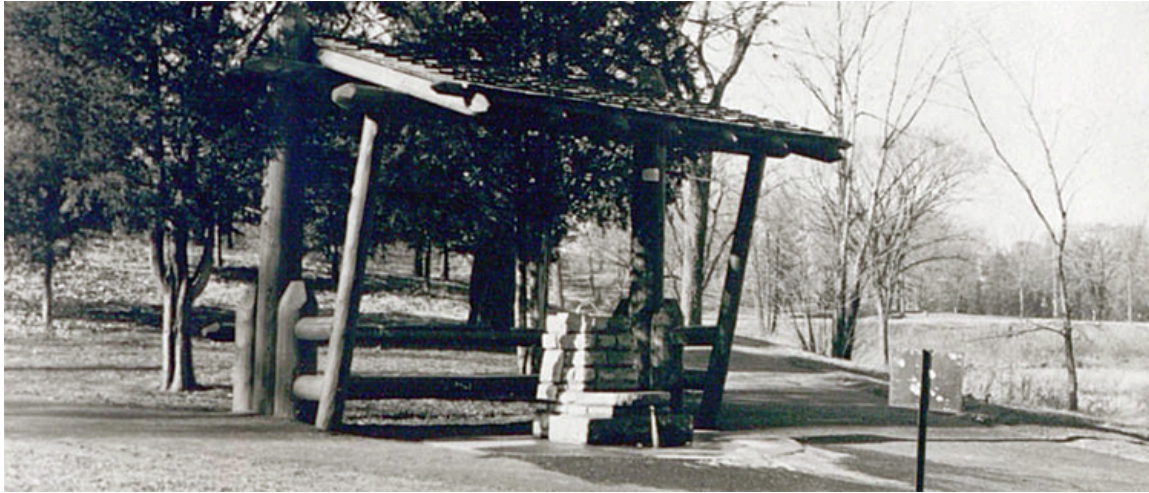


Notes on old Springs in and Around the Eloise Butler Wildflower Garden and Bird Sanctuary

This document features a series of first-hand accounts concerning the activity of four natural springs in the area of the Eloise Butler Wildflower Garden and Bird Sanctuary in Theodore Wirth Park, Minneapolis, covering the time period 1916 to the present.



Great Medicine Spring

During his tenure as Gardener at Eloise Butler Wildflower Garden [1959-1986], Ken Avery wrote about the springs in and near the Garden. He provided considerable detail on their activity or lack of activity. His successor as Gardener, Cary George, also made a few notes. Sometimes Mr. Avery's description of what spring he is talking about raises some confusion due to the words he used to describe the location but we can clear that up with another source. In almost all cases his notes refer to the Great Medicine Spring. First - here is Ken's earliest recollection:

The first time I remember seeing the spring was in 1951 when I went through the Garden with a class from the University. At that time there were four springs in the area that were running - - There was one at the lower end of the Garden, one just outside the Garden toward the picnic ground (where, I'm told, people used to have parties on spring water and gin), and there was one kitty-corner to the present spring at Glenwood Avenue and Glenwood Parkway.

By the time I started in the Garden in 1954, all had dried up except for the present spring, but the water level there was some five feet higher than it is now, and there was a fountain there at that time. There was also the tiniest trickle of water coming from the spring in the Garden.

The next year the trickle in the Garden was gone and the plumbers didn't replace the fountain. [The *Fringed Gentian*TM Vol. 23 No.1 January 1975 and also Vol. 26 No. 2 Spring 1978]



