Jails and Prisons Going Green: Now and In The Future

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Abstract

This article is about the worlds raising inmate population, the cost to house these inmates and what the jails and prisons in the state of Florida are doing to help save the environment. With the inmate population in Florida reaching 155,000 in 2007 and approaching 200,000 in 2008 are we using sentenced inmates to the best of our ability to help save the environment? Are county and state agencies doing everything that they can to save the environment and tax payer dollars? Surveys were sent to Correctional Facilities in Florida with an inmate population of 450 or more to determine if our jails are "going green".

Introduction

The world has been concerned for years about the environment. Scientists advise the ozone layer is weakening. As a result, people advocate "going green" to help save the environment. Yet tight budgets and the raising inmate population are making it hard for Florida jails and prisons to go green. This paper explores the issue of environmental impact for corrections – what it means to us today and for the future.

Going Green is defined as adapting your lifestyle so as to do less damage to the environment. (University of Maryland, 2009) Energizing people to be environmentally aware of the four R's: Reduce, Reuse, Recycle and Recover. (Think Green Experience, 2008) What we use, buy or consume should not have a negative impact on the world or should have the least negative impact possible. So why should we – or anyone – be interested or concerned about being environmentally sensitive, especially in the corrections field? To understand this, I propose that we must first have an understanding of world demographics.

The world's population reached 1 billion people in the 1800's; it was two billion by 1922, and it was over 6 billion by 2000. It is estimated that the earth's population will swell to over 9 billion by 2050. If the world's natural resources were evenly distributed in 2050 to every person in the world each individual would only have 25% of the resources per capita that people used (or needed) in the 1950's (Go Green Initiative, 2007).

Currently there are over 301 million people living the United States. There are over 18,000,000 (18 million) people living in Florida. (U.S. Census Bureau, 2007). Over 155,000 of these people are incarcerated in the state's prisons and the 67 county jails. These jails and prisons are being asked to save money -- and the environment – despite a rising inmate population (FL Dept of Corrections, 2007). In 2007, the United States spent more than 49 billion dollars on feeding, housing, clothing, medical

treatment and supervising 2.3 million offenders (Le, 2008). The challenge to both save the environment, as well as be fiscally responsible with taxpayer's dollars is quite daunting. The challenge is not unique to the United States; it also is one faced by countries around the world. Continuing research to assist other agencies to improve and better serve the world and the environment is the purpose of this research.

Literature Review

With the ozone layer weakening and environmental groups growing the world is trying to change. Tight budgets are forcing jails and prisons to cut back even more. For the fiscal year of 2007 the average cost to house one inmate is $52.90 per day in the state of Florida. With over 155,000 inmates incarcerated in the State of Florida, that's over $8,200,000 ($8.2 million) per day and $3 billion a year. (FL Dept. of Corrections, 2007)

Demographic statistics show that, for the first time in history, more than half the world will be living in a city. By 2030 there will be 5 billion urban souls, up from 3.3 billion today. This growth will produce profound ecological problems. Logos, the former capital of Nigeria, is expected to reach 24 million inhabitants by 2015 that is up from 3 million people in 1970. Mexican cities waste 40 % of its drinking water due to poor plumbing and its residents lose 2.5 million work days a year due to sickness from the air pollution (Kuang, 2008).

Agencies in the United States and around the world have been making some changes. In Littlerock, Washington, a convicted murderer Robert Knowles has a job. He is called a recycler. His job is to turn/work the compost pile. He works the compost pile for the prison's small farm that feeds other prisons. The prison farm produced over 8,000 pounds of vegetables in 2008 and they recycle 100% of their food waste. According to Eldon Vail, the Secretary of the Washington Department of Corrections, "It reduces cost, reduces our damaging impact on the environment, and engages inmates as students. It is good security". Recycling reduces cost and it reduces the damage to the environment. (Le, 2008).

