

Introduction of our
life. as technological
advancements grow



**ASSIGN
BUSTER**

\n[[toc title="Table of Contents"](#)]\n

\n \t

1. [Introduction](#) \n \t
2. [Problem statement](#) \n \t
3. [Purpose statement](#) \n \t
4. [Literature review](#) \n \t
5. [Solutions](#) \n \t
6. [Recommendations](#) \n \t
7. [Conclusion](#) \n \t
8. [References](#) \n

\n[/toc]\n \n

Introduction

In the wake of the past century, man began to acknowledge the fragile balance that existed between him and the environment. In the course of the previous two centuries, man's industrialization efforts and activities offset the balance that had been maintained between him and the climatic conditions that prevailed. Detrimental practices such as deforestation, air and water pollution began to rise and consequently posed a threat to mankind's own survival. These malevolent practices could chiefly be attributed to the rise in the global population accompanied by rapid technological advancement which was characterized by all manner of pollution. The consequences that have risen as a result of neglecting to take care of the environment have now become a reality to the whole of mankind. This status quo has forced environmental issues to take a center stage in man's life as can be exhibited by the recently held Climate Change <https://assignbuster.com/introduction-of-our-life-as-technological-advancements-grow/>

Conference in Copenhagen. Nations have come together and put a valuable effort to restore, maintain and manage their respective eco systems.

However, preservation of our ecosystem will only be effective if people acknowledge that they individually have a pivotal role to play in this vital process. In light of the importance with which environmental conservation is regarded, this paper shall focus on car washing as a key player in today's pollution increase. The key factors that make car washing a risk to our lives in regards to pollution shall be addressed.

Viable solutions as to how car washing can be made eco friendly shall also be provided. To this end, an informative discussion shall ensue with the main aim being the provision of valuable information as to how best car owners can keep both their cars and environment clean.

Problem statement

In today's society, the role that transportation plays in all facets of life cannot be understated. The Storm water Manager's Resource Center (2000) states that transportation is one main part of our life. As technological advancements grow each day, the cost of vehicles is getting lower. This state of affairs has made it possible for people from all walks of life to afford cars.

However, as is with every other property, owning a car comes with its responsibilities. Some of the common responsibilities include but are not limited to: Washing and detailing the car and servicing it on a regular basis among others. The importance of keeping one's car in tiptop shape is therefore very important and to some, it has become a hobby.

<https://assignbuster.com/introduction-of-our-life-as-technological-advancements-grow/>

Nevertheless, our love for the cars accompanied by the dire need to keep it clean comes with various unseen threats to our environment and consequently, our lives.

Purpose statement

The aim of this study shall be to evaluate the extent to which car washing affects our lives. The various effects that come from this activity shall be discussed and viable solutions to the same shall be recommended. Through the review of relevant literature, an informative argument shall be presented as regarding to this topic.

Literature review

There is nothing wronging with loving our cars.

In fact, owning a car is seen as a visual representation of our tireless work efforts; a reward for a job well done. However, car washing is a process that requires much water and chemicals. In as much as it is a worthwhile endeavor, there is a need to take caution. This is attributed to the fact that the more times we wash the cars, the more water and chemical will be used. According to Residential carwash water monitoring study of Federal way in 2009, the average frequency of residential car washing in the Puget Sound region is once every two weeks (Livingston, 2005). During these intervals, an average of 20 gallons of water is used to wash a vehicle.

10 gallons of water each week doesn't sound like a big deal. However there are an estimated 62, 000 passenger cars and trucks registered in Federal Way (Smith et al, 2009). That means 620, 000 gallons of water is used by car

owners for car washing every week. This not only indicate an unnecessary wastage of water, but also the high potential of environmental pollution that may arise from the dirt and soapy water that emanates during the car washing process. As Smith et al assert, the chemicals used to wash the cars accompanied by the oil, gasoline and grease extracts that are removed during car washing presents potential environmental pollutants. The results compiled from the Residential carwash water monitoring study of Federal way support the findings of the Puget Sound Partnership 2008 Action Agenda. The Action Agenda also points out that majority of the pollutants getting into the rivers, lakes and marine waters around Puget Sound came from various pathways. Surface water runoff was highlighted as the primary transportation route for the main contaminants.

As documented in the final report, the most concentrated contaminants came from the developed lands (residential and commercial estates). This study simply highlighted how the situation is thereby emphasizing on the need to take action in regards to car washing as a root cause of water pollution in this area. A review of ‘ The Impact of Social Capital on Residential Water-Affecting Behaviors in a Drought-Prone Australian Community’ points out that: “ Researches have focused on reducing the quantity of water consumed, with the impact of everyday behaviors on water quality largely overlooked in the academic literature and mainstream media (Queensland University of Technology, p. 247)”.