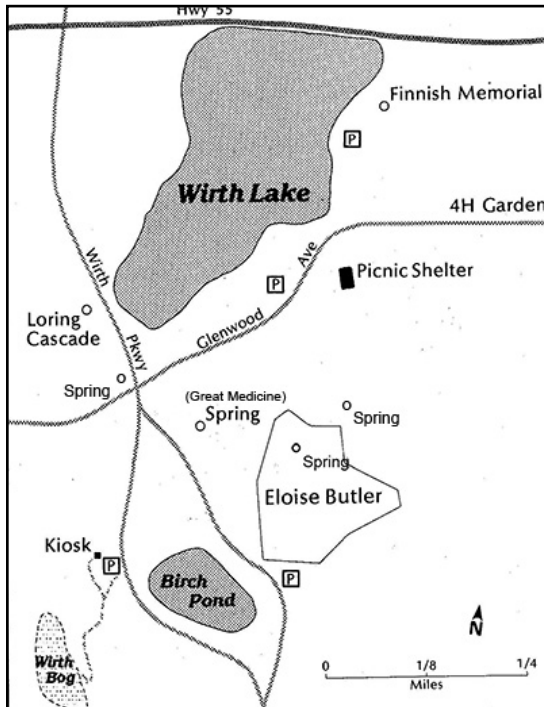
Gardener Ken Avery

Except for the spring at the lower end of the Garden, which we shall deal with later in Martha Crones notes, his use of the term 'the present spring' can, years later, be a bit confusing to us as to location. We can clarify that with the following statement by long-time Friends member J. S. Futch who wrote in 1992:

When I was a kid, all three of the springs [ed. outside the Garden] were running and available for people to come with their jugs and take the water. Besides the main one, there was the one on the

northwestern corner of Glenwood Avenue and Theodore Wirth Parkway, and the one to the east of the back gate. [50 Years of Friends, published by The Friends in 1992]

Below: Map of South Wirth Park around the Eloise Butler Wildflower Garden showing the locations of four springs mentioned in the text. Map from 1987 Garden Guide, updated by G D Bebeau



The one Mr. Futcher calls ‘on the northwestern corner of Glenwood and Wirth Parkway’ is the one Avery calls ‘kitty-corner to the present spring’ and what Mr. Futcher calls the one ‘east of the back gate’ is the one Avery calls ‘just outside the Garden toward the picnic ground.’ Mr. Futcher’s directions are exact as to where those other two springs are. The only one Mr. Futcher does not mention is the one inside the Garden that Martha Crone had work done on in 1939 and where Ken Avery states (above) “there was also the tiniest trickle of water . . . Thus, Mr. Futcher’s ‘main one’ is Mr. Avery’s ‘present spring’ - in other words - The Great Medicine Spring.

With that explanation, let’s read what Ken Avery wrote in the 1970’s:

Finally, some of you might be interested in knowing that the spring (located in the bog just behind the Garden) has dried up just as it did last year. It had done this before but only after prolonged drought periods. Last year it dried up after a short dry spell and this year it did so before the drought started. I'm afraid our spring is gone.” [The *Fringed Gentian*TM, Vol. 19 No. 4 October 1971]

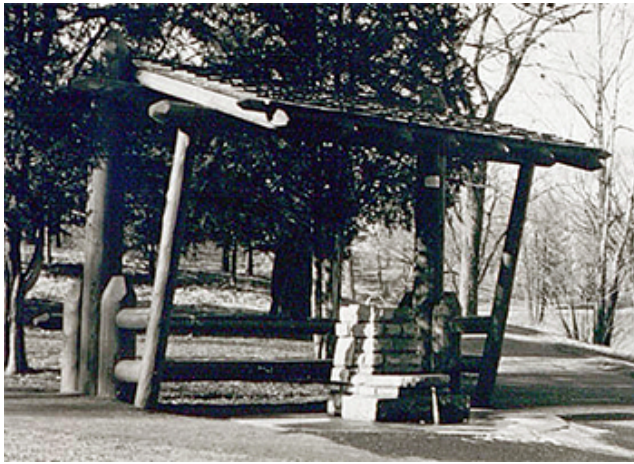
Part of what makes his location description confusing is “located in the bog just behind the Garden”. There is a boggy area on three sides of the location of the spring, but the spring itself is on raised ground.

