

68th Annual Meeting

Western Snow Conference

April 18-20, 2000

Port Angeles, Washington



**PROCEEDINGS
OF THE
WESTERN SNOW CONFERENCE
PORT ANGELES, WASHINGTON**

APRIL 17-20, 2000

SIXTY-EIGHTH ANNUAL MEETING

**Charles Troendle (General Chair)
240 West Prospect Road
Fort Collins, CO 80526**

**Robert H. Swanson (Secretary/Treasurer)
#28, 216 Three Sisters Drive
Canmore, Alberta
Canada T1W 2M2**

**Editorial Committee:
Kelly Elder, Editor**

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2000 WESTERN SNOW CONFERENCE**

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MINUTES OF THE 2000 EXECUTIVE COMMITTEE MEETING

WESTERN SNOW CONFERENCE

PORT ANGELES, WASHINGTON

April 17, 2000

Welcome to the conference: Chuck Troendle

The 68th meeting of the Executive Committee of the Western Snow Conference (WSC) was called to order by General Chair, Chuck Troendle at 14:30, April 17, 2000. The current executive committee members, and their attendance at this meeting are:

Chuck Troendle	General Chair	Present
Bob Swanson	Secretary/Treasurer	Present
Jim Marron	Documents Manager	Absent

North Continental

Bob Jairell	Area Chair	Absent
Gerald Beard		Absent
Ted Gilbert		Present
Peter Palmer		Absent
Harold Steppuhn		Present

South Continental

Kelly Elder	Area Chair	Absent
Nolan Doesken		Present
Michael Gillespie		Absent
George Ingersoll		Absent
Randy Julander		Present
George Leavesley		Absent
Manual Martinez		Present

North Pacific

Jon Lea	Area Chair	Present
Matthew Brunengo		Present
David Gluns		Present
Don Huffman		Present
Scott Pattee		Present

South Pacific

Bruce McGurk	Area Chair	Present
Sue Becker		Present
Frank Gehrke		Present
Rick Kattelmann		Present
Randy Osterhuber		Absent
Gary Freeman	For Osterhuber?	Present

Past General Chairs

Jack Hannaford	Awards Committee	Present
Bob Swanson	Secretary/Treasurer	Present

Review and approval of 1999 Executive Committee minutes

- o Moved by Jon Lea, seconded by Rick Kattelmann that the minutes of the 1999 meeting, as published in the 1999 proceedings of the WSC be accepted.
- o Motion carried

- Treasurers Report (Edited and revised to 1 May 2000)

1999 Income and Expense Report		
May 1, 2000		
1999 Receipts		Amount
	Wsc Tie Sales	\$105.00
	1999 Dues	\$2,635.00
	Sale of Proceedings	\$2,113.12
	Registration, Banquet, Tour	\$8,291.00
	Vendor fees	\$2,595.00
	Bank Account Interest	\$66.26
	Total 1999 Income	\$15,805.38
1999 Expenses		
Proceedings		
	Printing	\$3,070.00
	Mailing	\$450.00
	Storage	\$660.00
	Sub Total Proceedings	\$4,180.00
Annual Meeting		
	Brochure	\$389.00
	Off-Site Penalty	\$569.21
	Registration Supplies	\$124.94
	Mailing	\$182.38
	Vendor Display	\$825.83
	Refreshment Breaks	\$1,295.61
	Spouse's Program	\$353.28
	JE Church Award	\$735.41
	Banquet	\$2,449.47
	Hospitality hour	\$360.34
	Rooms	\$1,020.61
	Technical Tour	\$689.92
	Sub Total Annual Meeting	\$8,996.00
	Total 1999 expenses	\$13,176.00
	Net 1999 Carryover to 2000	\$2,629.38
	Balance in Bank Account as of 31 Dec 1999	\$3,810.95

