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**Title: Facilities Department and Maintenance Department Report**

**Objective: The objective of this document is to report the state of facilities readiness to support Beaverton School District's strategic plan.**

**Introduction:**

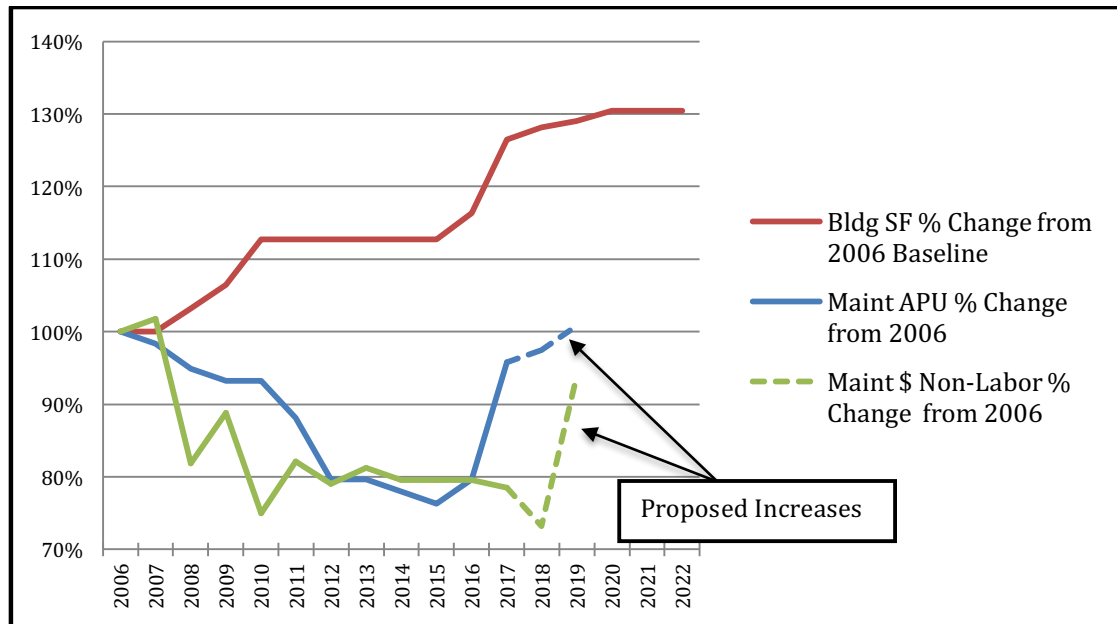
There are many studies supporting a conclusion that the quality of buildings and facilities available to students and teachers has a valuable connection with performance (*Center for Innovative School Facilities*, et al.). Indeed, the Beaverton School District Educational Specifications, which were developed to guide the design of new school buildings in the 2014 Bond program notes: "... the shape and nature of place supports education programs. Without a place to teach and careful consideration of a school's educational needs, learning is impacted." (*Educational Specifications, Beaverton School District, DOWA – IBI Group Architects, Inc. & WHPacific, Inc., May 2014*).

Creation of quality teaching spaces is the foundation, but only the beginning, of a school's life cycle. New schools can be expected to serve the community for many, many decades. Without proper building maintenance coupled with daily cleaning and upkeep, new facilities fall into disrepair and will become unsatisfactory learning spaces. It is generally accepted that 80% of a building's life-cycle cost is from maintenance and operations. It is not difficult to conclude that neglecting maintenance and operations investments impacts student achievement in the long run.

Linking the important work accomplished by these departments with student achievement outcomes is challenging. Specific metrics relating our daily tasks with student performance are not available. Alternatively, we have contracted with *The District Management Council* (DMC), a firm with considerable experience in evaluating maintenance, custodial, and grounds operations in school districts. DMC's February 3, 2017 report for Beaverton School District identified opportunities for improvement and also noted a shortfall of 66 FTEs in these departments.