If you remember last year, [1970] the spring dried up in midsummer and then started to flow again in mid-November. This year [1971] it also dried up in midsummer and this fall I kept a faithful vigil to see when it would run again. It was not yet running when we left the Garden on December 1. At that time, however, I found by pushing a stick into the pipe that the water was less than two inches from the top. On December 5, my wife and I stopped at the Park to fill the bird feeders there and found a



The new fountain on the Great Medicine Spring, installed by a WPA masonry crew in 1939. Photo by Walter Dalhberg, 1939. The fountain was permanently removed at the end of 1954.

trickle of water coming from the pipe at the spring. By Christmas Day the trickle had increased to a significant little stream. It seems obvious that the area's water table has become progressively lower for the last decade or two, but it has remained quite constant for the last year or two so it may have reached, or at least be approaching, its lowest point. [The *Fringed Gentian*TM Vol. 20 No.1 January 1972]



The new canopy over the new fountain on the Great Medicine Spring. Canopy built by Park Board carpenters and installed after the WPA masonry crew finished the fountain in 1939.
Photo by Walter Dalhberg, 1939.

[Avery continues] One physical phenomenon, which I have written of in the past and which seems to have been eliminated now, is the spring which ran from the time Minneapolis was first found until now ~ I'm afraid that we have finally managed to bring an end to this faithful servant as we have to so many before it. I have checked the water level and it is still well below the the original present surface of of the ground (which is eighteen inches below the original contour of the earth). It may run again for short periods of time but I'm afraid it should no longer be called a spring anymore than we should call a puddle a lake. [The *Fringed Gentian*TM Vol 21. No.1 January 1973]

I'm afraid that this will be my last word on the spring which I have mentioned in my past reports. It remained dry all winter this year. I left town for a week and when I returned on March 17, I notice that someone had capped the spring. On my first day back in the Garden, (the 19th) I removed the cap and about one cup of water rushed out and then it was over; and I'm afraid it is over forever. Our spring has gone the way of the Passenger Pigeon and for somewhat the same reason. [Fringed GentianTM Vol. 21 No 2 April 1973]

Guess What - - the spring is running again! The spring which I declared officially deceased in my report of March 1973 is running again. Actually I was wrong when I made my pronouncement as it never was completely dead, and even that year of 1973 it rose but it did so so late that I had already decided on its demise and had written its obituary. I think that the annual fluctuations of the spring are interesting and, assuming you will find them of some interest too, I will go back over its history. [The *Fringed Gentian*TM Vol. 23 No.1 January 1975]

That history he speaks of is the 1951 and 1954 comments given at the start of this article -
He then continues:

During the next fifteen years the spring flowed at different rates depending on the rains and on the season. It dried up two or three times during droughts and each year the average level of the water was lower than the year before. Then in 1970 it dried up in mid-summer during a little drought as it had done in the past, but it was establishing a new cycle. That year it didn't come back until mid-November.

Then the next July, just as it had the previous year, it dried up. This time we hadn't even had a good dry spell, and it didn't come back until the first week in December. The next year it ran a little less and then in 1973 it didn't return until mid-April after I had declared it dead. Last spring it came back equally late but it lasted a little later into the summer before it dried up. Now it's back running again. I found the first trickle of water coming from it on the 5th of December and it is running fairly well now. Until this year my feeling that the area was slowly drying up explained all but its actions this last

year have me puzzled. I guess I can add that to that book I'm compiling of natural phenomena that I can't explain. [The *Fringed Gentian*TM Vol. 23 No.1 January 1975]

For those of you who are waiting breathlessly for news of the Garden spring. It is flowing stronger than it has for at least 10 years. [The *Fringed Gentian*TM Vol. 27 No.1 Spring 1979]

The spring obviously ran periodically and sporadically in the years after 1979 as that is when Steve and Sally Pundt remember getting spring water along with others. But at a meeting of the Friends Board of Directors on April 15, 1989, Gardener Cary George stated that the spring outside the Garden had dried up. He noted again in 1990 that since 1987 the flow from the Great Medicine Spring had been minimal; former Gardener Ken Avery suggested that perhaps a hand pump could be used to still obtain water.

It is also obvious from Ken Avery's notes that the water table was lowering long before the I-394 construction occurred. While the dewatering for the freeway construction cannot be said to cause the drying up of the springs in the area, it is probably contributing to water levels not rising again.

