

# ENVIRONMENTAL HEALTH

## *The Impact of the Castlereagh Liquid Waste Disposal Depot on the Londonderry Terrestrial Environment (including the Hawkesbury River)*



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University of Western Sydney  
Final Year Degree Group Assignment, 1998

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### Introduction & Executive Summary

#### The Subject & Assignments

Environmental Health Issues & Change is a subject designed to, “broaden the student’s perceptions of environmental and occupational issues and the role played by environmental management professionals in dealing with these issues and change” (School of Applied and Environmental Sciences 1997). The aims/objectives of this subject were conceived to achieve this by way of 3 interlocking assignments, progressing from a report summarizing key tools and processes, to the addressing of the concepts of change, perceptions and problematic situations, and finally to an assignment integrating all these under the umbrella of meta-learning (see **Appendix 1**, EH202A Assessment 3: Group Work, Seminar Presentation & Group Report Requirements).

#### Assignment Purpose & Bias

The main purpose of this assignment is to develop an appreciation of meta-learning as this relates to groups, issues and oneself. More specifically, this report/assignment is attempting to address intra and inter-dynamics throughout the investigation of 2 key issues: the Castlereagh Waste Depot (see **Appendix 2**: Impact of the Castlereagh Liquid Waste Disposal Depot on Londonderry) and our student research group.

We recognize that we have included some elements of bias into this study. This bias comes in the form of set opinions on causes of environmental damage, politics and equity/ethical sub-issues from one group member, Murray Thompson.

#### The Main Sub-issues

The major issue components we are concerned with are:

- The players in the depot issue their perceptions (worldviews) and roles.
- The players in our group, our perceptions and roles.
- The dynamics of the intraplay in our group, and the interplay between our group members and the issue of concern. (We have considered that personal understanding is integral to the understanding of others in our group, and other groups and cultures. We see the complex reworking of entanglements between all these individuals and groups as being representative of a double-loop, self-perpetuating cycle.)

#### The Main Physical Issue of Concern

The main physical Issue of Concern is: *The Impact of the Castlereagh Liquid Waste Disposal Depot on the Londonderry terrestrial environment (this includes the Hawkesbury River).*

This issue was chosen first, before any group concerns were established. In this way, we had a focus upon which to establish group member interests and, consequently, roles and responsibilities.

The depot issue was advanced because it is a local issue of considerable importance to community concerns. This issue raises concerns on many levels, so it is quite complex and, in this regard, a valuable tool for learning.

The basic nature of the depot issue is this: Londonderry residents, in particular landholders living on properties adjacent to the facility, have raised concerns since the late 1980s of waste pollution affecting the viability of their properties, as well as the health of families, stock and local fauna and flora. From the perception of these landholders, the negative environmental impacts on their properties have their origins in waste that has been buried progressively at the Castlereagh Depot over the last 20 years or more. It is considered highly likely, according to these residents, that toxic chemical wastes have been leaching from waste cells via the Rickabys Creek gravel which underlies the area onto properties adjacent to the depot.

### *Issues of Change and Emergent Properties*

We feel that each of the points noted below have a significant time factor attached. That is, all the points indicate a pronounced chronological progression and, potentially, learning processes as outcomes. We are also concerned with special emergent properties that qualify as signatures of change (these are indicated in italicized *dark red font*):

We are concerned with, here, in regard to issues of change:

1. Potential waste movement, over time, affecting properties in Londonderry, and a concomitant analysis of environmental degradation, again over time, revealing trends – *basic negative changes in animal behavior; negative impacts on crops; increases in animal and human disease, including genetic and teratogenic effects; a diminishing of flora and wildlife biodiversity and, in this regard, a turndown in overall life processes (partial local extinctions)*
2. The nature of community reaction to the environmental, crop and health problems – *community empowerment that was initially generated through compounding local resident and/or landholder reactions, then modified via the creation and input of environmental groups, and finally established (matured) after years of interaction with the authorities and the media*
3. The relevant authorities' (WSNSW, EPA, Department of Agriculture, Environment Ministry, Penrith Council) public 'recognition' of the problem by way of the nature of their reaction to public concerns – *the authorities' public relations reaction: initial denial, then admissions of leakage into groundwater under the depot (EPA) with denials of leakage offsite, WSNSW newsletters, concessions by way of the establishment of the CMC and eventual Negotiated Solutions mediation of a closure and depot remediation schedule*
4. A theoretical, but nevertheless potential, eventual admission of *limited* responsibility where leakage has been proven – *the time factor linking initial ignorance to a genuine lack of scientific data on the inadequacies of landfill technology should be considered where a determination of innocence over culpability is being made*
5. The 'nature' of government – *forced changes in the traditionally static and cultic nature of government reaction (though, not necessarily, quantitatively significant overall attitude or real character) to community pressure*
6. Actual, substantive remediation of the waste depot and the affected Londonderry environment
7. Alternative disposal methods for the waste
8. Alternative processing of waste
9. Alternative technologies applied to resources that minimize waste or do not create waste in the first instance
10. Alternative economic theories considered which do not rely on the inordinate extraction and manipulation of resources
11. Alternative approaches to viewing national and international economies and corporate endeavors

12. Appropriate prosecution of authorities where criminal neglect or actions are proven
13. The relevant authorities' concessions by way of compensation for damage incurred
14. **Alternative approaches to our philosophical attitudes toward the planet** – *this would represent the most significant emergent property to arise out of this issue if it actually came into being (points 7-10 listed above could be included as genuine outcomes of this emergent psychological/'spiritual' property, but only if they were prosecuted on the basis of this property rather than as an expedient symptomatic reaction to community/political pressure)*

### *Who's Involved?*

The main players in this issue are:

- The Londonderry landholders who have experienced negative environmental impacts as a result of the presumed leakage of chemical wastes from the Castlereagh Liquid Waste Disposal Depot.
- The Waste Service NSW who operate the depot.
- The Environment Protection Authority who are given the responsibility to monitor environmental vicissitudes and prosecute as appropriate.
- The (State) Ministry for the Environment who oversee environmental concerns statewide
- Other concerned individuals (residents or otherwise of Londonderry and other areas) who have taken an interest in this complex issue of waste leakage, environmental damage and equity.
- The media (local Hawkesbury and Penrith newspapers in particular)
- Local environmental groups (eg RAGE [Residents' Action Group for the Environment]) and other groups (eg the Total Environment Centre, Inc.).
- International environmental groups interested in this issue (eg Greenpeace).
- Various politicians (eg Londonderry MP Paul Gibson)
- Community/political monitoring groups (eg the Community Monitoring Committee [CMC] and the Negotiated Solutions Pty Ltd [facilitators in the closure/remediation of the Castlereagh Depot] initiative)
- Expert Review Panel in the Negotiated Solutions process (Dr Ross McFarland [geologist], Dr Michael Knight [hydrogeologist], Dr David Sheumack [chemist], Dr Hugh Dunstan [biologist], and Dr Kate Short [independent community activist]) (Perry 1997b:10)
- Water consultants (eg AGC Woodward-Clyde)
- NSW Agriculture Department
- Penrith Council
- Transporters of wastes (chemical and biological)
- Industries that generate wastes
- All community members who use products which intersect waste production cycles

### *Processes Involved/Applied*

The following processes (systems of operation) are seen as the signature dynamics of this issue of concern:

- Governmental systems (protocols of the Ministry for the Environment)
- Government authority systems (protocols of WSNSW, EPA and Department of Agriculture)
- Westmead Hospital (protocols involved in the Human Health [epidemiological] Study, in particular)
- Community developmental empowerment in response to perceived inequities via environmental problems (first, individual landholder reaction to environmental problems, then group/rural community outrage, then public response through media and eventual formal environmental group involvement)

- Formal community/political monitoring group involvement (protocols of the CMC, Penrith Council and Negotiated Solutions forums)

### *Physical Issue of Concern Outcomes*

The bias of the Editor of this assignment is a notable factor influencing conclusions reached in regard to the physical issue. There appears to be some agreement within this student group that the Castlereagh Waste Depot is leaking toxic wastes onto surrounding properties. Also, there is some consensus as to the corrupt political nature of this issue.

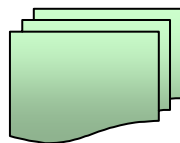
Overall, however, the Editor is the only group member who has studied this physical issue for an extended period, so his analyses and conclusions, given his influence over this document, form the major analytical outcomes here. In regard to the next section, however, Robert Sinclair has framed the major signature outcomes of the progression in learning styles encountered by the group.

### **The Main Group Issue of Concern**

As noted above, the issue was established first. Then Personal learning styles and individual orientations and capabilities were assessed using tools based on the book *Organisational Behaviour: Concepts, Controversies and Applications* (Robbins, Waters-Marsh, Cacioppe & Millet 1994). This was an initial exercise and arrangement, however. As we interacted more and determined levels and orientations of expertise, these rudimentary roles and responsibilities evolved. We then, as a group, assessed and re-assessed each others' work, while refining the document structure and seminar outline. We found this to be a satisfactory though slightly disorganized way of fulfilling all the requirements of the document and seminar.

Along with these developments came the mapping out of a strategic plan. In this regard, the suggestion of the necessity and requirement of this important feature of group work (by our lecturer) was complimentary to the advancement of the document.

Finally, the group began to embrace a comprehension of the *processes* we had intersected throughout this exercise. With the formal recognition of our evolution in thinking involving a progressive series of reaction (single loop learning), re-assessment and application of learning (double loop learning) and the understanding of the learning process (meta learning), we came to an awareness of learning about learning.



**Do You Want To Work From Home?**

# **SECTION 1.0**

## **GROUP WORK REFLECTION: *Situation***

### **& *Issues of Concern***

**Authors:** Derek Spurl, Robert Sinclair and Murray S. Thompson (with contributions by Rebecca Harvey)

#### **INTRODUCTION**

This group work reflection was apprehended for the purpose of applying group work theory to the investigation of an environmental health issue. The details set out below attempt to engage a critical assessment of our group in the investigation of the issue of concern.

#### ***1.1 Initial Test Results***

We feel this section offers some considerable generalizations in regard to human behavior. We are not sure as to the accuracy or sophistication of these tests.

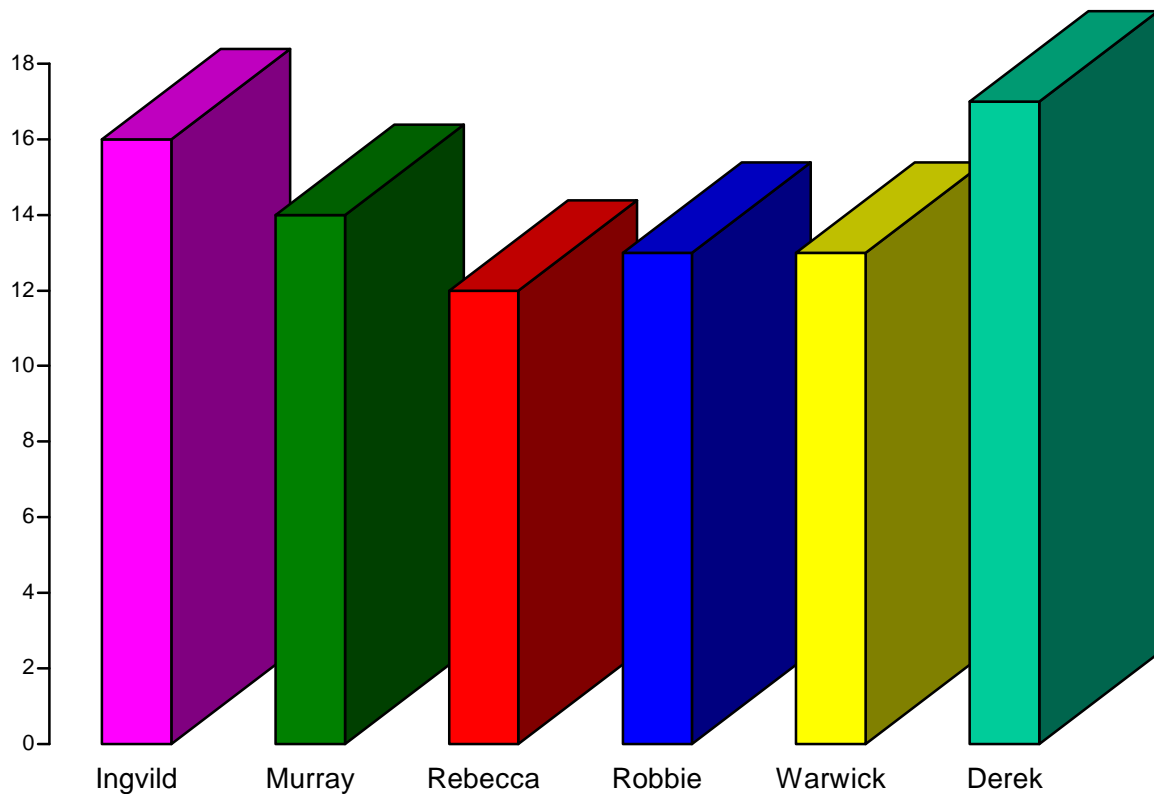
We have, however, decided to use these tests as exercises to stimulate discussion and group analysis/reflection. In this regard, the tests have achieved the most significance. The tests results, presented as graphs, begin overpage.

### 1.1.1 Knowledge of Human Behaviour ( 20 True/False Questions)

Much of what we know is based on intuition. We have opinions, biases, hunches and misinformation that we use both in making statements about others and deciding what to do. The 20 true/false questions in the exercise (Altman & Valenz 1985) were provided to supply feedback regarding what we, as individuals, supposedly knew about human behaviour.

Derek and Ingvild scored the highest, while the remaining students achieved slightly lower scores.

This test is so general and non-specific/diffuse that it appears to indicate nothing in particular that can be used by this analysis of our group processes. A more sophisticated *series* of tests would likely be required (while establishing, beforehand, a qualification of the terms *knowledge* and *human behavior* in regard to these particular tests and the worldviews of the test designers), in order to indicate levels and types of understanding.



**Figure 1 Knowledge of Human Behavior**  
(Adapted from Altman & Valenz 1985)  
Shows (according to the test design) superior and inferior levels of understanding of human behavior

### 1.1.2 Locus of Control ( 10 A or B answers )

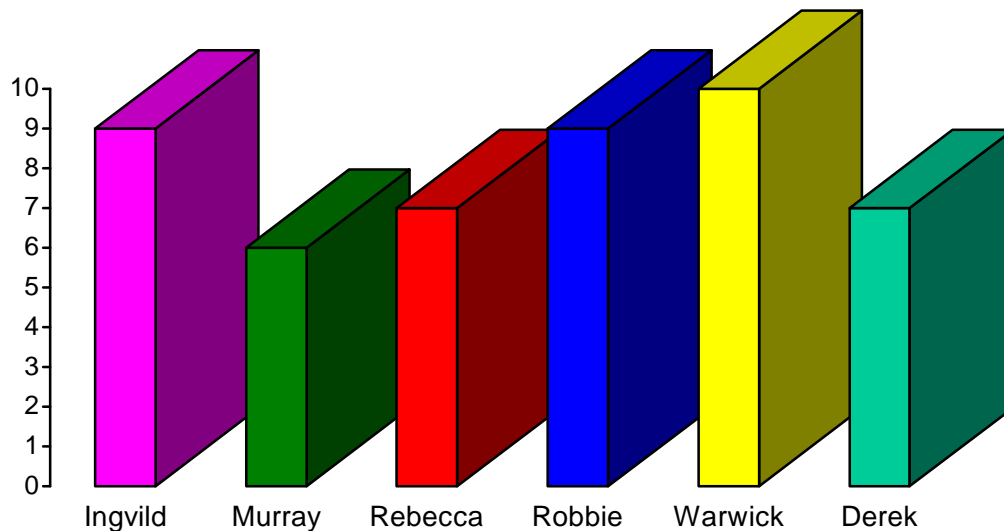
This exercise was designed to measure our locus of control.

The conclusions formed from this exercise indicated that none of us believed that what happens in our life is mainly due to luck or chance. We all believed that we had some measure of control over our own destinies.

Youngest group members (2<sup>nd</sup> year students of high school leaving age to 2<sup>nd</sup> degree age): Ingvild, Warwick & Robbie – High Internal Locus of control. These students are all very optimistic in regard to extending success in University studies into their chosen careers. They have yet to experience the harsh realities of life. This may well be indicated in the kind of input they generated for this assignment. Overall, Ingvild and Robbie generated positive attitudes in regard to, respectively, culture/risk-taking and learning processes in University (and the extension of this into the future). Warwick showed traits indicating a quiet attitude with little desire to promote aggressive ideas. He was content to accept political bias expressed by older students and demonstrated (in the opinion of this older student) very good political awareness and acuity in this respect...

Middle age range members (23 to 25 years): Rebecca & Derek – Medium Internal Locus of control. These 2 members have experienced some time out in the workforce and this appears to have decreased their level of optimism in regard to the control they have over life. Here we see an increase in the level of cynicism.

Oldest group member (42): Murray – Lowest Internal Locus of Control. Murray is the oldest student. This explains his low score, since he has developed a negative concern for personal control due to beliefs regarding power groups and their leverage exerted in world affairs.



**Figure 2 Locus of Control**  
(Adapted from Rotter 1971)

Shows a grade indicating a relative level of belief in personal control over life factors

### 1.1.3 Needs Test (12 questions)

This test indicated how important the needs for Growth, Relatedness and Existence were.

**Growth** = The need for personal/scholastic growth, and the need for knowledge.

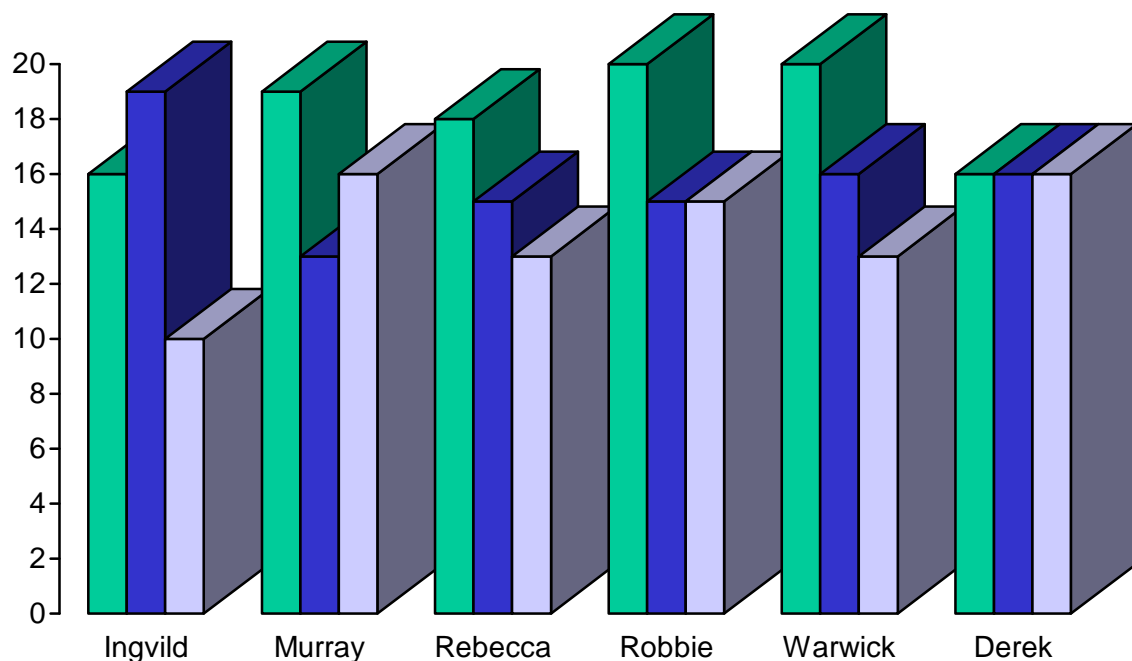
**Relatedness** = A need for greater association & communication with others: ie. A 'purpose' and place in life.

**Existence** = A need for basic assets for survival; eg. security, money and other primary requirements.

All members of the group consider growth as an important factor in their personal development. This may be because we have all made the decision to obtain a tertiary education. Warwick, Robbie and Murray scored the highest, indicating a strong need/desire for personal growth and knowledge.

Ingvild scored very high in the relatedness area. This may be a result of the culture shock she could be expressing due to her recent arrival in Australia from Norway. Murray scored the lowest. This is because he is somewhat anti-social and apocalyptic in outlook.

Existence. This level of desire for future security in life plans and income for most of us, sees the need for a basic secure level of income. Derek and Murray scored the highest. This may indicate a background of inconsistent income and a consequent desire to gain a predictable cash flow in the future. Ingvild possibly scored lowest here because she is in travel mode rather than establishment mode.



**Figure 3 Needs Test**  
(Adapted from Alderfer 1982)  
Shows the degree of needs in the areas  
Of Growth, Relatedness and Existence

**KEY** Green Growth  
Blue Relatedness  
Grey Existence

### 1.1.4 *Further Analyses of Tests*

Robbie's high score in growth was demonstrated in his high optimism in his Locus of Control score and synchronized with his significant contribution to group learning theory.