Year 2000 receipts and expenditures to 20 April 2000	
Receipts	
Member Dues	\$1,695.00
Sale of Proceedings	\$1,626.00
Registration, Banquet, Tour	\$6,190.00
Vendor fees	\$1,050.00
Sale Wsc Ties	\$105.00
Bank Account Interest	\$10.53
Total receipts to 20 April 2000	\$10,676.53
Expenditures	
General Expenses	
Bulk mailing and postage	\$201.31
Mailing Supplies	\$64.01
Sub Total General Expenses	\$265.32
Proceedings Expenses	
Printing	
Mailing to members	
Storage	\$330.00
Sub Total Proceedings Expenses	\$330.00
Annual Meeting Expenses	
Brochure	
Meeting Supplies	\$120.00
Registration Supplies	\$114.12
Exhibitor/Poster Display Tables	n/c
Refreshment Breaks	\$943.00
Spouse's Program	\$748.00
JE Church Award	
Banquet	\$2,529.00
Hospitality hour	\$649.42
Rooms	\$747.58
Technical Tour	\$555.00
Sub Total Annual Meeting Expenses	\$6,406.12
Total expenditures to 20 April 2000	\$6,736.12
Items left blank will be reported in the final accounting for the year 2000 which will appear in the 2001 WSC proceedings.	

- Annual meeting reports
 - 2000 Port Angeles, WA - Jon Lea
 - Jon reported that several papers had been withdrawn because the authors could not attend the conference. Some additional poster papers were accepted to fill out the program
 - The technical tour is on track as is the spouse tour to Butchart Gardens in Victoria.
 - 2001 Sun Valley, ID - Harold Steppuhn
 - Theme: SNOW, the Beauty and the Beast
 - Place: Sun Valley, Idaho
 - Dates: April 16-19, 2001
 - Papers covering all aspects of SNOW are welcome; possible categories and topics:
 - Irrigation, Recreational use, Frost protection, Soil water enrichment, Hydroelectric, Wind erosion protection, Flooding
 - Soil erosion, Roof loads, Transportation hazard
 - Snow physics, Processes, Snow hydrology, Snow measurement Snow cover, Snow accumulation, Snow biology, Runoff, Data handling, Modeling, Streamflow forecasting, Snow & water management, Information transfer, Historical events
 - 2002 South Continental area - Chuck Troendle
 - More details to follow after conferring with members of the area committee.
 - 2003 South Pacific area.
 - In Arizona, probably Phoenix or Tucson. Not firm as of this date.
 - 1999 South Lake Tahoe, CA - Bruce McGurk
 - Successful with good attendance.

- General discussion regarding location of annual meetings.
 - It was agreed at an earlier WSC conference that meetings should be at ski resorts as our dates are in an off-season and the rates are generally lower. However, the consensus at this meeting was that a good spouse program attracted more attendees, and that many spouses did not ski so that a ski resort was not necessarily a good draw.
 - Cost, particularly for rooms, is a factor and areas other than ski resorts should be considered if lower rates could be obtained.
- Publications committee – Chuck Troendle
 - Kelly Elder will be the new editor in place of Chuck Troendle who has retired from the USFS. As a Colorado State University faculty member, Kelly is able to have the proceedings printed at a lower rate than we have had prior to this year. Kelly's involvement in the printing this year saved us approximately \$1500.
 - In the past, the US Forest Service has paid the cost of mailing the proceedings as a service to the Western Snow Conference. This will no longer be the case and we must now budget to pay this cost ourselves. (Approximately \$300 to \$500 depending upon the size of the proceedings and the number mailed.)
 - One paper was inadvertently omitted from the 1999 proceedings. It will be published in the 2000 proceedings.
 - Electronic submissions are occurring but there are incompatibilities in word processing programs. Also not all typist use the same word processing features. Considerable editing is still necessary.
 - There was some discussion of publication in electronic medium, i.e., via the internet or on Cd's. The prospect of putting all past WSC proceedings on Cd's or the internet was also mentioned. These possibilities will be explored during the next year.
- Wilderness committee – Frank Gehrke
 - Frank indicated problems with USFS cost-shared snow survey programs in California. It appears that the USFS has little or no interest in the collection of basic watershed management data even though the provision of water is high on their list of forest uses. He has had problems meeting with the Regional Forester to discuss these concerns.
 - Part of the Sequoia National Forest was changed from forest administration to a National Monument without consultation with the users of snow survey data from that area.
 - There was a lengthy discussion as to who to contact regarding our concerns about not only the US Forest Service's lack of interest in basic watershed management data, but in a general cutback in all basic data collection programs.
 - A motion was made to draft a letter expressing our concerns regarding basic water management data collection. This letter would be sent to the Secretary of Agriculture and the Congressional delegations from each of the 11 western states. Carried without opposition.
- Snowflake ties – Jack Hannaford and Bob Swanson
 - We almost ran out of snowflake ties at the 1999 meeting in South Lake Tahoe. Jack Hannaford and Bob Swanson agreed to look into getting some more made.
 - We have contacted Linda Stannard, the person who used to make our snowflake ties, but she is no longer interested in carrying out this function.
 - Jack contacted several merchants in California to see if anyone else was interested in providing these ties. He found one supplier and placed an order for 230, based on approximately \$2000 being available to purchase these.
 - Two hundred twenty-eight ties, at a cost of \$2200, were received on 10 April, just before leaving for this meeting. Each tie costs us \$9.60 and we can still continue to supply them to the members for the current price of \$15.00. This will allow us to use a few as gifts to service personnel, etc., at the annual conference venue.
 - We are also in need of a jeweler to make the General Chair's ties. Bob Swanson is to contact one in Canmore to see if he is interested. If a suitable supplier can be found, Bob will order 10 to supplement the 2 we still have on hand. This will supply our needs through 2022. It should be noted that neither Jack nor Bob intend to be involved in purchasing more of these ties at that date!
- Awards committee – Jack Hannaford
 - Awards given at the 1999 - South Lake Tahoe, California
 - J.E. Church
 - Pascal Storck and Dennis P. Lettenmaier "Predicting the Effect of a Forest Canopy on Ground Snow Pack Accumulation and Ablation in Maritime Climates"
 - Best Paper
 - Pascal Storck and Dennis P. Lettenmaier "Predicting the Effect of a Forest Canopy on Ground Snow Pack Accumulation and Ablation in Maritime Climates"
 - Best Poster
 - Sarah Clements, Kathy Tonnessen and Kelly Elder "Spatial and Temporal Variations of Bulk Snow Properties in an Alpine/Subalpine Watershed, Rocky Mountain National Park"