To control costs, the Indiana Department of Corrections installed a water boiler that runs on wood chip waste. At another institution they built a wind turbine that save them $ 2,280 a year in electricity. (Le, 2008). In California, at the Ironwood State Prison, they installed 6,200 solar panels that send back energy to the main power grid, which is enough energy to power 4,100 homes for a year (Le, 2008).

Administrators are under increasing pressure to reduce waste and conserve energy. The Santa Rita Jail in Alameda County is the fifth largest jail in the country with over 3,800 inmates. Fuel Cell Energy Inc. built a Fuel Cell Plant next to the jail. This plant generates 8 million kilowatts hourly which covers 50% of the jail's energy. Solar panels that were placed on the rooftop of the jail cover the other 50% of their energy needs. The fuel cell plant has 98.5% lower nitrogen oxide emissions than any power plant. This is the equivalent of planting 900 trees. According to Bernadette De Chiaro of Environment California, this is the "wave of the future." This fuel cell plant, in layman's terms, is similar to a giant, continuously running, battery. It takes fuel and turns it into

energy without combustion by pulling out the hydrogen and combining it with oxygen. At the dedication of the fuel cell plant, a Pacific Gas & Electric Company (PG&E) representative presented a check for $1.4 million to Alameda County as part of its incentive program for the jail to switch to a self-energy production system. This fuel cell plant cost about $6 million dollars and was started in 2006. It is saving the county $266,825 annually (Gokhman, 2006).

Can our ocean and lakes supply us with limitless clean and green electricity? Lockheed Company has been working for the last 12 months on plans for a very long fiberglass pipe. Ocean Thermal Energy Conversion (OTEC) states, this is no ordinary pipe but an integral part of this new technology. They are working on a clean and renewable energy source that has the potential to free many economies from their dependence on oil. It is said to have the potential to become the world's biggest sources of renewable energy. This technology uses special pipes designed to reach down to the bottom of our oceans and lakes to reach the coolest water. This water will then be pumped to the surface at the rate of 1,000 tons per second, where the cooler water is combined with a mixture of ammonia and warm water. In turn, this comes to a boiling point and creates gases that produce enough pressure to drive turbines that generate power. The water is then returned back to the ocean clean and green (Mckenna, 2008).

This technology is no "pipe dream" (excuse the pun). The U.S. government and Lockheed partnered in 1979. They lowered a pipe from a barge off Hawaii that was part of an OTEC system generating 50 kilowatts of electricity. Two years later a Japanese team built a plant in the South Pacific that was capable of generating 120 kilowatts of electricity (Mckenna, 2008). The U.S. Department of Energy had plans to build a 40-megawatt test plant in 1994, but when the price of oil dropped below $20 a barrel, this initiative was dropped. Now, with raising fuel costs, interest in this technology is rising once again. The U.S. Department of Energy has awarded Lockheed $600,000 to develop a new generation of cold water pipes (Mckenna, 2008). Robert Cohen, heads the U.S. Federal Ocean Thermal Energy Program in the 1970's, believes this grant could eventually lead to 500-megawatt OTEC plants on offshore platforms that can send electricity to offshore grids via submarine cables (McKenna 2008).

Lake Ontario (located in New York State) is helping Toronto (in Canada) chill. When others are looking at ocean thermal energy, the city of Toronto is using the deep water of Lake Ontario to cool its buildings. Maki Ocean Engineering of Waimanalo, Hawaii, helped construct the cities cold water air conditioning system that is expected to save 60 megawatts of electricity when connected to the buildings in the city's centre. Pumping water from the depth of 80 meters at the temperature of 4 degrees Celsius, the water is then piped 5 kilometers to the city and the cold water is used to cool the air in the buildings (McKenna 2008).