Warwick's high score in growth synchronized with his high Locus of control score.

Murray's high score in growth paired off with, in contrast to Robbie and Warwick, the lowest score in the Locus of Control test. We may assume from this that Murray's desire for growth springs from a different foundation to that of Robbie and Warwick. I, Murray, can confirm here that the desire to excel in a second career stems from the desire to learn as much as possible before death. This thirst for knowledge, then, indicates some 'spiritual' concerns in regard to a focus on my shorter potential life span.)

### 1.1.5 *Team Roles*

For this section, we concluded that a fairly comprehensive team role exercise was of benefit. This would provide, not only indicators of 'best fit' for group/team roles for this assignment, but also for future assignments.

#### 1.1.5.1 *The Test Results*

This exercise identified the various roles that the group members played in the function of the group.

A self perception index was used incorporating 7 established team roles.

The roles are:

- Chairperson/Coordinator
- Company Worker
- Shaper
- Monitor Evaluator
- Team Worker
- Plant / Originator
- Finisher (**Adapted from: Larson 1989**)

Group members were identified according to their most, and least likely affiliation with the above roles. This exercise is useful in assessing the strengths/weaknesses of group. It also provides a holistic overview of intra-group psychological dynamics.

The results of the exercise are as follows:

**Chairperson/ Coordinator** – Coordinator of activities & skills of team. Encourages contributions from each team member & keeps team directed to achieve objectives. May lack creativity.

***Most Like*** – Ingvild: This was indicated in Ingvild's ability to organize and inability to generate lateral ideas.

***Least Like*** – Warwick: This was indicated in Warwick's inability to actively promote individual ideas and ability to creatively engage an understanding of political ramifications in the issue of concern.

**Company Worker** – Strong drive to achieve organisation or team goals. Focuses more on the team goals than relationships with the team. Great contributor but may lack concern for welfare of other team members.

*Most Like* – Nobody.

*Least Like* – Robbie, Murray. This was indicated in Robbie and Murray's innate tendencies to specialize in their own thoughts and concepts.

**Shaper** – Likes to contribute ideas and direction but does not necessarily like to lead. Challenges inertia or complacency. Often intelligent, a high drive to achieve and may be assertive, frustrated and highly strung.

*Most Like* – Murray & Rebecca. Certainly this is indicated in Murray and Rebecca's highly strung natures (and similar physiologies) and drives to succeed. During the course of the assignment, Murray showed a more pronounced and strongly motivated ability to work alone, while Rebecca's more gregarious nature demonstrated a fierce drive to forcibly work through and establish group harmony.

*Least Like* – Nobody.

**Monitor/Evaluator** – Examines and tests the validity of the team's plans and thoughts. Forces group to make best decision possible. Can be overly critical and lack inspiration or innovativeness.

*Most Like* – Nobody.

*Least Like* – Derek. This was indicated in Derek's highly productive, innovative and inspired preoccupation in a specialized area of the assignment (Group Work Reflection), to the exclusion of, and difficulty in accepting, other team members' input.

**Team Worker** – Maintains harmony & spirit within group. Welfare & camaraderie is more important than the objectives at times. As the extroverted, sociable and gregarious elements in the group, they are lubricators of team spirit. Can be indecisive and unable to make a tough decision.

*Most Like* – Warwick. Indicated in Warwick's prior preoccupation in the gregarious aspects of group work (in *this* group, Warwick's proclivity in this regard was dampened by the consistent application of effort by the other members. Not indicated in Warwick's specialized contribution (**SECTION 3.0 Chronology Of Relationship Between The EPA And Waste Services NSW**).

*Least Like* – Nobody.

**Plant/Originator** – Often intelligent, independent & introverted. Contributors of unique ideas & innovative approaches to solving problems. Can be considered up in the clouds or vague at times.

*Most Like* – Derek: Indicated by the notes above listed under Monitor/Evaluator.

*Least Like* – Rebecca: Indicated by Rebecca's gregarious, forthright and practical nature.

**Finisher** – Detailed person who is ideal at checking and ensuring the team has completed the task correctly or left out necessary aspects of the work. Can sometimes pay too much attention to detail & be a perfectionist. Can worry over small details & be unable to let things go.

*Most Like* – Robbie. Usually indicated by Robbie's attention to detail and tendency to finish off assignments.

*Least Like* – Ingvild: Indicated by Ingvild's best application of talents in the area of general ideas and organization.

### 1.1.5.2 Conclusion

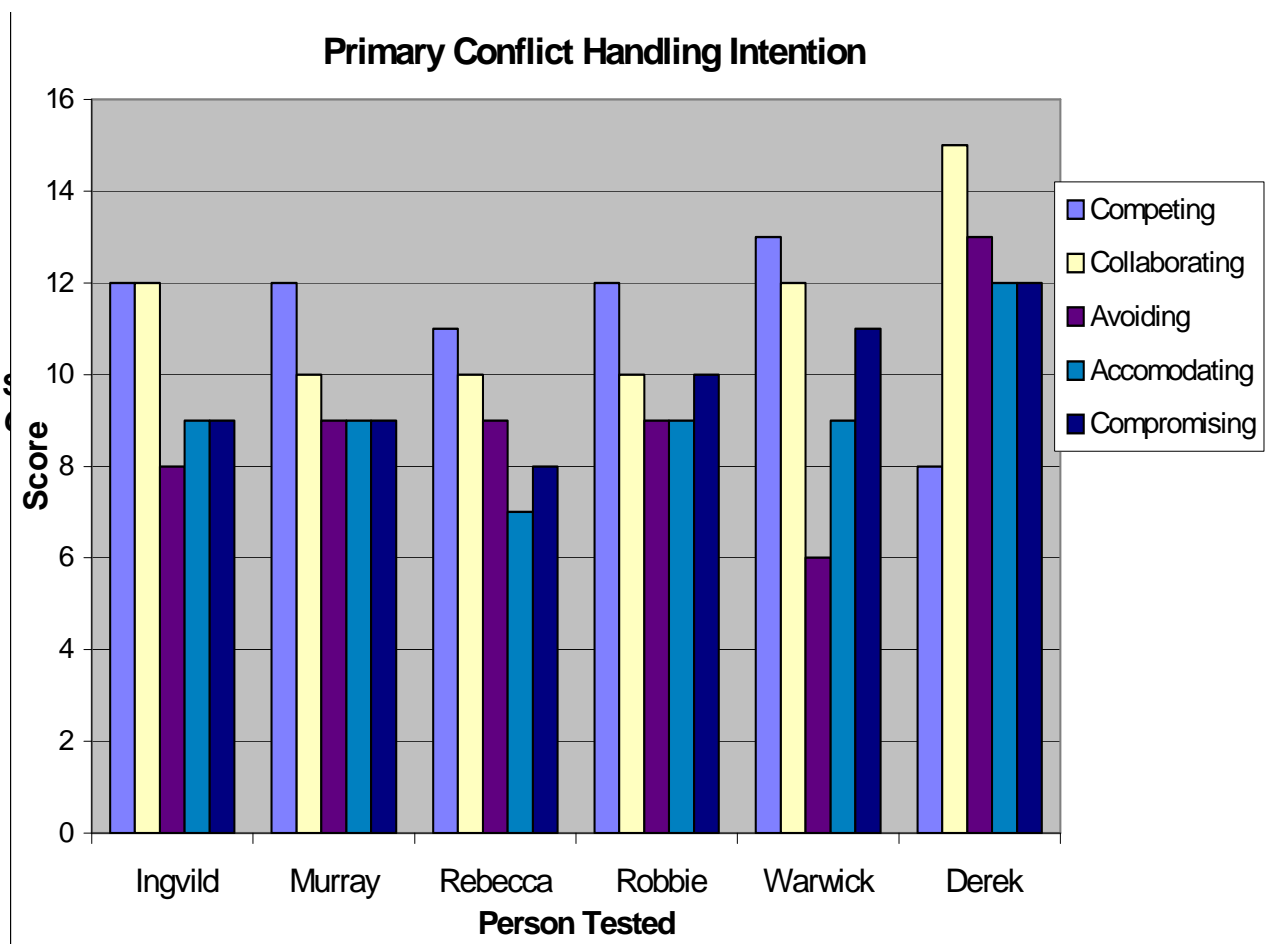
The above exercise turned out to be quite successful and accurate in describing and ‘pigeon-holing’ individual group member’s orientations. We feel that we could safely use this particular test again to provide illuminating details which could assist us in best dividing up the responsibilities of a group assignment.

### 1.1.6 Primary Conflict Handling Intention (15 questions requiring a response scaled between 1-5)

Primary Conflict handling intention is an exercise which describes the most likely mode of conflict resolution used by each member tested.

#### 1.1.6.1 Graphical Results

The test results (in graph form and drawn conclusions) are located below.



**Figure 4 Primary Conflict Handling Intention**  
Adapted from: Rahim 1983  
(Shows the primary mode of conflict handling used)

### 1.1.6.2 Drawn Conclusions

The above results agree with many of the conclusions formed throughout the previous listed tests. Broadly, these results show:

**Derek** – collaborates in an accommodating and compromising fashion, but tends to avoid harsh realities. Individualist.

**Warwick** – competes strongly, but in a collaborating and compromising manner. Group performer, realistic and adjustable. Faces reality.

**Robbie** – competes, but with a good balance of accommodation. Group performer, but with a marginal ability to confront or see personal deficiencies.

**Rebecca** – competes, with little accommodation and compromise. Stubborn individualist.

**Ingvild** – competes, but collaborates and accommodates well. Group performer, but with a marginal ability to confront or see personal deficiencies.

**Murray** – competes and collaborates, but has a schizophrenic and unpredictable ability to work in groups. Internally afflicted.



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## 1.2 Role Allocation & Responsibilities – A ‘Mind Map’

**TABLE 1 Role Allocation Chronology**

This table is a final representation of the structure of assignment responsibilities for our group work.

This Table served as a progressive Mind Map for our group. It enabled us to visualize and allocate tasks over a specified sequence of time.

	<b>Murray</b>	<b>Robbie</b>	<b>Ingvild</b>	<b>Derek</b>	<b>Warwick</b>	<b>Rebecca</b>
<b>Week 9</b>	Castlereagh Waste Depot issue/ Assignment format	Gearing toward Assignment structure and flow	Gearing toward Assignment structure and flow	Group personalities & group dynamics	EPA & WSNSW relationship	Group facilitator
<b>Week 10</b>	Castlereagh Waste Depot issue	Gearing toward Assignment structure and flow	Gearing toward Assignment structure and flow	Group personalities & group dynamics	EPA & WSNSW relationship	Group facilitator
<b>Week 11</b>	Castlereagh Waste Depot issue	Melding together issue of interest & group dynamics	Melding together issue of interest & group dynamics	Group personalities & group dynamics	EPA & WSNSW relationship	Group facilitator
<b>Week 12</b>	Castlereagh Waste Depot issue	Melding together issue of interest & group dynamics	Melding together issue of interest & group dynamics	Group personalities & group dynamics	EPA & WSNSW relationship	Group facilitator
<b>Week 13</b>	Castlereagh Waste Depot issue / Document Section 1 group formatting	Document Section 1 group formatting	Document Section 1 group formatting	Document Section 1 group formatting	Complete referencing of document section	Seminar preparation
<b>Week 14</b>	Stuvac/ hand in Assignment					

Show me how to:

## 1.3 Group Methodology Applied To Issue

### PREFACE

We have only been introduced to the theory of tools and techniques in Semester 2 of Year 2. Therefore, it has been difficult to incorporate a full appreciation of this theory into our group dynamics and Assignment requirements. However, we have achieved some measure of success in grasping some useful skills. These have been applied to the development of the Assignment and are elucidated below:

#### 1.3.1 Methodology

- We decided on accepting the Castlereagh Waste Depot issue because we already had a good background reserve of information from which we could easily discern significant issues. This was of great benefit because it allowed us to address the next point.
- Our main interest and agenda was basically to understand the management dynamics of the study of the issue of interest together with a critical appreciation of group dynamics.
- In this process we have determined the existence of 2 series of group dynamics, plus a major synthesizing of the 2 series:
  - The players in the depot issue; their perceptions (worldviews) and roles.
  - The players in our group; our perceptions and roles.
  - The dynamics of the intraplay in our group, and the interplay between our group members and the issue of concern. (We have considered that personal understanding is integral to the understanding of others in our group, and other groups and cultures. We see the complex reworking of entanglements between all these individuals and groups as being representative of a double-loop, self-perpetuating cycle.)
- We made a plan and we basically adhered to it. The plan was a systematic process of addressing our necessary progress through, and eventual understanding of, the issue and our group. The understanding of the issue was more readily obtained. The understanding of our group, particularly the group learning dynamics, was slower in developing. This learning then, however, facilitated a further understanding of the physical issue on a higher level.
- We've also been successful in understanding individual roles in the group function. This was achieved initially by nominating group member Derek to coordinate and evaluate the dynamics of the group member traits as brought out by various tests. The basis of choosing Derek to facilitate this role was due to his partaking of the subject Organisational Behaviour. We thought it would be appropriate to carry out this role due to the skills that he would be gaining from the subject. This necessarily introduces some of Derek's bias into the assessment of the issue of group dynamics, but this is acknowledged and accepted. In order to provide for a more exhaustive analysis, significant additional material has been added to Derek's contribution.
- As a result of the above we have attempted to apply individual learning styles to suitable areas of the assignment using a 'best fit' principle.
- No comprehensive learning cycles were applied. However we applied double loop learning incrementally through group brainstorming (repetitive re-assessment). In other words, a checking and balancing system where we monitored each other's progress in individual assignments was brought in. We then melded the parts into a whole. We also tended to apply the ABCD model in a spontaneous, adaptive manner.

Many of the above developmental processes were achieved subconsciously (intuitively), rather than applied via formal intellectual application.

In regard to the Kolb learning cycle: we have accepted in **Appendix 2**, basic findings previously determined (in regard to soil/water tests) of waste contamination on a property two km from depot. Also in this Appendix the soft systems of political dynamics were addressed. In section four we have extended soft systems into the area of ethics as they apply to the issue.

We are a group of effective double-loopers.

We've also determined that this exercise indicates a process of meta-learning.

### **1.3.2 Tools & Techniques**

Apart from the above-listed tools in **1.1 Test Results**, the following list condenses the most important tools and techniques used in this assignment in our Group Work Reflection:

Magnetism

Kolb, the Hawkesbury Spiral of Interconnected Learning Cycles & Systems Methodologies

The Kolb learning cycle and the Emergent Property of Experiential Learning

ABCD

Mind mapping

Single/double loop

Meta learning

Senge (1990): *The Fifth Discipline*

### **1.3.3 Group / Team Dynamics**

#### **1.3.3.1 Group Dynamics**

A "Group" is defined by the *The Heritage Illustrated Dictionary of the English Language* (American Heritage Publishing Co., Inc. 1975:582) as being:

"An assemblage of persons or objects..."

A "Team" is defined by *The Heritage Illustrated Dictionary of the English Language* (American Heritage Publishing Co., Inc. 1975:1321) as being:

"Any group organized to work together..."

The difference between the two is evident; teams work together in the pursuit of a common goal or objective, and groups merely exist because of a common identity or need.

In our situation the participants were *originally* seen as part of a group and not so much a team.

Reasons for this include fragmentation of the group into subgroups and the independence of individuals. Differing expectations and autonomous opinions also reduced the overall clarity of the desired objectives which further sabotaged the possibilities of the existence of a team environment.

*Murray and Robbie* injected a superior amount of technical expertise and relevant knowledge into the group functioning.

*Murray and Robbie* had expert power/knowledge and their assertion and enthusiasm seemingly had the other group members feeling uncomfortable. The other members believed that the direction of the project had been dictated to the point where any creative input they inject may have been scrutinised and challenged in such a way that effectively negated any positive impact it may have had.

Murray and Robbie recognised their expertise in this project and were constantly discussing between themselves as to ascertain the most desirable direction and focus. This is because Murray and Robbie had a fixation on the continual development of the document. This also could be attributed to the observation that Murray and Robbie were preoccupied to where, perhaps, they were not able to give sympathetic attention to group members feelings. Greater consideration on behalf of these two in regards to people and not the project would most certainly have seen a more enthusiastic response. Murray and Robbie were so absorbed in the project that they may have failed to adopt peripheral vision, noticing that there were other intelligent and lateral minds surrounding them that needed only slight stimulation to provide valuable information.

This observation was advanced by the entire group during the course of group discussion. This was a very beneficial process because previous animosities were resolved in a very diplomatic and edifying manner and valuable lessons were learnt.

**Warwick** felt that he must contribute something to the group so as not to feel like excess baggage. Although harbouring interesting conceptual ideas and the ability to level the conversation, he accepted Robbie and Murray's perspective without question. Warwick had a seemingly genuine interest for the group yet may have felt that he was somewhat of an outsider (this was likely compounded by Warwick's late injection into the group). There may have been a need for self-reaffirmation as he regularly projected his views and position within the process. Warwick's own observation is that his previous group experiences were on a much simpler scale in regard to group intra-action. By this Warwick means that group assignments progressed at a minimal level of productivity (involving symptomatic response to pressure). In this, there was not a great deal of critical assessment of each member's role and contributions. This meant that work generated was not subject to double loop learning and the critical reflection necessary in the Kolb Learning Cycle. In *this* group, however, Warwick has noted that considerable group interaction produces well crafted results that have been honed by, generally, each member's input.

**Rebecca** was very opinionated (a leveller of conversation and subject matter) and would only excel in something that was of direct relevance and consequence to her immediate situation. She therefore found it difficult, being an OHS student, to relate to the environmental concerns of this assignment. However, in the arena of group dynamics, Rebecca has facilitated considerable learning in other member's understanding of the way they project themselves. Her input has enabled improved relations between members and also self-perceptions. She has challenged directions and viewpoints put forward by others in the group in an assertive manner only when she felt that it was necessary. Rebecca has the ability to deliver some of the most thought provoking material at a moments notice. Rebecca was a person of extremes, offering a dichotomy of direct and indirect involvement in the group. This meant that she was at times apparently a non-interactive observer, while on other occasions she promoted cogent alternatives to the status quo of the moment.

**Ingvild** is an exchange student from Norway and was the member of the group with the greatest language barrier difficulties. Associated with this are the difficulties inherent in the adjustment to a new culture. She may have felt guilty initially for not being able to adequately contribute to the group, but this situation was remedied early on when Robbie established an **academic relationship** with Ingvild in other assignments and then extended this partnership into our group situation. As a team/partnership, the logistics and the design/strategy of aspects of the document were established. Ingvild has been able to interact and communicate effectively with the other members and has added several culturally pertinent statements.

**Derek's** spontaneity can lead to a genuine desire to achieve, or sheer motivational impotence. His emotional volatility reflects his workload, and his need for recognition somewhat overshadowed the importance of the group's objectives. His unique and idiosyncratic approach had Robbie questioning

the relevance of *some* of Derek's material, yet in his own mind Derek felt that what he was doing was beneficial for the assignment (Editor's note: Derek's material was extremely relevant, and enabled a very significant – in my opinion – advance to be made in this group evaluation section). In particular, some of the tests have provided some extremely interesting observations on member's world views, especially in regard to where views change in relation to age. Also, Derek's analyses and humorous observations in this sub-section have proven to be very accurate.

### **1.3.3.2 Advantages of the group in this exercise**

- By aggregating the resources of several individuals, we were able to introduce more input into the decision process.
- As we all possessed differing views, heterogeneity was introduced into the decision-making process. More approaches and alternatives were considered as a result.
- When a decision was reached, there was more support from the others in the group and the satisfaction of being part of the decision was evident.
- There was a push to move away from autocratic decisions, yet some still slipped through customs (Editor's note: true).

### **1.3.3.3 Disadvantages of the group in this exercise**

- It took time to assemble the group, and the interactions that took place once the group was formed were usually somewhat inefficient. The result was that it took longer to reach a decision than would have been the case for an individual.
- There was pressure to conform, as group members desired to be accepted and considered an asset to the group.
- Domination was evident and the overall effectiveness of the group process suffered.
- Although the group members shared responsibility we were uncertain as to who was actually accountable for the final outcome. There was a reluctance to choose someone for this task.

The advantages and disadvantages faced by our group can be compared with the following extract from (Robbins et al, 1994)

Groups offer an excellent vehicle for performing many of the steps in the decision-making process. They are a source of both breadth and depth of input for information gathering. If the

group is composed of individuals with diverse backgrounds, the alternatives generated should be more extensive and the analysis more critical. When the final solution is agreed upon, there are more people in a group decision to support and implement it. These pluses, however can be more than offset by the time consumed by group decisions, the internal conflicts they create and the pressures they generate toward conformity.

### **1.3.3.4 Personal comments made during the course of the Assignment**

Some of the comments made by the group members have been documented to highlight the positives and negatives experienced. Several of these comments are indicative of the feelings of members towards an issue and others are informative. Some are humorous and some are irrelevant. All however are indicative of interaction within the group and have psychological appeal. It is possible to deduce members' emotions at the time from reading these captions. A small translation from my personal observation of body language is also provided:

*1. Rebecca to Derek:*

"What is Murray talking about?"

