

**Natural Resource Advisory Board  
Minutes – July 19, 2004 (Approved 8/16/04, unanimously)  
Town Hall Hearing Room**

**Present:** Doug Franklin, Chair, Lezli Rowell, committee clerk, John Riehl, Bill Knittle.  
Per request of the Chair to include E-mail addresses of members in minutes:

dougfranklin@juno.com  
Artemisia2004@aol.com  
j.l.rieh@alum.mit.edu  
wknittle@hotmail.com

**Attending:** Mary von Kaesborg for Non-Residents Tax-Payers Assoc., Ben Gitlow for Planning Board and WIAC, Ken Cashan, Linda Hemphill. Edward Rullman, Steve Tucker for the Cape Cod Commission, Abby Franklin for Conservation Commission, Joe Aberdale, Helen Miranda Wilson for Board of Selectmen.

**Distributed:** Agenda, Notice of Cape Cod Foundation grant award supporting Annual State of the Harbor Conferences (\$1000) and CZM Monthly E-newsletter; WBWS Audubon response to 1995 HMP 'Natural Resources' chapter; Amy Dougherty 'Sediment Study' of impacts to opening of Herring River dike.

With a quorum present, the Chair opened the meeting at 7:03, introducing agenda of discussing and receiving input for the Estuarine Water Quality chapter of the HMP. Doug reported invitation extended to the Health and Conservation Department seeking chapter contributions; John noted receiving decline for H/C Agent and Assistant as unavailable. He offered to inform the department of upcoming advisory board meeting dates and continue indicating issues of interest and need for feedback. Doug noted invitation extended to Greg Moore of the Center for Coastal Studies in Provincetown, as well as former NRAB member and primary author of Water Quality chapter Pat Woodbury, and receipt of regrets from both.

**Approval of minutes:** Doug called for any corrections necessary for May 10<sup>th</sup> minutes produced by Lezli; she asked for clarification of the boards' interest in attaching Harbormasters Department 'Marina Fuel Spill Protocol' and associated materials to the set of minutes, as indicated in mailing from John. The board agreed that the submission should carry into the board's records in this way. John moved approval of the minutes as presented. Bill seconded. Motion carried 4-0.

Doug called for any corrections or motion on the minutes of June 14<sup>th</sup> produced by Bill. John moved the minutes with Bill's second. The minutes carried 3-0-1 (Lezli abstained as not present).

**NRAB Schedule:** The Chair noted meetings for August 16<sup>th</sup> and September 13<sup>th</sup>, and indicated hope of Health and Conservation Department attendance, Fall work plan, and Public Hearing scheduling.

**Reports or Announcements:** The Chair announced the Board of Selectmen's reappointment of Glenn Shields to the NRAB for a term through June 2007. He noted that Glenn would need to swear in with the Town Clerk's office. Doug announced receipt from Amy Dougherty, science fellow on contract with the CCNS, a Sedimentology Report relevant to the Herring River Salt Marsh Restoration Program. He summarized the findings as relieving concern of blow out at the Gut or redistributing sediments onto aquaculture locations at Egg Island. Lezli received the report.

Lezli reported signing up for the monthly electronic newsletter from the Coastal Zone Management program; she printed one copy for members to review and keep in file, or get e-mail address from. John received the CZM newsletter.

Doug announced the date of the next Harbor Conference to be November 6<sup>th</sup>, and receipt of a \$1000 grant to fund the educational event from the Cape Cod Foundation, in response to request by Abby Franklin, on behalf of NRAB and Cons/Com. Thanks from the board were noted. The Chair commented that the 2003 Conference had been orchestrated on a \$50 budget and speakers participated for free; it was hoped that the appropriation would help defray guest speakers' traveling/mileage expenses.

The Chair noted attending a meeting of the Water Commissioners on June 15<sup>th</sup>, with the town engineers, Environmental Partners, explaining the phases detailed in the Master Water Plan. He queried how involved the advisory board should be, noting concerns with increased public water service to the central district possibly correlating to density issues. Doug emphasized the role of the NRAB in protecting the primary receiving waters of Central District wastewater and hydraulic loading – Wellfleet Harbor. John noted advisory board level of involvement flowed naturally out of any recommendations to be made in the Water Quality chapter, and hoped to devote a Fall meeting to discussion of connections between well water usage and harbor surface water impacts.

