

ANÁLISIS DE CAPACIDAD HIDRÁULICA DE LAS SECCIONES DEL RÍO TUNJUELO EN EL TRAMO CUBIERTO POR EL SENSOR SAN BENITO (K25+380.25 - K23+100) n=0.03

| Estación | Nivel Jarillón izquierdo | Nivel Jarillón derecho | Cota de desborde | Margen de desborde | Caudal de desborde | Caudal de desborde en Izquierda (m³/s) | Caudal de desborde en derecha (m³/s) | Cota Alerta roja (msnm) | Cota roja SanBenit (msnm) | Q Alerta roja (m³/s) | Cota Alerta 5 (msnm) | Cota 5 SanBenit (msnm) | Q Alerta 5 (m³/s) | Cota nar SanBenit (msnm) | Q Alerta nar (m³/s) | Cota ama SanBenit (msnm) | Q Alerta Am (m³/s) | Barrio | | | | | | | | | | | | | | | | | | | | | |
|--|--------------------------|------------------------|------------------|--------------------|--------------------|--|--------------------------------------|-------------------------|---------------------------|----------------------|----------------------|------------------------|-------------------|--------------------------|---------------------|--------------------------|--------------------|------------------|----------------|-------------|-------------|----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | | | | | Margen Izquierda | Margen Derecha | | | | | | | | | | | | | | | | | | | | |
| 25380.25 | 2569.75 | 2561.54 | 2561.54 | Derecha | 121.75 | | 121.75 | 2561.24 | 2568.69 | 108.71 | 2561.04 | 2568.54 | 101.29 | 2560.54 | 2568.23 | 87.34 | 2560.04 | 2567.90 | 76.39 | Gravilleras | Gravilleras | | | | | | | | | | | | | | | | | | |
| 25329.89 | 2568.75 | 2561.75 | 2561.75 | Derecha | 133.00 | | 133.00 | 2561.45 | 2568.86 | 118.33 | 2561.25 | 2568.71 | 110.00 | 2560.75 | 2568.38 | 93.43 | 2560.25 | 2568.11 | 82.24 | Gravilleras | Gravilleras | | | | | | | | | | | | | | | | | | |
| 25280.09 | 2567.75 | 2562.75 | 2562.75 | Derecha | 245.00 | | 245.00 | 2562.45 | 2569.66 | 171.76 | 2562.25 | 2569.48 | 160.00 | 2561.75 | 2569.09 | 134.00 | 2561.25 | 2568.73 | 110.83 | Gravilleras | Gravilleras | | | | | | | | | | | | | | | | | | |
| 25229.14 | 2566.75 | 2561.75 | 2561.75 | Derecha | 131.90 | | 131.90 | 2561.45 | 2568.85 | 117.91 | 2561.25 | 2568.70 | 109.63 | 2560.75 | 2568.37 | 93.33 | 2560.25 | 2568.11 | 82.55 | Gravilleras | Gravilleras | | | | | | | | | | | | | | | | | | |
| 25179.90 | 2564.91 | 2563.11 | 2563.11 | Derecha | 278.00 | | 278.00 | 2562.81 | 2560.79 | 243.00 | 2562.61 | 2569.77 | 179.06 | 2562.11 | 2569.36 | 151.26 | 2561.61 | 2568.98 | 126.38 | Gravilleras | Gravilleras | | | | | | | | | | | | | | | | | | |
| 25129.66 | 2570.65 | 2564.05 | 2564.05 | Derecha | | | | 2563.75 | | | 2563.55 | | | 2563.05 | 2561.46 | 286.01 | 2562.55 | 2569.75 | 177.54 | Gravilleras | Gravilleras | | | | | | | | | | | | | | | | | | |
| 25079.17 | 2572.75 | 2564.27 | 2564.27 | Derecha | | | | 2563.97 | | | 2563.77 | | | 2563.27 | 2562.10 | 330.14 | 2562.77 | 2561.04 | 258.87 | Gravilleras | Gravilleras | | | | | | | | | | | | | | | | | | |
| 25028.78 | 2571.75 | 2564.74 | 2564.74 | Derecha | | | | 2564.44 | | | 2564.24 | | | 2563.74 | | | 2563.24 | 2562.15 | 333.17 | Gravilleras | Gravilleras | | | | | | | | | | | | | | | | | | |
| 24979.22 | 2568.75 | 2564.75 | 2564.75 | Derecha | | | | 2564.45 | | | 2564.25 | | | 2563.75 | | | 2563.25 | | | Gravilleras | Gravilleras | | | | | | | | | | | | | | | | | | |
| 24926.49 | 2563.75 | 2563.75 | 2563.75 | Izquierda | | | | 2563.45 | | | 2563.25 | 2562.05 | 326.67 | 2562.75 | 2560.99 | 255.71 | 2562.25 | 2569.52 | 162.78 | Mexico II | Gravilleras | | | | | | | | | | | | | | | | | | |
| 24872.67 | 2567.00 | 2565.56 | 2565.56 | Derecha | | | | 2565.26 | | | 2565.06 | | | 2564.56 | | | 2564.06 | | | Mexico II | Gravilleras | | | | | | | | | | | | | | | | | | |
| Barrio México II | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24831.49 | 2568.00 | 2565.40 | 2565.40 | Derecha | | | | 2565.10 | | | 2564.90 | | | 2564.40 | | | 2563.90 | | | Meissen | Gravilleras | | | | | | | | | | | | | | | | | | |
| 24773.62 | 2568.00 | 2564.61 | 2564.61 | Derecha | | | | 2564.31 | | | 2564.11 | | | 2563.61 | | | 2563.11 | 2561.93 | 318.27 | Meissen | Gravilleras | | | | | | | | | | | | | | | | | | |
| 24709.18 | 2568.00 | 2564.00 | 2564.00 | Derecha | | | | 2563.70 | | | 2563.50 | | | 2563.00 | | 307.14 | 2562.50 | 2569.79 | 180.00 | Meissen | Gravilleras | | | | | | | | | | | | | | | | | | |
| 24634.50 | 2562.56 | 2564.84 | 2562.56 | Izquierda | 242.75 | 242.75 | | 2562.26 | 2559.57 | 166.00 | 2562.06 | 2559.41 | 154.84 | 2561.56 | 2569.02 | 129.14 | 2561.06 | 2568.66 | 107.57 | Meissen | Gravilleras | | | | | | | | | | | | | | | | | | |
| 24560.00 | 2560.80 | 2565.80 | 2560.80 | Izquierda | 193.50 | 193.50 | | 2560.50 | 2569.75 | 177.50 | 2560.30 | 2569.56 | 165.30 | 2560.80 | 2569.13 | 136.11 | 2560.30 | 2568.70 | 109.55 | Meissen | Gravilleras | | | | | | | | | | | | | | | | | | |
| 24540.00 | 2562.69 | 2565.52 | 2562.69 | Izquierda | | | | 2562.39 | 2562.15 | 333.31 | 2562.19 | 2561.92 | 317.37 | 2561.69 | 2561.37 | 280.22 | 2561.19 | 2560.39 | 216.87 | Meissen | Gravilleras | | | | | | | | | | | | | | | | | | |
| 24520.00 | 2562.47 | 2564.61 | 2562.47 | Izquierda | 339.25 | 339.25 | | 2562.17 | 2561.92 | 317.71 | 2561.97 | 2561.70 | 302.92 | 2561.47 | 2561.10 | 262.55 | 2560.97 | 2560.21 | 204.33 | Meissen | Gravilleras | | | | | | | | | | | | | | | | | | |
| 24500.00 | 2562.06 | 2561.70 | 2561.70 | Derecha | 284.19 | 308.39 | | 2561.40 | 2561.03 | 258.12 | 2561.20 | 2560.42 | 219.56 | 2560.70 | 2569.99 | 191.57 | 2560.20 | 2569.52 | 162.68 | Meissen | Gravilleras | | | | | | | | | | | | | | | | | | |
| 24483.68 | 2561.56 | 2560.76 | 2560.76 | Derecha | 193.33 | 268.34 | 193.33 | 2560.46 | 2569.75 | 177.64 | 2560.26 | 2569.56 | 165.63 | 2560.70 | 2569.13 | 136.11 | 2560.26 | 2568.70 | 109.52 | Meissen | Gravilleras | | | | | | | | | | | | | | | | | | |
| Barrio Meissen | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24420.00 | 2560.65 | 2560.56 | 2560.56 | Derecha | 184.24 | 188.72 | | 184.24 | 2560.26 | 2569.59 | 167.44 | 2560.06 | 2569.41 | 155.24 | 2560.56 | 2569.08 | 126.42 | 2560.06 | 2568.54 | 100.91 | La Playa II | Areneras | | | | | | | | | | | | | | | | | |
| 24400.00 | 2562.98 | 2561.23 | 2561.23 | Derecha | 244.00 | | 244.00 | 2560.93 | 2560.23 | 206.00 | 2560.73 | 2560.06 | 195.40 | 2560.23 | 2569.59 | 167.38 | 2560.73 | 2569.15 | 137.67 | La Playa II | Areneras | | | | | | | | | | | | | | | | | | |
| 24380.00 | 2563.41 | 2561.36 | 2561.36 | Derecha | 263.11 | | 263.11 | 2561.06 | 2560.38 | 216.62 | 2560.86 | 2560.21 | 204.47 | 2560.36 | 2569.76 | 177.87 | 2560.86 | 2569.30 | 147.41 | La Playa II | Areneras | | | | | | | | | | | | | | | | | | |
| 24360.00 | 2561.61 | 2561.31 | 2561.31 | Derecha | 261.91 | 279.76 | 261.91 | 2561.01 | 2560.36 | 215.00 | 2560.81 | 2560.19 | 202.94 | 2560.31 | 2569.73 | 176.47 | 2560.81 | 2569.28 | 145.89 | La Playa II | Areneras | | | | | | | | | | | | | | | | | | |
| 24340.00 | 2562.49 | 2561.34 | 2561.34 | Derecha | 264.17 | 344.00 | 264.17 | 2561.04 | 2560.41 | 218.39 | 2560.84 | 2560.23 | 205.89 | 2560.34 | 2569.79 | 179.75 | 2560.84 | 2569.33 | 149.12 | La Playa II | Areneras | | | | | | | | | | | | | | | | | | |
| 24320.00 | 2561.38 | 2561.44 | 2561.38 | Izquierda | 265.63 | 265.63 | 265.60 | 2561.08 | 2560.49 | 223.74 | 2560.88 | 2560.26 | 208.06 | 2560.38 | 2569.81 | 181.47 | 2560.88 | 2569.36 | 151.47 | La Playa II | Areneras | | | | | | | | | | | | | | | | | | |
| 24300.00 | 2561.91 | 2561.51 | 2561.51 | Derecha | 277.59 | 303.41 | 277.59 | 2561.21 | 2561.02 | 257.45 | 2561.01 | 2560.38 | 216.69 | 2560.51 | 2569.95 | 189.28 | 2560.01 | 2569.48 | 159.83 | La Playa II | Areneras | | | | | | | | | | | | | | | | | | |
| 24280.00 | 2563.42 | 2561.49 | 2561.49 | Derecha | 277.46 | | 277.46 | 2561.19 | 2561.04 | 258.77 | 2560.99 | 2560.39 | 217.27 | 2560.49 | 2569.96 | 189.95 | 2560.99 | 2569.49 | 160.53 | La Playa II | Areneras | | | | | | | | | | | | | | | | | | |
| 24260.00 | 2563.55 | 2561.46 | 2561.46 | Derecha | 275.53 | | 275.53 | 2561.16 | 2560.93 | 251.78 | 2560.96 | 2560.34 | 213.74 | 2560.46 | 2569.91 | 187.00 | 2560.96 | 2569.44 | 157.25 | La Playa II | Areneras | | | | | | | | | | | | | | | | | | |
| Areneras (NOTA: no se considera el desborde en Gravilleras por ser predio privado) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24220.00 | 2562.86 | 2562.13 | 2562.13 | Derecha | 325.14 | | 325.14 | 2561.83 | 2561.76 | 307.15 | 2561.63 | 2561.55 | 292.36 | 2561.13 | 2560.94 | 252.56 | 2560.63 | 2560.09 | 196.81 | La Playa II | San Benito | | | | | | | | | | | | | | | | | | |
| 24200.88 | 2562.40 | 2561.35 | 2561.35 | Derecha | 273.89 | 345.48 | 273.89 | 2561.05 | 2560.83 | 245.72 | 2560.85 | 2560.29 | 210.01 | 2560.35 | 2569.85 | 183.34 | 2560.85 | 2569.38 | 153.13 | La Playa II | San Benito | | | | | | | | | | | | | | | | | | |
| 24180.00 | 2562.04 | 2561.32 | 2561.32 | Derecha | 268.77 | 316.69 | 268.77 | 2561.02 | 2560.86 | 247.56 | 2560.82 | 2560.28 | 209.61 | 2560.32 | 2569.85 | 183.50 | 2560.82 | 2569.39 | 153.31 | La Playa II | San Benito | | | | | | | | | | | | | | | | | | |
| 24160.00 | 2561.69 | 2561.29 | 2561.29 | Derecha | 267.21 | 292.76 | 267.21 | 2560.99 | 2560.51 | 225.36 | 2560.79 | 2560.28 | 208.10 | 2560.29 | 2569.82 | 181.99 | 2560.79 | 2569.36 | 151.52 | La Playa II | San Benito | | | | | | | | | | | | | | | | | | |
| 24140.00 | 2561.35 | 2561.24 | 2561.24 | Derecha | 265.00 | 269.31 | 265.00 | 2560.94 | 2560.41 | 218.86 | 2560.74 | 2560.24 | 206.11 | 2560.24 | 2569.79 | 180.00 | 2560.74 | 2569.33 | 149.37 | La Playa II | San Benito | | | | | | | | | | | | | | | | | | |
| 24120.00 | 2560.89 | 2561.16 | 2560.89 | Izquierda | 213.85 | 213.85 | 255.45 | 2560.59 | 2560.10 | 197.47 | 2560.39 | 2560.11 | 187.73 | 2560.89 | 2569.45 | 157.94 | 2560.89 | 2569.01 | 128.56 | La Playa II | San Benito | | | | | | | | | | | | | | | | | | |
| 24100.00 | 2561.07 | 2561.08 | 2561.07 | Izquierda | 254.35 | 254.35 | 254.62 | 2560.77 | 2560.28 | 209.00 | 2560.57 | 2560.11 | 197.86 | 2560.07 | 2569.64 | 170.81 | 2560.57 | 2569.19 | 140.18 | La Playa II | San Benito | | | | | | | | | | | | | | | | | | |
| 24080.00 | 2560.87 | 2561.02 | 2560.87 | Izquierda | 215.15 | 215.15 | 228.57 | 2560.57 | 2560.13 | 198.96 | 2560.37 | 2560.95 | 189.33 | 2560.87 | 2569.47 | 159.29 | 2560.87 | 2569.03 | 129.87 | La Playa II | San Benito | | | | | | | | | | | | | | | | | | |
| 24060.00 | 2560.95 | 2560.97 | 2560.95 | Izquierda | 236.45 | 236.45 | 238.18 | 2560.65 | 2560.20 | 203.38 | 2560.45 | 2560.02 | 193.38 | 2560.95 | 2569.55 | 164.73 | 2560.45 | 2569.10 | 134.50 | La Playa II | San Benito | | | | | | | | | | | | | | | | | | |
| Barrio La Playa II | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24040.00 | 2560.62 | 2560.94 | 2560.62 | Izquierda | 199.30 | 199.30 | 219.23 | 2560.32 | 2569.91 | 187.28 | 2560.12 | 2569.72 | 175.69 | 2560.62 | 2569.27 | 145.07 | 2560.12 | 2568.82 | 115.85 | La Playa | San Benito | | | | | | | | | | | | | | | | | | |
| 24020.00 | 2560.40 | 2560.94 | 2560.40 | Izquierda | 190.82 | 190.82 | 218.33 | 2560.10 | 2569.70 | 174.30 | 2560.90 | 2569.51 | 162.07 | 2560.40 | 2569.06 | 131.95 | 2560.90 | 2568.61 | 104.65 | La Playa | San Benito | | | | | | | | | | | | | | | | | | |
| 24000.00 | 2560.38 | 2560.94 | 2560.38 | Izquierda | 190.38 | 190.38 | 218.33 | 2560.08 | 2569.68 | 173.19 | 2560.88 | 2569.49 | 160.69 | 2560.38 | 2569.05 | 131.17 | 2560.88 | 2568.59 | 103.86 | La Playa | San Benito | | | | | | | | | | | | | | | | | | |
| 23980.00 | 2560.51 | 2560.96 | 2560.51 | Izquierda | 194.63 | 194.63 | 226.65 | 2560.21 | 2569.80 | 180.79 | 2560.01 | 2569.61 | 168.43 | 2560.51 | 2569.16 | 138.05 | 2560.01 | 2568.71 | 109.76 | La Playa | San Benito | | | | | | | | | | | | | | | | | | |
| 23960.00 | 2560.82 | 2561.00 | 2560.82 | Izquierda | 214.05 | 214.05 | 243.90 | 2560.52 | 2560.10 | 197.48 | 2560.32 | 2560.92 | 187.61 | 2560.82 | 2569.44 | 157.31 | 2560.32 | 2569.00 | 127.93 | La Playa | San Benito | | | | | | | | | | | | | | | | | | |
| 23940.00 | 2560.92 | 2561.03 | 2560.92 | Izquierda | 244.08 | 244.08 | 248.75 | 2560.62 | 2560.22 | 204.88 | 2560.42 | 2560.04 | 194.40 | 2560.92 | 2569.56 | 165.50 | 2560.42 | 2569.11 | 135.17 | La Playa | San Benito | | | | | | | | | | | | | | | | | | |
| 23916.96 | 2560.83 | 2561.01 | 2560.83 | Izquierda | 227.86 | 227.86 | 247.78 | 2560.53 | 2560.22 | 204.71 | 2560.33 | 2560.04 | 194.00 | 2560.83 | 2569.56 | 165.00 | 2560.33 | 2569.10 | 134.12 | La Playa | San Benito | | | | | | | | | | | | | | | | | | |
| 23900.00 | 2560.45 | 2560.97 | 2560.45 | Izquierda | 201.23 | 201.23 | 245.55 | 2560.15 | 2569.90 | 186.55 | 2560.95 | 2569.71 | 174.87 | 2560.45 | 2569.24 | 143.62 | 2560.95 | 2568.77 | 113.22 | La Playa | San Benito | | | | | | | | | | | | | | | | | | |
| 23880.00 | 2560.79 | 2560.94 | 2560.79 | Izquierda | 226.10 | 226.10 | 243.53 | 2560.49 | 2560.22 | 204.86 | 2560.29 | 2560.02 | 193.40 | 2560.79 | 2569.54 | 164.26 | 2560.29 | 2569.08 | 133.42 | La Playa | San Benito | | | | | | | | | | | | | | | | | | |
| 23860.00 | 2560.59 | 2560.84 | 2560.59 | Izquierda | 212.04 | 212.04 | 226.67 | 2560.29 | 2560.04 | 194.25 | 2560.09 | 2560.86 | 183.95 | 2560.59 | 2569.38 | 152.81 | 2560.09 | 2568.92 | 122.33 | La Playa | San Benito | | | | | | | | | | | | | | | | | | |
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ANÁLISIS DE CAPACIDAD HIDRÁULICA DE LAS SECCIONES DEL RÍO TUNJUELO EN EL TRAMO CUBIERTO POR EL SENSOR SAN BENITO (K25+380.25 - K23+100) n=0.03

