

**From:** [Maddock, Dean](#)  
**To:** [CSJS](#)  
**Subject:** Justice Reform Initiative  
**Date:** Saturday, 11 March 2023 3:00:01 PM  
**Attachments:** [report.docx](#)

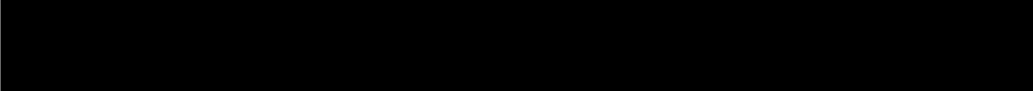
---

To who it may concern

My name is Dean Maddock and I severed with the Tasmanian Prison service for 20 years, during this time I worked all facilities and was a team leader in the Tactical response Group for 14 years. In 2017 I was awarded a Churchill Fellowship to study prison reform, in particular the Sustainability in Prison project in the United States. This project uses nature based programs to reduce offender violence whilst reducing the carbon foot print and greening of prison facilities.

I am more than happy to be interviewed on this subject.

My contact details are



Please see my attached Churchill Fellowship Report.

Thanks

Dean



---

**CONFIDENTIALITY NOTICE AND DISCLAIMER**

The information in this transmission may be confidential and/or protected by legal professional privilege, and is intended only for the person or persons to whom it is addressed. If you are not such a person, you are warned that any disclosure, copying or dissemination of the information is unauthorised. If you have received the transmission in error, please immediately contact this office by telephone, fax or email, to inform us of the error and to enable arrangements to be made for the destruction of the transmission, or its return at our cost. No liability is accepted for any unauthorised use of the information contained in this transmission.

# Sustainability in Prisons Project



## THE WINSTON CHURCHILL MEMORIAL TRUST OF AUSTRALIA

**Report by – DEAN MADDOCK – 2017 Churchill Fellow**

**To study developments in violence reduction strategies in United States of America' prisons using nature-based programs via the Sustainability in Prisons Project**

I understand that the Churchill Trust may publish this Report, either in hard copy or on the internet or both, and consent to such publication.

I indemnify the Churchill Trust against any loss, costs or damages it may suffer arising out of any claim or proceedings made against the Trust in respect of or arising out of the publication of any Report submitted to the Trust and which the Trust places on a website for access over the internet.

I also warrant that my Final Report is original and does not infringe the copyright of any person, or contain anything which is, or the incorporation of which into the Final Report is, actionable for defamation, a breach of any privacy law or obligation, breach of confidence, contempt of court, passing-off or contravention of any other private right or of any law.

Signed

Dated

## Keywords & Contents

- Sustainability
- Prisons
- Prison Projects
- Recycling
- Inmate Programs
- Rehabilitation
- Repurposing
- Violence reduction
- Correctional Officer
- Corrective Services

Contents	Page
Executive Summary	2
Introduction	4
Program -Visit Outline	6
Findings	13
Recommendations	25
Acknowledgements	26
Appendix	28

## *Executive Summary*

The purpose of my Fellowship was to explore the effects of nature-based programs in prisons and why these programs have reduced violence in prisons and why recidivism rates had decreased by inmates involved in these programs. My study's main focus was the Sustainability in Prison Project.

The programs I studied had these key components:

- Training for inmates
- Programmes were time consuming
- They were nature or environment based

The programs are then broken down into categories:

- Horticulture programs
- Animal programs
- Budget savings
- Community programs

### **Horticulture**

I studied a large range of different horticulture programs and they varied from growing vegetables, native plants, plantation trees, ornamental plants and endangered plants. All the inmates I spoke to liked how peaceful the programs were and inmates enjoyed seeing plants grow from a seed to a plant or vegetable. Inmates demonstrated a real sense of pride and achievement in their gardens. Inmates participating in the endangered plant programs shared the same feelings but had a heightened sense of community and pride in their work.

### **Animal programs**

The animal programs I witnessed varied from rescue cats and dogs, assistance dogs, bees, woodpeckers, fish turtle rescue and breeding of endangered butterflies. After talking to the inmates about the programs all the inmates stated that the programs had taught them to care about something else rather than themselves. Inmates also shared that the satisfaction they found in the programs was life changing.

## **Budget Savings**

The cost saving programs that have been implemented through Oregon State Correctional system and Washington State Correctional system are brilliant in their simplicity. Programs varied from energy saving initiatives, making soap, composting programs, recycling and repurposing programs and at the more complexed saving initiatives were sewage treatment plants, gray water recycling and energy plants. Inmates that I spoke to about these programs enjoyed the fact that they were helping save the environment.

## **Community Programs**

Throughout the Sustainability in Prison Project Network there was a strong focus on community programs. These programs help inmates reconnect to their local community and improve the inmate's self-worth. The programs that are being run to help charities raise money by being able to sell or use a range of products that are being made from recycled materials. Other programs ranged from bike and wheel chair restoration and computer refurbishment programs.

Most of the Minimum Security prisons I visited had a large number of inmates go into the community every day to work. These programs varied from painting gangs, rubbish removal, plantation workers, firefighting and natural disaster teams.

In conclusion, all these programs had achieved success in reducing prison offenses, prison violence and lowering recidivism, the general consensus being that these programs decrease the above listed areas by 40% to 60 % in program participants.

## Introduction

The core function of prisons has been the same for 100s of years, to house inmates behind high walls and bared windows.

Our early versions of prisons were very brutal, had harsh living conditions and occupied inmates with chain gangs. Meals were basic and were made from food items that were at hand; vegetables were grown onsite and sacks of flour and rice were brought from the local community if the prison didn't have means to produce these items itself. This minimal style living was cost efficient to run and produced very little waste. Rehabilitation was achieved by making prisons horrible and harsh places.

Modern day Prisons have a varying degree of security classification and more of societies' creature comforts like air conditioning, TVs and a varying range of meals. Modern day prisons have a large waste problem through modern day packaging and a disposable item lifestyle which is in line with modern day culture. Where meals used to be prepared from scratch, prisons today generally buy in all their ingredients to make meals instead of eating what the prisoners can grow. Some of the modern prisons are still full of violence and are still harsh but society mostly does not allow the chain gang attitude, so inmates are mostly non-occupied in high security prisons. This boredom leads to trouble for the institution. Modern day rehabilitation also has a large component of education, counselling and improved employment readiness programs.

Prison industries have also been transformed over the last 200 years. Our early industries were mostly about what the prison required. Inmates made items in the wood workshops and metal workshops, worked in the kitchen, laundry, cleaned, gardened and worked on the prison farms. These industries provided the institution with items that were required to feed, clothe and house inmates.

The modern prison industries are governed by fair competition laws but mostly can still enter various markets. A lot of prison systems still have prison farms where goods can be consumed by inmates if they comply to food growing standards. The systems that don't comply to these standards tend to give produce to charity. The traditional woodwork and metal workshops can be big business. These industries now offer inmates a pay or good behaviour rewards whilst giving inmates trade qualifications.

Modern day industries have also gone into a large range of other options from commercial laundries, online cad designing, call centres, clothing lines and running recycling programs. There is also a grown

trend to provide non-profit industries that support local charities, these industries strengthening community ties whilst relieving boredom for inmates.