- El Farsante
 - Peter Palmer - had the longest, unbroken string of El Farsante nominations without having actually received the award. However, the 1999 nomination got him over the top.
 - 2000 – Port Angeles, Washington,
 - Deceased member: Arnold Court
 - Retired members: Chuck Troendle, R.A. Schmidt, and Bob Jairell
- Discussion of criteria for Best Paper, Best Poster and J.E. Church awards
 - The criteria for the above awards will remain the same as it has been.
- Criteria for life membership
 - Life membership is open to any member or former member of the Western Snow Conference:
 - Who is a past General Chair of the conference.
 - Who has been active in the WSC for not less than ten years and who has retired and is spending less than fifty percent of their time in gainful employment.
- General Chair Elect
 - The North Pacific Nominated Don Huffman for the position of General Chair Elect. The nomination was accepted.
- Term of office, Secretary Treasurer
 - Bob Swanson was appointed Secretary/Treasurer through 2004.
- Printer for the WSC.
 - Bob Swanson stated that he was using his printer for all of the WSC correspondence and registration. He requested permission to purchase one for the WSC.
 - Harold Steppuhn moved that Bob be allowed to purchase a printer. Seconded and carried.
- Western Snow Conference member dues.
 - There will probably be increased expenses associated with mailing the proceedings as that becomes a WSC responsibility.
 - Randy Julander moved that the dues be increased to \$30 for regular members, \$20 for life members wishing to receive the proceedings. McGurk seconded. Passed.
- Credit cards
 - Bob Swanson reported that several members queried the use of credit cards to pay their registration and other fees. Bob has investigated this and ascertained the following:
 - We would need to establish a merchant account if we were to accept credit cards ourselves. There is a one time charge of approximately \$300 to start such an account and a monthly charge of approximately \$30 to maintain the account. This would be prohibitive for an organization of our size and income.
 - There are third party vendors who accept payments by credit cards on behalf of various clients. One such vendor is Kagi, a San Francisco based company. Bob has contacted them and they would be willing to take on an organization such as ours. There is no setup fee. The Kagi transaction fee schedule (Table 1) would apply to all transactions. Note that the cost is prohibitive for small amounts. Our average transaction for registration, banquet and tour is approximately \$100.
 - *Note added after the EC meeting: Bob thought of two other options.*
 - *Perhaps one of our members already has a merchant account. If so, he might be willing to accept credit card on our behalf.*
 - *Hotels and motels generally have provision for charging meals and other miscellaneous items against an individual's room.*
 - *Perhaps we could make a similar arrangement for our registration, banquet and tour fees. Then the hotel/motel would be the party accepting credit card payment.*
 - *Bob Swanson checked with the Red Lion, Port Angeles, and Jason thought that they could have made an arrangement to take our fees and charge them against a room.*
 - Moved by Randy Julander that we make some provision to accept credit card. Motion carried, one opposed.
- Secretarial help during EC and WSC Business meetings.
 - Chuck Troendle has been able to get approval for Bobbi Fager to attend the WSC meetings and take notes at these meetings. She also puts them in a form that can be inserted in the proceedings. This

