be submitted to:

Source Water Protection Program Coordinator  
Public Water Supply Section  
1634 Mail Service Center  
Raleigh, North Carolina 27699-1634  
Phone 919-715-0827  
Fax 919-715-4374

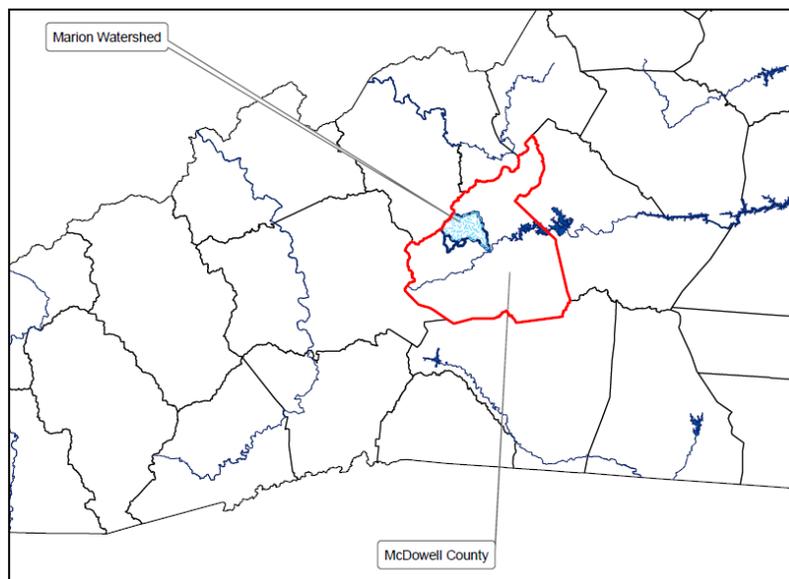
## The Source Water Assessment Program Report

A Source Water Assessment Program (SWAP) Report has been developed for the City of Marion's Water System by the NC Public Water Supply Section. Surface water sources can be threatened by many potential contaminant sources, including permitted wastewater discharges, urban storm water runoff, or other types of non-point source contamination such as runoff produced by agricultural activities and land clearing for development. A source water assessment is a qualitative evaluation of the potential of a drinking water source to become contaminated by the identified potential contaminant sources (PCS) within the delineated area. A SWAP Report consists of an assessment area delineation, a potential contaminant source inventory and map, a susceptibility rating, maps, tables, and figures for the surface water source, and a detailed description of North Carolina's SWAP approach. Marion's surface water sources consist of Buck Creek, Mackey Creek and Clear Creek. Their SWAP Report has assigned a qualitative susceptibility rating of moderate, based on a contaminant rating of lower and an inherent vulnerability rating of moderate. This rating process is described in detail in Sections 3 and 6 of the SWAP Report, which can be obtained from the NC Public Water Supply Section website. Mackey Creek and Clear Creek have been assigned Watershed Classification of WS-I by the Division of Water Quality. WS-I waters are those within essentially natural and undeveloped watersheds with no permitted point source (wastewater) discharges. Therefore, the primary focus for this Source Water Protection Plan is the Buck Creek Watershed area.

Source Name	Inherent Vulnerability Rating	Contaminant Rating	Susceptibility Rating
MACKEY CREEK	Moderate	Lower	Moderate
BUCK CREEK	Moderate	Lower	Moderate
CLEAR CREEK	Moderate	Lower	Moderate



Source Water Protection Plan Focus Area



The City's Water Plant was constructed in 1954 and can treat up to four million gallons per day (4 mgd). At present, four million gallons of finished water can be stored at the existing tanks on Summit Street, and 1,200,000 gallons can be stored in the clear wells located at the Water Filter Plant. Current water demand is about 1,600,000 gallons per day, meaning the City has about 3.5 days supply of finished water. The City water plant provides water to over 4,000 customers within the City and in areas outside the City.

The City obtains its drinking water from three creeks located to the west of the City: Buck Creek, Mackey Creek, and Clear Creek. The City's available water supply from these three creeks are as

follows: Buck Creek – 3 mgd, Mackey Creek – 0.84 mgd, and Clear Creek – 0.41 mgd. Therefore, the City's total available water supply is 4.25 mgd. water from Buck Creek is pumped to the Water Filter Plant for treatment, while water from Mackey Creek and Clear Creek flows by gravity to the Water Plant for treatment. The Department consists of the Water Plant Superintendent and three employees. Steve Miller serves as Water Plant Superintendent/Chief Operator. Treatment of the raw water consists of chlorine, alum and soda ash, and finished water is treated with chlorine, soda ash and flouride.

The McDowell County Watershed Ordinance governs the development of land located within the designated Public Water Supply Watershed areas. In McDowell County these areas are Buck Creek, Mackey Creek, Clear Creek, Lake Tahoma, and portions of South Muddy Creek and Shadrack Creek. All watershed areas have a 30 foot vegetative buffer measured from the top of the creek bank back. No land disturbing activity or under brushing may occur in these areas.

## Marion Source Water Protection Plan Committee

An initial meeting to discuss the Source Water Protection Planning process was held on December 3, 2008 in Marion. The meeting included representatives from the Public Water Supply Section, the Division of Water Quality, the North Carolina Rural Water Association, Lake Tahoma Homeowner's Association, the Division of Environmental Health, and the City of Marion and McDowell County.

It was agreed that the City of Marion would partner with McDowell County and proceed with the development of a comprehensive SW Protection Plan. An article about the Plan was published in the McDowell County News on March 24, 2009 (see Appendix). From this meeting and the press release publicizing the development of the plan, the following people came together as the Source Water Protection Committee. People attended meetings and contributed as they could. Almost everyone on the following list was kept informed about the progress of the Plan and given the opportunity to provide input by e-mail, whether they were able to attend meetings or not. Technical assistance was provided by the NC Public Water Supply Section and the North Carolina Rural Association as well as several other state agencies.

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### Marion Source Water Protection Plan Stakeholder Meetings



## Potential Contaminant Source Inventory

A Source Water Assessment Program Report prepared for the City of Marion's watershed indicates that there are no documented potential contaminant sources within the Buck Creek Watershed. That is, none appear in the available State and Federal databases. Physical windshield surveys of the Drinking Water Protection Area were conducted on several different occasions. These windshield surveys indicate that there are several activities or facilities within the area that cause concern. The potential contaminant source (PSC) inventory map shows the delineated area for the surface water source and the PCSs that, if released to the environment, could reasonably be expected to be a risk or a potential for contamination to the drinking water supply. An EPA example list of facilities or activities with the known potential to contaminate water sources was used as a guideline for the inventory. That list is in the Appendix.

**Table 4. Potential Contaminant Source Attributes  
MARION, CITY OF  
PWS ID: 01-56-010, BUCK CREEK**

Common Attributes

PCS Name	PCS ID	PCS Type	PCS Risk Rating	Street Address	City	Zip	County

**Septic Tanks** – The City of Marion's municipal sewage system service is available along Highway 70 at the intersection of Highway 80, so businesses and residents in that area in the lower part of the Buck Creek Watershed are connected to the system. Sewage service does not extend up Highway 80, so any residence or business above Highway 70 would rely on a private septic tank system to dispose of waste.

**Growth and Development** – There are some prime commercial properties along Highway 70, and water and sewer are available there, so it is anticipated that growth will take place in that area. As for Highway 80, which runs up into the watershed it is difficult to predict if or how much growth could occur there in the near future.

According to the 2004 Catawba River Basinwide Water Quality Plan, areas of highest water quality within the basin include the headwater segment of Mill Creek, and Buck Creek/Little Buck Creek.

The table below shows the potential contaminant sources (PCSs) listed in the order of the risk they might pose to the surface water intake. In determining this order, the PCSs' proximity to or likelihood that there is a direct pathway to the intake, quantity of contaminants on site, potential of health risk and history of compliance were taken into consideration. Risk was estimated and PCSs are grouped into categories of higher, moderate and lower risk.

**Potential Contaminant Sources.**

<b>PSC Site</b>	<b>Potential Contaminant</b>	<b>Quantity</b>
<b>Higher Risk Sources</b>		
RV Creekside	Campers 1 Septic Tank Fishing, Swimming, erosion very close to intake. Fuel Storage.	≈ 50 Campers
Farming along creek	Application of pesticides, pesticide mixing stations on bank, obvious spills, gasoline, etc.	Irrigation from Creek.
Buck Creek Campground Rt. 80	Septic tank?	48 Acres 74 Campsites 2 "Swimming Holes" in Buck Creek
Shrubbery Farms East side of Creek. M	Application of pesticides.	Irrigation from Creek.
<b>Moderate Risk Sources</b>		
Dam Lake Tahoma	Old Power Plant	
1 Stop Grocery SR 70 & 80	Possible old underground storage tanks.	
<b>Lower Risk Sources</b>		
L Triple C Campground	Camping along creek.	
Elliot's Trout Pond	Camping along creek.	
Mountain Stream RV Park	Camping along creek.	
Gibbs Motel Hwy. 70		NPDES Permit City Sewer now.
Amoco	Old Gas Station	
Shuford Lumber & Mulch		

PSC Site	Potential Contaminant	Quantity
<b>Lower Risk Sources (cont'd)</b>		
Substation		
Tom Johnson Camping Center	Parking lot runoff.	
Buck Creek Trout Farm		
J & T Auto Parts		NPDES Permit

**Agriculture** along Buck Creek and Route 80 is a major concern within the watershed. During the initial inventory process there were pesticide mixing stations observed where empty containers and possible spills were noticed very near the banks of Buck Creek upstream from the surface water intake, as can be seen in the pictures below.



**Recreational activities** on Buck Creek upstream from the City of Marion's supply consist of swimming, boating, fishing, camping, canoeing and tubing. This watershed contains many creek-side camp grounds and primitive camp sites, as well as a large baptismal pool at a local church, all upstream of the intake.

Located on property adjacent to the intake is a recreational vehicle campground which during the warmer months has a lot of swimmers and waders along the creek bank and near the intake. The City of Marion has posted signage to restrict swimming, wading and fishing around the Buck Creek Intake. The NC Administrative Code, Title 15 A of the Rules Governing Public Water Systems (RGPWS), Section 1201, limits this activity to an area outside of 50 yards up and downstream of the intake. Although this activity has been reduced there have been violations of this requirement by visitors and owners of the adjacent campground.



**RV Creekside. Buck Creek is just to the left.**



**From the water intake showing an access for swimming just downstream from the intake.**



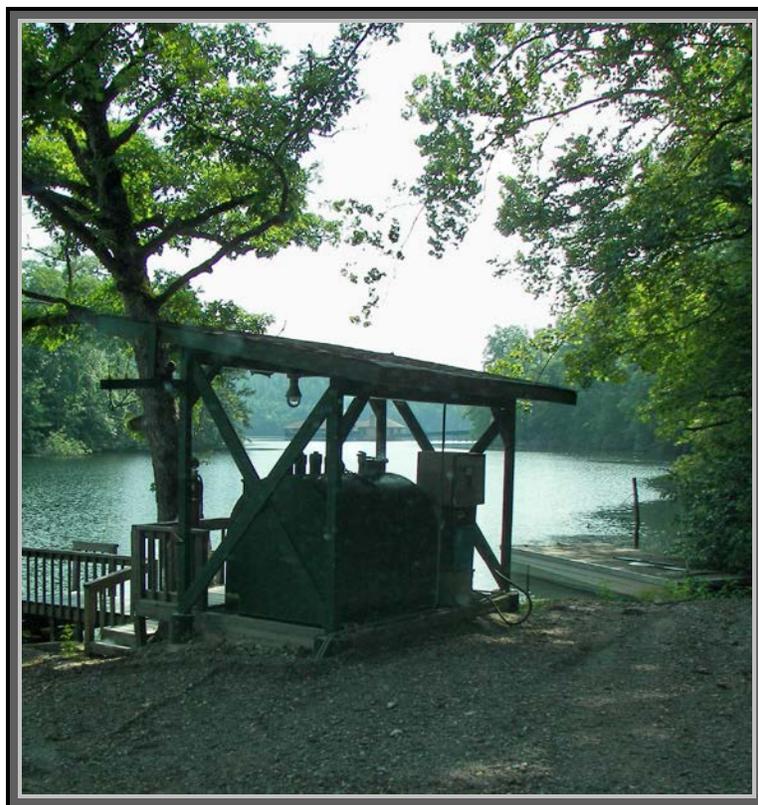
**Campground along Buck Creek.**

Along the upper reaches of Buck Creek there are a number of campgrounds. During recent investigations it was noted that some areas have primitive camp sites which are littered with trash and other debris. Other more established sites are heavily congregated along the creek banks which could be a source of pollution if adequate sanitation is not practiced.

Upstream of the intake is Lake Tahoma, which is owned and operated by the Lake Tahoma Homeowners association (HOA). Along the lake is a lot of recreational activity including boating, swimming, fishing. There are areas where people live and play along the shore line and have boat docks for access. There is also a fuel storage area for the re-fueling of motor boats.

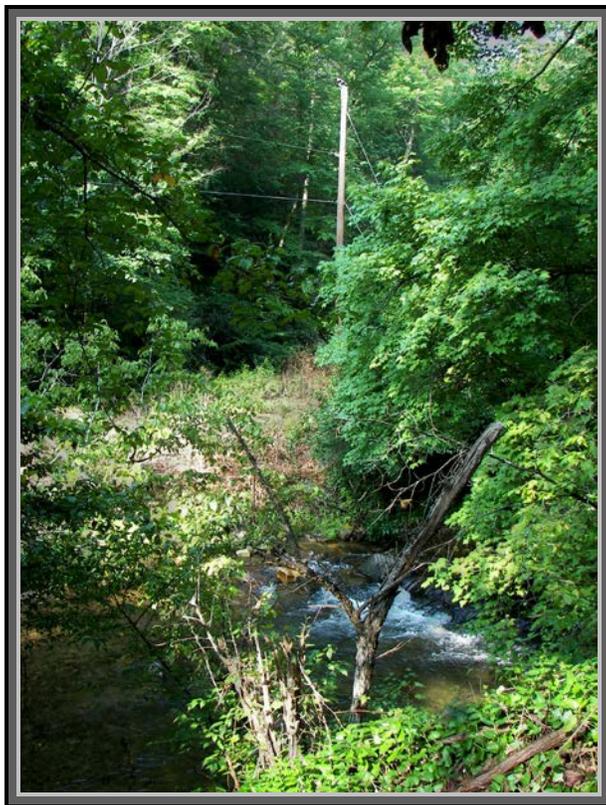


**Lake Tahoma.**



**Aboveground fuel storage tank on Lake Tahoma.**

**Spraying along Power Lines** It was noticed that Duke Power has been spraying underneath power lines throughout the Buck Creek Watershed. In some instances it appears that the spraying may have been directly into the creek.



**Area very near the creek where spraying has killed vegetation.**



**Baptismal area approximately two miles upstream from intake.**

## **Management of the Drinking Water Assessment Area**

During a succession of meetings held on February 17, March 17, April 7, May 26, June 29, and August 13, 2009, the Stakeholder Committee completed brainstorming activities to help them identify the major areas of concern within their drinking water assessment area and how they could best protect the water quality in the area surrounding the drinking water intake. Summaries of all the meeting's discussions are included in the Appendix.

The following questions were asked of committee members individually in a roundtable fashion. All the answers received were discussed and recorded and eventually prioritized by the committee members.

1. What activities could improve or protect the quality of your drinking water? What are the local issues regarding your source of water?
2. What do you see as major impediments to accomplishing source water protection objectives?
3. What strategies could make a protection plan dynamic? How can this effort be made "alive" and ongoing such that it has legs and gains momentum?
4. Positive promotion may attract others toward your objectives. How can your efforts best be promoted?