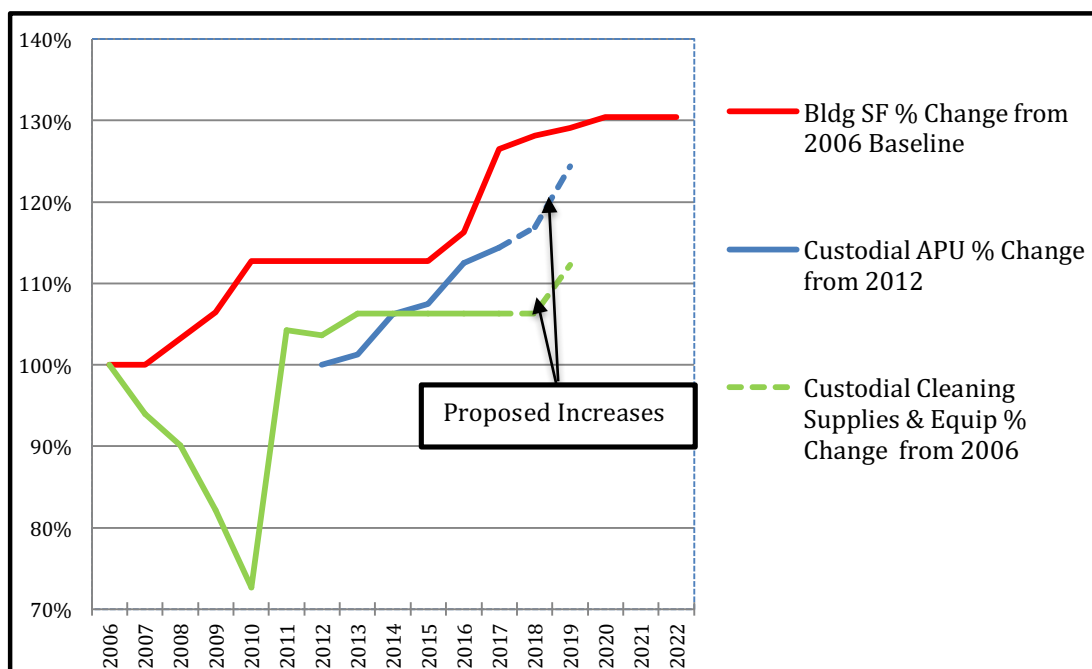
The two charts on Page 2 demonstrate the gaps that exist. Budget financial data have not been adjusted for inflation, thus the actual buying power of the current funding level compared to the baseline year is even less than depicted on the charts. The dashed lines represent the proposed budget increases for 2017-18 and the departments' estimated needs for 2018-19. Additional increases in the out-years will be needed to continue the process of closing the resources gap and implement recommendations from the DMC report.

**Maintenance Resources vs.  
District-wide Building Space Increases**  
*(Includes 2014 Bond construction)*



\*DMC study recommends an additional 17.3 APU above FY 2016/17 level

**Custodial Resources vs.  
District-wide Building Space Increases**  
*(Includes 2014 Bond construction)*



\*DMC study recommends an additional 45 Custodial APU above FY 2016/17 level

## MAINTENANCE SERVICES

**Title:** Provide a Superior Learning Environment for Students

**Objective:** Provide Adequate Resources for Maintenance and Repairs of District Facilities

**Data Sources:** (1) District Budget Documents  
 (2) Data from Comparable School Districts

Measurement	2013/14	2014/15	2015/16	2016/17	2017/18 Goal	2018/19 Goal
Staff APU	46	45	47	56.5	57.5	59.5
Non-Labor Budget	\$2.12 M	\$2.34 M	\$2.56 M	\$2.09M	\$1.95M	\$2.50M
Special Programs <sup>1</sup>				\$180,000	\$510,000	\$600,000

**<sup>1</sup>DEFINITIONS**

Special Programs: radon monitoring, radon/asbestos/lead database software, bio-swale maintenance, Enterprise Fleet Management services, fire suppression system maintenance, OSHA compliance

### Analysis

The Maintenance Department is primarily responsible for district-wide buildings and grounds maintenance and repair work covering over five million square feet of building space contained in 60 separate facilities on 800 acres of property. This work is accomplished through a combination of in-house trades staff and contracted services. The department has 53 trade specific personnel responsible for carpentry, roofing, glazing (windows), painting, HVAC control and repair, plumbing, electrical, and grounds maintenance. The department has critical shortfalls with single tradesman in locks, carpentry, roofing, and glazing (glass/windows). The department also has been maintaining its own vehicle fleet.

As the school district's infrastructure has expanded over the past several years, neither staffing nor funding for materials, parts, and contracts have kept pace. 2006 is identified as the baseline year.

Between 2006 and 2017:

- Over 900,000 square feet of new building space have been constructed bringing the District to over six million square feet.