The Great Medicine Spring became part of the history of the Friends of the Wild Flower Garden when the Friends agreed to fund a new well to try to reactivate the spring. In the spring of 2000 Friends President Steve Pundt wrote about the history of that involvement. Subsequent events which led to the virtual abandonment of the old spring are also reported below. Saratoga Springs was the original name of the area within which Wirth Park (originally Glenwood Park) was created, and, as the name suggests, there was a time when the area's water table was much higher and springs and seeps were everywhere.

Gardener Cary George wrote in 1998 in *The Fringed Gentian*TM, Vol. 46 No. 3:

The spring lies on an ancient Indian trail used by the Dakota Indians. They believed all of nature was endowed with "medicine." In 1851 the Dakota tribes ceded land that included the Great Medicine Spring to the United States government. The new well will be drilled to a depth of 240 feet. This is the same depth as the Glenwood-Englewood Springs just to the east of The Great Medicine Springs and lies within the same aquifer. [See note at end of text]

In the spring of 2000 Friends President Steve Pundt wrote in *The Fringed Gentian*TM, Vol. 48 No. 2:

In her carefully researched biography of Eloise Butler, Martha Hellander wrote that the spring located southeast of the intersection of Wirth Parkway and Glenwood Avenue was apparently the Great Medicine Spring which had been described in 1880s articles and books about Minnesota geology and history. It was reported that Indians traveled great distances to drink from the spring because of the medicinal properties of its water. [also, see notes on last page.]

When Sally [Mrs. Pundt] and I first discovered the Garden over 20 years ago, we also came across the old spring. We stood in line with others who were filling bottles and jugs. I remember one elderly man who claimed he drank nothing other than water from this spring! The water was cold, clear, and tasted great. It is a true spring - the water flows from the earth on its own, but the strength of the flow has always varied considerably. The flow decreased substantially, and stayed low, after the construction of the Highway 100/394 intersection. The quality has declined too. [A process called 'de-watering' was used to lower groundwater during the construction and following construction it continued due to the depression of the roadbed below the normal grade.]

To increase the water flow and quality, the Friends' Board hired Renner Well Company to drill a well at the site of the spring. [The well was completed on January 29, 1999] The result was disappointing. The water was no better. It turned yellow and tasted bad, not all what we remembered. The Renner Well people have been great to work with. At a special Board meeting in February [2000], they explained that the "spring water" we remembered was probably from a shallow well, primarily fed by rainwater. The old well pipe is only about 30 feet down, based on Renner's information about the Park Board wells which date to 1906-1912.



The catch basin and pump of the Great Medicine Spring, not functional, as seen in 2008. It is unclear when the existing rectangular stone catch basin was put in, perhaps when the fountain was permanently removed in the 1950s, but it is just downhill from the pump on the spring and predates the work done by the Friends in 1999/2000.

Other wells in the park system are much deeper, 300-450 feet, into the Shakopee-Jordan aquifer. When drilling our well, Renner hit a strong flow of water at only 135 feet down. Drilling all the way down to the aquifer would have required double casing and would be very expensive. Renner recommended pumping out a large quantity of water to try and clean the spring water. This was done at the end of March [2000]. The results were good. Taste and clarity were improved.

To improve the flow of the water Renner is to install a hand pump. To improve the appearance of the area and the spring, the Park Board landscape architect is designing a site plan. To educate the public about the historic significance of the spring, the Friends will fund interpretive signage. Our long-term vision is to upgrade the entire entrance area off Wirth Parkway with improved landscaping and signage.

From *The Fringed Gentian*TM, Vol. 48 No. 2. Text in [] has been added for clarification of events.

[See additional note at end of text]

This summary was the state of affairs in the spring of 2000.