Can we rope the sun for clean energy? The concept of solar panels beaming down energy from space had been researched by the United States. However, because oil prices where down at the time of this initiative, our nation's decision makers judged that exploration of the use of sun in this fashion would be too costly. The research was stopped. Another nation made a different decision – one that has produced results upon which they expect to capitalize. Researchers in Japan at the Institute for Laser Technology produced a180-watt laser powered by sunlight. They are

now ground testing power transmission systems designed to send energy in microwave form to earth. This laser and microwave research program is a bold plan for a Space Solar Power System (SSPS). By 2030 Japan plans to have in orbit a solar-powered generator that will produce one gigawatts of energy back to earth. This would be equivalent to one large nuclear power plant. This solar energy could be collected 24 hours a day, and space solar energy is five to ten times more powerful than that produced on the ground. (Hornyaki, 2008)

NASA has been studying space based solar power since the 1970's oil crisis. Yet they ended the study in 2001. The recent spike in energy prices has rekindled their interest. The U.S. National Security Space Office urges that the nation immediately develop a space solar power system (Hornyak, 2008).

It is obvious from this brief review that environmentally-sensitive, relatively low-cost alternatives exist to our current use of coal and gas for energy. It is also apparent from this brief review that the use of alternative energy sources is not unknown in the field of corrections as seen in the initiatives developed in Washington and in California. Are there any initiatives occurring in Florida jails and prisons to ‘‘Go Green"

Method

The purpose of this research is determine if our county jails and state prisons have plans to help save the environment. There are over 155,000 inmates incarcerated in the state of Florida who eat, sleep, and receive heath care and legal representation. This means they use a lot of energy, which must be provided for, and paid for, by the taxpayer. What are jails and prisons doing now to save the taxpayer's dollars? Do they have plans for going green in the future?

Surveys were sent only to county correctional agencies with approximately 450 inmates or more and who stated that they would participate in this survey. Specifically, 31 of 67 county jails where contacted first by phone, and then either mailed or Faxed on letterhead about my research paper and myself. They where returned by Mail, Fax or E-mail. (see Appendix A)

In Florida, other than 67 county jails, there are State Correctional Institutions, Work Camps, Treatment Centers, Work Release Centers and Road Prisons totaling 137 Facilities. Due to restrictions it was decided that only one survey would be completed by the Central office out of Tallahassee for the Florida Department of Correction. This survey was sent by E-Mail and returned by E-Mail.

Thirty-two county and state correctional agencies were first contacted by the researcher by telephone. This personal approach was used so surveys did not arrive "cold"; it was employed in the hope that the first contact would yield better follow through once the survey was sent to the agency. Agencies were also advised that they would not be publicly identified in this research, to alleviate any concerns they may have.

A cover letter to survey respondents introduced myself, the project, and explained the purpose of the research endeavor. In addition to questions about energy use, demographic characteristics of the agency were collected, for example, the number of inmates housed at each facility, the cost of their energy bill, etc.

Smaller county facilities in the state of Florida were not chosen because they may not have the funding to invest in million dollar projects and might not have the impact on the environment as the larger facilities.

Some questions asked about the use of unclaimed water, water controls on facilities, recycling programs and self-sustaining food production programs.

Results

31 county facilities matched the criteria of housing 450 inmates or more. 31 surveys were sent to these facilities. 22 surveys were returned yielding a 71 % return rate. 30 state facilities matched the criteria to be surveyed, but due to administrative policies, only 1 was completed be the main office for all Florida state prisons. With only having 1 survey completed and returned from the state I could only analyzes some of that data. That data was analyzed and incorporated in with the following county data.

The first question on the survey asked each institution what their average daily inmate count is. The results were as follows:

- Two institutions have an average daily inmate count of 500 or less.
- Four institutions have an average daily inmate count of 501 to 999.
- Eight institutions have an average daily inmate count of 1000 to 1500.
- Eight institutions have an average daily inmate count of 1501 or more.

Fifteen of the institutions have between one and three buildings to house the inmates. Three of the institutions have between four and five buildings. Four institutions have six or more buildings to house their inmates.

The average cost of the electric bill at nine of the institutions is under $50,000 per month. Six of the institutions have an average electric bill over $50,000 per month. Two of the institutions where at over $100,000 a month. Four of the institutions didn't know how much their average electric bill was per month and one didn't answer.

