



# Reflections on infrastructure, Town and Country planning and intimations of SIA in the late 1970s and early 1980s

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## Introduction

These observations are based on my time working as a Senior Investigating officer in the research section at Town and Country Planning (TCP) of the Ministry of Works and Development (MWD) in the late 1970s and early 1980s. They are personal glimpses into the platform of planning and research around public infrastructure projects. My notes point to matters that would benefit from detailed examination against records, but here I provide clues as to thinking of the time when strategic planning and social impact assessment (SIA) emerged as important to project development.

There are already several (short) histories of SIA in Aotearoa NZ: Buchan & Rivers (1990), Taylor and Mackay (2016), Pomeroy (2019) and I build on these. Most of the various projects and infrastructure programs I mention developed a stream of working reports and papers; some are in the references to this article but others can be found in National and University libraries.

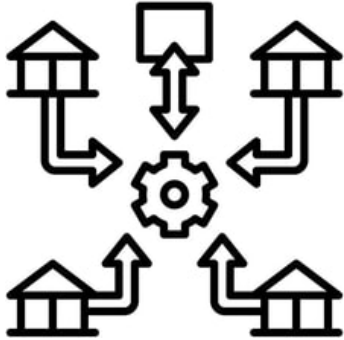
## Infrastructure, the environment and power stations

The MWD was heavily involved in an extensive period of development of transport and energy-generation infrastructure in the 1970s and 1980s, the last phases of a century of national infrastructure building, and it was a large, strong, organisation (Muir, 2021; Noonan, 1975). The Department of Public Works (often termed the Public Works Department) was founded in 1876, becoming the Ministry of Works in 1948 and the Ministry of Works and Development in 1974, then being disestablished and largely privatised in 1988. The Ministry moved to the Vogel Building about 1966 from the [Old Government Building](#). At this time there was a 6000 strong workforce, including highly impressive cadres of engineers and other professionals.

It had powerful divisions (Power Construction, Highways, Water & Soil, and Town & Country Planning, etc.) and seven District offices: woe betide a Head Office visitor to a local area who strayed into a region without notifying the appropriate District official! The MWD design computer was the largest in the southern hemisphere. The responsibility of MWD for scheduling major projects required intrusion into more general economic planning. Some staff in the mid-1980s saw it as an alternative Treasury, and the MWD computer programming system was pressed into service to provide alternative economic planning scenarios.

Main highways were owned/maintained by MWD, and it supported catchment boards, and designed and constructed dams and other energy infrastructure on behalf of NZED. The MWD was responsible

for dispersing a large portion of the resources needed by Councils, especially (rural) Counties. The links between district offices and County engineers were very strong. This was a centralized planning approach that became anathema to neoliberal thinking of the 1980s.



Pushback on environmental effects began with the setting aside of National Parks at the turn of the previous century but the fracas over the proposed raising of Lake Manapouri for hydro development in the 1970s substantially changed the orientation of New Zealanders to environmental matters - a widespread environmental movement eventuated. Environmental agencies emerged including the Environment Council, Commission for the Environment (CFE), and the Clean Air Council. The CFE had Environmental Protection & Enhancement Procedures (EPEP), whereby government proposers of major projects were required to prepare an Environmental Impact Assessment (EIA: incorporating a Social Impact Assessment -SIA) and the CFE instigated an extensive audit process. Given a common emphasis on physical environmental effects, early social assessments were often limited in scope. Some social impacts could also be considered in private developments as part of Town & Country Planning or other legislation. There were tensions between these frameworks. CFE tended to adopt a mix of top down and bottom-up approaches: experts provided advice but local opinion was tapped into. Local government and other official agencies were largely 'gone around' and perhaps seen as pro-development-at-all-costs.

By the late 1970s, as the NZ economy responded to the UK's entry into Europe and with the export difficulties which followed, the Muldoon government developed a 'Think Big' programme of state planning, facilitation and infrastructure investment. The National Development Act 1979 (NDA), built in EIA/SIA in a 'one stop shop' where all the various resource consent requirements for a particular project could be rolled together. Opponents considered the NDA served only to ram through controversial development proposals without adequate consideration. TCP did some informal monitoring of the projects developed in this framework.

MWD also facilitated investigations and construction of projects on behalf of various commissioning bodies, which increasingly became set up as Ministries and then state organisations: Transport, NZTA/Waka Kotahi; Energy and Resources (now incorporated in MBIE) and NZED (energy infrastructure). As part of their drive to develop local energy resources the New Zealand Energy Research and Development Committee, and Liquid Fuels Trust Board were set up (Maiden, 2008). They sponsored a considerable research programme, including a survey on possibilities for alternative fuel uses and other studies by sociologist Louis Arnoux and geographer Peter Philips (1979) as well as early strategic environmental assessments of options for new liquid-fuel projects.

