

THE HISTORY

OF THE CANADIAN LAND RECLAMATION ASSOCIATION / ASSOCIATION CANADIENNE DE RÉHABILITATION DES SITES DÉGRADÉS

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Many of us have been involved with the Canadian Land Reclamation Association / Association canadienne de réhabilitation des sites dégradés (CLRA/ACRSD) for some time now; however, few of us know how it all began 35 years ago. This article takes a look at the history of the CLRA/ACRSD, its progression over time, and provides a snapshot of today and the future.

IN THE BEGINNING

The inception of the CLRA/ACRSD occurred during discussions held by the Ontario Cover Crop Committee (OCCC), “a small, informal study group” that “met annually in Guelph, Ontario to discuss land rehabilitation problems and communicate technical information to as broad an audience as possible” (CLRA/ACRSD, 1978/1979). The OCCC, formed in 1970 (Winch, 1978), appeared to have broad contacts across Canada, the eastern United States and overseas, likely due to the research interests of Dr. Ed Watkin and Dr. Jack Winch. Dr. Winch, the committee President, and Dr. Watkin, the committee Secretary, were both on the faculty of the Crop Science Department, University of Guelph, Ontario. Dr. Winch was a teaching and research professor specializing in forage crops, and Dr. Watkin was a non teaching research scientist under contract with Noranda Mines (S. Lowe, personal communication).

At the fourth meeting of the OCCC in December, 1974, there was a suggestion to form a Canadian Association “which would concern itself with the problems and solutions to land reclamation in the broadest sense” (Proceedings



1977 CLRA/ACRSD CONFERENCE AND AGM, EDMONTON, ALBERTA. GROUP FLYING TO FORT McMURRAY FOR THE ATHABASCAR TAR SANDS FIELD TRIP. FIRST CLRA/ACRSD PRESIDENT, DR JACK WINCH, SECOND FROM THE LEFT.

PHOTO COURTESY: SARAH LOWE, DUFFERIN AGGREGATES.

of the Inaugural Meeting, 1975, p. vii). The notice of the fifth annual workshop and call for papers dated September 11, 1975, announced that during the meeting to be held on December 10 and 11, 1975, half a day would be devoted to “the discussion of the proposal that the Ontario Cover Crop Committee be dissolved and be replaced by a national organization called the Canadian Association for Land Reclamation” (Watkin, Call for Papers).

On December 9, 1975, prior to the main event, a meeting was held by a “group of persons interested in forming a Canadian Association for Land Reclamation” (Proceedings of

the Inaugural Meeting, 1975, p. vi). Seventeen people attended, including delegates from Ontario, Alberta and British Columbia. This working group was unanimous that a “Canadian Land Reclamation Association be formed, and that the results of its meeting presented to the 5th Annual Workshop of the Ontario Cover Crop Committee on December 10th for consideration by those present at the workshop meeting” (Proceedings of the Inaugural Meeting, 1975, p. vi).

Based on that discussion, a special meeting was held December 10, 1975, during the OCCC meeting. A number of recommendations were discussed in

the meeting, for example, “it was the view of the working group that an association is urgently needed as no organization is in existence that is concerned with all aspects of land reclamation and it is our recommendation that such an association be formed” (Proceedings of the Inaugural Meeting, 1975, p. vii). Also, “it is suggested that if an association be formed, then the dues for the year 1976 be set at \$15, \$10 and \$5 for Active, Associate and Student members respectively” (Proceedings of the Inaugural Meeting, 1975, p. viii).

Several motions were moved at the meeting, such as “an organization concerned with Land Reclamation be formed”; “That the name Canadian Land Reclamation Association be accepted”; and “That nominations be called for to form an interim executive for 1976 for the Canadian Land Reclamation Association” (Proceedings of the Inaugural Meeting, 1975, pp. viii-ix). It was then proposed that the present Chairman, Dr. Winch, and the present Secretary, Dr. Watkin, of the OCCO, accept the nomination for President and Secretary/Treasurer of the Canadian Land Reclamation Association, respectively.