(Translation- "He is being too technical again.")

2. *Robbie to group:*

" We should do it this way; this is the best way."

(Translation- "I feel that I know best, I am the authority.")

3. *Warwick to Derek:*

"I wrote three pages for this and it only made one when I typed it out on the computer."

(Translation- "I have put in a lot of effort and it won't be recognised !")

4. *Murray to Robbie:*

"We should incorporate this whole thing into a single document on my computer and I can add pictures and graphs and print the whole thing in colour."

(Translation- "This will not be handed in unless I have added my personal touch.")

5. *Derek to Rebecca:*

"How can someone be so enthusiastic about this ? "

(Translation- "I envy someone who knows where they are going.")

6. *Ingvild to Murray:*

"Are there sheeps here? I can hear sheeps!"

(Translation- "I thought I'd break up the monotony.")

### 1.3.3.5 *Magnetism* (Adapted from: Robbins 1994)

As expected, members in the group related to and magnetised to each other with differing affinities. From personal observation the magnetism process resulted in the following:

Robbie <magnetised> Murray (Common knowledge & mutual respect )

Derek <magnetised> Rebecca (Detachment from normal accepted procedures )

Warwick <magnetised> Murray (Acknowledgment of ideas and critical analysis )

Ingvild <magnetised> Robbie (Common knowledge & mutual respect )

### 1.3.3.6 *Theory Applied to Group Processes*

#### 1.3.3.6.1 *Kolb, the Hawkesbury Spiral of Interconnected Learning Cycles & Systems Methodologies*

Systems methodology is, according to popular Hawkesbury philosophy, backed by an inquiry process or "model of learning" (Faculty of Agriculture c. 1992:3).

This learning style incorporates diverging (innovation), assimilating (watching and thinking [Kolb, Rubin & McIntyre 1984:33]), converging (thinking and doing [Kolb, Rubin & McIntyre 1984:33]), and accomodating (doing and feeling [Kolb, Rubin & McIntyre 1984:33]). It is called The Learning Style Profile Norms for the Learning Style Inventory (Kolb, Rubin & McIntyre 1984:33). The Hawkesbury Spiral (Faculty of Agriculture c. 1992:3) notes:

All methodologies of inquiry utilize the competencies involved in these activities. In order to complete all the phases of any known methodology, one must diverge, assimilate, converge, and accommodate. While the four methodologies introduced differ in the range of complexity they attempt to handle during the inquiry process, all four rely on all of the investigator's competencies.

The article then adds that UWS-H, specifically the Agriculture Faculty (as it was known then), have "visualized the connection between learning styles, the type of methodology used, and the dimension of reductionism and holism as a spiral" (Faculty of Agriculture c. 1992:3). This same reference then

relates problems or situations to different levels on the spiral which again relate to degrees of reductionism (at the bottom) through to holism (at the top). We may then place our sciences and learning into this hierarchy, eg the basic sciences (equated with basic learning) at the bottom of the spiral. Then, applied science/technology (applied learning); then hard systems (hard systems learning), and finally soft systems (soft systems learning). These levels in the spiral hierarchy equate with: puzzle solving, problem solving, situation optimizing and situation improving (Bawden & Valentine 1984:279).

The important aspect of this spiral is its application in spiralling “up and down, depending on the kind of problem or situation we face” (Wilson & Morren 1990:112). In choosing a “methodology that is appropriate to the question we are asking” (Wilson & Morren 1990:112), we are also addressing the problematic situation according to the degree of holism (or reductionism) that may be required “and to the extent that the situation is definable” (Wilson & Morren 1990:112).

Wilson (1990:22) also sees these “inquiry methodologies” and the Kolb learning-cycle model “combined and conceptualised as a spiral of inquiry”. More to the point (of application), Wilson (1990) sees the four approaches to inquiry as ways to manage “complexity and change in food, agriculture and natural resources”. He sees problematic situations as being addressed competently if all four learning styles are learned (p.21).

*Application to our group: We feel that there is little doubt that we have managed to follow some aspects of this process of inquiry and learning. Where we have systematized our approach, single looped, double looped and engaged meta-learning, we see distinct parallels with the 4 phases of the above-noted spiral and the Kolb learning style 4-phase approach. For our group, then, “research is a systematic search for information, a process of inquiry” (Graziano & Raulin 1993:28). In this, we have addressed the spiral from a **reductionist** level (via a linear and systematic approach to the assignment prosecution and structure) through to applied learning (**problem solving** in regard to symptomatically addressing our individual/group approach to the assignment), hard systems (the **situation optimizing** of our group understanding process via positive feedback, eg via the ABCD method) and soft systems (**situation improving** through attempting to understand learning about learning) (**bolded italics**: Bawden & Valentine 1984:279).).*

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### 1.3.3.6.2 *The Kolb learning cycle and the Emergent Property of Experiential Learning*

Worldview directs learning. This is because “the learning process is directed by individual needs and goals [and so] learning styles become highly individual in both direction and process” (Kolb, Rubin & McIntyre 1984:32). The learning process is really based on relativism. In fact Kolb (1984:26) says that experiential learning stems from the assumption that “ideas are not fixed and immutable elements of thought but are formed and re-formed through experience... Learning is an emergent process whose outcomes represent only historical record, not knowledge of the future”. (Because these statements have important implications in regards to philosophy and *ethics*, the reader is directed to evaluate **SECTION 4.0 ISSUE OF CONCERN – Castlereagh Depot: An Ethical Evaluation**).

In this respect, where “all learning is re-learning” (Kolb 1984:28), relativism works superbly (and the transnationals who resource-rape the earth would be happy with these thoughts). However, in some ways, dualism (absolute good and absolute evil) would be beneficial if it formed the basis of immutable values that enforced a genuine, concerned and saving attitude toward the earth. (Some technologies could benefit from a healthy dose of censoring dualism, rather than hanging onto the myth that relativistic ‘sustainable’ development will produce progress *and* blessings in the same breath.)

Experiential learning “is by its very nature a tension- and conflict-filled process” (Kolb 1984:30). This is because “learning involves transactions between the person and the environment”, this being an “holistic process of adaptation to the world”, the “wider ‘real-world’ environment” (Kolb 1984:31,34).

Experiential learning and problem-based (problem-solving and project-based) learning cultivates autonomous learning where “self-motivated, assertive, adaptable, able situation improvers and communicators who know how to find relevant information... [apply it through] affective, conative, synthesizing, integrative and practical skills” (Henry 1989:36).

*Application to our group: On the basis of the above, our group can safely admit to experiencing the tensions that characterize experiential learning. Specifically this occurred where a long-standing grievance between 2 members was aired and resolved quite well, with understanding gained as to individual mindsets and the critical ways we transmit our attitudes and approaches to life and others in a group setting.*

*Further to this, we certainly engaged a better understanding of the learning process. Here, we came to appreciate more fully the meta discipline of learning about learning.*

### 1.3.3.6.3 *ABCD*

In our group processes, we found that the ABCD model (see from page 39 on) was, in many respects, applied to various ways we confronted our group dynamics and how we organized the structure of our document.

In group dynamics, we noted that one member felt another was overly dominant. At a point in our group development, this grievance was aired. Here we were saying this is a communication problem that needed ventilation and, as a result of this disturbance to harmony being admitted to, we basically announced where we were at this somewhat critical stage. This is point A: “Where are we now?” We determined that we wanted to remediate the grievance and facilitate more group harmony, understanding and good will. So we discussed point B: “Where do we want to be?” The answer was as just noted. Points C (“How can we begin?”) and D (“Who does what and when?”) were decided on the spot where the 2 individuals explained their respective perspectives, opinions, perceptions and, to a degree, worldviews. This clarified misunderstandings, produced illuminating discussion, and resulted

in point D being automatically sorted through by all group members. The other members assisted in the this delicate explanatory/analysis stage and contributed to healing. Point E was also automatically dealt with at this stage.

#### 1.3.3.6.4 *Mind mapping*

We applied mind mapping as a stimulus to facilitate:

1. what we knew about the issue,
2. what group members' perceptions were of the issue,
3. what we could determine about each other (see **Appendix 3**)

This tool ultimately became repetitive and not necessarily of significant further use beyond the initial stage of the basic political orientation of the issue. In this regard, then, **mind mapping took us a long way into soft systems** (see pp. 29-34 for Push-Pull, Fort-Building theory, etc) in a short period of time.

The flow of group responsibilities was harnessed moreso in a table form of mind mapping. This helped us assess **where we were, where we needed to be at each stage, and where we ultimately needed to arrive**, on time (according to the semester assignment schedule). This obviously engages the ABCD Model.

#### 1.3.3.6.5 *Single/double loop*

We used single loop thinking automatically by way of a reactionary process to group difficulties. In this we changed group responsibilities to a more perceived favorable disposition. Because this, ultimately, was still not entirely satisfactory, we engaged the double loop process in order to fundamentally change our tack and accommodate a far more comfortable and efficient way of thinking which then enabled us to produce a more integrated issue assessment, group dynamic, and logical document structure. This was a fundamental change where we feel we engaged more coordinated **team characteristics**.

#### 1.3.3.6.6 *Meta learning*

We adopted the conscious appreciation of learning about learning after we realized that our integration of tools/processes/methodologies and thinking styles produced an approach that could be duplicated, as long as we understood its characteristics. We feel now that we have embraced concepts of learning that can be applied to, not only other assignments, but also all situations where assessments, single and double loop learning are required.

#### 1.3.3.6.7 *The Fifth Discipline*

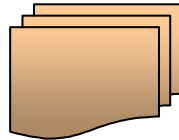
Senge's (1990:65), *The Fifth Discipline*, notes that dilemmas can be "artifacts of 'snapshot' rather than 'process' thinking" and may be the ultimate result of shifting "problems from one part of a system to another... [where] those who 'solved' the first problem are different from those who inherit the new problem" (Senge 1990:58).

We feel this describes the characteristics of human behavior in general. Consequently, groups (and participants within groups) will tend to shift problems so that they are not addressed realistically. In this way, "organizations learn poorly" (Senge 1990:18).

On 2 points we can count ourselves fortunate to have learned from this group process:

1. We addressed interpersonal difficulties between 2 group members and freed up our feelings and consequently boosted the team potential of our interactions.
2. We developed a holistic appreciation of learning in the 'meta range'. We came to understand that one can learn about learning, **and this understanding can be applied to enable a group to function more like a team.**

## Herbal Products



# SECTION 2.0

## ISSUE OF CONCERN:

### *Situation & Issues of Change*

**Author:** Murray S. Thompson

#### **INTRODUCTION**

This section deals moreso with the ‘physical’ issue than the previous section. Here, we are concerned with the actual nature of the issue. The nature of this issue/situation has presented itself in many forms to the observers; in this case, we students.

First, we are cognizant of the fact that a great deal of research has previously been laid down by one group member. This information serves as the basis for this overall study. It is, however, important to note that this member (this author) has already reached certain conclusions in regard to the physical and political ramifications involved in the issue of the Castlereagh Waste Depot. These conclusions have been made known to the other group members. In this regard, then, a certain bias is admitted to by this author in the way the issue has been explained. It is considered likely that this bias has affected some of the group members, and this internal issue has been dealt with in **Section 1.0**.

Secondly, we must note that this bias will be carried through into the study of the situation, issues of change, and purpose. This is the basic breakdown of this section. Further, we will engage relevant theory here in order to attempt some ordering of the issue via the application of theories of political dynamics and ways of categorizing players (concepts/methodologies), through strategic questioning in “clear design thinking” (Ireland, J. 1997:153-155, referencing Golby-Smith & Associates), and by the agency of varieties of mind mapping (tools/techniques).

#### **2.1 Purpose/Aim**

Our purpose in this section is multifaceted. We seek to understand:

- why people are concerned;
- to determine if there are valid reasons for this concern;
- to appreciate the political delicacies of the issue;
- to see if the impact of political concerns alters the basic nature of the issue (ie if a simple dichotomy is made considerably more complex through political pressures of any kind);
- to determine if potential resolutions of the issue are able to be handled via simplistic approaches (open and honest disclosure of all relevant information) or via more ‘strategically’ oriented avenues (through the suppression of information and the construction of alternative arrangements in regard to information provided to the media).

#### **2.2 The Situation**

The primary ‘situation’ that we can identify here is one of landholder complaint/accusation and authority denial. This is the most obvious characteristic noted in the media and in discussion with those affected and others involved in the issue. The complaints/accusations center on assumed faulty landfill technology which is presumably allowing toxic chemicals to leach from waste cells at the Castlereagh Depot onto adjacent properties.

We can now introduce further information and analyses which may confound and contradict elements within the issue *or* add clarity, again these 2 perspectives being very much representative of the nature of this longstanding disagreement.

### 2.2.1 *Secondary and Tertiary Complexities*

The secondary ‘situation’ we are faced with is one of apparent *inequity*. This emergent property is identifiable in the perspectives generated by landholders living around the Castlereagh Waste Depot. From the perspective of Waste Service NSW (WSNSW), the EPA, the Department of Agriculture and the Environment Ministry, however (at least insofar as they have informed us, the public), the situation is one of a series of mistaken accusations against these authorities. These accusations are implied (by the authorities) as being characteristic of erroneous observations, analyses and conclusions, and even incompetence on the part of the accusers (the landholders). On the other hand, these accusations are perceived (by the accusers) as being consistent and synchronized, being based on reliable observations, analyses and conclusions rather than error.

The accusations against the authorities culminate in the landholder/environmentalist proposal that political coverups form the ultimate basis of the denials of waste leakage and ultimate government accountability.

If we then place these two major perspectives side by side, we arrive at a classic **conflict of opinion**.

Finally, the developing situation can be crudely presented as a graph (overpage) with an accompanying timeline. This sets out the major events that have taken place since the Castlereagh Waste Depot was first opened in 1974, contrasting these events against a steadily rising line which indicates the one million tonnes of waste deposited at the depot since its inauguration (Kerr, 1995:3).

### 2.2.2 *Chronology of Developing Issue*

**1974:** Presumably clay cells constructed from this point in time for waste disposal (we have no information as to the sophistication of the waste burial technology of this period). Each cell said to have a minimum of “undisturbed clay... beneath...” (McCotter & Associates 1993:65). Liquid is said to move through the “clay at the depot at a rate of about 1 metre every 17 years” (Waste Service NSW 1994:2). This presumably establishes the year 2025 when the waste is expected to leach out from the clay beneath the first cells constructed in 1974.

**1980s:** However, in the late 1980s, pollution became obvious to landholders around the depot. This allows only 14 years for the waste to move a distance of 2-3 km from the depot onto surrounding properties. With these figures, the waste is moving, overall, at approximately 154m per year through the Rickabys Creek gravel (which holds the groundwater acting as the carrier of the contaminants). This very obviously contradicts, on a massive scale, the 5.9 cm/year (or “1 metre every 17 years” [Waste Service NSW 1994:2]) rate of movement through the clay liner postulated by WSNSW.

**Late 1980s:** Disease symptoms in animals and humans elevating to alarming proportions. Agricultural viability being affected. Flora and wildlife die-off. Stock adversely affected after rain (Bender 1990:3). Birth defects: human and animal. Water courses spewing froth (Prisk 1990:1-2).

**1994:** Woodward-Clyde (1994:ES-9) say contaminants have not gone beyond depot boundary, and WSNSW (1994:4) say that perched groundwater contamination cannot lead to leaching of chemicals off-site.

1995: EPA state that groundwaters beneath depot are contaminated (EPA Spokesman 1995, pers. Comm. April 26). Students experience pronounced sore throats and some nausea after sampling bore and surface waters on property 2 km from depot.

1996: Student's skin 'burned' after contacting soil on above property (in relation to soil and water sampling).

1997: Proposed closure of depot.

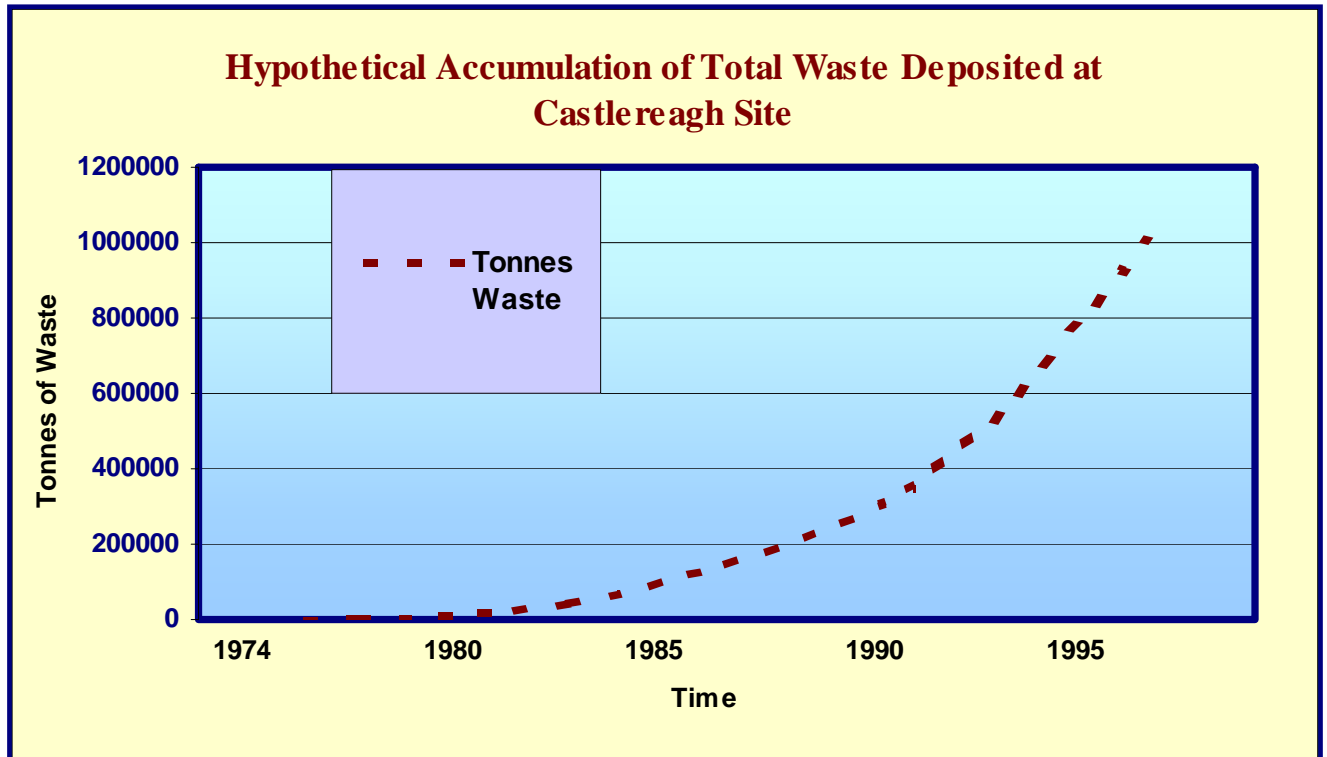


Figure 5 *Hypothetical Accumulation of Total Waste Deposited At Castlereagh Site*  
Graph shows a hypothetical line describing the actual total amount of Waste deposited at the Castlereagh Depot site since its opening in 1974

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### 2.3 Issues of Change & Emergent Properties

We feel that each of the points noted below have a significant time factor attached. That is, all the points indicate movements over time in regard to physical processes and, potentially (it would be hoped), *positive learning processes*. All these take time to eventuate.

Physical processes, such as waste movement, require the passage of time for symptoms to manifest out of causes unleashed. Bureaucratic inertia (through self-justification and other negative elements of occupational environment cultism) brings about a slowing of response, so equity issues arising out of 'causes' may be very slow in being resolved, to one degree or another. The more esoteric (but nonetheless critical) points noted last offer opportunities for learning on more philosophical levels,

these being endeavors which humankind has attempted to intellectually grasp, with staccato success, over millennia.