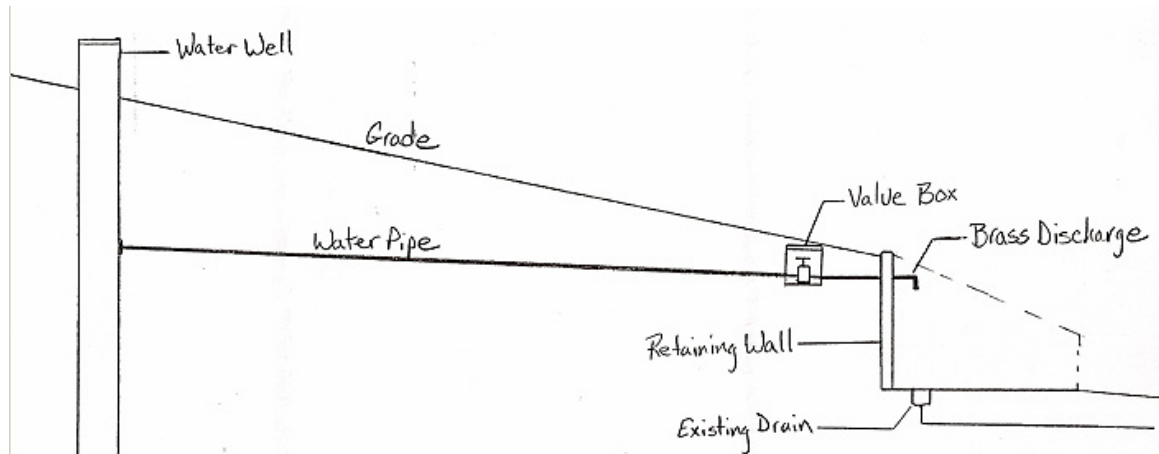
Subsequent Events 2000 - 2020

There were new developments in 2000. The spring did not flow at the previous rate. A report dated February 15, 2000. was received by the Friends from Renner & Sons. They addressed the reduction in flow from the spring. During the winter of 1999-2000 the well had been allowed to flow freely (as Steve Pundt mentioned in his article) to prevent freezing and now a hand pump was discussed as the practical option to install.

Renner's report stated

We originally anticipated a flow rate of 5 to 7 gallons per minute, which would prevent freezing, and hoped that a hand pump would not be needed. The well initially produced this volume. However the flow quickly diminished, over the next couple of days, to its current rate (approx. 1 gallon per minute). The Well has flowed through the winter which makes us very optimistic that it will not freeze as long as we allow it to continue. With the current configuration (see diagram) a hand pump could be installed and we would not expect any alteration in the flow rate of the well.

Below: The configuration of the new well placement with its connection to the old spring drainage basin.
Diagram by E. H. Renner & Sons.



The hand pump was installed in the summer of 2000 but water flow declined even more from the initial good flow and the purity of the water was in question. In addition, landscape work around the new well construction site still had to be finished.

Eventually, public access to the spring was discouraged, first by the Park Board removing signage about the spring from the parking lot area along the entrance road to the Garden and then several years later by removing the spring parking area entirely. The landscaping completed around the well and drainage basin is shown in the photo above as it was 2008.

On May 22nd, 2011 a powerful tornado began its destructive path near Glenwood Ave and Theodore Wirth Parkway, just west of the old spring. There was damage within Eloise Butler Wildflower Garden, but the heaviest damage was just to the north, including the area of the old spring. The photos below the condition of the site 14 months later on July 25, 2012. Gone are the trees and the appearance of previous landscaping. Water still drips from the pipe outlet of the spring, but all is abandoned and nature begins her reclaiming process.





In 2014 the hand pump handle was removed so that people could not attempt to pump water as testing indicated the well had contaminant issues. In 2018 the contaminants of bacteria and arsenic exceeded maximum allowed levels so the site was closed off and the well capped. The 1st photo below shows the pump in the Summer of 2014. The second photo shows the scene after the pump, well pipe, concrete pad and valve box were removed on June 25, 2018 and the well capped. Only the catchment basin retaining wall remains.



The Natural Spring at Glenwood Ave. and Wirth Parkway



Each day hundreds of people drive by the intersection of Wirth Parkway and Glenwood Ave., perhaps on their way to or from the Wildflower Garden just around the corner on Wirth Parkway. Most probably never pay any attention to this ragged group of shrubbery on the NW corner of the intersection, but therein lies one of the four natural springs in the immediate area of the Wildflower Garden.

