

In accordance with notice to members of the Rhode Island Coastal Resources Management Council, a meeting was held on Tuesday, February 8, 2011 at 6:00 p.m. in Conference Room A of the Administration Building, One Capitol Hill, Providence, RI.

MEMBERS PRESENT

Michael Tikoian, Chair
Paul Lemont, Vice Chair
Ray Coia
Donald Gomez
Robert Driscoll
Bruce Dawson
Ron Gagnon, RIDEM

STAFF PRESENT

Jeffrey M. Willis, Deputy Director
Kenneth Anderson, Spv Civil Engineer
Amy L. Silva, Sr. Environmental Scientist
Rich Lucia, Principal Civil Engineer
Janet Freedman, Coastal Geologist

Brian Goldman, Legal Counsel

MEMBERS ABSENT

Dave Abedon

1. CALL TO ORDER

Chair Tikoian called the meeting to order at 6:00 p.m. and dispensed with opening comments but asked stenographer to include them.

2. APPROVAL OF THE MINUTES OF THE PREVIOUS MEETING:

Chair Tikoian called for approval of the minutes from the previous meetings. Mr. Coia motioned, seconded by Mr. Dawson, for approval of minutes from January 25, 2011 meeting. One correction requested to reflect for the record that Ron Gagnon was representative of RIDEM on January 25, 2011. Motion carried on a unanimous voice vote.

3. SUBCOMMITTEE REPORTS

There were none.

4. STAFF REPORTS

There were none.

5. APPLICATIONS WHICH HAVE BEEN OUT-TO-NOTICE FOR 30 DAYS AND ARE BEFORE THE FULL COUNCIL FOR DECISION

2010-11-002 JACQUELYN MCDONALD -- A 38-unit mixed residential affordable housing development serviced by Town water and community on-site wastewater treatment system. Located at plat 118, lot 40; 100 Intrepid Drive, North Kingstown, RI.

Ms. Jacquelyn McDonald was present as was Armando Ricci, Pare Corporation, and Frank Spinella, Project Consultant. Rich Lucia gives overview of application to the Council explaining that the applicant proposes to build an affordable housing development. Mr. Lucia stated that the applicant proposed a 200 foot buffer and setback which meets request of staff and have provided rain gardens, infiltration and detention ponds to treat the stormwater. There were no questions of staff by Council members at this time. Applicant declined to make presentation as Mr. Lucia's

explanation was sufficient. Mr. Spinella stated that they would be happy to provide information and answer any questions.

Ms. Donna Hutchinson of North Kingstown, RI was sworn in and expressed concerns that during the processing of the application there may have been a change in FEMA flood zone designation or a variance granted as it was her understanding that 50% of the development was in a high risk area. Mr. Lucia stated that the project was located in an "A" Flood zone meaning that the site could flood in a 100 year storm as many of areas do along the shoreline, but that making the building in the project area flood resistant was under the purview of the local building official. Chair Tikoian asked about any variances that may have been granted to the flood zone designation to which Mr. Lucia stated he did not hear of anything on the local level. Mr. Willis stated that CRMC can not change the FEMA flood zone designations; it would have to be done through a federal process. Ms. Hutchinson also asked about the development given a waiver to change the grade around the buildings. Mr. Lucia stated that there is grading and fill in the applicant's proposal. Chairman Tikoian asked for explanation on the sequence of approvals for the project. Mr. Lucia stated that the applicant had to come to CRMC for Preliminary Determination and then go to Town for a master plan approval before they came to us to review the application. Mr. Lucia stated that if they receive CRMC approval they return to the Town for a final approval. Mr. Lucia also clarified that the "A" flood zone designation only encompasses a quarter of the property. Chair Tikoian asked if neighbors attended local hearing when Master plan was before the local entity. Ms. Hutchinson stated that the direct abutters were DEM and Town property and there were no notification letters to the neighbors nor did the neighbors inquire.

