WIDENING THE FUNNEL *Again!*

BY BRUCE E. KELLY/PHOTOS BY THE AUTHOR

They don't call it "the Funnel" for nothing. In the years following the 1970 creation of Burlington Northern, the former Great Northern mainline between Spokane, Wash., and Sandpoint, Idaho, suffered a gradual demise that left two separate branchlines in place. One section is now operated by shortline Pend Oreille Valley Railroad (POVA) between Newport, Wash., and Dover, Idaho, with POVA and Union Pacific sharing the last few miles between Dover and North Sandpoint. The other section is part of BNSF's Kettle Falls Subdivision reaching north from Spokane toward Chewelah, Wash.

After new track connections were completed in 1972, BN began consolidating through traffic between Spokane and Sandpoint onto its former Northern Pacific line, creating the Funnel. At first, this mostly single-tracked route coped reasonably well under the combined train flow of the former GN; NP; and Spokane, Portland & Seattle lines funneling into Spokane from the west, and the GN and NP lines converging on Sandpoint from the east.

In 1972, BN laid six tracks at Hauser, Idaho, to replace some of the storage capacity that had been lost in Spokane due to post-merger yard reductions. Hauser was intended to become a sprawling 76-track classification yard, but wavering economics and BN's investment in big-ticket projects elsewhere on the system stunted Hauser's growth over the next quarter-century to no more than a dozen yard tracks.

OPPOSITE: Empty grain Train X-TACWOL (Tacoma, Wash., to Wolsey, S.D.) heads east out of Rathdrum, Idaho, on the newly laid Main 1 as oil Train U-CPELVP (Canadian crude via Sweetgrass, Mont., to Levee, Calif.) approaches town on October 15, 2017. ABOVE: Having come off MRL back at Sandpoint Junction, manifest H-LAUPAS (Laurel, Mont., to Pasco, Wash.) rolls through CP Silver at the former townsite of North Pole, Idaho, on March 3, 2018, with the Cabinet Mountains for a backdrop.

ABOVE: A mixed trio of an SD70MAC, ES44AC, and SD70ACe leads an empty coal train off the Hauser fuel pad on Main 6 on March 10, 2018. Next to it is an empty oil train on Main 5, loaded grain on Main 4, and a pair of vehicle trains in the adjacent yard.

RIGHT: Fall rush is in full swing on October 15, 2017, as the hot Z-CHCSSE (Chicago to South Seattle) sails down Main 2 between Ramsey and Rathdrum, Idaho, passing empty coal Train E-CECSCM (Centralia, Wash., to Spring Creek Mine, Mont.) on the newly laid Main 1.

During the 1980s and early '90s, the Funnel started choking under seasonal increases of export grain and intermodal, as well as other traffic, and even a slight influx of coal bound for either Northwest powerplants or export through Roberts Bank, B.C. In 1982, BN lengthened the siding at Algoma, Idaho, into a 6.6-mile stretch of dual mainline. Minor additions to trackage were also made at Hauser Yard, at Yardley/Parkwater terminal in Spokane, and elsewhere along the Funnel. But it wasn't until BN joined forces with Santa Fe Railway in the mid-1990s that any serious effort to widen the Funnel was begun.

When RAILFAN & RAILROAD last visited the Funnel in the July 1999 issue, the dust had recently settled on major projects that added much-needed capacity to this often-congested segment of BNSF's Northern Corridor. Performed during 1997-98, those projects introduced new track and linked up existing sidings to produce three new segments of double-tracked mainline: Otis Orchards, Wash., to Rathdrum, Idaho (14.5 miles); Athol to Cocolalla, Idaho, (15 miles); and West Algoma to East Algoma, Idaho, (9 miles). That same period saw yard tracks extended and three new tracks added at Hauser Yard. BNSF then introduced a logistical improvement to Funnel operations in 2004 with its run-through refueling facility at Hauser.