- Two new schools, the Mountainside High School and Sato Elementary School are coming online for the start of the 2016/17 school year.
- Timberland Middle School was added and is serving as a temporary elementary school for three years as Vose, Hazeldale, and William Walker elementary schools are torn down and rebuilt. It will then serve as an Option School as the Arts and Communication Magnet Academy (ACMA) is torn down and rebuilt, and then finally as a new middle school in 2020.
- Non-labor funding was cut 20% in 2006 while inflation has increased the costs of materials and contracted work steadily about 2% to 3% per year.

## Successes

1. Staffing has finally recovered past the 2006 baseline year, the pre-recession funding level that also preceded new building space added in the 2006 Bond. While still inadequate, the staffing level is continuing to move in a positive direction.
2. Implemented a bio-swale and cartridge storm-water treatment system management program to start addressing the maintenance and testing of our storm-water treatment facilities.
3. Contracting with Enterprise Fleet Management Services to begin a systematic replacement of the aging maintenance vehicle fleet.
4. Implemented the Safe and Healthy Schools program and are now monitoring, sampling, testing, and documenting of asbestos, radon, lead paint, and lead content in drinking water district-wide.
5. Contracted with the District Management Council to conduct a maintenance and custodial efficiency audit. The results identified significant manpower and funding needs to adequately serve the district. The audit provided valuable benchmarking insights with respect to maintenance staffing compared to like districts. Beaverton facilities maintenance staff are covering approximately 38% more square feet compared to like districts.
6. Added two additional painters which have allowed the painting team to become more responsive to the district. Painting back log has been reduced from 6 to 12 months to 4 to 6 months.

7. Added 5 additional grounds positions. These positions were used to create “stadium crews” responsible for the care of all of natural and artificial turf fields, track and field areas, tennis courts etc., G-Max testing of all artificial turf fields as well as all of the general landscape and irrigation for the entire site at all of our comprehensive high schools. This has resulted in very positive feedback from the Administrators and Athletic Directors at these schools.
8. Sampled and testing over 2,700 drinking water points throughout the district for lead in the drinking water. Our plumber replaced 122 faucets and drinking fountains. The district is currently down to 5 points that are still testing above action levels and repairs continue.

## Issues

1. The 2014 Bond is in the process of increasing building space to 30% above what existed in 2006 with the completion of a new Middle School (167,000 SF) that came online at the start of the 2016/17 school year and the new High School (342,000 SF) and a new Elementary School (87,000 SF) coming online at the start of the 2017/18 school year. Additionally, three (approximately 50,000 SF each) elementary schools are being replaced with new 87,000 SF facilities which will add an additional 111,000 SF.
2. Staffing must continue to increase significantly to support the building space already added in the 2006 Bond and that is currently being added as part of the 2014 Bond.
3. Non-labor funding (materials, parts, supplies, contracts) has continued to remain 20% below the 2006 baseline in actual dollars; much lower considering the impact of inflation.
4. The limited number of maintenance staff has created a backlog of general repair work. Where the deferred maintenance portion of the 2014 Bond has provided fiscal resources to accomplish repairs, it has increased the demand on the existing maintenance staff to review plans and submittals while also attempting to address a maintenance work backlog.
5. The District Management Council audit identified a need for 9 additional trades staff and 9 additional grounds maintenance staff. Comparing the amount of acreage per Beaverton groundskeepers maintain to similar districts, Beaverton groundskeepers cover 2.8 times more acreage per groundskeeper.
6. While the proposed 2014 Bond program is providing \$98 million for investments in major repairs and is replacing four old school buildings, it will also add three new schools totaling over 600,000 SF that cannot be adequately supported with current staffing and funding levels. The existing shortfall should begin to be addressed as

soon as possible. Continued increases will be needed to keep pace with the new capacity constructed in the 2014 Bond program.

7. With a growing staff along with an incredibly turbulent work force, Maintenance is identifying an emerging need for an HR person based out of the Maintenance department to deal with managing, screening, and documentation of the Applitrack application process along with interviewing and disciplinary issues.