These programs provide a large range of items and skills to the community from providing firefighting teams, clothing, vegetables for food banks, community gardening projects, rubbish collection, propagation of endangered plants and the breeding of endangered animals. These non-profit industries train inmates in various qualifications.

As the world's population continues to grow so do our prisons populations. Correctional Departments around the world are suffering from funding short falls, inmate overcrowding, staff shortages, lack of rehabilitation programs, a lack of prison industries and the continuation of in house conflict between inmates, staff, management and outside programs suppliers. This has the potential for modern day corrections to head for disaster.

Dean Maddock

First Class Correctional  
Officer, Risdon Prison  
Complex, Tasmania

Project: **Studying violence  
reduction strategies using  
nature programs**



## The Program

I decided to travel to the United States for my Fellowship because The Sustainability in Prison Project is one of the world leaders in violence reduction strategies. The program achieves its goals by bringing nature inside prisons. Their programs range from horticulture, animal welfare and training, recycling and other environmental programs.

My travels started in Los Angeles and finished in Seattle. I visited sixteen prisons and interviewed four outside program providers.

## Visits Outline

During my time in the United States I studied four prison systems:

California Sheriff's Department

California Corrections

Oregon Corrections and the

Washington State correctional system.

Every system has its own thoughts on rehabilitation, prison industries and inmate housing. All four departments do invest resources into gardening projects to help lower violence in their institutions.

## California

### San Quinten and Salono State Prison

The Insight garden program which runs out of several Californian prisons is seeing a decrease in recidivism with their program participants. The program suffers from an initial drop out but works well for the inmates who stay with the program. The program has a philosophy-based training package which is different to other gardening programs. The programs' facilitators do an excellent job with very little space within some of the largest concrete jungles in California. During my time with the Insight Garden Program I was lucky enough to get a good look at some of San Quintin's other programs. San Quintin have a large art program and there are numerous murals all over the prison; their mess halls must be the most impressive prison murals I have seen. There is a large focus on education at San Quintin and this is reflected by the 3000 volunteers they have come in annually. San Quintin also runs their own newspaper, film making and have their own radio station.

### Planting Justice

Whilst I was at San Quinten I was lucky enough to interview a member of Planting Justice which is run by ex-inmates with a purpose of helping with the transition of inmates back into the community. They achieve this by having community gardens where inmates can go and volunteer their time instead of being idle. These programs also cover paid garden contracting, growing vegetables for local food banks, farm work and nursery work. Planting Justice is a non-for-profit organization.

In California, I visited **Pitchess Detention Centre** which is run by the California Sheriff's Department. This prison is huge, housing approximately 8600 inmates. Pitchess Detention Centre is well on its way to being self-sufficient having an excellent recycling program including gray water, generating their own power and they are taking steps to expand their farm school into large scale produce production. The aim of the expansion is to be able to provide the department with enough fresh produce to feed the prison. Like all prisons their horticulture programs would have started small and at the time of my visit they were running a farm school which taught inmates how they can grow fresh produce and turn their skills into a small hobby business on their release. Currently the produce was being consumed in the Officers' mess, sold in a road side cart setup or given to charity. Prison industries were as expected with the usual woodwork, metal work, laundry and kitchen employment options for inmates. Other interesting industries were small engines, dog care and grooming, brick laying and firefighting.

Another Sheriff's Department Prison that I visited was **Elmwood Correctional Centre** in San Jose. This prison is in the middle of suburbia. They have very little usable ground space for any horticulture program but still manage to deliver an excellent program. One of the things that makes this program stand out is how they have male and female prisoners working together. Recycling is limited at Elmwood Correctional Centre but they do have a strong re-use attitude. A couple of their industries are well worth a mention, namely their mattress making and automobile panel repair shop. This shop repairs the Sheriff's Department's cars.

## Oregon State Correctional System

### Prisons Visited

Santiam Correctional, Oregon State Correctional, Central Distribution Centre, Oregon State Penitentiary, Coffee Creek Correctional, Southfork Prison Camp, Oregon State Prison, Oregon Correctional Enterprises, Savanna Haven, Junction City Wet lands

The Oregon State Correctional system has a real pride in the appearance of their prisons. The green nature of their prisons is reflected by the green nature of the State of Oregon. The horticultural side of this prison system is excellent, their programs including grounds maintenance, growing of vegetables for charity, the propagation of several endangered plants and the propagation of plants that endangered animal species feed from.

There is also a large range of animal programs that start with service animals and goes all the way up to endangered butterflies and frogs. Oregon State Correctional Industries are mandated with providing employment for the system and must grow by 100% by 2020. Their employment options for inmates is impressive. Oregon's traditional industries are run on a large scale. Their production lines cover every sort of indoor and outdoor furniture, fire places, bus shelters, truck beds and Cabins. They also have call centres, online cad programs, clothing lines, hair dressing salons, tattoo removal, small business programs for the inmates and an impressive distribution centre that keeps all their prisons running. If you ever wanted to study prison industries, Oregon Department of Corrections is a great place to start.

Another great initiative is the introduction of green teams at every prison. These teams are tasked with reducing the carbon foot print of the prison. This is achieved by gardening programs, recycling, energy saving initiatives, water savings and general cost cutting initiatives. Another new incentive is Blue Rooms. These cells have been painted with relaxing colours and the inmates can choose from a couple of different relaxing nature videos to watch, the aim of these cells being to reduce the inmates stress and anxiety levels.

When you add a large number of education programs to the other activities that they make available to inmates, Oregon's Department of Corrections is well on the way to hitting their recidivism reduction goals.

### **Green Prisons**

Green Prisons is a non-for-profit organisation that helps promote and support sustainable practices throughout the American prison system. They do this by providing product reviews and putting organisations in touch with service providers.

The founder Tommy Norris shares the green message via the Green Prisons web page [GreenPrisons.org](http://GreenPrisons.org), monthly newsletter, by attending conferences and prison facilities spreading the going green message. The Greens Prison web page is a great resource for articles on reducing waste, Sustainability programs and general sharing of information.

## Washington State

### Prisons Visited

Washington State Penitentiary, Coyote Ridge Correctional Centre, Airway Heights Correctional Centre, Monroe Correctional Centre, Stafford Creek Correctional Centre, Cedar Creek Correctional Centre and the Evergreen College to meet the Sustainable Prison Team.

Washington state Correctional system is the home of the Sustainability in Prison Project. It was in Washington State when I first came across the SPL, Sustainable Prisons Laboratory. These buildings served as a hub for the facilities programs.

Every SPL had a wide range of programs from Aquaponics, horticulture, bike repair programs, wheelchair refurbishment programs, teddy bear and quilt making, wooden toys, bird houses and furniture making, worm farms, recycling and many more repurposing programs. **Stafford Creek Correctional Institution's Lab** was part of the prisons maintenance area. Throughout Washington State there was a great pride taken in the appearance of the prisons. This was helped by the many horticulture programs that are run state wide. **Coyote Ridge Correctional Institution** had a unique approach to their open landscape areas with the use of gravel. The gravel is raked and manipulated into shapes by the inmates, producing an ever-changing garden area eg the American Flag, an eagle. The gravel is essential due to Coyote Ridge being in a low rain fall area.

