

Meeting Summary  
ALASKA WATER RESOURCES BOARD  
Juneau, Alaska  
March 13 and 14, 1984

The spring meeting of the Alaska Water Resources Board was held in the Hammond Room of Centennial Hall in Juneau, Alaska. The meeting was called to order at 8:30 AM, March 13, 1984, by Chairman Vanderbrink.

Members of the Board in attendance were:

David Vanderbrink, Chairman, Homer  
Tom Meacham, Anchorage  
Randy Wanamaker, Juneau  
Peg Tileston, Anchorage  
Wayne Westberg, Anchorage  
Ralph Stemp, Anchorage

David Vanderbrink opened the meeting with a warm welcome to the Board's newest members, Ralph and Randy, and then turned the floor over to Commissioner of Natural Resources, Esther Wunnicke.

Commissioner Wunnicke welcomed the new members of the Board and the guests. She then gave a brief rundown of the agenda. The commissioner mentioned that the House Finance Subcommittee might cut approximately \$200,000 out of the \$466,000 budget request for the Department of Natural Resources' (DNR) Dam Safety Program. She stated that in making DNR's budget request, she had looked at things that; involved public safety, were required by law, layed the foundation for decision making, and so on, but was essential to what DNR is trying to accomplish. That is, a balanced program that allows professional people to do their jobs well.

The commissioner was asked if she thought that DNR should administer the Dam Safety Program or the Department of Transportation and Public Facilities (DOTPF). She stated that it was still an open question and if the legislature would not fund the program adequately in order to do a professional job or a good job of inspection, that in order to save herself and DNR any liability, she would certainly think about getting out of the program.

The first presentation was given to the Board by Bill Bivins. Mr. Bivins is Chief of the Dam Safety Section of the Federal Emergency Management Agency (FEMA) based in Washington, D.C.

Mr. Bivins began his presentation with a look back at the history of dams of the world. He gave a synopsis of what his agency does and a breakdown of several committees that have been formed to promote dam safety.

Major points:

\* There are approximately 63,000 non-federal dams in the United States and another 5000 federal dams. Approximately 3000 dams were inspected and almost one-third of those were determined to be unsafe.

\* There should be strong state legislation to insure that the safety guidelines, rules, and regulations are enforced. It is not good to pass laws if you don't develop the regulations and provide money and staff to work on the problem.

\* It is imperative to have plans in place that can be implemented to protect the people downstream of high hazard dams.

\* The best way to determine priorities when big money and the public safety is involved, is by using risk based decisioning.

\* A new program will be available to the general public soon that will allow anyone, with a programable hand held calculator and Corp of Engineers' Phase I inspection information, to produce a model that will predict the downstream inundation for a particular dam in case of dam failure. This helps determine the area at risk and helps in the development of emergency action plans.

\* To provide the states with guidance in developing a dam safety program, the U.S. Committee on Large Dams put together a model law. This model law has five major aspects:

1. There must be review and approval before a dam is constructed. Alaska has this requirement.
2. The regulatory agency has responsibility to look at the construction process and determine that the plans and specifications are being implemented. Alaska does not do this presently.
3. A permit process to close the gates and begin impounding water for the first time, i.e., a filling permit. Alaska does not have this requirement.
4. Once the dam is completed and in use, it needs to be maintained to a certain standard and inspected. Alaska has little opportunity for this due to budgetary and manpower constraints.
5. Authority and ability to require dam owners to correct deficiencies in the dams or to breach the dam if it is determined to be unsafe. Alaska only does this when conditions are extremely hazardous.

\* In order to fund the dam safety program instead of depending on appropriations from the legislature, Alaska should consider some sort of fees or bonds to help defray the cost of the program.

\* All dams should have inundation map requirements in order to develop emergency action plans in case of dam failure. This won't make the dam safer, but it could save lives.

\* Senate Bill 1739 currently pending in Congress has attached to it \$15 million per year to help support state dam safety programs. In order to qualify for the money, the state programs must meet several requirements in advance, such as the five points mentioned earlier and others. A strong effective program must already exist to get the money. This bill is still pending.

\* It appears that the states do have some liability when, if a dam should fail, the state was aware of the hazardous condition and did nothing to correct it.

\* Alaska is aggressively seeking a resolution to its dam safety problems, but the existing legislation is willfully inadequate in that it allows the state to run a dam safety program as long as no one objects. The legislation needs to be cleaned up in order to administer the program adequately.

