

September 18, 2003

The Giant Sponge

One of the most common analogies for explaining how the Bull Run works is a “giant sponge.”

We describe the 102 square mile watershed as a sponge that soaks up rain for months and, like a saturated sponge, fills to capacity and releases water into the reservoirs. While the sponge-like ground in the watershed collects water during the rainy season, it also releases water year round.

We rely on this release to fill the reservoirs in the winter and to augment these stored reserves throughout the summer. Certainly the flow dwindles, but we always have something coming in, thanks to abundant winter rainfall and the capacity of the watershed to absorb rain.

The supply graph in this issue of Dispatch illustrates this relationship. June began with reservoir inflows greater than 200 million gallons a day (MGD). By early September, we were looking at 45 MGD. That’s a huge drop as visualized in a graph, but it is still 45 million gallons – about 30% of daily demand.

Rain will eventually re-saturate the sponge and swell the inflows, but we don’t expect it before October.

In fact, recent rains temporarily pushed the inflow up to 110 MGD as water ran off the “dry sponge” into the reservoirs. We didn’t realize significant further increase with the first storm.

However after a few more inches of rain, the ground will start to resaturate, release water, and trigger the phenomenon we call “refill.” Refill is the point at which the inflows exceed demand.

There is no specific formula for predicting refill. It depends on a number of factors: how cold it is, how dry it is, how much it rains and when it rains.

Much of that is out of our hands – no one tells Mother Nature what to do. Instead, we control what we can control – decisions, resources, and systems. Skilled professionals carefully analyze the supply resources and determine the most efficient and effective way to stretch what we have as long as we are likely to need it.

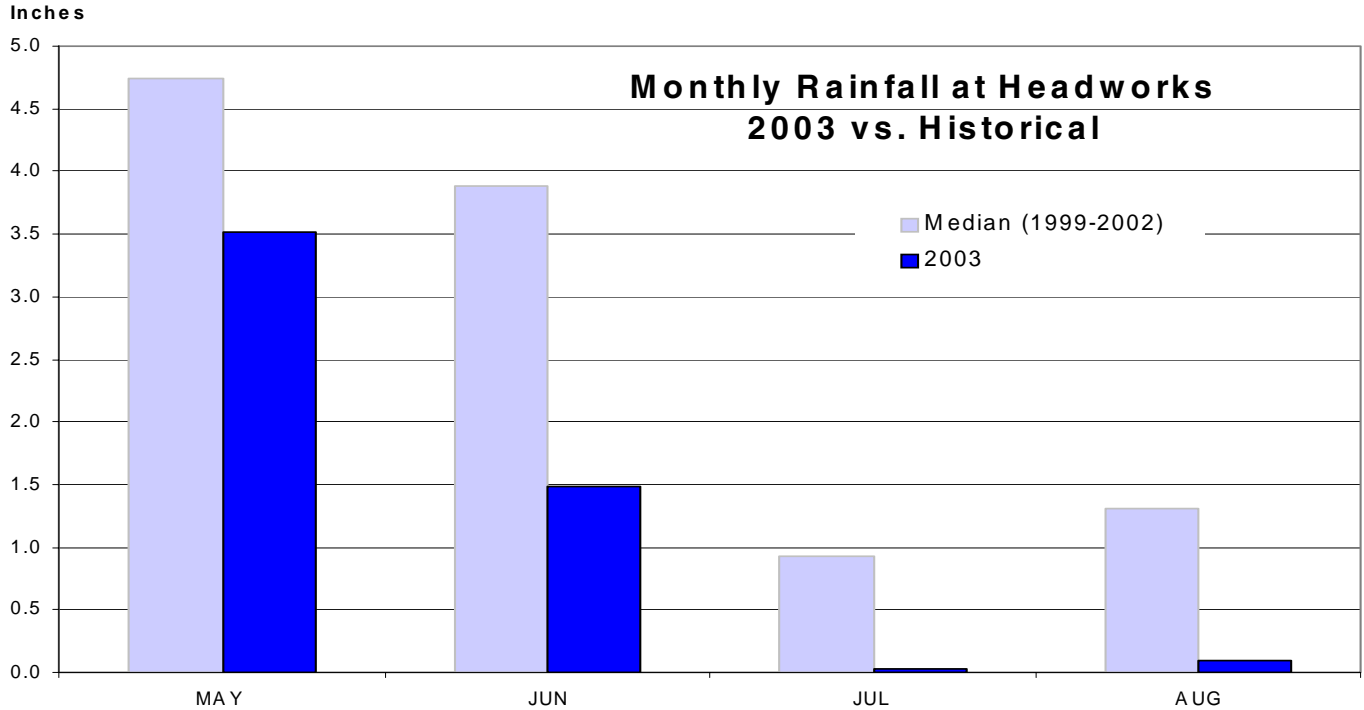
Providing adequate supplies of high quality water is our mission and our professional commitment.