The horticulture programs cover vegetables for charity and inmate consumption; ornamental, native and endangered plant propagation; prison grounds maintenance and aquaponics. The sustainability programs also cover recycling, repurposing, worm farms, water conservation, energy conservation and a large range of animal programs.

Washington State also have an amazing range of community-based programs. They provide work gangs to the community; repair computers, wheel chairs and bikes for charity; provide emergency service crews to fight fires and other natural disasters. They also donate a large range of other items to charity like teddy bears, quilts, firewood, vegetables, plants and hobby items.

Correctional industries in Washington State is governed by fair trade laws like any other system. They provide a large number of services to other Government departments. Washington's industries cover all of the normal prison industries like woodwork, metal work, kitchen, textiles and laundry services. Other industries include the making of reading glasses, screen printing, data entry, food packaging and making meals for Meals on Wheels.

I found the overall approach to Corrections and the core function of prisons to provide rehabilitation for inmates to be outstanding. The system's philosophy has a very simple approach to what can be a complicated problem. Participate in your rehabilitation through work or study and be rewarded or get nothing. Washington State has a large range of programs for the inmates which makes their approach to rehabilitation easier than what other systems have to work with.

## ***Operational Sustainability Model***

After looking at these systems and talking to inmates, programs' staff and Correctional professionals at all levels, I have taken what I have learned and written this Operational Sustainability model which I will be working towards implementing into the Tasmanian Prison Service. This model will help unite everyone who works in a Correctional facility whilst helping to rehabilitate inmates.

The aim of Operational Sustainability is to

- Save money
- Reduce carbon foot print of the prison
- Reduce stress for employees
- Reduce violence
- Increase inmate rehabilitation
- Promote community ties
- Provide an operational readiness for major disasters in the prisons region

### **Operational Sustainability**

No matter where you live or work, emergencies are inevitable. Whether facing a natural or man-made emergency, your preparedness level will directly impact your recoverability. Preparedness covers an array of critical mission areas.

Jails and prisons – state and federal, public and private – must maintain essential functions in the event of an emergency. The mission of any prison system is “to protect society by confining offenders in the controlled environments of prisons and community-based facilities that are safe, humane, cost-efficient, and appropriately secure.” During an emergency, the prison facilities must still carry out the tenets of their respective mission.

To effectively operate in the event of an emergency, an agency can and should take some preparedness measures. All Departments should aim at strengthening the security and resilience of their system through systematic preparation for the threats that pose the greatest risk to the security of the facility, including acts of terrorism, cyber-attacks, pandemics, catastrophic natural disasters and internal unrest.

Every facility has its own needs and depending on where that facility is located in the world and the facility's security rating. These two factors influence the time frame of being able to recover from a disaster or emergency situation.

All situations that threaten the good order and safety of the facility can be categorized into two areas.

Below is a list of potential threats.

1/ Internal -Most common

- Staffing
- Housing capacity
- Inmate unrest
- Sickness

2/ External

- Security threats
- Natural disasters
- Terrorist attacks to the facility or community
- Pandemics
- Utility failures
- Supply issues

Each department needs to prepare for the worst possible situation, imagining if the facility was cut off from the outside world, how long could your facility operate at an effective level?

To answer this question facilities should run a desk top scenario. The scenario is simple: imagine your facility is on an island with no outside assistance. This desk top scenario will tell you how long your facility can operate efficiently within its current operating model.

Most prisons will never be able to achieve 100% self-reliance due to their size but substantial steps can be taken to improve how reliant they are on the outside community. By taking steps toward being self-sufficient the Department can save a large amount of their operating budget whilst rehabilitating inmates.

Taking steps toward being self-sufficient is a slow process and can take years to hit the prisons full sustainability potential. By adopting the Sustainability in Prison Projects [SPP] system, the prison can save money, reduce stress on staff and inmates, lower recidivism whilst reducing their carbon foot print.

## Findings

### Why do we need to bring nature into prisons?

Washington State Prisons SPP has been running for over ten years and in this time they have seen a dramatic decrease in inmate aggression and a reduction in prison offences from inmates involved in these projects. This has contributed to meaningful employment, education, improved self-worth of inmates and these programs have also contributed to lower rates of re-offending from inmates that were involved in these programs.

Researchers have contributed this to the nature factor of these programs. To explain their theory is easy; basically cities and prisons are full of negative unnatural energy which comes from environments that are noisy and manmade, against the rejuvenating positive energy of quiet natural native environments.

Life in prison isolates inmates from the natural world, and this is why we need to bring nature to them.

Over the three states that I have visited all have a slightly different view or philosophy behind gardening projects and the inmates that I have spoken to all say a similar thing. The inmates noticed in themselves a decrease in anger; they feel grounded and relaxed; they enjoy gardening because it's new to most of them or it reminds them of spending time with their family; it relieves boredom; they enjoy giving back to the community and they enjoy how quiet most of the gardens are.

### *Introducing Sustainability in Prison Projects in a Correctional Facility*

To start an SPP model the prison needs to assess its:

- waste output
- inmate work force in line with security classification and industry standards
- energy usage
- water usage
- areas for nature-based programs
- where community ties can be strengthened
- key personal
- budgets
- what programs are achievable for the facility

Every program must start in a small scale, so the appropriate operating procedures and standards can be put in place whilst trialing the program. The key to any new program is in a trial phase which assesses the program and its effectiveness.

Once the decision has been made to move towards a SPP model short, medium and long-term plans need to be put together. These plans need to be flexible working documents.

Introduction of a green team in each facility is an ideal place to start. Getting staff and other key personal invested in the program outcomes is an essential part of the program's success. The green team plans and implements ideas to reduce the carbon footprint of the institution, oversees programs and is the point of contact for program managers.

In Departments with multiple facilities the program managers can motivate their Green Teams by introducing incentives. These incentives can take multiple forms, an easy one being cash incentives.

Whilst I was in Oregon, their Program Manager Mr Chad Naugle, would put out a \$10,000 cash incentive for hitting energy saving targets. This incentive was funded by the decrease in energy usage. The facility that was awarded the incentive had then to put in a submission for plant or equipment to further their programs. Other incentives were in the form of L.E.D. light upgrades, compost machines or winning new programs.

## **Working with Inmates**

When starting any program, you need to start with the basics:

1. Have a meeting with the inmates and inform them of the direction in which you will be taking the work gang. Make sure that it is clearly explained what is expected of the inmates, what the result of noncompliance is, and what the inmates will get out of the program.
2. If hiring a work crew for the first time or filling current positions, put out an expression of interest to the inmates and get the inmate to apply for the position [ forms and process differ for each department], short list and interview the inmate, check with the inmate's accommodation supervisor if the inmate is suited to the position and check with security units for any current intelligence on the inmate.
3. When the decision has been made to hire the inmate, have a meeting with the inmate so you can explain his job role and get the inmate to sign a statement of duties sheet. This sheet can be used as evidence that the inmate was made aware of what is required whilst participating in the assigned program.

By running a job application process this starts to get the inmates used to the process that they will encounter when they apply for work in the outside world.

