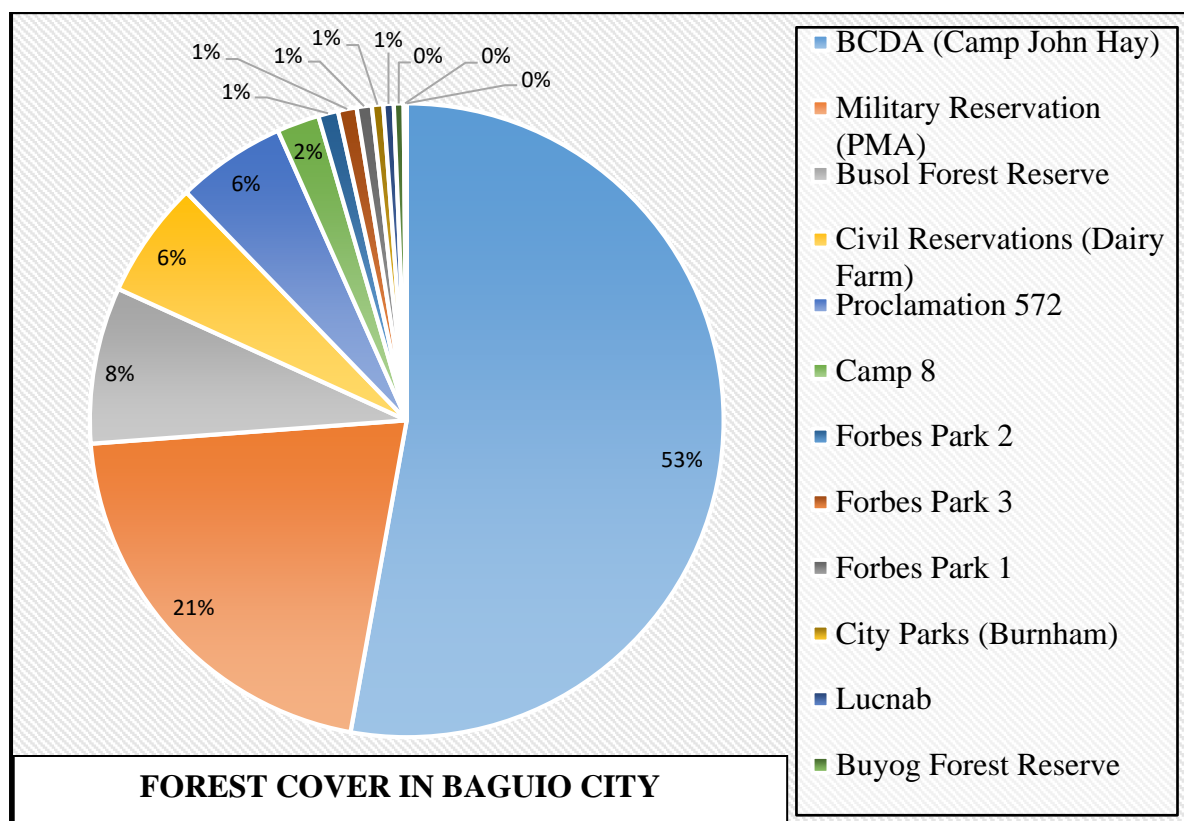


FOREST AND ENVIRONMENT MANAGEMENT

As responsible stewards of 53% of the forested land of the City of Baguio, the JHMC continues to strictly implement programs to maintain forest density, and clean air and water resources. The deputation of the 38 JHMC personnel and security providers as DENR Officers (DENRO) to enforce environment and forest protection laws, rules and regulations within Camp John Hay were renewed in 2016.



Source: DENR-CAR, 2014

In partnership with the DENR, JHMC maintains a strong forest protection program through strict enforcement of forestry laws, rules and regulations with the apprehension of illegal occupancy, excavation and tree cutting activities in the Reservation.

The **Forest Management Program of JHMC** includes among others, the major research work on the *Ips calligraphus*, a bark beetle infesting and damaging pine trees. From 2014 to 2015, the consultancy services of Forest Pathologists from the Benguet State University (BSU) were tapped to evaluate among others, the pest/disease infestation in the Camp John Hay forest, and make recommendations for a sustainable forest management program. In this study, at least five causative agents were identified to affect the Benguet pine forest.



Tree Surgery of Benguet Pine Trees, 2015



Utilizing the aforesaid study, the BSU conducted a training program for the JHMC personnel on the management of pest and disease infestation within the Camp in year 2015, which included the evaluation of the pest infestation, proper soil sterilization and plant nursery management. Two tree surgery procedures were subsequently conducted to revive century old Benguet Pine trees manifesting disease infestation.

