

Blue Water Task Force

**Presentation by Jon Holtzman, chair of BWTF
October 6, 2005**

to

**Montana Watershed Coordination Council
Quarterly Meeting**

Bozeman, MT.

I've been involved in the Task Force since mid-2000. I had read an article about a presentation being given on water resources at our local library. Tammy Crone was one of the presenters. Water collection on the Gallatin under direction of the MSU Water Center had just begun.

After training with Pete Schade I joined Gil Geesey collecting water samples 12 times a year at 7 sites on or near the Gallatin. I learned that in January water that seems to be flowing just fine can freeze solid in seconds when you take out in a bottle. With Michelle White I learned that one person watches the moose while the other gets the sample. Four years later we had established a data base of water conditions on the river.

I'll come to just why we did that later.

I've been coming to the Gallatin Canyon since 1965 when I had the wisdom and extraordinary good luck to marry a 3rd generation Montana girl. Her family had a cabin about 3 miles north of where Big Sky would eventually be. I've lived in the canyon full time since 1999.

The Development of the Canyon

To give you the background on the development of the BWTF I need to give you a quick chronological overview of the populating of the canyon and of Big Sky.

The Gallatin Canyon developed slowly because it was very difficult to get to and through. Therefore it was relatively protected from outside influences until long after the rest of Montana was being settled.

Early inhabitants were the Sheepeaters, supposedly related to the Shoshones. They survived by hunting mountain sheep. Every time they tried to leave the canyon to hunt buffalo the Crow or the Blackfeet made sure they headed back home. They didn't have horses and used dogs as beasts of burden. In the early 1870's the Crows settled things once and for all by wiping them out.

Trappers, hunters, prospectors and loggers visited the area from the mid to late 1800's.

Yellowstone Park was created in 1872 and business interests in Bozeman began to consider how to take advantage of the opportunities it was going to offer.

In the 1890's a road was constructed from Gallatin Gateway (Salesville) to Taylor Fork. In 1910 the road was extended to Yellowstone Park and stagecoach runs for tourists began.

Because the road made the area more accessible permanent residents began to move in. The Homestead Act of 1862 meant individuals could claim 160 acres of land to develop. Ranching – both sheep and cattle, fishing and hunting camps, farming and haying, dude ranching, logging all came to the canyon.

Ophir School District was formed in 1912. (biblical reference)

Things grew slowly for the next 60 years. The canyon was stable – even stagnant as two world wars and a depression ran their course. The population went up and down in a narrow range until the services needed for a growing community began to arrive.

1949 – electricity

1950's – a paved road (loggers needed it to haul out logs)

1953 – Porcupine School had three students

1955 – Soldiers Chapel was dedicated.

Canyon residents had a history of being against change. They wanted to preserve the beauty and lifestyle of the canyon. In the late 1940's Bozeman businessmen wanted to drill for oil in Taylor Fork and brought in Phillips Petroleum. The locals were against it and fortunately Phillips didn't find anything of commercial value.

In the 1950's Bozeman voters approved building a dam on Spanish Creek. The locals opposed it and, fortunately, the Forest Service listened to them.

In the 1950's a company from Minnesota clear-cut what is now Lone Mountain Ranch. The locals were against it. The trees were shipped back to Minnesota as pulp wood and in five years the company folded, leaving the clear-cut behind. It also left behind the new paved road into Bozeman that required rerouting parts of the river. The locals were against that too.

So if canyon residents sometimes seem opposed to things proposed by outside groups – especially groups from Bozeman – don't be surprised. They have a history. Even the developers get bent out of shape by entrepreneurs with no long term commitment to the area who come in with big plans, plow things up then – in the words of one – leave a mess for us to take care of.

The Roots of BIG Change for Big Sky

In 1968 NBC anchor Chet Huntley – a Montana – vacationed at the 320 Ranch and decided to look for his own ranch. In 1969, five days after Neil Armstrong walked on the moon, Huntley took options on 9000 acres of land to the east of Lone Mountain. His early idea of a ranch had morphed into a ski resort.

As you might expect, the locals (except for those whose land was optioned) were against it. They were concerned about change and potential damage to the area – including, no doubt, their unfettered access to virgin territory.

On the other side were Bozeman businesses and the Bozeman Chamber of Commerce all of whom saw opportunity.

With various stops and starts the resort – and development in general – moved forward. A Water and Sewer company was formed in 1973. It met the needs for over a decade.

But as Big Sky's development took off the sewer and water system began to fail. Pipes delivering water had shifted and a lot of water was being lost.

More seriously the ponds holding treated wastewater were leaking – 40 to 45 million gallons a year – into the ground.

Moratorium Halts Construction

The State Department of Health stepped in in 1993 and imposed a moratorium on building that required sewer hookups. Construction ground to a halt for over three years.

By 1996 a new manager – Ron Edwards – had been hired to develop and run the water and sewer district, voters had approved a district and engineers began developing a plan. That plan was approved by the Health Department in 1998.

But part of the approved plan included a permit to release up to 15 million gallons of treated wastewater into the Gallatin during high runoff periods.

WAIT A MINUTE! THE RIVER WAS GOING TO RUN THROUGH WHAT????

That might have been technically feasible, but it sure wasn't politically feasible.