The survey asked the institutions if they had inmate work crews other than hall cleaners, laundry crews and kitchen crews. Twenty one out of 22 stated yes they have inmate work crews for other than what was listed in the question.

Questions were asked that were related to food and feeding the inmates. Six of the 22 institutions grow their own food to feed their inmates. Three of the 22 institutions indicated that they raise their own animals or have a fishery for food to feed their inmates. When asked if their institution sold any food or animals, two of the 22 stated yes.

When asked if you feed inmates with disposable utensils, eighteen of the 22 institutions surveyed stated they use disposable plastic utensils to feed their inmates. When asked what they use to feed staff, institutions had a choice of plastic, paper, both plastic and paper, or reusable. In some cases more than one choice might have

applied. Eight institutions use plastic, three use paper, six institutions use both plastic and paper, and ten use reusable utensils.

The institutions were asked several questions that related to recycling. Eight of the 22 institutions responding indicated they have recycling cans placed throughout their buildings. When it comes to encouraging recycling, 9 institutions do so regularly and 13 do not. Fourteen institutions have a recycling program in place, seven do not and one chose not to answer. The following chart shows what is being recycled and by how many institutions.

	Number of Institutions Recycling this Item
Paper	10
Aluminum Cans	4
Cardboard	12
Plastic	3
Oil	1
Steel Cans	1
Reclaimed water	1

*Note: 4 surveys did not indicate what items are recycled

One question asked if the institutions repair their own linens, jumpsuits, and towels. Out of the 22 institutions that participated in the survey, 16 indicated yes to repairing their own linens, jumpsuits, and towels. All of the institutions were asked if they recycle unserviceable linens, towels, etc., and there was a list of choices on how they are recycled. The chart below shows how these things are recycled or not recycled by the institutions.

	Number of Institutions recycling in this manner
Turned into cleaning rags	18
Donate them to shelters	1
Donated to animal shelters	2
Dispose of in the trash	6

*Note: 1 survey did not provide an answer

Another part of the survey pertained to energy and utility saving ideas. When asked about using energy saving light bulbs, 10 institutions advised they did, 11 advised they did not, and 1 chose not to answer. All of the surveys indicated that none of the institutions use solar panels for energy. Four institutions made comments indicated that they have some type of energy saving system in place at their facility but were not specific.

The institutions were asked to report on what energy savings systems are being used now, what was the cost to start them up and what were they expecting to save each year. Out of the 22 reporting 2 stated they recycle but did not complete any start up or saving costs. No one reported using solar power. Two reported using a water system but only one reported start up and saving costs as 2.4 million starts up costs and a savings of 193,725.00 each year. Fourteen stated none, 2 didn't answer and 1 stated they had plans to start up but didn't comment on what.

When it comes to regulating the amount of water in a cell, 15 institutions have timers on the sinks and 7 institutions do not. In relation to regulating the amount of water being used at these institutions, 7 have the toilets set to a limited flush while 15 do not. Out of 22 institutions, one uses reclaimed water.

The survey results showed that three out of 22 institutions have an officer or other staff member assigned specifically to monitor energy saving plans. When asked if they have an officer or another staff member assigned to research energy saving techniques, 4 do, 17 do not, and 1 did not answer.

The institutions were asked about the types of vehicles being used at their facility. The choices on the survey were electric, solar, bio-fuel, or none of these. Thirteen of the institutions indicated they do not use electric, solar, or bio-fuel vehicles. Seven institutions have use of electric vehicles. One institution has use of a solar vehicle. Out of 22 surveys, only 1 had use of a bio-fuel vehicle.

What about biodegradable products? The institutions were asked if there were any commissary/canteen products that are brought in to sell to the inmates that are biodegradable. Two institutions indicated that they indeed have products to sell to inmates that are biodegradable but 17 do not. Two institutions didn't answer the biodegradable question, and 1 institution didn't understand the question.