The first business meeting was held December 11, 1975, in the Arboretum Centre at the University of Guelph, and the following individuals were elected: President, J. E. Winch (University of Guelph); Vice president, J. V. Thirgood (University of British Columbia); and Secretary Treasurer, E. M. Watkin (University of Guelph). The executive committee included F. D. Bayles, G. M. Courtin (Laurentian University), Robin Gardner (B.C. Power and Hydro Authority), Ted Laidlaw (Alberta Environment Conservation Authority) and P. D. Lulman (Syncrude Canada Ltd.).

The original CLRA/ACRSD constitution included 10 objectives (Table 1). Most of these objectives have not changed much over the years, but have been refined to reflect changes in the CLRA/ACRSD.

Table 1. Original and present-day aims and objectives of the Canadian Land Reclamation Association.

ORIGINAL OBJECTIVES	PRESENT OBJECTIVES
(1) To further knowledge and understanding of problems and solutions in land reclamation through planning, design, biological, engineering and educational means.	1. To promote education and professionalism in land reclamation.
(2) To provide opportunities for those interested in and concerned with land reclamation to meet and exchange information, ideas and experiences.	2. To recognize places, products, organizations and people that demonstrate excellence in land reclamation.
(3) To encourage the investigation of problems pertaining to land reclamation.	3. To stimulate the practice of reclamation, encourage investigation of problems, and promote development of technical and regulatory solutions.
(4) To stimulate the incorporation into planning and practice of advances resulting from research, experimental work and practical experience.	4. To maintain and develop national and international strategic alliances that support the vision and mission of the CLRA/ACRSD.
(5) To collect information relating to land reclamation and publish periodicals, books and leaflets which the Association may think desirable.	5. To provide opportunities for members to meet and exchange information, ideas and experiences in land reclamation.
(6) To encourage education in land reclamation.	6. To collect and publish land reclamation information.
(7) To co-operate with any other organization in furthering any of the objectives of the Association.	7. To do all that is incidental or conducive to the attainment of the above objects and in particular to receive, maintain and use funds to establish and maintain education, research, promotion and publishing activities or to aid in such activities, agencies and institutions already established.
(8) To make and frame such regulations and by-laws as may be considered necessary for the conduct of the Association and the attainment of its objectives.	
(9) To admit to membership of the Association persons concerned with or interested in the objectives of the Association.	
(10) To do all such things as may be indicated or conducive to the attainment of the above objectives.	

SOURCE: Proceedings of the Inaugural Meeting, Canadian Land Reclamation Association, December, 1975 (Crop Science Department Ontario Agricultural College, University of Guelph, Guelph, Ontario, March 1976), p. ii; www.clra.ca.

FOUNDING MEMBERS

According to the CLRA/ACRSD archives, the Association was comprised of 60 founding members from across Canada. Ontario, Alberta and British Columbia carried the majority of the members; however, there were representatives in Saskatchewan, Manitoba, and Québec, as well as United States and International representatives. A number of the founding members

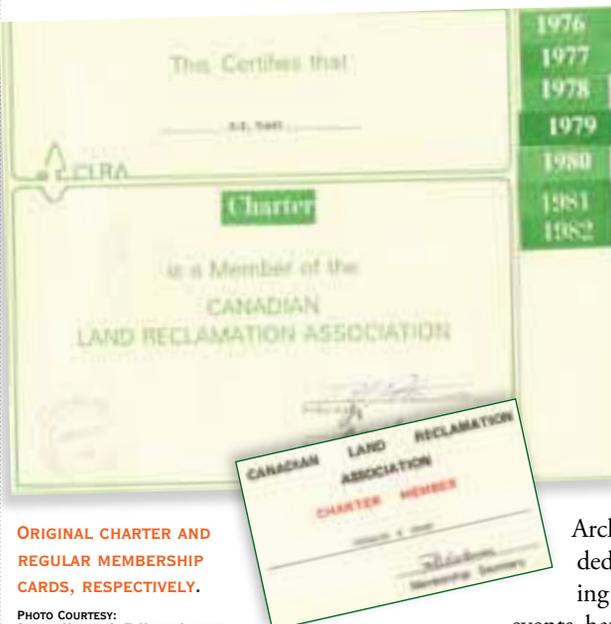
are still involved today with the CLRA/ACRSD in some capacity. For example, the 2006/2007 President of the National Board was Sherry Yundt, who was not only a founding member of the CLRA/ACRSD, but also received the Dr. Edward M. Watkin Award in 1998, the esteemed Noranda Land Reclamation Award in 2003, and sat on the National Board as a Director from 2002 until August 2006, when she became President.

