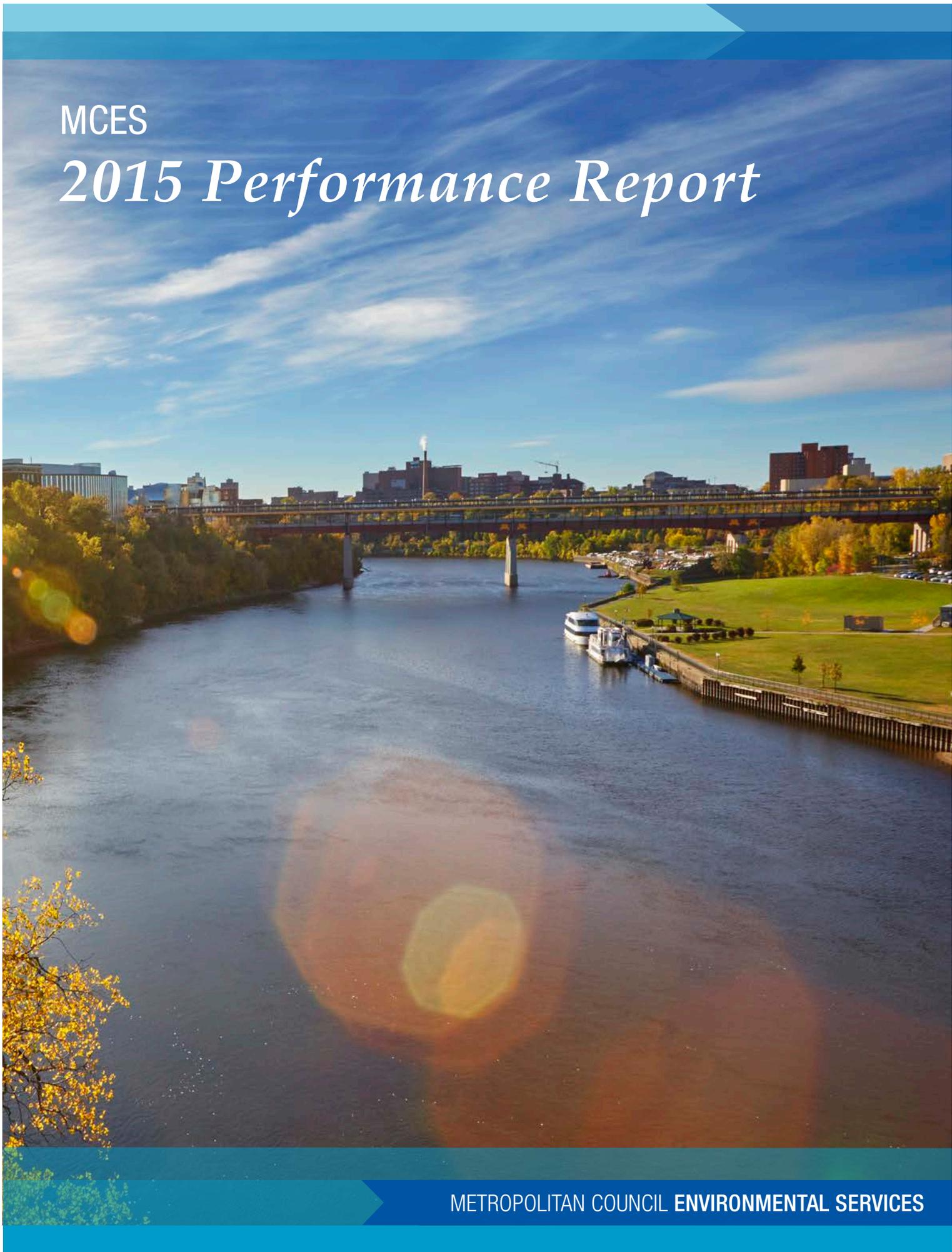


MCES

2015 Performance Report



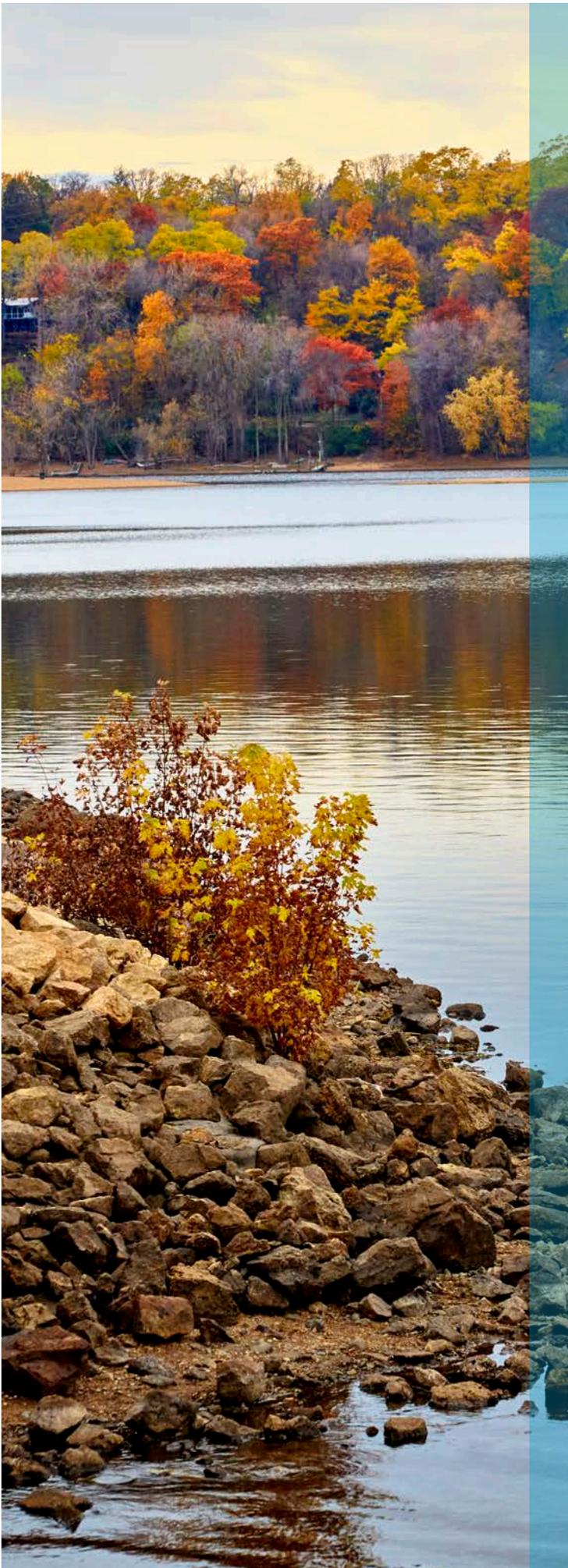


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Environmental Services

OVERVIEW

Metropolitan Council Environmental Services (MCES) is a division of the Metropolitan Council, the Twin Cities regional governmental agency. The Metropolitan Council Chair and the 16 other Council Members are appointed by the Minnesota Governor and serve at the Governor's pleasure.

Guided by the Metropolitan Council's long-range plan, *Thrive MSP 2040*, and the *MCES Water Resources Policy Plan*, MCES:

- Collects and treats approximately 250 million gallons of wastewater a day.
- Continues to achieve near-perfect compliance with federal and state clean water discharge standards.
- Ensures sufficient sewer capacity to serve planned development.
- Establishes user fees that pay 100% of wastewater operations and debt service costs, which are below national averages.
- Makes capital investments to support growth, maintain infrastructure and improve water quality.
- Operates and maintains approximately 600 miles of regional sewers that collect flows from more than 5,000 miles of sewers owned by 108 communities in the seven-county Twin Cities region.
- Runs eight regional wastewater treatment plants: Blue Lake, Eagles Point, East Bethel, Empire, Hastings, Metropolitan, Seneca, and St. Croix Valley.
- Works collaboratively with state and federal agencies, local and county government, watershed management organizations, interest groups and the public to protect the region's rich water resources as the region continues to grow.
- Works with approximately 800 industrial permit holders to substantially reduce the amount of pollution entering the wastewater collection system.





MCES MISSION

Provide wastewater services and integrated planning to ensure sustainable water quality and water supply for the region.

MCES VISION

Be a valued leader and partner in water sustainability.