### **Implementing a prison gardening program**

Most facilities would already have some sort of ground maintenance program. These programs take a general ground maintenance crew and turn them into a fully functional horticultural team.

Below is a basic list of steps to help implement a horticulture-based industry or inmate activity in your facility.

- Start with basic site clean ups, mow grass and pull out weeds and dead plants.
- Turn over any existing garden beds. This helps to aerate the beds and promote plant growth.
- Introduce horticulture training but if this is not achievable invite volunteers with horticulture skills to work with inmates.
- Plant a vegetable garden. Start small as it is an easy way to introduce inmates to plant propagation. Let the inmates sample the produce so they realize how easily they could grow vegetables after their release.
- When looking to expand a vegetable program partner up with a local food charity so you can donate the produce to them. This will help with inmate compliance because most inmates at some time have gone to food banks for assistance.
- The food bank programs can be extended into leasing external land to the organisation. This can help with external land management problems and can lead into the hiring of inmates to work the land.
- You can also expand your program with the intent to sell the produce to staff or to supply the staff mess room with fresh fruit and vegetables.
- Facility vegetable programs should always have the end goal of suppling in whole or part the departments fresh produce needs. This cost saving initiative will take more planning and preparation than giving the produce to charity. There could be local restrictions involved about feeding inmates but this can be rectified by obtaining local food growers certification. Once certification has been obtained you will need to consult with the kitchen staff about their needs and time lines.
- Design new gardens or add new elements to existing gardens. When designing gardens make sure each stage can be easily complete as this will keep inmates interested.
- Propagate new plants. These plants can be non-native or native plants and start with plants that are easy to propagate. At this stage look at building hot houses. Hot houses can start small and as a SPP budget grows you can build bigger hot houses.

- Once you have your basic propagation going well and you have suitable infrastructure in place, start to specialize in native plants especially the ones that tend to be hard to propagate. This stage gives your program credibility, so you can investigate the propagation of endangered plants.
- When you are ready to propagate endangered plants, partner with an appropriate outside agency to start your program. By partnering with an outside agency this will help you identify which plants to propagate, how to get the seeds and you will know of the appropriate re-vegetation project for the plants. Endangered plant propagation can attract large amounts of funding from other agencies which is usually obtained through grants.
- A strong in-house plant propagation can be developed into a full nursery for charity organisations and staff. Where it is possible to have an open nursery set up you will need to check your local fair-trade regulations.
- Keep the option open to provide outside work gangs to charity organisations for offsite planting.
- Also look at putting indoor plants in staff areas and visitor centres.

Gardening programs are one of the easiest and cheapest ways to occupy inmates, reduce boredom, increase pride in a facility and reduce violence in your system.

## Composting

With the introduction of any horticultural program the need to manage horticultural waste becomes an issue. Composting is an ideal way to recycle this waste. By composting a source of nutrients for your garden is created whilst saving the department money.

Composting can take many forms. To simplify composting, you add greens [vegetables grass and plants], browns [soil, leaves, shredded cardboard or shredded paper] and mix them together.

There are some excellent 'How to compost' publications available on line and before you start composting you need to do your research on how to compost in your local area. These publications will go into what to recycle, what not to compost, moisture contents, amount of times you need to turn your compost, and expected time frames of how long it will take to produce your by-product.

For general garden waste you can use

- Basic piles; Commercially available compost bins; Rotating bins- purchased or home-made; Stirp composting- where you bury compost in trenches.

You can turn your composting into large savings for your department by

- vegetable waste out of the kitchen and mess halls; Starting a paper recycling program; Starting a cardboard recycling program; Starting a saw dust recycling program if you have a woodwork shop

There are many options available to a department that wants to go into large scale composting -

Wind row composting

Benefits

- Waste is put into rows and turned regularly; Very cheap; Labour intensive

Cons

- Takes up a lot of space; Needs water near-by; If left unattended can encourage a rodent problem or smell; Can take up to six months before compost can be used

Compost Machines range in cost and size

Benefits

- Waste can be turned into compost in a short period of time; Give you a high-quality product; All pathogens are killed in the composting process; Space saving; Depending on the size of the machine it can be fed daily; Some run on solar energy

Cons

- Can be costly; Some need to be housed in doors; Run on electricity. The faster the compost is produced the higher the electricity cost; Regular maintenance

Dehydrator's Benefits

- Produces a nutrient rich product in a short period of time; By-product is light; Reduces the size of the bi-product; Smaller than compost machines

Cons

- Can be costly; Run on electricity; Need a drain for the excess liquid; Regular maintenance

No matter what system you chose for your facility make sure it is viable and sustainable.

## **Worm Farms – Vermiculture**

Worm farming or vermiculture is an excellent program for prisons. You can start forming for as little as \$20.00. Simple worm farms can start in a bucket or depending on budget there are many commercially available ones for purchase. Before buying a worm farm look at what's on site that you could re-purpose into worm farms, for example old fridges make excellent worm farms. There are plenty of online articles about what and how you can repurpose into worm farms.

In the right environment worms will eat their own body weight in organic material every day and depending on species will breed every sixty days. So, if you purchase 1 kilogram of worms they will eat 1 kilogram of organic material every day and in sixty days you will have 2 kilograms of worms eating 2 kilograms of food every day. Worms will keep eating and breeding as long as you keep expanding your worm farm program.

If your facility is interested in worm farming do your local research on what worms are available to you, if possible buy a mixed species worm mix. The different species of worm in the same worm farm try to out eat and breed each other and this will expand your worm farm program quickly.

Not only are worms great for getting rid of your organic waste, the bi-products from worm farming are the best fertilizers you can buy for your garden. The worms will produce two bi-products

- Castings which is a nutrient rich soil
- Worm tea which is a nutrient rich liquid

Once your worm farms grow you can look at selling the bi-product or donating the bi-product to charity

- Worm castings; Worm tea; Worms; Worm farms

## **Recycling**

When looking to introduce a recycling program into a prison environment start with the basics. Plastics, milk cartons, paper, cardboard and green waste are ideal starting points. All of these items can be recycled off site, but I recommend introducing composting systems to recycle the paper, cardboard and green waste. After a basic recycling program has been put in place and the facilities waste output has been assessed the following programs should be explored.

- Rubbish sorting- by sorting rubbish the facility can remove more recyclable materials that have been missed in the initial recycling process.

- Repurposing programs- further savings can be made by repurposing of material that would normally be disposed of, for example material waste can be made into quilts and teddy bears then donated to charity.
- Selling recyclables- once a recycling program has been established and recyclable volumes per year are known, the facility can explore the option of selling the recyclables instead of paying or giving away the items.
- Water recycling- waste water can be recycled in many different ways and the facility should investigate what will work for its own system.
- Replacing non-recyclable products with ones that can be recycled-for example plastic cutlery can be replaced with ones that are compostable.
- Waste breakdown- for example a microwave oven usually just gets thrown away but if the oven was pulled apart a large amount of the components can be recycled.

When setting up any program remember that one thing prisons have lots of, is man power so the more labour intensive the program the better.

## **Water Conservation**

With the growth in prison populations, the relevant departments need to look at water conservation. When designing new prisons there are simple steps that can be taken in the design stage to reduce ongoing water bills. All new facilities should incorporate rain water storage systems, shower timers, half and full flush toilet systems, low water usage shower heads and drought tolerate gardens.