In the text above the location of this spring is identified by both former Eloise Butler gardener Ken Avery and by Friends member J.S. Futch. Mr. Avery states that in 1951 the spring was still running. It was one of three running springs in the immediate vicinity of the Eloise Butler Wildflower Garden, plus the spring in the Garden, but that by 1954 it had dried up.

There remains today a capped metal pipe sticking out of the ground and the crumbling semi-circle of stonework. In 1939 a WPA masonry crew installed that stone work and a catch basin. They came back in 1941 and installed concrete steps leading from the Parkway down to the spring. Today, nature has taken over, the staircase is gone, but the traces of history are there.



As seen today: The catch basin of the old spring at the corner of Glenwood Ave and Theodore Wirth Parkway with old capped pipe showing. Photo - 2016, G D Bebeau



The old catch basin of the spring just prior to 1939 WPA concrete work. Photo by Walter B. Dahlberg.



New stonework just completed by the WPA crew in 1939 at the corner of Glenwood and what is now Wirth Parkway. Photo by Walter B. Dahlberg.



In 1941 a WPA masonry crew added these concrete steps leading off Glenwood Parkway down to the spring basin. Photo by Walter B. Dahlberg.

The Spring outside the Garden Back Gate

The 1939 semi-circular stonework around the spring on Glenwood and the one outside the back gate of the Garden are identical whereas the 1939 stonework of the Great Medicine Spring was removed when the fountain was dismantled.



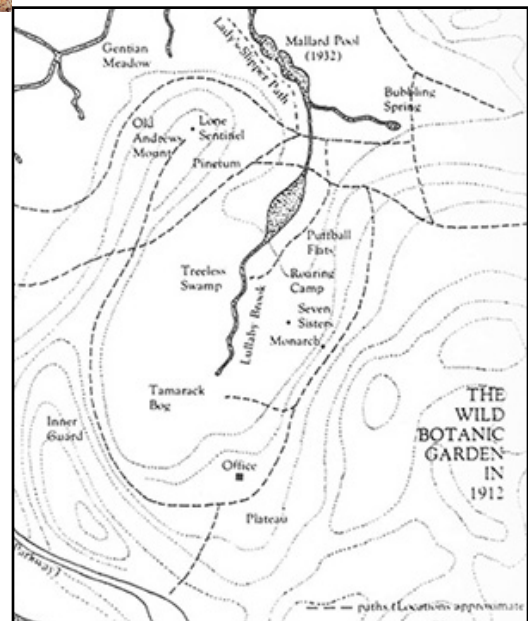
The catch basin of the old spring just outside and east of the Garden's back gate, 1939 construction. The run-off channel is seen in the upper right of the photo - water there flows northwestward to join with the outflow from the Garden and then into to area of Eloise Butler's Mallard Pool. Photo - 2015 G D Bebeau.

This spring contributes to the history of Eloise Butler's Mallard Pool, which lay in what is now a wild area north of the Garden's back gate. Eloise stated she placed her pool just below where two streams combine in the north meadow. One of those streams is the runoff from the Wildflower Garden and the other moves water from the east, incorporating any runoff for the spring, and then joins

the Garden runoff stream and the combination flow north toward Wirth Lake.

In the previous text of this document, Mr. Futcher states that the spring was running when he was a kid (i.e. 1940s). Although in 1934 Martha Crone noted in log on July 2 that the 'drinking spring' had dried up. Based on the text below, we believe this is the spring she was referring to. Thus, the events of later years were already foreshadowed in the 1930s.

This is the spring that Ken Avery referred to in the



A plan Map of the early Wildflower Garden with Eloise Butler's place names. Note the "bubbling spring." Map courtesy Martha Hellander.

text above “*where, I’m told, people used to have parties on spring water and gin.*” The name "Bubbling Spring" came about in 1916. On September 24 that year the *Minneapolis Tribune* announced that the Park Board would open that week a hiking trail traversing the length of Glenwood Park from Superior Blvd. (now I-394) to Western Avenue (now Glenwood). Along the rolling hills were to be dozens of camp sites for "the hiker to stop and kindle a small fire." The Park Board was planning to erect a series of stone fireplaces along the trail.