We are concerned with, here, in regard to issues of change, the elements of change that characterize issues in dynamic evolution, further issues which evolve from these changes, and also special emergent properties that qualify as signatures of change (these are indicated in italicized *dark red font*):

We are concerned with, here, in regard to issues of change:

- Potential waste movement, over time, affecting properties in Londonderry – *basic negative changes in animal behavior; diminishing of flora and wildlife biodiversity; negative impacts on crops; increases in animal and human disease, including genetic and teratogenic effects: a profound turndown in life processes (partial extinctions)*
- Analysis of environmental degradation revealing the true nature of the environmental impacts – *community empowerment, first engaged through compounding resident reactions, and added to via the input of water and soil tests from many independent sources over time*
- The relevant authorities' 'recognition' of the problem by way of denial
- The relevant authorities' admission of limited responsibility where leakage has been proven
- The closure of the waste depot – *Changes in the static and cultic nature of government reaction (though, not necessarily, overall attitude) to community pressure through the proposed closure of the depot*
- Remediation of the waste depot and the affected Londonderry environment
- Alternative disposal methods for the waste
- Alternative processing of waste
- Alternative technologies applied to resources that minimize waste or do not create waste in the first instance
- Alternative economic theories considered which do not rely on the inordinate extraction of resources
- Alternative approaches to viewing national and international economies and corporate endeavors, particularly in regard to 'resources' and human/environmental impacts that diverge away from the 'development' of said resources
- Appropriate prosecution of authorities where criminal neglect or actions are proven
- The relevant authorities' concessions by way of compensation for damage incurred
- Alternative approaches to our philosophical attitudes toward the planet – *this would represent the most significant emergent property to arise out of this issue if it actually came into being (the previous 8 points listed above could be included as genuine outcomes of this emergentpsychological/'spiritual'property, but only if they were prosecuted on the basis of this property rather than as an expedient and symptomatic reaction to community/political pressure).*

## **2.4 Who's Involved?**

The main players in this issue are:

- The Londonderry landholders who have experienced negative environmental impacts as a results of the presumed leakage of chemical wastes from the Castlereagh Liquid Waste Disposal Depot.
- The Waste Service NSW who operate the depot.
- The Environment Protection Authority who are given the responsibility to monitor environmental vicissitudes and prosecute as appropriate.
- The (State) Ministry for the Environment who oversee environmental concerns statewide
- Other concerned individuals (residents or otherwise of Londonderry) who have taken an interest in this issue of waste leakage.

- Local environmental groups interested in this issue.
- International environmental groups interested in this issue.

## 2.5 Processes Involved/Applied

The following processes (systems of operation) are seen as the signature dynamics of this issue of concern:

- Governmental systems (protocols of the Ministry for the Environment).
- Government authority systems (protocols of WSNSW, EPA and Department of Agriculture).
- Westmead Hospital (protocols involved in the Human Health [epidemiological] Study, in particular).
- Community developmental empowerment in response to perceived inequities via environmental problems (first, individual reaction to environmental problems, then landholder/public outrage, then formal environmental group involvement, and media involvement).
- Formal community/political monitoring group involvement (protocols of the CMC and Negotiated Solutions forums).

## 2.6 Concepts & Methodologies

The following concepts and methodologies have been used in order to analyze this Issue of Concern:

- Cliff-Jumping
- Fort Building
- Push-Pull
- Worldview
- Single/double loop learning
- Meta learning
- Senge (*The Fifth Discipline*, 1990)
- Systems & Emergent Properties
- The Hawkesbury Spiral and Kolb Learning Cycle
- Soft Systems Methodology

### 2.6.1 Cliff-Jumping

Cliff-jumping has been described as, *going to where it is nearly too late, waiting until you're sure, then acting* (Brown, V. 1997, pers. comm. September 16). We feel this description bears strong connotations of, within the fabric of our issue, leaving a negative situation to progress and slide until it engenders notable effects or symptoms. Further, we see the overall sudden and defensive responses of the authorities being prompted by extreme circumstances (eg negative symptoms such as rural human/animal disease and consequent public outrage vented through the media). Their response, then, takes on the characteristics of political and public relations damage control, these being seen as the 'cliff-jumping' reaction alluded to in the title.

#### 2.6.1.1 Safety Premise Compromised by Disease Incidence Around Depot

As part of the foundation of and prelude to cliff-jumping as it eventually manifests, we note that information inconsistent with current research is characteristically presented over time that presumes certain high levels of safety by way of waste disposal technology used.

In this regard, the establishment of the Castlereagh Waste Depot is based on a number of safety premises (see pages 4-5 of **Appendix 2**, *Landuse and the Environment: Impact of the Castlereagh Liquid Waste Disposal Depot on Londonderry*). The most important premise is that of the 3 meters of clay beneath each cell and the assumed low permeability of that clay. As to the rate of diffusion through the clay, as noted above, the authorities in question offer a rate of 5.9 cm/year, or “1 metre every 17 years” (WSNSW 1994:2). These figures become irrelevant if one calculates a rate based on the time of initial waste burial at the depot against the time when significant animal and human disease symptoms began appearing on the Anonymous property located 2 km from the depot (approximately 13 years). The calculation is:

$$2000 \text{ m} \div 13 = 154\text{m/year}$$

Other properties more distant have also noted superficial and chronic health impacts in regard to adults, children, stock and wildlife/flora. This may indicate even faster flow rates in these cases. Please refer to **Appendix 2** again, noting especially the attached sub-appendix 2a: 1. *Depot Environs Map*, and 2. *Locations of Reports of Groundwater Pollution*. Insofar as professional assessment, contrary to that officially stated, is concerned, Dr Fred Bell (of Bell & Associates) has noted that **groundwater flows 18 times faster than the modelling advanced by Woodward-Clyde** (Bell, F. 1997, pers. comm. 29 January) in their Stage II Audit Report (1994).

### 2.6.1.2 Safety Premise Contradicted by Research

Landfill technology has a poor track record of waste leakage. Of the US EPA's 163 identified cases of documented environmental or health impacts:

- In 90% of these cases, groundwater was affected
- In 21% of these cases, contaminated drinking water had impacts on human health and aquatic life (Carra 1990:230).

Also please note page 11 of **Appendix 2** for Greenpeace statements on chemical migration through the Rickabys Creek gravel (Earl 1990:1,4) underlying the waste depot. Also see page 33 of **Appendix 2** for research showing that two modes of contaminant escape are possible through clay liners in waste cells (Rowe 1994:219).

### 2.6.1.3 Damage Control

Once pollution of some kind became evident in the late 80s, the authorities (Ministry for the Environment in the State Government, EPA and WSNSW) were quick to deny all possibility of, not only pollution on local properties and potential disease and behavioral abnormalities in stock, but also any contaminant escape from the depot at all.

#### 2.6.1.3.1 Jumping To Justify

Some of the more subtle aspects of (what I assume to be the broad complex of) cliff jumping are again obvious where the EPA has seemingly protected WSNSW. This occurred when the AGC Woodward-Clyde 1993 Audit of the depot found toxic waste leakage into groundwater (RAGE 1996:2). In this regard, “the licence issued by the EPA for the Waste Service to operate the Depot stated that the Waste Service must comply with Section 16 of the Clean Waters Act...” (RAGE 1996:2). This situation developed into a very interesting, contradictory and somewhat convoluted issue itself. Note:

So, what did the EPA do? Prosecute the Waste Service? No. They changed the wording of their licence to establish an authorised discharge point described in the licence as being located ‘AT THE SURFACE OF THE GROUNDWATER AQUIFER LOCATED BENEATH THE

DEPOT... over a year later the ‘authorised discharge point’ remains in the licence and the Waste Service still has not been prosecuted (RAGE 1996:2).

We can observe here that when damaging evidence is discovered, the authorities ‘jump’, not to admit fault or to rectify the cause of an environmental problem, but to *legalize the polluting obscenity*. In this regard, the authorities are essentially justifying their ‘position’. It may, in fact, be a justification and legitimizing of error. Laws can be changed by powerbrokers so that previously illegal activities are no longer illegal.

#### 2.6.1.3.2 *Jumping To Promote An Image*

Also worth mentioning is the public relations campaign WSNSW has waged in its attempt to portray itself as an environmentally conscious organization. This has involved friendly newsletters denying waste leakage and danger to the Londonderry community, and guided tours around the depot offering views of trees, kangaroos and lakes hosting wildlife.

We see these measures as being representative of fairly obvious attempts at WSNSW reconciling a hurt and suspicious public to its corporate self.

#### 2.6.1.3.3 *Jumping To Public/Media Pressure*

In 1990 a capitalized headline loomed large and threatening across the front page of the *Penrith Press* newspaper. It read: “**WHAT’S KILLING LONDONDERRY?**” (Prisk 1990:1-2). Following the headline was a long list of significant negative environmental impacts. The properties affected were noted as being located between the Castlereagh Waste Depot and the Nepean River. The implication, of course, was that the depot was the source of contaminants assumed to be causing the mutations and deaths in stock and wildlife, along with human health problems and strange ecological occurrences.

As a result of this media attention, the Community Monitoring Committee (CMC) was set up by the Environment Minister’s office in November 1992 to oversee and manage an Action Plan generated by the Minister. This plan involved a variety of important studies designed to address community concerns about the depot (Waste Service NSW 1995a:6) (please see **Appendix 2**, pages 7-10 for details).

We see this action being generated through, possibly, a raw political ‘concern’ for community outrage and a potential voter backlash. It is likely that this kind of community consultative process would not have been implemented had the community of Londonderry and the media not pushed the government to the edge. Once presented with a ‘precipice’, the government ‘jumped’ in order to secure some measure of community approval and, hopefully, a media retreat from damaging headlines.

## 2.6.2 *Fort Building*

Fort-building has been described as a system’s reaction to change, where fear of lack of advantage promotes a reinforcing response (Brown, V. 1997, pers. comm. September 16). We have applied this strengthening of the institutional status quo to various authorities in this issue, such as WSNSW, the EPA and whichever State Government is the order of the day (specifically, the Minister for the Environment).

In regard to the clinical side of the waste depot issue, the professional specialists acting on behalf of the above institutions have, in accordance with the fort-building theory, refuted claims of chemical contamination of properties surrounding the depot. In other words, contamination is “not... indicated by *their* expertise” (Brown, V. 1997, pers. comm. September 16; not quoted in the context of this issue

under study). In line with this, also, the research elements of the orthodox institutions denying contamination generate studies (as a reflex reaction to the the pressures of cliff-jumping) which enable them to conclude that “none of these studies are definitive” (Brown, V. 1997, pers. comm. September 16; not quoted in the context of this issue under study).

Further, in regard to the EPA licence enabling an “authorised discharge point” (RAGE 1996:2) for WSNSW at the Castlereagh Depot, this represents a “retreat to a legislative base” (Brown, V. 1997, pers. comm. September 16; not quoted in the context of this issue under study). This reaction is another form of damage control deemed necessary after previous assertions have been eroded or proven erroneous (as in the case of the historical denials of waste leakage). At each stage where the WSNSW has been shown to be in error, this institution has assembled an array of excuses designed to minimize culpability and maximize the image of safety. This is so when the EPA finally admitted to contamination of groundwater (EPA Spokesman 1995, pers. comm. 26 April). Later, however, WSNSW added that the “*contamination has not spread beyond groundwater immediately beneath or close to individual waste cells*” (Waste Service NSW 1996:28).

The above reactions are classically symptomatic of institutionalized cultism, where the elite within a hierarchy generate reactions and prosecute actions deemed essential to the justification and defence of the ‘cause’. The cause could be noble, but it may also be one based upon unethical means considered necessary for questionable ends.

### **2.6.3 Push Pull**

In our interpretation of Valerie A. Brown’s (1997, pers. comm. 16 September) theory presented on the subject of “Change”, it appears that much of that listed above under the cliff jumping heading can also be applied to this category (push pull).

In other words, circumstances (environmental problems) and public outrage produce a significant ‘cliff’ or cumulative catalogue of grievances demanding government/authority perceived action/remediation. To the authorities this cliff represents a concerted and disturbing ‘push’ from the public and media. They then react by ‘pulling’ or making concessions, while still trying to justify their worldview and professional image. This social dynamic represents a progression of compounding events and worldviews which may be real or imagined (or a combination of the two).

From the perspective of this author, the events are real, that is, real wastes leakage onto real properties generating real (negative) symptoms and genuine public concern.

### **2.6.4 Worldview**

“Worldview justifies your actions... legitimizes views of change... [and] legitimizes protocols within organizations” (Brown, V. 1997, pers. comm. 16 September).

In this Waste Depot issue we see the worldviews expressed by the major players as follows, represented in Table form, overpage (noting that these are *our* perspectives, and that *this* author sees himself as agreeing with the basic media thrust and environmental/public views):

**TABLE 2 *Group Worldviews and Outcomes*** (headings after: Brown, V. 1997, pers. comm., 16 September) Shows worldviews of players/stakeholders as perceived by this study into the Castlereagh Depot issue

GROUP	WORLDVIEW	OUTCOMES		
		ACTIONS	VIEWS OF CHANGE	PROTOCOLS
<b>WSNSW**</b>	Vital body performing essential service; must deal with waste regardless of potential for waste leakage; must remain viable & trusted and, in this, cannot be compromised by adverse findings	must therefore totally refute any damaging evidence by blaming landholders* or denying possibility of leakage leading to negative impacts; proclivity for gross lying	Must remain unchallenged so that change does not come through adverse findings leading to culpability, or prosecution; change should only arise through the evolution of the Service based on legitimacy and kudos derived through recognized achievement	In all public relations, the Service must be promoted as professional & innocent of malpractice; in this, denial of culpability is standard; in regard to the CMC and environmental groups, the withholding and/or hiding of information is essential; public relations must dismiss accusations on all points
<b>EPA**</b>	Vital body, as above; cannot lose public trust regardless; cannot be seen to have favored the Service contrary to the law	must totally refute any damaging evidence by denying any possibility of leakage leading to -ve impacts; proclivity for gross lying	As above	In all public relations, the EPA must be promoted as professional & innocent of malpractice

Cont over

GROUP	WORLDVIEW	OUTCOMES		
		ACTIONS	VIEWS OF CHANGE	PROTOCOLS
<b>State Govt (Environment Ministry)</b> **	As above	As above	Must remain unchallenged so that change does not come through adverse findings contributing to a change in government or the removal of the Minister from office	In all public relations, the Ministry for the Environment must be promoted as professional & innocent of any misconceptions or wrongdoing; this requires continuing support for WSNSW and the EPA
<b>MEDIA**</b>	Purveyors of truth/reform and potential shapers of public attitudes, assisting in motivating political change or maintaining desired status quo	Confrontational to perceived 'enemies'; exposure of illegal and 'inappropriate' activities	Must remain viable through sale of newsprint so as to continue to be a force representing the public and the political agenda of the corporate sole	Must confront and attack where deemed necessary; must sensationalize enough to ensure continued sale of papers; must therefore acquire information by whatever means available
<b>ENVIRONMENTAL GROUPS &amp; CONCERNED PUBLIC**</b>	Defenders of truth against the combined problems of public apathy and injustices inherent within politics	Confrontational to perceived 'enemies'; exposure of illegal and 'inappropriate' activities; potential for overstating situations	Must expose truth to produce positive change (including equity for all wronged) through reform & legislation	Must confront and attack where deemed necessary and possible; must make complaints very obvious and facilitate these aims via the media; must expose lying and inconsistencies of authorities in question

\*In some cases, Londonderry landholders have been accused consistently by WSNSW of personal actions on their properties leading to the negative impacts complained of (Anonymous, M. 1995, pers. comm.).

\*\* All the above groups are, of course, viewed through the perspective and bias of this author, M. Thompson.

At this juncture in the study, we need to make note of critical issues that extend from the subject of worldview. They involve the somewhat diffuse areas of egocentric perspectives, philosophy and ethics.

We must comment here that since worldviews justify our actions (Brown, V. 1997, pers. comm. 16 September), we must confront the philosophies of relativism that enable specific and cultic ideologies

to flourish, especially when operating from positions of power. We are reminded, when we examine issues involving authorities, that worldview can be very relativistic. As such, worldview is a mercurial 'substance', being extremely changeable in one respect, yet highly predictable in another. This latter instance generally groups human behavior around the principle of xenophobia, which is "the fear and hatred of interlopers [that] is universal in higher animals" (Bloom 1995:74).

Relativism applied can lead to equity issues if those in superior positions of power and influence deny basic rights to those occupying inferior levels within society. Equity issues automatically introduce issues of **ethics**. In this regard, then, we have examined this waste issue from an ethics perspective. This ethical treatise can be found in **Section 4.0**.

### **2.6.5 Single/double Loop Learning**

We used single loop thinking automatically by way of a reactionary process to group difficulties. In this we changed group responsibilities to a more perceived favorable disposition. Because this, ultimately, was still not entirely satisfactory, we engaged the double loop process. This allowed us to fundamentally change our tack and accommodate a far more comfortable and efficient way of thinking, thus enabling us to produce a more integrated issue assessment, group dynamic and logical document structure. This was a fundamental change where we feel we engaged **team characteristics**.

Here, the positive input of ordering energy (or thinking that is innovative and based on learning acquired from reflecting on negative feedback) facilitated a more coherent systems view of the issue of concern. **Through this process, we discerned a more sophisticated picture of soft systems interactions, based on worldviews and rooted in relativistic philosophies.**

### **2.6.6 Meta-Learning**

We adopted the conscious appreciation of learning about learning after we realized that our integration of tools/processes/methodologies and thinking styles produced an approach that could be duplicated, as long as we understood its characteristics. We feel now that we have embraced concepts of learning that can be applied to, not only other assignments, but also all situations where assessments, single and double loop learning are required. In regard to this issue of concern, we now recognize principles of learning that describe basic psychological and philosophical dynamics.

### **2.6.7 Senge (The Fifth Discipline)**

Senge's (1990:65), *The Fifth Discipline*, notes that dilemmas can be "artifacts of 'snapshot' rather than 'process' thinking" and may be the ultimate result of shifting "problems from one part of a system to another... [where] those who 'solved' the first problem are different from those who inherit the new problem" (Senge 1990:58).

We feel this certainly describes the overall issue of waste management in general, and the Castlereagh Depot in particular. In this, we note that disposal into waste cells has been seen as a convenience without taking longterm consequences and ramifications into consideration. The 'snapshot' thinking used more than 20 years ago did not take processes into account: geological processes; environmental processes; and equity/public health/agricultural/horticultural considerations. Without a doubt, the problem of waste was ultimately dealt with by shifting it to another time zone where different people would necessarily have to confront the emerging dilemmas.

## 2.6.8 Systems and the Issue, Systems Damage & Emergent Properties

### 2.6.8.1 Systems and the Issue

It is 'Systems' that we are concerned with in this section, and here we view Systems as an antidote *and* alternative to the Baconian-Cartesian disease of scientific reductionism.

What is a system? Checkland (1981:5) says that Systems "is not readily recognized as a legitimate subject [because]... it is different in kind from most other disciplines... [since] its concern is not a particular set of phenomena". He goes on to say that, "it is a subject which can talk about the other subjects... it is a meta-discipline..." (Checkland 1981:5).

Dyer (1993:411) also adds: "A system is an assembly of components connected together in an organized way. The components are affected by being in the system and are changed if they leave it. The assembly of components does something".

I take the general approach of Checkland (1981:60-62) who describes the compartmentalized rationale behind man's obsession with reductionism, wherein this historical approach to the organisation of the sciences has failed "to see the unity which underlies the divisions".

The same author establishes a hierarchy of: physics, chemistry, biology, psychology, and the social sciences, wherein mathematics is "a language which any science may use, and which is more used the lower down the hierarchy we travel" (p.62). Checkland adds that, "the unity of the sciences in this scheme stems from their interdependence as historically differentiated aspects of a **single social reality**" (p.61) (emphasis mine).

So, a System is an approach, and also a meaningful community of interconnected 'things'. The above therefore provides something of an approach method used in determining relationships, meaning, mechanisms and potential diagnoses and prognoses of dynamics and outcomes. The 'approach method' can be called "systems methodology" or methodologies (Dyer 1993:411). 'Methodologies' is probably a better term because (like religion) there are many Systems approaches and many authors who write on this expansive and inflated subject.

*In regard to our physical issue of concern, Systems points the way toward embracing a holistic view and a critical appreciation for the 'interconnectedness' of all things. We can therefore rightly apply Systems thinking to the geological and chemical aspects of the issue (waste movement and chemical impact on properties), as well as to (and especially to) the 'soft' Systems that motivate psychological forces (in human relationships/antagonisms) and intersect with natural forces (through, simply, applying waste to a waste cell).*

*In regard to the geological and environmental damage alluded to above, and in relation to the omnipresent and intrinsic difficulties that occur in human relations, the following information seems appropriate.*

Checkland (1981:145) describes Ellul's (1965), *The Technological Society*, as bearing this major premise:

Ellul's pessimistic thesis is that our civilisation progressively and irreversibly reduces areas of human activity to technique, and that life is not happy in a world dominated by technique, a world in which human freedom is gradually lost.

Checkland also adds that Merton, in his introduction to Ellul's book, says:

“...Ellul means that the ever-expanding and irreversible rule of technique is extended to all domains of life. It is a civilisation committed to *the quest for improved means to carelessly examined ends... technique turns means into ends*” [Checkland’s italics].

*This author sees the above philosophies as describing succinctly the negative psychological dynamics of the resident soft systems as they enacted out their short run plans (carelessly examined means) for limited (single hermeneutic) gain (degradational inequitable ends). Because of these dynamics, we should now note aspects of systems damage and any emergent properties forthcoming.*

### 2.6.8.2 Systems Damage and Emergent Properties

The carelessly examined means and ends of Ellul’s horror world are visible within the expanded context of the Castlereagh Waste Depot issue in the form of (briefly):

- Dependence of Western populations on products that generate waste and on waste disposal pushing the waste problem out of sight. Here, we might describe *ignorance* borne out of the throwaway Western lifestyle (utterly based upon synthetics and waste) as an emergent property – ignorance of older, more enviro-friendly living styles.
- The emergent property of *partial local extinctions* (biocide) borne out of chemical-induced environmental degradation may well be the most damaging essence distilled from the opinion of some who describe the Castlereagh Waste Depot as a “wasteleand” (*Penrith Press* 1995:2).