Project Consultant, Mr. Francis Spinella, FJS Associates, was sworn in. Mr. Spinella stated that CRMC was involved in the preliminary processes of designing project prior to submitting for the Preliminary Determination as they wanted to everything within the regulations. Mr. Spinella stated that the property is in the Town's affordable housing plan and placement within the recreational area of the Town is a great setting. Mr. Spinella stated that they addressed the flood zone issues by making sure the finished floor of the units within the A zone are on slabs and above the floodplain. Mr. Spinella stated that the project's master plan received unanimous approval on the local level. Mr. Spinella stated that they worked with the Town on the water moratorium issue by disconnecting all the washer and dryers and sprinkler systems enabling this subject development to be less of an impact than if it did not get built at all. Mr. Spinella stated that the Town of North Kingstown has been a champion for them. Mr. Spinella stated that they did not have to go before SHAB as the town had given unanimous approval of the project.

Ms. Virginia Fountain was sworn in. Ms. Fountain asked what the process was to contain all the contaminants from road runoff into the containment ponds. Mr. Lucia stated that during a 100 year storm the containment ponds will flood and would have to be repaired. Mr. Lucia stated that this requirement would be stipulated in the Assent. Mr. Lucia stated that the basin was 225 feet from the coastal feature. Ms. Fountain also commented on the North Kingstown Water supply stating that it is overtaxed as it is and stated that the project should be put on hold until the wells are put in Big River to supply North Kingstown's water. Chair Tikoian stated that unfortunately, the local water supply was a local issue and the Council could not act on that issue. Ms. Fountain asked for clarification regarding the walking path and stated that she objected to the path going all the way to the water. Mr. Lucia stated that it was presented in the application as going to the existing bike path. Ms. Silva stated that the Town signed off on the location of the walking path. Mr. Spinella stated that the Town had given permission to extend their path to the existing bike path as people would be walking it anyways. Mr. Lucia stated that, regarding the concern for sediments, the

applicant is required to provide an operation and maintenance plan on sediment removal from that basin as a precautionary matter which will reduce the amount of sediment going to the coastal feature. Ms. Fountain expressed concern regarding disturbance of trees on water side. Ms. Silvia stated that the CRMC staff would stipulate that no disturbance of area within the 200' with the exception of the little pathway.

Ms. Hutchinson inquired as to the buffer zone on the northern side of the harbor being less than 200'. Ms. Silvia stated that buffer zones are not required over existing paved roadways therefore there is no buffer zone applied on the northern side due to the presence of the roadway. Ms. Hutchinson also asked about the retention ponds to which Mr. Lucia answered that the retention ponds are regulated by standards and have to meet those standards stipulated. Mr. Lucia stated that test pits were dug to make sure the depth of the watertable was lower than the bottom of the basin. Mr. Lucia stated that staff was satisfied with the water table and the difference between the bottom of the pit, he felt that it was adequate for an infiltration basin.

Mr. Driscoll motioned, seconded by Mr. Gomez, to approve application. Mr. Gomez also stated that the RIDEM Water Quality certification answered many of the questions that were asked. Chair Tikoian stated that the staff engineer would include storm drain stipulation change stating that the plans meet the standards of the Rhode Island Stormwater Manual. Motion carried on a unanimous voice vote.

2008-11-062 MARK BARD – Construct new 3-bedroom, 24' x 62' dwelling (1,488 sf), with 10' x 62' second floor cantilevered deck, OWTS (septic system), pervious driveway, and associated site work. Located at plat 12, lot 87; Clarkes Village Road, Jamestown, RI.

Present for the applicant is Elizabeth Noonan, Esq, of Adler Pollock and Sheehan. Present for the objectors is Chris Little, Esq., and W. Frank Bohlen, PhD, physical oceanographer.

