

Cane Creek Reservoir

COMMENTARY AND SIDEBAR NOTES BY L. MAREN WOOD

As you read...

ABOUT RESERVOIRS

A reservoir is a man-made lake created to store water. The most common type of reservoir is built by damming a stream or river. When a dam is built, it serves as a barrier to prevent the river or stream from flowing. As the water backs up behind the dam, it fills in the surrounding area and creates a lake.

Cities and towns create reservoirs to store water for a variety of purposes, including agricultural irrigation, power generation, flood control, and drinking water supplies. One of the benefits of creating a reservoir is that a municipality can store water during rainier parts of the year that can be used during drier times, which can help lessen the effects of drought.

But the creation of reservoirs can also be controversial: Damming a river or stream causes environmental effects that can interrupt fish migrations, increase erosion, and change the local ecology so that native plant and animal species can no longer survive there. Reservoirs also cover previously dry, inhabitable land with water, which often means that people who once lived in the area are forced to move.

QUESTIONS TO CONSIDER

1. According to Okun, when did the University recognize there was a problem with the water supply and why did they eventually come to that conclusion?
2. What other solutions did Okun and his students study?
3. Why did Okun come to the conclusion that Cane Creek was the solution to the water supply problem?
4. What were the limitations or problems with the other solutions?
5. According to Johnson, what different sections of the Cane Creek community came together to oppose the construction of the dam? What were the different motivations that brought these people together?
6. What were some of the ways the coalition attempted to prevent OWASA from building the reservoir?
7. What were the limitations of this coalition? Why did it eventually break up?

Google map: This interactive tool or multimedia is available in the web edition of this page.



Figure 1. Cane Creek Reservoir in Orange County was completed in 1988 over the objections of landowners whose property was flooded.

The University of North Carolina at Chapel Hill and the communities of Chapel Hill and Carrboro long relied on University Lake for their supply of water. In the 1970s, the communities were outgrowing their supply and new sources of water needed to be found. The Orange County Water and Sewage Authority (OWASA), which was responsible for supplying water to these communities, began reviewing proposals for locations to build a new reservoir. In 1976, a feasibility study conducted by an independent firm concluded that the best location for a new reservoir was Cane Creek, about fifteen minutes from Chapel Hill. Armed with this study, OWASA began actively developing a strategy to acquire about 450 acres of land near Cane Creek for the construction of the reservoir.

Residents and landowners near Cane Creek were generally opposed to the creation of the reservoir and formed the Cane Creek Authority Conservation group to lobby against OWASA. Over the next several years, citizens of Cane Creek took OWASA to court to prevent the construction of the reservoir. They argued that the construction of the lake would alter their community, destroy farms, and accelerate the decline of agriculture in the region. They also argued that Chapel Hill and the University had failed to explore other options, such as expanding the existing University Lake. Cane Creek residents insisted that they were being asked to sacrifice their land, community, and livelihood for another town.

Despite their efforts, the courts gave OWASA the authority to proceed with the construction of the reservoir. Land owners either voluntarily sold their land or were forced to sell due to a law known as *eminent domain* which requires people to sell their homes or land to a state or local government so that the land can be used for public benefit — usually civic projects like bridges, highways, railroads, or dams.

Below are two interviews taken in the 1980s which present both sides of the Cane Creek controversy. When these interviews were taken, the reservoir had not yet been built. The reservoir was completed in 1988.

The case for the reservoir

In this 1985 interview, Daniel Okun, a professor at the University of North Carolina at Chapel Hill, at the time, lays out the case for creating the Cane Creek reservoir.

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Laura Drey

How did you become involved in the Cane Creek reservoir issue?

Daniel Okun

Well, in the first place I live here, though I don't use the OWASA water. We live out of town, but when the Cane Creek issue began, we were living in town. [Laughter] The way it began is very interesting. When I came here, in my course I had a case study. I realized at that time [that] the University owned the water system.

When the water system was built, it was planned in 1930. It was completed in 1932, the present system that we have now. It was, at that time, quite large enough, but

when I got here in '52, twenty years later, it was clear that it was inadequate. In the postwar period the University was very happy with it.

I had my class every year studying. . . . The title of my class was Additional Water Supply for Chapel Hill. [Discussion on class] So I gathered a lot of data and kept it, and I provided them with a lot of data. Then they had to take the data and conclude [what] the best thing to do was.