MCES VALUES

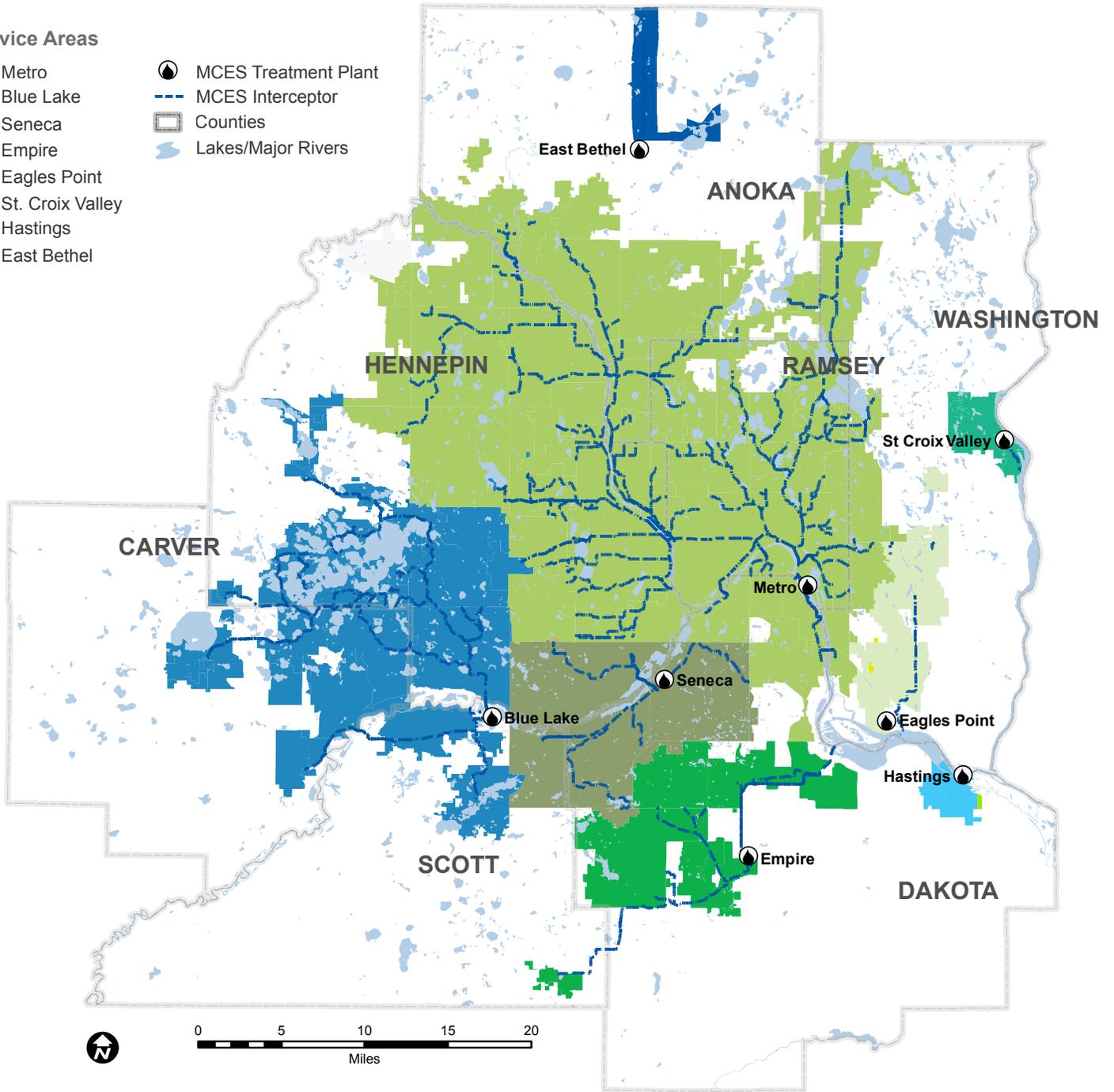
- **Excellence:** Pursued within MCES by encouraging innovation, continuous improvement, and striving for outstanding performance.
- **Inclusiveness:** Embraced in all its dimensions, recognizing that everyone has something to contribute toward the organization's success.
- **Integrity:** Demonstrated by meeting high ethical standards, building trust, and being transparent to stakeholders.
- **Respect:** Fostered by listening and encouraging understanding and honesty in how we treat each other.
- **Commitment:** Demonstrated by furthering the mission, meeting customer needs, and being an engaged and accountable workforce.

MCES REGIONAL WASTEWATER SYSTEM

Service Areas

- Metro
- Blue Lake
- Seneca
- Empire
- Eagles Point
- St. Croix Valley
- Hastings
- East Bethel

-  MCES Treatment Plant
-  MCES Interceptor
-  Counties
-  Lakes/Major Rivers





STRATEGIC VISION PROCESS

MCES continued its strategic planning process that began in 2013. This involved incorporating a holistic approach to wastewater treatment and water resources management. In 2015, MCES rolled out its new Outcomes, Strategies and Goals. Additionally, strategic planning efforts will continue into 2016 to identify additional goals that will be integrated into 2016 performance measurements.

MCES's Strategic Outcomes are:

1. Sustainable Communities
2. Sustainable Services
3. Sustainable Infrastructure

The 2015 performance achievements that follow in this performance report are grouped into these three outcomes.



SUSTAINABLE COMMUNITIES

MCES seeks to improve customer service; lead by example in environmental sustainability; and partner with customers and stakeholders to achieve regional goals.

Wastewater Treatment

MCES collects and treats approximately 250 million gallons of wastewater daily from more than 2.5 million residents and businesses. The cleaned water is discharged to our rivers (Minnesota, St. Croix and Mississippi) or used to recharge groundwater.

MCES wastewater treatment plants continued to perform at a high level in complying with clean water discharge permits. System-wide, wastewater was treated to 100% NPDES compliance and all air emissions permits and stack tests were successfully passed. The interceptor system had no Notices of Violations.