Chair Tikoian stated that the application was continued from the last semimonthly meeting and that there was a motion before the Council from applicant's attorney, Elizabeth Noonan. Ms. Noonan stated that the notice sent pertained to the Engineering and Geologist Addenda submitted to the file after two hearings as she felt that the reports contain hearsay and lack of foundation and was asking that as set forth in their motion that the reports be struck in their entirety. Mr. Goldman stated that it was not unusual for staff to do addenda to reports and that many time in complicated cases staff will provide addenda to cover things not considered in review of application, the proviso being that the applicant and objector were provided with copies of addenda and that the staff members are present for cross examination. Mr. Goldman also stated that information for Mr. Anderson's report regarding previous files is exempt from hearsay rule as it pertains to CRMC files. Mr. Goldman stated that he does agree with Ms. Noonan's argument about Ms. Freedman's report on the bedrock stability as she talks about having spoken with Dr. Boothroyd who is not present at the meeting to answer questions. Mr. Goldman recommends that the first three lines of Ms. Freedman's geologist report be stricken. Mr. Goldman stated that CRMC staff members were aware of the fact that they are to be cross-examined at the meeting. Mr. Little does not disagree with Mr. Goldman's recommendation. Chair Tikoian asks for a motion for the Council to deny motion to strike with the exception of what was outlined by Mr. Goldman. Mr. Dawson motioned, seconded by Mr. Driscoll. Motion carried on unanimous voice vote. Mr. Dawson requested clarification of Mr. Pastore's testimony from the previous meeting in regards to the placement of the telephone poles. Mr. Dawson clarified which was confirmed by Mr. Pastore that the telephone poles were on the western boundary of the Bard property as opposed to the eastern side as Mr. Pastore stated at the

last meeting. Mr. Goldman marked staff reports as CRMC exhibit 2-8-1 as Ms. Freedman's report and CRMC exhibit 2-8-2 as Mr. Anderson's report; both marked in full.

Mr. Little continues cross examination of Dr. Bohlen who was previously sworn.

Mr. Little asked Dr. Bohlen what data he reviewed for assessing the cause of erosion on bluff that was a part of the Bard property. Dr. Bohlen stated that he had visited the Bard site, looked at the conditions, and saw a correlation between the narrow ledge width and areas of erosion in the bluff. Dr. Bohlen stated that together with the fact that the erosion was not a generalized feature across the extent of the bluff and that there was very little residuum of material that had collapsed from the bluff along the ledge, led him to conclude that waves were a very important factor in the collapse of the bluff. Dr. Bohlen is talking as he is pointing to NOAA navigational chart. Mr. Little submits Objectors Exhibit 15 and 16 for identification. Dr. Bohlen identifies the exhibits saying Objectors Exhibit 15 was Figure 3, analysis of ACOE wave information study data taken from Station 101 for a 20 year period. Dr. Bohlen stated that the document was extracted from a report prepared by E3 for Long Island Power Authority as was Objectors Exhibit 16. Ms. Noonan asks for clarification of source of data and who E3 was. Dr. Bohlen stated that it was a company well known in the field. Ms. Noonan maintains objection as she is not familiar with E3, Inc. Chair Tikoian allows exhibit and recommends cross examination. Mr. Goldman marks both Exhibit 15 and 16 full. Mr. Little asks Dr. Bohlen to explain the relevancy of 15 on assessment of erosion of bluff on bard property. Dr. Bohlen stated that he concluded that waves are factor of erosion on bluff but needed to know the characteristics of waves and the local wave climate. Dr. Bohlen explained the Exhibit 15 showed that compilation of data was gathered 24 hours a day for 20 years; prevalence of waves from particular directions. Dr. Bohlen further explained that the exhibit showed that of the total number of waves sampled, a significant number of waves came from southwest and southeast quadrants. Dr. Bohlen explained that Exhibit 16 is the sorting of all the data from Exhibit 15 such as waves from southerly quadrants and frequency of distribution of wave heights. Mr. Little submitted Objectors 17 for identification. Dr. Bohlen explained Objectors Exhibit 17 which is a summary of information from Buzzards Bay tower. Mr. Goldman marked Exhibit 17 in full. Dr. Bohlen explained the relevance of Ex 17 to erosion of property stating that Ex 17 gave more information on wave climate of the area from 1990 to 2006. Mr. Little submitted Objectors 18 for identification. Dr. Bohlen stated that Exh 18 was a set of data from ACOE Tidal flood profiles from Northeast coastline showing still water level elevations as a result of astronomical tide and storm surge but now containing wave information. No objection from Ms. Noonan. Mr. Goldman marked Objectors 18 in full. Dr. Bohlen explained that the purpose of Ex 18 was to see what the elevation of the high velocity waters associated with waves might be in conjunction with the elevation of the bluff which was testified to be at ten feet. Mr. Little submitted Objectors Exh 19 for identification. Dr. Bohlen stated that Ex 19 showed the mean sea level trend data from the NOAA sea level trends website and that Ex 19 showed that there had been a significant increase in sea level at approximately 2.5 ml a year. No objection from Ms. Noonan. Mr. Goldman marked Exh 19 in full. Dr. Bohlen stated that Exh 19 was meant to show that sea level rise was a factor that needed to be included as a long-term consideration on this site. Discussion on sea level rise. Mr. Little submitted Objectors 20 for identification which is a photograph taken on January 5, 2011 depicting shoreline gabions on property to the south of Bard property which was described in last proceeding as subject to major erosion. Ms. Noonan objects to Exhibit on relevancy. Mr. Little stated that the immediate abutter's property was referenced in Ken Anderson's report and taken into evidence. Exhibit 20 marked as full by Mr. Goldman.