## CUSTODIAL SERVICES

- Title:** Provide Healthy Learning Environment for Students
- Objective:** Provide Adequate Resources for Cleaning School Buildings
- Data Sources:** (1) District Budget Documents  
 (2) Data from Comparable School Districts

Measurement	2013/14	2014/15	2015/16	2016/17	2017/18 Goal	2018/19 Goal
Custodial APU	170	172	180	183	187	199
Cleaning Supplies & Equipment (on-going)	\$881,000	\$881,000	\$881,000	\$881,000	\$881,000	\$931,000
Supplies & Equipment (outfitting new schools)				\$200,000 <sup>1</sup>	\$137,000 <sup>2</sup>	\$9,000 <sup>3</sup>

<sup>1</sup> Timberland MS

<sup>2</sup> Vose K-5, Sato K-5, Mountainside HS

<sup>3</sup> Hazeldale K-5

### Analysis

The custodial team is currently configured with 49 Foremen and 106 Custodians deployed to 51 schools with 23 centralized roving custodial teams to respond to vacancies and 5 supervisors based out of the Maintenance Services offices. Custodial Services makes up over 71% of the total staffing of the Maintenance Services Department.

Custodial was restructured into a centralized management model in 2011/12 in order to achieve cost savings and improve effectiveness, customer service, and districtwide consistency. In 2014/15, 42, 185-day contract positions were converted to 210-day contracts which provided better custodial coverage in schools during the three weeks prior to school opening in the fall, plus one week after school ends in June, and on non-student days throughout the school year for a nominal 2% impact on district-wide custodial labor costs. For the 2016/17 budget, 28 of the 42 now 212-day contract positions are proposed to be converted to full 260-day contracts further enhancing summer program support. Additionally, a team of Custodial Foreman III and five custodians are being added and deployed to Mountainside High School with a plan to increase this team to a total of 10 as the school population grows. A new Custodial Foreman I and a team of two custodians are being added



and deployed to Sato ES and the original Vose ES team with one new custodian is returning to the new Vose ES facility.

Additionally, cleaning supplies and equipment represent about 6% of the total custodial program budget and have not been adjusted for inflationary costs for several years. The next budget year needs to begin to remedy this shortfall by recognizing the inflation impact on this portion of the custodial budget along with the opening of additional schools.

## **Successes**

1. The new schools are being resourced with phased complete custodial teams and equipment.
2. Implemented internal protocols and a response team that can be assembled out of internal staff to respond to disease outbreaks as needed.
3. Operationally, with last year's six custodial additions, the department was able to reconfigure the team cleaning plan which allowed the Custodial Foreman to stay in their buildings during the Summer 2016 detail-cleaning period. This allowed the department to provide adequate help to more effectively support summer school programs and events.
4. The additional staff also enabled the configuration of a larger carpet crew which was instrumental in completing the school carpets during the summer detail cleaning. This allowed the custodians to focus more on the detail work in their buildings.
5. The department was also able to add some resources to the floor stripping team which was instrumental in taking care of stripping the large areas in the schools, (hallways, cafeterias, and gyms).

## **Issues**

1. Additional field supervisory staff is needed to better manage the custodial team.
2. Implementation of the facility use reservation management system has identified a considerable amount of facility usage that historically has not been visible to the District Office. The usage has created additional demands on already strained and under resourced custodial staff.
3. The District Management Council audit identified that when compared to like districts; Beaverton custodians cover 30% more square footage. This results in a need for 49 additional custodians.



4. There is a need to add additional APU to fund a roving day custodial foreman and two evening Custodian 2 positions to meet the growing demand to cover the additional vacation, sick and PTO days for the staff being brought on by the increase in square footage throughout the district.

## OTHER SERVICES

**Title:** Provide Healthy Learning Environment for Students

**Objective:**

- (1) Provide Adequate Resources for Developing School Requested Projects
- (2) Provide Adequate Resources for Managing Surplus Materials for District
- (3) Provide Adequate Resources for Delivering Deferred Maintenance Projects

**Data Sources:** District Budget Documents

Measurement	2013/14	2014/15	2015/16	2016/17	2017/18 Goal	2018/19 Goal
District-wide Surplus Materials Services APU	6	6	6	8	9	9
Bond Program APU		1	1	5	2	2
Facility Use APU			1	2	2	2
Project Coordinator APU	5	5	5	6	6.5	8
FIP Projects <sup>1</sup>	88	109	125	219		
Non-FIP Projects <sup>1</sup>	127	124	102	181		
Maintenance Contracts <sup>1</sup>	166	291	300	253		
PFI Bond Projects <sup>1</sup>		3	23	81		

**<sup>1</sup>DEFINITIONS**

FIP Projects: School requested, school funded improvement projects

Non-FIP Projects: Maintenance, Facilities, or Risk funded improvement projects

Maintenance Contracts: Maintenance Work Orders using contracted services

## Analysis

The Maintenance Department provides two additional critical services for the District: surplus material management and project coordination. Surplus material management is centralized at the warehouse that is located at the Transportation Services Center and a temporary leased warehouse near Cornell Road and 167<sup>th</sup> Ave. It is composed of one shipping clerk and seven courier staff. This staff manages the removal, warehousing, and final disposition of the District's surplus curriculum, technology, furniture, and equipment.