### 2.6.9 The Hawkesbury Spiral and Kolb Learning Cycle

As previously noted in Section 1.3.3.6.1, the Hawkesbury Spiral and Kolb Learning Cycle have found application in our group processes. Below, we briefly outline how these concepts and tools have been adjusted (mostly in retrospect) to the inquiry processes we used in engaging the issue of concern.

Application to our issue: *We feel that there is little doubt that we have managed to follow some aspects of this process of inquiry and learning. Where we have systematized our approach, single looped, double looped and engaged meta-learning, we see distinct parallels with the 4 phases of the previously-noted spiral and the Kolb learning style 4-phase approach. For our group, then, “research is a systematic search for information, a process of inquiry” (Graziano & Raulin 1993:28).*

*In this, we have addressed the spiral from a **reductionist science** level (especially through past soil/water tests) through to applied learning (**problem solving**, analysis and assessment of tests), hard systems (**situation optimizing**, theoretical ways to improve, eg via the ABCD method) and soft systems (**situation improving**, looking for political solutions including depot remediation and compensation for landholders) (**bolded italics:** Bawden & Valentine 1984:279).).*

### 2.6.10 Soft Systems Methodology

Soft systems methodology (SSM) and an holistic systems perspective have been chosen by Attwater (1997) because they form a “participatory approach to inquiry which can identify and develop partnerships for specifying and building property entitlements” (Attwater 1997:2). This is a holistic approach, one that, like the other levels of methodologies in the spiral, requires the utilization of “four interrelated learning activities: diverging, converging, assimilating, and accomodating” (Wilson & Morren 1990:112). Further, the sociological complexity of land reform in upland Thai catchments requires paying close attention to “interactions among organizations of people and biological and physical properties” (Wilson & Morren 1990:3). The essential view taken by Attwater (1997) is the holistic view which “implies paying attention to such interactions, to the controls that are present, to communications between parts, to properties that emerge as a result of real or projected interactions

[through modelling, stage 4 of soft systems inquiry], to the kinds of operations that are present or absent, and to the impacts of interactions between the parts on the environment” (Wilson & Morren 1990:3).

*Application to intrinsic issue: This approach can be used in regard to the physical issue of concern: The Castlereagh Waste Depot. Here we note parallels (with the Thai catchments) with signature problems requiring participation between all stakeholders, partnerships for developing ongoing and positive cooperation, and the identification of emergent properties.*

*At this point in our investigation, however, we must note that participation, partnerships and cooperation are occurring on an ultimately divisive and cultic level, where 2 sides still face each other in complete opposition, within an overall state of tension and distrust. Certainly, the above noted SSM aspects have been applied to a degree, but these applications are limited to the 2 main antagonistic parties in the conflict:*

*A/ the Environment Ministry, WSNSW, EPA, NSW Health (Westmead Hospital) and Agriculture Department ‘combine’;*

*B/ the landholders, environmental groups, concerned individuals (including myself) and, to a degree, the media.*

*Application to group approach to issue: It is generally not possible to attribute a distinct outline of SSM to our approach to this issue of concern. Generally, this is because the issue was researched well prior to the assembly of our group. We have, therefore, largely engaged the issue from the perspective of the bias generated by myself.*

*In looking back over the approaches taken by myself since 1995 when I began to research this issue, I*

*cannot say that I have systematically addressed the overall problem. This may be because, my worldview directs my learning. And this is likely because, “the learning process is directed by individual needs and goals [and so] learning styles become highly individual in both direction and process” (Kolb, Rubin & McIntyre 1984:32). Although elements of all theory noted in this assignment have certainly been applied, none of this has been used on a basis of impartiality. Once I became cognizant of the waste depot, the fallibility of landfill technology, and the particular environmental problems of the Londonderry landholders, my mind was basically set as to what the actual situation represented in absolute terms. That being, of course, that the depot is leaking and is causing most of the environmental problems on the surrounding properties.*

## **2.7 Tools /Techniques**

The following tools/techniques have been addressed in regard to the physical issue of concern (starting overpage):

ABCD Model

The Occupational Environment

## 2.7.1 *The ABCD Model* (Ireland, J. 1997:153-155, referencing Golby-Smith & Associates): *Vision-Maker*

### 2.7.1.1 *Purpose*

In this section I want to look at the assumed environmental management and future potential remediation of the Castlereagh Depot area. This requires the addressing of the many problems faced by this particular landuse through the ABCD Model. This Model seeks to strategically question through “clear design thinking” (Ireland, J. 1997:153-155, referencing Golby-Smith & Associates). I have changed the format of this exercise slightly. Each statement in **B** will be given a separate **STEP** (including **A**, **C**, **D** and **E**) in order to complete its development.

#### **STEP 1** *Initial statements*

##### **A** *Where are we now?*

###### *Situation:*

- *Castlereagh Waste Depot is still operating, giving the appearance that the Environment Ministry is not going to fulfill its promise of closure on schedule.*
- *Londonderry landholders (including those whose properties have been significantly affected by con-taminants, and others who complain of chronic eye and bronchial disorders) are still being affected by unknown xenobiotics. These people are yet to be provided with all test results from the relevant authorities, admissions of chemical leakage from the depot, and compensation for loss of income (from damaged crops) and health impacts on family and stock.*
- *The possibility of wastes being disposed of at local tips is potentially still of significant ecological concern.*
- *The ‘remediation’ of the depot provides no guarantee that wastes will not continue to afflict the local area.*
- *The hypocrisy of the theorized ‘remediation’ – where this process assumes environmental damage, yet authorities will not admit to leakage and damage – leaves those at odds with the authorities without respect or trust for those who avow concern for the community at large.*

##### **B** *Where do we want to be?*

1. Full admissions of waste leakage made known;
2. Full compensation made available to affected landholders;
3. Thorough remediation of the Castlereagh site and concomitant monitoring of the entire area, including the Hawkesbury River;
4. Proficient methods of incineration brought to bear upon wastes produced (anywhere), regardless of the cost (this includes storage of wastes until this technology is made available so that toxic wastes will not be spread around, thus broadening potential dangers);
5. Ultimately, much less waste produced and more genuinely *naturally* sustainable technologies and practices brought into play;
6. Ideally, no wastes produced. This could only occur through a complete reformation in corporate technology, community expectations and lifestyle, and economic theory.

## STEP 2

### B Where do we want to be?

1. Full admissions of waste leakage made known;

### A Where are we now?

Complications:

- Admissions of guilt are not seen as being of benefit to the government, the EPA and WSNSW. This is primarily because class actions may result, and the compensation payouts could be formidable. Secondly, 'loss of face' is not acceptable, and thirdly community trust would likely be severely 'damaged', leading to potential negative fallout in subsequent elections.

Unlocking questions:

- *Can the relevant authorities be introduced to an alternative to admissions of 'guilt', and, rather, be encouraged to at least admit to 'error' (in regard to the inadequacies of landfill technology). In this scenario, no one is blamed, however the fact of waste leakage is established and generous compensation from the government will earn a favorable response, overall, from the wider community. In this way, government political damage is minimized, a positive community response is ensured (at least on the basis of limited knowledge), compensation will provide for some healing, and remediation of the site can proceed on the basis of the 'slate' being wiped 'clean'. (This is a political alternative to the more vengeful and ethically equitable approach taken in Appendix 2. See Section 4.0 Issue of Concern – Castlereagh Depot: An Ethical Evaluation, for a study on the ethics of this issue.)*

### C How can we begin to move step by step?

- Suggest, by way of private and enviro-group letter(s), that the government consider this option (in A, above).
- Approach Negotiated Solutions, the "independent consultant... [who will] organise meetings and workshops between relevant groups" (Osborne 1995b:1-2), and establish if they could accommodate this option.

### D Who applies project outcomes and how?

- If the desired government response is forthcoming, then it would be a matter of dialogue between government, RAGE (and other concerned enviro-groups) and Londonderry landholders as to the way a compromise is reached in this extremely delicate and volatile political issue.

### E Who audits – who evaluates and when?

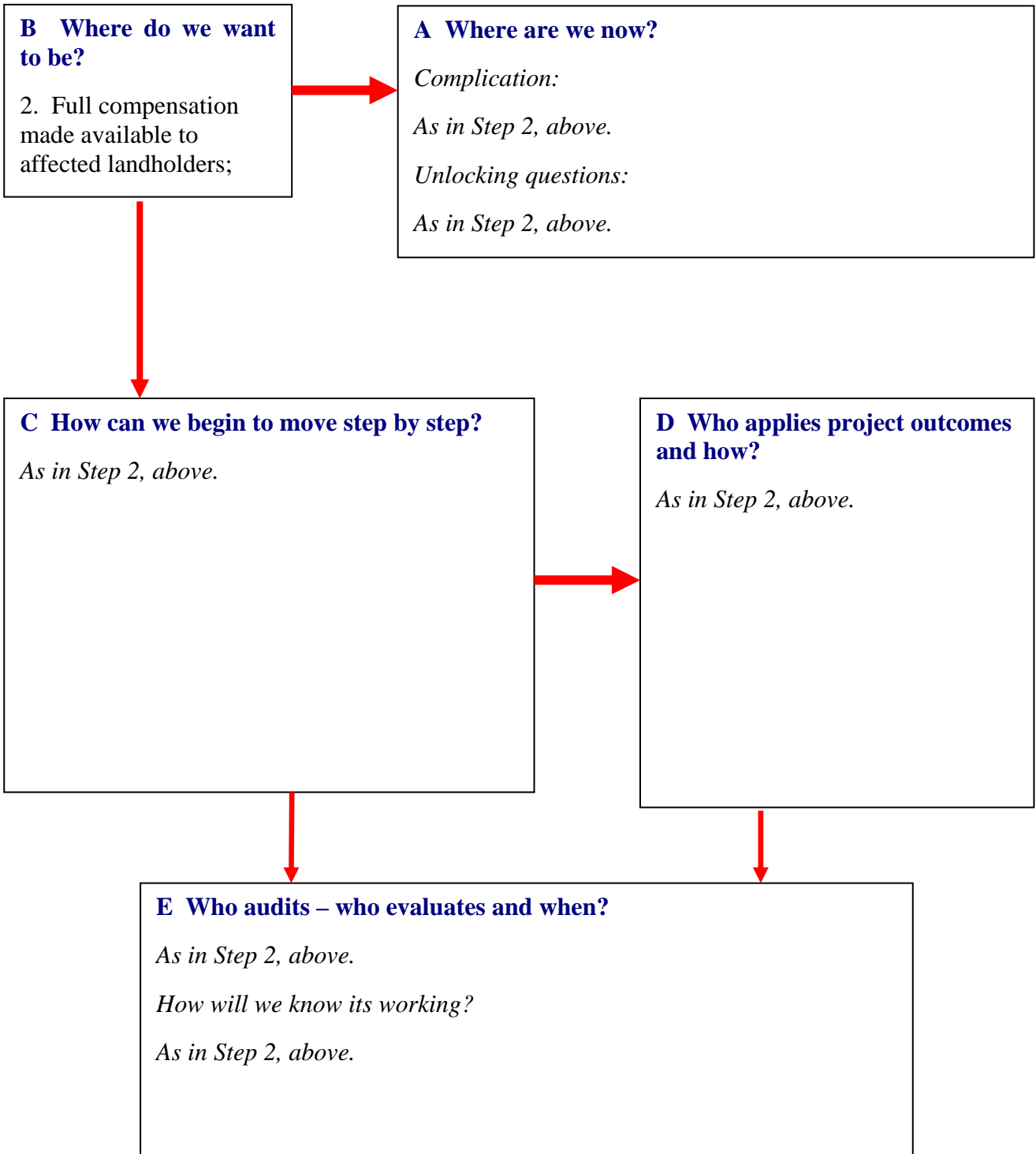
Negotiated Solutions could continue on in their current role (see **sub-appendix 13** in **Appendix 2** for details on this mediation process) and lead the public relations campaign that would be needed in the face of admissions of waste leakage.

How will we know its working?

When we, the public, see:

- Genuine admissions of waste leakage due to (politically correct determinations of) fatally flawed technology (with these determinations only having been arrived at recently through the exhaustive prosecution of environmental audits);
- Generous compensation for affected landholders eventuating.

**STEP 3**



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#### STEP 4

#### B Where do we want to be?

3. Thorough remediation of the Castlereagh site and concomitant monitoring of the entire area, including the Hawkesbury River;

#### A Where are we now?

Complications:

- *Digging up and exposing (accessible) buried waste at Castlereagh would be extremely difficult and hazardous, for a number of reasons:*
  - *Disturbance of the site could release toxic wastes into the atmosphere in the form of gases (endangering workers and the wider community). Also hazardous substances could be washed into the Hawkesbury River.*
  - *Engineering-wise, site excavation may be logistically difficult and exceedingly expensive.*
- *The operation may not, ultimately, be successful as most of the wastes may well be out of reach, located throughout the Rickabys Creek gravel underlying much of the Londonderry area.*
- *The expense of extensive and ongoing monitoring may be prohibitive in the view of the government and its various agencies.*
- *These frightening considerations may lead the government to conclude that the problem is far too big to admit into existence. If this were the case, then the current program of denial would continue indefinitely without any real resolution taking place.*

Unlocking questions:

- *Can the importance of admitting to a potential environmental catastrophe of unimaginable proportions (eg ongoing and accelerating mutations and deaths in human and animal offspring, as well as flora and crops) be impressed upon the government in such a way that it is realized that a program of total re-education is needed? In other words, we are all in this together. We have all assumed that chemical technology is beneficial, however this approach to development is not the 'right' and ecologically sound way to go. We need to develop startling alternatives to a chemical future and future nightmare of our own making. Can industry be convinced of this?*

#### C How can we begin to move step by step?

- *Approach Negotiated Solutions and ask them to consider the above.*
- *Draw up the above scenario in detail and submit to government.*
- *Use the media to advertize this problem.*

#### D Who applies project outcomes and how?

*Government and industry hold all the power, ultimately, even when community pressure is expended to its fullest. These two big players need to embark on a concerted program of site remediation, using the best technologies available. Also, they need to work together, with community involvement, in order to provide extensive and longterm monitoring of the depot area, the surrounding environment and the Hawkesbury River.*

#### E Who audits – who evaluates and when?

- *The government/industry complex audits if they show responsibility.*
- *The 'people' also audit and evaluate the government/industry complex.*

*How will we know its working?*

- *When the site no longer poses a threat to the environment and community of Londonderry. When the Hawkesbury River does not show indications of contamination from the depot.*

## STEP 5

### B Where do we want to be?

4. Proficient methods of incineration brought to bear upon wastes produced (anywhere), regardless of the cost (this includes storage of wastes until this technology is made available so that toxic wastes will not continue to be spread around, thus broadening potential dangers);

### A Where are we now?

*Complications:*

- *Reluctance on the part of the government to provide the funds necessary for the development and dissemination of this technology.*
- *Reluctance on the part of the public to accept the siting of this technology in 'backyards' (urban or country even areas). This is due to genuine fears for the emissions of toxic gases.*

*Unlocking questions:*

- *Can the government/industry complex get a program of incinerator technology development and funding underway by way of a combined effort? Here, industry will contribute financially to the 'elimination' of wastes they help produce. Consumers should also contribute to these costs. Also, the logistics of waste transfer/transportation need to be solved and the costs defrayed. Again, industry and the public need to contribute. Ideally, of course, Steps 6/7 need to be addressed as a matter of urgency so that this Step need not be a permanent fixture; that is, a program which never catches up and always, ultimately, just represents a monotonous symptomatic damage control reaction that really need a redefining overhaul and complete elimination.*

### C How can we begin to move step by step?

- *Approach Negotiated Solutions and ask them to consider the above by way of looking into the costs and logistics of incineration. This should be an integral part of their depot remediation process.*
- *Create an alliance of environmental groups, draw up a series of potential action plans in detail and submit to government.*
- *Use the media to advertize this problem and the benefits of this treatment method.*

### D Who applies project outcomes and how?

- *Government and industry hold all the power, ultimately. These two players need to embark on a concerted program of incineration testing and advance the best methods and facilities for waste treatment. Ideally, isolated areas need to be set aside for incinerator location, with state-of-the-art waste transportation techniques, infrastructure and logistics developed to an extremely high level of sophistication, all this being appropriate to the level of importance attached to these highly toxic materials.*

### E Who audits – who evaluates and when?

*A separate Department or Ministry needs to be advanced specifically to tackle the auditing of this major undertaking. The auditing should be ongoing – a permanent system in operation as long as waste is produced.*

*How will we know its working?*

*When toxic wastes no longer need to be stored or buried, but are destroyed (without toxic residue) as they are created, with minimal or no negative impact on the environment.*

## STEP 6/7

### B Where do we want to be?

5. Ultimately, much less waste produced and more genuinely *naturally* sustainable technologies and practices brought into play;

6. Ideally, no wastes produced. This could only occur through a complete reformation in corporate technology, community expectations and lifestyle, and foundational economic theory.

### A Where are we now?

*Complications:*

- *Industry influence/power, based on fatally flawed economic theory, introduces the wrong kind of technology to a world which cannot sustain such foreign impacts. This leads to inescapable pollution and the resultant ecological catastrophes we are now sadly familiar with. Also, industry influence inspires 'wants' to appear as 'needs' and so creates dependency, and ultimately a lowering of the quality of life through divorcement from nature.*

*Unlocking questions:*

- *Can these corporations be shown the longterm viability and inherent sustainability of more natural (earth-compatible) technologies?*
- *Conversely, can they be shown that technologies that use synthesized products and produce wastes that are toxic are ultimately producing an unsustainable system of supply and demand, as well as, simply, SURVIVAL?*
- *Can these industries be shown the wisdom of longterm, truly sustainable benefit through development based on natural processes, as opposed to the rank stupidity of short-sighted gain/profit gained through destructive development based on synthetics?*
- *Can the public be helped to understand how essential, indeed how imperative, it is for the world community to set up permaculture farms (instead of chemical-based technologies) that will feed everyone (with uncontaminated, natural food)?*

### C How can we begin to move step by step?

- *Studies need to be integrated and formalized showing the longterm destruction wrought by synthetics technologies and, ultimately, the eventual and complete loss of viability of, not only industry, but also life on this planet.*
- *The absolute seriousness of global warming and xenobiotic poisoning (of plant and animal life) needs to be impressed upon the minds and hip pockets of all powerful industries: keyword – RE-EDUCATION.*

### D Who applies project outcomes and how?

*The government and industry complex must formalize the studies and disseminate the results to industry and the public. These power-brokers must be the ones to re-educate themselves and the public, and make the first moves toward a new transnational policy of natural technologies. (A 'science'fiction' potential outcome could conceivably arise through the 'masses' leading a revolt against chemical technology and unilaterally instituting a permaculture revolution on national and international scales. This, of course, is unlikely. People generally need to be shown what to do.)*

### E Who audits – who evaluates and when?

- *The government/industry complex audits. And the 'people' audit the government/industry complex to keep them in line.*

*How will we know its working?*

- *When people live and prosper without the synthetic 'helps' provided by a fatally flawed technological base; when industry can operate on a truly natural and genuinely sustainable basis, rather than maintaining the intrinsically destructive potential it does at present.*

### 2.7.1.2 Unlocking Questions

The following section re-introduces the unlocking questions, adds in a cogent abstract/perceptual statement to each Step (in bold black font), and follows with an additional unlocking question that takes us from a local to an international perspective. In other words, here we seek to move the issue into a more holistic orientation.

#### 2.7.1.2.1 Unlocking Questions

##### STEP 2

- ***Can the relevant authorities be introduced to an alternative to admissions of ‘guilt’, and, rather, be encouraged to at least admit to ‘error’ (in regard to the inadequacies of landfill technology). In this scenario, no one is blamed, however the fact of waste leakage is established and generous compensation from the government will earn a favorable response, overall, from the wider community. In this way, government political damage is minimized, a positive community response is ensured, compensation will provide for some healing, and remediation of the site can proceed on the basis of the ‘slate’ being wiped ‘clean’. (This is a political alternative to the more vengeful approach taken in Appendix 2.)***

**Here, we address the disappointments of ethical ideals that often cannot be embraced in this imperfect world. In going for absolute justice, sometimes the ‘system’ (the powers arrayed against the common man with his common needs) will not allow the truth to be given full ventilation. We see here powerful groups who view fairness for all, ultimately, strictly through their worldviews. These worldviews can often appear to be convenient only to those who generate them.**

##### STEP 4

- ***Can the importance of admitting to a potential environmental catastrophe of unimaginable proportions (eg ongoing and accelerating mutations and deaths in human and animal offspring, as well as flora and crops) be impressed upon the government in such a way that it is realized that a program of total re-education is needed? In other words, we are all in this together. We have all assumed that chemical technology is beneficial, however this approach to development is not the ‘right’ and ecologically sound way to go. We need to develop startling alternatives to a chemical future and future nightmare of our own making. Can industry be convinced of this?***

**Total re-education could also include coaching on the subject of ethics. However, if governments and other power groups are unethical, then how can any re-education program succeed? How purposeful would such a program be?**

##### STEP 5

- ***Can the government/industry complex get a program of incinerator technology development and funding underway by way of a combined effort? Here, industry will contribute financially to the ‘elimination’ of wastes they help produce. Consumers should also contribute to these costs. Also, the logistics of waste transfer/transportation need to be solved and the costs defrayed. Again, industry and the public need to contribute. Ideally, of course, Steps 6/7 need to be addressed as a matter of urgency so that this Step need not be a permanent fixture; that is, a program which never catches up and always, ultimately, just represents a monotonous symptomatic damage control reaction to causes that really need a redefining overhaul and complete elimination.***

The repetitive re-defining of problems and advancing of remedial social doctrines is characteristic of a system flawed from the foundations up. In these historical processes we observe the advancing of, often, politically motivated and oriented programs aimed at limiting the spread of wastes, but ultimately no real effectual addressing of basic issues of the technologies that continuously produce wastes in the first instance.