The prioritized solutions to perceived problems within the drinking water assessment area were combined into six major elements to become the management section of the Source Water Protection Plan. Once the Major Elements the stakeholder group wanted to address were identified, assignments were made to further refine the committee's ideas. Subgroups were asked to write up each element providing very specific descriptions of how each of the elements would be accomplished. The elements are listed on the following page and the specific procedure to accomplish each element follows.

### Summary of Major Elements:

<b>Element</b>	<b>Who</b>	<b>When</b>
<b>1. Develop water use agreement to mitigate water quantity issues on Buck Creek.</b>	City of Marion	Within 90 days of approval of the plan.
<b>2. Control recreational activities around the intake (e.g., swimming, fishing, disturbance of buffers). Reduce problems from straight-piping and/or failing onsite wastewater disposal.</b>	City of Marion, McDowell County, NC Wastewater Discharge Elimination Program (WaDE)	Has begun and will continue.
<b>3. Enlist the McDowell County Cooperative Extension as partner to distribute information regarding the centralization of pesticide-mixing stations and educating the public on how agricultural contaminants can have an effect on public water quality.</b>	City of Marion, McDowell County	Has begun and will continue.
<b>4. Establish community watchdog/citizen groups. Promote good stewardship of watershed through education and publicity. Recognize achievements and promote higher visibility of SWP activities. Determine creative ways to increase citizen involvement. Inspire and promote SWP activities that can be accomplished by local groups (schools, clubs, etc). Public awareness signage and signage regarding gas/oil leaks, swimming hazards, etc. Identify and initiate BMP implementation for hazardous waste, gasoline leaks, landscaping, etc.</b>	City of Marion	Within 90 days of approval of plan.
<b>5. Establishment and maintenance of riparian buffers. Erosion, sediment control, and land disturbance control enforcement via dedicated city/county employee.</b>	McDowell County	Has begun and will continue.
<b>6. Develop a comprehensive written emergency preparedness plan including provisions for spill containment for the entire watershed.</b>	City of Marion, McDowell County, NCPWS	Has been completed.

## **1. Develop water use agreement to mitigate water quantity issues on Buck Creek.**

The Marion raw water supply is vulnerable to fluctuations in the flow of Buck Creek. Natural factors such as the recent drought and agricultural withdrawals have heightened concerns regarding sufficient water reaching the Marion intake for treatment and distribution.

Agricultural withdrawal is probably the biggest issues regarding water availability for Marion. To ensure adequate water supplies, it is suggested that Marion initiate a voluntary water use agreement among commercial agricultural operations upstream from the Buck Creek intake. A voluntary approach is pertinent because current legal precedent in NC does not prohibit withdrawal for agricultural use.

The justification and framework for such an agreement already exists. Chapter 20 of Marion's City Code (Sections 20 through 48) has been amended to describe conservation procedures. However, the conservation procedures apply to treated water and not the raw source. It is reasonable to extend and apply the language from this ordinance to conserve water from the raw source.

The following steps outline specific action items to create a voluntary water use agreement:

### **A. Data collection.**

Ability to quantify the impact conservation measures have on water reaching the intake is vital to legitimize and adjust provisions in the agreement. A simplified water balance model will likely suffice, with stage and flow correlated as a function of upstream conditions.

Flow = input – withdrawals. A flow estimate taken at the Lake Tahoma Dam may suffice for the input. Withdrawal rates can be roughly calculated from the pumping records of the agricultural users (e.g., pumping rate x hours of operation). Obviously, data collection is dependent upon voluntary participation by Lake Tahoma HOA and the commercial agriculture users, so these groups should be enlisted as partners early in this process.

Continuous measurements (stage and flow) are required near the intake to correlate the simplified model. Several off-the-shelf flow meters are readily available. A contact to assist selection of a flow device is Dr. George Chescheir, Biological and Agricultural Engineering Department, NC State University (cheschei@eos.ncsu.edu).

#### **Step A: Budget and Time line.**

A minimum budget of \$4000 is estimated for the flow meter. Ideally, a spare flow meter should be available since the agreement will hinge on quantified water-use projections. A minimum of 12 months data will be required to develop crude statistical correlations. Compilation of any existing records may be helpful. Data collection should be considered an ongoing process. The NC Division of Water Resources may be able to assist with the water balance (potential contact Steve Reid, Section Chief, 919-715-5424).

### **B. Draft the Agreement.**

The central strategy depends upon good faith efforts of the major partners. At a minimum, an agreement should reflect the following:

Lake Tahoma HOA – willingness to adjust water released from the lake upon request from the city. Willingness to share data.

Agricultural Users – willingness to minimize water withdrawals, and/or adhere to a “staggered withdrawal” schedule where competing users alternate during times of low flow. Willingness to share data, including projected irrigation demands. Willingness to define a range of withdrawals acceptable to sustain crops.

City of Marion – willingness to project times when minimal flow conditions will likely occur and willingness to swiftly engage conservation procedures as specified by City Code, Chapter 20. Willingness to share data, information, and projections regarding water availability.

Language contained in a formal agreement will depend upon cooperation and ideas from the partners. In general, the agreement should be tiered and based upon flow as measured at the intake. A model agreement regarding the Eno River is available online and can be used as a model:

[http://www.ncwater.org/Permits\\_and\\_Registration/Capacity\\_Use/Eno\\_River\\_Management/management.php](http://www.ncwater.org/Permits_and_Registration/Capacity_Use/Eno_River_Management/management.php)

Tier 1. Flow meeting city’s needs but projected to decrease (e.g., “Water Shortage Advisory” appears imminent). Suggested management actions: PR messages asking public to conserve, increase water released from Lake Tahoma, alert agricultural users that conditions exist to warrant reduced withdrawal.

Tier 2. Flow not meeting city’s needs (e.g., “Water Shortage Alert” is issued). Suggested management actions: Continued PR messages asking public to conserve and prepare to ban Class 3 uses. Agricultural withdrawals must be limited in accordance with predetermined schedule.

Tier 3. Flow not meeting city’s needs (e.g., “Water Shortage Emergency” is issued). Suggested management actions: Continued PR messages asking public to conserve and prepare to ban Class 2 and Class 3 uses. Lake Tahoma should release the maximum water possible. Agricultural withdrawals must be minimized in accordance with predetermined schedule (e.g., minimal water necessary to ensure survivability of agricultural crops).

#### **Step B: Budget and Time line.**

Partners should be assembled and discussions taking place simultaneous to data collection in step A. Focus should be on shared responsibility and alternate ideas to mitigate water quantity issues.

**2. Control recreational activities around the intake (e.g., swimming, fishing, disturbance of buffers). Reduce problems from straight-piping and/or failing onsite wastewater disposal. Review recreational plan for Lake Tahoma.**

Recreational activities on the City of Marion's, Buck Creek supply consist of swimming, boating, fishing, camping, canoeing and tubing. The watershed contains many creek-side camp grounds and primitive camp sites, as well as a large baptismal pool at a local church, all upstream of the intake.

The water supply intake is located just below the Hwy 70 Bridge in the Pleasant Gardens community of McDowell County. Co-located near the intake is a recreational vehicle campground which during the warmer months has a lot of swimmers and waders along the creek bank and near the intake. The City of Marion has posted signage to restrict swimming, wading and fishing around the Buck Creek Intake. The NC Administrative Code, Title 15 A of the Rules Governing Public Water Systems (RGPWS), Section 1201, limits this activity to an area outside of 50 yards up and downstream of the intake. Although this activity has been reduced there have been violations of this requirement by visitors and owners of the adjacent campground. The City of Marion will need to continue to monitor and police this activity in and around their intake and work with McDowell County to enforce current ordinances pertaining to the protection of this intake.

Approximately two miles upstream of the intake is a baptismal pool located in Buck Creek at a local church near the intersection of Hwy 80 north and Bills Creek Road. At the current time this area is well maintained and in excellent condition, however the area should be monitored to insure cleanliness and good sanitation at the site.

The Lake Tahoma HOA oversees all recreational activities along the lake to include restrictions on boat motor size, sanitation actions to be taken, and setbacks along the shoreline. It also oversees what can be built in this waterway. The Lake Tahoma HOA has provided copies of their use plans for the lake area. The following memo addressing Potential Contaminant Sources on Lake Tahoma, and their management was sent by Lake Tahoma, Inc. Copies of Exhibits A, B, C, and D to which it refers are included in the Appendix.

**LAKE TAHOMA, INC.**  
**P. O. Drawer 1330**  
**Marion, NC 28752**

AUG 21 2009

**Telephone: (828) 652-2844**

Date: August 19, 2009

To: Mr. Ray McCall  
Marion Source Water Protection  
Environmental Health  
2090 US Highway 70  
Swannanoa, NC 28778

From: Lake Tahoma, Inc.  
W. Hill Evans, Sec/Treas

Re: Lake Tahoma and water quality

This memorandum is prepared to give you information about Lake Tahoma, Inc. and our Rules and Regulations which we believe also help protect the public water source for the City of Marion passing through Lake Tahoma.

Lake Tahoma, Inc. is a private corporation owned by 51 stockholders. Each stockholder of Lake Tahoma, Inc. owns a lot at Lake Tahoma. Lake Tahoma, Inc. owns approximately 3,000 acres which include the lake.

The dam was purchased and is owned by Buck Creek Corporation, a separate corporation with separate officers and a separate Board of Directors. Buck Creek corporation owns the dam and property surrounding the dam.

Information which I feel will be helpful includes the following:

- 1) The restrictions contained in the deeds to all stockholders who own land along Lake Tahoma are attached as Exhibit A.
- 2) The Building Regulations are attached as Exhibit B.
- 3) The Hunting, Fishing, Boating, and Swimming Regulations are attached as Exhibit C.
- 4) Miscellaneous Regulations are attached as Exhibit D.

The Casino septic system is new and pumps septic to the top of the mountain across Highway 80. If you hear reports water is spilling underneath the Casino, it is the overflow of the ice making machine and is not an environmental issue.

At periodic times, Lake Tahoma has checked the septic systems of all the stockholders by putting dye in toilets and making sure none is flowing into the lake. In addition, the Board of Directors has readily granted septic easements to stockholders with septic problems to create new septic systems on Corporate land away from the lake.

August 19, 2009  
Page 2

Only two stockholders do not have boat docks and only four stockholder do not have houses. There will not be much additional development at Lake Tahoe.

We have a full time caretaker who patrols our property and enforces the rules. I hope this information is suitable for your purposes.

Very truly yours,

A handwritten signature in black ink, appearing to read 'W. Hill Evans', written over a horizontal line.

W. HILL EVANS  
Secretary/Treasurer

**Wastewater Discharge and Elimination (WaDE)  
Division of Environmental Health  
Program Report on Survey Outcomes in McDowell County  
Buck Creek Watershed  
From August, 2005**

WaDE Program Environmental Technician conducted a door to door survey in the Buck Creek watershed from July 27, 2005 until September 1, 2005. The surveyors knocked on 221 doors and completed septic system surveys at 144 sites. No one was home at the 77 other sites. Of the 144 completed surveys 40 violations were discovered including 5 black water discharges to stream, 1 black water to surface, 1 failing septic system to stream, 7 failing septic systems to surface, 15 grey water discharges to stream, 9 grey waters to surface, 1 unpermitted out house and a septic tank with a broken septic tank lid.

Currently 29 of the 40 violations have been corrected, 6 remain unresolved, 5 motor home camp ground sites have discontinued use of improper discharges and the broken septic tank lid was replaced.

Beginning at Hwy 221 surveyors worked from the lower end of Tahoma Lake Rd. (Hwy NC 80) up to the Blue Ridge Parkway and also visited all side roads along Hwy NC 80 including Sugar Cove, Locust Cove, Jumping Branch Rd., Little Buck Creek Rd. a portion of Tom's Creek Rd., Holly Ridge Rd, and Gowan Loop Rd. The WaDE Program has no immediate plans to follow up on the 77 un-surveyed sites until McDowell resolves the current violations from the 2005 survey. The WaDE Program is assisting McDowell County Health Department to resolve the outstanding violations including the offering of financial assistance to low-income homeowners in need of septic system repair.

T. Jones 08/28/2009

**3. Enlist the McDowell County Cooperative Extension as partner to distribute information regarding the centralization of pesticide-mixing stations and educating the public on how agricultural contaminants can have an effect on public water quality.**

Dr. Dan Smith, with the Cooperative Extension has agreed to be the contact to address this item. The Cooperative Extension is an educational agency and an outreach of NC State University. Dr. Smith also represents McDowell County. An assessment of the Buck Creek Watershed has been completed and work is beginning on demonstrations promoting Best Management Practices (BMPs) within the watershed such as rain gardens. Dr. Smith is also the pesticide coordinator for McDowell County and does pesticide education classes for all the farmers in the county for certification for restricted use pesticides. He works with farmers on production practices helping them economically with a successful business as well as environmental protection. He helps with soil testing, BMPs, using the correct amount of fertilizer, and pesticide education, etc. Vegetable farmers are probably the most intense of the farmers in the watershed. There is some pastureland, a few corn farmers and shrubby farms for landscaping. In the past, there has been work with local cattlemen on BMPs such as fencing cattle from streams and water crossings and putting in waterers.

The Cooperative Extension provides a wide range of educational services for farmers. Dr. Smith knows some of the farmers within the watershed and has worked with them to get pesticide problems (containers) cleaned up. It was thought that the farmers did not realize the magnitude of what could have happened had the containers somehow gotten into the creek. In most cases the areas of concern had been cleaned up when another physical survey of the farms was conducted. Dr. Smith and Chris Hollifield plan to coordinate activities to protect water quality within the watershed, such as identifying farms where they will talk to farmers about BMPs that they could initiate including buffers, soil testing and proper pesticide storage to help protect the watershed. Dr. Smith also plans to incorporate water quality protection into his pesticide education courses.

The only requirement for a license for a farmer is for restricted use pesticide. One person is required to be licensed on a farm. They are liable for anyone applying under their license and worker protection is the emphasis. Through education the Extension can encourage mixing away from the bank of a stream or putting some type of barrier down between the station and the water. Applicators are supposed to have backflow prevention on equipment to prevent flow back into the creek when using that water to mix chemicals.

The Natural Resources Conservation Service (NRCS) is another resource. They have cost share funds for agriculture BMPs and can cost share up to 75% and 90% for projects within a water supply watershed. The possibility of putting in a spray mixing/loading shed for the vegetable farmers in the area has been discussed so that a spill is immediately contained and there is pesticide storage.

Bilingual education for farmers was questioned and it has been discussed. If a translator is needed to get the message across, they are available. It is thought that translation is not really necessary in this watershed. There are 6 – 8 large produce farms in the county operated by Hispanics and most speak pretty good English.

Spanish language publications for education were discussed and it was thought that it would be a good idea to either research what is available or create some to address specific problems in this watershed. The City of Marion has two translators available for that purpose. Specific items

might include maintaining buffers along streams, applying fertilizers according to soil tests and keeping pesticides from entering the water.

**4. Establish a Citizen Action Group trained to identify and report on hazards within the Buck Creek Watershed, promote good stewardship of watershed through education and publicity and recognize achievements of SWP activities. Post public awareness signage and signage regarding gas/oil leaks, swimming hazards, etc. Public awareness signage and signage regarding gas/oil leaks, swimming hazards, etc. Identify and initiate BMP implementation for hazardous waste, gasoline leaks, landscaping, etc.**

The Buck Creek Source Water Protection Plan recommends the establishment of a Buck Creek Citizen Action Group (CAG). This group would be primarily made up of residents and landowners of the Buck Creek area. The level of watchfulness is important to the protection of the creek because these people are on-site at the creek and stand the best chance of seeing a potential threat to source water as soon as possible. As this CAG is formed the following items must be addressed:

1. The CAG should identify a champion, within the watershed, who can lead the group. The CAG should take nominations of people willing to serve and then take a vote. This leader could rotate as the CAG progresses.
2. Training must be provided as to possible threats to our source water.
3. The CAG must establish an avenue for reporting threats and potential threats.