| Estación | Nivel Jarillón | | Cota de desborde | Margen de desborde | Caudal de desborde | Caudal de desborde en izquierda (m³/s) | Caudal de desborde en derecha (m³/s) | Cota Alerta roja (msnm) | Cota roja Sbenit (msnm) | Q Alerta roja (m³/s) | Cota Alerta 5 (msnm) | Cota 5 Sbenit (msnm) | Q Alerta 5 (m³/s) | Cota Alerta nar (msnm) | Cota nar Sbenit (msnm) | Q Alerta nar (m³/s) | Cota ama Sbenit (msnm) | Q Alerta Am (m³/s) | Barrio | | | |
|--|----------------|---------|------------------|--------------------|--------------------|--|--------------------------------------|-------------------------|-------------------------|----------------------|----------------------|----------------------|-------------------|------------------------|------------------------|---------------------|------------------------|--------------------|------------------|----------------|------------|--|
| | izquierdo | derecho | | | | | | | | | | | | | | | | | Margen Izquierda | Margen Derecha | | |
| 23628.84 | 2563.14 | 2560.64 | 2560.64 | Derecha | 230.58 | | 230.58 | 2560.34 | 2560.28 | 209.24 | 2560.14 | 2560.07 | 195.78 | 2559.64 | 2559.58 | 166.66 | 2559.14 | 2559.11 | 134.70 | La Ronda | San Benito | |
| 23600.00 | 2562.73 | 2559.75 | 2559.75 | Derecha | 177.62 | | 177.62 | 2559.45 | 2559.45 | 157.99 | 2559.25 | 2559.25 | 144.13 | 2558.75 | 2558.75 | 112.33 | 2558.25 | 2558.25 | 88.08 | La Ronda | San Benito | |
| Barrio San Benito | | | | | | 177.62 | | 177.62 | 2559.45 | 157.99 | 2559.25 | 2559.25 | 144.13 | 2558.75 | 2558.75 | 112.33 | 2558.25 | 2558.25 | 88.08 | | | |
| TRAMO Q. CHIGUAZA - PUENTE DE SAN BENITO | | | | | | 177.62 | | | 2559.45 | 157.99 | 2559.25 | 2559.25 | 144.13 | 2558.75 | 2558.75 | 112.33 | 2558.25 | 2558.25 | 88.08 | | | |
| 23560.00 | 2562.52 | 2562.20 | 2562.20 | Derecha | 338.50 | | 338.50 | 2561.90 | 2561.93 | 317.87 | 2561.70 | 2561.73 | 304.72 | 2561.20 | 2561.23 | 271.00 | 2560.70 | 2560.72 | 238.50 | La Ronda | Zona Verde | |
| 23520.00 | 2562.64 | 2563.26 | 2562.64 | Izquierda | | | | 2562.34 | | | 2562.14 | 2562.31 | 343.56 | 2561.64 | 2561.77 | 307.68 | 2561.14 | 2561.25 | 272.49 | La Ronda | Zona Verde | |
| 23500.09 | 2560.06 | 2563.42 | 2560.06 | Izquierda | 196.83 | 196.83 | | 2559.76 | 2559.77 | 178.86 | 2559.56 | 2559.56 | 165.21 | 2559.06 | 2559.05 | 131.44 | 2558.56 | 2558.56 | 102.15 | La Ronda | Zona Verde | |
| Barrio La Ronda | | | | | | 196.83 | 196.83 | | 2559.76 | 2559.77 | 178.86 | 2559.56 | 2559.56 | 165.21 | 2559.06 | 2559.05 | 131.44 | 2558.56 | 2558.56 | 102.15 | | |
| 23480.00 | 2562.42 | 2561.89 | 2561.89 | Derecha | 325.56 | | 325.56 | 2561.59 | 2561.73 | 304.94 | 2561.39 | 2561.52 | 289.93 | 2560.89 | 2560.99 | 255.93 | 2560.39 | 2560.47 | 222.59 | Villa Helena | Zona Verde | |
| 23460.00 | 2561.60 | 2560.04 | 2560.04 | Derecha | 196.90 | 303.21 | 196.90 | 2559.74 | 2559.81 | 180.89 | 2559.54 | 2559.58 | 166.78 | 2559.04 | 2559.08 | 133.43 | 2558.54 | 2558.57 | 102.89 | Villa Helena | Zona Verde | |
| 23440.00 | 2560.91 | 2559.58 | 2559.58 | Derecha | 170.72 | 255.76 | 170.72 | 2559.28 | 2559.34 | 150.21 | 2559.08 | 2559.14 | 137.06 | 2558.58 | 2558.63 | 105.95 | 2558.08 | 2558.13 | 83.32 | Villa Helena | Zona Verde | |
| 23420.00 | 2560.77 | 2559.66 | 2559.66 | Derecha | 175.17 | 245.93 | 175.17 | 2559.36 | 2559.42 | 155.54 | 2559.16 | 2559.22 | 142.21 | 2558.66 | 2558.71 | 110.18 | 2558.16 | 2558.21 | 86.52 | Villa Helena | Zona Verde | |
| 23400.00 | 2560.15 | 2558.51 | 2558.51 | Derecha | 101.95 | 203.22 | 101.95 | 2558.21 | 2558.26 | 88.44 | 2558.01 | 2558.06 | 80.44 | 2557.51 | 2557.57 | 68.13 | 2557.01 | 2557.07 | 55.26 | Villa Helena | Zona Verde | |
| 23380.00 | 2560.23 | 2558.98 | 2558.98 | Derecha | 129.37 | 208.94 | 129.37 | 2558.68 | 2558.76 | 112.82 | 2558.48 | 2558.55 | 101.56 | 2557.98 | 2558.05 | 79.95 | 2557.48 | 2557.55 | 67.58 | Villa Helena | Zona Verde | |
| 23360.00 | 2560.54 | 2558.80 | 2558.80 | Derecha | 118.57 | 231.19 | 118.57 | 2558.50 | 2558.58 | 103.33 | 2558.30 | 2558.37 | 93.34 | 2557.80 | 2557.88 | 75.85 | 2557.30 | 2557.39 | 63.16 | Villa Helena | Zona Verde | |
| 23340.00 | 2560.45 | 2558.62 | 2558.62 | Derecha | 108.52 | 225.50 | 108.52 | 2558.32 | 2558.40 | 94.50 | 2558.12 | 2558.20 | 85.96 | 2557.62 | 2557.71 | 71.64 | 2557.12 | 2557.21 | 58.58 | Villa Helena | Zona Verde | |
| 23320.00 | 2560.31 | 2558.32 | 2558.32 | Derecha | 94.20 | 215.79 | 94.20 | 2558.02 | 2558.11 | 82.36 | 2557.82 | 2557.91 | 76.65 | 2557.32 | 2557.42 | 64.03 | 2556.82 | 2556.92 | 51.65 | Villa Helena | Zona Verde | |
| 23300.00 | 2560.33 | 2558.47 | 2558.47 | Derecha | 102.00 | 216.85 | 102.00 | 2558.17 | 2558.25 | 88.08 | 2557.97 | 2558.05 | 80.08 | 2557.47 | 2557.56 | 67.95 | 2556.97 | 2557.07 | 55.28 | Villa Helena | Zona Verde | |
| Barrio Villa Helena | | | | | | 203.22 | | | | | | | | | | | | | | | | |
| 23278.00 | 2560.25 | 2560.58 | 2560.25 | Izquierda | 214.63 | 214.63 | 235.17 | 2559.95 | 2560.06 | 195.44 | 2559.75 | 2559.86 | 184.00 | 2559.25 | 2559.35 | 150.54 | 2558.75 | 2558.86 | 118.22 | Zona Verde | Zona Verde | |
| 23260.00 | 2560.22 | 2562.31 | 2560.22 | Izquierda | 214.10 | 214.10 | | 2559.92 | 2560.06 | 195.12 | 2559.72 | 2559.85 | 183.64 | 2559.22 | 2559.33 | 149.46 | 2558.72 | 2558.85 | 117.76 | Zona Verde | Zona Verde | |
| 23240.00 | 2560.20 | 2564.70 | 2560.20 | Izquierda | 212.90 | 212.90 | | 2559.90 | 2560.04 | 194.33 | 2559.70 | 2559.83 | 182.37 | 2559.20 | 2559.32 | 148.43 | 2558.70 | 2558.82 | 116.35 | Zona Verde | Zona Verde | |
| 23220.00 | 2560.17 | 2565.11 | 2560.17 | Izquierda | 211.76 | 211.76 | | 2559.87 | 2560.01 | 192.61 | 2559.67 | 2559.81 | 181.00 | 2559.17 | 2559.29 | 146.93 | 2558.67 | 2558.80 | 115.12 | Zona Verde | Zona Verde | |
| 23200.00 | 2560.17 | 2564.58 | 2560.17 | Izquierda | 212.05 | 212.05 | | 2559.87 | 2560.02 | 193.12 | 2559.67 | 2559.81 | 181.36 | 2559.17 | 2559.30 | 147.54 | 2558.67 | 2558.81 | 115.73 | Zona Verde | Zona Verde | |
| 23180.00 | 2560.14 | 2564.08 | 2560.14 | Izquierda | 208.50 | 208.50 | | 2559.84 | 2559.99 | 191.83 | 2559.64 | 2559.79 | 180.18 | 2559.14 | 2559.28 | 145.93 | 2558.64 | 2558.79 | 114.30 | Zona Verde | Zona Verde | |
| 23160.00 | 2560.00 | 2565.73 | 2560.00 | Izquierda | 198.86 | 198.86 | | 2559.70 | 2559.85 | 183.30 | 2559.50 | 2559.64 | 170.41 | 2559.00 | 2559.13 | 136.01 | 2558.50 | 2558.63 | 105.89 | Zona Verde | Zona Verde | |
| 23140.00 | 2559.96 | 2565.26 | 2559.96 | Izquierda | 197.05 | 197.05 | | 2559.66 | 2559.81 | 181.06 | 2559.46 | 2559.60 | 167.71 | 2558.96 | 2559.09 | 133.87 | 2558.46 | 2558.60 | 104.33 | Zona Verde | Zona Verde | |
| 23120.00 | 2560.00 | 2561.31 | 2560.00 | Izquierda | 202.00 | 202.00 | 284.94 | 2559.70 | 2559.86 | 184.11 | 2559.50 | 2559.65 | 171.33 | 2559.00 | 2559.14 | 136.87 | 2558.50 | 2558.65 | 106.67 | Zona Verde | Zona Verde | |
| 23100.00 | 2559.75 | 2560.20 | 2559.75 | Izquierda | 186.50 | 186.50 | 212.78 | 2559.45 | 2559.61 | 168.57 | 2559.25 | 2559.41 | 154.67 | 2558.75 | 2558.92 | 121.88 | 2558.25 | 2558.39 | 94.29 | Zona Verde | Zona Verde | |
| Zona verde margen izquierda | | | | | | 186.50 | 186.50 | | 2559.61 | 168.57 | 2559.41 | 2559.41 | 154.67 | 2558.92 | 2559.02 | 121.88 | 2558.39 | 2558.39 | 94.29 | | | |
| Zona verde margen derecha | | | | | | 94.20 | | 94.20 | 2558.11 | 82.36 | 2557.91 | 2557.91 | 76.65 | 2557.42 | 2557.42 | 64.03 | 2556.92 | 2556.92 | 51.65 | | | |
| COTA SENSOR SAN BENITO | | | | | | 94.20 | | | 2558.11 | 82.36 | 2557.91 | 2557.91 | 76.65 | 2557.42 | 2557.42 | 64.03 | 2556.92 | 2556.92 | 51.65 | | | |

