I. PURPOSE

This operating procedure establishes a sustainability plan to promote conservation and efficiency in Department of Corrections operations while reducing environmental impact and dependence on imported fossil fuels and other non-renewable resources.

II. COMPLIANCE

This operating procedure applies to all units operated by the Department of Corrections (DOC). Practices and procedures must comply with applicable State and Federal laws and regulations, ACA standards, PREA standards, and DOC directives and operating procedures.

III. DEFINITIONS

**B2** - A blend of 2% biodiesel and 98% petro-diesel

**Biodiesel** - A domestic, renewable fuel for diesel engines derived from natural oils like soybean oil

**Biofuel** - A fuel that is derived from a renewable source, such as crops, animal waste, etc. Biodiesel is a biofuel.

**Compact Fluorescent Light Bulb (CFL)** - A fluorescent light bulb that has been compressed into the size of a standard-issue incandescent light bulb; modern CFLs typically last at least six times as long and use at most a quarter of the power of an equivalent incandescent bulb.

**Construction and Debris Waste (C&D waste)** - Building and demolition waste

**Department of Environmental Quality (DEQ)** - Virginia state agency tasked to protect human health and the environment; this agency oversees the implementation of Virginia’s Solid Waste Management regulations.

**Disposable** - Products designed for cheapness and short-term convenience rather than medium to long-term durability; something meant to be thrown away after a single use, such as a paper cup, plate, or napkin.

**E85** - A blend of 85% ethanol and 15% gasoline that is the most commonly available blended fuel for use in flex-fuel vehicles; ethanol is a corrosive alcohol that will degrade common steel and rubber fuel system parts on conventional vehicles. Flex-fuel vehicles are manufactured with synthetic and/or composite fuel system parts that can tolerate high levels of alcohol.

**Energy Star Rated Appliance** - An appliance with an electronic rating for superior energy efficiency

**Environmentally Friendly Inks** - Inks that are made from renewable raw materials, contain minimal volatile organic compounds, are non-toxic, and allow for recycling of the products they are printed on

**Facilities** - For the purposes of this Sustainability Plan, the term facilities is all encompassing, including all major institutions, field units, community corrections facilities, regional offices, central offices, probation and parole offices, education facilities, Virginia Correctional Enterprises facilities, Academy for Staff Development, and any other facilities, offices, or institutions that are under the purview of the Virginia Department of Corrections.
**Green Diesel Fuel** - Fuel made from agricultural plants or the waste or residue from the production, processing or marketing of agricultural products

**Grey Water** - Waste water generated from domestic activities such as laundry, dishwashing, and bathing, which can be recycled on-site for uses such as landscape irrigation; this wastewater contains no fecal matter (human feces) and differs from water from the toilets which is designated as sewage or black water to indicate it contains human waste.

**High Pressure Sodium Lamp (HPS)** - A gas discharge lamp that uses sodium in an excited state to produce light; HPS lamps are widely used for streetlights and security lighting.

**Incandescent Light Bulb** - A bulb that makes light by heating a metal filament wire to a high temperature until it glows

**International Dark-Sky Association** - United States based non-profit organization committed to the preservation and protection of the nighttime environment and our heritage of dark skies, through environmentally responsible outdoor lighting

**LED (light-emitting diode)** - Type of lamp or bulb with a lifespan and efficiency several times greater than incandescent and fluorescent lights

**Metal Halide Lamp (MH)** - A lamp containing metal halide that produces high-efficacy white light

**Rain Barrel** - A barrel used as a cistern to hold rain water

**Recycling Manager** - The employee appointed or assigned the duties and responsibilities to implement and enforce the Department of Corrections Sustainability Plan; the DOC Recycling Manager has the authority to enforce the plan.

**“Virginia Green”** - Virginia’s statewide program that encourages green practices throughout the state’s tourism industry to work to reduce the environmental impact of Virginia's tourism industry, whereby participating tourism-related business are actively reducing their environmental footprint by meeting green core activities designed to reduce harmful impacts on the environment

**Volatile Organic Compound (VOC)** - Organic chemical compounds which have significant vapor pressures and which can affect human health and the environment

### IV. PROCEDURE

**A. Sustainability Initiatives**

1. The Department of Corrections has examined its operations and the available strategies and technologies that promote recycling, energy and water conservation, pollution reduction, and/or utilization of renewable energy alternatives. This operating procedure provides strategies for accomplishing these goals where appropriate and feasible. (5-1A-4003-1; 4-4003-1; 4-ACRS-7D-01-1; 4-APPFS-3D-05-1; 2-CO-1A-06-1; 1-CTA-1A-02-1)

2. Using forms provided by the Recycling Manager, all institutions and Community Corrections facilities are required to submit a quarterly Sustainability Report by the last day of the month following the end of the quarter. This report collects energy, water, waste, compost, and recycling data which is used to make informed decisions regarding sustainability initiatives within each location.