Water conservation in the older prisons is more of a mindset change. Water storage can still be achieved with water tanks if they don't affect the security of the prison; shower timers can still be installed and as shower heads and toilets need to be replaced do so with water efficient replacements. The main water savings in older institutions comes from a change of thinking; plant drought tolerant plants so you limit watering; where you need to water regularly, install watering systems that are run on timers and these timers should come on during the night or early morning. If it's not possible to install watering systems, get the inmates to use watering cans instead of hoses and sprinklers.

Monitor the washing of fleet vehicles and simply turn the hose off when not rinsing the vehicles. The hose down of pathways doesn't need to be done every day and these activities should be limited to weekly or fortnightly or only as required. To keep cleanliness standards, try a broom with a bucket of water. There are many other initiatives you can implement when you start thinking about water conservation.

## Energy Reductions

It is easier to plan energy reductions in the building phase of any new prison. Reduction strategies can range from how or what the prison is built from or what lightening should be used.

There are steps we can take in our older prisons. The simple savings start with simply turning of electrical appliances at the end of day shifts. Turn off lights, computers, printers and things like kettles. Bigger savings can be made by changing lights to energy efficient LED lighting options; install shower timers; look at changing some night time lighting to sensor lights, and when appliances need to be replaced purchase energy efficient replacements.

As energy savings start to mount up, each department should look at investing its savings in renewable energy options like solar and wind farms or geo-thermal options. Renewable energy can be expensive but if you could get a system designed that would allow the department to add to it as money became available, the savings would start small then progress to larger savings as the department invested in the infrastructure and as costs reduce over time.

## Animal Programs

Throughout Oregon and Washington State all the prisons I visited had some sort of animal program. The programs ranged from endangered animal breeding, dog and cat programs, aquaponics and bees. Even though the programs are so varied all the course facilitators all said the benefits to the inmates were the same.

- The programs offered inmates a chance to focus on something else instead of prison life
- Inmates learnt how to care for something else instead of themselves
- Inmates received great satisfaction in the helping the animals
- Inmate took pride in the programs
- Participants in these programs showed up to 60% decrease in violence related internal offences
- Large decrease in other prison offences
- Participants also saw reductions in drug usage

**Airway Heights Correctional facility** was the only Prison I visited that ran a cat program. The program was for stray and rescue cats. The cats were brought into the prison and an inmate was placed in charge of the care and training of the animal. Inmate training was delivered in the unit by course facilitators and the interesting part of this program was that the inmates were mentally challenged.

Most of the prisons I visited ran some sort of dog program. The programs varied from rescue dog, all sorts of trained veteran's assistant dogs and dogs for people with a disability. The funding for these programs is as varied as the programs themselves. The more specialised the training the more funding was received by the prison. Some of the programs were fully or partially funded by outside organizations.

Most prisons also ran bee programs. The programs offered training and qualifications for the inmates so on the inmates' release they had the opportunity to work in the bee industry. The prisons produced a varied range of bee products from lip balm, creams, lotions, candles and honey.

**Washington State Penitentiary** run a competition each year with the inmates to design next year's label. Every facility takes pride in the quality of their product with some facilities entering their product in local honey competitions.

**Washington State Penitentiary, Stafford Creek Correctional Institution and Cedar Creek Correctional Institution** were the only prisons I visited that had aquaponic set ups. The main set up focus was to feed the prisons with fish but over time the all three institutions changed the focus to growing plants, this change being influenced by supply and the cost comparison of breeding fish against the cost of buying the fish in as required. **Stafford Creek Correctional Institution** was using their aquaponics to propagate endangered wet land grasses. The grasses are grown in large mats, which makes large scale planting very easy. These mats are rolled up for transportation.

When it comes to working with endangered animals there is one thing that makes inmates ideal for this sort of work, i.e. time - inmates have lots of time. This is what makes endangered animal breeding programs ideal for the prison environment. Whilst I was away I was lucky enough to see several butterfly breeding programs, turtle rescue programs, fish breeding programs and woodpecker monitoring programs. These monitoring programs have inmates watching time laps recordings for the National Parks. The inmates record vital information for the Parks staff. By getting inmates to do this work it saves Parks staff countless hours of reviewing camera footage. Due to the work of the Sustainability in Prison network the Spotted Frog has now been taken off the endangered list.

## Charity Programs

Throughout the Sustainability in Prison Project Network there was a strong focus on community programs. These programs help inmates reconnect to their local community and improving the inmates' self-worth. The programs that are being run to help charities and are vastly different to any prison industry but should be classed as a prison industry due to the large amount of inmate labour they use. The programs help local and overseas charities with goods that they need or goods that can be sold to raise money.

The programs include

- Refurbishing of reading glasses which are then sent overseas
- Refurbishing of push bikes
- Refurbishing of wheel chairs which are then sent overseas
- Vegetable programs
- Plant propagation for local conservation groups
- Refurbishing of computers which are donated to local schools
- Reproposing of building material which is turned into furniture they donate to local shelters
- Quilts and teddy bears made for fundraising
- Hobby items for fundraising
- Community work gangs
- Emergency services work gangs who fight fires and help with floods and other natural disasters
- Bird houses for fund raising
- Homeless self-contained accommodation
- Firewood

A large proportion of these programs uses recycled materials, whether the materials come from the prison waste or whether they are donated from outside organizations. By using recycled materials, it makes these sorts of programs cost efficient.

## Prison industries

When considering the purpose of prison industries, you must look at why you want to start the industry. Traditionally industries were started because of prison needs or 200 years ago, the colony needs. Modern day prison industries can be big business and are often looked at to fill budget short falls or are run as their own corporate identity. Considering how modern-day prison industries are run it is easy to lose sight of what the purpose of these industries is or should be.

Prison industries' focus should be aimed at inmate rehabilitation first, prison needs second and lastly making a profit. If we as an industry change our approach to prison industries, we will find that employment will grow, and recidivism will drop.

Traditional industries like woodwork, metalwork, laundry services and kitchen services are great but traditionally employ a small number of inmates, but if we were to open our thought process towards other employment options the cost savings to the prison or the community could be sizable.

#### **For example**

Start a recycling and repurposing industry; grow vegetables instead of purchasing all the fresh fruit and vegetables which are required to feed inmates; make soap, online services, native fauna and flora rehabilitation projects, animal programs and charity work. These sorts of industries are not governed by fair trade laws and can attract outside funding or save the prison large parts of the operating budget. By looking at moving towards a self-sufficient model the facility can save money and increase employment whilst educating inmates.

### **Prison Show Room**

Whilst I was in Salem, Oregon I visited **Oregon's Correctional Industries Office complex**. In this complex there was a large show room which showcased what correctional industries had to offer the client. The display covered current and past product lines, Correctional Industries history and a conference table. This show room was an excellent way to showcase the quality workmanship in their products whilst promoting all their products and services.

This type of show room only promotes part of the service that a facility can offer. Any showroom or prison shop should also include all non-for-profit service as well. By doing this the Prison system can promote all aspects of services provided.