NOTA: Los barrios identificados para cada abscisa corresponden a barrios legalizados o a sectores catastrales
 Los nombres Sn Benito, Independencia y Kennedy en los encabezados de las columnas de la tabla se refieren a las cotas que corresponden a los registros de los sensores del mismo nombre

ANÁLISIS DE CAPACIDAD HIDRÁULICA DE LAS SECCIONES DEL RÍO TUNJUELO EN EL TRAMO CUBIERTO POR EL SENSOR KENNEDY (K12+624 - K9+120) m=0.03

| Estación | Nivel Jaritón izquierdo (msnm) | Nivel Jaritón derecho (msnm) | Cota de desborde (msnm) | Margen de desborde | Caudal de desborde (m³/s) | Caudal de afluencia Kennedy (m³/s) | Caudal de afluencia Kennedy (m³/s) | Cota Alerta roja (msnm) | Cota roja Sberri (msnm) | Q Alerta roja (m³/s) | Cota Alerta 5 (msnm) | Cota 5 Sberri (msnm) | Q Alerta 5 (m³/s) | Cota Alerta nar (msnm) | Cota nar Sberri (msnm) | Q Alerta nar (m³/s) | Cota Alerta Am (msnm) | Cota ama Sberri (msnm) | Q Alerta Am (m³/s) | Cota Alerta roja Kennedy (msnm) | Cota Alerta 5 Kennedy (m³/s) | Cota Alerta nar Kennedy (m³/s) | Cota Alerta ama Kennedy (msnm) | Cota Alerta 5 Independencia (m³/s) | Cota Alerta nar Independencia (m³/s) | Cota Alerta ama Independencia (m³/s) | Barrio | | | |
|----------|--------------------------------|------------------------------|-------------------------|------------------------------|---------------------------|------------------------------------|------------------------------------|-------------------------|-------------------------|----------------------|----------------------|----------------------|-------------------|------------------------|------------------------|---------------------|-----------------------|------------------------|--------------------|---------------------------------|------------------------------|--------------------------------|--------------------------------|------------------------------------|--------------------------------------|--------------------------------------|------------------|----------------|-------------|--|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | Margen Izquierda | Margen Derecha | | |
| 9580.00 | 2549.58 | 2547.50 | 2547.50 | Derecha | 136.44 | | 136.44 | 2547.20 | 2558.93 | 123.05 | 2547.00 | 2558.77 | 113.38 | 2546.50 | 2558.35 | 92.22 | 2546.00 | 2557.74 | 72.35 | 2547.64 | 2547.44 | 2546.90 | 2546.38 | 2545.85 | 2545.64 | 2545.16 | 2544.63 | Argelia II | La Paz Bosa | |
| 9584.28 | 2549.23 | 2548.69 | 2548.69 | Derecha | 230.38 | 339.08 | 230.38 | 2548.39 | 2560.18 | 202.45 | 2548.19 | 2559.78 | 179.46 | 2547.69 | 2559.34 | 150.12 | 2547.19 | 2559.00 | 127.59 | 2548.98 | 2548.77 | 2548.22 | 2547.73 | 2547.01 | 2546.85 | 2546.48 | 2545.95 | Argelia II | La Paz Bosa | |
| 9519.08 | 2547.64 | 2548.15 | 2547.64 | Izquierda | 147.08 | 147.08 | 174.05 | 2547.34 | 2559.10 | 134.09 | 2547.14 | 2558.95 | 124.49 | 2546.64 | 2558.55 | 101.66 | 2546.14 | 2548.07 | 80.80 | 2547.87 | 2547.67 | 2547.14 | 2546.61 | 2546.10 | 2545.58 | 2545.39 | 2544.96 | Argelia II | La Paz Bosa | |
| 9500.00 | 2547.46 | 2549.02 | 2547.46 | Izquierda | 138.34 | 138.34 | 288.16 | 2547.16 | 2558.96 | 124.86 | 2546.96 | 2558.80 | 115.10 | 2546.46 | 2558.38 | 93.56 | 2545.96 | 2557.79 | 73.77 | 2547.67 | 2547.48 | 2546.93 | 2546.42 | 2545.89 | 2545.68 | 2545.19 | 2544.67 | Argelia II | La Paz Bosa | |
| 9480.00 | 2547.58 | 2550.21 | 2547.58 | Izquierda | 144.09 | 144.09 | | 2547.28 | 2559.04 | 130.63 | 2547.08 | 2558.90 | 120.70 | 2546.58 | 2558.50 | 98.87 | 2546.08 | 2557.98 | 78.30 | 2547.79 | 2547.59 | 2547.06 | 2546.55 | 2546.02 | 2545.80 | 2545.32 | 2544.79 | Argelia II | La Paz Bosa | |
| 9458.70 | 2547.61 | 2550.25 | 2547.61 | Izquierda | 145.04 | 145.04 | | 2547.31 | 2559.06 | 131.63 | 2547.11 | 2558.92 | 122.19 | 2546.61 | 2558.52 | 99.83 | 2546.11 | 2558.03 | 79.46 | 2547.81 | 2547.62 | 2547.09 | 2546.58 | 2546.04 | 2545.83 | 2545.35 | 2544.83 | Argelia II | La Paz Bosa | |
| 9438.08 | 2548.26 | 2550.37 | 2548.26 | Izquierda | 187.75 | 187.75 | | 2547.96 | 2559.57 | 186.10 | 2547.76 | 2559.41 | 165.12 | 2547.26 | 2559.03 | 130.09 | 2546.76 | 2558.64 | 106.48 | 2548.55 | 2548.33 | 2547.78 | 2547.27 | 2546.69 | 2546.55 | 2546.00 | 2545.49 | Argelia II | La Paz Bosa | |
| 9414.43 | 2548.70 | 2549.60 | 2548.70 | Izquierda | 252.60 | 252.60 | | 2548.40 | 2560.28 | 209.56 | 2548.20 | 2559.92 | 187.67 | 2547.70 | 2559.39 | 153.50 | 2547.20 | 2559.01 | 128.86 | 2549.02 | 2548.83 | 2548.30 | 2547.76 | 2547.04 | 2546.92 | 2546.53 | 2545.97 | Argelia II | La Paz Bosa | |
| 9400.00 | 2548.78 | 2549.02 | 2548.78 | Izquierda | 265.69 | 265.69 | 328.51 | 2548.48 | 2560.45 | 221.01 | 2548.28 | 2560.10 | 197.46 | 2547.78 | 2559.47 | 159.19 | 2547.28 | 2559.08 | 133.05 | 2549.68 | 2549.44 | 2548.92 | 2548.41 | 2547.10 | 2546.98 | 2546.60 | 2546.07 | Argelia II | La Paz Bosa | |
| 9375.90 | 2548.69 | 2548.45 | 2548.45 | Derecha | 136.44 | 136.44 | | 2547.20 | 2558.93 | 123.05 | 2547.00 | 2558.77 | 113.38 | 2546.50 | 2558.35 | 92.22 | 2546.00 | 2557.74 | 72.35 | 2547.64 | 2547.44 | 2546.90 | 2546.38 | 2545.85 | 2545.64 | 2545.16 | 2544.63 | Argelia II | La Paz | |
| 9340.00 | 2548.48 | 2548.25 | 2548.25 | Derecha | 201.12 | 217.45 | 201.12 | 2547.95 | 2559.65 | 171.26 | 2547.75 | 2559.49 | 160.95 | 2547.25 | 2559.11 | 134.96 | 2546.75 | 2558.73 | 110.95 | 2548.64 | 2548.46 | 2547.89 | 2547.39 | 2546.76 | 2546.62 | 2546.12 | 2545.59 | Argelia II | La Paz | |
| 9320.00 | 2548.64 | 2548.75 | 2548.64 | Izquierda | 249.99 | 249.99 | 258.46 | 2548.34 | 2560.37 | 216.01 | 2548.14 | 2559.98 | 191.10 | 2547.64 | 2559.41 | 155.33 | 2547.14 | 2559.04 | 130.45 | 2549.41 | 2548.86 | 2548.34 | 2547.79 | 2547.07 | 2546.95 | 2546.55 | 2546.01 | Argelia II | La Paz | |
| 9300.00 | 2547.77 | 2548.80 | 2547.77 | Izquierda | 163.32 | 163.32 | 267.85 | 2547.47 | 2559.30 | 147.28 | 2547.27 | 2559.16 | 137.86 | 2546.77 | 2558.78 | 114.15 | 2546.27 | 2558.37 | 93.04 | 2548.16 | 2547.95 | 2547.46 | 2546.92 | 2546.41 | 2546.19 | 2545.66 | 2545.18 | Argelia II | La Paz | |
| 9280.00 | 2547.79 | 2550.68 | 2547.79 | Izquierda | 163.83 | 163.83 | | 2547.49 | 2559.31 | 147.71 | 2547.29 | 2559.16 | 138.27 | 2546.79 | 2558.79 | 114.60 | 2546.29 | 2558.38 | 93.56 | 2548.17 | 2547.96 | 2547.47 | 2546.93 | 2546.43 | 2546.20 | 2545.67 | 2545.19 | Argelia II | La Paz | |
| 9237.24 | 2548.67 | 2551.40 | 2548.67 | Izquierda | 309.59 | 309.59 | | 2548.37 | 2560.99 | 255.76 | 2548.17 | 2560.44 | 220.82 | 2547.67 | 2559.56 | 165.43 | 2547.17 | 2559.17 | 138.83 | 2550.00 | 2549.68 | 2548.54 | 2547.97 | 2547.27 | 2547.10 | 2546.68 | 2546.21 | Portal de Bosa | La Paz | |
| 9216.04 | 2548.52 | 2549.82 | 2548.52 | Izquierda | 263.73 | 263.73 | | 2548.22 | 2560.40 | 217.88 | 2548.02 | 2559.98 | 191.22 | 2547.52 | 2559.39 | 153.40 | 2547.02 | 2558.92 | 129.55 | 2549.53 | 2548.86 | 2548.29 | 2547.77 | 2547.08 | 2546.95 | 2546.52 | 2545.99 | Portal de Bosa | La Paz | |
| 9200.00 | 2548.42 | 2549.83 | 2548.42 | Izquierda | 246.66 | 246.66 | | 2548.12 | 2560.21 | 204.02 | 2547.92 | 2559.75 | 177.33 | 2547.42 | 2559.31 | 147.72 | 2546.92 | 2558.96 | 124.76 | 2548.99 | 2548.74 | 2548.17 | 2547.67 | 2547.02 | 2546.83 | 2546.43 | 2545.88 | Portal de Bosa | La Paz | |
| 9180.00 | 2548.32 | 2549.47 | 2548.32 | Izquierda | 241.94 | 241.94 | | 2548.02 | 2560.02 | 193.11 | 2547.82 | 2559.66 | 171.66 | 2547.32 | 2559.25 | 144.04 | 2546.82 | 2558.90 | 120.71 | 2548.88 | 2548.65 | 2548.09 | 2547.59 | 2546.96 | 2546.76 | 2546.34 | 2545.80 | Portal de Bosa | La Paz | |
| 9160.00 | 2549.22 | 2548.54 | 2548.54 | Derecha | 277.50 | | 277.50 | 2548.24 | 2560.80 | 243.75 | 2548.04 | 2560.22 | 205.01 | 2547.54 | 2559.47 | 159.34 | 2547.04 | 2559.09 | 133.64 | 2549.90 | 2548.99 | 2548.42 | 2547.86 | 2547.17 | 2547.02 | 2546.60 | 2546.09 | Portal de Bosa | La Paz | |
| 9120.00 | 2549.70 | 2547.53 | 2547.53 | Derecha | 155.56 | | 155.56 | 2547.23 | 2559.20 | 140.91 | 2547.03 | 2559.06 | 131.82 | 2546.53 | 2556.67 | 108.06 | 2546.03 | 2558.25 | 86.00 | 2548.02 | 2547.82 | 2547.32 | 2546.80 | 2546.26 | 2546.04 | 2545.53 | 2545.05 | Portal de Bosa | La Paz | |
| | | | | Portal de Bosa | 241.94 | 241.94 | | 2548.02 | 2560.02 | 193.11 | 2547.82 | 2559.66 | 171.66 | 2547.32 | 2559.25 | 144.04 | 2546.82 | 2558.90 | 120.71 | 2548.88 | 2548.65 | 2548.09 | 2547.59 | 2546.96 | 2546.76 | 2546.34 | 2545.80 | | | |
| | | | | Barrio La Paz | 155.56 | | 155.56 | | | | 140.91 | | 131.82 | | | 108.06 | | | 86.00 | | 2548.02 | 2547.82 | 2547.32 | 2546.80 | 2546.26 | 2546.04 | 2545.53 | 2545.05 | | |
| | | | | Tramo Clasa - Portal de Bosa | 136.44 | | | 2547.20 | 2558.93 | 123.05 | 2547.00 | 2558.77 | 113.38 | 2546.50 | 2558.35 | 92.22 | 2546.00 | 2557.74 | 72.35 | 2547.64 | 2547.44 | 2546.90 | 2546.38 | 2545.85 | 2545.64 | 2545.16 | 2544.63 | | | |