Second Main at the Heart of the Funnel

In 2017, BNSF made its biggest investment on the Funnel in more than a decade, laying a second main between Rathdrum and Athol, and converting the siding at Ramsey into part of that new main track. Preliminary grade work was started in the late 1990s and continued intermittently every few years. Then came an army of men and machines in mid-2017, clearing a path, putting down track, and planting signals and other wayside hardware in time for the autumn traffic rush. This 11-mile segment of newly formed double track lies near the Funnel's halfway point and now gives BNSF a roughly 40-mile stretch of continuous dual mainline from Otis Orchards to Cocolalla.

Previously, BNSF crews coming west from Whitefish, Mont., or Montana Rail Link crews coming west from Missoula would often wait their turn advancing from Athol to Ramsey and finally into Hauser Yard against the flow of eastbounds just leaving Hauser, or until a fuel track at Hauser opened up for them. Conversely, eastbound trains ready to leave Hauser sometimes had to hold until the arrival of a higher priority westbound, or for a train whose crew was about to go dead on hours of service, working its way down the single track from Athol. BNSF now has a literally wider path for traffic to move in and out of East Hauser.

The section between Rathdrum and Ramsey actually had double track during the heyday of NP's steam era. NP's original 1880s mainline adhered to a fairly common tangent from present-day Hauser all the way east to the outskirts of Athol, ascending eastward on a nominally 0.4 percent grade. But immediately east of Rathdrum stood an abrupt rise in elevation that caused NP's grade to more than double, briefly, to about 1 percent. A five-mile realignment was constructed in the early 1900s, deviating a quarter-mile or so southeast of the original main and utilizing copious fills and cuts to hold gradient to 0.4 percent. For nearly two decades, there was directional running between Rathdrum and Ramsey, westbounds heading downhill on the straight, steeper, original route and eastbounds going uphill on the easier, longer, newer line. NP removed the original segment in the 1930s, but you can still spot intermittent traces of its grade on the southeast side of Diagonal Road from Ramsey Road west into Rathdrum.

While Rathdrum, Ramsey, and Athol will no longer be associated with CTC switches at the end of double track or at a dispatcher-controlled siding, those names have been retained for the maintenance or industry spurs at each location. A new control point with dual crossovers, CP Silver, has been added near the Brunner Road crossing between Ramsey and Athol. BNSF contemplated naming the site CP North Pole, in honor of the small community and four-car spur that stood there decades ago. But the company's rules department now frowns on having compass directions in its newly assigned station names, to avoid potential confusion in communications. CP Silver was derived from a more contemporary landmark, the nearby Silverwood theme park. BNSF abbreviated the name for its new Funnel plant because there's already a CP Silverwood located on Cajon Pass in southern California.

Hauser Yard Expanded

Some Funnel observers have suggested that adding a second main between Athol and Rathdrum will merely give BNSF more space to park dead trains short of Hauser Yard. That may well play out during peak moments in the fall traffic rush or when maintenance windows are in effect. However, BNSF also spent the summer of 2017 expanding lead tracks and adding switches and crossovers at Hauser's east end. Under the prior track configuration, the refueling mains at East Hauser converged into a single track, which then converged

ABOVE: The former site of North Pole, Idaho, is appropriately snow-covered on March 3, 2018, as Train Q-SSECHC (South Seattle to Chicago) flies past the dual crossovers at CP Silver. Distant Rathdrum Mountain, at 5,003 feet tall, is part of the famed Selkirk Range reaching northward into British Columbia.

RIGHT: Major earthwork to accommodate the new Main 1 took place near the mile 41.2 detector between Rathdrum and Ramsey, Idaho, where grain Train G-WTRKAL (Watertown, S.D., to Kalama, Wash.) is rolling through on Main 2 on October 15, 2017.

with the yard lead, which then converged with Main 2. This allowed only one train at a time to either arrive or depart the east end of Hauser's fuel facility or yard. The new track structure can now accommodate two trains arriving or departing simultaneously.