The department has a small six-person project coordination office for contracted services that manages approximately 200 school-requested Facility Improvement Projects (FIP) and 450 contracted maintenance service projects, annually. The program has steadily expanded from 250 projects annually in 2008/09 to over 650 in 2016/17.

The contracted services group is also delivering a portion of the \$98 million of the 2014 Capital Improvement Bond. The Bond identifies approximately 980 deferred maintenance projects throughout the district. Delivery of this work is divided between Facilities Development and Maintenance based upon the size and complexity of the project.

The contracted services group was created in June of 2008 with one program specialist and two project coordinators. This group's role has been expanded to include managing asbestos, mold, water quality facilities, and portable moves for the district. FY 2012/13 was the first year of the Integrated Pest Management (IPM) program. In 2014/15 Bond funded Program Specialist III was added to oversee District-wide Facility Repair projects from the bond, to follow similar practices to the existing Maintenance Program Specialists and to have close access to the maintenance trades. In 2015/16, a Bond funded Program Specialist II was added to expand that capacity and begin addressing regulatory compliance projects.

## Successes

1. Two additional couriers were added to the department to further expand capacity and increase responsiveness. Restructured courier department with seven couriers to a Courier Lead, four Moving Couriers, and two Mail Couriers.
2. For 2015/16, a total of \$2,617,188 of contracted effort was executed. As of this report, the department has executed \$2,303,227 which does not reflect the remaining three months of the fiscal year.
3. Two Maintenance Worker positions were formally identified as Asbestos III abatement specialists. This has created over \$11,000 in savings on maintenance related work and potentially \$25,000 in FIP related work. This investment has also reduced FIP wait times because of small scale asbestos abatement.

4. Expanded pesticide and herbicide spray application capabilities by licensing internal staff. The department now has ten licensed pesticide applicators. This lowers departmental costs by not having to contract these services,
5. Implemented a facility use reservation system. This district now has visibility of over 3,400 extracurricular events being scheduled monthly. The system has also allowed better coordination between Facilities Development, Maintenance Services, Teaching and Learning, and our external partners to reduce conflicts.
6. Developed a district program with GovDeals to dispose of district surplus. To date the department has hosted three auctions and recovered \$55,520 to the General Fund.
7. Implemented an online 'materials of concern' database to document and manage asbestos, lead paint, radon, and lead levels in drinking water.

## Issues

1. The expanding scope of the surplus management program, to include formalizing a district-wide relationship with Nike surplus has identified the need to add a Courier Foreman position to coordinate and schedule moves.
2. Expanding school requested improvement projects through the Facility Improvement Project (FIP) program has created a significant project backlog.
3. The expanding district is outpaced the capacity of the internal maintenance trades staff and the department has utilized contracted services to meet the need. The amount of work underway in the region has significantly increased the cost to contract maintenance projects.
4. Currently, the department has 49 maintenance projects unassigned due to the lack of available staff to manage projects. In addition to that figure, there are an additional 85 school requested FIPs in the backlog.

## FACILITIES DEVELOPMENT

**Title:** Provide Adequate Capacity and Renovations to Support a Quality Learning Environment

**Objective:** Execute 2014 Bond Construction Program Delivering Quality Facilities, on Time, and within Program Budget

**Data Sources:** (1) Reports to the Bond Accountability Committee  
(2) 2014 Bond Construction Program Report to the Business Office; *January 2017 Report*; located at:  
<https://www.beaverton.k12.or.us/depts/facilities/Bond%20Accountability%20Committee/Bond%20Financial%20Summaries/2017%20Financial%20Summaries/Report%20to%20BAC%20-%20January%202017%283%29.pdf>

Measurement	2013/14	2014/15	2015/16	2016/17 Goal	2017/18 Goal	2018/19 Goal
Bond Program Staff	4	20	29*	32	32	32
Completed Projects	-	4	30	100**	80	80

\* updated from last year's report to include Purchasing and AP Staff funded by the Bond

\*\* 20 large projects and more than 80 small District-wide Facility Repairs

### Analysis

Construction cost increases, labor shortages, and the wettest winter in 40 years challenge the implementation of the 2014 Bond since the last report. In the face of significant budget challenges on the new high school project, the Bond Accountability Committee (BAC) recommended the creation of a Cost Management and Control Plan (CMCP) in early spring of 2016. Utilizing Standard Operating Procedures already in place, along with additional observations and strategies, a draft was submitted and approved by the BAC in April of 2016. At this same time, the current Superintendent took a new assignment and an interim Superintendent served until a new Superintendent was hired all of which postponed consideration of the Plan.