? woefully? direct quote

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The next presentation by Harlan Moore, Corps of Engineers, was on the historical background of the Corps of Engineers in dam safety. Mr. Moore also discussed the Corps' present involvement in dam safety in Alaska.

#### Major Points:

\* The Corps of Engineers is probably the largest dam building organization in the free world. The Corps has built over 600 dams since the 1800's and has never had a dam failure. The main reason for no dam failures is the multi-level review and inspection process during all phases of the dam construction and a good maintenance program once the project is completed.

\* The National Dam Safety Inspection Act of 1972 directed the Corps to compile an inventory of all dams in the U.S. and categorize the dams by risk. The next task was the inspection of all the high hazard dams, approximately 9000 in the U.S. Thirty-seven high hazard dams are located in Alaska. The cost to inspect a dam can run anywhere from \$5,000 to \$18,000. The cost depends on many factors including remoteness of the site and the condition of the dam.

\* The biggest problem in over 80 percent of the dams inspected so far has been an inadequate spillway. Inadequate spillways have caused many dam failures.

\* Training is available through the Corps, on a cost reimbursable basis, on how to conduct a dam inspection. If Senate Bill 1739 passes, it has one million dollars in it for the Corps' training program. This could mean the training would then be offered free of charge.

The next presentation was by Larry Crawford, Executive Director of the Alaska Power Authority (APA) and Joe Perkins, Director of the Construction Division of APA.

Mr. Crawford discussed the four major projects that APA has in the works right now; Solomon Gulch, in operation; Swan Lake and Tyee undergoing testing; and Terror Lake is 90 percent complete. Also, two other projects are in the design phase, Bradley Lake and the Susitna Project.

Major Points:

\* APA does have an active dam safety program through all phases of dam construction and operation.

\* APA is financing its projects through state appropriations and also will be going through the bond market.

\* Black Bear Lake project may be changed somewhat, but the full extent of the change wasn't known at the time of this meeting.

Insurance was a major topic of discussion with the Board.. Mr. Crawford promised to give a breakdown of the insurance premiums to the Board on replacing facilities and expected property damage.

Joe Perkins gave a run down on the amount of risks incurred by the four active APA projects.

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After the lunch break, the Board met briefly with Governor Sheffield in his office. Several topics were discussed. The main topics that were discussed with the governor were the dam safety program, funding cuts, water quality stream reclassification standards, and why Alaska should become a full member in the Western States Water Council.

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The Board reconvened at Centennial Hall and heard a presentation by Larry Dutton of the Division of Land and Water Management (DLWM), Department of Natural Resources. Mr. Dutton discussed some accomplishments of the Water Management Section since the last Board meeting in August and he gave a report on his attendance of the Western States Water Council meeting in January.

Major Points:

\* Water Management, through its Dam Safety Program, has identified 10 dams from the dam inventory that are most in need of inspection. Because of the great cost of these inspections, estimated to be approximately \$10,000 each, and the small section staff, a Request for Proposal (RFP) is being prepared. This RFP will enable DLWM to negotiate professional service contracts up to \$40,000 for dam inspections in Fiscal Year 1984. DLWM believes that this approach is the most cost effective way to achieve the necessary dam inspections, at this time. This effort should result in

what outcome?  
in FY 84?

at least 3-5 completed dam inspections. Depending on the available funds, it is hoped that an additional 20 dam inspections will be completed in FY '85.

*funding?*

\* On Federal Reserve Rights, the Attorney General's Office is currently updating legislation that may be submitted to the next session of the legislature. Current U.S. Supreme court opinions have affirmed state court jurisdiction for federal reserve water rights. It is important to know that undertaking adjudication of federal reserve water rights can be a lengthy process and extremely complex. One case in Colorado took 15 years to complete.

\* Instream Flow regulations were adopted and became effective in September of 1983. The application forms are available and very recently, an Instream Flow Fact Sheet was printed and distributed to various state offices. This fact sheet provides general information on instream flow for potential applicants.

\* The Water Use Data System: DLWM recently signed a new contract with the U. S. Geological Survey (USGS). The goal for this fiscal year is to collect water use data from 20 Alaska communities for their municipal water systems and then enter the data into a computer program.

*was it accomplished?*

\* Water Rights Administration: The Water Rights Fact Sheet has been revised and printed. The Water User's Handbook revision has been completed and will soon be reprinted. The District Offices of DLWM have adjudicated 652 water rights case files and 60 Temporary Water Use Permits with the fiscal year only half over. So far, the average of 2.2 man-days/ casefile has been maintained.