As Alvord (2000) reiterates, car washing practices involve the use of excessive water and chemicals. However, if the practices are not regulated, they lead to a situation where the water used ends up polluting the runoff <https://assignbuster.com/introduction-of-our-life-as-technological-advancements-grow/>

and storm drains. This can in turn have negative environmental impacts on both the quality and quantity of urban water resources. The United States-based Natural Resources Defense Council (2000) equates the level of pollution in urban and suburban storm water runoff to that experienced from sewage plants and large factories. The council claims that the drainage systems and storm water runoffs collect the toxic waste and other pollutants that flow into them during a car wash. They further emphasize that the toxic chemicals and pollutants left on roads, driveways, and gardens are deposited directly into local waterways without being treated (Natural Resources Defense Council, 2000). This pollution can have negative effects on ecosystem functions and biological diversity, as well as social aspects such as public health, recreation, and general community well-being (Natural Resources Defense Council, 2005). As such, the environmental issues caused by the increasing volumes of pollutants and storm water being flushed down our drains, creeks and rivers, into recreational waterways and the sea, have forced us to acknowledge the detrimental impacts of conventional urbanization practices and the need for change (Barton, 2002).

Livingston (2005) states that the location at which we wash our cars from may define the difference between water conservation and wastage. The association further explains this statement by stating that where people choose to wash their cars may have negative effects on the quantity of water resources and the quality of local waterways. According to Livingston (2005), washing one's car may not be a problem if the practice is done in the right way and at the right location.

Livingston asserts that majority of the population is oblivious to the fact that the dirty water that flows into the drainage systems during a car wash does not get treated before being discharged into the waterways. He continues by saying that on the other hand, water draining into the sanitary sewer systems undergoes treatment before it flows into the waterways and water catchment areas. Livingston (2005) contends that while washing a single car may not seem like a great threat to our ecosystem, collectively, car washing activities have detrimental impacts on our water catchment areas. The author further states that pollution emanating from car washing activities degrades the quality of water in our streams and lakes and affects the marine life therein. Novotny (2003) supports this statement by stating that dirty water coming from car washing activities often contain soap, detergents and residual extracts such as exhaust fumes, rusty particles, gasoline and oily substances which flow into the streams causing serious damages to the quality of water and wildlife.

Solutions

Clift & Cuthbert (2009), state that refraining from washing cars is not possible. He claims that this activity is very important to many people because the degree of cleanliness of one's car reflects on his organization and need for cleanliness. In short, a clean car reflects positively on one's personality. In addition, car washing has been used by various organizations as a means of collecting money for charity. Some of the common organizations that use charity car washing events as a means of getting money include the scouting movement, learning institutions and sports clubs. To this effect, better practices that should be adopted by car owners

and car washing companies should be put in place so as to safeguard our environment all the while maintaining the desired level of cleanliness. Some of the recommendations made include but are not limited to the following. Whenever a car owner decides to wash his/her car, he/she should take it to a commercial car wash.

According to Alvord (2000), commercial car washes use over 60% less water than the amount used to clean a car at home. The author attributes this to the fact that these companies install water saving systems which use less water and detergent to clean a car. In addition, Yu (2008) states that in the recent past, commercial car washes have invented various means of ensuring that they save water as much as possible. Some of the most recent inventions include: the use of a recycling system which collects all the water used and treats it for reuse. This system has decreased the amount of water needed to clean cars significantly. In addition, these car washes use hot/warm water to clean the cars. This reduces the need for detergents since warm water has the ability to scrap off any stain or dirt with ease.

If the only available alternative is washing the car at home, the owner of the car should ensure that it is done on porous elements such as gravel, grass or soil surfaces. As Hranova (2006) explains washing our cars in grassy areas or porous surfaces is convenient since the grass/vegetation accompanied by the soil microbes break down the pollutant in the dirty water and keep the wash water out of the streets and storm drains where it may inconvenience others or lead to unwanted effects. The soil has been documented to be a natural filter of water. It has properties that disintegrate potentially harmful substances in dirty water making it safe and ecologically friendly. Clift & <https://assignbuster.com/introduction-of-our-life-as-technological-advancements-grow/>

Cuthbert (2009) state that collective car washing posses a serious threat to our water catchment areas. The authors suggest that in the event that a car washing charity is being held, the organizers should ensure that they block off the nearby storm drains by using inserts so as to catch the wash water. On the same note, the wash water can be redirected into the sewer lines where the water is treated before being discharged into the waterways or into gardens and other controlled environments where little to no harm is expected. Mayer et al (1996) suggests that soapy water should be pumped into sanitary sewer drains or onto grassy landscapes where it may be treated or filtered.

As mentioned earlier, if the wash water is left to flow into the storm drains, it finds its way into our water catchment areas where it may have detrimental effects on the quality of water and the marine life therein. As such, it is the duty of every individual to ensure that the dirty water does not flow into the drainage system. In addition, if the water is left to flow onto the streets and paved areas, it may stagnate. Stagnant water is a serious health threat especially in residential areas where children often play on the streets. They may get serious infections from the contaminants in the water which may in turn lead to serious illnesses that could have otherwise been avoided if safe car washing practices were implemented. Using hoses fitted with adjustable or automated nozzles can effectively ensure that little water is used thereby reducing water wastage.