The timeframe for this group to be established should begin at the time of the completion of the SWP planning stage and be completed within 90 days of the plan approval. There should be very little to no cost to implement this action item.

The Plan also recommends establishing an avenue to promote good stewardship of resources with regard to the quality and quantity of source water as well as recognizing SWP activities. The best method to spread the word about BMP's and to celebrate victories is through education and publicity. This action item is important because it is the "voice" by which the residents hear of the items going on to protect our source water. The following items could be implemented with very little to no cost:

1. Post BMP for water quality and quantity on both the City and County websites.
2. Run "mini TV spots" for water quality and quantity, on both the City and County TV stations.
3. Periodic BMP posted in the McDowell News with regard to water quality and quantity.

This action item would require the City, County, & Agriculture Extension to work together to develop the BMP's and then very little work to implement. The timeframe for this action item could begin immediately and be completed within 90 days of the plan approval.

The Plan recommends developing a way to increase citizen involvement, either through local clubs, churches, and or schools. This action item is critically important to sustaining the life of SWP for Buck Creek. Citizen involvement is the vehicle by which the program grows legs and begins to stand on its own. McDowell High School, the local high school, sponsors an Environmental Club which is continually looking for “field” activities to use for education of club member students. This club should be included in any activities to promote or implement SWP measures. The school has been contacted, a club point of contact has been made as Ms. Coleen Hester, and they are interested in participating. Further contacts will be made to reach churches and other local clubs. This item will require leg work and not a large amount of cost.

The Plan also recommends posting signage along the main routes within the watershed to notify motorists that they are traveling within a protected drinking water watershed. This item ties directly with the public education leg of SWP. It is critically important for the public to know how to respond when a water threat occurs. A letter requesting the mentioned signage has been sent to NCDOT and a reply should be forth coming. The signage will be placed at entrances to the SWPA and will state that the area is a protected drinking water watershed and provide will spill response information as well. The City of Marion is absorbing the cost for signage.

The final recommendation from the Plan deals with identifying BMP implementation for hazard waste, gasoline fuel leaks, and landscaping. This action item is important to SWP because these three represent the majority of potential threats to source water in this watershed. This item will require the most cost of any other action item within the education/outreach umbrella. It will be important that collaboration occurs between this action item and the focus on agricultural impacts. The timeframe for this item could begin immediately.

**It was observed during one of the physical surveys of the watershed that Duke Energy had been spraying underneath power lines very close to Buck Creek. The following is a response to request for additional information regarding the spraying.**

During our application process, there is an initial herbicide application by means of selected low volume backpack treatment. This initial application is performed approximately one year after the right-of-way has been mechanically maintained and while the underbrush is still fairly low in height. Our program then calls for a follow-up application two years later and then a 4 year maintenance cycle after that. We strive to target only problem selected vegetation. Since our application is accomplished by treatment of the foliage of the targeted plants, the mist may “blow through the crown of the stem and reach the other groundcover that may lie underneath and around the targeted stem. Our pesticide applicators hold pesticide licenses in both Carolinas.

The products we utilize in our foliar mix are approved the Environmental Protection Agency (EPA). The EPA leads the nation's environmental science, research, education and assessment efforts. The mission of the Environmental Protection Agency is to protect human health and the environment. Since 1970, EPA has been working for a cleaner, healthier environment for the American people. They are the clearinghouse for approvals on the use of all herbicides. The three herbicides Duke Energy has chosen to use in their mix are the most environmentally available and work exceptionally well in conjunction with one another to provide excellent control of problem species with minimum amount of product use. The products are applied by men with backpack sprayers in order to provide the most direct application to those species that are not compatible with the power lines while other compatible vegetation can be left to flourish. Although there may be a significant amount of browning foliage following the application, we have found that the resulting right-of-way in the years after application is very desirable by both our customers as well as from a utility perspective. Our desire is NOT to eliminate vegetation from underneath the lines, but to eliminate those trees that could grow high enough to interfere

with your electrical service and also encourage those species of plants that will never cause problems. Our herbicide program at Duke has been recognized by the EPA's Pesticide Environmental Stewardship Program (PESP) for its use of environmentally acceptable herbicides as well as the extremely low quantities of herbicides required to accomplish the necessary control.

The herbicide mix we use is comprised of approximately 95% water. The predominant herbicide in the mix is Accord Concentrate, which has the same active ingredient as the most widely used herbicide in the world and also frequently used by homeowners (Roundup). The percentage of Accord Concentrate in our mix is 3.1%. The additional two products used are Arsenal Powerline @ ½% and Milestone @ 1/3%. All three of these products have very low animal toxicity. The products are licensed for use in North Carolina by the NC Department of Agriculture. The NC Department of Transportation has approved the use of the products on the rights-of-way which we share with them along the highways of our State.

#### **5. Establishment and maintenance of riparian buffers. Erosion, sediment control, and land disturbance control enforcement via dedicated city/county employee.**

##### **McDowell County Watershed Procedure**

The McDowell County Planning Department in conjunction with McDowell County Building Inspections has implemented a system to register all property that is developed within the designated Watershed areas of McDowell County. A Land Development Permit was developed to accompany all Building Permits. The permit covers all aspects of development including asking if the property is in a watershed. The applicant and a Building Inspector or the Planning Administrator must sign off on the permit before it can be issued.

If an applicant is within a designated Watershed they are required to fill out a Watershed Permit. The permit is required in all instances where land disturbing or building activity will occur in the Watershed. The permit asks for the watershed classification, the total acreage involved in the project, and the type of work to be done. This allows the Watershed Administrator to explain all rules that govern land development in that area, calculate built upon area, and requires the land owner to sign the document demonstrating they have been apprised of and fully understand the rules and their responsibility for development in the Watershed. A copy of both of these permits is included in the Appendix.

In addition to these two administrative tools, McDowell County Building Inspections and Planning Department work together in patrols of the watershed area. With the amount of time Building Inspections spends out in the field, they are well aware of activity in and around the watershed. Each Inspector is educated on the Watershed areas of the county and typically knows the areas that have been permitted for development. In each case the Inspector contacts the Watershed Administrator to make sure the area in question has proper permits.

**McDowell County's Watershed Ordinance** governs the development of land located within the designated Public Water Supply Watershed areas. In McDowell County these areas are Buck Creek, Mackey Creek, Clear Creek, Lake Tahoma, and portions of South Muddy Creek and Shadrack Creek. All watershed areas have a 30 foot vegetative buffer measured from the top of the creek bank back. No land disturbing activity or under brushing may occur in these areas.

A complete copy of the Watershed Ordinance can be obtained on McDowell County's website <http://mcdowellgov.com/>

**6. A comprehensive written emergency preparedness plan including provisions for spill containment for the entire watershed.**

**Emergency Operations Plan  
City Of Marion, North Carolina**

**Plan Summary**

The Marion Emergency Operations Plan establishes a comprehensive framework of policy and guidance for multi-hazard preparedness, response, recovery, and mitigation operations. The plan details authorities and responsibilities of each of the City's departments during a storm/emergency event. The plan describes a system for the effective use of the City's resources necessary to preserve the health, safety, and welfare of those persons affected during various emergencies. The plan also serves as the foundation for the maintenance of detailed standing operating procedures to implement City response and recovery activities efficiently and effectively.

*Purpose*

The purpose of this plan is to provide a plan of action to meet the need of handling emergencies requiring the coordinated efforts of the city departments, other government agencies, and support organizations to quickly and effectively deploy personnel, equipment, and resources to minimize the effects of a disaster and to provide assistance to the citizens of the City of Marion. The plan will be used to train and educate the City's staff about what will be expected of them before, during, and after a major storm event in Marion. The staff will be able to use this plan as a step-by-step guide in preparing for, responding to, and recovering from these events. All town staff should review this plan and the McDowell County Emergency Operations Plan on a regular basis to become familiar with these plans.

**Scope**

This plan is designed to address major storm events that could adversely affect the City. The plan applies to each of the City's departments. Each function is assigned to a City department, which has been selected based on that department's authorities, resources, and capabilities in a particular functional area. It describes the fundamental policies, strategies, and general concept of operations to be used in control of the storm/emergency from its onset through the post disaster phase.

**Plan Maintenance**

***It shall be the responsibility of the City Manager or his/her designee to coordinate periodic review and update of this plan. In addition to this periodic review, the plan should be reviewed after the occurrence of any event where the plan or a portion thereof has been activated.***

*Geographic/Demographic Profile*

The City of Marion is located in the foothills of the Blue Ridge Mountains of Western North Carolina. It is a small community centrally located in McDowell County and serves as the county seat. Marion is approximately 4.7 square miles in size and is bounded by the Catawba River to its north and the US Interstate 40 corridor to its south. The City is situated at the crossroads of three other major transportation routes including US Highway 70, US Highway 221 and US Highway 226 that serve as corridors between the Mountain Region and Piedmont Region.

The state's largest city, Charlotte, is approximately 96 miles to the east, and two other large urban centers, Asheville and Hickory, are both within 40 miles of Marion.

Based on figures from the NC Office of State Budget and Management, Marion had a population of 6,289 in 2005 representing a growth of 27 percent since the last decennial census. According to the 2000 Census, Marion had a population of 4,943, which comprised of 2,146 households and 1,283 families residing within the city. The median age was 40 and the population under the age of 18 as well as those 65 years of age or older each represented 21 percent of the population. Marion's growth within the last five years can largely be attributed to the physical expansion of Marion's municipal boundaries as a result of annexation.

#### *Land Use*

The pattern of development in Marion is that typical of rural small towns, with a mixture of residential, commercial, industrial and institutional land uses. The City is comprised of distinct residential neighborhoods, a central business district, highway commercial areas, a hospital/institutional area and isolated industrial and institutional sites. The City is characterized by medium to high densities; with limited vacant land remaining that is suitable for development.

#### *Hazard Analysis*

As a result of its geographic location, topography, air traffic systems, and growing community, the City of Marion can assume itself vulnerable to the following types of natural and man-made disasters.

- A. Tornadoes
- B. Flooding
- C. Ice/Snow
- D. High Winds
- E. Earthquakes
- F. Hazardous Materials and Transportation Accidents
- G. Highway Accidents
- H. Utility Problems
  - 1. Water Contamination
  - 2. Power Interruptions
  - 3. Communication Interruptions
- I. Nuclear Accidents
  - 1. Warfare
  - 2. Power and other Commercial
- J. Chemical Spills
  - 1. Farm Supplies
  - 2. Water Treatment
  - 3. Light Industry
- K. Major Fires
  - 1. Commercial Downtown Area
  - 2. Large Manufacturing Plants
  - 3. Bulk Storage (Flammable Liquids)
  - 4. Prisons
- L. Terrorist Activities
  - 1. Bomb
  - 2. Chemical/Biological

- 3. Radiological
- M. Civil Disturbances
- N. Others

In the event of any of the above disasters occurring in the City of Marion or surrounding areas, the city can expect to face the need for restoring order, repairing the City's infrastructure, major cleanup, and assisting with the provisions of shelter, food for a large number of evacuees or casualties. The City can be isolated for an extended period of time in the event of a nuclear accident or attack. Parts or the entire City can be isolated for several days as a result of disasters, such as wind/ice/ snow storms, earthquakes, and major fires or explosions.

The occurrence of any one or more of the emergency/disaster events previously listed could impact the City of Marion severely, and include several of the following consequences:

- Loss of electrical power
- Severance of road/highway network
- Necessity for mass care and feeding operations
- Evacuation of people from the City
- Need for debris clearance
- Multiple injuries and fatalities
- Drastic increase in media attention
- Damage to the communications network
- Economic impact
- Need for official public information and rumor control
- Need for State or Federal assistance
- Need to evacuate City resources
- Re-entry of essential personnel and equipment
- Re-entry of the public
- Damage to vital records
- Need for damage assessment
- Need for auxiliary power
- Contamination of private wells
- Over taxing local resources
- Need for additional staffing
- Loss of or damage to facilities vital to maintaining essential services
- Adverse environmental impacts
- Need to effectively manage reconstruction
- Coordination of staged resources
- Damage to historical sites
- Isolation of population
- Destruction of parts or all of the City

The severity of problems resulting from a storm/emergency event will depend on factors such as time of occurrence, severity of impact, existing weather conditions, area demographics, and nature of building construction. Collateral events such as fire, floods, and hazardous materials incidents will also increase the impact on the community, multiply property losses, and hinder the immediate emergency response effort.

It is necessary for the City to plan for and to carry out disaster response and short-term recovery operations utilizing local resources; however, it is likely that outside assistance would be necessary in most major disaster situations affecting the City.

Officials of the City are aware of the possible occurrence of a storm/emergency event and they have acknowledged their responsibilities in the execution of this plan and will fulfill these responsibilities as needed.

### **Plan Activation**

The City of Marion Emergency Operations Plan will be activated when a storm/emergency event has occurred or is imminent. The **City Manager** will be responsible for plan activation. Once the plan has been activated, all City personnel will be responsible for reporting to their assigned base of operations and beginning their pre-event roles and responsibilities as laid out in the plan if such preparations have not already begun.

This plan does not account for every possibility that may arise during a storm/emergency event. The level of activation of this plan will depend on the magnitude of the situation. Employees should use their judgment when following the guidelines laid out in this plan. Employees will be expected to fill whatever role is needed of them if this plan is activated. Once this plan is activated by the City Manager all approved leave time, training, and travel is rescinded.

### **Local Preparedness**

#### *Coordination with the State and Other Local Governments*

The City of Marion has entered into the North Carolina State Mutual Aid Agreement, which will allow Marion to receive aid from other participants in this agreement during emergency situations. The City of Marion, through its Police and Fire Departments, also has in place mutual aid agreement with other units of government and volunteer fire departments in McDowell County and surrounding counties.

These agreements will provide resources that the City will depend on during a storm/emergency event. The City recognizes that the State has emergency resources and expertise beyond the capabilities of local government. These resources can and will be used to relieve emergency or disaster related problems. Federal agency resources and expertise can be mobilized to augment local and state efforts in relieving emergency or disaster related problems that are beyond the capabilities of both state and local governments.

In order to better coordinate with Federal, State, and other local governments, the City hereby establishes the National Incident Management System (NIMS) as the City standard for incident management.

City staff will be required to complete the required NIMS and Incident Command System (ICS) training by federally established deadlines. A list of the training that will be completed by position is included in the appendix.

**CITY OF MARION**  
**EMERGENCY OPERATIONS PLAN**

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**PART IV  
WARNING AND ALERT LIST**

**City Administration**

Bob Boyette	City Manager	(H) 659-9988 (M) 442-6977
Harriett Thomas	Finance Director	(H) 652-5516
Debi Sherlin	Secretary to City Manager	(H) 652-7297
Jay Suttles	Building Inspector	(H) 652-4471(M) 460-0676

Additional Staff shall be contacted at discretion of department head or his or her designee.

**Public Works/Utilities Department**

Chris Hollifield	Public Works Director/ Engineer	(M) 442-6986
Roger Estes	Street Superintendent	(H) 738-4221 (M) 442-4580
Steve Basney	Water Superintendent	(H) 738-4610 (M) 442-4581
Steve Miller	Water Plant Superintendent	(H) 652-4369 (M) 442-0762
Larry Carver	Wastewater Treatment Supt.	(H) 724-9675 (M) 460-4982
Dean Ollis	Sanitation Supervisor	(H) 659-2296
Tommy Wilson	Chief Fleet Mechanic	(H) 668-7355

Additional Staff shall be contacted at discretion of department head or his or her designee.