#### STEP 6/7

- *Can these corporations be shown the longterm viability and inherent sustainability of more natural (earth-compatible) technologies?*
- *Conversely, can they be shown that technologies that use synthesized products and produce wastes that are toxic are ultimately producing an unsustainable system of supply and demand, as well as, simply, SURVIVAL?*
- *Can these industries be shown the wisdom of longterm, truly sustainable benefit through development based on natural processes, as opposed to the rank stupidity of short-sighted gain/profit gained through destructive development based on synthetics?*
- *Can the public be helped to understand how essential, indeed how imperative, it is for the world community to set up permaculture farms (instead of chemical-based technologies) that will feed everyone (with uncontaminated, natural food)?*

Ultimately, we are addressing the human ‘heart’. All matters condense down to affairs of the ‘lusts’. Our *motivations* are the fuel of our actions. Are we motivated by profit, and *how* do we see ourselves acquiring that profit? Are we able to perceive our life, career and existence *within* the true context of the planet. Or can we only conceive of our place in time and space *outside* this life-sustaining context.

#### 2.7.1.2.2 Additional Unlocking Question (Extending Local Context to Worldwide Context)

*Can the world be shown that these chemical waste symptoms arising out of waste burial are a signature indicator of thinking not synchronized with natural processes? In other words, effects have causes. These effects show that, not only is landfill technology intrinsically wrong, but that the waste produced is intrinsically wrong. This ‘wrongness’ is on 2 levels. First, the nature of the waste – its synthetic and toxic nature – is wrong. Secondly, and more importantly, the frame of mind backing the production orientation that creates the waste is wrong. This ‘frame of mind’, this basic perceptual error, is the presumed ‘need’ for more than what the planet naturally and patiently provides. The inherent IMPATIENCE of man is the driving force behind his selection of engineering processes that jump the gap between reality and the created nightmare of synthetics.*

*The result that we witness is the resource rape of the entire planet where we strive to generate energies and input energies (in areas as diverse as nuclear generated power, and monoculture food production) entirely outside the natural scheme of things. This automatically releases massive quantities of energy onto the planet’s surface – hence, the Greenhouse Effect and every other conceivable environmental problem.*

*We note these basics here because the issue of the impact of the Castlereaugh Waste Depot is merely representative of a much larger and more extensive/intrinsic problem in human comprehension. More to the point, we, as a human family, as nations, as corporations, as individuals, **DO NOT BELIEVE THAT WE ARE OBLIGED TO LIVE IN HARMONY WITH THE PLANET**. Note:*

Two futures beckon us. We can choose to engineer the life of the planet, creating a second nature in our image, or we can choose to participate with the rest of the living kingdom. Two futures, two choices. An engineering approach to the age of biology or an ecological approach. The battle between bioengineering and ecology is a battle of values. Our choice, in the final

analysis, depends on what we value most in life... By choosing the power of authorship, humanity gives up, once and for all, the most precious gift of all, companionship (Rifkin 1983:252).

## 2.7.2 *The Occupational Environment*

The occupational environment is a serious, though brief consideration of this study. Given that *this entire issue actually focuses on an occupational issue* – that of the potential leaking of a workplace environment – the Castlereagh Depot – I feel that this should be given representation in the form of the Figure below.

I first need to state that I disagree somewhat with the structure of the Occupational Environment map as presented to the Issues class on 9/09/'97. *This* map presents the natural environment as distinct from the built and organisational environments. Also it presents the natural environment as being some sort of a sub-set of a greater scheme. I believe this to be totally in error. The natural environment should *actually* be the super-set, encompassing all other human constructs.

Elements of the following design (overpage) are extracted from a class lecture given by D. Moodie (1997, pers. comm. 9/09/'97).

### Poisoning & Legal Action Web Site



**Strengthen Your NATURAL IMMUNITY**

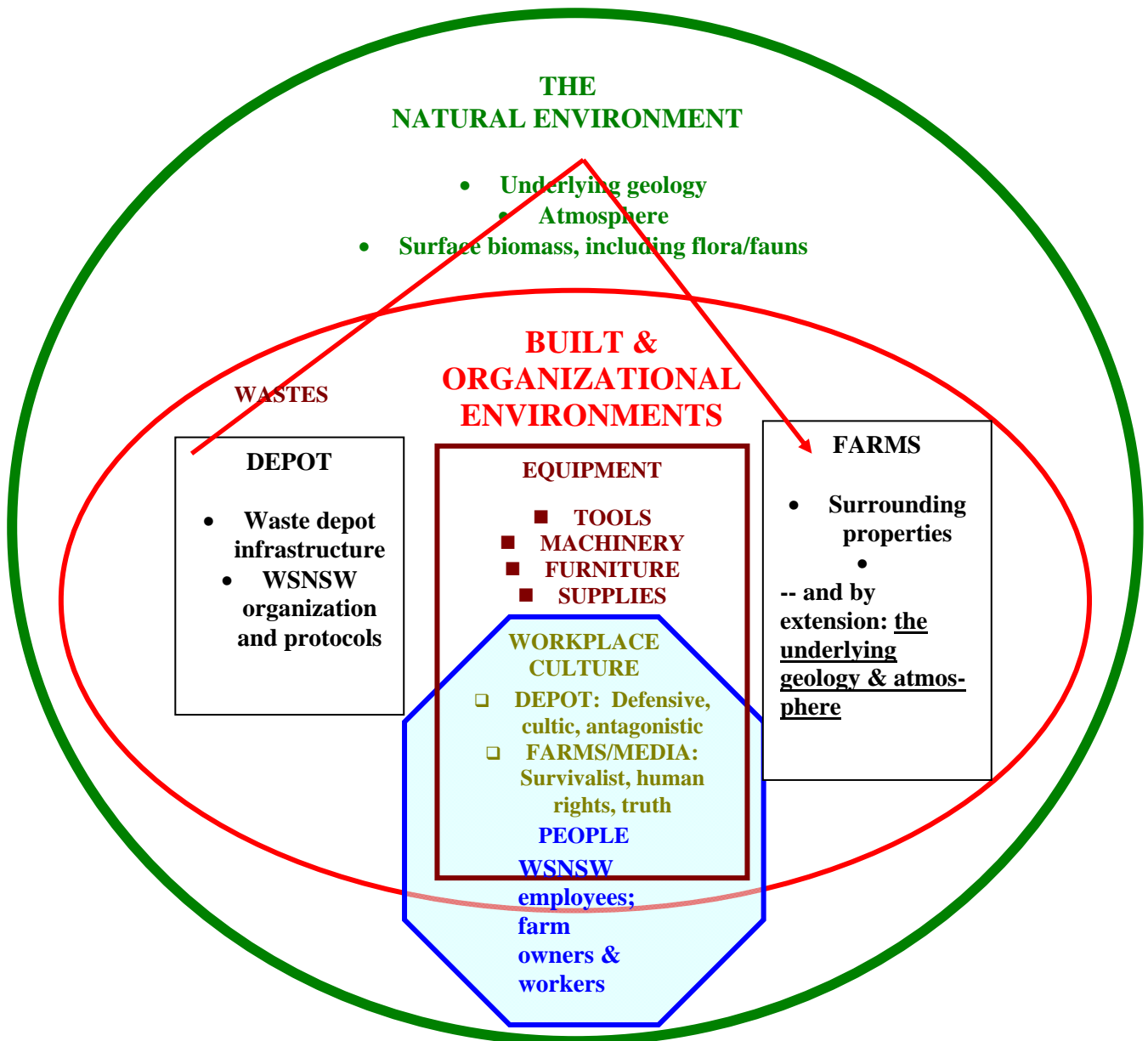
OXYSILVER™ pioneers a new class of mineral waters providing the most powerful immune system support in healthcare history. Used daily by people who need it, or periodically whenever necessary to regain or sustain health, it can be relied upon more assuredly than any product ever developed.

Silver hydrosols, in general, are superior powerful broad spectrum anti-microbials. They have been scientifically proven safe, effective, and life-saving in hospitals and health clinics when used sparingly according to health and environmentally-conscious recommendations. These powerful health guards provide a wide range of practical applications as alternatives to humanly toxic and environmental destructive chemical disinfectants, poisonous antibiotics, and risky vaccinations.

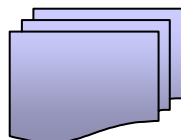
**OXYSILVER HEALTHGUARD**  
POWERFUL IMMUNE SUPPORT

- Essential Oligo-elements
- Daily Recommended
- Pure Silver Hydrosol
- Instantly Tasted

8 FL OZ (236 mL)



**Figure 6 *The Occupational Environment Map (revised)***  
**This figure shows the occupational and surrounding environment of the  
 Castlereagh Waste Depot**



# **SECTION 3.0**

## **Chronology Of the Relationship Between The EPA And Waste Services NSW**

**Authors: Warwick Hunter and Murray Thompson**

### **INTRODUCTION**

An important political and cultural aspect of the overall issue is the longterm relationship between the EPA (formerly State Pollution Control Commission – SPCC) and Waste Service NSW. A broad outline of this relationship is presented below.

### ***3.1 The SPCC, Soils and Potential Contamination at the Castlereagh Waste Depot***

At the time of the opening of the Castlereagh Liquid waste disposal depot in 1974, the State Pollution Control Commission (SPCC) was the principal controller and regulator for the disposal of waste.

#### ***3.1.1 Londonderry Soils***

At the time it was thought that the soils of the Londonderry area were practically impermeable, with tests showing the filtration to be from  $10^{-8}$  to  $10^{-9}$  cm/sec. (Metropolitan Waste Disposal Authority 1977:29). Soils having coefficients of permeability of less than  $10^{-7}$  cm/sec are said to be practically impermeable (Metropolitan Waste Disposal Authority 1977:29-30).

#### ***3.1.2 Water Test Results***

It is difficult here to determine what is and what isn't 'official' in regard to test results which have been conducted at the waste depot. This is because "figures which show readings of the chemical phenol on groundwater at the depot 92,000 times the accepted amount defined by the Clean Waters Act could be disregarded because they were recorded in 1989" (Daley 1993). Daley (1993) also noted that Alan Mills (RAGE spokesman) said at the time that the auditors Woodward-Clyde had used "absolutely ridiculous" reasoning when they stated "there is no way the authenticity of the tests can be proved". In the article, Mills qualified this point by noting that "the tests were carried out in accordance with the guidelines set down by the Environmental Protection Authority". Further in this article, it is quite amazing that Woodward-Clyde seem to be admitting to a pronounced inability or lack of expertise in water testing because Mills added that "Woodward-Clyde said... that it is not possible to determine whether the groundwater is contaminated, and that all previous testing should be discounted" (Daley 1993). Overall, it appears patently obvious in the 1990s, that there is now an ongoing and institutionalized reluctance to make test results known (Prisk 1990:1-2).

Given the above, it is perhaps not surprising that the SPCC, along with Waste Service NSW, have been able to continue to deny that any toxic substances are leaking from the depot site.

And, as if to add a touch of further confusion to the issue, the SPCC have stated that "most underground water percolates from the surface. It therefore may be contaminated with toxic matter leached from wastes tipped on permeable land..." (SPCC 1975:32). If the SPCC appreciate that wastes tipped *on* permeable land can leach chemicals into underground water, then why is it so

difficult for these learned authorities to understand that waste buried in cells (using landfill technology) will also leach toxic materials into groundwaters?

### **3.2 The SPCC, EPA and Eventual Findings of Waste Leakage**

The continued operation of the liquid waste disposal depot at Castlereagh is essential to the short term solution to the problem of liquid waste management in the Sydney Region (Metropolitan Waste Disposal Authority 1977:42). With this in mind, it is easy to see why the State Government bodies, the SPCC and Waste Service NSW, have continually denied that the waste depot is affecting the surrounding area. These authorities seem to see the urgency for the disposal of wastes as having preeminence over the environment (and likely, also, the rural inhabitants of the Londonderry area – see Section 4.0 for ethical issues raised).

The State Pollution Control Commission was taken over by the Environmental Protection Authority (EPA) in 1991. At that time the EPA was confronted with a politically sensitive problem, this being due to strong community concern over possible leaching of toxic wastes onto surrounding properties via groundwater flow below the waste depot site.

The EPA acted upon these concerns, and in 1992 AGC Woodward-Clyde conducted a staged, independent Environmental Audit of the depot on behalf of the EPA. Stage 1 found no evidence of leaking toxic substances, however Stage 2 of the audit concluded that there was evidence of some contamination below some of the older sections. Nevertheless, it was stated that the groundwater table below the depot was ‘perched’ and so there was no avenue through which toxic materials could flow off-site (AGC Woodward–Clyde 1994).

The ‘contamination’ below the depot, according to RAGE, has actually “proved to be highly toxic” (RAGE 1993b:2).

Previous licences issued to the Waste Service by the EPA have stated that they must comply with Section 16 of the Clean Waters Act, which states that a person shall not pollute any waters defined as “any river, stream, lake... and includes... underground or artesian water, or any part thereof” (RAGE 1996:2).

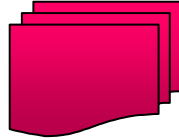
The recent audit of the depot found that contamination of the groundwater is occurring. Instead of taking action to protect the Environment, the EPA has ‘legalised’ the contamination by establishing an authorised discharge point described in the licence as being “at the surface of the groundwater aquifer located beneath the depot”. The licence sets no limit for the level of contamination allowed (RAGE 1996:2).

The Clean Waters Act has a provision that empowers the minister to either authorize or prohibit the discharge of pollutants into waters in the case of emergencies. The NSW Government, in allowing itself this potential ‘escape hatch’, obviously does not appear to think that toxic wastes are of particular concern, even though, potentially, an entire rural community’s health is at risk.

In 1995 the EPA admitted that there has been leakage of waste cells into groundwater (EPA Spokesman 1995, pers. comm. 29 April), but it was considered that prosecution of the Waste Service would not achieve anything in regard to fixing the problem.

This further demonstrates the long standing relationship between the EPA and Waste Service NSW, one which began with the then State Pollution Control Commission at the opening of the depot in

1974. It continues on up until the end of 1997 when the waste dump is to be closed, completing a long history of *close* political ties.



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# SECTION 4.0

## ISSUE OF CONCERN – Castlereagh

### Depot:

### *An Ethical Evaluation*

**Author:** Murray S. Thompson

#### **PREFACE**

This section has been included in the main document, rather than in an appendix, based upon a recommendation given to this author by Dr Ronald W. Proudford BSc,MSc,PhD,MA(hon 1). Dr Proudford, in examining the basic ethical structure of this document, considered that it held most of the requirements for a suitable PhD study in ethics (Proudford, R. 1997, pers. comm. 19 October).

#### **INTRODUCTION**

Because the Castlereagh Waste Depot issue involves serious equity concerns, it is necessary to extend this study into an evaluation of ethics. Here, we find ourselves confronted with even more abstract concepts than in previous sections. This is because ethics is a highly relativistic area of human intellectual endeavor.

In order to examine the ethical potential of the impact of the depot on Londonderry landholders, we need to first compare a variety of orientations with a view to fashioning suitable bases for ethical judgements. It will thus be possible to then evaluate the outcomes of our issue study in the light of our chosen ethical basis.

#### ***4.1 DISCUSSION: An Examination of Some Bases for Ethical Judgements***

**Before briefly re-examining the signature highlights of the physical data of the Castlereagh Waste Depot, it is necessary to establish a basis for the ethical discourse that will punctuate the details set forth in *4.2 Discussion*.**

Initially, we need to establish some definitions in regard to this broad subject. Here, we must look at the various bases for ethical judgements that are on offer. These bases reveal, with some effort, the roots of our beliefs. The necessary caution is, however:

Of course, all bases have limitations, and all can be misapplied and misinterpreted, but they are the foundation of our individual ethical systems and are the starting point for useful debate (McGrath, E.Z. 1994:19).

Some of the bases that can apply to a study of ethics are: authority; intuition and emotion; logic and reason; and empirical evidence (McGrath, E.Z. 1994:19-21). A further sub-area that could be added into logic and reason is *relativism*.

### 4.1.2 Authority

The word “authority” bears with it connotations of legitimacy, reliability, trustworthiness and integrity. However, we recognize that, in reality authority should never be assumed to automatically equate with these lofty qualities, because power can corrupt (and usually does). Generally, the more power, the greater are the opportunities for greater corruption and abuses of ‘privilege’.

Institutionalized corruption is a fact of life for any observer of politics and ‘human nature’. It is not surprising, therefore, that the motives and agendas that can lie aback of any form of orthodoxy (in this case, the authority institutions of the Environment Ministry, EPA and WSNSW) can render an appeal to authority as, essentially, baseless when seeking support for ethical evaluation.

In some respects, “reliance on authority in making judgements is not categorically right or wrong, but its reliability in any particular case depends on the integrity and expertise of the authority, and often we do not (or perhaps cannot) really determine that” (McGrath, E.Z. 1994:19).

In light of the obvious deficiencies noted here, we cannot use **authority** as a basis for ethical evaluation of the Castlereagh Depot issue.

### 4.1.2 Intuition And Emotion

As with authority, reliance on intuition and emotion can be fraught with error. Here, deception can be sourced from without (from another agent or player) and from within (one’s own perceptions and worldview). However, despite these problems:

... intuition and emotion are not meaningless and useless... to test the ethical correctness of beliefs based solely on intuition and emotion requires a serious and profound look at the sources of these feelings and a rigorous scrutiny of the implications of adopting such beliefs... Belief based solely on strong feelings is as anti-intellectual an approach as belief based solely on authorities” (McGrath, E.Z. 1994:20).

It should be noted here again that we recognize the influence of emotion and worldview in the study of this issue. Because there are obvious and sizeable difficulties associated with this area of human perception and reaction, we need to look much further and deeper in order to crystalize a solid basis for ethical evaluation. Certainly, intuition and emotion is valid, but only insofar as these faculties are rooted in immutable truisms based in incontrovertible fact.

We therefore, at this point, continue to search for these truisms and facts.

### 4.1.3 Logic And Reason

Logic and reason mean different things to different people:

To assert that reason dictates that an action is ethically correct is no more compelling than to assert that an action is ethically correct because it is emotionally supported or dictated. Reasoning may be sound or unsound... when most of us appeal to logic or reason in our ethical debates, we generally have not traced our beliefs back to their sources... our conclusion that our beliefs “just make sense” is not truly an appeal to logic but is frequently merely another way of saying “it feels right to me” (McGrath, E.Z. 1994:21).

This is surely an accurate view of the current state of reason in ethics. That is, “ethics currently wallows in a subjective quagmire in which reason has no place” (Curtler 1993:2). But this is a

grievously negative situation. It needs some analysis, and a lot of correction, indeed remediation. It needs 'work' because if relativism is 'true' then we have little humanity, no basis for integrity, and we may well exist on a plane no more noble than the amoebae. Note:

In conjunction with non-euclidian geometry, Darwinism, scientific naturalism, and the new sociology and anthropology made possible by 1900 for William Graham Sumner to state categorically that "there is no natural law; there are no natural rights, and there is nothing *a priori*. The only natural right is the right to struggle for survival" (Curtler 1993:1 [quoting Davis & Hersh 1986:207]).

Curtler (1993:2,3) notes further that, in today's relativism:

"... 'opinions' are not subject to rational argument beyond individual or cultural boundaries... value judgements can be *both* true and false – true for you (or your culture) but false for me (or my culture).

The central issue in the relativism/non-relativism [objectivism] issue is [therefore] over the question of whether value judgements are about subjects and cultures or about events and objects in the world independent of those subjects and cultures.

*The determination of whether we are making the judgement from a relative or non-relative stance depends on the kinds of reasons given for the claim in every case...*

For the non-relativist/objectivist, compelling reasons support the claim that the action was wrong and, therefore, anybody at any time should agree with those reasons and conclusions, regardless of personal or cultural predispositions.