## Town and Country Planning (TCP) Division

My early employment at TCP coincided with early implementation of the 1977 Town and Country Planning Act. The TCP Division represented Crown interests to local authorities responsible for developing and implementing plans – both providing information for plans and appeals to the TCP Appeal Board. Consistent advice was not always easy then or now: in one set of submissions DSIR scientists were particularly concerned with the likely loss of high quality soils, whereas other departments were more concerned with housing and social needs that required new areas of land. However, the division was endeavoring to unhitch itself from this role and let other Government departments look after planning their own property and building portfolios (e.g. Departments of Education, Health, etc.).

From the late 1950s TCP pursued an active research programme of descriptive studies in addition to their advice on planning issues. The mainstay was a series on regional resources, which were large and well-illustrated compilations of the natural environment, resources and population characteristics of various regions. Other work was on populations and their projections (largely compiled by population geographer Jeremy Lowe). An impressive staff across landscape architects, regional planners and research, plus district offices, driven by the concept of 'master planning', produced reports that covered Waikato valley (1959) Bay of Plenty (1962), Marlborough (1962), Northland (1964), Nelson (1965); Otago (1967) Hawkes Bay (1971), Wanganui (1971) and Waikato (1973) among others. The regional and locality populations (and population projections central to planning) were published separately.

By the 1970s this work petered out and was supplemented by more analytical regional planning studies (Manawatu, Hawkes Bay, BOP, Marlborough, Central North Island). These strategic studies drew on a range of central, local and MWD resources to analyse and model regional issues: e.g. the Central North Island Study was to work out ways in which the large forestry resources of the central plateau – many areas planted in the 1930s – might be effectively transported to processing, coastal ports and other economic opportunities. A common issue was how to accomplish new suburbs to accommodate increasing population numbers without destroying horticultural capabilities. A social aspect was built into some of these plans; for example, in the Hawkes Bay Planning Study a postal survey of resident's views on urban expansion was undertaken but with a very low response rate.

Alongside this programme was a general effort to support work of regional/united councils on topics such as rural residential and household mobility, led by Lindsay Gow, who later was deputy CEO of MFE, and Patsy Fischer, supported by social policy consultants including Peter Melser and Alan Levett (see Crothers & Dwyer, 2010). TCP material was widely circulated around councils and other units. It was backed up by an extensive, annual bibliographic exercise (the *Planning Research Index*).

## Social research capacity in NZ

During this period there was a build-up of social research staff in government departments, including a cohort of sociologists. An effervescence of social surveys amongst NZ Ministries/departments followed, and included the Department of Statistics (now Statistics NZ), which carried out supplementary survey modules piggybacked on the new Household Survey (on topics such as housing conditions, travel to work, health services, etc.). Wider availability of small-area census data facilitated community profiling and an early generation of social indicators emerged. In addition, large surveys were carried out by the National Housing Commission, Department of Internal Affairs, Ministry of Recreation & Sport, Department of Social Welfare and others. Consideration of public views and evidence of social impact of policies had become part of the technology of governance.

These surveys were largely confined to reports on objective circumstances or answers to batteries of Likert-type satisfaction scales, and did not include much qualitative information. It is useful to draw attention here to an interesting early study – Hydrotown (Campbell, 1957) – brought into the mainstream literature by a secondary analysis (Burch, 1969) of the construction camp of the Roxburgh Hydro Project, perhaps the best NZ ethnography on this topic. The reanalysis is organized around the requirements to build community, whereas successive management of project construction accommodation failed to engender social solidarity in work ‘camps’, leading to poor labour-management relations, high worker turnover and poor productivity.



View of village attached to Roxburgh Hydroelectric project, Otago, New Zealand. Whites Aviation Ltd: Photographs. Ref: WA-35517-F. Alexander Turnbull Library, Wellington, New Zealand. /records/23145392

## Working in TCP

As a summer student project, I was employed to measure up the land use coverage of a sample of c40 NZ towns of various sizes, replicating in some part a US study (Crothers, 1976a). Distinct patterns of densification by size of settlement were found. I was appointed an Investigating Officer (later a Senior IO) in 1977 and continued until 1982 when I moved to the Department of Sociology at the University of Auckland.