In fact, I wrote a letter to the University. I'd been telling them about this, but then I felt I had better put it on paper. So I wrote them a letter saying they needed to do something, or there would be a very serious problem [because of the rate the student and community population was growing]. Really, nothing too much was done until we had this very serious drought in 1968. [Continued discussion about class] the fact that the University wouldn't let them in the fall. The football would have to be canceled. Anything else doesn't matter but when you can't play football. . . . [The University was talking of closing for a time]

One of the options for our water supply, based upon the information that we had—the best option, the one that seemed the most appropriate—was enlarging University Lake. The reason for that was...

Laura Drey

That was back in '68?

Daniel Okun

That was in the 50s and 60s. The reason that that was the answer that we used was because. . . . We were not being paid. We had no money to go out and do surveys. At that time there weren't any maps of the area west of here. So our students could only work with the maps that existed. [Discussion of maps] Those that existed were of Chapel Hill-Carrboro. So we had the drainage area here. We had choices. We could put another reservoir in the Northern Creek drainage area or enlarge this one. We studied many choices. We also considered the Haw River, and, of course, at that time we knew about the Jordan River Reservoir being done. So we studied all of these options, and generally, the one that seemed to be most appropriate at that time was increasing University Lake. However, as soon as the mapping was done, we got copies of the preliminary maps. [Discussion of maps]

Then many of our students used new maps, and it became quite clear that there were some additional [reservoir sites] west of here. You need not only a watershed drain, you need a place that's a suitable place for a dam. At that time also the new Council of Governments made a survey of water resources. As soon as the maps were finished, they did this. And a good reservoir site existed out at Cane Creek. There were a few others also. So we were able to enlarge our field of study at that time. [Discussion of maps] But once we had the new area [mapped], it became clear that Cane Creek was a very good option, and it was a good option from many, many standpoints. The students, after that, added to the Cane Creek option. They added a few other reservoirs. After that [mapping], Cane Creek, enlarging University Reservoir, and Jordan Reservoir were the three major options that were evaluated.

So Cane Creek seemed very desirable. Of course, one of the reasons it was very desirable was that it was of adequate size. But the more important reasons—because Jordan Reservoir is of adequate size too, much more than adequate size—the far more important reason was that there was no development out there, no urban or industrial development. The quality of the water out at Cane Creek promised to be as good as University Lake. University Lake is a high quality of water, but, of course, University is also a protected watershed. In fact, one of the ideas that made Cane Creek attractive was that you didn't have to build a pipeline all over town because of hooking water to University Lake.

That would be one of the proposals for taking water out of Jordan and putting it into University Lake. But the problem there is that you're taking a very good lake and putting very bad water into it, and that's not desirable. In this case, with Cane Creek [having] as high quality of water as University Lake, and having high quality yield, and it's [being] much more economical than enlarging University Lake... University Lake would be very expensive, and we would not have much additional water, because we would be just adding to what exists now. Whereas, this [way], we keep what exists and we're getting—if we enlarge University Lake, we grow to the maximum yield. The maximum yield for about 30 square miles is about 10 million gallons a day. We had about three in University Lake, and if we enlarge it, we can get about ten. Going to Cane Creek we get a whole new ten, because it's a different watershed. So we add the ten to the present, and pretty soon we've got more, and the cost for the construction is even less than [for] University Lake. It always costs more to enlarge an existing lake than to [unclear] in the new. If it turns out that that should not be enough, then we've still got the option of enlarging University Lake [unclear] while it still exists. So it seemed to be, on engineering measures and from all other measures, the best solution. For years, every year, we'd study and the students would discuss it and evaluate it. So over the years I knew quite well what was going on and quite a bit about it.

In fact, I was on a sabbatical leave in '68-'69, and when I came back, I found that the University was beginning to consider what was happening [and looking for an] additional water supply. They were considering Jordan Reservoir because when the Corps of Engineers² were planning on that, they were looking for customers. When I found that out, I objected strenuously. I went to the Board of Trustees. The Board of Trustees said, "Well, doesn't Jordan Reservoir meet the standards?" I said, "Sure, it meets the standards, but that's not adequate standards. The standards are way behind the times," and I urged them to go to Cane Creek.

Opposition to the reservoir

In this 1985 interview, Edward S. Johnson describes one group's efforts to prevent the construction of a reservoir on Cane Creek.

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There was another meeting the next week; and there seemed to be general community opposition to the reservoir; and also a lot of ignorance about what the law was, and whether there was any recourse at this late date, and so on. So there was a lot of information-gathering to be done; and various of us set about doing various things.