The Chair asked LCPC representative to report on that ad-hoc groups progress. Lezli noted a table produced and distributed by Assistant TA, Rex Peterson, "Action Implementation Review" which the LCPC wanted boards and committees to spend twenty minutes considering the status of items assigned to them in the 1995 Plan. John recommended each member spend an hour with the table and mail individual results to Lezli for tabulation, that the clerk could return to the next meeting with results and discrepancies could be discussed. While willing, if such method was the boards' desire, Lezli responded that the LCPC only wanted any board or committee to spend a limited amount of time on, and thought it could be handled in this meeting to be returned to the LCPC timely as requested.

Glenn Shields arrived, 7:27.

From the audience, Ben affirmed that completion of the LCPC Action Implementation table was not intended to be a "major chore" or necessarily to prod action – just a method to assess where Plan items stand today – a "snapshot". Doug explained the current discussion to Glenn, suggested taking it up at the end of meeting's agenda.

The Chair announced invitation by the Non-Residents Tax-Payers Assoc. to a forum Aug. 1<sup>st</sup> at the Senior Center. Helen Purcell will speak to the history of Wellfleet Harbor and Doug, as NRAB Chair, to the Harbor Management Plan process. Participation from other members was encouraged.

The Chair announced notice from the Town Administrator of a Special Town Meeting to be held Oct. 18<sup>th</sup>, with any requests to place an article or seek an appropriation to be submitted by July 30<sup>th</sup>. Glenn suggested requesting appropriation as he had discussed in previous meeting, to secure a professional consultant to produce the updated HMP on the NRAB's behalf with "facts and figures". He reported speaking with Emily Beebe about it and claimed she supported this idea, as did employees at "the Harbormasters shack" with the claim that Mike May, Selectmen, assured him that there are grants out there to pay for it.

Doug responded that the process has been to invite key guest speakers to give credible input, rather than pawning it off – and while he felt the final draft may need some editorial support – he is more a "fan of the homegrown effort". Glenn asked if the alternative he suggests had been considered. Doug responded that three years ago the NRAB used a consultant for a report on the status of Water Quality monitoring programs.

Glenn claimed the consultant used for the Water Quality Task Report had "cost the NRAB \$25,000" and questioned whether a report had been received. Lezli pointed to the Sterns and Wheler Report and its Appendices on the meeting table and indicated that it had been produced and received, and that the NRAB had not handled any budget of \$25,000 – that contract for consultant had been signed by the TA and authorized by the Board of Selectmen. Glenn presses Lezli for a cost associated with the report; she recalled the contract had been part of a block grant received through TRI (Alice Boyd) which covered clutching and other items in addition to the consultancy and that further inquiry as to the cost of the report should be directed to the TA.

Lezli felt it would be inappropriate to "rush" STM with premature requests to procure a consultant to assist with the HMP and offered that any late need for editorial or formatting could be managed in a service contract with a small publisher. Doug agreed it was worth producing the rough bulk of the Plan before soliciting editing expertise.

John commented that he had read the S&W Water Quality Report and felt that for the money, not much is gained in contracting a consultant who does not produce any new data, just collates the existing. Lezli recalled typing for the board and widely distributing the 95 Water Quality chapter, with added material from the S&W Report and notes suggesting update. John commented that some graphics were particularly useful from 95 Plan and S&W Report (such as effect of boat sewage discharge). Glenn continued asking for a cost on the consultant's report.

Doug noted the purpose of the STM is to seek appropriation for the repair of Lieutenant's Island bridge, and queried the advisory board's position, given the structure is in an

ACEC, diamondback terrapin territory and issues of Public Access and use of landings remain to be resolved.

John announced that John Portnoy, CCNS Ecologist, will speak at the WBWS Audubon on 7/22 regarding diked marshes.

The Chair asked Lezli for report on recent, publicized beach closures. She explained the bathing beach monitoring and that public health warnings had been issued once at Mayo Beach and at several back side beaches, all lifted with the retesting coming back satisfactory. She noted the Health Agent's report to the Board of Health, after news of the closures, and the likely contribution from the seals massing near swim beaches. There was a discussion of 'mung' and its early bloom, wide distribution and potential to retain bacteria and cause public health warning level sample results. Doug asked if the BOH knew of beach closures timely; Lezli responded that they should.