Fortunately, as you know, that never happened. An agreement was reached with the Yellowstone Club that in return for treatment the Club would provide 130 million gallons of storage and use the water on its golf course. The Big Sky Resort course was already being watered the same way.

This made the Big Sky Water and Sewer treatment plant a closed loop. Treated water was used on the golf courses. Treated solids were reduced to a high quality mulch. You can buy it for your lawn.

I understand that because it is from Big Sky it is quite rich. Several bags have been circulating in the audience.

But before the agreement was signed:

The Montana Watercourse – in the person of Gil Geesey – posed a question and supplied an answer in the form of the Blue Water Task Force.

The question was: The sewer district says releasing treated wastewater into the Gallatin won't cause a problem. There is so much dilution during high runoff.

Well, how do we know that? And since we have no information on the current condition of the river how will we ever know if it will be degraded?

The BWTF was created to build a data base on the condition of the river.

The effort was supported by MSU's Water Center and received seed money from an endowment created by retired professor Vollney Steele – who is still around town.

Here's a quick overview of 4 years of data (powerpoint)

pH:

the EPA range is 6.5 – 9. Seven is neutral. Aquatic life is much more tolerant of basic rather than acidic conditions. The Gallatin is in the middle of the desirable range.

Water Temp:

Trout like cold water, rainbow even colder.

Dissolved Oxygen:

For healthy conditions for trout, and their favorite snacks, DO ought to be in the 80% and above range. The Gallatin averages that, winter and summer.

Turbidity:

Except for when Taylor Fork area gets heavy rain the Gallatin remains clear. Turbidity is so low – after you discount runoff – that it didn't seem to be an issue.

Nitrates:

Well within standards as were

E.coli:

Reforming the Task Force

By the beginning of 2004 the Water Center had achieved its goal of building a data base and was ready to move on. Those volunteers from Big Sky were offered the equipment purchased for the Task Force if they could organize.

Following several newspaper articles we held a meeting in March 2004 attended by over 30 people. At that point that was the biggest crowd I had ever seen in one place in Big Sky where there wasn't free food.

We organized throughout the summer and announced in August, in the local paper, that we were back in business. We had received a \$10,000 grant from the Resort Tax Board, hired a director and established a Board of Directors.

Our Board includes:

the owner of a rafting company
the director of the Big Sky Water and Sewer District
a real estate agent
the owner of a fishing guide and equipment operation
the executive director of the Big Sky Owners Association
a lawyer
and me – I represent the school district and old people

Our director is Katie Alvin. Katie has a BA in environmental studies from Kansas; a BS in soil science from MSU. She has worked with the Natural Resources Conservation Service of the USDA and the Gallatin Conservation District. She also runs her own mapping business, Carto-Logic.

We follow the Willie Sutton theory of financing: (Does everyone know about that?)

The Big Sky Resort Tax has funded us for two years: \$10,000 in the first year, nearly \$40,000 this year. \$19,000 is being used to meet our requirement for matching funds for an EPA grant for a TMDL on the upper Gallatin.

The Yellowstone Club and The Big EZ have come forward to help on the matching fund as well. We are hoping other major financial interests will join them.

Change in our community is accelerating:

From 1998 to 2004 daily traffic on the Spur Road (off 191 up to the mountain) has increased 58%. Remember when I said that in 1953 there were three students at Ophir School?

When I joined the school board 4 ½ years ago there were 84 students. Now there are 150, reflecting a growing permanent population. When I first moved to Big Sky in 1999 the registered voter list was 700. Now it is 1250. That equates to a permanent population between 2500 and 3000.

All of this change has made us realize that our timing was good and that we were right to continue what the Water Center had started. We have worked hard to understand the challenges and clarify our purpose and goals.

Our values

We describe our values as

Preserving the integrity of the natural environment.

Encouraging responsible growth and sustainable development.

Fostering an educated and involved community.

Fulfilling a commitment to future generations.

To accomplish our goals we have to be trusted by the community.

We have stayed away from advocacy as an organization – although some of us have advocated as individuals. We work hard on outreach to the school, service clubs, the Chamber of Commerce, and the community. Our plan is to invite groups in the community to join us on the river (real estate, Rotary, Big Sky hikers). We keep visible in the community at places like the Country Fair and with writing and submitting articles to the local newspapers.

I believe that we are not only known, we are trusted. We have been funded by elected directors of the Resort Tax and by developers to conduct the TMDL - that may very well have an impact on them – primarily because we are trusted members of the community.

What we are about is:

**Monitoring the Gallatin
Researching the watershed
Educating the community.**

How about the future?

We continue to be concerned about water from an environmental point of view. But we also want to look at water availability issues.

If we are at 30% build-out – and that's what they say – and that equates to 3000 permanent residents, then 100% build-out could mean 10,000 permanent residents.

Page 8

In the Big Sky Homeowners Association roughly 20% are full time residents. The remainders are part-timers. That might equate to a fluid population at build-out of 50,000.

And that doesn't even count skiers, hunters, fishermen and tourists.

These numbers are all a bit pie in the sky. There are too many variables to be certain.

But one thing is certain. Water quality and water availability are essential to whatever future we all have together.

I'll do my best to take about 5 minutes of questions, but remember Katie is the brains of the outfit and she's not here.