**B. Energy use (See Energy Conservation Plan, Addendum 1)**

1. When not in use, computers should be put in “stand-by” mode to allow installation of network downloads and updates. Monitors, scanners, non-network printers, and other peripherals should be turned off when not in use.

2. Where security allows, interior and exterior lights should be turned off when not needed.

3. Where security allows, persons must turn off lights when leaving their work areas and when offices are closed.

4. Heating and cooling systems, whether in leased space or in state owned buildings should at all times
be actively managed in a manner that minimizes energy consumption.

5. Incandescent light bulbs should be replaced with compact fluorescent or LED light bulbs.

6. Reducing excess light at night is encouraged. The following are suggested lighting guidelines from the International Dark-Sky Association:
   a. All pole mounted lights should be shielded so that no light is emitted beyond the horizontal plane.
   b. All wall mounted lights should be shielded whenever possible.
   c. High mast lights should be limited to 40-60 feet tall, and all fixtures should be fully shielded with flat horizontal lenses with no tilt.
   d. A mixture of Metal Halide (MH) and High Pressure Sodium lamps (HPS) should be used in high mast lights. MH is better for security cameras and HPS helps with fog.
   e. Building mounted lights should be equipped with MH lamps.
   f. Building mounted lights at egress points should be equipped with energy efficient CFL bulbs with cut off fixtures to illuminate the ground.

7. Installation of alternative energy sources is encouraged, such as solar panels, geothermal, wind turbines, biomass, etc.

C. Water use (See Water Conservation and Management Plan, Addendum 2)

1. Plumbing leaks must be repaired immediately.

2. Water saving devices will be installed when possible.

3. Low flow toilets and shower heads will be installed when possible and where security is not jeopardized.

4. Minimize use of water for irrigation through reduced frequency of watering, timing of watering, and the selection of low water-use landscaping such as drought resistant grass, plants, shrubs and trees.

5. Utilization of rain barrels and grey water for irrigation, toilet flushing, vehicle washing, etc. is encouraged.

D. Waste Reduction

1. Facilities will reduce the consumption of paper and other office supplies. All paper and office supplies should be reused and only when beyond viable reuse, recycled.

2. Durable products must be used rather than disposable materials or products wherever practicable, including whenever meals are served; if disposable materials must be used they should be biodegradable or recyclable. To the extent disposable plastics must be used, they should, when practicable, be recyclable plastics only.

3. Facilities must recycle used oil.

4. Facilities must recycle used kitchen grease.

5. Composting
   a. Facilities are encouraged to compost their kitchen waste in accordance with Department of Environmental Quality Virginia Solid Waste Management Regulations (9VAC20-81).
   b. Landscape maintenance waste should be composted as practicable.
   c. Additional food waste diversion initiatives are encouraged, particularly in conjunction with community partners and neighboring institutions.

6. All facilities must establish a “Household” Recycling Program to include but not limited to the following:
   a. Paper - office, printer, mixed, news, magazines, phone books, books, manuals
   b. Plastic - bottles, pails, jugs (#1 and #2)
   c. Aluminum cans, foil
d. Cardboard  
e. Stretch Film  
f. Tin/steel cans  

Collection containers will be provided for all recyclable materials and employees must use them.

7. Facilities must recycle batteries (disposable and rechargeable), printer cartridges, pallets, scrap metal, and tires.

8. Facilities must recycle construction and debris (C&D) waste from new construction, demolition, or renovations.

9. Facilities must recycle the following equipment in accordance with Operating Procedure 260.2, *Surplus Property*. Any device capable of storing data must have all data removed from all electronic media resources in accordance with Operating Procedure 310.2, *Information Technology Security*.
   a. Computers, monitors  
   b. Computer keyboards, mice, speakers  
   c. VCR, CD, DVD players  
   d. Stereos, radios, electric clocks  
   e. Printers, copiers, scanners, fax machines  
   f. Televisions  
   g. Home and office phones  
   h. Cell phones and PDAs  
   i. Small appliances (microwaves, toasters, etc.)  
   j. CDs and DVDs  
   k. Medical equipment

10. Institutions and Community Corrections facilities are encouraged to establish recycling positions for offender workers to separate and sort recycled materials to ensure the greatest volume, cleanest stream, and highest financial return for the program.