This is the favored position and orientation we will ultimately take in our analyses of the ethical nature of the Castlereagh Waste Depot issue. Here, we are ultimately objectivists. We propose to attempt to provide clear and compelling reasons why our value judgements are about "events and objects in the world independent of... subjects and cultures" (Curtler 1993:2).

Still, this is not enough. We need to continue in order to further distill a cogent basis for ethical evaluation.

#### **4.1.4 Empirical Evidence**

Empirical evidence has acquired considerable respect since Francis Bacon, and this noteworthy siege against the ignorance and tyranny of medieval religious dominance has grown in power, exponentially, this century. Empirical evidence is, according to McGrath, E.Z. (1994:21), associated "with science and science with... [total] objective truth". This statement in itself could easily be seen as one borne of ignorance, or arrogance.

Further on, McGrath, E.Z. (1994:21-22) still attempts to simplistically portray science while, this time, seeking to define a dichotomy that strangely addresses some significant problems within modern science:

...science is all that is and, theoretically, all that can be, while the domain of ethics is primarily what should be. Correct ethical judgements require an understanding of what we, as humans, are and what our capabilities may be; but once we leave the realm of the *ares* and begin to consider the *oughts*, the usefulness of empirical data becomes decidedly limited... Sufficient understanding and freedom from compulsion are empirical states necessary for ethical action,

but they are not sufficient to determine whether our choices are ethical. I cannot act ethically without freedom, but not all free acts are ethical ones.

Here, the author has clearly defined that gaping chasm that exists between knowledge and choices. Upon what, we should now emphasize, are choices to be *really* based on? What is the basis for ethical choice and action?

Another offering from McGrath, E.Z. (1994:34, 45) serves to further confuse and prolong the search for gleaming clarity when the author provides two equally disturbing polarities as examples of, respectively, 'immature' and 'mature' levels of ethical maturity. (The other levels between merely combine aspects of the two and still do not provide an adequate 'safe' basis for choice.) They are:

Stage 1: The person sees the world in polar terms of we-right-good versus they-wrong-bad. Right answers for everything are known to an authority whose role is to mediate or teach them.

Stage 9: The person assumes responsibility for his or her beliefs and realizes that commitment is an *ongoing, unfolding activity* (emphasis ours).

Stage 1, of course, provides the cultic basis for dogma and the genocides and Inquisitions that are generated through fanatical allegiance to this morbidly restrictive 'knowledge'. Stage 9 seems to unleash the mercurial unknowns of relativism gone mad. Here again, we cannot get a grip on an ethical basis for choice and action.

#### **4.1.5 'Good': The Basis For An Ethical Standard**

The answer to the above question, "Upon what, we should now emphasize, are choices to be *really* based on?" may, at this point, be found quickly. An answer can be arrived at through applying the aforementioned material on an ongoing basis, by using it as a precautionary filter through which we think, consider and *choose*. The process of deduction and self-correction is a lifelong burden and learning curve.

##### **4.1.5.1 'Good' as...**

What is 'goodness', or the 'good life'? The following series of staccato quotes will likely help to abbreviate this search:

Common themes have recurred throughout the history of philosophy...

Every view offers some value...

For Plato... the rationally regulated life...

For Aristotle, Happiness proved the supreme value that was sought for its own sake.

Epicurus designated Pleasure as humankind's goal...

A requirement stressed by Aristotle is that our ultimate value or goal be recognizable by its intrinsic worth to us. For a value to define the good life, it must be valuable for its own sake...

The Good as Happiness... most of us would pin the term *happiness* to the quality of life that we hold out as the best good.

The Good as Rational Virtue... Reason is the key to the good life in Plato's system.

The Good as Freedom and the Creation of Value... Making a commitment to accept and live one's life creates value where there was none before, and the act need not depend on life being good or circumstances being favorable. All that is required is the freedom to think on one's

own and the commitment to create and affix one's stamp of approval and value on the circumstances or on the life as a whole.

The Good as Cultural Advancement... those who are philosophically inclined to weigh the objective and stable more heavily than the subjective and transitory prefer to define the good in terms of benefit to the entire human species. Such a system recognizes the needs and desires of most members of a group... [but may, however] lapse into an overly objective and often rigid perspective. [Therefore, this must be balanced with the freedom of ideas and theories on the individual so that we do not] ignore either our individual or social natures... (McGrath, E.Z. 1994:91-104).

#### **4.1.5.2 Ethical Framework**

Also, we should mesh in the following overlapping principles and perspectives:

##### **1: RIGHTS, FAIRNESS, AND HAPPINESS: THREE TRADITIONAL PRINCIPLES IN ETHICAL DECISION-MAKING**

*Principle #1: Respect for Persons*

*Principle #2: Fairness to Others*

*Principle #3: Adopt Rules That Increase the Sum of Human Happiness*

##### **2: THE ETHICAL PERSPECTIVE**

*Feature #1: Concern for Consequences*

... reflect on the consequences of our action... to take others into account

...consider long-run, or "enlightened", self-interest rather than short-run self-interest

...[or] being ethical often conflicts with being practical

*Feature #2: Neutrality*

...impartiality... consider the effects of our actions upon others, all of whom count equally

*Feature #3: Imagining Oneself as Victim*

...do unto others as we would have them do to us (Curtler 1993:31-57).

#### **4.1.6 Cross-referencing**

If we cross-reference the above facets of 'good', we see a decidedly 'clean' picture emerging, one of freedom from tyranny, abuse and fraud; one of equity, respect and general benefit for all. Individual freedom here does not deny anyone's rights.

There are connotations of rational far-sightedness, also, with long-term benefit being sought after in preference to short-run self-interest.

These are the ideal characteristics of ethical behavior against which we will ultimately compare details of the following section.

## **4.2 DISCUSSION: Ethical Bases Applied to the Issue**

The following section generally addresses the characteristics of political ideology and relevant issue details which this study considers pivotal to our appreciation of the subject's overall political and psychosocial complexity. We have chosen the ideology of Fascism, and used

elements of Nazi history, to provide a canvas against which we can compare and ethically evaluate the intrinsic political nature of the Castlereagh Depot issue. Our ethical evaluation is included at appropriate punctuated intervals.

We ask the reader to seriously evaluate the concerns expressed in this section, since they raise issues of *history*, *historical cycles* and *government ideology*, psychological constructs which are already impacting on Western society with a direct malevolence experienced by, fortunately at this *early* stage, a relatively small proportion of the international Western community. On a larger and more diffuse scale, however, our postmodern Western society is reeling from attacks on all levels, not the least being government approaches borne out of controlling mentalities, that are increasingly viewing the citizenry as a *resource* to be monitored, attacked and defrauded of basic freedoms.

## 4.2.1 *Formative Ideology & Setting*

No issue can be seen to have been addressed comprehensively without an examination of its ideological background. Where governments and other power groups are involved, worldview and ideology forms the backbone and launchpad for the kinds of opinions generated and actions prosecuted.

In this section we will confront the basic nature of the industry/government complex. We will see examples where “ideology... [has] been used to nail the conquered in their lowly place”, because “one man’s freedom is all too often another man’s oppression”, or one man’s “notion of justice... [is] our idea of despotism” (Bloom 1995:214; 264; 267).

### 4.2.1.1 *The Basic Nature of Western Government Rule*

It is vitally important to note here that Western governments are in a state of considerable flux. The evolution of so-called ‘democracy’ can be more appropriately described as degeneration. This is occurring because philosophies of postmodernism, backed by a singularly ignorant focus on materialism, entertainment and high technology, are leading the apathetic ‘masses’ and their governments astray. The nature of this error is characterized by increasingly popular unspiritual and amoral proclivities taken on board by larger and larger proportions of, particularly, youth. Not without blame, though, are the leading forces behind this degeneracy. These are the globalists, the architects of devolution, who are fashioning a future dominated by increasingly restrictive laws. For any who have eyes to see, it is a simple matter to understand that spiritually un-anchored masses, critically divorced from nature, can be easily enmeshed and ensnared by trusted governments.

The march toward totalitarian Western government can be most easily seen in the United States where continually expanding legislation saw “over 2,500 new laws... passed in 1993, to be implemented by 86,000 pages (in fine print)... Most of these thousands of new laws and regulations carry criminal (as well as civil) penalties, including property seizure and forfeiture provisions” (McAlvany 1994:5). The push for the National ID card, “mandatory surveillance over... financial transactions, monitoring firearms purchases, [the requirement of] registration of children at birth, [the] increasing power of the IRS, the EPA, the FDA, the ATF...” (McAlvany 1994:5), etc shows a disturbing trend toward “Big Brother”. It should be added here that “totalitarian societies are surveillance societies. To control people, a government must be able to watch people, to know their every move” (McAlvany 1994:5).

Further to the above trends, bureaucratic and actual brutalities generated by government are on the increase. The following list of US situations shows up the nature of these attacks:

- ...economist/editorialist Paul Craig Roberts posed the question: “What will become of ‘law and order conservatism’ now that we know our law enforcement agencies from the Justice Department to local police forces can be as criminal as the miscreants they are supposed to pursue? Unspeakable acts of cold-blooded murder and fabricated evidence now routinely characterize everyday acts of law enforcement.” Roberts described the 1992 murder of Donald Scott, a Malibu, California millionaire by a 30-man raiding party composed of Los Angeles County Sheriff’s deputies, federal drug agents, and the California National Guard, and how the Federal agents who had targeted Scott’s \$5 million, 200-acre ranch for seizure under federal drug forfeiture laws, had with them a property appraisal of Scott’s ranch along with notes on the sale price of nearby property. As Roberts wrote: “*In pre-democratic times, this behavior was known as ‘tax farming’. Government officials simply seized whatever they could, and raked off a commission... The result is mounting abuse of citizens (now subjects) and occasional deaths*” (McAlvany 1994:9).
- “...*Shades of Waco, Texas, where the FBI and Alcohol, Tobacco and Firearms folks killed nearly 100 men, women and children...*” (McAlvany 1994:9).
- “*According to the Associated Press, on 7/22/93, noted defense attorney Gerry Spence... told the Montana Trial Lawyers Association that he had never been involved in a case with the federal government in which it had not told lies and manufactured evidence in order to get a conviction... ‘These are not the good guys’, he said of federal agents and prosecutors. ‘These are people who do whatever is necessary to do to bring about a conviction. The law gets hung with the victim’*” (McAlvany 1994:9).
- More than 60 homes in Tulare County, California were raided without search warrants in 1993 looking for suspected illegal immigrants... One woman died during the raids... Fifty California residents have filed suit against the Immigration and Naturalization Service, charging unlawful and unconstitutional raids on private homes (McAlvany 1994:9).
- ...15 armed agents from the Department of Agriculture and four Highway Patrol Troopers, wearing bulletproof vests and with guns drawn, entered the Circle Land and Cattle Company, held the three employees present at gunpoint, and seized most of the company’s business and accounting records... The puzzled owner... said: “*It was federal agents. Gestapo agents... I have no idea what they’re looking for... It’s Germany, 1939, with its SS troops.*” This is how “federal investigations” are conducted in the 1990s... (McAlvany 1994:10).

The above leads directly to the mindset and worldviews of government organizations and institutions.

#### **4.2.1.2 The Basic Nature of Fascism**

Fascism was originally, “a technique for gaining and retaining power by violence, and with an astonishing flexibility it subordinated all questions of program to this one aim” (Kohn 1963:9/104A). It is, therefore, a “political attitude which puts the nation-state or the race, its power and growth, in the centre of life and history” (Kohn 1963:9/104).

The individual and personal freedoms/rights under this ideology are disregarded. In fact, Fascism goes so far as to subordinate “humanity, in the exclusive interest of the nation” (Kohn 1963:9/104).

In this light, we can trace modern aspects of Fascism in the details outlined above. We can easily discern Fascist characteristics in the way the US federal agencies have elevated their authority and ‘rights’ above the constitutional rights of US citizens. Similar acts of violence against Australian citizens now regularly pepper the pages of the daily newspapers.

Further to this:

Freedom of the individual virtually ceased to exist [in pre-World War II Italy]. Its place was taken by the conception of the totalitarian state, in which everybody and everything was forced to submit to what was regarded as being in the interests of the state. Under Fascism the individual counted for nothing, except in so far as he was a unit in the life of the state. He had no rights opposed to the state's will (Stowell 1962:3/370).

This is unnervingly descriptive of the current situation we see in regard to the way the 'authorities' have turned aside complaints by Londonderry landholders. See **Appendix 2** for details of the continual round of denials by authorities, and even threats (emanating from who-knows-where?) to stifle water tests (page 40 of **Appendix 2**).

*ETHICS: This demonstrates a "Stage 1" (McGrath, E.Z. 1994:34) type of cultism which emphasizes and perverts the "universal... [over that which] is particular and context-dependent" (Flyvbjerg 1993:14). This warped emphasis focuses on theory, that is, "episteme... [as it is concerned with] universal knowledge... [rather than] phronesis [which] concerns 'action with regard to things which are good or bad for man'<sup>8</sup>" (Flyvbjerg 1993:14 [quoting Aristotle 1976:1144b33ff]) (emphasis added by Flyvbjerg). Further, "the point of departure for phronesis is an analysis of values and their implications for action" (Flyvbjerg 1993:14).*

*This is such an important area that we will include an Aristotelian quote from Flyvbjerg (1993:14):*

Prudence [phronesis] is not concerned with universals only; it must also take cognizance of particulars, because it is concerned with conduct, and conduct has its sphere in particular circumstances. That is why some people who do not possess theoretical knowledge are more effective in action (especially if they are experienced) than others who do possess it...

*Probably the most important features of the above are, as follows, elucidated by Flyvbjerg (1993:14):*

Aristotle emphasizes a number of characteristics of intellectual work that, in my judgement, are crucial to the development of situational and applied ethics:

- The importance of what is particular and context-dependent is emphasized over what is universal.
- The importance of what is concrete and practical is emphasized over what is theoretical.

*What strikes this study as being particularly cogent is the total aberration of episteme in its theory and application within Western government. Indeed, phronesis is completely displaced by the cruel application of Fascist tactics. It could also be said that government (Fascist) theory has failed to interpret episteme correctly.*

#### **4.2.2 Ideology Applied to the Castlereagh Depot**

Where this applies to the Castlereagh Depot issue is in the arena of how government treats its citizens. For continual acts of denial and accusations to occur (leading to severe depression and abandonment of properties in some cases), a culture of denial and damage control must first be accepted. Supposed fair (theoretical) democratic dealings (such as 'justice') have been displaced by this culture leading to the unethical and emotionally violent treatment of landholders, and even *threats* of violence (which *is* violence) against those who intersect the Castlereagh issue. When a major television current affairs program is warned away from reporting on this waste issue (*after* they had spent considerable time interviewing and photocopying relevant material), one can also be assured that much needs to be kept hidden by those who have a lot to hide. This is not unlike the historical Fascism to keep obscenities undercover, to hide evidence of atrocities, and to maintain surveillance over those downtrodden and abused.

And since at least one phone call by this author has been ‘tapped’ during a conversation with a Londonderry landholder (the conversation included the subjects of chemical degradation of properties and water quality test results), I can only presume that surveillance is important to those who have such a nervous totalitarian predisposition. Remember, “totalitarian societies are surveillance societies” (McAlvany 1994:5).

*ETHICS: Theories and cultures of superiority, aggression, manipulation (including surveillance) and conquest are truly one-dimensional in the worst possible way. What we mean by this is that the government ‘science’, its study of man and society in the current totalitarian context, is somewhat akin to “the study of natural objects” (Flyvbjerg 1993:15). The following explains:*

Can the study of man and society be scientific in the same sense as the study of natural objects, or must one speak of two fundamentally different activities in relation to the two types of object? According to Aristotle, it makes a difference whether one studies man or things. If he is wrong on this point, his argument for the importance of ethics is severely weakened.

But the passage of time suggests Aristotle is right. The study of man and society is not, never has been, and, most likely, never will be scientific in the sense of the natural sciences, i.e. comprised of predictive theory. It is highly improbable, for instance, that the “dubious” science of economics will ever be able to predict and engineer changes... in a fashion similar to the way physics can predict and engineer a moon landing. The reason is that the object of the social sciences, man, is self-interpretive, whereas physical objects, to the best of our knowledge, are not; the object of the social sciences is, in effect, a subject (Flyvbjerg 1993:15).

*Hitler’s “predictive theory” (Flyvbjerg 1993:15) or theories of superiority and power are as impersonal and fundamentally flawed as is the study of economics. This may well be because Hitler and other Fascists have applied a “single hermeneutic” (Flyvbjerg 1993:15) to their visions of ‘the state’. Note:*

The self-interpretations of people being studied in the social sciences are inherently unpredictable because they are always already context-dependent and cannot be reduced to a set of rules.<sup>12</sup> Predictive theory *must* be context-independent and rule-based, otherwise the independence of specific time and space required for prediction cannot be established. Social “theory” *cannot* be context-independent because what counts as a relevant feature to the theory is context-dependent. There goes the epistemic ideal and the possibility that someday the social “sciences” can be constructed based on cumulative refinements of theory like the natural sciences (Flyvbjerg 1993:16; <sup>12</sup> references given are: Flyvbjerg 1987; Dreyfus 1984, and Bourdieu 1977).

***In fact, the terms ‘social’ and ‘science’ are mutually exclusive and contradictory. But this is a truism that fails to register with Fascists and economists alike!***

***(Note also that Fascism’s “set of rules” use the same kind of “single hermeneutic” that is generally applied as per resource raping (mining, logging, chemical engineering, etc). This is why we now face an environmental catastrophe of unparalleled proportions. We have essentially treated the planet and its multi-faceted life systems according to the context-independent approach. No greater error of judgement could likely ever be prosecuted through such a profound neglect of phronesis.)***

We need to note that Socialist predictive theory, as applied to Western totalitarian government now, is as flawed as any of the theoretical atrocities produced during the Nazi regime. The above shows that totalitarianism is context-independent. **The treatment of the Londonderry residents is ultimately**

**based in context-independent theory.** This gives us great cause for considerable concern as to the ultimate outcome of this issue. The main reason for this concern is that, in order for citizens to be treated in a context-independent way (contemptuously, in other words), they have to be viewed as having, ultimately, no natural rights.

*ETHICS: It is interesting to note that Hitler expounded relativistic theory when, in his opinion and according to his ideology, the Jews had “no natural rights... [because there] is no natural law...” (Curtler 1993:1, quoting Davis & Hersh 1986:207. Hitler applied his culture, his worldview, and his bias to “events and objects” (Curtler 1993:2). This is a fundamental contradiction and the classic flaw of relativism. Hitler ignored the “moral absolute [of freedom and] an inviolable right to oneself...” (McGrath, P. 1967:303).*

This further development clarifies more elements of Fascist characteristics (albeit, we admit, not approaching the degrees of Hitler’s insanity) in government. The ideology aback of the ‘destroy by denial, neglect, accusation and threat’ philosophy, or “the enemy is out there” (Senge 1990:19) syndrome, is framed by value judgements made from a relative stance. We see these value judgements expressed clearly through institutional attitudes generated throughout the long history of the Castlereagh Depot.

*ETHICS: The Fascist value judgements were made about and against “events and objects” (Curtler 1993:2,3). In fact, Hitler’s views turned people into objects that should conform to a set of rules based on predictive theory [Flyvbjerg 1993:16] and dismissed absolute moral rights, other than his own, altogether.*

If public confidence in government and the various institutional arms of government is considered of the highest priority, then we know that a contented and somewhat muted citizenry is also a much desired element within the parameters of authoritarian/totalitarian ideology. This kind of control demands rules, predictive theory, value judgements made against events and objects, and a dismissal of all moral rights other than those of the government. All these elements are signatures of the depot issue.