When contemplating building or setting up a prison show room you need to think about the short medium and long-term goals of the system or facility. Do you need indoor and outdoor spaces? How do you set up displays, products and services you need for promotion? Location, access, meeting rooms and office space also are essential.

## Uniting a Work Force

One of the greatest challenges any prison will face is uniting all employees to contribute to a common goal. When introducing any new program, the facilitator must unite Management, Custodial officers, non-uniform staff and inmates. All must be motivated to contribute to the new program.

### For example

You want to introduce recycling but are unsure how to get everyone working together. The easiest way to unite a work force is to pass on a proportion of savings. This can be achieved by setting achievable goals in a short, medium and long-term fashion. The savings can be passed on in many ways; New equipment for staff, new sports equipment for inmates and budget relief for managers, just to name a few. The program facilitator must be able to communicate effectively with all stakeholders to find what motivates each faction.

In conclusion I have outlined a variety of programs which can be implemented into any prison in Australia. These programs not only help Inmates and the facility they also help the environment. This information has been gained through the assistance of the Churchill Fellowship Memorial Trust and without their help I would not have gained this information or had the life changing experience of being a Churchill Fellow.

## ***Recommendations***

When looking at prison reform it is always hard to find a starting point and the resources to achieve the desired result. When the problem is so complexed, it is hard to know what works and what doesn't especially when there is not one program that works with all inmates. The institution's problem is how many programs to run and what inmates to put in these programs.

### **Recommendations**

- Audit current education programs and participation levels
- Audit rehabilitation courses for their effectiveness and participation levels
- Audit all prison industries in line with inmate qualifications and industry costing
- Re exam local fair-trade legislation
- Audit current waste management strategies and understand where the money is spent
- Introduce recycling and repurposing programs
- Introduce vegetable growing programs with the long-term intent to feed inmates
- Introduce garden beatification programs
- Introduce worm farms
- Introduce composting
- Introduce native plant programs
- Introduce a range of animal programs
- Start making steps toward being self sufficient
- Identify new industries to help with the running of prisons
- Investigate the possibility of supporting local charities
- Implement external community work gangs including emergency services crews.
- Implement a paperless system for staff and inmates
- Bring inmate privileges in line with program and industry participation
- Introduce green teams
- Join the Sustainability in Prison Project Network
- Implement the Sustainability in Prison Project philosophies
- Introduce energy and water audits
- Develop and implement water and energy saving initiatives
- Invest in renewable energy sources
- Introduce water storage systems
- Implement environmental impact training for staff and inmates
- Implement staff wellness programs

- Explore program funding through grants
- Look at non-traditional prison industries
- Insure all new programs or industries are aligned with training and qualifications
- Investigate partnerships with local Colleges, Universities and conservation groups
- Develop and implement a business plan for new projects

## Acknowledgements

### Pitchers Detention Centre

- Captain Nelson
- Adrienne Ferrer

### Elmwood Correctional Centre

- Sgt Victoria Solis
- Sustainability Deputy Huynh

### Green Prisons

- Tommy Norris

### Insight Garden Program

- Director Beth Waitkus
- Program Director Amanda Berger      San Quinten Visit
- Amy Boyle      Solano State Prison Visit

### Oregon State Prison Sysytem

- Sustainability Programs Manager Captain Chad Naugle

### Washington State Penatentary

- Superintendent Don Holbrook

### Coyote Ridge Correctional Centre

- Enviro Specialist Dorothy Trainer
- Superintendent Andrew Sawyer

**Airway Heights Correctional Centre**

- Associate
- Superintendent Kay Heinrich

**Monroe Correctional Centre**

- Public Information Officer Susan Biller
- Correctional Program Manager Mark Miller
- Superintendent Obenland
- Sgt La Munyon
- Custodial Unit Supervisor Sue Collins
- CMHUS Kathy Grey

**Stafford Creek Correctional**

- Corrections Specialist Kelly Peterson
- Facilities Manager Chris Idso
- Superintendent Ron Hayes

**Cedar Creek Correctional Centre**

- Sustainability Programs Liaison Allison McCray
- Superintendent David Flynn

**Sustainability in Prison Project Headquarters- Evergreen College**

- Joslyn Triffet
- Kelli Bush
- Biology Programs Coordinator Jessica Brown
- Coordinator Bethany Shepler

## Appendix

### *INTRODUCTION TO THE SUSTAINABILITY IN PRISONS PROJECT*

#### **SPP-Washington's Story as per the handbook**

Too often people think of starting programs in a linear way with all the typical rhetoric: developing strategic plans, securing funding, obtaining buy-in and setting down the path to success. This approach represents necessary steps to building strong organizations; however, it ignores the struggles many find along the way to accomplishment. Our own path with the Sustainability in Prisons Project (SPP) in Washington State is based on an array of unlikely partnerships, and the tension and success each has provided over nearly eight years of sustainability work in Washington's state prison system.

The organizational model SPP uses is more complex and messier than most, and we attribute our success to this vast web of partnerships and our seemingly unorthodox path. The term diversity often conjures images of richness, variety, and peacefulness, but I would also suggest that diversity means differences, which can and often do drive conflict—in thoughts, ideas, outcomes, and even goals. When you consider the founding partnership of SPP-Washington, we are a model of diversity.

The Washington State Department of Corrections (WDOC) and The Evergreen State College (TESC) are unlikely of partners. Additionally, the SPP-WA is committed to partnerships with the Department of Defense's Joint Base Lewis McChord (JBLM), the Center for Natural Lands Management (CNLM), four zoos, WA State Department of Fish and Wildlife and U.S. Fish and Wildlife Service.

These organizations do not necessarily share the same missions, budget cycles or educational backgrounds. yet it is this web of partners has achieved the unique goals of the SPP.

In May of 2012, I was among many members of an SPP-WA tour of prairie sites at JBLM with Department of Defense wildlife biologist, Jim Lynch. He was showing us a site that had been restored with the hundreds of thousands of native prairie plants grown and planted as part of the SPP. After viewing the model seven-acre restoration site, Lynch took us to a point where we could look down on the 7,000-acre artillery impact zone. This prairie looked like most grassy fields I had ever seen except that in the center was a roughly 200 acre spot fringed with native prairie plants sporting purple, red, yellow and white flowers. The scene struck me as odd and froze me for a minute. How could an area dominated by fire and explosions have at its center a beautiful array of colorful flowers? After hearing my disbelief and confusion, Lynch looked at me and said thoughtfully, "Disruptions in nature

can help return the flora to its natural state.” His statement set me back and I tried to clarify: “You mean the fire resulting from bombing the area is actually good for the prairie?” “Yes, bombing” he said, “but more importantly, the fire is beneficial to the ecosystem.”

As we continued to talk, I learned that the prairies of western Washington have been lacking fire for nearly a century.

Over millennia of naturally caused fires, and regular burning by Native Americans in the area, the prairies and the plants and animals that live there, have adapted to be dependent on routine disturbance. However, fire suppression policies starting early in the 20th century removed burning from the system, leading to stagnation and accumulation of dead grasses, resulting thatch choked out the germination of many prairie plants. Additionally, the prairies have suffered encroachment of native Douglas-fir trees and have been overrun by invasive plant species like Scotch broom.