Sanitation Cutting activities were likewise undertaken in 2016, as a measure to ensure public safety and control the pest/disease infestation of the pine forest. A total of 29 dead and/or pest infested pine trees in the Zone (as compared to 39 trees in 2015) underwent sanitation cutting with the requisite permits from the DENR-CAR.

Deed of Usufruct for the DENR-Watershed and Water Resources Research Center

In June 2016, a Deed of Usufruct was signed between the BCDA, JHMC and the Office of the Secretary of the DENR, which allows the 33.74-hectare BCDA land to be used by the Watershed and Water Resources Research Center (WWRRC). This is in line with the sustainable Forest Management Program of JHMC wherein the facility shall provide assistance in the research and development of technologies to improve the management, protection, conservation and sustainable use of the watersheds and water resources within the CJHR.

National Greening Program

The JHMC has consistently complied with Executive Order No. 21, otherwise known as the National Greening Program (NGP) of the government, by planting suitable trees (such as Benguet pine and coffee) within the inadequately stocked areas of Camp John Hay and the BLISTT. Tree planting activities were conducted regularly with the participation of students, barangay representatives, and environment-oriented organizations. A total of 42,169 trees were planted from 2011 to 2016, and a total of 99,115 tree seedlings were propagated in the JHMC Plant Nursery during the same period. In 2016 alone, 2,670 trees were planted and 8,000 tree seedlings were propagated (as compared to 4,414 trees planted and 22,000 tree seedlings propagated in 2015).



Tree Inventory Project

One of the key accomplishments of this administration is the Tree Inventory Project which was completed in year 2014. This covered a total area of 267.67 hectares of the JHRA, where a total of 94,828 trees were marked and counted.



Barangay-Based Firelines

The barangay-based firelines established by the JHMC aim to prevent and control the spread of forest fires. A total of 132,526 square meters of firelines within the JHRA were maintained as of year 2016, representing a 163% increase in the area as compared to 50,878 square meters in 2015.



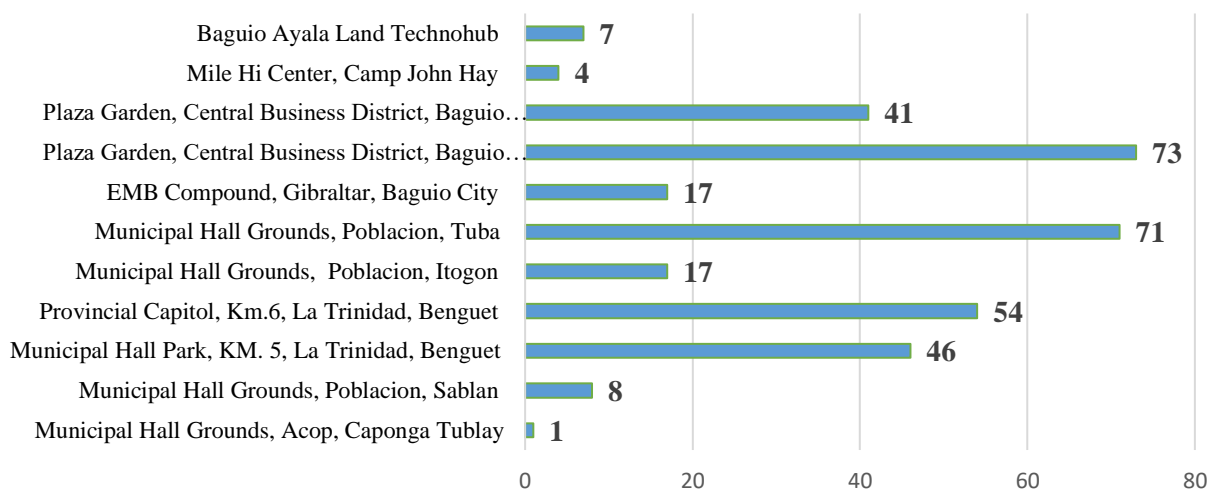
Ambient Air Quality in the JHSEZ

The JHMC has consistently maintained the Good Air Quality Index (readings from 0-50 ug/cubic meter PM 10) within the JHSEZ, with an average reading of 23.8 ug/cubic meter Particulate Matter 10 (PM 10)), as validated by the DENR, Environment Management Bureau (EMB)-CAR in 2016 (compared to 22.6 ug/cubic meter PM 10 in 2015). JHMC has two Pollution Control Officers whose accreditations were renewed by the aforesaid agency.