**Police Department**

Mika Elliott	Chief	(H) 684-9332(M) 442-4942
Scott Spratt	Patrol Lieutenant	(H) 738-8558 (M) 442-0663

Additional Staff shall be contacted at discretion of department head or his or her designee.

**Fire Department**

Jim Neal	Chief	(H) 659-7028 (M) 442-7189
Ray McDaniel	Assistant Chief	(H) 442-3480

Additional Staff shall be contacted at discretion of department head or his or her designee.

**McDowell County Emergency Management**

Terry Young	Director	(B) 652-3982
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**McDowell County Rescue Squad**

David Cable	Chief	(H) 659-3312
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## **PART IV**

### **Federal and State Contacts**

NCDENR – Division of Water Quality – 828.296.4500  
NCDENR – Division of Water Resources – 828.296.4500  
NCDENR – Division of Environmental Health – 828.296.4500

NCDOT – 828.652.3344

McDowell County Cooperative Extension – 828.652.8104

### **EMERGENCY BROADCASTS**

News releases and public information about disaster related information and response will be provided by the City Manager or his designee to the following media outlets and sources:

City of Marion Website ([www.marionnc.org](http://www.marionnc.org))  
The McDowell News  
WBRM Radio  
WLOS-TV  
Other regional media outlets as warranted

This is the executive summary of the entire City of Marion Emergency Response Plan. Also, adopted by reference, is the McDowell County Emergency Response Plan which is dated September 2006.

**Storage capacity for short term and mutual aid agreement with other communities description for water supply for long term.**

**Additional Resources:**

<b>Name</b>	<b>Resource</b>
Public Water Supply Section 1634 Mail Service Center Raleigh, NC 27699-1634 919-715-2853	Technical Assistance Regulatory guidance
NC Department of Environment & Natural Resources, Washington Regional Office Asheville Regional Office 2090 U.S. Highway 70 Swannanoa, NC 28778 (Courier 12-59-01) 828/296-4500 FAX 828/299-7043	Regional Water Quality Section, Public Water Supply Section, UST Section, Groundwater Section, Hazardous Waste Section, Spills, Regulatory information and technical assistance
Department of Transportation State Traffic Engineer Mr. Ken Ivey 1561 Mail Service Center Raleigh, North Carolina 27699-1561 252-733-3915	Emergency spill notification
NC Army National Guard 164 Erwin Hills Rd Asheville, NC 28806 828-252-5086	Emergencies, as available: Generators, 400-gallon water trailers, bottled water, transportation
NC Rural Water Association Post Office Box 590 Welcome, NC 27374 336-731-6963 www.ncrwa.com	Technical assistance Education
North Carolina Cooperative Extension Service Campus Box 7602 North Carolina State University Raleigh, NC 27695-7602 919-515-2811 <a href="http://www.ces.ncsu.edu/">http://www.ces.ncsu.edu/</a> <a href="http://www.soil.ncsu.edu/assist/homeindx.html">http://www.soil.ncsu.edu/assist/homeindx.html</a>	Educational brochures, publications  HomeASyst Fact Sheets
US EPA Regional Office GW & UIC Section Region IV Atlanta Federal Center 61 Forsythe St. Atlanta, GA 30303-8960 www.epa.gov <a href="http://www.epa.gov/owm/septic/pubs/septic_sticker.pdf">http://www.epa.gov/owm/septic/pubs/septic_sticker.pdf</a> <a href="http://www.epa.gov/epaoswer/osw/">http://www.epa.gov/epaoswer/osw/</a> <a href="http://www.epa.gov/nscep/ordering.htm">http://www.epa.gov/nscep/ordering.htm</a> <a href="http://www.epa.gov/watertrain/pdf/swpbmp.pdf">http://www.epa.gov/watertrain/pdf/swpbmp.pdf</a>	Educational brochures, publications

<p>Division of Pollution Prevention and Environmental Assistance  Ron Pridgeon  1639 Mail Service Center  Raleigh, NC 27699-1639  919-715-6517  <a href="http://www.p2pays.org">www.p2pays.org</a></p>	<p>Technical and non-regulatory assistance to reduce waste</p>
<p>National Small Flows Clearinghouse  West Virginia University  Post Office Box 6064  Morgantown, WV 26506-6064  800-624-8301  <a href="http://www.nesc.wvu.edu/nsfc/nsfc_index.htm">www.nesc.wvu.edu/nsfc/nsfc_index.htm</a></p>	<p>Pamphlets, brochures, training aids</p>
<p>North Carolina Division of Water Quality  512 N. Salisbury St.  Raleigh, NC 27604  919-733-7015  <a href="http://h2o.enr.state.nc.us/nps/">http://h2o.enr.state.nc.us/nps/</a>  <a href="http://h2o.enr.state.nc.us/basinwide/">http://h2o.enr.state.nc.us/basinwide/</a>  <a href="http://h2o.enr.state.nc.us/">http://h2o.enr.state.nc.us/</a></p>	<p>Regulatory Guidance, pamphlets, brochures</p>
<p>eCivis Grants Network  <a href="http://www.ecivis.com/indexFlash.cfm">http://www.ecivis.com/indexFlash.cfm</a></p>	<p>Fee based service that helps communities to apply for grants.</p>

**Review SWPP annually and Update every five years:**

Date Reviewed	Reviewed by	Changes or Comments

The City of Marion is aware that an effective Source Water Protection Plan is an ongoing process. Public water system officials or planning team members will review public records available at hazardous waste and waste disposal facilities and potential contamination source sites located within the drinking water protection area annually in order to ensure program compliance. Every five years, the contaminant source inventory will be updated using the same procedures used to develop the original contaminant source inventory.

## **Appendix**

## **EPA Potential Contamination Activities**

PCS identification includes those facilities or sites regulated under a state or federal regulatory program and are identified in electronic databases in the source water assessment and facilities or sites that fall into the following list of example categories supplied by the US EPA.

Abandoned Wells	Laboratories
Aboveground Storage Tank	Laundromat/Dry Cleaners
Airport	Lift Stations
Agricultural Facilities	Machine Shops
Animal Feedlot/Waste Storage	Major Highways
Asphalt Plant	Major Railroads
Auto Repair	Military Bases
Body Shop/Salvage	Mining
Car Washes	Nurseries
Cemetery	Oil/Gas Pipeline
Chemical Production	Oil Wells
Chemical Mixing/Storage	Photo Processor
Drainage Canal	Printer
Dumps	Power Lines
Electroplaters/Metal Finishers	Other Wells
Fertilizer/Pesticide Storage	Refineries
Fertilizer/Pesticide Production	Refinishing
Fertilizer/Pesticide Mixing	Road Salt
Funeral Homes	Septic Systems
Gas Stations	Substations
Golf Courses	Surface Water
Grain Storage Bin	Sewage Plant
Groundwater Remediation	Underground Storage Tanks
Holding Pond/Lagoon	Waste Piles
Inactive/Abandoned Hazardous Waste Sites	Wood Preserving
Injection Wells	

## Keep it clean: City, county team up for plan to protect Buck Creek

By [Mike Conley](#) | The McDowell News  
Published: March 24, 2009

Officials from the city of Marion and McDowell County have initiated a voluntary Source Water Protection Plan for the Buck Creek intake and the surrounding watershed. The resulting plan will identify strategies to protect public drinking water derived from this source.

The cooperative effort will encourage public participation and promote partnerships with other groups and agencies.

"This team is off to a great start," said Jay Frick of the North Carolina Department of Environment and Natural Resources (NCDENR). "There is a lot of enthusiasm and a lot of ideas have been put on the table. All of us at the state level are committed to assist in any way that we can."

The North Carolina Rural Water Association, the Public Water Supply Section of NCDENR and the North Carolina Division of Water Quality have all pledged to support this effort.

The source water protection planning team reflects a diverse coalition of local expertise and interests, including representatives from the city of Marion, McDowell County, McDowell County Soil and Water Conservation, the North Carolina Department of Transportation, Isothermal Planning and Development Commission and the Lake Tahoma Homeowner's Association.

Chris Hollifield, public works director for the city of Marion and Ron Harmon, planning administrator for McDowell County, will co-lead the planning team.

Studies by the EPA suggest that proactive planning is an effective and efficient way to reduce the possibility of contamination. Additionally, the state provides economic incentives to communities that have an approved source water protection plan.

"It just makes good sense to protect our local drinking water resources," said Marion Mayor Everette Clark. "There are both public health and economic benefits associated with drinking water protection. This planning effort provides a great opportunity for us to realize those benefits. Buck Creek is the city's primary water source and we must do all we can to protect the quality and quantity of this water supply."

Any citizen or local group wishing to participate in the planning process is encouraged to do so. The next meeting is scheduled for Tuesday, April 7 at 1:30 p.m. at the Marion Fire Department at West Court and Logan streets.

For more information, please contact Chris Hollifield at 652-4224 or Ron Harmon at 652-7121.

**Agenda**  
**City of Marion/McDowell County-Watershed**  
**Protection Meeting**  
**December 3, 2008**  
**1:30 PM**

<b>1:30-1:45pm</b>	<b>Kick Off &amp; Introductions</b>	<b>Ray McCall</b>
<b>1:45-2:15pm</b>	<b>Source Water Protection</b>	<b>Jay Frick</b>
<b>2:15-2:30pm</b>	<b>Inventory of Potential Contaminants</b>	<b>Debbie Maner</b>
<b>2:30-2:45pm</b>	<b>Marion-Source Water Assessment Plan</b>	<b>Amy Axon</b>
<b>2:45-3:15pm</b>	<b>Group Discussion</b>	<b>All Attendees</b>
<b>3:15-3:30pm</b>	<b>Exit Survey &amp; Wrap-up</b>	<b>Jay Frick</b> <b>Ray McCall</b>

**Training Material:**

**Source Water Protection Guidance**  
**Contaminants Inventory**  
**Marion SWAP Report**  
**McDowell County-Watershed Ordinance**

**Jay Frick, Env. Engineer, NCDENR**  
**Debbie Maner, NCRWA**  
**Amy Axon, Hydrogeologist, NCDENR**  
**Janet Cantwell, Env. Spec. NCDENR**

**Marion Source Water Protection (SWP)  
Stakeholder Meeting 2  
Summary  
February 17, 2009**

Those in attendance:

Steve Miller	City of Marion Operator in Responsible Charge (ORC)
Hill Evans	Lake Tahoma HOA
Ronald Harmon	McDowell County Watershed Administrator
Oren Benfield	McDowell County
Ray McCall	NC Public Water Supply (PWS)
Amy Axon	NC PWS
Terrell Jones	NC DENR Division of Environmental Health, Wastewater Discharge Elimination Program (WaDE)
Janet Cantwell	NC Division of Water Quality (DWQ)
Jay Frick	NC PWS
Roy Davis	NC DWQ
Steve Banner	Soil and Water Conservation
Bill Lonon	Soil and Water Conservation
Chuck Nance	Regional Isothermal Planning and Development
Jim Edwards	Isothermal Planning and Development
Gabe Johnson	NC Department of Transportation (DOT)
Wade Tate	NC DOT
Rich Holder	NC Rural Community Assistance Program (RCAP)
Debbie Maner	NC Rural Water Association (NCRWA)

There was a brief recap of some of the things that were talked about in the first meeting. The SWP Planning process begins by reviewing the Source Water Assessment Program Report which is available along with other information about Source Water Protection on the Public Water Supply Section website <http://swap.deh.enr.state.nc.us/swap/> click on the SWAP Reports button at the bottom. Source Water Protection Planning is voluntary, but there are benefits and incentives for completing the process. There are three water sources for Marion – Mackey Creek, Buck Creek, and Clear Creek. Focus will primarily be on the Buck Creek watershed, a WS-II watershed that is not as protected as the two WS-I watersheds.

Some of the concerns in the watershed include agriculture impacts, highway corridor vulnerability, improper trash disposal, withdrawal issues, land disturbances, buffer disturbances, erosion, spills, straight piping of household wastewater or stormwater toward the creek and fuel storage along the creek and near the intake. The plan needs to be implemented at the local level in order for it to be successful.

The steps to develop a plan are to assemble a group of stakeholders, review the SWAP Report and to begin the brainstorming process to address concerns within the watershed, conduct the potential contaminant source inventory, prioritize the concerns and develop implementation strategies and compile the plan into a written report. It was requested that Chris Hollifield, Marion Public Works Director and Ron Harmon, Watershed Administrator for McDowell County serve as Co-Team Leaders in developing the plan. It was hoped that help would be provided by other local stakeholders.

The local newspaper and city and county government access channels were identified as methods to get information out to the public about source water protection planning and possibly get others involved in the process. A PSA on the local radio station was also mentioned as being a possibility. An article needs to be written about the planning process. Jay will put together some information from the state perspective and send to Marion and McDowell County for them to add their local information within two weeks.

Next the group was given the following instructions and asked to answer the questions. Responses are provided.

***A Starting Point for Source Water Protection Planning:***

You and the other stakeholders will provide the direction and scope required to create a Source Water Protection Plan for Marion. You will be expected to evaluate the current situation, prioritize action items, and identify those who can implement the plan.

As a start, we will brainstorm the following questions. Be creative. List as many items as you wish in as much detail as you wish. Do not let concerns of practicality limit your responses. There are no right or wrong answers. No response is bizarre or stupid.

- I. What activities could improve or protect the quality of your drinking water? What are the local issues regarding your source of water?
  1. Straight-piping/onsite wastewater disposal.
  2. Scrap metals – illegal dumping.
  3. Recreational activities around intake, (swimming, fishing, disturbance of buffers, erosion)
  4. Fencing/posting around the critical area to address people and livestock.
  5. Physical survey of streams and tributaries to identify contamination sources and especially coliform sources.
  6. Establishment of riparian buffers.
  7. Erosion, land disturbance control.
  8. BMP implementation for hazardous waste, gasoline, landscaping, etc.
  9. Development.
  10. Withdrawal, use conflicts, water use efficiency.
  11. Educate public on agricultural products. Bilingual education. Cooperative extension – organic farming.
  12. Assessing livestock operations, especially lagoons.
  13. Centralize pesticide mixing stations.
  14. Educate the community on cost/health benefits for prevention as opposed to treatment.
  15. Spill containment along US 70.
  16. Public awareness signage.
  17. Written emergency preparedness plan.
  18. Community watchdog – citizens groups such as HOAs trained on hazard identification (ex. meth labs).
  19. Local erosion/sediment control enforcement – dedicated city or county employee.
  20. Water quality protection education in the school system.
  21. Enacting strictest ordinances practical – balance protection and property owner's rights.
  22. Address future permitting of fisheries in the watershed.

23. Promote good stewardship of watershed through education – recognition of achievements.
24. Increase citizen involvement in protection.
25. Funding.

Once everyone's answers were exhausted a date of March 17, 2009, 1:30 pm was set for the next meeting at the same location (the Fire Station, 60 West Court St. in Marion). It is hoped that everyone will return to continue where we left off and that any others who are interested will attend. Also, a goal of getting a press release about the plan out before the next meeting was established.

**Homework for next time:**

2. What do you see as major impediments to accomplishing source water protection objectives?
3. What strategies could make a protection plan dynamic? How can this effort be made “alive” and ongoing such that it has legs and gains momentum?
4. Positive promotion may attract others toward your objectives. How can your efforts best be promoted?