Simply because there is an abidance of water in our taps does not mean that we should misuse it. The production, maintenance and treatment of the water we receive in our homes are expensive affairs and consume a lot of <https://assignbuster.com/introduction-of-our-life-as-technological-advancements-grow/>

energy (electricity and manpower). Therefore, the more water we waste the higher the cost that we incur through taxes and bills. Therefore, every individual should ensure that they use as little water during car washing so as to avoid wastage and reduce indirect costs. Another remedy could be to use bucketed water during car washing. It minimizes the amount of water used as well as the amount of wash water that trickles into the drainage systems (Livingston, 2005).

Finally, we should endeavor to use special biodegradable soaps and detergents when washing our cars. Chiras (2009) states that car owners should ensure that they have soaps that do not contain nonylphenol surfactants. These elements have been known to affect marine life and lower the oxygen levels in the waterways. The author claims that nonylphenol surfactants have the ability to change the sex of fish and that the phosphates presents an environment where algae flourish. Algae smells and looks bad and at the same time, are a potential health hazard.

Recommendations

As mentioned earlier, each individual has a role to play when it comes to the preservation of our ecosystem. Therefore, in as much as we like keeping our cars clean and attractive, we should adopt to the practices that do not harm our environment. If everyone implements these practices, the aforementioned issues will be significantly reduces if not completely eradicated.

In addition, we should support car washing charities that block nearby drains, divert wash water into sanitary sewer systems or landscapes and use

less water. On the same note, Livingston (2005) suggests that such charities should be held in commercial car washes where the systems in place ensure there is no wastage of water and that the wash water is treated before draining into the waterways. The governments should ensure that citizens know of the laws that safeguard against pollution. This can be done by establishing campaigns geared towards creating awareness of the existing laws that safeguard against pollutions. For example, very few people know that polluting waterways in such ways as car washing is illegal under the Protection of the Environmental Operations Act of 1997 (Livingston, 2005). The fine for this offence amounts to \$750 for individuals and double that amount for corporations.

In addition, it is important that people be educated on the risks that may arise due to these practices and how best they can be minimized and avoided. On the same note, measures should be put in place to ensure that more car washes are available in almost every location. This can be achieved by subsidizing the companies or awarding more incentives so as to encourage people to invest in this trade.

In as much as car washes have their disadvantages, they present a viable solution to the problem since they are a better alternative to residential car washing. Car owners should be advised to dike off their driveways and direct wash water into their gardens or controlled landscapes. This will ensure that the water does not flow into the streets or into the storm drains. In addition, they should try and reduce the number of times that they wash their cars in order to conserve water. This can be accomplished by establishing local councils to enforce such regulations.

<https://assignbuster.com/introduction-of-our-life-as-technological-advancements-grow/>

Conclusion

This paper has in detail described the environmental situation that exists in our societies. While it has been observed that car washing is a necessary evil, there is still much more that can be done to even the current scores and ensure that the practice is environmental friendly.

It has also been established that the vision for a greener state can only be realized if the public and private sectors come and work together as a team. Recommendations have also been made as to how the government and the citizens can contribute in this important task of reducing pollution. If implemented, these changes no matter how little will at the end make a vast difference in the lives of many people as well as the ecological balance that supports such existence.

It is therefore upon each person to foresee that they fulfill their roles in this quest in order to secure a greener and safer future for those that will follow.

References

Alvord, K. T.

(2000). *Divorce your car! ending the love affair with the automobile*. USA: New Society Publishers. Chiras, D. (2009). *Environmental Science*. FL: Jones & Bartlett Publishers.

Clift, J., & Cuthbert, J. (2009).

A Climate Change: Simple Things You Can Do to Make a Difference Chelsea Green Guides. Chelsea Green Publishing. Hranova, R. (2006). *Diffuse*

<https://assignbuster.com/introduction-of-our-life-as-technological-advancements-grow/>

pollution of water resources: principles and case studies in the Southern African region.

LA: Taylor & Francis. Livingston, J. V.

(2005). Trends in water pollution research. USA: Nova Publishers.

Mayer, T., Marsalek, J., & Delos, E. (1996).

Nutrients and Metal Contaminants Status of Urban Storm water Ponds. The journal for surface water quality professionals, 12(3): 348 – 363. Natural Resources Defense Council. (2005). The problem of urban storm water pollution 2000. Retrieved 05 November 2010 from: <http://www.nrdc.org/water/pollution/fstorm.asp>.

Novotny, V. (2003).

Water quality: diffuse pollution and watershed management. CA: John Wiley and Sons. Queensland University of Technology. (2008).

The impact of social capital on residential water-affecting behaviors in a drought-prone Australian community. Brisbane, Queensland, Australia: Taylor & Francis Group, LLC. Smith, D., Shilley, J., & Hollie, C. (2009). Residential Car Wash water Monitoring Study.

City of Federal Way, Washington, Public Works, Surface Water Management: Washington State Department of Licensing. Storm water Manager's Resource Center. (2000). Pollution prevention: car washing. Retrieved 05 November 2010 from: <http://www.stormwatercenter.net/> Yu, X.

(2008). Use of low quality water: an integrated approach to urban stormwater management. *International Journal of Environmental Studies*, 65(1): 119 - 137.