Seven treatment plants earned Peak Performance Awards from the National Association of Clean Water Agencies (NACWA). Six of the plants received NACWA's Platinum Award for five or more consecutive years of perfect NPDES permit compliance through 2014 and awarded in 2015: Hastings (24 years), St. Croix Valley (23 years), Seneca (14 years), Blue Lake (9 years), Eagles Point (9 years), and Empire (7 years).

Customer Service

MCES reaches out to new customers and works to maintain good relations with current customers.

Budget meetings for MCES customer communities and industrial permit holders were held in late May and early June 2015. The meetings included information on proposed 2016 budget and rates and an opportunity for customer input and questions.

Energy Reduction, Recovery and Conservation

MCES saved \$4 million in 2015 energy purchases for wastewater treatment, compared to 2006. The savings result in lower wastewater rates for city and industrial customers, as well as significant environmental benefits. MCES made substantial progress on its 25% purchased-energy reduction goal by 2015, having reduced purchased energy 23% by the end of 2015.

The new energy goal is to reduce purchased fossil fuel energy by 10% by 2020, using 2015 as the base year. By the end of 2020, MCES shall have advanced clean energy within the State of Minnesota by participating in projects that support the expansion of renewable energy in an amount equivalent to at least 10% of MCES's 2015 energy usage.

In addition to reducing its fossil fuel energy purchases, MCES also constructed a 1.25 megawatt solar facility in 2015 at its Blue Lake Plant, which will provide up to 10% of the plant's energy needs.

Eagles Point Plant staff implemented projects that switched from using groundwater to treatment plant effluent for some of their processes, resulting in an 80% reduction in the use of groundwater. This will result in saving more than 4 million gallons of groundwater annually.

The Metro Plant Water Use Team has developed a plan to eliminate the plant's use of Prairie du Chien groundwater (1 billion gallons annually) by 2020.

23%
REDUCTION
IN PURCHASED
ENERGY BY 2015
(4 MILLION DOLLARS
SAVINGS PER YEAR)



Seeking Solutions to Water Supply Issues

Through partnerships with local communities and government agencies, the Council's water supply studies and projects seek to ensure that regional water supplies can support current and future generations.

These projects will support community efforts to protect and manage water supplies and prevent further degradation of water sources in the metropolitan area. The Council's water supply efforts will help identify high-priority areas for protecting groundwater, will identify feasible options to address emerging water supply issues, and will support communities' efforts to preserve groundwater recharge areas.



Water Resources Management

The Council's *Water Resources Policy Plan* integrates water resources management and protection with planning for the region's growth. The policy plan, which was updated in 2014-2015, contains guidelines for developing and maintaining service systems that support development and for which the Council has some statutory responsibility, including wastewater service, surface water management, and regional water supply.

Among the initiatives being implemented under the *Water Resources Policy Plan* are the following:

1. Chartered an Integrated Water Planning Team and Comprehensive Planning Sub-Team.
2. The Integrated Water Planning Team met monthly to discuss meetings, projects, and plan reviews that cross MCES departments. The team completed an internal review and development of input for the *Water Resources Policy Plan*, the *Master Water Supply Plan*, and the *Wastewater System Plan*; the coordinated development of the *Local Planning Handbook*; and the coordinated approach to the Water Resources section of the System Statements.
3. Collaborated with the City of Eagan to evaluate potential reuse of treated wastewater and tank underdrainage water. The latter appears technically feasible.
4. Developed preliminary wastewater-reuse cost estimates for southeast and northeast subregions.
5. Updated the region's *Master Water Supply Plan* in collaboration with local stakeholders and agencies and input from the Metropolitan Area Water Supply Advisory Committee and Community Technical Work Group. The final plan was adopted by the Metropolitan Council in 2015.
6. Continued collaboration with southeast and northeast subregions and the Washington County water coalition to investigate feasibility of potential water supply alternatives available for communities.
7. Collaborated with stakeholders to develop a water conservation grant program. Grants were awarded to 19 communities, totaling \$558,000.
8. Continued collaboration with the U.S. Geological Survey and local stakeholders to study groundwater and surface water interaction in the northeast Twin Cities metro area.
9. Established a Community Technical Work Group in response to requests from the American Public Works Association and the City Engineers Association of Minnesota to provide formative input to MCES on technical, financial, and operational issues related to regional water supply planning from the perspective of water supply providers. The group met five times throughout the summer of 2015, resulting in the work group's endorsement of the draft plan released for public review.
10. Collaborated with Minnesota Department of Natural Resources to provide three training workshops for local water suppliers to support the update of their local water supply plans.
11. Targeted stormwater grants were awarded to the cities of Waconia and Hugo for reuse projects. Both projects reuse stormwater for irrigation, reducing the need to pump groundwater for that purpose. A grant was awarded to the Vermillion River Joint Powers Board to assist in installing several stormwater practices at the Minnesota Zoo. In 2016, \$1 million will be available to expand this program.