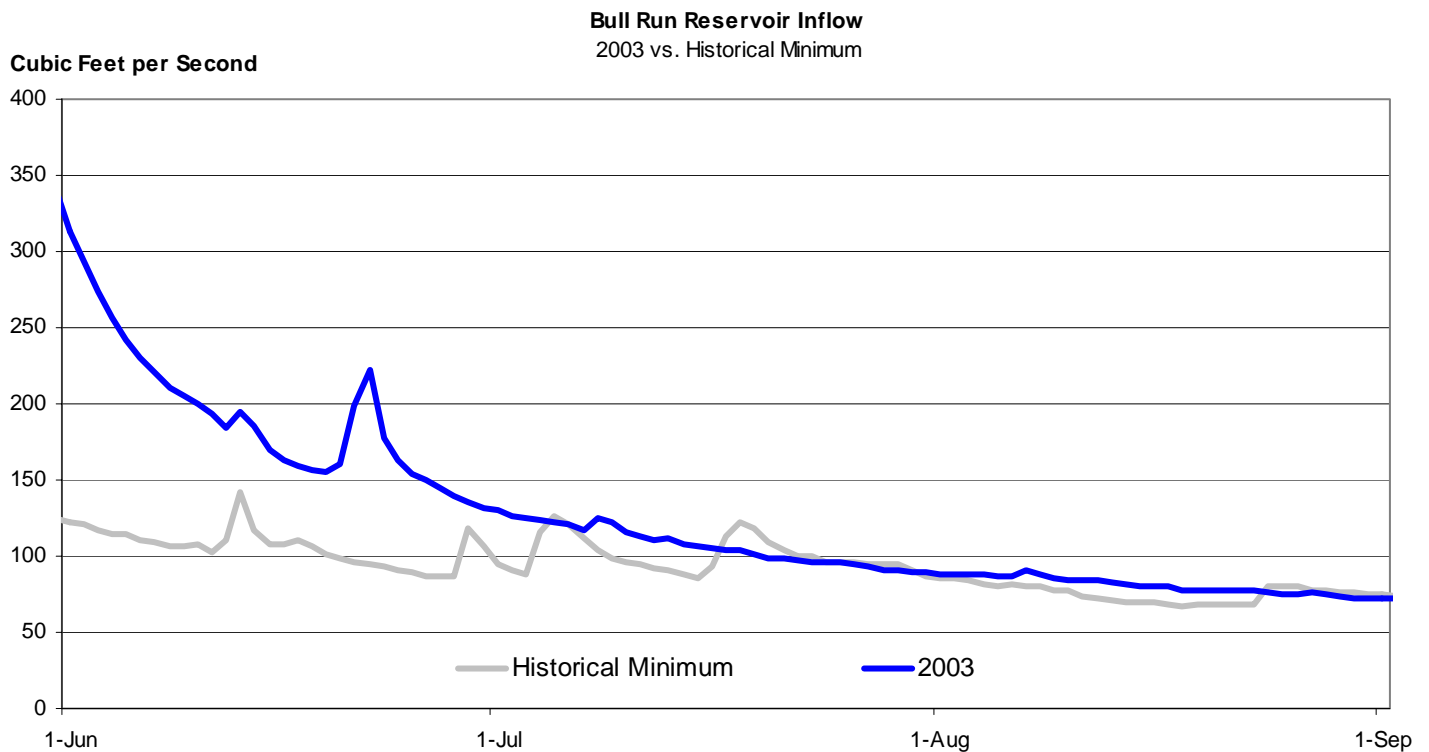
Mort Anoushiravani
Administrator

Bull Run Water Supply – Summer, 2003

Precipitation from June through August (1.61") was the lowest on record in 105 years. Precipitation from May - August (5.12") was the third lowest on record. The Bureau's precipitation records date back to 1899.