NOTA: Los barrios identificados para cada abscisa corresponden a barrios legalizados o a sectores catastrales. Los roles de Sberri, Independencia y Kennedy en los encabezados de las columnas de la tabla se refieren a las cotas que corresponden a los registros de los sensores del mismo nombre.

SISTEMA DE ALERTA TEMPRANA DEL RÍO TUNJUELO – 2009

ANÁLISIS DE CAPACIDAD HIDRÁULICA DE LAS SECCIONES DEL RÍO TUNJUELO EN EL TRAMO CUBIERTO POR EL SENSOR INDEPENDENCIA (K9+100 - K0+000) n=0.03

| Estación | Nivel Jarrón izquierdo (mnm) | Nivel Jarrón derecho (mnm) | Cota de desborde (mnm) | Margen de desborde | Ciudad de desborde (m/a) | Distancia de estación a ciudad de desborde (m) | Cota alerta (mnm) | Cota río libre (mnm) | Q Alerta (m³/s) | Cota Alerta 5 (mnm) | Cota 5 Street (mnm) | Q Alerta 5 (m³/s) | Cota Alerta 4 (mnm) | Cota 4 Street (mnm) | Q Alerta 4 (m³/s) | Cota Alerta 3 (mnm) | Cota 3 Street (mnm) | Q Alerta 3 (m³/s) | Cota Alerta 2 (mnm) | Cota 2 Street (mnm) | Q Alerta 2 (m³/s) | Cota Alerta 1 (mnm) | Cota 1 Street (mnm) | Q Alerta 1 (m³/s) | Cota Alerta 0 (mnm) | Cota 0 Street (mnm) | Q Alerta 0 (m³/s) | Barrio | | |
|------------------|------------------------------|----------------------------|------------------------|--------------------|--------------------------|--|-------------------|----------------------|-----------------|---------------------|---------------------|-------------------|---------------------|---------------------|-------------------|---------------------|---------------------|-------------------|---------------------|---------------------|-------------------|---------------------|---------------------|-------------------|---------------------|---------------------|-------------------|------------------|----------------|---------------------|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | Margen Izquierda | Margen Derecha | |
| 4262.31 | 2547.65 | 2544.84 | 2544.84 | Derecha | 162.75 | | 162.75 | 2544.54 | 2559.28 | 145.80 | 2544.34 | 2559.15 | 137.25 | 2543.84 | 2558.75 | 112.25 | 2543.34 | 2558.30 | 89.81 | 2548.12 | 2547.94 | 2547.42 | 2546.84 | 2546.38 | 2546.17 | 2545.62 | 2545.09 | 2544.55 | El Jardín | San Bernardino XVII |
| 4293.71 | 2547.90 | 2544.90 | 2544.90 | Derecha | 166.55 | | 166.55 | 2544.60 | 2559.34 | 149.75 | 2544.40 | 2559.21 | 141.25 | 2543.90 | 2558.83 | 116.96 | 2543.40 | 2558.38 | 93.65 | 2548.21 | 2548.03 | 2547.51 | 2546.94 | 2546.47 | 2546.27 | 2545.71 | 2545.19 | 2544.67 | El Jardín | San Bernardino XVII |
| 4223.01 | 2547.43 | 2544.86 | 2544.86 | Derecha | 165.11 | | 165.11 | 2544.66 | 2559.31 | 148.00 | 2544.46 | 2559.19 | 140.01 | 2543.96 | 2558.80 | 114.00 | 2543.46 | 2558.36 | 92.18 | 2548.17 | 2547.99 | 2547.47 | 2546.90 | 2546.43 | 2546.17 | 2545.61 | 2545.11 | 2544.61 | El Jardín | San Bernardino XVII |
| 4206.55 | 2547.47 | 2544.85 | 2544.85 | Derecha | 165.00 | | 165.00 | 2544.55 | 2559.30 | 147.60 | 2544.35 | 2559.18 | 139.50 | 2543.95 | 2558.79 | 114.50 | 2543.35 | 2558.34 | 91.74 | 2548.17 | 2547.98 | 2547.46 | 2546.89 | 2546.42 | 2546.23 | 2545.66 | 2545.14 | 2544.64 | El Jardín | San Bernardino XVII |
| 4176.96 | 2546.83 | 2544.97 | 2544.97 | Derecha | 181.17 | | 181.17 | 2544.67 | 2559.42 | 156.99 | 2544.47 | 2559.27 | 145.60 | 2543.97 | 2558.61 | 121.50 | 2543.47 | 2558.20 | 97.82 | 2548.12 | 2547.93 | 2547.41 | 2546.84 | 2546.37 | 2546.18 | 2545.61 | 2545.10 | 2544.60 | El Jardín | San Bernardino XVII |
| 4160.00 | 2545.92 | 2545.06 | 2545.06 | Derecha | 193.20 | 314.74 | 193.20 | 2544.76 | 2559.51 | 162.28 | 2544.56 | 2559.32 | 148.88 | 2544.06 | 2558.98 | 126.10 | 2543.56 | 2558.56 | 101.91 | 2548.48 | 2548.19 | 2547.70 | 2547.14 | 2546.64 | 2546.45 | 2545.91 | 2545.39 | 2544.89 | El Jardín | San Bernardino XVII |
| 4140.00 | 2545.83 | 2545.08 | 2545.08 | Derecha | 194.59 | 303.27 | 194.59 | 2544.78 | 2559.53 | 163.28 | 2544.58 | 2559.33 | 149.44 | 2544.08 | 2558.98 | 126.63 | 2543.58 | 2558.57 | 102.54 | 2548.21 | 2547.91 | 2547.39 | 2546.82 | 2546.35 | 2546.16 | 2545.63 | 2545.11 | 2544.61 | El Jardín | San Bernardino XVII |
| 4120.00 | 2545.26 | 2545.11 | 2545.11 | Derecha | 198.40 | 219.88 | 198.40 | 2544.81 | 2559.57 | 166.00 | 2544.61 | 2559.38 | 151.72 | 2544.11 | 2559.01 | 128.70 | 2543.61 | 2558.61 | 104.48 | 2548.55 | 2548.26 | 2547.75 | 2547.22 | 2546.69 | 2546.50 | 2545.97 | 2545.45 | 2544.93 | El Jardín | San Bernardino XVII |
| 3863.00 | 2545.22 | 2545.28 | 2545.22 | Izquierda | 247.24 | 247.24 | 247.24 | 2545.22 | 2544.92 | 2560.13 | 2545.02 | 2559.64 | 170.82 | 2544.22 | 2559.20 | 100.20 | 2543.72 | 2558.81 | 75.42 | 2548.01 | 2547.72 | 2547.20 | 2546.70 | 2546.20 | 2545.70 | 2545.20 | 2544.70 | 2544.20 | El Jardín | San Bernardino XVII |
| 4080.00 | 2544.68 | 2545.03 | 2544.68 | Izquierda | 156.11 | 156.11 | 156.11 | 2544.38 | 2559.23 | 142.64 | 2544.18 | 2559.08 | 132.95 | 2543.68 | 2558.66 | 108.70 | 2543.18 | 2558.21 | 86.39 | 2548.05 | 2547.84 | 2547.33 | 2546.76 | 2546.30 | 2545.83 | 2545.35 | 2544.87 | 2544.39 | El Jardín | San Bernardino XVII |
| 4060.00 | 2545.70 | 2545.05 | 2544.70 | Izquierda | 161.45 | 161.45 | 161.45 | 2544.40 | 2559.26 | 144.48 | 2544.20 | 2559.12 | 135.60 | 2543.70 | 2558.72 | 110.57 | 2543.20 | 2558.26 | 88.48 | 2548.10 | 2547.90 | 2547.38 | 2546.81 | 2546.35 | 2545.88 | 2545.41 | 2544.94 | 2544.47 | El Jardín | San Bernardino XVII |
| 4040.00 | 2545.04 | 2545.05 | 2544.70 | Izquierda | 188.14 | 188.14 | 188.14 | 2544.74 | 2559.58 | 166.50 | 2544.54 | 2559.35 | 150.92 | 2544.04 | 2559.00 | 128.05 | 2543.54 | 2558.59 | 103.68 | 2548.26 | 2548.04 | 2547.52 | 2547.01 | 2546.51 | 2546.02 | 2545.53 | 2545.04 | 2544.55 | El Jardín | San Bernardino XVII |
| 4020.00 | 2545.12 | 2544.98 | 2544.98 | Derecha | 192.51 | 201.13 | 192.51 | 2544.68 | 2559.52 | 162.50 | 2544.48 | 2559.32 | 148.80 | 2543.98 | 2558.96 | 125.25 | 2543.48 | 2558.54 | 101.20 | 2548.48 | 2548.19 | 2547.68 | 2547.12 | 2546.64 | 2546.15 | 2545.66 | 2545.18 | 2544.69 | El Jardín | San Bernardino XVII |
| 4000.00 | 2545.17 | 2545.09 | 2544.97 | Derecha | 192.06 | 209.82 | 192.06 | 2544.67 | 2559.50 | 161.61 | 2544.47 | 2559.31 | 146.04 | 2543.97 | 2558.96 | 124.79 | 2543.47 | 2558.53 | 100.52 | 2548.47 | 2548.17 | 2547.67 | 2547.10 | 2546.63 | 2546.14 | 2545.65 | 2545.17 | 2544.68 | El Jardín | San Bernardino XVII |
| 3980.00 | 2545.28 | 2545.09 | 2545.09 | Derecha | 212.18 | 237.81 | 212.18 | 2544.79 | 2559.64 | 170.49 | 2544.59 | 2559.41 | 155.33 | 2544.09 | 2559.04 | 130.70 | 2543.59 | 2558.64 | 106.09 | 2548.63 | 2548.34 | 2547.79 | 2547.26 | 2546.75 | 2546.26 | 2545.77 | 2545.28 | 2544.79 | El Jardín | San Bernardino XVII |
| Barrio El Jardín | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3920.00 | 2545.11 | 2544.61 | 2544.61 | Derecha | 156.39 | 211.12 | 156.39 | 2544.31 | 2559.20 | 140.80 | 2544.11 | 2559.05 | 131.01 | 2543.61 | 2558.65 | 106.82 | 2543.11 | 2558.19 | 85.77 | 2548.01 | 2547.80 | 2547.28 | 2546.74 | 2546.26 | 2545.78 | 2545.30 | 2544.82 | 2544.34 | San Diego Bosa | San Bernardino XVII |
| 3900.00 | 2545.21 | 2544.96 | 2544.96 | Derecha | 201.09 | 234.81 | 201.09 | 2544.66 | 2559.55 | 164.35 | 2544.46 | 2559.33 | 149.27 | 2543.96 | 2558.98 | 126.55 | 2543.46 | 2558.56 | 102.32 | 2548.52 | 2548.20 | 2547.71 | 2547.16 | 2546.67 | 2546.18 | 2545.69 | 2545.20 | 2544.71 | San Diego Bosa | San Bernardino XVII |
| 3879.64 | 2545.13 | 2545.74 | 2545.13 | Izquierda | 233.24 | 233.24 | 233.24 | 2544.83 | 2559.85 | 183.56 | 2544.63 | 2559.62 | 162.50 | 2544.13 | 2559.12 | 135.53 | 2543.63 | 2558.71 | 110.25 | 2548.80 | 2548.49 | 2547.90 | 2547.38 | 2546.89 | 2546.41 | 2545.93 | 2545.45 | 2544.97 | San Diego Bosa | San Bernardino XVII |
| 3863.00 | 2545.22 | 2545.28 | 2545.22 | Izquierda | 247.24 | 247.24 | 247.24 | 2545.22 | 2544.92 | 2560.13 | 2545.02 | 2559.64 | 170.82 | 2544.22 | 2559.20 | 100.20 | 2543.72 | 2558.81 | 75.42 | 2548.01 | 2547.72 | 2547.20 | 2546.70 | 2546.20 | 2545.70 | 2545.20 | 2544.70 | 2544.20 | San Diego Bosa | San Bernardino XVII |
| 3840.00 | 2545.22 | 2544.88 | 2544.88 | Derecha | 165.50 | 246.00 | 165.50 | 2544.38 | 2559.30 | 147.48 | 2544.18 | 2559.18 | 139.35 | 2543.68 | 2558.78 | 114.14 | 2543.18 | 2558.33 | 91.17 | 2548.16 | 2547.96 | 2547.46 | 2546.88 | 2546.42 | 2545.95 | 2545.47 | 2544.99 | 2544.51 | San Diego Bosa | San Bernardino XVII |
| 3820.00 | 2544.86 | 2544.80 | 2544.80 | Derecha | 178.39 | 183.89 | 178.39 | 2544.50 | 2559.42 | 155.51 | 2544.30 | 2559.26 | 144.84 | 2543.80 | 2558.90 | 120.79 | 2543.30 | 2558.45 | 96.78 | 2548.10 | 2547.89 | 2547.37 | 2546.85 | 2546.36 | 2545.88 | 2545.40 | 2544.92 | 2544.44 | San Diego Bosa | San Bernardino XVII |
| 3800.00 | 2544.97 | 2544.74 | 2544.74 | Derecha | 174.41 | 188.80 | 174.41 | 2544.44 | 2559.35 | 150.50 | 2544.24 | 2559.23 | 142.54 | 2543.74 | 2558.84 | 117.43 | 2543.24 | 2558.39 | 94.18 | 2548.23 | 2548.05 | 2547.52 | 2547.00 | 2546.49 | 2546.00 | 2545.51 | 2545.03 | 2544.55 | San Diego Bosa | San Bernardino XVII |
| 3780.88 | 2545.40 | 2544.79 | 2544.79 | Derecha | 183.75 | 268.34 | 183.75 | 2544.49 | 2559.43 | 156.67 | 2544.29 | 2559.27 | 145.20 | 2543.79 | 2558.90 | 121.00 | 2543.29 | 2558.46 | 97.28 | 2548.11 | 2547.80 | 2547.28 | 2546.72 | 2546.23 | 2545.74 | 2545.26 | 2544.78 | 2544.30 | San Diego Bosa | San Bernardino XVII |
| 3760.00 | 2544.96 | 2544.79 | 2544.96 | Izquierda | 158.63 | 158.63 | 158.63 | 2544.26 | 2559.25 | 143.77 | 2544.06 | 2559.10 | 134.64 | 2543.56 | 2558.70 | 109.43 | 2543.06 | 2558.23 | 87.12 | 2548.08 | 2547.88 | 2547.36 | 2546.77 | 2546.28 | 2545.79 | 2545.30 | 2544.81 | 2544.33 | San Diego Bosa | San Bernardino XVII |
| 3740.00 | 2545.12 | 2545.14 | 2545.12 | Izquierda | 146.17 | 146.17 | 146.17 | 2544.92 | 2559.40 | 139.25 | 2544.72 | 2559.25 | 131.25 | 2544.02 | 2558.67 | 104.25 | 2543.52 | 2558.16 | 81.25 | 2548.02 | 2547.82 | 2547.30 | 2546.78 | 2546.26 | 2545.74 | 2545.22 | 2544.70 | 2544.18 | San Diego Bosa | San Bernardino XVII |
| 3720.00 | 2544.41 | 2545.18 | 2544.41 | Izquierda | 151.37 | 151.37 | 151.37 | 2544.11 | 2559.20 | 127.80 | 2543.91 | 2559.00 | 120.80 | 2543.41 | 2558.58 | 103.14 | 2542.91 | 2558.10 | 81.24 | 2547.96 | 2547.73 | 2547.18 | 2546.64 | 2546.20 | 2545.75 | 2545.28 | 2544.81 | 2544.34 | San Diego Bosa | San Bernardino XVII |
| 3700.00 | 2544.41 | 2545.21 | 2544.41 | Izquierda | 151.90 | 151.90 | 151.90 | 2544.11 | 2559.17 | 138.90 | 2543.91 | 2559.01 | 128.84 | 2543.41 | 2558.60 | 104.00 | 2542.91 | 2558.12 | 82.72 | 2547.97 | 2547.75 | 2547.20 | 2546.66 | 2546.21 | 2545.73 | 2545.24 | 2544.75 | 2544.27 | San Diego Bosa | San Bernardino XVII |
| 3680.00 | 2544.39 | 2545.32 | 2544.39 | Izquierda | 150.79 | 150.79 | 150.79 | 2544.39 | 2559.15 | 137.75 | 2543.89 | 2559.00 | 127.63 | 2543.39 | 2558.58 | 103.10 | 2542.89 | 2558.10 | 81.80 | 2547.95 | 2547.73 | 2547.18 | 2546.64 | 2546.21 | 2545.73 | 2545.24 | 2544.75 | 2544.28 | San Diego Bosa | San Bernardino XVII |
| 3660.00 | 2544.82 | 2545.20 | 2544.82 | Izquierda | 193.65 | 193.65 | 193.65 | 2544.82 | 2559.52 | 162.66 | 2544.62 | 2559.32 | 148.83 | 2543.92 | 2558.96 | 124.84 | 2543.42 | 2558.53 | 100.57 | 2548.49 | 2548.19 | 2547.67 | 2547.11 | 2546.64 | 2546.15 | 2545.66 | 2545.18 | 2544.69 | San Diego Bosa | San Bernardino XVII |
| 3640.00 | 2544.94 | 2545.20 | 2544.94 | Izquierda | 208.00 | 208.00 | 208.00 | 2544.94 | 2559.74 | 177.13 | 2544.74 | 2559.44 | 157.14 | 2543.94 | 2559.06 | 131.58 | 2543.44 | 2558.63 | 106.88 | 2548.73 | 2548.38 | 2547.81 | | | | | | | | |