MEMBERSHIP NUMBERS

In a short three year span, the CLRA/ACRSD membership grew to include “approximately 300 active members, with a world-wide mailing list of some 1,200 persons” (Winch, 1978). Today, we have over 1000 members, with a continued increase in corporate membership.

THE CLRA/ACRSD NATIONAL CONFERENCE AND ANNUAL GENERAL MEETING

The first major task of the executive was to hold the first Annual General Meeting (AGM) at the University of Guelph on November, 1976. The 1976 inaugural AGM saw 145 people with a wide range of backgrounds in attendance, from Newfoundland to British Columbia, and a handful from the United States. In the continued tradition of the CLRA/ACRSD, the annual national conference and AGM has been held over the past 35 years across Canada, and in one instance in the United States. Ontario, Yukon, British Columbia, Nova Scotia, Alberta, Saskatchewan, Québec, and Pennsylvania have all been hosts for this annual event (CLRA/ACRSD Archives). Much hard work and dedication has gone into making each one a reality, and these events have contributed to the overall



ORIGINAL CHARTER AND REGULAR MEMBERSHIP CARDS, RESPECTIVELY.

PHOTO COURTESY: SHERRY YUNDT, S. E. YUNDT LIMITED.

success of the CLRA/ACRSD as an association, and as a national entity.

THE RECLAMATION REVIEW

The second major task of the original executive was to secure a publisher for a journal dealing with land reclamation. Dr. J. V. Thirgood, Faculty of Forestry, University of British Columbia, headed this up, and was a key person in the development of the Association due to his leadership, and his involvement with the BC research group. Pergamon Press was chosen as the publisher for the journal, which was called the "Reclamation Review". The journal was an important component of original focus of the CLRA/ACRSD, and was to be the primary tool for dissemination of information to the national and international reclamation community.

The Review was to be published quarterly, depending on materials submitted, and all members of the CLRA/ACRSD were to receive the journal free

articles, and to include such additional details of new equipment, people on the move, etc., and indeed any items that are of interest to reclamationists world-wide and which are brought to the notice of the Editor" (Proceedings of the Inaugural Meeting, 1975, p. v).

An editorial board was developed that included international reviewers from Canada, United States and the United Kingdom. At the time, the Review was the "only journal in the world devoted to bringing together information on problems and solutions in reclamation" (Winch, 1978).

THE NEXT STEPS

The two AGM and national conference events following the inaugural AGM were held in Edmonton, Alberta in 1977, and Sudbury, Ontario in 1978. Both sites were strong centres of active reclama-



1977 CLRA/ACRSD CONFERENCE AND AGM, EDMONTON, ALBERTA. DR. KEITH WINTERHALDER FOLLOWING DR. JACK WINCH DOWN THE SLOPE OF THE OVERBURDEN/MUSKEG DUMP AT THE GREAT CANADIAN OILS SANDS (GCOS), ATHABASCAR TAR SANDS.

PHOTO COURTESY: SARAH LOWE, DUFFERIN AGGREGATES.



1977 CLRA/ACRSD CONFERENCE AND AGM, EDMONTON, ALBERTA. DR KEITH WINTERHALDER LOOKING AT EXPERIMENTAL PLOTS AT POPLAR CREEK, ATHABASCAR TAR SANDS (SYNCRUDE).

PHOTO COURTESY: SARAH LOWE, DUFFERIN AGGREGATES.



of charge. Others were to be charged as follows: Members of affiliate groups \$15.00; private subscribers (for personal use only) \$40.00; and libraries, research institutions and other multiple reader institutions \$71.50 for one year, \$135.85 for two years (Watkin, Coaldrake, Humphries, Wali & Peters (Eds.), 1978). The Review was to replace and expand on the Reclamation Research Newsletter, and was to include "news items, notice of forthcoming events, requests for information, short abstracts of new publications, but also it is intended to publish original

tion and research, with many representatives from Universities, government and industry working with mine reclamation. The 1977 Edmonton meeting field trip focused on the techniques used at the developing Athabasca Tar Sands in Fort McMurray, and the 1978 Sudbury meeting field trip centred on metal mining.