Precipitation at Headworks in the Bull Run watershed from May through August compared to the historical average from May through August in recent years. Drawdown began June 3.



Water inflow into Bull Run reservoirs for the summer season of 2003 set some record lows in mid to late July and again in late August - early September.

Mt. Tabor Park Design Competition



OPEN RESERVOIR REPLACEMENT PROJECT

The Mt. Tabor Park Open Reservoir Replacement Project has now entered its second phase. The Mt. Tabor Public Advisory Committee has made recommendations to City Council concerning a design program for what goes on top of buried reservoirs at the park. City Council has accepted those recommendations. After completing a request for qualifications, the City invited four design teams to participate in a design competition. The design teams will prepare design concepts for public review.

A design competition invites the public to participate in asking questions and making comments about the design concepts. Participating firms prepare concept plans and sketches, which are presented to a jury*. The concept that the winning team prepares serves as the starting point for the detailed design phase of the project. In the public sector, design competitions are used most often for high profile projects of significant public interest -- like the Mt. Tabor Park Open Reservoir Replacement Project. The competitions are a way to attract highly qualified design teams and create an inspired design. Design excellence is a high priority for both the community and the City -- this process provides opportunities for public input to this process.

Design team concept displays include opportunities to comment or submit questions based on information provided by each design team. Teams may address comments or questions at the October 11th public presentation (details below).

- **October 5**, 11 am - 6 pm: Lloyd Center, 1st level, NW entrance near Nordstroms
- **October 6 - 10**, 8am - 6pm, Atrium of City Hall at 1221 SW Fifth Avenue
- **October 6**, 10 am - 9 pm, Lloyd Center, 1st level, NW entrance near Nordstroms
- **October 7 & 8**, 7am - 9m, Southwest Community Center, 6820 SW 45th Avenue in the lobby
- **October 9 & 10**, 11 am - 8pm, Mall 205 – 9900 SE Washington at the main entrance

Design team public presentations –

October 11, 1 - 7 pm, Multnomah County Commission Chambers at 501 SE Hawthorne Blvd.

More information on the Mt. Tabor Park Open Reservoir Replacement Project–

During September 2003, contractors for the Water Bureau are conducting surveys and geo-technical evaluations of the Mt. Tabor open reservoir sites for the design engineering of the new underground tanks. Using a small drilling vehicle, the work involves taking core samples from inside Reservoir 5 and Reservoir 6. Crews will also confirm locations of other underground utilities in the park.

New web postings:

Mt. Tabor Park Open Reservoir Replacement Project Newsletter (September, 2003) at
<http://www.water.ci.portland.or.us/pdf/Tabornewsletter9-2003.pdf>

***Press release concerning jury is posted at**
http://www.portlandparks.org/openres/orrp_jury_announcement091003.htm

Security Specialists



Three Water Security Specialists completed their training on August 29 (from left to right): Josh Jeffery, Jeff Farrell and Chad Withrow.

Personnel Changes

David Becker, new hire, Water Security Specialist
Jeff Burchell, seasonal hire, Maintenance Worker
Peg Cross, new hire, Community Service Aide II
Jon Koch, permanent appointment, Water Meter Reader II
John R. Moore, permanent appointment, Water Meter Reader II

Remodeling & Reuse

In June the Resource Protection and Planning work group returned to the Portland Building. This fall the lease on the group's former space across the street ends -- so work has been underway on the sixth, fifth, and third floors of the Portland Building to prepare meeting rooms to replace the ones the Bureau used across the street. Additional work has reconfigured spaces in the Engineering and Customer Services groups.

Reusing materials during this remodeling process has dramatically reduced project costs. The Bureau has reused virtually all building materials and office equipment, including

- sheetrock
- doors and door frames
- incandescent downlights and fluorescent fixtures
- counter areas
- data and phone cabling
- cubicle walls, desk and ergonomic chairs
- conference room tables, and
- salvageable carpet squares.

We continue to look for other opportunities to reuse materials and promote sustainability in the workplace.