The natural amphitheater at the northeast edge of the Garden was mentioned along with the mammoth elm the stood there, referred to as the "patriarch of Glenwood" and at the base of the hill was a natural spring that had now, to prevent contamination, been forced to run through a bubbling fountain. Here is the origin of the name "bubbling spring" used often in the future.

Martha Crone’s notes on the Spring in the Garden.

Martha Crone was Curator of the Eloise Butler Wildflower Garden from 1933 through 1958, succeeding Eloise Butler. During that time an open area of water existed in the wetland area of the Garden. Excess water in the wetland from rainwater and from the general level of ground water drained northward out of the wetland. Spring water was also known to exist.

A small pool had been created at the north end of this wetland by a dam Eloise Butler installed in the first years of the Garden's existence. It was an earthen dam at first, replaced by a concrete dam in 1917 and then a rock dam in 1992. Overflow from the dam drained into the meadow north of

the Garden's current back fence, where in 1932 Eloise Butler created her Mallard Pool

The 1930s were mostly dry years and water levels fluctuated considerable. In 1939 during late summer and into fall Martha started a project of tapping a spring in the marsh to fill the pool of open water maintained there. [This is the spring the Ken Avery refers to in his notes as being reduced to a trickle in 1954.]



This pipe in the wetland appears to be a cap for the spring that was tapped in 1939. Photo G D Bebeau.



Martha Crone in the Upland Garden in June 1951, from an article in the *Minneapolis Tribune*.

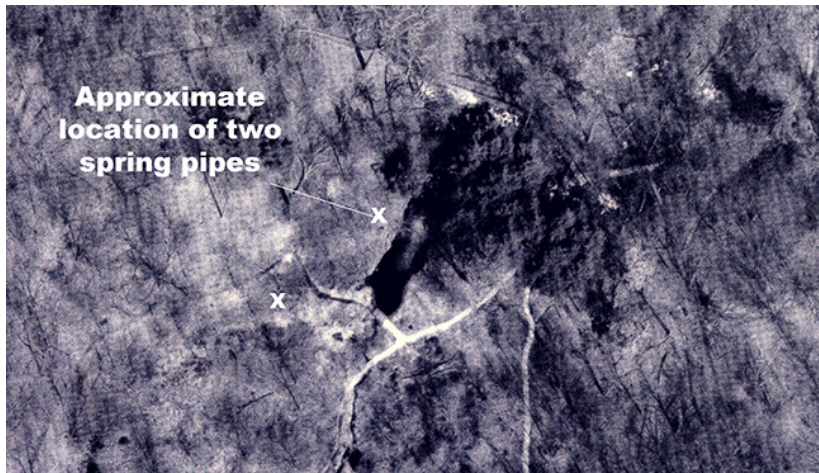
On August 22, 1939 a group of men came in and began

looking for a spring near the pool. While they were there they closed up a hole in the office dug by a woodchuck. On the 28th the men struck the spring on the west side of the pool, they secured the area from their work making it un-noticeable. The spring had a large flow and within 24 hours had noticeably put water in the pool. By the 31st, the pool was running over so on September 2nd the men came back and put in a drain pipe so the pool would drain excess water through a pipe.

It's not clear from Crone's notes as to where this pipe went or why it was necessary as all excess water drained northward where it could flow over the dam and out of the Garden. The drain pipe may have been necessary to prevent washout of the northward flowing water channel that drained the wetland. The pipe would have led to the dam area where the excess water could then drain.