### **Old Business:**

The Chair announced receipt of response from Audubon to the 1995 Harbor Management Plan chapter on Natural Resources distributed to members in hardcopy; email attachments of the document will follow.

Water Quality chapter, discussion continued from last meeting:

Doug asked Lezli for report on the troubles with Town facility bathrooms, closures and septic failures, as had been reported in the local press. Lezli relayed such as information as the Health Agent had given to Board of Health in last meeting: despite knowing that the septic system serving Town Hall was failing last October during the Oyster Festival, no repair or replacement had yet been installed, although funds had been appropriated. The septic tank catastrophically collapsed, leaving a sinkhole in front of Town Hall, and rendering public use of the bathrooms impossible. The tank has since been bypassed, with Town Hall effluent running directly to the failing leaching field, until an upgrade can be installed. There has also been an unfortunate failing of the Recirculating Sand Filter denitrifying septic system at the Marina, due to the Harbormasters Department lack of a proper Operation and Maintenance contract with a qualified wastewater systems operator. The Health Department had assumed that O&M was covered by the Marina Enterprise funds budget. Repairs have rehabilitated the system and the Health Department has ordered appropriated service contracts, as would be the standard requirement for private property utilizing Innovative or Alternative (I/A) technology. Lezli recalled that the RSF had been installed at the marina with grant funds, and felt it disappointing that there had not been adequate oversight by the Harbormasters Department to maintain the investment.

Doug asked if there was any sampling around the Marina for indications of runoff. Lezli responded that it would be useful to ask the Health and Conservation agent about the sampling stations, and whether the RSF septic system is monitored for runoff contamination.

John announced having put together draft ideas for the revised Water Quality chapter. He noted reading the 95 HMP chapter and while generally impressed, found some material to be dated. He felt it was a good discussion of water quality issues and could easily be prepared for an update. Lezli reminded the board of circulating the 95 chapter typed out, with S&W material, and felt that the step had already been taken. John noted many similarities between the works and felt they were going in the same direction. Doug commented that the efforts dovetail well.

John spoke of contacting Jerry Moles of Division of Marine Fisheries (DMF) and finding that Wellfleet Harbor is slated for the Sanitary Survey that is performed periodically in addition to routine testing for shellfish closures. Jerry summarized the outstanding water quality problems as Non-Point sourced, rather than contributions from leaking old cesspools or failing septic systems. Doug asked Lezli for comments on the process of septic upgrades. She summarized the real estate transaction as the primary trigger requiring an upgrade from antiquated cesspools or older Title 5's failing inspection. When asked how leaking effluent would be treated, Lezli explained that any hydraulic failure resulting in a soil breakout, sewage ponding, or sewage back up is promptly handled by the Health Department as a threat to the public health, and any system identified as failed by the frequency of pumping reported is handled by an enforcement letter requiring an upgrade. The time frame for upgrades of cesspools, real estate transaction precipitated upgrades or failed systems is usually six months, however applicants can seek to extend the orders to correct violation. She concluded with the observation that in her two terms on the Board, there haven't been any sewage leaks into the harbor of the type the NRAB was concerned about, just regulatory upgrades. Lezli also noted that the Board of Health currently has adopted standard condition sets to apply to use of I/A technology and variance requests.

From the audience, Ben Gitlow asked what would occur if septic haulers do not make report to the Health Department of pumpings, would certain failed systems fall through the cracks? He noted that there is not the same oversight on haulers as there had been when the sewage went to the Town lagoon at the dump. Lezli responded that the BOH licenses septic haulers to be able to collect and transport sewage in the Town of Wellfleet, and would not have to renew an annual license of any contractor suspected of not filing proper pump out reports. She felt this was a sufficient check and balance. Ben further inquired about Health Department oversight, such as with the real estate transactions, and Lezli conceded that some properties had "fallen through the cracks" especially when staff changed, but that the Agent and Assessors Department are currently cross-referencing records per her request. She felt that the Health Department has the best oversight and administration that it ever has had, and that the Board is effectively reviewing and conditioning applications and licenses.