*There were 3 classes of research-orientated civil servants, all part of the wide Clerical 007 class: advisory officers (usually marooned composing answers to letters to Ministers/Ministries or similar low level tasks) investigating officers who might carry out research and/or develop policy, and a few research officers who held more detached positions.*

My main task was to produce working papers and a report on internal migration based on an extensive Department of Statistics survey (for which we had an SPSS file of the unit record data, albeit strictly bound by State servant secrecy). Side-projects included methods for public participation, with NZ examples, and later – in association with Paddy Gresham from CFE –developing a



conference on Public Participation in NZ with supplementary material and the publication of the conference proceedings (Crothers and Gresham, 1979). This conference canvassed various public participation approaches in a fairly orthodox manner but drew much-needed attention to this important aspect of local democracy.

Research into mental stress by Stephen Webb & John Collette (1977) examined pharmacy prescription rates, finding that rural (small town) residents were apparently more stressed than urban, and challenging the notion of 'rural tranquility'. However, questioning their distinction between rural and urban residents, and knowing that rural residents draw on pharmacies in the towns, my analysis suggested the reverse pattern of anti-depressant use was more likely, and this was proved in subsequent survey research (Crothers, 1978b). This interest in rural-urban differences led to a flurry of work on measures of population density (e.g. Crothers, 1976b; 1976c; 1992) and consideration of its social consequences. I also participated in some of the regional planning studies in Hawkes Bay and to some extent Marlborough (Crothers, 1978a), for which I organized a survey of views on the expansion of the region, examined data on land parcels to assess their capacity for subdivision and critiqued some of the models being used in the cost-benefit analyses of alternative expansion options, which included attempts to measure agricultural loss. I was also able to offer assistance with processing and analyzing data for Danna Glendining's survey later published as 'Why are they leaving Eketahuna?' (Crothers, 1978b).

### **Early intimations of SIA**

An early task on joining TCP was to review the Huntly Power Station Social and Economic Impact Monitoring Project, an 'urban industrial' aspect of environmental policy (Whittle, 2013). Planning for the Power Station began in 1971 and the monitoring project, mainly funded by MWD, was set up in the mid 1970s. The project is broadly recognized as the first Social Impact Assessment/ Monitoring project in NZ and looked to provide generic advice for subsequent SIA work. The University of Waikato funded a unit under the leadership of Tom Fookes (1981), who wrote his PhD out of the project, and Bob Dury, who later worked for the Waihi gold mine development company. Useful background investigations were carried out on Māori aspects by Dr. Evelyn Stokes. The approach of the unit was to assemble sets of accessible data, together with regular meetings of a forum of residents and representatives from a range of agencies. Unfortunately, the project's statistical analysis was limited in its ability to examine interrelationships and timelines and the project came to rely heavily on public participation tapping into residents' experiences. This was an expensive exercise and at least one lesson was the need to include both qualitative and quantitative data in social monitoring frameworks.

A later exercise involved exploration of various Waikato coalfields, with the firm Murray-North engaged to lead an investigation into the consequences of different developments (Lewthwaite, 1984). Ironically, having criticized other project developments for bringing in social concerns too late to have any effect on the location decision, the project team now complained that they had been brought in too early and there was not enough information to allow adequate consideration of options. This is an ongoing dilemma for considering infrastructure options.

A study of the attitudes of Lower Waitaki residents to possible hydro developments on the lower river was conducted by contract anthropologist Ruth Houghton (1980), who was linked to the University of Otago. She used in-depth interviews based on a snowball sample, starting with County officials, while living locally in a caravan.<sup>[1]</sup> This technique raised methodological issues for me, with respect to including a full range of groups and viewpoints in social impact analysis, including farm workers and those for and against a development project.

Asked to attend a meeting of design engineers of Power Division to discuss develop strategy, I made some remarks around the importance of relating engineering works to their community and societal contexts. Top management resolutely supported this view, while younger engineers were less convinced. On a tour of central Otago developments with some power engineers there were conversations with project staff. One consequence was a memo addressed to me from Max Smith, the Project Engineer for the Waitaki (with a fearsome reputation for pushing power developments and publically reported as threatening to send his bulldozers down the Waitaki River building dams along the way.) I immediately took the memo up to the top floor! (It was well above my pay grade).

Two further involvements with SIA brushed with my leaving MWD. The [Patea Freezing Works](#) was a large meat-processing plant (1883-1982) employing nearly 1000 workers during peak season. However, in the early 1980s and a downturn in the New Zealand meat-processing industry the company suffered badly and the Patea works were among the first to close down, ending operations in September 1982. Patea reeled and a TCP study to investigate the likely social impacts and explore development alternatives was set up (Melser, et al., 1982). Tensions involved those seeing the needed strategy as ameliorative – sending in social workers to sooth the town on its death bed versus others who wanted economic development possibilities explored. The famous Poi E song from the Patea Maori Group emerged from the town and a later review of regional development implications was written by Patsy Fisher (1982).