SISTEMA DE ALERTA TEMPRANA DEL RÍO TUNJUELO – 2009

ANÁLISIS DE CAPACIDAD HIDRÁULICA DE LAS SECCIONES DEL RÍO TUNJUELO EN EL TRAMO CUBIERTO POR EL SENSOR INDEPENDENCIA (K9+100 - K0+000) n=0.03

| Estación | Nivel Jarillón izquierdo (msnm) | Nivel Jarillón derecho (msnm) | Cota de desborde (msnm) | Margen de desborde | Ciudad de desborde (m ² /s) | Caudal de desborde a izquierda (m ³ /s) | Caudal de desborde a derecha (m ³ /s) | Cota Alerta roja (msnm) | Cota roja Sibero (mrcm) | Q Alerta roja (m ³ /s) | Cota Alerta 5 (msnm) | Cota 5 Sibero (mrcm) | Q Alerta 5 (m ³ /s) | Cota Alerta nar (msnm) | Cota nar Sibero (mrcm) | Q Alerta nar (m ³ /s) | Cota Alerta Am (msnm) | Cota ana Sibero (mrcm) | Q Alerta Am (m ³ /s) | Cota Alerta roja Kennedy (mrcm) | Cota Alerta 5 Kennedy (m ³ /s) | Cota Alerta nar Kennedy (m ³ /s) | Cota Alerta ana Kennedy (m ³ /s) | Cota Alerta 5 Independencia (m ³ /s) | Cota Alerta nar Independencia (m ³ /s) | Cota Alerta ana Independencia (m ³ /s) | Cota Alerta 5 Soacha (m ³ /s) | Cota Alerta nar Soacha (m ³ /s) | Cota Alerta ana Soacha (m ³ /s) | Barrio | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------------|-------------------------------|-------------------------|--------------------|--|--|--|-------------------------|-------------------------|-----------------------------------|----------------------|----------------------|--------------------------------|------------------------|------------------------|----------------------------------|-----------------------|------------------------|---------------------------------|---------------------------------|---|---|---|---|---|---|--|--|--|------------------|----------------|---------|--------|--------|--|---------|--------|--|---------|-------|--|---------|-------|---------|---------|---------|---------|---------|---------|---------|---------|--|--|--|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Margen Izquierda | Margen Derecha | | | | | | | | | | | | | | | | | | | | | | | |
| 300.00 | 2542.70 | 2544.67 | 2542.70 | Izquierda | 136.56 | 136.56 | 299.22 | 2542.40 | 2558.88 | 119.29 | 2542.20 | 2558.67 | 107.67 | 2541.70 | 2558.10 | 81.81 | 2541.20 | 2557.23 | 59.12 | 2547.56 | 2547.31 | 2546.64 | 2545.98 | 2545.77 | 2545.52 | 2544.89 | 2544.22 | Soacha | San Bernardino XXV | | | | | | | | | | | | | | | | | | | | | | | | | |
| 280.00 | 2542.68 | 2544.48 | 2542.68 | Izquierda | 136.21 | 136.21 | 278.78 | 2542.38 | 2558.87 | 118.70 | 2542.18 | 2558.66 | 107.11 | 2541.68 | 2558.07 | 80.90 | 2541.18 | 2557.20 | 58.38 | 2547.55 | 2547.29 | 2546.62 | 2545.96 | 2545.75 | 2545.51 | 2544.86 | 2544.19 | Soacha | San Bernardino XXV | | | | | | | | | | | | | | | | | | | | | | | | | |
| 260.00 | 2542.67 | 2544.34 | 2542.67 | Izquierda | 136.16 | 136.16 | 265.92 | 2542.37 | 2558.87 | 118.89 | 2542.17 | 2558.66 | 107.27 | 2541.67 | 2558.06 | 81.04 | 2541.17 | 2557.20 | 58.44 | 2547.55 | 2547.30 | 2546.62 | 2545.96 | 2545.76 | 2545.51 | 2544.87 | 2544.19 | Soacha | San Bernardino XXV | | | | | | | | | | | | | | | | | | | | | | | | | |
| 240.00 | 2542.66 | 2544.03 | 2542.66 | Izquierda | 136.26 | 136.26 | 237.66 | 2542.36 | 2558.87 | 118.76 | 2542.16 | 2558.66 | 107.16 | 2541.66 | 2558.07 | 80.95 | 2541.16 | 2557.19 | 58.04 | 2547.55 | 2547.29 | 2546.62 | 2545.95 | 2545.75 | 2545.51 | 2544.86 | 2544.18 | Soacha | San Bernardino XXV | | | | | | | | | | | | | | | | | | | | | | | | | |
| 220.00 | 2543.24 | 2544.04 | 2543.24 | Izquierda | 175.06 | 175.06 | 238.49 | 2542.94 | 2559.41 | 155.07 | 2542.74 | 2559.22 | 141.94 | 2542.24 | 2558.73 | 111.23 | 2541.74 | 2558.16 | 84.55 | 2548.33 | 2548.04 | 2547.40 | 2546.71 | 2546.55 | 2546.29 | 2545.60 | 2544.96 | Soacha | San Bernardino XXV | | | | | | | | | | | | | | | | | | | | | | | | | |
| 200.00 | 2543.68 | 2544.39 | 2543.68 | Izquierda | 212.85 | 212.85 | 273.73 | 2543.38 | 2559.94 | 188.81 | 2543.18 | 2559.67 | 172.64 | 2542.68 | 2559.17 | 138.56 | 2542.18 | 2558.68 | 108.17 | 2548.84 | 2548.66 | 2547.96 | 2547.32 | 2546.93 | 2546.77 | 2546.21 | 2545.83 | Soacha | San Bernardino XXV | | | | | | | | | | | | | | | | | | | | | | | | | |
| 180.00 | 2543.79 | 2544.39 | 2543.79 | Izquierda | 224.26 | 224.26 | 274.20 | 2543.49 | 2560.11 | 197.99 | 2543.29 | 2559.81 | 181.27 | 2542.79 | 2559.28 | 146.26 | 2542.29 | 2558.80 | 114.94 | 2548.95 | 2548.79 | 2548.14 | 2547.47 | 2546.99 | 2546.87 | 2546.39 | 2545.67 | Soacha | San Bernardino XXV | | | | | | | | | | | | | | | | | | | | | | | | | |
| 160.00 | 2543.60 | 2544.47 | 2543.60 | Izquierda | 206.27 | 206.27 | 263.39 | 2543.30 | 2559.84 | 182.83 | 2543.10 | 2559.59 | 167.43 | 2542.60 | 2559.09 | 134.00 | 2542.10 | 2558.81 | 104.87 | 2548.80 | 2548.57 | 2547.86 | 2547.22 | 2546.88 | 2546.71 | 2546.10 | 2545.45 | Soacha | San Bernardino XXV | | | | | | | | | | | | | | | | | | | | | | | | | |
| 140.00 | 2543.51 | 2544.07 | 2543.51 | Izquierda | 198.43 | 198.43 | 263.77 | 2543.21 | 2559.72 | 175.78 | 2543.01 | 2559.50 | 161.86 | 2542.51 | 2559.01 | 128.52 | 2542.01 | 2558.51 | 99.73 | 2548.71 | 2548.47 | 2547.75 | 2547.08 | 2546.81 | 2546.63 | 2545.97 | 2545.34 | Soacha | San Bernardino XXV | | | | | | | | | | | | | | | | | | | | | | | | | |
| 120.00 | 2543.46 | 2544.06 | 2543.46 | Izquierda | 196.06 | 196.06 | 245.07 | 2543.16 | 2559.68 | 173.15 | 2542.96 | 2559.46 | 158.73 | 2542.46 | 2558.96 | 126.31 | 2541.96 | 2558.46 | 97.42 | 2548.67 | 2548.41 | 2547.70 | 2547.03 | 2546.78 | 2546.59 | 2545.92 | 2545.29 | Soacha | San Bernardino XXV | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100.00 | 2543.85 | 2543.16 | 2543.16 | Derecha | 173.06 | 227.77 | 173.06 | 2542.86 | 2559.38 | 153.00 | 2542.66 | 2559.18 | 139.67 | 2542.16 | 2558.69 | 109.12 | 2541.66 | 2558.11 | 82.25 | 2548.28 | 2547.99 | 2547.35 | 2546.65 | 2546.52 | 2546.23 | 2545.55 | 2544.90 | Soacha | San Bernardino XXV | | | | | | | | | | | | | | | | | | | | | | | | | |
| 80.00 | 2543.89 | 2543.00 | 2543.00 | Derecha | 163.47 | 231.62 | 163.47 | 2542.70 | 2559.26 | 144.86 | 2542.50 | 2559.05 | 131.53 | 2542.00 | 2558.56 | 101.84 | 2541.50 | 2557.88 | 75.85 | 2548.10 | 2547.81 | 2547.14 | 2546.48 | 2546.36 | 2546.04 | 2545.39 | 2544.73 | Soacha | San Bernardino XXV | | | | | | | | | | | | | | | | | | | | | | | | | |