**Marion Source Water Protection (SWP)  
Stakeholder Meeting 3  
Summary  
March 17, 2009**

Those in attendance:

Chris Hollifield	Public Water Director City of Marion
Ronald Harmon	McDowell County Watershed Administrator
Steve Miller	City of Marion Operator in Responsible Charge (ORC)
Bob Boyette	Marion City Manager
Oren Benfield	McDowell County
Hill Evans	Lake Tahoma HOA
Richard Smith	President Lake Tahoma HOA
Ray McCall	NC Public Water Supply (PWS)
Jay Frick	NC PWS
Roy Davis	NC Division of Water Quality
Chuck Nance	Regional Isothermal Planning and Development
Leigh Marston	Grandfather Ranger District
Debbie Maner	NC Rural Water Association (NCRWA)

There was a brief recap of some of the things that had been discussed at previous meetings. The SWP Planning process begins by reviewing the Source Water Assessment Program Report which is available along with other information about Source Water Protection on the Public Water Supply Section website <http://swap.deh.enr.state.nc.us/swap/> click on the SWAP Reports button at the bottom of the page. The Buck Creek watershed has a susceptibility rating of Moderate. The brainstorming process was begun at the last meeting and there were 25 responses to the first question. The responses will be put in like categories and prioritized and strategies will be developed to address the top priorities. The list of responses to questions “I. - What activities could improve or protect the quality of your drinking water? What are the local issues regarding your source of water?” – was read. Those responses were:

1. Straight-piping/onsite wastewater disposal.
2. Scrap metals – illegal dumping.
3. Recreational activities around intake, (swimming, fishing, disturbance of buffers, erosion)
4. Fencing/posting around the critical area to address people and livestock.
5. Physical survey of streams and tributaries to identify contamination sources and especially coliform sources.
6. Establishment of riparian buffers.
7. Erosion, land disturbance control.
8. BMP implementation for hazardous waste, gasoline, landscaping, etc.
9. Development.
10. Withdrawal, use conflicts, water use efficiency.
11. Educate public on agricultural products. Bilingual education. Cooperative extension – organic farming.
12. Assessing livestock operations, especially lagoons.
13. Centralize pesticide mixing stations.
14. Educate the community on cost/health benefits for prevention as opposed to treatment.
15. Spill containment along US 70.
16. Public awareness signage.

17. Written emergency preparedness plan.
18. Community watchdog – citizens groups such as HOAs trained on hazard identification (ex. meth labs).
19. Local erosion/sediment control enforcement – dedicated city or county employee.
20. Water quality protection education in the school system.
21. Enacting strictest ordinances practical – balance protection and property owner’s rights.
22. Address future permitting of fisheries in the watershed.
23. Promote good stewardship of watershed through education – recognition of achievements.
24. Increase citizen involvement in protection.
25. Funding.

Everyone was given the opportunity to comment on the agenda. Ray McCall recapped a meeting that he had attended recently with the Division of Water Quality and other staff with Roger Edwards, the Regional Supervisor. The group established four watersheds in Western NC as high priority and in which to actively pursue clean up goals. Also, there is a need for a success story in watershed improvement to be used as a model for other communities to follow. As a result, the regulatory agencies will be available to local stakeholders to provide technical assistance to help accomplish clean up or protection goals rather than just regulatory action. It was hoped that the regulatory agencies would be able to help with the appropriate actions when this group’s priorities have been established. The four priority watersheds are Mills River, Lake Rhodhiss, Cartoogechaye Creek, and Buck Creek.

The group’s attention was directed to Question II., for their responses - What do you see as major impediments to accomplishing source water protection objectives?

1. Cooperation of landowners around the intake.
2. Negative economic impact on stakeholders. Ex. Restricting development, increasing water rates.
3. Developmental pressures (builders)
4. Distrust of local government and regulations.
5. Generating public support.
6. Competition for water. Drought pressures.
7. What is the cost? To landowners, city and county administrators.
8. Property rights. “You can’t tell me what I can and can’t do with my property.”
9. Promotion of stewardship. Education and positive reinforcement instead of restrictions.
10. Lack of citizen involvement. Too much government participation and too little public involvement.
11. Lack of incentives – cost share, BMPs, giving back to agriculture to make them want to participate.
12. Recreational uses affecting water quality, especially below the dam. (May be an educational opportunity.)
13. Realistic goals.
14. Ethnic and cultural attitudes regarding agricultural practices. Lack of ownership of the watershed.
15. Lack of buy in from local government officials.

III. What strategies could make a protection plan dynamic? How can this effort be made “alive” and ongoing such that it has legs and gains momentum?

1. Incentives for public and agribusiness. What is in it for me?
2. Soliciting support from community groups – churches, schools.
3. Delegating action items to groups in order to get it done.
4. Getting grammar schools involved to generate publicity and have a press release for every meeting, advertise.
5. Involve schools and environmental groups in projects. Rain gardens, stormwater BMPs
6. Encourage state agencies to enforce rules.
7. Plan follow-up implementation and method of reporting to news agencies and city council.
8. Buy in and active involvement from Cooperative Extension and landowners/farmers in the process.
9. Obtain sponsorship and guidance from established groups.
10. Obtain active participation of property owners in the watershed using examples of successes –from Tahoma Dam to water intake. Demonstrate that it is not a painful process.
11. Local dynamic leadership - Private landowner leading the cause.
12. Hold SWP Meetings in the watershed and advertise them.
13. Have a big success immediately. Cleanup, Keep McDowell Beautiful. Master Gardener.

Answers were exhausted and it was requested that everyone e-mail their answers to question **IV. Positive promotion may attract others toward your objectives. How can your efforts best be promoted?** To Debbie at [ncrwadm@aol.com](mailto:ncrwadm@aol.com) so everything can be compiled for the next meeting. It was agreed that the next meeting of the group will be held on Tuesday, April 7<sup>th</sup>, at 1:30pm at the Fire Station.

Ron Harmon is going to attempt to contact Dan Smith with Cooperative Extension and see if he can be available to attend the next stakeholder meeting and possibly provide some educational information that might fit into the drinking water protection process.

**Marion Source Water Protection (SWP)  
Stakeholder Meeting 4  
Summary  
April 7, 2009**

Those in attendance:

Chris Hollifield	Public Water Director City of Marion
Steve Miller	City of Marion Operator in Responsible Charge (ORC)
Bob Boyette	Marion City Manager
Hill Evans	Lake Tahoma HOA
Patsy Ballew	Homeowner (above Lake Tahoma)
Ken Harris	Lake James Environmental Association
Gabe Johnson	NC Department of Transportation (NCDOT)
Tony Gallegos	Western Piedmont Council of Government
Ray McCall	NC Public Water Supply (PWS)
Jay Frick	NC PWS
Debbie Maner	NC Rural Water Association (NCRWA)

Three new participants Patsy Ballew, Ken Harris and Tony Gallegos were introduced, and there was a very brief recap of some of the things that had been discussed at previous meetings. The SWP Planning process begins by reviewing Marion's Source Water Assessment Program Report. A draft map of Marion's Source Water Protection Area was handed out.

At the previous meeting, the Stakeholders had begun the brainstorming process by providing the answers below to Question I. The responses were read aloud and Jay had identified six major categories or themes that seemed to be emerging. Participants were asked to take some time and choose the five top responses in their opinion. Before doing so they were asked if anything needed to be added to the responses. Tony pointed out that maybe commercial interests should be added to the themes, so Agriculture was changed to Agriculture/Commercial without objection. The group was also asked to select the three most important of the themes that had been identified. The group was also allowed to combine responses if it seemed appropriate. There was a lot of discussion and everyone was given the chance to voice their opinions and the group's combined results are shown below. Several people combined answers as being the same and chose more than five responses. "Tick marks" were placed by each answer as it was chosen as being a priority and the numbers in bold indicates the number of times that response was chosen. Bold text indicates where wording was changed.

I. What activities could improve or protect the quality of your drinking water? What are the local issues regarding your source of water?

1. Control of recreational activities around the intake (e.g., swimming, fishing, disturbance of buffers). **3**  
Themes: regulatory/enforcement

2. Fencing/posting around the critical area to limit potential problems from people and livestock.  
Themes: regulatory/enforcement, agriculture

3. Establishment and maintenance of riparian buffers. **2**  
Themes: agency partnerships, education

4. Erosion, sediment control, and land disturbance control enforcement via dedicated city/county employee. **3**  
Themes: regulatory/enforcement
5. Reduce problems from straight-piping and/or failing onsite wastewater disposal. **4**  
Themes: regulatory/enforcement, agency partnerships, education
6. Stop illegal dumping, including trash, scrap metal and appliances, etc. **6**  
Themes: regulatory/enforcement, education
7. Written emergency preparedness plan including provisions for spill containment **for the entire watershed.** **4**  
Themes: preparedness
8. Enacting strictest ordinances practical. Investigate and determine appropriate balance between source water protection and property owner's rights.  
Themes: regulatory/enforcement, preparedness
9. Address future permitting of fisheries in the watershed.  
Themes: regulatory/enforcement, agriculture
10. Assess threats from livestock operations, including lagoons, cattle, etc.  
Themes: agriculture, agency partnerships, preparedness
11. Establish community watchdog/citizen groups, such as HOAs trained on hazard identification and reporting.  
Themes: citizen involvement, education
12. Make a physical survey of streams and tributaries to identify contamination sources and coliform sources. Includes mapping and "ground truthing" effort. **3**  
Themes: citizen involvement, preparedness
13. Promote good stewardship of watershed through education and publicity. Recognize achievements and promote higher visibility of SWP activities. **5**  
Themes: citizen involvement, education
14. Determine creative ways to increase citizen involvement. Inspire and promote SWP activities that can be accomplished by local groups (schools, clubs, etc). **5**  
Themes: citizen involvement
15. Centralize pesticide-mixing stations and promote their use. **6**  
Theme: agriculture, agency partnerships
16. Educate public on agricultural contaminants, including bilingual considerations. Enlist Cooperative extension as potential partner for information distribution. Possibly include information regarding organic farming. **6**  
Themes: agency partnerships, education
17. Educate the community on cost versus health benefits for prevention as opposed to treatment. **2**  
Themes: education

18. Insert water quality protection information into the school system. **2**

Themes: education

19. Public awareness signage. **3**

Themes: education

20. Identify and initiate BMP implementation for hazardous waste, gasoline leaks, landscaping, etc.

Themes: agency partnerships, preparedness

21. Address potential hazards associated with development.

Themes: regulatory/enforcement, preparedness

22. Engage issues regarding withdrawal, use conflicts, and water use efficiency. Define procedures to mitigate future water quantity concerns. **3**

Themes: regulatory/enforcement

23. Identify, attract, and secure funding for SWP activities. **1**

Themes: preparedness

Circle three themes that you think are most applicable for Buck Creek:

Regulatory/enforcement **2**

Agriculture/**Commercial 6**

Agency partnerships (**with Everyone**) **3**

Public education/awareness **7**

Preparedness **2**

Citizen involvement **2**

Suggested Groupings:

7 and 19

7 and 12

13, 16, 17, 18 and 19 - EDUCATION (several people grouped these)

1 and 22 – Intake

3 and 4 – Buffer/erosion

14, 15, 19, and 22 – Public Awareness

4, 6, and 12 contaminant reduction 1, 5, 6 Regulatory that is “possible”

15 and 16 Agriculture

**The next meeting was scheduled for Tuesday, May 26<sup>th</sup>, 1:30pm at the same location – the Marion Fire Department.**

For those who were not present at this meeting, responses that have been provided to Questions II through IV are provided below.

II. What do you see as major impediments to accomplishing source water protection objectives?

1. Cooperation of landowners around the intake.
2. Distrust/disagreement of the local government’s policies, motivations, and regulations.
3. Generating real and lasting public support, especially regarding property rights issues.
4. Inability to successfully promote stewardship. Enlist education and positive reinforcement instead of restrictions.
5. Lack of citizen involvement leading to “incorrect balance” between government participation and public involvement. Overcoming apathetic attitudes in the general public.
6. Continued recreational uses affecting water quality, especially below the dam.
7. Lack of appropriate incentives – cost share assistance with BMPs and “giving back” to agriculture to make them want to participate and support SWP initiatives.
8. Diverse ethnic and cultural attitudes regarding agricultural practices. Lack-of-ownership mentality regarding the watershed will hinder SWP progress.
9. Perceived negative economic impact on stakeholders and landowners (e.g., restrictions on development, increasing water rates, etc.).
10. Pressure and negative influence from groups who think they will suffer from SWP initiatives (e.g., builders association who promote development).

11. Inability to accurately define the cost of SWP initiatives, leading to suspicion and friction from landowners as well as city/county administrators.
12. Inability to formulate and attain realistic and achievable goals.
13. Lack of buy in from local government officials.
14. Competition for water use, especially under drought conditions. Water quantity arguments could derail SWP initiatives.

III. What strategies could make a protection plan dynamic? How can this effort be made “alive” and ongoing such that it has legs and gains momentum?

1. Soliciting support from community/environmental groups (churches, schools, clubs, etc.). Involve schools and environmental groups in projects (e.g., rain gardens, stormwater BMPs, etc.).
2. Delegate action items to the “appropriate groups” in order to get it done.
3. Obtain sponsorship and guidance from established groups.
4. Obtain buy-in and active involvement from Cooperative Extension, thereby attracting support from landowners and farmers in the process.
5. Enlist and publicize local dynamic leadership. For example, demonstrate private landowner “leading the cause” to dispel fears from others. Demonstrate that SWP activity need not be a painful process.
6. Create incentives for the public and agribusiness. Be ready to answer: What’s in it for me?
7. Encourage state agencies to enforce their rules. Determine ways to apply pressure to an agency/program that exhibits lax enforcement policy.
8. Strategically plan for an immediate, big success while involving another high-visibility group (e.g., Keep McDowell Beautiful, Master Gardeners, etc.).

IV. Positive promotion may attract others toward your objectives. How can your efforts best be promoted?

1. Get grammar schools involved to generate publicity, and have a press release for every meeting, advertise prior to the events. Water quality projects promoted by us and sold to the McDowell school system would be a good place to start.
2. Hold SWP Meetings on-site in the watershed and advertise them.
3. Plan follow-up implementation and develop a method of regular reporting to news agencies.

4. Develop a mechanism to keep city council and county commissioners informed with SWP initiatives and successes.
5. Prepare and regular news releases – newspaper/local media/city and county cable channels and websites. Use the McDowell News and local educational radio programs to publicize the results of our projects. Market any successes through media by detailing the process, showing accomplishments, and detailing impacts over time.
6. Educational and promotional materials to property owners and/or agricultural users in the watershed.
7. Regular updates from Cooperative Extension, soil and water conservation etc. to property owners/agricultural users.
8. Having a positive attitude and accomplishing objectives.
9. Create and distribute promotional brochures, videos, and programs (to school children, civic organizations, government leadership, etc). Create videos targeted to school/youth groups. Release through PEG, YouTube, etc.
10. Demonstration sites showing successful BMP's, erosion control, septic system maintenance etc.

**Marion Source Water Protection (SWP)  
Stakeholder Meeting 5  
Summary  
May 26, 2009**

Those in attendance:

Chris Hollifield	Public Water Director City of Marion
Steve Miller	City of Marion Operator in Responsible Charge (ORC)
Gabe Johnson	NC Department of Transportation (NCDOT)
Chuck Nance	Regional Isothermal Planning and Development
Daniel Smith	NC Cooperative Extension
Ray McCall	NC Public Water Supply (PWS)
Jay Frick	NC PWS
Debbie Maner	NC Rural Water Association (NCRWA)

Daniel Smith, with the McDowell County Cooperative Extension, attended the meeting and discussed some of the activities with which he is involved throughout the county. The Cooperative Extension is an educational agency and an outreach of NC State University. He also represents McDowell County. He has worked with stream restoration in the Muddy Creek watershed and has recently been working on a project using a 319 grant for water quality activities in the Corpening Creek watershed. An assessment of the watershed has been done and work is beginning on some demonstrations promoting Best Management Practices (BMPs) such as rain gardens. He is also the pesticide coordinator for McDowell County and does pesticide education classes for all the farmers in the county for certification for restricted use pesticides and works with farmers on production practices helping them economically with a successful business as well as environmental protection. He helps with soil testing, BMPs, using the correct amount of fertilizer, pesticide education, etc. A livestock agent was working with extension, but he is retiring and it is not certain whether someone will be hired to replace him. He had work with local cattlemen on BMPs such as fencing cattle from streams and water crossings and putting in waterers. They provide a wide range of educational services for farmers. He knows some of the farmers within the watershed and had worked with some to get pesticide problems (containers) cleaned up. He thought they did not realize the magnitude of what could have happened had the containers somehow gotten into the creek. He and Chris had already talked about some activities that they could do together – maybe going out into the watershed and identifying farms where they could go and talk to farmers about BMPs that they could initiate - buffers, soil testing and proper pesticide storage to help protect the watershed. He can incorporate water quality protection of the watershed into his pesticide education courses.