On the Western States Water Council (WSWC), Mr. Dutton described the committee structure of the Council and why he believes the WSWC has been so effective in Washington, D.C. on major water issues.

\* The four standing committees; executive, water resources, water quality, and legal are the mainstay of the Council's organization. These committees are made up of subcommittees and this is where the real work gets done. Once an issue is researched, it goes to standing committee. Then after discussion, it is adopted in the form of a resolution which is presented to the Council at a quarterly meeting.

If Alaska became a full member, not only would we be able to vote on the resolutions before the Council, but we would also be given committee assignments where we could help formulate resolutions that have an affect on our state. Without the committee assignments, we can only hope another full member state will share our views on an issue and have the Council address the issue.

If Alaska becomes a full member, we must be willing to participate in Council affairs, attending meetings and taking an active role in committee work. The same representatives should attend all meetings to provide continuity and these representatives should have primary responsibility for a state's water resources programs.

The next presentation was by James Barnett, Deputy Commissioner of DNR. Mr. Barnett talked about two primary subjects; the permit reform program and the new user fee proposal and regulations.

#### Major Points on Permit Reform:

\* If more than one permit is required from agencies in state government, the permits will be addressed on a uniform basis and issued within set time limits.

\* If issues among different agencies develop as a result of the permit(s), there is in place a mechanism where these issues will be resolved by progressively elevating the division to the director level of the involved agencies, all the way up to the governor if necessary.

\* If a village has an approved Coastal Zone Management Plan in effect, they may participate in the processing of a permit as if they were another state agency.

#### Major Points on User Fees:

*what's happened to this?*

\* DNR's desire is to assess fees for authorizations and permits that are on an equitable basis regardless of the constituent group involved. It is not DNR's intention to assess the true cost of processing a permit, but create a more or less uniform fee that bears some relationship to the importance of the permit to the applicant and to the Department.

\* All fees will be addressed in one place in one regulation.

\* A \$50 fee will be charged for water rights applications and instream flow reservation applications. A \$25 fee will be charged for extending a permit and a \$100 annual fee will be charged for the Tri-Agency mining application.

The user fee regulations raised many questions with the Board which was almost unanimously against the user fees for water rights applications, especially for the single family domestic users.

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Bill Long, Chief of the Water Resources Section of the Division of Geological and Geophysical Survey, gave the next presentation.

Mr. Long presented the Board with a copy of the new 1984 AWARE 5-Year Plan. He then discussed some of the new features and revisions of the Plan.

The consensus of the Board was that the new AWARE 5-Year Plan was improved over the previous year's versions and that it would be a valuable tool for all the water managers.

Harold Sites, Subdistrict Chief in Southeast for the U.S. Geological Survey gave a brief summary of the Southeast District area gauging stations and some studies being conducted and also recently completed.

Bill Barnwell, Deputy Director for DGGS, gave a brief summary of the activities of the Interagency Hydrology Committee for Alaska.

Major Points:

\* The Committee is currently revising the Basin Map of Alaska. This map describes all of the major hydrologic basins in Alaska. The basic map should be available in the fall. *Sub?*

\* The precipitation map of Alaska is over twenty years old and needs to be revised.

\* The Committee would like to hold its next meeting, if possible, in conjunction with the Water Board.

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The next presentation was given by Steve Mack of DGGs. Mr. Mack did field work last summer for the Delta Creek Management Plan. Due to some environmental concerns relating to a proposed land disposal area, he was gathering hydrologic and wind potential data.

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Jim Munter of DGGs gave the next presentation. Mr. Munter gave a brief overview of the Potter Marsh Hydrologic Study that he is conducting. Several interesting issues have been raised by this study. Because it is still in the preliminary stages, however, no definitive answers have been found. The Board requested that Mr. Munter keep them informed as to his progress on the study.

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Following Mr. Munter's presentation, the Board recessed for dinner. After a short dinner break, the Board reconvened for the Public Comment Session.

The first speaker was Steve Mack.

Mr. Mack informed the Board of the existence of the Alaska Chapter of the American Water Resources Association (AWRA) and the purposes for which it was established. The AWRA is planning a specialty conference which would be a national meeting in July 1986, on Cold Regions Hydrology.

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The next speaker was Rom Sharma from International Engineering Company, owned by Morrison and Knuteson. Mr. Sharma gave a brief history of his firm's involvement with dams and dam safety inspections.

Following Mr. Sharma's presentation, the meeting was recessed until Wednesday morning at 8:30 AM.