Dr. Bohlen explained the significance of photograph to cause of erosion in which an area of ledge that is particularly narrow and fronted by small beach and has resulted in sufficient bluff erosion to warrant placement of armor in the form of gabion. Mr. Little asks for Dr. Bohlen's professional opinion referring to the scarping on the bluff at the Bard property to which Dr. Bohlen stated he was of the opinion that the scarp was in large part of high velocity wave waters and that there was a correlation between the narrow width of ledge and scarp and the absence of debris along base of scarp. Dr. Bohlen stated that waves were not the only factor and that ground water coming out of bluff could be seen. Dr. Bohlen stated that in his profession opinion, a structure placed at top of bluff has potential to affect surface water flows and erosion of bluff; the channelization of flows increase potential of erosion of bluff; and, the placement of a house close to edge of bluff would tend to reduce the significant of the setback of the bluff. The result being that the combination has the potential to increase the tendency for the bluff to erode. Dr. Bohlen stated that based on history of shoreline change in that area, the placement of house within close proximity to bluff will require some type of armor of bluff for protection within a very short time, but if you add structural shoreline protection to the Bard bluff it will in a short time effect adjoining properties that are not armored.

Brief recess..... Ms. Noonan to cross-examine.

Ms. Noonan asks Dr. Bohlen about credentials and testifying history in Rhode Island. Dr. Bohlen's background was established. Dr. Bohlen stated that he had not been at the first night's hearing but that he had reviewed the transcript of that evening along with the CRMC staff reports but that he had not spoken to anyone at CRMC about the case. Dr. Bohlen stated that he had been to the Bard site one time and agreed with Ms. Noonan that his basic premise is that waves are a significant factor in the erosion of the Bard property as well as groundwater and surface water. Dr. Bohlen stated that he had viewed the north of the Bard property and there were several areas of scarped bluff but that he was unable to ascertain timeframe of scarping. Dr. Bohlen stated that in reviewing the aerial photos it was noticeable that the other areas of scarping were coincident with the narrow ledge width. Dr. Bohlen stated that there was also noticeable scarping on the property most immediately south of Bard. Dr. Bohlen stated that he used Google arials, specifically Objectors Exh 14, to make a determination of scarping to the north of the Bard property. Dr. Bohlen stated he did not look at the shoreline map that Ms. Freedman had included in her addenda report. Ms. Noonan questioned Dr. Bohlen regarding Objectors 15 and 16 from Station 101 asking if there was any data that could be obtained that was more regionalized to the Hull Cove area. Dr. Bohlen answered there was not. Dr. Bohlen explained the relationship between Objectors Exh 15 and 16 with Objectors Exh 19 stating that Exh 19 showed the water level elevation at Beavertail and Exhs 15 and 16 showed wave climate in Block Island Sound. Discussion on wave action difference between the different areas of Block Island Sound and the Bard property. Ms. Noonan questioned Dr. Bohlen on his familiarity with the drainage system on Clarks Village Road to which Dr. Bohlen stated he was not familiar with it but that it possibly would have made sense to review that to rule out that possibility regarding the slump. Dr. Bohlen stated that in some circumstances it was possible for the wave to hit above the ledge. Dr. Bohlen stated that he was not aware that FEMA had placed the top of the bluff on the Bard property in an X-zone but that it was consistent with the information he had researched. Ms. Noonan questioned Dr. Bohlen on the Bard bluff restoration permit. Dr. Bohlen stated that he had not reviewed the approved plans for the bluff restoration permit. Dr. Bohlen stated that soft stabilization using coir logs, giving vegetation a chance to come back, is a temporary fix in the face of a wave-prone area. Dr. Bohlen confirmed that he was not a structural engineer nor did he do a structural analysis of the house on the bluff. Dr. Bohlen stated that armoring would effect shoreline in the span of a long period of time but that a soft solution would eventually have negligible effects on adjoining property.