A rather neat thing about the community is that it contains a diverse set of people. There are a number of old farming communities that go back 200 years—The Kirks, and The Lloyds, and The Snipes, and The Teers, and so on, and The Crawfords have been around for generations. There were a number of people, such as me, who had moved into the community and some had University ties. There were, here and there, a lawyer or an executive of some sort or whatever—people who had had some contact over the years with bureaucracies. It turned out that one of the talents that we needed was dealing with bureaucracies. And there was another group of people. At that time we referred to them as “hippies” but they were basically counter-culture types who moved out in the country to get away from everything. They were into arts and crafts and conservation and organic gardening and so on. And all three groups were together at this meeting.

This was the first time that a lot of us had laid eyes on people of the other sort. It all came together rather nicely.

Well, we contacted lawyers, eventually hired some; acquainted ourselves with laws, Environmental Impact Statements³ and such and found that OWASA had been cutting a lot of corners and did not know, apparently, that they had to file an Environmental Impact Statement because the Corps of Engineers had jurisdiction over Cane Creek because the flow average throughout a year was 20 million gallons a day down the Creek. I think at that point the Corps of Engineers had recently been given jurisdiction over all creeks up to the headwaters where the flow was five million gallons a day. So this means that the Corps of Engineers, although they did not want the authority, had authority over anybody who wanted to impede the water. That, of course, meant that OWASA had to file an Environmental Impact Statement.

Well, our first legal action involved an injunction against OWASA for getting on the land and surveying. This was a much objected-to practice by the landowners; they did not want OWASA people on their land surveying. We took that to court, and lost it; but I guess we also demonstrated with that action our determination. The focus of attention then shifted to the Environmental Impact Statement and that turned out to be a highly complicated affair. It was laden with politics and power and also a lot of bureaucratic paper-shuffling. It turned out that there was another legal hurdle that OWASA had to get over; and that involved the acquisition of land. It looked like, from our opposition, it looked to OWASA as if they were not going to simply buy the land by waving dollars. It looked indeed as if they were going to need condemnation authority.⁴ OWASA, being a strange legal beast, did not automatically have the power to condemn land.

Water authorities, which OWASA was one of, and I think there may be only one other in the state, the enabling legislation only dates back to the late 60s or early 70s. The legislature saw fit to require that the authorities apply to the state government for condemnation powers and in so doing they had to meet several criteria: Showing that their choice of a reservoir site was the best possible one and that water quality was going to be high and a number of other criteria, including some social impacts. So this provided another forum for us to meet and challenge OWASA.

OWASA's application for the condemnation permit was where the first battle occurred. There was a public hearing and both sides presented witnesses. The Environmental Management Commission then reviewed the record and granted OWASA their condemnation permit. We challenged it at the Superior Court level; lost; and then took it to the North Carolina Court of Appeals which overturned the action and sent it back. I guess they were saying, in essence, that the Environmental Management Commission cut corners, followed improper

procedures and they had to go back and do it right. And so that whole set of actions had to be repeated. And the second time around OWASA was again granted a certificate of condemnation and we again appealed it and—if memory serves me—that action now is still out there. I think it could be resurrected but it is almost a moot point right now ... but it is possible it could be resurrected...In the meantime, the Corps of Engineers (after a lot of diddling around) finally granted OWASA a permit to construct the dam.

Now all of this activity commenced in 1976; and it was going, tooth and nail, probably through about 1982, perhaps. My dates are a little fuzzy.

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Notes

1. See <http://maps.google.com/maps?f=q&source=embed&hl=en&geocode=&q=cane+creek+reservoir&sl=34.70888,-77.45636&sspn=0.34375>.
2. The U.S. Army Corps of Engineers is a federal agency that assists in the construction and maintenance of public works, such as dams and reservoirs.
3. An Environmental Impact Statement is required by the National Environmental Policy Act. It is a study that examines the positive and negative effects on human populations and natural environment of any large-scale development, such as the construction of a dam, reservoir, or road. Any federal agency must file an impact statement before it begins a project.
4. A law known as *eminent domain* allows a local, state, or federal government to require people to sell their land for projects that benefit the public — such as roads, bridges, or dams. The land or house is *condemned* or selected to be purchased by the government. OWASA was not technically a government agency, so it was not able to exercise eminent domain without a court order.

About the author

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