Transaction amount	Percent fee
\$600	4.1%
\$500	4.2%
\$400	4.4%
\$300	4.7%
\$200	5.3%
\$100	7.0%
\$90	7.4%
\$80	7.9%
\$70	8.5%
\$60	9.3%
\$50	10.5%
\$40	11.3%
\$30	11.7%
\$20	12.5%

option no longer exists now that Chuck has retired from the USFS. The following options to provide secretarial help were discussed.

- Make this a responsibility of the General Chair to provide. Most organizations are not willing to send non-participating personnel to a conference. Probably not do-able.
 - Local arrangements committee to provide, either from one of the agencies involved, or to hire a temporary person.
 - Don Huffman moved and Scott Pattee seconded a motion to have the Local Arrangements committee provide secretarial help. Motion carried.
- Other new business
 - Mike Pressler has been making the El Farsante awards for the past few years. Jack Hannaford suggested that he be given free registration at the annual meeting as recognition of this service. The suggestion was approved.
 - The secretary will inform Mike of this.
 - Adjourn 16:30

MINUTES OF THE 2000 GENERAL BUSINESS MEETING

WESTERN SNOW CONFERENCE

PORT ANGELES, WASHINGTON

APRIL 19, 2000

Welcome to the Conference

- General Chair, Chuck Troendle, called the General Business Meeting to order and welcomed the assembly to the 2000 Western Snow Conference. Chuck stated what an honor it was to be the General Chair in the 21st Century. He said he had already heard one excellent speaker, John Calhoun, Director of Olympic Natural Resources Center and was looking forward to hearing Guest Speaker, Jack Hughes, Wilderness Ranger from Olympic National Park.
- The General Chair thanked Bob Swanson for of his efforts in registering the attendees and a wonderful job getting their individual information in the database. The General Chair also thanked Jon Lea, Area Chair for the North Pacific Area and his Committee for their work in putting together the 2000 Conference.

Approval of Minutes for the 1999 Annual General Business Meeting

Motion 1

It was moved by and seconded to accept the minutes of the 1999 meeting as printed in the 1999 proceedings.

..... Motion Carried

Secretary's Report -- Bob Swanson

- Bob reported we almost ran out of snowflake ties at the 1999 meeting in South Lake Tahoe. Jack Hannaford and Bob Swanson agreed to look into getting some more made.
- We have contacted Linda Stannard, the person who used to make our snowflake ties, but she is no longer interested in carrying out this function.
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Treasurer's Report -- Bob Swanson

- Current Balance
Bob Swanson has provided a 1999 Income and Expense Report in the Executive Committee minutes.

Annual Meeting Reports

- 2000 Port Angeles, WA - Jon Lea
 - Jon reported that several papers had been withdrawn because the authors could not attend the conference.
 - Some additional poster papers were accepted to fill out the program
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 - Soil erosion, Roof loads, Transportation hazard
 - Snow physics, Processes, Snow hydrology, Snow measurement Snow cover, Snow accumulation, Snow biology, Runoff, Data handling, Modeling, Streamflow forecasting, Snow & water management, Information transfer, Historical events
- 2002 South Continental area – Chuck Troendle
 - More details to follow after conferring with members of the area committee.
- 2003 South Pacific area.
 - In Arizona, probably Phoenix or Tucson. Not firm as of this date.
- 1999 South Lake Tahoe, CA – Bruce McGurk
 - Successful with good attendance.

Standing Committee Reports

- Publications Committee – Chuck Troendle
 - Chuck announced that the program and agenda for this meeting are here.
 - Kelly Elder will be the new editor in place of Chuck Troendle who has retired from the USFS. As a Colorado State University faculty member, Kelly is able to have the proceedings printed at a lower rate than we have had prior to this year. Kelly's involvement in the printing this year saved us approximately \$1500.
 - In the past, the US Forest Service has paid the cost of mailing the proceedings as a service to the Western Snow Conference. This will no longer be the case and we must now budget to pay this cost ourselves. (Approximately \$300 to \$500 depending upon the size of the proceedings and the number mailed.)