*ETHICS: The ethical pointers and framework noted throughout 4.1 can now be addressed again, contrasted against actual circumstances (my comments in [ ]):*

- ...the rationally regulated life [Do government institutions occupy themselves with irrational philosophies acted out in context-independent fashion when they fail to inform their subjects of information pertaining to the properties of the subjects? If government departments do not maintain an honest and rational approach toward those over whom they maintain considerable psychological and legislative leverage, how then may the so-abused subject maintain his or her own rational composure? In this specific case we consider Frank Demanuele who owned a property near the Castlereagh Waste Depot. The WMA and SPCC maintained a padlocked bore on his property. Water tests were conducted every 2 months, yet at the time of the publishing of the newspaper article describing this situation, Demanuele had not received – from these authorities – any information regarding these tests. He was told there was nothing wrong, yet this landholder’s lawns and 80 native trees had died! (Bender et al 1990) Nothing wrong?] (McGrath, E.Z. 1994:91-104).
- Happiness... sought for its own sake [When landholders lose the productive capacity of their properties, suddenly – as in the case of many property owners around the waste depot, and particularly between the depot and the Nepean River (Prisk 1990a:1-2) – and are advised, again and again, that there is “nothing wrong” (Bender et al 1990), that the depot – containing over 1 million tonnes of toxic waste – is not leaking, that they have caused their own problems; we are able, given the assistance of the ethical pointers provided above, to

*immediately identify the use of only a “single hermeneutic” (Flyvbjerg 1993:15) as applied by the ‘authorities’ to a multi-dimensional situation comprising “subjects and cultures” (Curtler 1993:2,3). The single and abysmally simplistic interpretive nature of the authorities’ denials and accusations speaks volumes to any who comprehend the language of damage control.] (McGrath, E.Z. 1994:91-104).*

- *A value... valuable for its own sake [Context-independent denial cannot have any intrinsic value since it, in effect, destroys property, human and animal life, and culture by way of its utter failure to address issues directly, honestly, thoroughly and with the genuine concern that a truly democratically elected government should – ie an anti-citizen paranoia effectively negatively discriminates against the private citizen culture which is itself an intrinsically valuable component of human diversity and a formidable signature of true freedom] (McGrath, E.Z. 1994:91-104).*
- *Cultural advancement [Essentially addressed previously] (McGrath, E.Z. 1994:91-104).*
- *Respect for persons... fairness to others...[the adoption of] rules that increase the sum of human happiness [None of these are accommodated through the neglect, denial and accusations of Fascist-like ideology generated by government authorities. There is no respect for lives impacted upon by the insidious escape of industrial chemical hazards into the environment, nor is there fairness in withholding water quality test information from landholders or in preventing testing to be done on water/soil samples taken from affected areas. These generative and neglectful (‘sins’ of commission and omission) have decidedly decreased the sum of happiness in the affected landholders around the waste depot. When one adds the cleft palates in human and animal alike and the cancers arising from the toxic wastes which we students have noted as being present in bore water near the depot, it is a simple matter to note that authority culture has conveniently crafted unofficial (?) policy that actively decreases the sum of human happiness – in Londonderry] (Curtler 1993:31-57).*
- *Concern for consequences [the authorities appear to favor plans which are ultimately oriented toward “short-run self-interest” (Curtler 1993:31-57). In light of the damage control culture, this self-interest must include employment, false self-esteem (egoism and egotism), and government re-election. Consequences appear to be considered only insofar as how the corrupt status-quo can be maintained] (Curtler 1993:31-57).*
- *...impartiality [the abusers in this issue are incomprehensibly partial; they are never neutral, counting others equally; remember, as noted in **Appendix 2**, the “WMA’s technical manager Ross Thomas said problems on Mrs Anonymous’s land was not the authority’s responsibility”, and “‘We have no responsibility or obligation [to go to Mrs Anonymous’s property]’, Mr Thomas said” (Bender 1990:3)] (Curtler 1993:31-57).*
- *Imagining oneself as victim [the abusers have hardly accomplished this feat] (Curtler 1993:31-57).*

*Also, a vital point that must be addressed in regard to all cases of inhumanity, is that of ownership of self.*

*My ownership of myself... is inherent in the sort of being which I am. My title to ownership of myself is the best possible – I *am* myself; there is no distinction here between the possessor and the possessed, and no possibility therefore of anyone acquiring a right over me which would supercede my own.*

*This again seems to be part of what Kant means by speaking of persons as ‘ends in themselves’. To recognise a person is not merely to recognise a bearer of rights; it is to recognise one who bears an inviolable right over himself. It is impossible to be a bearer of rights without being a person; if one possesses any rights, then one must possess an inviolable right to oneself... the title to self-possession would be far more compelling than any title one*

might acquire to anything other than oneself. That one possesses any right implies, therefore, that one is the source of a moral absolute (*McGrath, P. 1967:303*).

The above highlights magnificently the absolute criminality of anyone imposing (or allowing to be imposed) anything invasive and damaging upon anyone else. Here we see clearly that the inequities of establishing a waste depot in a rural and agricultural setting are automatically and diametrically opposed to the innate sacredness of human existence and individuality (not to mention health). Note that Peter Martin, DipAppSc, GradDipAg(HAC), MSc(Macq), Lecturer in the Faculty of Science, Technology and Agriculture noted, in marking an assignment of mine in 1995: “I wonder whether one issue might have been the location of these dumps you list. Many are in ‘working class’ areas, as well as highly populated ones. It would have been interesting if you had explored equity in the potential input locals had to siting versus government departments and experts” (Martin, P. 1995, pers. comm.).

Put another way, ‘humanness’ is preeminently superior to philosophies that rate rural inhabitants’ or any community’s wellbeing poorly. In fact, we might not be able to highlight a more profound distinction between absolute good (and moral right) and absolute evil, than this comparison of complete opposites where the negative polarity is occupied by those who take the presumptuous prerogative to themselves to expose men, women and children (and the sustaining environment) to some of the most toxic substances known in all history.

We of this age have inherited a planet obsessed with dangerous technologies that are not context-dependent on a healthy, happy and equitable society. Science and technology is liberated, at every point of feverish discovery, into an unknown future awash with alien toxins. Profit is the driving force behind this maniacal rape of this womb we call “Earth”. This insanity is the standard error of an ignorant and blundering science and that of uncaring governments where the many ‘means’ offer only a single hermeneutic. The ‘ends’, therefore, can only offer multi-dimensional conundrums as outcomes, problems that appear to have no solution because the episteme used was never integrated and based on the ‘good’. It was, in effect, utterly corrupted and ‘unnatural’ (philosophies inherently incompatible with all life processes on this planet).

## CONCLUSION

We have noted throughout this study major and disturbing characteristics of Fascism expressed via the agency of uncaring and even malevolent institutional philosophies. We have seen the consequences of the application of warped and convenient ‘universal’ theories expressed in human pain and torment throughout this saga of the Castlereagh Waste Depot’s impact on the terrestrial environment of Londonderry.

We have noted that Fascist and totalitarian worldviews are a focus on humanity without humanity; that is, Fascism can be explained through its signature neglect of phronesis, the particular, and all that which is context-dependent within society. In other words, Western governments and their institutional arms and industrial cronies, today tend to reduce society down to the level of “a set of [bureaucratic] rules” (Flyvbjerg 1993:16). Their predictive theory may be rightly context-independent (Flyvbjerg 1993:16), but it is applied grossly out of context. We have also understood that Fascist philosophical elements are woven throughout government’s incestuous attraction to, and affiliation with, technological development and application.

We can now appreciate that toxic technologies and totalitarian governments have introduced us to the most dangerous period in all of human history.

Now the incredibly significant and destructive relationship between the “single hermeneutic” (Flyvbjerg 1993:15) and our treatment of the environment has generated profound philosophical ramifications. Note:

We live in an unprecedented historical period. Within the past few decades the actions of mankind have become, for the first time ever, a threat to life as we know it, not only through nuclear disasters that may or may not happen but through changes in the global ecology that *are* happening. Earlier the continuance of life on the planet was taken as given rather than subject to a question mark. No wonder, then, it has been said we live in a *post*-era: post-rational, post-enlightenment, post-modern, post-foundationalist, post-structuralist. If any one phenomenon distinguishes the start of a new era and a *post*-condition, it is this: humanity’s newly achieved ability to effectively destroy its own sustenance. The world has become post-immortal... there is no longer any assurance of its immortality. We live in a world-at-risk, where life has become contingent upon our own actions<sup>2</sup> (Flyvbjerg 1993:12 [<sup>2</sup> reference is: Richman, N. pers. comm.]).

Amazingly, also, the Bible seems to note much the same:

**For then there will be great distress, unequalled from the beginning of the world until now – and never to be equalled again (Matthew [paraphrasing Mark] 1978:923).**

And the philosophers see and plead, but the powers cannot bear their wisdom; they march to tunes that defy all that is good.



Poisoned People Web Site



## SECTION 5.0

# META-LEARNING: *Evaluation of our Group & Issue of Concern*

### *5.1 Progressive Analysis Of Group Learning*

In our group learning process, the issue was established first. Then Personal learning styles and individual orientations and capabilities were assessed using tools based on the book *Organisational Behaviour: Concepts, Controversies and Applications* (Robbins, Waters-Marsh, Cacioppe & Millet 1994), Prentice-Hall, Sydney. This was an initial exercise and arrangement, however. As we interacted more and determined levels and orientations of expertise, these rudimentary roles and responsibilities evolved. We then, as a group, assessed and re-assessed each others' work, while refining the document structure and seminar outline. We found this to be a satisfactory though slightly disorganized way of fulfilling all the requirements of the document and seminar.

Along with these developments came the mapping out of a strategic plan. In this regard, the suggestion of the necessity and requirement of this important feature of group work (by our lecturer) was very complimentary to the advancement of the document.

It is now important to formalize the most coherent learning outcomes that we have achieved:

☞ We started with the systematic processes outlined above and moved into single-loop learning. We achieved this by a reactive assessing of each other's work. This process operated on a cosmetic level. As deadlines approached, we developed a more sophisticated appreciation of learning. The first instance of this occurred when we, as a group, assessed and analyzed Derek's input in regard to group dynamics. Here, we realized that fundamental changes in our group processes needed to occur (and subsequently did). An example of this is Warwick's admission of his need to contribute something to the group so as not to feel like excess baggage. Although harbouring interesting conceptual ideas and the ability to level the conversation, he accepted Robbie and Murray's perspective without question. Warwick had a seemingly genuine interest for the group yet may have felt that he was somewhat of an outsider. There may have been a need for self reaffirmation as he regularly projected his views and position within the process. Warwick's own observation is that his previous group experiences were on a much simpler scale in regard to group interaction. By this Warwick means that group assignments progressed at a minimal level of productivity. In this, there was not a great deal of critical assessment of each member's role and contributions. This meant that work generated was not subject to double loop learning and the critical reflection necessary in the Kolb Learning Cycle. In this group, however, Warwick has noted that **considerable group interaction produces well crafted results that have been honed by, generally, each member's input.** We see in this, a progression from Warwick's former reactive participation in group dynamics to a more holistic interaction involving a learning *about* the learning process. That is, what works, what doesn't work, how to repeat what works and why

it is effective and desirable. This is a double-loop process. This is also the process that we, as a group, have participated in. Note the following.

☞ We have recognized, *consciously*, the learning stages we have progressed through. As a group, we have acknowledged our learning *about* the effectual stages of learning which produce the best

results. This occurred through the necessity of composing an examination of an issue. Out of convenience, we chose an issue already investigated. Here we wanted more time to address the integration of 2 issues. The first attempts involved the simplistic assigning of assignment sections to individuals (this was our systematic approach). Next, we re-assigned these tasks once individual orientations and preferences were more closely considered (this was our single loop development). However, we realized that this was an inadequate approach because these were merely cosmetic changes. Further to this, we then noted that we needed to alter each member's assignment task to an overall collaborative task of assignment *integration*. This development was a double loop process, for fundamental changes in our learning and group dynamics occurred.

☞ The conscious decision to double loop, facilitated our group in grasping the concept of *meta-learning*. In this we *learned how to use a learning tool*. Thus, our decision to use this learning arrangement provided us with a beginning appreciation of, and a practical excursion into, double loop and meta-learning.

## ***5.2 Progressive Analysis Of Castlereagh Waste Depot Management, EPA & Environment Ministry Learning***

Note that text in red font and italicized indicates our analysis of the authorities' learning characteristics.

**1974:** *Castlereagh Waste Depot opened as a symptomatic reaction to Sydney's need for industrial waste disposal.*

**1980s:** In the late 1980s, pollution became obvious to landholders around the depot through significant negative environmental, stock, fauna/flora and human health impacts. Disease symptoms in animals (Bender 1990:3) and humans (including mutations) elevated to alarming proportions. Agricultural viability was significantly, even disastrously, affected. *Waste Service NSW and the EPA characteristically deny that any wastes are leaking off-site. Single loop reaction: the authorities believe that denial is the appropriate solution. The denial does not teach the public or the authority anything substantial by way of applying learning because nothing is admitted to. Their reaction is not representative of an organization willing to accept and incorporate/introduce fundamental change into their management practices and culture.*

**1992:** Woodward-Clyde began a staged environmental audit of the depot. Woodward-Clyde (1994:ES-9) said contaminants have not gone beyond depot boundary, and WSNSW (1994:4) said that perched groundwater contamination cannot lead to leaching of chemicals off-site. *The community pressure is sub-consciously forcing the authorities to introduce limited double loop learning through the communities' hoped-for authority acceptance of negative and positive feedback (manipulated changes added through ordering energy/information producing new changes and altered negative feedback cycles) and consequent widespread improvement (fundamental improvements in public safety, equity and human rights).*

**1995:** EPA state that groundwaters beneath the depot are contaminated (EPA Spokesman 1995, pers. Comm. April 26). Students experienced pronounced sore throats and some nausea after sampling bore and surface waters on property 2 km from depot. Student bore water tests show significant contamination on property near depot. *This is the first admission of waste leakage from the authorities. This indicates that the authorities are losing ground in this war of attrition. This shows that the organization must bow to the pressure of actual (verifiable) chemical waste findings and indicates elements (only) of single loop learning.*

**1996 – 1997:** Total Environment Centre report says that Woodward-Clyde modelling of depot waste leakage is fundamentally flawed. Proposed closure of depot is established with the following remediation elements recommended:

- ☞ Plastic liners for current and near future waste cells recommended.
- ☞ Possible plastic covers for the depot to minimize water penetration.
- ☞ Waste to be compressed into bricks for industry fuel source and for more (and supposedly safer) compacted disposal at local rubbish tips.
- ☞ Plans devised to incorporate all industries into a program of waste minimization and accountability.

*Some elements of double loop learning are indicated here because the authorities are admitting to the potential of waste leakage and the consequent need for improved and safer waste handling and disposal methods. This has been accomplished through public pressure, not self-realization and self-teaching/learning on the part of these authorities. At no point are these authorities referring back to the ultimate source of all industrial chemical waste production, that being the use of chemical engineering practices. Their methods of symptomatic treatment are not methods of absolute prevention. Until they accomplish the feat of addressing prevention, they will never effectively double loop. This, of course, is based upon our group definition of effective double looping in these particular circumstances.*

## **5.3 Similarities & Differences Of Group & Issue Of Concern Learning**

### **5.3.1 Similarities**

Both groups have started out as reactionary entities with a job to perform (systematic in nature), we as students generating an assignment, the ‘authorities’ (the EPA, WSNSW and the Environment Ministry) with their respective responsibilities outlined *in name only*. (By this we mean that an official responsibility may in fact be described for public consumption, whereas the actual prosecution of the activities of the authority may involve considerable compromise of their ‘terms of reference’.)

Both groups have changed as a result of pressures (we as a student group matured in our comprehension of learning, the authorities appear to have changed by way of reacting only insofar as they deemed necessary in order to facilitate ‘appropriate’ public relations).

Both groups appear to be *learning groups*.

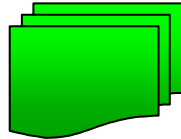
### **5.3.2 Differences**

Initially, many of us felt that this subject was far too theoretical to accomplish anything of real ‘value’ or worth as we perceived these to be. The next stage of our development appeared when Robbie began to see the positive application of the theory, methodologies and tools in a double loop context. In other words, he changed his way of approaching problems. That is, Robbie has moved from reactive ‘procedures’ to comprehension, analysis and lateral re-looping potentialities in assignment work. Because of the impetus that was provided by Robbie, the group decided to take on board this way of thinking in our approach to the assignment.

**The qualification of the above ‘difference’ between this realization and application and that (as we perceive) of the authorities, is that we have embraced these thinking tools, using them to expand thinking by way of embracing truth, whereas we feel the authorities do not wish to embrace or disseminate truth. The corruption in the authorities’ culture needs to be remediated**

**through double loop learning in a ‘positive’ way (according to *our* perceptions and the environment’s needs).**

*We feel we accomplished double loop and meta-learning through self-realization and self-teaching. We feel the authorities have ultimately learnt little and this, begrudgingly, through external community pressures.*



Show me how to:

# **SECTION 6.0**

## **RECOMMENDATIONS: *Group & Issue***

### ***6.1 Group***

Some suggestions that our group could have used in promoting a more harmonious and scholastically beneficial association included:

- Being more sensitive to the views and suggestions of others.
- Not assuming that everyone has grasped the concepts and principles presented.
- Facilitate during group meetings and refrain from self absorption.
- Ask questions rather than making statements.
- Learn to listen to others without interrupting.
- Being more assertive.
- Self motivation needs to be reviewed.
- Greater participation rates.

The members of our group were heterogenous in terms of their personalities, opinions, abilities, skills and perspective's. There was all the indication that we possessed the required characteristics to complete tasks effectively. However the amount of time that our group spent together influenced cohesiveness. Our relative proximity to each other and time schedules meant that there was minimal coagulation. By minimising the physical distances and maximising the time spent together a more unified relationship would have resulted.

There was no severity of initiation regarding the group. If, for example, a rigorous training schedule was a prerequisite incorporating interviews and the like, the group would have been much stronger as the individuals would have shared a common bond and sense of acceptance.

The creation of subgroups within the group did decrease overall cohesiveness and maintaining a common goal thus proved difficult. However, having two females in the group definitely proved beneficial. The ladies promoted group bonding through their non competitive and friendly approach.

There were no external threats to test the strength of the group and no previous successes to build an 'esprit de corps'. Humour however was seen as a social lubricant and aided immeasurably in the construction of the report as experiencing the lighter side of things relieved considerable pressure at critical times.

### ***6.2 Recommendations For Future Student/Personal Meta-Learning Exercises***

We feel that we have experienced and then consciously engaged a self-feeding, compounding process of learning development. This has been explained in previous sections, however briefly here we can recapitulate by noting that we:

- Fired ideas individually into a primitive group forum
- Began feeding off these observations, perceptions and elements of comprehension
- Started the process of situational elements of group responsibilities (which altered as time progressed), began embracing important (though perhaps biased) areas and aspects of knowledge in regard to the specific issue of concern, including the nature of the management processes of the major institutional players

### **Recommendations:**

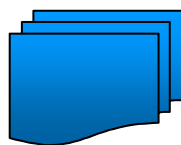
- *In our group, we feel we needed a full year in order to enable full group research and group dynamic opportunities to be experienced/engaged, such as:*
  - ⇒ *Individual research and group compilation of that research*
  - ⇒ *Better group member journal reflections on progressive stages moved through (eg group meetings)*

### **6.3 Taking Benefits Away from this Subject/Degree**

We now envisage that further future opportunities and positive outcomes are available to us when we take these study techniques away from this degree. This is because we consider we now have a worthwhile basis for the more effective understanding of learning. This understanding can be applied to many kinds of endeavors and pursuits, including recreational and professional.

### **6.4 Recommendations For The Nature, Management And Remediation Processes Intrinsic To The Issue**

- *The community pressure is sub-consciously forcing the authorities to introduce limited double loop learning through the communities' hoped-for authority acceptance of negative and positive feedback (manipulated changes added through ordering energy/information producing new changes and altered negative feedback cycles) and consequent widespread improvement (fundamental improvements in public safety, equity and human rights).*
- *The authorities need to adopt conscious motives for closing the depot rather than reacting symptomatically to public pressure. These conscious motives, independently and unilaterally adopted on the basis of real and genuine concern for the environment and the community, would be indicative of the more complete double loop learning we would like to see in these institutions. In this regard, then, the institutions might begin to grasp an appreciation of meta-learning in its fullest ethical sense.*
- *We feel that if ethics are to be addressed here, the authorities engage aberrant ideas and philosophies of situational/relativistic ethics. We feel that these authorities' 'ethics' are degenerate.*



# Conclusion

We, as a collective of individuals, first attempted to address an issue. This was undertaken with limited consensus. Next, we attempted to address our group while striving for a systematic investigation of the issue.

We then investigated how our group addressed the learning that arose during the course of the entire exercise: our learning characteristics and those of the authorities in the issue of concern. We found our learning to be indicated by a positive trend. In this, we established that we first saw things (our learning and assignment structure/progression) systematically (albeit somewhat disorganized, but nevertheless structured). Next, we determined that we had (in hindsight) progressed from a negative feedback and single loop response to a double loop form of learning where we incorporated positive (reflective) feedback via Kolb cycles of “diverging, converging, assimilating, and accomodating” (Wilson & Morren 1990:112). This was an important point of reflective observation.

We then found that, as we investigated our learning progress, we were at once cognizant of meta-learning: we were learning about the nature of our learning characteristics, and also learning what worked and what didn't. We found that the many tools/techniques/concepts/methodologies we had applied were producing beneficial introspective and expansive understanding regarding learning *and* the characteristics of the issue of concern.

The issue of concern – the Castlereagh Waste Depot – although researched in large part before we formed our group, took on a more sophisticated ‘aura’ once we began addressing various concepts such as worldview, push-pull, etc. These concepts drew out important soft systems features which we feel we need to be aware of in regard to future research.

Further to the above, we feel we have also engaged important ethical considerations in our relatively intense study of the soft systems forming the central focus of this student research project.

As a result of this growing awareness of ethics, we see the most important and signature sub-issue within this tragedy as being the ‘fortress institution’ syndrome (characterized by the ‘fort-building’ concept in Section 2). Here, we have recognized profound inequities in regard to how authorities view and treat the community.

In conclusion, it is the opinion of this writer that there are genuine grievances being expressed by the landholders surrounding the waste depot. All facts appear to point to actual chemical contamination of properties adjacent to the waste site.



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