4.3 Sustainable Actions

Current courses of action:

- Administrative Policy Modifications
- Revised Building Maintenance Plans
- Hybrid vehicle purchases
- Greener landscaping
- Meadow and tree planting
- Environmentally Preferred Procurements
- IT Policies
- Recycling Program

Specific additional actions related to water conservation and quality on the site are as follows:

- Reduce storm water runoff by providing more bioswales and other similar storm water mitigation strategies.

- Collect rainwater on-site and use it for any landscape irrigation needs.

- When repaving of parking lots is required consider permeable paving to allow water to be recharged into the ground, (geotechnical investigations will be required to make sure that the underlying geology is suitable for ground water recharge).

- Reduce water use in the facility through the use of:
    - Automatic sensors in rest rooms.
    - Reduced water use devices for the labs.
    - Recapture water from wash down areas for reuse.

Planned courses of action to reduce AL climate footprint will focus on all areas of existing and new facilities. Related to Capital Projects the following actions should be taken related to future planned projects as well as ongoing operations of facilities.

Capital Projects

Building Renovation & Addition

- Set higher than conventional LEED certification goals, (LEED Gold minimum).
- Set ambitious energy efficiency targets, (35% savings over a similar energy code compliant building).
- Seek all passive and renewable energy savings through the design and configuration of the building envelope itself.
- Use heat gathered in the greenhouse as an energy source for the building.
- Use latest technologies related to demand controlled lab fume hoods to save energy.

Western MD Field Research Station

Set aggressive LEED certification goals, (LEED Platinum target since this is a new stand alone building or the Cascadia Living Building Challenge which promotes zero-energy buildings, https://ilbi.org/)

- Seek to make the building carbon and energy neutral by providing renewable energy systems as an integral part of the building and relying upon as few utilities and outside services as possible. Some possible systems to help achieve this are:
    - Composting toilets.
    - Cisterns to collect rainwater for laundry and cleaning.
    - Renewable energy systems; photovoltaic, solar hot water, small scale wind power.

Facility Renewal Projects

- Power-down policy for Computers and Lab Equipment.
- Installation of solar film on windows to reduce summer heat load.

- Increased video conferences to reduce carbon emissions due to business travel.
- Installation of a renewable energy source; photovoltaic, solar hot water, geothermal, small scale wind power.
- Renewal Energy Certificates (REC) related to any new renewable energy sources added to the site.
- Increased building insulation to increase overall energy efficiency all year round.
- Gray water and/or barrel collection systems for rainwater.
- Window replacements to increase energy efficiency through thermal break frames, higher insulation values on glass and special coatings to further reduce energy use.