As one of his first actions, Superintendent Grotting commissioned a review of the practices of the Facilities Development team to ensure Bond budget challenges were being effectively

managed and to look for improvement opportunities. School Board review and approval of the CMCP was put on hold pending the results.

The auditing firm reported in their findings that the Facilities Development team was implementing practices that were some of the best that they had seen, and that challenges incurred were due to market conditions, labor shortages, and permitting agency requirements. One recommendation made by the auditing firm was to not only report Bond Program reserve in the monthly financial reports, but also contingencies contained within the projects as a total instead of on a project by project basis. This reporting has now been put in place and as of February there is a total of \$38 M in program contingency and reserve.

Work continued on the Cost Management and Control Plan, and in February of 2017, the new plan was approved by the Bond Accountability Committee and by the School Board.

## Successes

Since the last report, and as part of a robust lessons learned effort, the department has continued to refine its processes, reporting, community outreach, Educational Specifications, Technical Design Standards, and Cost Management and Control Plan while simultaneously accomplishing a significant amount of design and construction including:

- New Middle School – opened on time and within budget to house Vose @ 118<sup>th</sup> while new Vose is being constructed in 2016-17
- McKay K-5 – new lift and other ADA improvements complete
- Capital Center Building Improvements - complete
- Cedar Park MS – HVAC Upgrade complete
- Meadow Park MS – HVAC Upgrade complete
- Conestoga MS – Plumbing Repair complete, moisture intrusion repairs continue
- SHS Title IX, Team Room Building Addition complete
- Playground Improvements complete: Greenway, Rock Creek, Ridgewood, and Fir Grove
- District-wide Security Upgrades – design and construction complete and continue at various sites
- District-wide Facility Repairs (more than 80 small projects at various locations)
- William Walker K-5 Replacement – design continues
- Hazeldale K5 Replacement – design complete; construction starts June 2017
- District-wide Auditoriums – design continues
- BHS Sports Fields (donor projects) – design continues
- ACMA Replacement – pre-design in progress
- Five Oaks Renovation – pre-design complete
- Maintenance Facility Improvements – pre-design complete
- Raleigh Hills K8 Phase II – pre-design complete

- Sexton Mountain Roof – design in progress

## Issues

1. Construction cost indices continue to indicate that inflationary pressures on Portland metro-area construction costs are higher than anticipated during development of the bond budget. These challenges have extended to include reduced availability of the work force and materials which have also driven costs up.
2. In addition, since the last report, we have faced the wettest winter in 40 years. We have also experienced the most snow days that anyone can remember in the history of the Beaverton School District. In the face of these challenges this Bond program is constructing three brand new schools scheduled to open in the Fall of 2017.
3. Labor shortages are anticipated to become even more critical in the coming years as many school districts in the region have now passed significant capital improvement bonds.

## Action Plan

### This year

- Design and construction work is on track for major projects to be executed in summer 2017:
  - New High School (named Mountainside HS)– construction continues
  - Vose K5 Replacement – construction in progress
  - New K5, North Bethany at Kaiser Rd (named Sato Elementary in February 2017) – construction in progress
  - District-wide Security Upgrades – design and construction continue
  - AHS Title IX, Locker and Team Rooms
  - AHS CTE Expansion
  - BHS HVAC
  - Highland Park Plumbing Upgrades
  - Westview HS Reroof
  - Cedar Park Electrical Service Upgrade
  - Meadow Park Electrical Service Upgrade
- Additional long-range planning activities include:
  - Publish 50-Year Futures Study
  - Acquire 10-acre elementary school site in South Cooper Mountain area.



- Complete land use and permit entitlement process for William Walker ES replacement project.