Patea Freezing Works - abandoned

Extensive petro-chemical developments in Taranaki became a government concern and MSD and MWD got together to help fund the Taranaki Energy Monitor, coordinated by Yvonne Landon (1982) with some advice from both Ministries. Carrying out objective monitoring is always fraught, and Yvonne supported a mothers' group where many were in difficult circumstances, which led some local leaders to consider she was abandoning her neutrality.

After moving to Auckland University, I was involved with the Marsden Point Expansion social monitoring project, set up in 1982 under the auspices of the Northland Regional (Planning) Council. This was a community-based, action-research effort supported by a wide range of community organisations with several funding sources, including the Labour Department's Project Employment Programme. The monitoring was to measure the concerns of Whangarei residents about the expansion of the refinery at Marsden Point and social issues prior to and during construction (McPherson, 1982; McPherson and Blair, 1984). The Social Impact Survey produced a series of

eight monitoring reports from the group based in Whangarei - led by Jill McPherson.

TCP provided a Wellington-based informal support structure for the development of SIA – working with units of other Government Departments with a community development interest, e.g. DIA where Bill Buxton was a ‘roving ambassador’. Mary-Jane Rivers and others brought a community development approach and social policy interests into TCP. During 1983 and 1984 a series of workshops on the social impacts of the major energy projects in Taranaki and Whangarei led to a set of working principles drawing on the emerging SIA community and a very useful guideline was developed (Conland, 1985). A report on Social Impact Assessment was also prepared for the Royal Commission on Social Policy. The Unit later transferred to SSC and monitored impacts of Rogernomics, which was generating social impacts from large redundancies amongst forestry, rail and other government-owned, services and workforces, often in smaller provincial centres. Several regional monitoring exercises were commissioned.

## Envoie

There is continuing tension between social research and community development approaches to SIA: with each driving a different set of methodologies. Community approaches use devices such as community meetings, locating responsibility for identifying impacts with those impacted, opposed to more formal social research – both approaches are ideally combined. There is also tension between pre-construction SIA and the prediction of impacts for projects and the rights of land owners and other stakeholders to present their case/defend their turf in front of appropriate planning authorities and the Environment Court.

## References

- Buchan, D. and Rivers, M. J. (1990) *Social impact assessment: development and application in New Zealand*. Impact Assessment Bulletin, 8(4): 97-105.
- Burch, W. R (1969) *The Nature of Community*. in John Forster (ed.) *Social Process in New Zealand*: Wellington: Longman Paul: 79-101.
- Campbell, W.J. (1957) *Hydrotown: the social history of an industrial boom settlement*. University of Otago.
- Conland, J. et al. (1985) [Social impact assessment in New Zealand: a practical approach](#). TCP Division, MWD.
- Crothers, C. (1976a) *Land Use Structures of New Zealand Towns*, Town Planning Quarterly, 42: 15-25.
- Crothers, C. (1976b) *Three Problems with Density Indices*, Australia and New Zealand Journal of Sociology, June 1976, 12(2): 152-153.
- Crothers, C. (1976c) *The Reliability of Density Measures*, Urban Affairs Quarterly, June 1978, 13(4): 491-494.
- Crothers, C. (1978a) *"Methodological Notes" in Public Participation Programme*, Hawkes Bay Area Planning Study Report 5, TCP Division, MWD, February 1981, 15-30.
- Crothers, C. (1978b) [On the Myth of Rural Tranquillity: Comment on Webb and Collette](#). American Journal of Sociology, 83: 1441-1445.
- Crothers, C. (1978c) "Background" in Glendining *Why Did They Leave Eketahuna?* Press Works, Martinborough, pp. 6-9 (with Ann Gillies).
- Crothers, C. with Paddy Gresham (eds.) (1979). Proceedings, Symposium on Public Participation in



Environmental Planning. Commission for the Environment and TCP Division, MWD, 273 pp.

Crothers, C. (1985) *Marsden Point Expansion Project wind-down study*. MRC Workers Intentions: MRC Site Ctte.

Crothers, C. (1992) [Household residential change in New Zealand : January 1979](#). Department of Sociology, University of Auckland. Crothers, C. & Dwyer, T. (2010) Obituary: Allan Edward Levett. *New Zealand Sociology*, 25(1): 131-140.