SUSTAINABLE SERVICES

MCES seeks to manage and reward performances linked to its mission, vision, values, strategies and goals; recruit, develop and retain a high-performance workforce that has full opportunity for engagement; and utilize technology and best practices to improve efficiency and effectiveness.

Employees in the Workplace

The MCES workforce, 672 full-time equivalents (FTEs), meets the needs of a high-tech and capital-intensive industry that operates 24 hours a day, 7 days a week, 365 days a year. Employees work at multiple wastewater collection and treatment facilities throughout the Twin Cities metro area. Positions include engineers, environmental scientists, machinists, electricians, pipefitters, painters, plant operators, technicians, interceptor service workers and administrative support personnel.

MCES Workforce Plan

More than 25% of MCES employees are currently eligible or will be eligible for retirement within the next five years. Building on previous plans, the *2016-2020 Workforce Plan* was created to help address the challenges of succession planning and recruiting diverse candidates.

Building Diversity

MCES requested and received a Metropolitan Council Equity Grant to hire a Changing Workforce Specialist. The specialist started in November 2015, and is working on creating interest in water careers in economically disadvantaged schools in the Twin Cities region, and will assist hiring managers in outreach to increase the diversity within their candidate pools.

Additionally:

MCES created a Workforce Planning Team that met throughout 2015 to develop and begin implementation of the *2016-2020 Workforce Plan*. By the end of the year, teams were formed to address the seven strategic initiatives listed below. Three of the teams started work in 2015, and the remaining teams plan to begin in the first half of 2016.

- 1. Performance Management Tools/Leadership Development:** to ensure performance management tools and resources are in place for all employees.
- 2. Behavioral Expectations:** to support and enhance a positive work culture that builds respect, and a secure and civil work environment.
- 3. Recognize/Celebrate Employees:** to establish/enhance programs that recognize and celebrate MCES employees.
- 4. Build Diversity/Networking & Collaboration:** to build diversity in MCES that more clearly reflects the region.
- 5. Mentoring:** to increase employee engagement, retention, and professional growth through the use of mentoring.
- 6. Onboarding:** to welcome and integrate new MCES employees through inclusive and informational onboarding programs.
- 7. Defining Career Opportunities/Networking & Collaboration:** to create a work culture that allows for career opportunities increasing retention.



MCES strengthened its employee wellness programs. 2015 initiatives included:

- Hiring a summer intern to expand physical stretching programs for treatment plant and interceptor system employees and conducting an employee survey to provide a framework for future worksite wellness initiatives. After the intern left, the stretching programs continued with the assistance of the HealthPartners wellness coach.
- Other initiatives in development include: onsite fitness rooms, healthy sleep habit program, and a “trade time for fitness” benefit.



Safety

Each of the 17 MCES work areas/safety committees worked to maintain and/or improve upon their safety goals and leading edge indicators in 2015:

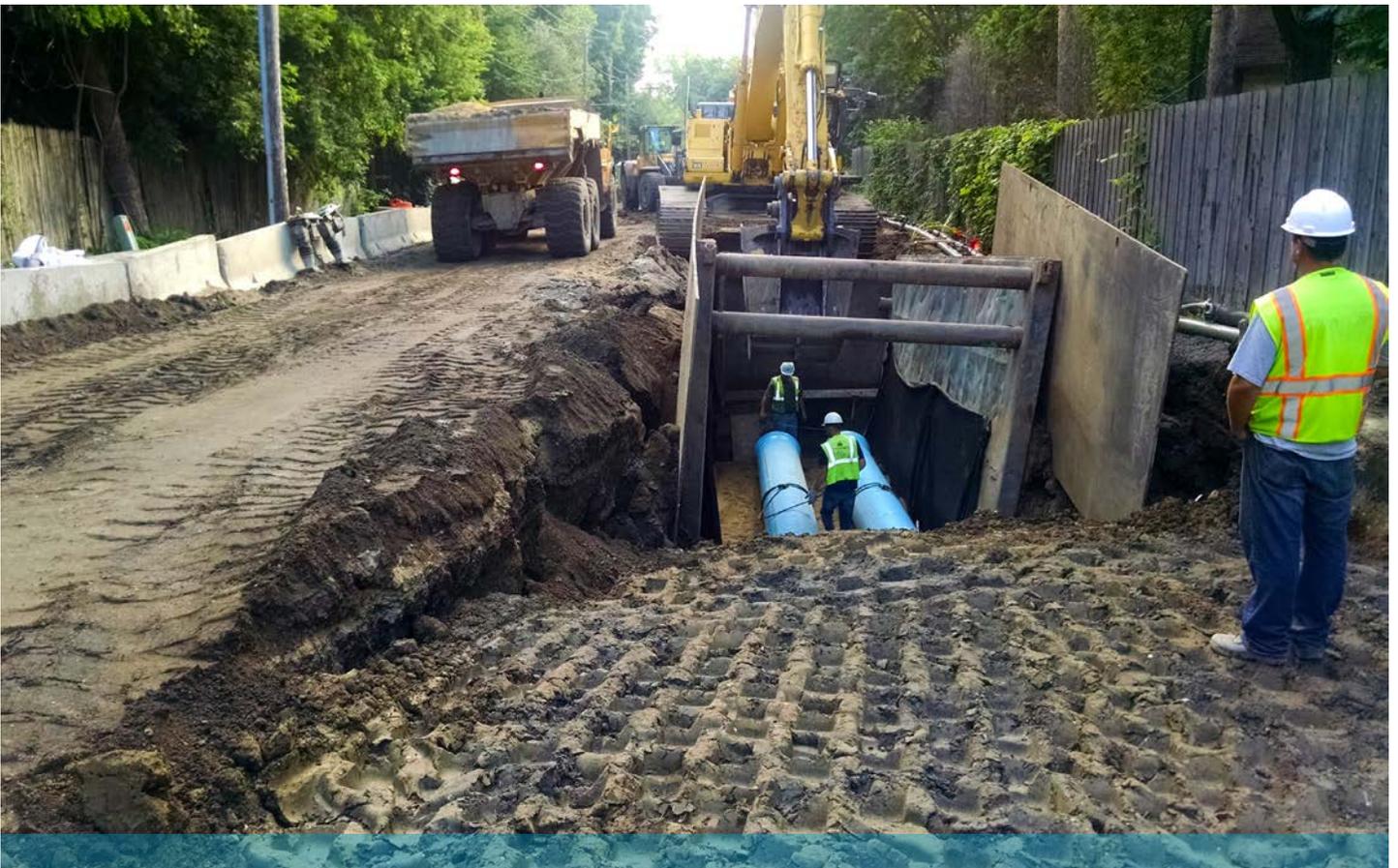
- MCES reduced the number of workplace accidents from 25 in 2014 to 23 in 2015.
- All employees completed quarterly safety training via online or classroom, and all employees completed fatigue risk management training online.
- Eleven work areas began completing job hazard analyses.
- All 17 work areas completed monthly safety audits and have safety committees that met monthly.
- The *Weekly Safety Talk* newsletter featuring workplace safety tips was emailed to all MCES employees, every week (52 weeks).
- All MCES facilities have safety posters and banners displayed in prominent locations. Posters are updated monthly; banners are updated annually.
- MCES started arc flash analysis upgrades to comply with NFPA 70E 2015 requirements. This was done in all 8 applicable facilities in Technical Services and Interceptor Operations.





SUSTAINABLE INFRASTRUCTURE

MCES seeks to improve asset management practices to increase value to our customers; preserve sound financial practices for wastewater services and secure funding for our other water services; and utilize infrastructure efficiently by addressing challenging treatment issues where flows enter the system.



Asset Management

Improvements in the asset management area included chartering an Asset Management Steering Team, developing asset management principles, and developing a criticality (risk) analysis plan for 2016 implementation.

Preserving and Building Infrastructure

MCES is preserving and building infrastructure to meet the wastewater collection and treatment needs for the region using asset management principles. Approximately \$133 million was spent on capital improvements in 2015.

Growth-related projects in 2015 included:

- Adding regional sewer capacity to serve redevelopment in Golden Valley and St. Louis Park (completion anticipated in mid-2016).
- Construction of a lift station to serve northeast Woodbury and east and central Lake Elmo (startup is planned for 2016).
- Construction of a lift station to serve Chaska and Carver (completion anticipated in November 2016).
- Construction of the Elm Creek Interceptor extension to Corcoran and Rogers (completion anticipated in July 2016).

Asset preservation projects in 2015 included:

- The first phase of an arc flash mitigation project (completion anticipated in spring 2016).
- Rehabilitation of gravity sewers, based on condition assessment, with a long-term goal of 7 miles per year. Projects were completed in 2015 in Burnsville, Bloomington, Eagan, Brooklyn Park, Blaine, Chanhassen, White Bear Lake, Newport, St. Paul Park, New Brighton, Minneapolis, and Saint Paul. Projects were under construction in 2015 in Burnsville, Fridley, Coon Rapids, Brooklyn Park, Champlin, Mounds View, Minneapolis, Saint Paul, and Richfield.

- Rehabilitation of force main sewers, based on risk assessment, with a long-term goal of 4 miles per year. Projects were completed in 2015 in Excelsior, Wayzata, St. Louis Park, Minneapolis, and Golden Valley. Projects were under construction in 2015 in Waconia and Mound.
- Lift station rehabilitation projects in Eagan and Mound (completion anticipated in December 2016).
- Ongoing meter station rehabilitation; 10 planning meters have been installed in Saint Paul.
- Treatment plant construction projects completed in 2015 include Metropolitan Plant fluid bed incinerators, F&I Building No. 1 demolition, and improvements to sludge pumps, water systems, HVAC systems, and the double-barrel interceptor sewer, as well as small projects at the Blue Lake, Empire, Eagles Point, and St. Croix Valley Plants.
- Treatment plant projects under construction include Metro Plant East pretreatment and flotation thickening (completion anticipated in December 2016).