Natural Resources Conservation Service (NRCS) is another resource. They have cost share funds for agriculture BMPs and can cost share up to 75% and 90% for projects within a water supply watershed. The possibility of putting in a spray mixing/loading shed for the vegetable farmers in the area has been discussed so that a spill is immediately contained and there is pesticide storage. The vegetable farmers are probably the most intense of the farmers in the watershed. There is some pastureland, a few corn farmers and shrubbery farms for landscaping.

Bilingual education for farmers was questioned and that has been discussed. If a translator is needed to get the message across, they are available. It is thought that translation is not really needed in this watershed. There are 6 – 8 large produce farms in the county operated by Hispanics and most speak pretty good English. The only requirement for a license for a farmer is for restricted use pesticide. One person is required to be licensed on a farm. They are liable for anyone applying under their license and worker protection is the emphasis. Through education the Extension can encourage mixing away from the bank of a stream or putting some type of

barrier down between the station and the water. They are supposed to have backflow prevention on equipment to prevent flow back into the creek when using that water to mix.

Spanish language publications for education were discussed and it was thought that it would be a good idea to either research what is available or create some addressing specific problems in this watershed. The City of Marion has two translators available for that purpose. Specific items might include maintain buffers along streams, apply fertilizers according to soil tests and keep pesticides from entering the water.

The group started their work by looking at the results of their previous exercises. The three main themes that were identified as being important were addressing **agricultural/commercial** issues, creating a **public education/awareness** campaign, and **using partnerships to address certain issues**. A way to make the plan perpetuate will need to be determined at some point.

The three main themes that have emerged are:

1. Public education and awareness and citizen involvement
2. Agriculture and Commercial concerns
3. Make use of partnership strategies, delegate responsibility to appropriate agency

The group went back to the twenty six original ideas that had been proposed to identify which ones were consistent with the themes and identify the specific things that will need to be done to create a successful plan and begin to delegate tasks to members of the group. The priority items of this plan are as follows:

1. Control of recreational activities around the intake (e.g., swimming, fishing, disturbance of buffers).

Themes: regulatory/enforcement/commercial

2. Establishment and maintenance of riparian buffers. Erosion, sediment control, and land disturbance control enforcement via dedicated city/county employee.

Themes: 3, McDowell County Watershed Administrator and Janet from DWQ

3. Reduce problems from straight-piping and/or failing onsite wastewater disposal.

Themes: 3, NC Division of Environmental Health WaDE Program

4. Written emergency preparedness plan including provisions for spill containment for the entire watershed.

Ray and Chuck will take the lead role. Ron Harmon and Terry Young should also be involved.

5. Address future permitting of fisheries in the watershed.

Themes: 3, NC Division of Water Quality

6. Establish community watchdog/citizen groups, such as HOAs trained on hazard identification and reporting.

Themes: 1, Hill can maybe interest his HOA to participate

7. Make a physical survey of streams and tributaries to identify contamination sources and coliform sources. Includes mapping and “ground truthing” effort – One more survey.

Ray, Debbie and Steve will take the lead role

8. Promote good stewardship of watershed through education and publicity. Recognize achievements and promote higher visibility of SWP activities.

Themes: 1

9. Determine creative ways to increase citizen involvement. Inspire and promote SWP activities that can be accomplished by local groups (schools, clubs, etc).

Themes: 1 and 3 – McDowell Environmental Club, Ben Talbert, Chris will take lead role

10. Centralize pesticide-mixing stations and promote their use.

Theme: 1, 2, and 3, Dan with Coop Extension may take a lead role.

11. Educate public on agricultural contaminants, including bilingual considerations. Enlist Cooperative Extension as potential partner for information distribution. Possibly include information regarding organic farming.

Themes: 1 and 3, Dan with Coop Extension may take a lead role.

12. Public awareness signage and signage regarding gas/oil leaks, swimming hazards, etc.

Themes: 1, Gabe with DOT and Bob can take the lead role.

13. Identify and initiate BMP implementation for hazardous waste, gasoline leaks, landscaping, etc.

Themes: agency partnerships, preparedness – Install drinking water protection signs.

14. Engage issues regarding withdrawal, use conflicts, and water use efficiency. Define procedures to mitigate future water quantity concerns.

Jay, Steve and Chris will take a lead role

Ray McCall had some thoughts regarding separating our action items into 6 categories:

1. Educational flyers to agriculture and users – NCRWA, City, Cooperative Extension, Marion High School Environmental Club
2. Educational Signs for Watershed and for campgrounds (recreational activities) – Marion, DOT
3. Watershed Survey including buffer survey to present to the County
4. Control pesticide mixing use and disposal, water protection – Cooperative Extension
5. Emergency Contingency Plan for spills along major corridors. County Emergency Manager Terry Young

It may be beneficial to have a speaker for the next meeting - possibly Terry Young or someone from Mills River to discuss their protection planning efforts.

It was requested that people indicate their areas of interest in the tasks that were identified.

Chuck Nance – Emergency preparedness planning along with Ron Harmon and Terry Young.

Steve Miller – Work on water use plan with Lake Tahoma, farmers, water users. Meters anywhere indicating how much water the big users use? Would gauging station be possible? Work on use records from Lake Tahoma and the water plant? Budget for ultrasonic flow meters?

Gabe Johnson – Educational or public awareness signage. (Two different types)

Chris Hollifield – Stewardship, citizen involvement from different groups – Environmental Club.

**The next meeting was scheduled for Monday, June 29 at 1:30 at the Fire Department in Marion**

**Marion Source Water Protection (SWP)  
Stakeholder Meeting 6  
Summary  
June 29, 2009**

Those in attendance:

Chris Hollifield	Public Water Director City of Marion
Ronald Harmon	McDowell County Watershed Administrator
Oren Benfield	McDowell County
Gabe Johnson	NC Department of Transportation (NCDOT)
Chuck Nance	Regional Isothermal Planning and Development
Tony Gallegos	Western Piedmont Council of Government
Ray McCall	NC Public Water Supply (PWS)
Jay Frick	NC PWS
Debbie Maner	NC Rural Water Association (NCRWA)

Ray had conducted another physical survey through the watershed area the morning of the meeting and showed some pictures of what he had seen. He said he didn't see much of anything different than what had been identified before. He pointed out that there were lots of campgrounds very close to Buck Creek. Also, Duke Power has been spraying along their power line right-of-way in the watershed and there is evidence that they had actually sprayed over the water along the lines. Ray will report this to the Division of Water Quality. Duke Power is required by law to submit to the DWQ a plan for spraying within the watershed and they (DWQ) did not receive it. There were primitive campsites very close to the water. There is one lot along the water for sale that had pretty much been stripped and the buffer was questionable. There is a lot of boat dock building and activity going on on Lake Tahoma. Class I and Class II reservoirs need to have a recreation plan and construction plan, community bathrooms, centralized fueling and riparian areas. Plenty of water is flowing over the dam at this time. Ray went back to all the areas where problems had been identified before and it was all clean. There was no trash or sign of any chemicals. Mixing stations were still there but the areas had been cleared of trash. Row crops have been planted in the agricultural areas.

The group revisited the fourteen items that had been narrowed down from the twenty-six items that had been named originally. The items were further narrowed down to the following six items:

1. Engage issues regarding withdrawal, use conflicts, and water use efficiency. Define procedures to mitigate future water quantity concerns. Work on water use plan with Lake Tahoma, farmers, water users. Meters anywhere indicating how much water the big users use? Would gauging station be possible? Work on use records from Lake Tahoma and the water plant? Budget for ultrasonic flow meters? For this objective to be met it seems that there must be a way to take flow measurements and make decisions based on predetermined criteria.

Jay, Steve and Chris will take a lead role.

2. Control of recreational activities around the intake (e.g., swimming, fishing, disturbance of buffers). Reduce problems from straight-piping and/or failing onsite wastewater disposal. A recreational plan for Lake Tahoma. Make a physical survey of streams and tributaries to identify contamination sources and coliform sources.

NC Division of Environmental Health WaDE Program, Ray will research recreational plan.

3. Centralize pesticide-mixing stations and promote their use. Educate public on agricultural contaminants, including bilingual considerations. Enlist Cooperative Extension as potential partner for information distribution. Possibly include information regarding organic farming.

Ron will contact Dan Smith with Coop Extension and Steve Banner and Bill Lonon with NRCS.

4. Establish community watchdog/citizen groups, such as HOAs trained on hazard identification and reporting. Promote good stewardship of watershed through education and publicity. Recognize achievements and promote higher visibility of SWP activities. Determine creative ways to increase citizen involvement. Inspire and promote SWP activities that can be accomplished by local groups (schools, clubs, etc). Public awareness signage and signage regarding gas/oil leaks, swimming hazards, etc. Identify and initiate BMP implementation for hazardous waste, gasoline leaks, landscaping, etc.

Bob Boyette and city can take the lead role along with Gabe with DOT. Chris with contacts in Environmental Club – Ben Talbert. Tony can help along with Chuck Nance.

5. Establishment and maintenance of riparian buffers. Erosion, sediment control, and land disturbance control enforcement via dedicated city/county employee.

Ron, McDowell County Watershed Administrator. What is being done now to be restated in the plan along with thoughts about ways of enhancing current methods of enforcement.

6. A comprehensive written emergency preparedness plan including provisions for spill containment for the entire watershed.

Ron Harmon and Terry Young should also be involved. City/County cooperation. Oren, Ray and Chuck also.

It was requested that for each of the items above, the working groups prepare an outline containing a brief description about why the objective is important, the objective which will try to be achieved, the action items needed to reach a certain objective, the logistics – the timeline, the sequence, and resources needed including costs.

Tony shared an example of a Watershed Restoration worksheet that lists most of the same items that Jay has asked for. It is included with this summary.

**The next meeting was scheduled for Thursday, August 13 at 1:30 at the Fire Department in Marion.**

At the next meeting it is hoped that each of the groups will have their outlines completed and ready to share with the rest of the group for review and comments. Debbie is willing to help if needed.

Lake Rhodhiss Watershed Restoration						
PRIORITY STRATEGIES WORKSHEET						
Practice Title:	Monitoring Tributaries					
Focus Area	Non-Agriculture	X	Agriculture	X	Point Source	X
Strategy Type	Monitoring and Research					
Objective:	Reduce the amount of sediment entering the Lake.					
Practice Narrative:	Since sediment is the principal nonpoint source pollutant in Lake Rhodhiss, efforts should be increased to reduce the amount of sediment entering the Lake. Identify those streams entering Lake Rhodhiss that contribute the most seriously to sediment problems (among these streams are the Johns River, Lower Creek, Silver Creek and Muddy Creek)					
Key Actions:						Project Initiator(s):
Watershed Planning Tool Category:	N/A					
Potential Partners:	Resources/Technical Assistance Needed:				Additional Benefit	
DENR DWQ	Varies based on extent of study					
Public Involvement:	Cost Estimate:	Potential Funding:		Timeframe:		
	Varies based on extent of study			Ongoing		
Measureable Performance Indicators:	Current Loading information from tributaries of most concern					
Estimated Load Reduction:	N/A					

Status:	12 months of field work completed spring 2008, monitoring study is near completion
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**Marion Source Water Protection (SWP)  
Stakeholder Meeting 7  
Summary  
August 13, 2009**

Those in attendance:

Chris Hollifield	Public Water Director City of Marion
Ronald Harmon	McDowell County Watershed Administrator (dropped off documents)
Steve Miller	City of Marion Operator in Responsible Charge (ORC)
Gabe Johnson	NC Department of Transportation (NCDOT)
Chuck Nance	Regional Isothermal Planning and Development
Hill Evans	Lake Tahoma Homeowners Association
Ray McCall	NC Public Water Supply (PWS)
Jay Frick	NC PWS
Debbie Maner	NC Rural Water Association (NCRWA)

Jay began the meeting by saying that it was time to start to wrap up the planning process and refine the ideas addressing the six issues that it has been determined will be the basis for the plan.. We are hoping to be able to finish up by e-mail and maybe have one more meeting when everything is completed. Discussion began with the water quantity issue which had been written up as follows:

1. Engage issues regarding withdrawal, use conflicts, and water use efficiency. Define procedures to mitigate future water quantity concerns. Work on water use plan with Lake Tahoma, farmers, water users. Meters anywhere indicating how much water the big users use? Would gauging station be possible? Work on use records from Lake Tahoma and the water plant? Budget for ultrasonic flow meters? For this objective to be met it seems that there must be a way to take flow measurements and make decisions based on predetermined criteria.

Jay had done some research on addressing this issue and said that it will require an agreement among the water users and require some background data. Currently there is no known flow data anywhere. He is aware of some modeling that has been done on the Haw River for similar reasons and **he will try to obtain the agreement to see if we can use it to develop something here.** It was thought that the City would be interested in purchasing equipment estimated to cost about \$6,000. 00 to measure water flow at the intake. Drought is still a concern for the water plant. Lake Tahoma representatives are willing to release more water if there is a need. They have the ability to reduce the lake by ten feet in the case of an emergency. It was thought that any agreement would have to be worked out between Marion's City Council and the Lake Tahoma Committee, and at the least will require buy in from the City Council. It was decided that those assigned to this issue [(Jay, Steve, Chris and Lake Tahoma (Tom Johnson – new President, Tommy Hollifield))] **would work on a draft agreement to present to those who would need to approve the final one.** A liaison with the agricultural community (Dan Smith) will have to be established to complete the agreement. **Jay will consult with Dan Smith and Bob Boyette about proceeding with the agreement.** There also may be some way to cooperate with the Division of Water Resources to obtain gauging or weather equipment to help address this issue.

The next item was a recreational use plan. The objective was written up as follows:

2. Control of recreational activities around the intake (e.g., swimming, fishing, disturbance of buffers). Reduce problems from straight-piping and/or failing onsite wastewater disposal. A recreational plan for Lake Tahoma. Make a physical survey of streams and tributaries to identify contamination sources and coliform sources.

NC Division of Environmental Health WaDE Program, Ray will research recreational plan.

Ray reported that the WaDE Program is going to continue with the survey that they have been working on and plan to get all the way up the watershed this month to address illegal discharges into the creek. It was agreed that the Lake Tahoma Homeowners Association would provide the stakeholder group with copies of the rules that are currently in place around Lake Tahoma regarding fishing, hunting, swimming, boating and building to protect the lake, the quality of the water supply, and the homeowners. **Ray agreed to do the write-up for this portion of the plan.** The next item was written as follows:

3. Centralize pesticide-mixing stations and promote their use. Educate public on agricultural contaminants, including bilingual considerations. Enlist Cooperative Extension as potential partner for information distribution. Possibly include information regarding organic farming.

Ron will contact Dan Smith with Coop Extension and Steve Banner and Bill Lonon with NRCS.

Dan Smith has agreed to be the contact for this item, but has not been able to attend another meeting so there was no additional information to provide. Dan will also need to be included as a consultant when addressing the withdrawal issue or Item 1.