When asked on the amount of trash that is being removed from their facility 4 didn't answer the question, 6 were unknown. 2 had under 10 tons per month, 2 under 20 tons, 4 had 21 to 50 ton per month and 4 have over 50 tons a month.

The cost to remove this trash varied from 10 facilities at under 5,000 a month to 6 facilities with between 5,001 to 25,000 per month and 1 over 50,000 per month. Five facilities didn't answer.

Discussion

This writer has found it very interesting as to how many facilities in the state of Florida are not consistent with recycling. Seven institutions stated that they don't have a recycling program. (Aluminum cans, paper or cardboard). Only one used reclaimed water. They use this reclaimed water for the inmate's toilets rather than using city water or well water. They are saving water and energy. I found fifteen institutions use timers on the inmates sinks, but only 8 use them on the inmate's toilets. (Limited flushes) There are several advantages to having limited inmate flushes such as preventing inmates from wasting water by keeping drinks cool, flooding cells when acting out, and help prevent disposing of contraband during searches. With over 155, 000 inmates incarcerated in Florida, that is 1,000 gallons of clean water not being saved.

Only half of the institutions use energy saving light bulbs. Eight of the institutions surveyed, averaged over 50,000 dollars a month in their electric bill. With all the new energy saving light bulbs out today there should be no reason why all institutions should not be using the new bulbs.

Some institutions don't know how much trash they are throwing away and only 1 institution has a compost program. With over 155,000 inmates why are we not using this free labor to save on our trash disposal? Sorting trash can recoup some of the money being spent to remove trash. Recycling what we can and putting biodegradable products in compost piles will cut down on cost, provide food for gardens and help the environment.

Most facilities have a lot of acreage around them. Can we use this land for farming to grow food for staff, inmates and possibly be sold to the pubic, saving tax payer dollars and helping to saving the environment? Six of the 22 institutions grow their own food. Hay fields around these institutions can provide jobs for inmates and food for cows to eat. This would help keep their inmates busy and teach them a trade.

Two thirds of the institutions do repair linens and jumpsuits but not all. Again with all these inmates incarcerated we should be taking better advantage of inmate's free time. What can't be used in the jails or prisons should be sent to animal shelters. The linens and towels that can not be repaired could be used for animal bedding, not for trash. We should be using all items to our fullest advantage before discarding them.

Alternative energies are not being used the way they should be. Only 9 use electric, solar or bio-fuel vehicles. With water all around Florida we usually have some type of sea breeze. Only 2 stated that they have installed energy saving systems. One spent 2.4 million on an electric energy saving systems. They are saving 190, 000 a year on their electric bill.

The last question of the survey allowed for comments or suggestions. Fifteen of the institutions had no comments. One discussed the size of their facility. One discussed about their building being built before conservation was an issue (1991). Three talked about why they answered some of the questions the way they did. One suggested using chilled water for AC and that they are looking foreword to the finding in this survey and 1 talked about how this survey has opened their eyes to being “more green”.

Ocean Motion, Wind Power and Solar Power are only some of the energy saving systems that are not being utilized. Solar panels on roof tops of just about any facility can cut electric bills in half. The other half can be picked up by building Fuel Cell Plants near jails and prisons. This was proven in 2006 at the Santa Rita jail, the fifth largest jail in the country saving over 260,000 a year on their electricity bill.

Some Power companies (PG&G) are giving incentives, paying facilities to install new energy saving systems. Exploring what other states and other Countries are doing to help improve the environment and save money can be invested to buy and install new energy saving systems.

Assigning staff to research new ideas and explore alternatives must be done to assist in saving the environment. Only three of the institutions stated that they have someone researching for new ways to save energy and help the environment.

Further research into all State facilities and all County Jails needs to be done to determine where cost saving measure can be implemented.

How can we ensure / enforce that all agencies are doing everything they can to save the environment and tax dollars. Should the State of Florida assign a committee to regulate who is doing what and who is not? Should dead-lines be given for compliance? Should guidelines be placed into the Florida Model Jails System (FMJS) to allow them to monitor conservation? The FMJS could set goals and deadlines for jails and prisons to meet set standards.

