Thanks for the reviewers' suggestions and remarks on our manuscript (hessd-9-65-2012). Our replies are as follows.
(Replies to questions of reviewers in Blue words; Revisions in red words)
List of disposition to all revisions suggested by the reviewer -1

Reviewer's suggestions or questions	Original text	Replies or revisions in revised manuscript
1. First of all the paper is written in a rather poor English with a substantial amount of syntax and grammar errors. The voculary used is not appropriate at many places which may stem from translation difficulties. In addition, the manuscript also uses familiar language and qualitative statements (e.g. "beautiful sceneries") which are not necessarily appropriate for a scientific paper.		**Revisions：** Thanks for the suggestions. The english of paper has been correction and improve, details in the attachment（hessd-9-65-2012—revise）.

2. The approaches used appear weak and the authors fail to convince the reader why the tree-ring chronology should be reflective of October and November runoff. First of all because the correlations are not extremely high, but also as the match between the measured and reconstructed series could be better. As an additional point, sample depth (i.e. the number of samples available for analysis is quite weak for the first half of the 20th century and can therefore bias the quality of the reconstruction. Based on the above limitations, I also strongly doubt that the overly precise average runoff values can be considered accurate.	**2.1 Chronological data: P69, L2** The ring width chronology and reconstruction of elm in the Sandy Land were used (Ma and Liu, 2011). The ring width chronology for 1826 to 2008 (183 yr) is shown in Fig. 2 (Ma and Liu, 2011).	**Replies :** Thanks for the suggestion. In order to make readers and experts can be more thorough understanding of this paper ， I had complemented the detailed explanation about the problems of stationing and chronologies in the papers. **Revisions ：** **2.1 Chronological data: P69, L2** This research area covers most of horqin sandy land from the space , sampling for elm tree species, sample point distribution see figure 1, sampling time for 2009 years, sampling not taken by a fire and the interference of insect pest and so on, and to be different in small length and small habitat in the strategy of sampling , and follow the perceptual, the ecological environment and the principles of copies, each sample point more number 20 and each tree take 1 ~ 2 core samples, the basic information of all sampling see table A . The ring width chronology and reconstruction of elm in the Sandy Land were used (Ma and Liu, 2011). The ring width chronology for 1826 to 2008 (183 yr) is shown in Fig. 2 (Ma and Liu, 2011). **2.3 Establish of chronologies: P70, L1** Through the ARSTAN calculation procedures and according to the actual situation of different samples, the negative exponential function and spline function (step length by 50 to 100 a) was used to overfitting the growth trend. After eliminated the growth trend of the elm tree, first setting up the three different forms timeline of the width of sampling points elm trees round in the area, namely standardization chronology, difference chronologies and regression chronology. Through the analysis found, that there are very good correlativity (average correlation coefficient between 0.403 to 0.479) between the core and the average sequence of antichtone samples sampling points. Meanwhile the correlation among core samples of each sample point also is very good, the chronology of the sampling points established is strongly consistency (the correlation coefficient of chronology sequence ranged between 0.566 and 0.713). So the width regional integrated chronology of elm trees was build by all sampling points sample, formed the regional standardization chronology and the difference chronologies and regression chronology (1826 ~ 2008 year, a total of 183 years), standardization chronology in table 2. The all characteristic parameters in STD and RES chronology such as "sample general representative" and so on is well, Showing that chronology series include more environmental information, and elm tree species in horqin sandy land is suitable for the research about tree-ring climatology.

3. The references in the text are not consistent with those in the reference list (e.g. Ma & Liu 2011?) and the list is not up to date, especially as far as recent international literature on streamflow reconstructions is concerned.	**1 Introduction: P68, L28** In the current paper, the 183-yr Horqin sandy area elm tree ring width chronologies established by Ma Long et al. (2011) in a station in the JiaoLai River tributary during the months of October to 25 November from 1826 to 2005 was used to study the runoff characteristics. **P67, L14** Runoff and precipitation are closely related. The amount of runoff not only directly affects river ecology, but also has a profound impact on changes in river environments. Consequently, future trends in the ecological environment and past runoff variations need to be explored.	**Revisions :** **1 Introduction: P68, L28** In the current paper, the 183-yr Horqin sandy area elm tree ring width chronologies established by Ma Long et al. (Ma et al., 2011) in a station in the JiaoLai River tributary during the months of October to 25 November from 1826 to 2005 was used to study the runoff characteristics. **P67, L14** Runoff and precipitation are closely related. The amount of runoff not only directly affects river ecology, but also has a profound impact on changes in river environments. Consequently, future trends in the ecological environment and past runoff variations need to be explored(Ling et al., 2011; Zhang et al., 2011; Xu, J. X., 2011; Gupta et al., 2011; Zarghami et al., 2011;). **References:** Gupta, P. K., Panigrahy, S., Parihar, J. S.: Impact of Climate Change on Runoff of the Major River Basins of India Using Global Circulation Model (HadCM3) Projected Data, Journal of The Indian Society of Remote Sensing., 39, 337-344, 2011. Ling, H. B., Xu, H. L., Shi, W.: Regional climate change and its effects on the runoff of Manas River, Xinjiang, China, Environment Eaeth Sciences., 64, 2203-2213, 2011. Xu, J. X.: Variation in annual runoff of the Wudinghe River as influenced by climate change and human activity, Quaternary International., 244, 230-237, 2011. Zarghami, M., Abdi, A., Babaeian, I.: Impacts of climate change on runoffs in East Azerbaijan, Iran, Global and Planetary Change., 78, 137-146, 2011. Zhang, S. F., Hua, D., Meng, X. J.: Climate change and its driving effect on the runoff in the "Three-River Headwaters" region, Journal of Geographical Sciences., 21, 963-978, 2011.

Tab A Sampling points information

number	code	north latitude/0	east longitude/0	elevation /m	Sample size/core samples	Sample length（a）
1	KLDD	43.66	121.83	207	26/52	119
2	MLML	43.59	122.02	193	23/43	122
3	KLSS	43.54	121.55	224	12/24	203
4	HQHST	43.19	123.04	159	25/47	145
5	ZZMLQ	43.67	123.42	134	22/44	125
6	KLWD	42.98	121.69	291	21/42	206
7	XAHY	44.50	122.00	180	23/46	136
8	ZQBGTL	44.33	121.58	204	24/43	155
9	KLMX	43.41	120.59	343	26/52	138
10	BLYYC	43.53	118.83	506	28/56	132
总计					230/449	

Tab 2 Statistical indices for standard chronology and residual chronology

chronology	STD	RES
average	1.114	1.000
median	1.100	0.973
coefficient of skewness	0.521	0.803

kurtosis coefficient	3.904	4.288
Average sensitivity	0.322	0.359
Standard deviation	0.217	0.172
orderautocorrelationcoefficient	0.638	0.021
Average correlation coefficient of between sequence and main sequence	0.603	0.657
The trees average correlation coefficient	0.439	0.466
SNR(Signal to Noise Ratio)	15.600	16.200
General representative samples	0.920	0.922
The first principal component explained variance amount %	40.300	43.200
Since sample signal strength SSS> 0.80 first year (tree)	1826（10）	1823（9）