Doug asked John what Wellfleet might do to prevent shellfish closures. John responded that Duck Creek is closed due to Non-Point contributions of bacteria, and in his judgment the main issue of concern is road runoff. He noted the Town has been in a program of

installing remediation, and the NRAB should seek a status report. Doug felt this would be another point to ask H/C Agent Emily Beebe to address.

Glenn spoke about petroleum absorbent pads, installed near the old Fire Station, old piers and up Patient's Creek to monitor input, revealing a "tremendous amount of product" entering the waterway as runoff. Doug asked whether the sediments become reservoirs able to hold pollutants, and whether dredging the harbor stirs these up? John responded to this as a concern around the Herring River salt marsh restoration program, that closures downstream from the dike might increase as bound contaminants are released. He noted the response of John Portnoy, CCNS biologist, that sediment panes or reservoirs will retain pathogens. The main source appears to be wildlife, such as the large colonies of blackbirds known to roost behind the dike, that may dissipate as vegetation shifts with tidal improvement. Portnoy has also reported that the opening of the dike would be beneficial in reducing pathogens as increased UV exposure and higher salinity will reduce the viability of coliform bacteria. There would be greater dilution, but still isolated pools that are not drained as often would tend toward brackishness, and when flushed on a big tide or by rain may cause an episodic closure. Portnoy reports this as a natural, occasional occurrence in a healthy system.

Doug asked whether there is any problem with boat wastes discharge. Glenn responded that he thinks the Town's free pump-out service is effective at preventing discharge contamination, and that the boat will go out to greet any incoming vessel making use of the service easy.

Doug asked whether the next step might be a recommendation for greater Title 5 setbacks. Lezli responded that the BOH had adopted the 100' setback protection for marine resources from the 95 HMP recommendation in a convened Public Hearing, in local regulation 607. Where an applicant seeks to install a septic system within the 100' resource setback, the BOH requires use of I/A denitrifying technology. She explained the right of the applicant to seek a variance from application of this provision, and the terms of the regulation allowing relief based upon hydrogeologic features or other ameliorating variables. She noted that the State Environmental Code, Title 5, only calls for a 50' setback from the marine resource and the State's engineer had told her this was sufficient. There can be trade-offs in preferring technology to reduce nitrogen in that pathogenic reduction may be reduced; the BOH often has to weigh the risks and benefits between resource protection and the public health receptor site of a drinking water well. John commented that a 100' protective setback seemed arbitrary, why not 1000' as all inland wastes are making their way into the Harbor? Doug asked if there is anything the homeowner could do to reduce nitrogen input through their septic systems. Lezli suggested that people could stop eating. She felt that a 1000' buffer overlooked the way vegetation upland reduced nitrogen input as roots actively took up nutrients, making denitrification in the marginal buffer more effective at producing a reduction for the costs associated with advanced treatment.

From the audience, HMW expressed concern about the gasoline-additive MBTE quickly polluting the groundwater in a spreading plume. She questioned the protocols around the

Marina to protect from fuel spills. She felt this is a bigger issue than nitrates for Wellfleet. She also recommended a study of how many businesses or residences within the 100' resource setback from the Harbor may not have had a septic upgrade. She felt that the process of properties slowly coming before the BOH was not enough protection for areas where the tide might flow into antiquated systems not adequately separated from water resources. Lezli responded that the brisk real estate market has flushed out many properties but there are certainly some which have long been held in the same ownership, without an upgrade trigger. She invited Helen to cross-reference Health Department and Assessors records. John commented that any setback is arbitrary and that nitrates are water-soluble; he felt the Town should think in terms of Watersheds.

Glenn said that septic systems are installed to a size depending upon how many bathrooms there will be in a house, making big lawn areas with the shallow systems, encouraging evaporation. Lezli corrected that septic system design flow is based upon 110 gallons per day per bedroom, to calculate the sizing of the leach field. Doug asked about an MBTE remediation in South Wellfleet on Black fish Creek. Lezli reported the status of the Rt. 6 Mobil as nearly complete, but did not have information of a fuel spill remediation in South Wellfleet; she thought the clean up associated with the gas station that became the Puffer's restaurant had been complete before their ownership, but was not certain. Bill commented that volatiles are off-gassed.