Further, in support of the Clean Air Initiatives in the Cordillera Region, the JHMC actively participates in various fora on the BLISTT-Airshed Technical Working Group headed by the EMB-CAR.

CY 2016 , 4th Quarter Comparative Data on Ambient Air Sampling and Monitoring in BLISTT

microgram per cubic meter Particulate Matter 10 (PM 10)



Source: DENR-CAR, 2016

Memorandum of Agreement for the Installation of the Continuous Ambient Air Monitoring Station (CAAMS)

The JHMC Board approved the Memorandum of Agreement (MOA) with the Central Office of the DENR-EMB for the Installation of the Continuous Ambient Air Monitoring Station within Camp John Hay. The MOA was duly signed by the two parties in February 2016. This monitoring station will continuously measure air pollutants and detect meteorological conditions such as wind speed and direction, temperature, barometric pressure and humidity, and assist the Corporation in determining the effects on the environment of current and future developments in the Camp.



Signing of the Memorandum of Agreement between DENR-EMB and JHMC for the Installation of the Continuous Ambient Air Monitoring Station within Camp John Hay, February 2016

Memorandum of Agreement for the “Adopt-An-Estero / Water body Program” of the DENR-EMB, CAR

The JHMC Board likewise approved the MOA with the DENR-EMB, CAR for the “Adopt-An-Estero / Water Body Program” along the tributaries of the Bued River and waterways within and outside the CJHR. The MOA was signed by both parties on 27 July 2016 during the 1st Cordillera Environmental Summit held in Baguio City, and attended to by officials from the DENR Central and Regional Offices, the CAR-LGUs, and partner agencies both from the government and private sectors.



Memorandum of Agreement for the “Adopt-An-Estero/Water Body Program” of the DENR-EMB, July 2016

Under the program, the partner agencies “adopt” portions of the identified waterway with the goal of improving its water quality through regular clean-up drives, planting of appropriate species and installation of trash traps. They likewise conduct regular Information and Education Campaigns to increase the awareness and participation of the surrounding communities. The JHMC participated in the National Clean-Up Day on 17 September 2016 covering the areas of the CJHR along the Loakan Road.

It is noteworthy that the JHMC has consistently conducted and sponsored clean-up drives in support of this program since 2011, and from 2014 to 2016 covered the areas identified to be tributaries to the Bued River (Loakan Road from Scout Barrio to Panagbenga Park, Portions of South Drive, Hillside, Sta. Escolastica, Greenwater and Camp 8).



JHMC Clean Up Drive, Loakan Creek, September 2016

Our partner barangays in the previous years included Hillside, Sta. Escolastica, Greenwater and Camp 8. Our partner groups and locators were Treetop Adventure Philippines, Inc., Runners for a Cleaner and Greener Baguio, and the Ayala Techno-Hub.

Rainwater Water Harvesting System at the Historical Core

The rainwater harvesting system was piloted by the EMD and PMD in December 2015, with two facilities established to collect rainwater from the downspouts of the Bell House and the Warehouse. Collected rainwater was used for the maintenance of the plant nursery, greenhouse, gardens and other facilities within the Historical Core. In 2016, a 35% decrease in the cost of water utilities was achieved.



Rainwater Harvesting System at the Bell House, December 2015

Establishment of Camp John Hay's Environmental Management System certifiable to ISO 14001:2015

Among the major accomplishments towards the goal of JHMC to establish its Environmental Management System certifiable to ISO 14001:2015 standards include the development of the Solid Waste Management Manual (SWMM) and Hazardous Waste Management Guidance Manual (HWMGM) which were duly approved by the JHMC Board in June 2016. In August 2016, key personnel attended the ISO 14001:2015 Full Awareness Course conducted by the AJA Registrars, Inc. in Subic, Zambales.



ISO 14001:2015 Full Awareness Course, August 2015

Further, the technical assessment of the Environmental Impact of JHMC's processes and activities were undertaken in consultation with the DENR-EMB, CAR, wherein the need to obtain requisite permits were determined consistent with the implementation of the Philippine Environmental Impact System (PEISS).

In compliance with the DENR Administrative Order No. 2013-22, otherwise known as the Revised Procedures and Standards for the Management of Hazardous Wastes, the JHMC has filed its online registration covering Hazardous Waste Number M 506, Waste Electrical and Electronic Equipment (WEEE) and Hazardous Waste Number I 101, Used or Waste Oil. This was based on an actual hazardous waste inventory conducted by the Environment Management Division (EMD) in coordination with the General Services Division (GSD) in July 2016.

Regulatory and Permitting Review of projects and locators was likewise accomplished to ensure that locators are compliant with applicable environment regulations, standards and permitting requirements.