After a brief comedic interlude around discussions about who watches which court TV show, the group moved on to item 4 which is as follows:

4. Establish community watchdog/citizen groups, such as HOAs trained on hazard identification and reporting. Promote good stewardship of watershed through education and publicity. Recognize achievements and promote higher visibility of SWP activities. Determine creative ways to increase citizen involvement. Inspire and promote SWP activities that can be accomplished by local groups (schools, clubs, etc). Public awareness signage and signage regarding gas/oil leaks, swimming hazards, etc. Identify and initiate BMP implementation for hazardous waste, gasoline leaks, landscaping, etc.

Bob Boyette and city can take the lead role along with Gabe with DOT. Chris with contacts in Environmental Club – Ben Talbert. Tony can help along with Chuck Nance.

Chris updated the group on progress of putting up signage on Buck Creek watershed and on Route 70. Gabe with the DOT had sent some information to the City of Marion. A required letter requesting signage at the bridge on Route 70 and along Highway 80 downstream from Lake Tahoma has been drafted and is ready to be sent to the office in Asheville.

**When schools start back in a few weeks Chris will approach the Environmental Club about opportunities to get involved in SWP activities. Chris was asked to write up a plan for accomplishing the above tasks and the group reviewed the directions for writing up their portions which are:**

**Prepare an outline containing a brief description about why the objective is important, the objective which will try to be achieved, the action items needed to reach a certain objective, the logistics – the timeline, the sequence, and resources needed including costs. The more detail that can be provided, the better. It was asked that outlines be sent to Debbie to be reviewed and eventually compiled into the final plan.**

**It was also requested that Chris include categories or ideas that they may want to pursue in the future from item number 4 and exactly how they may want to address those items, and if he has ideas about persons or groups who may be better equipped to handle the action items to outline those as well.** Again any details to address the action items will be welcomed.

Item 5 was written as follows:

5. Establishment and maintenance of riparian buffers. Erosion, sediment control, and land disturbance control enforcement via dedicated city/county employee.

Ron, McDowell County Watershed Administrator. What is being done now to be restated in the plan along with thoughts about ways of enhancing current methods of enforcement.

Ron has written a description of the permitting process for development within the watershed and submitted it and **Jay volunteered to ask for an elaboration of what can be done to enhance the current regulatory process in addressing the categories listed above and enforcing implementation of the rules.**

Ray explained Division of Water Quality responsibility has transferred from Janet Cantwell to Roy Davis who will be retiring in November. Ray is the liaison for now and there is a good chance that Kevin Barnett will be taking over Roy's duties. **Jay asked if it would be possible for Ron (with County) and Kevin (with State DWQ) to coordinate to come up with a plan to enhance implementation of the buffer rules within the watershed.**

Moving to item number 6:

6. A comprehensive written emergency preparedness plan including provisions for spill containment for the entire watershed.

Ron Harmon and Terry Young should also be involved. City/County cooperation. Oren, Ray and Chuck also.

Ron had dropped off McDowell County's Emergency Operations Plan and it was hoped that portions of that Plan could be used as a starting place to develop a comprehensive written emergency preparedness plan for the watershed. Ray will provide an outline of his ideas for what a plan should include. Portions of other emergency plans that are available, such as the water system's Emergency Response Plan may be useful in writing the preparedness plan for the watershed. Marion does have Clear and Mackey Creeks as back up water sources. Key to the plan will be that the water treatment plant be notified quickly about anything that could affect water quality. **Ray and Chuck will develop recommendations to be shared with the County to produce a comprehensive plan for the watershed. It was recommended that Terry Young, Emergency Management Director be involved with writing the plan. Ron will be contacted to see about getting Terry Young involved in the development of the emergency preparedness plan for the watershed.**

The target date for getting all of these sections completed and submitted to Debbie will be October 1, 2009 and it hoped the plan will be complete and ready for implementation by the end of October.

Spraying under power lines and along waterways by Duke Power was reported to DWQ and someone was supposed to follow up to see if they had submitted a plan. **Ray will write up a description of this report, who was contacted and any action that may take place as a result of his report to DWQ.**

The idea of putting together an ending press release highlighting some of the positive things that result from this SWP process was mentioned. It was thought that it might be helpful in approaching local officials and asking for cooperation in getting some of the group's objectives accomplished.

## Lake Tahoma, Inc. Rules and Regulations

BASIC DEED

Exhibit A

Below is the standard deed form used by Lake Tahoma, Inc. in its original sale of lots at Lake Tahoma. The terms and conditions in this deed apply today to all of the lots at the lake.

NORTH CAROLINA  
MC DOWELL COUNTY

THIS INSTRUMENT, made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_ and between Lake Tahoma, Inc. a corporation organized and existing under the laws of the State of North Carolina.

Party of the First Part, hereinafter called the Corporation, and \_\_\_\_\_ of McDowell County, North Carolina, Party of the Second Part, hereinafter called the Grantee.

WITNESSETH

The Corporation is the owner of that property known as Lake Tahoma, which consists of a beautiful lake, surrounded by mountains and some three thousand acres of land. The Grantee is a substantial stockholder in the Corporation. Both of the parties hereto desire to retain the natural beauty of the lake and its shoreline by having no unsightly or unattractive buildings erected which would detract therefrom. The Grantee has necessity for ordinary utilities such as electricity, telephones, water works, sewage lines, etc. and the same must be made available to him by lines, easements and right-of-way at places as yet not located and over some lands retained by the Corporation and over other lands conveyed, or to be conveyed, to other persons of similar desires and necessities. The Grantee recognizes the fairness of permitting others to have the same privileges he has received herein by crossing the lands conveyed to him by this instrument, with the usual utilities and conveniences.

The Grantee also recognizes that the value, attractiveness, and desirability of his property would be materially impaired if other lot-owners should build or erect unsightly and unattractive houses or other buildings or structures and that for his own protection as well as the comfort and satisfaction of others, it is necessary and desirable that the Corporation retain authority to enforce power and reasonable regulations for the above purposes and to preserve the beauties and attractions of the property owned by it and by the Grantee as a stockholder in the Corporation.

The foregoing statement of objectives is agreed to by both parties as a major part of the consideration for the conveyances of the property described in this deed.

NOW, THEREFORE, in consideration of the premises and the sum of One and no/100 (\$1.00) Dollar to be paid by the Grantee, the receipt of which is hereby acknowledged, together with other valuable considerations, the Corporation, pursuant to the authority given by its Board of Directors, has bargained and sold by these presents does bargain, sell and convey, subject to the reservations, restrictions and conditions hereinafter set forth to the Grantee, his heirs and assigns forever, the following, described piece, parcel and tract of land:

Being Lot No. \_\_\_\_\_ in Block \_\_\_\_\_ of that property known as Lake Tahoma, and as shown on a map made by Trent Parks, Registered Surveyor, dated June 17, 1947 and recorded in Map Book 2, at pages 9A to 9E, inc., in the Office of the Register of Deeds of McDowell County, which said lot is a part of those lands conveyed to the Corporation by A. Leslie Harwood, Jr. et al by deed dated October 19, 1945, and recorded in Deed Book 93, at page 328, of said Registry to both of which instruments reference is hereby made for a fuller description. Said lot being more particularly described as follows:

(Engineer's Description)

.2.

BASIC DEED

Any reference in the above description to Lake Tahoma means that the boundaries of the lands herein conveyed shall stop at the water's edge of the lake and shall give no rights, property or claims to any use or privilege of the lake or its waters or the lands normally submerged thereby, to the Grantee. The Grantee recognizes that only the owners of Class C stock in Lake Tahoma, Inc have any rights or privileges to use the waters of the Lake for any purpose and that Class C stock is callable by the Corporation in accordance with the terms stated in the certificate and that it cannot be transferred except with the approval of the Board of Directors.

EXCEPTING AND RESERVING from the above described property, however:

A. The perpetual right and easement to the Corporation, its successors and assigns, for its benefit and for the benefit of present and future owners of property in the above section to erect, install, maintain, renew and repair water lines, sewage lines, telephone lines, gas lines and electric lines over any portion of the property hereby conveyed and at such places and locations on said property as to the Corporation, its successors and assigns, may seem most practical and convenient, together with the right of ingress and egress at all times for the purpose of installing, erecting, renewing, maintaining, repairing or removing any and all of the conveniences and utilities above referred to.

B. The title to all the roads shown on the Maps referred to in the description, as well as all other roads on the Corporation's property, is retained by it; the Corporation reserving the right to relocate, alter, widen, narrow or close them or any part thereof if its Board of Directors shall so decide. The showing of roads or streets on the Map shall not constitute a dedication of them to the Grantee, the public, or any other person. However, the said Corporation covenants with Grantee herein that the powers retained in this paragraph shall not be used to prevent the Grantee, his heirs and assigns, from having access to and from his lot in substantially as convenient manner as he now has.

In consideration of the foregoing rights and easements above reserved the Corporation hereby gives and conveys to the Grantee, his heirs and assigns, the perpetual right and easement to erect, install, renew and maintain the named facilities and utilities over its lands for the reasonable and necessary use and enjoyment of the property above conveyed.

By the above reciprocal easements neither party hereto is obligated to provide the facilities and utilities, named, but shall have the privilege of doing so as he or it shall so elect.

In the event the Grantee herein, or his heirs or assigns, shall contest or deny to the Corporation any rights, privileges or easements hereinabove retained, such action shall automatically and immediately forfeit and relinquish to the Corporation, its successors and assigns, all of the rights, privileges and easements, herein granted.

THE GRANTEE for himself, his heirs and assigns, hereby covenants and agrees with the Corporation as follows:

A. The lands and rights herein conveyed shall not be used for any commercial purpose.

B. Not more than one residence or building capable of use as living quarters shall be built upon said lands.

C. To sell, convey or devise the lands and all rights, privileges and easements herein conveyed as a whole, and never to do any act which would have the effect of conveying just a part or portion of the same, nor of dividing or severing them.

.3.

BASIC DEED

D. In any conveyance or devise of the property and rights herein granted to him, the Grantee covenants and agrees to insert in such instrument conveying or devising said lands and property all of the conditions, covenants and agreements herein, made by him to the end that any new owner claiming under the Grantee shall be bound by all of the terms and provisions of this instrument.

E. No house, building or structure will be started, erected or maintained upon said lands unless and until the Grantee has submitted plans and information to the Building Committee of the Corporation and has obtained its consent and approval to erect the same with any modifications, alterations or improvements required by the Committee, provided however, that the Grantee may appeal from an adverse ruling by the Committee to the Board of Directors of the Corporation whose decision shall be final and by which the Grantee contracts and agrees to abide.

F. To do no act which will result at any time in changing the shoreline of Lake Tahoma, nor to mar its beauty or pollute or contaminate its water.

G. To fully and strictly comply with the letter, spirit and intent of the purposes set forth in this instrument.

In consideration of the above covenants by the Grantee, and his fulfillment and compliance therof, the Corporation hereby gives, grants, and conveys to him, his heirs and assigns forever, the following rights:

A. To connect up with and to use any and all roads, water lines, sewage lines, electric lines, gas lines, or telephone lines which now are, or may hereafter be, located upon any other lands of the Corporation, or upon which it has easements; provided, however, that the Corporation through its proper officials or committees shall have the exclusive right and power to designate the location and dimensions of said roads and connections; and provided further that the Corporation shall have no duty or obligation to provide the same nor to pay any part of the expense of doing so.

B. To require later purchasers of lots in Grantee's section to pay their proportionate part of the expense of the above named facilities and to reimburse the Grantee pro tanto.

All restrictions upon the Grantee and all covenants and promises herein made by him shall include the person to whom this deed is made, the members of his family, his guests, his tenants, and his heirs and assigns, and shall impose upon all of the above named the duty and responsibility of fulfilling and complying with all of the conditions, reservations, covenants and agreements contained in this instrument; but shall convey no property, rights or privileges to any person except the named Grantee, his heirs and assigns.

All of the conditions, covenants, easements, restrictions, reservations, rights, and privileges contained in this instrument shall run with the title to the lands herein conveyed forever; provided that if any of the same shall be held invalid because of the length of time, then those so held shall be effective and run with the said title for a period of thirty years from this date.

TO HAVE AND TO HOLD the aforesaid tract or parcel of land, and all privileges and appurtenances thereto belonging subject to the restrictions and covenants herein above set forth, to the said \_\_\_\_\_, Grantee, his heirs and assigns, to their only use and behoof forever.

And the said Lake Tahoma, Inc. for itself and its successors and assigns, covenants with said Grantee, his heirs and assigns, that it is seized of said premises in fee and has the right to convey the same in fee simple; that the same are free and clear from all encumbrances, and that it does hereby warrant and will forever defend the title to the same against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, Lake Tahoma, Inc. has caused these presents to be signed in its name, by its president and its corporate seal to be hereto affixed by its secretary, all by authority of its Board of Directors duly given.

This instrument is also signed by the Grantee in acceptance of all the provisions contained herein, this the day and year first above written.

ATTEST:

Secretary

LAKE TAHOMA, INCORPORATED

President

## Exhibit B

**BUILDING REGULATIONS**

No house, building or structure will be started, erected or maintained upon any lots or lands of Lake Tahoma unless and until plans and specifications for said house, building or structure shall have been submitted to the Building Committee of the corporation and said committee has given its consent and approval to erect the same, together with any modifications, alterations and improvements required by the committee; provided however, that a stockholder may appeal from an adverse ruling by the committee to the board of directors whose decision shall be final and binding. (Note – this clause is adapted from a similar provision in the Basic Deed.)

No house or building shall be erected upon a lot other than those that are designed for single family occupancy.

No more than one house or building for occupancy shall be erected upon a lot. Buildings shall be of a design, quality and workmanship and of materials which are compatible and harmonious with the natural setting of Lake Tahoma. Paints or stains, if used, shall be of a color which is similarly harmonious.

No building or structure, other than that portion of a dock or boathouse which must necessarily be affixed to land, may be built closer to the lake than thirty (30) feet or nearer to a lot boundary than ten (10) feet.

No dock or boathouse or other structure shall be built on the lake front which exceeds the following dimensions:

Width (combined, of all structures).....	50 feet
Length into lake from shore line.....	30 feet
Height (from spillway level).....	15 feet

Colors should be defined as earth tones of grays, browns, and greens. (Approved by Board of Directors November 10, 2007).

## Exhibit C

Revised May, 2008

## HUNTING, FISHING, BOATING AND SWIMMING REGULATIONS

LAKE TAHOMA, INC. (New Rules are underlined)

## GENERAL GUIDLINES

- All persons shall abide by all federal and North Carolina Wildlife regulations plus these Lake Tahoma Regulations.
- These regulations are for the safety and protection of the rights of each stockholder and their guests to ensure an environment of peace, tranquility and quiet enjoyment while at Lake Tahoma.
- Each stockholder is responsible and liable for actions of guests they have at Lake Tahoma and ensuring all persons are acquainted with these regulations.
- Regulations must be posted on each stockholder's dock.
- Family of stockholders are not considered guests at Lake Tahoma. Stockholder family is defined as:
  - \* Spouse of stockholder
  - \* Children of stockholder and spouse
  - \* Grandchildren of stockholder and spouse
  - \* Parents of stockholder and spouse
  - \* Brothers and sisters of stockholder and spouse
  - \* Children of brothers and sisters of stockholder and spouse
- Nothing contained herein shall give any family member any rights without the consent of the stockholder.
- The transferring, loaning, selling, renting, or trading guest privileges or rights to use Lake Tahoma property or resources is strictly prohibited.
- Stockholder ATV vehicles are allowed only if driven in a reasonable manner; slowly and confined to established roads, timbering roads and established trails. No dirt bikes. Guest ATV vehicles are not allowed.
- All persons fishing are subject to being checked by the caretaker for fishing limits. The caretaker is instructed to report violations of these regulations to the board of directors for enforcement.