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On Wednesday, March 14, the meeting was called to order at 8:30 AM, by Chairman Vanderbrink.

The first presentation of the morning was given by Dick Neve, Commissioner of the Department of Environmental Conservation.

Mr. Neve briefly discussed the problem areas that DEC is working on in water quality.

#### Major Points:

\* The first was public comment. In order to implement and promote this with the mining community, the Placer Mining Advisory Group was formed. This is a technical group made up of miners, and federal and state agencies.

\* The second area of concern was with EPA stream classification standards. Recently, Nolan Creek was reclassified, but EPA overturned the DEC decision.

\* EPA's planned emphasis this summer will be on enforcement of the water quality standards. DEC is trying to work with EPA on the stream reclassifications.

\* The key issue facing DEC is placer mining.

Mr. Neve had a schedule conflict so he turned the DEC presentation over to Dan Easton. Mr. Easton is the Water Pollution Control program coordinator. He reported on several topics: the status of the Water Quality Standard changes, the status of the stream reclassification procedures, the "triennial" review, and Placer Mining and the Placer Mining Advisory Group.

#### Major Points:

\* In April 1983, changes were proposed to the Water Quality Standards. The changes were to correct three minor problems:

1. The antidegradation clause, required by the Clean Water Act, specifies minimum conditions that must be met to change the water quality. The current standards were too vague and were seldom used.
2. The previous regulations precluded designating mixing zones for carcinogenic substances regardless of the conditions surrounding the discharge. The changes allow DEC to define mixing zones for substances as long as there is no significant potential for carcinogenic effects to occur.
3. This change was to allow materials to be deposited on the bottom in marine waters.

The new regulations should become effective in late March or early April.

\* The Clean Water Act requires all states to designate uses of their water and adopt quality standards to protect those uses. Alaska has seven classes each for fresh and salt water. All Alaskan waters, with one exception, are classified to protect all seven uses. Reclassification is

the procedure by which some of the uses for which a water body is protected, can be removed. For each use that is removed from a classification of a stream, the water quality standards become less and less strict. EPA's standards for reclassification are very strict, so before DEC can reclassify any surface water, the regulations must be revised to be in compliance with the EPA standards.

\* The Clean Water Act requires states to review and revise as necessary, their water quality standards at least once every three years. This is called the "triennial review." EPA has given DEC until December of 84 to complete this process. A lot of public comment is expected in this review process.

*where are we in this process?*

\* Placer Mining in Alaska causes water pollution problems that are controversial, significant, and perplexing. Settling ponds alone do not provide enough treatment to maintain the other uses on a stream except placer mining. Recycling water helps, but then the discharged water is even worse. One problem is the technology shortfall -- there is no cost-effective means to control water pollution from placer mining to meet water quality standard limits.

DEC is trying to correct this situation by:

1. funding a project to look at different methods of pollution control available, their costs and applicability. This will help identify promising control methods and suggest alternatives,
2. two Senate Bills, 461 and 462, are currently pending and if passed, will provide grants to miners to test new methods of pollution control and make loans to aid in the purchase of recycling equipment, and
3. the Placer Mining Advisory Group will act as both our environmental and industry conscience in guiding DEC to a resolution to the placer mining pollution problem.

George Franklet was next for DEC. Mr. Franklet discussed the 205J Grant. This is a water quality planning grant from EPA. Mr. Franklet asked for suggestions from the Board on what DEC should be looking at in studies for the grant. One suggestion was what effect the coal transfer site might have on local stream runoff.

After a short break, Sara Hunt of the Southeast District Office of the Division of Land and Water Management, gave a historical summary of the water rights appropriations on Indian River near Sitka.

#### Major Points:

\* Two major water users on the river filed for "grandfather" rights with a priority date of 1914. One, The City and Borough of Sitka, was for 3.9 cfs for a public water supply; the other, Sheldon Jackson College, was for 50 cfs for hydropower generation. A third major "user," Sitka National Monument, filed for "grandfather" rights with a priority date of 1890 under the federal reserved water rights doctrine. -- the quantity was not specified.

\* A stream gauge was installed in August 1980 and data has been collected showing a mean annual flow of 100 cfs and a minimum flow of 27 cfs in 1981, while in 1982, the mean was 84.1 cfs with a low of 18 cfs.

\* New appropriation requests have been filed by current appropriators. These applications are being held in abeyance pending the outcome of a data gathering effort. This effort should determine how much water is available and how much water is actually being used by the appropriators. This may be accomplished through a basin-wide adjudication.