Doug asked whether CCA treated lumber has been a contribution of heavy metal contamination. Glenn reported that structural members and pilings replaced at the Marina are hickory, that pressure-treated lumber is no longer in use. Lezli noted the industry recall of the copper, chromium and arsenic soaked product. HMW commented that Nancy Finley, Chief of Natural Resources for the CCNS, did her dissertation on the impact of PT lumber on flounder, as the heavy metals leach out. Doug asked for the ramifications to aquaculture. Glenn commented that any shellfishers who began with PT lumber found dead animals and probably moved away from the practice. He worried more about the lawn chemical applications and recent phenomena of "keeping up with the Joneses" as new Wellfleet homeowners import suburban landscape ideals. Doug commented to the clam die off associated with fertilizer run-off in Pleasant Bay, and wondered if the board might recommend regulation against the practice. Lezli viewed it as difficult to enforce as regulation (the lawn police) and felt it was more a public education issue. The Wellfleet Gardeners' group and Community Forum would be better avenues to address nitrogen fertilizer application.

Doug asked whether winter road de-icing utilized salt; Lezli responded that the mixture is mostly sand with a small salt content. From the audience, HMW commented that former Cons/Com member Mr. Wallace thought they had ended the practice of using salt on roadways near wetlands. Bill noted the public safety concern of making roads usable. Glenn thought that the trend toward SUV's would mitigate the need for road maintenance or salting.

Bill commented that there would be more impact from boat anti-fouling bottom paints containing cuprous oxides, a copper, that flakes and chips. He felt this was less of a road

runoff or water quality threat than the leaching of PT lumber, but more of a contribution than road salt. Glenn remembered the Army Corp of Engineers had identified heavy metals in the harbor. Lezli clarified that the Corp had done sediment studies to evaluate spoils disposal prior to dredging. John noted that the bulkhead at Powers Landing is constructed of the green (PT) wood, and asked about the records of Army Corp sediment analysis. Glenn thought the Harbormaster Department should be able to solicit a copy; he mainly recalled that in permitting the dredging project, PCB's were detected.

Doug asked whether the board might recommend a buffer zone of unpicked shellfish in areas of degraded water quality, for the purpose of remediation. Glenn thought this would only be useful at low tide and noted that at high tide there is a water column of 10' over the shellfish. Doug countered that since shellfish pick up nitrogen, they can be useful to clean up nutrient input, as has been successful in Chesapeake Bay. He thought they could eventually be relayed to another area for harvest. HMW asked whether regulations prohibit importing shellfish in a way that may convey contamination. Glenn responded that there are rules against importing from outside waters, such as from Fall River, but for a benign campaign to pick up nitrogen within the Harbor he thought it would be interesting to try. From the audience Abby Franklin commented that prior Shellfish Constable Paul Somerville had tried this without success (perhaps due to "accidental" harvest). Ben Gitlow commented that a Woods Hole study, as he understood it, found that shellfish absorb nitrogen but excrete purines, in effect returning the nitrogen.

Doug asked about the contribution of dogs and domestic animals on the beach, or wildlife such as the seals. Glenn commented that one could make a big issue of the dog wastes but it is a small contribution compared to the marine wildlife. Bill noted that a water sample represents "the luck of the draw" in either resulting in a positive hit for coliform bacteria or not. He remembered the proliferation of seagulls at Gull Pond when the dump was still in active use, and noted their declining numbers since the transfer station reduced their food sources. Lezli commented that she has not known of a bathing beach closure of Gull Pond in all her years of going to that beach.