Fischer, P (1982) [Patea and regional development : an inter-regional reconnaissance report](#). Wellington: TCP Planning Division, MWD.

Fookes, T. W. (1981) *Generalisations Drawn from the Huntly Monitoring Project: A Discussion Referring to Matters of Policy, Planning and Public Participation Arising from Events Monitored at Huntly*. Huntly Social and Economic Impact Monitoring Project. University of Waikato, School of Social Sciences.

Glendining, D. (1978) *Why did they leave Eketahuna? : a report on a study of outward migration*. Masterton: Wairarapa Education and Rural Services Committee.

Houghton, R. (1979) [The West Coast regional lifestyles and regional planning : a social anthropology study](#). Christchurch: TCP Planning Division, MWD.

Houghton, R. (1980) [Lower Waitaki communities study: interim summary report](#). Wellington: TCP Division, MWD.

[Landon, Y. \(1982\) A report on the social effects of energy development in North Taranaki: community concerns: summary report](#) New Plymouth: Citizens' Advice.

Lewthwaite, J.; Fraser, I and Meade Rose, J. (1984). [Waikato energy developments: infrastructure and social impact study: social impact assessment: Waikato coal fired power station](#). Murray-North Partners.

[Maiden, C. \(2008\) An energetic life: Colin Maiden: an autobiography](#). Dunmore Publishing.

McPherson, J. (1982) *Marsden Point Refinery Expansion Social Impact Survey: Progress Report Number 1*. Prepared for: Interested Community Groups and Government Agencies. Northland Community College.

McPherson, J. and Blair, R. (1984) *Marsden Point Refinery Expansion Social Impact Survey: Progress Report Number 6*. Prepared for: Interested Community Groups and Government Agencies. Northland Community College.

McPherson, J. (1996) [Power and politics in provincial New Zealand : a test of the growth machine theory](#). Auckland: Dept. of Sociology, University of Auckland.

Melser, P.; Lloyd, J.; Moore, C.; & Levett, A. (1982) *Patea after the freezing Works: An Assessment of the Social and Economic Impact of the Closure of the Patea Freezing Company*. Technical Report No 12, TCP Division, MWD.

[Muir, J. C. \(2021\) Opus works: a short history of the New Zealand Government's infrastructure development New Zealand](#). Opus International Consultants Limited.

[Nicholls, M. and Piesse, D. \(1982\) The consequences of closure: a study of the social and economic impact of the Southdown Freezing Works closure](#). Planning Division, Auckland Regional Authority; Economic Research Unit, University of Auckland.

[Noonan, R. J. \(1975\) By design: a brief history of the Public Works Department](#), Ministry of Works, 1870-1970. Wellington: Govt. Printer.





[Norman, R. G. \(1997\)](#) *You can't win 'em all: confessions of a public works engineer*. Slide Rule Press.

Peck, L. (1985) [Closedown: a review of New Zealand literature pertaining to industrial closedowns and mass redundancies, 1980-1984](#). TCP Directorate, MWD.

[Phillips, P. \(1979\)](#) *A question of priorities: New Zealanders in conversation about the future*. Wellington: Commission for the Future.

Preston, D. (2018) *For whom the bell tolls: The sustainability of public social research institutions in New Zealand*. Wellington: Superu.

Putt, B. and Dianne B. (1987) [Project Wind-down: an experience in community consultation](#). Town & Country Planning Division, Ministry of Works & Development.

Pomeroy, A. (2019) [Insights from the eighties: early Social Impact Assessment reports on rural community dynamics](#). NZAIA Impact Connector #8.

Switzer, K. (1978) *Public participation in planning*. TCP Division, MWD.

Taylor, C. N. and Mackay, M. (2016) *Social Impact Assessment (SIA) in New Zealand: Legacy and Change*. *New Zealand sociology*, 31 (3), 230-246

Webb, S. and Collette, J. (1977) *Rural-Urban Differences in the Use of Stress-Alleviative Drugs*. [American Journal of Sociology](#) 83 (3): 700-707.

Webb, S. and Collette, J. (1979) *Rural-Urban Stress: New Data and New Conclusions*. [American Journal of Sociology](#) 84 (6): 1446-1452. [.jstor.org/stable/2777903](https://www.jstor.org/stable/2777903)

Whittle, J. (2013) ['Into the backyard: Huntly Power station and the history of environmentalism in New Zealand'](#) ENNZ Vol 08, No 1. (Article based on part of Jo Whittle's thesis *Electric Landscapes: Electricity and Environment in New Zealand, 1902 to 1980*, completed in 2011)