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The next presentation was given by Mike Frank, an Assistant Attorney General. Mr. Frank discussed legislation on basin-wide adjudication that was written (but not passed) in 1980, by Tom Meacham and some changes that he is proposing to improve the bill. These changes have come about due to some recent Supreme Court decisions.

Major Points:

\* The bill provides, as written, an option for the commissioner of DNR to start an administrative adjudication in order to use the Department's expertise without going through the lengthy court process. It would give the commissioner the alternative option to file in state court, but defer the administrative expertise to DNR. This would satisfy the McCarren Amendment, but would be less costly and time consuming than a full court adjudication.

\* A proposed change, would allow compromise and settlement without formal litigation, and then going to court to formalize and bind the agreement.

\* New precedents have been set as to notification of persons within a basin. It can now be done by publication rather than serving individual notices to each user.

Following a break for lunch, Neil Johannsen, Director of Parks and Outdoor Recreation, gave a report on the Kenai River Task Force.

Major Points:

\* Senate Bill 417, introduced in February, would establish a special management unit along the Kenai River to be managed by Parks. This bill is still pending in committee.

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Following Mr. Johannsen's presentation, the Board recessed for a short break. The meeting was then reconvened in a joint meeting with the State Senate Resources Subcommittee chaired by Bettye Fahrenkamp.

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Commissioner Wunnicke introduced Board members and staff to the committee. Mr. Vanderbrink gave a brief summary of the purpose of the Board. Topics of discussion with the committee included: full membership in the Western States Water Council, the necessity of basin-wide adjudication legislation in the near future, re-funding the Oil Spill Contingency Fund, funding for the Water Board, and the need to develop a strong dam safety program.

The joint meeting adjourned and when the Water Board reconvened, they began their work session.

During the work session, the Board passed seven resolutions and requested staff to prepare two letters. These resolutions and letters are summarized below.

- \* Resolution to the House and Senate Resources and Finance Sub-Committees on the Dam Safety Program funding. The house cut \$200,000 out of DNR's budget request. The Board's position is to request that this amount be restored.
- \* Resolution to DNR to propose legislation for a Dam Safety Program. In order to implement a Dam Safety Program for non-federal dams at the state level, it is essential that we have specific statutory authority.
- \* Resolution to the Governor on joining the Western States Water Council as a full voting member. Full-membership is vital to Alaska to influence the work of the Council in such areas as Clean Water Act amendments and EPA's water quality standards. The resolution includes other advantages. Membership dues are \$24,500 per year for the first three years and \$19,500 per year thereafter.
- \* Resolution to the Commissioner of DNR and Governor on the proposed fee schedule. Before regulations are adopted initiating the new fee schedule the Water Resources Board urges, with respect to domestic users, that the Commissioner of DNR and Governor give serious consideration to the negative affect raising fees will have upon the Well Log Program and the Water Right Program. It is now essentially voluntary to comply with the law and supply the well log information with the water right application, but there will be no incentive for the public to apply for water rights and supply the well log information if they must pay a \$50 filing fee.
- \* Resolution recommending that the Anchorage Assembly hear Jim Munter's (DGGs) presentation on the preliminary findings of his Potter Marsh Study before funding a sewer line project above the marsh.
- \* Resolution to House and Senate Resources and Finance Sub-Committees on re-funding the Oil Spill Contingency Fund. It was originally funded at \$1,000,000 and is now down to around \$200,000. If the state doesn't have enough money in the fund to meet the demand of a given oil spill, the state will lose control to manage oil spills and management will revert to the Federal Government.
- \* Resolution to the Commissioner of DNR to propose legislation for basinwide adjudication. Current statutes and regulations are adequate to implement a basinwide adjudication of federal reserved rights. However, more explicit statutes are needed to establish the Superior Court's duties and responsibilities and to set the limits of the court's authority, since this type of case has not previously occurred in Alaska.

\* A letter to Commissioner Neve concerning attending the meetings as a member of the Board and to assign a staff member or permanent Water Board contact person at DEC.

\* A letter to Governor Sheffield encouraging him to establish a compatible statewide computer system and asking him to inform and encourage state employees to use the State Library System.

It was then decided that the next meeting's special topic should be on water quality standards and stream reclassification. The meeting will be held in Fairbanks on October 2nd to 3rd, 1984 in the Noel Wien Library.

Following a discussion on future agenda topics, the meeting was adjourned at 7:00 PM.