In a letter dated February 3, 1978, Dr. J. E. Winch, still President of the CLRA/ACRSD, requested that The Honourable L. Marchand speak at the third CLRA/ACRSD annual national conference and AGM, to be held in



1978 CLRA/ACRSD CONFERENCE AND AGM, SUDBURY, ONTARIO. GROUP AT TAILINGS RECLAMATION, ELLIOT LAKE URANIUM MINE (LOWER WILLIAMS LAKE). APPLICATIONS OF 45 TONNES PER HECTARE QUICKLIME. DR. PETER BECKETT AT FAR LEFT.

PHOTO COURTESY: SARAH LOWE, DUFFERIN AGGREGATES.



1978 CLRA/ACRSD CONFERENCE AND AGM, SUDBURY, ONTARIO. DEMONSTRATION OF AGRICULTURAL TECHNIQUES - A CLODBUSTER USED TO PREPARE SOIL FOR SEEDING, INCO.

PHOTO COURTESY: SARAH LOWE, DUFFERIN AGGREGATES.

PHOTO 12. 1978 CLRA/ACRSD CONFERENCE AND AGM, SUDBURY, ONTARIO. PYRRHOTITE TAILINGS POND — SALT CRUST, FALCONBRIDGE NICKEL MINES.

PHOTO COURTESY: SARAH LOWE, DUFFERIN AGGREGATES.



1978 CLRA/ACRSD CONFERENCE AND AGM, SUDBURY, ONTARIO. LAURENTIAN UNIVERSITY EXPERIMENTAL TRIALS FOR ESTABLISHING GRASSES (CANADA BLUEGRASS AND RED TOP) AT CONISTON SMELTER: PH 4.5, HIGH COPPER AND NICKEL. PLOTS INCLUDED LIME AT TWO TONS PER ACRE, LIME PLUS NITROGEN, AND JUST NITROGEN. DR. KEITH WINTERHALDER FACING CAMERA WITH SHORTS AND BARE FEET.

PHOTO COURTESY: SARAH LOWE, DUFFERIN AGGREGATES.



1978 CLRA/ACRSD CONFERENCE AND AGM, SUDBURY, ONTARIO. NEUTRALIZATION PLANT - THE POINT OF WASTE WATER TREATMENT, FALCONBRIDGE NICKEL MINES.

PHOTO COURTESY: SARAH LOWE, DUFFERIN AGGREGATES.

Sudbury, Ontario, in the spring of 1978. The CLRA/ACRSD felt that a Federal viewpoint should be expressed, again attesting to the national interests of the Association. In fact, the interest went much beyond the Canadian borders; it reached an international audience as well. Approximately half of the presentations at the third annual meeting were

to come from England, West Germany, Yugoslavia and the United States. On top of these incredible contributions to the young Association, “a number of smaller Canadian, American and European societies have petitioned to become affiliated with the CLRA/ACRSD for the purpose of forming an ‘International Land Reclamation Association’” (Winch, 1978). With the support and obvious need across the world for sharing knowledge about land reclamation problems and solutions, the CLRA/ACRSD “will continue as a national association but with strong affiliation with an international association” (Winch, 1978).

It would be many years before an international association was created; however, in 1991, after discussions held at the 1990 American Society of Mining and Reclamation (ASMR) conference, the International Affiliation of Land Reclamationists (IALR) was borne. Today, the IALR consists of five participating countries: Canada, Canadian Land Reclamation Association; United States, American Society of Mining and Reclamation; Britain, British Land Reclamation Society; Australia, Mineral Council of Australia; and China, China Land Reclamation Society (<http://ces.ca.uky.edu/asmr/ialr.htm>).



MAY 1986, ONTARIO CHAPTER EVENT. BOB MICHELUTTI (FALCONBRIDGE) AND DAVE MURRAY (CANMET) ON ERODED SHORE LINE OF LAKE ERIE.
PHOTO COURTESY: SARAH LOWE, DUFFERIN AGGREGATES.



MAY 1986, ONTARIO CHAPTER EVENT. PROGRESSIVE REHABILITATION - GRAVEL PIT TO GOLF COURSE, STEED & EVANS LIMITED. GROUP AT PENINSULAR LAKES GOLF COURSE, FONTHILL. STEED & EVANS PLANT IN BACKGROUND.
PHOTO COURTESY: SARAH LOWE, DUFFERIN AGGREGATES.