I was immediately intrigued by the idea that disruptors are necessary to the health of an ecosystem. I can't help but draw a similar conclusion about organizational health, and about our story of the SPP.

First and foremost, the SPP is a program built on partnerships and diversity. An array of partners co-exist in the state of Washington with varying goals, objectives, and organizational cultures, yet come together with limited funding to reach shared goals. In the process of accomplishing multiple outcomes, such as producing 500,000 native prairie plants to restore Washington's prairies, there are also multiple disruptions.

The WDOC is disrupted by partnering with The Evergreen State College. The Department of Defense is disrupted by partnering with inmates. SPP does things that make people pause and ask, “What?” It is the force of this disruption coupled with our partners' commitments to working together that have made SPP what it is today.

I find it no coincidence that the SPP experienced its greatest growth in the few years following our greatest disturbance.

In October of 2010 the WDOC went through a massive budget cut, which eliminated the SPP-WA contract. At the time, the SPP-WA received nearly all its funding from the WDOC. Within a few months, the Project had spent nearly all existing savings and was on the verge of collapse. The Evergreen State College stepped in at a critical time to provide emergency bridge funding which sustained operations for several months. SPP staff wrote multiple grants and established a system for donations.

Our partners at JBLM and CNLM also stepped forward with funding to support our continued operation of our conservation nursery program. That funding loss strengthened our existing

partnerships, helped us to make new ones, provided greater funding diversity and improved SPP's skills in grant writing and outreach.

The temporary loss of our DOC contract also reminded us of our beginnings, when we had no money to fund programs, just enthusiasm, recycled building materials, and a lot of time.

Today, nearly half our funding comes through grants and contracts, and our Project is bigger and stronger than ever before. Through considerable disturbance, we have emerged resilient and better prepared to continue our growth.

Ours is a story of messiness. It is a story of partners who will help in your time of need. It is also a story of diversity, which is a source of disturbances, but also innovation and success.

It is the story of Washington's prairies, where disturbance leads to health and resilience. It is the SPP story.

As you think of joining the SPP Network and starting new programming in state prisons, county jails, or juvenile detention programs, I hope you can work to find unlikely partners, build collaborations, and benefit from both the challenges and rewards of disturbance and diversity.

Think about academics, scientists, community members, volunteers, state and federal agencies, non-profit organizations, and businesses you can reach out to as you build your SPP team. You will be stronger because of them.

***Dan Pacholke***

**Assistant Secretary, Prisons Division, WDOC & SPP Co-Director**

**With contributions by Andrea Martin Masters in Environmental Science Program, TESC & SPP  
Graduate Research Assistant**

## BACKGROUND ON THE SPP NETWORK

Our vision is that new SPP teams will join the SPP Network to synchronize programming, evaluation, and dissemination of results. The SPP Network will build a set of science, conservation, and sustainability research projects that increase the possibility of large-scale restoration and coordinated funding.

Although corrections institution is unique, our experiences with the SPP approach point to Five Essential Components for new SPP teams. The priority and order of installation may differ in each state, county, or type of institution. The numbered lists following each Essential Component give examples of actions, projects, and programs to satisfy that component (and often others as well!).

These examples are listed from least complex to most involved. These are not intended to be comprehensive lists —we look forward adding more examples as new SPPs develop:

### 1/PARTNERSHIPS AND COLLABORATIONS

Seek out partnerships adapted to the needs of your region. Establish a truly collaborative approach in which each contributor plays an important role and benefits from the collaboration. See partnerships as central to accomplishing program objectives. Involve and benefit: Incarcerated individuals ☐ Students and/or education organizations ☐ Conservation, sustainability, and/or science organizations or initiatives ☐ Correction centers and corrections center staff ☐ Local communities and ecosystems

Examples of adding partnerships and collaborations to your programming (from least complex/involved to most):

1. Identify science or sustainability team members at your organization (folks with an interest in sustainability or environmental issues)
2. Create a green team at your institution
3. Establish a partnership with a corrections facility (focus on finding common ground and mutual benefits)
4. Partner with an education institution (focus on finding a willing faculty member for your SPP team)
5. Create a SPP team in your region
6. Consult with a sustainability expert on how to design, improve or expand a sustainable operations program (also satisfies Safe and Sustainable Operations)
7. Establish clear program roles for each member of the SPP team (written or diagram form)
8. Provide opportunities for staff to make suggestions and initiate projects and programs (also satisfies Engagement and Education)

9. Provide opportunities for inmates to make suggestions and initiate projects or programs with support of staff or partners (also satisfies Engagement and Education)
10. Establish internship or volunteer programs to involve students or other volunteers (also satisfies Engagement and Education)
11. Identify opportunities for students to conduct thesis research or senior projects that are mutually beneficial for the student, academic or conservation organization, and the prison or jail science/sustainability program (also satisfies Engagement and Education)
12. Hire graduate or undergraduate students for any or all of the following: the SPP staff lead for a program, coordinating a lecture series, creating or contributing to a research project, work on publicity and outreach, data entry, updating protocols, etc. (also satisfies Engagement and Education)
13. Identify potential conservation, science, sustainability or community partners
14. Partner with a conservation scientist on captive rearing for an endangered species (also satisfies Bringing Nature “Inside”)
15. Partner with a social scientist for evaluation (also satisfies Evaluation, Dissemination, and Tracking)
16. Send inmate crews off-site to contribute to ecological restoration, sustainability projects, or community (also satisfies Bringing Nature “Inside”)
17. Identify and obtain outside funding from grant or foundation sources

## **2/ BRINGING NATURE “INSIDE”**

Create opportunities to work with living things through lectures, workshops, conservation programs, and other programming. Also create opportunities to contribute (OTC) to outside communities and ecosystems. Examples include (from least complex/involved to most):

1. Install houseplants in staff areas, living quarters and shared spaces
2. Install fish tanks in staff areas, living quarters, and shared spaces
3. Provide inmates with photos of nature scenes or wildlife in conjunction with attendance at a lecture or workshop event or as incentive for participation in other programs
4. Provide inmates with science and conservation articles from the local environment (also satisfies Engagement and Education)
5. Brainstorm science and/or sustainability programs that could be offered at your prison or jail and develop a ranked list of priority programs
6. Establish and maintain native and ornamental landscaping on the facility grounds with interpretive signage including plant names and descriptions (also satisfies Engagement and Education)
7. Establish and maintain vegetable, herb or flower gardens and/or fruit or nut orchards

8. Hold a regular science and/or sustainability film showing
9. Offer horticulture programs which contribute food to facility operations or charities (also satisfies Engagement and Education)
10. Partner with other organizations to provide canine and feline rescue programs (also satisfies Engagement and Education)
11. Provide nature imagery for staff areas in intensive management and mental health units
12. Provide nature imagery for inmates in intensive management and mental health units
13. Establish a beekeeping program
14. Collaborate with a scientist to create and display annotated images of local native plants and animals and evaluate staff and inmate responses (also satisfies Partnerships and Collaborations, Engagement and Education, and Evaluation, Dissemination, and Tracking)
15. Offer regular conservation lectures and workshops (also satisfies Engagement and Education)
16. Establish endangered species and/or ecological restoration programs in partnership with relevant conservation organizations and regulators (also satisfies Partnerships and Collaborations and Engagement and Education)
17. Allow and facilitate minimum security inmates access to conservation/restoration sites to "complete the circle" (also satisfies Engagement and Education)
18. Conduct science research with inmates as partners (also satisfies Partnerships and Collaborations and Engagement and Education)