In a conversation this writer had with former Gardener Cary George [May 18, 2018] he said that when the current small pool was dredged in 1990/91 there was a 4 inch pipe coming out in the hillside by the existing pool. During Martha Hellander's research work for her book on Eloise Butler, she met with Ken Avery. Her notes [in possession of this writer] state that Ken told her that this pipe was about 3 to 5 feet up the hillside on the west side on the Garden pool and that there had been two springs in the wetland. This hillside pipe was about 50 from the other spring in the wetland. That spring now also has an upright pipe which is near a large River Birch and about 20 feet from the current wetland boardwalk path. This is the one pictured in the photo inserted into this text. When he retired, one of the pipes had started to drip water - the first time in 30 years. The pipe in the wetland [furthest from the hillside] Avery told Hellander ran water up to about 1953, the year before he came to the Garden, which ties in with his statement in 1975 that "there was also the tiniest trickle of water coming from the spring in the Garden." [*The Fringed Gentian*TM Vol. 23 No.1 January 1975] Both pipes were at some time capped but it is unclear when. It also unclear who put them in but it would appear to have been the 1939 crew. Dan Hasty, MPRB Foreman of Horticulture for the Park Board at the time, told Hellander he tried but could not get the cap off the one in wetland.

The 1939 crew that worked on that Garden spring may have been a Park Board work crew or the same WPA masonry crew had been placing new masonry work around the other springs near the Garden, of which there were the three mentioned above - the one behind the Garden back gate, the Great Medicine Spring and the one on the Northwest corner of Theodore Wirth Parkway and Glenwood Ave.



Left: The approximate location of the two spring pipes referred to above. The photo is a 1993 aerial of the back section of the wetland after the back fence had been moved northward (up) and the pool dredged. University of Minnesota photo.

[The 1939 notes are from Martha Crone's diary, 1939, Martha Crone Collection, Minnesota Historical Society.]

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The issues of the the Friends newsletter, *The Fringed Gentian*TM that are referenced in the text are the volume and issue numbers as they are archived on the Friend website archive of past issues.

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Notes to the text on Native American activity and whether this is the Great Medicine Spring: The statements in the text above of Cary George and of Steve Pundt, referring to Martha Hellander's research, about the path to the Great Medicine Spring being an old Native American path can be associated with statements made in earlier years such as the following:

The Great Medicine spring, an old resort of the Indians, is situated a few miles west of Minneapolis. It is chalybeate, as shown by its taste, and by iron coating formed by the water on the surface over which it runs....

From Volume 2, Hennepin County Chapter of *The Geological and Natural History Survey of Minnesota*, Pioneer Press Co. 1888, page 311, by N. H. Winchell.

From *Minneapolis Tribune*, September 26, 1874.

The people of Minneapolis will perhaps be interested in knowing that they have one of the finest mineral springs in the country right handy to the city; one that in its way was famous long ago. The spring alluded to is situated about two miles from the city on Western Avenue, on the land of Mr Wales, and is said by Col. John H. Stevens and other of the first settlers, to have been largely frequented by the Indians, who came hundreds of miles to get the benefit of its medicinal qualities in cases particularly of consumption and kindred complaints. The water is strong chalybeate, and is esteemed especially as a tonic and as latterly large number of persons are daily visiting it.

Is this the site?: The land owned by Mr. Wales was the south half of the SW quarter of Section 20, Township 29 of what is now Hennepin County. That land is directly north of the East half of the NW quarter of Section 29, land where Martha Hellander's research verified includes the present Wildflower Garden. It was owned by Samuel and Susan D. Gale who had acquired it in 1866/67. The Gales owned it until 1885 after which it was platted for houses but then acquired by the Park Board to create Saratoga Park, which then became Glenwood Park in 1889. That the spring on Mr. Wales land would have been the Great Medicine Spring can be deduced from this: The south boundary of Section 20 (and therefore north boundary of Section 29) later became Chestnut Avenue. If Chestnut Avenue were extended west of its current terminus at Xerxes Avenue, it would run just south of the spring we call the Great Medicine Spring. It has been noted in another reference that the spring on the NW corner of Glenwood and Wirth Parkway was the Great Medicine Spring. While that site was also on the land of Mr. Wales, it seems the site nearer the Garden, with all the infrastructure lavished on it by the Park Board in the 1930s and later, and with its longevity, would be the best candidate and is more likely based on information in the next paragraph

Also in that research of Hellander were notes of conversations with Jean Rohrbaugh, that John Babcock, owner of the property at 227 Xerxes Avenue where Eloise Butler roomed until her death, had found Indian relics such as arrowheads, a smooth grinding bowl and pounding stick such as would make a mortar and pestle around the spring in the park.