THE CLRA/ACRSD TODAY

It is apparent that the CLRA/ACRSD continues to strive toward fulfilling the objectives set out by the founding members. Members are from wide-ranging backgrounds including government, industry, University and consulting sectors, with much collaboration between these groups. We continue with the spirit of information sharing, networking and educational support, through conferences, awards, publications and chapter activities.

The CLRA/ACRSD developed a strategic plan in 2007 that provides, for example, better definition of services available to the membership, direction for the ever-changing National Board, and a clearer role of the National Board in relation to each of the chapters. The National Board uses this plan as a guideline for their undertakings each year. Presently, a new CLRA/ACRSD brand and website are in the works. The new CLRA/ACRSD logo has been designed, and items such as booths and brochures are under development. The website will enable members to renew memberships and register for events online, and access an array of resources.

CONFERENCES AND AGMS

National conferences have been going strong over the years in locations across Canada. The 35th national confer-



MAY 1986, ONTARIO CHAPTER EVENT. PROGRESSIVE REHABILITATION - GRAVEL PIT TO TENDER FRUIT, TCG MATERIALS LIMITED. GROUP IN CHERRY ORCHARD PLANTED ON FORMER SETTLING PONDS, TENDER FRUIT REGION OF THE NIAGARA PENINSULA.
PHOTO COURTESY: SARAH LOWE, DUFFERIN AGGREGATES.

ence and AGM was in progress at the time this article was being updated. The conference was held jointly with British Columbia's Technical and Research Committee on Reclamation (TRCR) in Courtenay, British Columbia.

The 2009 CLRA/ACRSD National Conference and AGM was held in Québec City.

AWARDS

Awards have been and continue to be an important aspect of the CLRA/ACRSD.

The **Noranda Land Reclamation Award** is a prestigious award of the CLRA/ACRSD. Nominations for this award reflect the *outstanding contributions* of the nominee in the areas of professional practice, teaching, research, and/or regulating authority as they relate to



DAVE POLSTER (FOURTH FROM RIGHT) AND HIS CREW OF PARTICIPANTS AT THE SHORT COURSE DEVELOPMENT OF NATURAL PROCESSES FOR RECLAMATION OF DISTURBED SITES. PHOTO: DAVE POLSTER.



PETER BECKETT PRESENTING LINE ROCHEFORT WITH THE NORANDA AWARD — BEAR AND PLAQUE — AT THE CLRA/ACRSD AWARDS CEREMONY. LINE ROCHEFORT RECEIVED THE AWARD IN RECOGNITION OF HER WORK, AND THE WORK OF HER RESEARCH GROUP (PERG), FOR THE DEVELOPMENT OF PEATLAND RESTORATION TECHNIQUES THAT HAVE BEEN PROVEN EFFECTIVE IN CANADA. THESE TECHNIQUES ARE ALSO BEING TESTED ABROAD.

PHOTO: FRED BONNER.



PARTICIPANTS DISCOVER THE RESTORED ZONE AT THE BOIS-DES-BEL PEATLAND SITE. THEY ARE IMPRESSED BY THE TYPICAL ASSEMBLAGE OF PEATLAND PLANTS — INCLUDING *SPHAGNUM* MOSSES — THAT DEVELOPED IN THIS ZONE OVER THE PAST 10 YEARS. RESTORATION WORK WAS COMPLETED A DECADE AGO USING METHODS DEVELOPED BY THE PEATLAND ECOLOGY RESEARCH GROUP (PERG).

PHOTO: SUZANNE CAMPEAU.

FRED BONNER ACCEPTING THE DR. EDWARD M. WATKIN AWARD AT THE CLRA/ACRSD AWARDS CEREMONY ON BEHALF OF DAVID HOPPER AND HIMSELF. FRED AND DAVID ESTABLISHED THE CLRA/ACRSD ATLANTIC CHAPTER, INCLUDING THE ANNUAL ATLANTIC RECLAMATION CONFERENCE (ARC), HOSTED TWO NATIONAL CLRA/ACRSD MEETINGS, AND LEAD THE CLRA/ACRSD THROUGH THE STRATEGIC PLANNING PROCESS, ALONG WITH OTHER SERVICES IN THEIR ROLE AS CLRA/ACRSD DIRECTORS.