Doug asked whether the board might recommend, as a cheap solution to road runoff, dropping bales of hay about 10-20' above the high tide line. Lezli thought they would need to be staked with silt fencing to be effective. From the audience, HMW spoke of the difference between leaching catch basins for road runoff and the construction of mimicked swales, vegetated to absorb nutrients. She commented that the Town of Duxbury is "way ahead" in using this technique for nitrogen removal rather than catch basins, which filter for pathogens, near marine resources. Doug asked whose responsibility the road runoff remediation plan is – DPW? Cons/Com? The State, as in the case of Rt. 6? John noted that there are two issues with road runoff: coliform bacteria, for which conventional leaching catch basins work effectively; also Nitrates and water solubles, which need more treatment. Lezli compared this to the problem of conventional Title 5 treating pathogens, or favoring denitrification technology for some locations near marine wetlands. Advanced treatment becomes more costly, requires operation / maintenance contracts and oversight, and may compromise pathogen



treatment. John agreed that problem areas have to be identified and the need demonstrated for the technology employed to be cost-effective and worth the results.

Doug asked whether the zoning laws might contribute to road runoff problems if paving and parking are requirements of certain types of development. From the audience, Ben Gitlow responded that under the subdivision control laws there is provision for adequate road layout and parking, but the bias of the Planning Board is to minimize use of paving. He noted that the rules have not changed from the requirement for a 25' paved road layout, but execution is not enforced. Doug asked whether the paved parking lots in town could be "un-paved". HMW responded that maintenance is the issue, and that it is better to allow the impervious parking lot with adequate, on-site catch basins. She recommended contacting the Health Agent in Duxbury.

Lezli noted the shift in emphasis from the problems identified in the 95 Plan, primarily related to septic system performance failures, to the present concerns for road runoff management. John concurred that some Water Quality chapter recommendations had been accomplished, but new knowledge would change some other recommendations.

Doug asked if the advisory board would recommend a moratorium on development – "close up the gates"? Lezli said that she would not support such a measure. John said that where it had been tried in Chatham there was a negative reaction. Lezli felt the device was visceral, frightening people that they would not be able to renovate or remodel, fix a leaky roof or maintain their homes. She preferred to review the permitting regulations, evaluate whether there has been excessive development as may be demonstrated in a review of permits from the various regulatory boards. She felt that building was cyclic, and has seen boom and bust years, and considered that a proper review of both the constraints existing to development and the various permits as growth indicators might reveal that development trends have been over-estimated. Lezli encouraged the advisory board to be active rather than reactive, and has a place held in the Shoreline land use chapter to chart regulatory board applications.

Doug asked whether the advisory board might support wastewater management. HMW recommended the publication "Small Flows Quarterly" for advice. John felt that after the Estuaries Project data is collected for 2-3 years, there will be a better picture of where the Harbor may be at risk. He added that as tidal restrictions are removed, there will be improvement of nitrogen impacts. He advised against restricting solution sets to technology when natural solutions may be just as effective.

Ben Gitlow explained that an Interim Wellhead Protection Area (IWPA) may be designated by DEP up to a ½ mile radius around a public well, if the town does not adopted protective zoning districts. He noted that the Planning Board's proposed amendment to zoning bylaw to create a wellhead district overlay around the Coles Neck Well did not pass Town Meeting. He supplied that the Master Water Plan calls for development of three wells, up to a service of 400,000 gpd, with 200,000 gpd coming from the Wellfleet-by-the-Sea location. He asked what the advisory board would recommend as a safe yield, noting the difference in DEP's use of the term and that of a

body concerned with environmental impacts. He also suggested that the advisory board consider recommending a program of installing tidal gauges in Cape Cod Bay to monitor rising sea level, and to consider setbacks of 30X the erosional rates. Ben recalled the speaker at the Harbor Conference differentiating between vertical and horizontal erosions, and that some areas are accreting while others are eroding. He posed the difficulty of restricting properties eroding with greater setbacks, if it conversely means awarding the properties which are accreting with reduced setbacks. John recommended reading 'The Life and Death of a Salt Marsh' which explains the response of a marsh system to sea level rise, growing landward to absorb storm overwash.

Abby announced that the Cons/Com will meet with the ZBA to sort out "conflicts in the zoning with their setbacks and our 100' resource setbacks because there have been a lot of cases overlapped lately".

The advisory board reviewed the LCP Action Implementation survey prepared by Rex Peterson and advised Lezli how to forward the response.

John commented that the Natural Resources chapter will be difficult to structure, may result in a different format than 95 Plan.

At 9:15, John moved adjournment. Lezli seconded. The motion carried 4-0.

Respectfully submitted,

Lezli Rowell