E. Travel (See Operating Procedure 240.1, *Travel*)

1. Video conferencing and conference calls should be used in lieu of in-person meetings when effectiveness is not compromised.

2. Purchase alternative fuels where available.

3. Encourage telecommuting - COV §2.2-2817.1 requires each state agency to pursue a goal of not less than 20 percent of its eligible workforce telecommuting. Wherever possible, agencies and institutions should use telecommuting to the fullest extent to mitigate traffic congestion and reduce emissions.

4. Citizens and businesses should be able and encouraged to engage in electronic transactions with the Commonwealth rather than having to travel to state offices.

F. Building and Facility Construction and Location (See Executive Order 19 (2010))

1. Construction of a new building greater than 5,000 gross square feet in size, or renovating such a building where the cost of renovation exceeds 50 percent of the value of the building, must meet Department of General Services (DGS), Division of Engineering and Buildings “Virginia Energy Conservation and Environmental Standards” for energy performance and water conservation.

2. When leasing space, agencies and institutions should consider access to public transportation, if available. When practicable, new offices and facilities should be located within a quarter mile of public transportation access and in locations that are pedestrian and bicycle accessible.

3. When leasing space, agencies should actively seek buildings that meet energy Star, LEED, or Green

1. All DOC units must utilize commodities and services that will:
   a. Reduce or eliminate the health and environmental risks from the use or release of toxic substances
   b. Minimize risks of the discharge of pollutants into the environment
   c. Minimize the volume and toxicity of packaging (purchase minimally packaged goods)
   d. Maximize the use of recycled content and materials composed of sustainably managed renewable resources (purchase reusable items over disposable ones and recycle that which cannot be reused)
   e. Maximize the use of equipment that is durable, and therefore, can be used for a long time without having to be replaced
   f. Maximize the use of remanufactured components

2. Facilities that house offenders should not procure Styrofoam disposable cups. Coffee mugs, multi-use bottles (i.e. aluminum, Nalgene, etc.), or compostable cups should be purchased instead.

3. DOC facilities should purchase fuel-efficient, low-emission vehicles and lease compact, fuel-efficient, and low-emission vehicles (especially for Roving Patrol)

   a. Facilities that independently purchase fuel must use E85 and B2 fuel sites to the maximum extent reasonably possible.
   b. Procure diesel fuel containing, at a minimum, two percent, by volume, biodiesel fuel or green diesel fuel, as defined in COV §2.2-1111.
   c. This requirement will only apply to procurements of diesel fuel for use in on-road internal combustion engines and #2 fuel burned in a boiler, furnace, or stove for heating, and will not apply if the cost of such procurement exceeds the cost of unblended diesel fuel by 5 percent or more.

5. Purchase or lease Energy Star Rated appliances and equipment for all classifications for which an Energy Star designation is available.

6. All new copiers, faxes, printers, and other such office equipment, purchased or leased, that use paper must be recycled paper compatible.

7. Paper must be 100% recycled content except where equipment limitations or the nature of the document preclude the use of recycled paper.

8. All efforts should be made to publish reports in electronic form only.

9. If printing is necessary, maximize use of post-consumer recycled paper, environmentally friendly inks, and print on both sides of paper.

H. Conferences, Trainings and Meetings

1. In selecting sites for conferences and other meetings that are to be held at places other than DOC facilities, after complying with procurement statutes and regulations, observe the following guidelines:
   a. Conferences and meetings not held in state owned offices, buildings or facilities should be held at “Virginia Green” certified facilities if such use will meet the needs for the meeting, will not increase travel distances, and is not cost-prohibitive.
   b. Agency employees should carpool to off-site trainings and meetings.
   c. Facilities will minimize the use of paper during conferences, trainings and meetings.
i. Avoid handouts or when handouts are necessary, they should be double-sided.
   ii. Encourage electronic distribution of presentation materials or post them in an internal shared drive or website (iDOC).
   
   d. If disposable food containers are provided, they should be compostable or recyclable.
   e. Recycling and food-waste diversion options should be considered at all events.

V. REFERENCES
   Operating Procedure 240.1, Travel
   Operating Procedure 260.1, Procurement of Goods and Services
   Operating Procedure 260.2, Surplus Property
   Operating Procedure 310.2, Information Technology Security

VI. FORM CITATIONS
   None

VII. REVIEW DATE
   The office of primary responsibility shall review this operating procedure annually and re-write it no later than three years after the effective date.

   **Signature Copy on File**
   
   N.H. Scott, Deputy Director for Administration  
   Date  

   9/25/18