PHOTO: TRACY PATTERSON.

the profession of land reclamation in Canada and internationally. Nominees are widely recognized for their contributions in the field of land reclamation spanning a significant portion of their career (www.clra.ca).

The **Dr. Edward M. Watkins Award**, named after the founding member previously mentioned, is presented by the CLRA/ACRSRD in recognition of major contributions to land reclamation, particularly through service, to foster advances in regulation, reclamation success, or development of personnel or students. The recipient may be an individual or agency, institution or company (www.clra.ca).

Student awards are also a very important aspect of the CLRA/ACRSRD, and each year numerous awards are presented for papers and posters.

CHAPTER ACTIVITIES

Along with the national conferences and AGMs, chapters are going strong in British Columbia, Alberta, Ontario and Atlantic Canada. There is also great news – it has been nearly 10 years since the Québec chapter has been active, and this year the chapter was re-established.

Due to the varied demographics in each province/region, different activities take place to meet the needs of that particular chapter. Meetings, tours, luncheons, workshops are just some of the activities created and maintained by the CLRA/ACRSRD chapters.

PUBLICATIONS

For the past nine years, a different type of publication has been published on behalf of the CLRA/ACRSRD, the Canadian Reclamation magazine. You are holding this “information-sharing” tool as you read this article! As land reclamation touches a vast array of disciplines, industries, levels of education and topics, Canadian Reclamation strives to provide something for everyone. The magazine encourages all types of submissions such as projects, scientific research, products/services, social/community issues, member/company profiles, reclamation news and upcoming events. Canadian Reclamation is published as a bi-annual magazine, and a separate membership directory is also published annually.

It is interesting to note that in the

The following message was received by the CLRA/ACRSRD from Dr. Jack Winch (Founding President, CLRA/ACRSRD) for the 2006 National Conference and AGM, held in Ottawa, Ontario.

I find it extremely rewarding that the CLRA has developed into a viable and influential organization in the field of reclamation over the past 30 years. The development and success of the organization has been rewarding to me and to Dr. Edward Watkin.

The organization began as the Ontario Cover Crop Committee in the Department of Crop Science at the University of Guelph in 1970. Interest in the organization grew rapidly and expansion occurred. Today it represents the entire reclamation industry.

I extend to the President, the Executive and all members my personal congratulations. I know you will have a successful meeting and will lay the foundation for future success and expansion of this beneficial and worthwhile organization.

- Dr. Jack Winch

President of CLRA/ACRSRD, 1976 - 1978

early days, the Reclamation Review journal had a CLRA/ACRSRD editorial board, and the focus was more on the technical and research aspects of reclamation. There has been a shift over time to reflect the development in the reclamation field toward a larger focus on policy and community rather than research. In response to this shift, the present-day publication, Canadian Reclamation, has evolved to be more of a trade journal rather than an academic journal.

THE CLRA/ACRSRD TOMORROW

The focus of industry, and thus land reclamation, may be different from one end of the country to the other, but industrial activity remains an ever-growing force across Canada. Because every province has some form of industry, land

reclamation remains vitally important across the country.

One only has to attend a CLRA/ACRSRD event to realize that the association is “the” voice of land reclamation across Canada, and beyond. The reclamation community continues to be very supportive of the CLRA/ACRSRD, and it is heartwarming to note that all of the hard work done over the years by many, many people since the inception of the CLRA/ACRSRD in 1975 has been a worthwhile effort.

The CLRA/ACRSRD strives to grow with the times, and there will be new endeavors as more aspects of the strategic plan are implemented. It will be exciting to see the Québec chapter evolve, and the new website and brand upon completion.

CONCLUSIONS

From the beginnings, when the OCCC in the Crop Science Department, University of Guelph, identified the need for a national association dealing with land reclamation, to the association that you are all a part of today, the CLRA/ACRSRD has held true to many of its objectives over the past 35 years. In fact, the original founding members of the CLRA/ACRSRD laid the groundwork for the establishment and legitimization of the land reclamation field as a profession in Canada. ■

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