Re-direct by Mr. Little.

Dr. Bohlen explained how the erosion of the bluff would occur if the waves were to go over the top of the bluff stating that the erosion is occurring at the toe of the bluff setting up a condition favorable for collapse.

Ms. Noonan questions Mr. Anderson and Ms. Freedman on their report addendums. Janet Freedman, CRMC Coastal Geologist, is sworn in. Ms Noonan asked Ms. Freedman about decision to write addendum to report. Ms. Freedman stated that she visited the site after the snow storm to see the stairway and depth of snow on the stairway but that it was after the addenda had been written. Ms. Freedman agreed that her addendum was written after Dr. Rosen's testimony. In discussing Ms. Freedman's report, she stated that there were two sections of failure on the bluff, one being from stormwater and ground water saturation. Ms. Freedman stated that the bluff failure on the property 150 feet north of the Bard property was due to the March 2010 storm and resulted in the submittal of an application for restoration which was approved. Ms. Freedman stated that to her knowledge there was no damage to the Bard property from the March 2010 storm and that she did not do a site visit. Ms. Freedman stated that the property to the south of the Bard property was more like a beach and that the bedrock present was not more fractured than the bedrock on the Bard property. Ms. Noonan introduced for identification, Exhibit 12 which was pictures of property south of Bard property. Ms. Freedman identified the pictures as the property south of the Bard property. Exhibit 12 marked full. Discussion on the fault in the phyllite which would create a weak zone to which Ms. Freedman states that the rock is very fractured and that there were weak zones all through it. Ms. Noonan asks Ms. Freedman about a picture in her report addenda. Ms. Freedman stated that she used the photo to show a bunch of loose boulders stacked up next to each other which happens when you have a flow. Ms. Noonan submitted Exhibit 13 showing imbricated boulders which Ms. Freedman explains that boulders will stack up one against another. Ms. Freedman stated that she saw on our shoreline change maps that some boulders had fallen into the sea. Mr. Goldman marked Exhibit 13 full. Ms. Noonan asked Ms. Freedman about Hurricane Bob. Ms. Freedman stated that she could not attribute specific erosion event to specific storm but that a 1939 photograph showed overwash sand further to north. Ms Noonan confirmed with Ms. Freedman that the top of bluff was in a FEMA Zone X. Ms. Noonan asked Ms. Freedman about the stability of the bluff with the installation of coir logs. Ms. Freedman stated that coir logs will give some toe protection but don't give protection on ground water saturation or slump. Ms. Freedman stated that coir logs would be a temporary fix because coir logs disintegrate after time. Ms. Noonan asks Ms. Freedman about storm frequency since 2007 and whether it would be a long term trend. Ms. Freedman agreed there was no way to determine storm frequency. Discussion on local date of sea level rise. Ms. Freedman stated that she had reviewed the local data but did not include in addenda. Ms. Freedman stated that the long term trend from when the tide gauge was put in is 2.58 ml per year average over time period with further explanation. Ms. Noonan submits Exhibit 14, shoreline map for Jamestown, for identification. Ms. Freedman stated that the purpose for map in addenda was to show bedrock is not solid, had been changes over time at this location. Description of map and lines. Ms. Freedman stated that the map was included in report to show that the bedrock near the Bard property shows a change of 18'. Ms. Freedman explains makeup of the bedrock saying that it is phyllite which is layered and has a lot of cracks and that it eroded landward. Ms. Freedman stated that is some areas you have chunks of rock that broke off and went seaward. Ms. Noonan asks Ms. Freedman to explain the algae line. Ms. Freedman states that the darker parts on the rocks is the part of the rock that is under tidal waters for at least part of the day which becomes proxy for mapping the wet line. Mr. Goldman marks Exhibit 14 full.