Motion 2

It was moved by Frank Gehrke and seconded by Dick Stein
to accept the recommendations of the
Executive Committee

..... Motion Carried

- Wilderness committee – Frank Gehrke
 - Frank indicated problems with USFS cost-shared snow survey programs in California. It appears that the USFS has little or no interest in the collection of basic watershed management data even though the provision of water is high on their list of forest uses. It was stated that the Executive Committee has resolved to send a letter expressing concerns regarding basic water management data collection. This letter would be sent to the Secretary of Agriculture and the Congressional delegations from each of the 11 Western states.

- Awards committee – Jack Hannaford
 - 2000 Port Angeles, Washington
 - J.E. Church (Best Student Paper)
 - Thomas Painter was the recipient of the J. E. Church Memorial Award.
 - Best Paper
 - Roy W. Koch and Austin R. Fisher “Effects of Inter-annual and Decadal-scale Climate Variability on Winter and Spring Streamflow in western Oregon and Washington.”
 - Best Poster
 - Phillip Mote, Alan Hamlet, and Nathan Mantua for “Variations in snow depth and stream flow in the Pacific Northwest and their relationship to Pacific basin climate variability.”
 - El Farsante
 - Chuck Troendle was this year’s recipient of the El Farsante award. Chuck is the General Chair for the 68th Western Snow Conference.
 - Jack reported the death of retired member Arnold Court, and newly retired members: Chuck Troendle, R.A. Schmidt, and Bob Jairell

New Business

- General Chair Elect
 - The North Pacific Nominated Don Huffman for the position of General Chair Elect. The nomination was accepted.
- Term of office, Secretary Treasurer
 - Bob Swanson was appointed Secretary/Treasurer through 2004.
- Western Snow Conference member dues.
 - There will probably be increased expenses associated with mailing the proceedings as that becomes a WSC responsibility. The Executive Committee recommended that dues be increased to \$30 for regular members and \$20.00 for life members wishing to receive the proceedings.
 - Mike Pressler has been making the El Farsante awards for the past few years. Jack Hannaford suggested that he be given free registration at the annual meeting as recognition of this service. The suggestion was approved

Adjournment

ATTENDEES
WESTERN SNOW CONFERENCE
PORT ANGELES, WASHINGTON

APRIL 20, 2000

LAST NAME, FIRST NAME

Becker, Sue
Bollinger, Mark
Brown, Robert T.
Brunengo, Matthew
Carcoana, Radu
Clark, Virginia T.
Clark, Welden E.
Colec, Michael T.
Corner, Stephen
Cowing, Derrill J.
Dietrich, Tom
Doesken, Nolan J.
Dragoon, Ken
Dyer, Richard
Ester, Charles
Evans, Beth
Fisher, Austin R.
Freeman, Gary J.
Gehrke, Frank
Gilbert, Theodore L.
Gilfoy, Steve
Gluns, David
Green, Jaromy R.
Hannaford, Jack F.
Heinonen, John
Holets, Steve
Huffman, Don
Jensen, Randy
Johnson, Borden M.
Julander, Randy
Kattleman, Richard
Kjosnes, Ole
Klieforth, Harold E.
Koch, Roy W.
Lea, Jon
Lea, Jolyne
Lindberg, Rodd C.
Ludwig, William G.
Luo, Wuben

LAST NAME, FIRST NAME

Martinez, Manuel H.
Matthews, Janis
McClure, Rick
McDonald, James C.
McGurk, Bruce J.
Modini, George
Mote, Phillip
Nickless, Ray C.
Osterhuber, Randall
Painter, Thomas
Parks, David
Pattee, Scott
Pattison, Ed
Potter, Tom
Powell, Douglas
Pugner, Paul
Redmond, Kelly
Reynolds, Gregg A.
Richards, R. P.
Roos, Maurice
Ross, Charles
Schillinglaw, Robert M.
Slaughter, Charles W.
Stein, Richard E.
Stephens, J. Pierre
Steppuhn, Harold W.
Storck, Pascal
Strauss, Fred A.
Swanson, Robert H.
Sytsma, Don
Taschner, Stefan
Troendle, Charles
Wagner, Annette
Weber, Frank
Westrick, Kenneth J.
Whyte, Jim