### **Long-term**

1. Identify and acquire second elementary school site in South Cooper Mountain area.
2. Evaluate the need for elementary school attendance boundary adjustment prior to completion of Hazeldale ES construction.
3. Develop goals and strategy for conducting a boundary adjustment process for middle schools in preparation for the Timberland campus becoming a middle school in Fall 2020.
4. Develop a timeline and implementation plan for Futures Study recommendations.

## ENERGY AND RESOURCE CONSERVATION

**Title:** Energy Conservation Program

**Objective:** Meet Electricity and Natural Gas Consumption Targets

**Data Sources:** Energy Performance Scorecard; *December 2016 Report Attached*

Measurement	2013/14	2014/15	2015/16	2016/17 Goal*	2017/18 Goal**
<b>Electricity</b> (kWh x 1,000)	30,279	29,958	30,492	30,624	tbd
<b>Natural Gas</b> (Therms x 1,000)	1,293	975	1,047	1,149	tbd
<b>Solar PV Production</b> (kWh x 1,000)	303	313	324	300	300

\* the goal includes adding the new middle school to the BSD portfolio and omitting Vose K5 for one year.

\*\* the goal will include adding the Mountainside High School, Sato Elementary, and re-adding a new larger Vose Elementary school.

### Analysis

BSD continues to be a leader in energy management locally and nationally. The District currently has 31 EPA-recognized Energy Star schools, more than any other school district in Oregon, and 13 certified Oregon Green Schools. BSD's Energy Star® score across our school building portfolio continues to impress with 91 out of 100 possible points, meaning our schools average 91% better in energy use than similar school buildings across the country. Additionally, all but one of our schools is currently within the Oregon Department of Energy (ODOE) recommended Energy Use Index (EUI) range with an average of 39 kBtu/SF/year. Since 2011, student enrollment has increased 4% yet electricity consumption has increased only 1.1% and natural gas usage has decreased a remarkable 11.2%.

Renewable energy production continues to meet design expectations. The photovoltaic (PV) solar systems at Capital Center/HS, Elmonica ES, and Springville K-8 produced 306,000 kWh of electricity last year. Since 2011, our PV systems have produced over 1.55 million kWh of electricity - enough electricity to power more than 150 average sized homes for a year. The net benefit to the District has reached nearly \$100,000 in avoided electricity costs.

## Successes

1. BSD continues to invest strategically in energy efficiency through effective bond collaboration. The Energy and Resource Conservation Department (E&RC) is working very closely with Facilities Development and the Maintenance Department to provide energy efficient building system upgrade opportunities through bond renovation and District-wide Facility Repair projects.
2. E&RC is on track to invest over \$2.3 million of BSD's SB1149 funding towards energy efficiency measures (EEMs) at Beaverton High School, Capital Center, Cedar Park MS, Conestoga MS, Meadow Park MS, and Merlo Station since the beginning of the bond renovation effort. Enhancements to roof insulation, HVAC and lighting systems and associated control systems are expected to save the District nearly 2.3 million kWh and over 40,000 Therms annually for a total estimated cost savings of \$205,000 per year. This cost savings does not even account for the net benefit to maintenance operation and maintenance (O&M).
3. E&RC has also provided energy-efficient design input on new construction. Our new schools will have cutting edge systems such as full LED lighting with innovative lighting control and daylighting design, advanced solar technology, real-time energy/green kiosks, smarter and more dynamic system controls, and better building system integration than ever before.

## Action Plan

### This year

1. Meet E&RC's aggressive energy consumption targets for 2016-17. Our district-wide electricity usage target is set at 1.0% below last year's kWh consumption. Natural gas target is to beat our last 3-year average.
2. Continue to deliver cost-effective energy projects that align with the bond renovation effort. E&RC will conduct energy audits, update our SB1149 program, and work to ensure success of Summer 2017 projects and beyond.
3. Expand BSDs Energy Star Certification Portfolio where possible. Recent system enhancements in our schools not only save energy but provide better thermal comfort, ventilation, and enhanced lighting environments that provides opportunity to pursue additional Energy Star certification.

### **Long-term**

1. Work closely with commissioning agents to ensure our new school buildings meet Energy Star certification and ODOE EUI target ranges as designed.
2. Leverage our experience with new building systems to develop a comprehensive retrofit plan for our existing schools to integrate real-time energy meters and green kiosks to promote energy engagement for all schools.
3. Pursue Energy Management Information System (EMIS) software enhancements that will tie together with HVAC Building Management System, fault detection, and building analytics to further improve energy and building performance while driving operations and maintenance to a more predictive model.