Should Counties and the State be responsible to ensure that all their Divisions are doing their part and then be compelled to report to the Governor as to what plans are being made for the future? Should time lines be given to come into compliance with new polices?

With over 160 facilities in Florida, housing over 155,000 inmates we could and should be doing much more to save the environment and hundreds of thousands of tax payer dollars. Enforcing recycling and assigning staff to research how we can do a better job to help save the environment is the direction and the way that this writer feels we need to be going.

Recommendations

In reviewing what county and state agencies are doing and not doing in the state of Florida, some recommendations can be made.

1. Researching into the use of solar panels to heat water and create energy may cost what seems like a lot of money up front, but the return / savings will pay for itself soon after being installed. Being in the SUN SHINE STATE we must take advantage of the sun.

2. Recycling is not being taken advantage of. The amount of trash being removed from jails and prisons is enormous, very costly and is hurting the environment.

3. Compost –inmate labor can be used to cut the costs of having to pay for trash remove. There would be less trash and more food for the gardens.

4. Using your compost to grow your own food will also cut costs and help to keep your inmates busy and possibly teach them a trade. Most jails and prisons have unused land around their facilities. We must take advantage of the material around us. In Florida we can grow three gardens a year. The money saved can be invested in start up costs for other energy saving items. (Housing inmates in special assigned areas must be done to help prevent contraband from coming back into the jails and prisons.)

5. Use time delayed water faucets, limited toilet flushes per hour and timers on showers will save money and help to preserve our water supplies.

6. With oceans on both sides of the state it seems that we always have some wind. The use of wind power to create energy should be explored to save energy / power and not contribute to harming the environment. It will pay for itself in time.

7. New jails and prisons cost a lot to build. Why not build them upfront to help save the environment. Start up costs would be more but it will save the environment and tax dollars in the long run. Fuel Cell plants installed can save 50% of your electric bill. Using water around us to cool our buildings will save energy and the environment. Pick an energy saving location to best fit your needs.

8. Items being sold to inmates should not only be security safe, but environmentally safe and healthy for the inmate. Buy biodegradable and reusable items.

9. Sell only healthy food to the inmates. Can we save money on inmate health care by feeding them better? Feeding inmates fresh food from your own

gardens and limiting what canteens / commissary sells can keep costs down and possibly decrease health care costs.

10. Assign a staff member to research what an agency can do to save the environment and tax dollars and who enforces recycling.

Not everything can be done today but we must start working harder to put plans in place to do our share to help the environment and spend tax payer's dollars more wisely.

Captain William McClelland has been with the Volusia County Division of Corrections since 1994. Bill has worked as a field training officer, Supervisor of Staff Development and is presently working as a Shift Commander at the Branch Jail. Bill is also a certified instructor.

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Appendix A

Survey Questionnaire

My name is Captain William F. McClelland. I am employed by the Volusia County Division of Corrections in Daytona Beach, Florida. I am currently attending the Senior Leadership Program at the Executive Institute, offered by FDLE in Tallahassee. I am conducting a research project entitled, "Jails and Prisons Going Green, Now and in the Future." I spoke to you earlier about your organization participating in my research. Attached is the survey that we discussed. Please remember that your agency will not be publicly identified in this research. Rather, I am interested in the aggregate (or group) responses.

I would like to thank you in advance for your commitment in assisting me with this project. Attached to the survey are the instructions on how to complete and return them to me. This questionnaire must be returned by February 1, 2009 in order for me to complete this project in the allotted time.

The return address is:

Volusia County Branch Jail
Attention: Captain McClelland
1300 Red John Road
Daytona Beach, Florida 32124

You can e-mail me with any questions or concerns at: wmcclelland@co.volusia.fl.us

If you have any questions and wish to speak with me about this, you may contact me at: 386-254-1546.

Again, I would like to thank you for your support with this project.