When the Hauser refueling facility opened in 2004, only two of its intended four run-through refueling tracks were in place — Mains 4 and 5. Main 3 existed merely as a short track through the refueling shed and was used to service light engine consists brought over from the adjacent yard. Main 6 was added in 2006, giving Hauser three complete run-through refueling tracks.

During 2017, while the Rathdrum–Athol double-tracking was getting underway, track was finally laid to expand Hauser's Main 3 to full run-through configuration. Thirteen years after this pit stop on BNSF's Northern Corridor first opened, the facility has achieved its maximum throughput capability, with enough tracks to refuel up to four trains at a time, while leaving Mains 1 and 2 clear for the manifests and hot domestic intermodals which tend to simply change crews at Hauser and continue on their way.

Bridging the Remaining Gaps

Of the roughly 68 miles from Sunset Junction in Spokane eastward to Sandpoint Junction (where BNSF and MRL

OPPOSITE ABOVE: After a crew change on Main 2 at East Hauser, one of the hottest trains on the corridor, Z-PTLCHC-9, gets underway again at 4:59 p.m. on March 3, 2018. At far left is manifest H-PASKCK (Pasco, Wash., to Kansas City, Kan.), which will depart off Main 6 in just eight minutes.

OPPOSITE RIGHT: The rear end of Q-SSECHC (South Seattle to Chicago) sails away on Main 2 while the Q-ALTPTL (Alliance, Texas, to Portland, Ore.) with Boeing fuselages on its head end holds position on new Main 1 between CP Silver and Athol, Idaho. This is where the Funnel attains its highest elevation of roughly 2,400 feet above sea level.

converge), fewer than ten miles still involve single track, at three separate locations. The shortest stretch of single track lies between Cocolalla and West Algoma, Idaho. It's only about two miles, but adding a second main there would involve meticulous engineering and execution due to BNSF being hemmed in by Lake Cocolalla on one side and U.S. Highway 95 on the other.

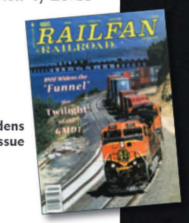
Double-tracking the 4.4 miles between Irvin and Otis Orchards, Wash., will require major fill work as well as a second bridge over the Spokane River. In February 2018, BNSF announced its intention of undertaking this project, with permit applications already in the works, and construction anticipated to begin in 2019.

The Funnel's third and perhaps most daunting single-track gap, between East Algoma and Sandpoint Junction, would require a second bridge — nearly a mile in length — across a shallow narrows on Lake Pend Oreille, adjacent to BNSF's existing ex-NP bridge. It would also involve two smaller bridges, one over the mouth of Sand Creek and one over a city street in Sandpoint. BNSF announced in 2014 that it was "in the preliminary engineering design phase," but suspended progress after traffic levels entered a period of decline.

In April 2017, BNSF Railway said it was putting its Sandpoint bridge plan back into motion. By mid-year, it had performed load tests on steel pilings driven into the lakebed near the northwest (railroad east) end of the current bridge. In early 2018, BNSF filed a joint application for permits with federal and state agencies, with the intention of beginning work on the project by fall 2018.

It remains to be seen whether BNSF will receive a timely approval for its plan, but there's no question that a second bridge across Lake Pend Oreille would be a crowning achievement in the decades-long process of improving what has been one of the most widely recognized chokepoints in North American railroading.

Bruce Kelly began photographing trains in 1977. He was associate editor of Railfan & Railroad *1988-1996 and is currently a contributing editor for* Railway Age. *He and wife Amy live in Post Falls, Idaho, with a view of BNSF and UP.*



Bruce Kelly authored "BNSF Widens the Funnel" in the July 1999 issue of Railfan & Railroad.

The last light of December 7, 2017, sees the hot Z-PTLCHC (Portland to Chicago) roaring up the 0.4 percent grade between Rathdrum and Ramsey, Idaho, on Main 2. At right are the gleaming new rails of Main 1.