Finance

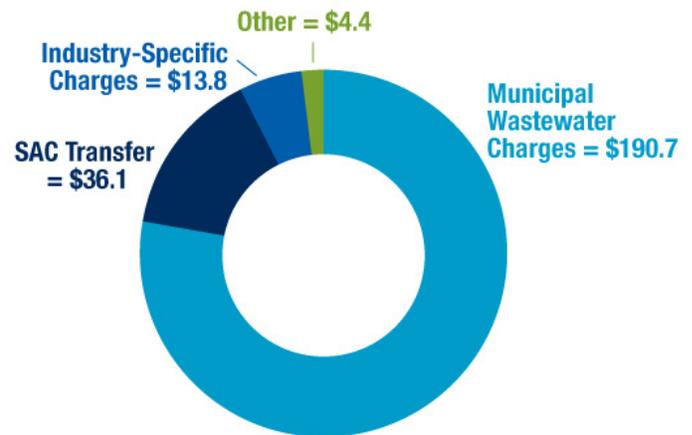
MCES provides wastewater collection and treatment services at wholesale rates to 108 municipalities in the seven-county area. In turn, those municipalities bill the households and businesses within their boundaries for the wastewater treatment services received, at an average annual rate of \$264 per household. This \$264 retail sewer rate compares favorably to an average rate of \$415 reported by 24 similarly sized wastewater treatment “peer” agencies in the U.S., according to the most recent survey (2014) by the National Association of Clean Water Agencies (NACWA).

Additionally, wastewater service charges (approx. \$22/month) are lower than most other metro-area utility charges, such as gas, electric and high-speed Internet. A process improvement team was formed in 2015, and it revised the financial forecast tracking tool and process.

Budget

MCES staff completed 2015 operations and routine maintenance activities within the Annual Operating Budget limits.

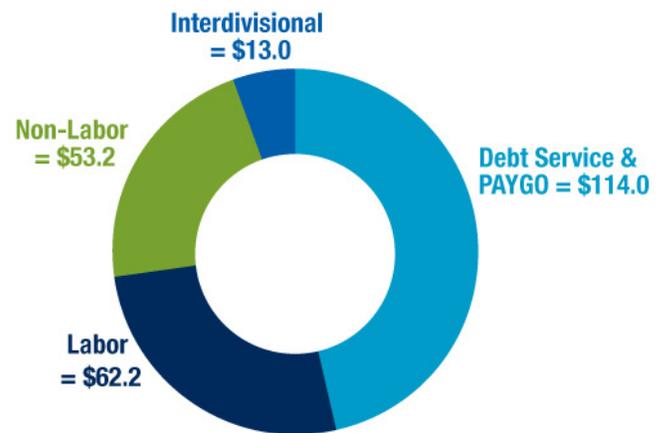
2015 REVENUE/SOURCES: TOTAL = \$245.0



2015 Revenue: **\$245.0 million**

- MWCs: 77.9%
- SAC Transfer: 14.7%
- Industry Specific Charges: 5.6%
- Other: 1.8%

2015 EXPENSES: TOTAL = \$242.4



2015 Expenses: **\$242.4 million**

- Debt Service & PAYGO: 47.0%
- Labor: 25.7%
- Non-Labor: 21.9%
- Interdivisional: 5.4%

Inflow and Infiltration (I&I) Reduction Program

MCES set a goal of reducing excessive inflow and infiltration of clear water into the sanitary sewers by 40% by 2020, in an effort to recover reserve (unused) capacity in the wastewater system to serve growth. For comparison purposes, June 29, 2014, is being used as the base wet-weather event.

I&I outreach meetings were held with many cities to discuss specific community concerns—for example, the Municipal Wastewater Charge, water reuse, and capital projects. In 2015, MCES met with the cities of Saint Paul, Mounds View, Mound, Hugo, Burnsville, Eagan, St. Anthony, Rosemount, Apple Valley, and Robbinsdale.

Industrial Pretreatment Incentive Program

MCES is working to recover wastewater treatment plant process capacity at the Metro, Blue Lake, and Empire Plants by reducing high-strength waste loads from existing industrial customers. Through the Industrial Pretreatment Incentive Program (IPIP) instituted in 2015, MCES is encouraging high-strength industrial dischargers to reduce their chemical oxygen demand (COD) and total suspended solids (TSS) by installing pretreatment equipment at their facilities.