| 60.00 | 2544.20 | 2542.98 | 2542.98 | Derecha | 162.19 | 257.54 | 162.19 | 2542.68 | 2559.24 | 143.07 | 2542.48 | 2559.04 | 130.38 | 2541.98 | 2558.53 | 100.36 | 2541.48 | 2557.83 | 74.57 | 2548.06 | 2547.79 | 2547.10 | 2546.44 | 2546.31 | 2546.01 | 2545.36 | 2544.69 | Soacha | San Bernardino XXV | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40.00 | 2544.64 | 2543.26 | 2543.26 | Derecha | 163.00 | 299.55 | 163.00 | 2542.96 | 2559.52 | 162.44 | 2542.76 | 2559.32 | 146.93 | 2542.26 | 2558.84 | 117.12 | 2541.76 | 2558.28 | 89.15 | 2548.48 | 2548.19 | 2547.52 | 2546.83 | 2546.64 | 2546.45 | 2545.72 | 2545.08 | Soacha | San Bernardino XXV | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20.00 | 2544.25 | 2543.67 | 2543.67 | Derecha | 214.42 | 263.90 | 214.42 | 2543.37 | 2559.96 | 190.23 | 2543.17 | 2559.72 | 175.84 | 2542.67 | 2559.21 | 141.54 | 2542.17 | 2558.72 | 110.77 | 2548.86 | 2548.71 | 2548.03 | 2547.38 | 2546.94 | 2546.81 | 2546.28 | 2545.89 | Soacha | San Bernardino XXV | | | | | | | | | | | | | | | | | | | | | | | | | |
| Municipio de Soacha | | | | | | | | | | | | | | | | | | | | | | | | | | 134.73 | 134.73 | | | | | | | 118.23 | | | | | | | | | | | | | | | | | | | | |
| Barrio San Bernardino XXV | | | | | | | | | | | | | | | | | | | | | | | | | | 145.17 | 145.17 | | | | | | | 130.47 | | | | | | | | | | | | | | | | | | | | |
| Tramo San Bernardino XVIII - confluencia | | | | | | | | | | | | | | | | | | | | | | | | | | 134.73 | 134.73 | | | | | 2558.86 | 118.23 | | | 2558.63 | 106.84 | | 2558.07 | 80.90 | | 2557.10 | 58.04 | 2547.54 | 2547.28 | 2546.62 | 2545.95 | 2545.74 | 2545.50 | 2544.86 | 2544.18 | | | |

NOTA: Los barrios identificados para cada abscisa corresponden a barrios legalizados o a sectores catastrales.
 Los nombres San Sibero, Independencia y Kennedy en los encabezados de las columnas de la tabla se refieren a las cotas que corresponden a los registros de los sensores del mismo nombre.

SISTEMA DE ALERTA TEMPRANA DEL RÍO TUNJUELO – 2009

NIVELES DE ALERTA EN LA ESTACIÓN SAN BENITO POR TRAMOS

n= 0.03

| Sector | Pto Crítico | Qdes | Niveles de alerta en la estación San Benito | | | | | | | |
|----------------------------------|-------------|--------|---|--------|---------|--------|---------|------------|----------|-------|
| | | | Roja | Q.roja | Nivel 5 | Q. A 5 | Naranja | Q. naranja | Amarilla | Q. am |
| Gravilleras-Q. Chiguaza | Pte Meissen | 119.15 | 2558.59 | 103.84 | 2558.40 | 94.74 | 2557.89 | 76.04 | 2557.31 | 61.03 |
| Q. Chiguaza - Puentes San Benito | 0.00 | 177.62 | 2559.45 | 157.99 | 2559.25 | 144.13 | 2558.75 | 112.33 | 2558.25 | 88.08 |
| Puente San Benito - Embalse No 1 | 0.00 | 94.20 | 2558.11 | 82.36 | 2557.91 | 76.65 | 2557.42 | 64.03 | 2556.92 | 51.65 |

UMBRALES DE ALERTA LOCALIDAD DE CIUDAD BOLÍVAR

| Barrio | Pto Crítico | Qdes | Niveles de alerta en la estación San Benito | | | | | | | |
|---|-------------|--------|---|--------|---------|--------|---------|------------|----------|--------|
| | | | Roja | Q.roja | Nivel 5 | Q. A 5 | Naranja | Q. naranja | Amarilla | Q. am |
| Barrio México II | 24926.49 | | | | 2562.05 | 326.67 | 2560.99 | 255.71 | 2559.52 | 162.78 |
| Barrios Meissen, La Playa II y La Playa | Pte Meissen | 119.15 | 2558.59 | 103.84 | 2558.40 | 94.74 | 2557.89 | 76.04 | 2557.31 | 61.03 |
| Barrio Meissen | 24560.00 | 193.50 | 2559.57 | 166.00 | 2559.41 | 154.84 | 2559.02 | 129.14 | 2558.66 | 107.57 |
| Areneras | 24420.00 | 184.24 | 2559.59 | 167.44 | 2559.41 | 155.24 | 2558.98 | 126.42 | 2558.54 | 100.91 |
| Barrio La Playa II | 24120.00 | 213.85 | 2560.10 | 197.47 | 2559.92 | 187.73 | 2559.45 | 157.94 | 2559.01 | 128.56 |
| Barrio La Playa | 24000.00 | 190.38 | 2559.68 | 173.19 | 2559.49 | 160.69 | 2559.05 | 131.17 | 2558.59 | 103.86 |
| Barrio La Ronda | 23500.00 | 196.83 | 2559.77 | 178.86 | 2559.56 | 165.21 | 2559.05 | 131.44 | 2558.56 | 102.15 |
| Zona verde margen izquierda | 23100.00 | 186.50 | 2559.61 | 168.57 | 2559.41 | 154.67 | 2558.92 | 121.88 | 2558.39 | 94.29 |

UMBRALES DE ALERTA LOCALIDAD DE TUNJUELITO

| Barrio | Pto Crítico | Qdes | Niveles de alerta en la estación San Benito | | | | | | | |
|---------------------------|-------------|--------|---|--------|---------|--------|---------|------------|----------|-------|
| | | | Roja | Q.roja | Nivel 5 | Q. A 5 | Naranja | Q. naranja | Amarilla | Q. am |
| Gravilleras | 25380.25 | 121.75 | 2559.75 | 177.64 | 2558.54 | 101.29 | 2558.23 | 87.34 | 2557.90 | 76.39 |
| Barrio San Benito | 23600.00 | 177.62 | 2559.45 | 157.99 | 2559.25 | 144.13 | 2558.75 | 112.33 | 2558.25 | 88.08 |
| Zona verde margen derecha | 23200.00 | 94.20 | 2558.11 | 82.36 | 2557.91 | 76.65 | 2557.42 | 64.03 | 2556.92 | 51.65 |

UMBRALES DE ALERTA LOCALIDAD DE KENNEDY

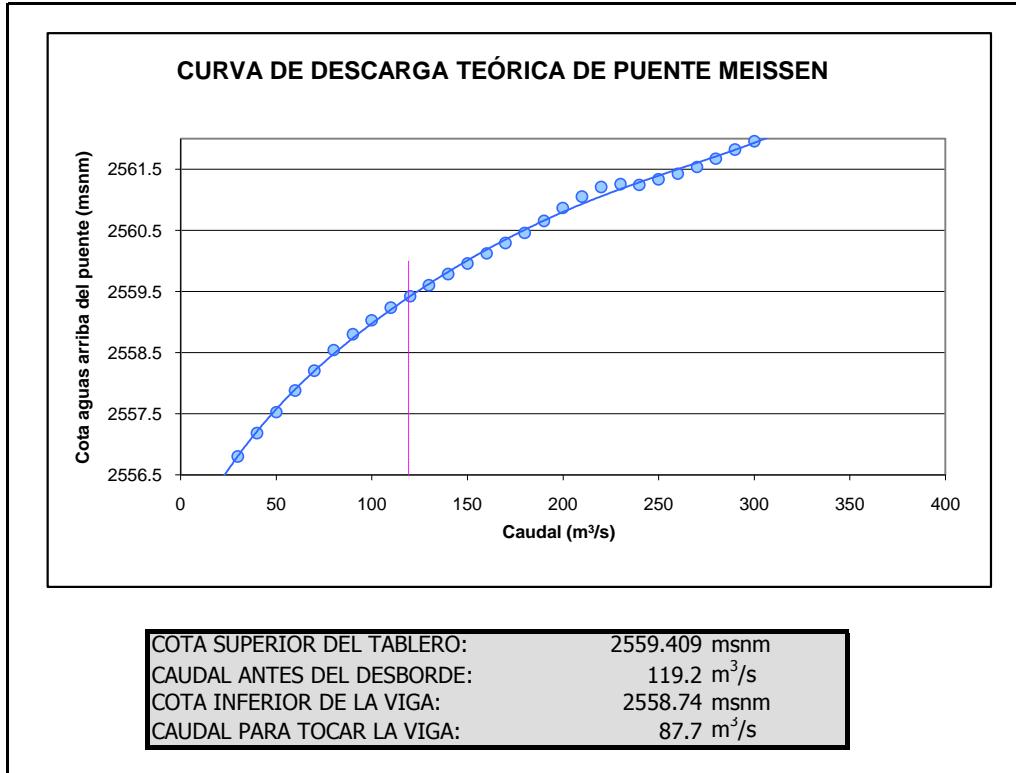
| Barrio | Pto Crítico | Qdes | Niveles de alerta en la estación Kennedy | | | | | | | | Niveles de alerta en la estación Independencia | | | |
|------------------------------------|-------------|--------|--|--------|---------|--------|---------|------------|----------|--------|--|---------|---------|----------|
| | | | Roja | Q.roja | Nivel 5 | Q. A 5 | Naranja | Q. naranja | Amarilla | Q. am | Roja | Nivel 5 | Naranja | Amarilla |
| Barrio Perpetuo Socorro II | 12581.39 | 164.40 | 2548.26 | 151.73 | 2548.12 | 145.55 | 2547.74 | 128.33 | 2547.30 | 107.41 | 2546.50 | 2546.37 | 2545.86 | 2545.51 |
| Barrio Villa Rica | 12480.00 | 176.28 | 2548.47 | 161.87 | 2548.29 | 153.18 | 2547.94 | 137.42 | 2547.52 | 117.09 | 2546.63 | 2546.52 | 2546.18 | 2545.72 |
| Barrio Catalina | 12360.00 | 142.13 | 2547.81 | 131.58 | 2547.64 | 123.37 | 2547.18 | 103.25 | 2546.68 | 83.24 | 2546.04 | 2545.85 | 2545.42 | 2544.92 |
| Barrio Catalina II | 11800.00 | 159.36 | 2548.18 | 148.17 | 2548.05 | 142.61 | 2547.66 | 124.34 | 2547.21 | 104.43 | 2546.44 | 2546.30 | 2545.87 | 2545.45 |
| Barrio La Cecilia Margen Izquierda | 11120.00 | 142.34 | 2547.82 | 131.93 | 2547.66 | 124.08 | 2547.22 | 104.55 | 2546.71 | 84.67 | 2546.05 | 2545.87 | 2545.45 | 2544.96 |
| Barrio La Cecilia margen derecha | 11720.00 | 149.36 | 2548.03 | 141.67 | 2547.88 | 134.81 | 2547.46 | 114.38 | 2546.97 | 95.21 | 2546.28 | 2546.12 | 2545.66 | 2545.23 |
| Barrio El Rubí | 10980.00 | 172.43 | 2548.43 | 159.67 | 2548.27 | 152.26 | 2547.90 | 135.59 | 2547.48 | 115.46 | 2546.61 | 2546.51 | 2546.13 | 2545.68 |
| Barrio Prados de Kennedy | 10862.60 | 144.24 | 2547.87 | 134.07 | 2547.71 | 126.40 | 2547.28 | 106.77 | 2546.78 | 87.50 | 2546.10 | 2545.92 | 2545.50 | 2545.03 |
| Barrio El Povernir II sector | 10540.00 | 157.87 | 2548.18 | 148.13 | 2548.03 | 141.47 | 2547.64 | 123.23 | 2547.24 | 105.27 | 2546.44 | 2546.28 | 2545.85 | 2545.47 |
| Barrio Class | 10060.00 | 139.21 | 2547.70 | 126.24 | 2547.51 | 116.72 | 2546.98 | 95.46 | 2546.47 | 75.59 | 2545.92 | 2545.71 | 2545.24 | 2544.72 |
| Barrio Gran Britalia | 9860.00 | 151.48 | 2547.95 | 137.91 | 2547.75 | 128.77 | 2547.25 | 105.76 | 2546.72 | 84.96 | 2546.19 | 2545.97 | 2545.48 | 2544.97 |