### **3/ ENGAGEMENT AND EDUCATION**

Offer science and sustainability education to underserved audiences involving and benefitting incarcerated students, college students, corrections staff, scientists, and the broader community. Provide green job training and skills development for a variety of employment options. Examples include (from least complex/involved to most):

1. Identify science and/or sustainability education opportunities and goals
2. Identify and plan to implement programs that provide inmates an opportunity to contribute to the community and/or the environment
3. Install interpretive signs to educate staff, the public and/or inmates and explain "why" a project or task is being done e.g. install a sign above the food waste receptacle explaining how scraping your plate will reduce costs and environmental impacts.
4. Provide information about science and/or sustainability projects, programs, or initiatives throughout prison or jail (i.e. inmate living units, bulletin boards, staff break rooms, public entrance, etc.)

5. Provide science & sustainability books, articles, handouts or other resources to staff (also may satisfy Safe and Sustainable Operations)
6. Provide science & sustainability books, articles, handouts to inmates (also may satisfy Safe and Sustainable Operations)
7. Provide staff with the trainings, webinars, conferences, or other educational opportunities necessary to support and implement science and sustainability programs. (i.e. composting training, Green Prisons.org webinar etc.) (also may satisfy Safe and Sustainable Operations)
8. Provide a one-time or regular monthly science or sustainability workshop or guest lecture for inmates and/or staff
9. Hold a sustainability fair or Earth Day event for inmates and staff
10. Plan family-friendly events focused on science or sustainability related topics e.g. an event for kids and parents with guest speakers discussing wildlife (also may satisfy Bringing Nature “Inside”)
11. Take actions to emphasize the importance of tasks and “Opportunities To Contribute” (OTCs)— i.e., how involvement influences and contributes to the broader community and/or restoration efforts
12. Create or use existing science and/or sustainability curriculum to educate inmates
13. Develop SPP overview documents to educate staff, partners, and potential funding sources (also satisfies Evaluation, Dissemination, and Tracking)
14. Create a regular newsletter to highlight science and sustainability programs and staff and inmate contributions to programs (also satisfies Partnerships and Collaborations and Evaluation, Dissemination, and Tracking)
15. Provide reference letters and job skills information that inmates may use on résumés
16. Provide green job skills training programs (also may satisfy Safe and Sustainable Operations)
17. Offer inmates science and/or sustainability jobs at the prison or jail that include education regarding how and why programs are implemented (also satisfies Safe and Sustainable Operations)
18. Establish conservation jobs at the prison or jail that include education regarding how and why programs are implemented (also satisfies Bringing Nature “Inside”)
19. Offer science and/or sustainability-related certification programs recognized outside of prison
20. Provide employment opportunities for inmates to work on science and/or sustainability programs post-release

#### **4/ SAFE AND SUSTAINABLE OPERATIONS**

Reduce, reuse, repurpose, and recycle materials whenever possible. Increase prison safety by providing programs that reduce offender idleness and engage offenders in pro-social activities. Example initiatives include (from least complex/involved to most):

1. Identify and reduce use of products you may be purchasing only to throw away i.e. Styrofoam, trash can liners, unpopular food items, etc...
2. Ensure that visiting scientists, sustainability experts, volunteers, and partners are provided safety training and clear expectations for working inside a corrections facility
3. Develop a sustainability plan for your institution
4. Use low tech and no tech solutions to equipment and facility needs: repurposing an unused shed for a composting program, aerating the compost pile by hand-turning, reclaiming leaky buckets for storing wood chips, etc...
5. Develop sustainable/green purchasing plan for products
6. Encourage staff to reduce travel
7. Encourage all staff and inmates to consider the 4 Rs in everyday decisions: reduce, reuse, recycle and rethink (also satisfies Engagement and Education)
8. Post signage for sustainable operations – how-to's and information about environmentally friendly practices like the 4Rs (also satisfies Engagement and Education)
9. Implement a recycling program
10. Develop water and energy conservation plans
11. Establish a data tracking system to monitor use of water, energy, waste and other resources (also satisfies Evaluation, Dissemination, and Tracking)
12. Conduct energy retrofits
13. Identify and implement Energy Service Company (ESCO) projects, alternative energy, and other energy mitigation strategies
14. Find experts in sustainability to consult on ways to improve efficiency and cost savings (also satisfies Partnerships and Collaborations)
15. Establish bicycle, wheel chair, or other repair and repurpose programs (also satisfies Engagement and Education)
16. Establish zero waste garbage sorting centers, on-site composting and vermicomposting systems staffed by inmate technicians (also satisfies Engagement and Education)
17. Establish rainwater catchment, effluent reuse systems, or other water conservation projects
18. Develop closed loop systems (i.e., aquaculture, energy production) staffed by inmate technicians (also satisfies Engagement and Education)
19. Develop and implement a program to purchase as many products as possible from local sources
20. Remodel and build to meet LEED certification standards
21. Build using green roofs and permeable surfaces
22. Reuse gray water

## 5. EVALUATION, DISSEMINATION, AND TRACKING

Provide for tracking, evaluation, and a plan for sharing program progress and results as a component of all program implementation. Specifics should include: ☐ Information dissemination regarding SPP programs to other SPPs, the public, DOCs and other SPP partners, funding sources, media, etc. ☐ Data systems to record baselines and track progress on targeted goals such as energy use, waste reduction, water conservation, recidivism, etc. ☐ Provision of a comprehensive evaluation program (with approved Human Subjects Review)

Additional ideas include (from least complex/involved to most):

1. Present or table at a conference, symposia, lecture, or community event
2. Establish a data tracking system to monitor use of water, energy, waste, and other resources
3. Partner with a social scientist, education researcher or psychologist to develop an evaluation plan (also satisfies Partnerships and Collaborations)
4. Provide regular updates (at least monthly) via website, social media, network list serve, video, or other media
5. Ask new contacts what attracted them to SPP (including what materials or coverage they saw)
6. Create a Project development plan that includes priority programs, actions, team members, timeline, etc...
7. Hold an annual sustainability fair for staff, inmates, and partners (also satisfies Partnerships and Collaborations)
8. Establish a Project newsletter to update inmates, staff, partners, and other stakeholders
9. Invite the media to cover an event or program
10. With guidance from a social scientist, evaluate emotional, behavioral, and/or attitudinal impact of science and/or sustainability programs on inmates and/or staff (also satisfies Partnerships and Collaborations)
11. Survey staff & partners on program quality & effectiveness
12. Survey inmate participants on program quality & effectiveness
13. Share evaluation results with SPP Network and stakeholders (also satisfies Partnerships and Collaborations)
14. Provide science or sustainability programs involving inmate family and/or friends
15. Publish articles in peer reviewed journal, trade publication, or popular media source
16. Apply for Human Subject Review with proposal to study effects of SPP programming on staff and inmate participants