MCES Industrial Waste and Pollution Prevention staff and Finance staff visited several industries and held several meetings to explain this new program to potential applicants. Five applications have been received. They are from diverse industries representing some of MCES's highest industrial discharge customers, including two food processors, a dairy, and two tanneries. Technical and financial review of the applications will continue into 2016, and some facilities are expected to begin operations by the end of 2016.

COMPARISON OF AVERAGE 2013 RETAIL SEWER RATES



Source: 2014 NACWA Study based on 2013 rates



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Edward Reynoso	District 9
Marie McCarthy	District 10
Sandy Rummel	District 11
Harry Melander	District 12
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Jon Commers	District 14
Steven T. Chávez	District 15
Wendy Wulff	District 16

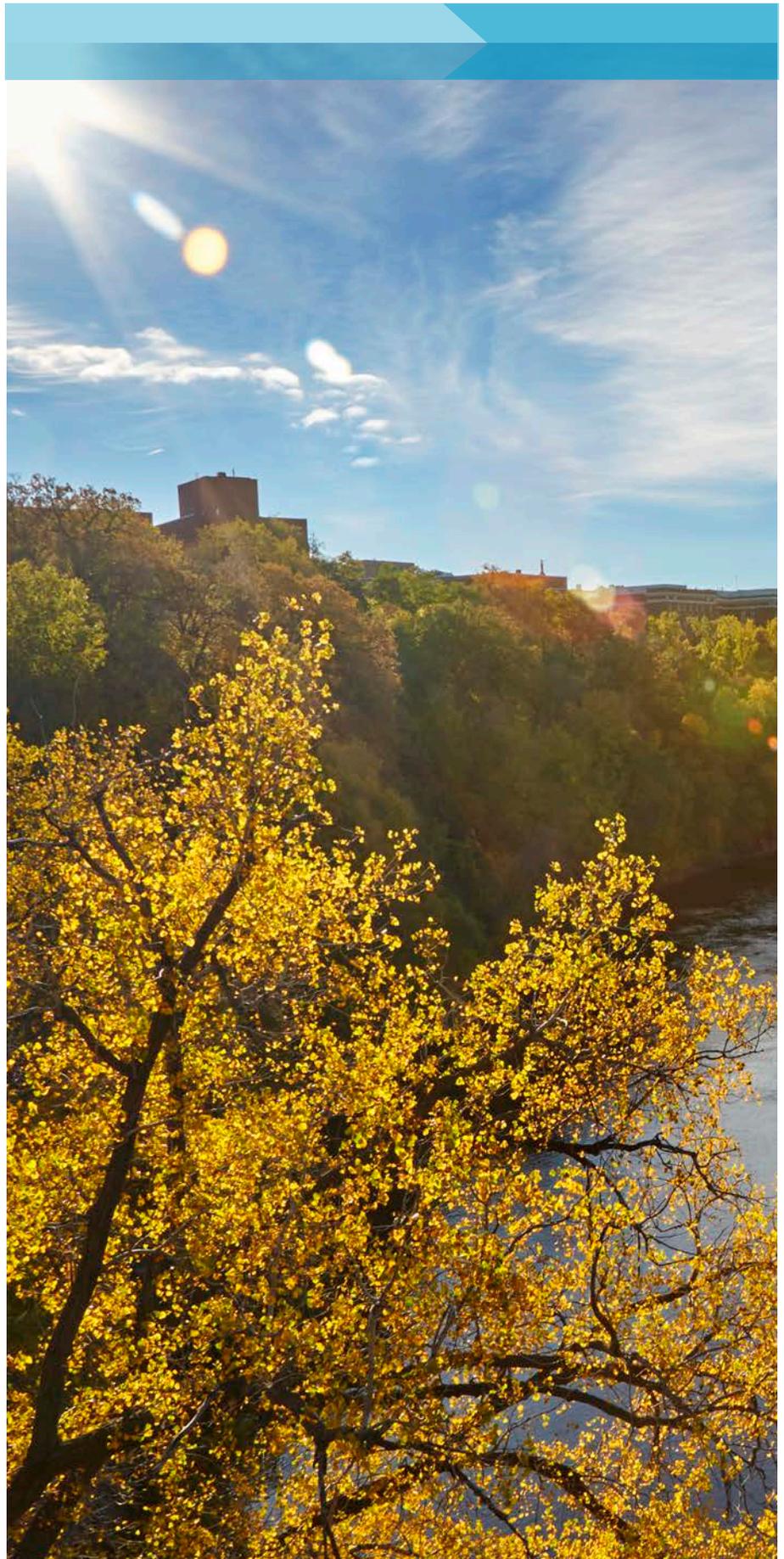
The Metropolitan Council is the regional planning organization for the seven-county Twin Cities area. The Council operates the regional bus and rail system, collects and treats wastewater, coordinates regional water resources, plans and helps fund regional parks, and administers federal funds that provide housing opportunities for low- and moderate-income individuals and families.

The 17-member Council board is appointed by and serves at the pleasure of the governor.

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