UMBRALES DE ALERTA LOCALIDAD DE BOSA - TRAMO CUBIERTO POR EL SENSOR DE KENNEDY

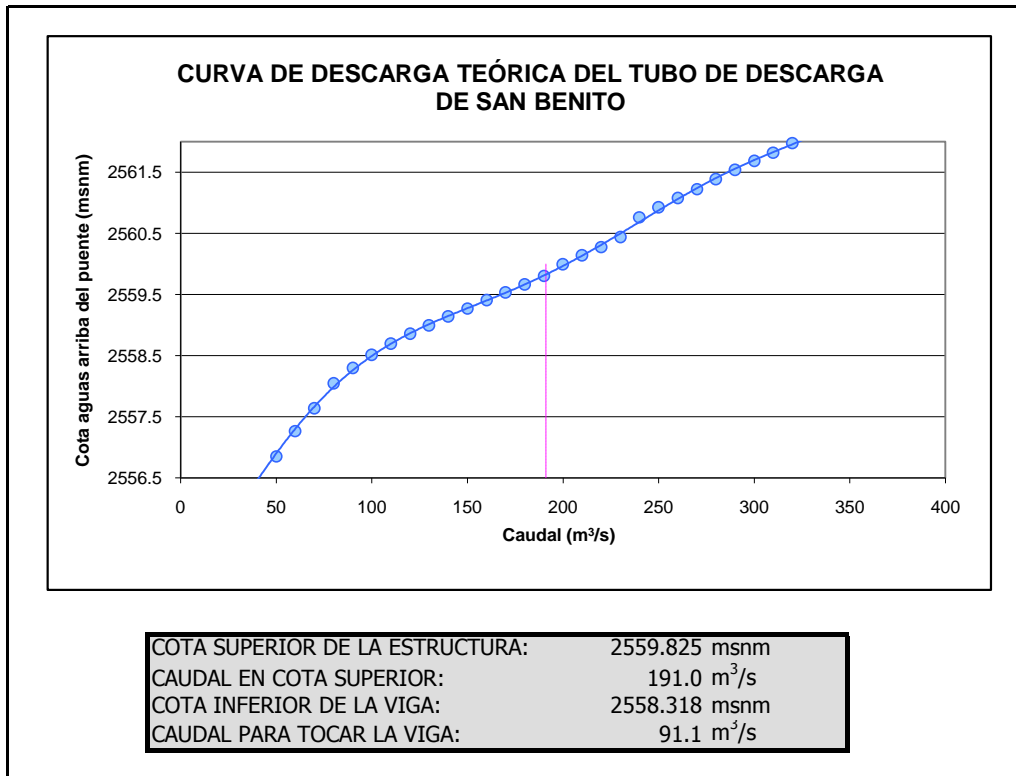
| Barrio | Pto Crítico | Qdes | Niveles de alerta en la estación Kennedy | | | | | | | | Niveles de alerta en la estación Independencia | | | |
|---------------------------|-------------|--------|--|--------|---------|--------|---------|------------|----------|--------|--|---------|---------|----------|
| | | | Roja | Q.roja | Nivel 5 | Q. A 5 | Naranja | Q. naranja | Amarilla | Q. am | Roja | Nivel 5 | Naranja | Amarilla |
| Barrio Nuevo Chile | 12293.53 | 163.52 | 2548.22 | 149.83 | 2548.09 | 144.11 | 2547.71 | 126.41 | 2547.26 | 105.85 | 2546.48 | 2546.34 | 2545.92 | 2545.48 |
| Cementerio El Apogeo | 11780.00 | 133.48 | 2547.61 | 121.71 | 2547.44 | 113.37 | 2546.95 | 94.20 | 2546.44 | 74.48 | 2545.82 | 2545.64 | 2545.21 | 2544.69 |
| Barrio Andaluza | 11240.00 | 160.91 | 2548.21 | 149.56 | 2548.07 | 143.31 | 2547.67 | 124.42 | 2547.22 | 104.69 | 2546.47 | 2546.32 | 2545.88 | 2545.45 |
| Barrio José Antonio Galán | 10920.00 | 140.51 | 2547.77 | 129.50 | 2547.60 | 121.17 | 2547.16 | 102.60 | 2546.64 | 82.00 | 2545.99 | 2545.81 | 2545.41 | 2544.89 |
| Barrio Bosa | 10219.16 | 172.19 | 2548.41 | 158.54 | 2548.22 | 150.21 | 2547.76 | 129.28 | 2547.27 | 106.46 | 2546.59 | 2546.48 | 2545.98 | 2545.49 |
| Barrio La Riviera II | 10100.00 | 146.61 | 2547.87 | 134.43 | 2547.68 | 125.33 | 2547.17 | 102.88 | 2546.66 | 82.48 | 2546.11 | 2545.90 | 2545.41 | 2544.90 |
| Barrio Argelia II | 9500.00 | 138.34 | 2547.67 | 124.86 | 2547.48 | 115.10 | 2546.93 | 93.56 | 2546.42 | 73.77 | 2545.89 | 2545.68 | 2545.19 | 2544.67 |
| Barrio Xochimilco | 9740.00 | 245.69 | 2548.99 | 203.44 | 2548.79 | 181.38 | 2548.21 | 149.59 | 2547.72 | 127.19 | 2547.01 | 2546.87 | 2546.47 | 2545.94 |
| Portal de Bosa | 9180.00 | 241.94 | 2548.88 | 193.11 | 2548.65 | 171.66 | 2548.09 | 144.04 | 2547.59 | 120.71 | 2546.96 | 2546.76 | 2546.34 | 2545.80 |
| Barrio La Paz | 9120.00 | 155.56 | 2548.02 | 140.91 | 2547.82 | 131.82 | 2547.32 | 108.08 | 2546.80 | 88.00 | 2546.26 | 2546.04 | 2545.53 | 2545.05 |
| Barrio La Paz Bosa | 9580.00 | 136.44 | 2547.64 | 123.05 | 2547.44 | 113.38 | 2546.90 | 92.22 | 2546.38 | 72.35 | 2545.85 | 2545.64 | 2545.16 | 2544.63 |

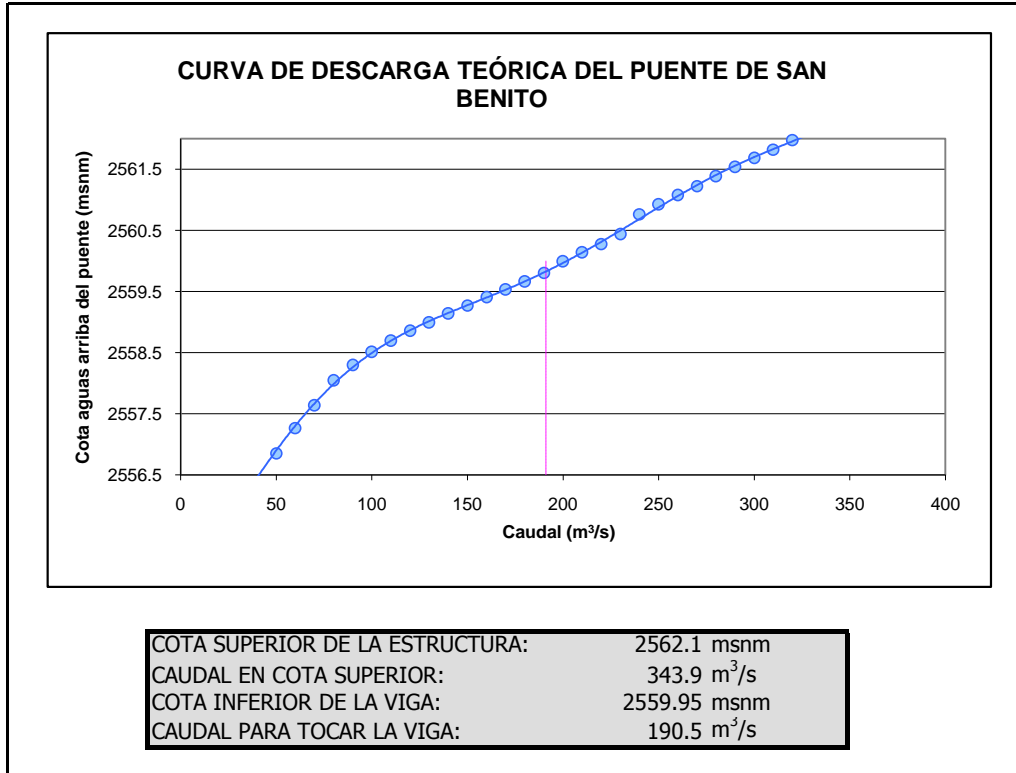
UMBRALES DE ALERTA LOCALIDAD DE BOSA - TRAMO CUBIERTO POR EL SENSOR INDEPENDENCIA