Sincerely,

Captain W.F. McClelland

Survey Questionnaire

INSTRUCTIONS: Please circle the answer that best fits your agencies practices or complete/fill in the blank, depending on the question style. There is space at the end of the questionnaire for you to make suggestions / comments.

1. What is your institution's average daily count?
   A. 500 or less
   B. 500 – 999
   C. 1000 – 1500
   D. 1501 or more

2. Does your institution have a recycling program?
   A. Yes B. No If no, please skip to Question #4.

3. What items are currently being recycled at our institution? (Circle all that apply)
   A. Paper
   B. Reclaimed Water
   C. Aluminum
   D. Cardboard
   E. Other _____

4. Is your institution using energy saving light bulbs?
   A. Yes B. No

5. Does your institution have timers on the inmate's sinks regulating the water used in their cell?
   A. Yes B No

6. Are the inmate's toilets on a limited flush? Example – toilet can be flushed two times an hour.
   A. Yes B. No

7. Does your institution have inmate work crews? (Other than hall cleaners, laundry and kitchen).
   A. Yes B. No

8. Does your institution grow its own food to feed your inmates?
   A. Yes B. No

9. Does your institution raise its own animals or have a fishery for food to feed your inmates?
   A. Yes B. No

10. Does your institution sell any food or animals?
   A. Yes B. No

11. Does your institution feed your inmates with disposable plastic utensils?
   A. Yes B. No

12. Do you feed staff on plastic, paper or both? (Circle all that apply)
   A. Plastic
   B. Paper
   C. Both
   D. Reusable

13. Does your institution use solar panels for energy?
   A. Yes B. No If yes, where are they used? How many?
   _____
   _____

14. Does your institution use reclaimed water?
   A. Yes B. No

15. What is the average cost of your electric bill per month?

   _____

16. How many buildings are used to house inmates at your institution?

   _____

17. Do you repair your own linens, jumpsuits and towels?
   A. Yes B. No

18. On average, how many pounds/tons of trash are removed from your facility a month?

   _____

19. What is the average cost to have this trash removed per month? _____

20. Do you have and/or use compost at your institution?

   A. Yes B. No

21. Do you use the following types of vehicles at your institution? (Circle all that apply)
    A. Electric
    B. Solar
    C. Bio-fuel
    D. None of the above

22. Below are energy saving systems. Please circle the ones you have at your institution. Then write in the cost to start the system and what you are expecting to save with these new systems per year.
    A. Recycling Start up $ _____ Yearly Savings $_____

    B. Solar power Start up $_____ Yearly Savings $_____

    C. Water Start up $_____ Yearly Savings $ _____

    D. Wind Start up $_____ Yearly Savings $_____

    E. Other Start up $_____ Yearly Savings $_____

    F. None

23. Do you have recycling cans throughout your buildings?
    A. Yes B. No

24. Do you regularly encourage recycling?
    A. Yes B. No

25. Do you have an officer or another staff member assigned specifically to monitor energy saving plans?
    A. Yes B. No

26. Do you have an officer or another staff member assigned to research energy saving techniques?
    A. Yes B. No

27. Are the commissary/canteen products that are brought in to sell to the inmates' biodegradable?
    A. Yes B. No

28. Do you recycle only?

A. Only staff trash B. Inmate trash C. Both 4. Neither

29. Do you recycle unserviceable linens, towels ect. (Circle all that apply)

A. In to cleaning rags B. Donate them to shelters

C. Donate them to the animal shelters D. Depose of in the trash

30. Any Comments or Suggestions?

_____

_____

_____

_____

_____

Institution Name _____

Person completing this Survey_____

Contact Information _____

Would you like a copy of the completed Research? Yes_____ No_____

Thank you for taking time to complete this survey. Please return this survey no later than February 1, 2009 by mail or you can Fax it to me at 386 -323-3504.

Mail to: Captain William McClelland

Volusia County Division of Corrections

1300 Red John Road

Daytona Beach, FL 32120