## LAKE FISHING REGULATIONS

- Everyone is requested to practice catch and release for all fishing.
- For all guests fishing any part of a day in Lake Tahoma either from a boat, bank, or dock shall be counted as a guest day.
- Each stockholder may have 20 free guests per year (7/1 to 6/30) only 5 of which may be unaccompanied guests. Stockholders having over 20 guests per year will be charged at the rate of \$25.00 per guest per day.
- All fishing guests must be registered with the caretaker by the stockholder prior to arrival of the guest and each guest upon arrival must register with the caretaker and obtain a guest fishing card to be filled out and turned in to the caretaker at the end of the day. Any guest not obtaining a guest card shall be considered unauthorized and the caretaker shall ask them to leave the property. The caretaker shall notify the stockholder.
- Trot lines or unattended lines around the banks of the lake are not permitted.
- Fishing near an occupied dock or stopping to fish within 50 feet of any dock is not permitted unless invited.
- Limit for trout is 2 per day. (Please note any trout caught between June 1 and October 1 must be kept and not released.)
- Limit for bass is 3 per day. (All bass more than 15 inches must be released.) Limit for panfish is 15 per day per boat. Crappie must be at least 9 inches long. All smallmouth bass and grass carp must be released.

## STREAM FISHING REGULATIONS

- Stream fishing is artificial lures with single barbless hook (or pinched down barb) only. Stockholder and family may keep 3 trout per person per day. Guest fishing is catch and release only.

- Stream begins above each coffer dam.
- Each stockholder has four (4) guests days per year (7/1 to 6/30) and any part of a day counts as a full day (same guest registration procedures as lake fishing are required).
- Stockholder must be at the lake when a guest is fishing in the stream.

## HUNTING AND SHOOTING REGULATIONS

- No target shooting of any kind is allowed except at the shooting range off Highway 80 on Reedy Branch.
- All gun hunting is to be done from the road around the lake outward. Stockholder families may hunt any area of Lake Tahoma except within a marked 100 yard buffer zone around the "Golf Course" field and the field at the back gate on Little Buck.
- No guest hunting is allowed except for small game as defined by the North Carolina Wildlife regulations. Three (3) guest days are allowed per stockholder, stockholder or family must accompany the guest.
- No guest duck hunting is allowed. Two stockholder family hunters may hunt in the Buck Creek area above the bridge on Highway 80 and two hunters may hunt in Lake Tahoma at the upper end of Little Buck Cove. Duck hunters may reserve their hunt dates with the caretaker.
- Big game hunting is allowed as follows:
  - \*Deer hunting season limit is two (2) buck deer per stockholder family, six (6) points or more and one doe per stockholder family.
  - \*Bear hunting season limit is one (1) per stockholder family. Still hunting only is allowed (no dogs) and bear must be at least 150 pounds.
  - \*Turkey hunting season limit is two (2) per hunter.
- Baiting of game animals is strictly prohibited.

- Kills must be reported to the caretaker. Registering with the caretaker before hunting of any kind is strongly encouraged. The name of the owner must be placed on all tree stands.

## BOATING AND SWIMMING REGULATIONS

- All persons shall abide by all federal and North Carolina Boating regulations plus these regulations.
- No guest boats, trailers, kayaks, canoes, inflatable devices, or any other kind of water craft are allowed on the waters on Lake Tahoma.
- Every boat, motor or trailer that is not new must be steam cleaned in the presence of the caretaker prior to being launched into Lake Tahoma. This included paddles, bait containers, etc. If a boat is removed from Lake Tahoma and used in other waters, the boat is not allowed to be returned to the waters of Lake Tahoma.
- Boat motors are restricted to 6 H.P. on fishing boats, except for medical reasons when approved by written permission of the directors. Larger approved motors must be operated at the speed of a 6 HP motor.
- Pontoon boat motors are restricted to 9.9 H.P.
- It is expected anyone operating a boat on Lake Tahoma will practice safety and use common sense. No horseplay, excessive speed, loud motors, radios, etc. It is expected any stockholder observing unsafe behavior will report the action to the caretaker and the caretaker is instructed to report the incident to the Board of Directors.
- Swimming long distances without safety devises is not permitted.
- Swimming and diving around the casino and walkway is not permitted.

## Exhibit D

MISCELLANEOUS REGULATIONS

THE FOLLOWING REGULATIONS HAVE BEEN APPROVED BY THE BOARD OF DIRECTORS OF LAKE TAHOVA, INC. ANY STOCKHOLDER WHO FEELS AGGRIEVED BY ANY GIVEN REGULATION MAY APPEAL TO THE BOARD OF DIRECTORS FOR RELIEF.

ANNUAL ASSESSMENTS

An annual assessment against each stockholder to provide for the annual expense of the association as well as for an appropriate reserve to provide against future contingencies may be assessed annually by the board of directors. The amount of such assessment is in the discretion of the board of directors provided, however, that no assessment in excess of \$60 may be levied or imposed without first securing approval of the stockholders at a regular or special meeting.

ARREARAGES

The failure of a stockholder to pay any amount owed by such stockholder to the association within 30 days of presentment of demand for payment shall result in the imposition of the following penalties:

1. Imposition of a \$10 per month penalty for each month past due.
2. If payment is not made within one year from the date of presentment, an additional penalty in the amount of 10% of the debt shall be added to the amount claimed plus interest.
3. Failure to pay may result in withdrawal of Class "C" stock privileges. In addition, the association reserves the right to institute suit for recovery of any and all amounts due to it.

BOISTEROUS CONDUCT

Boisterous conduct, which might annoy other neighbors at the lake, is to be avoided. Each lot owner is responsible for the conduct of persons upon his lot, whether he is present or not present, and should be aware that in the event of boisterous conduct, appropriate steps may be taken to expel the persons involved in boisterous conduct. In addition, repeated violations could result in loss of Class "C" stock privileges.

BURNING

Burning of leaves, brush, wood, tree limbs, etc. at Lake Tahoe should not be done without first securing a burning permit from the authorities at Pleasant Gardens. The caretaker will advise where such a permit may be secured. Burning of materials which cause a noxious or offensive smoke or odor should be avoided.

COMMERCIAL VENTURES

Commercial ventures are not to be conducted on lots or the lands of the corporation. Dwellings at the lake are to be used for residential and recreational purposes only.

CORPORATION LANDS

Stockholders should be aware that the lands adjoining each lot belong to the corporation. In addition, the corporation owns almost 3,000 acres of land surrounding Lake Tahoe. No activity should be conducted on the corporation's lands including the cutting of timber, clearing, etc. without the specific permission of the board of directors.

DOCKS

Docks should be maintained in good condition and well painted at all times. Dangerous activities (such as horseplay) which might result in injury should not be permitted. There is an annual rental charge of \$1 for each dock on or over the waters at the lake. The amount of rental charge may be increased if the board of directors deems such increase appropriate.

No dock is to have a toilet or toilet facilities on it. Similarly, a dock is not to be used as a dwelling (that is, for continuous sleeping or kitchen purposes.)

FLOATS AND BARGES

No float or barge shall be placed upon the waters of Lake Tahoma without the specific approval of the board of directors.

Floats shall not be anchored more than 40 feet distant from the lake shore line. Floats should be maintained in good condition and well painted, and shall have reflector lights.

GUESTS

Stockholders are responsible for the conduct of their guests at Lake Tahoma. It is the stockholder's responsibility to see that their guests are aware of the rules and regulations of Lake Tahoma and abide by them.

INSURANCE

All lot owners who own or operate boats on the waters of Lake Tahoma should secure insurance covering the operation of such boat, so as to assure adequate compensation being available to persons who may be injured either in person or in their property by reason of the operation of such boat.

LAKE ACCESS

Convenient access to the lake will be given to all non-waterfront lots, the board of directors to designate the place of access for all such lots.

LOT EXCHANGES

No lot at Lake Tahoma shall be exchanged for another lot at Lake Tahoma without the express consent of the board of directors.

LUMBERING

No trees on the property of the corporation shall be cut without the express permission of the board of directors.

PAINTING

It is the responsibility of the individual property owner to see to it that his premises are maintained and stained or painted and kept in neat and trim condition. The color of paints used shall be those that blend with the natural surroundings.

RENTING

All lot owners are advised that privileges of lake use, which follow Class "C" stock, do not pass to persons renting property at Lake Tahoma.

RV'S

No recreational vehicle, trailer, mobile home, tent, barn or other similar out-building or structure shall be placed on any lot at any time whether temporarily or permanently except by special permission of directors.

SEPTIC TANKS

Lot owners are reminded that septic tanks can be constructed on lots at Lake Tahoma only in accord with the rules and regulations of governing municipal authorities. This is particularly true for regulations governing the distance which septic tanks must be from the lake shore.

SIGNS

No commercial signs, including "For Rent", "For Sale" and other similar signs shall be erected or maintained on any lot, except with the written permission of the board of directors.

Property identification and similar signs shall not exceed a combined area of more than two square feet. All signs shall be maintained in good condition.

STOCK TRANSFERS

The stock of the corporation can only be transferred by requesting permission for such transfer from the board of directors, and surrendering the stock certificate that is to be transferred to the secretary of the corporation. Upon approval of the transfer by the board of directors, a new certificate shall be issued to the proposed transferee.

TV ANTENNAS AND DISCS

Large television antennas which are mounted independently of a stockholder's dwelling as well as satellite reception equipment (known as satellite discs), are not to be installed on the lots of Lake Tahoma unless they can be installed so as not to be visible from the lake, from other lots and from the roads around the lake.

WATER LILIES

The planting of water lilies and other hydrophyllic plants in the lake is prohibited.

Page  
4 of 4

**McDowell County  
Land Development Permit**

Date of Application: \_\_\_\_\_ Permit Number: \_\_\_\_\_

**Applicant Information:**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: Day \_\_\_\_\_ Evening \_\_\_\_\_

**Type of use and Development:**

\_\_\_\_\_ New Construction Addition \_\_\_\_\_  
\_\_\_\_\_ Renovation \_\_\_\_\_ Other Specify \_\_\_\_\_

**Property Information:**

PIN# \_\_\_\_\_

Physical Address (Issued by 911) \_\_\_\_\_

Owner of Property: \_\_\_\_\_ Phone # \_\_\_\_\_

Is this property located in a Zoned area Yes \_\_\_\_\_ No \_\_\_\_\_

If Yes what Zoning Classification \_\_\_\_\_

Is the Property located in a Flood Plain Yes \_\_\_\_\_ No \_\_\_\_\_  
Or Floodway Yes \_\_\_\_\_ No \_\_\_\_\_

If yes Map# \_\_\_\_\_ Is property in the Watershed Yes \_\_\_\_\_ No \_\_\_\_\_  
Zone \_\_\_\_\_

**Certifications:**

If a permit is granted the undersigned agree to conform to all county ordinances and codes. Furthermore I agree to meet all state mandated standards such as health, building safety, and fire. I hereby certify that the above information is truthful and accurate top the best of my understanding.

Signature of Applicant: \_\_\_\_\_ Date \_\_\_\_\_

Approved By: \_\_\_\_\_ Date \_\_\_\_\_

Signing of this document certifies that the property owner or his/her duly appointed agent has checked to make sure the property will be in harmony with all applicable ordinances in effect in McDowell County.

(APPENDIX C)

**MCDOWELL COUNTY**  
**APPLICATION FOR WATERSHED PROTECTION PERMIT**

Development Name \_\_\_\_\_

Date of Application \_\_\_\_\_ Application No. \_\_\_\_\_ Date of Permit \_\_\_\_\_ Permit No. \_\_\_\_\_

Owner \_\_\_\_\_

Applicant or Owner's Agent \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Zip Code \_\_\_\_\_

Telephone Number \_\_\_\_\_

PIN \_\_\_\_\_

Deed Book \_\_\_\_\_

Page \_\_\_\_\_

Watershed Classification \_\_\_\_\_

Critical Area Total Acres \_\_\_\_\_

Protected Area Total Acres \_\_\_\_\_

General Description and Location of Property to be Divided: \_\_\_\_\_

Location of hazardous materials, as applicable \_\_\_\_\_

Type of Development:  Residential  Commercial  Industrial  
 Institutional  Governmental

Road System:  Public  Private  Private with DOT StandardsWater:  Individual  Community  MunicipalSewer:  Individual  Community  Municipal

I certify that the information shown above is true and accurate and is in conformance with Article 300, Section 30S of the McDowell County Watershed Ordinance.

Owner \_\_\_\_\_

Date \_\_\_\_\_

Plat Approval \_\_\_\_\_

Watershed Administrator \_\_\_\_\_

Date \_\_\_\_\_

Notes: \_\_\_\_\_

Office Use Only Non-Residential Development, 5%/70% Provision for WS II

Total acres eligible to be developed under this Provision \_\_\_\_\_

Total acres approved for this development Provision \_\_\_\_\_

Storm Water Management Plan submitted \_\_\_\_\_ approved \_\_\_\_\_

Hazardous Materials inventoried \_\_\_\_\_

**References**

North Carolina Department of Environment and Natural Resources, Division of Environmental Health, Public Water Supply Section, The North Carolina Source Water Protection Guidebook, Developing a Local Surface Water Protection Plan, 2006

North Carolina Department of Environment and Natural Resources, Division of Environmental Health, Public Water Supply Section, North Carolina's Source Water Assessment Program Plan, October 21, 1999

Basinwide Planning Program :: September 2004 Catawba River Basinwide Water Quality Plan, NC Division of Water Quality

NC Department of Commerce and North Carolina Employment and Securities Commission, 2006

City of Marion website [www.marionnc.org](http://www.marionnc.org)

McDowell County website <http://mcdowellgov.com>

**Glossary of acronyms and abbreviations**

AST-Above ground Storage Tank

BMP-Best Management Practice

CAP-Corrective Action Plan

DPPEA-Division of Pollution Prevention and Environmental Assistance

DWA-Drinking Water Assessment Area

DWM-Division of Waste Management

DWQ-Division of Water Quality

EPA-Environmental Protection Agency

GPD-gallons per day

Gpm-gallons per minute

NCDEH-North Carolina Department of Environmental Health

NCDENR-North Carolina Department of Environment and Natural Resources

NOV-Notice of Violation

NPDES-National Pollutant Discharge Elimination System

PCS-Potential Contamination Source

Ppb-parts per billion

Ppm-parts per million

PWS-Public Water Supply

PWSS-Public Water Supply Section

SOC-Semi-volatile Organic Compound

SPCC-Spill Prevention Control and Countermeasures

SWAP-Source Water Assessment Program

SWP-Source Water Protection Plan

UIC-Underground Injection Control

UST-Underground Storage Tank

VOC-Volatile Organic Compound

## **Source Water Protection Educational Links**

### **NC Public Water Supply**

**Source Water Protection and Assessment – SWAP and SWP Guidelines**

**<http://www.deh.enr.state.nc.us>**

### **NC Division of Water Quality**

**Buffers for Clean Water**

**<http://h2o.enr.state.nc.us/documents/BuffersforCleanWaterBrochure.pdf>**

**Water Quality *We All Play A Part***

**[http://h2o.enr.state.nc.us/documents/WaterQuality\\_Booklet.pdf](http://h2o.enr.state.nc.us/documents/WaterQuality_Booklet.pdf)**

### **McDowell County Watershed and other ordinances**

**<http://www.mcdowellgov.com> click on Planning**

### **Land of Sky Regional Council**

**Stormwater Fact Sheets**

**[http://www.landofsky.org/planning/p\\_water.html](http://www.landofsky.org/planning/p_water.html)**

### **Ecosystem Enhancement Program**

**Guidelines for Riparian Buffer Restoration**

**<http://www.nceep.net/news/reports/buffers.pdf>**