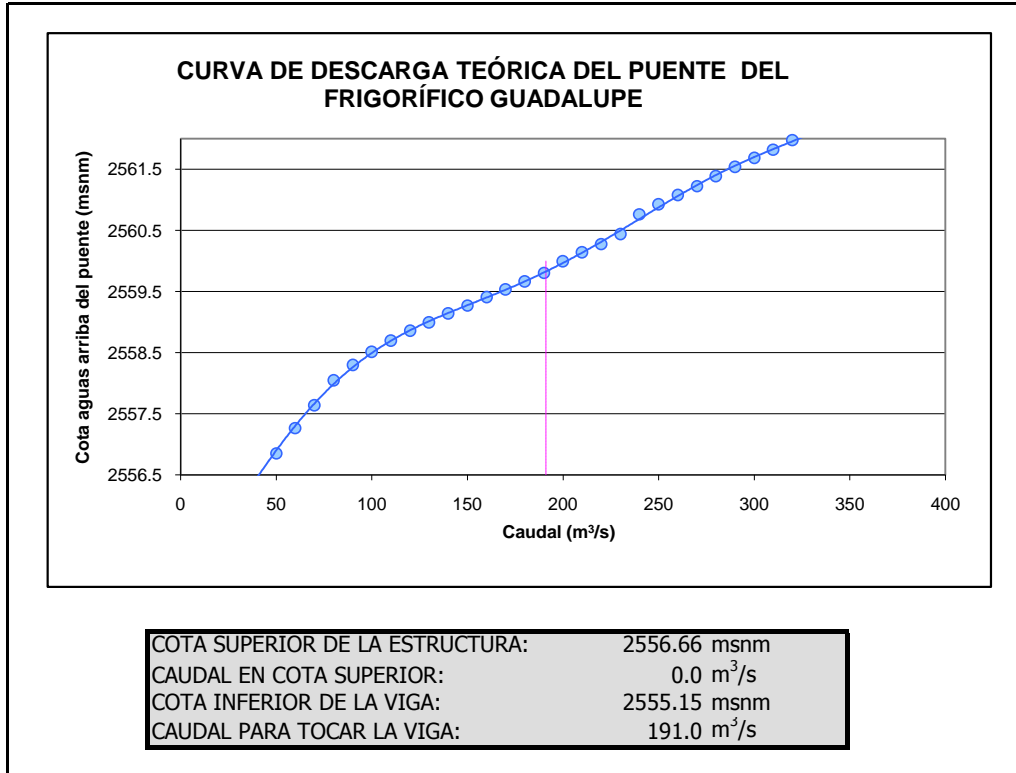
| Barrio | Pto Crítico | Qdes | Niveles de alerta en la estación Kennedy | | | | | | | | Niveles de alerta en la estación Independencia | | | |
|---|-------------|--------|--|--------|---------|--------|---------|------------|----------|--------|--|---------|---------|-----------|
| | | | Roja | Q.roja | Nivel 5 | Q. A 5 | Naranja | Q. naranja | Amarilla | Q. am | Roja | Nivel 5 | Naranja | Amarilla |
| Barrio La Paz Bosa | 9100.00 | 163.17 | 2548.13 | 146.00 | 2547.92 | 136.78 | 2547.44 | 113.14 | 2546.91 | 92.43 | 2546.38 | 2546.16 | 2545.64 | 2545.16 |
| Barrio Antonia Santos | 8920.00 | 200.67 | 2548.59 | 168.21 | 2548.37 | 156.86 | 2547.81 | 131.64 | 2547.30 | 107.54 | 2546.72 | 2546.57 | 2546.04 | 2545.52 |
| Barrio Villa de Suaita | 8600.00 | 144.93 | 2547.85 | 133.17 | 2547.65 | 123.65 | 2547.13 | 101.59 | 2546.63 | 81.32 | 2546.08 | 2545.86 | 2545.39 | 2544.87 |
| Barrio Los Saucos II | 8580.00 | 194.26 | 2548.57 | 167.41 | 2548.35 | 155.78 | 2547.79 | 130.48 | 2547.28 | 106.70 | 2546.71 | 2546.56 | 2546.01 | 2545.50 |
| Barrio Los Saucos | 839.20 | 195.49 | 2548.56 | 166.44 | 2548.31 | 154.00 | 2547.77 | 129.36 | 2547.28 | 106.91 | 2546.69 | 2546.53 | 2545.99 | 2545.50 |
| Barrio Islandia | 8496.66 | 107.34 | 2546.98 | 95.25 | 2546.78 | 87.16 | 2546.28 | 68.58 | 2545.79 | 53.50 | 2545.23 | 2545.03 | 2544.52 | 2544.02 |
| Barrio Nuestra Señora de la Paz y Otros | 8320.00 | 165.16 | 2548.18 | 148.45 | 2547.97 | 138.65 | 2547.49 | 115.87 | 2546.96 | 94.54 | 2546.44 | 2546.21 | 2545.69 | 2545.21 |
| Barrio San Diego la Paz IV sector | 8016.41 | 192.59 | 2548.55 | 165.94 | 2548.27 | 152.39 | 2547.73 | 127.78 | 2547.24 | 105.26 | 2546.69 | 2546.51 | 2545.95 | 2545.47 |
| Barrio La Paz San Ignacio Sector La Esmeralda | 7985.77 | 204.09 | 2548.63 | 170.57 | 2548.40 | 158.39 | 2547.81 | 131.70 | 2547.32 | 108.14 | 2546.75 | 2546.59 | 2546.04 | 2545.53 |
| Barrio La Paz I y II | 7880.00 | 174.79 | 2548.41 | 158.74 | 2548.11 | 145.25 | 2547.62 | 122.14 | 2547.06 | 98.96 | 2546.59 | 2546.37 | 2545.83 | 2545.32 |
| Barrio La Esmeralda | 8080.00 | 110.46 | 2547.03 | 97.58 | 2546.83 | 89.28 | 2546.32 | 70.07 | 2545.84 | 54.91 | 2545.29 | 2545.08 | 2544.57 | 2544.07 |
| Barrio La Paz San Ignacio Las Vegas | 7860.00 | 191.31 | 2548.48 | 162.30 | 2548.18 | 148.44 | 2547.68 | 124.95 | 2547.14 | 101.77 | 2546.64 | 2546.44 | 2545.89 | 2545.39 |
| Barrio La Independencia | 7523.81 | 142.92 | 2547.79 | 130.42 | 2547.60 | 121.37 | 2547.05 | 98.40 | 2546.56 | 78.89 | 2546.01 | 2545.81 | 2545.31 | 2544.81 |
| Barrio Islandia | 6547.90 | 134.08 | 2547.59 | 120.57 | 2547.38 | 110.60 | 2546.79 | 87.59 | 2546.25 | 67.74 | 2545.79 | 2545.58 | 2545.04 | 2544.50 |
| Barrio San Pedro | 6500.12 | 144.06 | 2547.78 | 130.31 | 2547.59 | 120.81 | 2547.01 | 95.53 | 2546.45 | 74.88 | 2546.01 | 2545.80 | 2545.26 | 2544.70 |
| Barrio El Remanso I | 6200.00 | 142.54 | 2547.80 | 131.14 | 2547.61 | 121.65 | 2547.02 | 95.96 | 2546.45 | 74.71 | 2546.03 | 2545.82 | 2545.27 | 2544.70 |
| Barrio Los Laureles | 6296.29 | 125.39 | 2547.40 | 111.58 | 2547.14 | 101.91 | 2546.57 | 79.20 | 2546.04 | 60.69 | 2545.60 | 2545.39 | 2544.82 | 2544.27 |
| Barrio Remanso Urbano | 5520.00 | 141.20 | 2547.68 | 125.23 | 2547.48 | 115.26 | 2546.86 | 90.47 | 2546.28 | 68.67 | 2545.90 | 2545.68 | 2545.11 | 2544.53 |
| Barrio El Jardín | 5020.00 | 124.07 | 2547.39 | 110.90 | 2547.12 | 100.90 | 2546.54 | 78.17 | 2546.01 | 59.93 | 2545.59 | 2545.37 | 2544.79 | 2544.25 |
| Barrio San Bernardino XVII | 3920.00 | 155.39 | 2548.01 | 140.80 | 2547.80 | 131.01 | 2547.28 | 106.82 | 2546.74 | 85.77 | 2546.26 | 2546.02 | 2545.50 | 2544.99 |
| Barrio San Bernardino XXII | 3320.00 | 162.61 | 2548.09 | 144.04 | 2547.88 | 134.58 | 2547.34 | 108.90 | 2546.76 | 86.68 | 2546.34 | 2546.11 | 2545.55 | 2545.01 |
| Barrio San Diego Bosa | 3180.51 | 143.42 | 2547.77 | 129.42 | 2547.56 | 118.95 | 2546.97 | 94.96 | 2546.44 | 74.41 | 2545.99 | 2545.76 | 2545.22 | 2544.69</ |



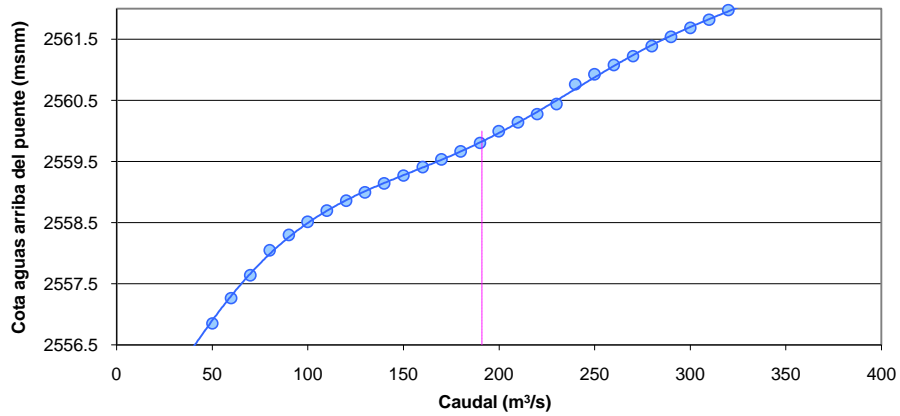
| Nivel de alerta | Roja | Nivel 5 | Naranja | Amarilla |
|------------------------------|----------|----------|----------|----------|
| Cota Pte Meissen (msnm) | 2559.109 | 2558.909 | 2558.409 | 2557.909 |
| Caudal (Q) m ³ /s | 103.84 | 94.74 | 76.04 | 61.03 |
| Cota sensor San Benito | 2558.59 | 2558.40 | 2557.89 | 2557.31 |





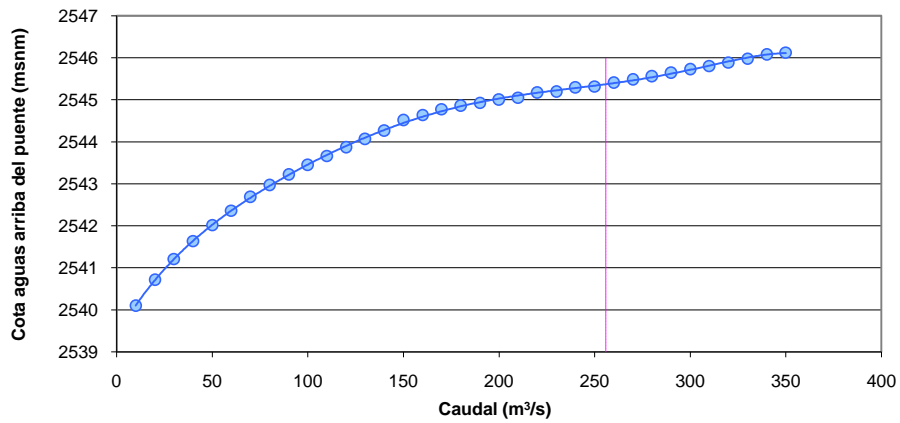


CURVA DE DESCARGA TEÓRICA DEL PUENTE LOCALIZADO EN EL PUNTO DE UBICACIÓN DEL SENSOR KENNEDY

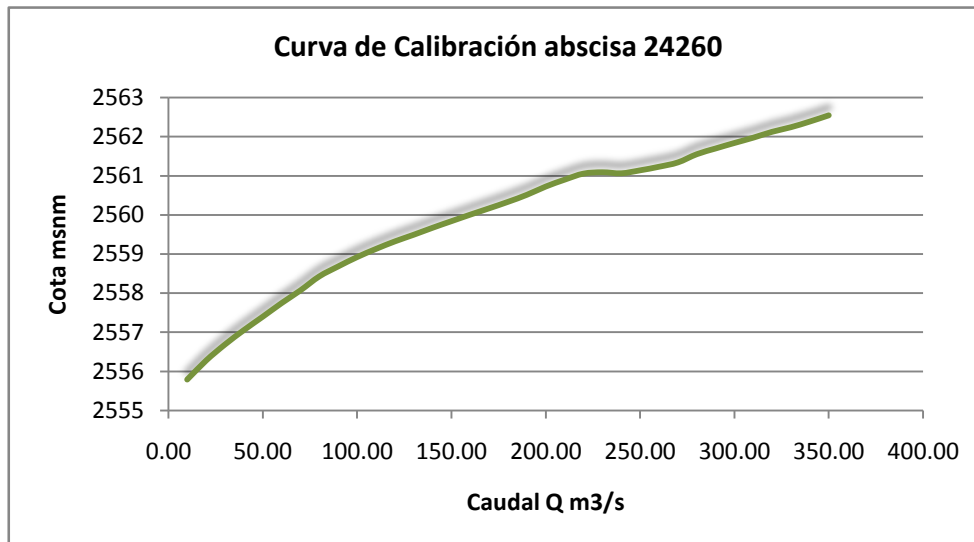


| | |
|---------------------------------|-------------------------|
| COTA SUPERIOR DE LA ESTRUCTURA: | 2548.23 msnm |
| CAUDAL EN COTA SUPERIOR: | 150.5 m ³ /s |
| COTA INFERIOR DE LA VIGA: | 2547.23 msnm |
| CAUDAL PARA TOCAR LA VIGA: | 105.0 m ³ /s |

CURVA DE DESCARGA TEÓRICA DE PUENTE SAN JOSÉ



| | |
|---------------------------------|--------------|
| COTA SUPERIOR DE LA ESTRUCTURA: | 2547.35 msnm |
| CAUDAL EN COTA SUPERIOR: | 450.0 m³/s |
| COTA INFERIOR DE LA VIGA: | 2545.37 msnm |
| CAUDAL PARA TOCAR LA VIGA: | 255.8 m³/s |



| | |
|----------------------------|-------------------------|
| COTA SUPERIOR DEL TABLERO: | 2559.81 msnm |
| CAUDAL ANTES DEL DESBORDE: | 148.4 m ³ /s |
| COTA INFERIOR DE LA VIGA: | 2558.61 msnm |
| CAUDAL PARA TOCAR LA VIGA: | 87.2 m ³ /s |

| Nivel de alerta | Roja | Nivel 5 | Naranja | Amarilla |
|---------------------------------------|---------|---------|---------|----------|
| Cota Pte Cra 16B (msnm) | 2559.51 | 2559.31 | 2558.81 | 2558.31 |
| Caudal río Tunjuelo m ³ /s | 131.11 | 119.49 | 95.42 | 76.72 |
| Cota sensor San Benito | 2559.05 | 2558.88 | 2558.42 | 2557.92 |

Sección crítica de acuerdo con la topografía tomada por JICA en el año 2007
Cota más baja de la sección: 2558.86 Q= 97.52

| Nivel de alerta | Roja | Nivel 5 | Naranja | Amarilla |
|---------------------------------------|---------|---------|---------|----------|
| Cota | 2558.56 | 2558.36 | 2557.86 | 2557.36 |
| Caudal río Tunjuelo m ³ /s | 85.23 | 78.12 | 63.55 | 48.94 |
| Cota sensor San Benito | 2558.18 | 2557.97 | 2557.40 | 2556.81 |