Kenneth Anderson, CRMC Supervising Civil Engineer, is sworn in. Ms. Noonan asks Mr. Anderson about his engineering certifications. Mr. Anderson stated that he was a registered professional engineer for State with no formal registration outside of civil engineers. Ms. Noonan questioned Mr. Anderson on the frequency to which he prepared addenda for CRMC applications. Mr. Anderson stated that it was not unprecedented for staff to add to their reports and that he had done so on other occasions in his 25 years working for CRMC specifically mentioning the Carnegie application and the Ives Bluff subdivision. Mr. Anderson confirmed that the addenda was his fourth revision of his report and that he did not consult with anyone regarding the preparation of the addenda. Mr. Anderson confirmed that the addenda was in response to Mr. Frisella's and Mr. Pastore's testimony and that he had revisited the site after the December 10, 2010 semimonthly meeting to reinvestigate the site drainage, topography, look at the general shoreline and to investigate the catch basin and the outfall mentioned in Mr. Frisella's testimony. Ms. Noonan questioned Mr. Anderson regarding his association with the Town of Jamestown and whether he had discussed the application with anyone from the area. Mr. Anderson confirmed that he lived in Jamestown and that he had an e-mail inquiry from an attorney from Save The Bay, Ms. Waller, regarding the addenda report. Mr. Anderson stated that he told her the staff addenda were available for review. Mr. Anderson stated that he had also spoken with the Jamestown Town Engineer regarding the catch basin. Ms. Noonan questioned Mr. Anderson about previous CRMC files from 1986 that were referenced in his addenda. Mr. Anderson stated that he had written a site monitoring report in 1985 regarding the property immediately to the south of the Bard lot and that the emergency application was due to a landslide from Hurricane Gloria, groundwater and wave action as well as water runoff. Discussion on previous CRMC biologist, Irene Kenenski's, staff report stating that the severe bank erosion was from poor upland drainage conditions and "85 Hurricane" and previous Civil Engineer, Nick Pisani's, staff report regarding reasons for bank erosion being a break in bedrock allowing ocean wave to secure soil material at the toe of the bank. Ms. Noonan questions Mr. Anderson on the result of the gabions on the property south of the Bard lot. Mr. Anderson stated that there was evidence of erosion even with the gabions. Chair Tikoian asked if the differences in the vegetation shown in the pictures could be from the season in which the pictures were taken. Mr. Anderson stated that the erosion exists and might be obscured in the picture by overhanging vegetation. Discussion on the drainage system specifically the drainage pipe in which Mr. Anderson states there is only one four-inch diameter pipe and Mr. Frisella stated there were two four-inch diameter pipes. Mr. Anderson stated that he only saw one pipe north of the stairway and that it was confirmed by the Town Engineer during a telephone conversation. Ms. Noonan asked if an exhibit to the Jamestown zoning board was part of CRMC's record. Mr. Anderson adds that even two 4" diameter drainage pipes would be sufficient to convey the flow from a storm of large magnitude and explains in detail. Mr. Anderson states that Mr. Frisella's pictures of the March 2010 storm event were taken after the brunt of the storm and that there was visible erosion from that storm visible in the pictures. Mr. Anderson confirmed that he was not at the site during the storm. Mr. Anderson explained that the velocity zone is incorrectly depicted on the Bard site plan.

Cross Examination by Mr. Little

Mr. Little questions Mr. Anderson about the restoration plan for the Bard property and the effectiveness of the coir logs on the slope as it is at present. Mr. Anderson explains that in order for the logs to be effective there must be a shallow slope and the Bard bluff is steeper than the recommended 2:1 at present. Mr. Anderson stated that to prepare the property for the restoration plan the slope would have to be cut back to meet manufacturers recommendations of 2:1 slope. Mr.

Anderson clarifies that coir logs could still be used in current condition but would not be as effective.
End of questioning.

Ms. Noonan stated that she would like to bring in witnesses to rebut testimony. Timeframes were discussed for scheduling of next meeting. Chair Tikoian asked for everyone to coordinate with CRMC staff on scheduling.

Mr. Driscoll motioned, seconded by Mr. Gomez, to continue application. Motion to continue application carried on unanimous voice vote.

6. CATEGORY “A” LIST

None held.

7. ADJOURN

Mr. Lemont motioned, seconded by Mr. Coia, to adjourn. Motion carried on unanimous voice vote.
Meeting adjourned.

Respectfully submitted,

Lisa A. Mattscheck